

1 LEBL -> LSZH

- 1.0.1 DEPARTURE: LEBL (Barcelona)
- 1.0.2 DESTINATION: LSZH (Zurich)
- 1.1.1 10-1P AIRPORT BRIEFING (GEN)
- 1.1.2 10-1P1 AIRPORT BRIEFING (GEN CONTD 1)
- 1.1.3 10-1P10 AIRPORT BRIEFING (ARR CONTD 4)
- 1.1.4 10-1P11 AIRPORT BRIEFING (DEP)
- 1.1.5 10-1P12 AIRPORT BRIEFING (DEP CONTD 1)
- 1.1.6 10-1P13 AIRPORT BRIEFING (DEP CONTD 2)
- 1.1.7 10-1P14 AIRPORT BRIEFING (DEP CONTD 3)
- 1.1.8 10-1P15 AIRPORT BRIEFING (DEP CONTD 4)
- 1.1.9 10-1P16 AIRPORT BRIEFING (DEP CONTD 5)
- 1.1.10 10-1P2 AIRPORT BRIEFING (GEN CONTD 2)
- 1.1.11 10-1P3 AIRPORT BRIEFING (GEN CONTD 3)
- 1.1.12 10-1P4 AIRPORT BRIEFING (GEN CONTD 4)
- 1.1.13 10-1P5 AIRPORT BRIEFING (GEN CONTD 5)
- 1.1.14 10-1P6 AIRPORT BRIEFING (ARR)
- 1.1.15 10-1P7 AIRPORT BRIEFING (ARR CONTD 1)
- 1.1.16 10-1P8 AIRPORT BRIEFING (ARR CONTD 2)
- 1.1.17 10-1P9 AIRPORT BRIEFING (ARR CONTD 3)
- 1.1.18 10-1R RADAR MNM ALTS
- 1.1.19 10-2 RNAV STAR & STAR DESIGNATION INDEX
- 1.1.20 10-2A RNAV STAR (CDA) & STAR (CDA) DESIGNATION INDEX
- 1.1.21 10-2B BISBA 1W, VERSO 2E & 1N RNAV ARRS
- 1.1.22 10-2C BISBA 2Y RNAV ARR
- 1.1.23 10-2D MARTA 2E, 2N & 1W RNAV ARRS
- 1.1.24 10-2E NEPAL 2N & 1X RNAV ARRS
- 1.1.25 10-2E1 CASPE 1Z, MATEX 1W RNAV ARRS
- 1.1.26 10-2F MATEX 2E & 2N RNAV ARRS
- 1.1.27 10-2G ALBER 2N & PUMAL 1X ARRS
- 1.1.28 10-2G1 ALBER 1X & PUMAL 3N ARRS
- 1.1.29 10-2G2 ALBER & PUMAL 1E ARRS
- 1.1.30 10-2H ALBER & PUMAL 1W ARRS
- 1.1.31 10-2J PUMAL 1Y ARR
- 1.1.32 10-2K BISBA 1E ARR
- 1.1.33 10-2L BISBA 4N ARR
- 1.1.34 10-2M BISBA 1X ARR
- 1.1.35 10-2N BISBA 1Z ARR
- 1.1.36 10-2P OSTUR 1E, 1N & 1W, VERSO 1W ARRS
- 1.1.37 10-2Q MARTA 1Y & NEPAL 1E ARRS
- 1.1.38 10-2S MARTA 1Z, NEPAL 1W ARRS
- 1.1.39 10-2T CASPE 1E & 1Y, MATEX 1Y ARRS
- 1.1.40 10-2T1 CASPE 2N ARRS
- 1.1.41 10-2T2 CASPE 1W, MATEX 1Z ARRS
- 1.1.42 10-2T3 GRAUS & LOBAR 1E & 1Y ARRS
- 1.1.43 10-2T4 GRAUS & LOBAR 2X ARRS
- 1.1.44 10-2T5 GRAUS & LOBAR 1W ARRS
- 1.1.45 10-2T6 BISBA 1K & 1L, VERSO 2G & 2J RNAV ARRS (CDA)
- 1.1.46 10-2U MARTA 2G, 2J & 1L RNAV ARRS (CDA)
- 1.1.47 10-2V CASPE 1M & MATEX 1L RNAV ARRS (CDA)
- 1.1.48 10-2V1 MATEX 2G & 2J, NEPAL 2G & 1H RNAV ARRS (CDA)

Page 2

1.1.49 10-2V2 ALBER 2G & PUMAL 1H ARRS (CDA)
1.1.50 10-2V3 ALBER 1H & PUMAL 2G ARRS (CDA)
1.1.51 10-2V4 ALBER & PUMAL 2J, PUMAL 1K ARRS (CDA)
1.1.52 10-2V5 ALBER & PUMAL 1L ARRS (CDA)
1.1.53 10-2V6 BISBA 2G ARR (CDA)
1.1.54 10-2V7 BISBA 1H ARR (CDA)
1.1.55 10-2V8 BISBA 2J ARR (CDA)
1.1.56 10-2W BISBA 1M ARR (CDA)
1.1.57 10-2X OSTUR 1G, 1J & 1L, VERSO 1L ARRS (CDA)
1.1.58 10-2X1 MARTA 1K, NEPAL 1J ARRS (CDA)
1.1.59 10-2X2 MARTA 1M, NEPAL 1L ARRS (CDA)
1.1.60 10-2X3 CASPE 1J & 1K, MATEX 1K ARRS (CDA)
1.1.61 10-2X4 CASPE 2G ARR (CDA)
1.1.62 10-2X5 CASPE 1L, MATEX 1M ARRS (CDA)
1.1.63 10-2X6 GRAUS & LOBAR 1J & 1K ARRS (CDA)
1.1.64 10-2X7 GRAUS & LOBAR 2G ARRS (CDA)
1.1.65 10-2X8 GRAUS & LOBAR 1L ARRS (CDA)
1.1.66 10-3 RNAV SID DESIGNATION INDEX
1.1.67 10-3A SID DESIGNATION INDEX
1.1.68 10-3B AGENA 1S & 1T RNAV DEPS
1.1.69 10-3C AGENA 2P & 3Q RNAV DEPS
1.1.70 10-3D AGENA 2R RNAV DEP
1.1.71 10-3E DALIN 1S & 1T RNAV DEPS
1.1.72 10-3F DALIN 2P & 3Q RNAV DEPS
1.1.73 10-3G DALIN 2R RNAV DEP
1.1.74 10-3H DUNES 1S & 1T RNAV DEPS
1.1.75 10-3J DUNES 2P & 3Q RNAV DEPS
1.1.76 10-3J01 DUNES 2R RNAV DEP
1.1.77 10-3J02 GRAUS 1S & 1T RNAV DEPS
1.1.78 10-3J03 GRAUS 2P & 3Q RNAV DEPS
1.1.79 10-3J04 GRAUS 2R RNAV DEP
1.1.80 10-3J05 GRAUS 1N & 1Z RNAV DEPS
1.1.81 10-3J06 LARPA 1S & 1T RNAV DEPS
1.1.82 10-3J07 LARPA 2P & 3Q RNAV DEPS
1.1.83 10-3J08 LARPA 2R RNAV DEP
1.1.84 10-3J09 LOBAR 1S & 1T RNAV DEPS
1.1.85 10-3J10 LOBAR 2P & 3Q RNAV DEPS
1.1.86 10-3J11 LOBAR 2R RNAV DEP
1.1.87 10-3J12 LOBAR 1N & 1Z RNAV DEPS
1.1.88 10-3K LOTOS 1S & 1T RNAV DEPS
1.1.89 10-3L LOTOS 2P & 3Q RNAV DEPS
1.1.90 10-3L1 LOTOS 2R RNAV DEP
1.1.91 10-3L2 MOPAS 1S & 1T RNAV DEPS
1.1.92 10-3L3 MOPAS 2P & 3Q RNAV DEPS
1.1.93 10-3L4 MOPAS 2R RNAV DEP
1.1.94 10-3L5 MOPAS 1N & 1Z RNAV DEPS
1.1.95 10-3L6 OKABI 1S & 1T RNAV DEPS
1.1.96 10-3L7 OKABI 2P & 3Q RNAV DEPS
1.1.97 10-3L8 OKABI 2R RNAV DEP
1.1.98 10-3M OKABI 1N & 1Z RNAV DEPS
1.1.99 10-3N SENIA 1S & 1T RNAV DEPS
1.1.100 10-3N1 SENIA 2P & 3Q RNAV DEPS

Page 3

1.1.101 10-3N2 SENIA 4R RNAV DEP
1.1.102 10-3N3 VERSO 1S & 1T RNAV DEPS
1.1.103 10-3N4 VERSO 2P & 3Q RNAV DEPS
1.1.104 10-3N5 VERSO 2R RNAV DEP
1.1.105 10-3N6 AGENA 1C DEP
1.1.106 10-3N7 AGENA 1A & 2B DEPS
1.1.107 10-3N8 AGENA 3D & 1F DEPS
1.1.108 10-3P CALELLA 1C DEP
1.1.109 10-3Q CALELLA 1A & 1B DEPS
1.1.110 10-3Q1 CALELLA 2D & 1F DEPS
1.1.111 10-3Q2 DALIN 1C DEP
1.1.112 10-3Q3 DALIN 1A & 2B DEPS
1.1.113 10-3Q4 DALIN 3D & 1F DEPS
1.1.114 10-3Q5 DUNES 1C DEP
1.1.115 10-3Q6 DUNES 1A & 2B DEPS
1.1.116 10-3Q7 DUNES 3D & 1F DEPS
1.1.117 10-3Q8 GRAUS 1C DEP
1.1.118 10-3S GRAUS 1A & 5B DEPS
1.1.119 10-3T GRAUS 6D & 1F DEPS
1.1.120 10-3T1 LARPA 1C DEP
1.1.121 10-3T2 LARPA 1A & 2B DEPS
1.1.122 10-3T3 LARPA 3D & 1F DEPS
1.1.123 10-3T4 LOBAR 1C DEP
1.1.124 10-3T5 LOBAR 1A & 4B DEPS
1.1.125 10-3T6 LOBAR 5D & 1F DEPS
1.1.126 10-3T7 LOTOS 1C DEP
1.1.127 10-3T8 LOTOS 1A & 2B DEPS
1.1.128 10-3U LOTOS 4D & 1F DEPS
1.1.129 10-3V MOPAS 1C DEP
1.1.130 10-3V1 MOPAS 1A & 5B DEPS
1.1.131 10-3V2 MOPAS 7D & 1F DEPS
1.1.132 10-3V3 OKABI 1C DEP
1.1.133 10-3V4 OKABI 1A & 5B DEPS
1.1.134 10-3V5 OKABI 6D & 1F DEPS
1.1.135 10-3V6 SENIA 1C DEP
1.1.136 10-3V7 SENIA 1A & 4B DEPS
1.1.137 10-3V8 SENIA 6D & 1F DEPS
1.1.138 10-3W VERSO 1C DEP
1.1.139 10-3X VERSO 1A & 2B DEPS
1.1.140 10-3X1 VERSO 3D & 1F DEPS
1.1.141 10-3X2 VILLAFRANCA 1C DEP
1.1.142 10-3X3 VILLAFRANCA 1A & 1B DEPS
1.1.143 10-3X4 VILLAFRANCA 2D & 1F DEPS
1.1.144 10-3X5 CONTINGENCY DEPS
1.1.145 10-4 NOISE ABATEMENT (DIAGRAM)
1.1.146 10-8 WORKS ON RAMP 15 (TEMP)
1.1.147 10-8A WORKS ON RAMP 15 (TEMP) (CONTD 1)
1.1.148 10-8B WORKS ON RAMP 15 (TEMP) (CONTD 2)
1.1.149 10-8C WORKS ON RAMP 15 (TEMP) (CONTD 3)
1.1.150 10-9 AIRPORT
1.1.151 10-9A AIRPORT INFO, TAKE-OFF MNMS
1.1.152 10-9B TAXIING

Page 4

- 1.1.153 10-9C TAXI ROUTES ARR RWY 02 & DEP RWY 07R
- 1.1.154 10-9D TAXI ROUTES ARR RWY 07L & DEP RWY 07R
- 1.1.155 10-9E TAXI ROUTES ARR & DEP RWY 25L
- 1.1.156 10-9F TAXI ROUTES ARR RWY 25R & DEP RWY 25L
- 1.1.157 10-9G LOW VIS TAXI ROUTES ARR & DEP RWY 07L
- 1.1.158 10-9H LOW VIS TAXI ROUTES ARR RWY 07L & DEP RWY 07R
- 1.1.159 10-9J LOW VIS TAXI ROUTES ARR & DEP RWY 07R
- 1.1.160 10-9K LOW VIS TAXI ROUTES ARR & DEP RWY 25L
- 1.1.161 10-9L LOW VIS TAXI ROUTES ARR RWY 25R & DEP RWY 25L
- 1.1.162 10-9M LOW VIS TAXI ROUTES ARR & DEP RWY 25R
- 1.1.163 10-9N PARKING STANDS
- 1.1.164 10-9P PARKING STAND COORDS
- 1.1.165 10-9Q DOCKING GUIDANCE SYSTEM
- 1.1.166 11-0 RNAV INITIAL APPROACH RWY 02
- 1.1.167 11-1 ILS Z RWY 02
- 1.1.168 11-2 ILS Y RWY 02
- 1.1.169 11-3 LOC RWY 02
- 1.1.170 11-4 ILS Z RWY 07L
- 1.1.171 11-4A CAT II/III ILS Z RWY 07L
- 1.1.172 11-5 ILS Y RWY 07L
- 1.1.173 11-5A CAT II/III ILS Y RWY 07L
- 1.1.174 11-6 LOC RWY 07L
- 1.1.175 11-7 ILS Z RWY 07R
- 1.1.176 11-7A CAT II/III ILS Z RWY 07R
- 1.1.177 11-8 ILS Y RWY 07R
- 1.1.178 11-8A CAT II/III ILS Y RWY 07R
- 1.1.179 11-9 LOC RWY 07R
- 1.1.180 11-0A RNAV INITIAL APPROACH RWY 07L
- 1.1.181 11-0B RNAV INITIAL APPROACH RWY 07R
- 1.1.182 11-0C RNAV INITIAL APPROACH RWY 25L
- 1.1.183 11-0D RNAV INITIAL APPROACH RWY 25R
- 1.1.184 11-10 ILS Z RWY 25L
- 1.1.185 11-10AA CAT II/III ILS Z RWY 25L
- 1.1.186 11-11 ILS Y RWY 25L
- 1.1.187 11-11AA CAT II/III ILS Y RWY 25L
- 1.1.188 11-12 LOC RWY 25L
- 1.1.189 11-13 ILS Z RWY 25R
- 1.1.190 11-13AA CAT II/III ILS Z RWY 25R
- 1.1.191 11-14 ILS Y RWY 25R
- 1.1.192 11-14AA CAT II/III ILS Y RWY 25R
- 1.1.193 11-15 LOC RWY 25R
- 1.1.194 13-1 VOR RWY 02
- 1.1.195 13-2 VOR RWY 07L
- 1.1.196 13-3 VOR RWY 07R
- 1.1.197 13-4 VOR Z RWY 25L
- 1.1.198 13-5 VOR Y RWY 25L
- 1.1.199 13-6 VOR RWY 25 R
- 1.2.1 10-1P AIRPORT BRIEFING (GEN)
- 1.2.2 10-1P1 AIRPORT BRIEFING (GEN CONTD 1)
- 1.2.3 10-1P2 AIRPORT BRIEFING (GEN CONTD 2)
- 1.2.4 10-1P3 AIRPORT BRIEFING (GEN CONTD 3, ARR)
- 1.2.5 10-1P4 AIRPORT BRIEFING (ARR CONTD 1, DEP)

Page 5

- 1.2.6 10-1P5 AIRPORT BRIEFING (DEP CONTD 1)
- 1.2.7 10-1P6 AIRPORT BRIEFING (DEP CONTD 2)
- 1.2.8 10-1P7 AIRPORT BRIEFING (DEP CONTD 3)
- 1.2.9 10-1R RADAR MNM ALTS
- 1.2.10 10-2 ARRIVAL INSTRUCTIONS
- 1.2.11 10-2A RNAV TRANS TO RILAX & TRA
- 1.2.12 10-2B RNAV TRANS TO BERSU & DOPIL
- 1.2.13 10-2C BLM 2G, BERSU & DOPIL 1G RNAV ARRS
- 1.2.14 10-2D HOCHWALD 1G, KELIP 2G RNAV ARRS
- 1.2.15 10-2E NEGRA & RILAX 1A RNAV ARRS
- 1.2.16 10-2F BLM, URNAS & WILLISAU 2Z ARRS
- 1.2.17 10-2G NEGRA & TRASADINGEN 1Z ARRS
- 1.2.18 10-2H AMIKI 28 & 34 RNAV TRANSITIONS
- 1.2.19 10-2J GIPOL 28 & 34 RNAV TRANSITIONS
- 1.2.20 10-2K RILAX 28 & 34 RNAV TRANSITIONS
- 1.2.21 10-3 RNAV SID DESIGNATION INDEX
- 1.2.22 10-3A SID DESIGNATION & TRANS INDEX
- 1.2.23 10-3B DEGES 1D & 2R RNAV DEPS
- 1.2.24 10-3C DEGES 1E RNAV DEP
- 1.2.25 10-3D DEGES 3F & 2H RNAV DEPS
- 1.2.26 10-3E DEGES 3L & 2N RNAV DEPS
- 1.2.27 10-3F DEGES 2S RNAV DEP
- 1.2.28 10-3G DEGES 2W RNAV DEP
- 1.2.29 10-3H GERSA 1C RNAV DEP
- 1.2.30 10-3J VEBIT 2E & 3S RNAV DEPS
- 1.2.31 10-3J1 VEBIT 2H & 2N RNAV DEPS
- 1.2.32 10-3K VEBIT 1K RNAV DEP
- 1.2.33 10-3L VEBIT 3W RNAV DEP
- 1.2.34 10-3L1 DEGES 2B RNAV DEP
- 1.2.35 10-3L2 GERSA 2B RNAV DEP
- 1.2.36 10-3L3 GERSA 1E RNAV DEP
- 1.2.37 10-3L4 GERSA 1H & 1N RNAV DEPS
- 1.2.38 10-3L5 GERSA 2S RNAV DEP
- 1.2.39 10-3L6 GERSA 2W RNAV DEP
- 1.2.40 10-3L7 SONGI 3F, 1H, 3L & 1N RNAV DEPS
- 1.2.41 10-3L8 VEBIT 3B RNAV DEP
- 1.2.42 10-3M ALBIX 1C DEP
- 1.2.43 10-3N WILLISAU 2C & 2D DEPS
- 1.2.44 10-3P WILLISAU 2G & 2M DEPS
- 1.2.45 10-3Q WILLISAU 2Q & 3R DEPS
- 1.2.46 10-3S WILLISAU 3V DEP
- 1.2.47 10-3T ZURICH EAST 1D & 2R DEPS
- 1.2.48 10-3U ZURICH EAST 3F, 1G, 3L & 1M DEPS
- 1.2.49 10-3V ZURICH EAST 2V DEP
- 1.2.50 10-3V1 WILLISAU 3A & ZURICH EAST 2A DEPS
- 1.2.51 10-3W NORTHBOUND TRANS ROUTES AFTER DEGES & ZUE
- 1.2.52 10-3X NORTHBOUND TRANS ROUTES AFTER SONGI
- 1.2.53 10-3X1 EASTBOUND TRANS ROUTES AFTER DEGES & ZUE
- 1.2.54 10-3X2 SOUTH & WESTBOUND TRANS ROUTES AFTER VEBIT
- 1.2.55 10-9 AIRPORT, AIRPORT INFO
- 1.2.56 10-9A AIRPORT INFO (CONTD), TAKE-OFF MNMS
- 1.2.57 10-9B PARKING STANDS AREAS A, E, F, H & P

Page 6

- 1.2.58 10-9C PARKING STANDS AREAS A, B, C, D, G, T & W
- 1.2.59 10-9D PARKING STAND COORDS
- 1.2.60 10-9E DE-ICING PADS
- 1.2.61 10-9F DOCKING GUIDANCE SYSTEM (SAFEDOCK) A, B & E
- 1.2.62 11-1 ILS OR LOC RWY 14
- 1.2.63 11-1A CAT II/III ILS RWY 14
- 1.2.64 11-2 ILS OR LOC RWY 16
- 1.2.65 11-2A CAT II/III ILS RWY 16
- 1.2.66 11-3 ILS OR LOC RWY 28
- 1.2.67 11-4 ILS OR LOC RWY 34
- 1.2.68 12-1 RNAV (GNSS) RWY 14
- 1.2.69 12-40 GLS RWY 14
- 1.2.70 13-1 VOR RWY 16
- 1.2.71 13-2 VOR RWY 28
- 1.2.72 13-3 VOR RWY 34

2 LSZH -> EDDL

- 2.0.1 DEPARTURE: LSZH (Zurich)
- 2.0.2 DESTINATION: EDDL (Dusseldorf)
- 2.1.1 10-1P AIRPORT BRIEFING (GEN)
- 2.1.2 10-1P1 AIRPORT BRIEFING (GEN CONTD 1)
- 2.1.3 10-1P2 AIRPORT BRIEFING (GEN CONTD 2)
- 2.1.4 10-1P3 AIRPORT BRIEFING (GEN CONTD 3, ARR)
- 2.1.5 10-1P4 AIRPORT BRIEFING (ARR CONTD 1, DEP)
- 2.1.6 10-1P5 AIRPORT BRIEFING (DEP CONTD 1)
- 2.1.7 10-1P6 AIRPORT BRIEFING (DEP CONTD 2)
- 2.1.8 10-1P7 AIRPORT BRIEFING (DEP CONTD 3)
- 2.1.9 10-1R RADAR MNM ALTS
- 2.1.10 10-2 ARRIVAL INSTRUCTIONS
- 2.1.11 10-2A RNAV TRANS TO RILAX & TRA
- 2.1.12 10-2B RNAV TRANS TO BERSU & DOPIL
- 2.1.13 10-2C BLM 2G, BERSU & DOPIL 1G RNAV ARRS
- 2.1.14 10-2D HOCHWALD 1G, KELIP 2G RNAV ARRS
- 2.1.15 10-2E NEGRA & RILAX 1A RNAV ARRS
- 2.1.16 10-2F BLM, URNAS & WILLISAU 2Z ARRS
- 2.1.17 10-2G NEGRA & TRASADINGEN 1Z ARRS
- 2.1.18 10-2H AMIKI 28 & 34 RNAV TRANSITIONS
- 2.1.19 10-2J GIPOL 28 & 34 RNAV TRANSITIONS
- 2.1.20 10-2K RILAX 28 & 34 RNAV TRANSITIONS
- 2.1.21 10-3 RNAV SID DESIGNATION INDEX
- 2.1.22 10-3A SID DESIGNATION & TRANS INDEX
- 2.1.23 10-3B DEGES 1D & 2R RNAV DEPS
- 2.1.24 10-3C DEGES 1E RNAV DEP
- 2.1.25 10-3D DEGES 3F & 2H RNAV DEPS
- 2.1.26 10-3E DEGES 3L & 2N RNAV DEPS
- 2.1.27 10-3F DEGES 2S RNAV DEP
- 2.1.28 10-3G DEGES 2W RNAV DEP
- 2.1.29 10-3H GERSA 1C RNAV DEP
- 2.1.30 10-3J VEBIT 2E & 3S RNAV DEPS
- 2.1.31 10-3J1 VEBIT 2H & 2N RNAV DEPS
- 2.1.32 10-3K VEBIT 1K RNAV DEP
- 2.1.33 10-3L VEBIT 3W RNAV DEP

Page 7

- 2.1.34 10-3L1 DEGES 2B RNAV DEP
- 2.1.35 10-3L2 GERSA 2B RNAV DEP
- 2.1.36 10-3L3 GERSA 1E RNAV DEP
- 2.1.37 10-3L4 GERSA 1H & 1N RNAV DEPS
- 2.1.38 10-3L5 GERSA 2S RNAV DEP
- 2.1.39 10-3L6 GERSA 2W RNAV DEP
- 2.1.40 10-3L7 SONGI 3F, 1H, 3L & 1N RNAV DEPS
- 2.1.41 10-3L8 VEBIT 3B RNAV DEP
- 2.1.42 10-3M ALBIX 1C DEP
- 2.1.43 10-3N WILLISAU 2C & 2D DEPS
- 2.1.44 10-3P WILLISAU 2G & 2M DEPS
- 2.1.45 10-3Q WILLISAU 2Q & 3R DEPS
- 2.1.46 10-3S WILLISAU 3V DEP
- 2.1.47 10-3T ZURICH EAST 1D & 2R DEPS
- 2.1.48 10-3U ZURICH EAST 3F, 1G, 3L & 1M DEPS
- 2.1.49 10-3V ZURICH EAST 2V DEP
- 2.1.50 10-3V1 WILLISAU 3A & ZURICH EAST 2A DEPS
- 2.1.51 10-3W NORTHBOUND TRANS ROUTES AFTER DEGES & ZUE
- 2.1.52 10-3X NORTHBOUND TRANS ROUTES AFTER SONGI
- 2.1.53 10-3X1 EASTBOUND TRANS ROUTES AFTER DEGES & ZUE
- 2.1.54 10-3X2 SOUTH & WESTBOUND TRANS ROUTES AFTER VEBIT
- 2.1.55 10-9 AIRPORT, AIRPORT INFO
- 2.1.56 10-9A AIRPORT INFO (CONTD), TAKE-OFF MNMS
- 2.1.57 10-9B PARKING STANDS AREAS A, E, F, H & P
- 2.1.58 10-9C PARKING STANDS AREAS A, B, C, D, G, T & W
- 2.1.59 10-9D PARKING STAND COORDS
- 2.1.60 10-9E DE-ICING PADS
- 2.1.61 10-9F DOCKING GUIDANCE SYSTEM (SAFEDOCK) A, B & E
- 2.1.62 11-1 ILS OR LOC RWY 14
- 2.1.63 11-1A CAT II/III ILS RWY 14
- 2.1.64 11-2 ILS OR LOC RWY 16
- 2.1.65 11-2A CAT II/III ILS RWY 16
- 2.1.66 11-3 ILS OR LOC RWY 28
- 2.1.67 11-4 ILS OR LOC RWY 34
- 2.1.68 12-1 RNAV (GNSS) RWY 14
- 2.1.69 12-40 GLS RWY 14
- 2.1.70 13-1 VOR RWY 16
- 2.1.71 13-2 VOR RWY 28
- 2.1.72 13-3 VOR RWY 34
- 2.2.1 10-1P AIRPORT BRIEFING (GEN)
- 2.2.2 10-1P1 AIRPORT BRIEFING (GEN CONTD1)
- 2.2.3 10-1P2 AIRPORT BRIEFING (GEN CONTD2)
- 2.2.4 10-1P3 AIRPORT BRIEFING (GEN CONTD3, ARR))
- 2.2.5 10-1P4 AIRPORT BRIEFING (DEP)
- 2.2.6 10-2 BIKMU & TEBRO 1X, DOMUX & XAMOD 2X, LIMA 9X ARRS
- 2.2.7 10-2A BIKMU 1G, DOMUX 2G, LIMA 8G, TEBRO & XAMOD 3G ARRS
- 2.2.8 10-2B TEBRO & XAMOD 05 RNAV TRANS
- 2.2.9 10-2C TEBRO & XAMOD 23 RNAV TRANS
- 2.2.10 10-2D DOMUX & ELDAR 05 RNAV TRANS
- 2.2.11 10-2E DOMUX 23 RNAV TRANS
- 2.2.12 10-2F BIKMU & LMA 05 RNAV TRANS
- 2.2.13 10-2G BIKMU & LMA 23 RNAV TRANS

Page 8

- 2.2.14 10-2H DISIP & EKDUS 1A & 1B RNAV TRANS
- 2.2.15 10-2J RUGAP & TIVIM 1A & 1B RNAV TRANS
- 2.2.16 10-2K ABIGI & BABUV 1A & 1B RNAV TRANS
- 2.2.17 10-2L LONSO, NISOX & OBOMA 1A & 1B RNAV TRANS
- 2.2.18 10-2M GOGOG 1A & 1B RNAV TRANS
- 2.2.19 10-2N IBIXI & UNDOG 1A & 1B RNAV TRANS
- 2.2.20 10-3 COLA 3H, 4J, 5T & 4Z DEPS
- 2.2.21 10-3A DODEN 3H, 6J, 9T & 6Z DEPS
- 2.2.22 10-3B GERMINGHAUSEN 3H, 9T, 8Y & 5Z DEPS
- 2.2.23 10-3C KUMIK 3H, 4J, 6T & 4Z DEPS
- 2.2.24 10-3D LIMA 2H, 2T, 6Y & 1Z DEPS
- 2.2.25 10-3E MEVEL 3H, 8J, 3T & 9Z DEPS
- 2.2.26 10-3F MODRU 1H, 6J, 1T & 6Z DEPS
- 2.2.27 10-3G NETEX 2H, 3J, 5T & 3Z DEPS
- 2.2.28 10-3H NOERVENICH 1T, 1U, 2Y & 2Z DEPS
- 2.2.29 10-3J NUDGO 3H, 4J, 5T & 4Z DEPS
- 2.2.30 10-3K SONEB 3H, 5J, 7T & 5Z DEPS
- 2.2.31 10-3L COLA 3H, 4J, 5T & 4Z RNAV DEPS (OVERLAY)
- 2.2.32 10-3M DODEN 3H, 6J, 9T & 6Z RNAV DEPS (OVERLAY)
- 2.2.33 10-3N GERMINGHAUSEN 3H, 9T, 8Y & 5Z RNAV DEPS (OVERLAY)
- 2.2.34 10-3P KUMIK 3H, 4J, 6T & 4Z RNAV DEPS (OVERLAY)
- 2.2.35 10-3Q LMA 2H, 2T, 6Y & 1Z RNAV DEPS (OVERLAY)
- 2.2.36 10-3S MEVEL 3H, 8J, 3T & 9Z RNAV DEPS (OVERLAY)
- 2.2.37 10-3T MODRU 1H, 6J, 1T & 6Z RNAV DEPS (OVERLAY)
- 2.2.38 10-3U NETEX 2H, 3J, 5T & 3Z RNAV DEPS (OVERLAY)
- 2.2.39 10-3V NOERVENICH 1T, 1U, 2Y & 2Z RNAV DEPS (OVERLAY)
- 2.2.40 10-3W NUDGO 3H, 4J, 5T & 4Z RNAV DEPS (OVERLAY)
- 2.2.41 10-3X SONEB 3H, 5J, 7T & 5Z RNAV DEPS (OVERLAY)
- 2.2.42 10-8 CONSTRUCTION WORKS (TEMP)
- 2.2.43 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 2.2.44 10-9A PARKING STANDS
- 2.2.45 10-9B PARKING STAND COORDS
- 2.2.46 10-9C VISUAL DOCKING GUIDANCE SYSTEM
- 2.2.47 11-1 ILS OR LOC RWY 05L
- 2.2.48 11-2 ILS OR LOC OR NDB RWY 05R
- 2.2.49 11-2A CAT II/III ILS RWY 05R
- 2.2.50 11-3 ILS OR LOC RWY 23L
- 2.2.51 11-3A CAT II/III ILS RWY 23L
- 2.2.52 11-4 ILS OR LOC RWY 23R
- 2.2.53 11-4A CAT II/III ILS RWY 23R
- 2.2.54 12-1 RNAV (GPS) RWY 05L
- 2.2.55 12-2 RNAV (GPS) RWY 05R
- 2.2.56 12-3 RNAV (GPS) RWY 23L
- 2.2.57 12-4 RNAV (GPS) RWY 23R
- 2.2.58 13-1 VOR RWY 23L
- 2.2.59 13-2 VOR RWY 23R
- 2.2.60 16-1 NDB RWY 05L
- 2.2.61 18-1 SRA ALL RWYS

3 EDDL -> EGNM

3.0.1 DEPARTURE: EDDL (Dusseldorf)

3.0.2 DESTINATION: EGNM (Leeds Bradford)

Page 9

- 3.1.1 10-1P AIRPORT BRIEFING (GEN)
- 3.1.2 10-1P1 AIRPORT BRIEFING (GEN CONTD1)
- 3.1.3 10-1P2 AIRPORT BRIEFING (GEN CONTD2)
- 3.1.4 10-1P3 AIRPORT BRIEFING (GEN CONTD3, ARR))
- 3.1.5 10-1P4 AIRPORT BRIEFING (DEP)
- 3.1.6 10-2 BIKMU & TEBRO 1X, DOMUX & XAMOD 2X, LIMA 9X ARRS
- 3.1.7 10-2A BIKMU 1G, DOMUX 2G, LIMA 8G, TEBRO & XAMOD 3G ARRS
- 3.1.8 10-2B TEBRO & XAMOD 05 RNAV TRANS
- 3.1.9 10-2C TEBRO & XAMOD 23 RNAV TRANS
- 3.1.10 10-2D DOMUX & ELDAR 05 RNAV TRANS
- 3.1.11 10-2E DOMUX 23 RNAV TRANS
- 3.1.12 10-2F BIKMU & LMA 05 RNAV TRANS
- 3.1.13 10-2G BIKMU & LMA 23 RNAV TRANS
- 3.1.14 10-2H DISIP & EKDUS 1A & 1B RNAV TRANS
- 3.1.15 10-2J RUGAP & TIVIM 1A & 1B RNAV TRANS
- 3.1.16 10-2K ABIGI & BABUV 1A & 1B RNAV TRANS
- 3.1.17 10-2L LONSO, NISOX & OBOMA 1A & 1B RNAV TRANS
- 3.1.18 10-2M GOGOG 1A & 1B RNAV TRANS
- 3.1.19 10-2N IBIXI & UNDOG 1A & 1B RNAV TRANS
- 3.1.20 10-3 COLA 3H, 4J, 5T & 4Z DEPS
- 3.1.21 10-3A DODEN 3H, 6J, 9T & 6Z DEPS
- 3.1.22 10-3B GERMINGHAUSEN 3H, 9T, 8Y & 5Z DEPS
- 3.1.23 10-3C KUMIK 3H, 4J, 6T & 4Z DEPS
- 3.1.24 10-3D LIMA 2H, 2T, 6Y & 1Z DEPS
- 3.1.25 10-3E MEVEL 3H, 8J, 3T & 9Z DEPS
- 3.1.26 10-3F MODRU 1H, 6J, 1T & 6Z DEPS
- 3.1.27 10-3G NETEX 2H, 3J, 5T & 3Z DEPS
- 3.1.28 10-3H NOERVENICH 1T, 1U, 2Y & 2Z DEPS
- 3.1.29 10-3J NUDGO 3H, 4J, 5T & 4Z DEPS
- 3.1.30 10-3K SONEB 3H, 5J, 7T & 5Z DEPS
- 3.1.31 10-3L COLA 3H, 4J, 5T & 4Z RNAV DEPS (OVERLAY)
- 3.1.32 10-3M DODEN 3H, 6J, 9T & 6Z RNAV DEPS (OVERLAY)
- 3.1.33 10-3N GERMINGHAUSEN 3H, 9T, 8Y & 5Z RNAV DEPS (OVERLAY)
- 3.1.34 10-3P KUMIK 3H, 4J, 6T & 4Z RNAV DEPS (OVERLAY)
- 3.1.35 10-3Q LMA 2H, 2T, 6Y & 1Z RNAV DEPS (OVERLAY)
- 3.1.36 10-3S MEVEL 3H, 8J, 3T & 9Z RNAV DEPS (OVERLAY)
- 3.1.37 10-3T MODRU 1H, 6J, 1T & 6Z RNAV DEPS (OVERLAY)
- 3.1.38 10-3U NETEX 2H, 3J, 5T & 3Z RNAV DEPS (OVERLAY)
- 3.1.39 10-3V NOERVENICH 1T, 1U, 2Y & 2Z RNAV DEPS (OVERLAY)
- 3.1.40 10-3W NUDGO 3H, 4J, 5T & 4Z RNAV DEPS (OVERLAY)
- 3.1.41 10-3X SONEB 3H, 5J, 7T & 5Z RNAV DEPS (OVERLAY)
- 3.1.42 10-8 CONSTRUCTION WORKS (TEMP)
- 3.1.43 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 3.1.44 10-9A PARKING STANDS
- 3.1.45 10-9B PARKING STAND COORDS
- 3.1.46 10-9C VISUAL DOCKING GUIDANCE SYSTEM
- 3.1.47 11-1 ILS OR LOC RWY 05L
- 3.1.48 11-2 ILS OR LOC OR NDB RWY 05R
- 3.1.49 11-2A CAT II/III ILS RWY 05R
- 3.1.50 11-3 ILS OR LOC RWY 23L
- 3.1.51 11-3A CAT II/III ILS RWY 23L
- 3.1.52 11-4 ILS OR LOC RWY 23R

Page 10

- 3.1.53 11-4A CAT II/III ILS RWY 23R
- 3.1.54 12-1 RNAV (GPS) RWY 05L
- 3.1.55 12-2 RNAV (GPS) RWY 05R
- 3.1.56 12-3 RNAV (GPS) RWY 23L
- 3.1.57 12-4 RNAV (GPS) RWY 23R
- 3.1.58 13-1 VOR RWY 23L
- 3.1.59 13-2 VOR RWY 23R
- 3.1.60 16-1 NDB RWY 05L
- 3.1.61 18-1 SRA ALL RWYS
- 3.2.1 10-1P AIRPORT BRIEFING (GEN)
- 3.2.2 10-1P1 AIRPORT BRIEFING (GEN CONTD)
- 3.2.3 10-1P2 AIRPORT BRIEFING (ARR)
- 3.2.4 10-1P3 AIRPORT BRIEFING (DEP)
- 3.2.5 10-1R RADAR MNM ALTS
- 3.2.6 10-2 ARRS
- 3.2.7 10-3 DOPEK & LAMIX 2W DEPS
- 3.2.8 10-3A DOPEK & LAMIX 2X DEPS
- 3.2.9 10-3B NELSA 3W DEP
- 3.2.10 10-3C POL 2X DEP
- 3.2.11 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 3.2.12 10-9A PARKING STANDS & COORDS
- 3.2.13 10-9Y JAA COPTER MNMS
- 3.2.14 11-1 ILS DME Z OR LOC DME Z RWY 14 (CAT C & D)
- 3.2.15 11-2 ILS DME Y OR LOC DME Y RWY 14 (CAT A & B)
- 3.2.16 11-3 NDB ILS DME OR NDB LOC DME RWY 32
- 3.2.17 11-3A CAT II/III NDB ILS DME RWY 32
- 3.2.18 16-1 NDB DME Z RWY 14
- 3.2.19 16-2 NDB DME Y RWY 14
- 3.2.20 16-3 NDB DME RWY 32

4 EGNM -> ENVA

- 4.0.1 DEPARTURE: EGNM (Leeds Bradford)
- 4.0.2 DESTINATION: ENVA (Vaernes AB)
- 4.1.1 10-1P AIRPORT BRIEFING (GEN)
- 4.1.2 10-1P1 AIRPORT BRIEFING (GEN CONTD)
- 4.1.3 10-1P2 AIRPORT BRIEFING (ARR)
- 4.1.4 10-1P3 AIRPORT BRIEFING (DEP)
- 4.1.5 10-1R RADAR MNM ALTS
- 4.1.6 10-2 ARRS
- 4.1.7 10-3 DOPEK & LAMIX 2W DEPS
- 4.1.8 10-3A DOPEK & LAMIX 2X DEPS
- 4.1.9 10-3B NELSA 3W DEP
- 4.1.10 10-3C POL 2X DEP
- 4.1.11 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 4.1.12 10-9A PARKING STANDS & COORDS
- 4.1.13 10-9Y JAA COPTER MNMS
- 4.1.14 11-1 ILS DME Z OR LOC DME Z RWY 14 (CAT C & D)
- 4.1.15 11-2 ILS DME Y OR LOC DME Y RWY 14 (CAT A & B)
- 4.1.16 11-3 NDB ILS DME OR NDB LOC DME RWY 32
- 4.1.17 11-3A CAT II/III NDB ILS DME RWY 32
- 4.1.18 16-1 NDB DME Z RWY 14
- 4.1.19 16-2 NDB DME Y RWY 14

Page 11

- 4.1.20 16-3 NDB DME RWY 32
- 4.2.1 10-1P AIRPORT BRIEFING (GEN)
- 4.2.2 10-1P1 AIRPORT BRIEFING (GEN CONTD, ARR)
- 4.2.3 10-1P2 AIRPORT BRIEFING (DEP)
- 4.2.4 10-2 NUPGO 2L RNAV ARR
- 4.2.5 10-2A NUPGO 2M RNAV ARR
- 4.2.6 10-2B VEVOD 1L RNAV ARR
- 4.2.7 10-2C VEVOD 1M RNAV ARR
- 4.2.8 10-2D MIVSO & NELSU 1L RNAV ARRS
- 4.2.9 10-2E MIVSO 1M & NELSU 2M RNAV ARRS
- 4.2.10 10-3 EVNEN 1A, 2B & 1W RNAV DEPS
- 4.2.11 10-3A GOGOX 1A & 1B RNAV DEPS
- 4.2.12 10-3B NIGEX 1A & 1X RNAV DEPS
- 4.2.13 10-3C NIGEX 1B & 1W RNAV DEPS
- 4.2.14 10-3D OSMUM 1A & 1B RNAV DEPS
- 4.2.15 10-3E SOLKA 1A, 2B & 1W RNAV DEPS
- 4.2.16 10-3F UTUNA 1A, 1B & 1W RNAV DEPS
- 4.2.17 10-3G OMNI 2A & 2B DEPS
- 4.2.18 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 4.2.19 10-9A PARKING STANDS & COORDS, PUSH-BACK
- 4.2.20 10-9Y JAA COPTER MNMS
- 4.2.21 11-1 ILS OR LOC RWY 09
- 4.2.22 11-1A ILS OR LOC RWY 09 MNMS
- 4.2.23 11-2 ILS OR LOC RWY 27
- 4.2.24 12-1 RNAV (GNSS) RWY 09
- 4.2.25 12-2 RNAV (GNSS) RWY 27
- 4.2.26 19-10 VISUAL APCH

5 ENVA -> ENTC

- 5.0.1 DEPARTURE: ENVA (Vaernes AB)
- 5.0.2 DESTINATION: ENTC (Langnes)
- 5.1.1 10-1P AIRPORT BRIEFING (GEN)
- 5.1.2 10-1P1 AIRPORT BRIEFING (GEN CONTD, ARR)
- 5.1.3 10-1P2 AIRPORT BRIEFING (DEP)
- 5.1.4 10-2 NUPGO 2L RNAV ARR
- 5.1.5 10-2A NUPGO 2M RNAV ARR
- 5.1.6 10-2B VEVOD 1L RNAV ARR
- 5.1.7 10-2C VEVOD 1M RNAV ARR
- 5.1.8 10-2D MIVSO & NELSU 1L RNAV ARRS
- 5.1.9 10-2E MIVSO 1M & NELSU 2M RNAV ARRS
- 5.1.10 10-3 EVNEN 1A, 2B & 1W RNAV DEPS
- 5.1.11 10-3A GOGOX 1A & 1B RNAV DEPS
- 5.1.12 10-3B NIGEX 1A & 1X RNAV DEPS
- 5.1.13 10-3C NIGEX 1B & 1W RNAV DEPS
- 5.1.14 10-3D OSMUM 1A & 1B RNAV DEPS
- 5.1.15 10-3E SOLKA 1A, 2B & 1W RNAV DEPS
- 5.1.16 10-3F UTUNA 1A, 1B & 1W RNAV DEPS
- 5.1.17 10-3G OMNI 2A & 2B DEPS
- 5.1.18 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 5.1.19 10-9A PARKING STANDS & COORDS, PUSH-BACK
- 5.1.20 10-9Y JAA COPTER MNMS
- 5.1.21 11-1 ILS OR LOC RWY 09

Page 12

- 5.1.22 11-1A ILS OR LOC RWY 09 MNMS
- 5.1.23 11-2 ILS OR LOC RWY 27
- 5.1.24 12-1 RNAV (GNSS) RWY 09
- 5.1.25 12-2 RNAV (GNSS) RWY 27
- 5.1.26 19-10 VISUAL APCH
- 5.2.1 10-2 BAREG, IDLIN & LENSEA 4L RNAV ARRS
- 5.2.2 10-2A BAREG, IDLIN & LENSEA 2M RNAV ARRS
- 5.2.3 10-2B AMIMO 4L & 9X RNAV ARRS
- 5.2.4 10-2C AMIMO 1W RNAV ARR
- 5.2.5 10-2D AMIMO 2M RNAV ARR
- 5.2.6 10-2E AMIMO 7Y & 7Z RNAV ARRS
- 5.2.7 10-2F GILGU 3L & LOMVI 4L RNAV ARRS
- 5.2.8 10-2G GILGU & LOMVI 2M RNAV ARRS
- 5.2.9 10-2H LURAP 3L & SENJA 8M ARRS
- 5.2.10 10-3 BAREG 2A & 2X, LOMVI 4A RNAV DEPS
- 5.2.11 10-3A BAREG 2B & LOMVI 4B RNAV DEPS
- 5.2.12 10-3B IDLIN 2A & LENSEA 3A RNAV DEPS
- 5.2.13 10-3C IDLIN 2B & 2W, LENSEA 3B RNAV DEPS
- 5.2.14 10-3D TULDA 1A RNAV DEP
- 5.2.15 10-3E TULDA 1B RNAV DEP
- 5.2.16 10-3F AMIMO & GILGU 1A RNAV DEPS
- 5.2.17 10-3G AMIMO & GILGU 1B, ROSKO 2B RNAV DEPS
- 5.2.18 10-3H BDF 5Y & LOMVI 4X DEPS
- 5.2.19 10-3J OMNI 1A & 1B OMNI DEPS
- 5.2.20 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 5.2.21 10-9A PARKING STANDS & COORDS, SPECIAL REQUIREMENTS
- 5.2.22 10-9Y JAA COPTER MNMS
- 5.2.23 11-1 ILS OR LOC RWY 01
- 5.2.24 11-2 ILS OR LOC RWY 19
- 5.2.25 11-2A MNMS FOR ILS OR LOC RWY 01/19
- 5.2.26 12-1 RNAV (GNSS) RWY 01
- 5.2.27 12-1A MNMS FOR RNAV (GNSS) RWY 01
- 5.2.28 12-2 RNAV (GNSS) RWY 19
- 5.2.29 12-3 RNAV (GNSS) A

6 ENTC -> ENSB

- 6.0.1 DEPARTURE: ENTC (Langnes)
- 6.0.2 DESTINATION: ENSB (Longyear)
- 6.1.1 10-2 BAREG, IDLIN & LENSEA 4L RNAV ARRS
- 6.1.2 10-2A BAREG, IDLIN & LENSEA 2M RNAV ARRS
- 6.1.3 10-2B AMIMO 4L & 9X RNAV ARRS
- 6.1.4 10-2C AMIMO 1W RNAV ARR
- 6.1.5 10-2D AMIMO 2M RNAV ARR
- 6.1.6 10-2E AMIMO 7Y & 7Z RNAV ARRS
- 6.1.7 10-2F GILGU 3L & LOMVI 4L RNAV ARRS
- 6.1.8 10-2G GILGU & LOMVI 2M RNAV ARRS
- 6.1.9 10-2H LURAP 3L & SENJA 8M ARRS
- 6.1.10 10-3 BAREG 2A & 2X, LOMVI 4A RNAV DEPS
- 6.1.11 10-3A BAREG 2B & LOMVI 4B RNAV DEPS
- 6.1.12 10-3B IDLIN 2A & LENSEA 3A RNAV DEPS
- 6.1.13 10-3C IDLIN 2B & 2W, LENSEA 3B RNAV DEPS
- 6.1.14 10-3D TULDA 1A RNAV DEP

Page 13

- 6.1.15 10-3E TULDA 1B RNAV DEP
- 6.1.16 10-3F AMIMO & GILGU 1A RNAV DEPS
- 6.1.17 10-3G AMIMO & GILGU 1B, ROSKO 2B RNAV DEPS
- 6.1.18 10-3H BDF 5Y & LOMVI 4X DEPS
- 6.1.19 10-3J OMNI 1A & 1B OMNI DEPS
- 6.1.20 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 6.1.21 10-9A PARKING STANDS & COORDS, SPECIAL REQUIREMENTS
- 6.1.22 10-9Y JAA COPTER MNMS
- 6.1.23 11-1 ILS OR LOC RWY 01
- 6.1.24 11-2 ILS OR LOC RWY 19
- 6.1.25 11-2A MNMS FOR ILS OR LOC RWY 01/19
- 6.1.26 12-1 RNAV (GNSS) RWY 01
- 6.1.27 12-1A MNMS FOR RNAV (GNSS) RWY 01
- 6.1.28 12-2 RNAV (GNSS) RWY 19
- 6.1.29 12-3 RNAV (GNSS) A
- 6.2.1 10-3 AMPIS 1A RNAV DEP
- 6.2.2 10-3A AMPIS & GOLOL 1B RNAV DEPS
- 6.2.3 10-3B INPAR & SUSES 1B RNAV DEPS
- 6.2.4 10-3C OMNI 2B OMNIDIRECTIONAL DEP
- 6.2.5 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 6.2.6 10-9Y JAA COPTER MNMS
- 6.2.7 11-1 ILS OR LOC RWY 10
- 6.2.8 11-2 LOC RWY 28
- 6.2.9 12-1 RNAV (GNSS) Z RWY 10
- 6.2.10 12-1A RNAV (GNSS) Z RWY 10 MNMS
- 6.2.11 12-2 RNAV (GNSS) Y RWY 10
- 6.2.12 12-2A RNAV (GNSS) Y RWY 10 MNMS
- 6.2.13 12-3 RNAV (GNSS) RWY 28
- 6.2.14 12-4 RNAV (GNSS) A

7 ENSB -> BGTL

- 7.0.1 DEPARTURE: ENSB (Longyear)
- 7.0.2 DESTINATION: BGTL (Thule AB)
- 7.1.1 10-3 AMPIS 1A RNAV DEP
- 7.1.2 10-3A AMPIS & GOLOL 1B RNAV DEPS
- 7.1.3 10-3B INPAR & SUSES 1B RNAV DEPS
- 7.1.4 10-3C OMNI 2B OMNIDIRECTIONAL DEP
- 7.1.5 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 7.1.6 10-9Y JAA COPTER MNMS
- 7.1.7 11-1 ILS OR LOC RWY 10
- 7.1.8 11-2 LOC RWY 28
- 7.1.9 12-1 RNAV (GNSS) Z RWY 10
- 7.1.10 12-1A RNAV (GNSS) Z RWY 10 MNMS
- 7.1.11 12-2 RNAV (GNSS) Y RWY 10
- 7.1.12 12-2A RNAV (GNSS) Y RWY 10 MNMS
- 7.1.13 12-3 RNAV (GNSS) RWY 28
- 7.1.14 12-4 RNAV (GNSS) A
- 7.2.1 10-3 THULE 1 RNAV DEP
- 7.2.2 10-3A WENSA 2 DEP
- 7.2.3 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 7.2.4 10-9S STANDARD MNMS
- 7.2.5 11-1 ILS OR LOC DME Z RWY 8 TRUE (INITIAL APCH)

Page 14

- 7.2.6 11-1A ILS OR LOC DME Z RWY 8 TRUE (FINAL APCH)
- 7.2.7 11-2 ILS OR LOC DME Y RWY 8 TRUE (INITIAL APCH)
- 7.2.8 11-2A ILS OR LOC DME Y RWY 8 TRUE (FINAL APCH)
- 7.2.9 11-3 ILS OR LOC DME X RWY 8 TRUE (INITIAL APCH)
- 7.2.10 11-3A ILS OR LOC DME X RWY 8 TRUE (FINAL APCH)
- 7.2.11 12-1 RNAV (GPS) RWY 8 TRUE
- 7.2.12 13-1 VOR DME RWY 8 TRUE (INITIAL APCH)
- 7.2.13 13-1A VOR DME RWY 8 TRUE (FINAL APCH)

8 BGTL -> CYYR

- 8.0.1 DEPARTURE: BGTL (Thule AB)
- 8.0.2 DESTINATION: CYYR (Goose Bay)
- 8.1.1 10-3 THULE 1 RNAV DEP
- 8.1.2 10-3A WENSA 2 DEP
- 8.1.3 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 8.1.4 10-9S STANDARD MNMS
- 8.1.5 11-1 ILS OR LOC DME Z RWY 8 TRUE (INITIAL APCH)
- 8.1.6 11-1A ILS OR LOC DME Z RWY 8 TRUE (FINAL APCH)
- 8.1.7 11-2 ILS OR LOC DME Y RWY 8 TRUE (INITIAL APCH)
- 8.1.8 11-2A ILS OR LOC DME Y RWY 8 TRUE (FINAL APCH)
- 8.1.9 11-3 ILS OR LOC DME X RWY 8 TRUE (INITIAL APCH)
- 8.1.10 11-3A ILS OR LOC DME X RWY 8 TRUE (FINAL APCH)
- 8.1.11 12-1 RNAV (GPS) RWY 8 TRUE
- 8.1.12 13-1 VOR DME RWY 8 TRUE (INITIAL APCH)
- 8.1.13 13-1A VOR DME RWY 8 TRUE (FINAL APCH)
- 8.2.1 10-3 GOOSE BAY 2 DEP
- 8.2.2 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 8.2.3 10-9A PARKING POSITIONS
- 8.2.4 11-1 ILS Z (DND) RWY 08
- 8.2.5 11-2 LOC (BACK CRS) Z OR NDB (DND) RWY 26
- 8.2.6 11-3 ILS Y (DND) RWY 08
- 8.2.7 11-4 LOC (BACK CRS) Y (DND) RWY 26
- 8.2.8 11-5 HI LOC (BACK CRS) X (DND) RWY 26
- 8.2.9 12-1 RNAV (GNSS) (DND) RWY 08
- 8.2.10 12-2 RNAV (GNSS) (DND) RWY 16
- 8.2.11 12-3 RNAV (GNSS) (DND) RWY 26
- 8.2.12 12-4 RNAV (GNSS) (DND) RWY 34
- 8.2.13 14-1 TACAN (DND) RWY 08
- 8.2.14 14-2 HI TACAN (DND) RWY 08
- 8.2.15 14-3 TACAN (DND) RWY 26
- 8.2.16 14-4 HI TACAN (DND) RWY 26
- 8.2.17 14-5 TACAN (DND) RWY 34
- 8.2.18 14-6 HI TACAN (DND) RWY 34
- 8.2.19 18-1 PAR (DND) RWYS 08, 26

9 CYYR -> CYOW

- 9.0.1 DEPARTURE: CYYR (Goose Bay)
- 9.0.2 DESTINATION: CYOW (Ottawa/Macdonald-Cartier Intl)
- 9.1.1 10-3 GOOSE BAY 2 DEP
- 9.1.2 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 9.1.3 10-9A PARKING POSITIONS
- 9.1.4 11-1 ILS Z (DND) RWY 08

Page 15

- 9.1.5 11-2 LOC (BACK CRS) Z OR NDB (DND) RWY 26
- 9.1.6 11-3 ILS Y (DND) RWY 08
- 9.1.7 11-4 LOC (BACK CRS) Y (DND) RWY 26
- 9.1.8 11-5 HI LOC (BACK CRS) X (DND) RWY 26
- 9.1.9 12-1 RNAV (GNSS) (DND) RWY 08
- 9.1.10 12-2 RNAV (GNSS) (DND) RWY 16
- 9.1.11 12-3 RNAV (GNSS) (DND) RWY 26
- 9.1.12 12-4 RNAV (GNSS) (DND) RWY 34
- 9.1.13 14-1 TACAN (DND) RWY 08
- 9.1.14 14-2 HI TACAN (DND) RWY 08
- 9.1.15 14-3 TACAN (DND) RWY 26
- 9.1.16 14-4 HI TACAN (DND) RWY 26
- 9.1.17 14-5 TACAN (DND) RWY 34
- 9.1.18 14-6 HI TACAN (DND) RWY 34
- 9.1.19 18-1 PAR (DND) RWYS 08, 26
- 9.2.1 10-2 CAPITAL 4 ARR
- 9.2.2 10-2A DEANS 8 ARR
- 9.2.3 10-2B LEAMY 3 ARR
- 9.2.4 10-2C MEECH 1 ARR
- 9.2.5 10-2D RIVER 2 ARR
- 9.2.6 10-3 OTTAWA 4 DEP
- 9.2.7 10-4 NOISE ABATEMENT
- 9.2.8 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 9.2.9 10-9A PARKING STANDS & COORDS
- 9.2.10 10-9B DE-ICING BAYS
- 9.2.11 10-9C DE-ICING (TEXT)
- 9.2.12 11-1 ILS RWY 07
- 9.2.13 11-2 ILS RWY 32
- 9.2.14 12-1 RNAV (GNSS) Z RWY 07
- 9.2.15 12-2 RNAV (GNSS) Z RWY 14
- 9.2.16 12-3 RNAV (GNSS) Z RWY 25
- 9.2.17 12-4 RNAV (GNSS) Z RWY 32
- 9.2.18 12-20 RNAV (RNP) Y RWY 07
- 9.2.19 12-21 RNAV (RNP) Y RWY 14
- 9.2.20 12-22 RNAV (RNP) Y RWY 25
- 9.2.21 12-23 RNAV (RNP) Y RWY 32
- 9.2.22 16-1 NDB RWY 25
- 9.2.23 16-2 NDB RWY 32

10 CYOW -> KMSP

- 10.0.1 DEPARTURE: CYOW (Ottawa/Macdonald-Cartier Intl)
- 10.0.2 DESTINATION: KMSP (Minneapolis-St Paul Intl/Wold-)
- 10.1.1 10-2 CAPITAL 4 ARR
- 10.1.2 10-2A DEANS 8 ARR
- 10.1.3 10-2B LEAMY 3 ARR
- 10.1.4 10-2C MEECH 1 ARR
- 10.1.5 10-2D RIVER 2 ARR
- 10.1.6 10-3 OTTAWA 4 DEP
- 10.1.7 10-4 NOISE ABATEMENT
- 10.1.8 10-9 AIRPORT, AIRPORT INFO, TAKE-OFF MNMS
- 10.1.9 10-9A PARKING STANDS & COORDS
- 10.1.10 10-9B DE-ICING BAYS

Page 16

- 10.1.11 10-9C DE-ICING (TEXT)
- 10.1.12 11-1 ILS RWY 07
- 10.1.13 11-2 ILS RWY 32
- 10.1.14 12-1 RNAV (GNSS) Z RWY 07
- 10.1.15 12-2 RNAV (GNSS) Z RWY 14
- 10.1.16 12-3 RNAV (GNSS) Z RWY 25
- 10.1.17 12-4 RNAV (GNSS) Z RWY 32
- 10.1.18 12-20 RNAV (RNP) Y RWY 07
- 10.1.19 12-21 RNAV (RNP) Y RWY 14
- 10.1.20 12-22 RNAV (RNP) Y RWY 25
- 10.1.21 12-23 RNAV (RNP) Y RWY 32
- 10.1.22 16-1 NDB RWY 25
- 10.1.23 16-2 NDB RWY 32
- 10.2.1 10-1B CLASS B AIRSPACE
- 10.2.2 10-2 BAINY 3 RNAV ARR
- 10.2.3 10-2A BLUEM 3 RNAV ARR
- 10.2.4 10-2B EAU CLAIRE 9 ARR
- 10.2.5 10-2C GOPHER 1 ARR
- 10.2.6 10-2D KASPR 7 ARR
- 10.2.7 10-2E KKILR 3 RNAV ARR
- 10.2.8 10-2F MUSCL 3 RNAV ARR
- 10.2.9 10-2G NITZR 3 RNAV ARR
- 10.2.10 10-2H SKETR 5 ARR
- 10.2.11 10-2J TORGY 3 RNAV ARR
- 10.2.12 10-2K TWOLF 3 ARR
- 10.2.13 10-3 COULT 7 DEP
- 10.2.14 10-3A DARWIN 7 DEP
- 10.2.15 10-3B HESTIN 4 RNAV DEP
- 10.2.16 10-3C KBREW 1 DEP
- 10.2.17 10-3D LEINY 6 RNAV DEP
- 10.2.18 10-3E MEADOW LAKE 4 DEP
- 10.2.19 10-3F MINNEAPOLIS 8 DEP
- 10.2.20 10-3G ORSKY 1 DEP
- 10.2.21 10-3H ROCHESTER 1 DEP
- 10.2.22 10-3J SCHEP 9 DEP
- 10.2.23 10-3K SLAYER 4 RNAV DEP
- 10.2.24 10-3L SMERF 7 RNAV DEP
- 10.2.25 10-3M WLSTN 7 DEP
- 10.2.26 10-3N ZMBRO 7 DEP
- 10.2.27 10-3OB1 TAKEOFF OBSTACLE NOTES
- 10.2.28 10-9 AIRPORT, AIRPORT INFO
- 10.2.29 10-9A AIRPORT INFO (CONTD), TAKE-OFF MNMS
- 10.2.30 10-9B PARKING GATES
- 10.2.31 10-9C PARKING GATE COORDS
- 10.2.32 10-9C1 OVERFLOW ACFT PARKING AREAS
- 10.2.33 10-9D LOW VIS TAXI ROUTES
- 10.2.34 10-9F RWY 12L DEICING PADS
- 10.2.35 10-9F1 RWY 12R DEICING PADS
- 10.2.36 10-9F2 RWY 17 DEICING PADS
- 10.2.37 10-9F3 RWY 30L DEICING PADS
- 10.2.38 10-9F4 RWY 30R DEICING PADS
- 10.2.39 10-9F5 T2-HUMPHREY REMOTE APRON DEICING PADS

Page 17

10.2.40 11-1 LOC RWY 4
10.2.41 11-2 ILS OR LOC RWY 12L
10.2.42 11-2A ILS RWY 12L CAT II & III
10.2.43 11-2B ILS RWY 12L SA CAT I
10.2.44 11-3 ILS OR LOC RWY 12R
10.2.45 11-3A ILS RWY 12R CAT II & III
10.2.46 11-3B ILS RWY 12R SA CAT I
10.2.47 11-4 LOC RWY 17
10.2.48 11-5 LOC RWY 22
10.2.49 11-6 ILS OR LOC RWY 30L
10.2.50 11-6A ILS RWY 30L CAT II
10.2.51 11-7 ILS OR LOC RWY 30R
10.2.52 11-8 ILS Z OR LOC RWY 35
10.2.53 11-8A ILS Z RWY 35 CAT II & III
10.2.54 11-8B ILS Z RWY 35 SA CAT I
10.2.55 11-9 ILS V RWY 35 (CONVERGING)
10.2.56 12-1 RNAV (GPS) RWY 4
10.2.57 12-2 RNAV (GPS) Z RWY 12L
10.2.58 12-3 RNAV (GPS) Z RWY 12R
10.2.59 12-4 RNAV (GPS) RWY 22
10.2.60 12-5 RNAV (GPS) Z RWY 30L
10.2.61 12-6 RNAV (GPS) Z RWY 30R
10.2.62 12-7 RNAV (GPS) Z RWY 35
10.2.63 12-20 RNAV (RNP) Y RWY 12L
10.2.64 12-21 RNAV (RNP) Y RWY 12R
10.2.65 12-22 RNAV (RNP) Y RWY 30L
10.2.66 12-23 RNAV (RNP) Y RWY 30R
10.2.67 12-24 RNAV (RNP) Y RWY 35

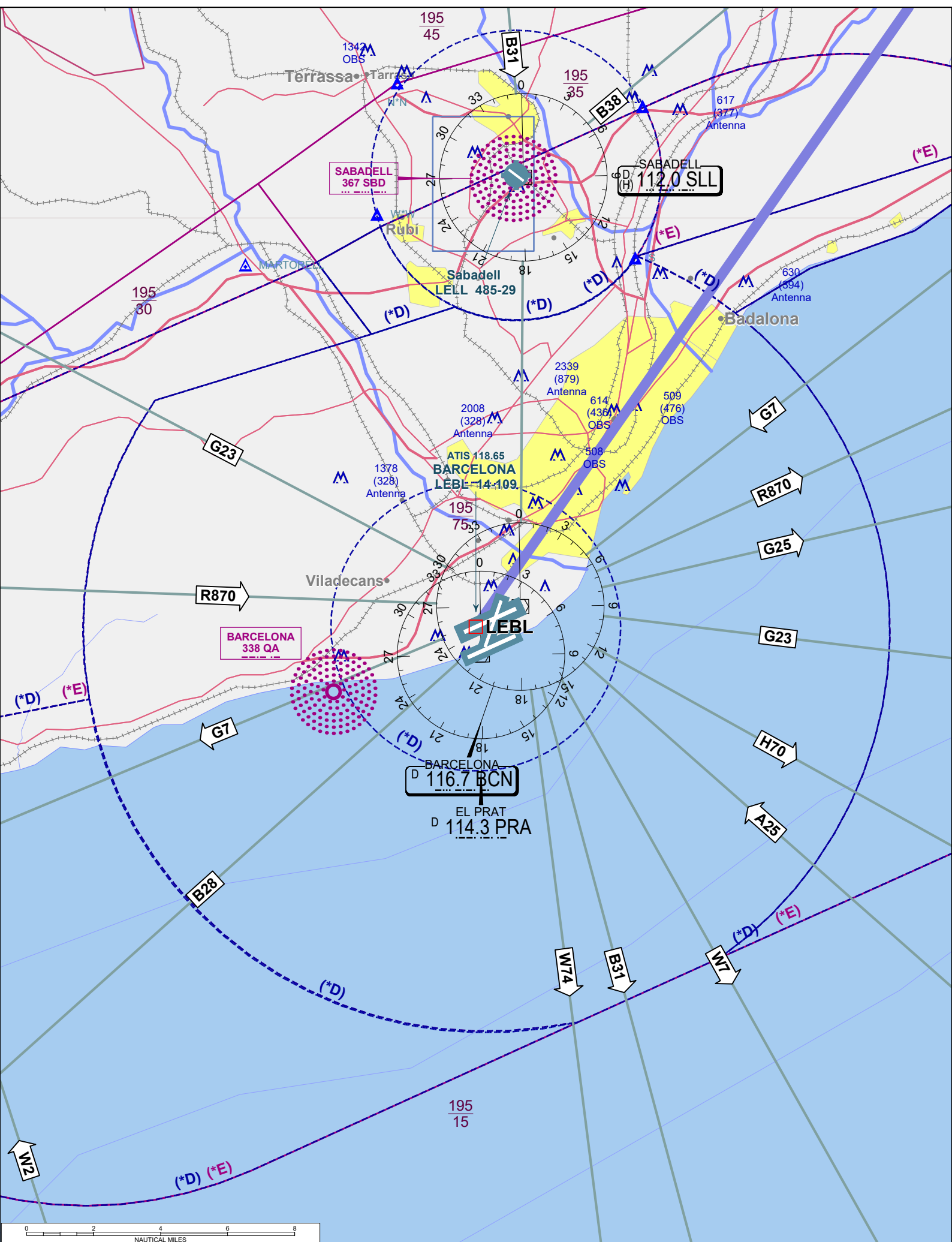
1.0.1 DEPARTURE (LEBL -> LSZH): LEBL (Barcelona)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

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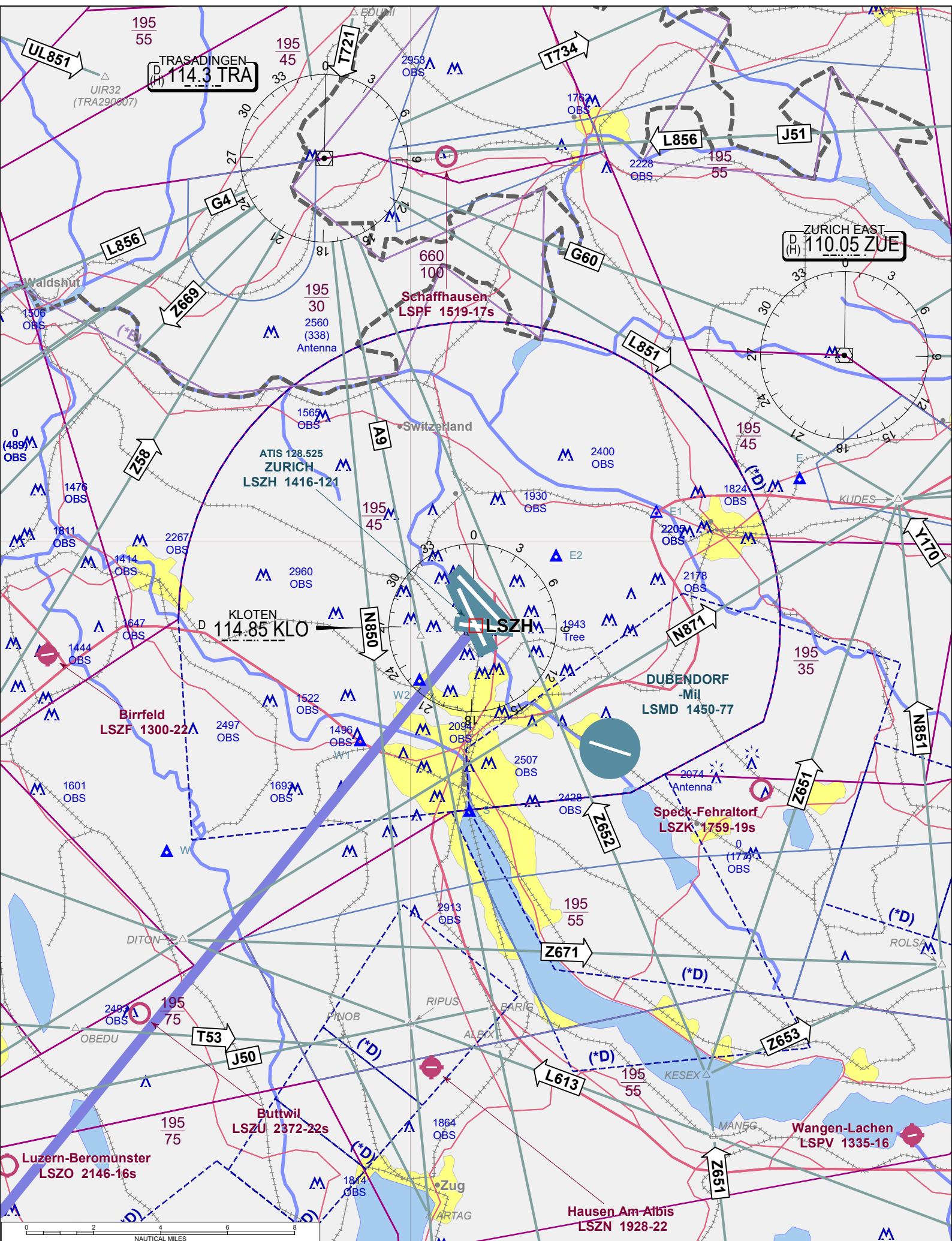
1.0.2 DESTINATION (LEBL -> LSZH): LSZH (Zurich)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

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LEBL/BCN
EL PRAT

6 JUL 18

JEPPESEN

10-1P

Eff 19 Jul

BARCELONA, SPAIN**AIRPORT BRIEFING**

1. GENERAL

1.1. ATIS

D-ATIS Arrival 118.650

D-ATIS Departure 121.975

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GENERAL**

Barcelona APT is not available to ACFT without radio or unable to maintain a continuous two-way communication on appropriate tower frequency.

During the summer season, ACFT not based at the APT whose Maximum Take-off Weight (MTOW) is less than or equal to 7000kg shall be restricted and may not perform arrival operations from 0800-1059LT and from 1700-2059LT.

Excepted are ambulance, rescue, State flights or flights providing service to the autonomous communities and other local entities, always provided that they are performing non-commercial public services.

1.2.2. PREFERENTIAL RWYs

Except when some of the following conditions are present or expected:

- Dry, or wet RWY with braking action below good;
- Ceiling below 500' AAL;
- Visibility lower than 1.9km/1NM;
- Notified or forecast wind gradient or storms on approach or departure;
- Traffic conditions, operational needs, safety situations and the rest of meteorological conditions prevent it.

ATC will maintain the preferential configuration described as follows up to wind components of 10 KT tailwind, gusts included, and/or 20 KT crosswind.

Daytime configuration between 0700-2300LT

Preferential: West configuration parallel RWYs:

- Arrivals RWY 25R;
- Departures RWY 25L and 25R.

Non-preferential: East configuration parallel RWYs:

- Arrivals RWY 07L;
- Departures RWY 07R and 07L.

Whenever the traffic demand and the weather and operational conditions so permit, the preferential night time configuration may be extended (North configuration intersecting RWYs) beyond 0700LT or to advance it before 2300LT.

The use of RWY 25R is restricted to those ACFT that can justify the need for a RWY length longer than on RWY 25L, being mandatory to carry out a conventional departure procedure. The justification must be submitted to APT Operations within a period of 7 calendar days from the date of operation.

The use of RWY 07L for take-off is restricted to those ACFT that can justify the need for a RWY length longer than RWY 07R being mandatory to carry out a conventional departure procedure. The justification must be submitted to APT Operations within a period of 7 calendar days from the date of operation.

Nighttime configuration between 2300-0700LT

Preferential: North configuration crossed RWYs:

- Arrivals RWY 02;
- Departures RWY 07R.

Non-preferential: West configuration single RWY:

- Arrivals RWY 25L;
- Departures RWY 25L.

When RWY 02 cannot be used for arrivals, West configuration will be used.

Only as a last resort, East configuration with arrivals for RWY 07L will be used.

ATIS message will provide information of the configuration in use.

LEBL/BCN
EL PRAT

6 JUL 18

JEPPESEN

10-1P1

Eff 19 Jul

BARCELONA, SPAIN**AIRPORT BRIEFING**

1. GENERAL

Ambulance flights with a STS/MEDEVAC flight plan, rescue, State flights or flights servicing autonomous communities and other local authorities whenever they provide non-commercial public services previous request this from ATC, being mandatory to carry out a conventional departure procedure.

These flights are exempted from the restrictions and the justification.

1.2.3. RUN-UP TESTS

Run-up tests higher than idle regime may be accomplished at the engine test area established for such purpose:

- TWY T2 nosing to the West in parallel direction to RWY 07L/25R.
- TWY N1 nosing to the East in parallel direction to RWY 07L/25R.

1.3. LOW VISIBILITY PROCEDURES (LVP)

1.3.1. GENERAL

Pilots shall be informed about application of LVP via ATIS or RTF.

When appropriate, the following phrase shall be broadcast by ATIS:

- "Low Visibility Procedures in operation", if the procedures are applied in the whole maneuvering area.
- "Low Visibility measures for departing RWY in force", if the measures are applied only for the take-off RWY.

During LVP, CAT II/III operations on RWYs 07L/R and 25L/R, departures from RWYs 07L/R and 25L/R.

The RWY configurations available in low visibility conditions are:

- Parallel RWYs East and West configuration.
- Single RWYs 25R, 25L, 07R or 07L.

RWY 02/20 cannot be used in low visibility conditions.

LVP in the maneuvering area shall be applied when any of the following weather conditions exist:

- RWY 25R in use for ARR:
 - When RVR is 600m or below at any transmissometer of that RWY.
 - When ceiling is 250'/75m or below.
- RWY 25L in use for ARR:
 - When RVR is 800m or below at any transmissometer of that RWY.
 - When ceiling is 250'/75m or below.
- RWY 07R or 07L in use for ARR:
 - When RVR is 650m or below at any transmissometer of that RWY.
 - When ceiling is 300'/90m or below.

Low Visibility Take-off (LVTO) in parallel RWY operation, with RVR below 400m in the take-off RWY, LVP are applied only for the take-off RWY when the activation conditions of the criteria above for the arrival RWY have not been reached.

Any notified or detected incidence that might affect the LVP shall immediately be communicated to ACFT to take appropriate decisions.

Tower shall supply RWYs in use RVR directly, in accordance with the following order: RVR TDZ: TDZ; RVR MID: RWY MID POINT; RVR END: RWY end.

LEBL/BCN
EL PRAT**JEPPESEN**

3 AUG 18

(10-1P10)

Eff 16 Aug

BARCELONA, SPAIN

AIRPORT BRIEFING

2. ARRIVAL

2.7.4.2. TAXIING TO TERMINAL T2

Incorporation via TWYs K, J, E and S or T until gate indicated by ATC.

2.7.5. NORTH CONFIGURATION

2.7.5.1. TAXIING TO TERMINAL T1

Ramp 9:

Incorporation via TWYs U and S until gate indicated by ATC.

Ramps 10, 11, 12 and 16:

Incorporation via TWYs U, S until S7, E and N until gate indicated by ATC.

Ramps 13, 14, 15 and 17:

Incorporation via TWYs U, S until S7, E and J until gate indicated by ATC.

2.7.5.2. TAXIING TO TERMINAL T2

Incorporation via TWYs U and S until gate indicated by ATC.

2.8. COMMUNICATION FAILURE

When failure occurs during the missed APCH, do not initiate the missed APCH before the MAP.

Intercept the "MISSED APCH WITH LOST COMM" procedure on the corresponding approach chart and execute at least one holding with communications failures at

- SLL for RWYs 02, 07L and 25R;
- VIBIM for RWY 07R;
- RULOS for RWY 25L;

then accomplish a new APCH and land.

2.9. OTHER INFORMATION

Non-certified ACFT for RNAV arrival procedures or other ACFT unable to follow them, must await radar vectoring to follow the same path as the RNAV procedure.

LEBL/BCN
EL PRAT**JEPPESEN**
3 AUG 18**(10-1P11)****Eff 16 Aug****BARCELONA, SPAIN**
AIRPORT BRIEFING

3. DEPARTURE

3.1. APT-COLLABORATIVE DECISION MAKING (A-CDM)

3.1.1. DEFINITIONS

TOBT: Time at which the air carrier or the ground handling agent expects to be ready, with the doors closed, airbridge disconnected and ACFT push-back equipment connected.

TSAT: Estimated start-up time calculated based on the TOBT, taxi time from the stand, the CTOT (if subject to regulation) and the APT operational capacity.

3.1.2. GENERAL

The A-CDM processes start three hours prior to the estimated off-block time (EOBT) and end with ACFT take-off. Throughout the process, all flight-related information must be kept up-to-date.

To prevent flight plans from being suspended automatically, the EOBT and TOBT must be kept up-to-date until the request for start-up, following the TSAT, so that the traffic flow enables departure to occur as close to TTOT as possible.

3.1.3. APT SLOT AND FLIGHT PLAN VALIDATION

Three hours prior to EOBT, the flight plan (FPL) information filed in the A-CDM system will be validated with respect to the APT slot, and the flight destination and the type of ACFT must coincide with the EOBT of the FPL initially filed in both the SOBT.

3.1.4. TOBT ALLOCATION

As soon as the air carrier or the ground handling agent has the information on the TOBT, the TOBT shall be allocated in the A-CDM system.

Throughout the process, the TOBT must be updated based on the flight information available to the airline or the ground handling agent.

The EOBT must be in line with the TOBT at all times. If there is more than a 10 minute difference between the two, the system will generate an alarm and an automatic message will be sent to the air carrier and ground handling agent, who must update the TOBT and/or EOBT with a DLA delay message.

3.1.5. TSAT PUBLICATION

30 minutes prior to the TOBT, the system will generate a TSAT. This time will be updated (automatically) successively based on the actual start-up sequence, the operational situation and the volume of regulated flights in the sequence.

For regulated flights, the TSAT will be generated based on the CTOT as soon as it is published. Regulated flights must keep the TOBT and EOBT updated, until start-up clearance is requested from ATC.

3.1.6. START-UP

ACFT must be completely ready for start-up prior to making the call on the Clearance frequency. ACFT shall make a single call to BARCELONA Clearance on the CLR frequency within +/- 5 minutes of their TOBT to:

- Request start-up clearance and report the need for cross start-up if necessary;
- Indicate the ACFT type and series, stand and ATIS message received;
- Request delay information for start-up;
- Receive ATC Clearance; and
- Report possible restrictions in complying with local regulations (RNAV equipment, take-off performance, etc.).

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

10-1P12**Eff 26 Apr****BARCELONA, SPAIN****AIRPORT BRIEFING**

3. DEPARTURE

If possible, BARCELONA Clearance shall issue the start-up clearance along with the ATC Clearance. If not possible, CLR will enter the start-up request in the A-CDM system and will authorize such when the TSAT so allows. The start-up request entry in the system is equivalent to the ready-to-depart message (REA) for flights regulated with CTOT.

If the A-CDM parameters are not met, ATC will not enter the start-up request, and the pilot must contact the flight coordinator to correct the A-CDM parameters. BARCELONA Clearance shall not provide information on non-compliance in the A-CDM process, to prevent frequency overload.

To avoid saturating the CLR frequency, pilots shall refrain from making successive calls prior to receiving the call from BARCELONA Clearance to approve start-up in accordance with the updated TSAT.

In regulated flights with CTOT, start-up shall not be authorized between TSAT and TSAT +5 minutes to prevent CTOT non-compliance during taxiing, except as determined by ATC.

If BARCELONA Clearance has not received the start-up request within 5 minutes of TOBT, the flight will miss its TSAT and start-up will not be cleared. New updated TOBT and EOBt must be received for the flight to be sequenced again and to receive a new TSAT. The TOBT and/or EOBt may only be updated by the air carrier or the ground handling agent, so pilots shall refrain from making those requests to ATC.

3.1.7. PUSH-BACK

The push-back request must be submitted on the corresponding (GMC) frequency and begin within 5 minutes after the receipt of start-up clearance.

Push-back clearance is given by GMC only. At remote stands, the taxi request must be made no less than 10 minutes after receiving start-up clearance.

At all stands in contact with the terminal, engine start-up at more than idle speed is prohibited until the ACFT has completed the push-back and has been expressly authorized.

3.2. DE-ICING

3.2.1. GENERAL

An ACFT de-icing area has been established for ACFT up to 170'/52m wingspan on stands of Ramp 17 or Ramp 9 according to the hired handling agent.

In case of saturation in the stands of Ramp 17, a contingency de-icing position has been established in the TWY MS1 in Ramp 17. Guidance services with Follow-me vehicle shall be provided to ACFT needing to carry out the de-icing at TWY MS1.

The de-icing of ACFT with Code letter E or greater will be done on the stands where ACFT are parked.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

(10-1P13)

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING****3. DEPARTURE****3.2.2. OPERATION IN DE-ICING AREA**

When the pilot requests clearance to start up, the need for de-icing operation shall be reported. Start-up authorization may be cleared according to the operational needs and the sequence of requests for de-icing instead of TSAT (Target Start-up Approval Time).

Pilots shall maintain permanent watch on Tower (GND) frequency corresponding to the de-icing area [Tower (GND) S for Ramp 17 and Tower (GND) N for Ramp 9]. Once the de-icing operation is finished, the pilot shall notify on Tower (GND) frequency corresponding to the de-icing area that he is ready for departure and, when cleared, he shall leave the de-icing area as soon as possible.

Clearance to enter the de-icing area shall be granted once the previous ACFT has vacated it.

The pilot in command shall make sure that the ACFT is properly located on the stand in order to safeguard the movement of the de-icing equipments through the area.

De-icing operations of ACFT shall be carried out with the engines idling and ready to take-off, or with engines off using ACFT APU. For the de-icing operation of a 4-engines ACFT, the agent in charge of the de-icing operation may require the pilot to turn off some of the outer engines.

When an ACFT cannot leave the de-icing area under its own power, the operator responsible for it is obliged to remove it immediately from the mentioned area according to the established procedure with its handling agent.

An operator of the handling agent (or the company, if required by its own procedures) shall contact the pilot in command of the ACFT by means of JACK communication, reporting the de-icing service conclusion.

3.3. PUSH-BACK AND TAXI PROCEDURES**3.3.1. PUSH-BACK AND TAXIING**

ACFT must be ready for towed push-back or taxiing within the next 5 minutes to the approved start-up time; otherwise pilots shall contact ATC.

All ACFT with a wingspan of 170'/52m or above or an overall height at or above 48'/14.86m shall report ACFT type on the first call to BARCELONA Ground.

When ACFT is ready for push-back and/or taxiing, it shall request clearance on the taxiing frequency before starting the towing and/or taxiing.

Engine cross-bleed start must be requested from BARCELONA Ground.

3.3.2. PUSH-BACK DIRECTIONS

STANDS	PUSH-BACK WITH NOSE TO
95, 96, 181 thru 185	South
100 thru 102, 126 thru 129, 245, 246, 250, 252	East
138, 138A, 139, 284, 286	West
200, 202	West (compulsory if stand 200R is occupied)
217	Compulsory to North (continue to pull-forward for B777 ACFT)
220	It is forbidden to nose North for B737 ACFT.
277	Push-back to TWY J8 nosing West compulsory for A388 and B748 ACFT.
280	Compulsory West for Code D ACFT
290 thru 298	Compulsory to push back to TWY J10 by nosing West.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

10-1P14

Eff 26 Apr

BARCELONA, SPAIN

AIRPORT BRIEFING**3. DEPARTURE****3.3.3. TAKE-OFF FROM INTERSECTIONS AND START OF RWY 07L/25R**

Pilots who request take-off from start of RWY 07L or RWY 25R must inform ATC during the first contact with BARCELONA Ground. The standard intersections are: Y2, Y4, Z2, Z3 or Z4 for RWY 25R and Y5, Y6, Y7, Z5, Z6 or Z7 for RWY 07L.

On pilots request, ATC shall consider that the take-off distance available from intersection proposed is the minimum necessary for this particular ACFT.

3.4. STANDARD TAXI ROUTES**3.4.1. GENERAL**

Under normal conditions ACFT will taxi following the STANDARD TAXI ROUTES corresponding to the configuration in use.

Under certain circumstances, ATC may authorize an ACFT to shorten the standard route by crossing the RWY in use. In this case the crew must be in a position to accelerate the crossing of the RWY in use and may not taxi at low power ("reduced engine taxi"), notifying ATC otherwise.

3.4.2. EAST CONFIGURATION

Use Gate indicated by ATC, then taxi to TWY U, S, M, E, J, K to holding point RWY 07R.

3.4.3. WEST CONFIGURATION - PARALLEL RWY OPERATION**3.4.3.1. TAXIING FROM TERMINAL T1****Ramp 9:**

Use Gate indicated by ATC, then taxi to TWY S, M, E or D, K to holding position RWY 25L.

Ramp 10, 11, 12 and 16:

Use Gate indicated by ATC, then taxi to TWY M, E or D, K to holding position RWY 25L.

Ramp 13, 14, 15 and 17:

Use Gate indicated by ATC, then taxi to TWY K to holding position RWY 25L.

3.4.3.2. TAXIING FROM TERMINAL T2

Use Gate indicated by ATC, then taxi to TWY U, S, M, E or D, K to holding point RWY 25L.

3.4.4. WEST CONFIGURATION - SINGLE RWY OPERATION

Unless otherwise indicated by ATC, ACFT shall exclusively use TWYs G1 and G2 at the RWY 25L holding position.

3.4.4.1. TAXIING FROM TERMINAL T1**Ramp 9:**

Use gate indicated by ATC, then taxi via TWYs S until S7, D and K to holding position RWY 25L.

Ramps 10, 11, 12 and 16:

Use gate indicated by ATC, then taxi via TWYs M until M6, D and K to holding position RWY 25L.

Ramps 13, 14, 15 and 17:

Use gate indicated by ATC, then taxi via TWY K to holding position RWY 25L.

3.4.4.2. TAXIING FROM TERMINAL T2

Use gate indicated by ATC, then taxi via TWYs S until S7 or T until T6, D and K to holding position RWY 25L.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

(10-1P15)

Eff 26 Apr

BARCELONA, SPAIN
AIRPORT BRIEFING

3. DEPARTURE

3.4.5. NORTH CONFIGURATION

3.4.5.1. TAXIING FROM TERMINAL T1

Ramp 9:

Use gate indicated by ATC, then taxi via TWYs T until T8, E, J and K to holding position RWY 07R.

Ramps 10, 11, 12 and 16:

Use gate indicated by ATC, then taxi via TWYs M, E, J and K to holding position RWY 07R.

Ramps 13, 14, 15 and 17:

Use gate indicated by ATC, then taxi via TWYs J and/or K to holding position RWY 07R.

3.4.5.2. TAXIING FROM TERMINAL T2

Use gate indicated by ATC, then taxi via TWYs S until S7 or T until T8, E, J and K to holding position RWY 07R.

3.5. NOISE ABATEMENT PROCEDURES

For additional depiction refer to 10-4.

3.5.1. GENERAL

The following procedures have been established to avoid excessive noise in areas surrounding the APT.

Non-compliance may result in sanctions to ACFT operators.

Departure paths will be radar-monitored and noise level will be measured for each operation.

In addition to RWY configuration described in 1.2.2. and due to noise abatement, RWYs 02 and 20 shall not be used for take-off between 2300-0700LT, except for safety reasons or when explicitly cleared. The use of RWYs 25R and 07L for take-off between 2300-0700LT shall be restricted to ACFT that can justify the need for a RWY length higher than on RWYs 25L or 07R. The justification must be submitted to APT Operations as soon as possible.

Ambulance, rescue and State flights or flights servicing to Autonomous Communities and other Local Authorities whenever they provide non-commercial public services and request it to ATC are exempted from the restrictions and the justification.

3.5.2. TAKE-OFF

Except for safety reasons or ATC instructions based on the same reasons, ACFT must follow the nominal trajectory of SID until they have reached 6000' unless over the sea, above 3500' in ascent and moving away from the coastline or at more than 3NM from the coastline being parallel.

RNAV SIDs will preferably be adopted by ACFT able to reach the minimum altitudes at the relevant points on initial SID segments.

All ACFT which cannot comply with the previous instructions and ACFT flying in conventional SID, will adopt the ICAO NADP1 procedure.

RWY 25L: In order to avoid excessive noises at the RWY centerline extension and except for safety reasons, the initial turning prescribed in the SID will begin latest upon reaching 500'. For this purpose, the bank and speed restriction has been published on SID charts.

Do not overshoot BCN R-235 on initial turn.

ACFT may be exempted when using different procedures, which have been duly reported to APT management in advance, and proved to lead to a less acoustic impact, or due to properly justified safety reasons.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

(10-1P16)

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING**

3. DEPARTURE

3.6. RWY OPERATIONS**3.6.1. PROCEDURES FOR NON-PREFERENTIAL RWYS**

In segregated operations with West configuration (ARR25R/DEP25L), use of RWY 25R will be carried out as conventional departure procedure.

In segregated operations with East configuration (ARR07L/DEP07R), use of RWY 07L will be carried out as conventional departure procedure.

3.6.2. MINIMUM RWY OCCUPANCY TIMES

Pilots should be ready for departure when reaching the RWY holding position. On receipt of line-up clearance, pilots should ensure that they are able to taxi and line up on the RWY as soon as the preceding ACFT has commenced either its take-off run or landing roll.

Pilots, in receipt of a conditional line-up clearance on a preceding landing/departing ACFT (for example: "ABC123, behind the departing Prat Airlines A320, line up and wait RWY 25L, behind"), may cross the RWY holding position (subject to there being no illuminated stop bar) as soon as the preceding landing/departing ACFT has passed its position at the holding bay.

Pilots who require additional separation (due to wake turbulence or other reasons), shall notify ATC as soon as possible and before crossing the RWY holding point. Pilots should be able to commence the take-off run immediately when take-off clearance is issued. Pilots unable to comply with this requirement shall notify ATC as soon as possible and await instructions. When appropriate, ATC could cancel the clearance and instruct the ACFT to vacate the RWY.

The standard intersections to take-off from RWY 25R are: Y2, Y4, Z2, Z3 and Z4. From RWY 07L they shall be: Y5, Y6, Y7, Z5, Z6 and Z7.

Departures from the beginning of RWY 07L and RWY 25R are allowed (see 3.3.3.).

3.6.3. VISUAL DEPARTURE

When due to exceptional circumstances (cumulonimbus clouds, storms, etc.), traffics can not comply with the SID established for safety reasons, ACFT may request a "visual departure" from ATC.

They shall comply with the provisions of paragraph 6.5.4 of ICAO DOC 7030, under the following conditions:

- During the daytime.
- VMC conditions in the direction of take-off and initial climb to the MVA.
- The pilot shall be responsible for maintaining their own obstacle clearance margin.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

10-1P2

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING**

1. GENERAL

1.3.2. ARRIVAL

Landing clearance shall be issued when ILS sensitive areas (LSA) are free, usually before the approaching ACFT is at 2NM from the touchdown point. Landing clearance issue might be delayed before the ACFT is 1NM from the TDZ point, if the pilot has been advised that they will receive late clearance.

The exit from the RWY will be made by:

- ARR 07L: - Exit to the North: P1.
- Exit to the South: R1.

ARR 07R: G5.

ARR 25L: G8.

- ARR 25R: - Exit to the North: P6 except Code letter F ACFT that will accomplish this via Z6.
- Exit to the South: R6.

If, for performance reasons, ACFT cannot leave through these exits, it shall notify TWR in the first communication so that the appropriate lights can be switched on.

In case of incidence with ATS surveillance systems, ACFT may be instructed to notify 'LSA vacated'.

RWY 07L/25R: ACFT shall notify 'LSA vacated':

- if they exit to the North, when they stop seeing the last yellow light (from the series of alternating green and yellow lights) of the TWY centerline to the used RWY exit. In that position they will be at safety distance from TWY T and out of the LSA;
- if they exit to the South, once they have entered in TWY N or they have crossed it.

Unless otherwise specified by ATC, ACFT vacating the RWY will have priority over those taxiing in the vicinity.

1.3.3. GROUND MOVEMENT

Pilots shall proceed to verify at every moment the ACFT position, especially at intersections, checking that taxiing is being executed under conditions of complete safety.

Ground movement shall be carried out according to LOW VIS TAXI ROUTES charted on 10-9 series and based on available TWY lights.

Pilots shall base the continuity of taxiing on the possibility of following the green TWY centerline lights.

Ramp 31 shall not be usable when the LVP are in force.

The use of stands 245 thru 248 and 250 shall be restricted as far as possible. If any traffic parked in these positions request push-back, it shall be assisted by a signalman.

LEBL/BCN
EL PRAT

20 APR 18

JEPPESEN

10-1P3

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING**

1. GENERAL

1.3.4. ACFT ON TAKE-OFF

Pilots in command of the ACFT shall request start-up of engines from ATC with RVR values equal or above their take-off minima.

ACFT shall notify ATC of the need for guided take-off as soon as possible.

For departures on RWY 07L and 25R, pilots shall notify if they require exit from S1, M1 or Z8, when requesting taxiing clearance.

1.3.5. ANOMALOUS SITUATION IN MANEUVERING AREA**Uncertainty regarding Position in the Maneuvering Area**

If a pilot is in doubts about the position of the ACFT relative to the maneuvering area, or stops seeing green TWY centerline lights, he shall immediately stop the ACFT and notify ATC of these circumstances (including the last known position).

In situations where the pilot doubts about the position of the ACFT relative to the maneuvering area, but he recognizes that the ACFT is on a RWY, the pilot shall immediately notify ATC (including the last known position) of this circumstance. He shall evacuate the RWY as soon as possible if he is able to locate appropriate TWY nearby, unless otherwise specified by ATC. Then he shall stop the ACFT.

If ATC is aware that an ACFT has lost the position on the maneuvering area, or is unsure of its position, appropriate measures to safeguard operations will be taken to assist the ACFT to determine its position.

Loss of Visual Contact between moving ACFT or moving Vehicles

In event of loss of visual contact of an ACFT with other ACFT or a vehicle with which is maintaining its own appropriate separation, the ACFT will immediately inform ATC and will stop. ATC will take the measures it deems fit.

Aircraft Failure

ACFT shall notify the situation to ATC and shall wait for the arrival of assistance. In case it is on a RWY, if possible and unless otherwise specified by ATC, it shall evacuate it.

1.3.6. COMMUNICATION FAILURE

Departing ACFT shall continue on the assigned route to stop at the limit of an ATC clearance, taking extreme caution, where it shall hold its position and wait for the arrival of an assistance vehicle.

If arriving ACFT has just landed, it shall hold position to vacate the sensitive area (LSA) and shall wait for the arrival of an assistance vehicle.

If the ACFT already holds an ATC taxiing clearance, it shall continue with extreme caution on the assigned route to the ATC clearance limit, where it shall hold its position and wait for the arrival of an assistance vehicle.

LEBL/BCN
EL PRAT**JEPPESEN**

3 AUG 18

10-1P4

Eff 16 Aug

BARCELONA, SPAIN
AIRPORT BRIEFING**1. GENERAL****1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM****1.4.1. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON GROUND**

ACFT operators shall ensure that Mode S transponders are able to operate when ACFT is on the ground.

Pilots shall:

Select AUTO mode and assigned Mode A code. If AUTO mode is not available, select ON (e.g. XPDR) and assigned Mode A code

- From request for towed push-back or taxi, whichever is earlier;
- After landing, continuously until ACFT is fully parked on stand;
- When fully parked on stand, select STBY.

Whenever ACFT is capable of reporting ACFT ident (i.e. call sign used in flight), this should also be entered (by means of the FMS or the transponder control panel) from request for towed push-back or taxi, whichever is earlier. Aircrew must use ICAO defined format to enter the ACFT ident (e.g. BAW123, AFR6380,...).

In order to ensure that performance of systems based on SSR frequencies (including airborne TCAS units and SSR radar) is not affected, TCAS shall not be activated before receiving the clearance to line-up and wait, and should be deselected after vacating the RWY.

For ACFT taxiing without flight plan, Mode A code 2000 should be selected.

1.5. TAXI PROCEDURES**1.5.1. GENERAL**

TWY BN restricted to MAX Code B ACFT.

TWYs L12 thru L14 and Q9 restricted to MAX Code D ACFT.

TWYs ES1, FS1, GS1, HS1, LS1, MS1 and Q10 restricted to MAX Code C ACFT.

TWYs B, L and Q are used to access to stand.

TWYs B6 thru B11, G3, G10, L8 thru L11 and P2, P6, P7, Q7, Q8, U3R and U4 thru U7 restricted to MAX Code E ACFT.

ACFT shall approach the RWY holding positions and intermediate holding positions as closely as possible. Pilots taxiing behind an ACFT stopped at a RWY holding position or intermediate holding position are responsible for keeping a safe distance from it. If there is any doubt as to whether an ACFT positioned at a RWY holding position or intermediate holding position may be overtaken safely, the taxiing ACFT shall halt, notify ATC and request alternate instructions.

1.5.2. STANDARD TAXI ROUTES

Reference is made to the general directions of taxiing expected as determined by the normal configurations. In any case, pilots shall follow taxiing instructions provided by ATC.

1.5.2.1. EAST CONFIGURATION

Arrival RWY is 07L, departure RWY is 07R.

General taxiing direction on TWY E is South.

General taxiing direction on TWYs J, K, N and S is West.

General taxiing direction on TWY M is East.

General taxiing direction on TWY T is bidirectional.

1.5.2.2. WEST CONFIGURATION - PARALLEL RWY OPERATION

Arrival RWY is 25R, departure RWY is 25L.

General taxiing direction on TWYs D and E is South.

General taxiing direction on TWYs J and S is West.

General taxiing direction on TWYs K and M is East.

General taxiing direction on TWYs N and T is bidirectional.

LEBL/BCN
EL PRAT**JEPPESEN**

3 AUG 18

10-1P5

Eff 16 Aug

BARCELONA, SPAIN**AIRPORT BRIEFING****1. GENERAL****1.5.2.3. WEST CONFIGURATION - SINGLE RWY OPERATION**

Arrival RWY is 25L, departure RWY is 25L.

General taxiing direction on TWYs N and T is West.

General taxiing direction on TWYs J, K, M and S is East.

General taxiing direction on TWY E is North.

General taxiing direction on TWY D is South.

1.5.2.4. NORTH CONFIGURATION

Arrival RWY is 02, departure RWY is 07R.

General taxiing direction on TWYs J, K, N and S is West.

General taxiing direction on TWYs M and T is East.

General taxiing direction on TWY E is South.

1.5.2.5. CODE E & F ACFT TAXI PROCEDURES

Code F ACFT must taxi with its external engines idling on TWYs M16, T3 thru T14, S14, U1, U2, U3L and UB.

The movement of Code E or F ACFT must be made with "oversteering" maneuver between TWY S and T and between TWY J and K through TWY PS or QS.

Code F ACFT shall taxi following the standard routes to access to stands.

There are some TWYs with taxiing restrictions for Code F ACFT (certified to Code E ACFT), due to less distance to an object or TWY width (see chart 10-9A1).

On TWYs with restrictions, ACFT shall not leave the TWY centerline.

Code E ACFT or greater will take off via RWY 20 from TWY U3L only.

1.6. PARKING INFORMATION**1.6.1. GENERAL**

Stands 100 thru 101A, 103 thru 113A, 115 thru 129, 200 thru 222, 226 thru 246, 248 thru 286 and 295 equipped with Visual Docking Guidance System.

Access and exit to/from stand 214 for ACFT with wingspan of 171'/52m or more shall be exclusively performed via gate CS.

1.6.2. PUSH-BACK

Push-back required on stands 1 thru 15, 22 thru 38, 42 thru 49, 55 thru 57, 95 thru 129, 136 thru 139, 181 thru 200 and 202 thru 298.

1.6.3. AUXILIARY POWER UNIT (APU)**Stands in contact with Terminal:**

The use of APT 400 Hz facilities is obligatory. The use of air-conditioning facilities will be obligatory when the ACFT air conditioning is needed. The use of APU is forbidden on these stands between 2 minutes after on-block time and 5 minutes before off-block time. Use APU only when fixed units are not operational and mobile units are not available.

Remote stands:

The use of APU is forbidden except 10 minutes after block time for arrivals and 10 minutes before off-block time for departures; however wide fuselage ACFT may be permitted to use APU 50 minutes before departure and 15 minutes after arrival. The ACFT APU will only be used when the mobile units are not operative.

1.7. OTHER INFORMATION

Birds.

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EL PRAT**JEPPESEN**

20 APR 18

10-1P6

Eff 26 Apr

BARCELONA, SPAIN
AIRPORT BRIEFING

2. ARRIVAL

2.1. SHORT COMMUNICATION PROCEDURE

In transfers of communications from the sectors of Barcelona, to BARCELONA Approach, the initial call shall be limited to the flight callsign to avoid congestion on the frequency:

"Approach + Aeroflot 321"

2.2. SPEED RESTRICTIONS

2.2.1. SPEED ADJUSTMENTS UNDER RADAR CONTROL

- 250 KT at SLP.

Speed adjustments on approach:

- Speed will not be reduced below 160 KT until reaching 4NM to THR.
- ACFT with a cruising speed lower than the mentioned above shall maintain cruising speed up to the adjusting fix concerned.

ATC shall be informed of the speeds that may be maintained, if unable to comply with the speed adjustments above.

ACFT will be exempted from the accomplishment with those speed limits when they are carrying out an instrument arrival continuous descent (CDA) procedure.

2.3. NOISE ABATEMENT PROCEDURES

2.3.1. GENERAL

The following procedures have been established to avoid excessive noise in areas surrounding the APT.

Non-compliance may result in sanctions to ACFT operators.

Arrival paths will be radar monitored and noise level will be measured for each operation.

In addition to RWY configuration described in 1.2.2. and due to noise abatement, RWY 07R shall not be used for landings between 2300-0700LT, except for safety reasons or when explicitly cleared. The use of RWY 25R for landings between 2300-0700LT shall be restricted to ACFT that can justify the need for a RWY length longer than on RWYs 25L or 07R. The justification must be submitted to APT Operations within a period of 7 calendar days from the date of operation.

Ambulance flights with a STS/MEDEVAC flight plan, rescue and State flights or flights servicing to autonomous communities and other local authorities whenever they provide non-commercial public services and request it to ATC are exempted from the restrictions and the justification.

Plan descent to leave the IAF, or equivalent position, at FL 70 or above to execute an uninterrupted descent to RWY, using a low resistance/thrust procedure. Accomplish changes of ACFT configuration and speed reductions gradually and at an adequate altitude to avoid unnecessary power increases at low height.

The final approach paths are considered noise abatement routes on the last 5NM before THR, thus, landing and approach operations in visual meteorological conditions will intercept the final approach before this point and will be performed with an angle equal to or higher than the ILS GP or PAPI of each RWY. Visual approaches in Left circuit to RWYs 07L/R will not be allowed, and nor shall visual approach in Right circuit to RWY 07L and RWYs 25L/R if these criteria are infringed.

2.3.2. REVERSE THRUST

The use of reverse thrust above idle is forbidden on RWYs 07L/25R and 02 between 2300-0700LT except for safety reasons. In this case it must be notified to the Environment Department of the APT as soon as possible. On RWYs 07R/25L it is not recommended to use reverse thrust above idle between 2300-0700LT.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

10-1P7

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING****2. ARRIVAL****2.4. RNAV 1 TRANSITION TO FINAL APPROACH****2.4.1. GENERAL**

These procedures are published with the requirement of RNAV 1 navigation.

Vectoring guidance will be provided to traffic which cannot comply with the requirement of RNAV 1 navigation, inserting into the sequence of the rest of the traffic equipped with RNAV 1. If it were necessary, may be cleared to hold in the published conventional holding patterns over the IAF.

The operation mode will be based on the indicated transitions. An operation mode based on vectors from the IAF will be used only due to adverse meteorological conditions or a global failure of the systems enabling RNAV 1 navigation.

If the failure occurs on a specific ACFT, the pilot must notify ATC as soon as possible of the loss of the RNAV capability, together with their proposal for actions to be taken.

The usual operation mode will be the following:

- Traffic bound for LEBL will be cleared by the first sector of Barcelona TMA to the appropriate transition, although later it may not have to fly it in its entirety otherwise, it shall execute the holding patterns.
- The possible cuts along the transition will be provided by the different sectors of Barcelona TMA through instructions of "Direct to" (DCT). As a result of this, if an ACFT has been instructed to proceed directly to a fix of a specific transition, it shall understand that it must follow the transition procedure from this fix.
- The speed restrictions published in the transition will be mandatory unless ATC should issue clearance to the contrary.
- The last instructions to intercept the final path will be provided by the final sector of Barcelona through the use of vectors to the LOC.
- Traffic will not turn into the final approach without the ATC clearance. If an ACFT arrives at the end of the outbound leg and has not received instructions, it must maintain its heading.
- In the transition clearance the RWY in service may be omitted because each designator is associated with only one RWY.

2.4.2. COMMUNICATION FAILURE

Continue with the transition descending to the last read-back level. Overfly the last fix of the outbound leg and maintain the track for 2 minutes. Turn into the inbound leg and begin the descent to complete an instrument approach procedure to the RWY in service.

2.5. CAT II/III OPERATIONS

RWYs 07R/07L and 25R/25L approved for CAT II/III operations; special aircrew and ACFT certification required.

2.6. RWY OPERATIONS**2.6.1. GENERAL****2.6.1.1. NORTH CONFIGURATION**

ACFT shall preferably vacate RWY 02 via TWY UB and inform ATC if exit by the RWY end is needed.

2.6.1.2. WEST CONFIGURATION

ACFT landing by RWY 25L shall inform ATC if vacated by RWY end is needed.

LEBL/BCN
EL PRAT**JEPPesen**

20 APR 18

(10-1P8)

Eff 26 Apr

BARCELONA, SPAIN**AIRPORT BRIEFING****2. ARRIVAL****2.6.2. MINIMUM RWY OCCUPANCY TIME**

Commensurate with the ACFT safety and standard operation, pilots in command are reminded, that rapid vacate of the RWY enables maximum RWY utilization, lessens its occupancy time and minimizes the occurrence of "go-arounds".

Unless ATC advises otherwise, ACFT will vacate the corresponding RWY by the following rapid exit TWYs:

RWY	Rapid Exit	ACFT	Dist from THR
07L	P1	all	6115' (1864m)
	R1	all	5449' (1661m)
	P2	light & medium	4282' (1305m)
	R2	light & medium	3448' (1051m)
	P4	light	3100' (945m)
	R4	light	2464' (751m)
07R	G4	all	6736' (2053m)
	G5	all	5587' (1703m)
	G6	light & medium	4600' (1402m)
25L	G9	all	6736' (2053m)
	G8	all	5587' (1703m)
	G7	light & medium	4600' (1402m)
25R	P6	all	6929' (2112m)
	R6	all	6736' (2053m)
	R5	all	5587' (1703m)
	P5	light & medium	5305' (1617m)
	R3	light & medium	4623' (1409m)
	P3	light & medium	4183' (1275m)

Or else, the following exit TWYs to vacate the corresponding RWY:

RWY	Rapid Exit	ACFT	Dist from THR
02	UB	all	6690' (2039m)
25R	P7	all	10,223' (3116m)

In intersecting operations, ACFT unable to leave RWY 07L before crossing RWY 02/20 shall maintain constant speed in order to speed up crossing the RWY and vacate via TWY R1 if parking stand is at Terminal T1 or via TWY P1 if parking stand is at Terminal T2.

In intersecting operations, ACFT landing on RWY 25R or 25L shall maintain speed to speed up the crossing with RWY 20 or its extension.

HIRO (High Intensity Runway operations) in force with at least 10km visibility, good braking action, dry RWY and no wind shear or storm notifications. Minimum separation between arriving ACFT reduced below 3NM. Vacating the RWY as soon as possible is mandatory for all arriving ACFT.

LEBL/BCN
EL PRAT**JEPPESEN**

20 APR 18

10-1P9

Eff 26 Apr

BARCELONA, SPAIN

AIRPORT BRIEFING

2. ARRIVAL

2.7. TAXI PROCEDURES**2.7.1. GENERAL**

When vacating RWY, if taxiing instructions have not been received, ACFT shall stop at the end of exit TWY segment.

To reduce the risk of RWY incursions, pilots should follow the green TWY center-line lights (when they are switched on). If losing this visual reference, pilots must stop taxiing, notify their position and request instructions from ATC. Taxi instructions shall include clearance to cross active and non-active RWYs. If clearance is not received, ACFT shall hold at the holding position of the appropriate RWY.

2.7.2. EAST CONFIGURATION**2.7.2.1. TAXIING TO TERMINAL T1**

ACFT shall vacate RWY 07L and follow ATC instructions depending on their stand.

Ramp 9:

To the North and follow ATC instructions.

Ramps 10, 11, 12 and 16:

To the South and via TWY N until gate indicated by ATC.

Ramps 13, 14, 15 and 17:

To the South and via TWYs N, E and J until gate indicated by ATC.

2.7.2.2. TAXIING TO TERMINAL T2

ACFT shall vacate RWY 07L to the North and follow ATC instructions.

2.7.3. WEST CONFIGURATION - PARALLEL RWY OPERATION**2.7.3.1. TAXIING TO TERMINAL T1**

ACFT shall vacate RWY 25R and follow ATC instructions corresponding on their stand.

Ramp 9:

To the North and follow ATC instructions.

Ramps 10, 11, 12 and 16:

To the South and via TWY N until gate indicated by ATC.

Ramps 13, 14, 15 and 17:

To the South and via TWY N, E and J until gate indicated by ATC.

2.7.3.2. TAXIING TO TERMINAL T2

ACFT shall vacate RWY 25R to the North and follow ATC instructions.

2.7.4. WEST CONFIGURATION - SINGLE RWY OPERATION**2.7.4.1. TAXIING TO TERMINAL T1****Ramp 9:**

Incorporation via TWYs K, J, E and S until gate indicated by ATC.

Ramps 10, 11, 12 and 16:

Incorporation via TWYs K, J, E and N until gate indicated by ATC.

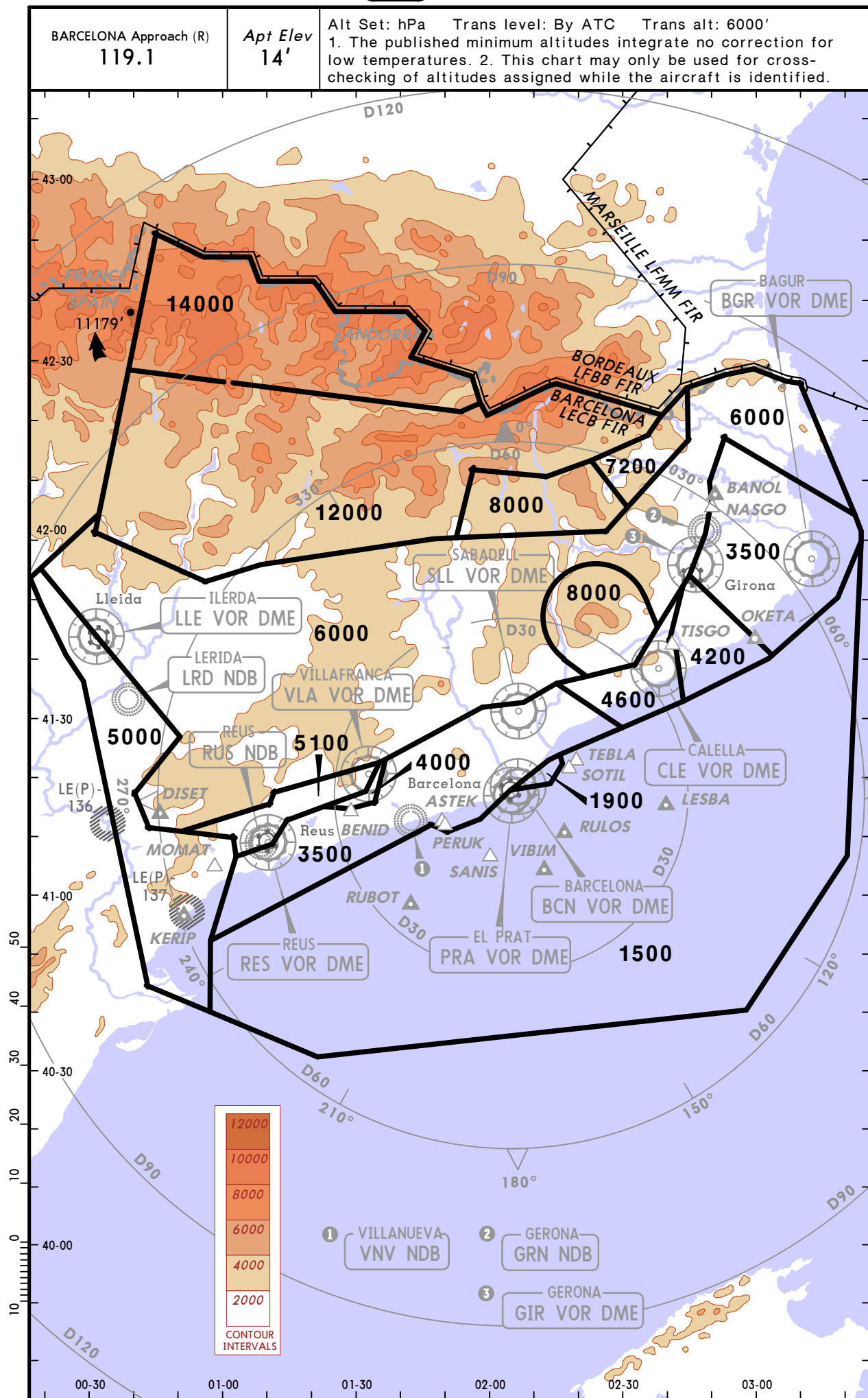
Ramps 13, 14, 15 and 17:

Incorporation via TWY J towards West or TWYs K and J towards East until gate indicated by ATC.

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22 AUG 14 (10-1R)

BARCELONA, SPAIN

RADAR MINIMUM ALTITUDES



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EL PRAT **JEPPESEN**
18 MAY 18 **10-2** **Eff 24 May****BARCELONA, SPAIN****STAR**

RNAV STAR DESIGNATION	REFER TO CHART
BISBA 1W, VERSO 2E, 1N	10-2B
BISBA 2Y	10-2C
MARTA 2E, 2N, 1W	10-2D
NEPAL 2N, 1X	10-2E
CASPE 1Z, MATEX 1W	10-2E1
MATEX 2E, 2N	10-2F
STAR DESIGNATION	REFER TO CHART
ALBER 2N, PUMAL 1X	10-2G
ALBER 1X, PUMAL 3N	10-2G1
ALBER 1E, PUMAL 1E	10-2G2
ALBER 1W, PUMAL 1W	10-2H
PUMAL 1Y	10-2J
BISBA 1E	10-2K
BISBA 4N	10-2L
BISBA 1X	10-2M
BISBA 1Z	10-2N
OSTUR 1E, 1N, 1W, VERSO 1W	10-2P
MARTA 1Y, NEPAL 1E	10-2Q
MARTA 1Z, NEPAL 1W	10-2S
CASPE 1E, 1Y, MATEX 1Y	10-2T
CASPE 2N	10-2T1
CASPE 1W, MATEX 1Z	10-2T2
GRAUS 1E, 1Y, LOBAR 1E, 1Y	10-2T3
GRAUS 2X, LOBAR 2X	10-2T4
GRAUS 1W, LOBAR 1W	10-2T5

FOR CDAs REFER TO CHART 10-2A

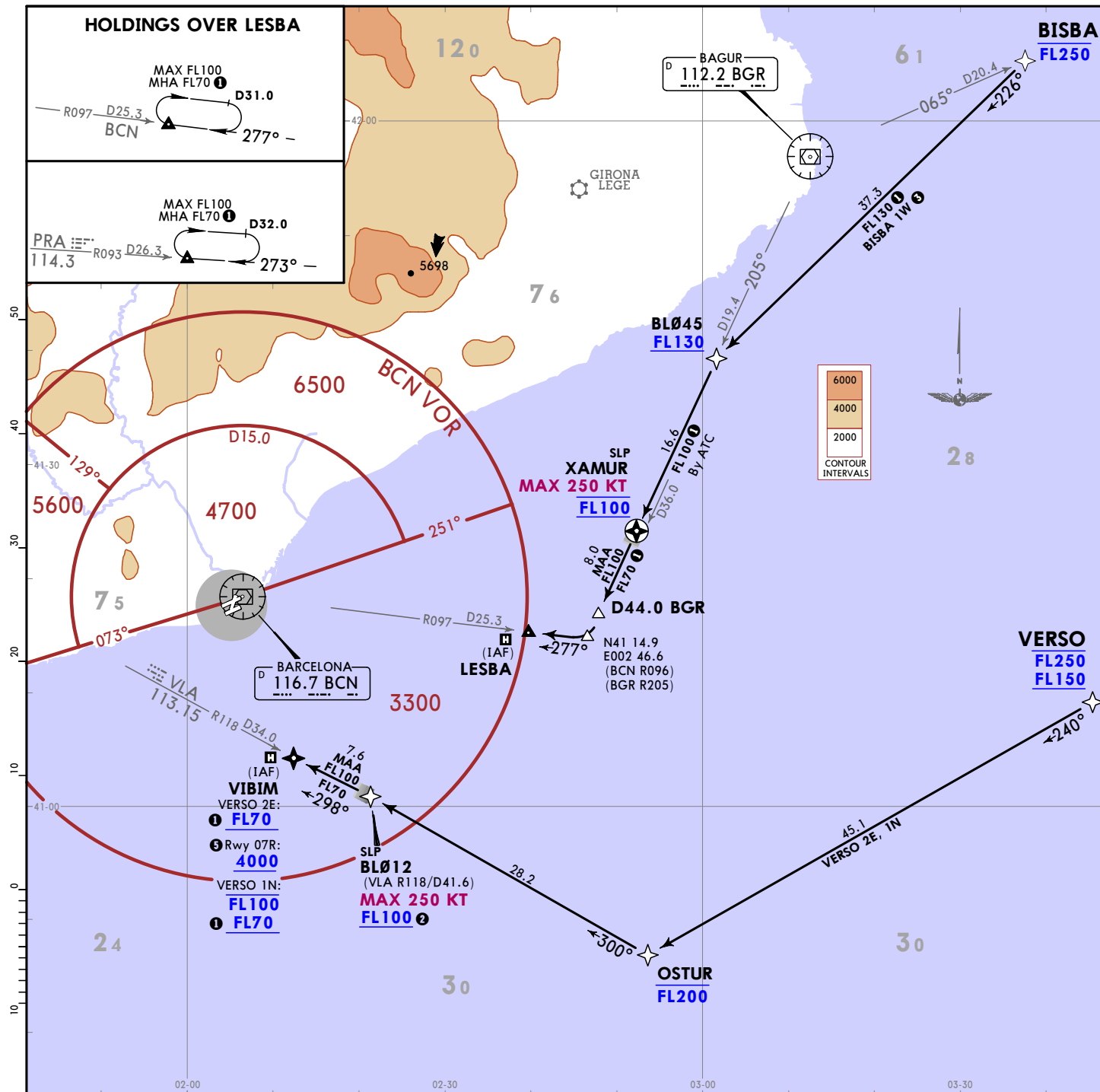
LEBL/BCN
EL PRAT **JEPPESEN**
18 MAY 18 **(10-2A)** **Eff 24 May****BARCELONA, SPAIN****STAR**

RNAV STAR (CDA) DESIGNATION	REFER TO CHART
BISBA 1K, 1L, VERSO 2G, 2J	10-2T6
MARTA 2G, 2J, 1L	10-2U
CASPE 1M, MATEX 1L	10-2V
MATEX 2G, 2J, NEPAL 2G, 1H	10-2V1
STAR (CDA) DESIGNATION	REFER TO CHART
ALBER 2G, PUMAL 1H	10-2V2
ALBER 1H, PUMAL 2G	10-2V3
ALBER 2J, PUMAL 2J	10-2V4
ALBER 1L, PUMAL 1L	10-2V5
BISBA 2G	10-2V6
BISBA 1H	10-2V7
BISBA 2J	10-2V8
BISBA 1M	10-2W
OSTUR 1G, 1J, 1L, VERSO 1L	10-2X
MARTA 1K, NEPAL 1J	10-2X1
MARTA 1M, NEPAL 1L	10-2X2
CASPE 1J, 1K, MATEX 1K	10-2X3
CASPE 2G	10-2X4
CASPE 1L, MATEX 1M	10-2X5
GRAUS 1J, 1K, LOBAR 1J, 1K	10-2X6
GRAUS 2G, LOBAR 2G	10-2X7
GRAUS 1L, LOBAR 1L	10-2X8

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LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
18 MAY 18 10-2B Eff 24 May RNAV STAR



D-ATIS 118.650	Apt Elev 14	Alt Set: hPa Trans level: By ATC
BISBA 1W [BISB1W] RNAV (DME/DME) P-RNAV APPROVAL REQUIRED VERSO 2E [VERS2E] ① VERSO 1N [VERS1N] ① RNAV 1 REQUIRED RNAV ARRIVALS ■ SLP Speed Limit Point		
① 4000 by ATC ② VERSO 2E: 4000 by ATC ③ Between BISBA & BL045 possible failure of DME/DME coverage below FL80. ④ Non-RNAV 1 traffic: Request RADAR assistance to VIBIM.		
▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST ⑤ In case of communication failure. LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ WARNING Do not proceed beyond IAF without ATC clearance.		
HOLDING OVER VIBIM VLA 113.15 R118 D34.0 MAX FL100 MHA FL70 ② D39.0		
STAR	RWY	ROUTING
BISBA 1W	25L/R	BISBA (FL250-) - BL045 (FL130+) - XAMUR (K250-; FL100) - on BGR R205 to D44.0 BGR, turn RIGHT, intercept BCN R097 inbound to LESBA.
VERSO 2E	07L/R	VERSO (FL250-; FL150+) - OSTUR (FL200-) - BL012 (K250-; FL100+) - VIBIM (FL70+; ⑤ RWY 07R: 4000+).
VERSO 1N	02	VERSO (FL250-; FL150+) - OSTUR (FL200-) - BL012 (K250-; FL100+) - VIBIM (FL100-; FL70+).

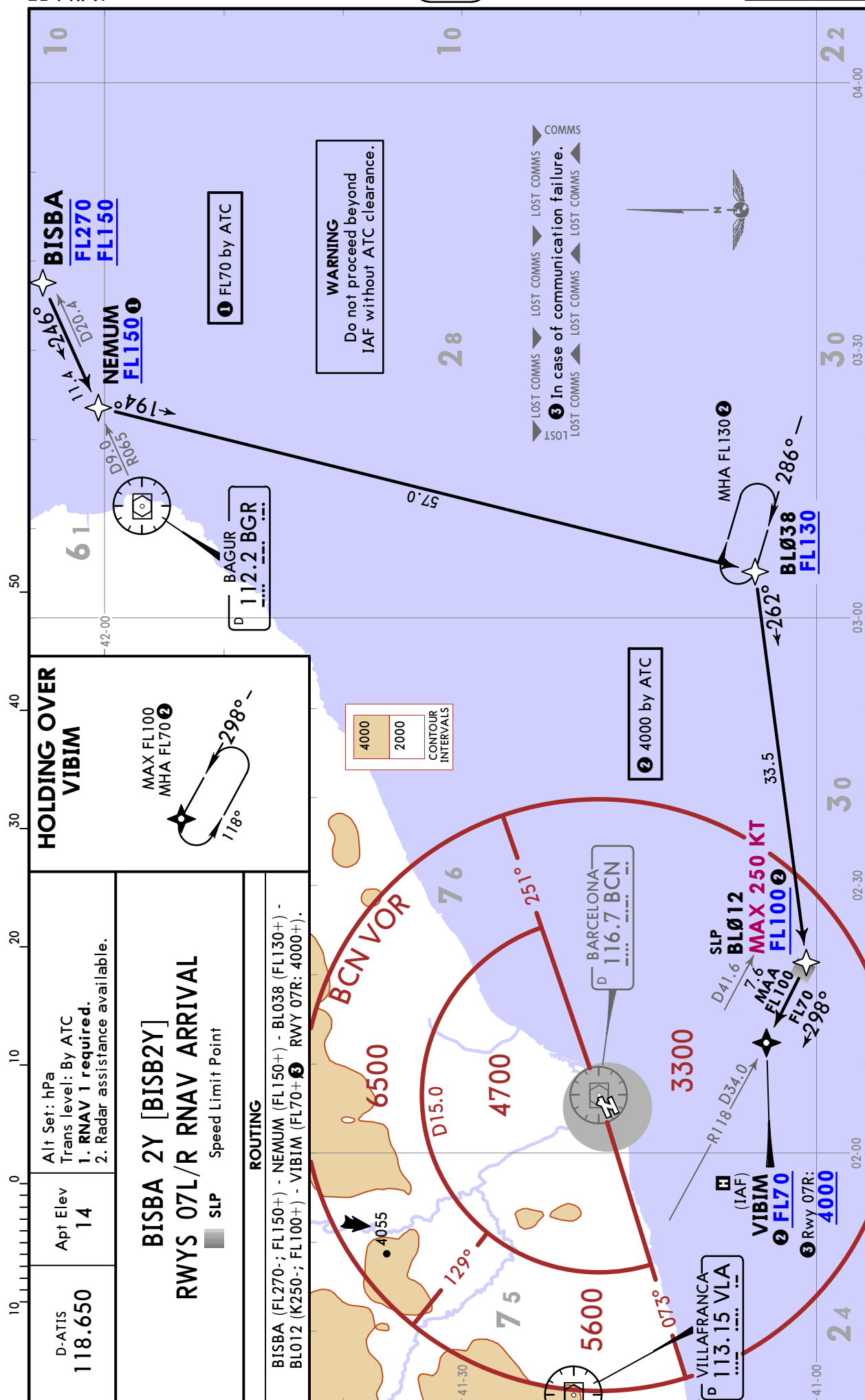
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN

Eff 24 May

BARCELONA, SPAIN

RNAV STAR

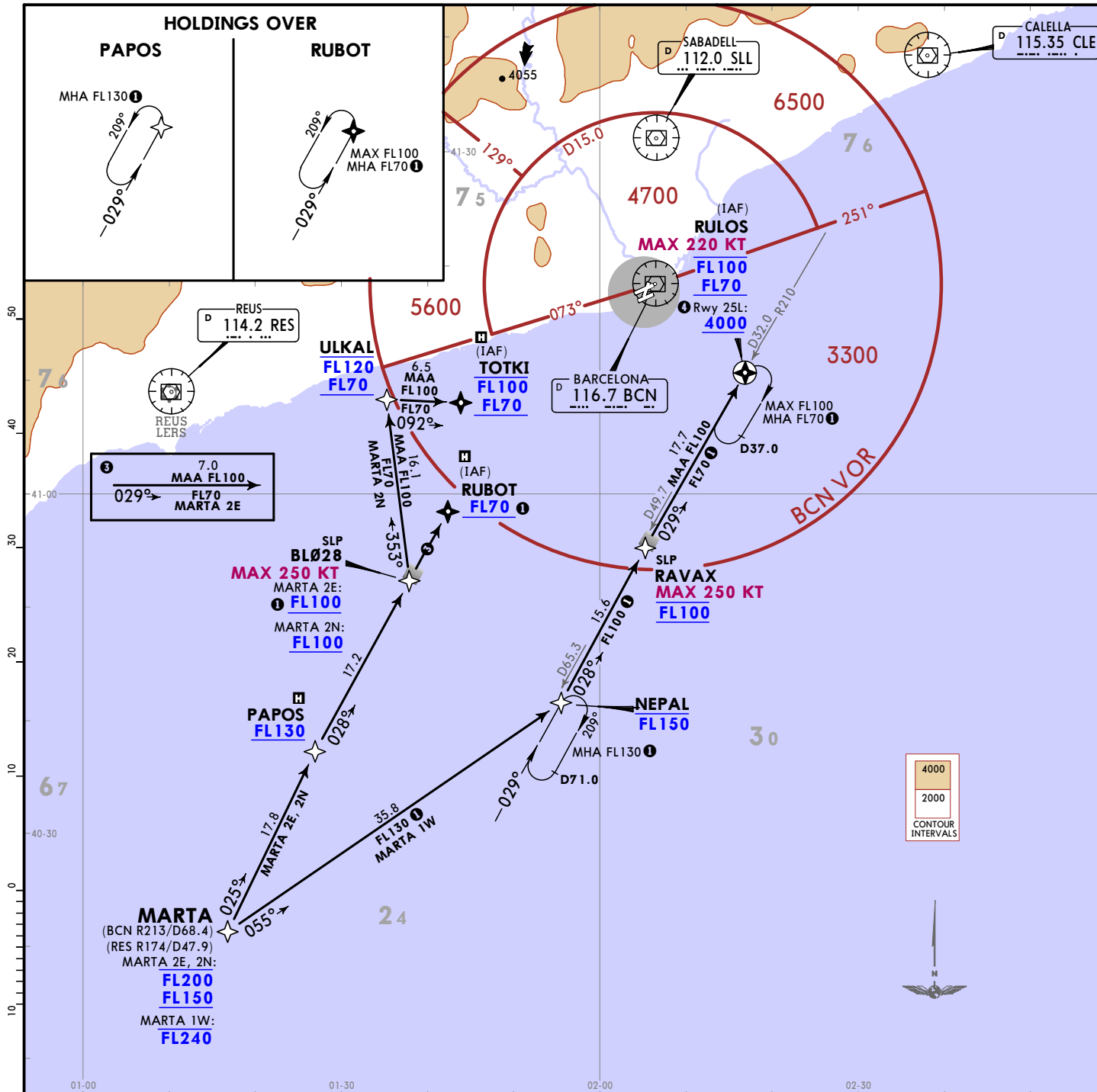
CHANGES: None.

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LEBL/BCN
EL PRAT

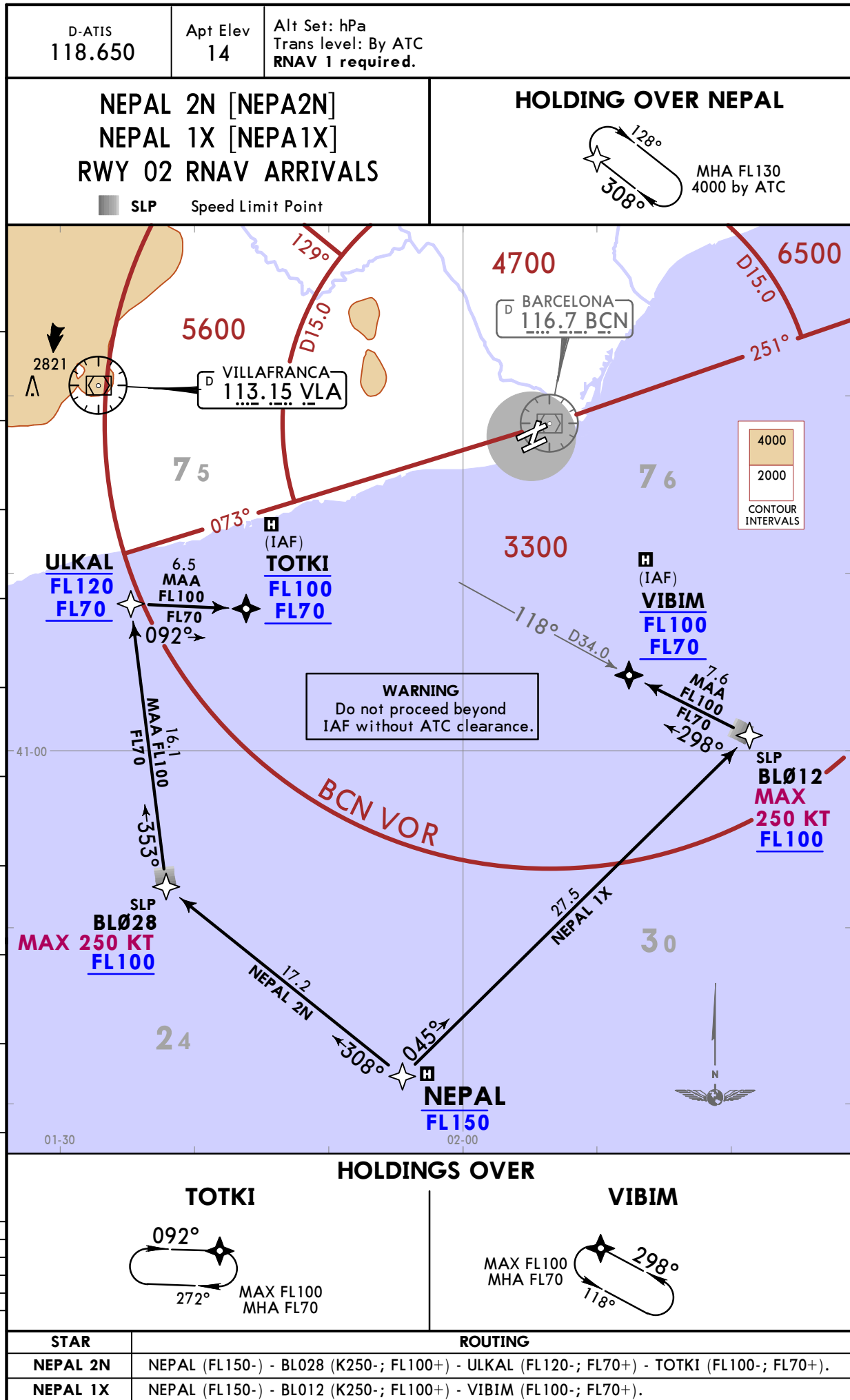
JEPPESEN BARCELONA, SPAIN

18 MAY 18 (10-2D) Eff 24 May RNAV STAR



CHANGES: RNAV STAR MARTA 1N renumbered 2N & revised.

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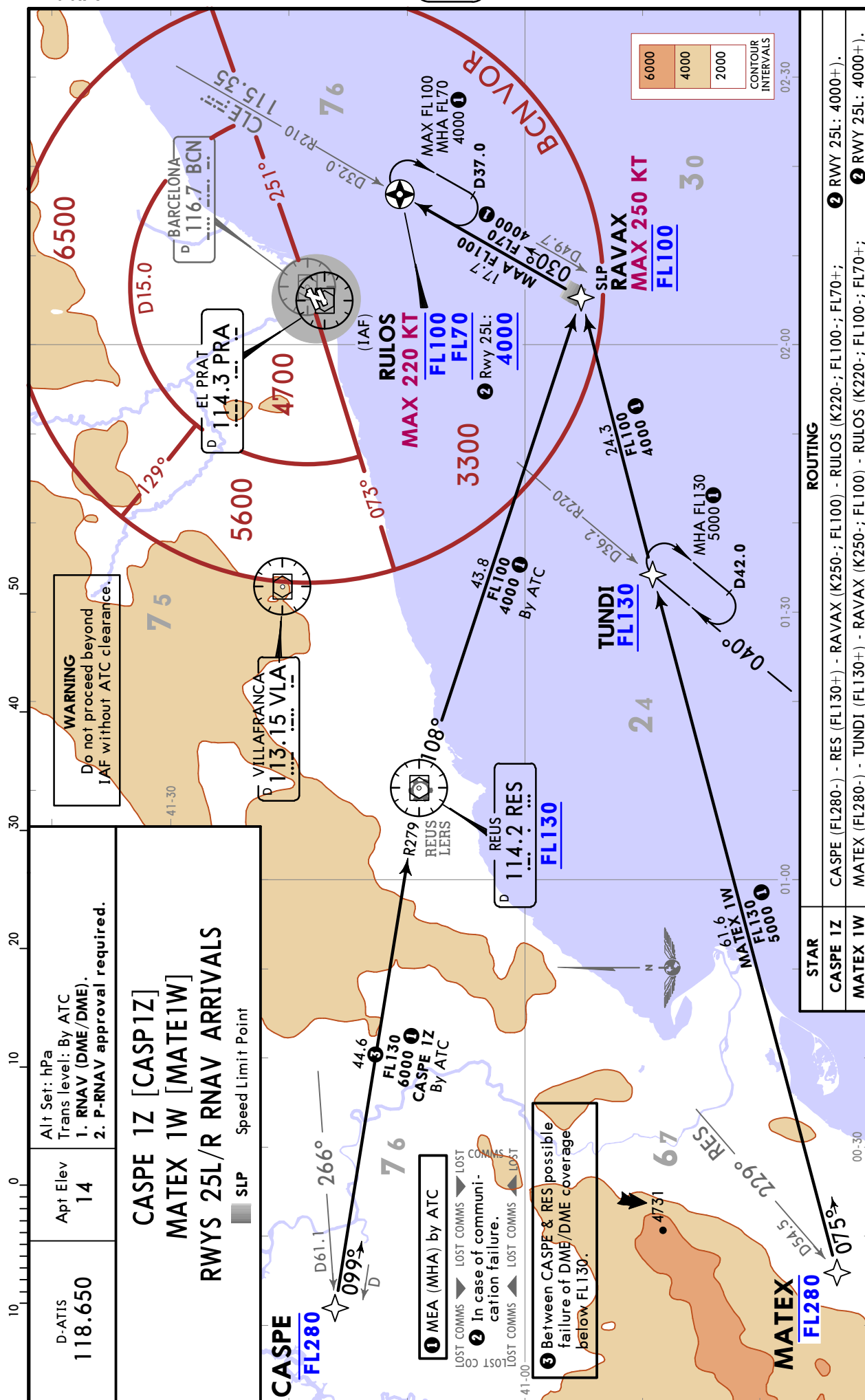
LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (10-2E) Eff 24 MayBARCELONA, SPAIN
RNAV STAR

LEBL/BCN
EL PRAT

6 JUL 18

JEPPESSEN**Eff 19 Jul**

BARCELONA, SPAIN

RNAV STAR

CHANGES: Reissue.

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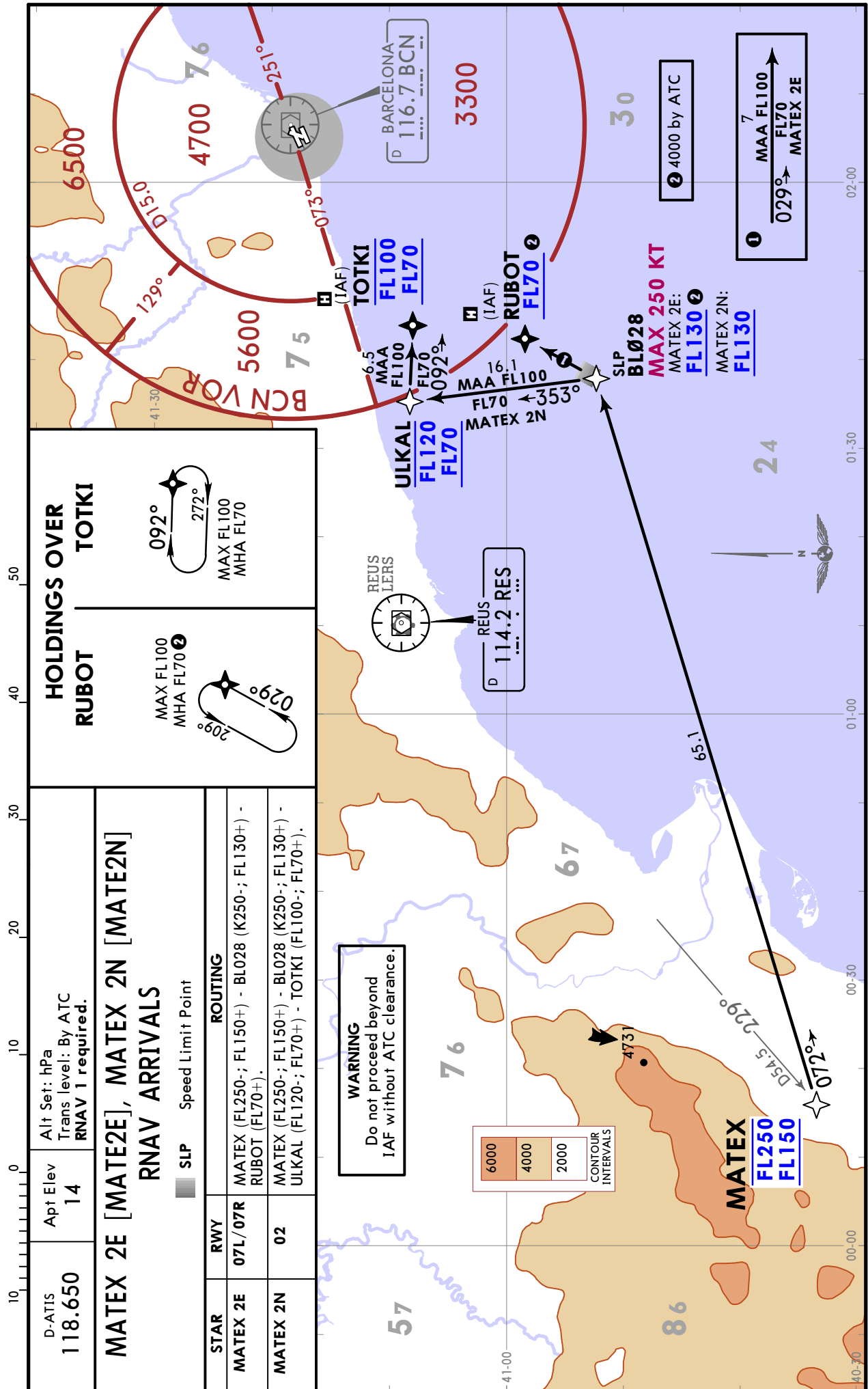
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN
10-2F Eff 24 May

BARCELONA, SPAIN

RNAV STAR



LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN

BARCELONA, SPAIN

STAR

D-ATIS
118.650

Apt Elev
14

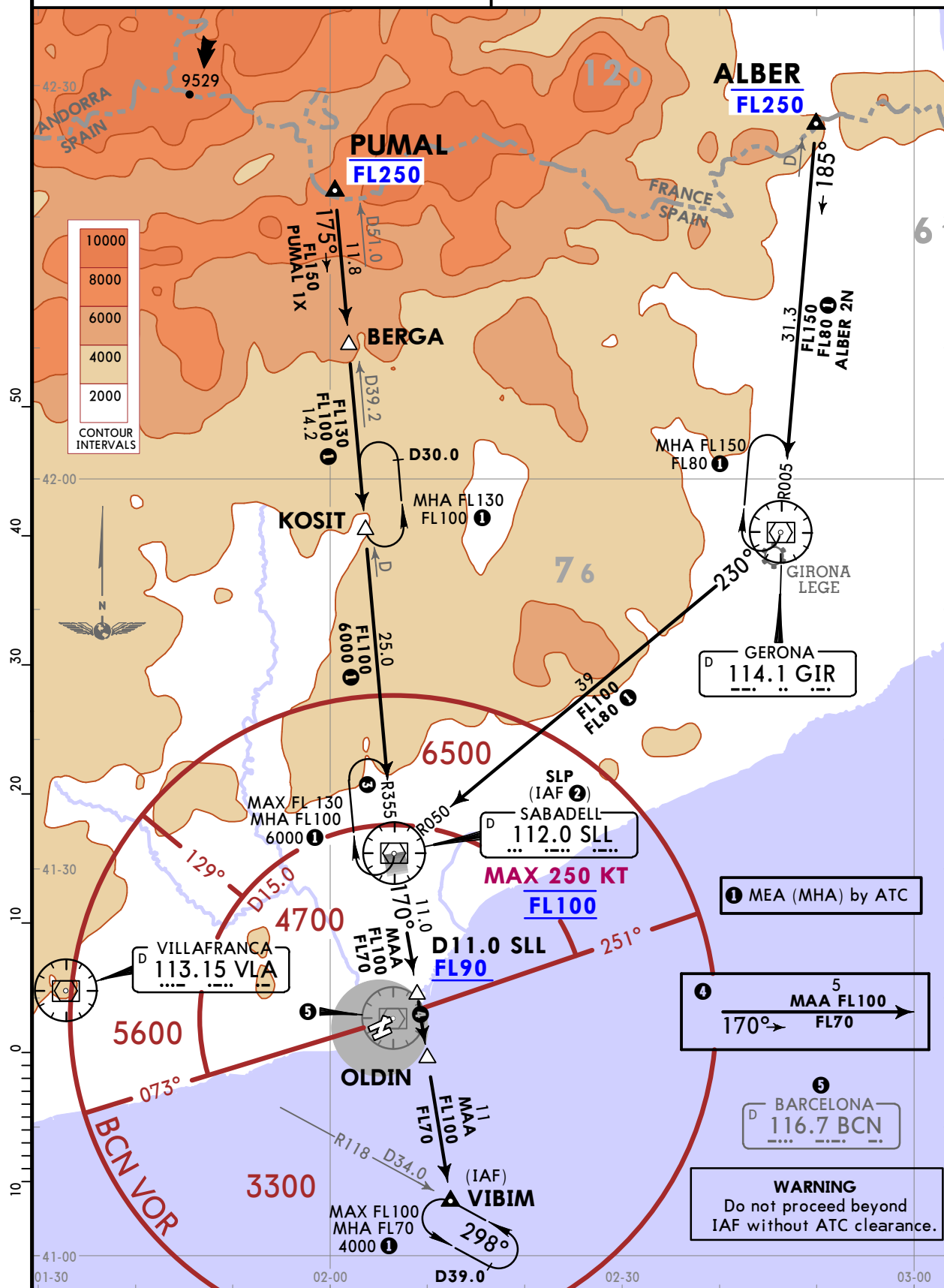
Alt Set: hPa
Trans level: By ATC

ALBER 2N [ALBE2N]
PUMAL 1X [PUMA1X]
RWY 02 ARRIVALS

SLP Speed Limit Point

2 In case of communication failure.

3 In case of communication failure during missed approach LEFT hand hold over SLL, inbound track 175°, MHA 5000.



CHANGES: STARs renumbered, reindexed & revised.

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LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (10-2G1) Eff 24 May

BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATCALBER 1X [ALBE1X]
PUMAL 3N [PUMA3N]
RWY 02 ARRIVALS

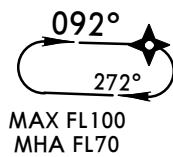
■ SLP Speed Limit Point

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

2 In case of communication failure.

3 In case of communication failure during missed approach LEFT hand hold over SLL, inbound track 175°, MHA 5000.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

HOLDING OVER
TOTKI

WARNING

Do not proceed beyond
IAF without ATC clearance.ALBER
FL250PUMAL
FL250

BERGA

KOSIT

GIRONA
LEGEGERONA
114.1 GIR

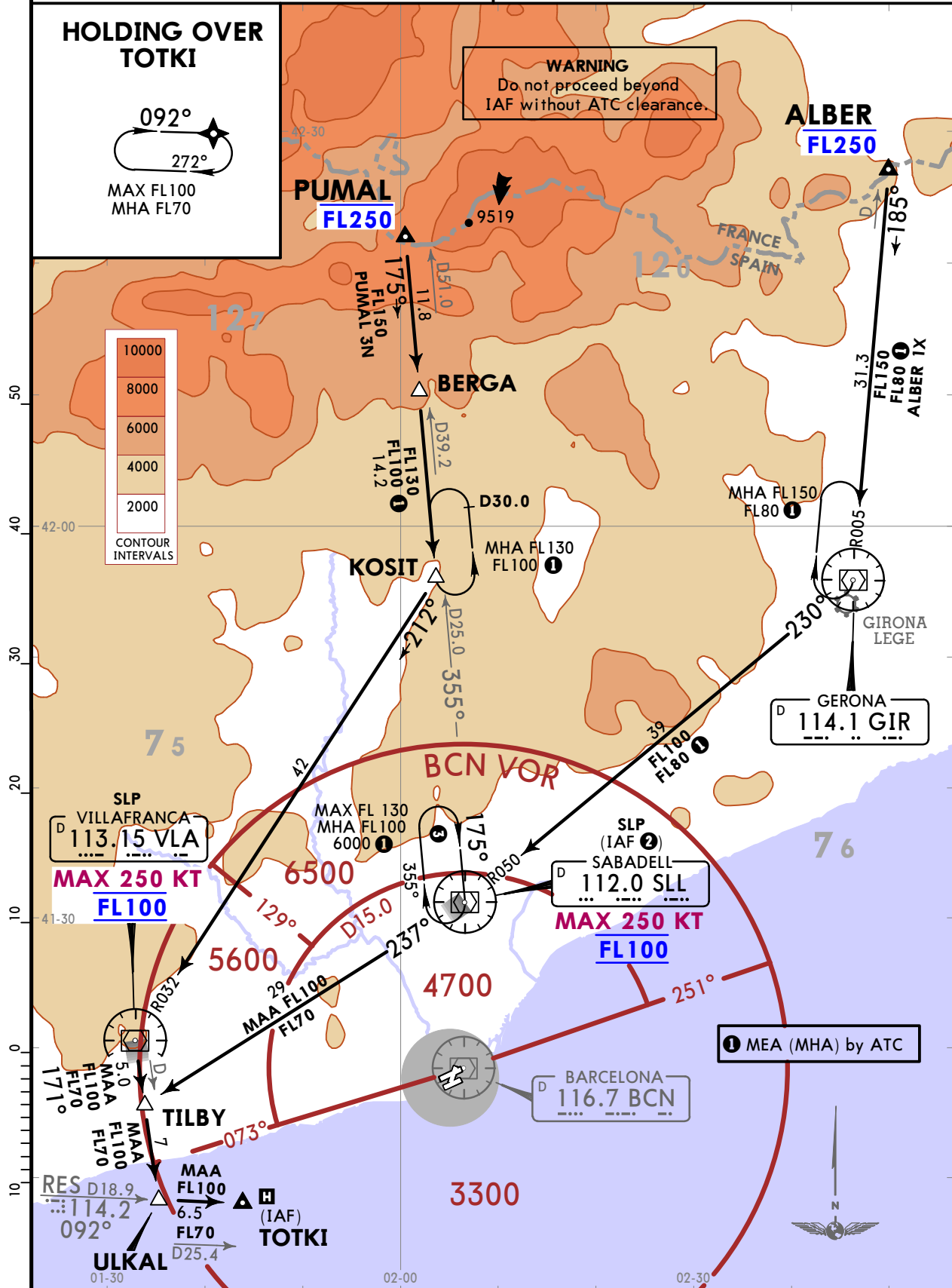
BCN VOR

SLP
VILAFRANCA
113.15 VLAMAX 250 KT
FL100MAX FL 130
MHA FL100
6000SLP
(IAF 2)
SABADELL
112.0 SLLMAX 250 KT
FL100SLP
TILBYRES D18.9
114.2
092°

ULKAL

MAA FL100
FL70
D25.4
TOTKIBARCELONA
116.7 BCN

1 MEA (MHA) by ATC



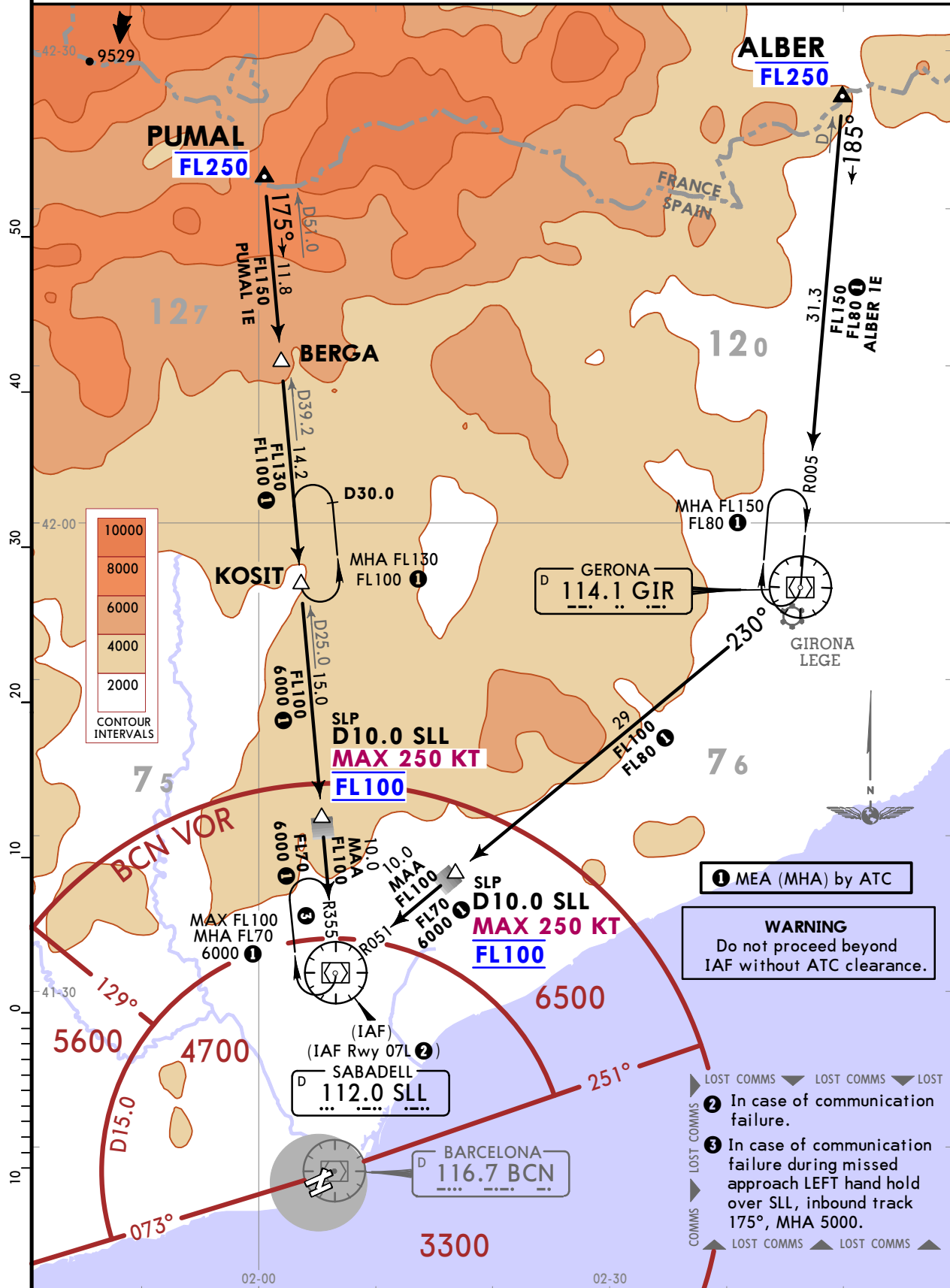
LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (10-2G2) Eff 24 May

BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATCALBER 1E [ALBE1E]
PUMAL 1E [PUMA1E]
RWYS 07L/R ARRIVALS

SLP Speed Limit Point



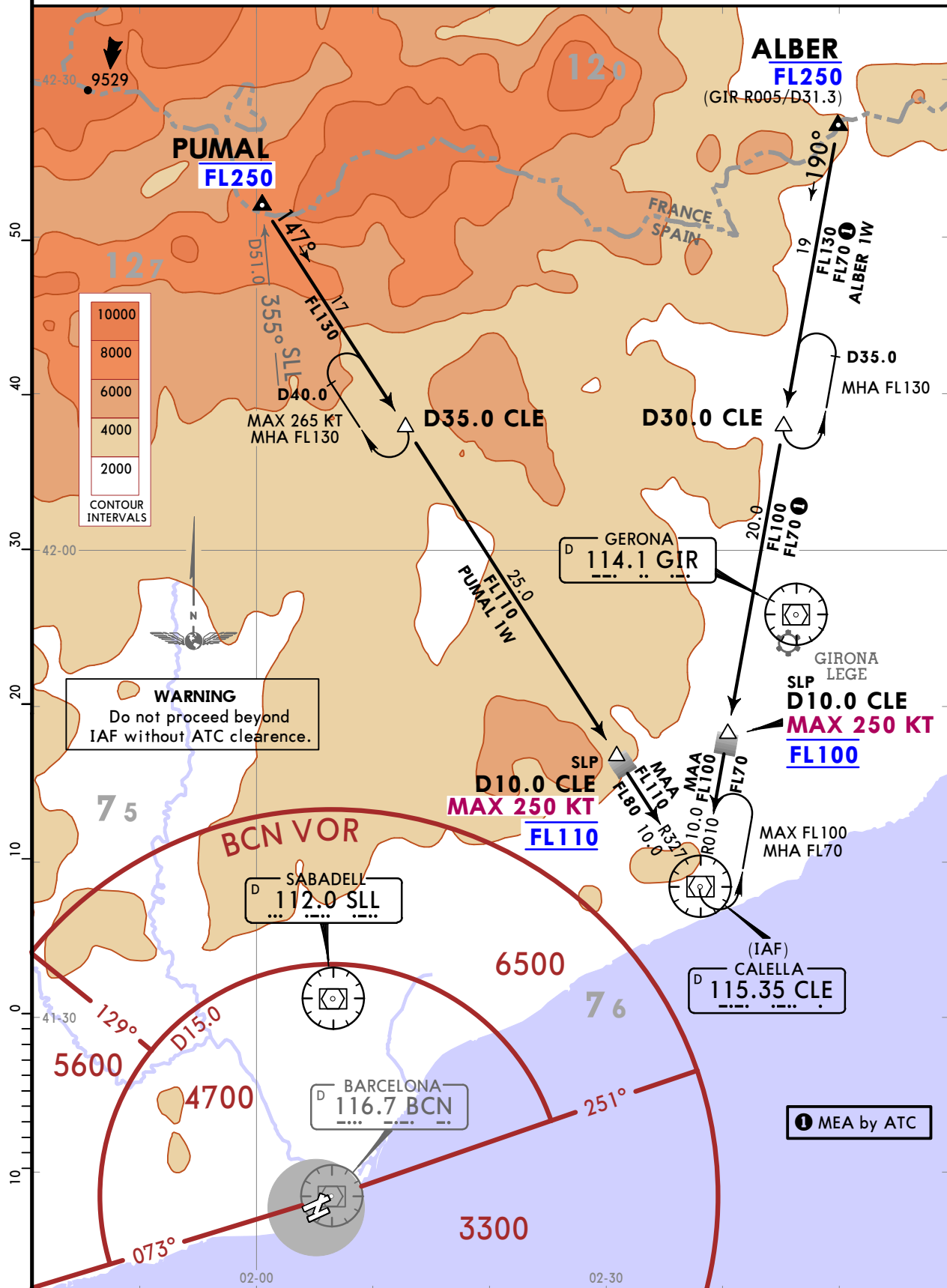
LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (10-2H) Eff 24 May

BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATCALBER 1W [ALBE1W]
PUMAL 1W [PUMA1W]
RWYS 25L/R ARRIVALS

SLP Speed Limit Point



LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN

(10-2J)

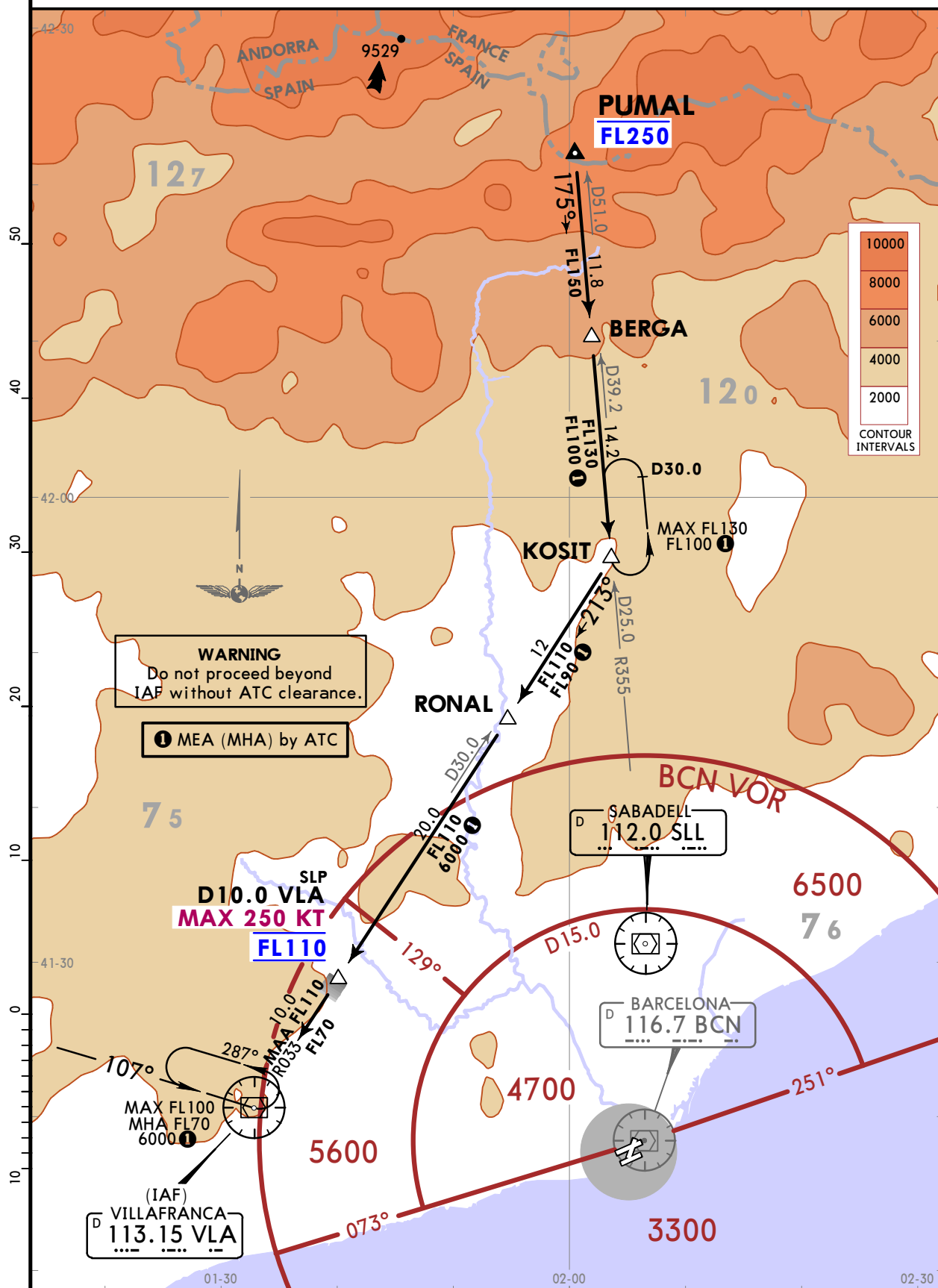
Eff 24 May

BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATCPUMAL 1Y [PUMA1Y]
RWYS 07L/R ARRIVAL
BY ATC

Speed Limit Point



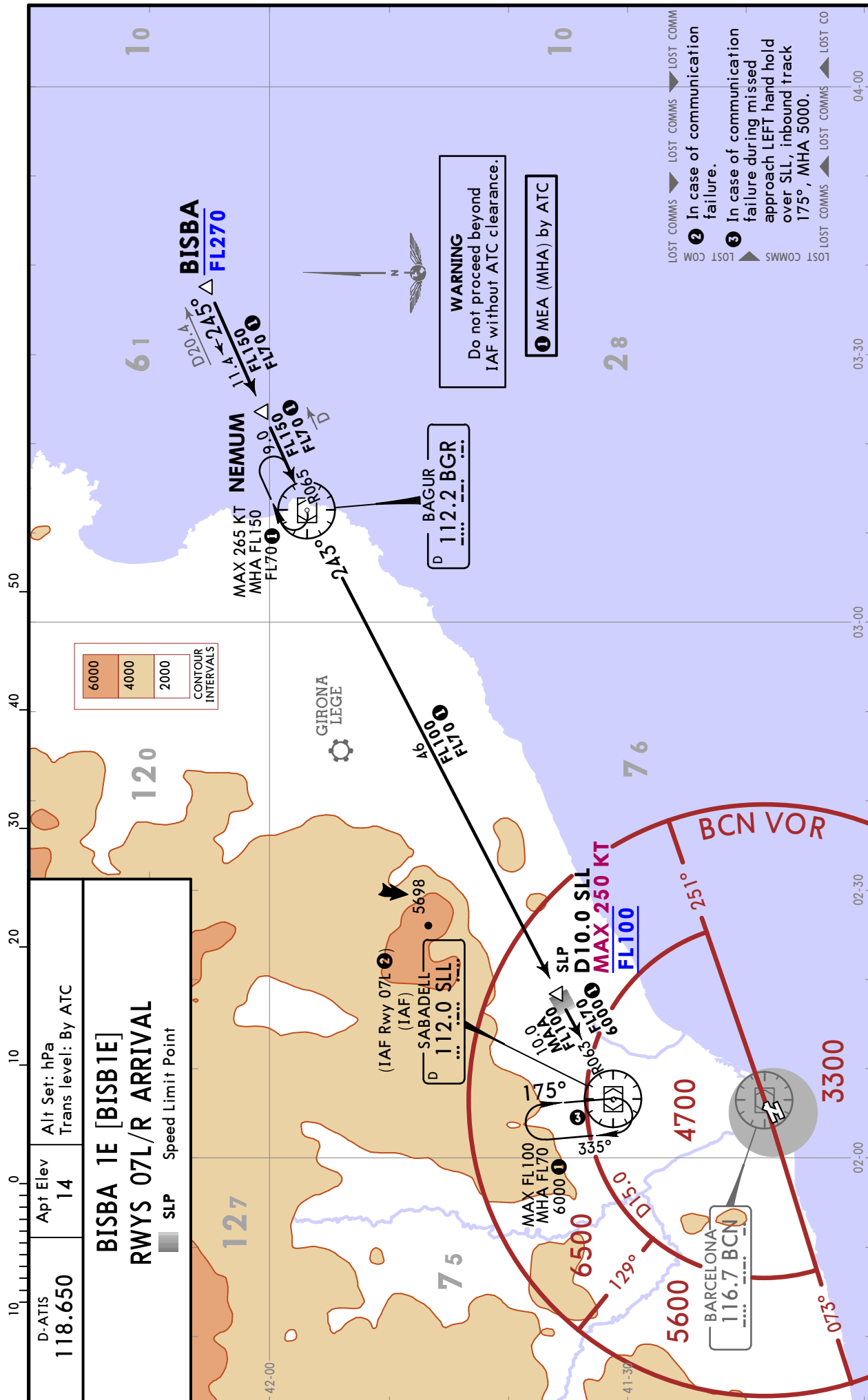
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN

10-2K

Eff 24 May

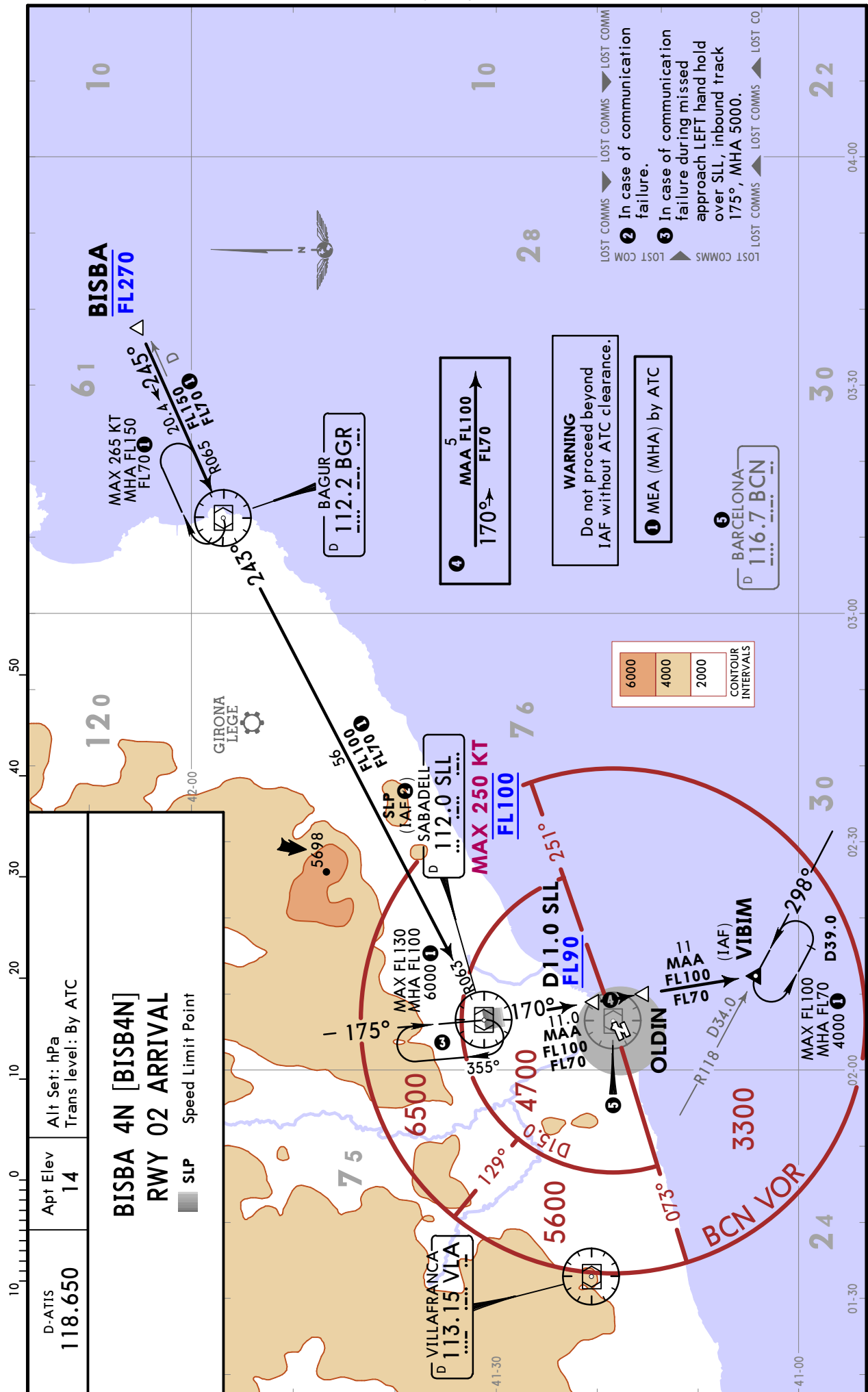
BARCELONA, SPAIN
STAR


LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN**Eff 24 May**

BARCELONA, SPAIN

STAR

CHANGES: Chart reindexed; STAR renumbered & revised.

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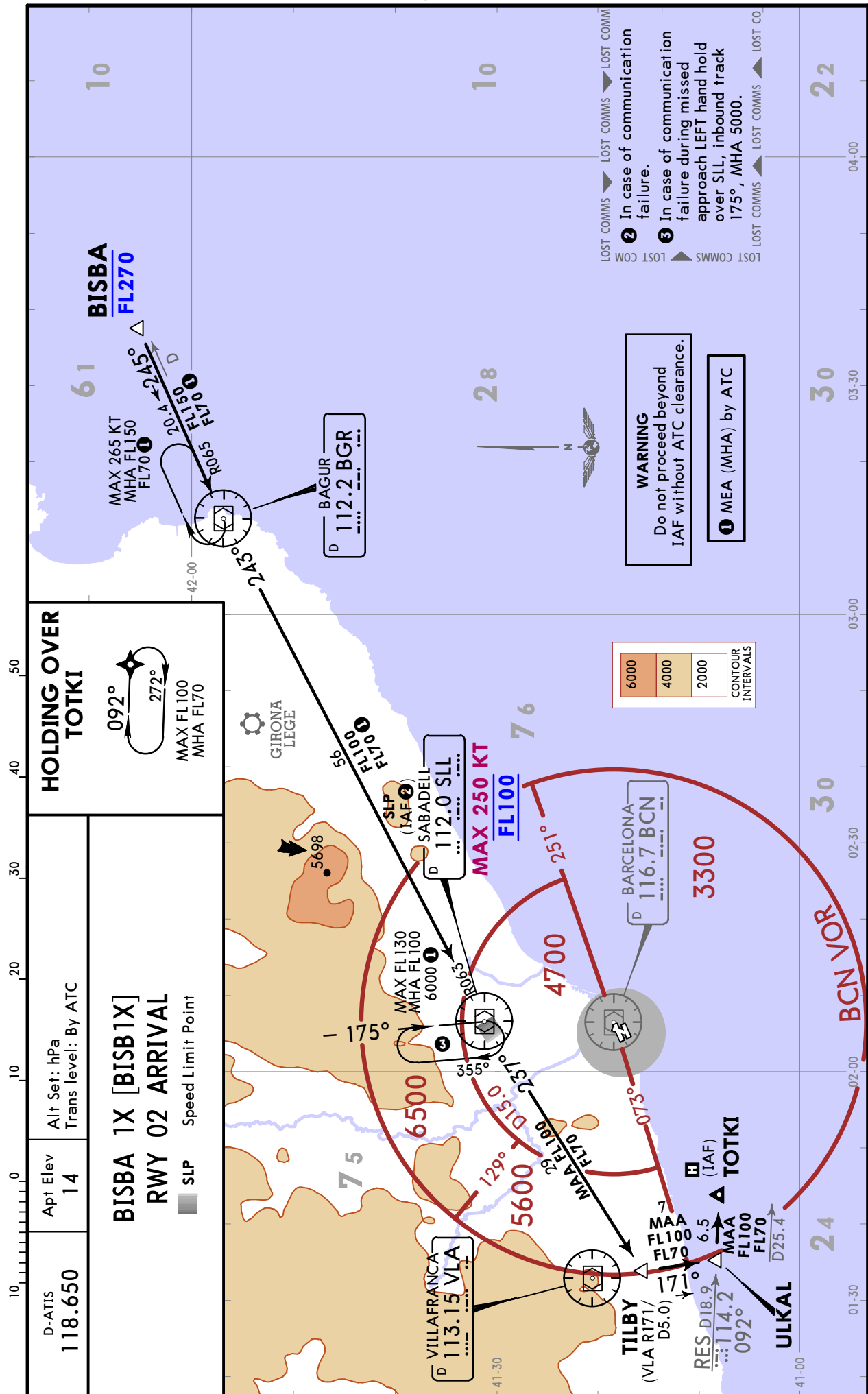
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN**Eff 24 May**

BARCELONA, SPAIN

STAR



CHANGES: STARs transferred & established.

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LEBL/BCN
EL PRAT

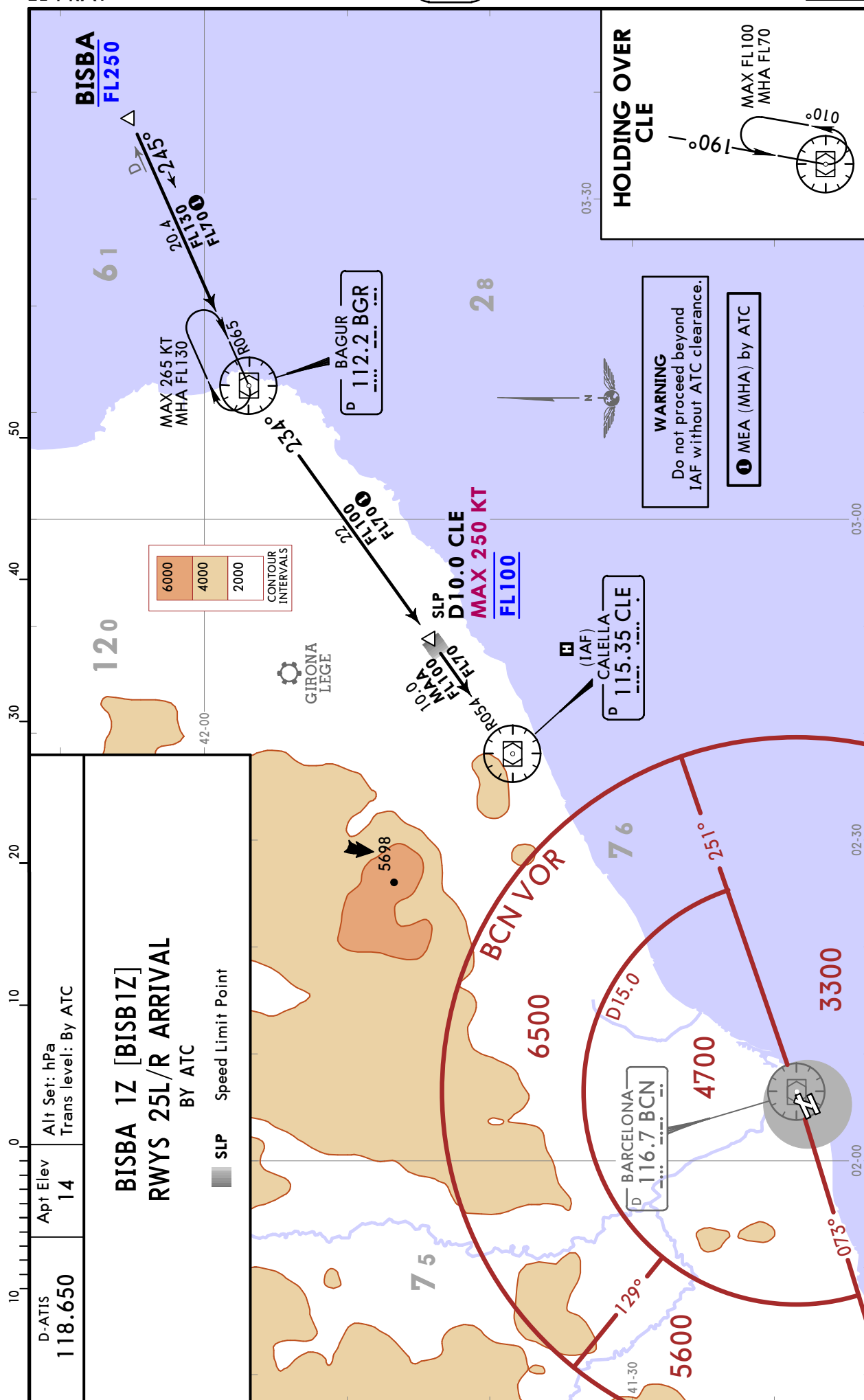
18 MAY 18

JEPPESEN

10-2N

Eff 24 May

BARCELONA, SPAIN

STAR

CHANGES: None.

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LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
18 MAY 18 (10-2P) Eff 24 May STAR

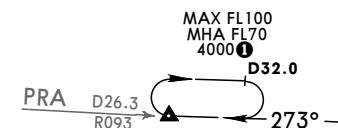
D-ATIS 118.650	Apt Elev 14	Alt Set: hPa Trans level: By ATC
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OSTUR 1E [OSTU1E]
RWYS 07L/07R ARRIVAL
OSTUR 1N [OSTU1N]
RWY 02 ARRIVAL
OSTUR 1W [OSTU1W]
VERSO 1W [VERSIW]
RWYS 25L/R ARRIVALS

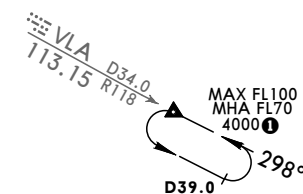
■ SLP Speed Limit Point

WARNING
Do not proceed beyond
IAF without ATC clearance.

**HOLDINGS OVER
LESBA**

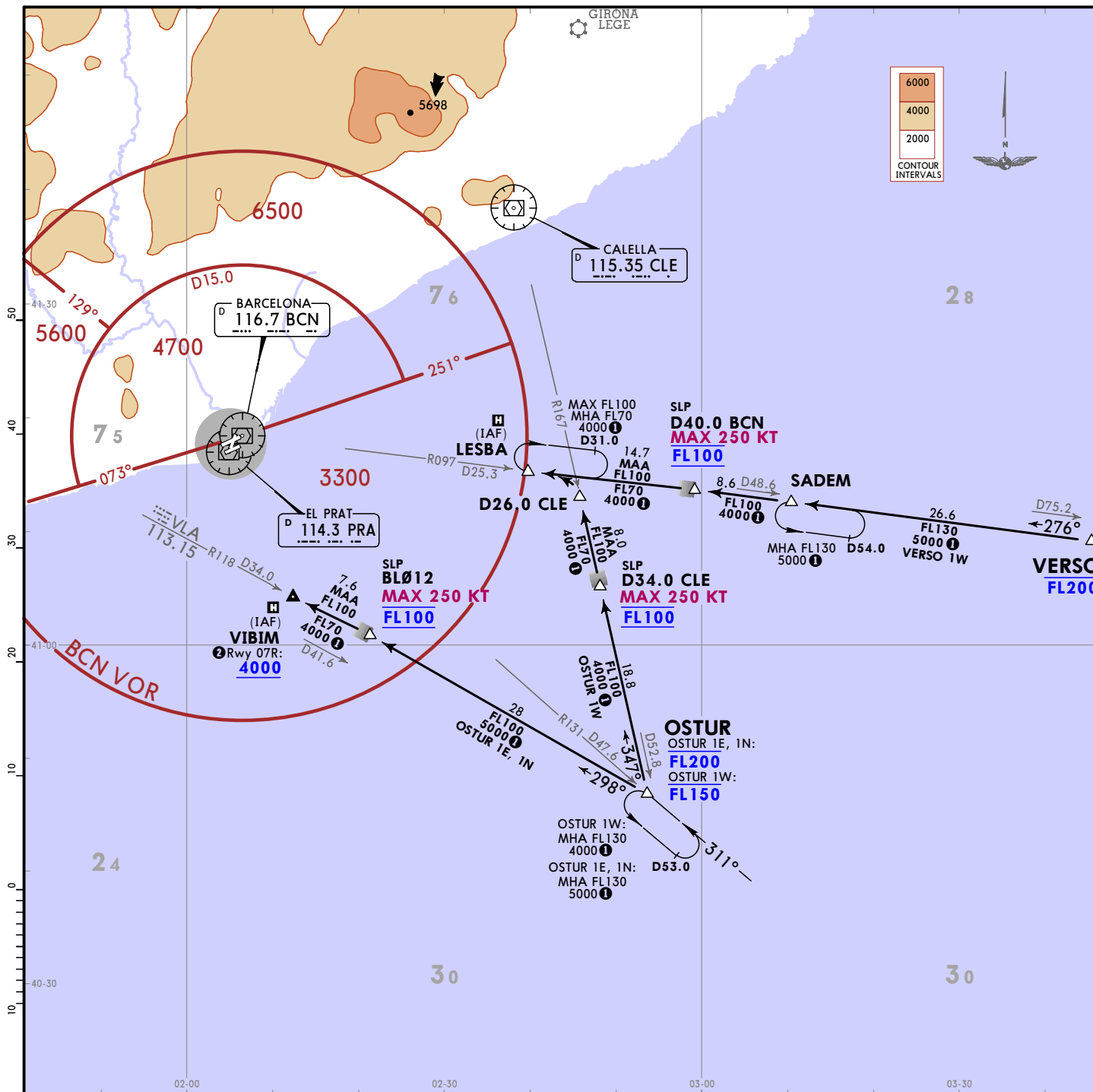


VIBIM



① MEA (MHA) by ATC

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
LOST ② In case of communication failure. LOST
▶ LOST COMMS ▲ LOST COMMS ▲ LOST



LEBL/BCN
EL PRAT
JEPPesen
 18 MAY 18 **(10-2Q)** Eff 24 May

BARCELONA, SPAIN
STAR

 D-ATIS
118.650

 Apt Elev
14

 Alt Set: hPa
 Trans level: By ATC

MARTA 1Y [MART1Y]
NEPAL 1E [NEPA1E]
RWYS 07L/R ARRIVALS

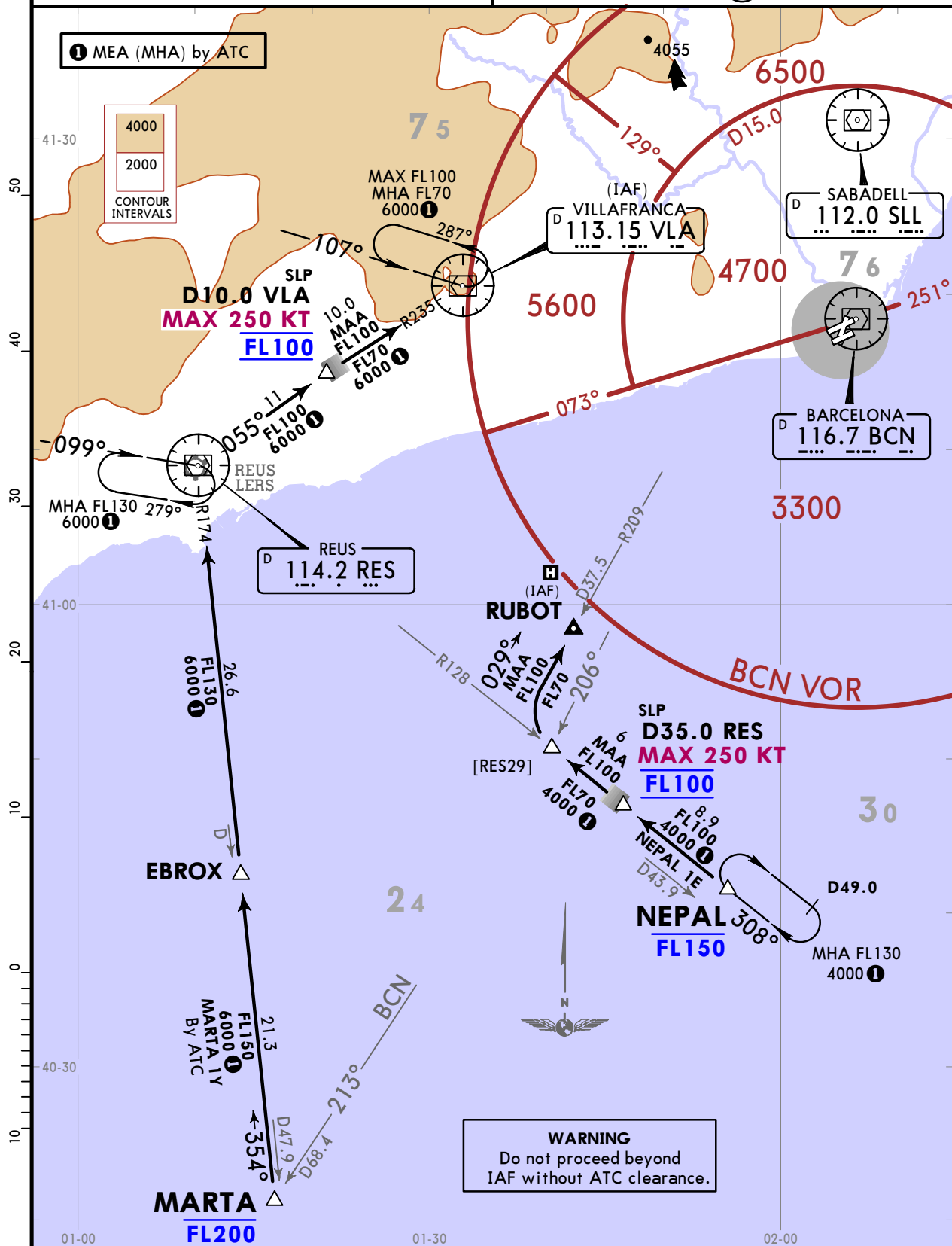
SLP Speed Limit Point

HOLDING OVER
RUBOT

 MAX FL100
 MHA FL70
 4000

D43.0

MEA (MHA) by ATC

 4000
 2000
 CONTOUR
 INTERVALS


LEBL/BCN
EL PRAT

BARCELONA, SPAIN

18 MAY 18 (10-2S) Eff 24 May

STAR

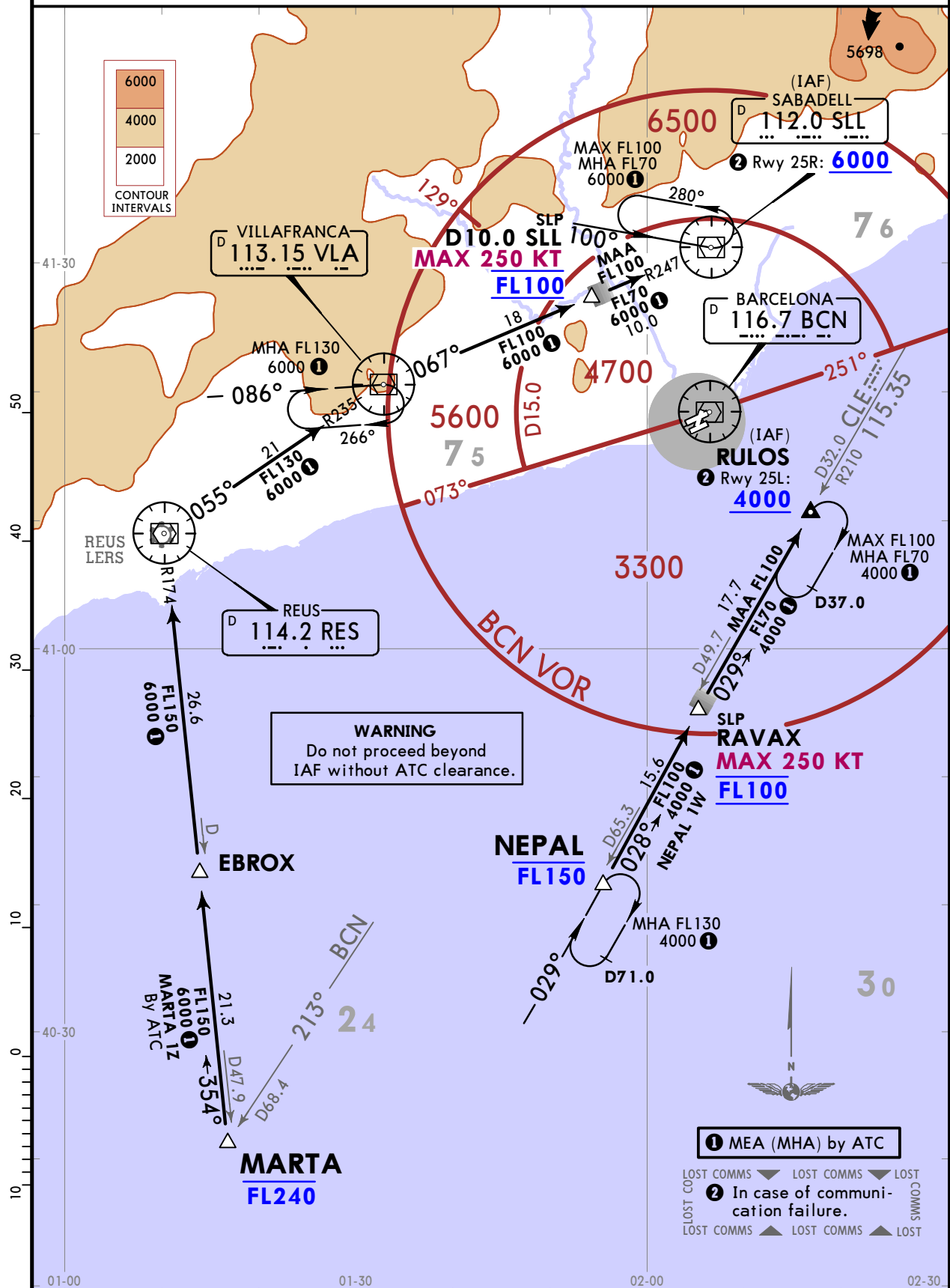
D-ATIS
118.650

Apt Elev
14

Alt Set: hPa
Trans level: By ATC

MARTA 1Z [MART1Z]
NEPAL 1W [NEPA1W]
RWYS 25L/R ARRIVALS

SLP Speed Limit Point



CHANGES: None.

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LEBL/BCN
EL PRAT

18 MAY 18

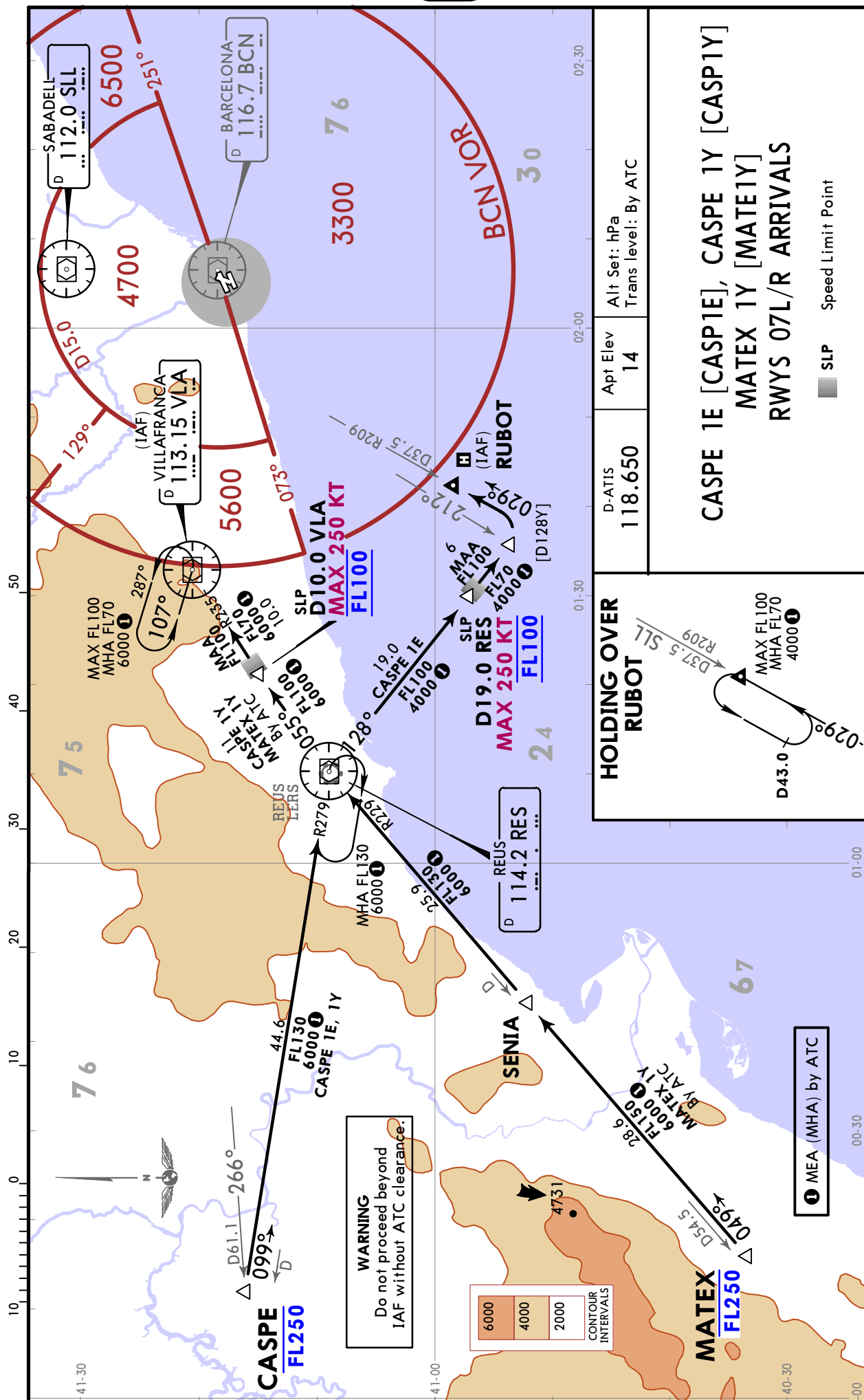
JEPPESEN

10-2T

Eff 24 May

BARCELONA, SPAIN

STAR



LEBL/BCN
EL PRAT

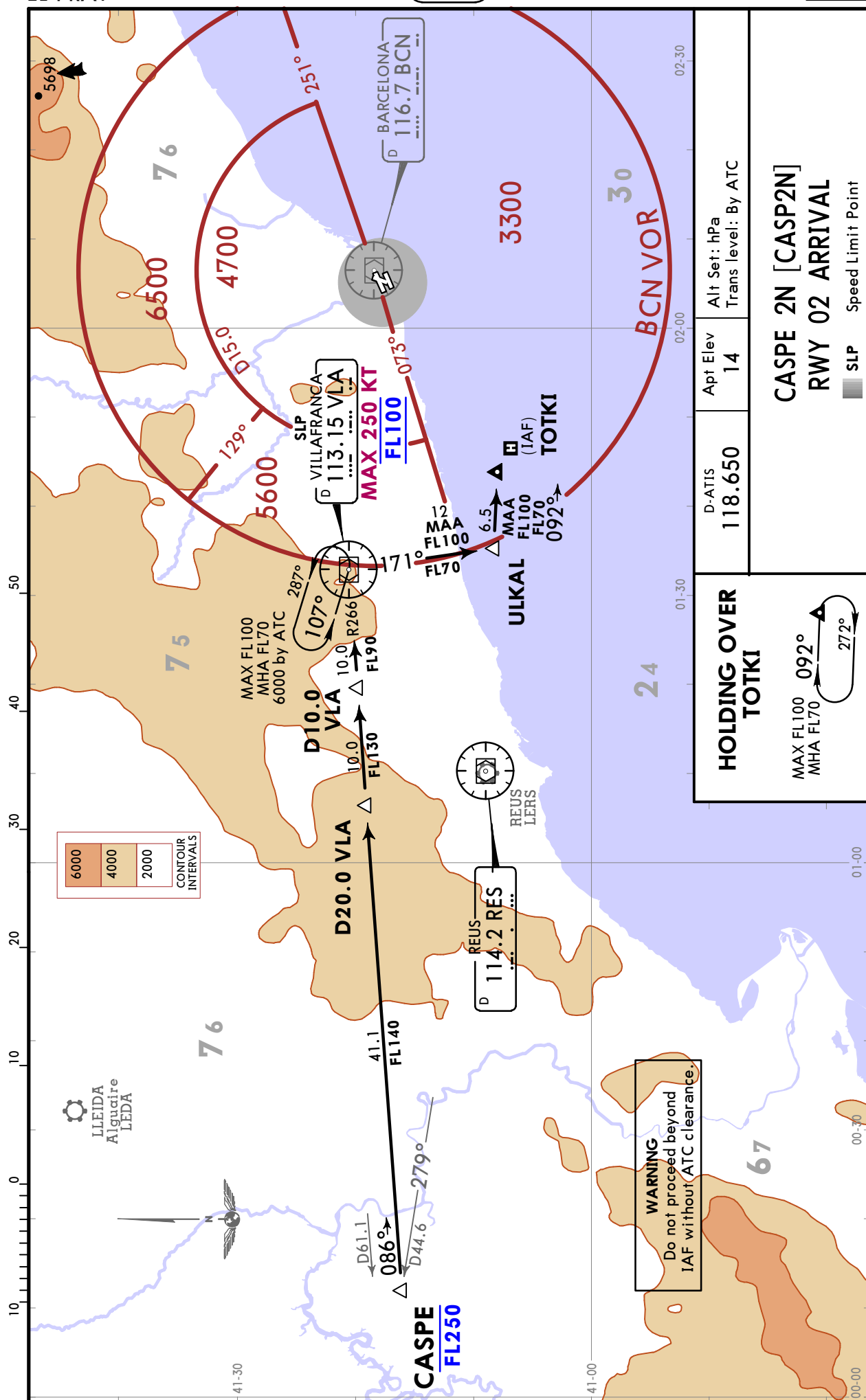
18 MAY 18

10-2T1

Eff 24 May

BARCELONA, SPAIN

STAR



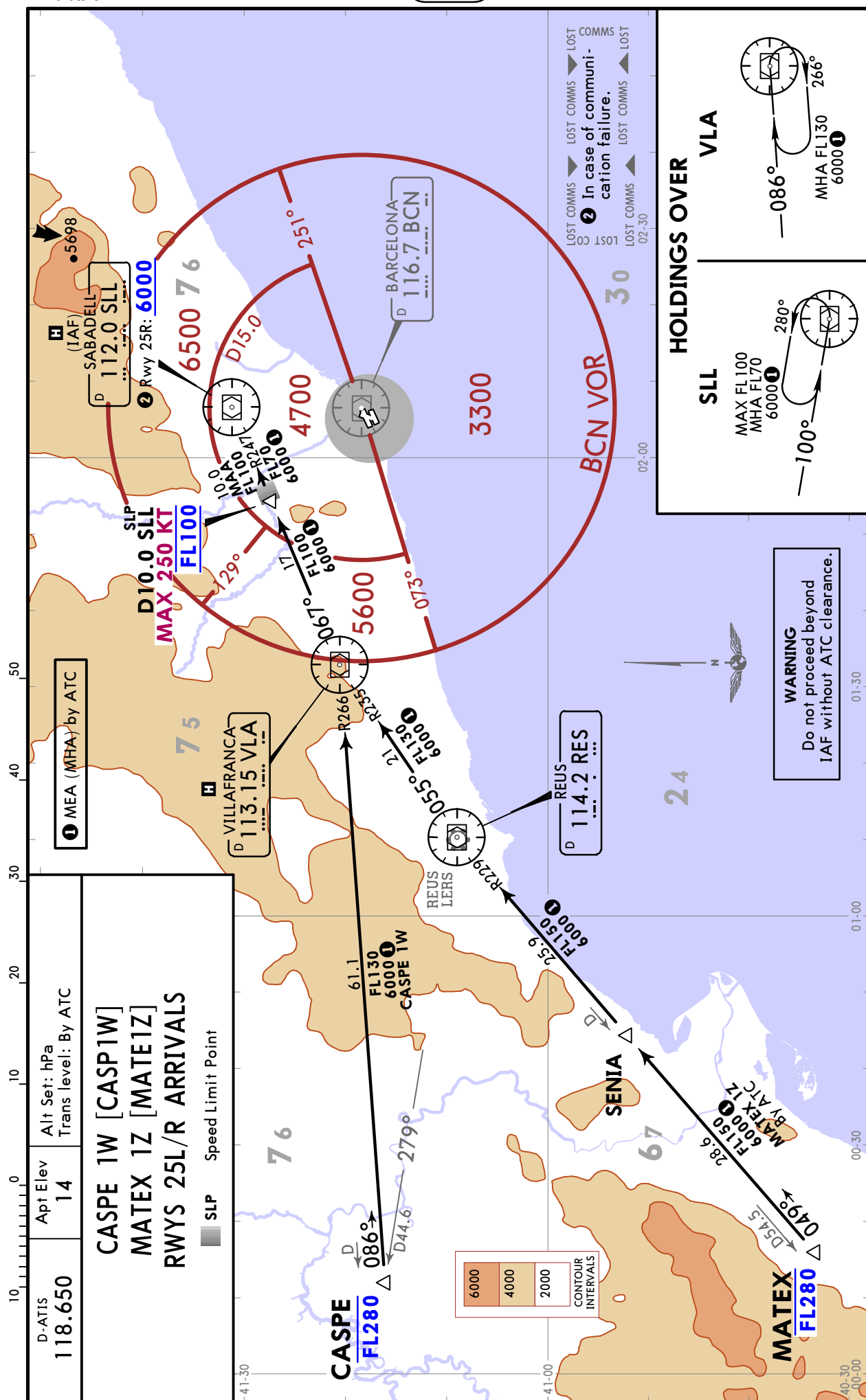
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN

Eff 24 May

BARCELONA, SPAIN

STAR

LEBL/BCN
EL PRAT

18 MAY 18

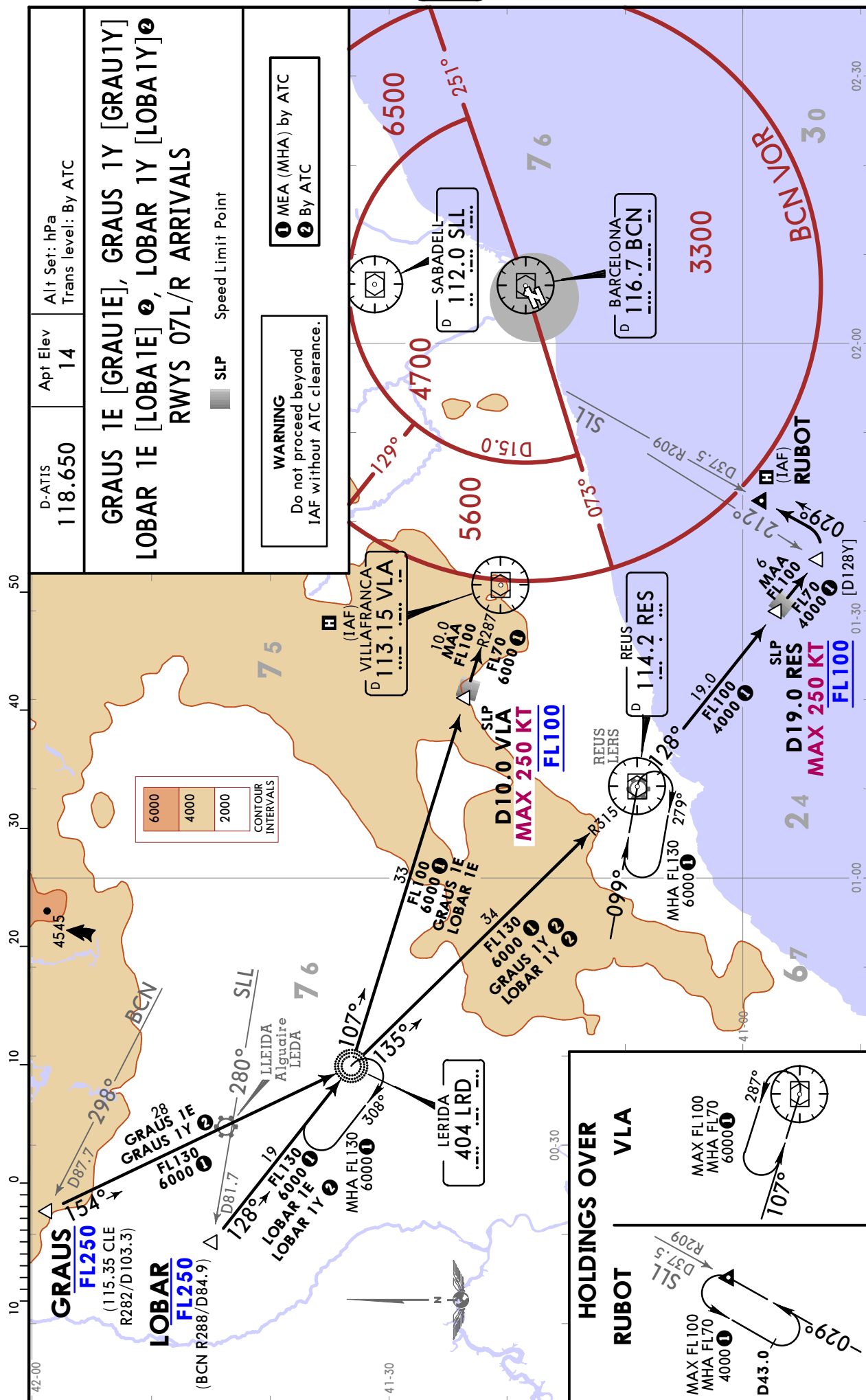
JEPPESEN

10-2T3

Eff 24 May

BARCELONA, SPAIN

STAR



LEBL/BCN
EL PRAT

18 MAY 18

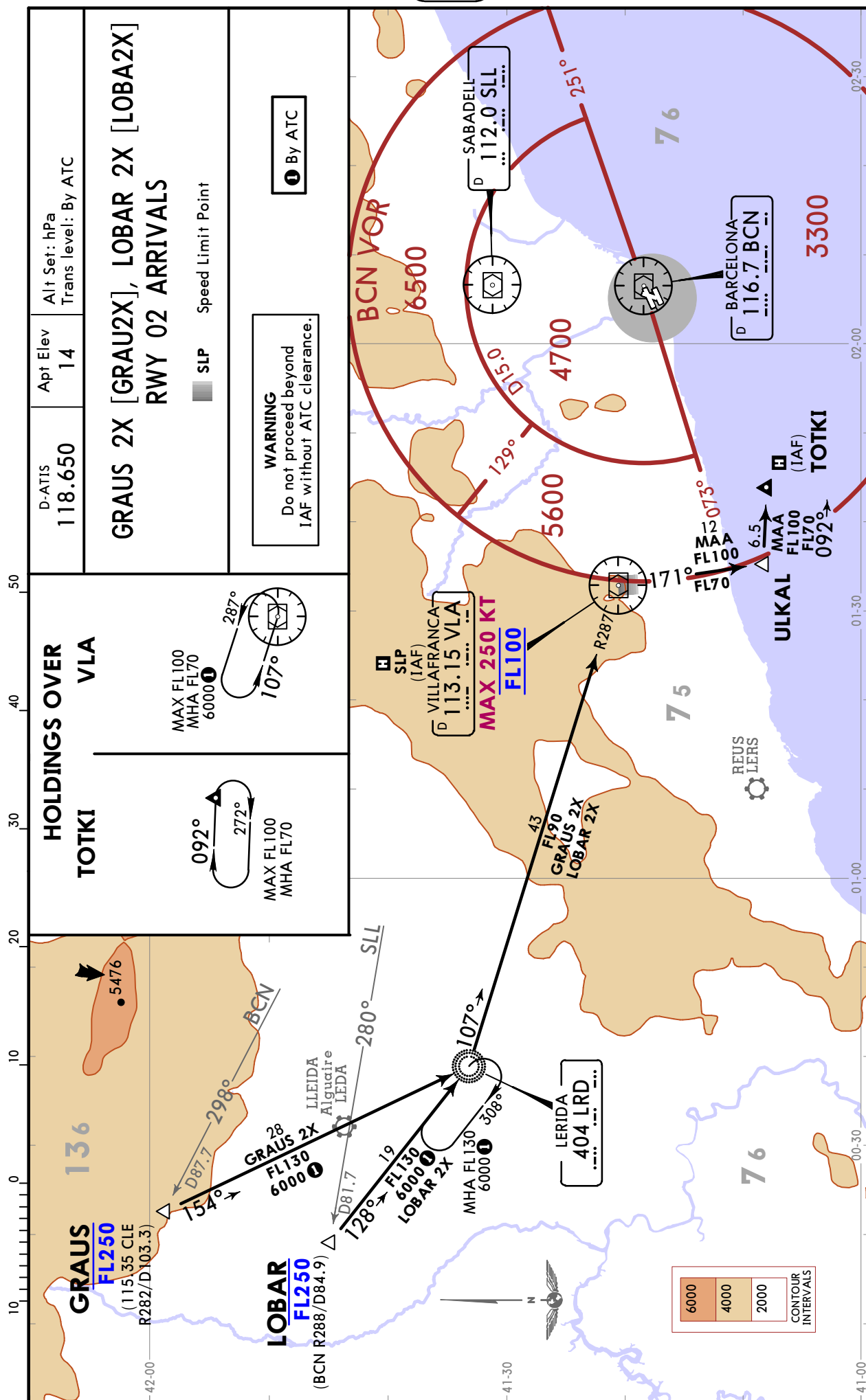
JEPPESSEN

10-2T4

Eff 24 May

BARCELONA, SPAIN

STAR



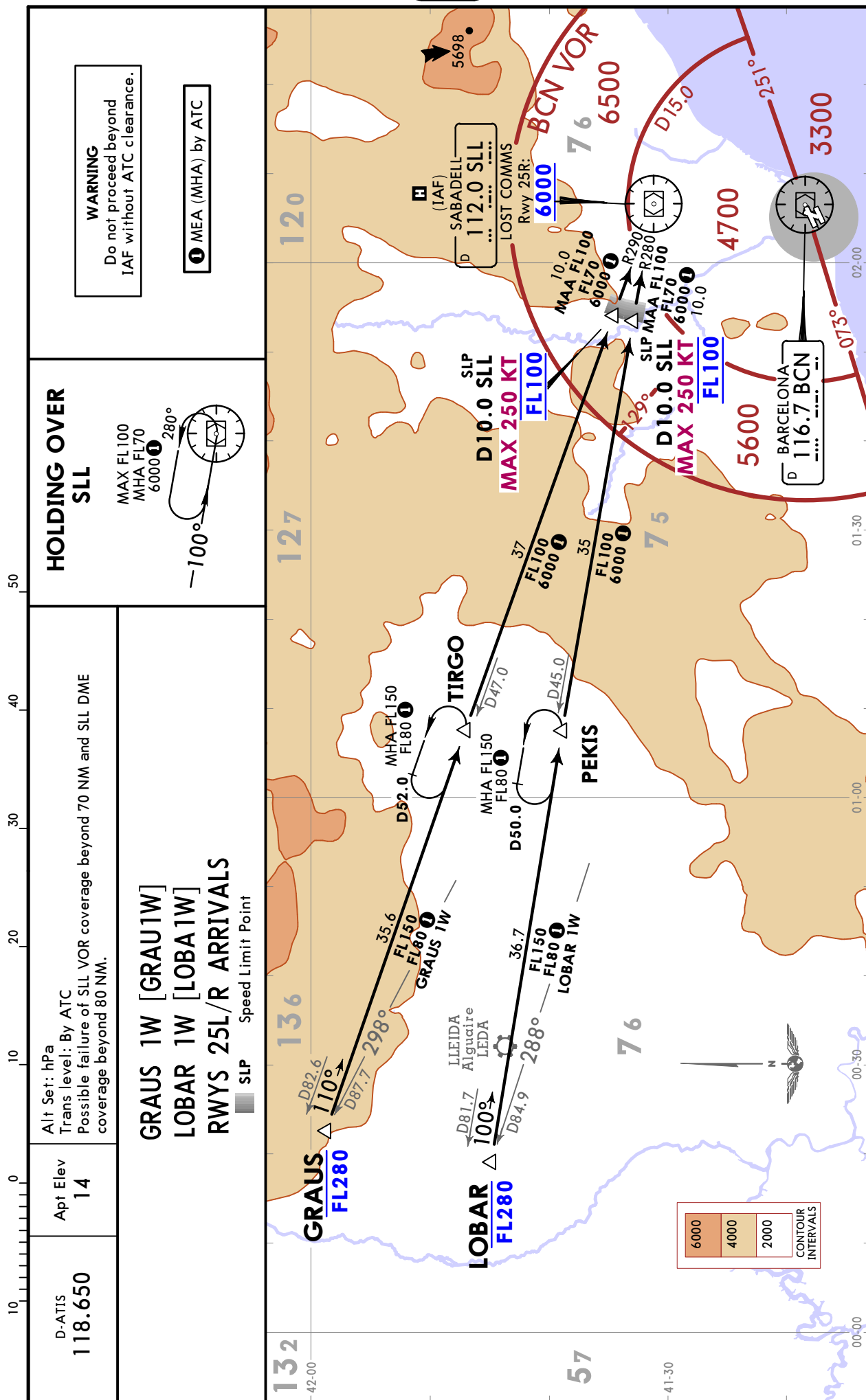
CHANGES: New chart (STARs transferred, renumbered & revised).

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LEBL/BCN
EL PRAT

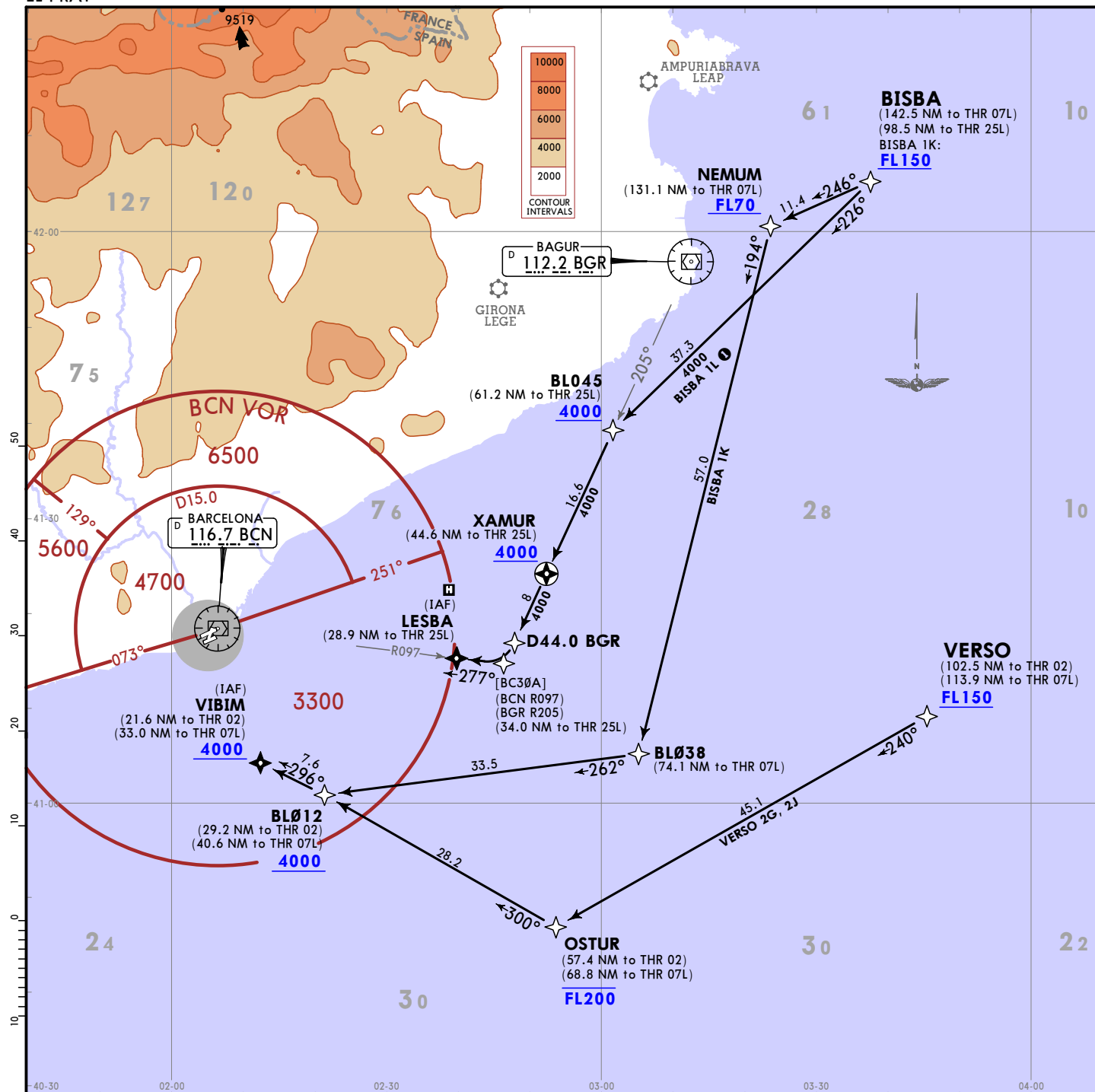
JEPPESSEN
 18 MAY 18 **10-2T5** Eff 24 May

BARCELONA, SPAIN
STAR



LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN
 25 MAY 18 **10-2T6** **RNAV STAR**



D-ATIS 118.650	Apt Elev 14	Alt Set: hPa Trans level: By ATC
BISBA 1K [BISB1K] VERSO 2G [VERS2G]① VERSO 2J [VERS2J]② RNAV 1 REQUIRED		
BISBA 1L [BISB1L] RNAV (DME/DME) P-RNAV APPROVAL REQUIRED		
RNAV CONTINUOUS DESCENT ARRIVALS (CDA) BY ATC USABLE BETWEEN 2300-0700LT		
① Between BISBA & BL045 possible failure of DME/DME coverage below FL80. ② Non-RNAV 1 traffic: Request RADAR assistance to VIBIM.		
HOLDING OVER LESBA 		
STAR	RWY	ROUTING
BISBA 1K	07L	BISBA (FL150+) - NEMUM (FL70+) - BL038 - BL012 (4000+) - VIBIM (4000+).
BISBA 1L	25L	BISBA - BL045 (4000+) - XAMUR (4000+) - on BGR R205 to D44.0 BGR, turn RIGHT, intercept BCN R097 inbound to LESBA.
VERSO 2G	02	VERSO (FL150+) - OSTUR (FL200-) - BL012 (4000+) - VIBIM (4000+).
VERSO 2J	07L	VERSO (FL150+) - OSTUR (FL200-) - BL012 (4000+) - VIBIM (4000+).

LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN**Eff 24 May**

BARCELONA, SPAIN

RNAV STAR

D-ATIS
118.650

Apt Elev
14

Alt Set: hPa
Trans level: By ATC

MARTA 2G [MART2G] ❶, MARTA 2J [MART2J]

RNAV 1 REQUIRED

MARTA 1L [MART1L]

RNAV (DME/DME)

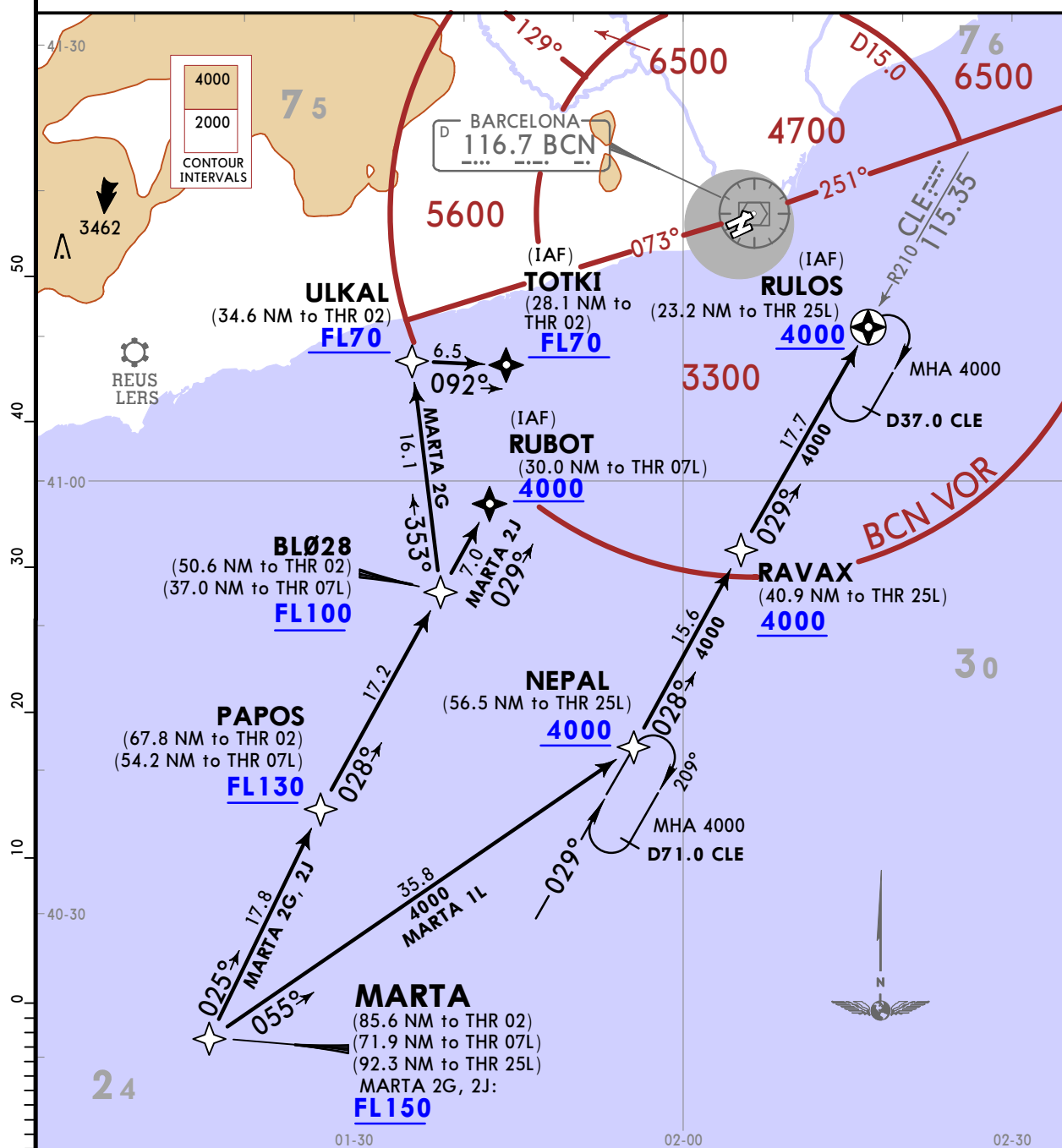
P-RNAV APPROVAL REQUIRED

RNAV CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC

USABLE BETWEEN 2300-0700LT

❶ Non-RNAV 1 traffic:
Request RADAR assistance to TOTKI.



STAR	RWY	ROUTING
MARTA 2G	02	MARTA (FL150+) - PAPOS (FL130+) - BL028 (FL100+) - ULKAL (FL70+) - TOTKI (FL70+).
MARTA 2J	07L	MARTA (FL150+) - PAPOS (FL130+) - BL028 (FL100+) - RUBOT (4000+).
MARTA 1L	25L	MARTA - NEPAL (4000+) - RAVAX (4000+) - RULOS (4000+).

CHANGES: RNAV CDA MARTA 1G renumbered 2G & revised.

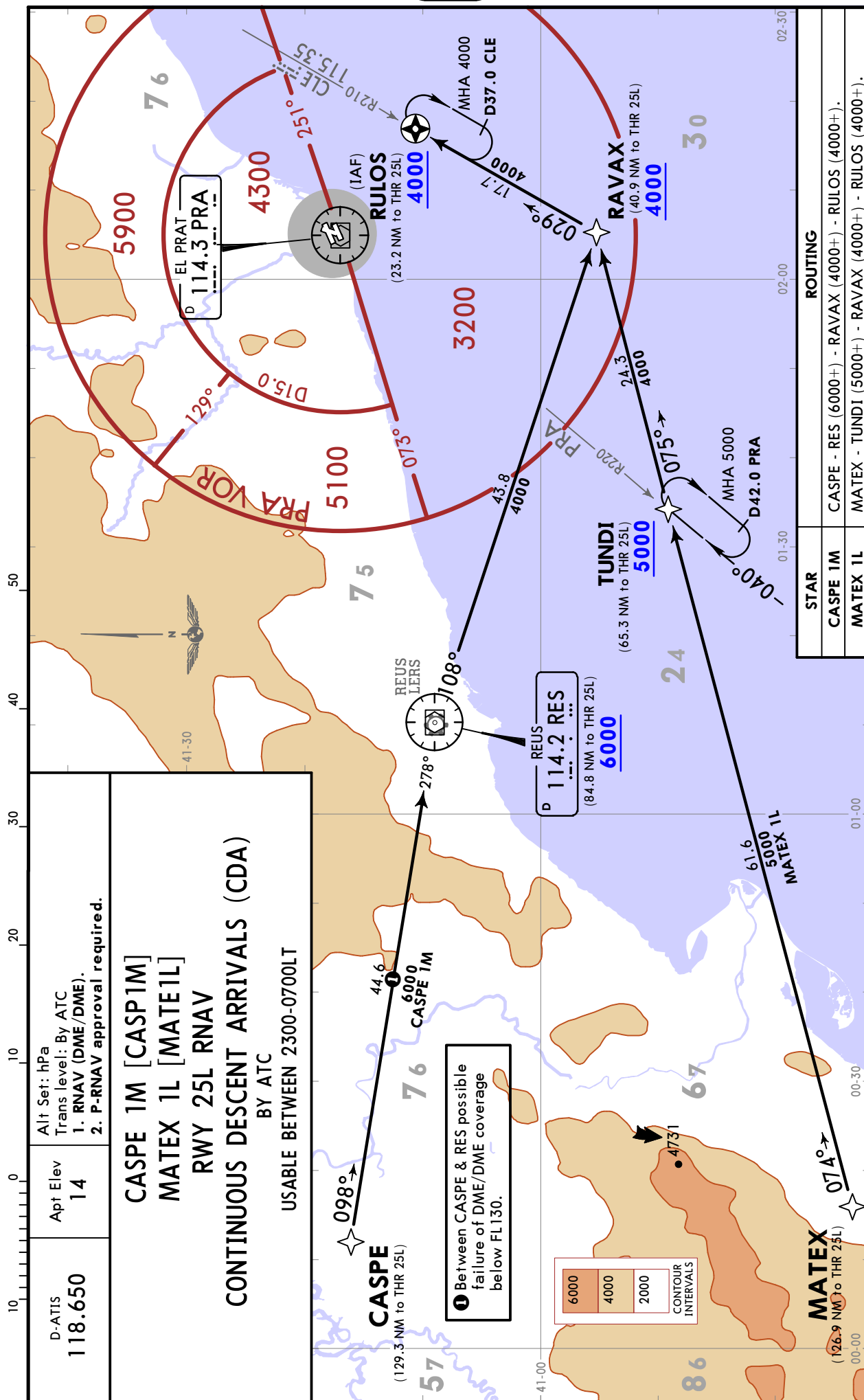
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LEBL/BCN
EL PRAT

JEPPESSEN
18 MAY 18 **10-2V** Eff 24 May

BARCELONA, SPAIN

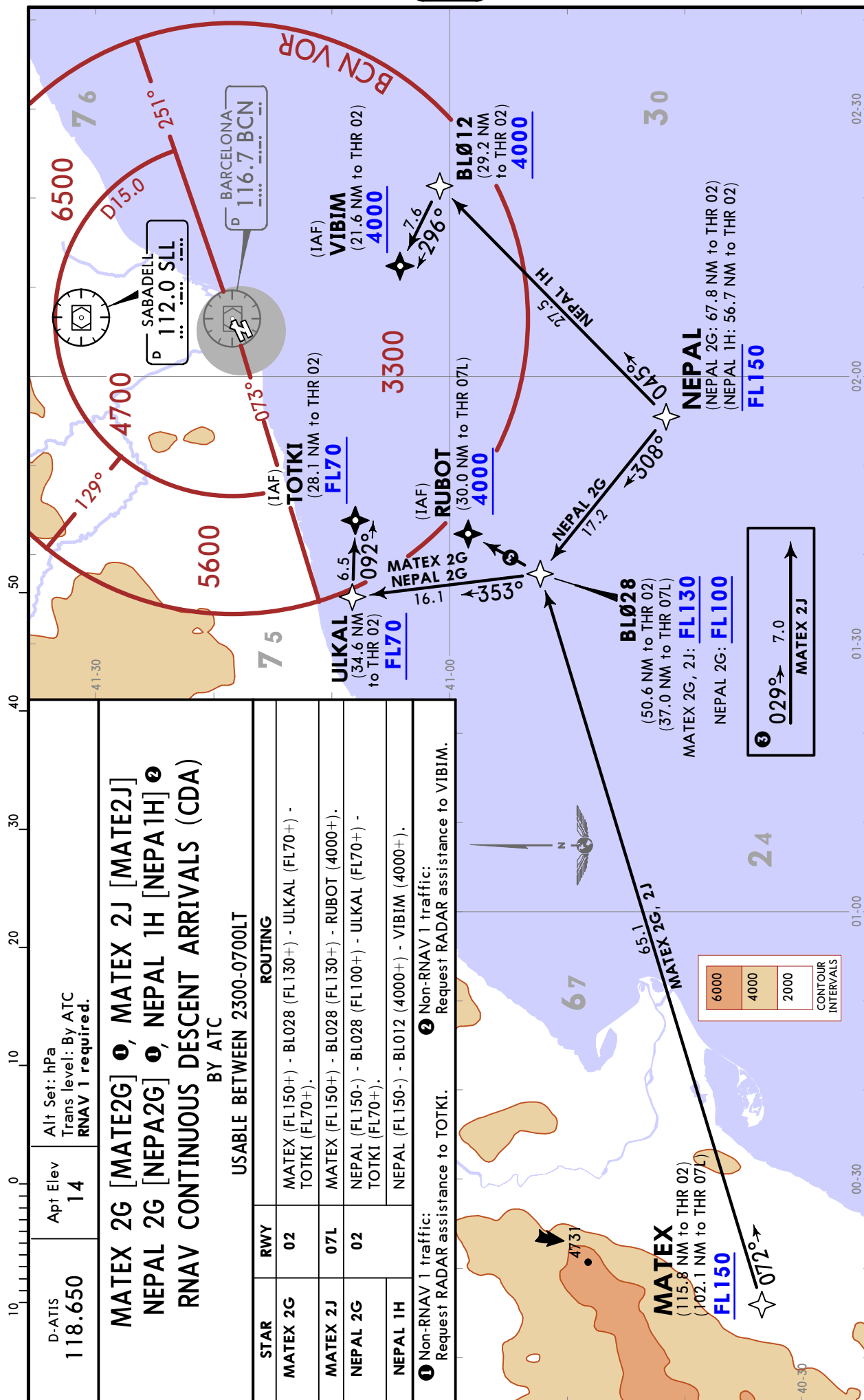
RNAV STAR



LEBL/BCN
EL PRAT

JEPPESSEN
1 JUN 18 (10-2V1)

BARCELONA, SPAIN
RNAV STAR



LEBL/BCN
EL PRAT

JEPPESEN
1 JUN 18 (10-2V2)

BARCELONA, SPAIN

STAR

D-ATIS
118.650

Apt Elev
14

Alt Set: hPa
Trans level: By ATC

ALBER 2G [ALBE2G]
PUMAL 1H [PUMA1H]

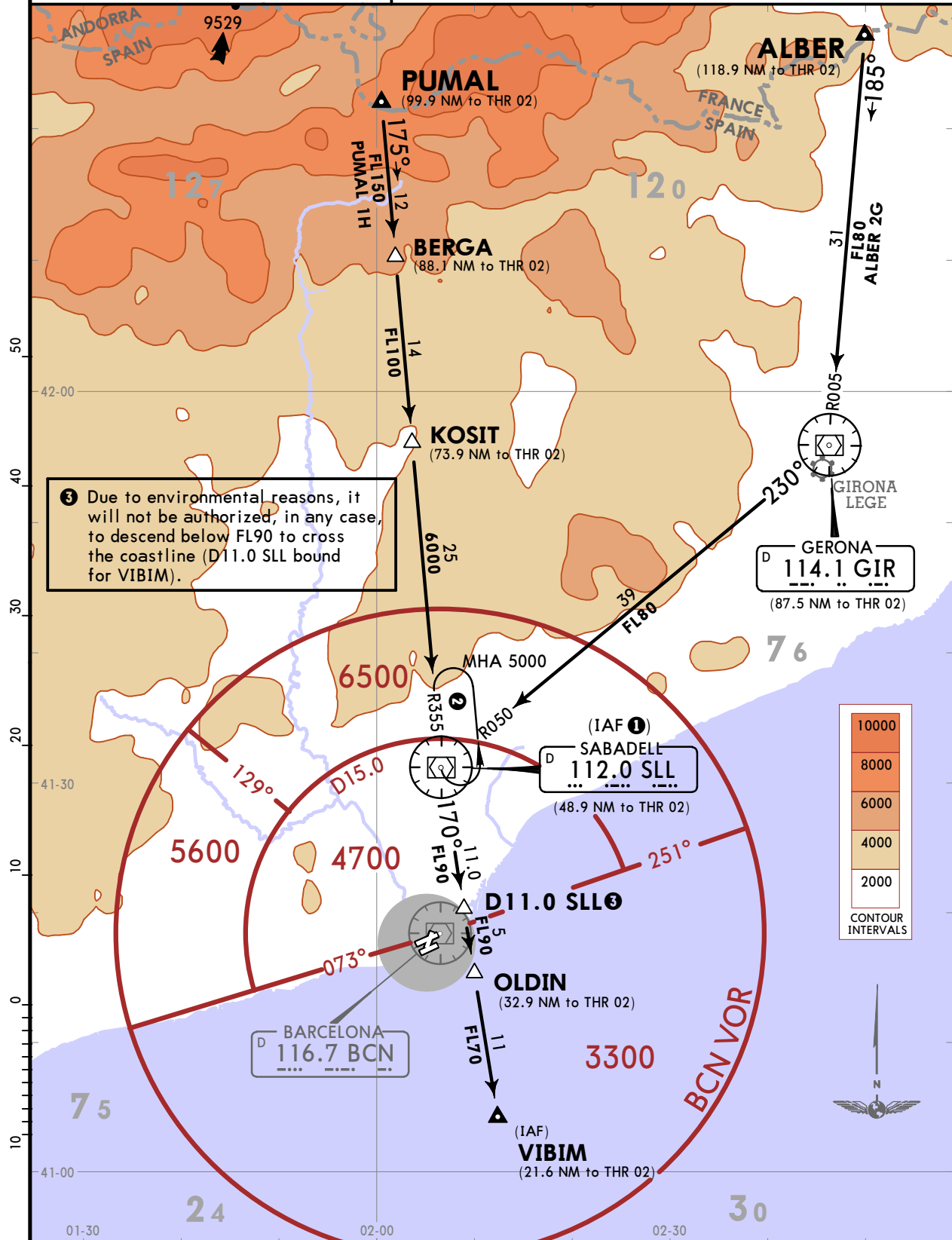
RWY 02

CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC

USABLE BETWEEN 2300-0700LT

❶ In case of communication failure.
 ❷ In case of communication failure during missed approach.



CHANGES: None.

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LEBL/BCN
EL PRATJEPPESEN
6 JUL 18 10-2V3 Eff 19 Jul

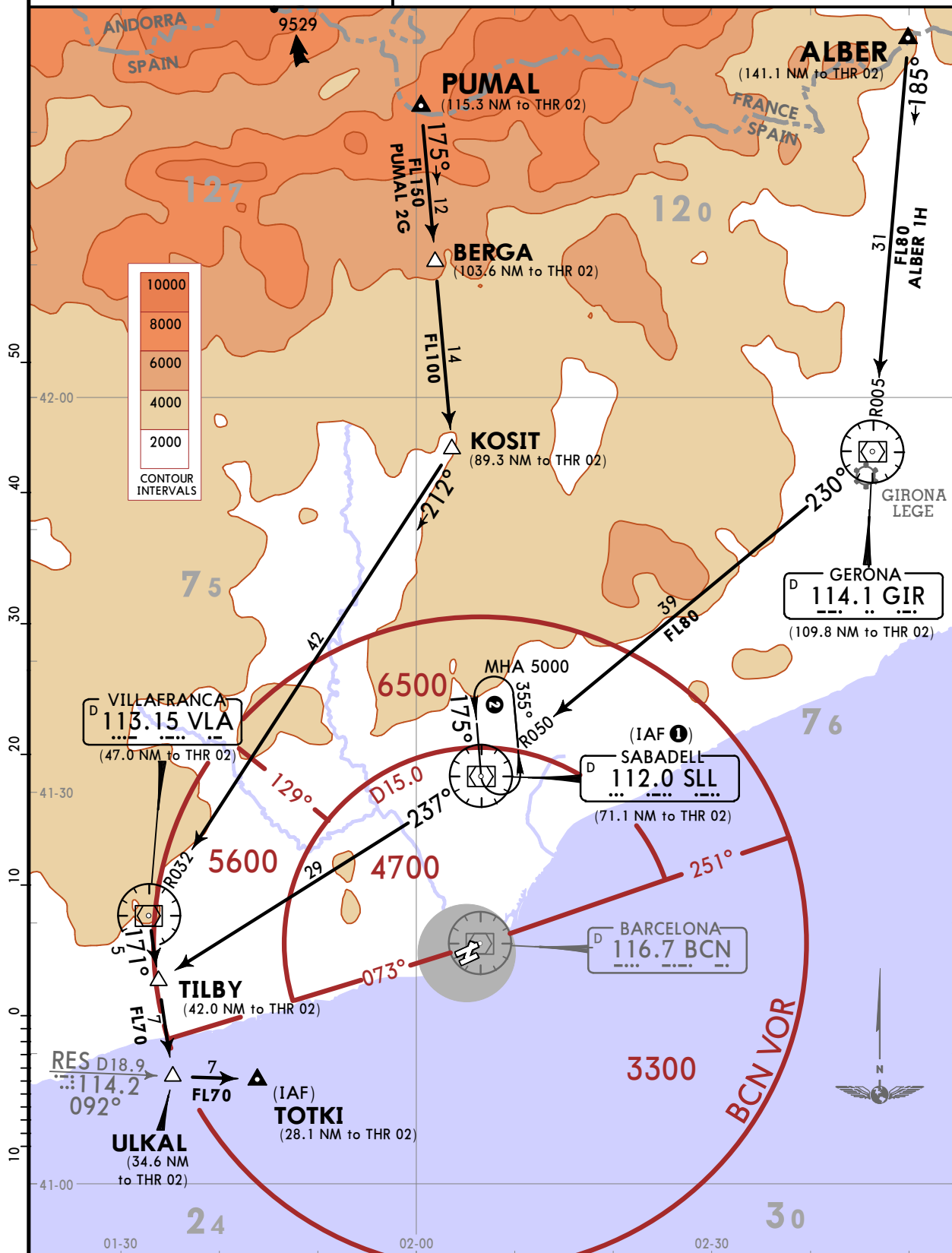
BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATC

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 ❶ In case of communication failure.
 ❷ In case of communication failure during missed approach.
 ▲ LOST COMMS ▲ LOST COMMS ▲ LOST

ALBER 1H [ALBE1H]
 PUMAL 2G [PUMA2G]
 RWY 02
 CONTINUOUS DESCENT ARRIVALS (CDA)
 BY ATC
 USABLE BETWEEN 2300-0700LT



LEBL/BCN
EL PRATJEPPESEN
6 JUL 18 10-2V4 Eff 19 Jul

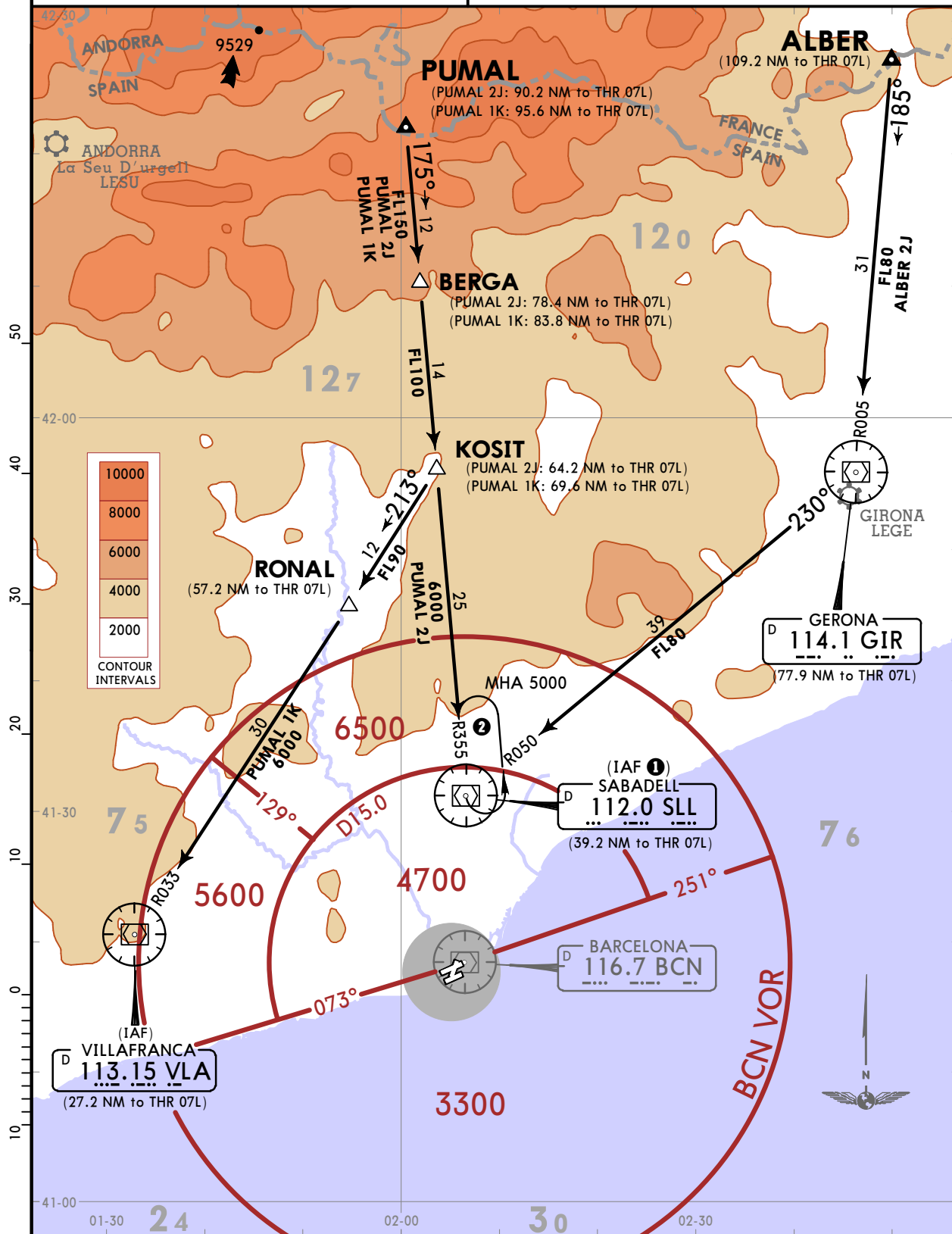
BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATC

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 ① In case of communication failure.
 ② In case of communication failure during missed approach.
 LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

ALBER 2J [ALBE2J]
 PUMAL 2J [PUMA2J]
 PUMAL 1K [PUMA1K]
 RWY 07L CONTINUOUS
 DESCENT ARRIVALS (CDA)
 BY ATC
 USABLE BETWEEN 2300-0700LT



LEBL/BCN
EL PRAT

JEPPESEN
18 MAY 18 **(10-2V5)** **Eff 24 May**

BARCELONA, SPAIN

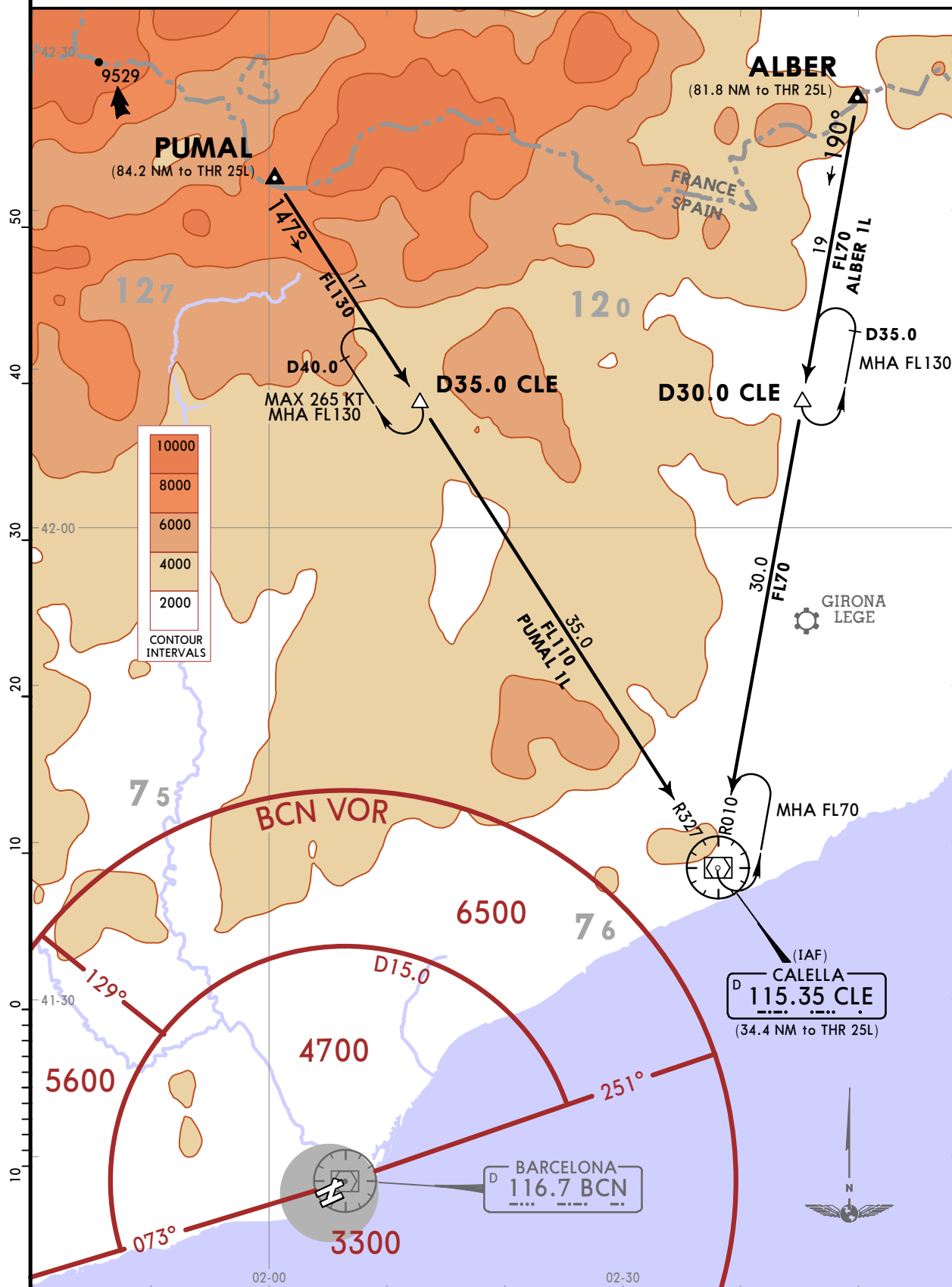
STAR

D-ATIS
118.650

Apt Elev
14

Alt Set: hPa
Trans level: By ATC

ALBER 1L [ALBE1L]
PUMAL 1L [PUMA1L]
RWY 25L CONTINUOUS DESCENT ARRIVALS (CDA)
BY ATC
USABLE BETWEEN 2300-0700LT

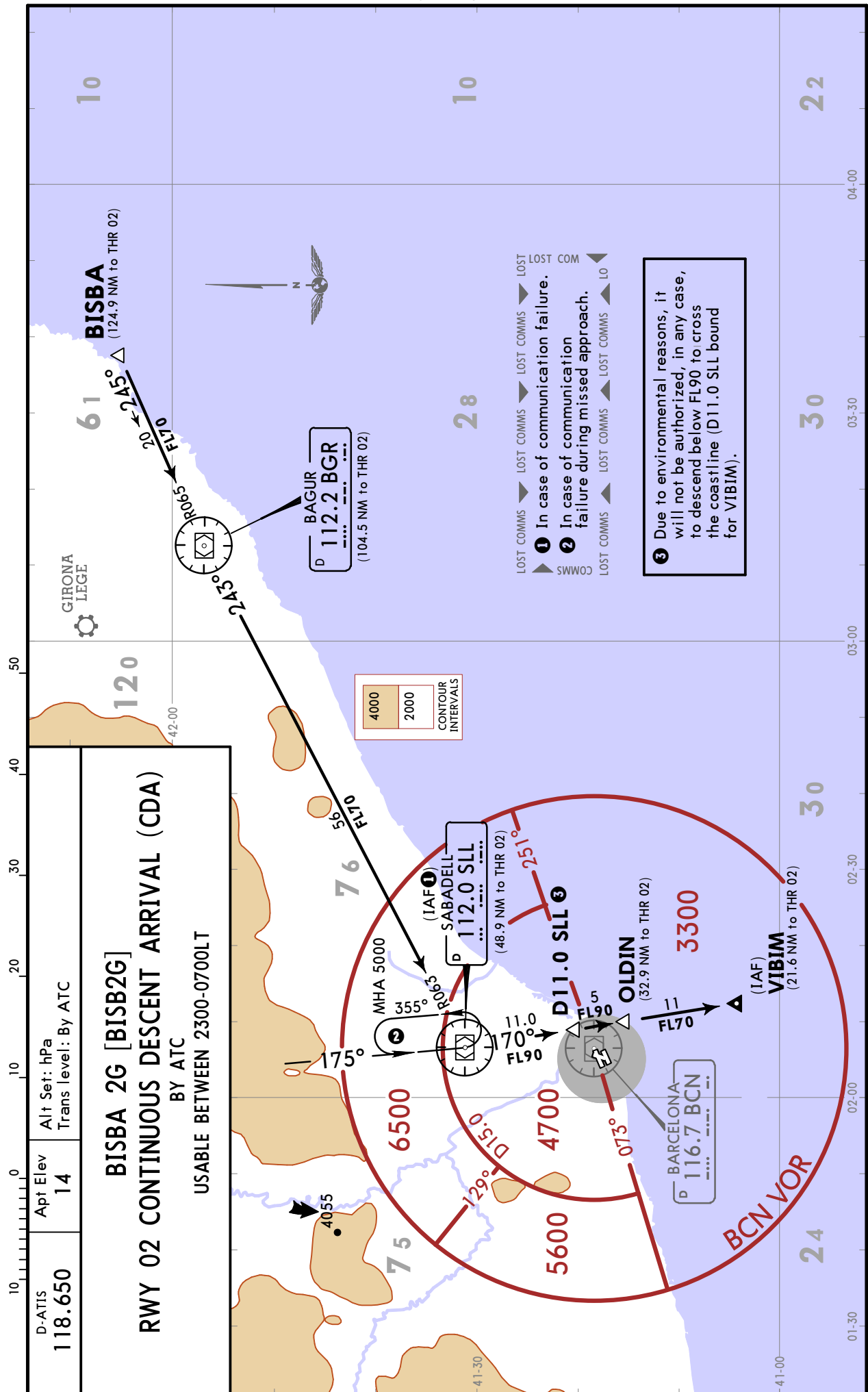


LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN**Eff 24 May**

BARCELONA, SPAIN

STAR

CHANGES: Chart reindexed; CDA renumbered & revised.

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LEBL/BCN
EL PRAT

18 MAY 18

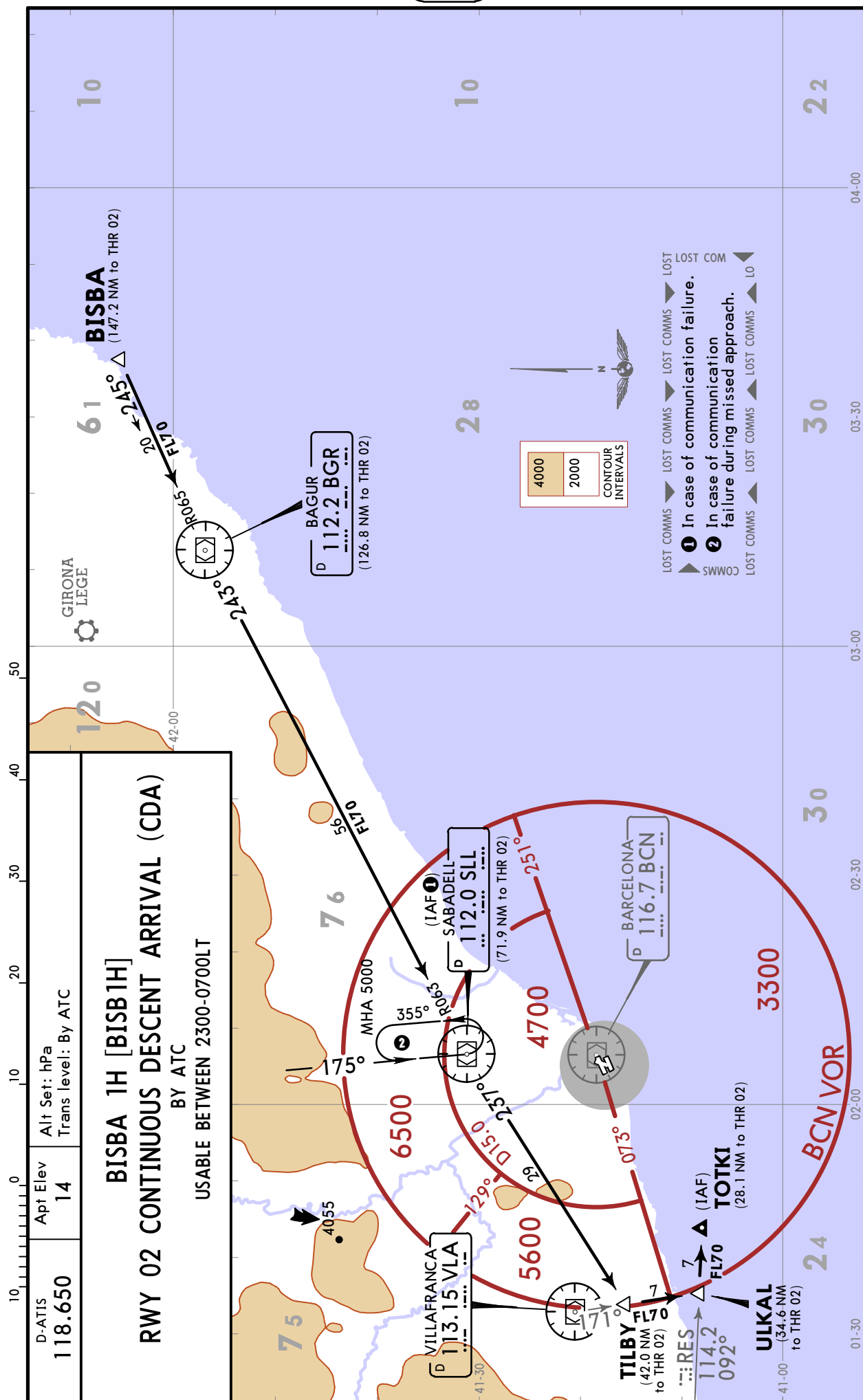
JEPPESSEN

10-2V7

Eff 24 May

BARCELONA, SPAIN

STAR



LEBL/BCN
EL PRAT

18 MAY 18

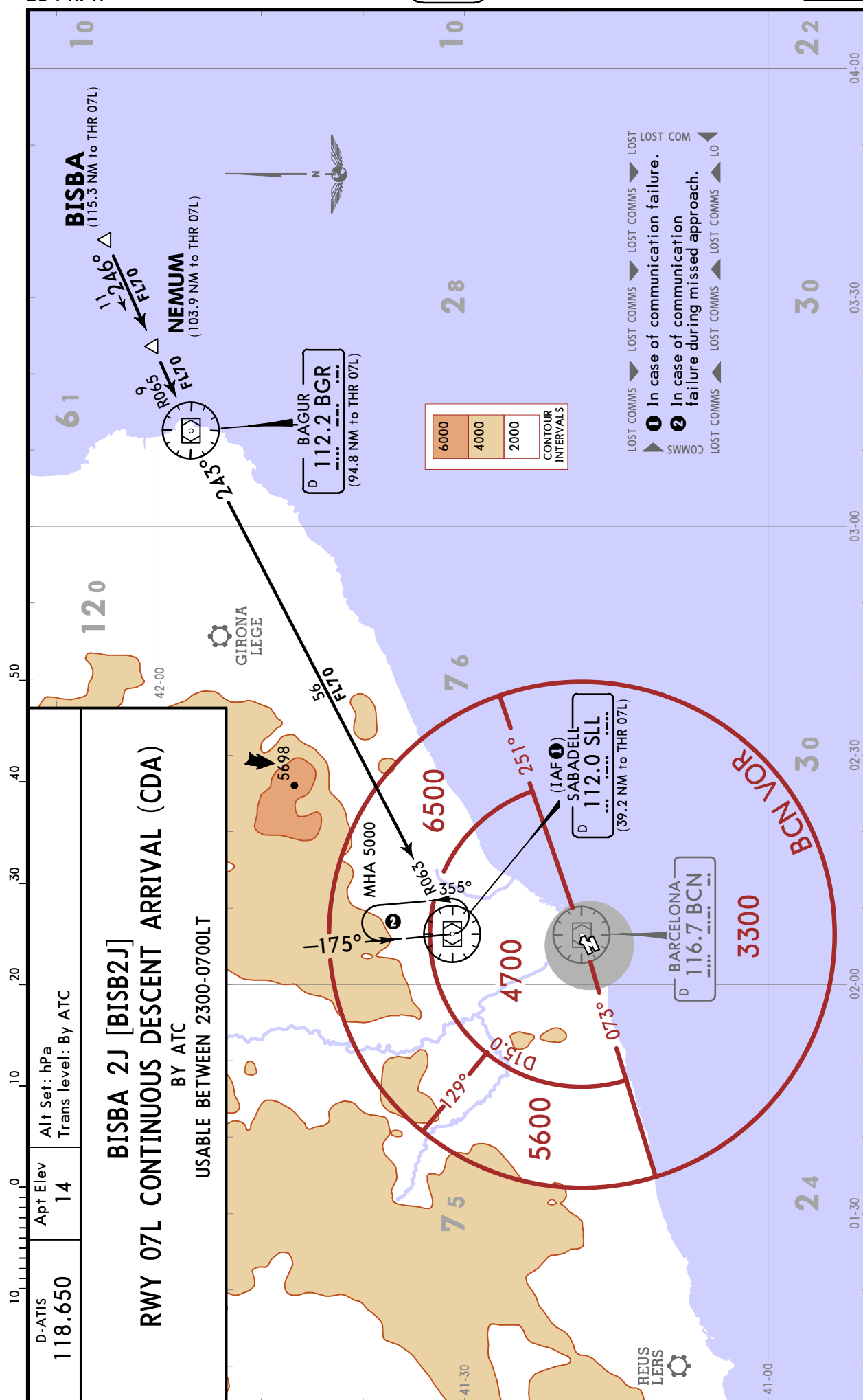
JEPPesen

10-2V8

Eff 24 May

BARCELONA, SPAIN

STAR



CHANGES: None.

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LEBL/BCN
EL PRAT

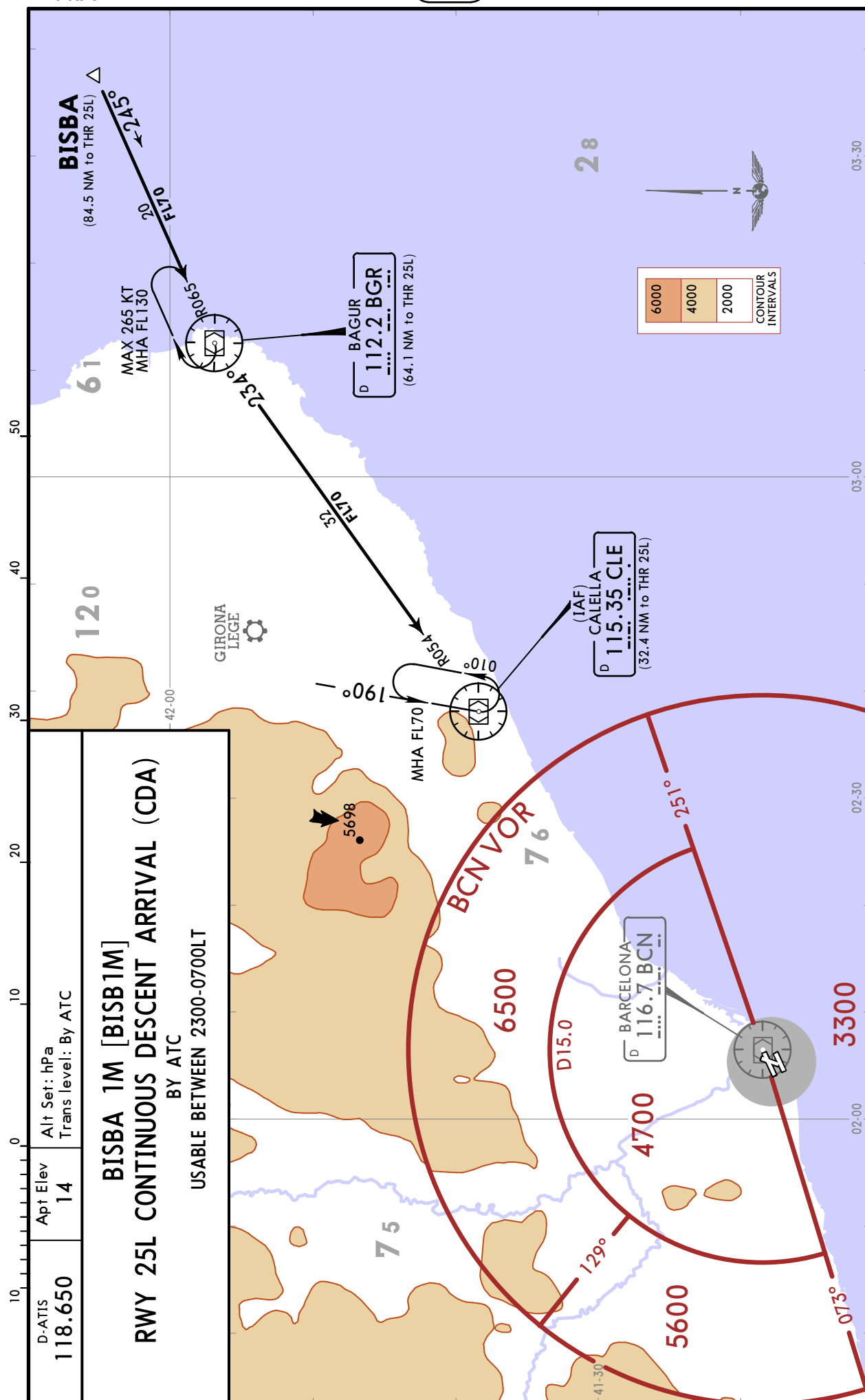
18 MAY 18

JEPPesen

10-2W

Eff 24 May

BARCELONA, SPAIN

STAR

CHANGES: None.

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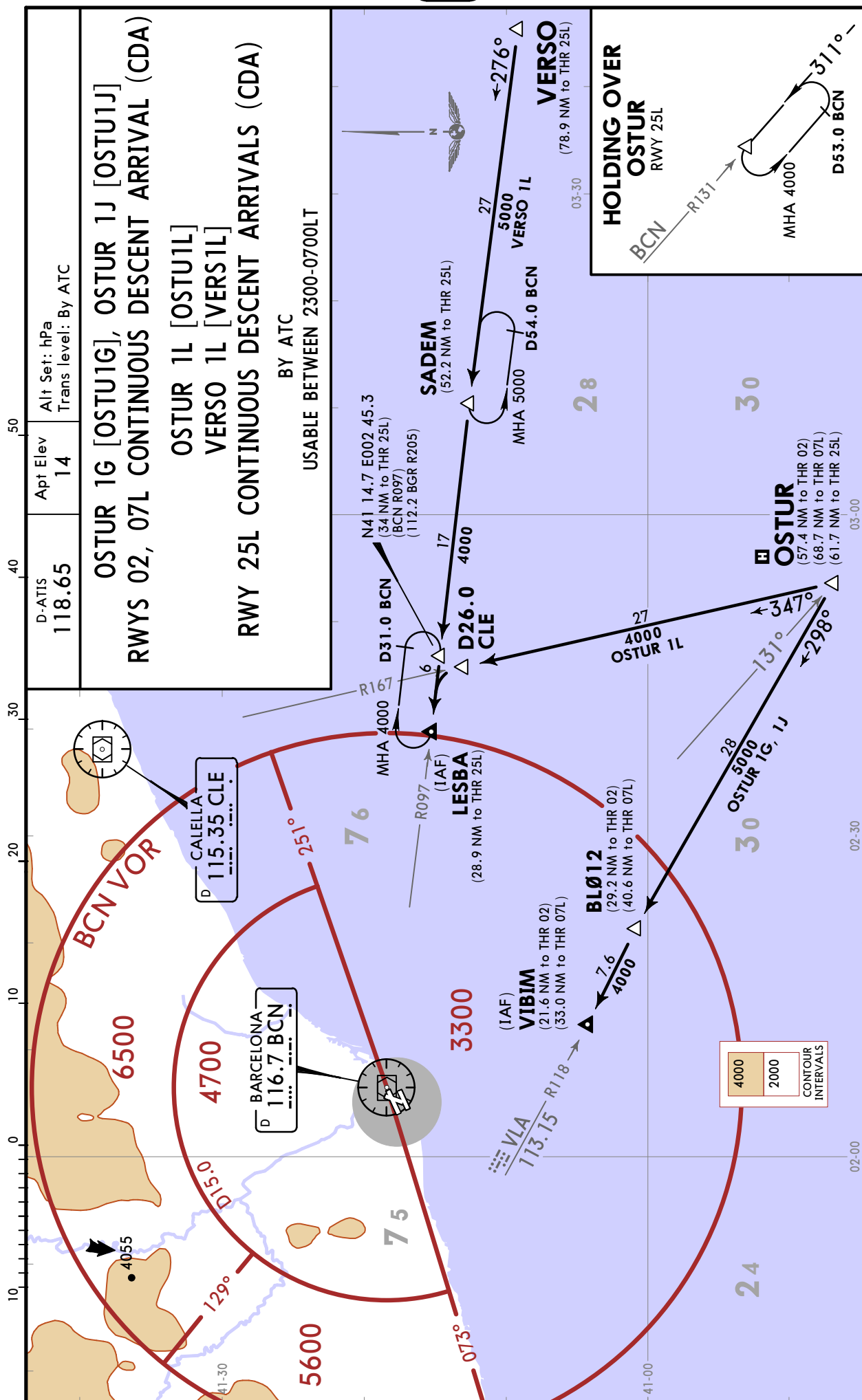
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN
10-2X Eff 24 May

BARCELONA, SPAIN

STAR



CHANGES: Reissue.

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LEBL/BCN
EL PRAT

18 MAY 18

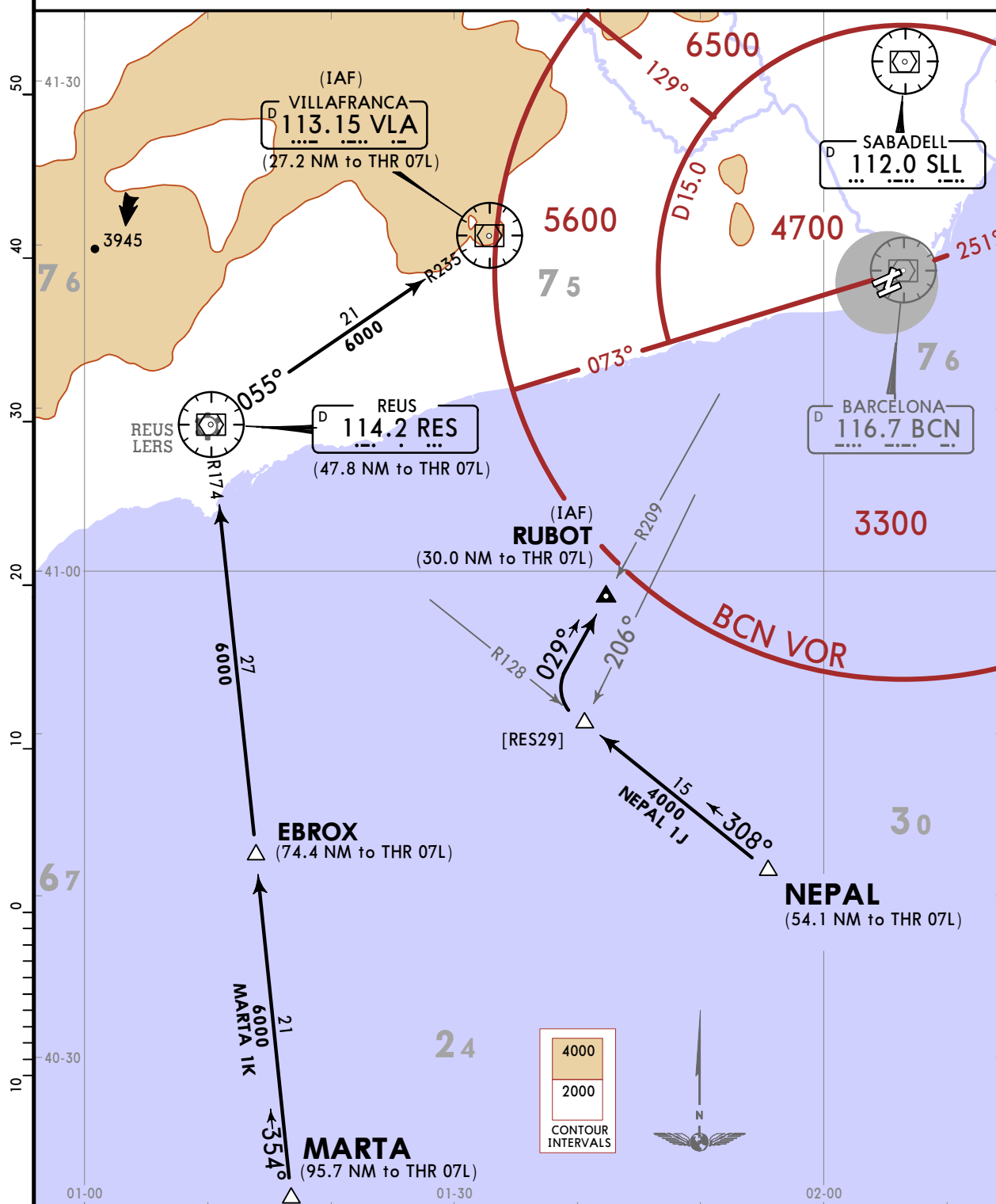
JEPPESEN

10-2X1

Eff 24 May

BARCELONA, SPAIN

STAR

D-ATIS
118.650Apt Elev
14Alt Set: hPa
Trans level: By ATCMARTA 1K [MART1K], NEPAL 1J [NEPA1J]
RWY 07L CONTINUOUS DESCENT ARRIVAL (CDA)BY ATC
USABLE BETWEEN 2300-0700LT

LEBL/BCN
EL PRAT

18 MAY 18

JEPPESEN**Eff 24 May**

BARCELONA, SPAIN

STAR

D-ATIS
118.650

Apt Elev
14

Alt Set: hPa
Trans level: By ATC

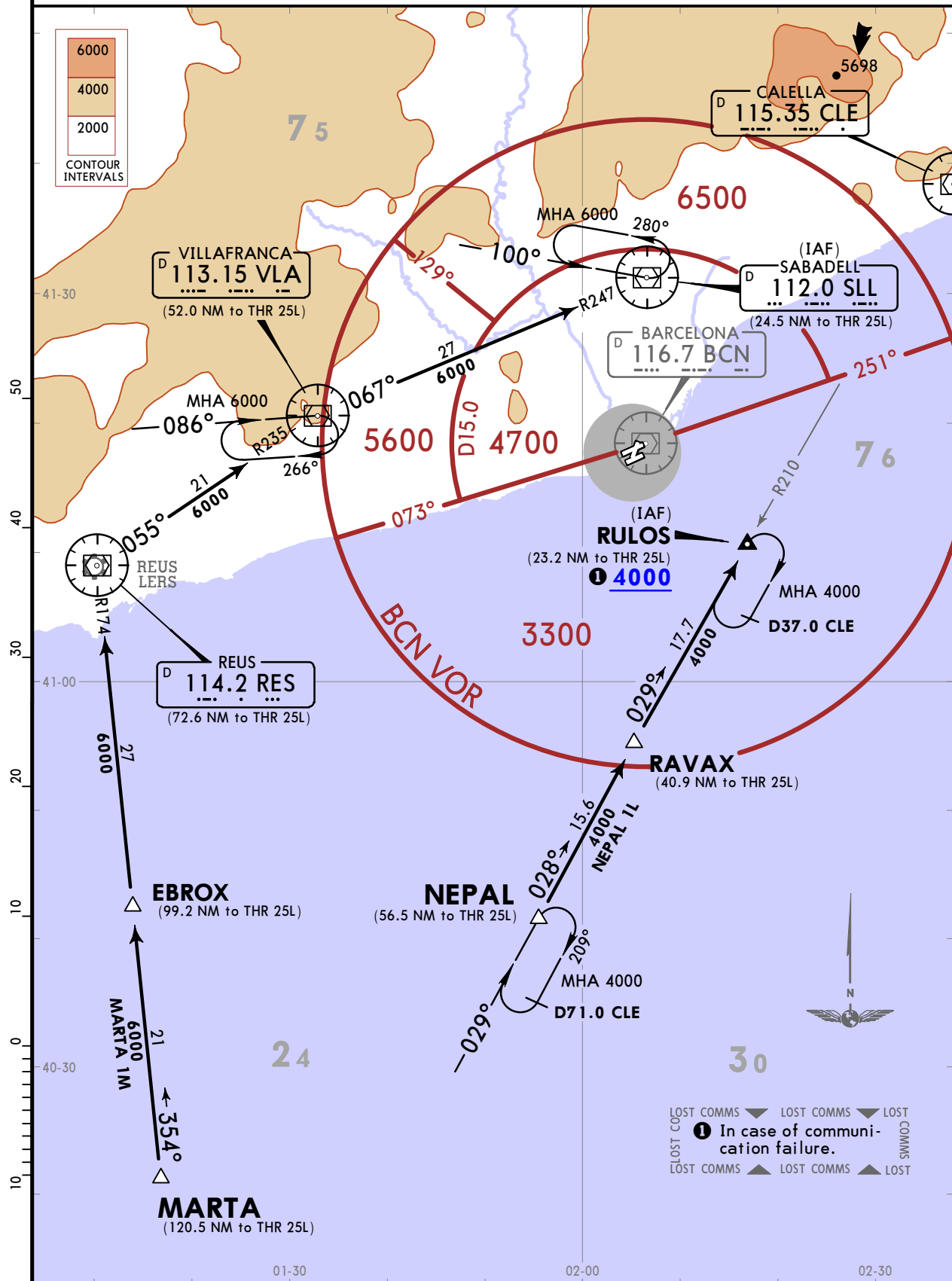
MARTA 1M [MART1M]

NEPAL 1L [NEPA1L]

RWY 25L CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC

USABLE BETWEEN 2300-0700LT



CHANGES: None.

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LEBL/BCN
EL PRAT

18 MAY 18

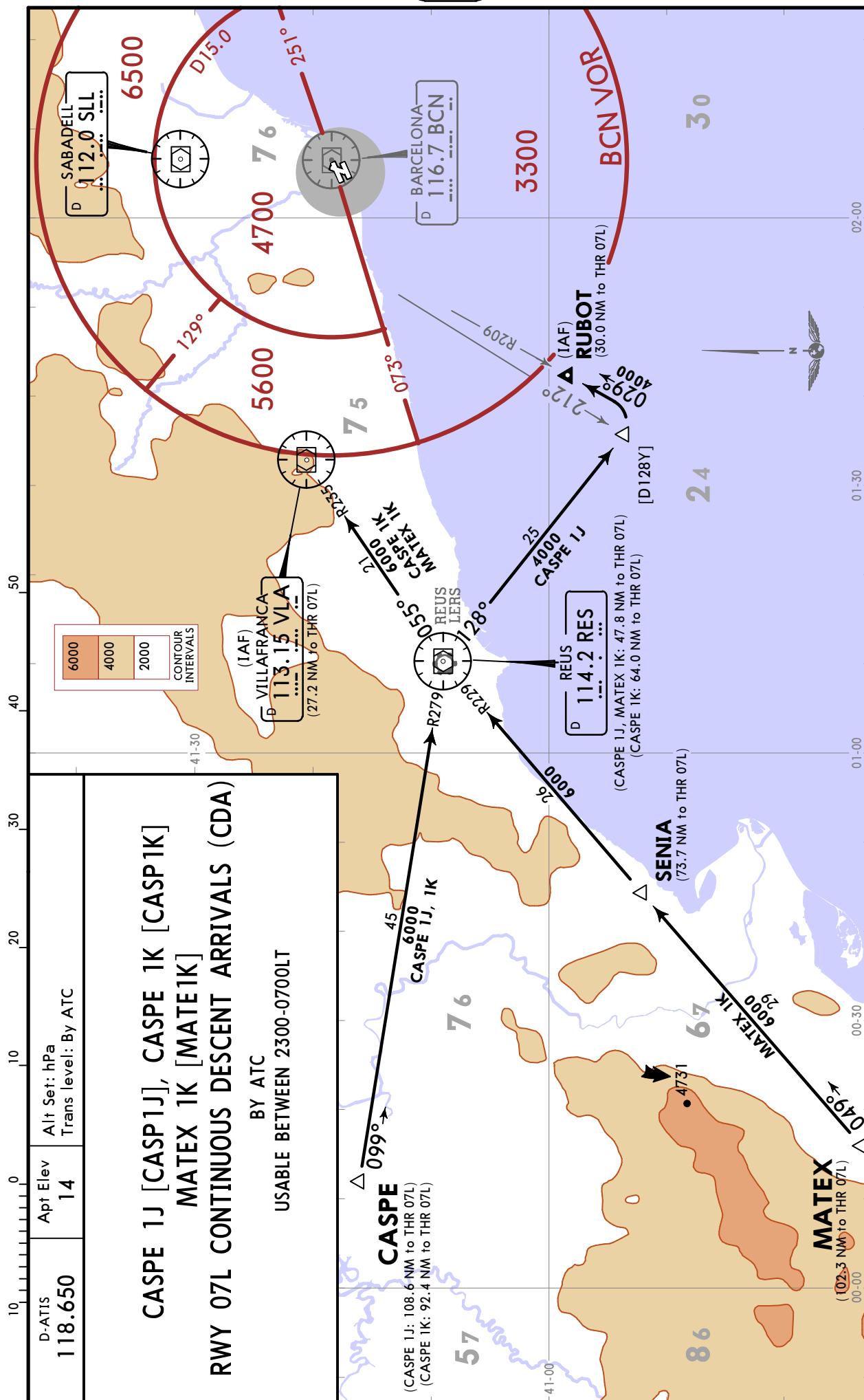
JEPPESEN

10-2X3

Eff 24 May

BARCELONA, SPAIN

STAR



LEBL/BCN
EL PRAT

18 MAY 18

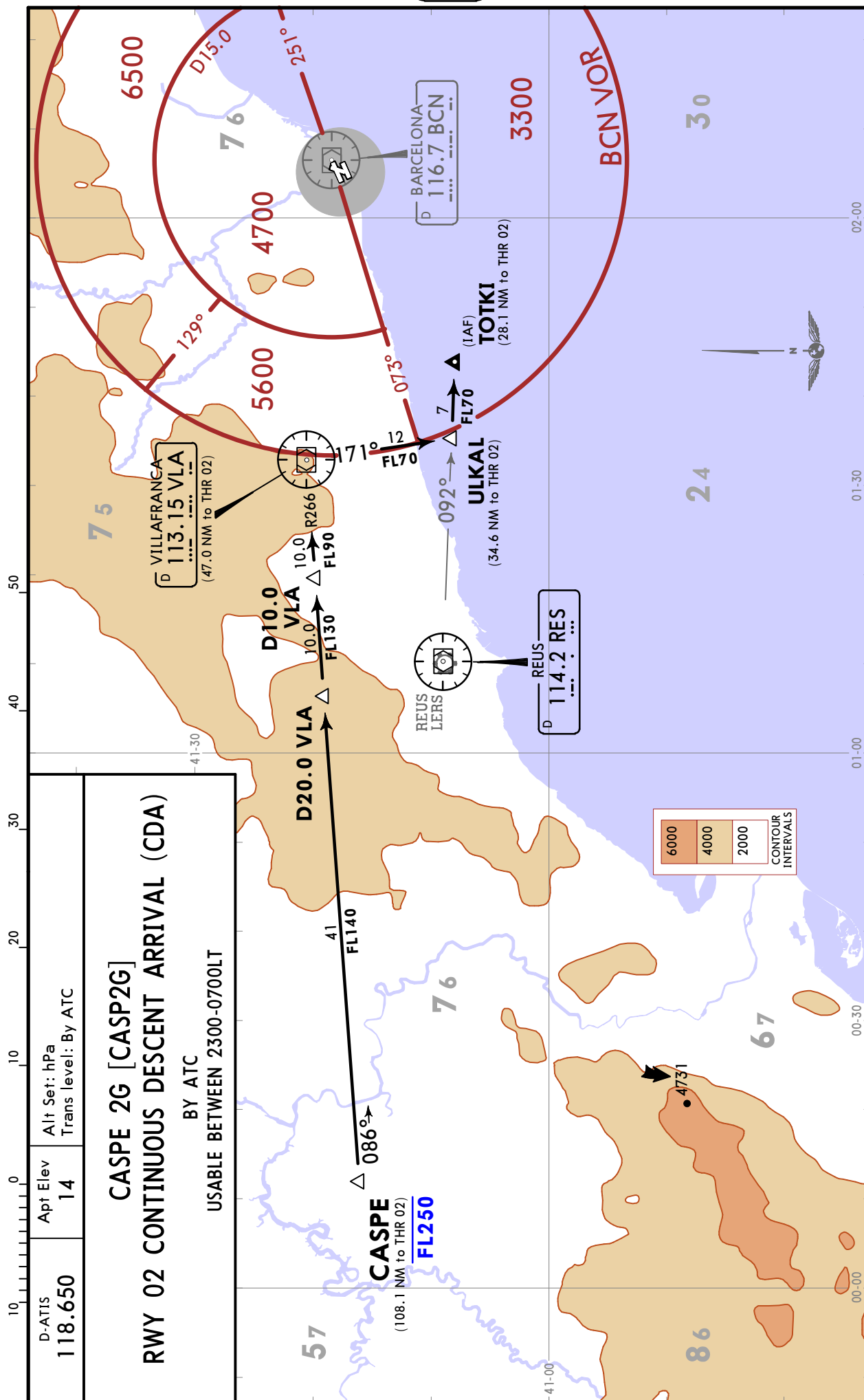
JEPPESEN

10-2X4

Eff 24 May

BARCELONA, SPAIN

STAR



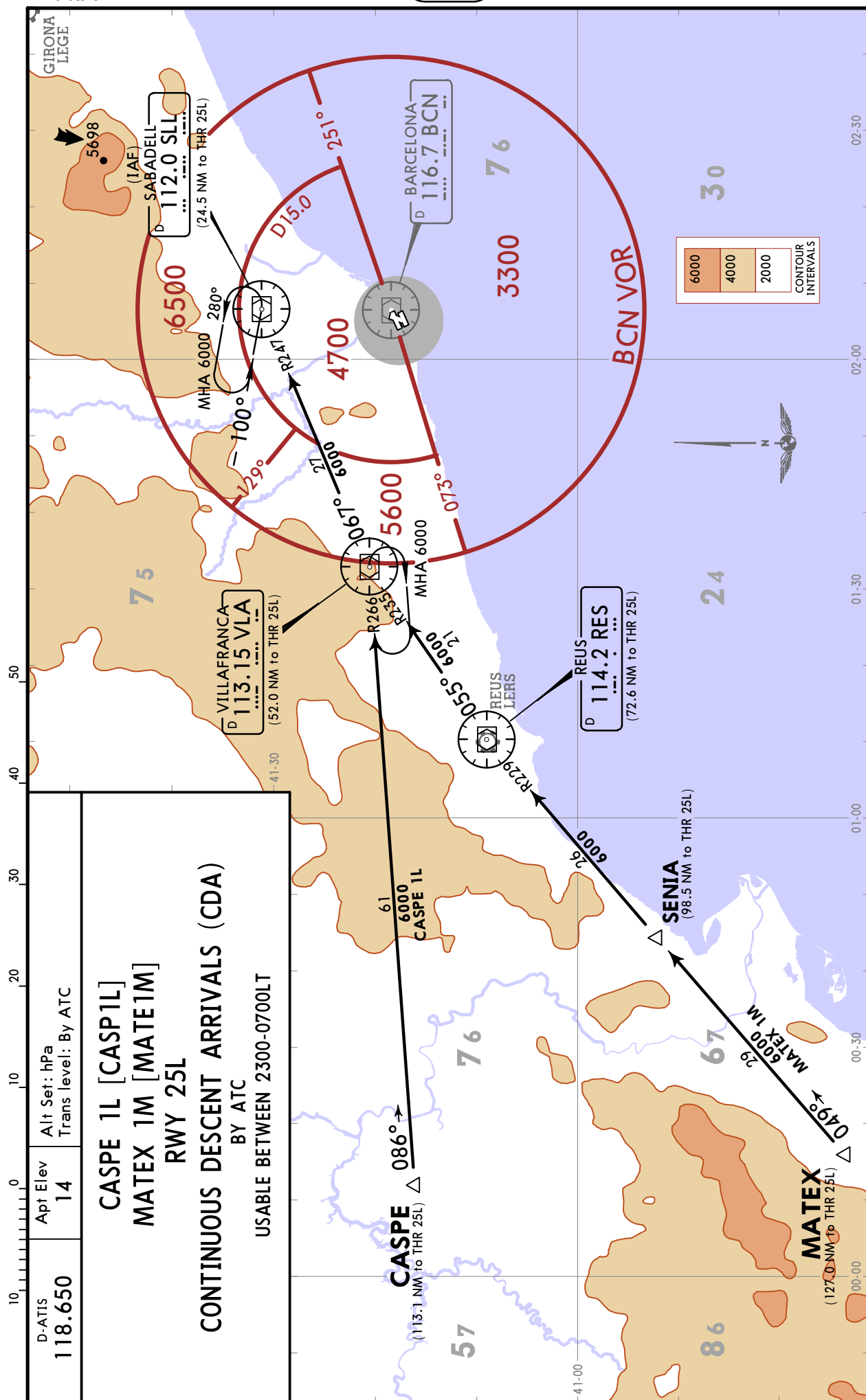
LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN

10-2X5

Eff 24 May

BARCELONA, SPAIN
STAR


LEBL/BCN
EL PRAT

18 MAY 18

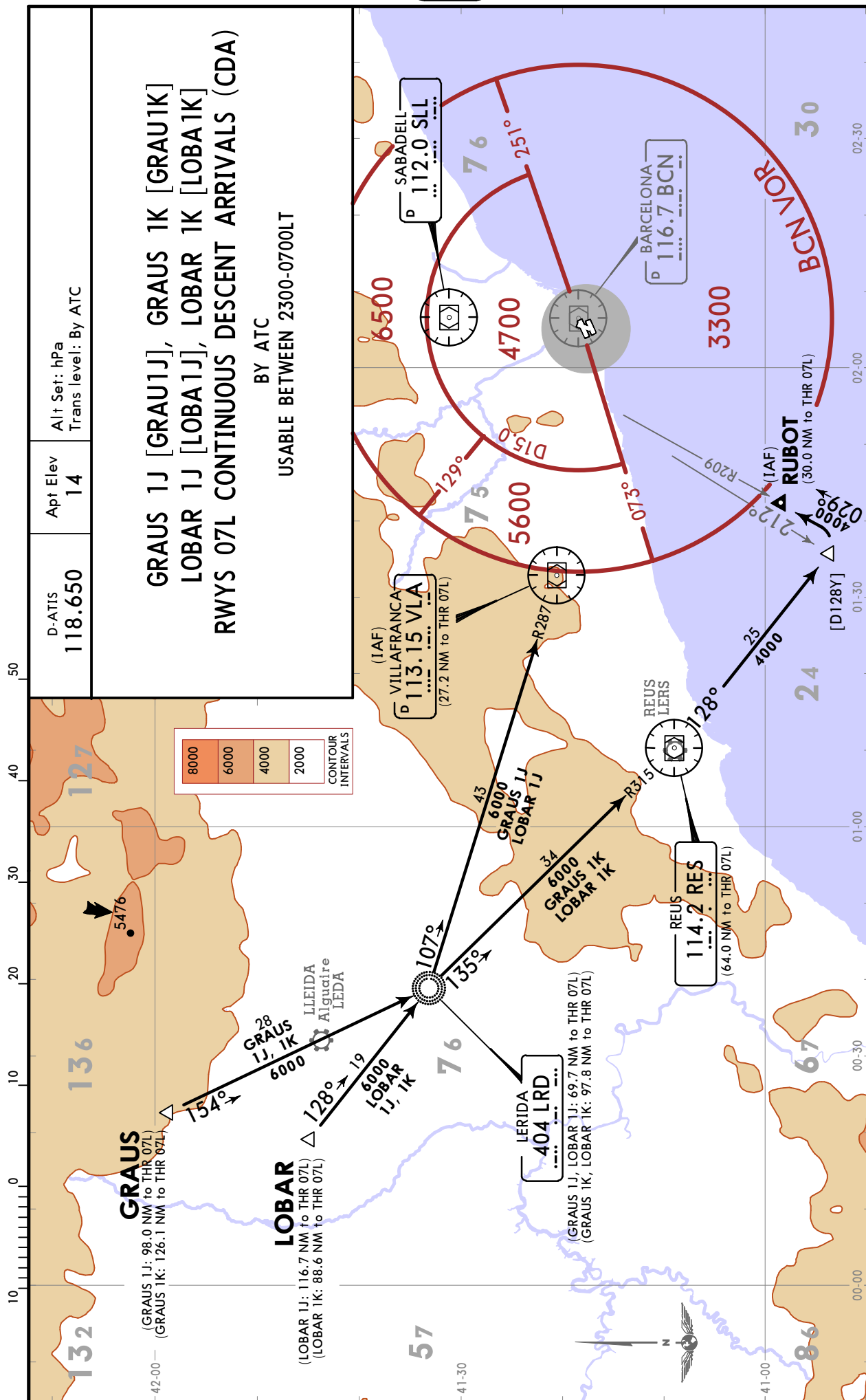
JEPPESEN

10-2X6

Eff 24 May

BARCELONA, SPAIN

STAR

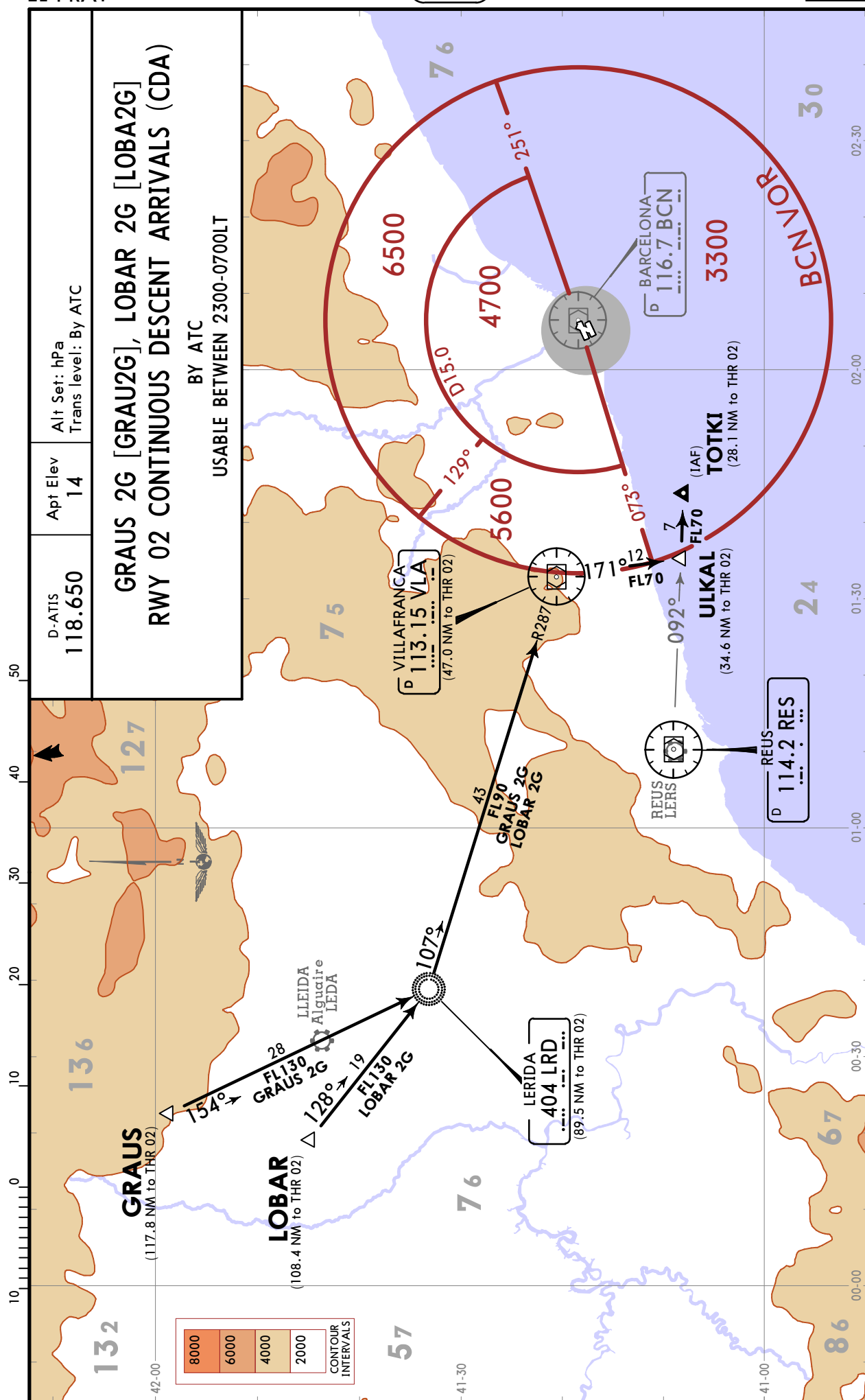


LEBL/BCN
EL PRAT

10 AUG 18

JEPPESEN

BARCELONA, SPAIN

STAR

CHANGES: MEA revised on segments GRAUS and LOBAR to LRD.

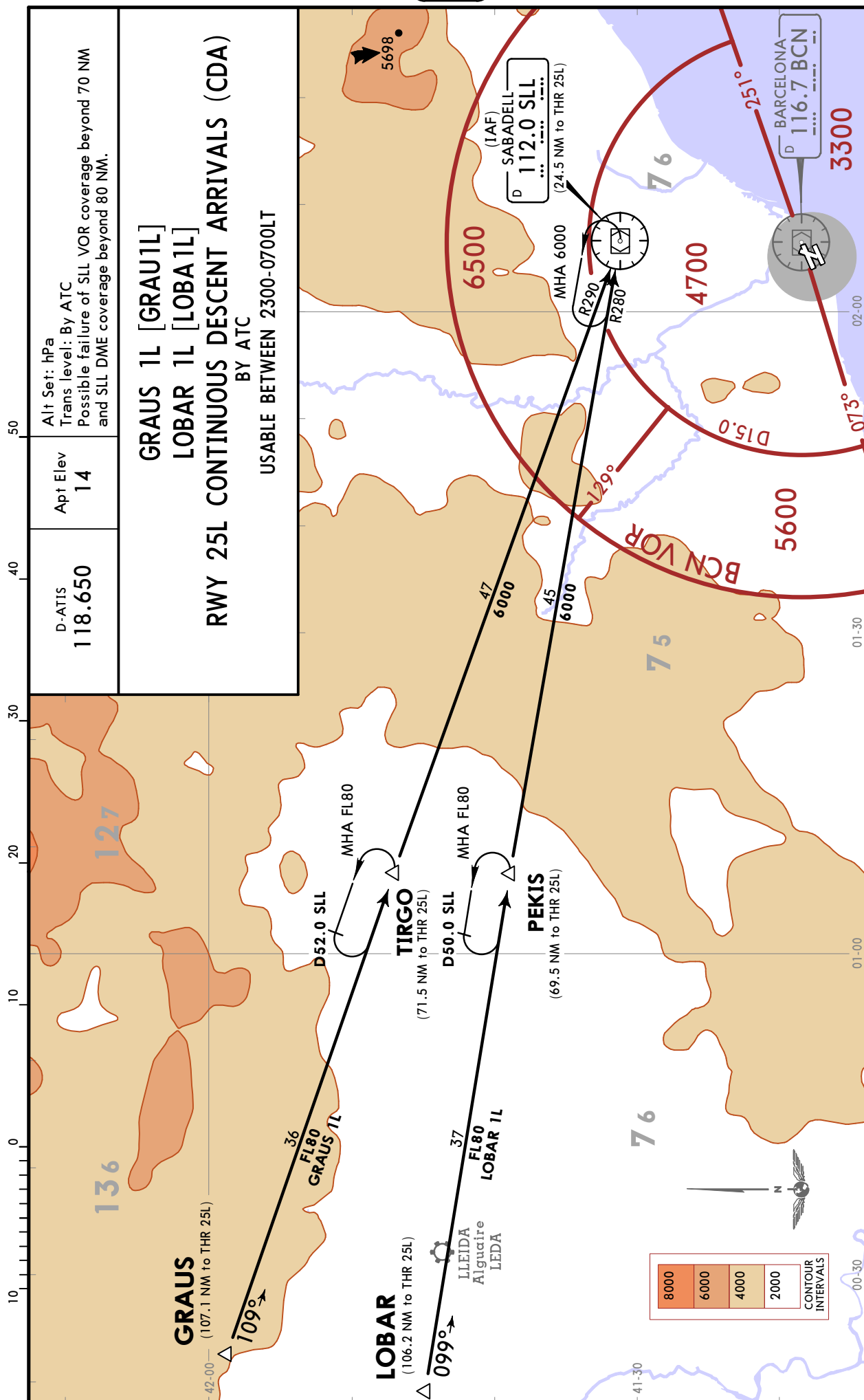
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LEBL/BCN
EL PRAT

JEPPesen
10 AUG 18 **10-2X8**

BARCELONA, SPAIN

STAR



LEBL/BCN
EL PRAT **JEPPesen**
26 JAN 18 **10-3****Eff 1 Feb****BARCELONA, SPAIN****RNAV SID**

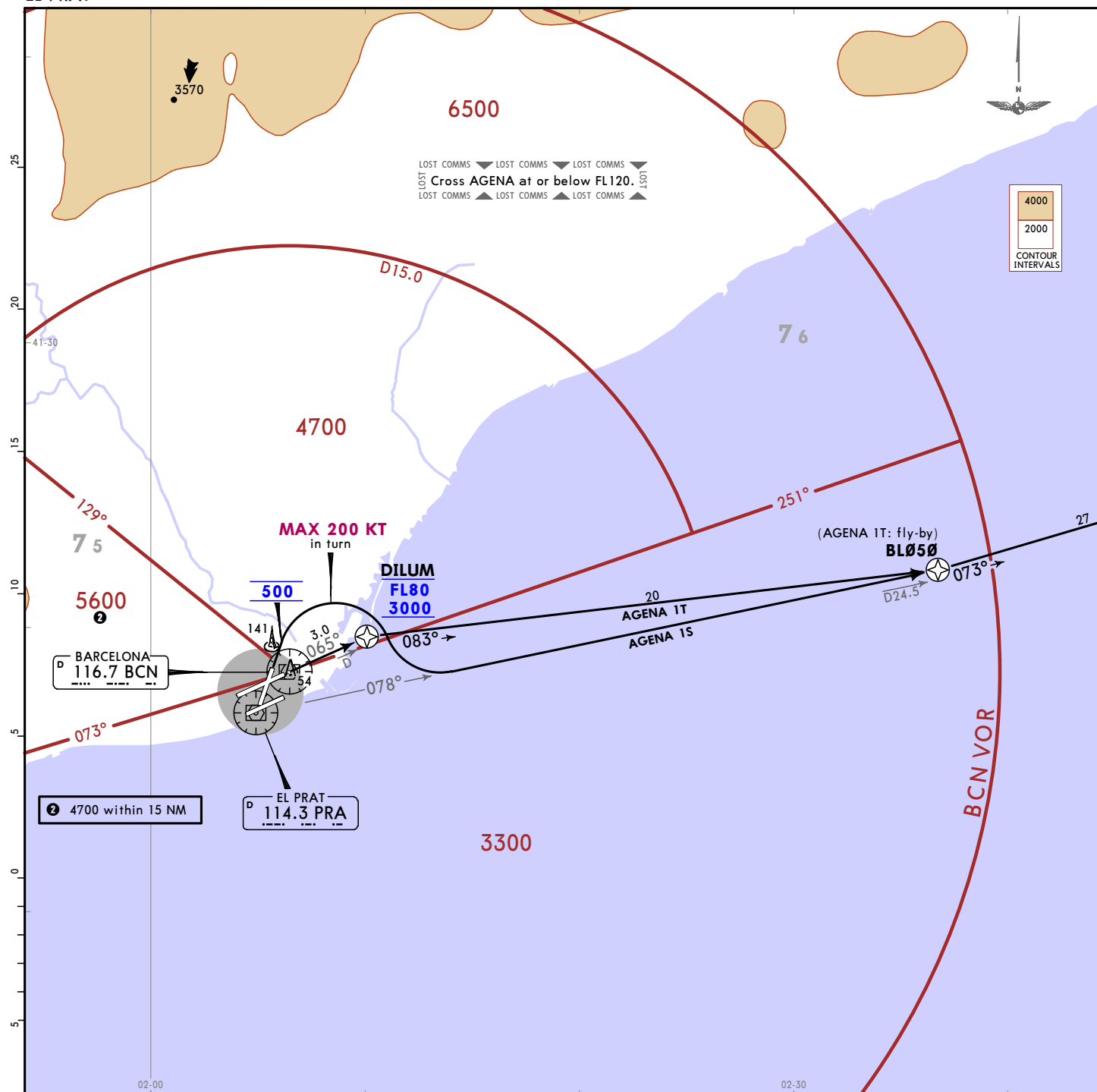
RNAV SID DESIGNATION	REFER TO CHART
AGENA 1S, 1T	10-3B
AGENA 2P, 3Q	10-3C
AGENA 2R	10-3D
DALIN 1S, 1T	10-3E
DALIN 2P, 3Q	10-3F
DALIN 2R	10-3G
DUNES 1S, 1T	10-3H
DUNES 2P, 3Q	10-3J
DUNES 2R	10-3J01
GRAUS 1S, 1T	10-3J02
GRAUS 2P, 3Q	10-3J03
GRAUS 2R	10-3J04
GRAUS 1N, 1Z	10-3J05
LARPA 1S, 1T	10-3J06
LARPA 2P, 3Q	10-3J07
LARPA 2R	10-3J08
LOBAR 1S, 1T	10-3J09
LOBAR 2P, 3Q	10-3J10
LOBAR 2R	10-3J11
LOBAR 1N, 1Z	10-3J12
LOTOS 1S, 1T	10-3K
LOTOS 2P, 3Q	10-3L
LOTOS 2R	10-3L1
MOPAS 1S, 1T	10-3L2
MOPAS 2P, 3Q	10-3L3
MOPAS 2R	10-3L4
MOPAS 1N, 1Z	10-3L5
OKABI 1S, 1T	10-3L6
OKABI 2P, 3Q	10-3L7
OKABI 2R	10-3L8
OKABI 1N, 1Z	10-3M
SENIA 1S, 1T	10-3N
SENIA 2P, 3Q	10-3N1
SENIA 4R	10-3N2
VERSO 1S, 1T	10-3N3
VERSO 2P, 3Q	10-3N4
VERSO 2R	10-3N5
FOR SID DESIGNATION REFER TO PAGE 10-3A	

LEBL/BCN
EL PRAT **JEPPesen**
26 JAN 18 **(10-3A)** **Eff 1 Feb****BARCELONA, SPAIN****SID**

SID DESIGNATION	REFER TO CHART
AGENA 1C	10-3N6
AGENA 1A, 2B	10-3N7
AGENA 3D, 1F	10-3N8
CALELLA 1C	10-3P
CALELLA 1A, 1B	10-3Q
CALELLA 2D, 1F	10-3Q1
DALIN 1C	10-3Q2
DALIN 1A, 2B	10-3Q3
DALIN 3D, 1F	10-3Q4
DUNES 1C	10-3Q5
DUNES 1A, 2B	10-3Q6
DUNES 3D, 1F	10-3Q7
GRAUS 1C	10-3Q8
GRAUS 1A, 5B	10-3S
GRAUS 6D, 1F	10-3T
LARPA 1C	10-3T1
LARPA 1A, 2B	10-3T2
LARPA 3D, 1F	10-3T3
LOBAR 1C	10-3T4
LOBAR 1A, 4B	10-3T5
LOBAR 5D, 1F	10-3T6
LOTOS 1C	10-3T7
LOTOS 1A, 2B	10-3T8
LOTOS 4D, 1F	10-3U
MOPAS 1C	10-3V
MOPAS 1A, 5B	10-3V1
MOPAS 7D, 1F	10-3V2
OKABI 1C	10-3V3
OKABI 1A, 5B	10-3V4
OKABI 6D, 1F	10-3V5
SENIA 1C	10-3V6
SENIA 1A, 4B	10-3V7
SENIA 6D, 1F	10-3V8
VERSO 1C	10-3W
VERSO 1A, 2B	10-3X
VERSO 3D, 1F	10-3X1
VILLAFRANCA 1C	10-3X2
VILLAFRANCA 1A, 1B	10-3X3
VILLAFRANCA 2D, 1F	10-3X4
CONTINGENCY DEPS	10-3X5

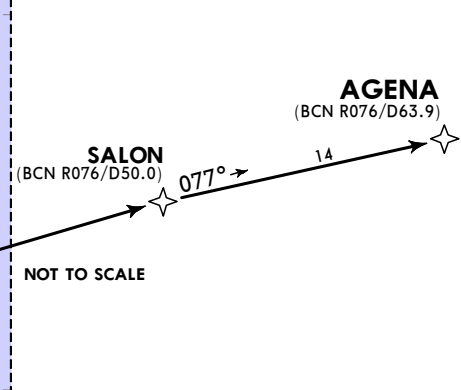
LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3B) RNAV SID



Trans alt: 6000
1. RNAV approval required.
2. These SIDs are restricted RNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

AGENA 1S [AGEN1S]
AGENA 1T [AGEN1T]
RWYS 02, 07L
RNAV DEPARTURES
SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of

AGENA 1S: 5.0% up to 1000.
AGENA 1T: 5.7% up to 1800.

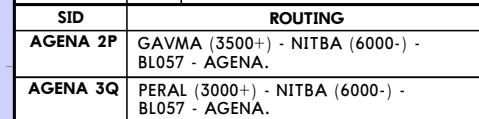
Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
AGENA 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept PRA R078 to BL050 (D24.5 PRA), then to SALON, then to AGENA.
AGENA 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), then to BL050, then to SALON, then to AGENA.

① Turns before departure end of runway (DER) are not allowed.

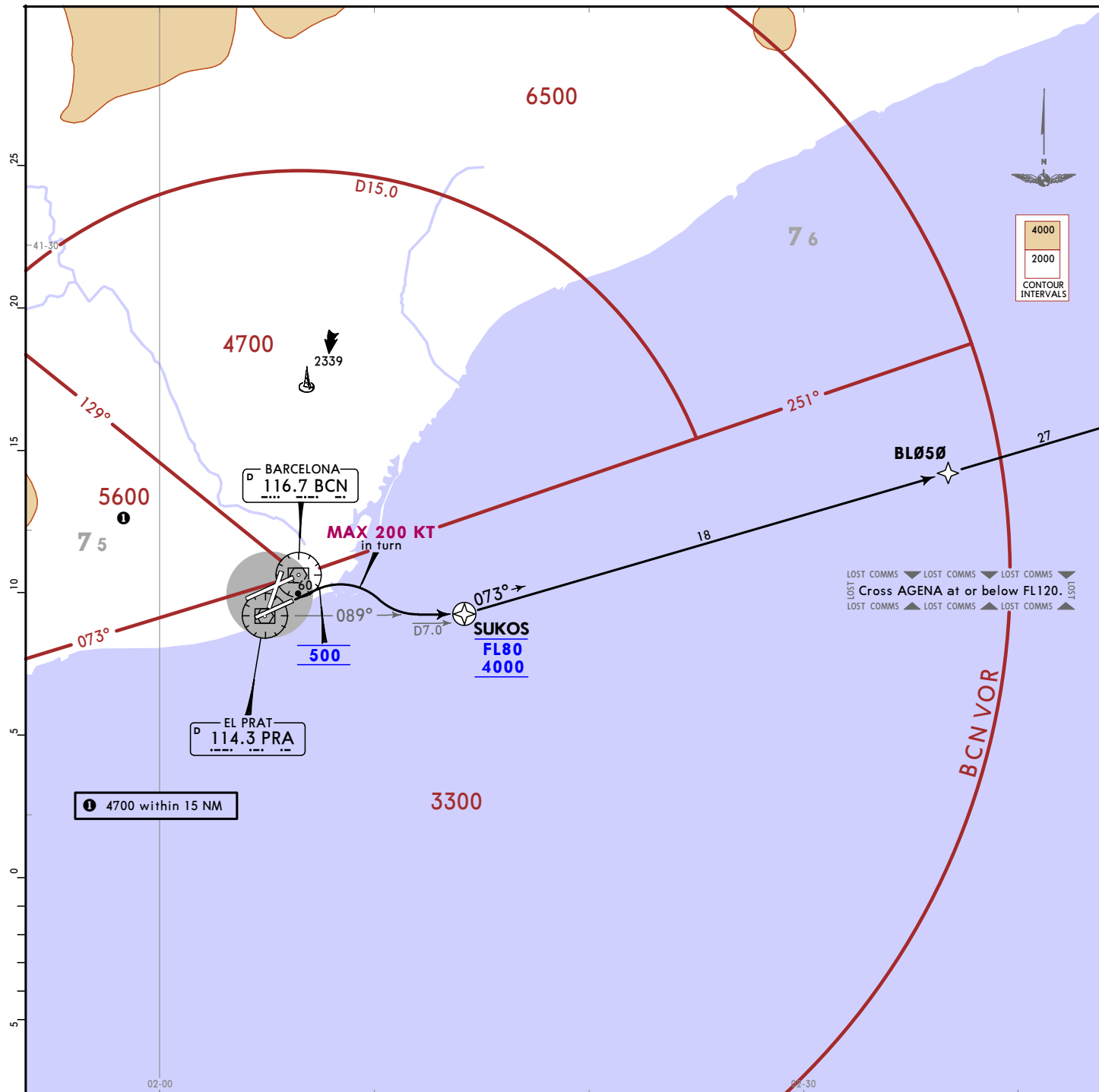
JEPPESSEN BARCELONA, SPAIN
10 AUG 18 **10-3C** **RNAV SID**



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LEBL/BCN
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JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3D) RNAV SID



Trans alt: 6000
1. RNAV approval required.
2. This SID is a restricted RNAV procedure to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

AGENA 2R [AGEN2R]
RWY 07R RNAV DEPARTURE
SPEED: MAX 250 KT BELOW FL100

AGENA (BCN R076/D63.9)
SALON (BCN R076/D50.0)

NOT TO SCALE

LOST COMMS
LOST COMMS
LOST COMMS
LOST COMMS
LOST COMMS
LOST COMMS
LOST COMMS
LOST COMMS

Cross AGENA at or below FL120.

This SID requires a minimum climb gradient of 4.8% up to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V(fpm)	365	486	729	972	1215	1458

Turns before departure end of runway (DER) are not allowed.

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

INITIAL CLIMB/ROUTING
Climb on runway heading to 500, turn RIGHT, intercept PRA R089 to SUKOS (D7.0 PRA), then to BL050, then to SALON, then to AGENA.

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3E) RNAV SID

Apt Elev
14

Trans alt: 6000
1. **BRNAV approval required.**
2. These SIDs are restricted BRNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

DALIN 1S [DALI1S]

DALIN 1T [DALI1T]

RWYS 02, 07L

RNAV DEPARTURES

SPEED: MAX 250 KT BELOW FL100

DALIN

(BCN R065/D61.9)

FEVIK
(BCN R065/D53.9)

NOT TO SCALE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST Cross DALIN at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

These SIDs require minimum climb gradients of

DALIN 1S: 5.0% up to 1000.

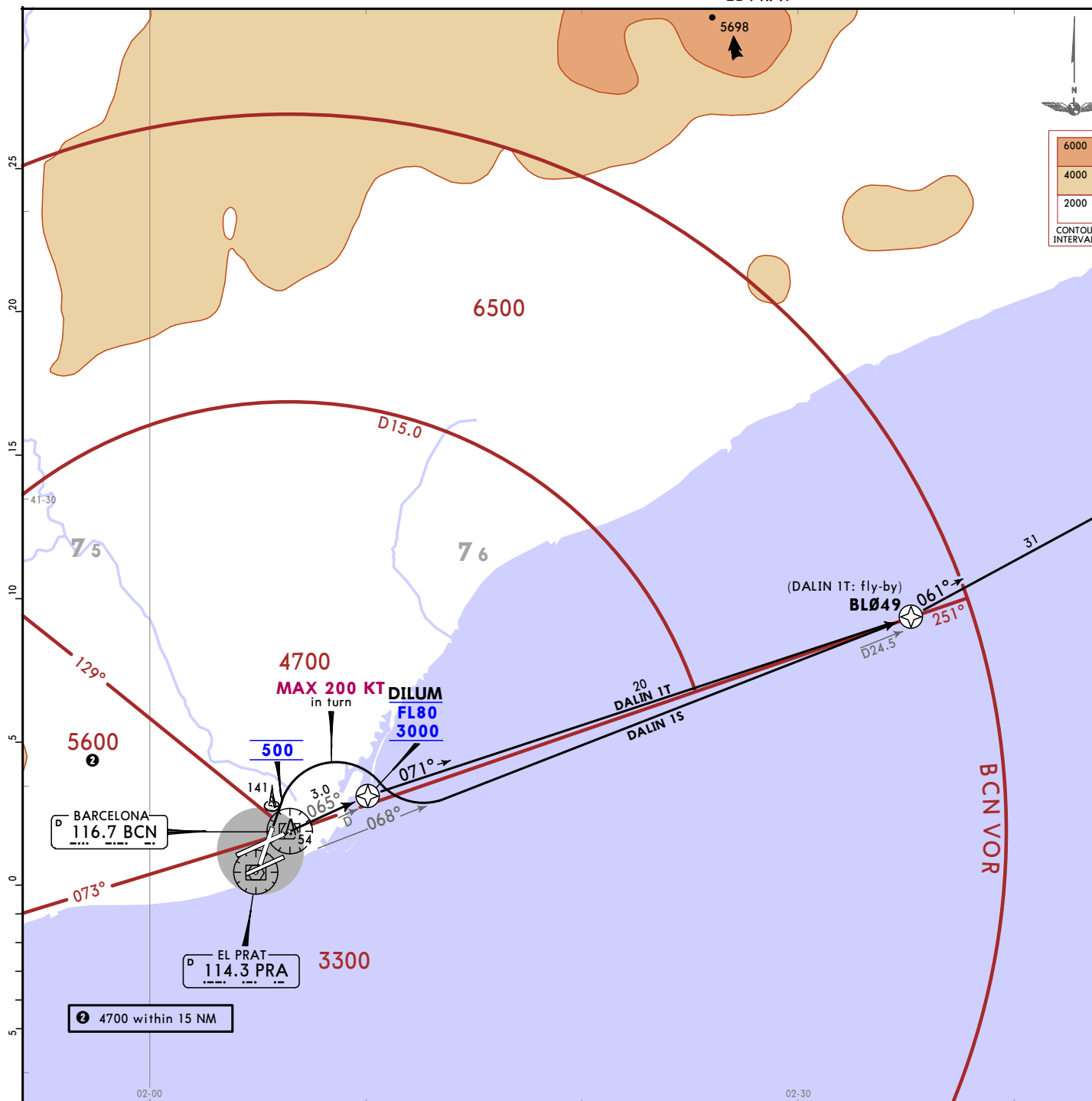
DALIN 1T: 5.7% up to 1800.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
DALIN 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept PRA R068 to BL049 (D24.5 PRA), then to FEVIK, then to DALIN.
DALIN 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), then to BL049, then to FEVIK, then to DALIN.

① Turns before departure end of runway (DER) are not allowed.



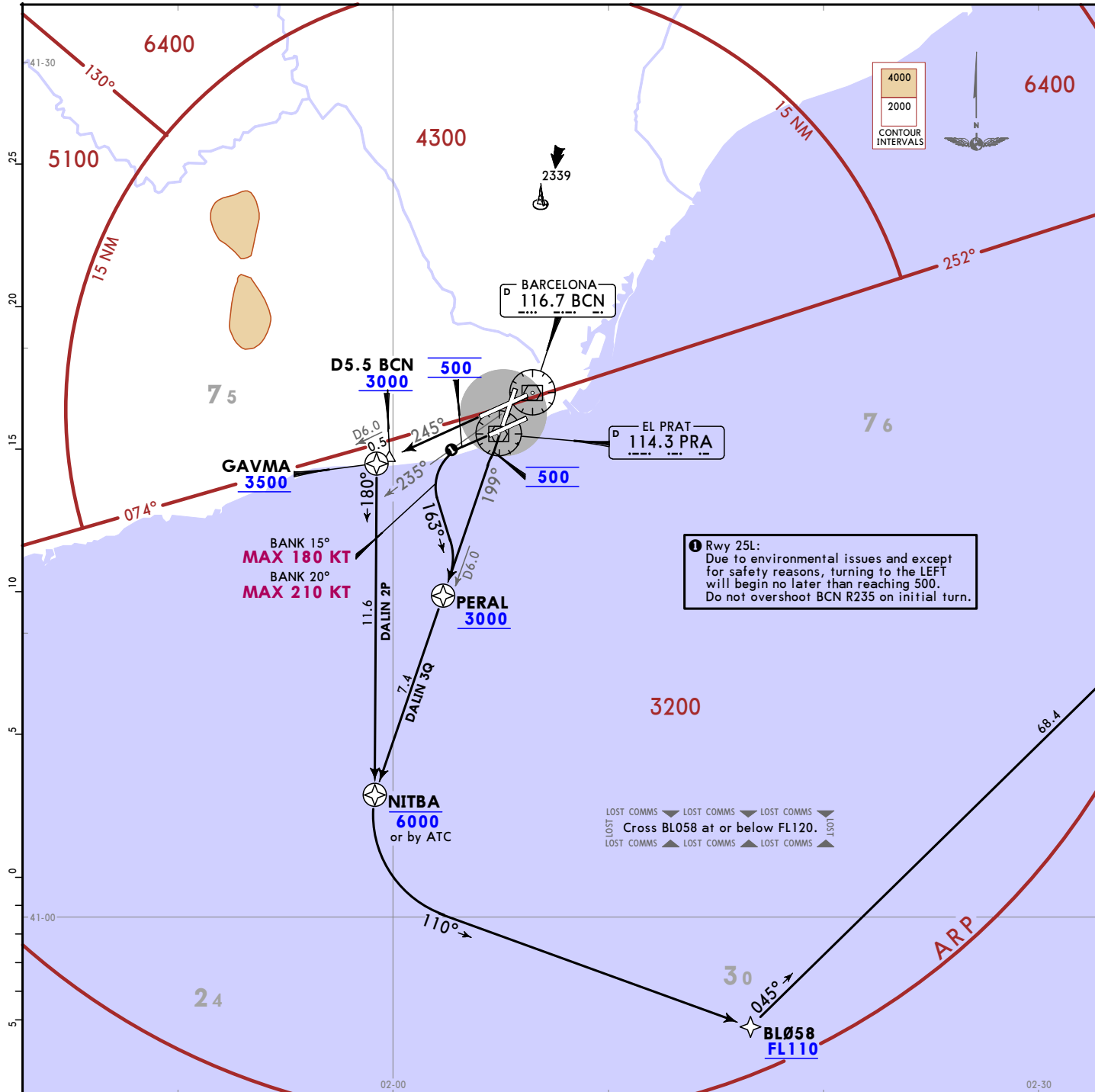
LEBL/BCN

EL PRAT

JEPPESEN BARCELONA, SPAIN

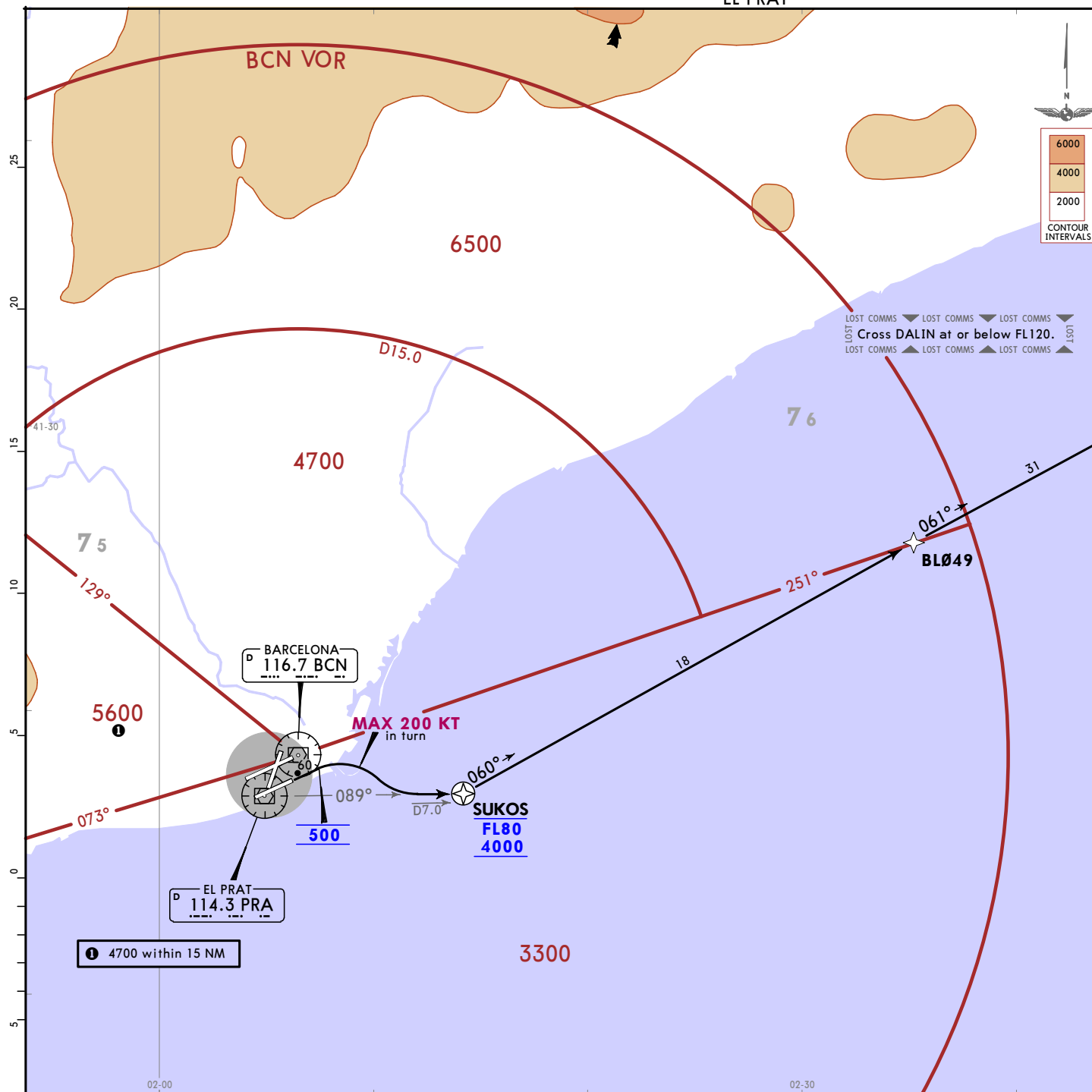
10 AUG 18 10-3F

RNAV SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3G) RNAV SID



Apt Elev
14

Trans alt: 6000
1. BRNAV approval required.
2. This SID is a restricted BRNAV procedure to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

DALIN 2R [DALI2R]
RWY 07R RNAV DEPARTURE
SPEED: MAX 250 KT BELOW FL100

This SID requires a minimum climb gradient of 4.8% up to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V(fpm)	365	486	729	972	1215	1458

Turns before departure end of runway (DER) are not allowed.

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

INITIAL CLIMB/ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R089 to SUKOS (D7.0 PRA), then to BL049, then to FEVIK, then to DALIN.

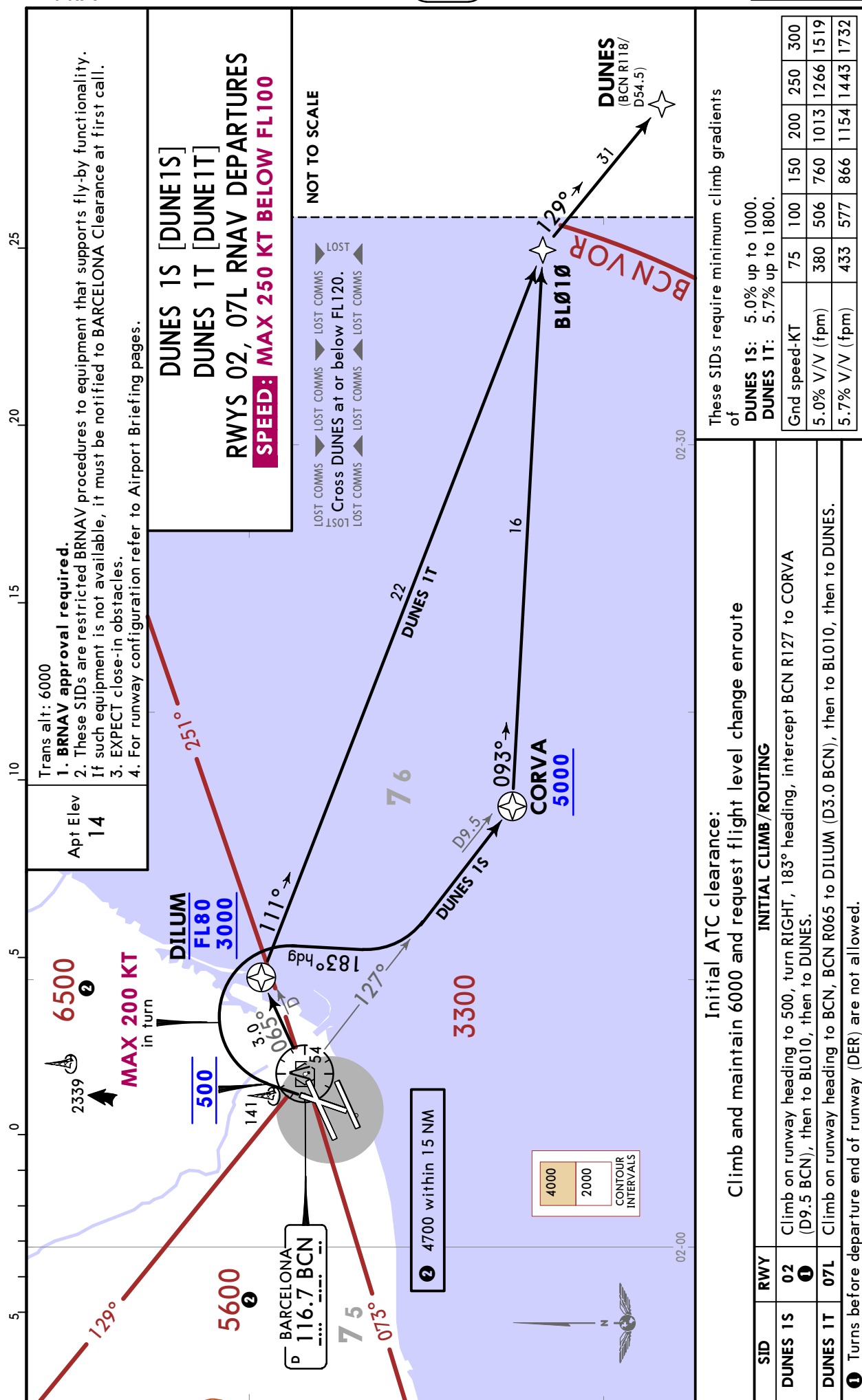
LEBL/BCN
EL PRAT

10 AUG 18

JEPPESEN

10-3H

BARCELONA, SPAIN

RNAV SID

CHANGES: Reissue.

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LEBL/BCN
EL PRAT

10 AUG 18

JEPPESSEN
10-3J

BARCELONA, SPAIN

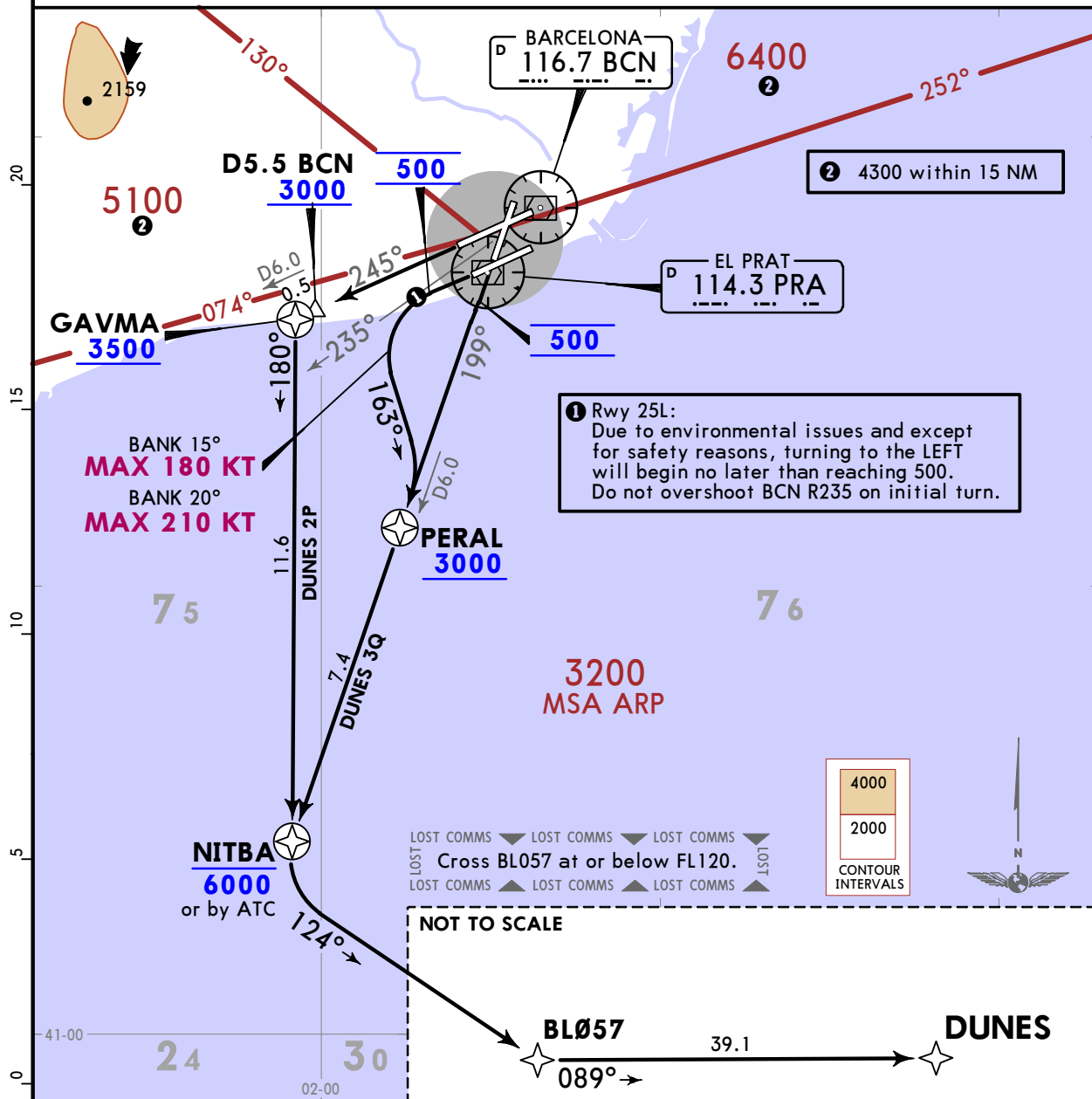
RNAV SID

Apt Elev
14

Trans alt: 6000

1. RNAV (DME/DME).
2. P-RNAV approval required.
3. DME associated to ILS are not usable for P-RNAV departures.
4. The RNAV (DME/DME) procedure starts once the initial conventional climbing has finished.
5. For runway configuration refer to Airport Briefing pages.

DUNES 2P [DUNE2P]
DUNES 3Q [DUNE3Q]
RWYS 25R, 20, 25L RNAV DEPARTURES
SPEED: MAX 250 KT UNTIL FL100



Initial ATC clearance:
Climb and maintain 6000 and request flight level change enroute

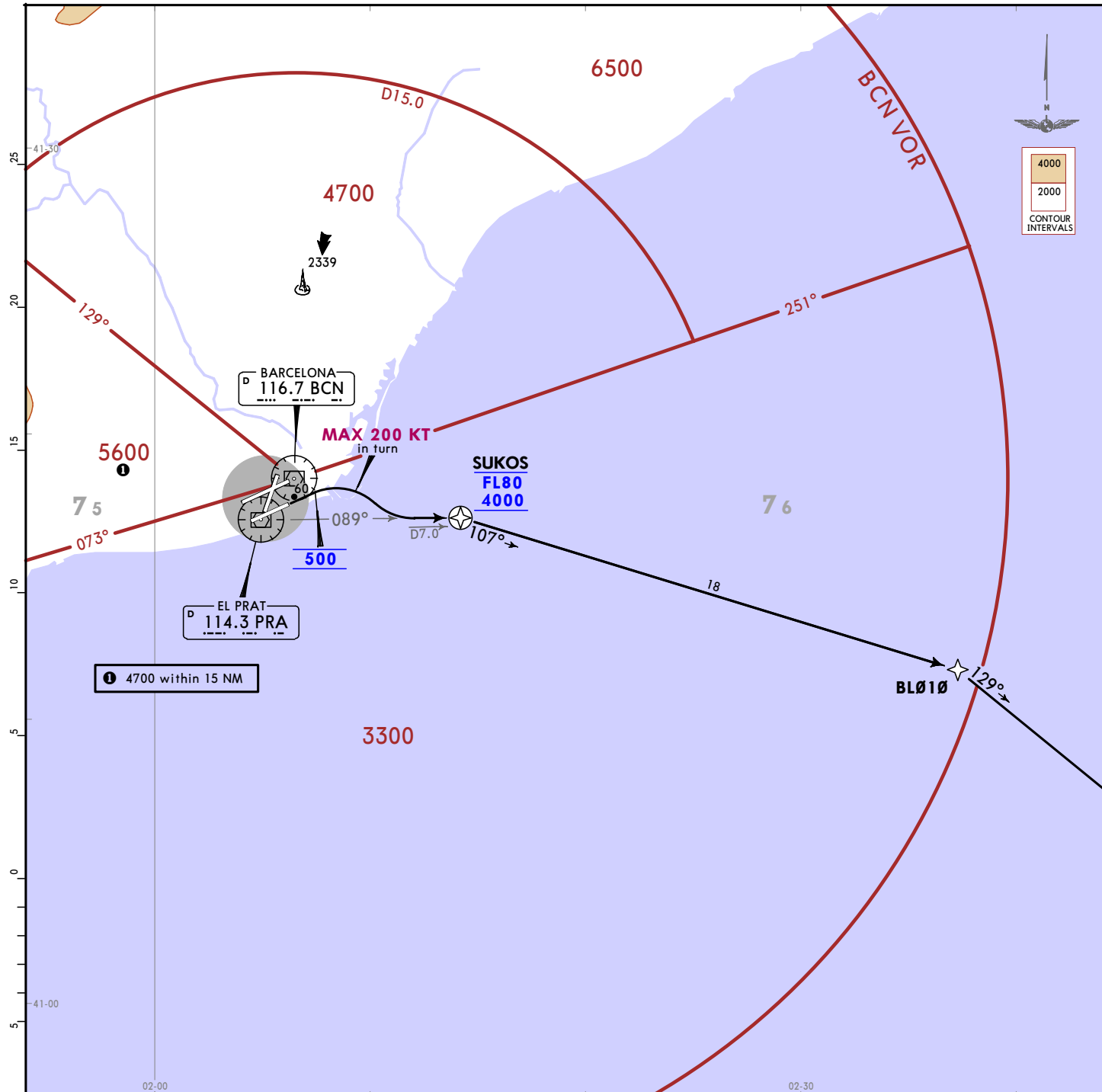
SID	RWY	INITIAL CLIMB
DUNES 2P	25R	Climb on BCN R245 to D5.5 BCN, then to GAVMA (D6.0 BCN).
DUNES 3Q	20	Climb on runway heading to 500, turn RIGHT, intercept PRA R199 to PERAL (D6.0 PRA).
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R199 to PERAL (D6.0 PRA).
SID	ROUTING	
DUNES 2P	GAVMA (3500+) - NITBA (6000-) - BL057 - DUNES.	
DUNES 3Q	PERAL (3000+) - NITBA (6000-) - BL057 - DUNES.	

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EL PRAT

JEPPESEN BARCELONA, SPAIN

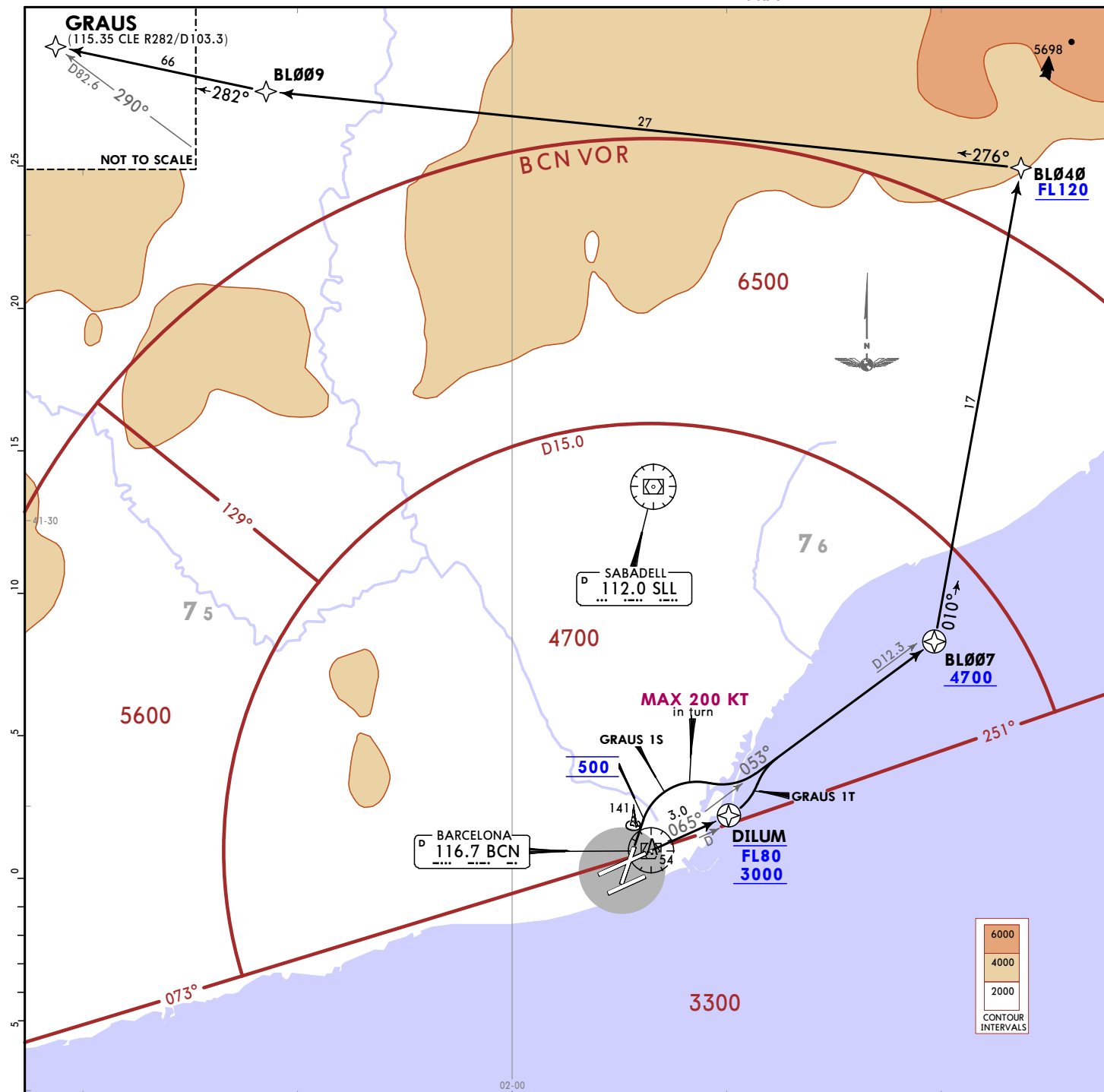
10 AUG 18 (10-3J01)

RNAV SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3J02) RNAV SID



Trans alt: 6000
1. **BRNAV approval required.**
2. These SIDs are restricted BRNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

Apt Elev
14

GRAUS 1S [GRAU1S]
GRAUS 1T [GRAU1T]
RWYS 02, 07L
RNAV DEPARTURES
SPEED: MAX 250 KT BELOW FL100

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST Cross BL009 at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

These SIDs require minimum climb gradients of

GRAUS 1S: 5.0% up to 1500.
GRAUS 1T: 5.7% up to 1800.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

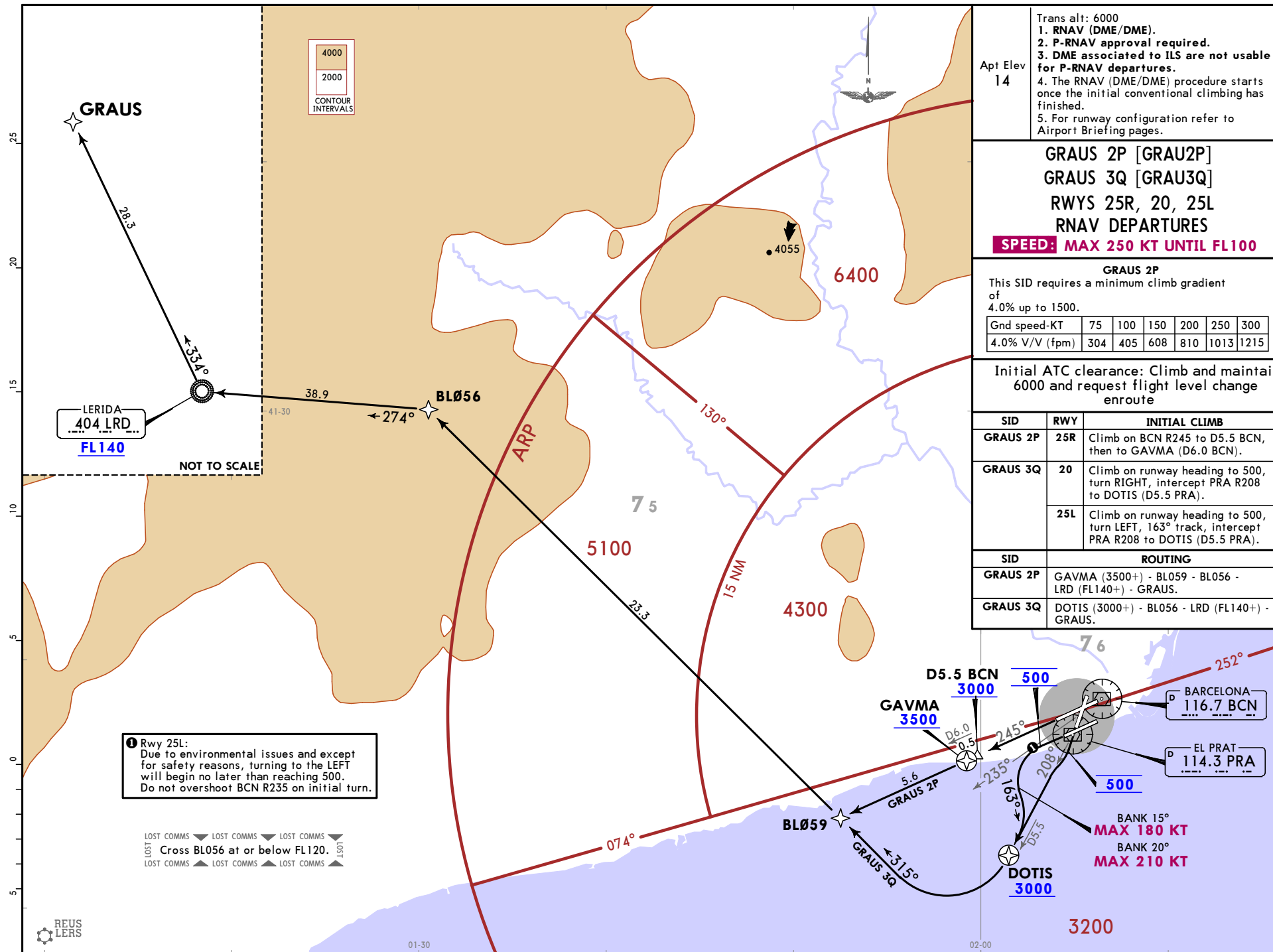
Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
GRAUS 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept BCN R053 to BL007 (D12.3 BCN), then to BL040, then to BL009, then to GRAUS.
GRAUS 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), turn left, intercept BCN R053 to BL007 (D12.3 BCN), then to BL040, then to BL009, then to GRAUS.

① Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 10-3J03 RNAV SID

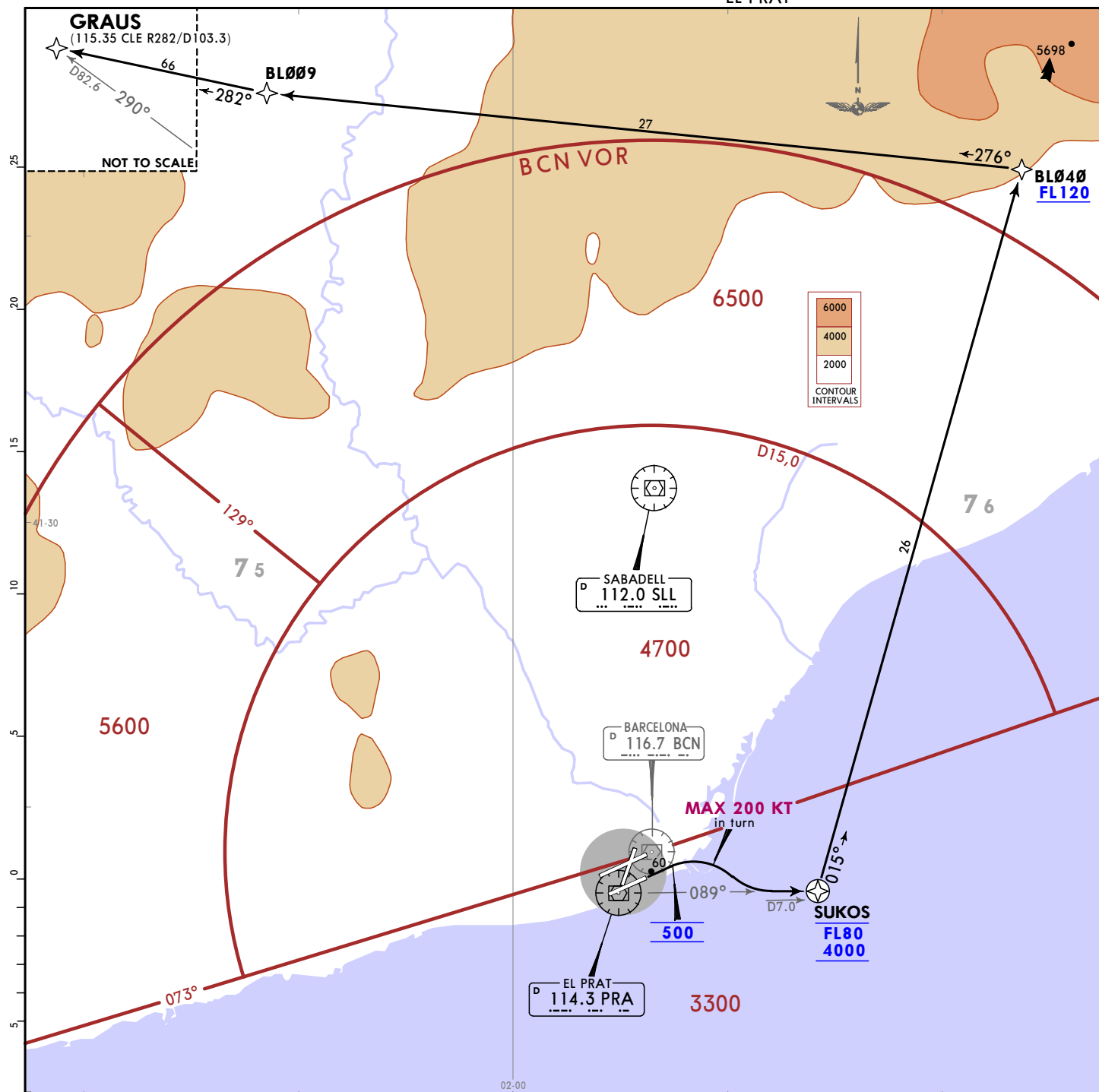


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3J04)

RNAV SID



Trans alt: 6000
1. **BRNAV approval required.**
2. This SID is a restricted BRNAV procedure to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

GRAUS 2R [GRAU2R]
RWY 07R RNAV DEPARTURE
SPEED: MAX 250 KT BELOW FL100

This SID requires a minimum climb gradient of 4.8% up to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V(fpm)	365	486	729	972	1215	1458

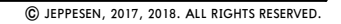
Turns before departure end of runway (DER) are not allowed.

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

INITIAL CLIMB/ROUTING
Climb on runway heading to 500, turn RIGHT, intercept PRA R089 to SUKOS (D7.0 PRA), then to BL040, then to BL009, then to GRAUS.

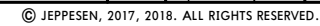
LOST COMMS
Cross BL009 at or below FL120.

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 (10-3J05) **RNAV SID**



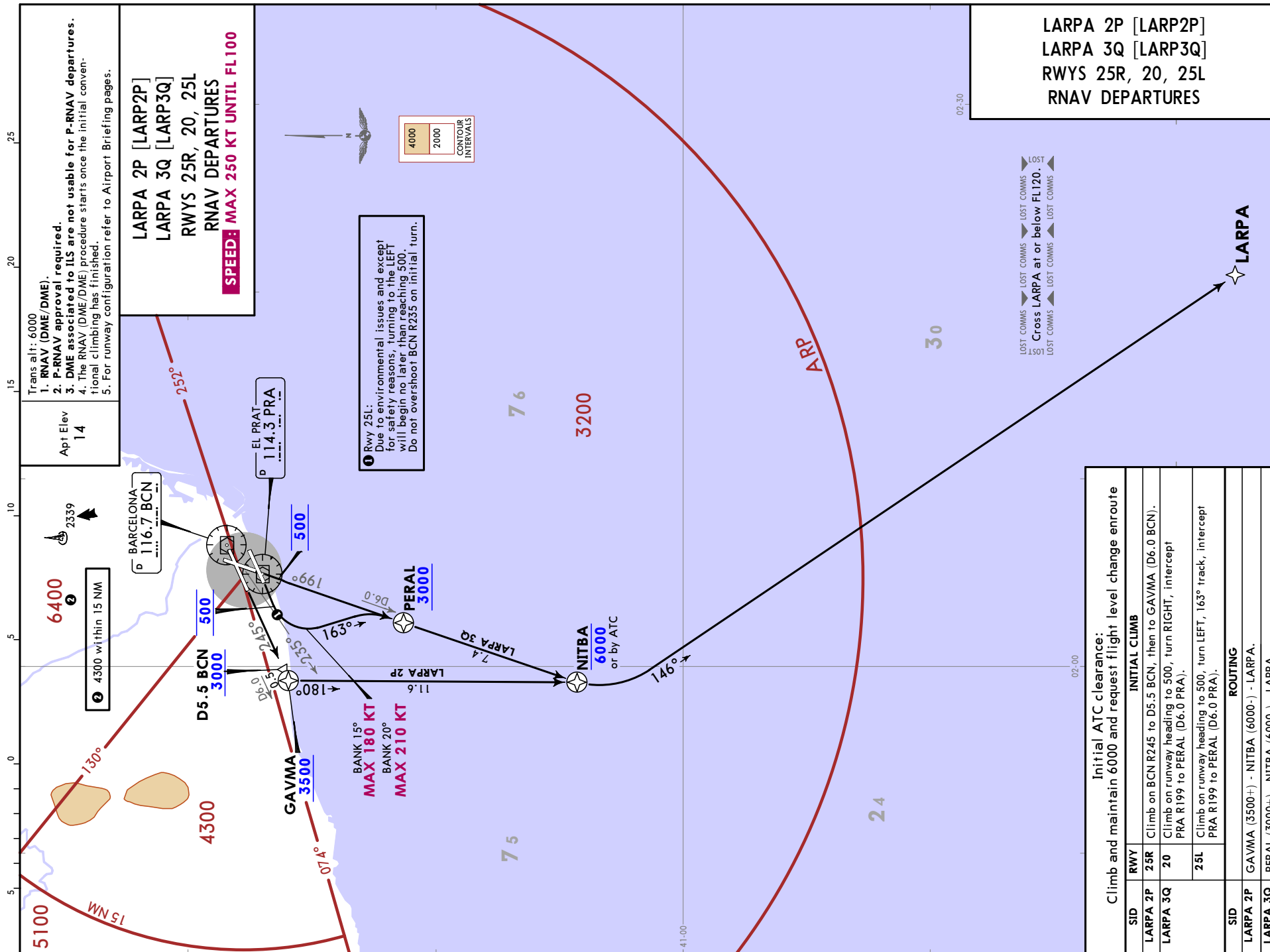
JEPPESEN BARCELONA, SPAIN

RNAV SID



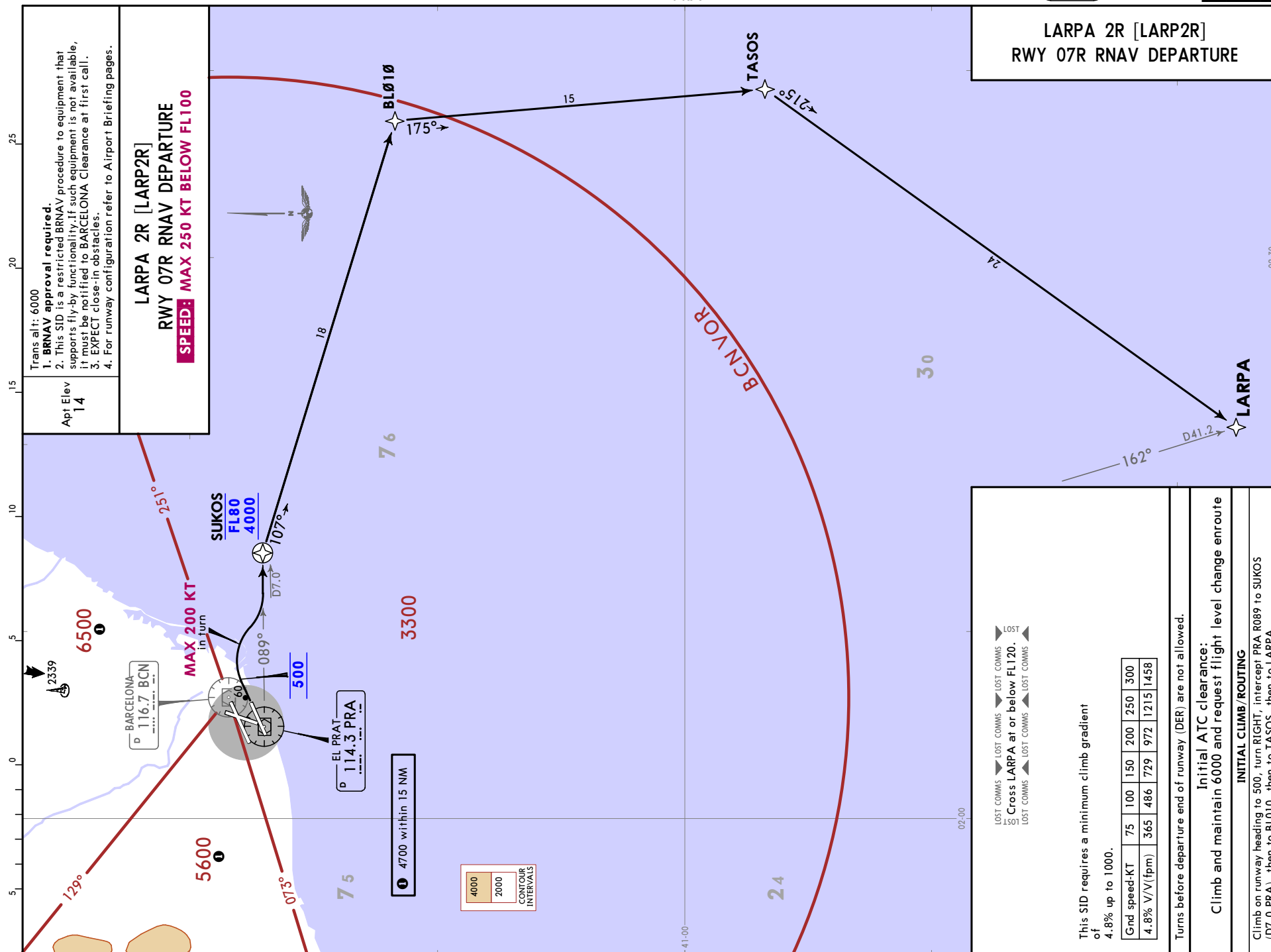
LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 10-3J07 RNAV SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 10-3J08 RNAV SID

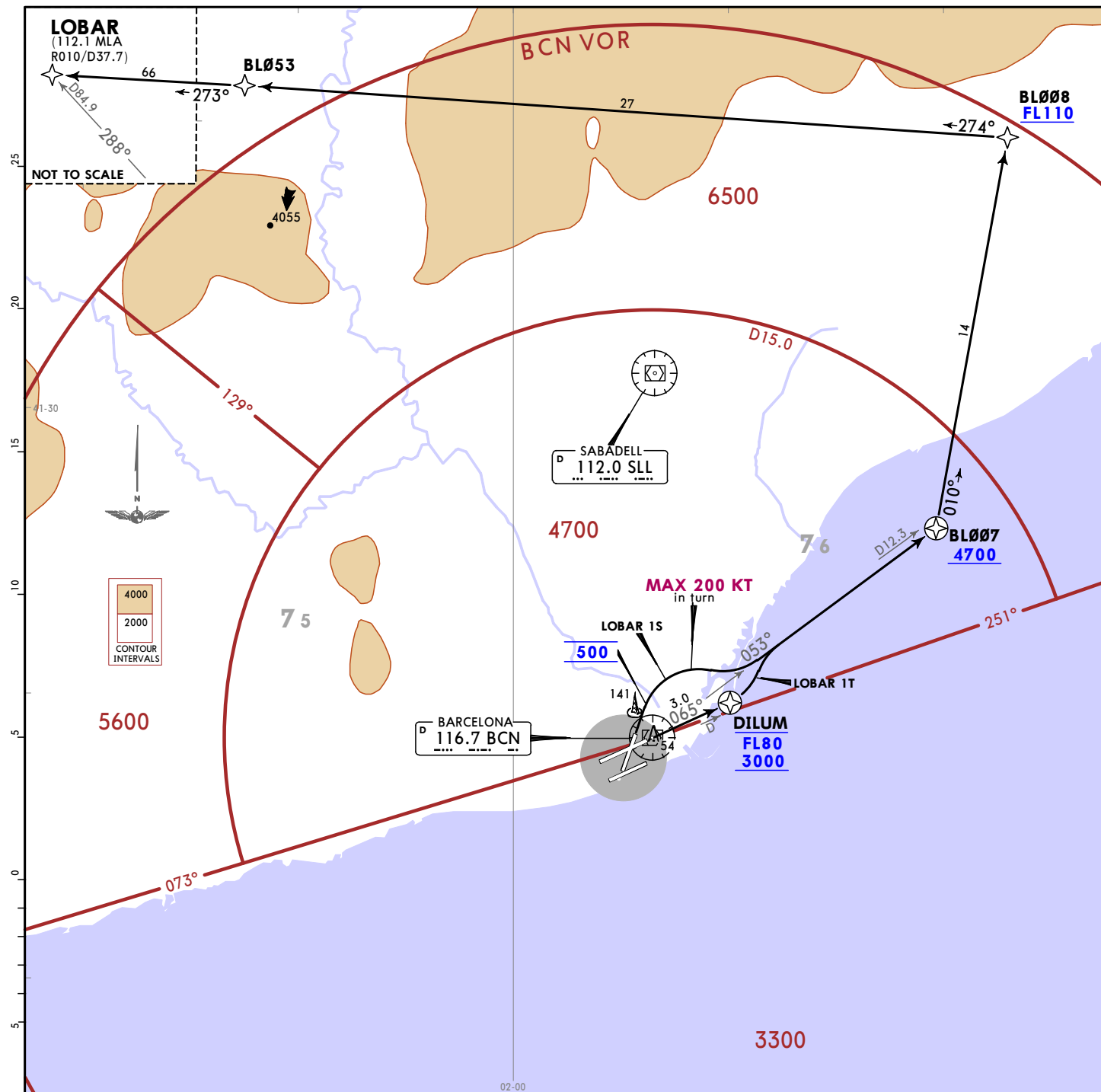


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3J09)

RNAV SID



Trans alt: 6000
1. RNAV approval required.
2. These SIDs are restricted RNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

LOBAR 1S [LOBA1S]
LOBAR 1T [LOBA1T]
RWYS 02, 07L
RNAV DEPARTURES
SPEED: MAX 250 KT BELOW FL100

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST Cross BL053 at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

These SIDs require minimum climb gradients of
LOBAR 1S: 5.0% up to 1500.
LOBAR 1T: 5.7% up to 1800.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

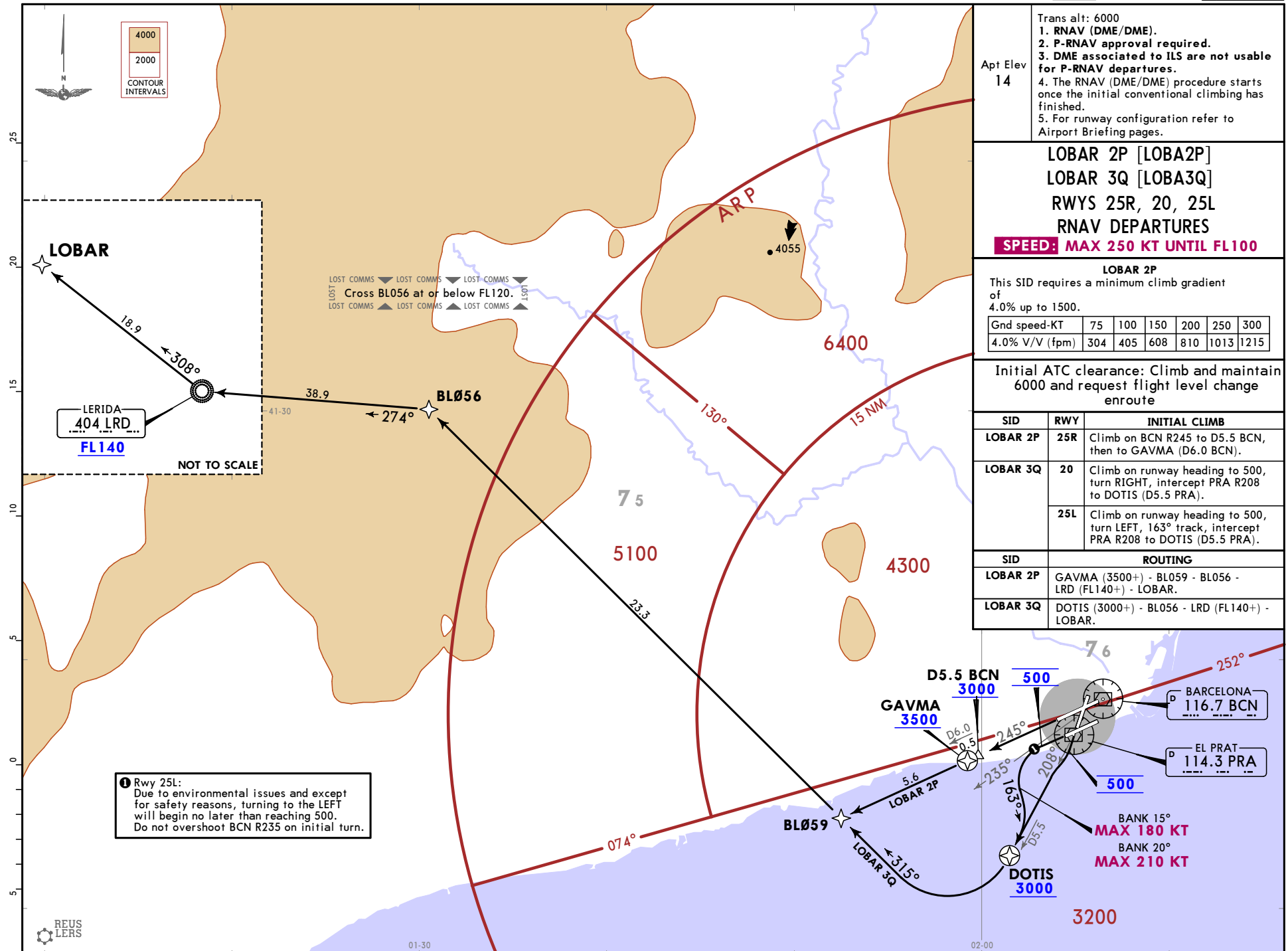
Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
LOBAR 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept BCN R053 to BL007 (D12.3 BCN), then to BL008, then to BL053, then to LOBAR.
LOBAR 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), turn left, intercept BCN R053 to BL007 (D12.3 BCN), then to BL008, then to BL053, then to LOBAR.

① Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 10-3J10 RNAV SID

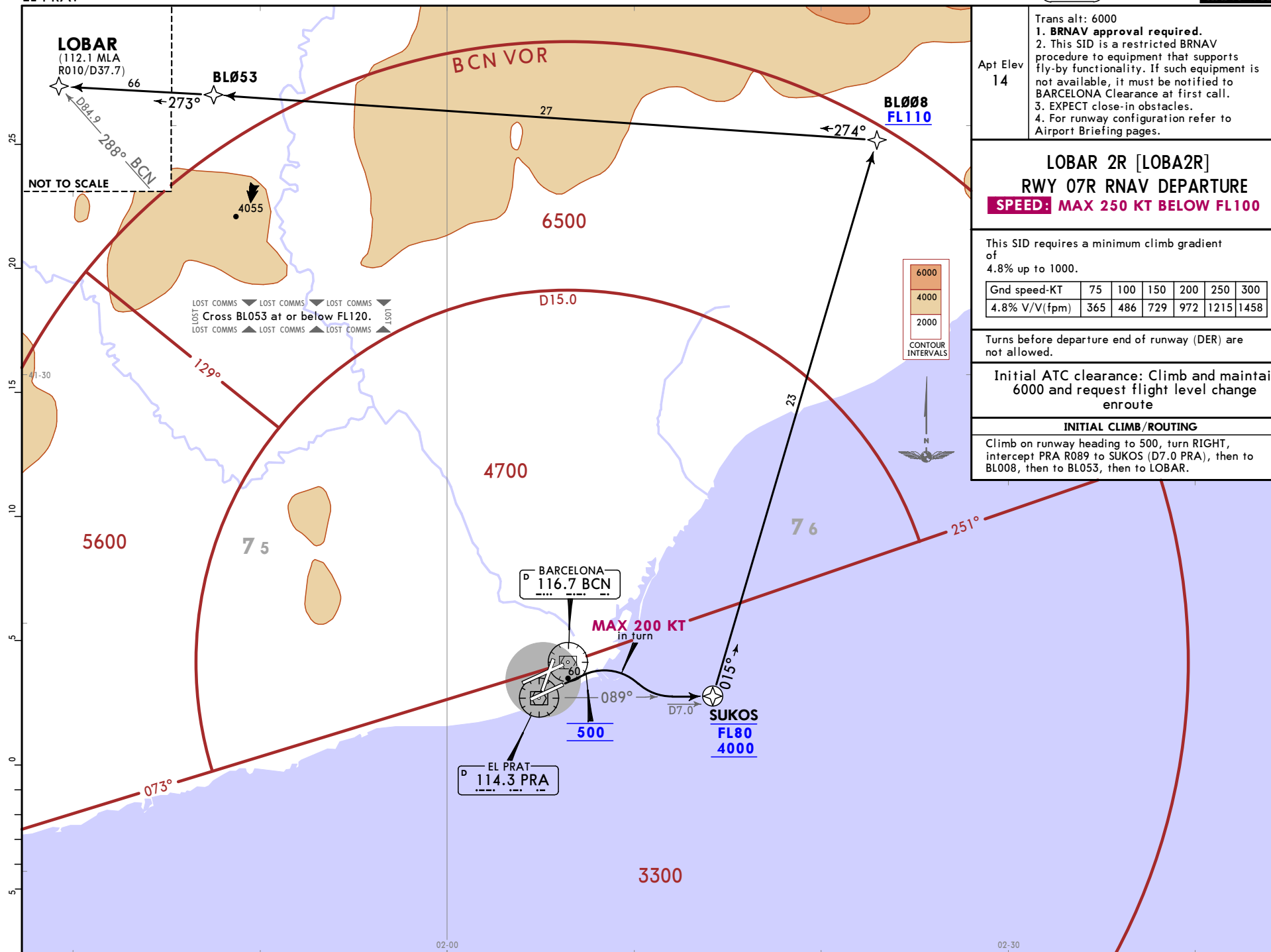


LEBL/BCN
EL PRAT

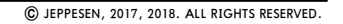
JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3J11)

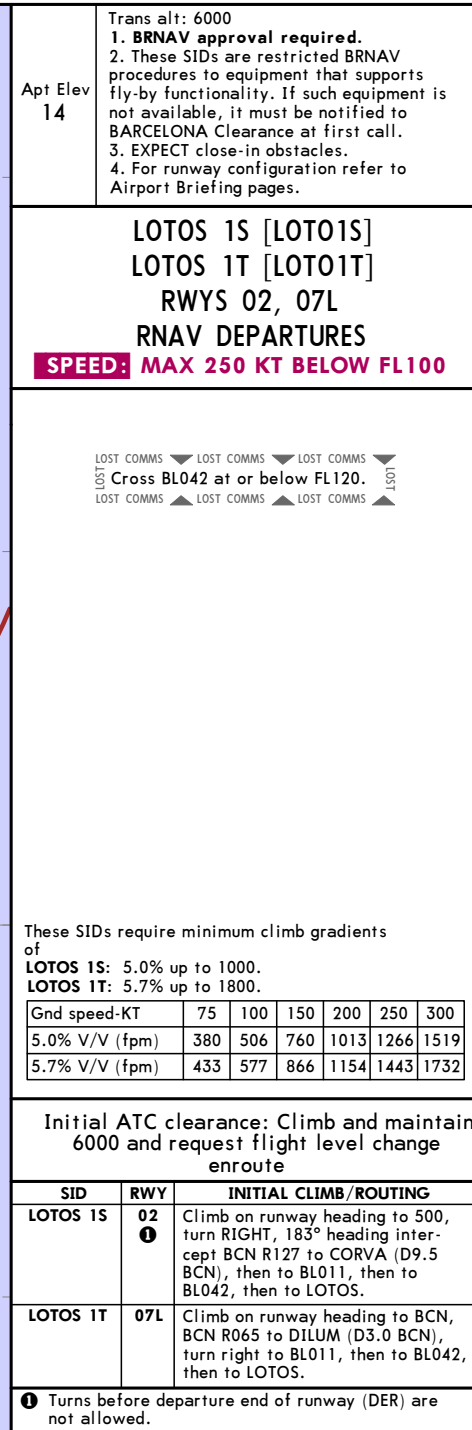
RNAV SID



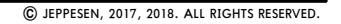
JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3J12) **RNAV SID**



JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3K) RNAV SID

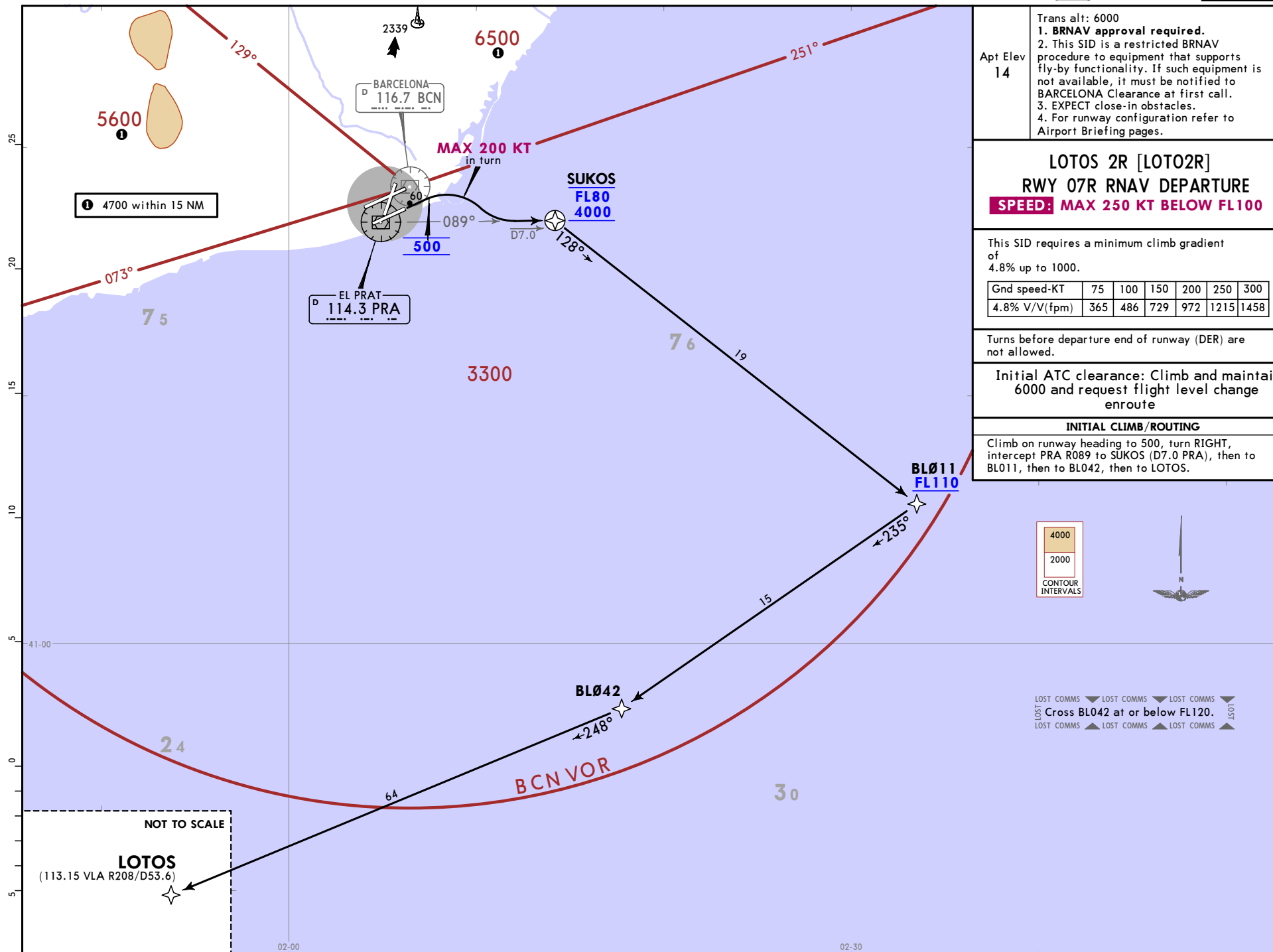


JEPPESEN BARCELONA, SPAIN

RNAV SID

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3L1) RNAV SID

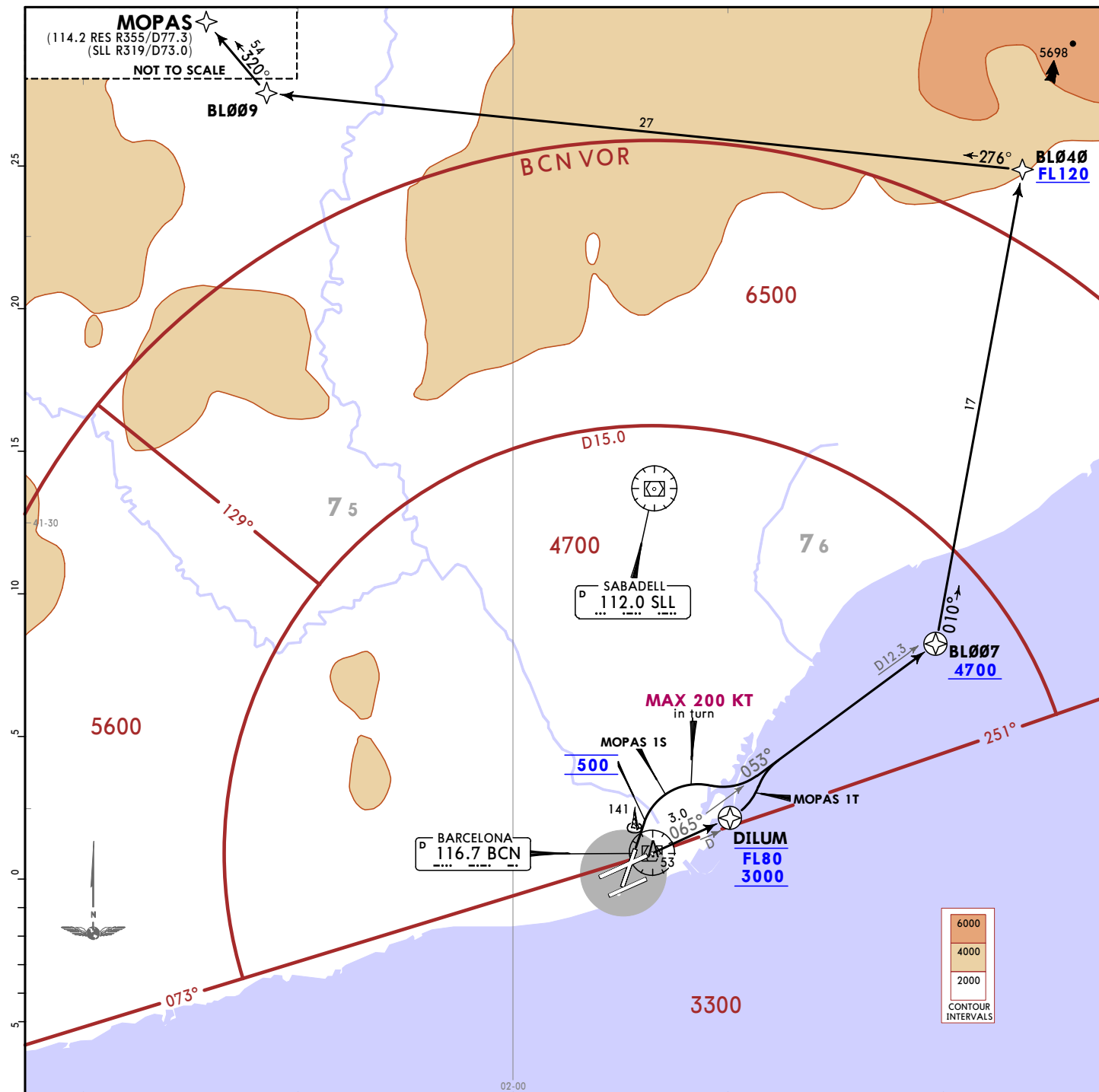


LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN

10 AUG 18 (10-3L2)

RNAV SID



Trans alt: 6000
1. **BRNAV approval required.**
2. These SIDs are restricted BRNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

MOPAS 1S [MOPA1S]
MOPAS 1T [MOPA1T]
RWYS 02, 07L
RNAV DEPARTURES
SPEED: MAX 250 KT BELOW FL100

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST Cross BL009 at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

These SIDs require minimum climb gradients of
MOPAS 1S: 5.0% up to 1500.
MOPAS 1T: 5.7% up to 1800.

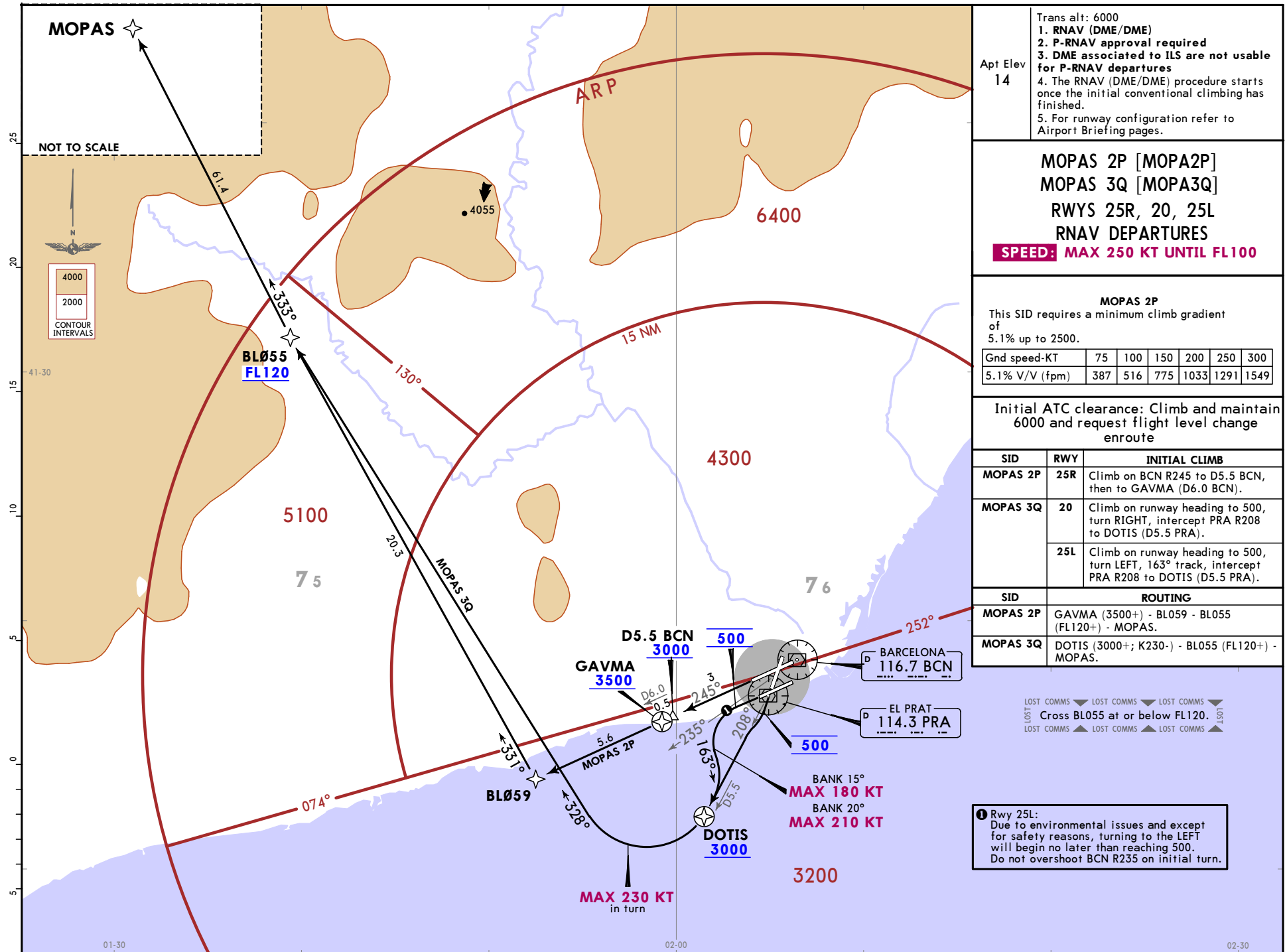
Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
MOPAS 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept BCN R053 to BL007 (D12.3 BCN), then to BL040, then to BL009, then to MOPAS.
MOPAS 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), turn LEFT, intercept BCN R053 to BL007 (D12.3 BCN), then to BL040, then to BL009, then to MOPAS.

① Turns before departure end of runway (DER) are not allowed.

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 (10-3L3) RNAV SID

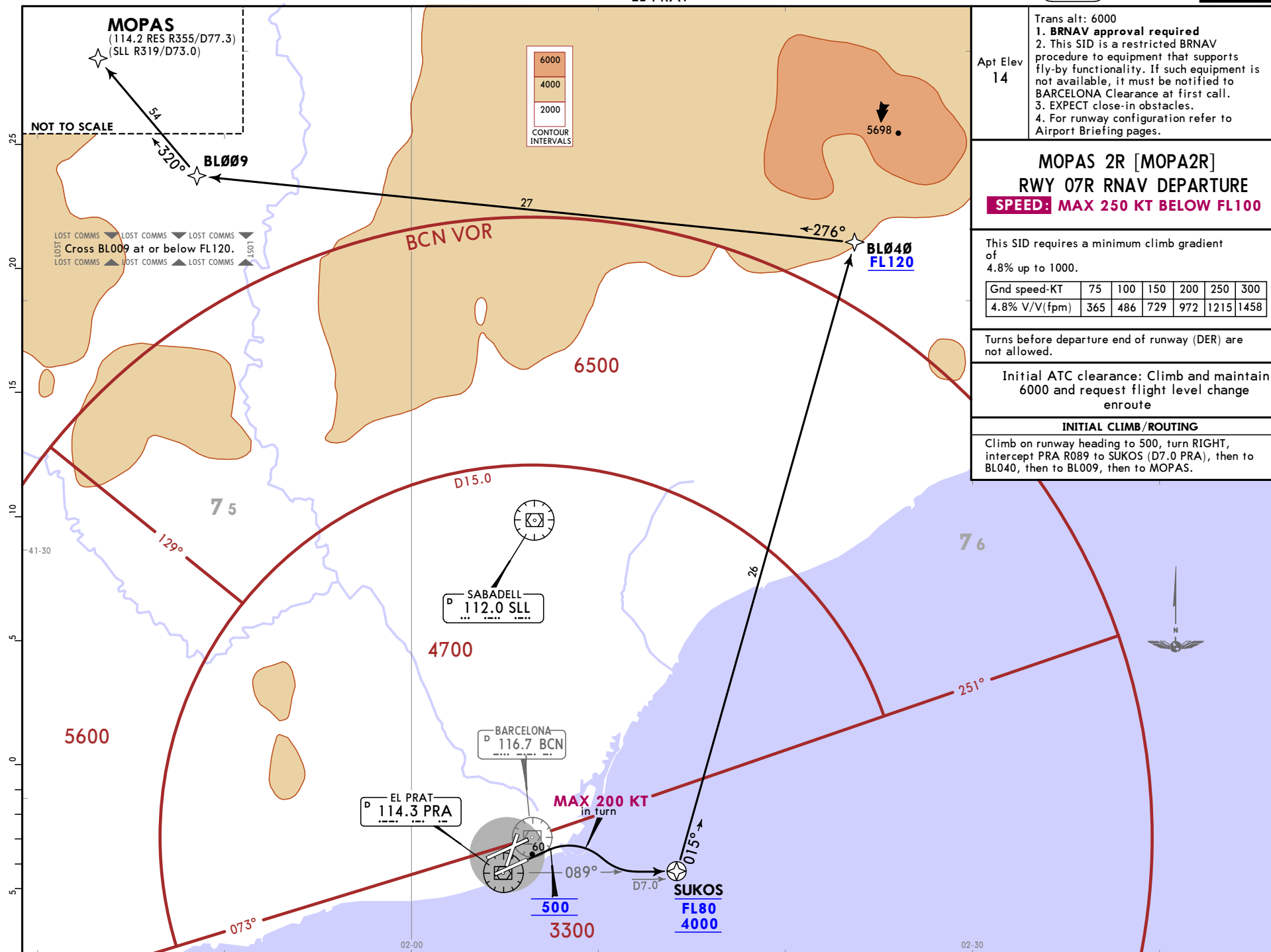


LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN

10 AUG 18 (10-3L4)

RNAV SID

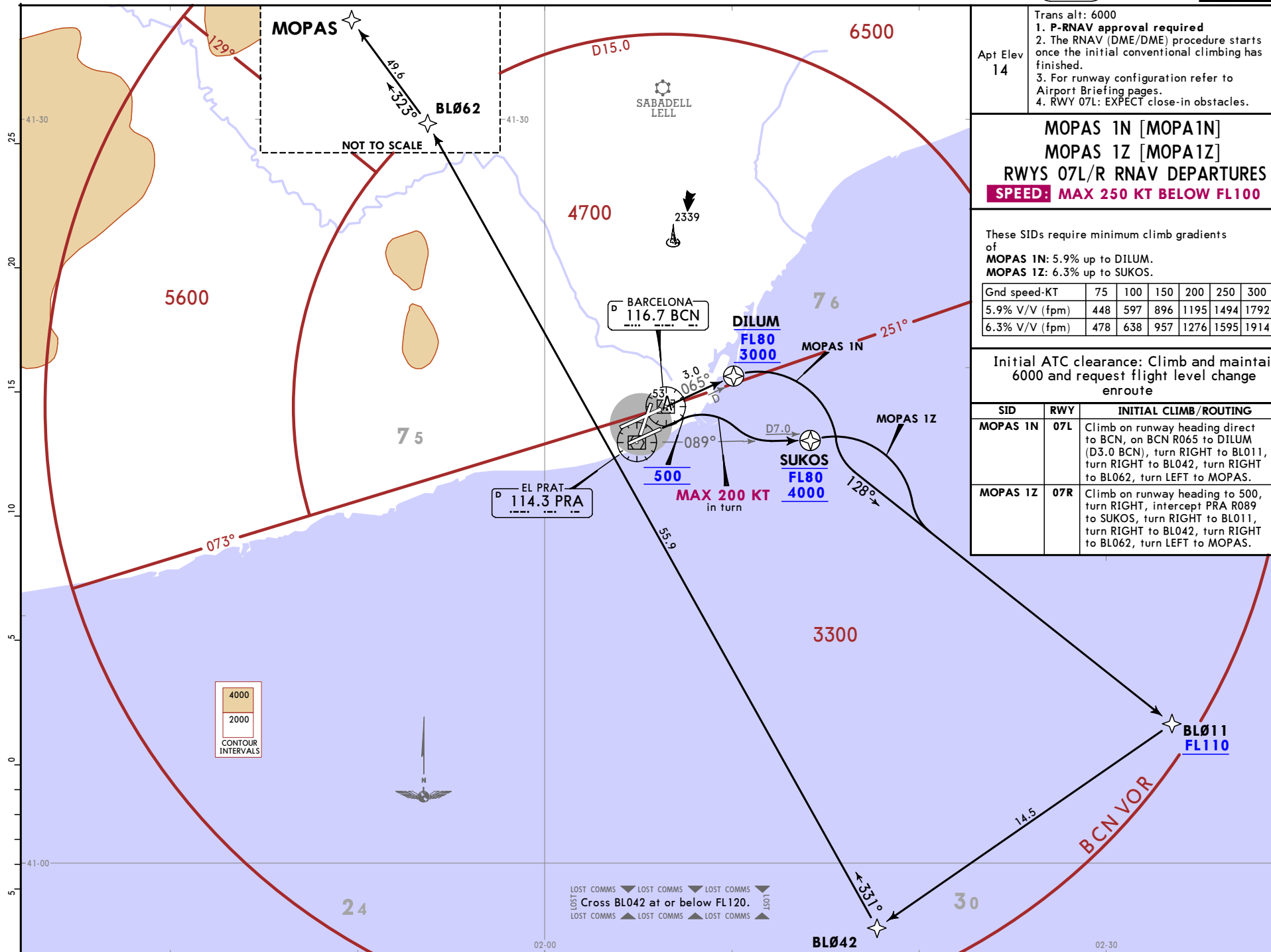


CHANGES: Reissue.

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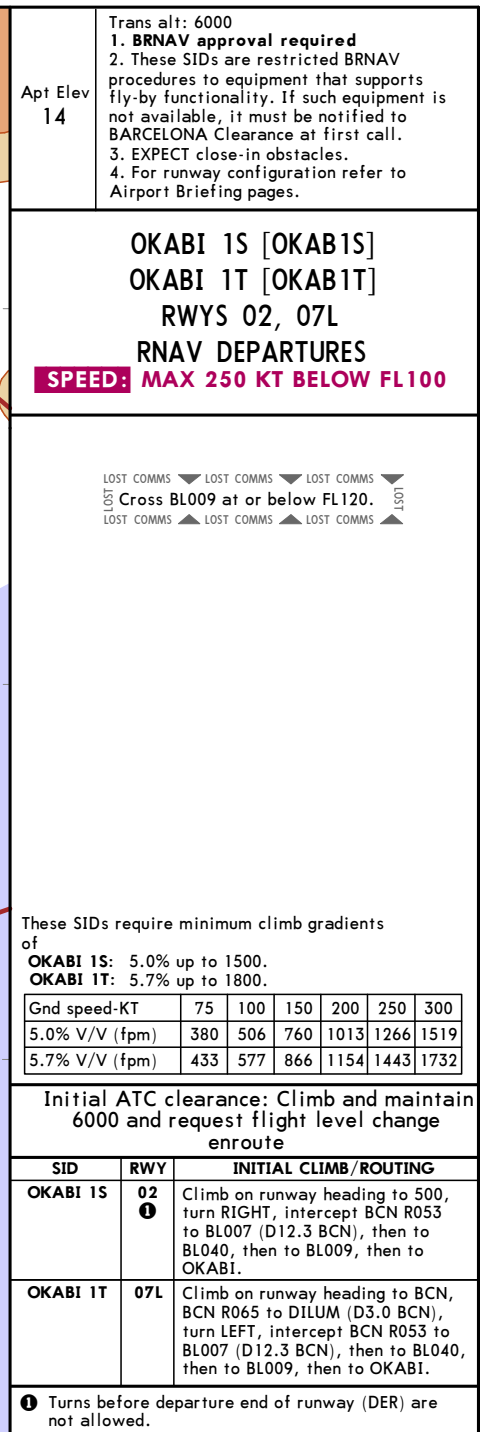
LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 10-3L5 RNAV SID



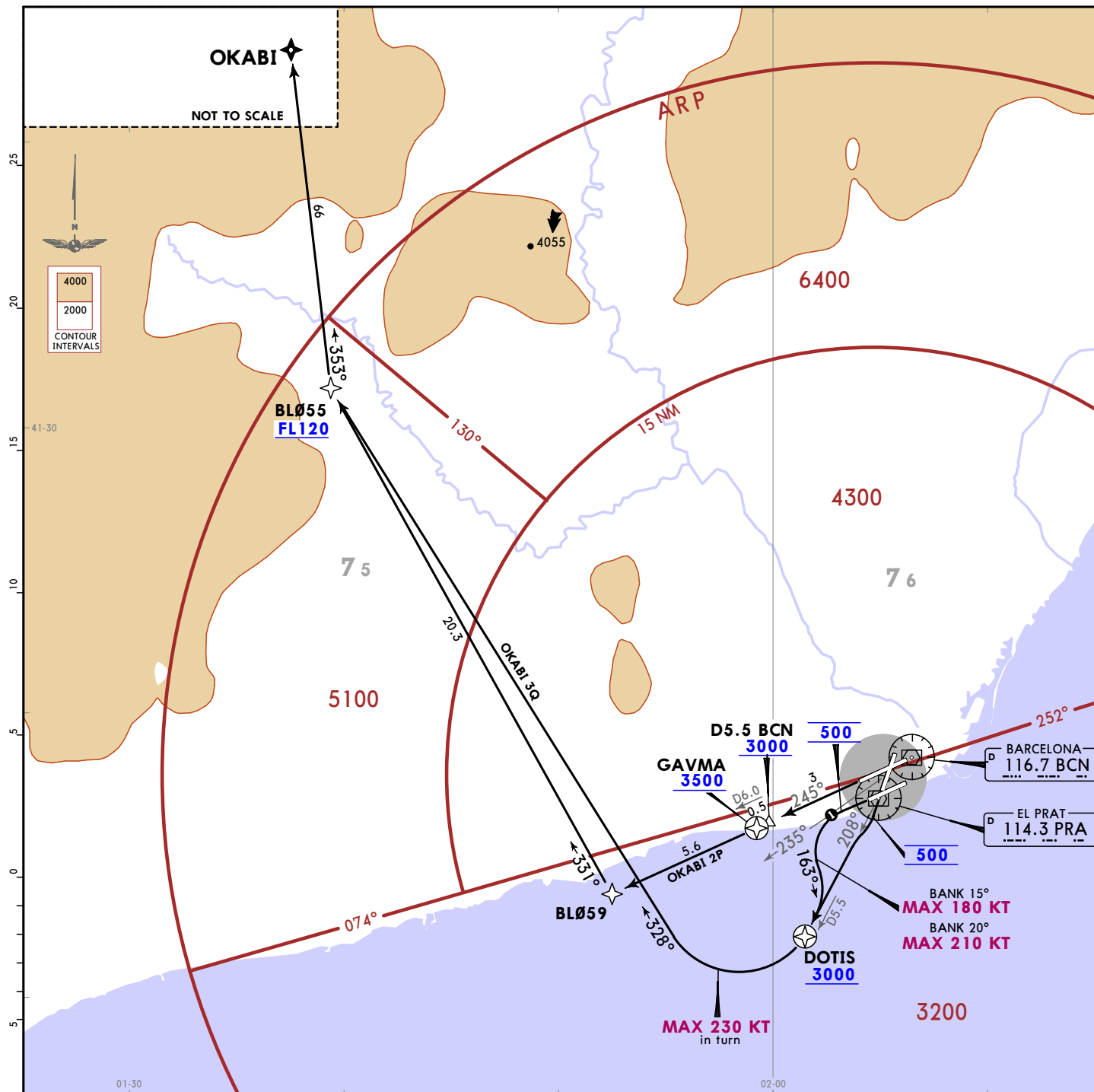
JEPPESEN BARCELONA, SPAIN

RNAV SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3L7) RNAV SID



Apt Elev
14

Trans alt: 6000
1. RNAV (DME/DME).
2. P-RNAV approval required.
3. DME associated to ILS are not usable for P-RNAV departures.
4. The RNAV (DME/DME) procedure starts once the initial conventional climbing has finished.
5. For runway configuration refer to Airport Briefing pages.

OKABI 2P [OKAB2P]
OKABI 3Q [OKAB3Q]
RWYS 25R, 20, 25L
RNAV DEPARTURES
SPEED: MAX 250 KT UNTIL FL100

OKABI 2P
This SID requires a minimum climb gradient of 5.1% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
5.1% V/V (fpm)	387	516	775	1033	1291	1549

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB
OKABI 2P	25R	Climb on BCN R245 to D5.5 BCN, then to GAVMA (D6.0 BCN).
OKABI 3Q	20	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to DOTIS (D5.5 PRA).
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to DOTIS (D5.5 PRA).

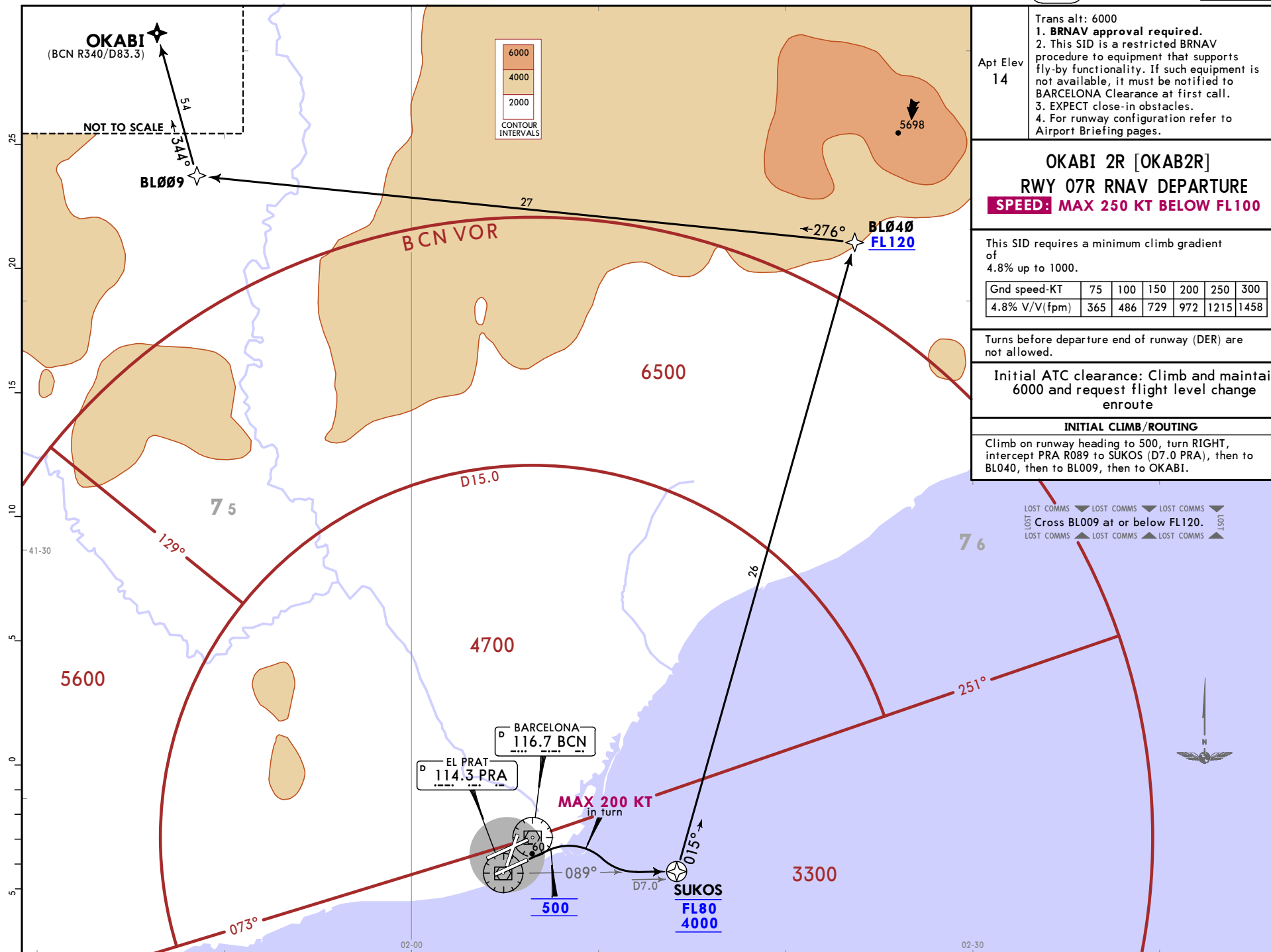
SID	ROUTING
OKABI 2P	GAVMA (3500+) - BL059 - BL055 (FL120+) - OKABI.
OKABI 3Q	DOTIS (3000+) - K230 - BL055 (FL120+) - OKABI.

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲
Cross BL055 at or below FL120.

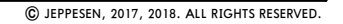
1 Rwy 25L:
Due to environmental issues and except for safety reasons, turning to the LEFT will begin no later than reaching 500. Do not overshoot BCN R235 on initial turn.

LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3L8) RNAV SID



JEPPESSEN BARCELONA, SPAIN
10 AUG 18 10-3M RNAV SID

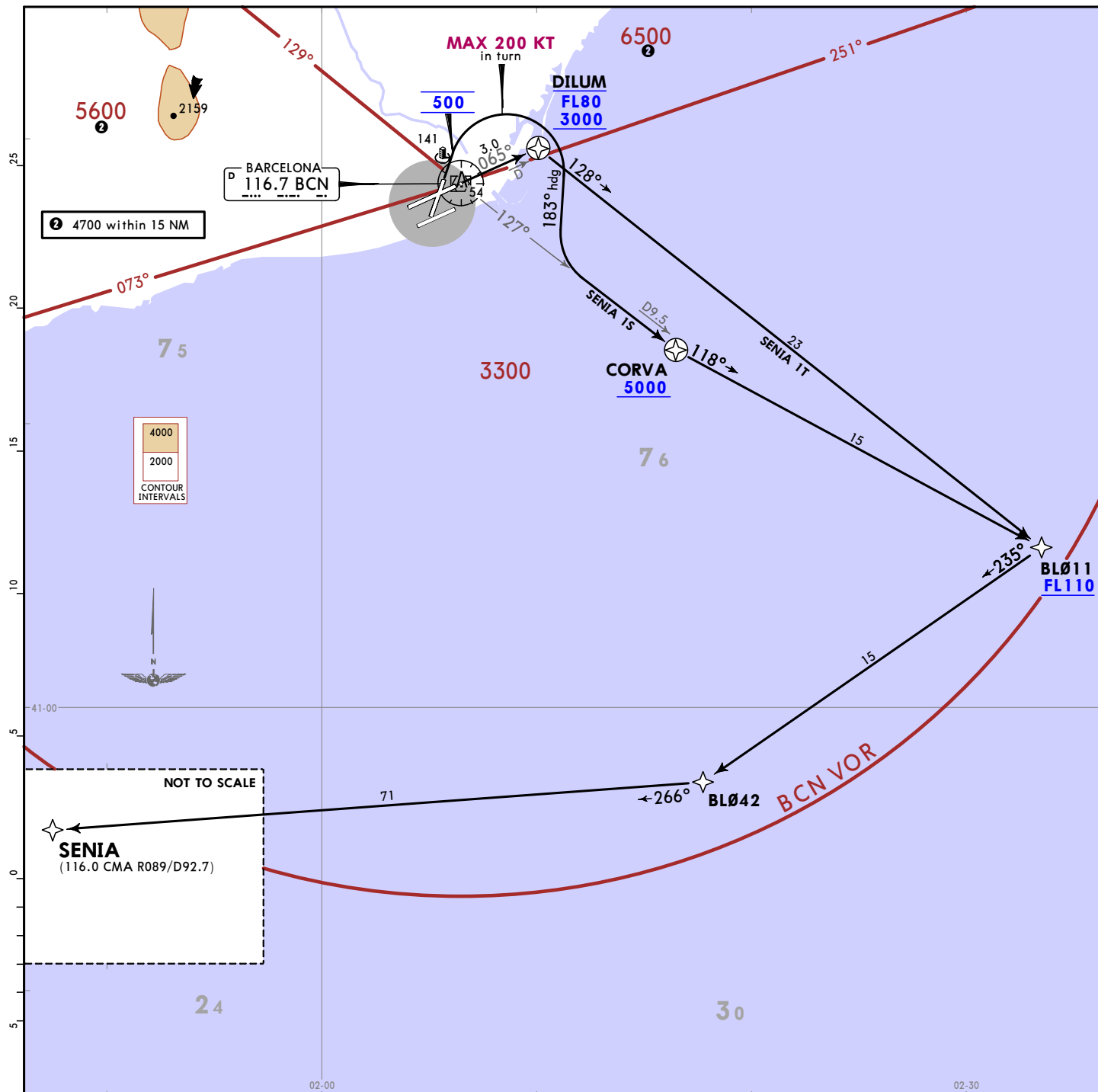


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3N)

RNAV SID



Trans alt: 6000
1. **BRNAV approval required**
2. These SIDs are restricted BRNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

Apt Elev
14

SENIA 1S [SENI1S]

SENIA 1T [SENI1T]

RWYS 02, 07L

RNAV DEPARTURES

SPEED: MAX 250 KT BELOW FL100

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST Cross BL042 at or below FL120. LOST
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

These SIDs require minimum climb gradients of

SENIA 1S: 5.0% up to 1000.

SENIA 1T: 5.7% up to 1800.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB/ROUTING
SENIA 1S	02 1	Climb on runway heading to 500, turn RIGHT, 183° heading, intercept BCN R127 to CORVA (D9.5 BCN), then to BL011, then to BL042, then to SENIA.
SENIA 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), turn RIGHT to BL011, then to BL042, then to SENIA.

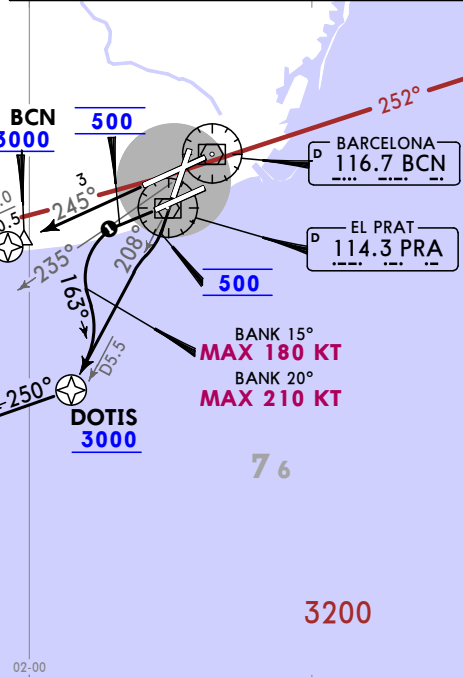
1 Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3N1) RNAV SID

Trans alt: 6000
1. RNAV (DME/DME)
2. P-RNAV approval required
3. DME associated to ILS are not usable for P-RNAV departures
4. The RNAV (DME/DME) procedure starts once the initial conventional climbing has finished.
5. For runway configuration refer to Airport Briefing pages.

SENIA 2P [SEN12P]
SENIA 3Q [SEN13Q]
RWYS 25R, 20, 25L
RNAV DEPARTURES
SPEED: MAX 250 KT UNTIL FL100

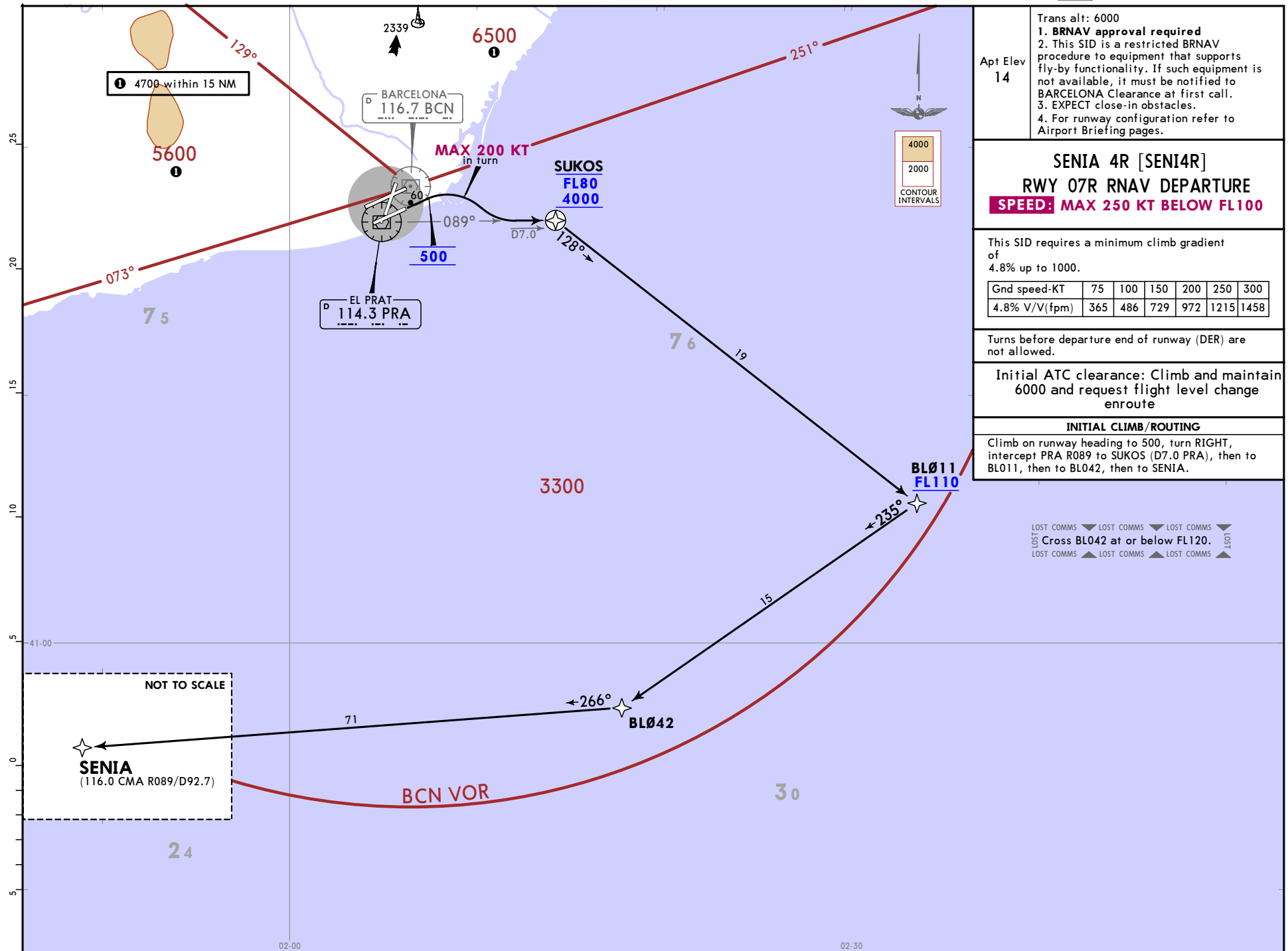


Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

SID	RWY	INITIAL CLIMB
SENIA 2P	25R	Climb on BCN R245 to D5.5 BCN, then to GAVMA (D6.0 BCN).
SENIA 3Q	20	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to DOTIS (D5.5 PRA).
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to DOTIS (D5.5 PRA).
SID	ROUTING	
SENIA 2P	GAVMA (3500+) - BL046 - BL054 - SENIA.	
SENIA 3Q	DOTIS (3000+) - BL046 - BL054 - SENIA.	

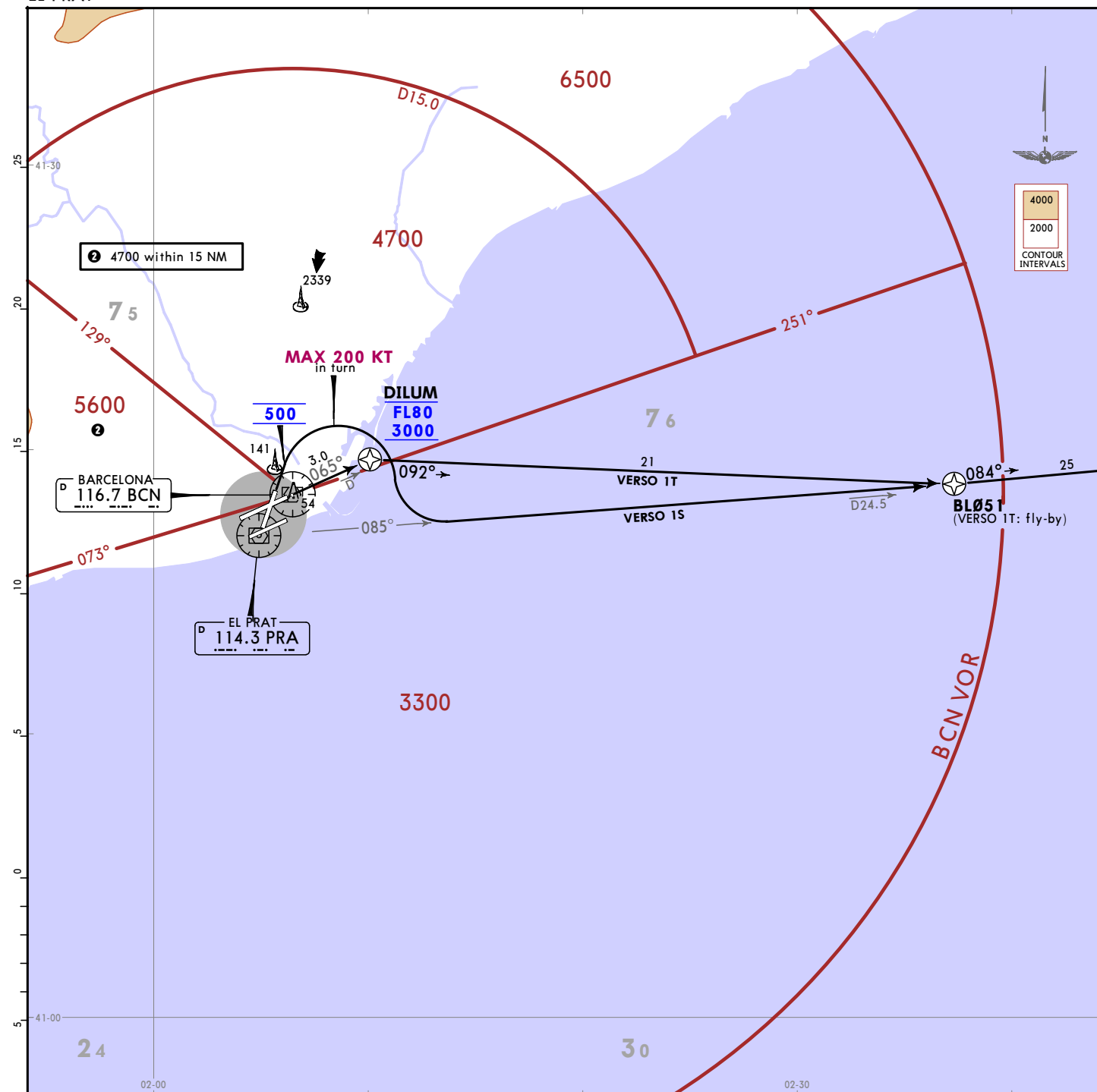
LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3N2) RNAV SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 **(10-3N3)** **RNAV SID**



Apt Elev
14

Trans alt: 6000

1. **BRNAV approval required**
2. These SIDs are restricted BRNAV procedures to equipment that supports fly-by functionality. If such equipment is not available, it must be notified to BARCELONA Clearance at first call.
3. EXPECT close-in obstacles.
4. For runway configuration refer to Airport Briefing pages.

VERSO 1S [VERS1S]

VERSO 1T [VERS1T]

RWYS 02, 07L

RNAV DEPARTURES

SPEED: MAX 250 KT BELOW FL100

BLØ37

NOT TO SCALE

VERSO

(115.35 CLE R119/D58.5)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

These SIDs require minimum climb gradients of

VERSO 1S: 5.0% up to 1000.

VERSO 1T: 5.7% up to 1800.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.7% V/V (fpm)	433	577	866	1154	1443	1732

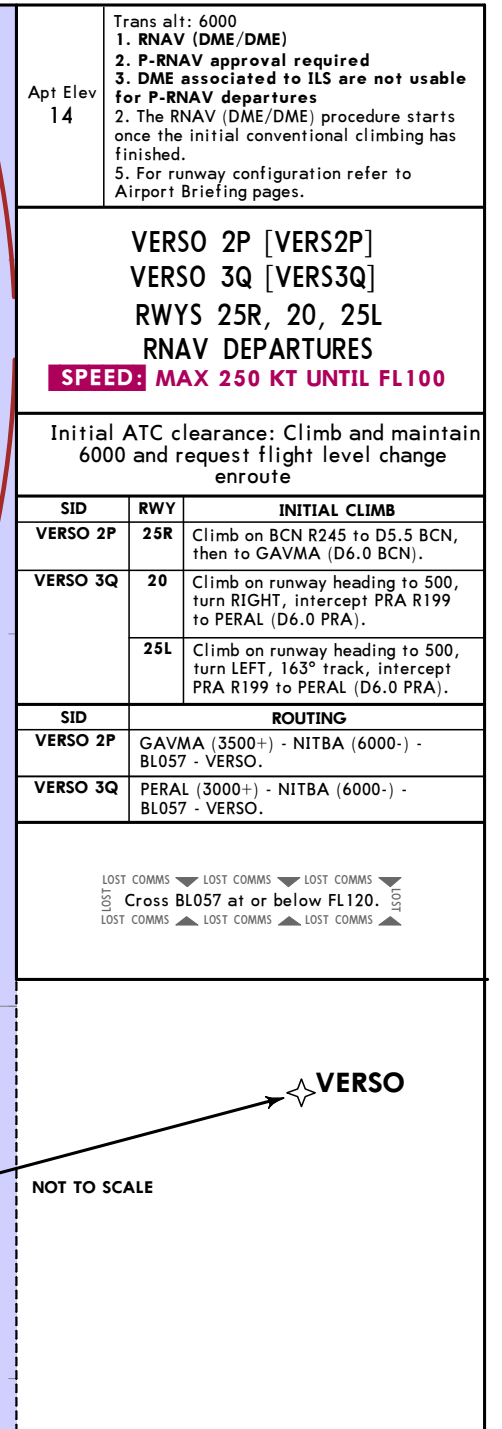
Initial ATC clearance: Climb and maintain
6000 and request flight level change
enroute

SID	RWY	INITIAL CLIMB/ROUTING
VERSO 1S	02 ①	Climb on runway heading to 500, turn RIGHT, intercept PRA R085 to BL051 (D24.5 PRA), then to BL037, then to VERSO.
VERSO 1T	07L	Climb on runway heading to BCN, BCN R065 to DILUM (D3.0 BCN), then to BL051, then to BL037, then to VERSO.

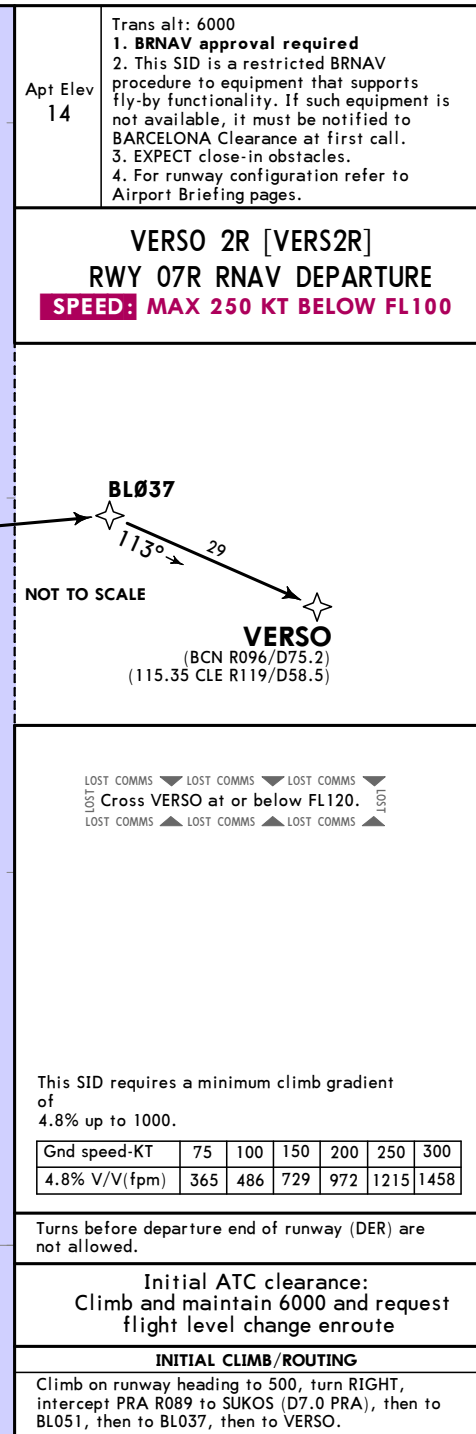
① Turns before departure end of runway (DER) are not allowed.

JEPPESEN BARCELONA, SPAIN

RNAV SID



JEYPESEN BARCELONA, SPAIN
10 AUG 18 (10-3N5) RNAV SID



LEBL/BCN
EL PRAT

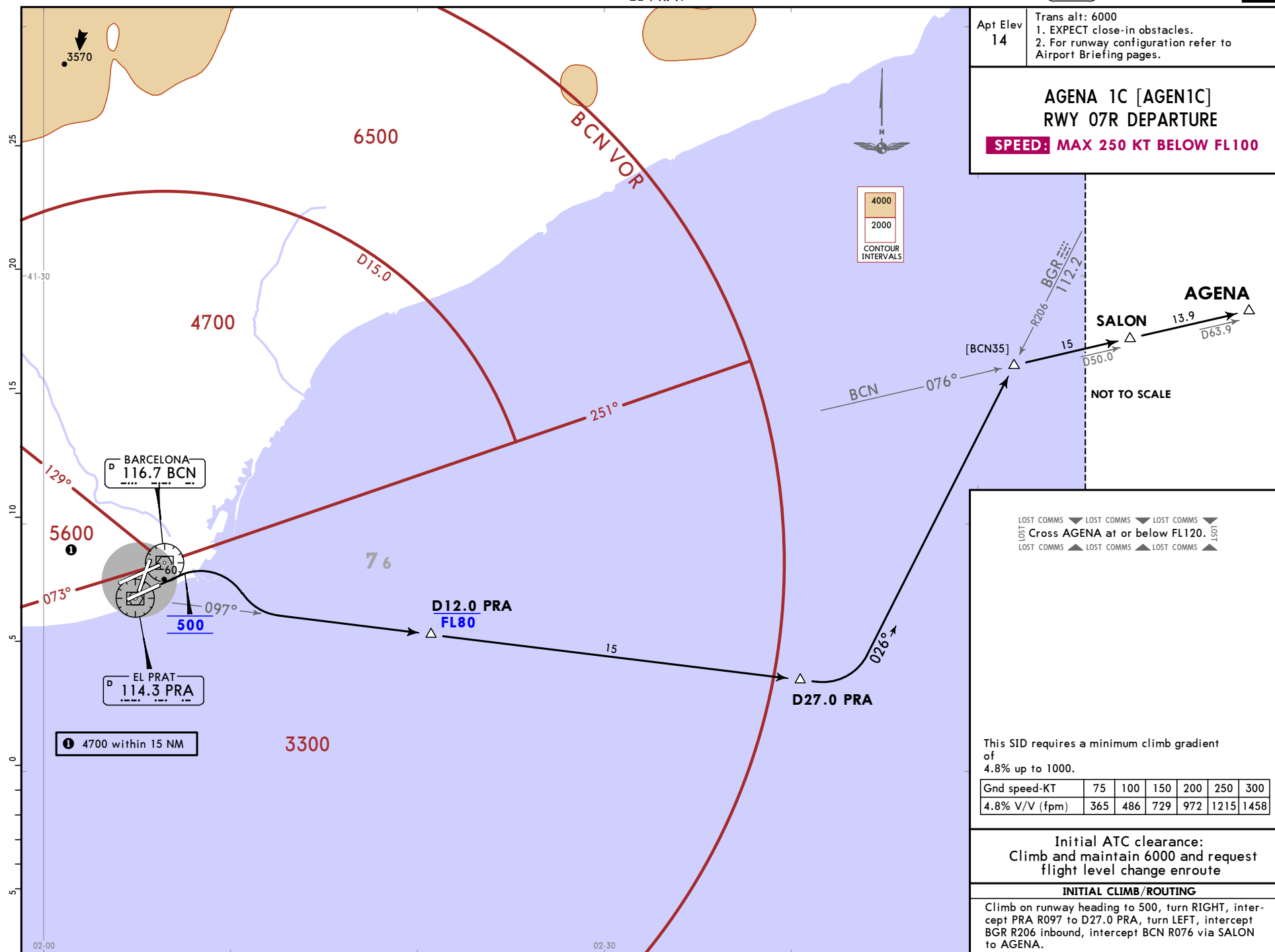
JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3N6) SID

Apt Elev
14

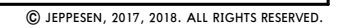
Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

AGENA 1C [AGEN1C]
RWY 07R DEPARTURE

SPEED: MAX 250 KT BELOW FL100



JEPPESSEN BARCELONA, SPAIN
10 AUG 18 **(10-3N7)** **SID**

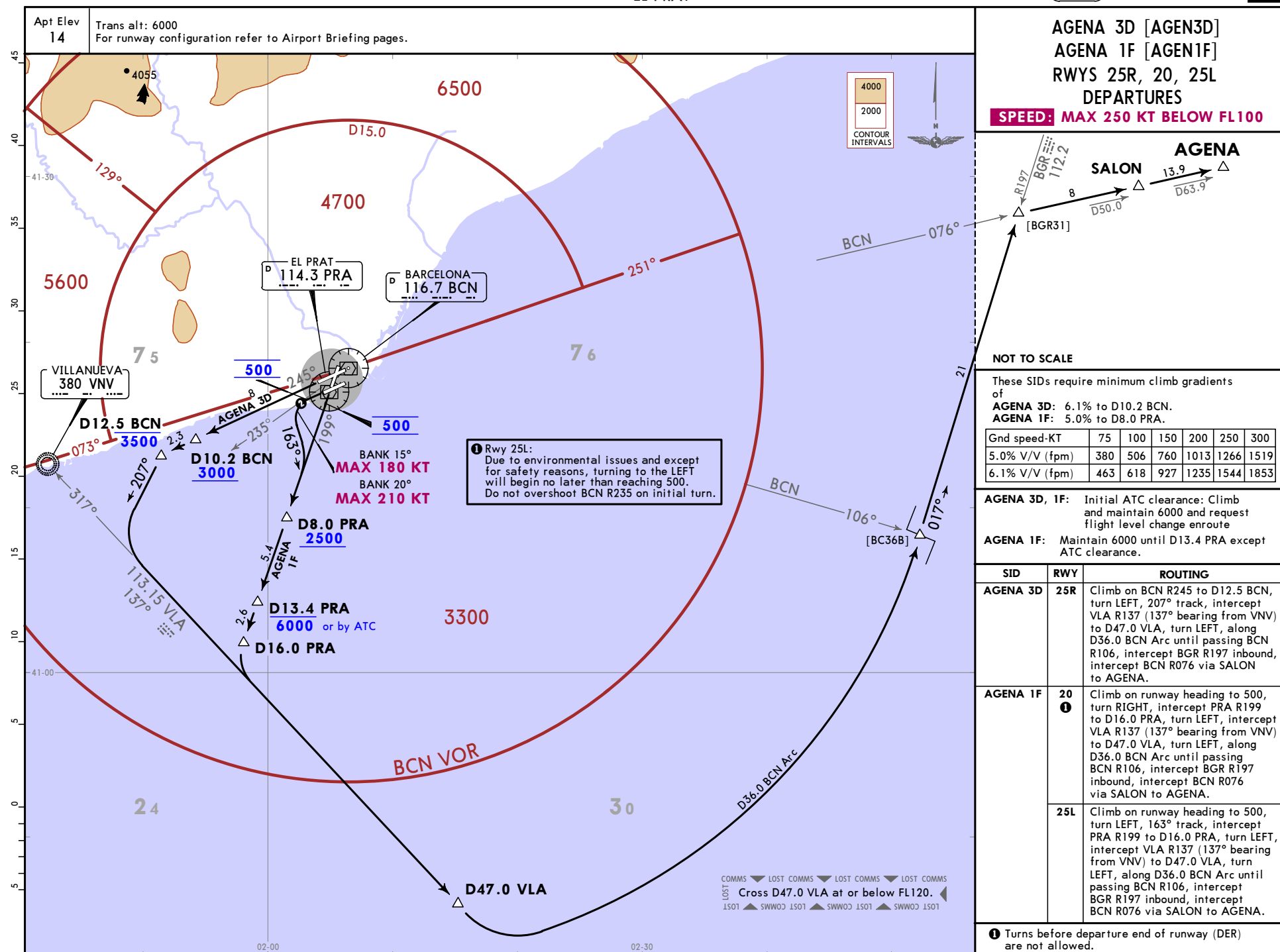


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3N8)

SID



CHANGES: Reissue.

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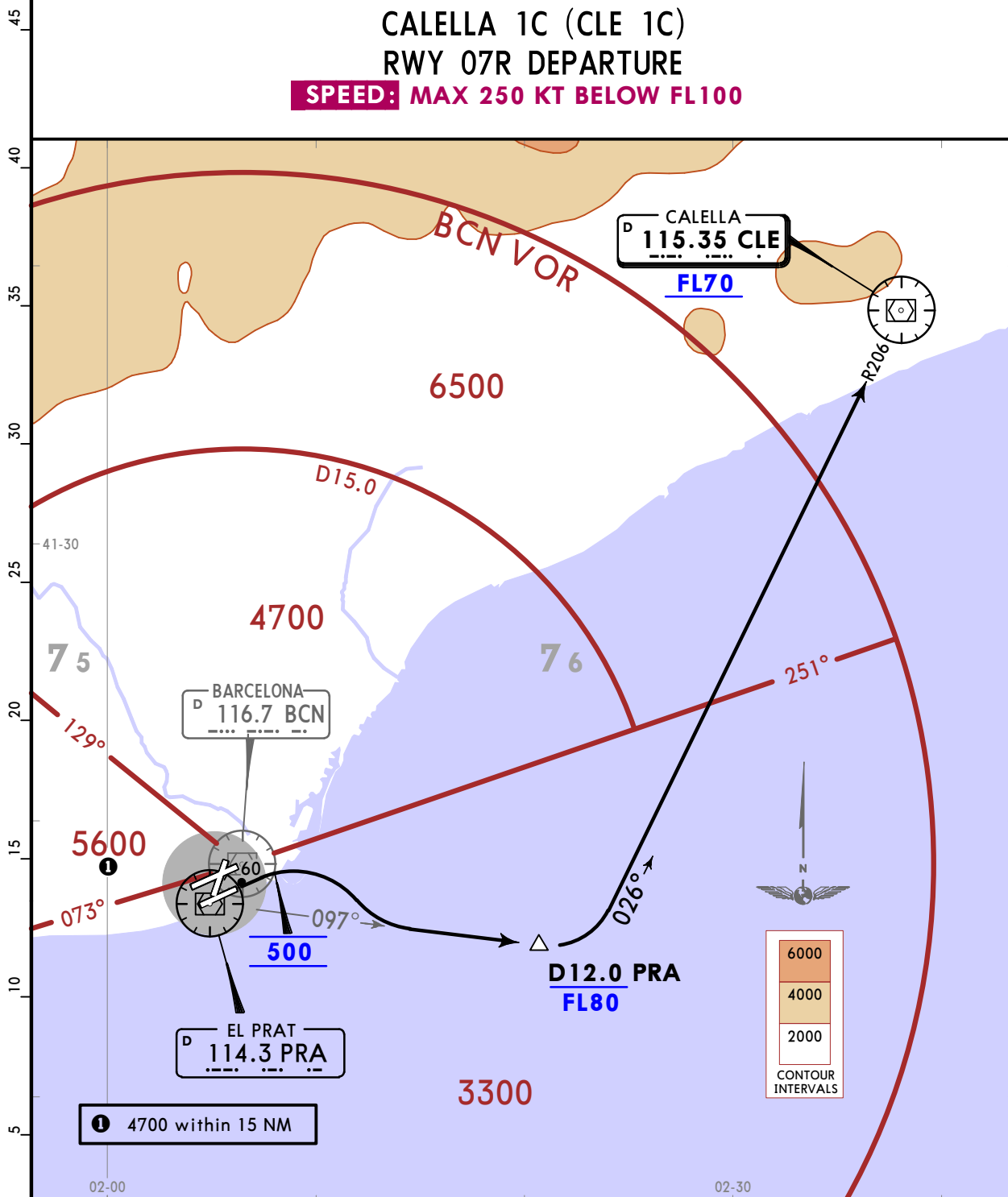
LEBL/BCN
EL PRAT

JEPPESEN
 10 AUG 18 **10-3P**

BARCELONA, SPAIN
SID

Apt Elev
14

Trans alt: 6000
 1. EXPECT close-in obstacles.
 2. For runway configuration refer to Airport Briefing pages.



This SID requires a minimum climb gradient
 of
 4.8% up to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

Initial ATC clearance:
 Climb and maintain 6000 and request flight level change enroute

INITIAL CLIMB/ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R097 to D12.0
 PRA, turn LEFT, intercept CLE R206 inbound to CLE.

LEBL/BCN
EL PRAT

JEPPESEN
10 AUG 18 (10-3Q)

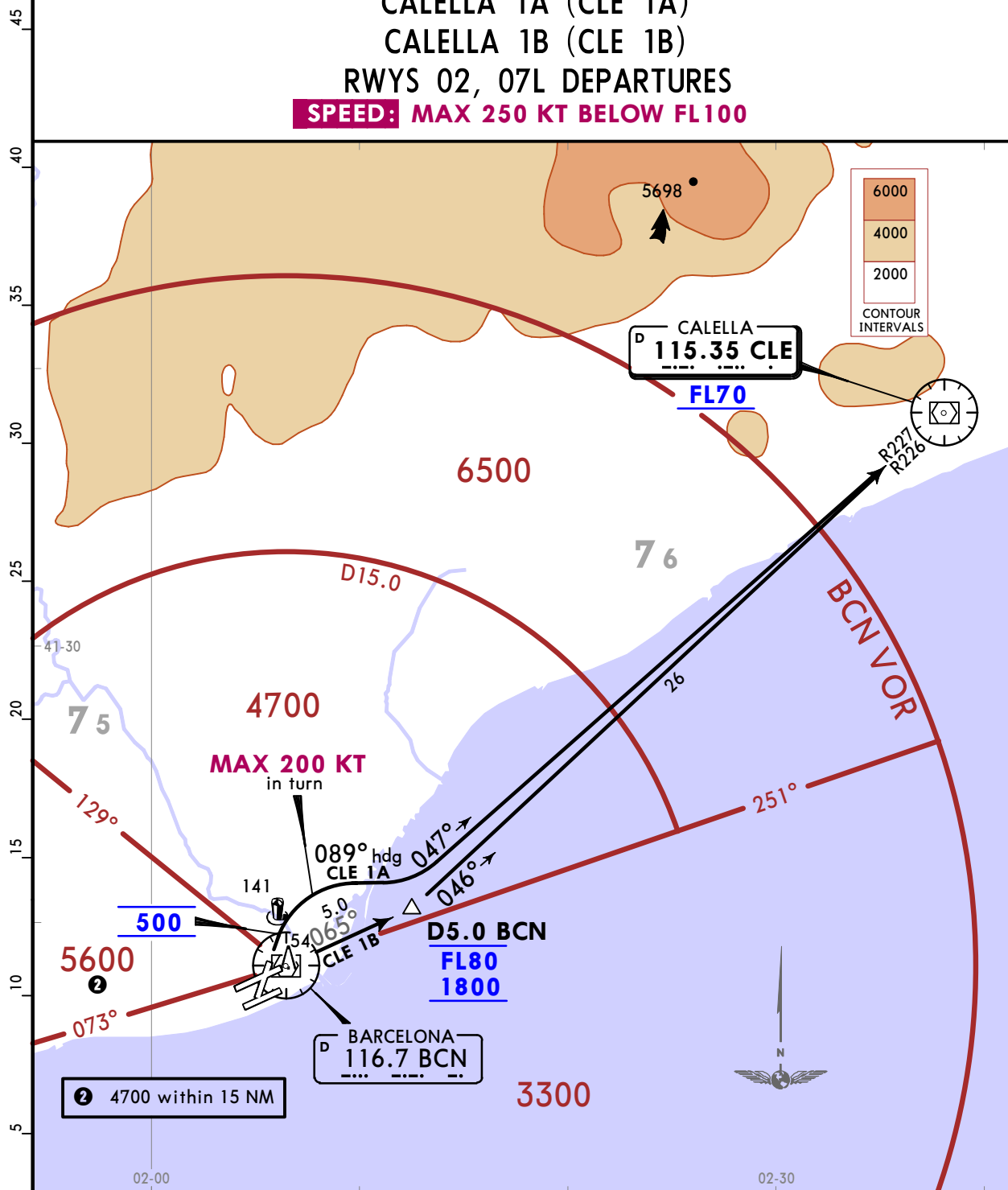
BARCELONA, SPAIN
SID

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to Airport Briefing pages.

CALELLA 1A (CLE 1A)
CALELLA 1B (CLE 1B)
RWYS 02, 07L DEPARTURES

SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of
CLE 1A: 5.0% until leaving 1000.
CLE 1B: 5.6% to D5.0 BCN.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.6% V/V (fpm)	425	567	851	1134	1418	1701

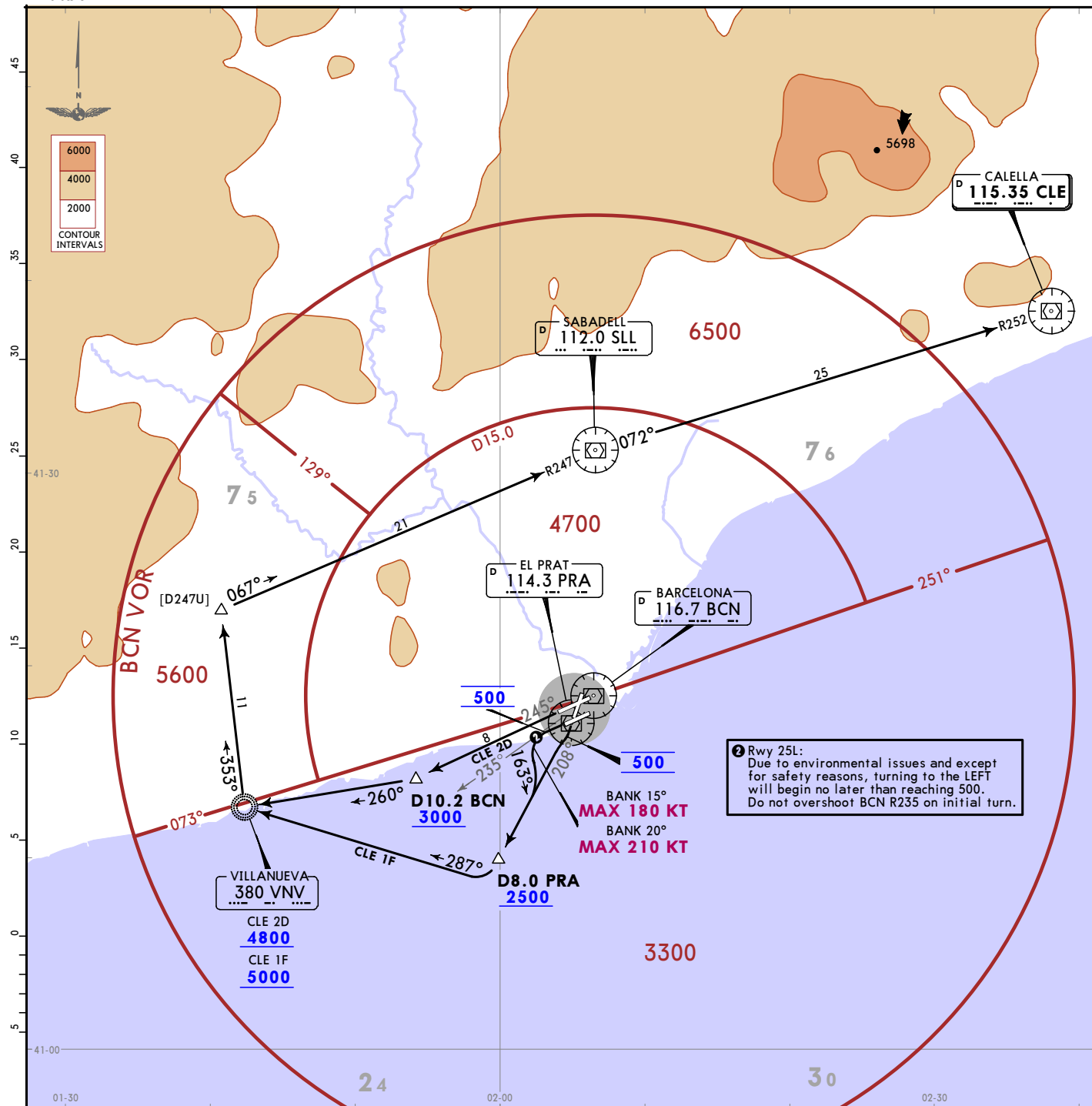
Initial ATC clearance:
Climb and maintain 6000 and request flight level change enroute

SID	RWY	ROUTING
CLE 1A	02 ①	Climb on runway heading to 500, turn RIGHT, 089° heading, intercept CLE R227 inbound to CLE.
CLE 1B	07L	Climb on runway heading to BCN, BCN R065 to D5.0 BCN, turn LEFT, intercept CLE R226 inbound to CLE.

① Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3Q1) **SID**



Apt Elev 14
Trans alt: 6000
For runway configuration refer to Airport Briefing pages.

CALELLA 2D (CLE 2D)
CALELLA 1F (CLE 1F)
RWYS 25R, 20, 25L DEPARTURES
SPEED: MAX 250 KT BELOW FL100

These SIDs require minimum climb gradients of
CLE 2D: 6.1% to VNV.
CLE 1F: 5.0% to D8.0 PRA.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
6.1% V/V (fpm)	463	618	927	1235	1544	1853

Initial ATC clearance:
Climb and maintain 6000 and request flight level change enroute

SID	RWY	ROUTING
CLE 2D	25R	Climb on BCN R245 to D10.2 BCN, turn RIGHT, intercept 260° bearing to VNV, turn RIGHT, 353° bearing, intercept SLL R247 inbound to SLL, SLL R072 to CLE.
CLE 1F	20 ①	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 353° bearing, intercept SLL R247 inbound to SLL, SLL R072 to CLE.
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 353° bearing, intercept SLL R247 inbound to SLL, SLL R072 to CLE.

① Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3Q2)

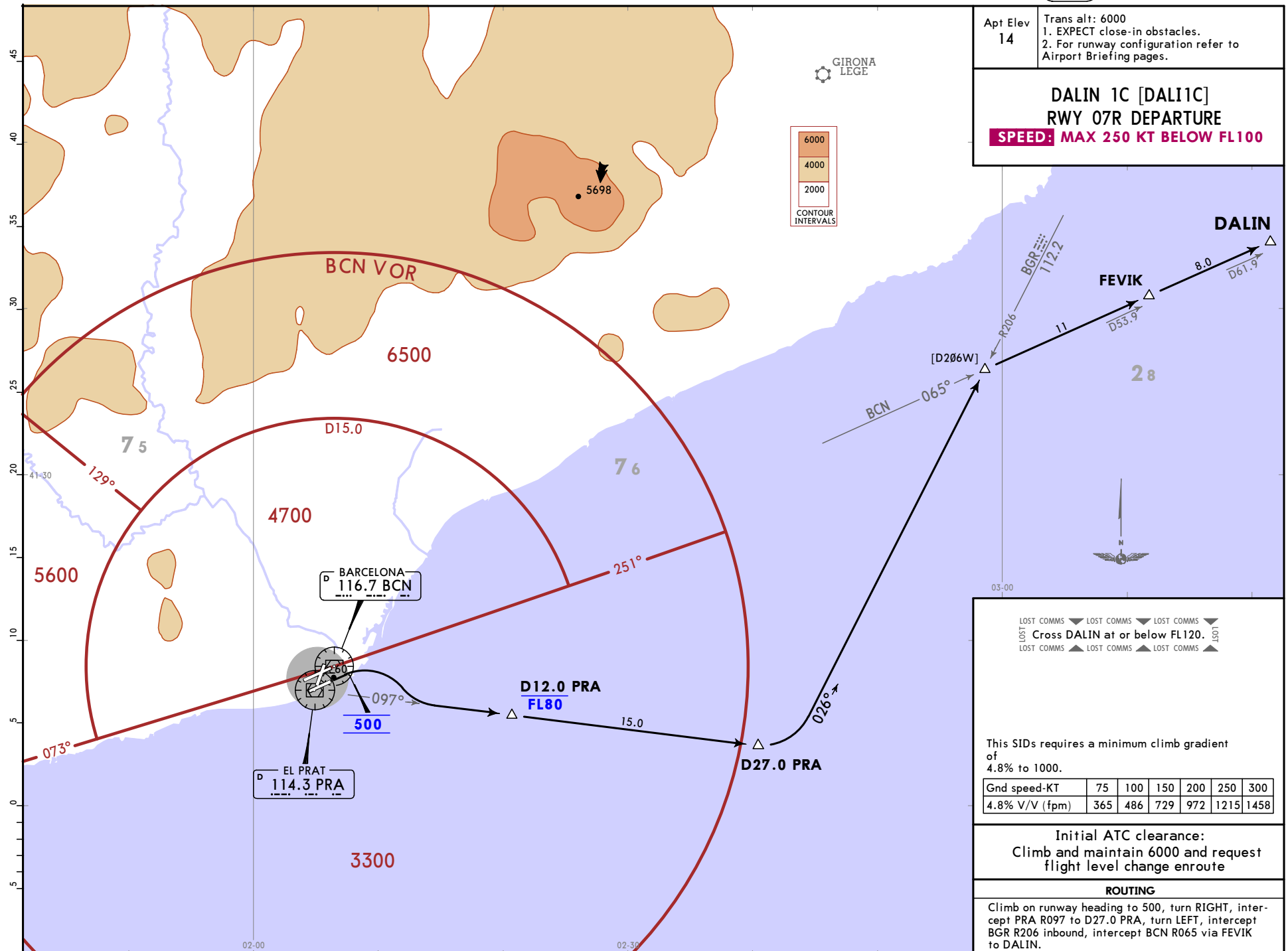
SID

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

DALIN 1C [DALI1C]
RWY 07R DEPARTURE

SPEED: MAX 250 KT BELOW FL100

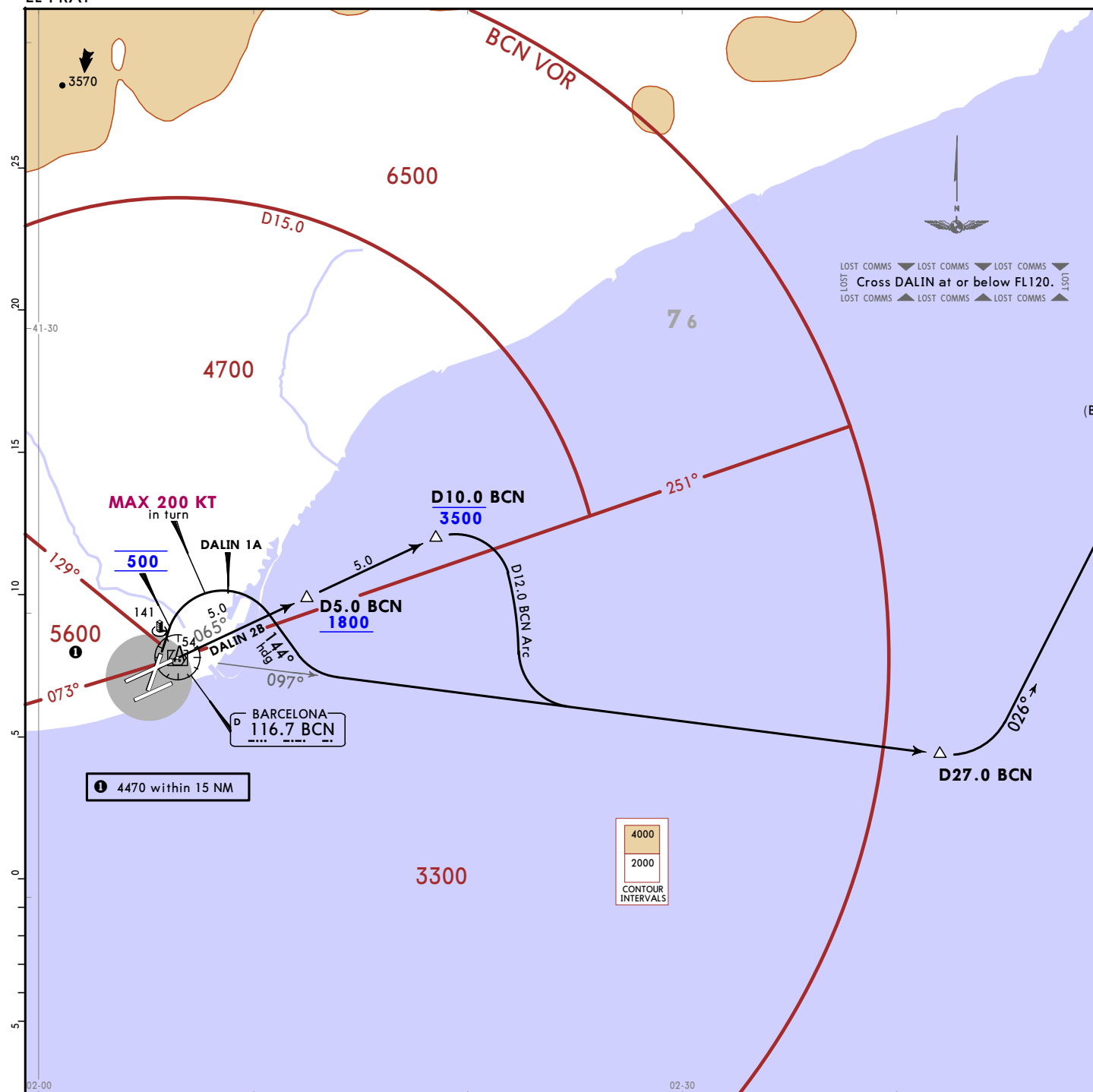


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3Q3)

SID

Apt Elev
14

Trans alt: 6000

1. EXPECT close-in obstacles.
2. For runway configuration refer to Airport Briefing pages.

DALIN 1A [DALI1A]

DALIN 2B [DALI2B]

RWYS 02, 07L DEPARTURES

SPEED: MAX 250 KT BELOW FL100

NOT TO SCALE

These SIDs require minimum climb gradients of

DALIN 1A: 5.0% to 1000.
DALIN 2B: 5.6% to D5.0

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	151
5.6% V/V (fpm)	425	567	851	1134	1418	170

Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

SID	RWY	ROUTING
DALIN 1A	02 2	Climb on runway heading to 500, turn RIGHT, 144° heading, intercept BCN R097 to D27.0 BCN, turn LEFT, intercept BGR R206 inbound, intercept BCN R065 via FEVIK to DALIN.
DALIN 2B	07L	Climb on runway heading to BCN, BCN R065 via D5.0 BCN to D10.0 BCN, turn RIGHT, along D12.0 BCN Arc, intercept BCN R097 to D27.0 BCN, turn LEFT, intercept BGR R206 inbound, intercept BCN R065 via FEVIK to DALIN.

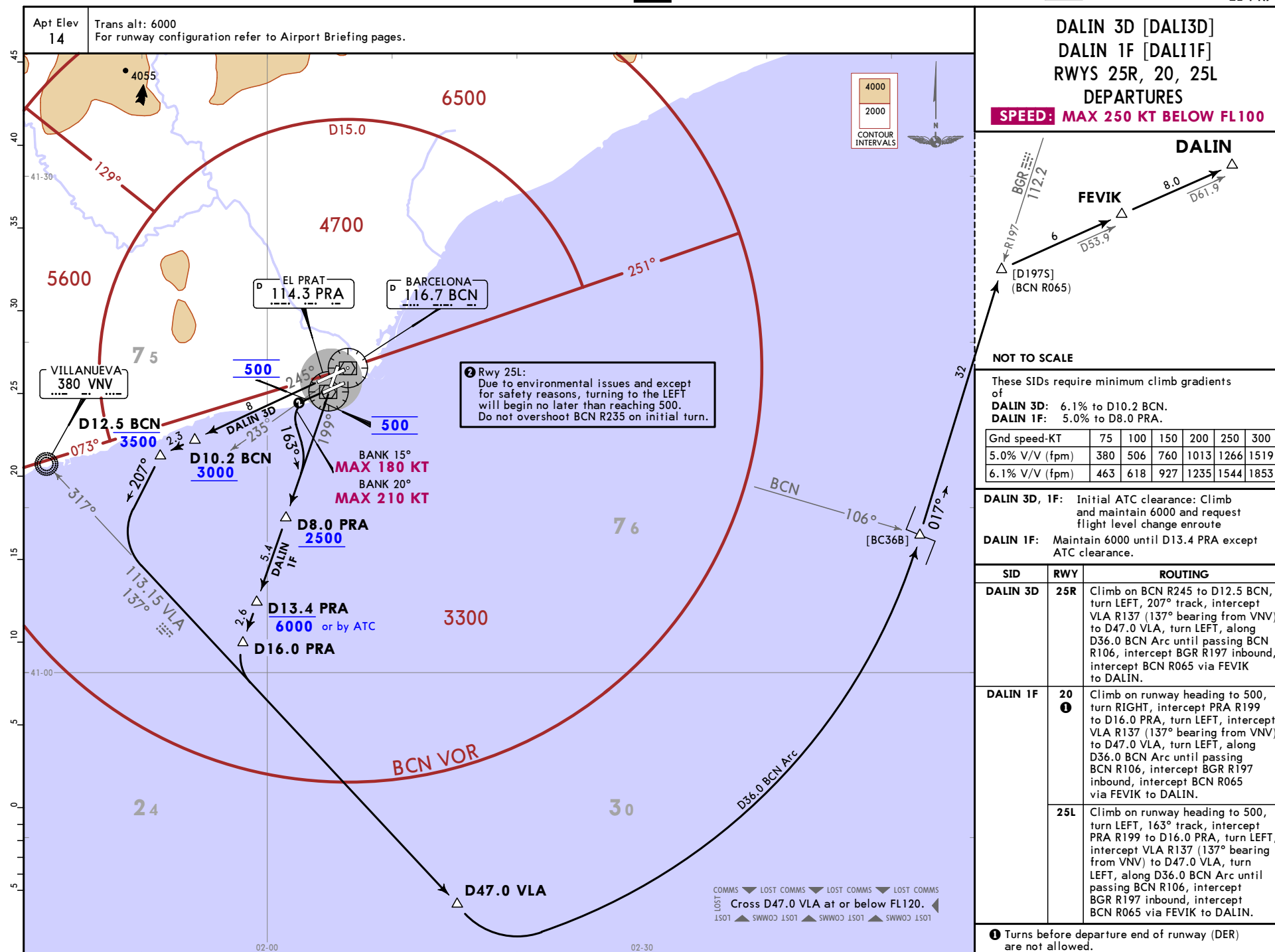
② Turns before departure end of runway (DER) are not allowed.

BARCELONA, SPAIN

SID

JEPPESEN
10 AUG 18 (10-3Q4)

LEBL/BCN
EL PRAT

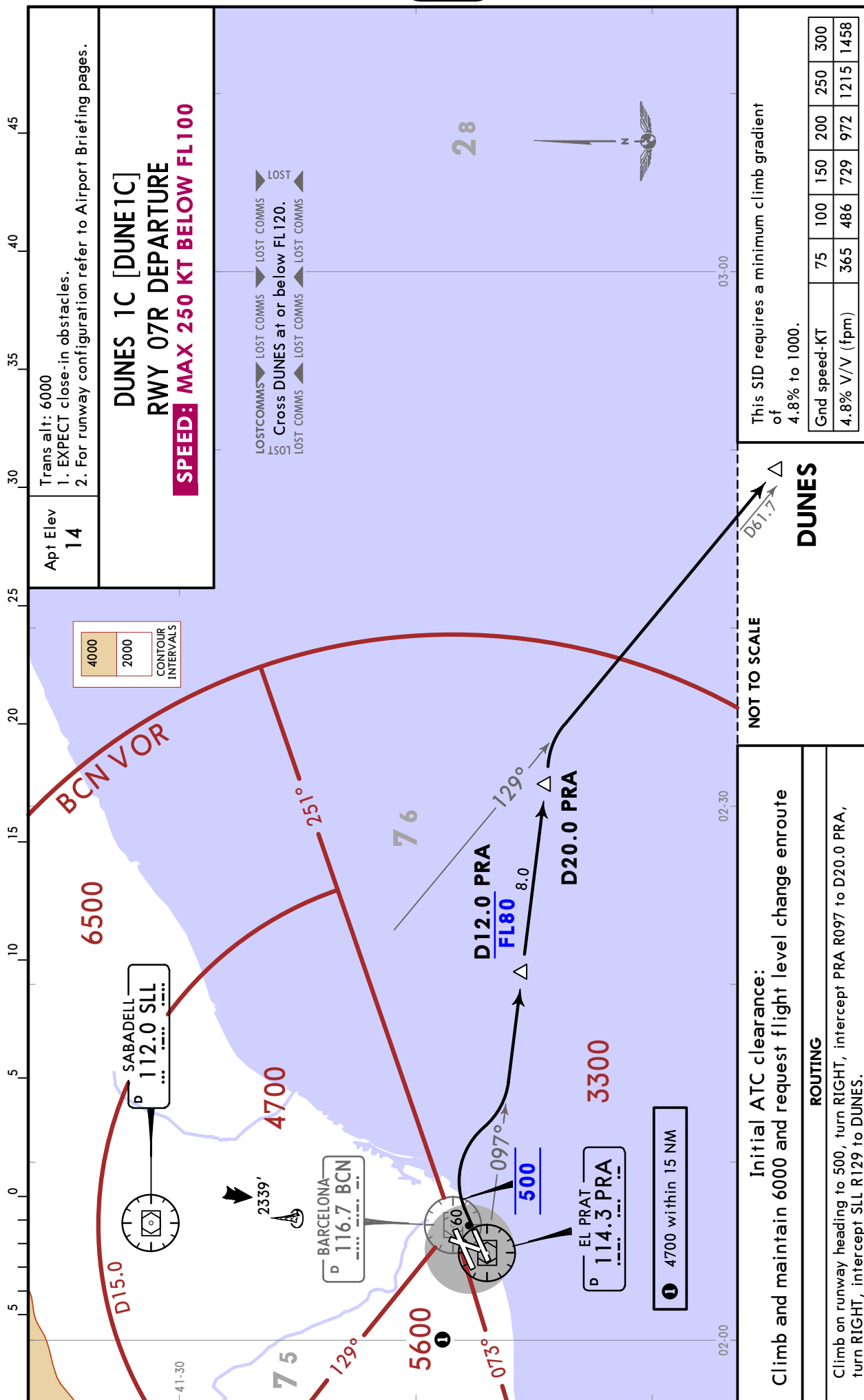


LEBL/BCN
EL PRAT

JEPPESSEN
10 AUG 18 **(10-3Q5)**

BARCELONA, SPAIN

SID



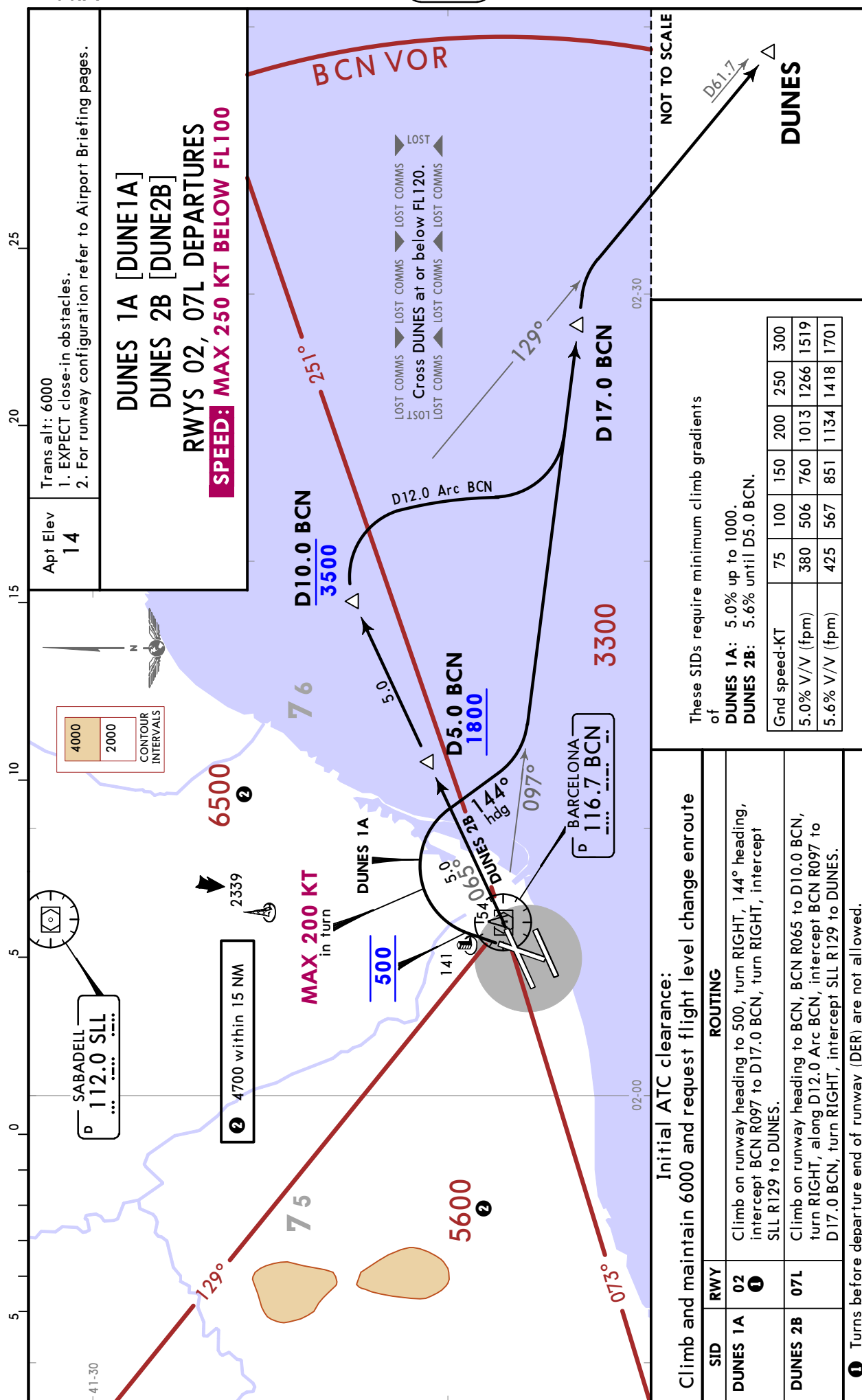
LEBL/BCN
EL PRAT

10 AUG 18

JEPPESEN

10-3Q6

BARCELONA, SPAIN

SID

CHANGES: Reissue.

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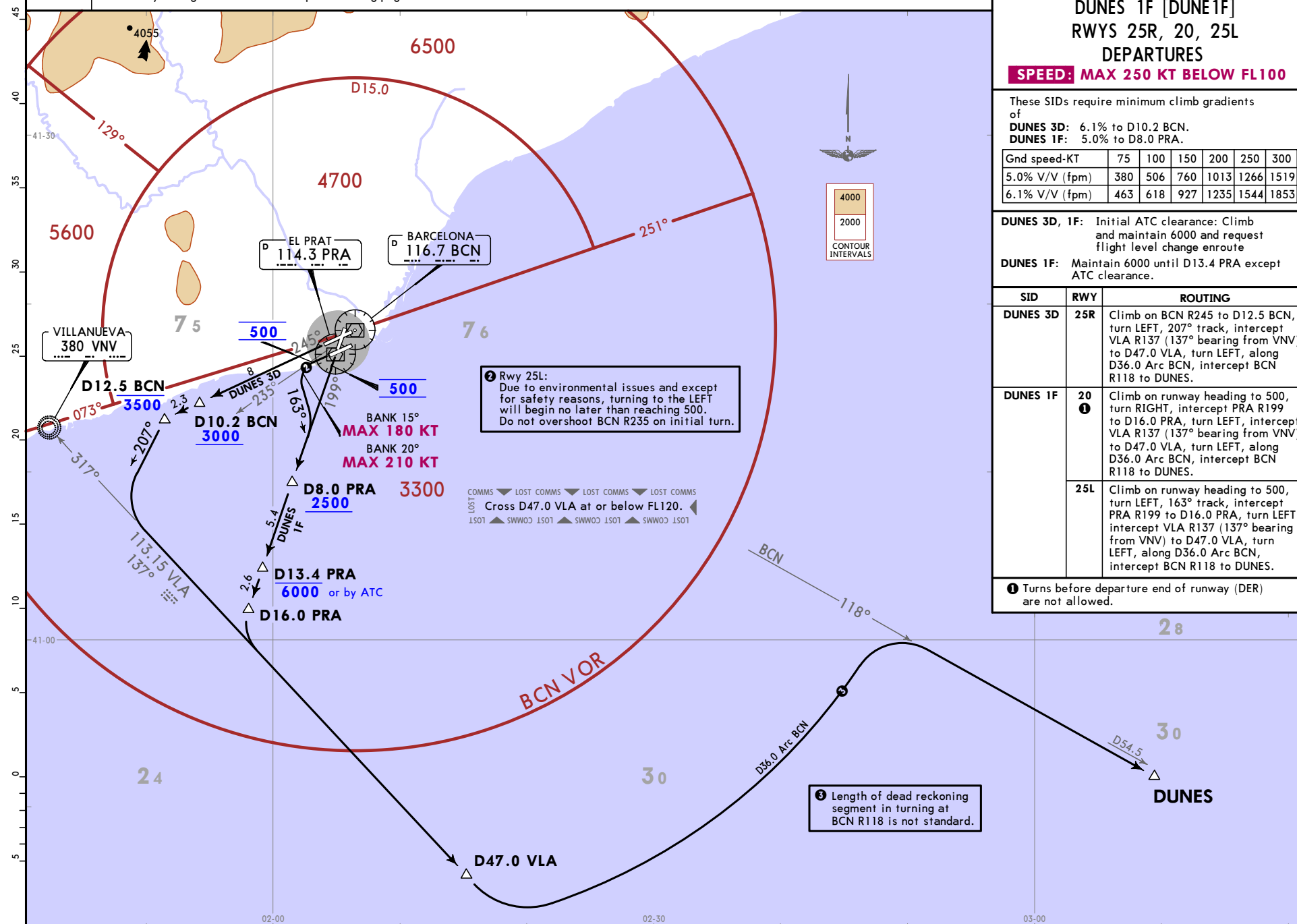
LEBL/BCN
EL PRAT

Apt Elev
14

Trans alt: 6000
For runway configuration refer to Airport Briefing pages.

JEPPESBARCELONA, SPAIN
10 AUG 18 (10-3Q7) **SID**

SID

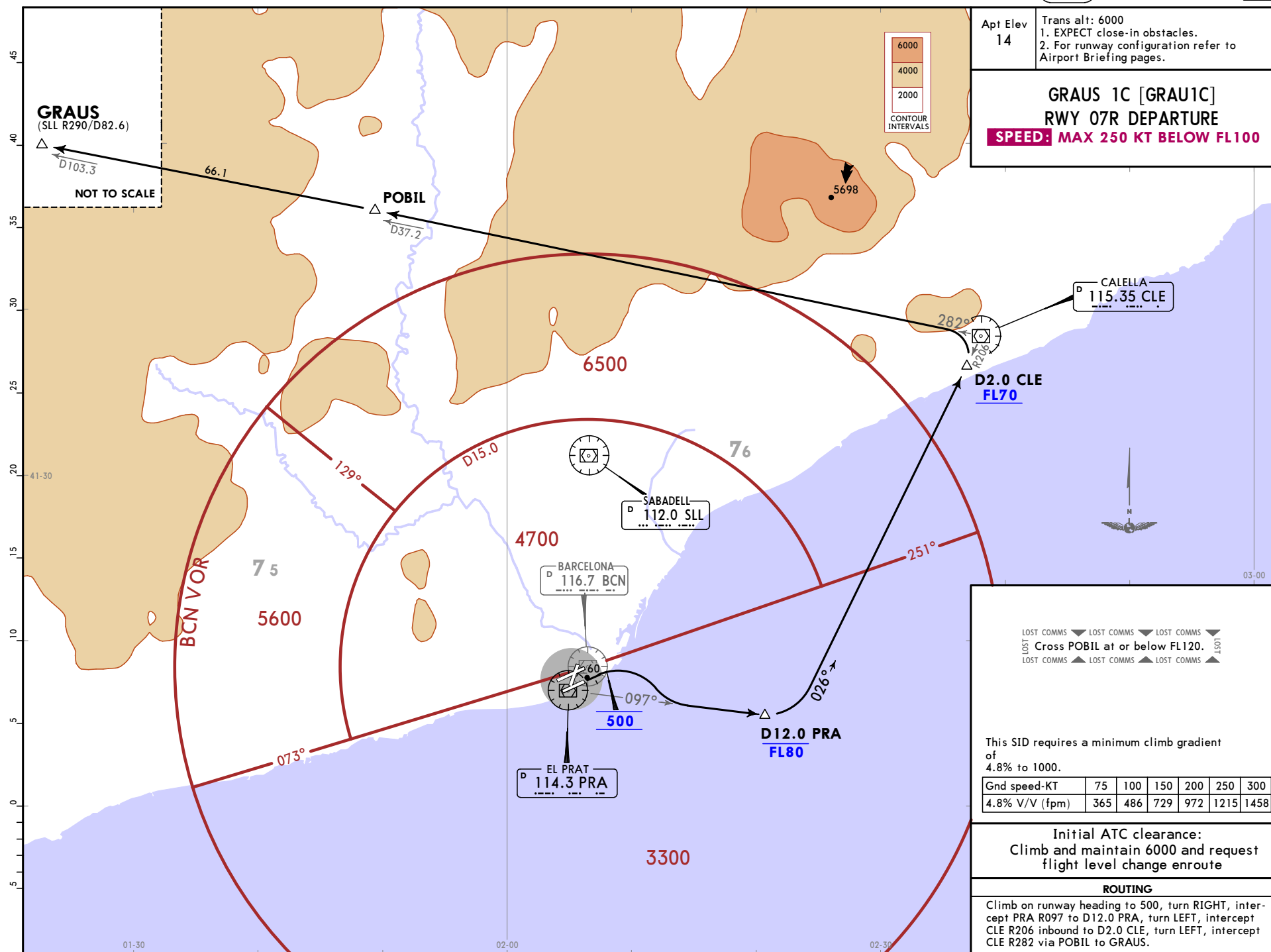


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3Q8) **SID**

Apt Elev
14
Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

GRAUS 1C [GRAU1C]
RWY 07R DEPARTURE
SPEED: MAX 250 KT BELOW FL100

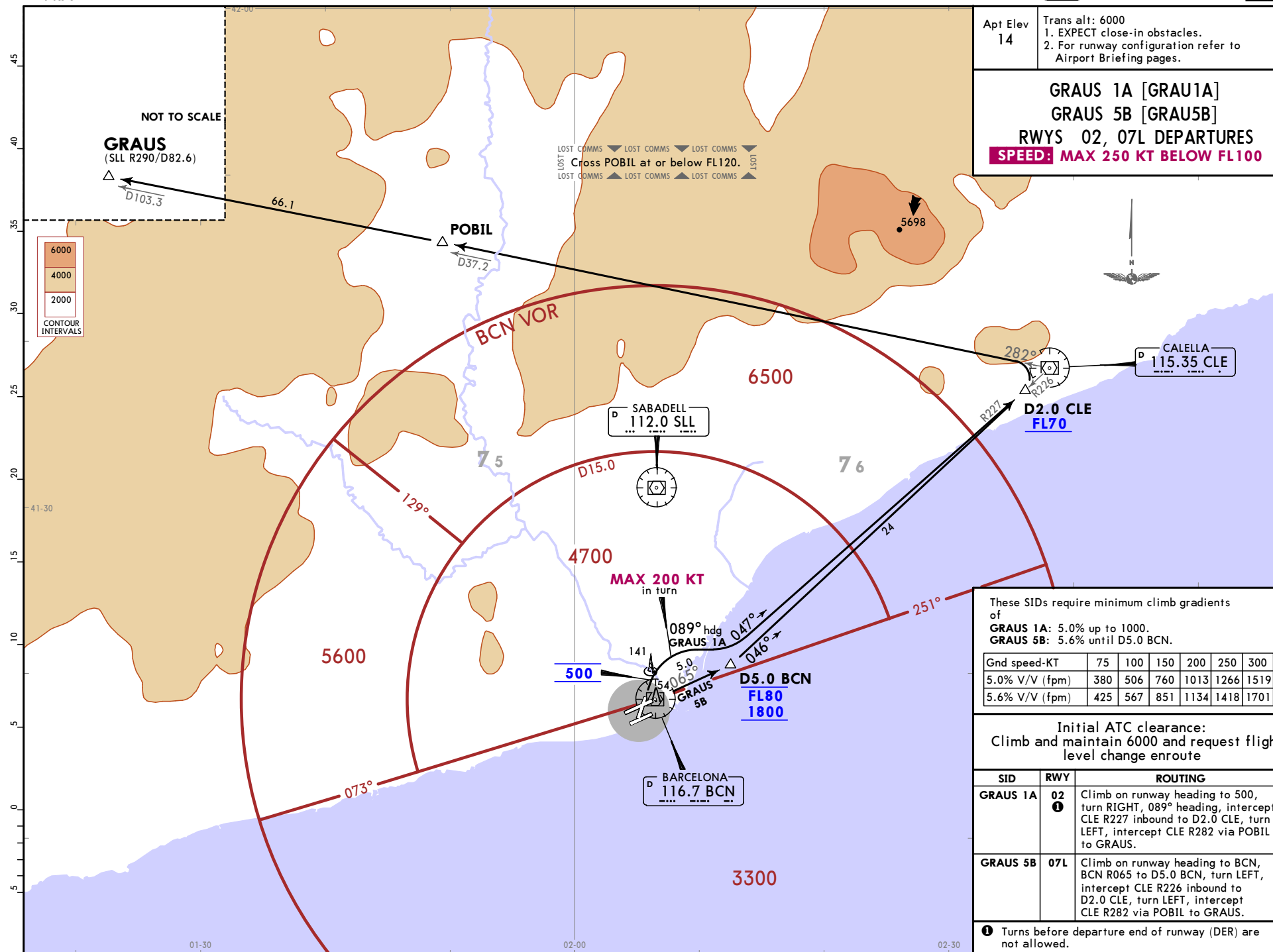


LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3S) **SID**

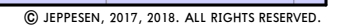
Apt Elev
14
Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

GRAUS 1A [GRAU1A]
GRAUS 5B [GRAU5B]
RWYS 02, 07L DEPARTURES
SPEED: MAX 250 KT BELOW FL100



JEPPESEN BARCELONA, SPAIN

SID



LEBL/BCN
EL PRAT

10 AUG 18 **JEPPESEN** (10-3T1)

BARCELONA, SPAIN

SID

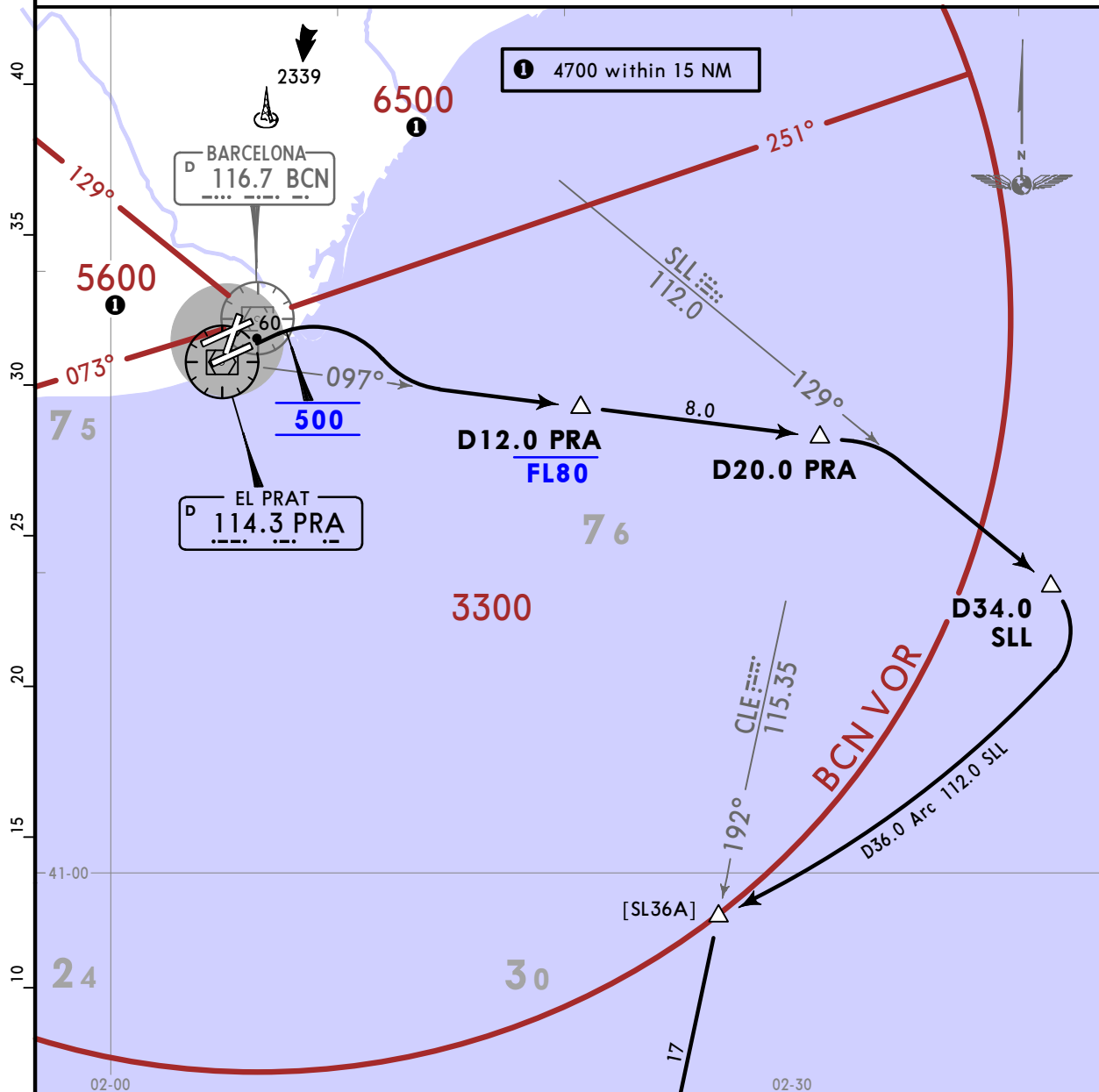
Apt Elev
14

Trans alt: 6000

1. EXPECT close-in obstacles.
2. For runway configuration refer to Airport Briefing pages.

LARPA 1C [LARP1C]
RWY 07R DEPARTURE

SPEED: MAX 250 KT BELOW FL100



Cross D58.0 CLE at or below FL120.

This SID requires a minimum climb gradient of 4.8% up to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

NOT TO SCALE

△ D58.0 CLE

LARPA

Initial ATC clearance:

Climb and maintain 6000 and request flight level change enroute

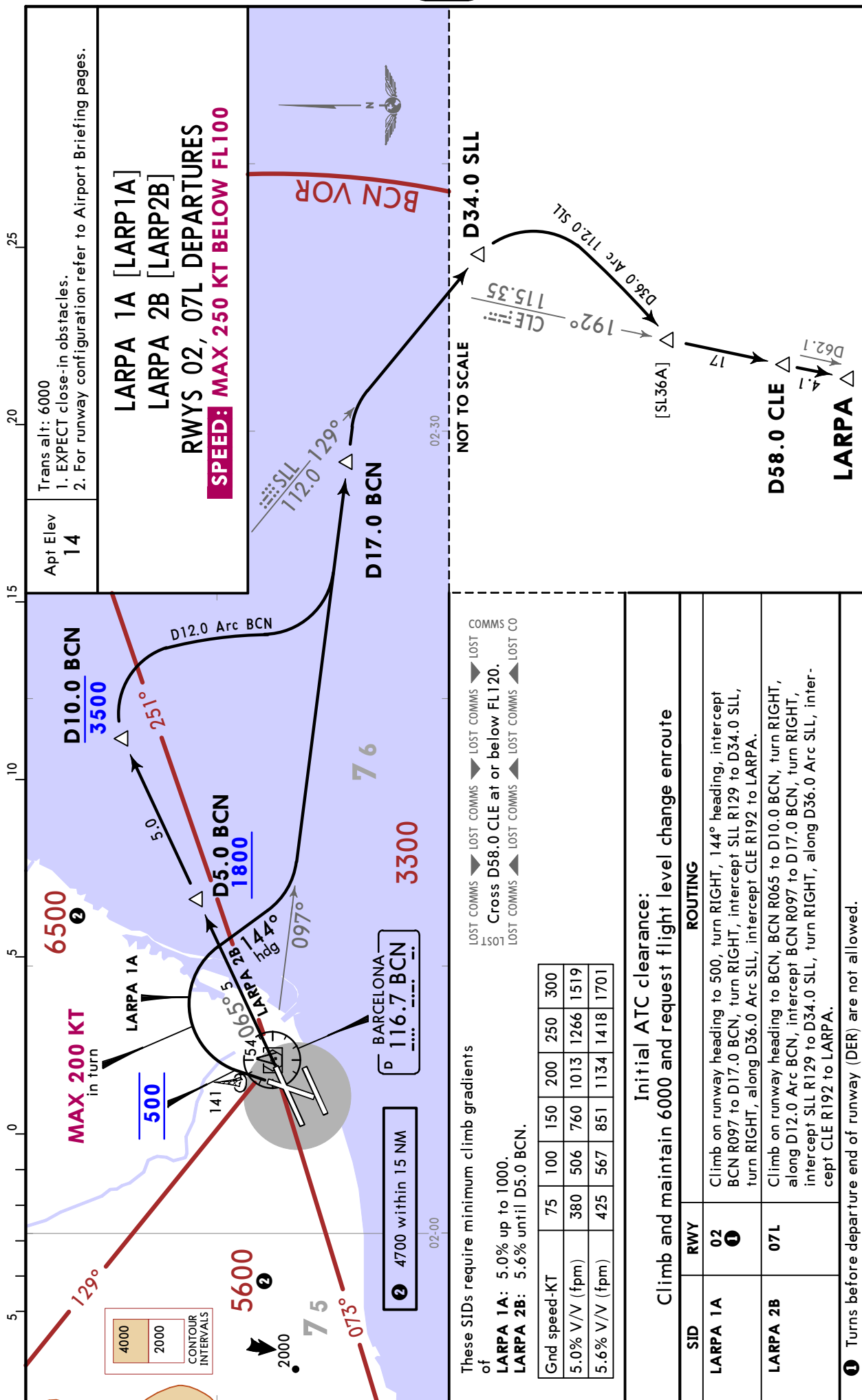
ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R097 to D20.0 PRA, turn RIGHT, intercept SLL R129 to D34.0 SLL, turn RIGHT, along D36.0 Arc SLL, intercept CLE R192 to LARPA.

LEBL/BCN
EL PRAT

10 AUG 18 (10-3T2)

BARCELONA, SPAIN
SID



LEBL/BCN
EL PRAT

10 AUG 18 (10-3T3) **BARCELONA, SPAIN** **SID**

Apt Elev
14
Trans alt: 6000
For runway configuration refer to Airport Briefing pages.

LARPA 3D [LARP3D]

LARPA 1F [LARP1F]

RWYS 25R, 20, 25L
DEPARTURES

SPEED: MAX 250 KT BELOW FL100

These SIDs require minimum climb gradients of
LARPA 3D: 6.1% to D10.2 BCN.
LARPA 1F: 5.0% to D8.0 PRA.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
6.1% V/V (fpm)	463	618	927	1235	1544	1853

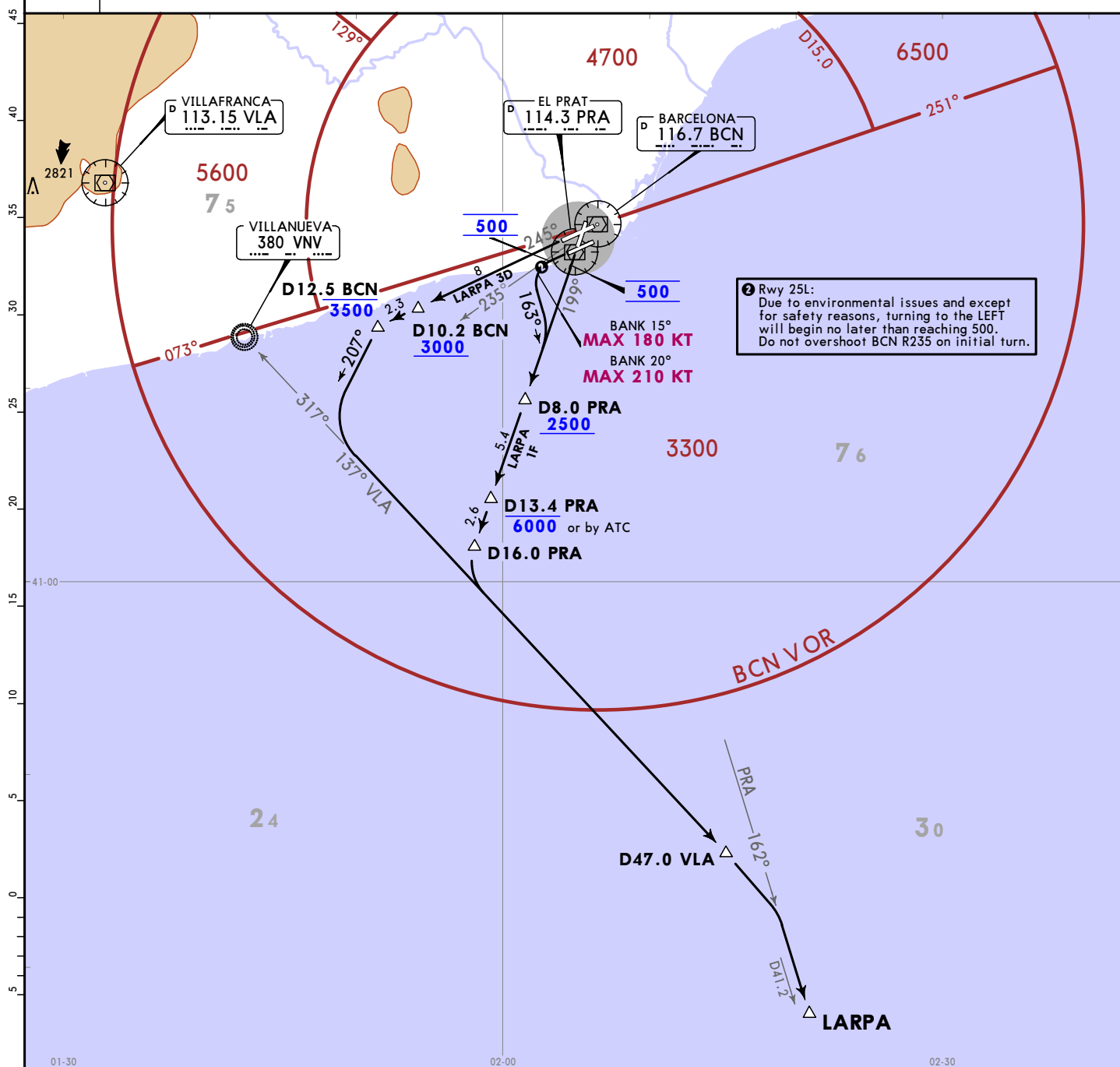
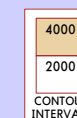
LARPA 3D, 1F: Initial ATC clearance: Climb and maintain 6000 and request flight level change enroute

LARPA 1F: Maintain 6000 until D13.4 PRA except ATC clearance.

SID	RWY	ROUTING
LARPA 3D	25R	Climb on BCN R245 to D12.5 BCN, turn LEFT, 207° track, intercept VLA R137 (137° bearing from VNV), intercept PRA R162 to LARPA.
LARPA 1F	20 ①	Climb on runway heading to 500, turn RIGHT, intercept PRA R199 to D16.0 PRA, turn LEFT, intercept VLA R137 (137° bearing from VNV), intercept PRA R162 to LARPA.
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R199 to D16.0 PRA, turn LEFT, intercept VLA R137 (137° bearing from VNV), intercept PRA R162 to LARPA.

① Turns before departure end of runway (DER) are not allowed.

COMMS LOST COMMS LOST COMMS LOST COMMS
LOST Cross D47.0 VLA at or below FL120.
LSOT SWW03 LSOT SWW03 LSOT SWW03 LSOT



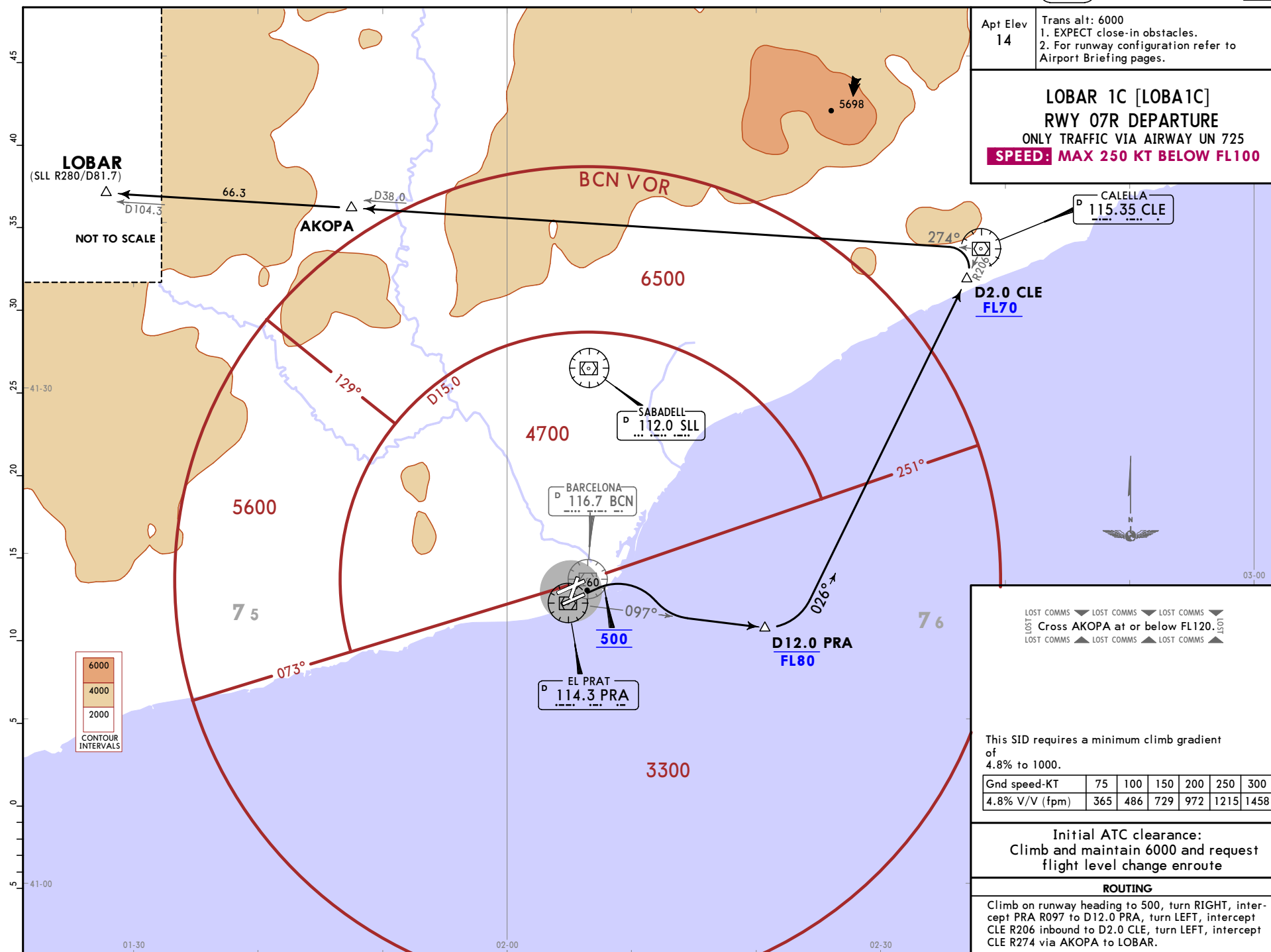
LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 (10-3T4) **SID**

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

LOBAR 1C [LOBA1C]
RWY 07R DEPARTURE
ONLY TRAFFIC VIA AIRWAY UN 725
SPEED: MAX 250 KT BELOW FL100

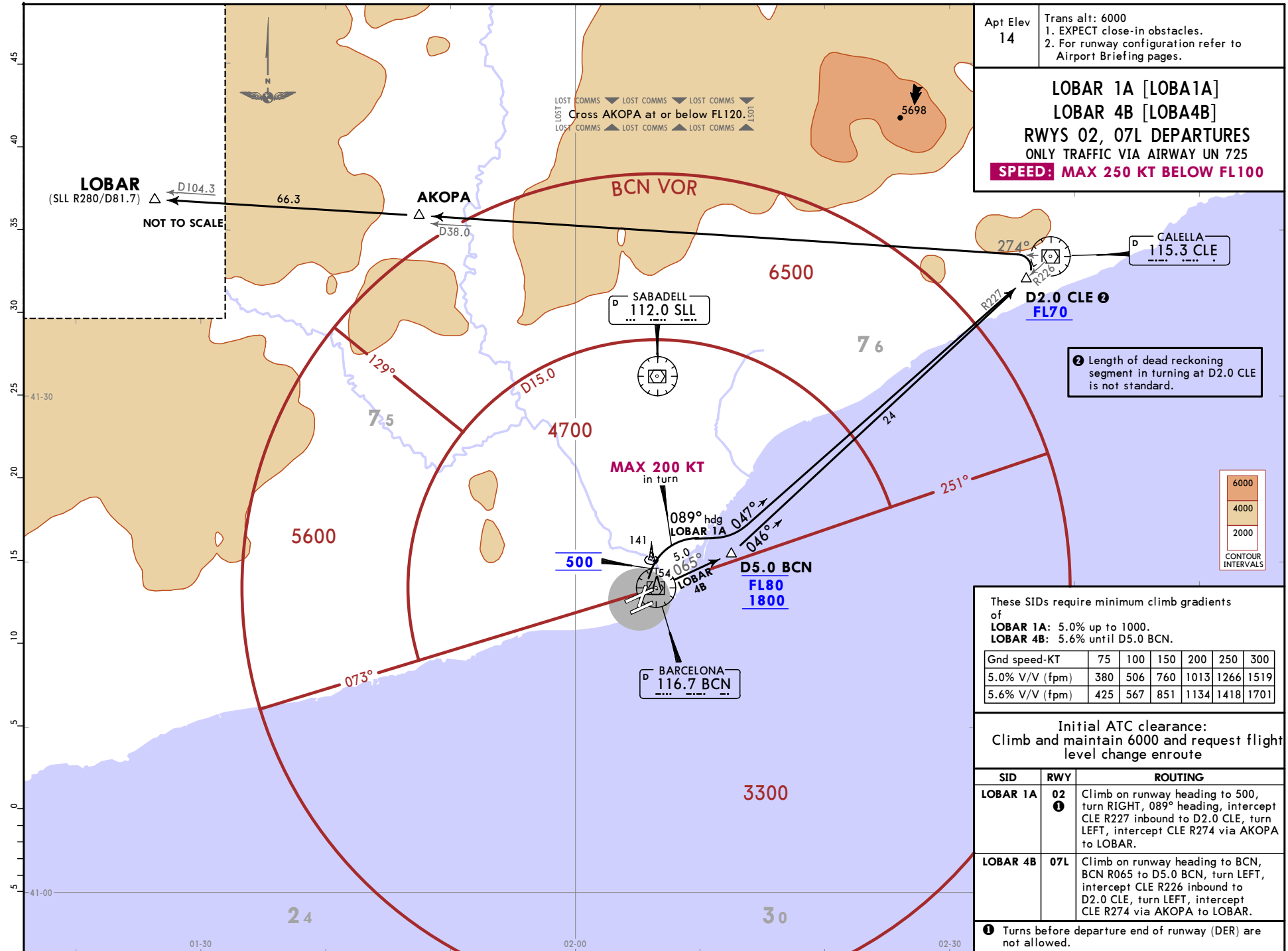


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3T5) **SID**

Apt Elev 14
Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to Airport Briefing pages.

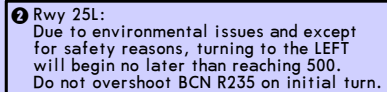
LOBAR 1A [LOBA1A]
LOBAR 4B [LOBA4B]
RWYS 02, 07L DEPARTURES
ONLY TRAFFIC VIA AIRWAY UN 725
SPEED: MAX 250 KT BELOW FL100



CHANGES: Reissue.

JEPPESEN BARCELONA, SPAIN

SID



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3T7) **SID**

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

LOTOS 1C [LOT01C]
RWY 07R DEPARTURE
WHEN CMA COVERAGE FAILURE BELOW FL240
RADAR ASSISTANCE IS AVAILABLE
SPEED: MAX 250 KT BELOW FL100

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
Cross D58.0 CLE at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

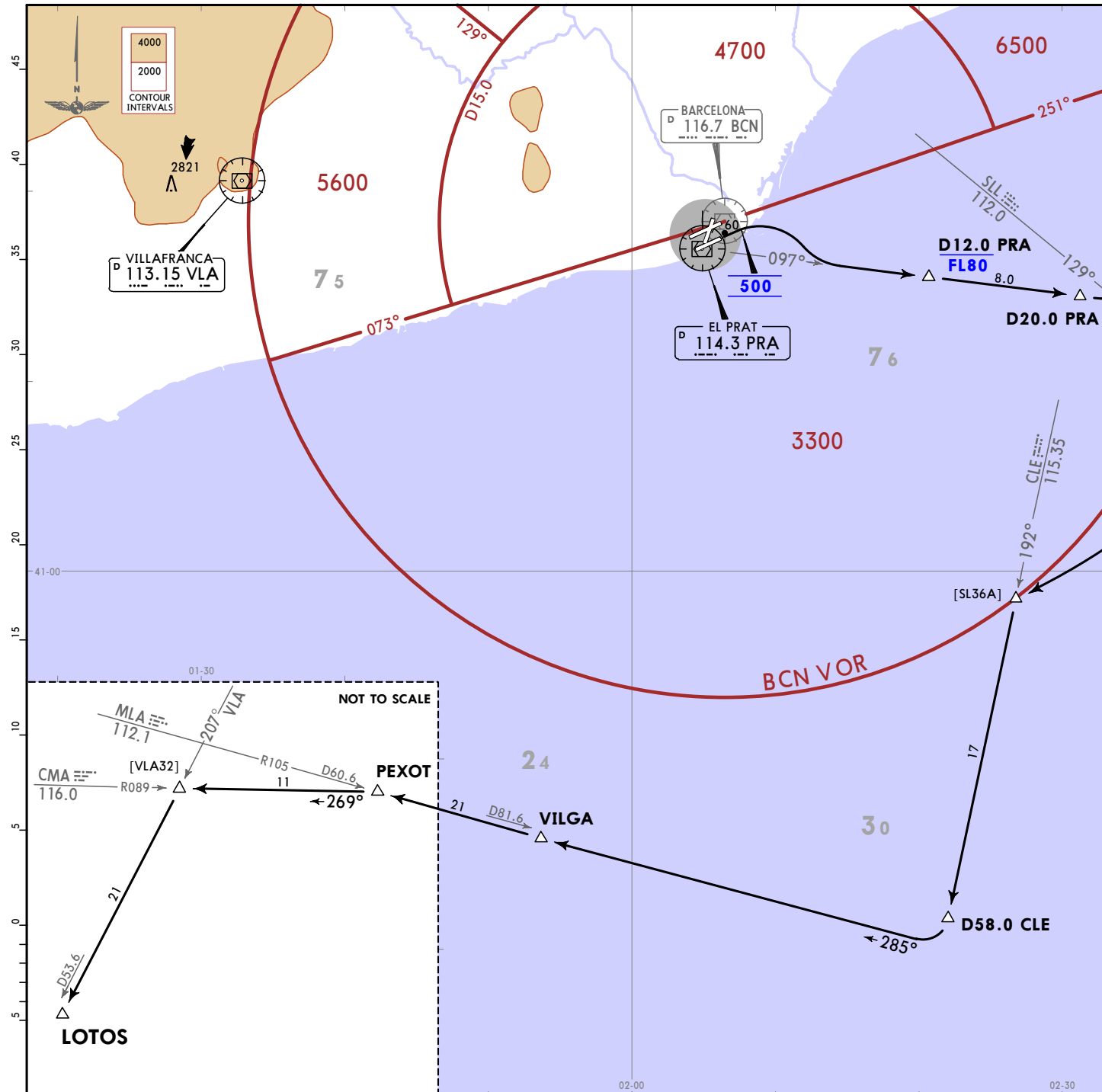
This SID requires a minimum climb gradient
of
4.8% to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R097 to D20.0 PRA, turn RIGHT, intercept SLL R129 to D34.0 SLL, turn RIGHT, along D36.0 Arc SLL, intercept CLE R192 to D58.0 CLE, turn RIGHT, intercept MLA R105 inbound via VILGA to PEXOT, turn LEFT, intercept CMA R089 inbound, intercept VLA R207 to LOTOS.



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3T8)

SID

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

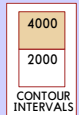
LOTOS 1A [LOT01A]

LOTOS 2B [LOT02B]

RWYS 02, 07L DEPARTURES
WHEN CMA COVERAGE FAILURE BELOW FL240
RADAR ASSISTANCE IS AVAILABLE

SPEED: MAX 250 KT BELOW FL100

LOST COMMS
Cross D58.0 CLE at or below FL120.
LOST COMMS



These SIDs require minimum climb gradients
of

LOTOS 1A: 5.0% to 1000.

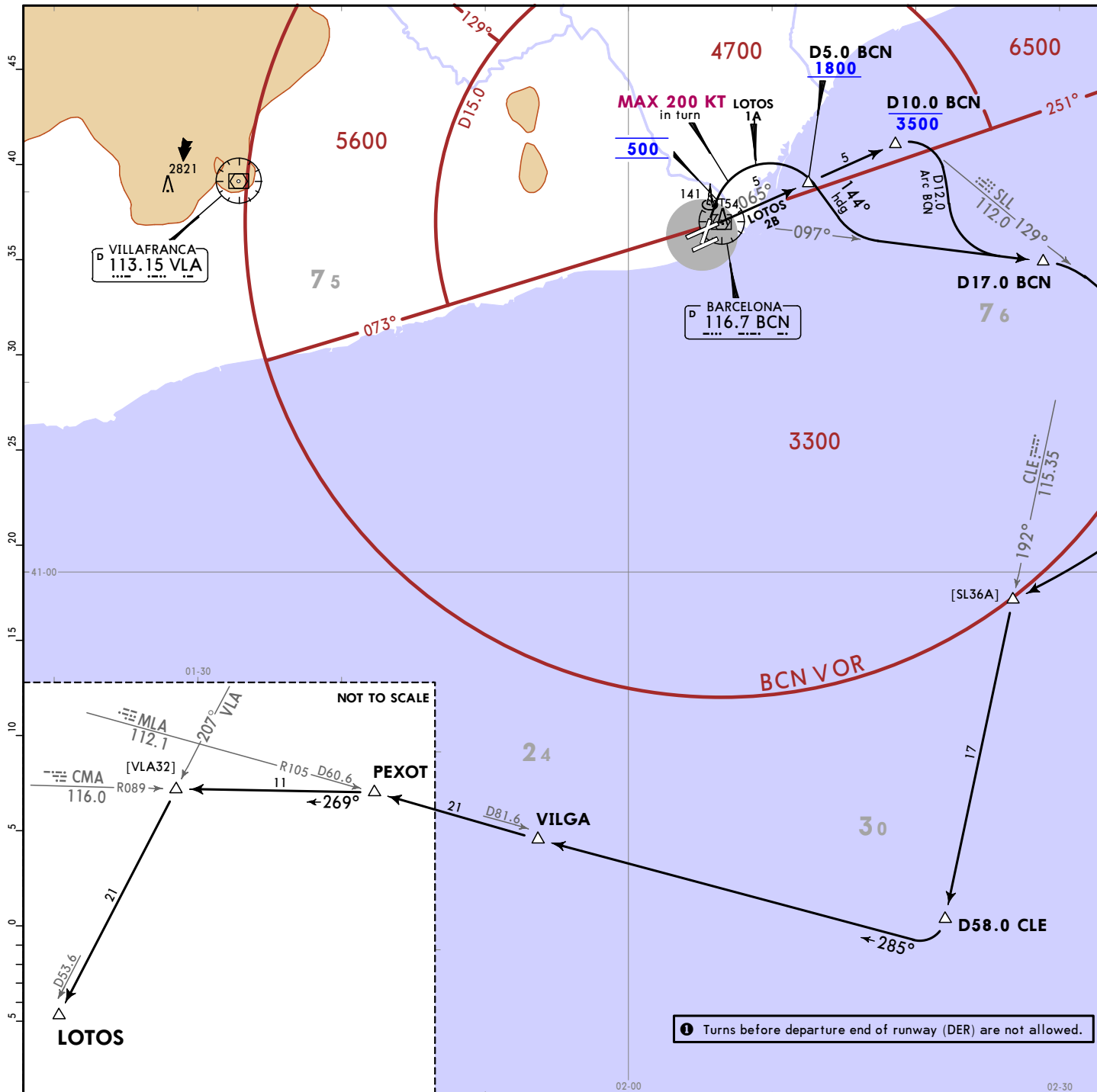
LOTOS 2B: 5.6% until D5.0 BCN.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.6% V/V (fpm)	425	567	851	1134	1418	1701

Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

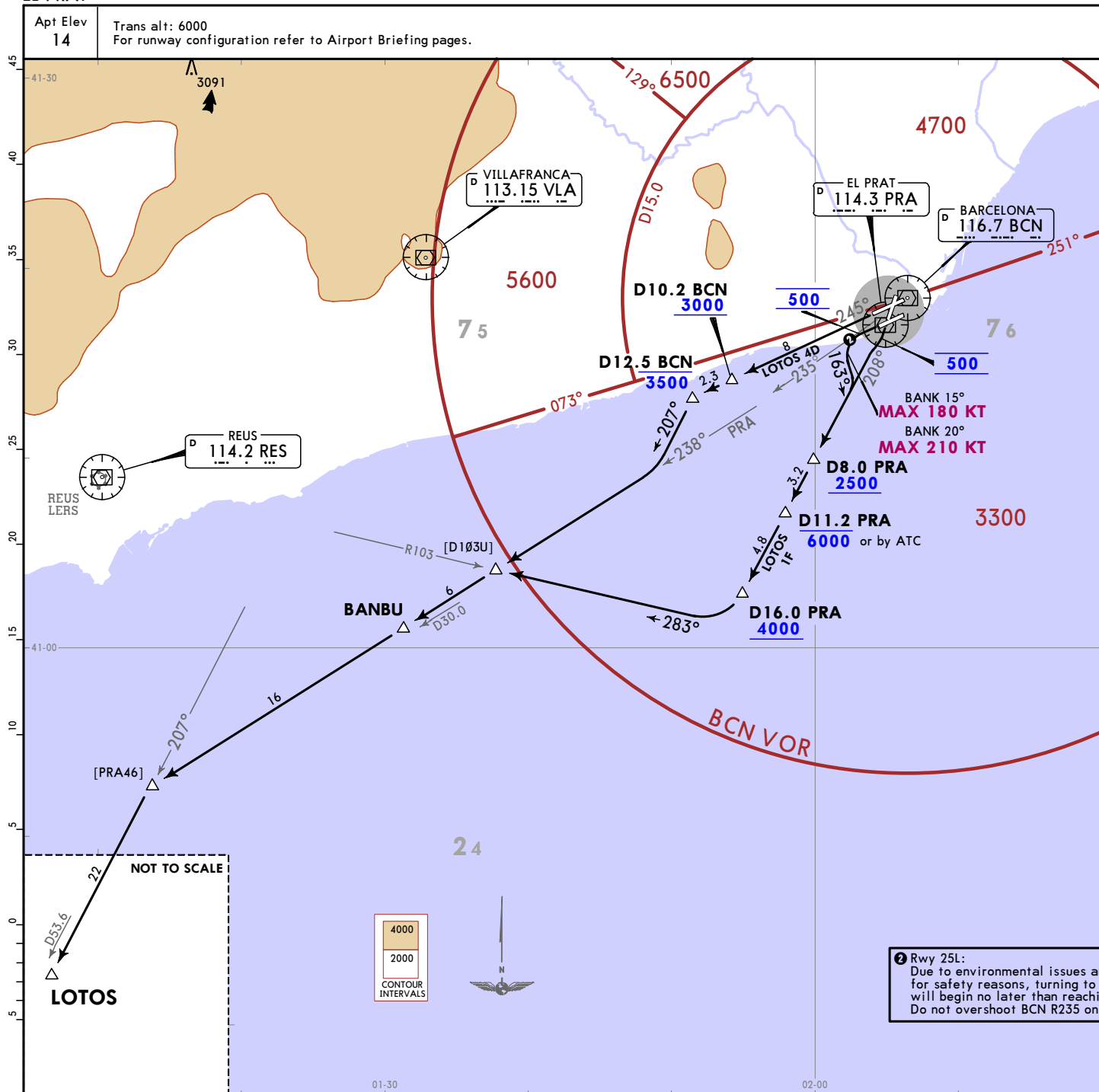
SID	RWY	ROUTING
LOTOS 1A	02 ①	Climb on runway heading to 500, turn RIGHT, 144° heading, intercept BCN R097 to D17.0 BCN, turn RIGHT, intercept SLL R129 to D34.0 SLL, turn RIGHT, along D36.0 Arc SLL, intercept CLE R192 to D58.0 CLE, turn RIGHT, intercept MLA R105 inbound via VILGA to PEXOT, turn LEFT, intercept CMA R089 inbound, intercept VLA R207 to LOTOS.
LOTOS 2B	07L	Climb on runway heading to BCN, BCN R065 to D10.0 BCN, turn RIGHT, along D12.0 Arc BCN, intercept BCN R097 to D17.0 BCN, turn RIGHT, intercept SLL R129 to D34.0 SLL, turn RIGHT, along D36.0 Arc SLL, intercept CLE R192 to D58.0 CLE, turn RIGHT, intercept MLA R105 inbound via VILGA to PEXOT, turn LEFT, intercept CMA R089 inbound, intercept VLA R207 to LOTOS.

① Turns before departure end of runway (DER) are not allowed.



LEBL/BCN
EL PRAT

10 AUG 18 10-3U
BARCELONA, SPAIN
SID



LOTOS 4D [LOT04D]
LOTOS 1F [LOT01F]
RWYS 25R, 20, 25L
DEPARTURES

SPEED: MAX 250 KT BELOW FL100

These SIDs require minimum climb gradients of
LOTOS 4D: 6.1% to D10.2 BCN.
LOTOS 1F: 5.0% to D8.0 PRA.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
6.1% V/V (fpm)	463	618	927	1235	1544	1853

LOTOS 4D, 1F: Initial ATC clearance:
Climb and maintain 6000 and request flight level change enroute
LOTOS 1F: Maintain 6000 until D11.2 PRA except ATC clearance.

SID	RWY	ROUTING
LOTOS 4D	25R	Climb on BCN R245 to D12.5 BCN, turn LEFT, 207° track, intercept PRA R238 via BANBU, intercept VLA R207 to LOTOS.
LOTOS 1F	20 1	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to D16.0 PRA, turn RIGHT, intercept RES R103 inbound, intercept PRA R238 via BANBU, intercept VLA R207 to LOTOS.
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to D16.0 PRA, turn RIGHT, intercept RES R103 inbound, intercept PRA R238 via BANBU, intercept VLA R207 to LOTOS.

1 Turns before departure end of runway (DER) are not allowed.

COMMS LOST COMMS LOST COMMS LOST COMMS
Cross BANBU at or below FL120.
LSOT SWWOC LSOT SWWOC LSOT SWWOC LSOT

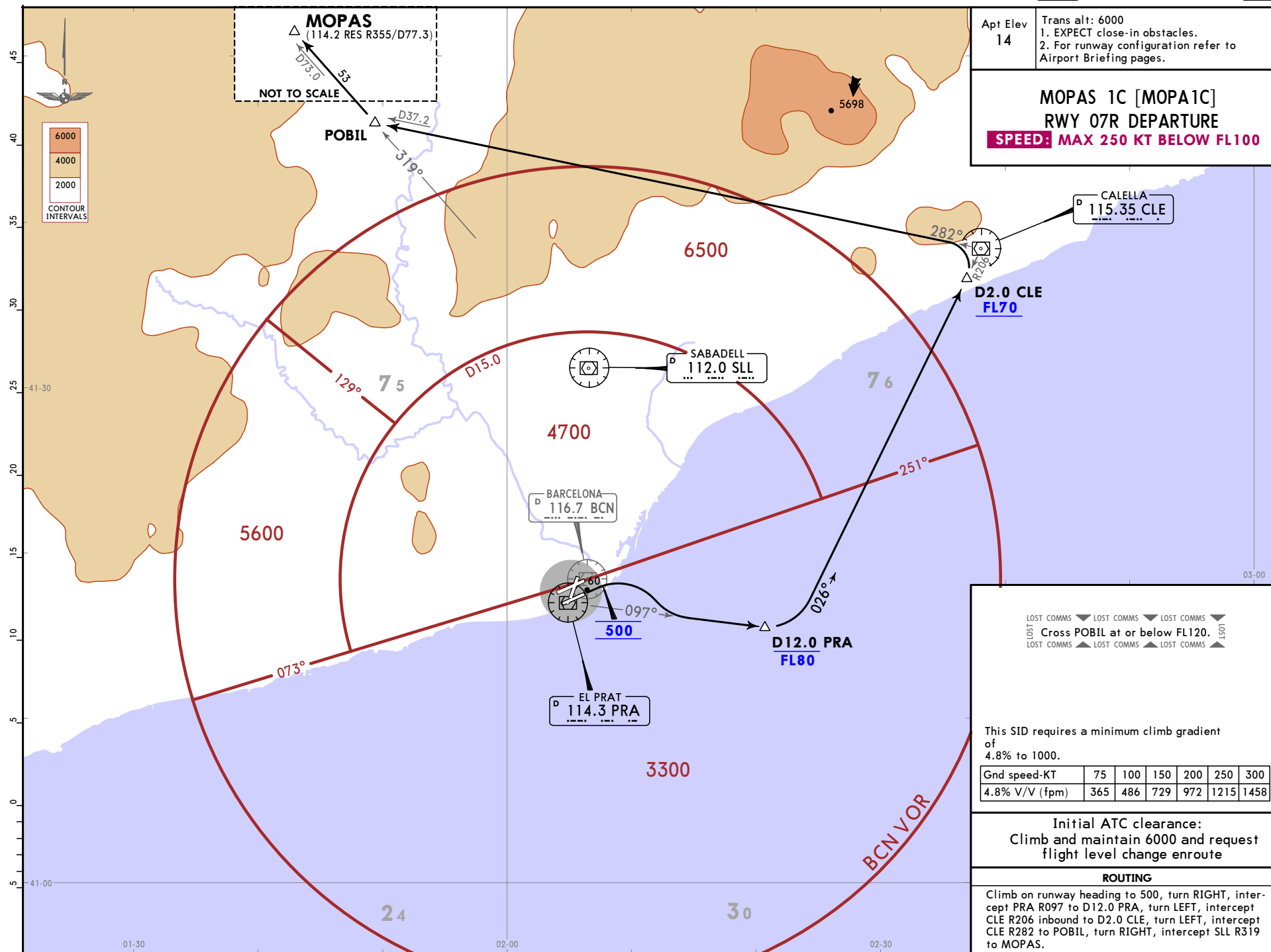
2 Rwy 25L:
Due to environmental issues and except for safety reasons, turning to the LEFT will begin no later than reaching 500. Do not overshoot BCN R235 on initial turn.

LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN
10 AUG 18 10-3V **SID**

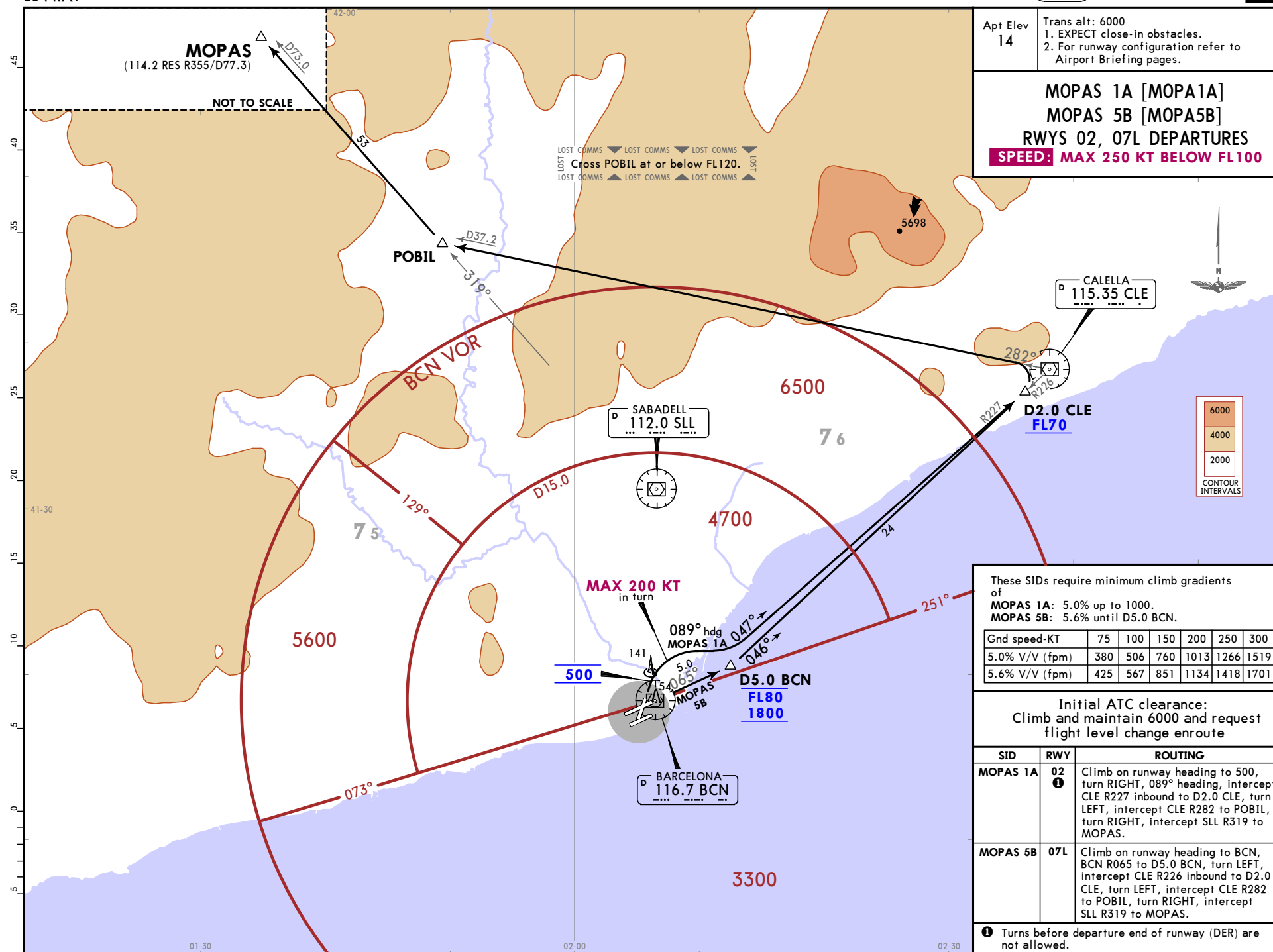
Apt Elev
14
Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

MOPAS 1C [MOPA1C]
RWY 07R DEPARTURE
SPEED: MAX 250 KT BELOW FL100



LEBL/BCN
EL PRAT

JEYPESEN BARCELONA, SPAIN
10 AUG 18 (10-3V1) **SID**

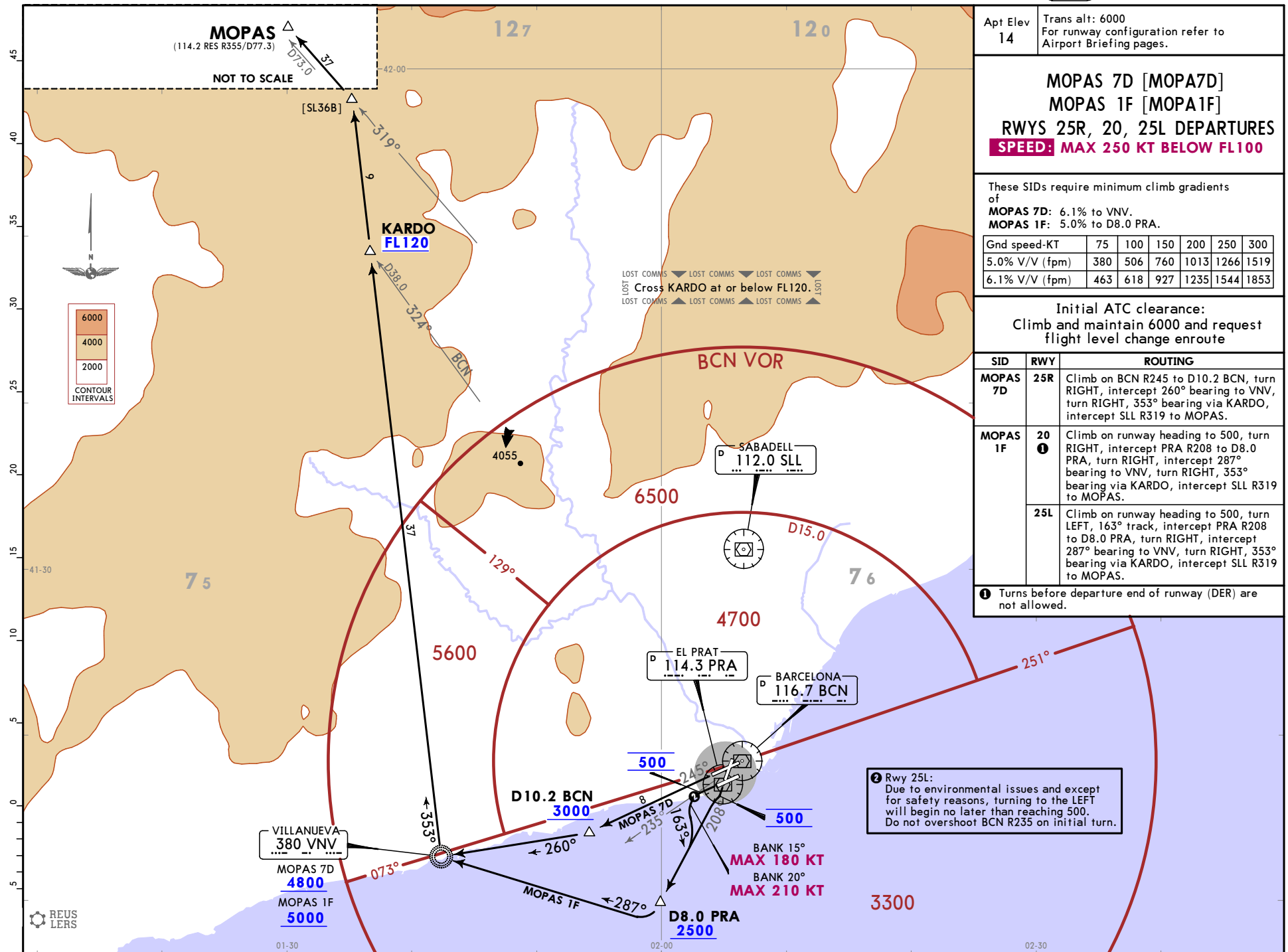


CHANGES: Reissue.

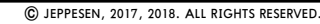
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LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3V2) **SID**

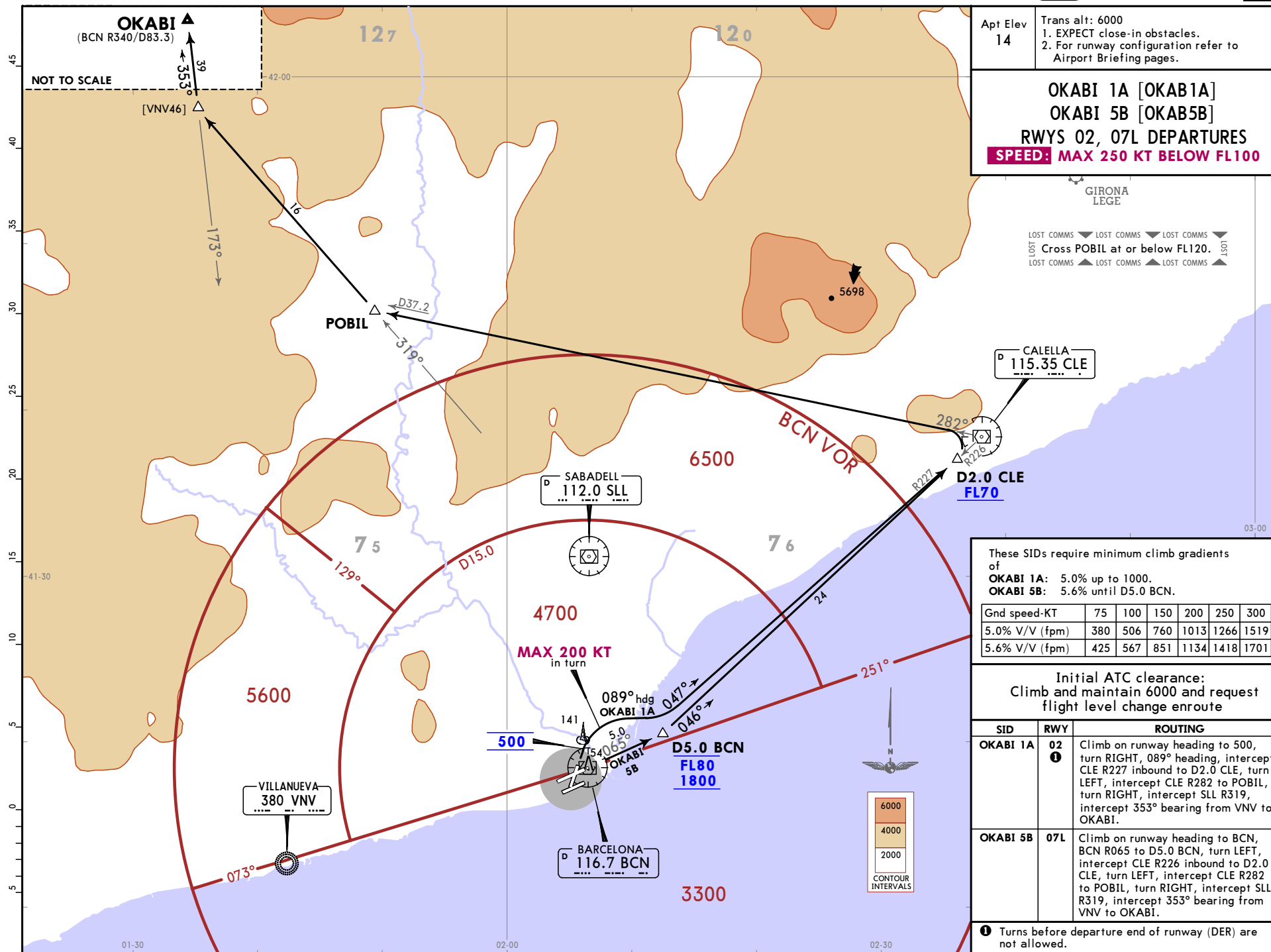


JEPPesen BARCELONA, SPAIN
10 AUG 18 **10-3V3** **SID**



LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3V4) **SID**



LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 10-3V5

SID

Apt Elev
14

Trans alt: 6000
For runway configuration refer to
Airport Briefing pages.

OKABI 6D [OKAB6D]
OKABI 1F [OKAB1F]
RWYS 25R, 20, 25L DEPARTURES
SPEED: MAX 250 KT BELOW FL100

These SIDs require minimum climb gradients
of
OKABI 6D: 6.1% to VNV.
OKABI 1F: 5.0% to D8.0 PRA.

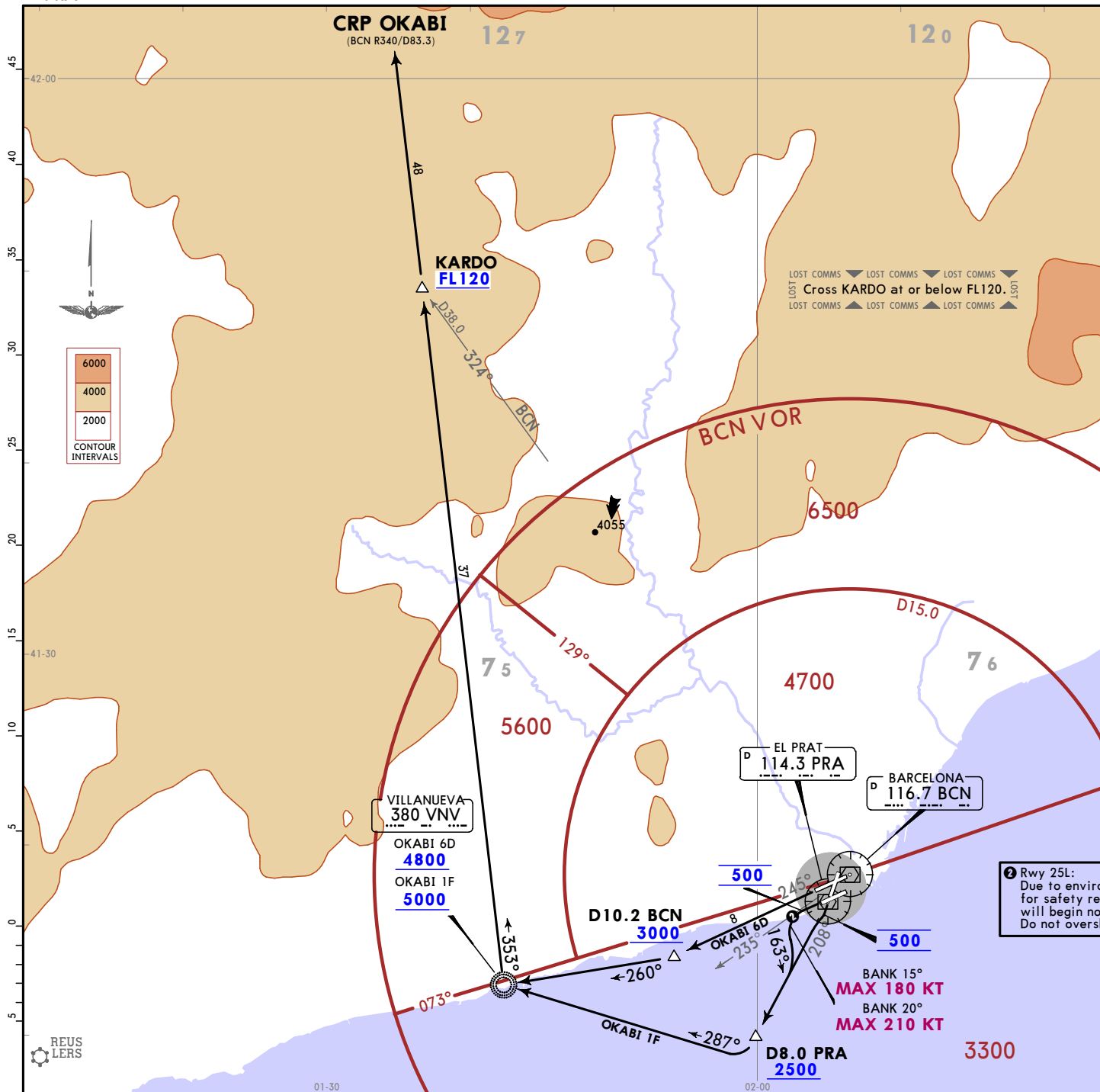
Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
6.1% V/V (fpm)	463	618	927	1235	1544	1853

Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

SID	RWY	ROUTING
OKABI 6D	25R	Climb on BCN R245 to D10.2 BCN, turn RIGHT, intercept 260° bearing to VNV, turn RIGHT, 353° bearing via KARDO to OKABI.
OKABI 1F	20 1	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 353° bearing via KARDO to OKABI.
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 353° bearing via KARDO to OKABI.

1 Turns before departure end of runway (DER) are not allowed.

2 Rwy 25L:
Due to environmental issues and except
for safety reasons, turning to the LEFT
will begin no later than reaching 500.
Do not overshoot BCN R235 on initial turn.



LEBL/BCN
EL PRAT

JEPPesen BARCELONA, SPAIN
10 AUG 18 (10-3V6) **SID**

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

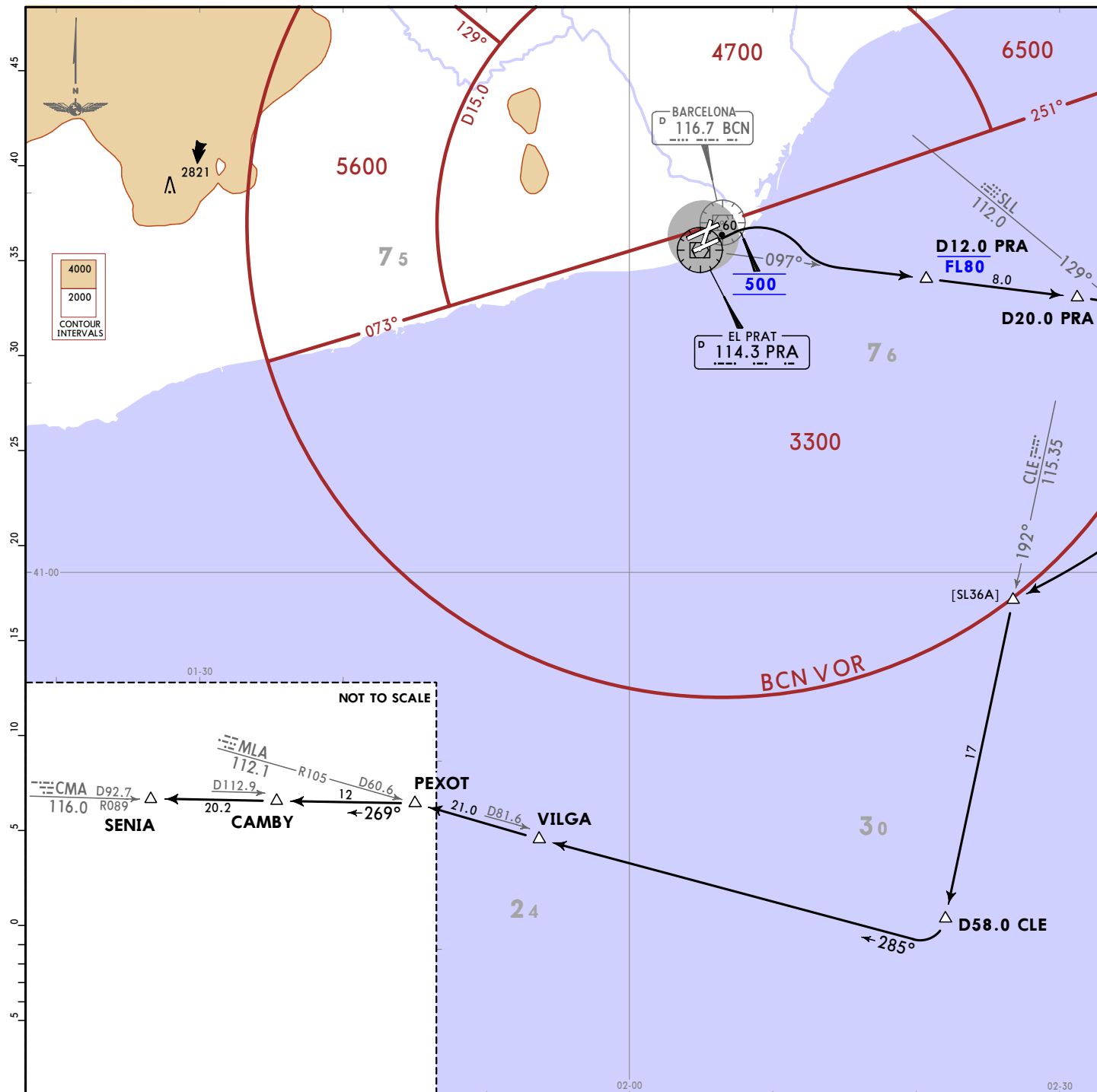
SENIA 1C [SENI1C]

RWY 07R DEPARTURE

WHEN CMA COVERAGE FAILURE BELOW FL240

RADAR ASSISTANCE IS AVAILABLE

SPEED: MAX 250 KT BELOW FL100



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
Cross D58.0 CLE at or below FL120.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

This SID requires a minimum climb gradient
of
4.8% to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

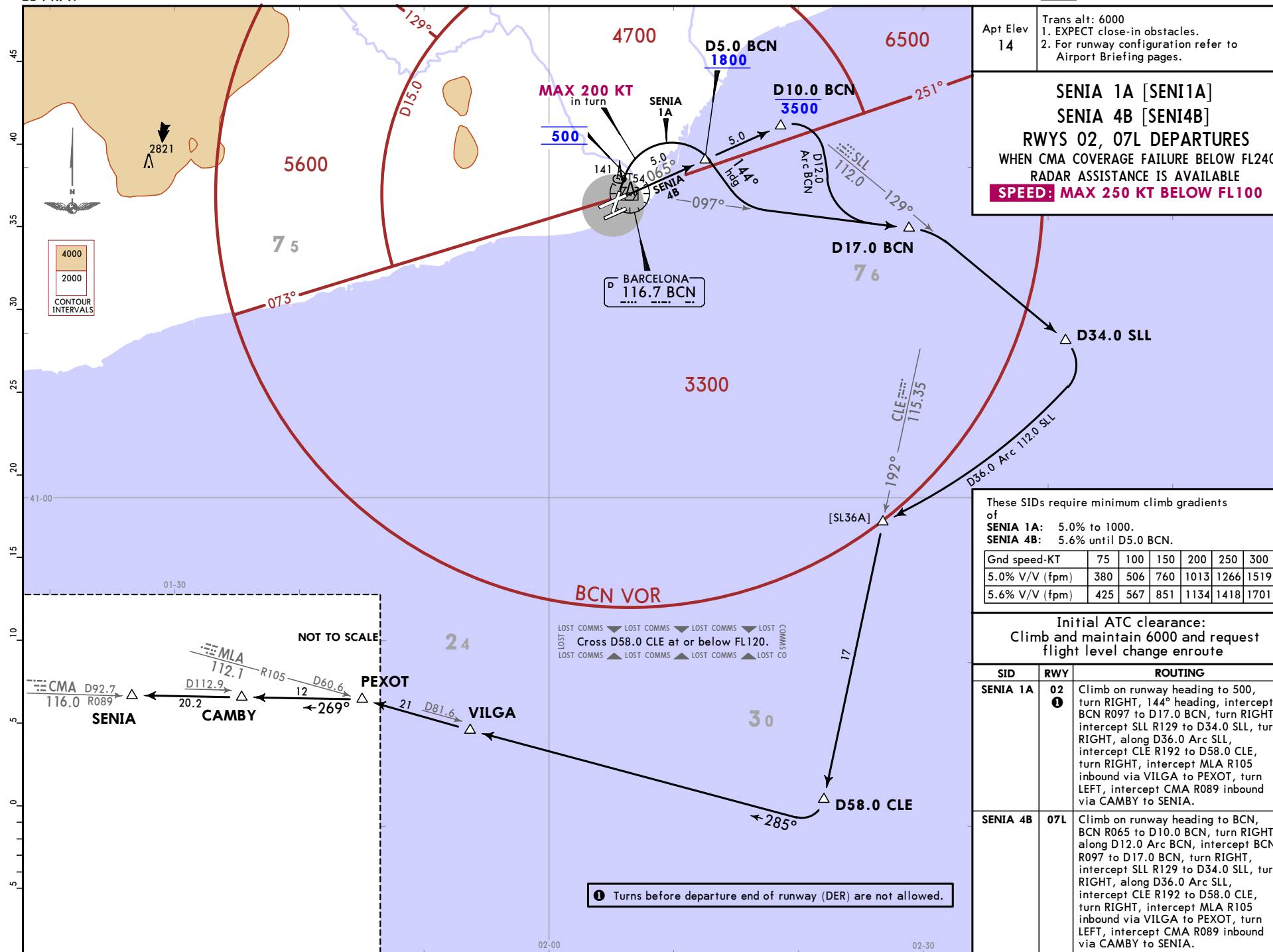
Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R097 to D20.0 PRA, turn RIGHT, intercept SLL R129 to D34.0 SLL, turn RIGHT, along D36.0 Arc SLL, intercept CLE R192 to D58.0 CLE, turn RIGHT, intercept MLA R105 inbound via VILGA to PEXOT, turn LEFT, intercept CMA R089 inbound via CAMBY to SENIA.

LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 10-3V7 **SID**



LEBL/BCN
EL PRAT

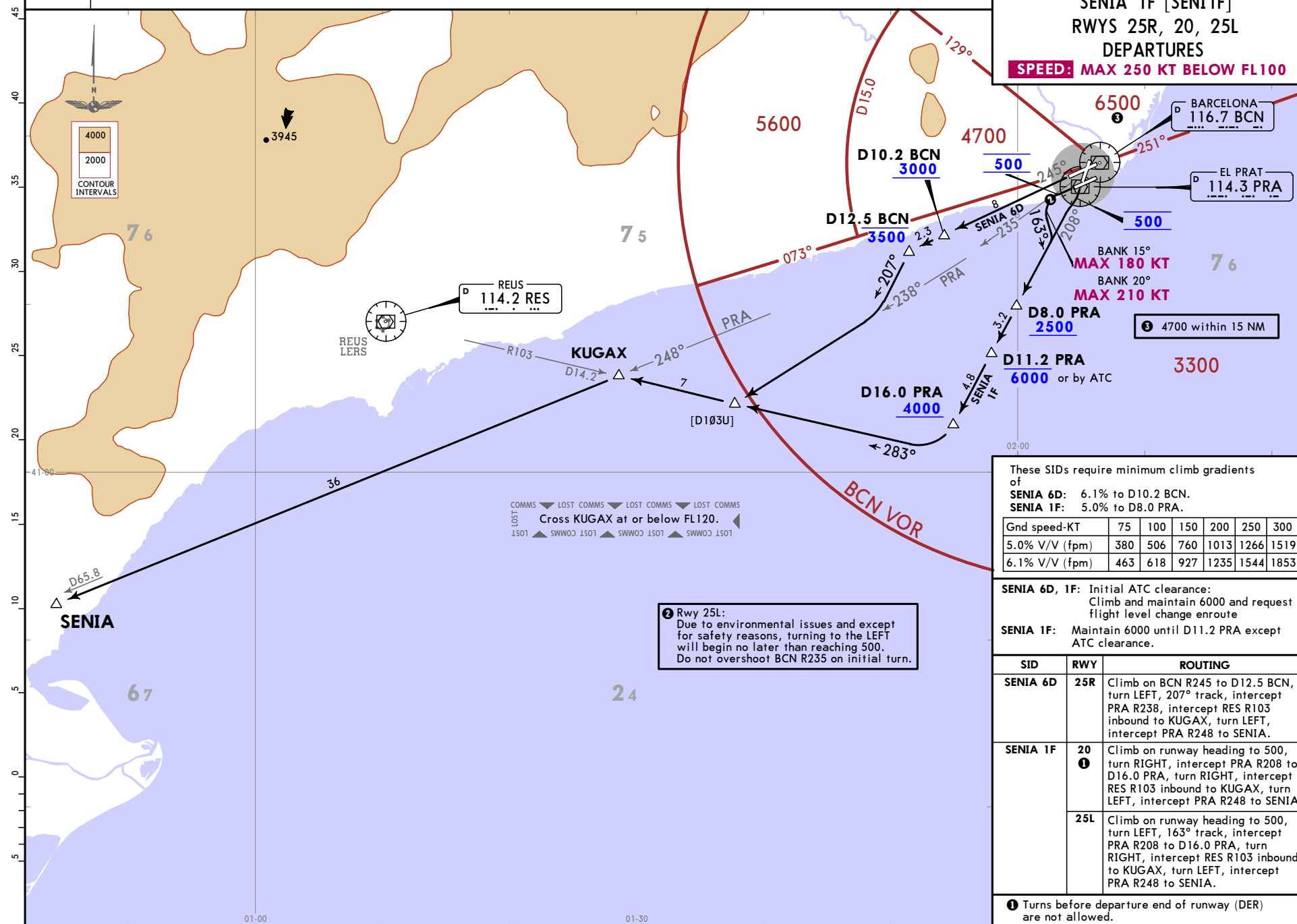
JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3V8)

SID

Apt Elev
14

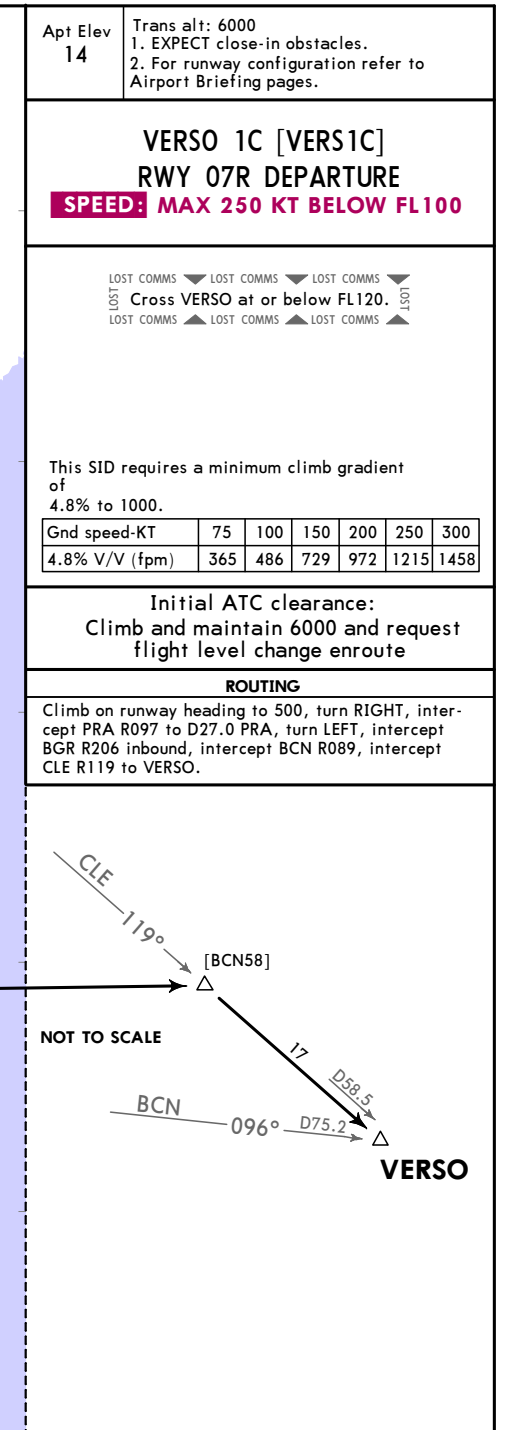
Trans alt: 6000
For runway configuration refer to Airport Briefing pages.



CHANGES: Reissue.

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JEPPESEN BARCELONA, SPAIN
10 AUG 18 **10-3W** **SID**

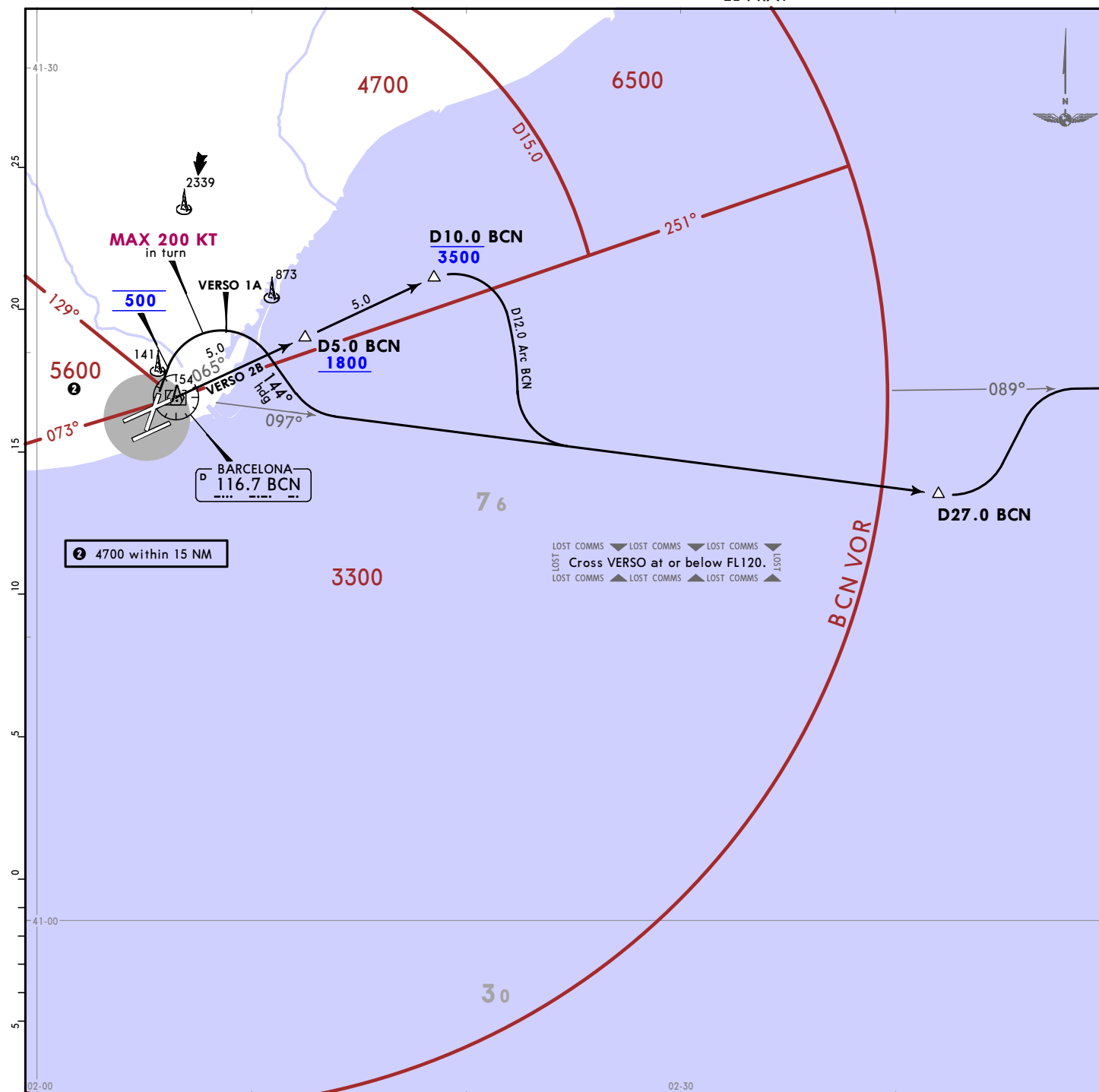


LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN

10 AUG 18 (10-3X)

SID

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

VERSO 1A [VERS1A]

VERSO 2B [VERS2B]

RWYS 02, 07L DEPARTURES

SPEED: MAX 250 KT BELOW FL100

These SIDs require minimum climb gradients of

VERSO 1A: 5.0% to 1000.

VERSO 2B: 5.6% to D5.0 BCN.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.6% V/V (fpm)	425	567	851	1134	1418	1701

Initial ATC clearance:
Climb and maintain 6000 and request
flight level change enroute

SID	RWY	ROUTING
VERSO 1A	02 ①	Climb on runway heading to 500, turn RIGHT, 144° heading, intercept BCN R097 to D27.0 BCN, turn LEFT, intercept BCN R089, intercept CLE R119 to VERSO.
VERSO 2B	07L	Climb on runway heading to BCN, BCN R065 via D5.0 BCN to D10.0 BCN, turn RIGHT, along D12.0 Arc BCN, intercept BCN R097 to D27.0 BCN, turn LEFT, intercept BCN R089, intercept CLE R119 to VERSO.

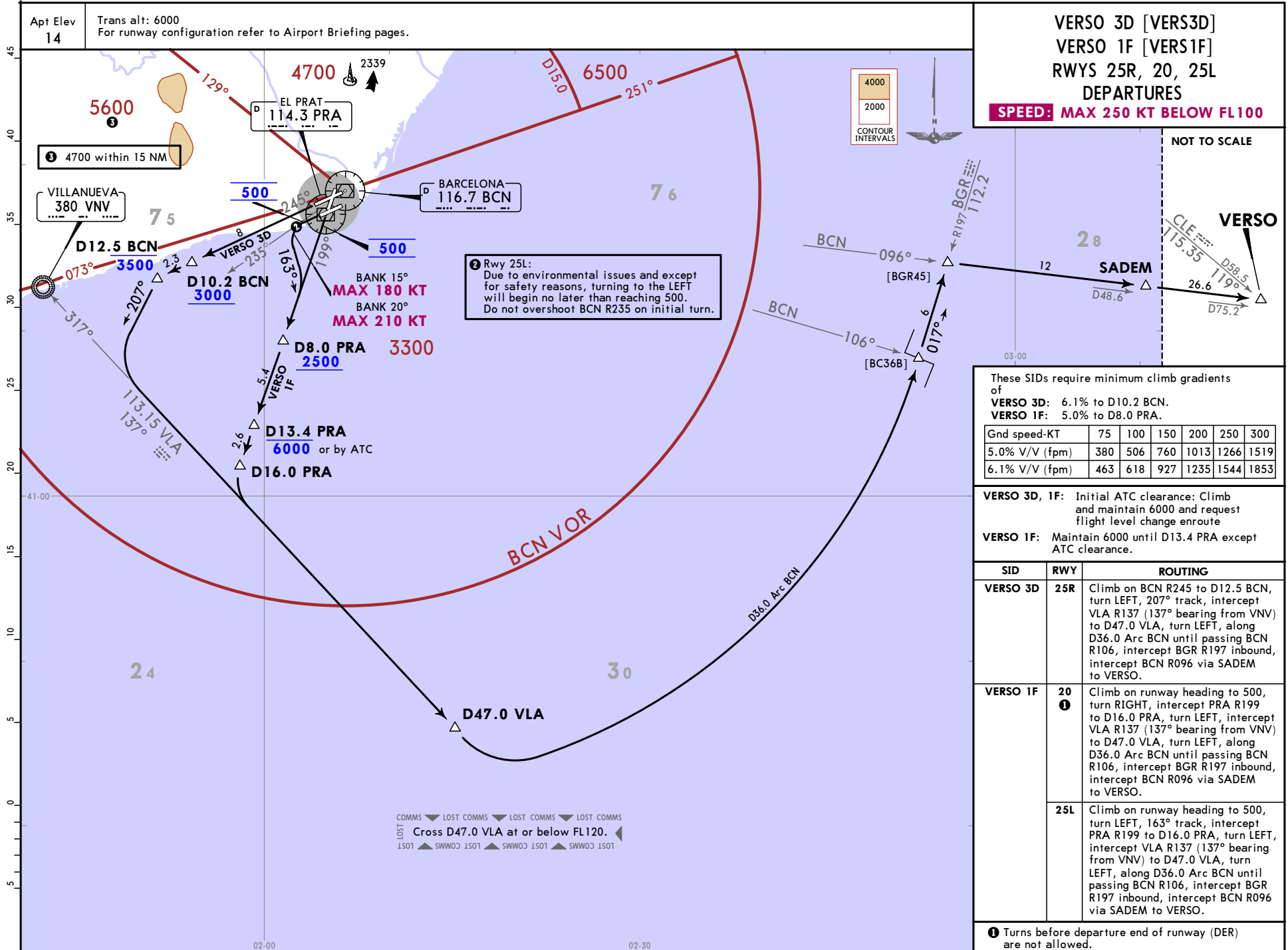
① Turns before departure end of runway (DER) are not allowed.

CHANGES: Reissue.

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LEBL/BCN
EL PRAT

JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3X1) **SID**



LEBL/BCN
EL PRAT

JEPPESSEN BARCELONA, SPAIN

10 AUG 18 (10-3X2)

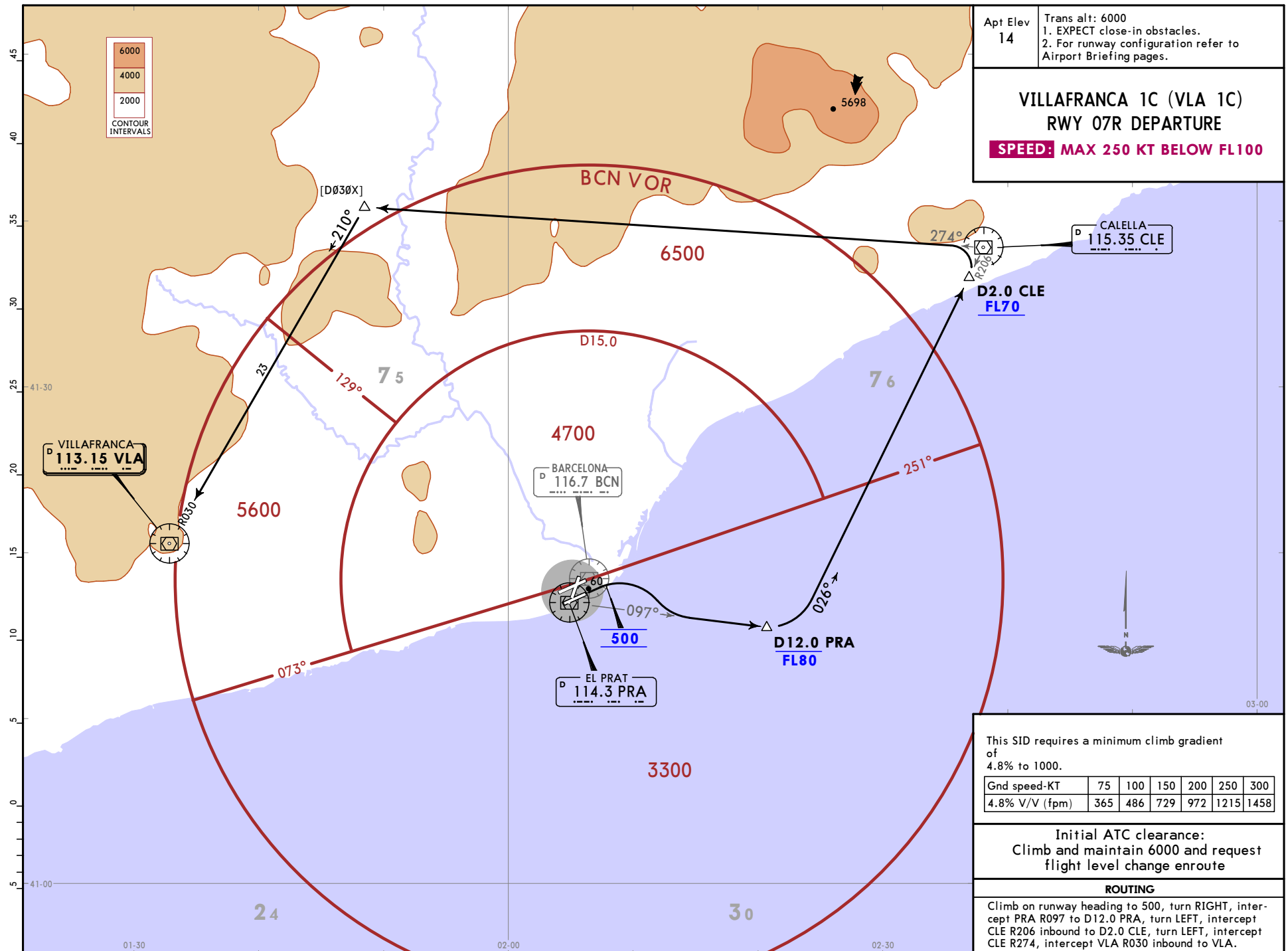
SID

Apt Elev
 14

Trans alt: 6000
 1. EXPECT close-in obstacles.
 2. For runway configuration refer to
 Airport Briefing pages.

VILLAFRANCA 1C (VLA 1C)
RWY 07R DEPARTURE

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient
 of
 4.8% to 1000.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

Initial ATC clearance:
 Climb and maintain 6000 and request
 flight level change enroute

ROUTING

Climb on runway heading to 500, turn RIGHT, intercept PRA R097 to D12.0 PRA, turn LEFT, intercept CLE R206 inbound to D2.0 CLE, turn LEFT, intercept CLE R274, intercept VLA R030 inbound to VLA.

LEBL/BCN
EL PRAT

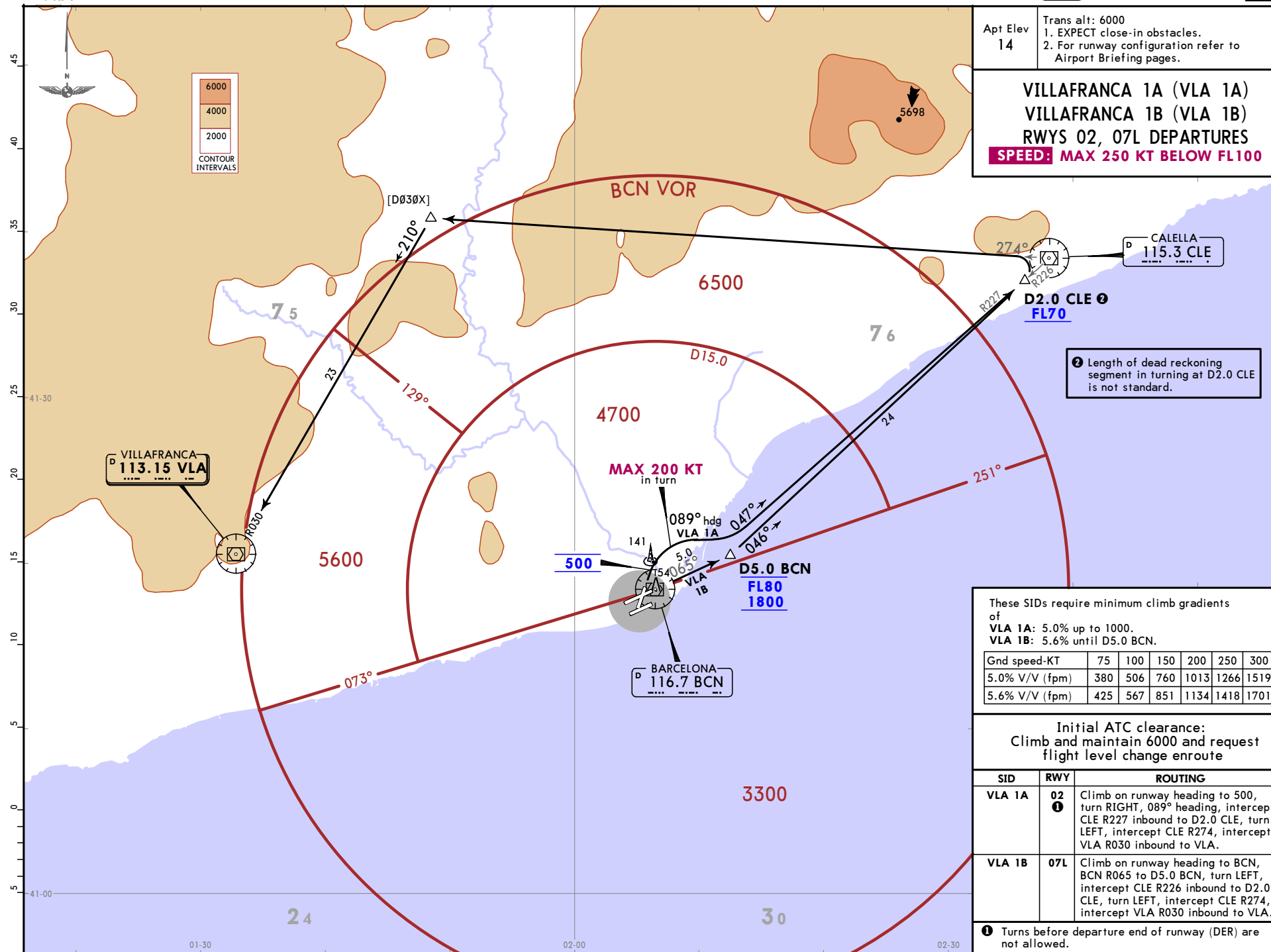
JEPPESEN BARCELONA, SPAIN
10 AUG 18 (10-3X3) **SID**

Apt Elev
14

Trans alt: 6000
1. EXPECT close-in obstacles.
2. For runway configuration refer to
Airport Briefing pages.

VILAFRANCA 1A (VLA 1A)
VILAFRANCA 1B (VLA 1B)
RWYS 02, 07L DEPARTURES

SPEED: MAX 250 KT BELOW FL100



LEBL/BCN
EL PRAT

10 AUG 18

JEPPESEN

BARCELONA, SPAIN

SID

Apt Elev
14

Trans alt: 6000

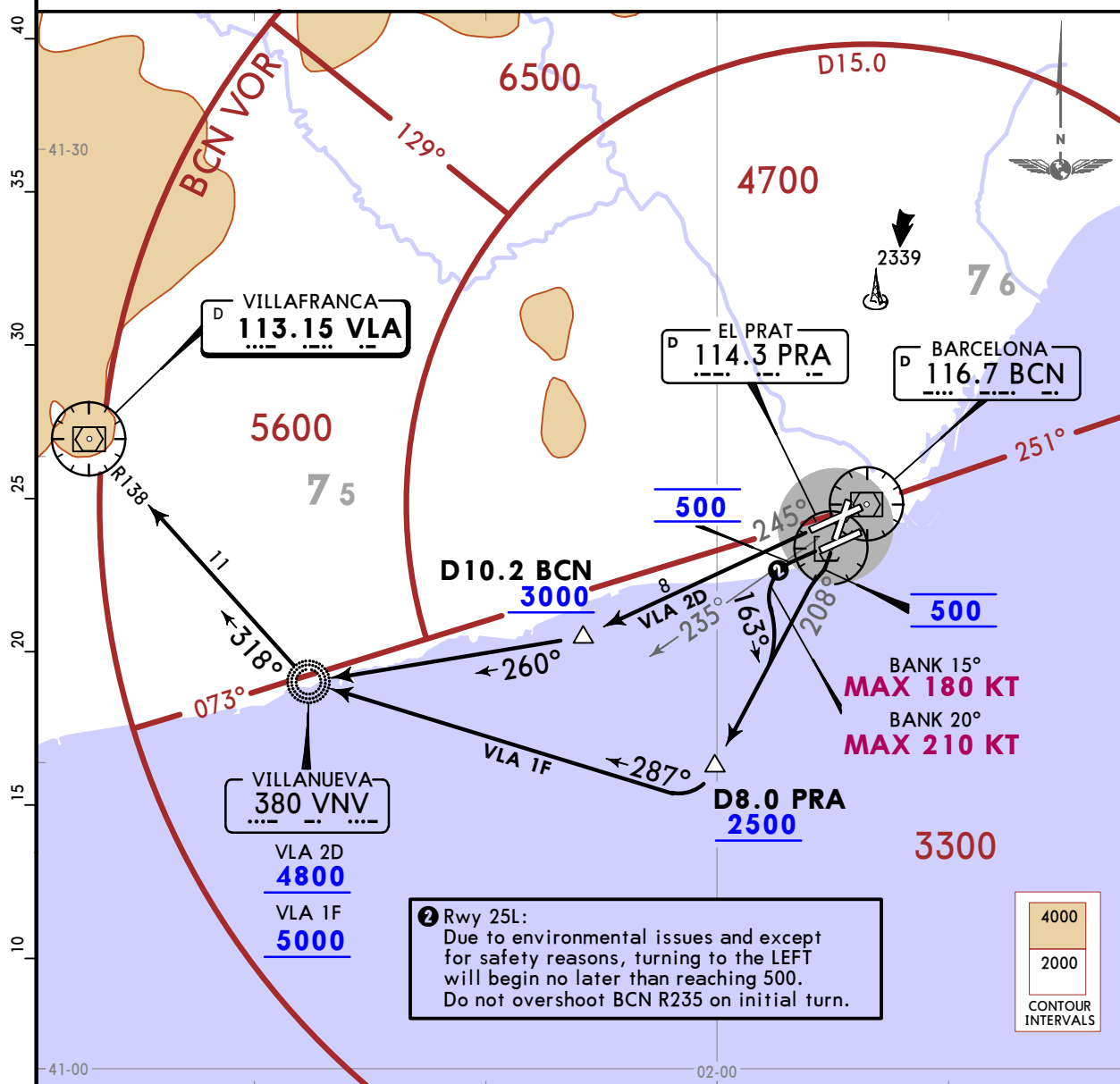
For runway configuration refer to Airport Briefing pages.

VILLAFRANCA 2D (VLA 2D)

VILLAFRANCA 1F (VLA 1F)

RWYS 25R, 20, 25L DEPARTURES

SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of

VLA 2D: 6.1% until VNV.

VLA 1F: 5.0% until D8.0 PRA.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
6.1% V/V (fpm)	463	618	927	1235	1544	1853

Initial ATC clearance:

Climb and maintain 6000 and request flight level change enroute

SID	RWY	ROUTING
VLA 2D	25R	Climb on BCN R245 to D10.2 BCN, turn RIGHT, intercept 260° bearing to VNV, 318° bearing to VLA.
VLA 1F	20 ❶	Climb on runway heading to 500, turn RIGHT, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 318° bearing to VLA.
	25L	Climb on runway heading to 500, turn LEFT, 163° track, intercept PRA R208 to D8.0 PRA, turn RIGHT, intercept 287° bearing to VNV, turn RIGHT, 318° bearing to VLA.

① Turns before departure end of runway (DER) are not allowed.

LEBL/BCN
EL PRAT **JEPPESEN**
14 APR 17 **(10-3X5)** **Eff 27 Apr****BARCELONA, SPAIN**
DEPARTURE

RWYS 07L/R, 25L/R CONTINGENCY DEPARTURES

In the event of failure of one or more nav aids used for the departures from runways 07L/R, 25L/R, the following procedures shall be carried out:

- RWY 07L:** Climb on runway heading to 3500', turn following ATC instructions.
- RWY 07R:** Climb on runway heading to 500', turn RIGHT (MAX 220 KT), climb on 119° track to 1900', turn following ATC instructions.
- RWY 25L:** Climb on runway heading to 500', turn LEFT (MAX 180 KT, bank angle 15°/MAX 210 KT, bank angle 20°), climb on 164° track to 1500', turn following ATC instructions.
- RWY 25R:** Climb on runway heading to 3500', turn following ATC instructions.

These departures require minimum climb gradients of

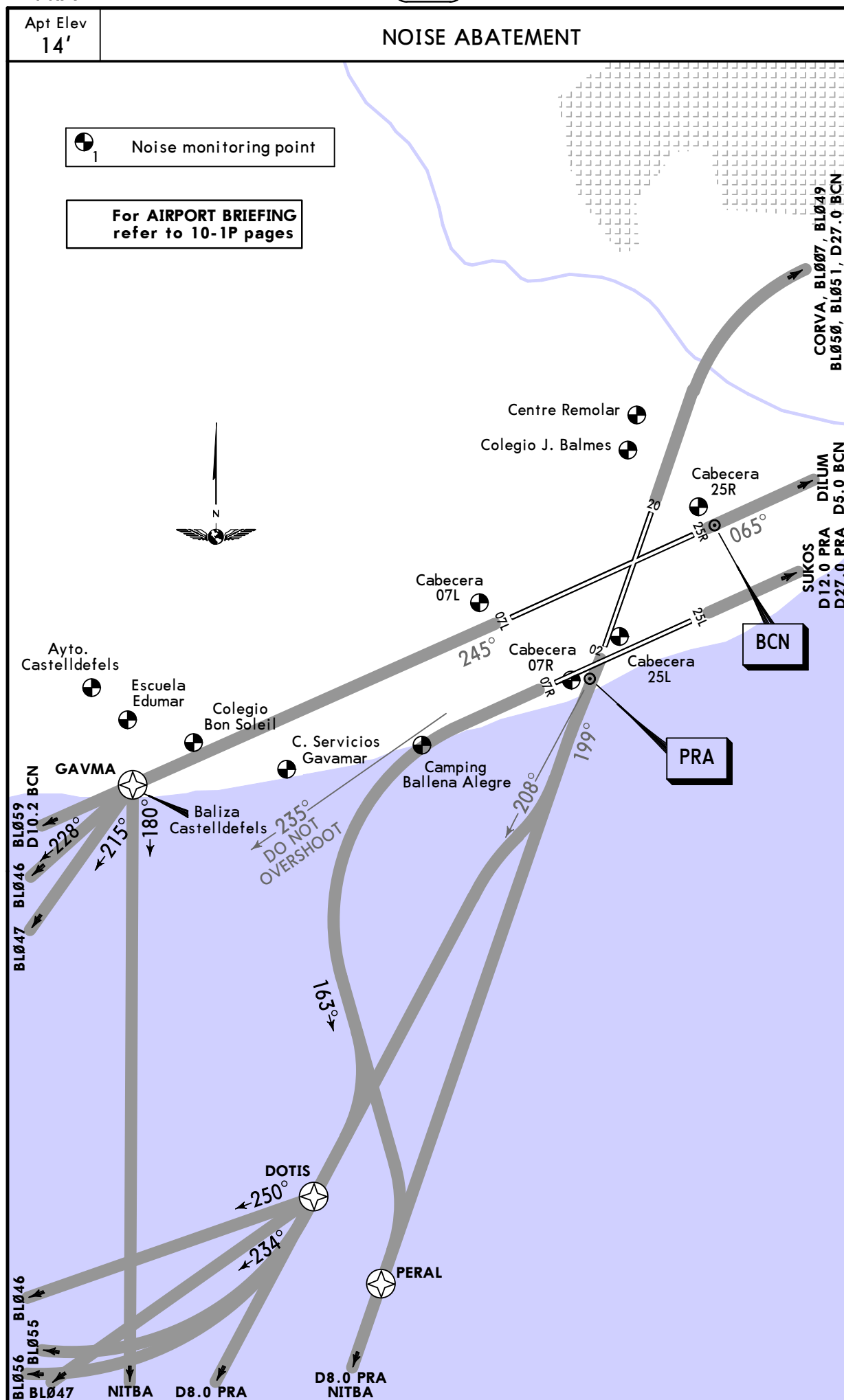
- RWY 07L:** 5.4% to 3500'.
- RWY 07R:** 4.7% to 1900'.
- RWY 25L:** 6.0% to 1500'.
- RWY 25R:** 6.2% to 3500'.

Gnd speed-KT	75	100	150	200	250	300
6.2% V/V (fpm)	471	628	942	1256	1570	1884
6.0% V/V (fpm)	456	608	911	1215	1519	1823
5.4% V/V (fpm)	410	547	820	1094	1367	1641
4.7% V/V (fpm)	357	476	714	952	1190	1428

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JEPPESSEN
14 APR 17 **10-4** **Eff 27 Apr**

BARCELONA, SPAIN
NOISE



CHANGES: Departures via CORVA withdrawn.

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3 AUG 18 (10-8) Eff 16 Aug

BARCELONA, SPAIN

EL PRAT

WORKS ON RAMP 15EXERCISE CAUTION DUE TO PRESENCE OF PERSONNEL AND MACHINERY
REFER ALSO TO LATEST NOTAMS**PHASE 1**

The following works will be carried out:

- remodelling of the stands in the Western half of Ramp-15;
- demolition of the boarding bridges structures in this area;
- installation of lights on TWY Q11 and Q12;
- markings and lighting on the curves of TWY K11 to access to the gate QS.

The following facilities will be created:

- a new gate: VS;
- a new stop bar on the new gate VS.

The works will affect:

- stands 290 thru 298;
- apron inner TWY which leads to these stands;
- TWY K11.

Subphase 1.1

Work area: stands 290 thru 298 and the apron inner TWY.

Maximum aircraft restriction at gate QS.

Working hours: H24.

Remarks:

During this subphase, four cranes 131'/40m high will be erected near the boarding bridges. The exact position of these cranes will be published by NOTAM.

At the end of this subphase, the following changes will occur:

- TWY Q11 and Q12;
- access gate to apron: Gate VS;
- new intermediate holding position in TWY Q11;
- new CAT II/III stop bar on gate VS;
- removal of stand 298.

	TWYs Q11 & Q12	TWY K11
MAX code	E	F
letter	F	E

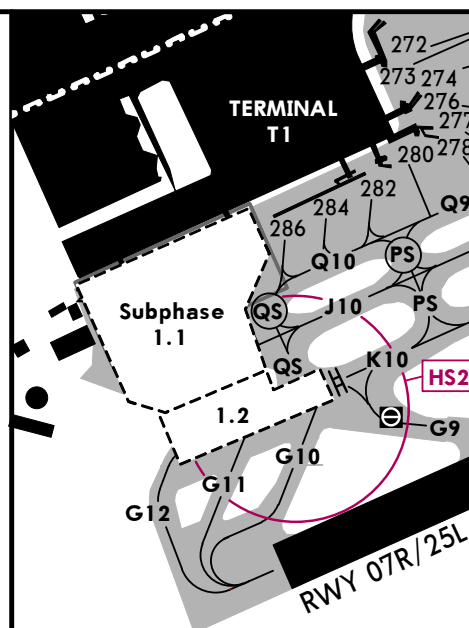
Subphase 1.2

Work area: TWY K11 and island.

Maximum aircraft restriction or closure of gate QS.

Working hours: Night.

At the end of this subphase, the intermediate holding position on TWY K11 will be displaced.

**LEGEND**

- R-15** Ramp number
K10 TWY
 290 Parking position
 (PS) Gate
 --- Limit of Ground competence
 □ Area not visible from Tower
 HS2 HOT SPOT See 10-9A for description.
 ⊘ No entry

PHASE 1 - Final Configuration:

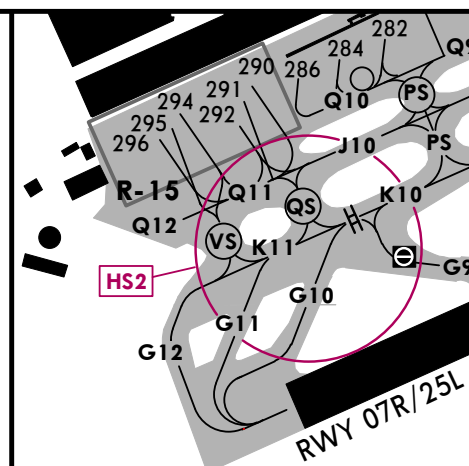
At the end of PHASE 1, the configuration of Western area in Ramp-15 will be the following:

PARKING POSITIONS		
STAND	COORDINATES	
290	N41 17.2 E002 04.5	
291 thru 295	N41 17.2 E002 04.4	
296	N41 17.1 E002 04.4	

Stands 290 thru 296 push-back required.

Until the start of Phase 2:

- Gate VS will remain closed.
- Push-back from the new stands 291 thru 296 must be mandatorily performed as far as TWY J10, nosing-in towards the west.



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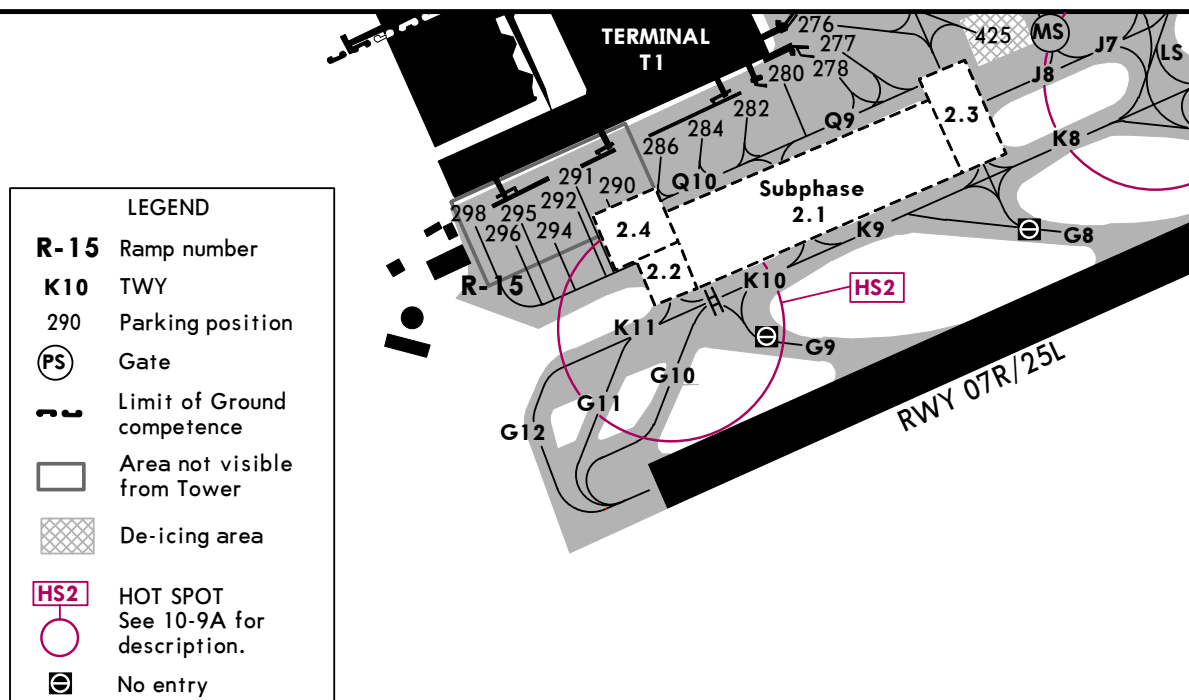
BARCELONA, SPAIN

3 AUG 18 (10-8A) Eff 16 Aug

EL PRAT

WORKS ON RAMP 15EXERCISE CAUTION DUE TO PRESENCE OF PERSONNEL AND MACHINERY
REFER ALSO TO LATEST NOTAMS**PHASE 2**

- TWY J9 and J10 will be removed;
- access gates will be created: TS, RS, PS and NS;
- horizontal and vertical markings will be adapted.

**Subphase 2.1**

Works: Changes of horizontal and vertical markings and lighting to adapt them to the new layout.
Working hours: Night.

Facilities which are removed:

- TWY J9, J10 and PS;
- Access gate to apron: PS;
- Intermediate holding positions on TWY J9 and J10.

Restrictions during the work execution:

- maximum aircraft restriction or closure of TWY Q9, Q10, K9 and K10.

At the end of this subphase, the following facilities will be created:

- Access gate to apron: RS;
- Intermediate holding positions on the new TWY Q9 and Q10.

Subphase 2.2

Works: Changes of horizontal and vertical markings and lighting to adapt them to the new layout.
Working hours: Night.

Facilities which are removed:

- TWY QS;
- Access gate to apron: QS.

Restrictions during the work execution:

- Closure of gate QS.

At the end of this subphase, the following facilities will be created:

- Access gate to apron: TS;
- CAT II/III stop bar on gate TS.

LEBL/BCN**JEPPESEN****BARCELONA, SPAIN**

3 AUG 18

10-8B**Eff 16 Aug****EL PRAT****WORKS ON RAMP 15****EXERCISE CAUTION DUE TO PRESENCE OF PERSONNEL AND MACHINERY****REFER ALSO TO LATEST NOTAMS****Subphase 2.3**

Works: Changes of horizontal and vertical markings and lighting of the gate NS to adapt them to the new TWY Q, which will be named gate PS.

Creation of new gate NS.

Working hours: Night.

Facilities which are removed:

- TWY NS.
- Access gate to apron: NS.

Restrictions during the work execution:

- Closure of gate NS.

At the end of this subphase, the following facilities will be created:

- Access gates to apron: PS and NS.

Subphase 2.4

Works: horizontal marking (paint) to access to stands 290, 291 and 292.

Working hours: Day and/or night.

PHASE 3

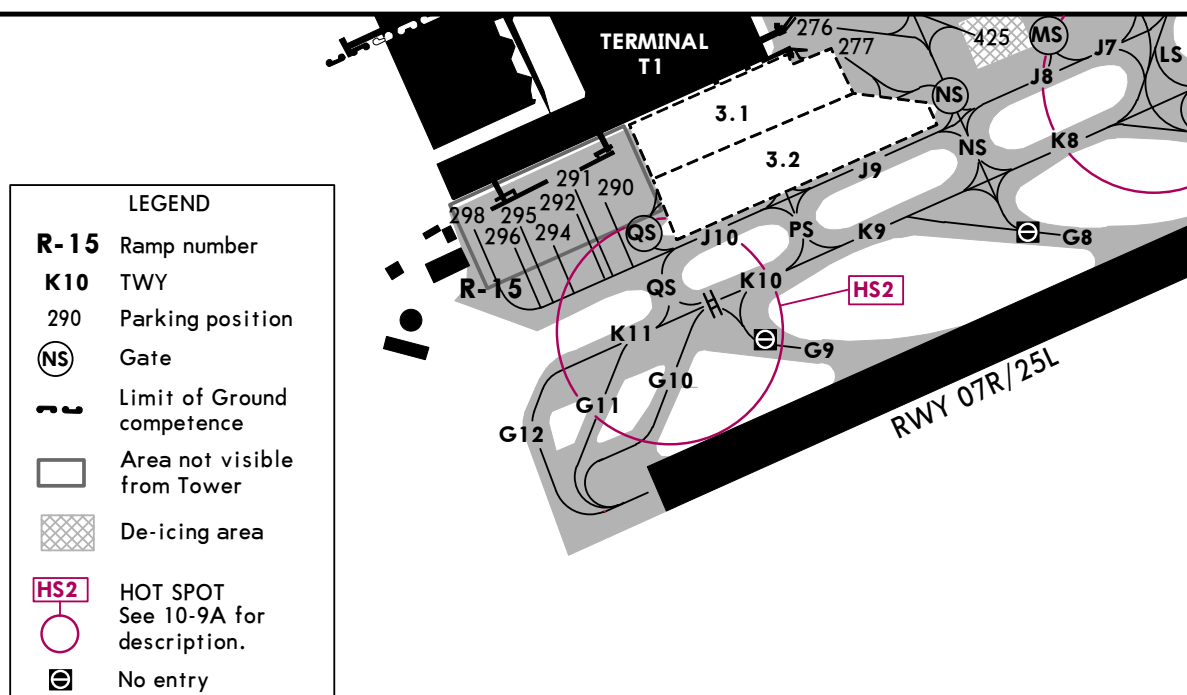
The following works will be carried out:

- remodelling of the stands in the Eastern half of Ramp-15;
- demolition of the boarding bridge structures of this area;
- adaptation of the horizontal markings to the new stands on the new TWY Q.

During this phase, and due to the potential disorientation, following ATC instructions is recommended.

The works will affect:

- stands 280, 282, 284 and 286;
- TWY Q9 and Q10.



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JEPPESEN

BARCELONA, SPAIN

3 AUG 18 (10-8C) Eff 16 Aug

EL PRAT

WORKS ON RAMP 15**EXERCISE CAUTION DUE TO PRESENCE OF PERSONNEL AND MACHINERY
REFER ALSO TO LATEST NOTAMS****Subphase 3.1**

Work area: stands 280, 282, 284 and 286.

Working hours: H24.

Restrictions during the work execution:

- Closure or maximum aircraft restriction of TWY Q9 and Q10.

Remarks:

During this subphase, two cranes with 131'/40m height will be erected near the boarding bridges.
The exact position of these cranes will be published by NOTAM.

At the end of this phase, the following changes will occur:

- New stands 280 thru 288.

Subphase 3.2

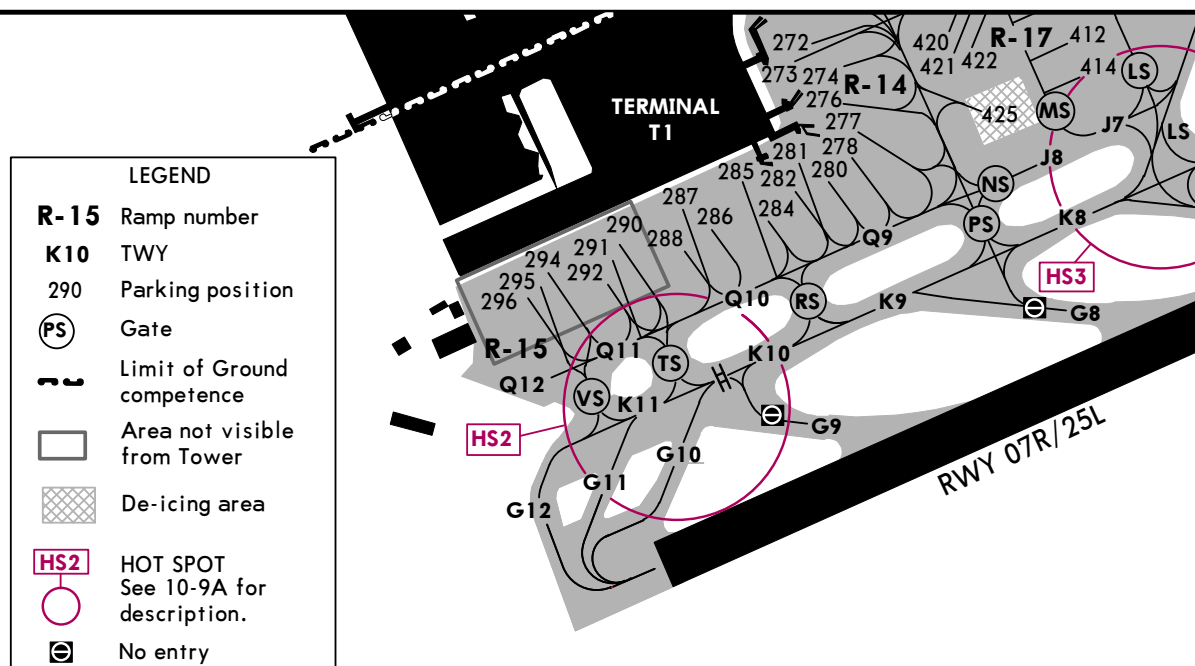
Work area: horizontal markings to stands from new TWY Q9 and Q10.

Working hours: Night.

Closure of TWY Q9 and Q10.

PHASE 3 - Final Configuration:

At the end of PHASE 3, the Ramp-15 will have the following layout:

Between Gate PS and TWY Q12 following
taxi restriction apply:

	TWY Q	TWY K
MAX code	E	F
letter	F	E

Stands 280 thru 296 push-back required.

**PARKING POSITIONS
STAND COORDINATES**

STAND	COORDINATES
280 thru 285	N41 17.2 E002 04.6
286 thru 290	N41 17.2 E002 04.5
291 thru 295	N41 17.2 E002 04.4
296	N41 17.1 E002 04.4

LEBL/BCN

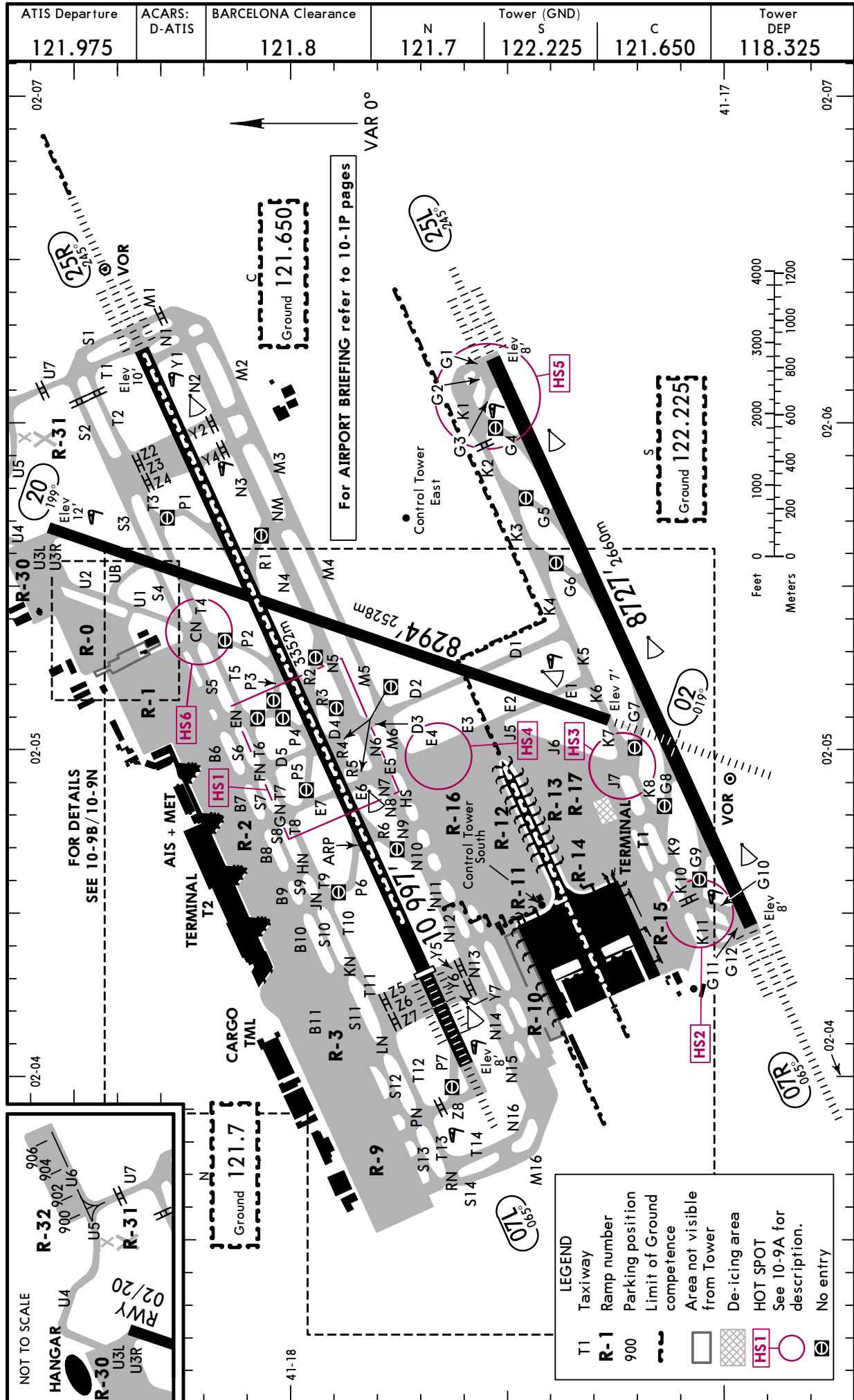
Apt Elev 14'
N41 17.8 E002 04.7

JEPPESSEN

16 FEB 18 10-9 Eff 1 Mar

BARCELONA, SPAIN

EL PRAT



CHANGES: Twy designation B11 added.

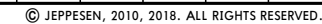
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LEBL/BCN **JEPPESEN**
16 FEB 18 **(10-9A)** Eff 1 Mar**BARCELONA, SPAIN**
EL PRAT

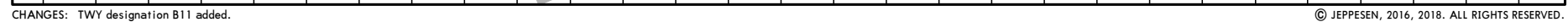
ADDITIONAL RUNWAY INFORMATION					USABLE LENGTHS		TAKE-OFF	WIDTH
RWY					LANDING BEYOND			
					Threshold	Glide Slope		
02	HIRL(50m) CL(15m) HIALS PAPI (3.0°)	RVR				7383' 2250m		148'
20	HIRL(50m) CL(15m)				NA		①	45m
① TAKE-OFF RUN AVAILABLE RWY 20: From rwy head 8294' (2528m) twy UB int 6690' (2039m)								
07L	HIRL (50m) CL (15m) HIALS-II REIL TDZ ② ③	RVR	9587' 2922m		8553' 2607m		⑤	197'
25R	HIRL (50m) CL (15m) HIALS-II TDZ PAPI-L(3.0°) ④	RVR			9964' 3037m			60m
② PAPI (3.0°) ③ HSTIL: R4, P4, R2, P2, R1 & P1 ④ HSTIL: P3, R3, P5, R5, R6 & P6 ⑤ TAKE-OFF RUN AVAILABLE RWY 07L: From rwy head 10,997' (3352m) twy Y7/Z7 int 9970' (3039m) twy Y6/Z6 int 9751' (2972m) twy Y5/Z5 int 9534' (2906m) RWY 25R: From rwy head 10,997' (3352m) twy Y2/Z2 int 9528' (2904m) twy Z3 int 9311' (2838m) twy Y4/Z4 int 9091' (2771m)								
07R	HIRL(50m) CL(15m) HIALS-II TDZ PAPI-R(3.0°) ⑥	RVR			7740' 2359m			197'
25L	HIRL(50m) CL(15m) HIALS-II TDZ PAPI-L(3.0°) ⑦	RVR			7756' 2364m			60m
⑥ HSTIL: G6, G5 & G4 ⑦ HSTIL: G7, G8 & G9								
HOT SPOTS For information only, not to be construed as ATC instructions.								
HS1 CAUTION: Conflictive area due to twy concentration. Special attention to markings and ATC instructions.								
HS2 CAUTION: Conflictive area due to taxiing limitations between aircraft. Special attention to markings and ATC instructions.								
HS3 CAUTION: Possible disorientation area. Special attention to markings and ATC instructions.								
HS4 CAUTION: Possible disorientation area. Special attention to markings and ATC instructions.								
HS5 CAUTION: Conflictive area due to restrictions of size between aircraft. Special attention to markings and ATC instructions.								
HS6 CAUTION: Possible disorientation area. Special attention to markings and ATC instructions.								
Standard TAKE-OFF								
Low Visibility Take-off								
	① HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)		
A								
B	TDZ, MID, RO	TDZ, MID, RO						
C	RVR 125m	RVR 150m	RVR 200m	RVR 300m	400m	500m		
D								
① RWY 07L, 07R, 25L, 25R: RVR 75m with approved guidance system or HUD/HUDLS.								

JEPPESSEN BARCELONA, SPAIN

EL PRAT

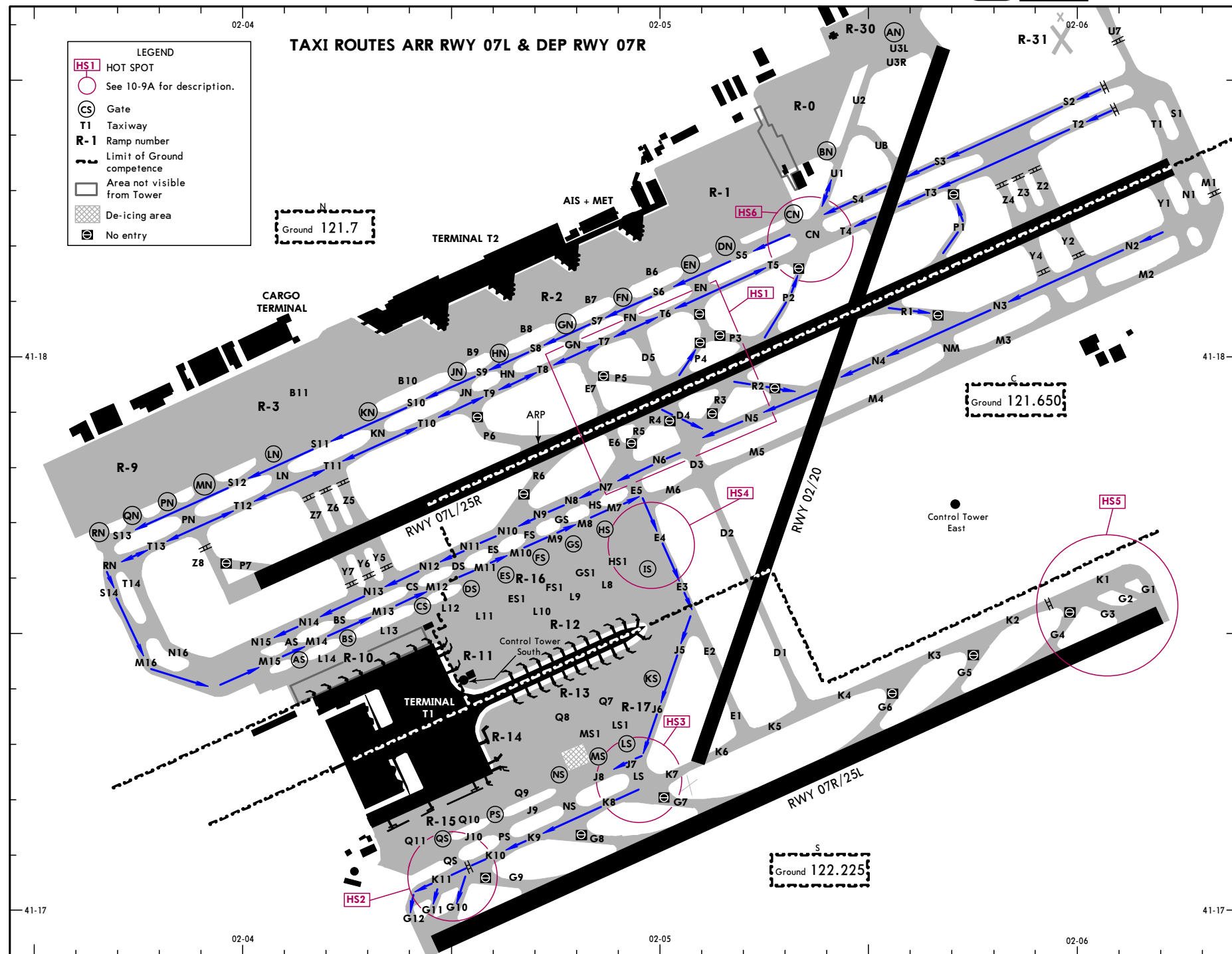


JEPPesen BARCELONA, SPAIN
16 FEB 18 (10-9C) Eff 1 Mar EL PRAT



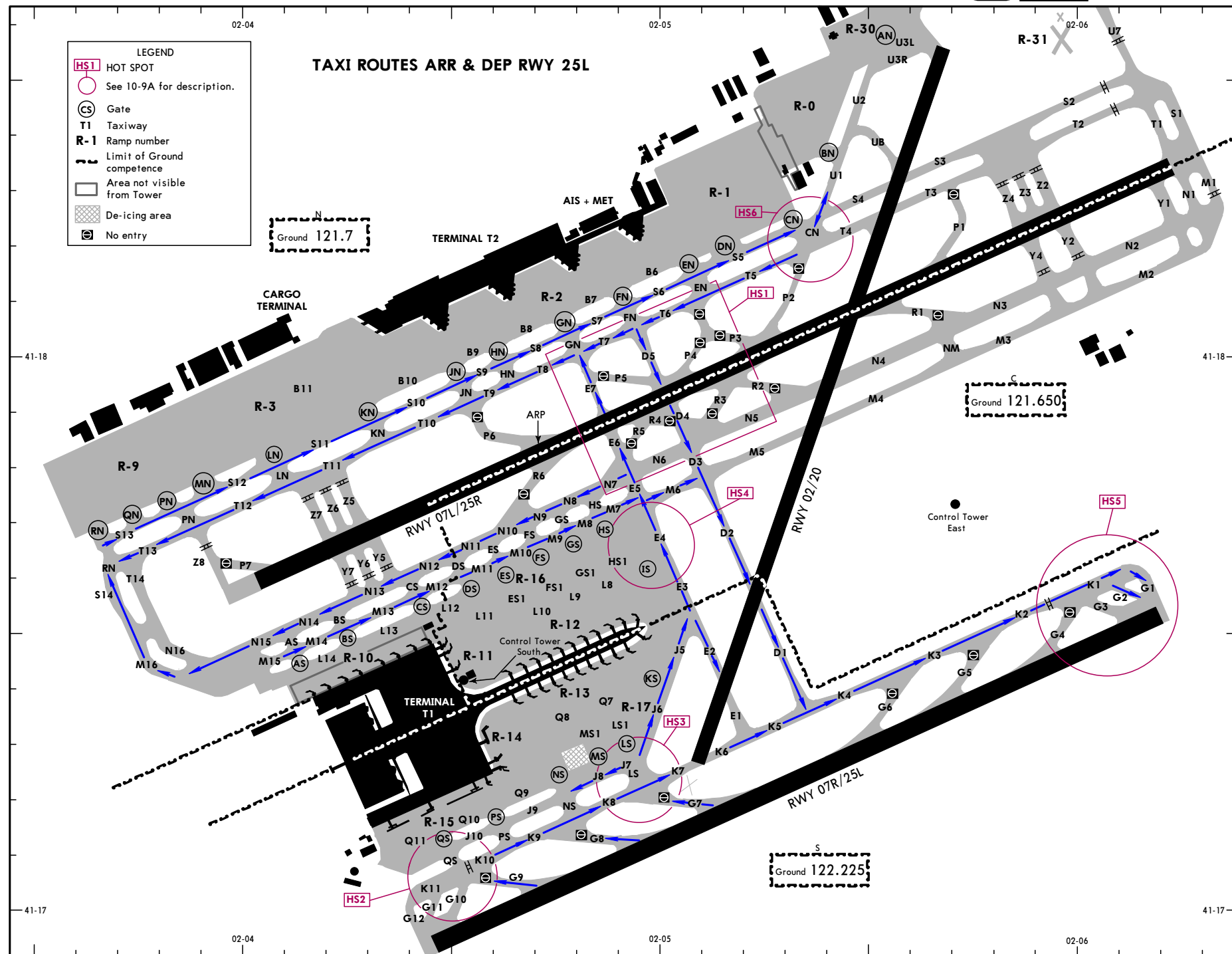
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JEPPESEN BARCELONA, SPAIN
10-9D 16 FEB 18 Eff 1 Mar
EL PRAT



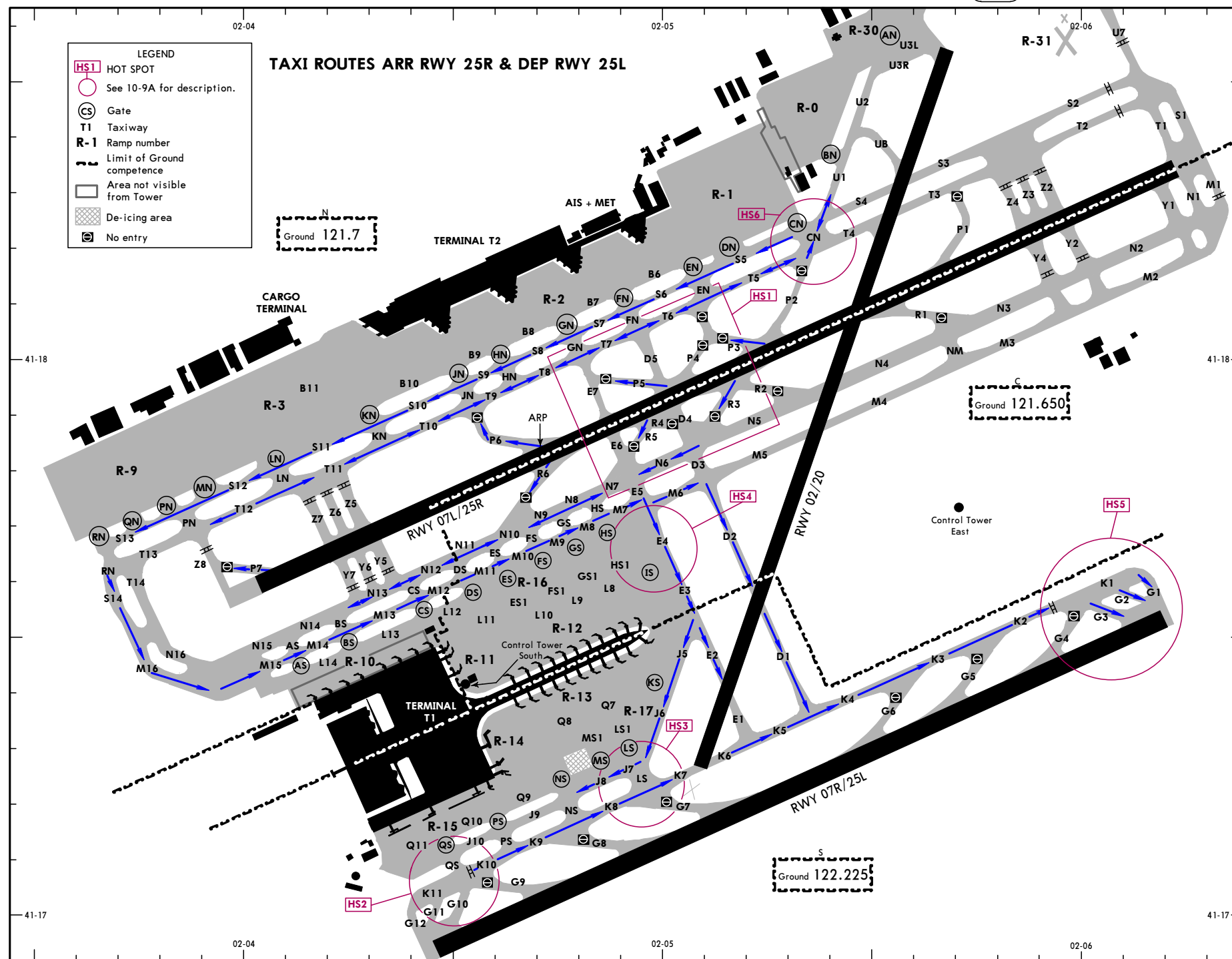
LEBL/BCN

JEPPESSEN BARCELONA, SPAIN
10-9E 16 FEB 18
Eff 1 Mar
EL PRAT

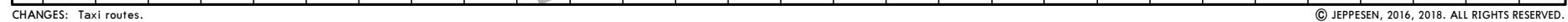


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JEPPESSEN BARCELONA, SPAIN
20 APR 18 10-9F Eff 26 Apr EL PRAT

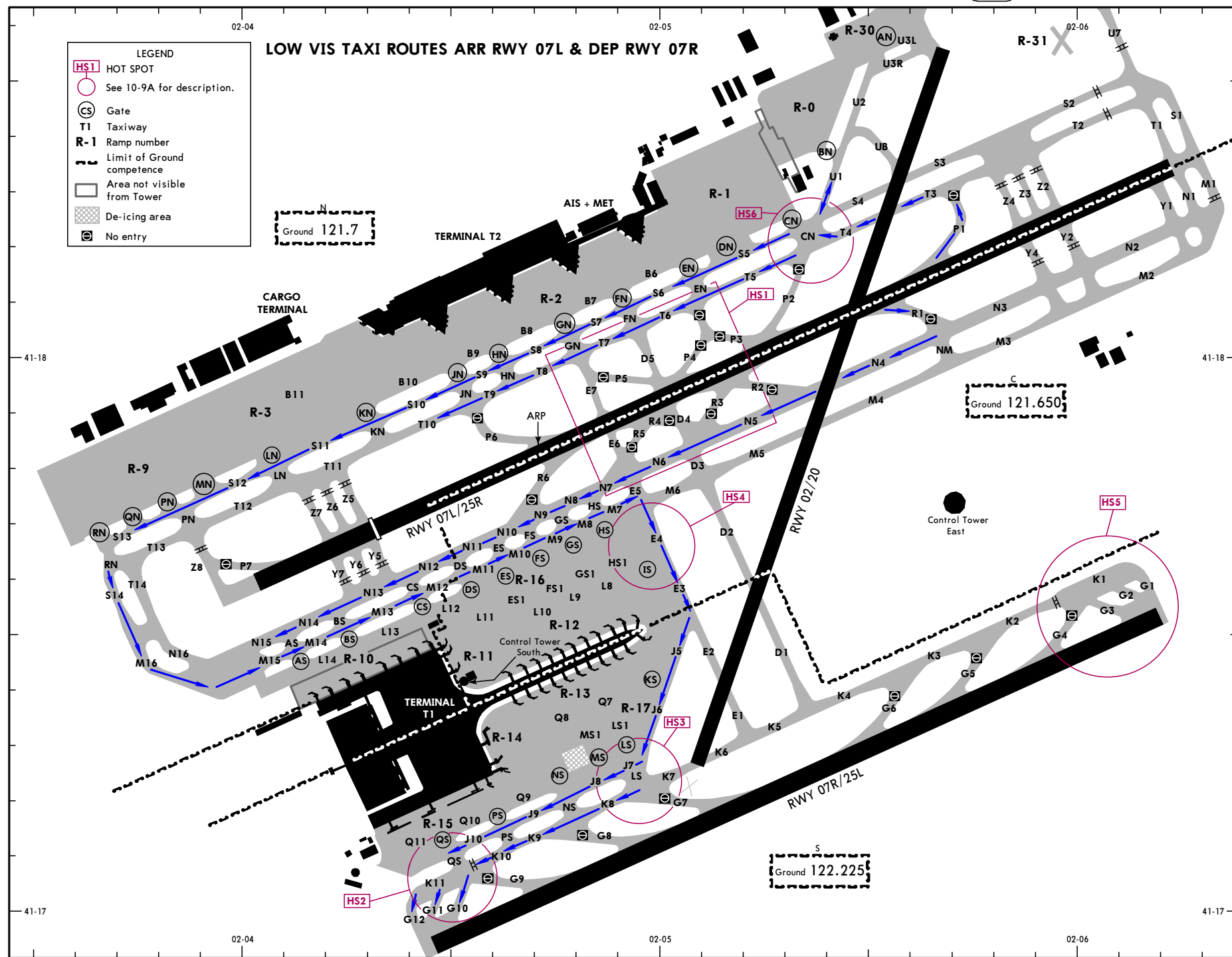


JEPPesen BARCELONA, SPAIN
20 APR 18 **10-9G** **Eff 26 Apr**
EL PRAT

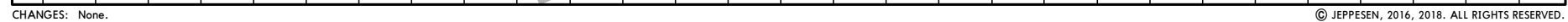


LEBL/BCN

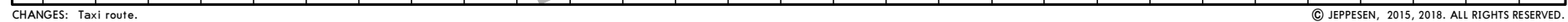
JEPPESSEN BARCELONA, SPAIN
20 APR 18 10-9H Eff 26 Apr EL PRAT



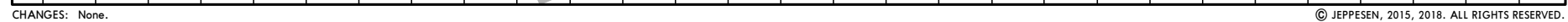
JEPPesen BARCELONA, SPAIN
20 APR 18 **10-9J** **Eff 26 Apr** EL PRAT



JEPPesen BARCELONA, SPAIN
20 APR 18 **10-9K** **Eff 26 Apr** EL PRAT

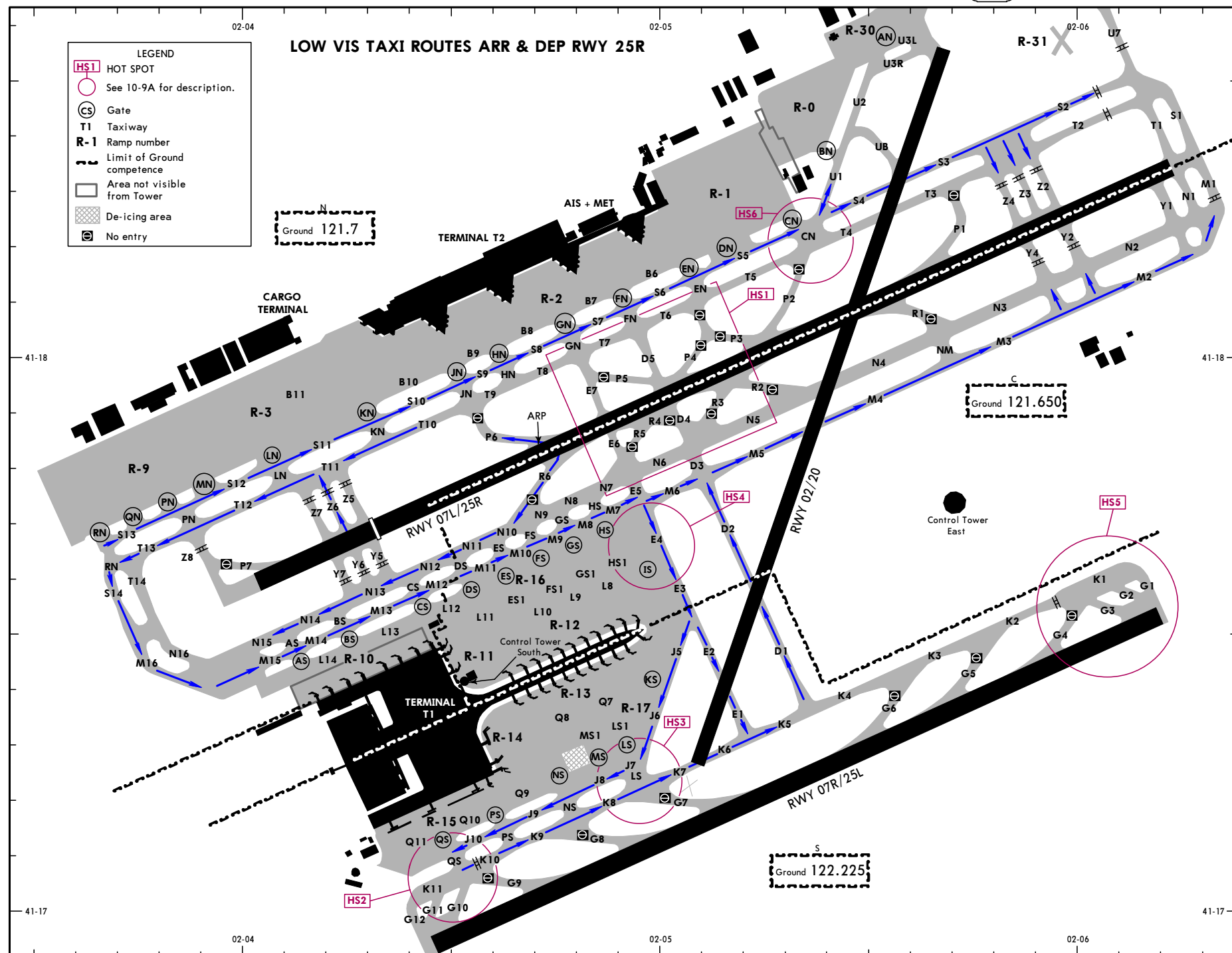


JEPPesen BARCELONA, SPAIN
20 APR 18 **(10-9L)** **Eff 26 Apr** EL PRAT



LEBL/BCN

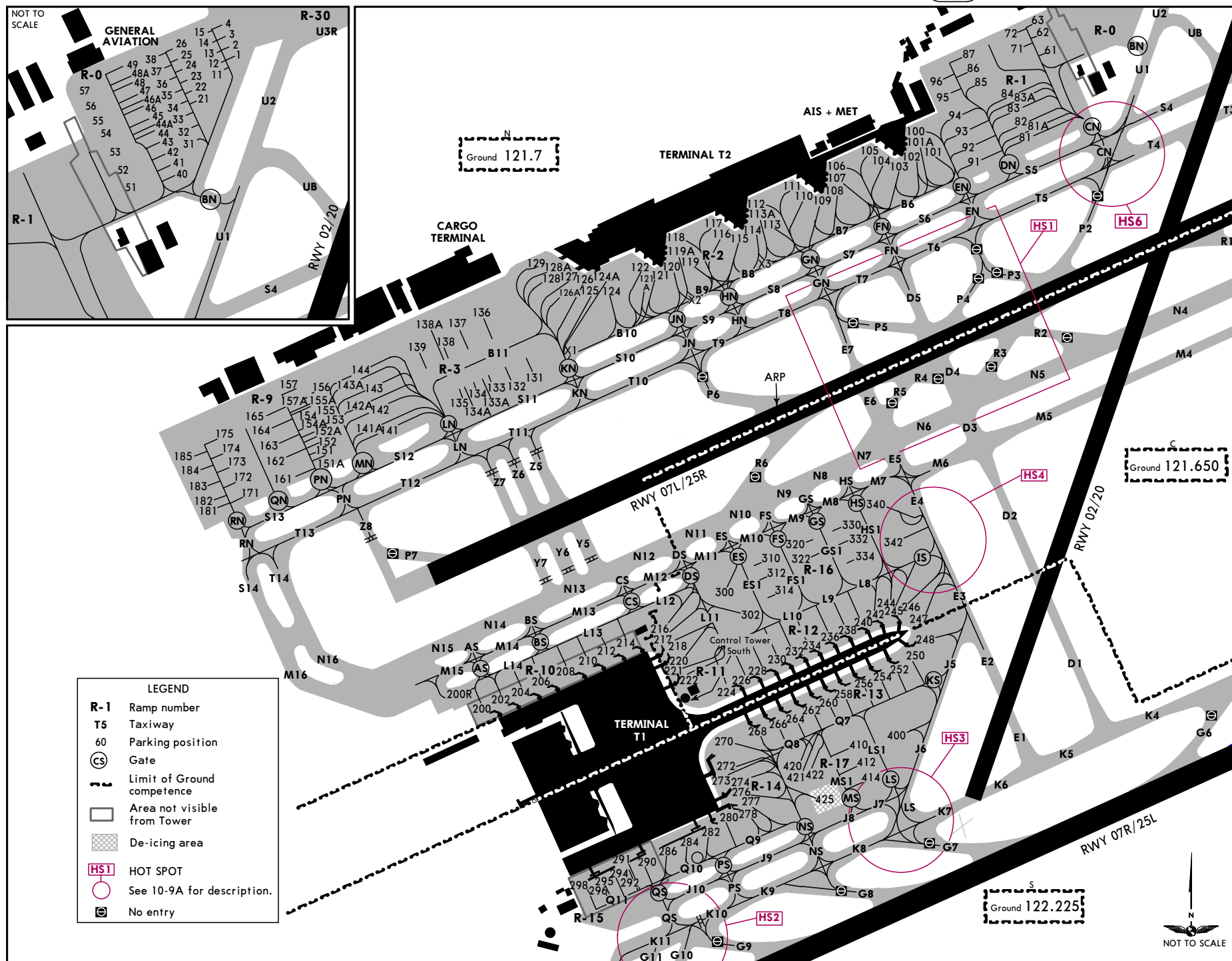
JEPPESEN BARCELONA, SPAIN
20 APR 18 10-9M Eff 26 Apr EL PRAT



LEBL/BCN

JEPPESEN
20 APR 18 10-9N Eff 26 Apr

BARCELONA, SPAIN
EL PRAT



LEBL/BCN **JEPPESEN**
20 APR 18 **(10-9P)** Eff 26 Apr**BARCELONA, SPAIN**

EL PRAT

INS COORDINATES			
STAND No.	COORDINATES	STAND No.	COORDINATES
1	N41 18.5 E002 05.5	185	N41 17.8 E002 03.5
2 thru 26	N41 18.5 E002 05.4	200	N41 17.4 E002 04.1
31 thru 33	N41 18.4 E002 05.4	200R	N41 17.5 E002 04.1
34, 35	N41 18.5 E002 05.4	202, 204	N41 17.4 E002 04.2
36 thru 38	N41 18.5 E002 05.3	206, 208	N41 17.4 E002 04.3
40 thru 43	N41 18.4 E002 05.4	210 thru 214	N41 17.5 E002 04.4
44, 44A	N41 18.4 E002 05.3	216 thru 221	N41 17.5 E002 04.5
45 thru 49	N41 18.5 E002 05.3	222	N41 17.4 E002 04.5
51 thru 55	N41 18.4 E002 05.3	224	N41 17.4 E002 04.6
56	N41 18.5 E002 05.3	226	N41 17.4 E002 04.7
57	N41 18.5 E002 05.2	228 thru 232	N41 17.5 E002 04.7
61 thru 71	N41 18.4 E002 05.2	234 thru 238	N41 17.5 E002 04.8
72	N41 18.4 E002 05.1	240 thru 246	N41 17.5 E002 04.9
81	N41 18.2 E002 05.2	247, 248, 250	N41 17.5 E002 05.0
81A thru 84	N41 18.3 E002 05.2	252	N41 17.5 E002 04.9
85, 86	N41 18.3 E002 05.1	254, 256	N41 17.4 E002 04.9
87	N41 18.4 E002 05.1	258 thru 262	N41 17.4 E002 04.8
91 thru 93	N41 18.2 E002 05.1	264 thru 268	N41 17.4 E002 04.7
94 thru 96	N41 18.3 E002 05.0	270 thru 277	N41 17.3 E002 04.6
100 thru 102	N41 18.2 E002 05.0	278 thru 284	N41 17.2 E002 04.6
103 thru 105	N41 18.2 E002 04.9	286	N41 17.2 E002 04.5
106 thru 108	N41 18.2 E002 04.8	290, 291	N41 17.2 E002 04.4
109, 110	N41 18.1 E002 04.8	292, 294 thru 296	N41 17.1 E002 04.4
111	N41 18.2 E002 04.7	298	N41 17.1 E002 04.3
112 thru 114	N41 18.1 E002 04.7	300	N41 17.6 E002 04.6
115 thru 117	N41 18.1 E002 04.6	302	N41 17.5 E002 04.7
118 thru 119A	N41 18.1 E002 04.5	310 thru 314	N41 17.6 E002 04.7
120, 121	N41 18.0 E002 04.5	320, 322	N41 17.6 E002 04.8
121A, 122	N41 18.0 E002 04.4	330	N41 17.7 E002 04.8
124 thru 125	N41 18.0 E002 04.4	332	N41 17.7 E002 04.9
126 thru 129	N41 18.0 E002 04.3	334	N41 17.6 E002 04.9
131, 132	N41 17.9 E002 04.2	340	N41 17.7 E002 04.9
133 thru 135	N41 17.9 E002 04.1	342	N41 17.6 E002 04.9
136, 137	N41 18.0 E002 04.1	400 thru 414	N41 17.3 E002 04.9
138	N41 17.9 E002 04.0	420 thru 422, 425	N41 17.3 E002 04.8
138A	N41 18.0 E002 04.0	900	N41 18.7 E002 06.0
139	N41 17.9 E002 04.0	902	N41 18.7 E002 06.1
141 thru 142	N41 17.8 E002 03.9	904	N41 18.7 E002 06.2
142A thru 144	N41 17.9 E002 03.9	906	N41 18.8 E002 06.2
151	N41 17.8 E002 03.8	X1	N41 17.9 E002 04.3
151A	N41 17.8 E002 03.9	X2	N41 18.0 E002 04.6
152 thru 155	N41 17.8 E002 03.8	X3	N41 18.1 E002 04.7
155A thru 157A	N41 17.9 E002 03.8		
161	N41 17.7 E002 03.8		
162 thru 165	N41 17.8 E002 03.7		
171	N41 17.7 E002 03.7		
172, 173	N41 17.8 E002 03.7		
174, 175	N41 17.8 E002 03.6		
181 thru 183	N41 17.7 E002 03.6		
184	N41 17.8 E002 03.6		

LEBL/BCN **JEPPESEN**
20 APR 18 **10-9Q** Eff 26 Apr**BARCELONA, SPAIN**
EL PRAT**VISUAL DOCKING GUIDANCE SYSTEM****GENERAL**

This system contains information about azimuth guidance (shows the aircraft position with relation to the centerline of the parking area) and distance to the stop position, that is provided by display unit in front of the cockpit.

DISPLAY UNIT

Consists of:

1. Two alphanumeric presentation line of 5 characters compounded of yellow indicators, which can indicate the following information:
UTC time, stand number, start docking or waiting situation ("WAIT"), aircraft type, the remaining distance to the stop position (in meters), stop position ("STOP"), aircraft parked in the correct position ("OK"), aircraft verification failure (message 1: "ID"; message 2: "FAIL"), gate block (message 1: "GATE"; message 2: "BLOCK"), blocked view (message 1: "VIEW"; message 2: "BLOCK"), excessive speed during approach ("SLOW DOWN"), chocks on ("CHOCK ON"), stop position exceeded ("TOO FAR"), slowing down due to bad weather conditions or aircraft lost during the docking ("SLOW"), too fast ("TOO FAST"), SBU stop ("SBU").
2. Azimuth guidance display (centerline and arrows pointing the way to get centered, yellow and red), as well as red lights when stop aircraft is indicated.
3. Distance indicators to the stop position compounded of yellow and black lines located in a centered vertical column (approach index) finished with a smaller and narrow centered vertical column.

PILOT INSTRUCTIONS

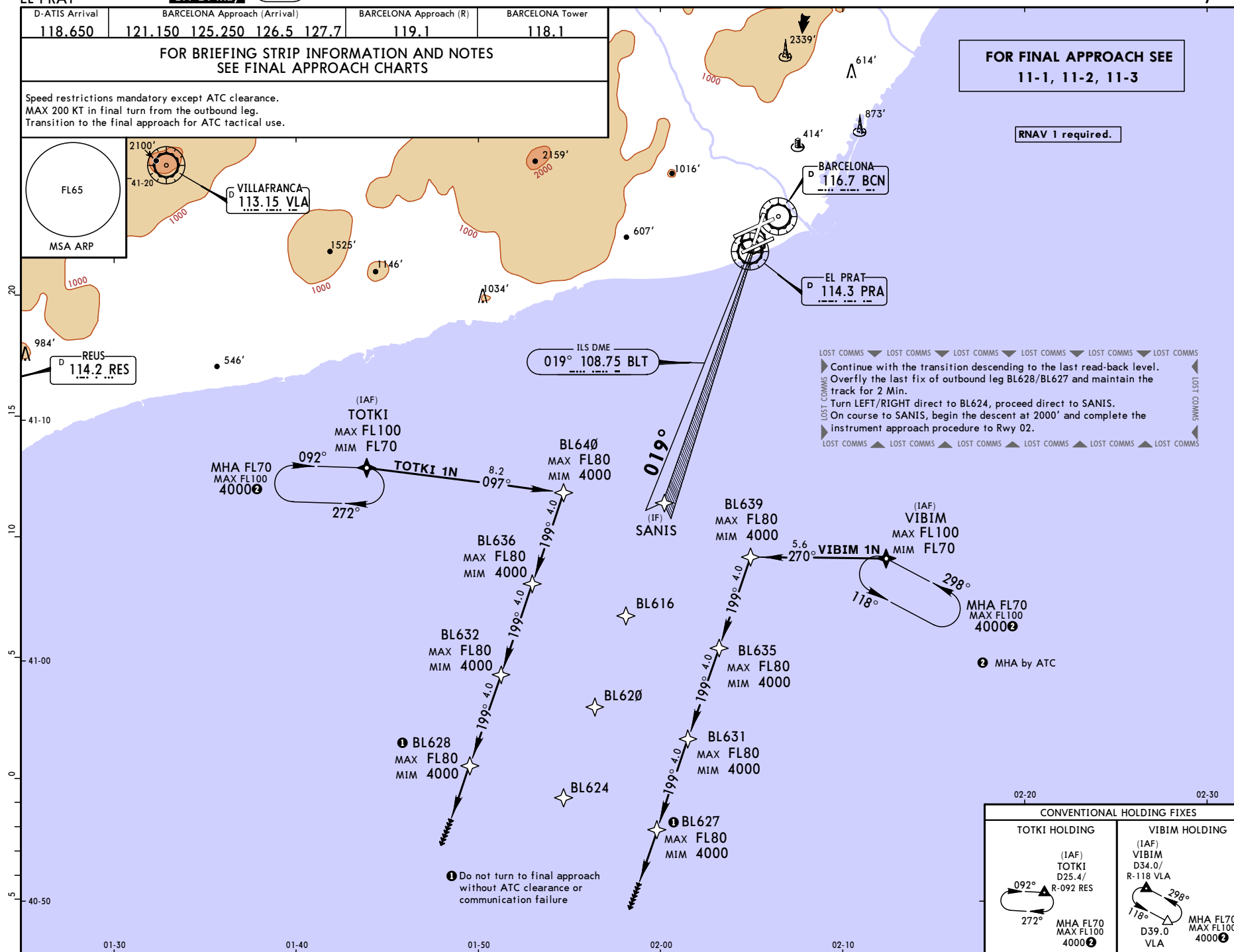
1. Check that the indicated aircraft type is the appropriate.
2. Taxi aligned with centerline observing centerline guidance.
3. Check that the distance indicator is completely yellow. It means that the system has captured the aircraft.
4. Observe the yellow arrow located in the centerline guidance indicator to follow the correct position and direction. A flashing red arrow indicate the turn direction.
5. If the aircraft speed exceeds the scheduled speed, the unit display indicates "SLOW DOWN" and the taxiing speed must be reduced.
6. The distance indicator is activated at 66'/20m before the stop position and, as the aircraft is approaching, gradually the yellow lines are switched-off showing the remaining distances to the stop position (each line indicates 2'/0.5m).
7. When the correct stopping position is reached, the screen will display the "STOP" message and two red lights will turn on. When the aircraft is parked, the display shows "OK".

LEBL/BCN
EL PRAT

JEPPesen

18 MAY 18
Eff 24 May 11-0

BARCELONA, SPAIN
RNAV INITIAL APPROACH Rwy 02



CHANGES: New chart.

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LEBL/BCN
EL PRAT

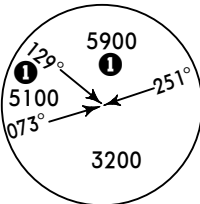
18 MAY 18

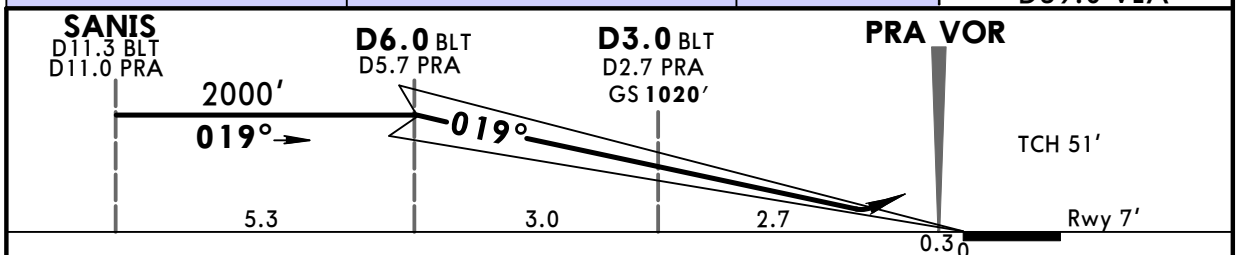
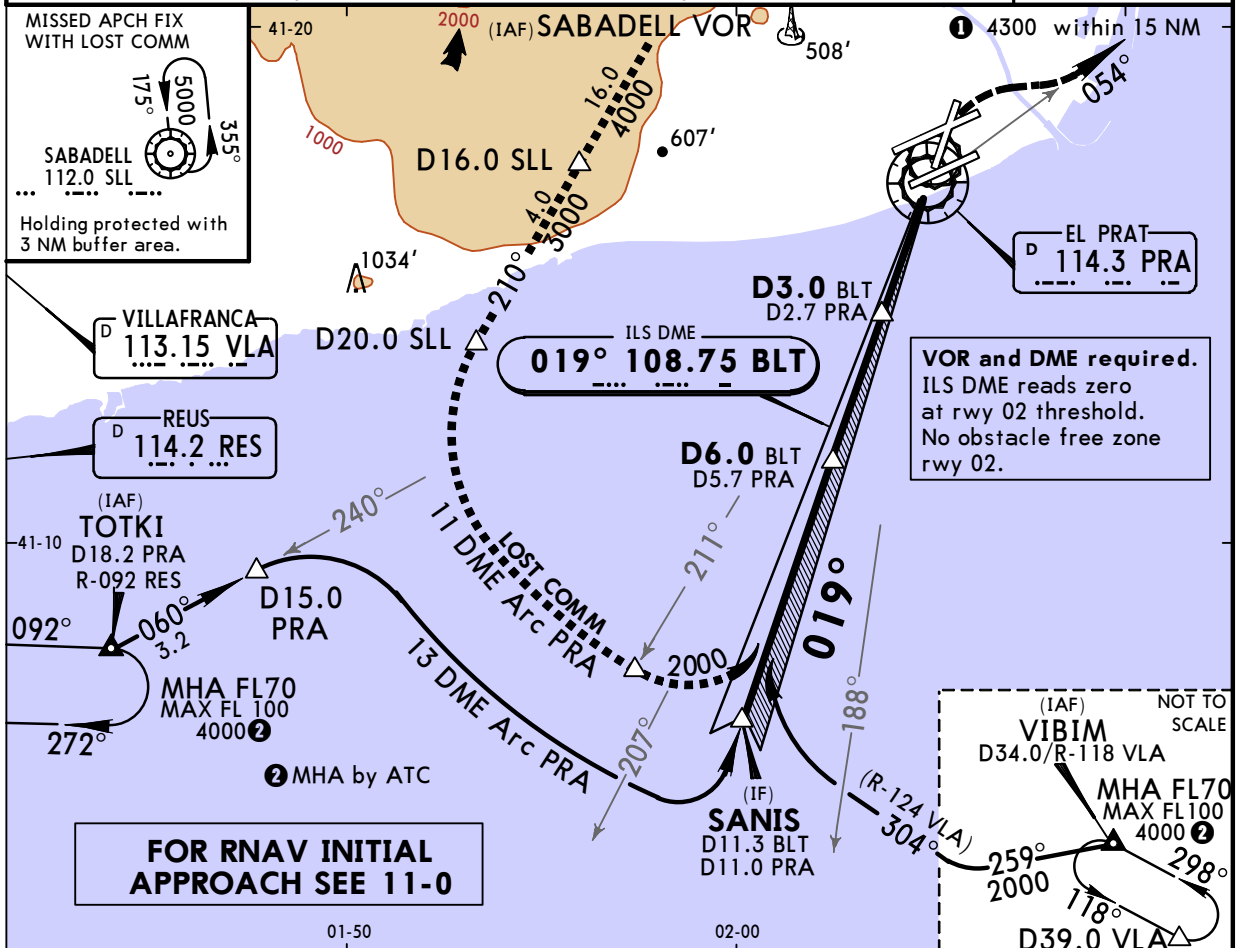
(11-1)

Eff 24 May

BARCELONA, SPAIN
ILS Z Rwy 02

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
LOC BLT 108.75	Final Apch Crs 019°	GS D3.0 BLT 1020' (1013')	ILS DA(H) Refer to Minimums	Appt Elev 14' Rwy 7'	
MISSED APCH: Climb on rwy heading to 500', turn RIGHT not before PRA VOR (MAX 185 KT) onto R-054 PRA climbing to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to 500', turn RIGHT not before PRA VOR (MAX 185 KT) onto R-054 PRA climbing to 4000'. Climbing turn LEFT to SLL VOR to 5000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'	MSA PRA VOR	



Gnd speed-Kts	70	90	100	120	140	160		HIALS	500'	Rwy
GS	3.00°	372	478	531	637	743	849	PAPI	PAPI	hdg

Standard				STRAIGHT-IN LANDING RWY 02				CIRCLE-TO-LAND			
				ILS				Not authorized Northwest of airport			
				DA(H)							
				A: 299' (292') C: 320' (313')							
				B: 311' (304') D: 330' (323')							
				FULL				ALS out			
A	RVR 650m ①						Max Kts				
B				RVR 1400m			100	580' (566') 1500m			
C	RVR 700m ①						135	700' (686') 1600m			
D	RVR 800m			RVR 1500m			180	1080' (1066') 2400m			
							205	1300' (1286') 3600m			

① W/o HUD/AP/FD: RVR 750m

CHANGES: Procedure.

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PANS OPS

LEBL/BCN
EL PRAT

18 MAY 18

JEPPESSEN**Eff 24 May**

BARCELONA, SPAIN
ILS Y Rwy 02

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower		Tower (GND)	
118.650	119.1	118.1	N 121.7	S 122.225	C 121.650
LOC BLT 108.75	Final Aptch Crs 019°	GS D3.0 BLT 1020' (1013')	ILS DA(H) Refer to Minimums	Apt Elev 14' Rwy 7'	

MISSED APCH: Climb on rwy heading to 500', turn RIGHT not before D0.3 BLT/D1.9 BCN (MAX 185 KT) onto R-057 BCN climbing to 3000' and as directed.

MISSED APCH WITH LOST COMM: Climb on rwy heading to 500', turn RIGHT not before D0.3 BLT/D1.9 BCN (MAX 185 KT) onto R-057 BCN climbing to 4000'. Climbing turn LEFT to SLL VOR to 5000' and hold.

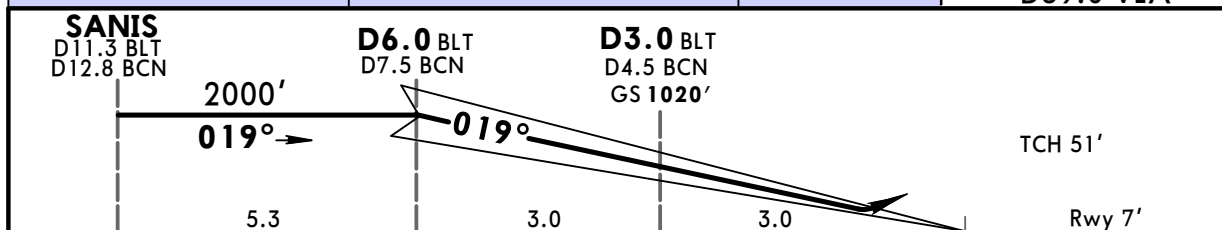
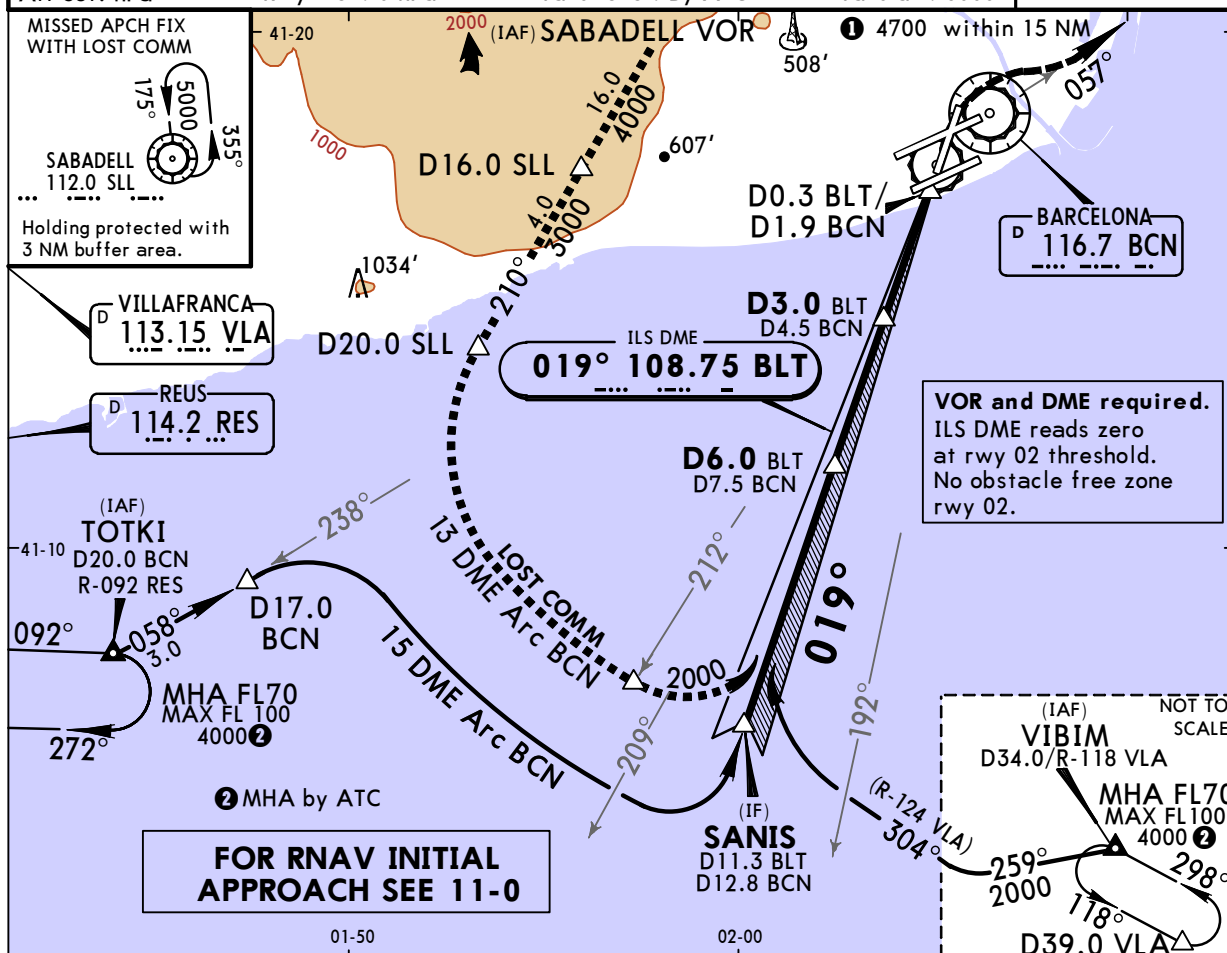
Alt Set: hPa

Rwy Elev: 0 hPa

Trans level: By ATC

Trans alt: 6000'

MSA
BCN VOR



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI 500' on Rwy hdg	
GS	3.00°	372	478	531	637	743		849

Standard

STRAIGHT-IN LANDING RWY 02

CIRCLE-TO-LAND

ILS
A: **299'**(292') C: **320'**(313')
DA(H) B: **311'**(304') D: **330'**(323')

Not authorized
Northwest of airport

FULL		ALS out	Max Kts	MDA(H)	VIS
A	RVR 650m I	RVR 1400m	100	580' (566')	1500m
B	RVR 700m I		135	700' (686')	1600m
C			180	1080' (1066')	2400m
D	RVR 800m	RVR 1500m	205	1300' (1286')	3600m

1 W/o HUD/AP/FD: RVR 750m

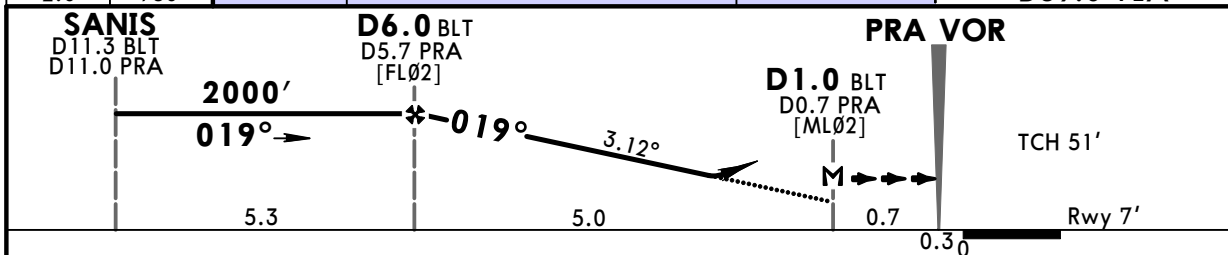
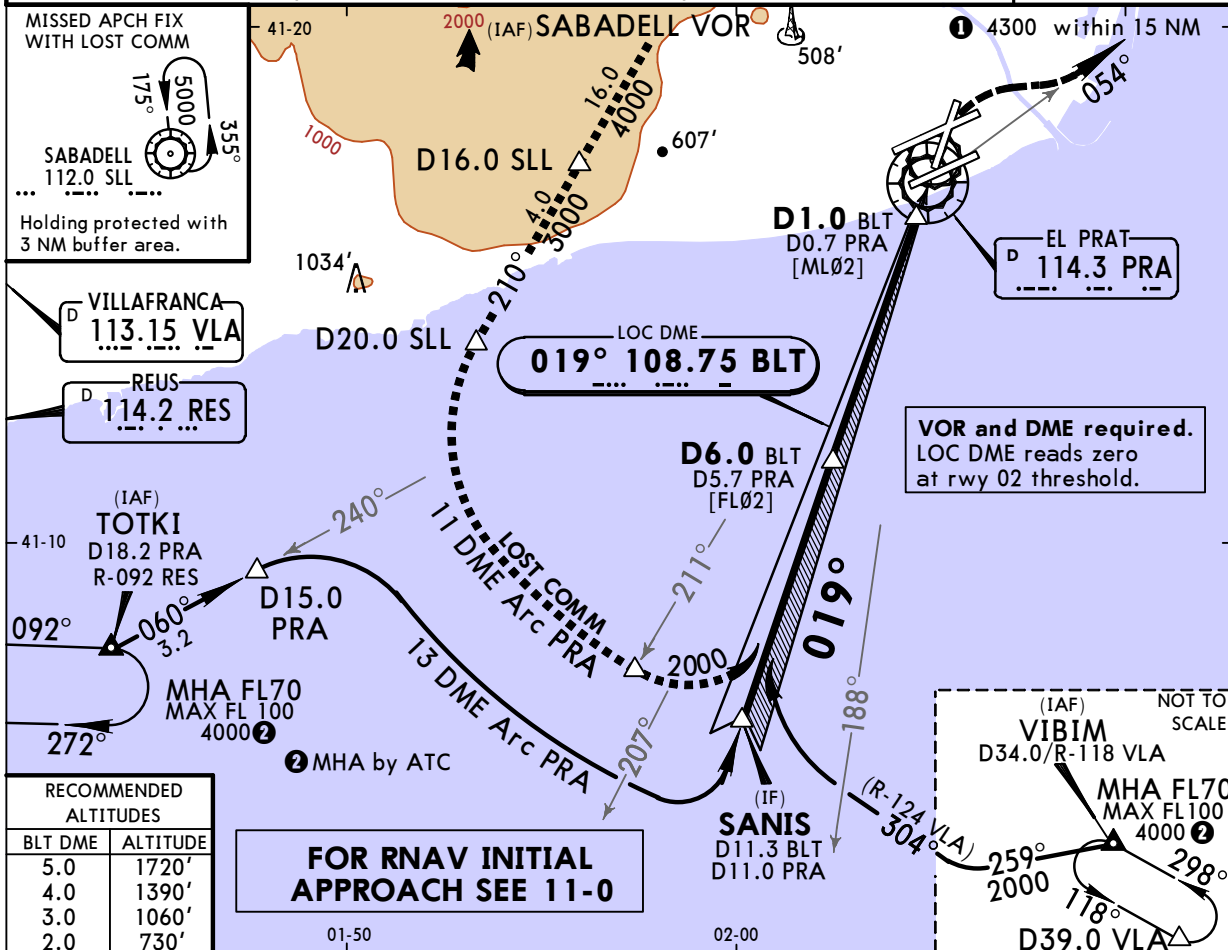
CHANGES: Procedure.

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LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (11-3) Eff 24 MayBARCELONA, SPAIN
LOC Rwy 02

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
LOC BLT 108.75	Final Apch Crs 019°	Minimum Alt D6.0 BLT 2000' (1993')	DA/MDA(H) 450' (443')	Appt Elev 14' Rwy 7'	
MISSED APCH: Climb on rwy heading to 500', turn RIGHT not before PRA VOR (MAX 185 KT) onto R-054 PRA climbing to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to 500', turn RIGHT not before PRA VOR (MAX 185 KT) onto R-054 PRA climbing to 4000'. Climbing turn LEFT to SLL VOR to 5000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'	MSA PRA VOR	



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI	500' ↑ on Rwy hdg
Descent Angle 3.12°	386	497	552	662	773	883		
MAP at D1.0 BLT/D0.7 PRA								

Standard			STRAIGHT-IN LANDING RWY 02			CIRCLE-TO-LAND		
			CDFA			Not authorized Northwest of airport		
			DA/MDA(H) 450' (443')					
			ALS out			Max Kts	MDA(H)	VIS
A	RVR 1400m		RVR 1500m			100	580' (566')	1500m
B						135	700' (686')	1600m
C						180	1080' (1066')	2400m
D						205	1300' (1286')	3600m

PANS OPS

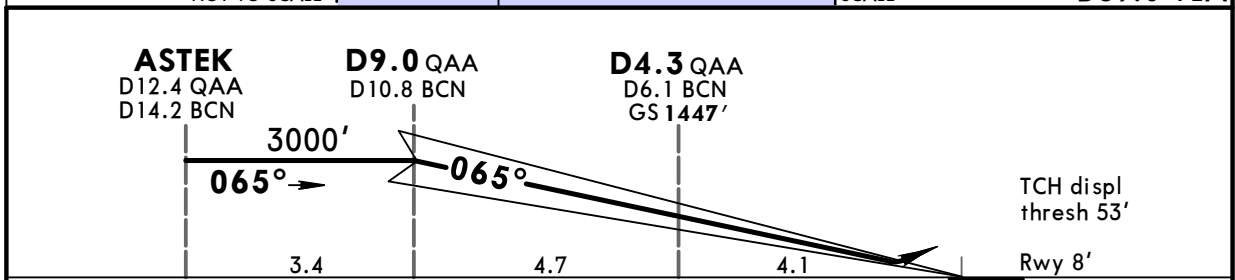
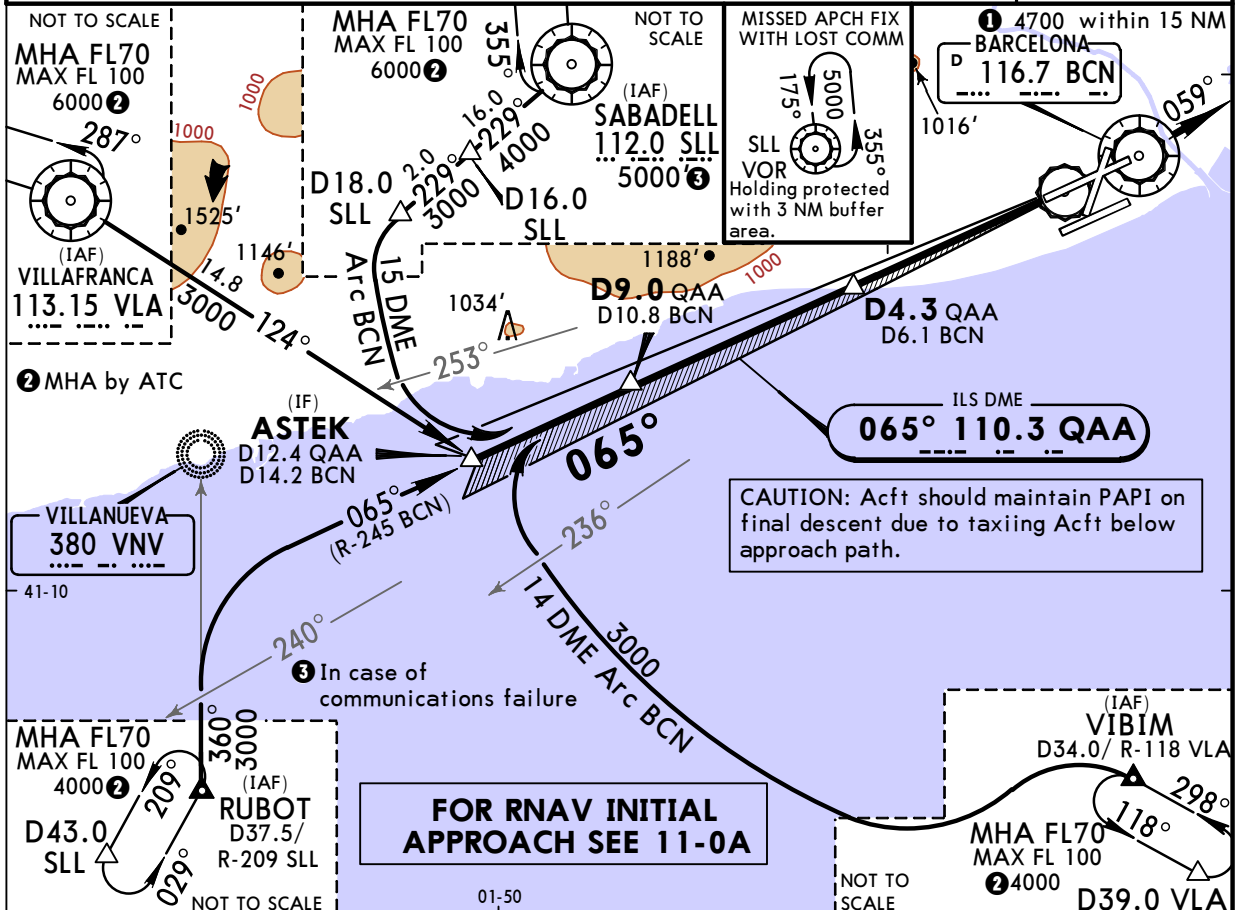
CHANGES: Procedure.

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LEBL/BCN
EL PRATJEPPesen
18 MAY 18 (11-4) Eff 24 MayBARCELONA, SPAIN
ILS Z Rwy 07L

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	Tower (GND)	
118.650	119.1	118.1	121.7 ^N	122.225 ^S 121.650 ^C
LOC QAA 110.3	Final Aptch Crs 065°	GS D4.3 QAA 1447' (1439')	ILS DA(H) Refer to Minimums	Apt Elev 14' Rwy 8'
MISSED APCH: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 3000', and as directed. MISSED APCH WITH LOST COMM: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.				
Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000' 1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07L displaced threshold.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II	BCN	3000'	BCN
GS	3.00°	372	478	531	637	743	PAPI	116.7	↑	116.7
							PAPI		↑	R-059

Standard STRAIGHT-IN LANDING RWY 07L				CIRCLE-TO-LAND	
DA(H) A: 242' (234') C: 262' (254') B: 254' (246') D: 273' (265')				Not authorized Northwest of airport	
	FULL	TDZ or CL out	ALS out	Max Kts	MDA(H) VIS
A	RVR 550m	RVR 550m	RVR 1200m	100	580' (566') 1500m
B				135	700' (686') 1600m
C	RVR 600m	RVR 600m	RVR 1300m	180	1080' (1066') 2400m
D				205	1300' (1286') 3600m
W/o HUD/AP/FD: RVR 750m					

PANS OPS

LEBL/BCN
EL PRAT18 MAY 18
Eff 24 May

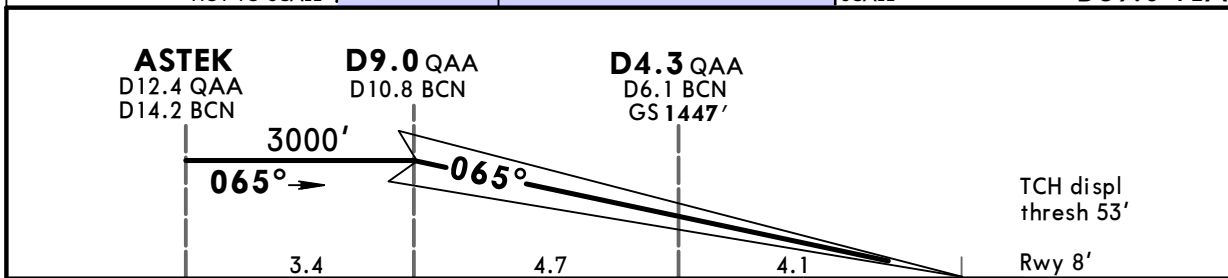
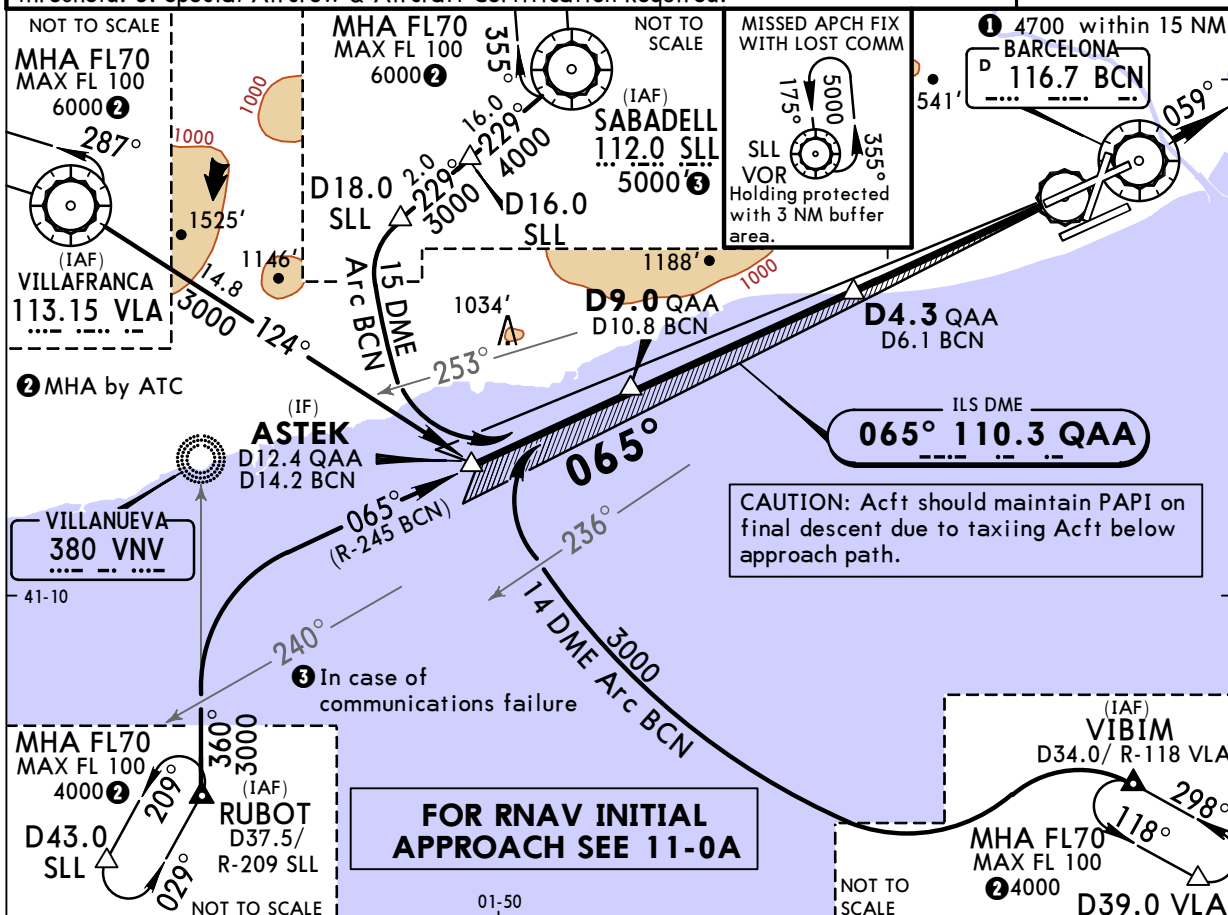
JEPPesen

11-4A

BARCELONA, SPAIN
CAT II/III ILS Z Rwy 07L

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	Tower (GND)	
118.650	119.1	118.1	N 121.7	S 122.225
LOC QAA 110.3	Final Aptch Crs 065°	GS D4.3 QAA 1447' (1439')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14' Rwy 8'
MISSED APCH: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 3000', and as directed. MISSED APCH WITH LOST COMM: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.				
Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000' 1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07L displaced threshold. 3. Special Aircrew & Aircraft Certification Required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II	BCN	3000'	BCN
GS	3.00°	372	478	531	637	743	PAPI	116.7	↑	116.7
							PAPI		↑	R-059

STRAIGHT-IN LANDING RWY 07L				
CAT IIIA ILS	CAT II ILS			
1	A	B	C	D
RA 105'	RA 105'	RA 120'	RA 134'	RA 148'
DH 50'	DA(H) 113'(105')	DA(H) 128'(120')	DA(H) 142'(134')	DA(H) 155'(147')
RVR 200m	RVR 300m	RVR 400m	RVR 450m	

1 CAT IIIB: Min RVR 75m.

PANS OPS

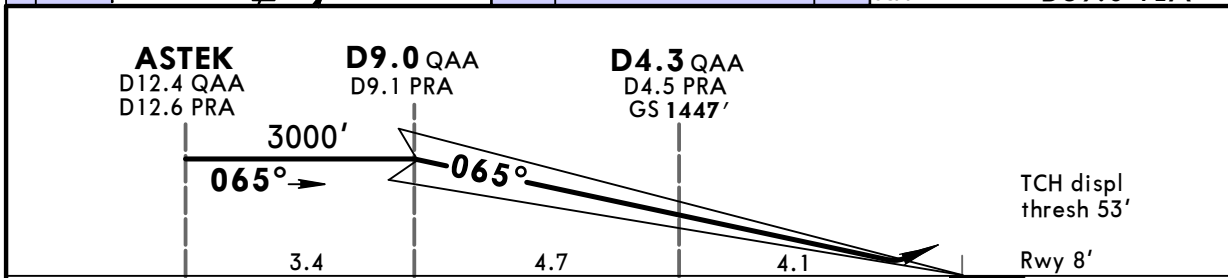
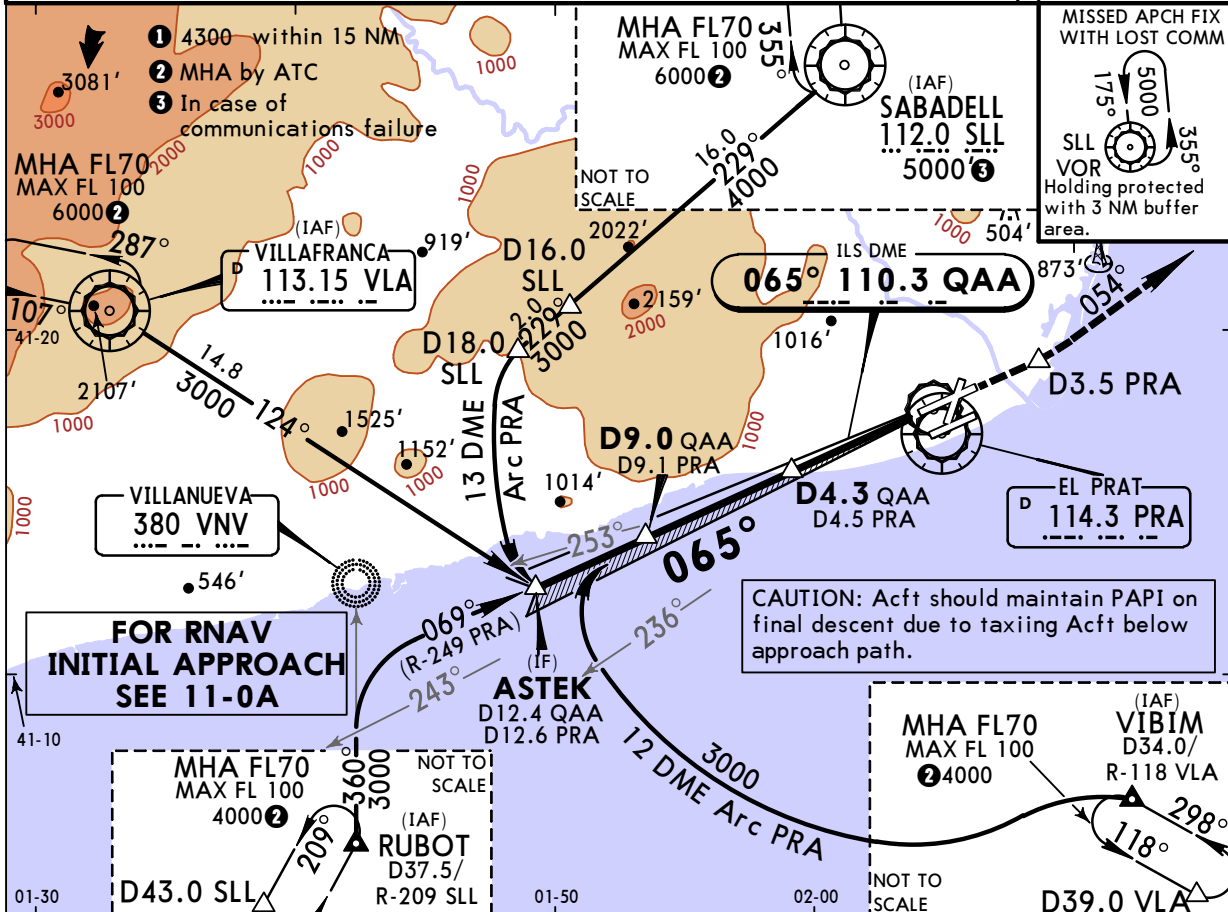
CHANGES: Note added.

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LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-5)BARCELONA, SPAIN
ILS Y Rwy 07L

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
LOC QAA 110.3	Final Apch Crs 065°	GS D4.3 QAA 1447' (1439')	ILS DA(H) Refer to Minimums	Apt Elev 14' Rwy 8'	
MISSED APCH: Climb on rwy heading to D3.5 PRA to intercept and follow R-054 PRA to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to D3.5 PRA to intercept and follow R-054 PRA to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.					
Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000' 1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07L displaced threshold.					MSA PRA VOR



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	D3.5 PRA on Rwy hdg
GS	3.00°	372	478	531	637	743	849	PAPI	

Standard STRAIGHT-IN LANDING RWY 07L				CIRCLE-TO-LAND	
DA(H) A: 242' (234') C: 262' (254') B: 254' (246') D: 273' (265')				Not authorized Northwest of airport	
	FULL	TDZ or CL out	ALS out	Max Kts	MDA(H) VIS
A	RVR 550m	RVR 550m	RVR 1200m	100	580' (566') 1500m
B				135	700' (686') 1600m
C	RVR 600m	RVR 600m	RVR 1300m	180	1080' (1066') 2400m
D				205	1300' (1286') 3600m
W/o HUD/AP/FD: RVR 750m					

PANS OPS

CHANGES: Note added.

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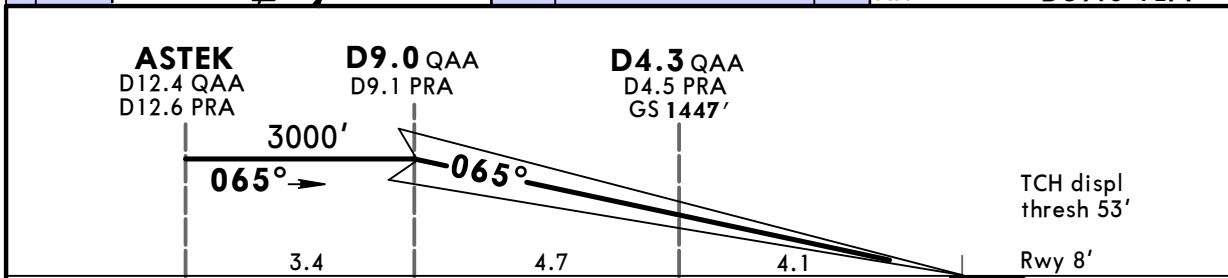
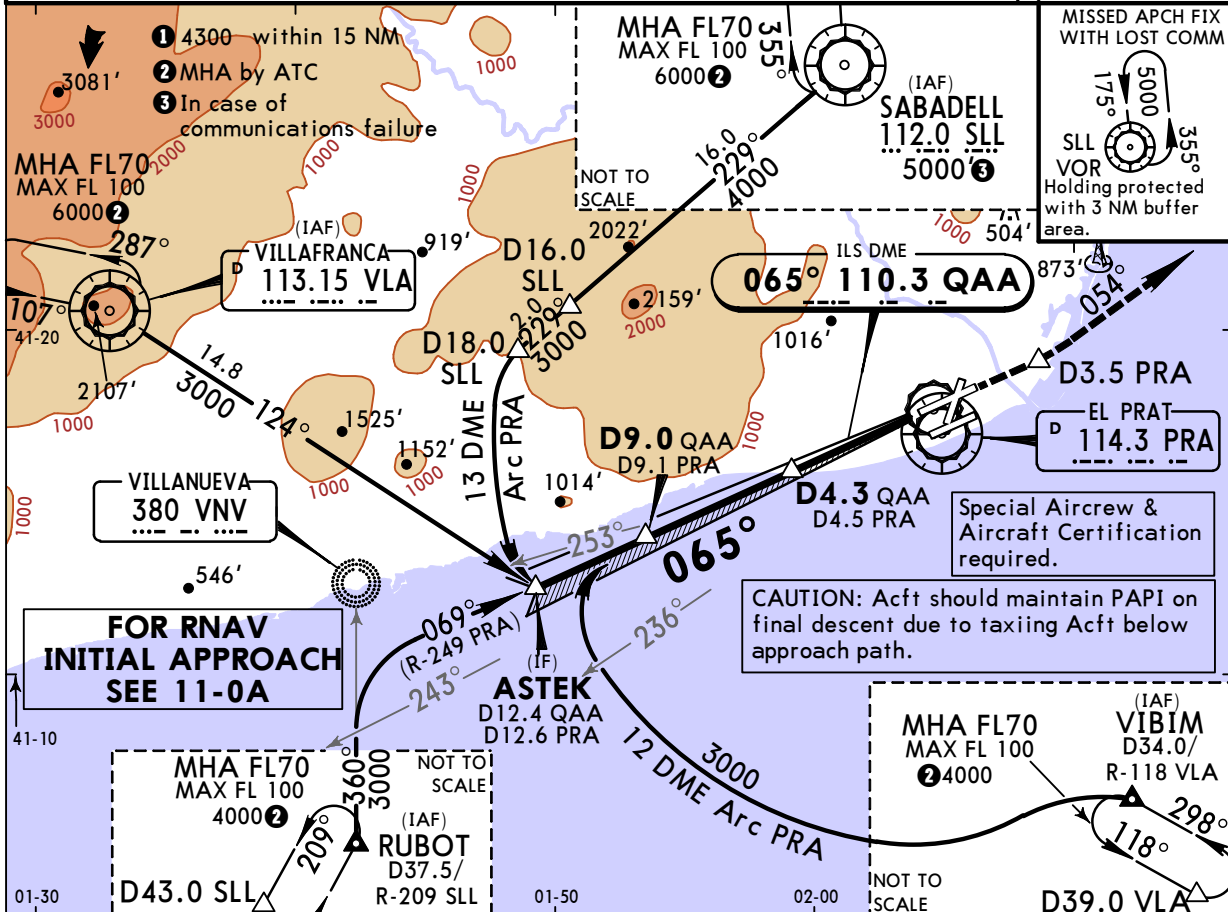
LEBL/BCN
EL PRAT

1 JUN 18 (11-5A)

BARCELONA, SPAIN
CAT II/III ILS Y Rwy 07L

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
LOC QAA 110.3	Final Apch Crs 065°	GS D4.3 QAA 1447' (1439')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14' Rwy 8'	
MISSED APCH: Climb on rwy heading to D3.5 PRA to intercept and follow R-054 PRA to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to D3.5 PRA to intercept and follow R-054 PRA to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.					
Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000' 1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07L displaced threshold.					MSA PRA VOR



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	
GS	3.00°	372	478	531	637	743	849	PAPI	PAPI

STRAIGHT-IN LANDING RWY 07L				
CAT IIIA ILS I	CAT II ILS			
	A	B	C	D
RA 105'	RA 105'	RA 120'	RA 134'	RA 148'
DA(H) 113'(105')	DA(H) 113'(105')	DA(H) 128'(120')	DA(H) 142'(134')	DA(H) 155'(147')
RVR 200m	RVR 300m	RVR 400m	RVR 450m	

I CAT IIIB: Min RVR 75m.

CHANGES: Note added.

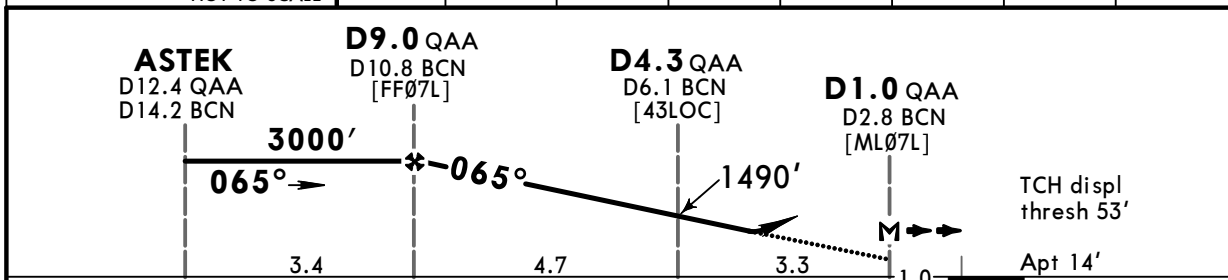
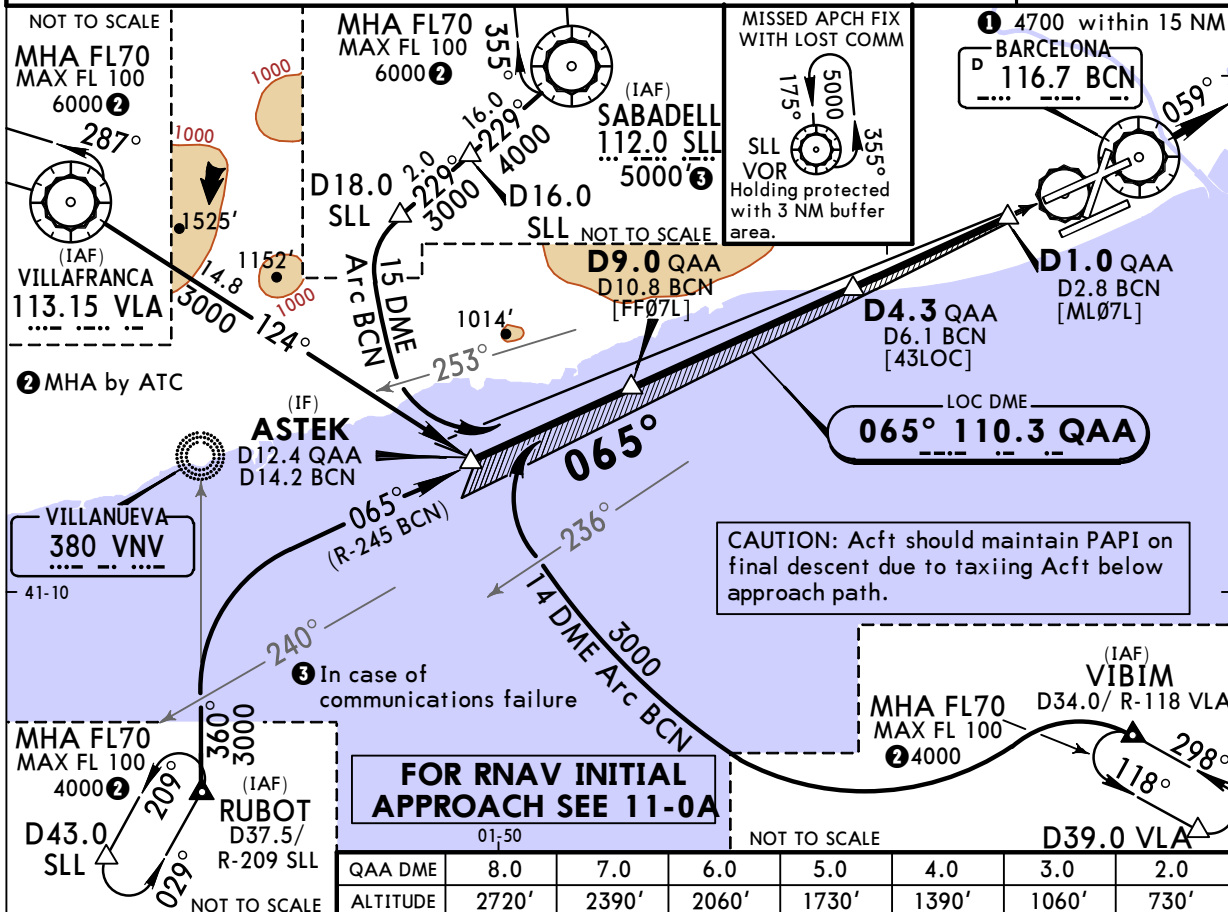
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PANS OPS

LEBL/BCN
EL PRATJEPPesen
1 JUN 18 (11-6)BARCELONA, SPAIN
LOC Rwy 07L

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	121.7 ^N	Tower (GND)	121.650 ^C
118.650	119.1	118.1	121.7	122.225	121.650
LOC QAA 110.3	Final Appch Crs 065°	Minimum Alt D9.0 QAA 3000' (2986')	DA/MDA(H) 480' (466')	Apt Elev 14'	
MISSED APCH: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 3000', and as directed. MISSED APCH WITH LOST COMM: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.					
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 6000' 1. VOR, DME and ADF required. 2. LOC DME reads zero at rwy 07L displaced threshold.					MSA BCN VOR



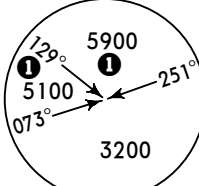
Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	BCN	3000'	BCN
Descent Angle	3.13°	388	498	554	665	775	886	PAPI	116.7	on 116.7	R-059
MAP at D1.0 QAA/D2.8 BCN											

Standard		STRAIGHT-IN LANDING RWY 07L		CIRCLE-TO-LAND	
CDFA		DA/MDA(H) 480' (466')		Not authorized Northwest of airport	
		ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m			100	580' (566') 1500m
B				135	700' (686') 1600m
C	RVR 1500m		RVR 2200m	180	1080' (1066') 2400m
D				205	1300' (1286') 3600m

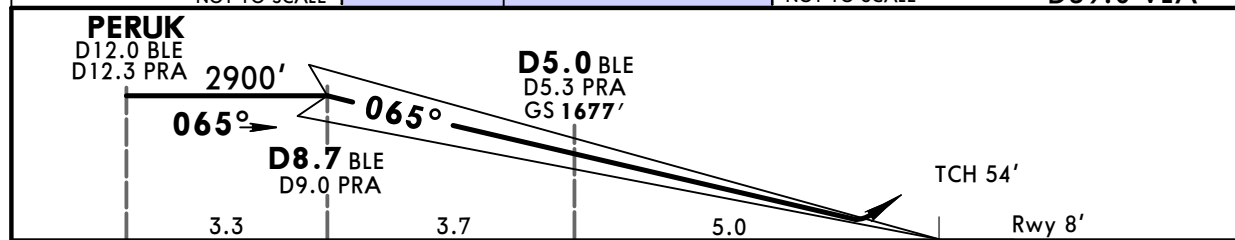
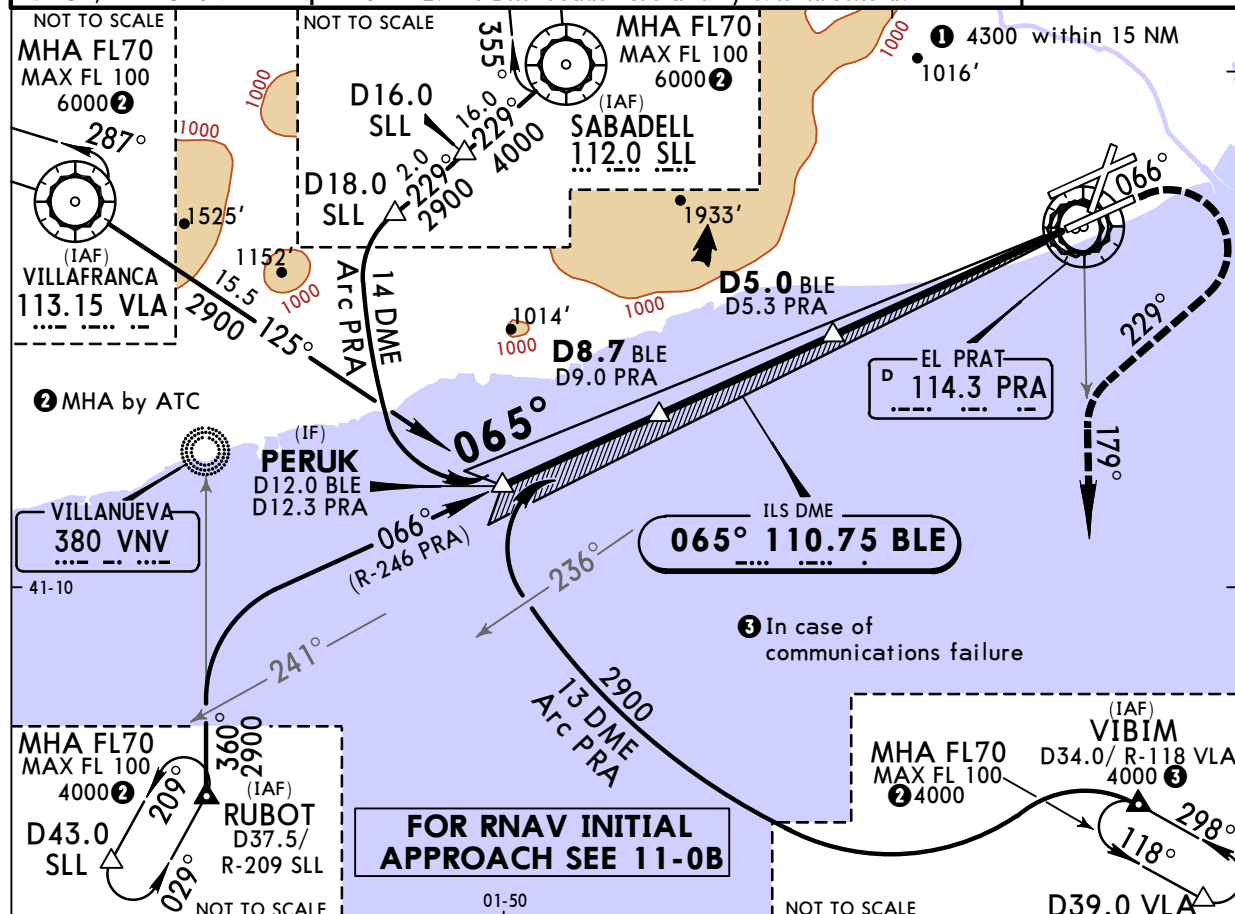
PANS OPS

LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-7)BARCELONA, SPAIN
ILS Z Rwy 07R

BRIEFING STRIP

D-ATIS Arrival	BARCELONA Approach (R)		BARCELONA Tower		N	Tower (GND) S	C
118.650	119.1		118.1		121.7	122.225	121.650
LOC BLE	Final Apch Crs	GS D5.0 BLE	ILS DA(H) Refer to Minimums	Apt Elev 14'			
110.75	065°	1677' (1669')		RWY 8'			
MISSED APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA climbing to 3000' and as directed.							
MISSED APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA and follow R-124 VLA to D39.0 VLA climbing to 4000' and hold at VIBIM.							
Alt Set: hPa		Rwy Elev: 0 hPa	Trans level: By ATC		Trans alt: 6000'		
1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07R threshold.							

MSA
PRA VOR



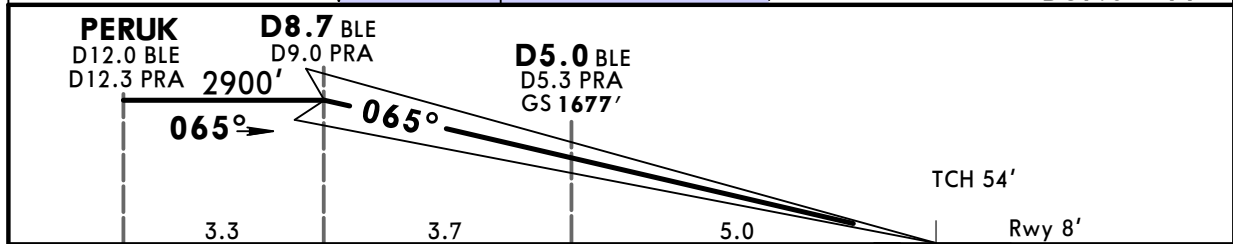
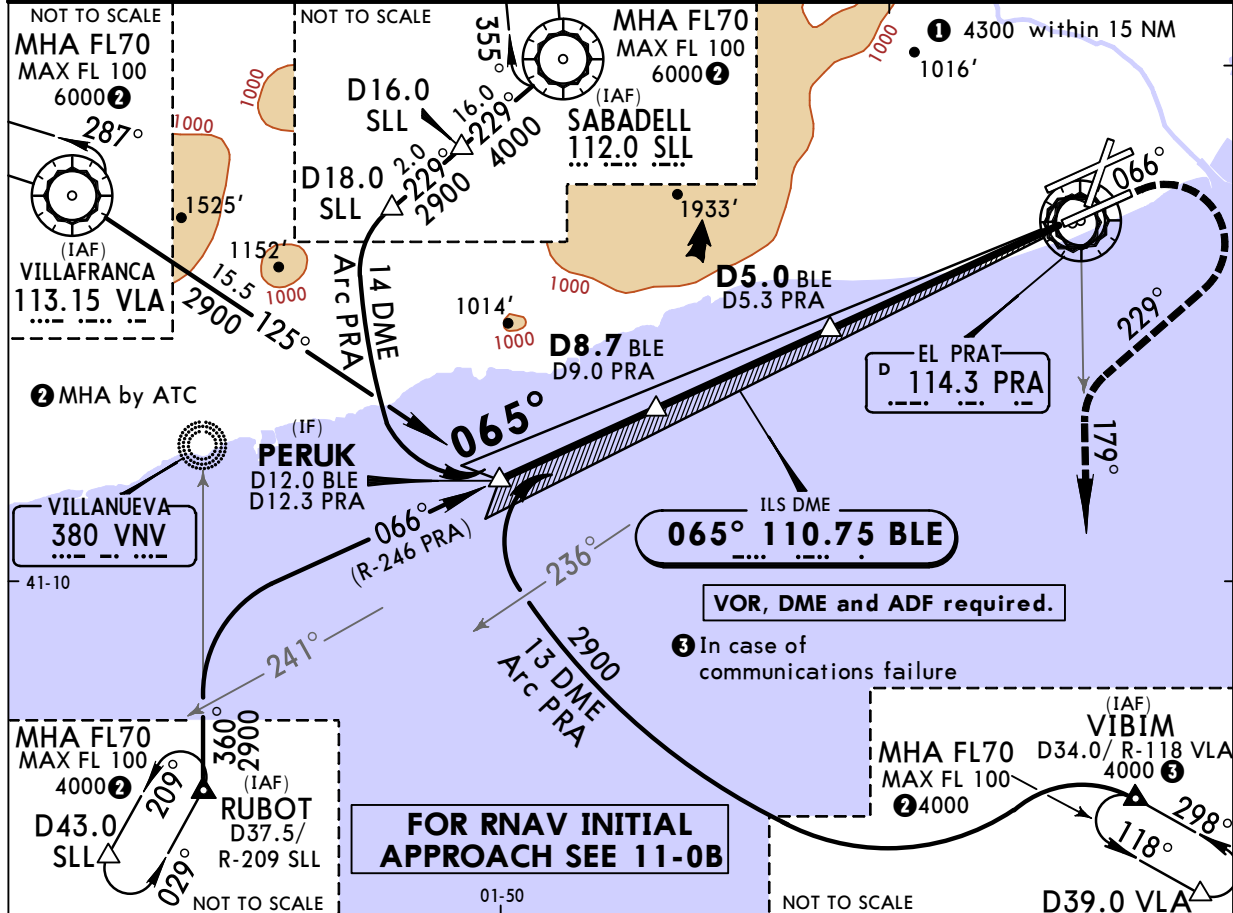
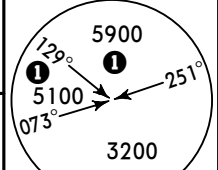
Gnd speed-Kts	70	90	100	120	140	160			
GS	3.00°	372	478	531	637	743	849		

Standard			STRAIGHT-IN LANDING RWY 07R			CIRCLE-TO-LAND		
			DA(H) A: 252'(244') C: 272'(264') B: 264'(256') D: 282'(274')			Not authorized Northwest of airport		
FULL		TDZ or CL out	ALS out		Max Kts	MDA(H)	VIS	
A	RVR 550m	RVR 550m 1	RVR 1300m		100	580'(566')	1500m	
B	RVR 600m	RVR 600m 1			135	700'(686')	1600m	
C					180	1080'(1066')	2400m	
D					205	1300'(1286')	3600m	
1 W/o HUD/AP/FD: RVR 750m								

LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-7A)BARCELONA, SPAIN
CAT II/III ILS Z Rwy 07R

BRIEFING STRIP

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
LOC BLE	Final Apch Crs	GS	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14'	Rwy 8'
110.75	065°	D5.0 BLE 1677' (1669')			
MISSED APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA climbing to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA and follow R-124 VLA onto to D39.0 VLA climbing to 4000' and hold at VIBIM.					
Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000' 1. Special Aircrew & Aircraft Certification Required. 2. ILS DME reads zero at rwy 07R threshold.					



Gnd speed-Kts	70	90	100	120	140	160			
GS	3.00°	372	478	531	637	743	849		

STRAIGHT-IN LANDING RWY 07R				
CAT IIIA ILS	CAT II ILS			
1	A	B	C	D
RA 105'	RA 118'	RA 126'	RA 141'	
DA(H) 108'(100')	DA(H) 118'(110')	DA(H) 129'(121')	DA(H) 144'(136')	
RVR 200m	RVR 300m		RVR 400m	

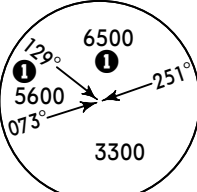
1 CAT IIIB: Min RVR 75m.

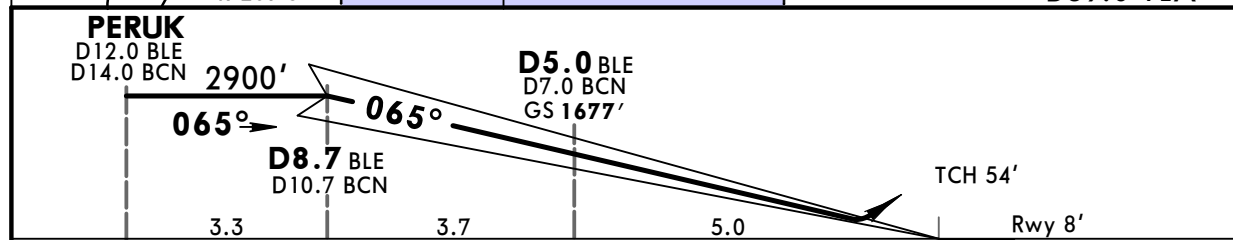
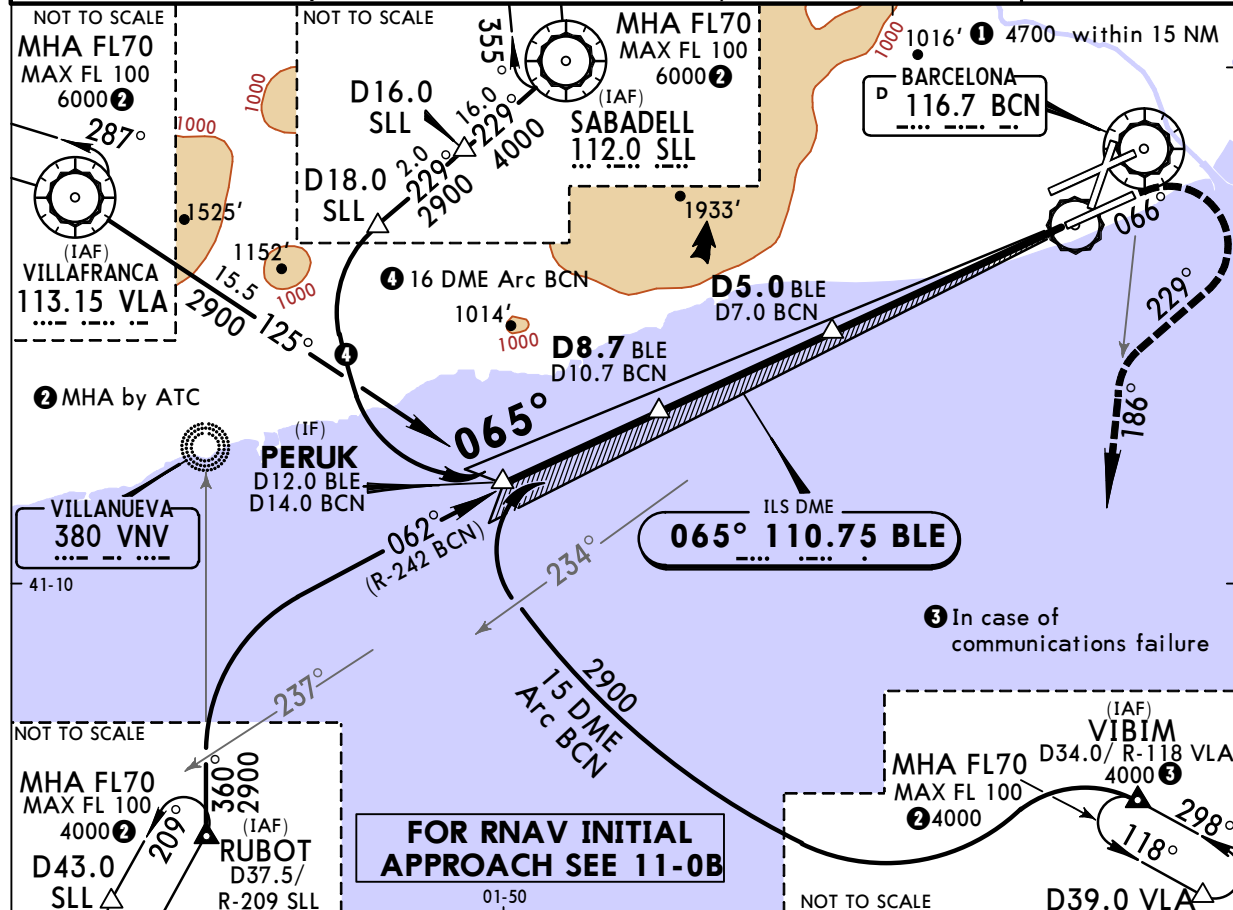
CHANGES: Note added.

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LEBL/BCN
EL PRATJEPPesen
1 JUN 18 (11-8)BARCELONA, SPAIN
ILS Y Rwy 07R

BRIEFING STRIP

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower		N	Tower (GND)		C
118.650	119.1	118.1		121.7	122.225	121.650	
LOC BLE	Final Apch Crs	GS	ILS DA(H)	Apt Elev 14'			
110.75	065°	D5.0 BLE 1677' (1669')	Refer to Minimums	RWY 8'			
MISSED APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-186 BCN climbing to 3000' and as directed.							
MISSED APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-186 BCN and follow R-124 VLA to D39.0 VLA climbing to 4000' and hold at VIBIM.							
Alt Set: hPa		Rwy Elev: 0 hPa	Trans level: By ATC		Trans alt: 6000'		
1. VOR, DME and ADF required.							MSA BCN VOR
2. ILS DME reads zero at rwy 07R threshold.							



Gnd speed-Kts	70	90	100	120	140	160	
GS	3.00°	372	478	531	637	743	

Standard

STRAIGHT-IN LANDING RWY 07R

CIRCLE-TO-LAND

 A: 252' (244') C: 272' (264')
 B: 264' (256') D: 282' (274')
Not authorized
Northwest of airport

FULL		TDZ or CL out	ALS out	Max Kts	MDA(H)	VIS
A	RVR 550m	RVR 550m I	RVR 1300m	100	580' (566')	1500m
B	RVR 600m	RVR 600m I		135	700' (686')	1600m
C				180	1080' (1066')	2400m
D				205	1300' (1286')	3600m

I W/o HUD/AP/FD: RVR 750m

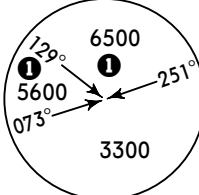
CHANGES: Note added.

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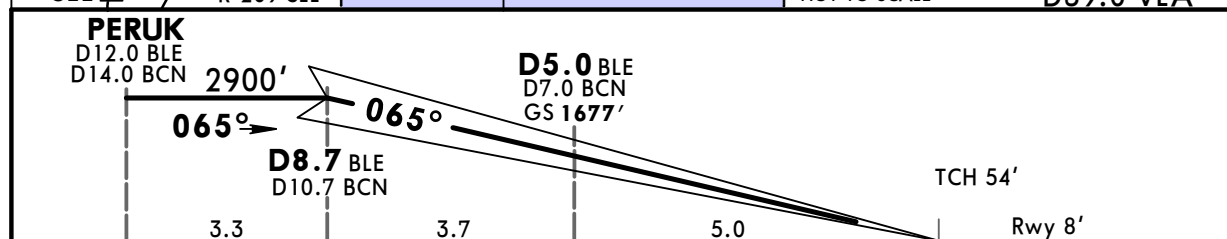
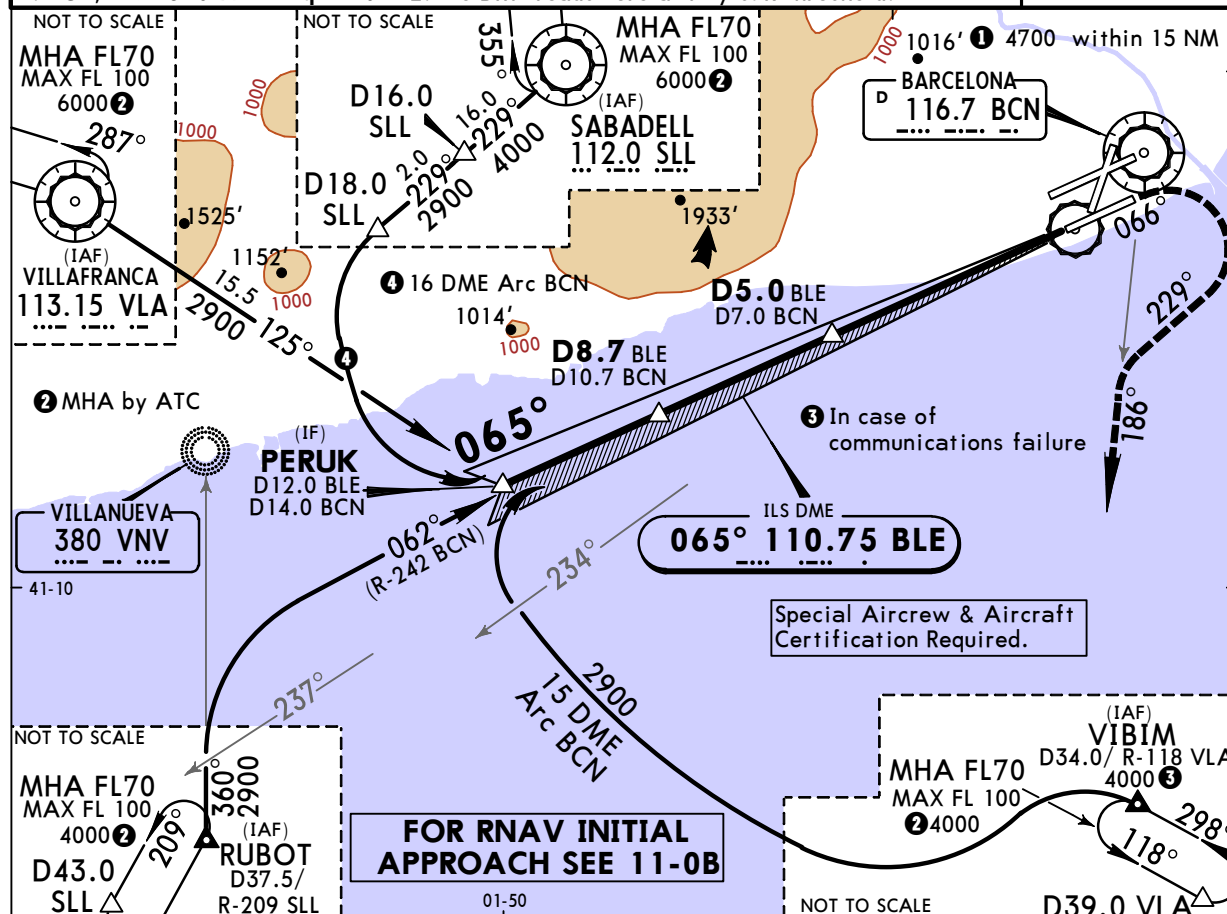
PANS OPS

LEBL/BCN
EL PRATJEPPesen
1 JUN 18 (11-8A)BARCELONA, SPAIN
CAT II/III ILS Y Rwy 07R

BRIEFING STRIP

D-ATIS Arrival	BARCELONA Approach (R)		BARCELONA Tower		N	Tower (GND) S	C
118.650	119.1		118.1		121.7	122.225	121.650
LOC BLE	Final Apch Crs	GS D5.0 BLE	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14'			
110.75	065°	1677' (1669')		RWY 8'			
MISSED APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-186 BCN climbing to 3000' and as directed.							
MISSED APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-186 BCN and follow R-124 VLA to D39.0 VLA climbing to 4000' and hold at VIBIM.							
Alt Set: hPa		Rwy Elev: 0 hPa	Trans level: By ATC		Trans alt: 6000'		
1. VOR, DME and ADF required. 2. ILS DME reads zero at rwy 07R threshold.							

MSA
BCN VOR



Gnd speed-Kts	70	90	100	120	140	160	
GS	3.00°	372	478	531	637	743	

Standard

STRAIGHT-IN LANDING RWY 07R

CAT IIIA ILS	CAT II ILS			
I	A	B	C	D
RA 105'	RA 118'	RA 126'	RA 141'	
DA(H) 108'(100')	DA(H) 118'(110')	DA(H) 129'(121')	DA(H) 144'(136')	
DH 50'				
RVR 200m	RVR 300m	RVR 400m		

I CAT IIIB: Min RVR 75m.

CHANGES: Note added.

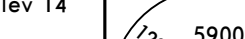
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PANS OPS

LEBL/BCN
EL PRAT

JEPPESEN
1 JUN 18 (11-9)

BARCELONA, SPAIN
LOC Rwy 07R

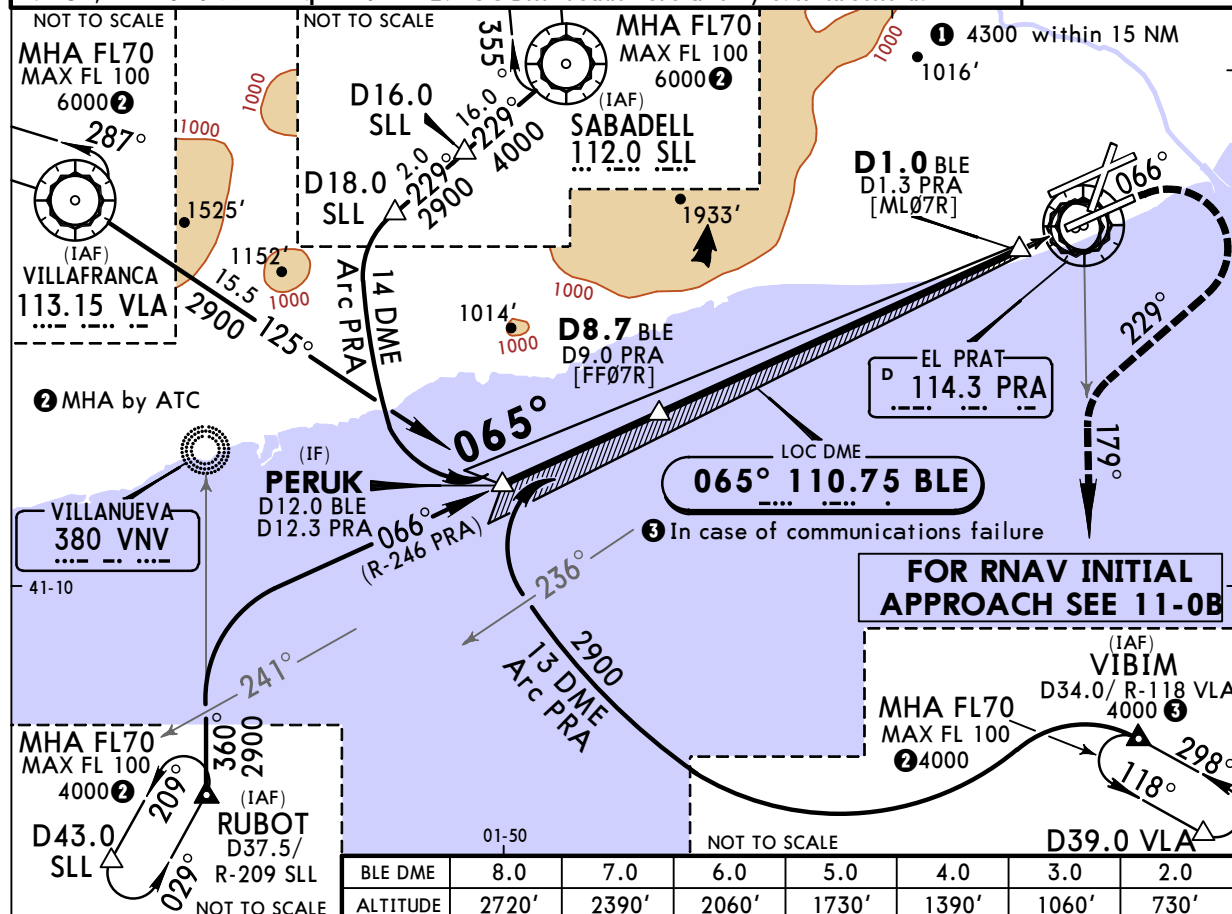
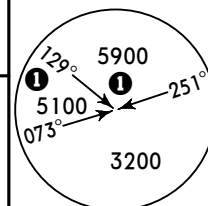
D-ATIS Arrival	BARCELONA Approach (R)		BARCELONA Tower		Tower (GND)	
118.650	119.1		118.1	N 121.7	S 122.225	C 121.650
LOC BLE 110.75	Final Apch Crs 065°	Minimum Alt D8.7 BLE 2900' (2986')	DA/MDA(H) 500' (486')	Apt Elev 14'		

MISSD APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA climbing to 3000' and as directed.
MISSD APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA and follow R-124 VLA to D39.0 VLA climbing to 4000' and hold at VIBIM.

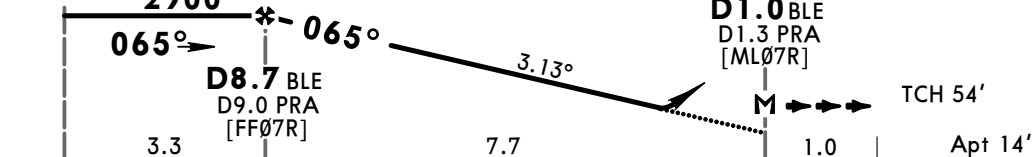
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 6000'

1. **VOR, DME and ADF required.** 2. LOC DME reads zero at rwy 07R threshold.

MSA PRA VOR



PERUK
D12.0 BLE
D12.3 PRA



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.13°	388	498	554	665	775	886
MAP at D1.0 BLE/D1.3 PRA						

HIALS-II
PAR

500'
↑
on **066°**

Standard	STRAIGHT-IN LANDING RWY 07R
----------	-----------------------------

CIRCLE-TO-LAND

CDFA

DA/MDA(H) **500'** (486')

ALS out

Not authorized
Northwest of airport

DA/MDA(H) 500 (460')			ALS out	Max Kts	MDA(H) _____ VIS _____
A	RVR 1500m			100	580' (566') 1500m
B				135	700' (686') 1600m
C	RVR 1500m	RVR 2300m	180	1080' (1066') 2400m	
D			205	1300' (1286') 3600m	

CHANGES: Note added.

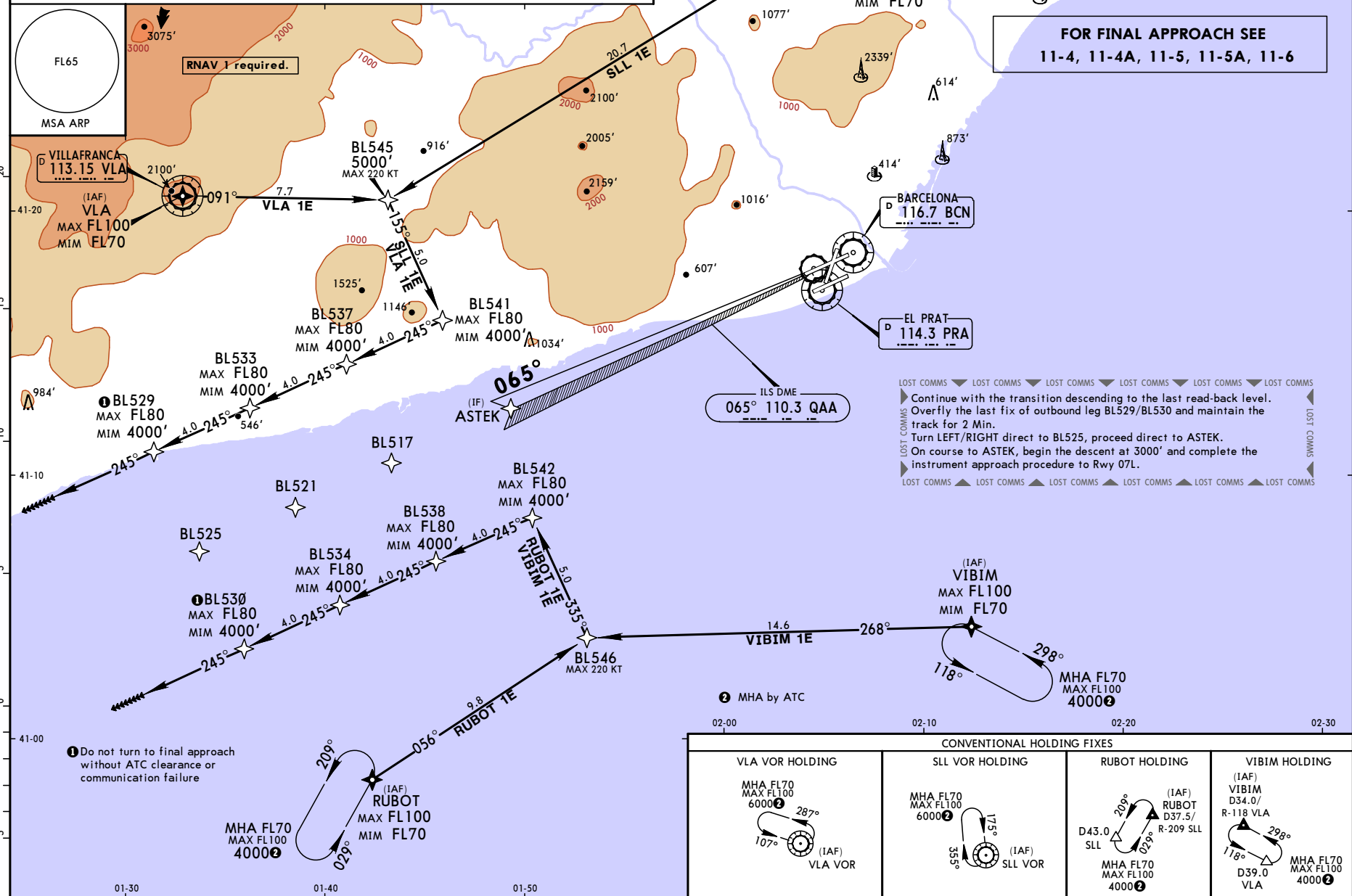
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LEBL/BCN
EL PRAT

JEPPESEN
18 MAY 18
Eff 24 May 11-0A

BARCELONA, SPAIN
RNAV INITIAL APPROACH Rwy 07L

D-ATIS Arrival	BARCELONA Approach (Arrival)					BARCELONA Approach (R)	BARCELONA Tower
118.650	121.150	125.250	126.5	127.7		119.1	118.1
FOR BRIEFING STRIP INFORMATION AND NOTES SEE FINAL APPROACH CHARTS							
Speed restrictions mandatory except ATC clearance. MAX 200 KT in final turn from the outbound leg. Transition to the final approach for ATC tactical use.							



CHANGES: Waypoints added. Procedure designation.

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LEBL/BCN EL PRAT

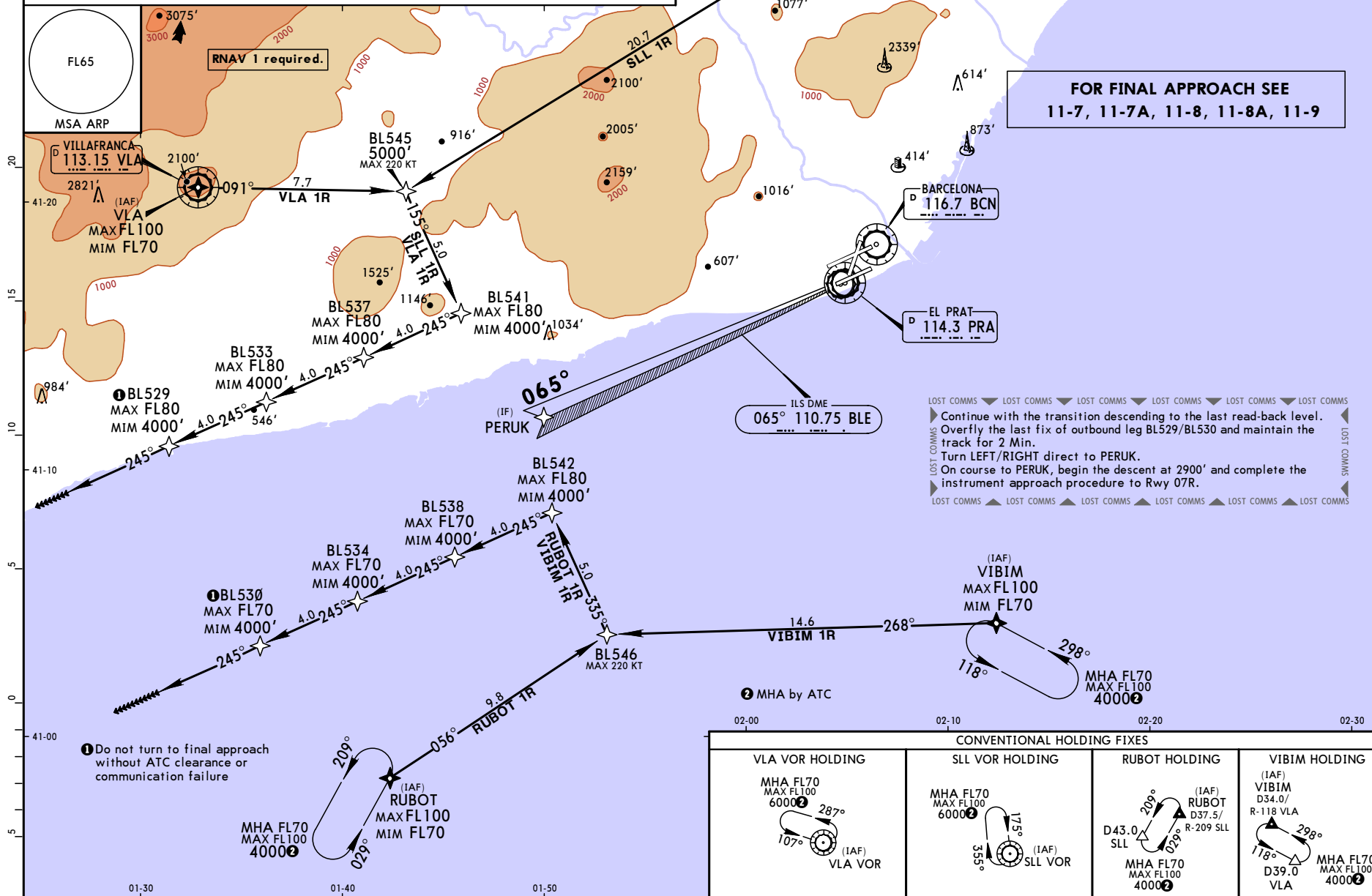
18 MAY 18
 Eff 24 May (11-0B)

BARCELONA, SPAIN RNAV INITIAL APPROACH Rwy 07R

D-ATIS Arrival	BARCELONA Approach (Arrival)					BARCELONA Approach (R)	BARCELONA Tower
118.650	121.150	125.250	126.5	127.7		119.1	118.1

FOR BRIEFING STRIP INFORMATION AND NOTES
 SEE FINAL APPROACH CHARTS

Speed restrictions mandatory except ATC clearance.
 MAX 200 KT in final turn from the NORTH outbound leg.
 MAX 185 KT in final turn from the SOUTH outbound leg.
 Transition to the final approach for ATC tactical use.



LEBL/BCN
EL PRAT

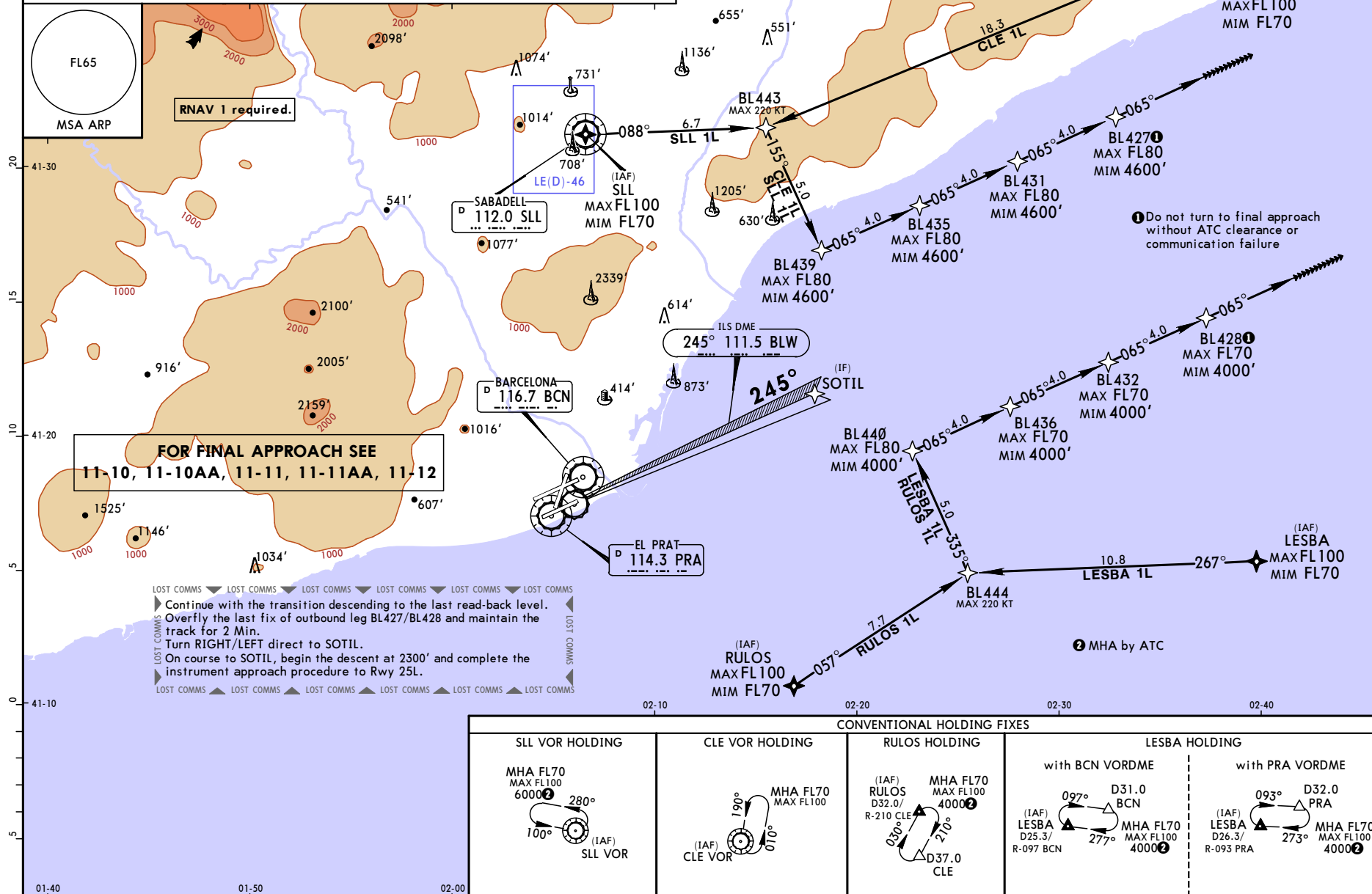
JEPPesen
18 MAY 18
Eff 24 May 11-0C

BARCELONA, SPAIN
RNAV INITIAL APPROACH Rwy 25L

D-ATIS Arrival	BARCELONA Approach (Arrival)					BARCELONA Approach (R)	BARCELONA Tower
118.650	121.150	125.250	126.5	127.7		119.1	118.1

FOR BRIEFING STRIP INFORMATION AND NOTES
SEE FINAL APPROACH CHARTS

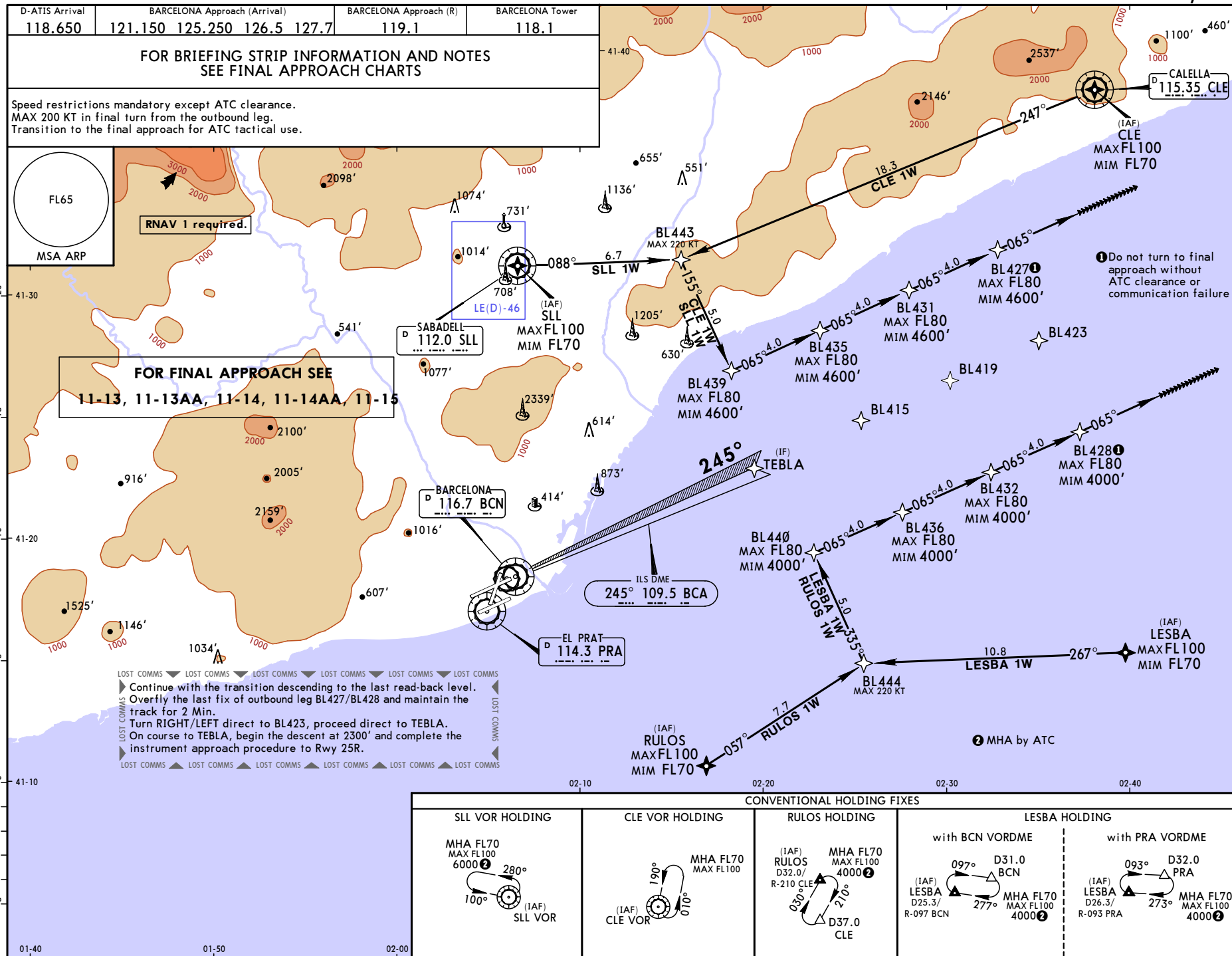
Speed restrictions mandatory except ATC clearance.
MAX 200 KT in final turn from the NORTH outbound leg.
MAX 185 KT in final turn from the SOUTH outbound leg.
Transition to the final approach for ATC tactical use.



LEBL/BCN
EL PRAT

JEPPESEN
18 MAY 18
Eff 24 May 11-0D

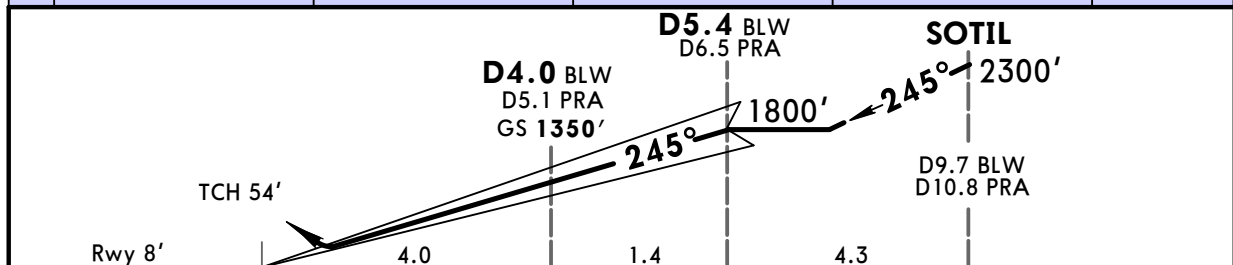
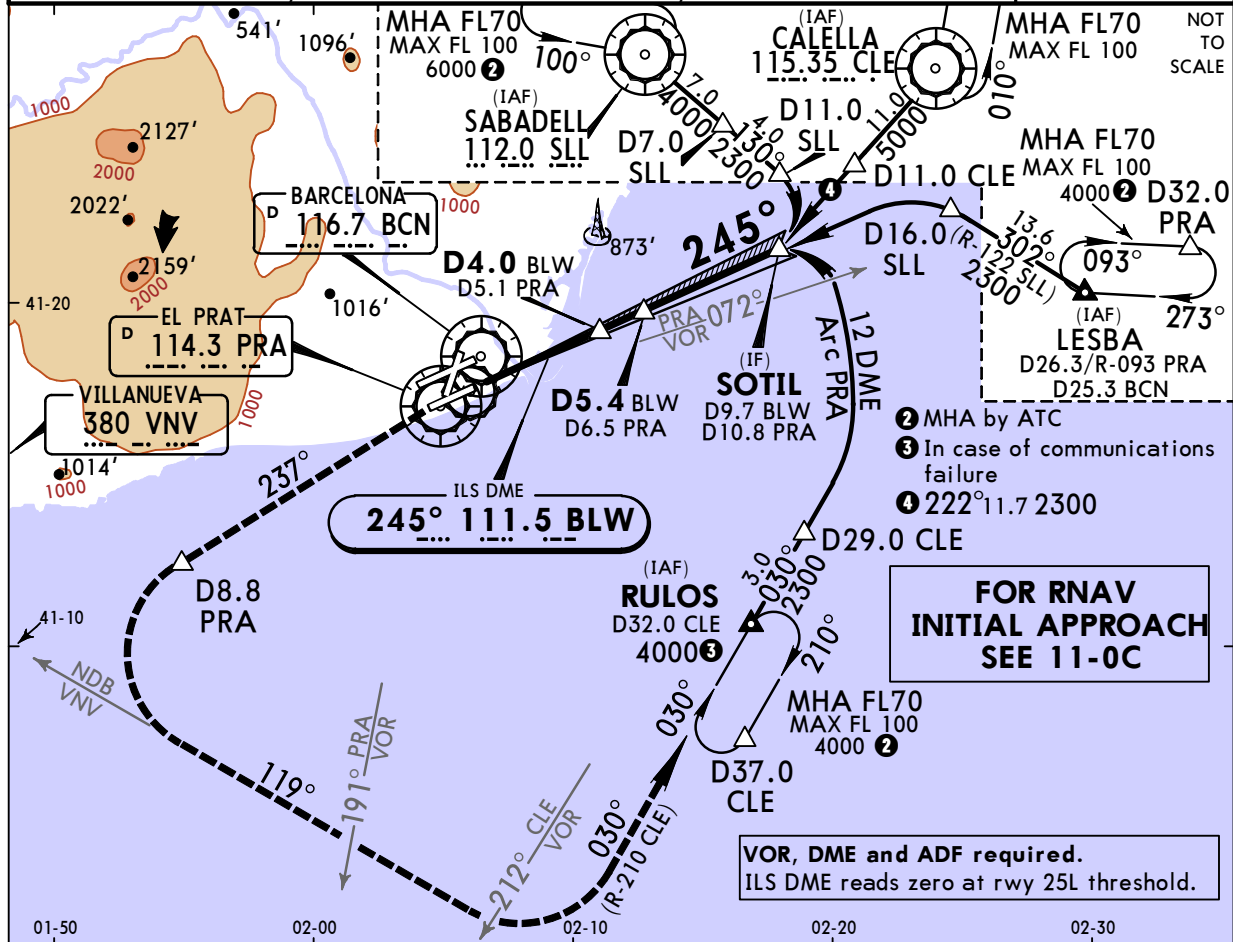
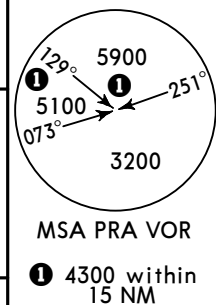
BARCELONA, SPAIN
RNAV INITIAL APPROACH Rwy 25R



LEBL/BCN
EL PRATJEPPESEN
24 AUG 18 (11-10)BARCELONA, SPAIN
ILS Z Rwy 25L

BRIEFING STRIP

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BLW 111.5	Final Apch Crs 245°	GS D4.0 BLW 1350' (1342')	ILS DA(H) Refer to Minimums	Apt Elev 14' Rwy 8'	
MISSED APCH: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-237 PRA. At D8.8 PRA turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA, then climb to 3000' and contact ATC. MISSED APCH WITH LOST COMM: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-237 PRA. At D8.8 PRA turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'		



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	500' on Rwy hdg
GS	3.00°	372	478	531	637	743		

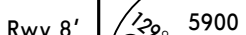
Standard			STRAIGHT-IN LANDING RWY 25L			CIRCLE-TO-LAND		
			DA(H) ABC: 208' (200') D: 210' (202')			Not authorized Northwest of airport		
			FULL		ALS out		Max Kts	MDA(H) _____ VIS _____
A	RVR 750m		RVR 1200m		100	580' (566')	1500m	
B					135	700' (686')	1600m	
C					180	1080' (1066')	2400m	
D					205	1300' (1286')	3600m	

LEBL/BCN
EL PRAT

24 AUG 18

JEPPESEN

BARCELONA, SPAIN
CAT II/III ILS Z Rwy 25L

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BLW 111.5	Final Apch Crs 245°	GS D4.0 BLW 1350' (1342')	CAT II & IIIA ILS Refer to Minimums	Ap't Elev 14' Rwy 8'	

MISSED APCH: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-237 PRA.

At D8.8 PRA turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA, then climb to 3000' and contact ATC.

MISSED APCH WITH LOST COMM: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-237 PRA. At D8.8 PRA turn LEFT to intercept and follow 119° from VNV NDB.

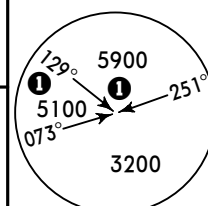
Maintain 1500' until crossing R-191 PRA. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.

Alt Set: hPa

Rwy Elev: 0 hPa

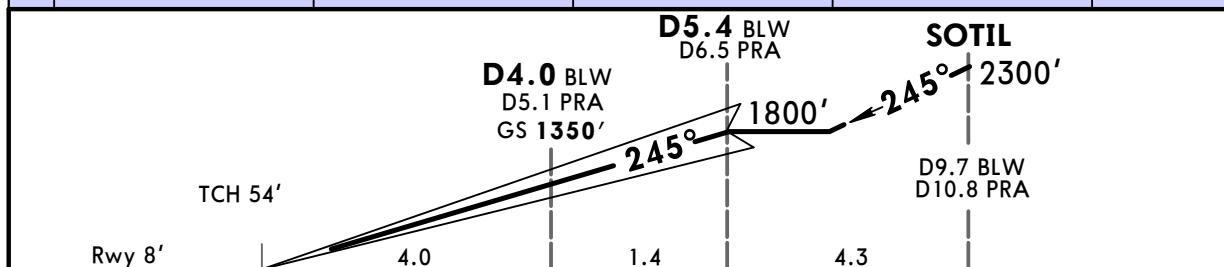
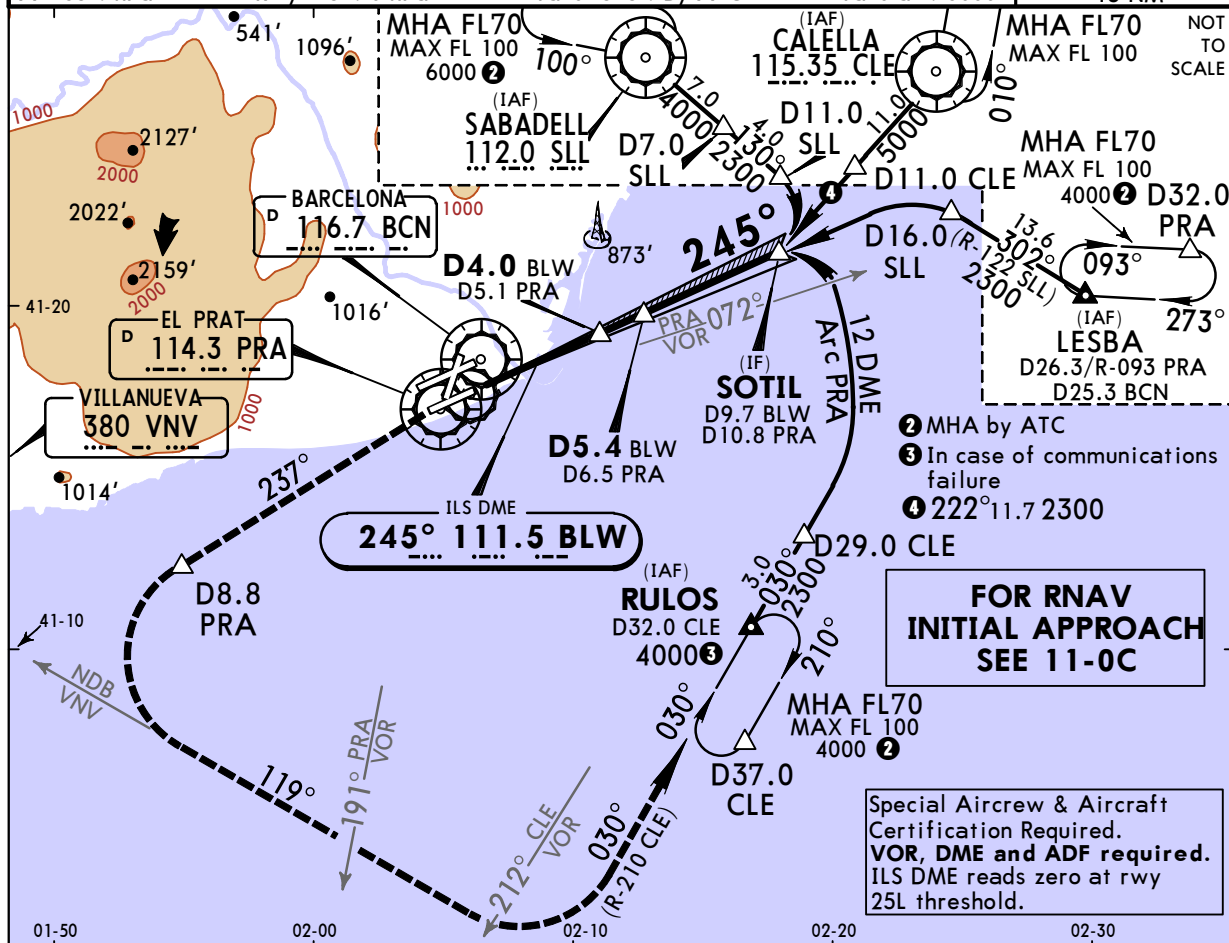
Trans level: By ATC

Trans alt: 6000'



MSA PRA VOR

① 4300 within 15 NM



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II

PAPI

500



Rwy hda

Standard

STRAIGHT-IN LANDING RWY 25L

CAT IIIA ILS

CAT II ILS

AB
RA 104'

RA 112'

D
RA 127'

DH **50'**

DA(H) **108'** (100')DA(H) **116'** (108')DA(H) **131'** (123')

RVR 200m

RVR 300m

RVR 400m

1 CAT IIIB: Mim RVR 75m.

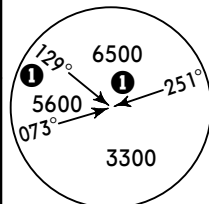
CHANGES: None.

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LEBL/BCN
EL PRATJEPPesen
24 AUG 18 (11-11)BARCELONA, SPAIN
ILS Y Rwy 25L

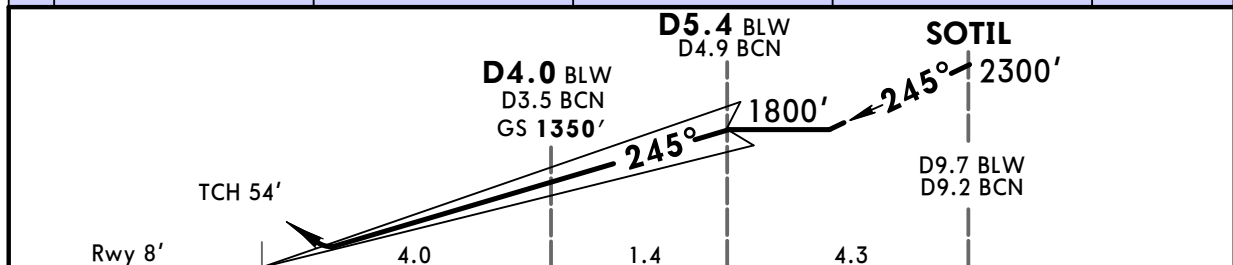
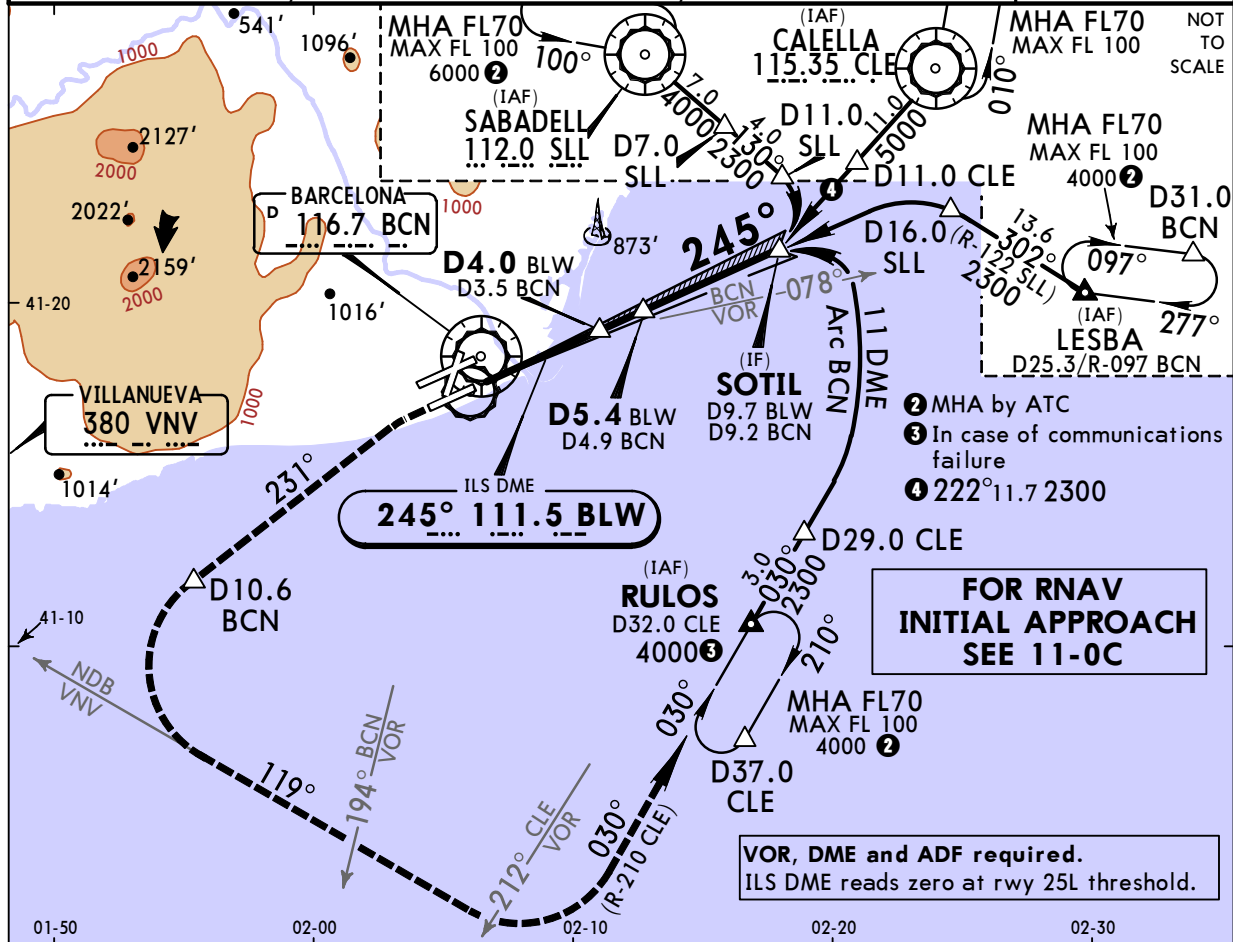
BRIEFING STRIP

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BLW 111.5	Final Apch Crs 245°	GS D4.0 BLW 1350' (1342')	ILS DA(H) Refer to Minimums	Apt Elev 14' Rwy 8'	
MISSED APCH: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-231 BCN. At D10.6 BCN turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-194 BCN, then climb to 3000' and contact ATC. MISSED APCH WITH LOST COMM: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-231 BCN. At D10.6 BCN turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-194 BCN. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'		



MSA BCN VOR

① 4700 within 15 NM



Gnd speed-Kts	70	90	100	120	140	160
GS	3.00°	372	478	531	637	743

Standard				STRAIGHT-IN LANDING RWY 25L		CIRCLE-TO-LAND Not authorized Northwest of airport	
				DA(H) ABC: 208' (200') D: 210' (202')			
				FULL		ALS out	
				RVR 750m		RVR 1200m	
						Max Kts	
						MDA(H)	
						VIS	
						100	
						135	
						180	
						205	

PANS OPS

CHANGES: Minimums.

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LEBL/BCN
EL PRAT

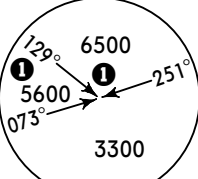
24 AUG 18

JEPPesen

11-11AA

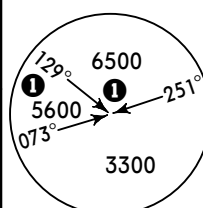
BARCELONA, SPAIN
CAT II/III ILS Y Rwy 25L

BRIEFING STRIP

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	^N 121.7	^S Tower (GND) 122.225	^C 121.650
LOC BLW 111.5	Final Apch Crs 245°	GS D4.0 BLW 1350' (1342')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14' Rwy 8'	
MISSED APCH: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-231 BCN. At D10.6 BCN turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-194 BCN, then climb to 3000' and contact ATC. MISSED APCH WITH LOST COMM: Climb to 500' then turn LEFT (MAX 185 KT) to follow R-231 BCN. At D10.6 BCN turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-194 BCN. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'		

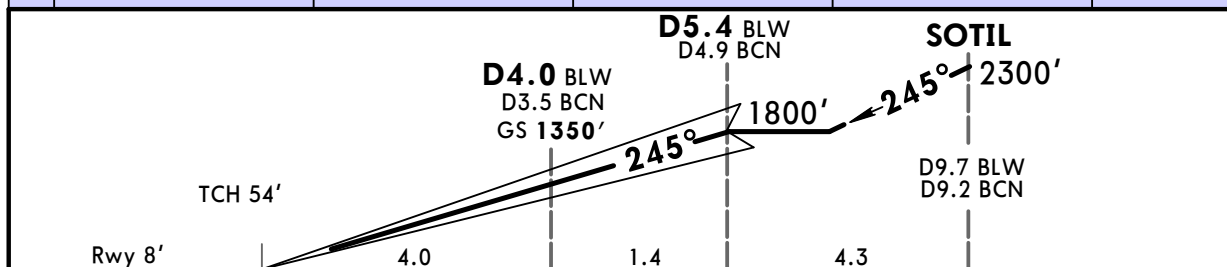
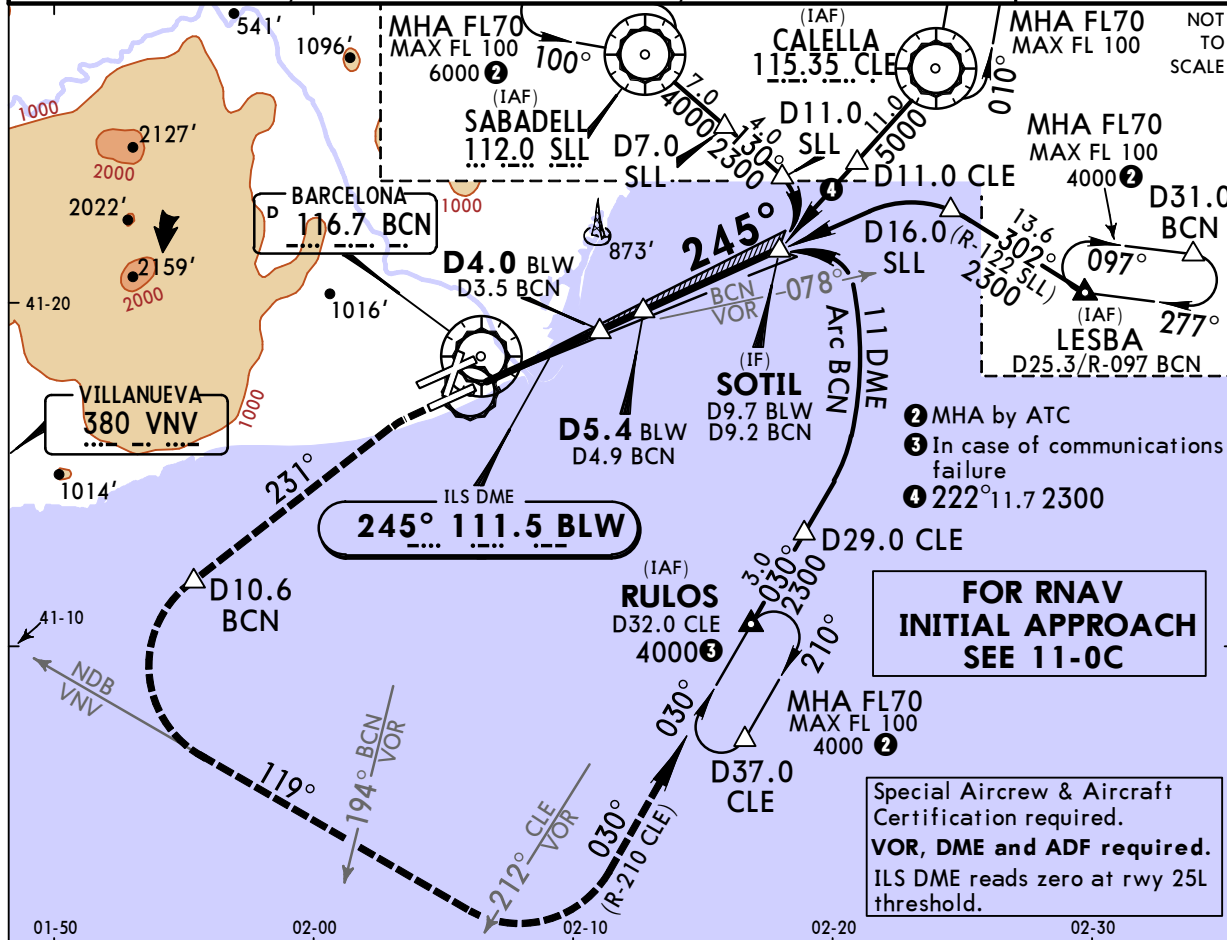
MSA BCN VOR

① 4700 within 15 NM



MSA BCN VOR

① 4700 within 15 NM



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II



500'

on

Rwy
hdg

Standard

STRAIGHT-IN LANDING RWY 25L

CAT IIIA ILS ①	AB RA 104'	CAT II ILS C RA 112'	D RA 127'
DH 50'	DA(H) 108' (100')	DA(H) 116' (108')	DA(H) 131' (123')
RVR 200m	RVR 300m	RVR 400m	

① CAT IIIB: Min RVR 75m.

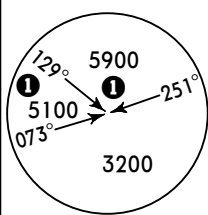
CHANGES: None.

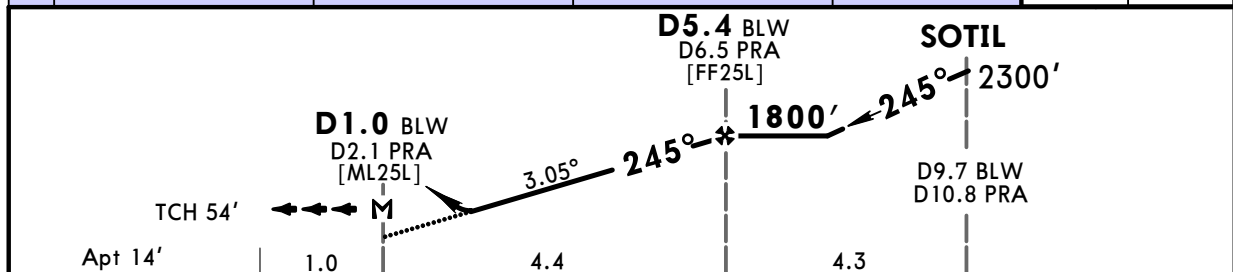
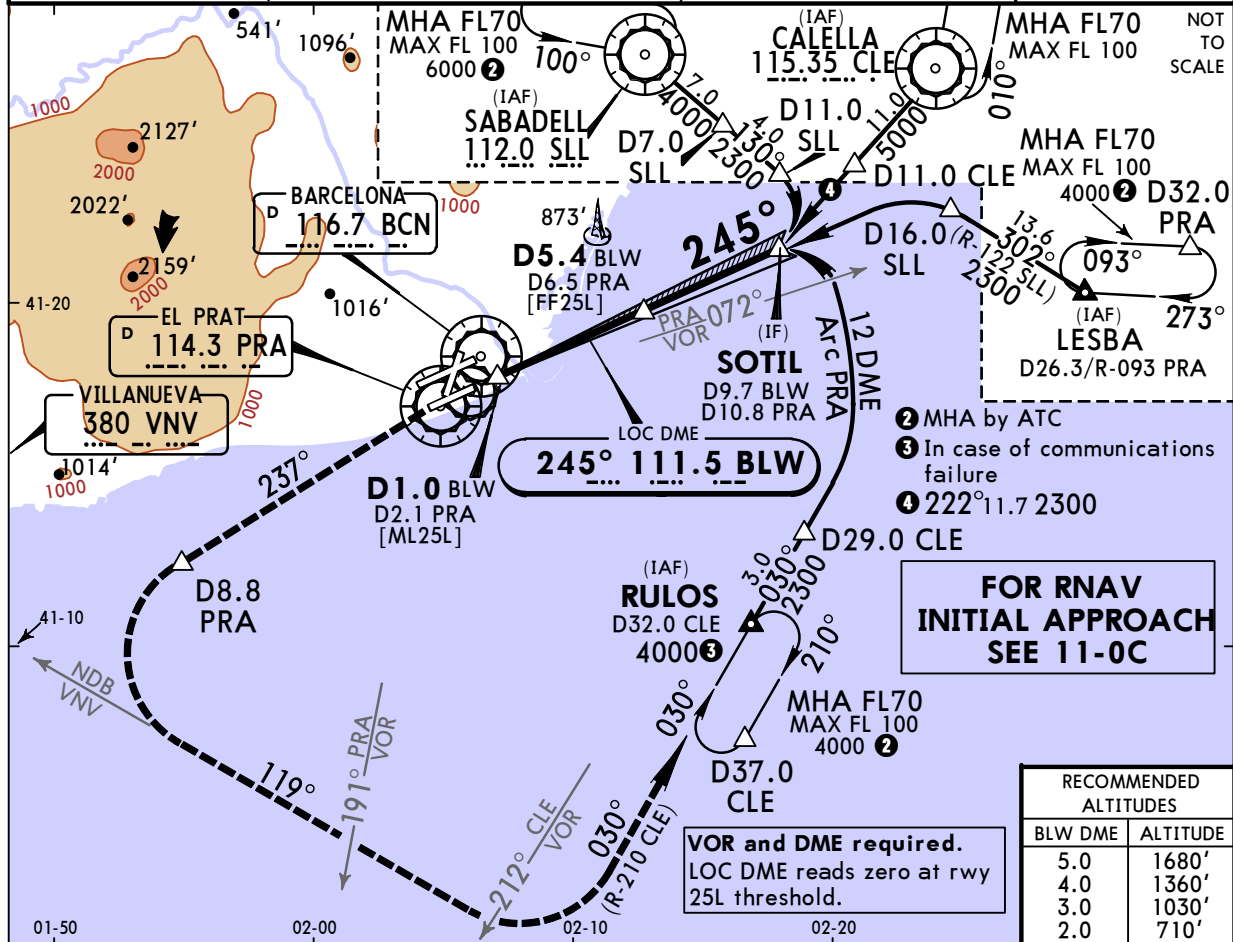
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PANS OPS

LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-12)BARCELONA, SPAIN
LOC Rwy 25L

BRIEFING STRIP

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BLW 111.5	Final Aptch Crs 245°	Minimum Alt D5.4 BLW 1800' (1786')	DA/MDA(H) 530' (516')	Apt Elev 14'	
MISSED APCH: Climb direct to PRA VOR and follow R-237 PRA until D8.8 PRA. Turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA, then climb to 3000' and contact ATC. MISSED APCH WITH LOST COMM: Climb direct to PRA VOR and follow R-237 PRA until D8.8 PRA. Turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.					
Alt Set: hPa	Apt Elev: 1 hPa	Trans level: By ATC	Trans alt: 6000'		



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI PRA 114.3
Descent Angle	3.05°	378	486	540	648	755	
MAP at D1.0 BLW/D2.1 PRA							

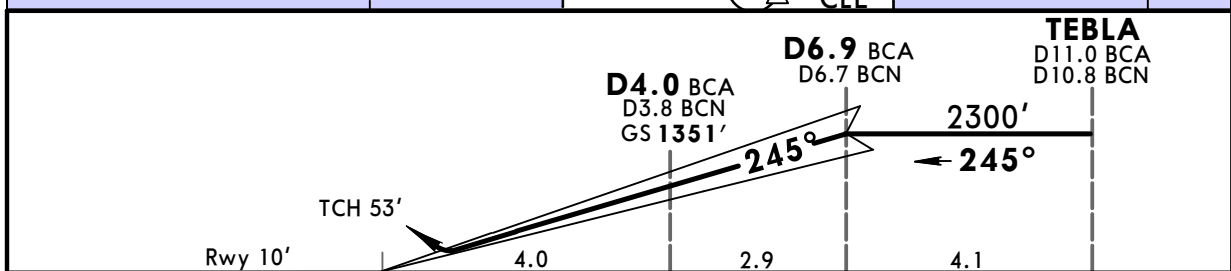
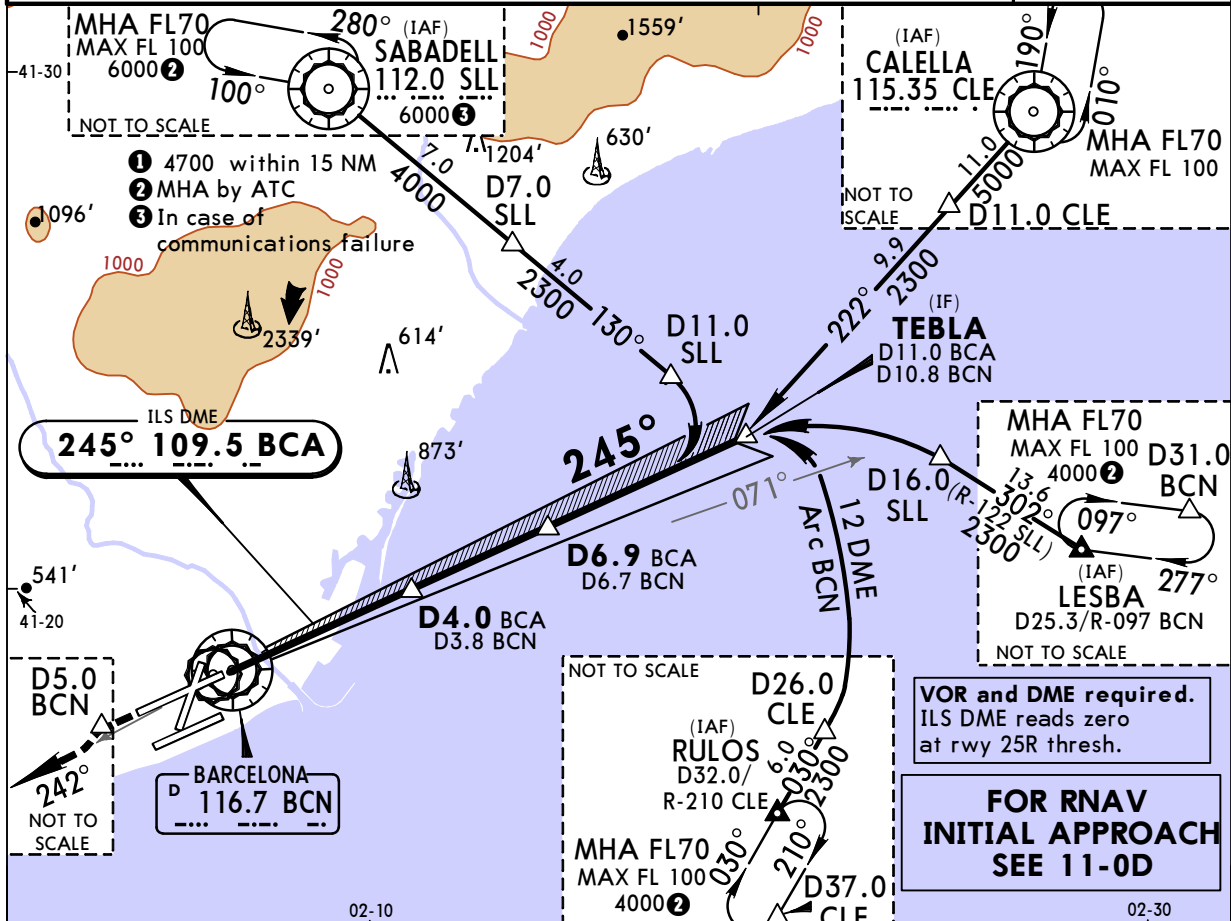
STRAIGHT-IN LANDING RWY 25L			CIRCLE-TO-LAND		
CDFA			Not authorized		
DA/MDA(H) 530' (516')			Northwest of airport		
ALS out			Max Kts	MDA(H)	VIS
A	RVR 1500m		100	580' (566')	1500m
B	RVR 1500m		135	700' (686')	1600m
C	RVR 1900m	RVR 2400m	180	1080' (1066')	2400m
D			205	1300' (1286')	3600m

PANS OPS

LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-13)BARCELONA, SPAIN
ILS Z Rwy 25R

BRIEFING STRIP™

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BCA 109.5	Final Apch Crs 245°	GS D4.0 BCA (1341')	DA(H) Refer to Minimums	Apt Elev 14' Rwy 10'	
MISSED APCH: Climb on rwy heading to D5.0 BCN. Turn LEFT to intercept R-242 BCN and climb to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to D5.0 BCN. Turn LEFT to intercept R-242 BCN and climb to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'	MSA BCN VOR	



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	D5.0 BCN on Rwy hdg
GS	3.00°	372	478	531	637	743	849	PAPI	

Standard STRAIGHT-IN LANDING RWY 25R				CIRCLE-TO-LAND	
A: 215' (205') C: 235' (225') B: 227' (217') D: 246' (236')				Not authorized Northwest of airport	
	FULL	TDZ or CL out	ALS out	Max Kts	MDA(H) VIS
A				100	580' (566') 1500m
B				135	700' (686') 1600m
C	RVR 550m	RVR 550m I	RVR 1200m	180	1080' (1066') 2400m
D				205	1300' (1286') 3600m

I W/o HUD/AP/FD: RVR 750m

CHANGES: Note added.

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LEBL/BCN
EL PRAT

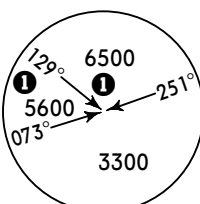
1 JUN 18

JEPPESEN

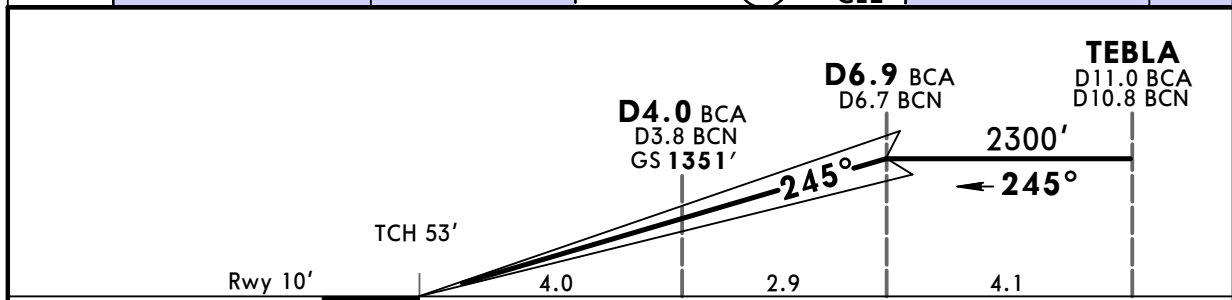
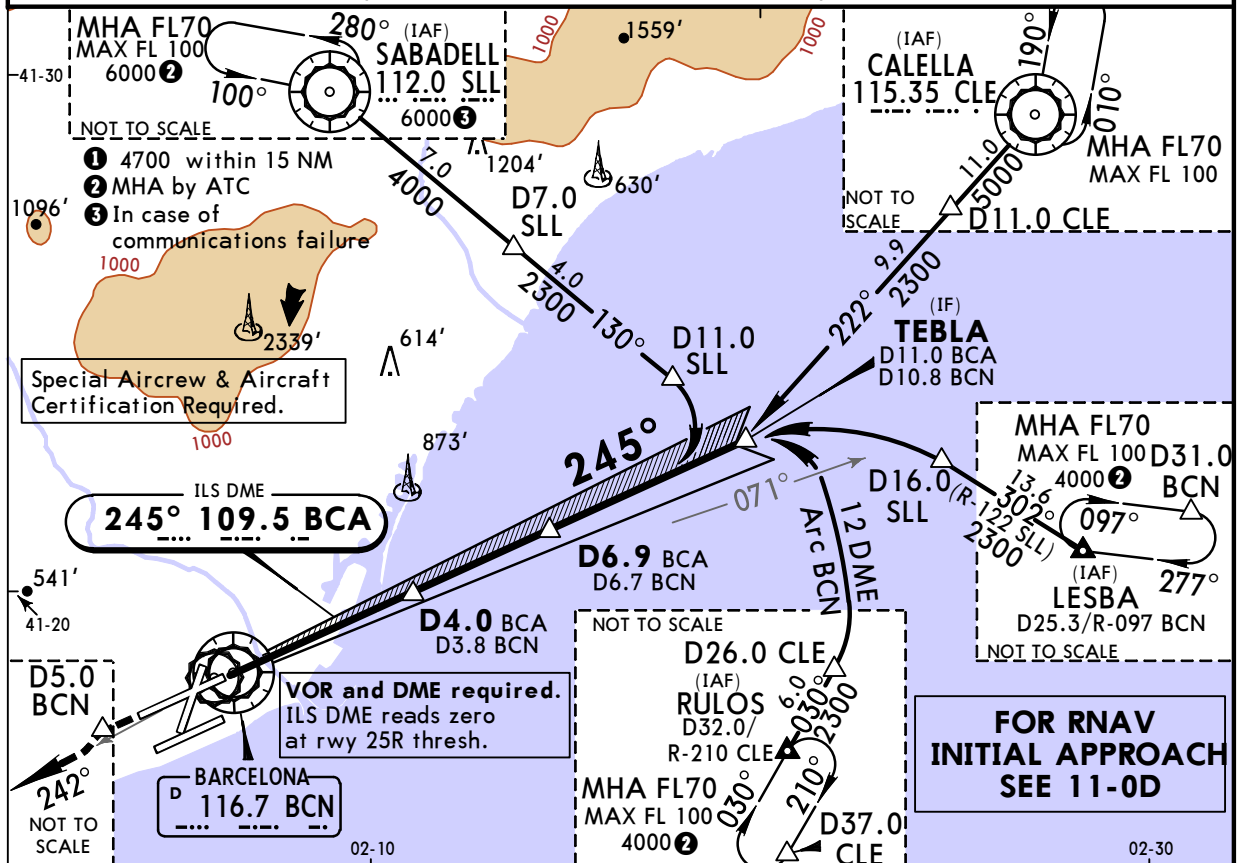
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BARCELONA, SPAIN
CAT II/III ILS Z Rwy 25R

BRIEFING STRIP™

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BCA 109.5	Final Apch Crs 245°	GS D4.0 BCA 1351' (1341')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14' Rwy 10'	
MISSED APCH: Climb on rwy heading to D5.0 BCN. Turn LEFT to intercept R-242 BCN and climb to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to D5.0 BCN. Turn LEFT to intercept R-242 BCN and climb to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.					MSA BCN VOR

Alt Set: hPa Rwy Elev: 0 hPa Trans level: By ATC Trans alt: 6000'



Gnd speed-Kts	70	90	100	120	140	160		D5.0 BCN on Rwy hdg
GS	3.00°	372	478	531	637	743		

PANS OPS

Standard		STRAIGHT-IN LANDING RWY 25R			
CAT IIIA ILS		CAT II ILS			
I		A	B	C	D
RA 102'		RA 116'	RA 127'	RA 143'	
DA(H)		DA(H)	DA(H)	DA(H)	
DH 50'		110'(100')	124'(114')	135'(125')	150'(140')
RVR 200m		RVR 300m		RVR 400m	
I CAT IIIB: Mim RVR 75m.					

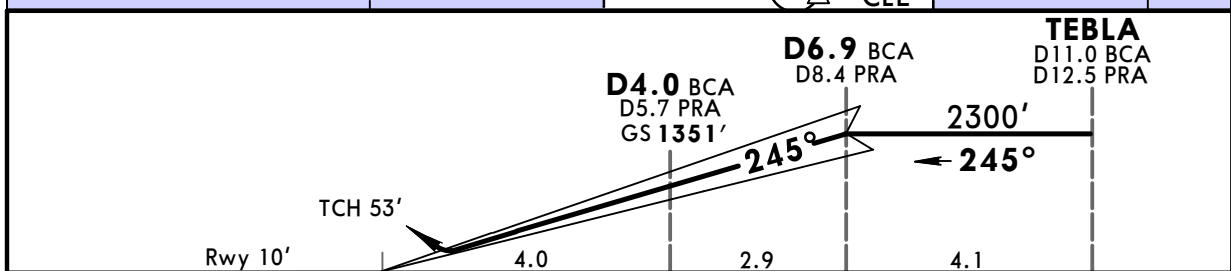
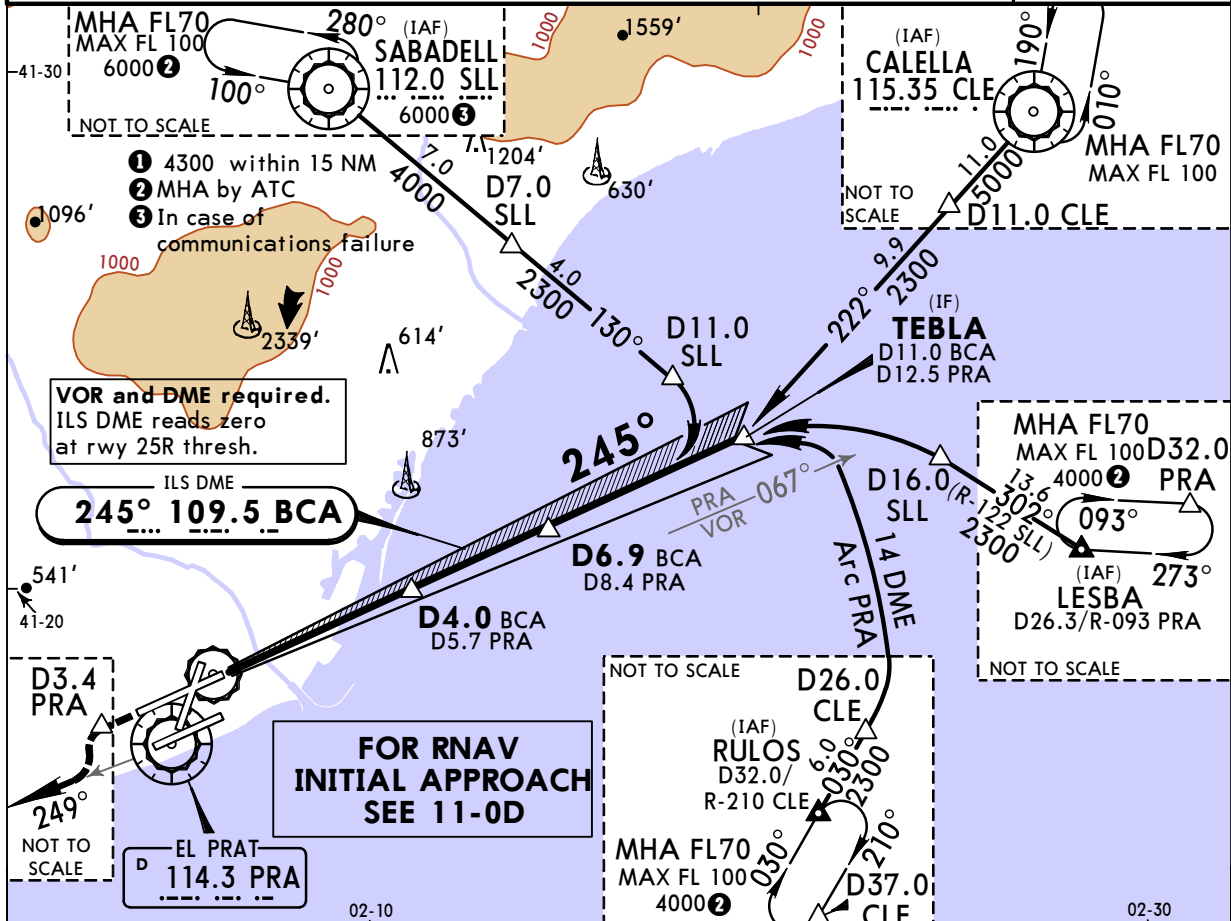
CHANGES: Note added.

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LEBL/BCN
EL PRATJEPPESEN
1 JUN 18 (11-14)BARCELONA, SPAIN
ILS Y Rwy 25R

BRIEFING STRIP™

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
LOC BCA 109.5	Final Apch Crs 245°	GS D4.0 BCA (1341')	DA(H) Refer to Minimums	Apt Elev 14' Rwy 10'	
MISSED APCH: Climb on rwy heading to D3.4 PRA. Turn LEFT to intercept R-249 PRA and climb to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on rwy heading to D3.4 PRA. Turn LEFT to intercept R-249 PRA and climb to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.					
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'		



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	D3.4 PRA on Rwy hdg
GS	3.00°	372	478	531	637	743	849	PAPI	

Standard STRAIGHT-IN LANDING RWY 25R				CIRCLE-TO-LAND	
DA(H) A: 215' (205') C: 235' (225') B: 227' (217') D: 246' (236')				Not authorized Northwest of airport	
	FULL	TDZ or CL out	ALS out	Max Kts	MDA(H) VIS
A				100	580'(566') 1500m
B				135	700'(686') 1600m
C	RVR 550m	RVR 550m I	RVR 1200m	180	1080'(1066') 2400m
D				205	1300'(1286') 3600m

I W/o HUD/AP/FD: RVR 750m

CHANGES: Note added.

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LEBL/BCN
EL PRAT

1 JUN 18

JEPPESSEN

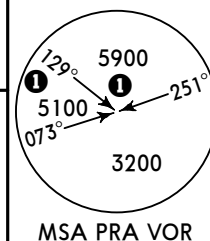
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BARCELONA, SPAIN
CAT II/III ILS Y Rwy 25R

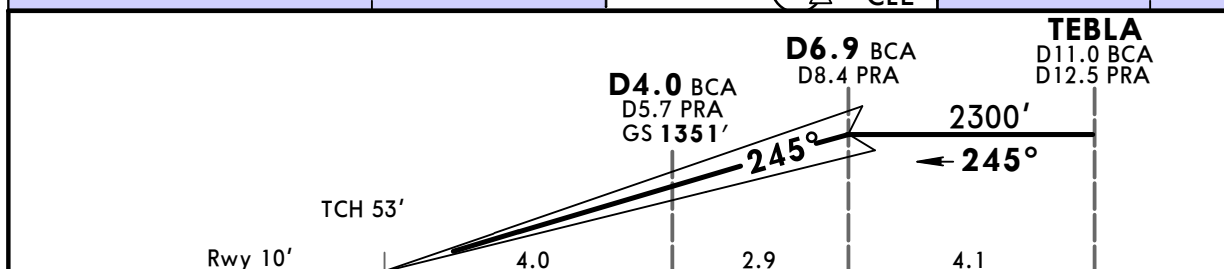
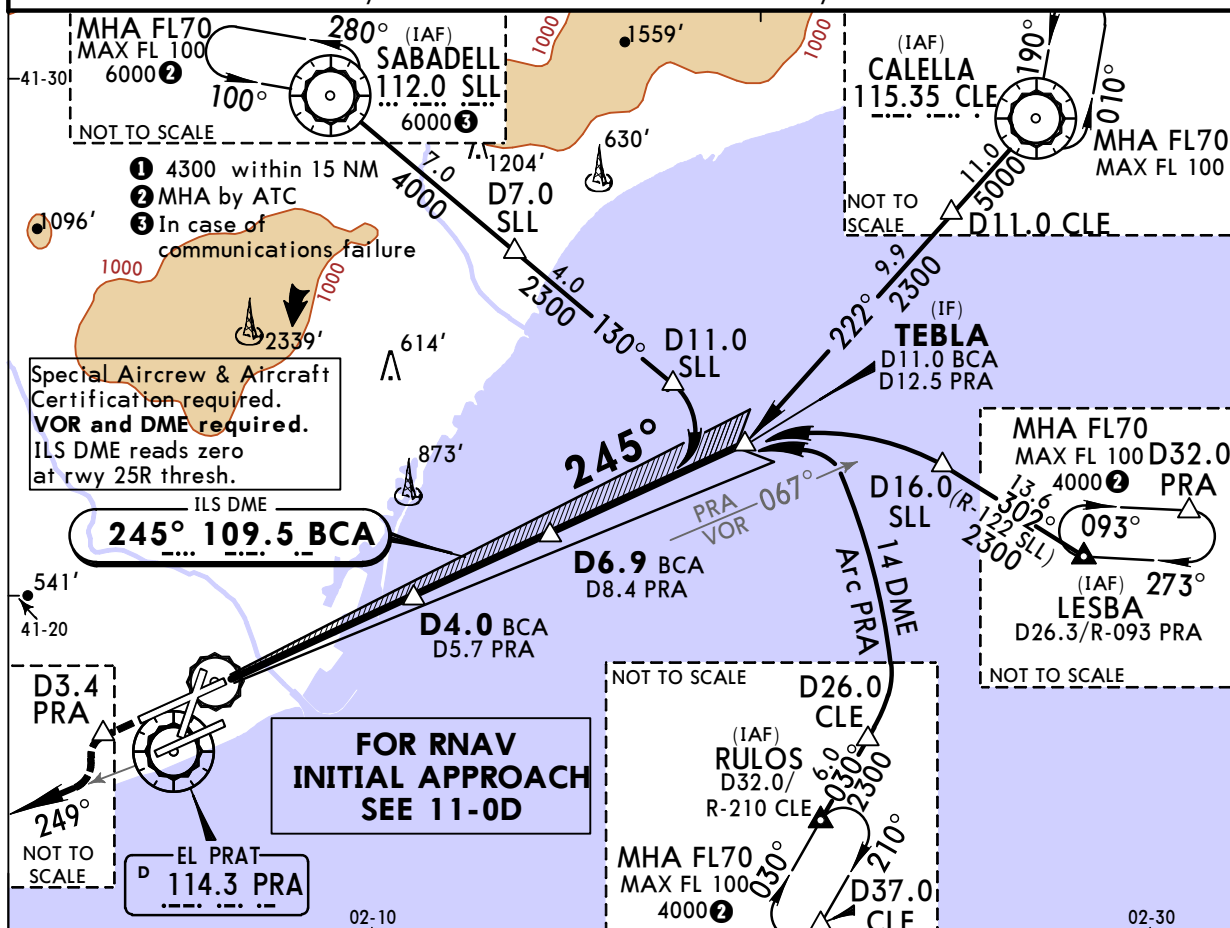
D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower S (GND) 122.225	C 121.650
LOC BCA 109.5	Final Apch Crs 245°	GS D4.0 BCA 1351' (1341')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 14' Rwy 10'	

MISSED APCH: Climb on rwy heading to D3.4 PRA. Turn LEFT to intercept R-249 PRA and climb to 3000' and as directed.

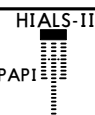
MISSED APCH WITH LOST COMM: Climb on rwy heading to D3.4 PRA. Turn LEFT to intercept R-249 PRA and climb to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.



Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: By ATC	Trans alt: 6000'
--------------	-----------------	---------------------	------------------



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849



D3.4
PRA on Rwy
▲ hdg

Standard

CAT IIIA ILS

1

DH 50'

RVR 200m

STRAIGHT-IN LANDING RWY 25R

CAT II ILS

—

RA 102'
DA(H)
110'(100')

B

RA 116'
DA(H)
124'(114')

RA 127'
DA(H)
135'(125')

D

RA 143'
DA(H)
150'(140')

RVR 300m

RVR 400m

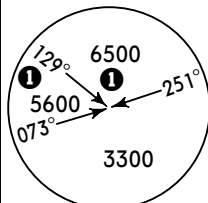
1 CAT IIIB: Mim RVR 75m.

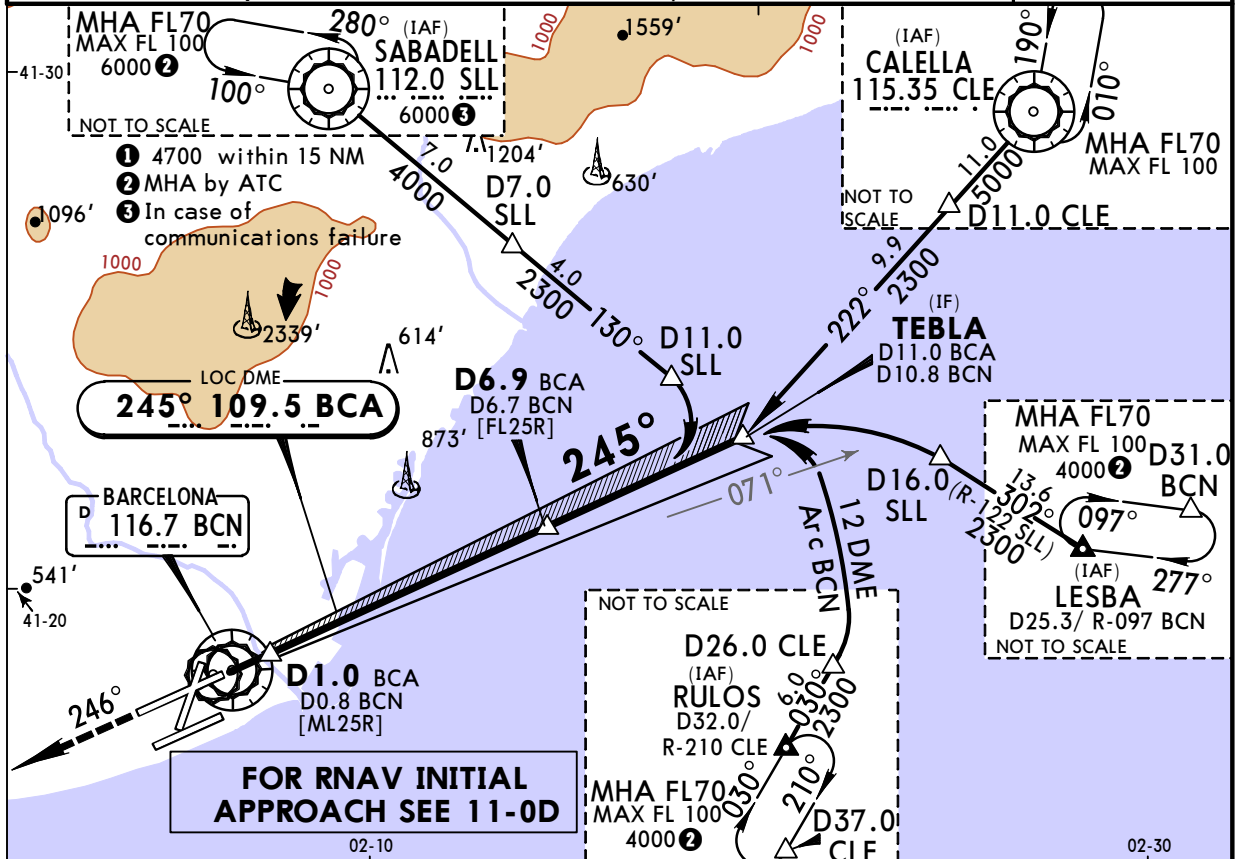
CHANGES: Note added.

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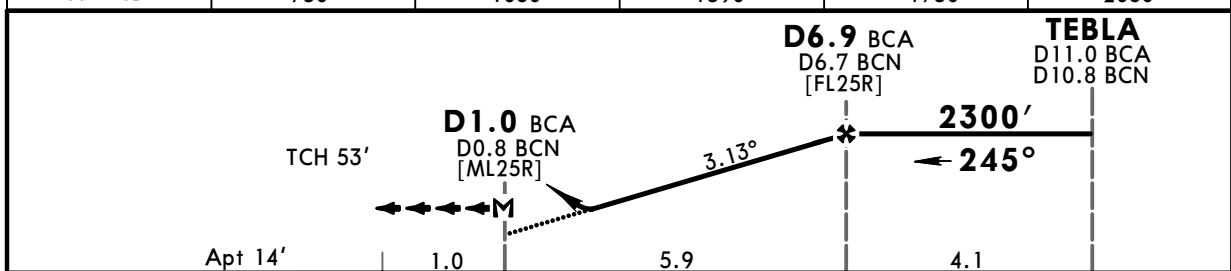
LEBL/BCN
EL PRATJEPPesen
1 JUN 18 (11-15)BARCELONA, SPAIN
LOC Rwy 25R

BRIEFING STRIP™

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	^N 121.7	^S Tower (GND) 122.225	^C 121.650
LOC BCA 109.5	Final Apch Crs 245°	Minimum Alt D6.9 BCA 2300' (2286')	DA/MDA(H) 530' (516')	Apt Elev 14'	
MISSED APCH: Climb on R-246 BCN to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on R-246 to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.					 MSA BCN VOR
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 6000' 1. VOR and DME required. 2. LOC DME reads zero at rwy 25R threshold.					



BCA DME	2.0	3.0	4.0	5.0	6.0
ALTITUDE	730'	1060'	1390'	1730'	2060'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	3000' BCN on 116.7 R-246
Descent Angle	3.13°	388	498	554	665	775		
MAP at D1.0 BCA/D0.8 BCN								

Standard		STRAIGHT-IN LANDING RWY 25R		CIRCLE-TO-LAND	
		CDFA		Not authorized Northwest of airport	
		DA/MDA(H) 530' (516')			
		ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m		100 580' (566') 1500m		
B			135 700' (686') 1600m		
C	RVR 1600m		RVR 2400m		180 1080' (1066') 2400m
D					205 1300' (1286') 3600m

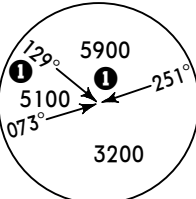
PANS OPS

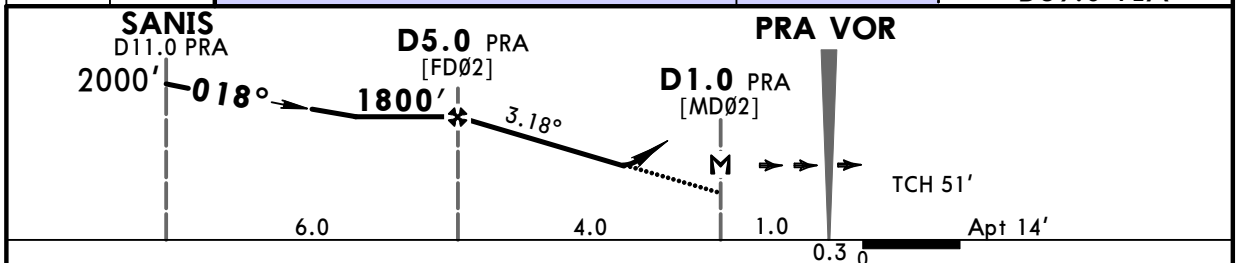
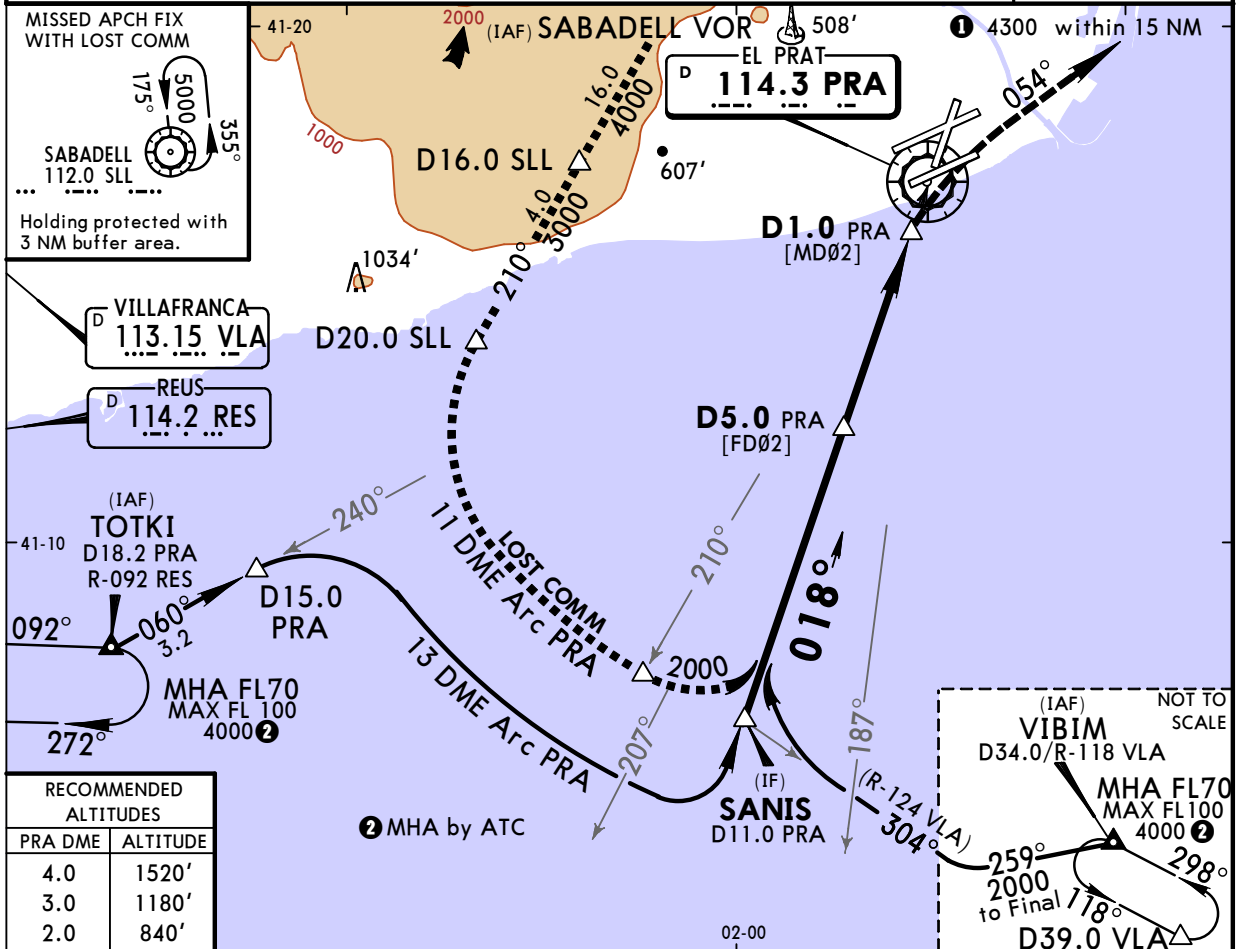
LEBL/BCN
EL PRAT

18 MAY 18

JEPPesen
13-1 Eff 24 MayBARCELONA, SPAIN
VOR Rwy 02

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
VOR PRA 114.3	Final Apch Crs 018°	Minimum Alt D5.0 PRA 1800' (1786')	DA/MDA(H) 500' (486')	Apt Elev 14'	
MISSED APCH: Immediately turn RIGHT (MAX 185 KT) to intercept R-054 PRA climbing to 3000' and as directed.					
MISSED APCH WITH LOST COMM: Immediately turn RIGHT (MAX 185 KT) to intercept R-054 PRA climbing to 4000'. Climbing turn LEFT to SLL VOR to 5000' and hold.					
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 6000'					
DME required.					



Gnd speed-Kts	70	90	100	120	140	160			
Descent Angle	3.18°	394	506	563	675	788	900		
MAP at D1.0 PRA									
									HIALS PAPI PAPI 3000' 185 KT MAX PRA 114.3 R-054

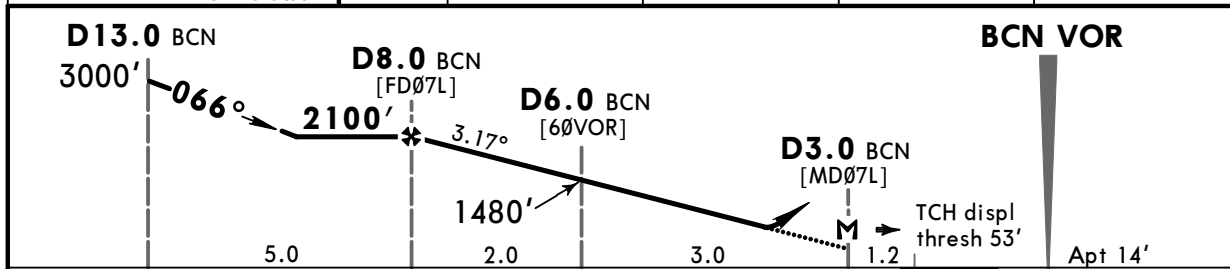
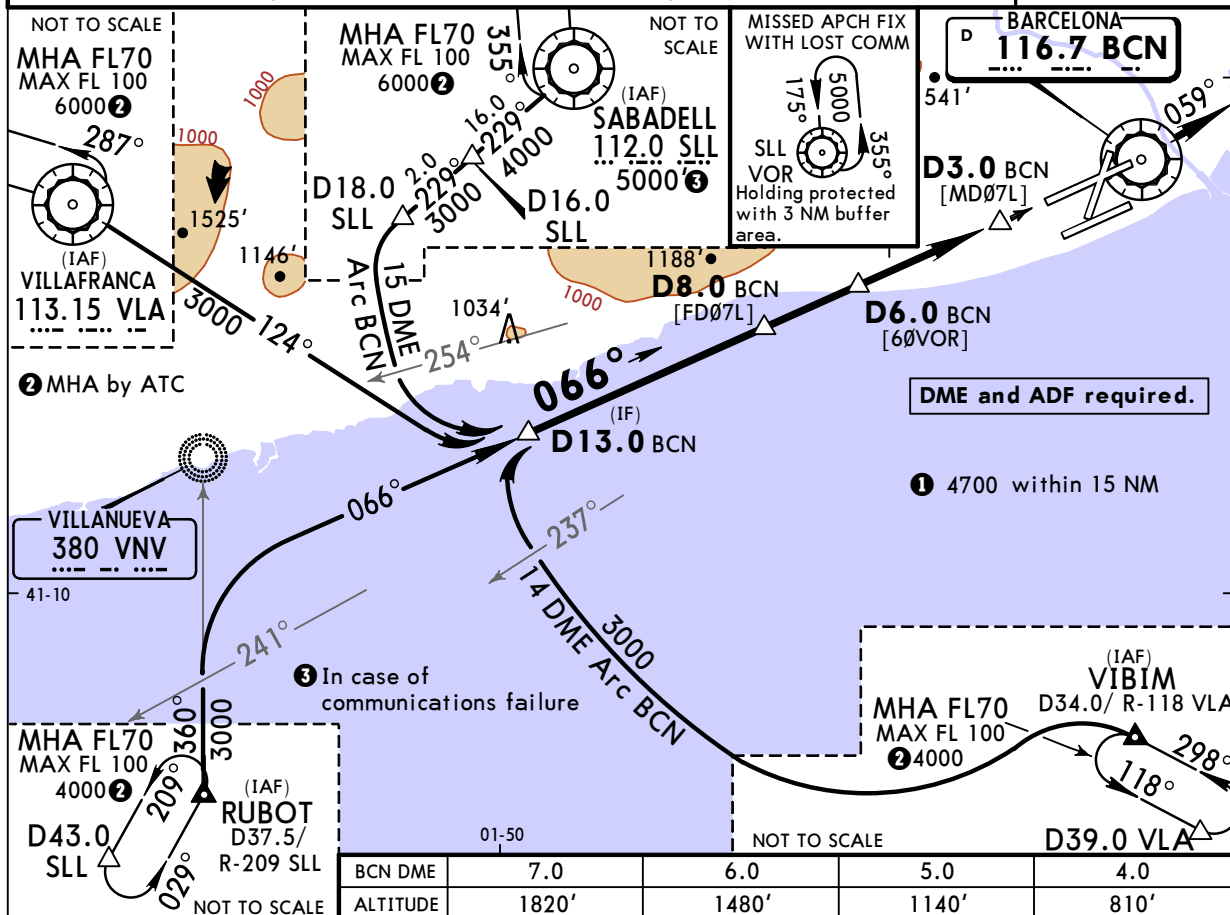
Standard STRAIGHT-IN LANDING RWY 02				CIRCLE-TO-LAND			
CDFA DA/MDA(H) 500' (486')				Not authorized Northwest of airport			
ALS out				Max Kts	MDA(H)	VIS	
A	RVR 1500m			100	580' (566')	1500m	
B	RVR 1500m			135	700' (686')	1600m	
C	RVR 1500m			180	1080' (1066')	2400m	
D	RVR 1500m			205	1300' (1286')	3600m	

PANS OPS

LEBL/BCN
EL PRATJEPPESEN
18 MAY 18 (13-2) Eff 24 MayBARCELONA, SPAIN
VOR Rwy 07L

BRIEFING STRIP

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
VOR BCN 116.7	Final Apch Crs 066°	Minimum Alt D8.0 BCN 2100' (2086')	DA/MDA(H) 480' (466')	Apt Elev 14'	
MISSED APCH: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb STRAIGHT AHEAD to BCN VOR and follow R-059 BCN to 4000'. Turn LEFT to SLL VOR climbing to 5000' and hold.					
Alt Set: hPa	Apt Elev: 1 hPa	Trans level: By ATC	Trans alt: 6000'	MSA BCN VOR	



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II		BCN	3000'	BCN
Descent Angle	3.17°	393	505	561	673	785	897	PAPI	PAPI	116.7	116.7
MAP at D3.0 BCN											R-059

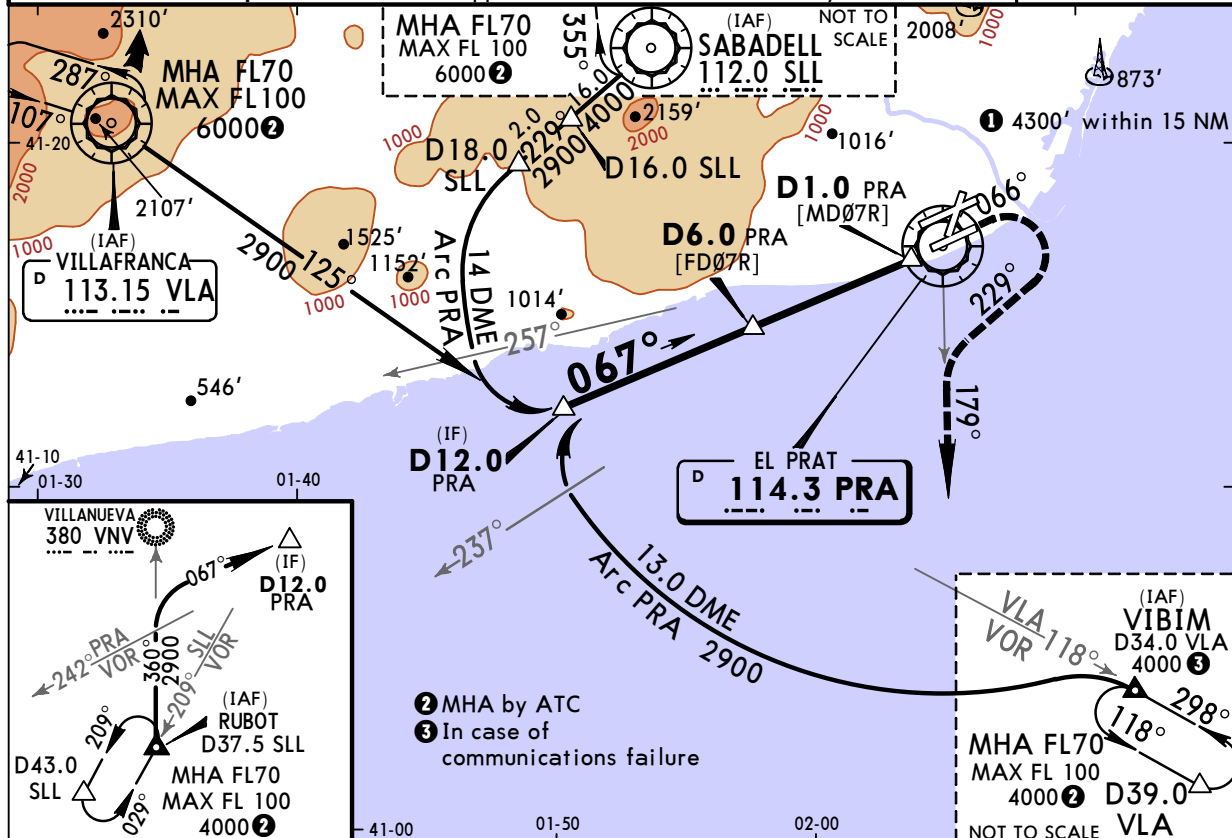
Standard				STRAIGHT-IN LANDING RWY 07L				CIRCLE-TO-LAND			
CDFA				DA/MDA(H) 480' (466')				Not authorized Northwest of airport			
ALS out				Max Kts				MDA(H)			
A	RVR 1500m				100	580' (566')				1500m	
B	RVR 1500m				135	700' (686')				1600m	
C	RVR 1500m				180	1080' (1066')				2400m	
D	RVR 1500m				205	1300' (1286')				3600m	

PANS OPS

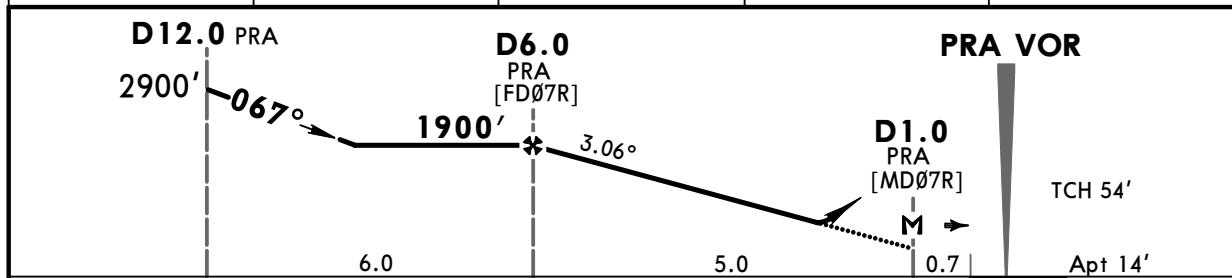
LEBL/BCN
EL PRATJEPPESSEN
19 JAN 18 (13-3) Eff 1 FebBARCELONA, SPAIN
VOR Rwy 07R

BRIEFING STRIP™

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	N 121.7	Tower (GND) 122.225	C 121.650
VOR PRA 114.3	Final Apch Crs 067°	Minimum Alt D6.0 PRA 1900' (1886')	DA/MDA(H) 440' (426')	Apt Elev 14'	
MISSED APCH: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA climbing to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on 066° to 500'. Turn RIGHT (MAX 185 KT) onto 229° to intercept R-179 PRA and follow R-124 VLA to D39.0 VLA climbing to 4000' and hold at VIBIM.					
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 6000' 1. DME and ADF required. 2. Final approach track offset 1° from rwy centerline.					MSA PRA VOR



PRA DME	5.0	4.0	3.0	2.0
ALTITUDE	1580'	1260'	930'	610'



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	500'	on 066°
Descent Angle 3.06°	379	487	541	650	758	866		PAPI		
MAP at D1.0 PRA										

Standard STRAIGHT-IN LANDING RWY 07R				CIRCLE-TO-LAND			
CDFA DA/MDA(H) 440' (426')				Not authorized Northwest of airport			
				Max Kts	MDA(H)	VIS	
				100	580' (566')	1500m	
				135	700' (686')	1600m	
				180	1080' (1066')	2400m	
				205	1300' (1286')	3600m	

PANS OPS

CHANGES: MSA.

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LEBL/BCN
EL PRAT

JEPPESEN
19 JAN 18 (13-4) Eff 1 Feb

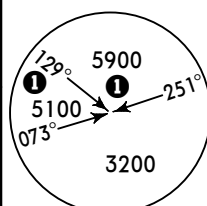
BARCELONA, SPAIN
VOR Z Rwy 25L

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	^N 121.7	Tower ^S (GND) 122.225	^C 121.650
VOR PRA 114.3	Final Apch Crs 244°	Minimum Alt D6.0 PRA 1700' (1686')	DA/MDA(H) 530' (516')	Apt Elev 14'	

MISSED APCH: Climb direct to PRA VOR and follow R-237 PRA until D8.8 PRA. Turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA, then climb to 3000' and contact ATC.

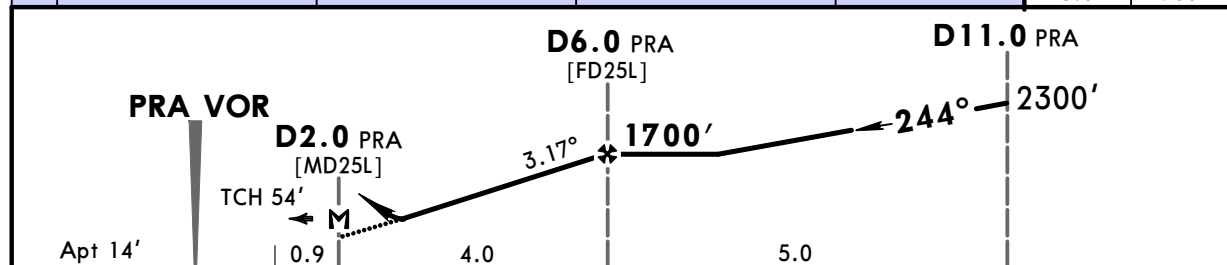
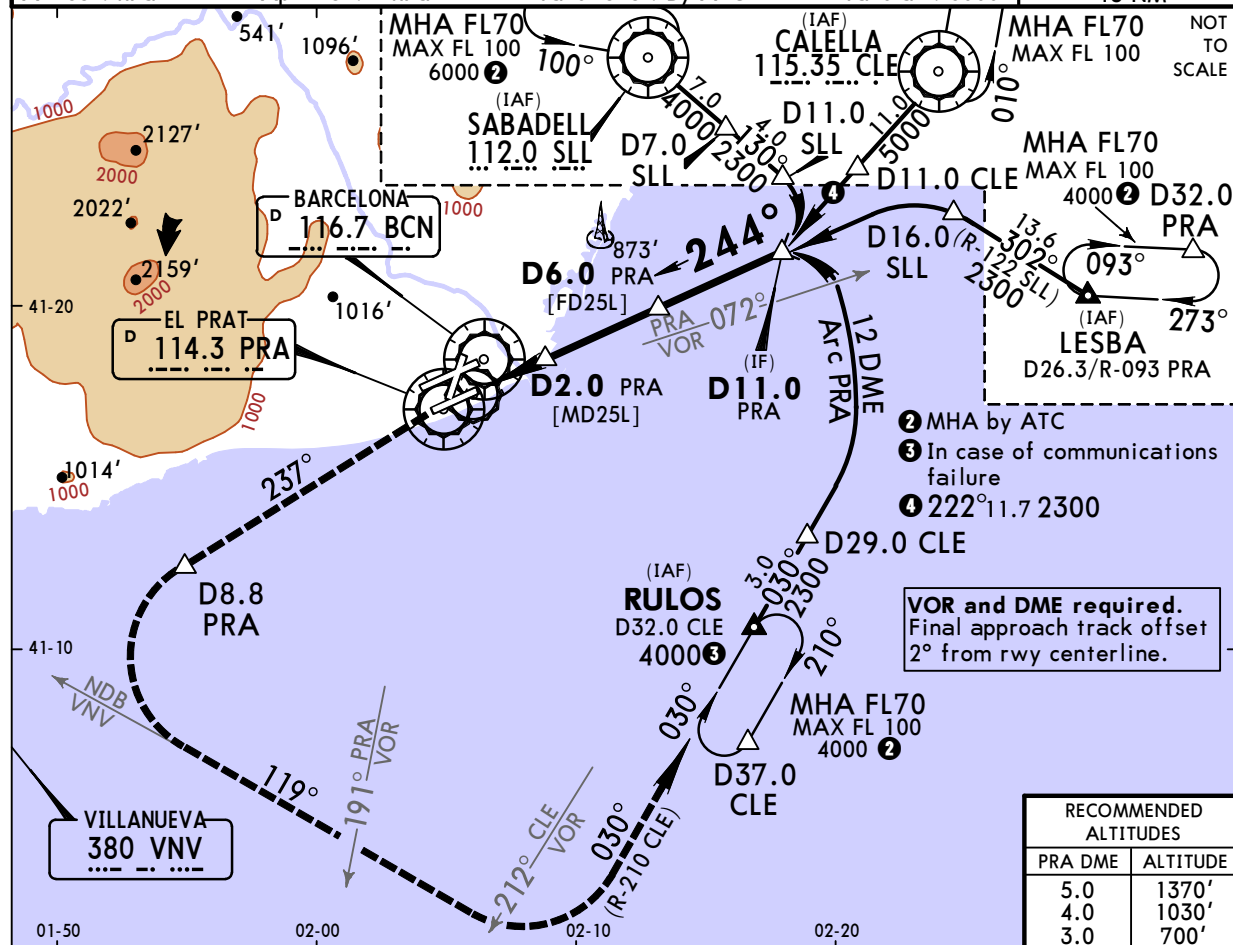
MISSED APCH WITH LOST COMM: Climb direct to PRA VOR and follow R-237 PRA until D8.8 PRA. Turn LEFT to intercept and follow 119° from VNV NDB. Maintain 1500' until crossing R-191 PRA. At R-212 CLE turn LEFT to intercept and follow R-210 CLE direct to RULOS climbing to 4000' and hold.

Alt Set: hPa	Apt Elev: 1 hPa	Trans level: By ATC	Trans alt: 6000'
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MSA PRA VOR

① 4300 within 15 NM



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.17°	393	505	561	673	785	897
MAP at D2.0 PRA						

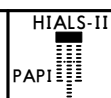
Standard

STRAIGHT-IN LANDING RWY 25L

CDFA

DA/MDA(H) **530'** (516')

ALS out



PRA
114.3

CIRCLE-TO-LAND
Not authorized
Northwest of airport

		BA/MDA(H) 0000 (510')	Max Kts.	MDA(H)	VIS
A	ALS out		100	580' (566')	1500m
B	RVR 1500m		135	700' (686')	1600m
C	RVR 1900m	RVR 2400m	180	1080' (1066')	2400m
D			205	1300' (1286')	3600m

CHANGES: MSA.

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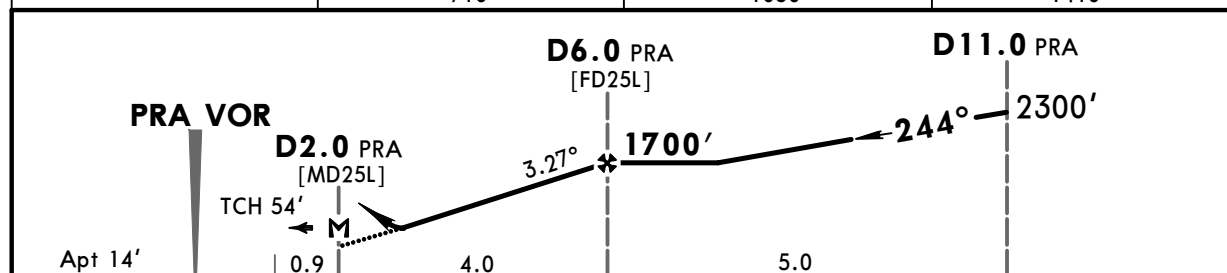
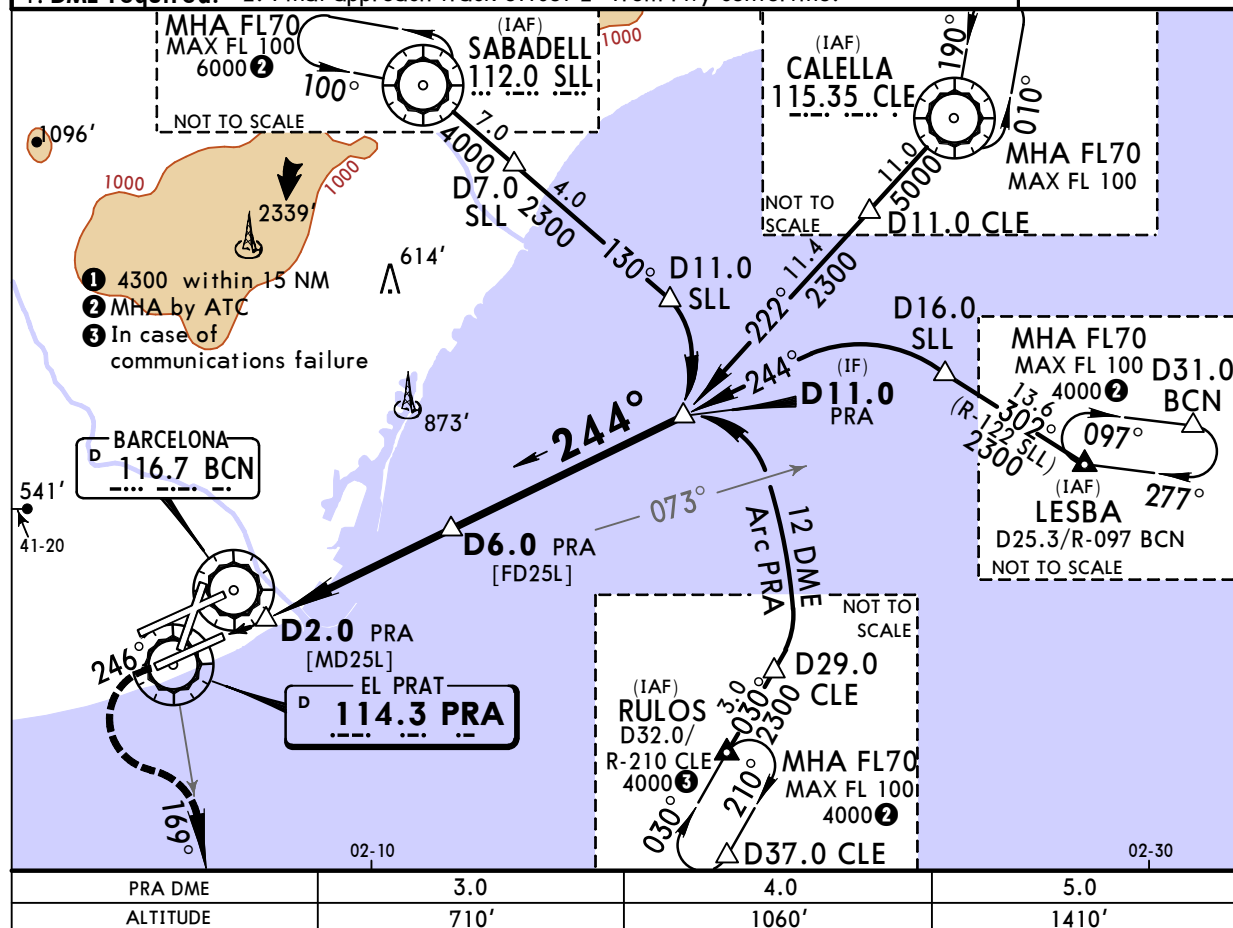
LEBL/BCN
EL PRAT

JEPPESEN
19 JAN 18 (13-5) Eff 1 Feb

BARCELONA, SPAIN
VOR Y Rwy 25L

D-ATIS Arrival 118.650	BARCELONA Approach (R) 119.1	BARCELONA Tower 118.1	^N 121.7	Tower _S (GND) 122.225	^C 121.650
VOR PRA 114.3	Final Apch Crs 244°	Minimum Alt D6.0 PRA 1700' (1686')	DA/MDA(H) 530' (516')	Apt Elev 14'	
MISSED APCH: Climb on 246° to 600'. Turn LEFT (MAX 185 KT) to follow R-169 PRA climbing to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on 246° to 600'. Turn LEFT (MAX 185 KT) to follow R-169 PRA to D14.0 PRA. Turn LEFT to intercept R-210 CLE to RULOS climbing to 4000' and hold.					
Alt Set: hPa		Apt Elev: 1 hPa	Trans level: By ATC		Trans alt: 6000'
1. DME required.		2. Final approach track offset 2° from rwy centerline.			

MSA PRA VOR



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.27°	405	521	579	694	810	926	
MAP at D2.0 PRA							

Standard	STRAIGHT-IN LANDING RWY 25L
-----------------	-----------------------------

CDFA
DA/MDA(H) **530'** (516')

ALS out

CIRCLE-TO-LAND

Not authorized
Northwest of airport

DA/MDA(H) 550 (316')		ALS out	Max Kts	MDA(H)	VIS
A	RVR 1500m		100	580' (566')	1500m
B			135	700' (686')	1600m
C	RVR 1900m	RVR 2400m	180	1080' (1066')	2400m
D			205	1300' (1286')	3600m

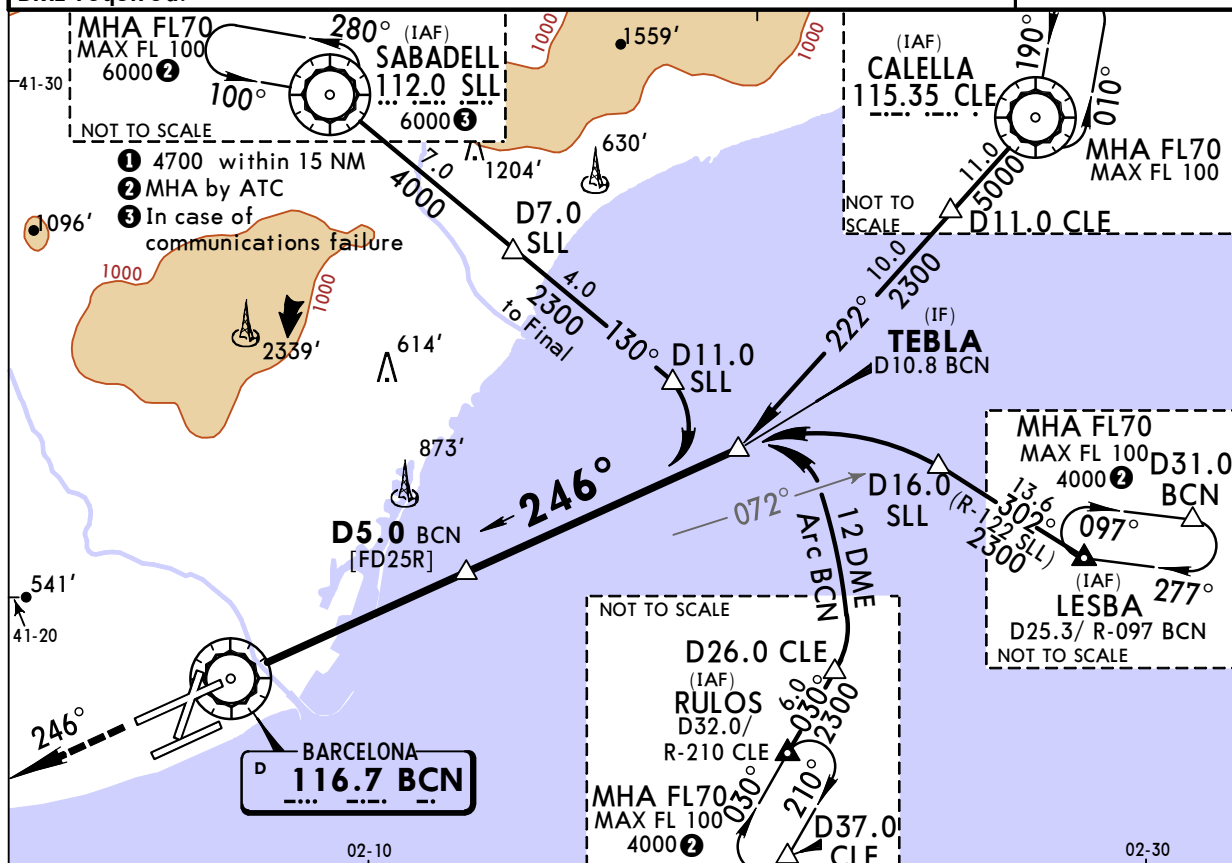
CHANGES: MSA.

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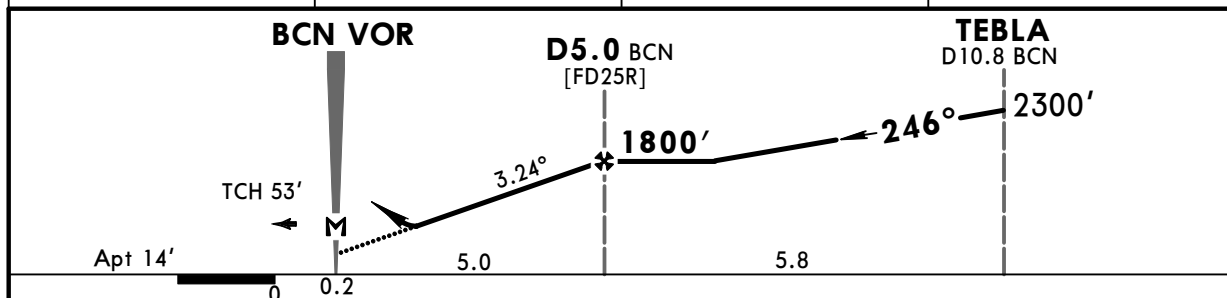
LEBL/BCN
EL PRATJEPPesen
19 JAN 18 (13-6) Eff 1 FebBARCELONA, SPAIN
VOR Rwy 25R

BRIEFING STRIP™

D-ATIS Arrival	BARCELONA Approach (R)	BARCELONA Tower	N	Tower (GND)	C
118.650	119.1	118.1	121.7	122.225	121.650
VOR BCN 116.7	Final Apch Crs 246°	Minimum Alt D5.0 BCN 1800' (1786')	DA/MDA(H) 540' (526')	Apt Elev 14'	
MISSED APCH: Climb on R-246 BCN to 3000' and as directed. MISSED APCH WITH LOST COMM: Climb on R-246 to 3500'. Turn RIGHT to SLL VOR climbing to 6000' and hold.					
Alt Set: hPa DME required.	Apt Elev: 1 hPa	Trans level: By ATC	Trans alt: 6000'	MSA BCN VOR	



BCN DME	2.0	3.0	4.0
ALTITUDE	820'	1170'	1510'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.24°	401	516	573	688	803	917
MAP at BCN VOR						

Standard			STRAIGHT-IN LANDING RWY 25R		CIRCLE-TO-LAND	
CDFA			DA/MDA(H) 540' (526')		Not authorized Northwest of airport	
			ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m				100	580' (566') 1500m
B	RVR 1500m				135	700' (686') 1600m
C	RVR 1700m	RVR 2400m			180	1080' (1066') 2400m
D					205	1300' (1286') 3600m

PANS OPS

LSZH/ZRH
ZURICH**JEPPESEN**

8 DEC 17

10-1P

ZURICH, SWITZERLAND**AIRPORT BRIEFING****1. GENERAL****1.1. ATIS**

D-ATIS Arrival 125.725

D-ATIS Departure 129.0

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GERMAN ORDINANCE**

MON - FRI: 0100-0700LT and 2100-0059LT;

SAT, SUN and German public holidays: 0100-0900LT and 2000-0059LT.

Landings before 0600LT are not allowed.

Lowest FL over German Airspace

The lowest FL to be used in German airspace for arrivals at Zurich APT is FL 120 during the German ordinance period.

Therefore all inbound flights to LSZH at cruising FL 110 or below which enter German airspace after passing IAF AMIKI or GIPOL expect to climb to FL 120 according to ATC instruction.

Exemptions are only available for performance reason and/or due to weather condition.

RWY 14/16

As approaches to both RWY 14 and RWY 16 require the use of German airspace below FL 120, these RWYs are not available during the German ordinance period. Therefore landing RWY will be according to 1.2.1.1., weather permitting.

RWY 28

For operational reasons, ATC WX minima for LDG RWY 28 is VIS 4300m.

1.2.1.1. LANDINGS

Expect the landing RWY to be assigned as follows, weather permitting.

Weekdays	SAT and SUN and German Holidays
0600-0700LT RWY 34	0600-0900LT RWY 34
0700-2100LT RWY 14	0900-2000LT RWY 14
2100-0600LT RWY 28 (RWY 34 may be requested if safety requires, flights to RWY 28 have priority).	2000-0600LT RWY 28 (RWY 34 may be requested if safety requires, flights to RWY 28 have priority).
Other landing RWYs may be assigned due to meteorological conditions or operational reasons. Outside the German ordinance period RWY 34 is available in case of emergency landing only due to the flight path leading into uncontrolled airspace.	

LSZH/ZRH
ZURICH**JEPPESEN**

8 DEC 17

(10-1P1)

ZURICH, SWITZERLAND**AIRPORT BRIEFING****1. GENERAL****1.2.1.2. DEPARTURES**

Depending on the landing RWY in use expect the departure RWY to be assigned as follows:

0700-2100LT		2100-0700LT
Landing RWY	Departure RWY	Jet ACFT expect departure on RWY 32/34. - Exception between 2100-2200LT, when landing RWY 14 or RWY 16 is in use, expect departure on RWY 28 or RWY 16. - Other departure RWYs may be assigned due to meteorological conditions or operational reasons. - ACFT exceeding noise index 96 are not admitted for departure between 2200-2330LT. - ACFT with a non-stop flight distance of 2700NM/5000km and above and not exceeding noise index 98 are admitted for departure between 2200-2330LT.
14/16	28 ¹⁾ /16 ²⁾ /10 ³⁾	
28	32 ⁴⁾ /34 ⁴⁾	
34	32/34	
1) RWY is used primarily. 2) RWY 16 will only be assigned if requested for performance reasons (minimization of delays). For propeller ACFT normally only SID WIL 2Q will be assigned. 3) RWY 10 only, if RWY 28 cannot be used due to MET reasons. 4) SID with left turn only; SID with right turn may be assigned by ATC.		

1.2.2. RUN-UP TESTS**1.2.2.1. IDLE POWER**

For safety reasons and noise monitoring as well as to ensure proper operations, the running of engines (e.g. short and idle), not used for taxiing, is subject to prior permission.

Permission shall be requested from the APT authority,
phone: +41 (0) 43 816 21 11

1.2.2.2. RUN-UPS

Run-ups shall only be performed when using silencers.

Exemptions may be granted by the APT authority:

- When the silencers cannot be used for unpredictable technical or meteorological reasons;
- If the silencers are not compatible with the type of ACFT in question.

Both duration and power setting for such run-ups shall be kept at a minimum.

1.2.3. AUXILIARY POWER UNITS (APUs)

At all stands, primarily the stationary APT pneumatic and electrical service units shall be used. Alternatively, mobile units shall be used.

APUs shall only be started:

- To start engine, but no earlier than 10 minutes before off-block time;
- If the stationary or mobile units are not available or unserviceable for specific ACFT types. In that case, the APU shall be started no earlier than:
 - 50 minutes before off-block time for ACFT codes B and C;
 - 70 minutes before off-block time for ACFT codes D, E and F;
 - 30 minutes before off-block time for GA sector 1;
 and kept in operation no more than 20 minutes after the on-block time;
- If maintenance work on the ACFT makes it unavoidable; in that case the service period shall be kept as short as possible.

Exceptions have to be permitted by the APT Authority.

LSZH/ZRH
ZURICH**JEPPESEN**
9 MAR 18 (10-1P2)**ZURICH, SWITZERLAND**
AIRPORT BRIEFING

1. GENERAL

1.3. LOW VISIBILITY PROCEDURES (LVP)

LVP become effective when the RVR for the TDZ reaches 550m or less and/or the ceiling reaches 200' or less. Pilots will be informed either via ATIS or RTF: "LOW VISIBILITY PROCEDURES IN OPERATION."

Arriving ACFT are vectored so as to ensure an intercept of the localizer at least 9NM from THR.

Pilot of a landed ACFT shall report "RUNWAY VACATED" only when the entire ACFT is beyond the relevant RWY holding position. If weather conditions indicate sustained improvement to RVR 550m or greater and ceiling to 200' or greater, LVP are terminated.

1.4. ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM (A-SMGCS)

1.4.1. GENERAL

Pilots shall ensure that Mode S transponders are able to operate when ACFT is on the ground, transmitting Mode S squitter and replying to Mode S addresses interrogations only.

1.4.2. MODE A CODE

Pilots shall ensure that the transponder is set to and transmitting assigned Mode A code:

- after landing: Continuously until ACFT has reached final parking position;
- for departure: Latest when start-up and/or push-back clearance is received.

1.4.3. MODE S ACFT IDENTIFICATION

ACFT with Mode S transponder being able to manually set an ACFT identification shall set their ACFT identification as in item 7 of filed flight plan. For departure, this should happen latest when start-up and/or push-back clearance is received.

1.5. TAXI PROCEDURES

On apron, wing tip clearance is provided only if ACFT main gear center remains over guidelines.

TWY P: MAX wingspan 118'/36m.

During ILS 28 approaches, TWYs A and B between TWY K and THR 28 MAX wing-span less than 118'/36m.

1.6. OTHER INFORMATION

1.6.1. LOCAL FLYING RESTRICTIONS

1.6.1.1. GENERAL

Several missed approach procedures conflict with SIDs in the immediate climb-out area. The following RWY configurations are therefore operated as dependent RWYs, where departures are timed by ATC in respect of arriving traffic:

- DEP RWY 16 - LDG RWY 14
- DEP RWY 10 - LDG RWY 14
- DEP RWY 32 - LDG RWY 34

Flight crews have to expect delay at the holding position of the above mentioned RWYs.

1.6.1.2. SCHEDULED AIR TRAFFIC

Departures and landings may be planned between 0600-2300LT.

1.6.1.3. CHARTER FLIGHTS

Departures may be planned between 0600-2200LT.

Landings may be planned between 0600-2300LT.

1.6.1.4. NON-SCHEDULED COMMERCIAL AIR TRAFFIC

Departures and landings may be planned between 0600-2300LT.

LSZH/ZRH
ZURICH**JEPPESEN**
9 MAR 18 (10-1P3)**ZURICH, SWITZERLAND**
AIRPORT BRIEFING

1. GENERAL

1.6.1.5. NON-COMMERCIAL AIR TRAFFIC

Departures and landings may be planned between 0600-2200LT.

1.6.1.6. EXEMPTIONS

- Urgent flights with special authorization by Federal Office for Civil Aviation (FOCA), namely State ACFT with Diplomatic Clearance;
- Search and rescue flights;
- Police and supervision flights;
- Flights carrying sick or injured persons;
- Relief flights in disaster cases;
- Forced landing due to technical or other safety reasons.

Exemptions may be authorized by ZURICH APT Authority,
phone: + 41 (0) 43 816 2111

2. ARRIVAL

2.1. NOISE ABATEMENT

2.1.1. GENERAL

The following procedures are designed to avoid excessive ACFT noise over populated areas in the vicinity of ZURICH APT. Deviations from published routes and procedures are only permitted for safety reasons. ACFT operators provably unable to comply shall submit alternative procedures for approval to the APT Authority. Jet ACFT not licensed in accordance with ICAO Annex 16, Vol I, chapter 3 are not permitted.

2.1.2. ILS/GLS APPROACH

The descent shall be arranged so as to maintain enroute configuration as long as possible considering safety and ATC requirements. Speed reduction and extension of landing gear and high lift devices are to be planned in such a way that landing configuration is established and correct approach speed is reached shortly prior to or at 4NM final.

2.1.3. OTHER APPROACHES

Visual circuits shall be flown at 3000 ' or higher whenever visibility and cloud base permits.

Overflying of densely populated areas shall be avoided as far as possible.

2.1.4. REVERSE THRUST

More than idle reverse shall not be used except for safety reasons.

2.2. CAT II/III OPERATIONS

RWYs 14 and 16 are approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. RWY OPERATIONS

2.3.1. LAND AND HOLD SHORT OPERATION RWY 28

Land and hold short operation allows VFR approaches with admitted ACFT types (single-engined ACFT up to 5700kgs MTOM) in compliance with defined conditions on RWY 28 with simultaneous IFR approaches and departures on RWY 16/34.

2.3.2. MINIMUM RWY OCCUPANCY TIME

ACFT vacating the RWY in use should not stop on the exit taxiway until the entire ACFT has passed the RWY stop bar.

To ensure minimum RWY occupancy time, pilots are reminded to vacate the RWY via TWY H1 whenever possible (except wake turbulence category HEAVY) or as instructed by ATC.

2.4. TAXI PROCEDURES

ACFT shall taxi independently to the parking position as instructed by ZURICH Apron.

The final guidance for ACFT taxiing to GA sectors will be provided by marshaller.

LSZH/ZRH
ZURICH**JEPPESEN**

20 APR 18

(10-1P4)

Eff 26 Apr

ZURICH, SWITZERLAND**AIRPORT BRIEFING**

2. ARRIVAL

2.5. OTHER INFORMATION

2.5.1. COMMUNICATIONS

Pilot shall report ACFT type and identification letter of received Arrival ATIS information on initial call to ZURICH Arrival.

When changing frequency from ZURICH Arrival to ZURICH Final, initial contact shall be restricted to "ZURICH Final" and call sign.

When changing frequency from ZURICH Arrival or ZURICH Final to Tower, initial contact shall be restricted to "ZURICH Tower", call sign, type of APCH and RWY.

2.5.2. COMMUNICATION FAILURE

2.5.2.1. ARRIVAL PROCEDURE

Proceed via inbound routes to GIPOL/AMIKI/RILAX. At last received and acknowledged EAT or (if no EAT has been received or acknowledged) at FPL ETA, descend in GIPOL/AMIKI holding pattern to initial approach altitude, or in RILAX holding pattern to initial approach altitude or 7000', whichever is higher, and carry out a standard instrument approach to a suitable RWY.

3. DEPARTURE

3.1. AIRPORT COLLABORATIVE DECISION MAKING (A-CDM)

3.1.1. GENERAL

A-CDM is part of the European programme "Single European Sky" to optimize air-space and APT operations. A-CDM is a harmonized concept supported by EUROCONTROL where procedures and processes are aligned throughout Europe. The aim of the concept is to optimize the turn-around process in order to ensure the best possible coordination of resources. Providing all partners with accurate and timely information will allow decisions to be made to ensure that the turn-around of a flight is efficient and everyone has a common awareness of the situation.

A-CDM is based on partnership at APT Operations, ATC, ACFT Operators (AO), Ground Handlers (GH) and the Network Managers Operation Center (NMOC). Emphasis is put on:

- Linking the inbound, turn-around and outbound processes of flights.
- Sharing of the right information at the right time to the right people best placed to act upon it.
- Improved flight data exchange between APTs and the ATFM network (NMOC).

3.1.2. A-CDM PROCEDURE

Flight Plan Check

The ATC FPL originator needs to check if the ATC flight plan is consistent with the APT slot. If they do not correspond, the FPL originator will be informed and requested to coordinate the times. In the meantime, it may not be possible to apply the CDM process if the carrier intends to take off outside of the APT slot. Filing and updating the flight plan is and remains the responsibility of the ACFT Operator (AO). He may delegate these tasks to his accredited Handling Agent.

TOBT

The TOBT (Target Off-Block Time) represents the time that an AO or Handling Agent estimates to be ready to leave the stand. The TOBT shall be updated through the usual channels e.g. standard IATA Estimated Departure (ED) message. TOBT only needs to be updated if the time that the ACFT will be ready to leave the stand changes. For delays of 15 minutes or more, the ATC FPL also has to be updated by the ATC FPL originator. Accurate TOBT management is therefore a prerequisite for a punctual departure.

LSZH/ZRH
ZURICH**JEPPESEN**
20 APR 18**JEPPESEN**
(10-1P5)

Eff 26 Apr

ZURICH, SWITZERLAND
AIRPORT BRIEFING

3. DEPARTURE

TSAT

The TSAT (Target Start-up Approval Time) is the time provided by the departure traffic management system "DARTS". The system calculates for every departure the best possible start-up and/or off-block time to reduce queuing times at the RWY, while maintaining a high RWY utilization. The TSAT is calculated by taking into account TOBT, Calculated Take-Off Time (CTOT), SID, departure fix, wake turbulence category, ACFT type, variable taxi times from the parking position to the departure RWY and the operational RWY concept. Apron Control and ATC will continue to optimize the departure order by ensuring the right mix of traffic. The calculated TSAT will be displayed at the APT Operational Database (AODB) to inform AO/Ground Handling (GH). The TSAT and the Target Take-off Time (TTOT) are displayed by the docking guidance system after ATC clearance has been issued.

3.1.3. A-CDM ALERTS

An alert mechanism monitors expected upcoming events to trigger data updates and consistency. These alert messages will be either displayed at the AODB and/or sent to the responsible partner to react to the alerts as required.

3.1.4. COORDINATION WITH THE NMOC/CTOT PROCESSING

A permanent and fully automatic data exchange with the NMOC (Network Manager Operations Center) is established. This data transfer enables accurate and early prediction of departure times. Furthermore this allows a more accurate and efficient calculation of the CTOT due to the use of local TTOT. The following messages are used for each individual flight:

- Early Departure Planning Information Message (E-DPI) based on current Flight Plan data;
- Target Departure Planning Information Message (T-DPI) based on TOBT and later on TSAT;
- ATC Departure Planning Information Message (A-DPI) based on actual off-block time;
- Cancel Departure Planning Information Message (C-DPI) when local CDM process is interrupted.

The basic NMOC procedures continue to apply and NMOC takes the local target take-off times into consideration wherever possible.

3.1.5. UNABLE ACCEPTING THE DEFAULT DEPARTURE RWY

Departing ACFT unable to accept default departure RWY according to ATIS, shall report this earliest 30 minutes but not later than 10 minutes prior to EOBT/TOBT to clearance delivery.

Excluded are ACFT with wake turbulence class H and J.

3.2. DE-ICING

3.2.1. GENERAL

ATIS will inform if "General de-icing" or "General de-icing with extended slot tolerance window" is in use.

Most ACFT are planned for remote de-icing, except:

- At discretion of De-icing coordinator;
- Customers of de-icing provider SWP operating propeller ACFT, ACFT requiring underwing de-icing/clear-ice check after de-icing/ACFT manufacturers special requirements apply;
- Customers of de-icing provider AAS;
- Most customers of de-icing provider Dnata.

LSZH/ZRH
ZURICH

20 APR 18

JEPPESEN**10-1P6****Eff 26 Apr****ZURICH, SWITZERLAND****AIRPORT BRIEFING**

3. DEPARTURE

If de-icing is required, flight crew shall call DE-ICING COORDINATION on 121.810 latest 15 minutes before STD/ETD, prior to requesting clearance. This call shall be made irrespective of de-icing status.

Crew will be informed about the de-icing procedures foreseen (ON-STAND or REMOTE DE-ICING).

Flight crew shall not report "ACFT ready" before de-icing is complete and ACFT is released by the de-icing company.

3.2.2. GENERAL DE-ICING WITH EXTENDED SLOT TOLERANCE WINDOW

Slots can be extended to MAX CTOT +/-30 minutes, based on approval from network manager operation center.

ATC slot adherence assured by ATC with handover to ZURICH Apron.

3.2.3. REMOTE DE-ICING

For De-icing pads refer to 10-9 charts.

Taxi onto the de-icing lane as instructed by ZURICH Apron and stop at the marked and yellow-lighted stop position "STOP DE-ICING" located to the Left of the de-icing lane for commencement of de-icing.

After reaching the de-icing stop position "STOP DE-ICING" on the de-icing lane, contact pad coordinator on the respective frequency.

Pad coordinator may instruct to adjust ACFT position if required.

After de-icing, when released by pad coordinator, request taxi clearance from ZURICH Apron.

3.2.3.1. USE OF REMOTE DE-ICING FACILITIES

ACFT stop position on the de-icing lanes C1/C2/C3/F1/F2/F3 marked and lighted. Stop position markings with yellow lights and the remark "STOP DE-ICING" are located to the Left with a 90 degrees angle to the de-icing lane. To commence de-icing, ACFT has to stop with the pilot seat abeam the stop position.

When entering the de-icing lane as instructed by ZURICH apron, ACFT shall taxi independently with caution up to de-icing stop position.

Be aware of repositioning of de-icing trucks within the remote de-icing facilities.

3.3. START-UP AND PUSH-BACK PROCEDURES

3.3.1. CLEARANCE DELIVERY

Pilots shall receive start-up/ATC clearance upon request from ZURICH delivery, earliest 15 minutes before estimated time of departure.

When requesting ATC clearance, flight crew shall report ACFT type, stand number and identification letter of received DEP ATIS information.

ACFT with ATC slot planned for remote de-icing must be ready for start-up latest 25 minutes prior to CTOT.

ACFT with ATC slot planned for RWY 10 (according to DEP ATIS) or flight crews requiring RWY 16 must be ready for start-up no later than 20 minutes prior to CTOT.

ACFT with ATC slot planned for RWY 28, 32 or 34 must be ready for start-up no later than 10 minutes prior to CTOT.

During winter operation, special DEP regulation may be activated if de-icing of ACFT is heavily delayed.

If ATC clearance for RNAV SID VEBIT 1K is received, but ACFT is not capable of processing RF leg, pilot shall report unable and request different SID on clearance delivery.

LSZH/ZRH
ZURICH**JEPPESEN**

20 APR 18

10-1P7**Eff 26 Apr****ZURICH, SWITZERLAND****AIRPORT BRIEFING**

3. DEPARTURE

3.3.2. START-UP AND PUSH-BACK PROCEDURES

For the towing or push-back a general authorization only will be given to the flight crew. Detailed instructions will be transmitted directly by Zurich apron on the tow vehicle's frequency to the driver after the clearance has been issued to the flight crew.

When cross bleed/cross generator start-up is necessary, flight crew shall inform ZURICH apron first.

After having adequate safety measures put in place, ZURICH Apron will issue start-up clearance.

All parking positions West: Outbound with push-back only.

Advise ZURICH Apron when ready for taxi.

3.4. NOISE ABATEMENT

3.4.1. GENERAL

The following procedures are designed to avoid excessive ACFT noise over populated areas in the vicinity of ZURICH APT. Deviations from published routes and procedures are only permitted for safety reasons. ACFT operators provably unable to comply shall submit alternative procedures for approval to the APT Authority. Jet ACFT not licensed in accordance with ICAO Annex 16, Vol I, chapter 3 are not permitted.

Deviation from SIDs as depicted on Zurich SID charts is only possible at altitudes at or above 5000'. Between 2200-0600LT deviation from SIDs is only permitted at or above FL 80 with permission of ATC.

If possible, a rolling take-off shall be executed. Engine power shall be increased only after entering the departure RWY.

Climb with maximum climb gradient to 4500':

- Use the high lift devices take-off configuration;
- Take-off power reduction to climb power at 2900'.

Automatic measuring equipment is used to monitor adherence.

3.5. RWY OPERATIONS

3.5.1. OPTIMIZATION OF RWY OCCUPANCY TIME

ATC will consider every ACFT at the holding point as able to commence line-up and take-off immediately after clearance issued. Pilots not ready when reaching the holding point (no ACFT in front on the same TWY) shall advise ATC as early as possible.

Pilots in receipt of a conditional line-up clearance on a preceding departing ACFT should remain behind the subject ACFT but may cross RWY holding point (as long as there is no illuminated red stop bar) and enter RWY upon receipt of clearance. Pilot must be aware that there may be a blast hazard as ACFT on RWY applies power.

When cleared for take-off, ATC will expect and has planned on the ACFT being rolling within 10 seconds (of take-off clearance being issued). Pilots unable to comply with this requirement shall notify ATC before entering the RWY.

3.6. OTHER INFORMATION

3.6.1. COMMUNICATION FAILURE

- Depending on the assigned departure route cross ZUE, ALBIX, WIL climbing to/at the last assigned and acknowledged FL but not below the minimum crossing altitude, then continue climb to flight plan level.

Note: Leave last assigned and acknowledged FL or altitude not earlier than 3 MIN after airborne.

- ACFT on RNAV departure routes shall cross DEGES, GERSA, SONGI, VEBIT climbing to/at last assigned and acknowledged FL but not below the minimum crossing altitude, then continue climb to flight plan level.

Note: Leave last assigned and acknowledged FL or altitude not earlier than 3 minutes after airborne.

LSZH/ZRH
ZURICH

JEPPESEN
20 OCT 17 10-1R

ZURICH, SWITZERLAND

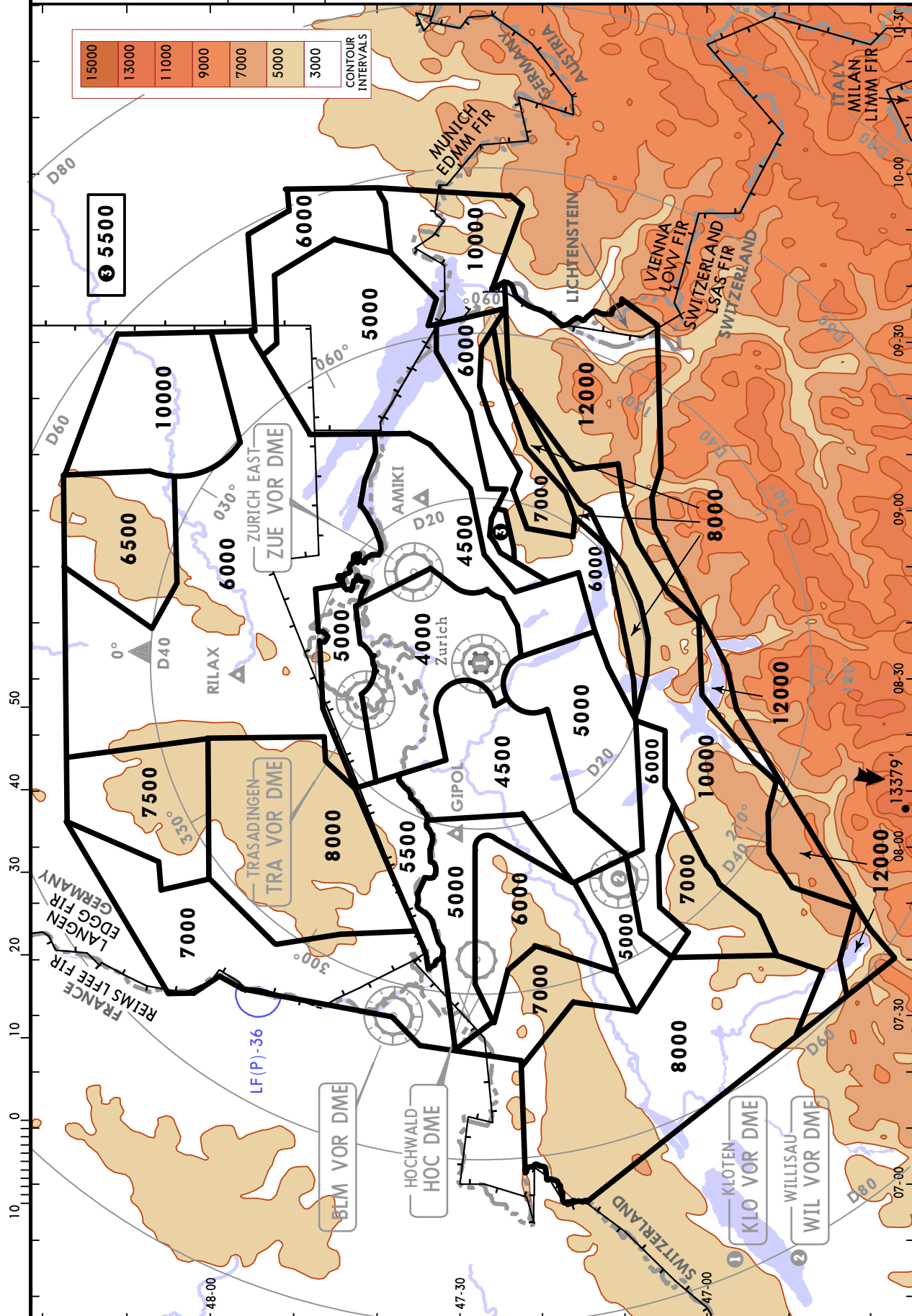
RADAR MINIMUM ALTITUDES

ZURICH Arrival (APP/R)
118.0
135.225

Apt Elev
1417'

Alt Set: hPa
Trans level: By ATC Trans alt: 7000'

1. Altitudes are based on Zurich QNH.
2. RADAR minimum altitudes over Swiss territory are protected for low temperatures at or above -20 degrees.
3. This chart may only be used for cross-checking of altitudes assigned while under RADAR vectoring.



CHANGES: Sectors revised.

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LSZH/ZRH
ZURICH **JEPPESEN**
17 NOV 17 **10-2****ZURICH, SWITZERLAND****STAR**

ARRIVAL INSTRUCTIONS

CLEARANCE PHRASEOLOGY FOR RNAV TRANSITIONS

"Cleared xxx Transition": Authorization to fly the lateral RNAV 1 Route.
Level assignments will be issued by ATC.

"Cleared direct Waypoint xxx": Authorization to fly from the present position
direct to a waypoint and join thereafter the appropriate RNAV 1 Route.
Level assignments will be issued by ATC.

COMMUNICATION FAILURE PROCEDURES FOR RNAV TRANSITIONS

Before reception of a "transition" Clearance: Switch transponder code and continue FLT in accordance with COM Failure PROC published on relevant Standard Instrument Approach Procedure.

After reception of a "transition" Clearance: Switch transponder code and continue FLT in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

After reception of a Clearance direct to a WPT on a transition: Switch transponder code and continue FLT direct to the cleared WPT, rejoin transition in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

When being Radar Vected to a WPT on a transition: Switch transponder code and resume own navigation to rejoin transition in the most direct way and proceed in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

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17 NOV 17 (10-2A)ZURICH, SWITZERLAND
RNAV TRANSITIOND-ATIS
125.725Apt Elev
1417Alt Set: hPa
Trans level: By ATC

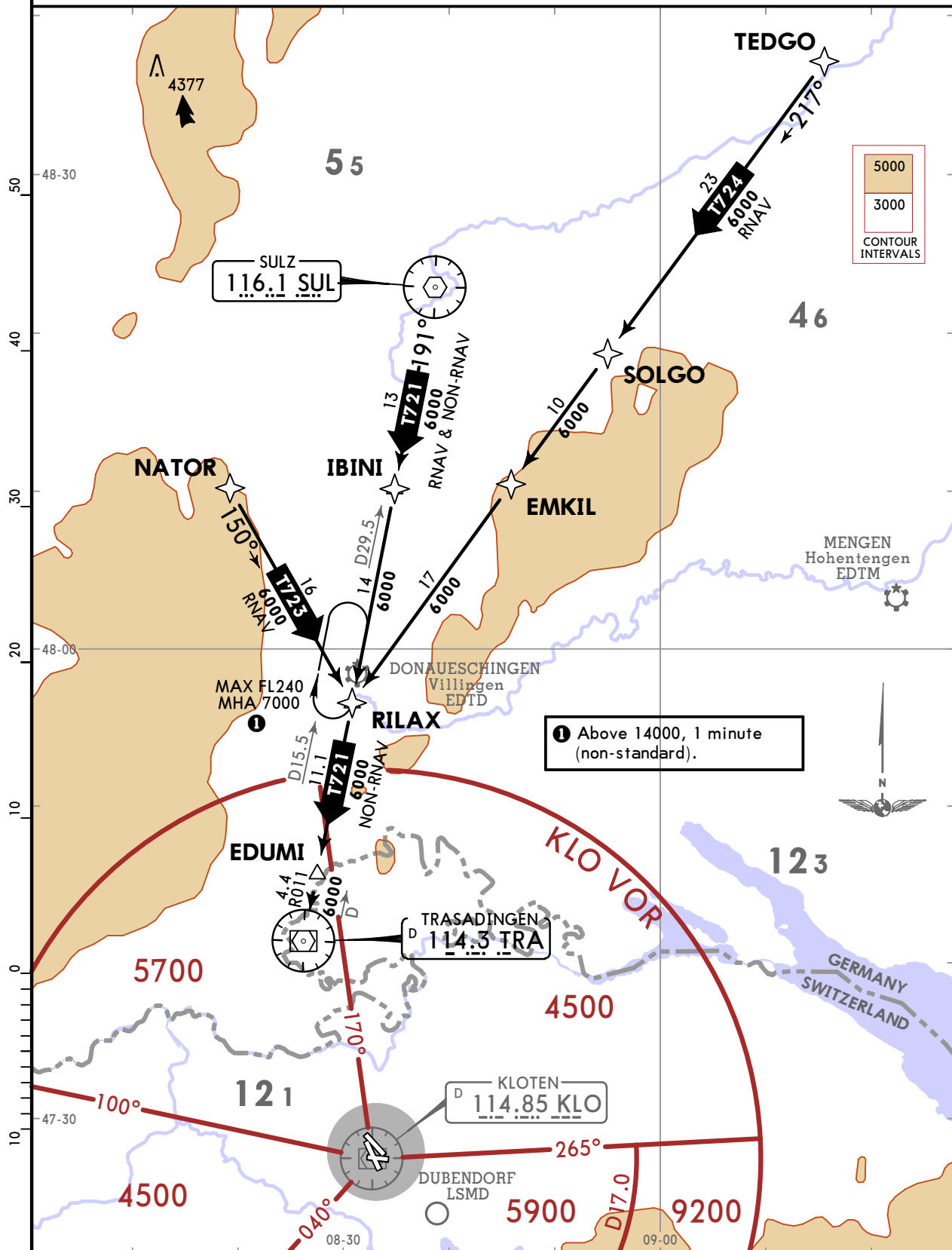
RNAV TRANSITIONS

TRANSITION

TO RILAX & TRA

FOR ROUTE CONTINUATION AFTER RILAX REFER TO CHART 10-2E

FOR ROUTE CONTINUATION AFTER TRA REFER TO CHART 10-2G

**SPEED: AS INSTRUCTED BY LANGEN RADAR
MAX 250 KT BELOW FL100**

LSZH/ZRH
ZURICH

17 NOV 17
10-2B

ZURICH, SWITZERLAND

RNAV TRANSITION

D-ATIS	Apt Elev	Alt Set: hPa
125.725	1417	Trans level: By ATC

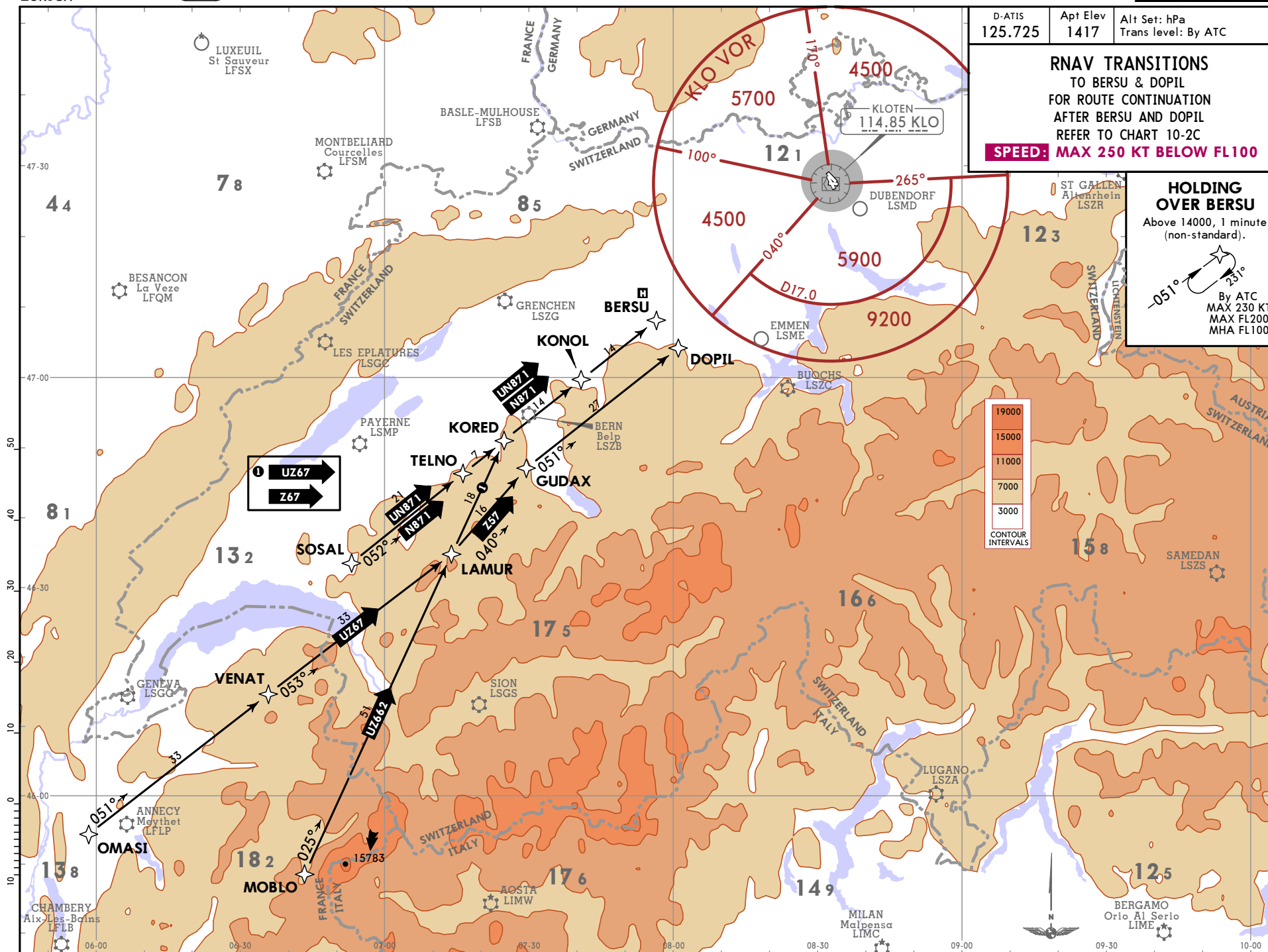
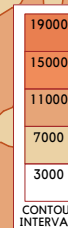
RNAV TRANSITIONS
TO BERSU & DOPIL
FOR ROUTE CONTINUATION
AFTER BERSU AND DOPIL
REFER TO CHART 10-2C

SPEED: MAX 250 KT BELOW FL100

**HOLDING
OVER BERSU**

Above 14000, 1 minute
(non-standard).

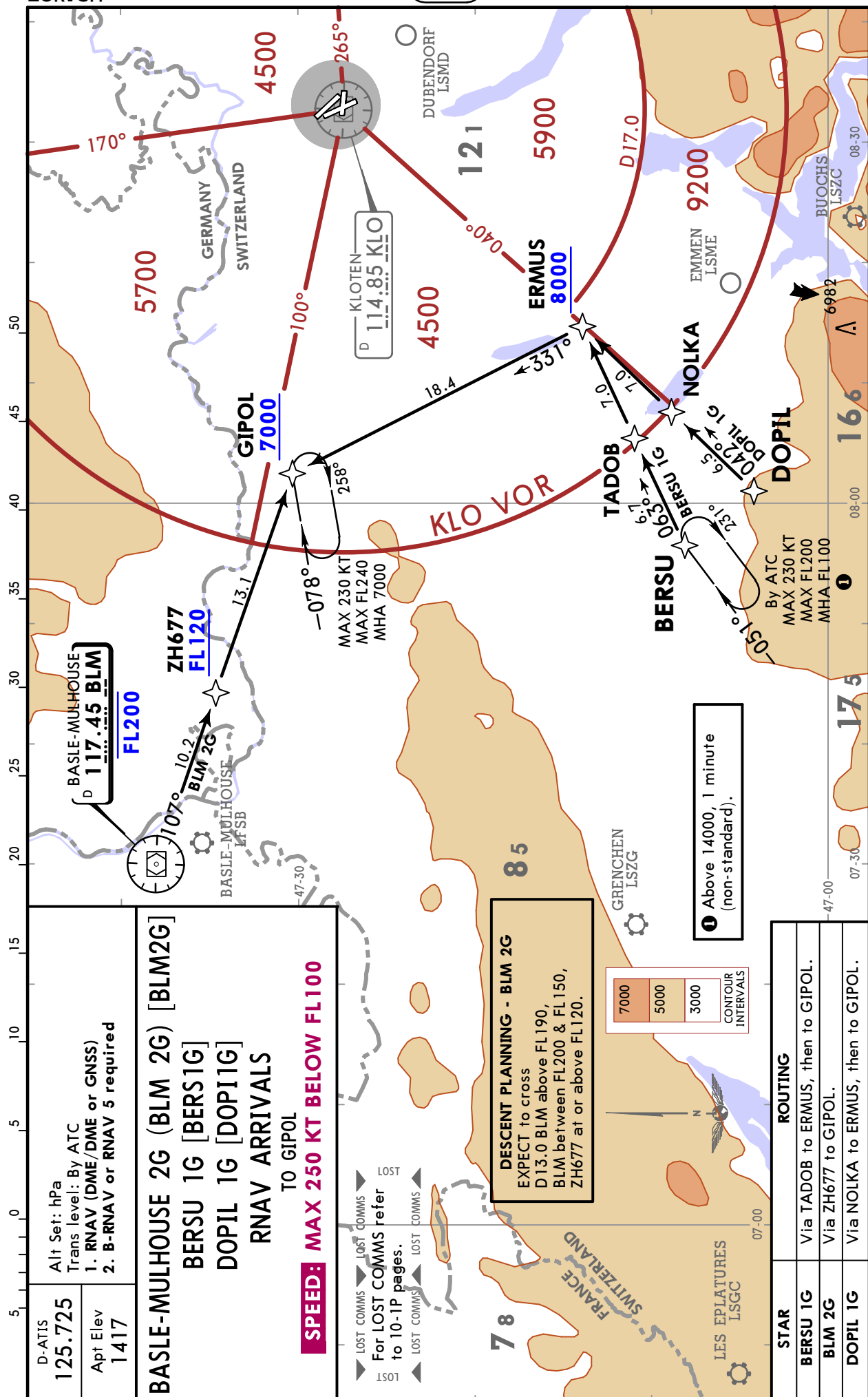
By ATC
MAX 230 KT
MAX FL200
MHA FL100



LSZH/ZRH
ZURICHJEPPesen
17 NOV 17 (10-2C)

ZURICH, SWITZERLAND

RNAV STAR



LSZH/ZRH
ZURICH

JEPPESSEN
17 NOV 17 (10-2D)

ZURICH, SWITZERLAND

RNAV STAR

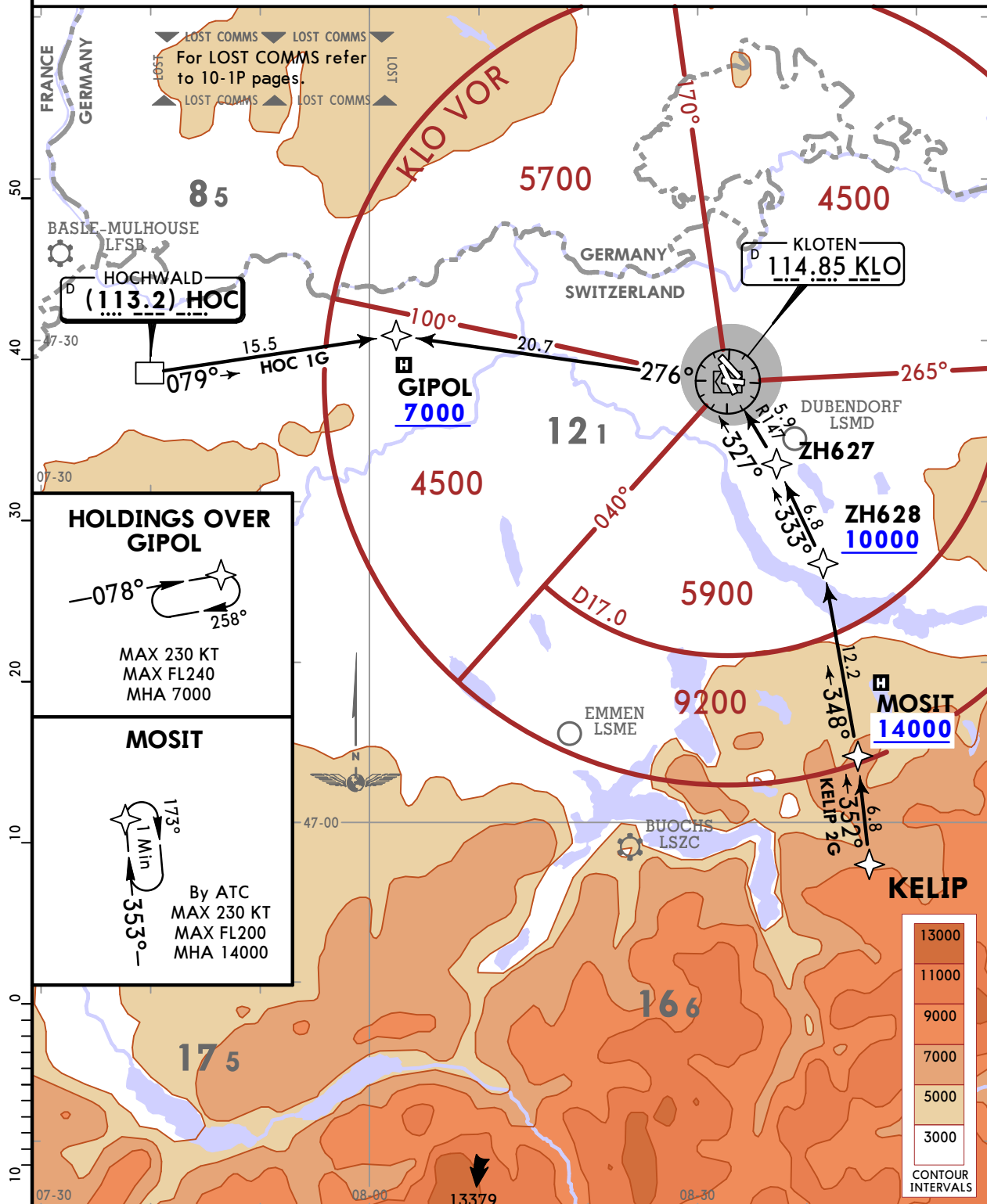
D-ATIS
125.725

Apt Elev
1417

Alt Set: hPa
Trans level: By ATC
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required

HOCHWALD 1G (HOC 1G) [HOC1G]
KELIP 2G [KELI2G]
RNAV ARRIVALS
TO GIPOL

SPEED: MAX 250 KT BELOW FL100

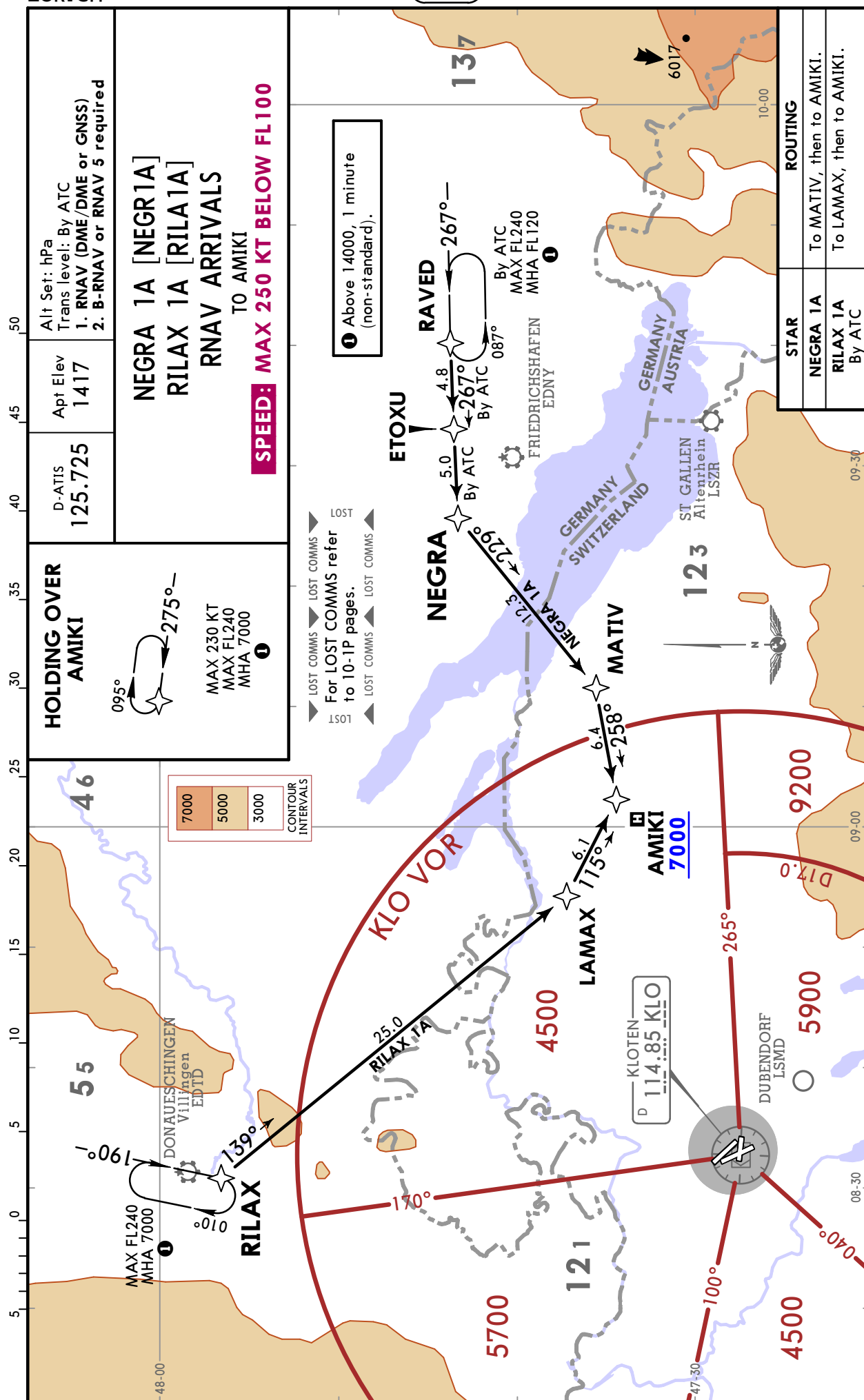


STAR	ROUTING
HOC 1G	To GIPOL.
KELIP 2G	Via MOSIT to ZH628, then to ZH627, then to KLO, then to GIPOL.

LSZH/ZRH
ZURICH

JEPPESEN
17 NOV 17 (10-2E)

ZURICH, SWITZERLAND

RNAV STAR

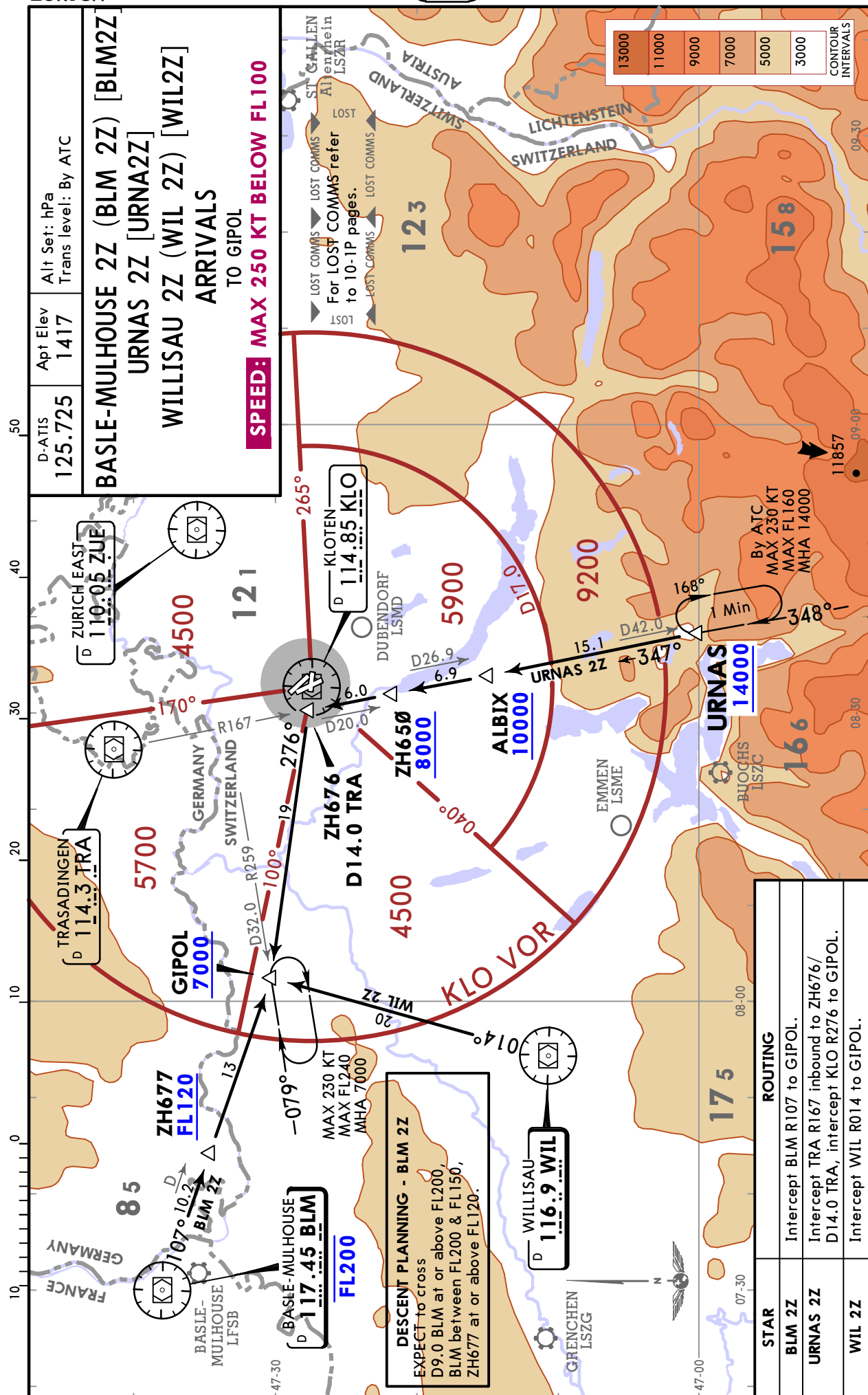
CHANGES: Communications.

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LSZH / ZRH
ZURICH

JEPPESEN
17 NOV 17 (10-2F)

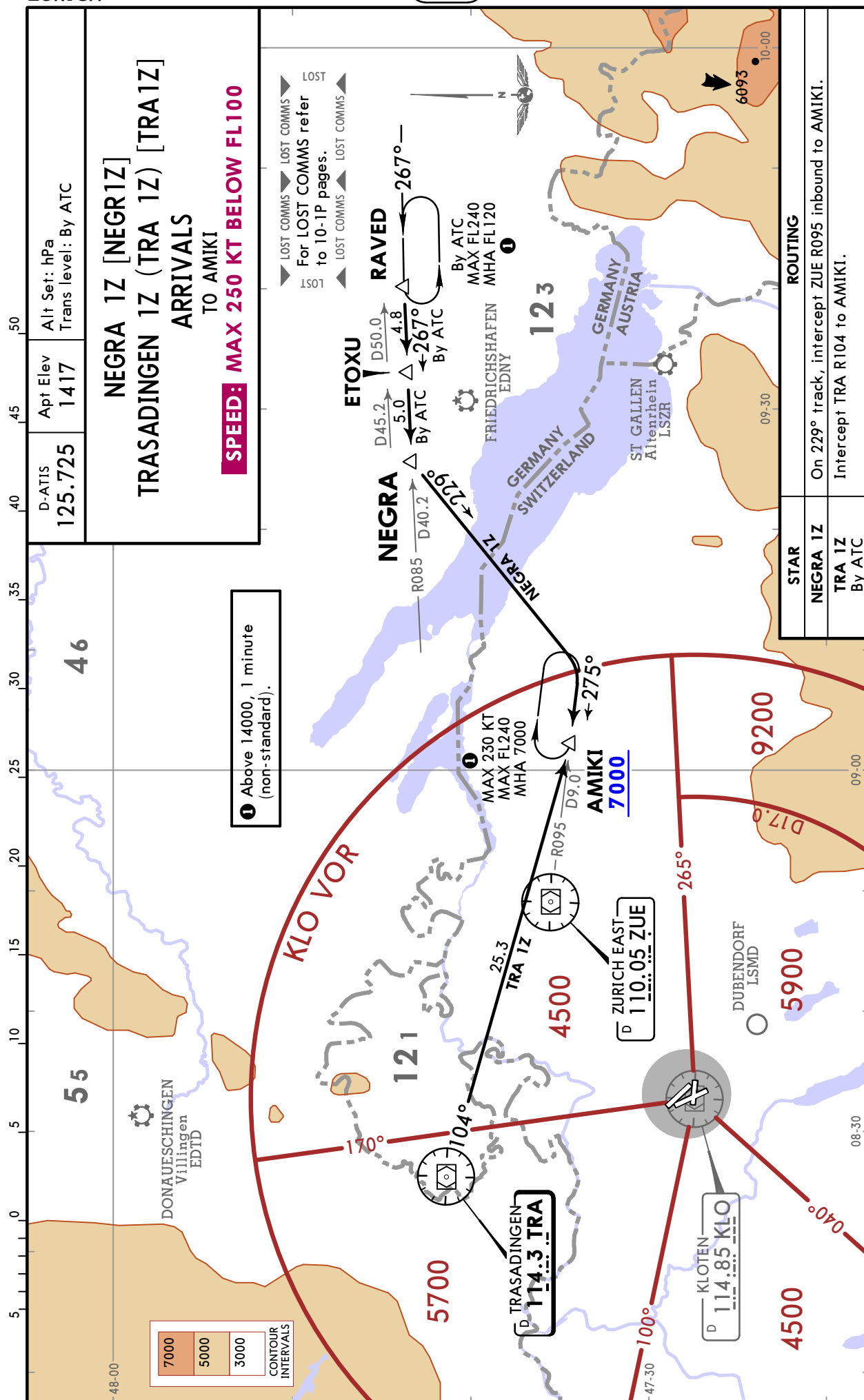
ZURICH, SWITZERLAND

STAR

LSZH/ZRH
ZURICHJEPPESSEN
17 NOV 17 (10-2G)

ZURICH, SWITZERLAND

STAR



LSZH/ZRH
ZURICH

JEPPESEN
17 NOV 17 (10-2H)

ZURICH, SWITZERLAND

RNAV TRANSITION

D-ATIS 125.725	Alt Set: hPa Trans level: By ATC 1. RNAV (DME/DME or GNSS) 2. P-RNAV or RNAV 1 required 3. If unable to follow transition advise ATC IMMEDIATELY: 'unable RNAV transition'. 4. AMIKI 28: KLO, TRA and 116.9 WIL DME required for DME/DME navigation. 5. AMIKI 34: TRA DME required for DME/DME navigation.
Apt Elev 1417	

AMIKI 28 [AMI28]

AMIKI 34 [AMI34]

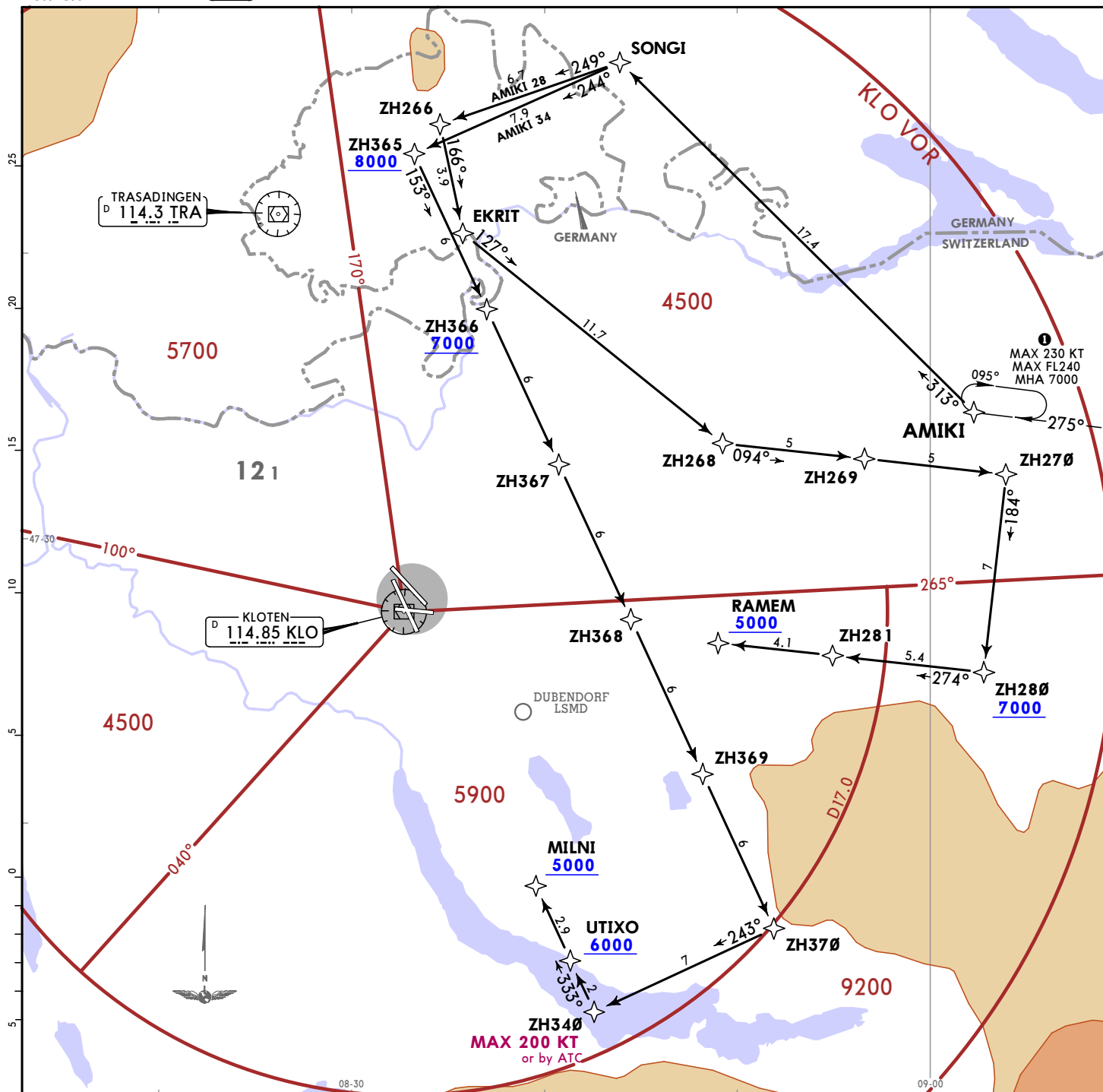
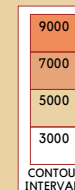
RNAV TRANSITIONS
TO FINAL APPROACH

SPEED: MAX 250 KT BELOW FL100

TRANSITION	RWY	ROUTING
AMIKI 28	28	AMIKI - SONGI - ZH266 - EKRIK - ZH268 - ZH269 - ZH270 - ZH280 (7000+) - ZH281 - RAMEM (5000+).
AMIKI 34	34	AMIKI - SONGI - ZH365 (8000+) - ZH366 (7000+) - ZH367 - ZH368 - ZH369 - ZH370 - ZH340 (K200- or by ATC) - UTIXO (6000+) - MILNI (5000+).

CAUTION
High terrain EAST of D19.0 KLO.
Compulsory to monitor 121.50 MHz
during entire approach.

① Above 14000, 1 minute
(non-standard).



LSZH/ZRH
ZURICH

JEPPESSEN
17 NOV 17 (10-2J)

ZURICH, SWITZERLAND
RNAV TRANSITION

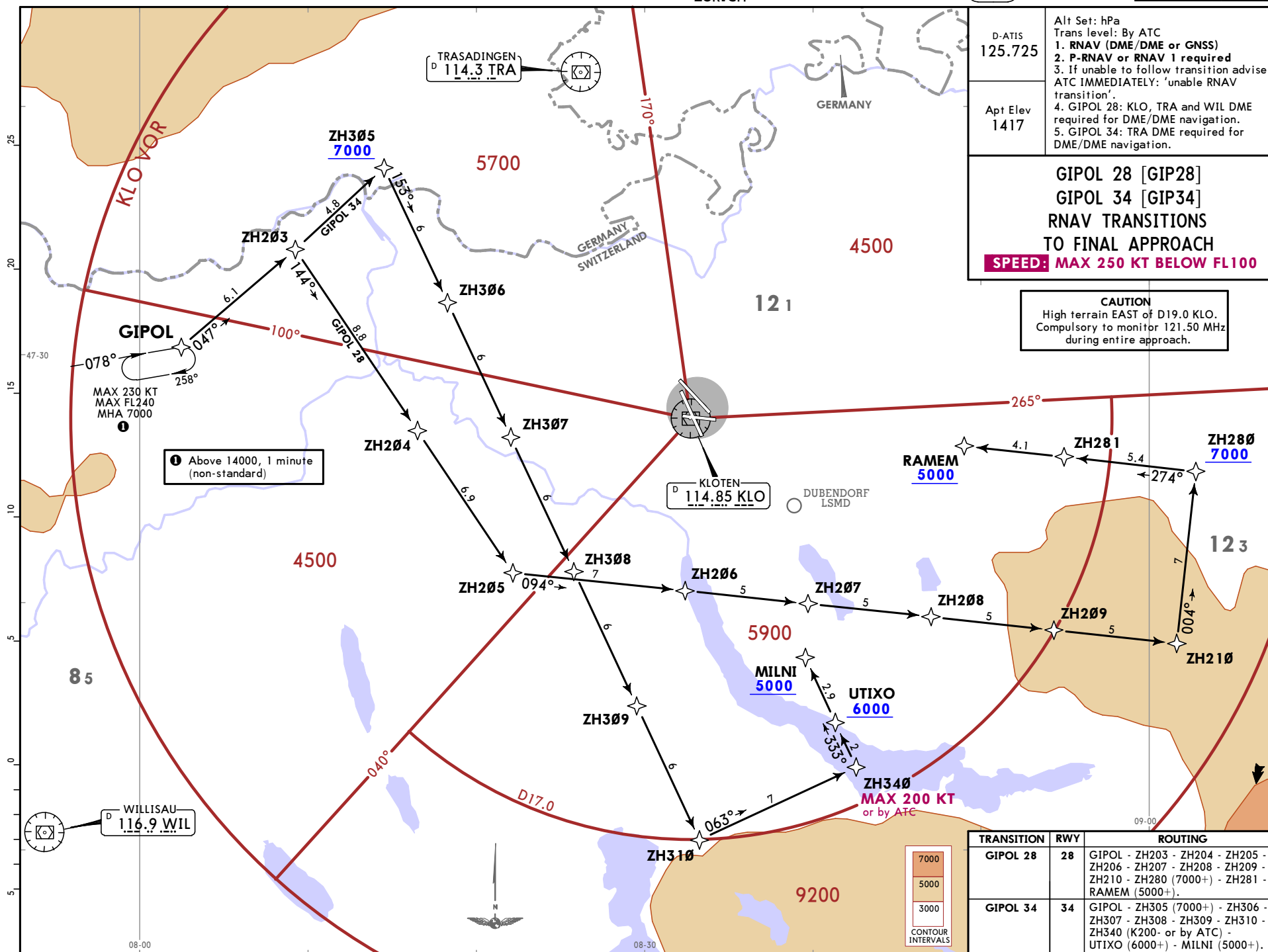
D-ATIS
125.725

Apt Elev
1417

Alt Set: hPa
Trans level: By ATC
1. RNAV (DME/DME or GNSS)
2. P-RNAV or RNAV 1 required
3. If unable to follow transition advise ATC IMMEDIATELY: 'unable RNAV transition'.
4. GIPOL 28: KLO, TRA and WIL DME required for DME/DME navigation.
5. GIPOL 34: TRA DME required for DME/DME navigation.

GIPOL 28 [GIP28]
GIPOL 34 [GIP34]
RNAV TRANSITIONS
TO FINAL APPROACH
SPEED: MAX 250 KT BELOW FL100

CAUTION
High terrain EAST of D19.0 KLO.
Compulsory to monitor 121.50 MHz
during entire approach.



17 NOV 17 10-2K

RNAV TRANSITION



LSZH/ZRH
ZURICH **JEPPESEN**
12 AUG 16 **10-3****Eff 18 Aug****ZURICH, SWITZERLAND****RNAV SID**

RNAV SID DESIGNATION	REFER TO CHART
DEGES 1D, 2R	10-3B
DEGES 1E	10-3C
DEGES 3F, 2H	10-3D
DEGES 3L, 2N	10-3E
DEGES 2S	10-3F
DEGES 2W	10-3G
GERSA 1C	10-3H
VEBIT 2E, 3S	10-3J
VEBIT 2H, 2N	10-3J1
VEBIT 1K	10-3K
VEBIT 3W	10-3L
DEGES 2B	10-3L1
GERSA 2B	10-3L2
GERSA 1E	10-3L3
GERSA 1H, 1N	10-3L4
GERSA 2S	10-3L5
GERSA 2W	10-3L6
SONGI 3F, 1H, 3L, 1N	10-3L7
VEBIT 3B	10-3L8

**FOR SID DESIGNATION & TRANSITION
REFER TO PAGE 10-3A**

LSZH/ZRH
ZURICH **JEPPESEN**
12 AUG 16 **(10-3A)** Eff 18 Aug**ZURICH, SWITZERLAND****SID**

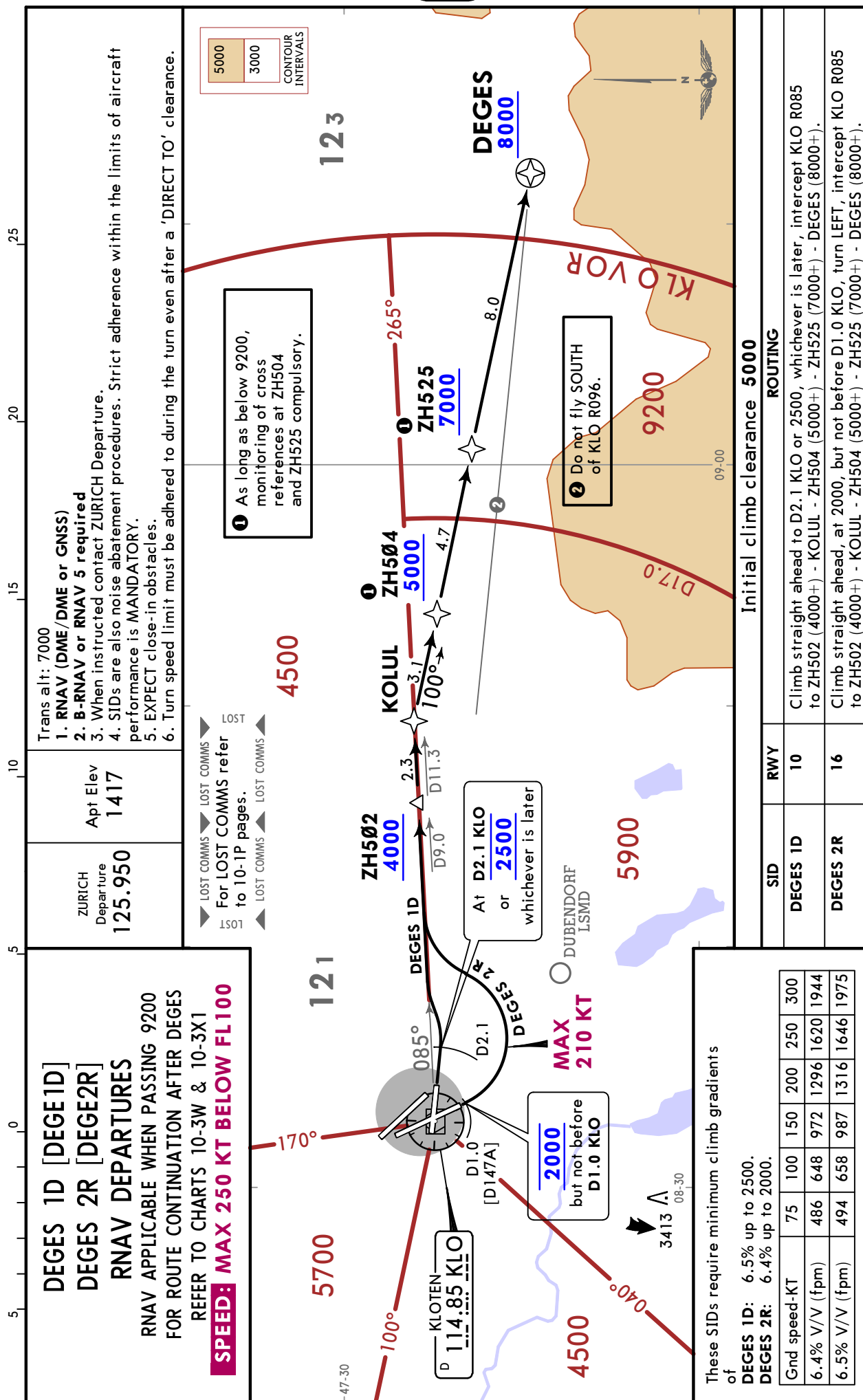
SID DESIGNATION	REFER TO CHART
ALBIX 1C	10-3M
WILLISAU 2C, 2D	10-3N
WILLISAU 2G, 2M	10-3P
WILLISAU 2Q, 3R	10-3Q
WILLISAU 3V	10-3S
ZURICH EAST 1D, 2R	10-3T
ZURICH EAST 3F, 1G, 3L, 1M	10-3U
ZURICH EAST 2V	10-3V
WILLISAU 3A, ZUE 2A	10-3V1
TRANSITION	REFER TO CHART
NORTHBOUND AFTER DEGES & ZUE	10-3W
NORTHBOUND AFTER SONGI	10-3X
EASTBOUND AFTER DEGES & ZUE	10-3X1
SOUTH- & WESTBOUND AFTER VEBIT	10-3X2

LSZH/ZRH
ZURICH

JEPPESSEN
15 SEP 17 (10-3B)

ZURICH, SWITZERLAND

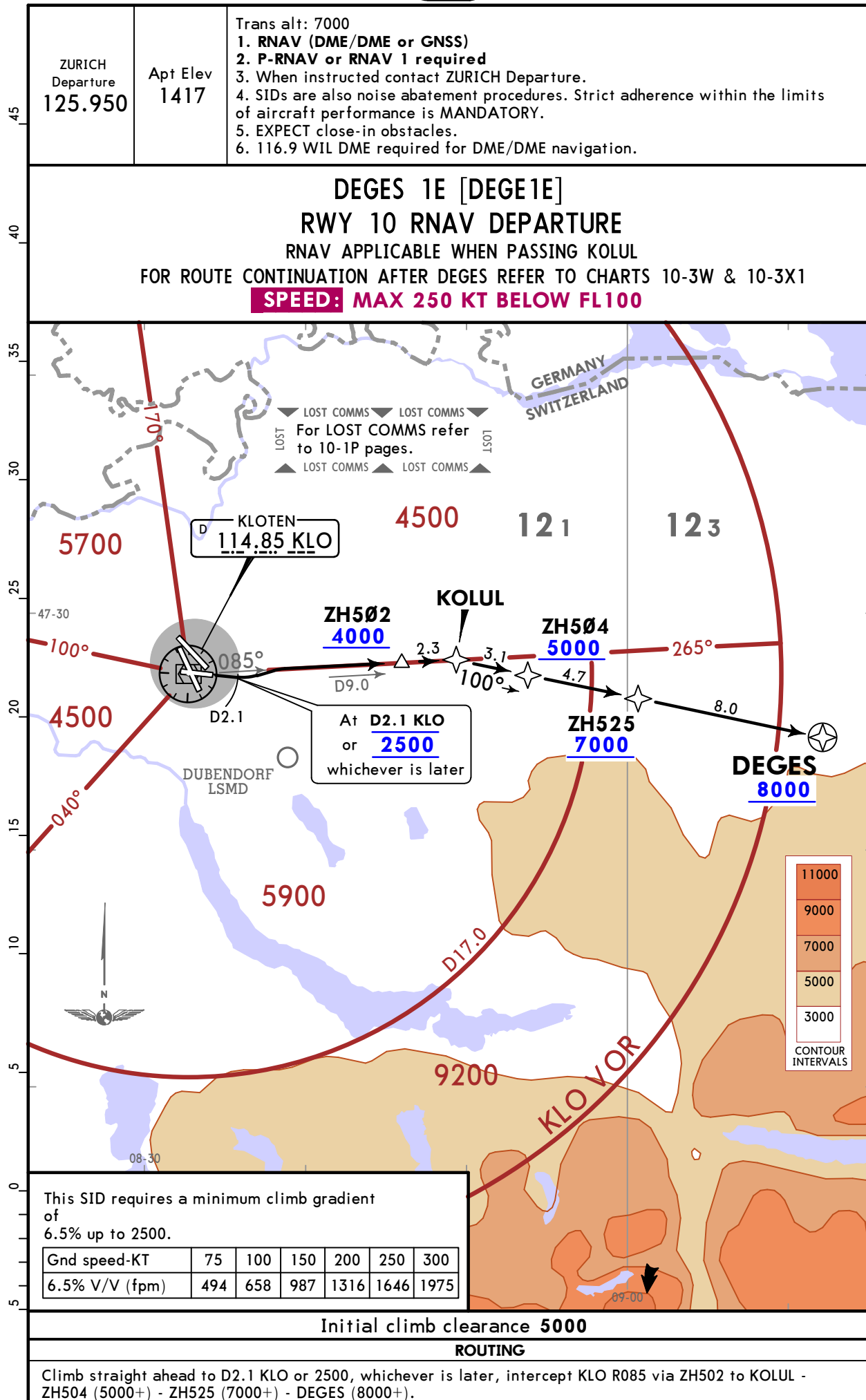
RNAV SID



LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3C)

ZURICH, SWITZERLAND

RNAV SID



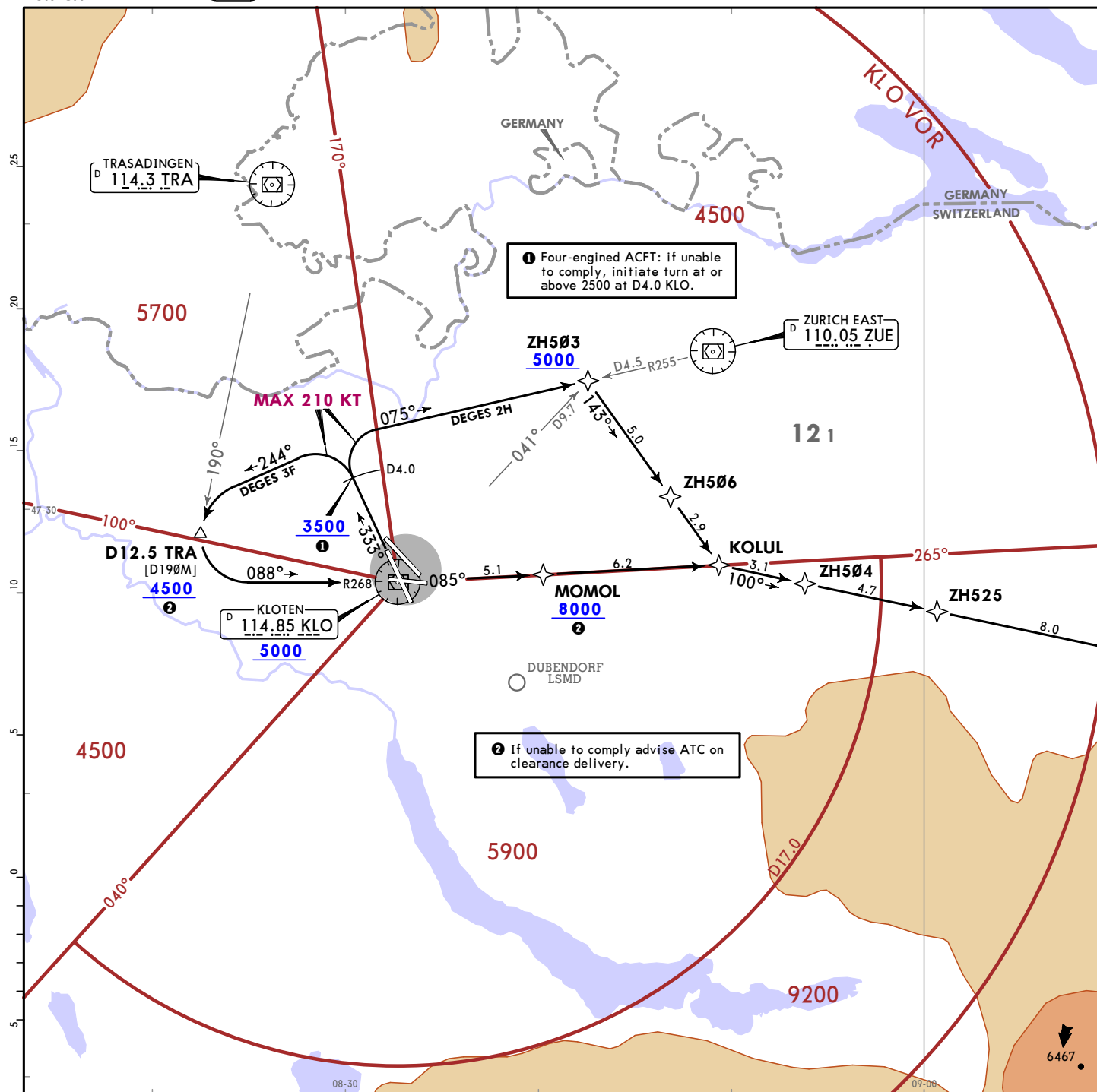
LSZH/ZRH
ZURICH
15 SEP 17 (10-3D)

ZURICH, SWITZERLAND

RNAV SID

ZURICH Departure 125.950	Trans alt: 7000 1. RNAV (DME/DME or GNSS) 2. B-RNAV or RNAV 5 required 3. When instructed contact ZURICH Departure. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance. 6. EXPECT close-in obstacles.
Apt Elev 1417	

DEGES 3F [DEGE3F] DEGES 2H [DEGE2H] RWY 34 RNAV DEPARTURES FOR ROUTE CONTINUATION AFTER DEGES REFER TO CHARTS 10-3W & 10-3X1 SPEED: MAX 250 KT BELOW FL100
▼ LOST COMMS ▼ LOST COMMS ▼ For LOST COMMS refer to 10-1P pages. ▲ LOST COMMS ▲ LOST COMMS ▲



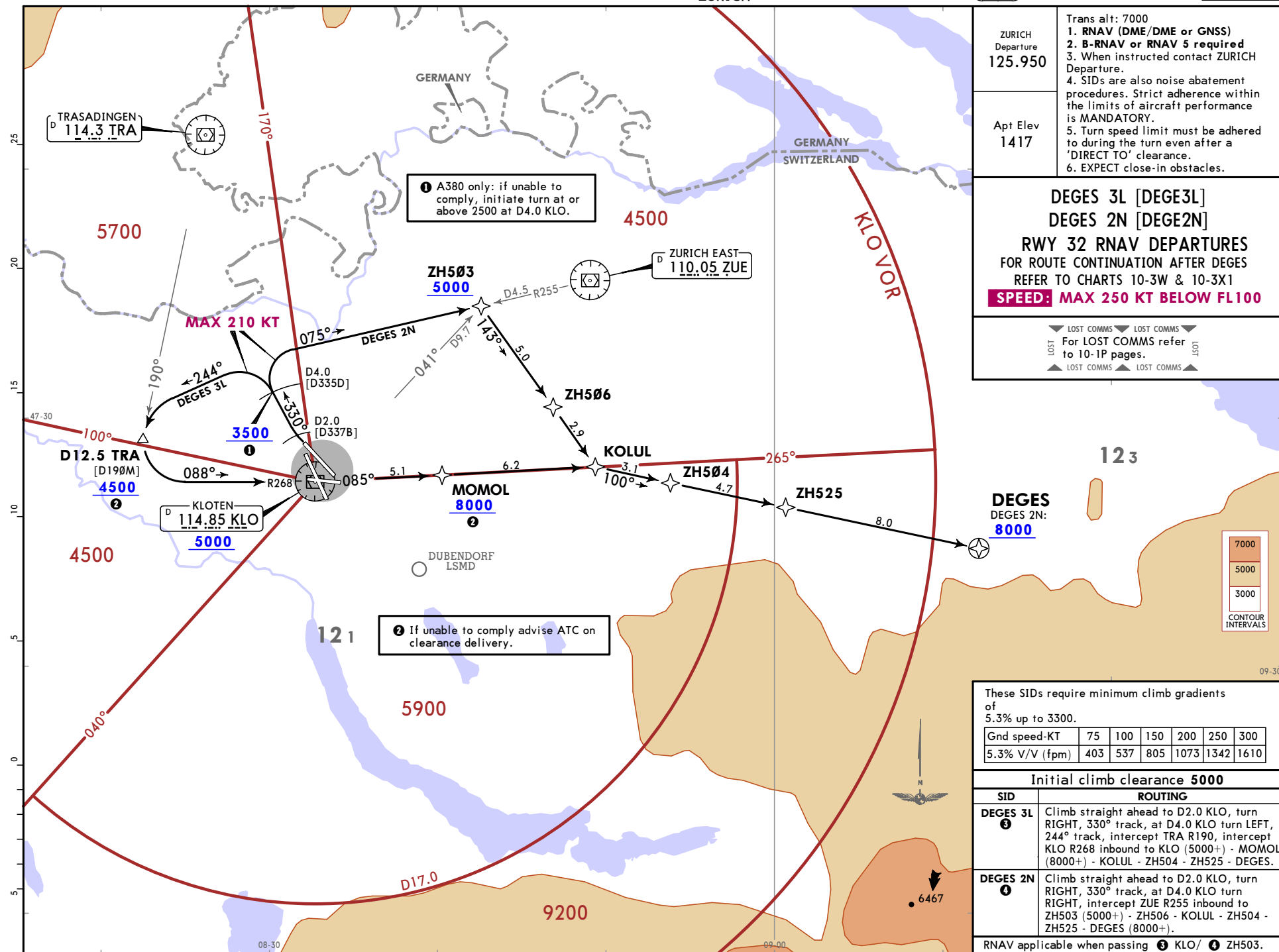
These SIDs require minimum climb gradients of 5.2% up to 3300.	
Gnd speed-KT	75 100 150 200 250 300
5.2% V/V (fpm)	395 527 790 1053 1317 1580
Initial climb clearance 5000	
SID	ROUTING
DEGES 3F ③	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190, intercept KLO R268 inbound to KLO (5000+) - MOMOL (8000+) - KOLUL - ZH504 - ZH525 - DEGES.
DEGES 2H ①	Climb on 333° track, at D4.0 KLO turn RIGHT, intercept ZUE R255 inbound to ZH503 (5000+) - ZH506 - KOLUL - ZH504 - ZH525 - DEGES (8000+).
RNAV applicable when passing ③ KLO/ ① ZH503.	

LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3E

ZURICH, SWITZERLAND

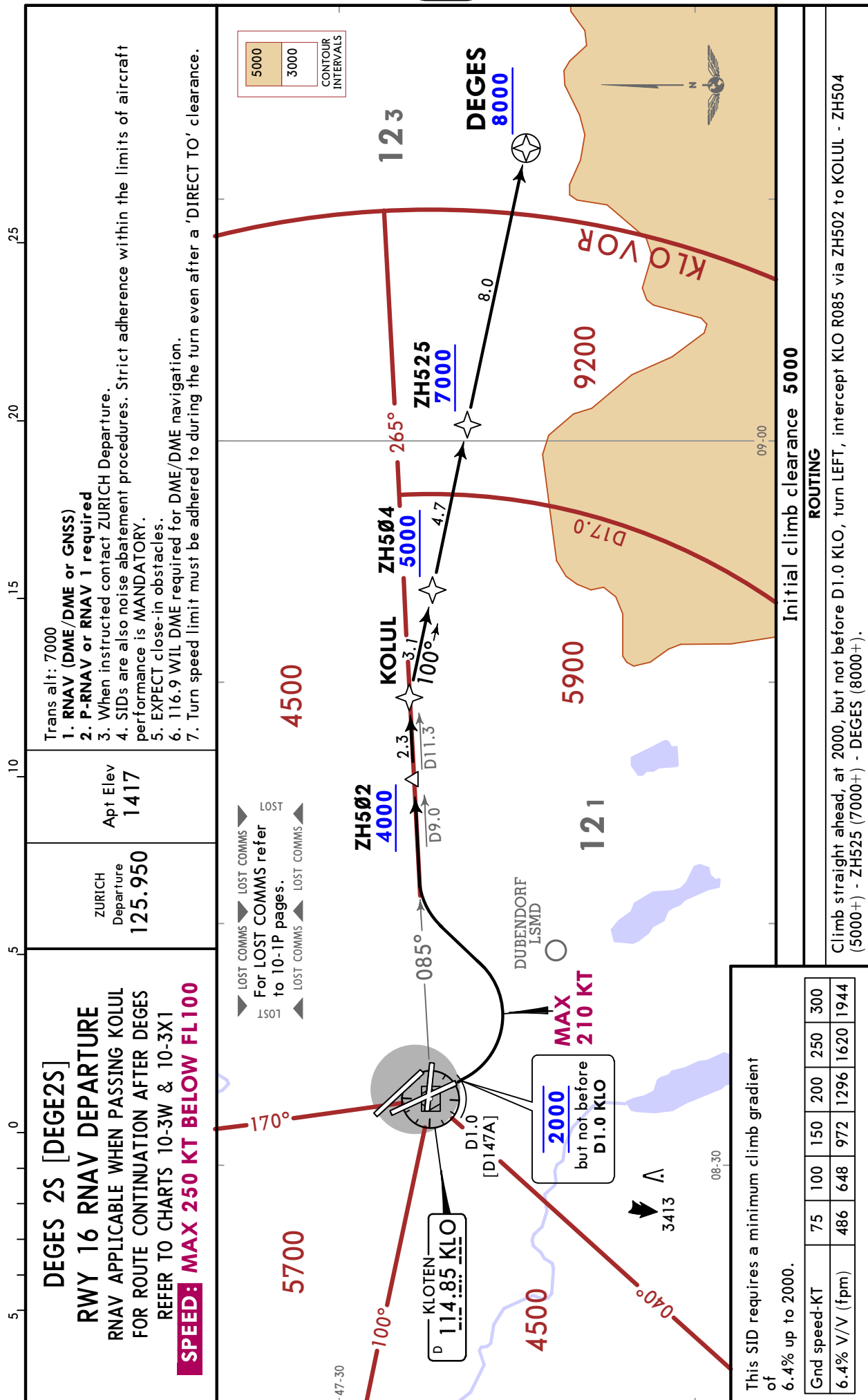
RNAV SID



LSZH/ZRH
ZURICHJEPPESSEN
15 SEP 17 10-3F

ZURICH, SWITZERLAND

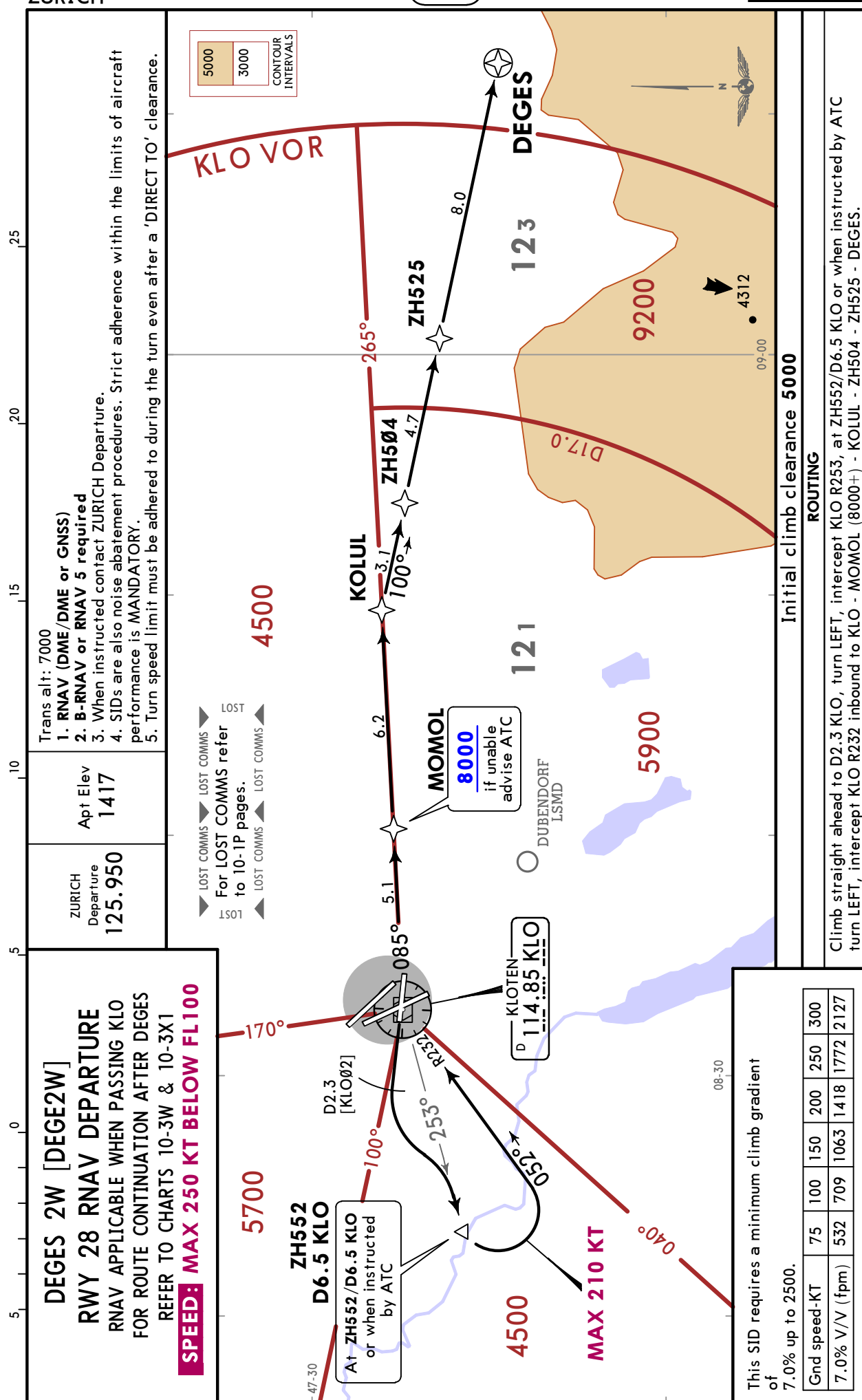
RNAV SID



LSZH / ZRH
ZÜRICH

JEPPESEN
15 SEP 17 (10-3G)

ZURICH, SWITZERLAND

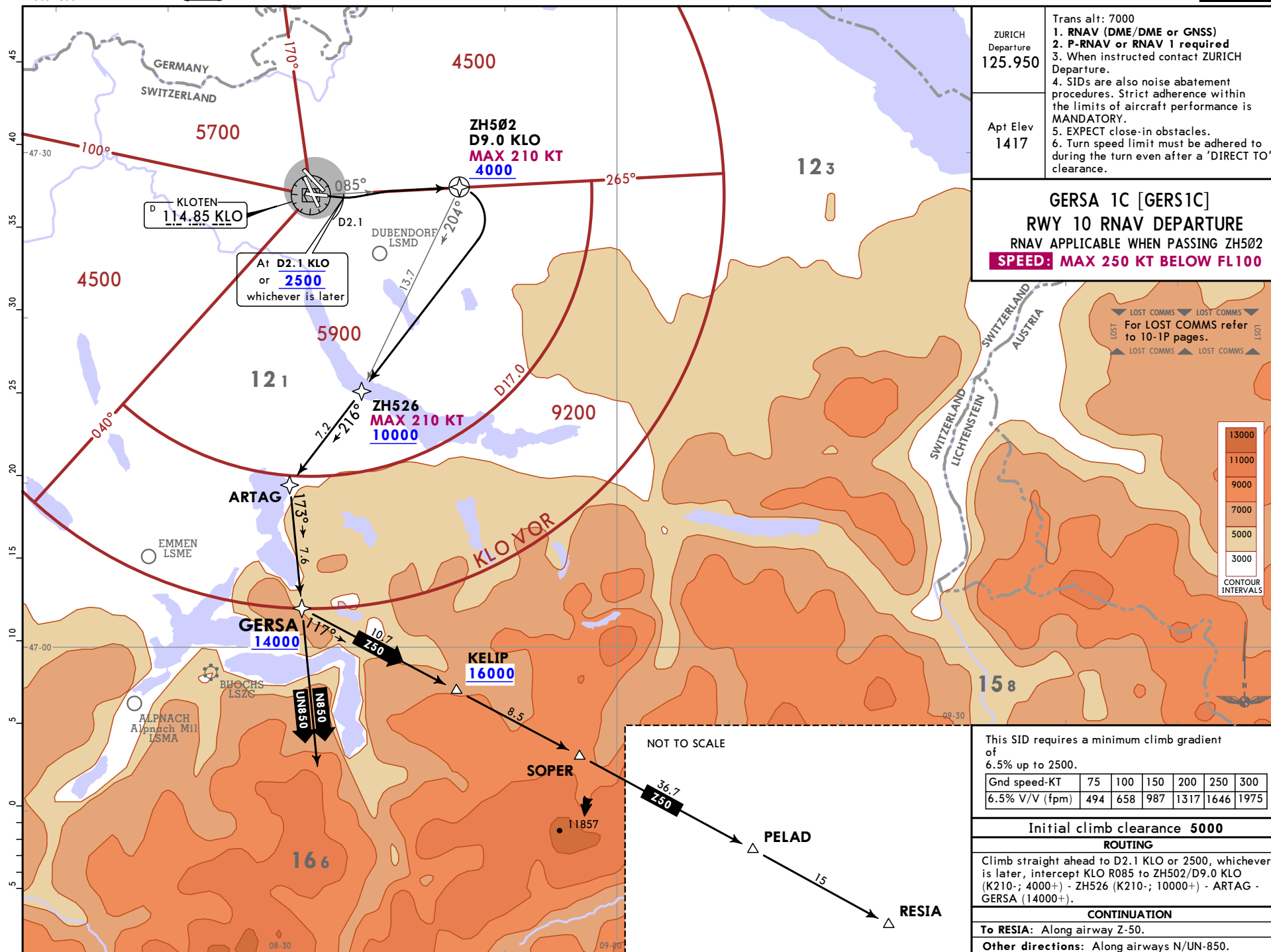
RNAV SID

LSZH/ZRH
ZURICH

15 SEP 17 (10-3H)

ZURICH, SWITZERLAND

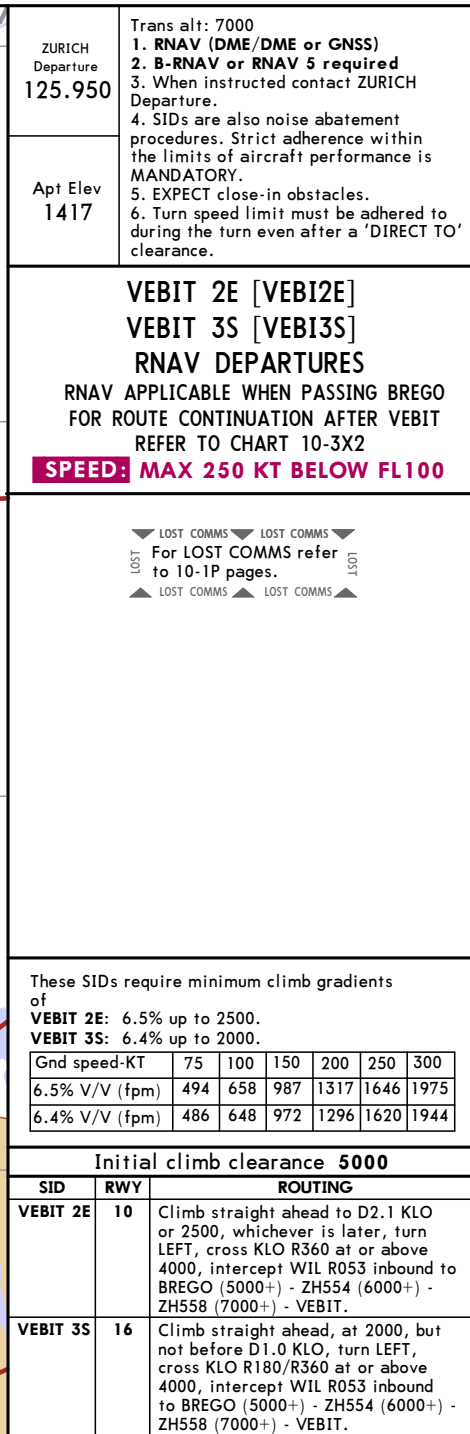
RNAV SID



JEPPESEN
15 SEP 17 (10-3J)

ZURICH, SWITZERLAND

RNAV SID



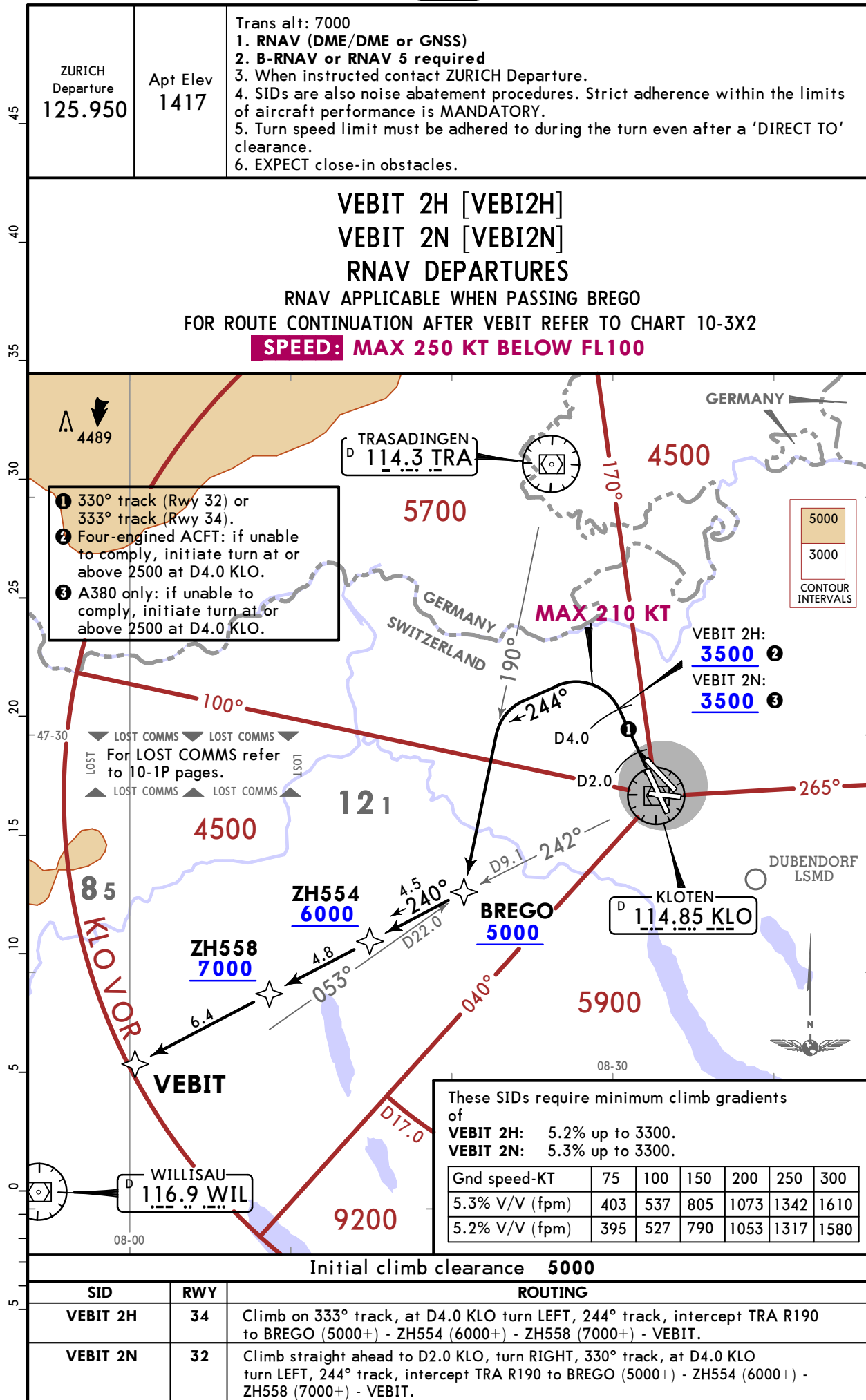
CHANGES: New format.

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LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 10-3J1

ZURICH, SWITZERLAND

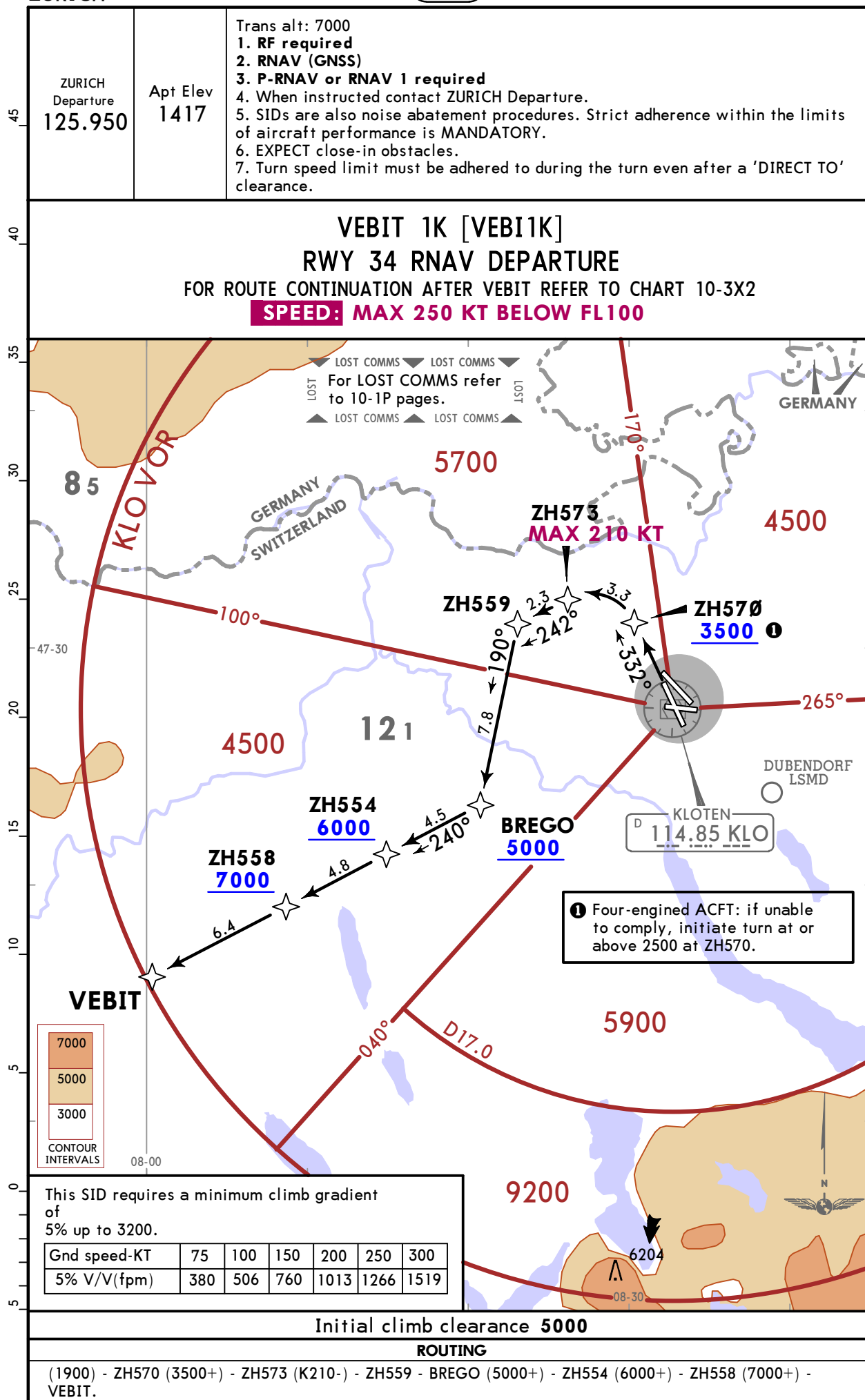
RNAV SID



LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3K)

ZURICH, SWITZERLAND

RNAV SID



LSZH / ZRH
ZURICH

15 SEP 17 (10-3L)

ZURICH, SWITZERLAND

RNAV SID

ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000

1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

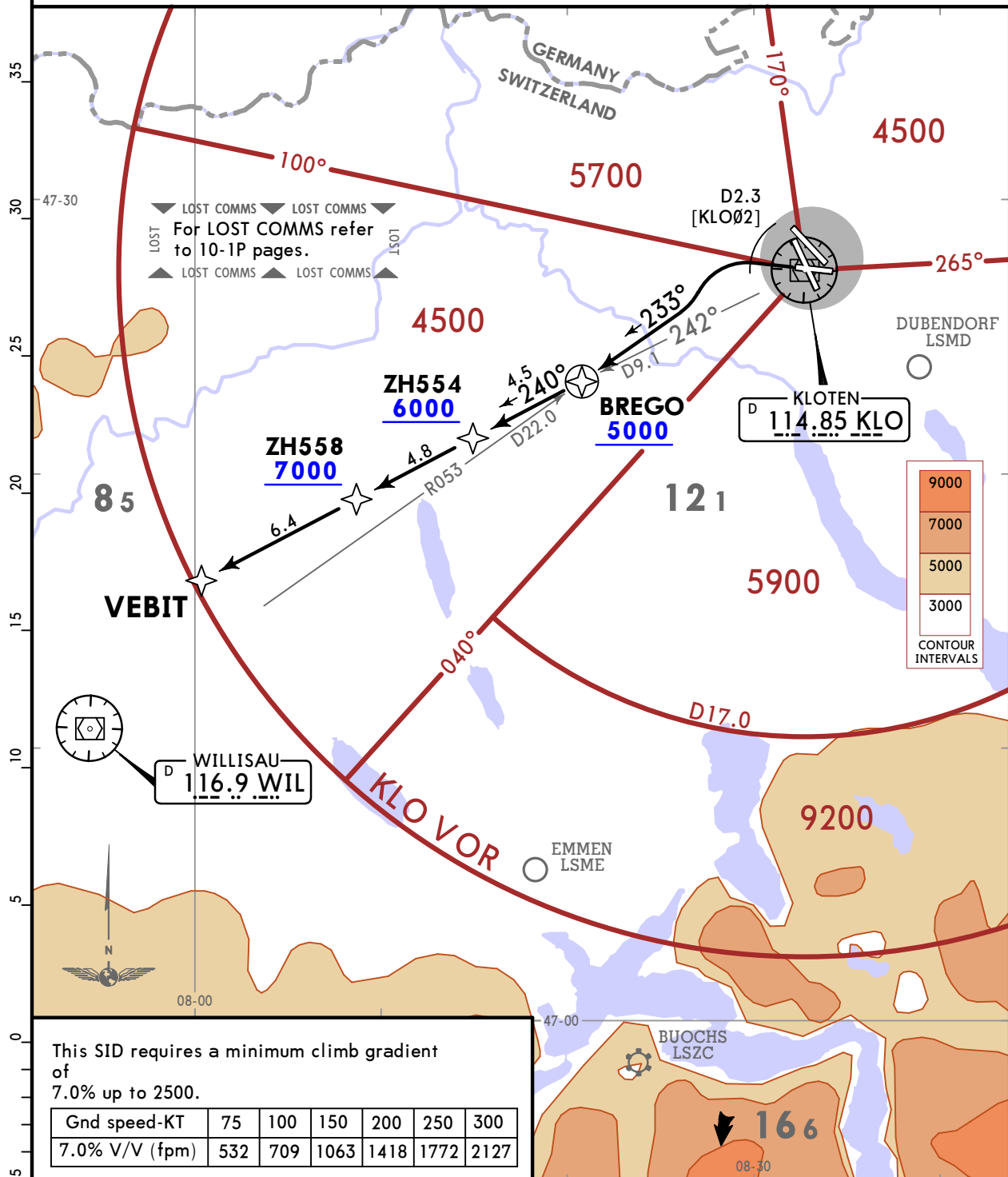
VEBIT 3W [VEBI3W]

RWY 28 RNAV DEPARTURE

RNAV APPLICABLE WHEN PASSING BREGO

FOR ROUTE CONTINUATION AFTER VEBIT REFER TO CHART 10-3X2

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of 7.0% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

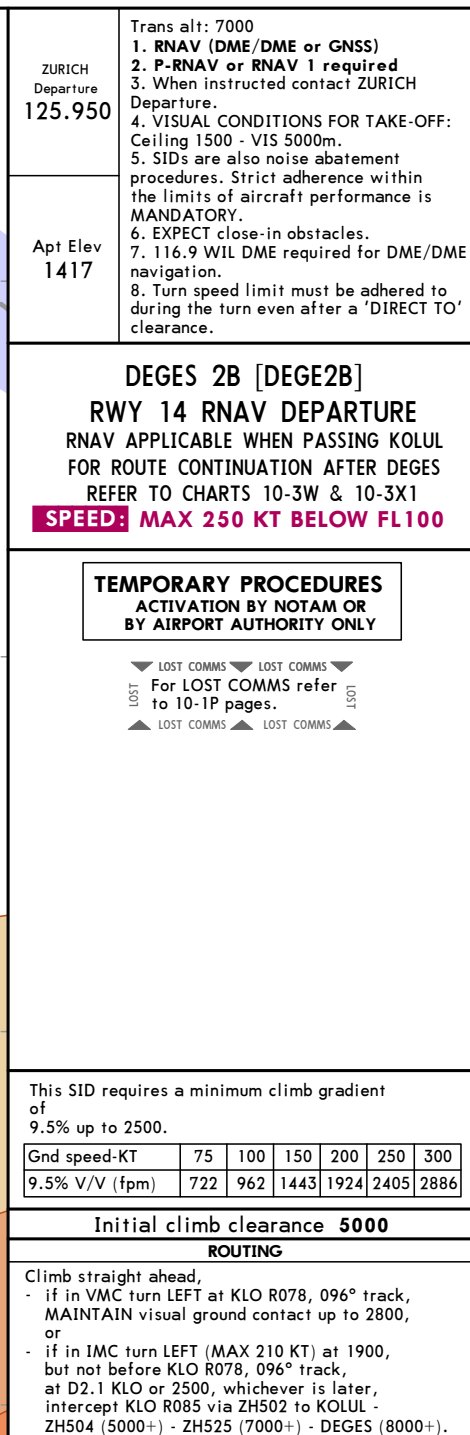
Initial climb clearance **5000**

ROUTING

Climb straight ahead to D2.3 KLO, turn LEFT, intercept WIL R053 inbound to BREGO (5000+) - ZH554 (6000+) - ZH558 (7000+) - VEBIT.

15 SEP 17 **JEPPESEN** 10-3L1

RNAV SID



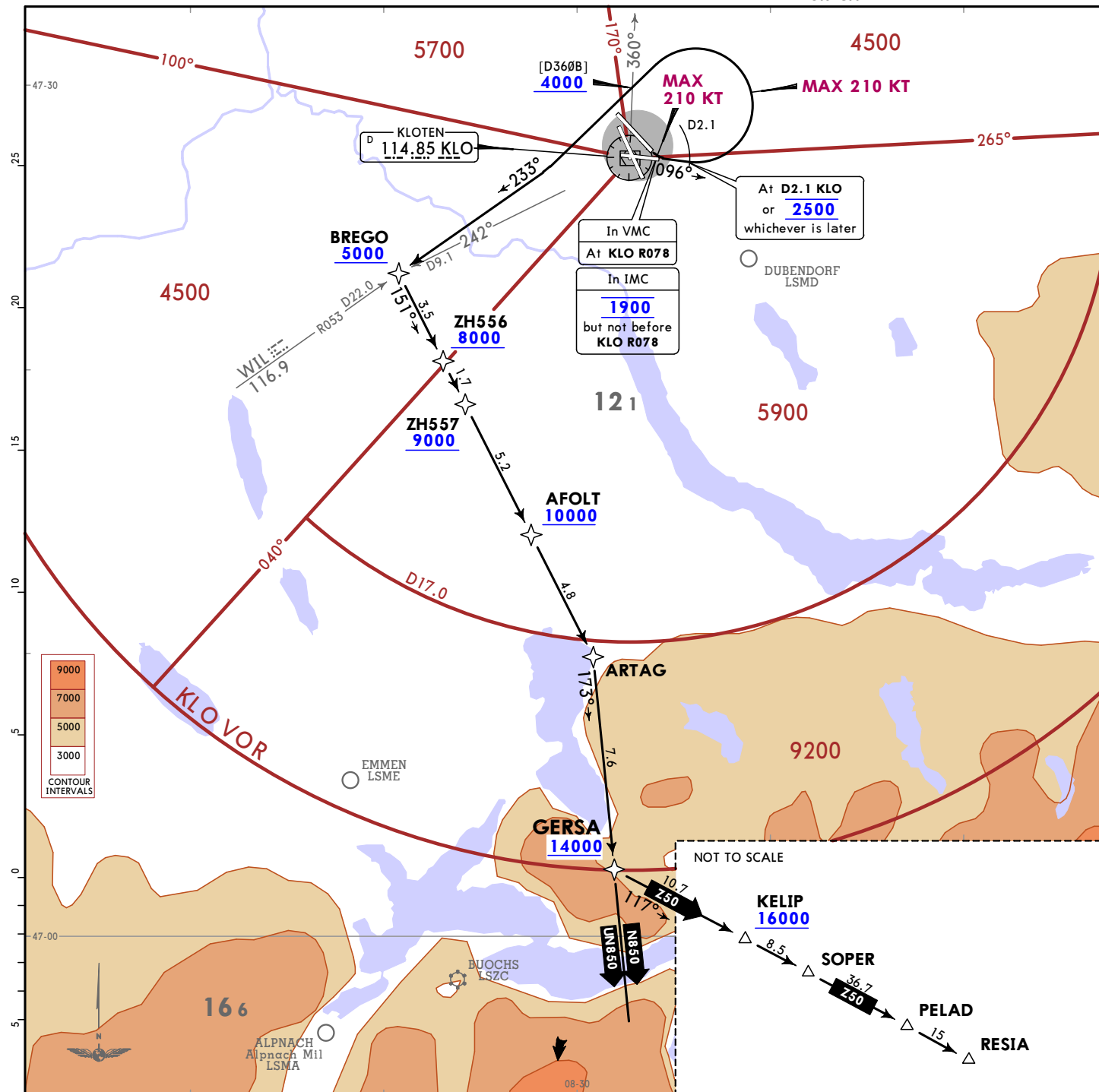
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LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L2

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH
Departure.
4. VISUAL CONDITIONS FOR TAKE-OFF:
Ceiling 1500 - VIS 5000m.
5. SIDs are also noise abatement
procedures. Strict adherence within
the limits of aircraft performance is
MANDATORY.
6. EXPECT close-in obstacles.
7. Turn speed limit must be adhered to
during the turn even after a 'DIRECT TO'
clearance.

GERSA 2B [GERS2B]
RWY 14 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

This SID requires a minimum climb gradient
of
9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance 5000

ROUTING

Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track,
MAINTAIN visual ground contact up to 2800,
or
- if in IMC turn LEFT (MAX 210 KT) at 1900,
but not before KLO R078, 096° track,
at D2.1 KLO or 2500, whichever is later,
turn LEFT, intercept WIL R053 inbound to
BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) -
AFOLT (10000+) - ARTAG - GERSA (14000+).

CONTINUATION

To RESIA: Proceed along airway Z-50.

Other directions: Proceed along airways N/UN-850.

ZURICH, SWITZERLAND

ZURICH Departure 125.950	Trans alt: 7000 1. RNAV (DME/DME or GNSS) 2. B-RNAV or RNAV 5 required 3. When instructed contact ZURICH Departure. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. EXPECT close-in obstacles. 6. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
Apt Elev 1417	

GERSA 1E [GERS1E]
 RWY 10 RNAV DEPARTURE
 RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
 ACTIVATION BY NOTAM OR
 BY AIRPORT AUTHORITY ONLY

For LOST COMMS refer to 10-1P pages.

This SID requires a minimum climb gradient of 6.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975

Initial climb clearance **5000**

ROUTING

Climb straight ahead to D2.1 KLO or 2500,
whichever is later, turn LEFT, intercept WIL R053
inbound to BREGO (5000+) - ZH556 (8000+) - ZH557
(9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).

CONTINUATION

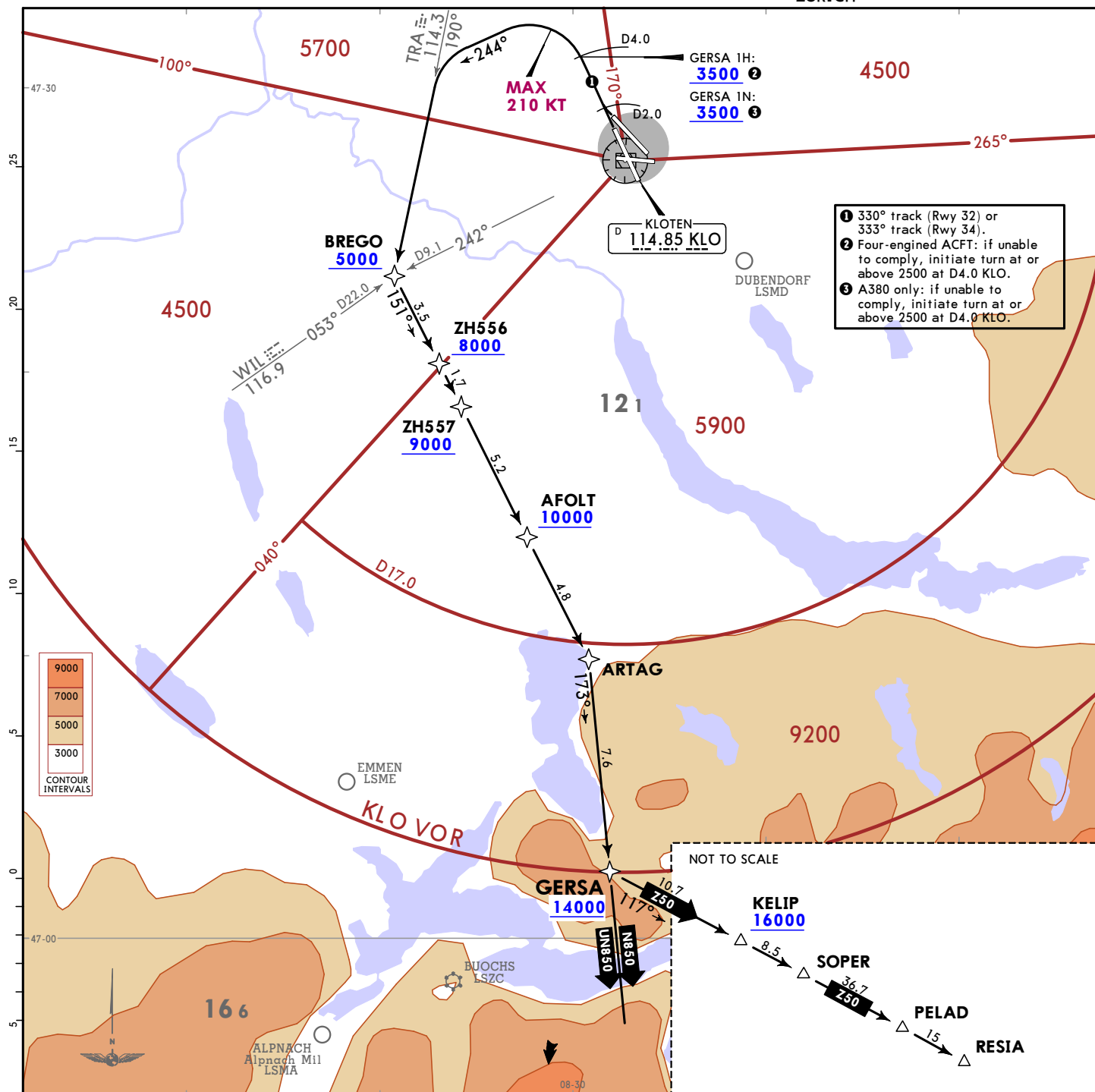
To RESIA: Proceed along airway Z-50.

Other directions: Proceed along airways N/UN-850.

LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L4

ZURICH, SWITZERLAND
RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
6. EXPECT close-in obstacles.

**GERSA 1H [GERS1H]
GERSA 1N [GERS1N]
RNAV DEPARTURES**
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

These SIDs require minimum climb gradients of

GERSA 1H: 5.2% up to 3300.
GERSA 1N: 5.3% up to 3300.

Gnd speed-KT	75	100	150	200	250	300
5.3% V/V (fpm)	403	537	805	1073	1342	1610
5.2% V/V (fpm)	395	527	790	1053	1317	1580

Initial climb clearance **5000**

SID	RWY	ROUTING
GERSA 1H	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).
GERSA 1N	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).

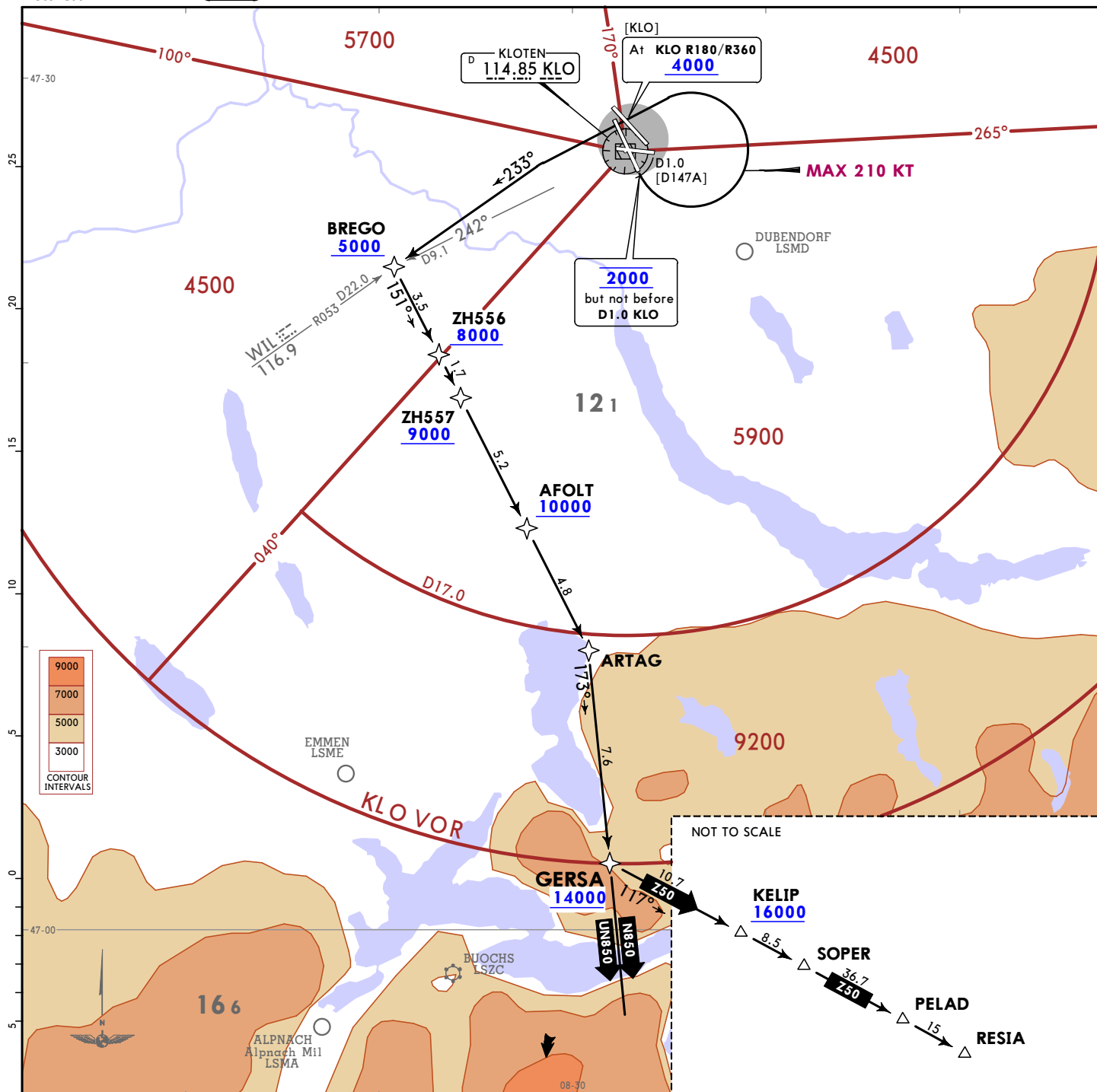
CONTINUATION

To RESIA: Along airway Z-50.
Other directions: Along airways N/UN-850.

LSZH/ZRH
ZURICH
15 SEP 17 (10-3L5)

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH
Departure.
4. SIDs are also noise abatement
procedures. Strict adherence within
the limits of aircraft performance is
MANDATORY.
5. EXPECT close-in obstacles.
6. Turn speed limit must be adhered to
during the turn even after a 'DIRECT TO'
clearance.

GERSA 2S [GERS2S]
RWY 16 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

▼ LOST COMMS ▼ LOST COMMS ▼
For LOST COMMS refer
to 10-1P pages.
▲ LOST COMMS ▲ LOST COMMS ▲

This SID requires a minimum climb gradient
of
6.4% up to 2000.

Gnd speed-KT	75	100	150	200	250	300
6.4% V/V (fpm)	486	648	972	1296	1620	1944

Initial climb clearance **5000**

ROUTING

Climb straight ahead, at 2000, but not before
D1.0 KLO, turn LEFT, cross KLO R180/R360 at or
above 4000, intercept WIL R053 inbound to
BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) -
AFOLT (10000+) - ARTAG - GERSA (14000+).

CONTINUATION

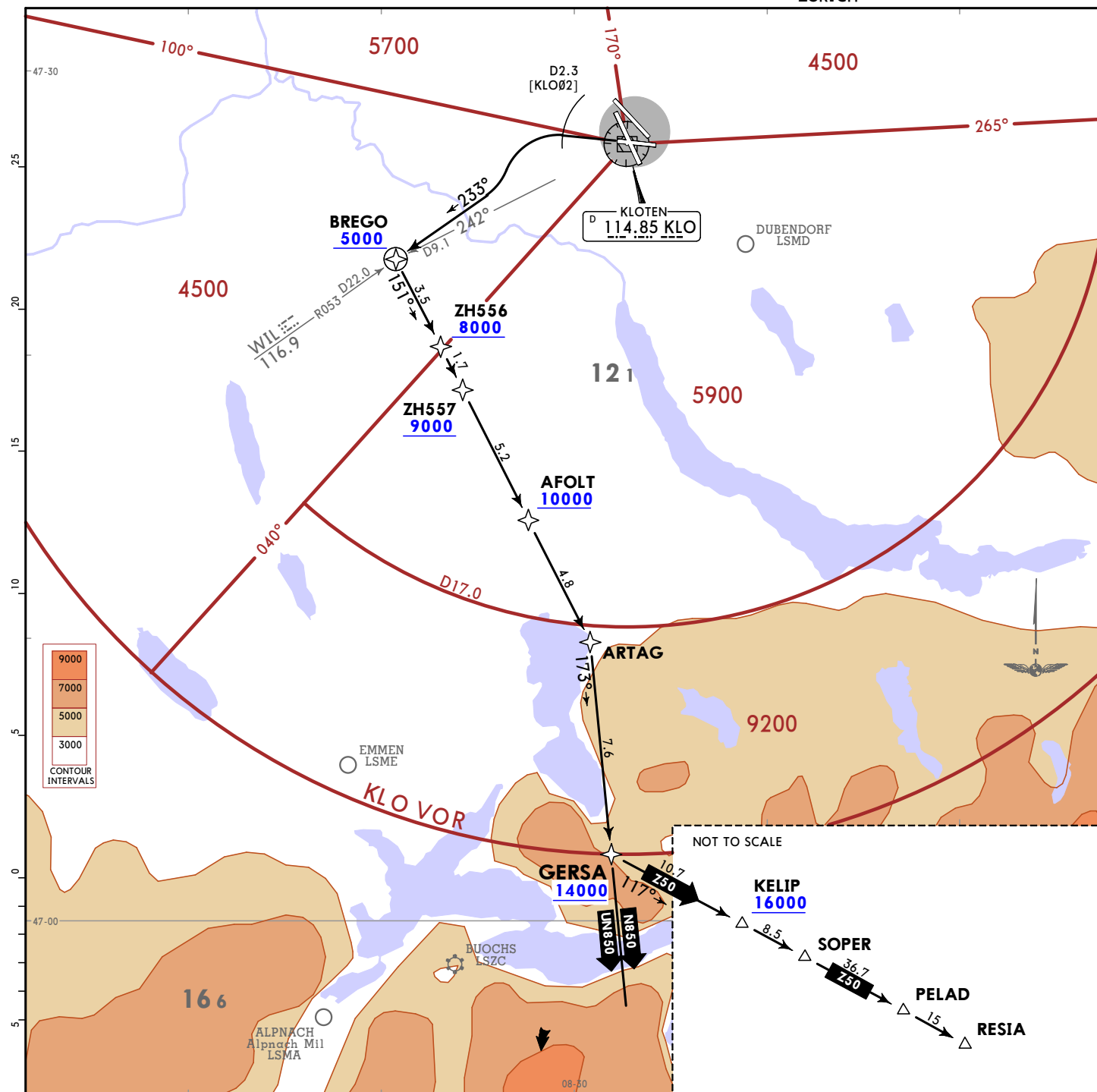
To RESIA: Proceed along airway Z-50.
Other directions: Proceed along airways N/UN-850.

LSZH/ZRH
ZURICH

15 SEP 17 10-3L6

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH
Departure.
4. SIDs are also noise abatement
procedures. Strict adherence within
the limits of aircraft performance is
MANDATORY.

GERSA 2W [GERS2W]
RWY 28 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

This SID requires a minimum climb gradient
of
7% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
7% V/V (fpm)	532	709	1063	1418	1772	2127

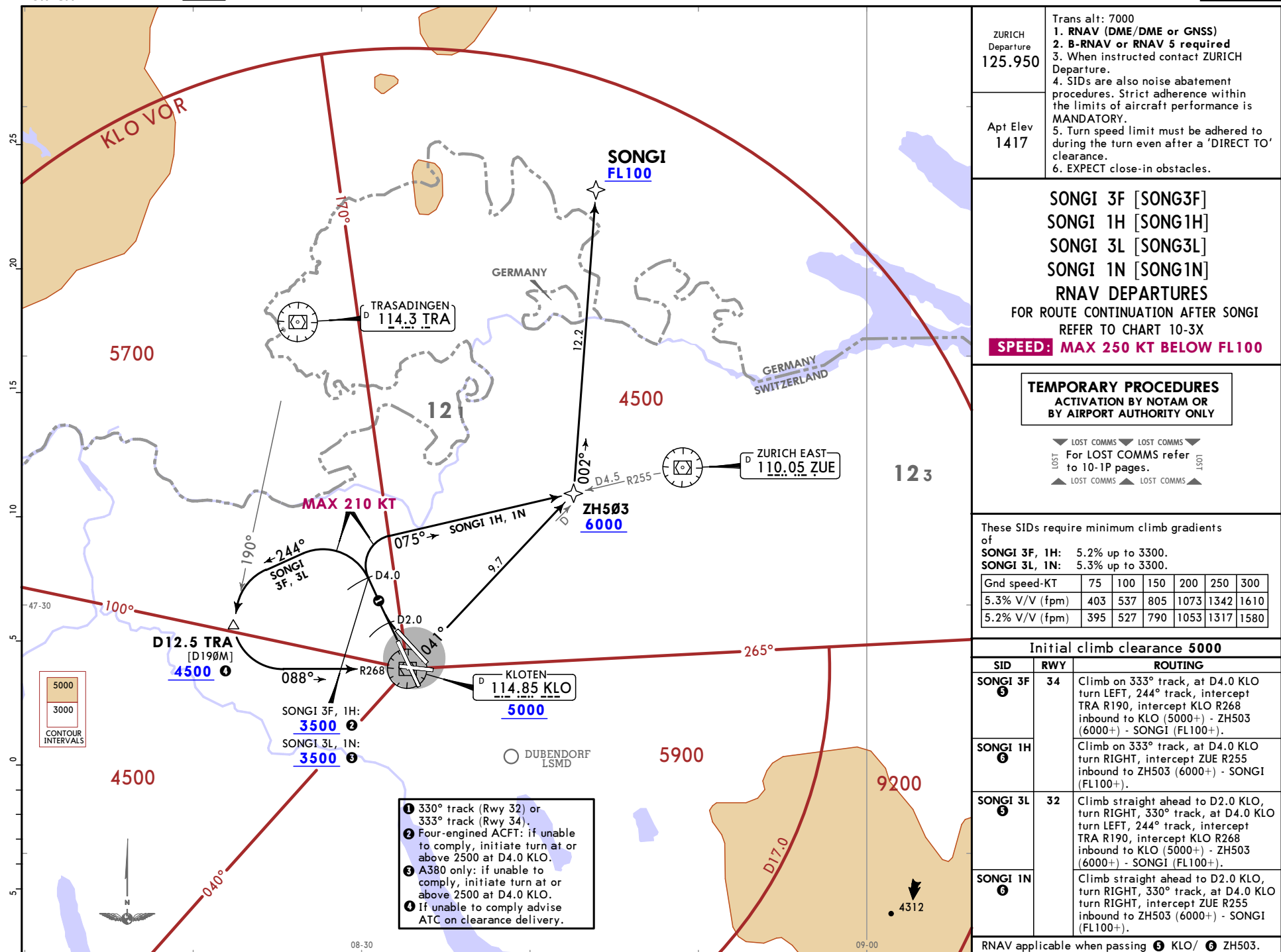
Initial climb clearance **5000**

ROUTING
Climb straight ahead to D2.3 KLO, turn LEFT,
intercept WIL R053 inbound to BREGO (5000+) -
ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) -
ARTAG - GERSA (14000+).

CONTINUATION
To RESIA: Along airway Z-50.
Other directions: Along airways N/UN-850.

ZURICH, SWITZERLAND

RNAV SID



CHANGES: New format.

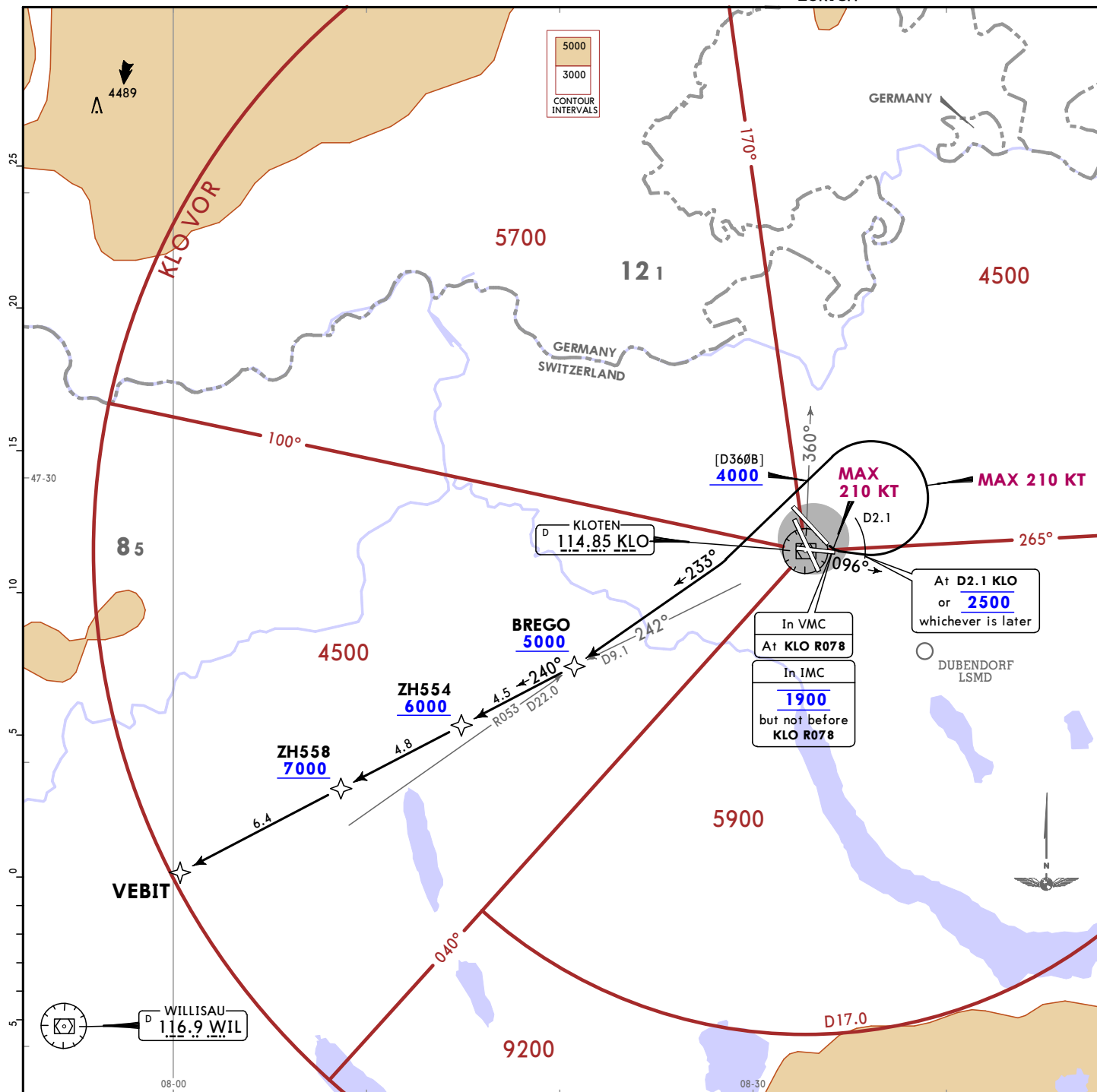
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LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L8

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500 - VIS 5000m.
5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
6. EXPECT close-in obstacles.
7. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

VEBIT 3B [VEBI3B]
RWY 14 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
FOR ROUTE CONTINUATION AFTER VEBIT
REFER TO CHART 10-3X2
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer to 10-1P pages.

This SID requires a minimum climb gradient of 9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance **5000**

ROUTING

Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track, MAINTAIN visual ground contact up to 2800, or
- if in IMC turn LEFT (MAX 210 KT) at 1900, but not before KLO R078, 096° track, at D2.1 KLO or 2500, whichever is later, turn LEFT, intercept WIL R053 inbound to BREGO (5000+) - ZH554 (6000+) - ZH558 (7000+) - VEBIT.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3M)

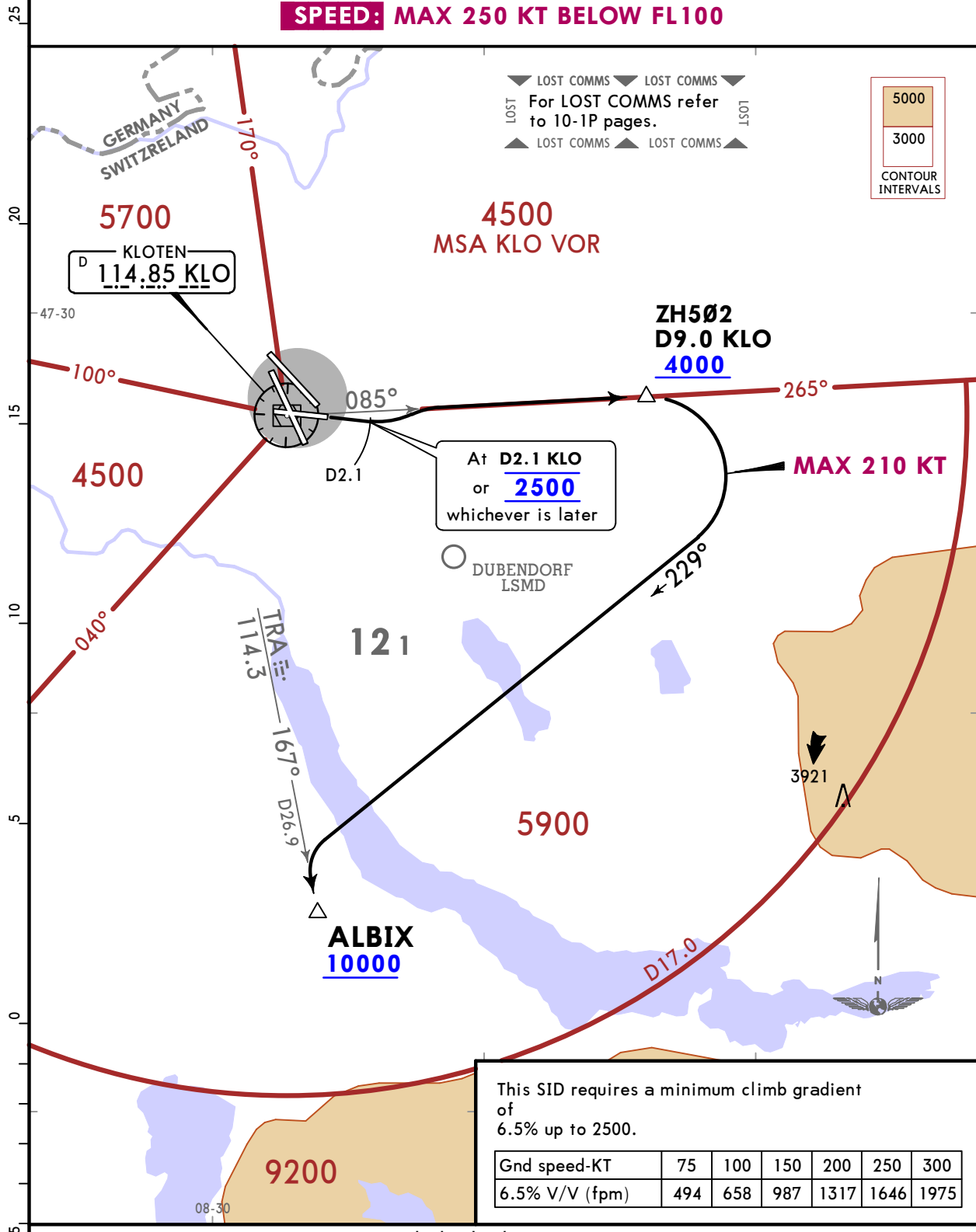
ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ALBIX 1C [ALBI1C]
RWY 10 DEPARTURE**SPEED: MAX 250 KT BELOW FL100**

Initial climb clearance 5000

ROUTING

Climb straight ahead to D2.1 KLO or 2500, whichever is later, intercept KLO R085 to ZH502/D9.0 KLO, turn RIGHT, 229° track, intercept TRA R167 to ALBIX.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3N)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

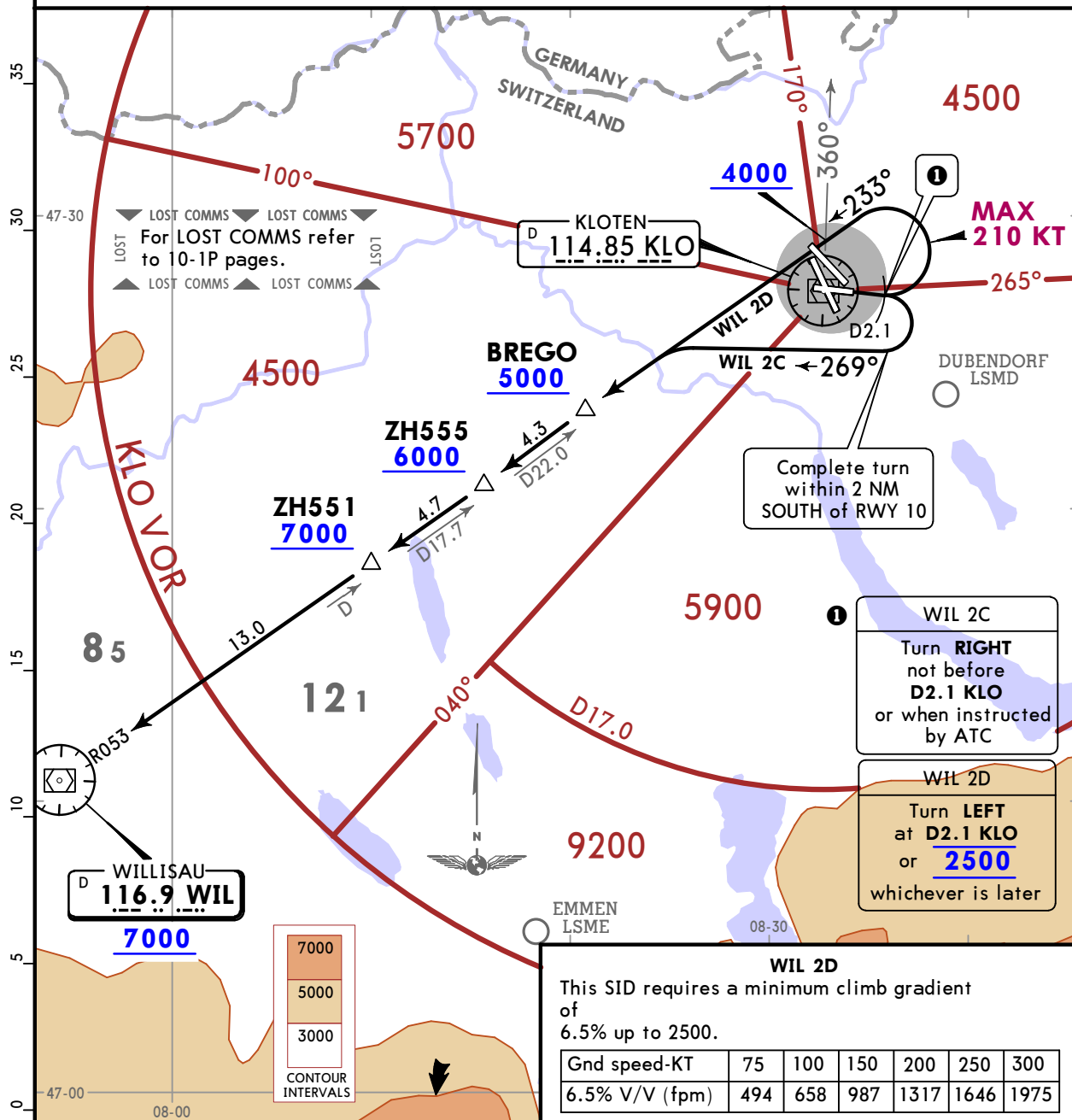
Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

WILLISAU 2C (WIL 2C)

WILLISAU 2D (WIL 2D)

RWY 10 DEPARTURES

SPEED: MAX 250 KT BELOW FL100

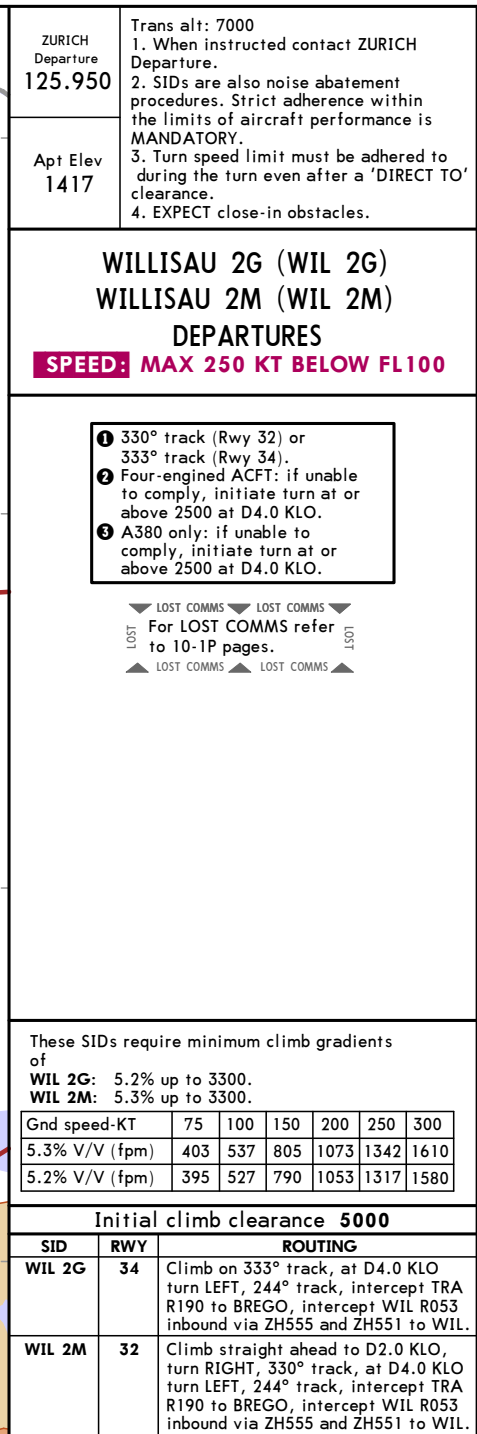
Initial climb clearance 5000

SID	ROUTING
WIL 2C FOR PROPELLER AIRCRAFT IN VISUAL CONDITIONS ONLY ②	Climb straight ahead, short VISUAL RIGHT turn not before D2.1 KLO or when instructed by ATC, complete turn within 2 NM SOUTH of runway 10 and MAINTAIN visual ground contact up to 4400, 269° track, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.
WIL 2D	Climb straight ahead to D2.1 KLO or 2500, whichever is later, turn LEFT, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.

② Allocated only if the relevant hill tops for visual part are clearly visible by TWR.

15 SEP 17 10-3P

SID



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LSZH/ZRH
ZURICH

15 SEP 17 (10-3Q)

ZURICH, SWITZERLAND

SID

ZURICH Departure 125.950	Trans alt: 7000 1. When instructed contact ZURICH Departure. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. EXPECT close-in obstacles. 4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
Apt Elev 1417	

WILLISAU 2Q (WIL 2Q)
WILLISAU 3R (WIL 3R)
RWY 16 DEPARTURES

SPEED: MAX 250 KT BELOW FL100

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

MAX 210 KT

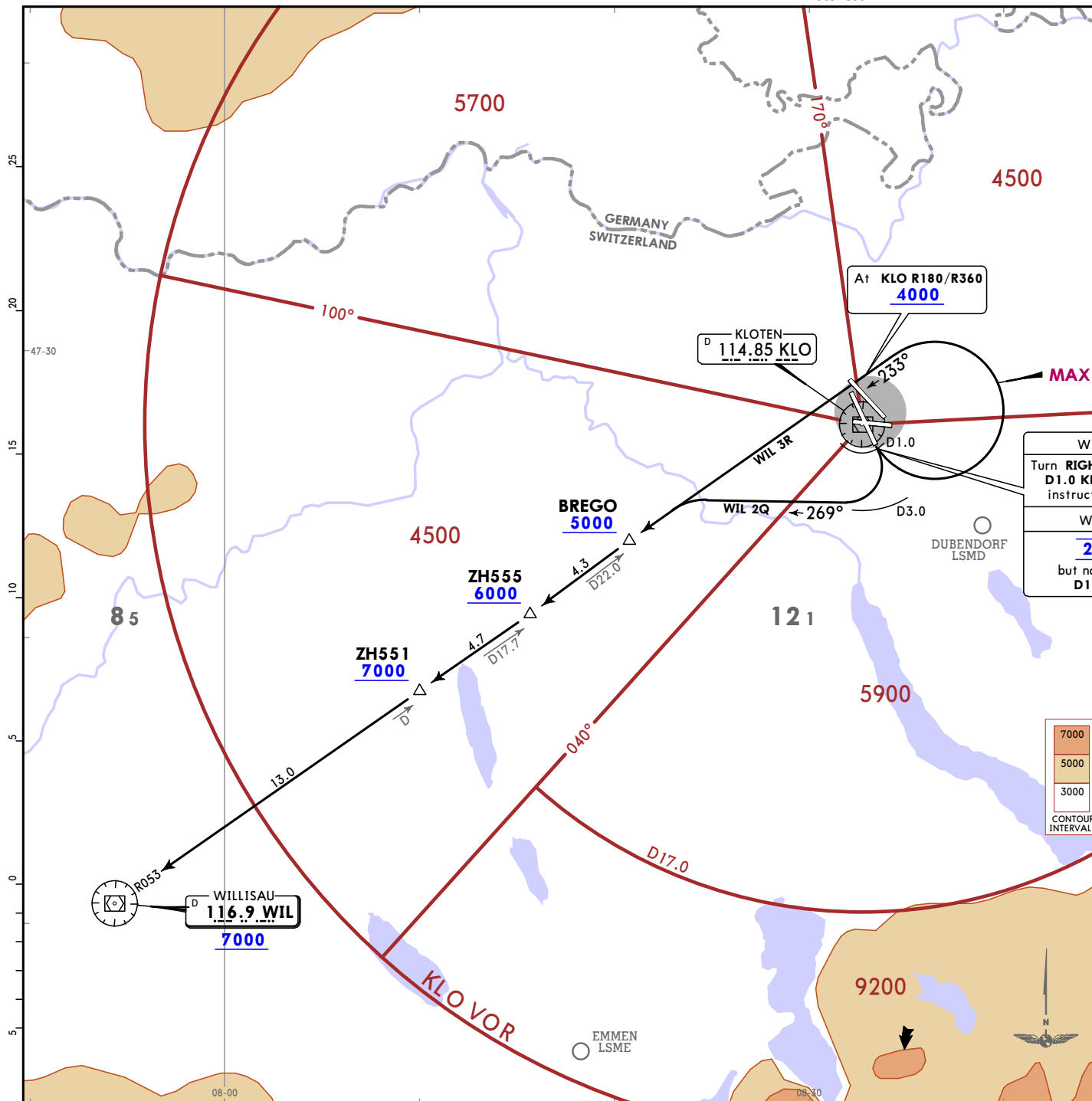
WIL 2Q
Turn RIGHT not before D1.0 KLO or when instructed by ATC
WIL 3R
2000 but not before D1.0 KLO

WIL 3R						
This SID requires a minimum climb gradient of 6.4% up to 2000.						
Gnd speed-KT	75	100	150	200	250	300
6.4% V/V (fpm)	486	648	972	1296	1620	1944

Initial climb clearance 5000

SID	ROUTING
WIL 2Q FOR PROPELLER AIRCRAFT IN VISUAL CONDITIONS ONLY ①	Climb straight ahead, short VISUAL RIGHT turn not before D1.0 KLO or when instructed by ATC, complete turn within D3.0 KLO and MAINTAIN visual ground contact up to 4400, 269° track, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.
WIL 3R	Climb straight ahead, at 2000, but not before D1.0 KLO, turn LEFT, cross KLO R180/R360 at or above 4000, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.

① Allocated only if the relevant hill tops for visual
part are clearly visible by TWR.



LSZH/ZRH
ZURICHJEPPesen
15 SEP 17 (10-3S)

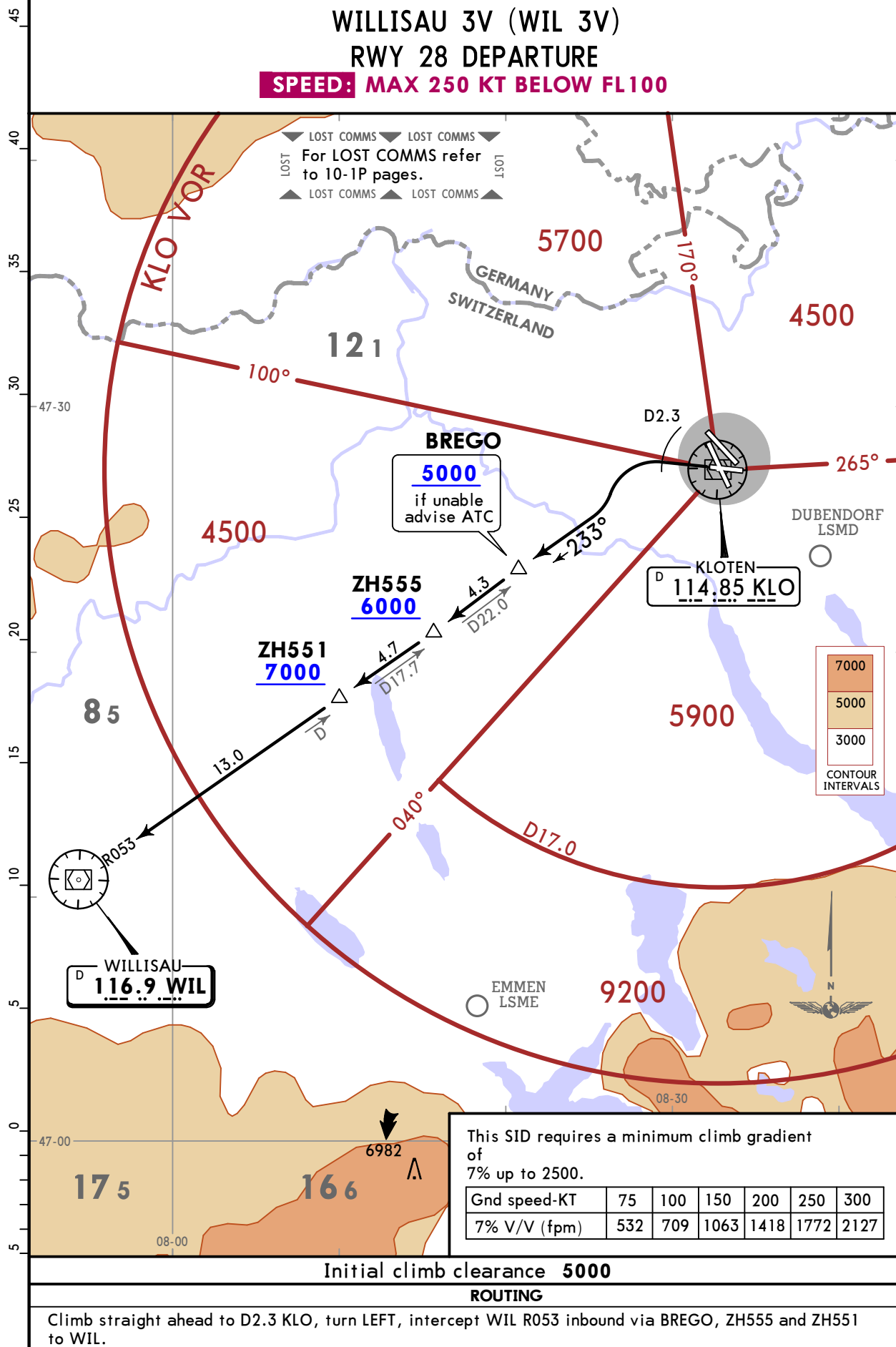
ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.



LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3T)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

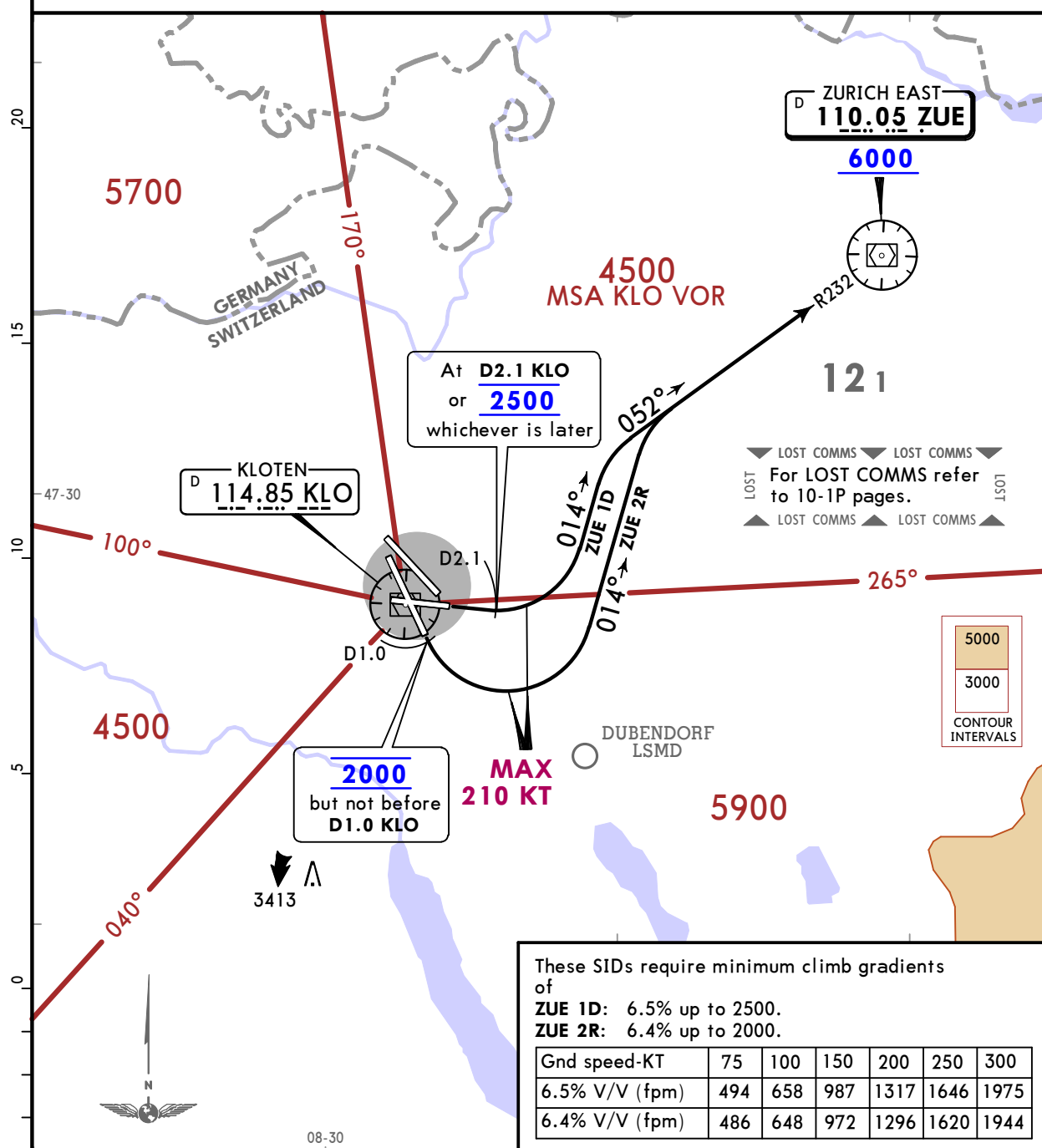
1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ZURICH EAST 1D (ZUE 1D)

ZURICH EAST 2R (ZUE 2R)

DEPARTURES

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100Initial climb clearance **5000**

SID	RWY	ROUTING
ZUE 1D	10	Climb straight ahead to D2.1 KLO or 2500, whichever is later, turn LEFT, 014° track, intercept ZUE R232 inbound to ZUE.
ZUE 2R	16	Climb straight ahead, at 2000, but not before D1.0 KLO, turn LEFT, 014° track, intercept ZUE R232 inbound to ZUE.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3U)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

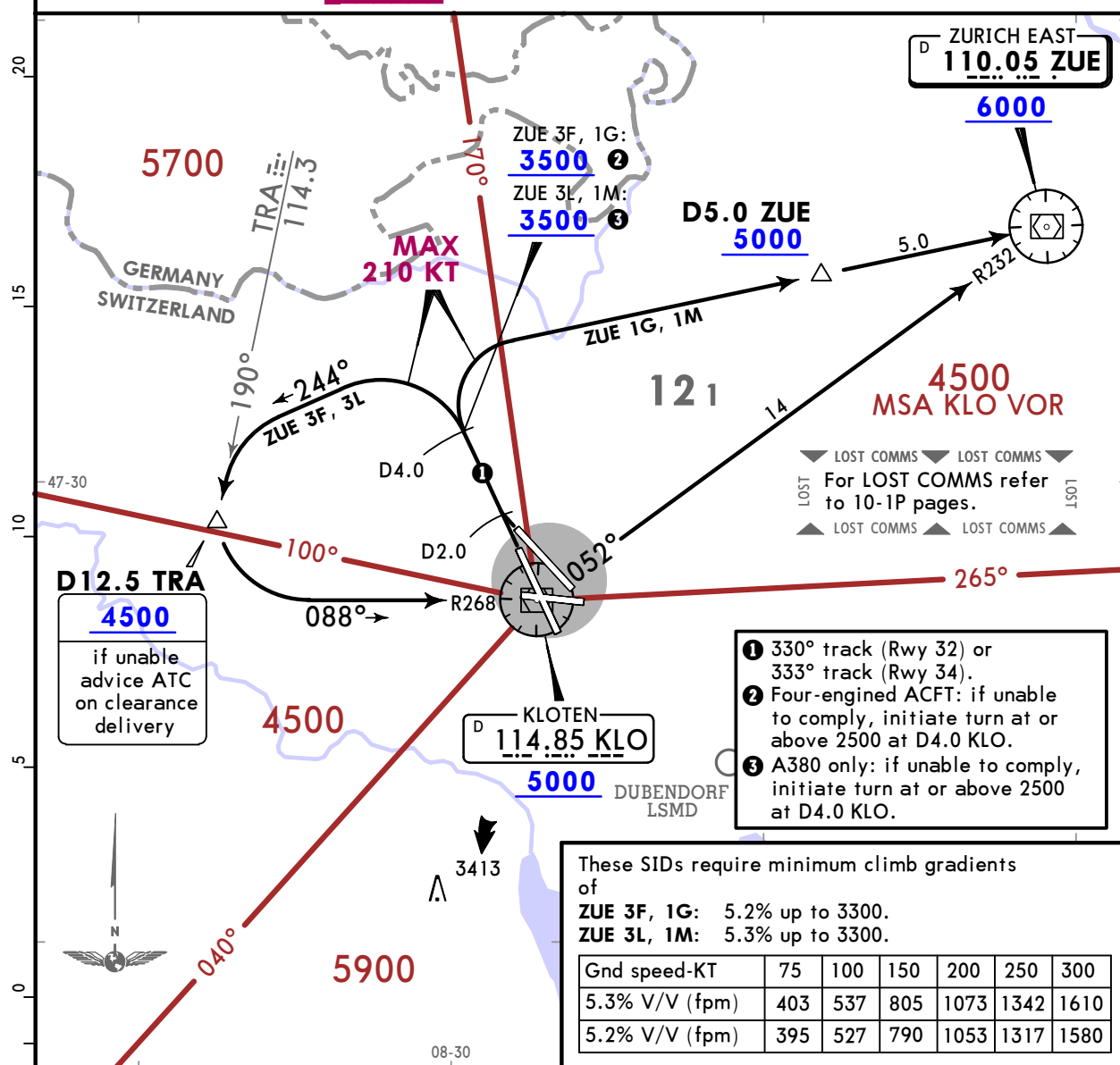
Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
4. EXPECT close-in obstacles.

ZURICH EAST 3F (ZUE 3F)
ZURICH EAST 1G (ZUE 1G)
ZURICH EAST 3L (ZUE 3L)
ZURICH EAST 1M (ZUE 1M)

DEPARTURES

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100Initial climb clearance **5000**

SID	RWY	ROUTING
ZUE 3F	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190, intercept KLO R268 inbound to KLO, intercept ZUE R232 inbound to ZUE.
ZUE 1G		Climb on 333° track, at D4.0 KLO turn RIGHT to ZUE.
ZUE 3L	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190, intercept KLO R268 inbound to KLO, intercept ZUE R232 inbound to ZUE.
ZUE 1M		Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn RIGHT to ZUE.

LSZH/ZRH
ZURICH

15 SEP 17 (10-3V)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950

Apt Elev
1417

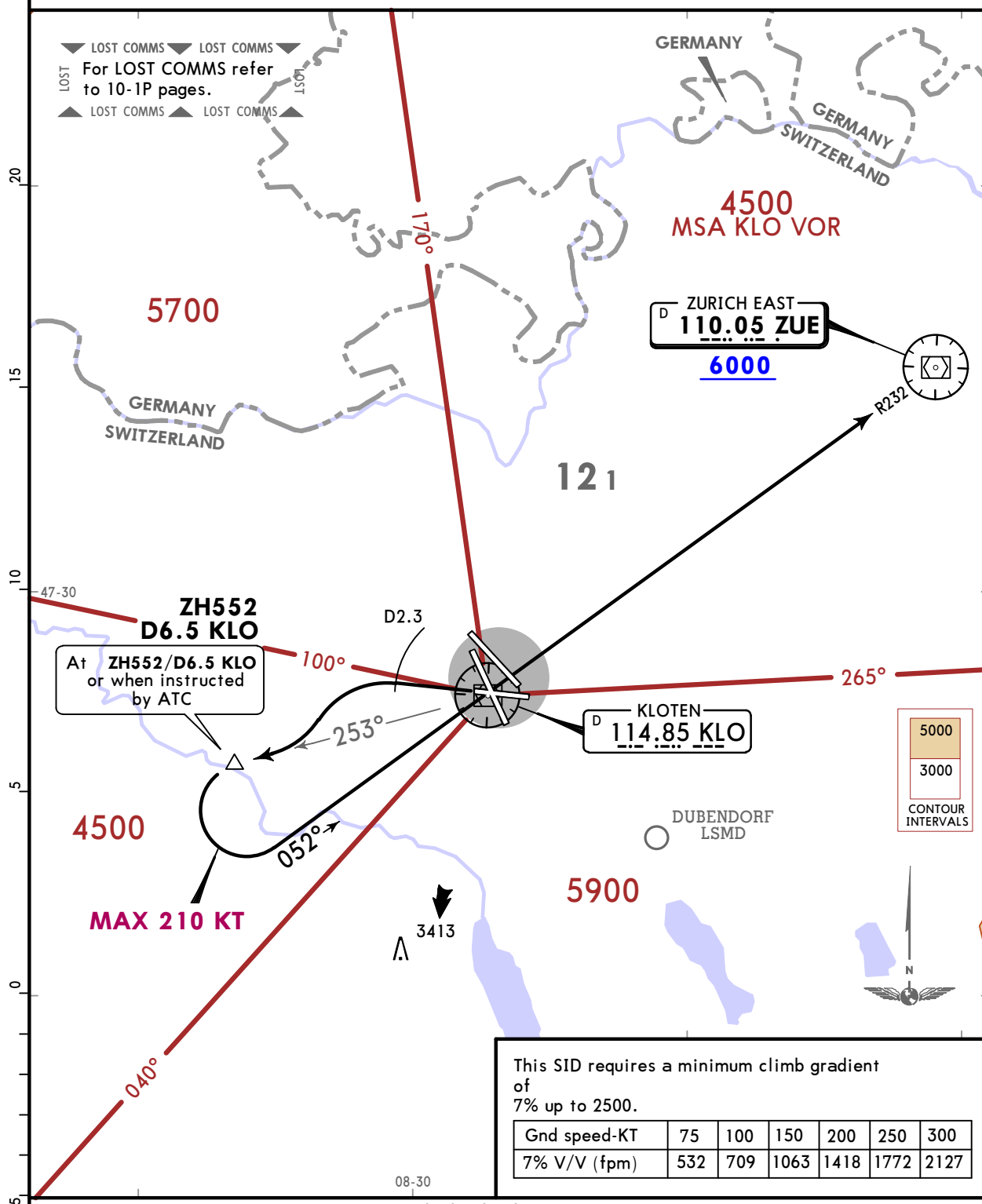
Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ZURICH EAST 2V (ZUE 2V)
RWY 28 DEPARTURE

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100

Initial climb clearance **5000**

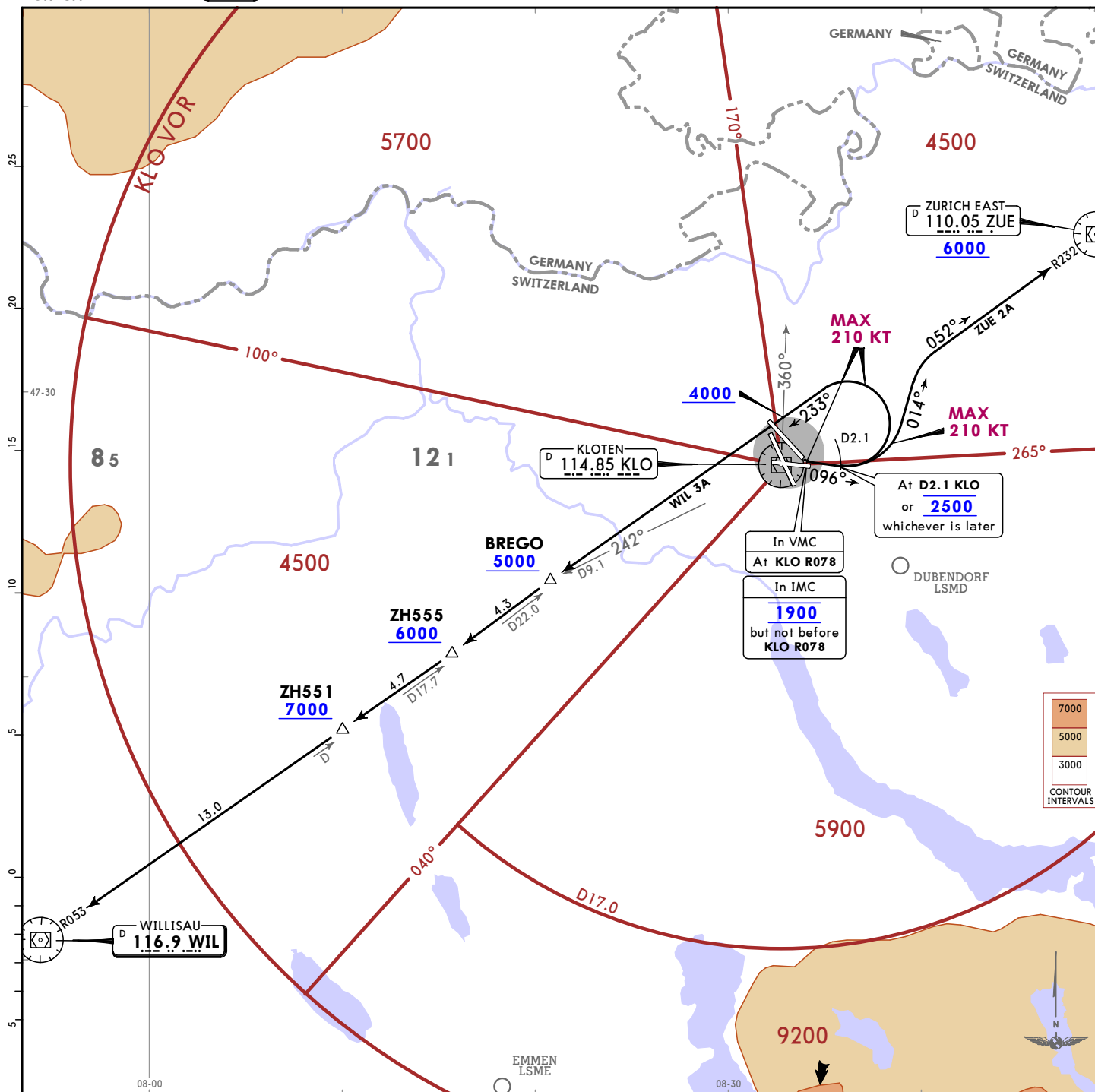
ROUTING

Climb straight ahead to D2.3 KLO, turn LEFT, intercept KLO R253, at ZH552/D6.5 KLO or when instructed by ATC turn LEFT, intercept ZUE R232 inbound to ZUE.

LSZH/ZRH
ZURICH
15 SEP 17 (10-3V1)

ZURICH, SWITZERLAND

SID



ZURICH Departure 125.950	Trans alt: 7000 1. When instructed contact ZURICH Departure. 2. VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500 - VIS 5000m. 3. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 4. EXPECT close-in obstacles. 5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
Apt Elev 1417	

WILLISAU 3A (WIL 3A)
ZURICH EAST 2A (ZUE 2A)
RWY 14 DEPARTURES
FOR ROUTE CONTINUATION AFTER ZUE
REFER TO CHARTS 10-3W & 10-3X1
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

These SIDs require a minimum climb gradient
of
9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance 5000

INITIAL CLIMB

Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track,
MAINTAIN visual ground contact up to 2800, or
- if in IMC turn LEFT at 1900, but not before KLO R078,
096° track, at D2.1 KLO or 2500 whichever is later,
turn LEFT.

SID	ROUTING
WIL 3A	Intercept WIL R053 inbound to WIL.
ZUE 2A	014° track, intercept ZUE R232 inbound to ZUE.

LSZH/ZRH
ZURICH

JEPPESEN
15 SEP 17 10-3W

ZURICH, SWITZERLAND

TRANSITION

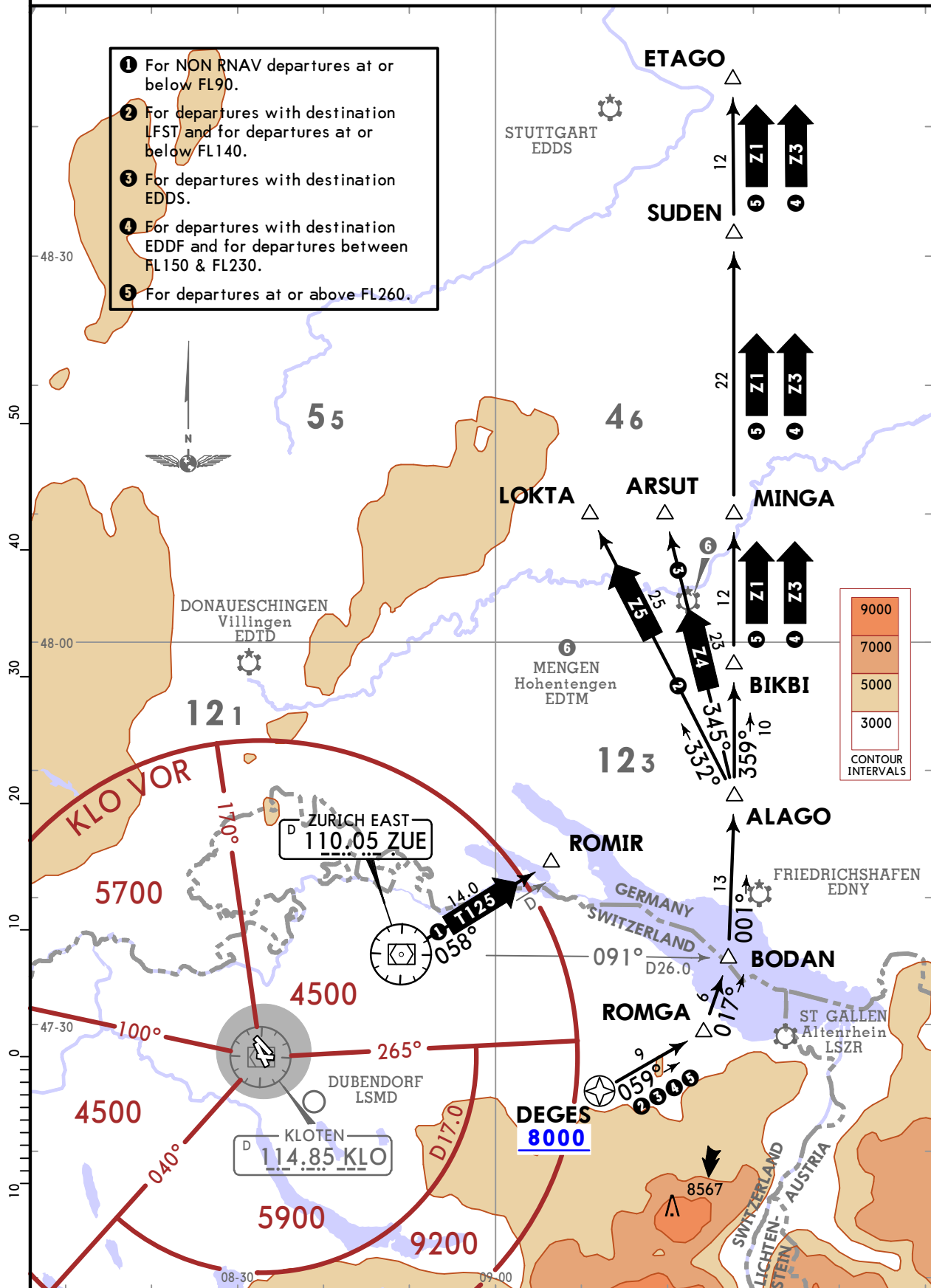
Apt Elev
1417

Trans alt: 7000

NORTHBOUND TRANSITION ROUTES AFTER DEGES & ZUE

RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100

SPEED: MAX 250 KT BELOW FL100



CHANGES: New format.

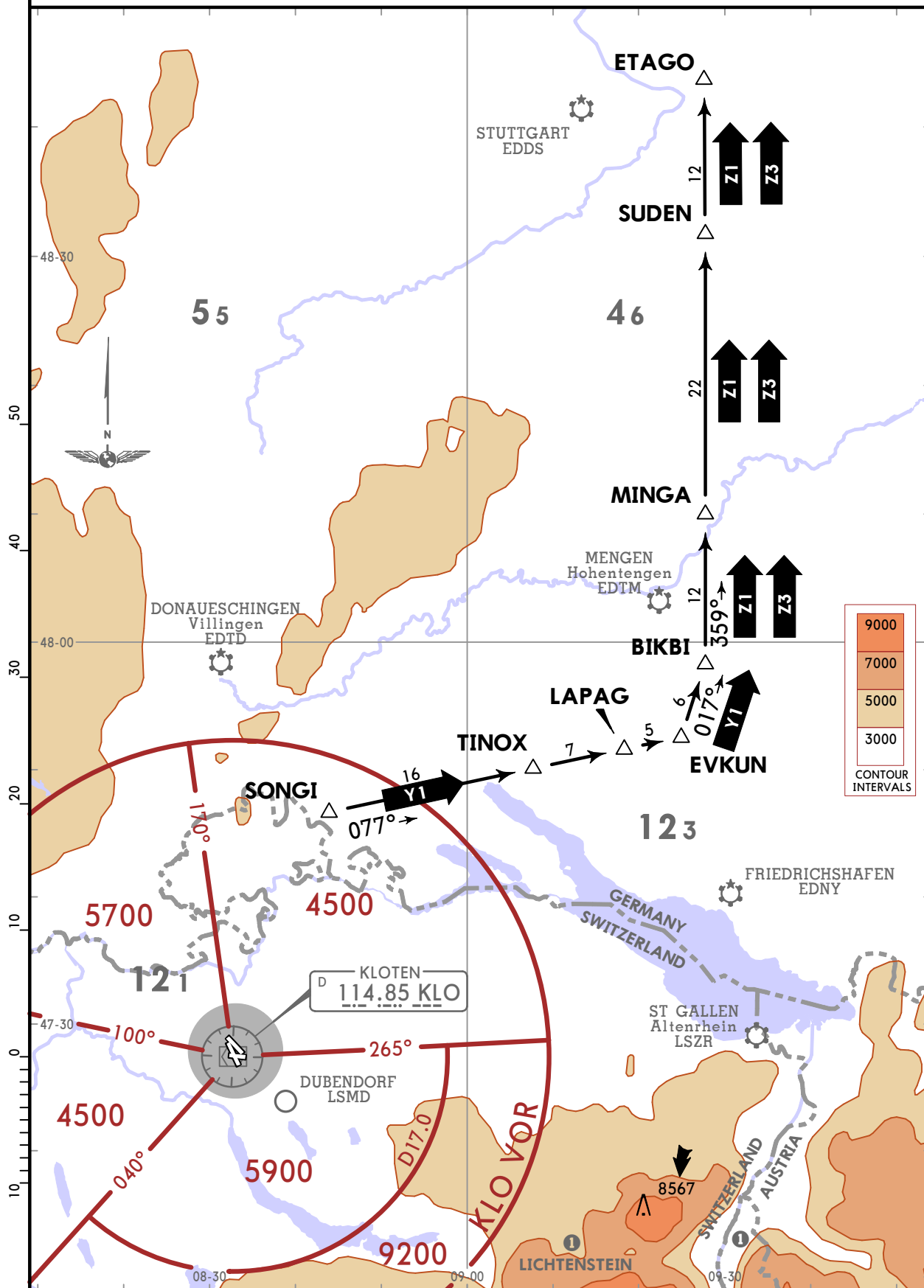
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ZURICHJEPPESEN
15 SEP 17 (10-3X)ZURICH, SWITZERLAND
TRANSITIONApt Elev
1417

Trans alt: 7000

NORTHBOUND TRANSITION ROUTES
AFTER SONGI

RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100

SPEED: MAX 250 KT BELOW FL100

LSZH/ZRH
ZURICH
15 SEP 17 (10-3X1)

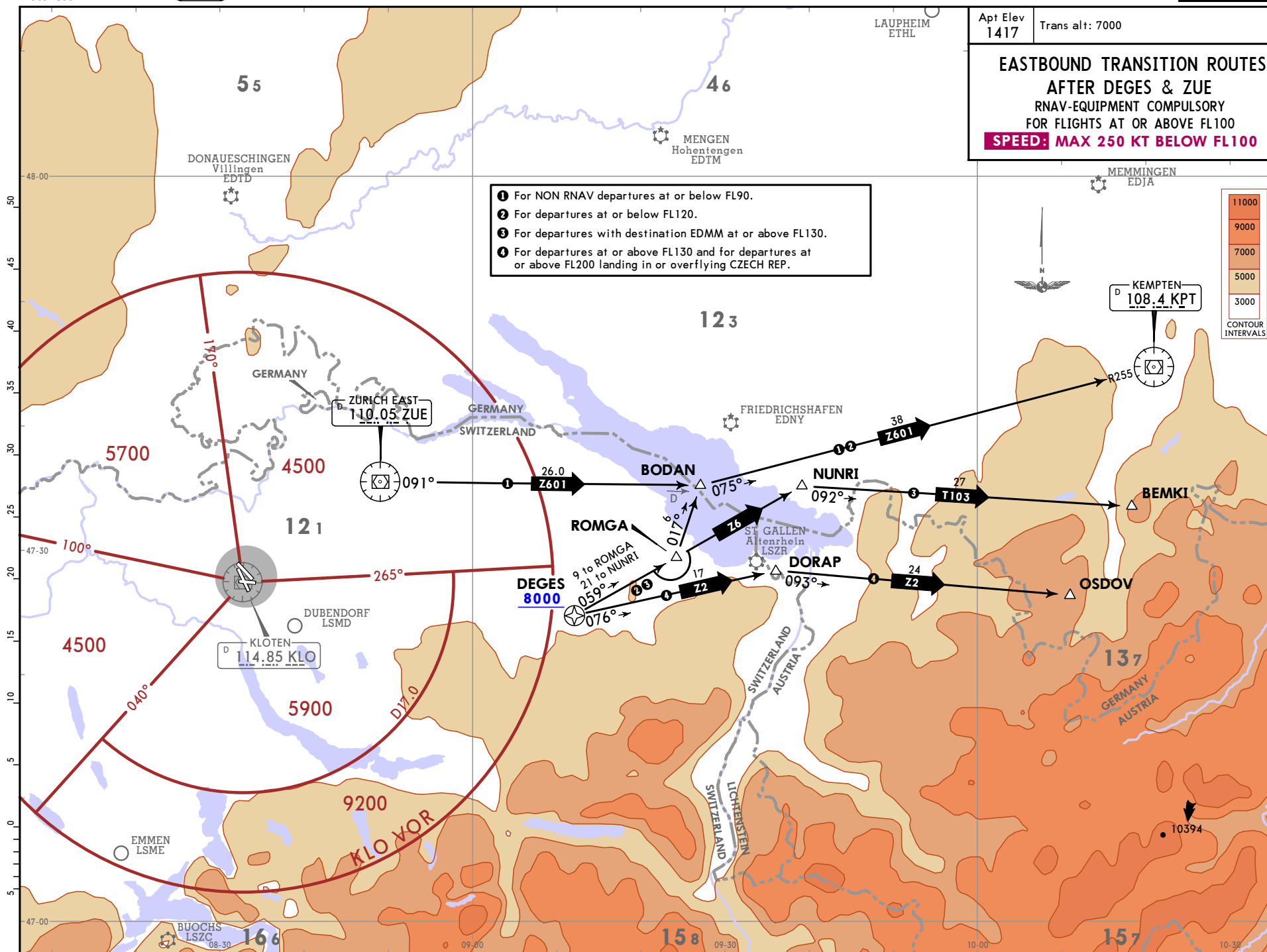
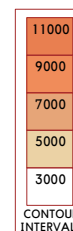
ZURICH, SWITZERLAND
TRANSITION

Apt Elev
1417

Trans alt: 7000

**EASTBOUND TRANSITION ROUTES
AFTER DEGES & ZUE**
RNAV-EQUIPMENT COMPULSORY
FOR FLIGHTS AT OR ABOVE FL100
SPEED: MAX 250 KT BELOW FL100

- 1 For NON RNAV departures at or below FL90.
- 2 For departures at or below FL120.
- 3 For departures with destination EDMM at or above FL130.
- 4 For departures at or above FL130 and for departures at or above FL200 landing in or overflying CZECH REP.



LSZH/ZRH
ZURICH

JEPPESEN
15 SEP 17 10-3X2

ZURICH, SWITZERLAND
TRANSITION

Apt Elev
1417

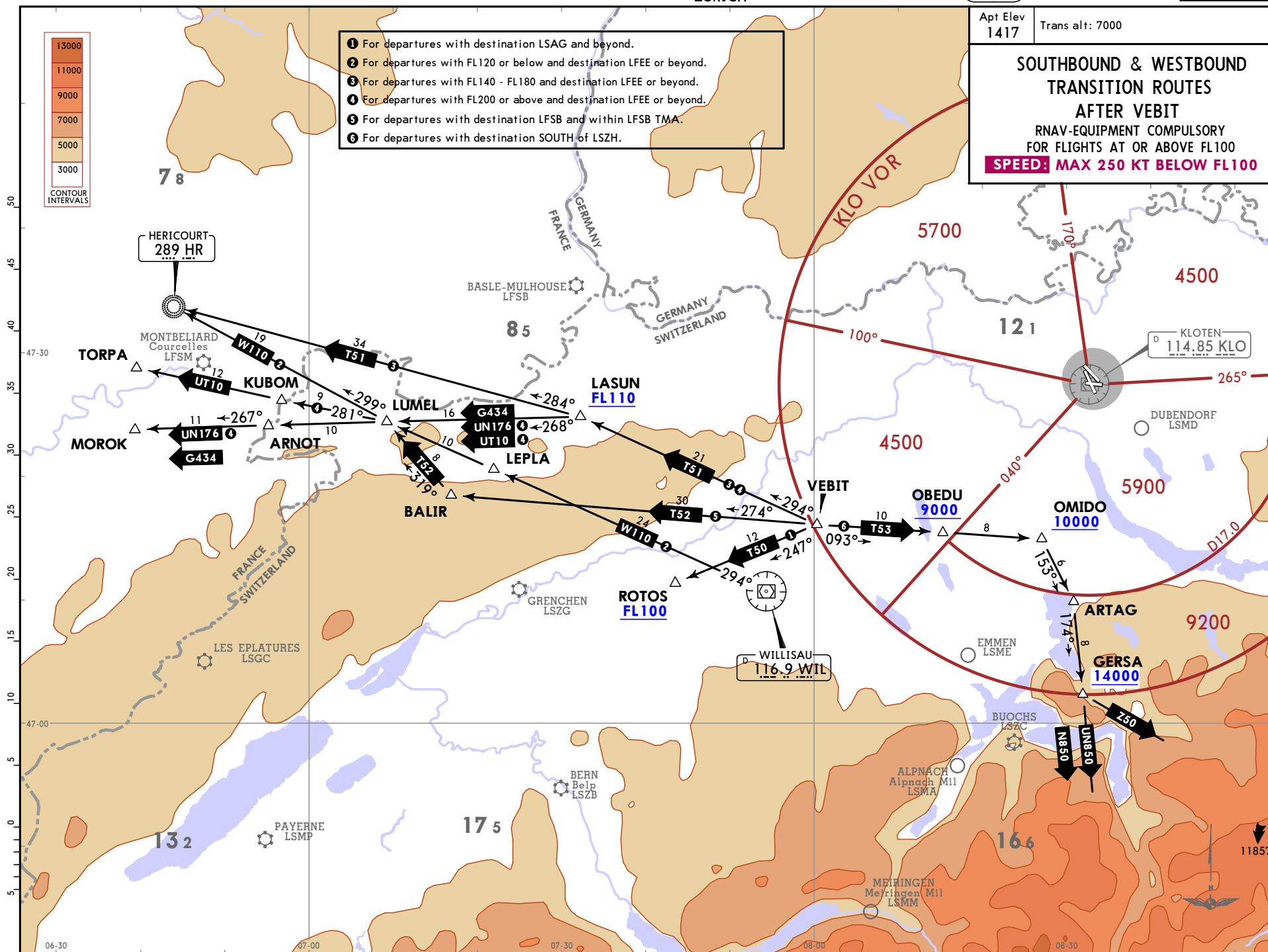
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**SOUTHBOUND & WESTBOUND
TRANSITION ROUTES
AFTER VEBIT**

RNAV-EQUIPMENT COMPULSORY
FOR FLIGHTS AT OR ABOVE FL100

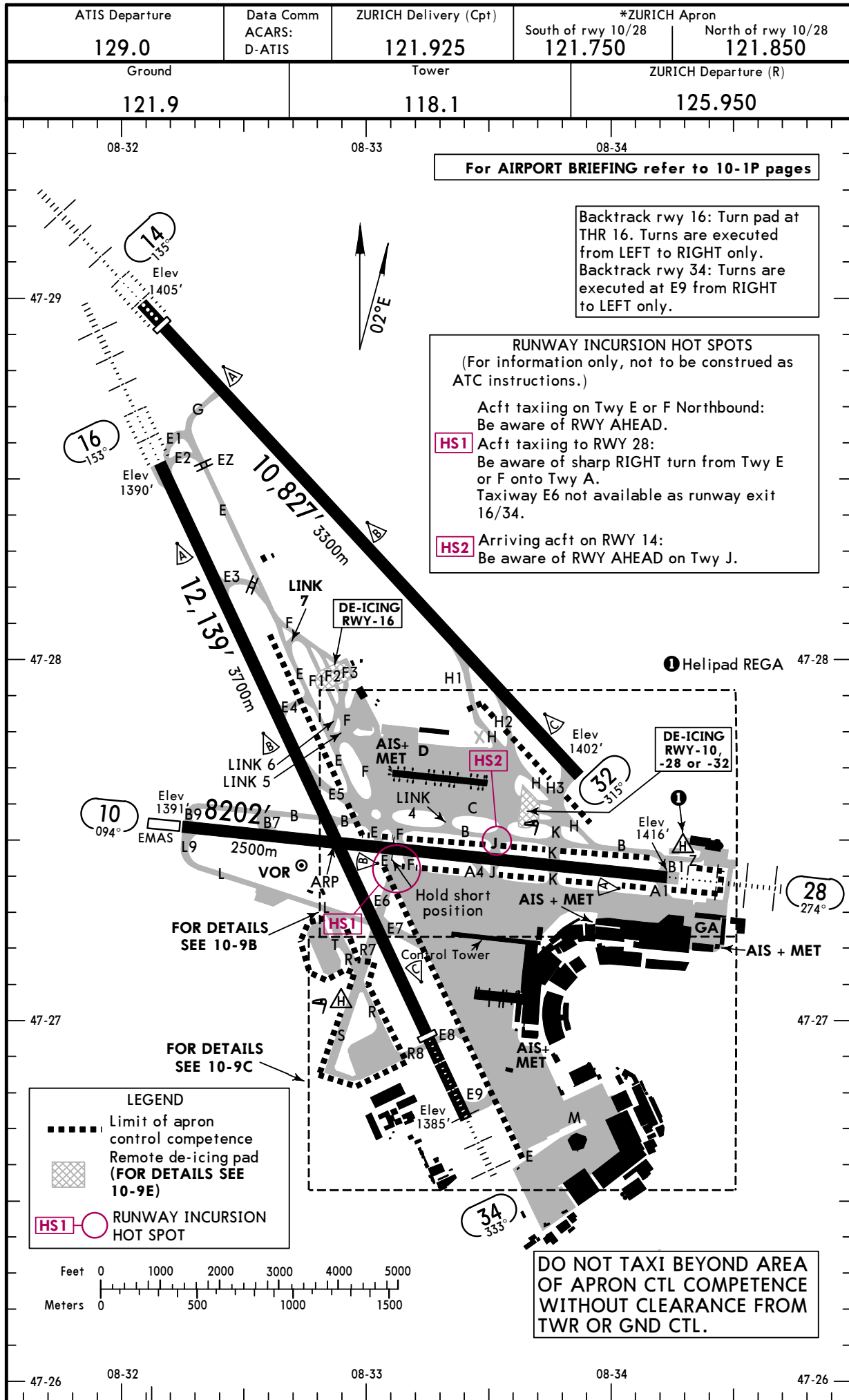
SPEED: MAX 250 KT BELOW FL100

- 1 For departures with destination LSAG and beyond.
- 2 For departures with FL120 or below and destination LFEE or beyond.
- 3 For departures with FL140 - FL180 and destination LFEE or beyond.
- 4 For departures with FL200 or above and destination LFEE or beyond.
- 5 For departures with destination LFSB and within LFSB TMA.
- 6 For departures with destination SOUTH of LSZH.



LSZH/ZRH
 Apt Elev **1417'**
 N47 27.5 E008 32.9

JEPPesen
 31 AUG 18 **(10-9)** Eff 13 Sep

ZURICH, SWITZERLAND
ZURICH


LSZH/ZRH

JEPPESEN
31 AUG 18 (10-9A) Eff 13 Sep

ZURICH, SWITZERLAND

ZURICH

ADDITIONAL RUNWAY INFORMATION						
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH	
		LANDING BEYOND				
		Threshold	Glide Slope			
10	1	RL (45m) CL (15m)			197'	
28		HIRL (45m) CL (15m) HIALS 2 PAPI-L (3.3°) REIL RVR	7205' 2196m	3	60m	
1 Rwy grooved.						
2 ALS also available.						
3 TAKE-OFF RUN AVAILABLE						
RWY 28:						
From rwy head 8202' (2500m)						
twy K int 6234' (1900m)						
14	4	HIRL (30m) CL (15m) HIALS-II TDZ 5 6	RVR	10,334' 3150m 9186' 2800m	7	
32		HIRL (30m) CL (15m) REIL	RVR		197'	
4 Rwy grooved.						
5 PAPI-L (3.0°)						
6 HSTIL HST-H1						
7 TAKE-OFF RUN AVAILABLE						
RWY 14: From rwy head 10,827' (3300m)						
twy G int 8858' (2700m)						
RWY 32: From rwy head 10,827' (3300m)						
twy H2 int 8858' (2700m)						
16	8	HIRL (30m) CL (15m) HIALS-II 9 TDZ 10 REIL	RVR	10,879' 3316m	11	
34		HIRL (30m) CL (15m) HIALS PAPI-L (3.3°) REIL	RVR	10,597' 3230m 9686' 2952m	197'	
8 Rwy grooved.						
9 ALS also available.						
10 PAPI-L (3.0°)						
11 TAKE-OFF RUN AVAILABLE						
RWY 16: From rwy head 12,139' (3700m)						
twy E3 int 9843' (3000m)						
RWY 34: From rwy head 12,139' (3700m)						
twy E8/R8 int 10,728' (3270m)						
twy E7/R7 int 8432' (2570m)						
Standard TAKE-OFF						
Rwys 16, 28, 32, 34 Low Visibility Take-off				All Rwys 1		
2 HIRL, CL & relevant RVR		RL, CL & relevant RVR		Day: RL or RCLM Night: RL or CL		
Day: RL or RCLM Night: RL or CL		Day: RL or RCLM Night: RL or CL		Adequate vis ref (Day only)		
A	TDZ, MID, RO	TDZ, MID, RO	RVR 200m	RVR 300m	500m	
B	RVR 125m	RVR 150m			600m	
C						
D	3 RVR 150m	3 RVR 200m	RVR 250m	RVR 400m	800m	
1 Take-off rwy 14 is subject to activation by airport authority.						
2 RWY 14,16: RVR 75m with approved guidance system or HUD/HUDLS.						
3 TDZ, MID, RO						

CHANGES: None.

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LSZH/ZRH

31 AUG 18

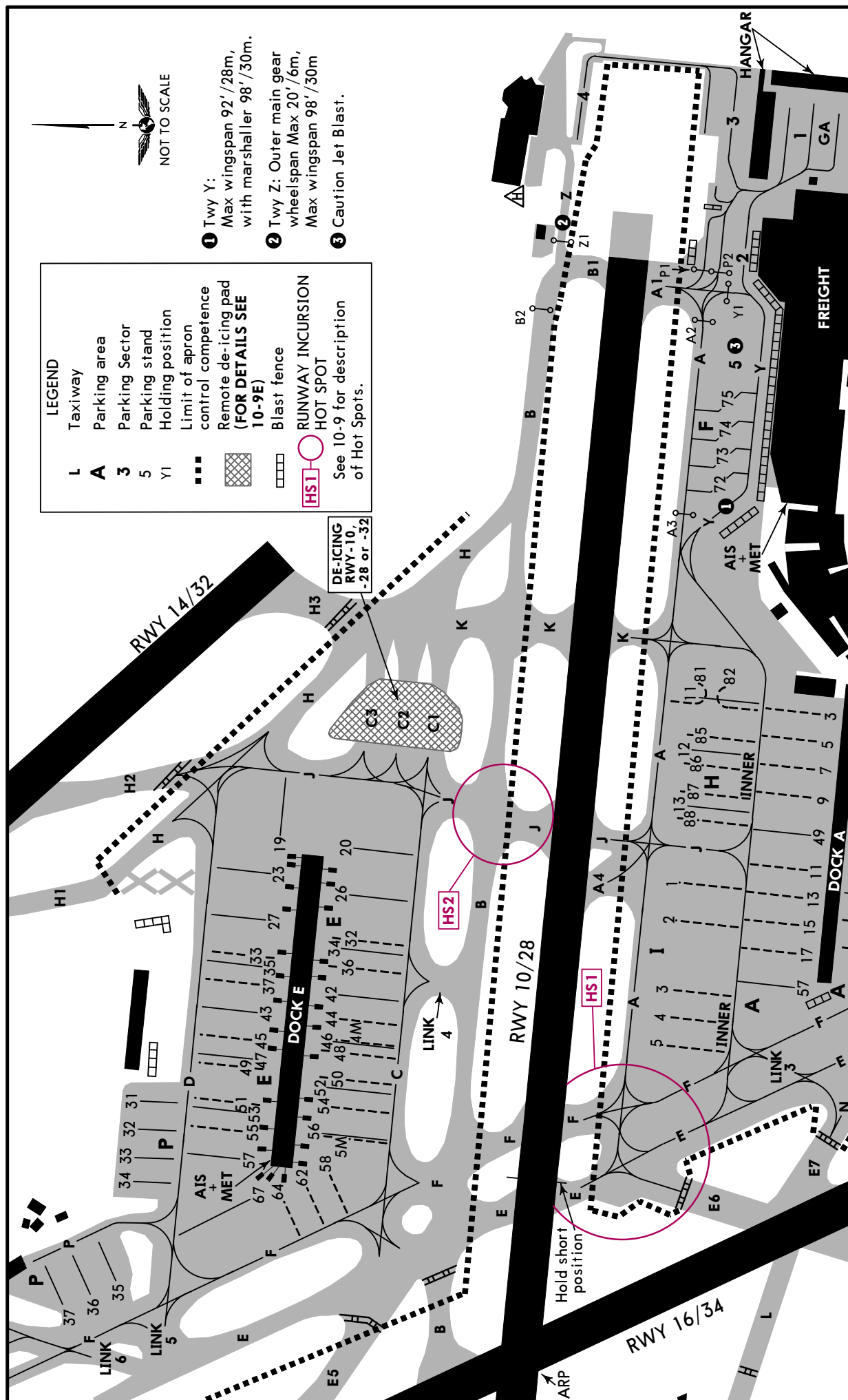
JEPPesen

10-9B

Eff 13 Sep

ZURICH, SWITZERLAND

ZURICH



CHANGES: Apron. Helipad removed.

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31 AUG 18

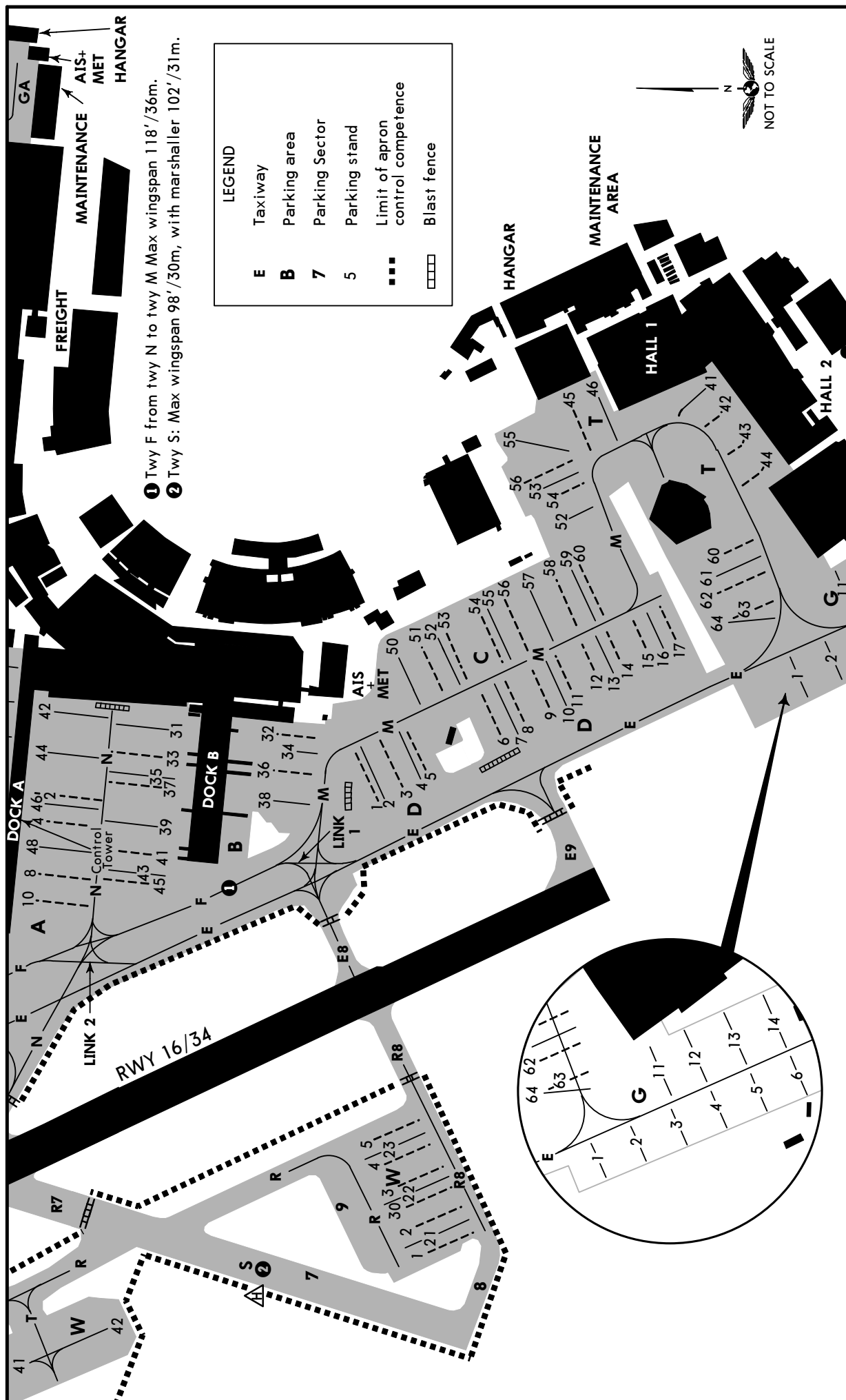

JEPPESSEN

ZURICH, SWITZERLAND

ZURICH

10-9C

Eff 13 Sep



LSZH/ZRH

**JEPPESSEN**

ZURICH, SWITZERLAND

31 AUG 18

10-9D

Eff 13 Sep

ZURICH

INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
A02	N47 27.2 E008 33.5	E51	N47 27.7 E008 33.2
A03	N47 27.2 E008 33.7	E52	N47 27.6 E008 33.2
A04	N47 27.2 E008 33.5	E53	N47 27.7 E008 33.2
A05, A07	N47 27.2 E008 33.6	E54	N47 27.6 E008 33.2
A08	N47 27.2 E008 33.4	E55 thru E57	N47 27.7 E008 33.1
A09	N47 27.2 E008 33.6	E58	N47 27.6 E008 33.1
A10	N47 27.2 E008 33.4	E62 thru E67	N47 27.7 E008 33.1
A11	N47 27.2 E008 33.5	F72	N47 27.3 E008 33.9
A13, A15	N47 27.2 E008 33.4	F73, F74	N47 27.3 E008 34.0
A17	N47 27.3 E008 33.4	F75	N47 27.3 E008 34.1
A42	N47 27.2 E008 33.6	G01	N47 26.6 E008 33.6
A44	N47 27.2 E008 33.6	G02	N47 26.5 E008 33.6
A46	N47 27.2 E008 33.5	G03 thru G05	N47 26.5 E008 33.7
A48, A49	N47 27.2 E008 33.5	G06	N47 26.4 E008 33.7
A57	N47 27.3 E008 33.3	G11 thru G14	N47 26.5 E008 33.8
B31	N47 27.1 E008 33.6	H11	N47 27.3 E008 33.7
B32	N47 27.0 E008 33.6	H12, H13	N47 27.4 E008 33.6
B33	N47 27.1 E008 33.6	H81, H82	N47 27.3 E008 33.7
B34	N47 27.0 E008 33.6	H85 thru H87	N47 27.3 E008 33.6
B35	N47 27.1 E008 33.5	H88	N47 27.4 E008 33.6
B36	N47 27.0 E008 33.5	I01	N47 27.4 E008 33.5
B37	N47 27.1 E008 33.5	I02, I03	N47 27.4 E008 33.4
B38	N47 27.0 E008 33.5	I04, I05	N47 27.4 E008 33.3
B39	N47 27.1 E008 33.5	P31, P32	N47 27.8 E008 33.2
B41 thru B45	N47 27.1 E008 33.4	P33, P34	N47 27.8 E008 33.1
C50 thru C53	N47 26.9 E008 33.7	P35, P36	N47 27.8 E008 33.0
C54, C55	N47 26.8 E008 33.7	P37	N47 27.9 E008 32.9
C56 thru C59	N47 26.8 E008 33.8	T41 thru T43	N47 26.6 E008 34.0
C60	N47 26.7 E008 33.8	T44	N47 26.6 E008 33.9
D01 thru D05	N47 26.9 E008 33.5	T45, T46	N47 26.8 E008 34.0
D06 thru D10	N47 26.8 E008 33.6	T52	N47 26.8 E008 33.8
D11 thru D13	N47 26.7 E008 33.6	T53, T54	N47 26.8 E008 33.9
D14 thru D17	N47 26.7 E008 33.7	T55	N47 26.8 E008 34.0
E4M	N47 27.6 E008 33.3	T56	N47 26.8 E008 33.9
E5M	N47 27.6 E008 33.1	T60 thru T62	N47 26.6 E008 33.8
E19	N47 27.7 E008 33.5	T63, T64	N47 26.6 E008 33.7
E20	N47 27.6 E008 33.5	W01	N47 26.9 E008 32.9
E23	N47 27.7 E008 33.5	W02, W03	N47 26.9 E008 33.0
E26	N47 27.6 E008 33.4	W04, W05	N47 26.9 E008 33.1
E27	N47 27.7 E008 33.4	W21, W22	N47 26.9 E008 33.0
E32	N47 27.6 E008 33.4	W23	N47 26.9 E008 33.1
E33	N47 27.7 E008 33.4	W30	N47 26.9 E008 33.0
E34	N47 27.6 E008 33.4	W41	N47 27.3 E008 32.8
E35	N47 27.7 E008 33.4	W42	N47 27.1 E008 32.9
E36	N47 27.6 E008 33.4		
E37	N47 27.7 E008 33.3		
E42	N47 27.6 E008 33.3		
E43	N47 27.7 E008 33.3		
E44	N47 27.6 E008 33.3		
E45	N47 27.7 E008 33.3		
E46	N47 27.6 E008 33.3		
E47	N47 27.7 E008 33.2		
E48	N47 27.6 E008 33.2		
E49	N47 27.7 E008 33.2		
E50	N47 27.6 E008 33.2		

CHANGES: Stands G1 thru G6 and G11 thru G14 established.

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JEPPESEN
31 AUG 18 **10-9E** **Eff 13 Sep**

ZURICH, SWITZERLAND
ZURICH

DE-ICING PADS

Remote Deicing Pad	Site Overview
De-icing lanes F1 / F2 / F3 PAD Coordinator 121.635 To commence de-icing ACFT has to stop at the stop position (marked and yellow lighted) located to the left of the de-icing lane.	
De-icing lanes C1 / C2 / C3 PAD Coordinator 121.640 To commence de-icing ACFT has to stop at the stop position (marked and yellow lighted) located to the left of the de-icing lane.	

LSZH/ZRH

JEPPESEN
13 MAY 16 **10-9F** Eff 26 May**ZURICH, SWITZERLAND****ZURICH****DOCKING GUIDANCE SYSTEM (SAFEDOCK)
AT DOCK A, B & E****A. SYSTEM DESCRIPTION:**

The system is based on a laser scanning technique which tracks the lateral and longitudinal position of the aircraft. The system will recognise the incoming aircraft and check it against the one selected by the operator. The system is operated on an automatic mode. If the system fails, the aircraft must be positioned by a marshaller.

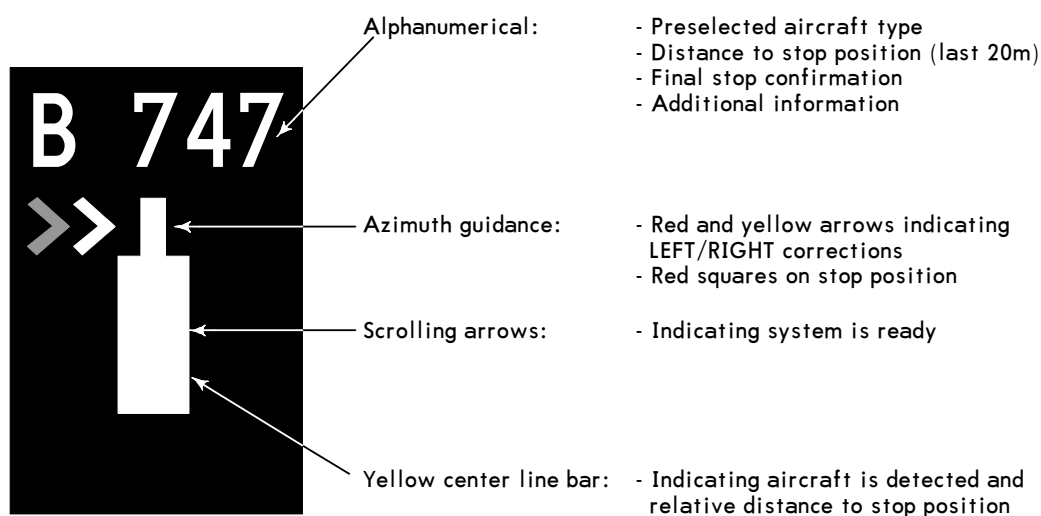
Azimuth guidance, continuous closing rate information, aircraft type etc. are shown on a single display visible for pilot and co-pilot.

Display and Laser Scanning Unit are mounted on the terminal in front of the aircraft stand.

B. ROUTINE DOCKING MANOEUVRE:

- Check for correct aircraft type displayed (ICAO designator).
- Do not proceed beyond the bridge unless the floating arrows have been superseded by the yellow center line bar.
- Red arrow shows direction to turn.
- Yellow arrow shows position in relation to center line.
- The absence of any direction arrow indicates the aircraft on center line.
- Display of digital countdown in meters starts 20m before stop position.
- 12m before stop position the closing rate will be indicated by turning off one row of the yellow center line bar per 0.5m covered by the aircraft.
- At the stop position the display will show "STOP" with red light squares, followed by "OK".

In case of malfunction request assistance from APRON CONTROL.

**C. STOP AT PARKING POSITIONS C, D, F, H, I, P, T & W:**

Stop bar markings are located to the LEFT with a 90 degree angle to the guide lines.

Aircraft has to be stopped with the pilot seat ABEAM the stop-bar.

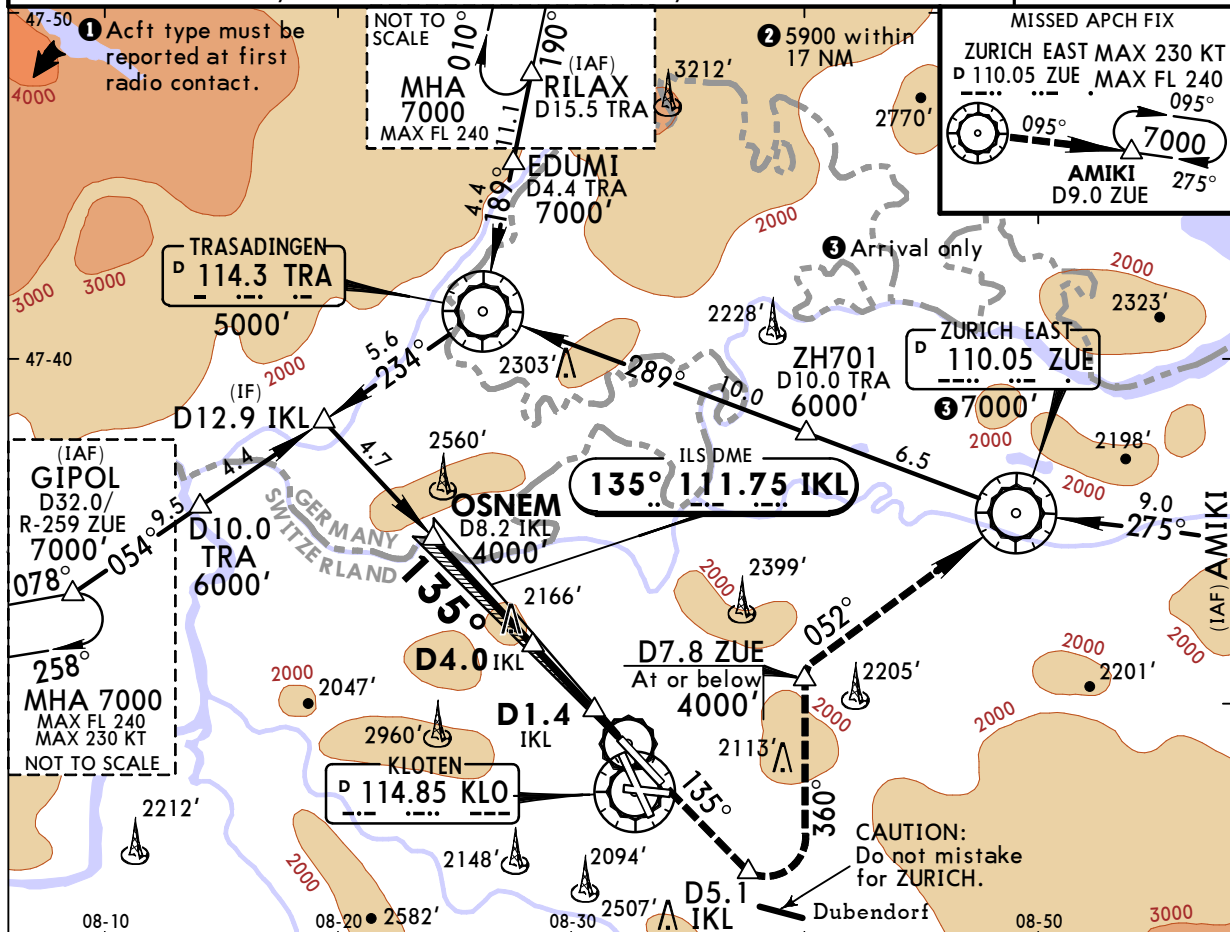
LSZH/ZRH
ZURICHJEPPESSEN
8 DEC 17 (11-1)ZURICH, SWITZERLAND
ILS or LOC Rwy 14

BRIEFING STRIP™

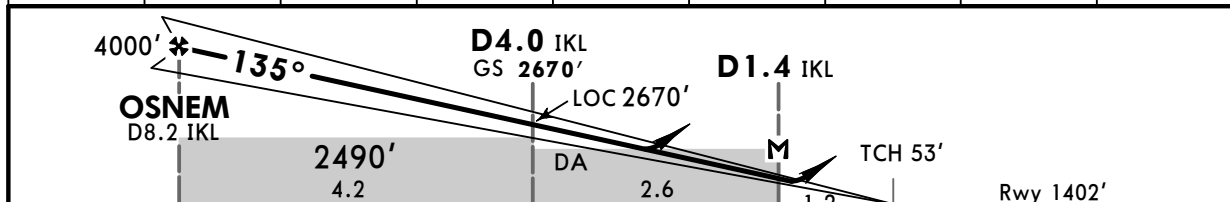
D-ATIS Arrival	ZURICH Arrival (APP/R) ①		ZURICH Final (APP/R) by ATC		ZURICH Tower		Ground
125.725	118.0	135.225	125.325		118.1	120.225	121.9
LOC IKL 111.75	Final Apch Crs 135°	GS D4.0 IKL 2670' (1268')	ILS RA 187' DA(H) 1602' (200')		Apt Elev 1417' Rwy 1402'		

MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. At D5.1 IKL past the station, turn LEFT (MAX 210 KT) onto 360° to intercept R-232 ZUE inbound. At D7.8 ZUE continue climb to 7000'. Proceed to ZUE VOR. Cross ZUE VOR at MIM 6000' and intercept R-095 ZUE to AMIKI.

Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000'



LOC	IKL DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
(GS out)	ALTITUDE	3940'	3620'	3300'	2990'	2670'	2350'	2030'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D5.1 IKL
ILS GS or	372	478	531	637	743	849		
LOC Descent Angle 3.00°								
MAP at D1.4 IKL								

Standard

STRAIGHT-IN LANDING RWY 14

ILS RA 187' DA(H) 1602' (200')			LOC (GS out) CDFA DA/MDA(H) 1950' (548')	
FULL	TDZ or CL out	ALS out	ALS out	
A			RVR 1500m	
B	RVR 550m	RVR 550m ①	RVR 1200m	
C			RVR 1800m	RVR 2400m
D				

PANS OPS

① W/o HUD/AP/FD: RVR 750m

CHANGES: Communications.

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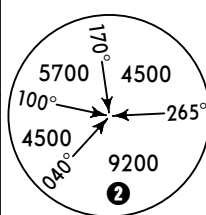
LSZH/ZRH
ZURICH

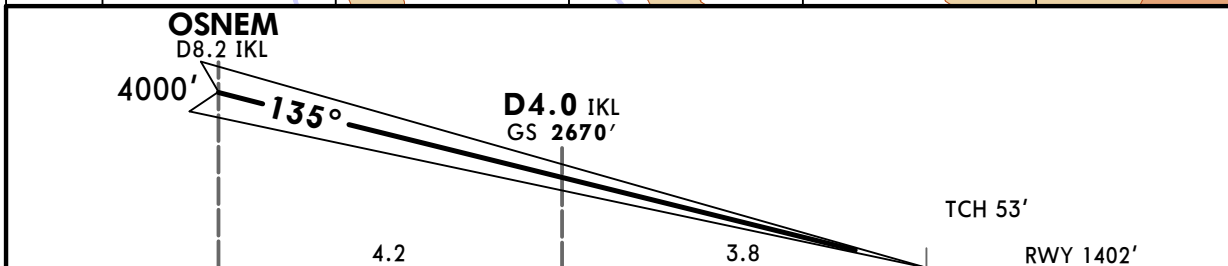
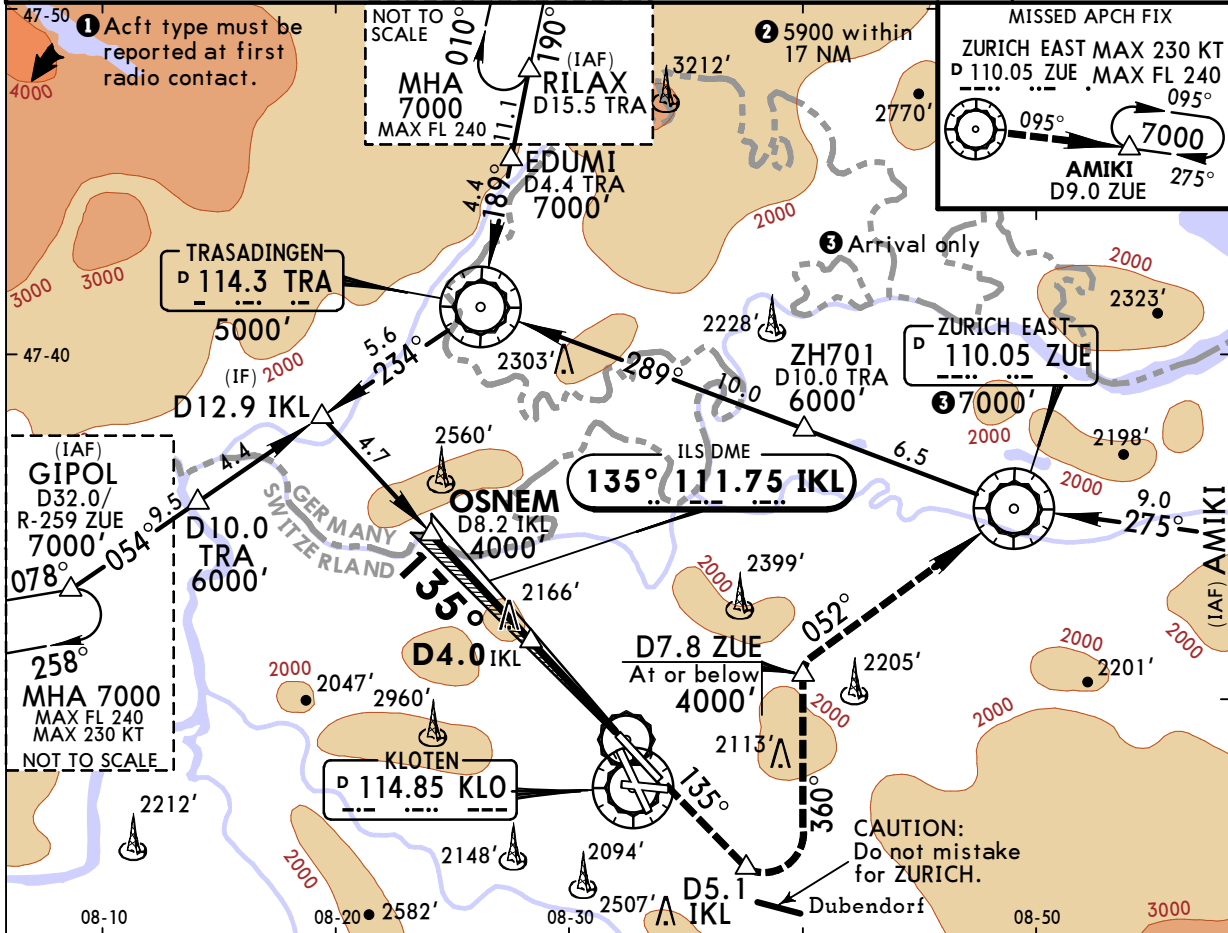
8 DEC 17

(11-1A)

ZURICH, SWITZERLAND
CAT II/III ILS Rwy 14

BRIEFING STRIP™

D-ATIS Arrival	ZURICH Arrival (APP/R) ❶		ZURICH Final (APP/R) by ATC	ZURICH Tower		Ground
125.725	118.0	135.225	125.325	118.1	120.225	121.9
LOC IKL 111.75	Final Apch Crs 135°	GS D4.0 IKL 2670' (1268')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1417' Rwy 1402'		 MSA KLO VOR
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. At D5.1 IKL past the station, turn LEFT (MAX 210 KT) onto 360° to intercept R-232 ZUE inbound. At D7.8 ZUE continue climb to 7000'. Proceed to ZUE VOR. Cross ZUE VOR at MIM 6000' and intercept R-095 ZUE to AMIKI.						
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Special Aircrew and Aircraft Certification Required.						



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D5.1 IKL ↑
GS 3.00°	372	478	531	637	743	849		

Standard		STRAIGHT-IN LANDING RWY 14	
CAT IIIA ILS ① DH 50'		CAT II ILS RA 95' DA(H) 1502' (100')	
RVR 200m		RVR 300m	

① CAT IIIB: Min RVR 75m

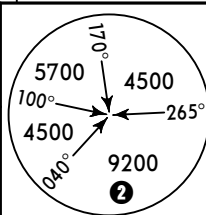
CHANGES: Communications.

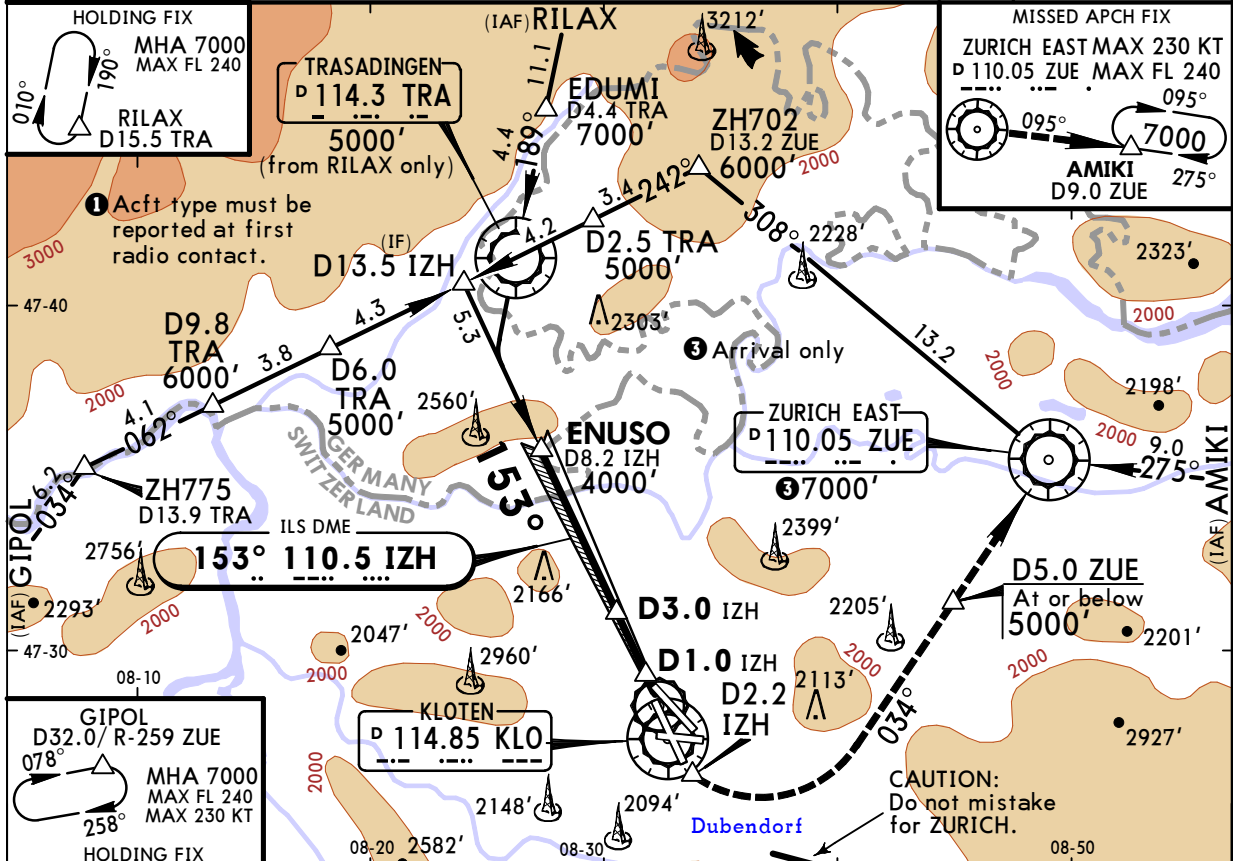
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PANS OPS

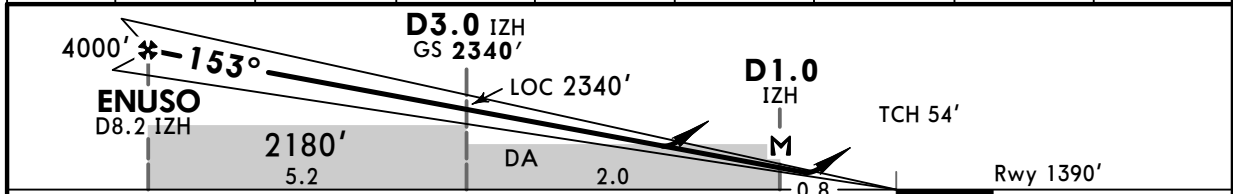
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (11-2)ZURICH, SWITZERLAND
ILS or LOC Rwy 16

BRIEFING STRIP

D-ATIS Arrival	ZURICH Arrival (APP/R) ❶		ZURICH Final (APP/R) by ATC		ZURICH Tower	Ground
125.725	118.0	135.225	125.325		118.1	121.9
LOC IZH 110.5	Final Apch Crs 153°	GS D3.0 IZH 2340' (950')	ILS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1390'		 MSA KLO VOR ❷ 5900 within 17 NM
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-214 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.						
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Due to disturbance of GS signal of rwy 16 pilots might be requested by ZURICH Arrival to change apch type from ILS apch to LOC or visual apch, met cond permitting.						



LOC	IZH DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
(GS out)	ALTITUDE	3940'	3620'	3300'	2980'	2660'	2340'	2020'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II REIL PAPI	D2.2 IZH ↑
ILS GS or								
LOC Descent Angle	3.00°	372	478	531	637	743		
MAP at D1.0 IZH								

Standard			STRAIGHT-IN LANDING RWY 16						LOC (GS out)	
			ILS						CDFA	
			Missed apch climb gradient mim							
			5.0% 1			2.5%				
			RA 187'			A: 1806' (416') C: 1825' (435')				
			DA(H) 1590' (200')			B: 1816' (426') D: 1835' (445')			DA/MDA(H) 1840' (450')	
FULL		TDZ or CL out	ALS out	FULL		TDZ or CL out	ALS out			ALS out
A	RVR 550m	RVR 550m 2	RVR 1200m	RVR 1200m			RVR 1500m	RVR 1400m	RVR 1500m	
B				RVR 1300m						
C				RVR 2000m						
D				RVR 1400m						RVR 2100m

① Climb gradient up to 2300'. ② W/o HUD/AP/FD: RVR 750m.

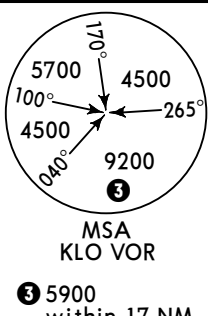
CHANGES: Communications.

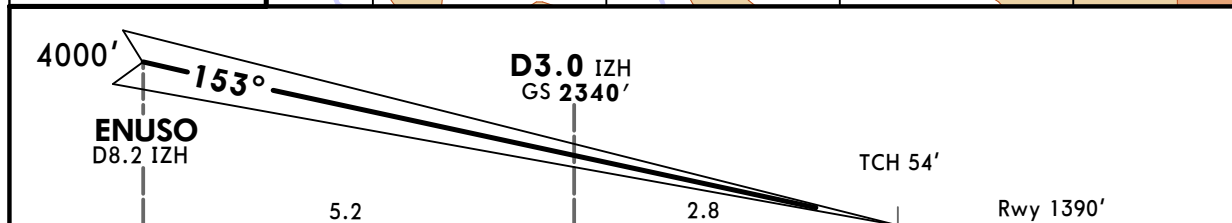
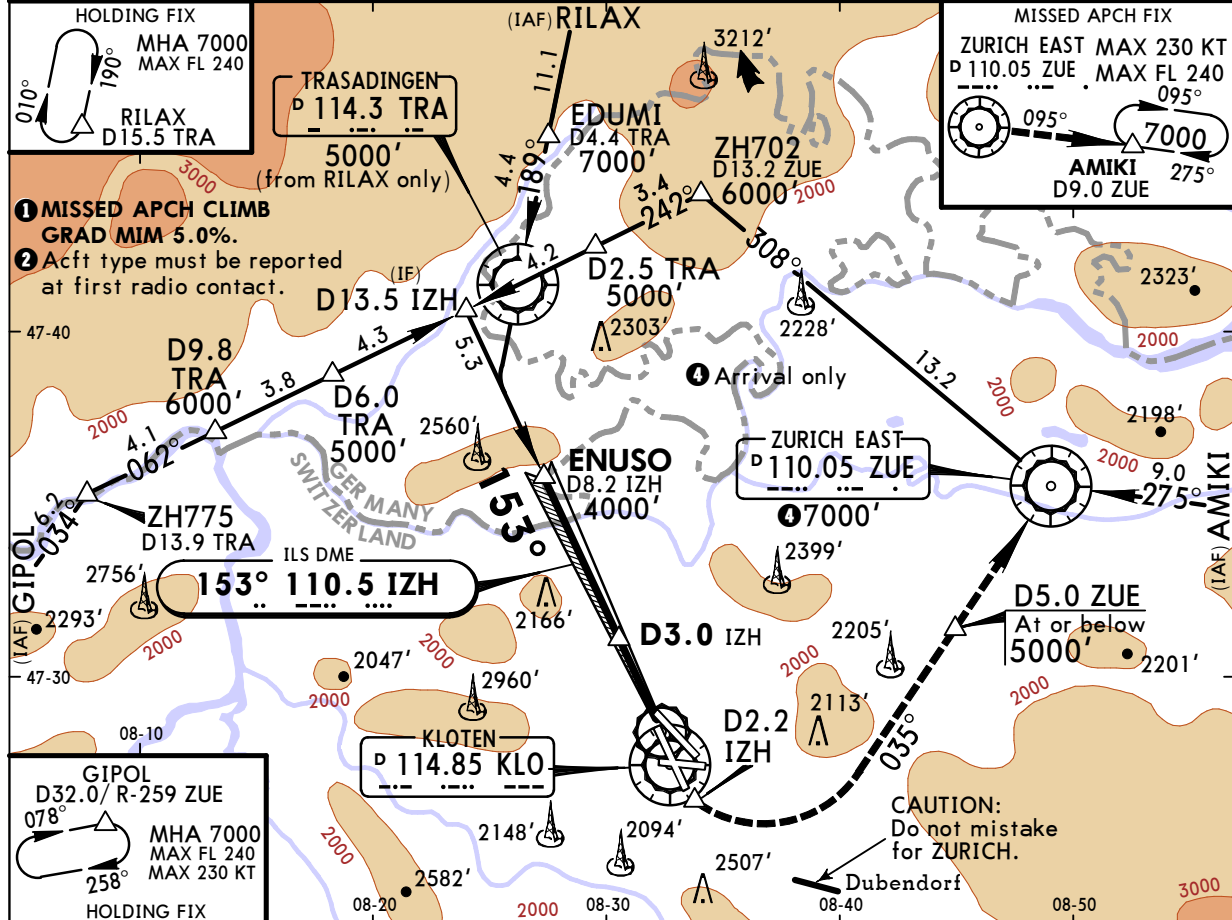
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PANS OPS

LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (11-2A)ZURICH, SWITZERLAND
CAT II/III ILS Rwy 16

BRIEFING STRIP

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ② 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
LOC IZH 110.5	Final ApcH Crs 153°	GS D3.0 IZH 2340' (950')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1417' Rwy 1390'
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-214 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.				
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Special Aircrew and Aircraft Certification Required.				
				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II REIL PAPI	D2.2 IZH 
GS	3.00°	377	485	539	647	755		

Standard		STRAIGHT-IN LANDING RWY 16	
CAT IIIA ILS 1 DH 50' RVR 200m		CAT II ILS Missed apch climb gradient mim 5.0% ② RA 93' DA(H) 1490' (100') RVR 300m	

PANS OPS

① CAT IIIB: Mim RVR 75m ② Climb gradient up to 2300'.

LSZH/ZRH
ZURICH

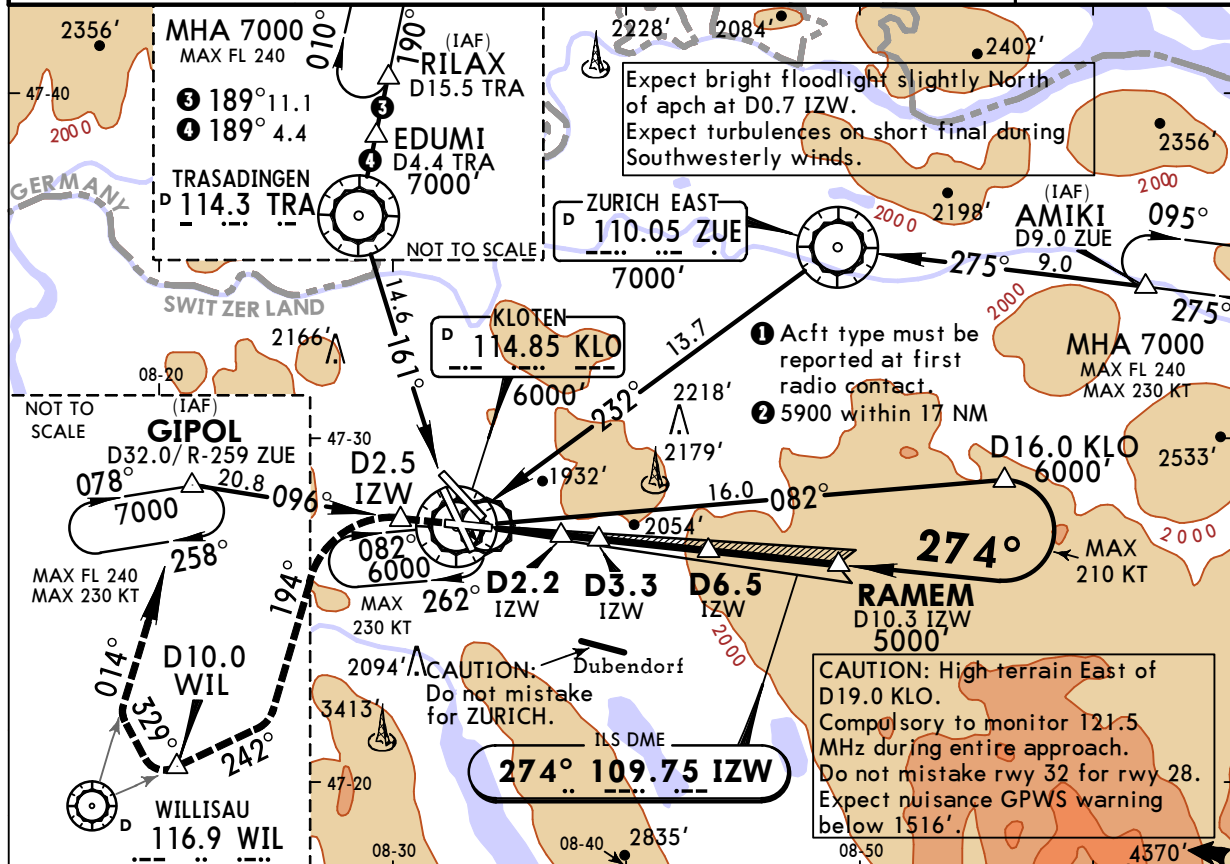
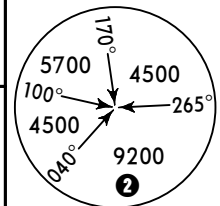
8 DEC 17

(11-3)

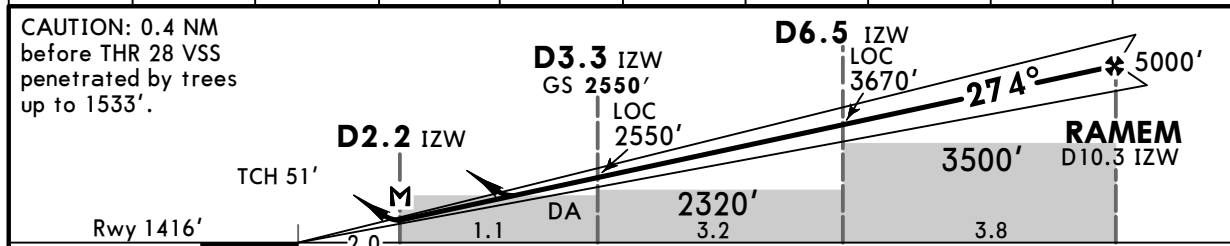
ZURICH, SWITZERLAND
ILS OR LOC Rwy 28

BRIEFING STRIP

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
LOC IZW 109.75	Final Apch Crs 274°	GS D3.3 IZW 2550' (1134')	ILS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1416'
MISSED APCH: Initial climb to 4000'. Climb STRAIGHT AHEAD. At D2.5 IZW past the station turn LEFT (MAX 210 KT) onto 194°, then continue climb to 7000'. Intercept R-062 WIL inbound. At D10.0 WIL turn RIGHT onto 329° to intercept R-014 WIL. Proceed to GIPOL.				
Alt Set: hPa Rwy Elev: 51 hPa Trans level: By ATC Trans alt: 7000' Uncategorized ILS approach due to non-instrument runway.				



LOC (GS out)	IZW DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE		2450'	2800'	3150'	3500'	3850'	4200'	4550'	4900'



Gnd speed-Kts	70	90	100	120	140	160			
ILS GS or LOC Descent Angle	3.30°	414	532	591	710	828	946		
MAP at D2.2 IZW									

Standard		STRAIGHT-IN LANDING RWY 28		LOC (GS out)	
ILS		CDFA			
Missed apch climb gradient mim		MACG 3.9% up to 4900'		MACG 2.5%	
4.0% ① DA(H) ② C:2084' (668') D:2094' (678')		DA/MDA(H) 2290' (874')		DA/MDA(H) 3070' (1654')	
2.5% DA(H) ③ C:2853' (1437') D:2863' (1447')		ALS out		ALS out	
FULL/TDZ or CL out					

A									
B									
C									
D									

① Climb gradient up to 5200'. ② CAT A: 2061' (645'), CAT B: 2071' (655').

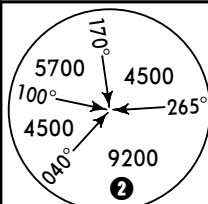
③ CAT A: 2831' (1415'), CAT B: 2842' (1426').

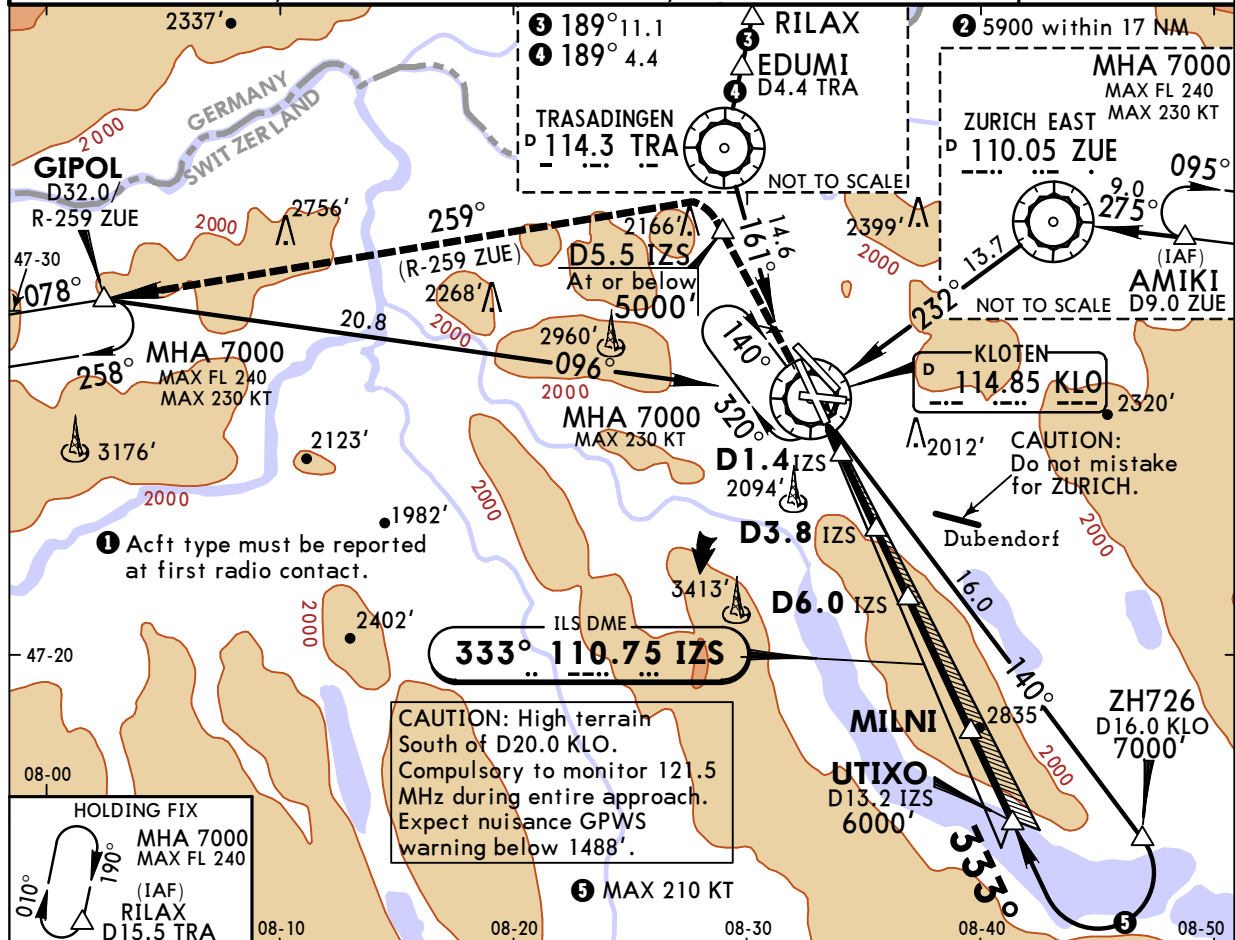
CHANGES: Communications.

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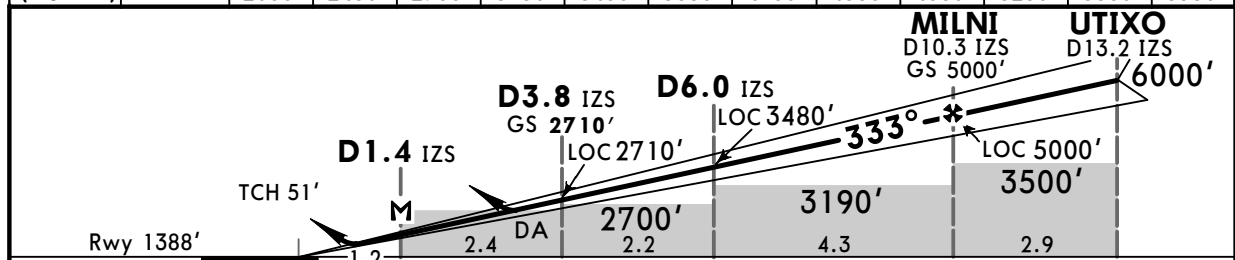
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (11-4)ZURICH, SWITZERLAND
ILS or LOC Rwy 34

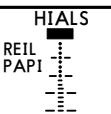
BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0	ZURICH Final (APP/R) by ATC 135.225	ZURICH Tower 125.325	ZURICH Tower 118.1	Ground 121.9
LOC IZS 110.75	Final ApcH Crs 333°	GS D3.8 IZS 2710'(1322')	ILS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1388'	
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D5.5 IZS past the station turn LEFT (MAX 185 KT) to intercept R-259 ZUE. Continue climb to 7000'. Proceed to GIPOL.					MSA KLO VOR
Alt Set: hPa		Rwy Elev: 50 hPa		Trans level: By ATC	
				Trans alt: 7000'	



LOC	IZS DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
(GS out)	ALTITUDE	2080'	2430'	2780'	3130'	3480'	3830'	4180'	4530'	4880'	5230'	5580'	5930'



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI 	D5.5 IZS ↑
ILS GS or LOC Descent Angle 3.30°	414	532	591	710	828	946		
MAP at D1.4 IZS								

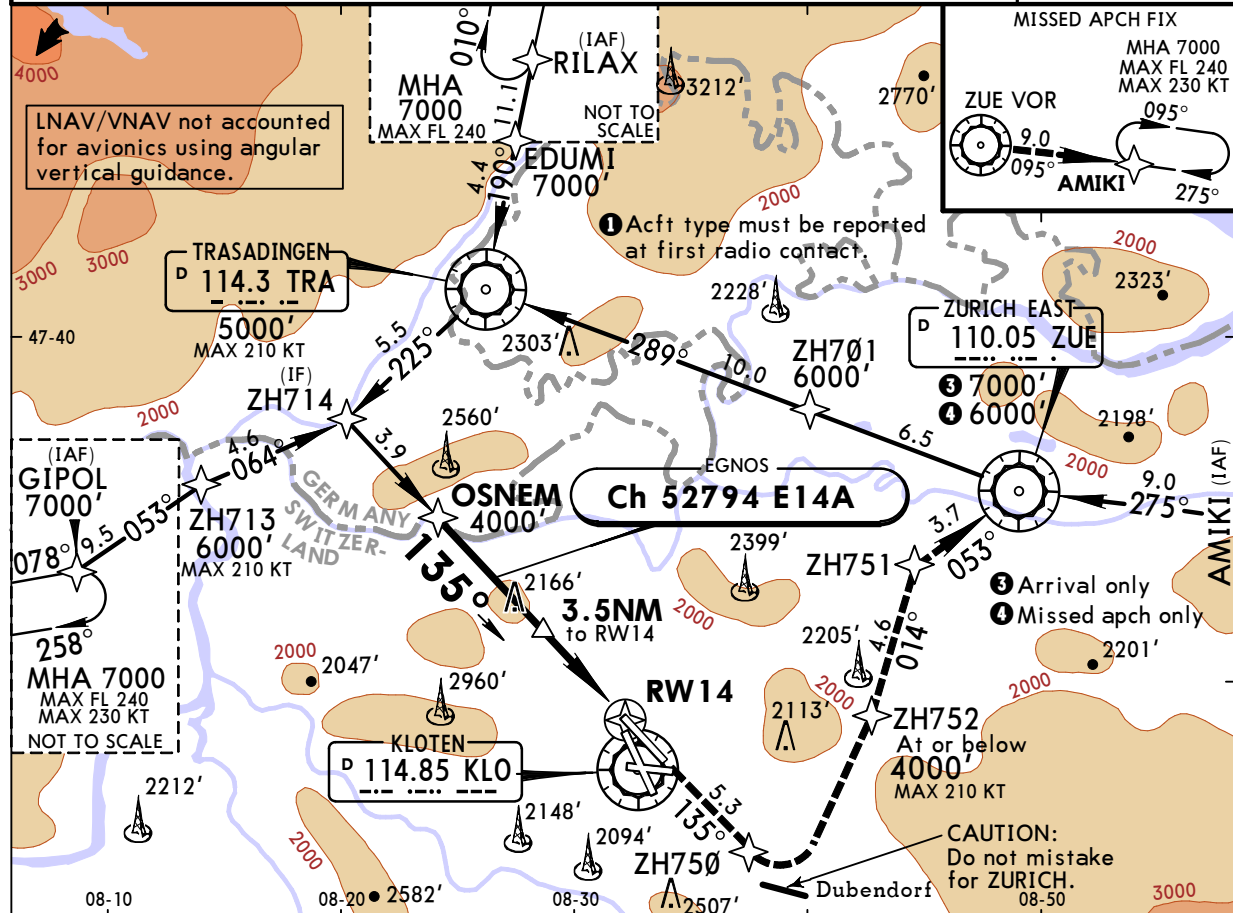
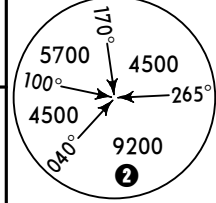
Standard		STRAIGHT-IN LANDING RWY 34		LOC (GS out)	
Missed apch climb gradient min 3.0% up to 2400' DA(H) 1588' (200')		Missed apch climb gradient min 2.5% DA(H) C: 1614' (226') D: 1624' (236')		CDFA DA/MDA(H) 2070' (682')	
FULL	ALS out	FULL	ALS out		
A				RVR 1500m	
B					
C	RVR 550m ②	RVR 1200m	RVR 550m ②	RVR 1200m	
D				RVR 2400m	

PANS OPS

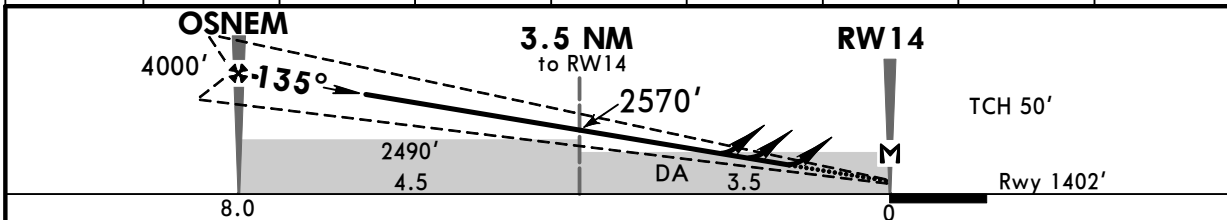
① CAT A: 1591'(203'), CAT B: 1601'(213'). ② W/o HUD/AP/FD: RVR 750m.

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ZURICHJEPPesen
8 DEC 17 (12-1)ZURICH, SWITZERLAND
RNAV (GNSS) Rwy 14

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1 120.225	Ground 121.9
EGNOS Ch 52794 E14A	Final Apch Crs 135°	Procedure Alt OSNEM 4000' (2598')	LPV DA(H) 1602' (200')	Apt Elev 1417' Rwy 1402'
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. Proceed via ZH750, ZH752 (MAX 210KT), ZH751, ZUE to AMIKI. After passing ZH752 continue climb to 7000'. Cross ZUE at or above 6000'.				
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' 1. CAUTION: 0.3 NM before THR 14 VSS penetrated by trees up to 1480' (LNAV and LNAV/VNAV only). 2. Baro-VNAV not authorized below -20° C.				



DIST to RW14	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4000'	3680'	3360'	3040'	2720'	2410'	2090'	1770'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI ZH750
Glide Path Angle 3.00°	372	478	531	637	743	849	
LPV, LNAV/VNAV: MAP at DA							
LNAV: MAP at RW14							

Standard				STRAIGHT-IN LANDING RWY 14			
LPV CAT I				LNAV/VNAV		LNAV CDFA	
DA(H) 1602' (200')				DA(H) A: 1862' (460') C: 1892' (490') B: 1882' (480') D: 1912' (510')		DA/MDA(H) 1990' (588')	
FULL		TDZ or CL out	ALS out	ALS out		ALS out	
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1400m	RVR 1500m	RVR 1500m	
B				RVR 1500m			
C				RVR 2300m	RVR 2000m	RVR 2400m	
D							RVR 1600m

① W/o HUD/AP/FD: RVR 750m.

CHANGES: Communications.

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LSZH/ZRH
ZURICH

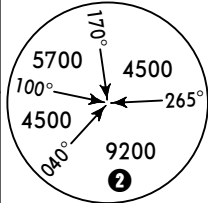
8 DEC 17

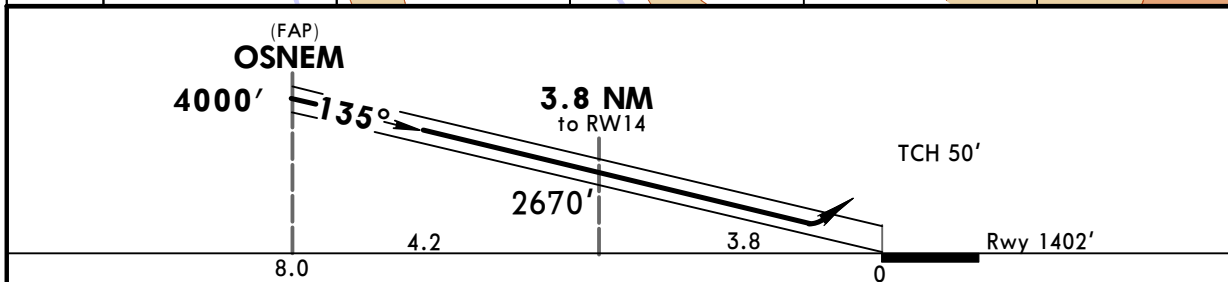
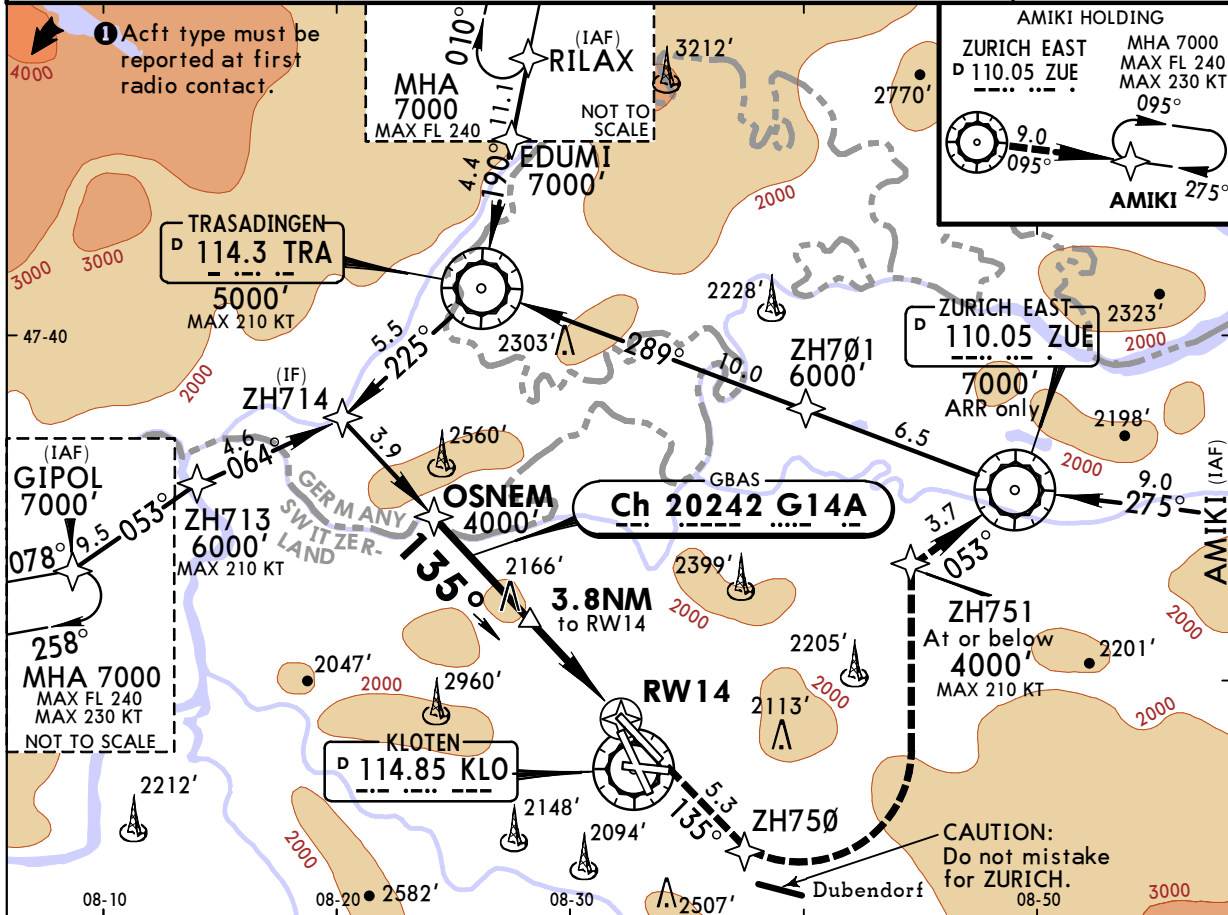
JEPPESEN

12-40

ZURICH, SWITZERLAND
GLS Rwy 14

BRIEFING STRIP

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1 120.225	Ground 121.9
GBAS Ch 20242 G14A	Final Apch Crs 135°	Minimum Alt OSNEM 4000' (2598')	GLS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1402'
MISSED APCH: Climb STRAIGHT AHEAD. Initial climb to 4000'. Proceed via ZH750, ZH751 (MAX 210 KT), ZUE to AMIKI. After passing ZH751 continue climb to 7000'.				
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' 1.GNSS required. 2.P-RNAV or RNAV1 certification required.				 MSA KLO VOR ② 5900 within 17 NM



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI ZH750
Descent Angle	3.00°	372	478	531	637	743	
MAP at DA							

STRAIGHT-IN LANDING RWY 14					
Missed apch climb grad min 3.0% up to 2400' DA(H) 1602' (200')			Missed apch climb grad min 2.5% DA(H) A: 1614' (212') C: 1634' (232') B: 1624' (222') D: 1644' (242')		
FULL	TDZ or CL out	ALS out	FULL	TDZ or CL out	ALS out
A					
B	RVR 550m	RVR 550m ①	RVR 1200m	RVR 550m	RVR 1200m
C				RVR 550m ①	
D					RVR 1300m

① W/o HUD/AP/FD: RVR 750m.

CHANGES: Communications.

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ZURICH

8 DEC 17

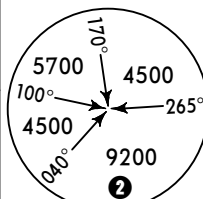
13-1

ZURICH, SWITZERLAND
VOR Rwy 16

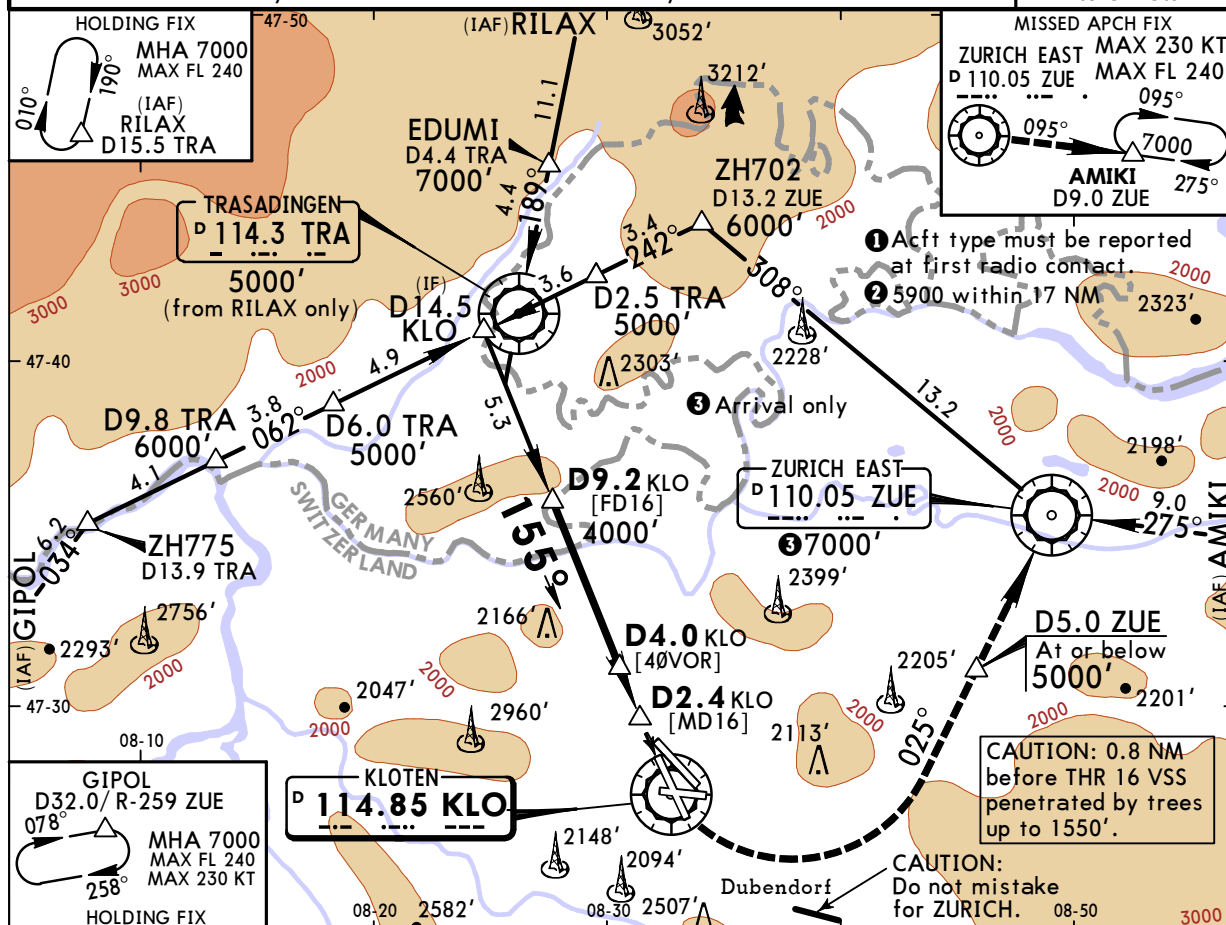
D-ATIS Arrival	ZURICH Arrival (APP/R) ①		ZURICH Final (APP/R) by ATC	ZURICH Tower	Ground
125.725	118.0	135.225	125.325	118.1	121.9
VOR KLO 114.85	Final Apch Crs 155°	Procedure Alt D9.2 KLO 4000' (2610')	DA/MDA(H) 1950' (560')	Apt Elev 1417' Rwy 1390'	

MISSD APCH: Initial climb clearance 5000'. Climb on R-335 inbound KLO VOR. At KLO VOR turn LEFT to intercept R-205 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.

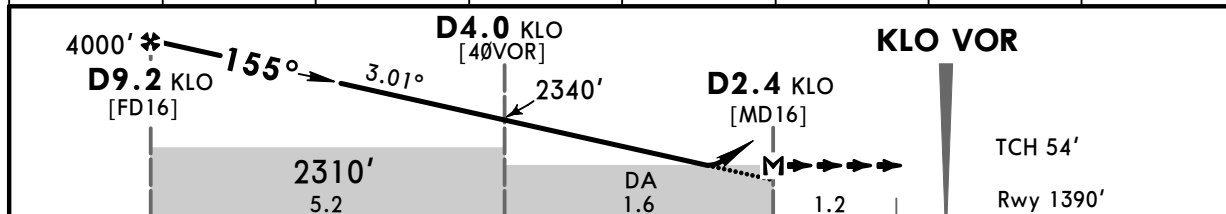
Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 7000'
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MSA
KLO VOR



KLO DME	9.0	8.0	7.0	6.0	5.0	4.0	3.0
ALTITUDE	3940'	3620'	3300'	2980'	2660'	2340'	2020'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.01°	373	479	532	639	745	852	
MAP at D2.4 KLO							

Standard

STRAIGHT-IN LANDING RWY 16

CDFA

DA/MDA(H) **1950'** (560')

ALS out

A		
B	RVR 1500m	
C	RVR 1800m	RVR 2400m
D		

CHANGES: Communications.

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LSZH/ZRH
ZURICH

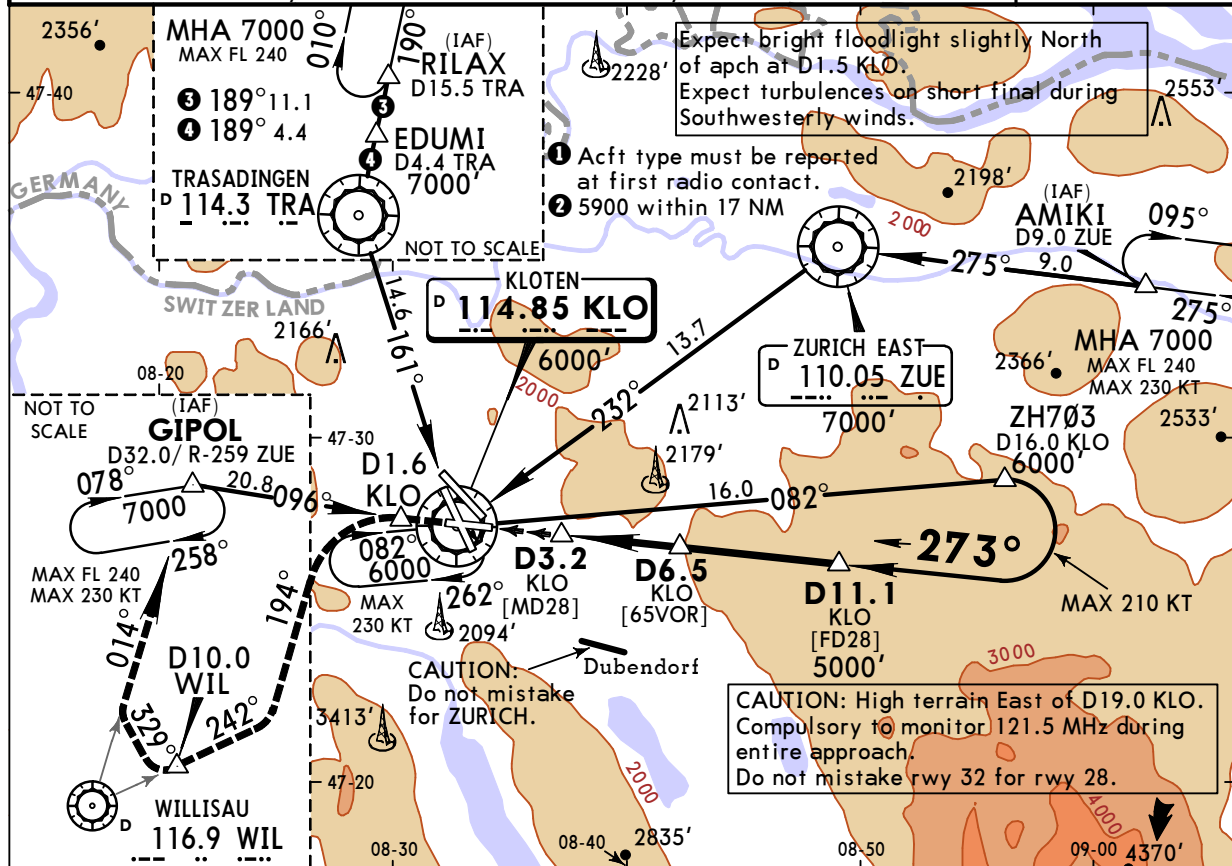
8 DEC 17

(13-2)

ZURICH, SWITZERLAND
VOR Rwy 28

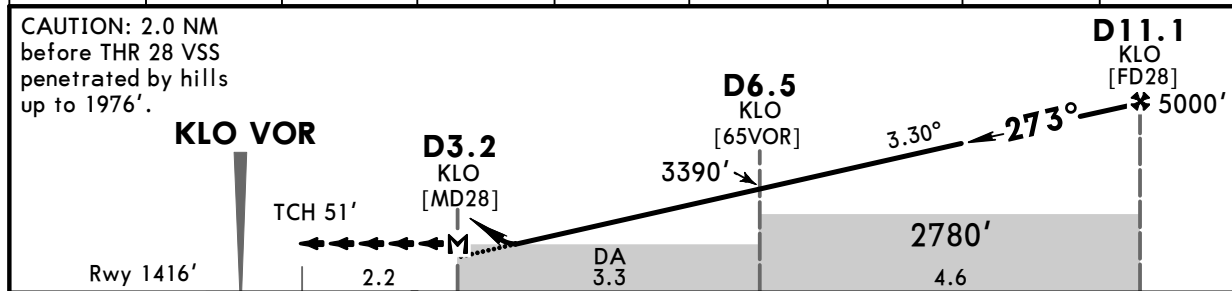
BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
VOR KLO 114.85	Final ApcH Crs 273°	Procedure Alt D11.1 KLO 5000' (3584')	DA/MDA(H) Refer to Minimums	Apt Elev 1417' Rwy 1416'
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD . At D1.6 KLO past the station turn LEFT (MAX 210 KT) onto 194°, then continue climb to 7000'. Intercept R-062 WIL inbound. At D10.0 WIL turn RIGHT onto 329° to intercept R-014 WIL. Proceed to GIPOL.				
Alt Set: hPa	Rwy Elev: 51 hPa	Trans level: By ATC	Trans alt: 7000'	MSA KLO VOR



KLO DME	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	2520'	2870'	3220'	3570'	3920'	4270'	4620'	4970'

CAUTION: 2.0 NM
before THR 28 VSS
penetrated by hills
up to 1976'.



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI	D1.6 after KLO
Descent Angle 3.30°	409	526	584	701	817	934		
MAP at D3.2 KLO								

Standard

STRAIGHT-IN LANDING RWY 28

CDFA

Missed apch climb gradient mim

4.0% ① DA/MDA(H) 2370' (954')	2.5% DA/MDA(H) 3070' (1654')
ALS out	ALS out

A		
B		
C	4300m	5000m
D		

PANS OPS

① Climb gradient up to 4600'.

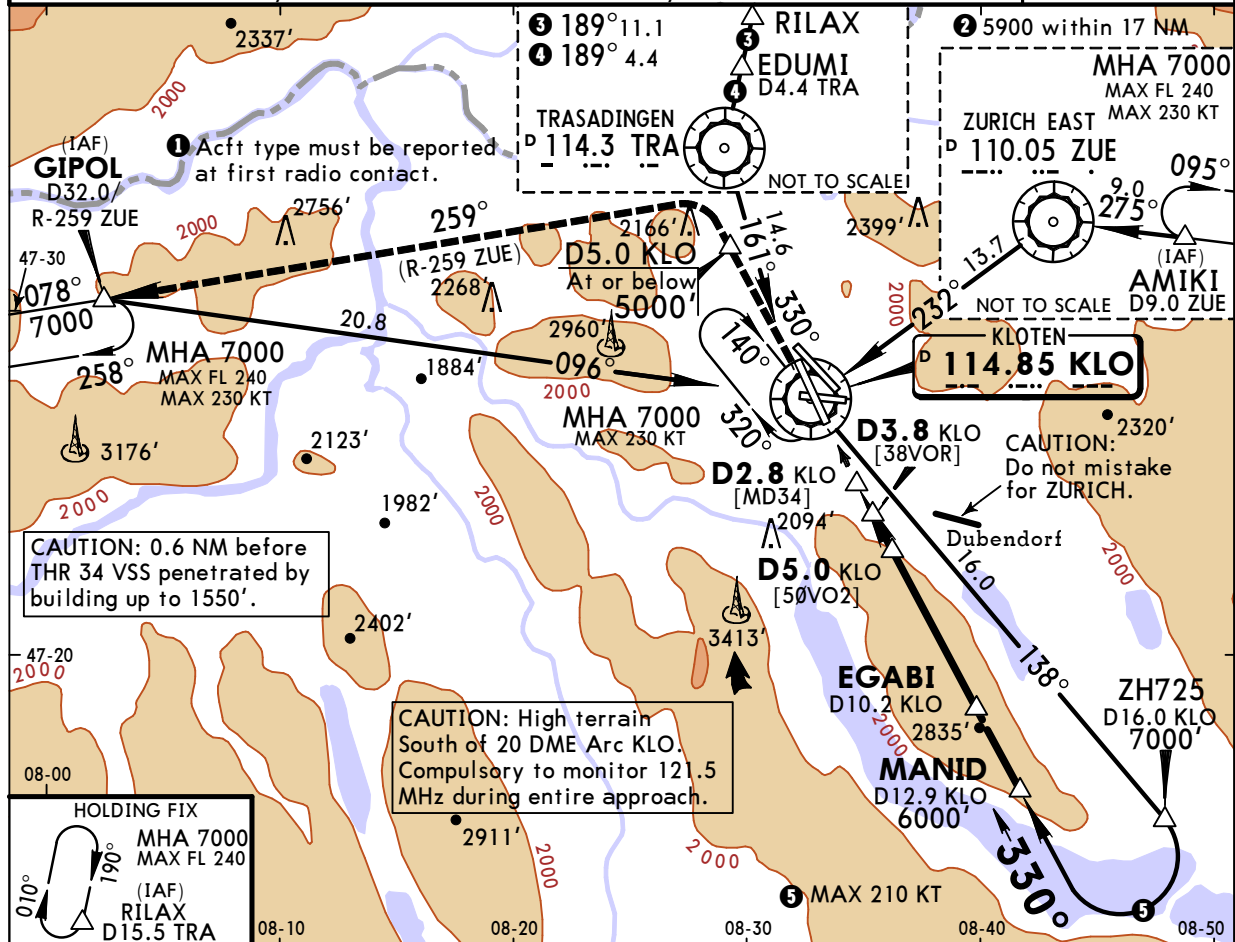
CHANGES: Communications.

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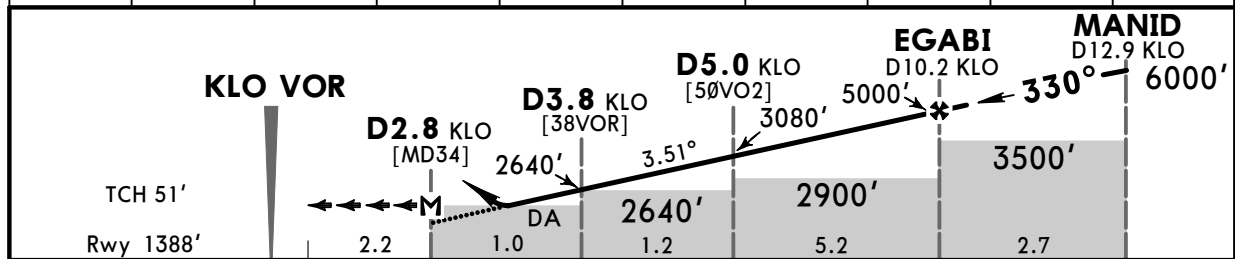
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (13-3)ZURICH, SWITZERLAND
(GPS) VOR Rwy 34

BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
VOR KLO 114.85	Final ApcH Crs 330°	Procedure Alt EGABI 5010' (3622')	DA/MDA(H) 2430' (1042')	Apt Elev 1417' Rwy 1388'
MISSED APCH: Initial climb to 5000'. Climb on R-150 inbound KLO VOR. Continue on R-330 KLO. At D5.0 KLO past the station turn LEFT (MAX 185 KT) to intercept R-259 ZUE. Continue climb to 7000'. Proceed to GIPOL.				
Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 7000'	MSA KLO VOR



KLO DME	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	2710'	3080'	3450'	3820'	4190'	4560'	4930'	5300'	5670'



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI D5.0 KLO
Descent Angle 3.51°	435	559	621	745	870	994	
MAP at D2.8 KLO							

Standard

STRAIGHT-IN LANDING RWY 34

CDFA

DA/MDA(H) **2430'** (1042')

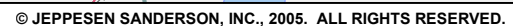
ALS out

PANS OPS

A	RVR 1500m
B	
C	RVR 2400m
D	

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JeppView 3.6.2.0



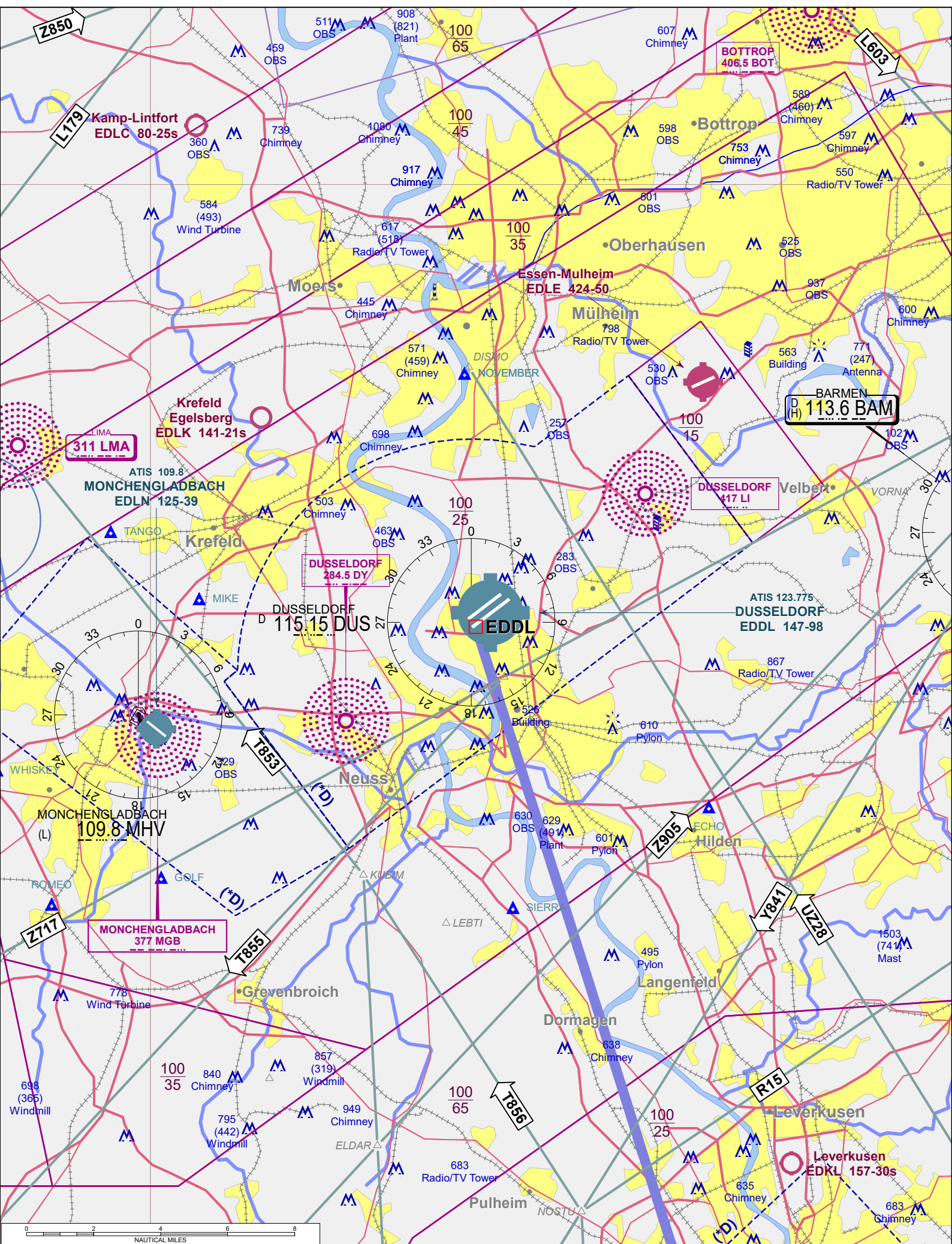
2.0.2 DESTINATION (LSZH -> EDDL): EDDL (Dusseldorf)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JEPPESEN

JeppView 3.6.2.0



LSZH/ZRH
ZURICH**JEPPESEN**

8 DEC 17

10-1P

ZURICH, SWITZERLAND**AIRPORT BRIEFING****1. GENERAL****1.1. ATIS**

D-ATIS Arrival 125.725

D-ATIS Departure 129.0

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GERMAN ORDINANCE**

MON - FRI: 0100-0700LT and 2100-0059LT;

SAT, SUN and German public holidays: 0100-0900LT and 2000-0059LT.

Landings before 0600LT are not allowed.

Lowest FL over German Airspace

The lowest FL to be used in German airspace for arrivals at Zurich APT is FL 120 during the German ordinance period.

Therefore all inbound flights to LSZH at cruising FL 110 or below which enter German airspace after passing IAF AMIKI or GIPOL expect to climb to FL 120 according to ATC instruction.

Exemptions are only available for performance reason and/or due to weather condition.

RWY 14/16

As approaches to both RWY 14 and RWY 16 require the use of German airspace below FL 120, these RWYs are not available during the German ordinance period. Therefore landing RWY will be according to 1.2.1.1., weather permitting.

RWY 28

For operational reasons, ATC WX minima for LDG RWY 28 is VIS 4300m.

1.2.1.1. LANDINGS

Expect the landing RWY to be assigned as follows, weather permitting.

Weekdays	SAT and SUN and German Holidays
0600-0700LT RWY 34	0600-0900LT RWY 34
0700-2100LT RWY 14	0900-2000LT RWY 14
2100-0600LT RWY 28 (RWY 34 may be requested if safety requires, flights to RWY 28 have priority).	2000-0600LT RWY 28 (RWY 34 may be requested if safety requires, flights to RWY 28 have priority).
Other landing RWYs may be assigned due to meteorological conditions or operational reasons. Outside the German ordinance period RWY 34 is available in case of emergency landing only due to the flight path leading into uncontrolled airspace.	

LSZH/ZRH
ZURICH**JEPPESEN**

8 DEC 17

(10-1P1)

ZURICH, SWITZERLAND**AIRPORT BRIEFING****1. GENERAL****1.2.1.2. DEPARTURES**

Depending on the landing RWY in use expect the departure RWY to be assigned as follows:

0700-2100LT		2100-0700LT
Landing RWY	Departure RWY	Jet ACFT expect departure on RWY 32/34. - Exception between 2100-2200LT, when landing RWY 14 or RWY 16 is in use, expect departure on RWY 28 or RWY 16. - Other departure RWYs may be assigned due to meteorological conditions or operational reasons. - ACFT exceeding noise index 96 are not admitted for departure between 2200-2330LT. - ACFT with a non-stop flight distance of 2700NM/5000km and above and not exceeding noise index 98 are admitted for departure between 2200-2330LT.
14/16	28 ¹⁾ /16 ²⁾ /10 ³⁾	
28	32 ⁴⁾ /34 ⁴⁾	
34	32/34	
1) RWY is used primarily. 2) RWY 16 will only be assigned if requested for performance reasons (minimization of delays). For propeller ACFT normally only SID WIL 2Q will be assigned. 3) RWY 10 only, if RWY 28 cannot be used due to MET reasons. 4) SID with left turn only; SID with right turn may be assigned by ATC.		

1.2.2. RUN-UP TESTS**1.2.2.1. IDLE POWER**

For safety reasons and noise monitoring as well as to ensure proper operations, the running of engines (e.g. short and idle), not used for taxiing, is subject to prior permission.

Permission shall be requested from the APT authority,
phone: +41 (0) 43 816 21 11

1.2.2.2. RUN-UPS

Run-ups shall only be performed when using silencers.

Exemptions may be granted by the APT authority:

- When the silencers cannot be used for unpredictable technical or meteorological reasons;
- If the silencers are not compatible with the type of ACFT in question.

Both duration and power setting for such run-ups shall be kept at a minimum.

1.2.3. AUXILIARY POWER UNITS (APUs)

At all stands, primarily the stationary APT pneumatic and electrical service units shall be used. Alternatively, mobile units shall be used.

APUs shall only be started:

- To start engine, but no earlier than 10 minutes before off-block time;
- If the stationary or mobile units are not available or unserviceable for specific ACFT types. In that case, the APU shall be started no earlier than:
 - 50 minutes before off-block time for ACFT codes B and C;
 - 70 minutes before off-block time for ACFT codes D, E and F;
 - 30 minutes before off-block time for GA sector 1;
 and kept in operation no more than 20 minutes after the on-block time;
- If maintenance work on the ACFT makes it unavoidable; in that case the service period shall be kept as short as possible.

Exceptions have to be permitted by the APT Authority.

LSZH/ZRH
ZURICH**JEPPESEN**

9 MAR 18

(10-1P2)

ZURICH, SWITZERLAND**AIRPORT BRIEFING****1. GENERAL****1.3. LOW VISIBILITY PROCEDURES (LVP)**

LVP become effective when the RVR for the TDZ reaches 550m or less and/or the ceiling reaches 200' or less. Pilots will be informed either via ATIS or RTF: "LOW VISIBILITY PROCEDURES IN OPERATION."

Arriving ACFT are vectored so as to ensure an intercept of the localizer at least 9NM from THR.

Pilot of a landed ACFT shall report "RUNWAY VACATED" only when the entire ACFT is beyond the relevant RWY holding position. If weather conditions indicate sustained improvement to RVR 550m or greater and ceiling to 200' or greater, LVP are terminated.

1.4. ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM (A-SMGCS)**1.4.1. GENERAL**

Pilots shall ensure that Mode S transponders are able to operate when ACFT is on the ground, transmitting Mode S squitter and replying to Mode S addresses interrogations only.

1.4.2. MODE A CODE

Pilots shall ensure that the transponder is set to and transmitting assigned Mode A code:

- after landing: Continuously until ACFT has reached final parking position;
- for departure: Latest when start-up and/or push-back clearance is received.

1.4.3. MODE S ACFT IDENTIFICATION

ACFT with Mode S transponder being able to manually set an ACFT identification shall set their ACFT identification as in item 7 of filed flight plan. For departure, this should happen latest when start-up and/or push-back clearance is received.

1.5. TAXI PROCEDURES

On apron, wing tip clearance is provided only if ACFT main gear center remains over guidelines.

TWY P: MAX wingspan 118'/36m.

During ILS 28 approaches, TWYs A and B between TWY K and THR 28 MAX wing-span less than 118'/36m.

1.6. OTHER INFORMATION**1.6.1. LOCAL FLYING RESTRICTIONS****1.6.1.1. GENERAL**

Several missed approach procedures conflict with SIDs in the immediate climb-out area. The following RWY configurations are therefore operated as dependent RWYs, where departures are timed by ATC in respect of arriving traffic:

- DEP RWY 16 - LDG RWY 14
- DEP RWY 10 - LDG RWY 14
- DEP RWY 32 - LDG RWY 34

Flight crews have to expect delay at the holding position of the above mentioned RWYs.

1.6.1.2. SCHEDULED AIR TRAFFIC

Departures and landings may be planned between 0600-2300LT.

1.6.1.3. CHARTER FLIGHTS

Departures may be planned between 0600-2200LT.

Landings may be planned between 0600-2300LT.

1.6.1.4. NON-SCHEDULED COMMERCIAL AIR TRAFFIC

Departures and landings may be planned between 0600-2300LT.

LSZH/ZRH
ZURICH**JEPPESEN**
9 MAR 18 **10-1P3****ZURICH, SWITZERLAND**
AIRPORT BRIEFING

1. GENERAL

1.6.1.5. NON-COMMERCIAL AIR TRAFFIC

Departures and landings may be planned between 0600-2200LT.

1.6.1.6. EXEMPTIONS

- Urgent flights with special authorization by Federal Office for Civil Aviation (FOCA), namely State ACFT with Diplomatic Clearance;
- Search and rescue flights;
- Police and supervision flights;
- Flights carrying sick or injured persons;
- Relief flights in disaster cases;
- Forced landing due to technical or other safety reasons.

Exemptions may be authorized by ZURICH APT Authority,
phone: + 41 (0) 43 816 2111

2. ARRIVAL

2.1. NOISE ABATEMENT

2.1.1. GENERAL

The following procedures are designed to avoid excessive ACFT noise over populated areas in the vicinity of ZURICH APT. Deviations from published routes and procedures are only permitted for safety reasons. ACFT operators provably unable to comply shall submit alternative procedures for approval to the APT Authority. Jet ACFT not licensed in accordance with ICAO Annex 16, Vol I, chapter 3 are not permitted.

2.1.2. ILS/GLS APPROACH

The descent shall be arranged so as to maintain enroute configuration as long as possible considering safety and ATC requirements. Speed reduction and extension of landing gear and high lift devices are to be planned in such a way that landing configuration is established and correct approach speed is reached shortly prior to or at 4NM final.

2.1.3. OTHER APPROACHES

Visual circuits shall be flown at 3000 ' or higher whenever visibility and cloud base permits.

Overflying of densely populated areas shall be avoided as far as possible.

2.1.4. REVERSE THRUST

More than idle reverse shall not be used except for safety reasons.

2.2. CAT II/III OPERATIONS

RWYs 14 and 16 are approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. RWY OPERATIONS

2.3.1. LAND AND HOLD SHORT OPERATION RWY 28

Land and hold short operation allows VFR approaches with admitted ACFT types (single-engined ACFT up to 5700kgs MTOM) in compliance with defined conditions on RWY 28 with simultaneous IFR approaches and departures on RWY 16/34.

2.3.2. MINIMUM RWY OCCUPANCY TIME

ACFT vacating the RWY in use should not stop on the exit taxiway until the entire ACFT has passed the RWY stop bar.

To ensure minimum RWY occupancy time, pilots are reminded to vacate the RWY via TWY H1 whenever possible (except wake turbulence category HEAVY) or as instructed by ATC.

2.4. TAXI PROCEDURES

ACFT shall taxi independently to the parking position as instructed by ZURICH Apron.

The final guidance for ACFT taxiing to GA sectors will be provided by marshaller.

LSZH/ZRH
ZURICH**JEPPESEN**

20 APR 18

(10-1P4)

Eff 26 Apr

ZURICH, SWITZERLAND**AIRPORT BRIEFING**

2. ARRIVAL

2.5. OTHER INFORMATION

2.5.1. COMMUNICATIONS

Pilot shall report ACFT type and identification letter of received Arrival ATIS information on initial call to ZURICH Arrival.

When changing frequency from ZURICH Arrival to ZURICH Final, initial contact shall be restricted to "ZURICH Final" and call sign.

When changing frequency from ZURICH Arrival or ZURICH Final to Tower, initial contact shall be restricted to "ZURICH Tower", call sign, type of APCH and RWY.

2.5.2. COMMUNICATION FAILURE

2.5.2.1. ARRIVAL PROCEDURE

Proceed via inbound routes to GIPOL/AMIKI/RILAX. At last received and acknowledged EAT or (if no EAT has been received or acknowledged) at FPL ETA, descend in GIPOL/AMIKI holding pattern to initial approach altitude, or in RILAX holding pattern to initial approach altitude or 7000', whichever is higher, and carry out a standard instrument approach to a suitable RWY.

3. DEPARTURE

3.1. AIRPORT COLLABORATIVE DECISION MAKING (A-CDM)

3.1.1. GENERAL

A-CDM is part of the European programme "Single European Sky" to optimize air-space and APT operations. A-CDM is a harmonized concept supported by EUROCONTROL where procedures and processes are aligned throughout Europe. The aim of the concept is to optimize the turn-around process in order to ensure the best possible coordination of resources. Providing all partners with accurate and timely information will allow decisions to be made to ensure that the turn-around of a flight is efficient and everyone has a common awareness of the situation.

A-CDM is based on partnership at APT Operations, ATC, ACFT Operators (AO), Ground Handlers (GH) and the Network Managers Operation Center (NMOC). Emphasis is put on:

- Linking the inbound, turn-around and outbound processes of flights.
- Sharing of the right information at the right time to the right people best placed to act upon it.
- Improved flight data exchange between APTs and the ATFM network (NMOC).

3.1.2. A-CDM PROCEDURE

Flight Plan Check

The ATC FPL originator needs to check if the ATC flight plan is consistent with the APT slot. If they do not correspond, the FPL originator will be informed and requested to coordinate the times. In the meantime, it may not be possible to apply the CDM process if the carrier intends to take off outside of the APT slot. Filing and updating the flight plan is and remains the responsibility of the ACFT Operator (AO). He may delegate these tasks to his accredited Handling Agent.

TOBT

The TOBT (Target Off-Block Time) represents the time that an AO or Handling Agent estimates to be ready to leave the stand. The TOBT shall be updated through the usual channels e.g. standard IATA Estimated Departure (ED) message. TOBT only needs to be updated if the time that the ACFT will be ready to leave the stand changes. For delays of 15 minutes or more, the ATC FPL also has to be updated by the ATC FPL originator. Accurate TOBT management is therefore a prerequisite for a punctual departure.

LSZH/ZRH
ZURICH**JEPPESEN**
20 APR 18**JEPPESEN**
(10-1P5)

Eff 26 Apr

ZURICH, SWITZERLAND
AIRPORT BRIEFING

3. DEPARTURE

TSAT

The TSAT (Target Start-up Approval Time) is the time provided by the departure traffic management system "DARTS". The system calculates for every departure the best possible start-up and/or off-block time to reduce queuing times at the RWY, while maintaining a high RWY utilization. The TSAT is calculated by taking into account TOBT, Calculated Take-Off Time (CTOT), SID, departure fix, wake turbulence category, ACFT type, variable taxi times from the parking position to the departure RWY and the operational RWY concept. Apron Control and ATC will continue to optimize the departure order by ensuring the right mix of traffic. The calculated TSAT will be displayed at the APT Operational Database (AODB) to inform AO/Ground Handling (GH). The TSAT and the Target Take-off Time (TTOT) are displayed by the docking guidance system after ATC clearance has been issued.

3.1.3. A-CDM ALERTS

An alert mechanism monitors expected upcoming events to trigger data updates and consistency. These alert messages will be either displayed at the AODB and/or sent to the responsible partner to react to the alerts as required.

3.1.4. COORDINATION WITH THE NMOC/CTOT PROCESSING

A permanent and fully automatic data exchange with the NMOC (Network Manager Operations Center) is established. This data transfer enables accurate and early prediction of departure times. Furthermore this allows a more accurate and efficient calculation of the CTOT due to the use of local TTOT. The following messages are used for each individual flight:

- Early Departure Planning Information Message (E-DPI) based on current Flight Plan data;
- Target Departure Planning Information Message (T-DPI) based on TOBT and later on TSAT;
- ATC Departure Planning Information Message (A-DPI) based on actual off-block time;
- Cancel Departure Planning Information Message (C-DPI) when local CDM process is interrupted.

The basic NMOC procedures continue to apply and NMOC takes the local target take-off times into consideration wherever possible.

3.1.5. UNABLE ACCEPTING THE DEFAULT DEPARTURE RWY

Departing ACFT unable to accept default departure RWY according to ATIS, shall report this earliest 30 minutes but not later than 10 minutes prior to EOBT/TOBT to clearance delivery.

Excluded are ACFT with wake turbulence class H and J.

3.2. DE-ICING

3.2.1. GENERAL

ATIS will inform if "General de-icing" or "General de-icing with extended slot tolerance window" is in use.

Most ACFT are planned for remote de-icing, except:

- At discretion of De-icing coordinator;
- Customers of de-icing provider SWP operating propeller ACFT, ACFT requiring underwing de-icing/clear-ice check after de-icing/ACFT manufacturers special requirements apply;
- Customers of de-icing provider AAS;
- Most customers of de-icing provider Dnata.

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ZURICH**JEPPESEN**

20 APR 18

(10-1P6)**Eff 26 Apr****ZURICH, SWITZERLAND****AIRPORT BRIEFING**

3. DEPARTURE

If de-icing is required, flight crew shall call DE-ICING COORDINATION on 121.810 latest 15 minutes before STD/ETD, prior to requesting clearance. This call shall be made irrespective of de-icing status.

Crew will be informed about the de-icing procedures foreseen (ON-STAND or REMOTE DE-ICING).

Flight crew shall not report "ACFT ready" before de-icing is complete and ACFT is released by the de-icing company.

3.2.2. GENERAL DE-ICING WITH EXTENDED SLOT TOLERANCE WINDOW

Slots can be extended to MAX CTOT +/-30 minutes, based on approval from network manager operation center.

ATC slot adherence assured by ATC with handover to ZURICH Apron.

3.2.3. REMOTE DE-ICING

For De-icing pads refer to 10-9 charts.

Taxi onto the de-icing lane as instructed by ZURICH Apron and stop at the marked and yellow-lighted stop position "STOP DE-ICING" located to the Left of the de-icing lane for commencement of de-icing.

After reaching the de-icing stop position "STOP DE-ICING" on the de-icing lane, contact pad coordinator on the respective frequency.

Pad coordinator may instruct to adjust ACFT position if required.

After de-icing, when released by pad coordinator, request taxi clearance from ZURICH Apron.

3.2.3.1. USE OF REMOTE DE-ICING FACILITIES

ACFT stop position on the de-icing lanes C1/C2/C3/F1/F2/F3 marked and lighted. Stop position markings with yellow lights and the remark "STOP DE-ICING" are located to the Left with a 90 degrees angle to the de-icing lane. To commence de-icing, ACFT has to stop with the pilot seat abeam the stop position.

When entering the de-icing lane as instructed by ZURICH apron, ACFT shall taxi independently with caution up to de-icing stop position.

Be aware of repositioning of de-icing trucks within the remote de-icing facilities.

3.3. START-UP AND PUSH-BACK PROCEDURES

3.3.1. CLEARANCE DELIVERY

Pilots shall receive start-up/ATC clearance upon request from ZURICH delivery, earliest 15 minutes before estimated time of departure.

When requesting ATC clearance, flight crew shall report ACFT type, stand number and identification letter of received DEP ATIS information.

ACFT with ATC slot planned for remote de-icing must be ready for start-up latest 25 minutes prior to CTOT.

ACFT with ATC slot planned for RWY 10 (according to DEP ATIS) or flight crews requiring RWY 16 must be ready for start-up no later than 20 minutes prior to CTOT.

ACFT with ATC slot planned for RWY 28, 32 or 34 must be ready for start-up no later than 10 minutes prior to CTOT.

During winter operation, special DEP regulation may be activated if de-icing of ACFT is heavily delayed.

If ATC clearance for RNAV SID VEBIT 1K is received, but ACFT is not capable of processing RF leg, pilot shall report unable and request different SID on clearance delivery.

LSZH/ZRH
ZURICH**JEPPESEN**

20 APR 18

10-1P7**Eff 26 Apr****ZURICH, SWITZERLAND****AIRPORT BRIEFING**

3. DEPARTURE

3.3.2. START-UP AND PUSH-BACK PROCEDURES

For the towing or push-back a general authorization only will be given to the flight crew. Detailed instructions will be transmitted directly by Zurich apron on the tow vehicle's frequency to the driver after the clearance has been issued to the flight crew.

When cross bleed/cross generator start-up is necessary, flight crew shall inform ZURICH apron first.

After having adequate safety measures put in place, ZURICH Apron will issue start-up clearance.

All parking positions West: Outbound with push-back only.

Advise ZURICH Apron when ready for taxi.

3.4. NOISE ABATEMENT

3.4.1. GENERAL

The following procedures are designed to avoid excessive ACFT noise over populated areas in the vicinity of ZURICH APT. Deviations from published routes and procedures are only permitted for safety reasons. ACFT operators provably unable to comply shall submit alternative procedures for approval to the APT Authority. Jet ACFT not licensed in accordance with ICAO Annex 16, Vol I, chapter 3 are not permitted.

Deviation from SIDs as depicted on Zurich SID charts is only possible at altitudes at or above 5000'. Between 2200-0600LT deviation from SIDs is only permitted at or above FL 80 with permission of ATC.

If possible, a rolling take-off shall be executed. Engine power shall be increased only after entering the departure RWY.

Climb with maximum climb gradient to 4500':

- Use the high lift devices take-off configuration;
- Take-off power reduction to climb power at 2900'.

Automatic measuring equipment is used to monitor adherence.

3.5. RWY OPERATIONS

3.5.1. OPTIMIZATION OF RWY OCCUPANCY TIME

ATC will consider every ACFT at the holding point as able to commence line-up and take-off immediately after clearance issued. Pilots not ready when reaching the holding point (no ACFT in front on the same TWY) shall advise ATC as early as possible.

Pilots in receipt of a conditional line-up clearance on a preceding departing ACFT should remain behind the subject ACFT but may cross RWY holding point (as long as there is no illuminated red stop bar) and enter RWY upon receipt of clearance. Pilot must be aware that there may be a blast hazard as ACFT on RWY applies power.

When cleared for take-off, ATC will expect and has planned on the ACFT being rolling within 10 seconds (of take-off clearance being issued). Pilots unable to comply with this requirement shall notify ATC before entering the RWY.

3.6. OTHER INFORMATION

3.6.1. COMMUNICATION FAILURE

- Depending on the assigned departure route cross ZUE, ALBIX, WIL climbing to/at the last assigned and acknowledged FL but not below the minimum crossing altitude, then continue climb to flight plan level.

Note: Leave last assigned and acknowledged FL or altitude not earlier than 3 MIN after airborne.

- ACFT on RNAV departure routes shall cross DEGES, GERSA, SONGI, VEBIT climbing to/at last assigned and acknowledged FL but not below the minimum crossing altitude, then continue climb to flight plan level.

Note: Leave last assigned and acknowledged FL or altitude not earlier than 3 minutes after airborne.

LSZH/ZRH
ZURICH

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20 OCT 17 10-1R

ZURICH, SWITZERLAND

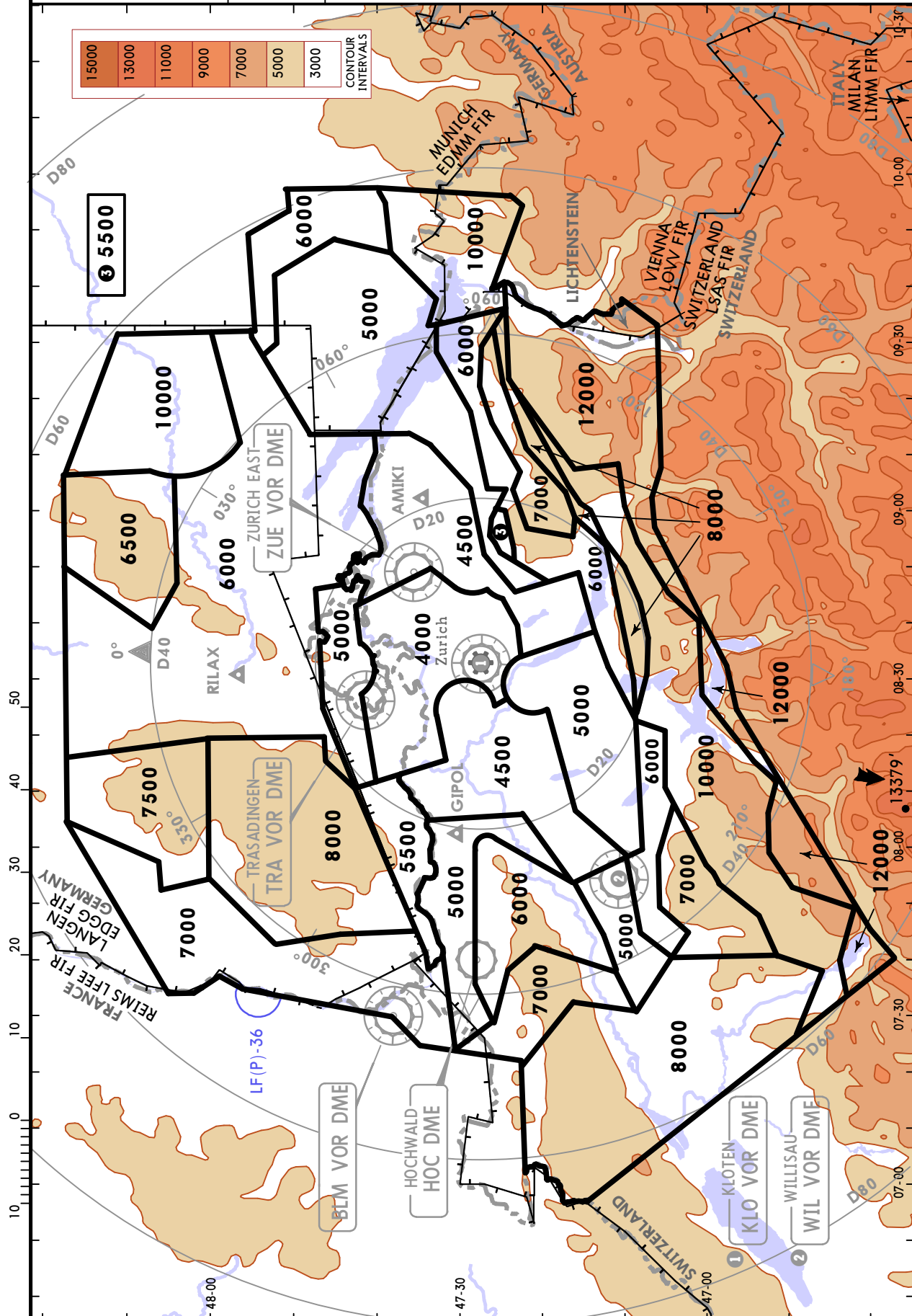
RADAR MINIMUM ALTITUDES

ZURICH Arrival (APP/R)
118.0
135.225

Apt Elev
1417'

Alt Set: hPa
Trans level: By ATC Trans alt: 7000'

1. Altitudes are based on Zurich QNH.
2. RADAR minimum altitudes over Swiss territory are protected for low temperatures at or above -20 degrees.
3. This chart may only be used for cross-checking of altitudes assigned while under RADAR vectoring.



CHANGES: Sectors revised.

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17 NOV 17 **10-2****ZURICH, SWITZERLAND****STAR**

ARRIVAL INSTRUCTIONS

CLEARANCE PHRASEOLOGY FOR RNAV TRANSITIONS

"Cleared xxx Transition": Authorization to fly the lateral RNAV 1 Route.
Level assignments will be issued by ATC.

"Cleared direct Waypoint xxx": Authorization to fly from the present position
direct to a waypoint and join thereafter the appropriate RNAV 1 Route.
Level assignments will be issued by ATC.

COMMUNICATION FAILURE PROCEDURES FOR RNAV TRANSITIONS

Before reception of a "transition" Clearance: Switch transponder code and continue FLT in accordance with COM Failure PROC published on relevant Standard Instrument Approach Procedure.

After reception of a "transition" Clearance: Switch transponder code and continue FLT in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

After reception of a Clearance direct to a WPT on a transition: Switch transponder code and continue FLT direct to the cleared WPT, rejoin transition in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

When being Radar Vektored to a WPT on a transition: Switch transponder code and resume own navigation to rejoin transition in the most direct way and proceed in accordance with lateral description and with respect to the MCA of the PROC with subsequent final APCH of a conventional Standard Instrument Approach Procedure.

LSZH/ZRH
ZURICHJEPPESEN
17 NOV 17 (10-2A)ZURICH, SWITZERLAND
RNAV TRANSITIOND-ATIS
125.725Apt Elev
1417Alt Set: hPa
Trans level: By ATC

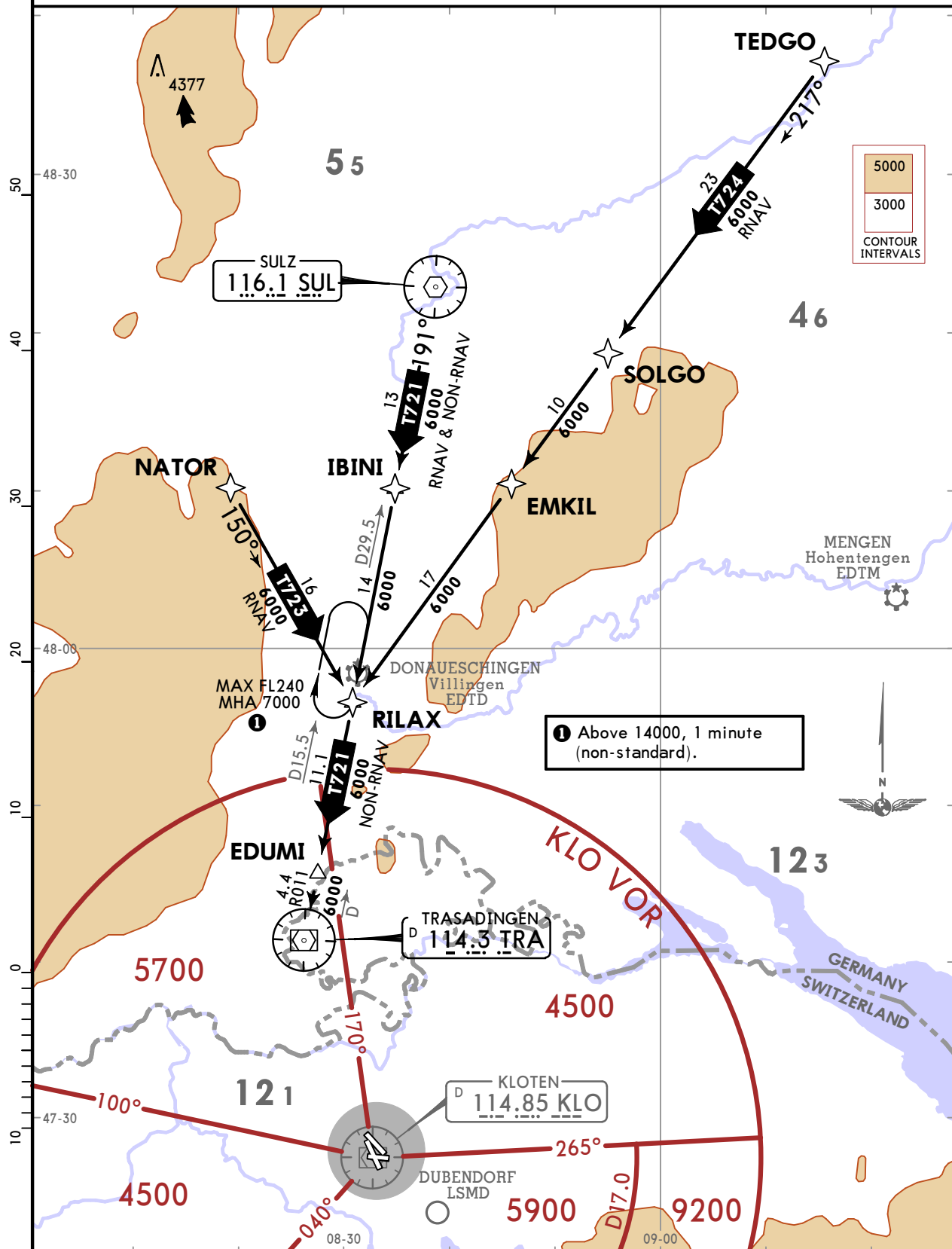
RNAV TRANSITIONS

TRANSITION

TO RILAX & TRA

FOR ROUTE CONTINUATION AFTER RILAX REFER TO CHART 10-2E

FOR ROUTE CONTINUATION AFTER TRA REFER TO CHART 10-2G

SPEED: AS INSTRUCTED BY LANGEN RADAR
MAX 250 KT BELOW FL100

LSZH/ZRH
ZURICH

17 NOV 17
10-2B

ZURICH, SWITZERLAND

RNAV TRANSITION

D-ATIS	Apt Elev	Alt Set: hPa
125.725	1417	Trans level: By ATC

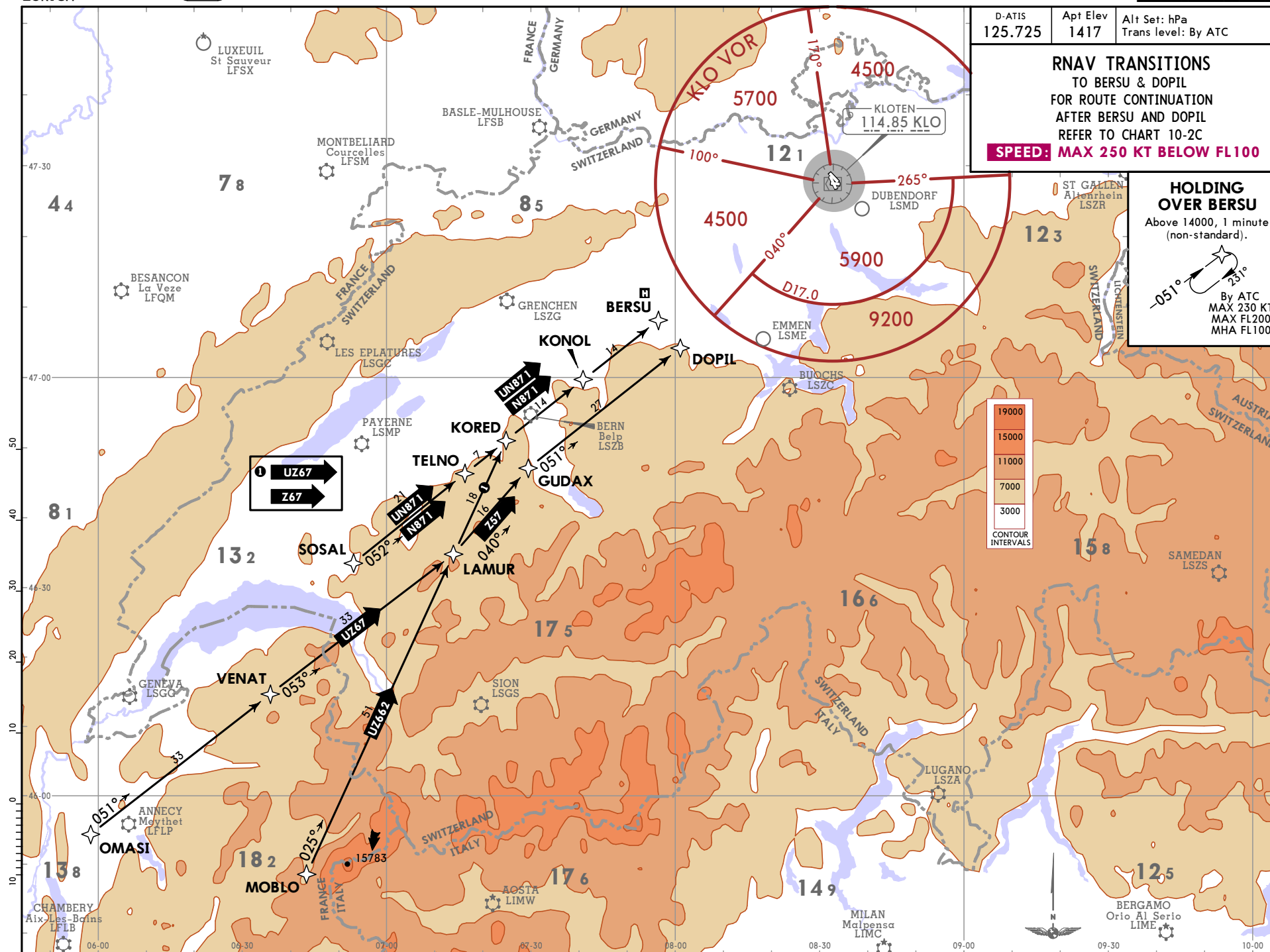
RNAV TRANSITIONS
TO BERSU & DOPIL
FOR ROUTE CONTINUATION
AFTER BERSU AND DOPIL
REFER TO CHART 10-2C

SPEED: MAX 250 KT BELOW FL100

**HOLDING
OVER BERSU**

Above 14000, 1 minute
(non-standard).

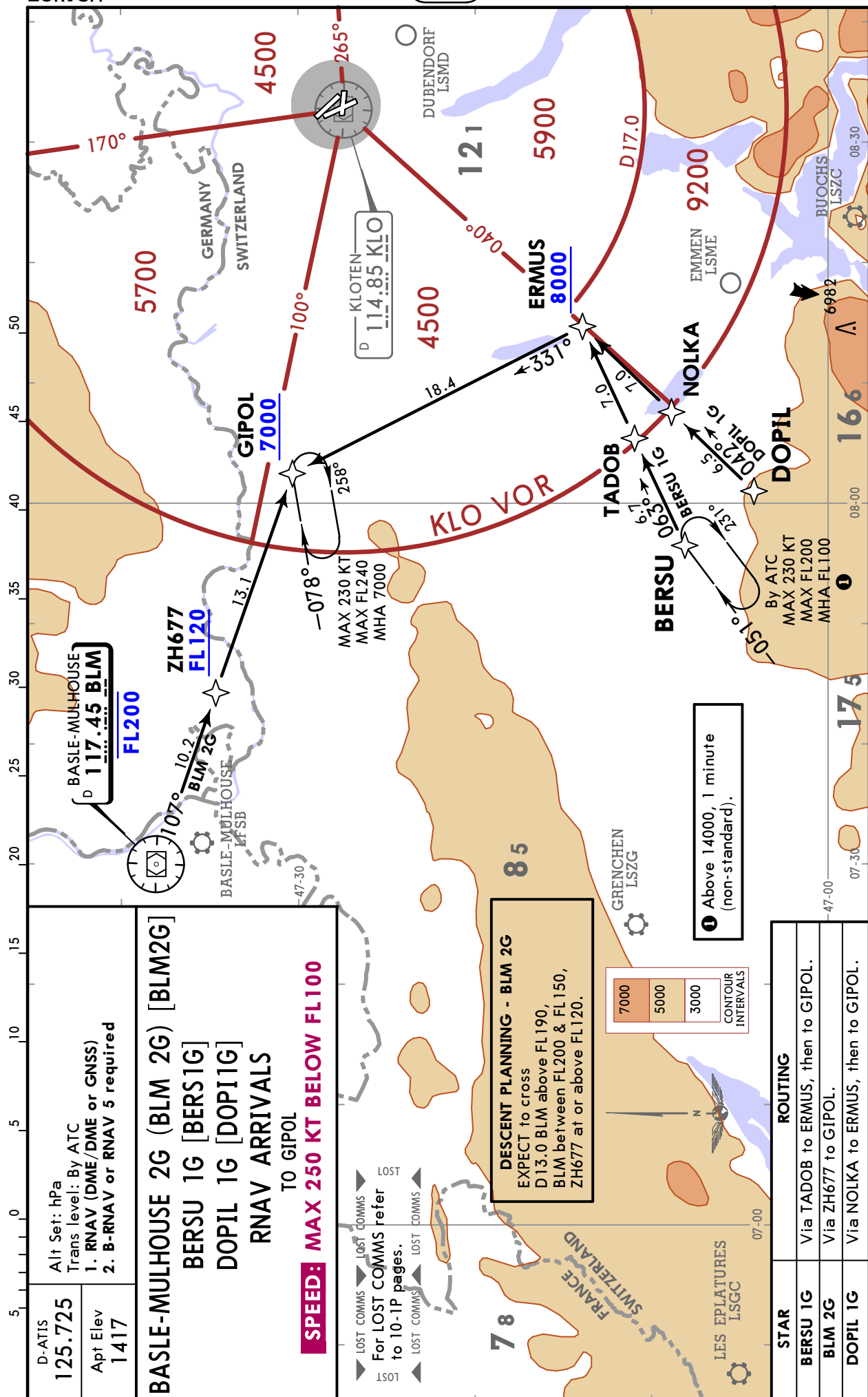
By ATC
MAX 230 KT
MAX FL200
MHA FL100



LSZH/ZRH
ZURICH

JEPPESEN
17 NOV 17 (10-2C)

ZURICH, SWITZERLAND

RNAV STAR

LSZH/ZRH
ZURICHJEPPESEN
17 NOV 17 (10-2D)

ZURICH, SWITZERLAND

RNAV STAR

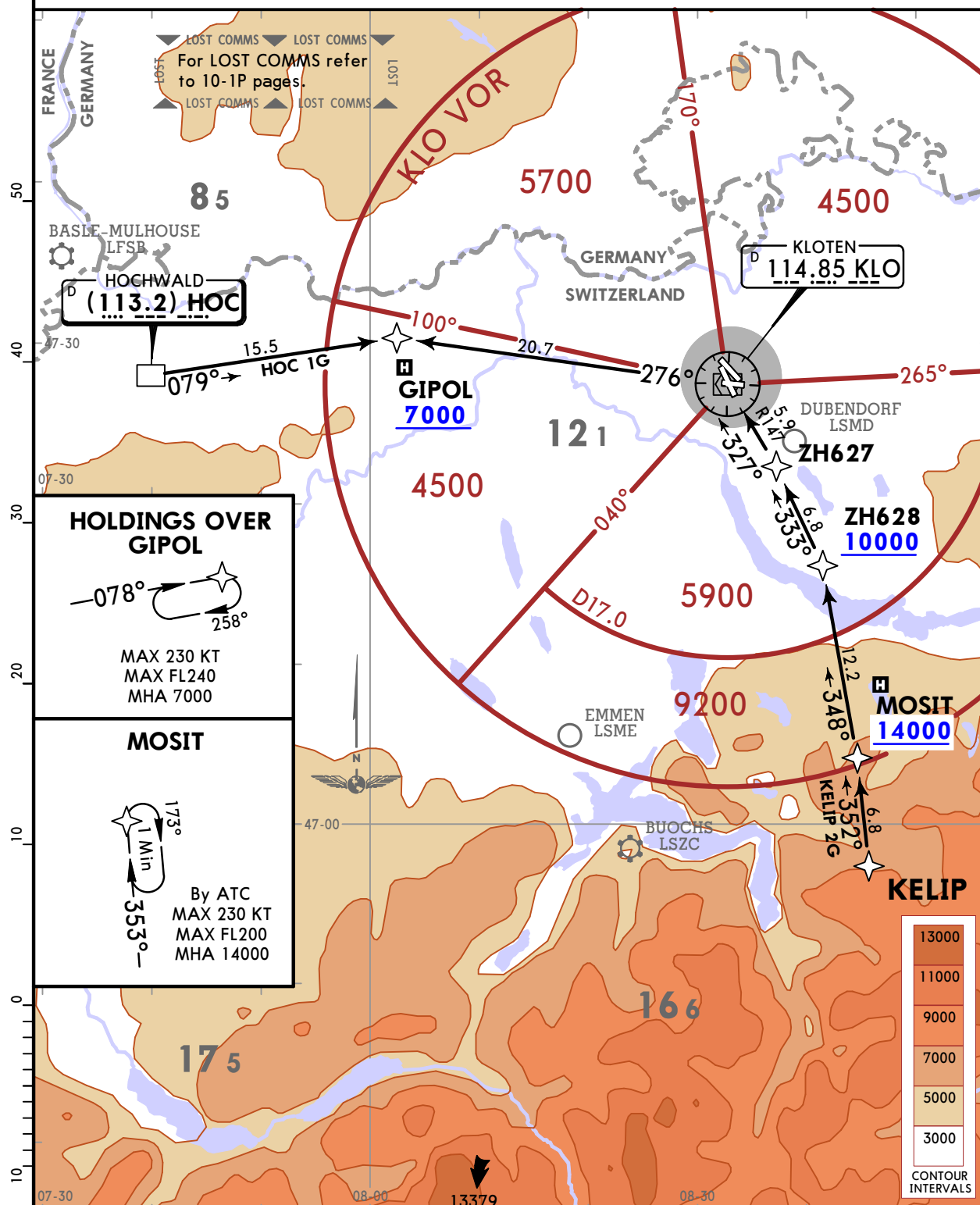
D-ATIS
125.725Apt Elev
1417Alt Set: hPa
Trans level: By ATC
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required

HOCHWALD 1G (HOC 1G) [HOC1G]

KELIP 2G [KELI2G]

RNAV ARRIVALS

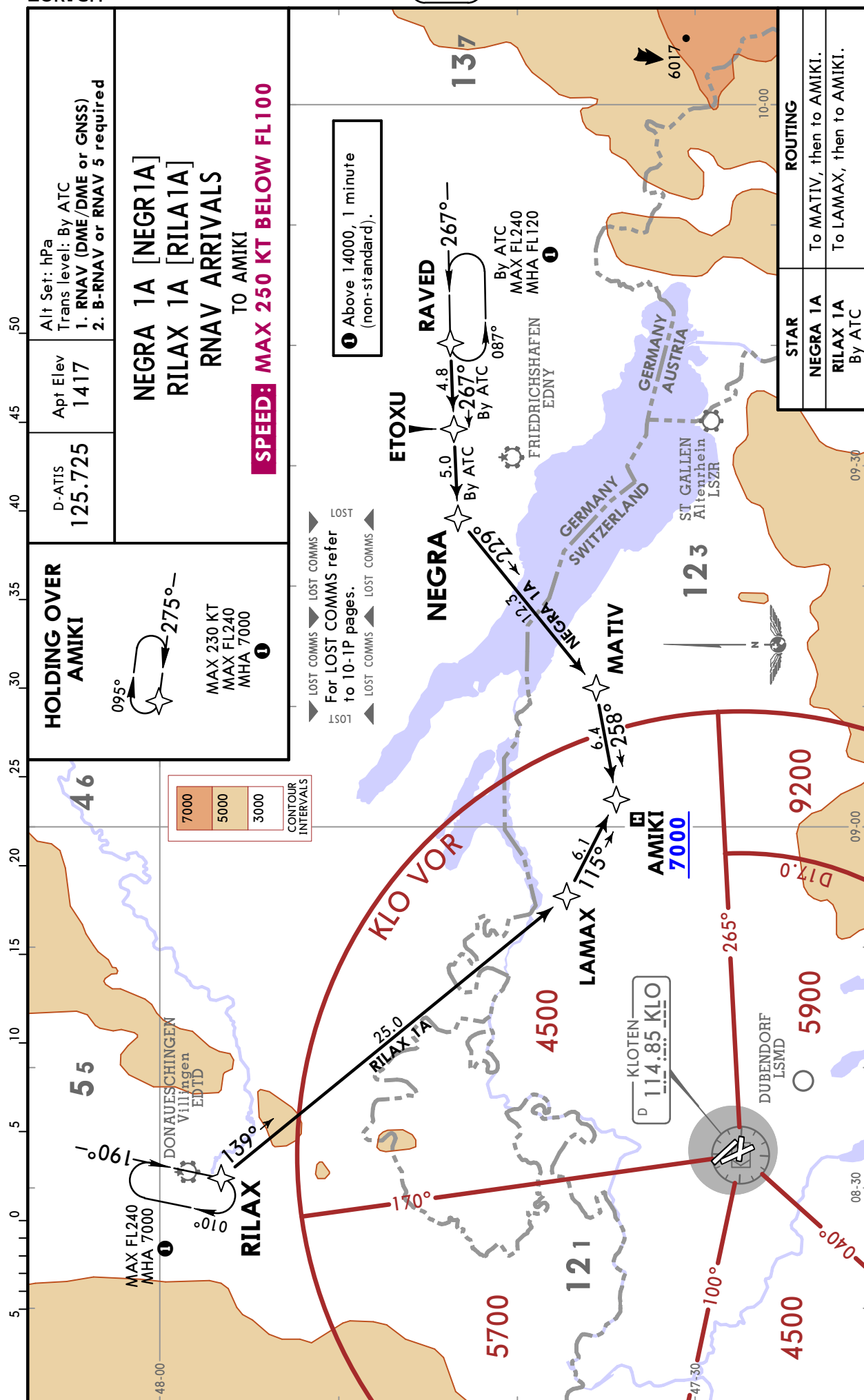
TO GIPOL

SPEED: MAX 250 KT BELOW FL100

LSZH/ZRH
ZURICH

JEPPESEN
17 NOV 17 (10-2E)

ZURICH, SWITZERLAND

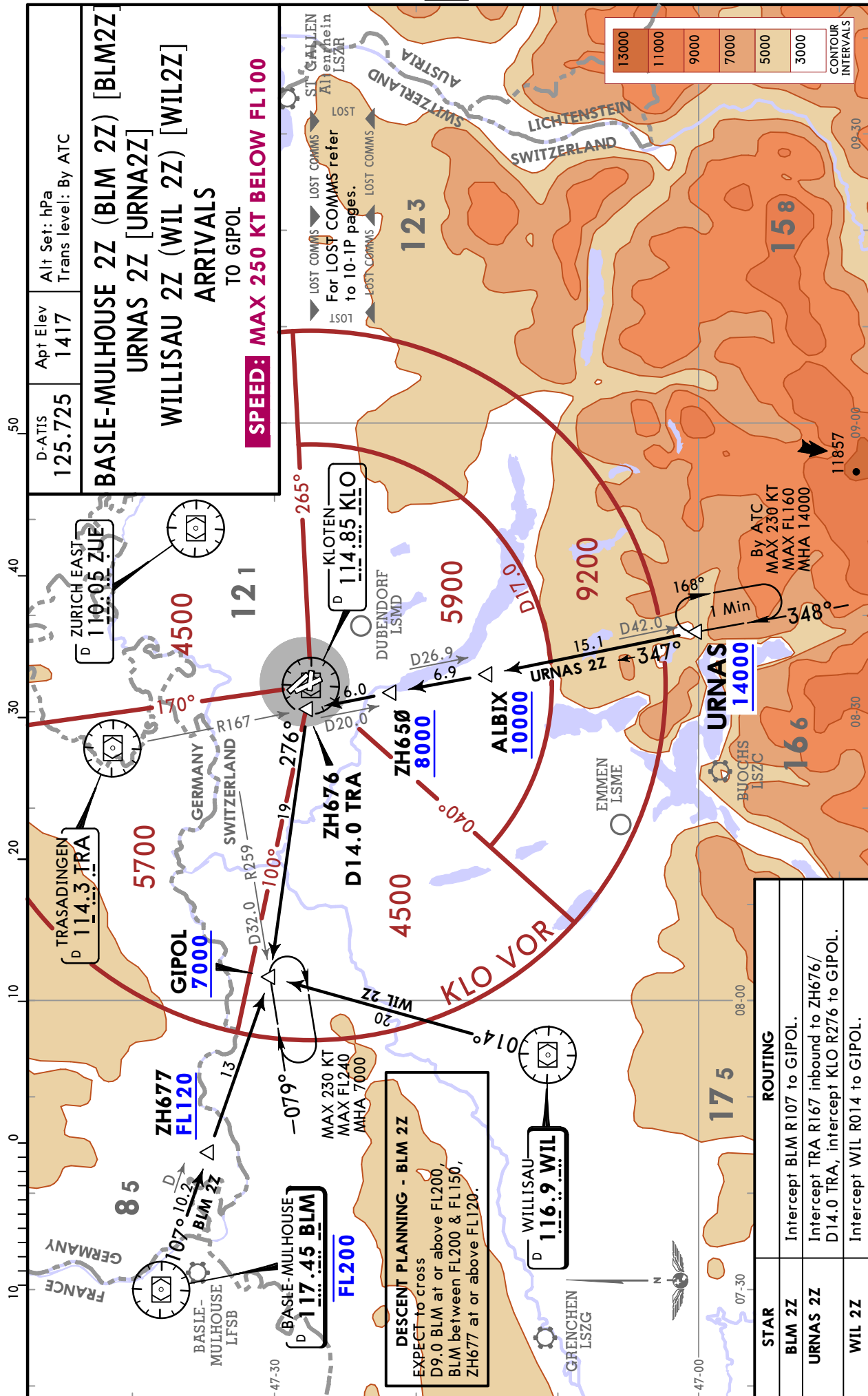
RNAV STAR

LSZH/ZRH
ZURICH

JEPPESSEN
17 NOV 17 10-2F

ZURICH, SWITZERLAND

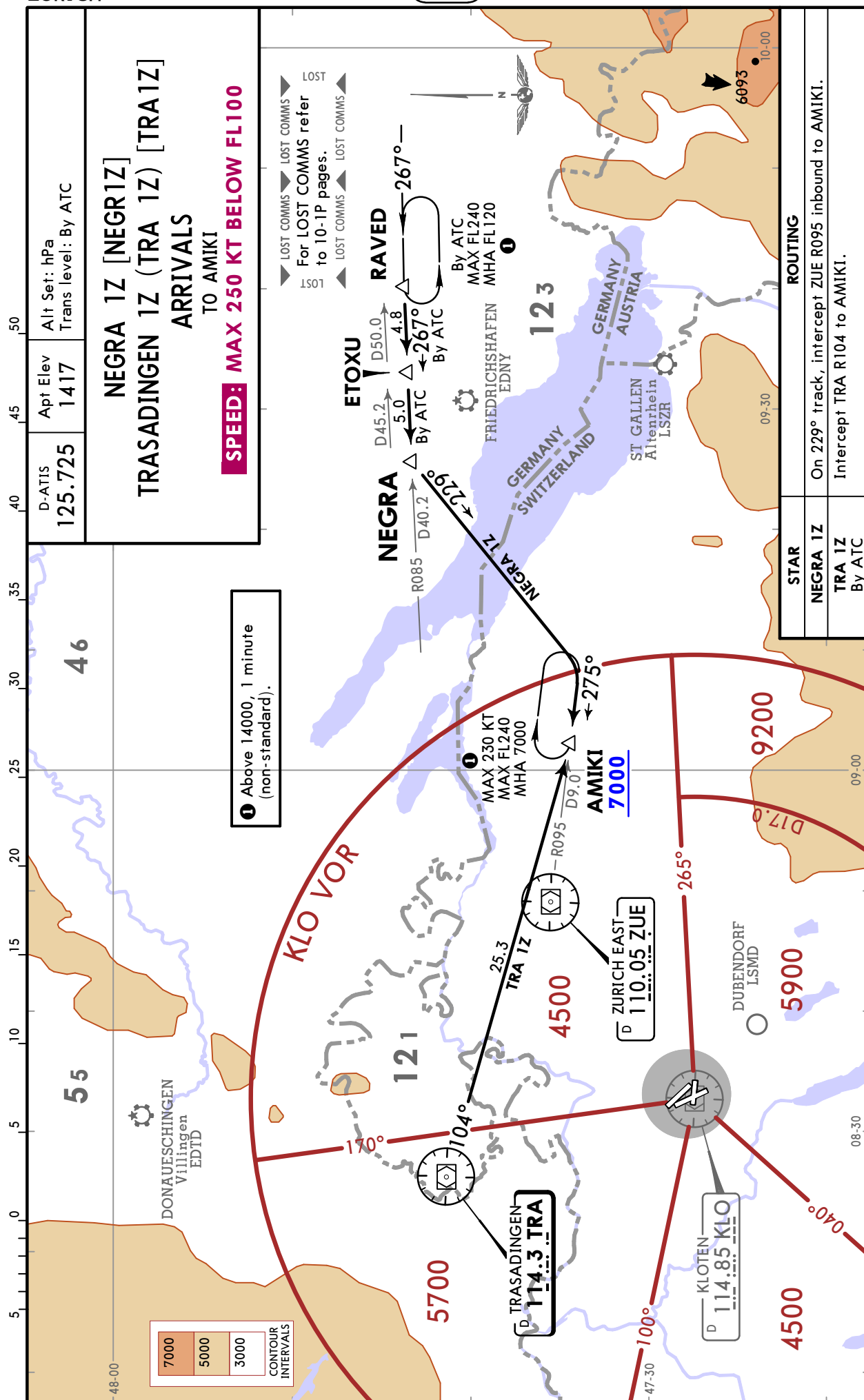
STAR



LSZH/ZRH
ZURICHJEPPESSEN
17 NOV 17 (10-2G)

ZURICH, SWITZERLAND

STAR



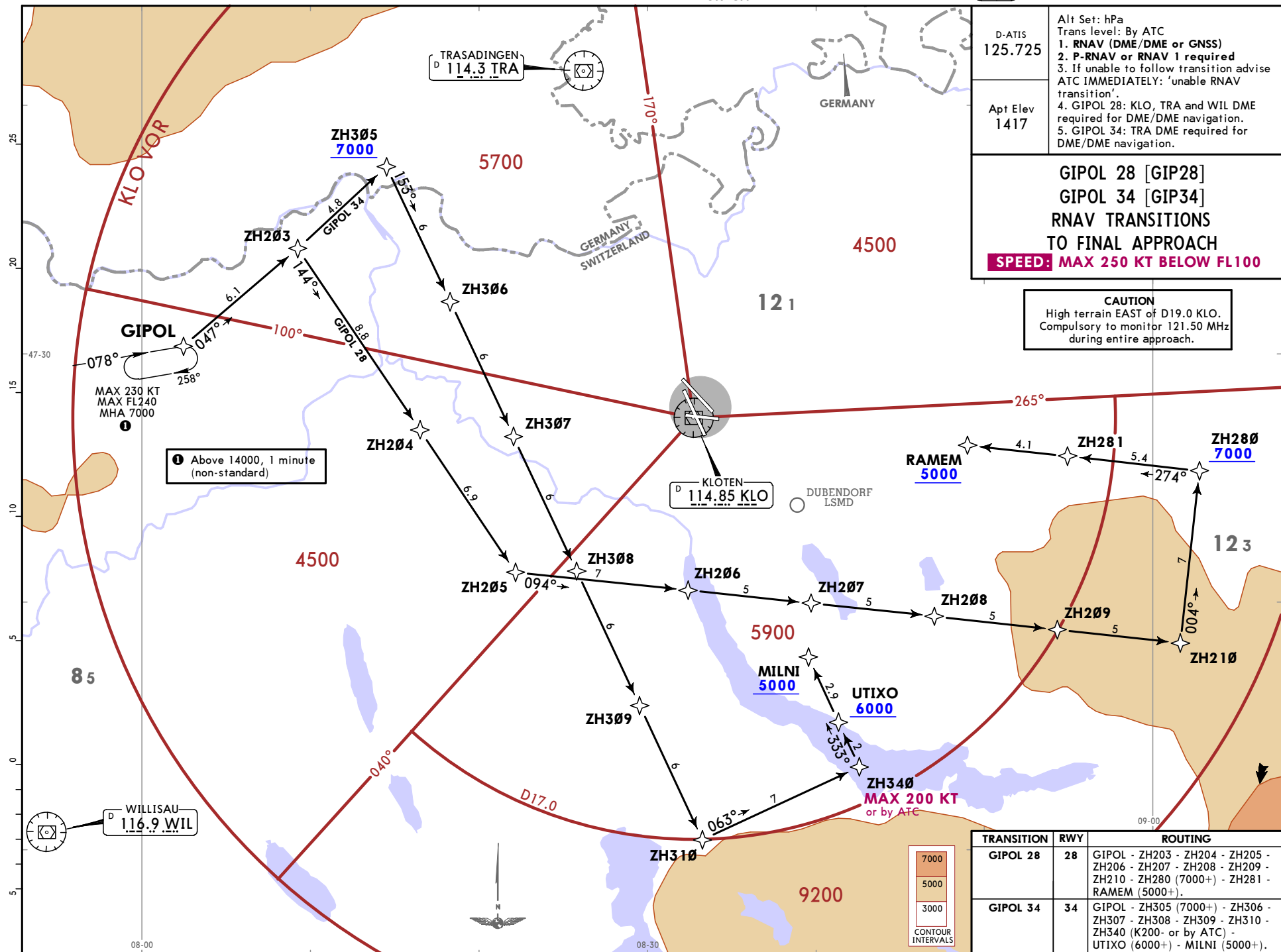
JEPPESSEN
17 NOV 17 (10-2H)

RNAV TRANSITION



JEPPESEN
17 NOV 17 10-2J

ZURICH, SWITZERLAND
RNAV TRANSITION



CHANGES: Communications.

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17 NOV 17 10-2K

RNAV TRANSITION



LSZH/ZRH
ZURICH **JEPPESEN**
12 AUG 16 **10-3****Eff 18 Aug****ZURICH, SWITZERLAND****RNAV SID**

RNAV SID DESIGNATION	REFER TO CHART
DEGES 1D, 2R	10-3B
DEGES 1E	10-3C
DEGES 3F, 2H	10-3D
DEGES 3L, 2N	10-3E
DEGES 2S	10-3F
DEGES 2W	10-3G
GERSA 1C	10-3H
VEBIT 2E, 3S	10-3J
VEBIT 2H, 2N	10-3J1
VEBIT 1K	10-3K
VEBIT 3W	10-3L
DEGES 2B	10-3L1
GERSA 2B	10-3L2
GERSA 1E	10-3L3
GERSA 1H, 1N	10-3L4
GERSA 2S	10-3L5
GERSA 2W	10-3L6
SONGI 3F, 1H, 3L, 1N	10-3L7
VEBIT 3B	10-3L8

FOR SID DESIGNATION & TRANSITION
REFER TO PAGE 10-3A

LSZH/ZRH
ZURICH **JEPPESEN**
12 AUG 16 **(10-3A)** Eff 18 Aug**ZURICH, SWITZERLAND****SID**

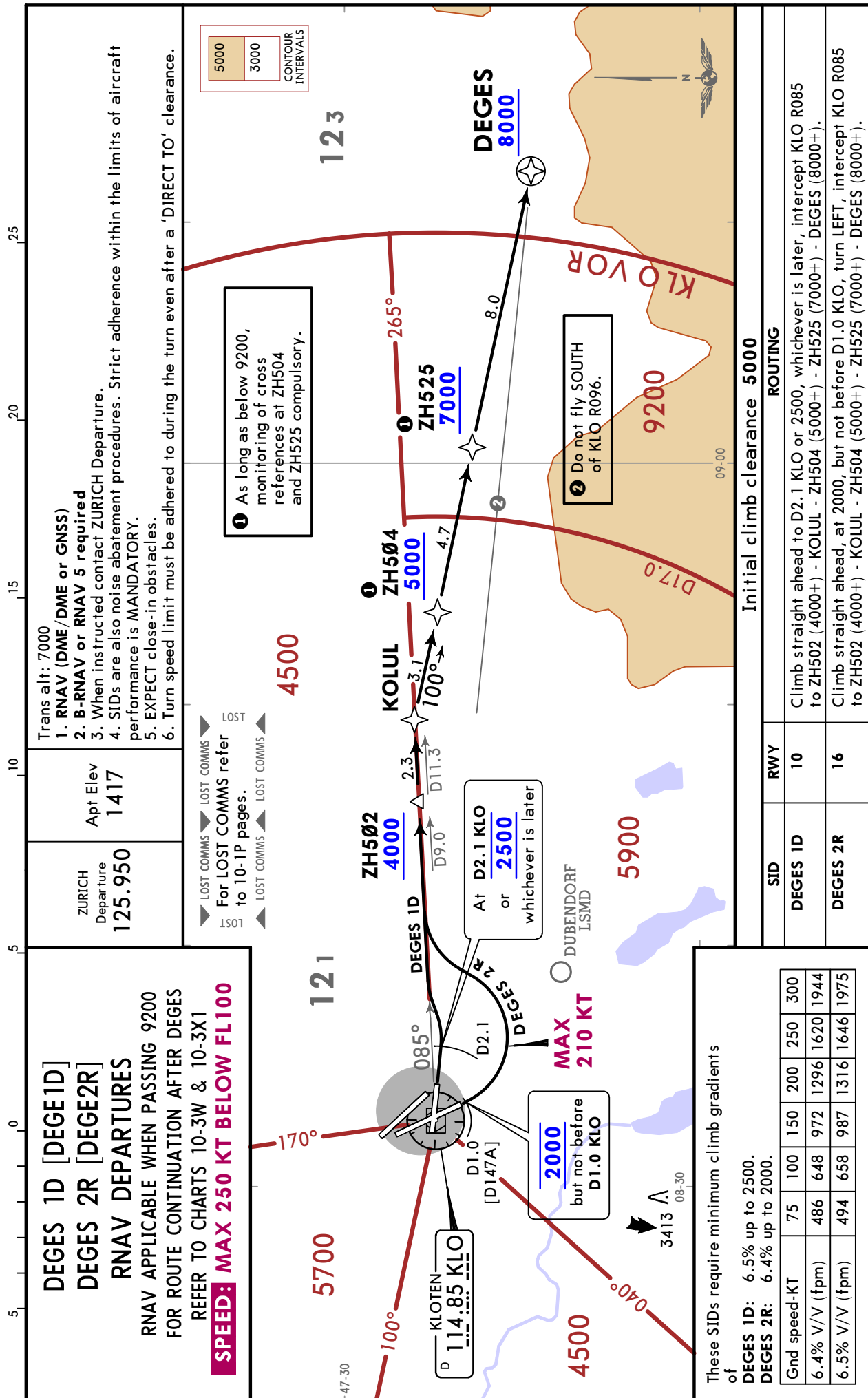
SID DESIGNATION	REFER TO CHART
ALBIX 1C	10-3M
WILLISAU 2C, 2D	10-3N
WILLISAU 2G, 2M	10-3P
WILLISAU 2Q, 3R	10-3Q
WILLISAU 3V	10-3S
ZURICH EAST 1D, 2R	10-3T
ZURICH EAST 3F, 1G, 3L, 1M	10-3U
ZURICH EAST 2V	10-3V
WILLISAU 3A, ZUE 2A	10-3V1
TRANSITION	REFER TO CHART
NORTHBOUND AFTER DEGES & ZUE	10-3W
NORTHBOUND AFTER SONGI	10-3X
EASTBOUND AFTER DEGES & ZUE	10-3X1
SOUTH- & WESTBOUND AFTER VEBIT	10-3X2

LSZH/ZRH
ZURICH

15 SEP 17

JEPPESEN

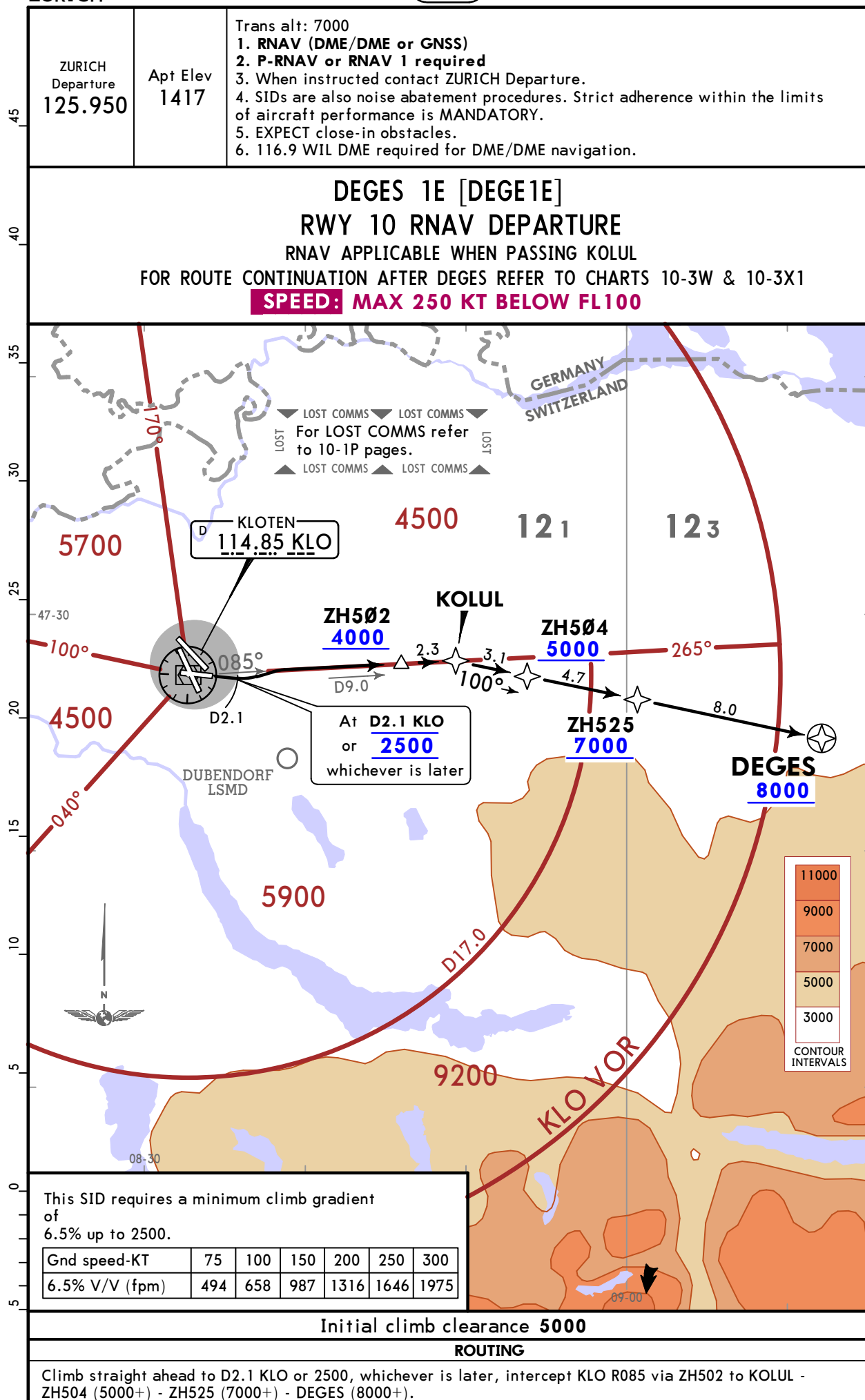
ZURICH, SWITZERLAND

RNAV SID

LSZH/ZRH
ZURICHJEPPesen
15 SEP 17 (10-3C)

ZURICH, SWITZERLAND

RNAV SID

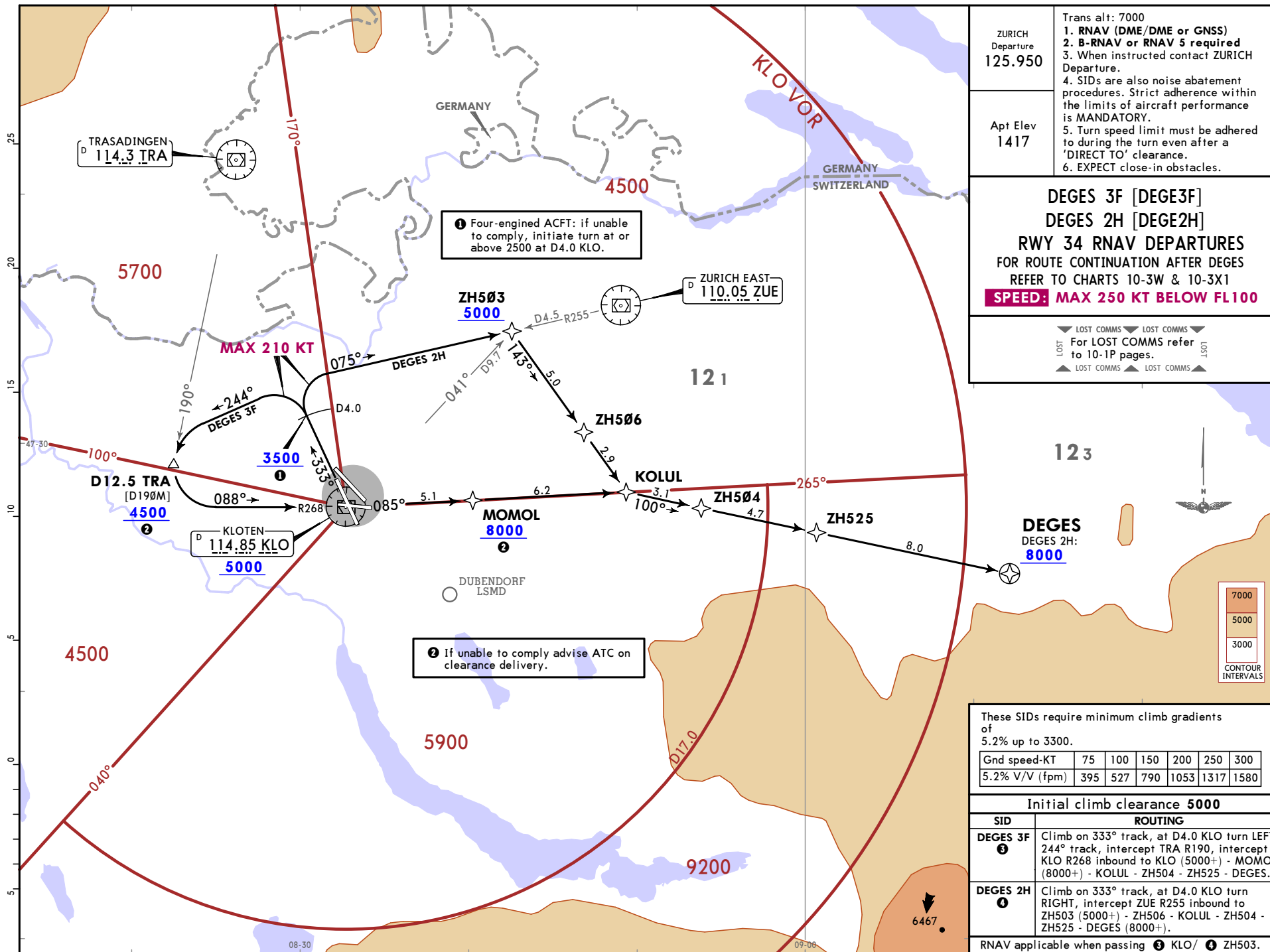


LSZH/ZRH
ZURICH

JEPPESSEN
15 SEP 17 (10-3D)

ZURICH, SWITZERLAND

RNAV SID

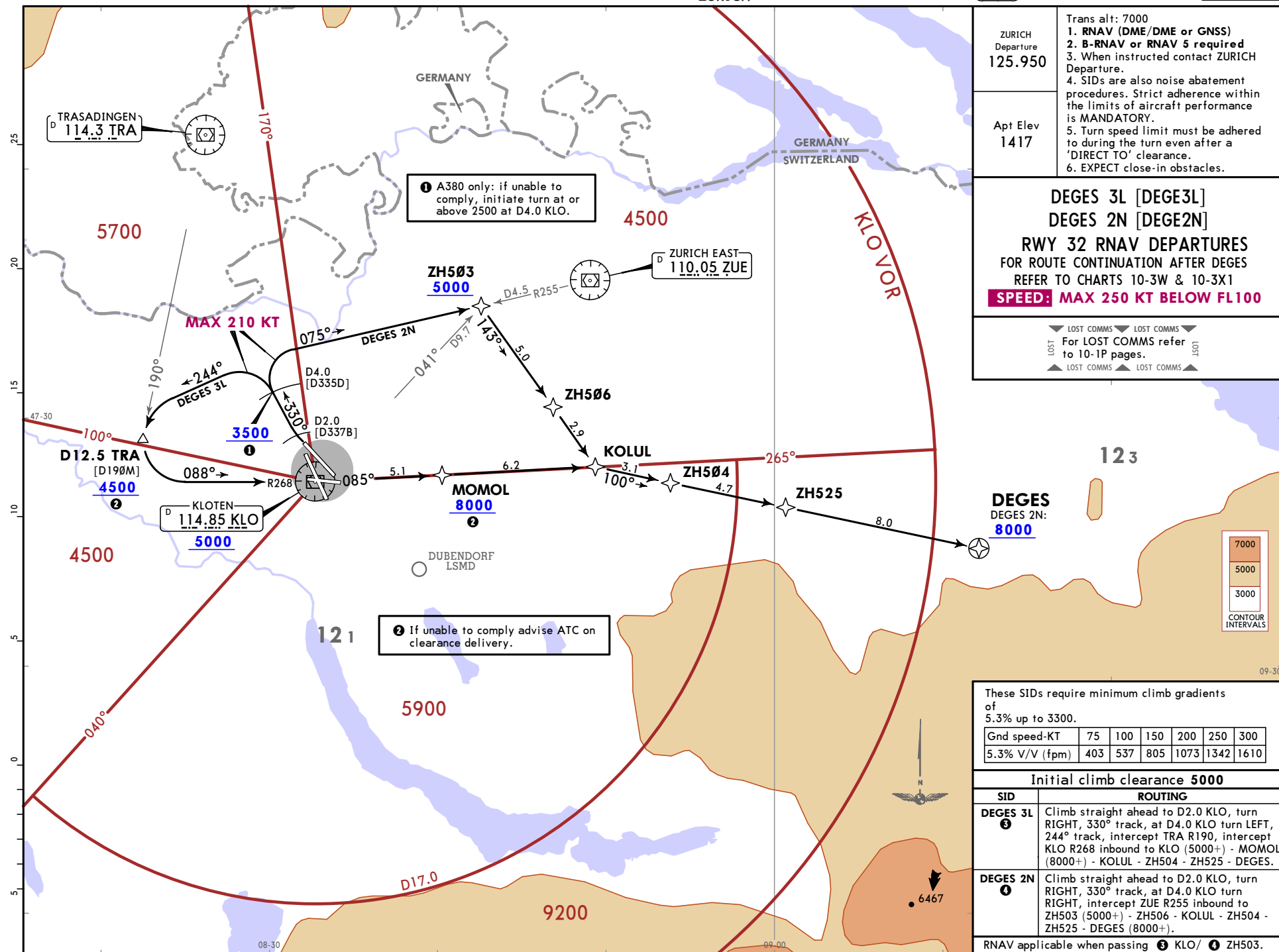


LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3E

ZURICH, SWITZERLAND

RNAV SID

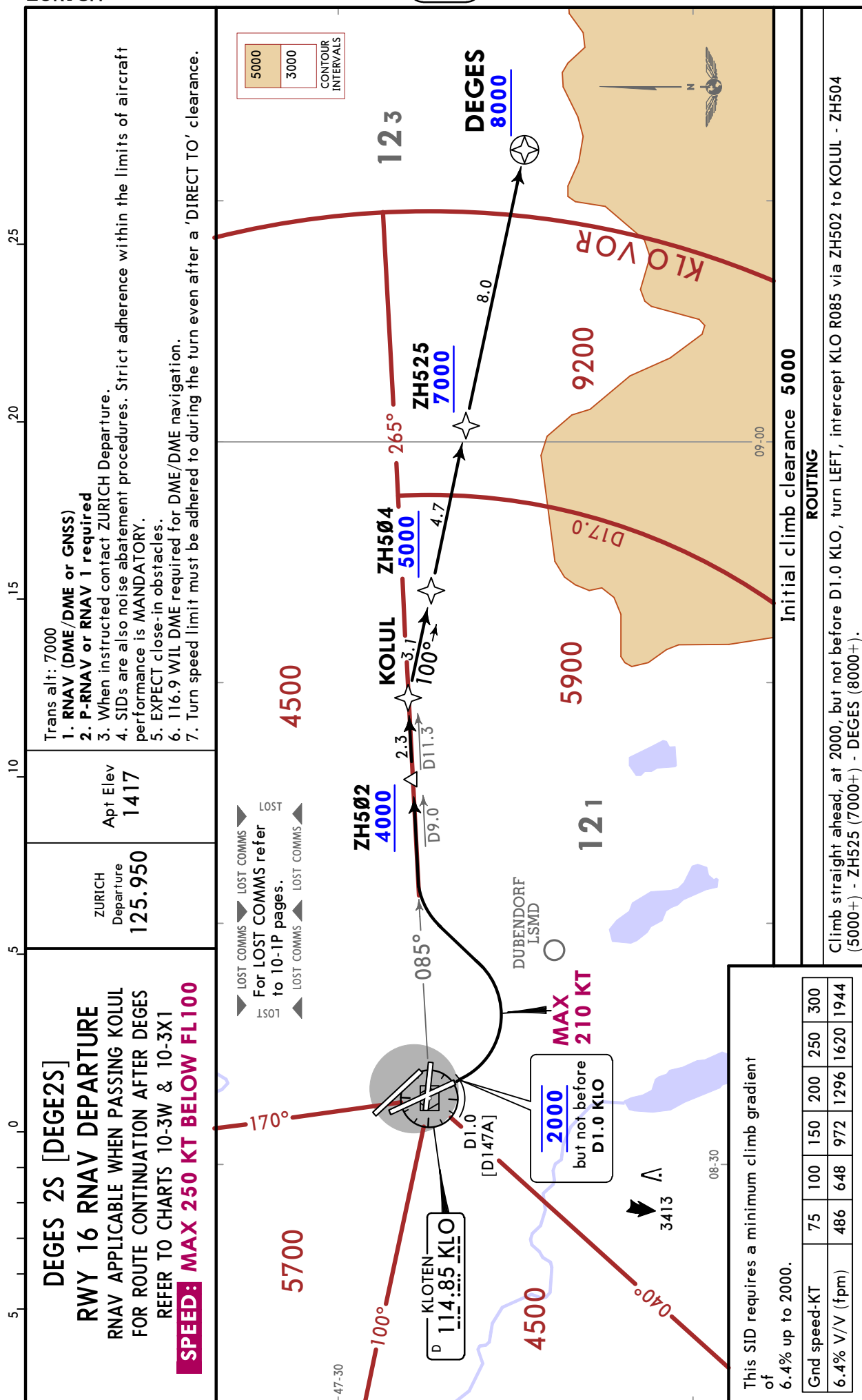


LSZH/ZRH
ZURICH

JEPPESSEN
15 SEP 17 10-3F

ZURICH, SWITZERLAND

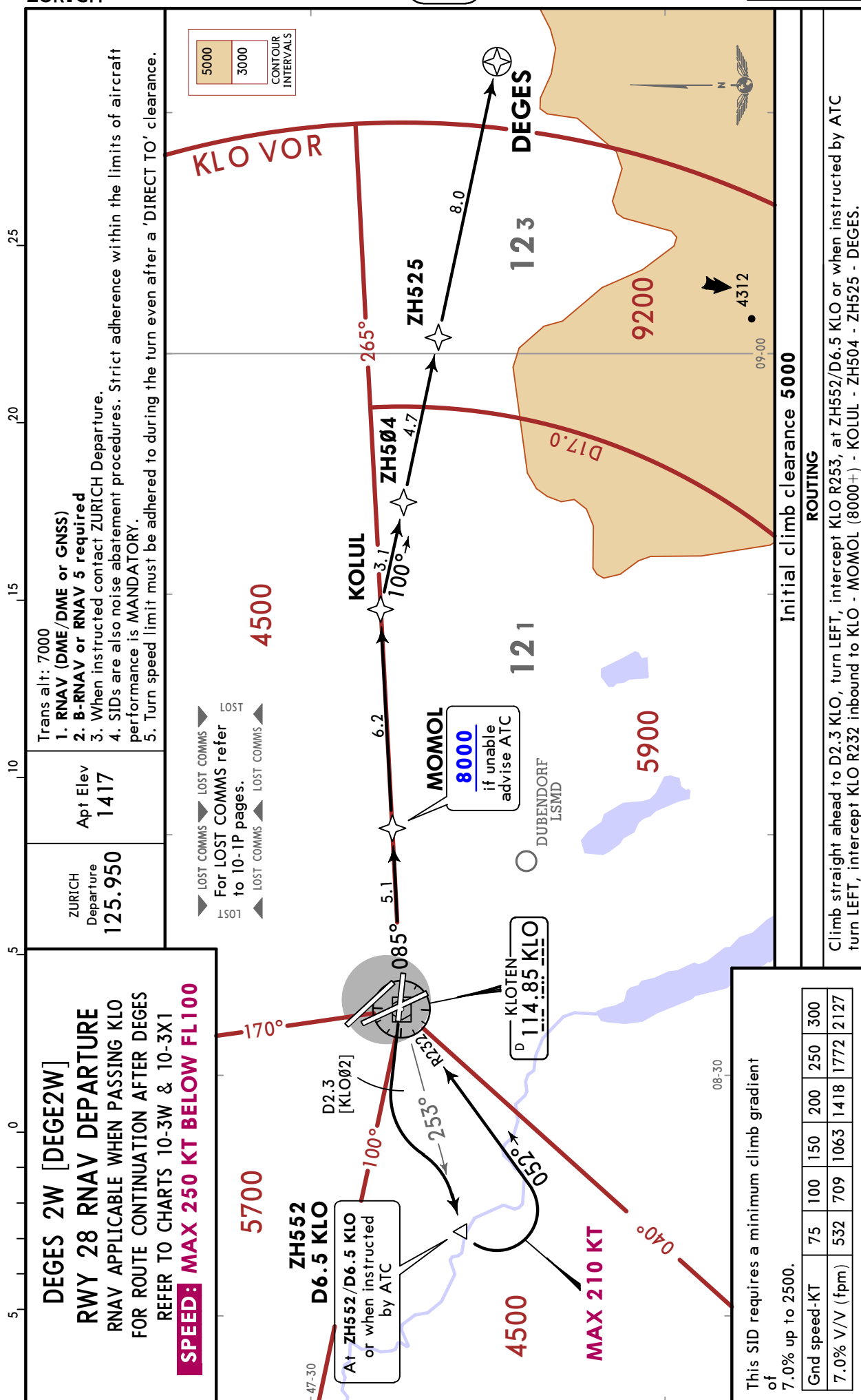
RNAV SID



LSZH / ZRH
ZURICH

JEPPESEN
15 SEP 17 (10-3G)

ZURICH, SWITZERLAND

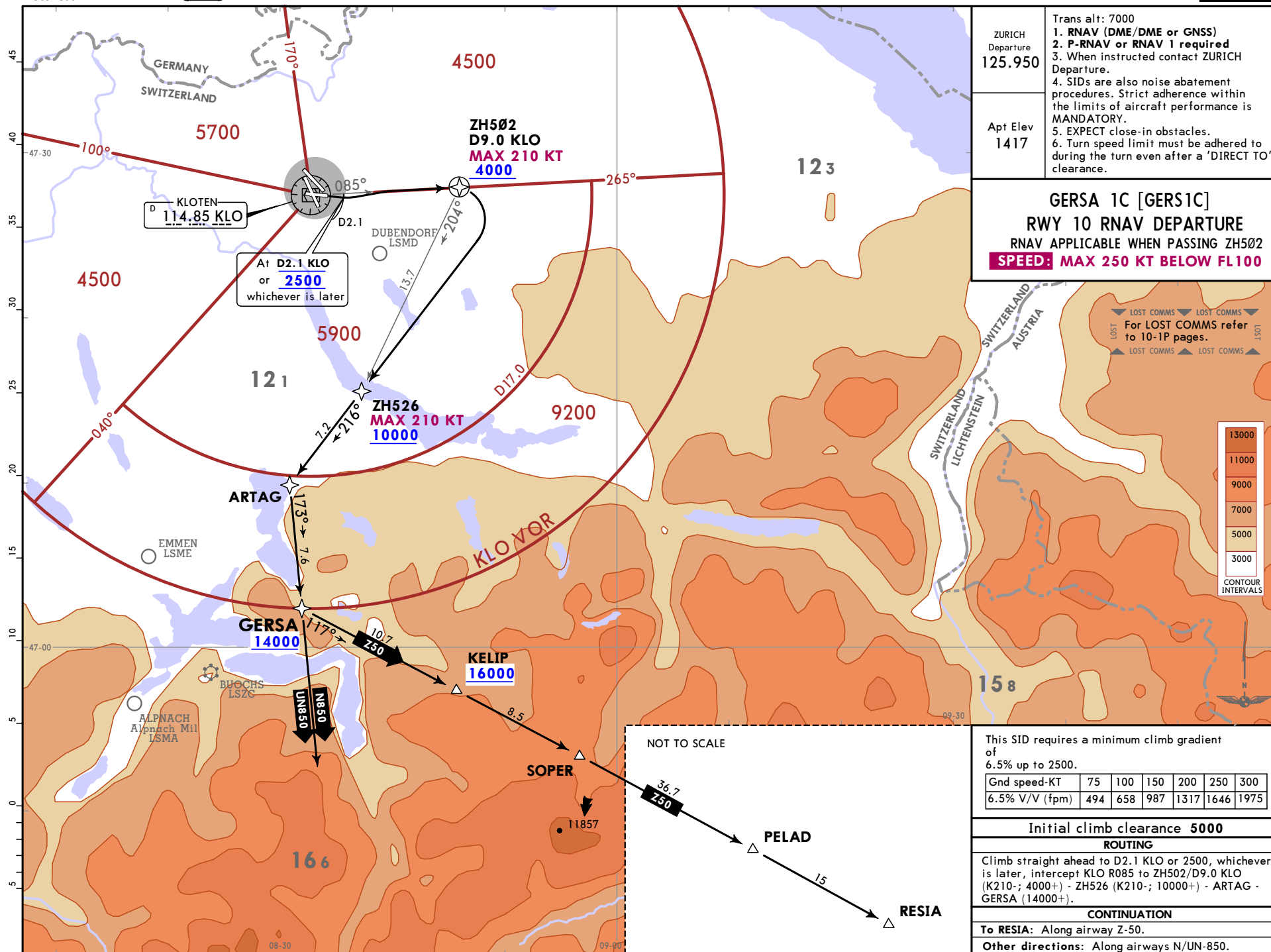
RNAV SID

LSZH/ZRH
ZURICH

15 SEP 17 (10-3H)

ZURICH, SWITZERLAND

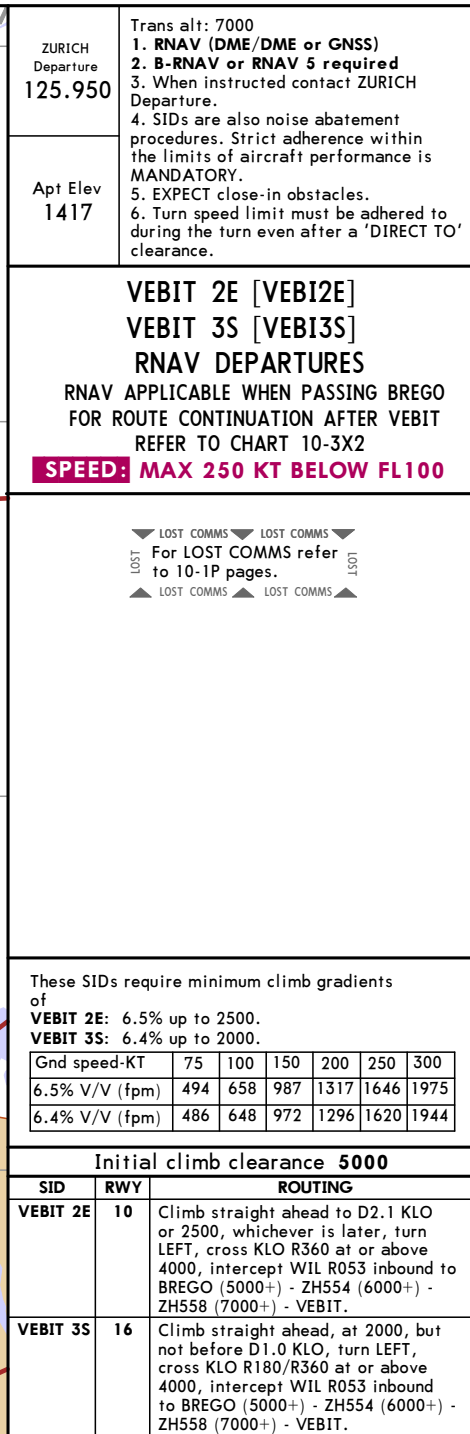
RNAV SID



JEPPESEN
15 SEP 17 (10-3J)

ZURICH, SWITZERLAND

RNAV SID



CHANGES: New format.

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LSZH / ZRH
ZURICH

JEPPESEN
15 SEP 17 (10-3J1)

ZURICH, SWITZERLAND

RNAV SID

ZURICH
Departure
125.950

Apt Elev
1417

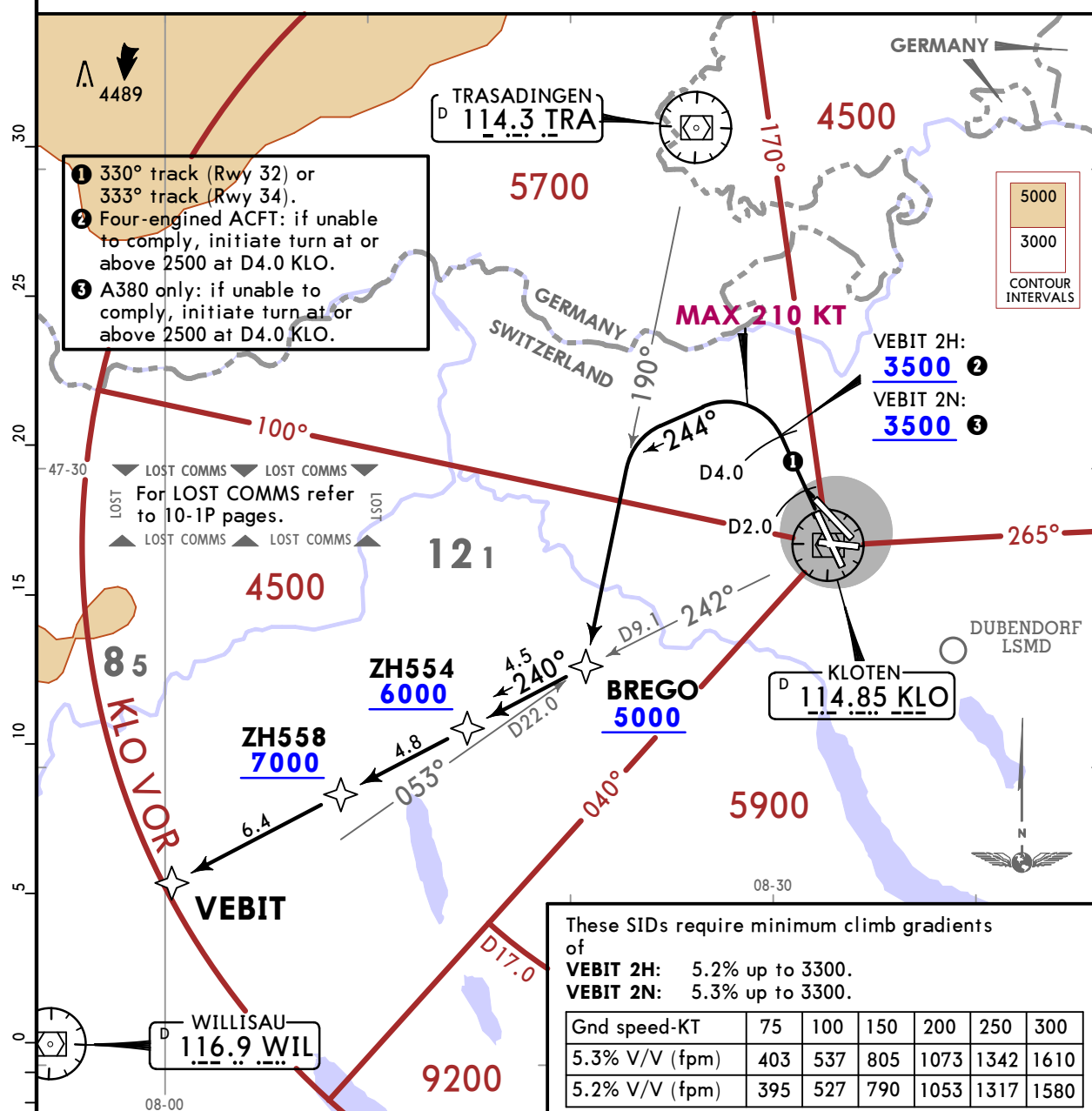
Trans alt: 7000

1. **RNAV (DME/DME or GNSS)**
2. **B-RNAV or RNAV 5 required**
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is **MANDATORY**.
5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
6. **EXPECT** close-in obstacles.

VEBIT 2H [VEBI2H]
VEBIT 2N [VEBI2N]
RNAV DEPARTURES

RNAV APPLICABLE WHEN PASSING BREGO
FOR ROUTE CONTINUATION AFTER VEBIT REFER TO CHART 10-3X2

SPEED: MAX 250 KT BELOW FL100



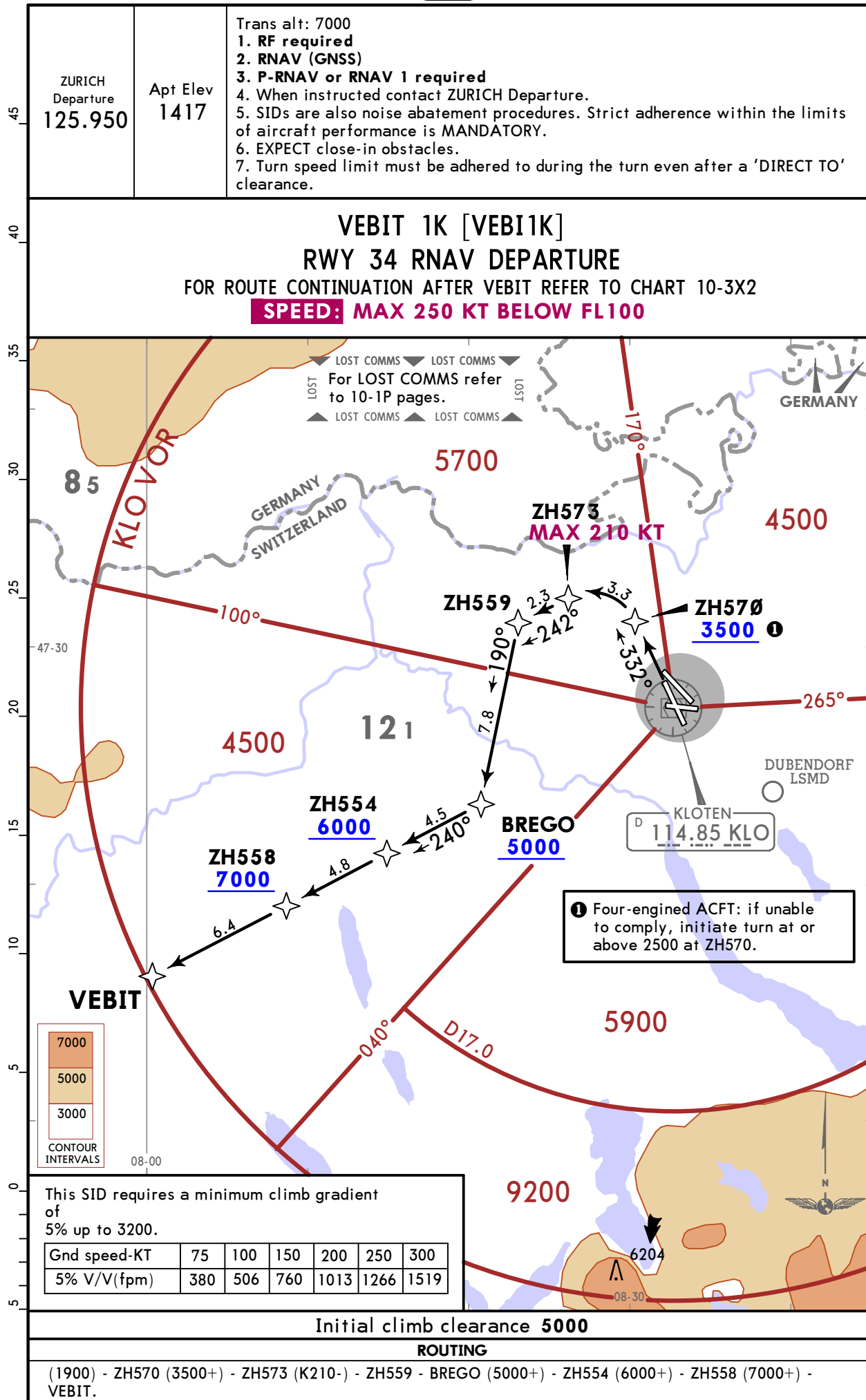
Initial climb clearance	5000
-------------------------	------

SID	RWY	ROUTING
VEBIT 2H	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH554 (6000+) - ZH558 (7000+) - VEBIT.
VEBIT 2N	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH554 (6000+) - ZH558 (7000+) - VEBIT.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3K)

ZURICH, SWITZERLAND

RNAV SID



LSZH / ZRH
ZURICH

15 SEP 17 (10-3L)

ZURICH, SWITZERLAND

RNAV SID

ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000

1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

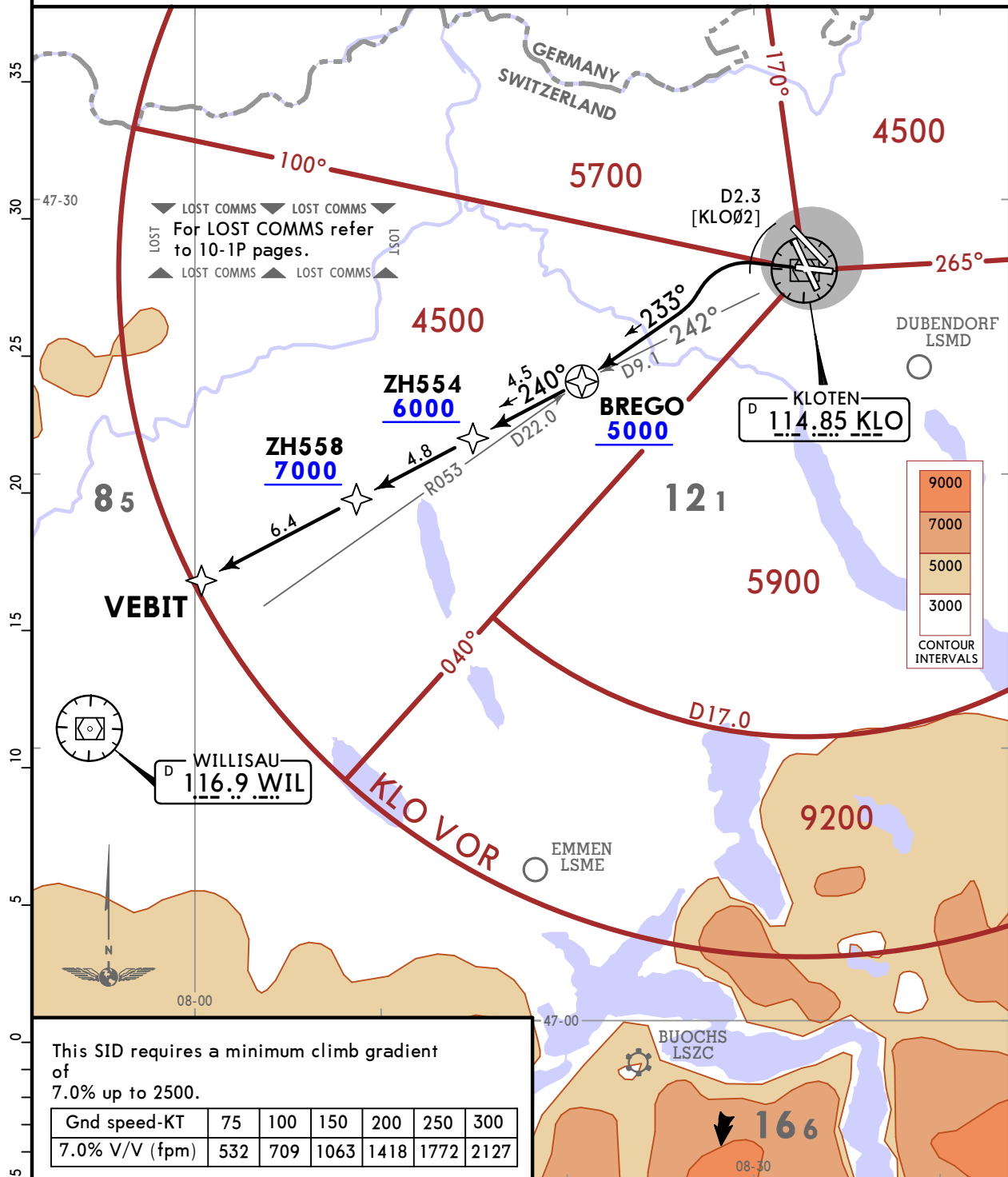
VEBIT 3W [VEBI3W]

RWY 28 RNAV DEPARTURE

RNAV APPLICABLE WHEN PASSING BREGO

FOR ROUTE CONTINUATION AFTER VEBIT REFER TO CHART 10-3X2

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of 7.0% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

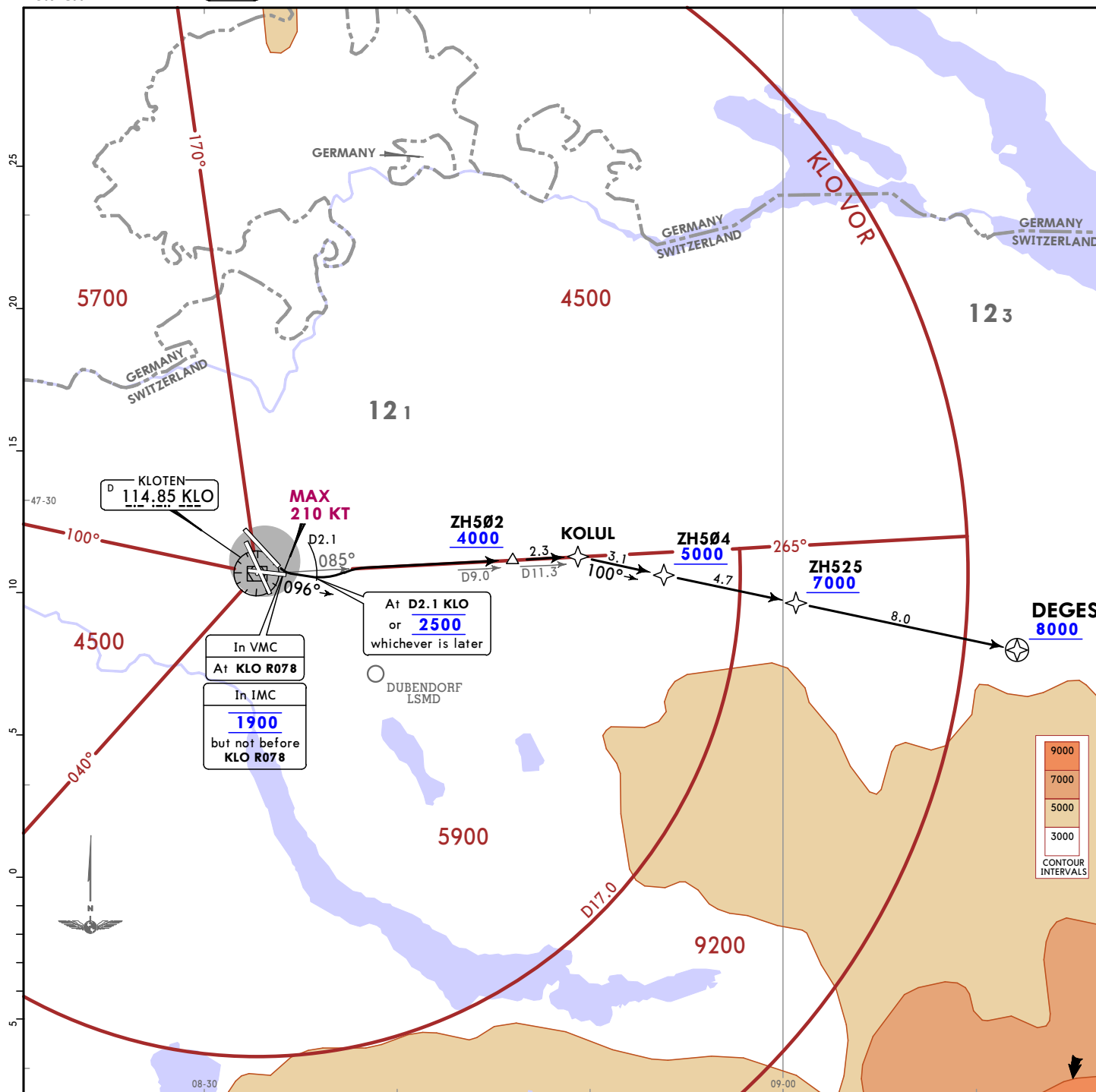
Initial climb clearance	5000
-------------------------	------

ROUTING

Climb straight ahead to D2.3 KLO, turn LEFT, intercept WIL R053 inbound to BREGO (5000+) - ZH554 (6000+) - ZH558 (7000+) - VEBIT.

LSZH/ZRH
ZURICH
15 SEP 17 (10-3L1)

ZURICH, SWITZERLAND
RNAV SID



ZURICH Departure 125.950	Trans alt: 7000 1. RNAV (DME/DME or GNSS) 2. P-RNAV or RNAV 1 required 3. When instructed contact ZURICH Departure. 4. VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500 - VIS 5000m. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. EXPECT close-in obstacles. 7. 116.9 WIL DME required for DME/DME navigation. 8. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
Apt Elev 1417	

DEGES 2B [DEGE2B]
RWY 14 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING KOLUL
FOR ROUTE CONTINUATION AFTER DEGES
REFER TO CHARTS 10-3W & 10-3X1
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS LOST COMMS LOST
For LOST COMMS refer
to 10-1P pages.
LOST COMMS LOST COMMS LOST

This SID requires a minimum climb gradient
of
9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance 5000
ROUTING

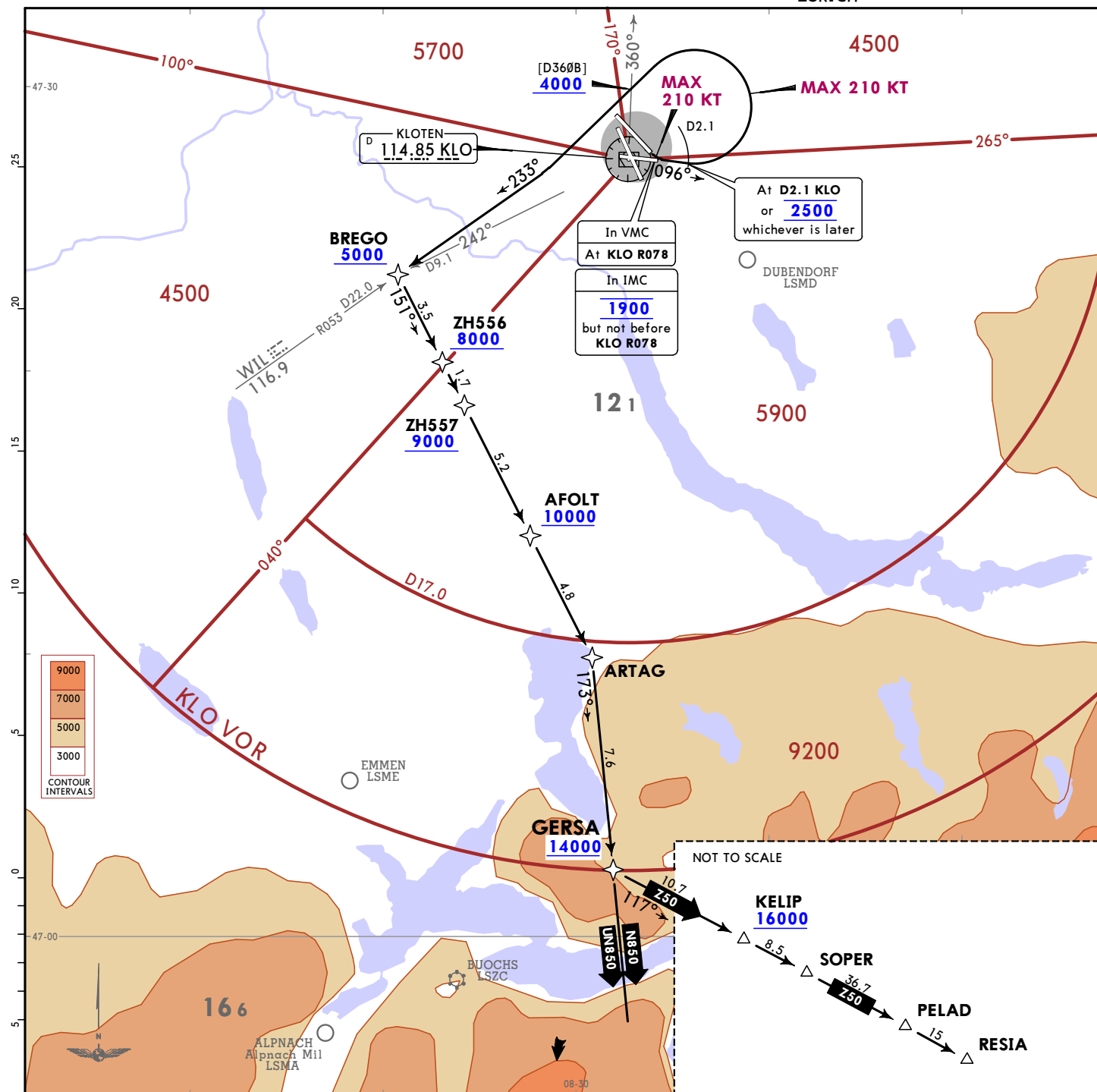
Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track,
MAINTAIN visual ground contact up to 2800,
or
- if in IMC turn LEFT (MAX 210 KT) at 1900,
but not before KLO R078, 096° track,
at D2.1 KLO or 2500, whichever is later,
intercept KLO R085 via ZH502 to KOLUL -
ZH504 (5000+) - ZH525 (7000+) - DEGES (8000+).

LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L2

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500 - VIS 5000m.
5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
6. EXPECT close-in obstacles.
7. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

GERSA 2B [GERS2B]
RWY 14 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer to 10-1P pages.

This SID requires a minimum climb gradient of 9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance 5000

ROUTING

Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track, MAINTAIN visual ground contact up to 2800, or
- if in IMC turn LEFT (MAX 210 KT) at 1900, but not before KLO R078, 096° track, at D2.1 KLO or 2500, whichever is later, turn LEFT, intercept WIL R053 inbound to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).

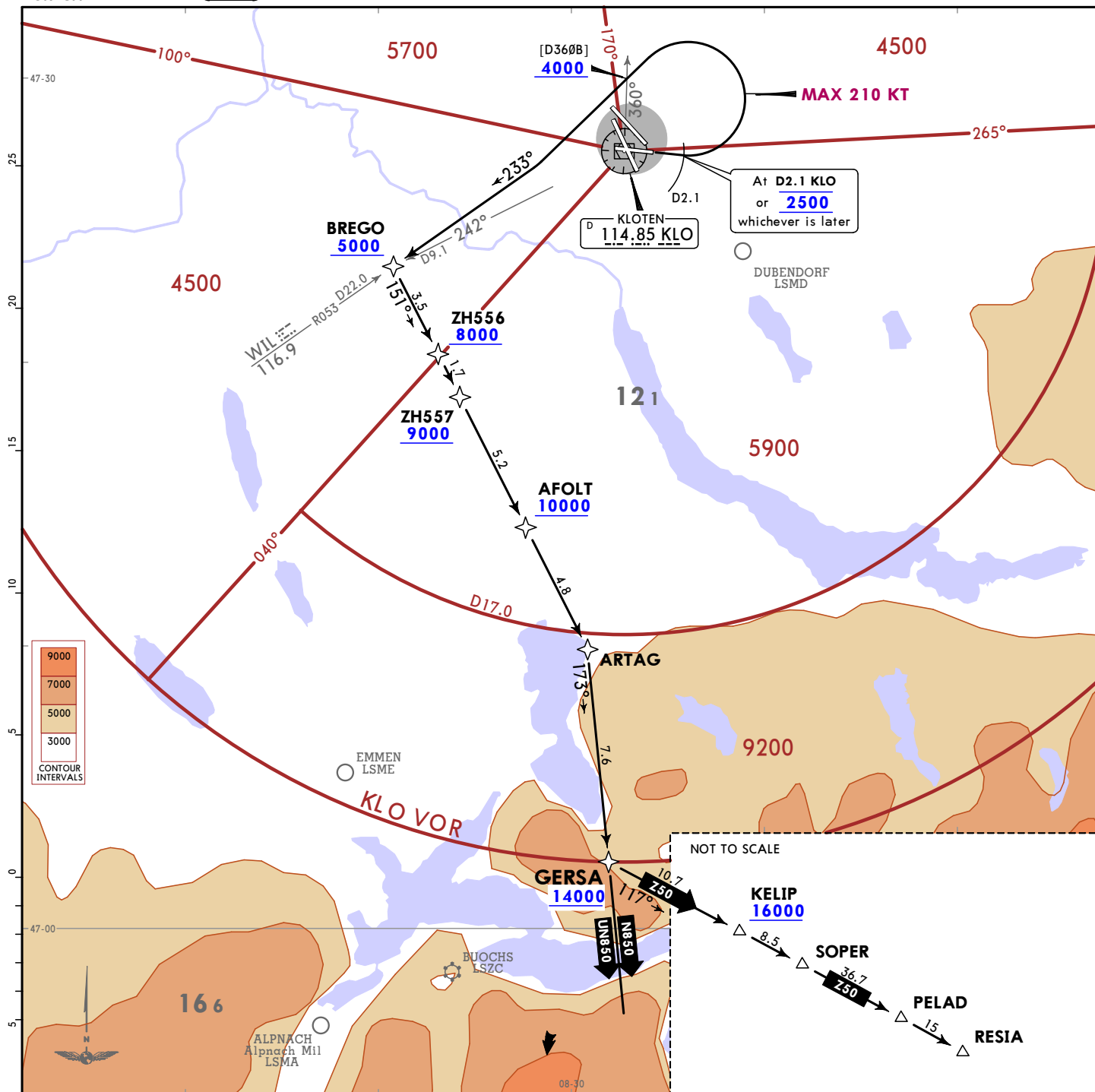
CONTINUATION

To RESIA: Proceed along airway Z-50.
Other directions: Proceed along airways N/UN-850.

LSZH/ZRH
ZURICH
15 SEP 17 (10-3L3)

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
5. EXPECT close-in obstacles.
6. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

GERSA 1E [GERS1E]
RWY 10 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer to 10-1P pages.

This SID requires a minimum climb gradient of 6.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975

Initial climb clearance **5000**

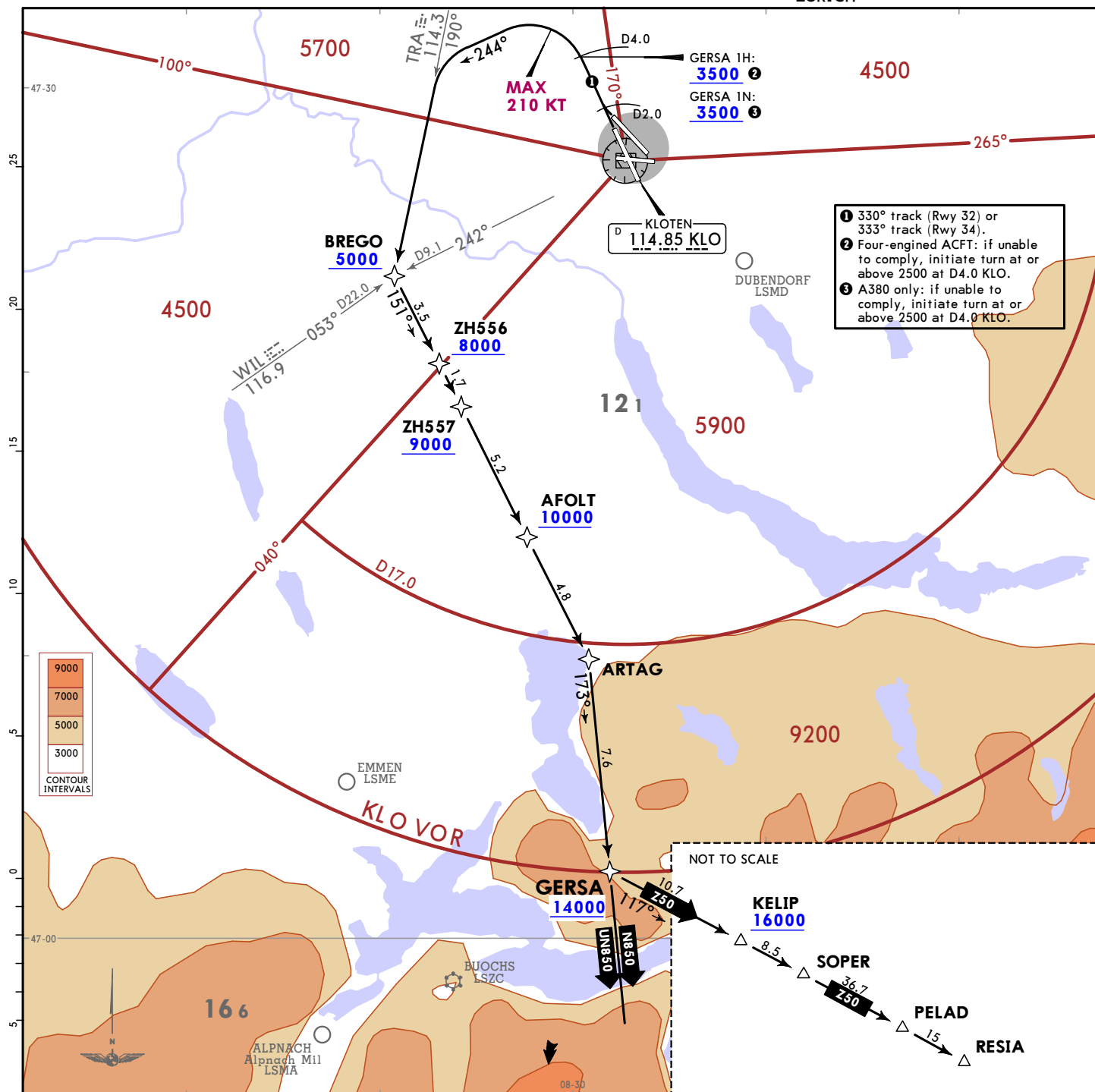
ROUTING
Climb straight ahead to D2.1 KLO or 2500, whichever is later, turn LEFT, intercept WIL R053 inbound to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).

CONTINUATION
To RESIA: Proceed along airway Z-50.
Other directions: Proceed along airways N/UN-850.

LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L4

ZURICH, SWITZERLAND
RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
6. EXPECT close-in obstacles.

**GERSA 1H [GERS1H]
GERSA 1N [GERS1N]
RNAV DEPARTURES**
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS LOST COMMS LOST
For LOST COMMS refer
to 10-1P pages.
LOST COMMS LOST COMMS LOST

These SIDs require minimum climb gradients of

GERSA 1H: 5.2% up to 3300.
GERSA 1N: 5.3% up to 3300.

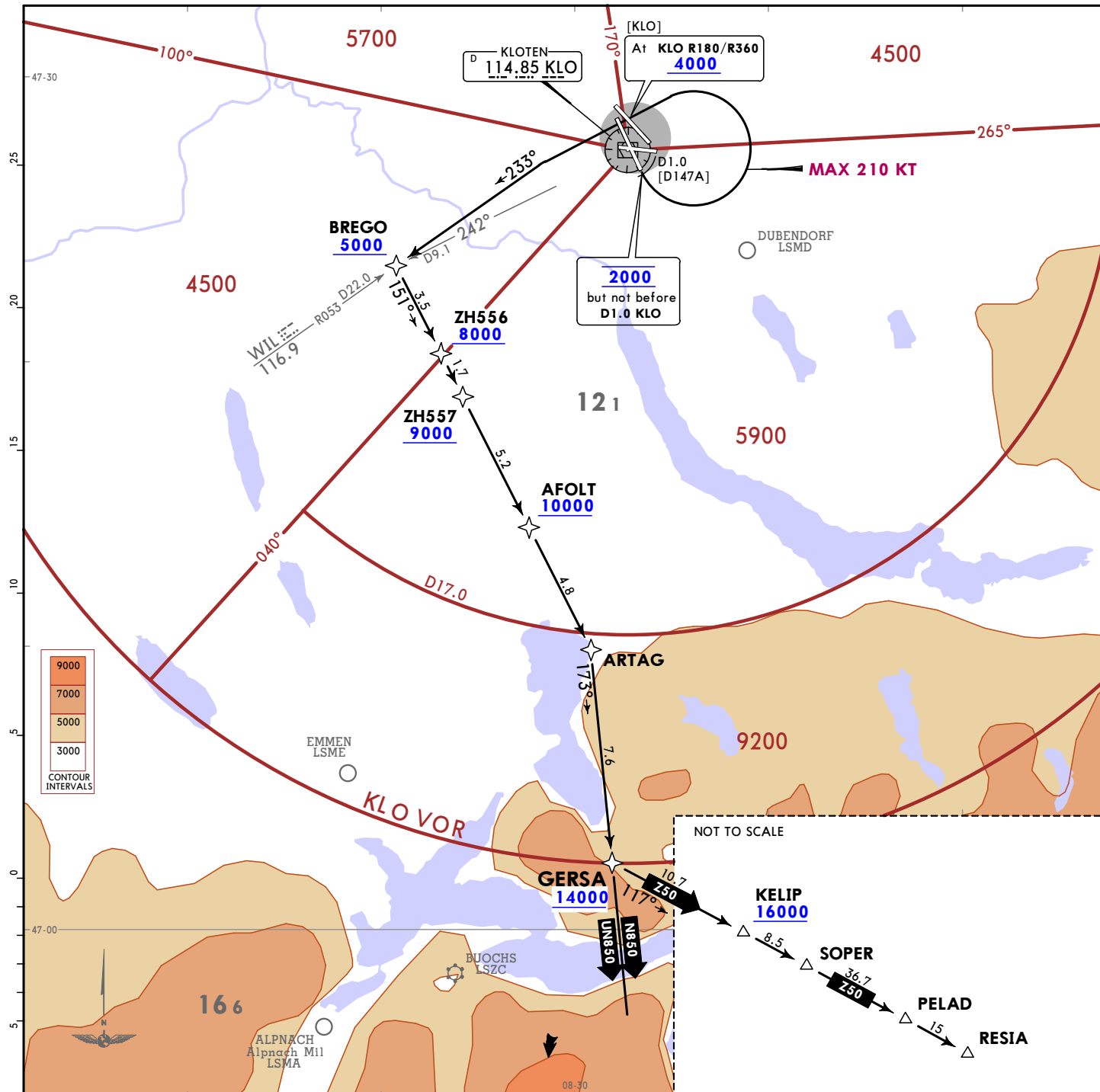
Gnd speed-KT	75	100	150	200	250	300
5.3% V/V (fpm)	403	537	805	1073	1342	1610
5.2% V/V (fpm)	395	527	790	1053	1317	1580

Initial climb clearance 5000		
SID	RWY	ROUTING
GERSA 1H	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).
GERSA 1N	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).
CONTINUATION		
To RESIA: Along airway Z-50.		
Other directions: Along airways N/UN-850.		

LSZH/ZRH
ZURICH
15 SEP 17 (10-3L5)

ZURICH, SWITZERLAND

RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH Departure.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
5. EXPECT close-in obstacles.
6. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

GERSA 2S [GERS2S]
RWY 16 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer to 10-1P pages.

This SID requires a minimum climb gradient of 6.4% up to 2000.

Gnd speed-KT	75	100	150	200	250	300
6.4% V/V (fpm)	486	648	972	1296	1620	1944

Initial climb clearance **5000**

ROUTING

Climb straight ahead, at 2000, but not before D1.0 KLO, turn LEFT, cross KLO R180/R360 at or above 4000, intercept WIL R053 inbound to BREGO (5000+) - ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) - ARTAG - GERSA (14000+).

CONTINUATION

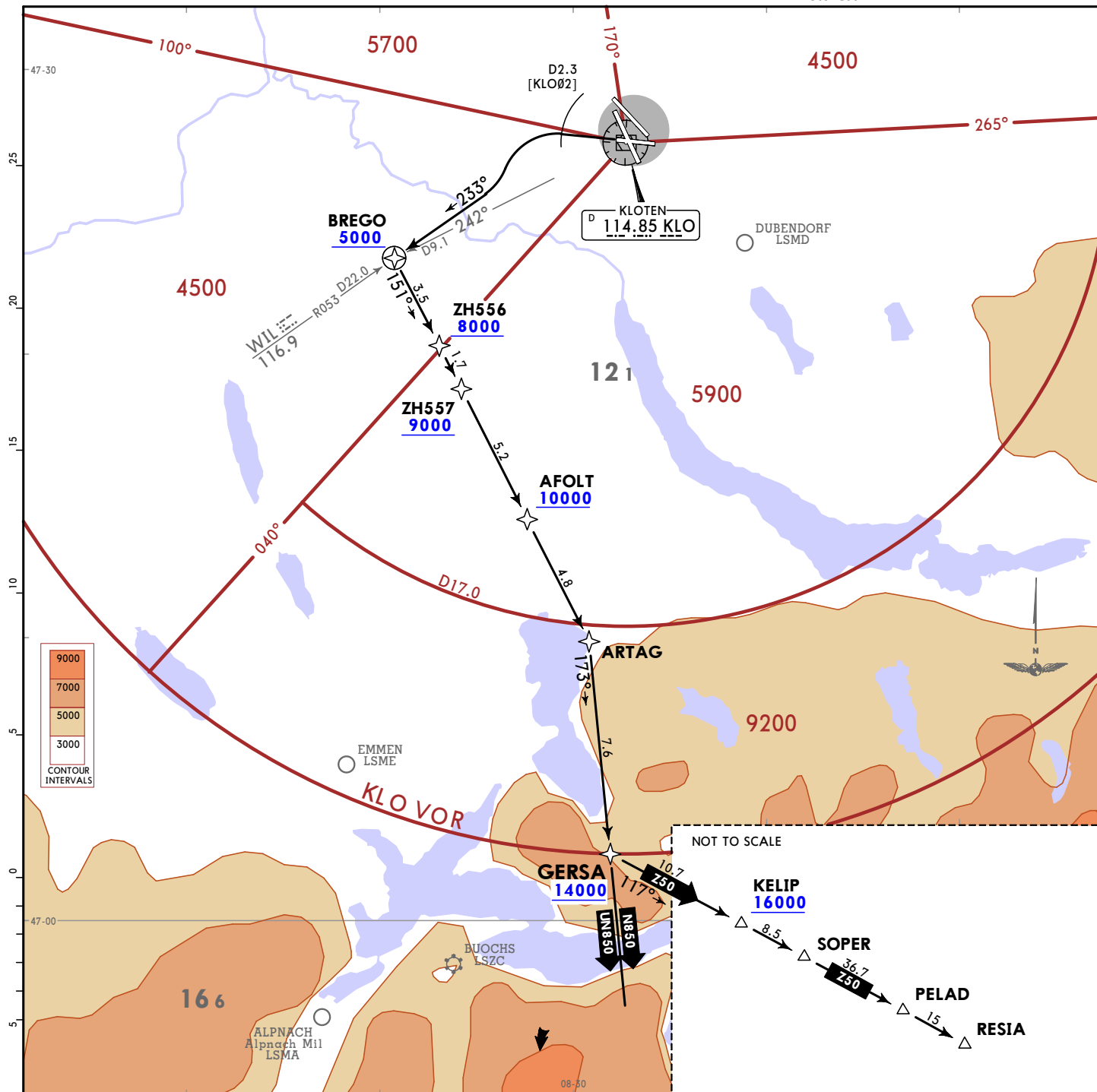
To RESIA: Proceed along airway Z-50.

Other directions: Proceed along airways N/UN-850.

LSZH/ZRH
ZURICH

JEPPesen
15 SEP 17 10-3L6

ZURICH, SWITZERLAND
RNAV SID



ZURICH
Departure
125.950

Apt Elev
1417

Trans alt: 7000
1. RNAV (DME/DME or GNSS)
2. B-RNAV or RNAV 5 required
3. When instructed contact ZURICH
Departure.
4. SIDs are also noise abatement
procedures. Strict adherence within
the limits of aircraft performance is
MANDATORY.

GERSA 2W [GERS2W]
RWY 28 RNAV DEPARTURE
RNAV APPLICABLE WHEN PASSING BREGO
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.

This SID requires a minimum climb gradient
of
7% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
7% V/V (fpm)	532	709	1063	1418	1772	2127

Initial climb clearance **5000**

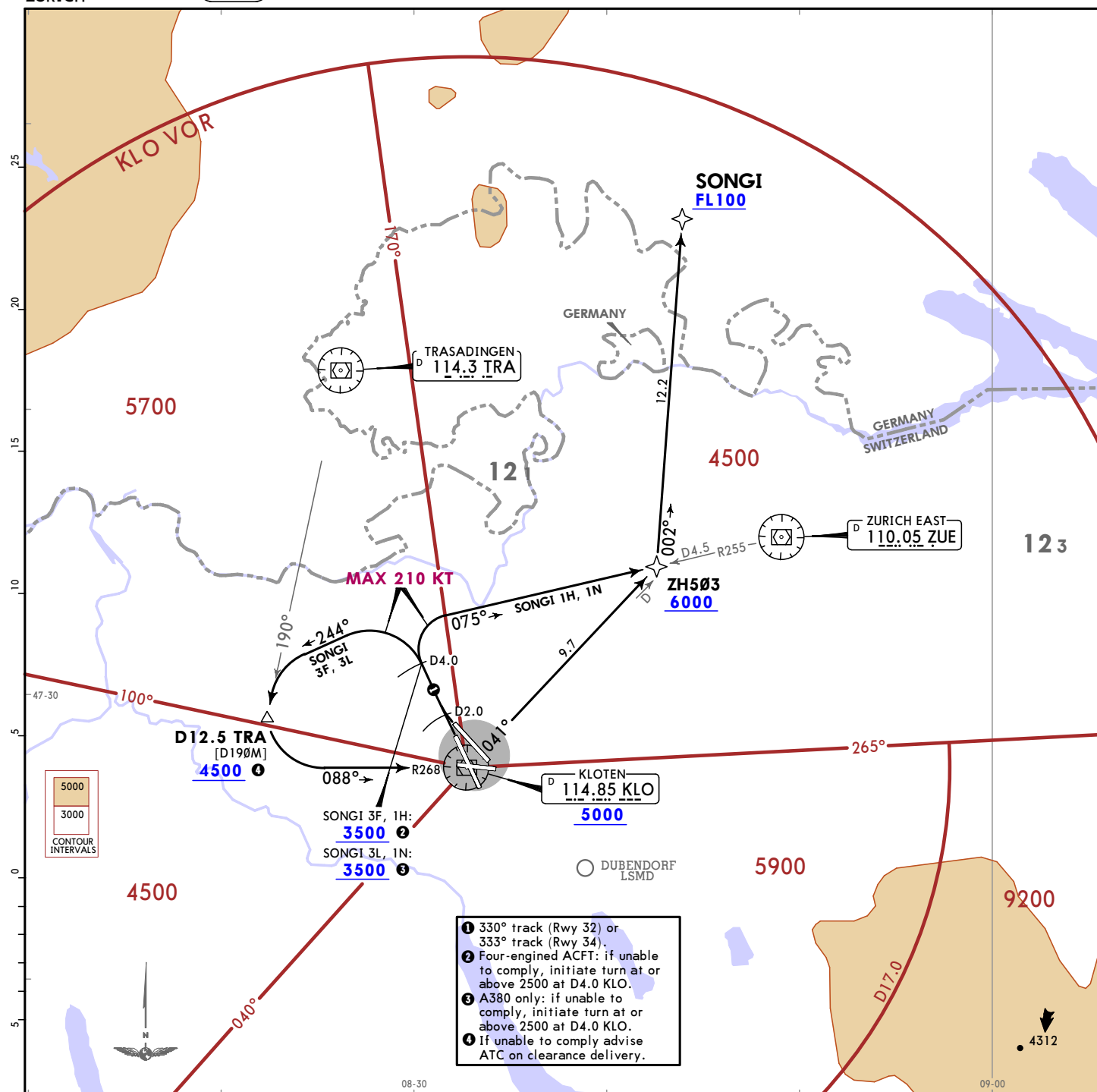
ROUTING
Climb straight ahead to D2.3 KLO, turn LEFT,
intercept WIL R053 inbound to BREGO (5000+) -
ZH556 (8000+) - ZH557 (9000+) - AFOLT (10000+) -
ARTAG - GERSA (14000+).

CONTINUATION
To RESIA: Along airway Z-50.
Other directions: Along airways N/UN-850.

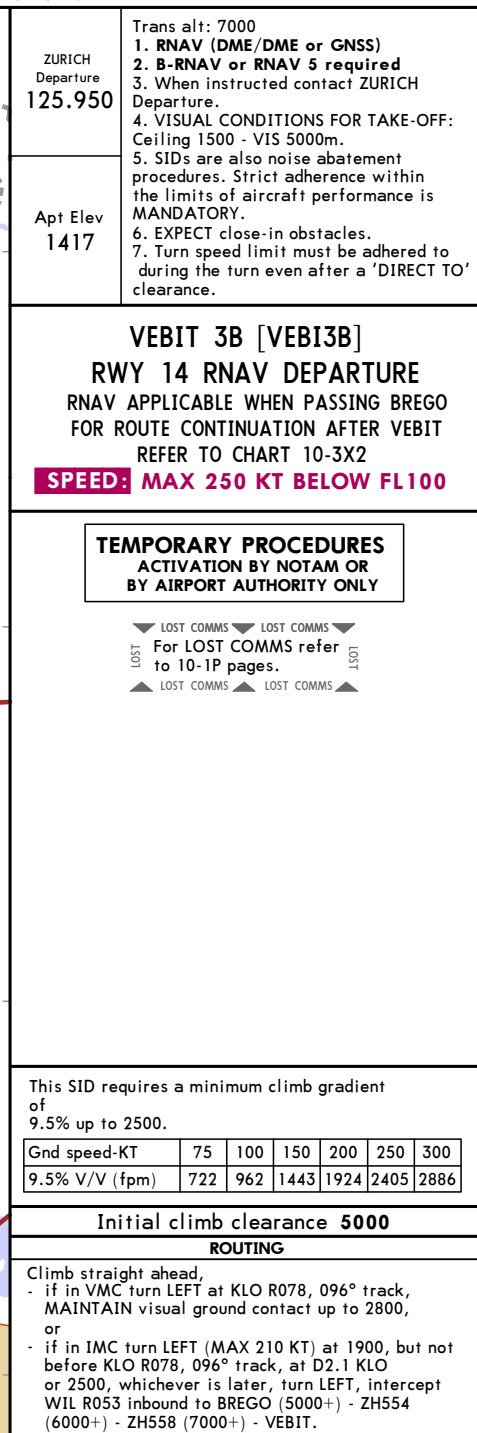
LSZH/ZRH
ZURICH
15 SEP 17 (10-3L7)

ZURICH, SWITZERLAND

RNAV SID



JEPPESEN
15 SEP 17 10-3L8

RNAV SID

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LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3M)

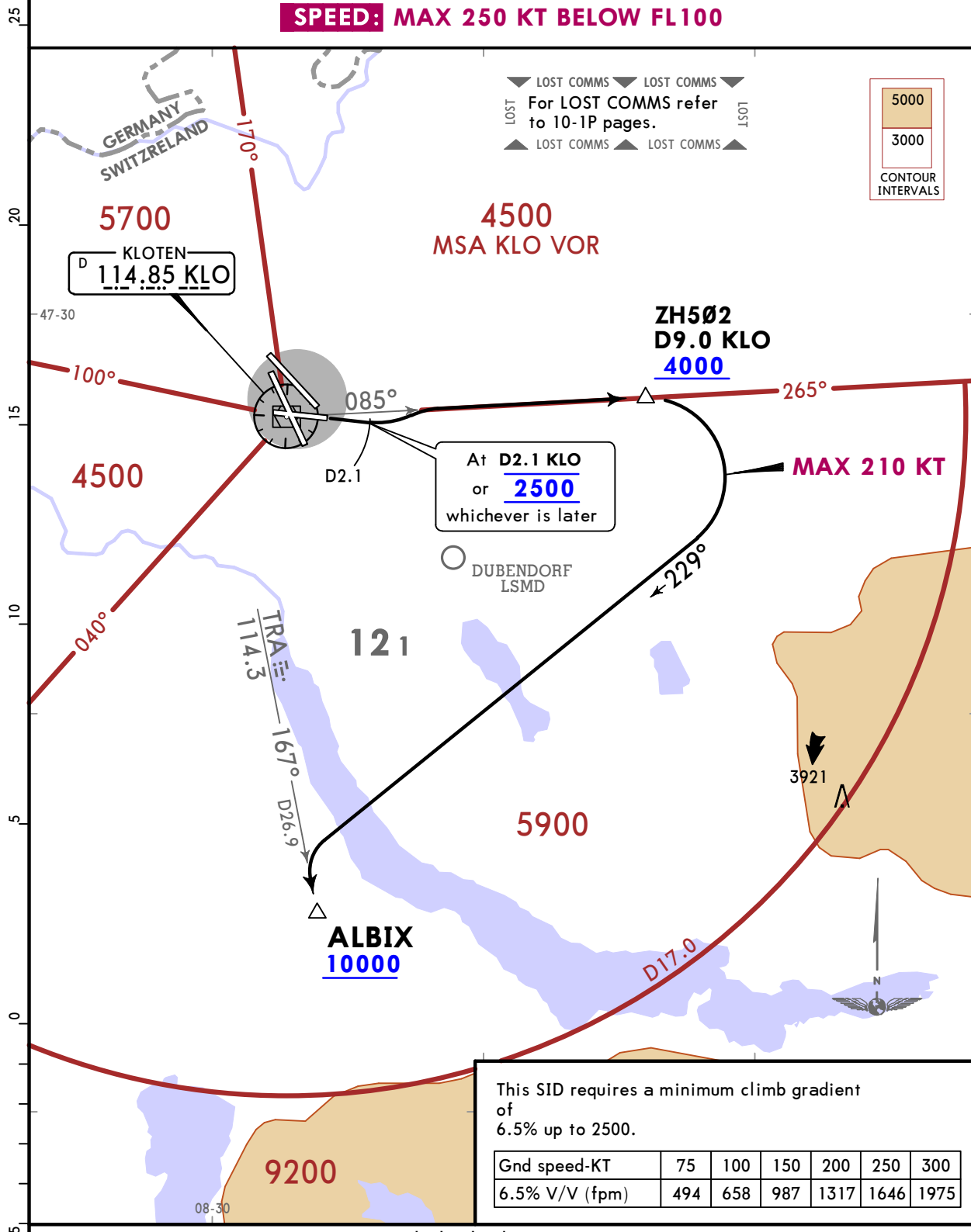
ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ALBIX 1C [ALBI1C]
RWY 10 DEPARTURE**SPEED: MAX 250 KT BELOW FL100**

Initial climb clearance 5000

ROUTING

Climb straight ahead to D2.1 KLO or 2500, whichever is later, intercept KLO R085 to ZH502/D9.0 KLO, turn RIGHT, 229° track, intercept TRA R167 to ALBIX.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3N)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

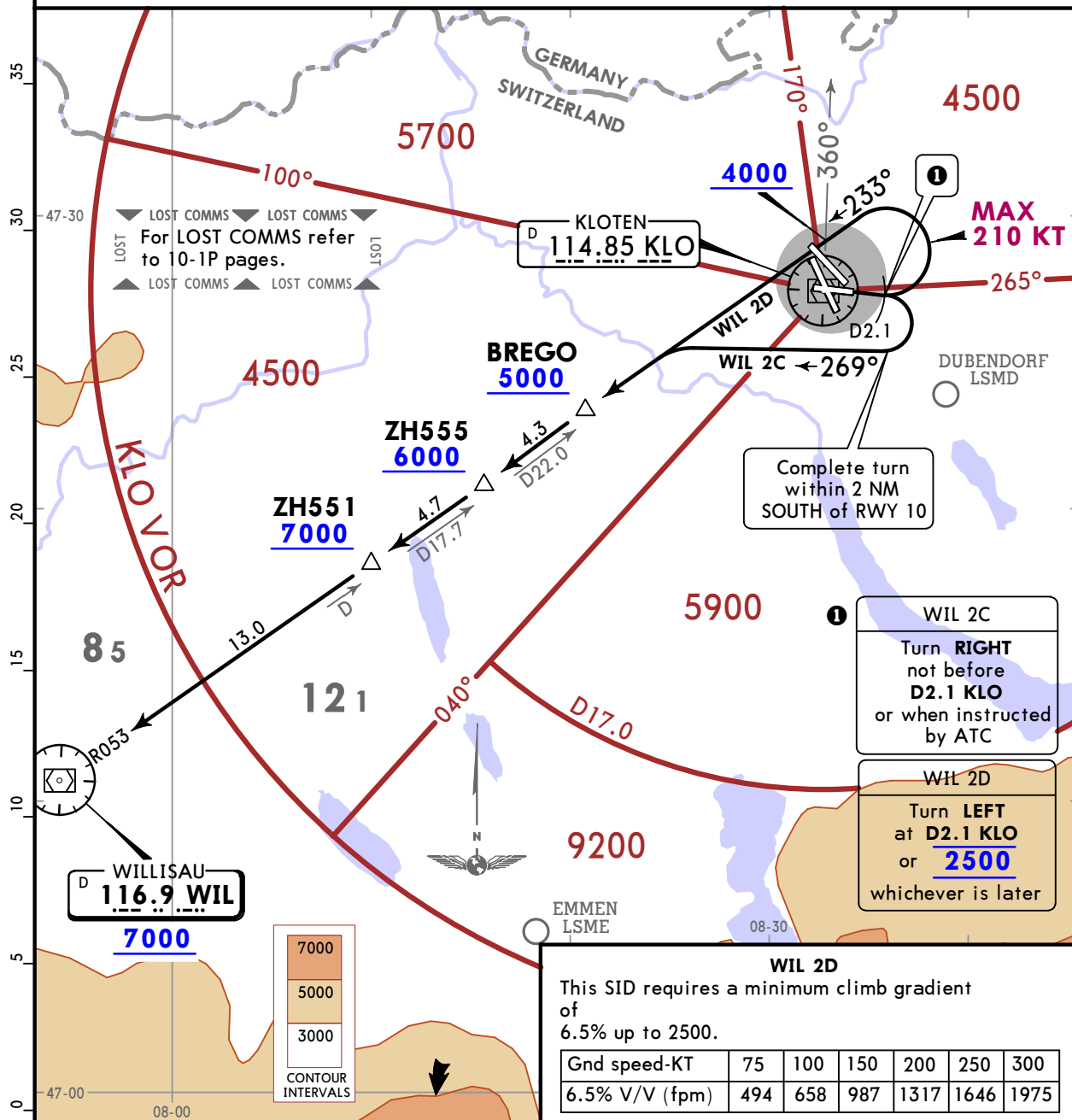
Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

WILLISAU 2C (WIL 2C)

WILLISAU 2D (WIL 2D)

RWY 10 DEPARTURES

SPEED: MAX 250 KT BELOW FL100Initial climb clearance **5000**

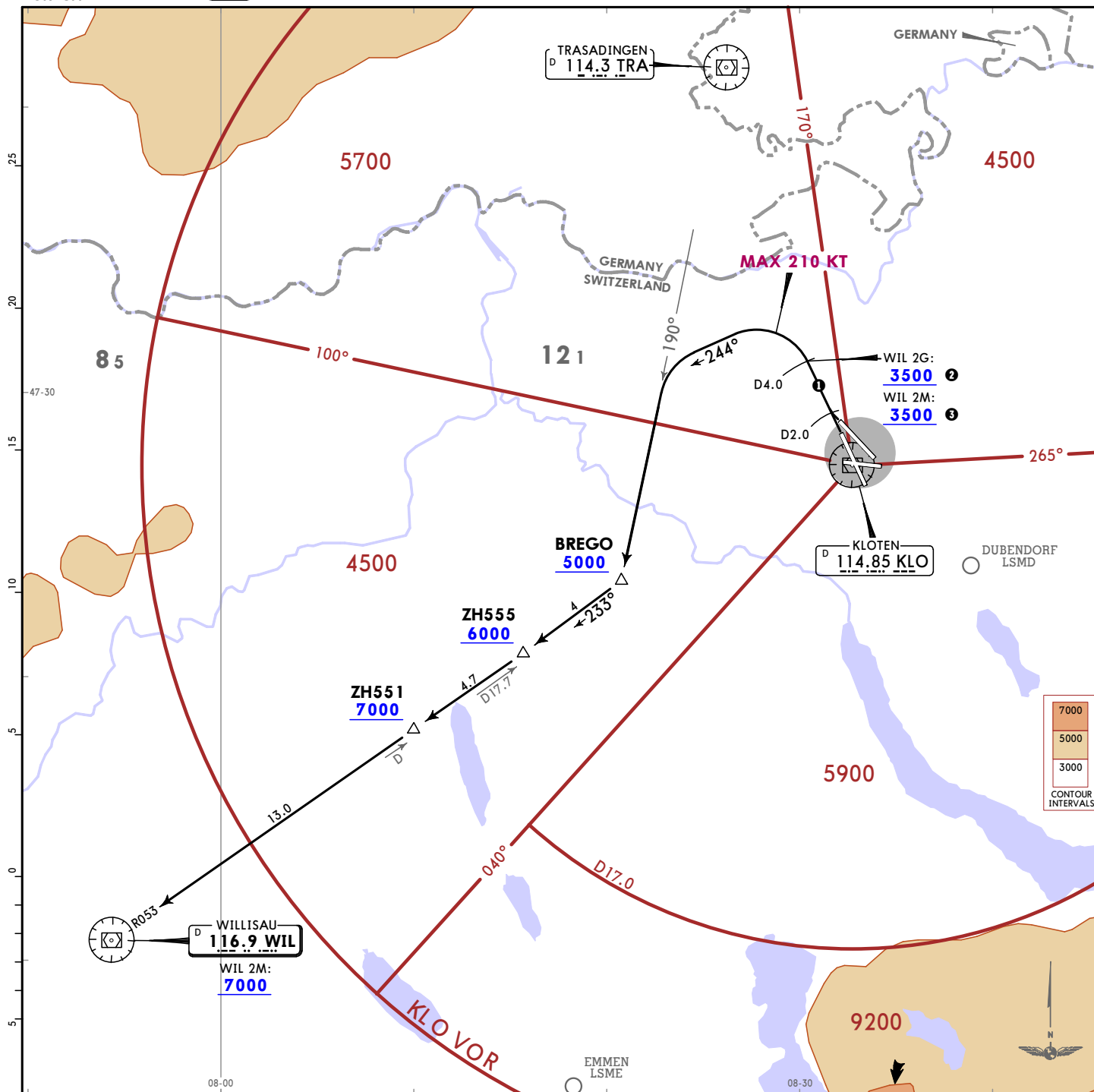
SID	ROUTING
WIL 2C FOR PROPELLER AIRCRAFT IN VISUAL CONDITIONS ONLY ②	Climb straight ahead, short VISUAL RIGHT turn not before D2.1 KLO or when instructed by ATC, complete turn within 2 NM SOUTH of runway 10 and MAINTAIN visual ground contact up to 4400, 269° track, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.
WIL 2D	Climb straight ahead to D2.1 KLO or 2500, whichever is later, turn LEFT, intercept WIL R053 inbound via BREGO, ZH555 and ZH551 to WIL.

② Allocated only if the relevant hill tops for visual part are clearly visible by TWR.

LSZH/ZRH
ZURICH
15 SEP 17 10-3P

ZURICH, SWITZERLAND

SID



ZURICH Departure 125.950	Trans alt: 7000 1. When instructed contact ZURICH Departure. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance. 4. EXPECT close-in obstacles.
Apt Elev 1417	

WILLISAU 2G (WIL 2G)
WILLISAU 2M (WIL 2M)
DEPARTURES
SPEED: MAX 250 KT BELOW FL100

- 330° track (Rwy 32) or 333° track (Rwy 34).
- Four-engined ACFT: if unable to comply, initiate turn at or above 2500 at D4.0 KLO.
- A380 only: if unable to comply, initiate turn at or above 2500 at D4.0 KLO.

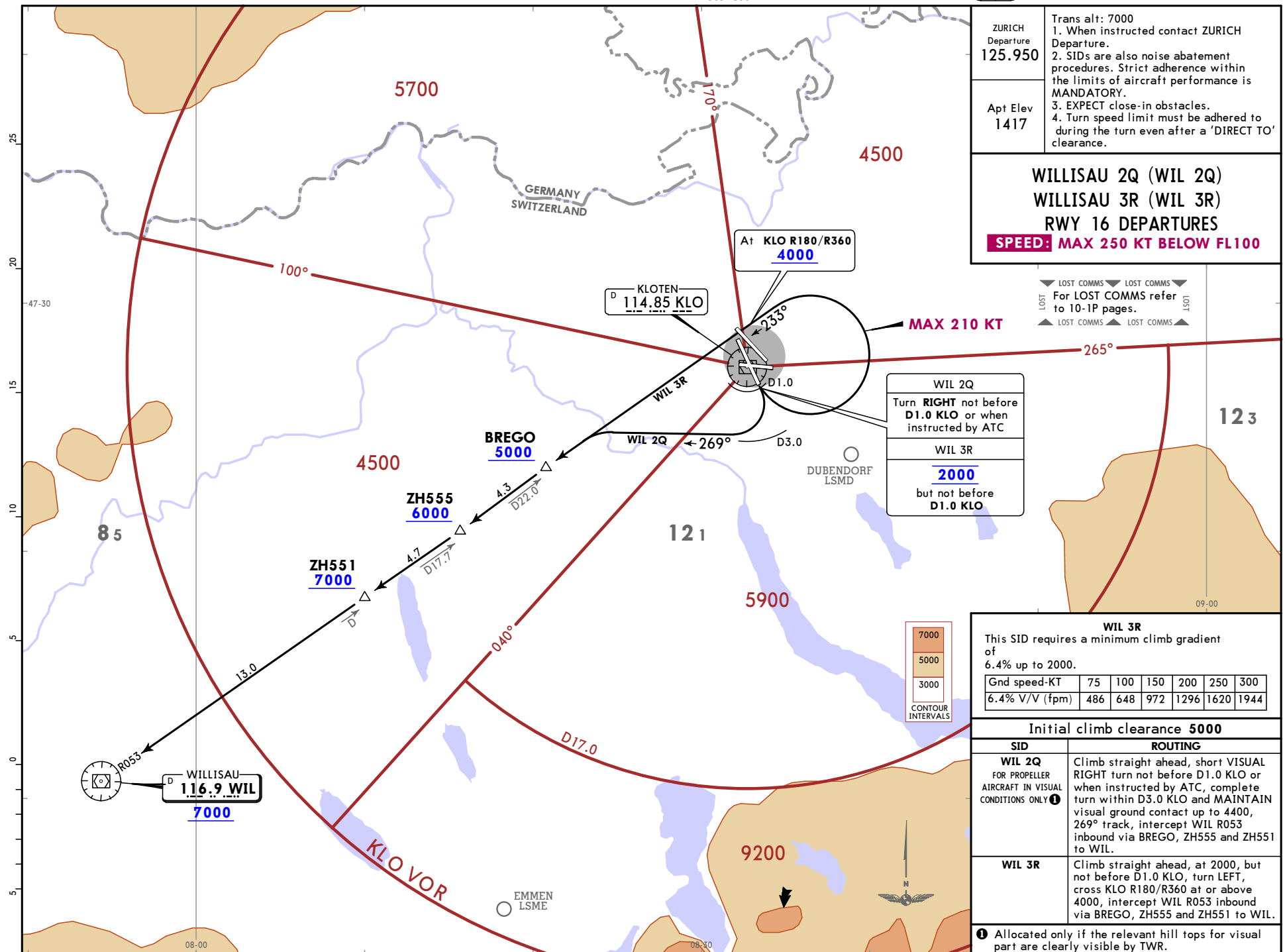
LOST COMMS
For LOST COMMS refer to 10-1P pages.

These SIDs require minimum climb gradients of						
WIL 2G: 5.2% up to 3300.						
WIL 2M: 5.3% up to 3300.						
Gnd speed-KT	75	100	150	200	250	300
5.3% V/V (fpm)	403	537	805	1073	1342	1610
5.2% V/V (fpm)	395	527	790	1053	1317	1580

Initial climb clearance 5000		
SID	RWY	ROUTING
WIL 2G	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO, intercept WIL R053 inbound via ZH555 and ZH551 to WIL.
WIL 2M	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190 to BREGO, intercept WIL R053 inbound via ZH555 and ZH551 to WIL.

JEPPESEN
15 SEP 17 10-3Q

SID



CHANGES: New format.

LSZH/ZRH
ZURICHJEPPESSEN
15 SEP 17 (10-3S)

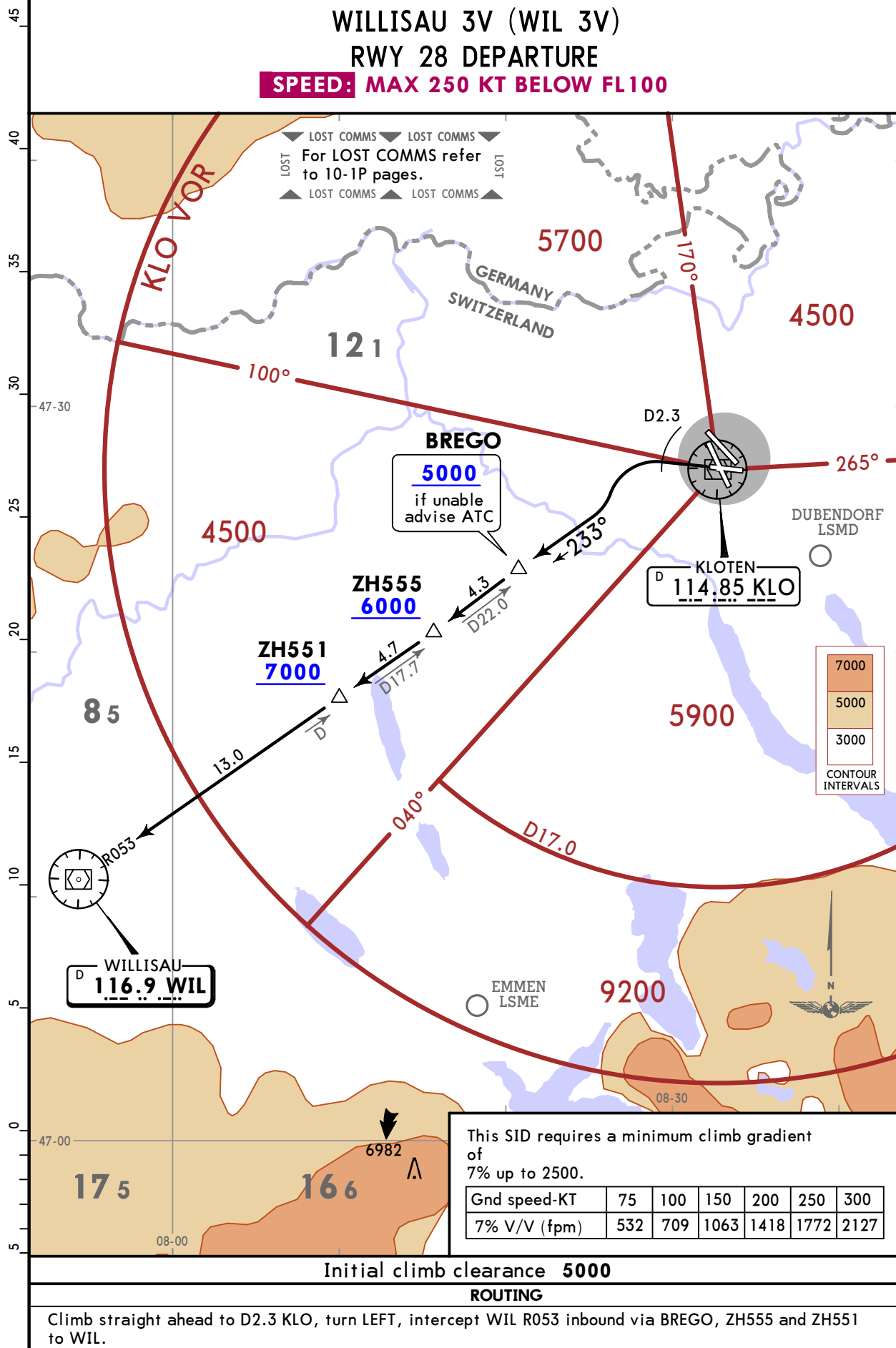
ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.



LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3T)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

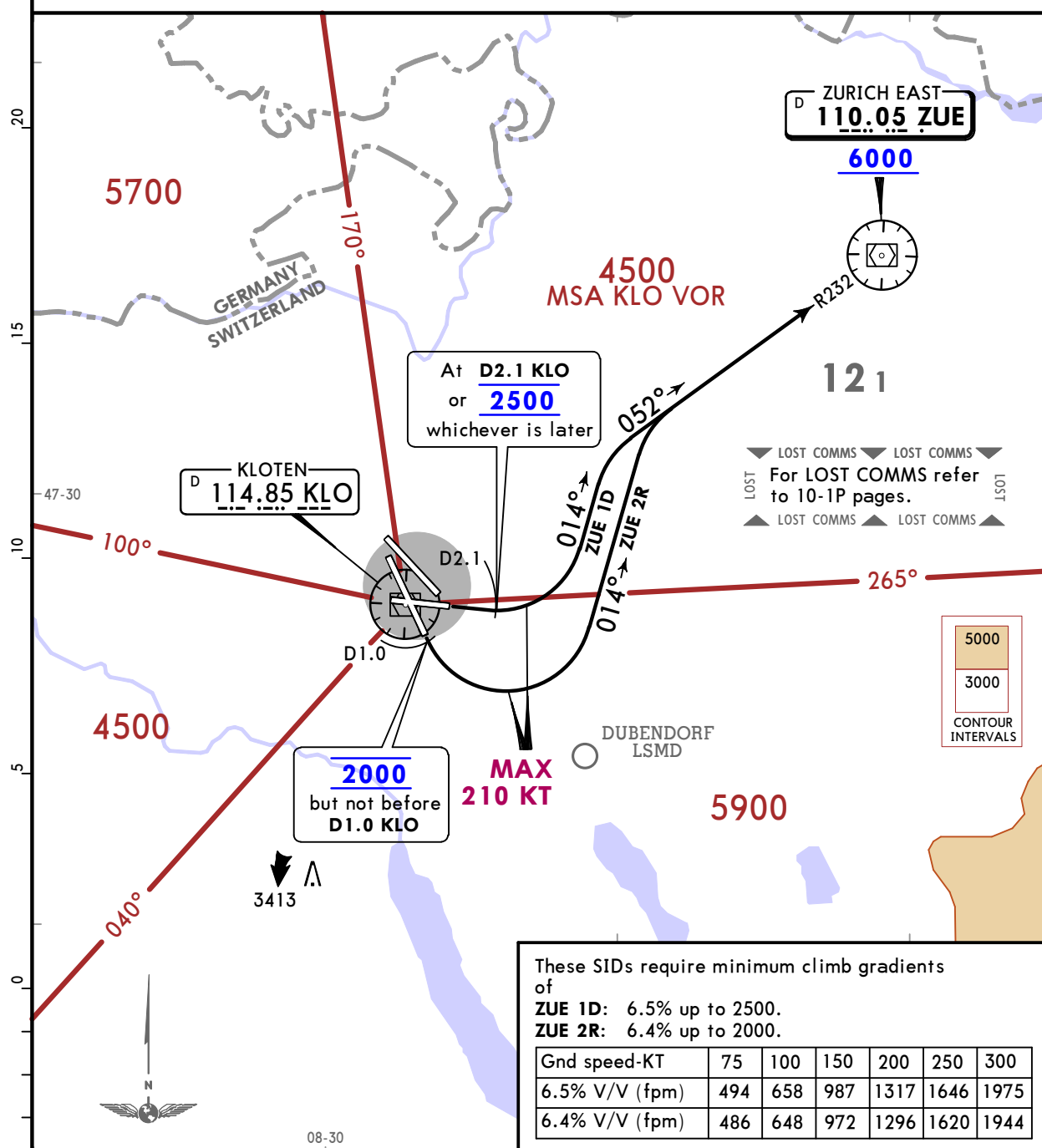
1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ZURICH EAST 1D (ZUE 1D)

ZURICH EAST 2R (ZUE 2R)

DEPARTURES

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100Initial climb clearance **5000**

SID	RWY	ROUTING
ZUE 1D	10	Climb straight ahead to D2.1 KLO or 2500, whichever is later, turn LEFT, 014° track, intercept ZUE R232 inbound to ZUE.
ZUE 2R	16	Climb straight ahead, at 2000, but not before D1.0 KLO, turn LEFT, 014° track, intercept ZUE R232 inbound to ZUE.

LSZH/ZRH
ZURICHJEPPESEN
15 SEP 17 (10-3U)

ZURICH, SWITZERLAND

SID

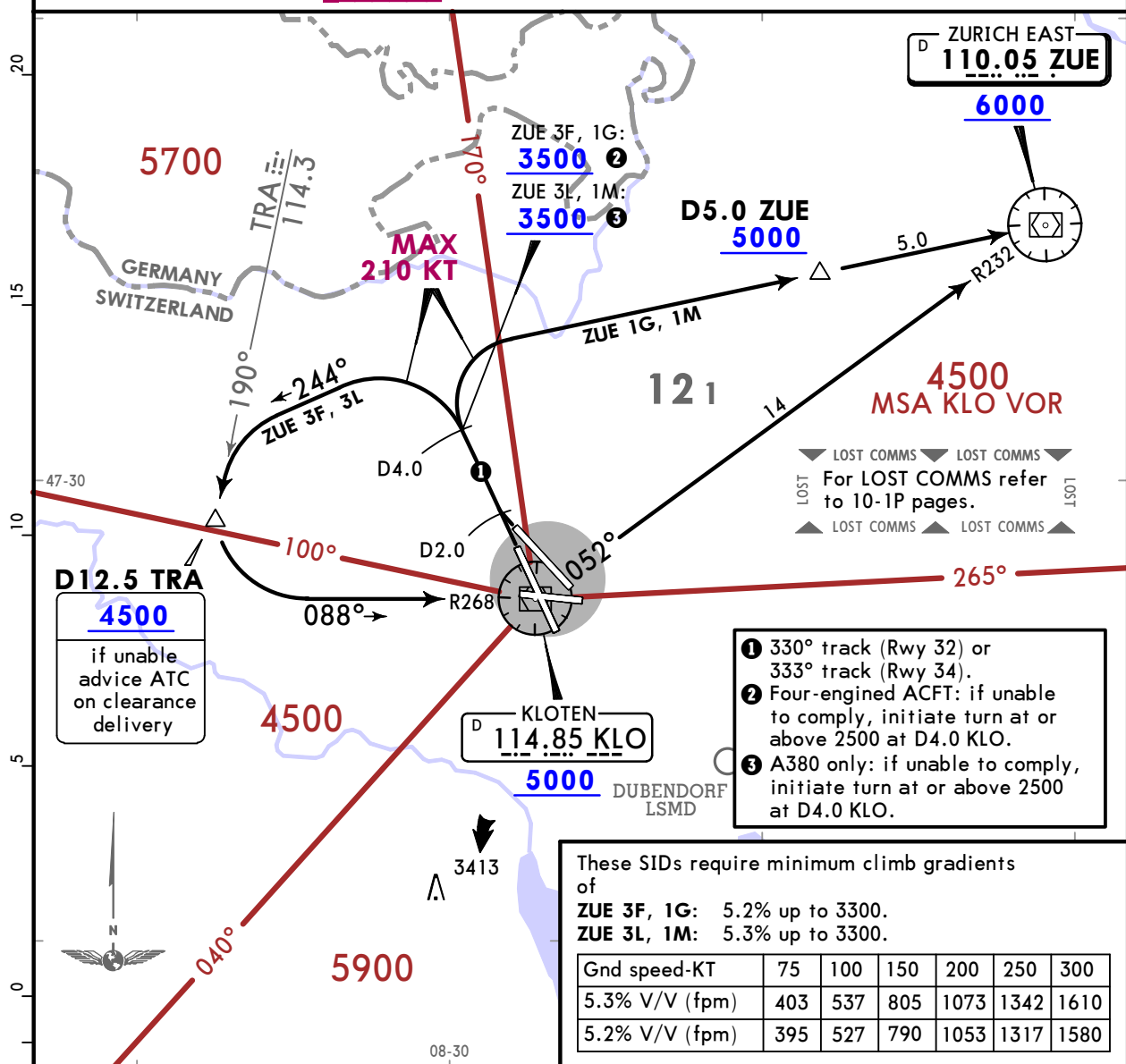
ZURICH
Departure
125.950Apt Elev
1417

Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
4. EXPECT close-in obstacles.

ZURICH EAST 3F (ZUE 3F)
ZURICH EAST 1G (ZUE 1G)
ZURICH EAST 3L (ZUE 3L)
ZURICH EAST 1M (ZUE 1M)
DEPARTURES

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100Initial climb clearance **5000**

SID	RWY	ROUTING
ZUE 3F	34	Climb on 333° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190, intercept KLO R268 inbound to KLO, intercept ZUE R232 inbound to ZUE.
ZUE 1G	34	Climb on 333° track, at D4.0 KLO turn RIGHT to ZUE.
ZUE 3L	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn LEFT, 244° track, intercept TRA R190, intercept KLO R268 inbound to KLO, intercept ZUE R232 inbound to ZUE.
ZUE 1M	32	Climb straight ahead to D2.0 KLO, turn RIGHT, 330° track, at D4.0 KLO turn RIGHT to ZUE.

LSZH / ZRH
ZURICH



15 SEP 17 (10-3V)

ZURICH, SWITZERLAND

SID

ZURICH
Departure
125.950

Apt Elev
1417

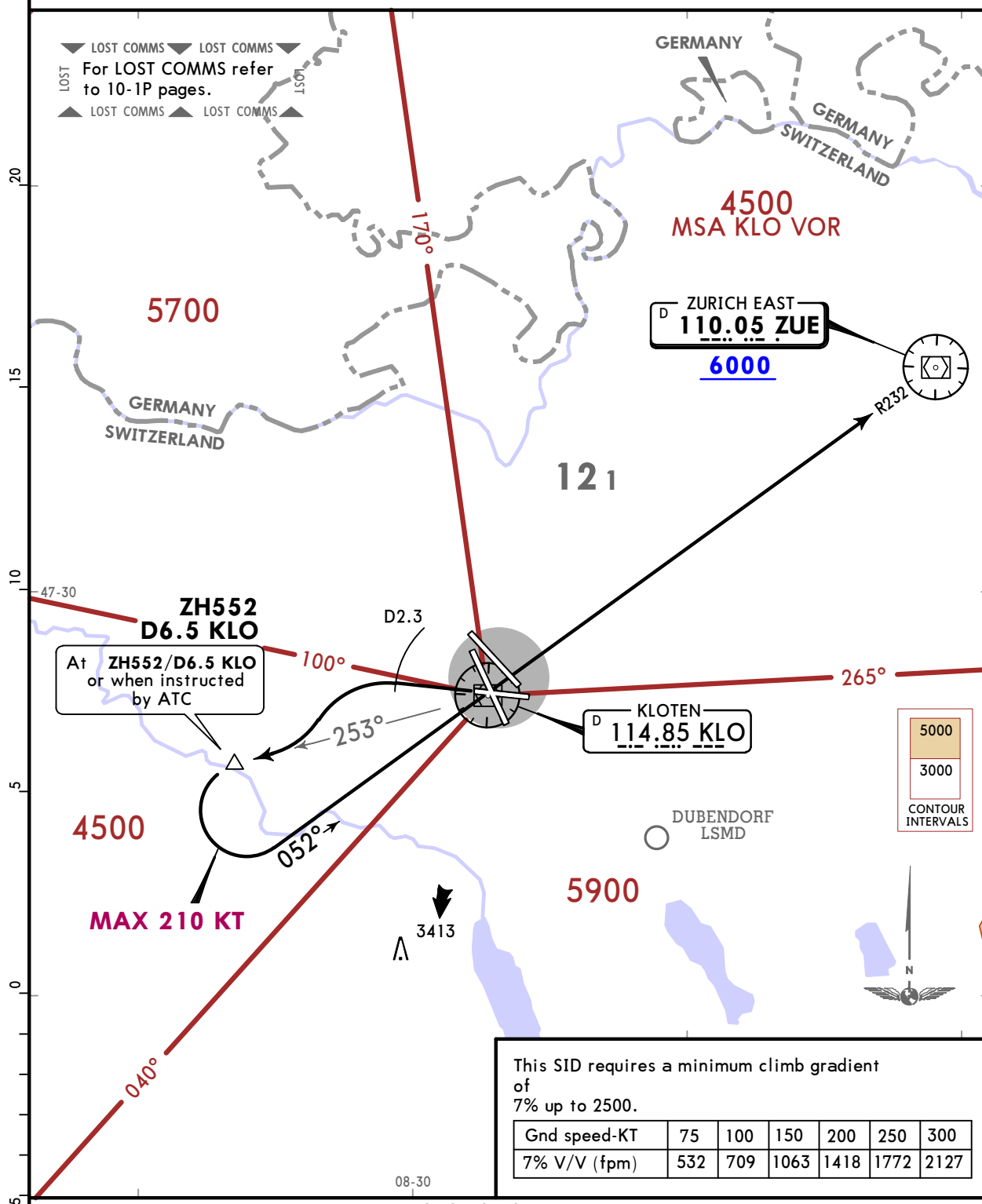
Trans alt: 7000

1. When instructed contact ZURICH Departure.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.

ZURICH EAST 2V (ZUE 2V)
RWY 28 DEPARTURE

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100

Initial climb clearance **5000**

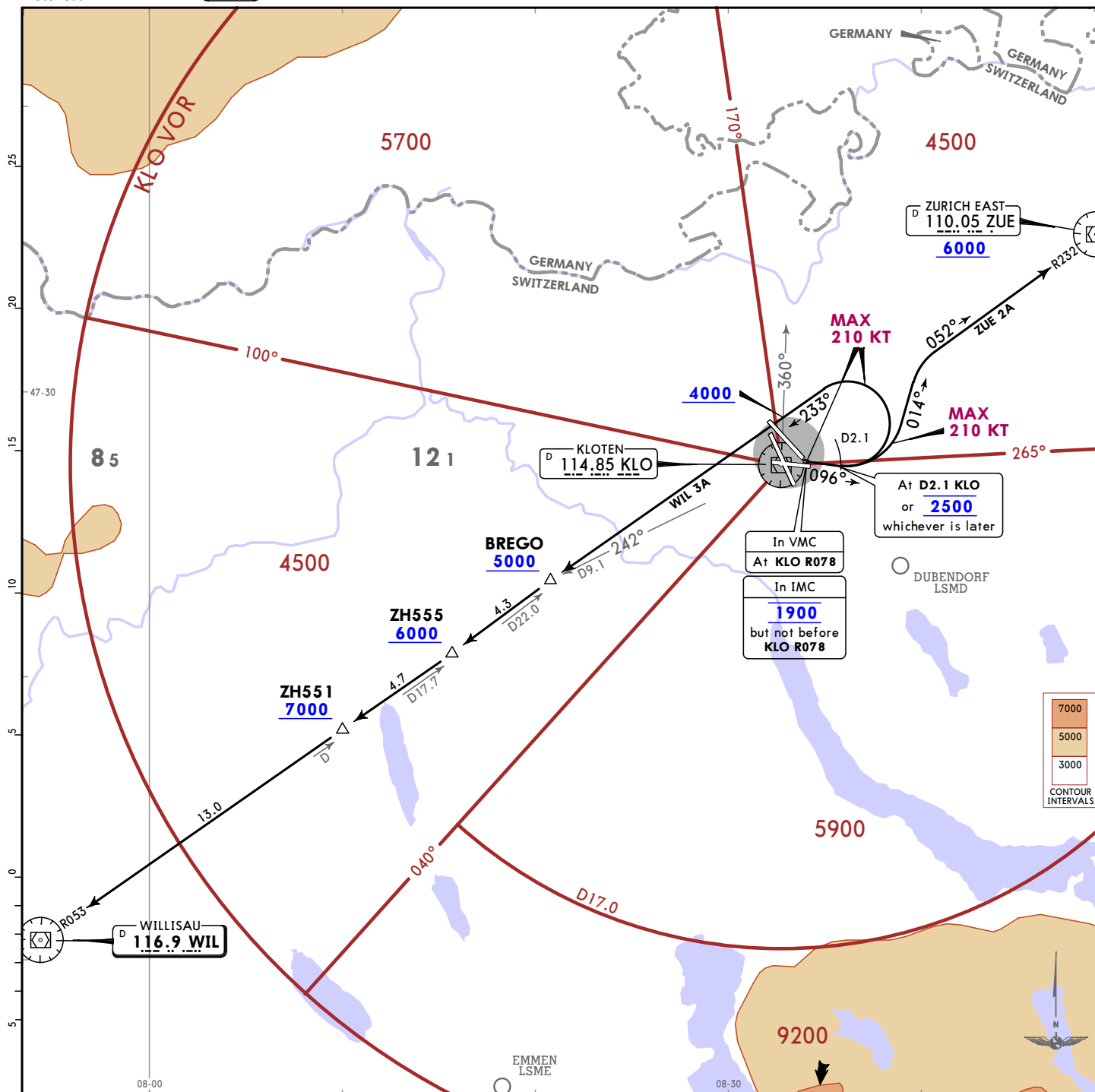
ROUTING

Climb straight ahead to D2.3 KLO, turn LEFT, intercept KLO R253, at ZH552/D6.5 KLO or when instructed by ATC turn LEFT, intercept ZUE R232 inbound to ZUE.

LSZH/ZRH
ZURICH
15 SEP 17 (10-3V1)

ZURICH, SWITZERLAND

SID



ZURICH Departure 125.950	Trans alt: 7000 1. When instructed contact ZURICH Departure. 2. VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500 - VIS 5000m. 3. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 4. EXPECT close-in obstacles. 5. Turn speed limit must be adhered to during the turn even after a 'DIRECT TO' clearance.
Apt Elev 1417	

WILLISAU 3A (WIL 3A)
ZURICH EAST 2A (ZUE 2A)
RWY 14 DEPARTURES
FOR ROUTE CONTINUATION AFTER ZUE
REFER TO CHARTS 10-3W & 10-3X1
SPEED: MAX 250 KT BELOW FL100

TEMPORARY PROCEDURES
ACTIVATION BY NOTAM OR
BY AIRPORT AUTHORITY ONLY

LOST COMMS
For LOST COMMS refer
to 10-1P pages.
LOST COMMS

These SIDs require a minimum climb gradient
of
9.5% up to 2500.

Gnd speed-KT	75	100	150	200	250	300
9.5% V/V (fpm)	722	962	1443	1924	2405	2886

Initial climb clearance 5000

INITIAL CLIMB

Climb straight ahead,
- if in VMC turn LEFT at KLO R078, 096° track,
MAINTAIN visual ground contact up to 2800, or
- if in IMC turn LEFT at 1900, but not before KLO R078,
096° track, at D2.1 KLO or 2500 whichever is later,
turn LEFT.

SID	ROUTING
WIL 3A	Intercept WIL R053 inbound to WIL.
ZUE 2A	014° track, intercept ZUE R232 inbound to ZUE.

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15 SEP 17 (10-3W)

ZURICH, SWITZERLAND

TRANSITION

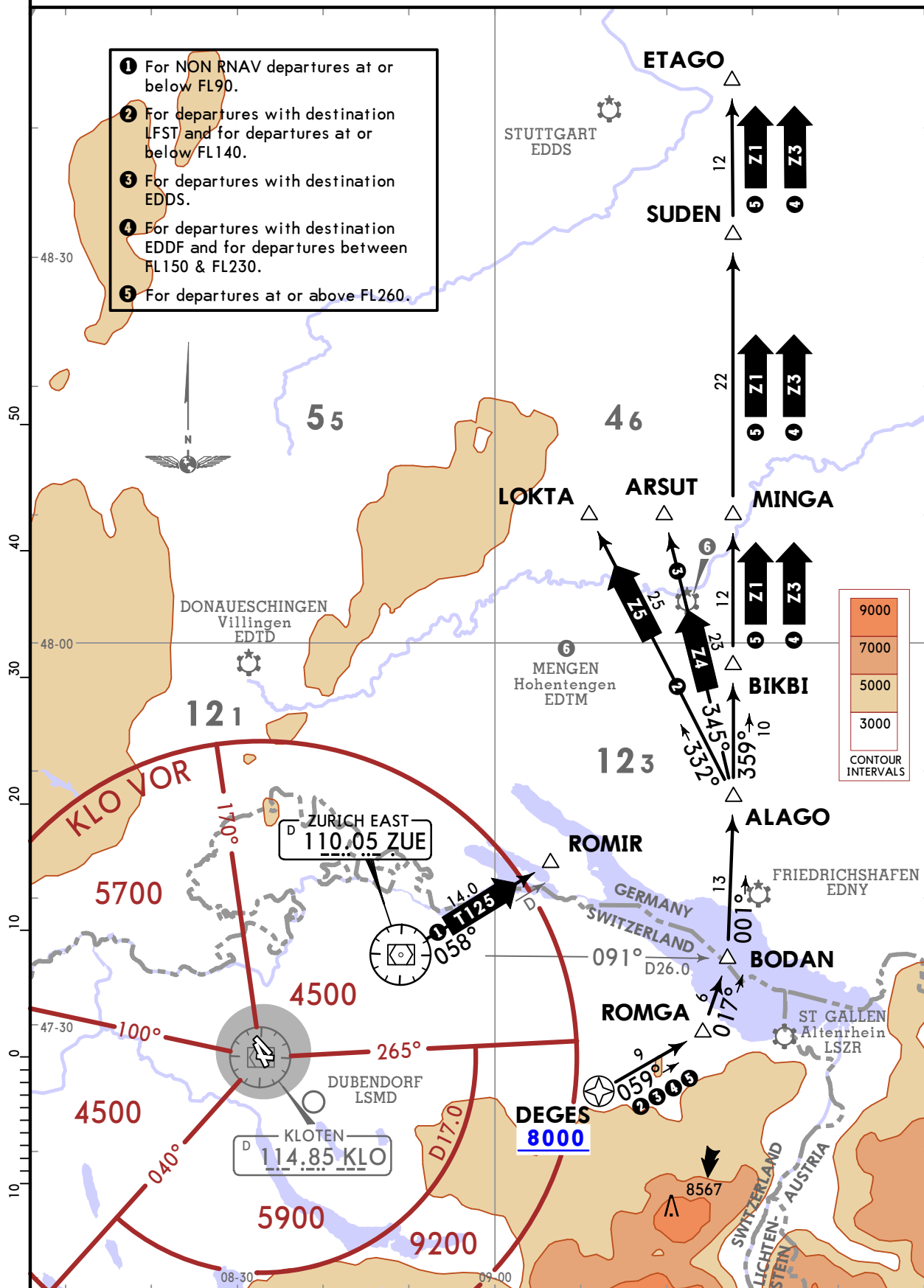
Apt Elev
1417

Trans alt: 7000

NORTHBOUND TRANSITION ROUTES

AFTER DEGES & ZUE

RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100

SPEED: MAX 250 KT BELOW FL100

LSZH/ZRH
ZURICH



15 SEP 17 (10-3X)

ZURICH, SWITZERLAND

TRANSITION

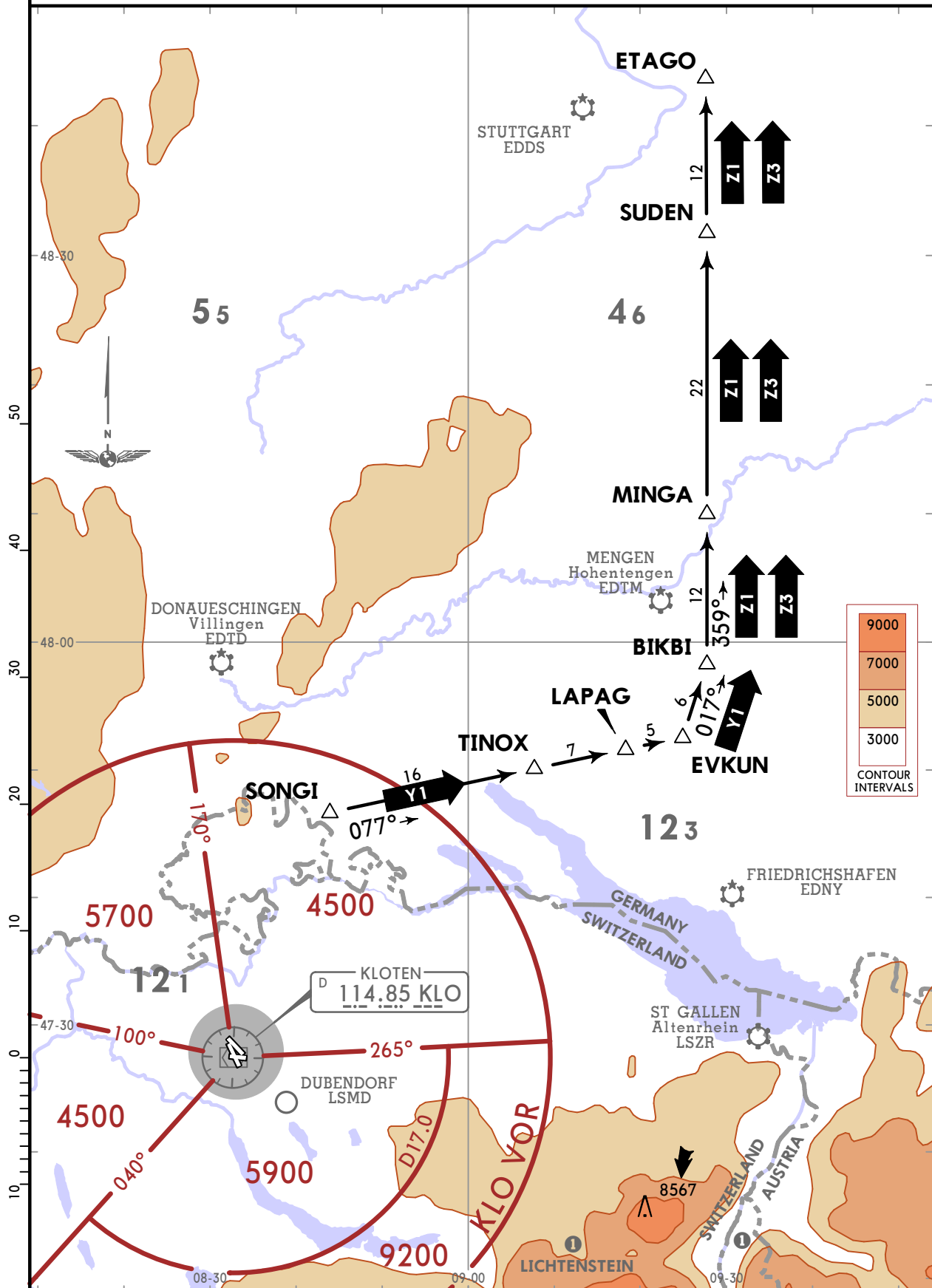
Apt Elev
1417

Trans alt: 7000

NORTHBOUND TRANSITION ROUTES AFTER SONGI

RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100

SPEED: MAX 250 KT BELOW FL100



CHANGES: New format.

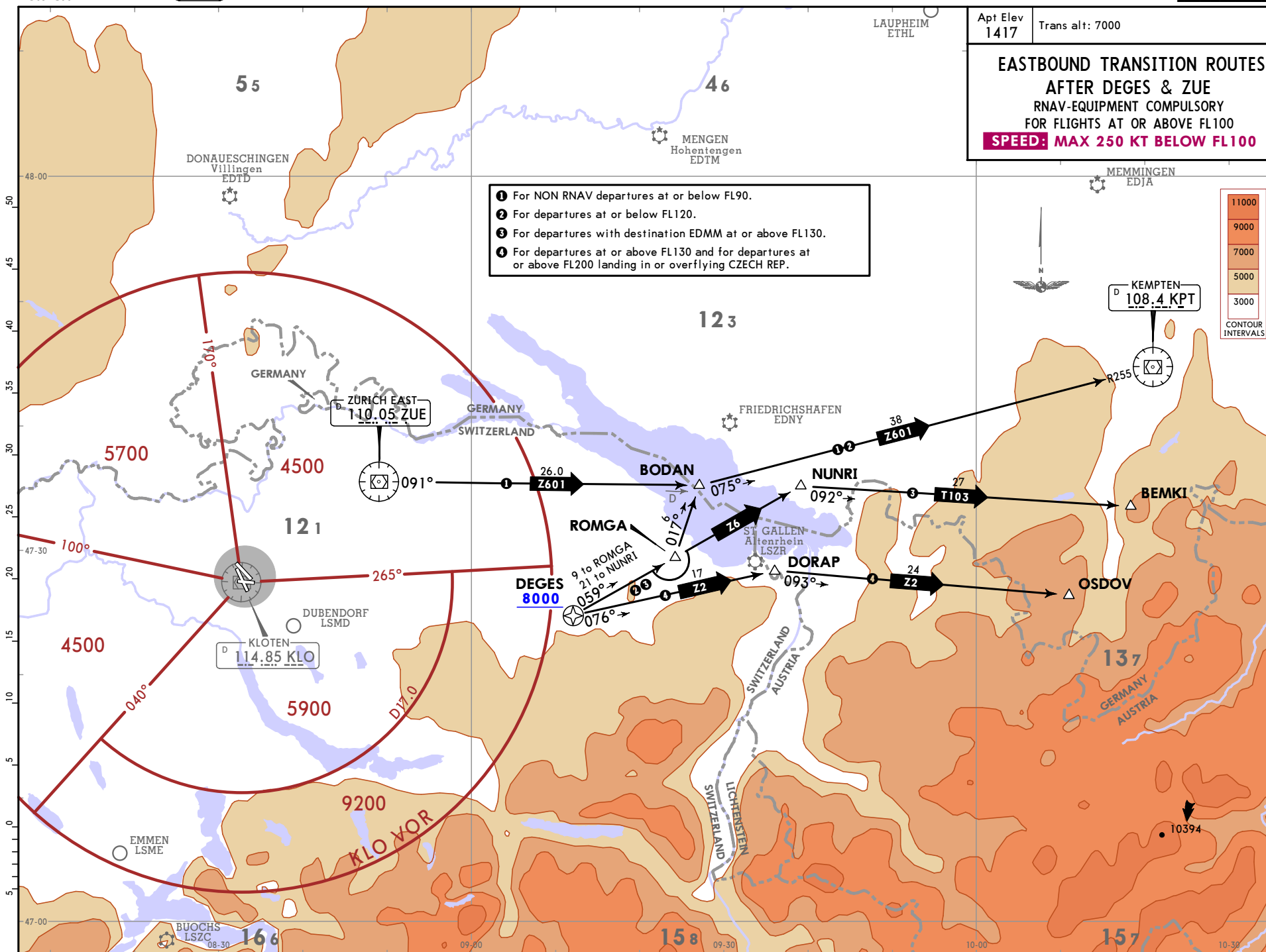
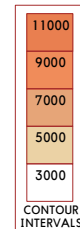
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LSZH/ZRH
ZURICH
15 SEP 17 (10-3X1)

ZURICH, SWITZERLAND
TRANSITION

Apt Elev 1417	Trans alt: 7000
EASTBOUND TRANSITION ROUTES AFTER DEGES & ZUE RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100 SPEED: MAX 250 KT BELOW FL100	

- 1 For NON RNAV departures at or below FL90.
- 2 For departures at or below FL120.
- 3 For departures with destination EDMM at or above FL130.
- 4 For departures at or above FL130 and for departures at or above FL200 landing in or overflying CZECH REP.



JEPPESEN
15 SEP 17 10-3X2

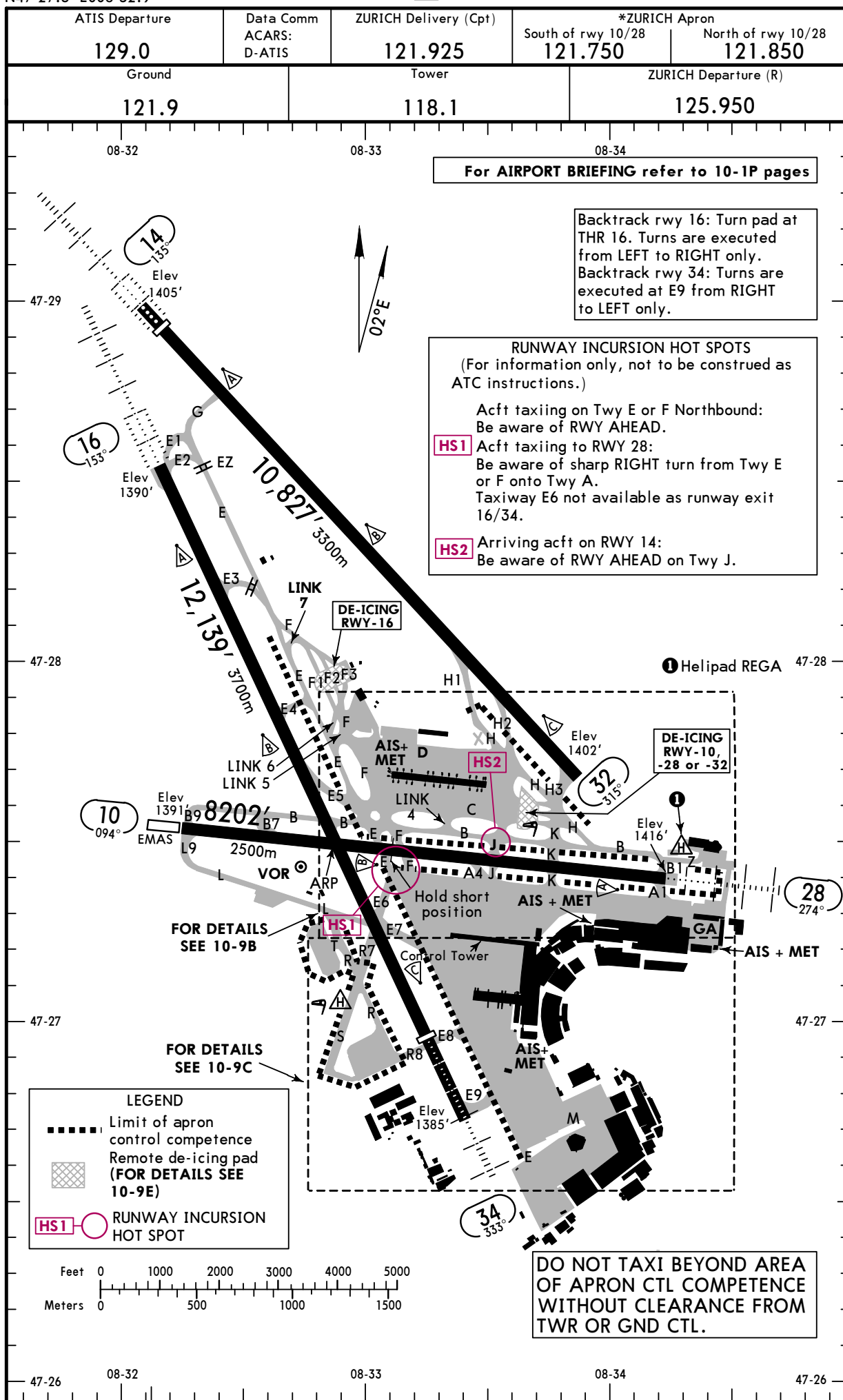
ZURICH, SWITZERLAND

TRANSITION



LSZH/ZRH
 Apt Elev **1417'**
 N47 27.5 E008 32.9

JEPPesen
 31 AUG 18 **(10-9)** Eff 13 Sep

ZURICH, SWITZERLAND
ZURICH


LSZH / ZRH



JEPPESEN

ZURICH, SWITZERLAND

31 AUG 18

10-9A

Eff 13 Sep

ZURICH

ADDITIONAL RUNWAY INFORMATION					USABLE LENGTHS		TAKE-OFF	WIDTH
RWY	LANDING BEYOND				Threshold	Glide Slope		
10	1	RL (45m) CL (15m)						197' 60m
28		HIRL (45m) CL (15m) HIALS 2 PAPI-L (3.3°) REIL RVR				7205' 2196m	3	
1 Rwy grooved. 2 ALS also available. 3 TAKE-OFF RUN AVAILABLE RWY 28: From rwy head 8202' (2500m) twy K int 6234' (1900m)								
14	4	HIRL (30m) CL (15m) HIALS-II TDZ 5 6	RVR	10,334' 3150m	9186' 2800m		7	197' 60m
32		HIRL (30m) CL (15m) REIL	RVR					
4 Rwy grooved. 5 PAPI-L (3.0°) 6 HSTIL HST-H1 7 TAKE-OFF RUN AVAILABLE RWY 14: From rwy head 10,827' (3300m) twy G int 8858' (2700m) RWY 32: From rwy head 10,827' (3300m) twy H2 int 8858' (2700m)								
16	8	HIRL (30m) CL (15m) HIALS-II 9 TDZ 10 REIL	RVR		10,879' 3316m		11	197' 60m
34		HIRL (30m) CL (15m) HIALS PAPI-L (3.3°) REIL	RVR	10,597' 3230m	9686' 2952m			
8 Rwy grooved. 9 ALS also available. 10 PAPI-L (3.0°) 11 TAKE-OFF RUN AVAILABLE RWY 16: From rwy head 12,139' (3700m) twy E3 int 9843' (3000m) RWY 34: From rwy head 12,139' (3700m) twy E8/R8 int 10,728' (3270m) twy E7/R7 int 8432' (2570m)								

Standard	TAKE-OFF					
	Rwys 16, 28, 32, 34 Low Visibility Take-off				All Rwys 1	
	2 HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL or RCLM Night: RL or CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
A	TDZ, MID, RO RVR 125m	TDZ, MID, RO RVR 150m	RVR 200m	RVR 300m	400m	500m
B						600m
C						800m
D	3 RVR 150m	3 RVR 200m	RVR 250m	RVR 400m		

1 Take-off rwy 14 is subject to activation by airport authority.

2 RWY 14,16: RVR 75m with approved guidance system or HUD/HUDLS.

3 TDZ, MID, RO

LSZH/ZRH

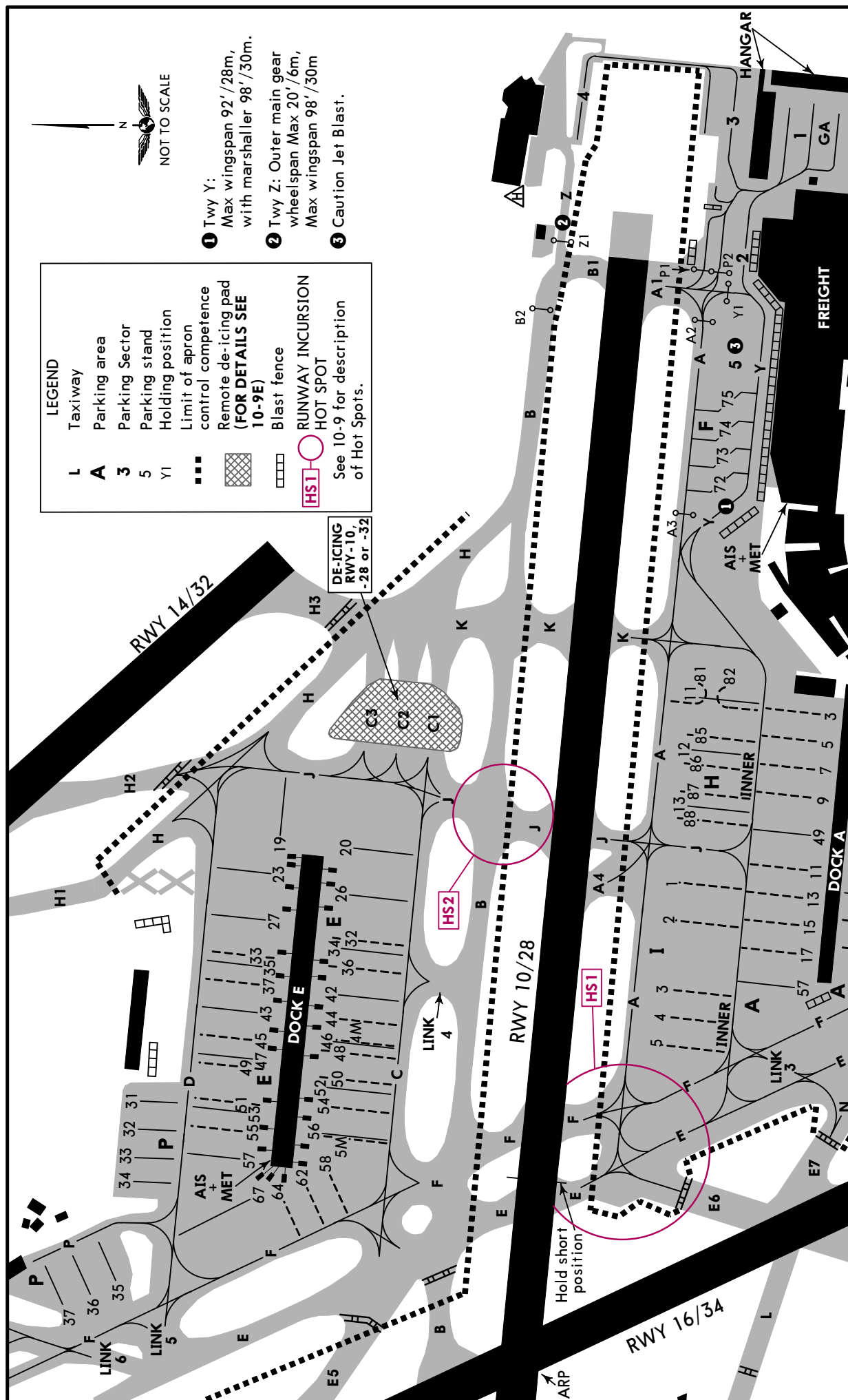
31 AUG 18

10-9B

Eff 13 Sep

ZURICH, SWITZERLAND

ZURICH



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31 AUG 18

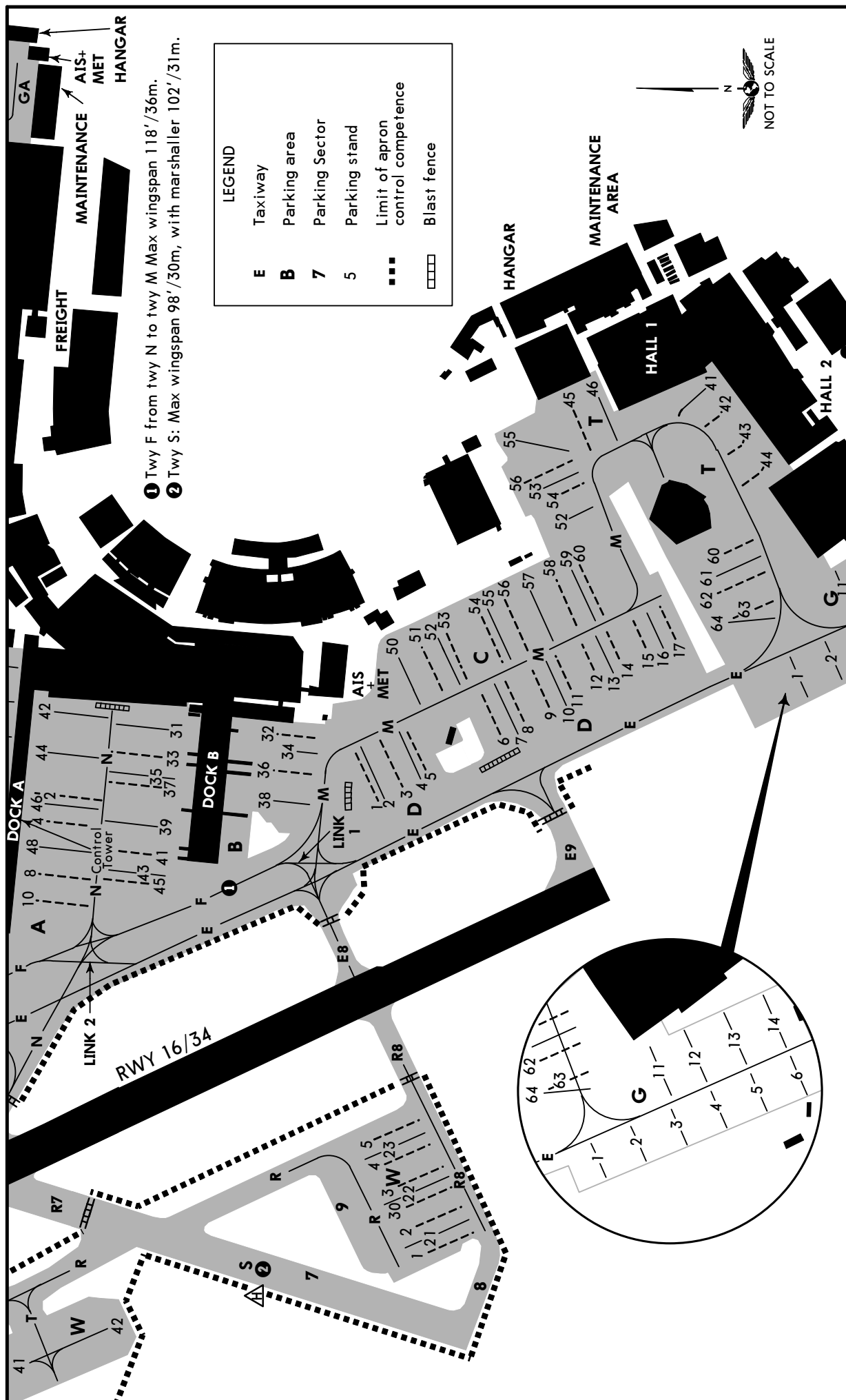

JEPPesen

ZURICH, SWITZERLAND

ZURICH

10-9C

Eff 13 Sep



LSZH/ZRH

31 AUG 18

**JEPPESSEN****ZURICH, SWITZERLAND****10-9D****Eff 13 Sep****ZURICH****INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
A02	N47 27.2 E008 33.5	E51	N47 27.7 E008 33.2
A03	N47 27.2 E008 33.7	E52	N47 27.6 E008 33.2
A04	N47 27.2 E008 33.5	E53	N47 27.7 E008 33.2
A05, A07	N47 27.2 E008 33.6	E54	N47 27.6 E008 33.2
A08	N47 27.2 E008 33.4	E55 thru E57	N47 27.7 E008 33.1
A09	N47 27.2 E008 33.6	E58	N47 27.6 E008 33.1
A10	N47 27.2 E008 33.4	E62 thru E67	N47 27.7 E008 33.1
A11	N47 27.2 E008 33.5	F72	N47 27.3 E008 33.9
A13, A15	N47 27.2 E008 33.4	F73, F74	N47 27.3 E008 34.0
A17	N47 27.3 E008 33.4	F75	N47 27.3 E008 34.1
A42	N47 27.2 E008 33.6	G01	N47 26.6 E008 33.6
A44	N47 27.2 E008 33.6	G02	N47 26.5 E008 33.6
A46	N47 27.2 E008 33.5	G03 thru G05	N47 26.5 E008 33.7
A48, A49	N47 27.2 E008 33.5	G06	N47 26.4 E008 33.7
A57	N47 27.3 E008 33.3	G11 thru G14	N47 26.5 E008 33.8
B31	N47 27.1 E008 33.6	H11	N47 27.3 E008 33.7
B32	N47 27.0 E008 33.6	H12, H13	N47 27.4 E008 33.6
B33	N47 27.1 E008 33.6	H81, H82	N47 27.3 E008 33.7
B34	N47 27.0 E008 33.6	H85 thru H87	N47 27.3 E008 33.6
B35	N47 27.1 E008 33.5	H88	N47 27.4 E008 33.6
B36	N47 27.0 E008 33.5	I01	N47 27.4 E008 33.5
B37	N47 27.1 E008 33.5	I02, I03	N47 27.4 E008 33.4
B38	N47 27.0 E008 33.5	I04, I05	N47 27.4 E008 33.3
B39	N47 27.1 E008 33.5	P31, P32	N47 27.8 E008 33.2
B41 thru B45	N47 27.1 E008 33.4	P33, P34	N47 27.8 E008 33.1
C50 thru C53	N47 26.9 E008 33.7	P35, P36	N47 27.8 E008 33.0
C54, C55	N47 26.8 E008 33.7	P37	N47 27.9 E008 32.9
C56 thru C59	N47 26.8 E008 33.8	T41 thru T43	N47 26.6 E008 34.0
C60	N47 26.7 E008 33.8	T44	N47 26.6 E008 33.9
D01 thru D05	N47 26.9 E008 33.5	T45, T46	N47 26.8 E008 34.0
D06 thru D10	N47 26.8 E008 33.6	T52	N47 26.8 E008 33.8
D11 thru D13	N47 26.7 E008 33.6	T53, T54	N47 26.8 E008 33.9
D14 thru D17	N47 26.7 E008 33.7	T55	N47 26.8 E008 34.0
E4M	N47 27.6 E008 33.3	T56	N47 26.8 E008 33.9
E5M	N47 27.6 E008 33.1	T60 thru T62	N47 26.6 E008 33.8
E19	N47 27.7 E008 33.5	T63, T64	N47 26.6 E008 33.7
E20	N47 27.6 E008 33.5	W01	N47 26.9 E008 32.9
E23	N47 27.7 E008 33.5	W02, W03	N47 26.9 E008 33.0
E26	N47 27.6 E008 33.4	W04, W05	N47 26.9 E008 33.1
E27	N47 27.7 E008 33.4	W21, W22	N47 26.9 E008 33.0
E32	N47 27.6 E008 33.4	W23	N47 26.9 E008 33.1
E33	N47 27.7 E008 33.4	W30	N47 26.9 E008 33.0
E34	N47 27.6 E008 33.4	W41	N47 27.3 E008 32.8
E35	N47 27.7 E008 33.4	W42	N47 27.1 E008 32.9
E36	N47 27.6 E008 33.4		
E37	N47 27.7 E008 33.3		
E42	N47 27.6 E008 33.3		
E43	N47 27.7 E008 33.3		
E44	N47 27.6 E008 33.3		
E45	N47 27.7 E008 33.3		
E46	N47 27.6 E008 33.3		
E47	N47 27.7 E008 33.2		
E48	N47 27.6 E008 33.2		
E49	N47 27.7 E008 33.2		
E50	N47 27.6 E008 33.2		

LSZH/ZRH

31 AUG 18

**JEPPESEN**

10-9E

Eff 13 Sep

ZURICH, SWITZERLAND

ZURICH

DE-ICING PADS

Remote Deicing Pad	Site Overview
De-icing lanes F1 / F2 / F3 PAD Coordinator 121.635 To commence de-icing ACFT has to stop at the stop position (marked and yellow lighted) located to the left of the de-icing lane.	
De-icing lanes C1 / C2 / C3 PAD Coordinator 121.640 To commence de-icing ACFT has to stop at the stop position (marked and yellow lighted) located to the left of the de-icing lane.	

LSZH/ZRH

JEPPESEN
13 MAY 16 **10-9F** Eff 26 May**ZURICH, SWITZERLAND****ZURICH****DOCKING GUIDANCE SYSTEM (SAFEDOCK)
AT DOCK A, B & E****A. SYSTEM DESCRIPTION:**

The system is based on a laser scanning technique which tracks the lateral and longitudinal position of the aircraft. The system will recognise the incoming aircraft and check it against the one selected by the operator. The system is operated on an automatic mode. If the system fails, the aircraft must be positioned by a marshaller.

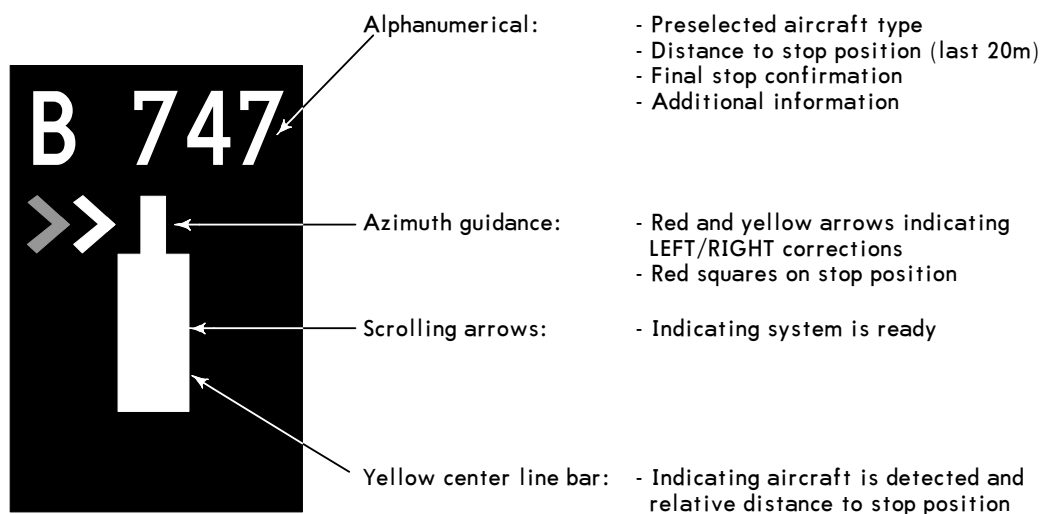
Azimuth guidance, continuous closing rate information, aircraft type etc. are shown on a single display visible for pilot and co-pilot.

Display and Laser Scanning Unit are mounted on the terminal in front of the aircraft stand.

B. ROUTINE DOCKING MANOEUVRE:

- Check for correct aircraft type displayed (ICAO designator).
- Do not proceed beyond the bridge unless the floating arrows have been superseded by the yellow center line bar.
- Red arrow shows direction to turn.
- Yellow arrow shows position in relation to center line.
- The absence of any direction arrow indicates the aircraft on center line.
- Display of digital countdown in meters starts 20m before stop position.
- 12m before stop position the closing rate will be indicated by turning off one row of the yellow center line bar per 0.5m covered by the aircraft.
- At the stop position the display will show "STOP" with red light squares, followed by "OK".

In case of malfunction request assistance from APRON CONTROL.

**C. STOP AT PARKING POSITIONS C, D, F, H, I, P, T & W:**

Stop bar markings are located to the LEFT with a 90 degree angle to the guide lines.

Aircraft has to be stopped with the pilot seat ABEAM the stop-bar.

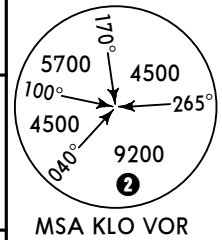
LSZH/ZRH
ZÜRICH

JEPPESSEN
8 DEC 17 (11-1)

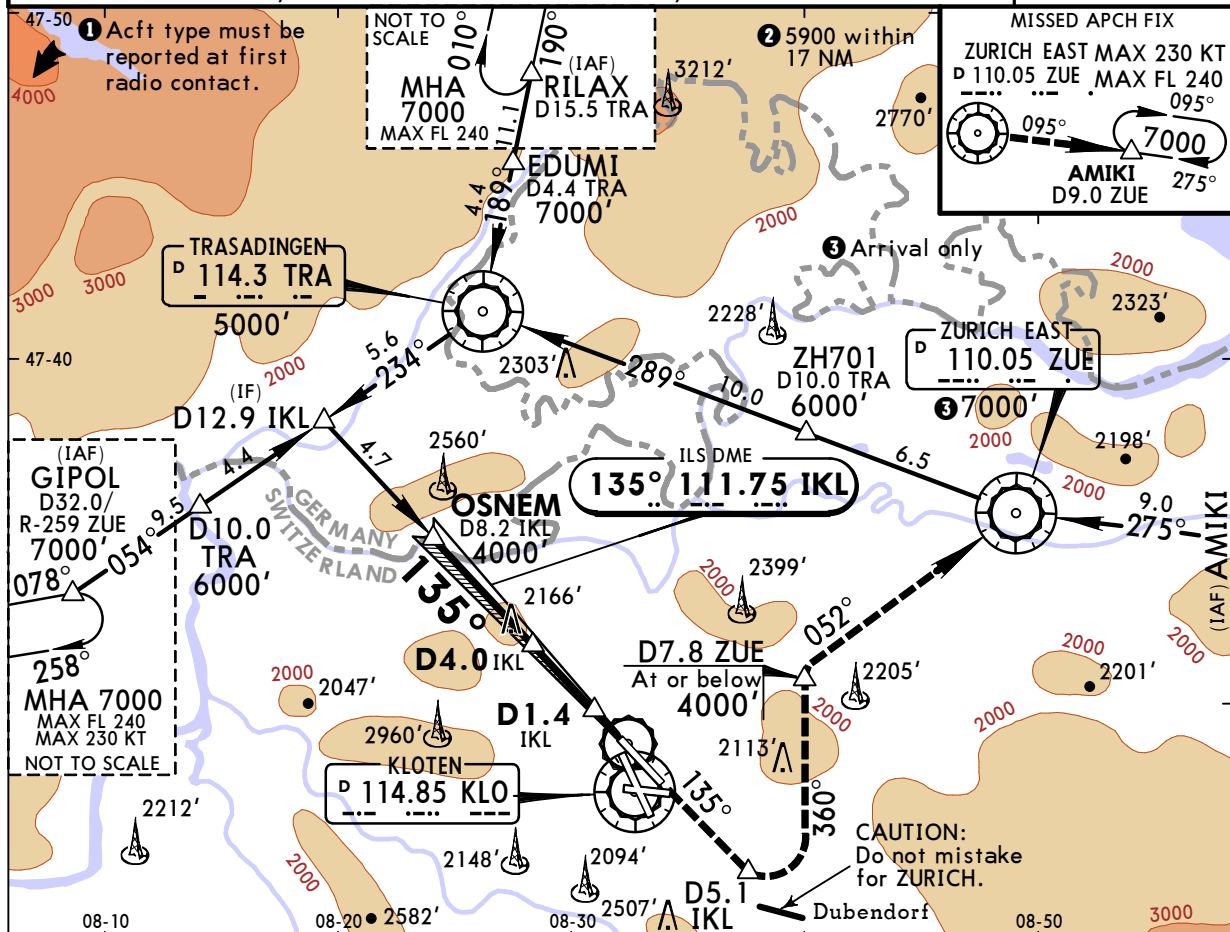
ZURICH, SWITZERLAND
ILS or LOC Rwy 14

D-ATIS Arrival	ZURICH Arrival (APP/R) ①	ZURICH Final (APP/R) by ATC	ZURICH Tower	Ground
125.725	118.0 135.225	125.325	118.1 120.225	121.9
LOC IKL 111.75	Final ApcH Crs 135°	GS D4.0 IKL 2670' (1268')	ILS RA 187' DA(H) 1602' (200')	Apt Elev 1417' Rwy 1402'

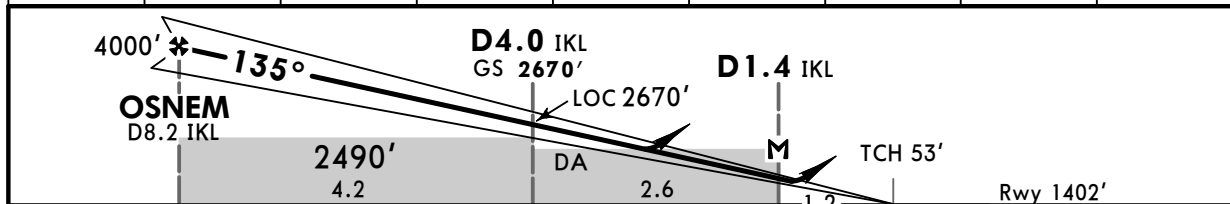
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. At D5.1 IKL past the station, turn LEFT (MAX 210 KT) onto 360° to intercept R-232 ZUE inbound. At D7.8 ZUE continue climb to 7000'. Proceed to ZUE VOR. Cross ZUE VOR at MIM 6000' and intercept R-095 ZUE to AMIKI.



Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 7000'
--------------	------------------	---------------------	------------------



LOC (GS out)	IKL DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3940'	3620'	3300'	2990'	2670'	2350'	2030'



Gnd speed-Kts	70	90	100	120	140	160		D5.1 IKL ↑
ILS GS or LOC Descent Angle 3.00°	372	478	531	637	743	849		
MAP at D1.4 IKL								

Standard

STRAIGHT-IN LANDING RWY 14

ILS RA 187' DA(H) 1602' (200')			LOC (GS out) CDFA DA/MDA(H) 1950' (548')		
FULL		TDZ or CL out	ALS out	ALS out	
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1500m	
B					
C				RVR 1800m	RVR 2400m
D					

1	W/o HUD/AP/FD: RVR 750m
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CHANGES: Communications.

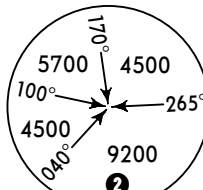
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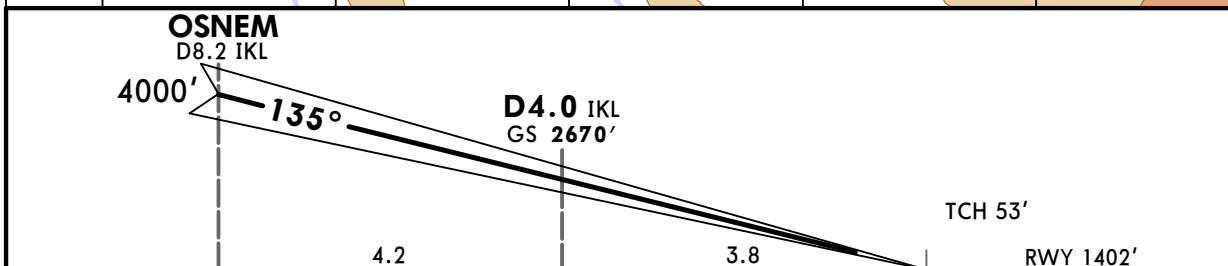
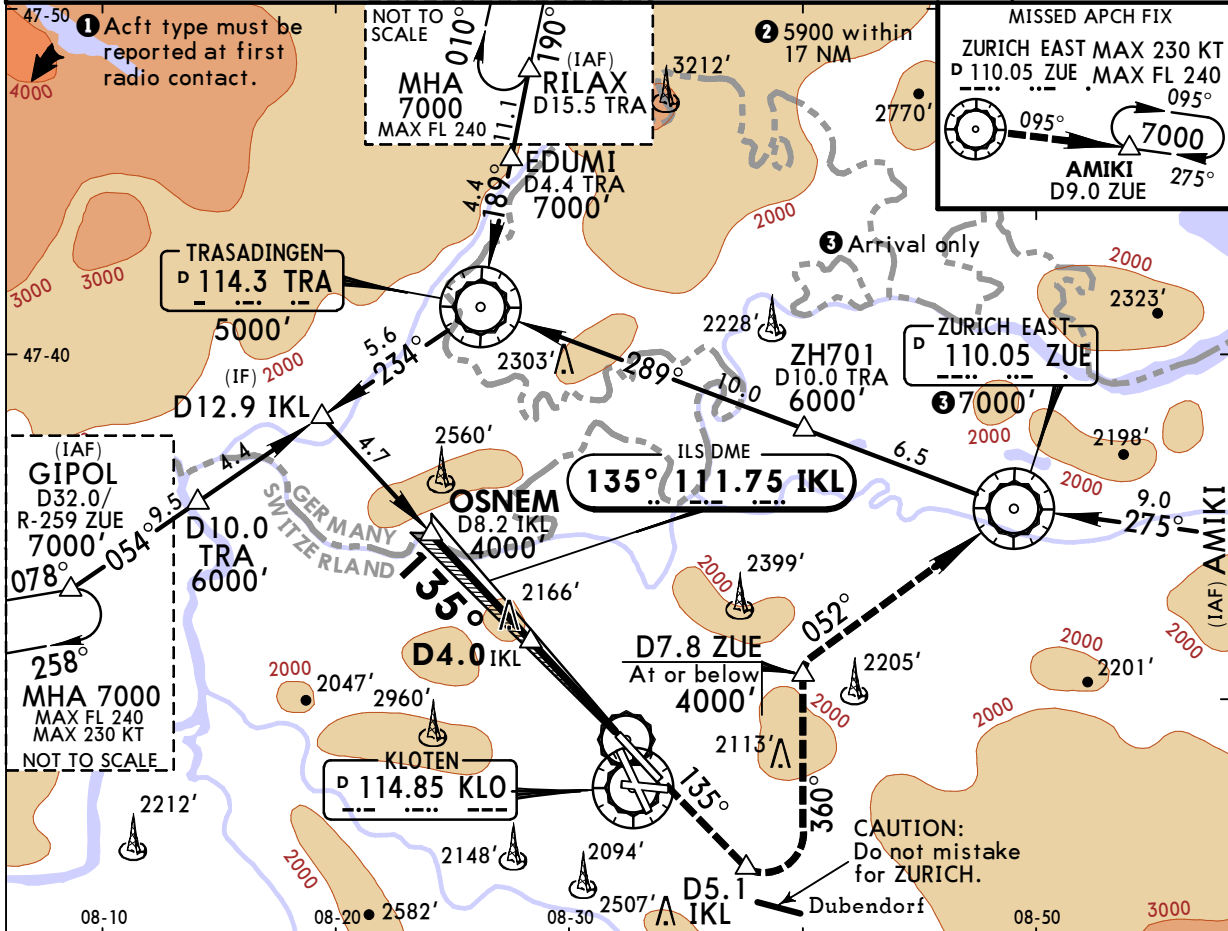
LSZH/ZRH
ZURICH

8 DEC 17

JEPPESEN
(11-1A)ZURICH, SWITZERLAND
CAT II/III ILS Rwy 14

BRIEFING STRIP™

D-ATIS Arrival	ZURICH Arrival (APP/R) ❶		ZURICH Final (APP/R) by ATC		ZURICH Tower		Ground
125.725	118.0	135.225	125.325		118.1	120.225	121.9
LOC IKL 111.75	Final Apch Crs 135°	GS D4.0 IKL 2670' (1268')	CAT II & IIIA ILS Refer to Minimums		Apt Elev 1417' Rwy 1402'		 MSA KLO VOR
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. At D5.1 IKL past the station, turn LEFT (MAX 210 KT) onto 360° to intercept R-232 ZUE inbound. At D7.8 ZUE continue climb to 7000'. Proceed to ZUE VOR. Cross ZUE VOR at MIM 6000' and intercept R-095 ZUE to AMIKI.							
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Special Aircrew and Aircraft Certification Required.							



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D5.1 IKL ↑
GS 3.00°	372	478	531	637	743	849		

Standard		STRAIGHT-IN LANDING RWY 14	
CAT IIIA ILS ① DH 50'		CAT II ILS RA 95' DA(H) 1502' (100')	
RVR 200m		RVR 300m	

① CAT IIIB: Min RVR 75m

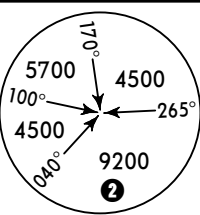
CHANGES: Communications.

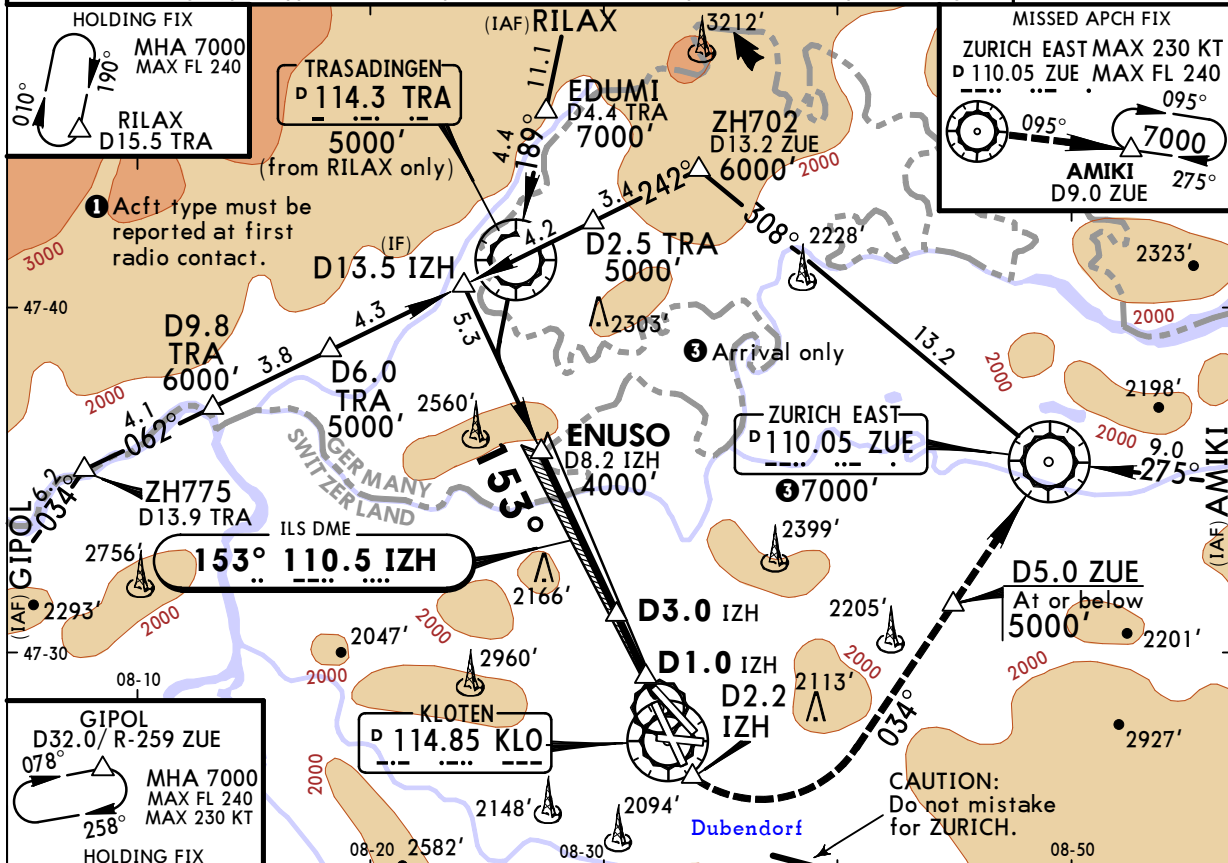
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PANS OPS

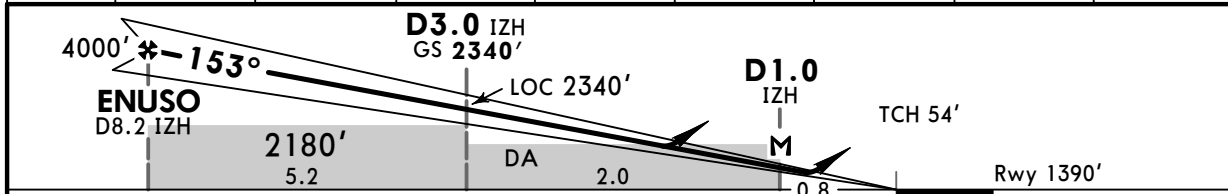
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (11-2)ZURICH, SWITZERLAND
ILS or LOC Rwy 16

BRIEFING STRIP

D-ATIS Arrival	ZURICH Arrival (APP/R) ①		ZURICH Final (APP/R) by ATC	ZURICH Tower	Ground
125.725	118.0	135.225	125.325	118.1	121.9
LOC IZH 110.5	Final Apch Crs 153°	GS D3.0 IZH 2340' (950')	ILS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1390'	 MSA KLO VOR ② 5900 within 17 NM
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-214 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.					
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Due to disturbance of GS signal of rwy 16 pilots might be requested by ZURICH Arrival to change apch type from ILS apch to LOC or visual apch, met cond permitting.					



LOC	IZH DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
(GS out)	ALTITUDE	3940'	3620'	3300'	2980'	2660'	2340'	2020'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II REIL PAPI  D2.2 IZH
ILS GS or							
LOC Descent Angle	3.00°	372	478	531	637	743	
MAP at D1.0 IZH							

Standard							
STRAIGHT-IN LANDING RWY 16							
ILS				LOC (GS out)			
Missed apch climb gradient mim				CDFA			
5.0% ① RA 187' DA(H) 1590' (200')				2.5% A: 1806' (416') C: 1825' (435') B: 1816' (426') D: 1835' (445')			
FULL	TDZ or CL out	ALS out		FULL	TDZ or CL out	ALS out	
A				RVR 1200m			
B	RVR 550m	RVR 550m ②	RVR 1200m	RVR 1300m	RVR 1500m		RVR 1500m
C				RVR 1400m	RVR 2000m	RVR 1400m	
D					RVR 2100m		RVR 2100m

① Climb gradient up to 2300'. ② W/o HUD/AP/FD: RVR 750m.

CHANGES: Communications.

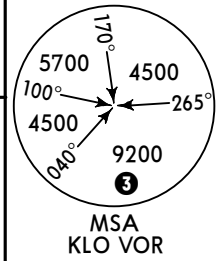
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PANS OPS

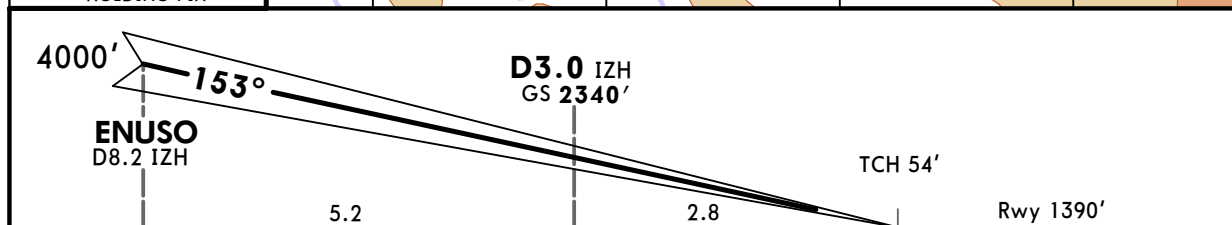
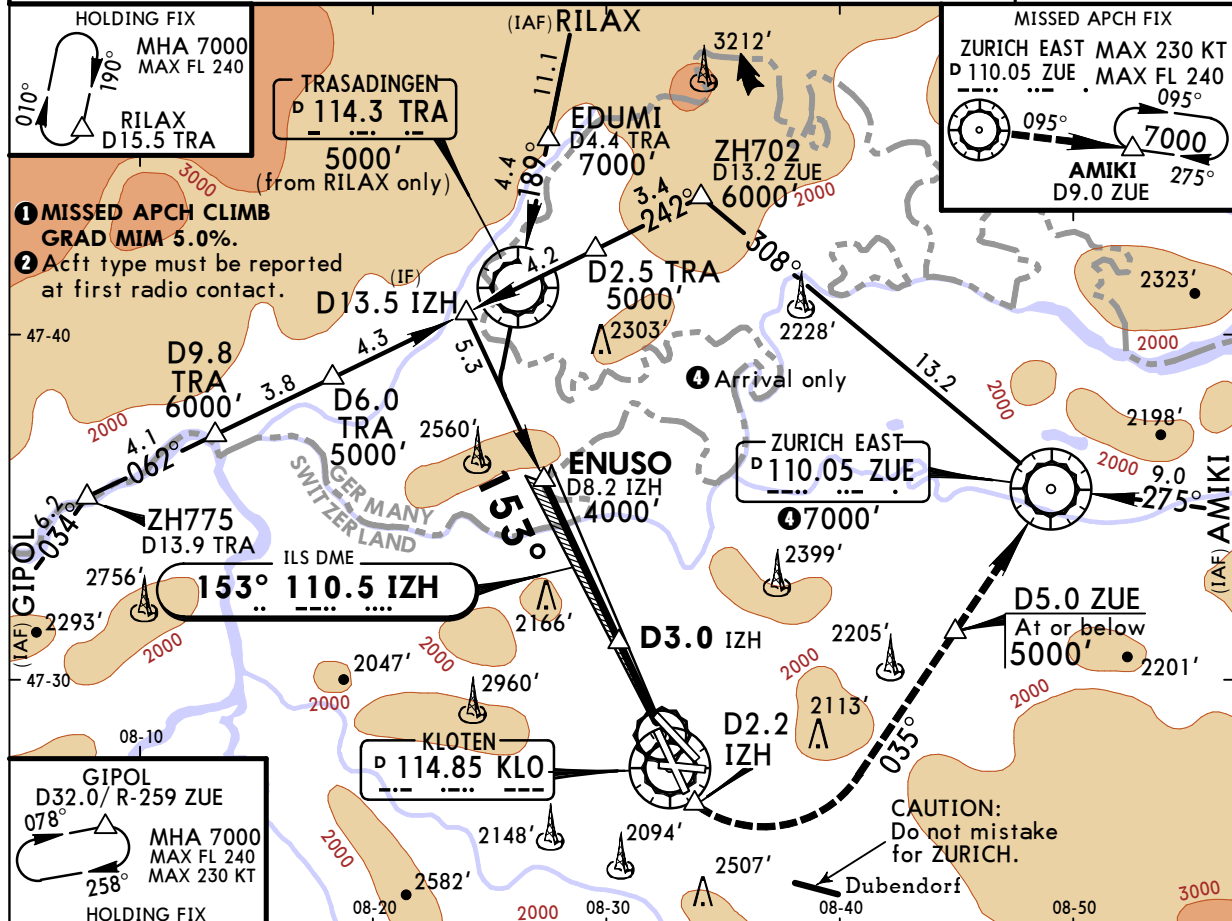
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (11-2A)ZURICH, SWITZERLAND
CAT II/III ILS Rwy 16

BRIEFING STRIP

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ② 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
LOC IZH 110.5	Final ApcH Crs 153°	GS D3.0 IZH 2340' (950')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1417' Rwy 1390'
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-214 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.				
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' Special Aircrew and Aircraft Certification Required.				



③ 5900 within 17 NM



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II REIL PAPI D2.2 IZH
GS	3.00°	377	485	539	647	755	

Standard		STRAIGHT-IN LANDING RWY 16	
CAT IIIA ILS ①		CAT II ILS	
DH 50'		Missed apch climb gradient mim 5.0% ②	
RVR 200m		RA 93'	
		DA(H) 1490' (100')	
		RVR 300m	

PANS OPS

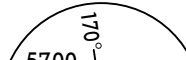
① CAT IIIB: Mim RVR 75m ② Climb gradient up to 2300'.

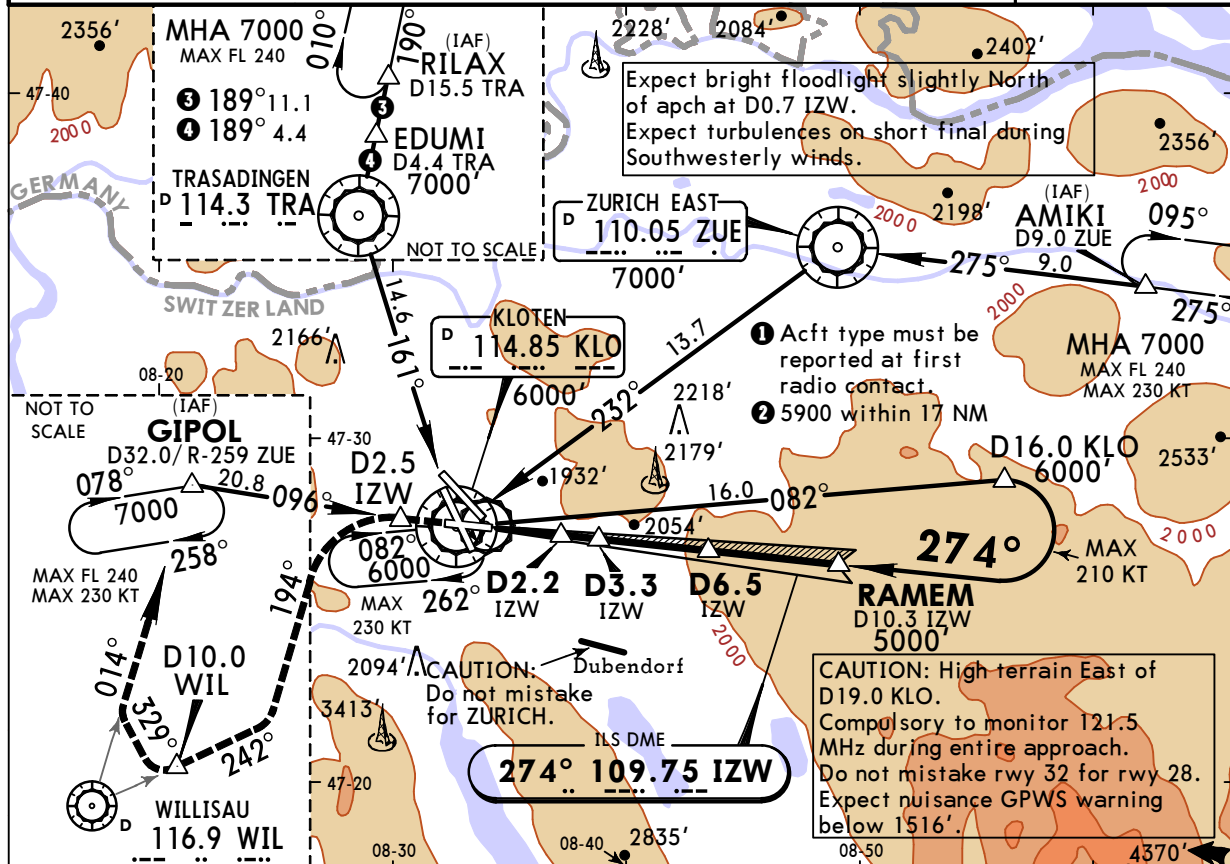
LSZH/ZRH
ZURICH

8 DEC 17

(11-3)

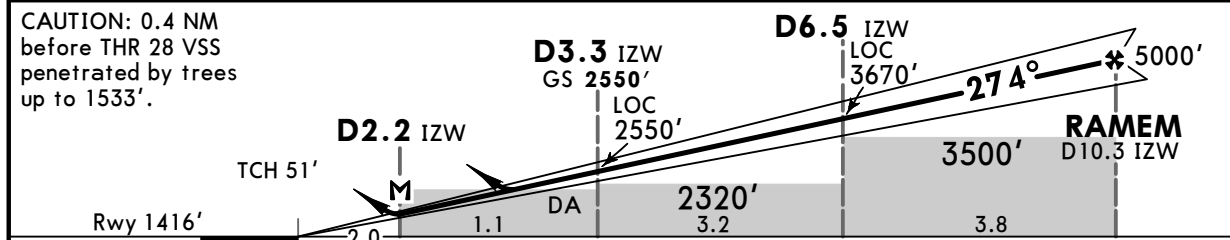
ZURICH, SWITZERLAND
ILS OR LOC Rwy 28

D-ATIS Arrival 125.725		ZURICH Arrival (APP/R) ① 118.0 135.225		ZURICH Final (APP/R) by ATC 125.325		ZURICH Tower 118.1		Ground 121.9	
LOC IZW 109.75		Final Apch Crs 274°		GS D3.3 IZW 2550' (1134')		ILS DA(H) Refer to Minimums		Apt Elev 1417' Rwy 1416'	
MISSED APCH: Initial climb to 4000'. Climb STRAIGHT AHEAD. At D2.5 IZW past the station turn LEFT (MAX 210 KT) onto 194°, then continue climb to 7000'. Intercept R-062 WIL inbound . At D10.0 WIL turn RIGHT onto 329° to intercept R-014 WIL. Proceed to GIPOL.									
Alt Set: hPa Rwy Elev: 51 hPa Trans level: By ATC Trans alt: 7000' Uncategorized ILS approach due to non-instrument runway.								 MSA KLO VOR	



LOC (GS out)	IZW DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	2450'	2800'	3150'	3500'	3850'	4200'	4550'	4900'

CAUTION: 0.4 NM
before THR 28 VSS
penetrated by trees
up to 1533'.



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or LOC Descent Angle 3.30°	414	532	591	710	828	946	
MAP at D2.2 IZW							

Standard

STRAIGHT-IN LANDING RWY 28

LOC (GS out)
CDEA

Missed apch climb gradient min

4.0% **1** DA(H) **2** C: **2084'** (668') D: **2094'** (678')
2.5% DA(H) **3** C: **2853'** (1437') D: **2863'** (1447')

MACG 3.9% up to 4900'
A/MDA(H) **2290'** (874')

MACG 2.5%
A(H) **3070'** (1654')

FULL/TDZ or CL out

ALS out

ALS out

ALS out

A	4300m	5000m
B		
C		
D		

1 Climb gradient up to 5200'. **2** CAT A: 2061'(645'), CAT B: 2071'(655').
3 CAT A: 2831'(1415'), CAT B: 2842'(1426').

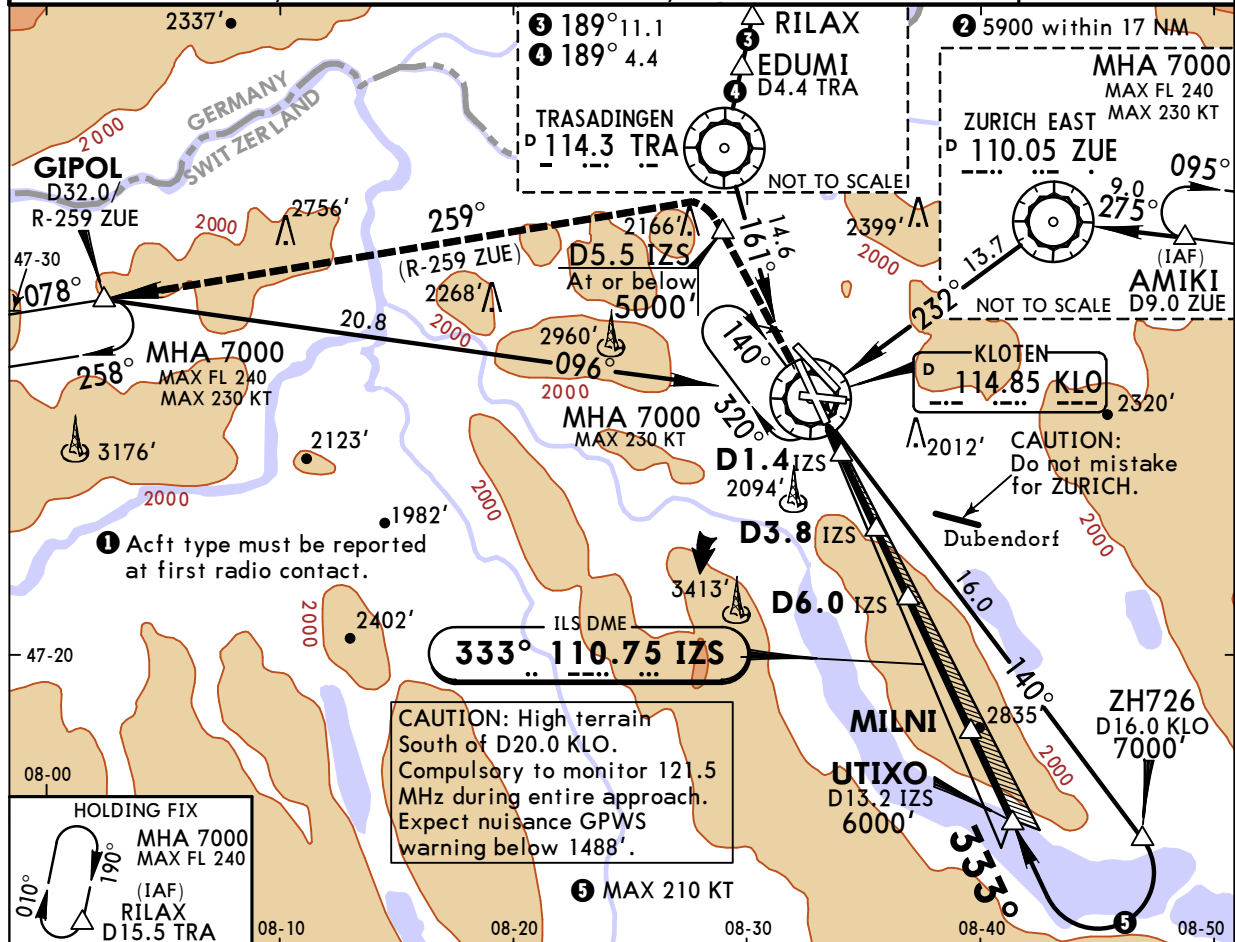
CHANGES: Communications.

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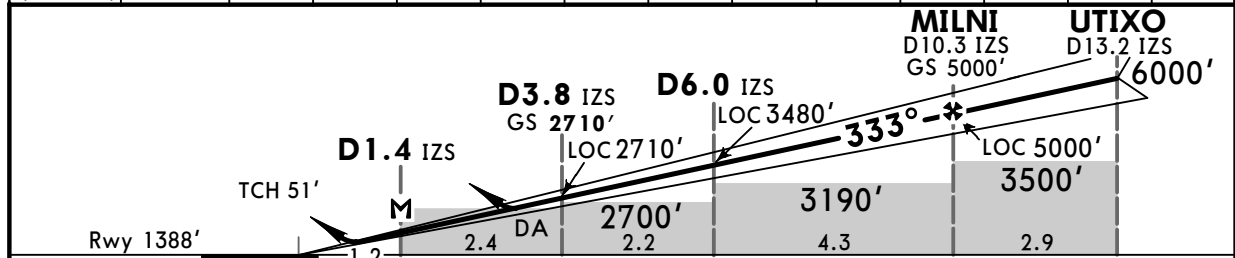
LSZH/ZRH
ZURICHJEPPESSEN
8 DEC 17 (11-4)ZURICH, SWITZERLAND
ILS or LOC Rwy 34

BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
LOC IZS 110.75	Final ApcH Crs 333°	GS D3.8 IZS 2710' (1322')	ILS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1388'
MISSED APCH: Initial climb clearance 5000'. Climb STRAIGHT AHEAD. At D5.5 IZS past the station turn LEFT (MAX 185 KT) to intercept R-259 ZUE. Continue climb to 7000'. Proceed to GIPOL.				
Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 7000'	MSA KLO VOR



LOC	IZS DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
(GS out)	ALTITUDE	2080'	2430'	2780'	3130'	3480'	3830'	4180'	4530'	4880'	5230'	5580'	5930'



Gnd speed-Kts	70	90	100	120	140	160							
ILS GS or LOC Descent Angle 3.30°	414	532	591	710	828	946							
MAP at D1.4 IZS													

Standard				STRAIGHT-IN LANDING RWY 34				LOC (GS out)	
Missed apch climb gradient min 3.0% up to 2400' DA(H) 1588' (200')				Missed apch climb gradient min 2.5% ① DA(H) C: 1614' (226') D: 1624' (236')				CDFA DA/MDA(H) 2070' (682')	
FULL		ALS out		FULL		ALS out		ALS out	
A								RVR 1500m	
B								RVR 2400m	
C	RVR 550m ②		RVR 1200m		RVR 550m ②		RVR 1200m		
D									

① CAT A: 1591' (203'), CAT B: 1601' (213'). ② W/o HUD/AP/FD: RVR 750m.

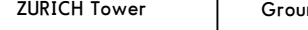
CHANGES: Communications.

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LSZH/ZRH
ZURICH

JEPPESEN
8 DEC 17 (12-1)

ZURICH, SWITZERLAND
RNAV (GNSS) Rwy 14

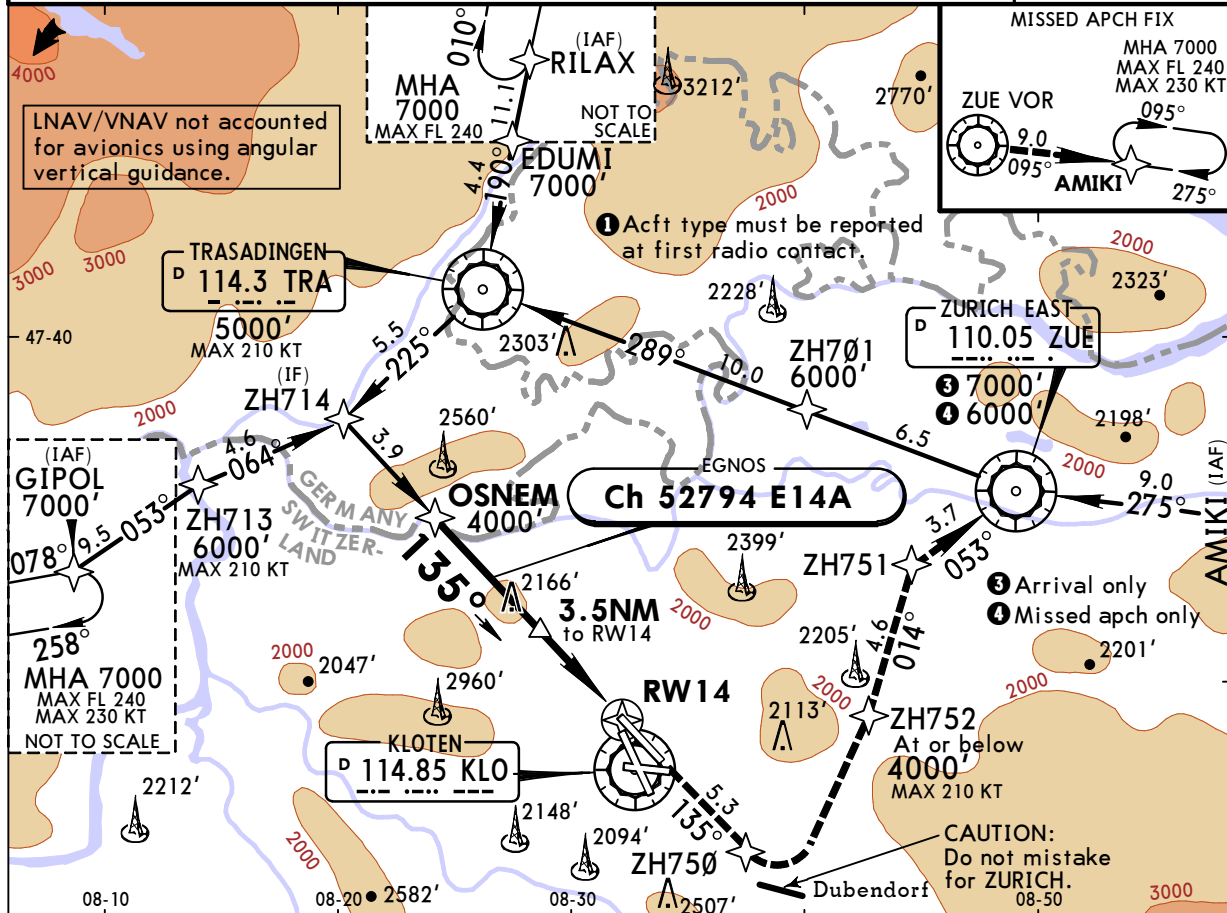
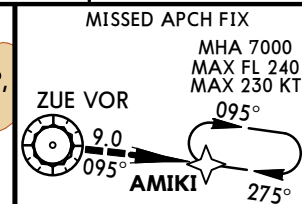
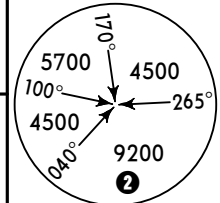
D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225		ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1 120.225	Ground 121.9
EGNOS Ch 52794 E14A	Final Apch Crs 135°	Procedure Alt OSNEM 4000' (2598')	LPV DA(H) 1602' (200')	Apt Elev 1417' Rwy 1402'	

MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. Proceed via ZH750, ZH752 (MAX 210KT), ZH751, ZUE to AMIKI. After passing ZH752 continue climb to 7000'. Cross ZUE at or above 6000'.

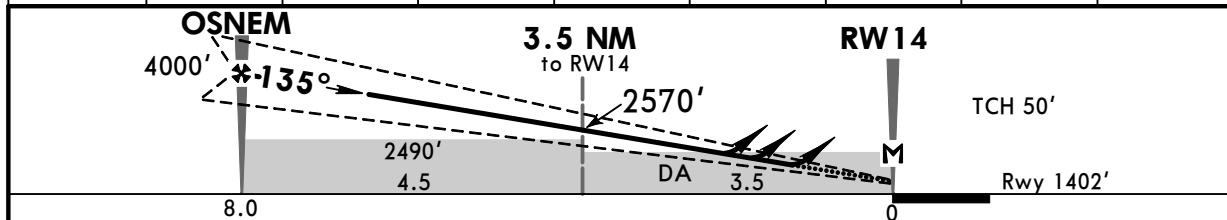
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000'

1. CAUTION: 0.3 NM before THR 14 VSS penetrated by trees up to 1480' (LNAV and LNAV/VNAV only). 2. Baro-VNAV not authorized below -20° C.

MSA KLO VOR
② 5900 within
17 NM



DIST to RW14	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4000'	3680'	3360'	3040'	2720'	2410'	2090'	1770'



Gnd speed-Kts	70	90	100	120	140	160		ZH750
Glide Path Angle 3.00°	372	478	531	637	743	849		
LPV, LNAV/VNAV: MAP at DA								
LNAV: MAP at RW14								

Standard

LPV CAT I

STRAIGHT-IN LANDING RWY 14
LNAV/VNAV

LNAV
CDFADA(H) **1602'** (200')

DA(H) A: **1862'** (460') C: **1892'** (490')
B: **1882'** (480') D: **1912'** (510')

DA/MDA(H) **1990'** (588')

	FULL	TDZ or CL out	ALS out		ALS out		ALS out
A	RVR 550m	RVR 550m I	RVR 1200m	RVR 1400m	RVR 1500m	RVR 1500m	
B				RVR 1500m			
C				RVR 1500m	RVR 2300m	RVR 2000m	RVR 2400m
D				RVR 1600m	RVR 2400m		

1	W/o HUD/AP/FD: RVR 750m.
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CHANGES: Communications.

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LSZH/ZRH
ZURICH

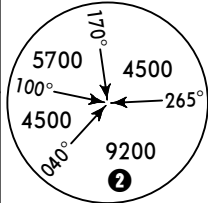
8 DEC 17

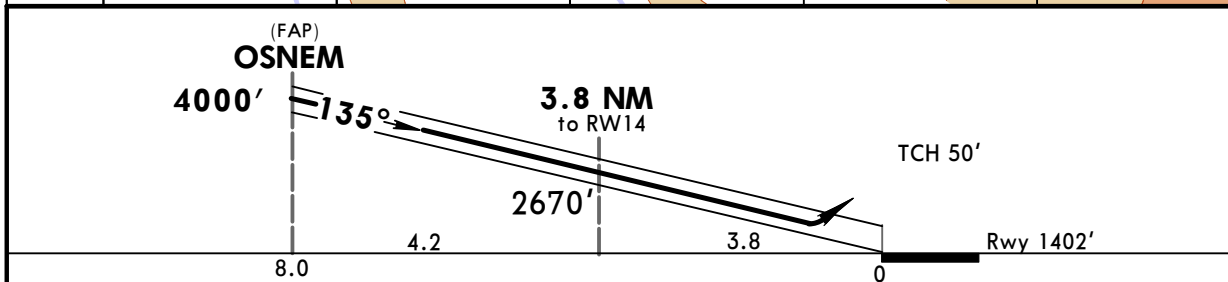
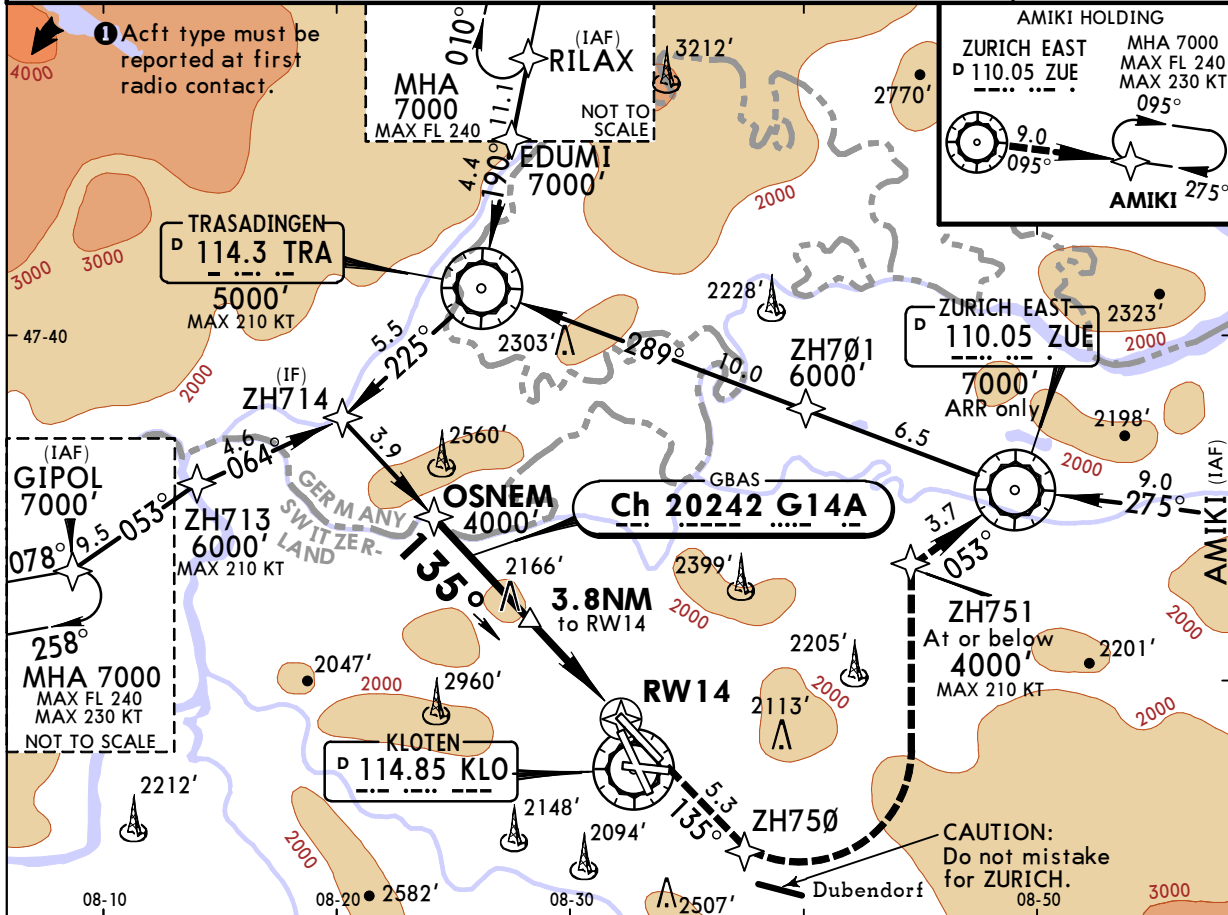
JEPPESEN

12-40

ZURICH, SWITZERLAND
GLS Rwy 14

BRIEFING STRIP

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1 120.225	Ground 121.9
GBAS Ch 20242 G14A	Final Apch Crs 135°	Minimum Alt OSNEM 4000' (2598')	GLS DA(H) Refer to Minimums	Apt Elev 1417' Rwy 1402'
MISSED APCH: Climb STRAIGHT AHEAD. Initial climb to 4000'. Proceed via ZH750, ZH751 (MAX 210 KT), ZUE to AMIKI. After passing ZH751 continue climb to 7000'.				
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000' 1.GNSS required. 2.P-RNAV or RNAV1 certification required.				 MSA KLO VOR ② 5900 within 17 NM



Gnd speed-Kts	70	90	100	120	140	160	HTALS-II PAPI ZH750
Descent Angle	3.00°	372	478	531	637	743	
MAP at DA							

Standard STRAIGHT-IN LANDING RWY 14					
Missed apch climb grad min 3.0% up to 2400'			Missed apch climb grad min 2.5%		
DA(H) 1602' (200')			DA(H) A: 1614' (212') C: 1634' (232') B: 1624' (222') D: 1644' (242')		
FULL	TDZ or CL out	ALS out	FULL	TDZ or CL out	ALS out
A					
B	RVR 550m	RVR 550m ①	RVR 550m	RVR 550m ①	RVR 1200m
C					
D					RVR 1300m

① W/o HUD/AP/FD: RVR 750m.

CHANGES: Communications.

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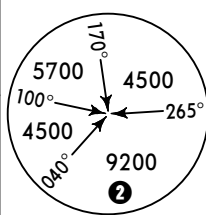
LSZH/ZRH
ZURICH

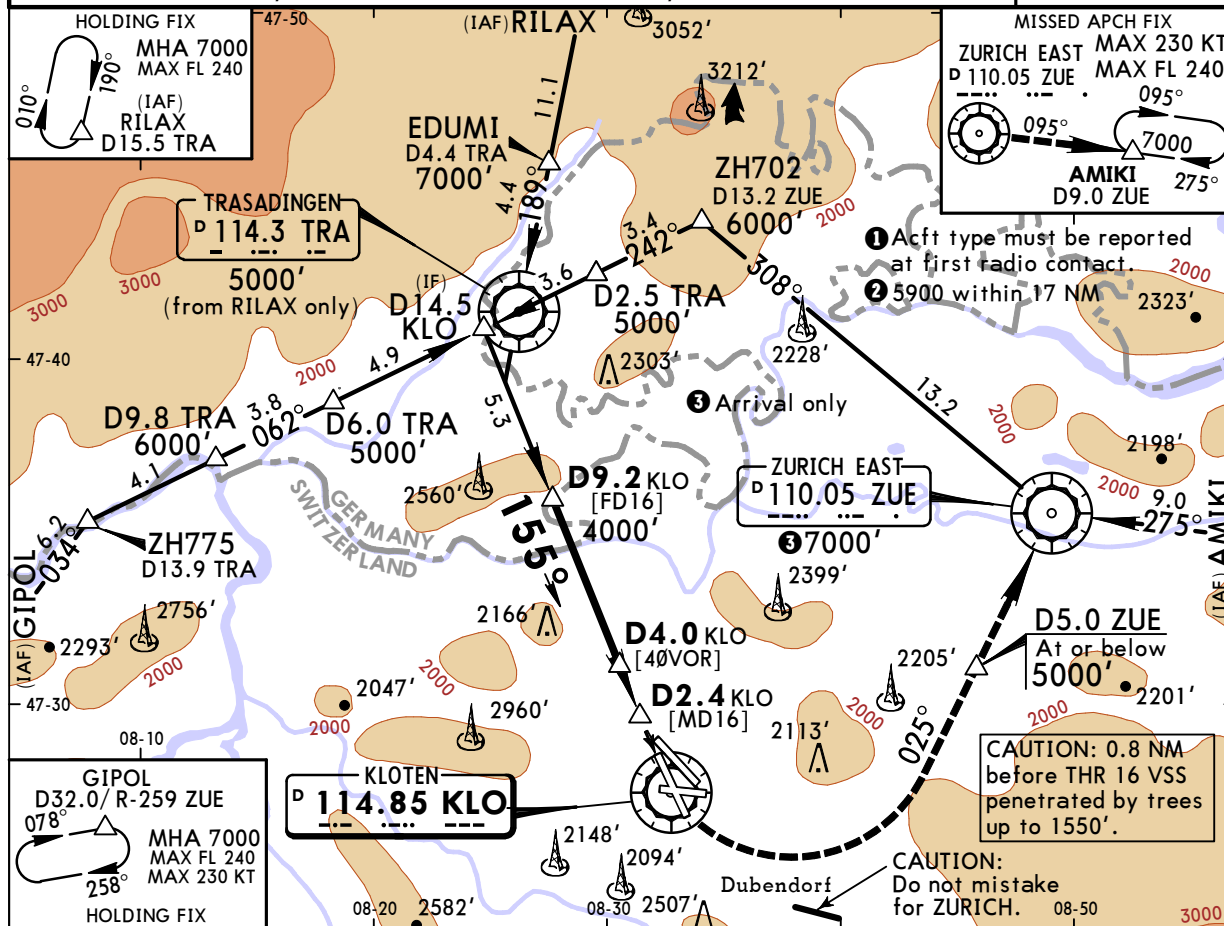
8 DEC 17

(13-1)

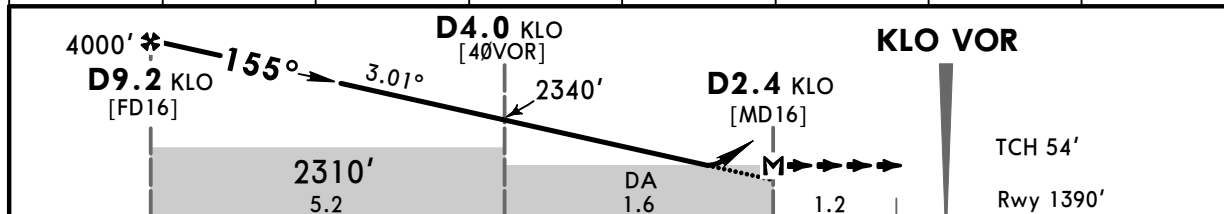
ZURICH, SWITZERLAND
VOR Rwy 16

BRIEFING STRIP™

D-ATIS Arrival	ZURICH Arrival (APP/R) ❶		ZURICH Final (APP/R) by ATC		ZURICH Tower	Ground
125.725	118.0	135.225	125.325		118.1	121.9
VOR KLO 114.85	Final Apch Crs 155°	Procedure Alt D9.2 KLO 4000' (2610')	DA/MDA(H) 1950' (560')	Apt Elev 1417' Rwy 1390'	 MSA KLO VOR	
MISSED APCH: Initial climb clearance 5000'. Climb on R-335 inbound KLO VOR. At KLO VOR turn LEFT to intercept R-205 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000'. Cross ZUE VOR at 6000' or above and intercept R-095 ZUE to AMIKI.						
Alt Set: hPa		Rwy Elev: 50 hPa	Trans level: By ATC			



KLO DME	9.0	8.0	7.0	6.0	5.0	4.0	3.0
ALTITUDE	3940'	3620'	3300'	2980'	2660'	2340'	2020'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.01°	373	479	532	639	745	852
MAP at D2.4 KLO						
Standard						

Standard		STRAIGHT-IN LANDING RWY 16	
		CDFA	
		DA/MDA(H) 1950' (560')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1800m		RVR 2400m
D			

PANS OPS

LSZH/ZRH
ZURICH

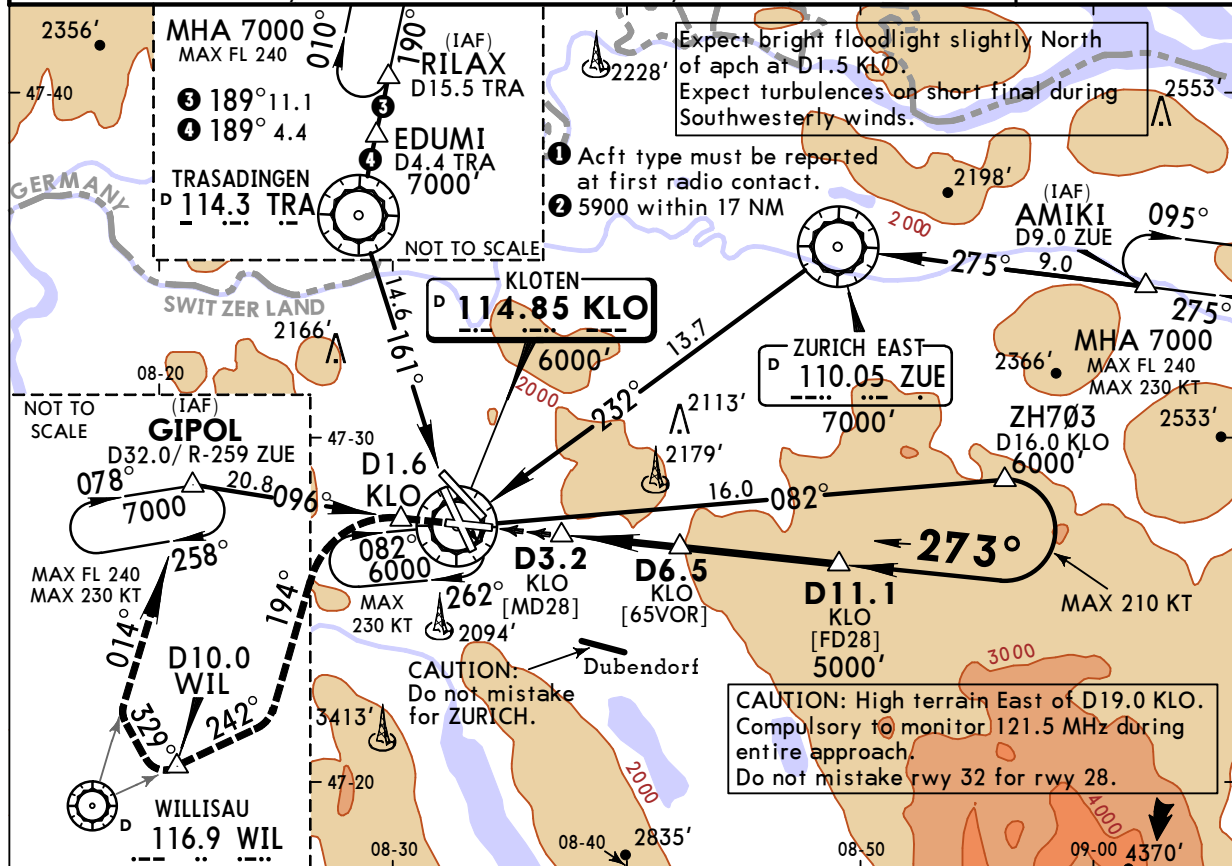
8 DEC 17

(13-2)

ZURICH, SWITZERLAND
VOR Rwy 28

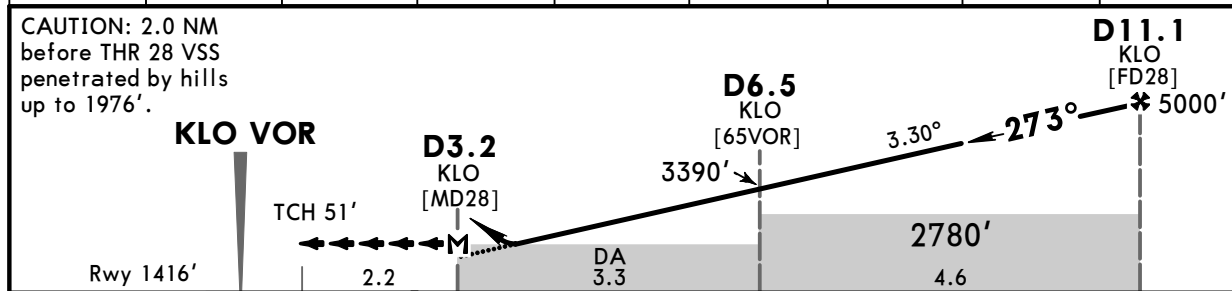
BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
VOR KLO 114.85	Final ApcH Crs 273°	Procedure Alt D11.1 KLO 5000' (3584')	DA/MDA(H) Refer to Minimums	Apt Elev 1417' Rwy 1416'
MISSED APCH: Initial climb clearance 4000'. Climb STRAIGHT AHEAD. At D1.6 KLO past the station turn LEFT (MAX 210 KT) onto 194°, then continue climb to 7000'. Intercept R-062 WIL inbound. At D10.0 WIL turn RIGHT onto 329° to intercept R-014 WIL. Proceed to GIPOL.				
Alt Set: hPa	Rwy Elev: 51 hPa	Trans level: By ATC	Trans alt: 7000'	MSA KLO VOR



KLO DME	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	2520'	2870'	3220'	3570'	3920'	4270'	4620'	4970'

CAUTION: 2.0 NM
before THR 28 VSS
penetrated by hills
up to 1976'.



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI	D1.6 after KLO
Descent Angle 3.30°	409	526	584	701	817	934		
MAP at D3.2 KLO								

Standard

STRAIGHT-IN LANDING RWY 28

CDFA

Missed apch climb gradient mim

4.0% ① DA/MDA(H) 2370' (954')	2.5% DA/MDA(H) 3070' (1654')
ALS out	ALS out

A		
B		
C	4300m	5000m
D		

① Climb gradient up to 4600'.

CHANGES: Communications.

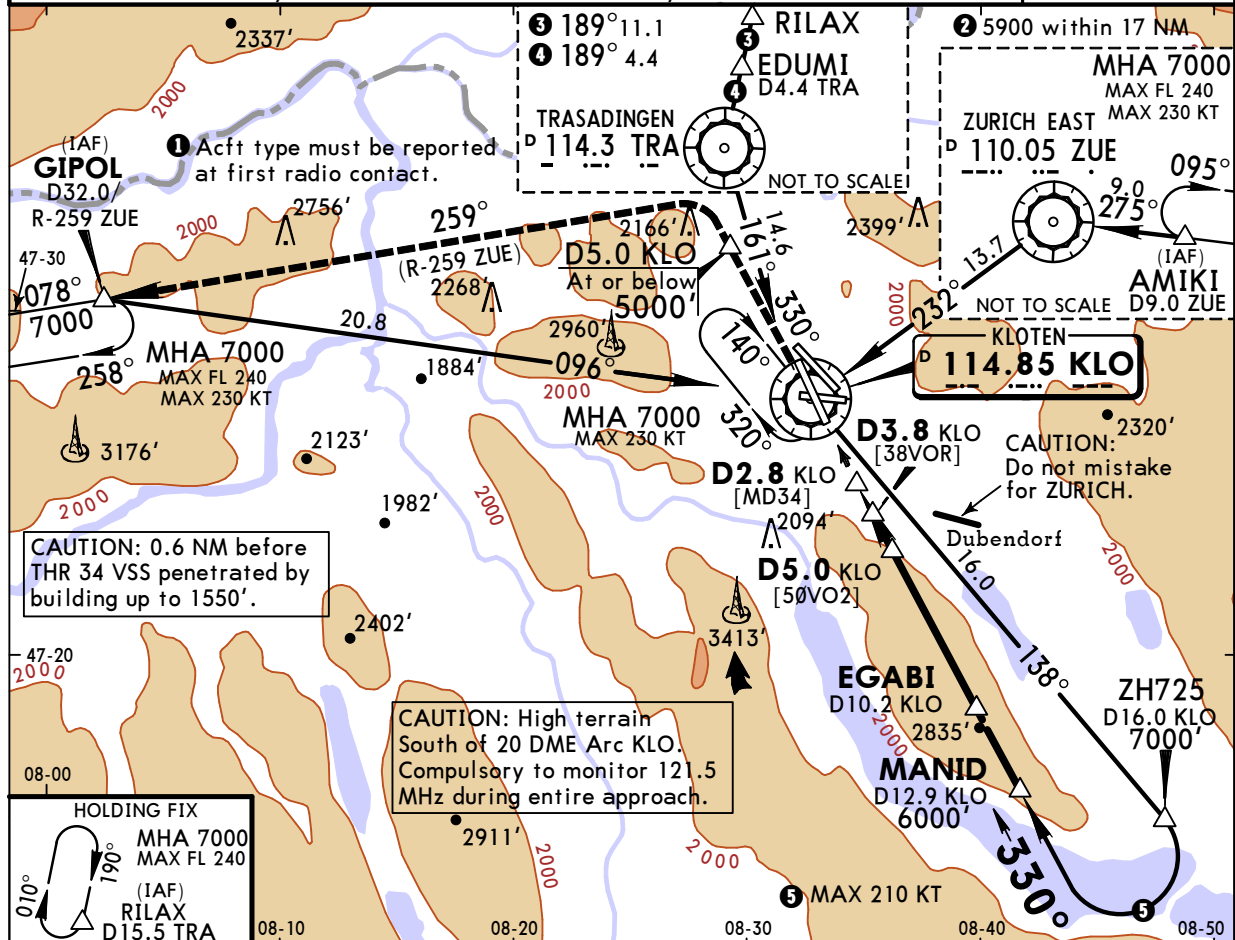
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PANS OPS

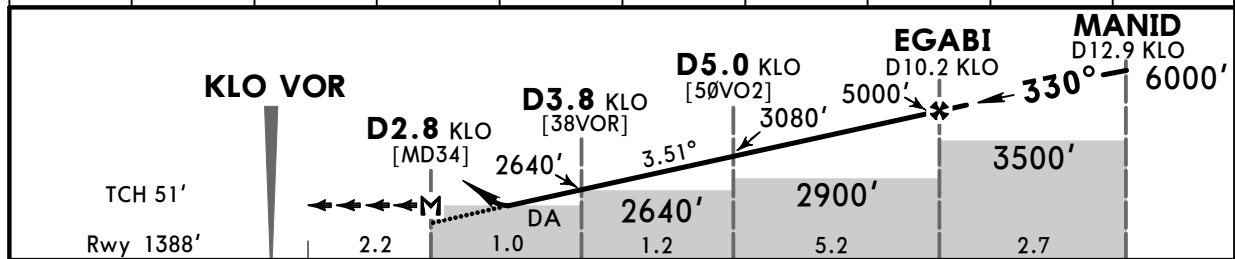
LSZH/ZRH
ZURICHJEPPesen
8 DEC 17 (13-3)ZURICH, SWITZERLAND
(GPS) VOR Rwy 34

BRIEFING STRIP™

D-ATIS Arrival 125.725	ZURICH Arrival (APP/R) ① 118.0 135.225	ZURICH Final (APP/R) by ATC 125.325	ZURICH Tower 118.1	Ground 121.9
VOR KLO 114.85	Final ApcH Crs 330°	Procedure Alt EGABI 5010' (3622')	DA/MDA(H) 2430' (1042')	Apt Elev 1417' Rwy 1388'
MISSED APCH: Initial climb to 5000'. Climb on R-150 inbound KLO VOR. Continue on R-330 KLO. At D5.0 KLO past the station turn LEFT (MAX 185 KT) to intercept R-259 ZUE. Continue climb to 7000'. Proceed to GIPOL.				
Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 7000'	MSA KLO VOR



KLO DME	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	2710'	3080'	3450'	3820'	4190'	4560'	4930'	5300'	5670'



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI D5.0 KLO
Descent Angle 3.51°	435	559	621	745	870	994	
MAP at D2.8 KLO							

Standard

STRAIGHT-IN LANDING RWY 34

CDFA

DA/MDA(H) **2430'** (1042')

ALS out

PANS OPS

A	RVR 1500m
B	
C	
D	RVR 2400m

CHANGES: Communications.

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EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN

10-1P

Eff 26 Apr

DUESSELDORF, GERMANY**AIRPORT BRIEFING**

1. GENERAL

1.1. ATIS

*D-ATIS 123.780

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. NIGHT FLYING RESTRICTIONS****Jet ACFT not licensed according to ICAO Annex 16**

Take-offs and landings are not permitted between 1900LT (1850LT off blocks)-0800LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 2

Take-offs and landings are not permitted between 1900LT (1850LT off blocks)-0800LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 not included in the Bonus List of the Federal Ministry of Transport and Digital Infrastructure

Scheduled take-offs and landings are not permitted between 2200LT (2150LT off blocks)-0600LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 included in the Bonus List of the Ministry of Transport and Digital Infrastructure

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services the Aviation Supervision (Luftaufsicht) may grant exceptional permission in individual cases until 2300LT (2250LT off blocks), if required to maintain the safety of flight operations or to avoid major disruptions in airline operations.
- Scheduled landings are not permitted between 2300-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330-0600LT.
- Delayed landings of ACFT which are operated in scheduled air services or scheduled charter services and owned by airlines that have their local maintenance facilities recognized by the approving authority at Duesseldorf APT are not permitted between 2400-0500LT. If a recognized local main maintenance facility is no longer operated, the approving authority may recognize Duesseldorf APT as the local main maintenance facility at the request of another airline.

Propeller ACFT

- Take-offs and landings are not permitted between 2200LT (2150LT off blocks) - 0600LT.
- Excepted are take-offs and landings of propeller ACFT with one of the following noise licenses: ICAO Annex 16, Volume I, Chapter 3, 4, 5, 6 or 10.

The following applies to propeller ACFT exceeding 9t MTOM:

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services, the Aviation Supervision (Luftaufsicht) may grant exceptional permission in individual cases until 2300LT (2250LT off blocks) if required to maintain the safety of flight operations or to avoid major disruptions in airline operations.
- Scheduled landings are not permitted between 2300LT-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330LT-0600LT.

EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN**10-1P1****Eff 26 Apr****DUESSELDORF, GERMANY****AIRPORT BRIEFING**

1. GENERAL

Excluded from the restrictions above are:

- Landings of ACFT provably approaching Duesseldorf APT as alternate aerodrome for meteorological, technical or other safety reasons.
- Take-offs and landings on a mission in disasters or rendering medical assistance as well as in other emergency cases; take-offs, however, only subject to individual permission by the Aviation Supervision (Luftaufsicht).
- Flight checks conducted by the DFS (Deutsche Flugsicherung GmbH)

Deviating from the above-mentioned regulations the "Bezirksregierung" Duesseldorf [Aviation Supervision (Luftaufsicht) at Duesseldorf APT] may grant additional exceptions in justified individual cases, especially if necessary to avoid considerable disturbance of air traffic or in cases of special public interest. If appropriate, applications shall be submitted to:

Luftaufsichtsstelle
Flughafen Duesseldorf
40474 Duesseldorf
Tel: +49-(0)211-4216364
Fax: +49-(0)211-4216493.

Clearance for take-offs during closing times issued by ATC do not comprise the necessary exceptional permission of the Aviation Supervision (Luftaufsicht) at Duesseldorf APT.

Exceptional permission for night landings during the closing times will not generally be granted by ATC via radio telephony. Accordingly, a landing clearance issued by ATC for safety reasons will not necessarily include the decision of the Aviation Supervision (Luftaufsicht) about the admissibility of a night landing.

In case of a delayed or premature landing (before 0500LT) not approved by the Aviation Supervision (Luftaufsicht) the pilot shall appear in person at the Aviation Supervision (Luftaufsicht) immediately after landing in order to justify the admissibility of the night landing.

1.2.2. REVERSE THRUST

Reverse thrust other than idle should not be used between 2200-0600LT except for safety reasons.

1.2.3. RUN-UP TESTS

Run-ups of turbo-powered engines are generally permitted only with the noise suppressor device specified in the APT regulations.

Between 2200-0600LT run-ups in the noise suppression facility may only be conducted if such a run-up serves to verify the safety of an ACFT and to comply with an existing flight plan.

For all turbo-propeller ACFT, engine test runs on the apron and the noise reduction hangar (hangar 9) are not allowed 2300-0400LT, due to environmental reasons.

1.2.4. AUXILIARY POWER UNITS (APU)

Between 2200-0600LT landing ACFT must switch off APU immediately after arriving at the parking position.

Departing ACFT may start the APU no earlier than 30 minutes before TOBT. Exceptions require the approval of duty traffic manager (Tel: +49-(0)211-421220).

1.3. RWY OPERATIONS

1.3.1. HIGH INTENSITY RWY OPERATIONS

1.3.1.1. USE OF RWYS

The northern RWY (05L/23R) may only be used 56 hours per week. These hours are determined in the preceding week and may only be changed in exceptional cases.

Take-offs are usually conducted on the southern RWY (05R/23L); landings on the northern RWY, if available, otherwise on the southern RWY.

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DUESSELDORF**JEPPESEN**
17 AUG 18 **(10-1P2)****DUESSELDORF, GERMANY**
AIRPORT BRIEFING

1. GENERAL

1.3.1.2. PARALLEL USE OF RWYS

If meteorological conditions permit, take-offs and landings may be conducted on both RWYs at the same time. If required, ATC will provide visual separation between departures and missed approaches as quickly as possible.

1.3.1.3. SPECIAL REQUESTS

If the northern RWY (05L/23R) is used for arrivals or departures, deviating requests for using the southern RWY (05R/23L) should only be made if this is required for safety reasons. Shortening the taxi time on the ground is not considered a compelling reason.

In addition, the special line-up (entering RWY 23L with a 270-degree Right turn) should only be requested if the take-off distance from L1 is not sufficient.

1.3.1.4. VACATING THE RWY

After landing, the RWY shall be vacated as fast as possible.

ACFT should cross the CAT I holding position rapidly and stop in front of the CAT II/III holding position. This point also serves as a holding position in front of TWY M.

1.3.1.5. READINESS FOR DEPARTURE AT THE RWY

ATC assumes that pilots are ready to taxi onto the departure RWY upon reaching the holding position and are ready to commence the take-off run immediately after receiving take-off clearance.

Pilots who are not ready for take-off upon reaching the RWY (when no other ACFT is in front of them) shall immediately inform ATC about this.

After receiving take-off clearance on the RWY, ATC expects the take-off run to be commenced within 10 seconds. Pilots who are unable to do so shall inform ATC before entering the RWY.

1.3.1.6. WAKE TURBULENCE SEPARATION

ATC will ensure wake turbulence separation between arriving and departing ACFT by means of radar while taking into account the prescribed separation minima.

Pilots who require larger distances, for example on the basis of a specific time interval, shall report this before entering the RWY.

1.4. TAXI PROCEDURES

1.4.1. GENERAL

B747-8 are only permitted to taxi on the apron under marshaller guidance.

Apron West MAX wingspan 102'/31m.

TWY G2 MAX wingspan 94'/28.5m.

TWY L3 only usable if stand V01 not occupied.

RWY 05R exit via TWY L2 not possible.

TWY L2 available for all ACFT except B777 and A340-600.

On TWYs L1 and L2, ACFT with wingspan up to 198'/60.3m can overtake each other. Wingtip clearance is reduced to 39'/12m.

On TWY M and on the apron in front of concourse B, there are two holding points named Checkpoints 1 and 2. These mark the boundary between the two sectors of ground control. The holding points are marked and equipped with yellow surface lights (clearance bars).

If necessary, ACFT are instructed to stop at a clearly specified clearance bar. Without this instruction, clearance bars may be passed without clearance.

Clearance bars will be replaced by red stop bars in weather conditions lower than CAT I minima. A lighted stop bar shall never be crossed.

TWY K and TWY L5 closed during CAT II and CAT III operations.

EDDL/DUS
DUESSELDORF**JEPPESEN**
17 AUG 18**10-1P3****DUESSELDORF, GERMANY**
AIRPORT BRIEFING

1. GENERAL

1.4.2. TAXIING ON APRON

ACFT are permitted to taxi only at the absolute minimum engine speed.

Within apron area between TWY L5 and P1 parallel taxiing for B747-400/B777/A330/A340 not possible.

Within apron area between TWY P1 and P4 parallel taxiing possible for A380 and A310, B757 and smaller ACFT.

Within apron area on taxilanes T, P4, L7, L8, W and Y wingtip clearance reduced to 25'/7.5m for B747-400, B777 and A330/340.

1.5. PARKING INFORMATION

Stands A01 thru A05, A09 thru A13, A15, A16, B01 thru B04, B06, B08 thru B11, C01 thru C08 and C02A, C03A equipped with SAFEGATE Docking Guidance System.

On stands C02 and C03 wingtip clearance for B747-400 may be reduced to 16'/5m.

Push-back required from all stands except from V01 and V61 thru V74.

Landing ACFT have to switch off Auxiliary Power Unit (APU) immediately after arriving at the parking position.

Departing ACFT may start the APU earliest 30 minutes before TOBT. Exceptions require the approval of the duty traffic manager.

1.6. OTHER

For APT Collaborative Decision Making (ACDM) see ATC pages Germany.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. ARRIVING ACFT

If possible, the landing gear should only be extended after passing 2000'.

2.2. CAT II/III OPERATIONS

RWYs 05R, 23L and 23R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. TAXI PROCEDURES

2.3.1. GENERAL

If the crew realises when taxiing into a nose-in ACFT stand with a docking guidance system that the latter system is switched off or out of order, the crew shall stop the ACFT immediately. Ground control shall be informed of the malfunctioning via radio. Taxiing may be continued according to the instruction given by ground control.

ACFT using TWY L8 vacating RWY 23L may not turn right into TWY M.

2.3.2. TAXI PROCEDURES FOR A380

For landing direction 23L, ACFT shall taxi via TWY L9, continue via TWY M and TWY P4 to position C02A.

For landing direction 05R, ACFT shall taxi via TWY L1, continue via TWY M and TWY P4 to position C02A.

Any other maneuvers may only be conducted under the guidance of a marshaller.

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DUESSELDORF**JEPPESEN**
17 NOV 17**10-1P4****DUESSELDORF, GERMANY**
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

De-icing areas are established at:

- DA-West (area near ACFT stands V61 thru V69) for take-off RWY 05L or 05R.
- DA-East (area near ACFT stands V01 thru V08) for take-off RWY 23L or 23R. At V11B for A380.

After de-icing has been completed contact DUESSELDORF Ground on last assigned frequency and report "ready to taxi".

3.1.2. COMMUNICATIONS

After parking the ACFT on the de-icing pad, the pilot will report flight number and ACFT type to DUESSELDORF De-icing

Pos.1: **130.080**, Pos.2: **130.455**, Pos.3: **130.605** or Pos.4: **130.855**
for the beginning of de-icing.

3.1.3. TAXIING

The ACFT will be guided by a Follow-me car to a vacant de-icing position.

Taxi lights have to be switched off in the meantime.

Taxiing manoeuvres shall be carried out with the absolute minimum number of engine revolutions required only.

3.2. TAXI PROCEDURES FOR A380

For take-offs from RWY 23L, ACFT shall taxi via P4, TWY M and TWY L1.

For take-offs from RWY 05R, ACFT shall taxi via P4, TWY M and L9.

Any other manoeuvres may only be conducted under the guidance of a marshaller.

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20 APR 18

JEPPesen DUESSELDORF, GERMANY

10-2

Eff 26 Apr**STAR**

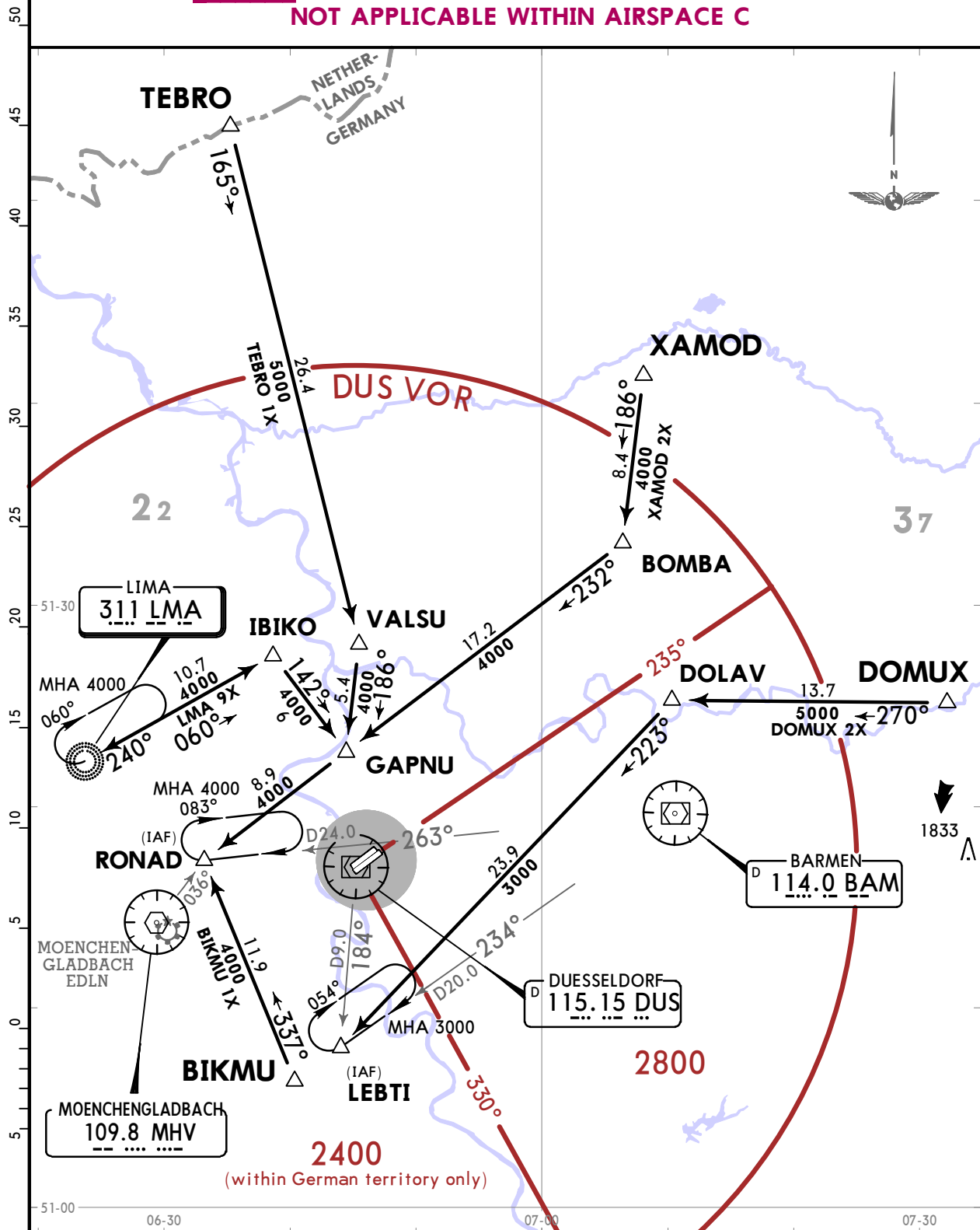
*D-ATIS
123.780

Apt Elev
147

Alt Set: hPa (IN on request)
Trans level: By ATC
B-RNAV equipment necessary.

BIKMU 1X [BIKM1X]
DOMUX 2X [DOMU2X]
LIMA 9X (LMA 9X) [LMA9X]
TEBRO 1X [TEBR1X]
XAMOD 2X [XAMO2X]
RWYS 05L/R ARRIVALS

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



CHANGES: ATIS.

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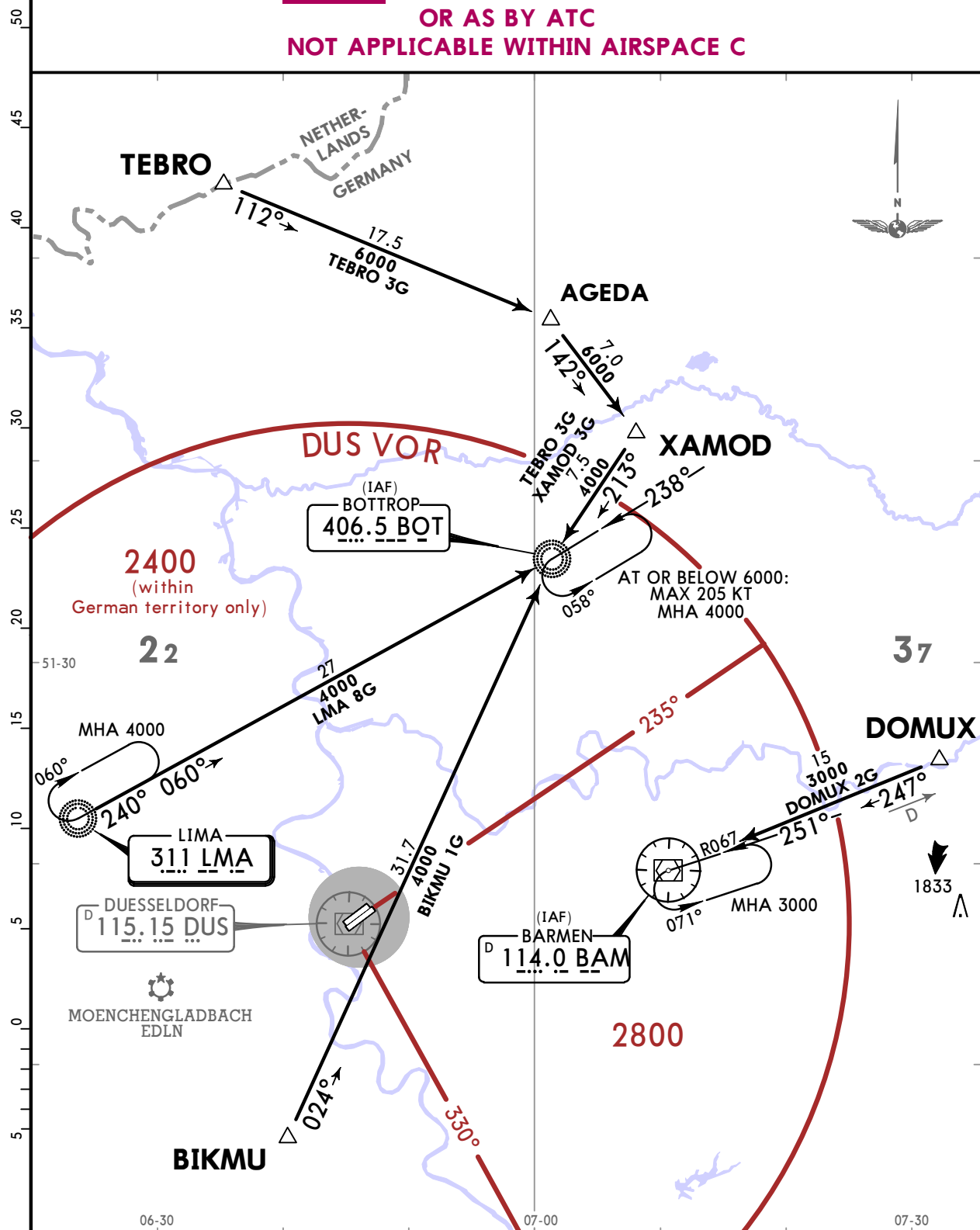
20 APR 18

JEPPESEN DUESSELDORF, GERMANY

(10-2A)

Eff 26 Apr

STAR

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC
BIKMU 1G, TEBRO 3G, XAMOD 3G: B-RNAV equipment necessary.BIKMU 1G [BIKM1G]
DOMUX 2G [DOMU2G]
LIMA 8G (LMA 8G) [LMA8G]
TEBRO 3G [TEBR3G]
XAMOD 3G [XAMO3G]
RWYS 23L/R ARRIVALS**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN DUESSELDORF, GERMANY

(10-2C)

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147

Alt Set: hPa (IN on request)

Trans level: By ATC

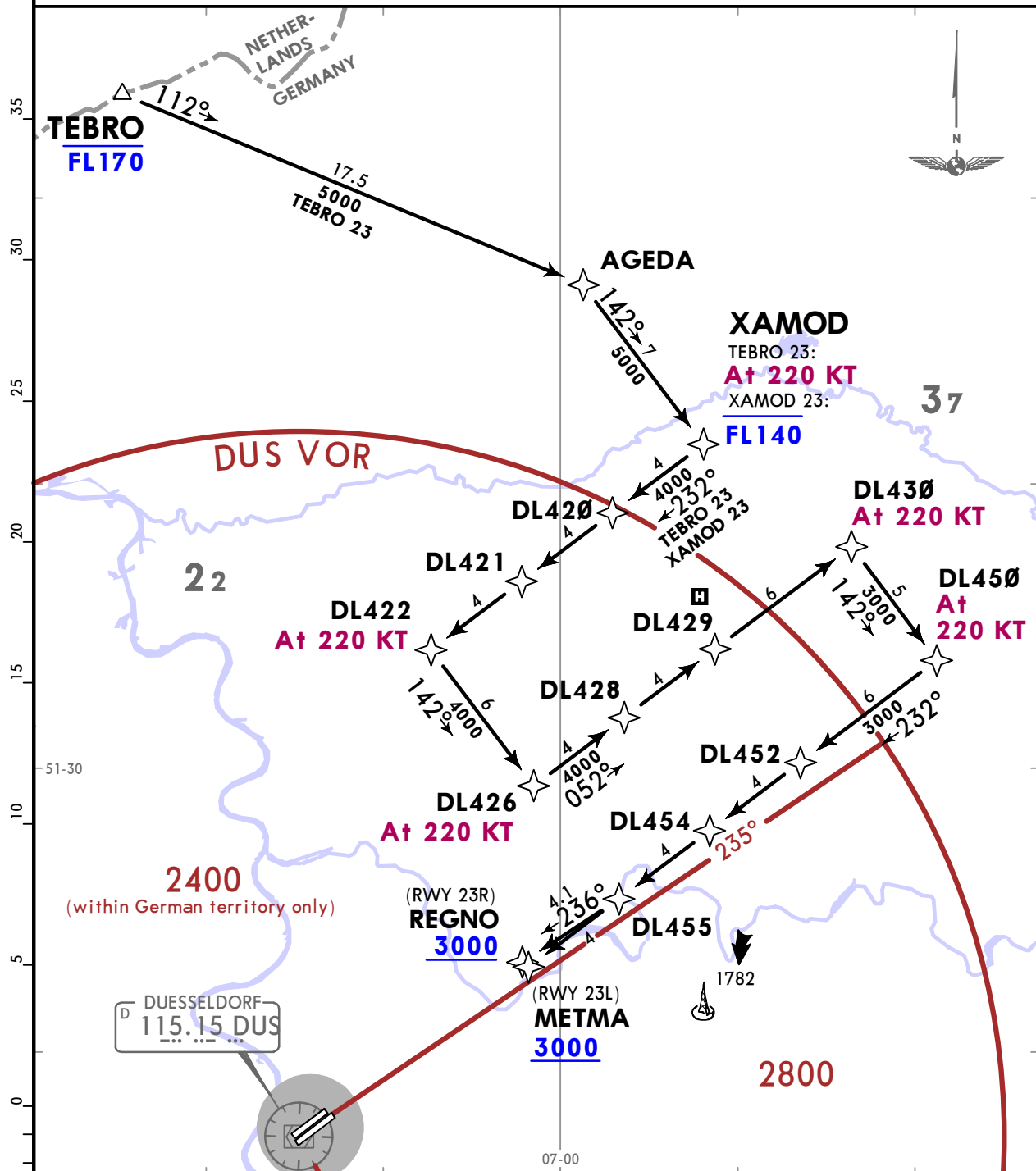
1. On downwind EXPECT vectors to final. 2. Speed limits are MANDATORY from the respective waypoint throughout the entire transition route unless cancelled by ATC. 3. Altitude assignments will be issued by ATC.

TEBRO 23 [TEB23], XAMOD 23 [XAM23]

RWYS 23L/R RNAV TRANSITIONS

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC**NOT APPLICABLE WITHIN AIRSPACE C**

TRANSITION

ROUTING

TEBRO 23

TEBRO (FL170-) - AGEDA - XAMOD (K220) - DL422 (K220) - DL426 (K220) - DL430 (K220) - DL450 (K220) - DL455 - METMA (23L; 3000+) / REGNO (23R ①; 3000+).

XAMOD 23

XAMOD (FL140-) - DL422 (K220) - DL426 (K220) - DL430 (K220) - DL450 (K220) - DL455 - METMA (23L; 3000+) / REGNO (23R ①; 3000+).

① Valid for LOST COMM situation.

HOLDING

OVER DL429

MHA 4000
FL70 By ATC

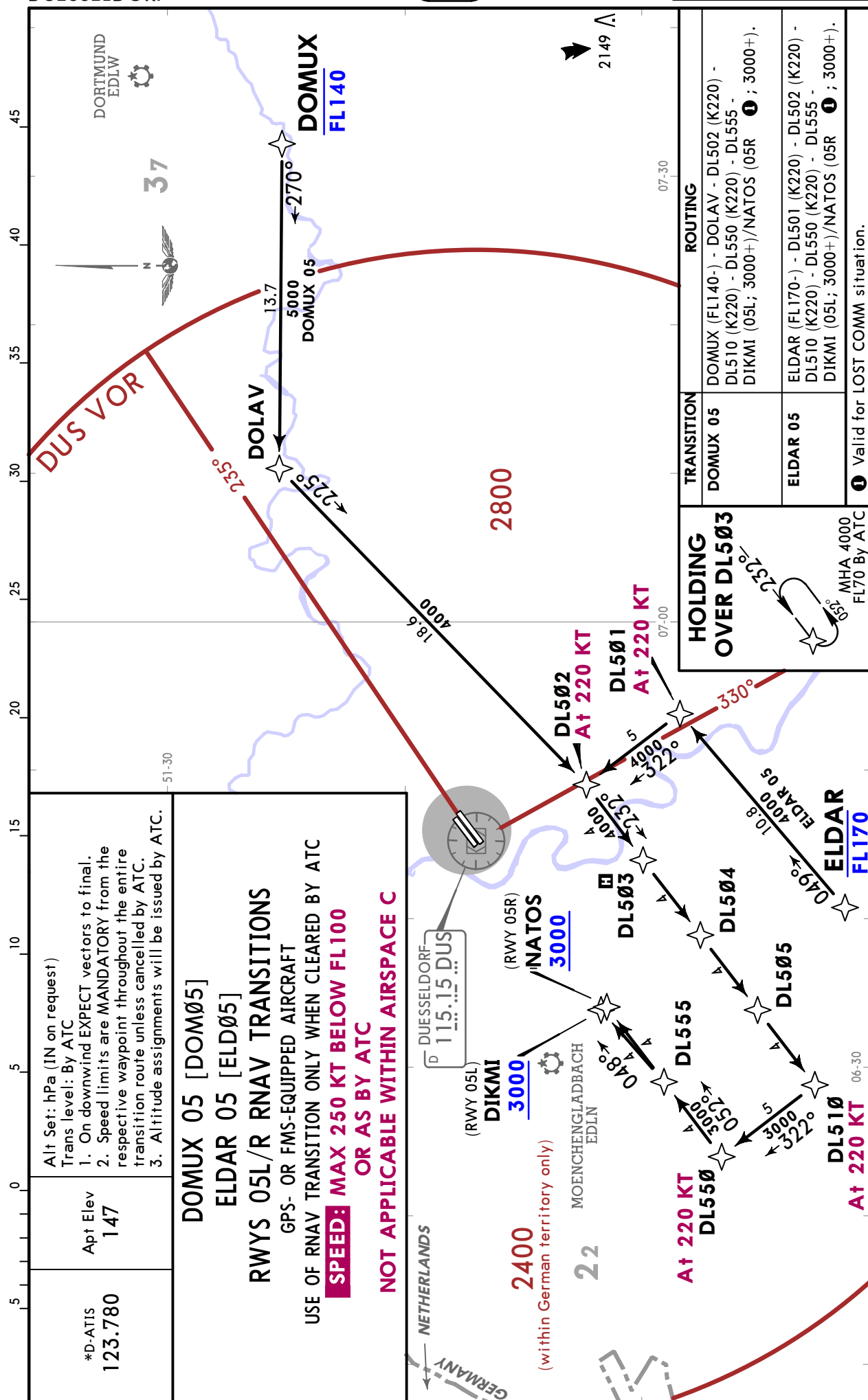
EDDL/DUS
DUESSELDORF

24 AUG 18

10-2D

DUESSELDORF, GERMANY

RNAV TRANSITION



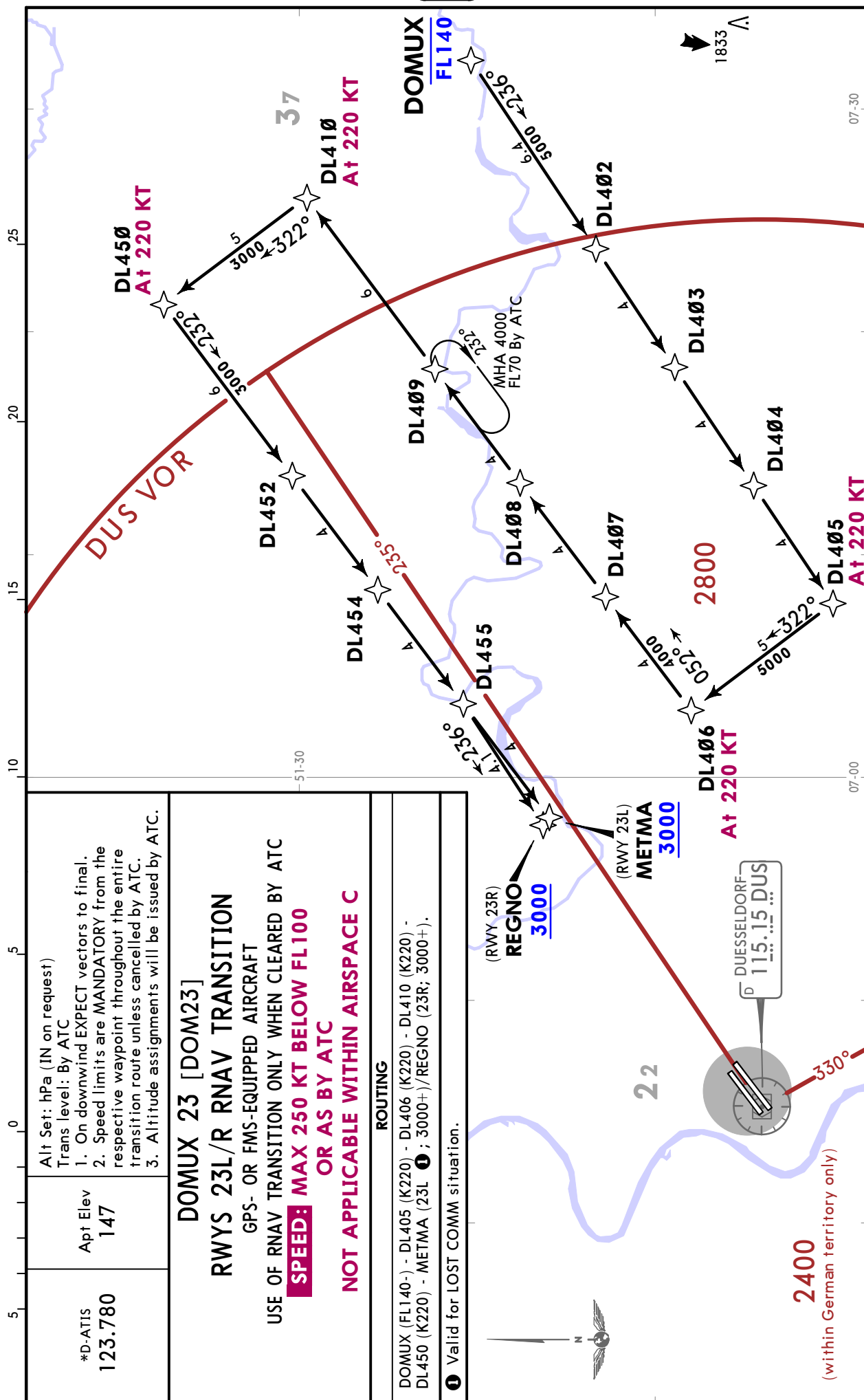
EDDL/DUS
DUESSELDORF

24 AUG 18

10-2E

DUESSELDORF, GERMANY

RNAV TRANSITION



EDDL/DUS
DUESSELDORF

20 APR 18

(10-2F)

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147

Alt Set: hPa (IN on request)

Trans level: By ATC

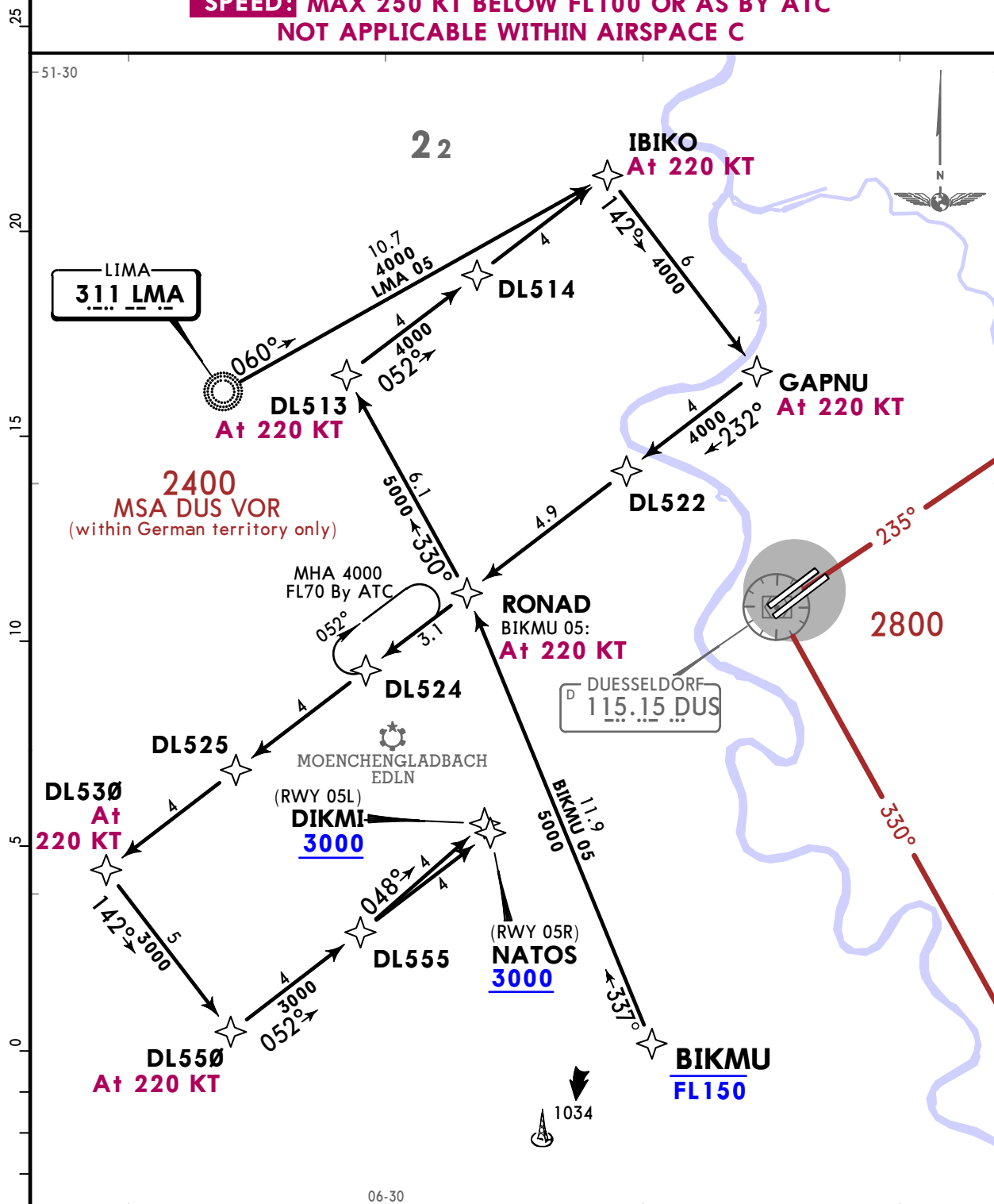
1. On downwind EXPECT vectors to final. 2. Speed limits are MANDATORY from the respective waypoint throughout the entire transition route unless cancelled by ATC. 3. Altitude assignments will be issued by ATC.

BIKMU 05 [BIK05], LMA 05 [LMA05]

RWYS 05L/R RNAV TRANSITIONS

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TRANSITION

ROUTING

BIKMU 05

BIKMU (FL150-) - RONAD (K220) - DL513 (K220) - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ① ; 3000+)/ NATOS (05R; 3000+).

LMA 05

LMA - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ① ; 3000+)/ NATOS (05R; 3000+).

① Valid for LOST COMM situation.

EDDL/DUS
DUESSELDORF

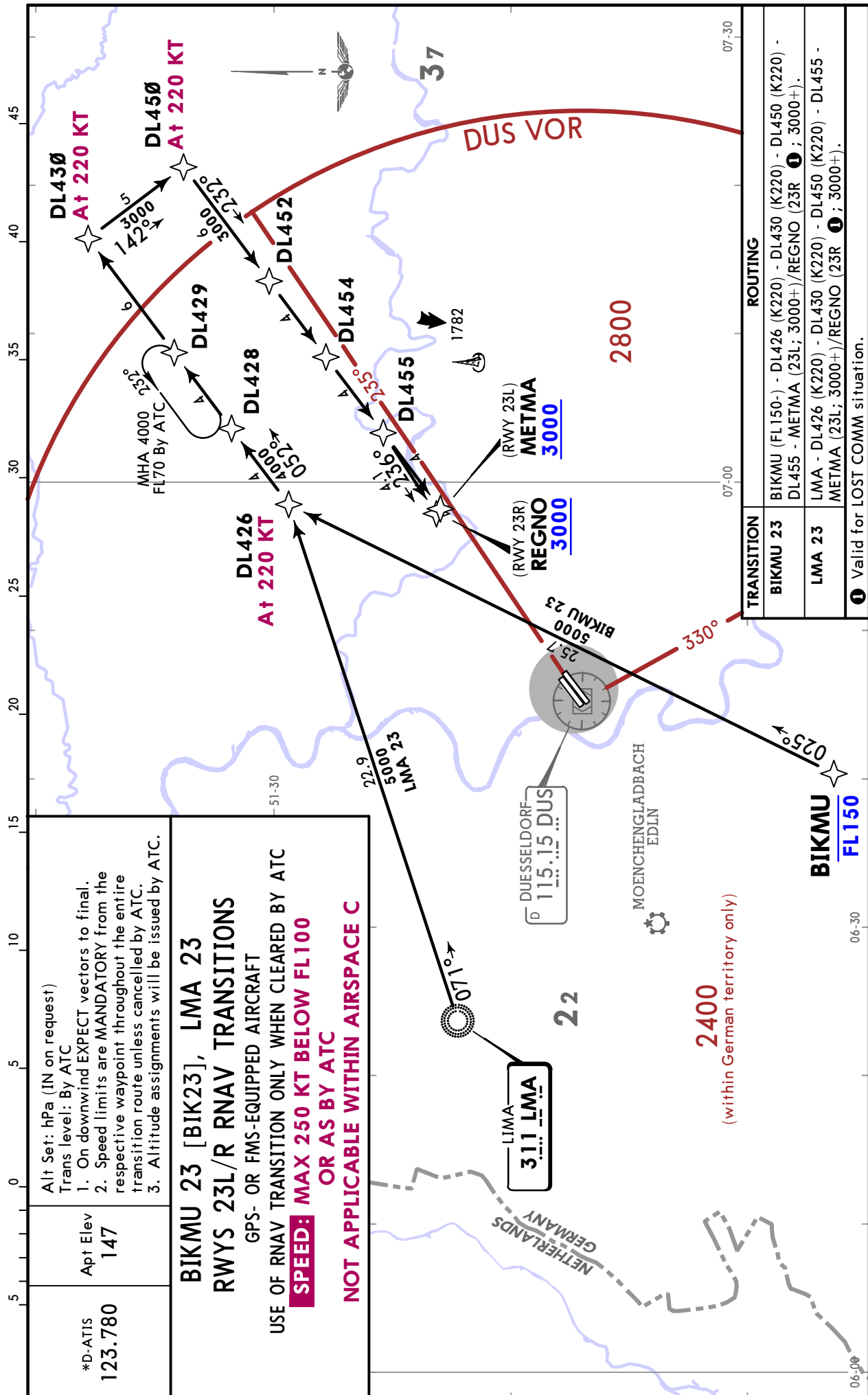
20 APR 18

10-2G

Eff 26 Apr

JEPPESSEN DUESSELDORF, GERMANY

RNAV TRANSITION



EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN

DUESSELDORF, GERMANY

10-2H

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

DISIP 1A [DISI1A]

DISIP 1B [DISI1B]

EKDUS 1A [EKDU1A]

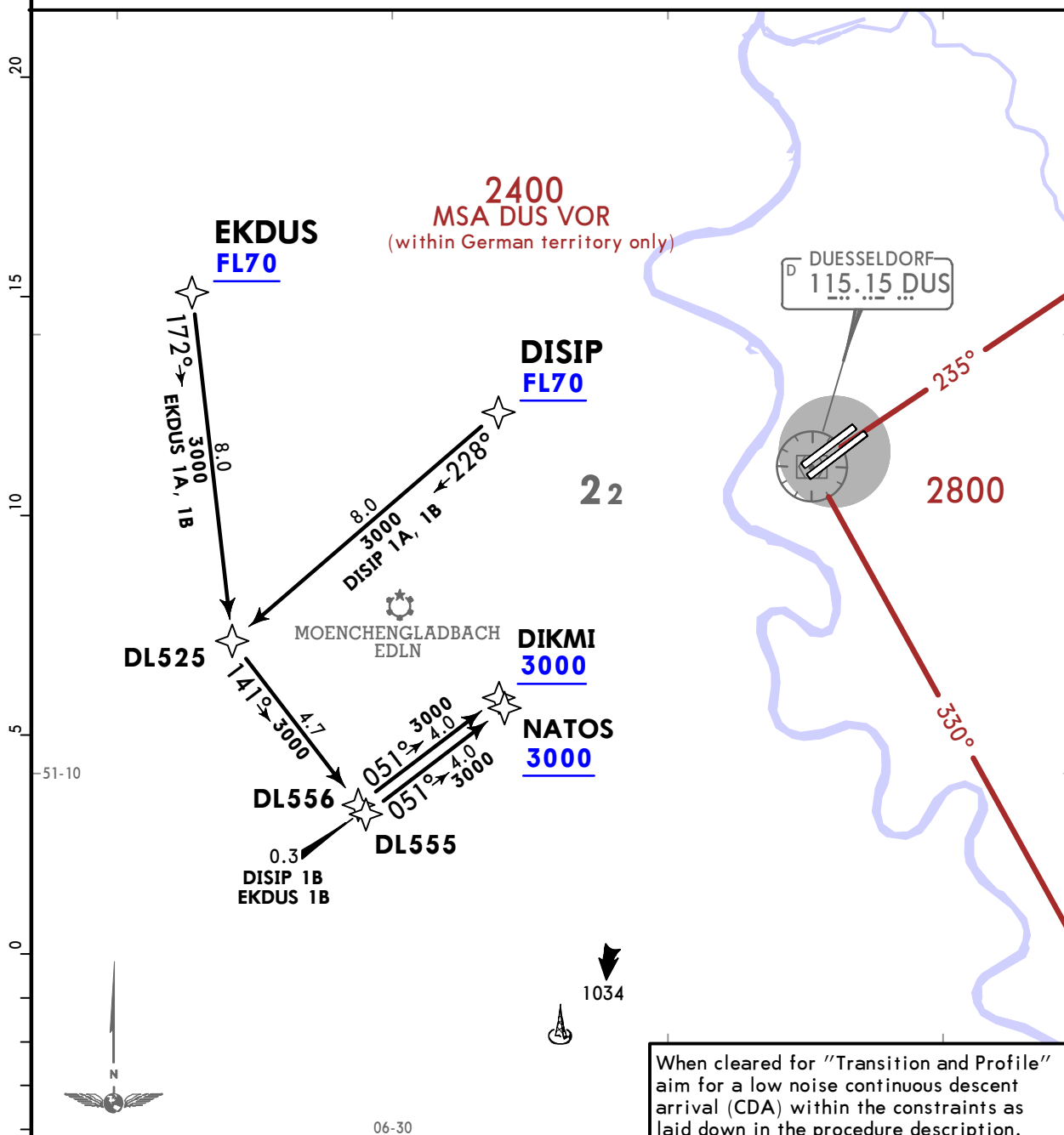
EKDUS 1B [EKDU1B]

RWYS 05L/R RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

**SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

TRANSITION	RWY	ROUTING
DISIP 1A	05L	DISIP (FL70+) - DL525 - DL556 - DIKMI (3000+).
DISIP 1B	05R	DISIP (FL70+) - DL525 - DL555 - NATOS (3000+).
EKDUS 1A	05L	EKDUS (FL70+) - DL525 - DL556 - DIKMI (3000+).
EKDUS 1B	05R	EKDUS (FL70+) - DL525 - DL555 - NATOS (3000+).

EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN

DUESSELDORF, GERMANY

(10-2J)

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

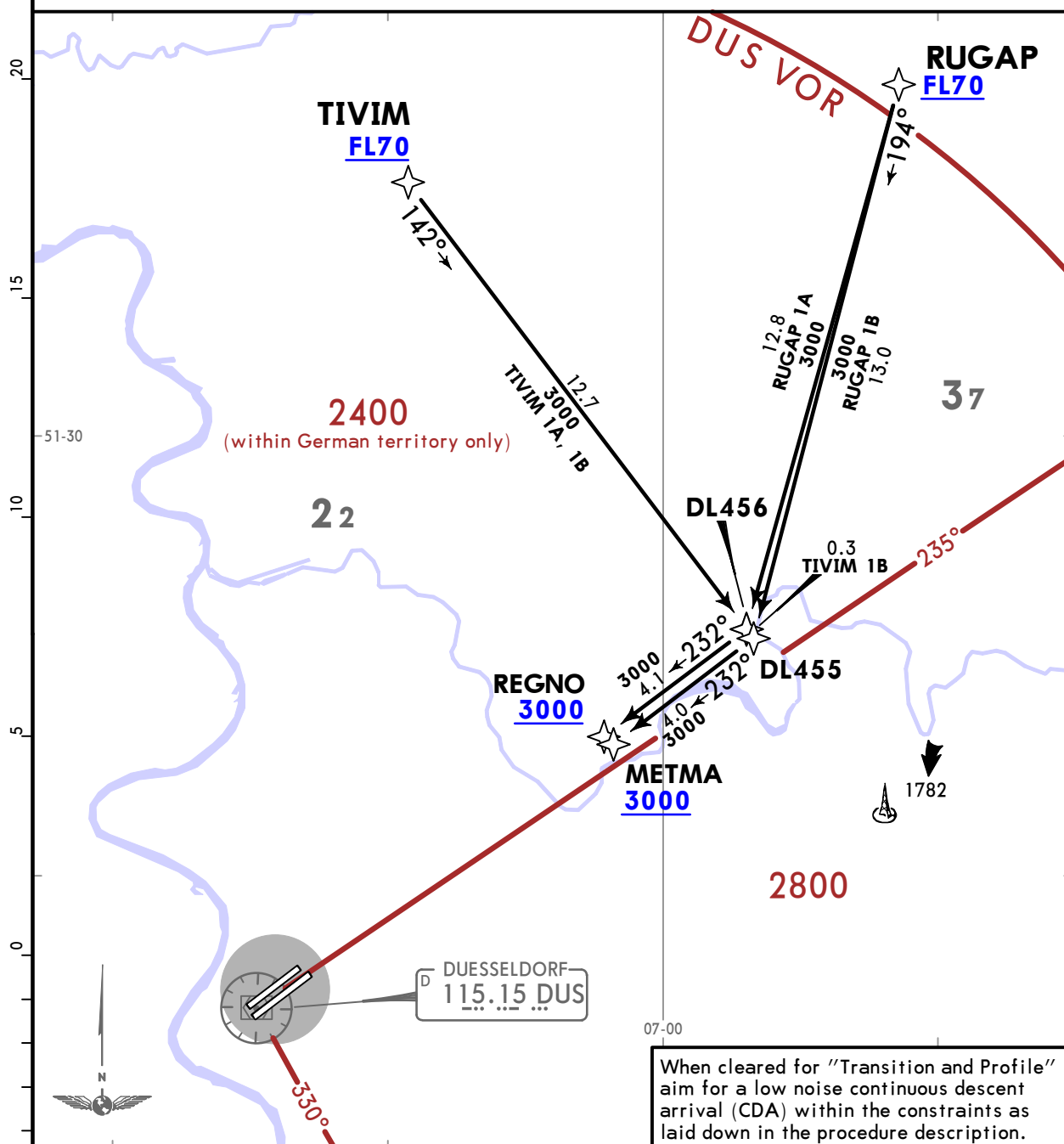
RUGAP 1A [RUGA1A]
RUGAP 1B [RUGA1B]
TIVIM 1A [TIVI1A]
TIVIM 1B [TIVI1B]
RWYS 23R/L RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



When cleared for "Transition and Profile" aim for a low noise continuous descent arrival (CDA) within the constraints as laid down in the procedure description.

EDDL/DUS
DUESSELDORF

20 APR 18



JEPPESEN

DUESSELDORF, GERMANY

10-2K

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

ABIGI 1A [ABIG1A]
 ABIGI 1B [ABIG1B]
 BABUV 1A [BABU1A]
 BABUV 1B [BABU1B]
 RWYS 05L/R RNAV TRANSITIONS (CDA)
 GPS- OR FMS-EQUIPPED AIRCRAFT
 USE OF RNAV TRANSITION ONLY
 WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

25

20

15

10

51-10

5

5

2400
MSA DUS VOR
(within German territory only)

MOENCHENGLADBACH
EDLN

22

DIKMI
3000

NATOS
3000

BABUV
FL70

ABIGI
FL70

ABIGI 1A
BABUV 1A

DL556

DL555

DL505

1034



06-30

When cleared for "Transition and Profile"
aim for a low noise continuous descent
arrival (CDA) within the constraints as
laid down in the procedure description.

TRANSITION

RWY

ROUTING

ABIGI 1A

05L

ABIGI (FL70+) - DL505 - DL556 - DIKMI (3000+).

ABIGI 1B

05R

ABIGI (FL70+) - DL505 - DL555 - NATOS (3000+).

BABUV 1A

05L

BABUV (FL70+) - DL505 - DL556 - DIKMI (3000+).

BABUV 1B

05R

BABUV (FL70+) - DL505 - DL555 - NATOS (3000+).

EDDL/DUS
DUESSELDORF

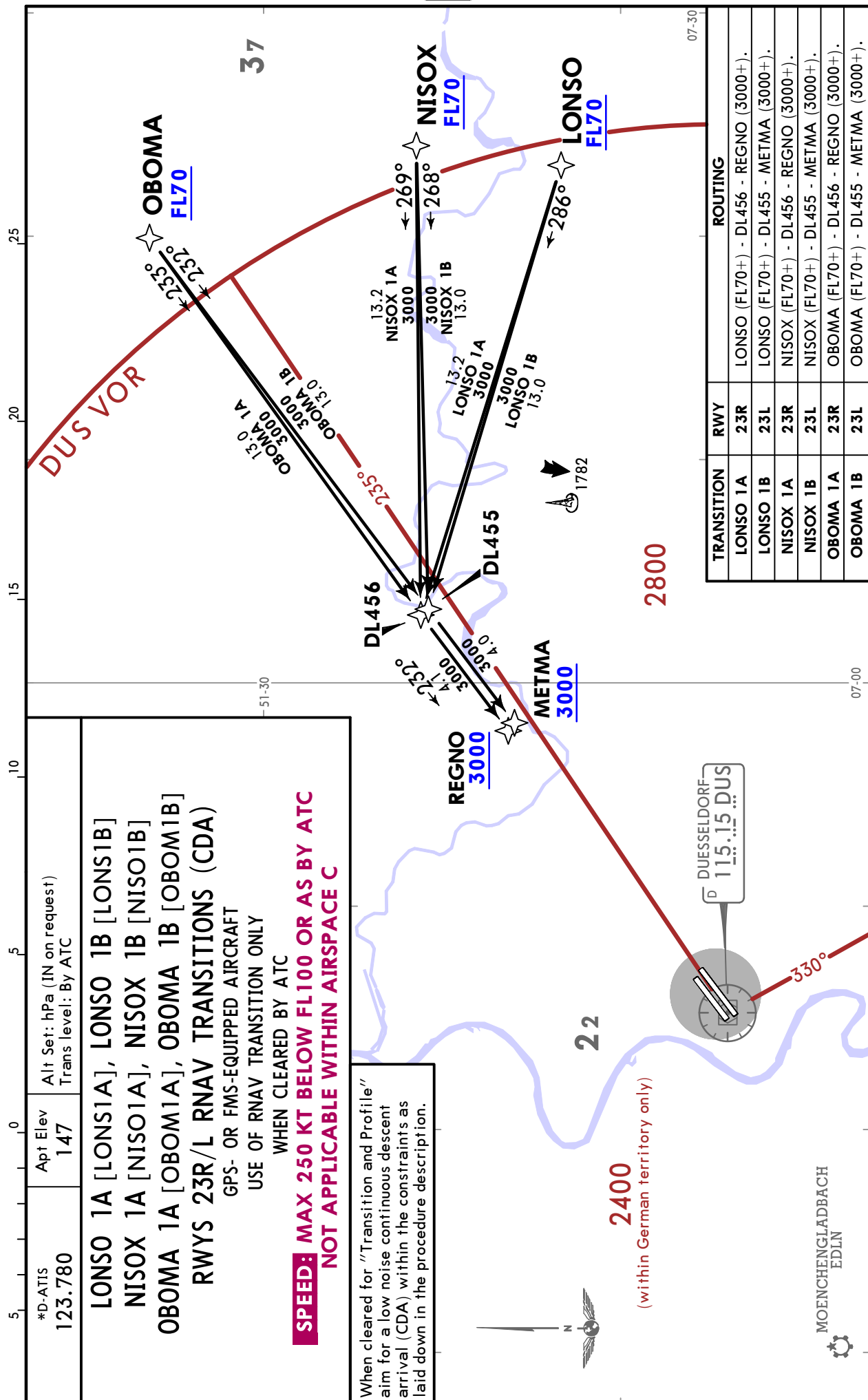
20 APR 18

JEPPESEN

DUESSELDORF, GERMANY

Eff 26 Apr

RNAV TRANSITION



EDDL/DUS
DUESSELDORF

20 APR 18

**JEPPESEN**

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780

Apt Elev
147

Alt Set: hPa (IN on request)
Trans level: By ATC

GOGOG 1A [GOGO1A]

GOGOG 1B [GOGOG 1B]

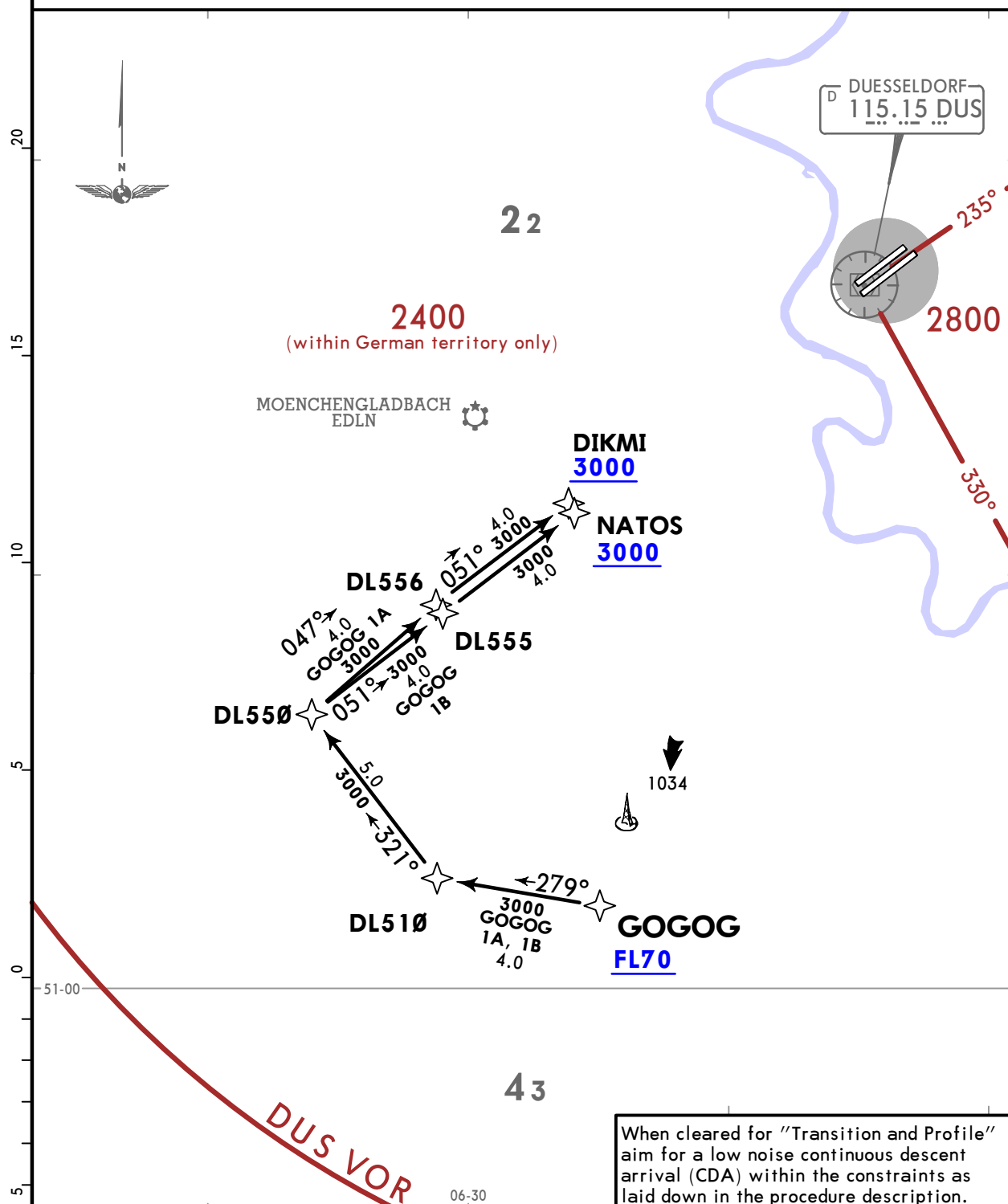
RWYS 05L/R RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



TRANSITION	RWY	ROUTING
GOGOG 1A	05L	GOGOG (FL70+) - DL510 - DL550 - DL556 - DIKMI (3000+).
GOGOG 1B	05R	GOGOG (FL70+) - DL510 - DL550 - DL555 - NATOS (3000+).

CHANGES: ATIS.

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EDDL/DUS
DUESSELDORF

20 APR 18

**JEPPESEN**

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780

Apt Elev
147

Alt Set: hPa (IN on request)
Trans level: By ATC

IBIXI 1A [IBIX1A]

IBIXI 1B [IBIX1B]

UNDOG 1A [UNDO1A]

UNDOG 1B [UNDO1B]

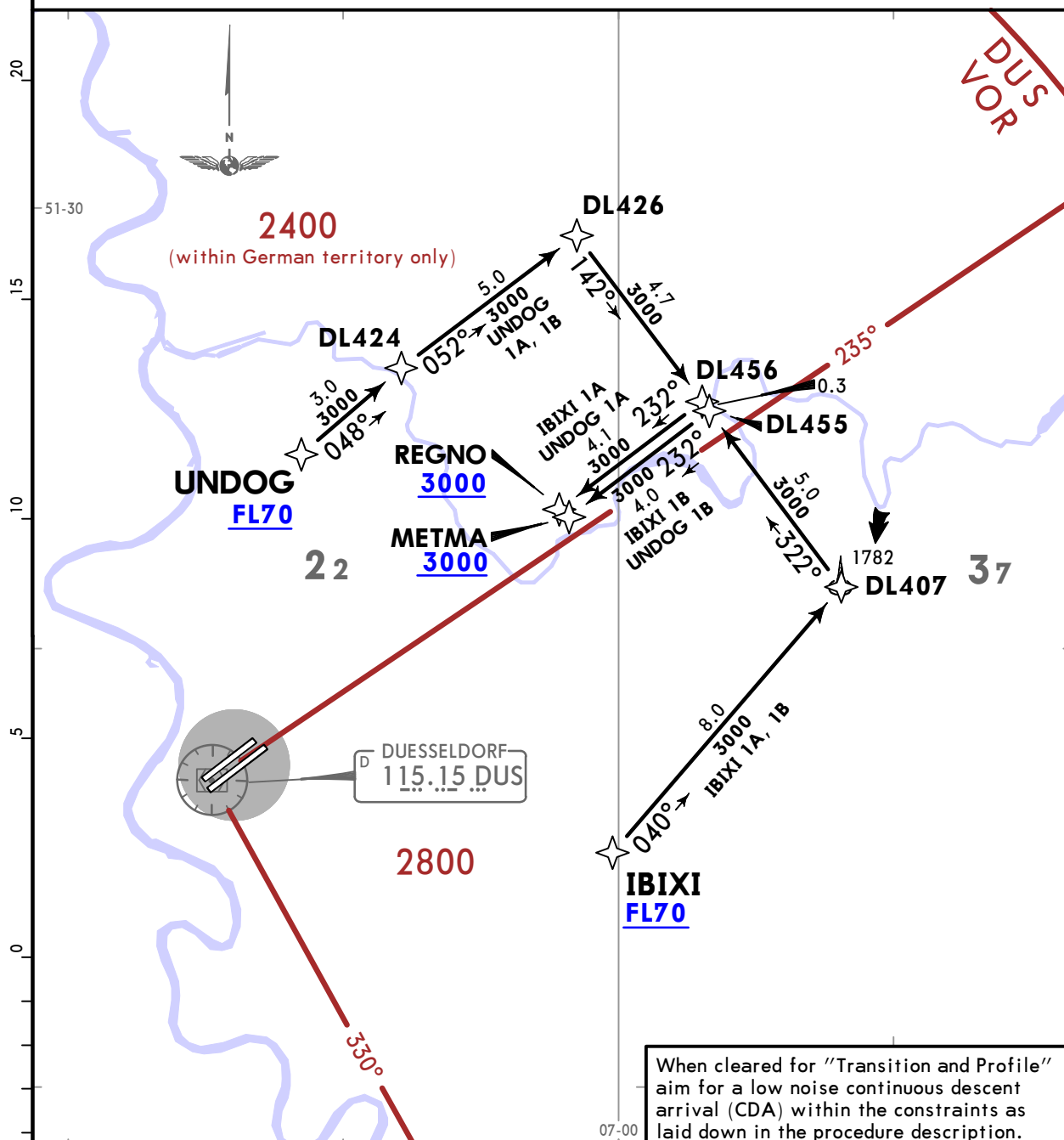
RWYS 23R/L RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

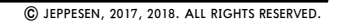
USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

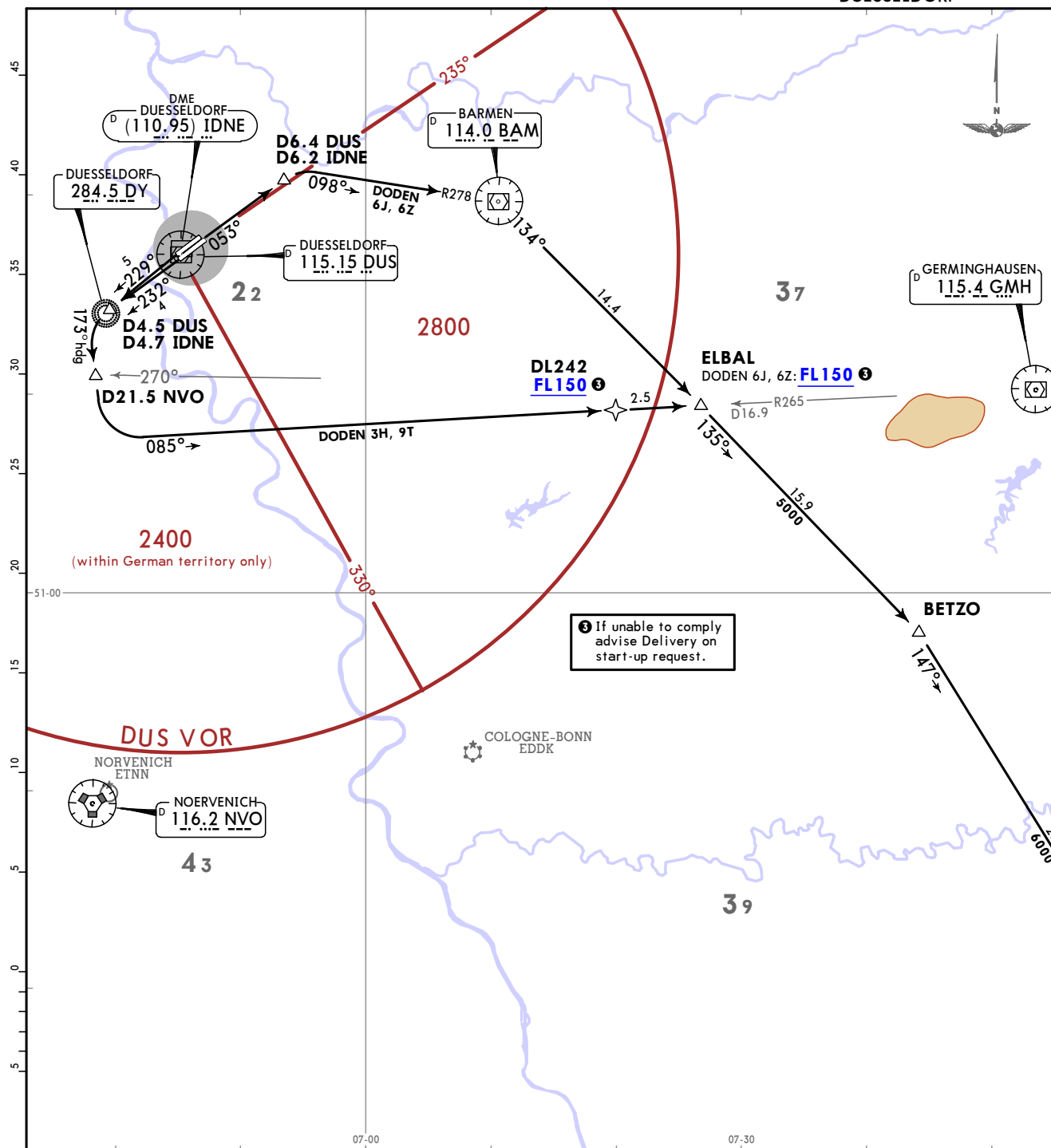


TRANSITION	RWY	ROUTING
IBIXI 1A	23R	IBIXI (FL70+) - DL407 - DL456 - REGNO (3000+).
IBIXI 1B	23L	IBIXI (FL70+) - DL407 - DL455 - METMA (3000+).
UNDOG 1A	23R	UNDOG (FL70+) - DL424 - DL426 - DL456 - REGNO (3000+).
UNDOG 1B	23L	UNDOG (FL70+) - DL424 - DL426 - DL455 - METMA (3000+).

SID

EDDL/DUS
DUESSELDORF

JEPPESSEN DUESSELDORF, GERMANY
26 JAN 18 (10-3A) Eff 1 Feb
SID



*LANGEN Radar (APP) 121.350	Apt Elev 147	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
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**DODEN 3H, DODEN 6J
DODEN 9T, DODEN 6Z
DEPARTURES**
ONLY FOR JET FLIGHTS WITH REQUESTED FL250 OR ABOVE
**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

These SIDs require minimum climb gradients
of

DODEN 3H, 9T
425 per NM (7%) until passing 3000 due to
airspace structure.
If unable to comply advise Delivery on start-up
request.

DODEN 6J, 6Z
260 per NM (4.3%) until passing 3200 due to
MVA.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
425 per NM	531	708	1063	1417	1771	2125

Initial climb clearance 5000

SID	RWY	ROUTING
DODEN 3H	23R	Intercept 229° bearing (Rwy 23R)/232° (Rwy 23L) bearing towards DY, at D4.5 DUS/D4.7 IDNE turn LEFT, 173° heading to D21.5 NVO ①, turn LEFT, intercept GMH R265 inbound via DL242 to ELBAL, turn RIGHT, 135° track to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 9T	23L	
DODEN 6J	05L	Intercept DUS R053 to D6.4 DUS/D6.2 IDNE, turn RIGHT, intercept BAM R278 inbound to BAM, turn RIGHT, BAM R134 to ELBAL, 135° track to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 6Z	05R	

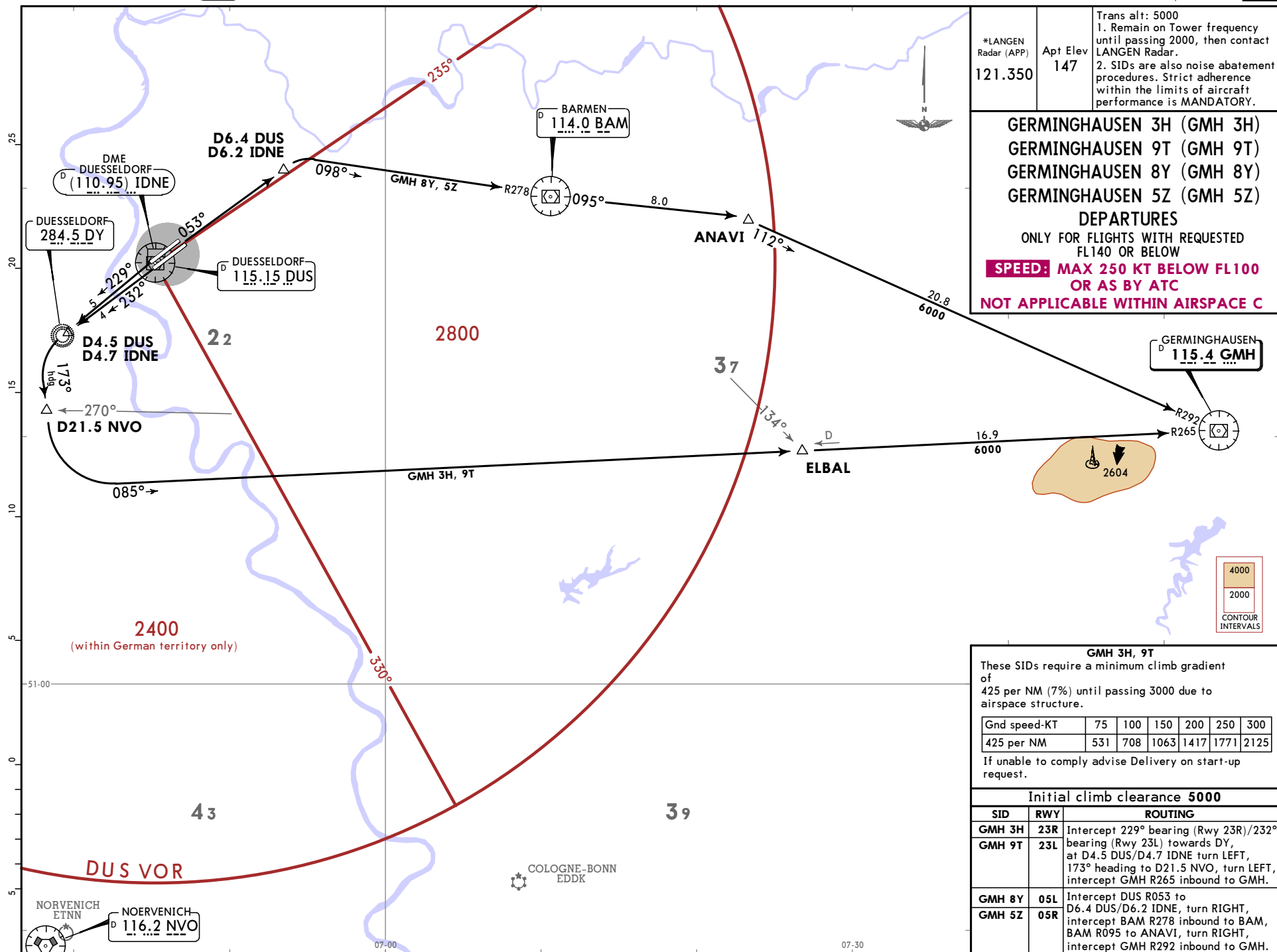
BRNAV equipment necessary after: ① D21.5 NVO/ ② passing 3200.

Flights unable to cross
DODEN at or above FL250
shall file KUMIK SIDs.

EDDL/DUS
DUESSELDORF 26 JAN 18 (10-3B) Eff 1 Feb

DUESSELDORF, GERMANY

SID



CHANGES: SIDs renumbered & revised.

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EDDL/DUS
DUESSELDORF

JEPPESEN DUESSELDORF, GERMANY
26 JAN 18 (10-3C)
Eff 1 Feb
SID

Normally not available for flights above FL250
via BOMB1, except Prop/Turbo Prop aircraft.

*LANGEN
Radar (APP)
121.350

Apt Elev
147

Trans alt: 5000
1. Remain on Tower frequency until passing 2000,
then contact LANGEN Radar.
2. SIDs are also noise abatement procedures.
Strict adherence within the limits
of aircraft performance is MANDATORY.

KUMIK 3H, KUMIK 4J, KUMIK 6T, KUMIK 4Z

DEPARTURES

ONLY FOR FLIGHTS WITH REQUESTED FL150 OR ABOVE

SPEED: MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

These SIDs require minimum climb gradients
of

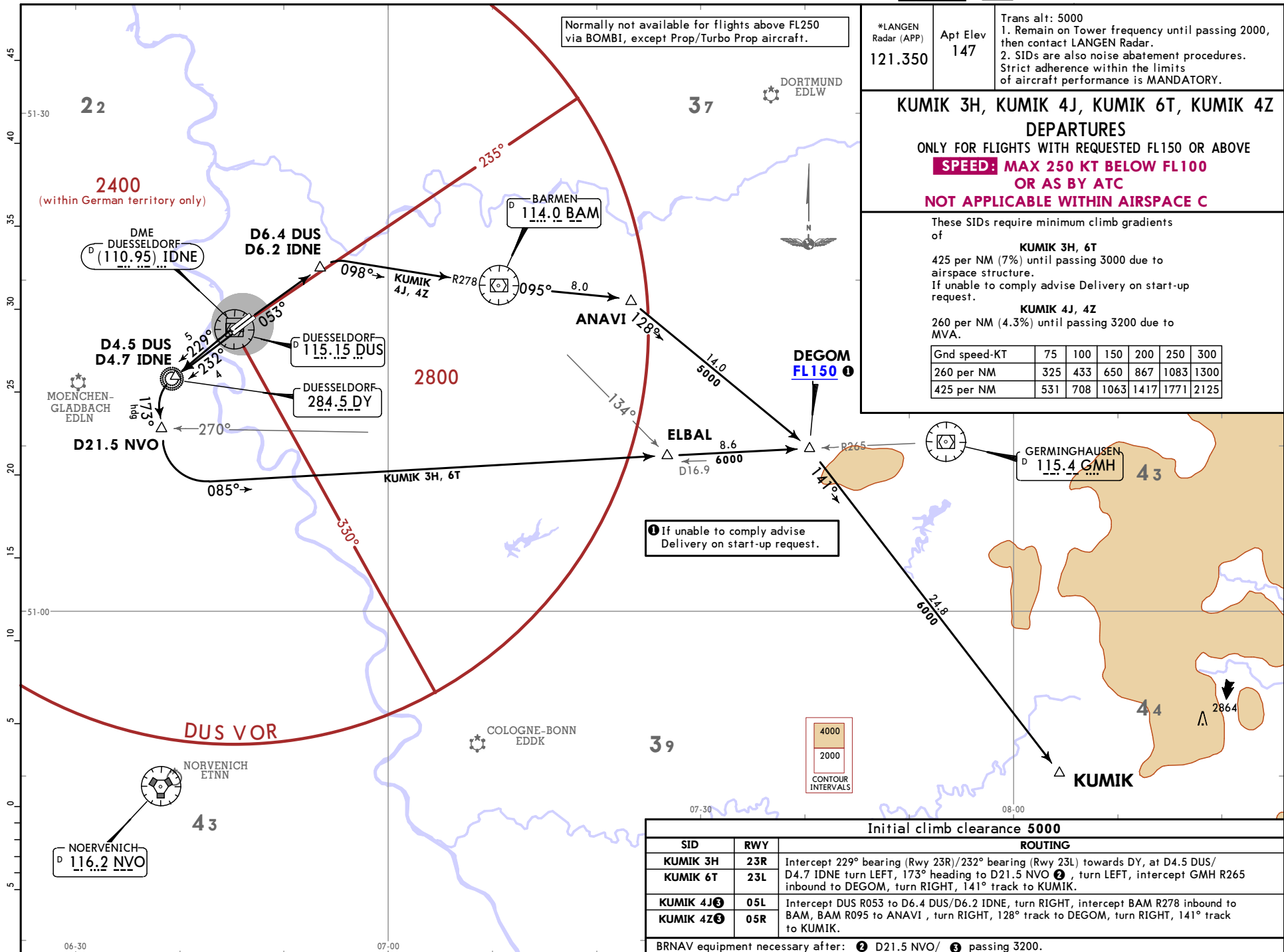
KUMIK 3H, 6T

425 per NM (7%) until passing 3000 due to
airspace structure.
If unable to comply advise Delivery on start-up
request.

KUMIK 4J, 4Z

260 per NM (4.3%) until passing 3200 due to
MVA.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
425 per NM	531	708	1063	1417	1771	2125



EDDL/DUS
DUESSELDORF

16 FEB 18

(10-3D)

JEPPESEN DUESSELDORF, GERMANY

SID

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

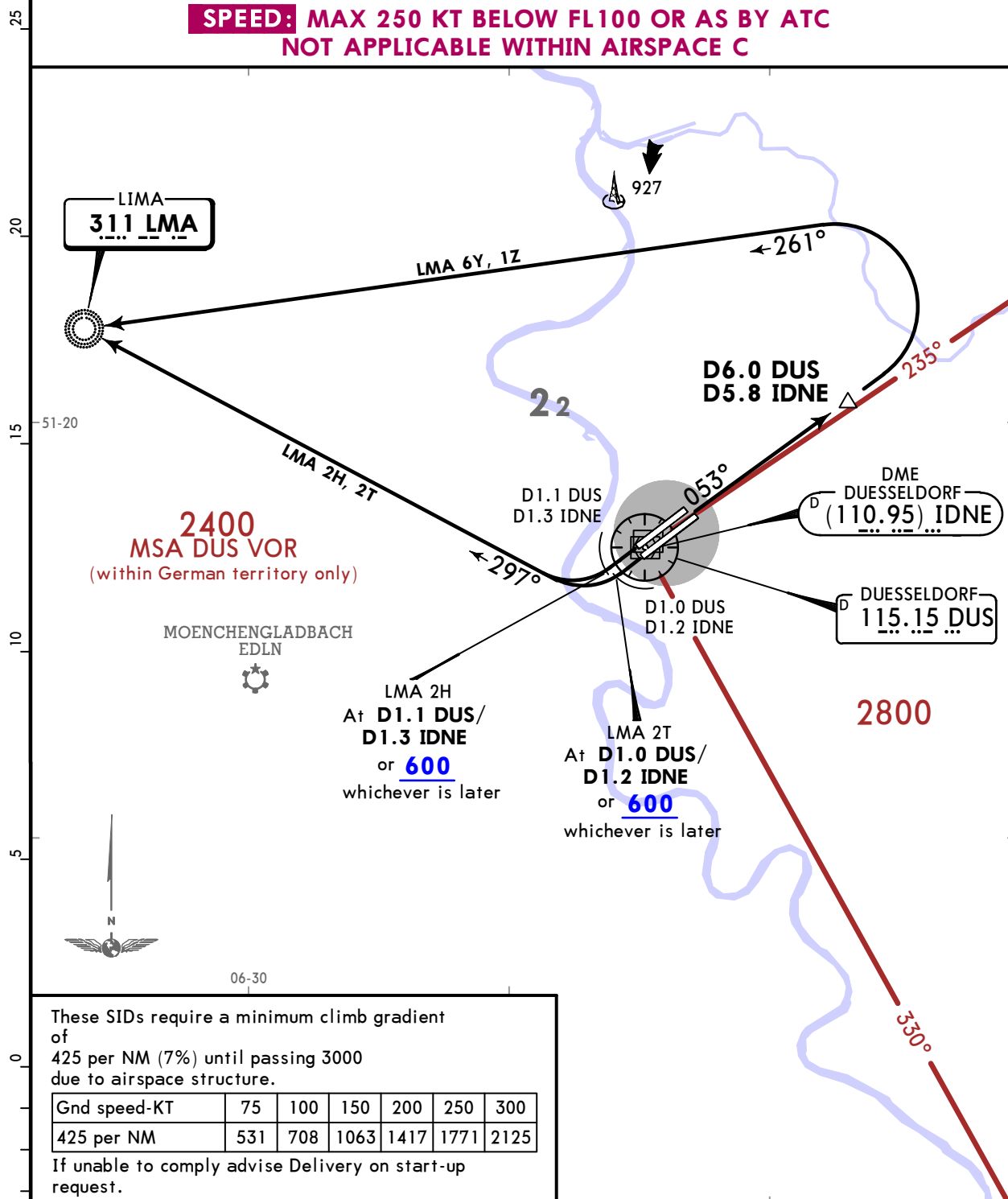
1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

LIMA 2H (LMA 2H), LIMA 2T (LMA 2T)
LIMA 6Y (LMA 6Y), LIMA 1Z (LMA 1Z)

DEPARTURES

ONLY FOR FLIGHTS TO EDLN

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
LMA 2H	23R	Climb on runway track to D1.1 DUS/D1.3 IDNE (Rwy 23R)/ D1.0 DUS/D1.2 IDNE (Rwy 23L) or 600, whichever is later, turn RIGHT, intercept 297° bearing to LMA.
LMA 2T	23L	
LMA 6Y	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, intercept 261° bearing to LMA.
LMA 1Z	05R	

EDDL/DUS
DUESSELDORF

16 FEB 18

(10-3E)

JEPPESEN DUESSELDORF, GERMANY

SID

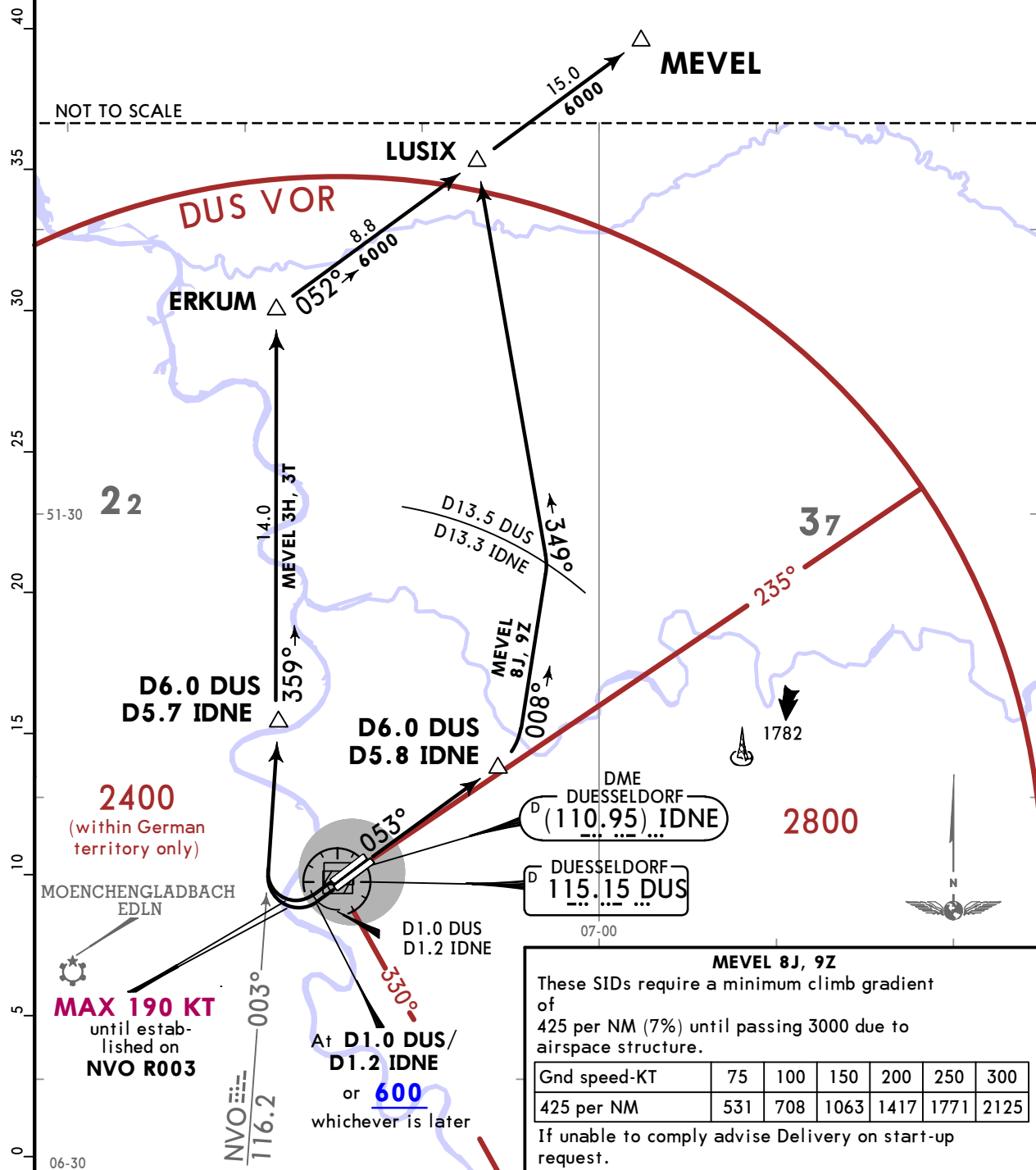
LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

MEVEL 3H, MEVEL 8J, MEVEL 3T, MEVEL 9Z
DEPARTURES

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
MEVEL 3H	23R	Climb on runway track to D1.0 DUS/D1.2 IDNE or 600, whichever is later, turn RIGHT, intercept NVO R003 to D6.0 DUS (D5.7 IDNE) ① turn LEFT, 359° track to ERKUM, turn RIGHT, 052° track, via LUSIX to MEVEL.
MEVEL 3T	23L	
MEVEL 8J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D13.5 DUS/D13.3 IDNE ②, turn LEFT, 349° track to LUSIX turn RIGHT, 052° track to MEVEL.
MEVEL 9Z	05R	

BRNAV equipment necessary after: ① D6.0 DUS (D5.7 IDNE) / ② D13.5 DUS/D13.3 IDNE.

EDDL/DUS
DUESSELDORF

16 FEB 18

(10-3F)

JEPPESEN DUESSELDORF, GERMANY

SID

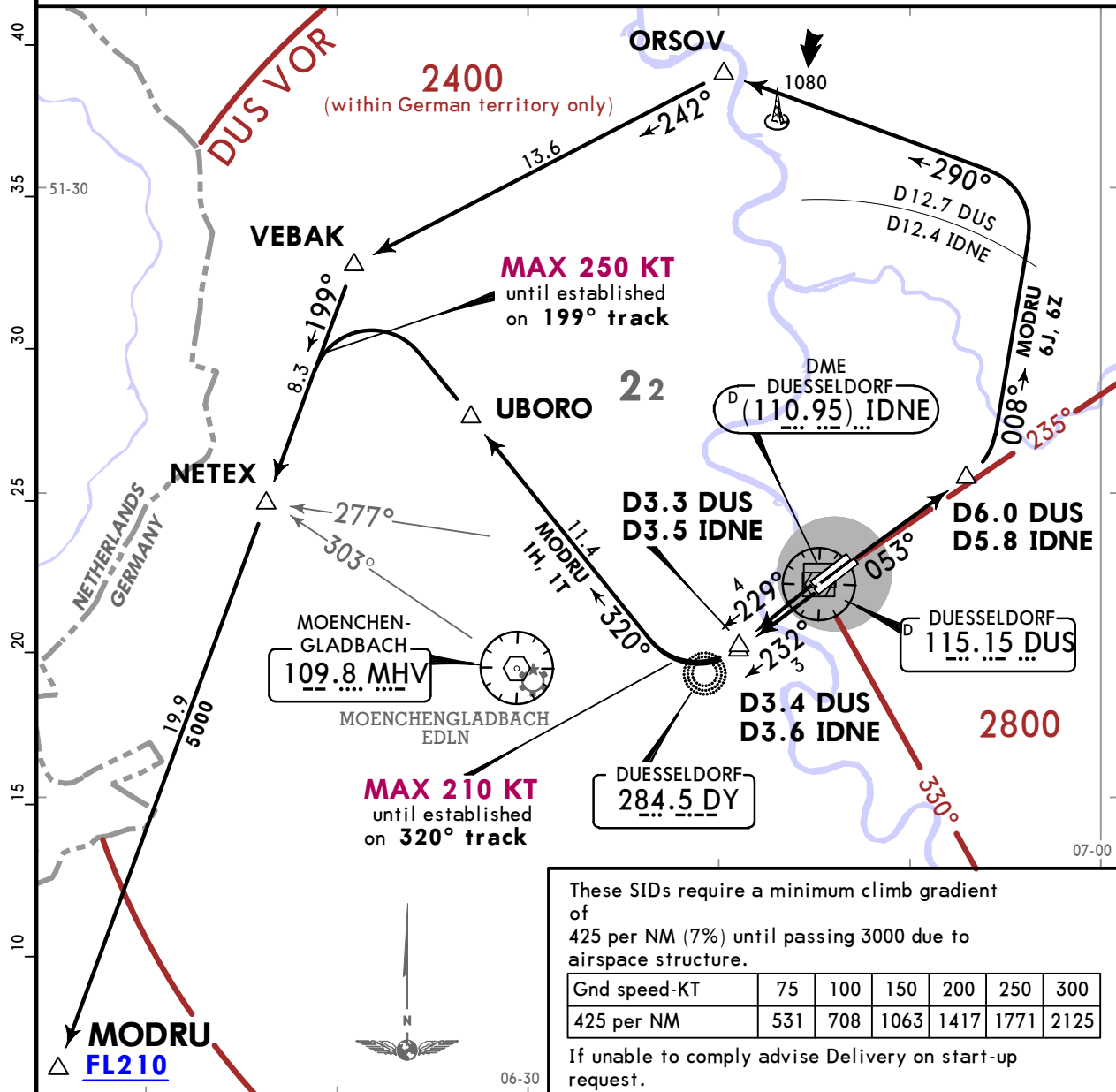
LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noiseabatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

MODRU 1H, MODRU 6J, MODRU 1T, MODRU 6Z DEPARTURES

**SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**



Flights intending to continue from NETEX via FAMEN or DELOM shall file SID MODRU - NETEX - DCT - FAMEN/DELOM. These flights may leave SID MODRU at NETEX to proceed NETEX DCT FAMEN/DELOM, also in case of radio comm failure.

Only for flights with requested FL210 and above. These flights have to be able to cross MODRU at or above FL210. If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000

SID	RWY	ROUTING
MODRU 1H	23R	Intercept 229° bearing towards DY, at D3.3 DUS/D3.5 IDNE ①, turn RIGHT, 320° track to UBORO, turn LEFT to NETEX, 199° track to MODRU.
MODRU 6J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D12.7 DUS/D12.4 IDNE ②, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 199° track via NETEX to MODRU.
MODRU 6Z	05R	
MODRU 1T	23L	Intercept 232° bearing towards DY, at D3.4 DUS/D3.6 IDNE ③, turn RIGHT, 320° track to UBORO, turn LEFT to NETEX, 199° track to MODRU.

BRNAV equipment necessary after: ① D3.3 DUS/D3.5 IDNE/ ② D12.7 DUS/D12.4 IDNE/
③ D3.4 DUS/D3.6 IDNE.

EDDL/DUS
DUESSELDORF

16 FEB 18

JEPPESSEN DUESSELDORF, GERMANY

SID

LANGEN
Radar (APP)
128.5

Apt Elev
147

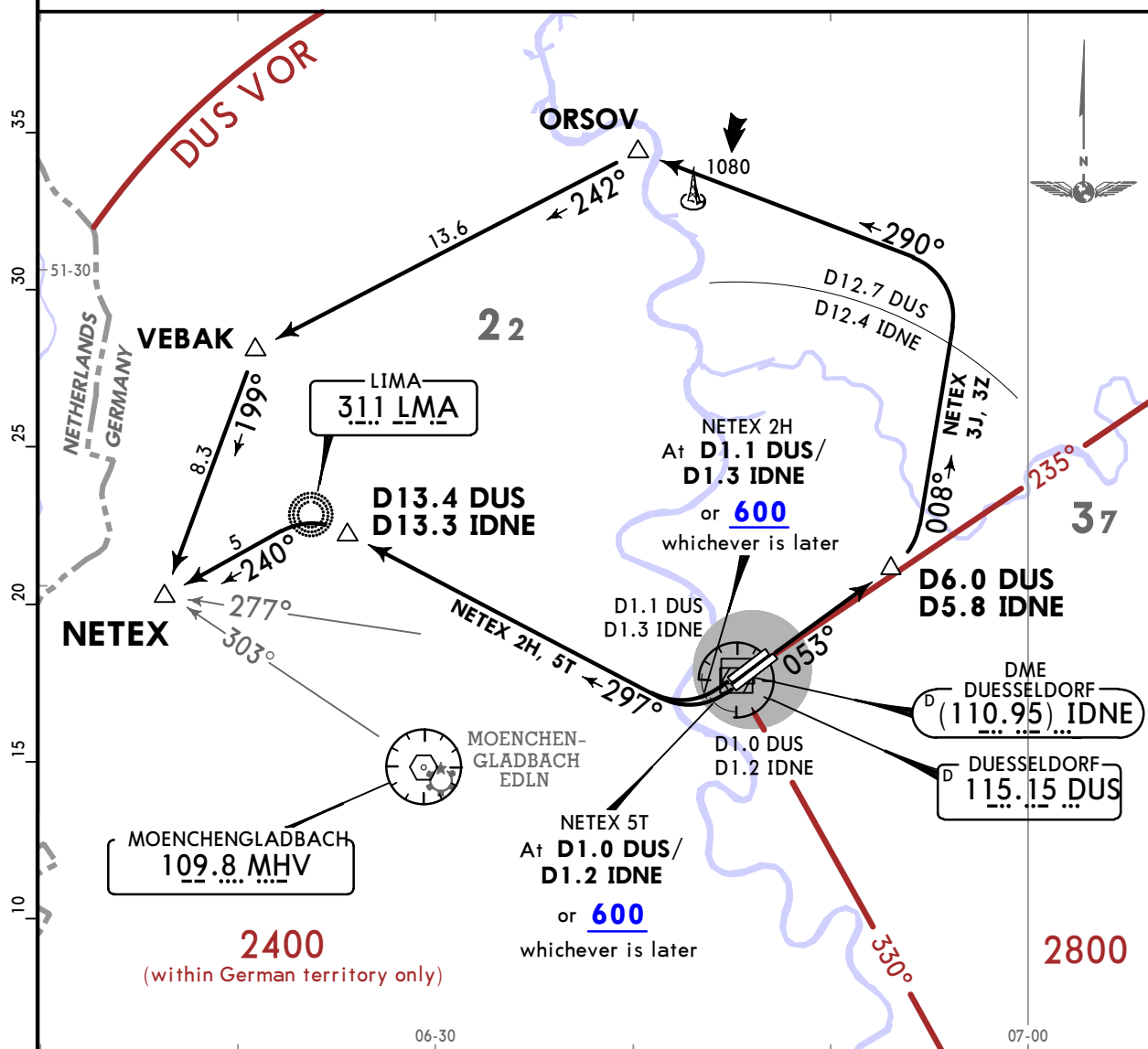
Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is **MANDATORY**.

**NETEX 2H, NETEX 3J, NETEX 5T, NETEX 3Z
DEPARTURES**

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR
FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



These SIDs require minimum climb gradient of 425 per NM (7%) until passing 3000 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up request.

Initial climb clearance **5000**

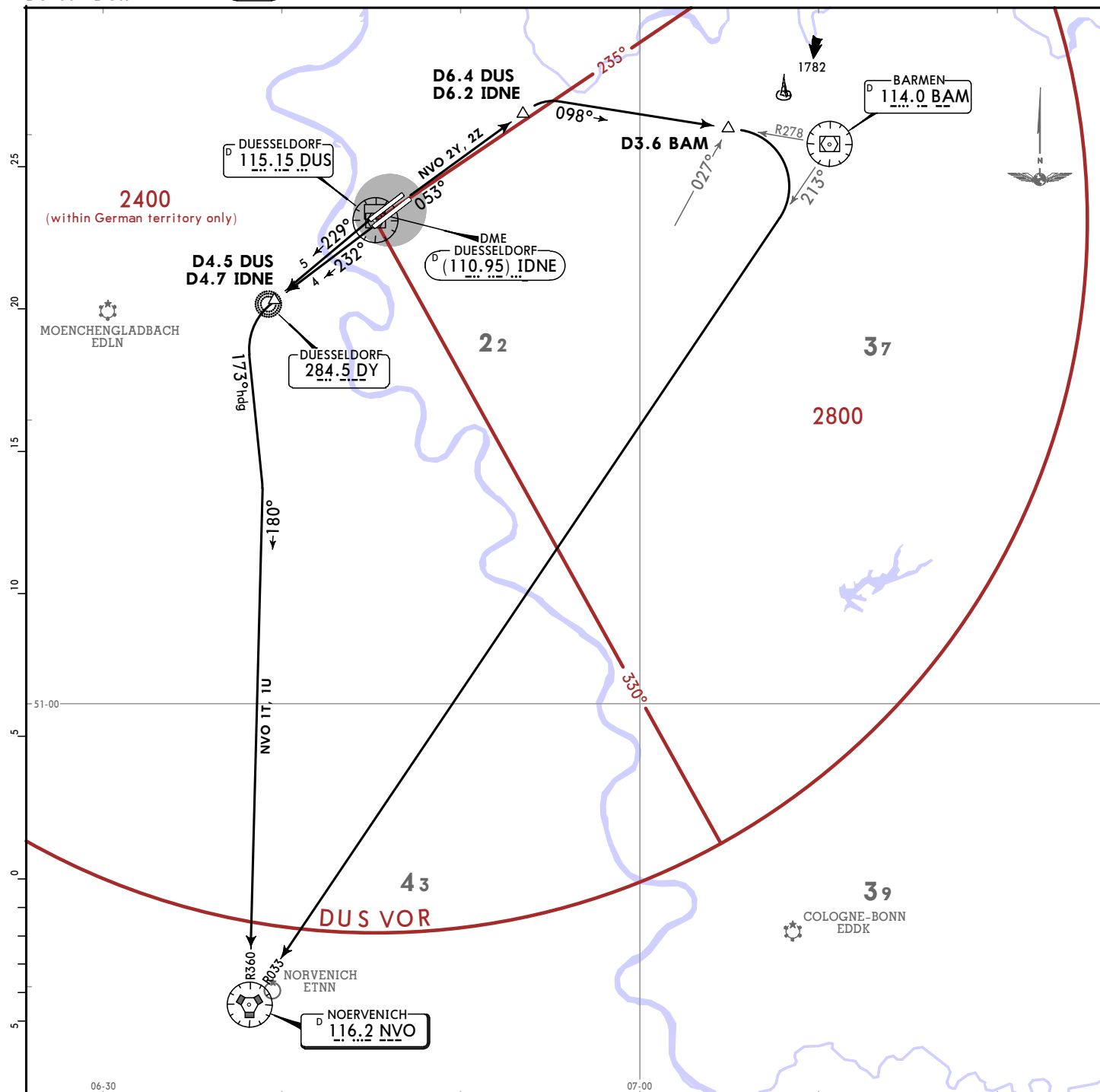
SID	RWY	ROUTING
NETEX 2H ①	23R	Climb on runway track to D1.1 DUS/D1.3 IDNE (Rwy 23R)/D1.0 DUS/D1.2 IDNE (Rwy 23L) or 600, whichever is later, turn RIGHT, intercept 297° bearing towards LMA, at D13.4 DUS/D13.3 IDNE turn LEFT, intercept 240° bearing from LMA to NETEX.
NETEX 5T ①	23L	
NETEX 3J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D12.7 DUS/D12.4 IDNE ②, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 199° track to NETEX.
NETEX 3Z	05R	

- ① Not available for flights to continue after NETEX via FAMEN/DELOM.
② After D12.7 DUS/D12.4 IDNE BRNAV equipment necessary.

EDDL/DUS
DUESSELDORF 26 JAN 18 (10-3H) Eff 1 Feb

DUESSELDORF, GERMANY

SID



*LANGEN Radar (APP) 121.350	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
Apt Elev 147	

NOERVENICH 1T (NVO 1T)
NOERVENICH 1U (NVO 1U)
NOERVENICH 2Y (NVO 2Y)
NOERVENICH 2Z (NVO 2Z)
DEPARTURES

FOR FLIGHTS WITH REQUESTED FL90 OR BELOW
FLIGHTS WITH REQUESTED FL100 OR ABOVE
SHALL FILE VIA MODRU
ALSO AVAILABLE FOR FLIGHTS
VIA AIRWAY Q-760 BETWEEN 0600-0800LT

**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

NVO 1T, 1U
These SIDs require a minimum climb gradient
of
425 per NM (7%) until passing 3000 due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up
request.

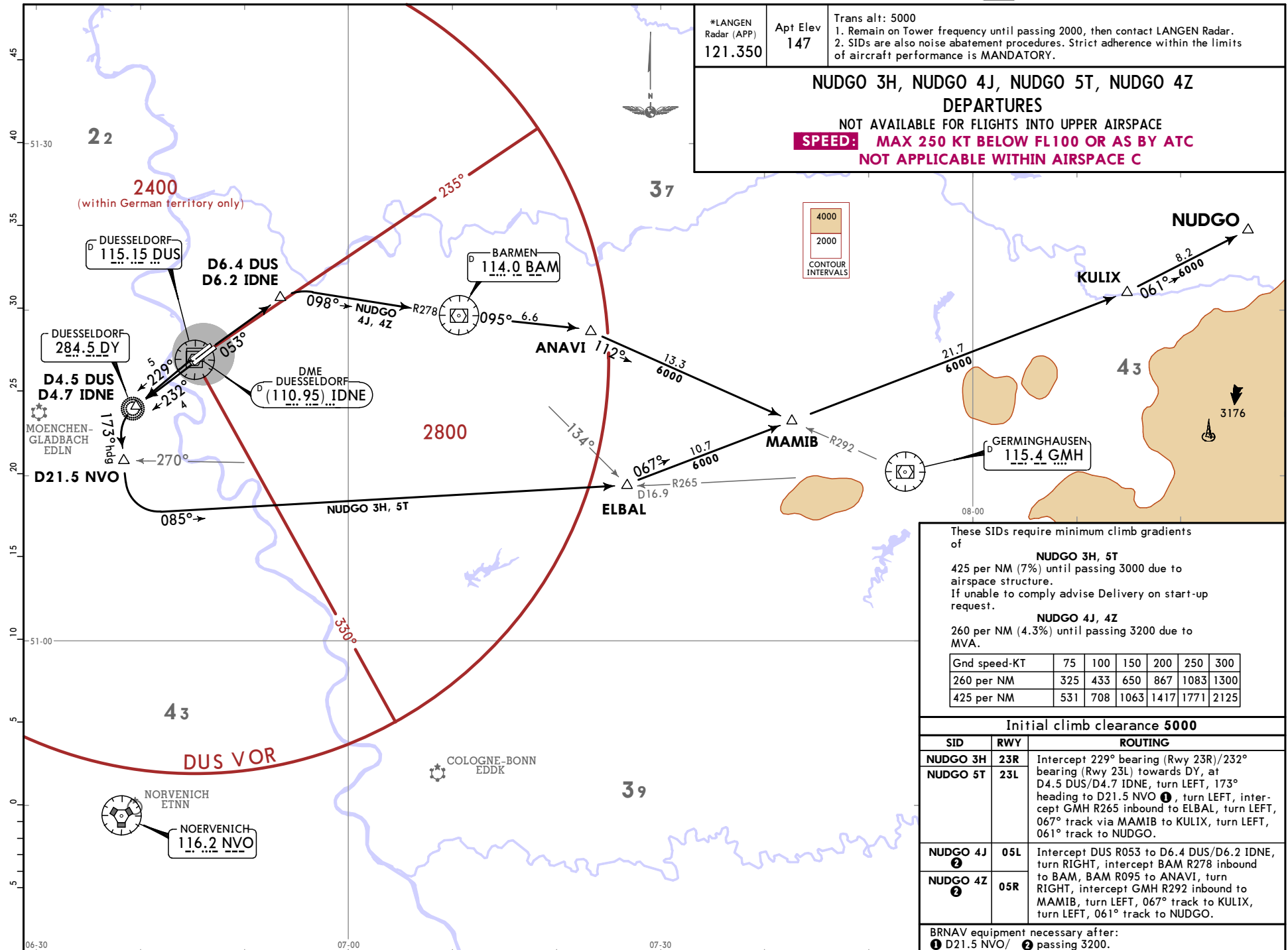
Initial climb clearance 5000

SID	RWY	ROUTING
NVO 1T	23L	Intercept 229° bearing (Rwy 23R) 232° bearing (Rwy 23L) towards DY, at D4.5 DUS/D4.7 IDNE, turn LEFT, 173° heading, intercept NVO R360 inbound to NVO.
NVO 1U	23R	
NVO 2Y	05L	Intercept DUS R053 to D6.4 DUS/ D6.2 IDNE, turn RIGHT, intercept BAM R278 inbound to D3.6 BAM, turn RIGHT, intercept BAM R213 to NVO.
NVO 2Z	05R	

JEPPESEN
26 JAN 18
Eff 1 Feb 10-3J

DUESSELDORF, GERMANY

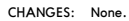
SID



CHANGES: SIDs renumbered & revised.

DUESSELDORF, GERMANY

SID



EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3L)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

*LANGEN
Radar (APP)
121.350Apt Elev
147

Trans alt: 5000

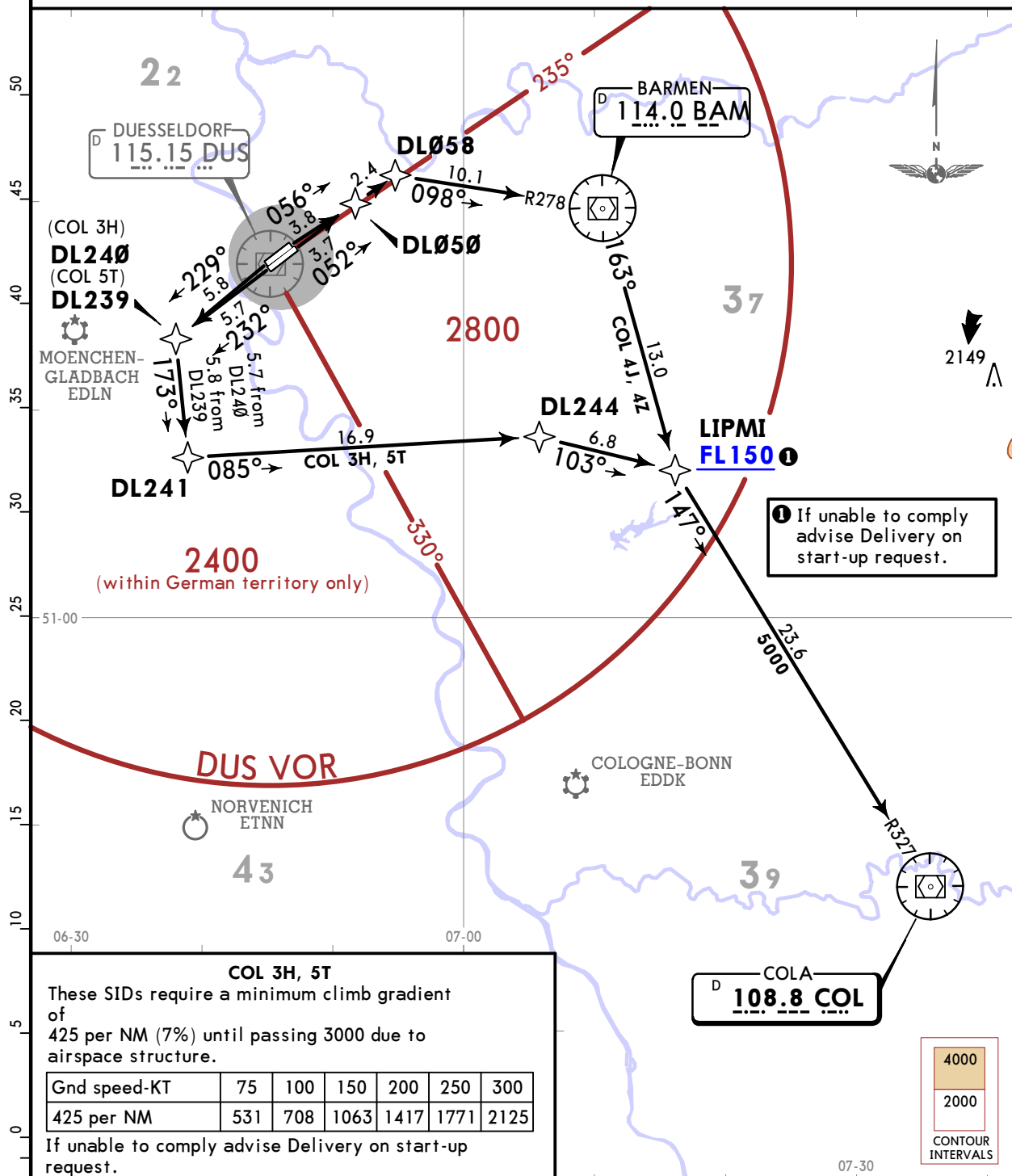
1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

COLA 3H (COL 3H), COLA 4J (COL 4J)

COLA 5T (COL 5T), COLA 4Z (COL 4Z)

RNAV DEPARTURES (OVERLAY 10-3)

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



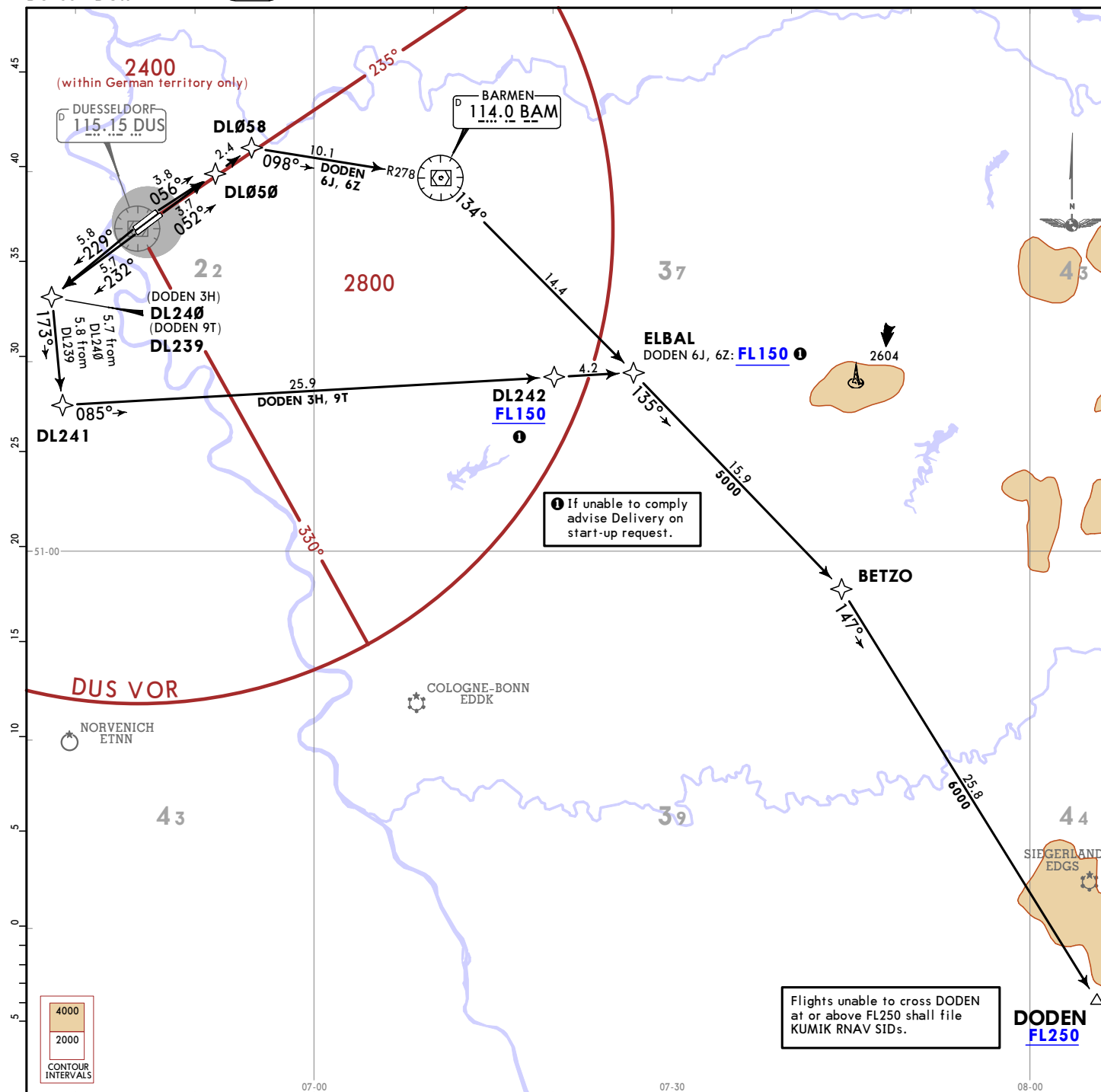
CHANGES: Distance to DL240 revised.

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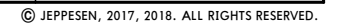
EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3M)

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)



JEYPESEN DUESSELDORF, GERMANY
30 MAR 18 **10-3N** **RNAV SID (OVERLAY)**



DUESSELDORF, GERMANY
RNAV SID (OVERLAY)



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EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3Q)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

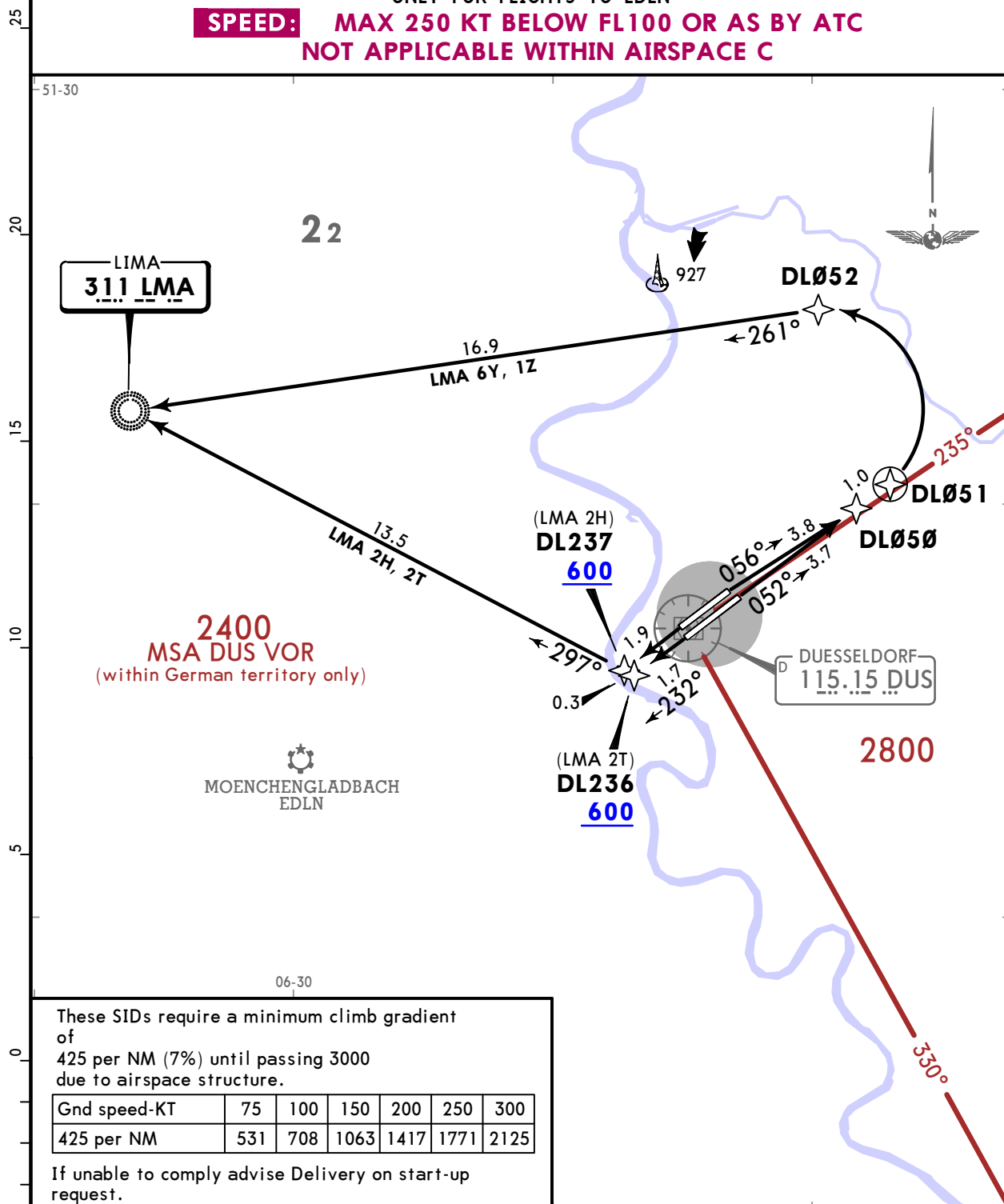
LIMA 2H (LMA 2H), LIMA 2T (LMA 2T)

LIMA 6Y (LMA 6Y), LIMA 1Z (LMA 1Z)

RNAV DEPARTURES (OVERLAY 10-3D)

ONLY FOR FLIGHTS TO EDLN

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
LMA 2H	23R	DL237 (600+) - LMA.
LMA 2T	23L	DL236 (600+) - LMA.
LMA 6Y	05L	(600+) - DL050 - DL051 - DL052 - LMA.
LMA 1Z	05R	

CHANGES: None.

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EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3S)

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

LANGEN Radar (APP) 128.5	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
Apt Elev 147	

MEVEL 3H [MEVE3H]
MEVEL 8J [MEVE8J]
MEVEL 3T [MEVE3T]
MEVEL 9Z [MEVE9Z]
RNAV DEPARTURES
(OVERLAY 10-3E)

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

MEVEL 8J, 9Z

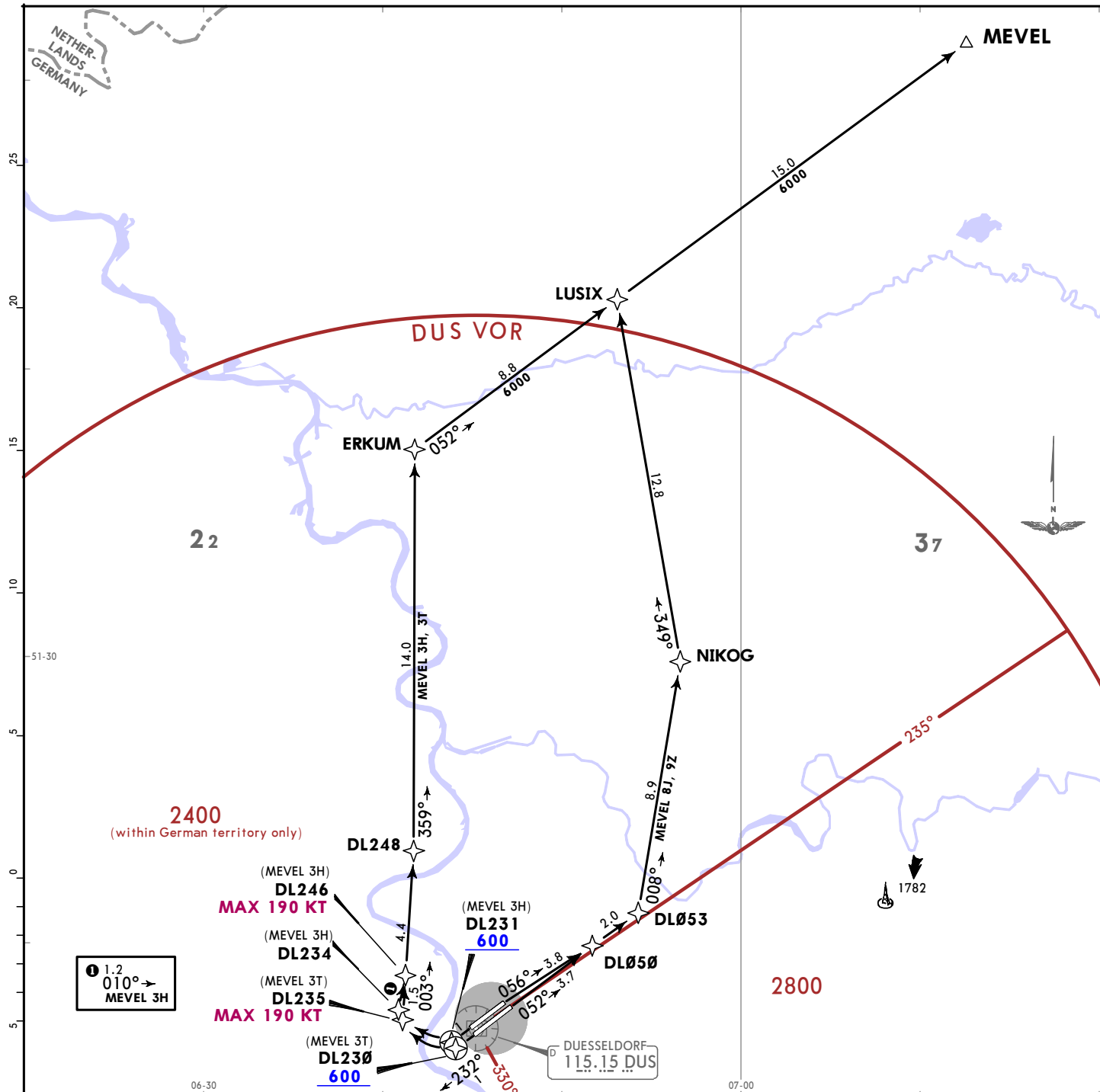
These SIDs require a minimum climb gradient
of
425 per NM (7%) until passing 3000 due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up
request.

Initial climb clearance 5000

SID	RWY	ROUTING
MEVEL 3H	23R	DL231 (600+) - DL234 - DL246 (K190-) - DL248 - ERKUM - LUSIX - MEVEL.
MEVEL 8J	05L	(600+) - DL050 - DL053 - NIKOG - LUSIX - MEVEL.
MEVEL 3T	23L	DL230 (600+) - DL235 (K190-) - DL248 - ERKUM - LUSIX - MEVEL.
MEVEL 9Z	05R	(600+) - DL050 - DL053 - NIKOG - LUSIX - MEVEL.

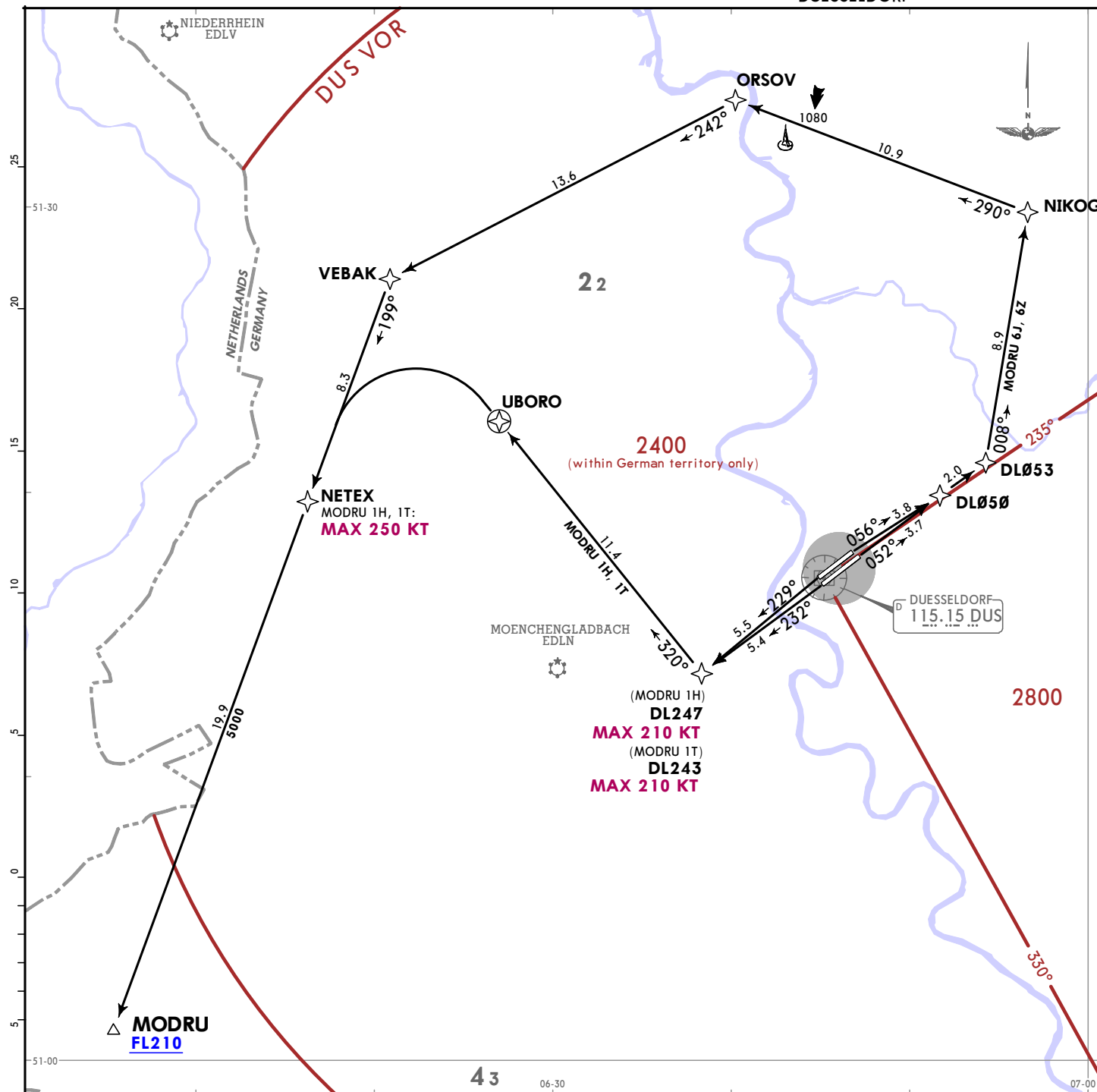


EDDL/DUS
DUESSELDORF

JEPPesen
30 MAR 18 10-3T

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)



LANGEN Radar (APP) 128.5	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement proce- dures. Strict adherence within the limits of aircraft performance is MANDATORY.
Apt Elev 147	

MODRU 1H [MODR1H]
MODRU 6J [MODR6J]
MODRU 1T [MODR1T]
MODRU 6Z [MODR6Z]

RNAV DEPARTURES
(OVERLAY 10-3F)

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Flights intending to continue from NETEX
via FAMEN or DELOM shall file SID
MODRU - NETEX - DCT - FAMEN/DELOM.
These flights may leave SID MODRU at
NETEX to proceed NETEX DCT FAMEN/
DELOM, also in case of radio comm failure.

Only for flights with requested FL210 and
above. These flights have to be able to cross
MODRU at or above FL210. If unable to
comply advise Delivery on start-up request.

These SIDs require a minimum climb gradient
of
425 per NM (7%) until passing 3000 due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up
request.

Initial climb clearance **5000**

SID	RWY	ROUTING
MODRU 1H	23R	(600+) - DL247 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).
MODRU 6J	05L	(600+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX - MODRU (FL210+).
MODRU 6Z	05R	(600+) - DL243 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).
MODRU 1T	23L	(600+) - DL243 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).

EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3U)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

NETEX 2H [NETE2H], NETEX 3J [NETE3J]

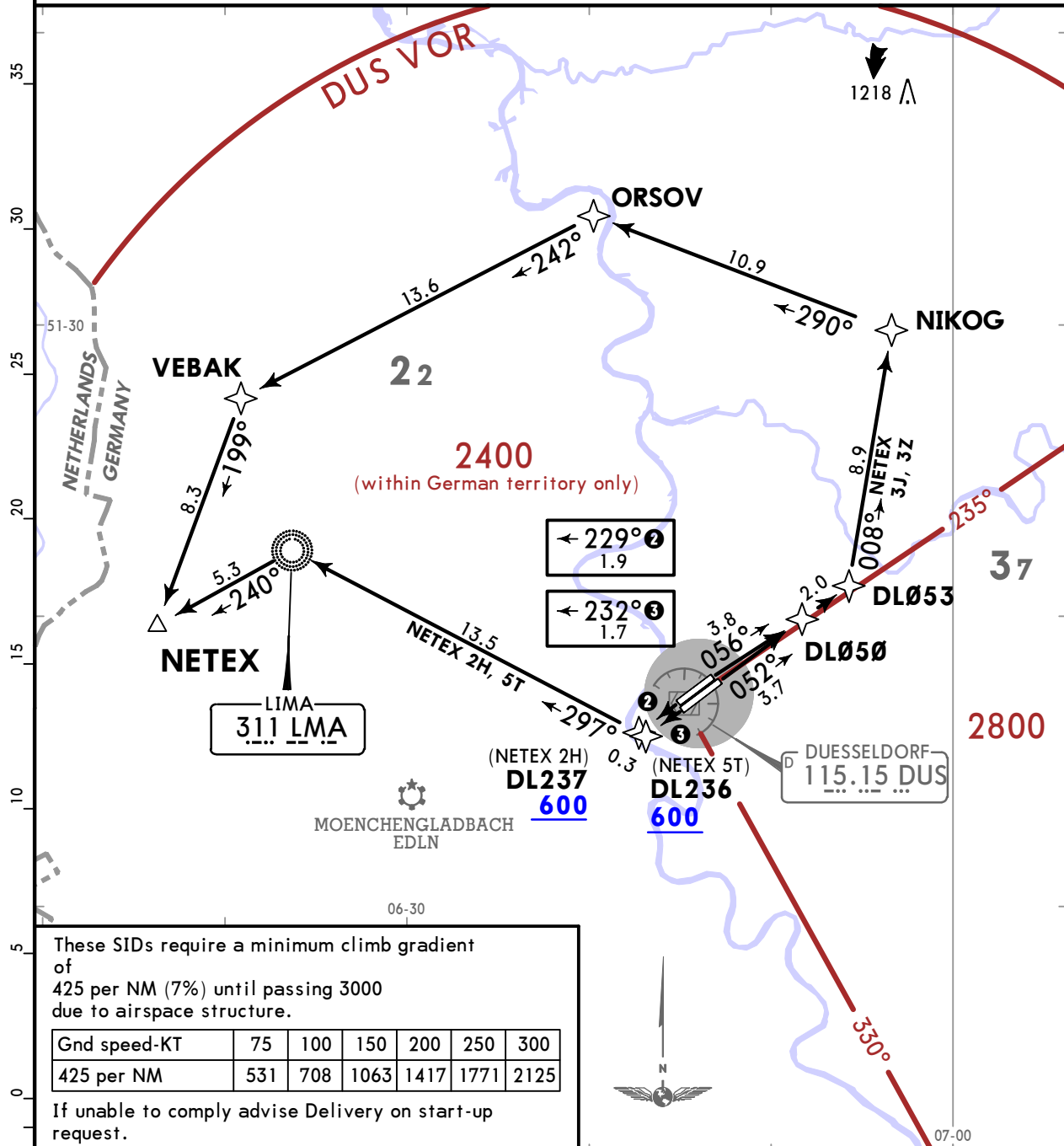
NETEX 5T [NETE5T], NETEX 3Z [NETE3Z]

RNAV DEPARTURES (OVERLAY 10-3G)

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR

FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3V)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

*LANGEN
Radar (APP)
121.350Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

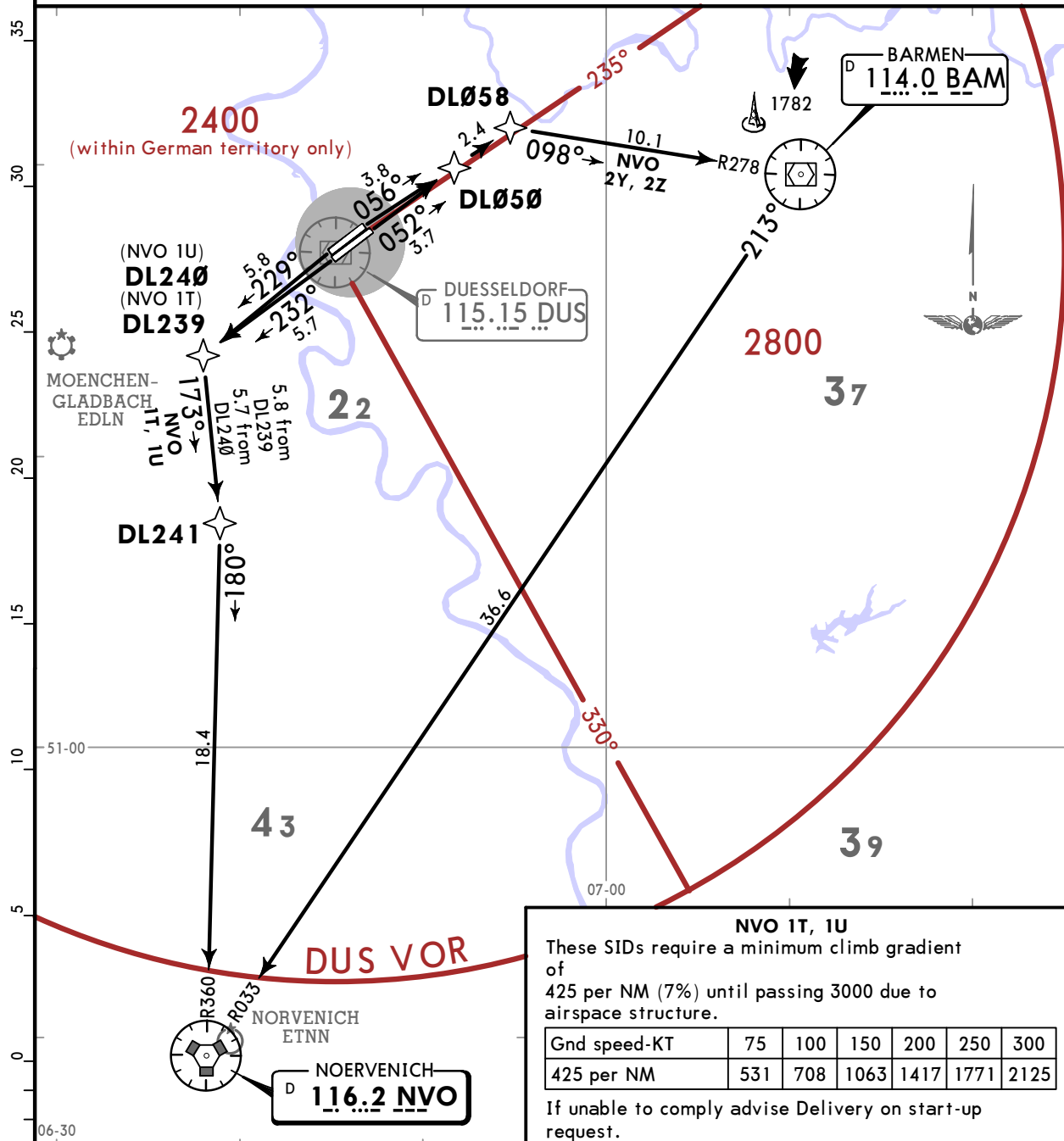
NOERVENICH 1T (NVO 1T), NOERVENICH 1U (NVO 1U)
NOERVENICH 2Y (NVO 2Y), NOERVENICH 2Z (NVO 2Z)

RNAV DEPARTURES (OVERLAY 10-3H)

FOR FLIGHTS WITH REQUESTED FL90 OR BELOW

FLIGHTS WITH REQUESTED FL100 OR ABOVE SHALL FILE VIA MODRU

ALSO AVAILABLE FOR FLIGHTS VIA AIRWAY Q-760 BETWEEN 0600-0800LT

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC**NOT APPLICABLE WITHIN AIRSPACE C**

Initial climb clearance 5000

SID	RWY	ROUTING
NVO 1T	23L	(600+) - DL239 - DL241 - NVO.
NVO 1U	23R	(600+) - DL240 - DL241 - NVO.
NVO 2Y	05L	(600+) - DL050 - DL058 - BAM - NVO.
NVO 2Z	05R	

EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3W)

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

*LANGEN
Radar (APP)
121.350

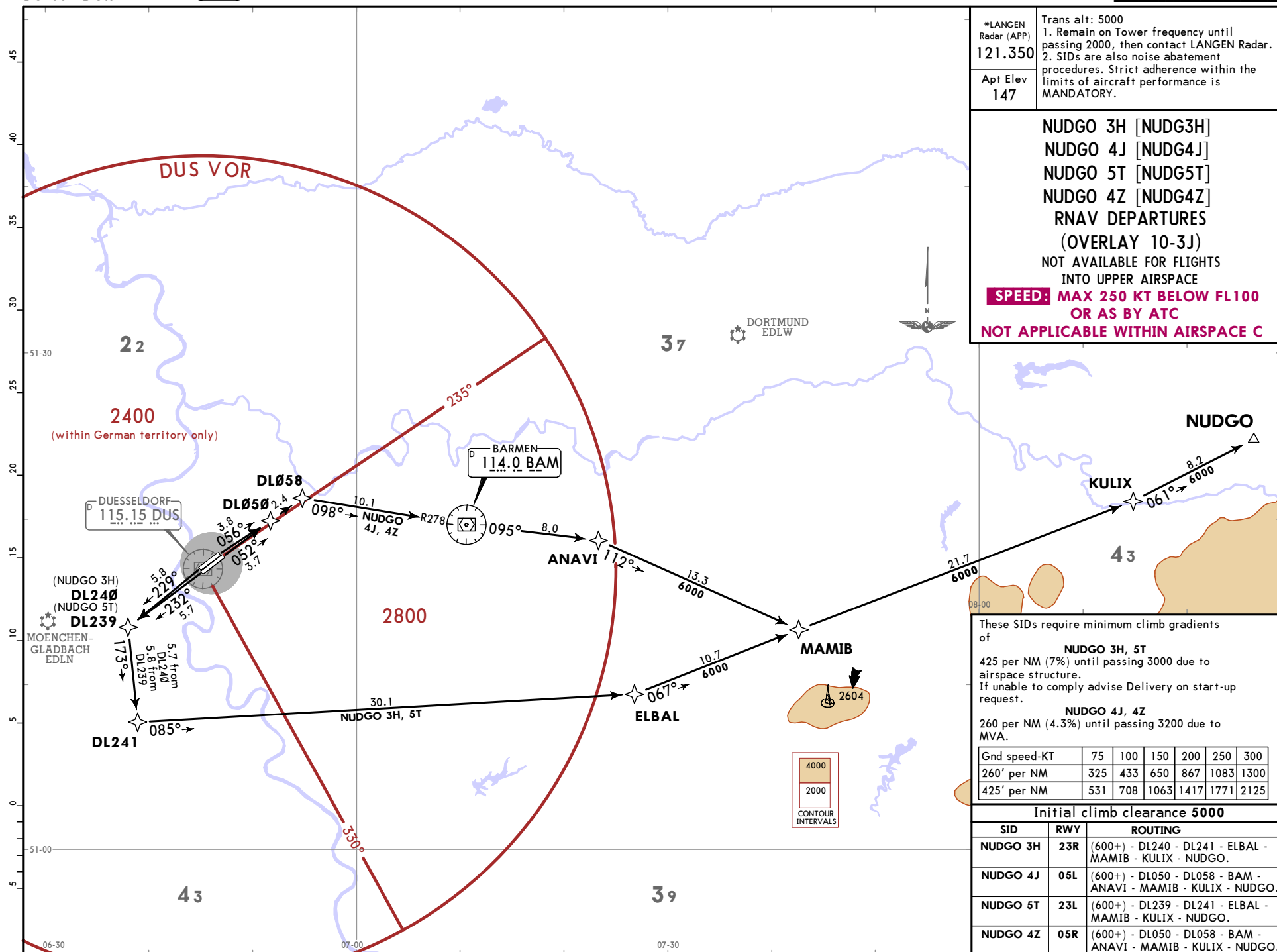
Apt Elev
147

Trans alt: 5000
1. Remain on Tower frequency until
passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement
procedures. Strict adherence within the
limits of aircraft performance is
MANDATORY.

NUDGO 3H [NUDG3H]
NUDGO 4J [NUDG4J]
NUDGO 5T [NUDG5T]
NUDGO 4Z [NUDG4Z]
RNAV DEPARTURES
(OVERLAY 10-3J)

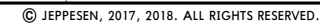
NOT AVAILABLE FOR FLIGHTS
INTO UPPER AIRSPACE

**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC**
NOT APPLICABLE WITHIN AIRSPACE C



CHANGES: Distance to DL240 revised.

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EDDL/DUS

13 APR 18

10-8

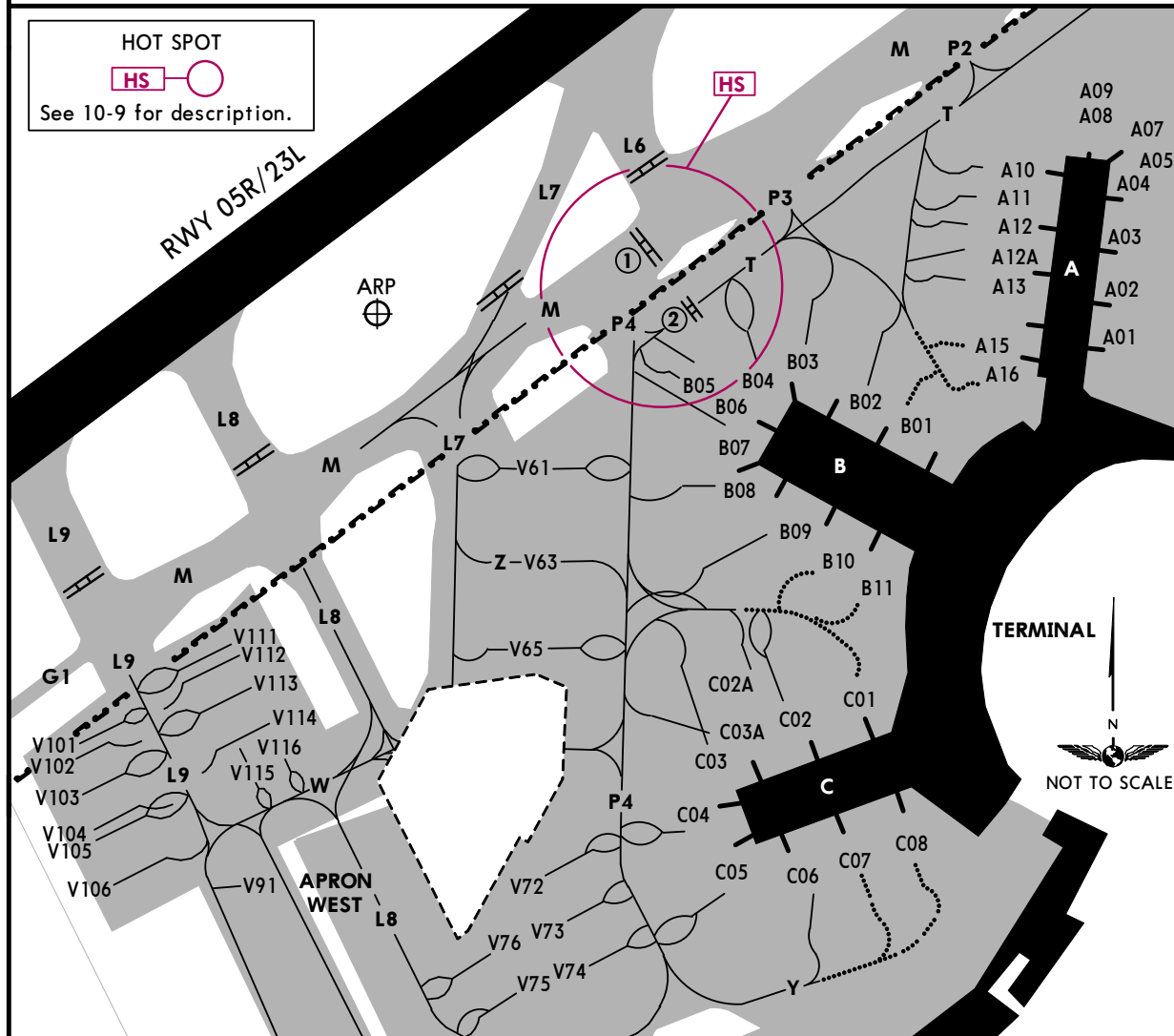
Eff 16 APR

JEPPESSEN DUESSELDORF, GERMANY

DUESSELDORF

CONSTRUCTION WORKS

REFER ALSO TO LATEST NOTAMS



RESTRICTIONS AND CHANGES FOR TAXIING ON APRON AND TWYS

Relocation of TWY L8-South (MAX Code E ACFT).

Temporary use of TWY Z (MAX Code E ACFT).

Closure of intersection TWY L7/L8/W and closure TWY W around former stand V67 and V68.

Closure of ACFT stands V62, V64, V67 to V71 and V81 to V86.

Replacement ACFT stands V61, V63, V65, V72 thru V76 and V91.

LEGEND

A10 Parking position

M Taxiway

—— Taxi guideline all acft

..... Taxi guideline all acct
except B747, B777,
A330 (C01/C07 possible),
A340

① Checkpoint for handover between two sectors of ground control

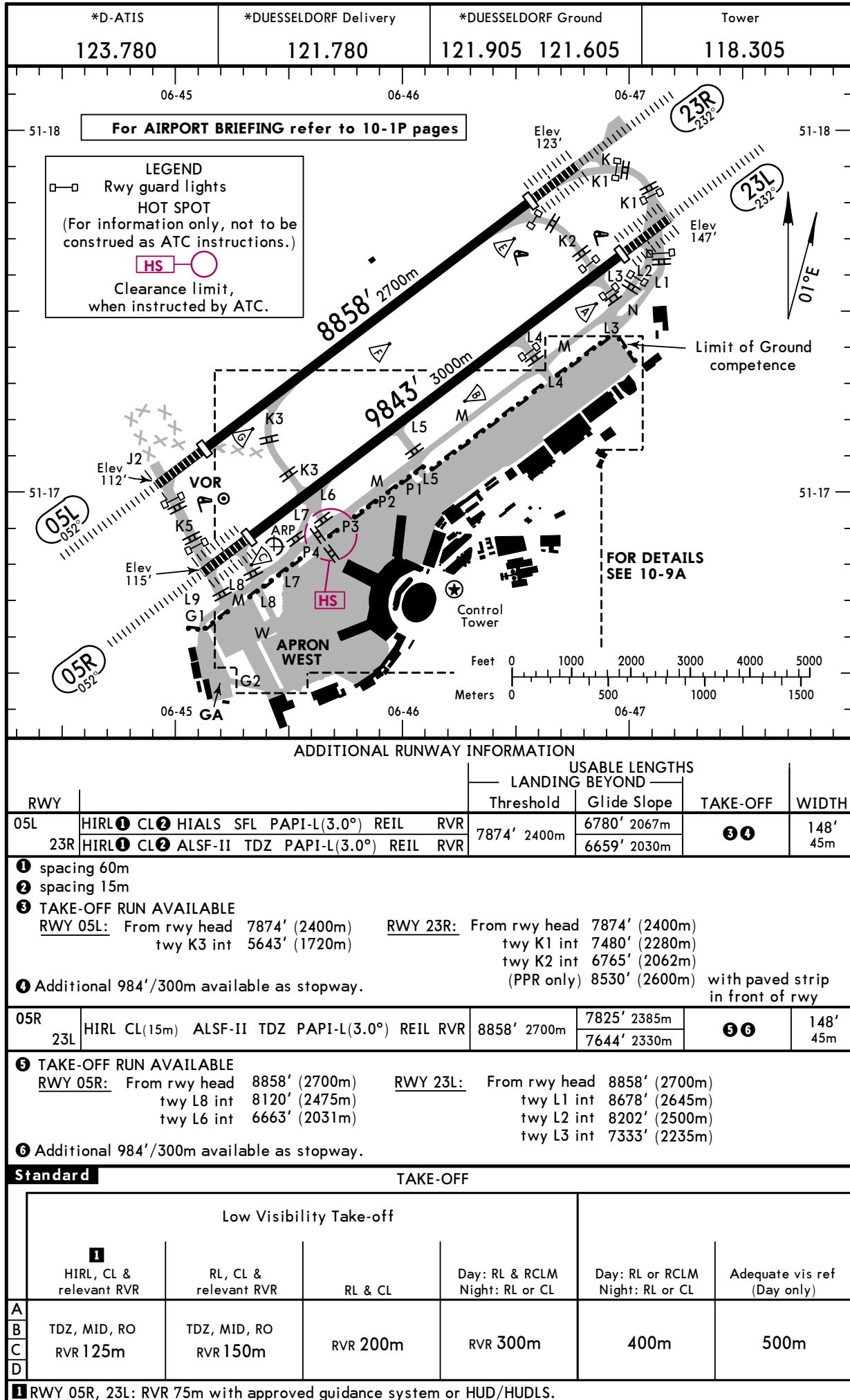
EDDL/DUS

Apt Elev **147'**
N51 16.9 E006 45.4

4 MAY 18 (10-9)

JEPPESEN DUESSELDORF, GERMANY

DUESSELDORF



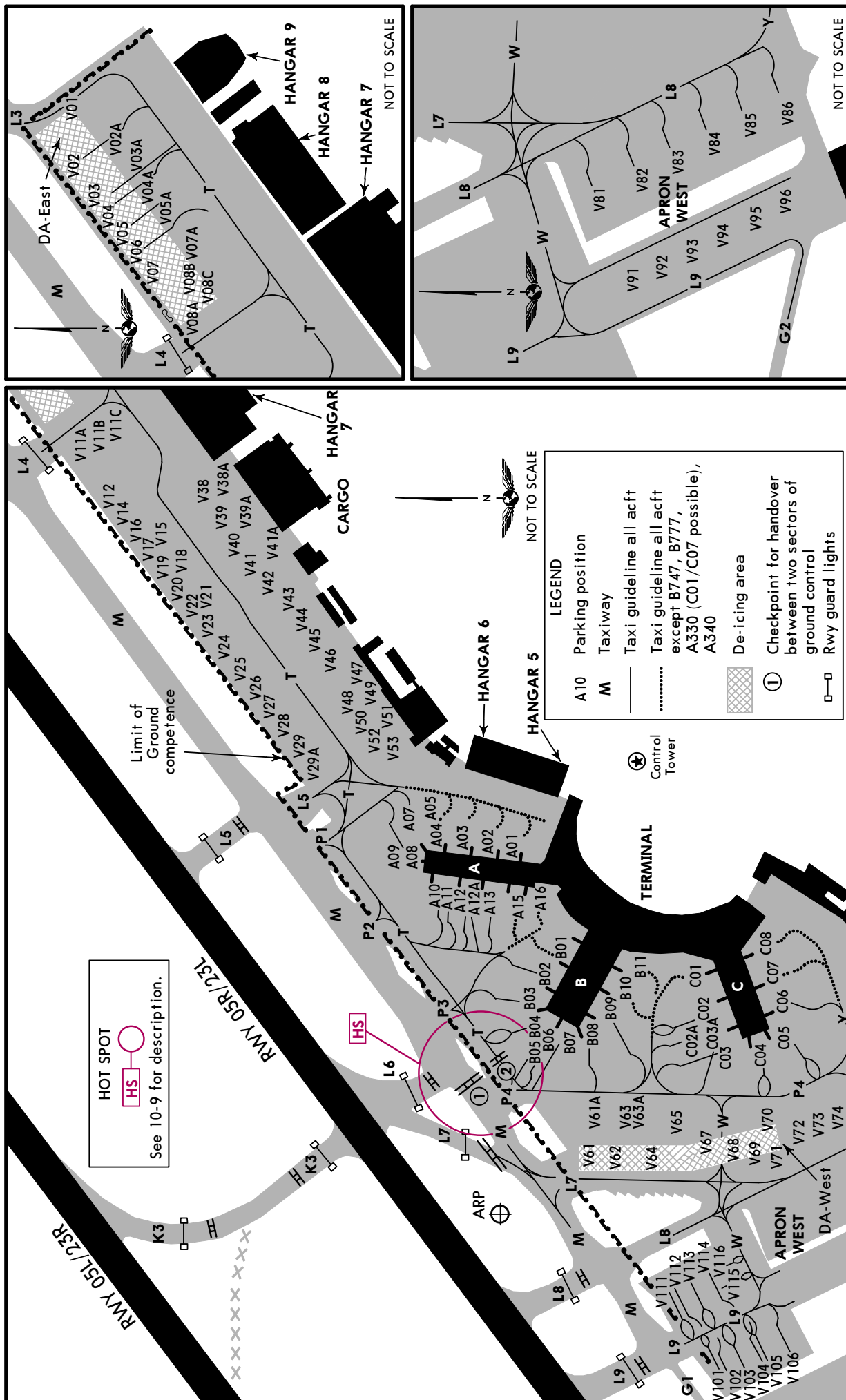
EDDL/DUS

4 MAY 18

10-9A

DUESSELDORF, GERMANY

DUESSELDORF



CHANGES: RWY guard lights added.

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EDDL/DUS**JEPPESEN**

15 SEP 17

(10-9B)

DUESSELDORF, GERMANY**DUESSELDORF****INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
A01	N51 16.8 E006 46.0	V19	N51 17.2 E006 46.5
A02 thru A05	N51 16.9 E006 46.0	V20 thru V23	N51 17.2 E006 46.4
A07	N51 17.0 E006 46.0	V24 thru V26	N51 17.1 E006 46.3
A08	N51 16.9 E006 46.0	V27 thru V29	N51 17.1 E006 46.2
A09	N51 17.0 E006 46.0	V29A	N51 17.1 E006 46.1
A10	N51 16.9 E006 45.9	V38, V38A	N51 17.1 E006 46.6
A11	N51 16.9 E006 46.0	V39 thru V42	N51 17.1 E006 46.5
A12	N51 16.9 E006 45.9	V43, V44	N51 17.1 E006 46.4
A12A	N51 16.9 E006 46.0	V45	N51 17.0 E006 46.4
A13	N51 16.9 E006 45.9	V46 thru V49	N51 17.0 E006 46.3
A15, A16	N51 16.8 E006 45.9	V50 thru V53	N51 17.0 E006 46.2
B01 thru B03	N51 16.8 E006 45.8	V61 thru V62	N51 16.8 E006 45.6
B04 thru B08	N51 16.8 E006 45.7	V63 thru V65	N51 16.7 E006 45.6
B09	N51 16.8 E006 45.8	V67 thru V72	N51 16.6 E006 45.6
B10 thru C01	N51 16.7 E006 45.8	V73, V74	N51 16.5 E006 45.6
C02, C02A	N51 16.6 E006 45.8	V81, V82	N51 16.6 E006 45.4
C03 thru C05	N51 16.6 E006 45.7	V83	N51 16.5 E006 45.4
C06, C07	N51 16.6 E006 45.8	V84 thru V86	N51 16.5 E006 45.5
C08	N51 16.6 E006 45.9	V91	N51 16.6 E006 45.4
V01 thru V02A	N51 17.4 E006 46.9	V92 thru V96	N51 16.5 E006 45.4
V03	N51 17.4 E006 46.8	V101 thru V106	N51 16.6 E006 45.2
V03A	N51 17.3 E006 46.9	V111	N51 16.3 E006 45.3
V04	N51 17.4 E006 46.8	V112, V113	N51 16.7 E006 45.3
V04A	N51 17.3 E006 46.8	V114	N51 16.6 E006 45.4
V05	N51 17.4 E006 46.8	V115	N51 16.6 E006 45.3
V05A, V06	N51 17.3 E006 46.8	V116	N51 16.6 E006 45.4
V07	N51 17.3 E006 46.7		
V07A	N51 17.3 E006 46.8		
V08A	N51 17.3 E006 46.7		
V08B, V08C	N51 17.3 E006 46.8		
V11A	N51 17.3 E006 46.6		
V11B	N51 17.2 E006 46.6		
V11C, V12	N51 17.3 E006 46.6		
V14 thru V17	N51 17.2 E006 46.5		
V18	N51 17.2 E006 46.4		

EDDL/DUS

**JEPPESEN**

15 SEP 17

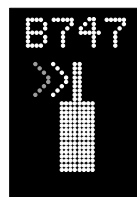
(10-9C)

DUESSELDORF, GERMANY**DUESSELDORF****SAFEGATE ACFT DOCKING GUIDANCE SYSTEM (SAFEDOCK)**

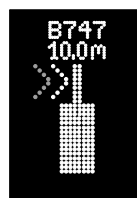
Yellow

Red

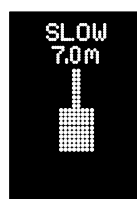
System is activated and in capture mode, searching an approaching acft.
The lead-in line is to be followed.



Do not proceed beyond the bridge unless the floating arrows are replaced by a yellow center line indicator and floating arrow to indicate that the system has captured the acft and is actively tracking it.
Red arrows show the direction to turn for azimuth guidance. Yellow arrows show position in relation to center line. The absence of any direction arrow indicates the acft on center line.



Digital countdown begins when the acft is 20m from its stop position. When the acft is within the last 12m, the distance-to-go closing rate indicator decreases by about one yellow LED-row per 0.5m of movement.



If the acft is approaching faster than the accepted speed, the system will show "SLOW" as warning to the pilot.



Red

At the stop position the display will show "STOP" with red light squares, following by "OK".



In case of malfunction request assistance from APRON CONTROL.

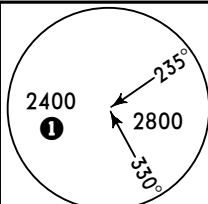
Stop bar markings are located to the right and left with a 90 degree angle to the guide lines. Acft has to be stopped with the pilot seat abeam the stop bar (nose wheel).

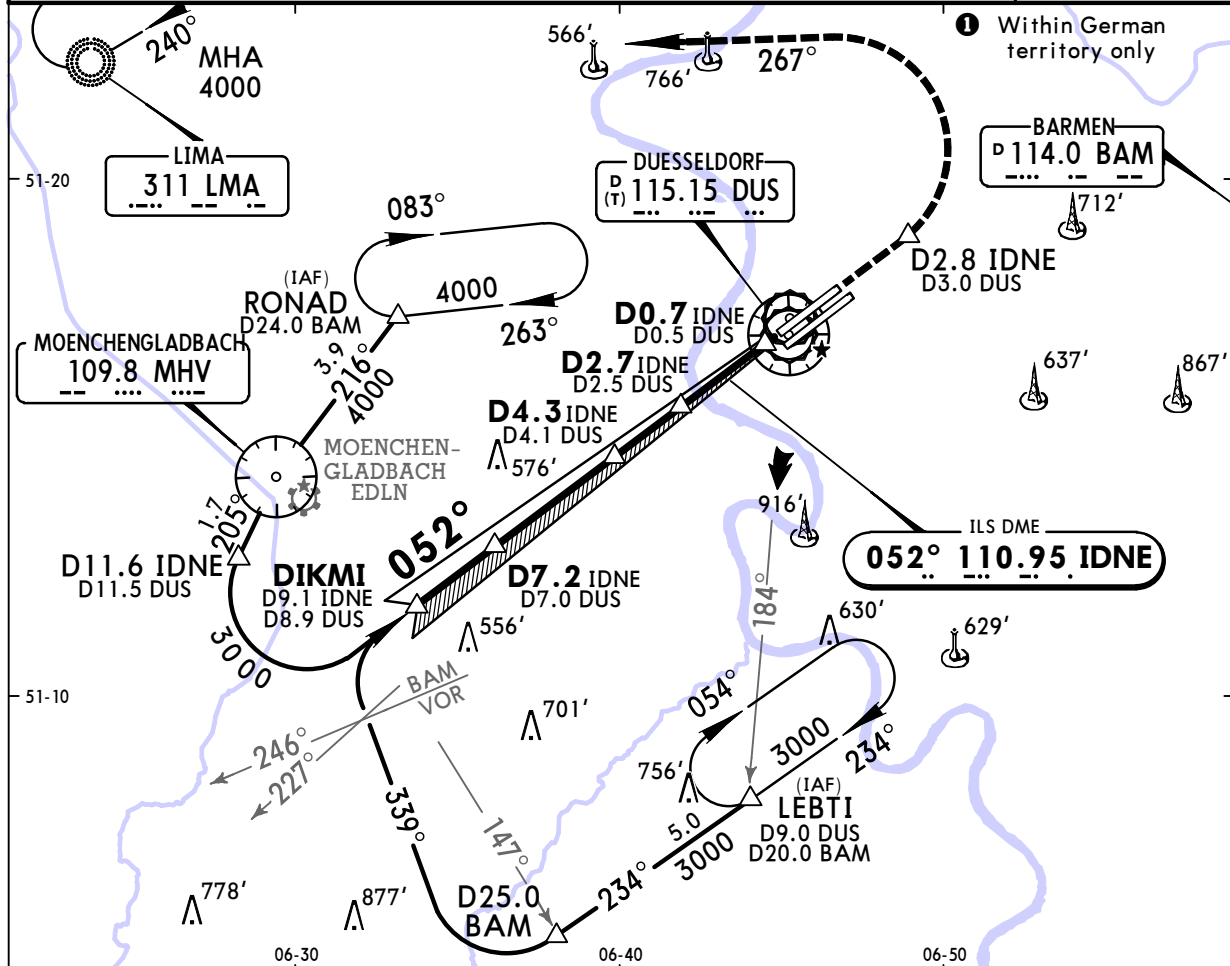
EDDL/DUS
DUESSELDORF

4 MAY 18 (11-1)

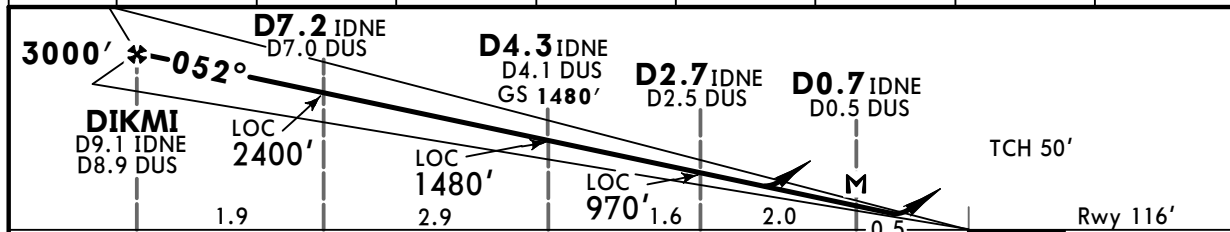
DUESSELDORF, GERMANY
ILS or LOC Rwy 05L

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDNE 110.95	Final Aptch Crs 052°	GS D4.3 IDNE 1480' (1364')	ILS DA(H) Refer to Minimums	Apt Elev 147' Rwy 116'
MISSED APCH: Climb STRAIGHT AHEAD to D2.8 IDNE/D3.0 DUS, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000' DME required.				
				 MSA DUS VOR



LOC (GS out)	IDNE DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	2650'	2340'	2020'	1700'	1380'	1060'	740'



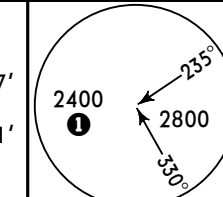
Gnd speed-Kts	70	90	100	120	140	160		
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849	
MAP at D0.7 IDNE/D0.5 DUS								
								HIALS REIL PAPI D2.8 IDNE D3.0 DUS

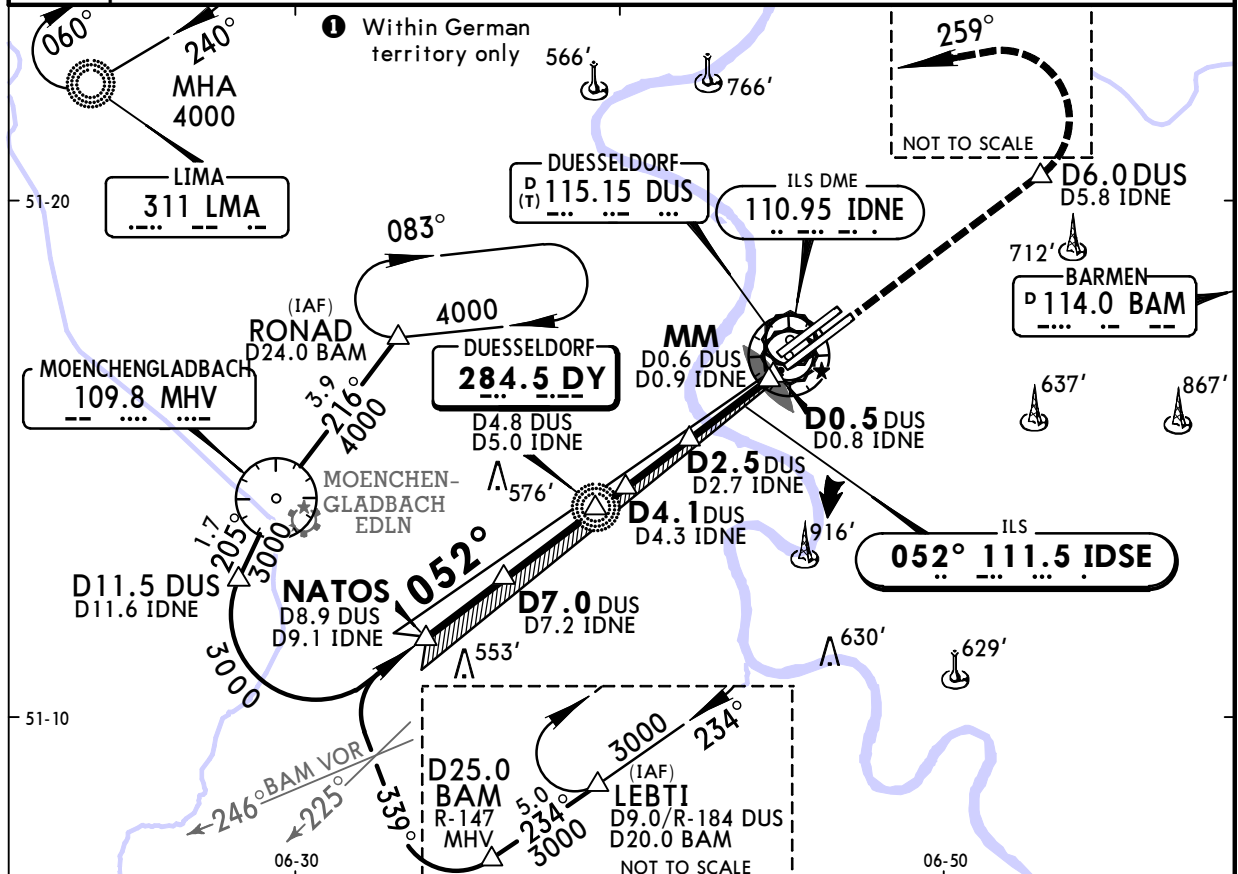
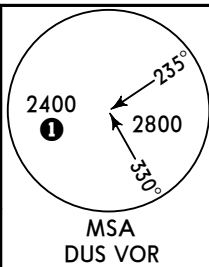
Standard				STRAIGHT-IN LANDING RWY 05L			
ILS		LOC (GS out)		CDFA			
DA(H)		DA/MDA(H)		500' (384')			
AB: 316' (200')		C: 333' (217')		D: 343' (227')			
FULL		ALS out		ALS out			
A							
B							RVR 1500m
C	RVR 550m 1			RVR 1100m			
D		RVR 1200m					RVR 1800m
1 W/o HUD/AP/FD: RVR 750m							

PANS OPS

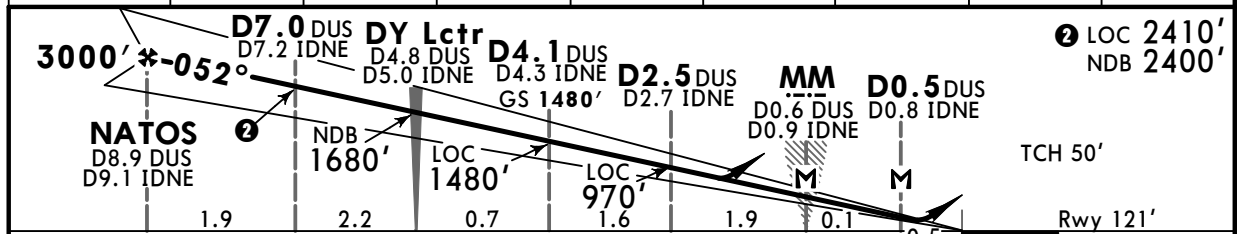
EDDL/DUS
DUESSELDORFJEPPesen DUESSELDORF, GERMANY
4 MAY 18 (11-2) ILS or LOC or NDB Rwy 05R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650		DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDSE 111.5	Final Apch Crs 052°	GS D4.1 DUS 1480' (1359')	ILS DA(H) 321' (200')	Apt Elev 147' Rwy 121'	
NDB DY 284.5		Minimum Alt NATOS 3000' (2879')	NDB DA/MDA(H) Refer to Minimums		
MISSED APCH: Climb STRAIGHT AHEAD to D6.0 DUS/D5.8 IDNE, then turn LEFT onto 259° to LMA NDB climbing to 4000'.					MSA DUS VOR
Alt Set: hPa (IN on req) DME required.		Rwy Elev: 4 hPa		Trans level: By ATC	Trans alt: 5000'



LOC (GS out) & NDB	DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	2720'	2400'	2090'	1770'	1450'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or							
LOC or NDB Desc Angle	3.00°	372	478	531	637	743	849
LOC: MAP at D0.6 DUS/D0.9 IDNE							

Standard		STRAIGHT-IN LANDING RWY 05R		CDFA		CDFA	
ILS		LOC (GS out)		DA/MDA(H)		NDB	
DA(H) 321' (200')		A: 500' (379')		A: 610' (489')		A: 610' (489')	
		BCD: 570' (449')				BCD: 680' (559')	
FULL	TDZ or CL out	ALS out		ALS out			ALS out
A							
B	RVR 550m	RVR 550m	RVR 1200m	RVR 1000m	RVR 1500m	RVR 1500m	
C				RVR 1400m	RVR 2100m	RVR 1800m	RVR 2400m
D							

W/o HUD/AP/FD: RVR 750m

CHANGES: Communications.

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EDDL/DUS
DUESSELDORF

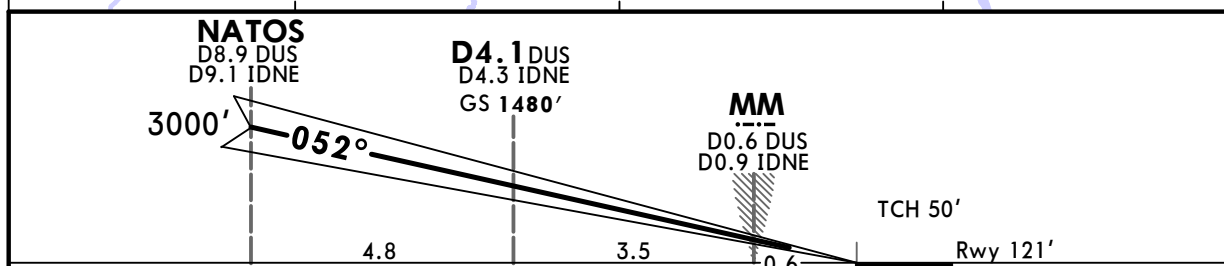
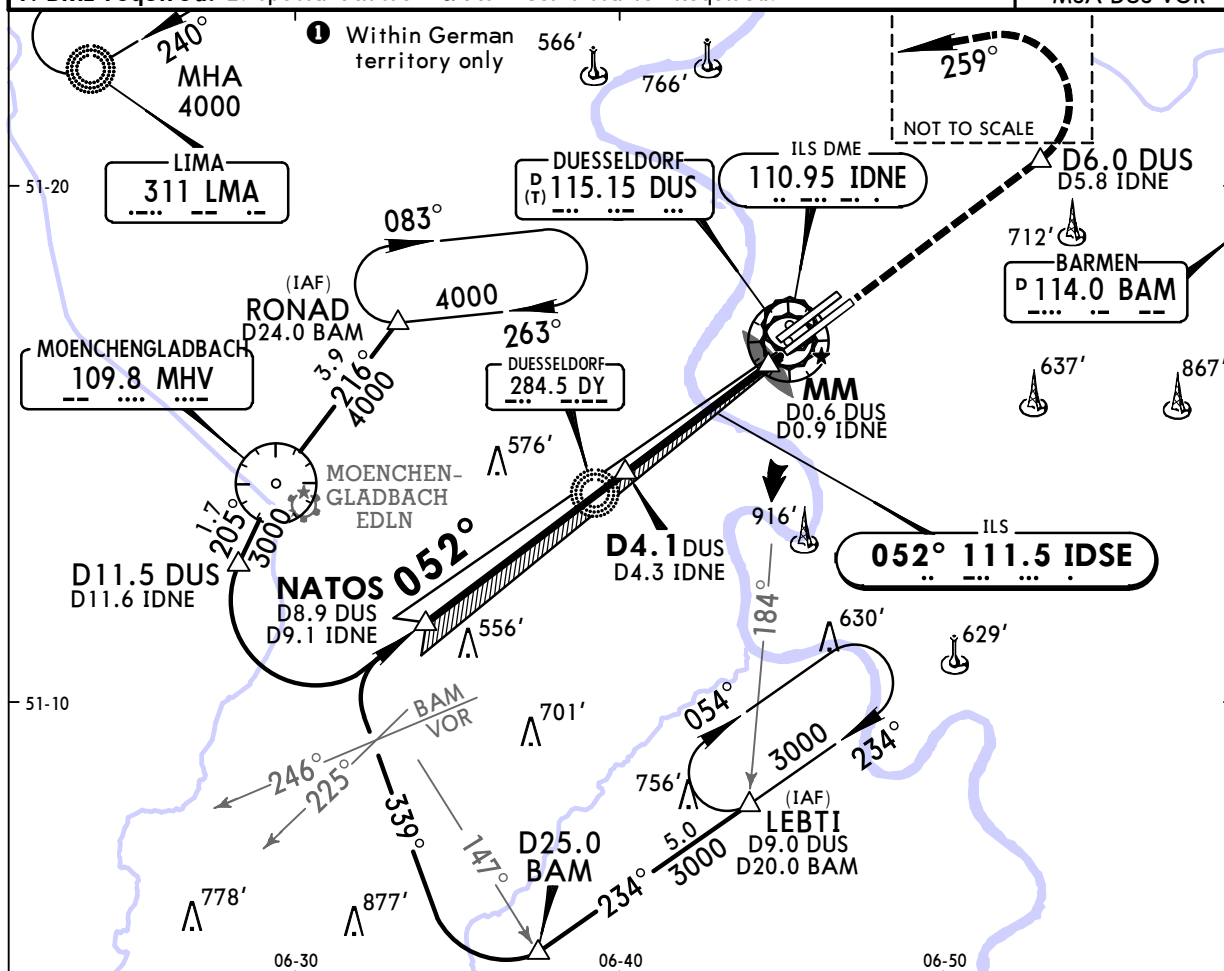
4 MAY 18

(11-2A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 05R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDSE 111.5	Final Appch Crs 052°	GS D4.1 DUS 1480' (1359')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' Rwy 121'
MISSED APCH: Climb STRAIGHT AHEAD to D6.0 DUS/D5.8 IDNE, then turn LEFT onto 259° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC 1. DME required. 2. Special Aircrew & Acft Certification Required.				
				 MSA DUS VOR



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D6.0 DUS D5.8 IDNE ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 05R	
CAT IIIA ILS 1 DH 50'		CAT II ILS RA 105' DA(H) 221'(100')	
RVR 200m		RVR 300m	
1 CAT IIIB: Min RVR 75m			

PANS OPS

CHANGES: Communications.

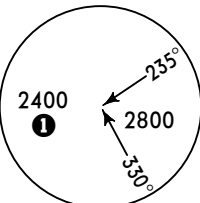
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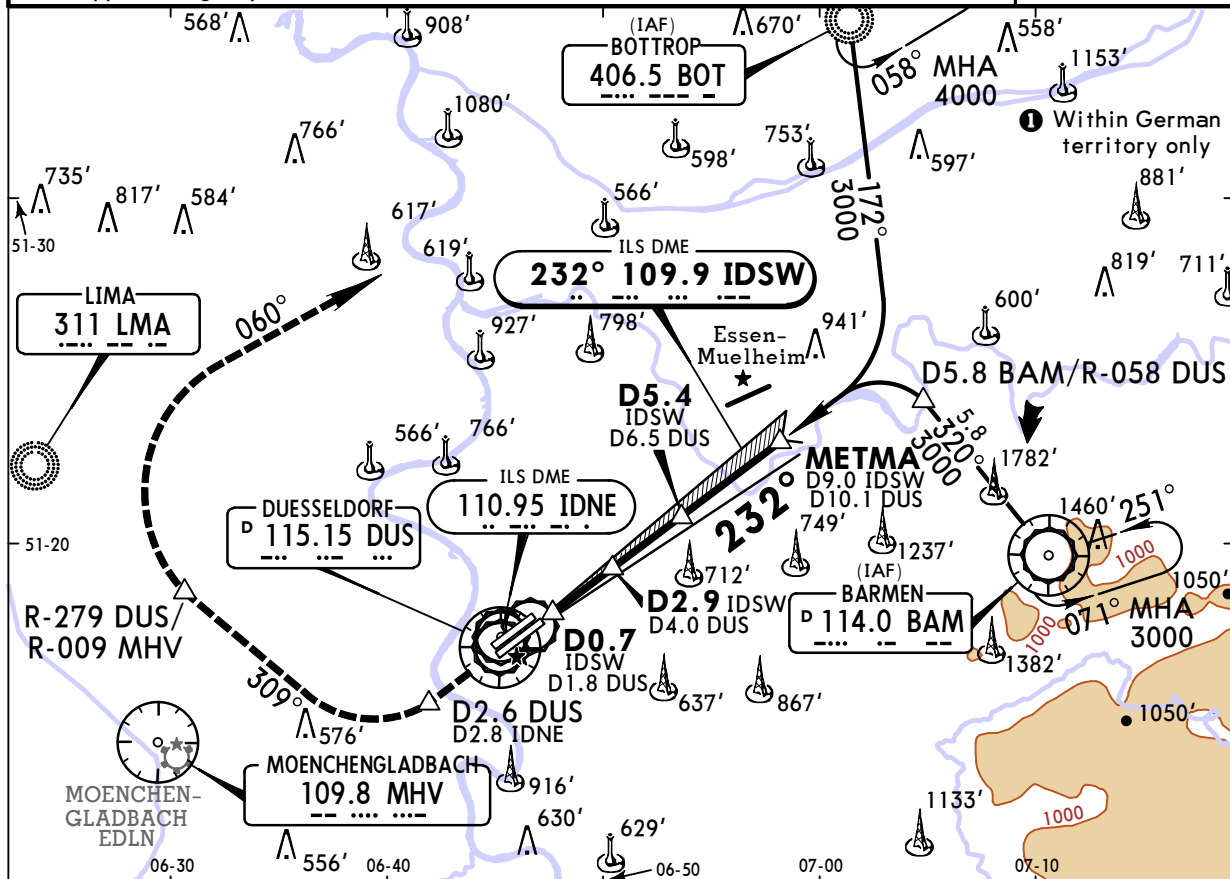
EDDL/DUS
DUESSELDORF

4 MAY 18 (11-3)

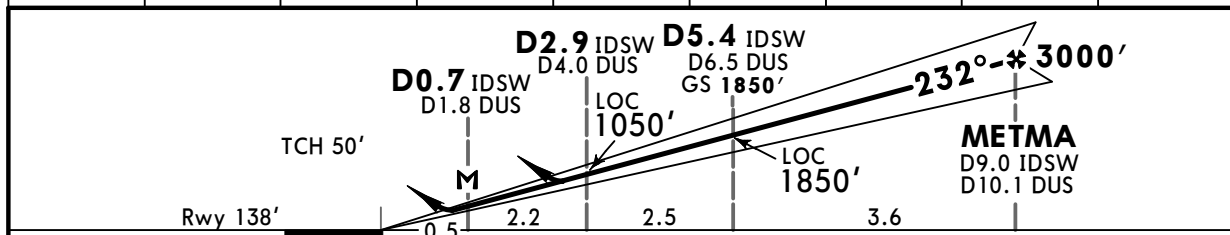
DUESSELDORF, GERMANY
ILS or LOC Rwy 23L

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
LOC IDSW 109.9	Final Aptch Crs 232°	GS D5.4 IDSW 1850' (1712')	ILS DA(H) 338' (200')	Apt Elev 147' Rwy 138'
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NNE of DUESSELDORF when approaching rwy 23L.				
				 MSA DUS VOR



LOC (GS out)	IDSW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	770'	1090'	1410'	1720'	2040'	2360'	2680'



Gnd speed-Kts	70	90	100	120	140	160		
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849	
MAP at D0.7 IDSW/D1.8 DUS								

Standard		STRAIGHT-IN LANDING RWY 23L			
ILS			LOC (GS out)		
DA(H) 338' (200')			CDFA		
DA/MDA(H) 520' (382')					
FULL		TDZ or CL out	ALS out	ALS out	
A	RVR 550m	RVR 550m I	RVR 1200m	RVR 1100m	
B					RVR 1500m
C					RVR 1800m
D					
I W/o HUD/AP/FD: RVR 750m					

PANS OPS

CHANGES: Communications.

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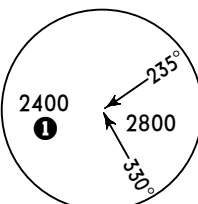
EDDL/DUS
DUESSELDORF

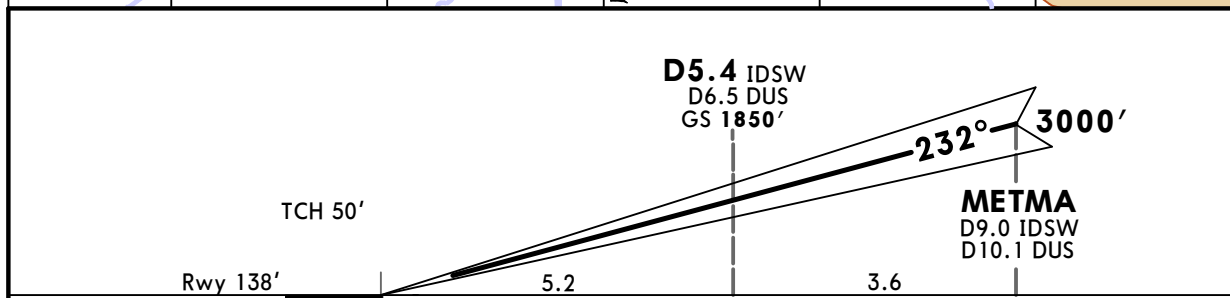
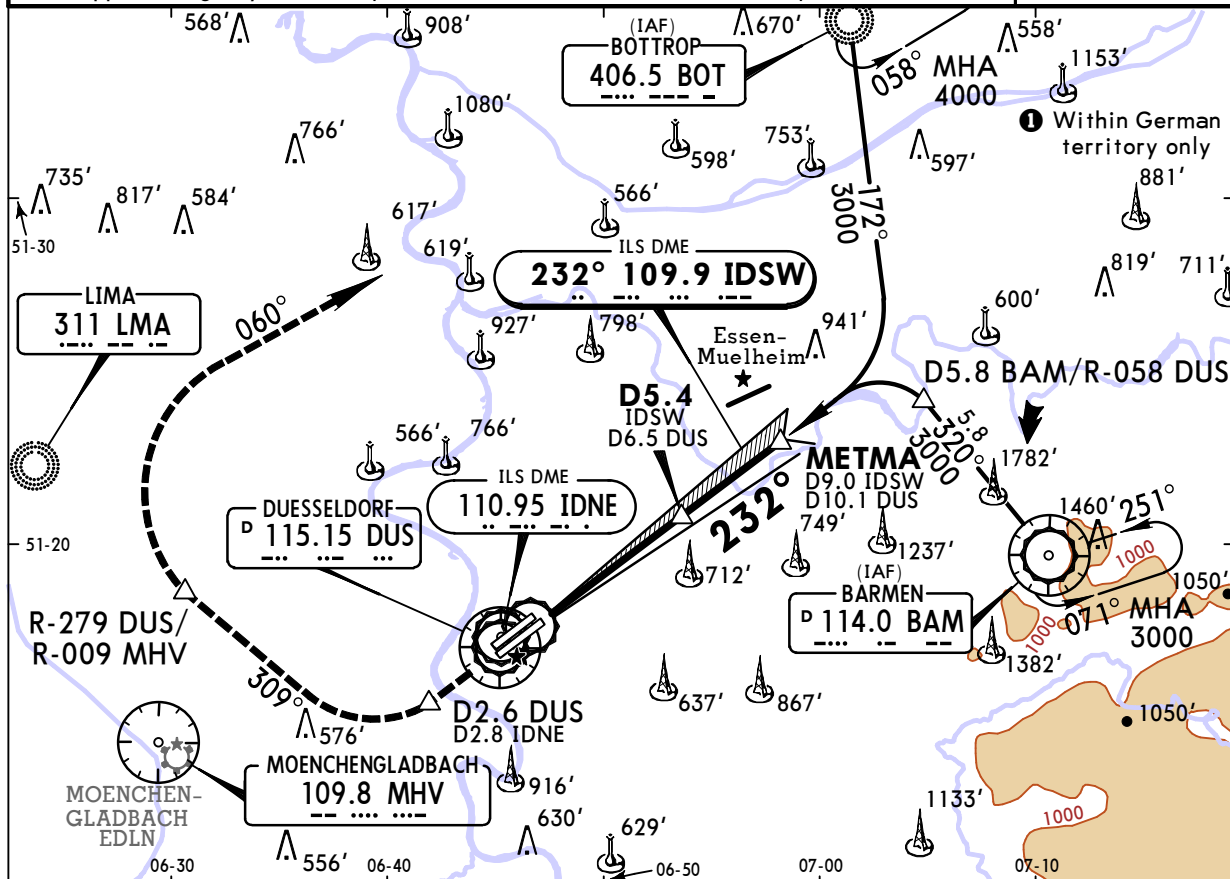
4 MAY 18

(11-3A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 23L

BRIEFING STRIP™

*D-ATIS		LANGEN Radar (APP)		*DUESSELDORF Director (APP)		DUESSELDORF Tower		*Ground	
123.780		128.550		128.650		118.305		121.905 121.605	
LOC IDSW 109.9		Final Apch Crs 232°		GS D5.4 IDSW 1850' (1712')		CAT II & IIIA ILS Refer to Minimums		Apt Elev 147' Rwy 138'	
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.									
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NNE of DUESSELDORF when approaching rwy 23L. 3. Special Aircrew & Acft Certification Required.									



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.6 DUS D2.8 IDNE ↑
GS 3.00°	372	478	531	637	743	849		

Standard		STRAIGHT-IN LANDING RWY 23L	
CAT IIIA ILS 1		CAT II ILS	
DH 50'		RA 92' DA(H) 238'(100')	
RVR 200m		RVR 300m	
1 CAT III B: RVR 75m			

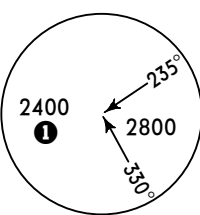
PANS OPS

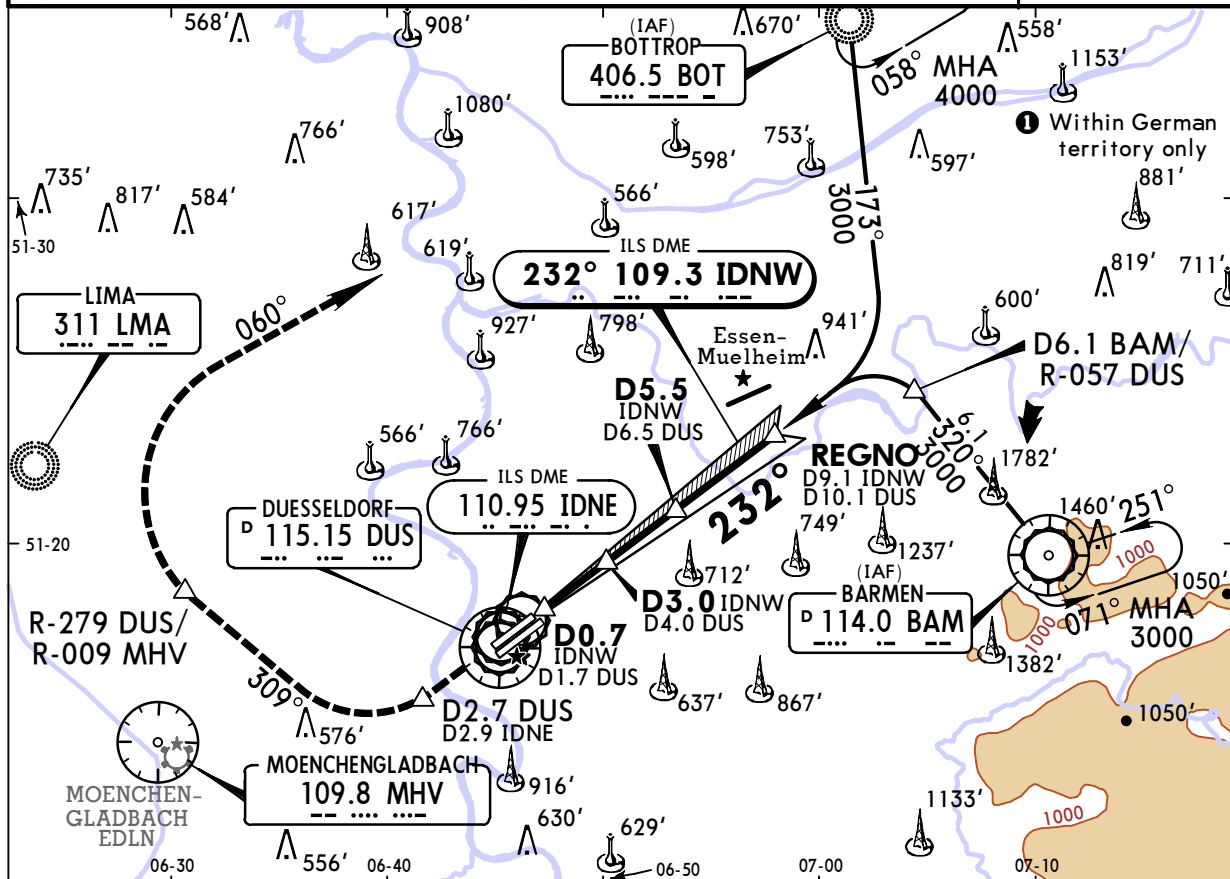
EDDL/DUS
DUESSELDORF

4 MAY 18 (11-4)

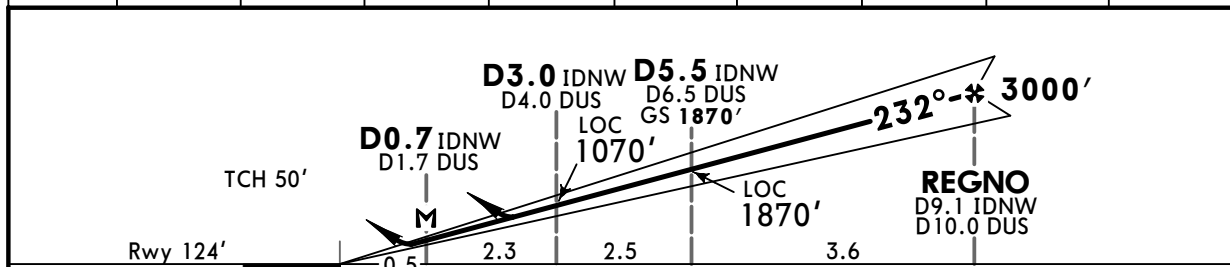
DUESSELDORF, GERMANY
ILS or LOC Rwy 23R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDNW 109.3	Final Apch Crs 232°	GS D5.5 IDNW 1870' (1746')	ILS DA(H) Refer to Minimums	APT Elev 147' RWY 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. LACFT: See ATC State pages.				
				 MSA DUS VOR



LOC (GS out)	IDNW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	750'	1070'	1390'	1710'	2030'	2350'	2660'	2980'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE ↑
ILS GS or								
LOC Descent Angle	3.00°	372	478	531	637	743		
MAP at D0.7 IDNW/D1.7 DUS								

Standard STRAIGHT-IN LANDING RWY 23R				LOC (GS out) CDFA	
DA(H) A: 324' (200') C: 344' (220') B: 332' (208') D: 354' (230')				DA/MDA(H) 510' (386')	
FULL	TDZ or CL out	ALS out		ALS out	
A				RVR 1500m	
B	RVR 550m	RVR 550m I	RVR 1200m	RVR 1100m	
C				RVR 1800m	
D					

I W/o HUD/AP/FD: RVR 750m

CHANGES: Communications.

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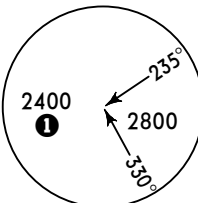
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DUESSELDORF

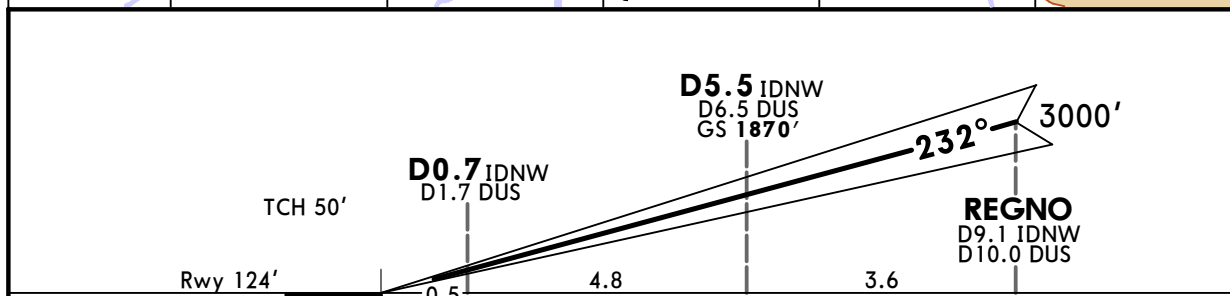
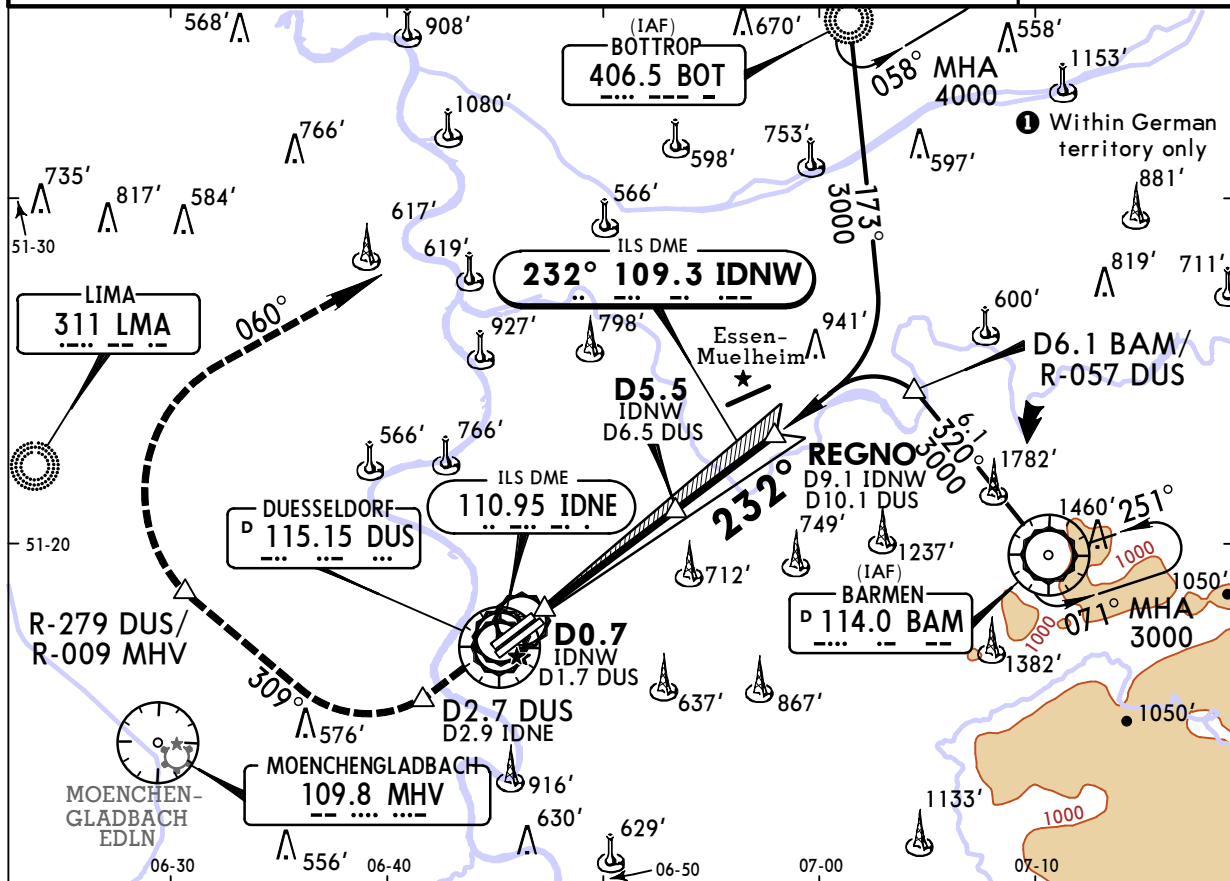
4 MAY 18

(11-4A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 23R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
LOC IDNW 109.3	Final Appch Crs 232°	GS D5.5 IDNW 1870' (1746')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' Rwy 124'	 MSA DUS VOR
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.					
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. Special Aircrew & Acft Certification Required.					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 23R	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 100' DA(H) 224' (100')	
RVR 200m		RVR 300m	

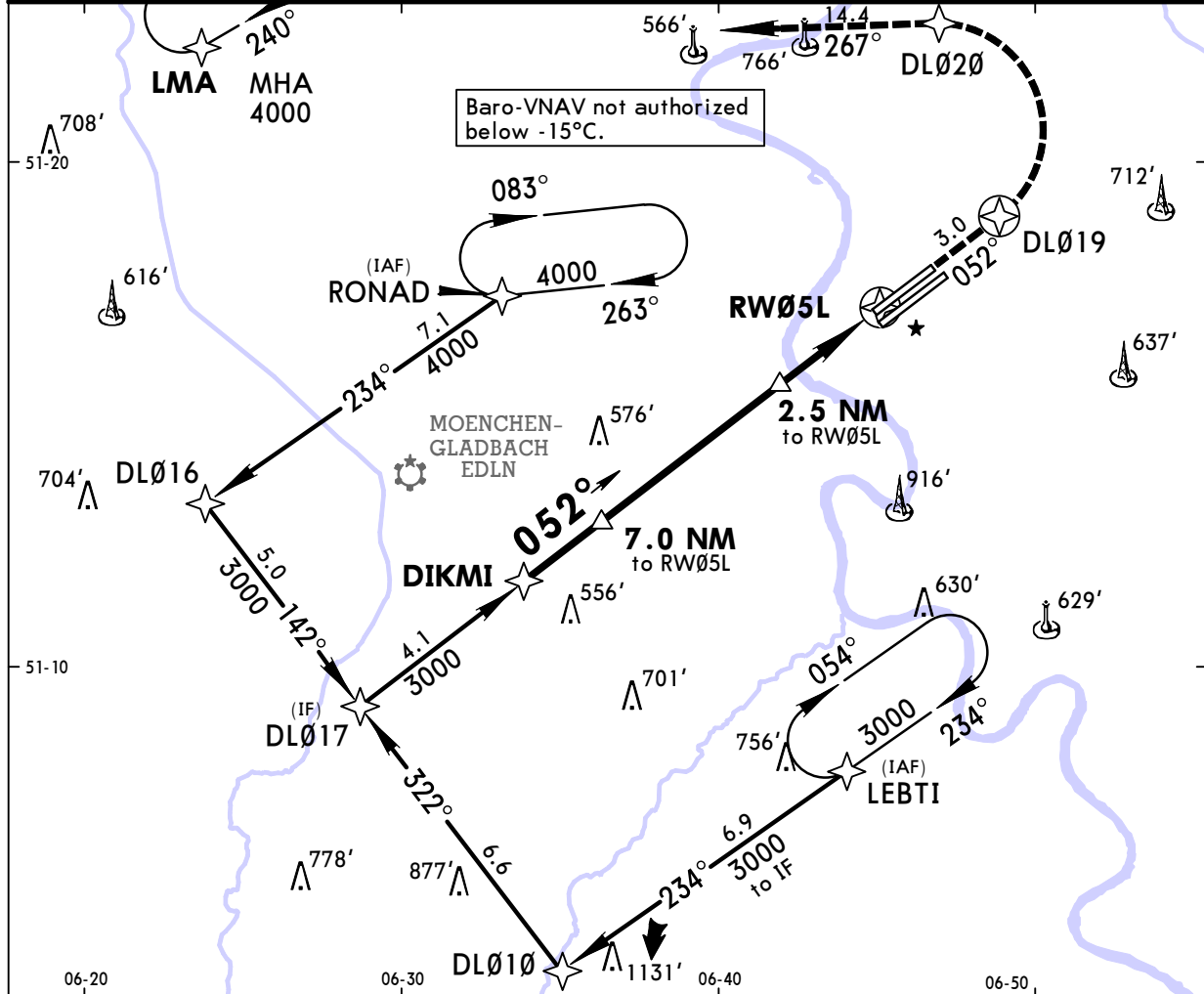
PANS OPS

EDDL/DUS
DUESSELDORF
JEPPesen
 4 MAY 18 (12-1)

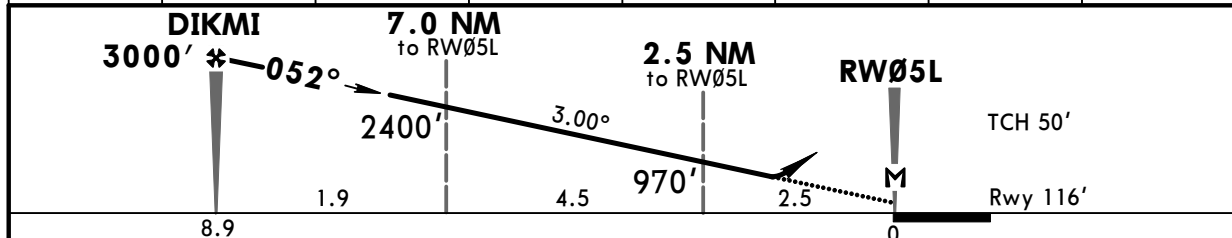
DUESSELDORF, GERMANY
RNAV (GPS) Rwy 05L

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
RNAV	Final Aptch Crs 052°	Minimum Alt DIKMI 3000' (2884')	LNAV/VNAV DA(H) 476' (360')	Apt Elev 147' Rwy 116'	2800
MISSED APCH: Climb on 052° to DL019, then turn LEFT via DL020 onto 267° to LMA climbing to 4000'.					MSA Airport (Within German territory only)
Alt Set: hPa (IN on req)		Rwy Elev: 4 hPa	Trans level: By ATC	Trans alt: 5000'	



DIST to RW05L	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.00°	372	478	531	637	743	849	
LNAV/VNAV: MAP at DA							
LNAV: MAP at RW05L							

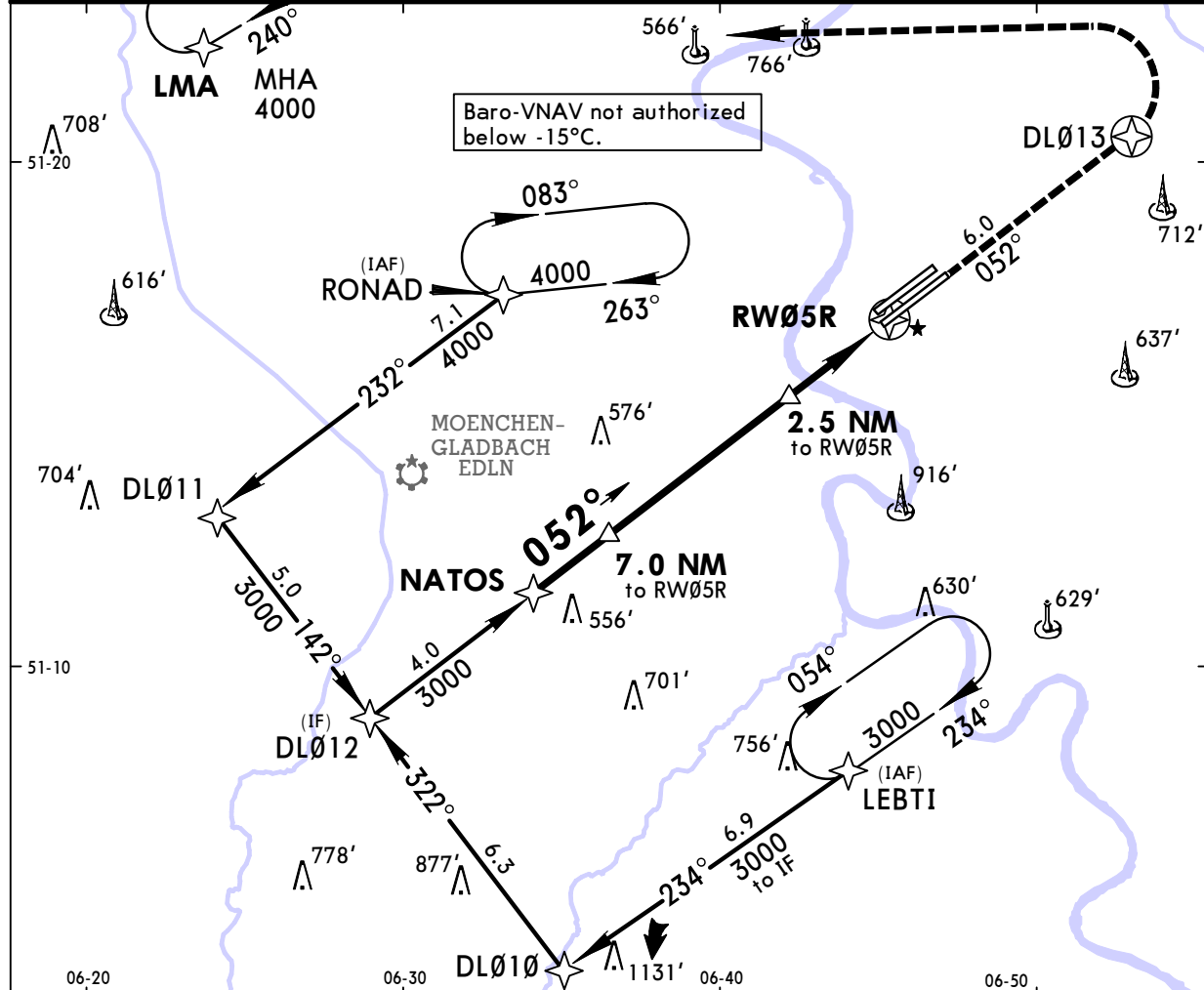
Standard		STRAIGHT-IN LANDING RWY 05L	
LNAV/VNAV		LNAV CDFA	
DA(H) 476' (360')		DA/MDA(H) 610' (494')	
ALS out		ALS out	
RVR 900m		RVR 1500m	
RVR 1500m		RVR 2300m	
RVR 1600m		RVR 1500m	

PANS OPS

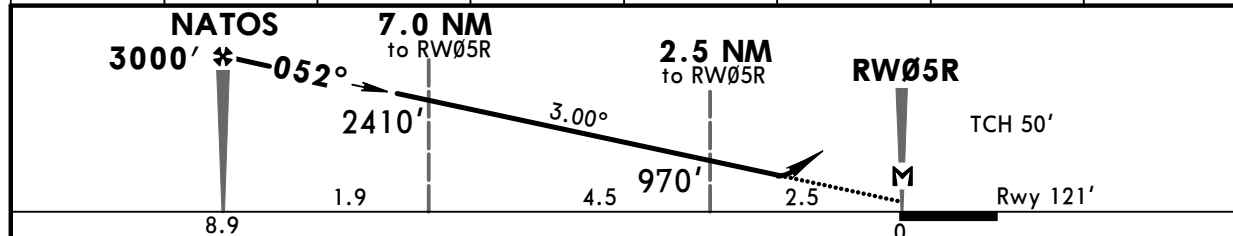
EDDL/DUS
DUESSELDORFJEPPESEN
4 MAY 18 (12-2)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 05R

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
RNAV	Final ApcH Crs 052°	Minimum Alt NATOS 3000' (2879')	LNAV/VNAV DA(H) 541' (420')	Apt Elev 147' Rwy 121'
MISSED APCH: Climb on 052° to DLØ13, then turn LEFT direct to LMA climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'				



DIST to RWØ5R	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2410'	2090'	1770'	1450'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.00°	372	478	531	637	743	849	
LNAV/VNAV: MAP at DA							
LNAV: MAP at RWØ5R							

Standard

STRAIGHT-IN LANDING RWY 05R

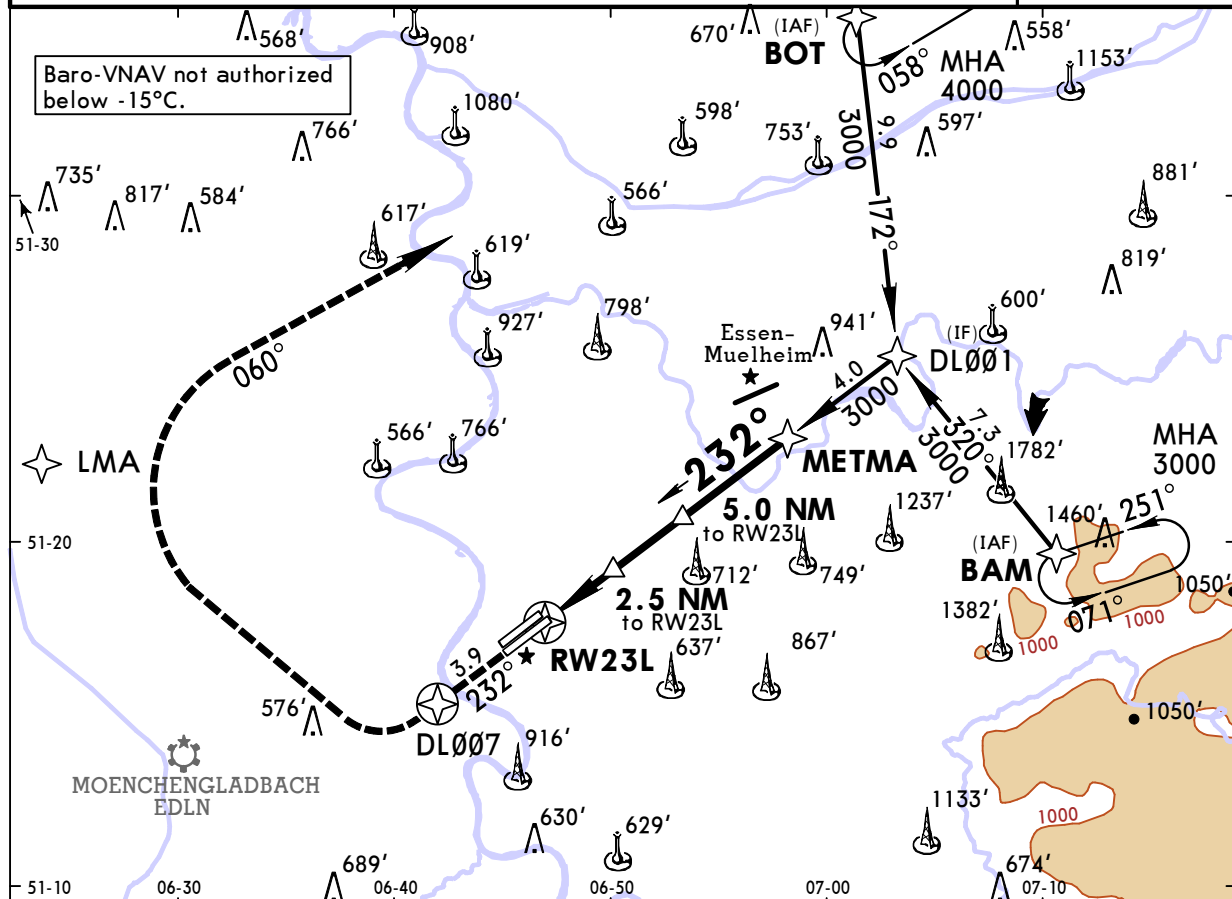
LNAV/VNAV		LNAV CDFA	
DA(H) 541' (420')		DA/MDA(H) 680' (559')	
ALS out		ALS out	
A B C D	RVR 1200m	RVR 1500m	
		RVR 1500m	
	RVR 1900m	RVR 1800m	RVR 2400m

PANS OPS

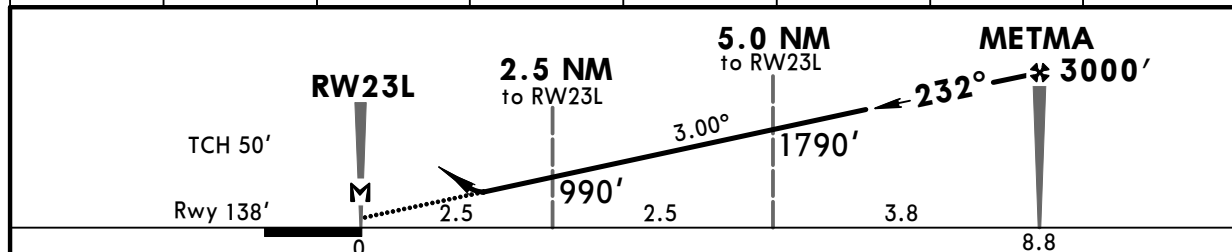
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DUESSELDORFJEPPesen
4 MAY 18 (12-3)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 23L

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
RNAV	Final Apch Crs 232°	Minimum Alt METMA 3000' (2862')	LNAV/VNAV DA(H) 598' (460')	Apt Elev 147' Rwy 138'
MISSED APCH: Climb on 232° to DL007, then turn RIGHT direct to LMA. Then turn RIGHT onto 060° to BOT climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23L.				
2800 MSA Airport (Within German territory only)				



DIST to RW23L	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	830'	1150'	1470'	1790'	2110'	2420'	2740'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
LNAV/VNAV: MAP at DA						
LNAV: MAP at RW23L						

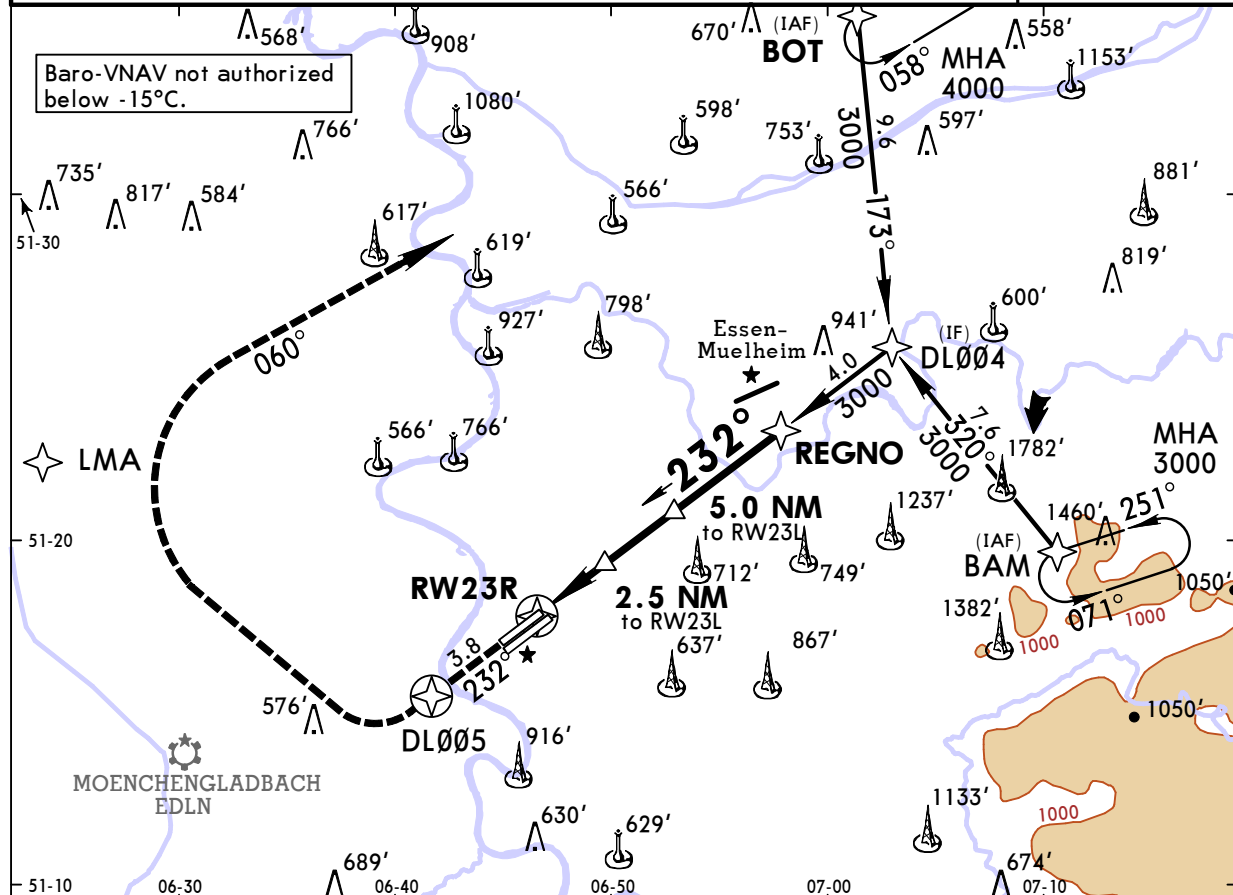
STRAIGHT-IN LANDING RWY 23L			
LNAV/VNAV		LNAV CDFA	
DA(H) 598' (460')		DA/MDA(H) A: 610' (472')	BCD: 680' (542')
ALS out		ALS out	
A	RVR 1400m	RVR 1500m	
B		RVR 1500m	
C	RVR 2100m	RVR 1800m	
D		RVR 2400m	

PANS OPS

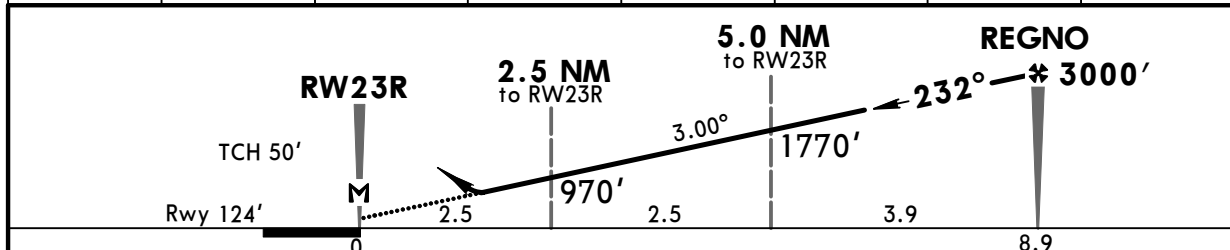
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DUESSELDORFJEPPESEN
4 MAY 18 (12-4)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 23R

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground	
123.780	128.550	128.650	118.305	121.905	121.605
RNAV	Final Apch Crs 232°	Minimum Alt REGNO 3000' (2876')	LNAV/VNAV DA(H) 624' (500')	Apt Elev 147' Rwy 124'	2800 MSA Airport (Within German territory only)
MISSED APCH: Climb on 232° to DL005, then turn RIGHT direct to LMA. Then turn RIGHT onto 060° to BOT climbing to 4000'.					
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000'					
Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R.					



DIST to RW23R	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	820'	1130'	1450'	1770'	2090'	2410'	2730'



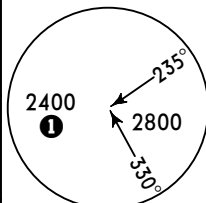
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
LNAV/VNAV: MAP at DA						
LNAV: MAP at RW23R						

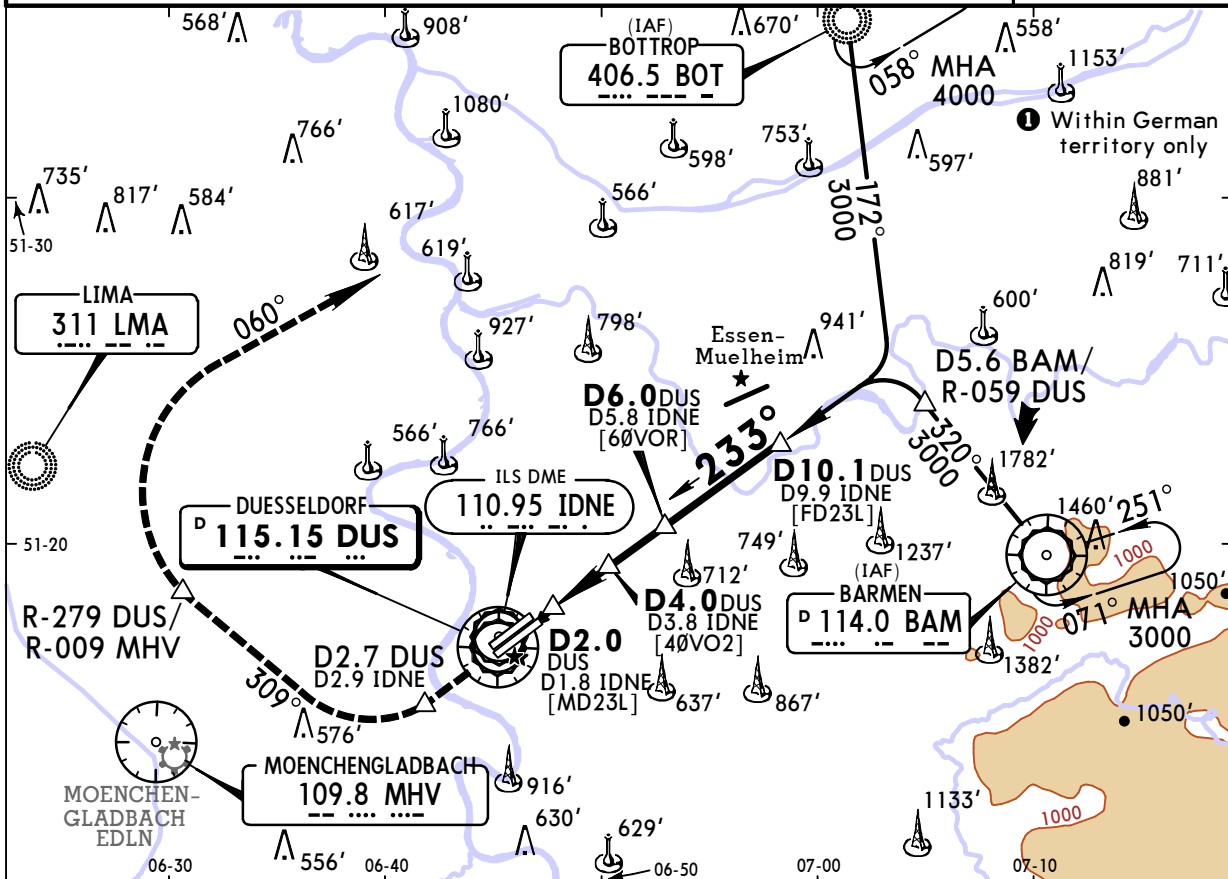
Standard				STRAIGHT-IN LANDING RWY 23R			
LNAV/VNAV				LNAV CDFA			
DA(H) 624' (500')				DA/MDA(H) 640' (516')			
ALS out				ALS out			
A	RVR 1500m			RVR 1500m			
B	RVR 1500m			RVR 1500m			
C	RVR 1500m			RVR 1600m			
D	RVR 1500m			RVR 2400m			

PANS OPS

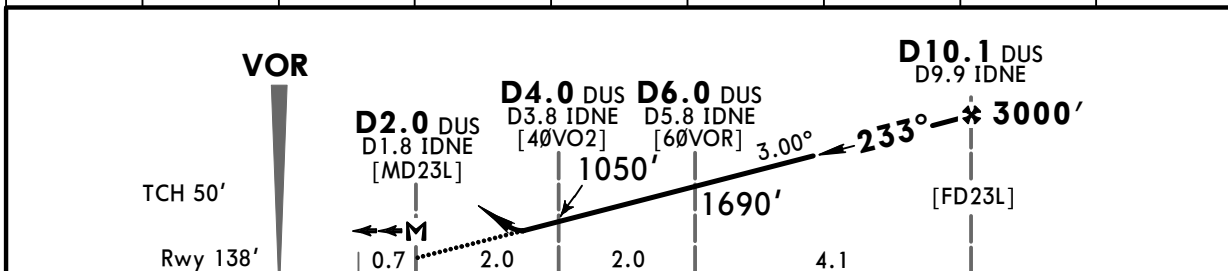
EDDL/DUS
DUESSELDORFJEPPesen DUESSELDORF, GERMANY
4 MAY 18 (13-1)
VOR Rwy 23L

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
VOR DUS 115.15	Final Apch Crs 233°	Minimum Alt D10.1 DUS 3000' (2862')	DA/MDA(H) 700' (562')	Apt Elev 147' Rwy 138'	 MSA DUS VOR
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.					
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23L. 3. Final approach track offset 1° from runway centerline.					



DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	730'	1050'	1370'	1690'	2010'	2330'	2640'	2960'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE
Descent Angle	3.00°	372	478	531	637	743		
MAP at D2.0 DUS/D1.8 IDNE								

Standard		STRAIGHT-IN LANDING RWY 23L	
		CDFA	
		DA/MDA(H) 700' (562')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m	RVR 2400m	
D			

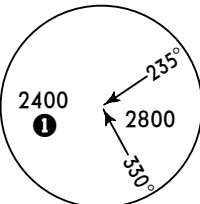
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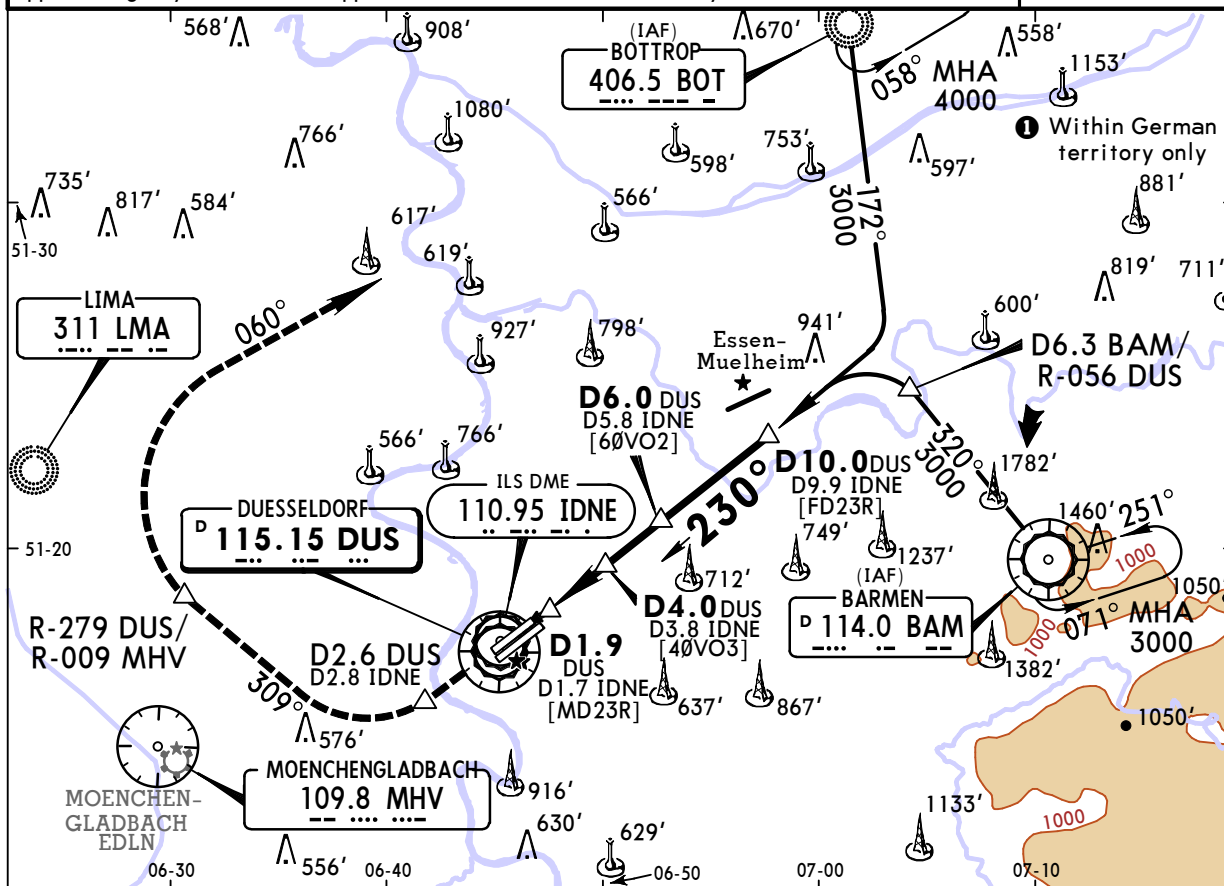
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DUESSELDORF

4 MAY 18 (13-2)

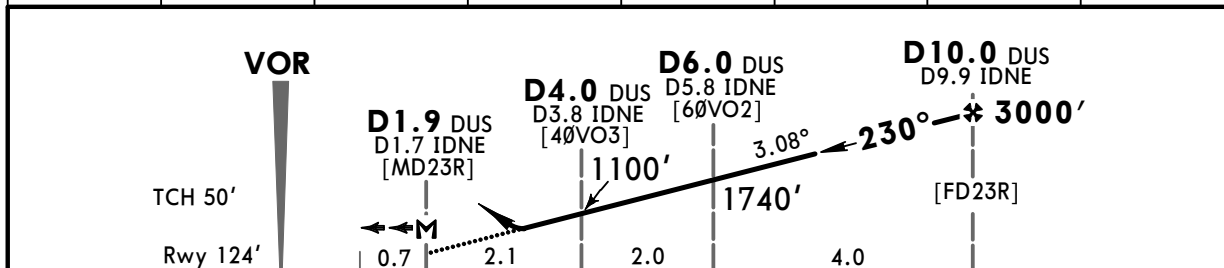
DUESSELDORF, GERMANY
VOR Rwy 23R

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
VOR DUS 115.15	Final Apch Crs 230°	Minimum Alt D10.0 DUS 3000' (2876')	DA/MDA(H) 700' (576')	Apt Elev 147' Rwy 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. Final approach track offset 2° from runway centerline.				
 MSA DUS VOR				



DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0
ALTITUDE	780'	1100'	1420'	1740'	2060'	2380'	2690'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.6 DUS D2.8 IDNE
Descent Angle	3.08°	381	490	545	654	763		
MAP at D1.9 DUS/D1.7 IDNE								

Standard		STRAIGHT-IN LANDING RWY 23R	
		CDFA	
		DA/MDA(H) 700' (576')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m		RVR 2400m
D			

PANS OPS

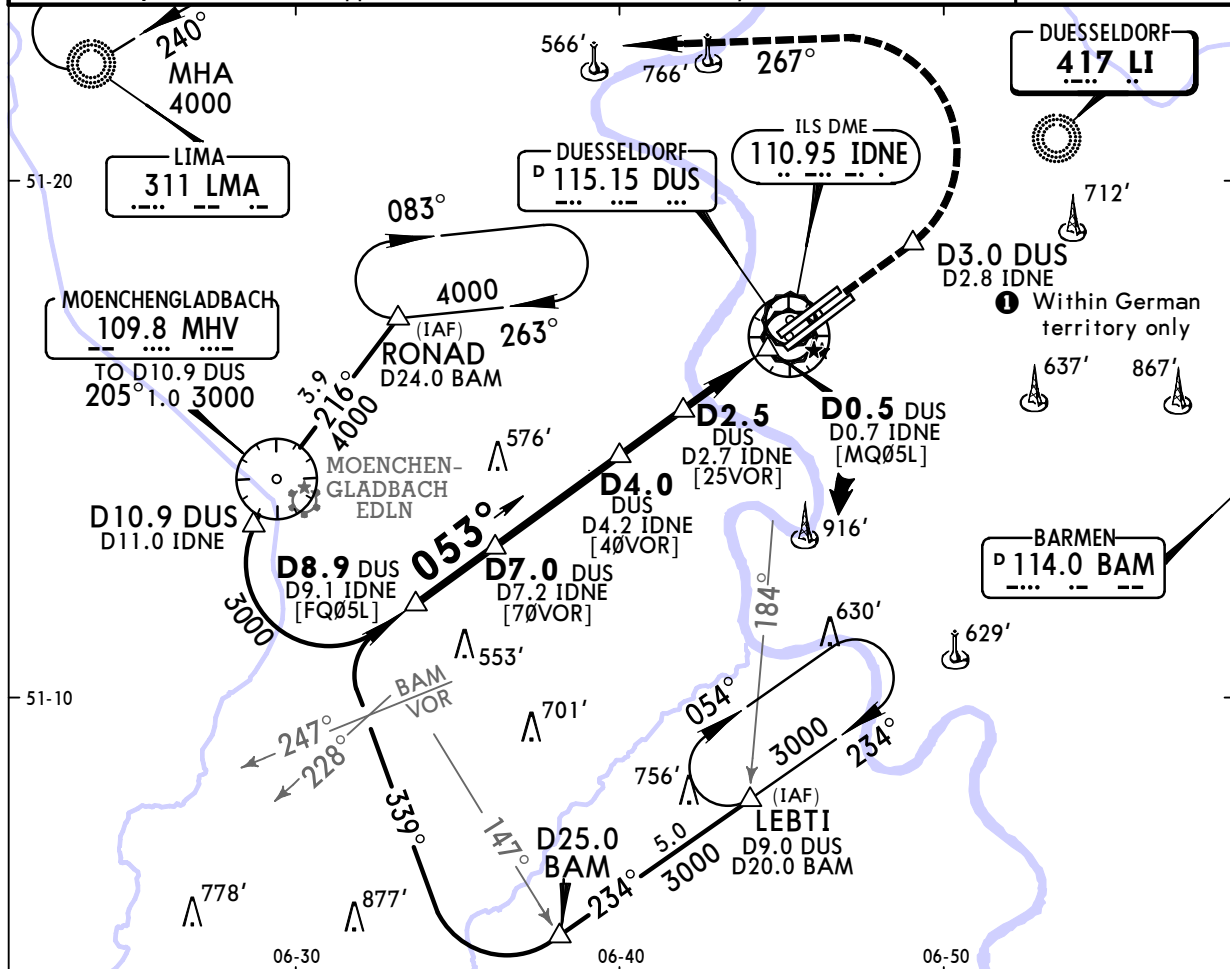
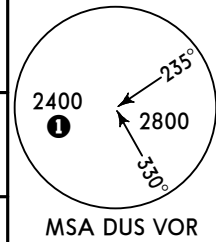
EDDL/DUS
DUESSELDORF

4 MAY 18 (16-1)

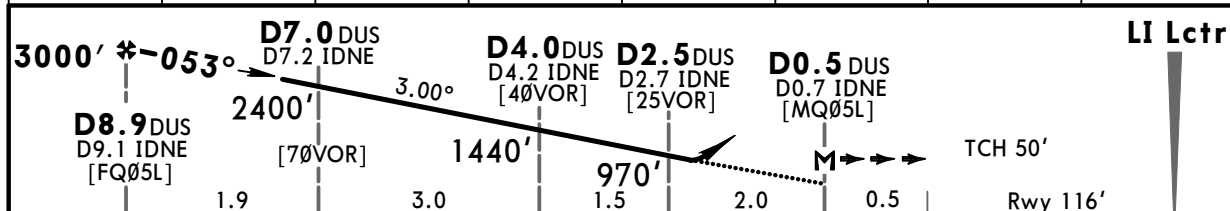
DUESSELDORF, GERMANY
NDB Rwy 05L

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
Lctr LI 417	Final Apch Crs 053°	Minimum Alt D8.9 DUS 3000' (2884')	DA/MDA(H) 680' (564')	Apt Elev 147' Rwy 116'
MISSED APCH: Climb STRAIGHT AHEAD to D3.0 DUS/D2.8 IDNE, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Final approach track offset 1° from runway centerline.				



DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160			
Descent Angle	3.00°	372	478	531	637	743	849		
MAP at D0.5 DUS/D0.7 IDNE									

Standard									
STRAIGHT-IN LANDING RWY 05L									
CDFA									
DA/MDA(H) 680' (564')									
ALS out									
A	RVR 1500m								
B									
C									
D									
	RVR 1900m				RVR 2400m				

PANS OPS

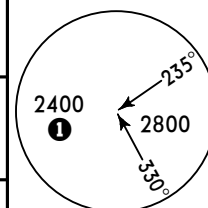
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DUESSELDORF

4 MAY 18 (18-1)

DUESSELDORF, GERMANY
SRA All Rws

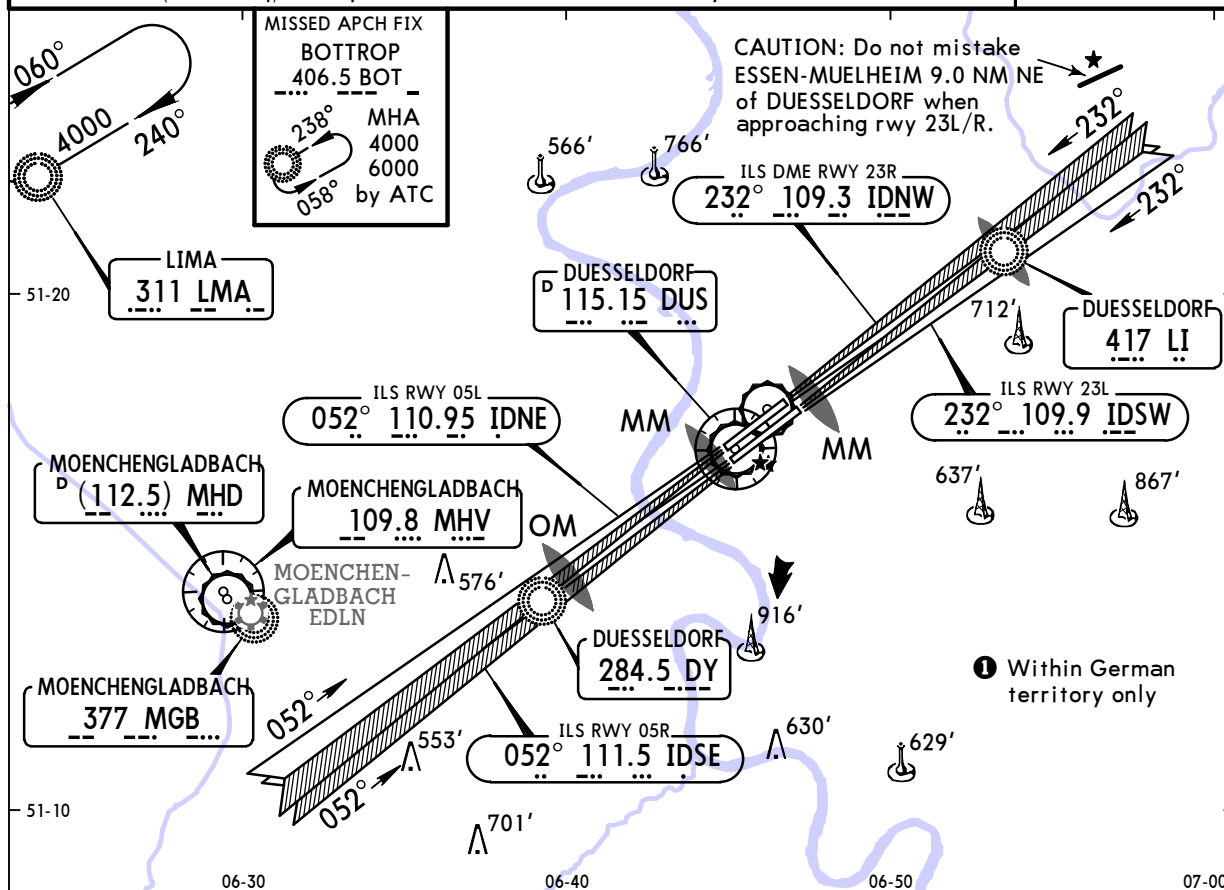
BRIEFING STRIP

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
RADAR	Final Apch Crs By ATC	Minimum Alt See table below	DA/MDA(H) Refer to Minimums	Apt Elev 147' RWY - See below

**MISSED APCH: Climb STRAIGHT AHEAD to 4000'.**

Alt Set: hPa (IN on req) Apt Elev: 5 hPa Trans level: By ATC Trans alt: 5000'

MSA DUS VOR



RADAR FIX	10.0	8.0	6.0	4.0	3.0	2.0
ALTITUDE	3200'	2600'	2000'	1400'	1100'	800'

Minimum Alt/NM	10.0 FAF
SRA 05L	3200'
SRA 05R	3200'
SRA 23L	3200'
SRA 23R	3200'

RWY	05L	05R	23L	23R
BASED ON ELEV.	116'	121'	138'	124'

Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 2.83°	348	447	497	596	695	794
MAP at THR						

Lighting-
Refer to
Airport
Chart
4000'
↑**Standard****STRAIGHT-IN LANDING**

	SRA 05L CDFA DA/MDA(H) 830' (714')	SRA 05R CDFA DA/MDA(H) 830' (709')	SRA 23L CDFA DA/MDA(H) 950' (812')	SRA 23R CDFA DA/MDA(H) 790' (666')
	ALS out	ALS out	ALS out	ALS out
A	RVR 1500m	RVR 1500m	RVR 1500m	RVR 1500m
B				
C	RVR 2400m	RVR 2400m	RVR 2400m	RVR 2400m
D				

PANS OPS

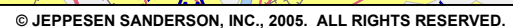
CHANGES: Communications.

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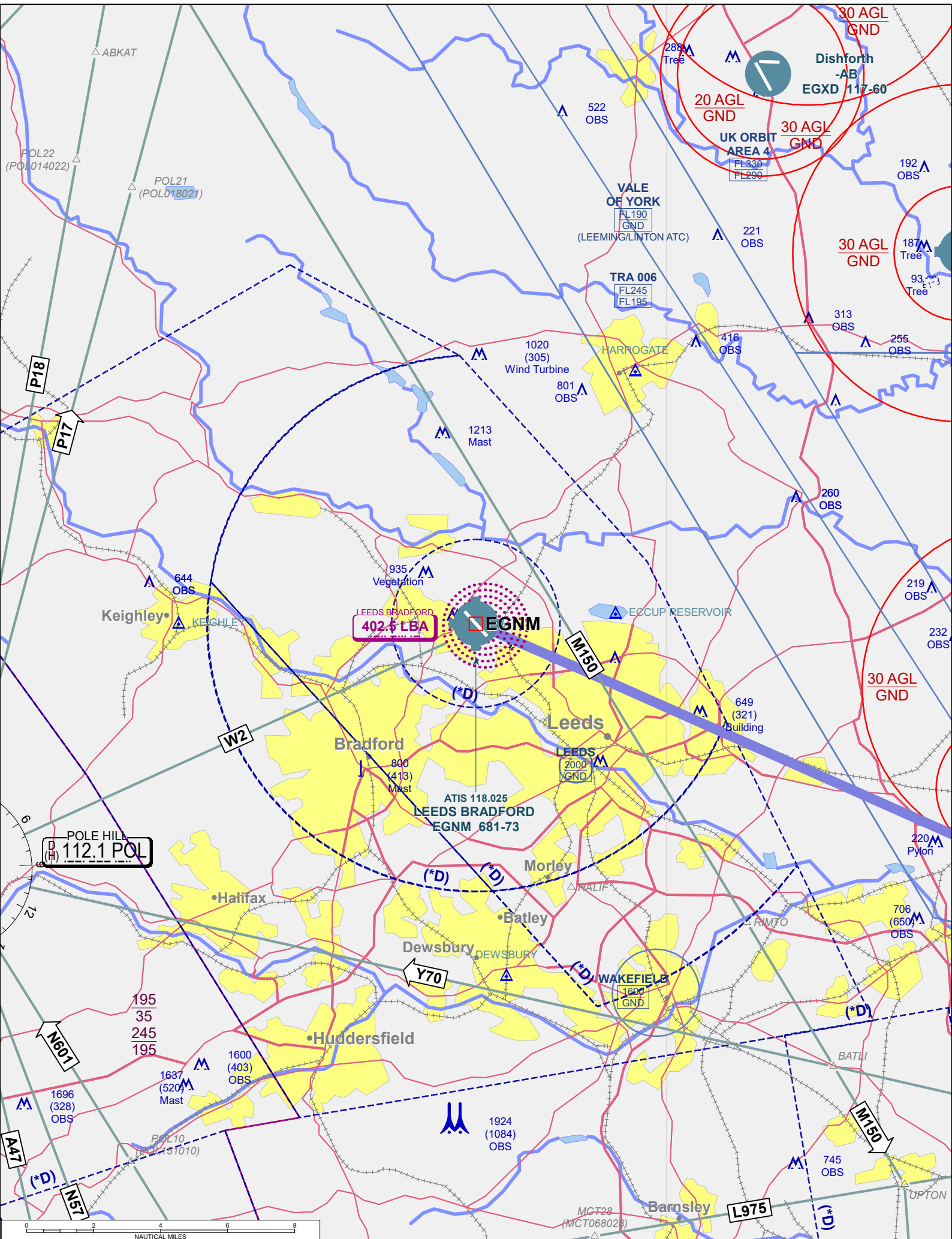
JeppView 3.6.2.0



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JeppView 3.6.2.0

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EDDL/DUS
DUESSELDORF**JEPPESEN**

20 APR 18

10-1P

Eff 26 Apr

DUESSELDORF, GERMANY**AIRPORT BRIEFING**

1. GENERAL

1.1. ATIS

*D-ATIS 123.780

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. NIGHT FLYING RESTRICTIONS****Jet ACFT not licensed according to ICAO Annex 16**

Take-offs and landings are not permitted between 1900LT (1850LT off blocks)-0800LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 2

Take-offs and landings are not permitted between 1900LT (1850LT off blocks)-0800LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 not included in the Bonus List of the Federal Ministry of Transport and Digital Infrastructure

Scheduled take-offs and landings are not permitted between 2200LT (2150LT off blocks)-0600LT.

Jet ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 included in the Bonus List of the Ministry of Transport and Digital Infrastructure

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services the Aviation Supervision (Luftaufsicht) may grant exceptional permission in individual cases until 2300LT (2250LT off blocks), if required to maintain the safety of flight operations or to avoid major disruptions in airline operations.
- Scheduled landings are not permitted between 2300-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330-0600LT.
- Delayed landings of ACFT which are operated in scheduled air services or scheduled charter services and owned by airlines that have their local maintenance facilities recognized by the approving authority at Duesseldorf APT are not permitted between 2400-0500LT. If a recognized local main maintenance facility is no longer operated, the approving authority may recognize Duesseldorf APT as the local main maintenance facility at the request of another airline.

Propeller ACFT

- Take-offs and landings are not permitted between 2200LT (2150LT off blocks) - 0600LT.
- Excepted are take-offs and landings of propeller ACFT with one of the following noise licenses: ICAO Annex 16, Volume I, Chapter 3, 4, 5, 6 or 10.

The following applies to propeller ACFT exceeding 9t MTOM:

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services, the Aviation Supervision (Luftaufsicht) may grant exceptional permission in individual cases until 2300LT (2250LT off blocks) if required to maintain the safety of flight operations or to avoid major disruptions in airline operations.
- Scheduled landings are not permitted between 2300LT-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330LT-0600LT.

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DUESSELDORF

20 APR 18

JEPPESEN**10-1P1****Eff 26 Apr****DUESSELDORF, GERMANY****AIRPORT BRIEFING**

1. GENERAL

Excluded from the restrictions above are:

- Landings of ACFT provably approaching Duesseldorf APT as alternate aerodrome for meteorological, technical or other safety reasons.
- Take-offs and landings on a mission in disasters or rendering medical assistance as well as in other emergency cases; take-offs, however, only subject to individual permission by the Aviation Supervision (Luftaufsicht).
- Flight checks conducted by the DFS (Deutsche Flugsicherung GmbH)

Deviating from the above-mentioned regulations the "Bezirksregierung" Duesseldorf [Aviation Supervision (Luftaufsicht) at Duesseldorf APT] may grant additional exceptions in justified individual cases, especially if necessary to avoid considerable disturbance of air traffic or in cases of special public interest. If appropriate, applications shall be submitted to:

Luftaufsichtsstelle
Flughafen Duesseldorf
40474 Duesseldorf
Tel: +49-(0)211-4216364
Fax: +49-(0)211-4216493.

Clearance for take-offs during closing times issued by ATC do not comprise the necessary exceptional permission of the Aviation Supervision (Luftaufsicht) at Duesseldorf APT.

Exceptional permission for night landings during the closing times will not generally be granted by ATC via radio telephony. Accordingly, a landing clearance issued by ATC for safety reasons will not necessarily include the decision of the Aviation Supervision (Luftaufsicht) about the admissibility of a night landing.

In case of a delayed or premature landing (before 0500LT) not approved by the Aviation Supervision (Luftaufsicht) the pilot shall appear in person at the Aviation Supervision (Luftaufsicht) immediately after landing in order to justify the admissibility of the night landing.

1.2.2. REVERSE THRUST

Reverse thrust other than idle should not be used between 2200-0600LT except for safety reasons.

1.2.3. RUN-UP TESTS

Run-ups of turbo-powered engines are generally permitted only with the noise suppressor device specified in the APT regulations.

Between 2200-0600LT run-ups in the noise suppression facility may only be conducted if such a run-up serves to verify the safety of an ACFT and to comply with an existing flight plan.

For all turbo-propeller ACFT, engine test runs on the apron and the noise reduction hangar (hangar 9) are not allowed 2300-0400LT, due to environmental reasons.

1.2.4. AUXILIARY POWER UNITS (APU)

Between 2200-0600LT landing ACFT must switch off APU immediately after arriving at the parking position.

Departing ACFT may start the APU no earlier than 30 minutes before TOBT. Exceptions require the approval of duty traffic manager (Tel: +49-(0)211-421220).

1.3. RWY OPERATIONS

1.3.1. HIGH INTENSITY RWY OPERATIONS

1.3.1.1. USE OF RWYS

The northern RWY (05L/23R) may only be used 56 hours per week. These hours are determined in the preceding week and may only be changed in exceptional cases.

Take-offs are usually conducted on the southern RWY (05R/23L); landings on the northern RWY, if available, otherwise on the southern RWY.

EDDL/DUS
DUESSELDORF**JEPPESEN**
17 AUG 18 **(10-1P2)****DUESSELDORF, GERMANY**
AIRPORT BRIEFING

1. GENERAL

1.3.1.2. PARALLEL USE OF RWYS

If meteorological conditions permit, take-offs and landings may be conducted on both RWYs at the same time. If required, ATC will provide visual separation between departures and missed approaches as quickly as possible.

1.3.1.3. SPECIAL REQUESTS

If the northern RWY (05L/23R) is used for arrivals or departures, deviating requests for using the southern RWY (05R/23L) should only be made if this is required for safety reasons. Shortening the taxi time on the ground is not considered a compelling reason.

In addition, the special line-up (entering RWY 23L with a 270-degree Right turn) should only be requested if the take-off distance from L1 is not sufficient.

1.3.1.4. VACATING THE RWY

After landing, the RWY shall be vacated as fast as possible.

ACFT should cross the CAT I holding position rapidly and stop in front of the CAT II/III holding position. This point also serves as a holding position in front of TWY M.

1.3.1.5. READINESS FOR DEPARTURE AT THE RWY

ATC assumes that pilots are ready to taxi onto the departure RWY upon reaching the holding position and are ready to commence the take-off run immediately after receiving take-off clearance.

Pilots who are not ready for take-off upon reaching the RWY (when no other ACFT is in front of them) shall immediately inform ATC about this.

After receiving take-off clearance on the RWY, ATC expects the take-off run to be commenced within 10 seconds. Pilots who are unable to do so shall inform ATC before entering the RWY.

1.3.1.6. WAKE TURBULENCE SEPARATION

ATC will ensure wake turbulence separation between arriving and departing ACFT by means of radar while taking into account the prescribed separation minima.

Pilots who require larger distances, for example on the basis of a specific time interval, shall report this before entering the RWY.

1.4. TAXI PROCEDURES

1.4.1. GENERAL

B747-8 are only permitted to taxi on the apron under marshaller guidance.

Apron West MAX wingspan 102'/31m.

TWY G2 MAX wingspan 94'/28.5m.

TWY L3 only usable if stand V01 not occupied.

RWY 05R exit via TWY L2 not possible.

TWY L2 available for all ACFT except B777 and A340-600.

On TWYs L1 and L2, ACFT with wingspan up to 198'/60.3m can overtake each other. Wingtip clearance is reduced to 39'/12m.

On TWY M and on the apron in front of concourse B, there are two holding points named Checkpoints 1 and 2. These mark the boundary between the two sectors of ground control. The holding points are marked and equipped with yellow surface lights (clearance bars).

If necessary, ACFT are instructed to stop at a clearly specified clearance bar. Without this instruction, clearance bars may be passed without clearance.

Clearance bars will be replaced by red stop bars in weather conditions lower than CAT I minima. A lighted stop bar shall never be crossed.

TWY K and TWY L5 closed during CAT II and CAT III operations.

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DUESSELDORF**JEPPESEN**

17 AUG 18

10-1P3

DUESSELDORF, GERMANY**AIRPORT BRIEFING**

1. GENERAL

1.4.2. TAXIING ON APRON

ACFT are permitted to taxi only at the absolute minimum engine speed.

Within apron area between TWY L5 and P1 parallel taxiing for B747-400/B777/A330/A340 not possible.

Within apron area between TWY P1 and P4 parallel taxiing possible for A380 and A310, B757 and smaller ACFT.

Within apron area on taxilanes T, P4, L7, L8, W and Y wingtip clearance reduced to 25'/7.5m for B747-400, B777 and A330/340.

1.5. PARKING INFORMATION

Stands A01 thru A05, A09 thru A13, A15, A16, B01 thru B04, B06, B08 thru B11, C01 thru C08 and C02A, C03A equipped with SAFEGATE Docking Guidance System.

On stands C02 and C03 wingtip clearance for B747-400 may be reduced to 16'/5m.

Push-back required from all stands except from V01 and V61 thru V74.

Landing ACFT have to switch off Auxiliary Power Unit (APU) immediately after arriving at the parking position.

Departing ACFT may start the APU earliest 30 minutes before TOBT. Exceptions require the approval of the duty traffic manager.

1.6. OTHER

For APT Collaborative Decision Making (ACDM) see ATC pages Germany.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. ARRIVING ACFT

If possible, the landing gear should only be extended after passing 2000'.

2.2. CAT II/III OPERATIONS

RWYs 05R, 23L and 23R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. TAXI PROCEDURES

2.3.1. GENERAL

If the crew realises when taxiing into a nose-in ACFT stand with a docking guidance system that the latter system is switched off or out of order, the crew shall stop the ACFT immediately. Ground control shall be informed of the malfunctioning via radio. Taxiing may be continued according to the instruction given by ground control.

ACFT using TWY L8 vacating RWY 23L may not turn right into TWY M.

2.3.2. TAXI PROCEDURES FOR A380

For landing direction 23L, ACFT shall taxi via TWY L9, continue via TWY M and TWY P4 to position C02A.

For landing direction 05R, ACFT shall taxi via TWY L1, continue via TWY M and TWY P4 to position C02A.

Any other maneuvers may only be conducted under the guidance of a marshaller.

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17 NOV 17**10-1P4****DUESSELDORF, GERMANY**
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

De-icing areas are established at:

- DA-West (area near ACFT stands V61 thru V69) for take-off RWY 05L or 05R.
- DA-East (area near ACFT stands V01 thru V08) for take-off RWY 23L or 23R. At V11B for A380.

After de-icing has been completed contact DUESSELDORF Ground on last assigned frequency and report "ready to taxi".

3.1.2. COMMUNICATIONS

After parking the ACFT on the de-icing pad, the pilot will report flight number and ACFT type to DUESSELDORF De-icing

Pos.1: **130.080**, Pos.2: **130.455**, Pos.3: **130.605** or Pos.4: **130.855**
for the beginning of de-icing.

3.1.3. TAXIING

The ACFT will be guided by a Follow-me car to a vacant de-icing position.

Taxi lights have to be switched off in the meantime.

Taxiing manoeuvres shall be carried out with the absolute minimum number of engine revolutions required only.

3.2. TAXI PROCEDURES FOR A380

For take-offs from RWY 23L, ACFT shall taxi via P4, TWY M and TWY L1.

For take-offs from RWY 05R, ACFT shall taxi via P4, TWY M and L9.

Any other manoeuvres may only be conducted under the guidance of a marshaller.

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20 APR 18

JEPPSEN DUESSELDORF, GERMANY

10-2

Eff 26 Apr

STAR

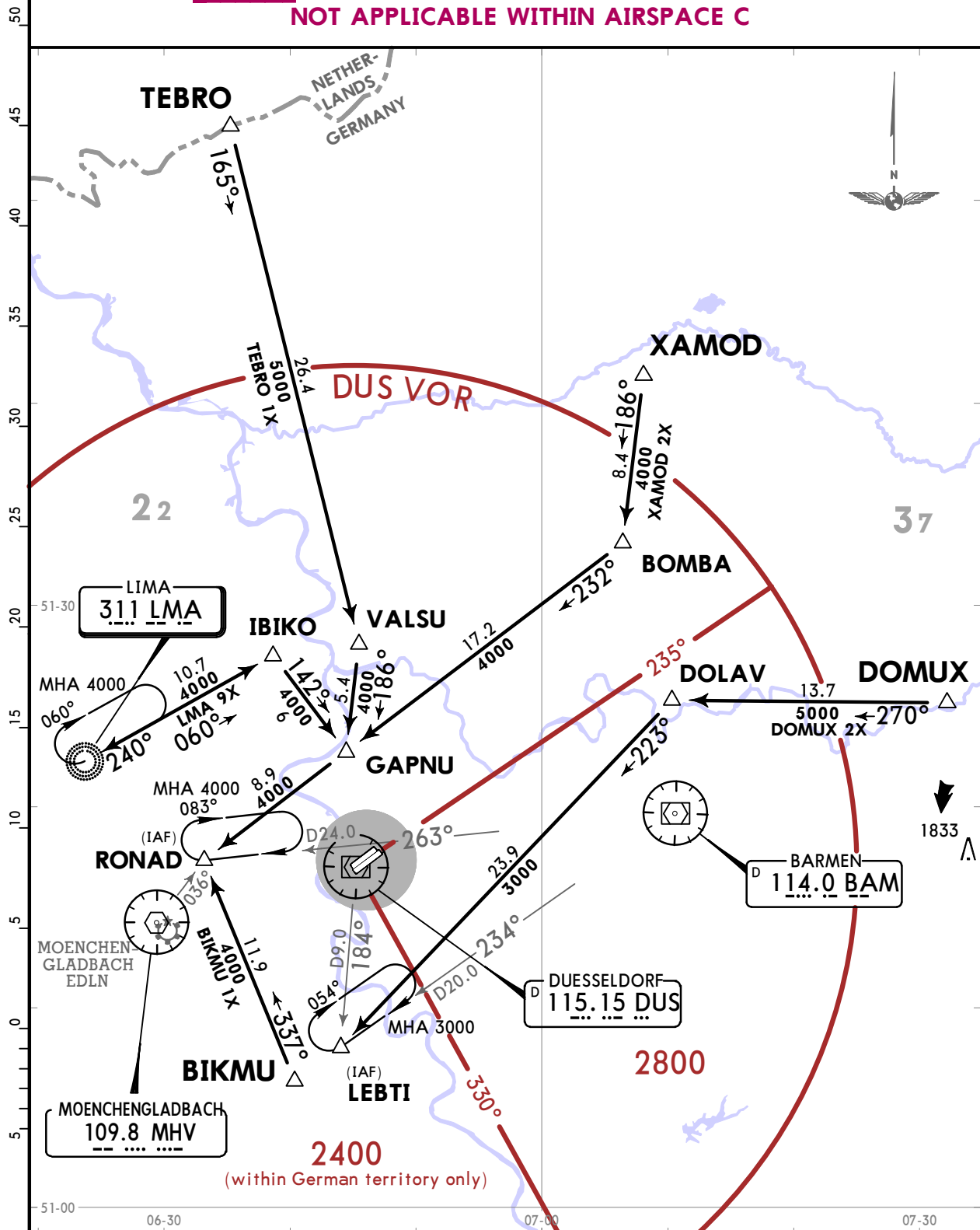
*D-ATIS
123.780

Apt Elev
147

Alt Set: hPa (IN on request)
Trans level: By ATC
B-RNAV equipment necessary.

BIKMU 1X [BIKM1X]
DOMUX 2X [DOMU2X]
LIMA 9X (LMA 9X) [LMA9X]
TEBRO 1X [TEBR1X]
XAMOD 2X [XAMO2X]
RWYS 05L/R ARRIVALS

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



CHANGES: ATIS.

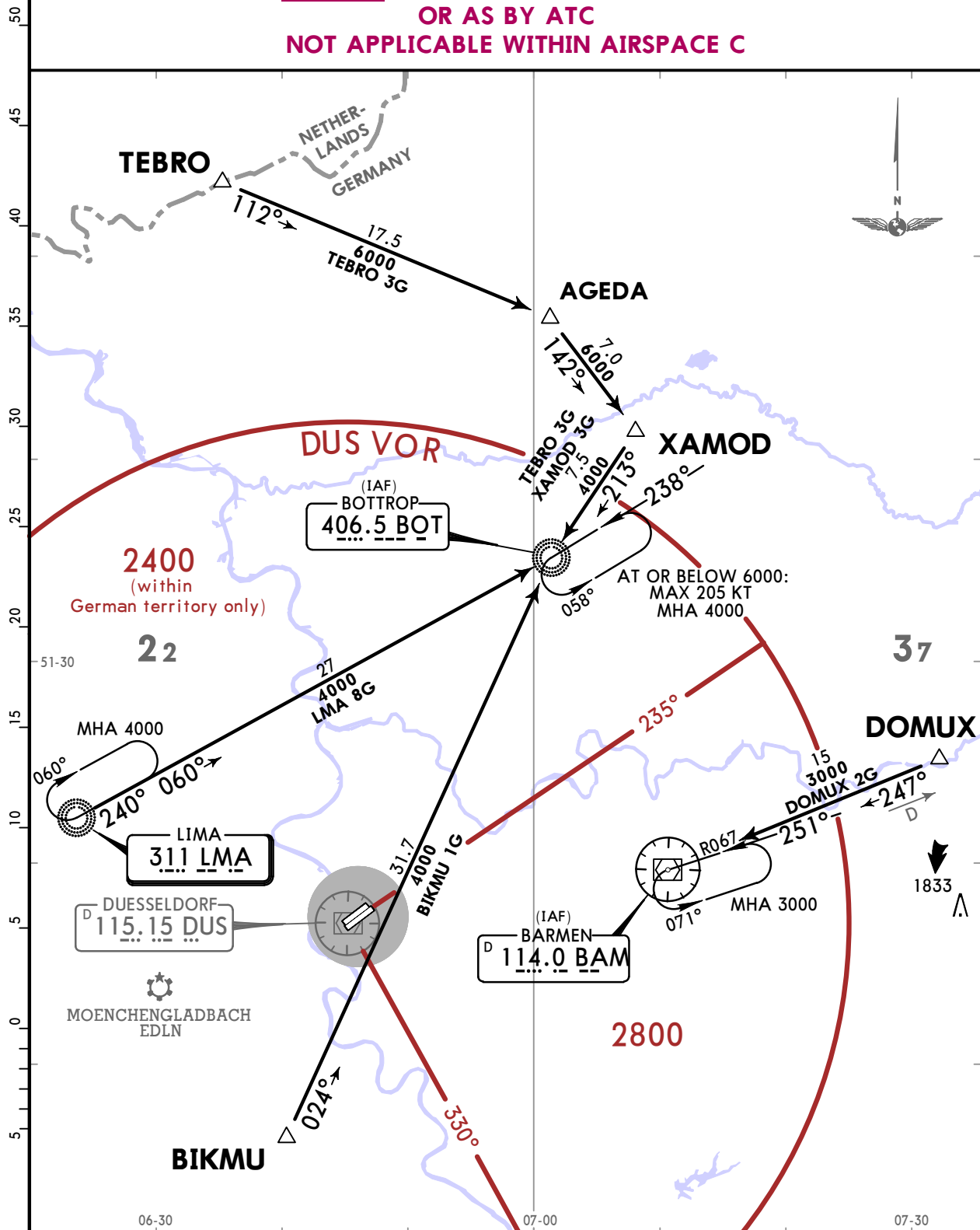
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DUESSELDORF

20 APR 18

JEPPESEN DUESSELDORF, GERMANY
(10-2A) Eff 26 Apr

STAR

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC
BIKMU 1G, TEBRO 3G, XAMOD 3G: B-RNAV equipment necessary.BIKMU 1G [BIKM1G]
DOMUX 2G [DOMU2G]
LIMA 8G (LMA 8G) [LMA8G]
TEBRO 3G [TEBR3G]
XAMOD 3G [XAMO3G]
RWYS 23L/R ARRIVALS**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

EDDL/DUS
DUESSELDORF

20 APR 18

10-2B

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147

Alt Set: hPa (IN on request)

Trans level: By ATC

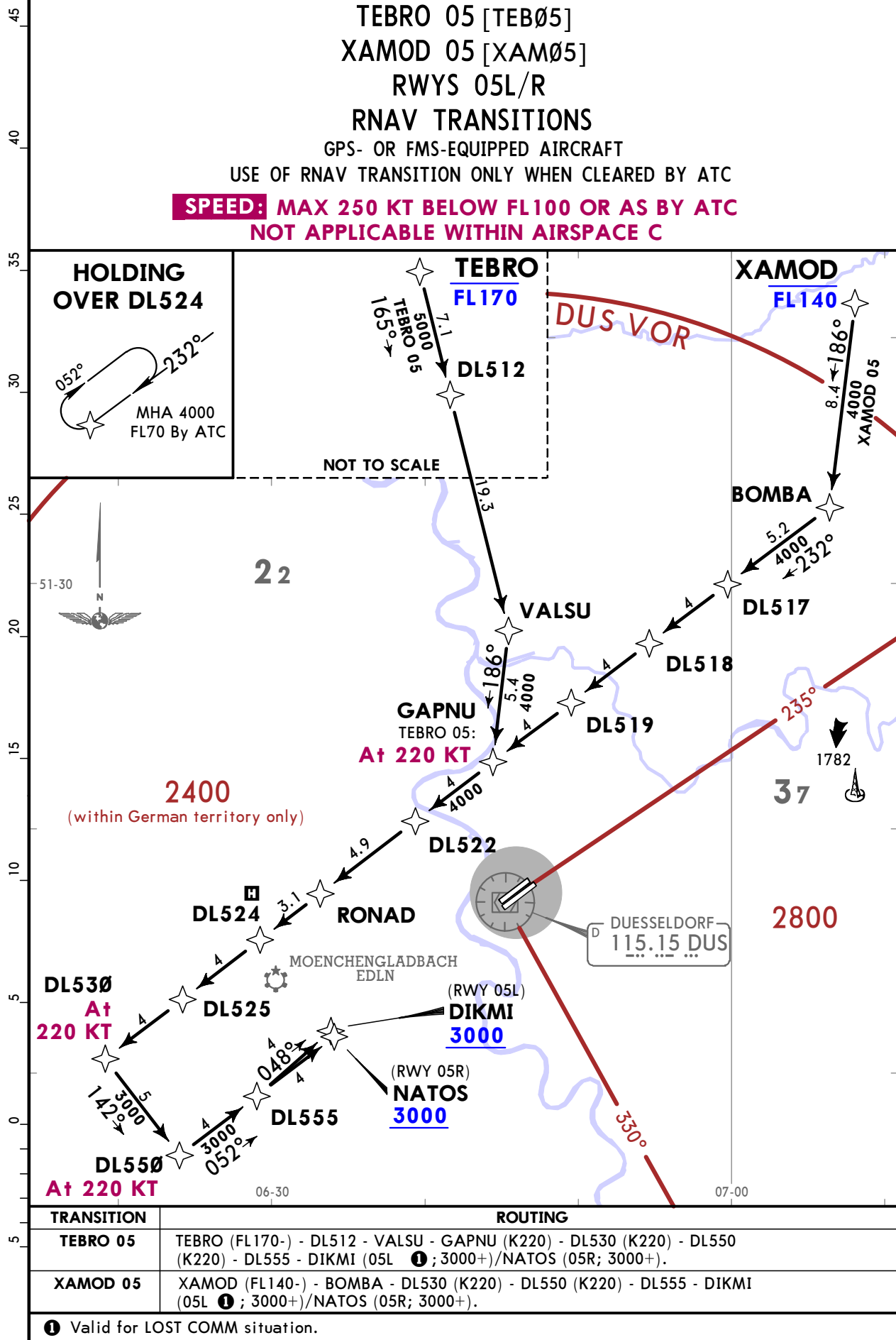
1. On downwind EXPECT vectors to final. 2. Speed limits are MANDATORY from the respective waypoint throughout the entire transition route unless cancelled by ATC. 3. Altitude assignments will be issued by ATC.

TEBRO 05 [TEB05]
XAMOD 05 [XAM05]
RWYS 05L/R
RNAV TRANSITIONS

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



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20 APR 18

JEPPESEN DUESSELDORF, GERMANY

(10-2C)

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147

Alt Set: hPa (IN on request)

Trans level: By ATC

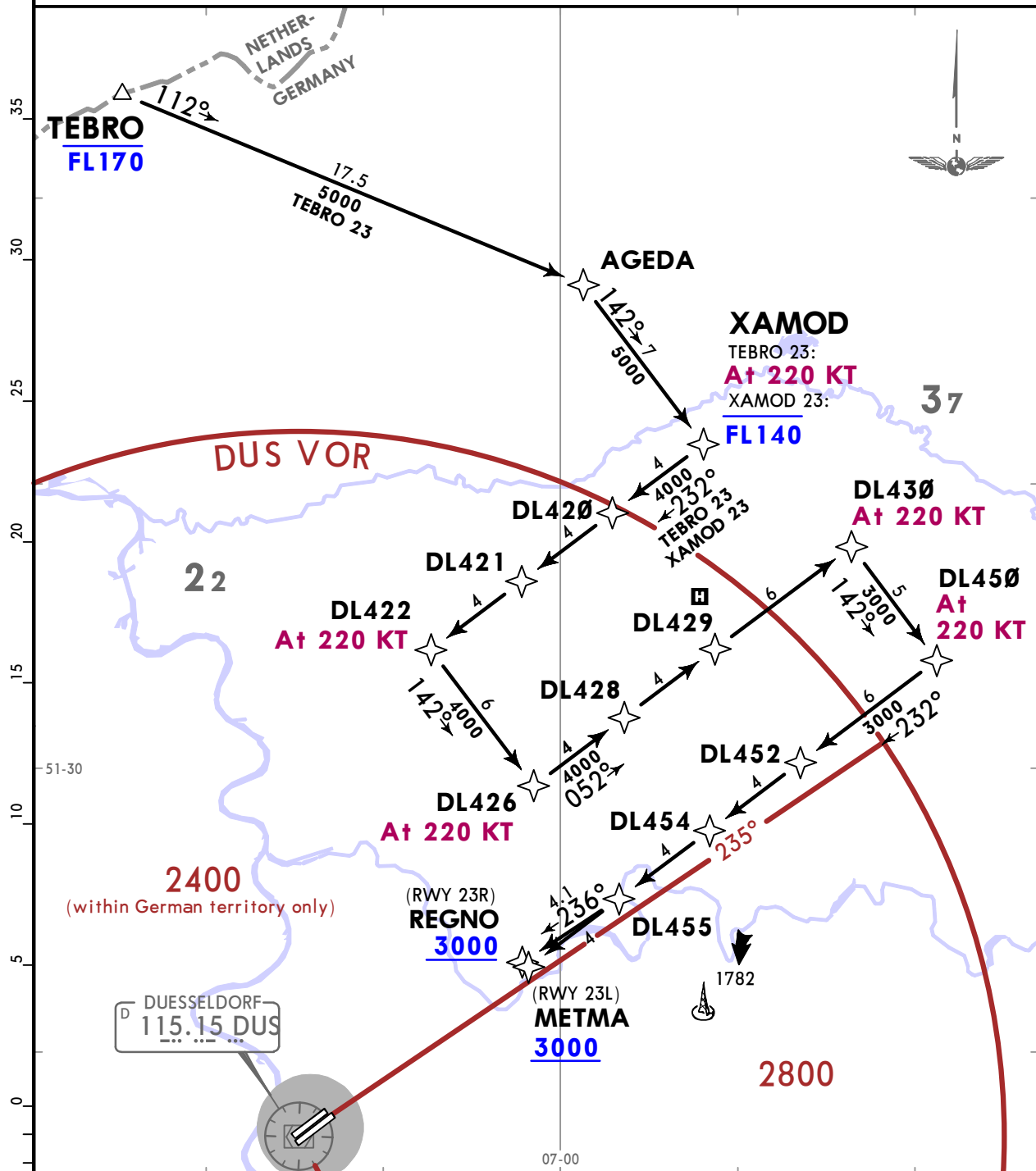
1. On downwind EXPECT vectors to final. 2. Speed limits are MANDATORY from the respective waypoint throughout the entire transition route unless cancelled by ATC. 3. Altitude assignments will be issued by ATC.

TEBRO 23 [TEB23], XAMOD 23 [XAM23]

RWYS 23L/R RNAV TRANSITIONS

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC**NOT APPLICABLE WITHIN AIRSPACE C**

TRANSITION

ROUTING

TEBRO 23

TEBRO (FL170-) - AGEDA - XAMOD (K220) - DL422 (K220) - DL426 (K220) - DL430 (K220) - DL450 (K220) - DL455 - METMA (23L; 3000+) / REGNO (23R ①; 3000+).

XAMOD 23

XAMOD (FL140-) - DL422 (K220) - DL426 (K220) - DL430 (K220) - DL450 (K220) - DL455 - METMA (23L; 3000+) / REGNO (23R ①; 3000+).

① Valid for LOST COMM situation.

HOLDING

OVER DL429

MHA 4000
FL70 By ATC

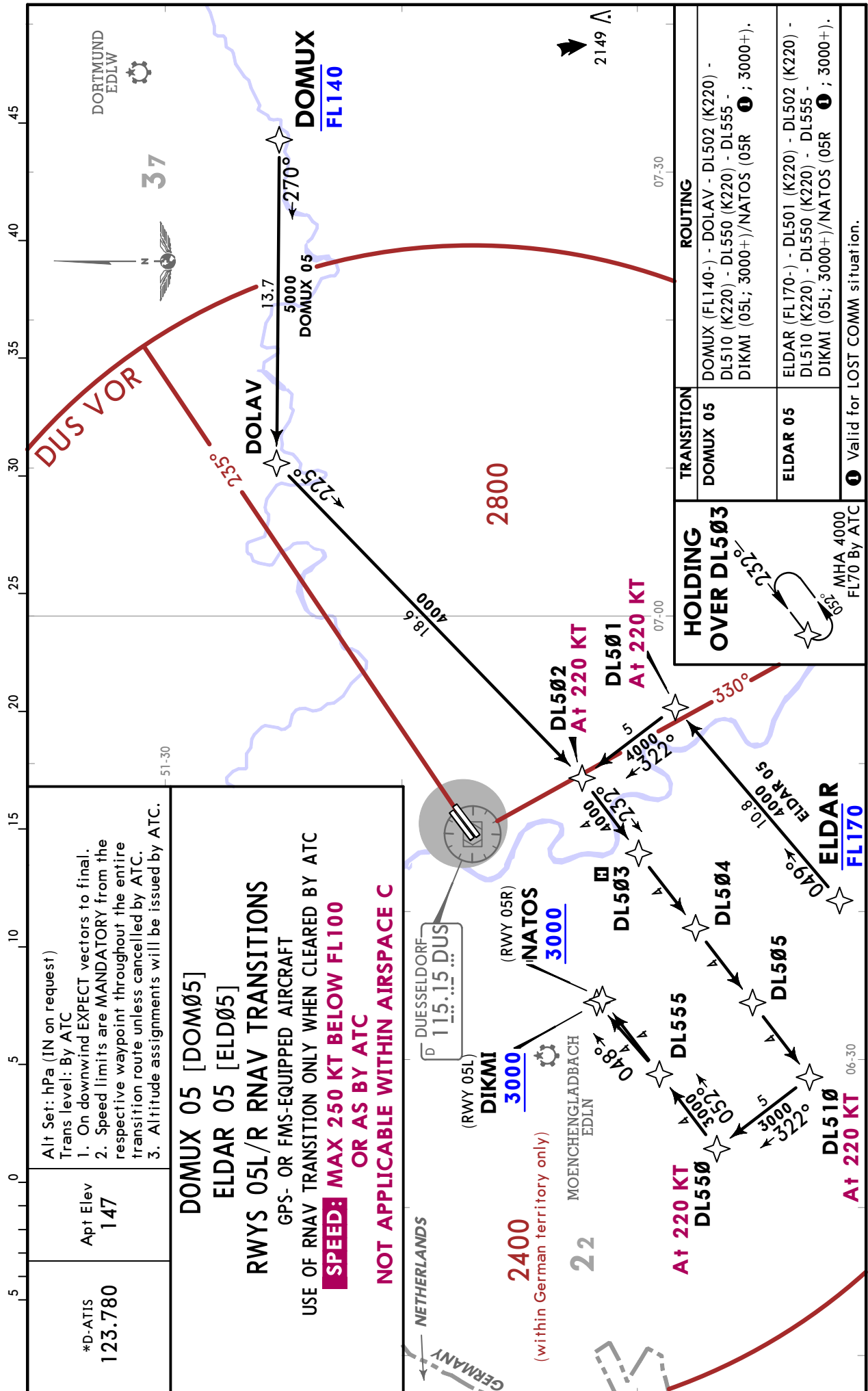
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24 AUG 18

10-2D

JEPPSEN DUESSELDORF, GERMANY

RNAV TRANSITION



CHANGES: Reissue.

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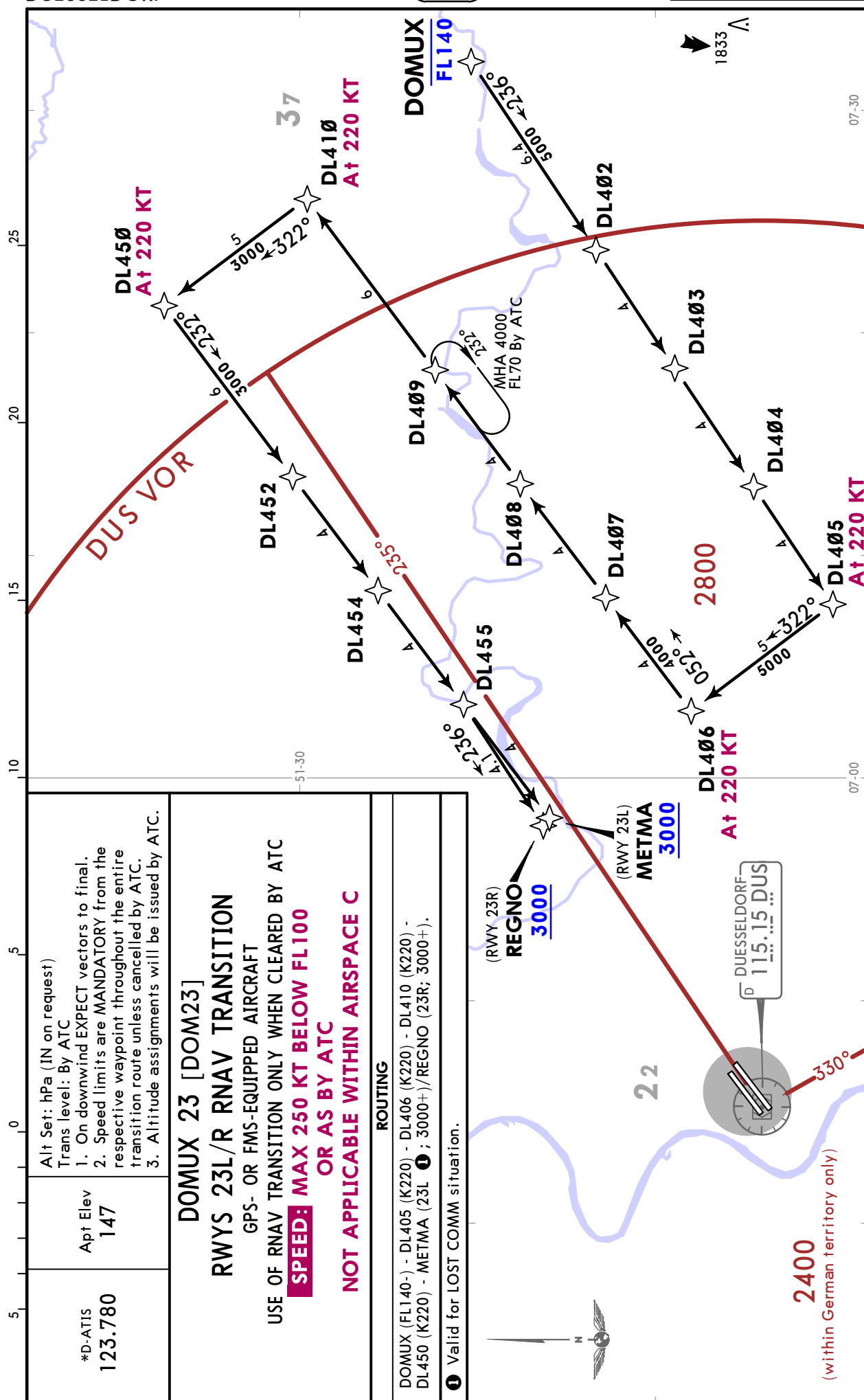
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DUESSELDORF

24 AUG 18

10-2E

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RNAV TRANSITION



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DUESSELDORF

20 APR 18

(10-2F)

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147

Alt Set: hPa (IN on request)

Trans level: By ATC

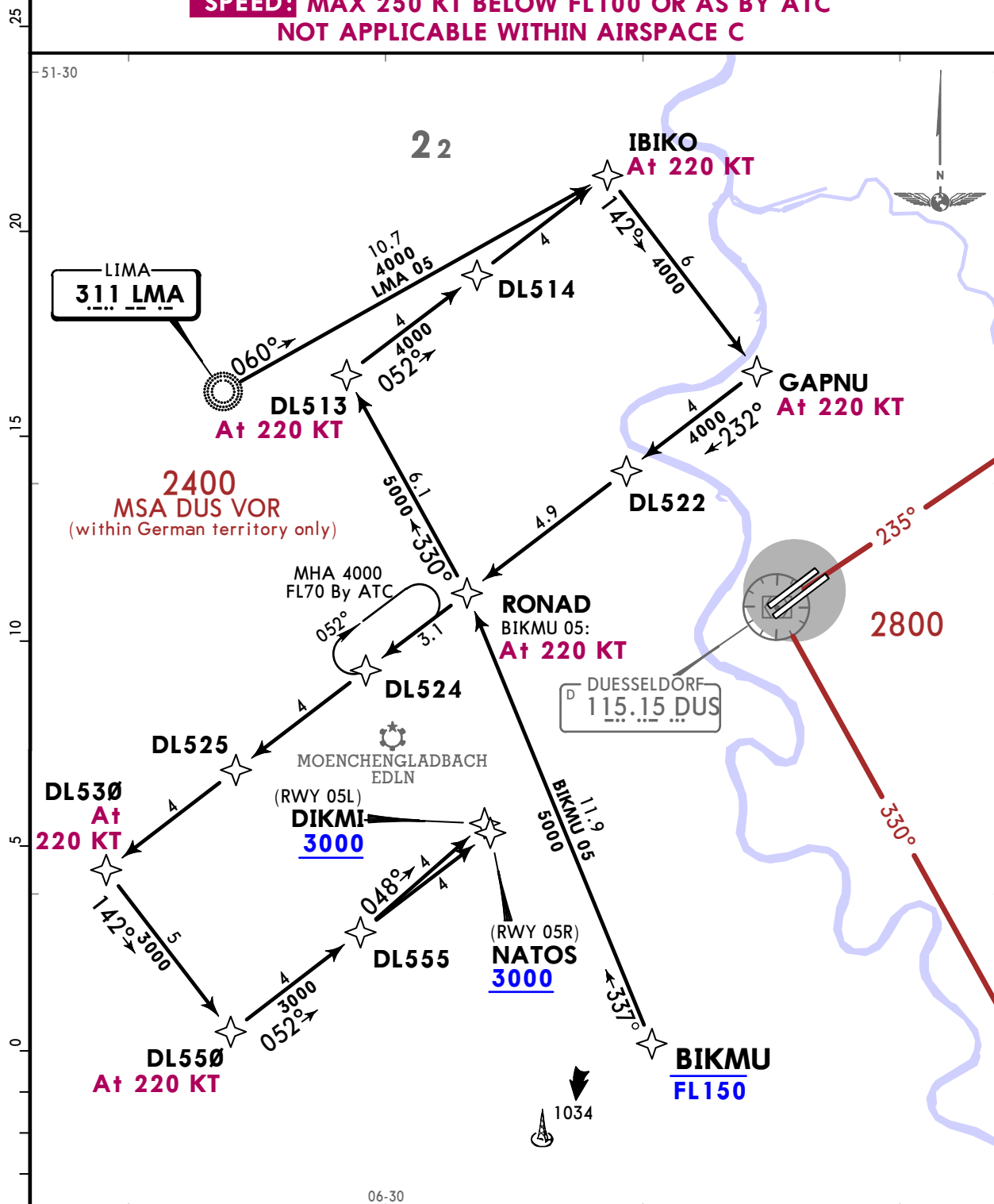
1. On downwind EXPECT vectors to final. 2. Speed limits are MANDATORY from the respective waypoint throughout the entire transition route unless cancelled by ATC. 3. Altitude assignments will be issued by ATC.

BIKMU 05 [BIK05], LMA 05 [LMA05]

RWYS 05L/R RNAV TRANSITIONS

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TRANSITION

ROUTING

BIKMU 05

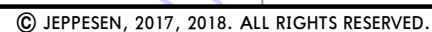
BIKMU (FL150-) - RONAD (K220) - DL513 (K220) - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ① ; 3000+)/ NATOS (05R; 3000+).

LMA 05

LMA - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ① ; 3000+)/NATOS (05R; 3000+).

① Valid for LOST COMM situation.

RNAV TRANSITION



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DUESSELDORF

20 APR 18

JEPPESEN

DUESSELDORF, GERMANY

10-2H Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

DISIP 1A [DISI1A]

DISIP 1B [DISI1B]

EKDUS 1A [EKDU1A]

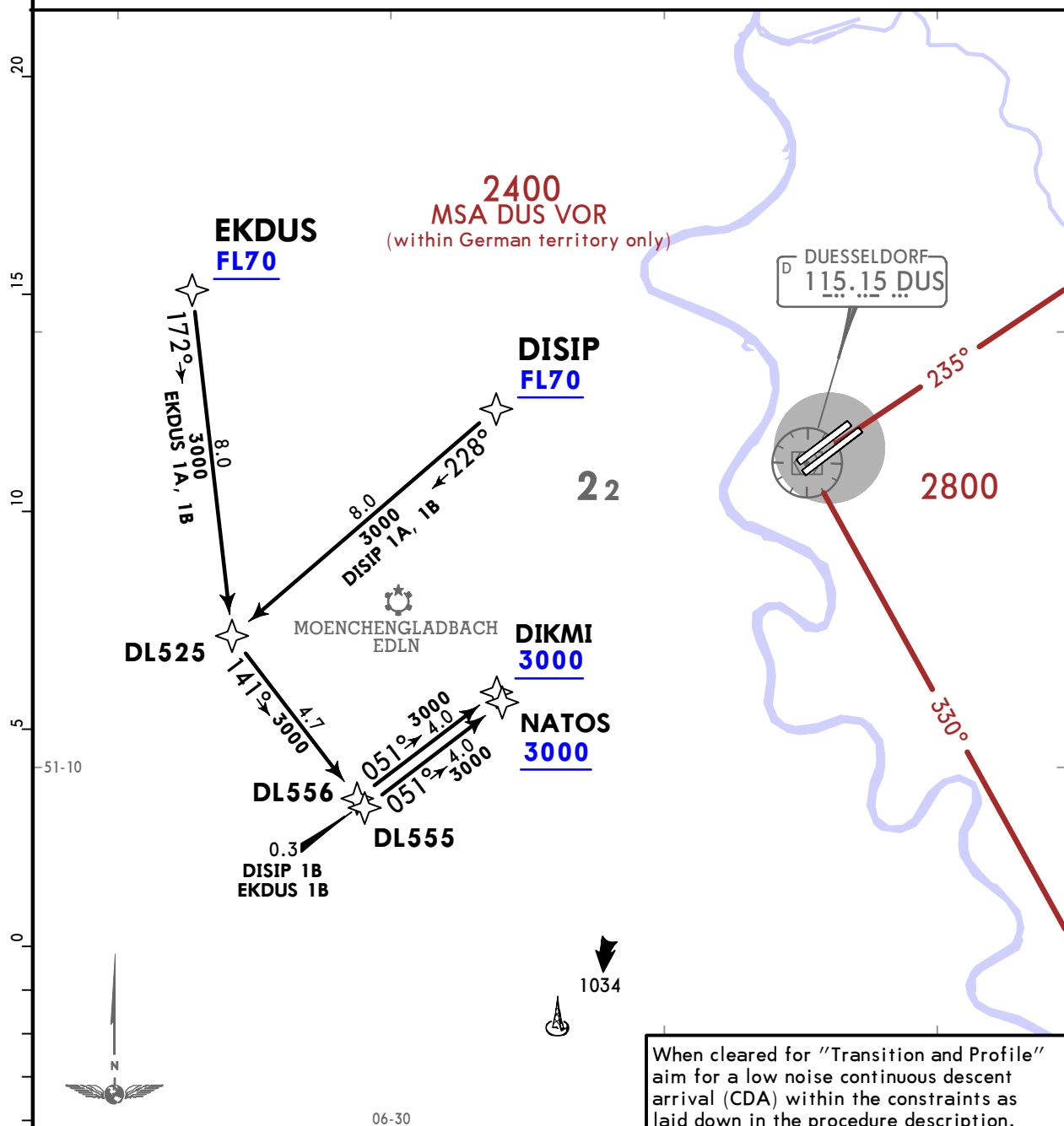
EKDUS 1B [EKDU1B]

RWYS 05L/R RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

**SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

When cleared for "Transition and Profile" aim for a low noise continuous descent arrival (CDA) within the constraints as laid down in the procedure description.

TRANSITION	RWY	ROUTING
DISIP 1A	05L	DISIP (FL70+) - DL525 - DL556 - DIKMI (3000+).
DISIP 1B	05R	DISIP (FL70+) - DL525 - DL555 - NATOS (3000+).
EKDUS 1A	05L	EKDUS (FL70+) - DL525 - DL556 - DIKMI (3000+).
EKDUS 1B	05R	EKDUS (FL70+) - DL525 - DL555 - NATOS (3000+).

EDDL/DUS
DUESSELDORF

20 APR 18

(10-2J)

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

RUGAP 1A [RUGA1A]

RUGAP 1B [RUGA1B]

TIVIM 1A [TIVI1A]

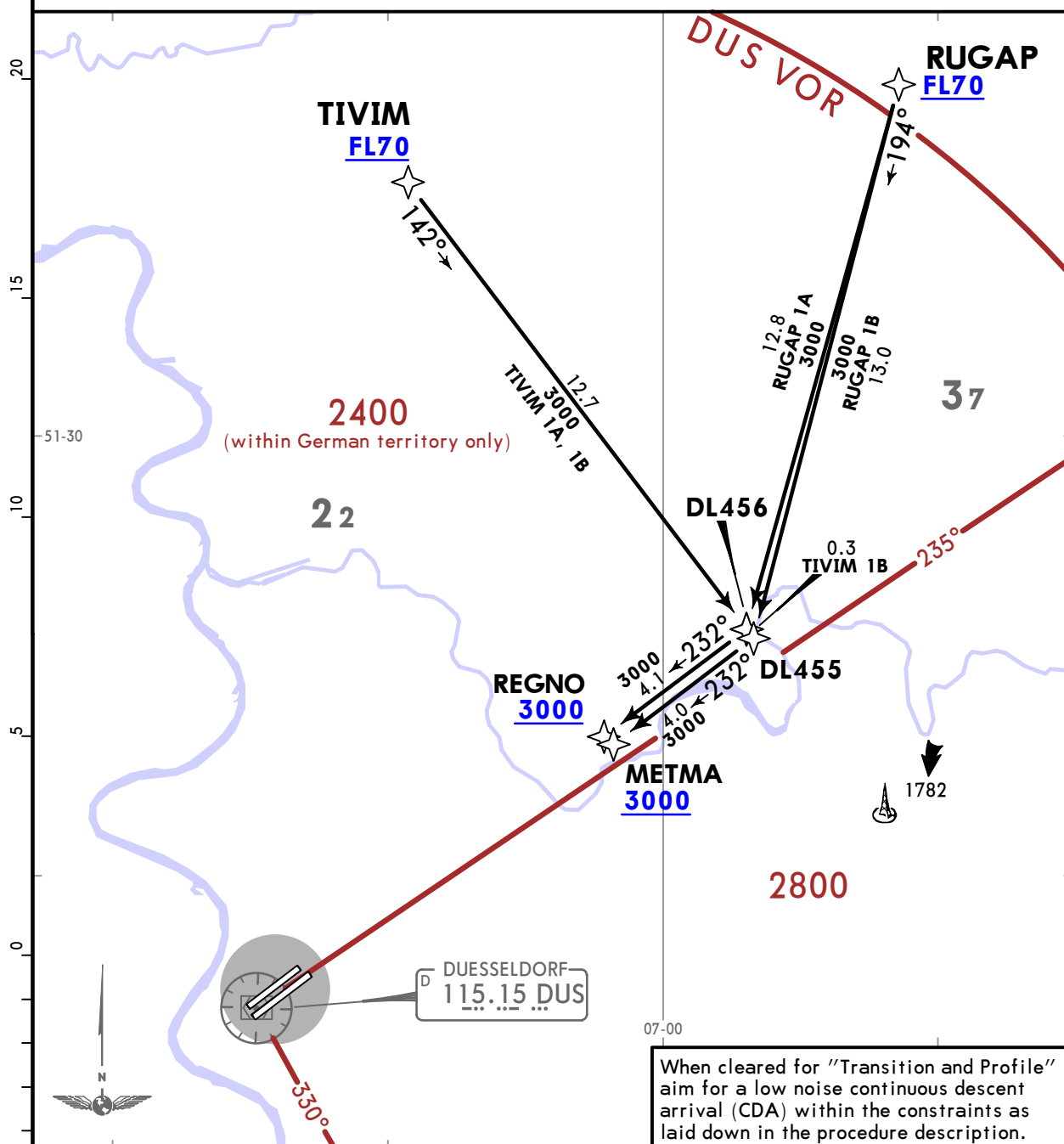
TIVIM 1B [TIVI1B]

RWYS 23R/L RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TRANSITION

RWY

ROUTING

RUGAP 1A

23R

RUGAP (FL70+) - DL456 - REGNO (3000+).

RUGAP 1B

23L

RUGAP (FL70+) - DL455 - METMA (3000+).

TIVIM 1A

23R

TIVIM (FL70+) - DL456 - REGNO (3000+).

TIVIM 1B

23L

TIVIM (FL70+) - DL455 - METMA (3000+).

EDDL/DUS
DUESSELDORF

20 APR 18

JEPPESEN

10-2K

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

ABIGI 1A [ABIG1A]

ABIGI 1B [ABIG1B]

BABUV 1A [BABU1A]

BABUV 1B [BABU1B]

RWYS 05L/R RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

**SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

25

20

15

10

51-10

5

06-30

5

2400
MSA DUS VOR
(within German territory only)MOENCHENGLADBACH
EDLN

22

DIKMI
3000NATOS
3000BABUV
FL70ABIGI
FL70ABIGI 1A
BABUV 1A

DL556

DL555

DL505

1034

2800

235°

330°

DUESSELDORF
115.15 DUS

When cleared for "Transition and Profile" aim for a low noise continuous descent arrival (CDA) within the constraints as laid down in the procedure description.

TRANSITION

RWY

ROUTING

ABIGI 1A

05L

ABIGI (FL70+) - DL505 - DL556 - DIKMI (3000+).

ABIGI 1B

05R

ABIGI (FL70+) - DL505 - DL555 - NATOS (3000+).

BABUV 1A

05L

BABUV (FL70+) - DL505 - DL556 - DIKMI (3000+).

BABUV 1B

05R

BABUV (FL70+) - DL505 - DL555 - NATOS (3000+).

EDDL/DUS
DUESSELDORF

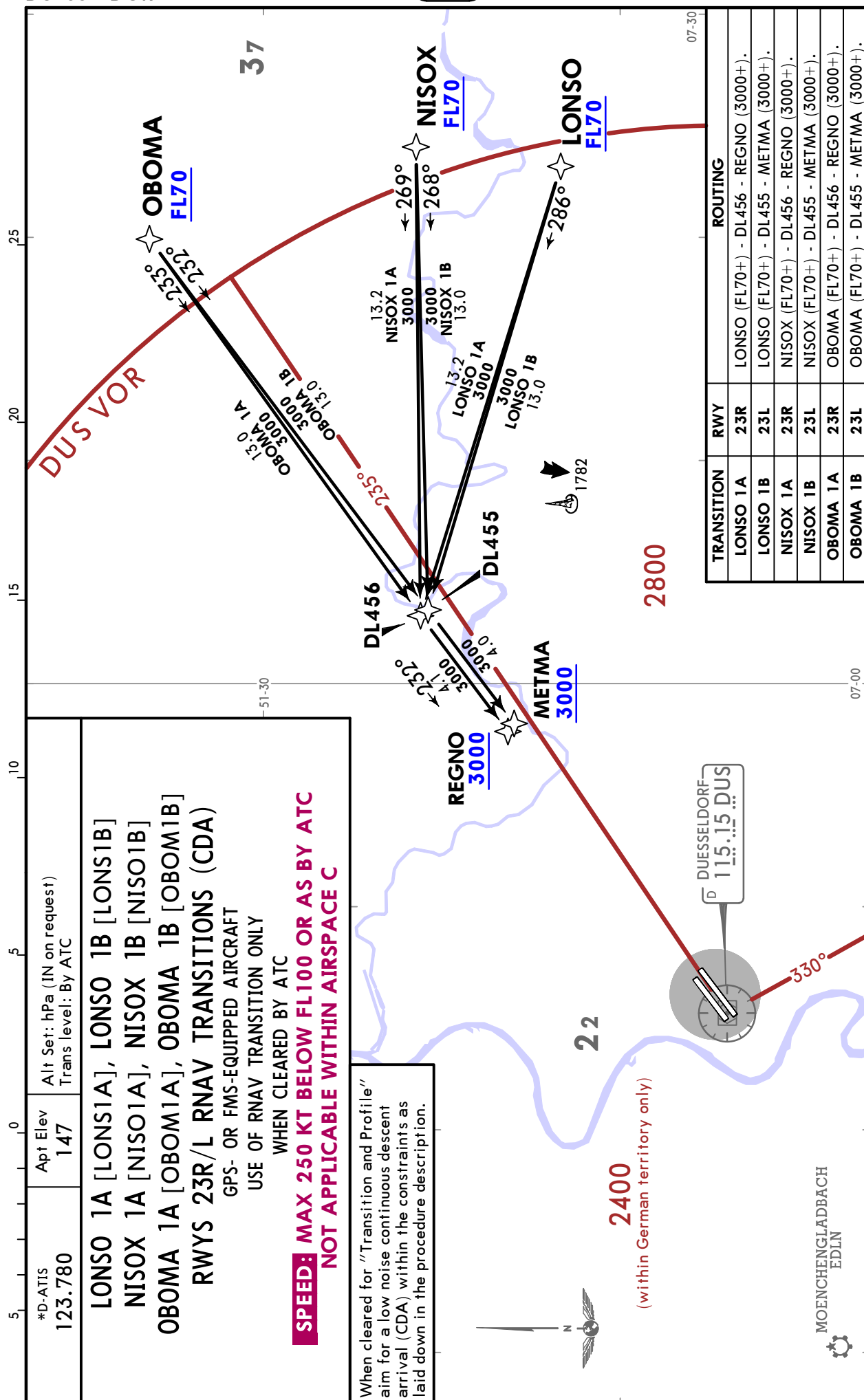
20 APR 18

10-2L

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION



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DUESSELDORF

20 APR 18

JEPPESEN DUESSELDORF, GERMANY

(10-2M)

Eff 26 Apr

RNAV TRANSITION

*D-ATIS
123.780Apt Elev
147Alt Set: hPa (IN on request)
Trans level: By ATC

GOGOG 1A [GOGO1A]

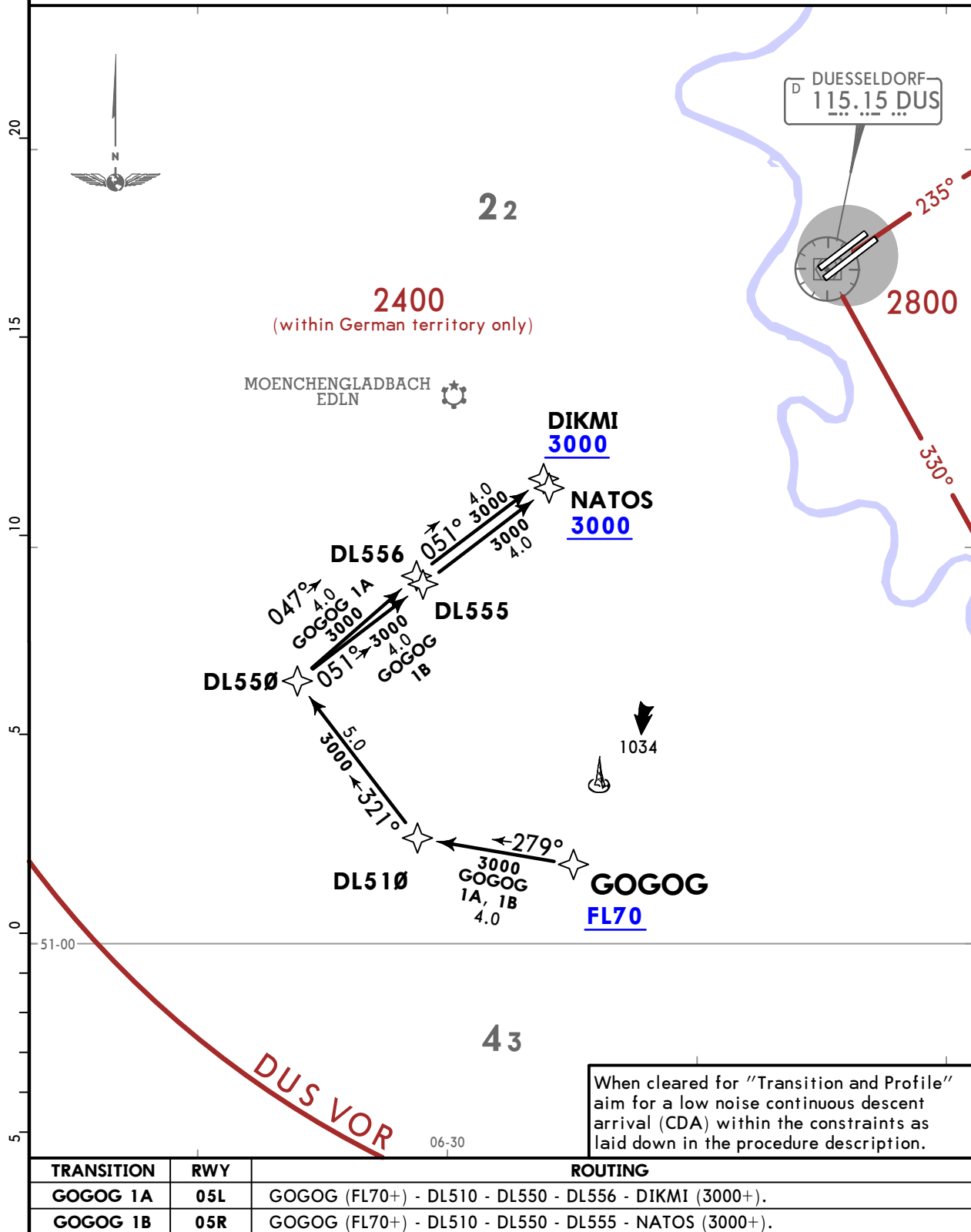
GOGOG 1B [GOGO1B]

RWYS 05L/R RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

**SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

EDDL/DUS
DUESSELDORF

20 APR 18

**JEPPESEN**

Eff 26 Apr

DUESSELDORF, GERMANY

RNAV TRANSITION

*D-ATIS
123.780

Apt Elev
147

Alt Set: hPa (IN on request)
Trans level: By ATC

IBIXI 1A [IBIX1A]

IBIXI 1B [IBIX1B]

UNDOG 1A [UNDO1A]

UNDOG 1B [UNDO1B]

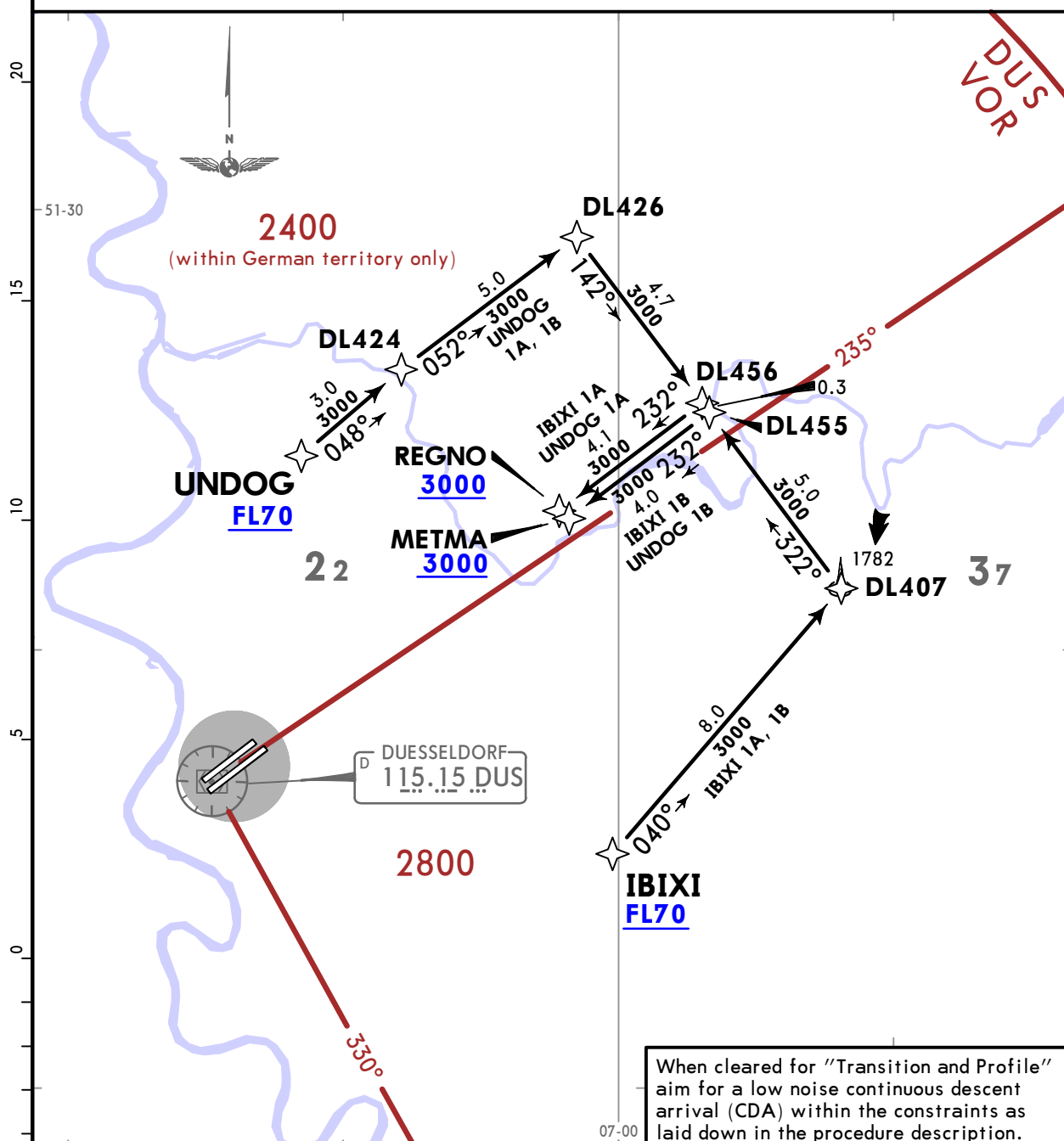
RWYS 23R/L RNAV TRANSITIONS (CDA)

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY

WHEN CLEARED BY ATC

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

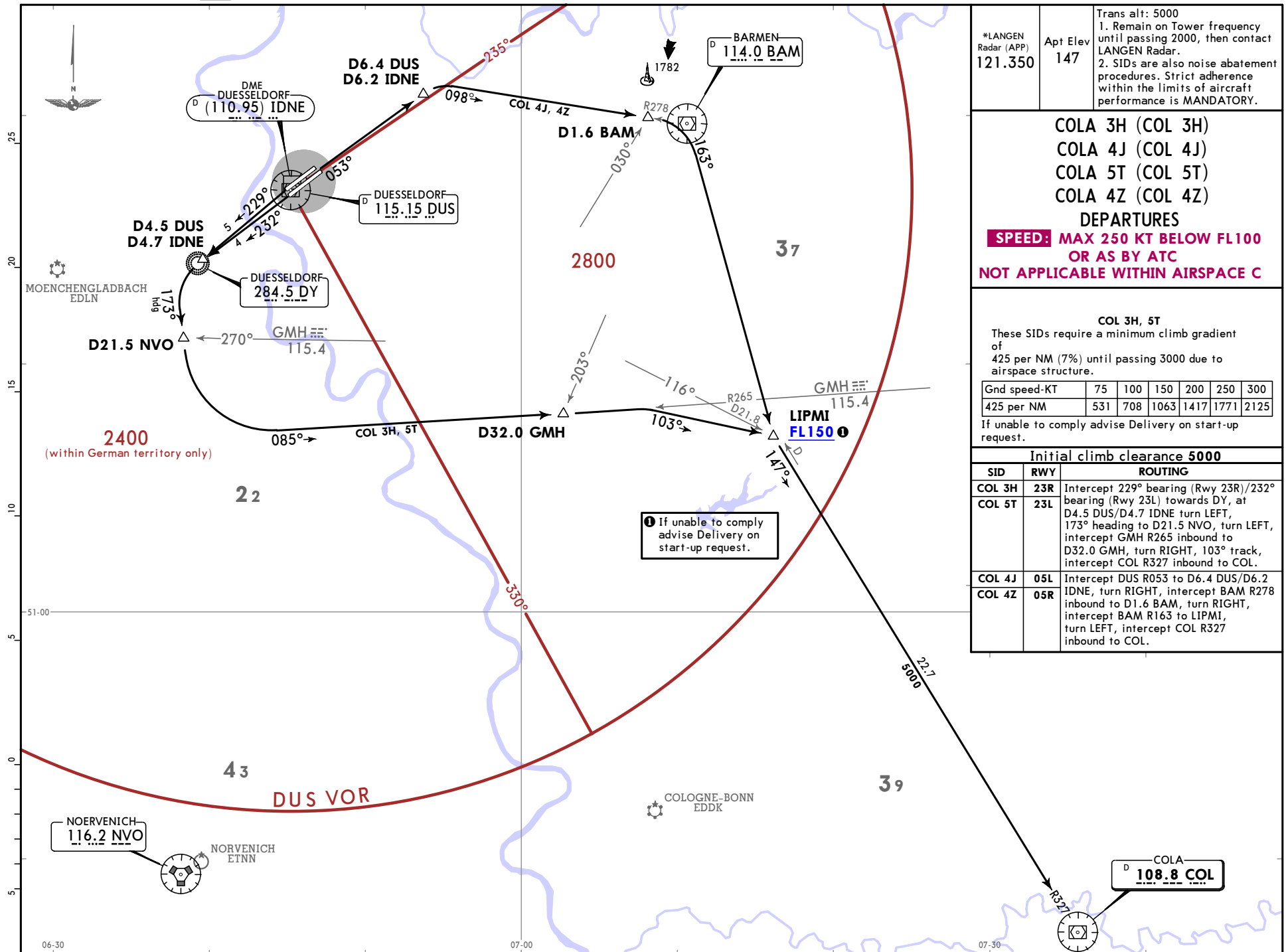


TRANSITION	RWY	ROUTING
IBIXI 1A	23R	IBIXI (FL70+) - DL407 - DL456 - REGNO (3000+).
IBIXI 1B	23L	IBIXI (FL70+) - DL407 - DL455 - METMA (3000+).
UNDOG 1A	23R	UNDOG (FL70+) - DL424 - DL426 - DL456 - REGNO (3000+).
UNDOG 1B	23L	UNDOG (FL70+) - DL424 - DL426 - DL455 - METMA (3000+).

EDDL/DUS
DUESSELDORF 26 JAN 18 10-3 Eff 1 Feb

DUESSELDORF, GERMANY

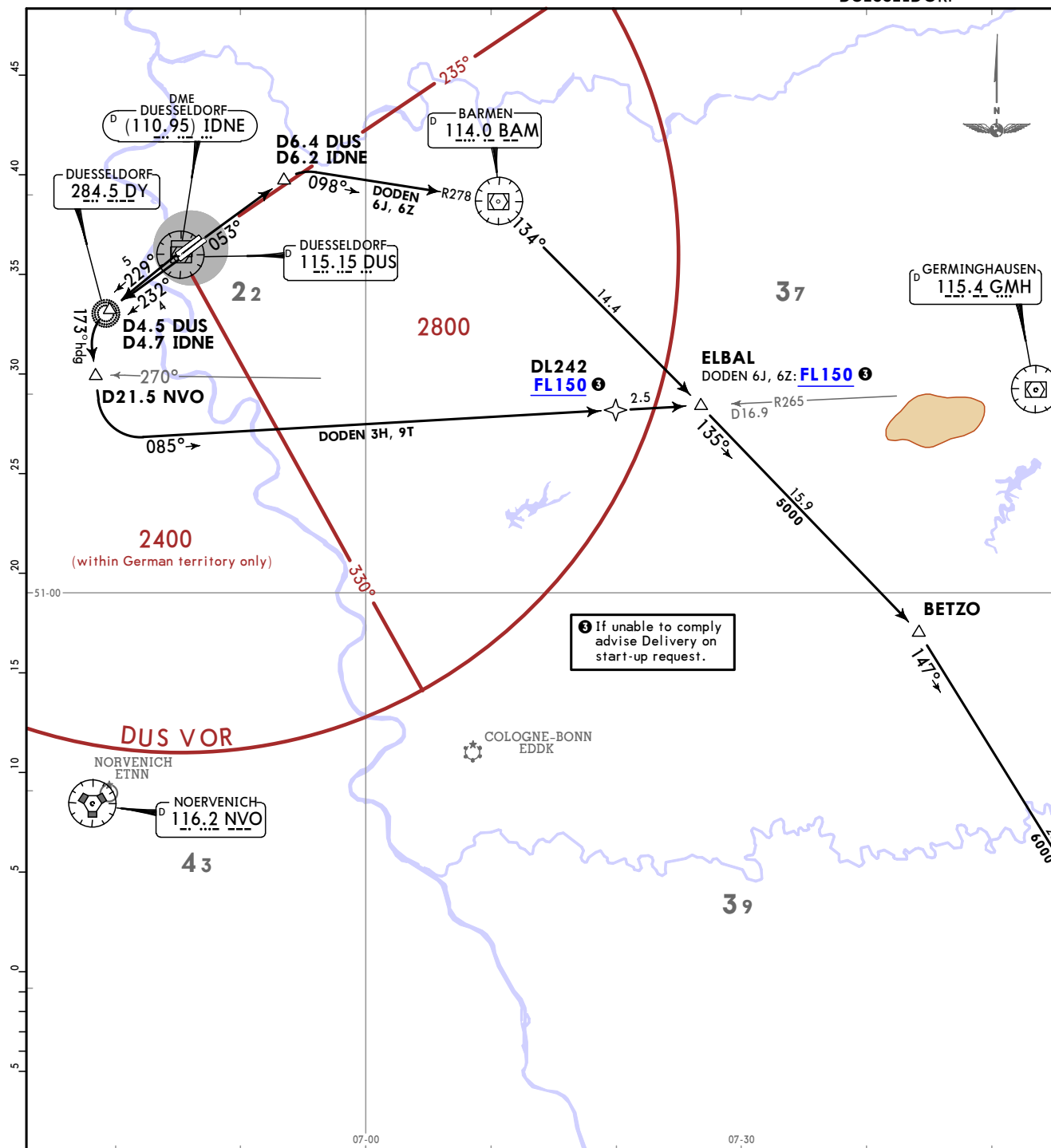
SID



*LANGEN Radar (APP) 121.350	Apt Elev 147	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
COLA 3H (COL 3H) COLA 4J (COL 4J) COLA 5T (COL 5T) COLA 4Z (COL 4Z) DEPARTURES SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C		
COL 3H, 5T These SIDs require a minimum climb gradient of 425 per NM (7%) until passing 3000 due to airspace structure.		
Gnd speed-KT	75	100 150 200 250 300
425 per NM	531	708 1063 1417 1771 2125
If unable to comply advise Delivery on start-up request.		
Initial climb clearance 5000		
SID	RWY	ROUTING
COL 3H	23R	Intercept 229° bearing (Rwy 23R)/232° bearing (Rwy 23L) towards DY, at D4.5 DUS/D4.7 IDNE turn LEFT, 173° heading to D21.5 NVO, turn LEFT, intercept GMH R265 inbound to D32.0 GMH, turn RIGHT, 103° track, intercept COL R327 inbound to COL.
COL 5T	23L	
COL 4J	05L	Intercept DUS R053 to D6.4 DUS/D6.2 IDNE, turn RIGHT, intercept BAM R278 inbound to D1.6 BAM, turn RIGHT, intercept BAM R163 to LIPMI, turn LEFT, intercept COL R327 inbound to COL.
COL 4Z	05R	

EDDL/DUS
DUESSELDORF

JEPPESSEN DUESSELDORF, GERMANY
26 JAN 18 (10-3A) Eff 1 Feb
SID



*LANGEN Radar (APP) 121.350	Apt Elev 147	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
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**DODEN 3H, DODEN 6J
DODEN 9T, DODEN 6Z
DEPARTURES**
ONLY FOR JET FLIGHTS WITH REQUESTED FL250 OR ABOVE
**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

These SIDs require minimum climb gradients
of

DODEN 3H, 9T
425 per NM (7%) until passing 3000 due to
airspace structure.
If unable to comply advise Delivery on start-up
request.

DODEN 6J, 6Z
260 per NM (4.3%) until passing 3200 due to
MVA.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
425 per NM	531	708	1063	1417	1771	2125

Initial climb clearance 5000

SID	RWY	ROUTING
DODEN 3H	23R	Intercept 229° bearing (Rwy 23R)/232° (Rwy 23L) bearing towards DY, at D4.5 DUS/D4.7 IDNE turn LEFT, 173° heading to D21.5 NVO ①, turn LEFT, intercept GMH R265 inbound via DL242 to ELBAL, turn RIGHT, 135° track to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 9T	23L	
DODEN 6J	05L	Intercept DUS R053 to D6.4 DUS/D6.2 IDNE, turn RIGHT, intercept BAM R278 inbound to BAM, turn RIGHT, BAM R134 to ELBAL, 135° track to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 6Z	05R	

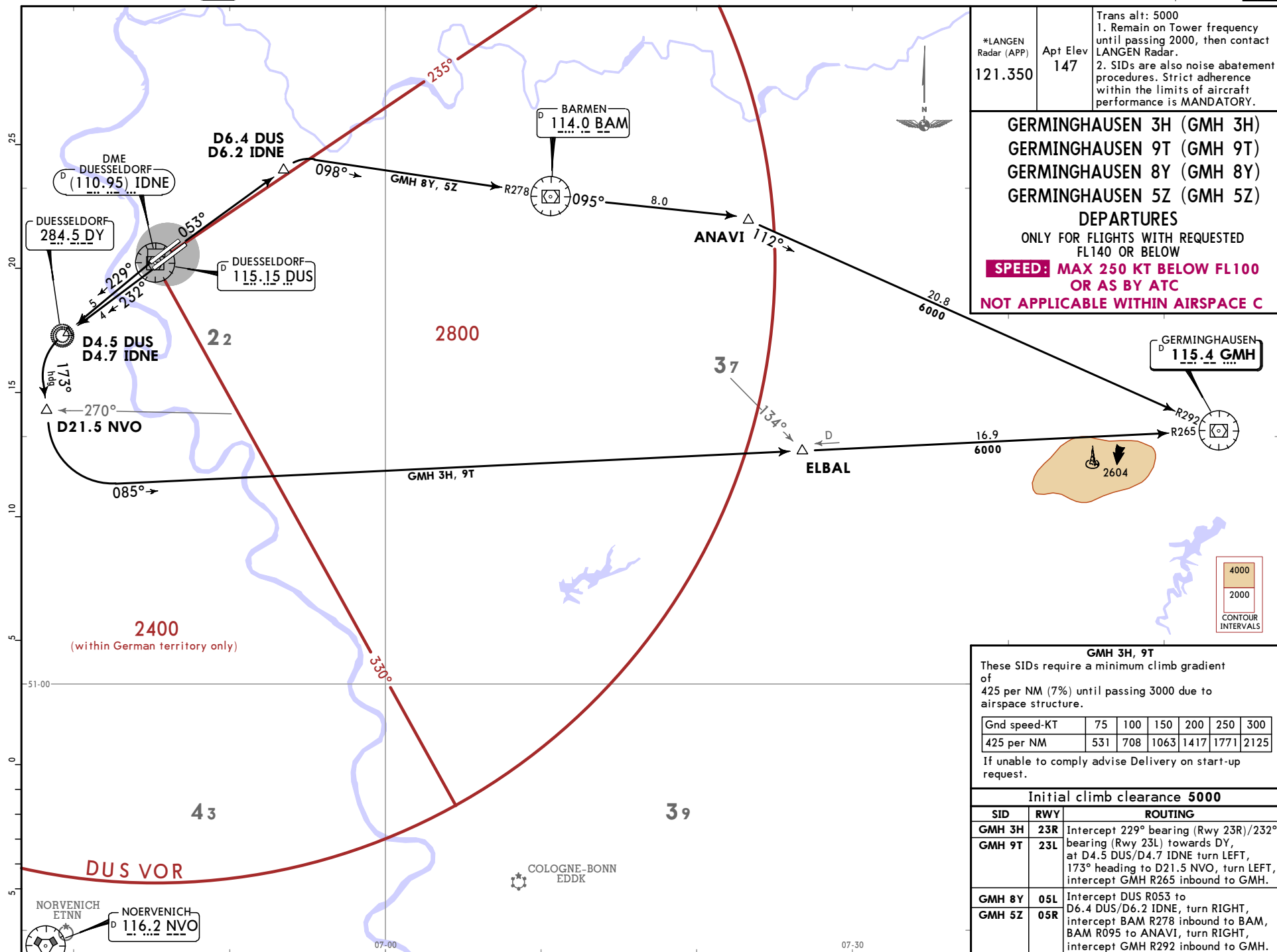
BRNAV equipment necessary after: ① D21.5 NVO/ ② passing 3200.

Flights unable to cross
DODEN at or above FL250
shall file KUMIK SIDs.

EDDL/DUS
DUESSELDORF 26 JAN 18 (10-3B) Eff 1 Feb

DUESSELDORF, GERMANY

SID

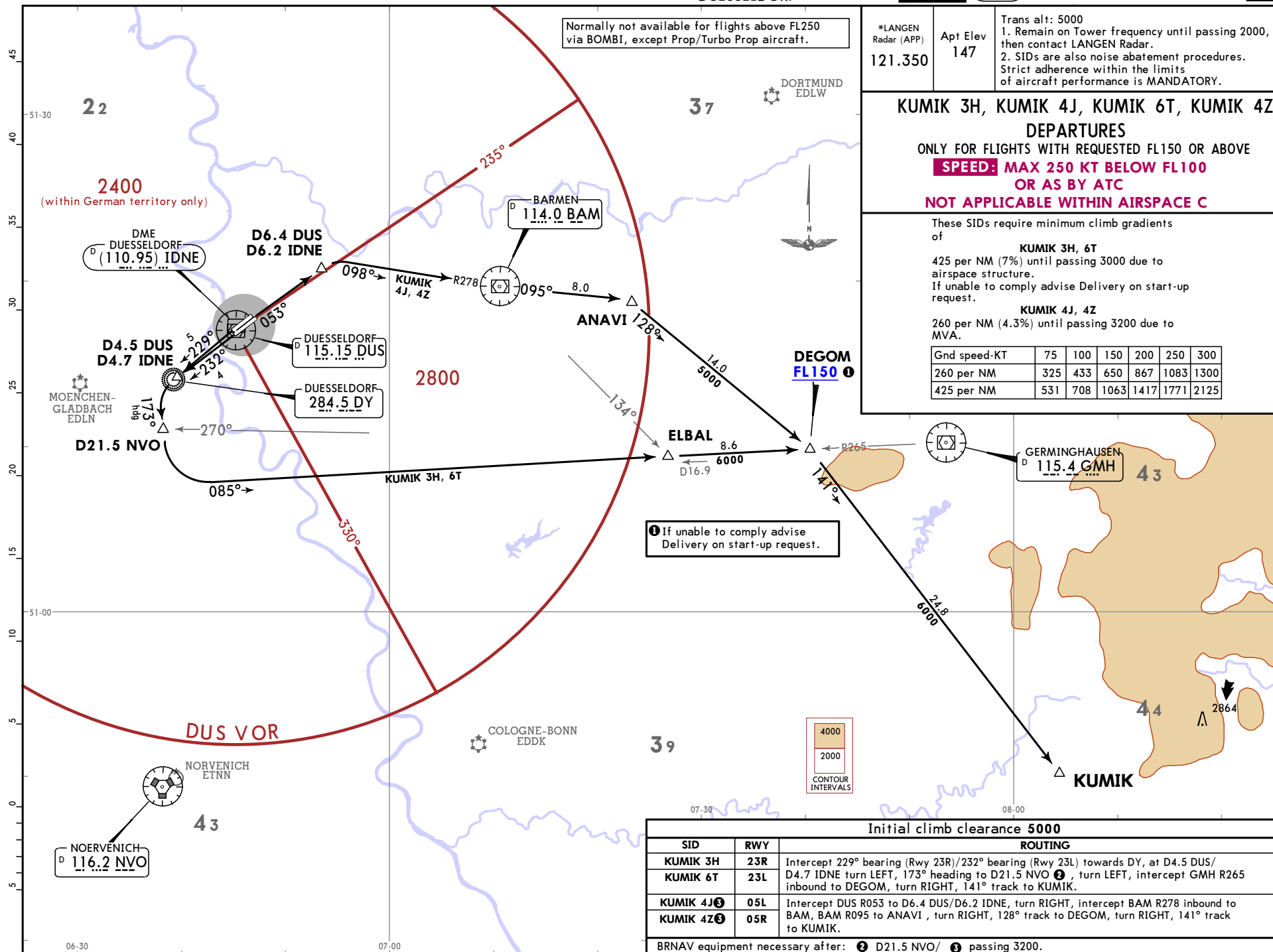


CHANGES: SIDs renumbered & revised.

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EDDL/DUS
DUESSELDORF

JEPPESSEN DUESSELDORF, GERMANY
26 JAN 18 (10-3C)
Eff 1 Feb SID



EDDL/DUS
DUESSELDORF

16 FEB 18

(10-3D)

JEPPESEN DUESSELDORF, GERMANY

SID

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

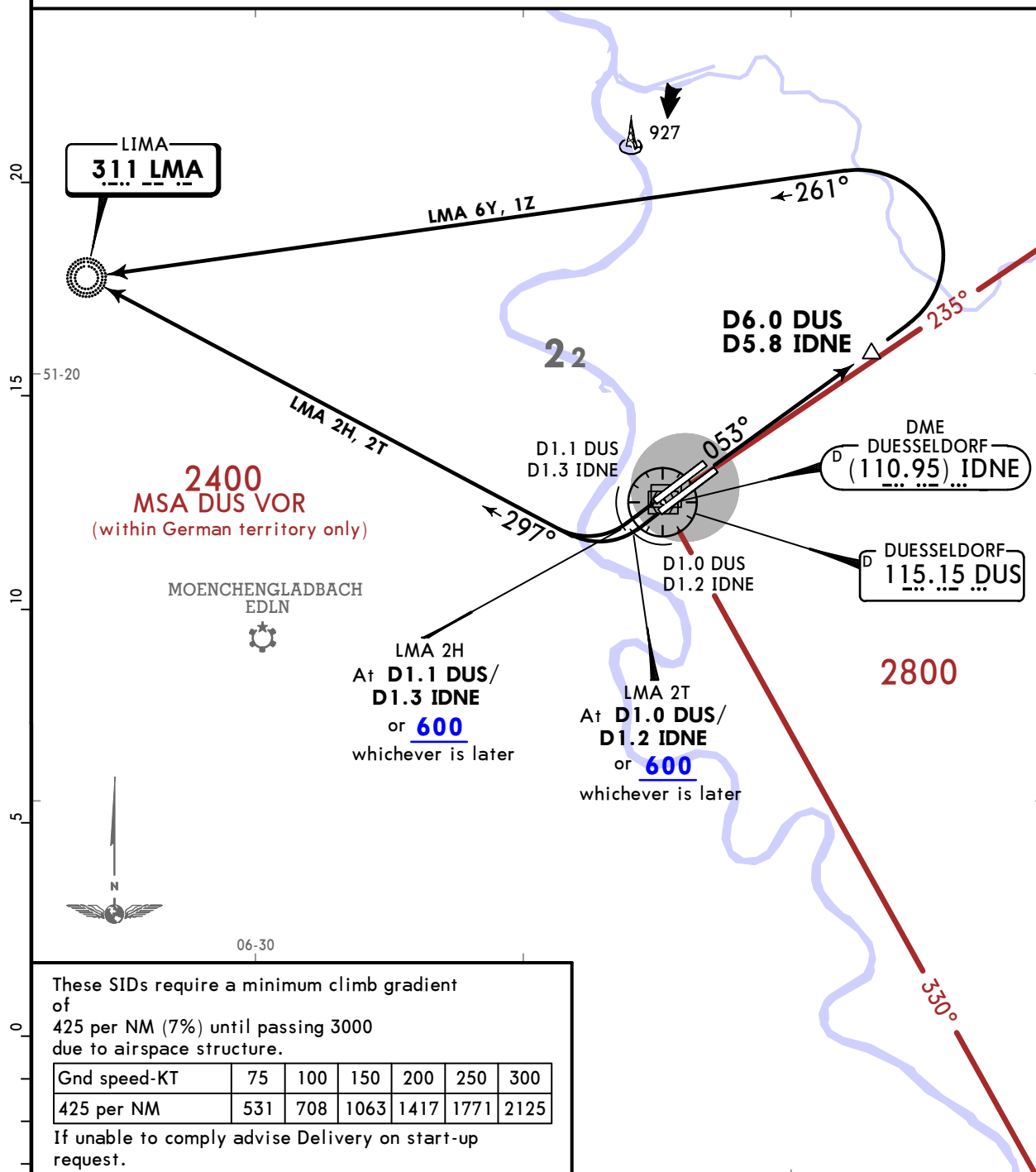
1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

LIMA 2H (LMA 2H), LIMA 2T (LMA 2T)
LIMA 6Y (LMA 6Y), LIMA 1Z (LMA 1Z)

DEPARTURES

ONLY FOR FLIGHTS TO EDLN

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
LMA 2H	23R	Climb on runway track to D1.1 DUS/D1.3 IDNE (Rwy 23R)/ D1.0 DUS/D1.2 IDNE (Rwy 23L) or 600, whichever is later, turn RIGHT, intercept 297° bearing to LMA.
LMA 2T	23L	
LMA 6Y	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, intercept 261° bearing to LMA.
LMA 1Z	05R	

EDDL/DUS
DUESSELDORF

16 FEB 18

JEPPESSEN DUESSELDORF, GERMANY

SID

LANGEN
Radar (APP)
128.5

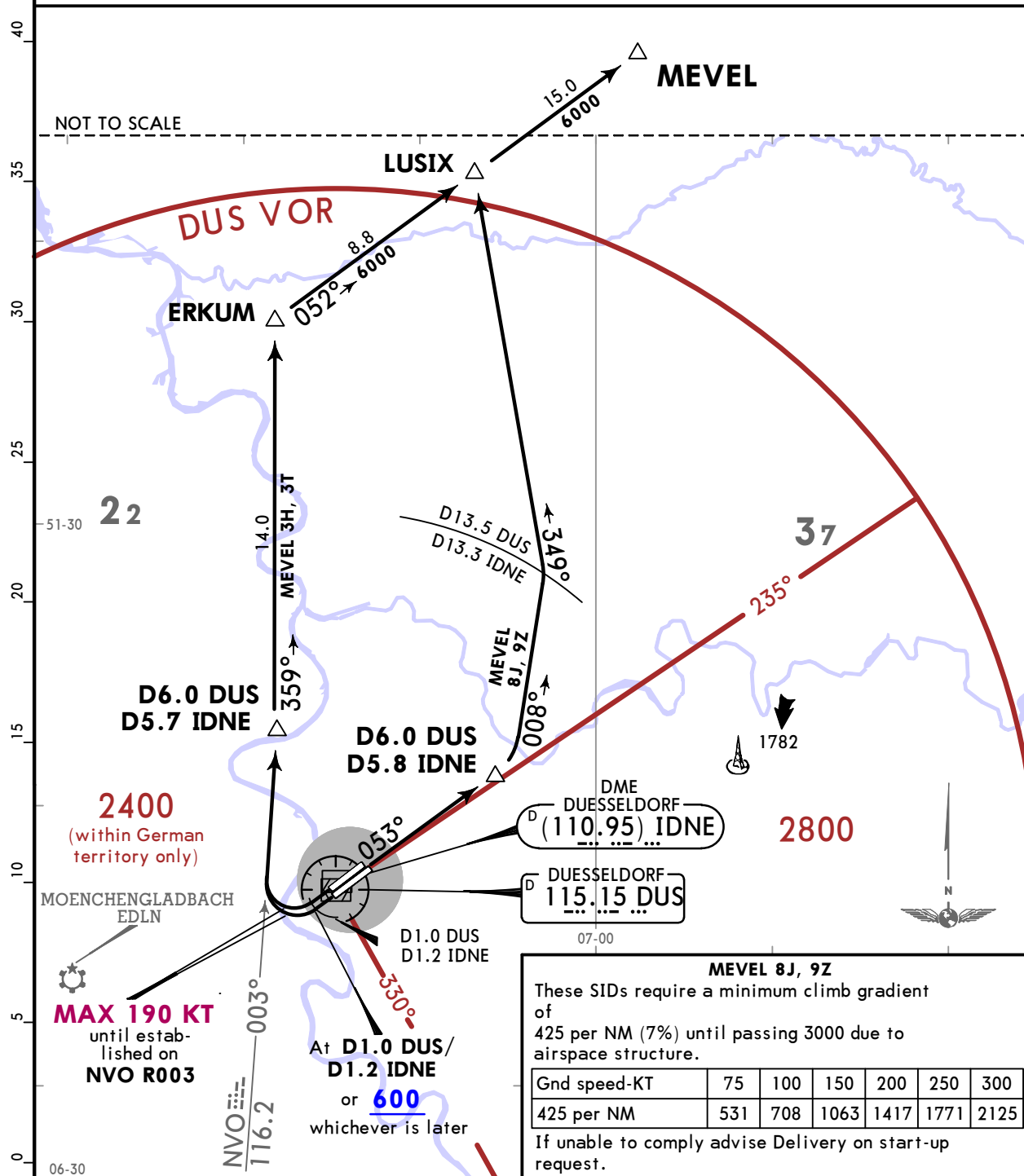
Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is **MANDATORY**.

**MEVEL 3H, MEVEL 8J, MEVEL 3T, MEVEL 9Z
DEPARTURES**

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance **5000**

SID	RWY	ROUTING
MEVEL 3H	23R	Climb on runway track to D1.0 DUS/D1.2 IDNE or 600, whichever is later, turn RIGHT, intercept NVO R003 to D6.0 DUS (D5.7 IDNE) ① turn LEFT, 359° track to ERKUM, turn RIGHT, 052° track, via LUSIX to MEVEL.
MEVEL 3T	23L	
MEVEL 8J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D13.5 DUS/D13.3 IDNE ②, turn LEFT, 349° track to LUSIX turn RIGHT, 052° track to MEVEL.
MEVEL 9Z	05R	

BRNAV equipment necessary after: ❶ D6.0 DUS (D5.7 IDNE) / ❷ D13.5 DUS/D13.3 IDNE.

CHANGES: Reissue.

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EDDL/DUS
DUESSELDORF

16 FEB 18

(10-3F)

JEPPESEN DUESSELDORF, GERMANY

SID

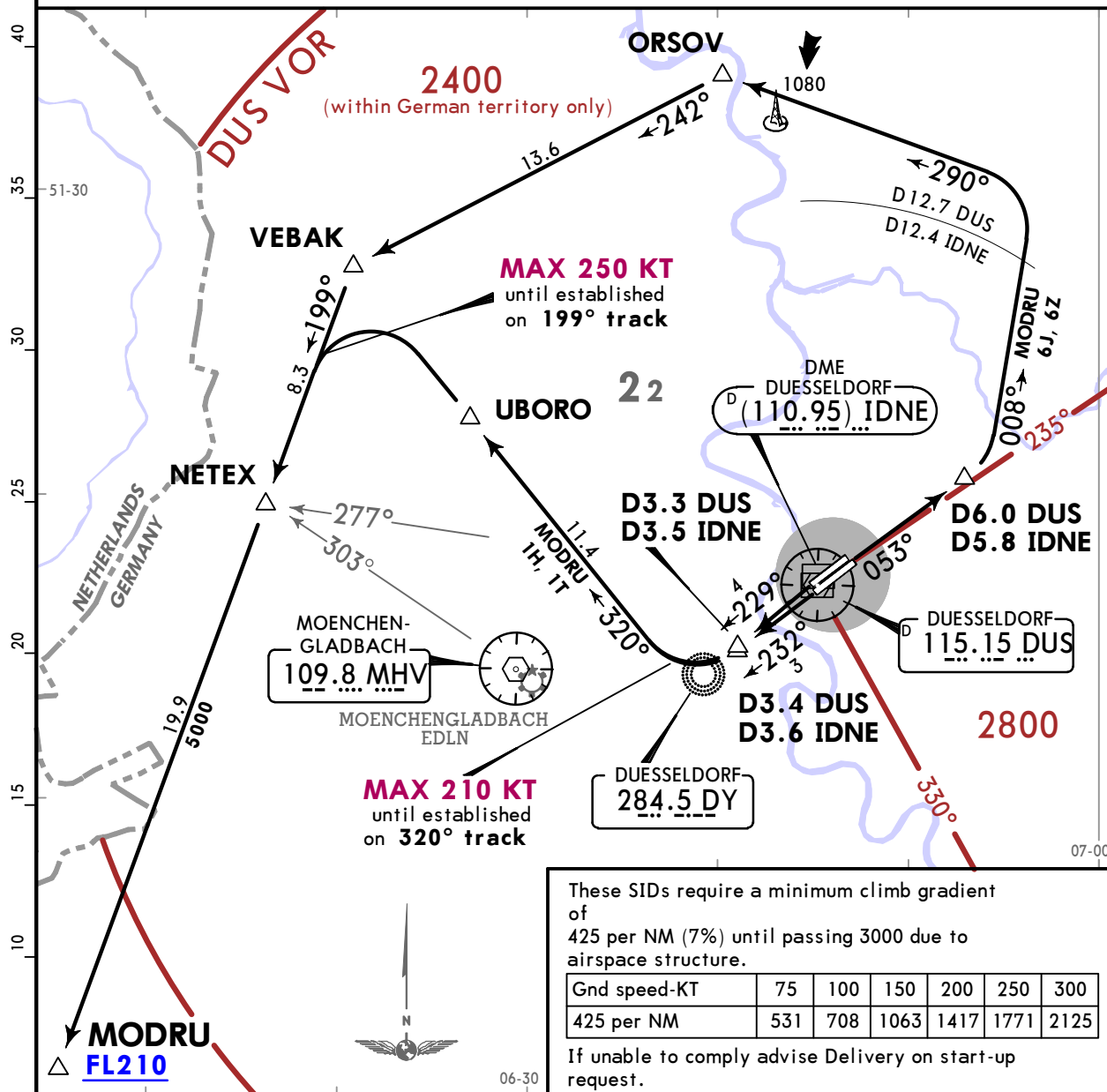
LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noiseabatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

MODRU 1H, MODRU 6J, MODRU 1T, MODRU 6Z
DEPARTURES

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Flights intending to continue from NETEX via FAMEN or DELOM shall file SID MODRU - NETEX - DCT - FAMEN/DELOM. These flights may leave SID MODRU at NETEX to proceed NETEX DCT FAMEN/DELOM, also in case of radio comm failure.

Only for flights with requested FL210 and above. These flights have to be able to cross MODRU at or above FL210. If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000

SID	RWY	ROUTING
MODRU 1H	23R	Intercept 229° bearing towards DY, at D3.3 DUS/D3.5 IDNE ①, turn RIGHT, 320° track to UBORO, turn LEFT to NETEX, 199° track to MODRU.
MODRU 6J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D12.7 DUS/D12.4 IDNE ②, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 199° track via NETEX to MODRU.
MODRU 6Z	05R	
MODRU 1T	23L	Intercept 232° bearing towards DY, at D3.4 DUS/D3.6 IDNE ③, turn RIGHT, 320° track to UBORO, turn LEFT to NETEX, 199° track to MODRU.

BRNAV equipment necessary after: ① D3.3 DUS/D3.5 IDNE/ ② D12.7 DUS/D12.4 IDNE/
③ D3.4 DUS/D3.6 IDNE.

EDDL/DUS
DUESSELDORF

16 FEB 18

10-3G

DUESSELDORF, GERMANY

SID

LANGEN
Radar (APP)
128.5Apt Elev
147

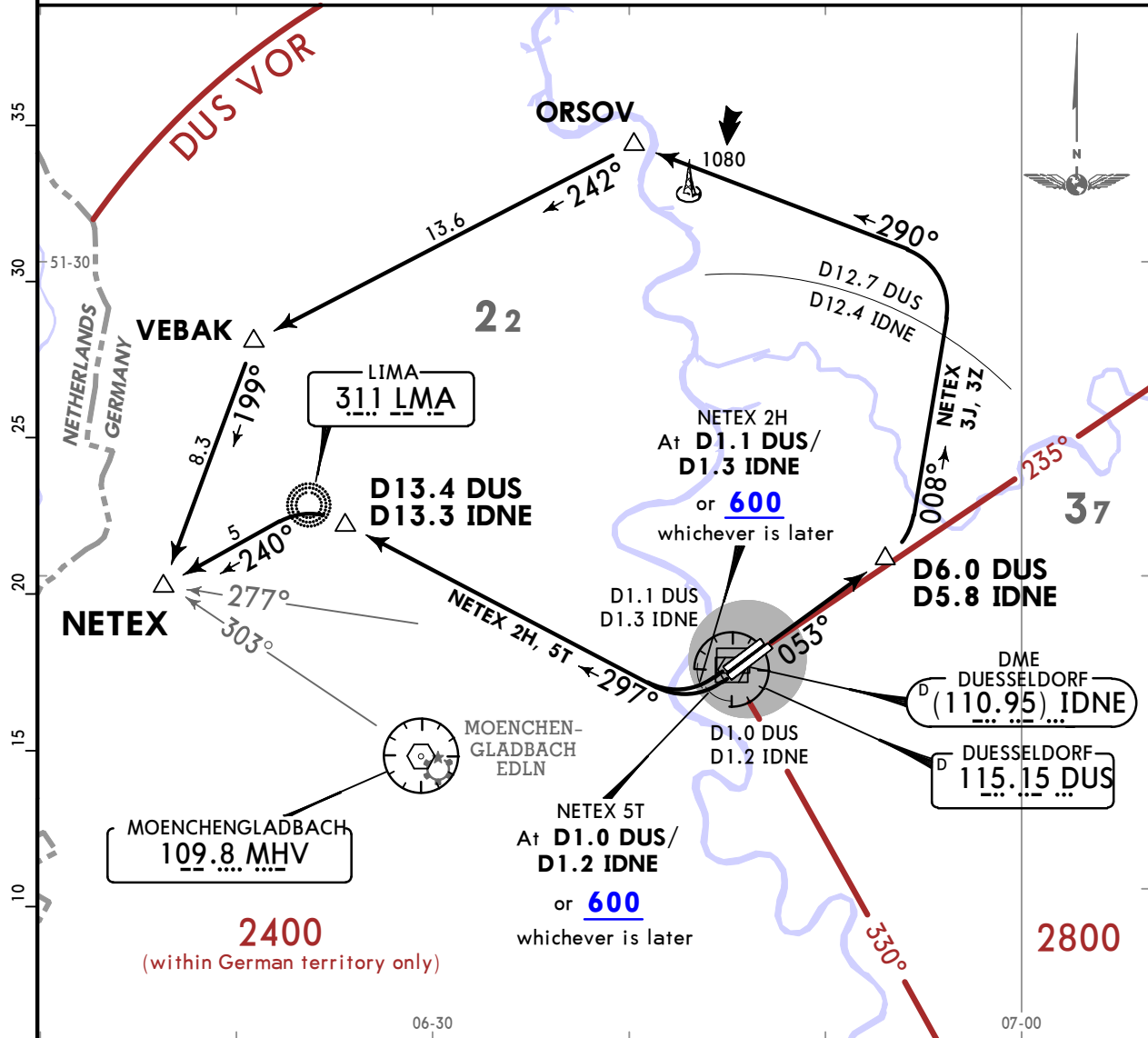
Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

NETEX 2H, NETEX 3J, NETEX 5T, NETEX 3Z DEPARTURES

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR
FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



These SIDs require minimum climb gradient of 425 per NM (7%) until passing 3000 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up request.

Initial climb clearance **5000**

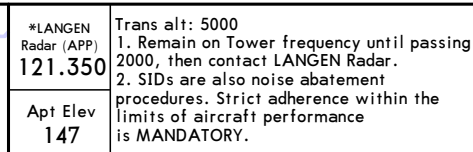
SID	RWY	ROUTING
NETEX 2H ①	23R	Climb on runway track to D1.1 DUS/D1.3 IDNE (Rwy 23R)/D1.0 DUS/D1.2 IDNE (Rwy 23L) or 600, whichever is later, turn RIGHT, intercept 297° bearing towards LMA, at D13.4 DUS/D13.3 IDNE turn LEFT, intercept 240° bearing from LMA to NETEX.
NETEX 5T ①	23L	
NETEX 3J	05L	Intercept DUS R053 to D6.0 DUS/D5.8 IDNE, turn LEFT, 008° track to D12.7 DUS/D12.4 IDNE ②, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 199° track to NETEX.
NETEX 3Z	05R	

① Not available for flights to continue after NETEX via FAMEN/DELOM.

② After D12.7 DUS/D12.4 IDNE BRNAV equipment necessary.

JEPPESEN
26 JAN 18 (10-3H) Eff 1 Feb

SID



FOR FLIGHTS WITH REQUESTED FL90 OR BELOW
FLIGHTS WITH REQUESTED FL100 OR ABOVE
SHALL FILE VIA MODRU
ALSO AVAILABLE FOR FLIGHTS
VIA AIRWAY Q-760 BETWEEN 0600-0800LT

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	212

If unable to comply advise Delivery on start-up request.

Initial climb clearance **5000**

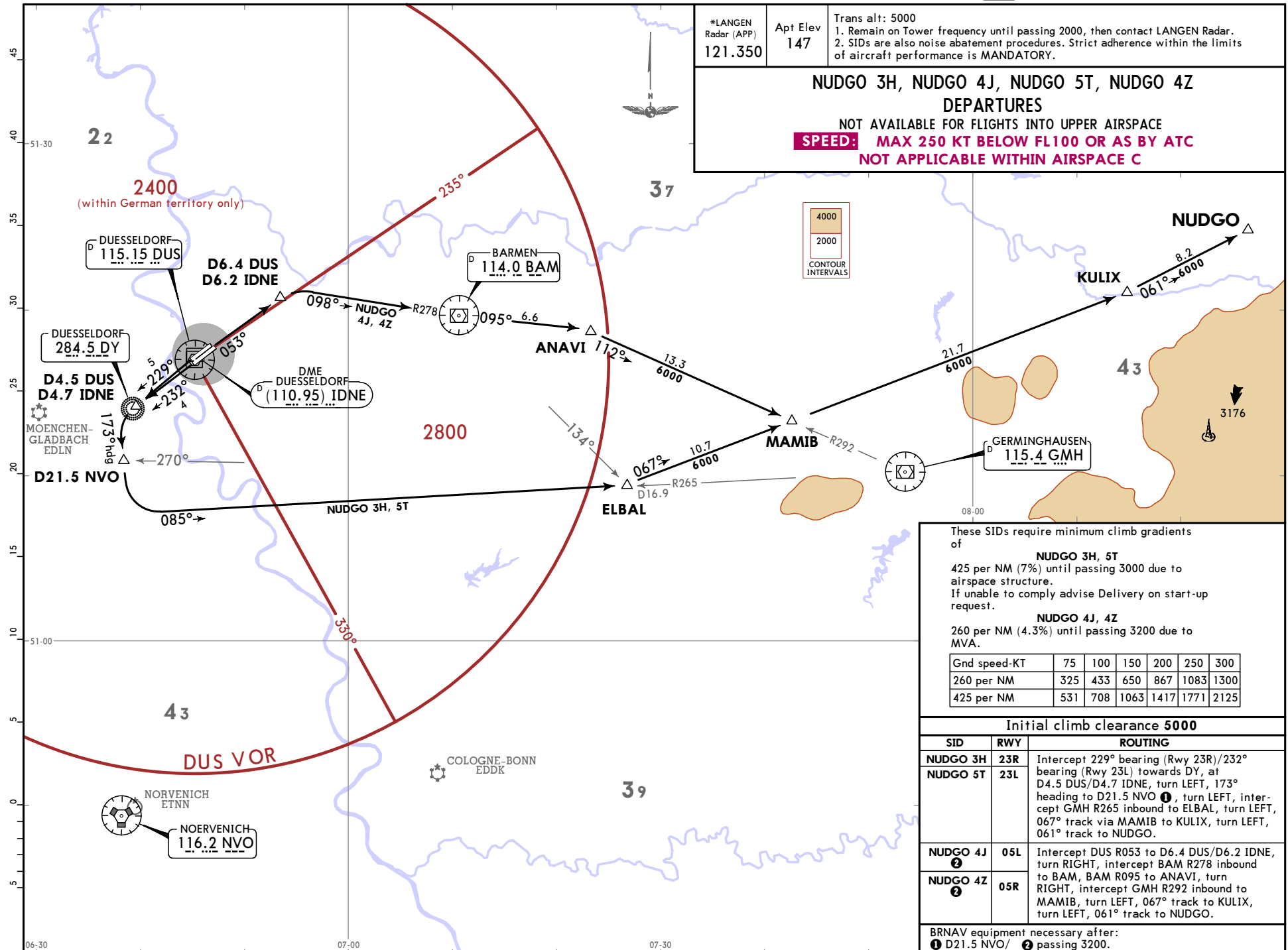
SID	RWY	ROUTING
NVO 1T	23L	Intercept 229° bearing (Rwy 23R)
NVO 1U	23R	232° bearing (Rwy 23L) towards DY, at D4.5 DUS/D4.7 IDNE, turn LEFT, 173° heading, intercept NVO R360 inbound to NVO.
NVO 2Y	05L	Intercept DUS R053 to D6.4 DUS/ D6.2 IDNE, turn RIGHT, intercept
NVO 2Z	05R	BAM R278 inbound to D3.6 BAM, turn RIGHT, intercept BAM R213 to NVO.

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JEPPESEN
26 JAN 18
Eff 1 Feb 10-3J

DUESSELDORF, GERMANY

SID

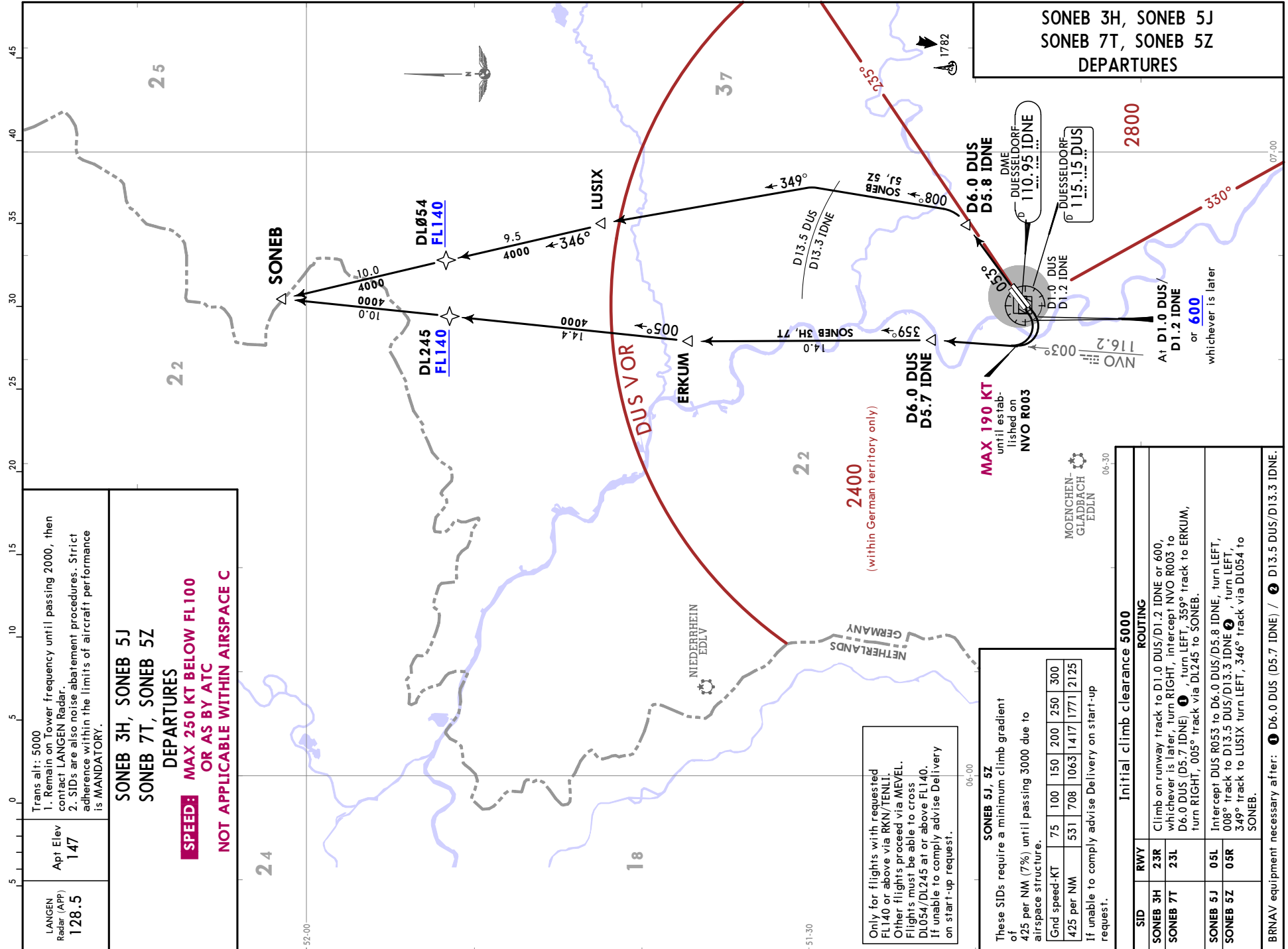


CHANGES: SIDs renumbered & revised.

EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3K)

DUESSELDORF, GERMANY

SID



EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3L)

JEPPESEN DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

*LANGEN
Radar (APP)
121.350Apt Elev
147

Trans alt: 5000

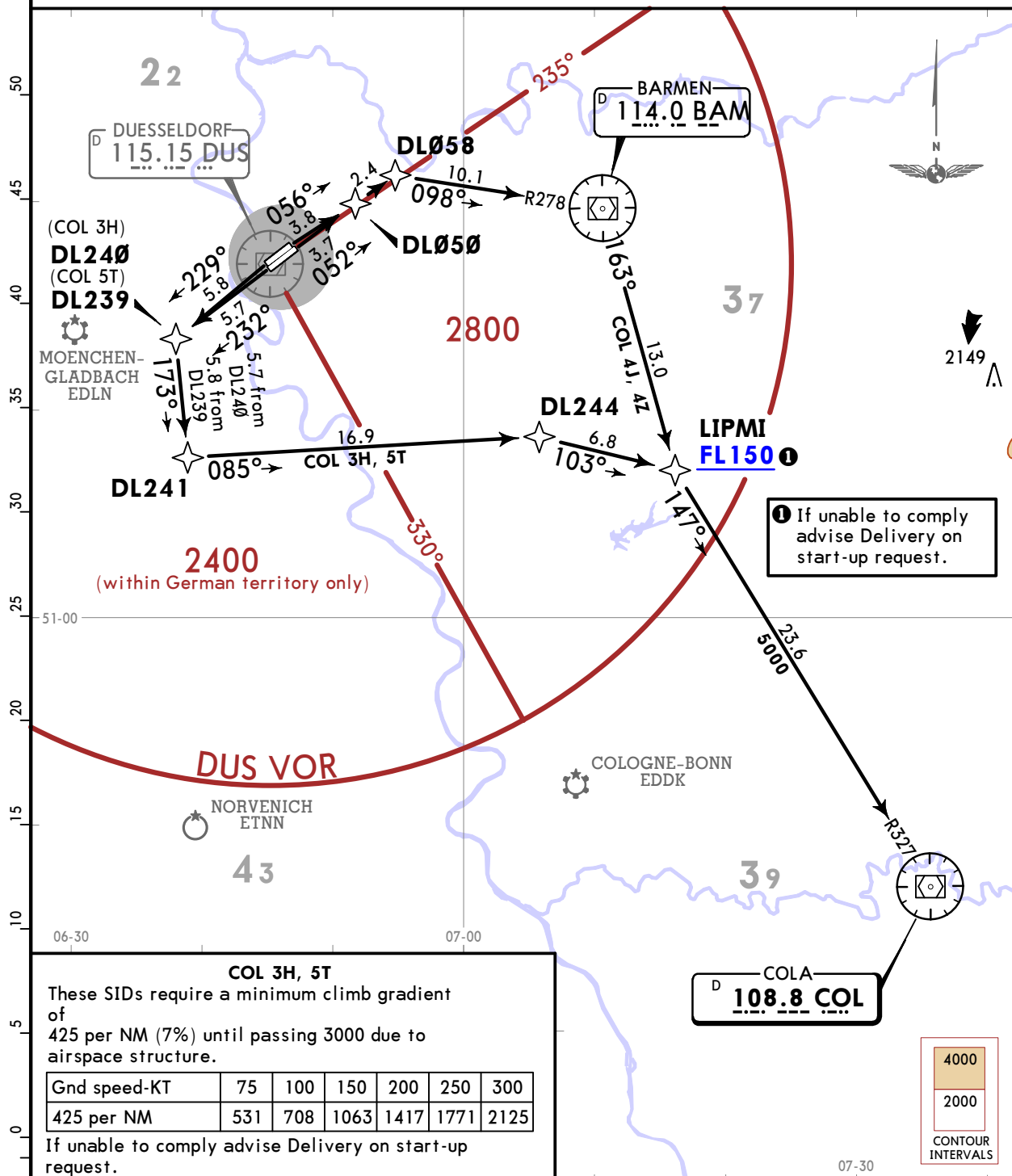
1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

COLA 3H (COL 3H), COLA 4J (COL 4J)

COLA 5T (COL 5T), COLA 4Z (COL 4Z)

RNAV DEPARTURES (OVERLAY 10-3)

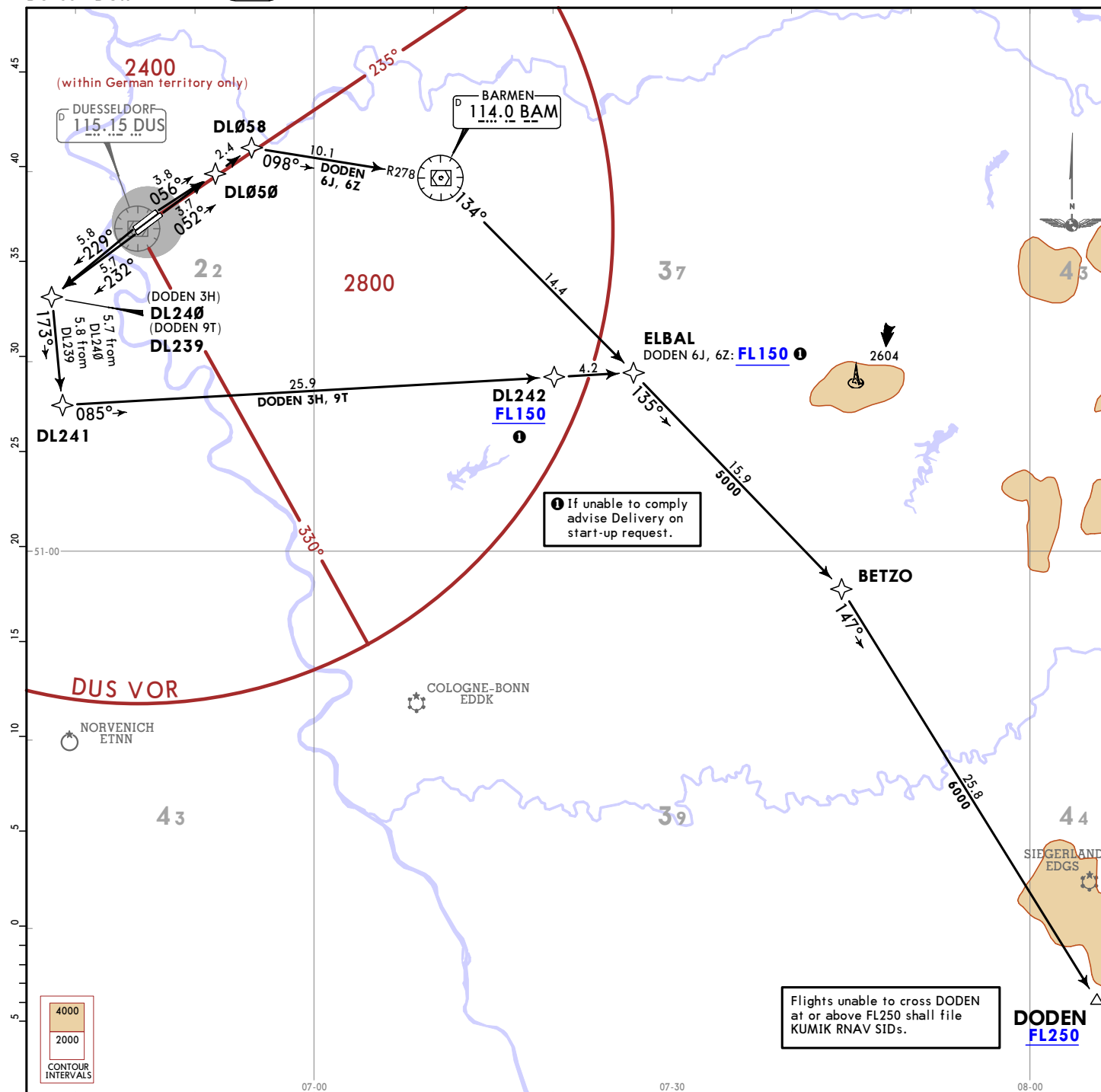
SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3M)

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)



*LANGEN Radar (APP) 121.350	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
Apt Elev 147	

DODEN 3H [DODE3H]
DODEN 6J [DODE6J]
DODEN 9T [DODE9T]
DODEN 6Z [DODE6Z]

RNAV DEPARTURES
(OVERLAY 10-3A)

ONLY FOR JET FLIGHTS WITH REQUESTED
FL250 OR ABOVE

**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

These SIDs require minimum climb gradients
of

DODEN 3H, 9T
425 per NM (7%) until passing 3000 due to
airspace structure.
If unable to comply advise Delivery on start-up
request.

DODEN 6J, 6Z
260 per NM (4.3%) until passing 3200 due to
MVA.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
425 per NM	531	708	1063	1417	1771	2125

Initial climb clearance 5000

SID	RWY	ROUTING
DODEN 3H	23R	(600+) - DL240 - DL241 - DL242 (FL150+) - ELBAL - BETZO - DODEN (FL250+).
DODEN 6J	05L	(600+) - DL050 - DL058 - BAM - ELBAL (FL150+) - BETZO - DODEN (FL250+).
DODEN 6Z	05R	(600+) - DL239 - DL241 - DL242 (FL150+) - ELBAL - BETZO - DODEN (FL250+).
DODEN 9T	23L	(600+) - DL239 - DL241 - DL242 (FL150+) - ELBAL - BETZO - DODEN (FL250+).

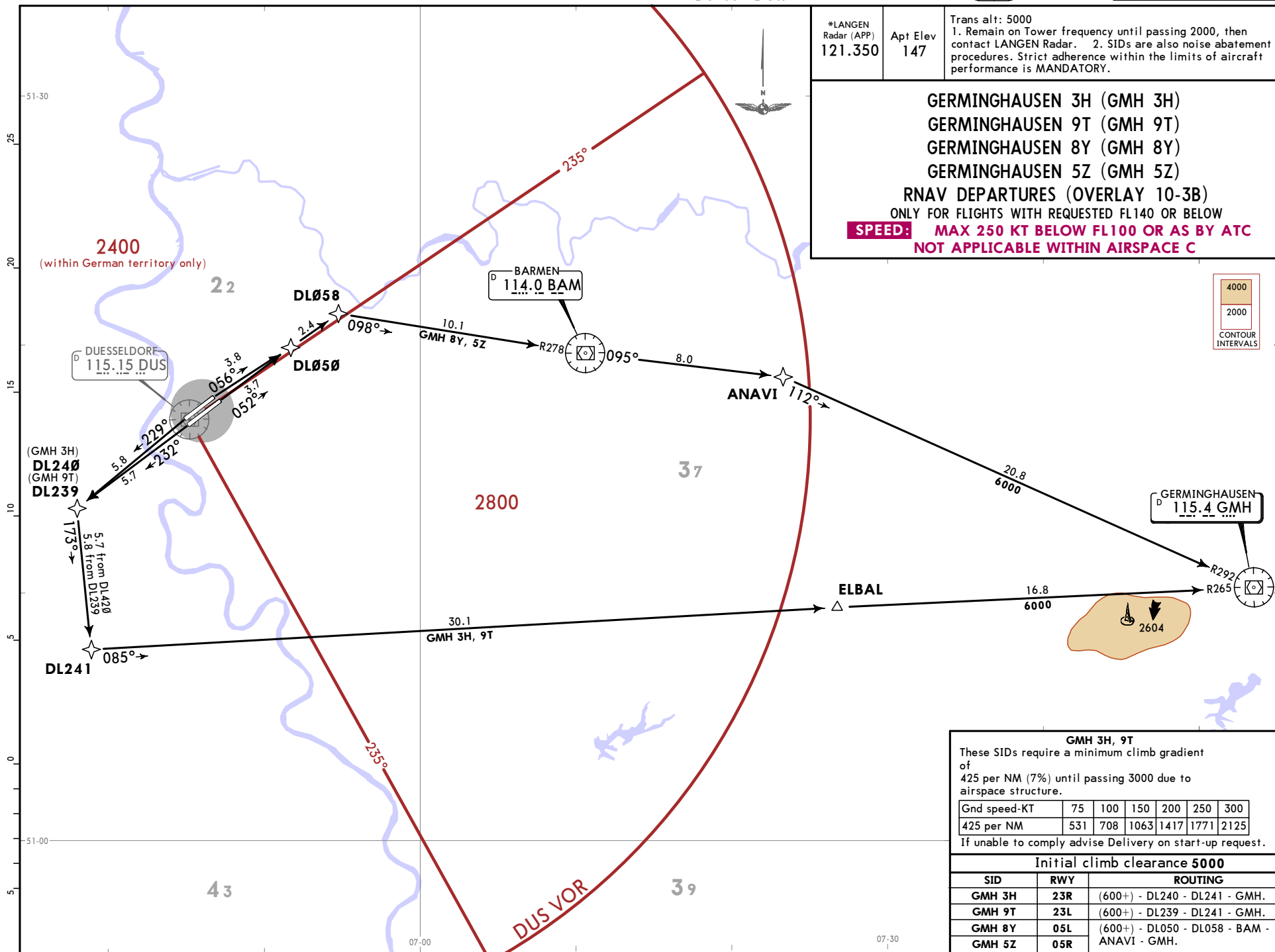
EDDL/DUS
 DUESSELDORF

JEPPESEN
 30 MAR 18 (10-3N)

DUESSELDORF, GERMANY
 RNAV SID (OVERLAY)

*LANGEN Radar (APP) 121.350	Apt Elev 147	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
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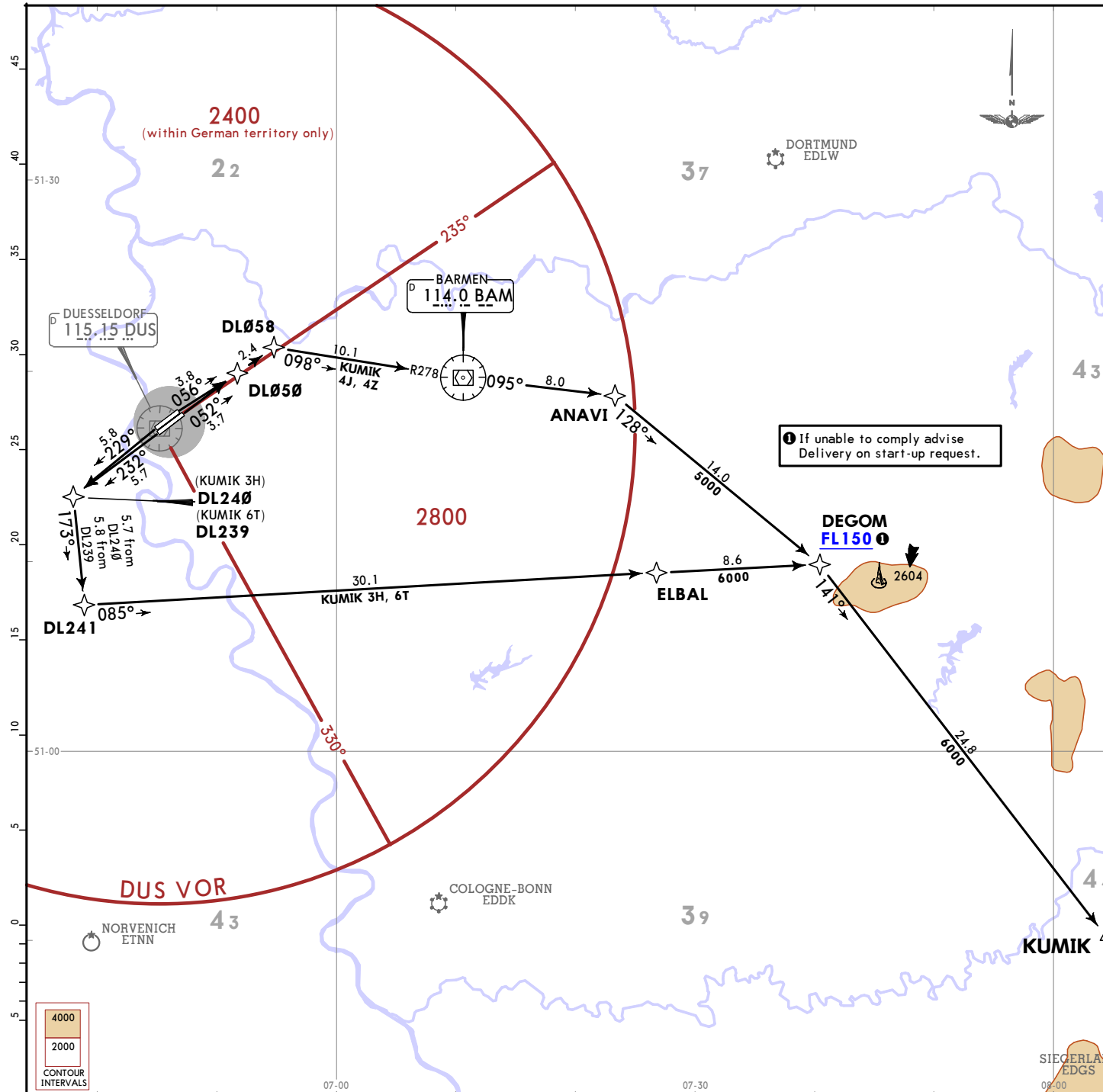
GERMINGHAUSEN 3H (GMH 3H)
GERMINGHAUSEN 9T (GMH 9T)
GERMINGHAUSEN 8Y (GMH 8Y)
GERMINGHAUSEN 5Z (GMH 5Z)
RNAV DEPARTURES (OVERLAY 10-3B)
 ONLY FOR FLIGHTS WITH REQUESTED FL140 OR BELOW
SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



GMH 3H, 9T						
These SIDs require a minimum climb gradient of 425 per NM (7%) until passing 3000 due to airspace structure.						
Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125
If unable to comply advise Delivery on start-up request.						
Initial climb clearance 5000						
SID	RWY	ROUTING				
GMH 3H	23R	(600+) - DL240 - DL241 - GMH.				
GMH 9T	23L	(600+) - DL239 - DL241 - GMH.				
GMH 8Y	05L	(600+) - DL050 - DL058 - BAM - ANAVI - GMH.				
GMH 5Z	05R					

EDDL/DUS
DUESSELDORF 30 MAR 18 (10-3P)

DUESSELDORF, GERMANY
RNAV SID (OVERLAY)



*LANGEN Radar (APP)	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
121.350	
Apt Elev 147	

KUMIK 3H [KUMI3H]
KUMIK 4J [KUMI4J]
KUMIK 6T [KUMI6T]
KUMIK 4Z [KUMI4Z]

RNAV DEPARTURES
(OVERLAY 10-3C)

ONLY FOR FLIGHTS WITH REQUESTED
FL150 OR ABOVE

**SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C**

Normally not available for flights above FL250
via BOMBI, except Prop/Turbo Prop aircraft.

These SIDs require minimum climb gradients
of
KUMIK 3H, 6T
425 per NM (7%) until passing 3000 due to
airspace structure.
If unable to comply advise Delivery on start-up
request.

KUMIK 4J, 4Z
260 per NM (4.3%) until passing 3200 due to
MVA.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
425 per NM	531	708	1063	1417	1771	2125

Initial climb clearance **5000**

SID	RWY	ROUTING
KUMIK 3H	23R	(600+) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.
KUMIK 4J	05L	(600+) - DL050 - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.
KUMIK 4Z	05R	(600+) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.
KUMIK 6T	23L	(600+) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3Q)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

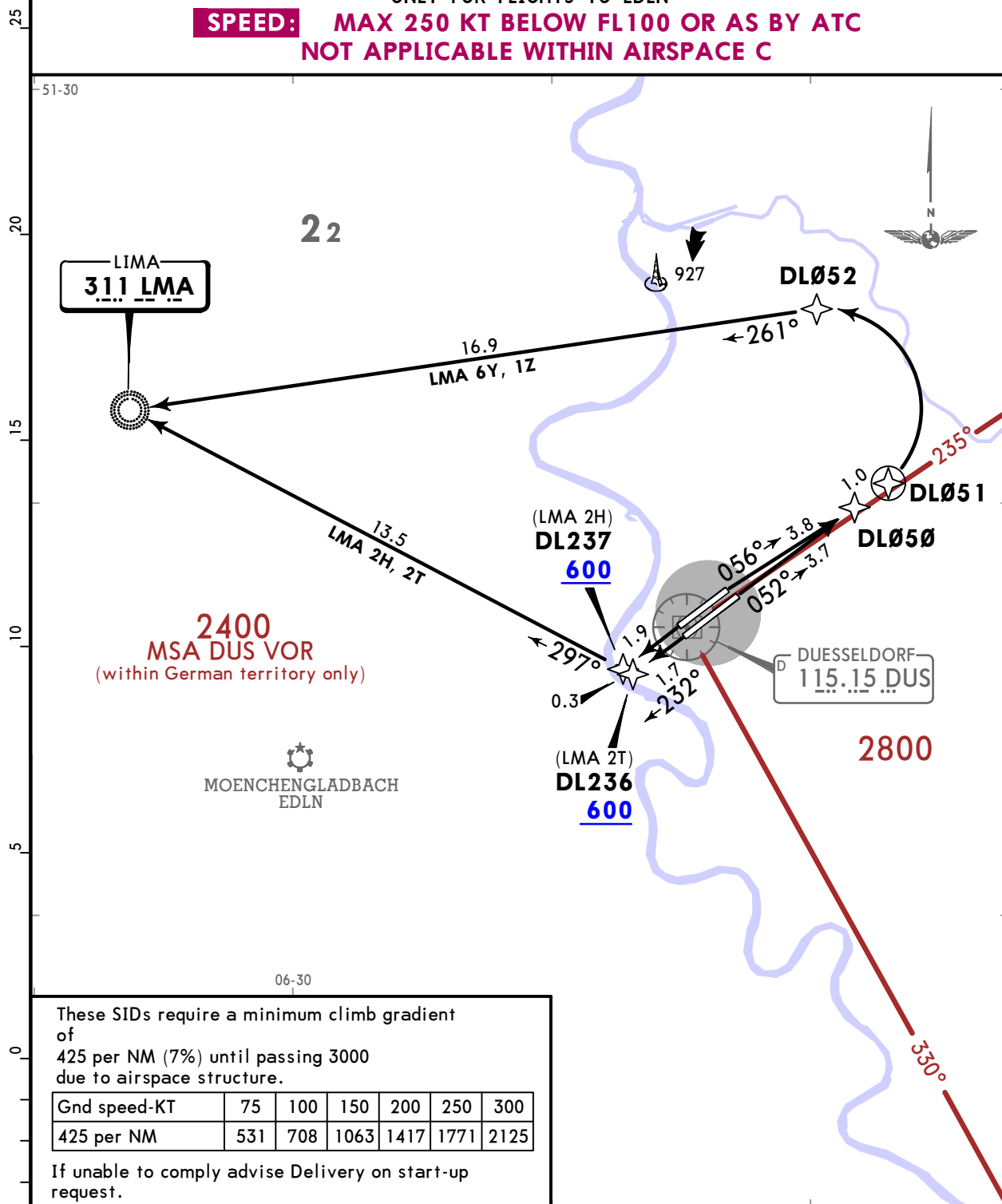
LIMA 2H (LMA 2H), LIMA 2T (LMA 2T)

LIMA 6Y (LMA 6Y), LIMA 1Z (LMA 1Z)

RNAV DEPARTURES (OVERLAY 10-3D)

ONLY FOR FLIGHTS TO EDLN

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
LMA 2H	23R	DL237 (600+) - LMA.
LMA 2T	23L	DL236 (600+) - LMA.
LMA 6Y	05L	(600+) - DL050 - DL051 - DL052 - LMA.
LMA 1Z	05R	

CHANGES: None.

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DUESSELDORF, GERMANY

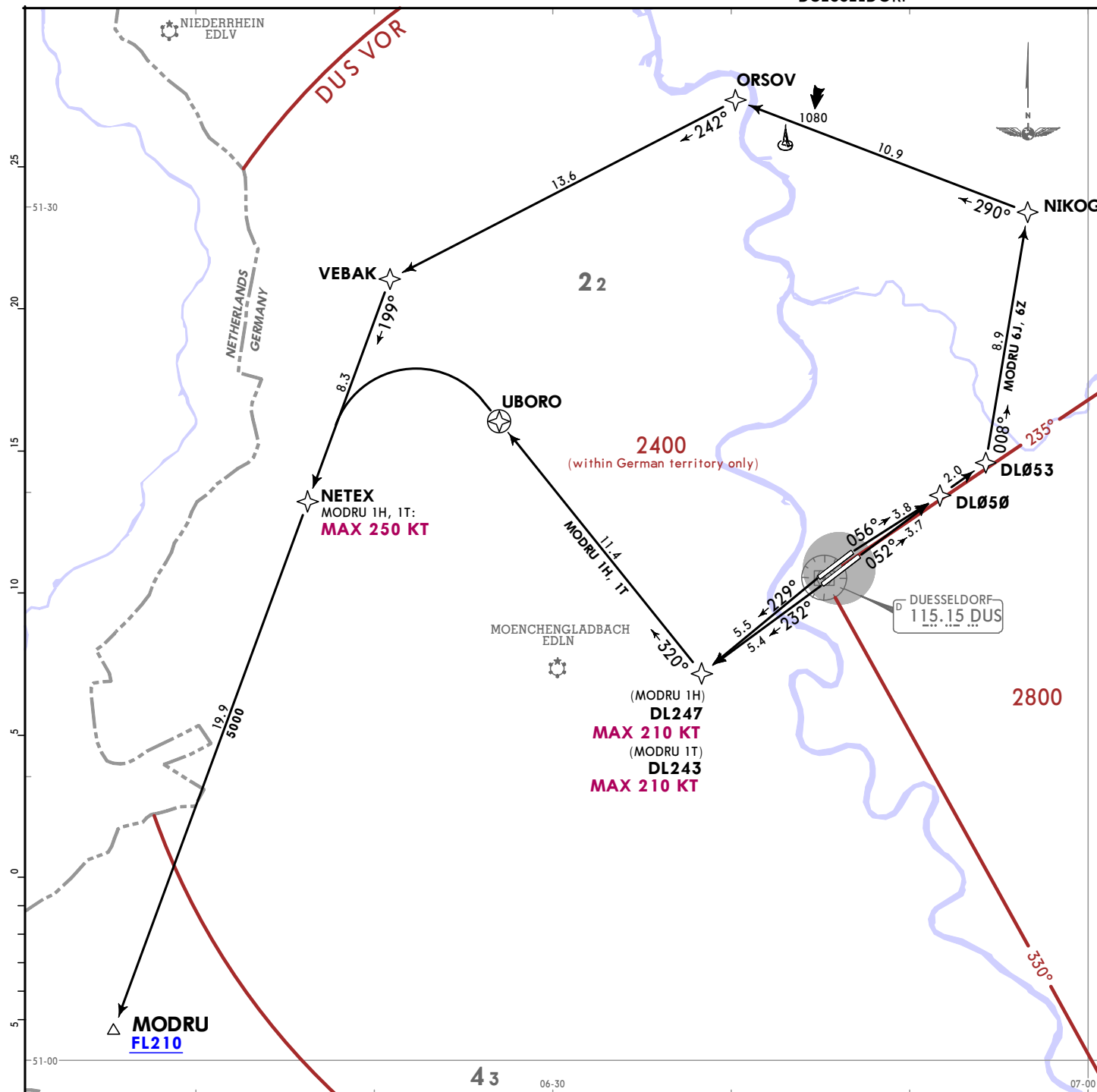
RNAV SID (OVERLAY)

EDDL/DUS
DUESSELDORF

JEPPesen
30 MAR 18 10-3T

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)



LANGEN Radar (APP) 128.5	Trans alt: 5000 1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar. 2. SIDs are also noise abatement proce- dures. Strict adherence within the limits of aircraft performance is MANDATORY.
Apt Elev 147	

MODRU 1H [MODR1H]
MODRU 6J [MODR6J]
MODRU 1T [MODR1T]
MODRU 6Z [MODR6Z]

RNAV DEPARTURES
(OVERLAY 10-3F)

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Flights intending to continue from NETEX
via FAMEN or DELOM shall file SID
MODRU - NETEX - DCT - FAMEN/DELOM.
These flights may leave SID MODRU at
NETEX to proceed NETEX DCT FAMEN/
DELOM, also in case of radio comm failure.

Only for flights with requested FL210 and
above. These flights have to be able to cross
MODRU at or above FL210. If unable to
comply advise Delivery on start-up request.

These SIDs require a minimum climb gradient
of
425 per NM (7%) until passing 3000 due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

If unable to comply advise Delivery on start-up
request.

Initial climb clearance 5000

SID	RWY	ROUTING
MODRU 1H	23R	(600+) - DL247 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).
MODRU 6J	05L	(600+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX - MODRU (FL210+).
MODRU 6Z	05R	(600+) - DL243 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).
MODRU 1T	23L	(600+) - DL243 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).

EDDL/DUS
DUESSELDORF

30 MAR 18

(10-3U)



JEPPESEN

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

LANGEN
Radar (APP)
128.5Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

NETEX 2H [NETE2H], NETEX 3J [NETE3J]

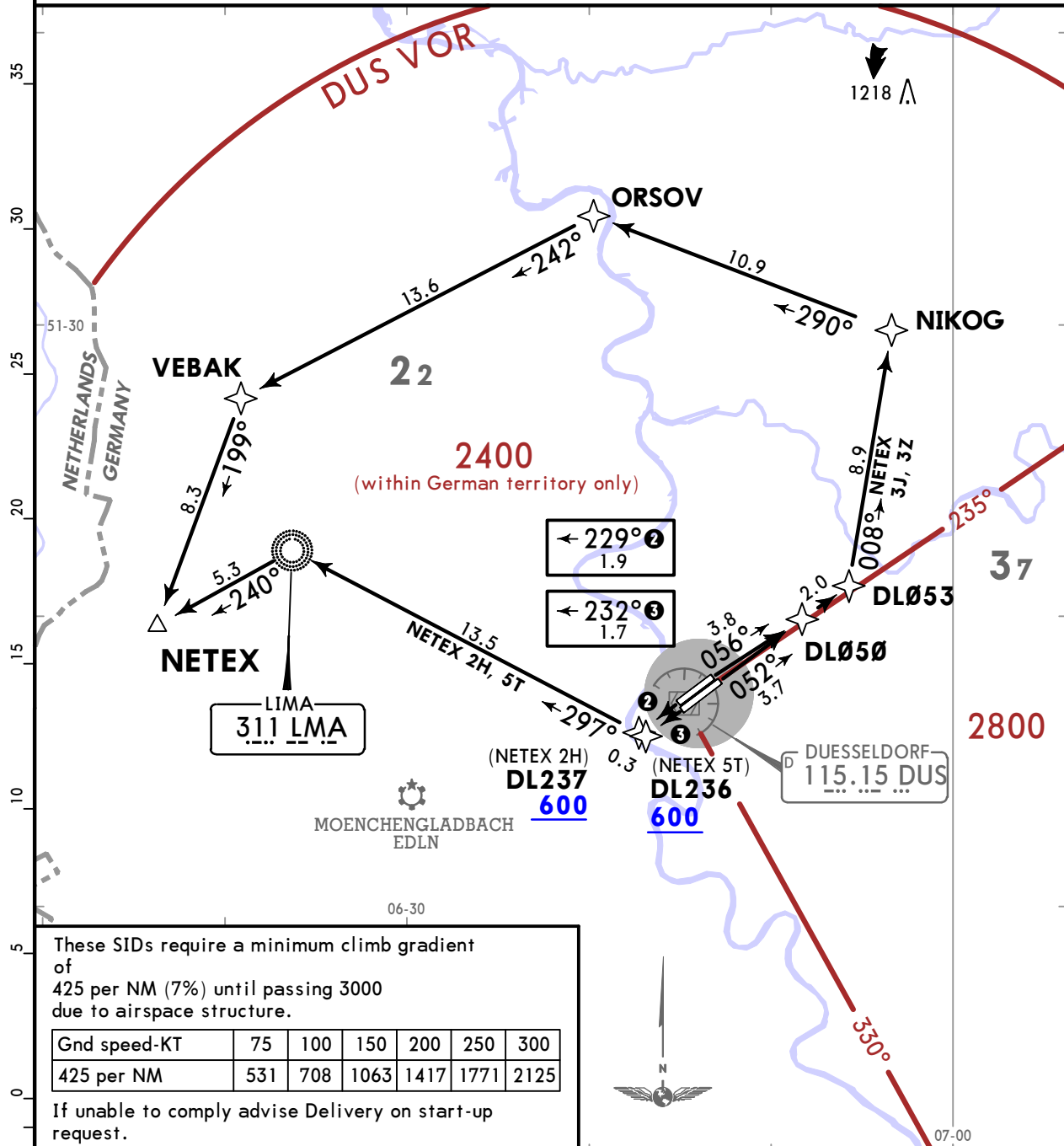
NETEX 5T [NETE5T], NETEX 3Z [NETE3Z]

RNAV DEPARTURES (OVERLAY 10-3G)

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR

FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

SID	RWY	ROUTING
NETEX 2H ①	23R	DL237 (600+) - LMA - NETEX.
NETEX 3J	05L	(600+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX.
NETEX 5T ①	23L	DL236 (600+) - LMA - NETEX.
NETEX 3Z	05R	(600+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX.

① Not available for flights to continue after NETEX via FAMEN/DELOM.

EDDL/DUS
DUESSELDORF

30 MAR 18

**JEPPESEN**

DUESSELDORF, GERMANY

RNAV SID (OVERLAY)

*LANGEN
Radar (APP)
121.350

Apt Elev
147

Trans alt: 5000

1. Remain on Tower frequency until passing 2000, then contact LANGEN Radar.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is **MANDATORY**.

NOERVENICH 1T (NVO 1T), NOERVENICH 1U (NVO 1U)
NOERVENICH 2Y (NVO 2Y), NOERVENICH 2Z (NVO 2Z)

RNAV DEPARTURES (OVERLAY 10-3H)

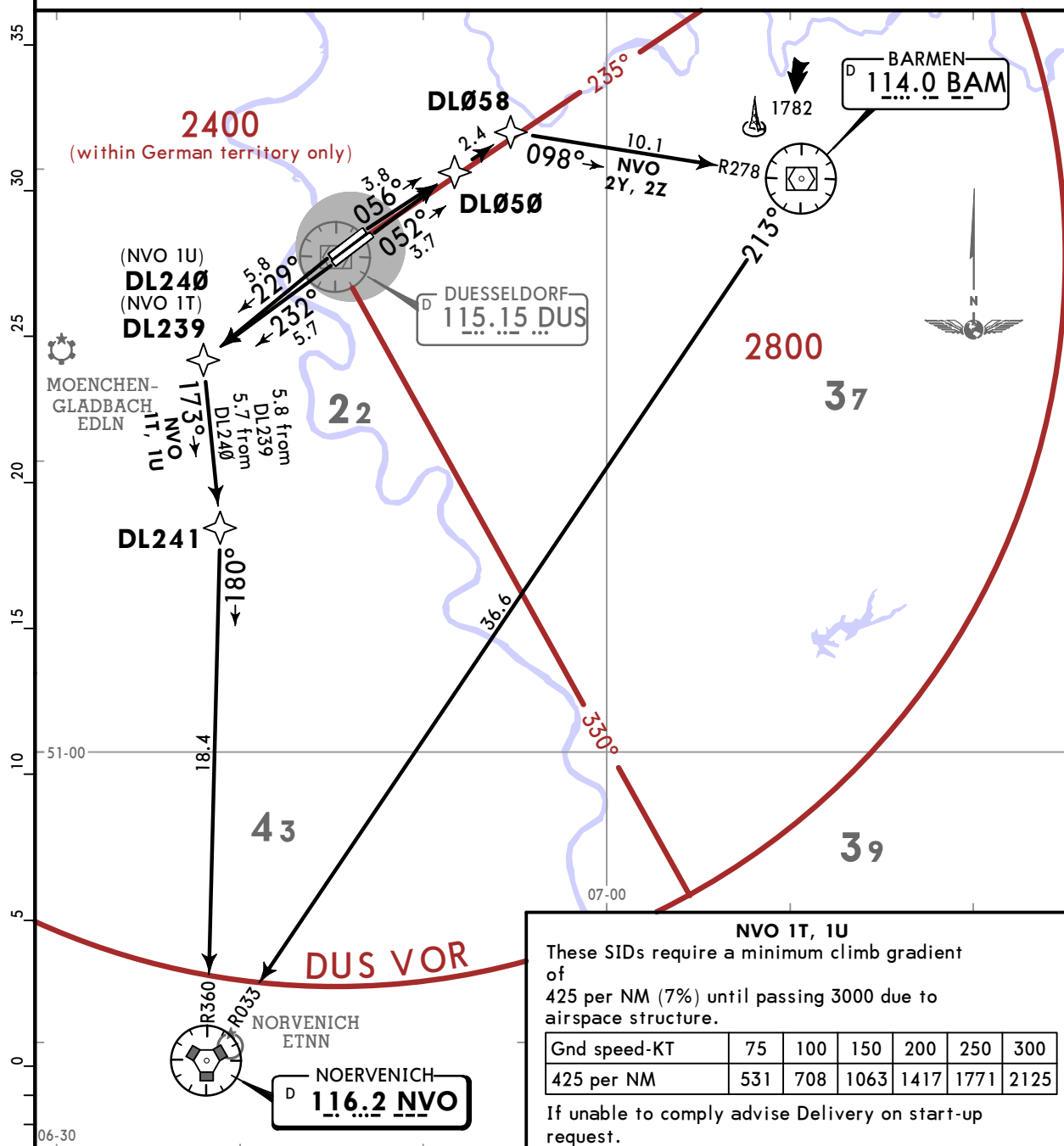
FOR FLIGHTS WITH REQUESTED FL90 OR BELOW

FLIGHTS WITH REQUESTED FL100 OR ABOVE SHALL FILE VIA MODRU

ALSO AVAILABLE FOR FLIGHTS VIA AIRWAY Q-760 BETWEEN 0600-0800LT

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance **5000**

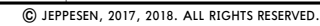
SID	RWY	ROUTING
NVO 1T	23L	(600+) - DL239 - DL241 - NVO.
NVO 1U	23R	(600+) - DL240 - DL241 - NVO.
NVO 2Y	05L	(600+) - DL050 - DL058 - BAM - NVO.
NVO 2Z	05R	

CHANGES: Distance to DL240 revised.

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DUESSELDORF, GERMANY
RNAV SID (OVERLAY)





EDDL/DUS

13 APR 18

10-8

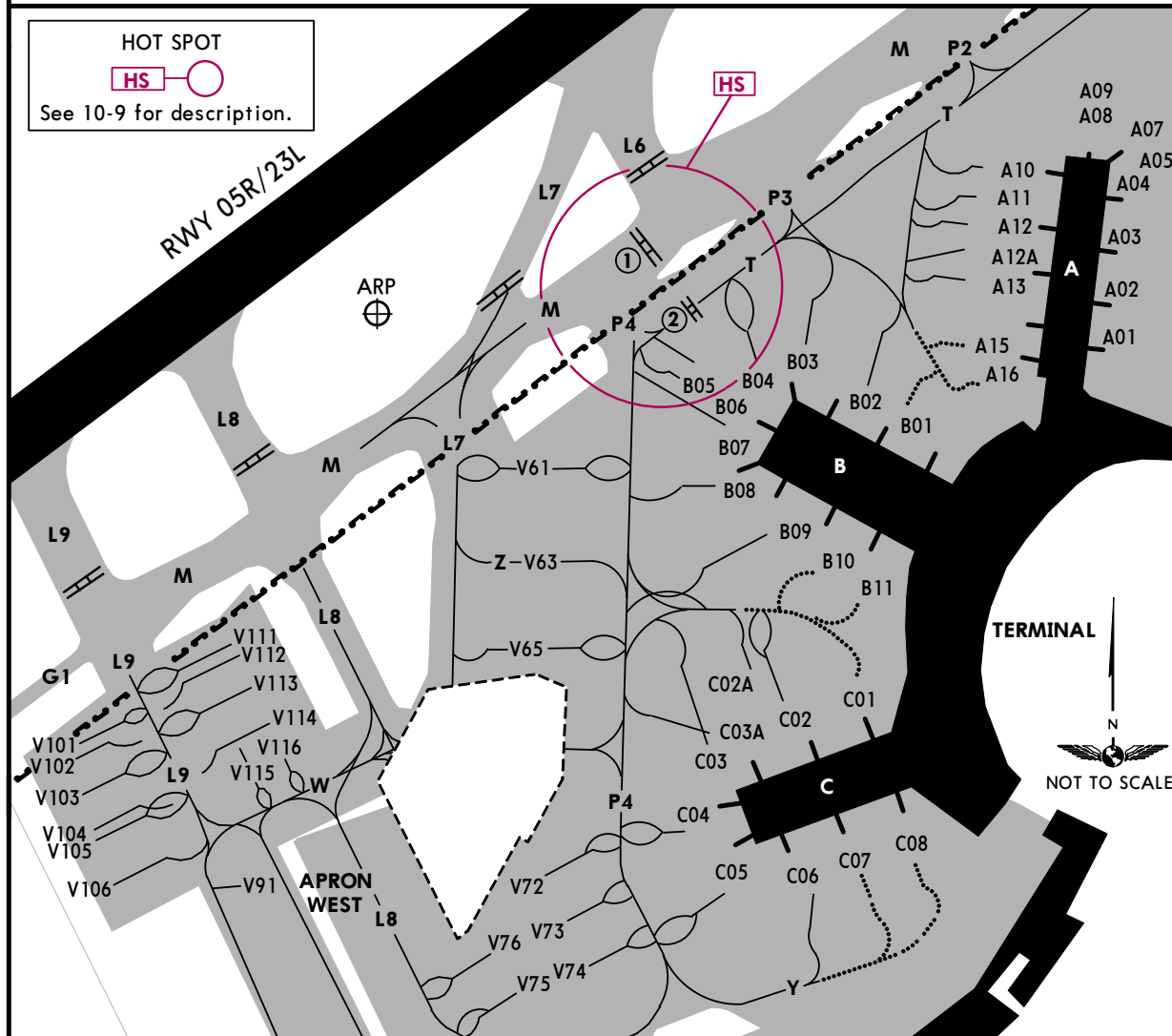
Eff 16 APR

JEPPESSEN DUESSELDORF, GERMANY

DUESSELDORF

CONSTRUCTION WORKS

REFER ALSO TO LATEST NOTAMS



RESTRICTIONS AND CHANGES FOR TAXIING ON APRON AND TWYS

Relocation of TWY L8-South (MAX Code E ACFT).

Temporary use of TWY Z (MAX Code E ACFT).

Closure of intersection TWY L7/L8/W and closure TWY W around former stand V67 and V68.

Closure of ACFT stands V62, V64, V67 to V71 and V81 to V86.

Replacement ACFT stands V61, V63, V65, V72 thru V76 and V91.

LEGEND

A10 Parking position

M Taxiway

—— Taxi guideline all acft

..... Taxi guideline all acft
except B747, B777,
A330 (C01/C07 possible),
A340

① Checkpoint for handover between two sectors of ground control

EDDL/DUS

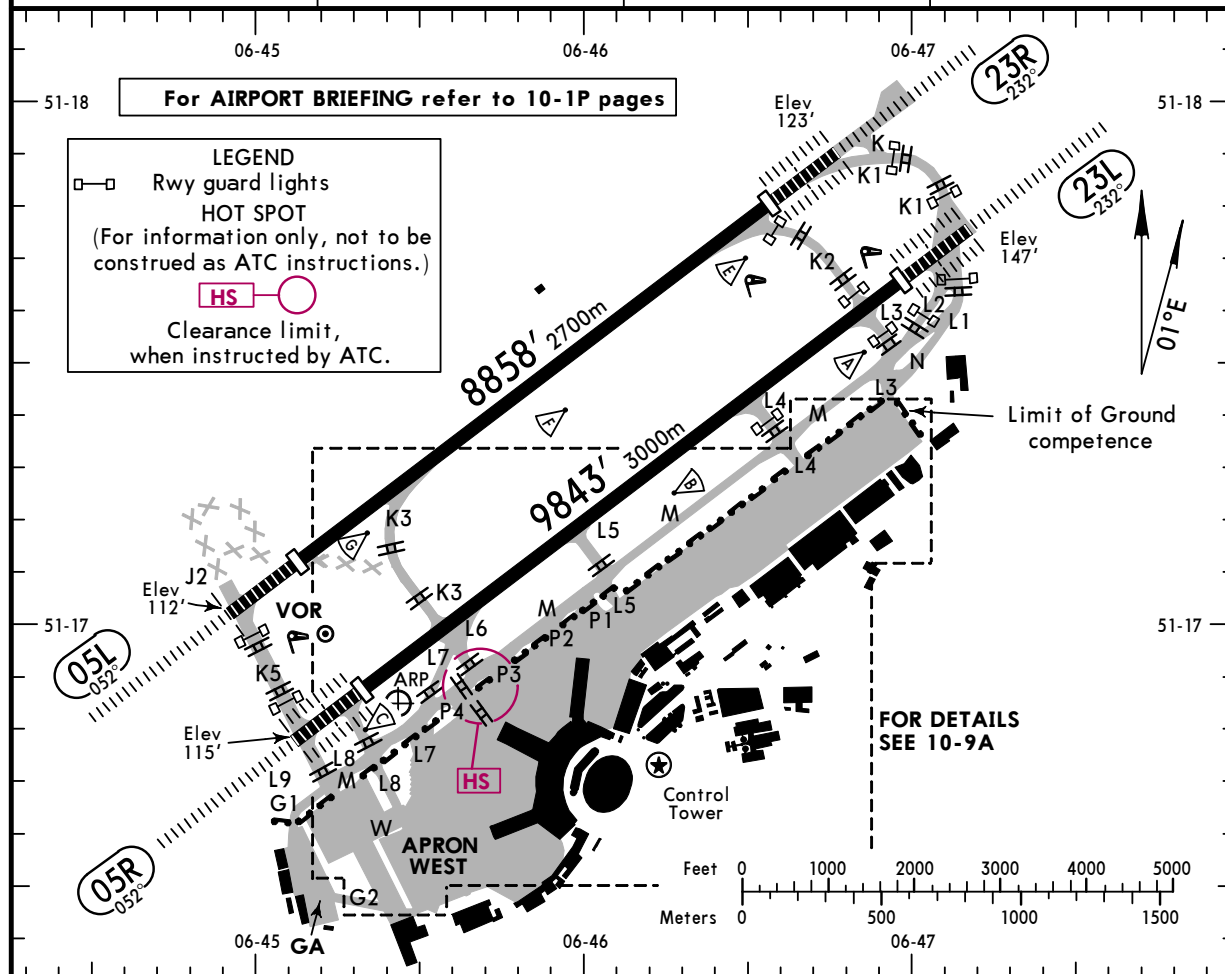
Apt Elev **147'**
N51 16.9 E006 45.4

4 MAY 18 (10-9)

JEPPESSEN DUESSELDORF, GERMANY

DUESSELDORF

*D-ATIS	*DUESSELDORF Delivery	*DUESSELDORF Ground	Tower
123.780	121.780	121.905 121.605	118.305



ADDITIONAL RUNWAY INFORMATION

ADDITIONAL RUNWAY INFORMATION								USABLE LENGTHS		TAKE-OFF	WIDTH
RWY								LANDING BEYOND			
								Threshold	Glide Slope		
05L	HIRL①	CL②	HALS	SFL	PAPI-L(3.0°)	REIL	RVR	7874' 2400m	6780' 2067m	③ ④	148' 45m
23R	HIRL①	CL②	ALSF-II	TDZ	PAPI-L(3.0°)	REIL	RVR		6659' 2030m		

- 1 spacing 60m
- 2 spacing 15m

③ TAKE-OFF RUN AVAILABLE

<u>RWY 05L:</u>	From rwy head	7874' (2400m)
	twy K3 int	5643' (1720m)

RWY 23R: From rwy head 7874' (2400m)

twy K1 int	7480'	(2280m)
twy K2 int	6765'	(2062m)
(PPR only)	8530'	(2600m)

- ④ Additional 984'/300m available as stopway.

with paved strip
in front of rwy

05R 23L	HIRL CL(15m) ALSF-II TDZ PAPI-L(3.0°) REIL RVR	8858' 2700m	7825' 2385m	5 6	148' 45m
			7644' 2330m		

5 TAKE-OFF RUN AVAILABLE

<u>RWY 05R:</u>	From rwy head	8858' (2700m)
	twy L8 int	8120' (2475m)
	twy L6 int	6663' (2031m)

RWY 23L: From rwy head 8858' (2700m)

twy L1 int	8678'	(2645m)
twy L2 int	8202'	(2500m)
twy L3 int	7333'	(2235m)

- ⑥ Additional 984'/300m available as stopway.

Standard

TAKE-OFF

	Low Visibility Take-off					
	1 HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
A	TDZ, MID, RO RVR 125m	TDZ, MID, RO RVR 150m	RVR 200m	RVR 300m	400m	500m
B						
C						
D						

1 RWY 05R, 23L: RVR 75m with approved guidance system or HUD/HUDLS.

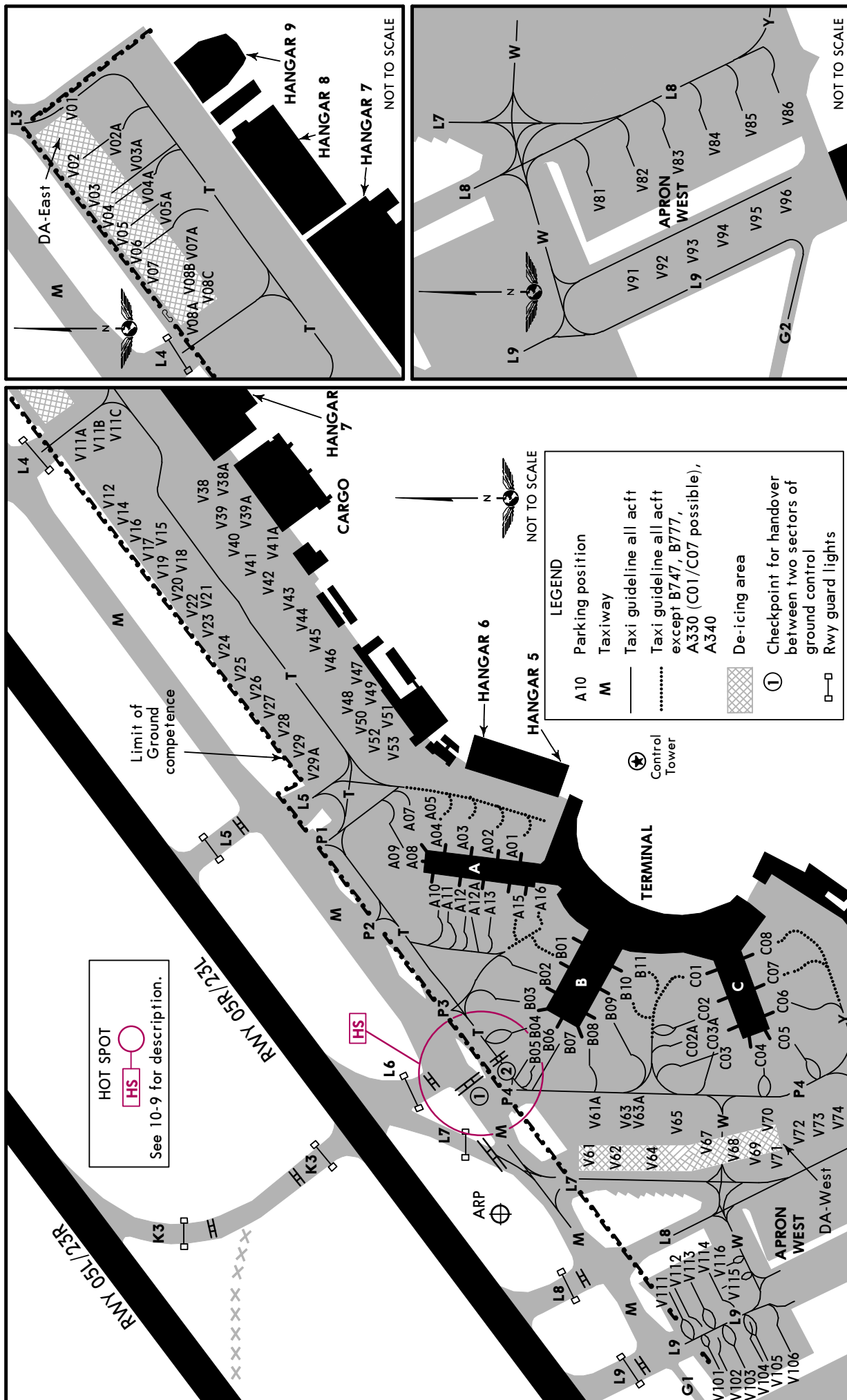
EDDL/DUS

4 MAY 18

10-9A

DUESSELDORF, GERMANY

DUESSELDORF



EDDL/DUS**JEPPESSEN****DUESSELDORF, GERMANY**

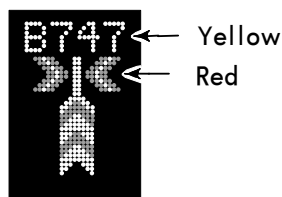
15 SEP 17

(10-9B)

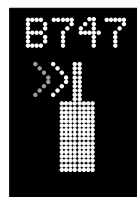
DUESSELDORF**INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
A01	N51 16.8 E006 46.0	V19	N51 17.2 E006 46.5
A02 thru A05	N51 16.9 E006 46.0	V20 thru V23	N51 17.2 E006 46.4
A07	N51 17.0 E006 46.0	V24 thru V26	N51 17.1 E006 46.3
A08	N51 16.9 E006 46.0	V27 thru V29	N51 17.1 E006 46.2
A09	N51 17.0 E006 46.0	V29A	N51 17.1 E006 46.1
A10	N51 16.9 E006 45.9	V38, V38A	N51 17.1 E006 46.6
A11	N51 16.9 E006 46.0	V39 thru V42	N51 17.1 E006 46.5
A12	N51 16.9 E006 45.9	V43, V44	N51 17.1 E006 46.4
A12A	N51 16.9 E006 46.0	V45	N51 17.0 E006 46.4
A13	N51 16.9 E006 45.9	V46 thru V49	N51 17.0 E006 46.3
A15, A16	N51 16.8 E006 45.9	V50 thru V53	N51 17.0 E006 46.2
B01 thru B03	N51 16.8 E006 45.8	V61 thru V62	N51 16.8 E006 45.6
B04 thru B08	N51 16.8 E006 45.7	V63 thru V65	N51 16.7 E006 45.6
B09	N51 16.8 E006 45.8	V67 thru V72	N51 16.6 E006 45.6
B10 thru C01	N51 16.7 E006 45.8	V73, V74	N51 16.5 E006 45.6
C02, C02A	N51 16.6 E006 45.8	V81, V82	N51 16.6 E006 45.4
C03 thru C05	N51 16.6 E006 45.7	V83	N51 16.5 E006 45.4
C06, C07	N51 16.6 E006 45.8	V84 thru V86	N51 16.5 E006 45.5
C08	N51 16.6 E006 45.9	V91	N51 16.6 E006 45.4
V01 thru V02A	N51 17.4 E006 46.9	V92 thru V96	N51 16.5 E006 45.4
V03	N51 17.4 E006 46.8	V101 thru V106	N51 16.6 E006 45.2
V03A	N51 17.3 E006 46.9	V111	N51 16.3 E006 45.3
V04	N51 17.4 E006 46.8	V112, V113	N51 16.7 E006 45.3
V04A	N51 17.3 E006 46.8	V114	N51 16.6 E006 45.4
V05	N51 17.4 E006 46.8	V115	N51 16.6 E006 45.3
V05A, V06	N51 17.3 E006 46.8	V116	N51 16.6 E006 45.4
V07	N51 17.3 E006 46.7		
V07A	N51 17.3 E006 46.8		
V08A	N51 17.3 E006 46.7		
V08B, V08C	N51 17.3 E006 46.8		
V11A	N51 17.3 E006 46.6		
V11B	N51 17.2 E006 46.6		
V11C, V12	N51 17.3 E006 46.6		
V14 thru V17	N51 17.2 E006 46.5		
V18	N51 17.2 E006 46.4		

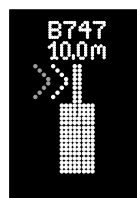
EDDL/DUS

15 SEP 17 **JEPPESEN**
(10-9C)**DUESSELDORF, GERMANY**
DUESSELDORF**SAFEGATE ACFT DOCKING GUIDANCE SYSTEM (SAFEDOCK)**

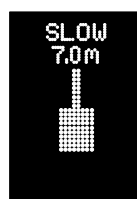
System is activated and in capture mode, searching an approaching acft.
The lead-in line is to be followed.



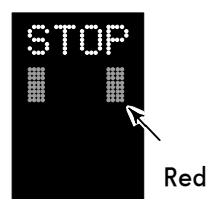
Do not proceed beyond the bridge unless the floating arrows are replaced by a yellow center line indicator and floating arrow to indicate that the system has captured the acft and is actively tracking it.
Red arrows show the direction to turn for azimuth guidance.
Yellow arrows show position in relation to center line.
The absence of any direction arrow indicates the acft on center line.



Digital countdown begins when the acft is 20m from its stop position. When the acft is within the last 12m, the distance-to-go closing rate indicator decreases by about one yellow LED-row per 0.5m of movement.



If the acft is approaching faster than the accepted speed, the system will show "SLOW" as warning to the pilot.



At the stop position the display will show "STOP" with red light squares, following by "OK".



In case of malfunction request assistance from APRON CONTROL.

Stop bar markings are located to the right and left with a 90 degree angle to the guide lines.
Acft has to be stopped with the pilot seat abeam the stop bar (nose wheel).

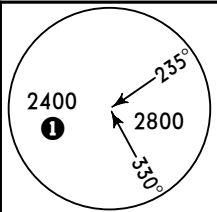
EDDL/DUS
DUESSELDORF

4 MAY 18 (11-1)

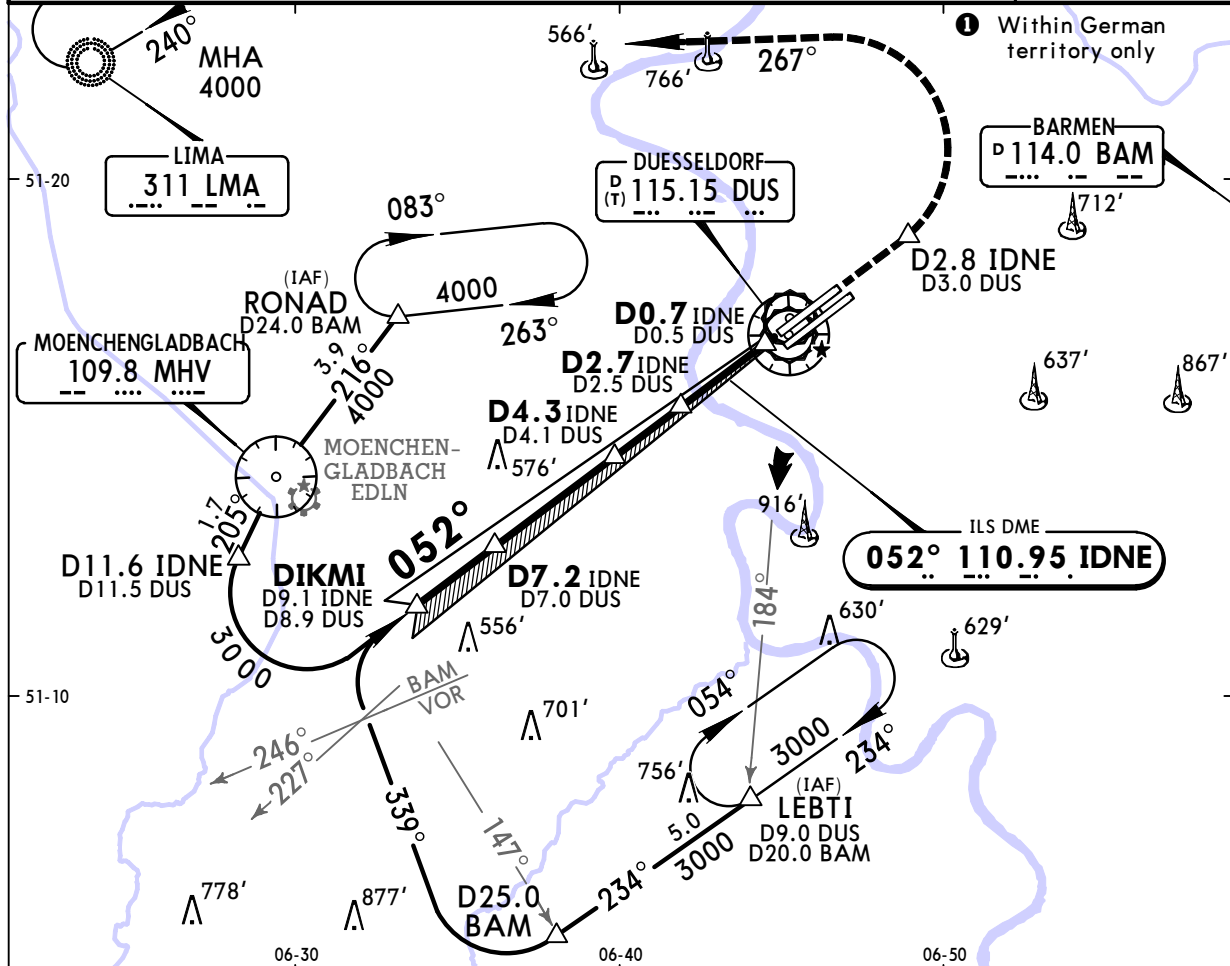
DUESSELDORF, GERMANY
ILS or LOC Rwy 05L

BRIEFING STRIP

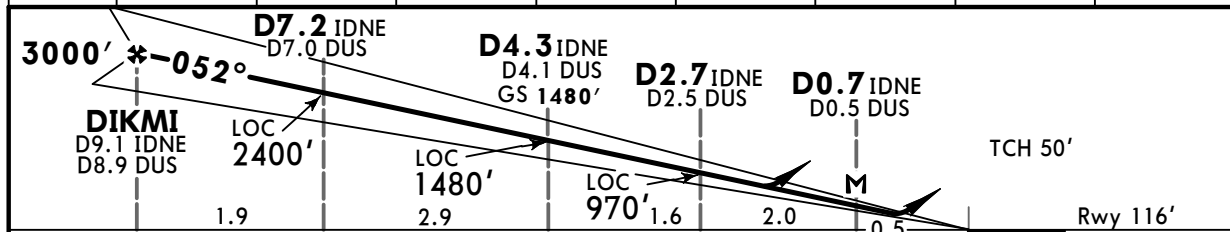
*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDNE 110.95	Final Aptch Crs 052°	GS D4.3 IDNE 1480' (1364')	ILS DA(H) Refer to Minimums	Apt Elev 147' Rwy 116'
MISSED APCH: Climb STRAIGHT AHEAD to D2.8 IDNE/D3.0 DUS, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'				
DME required.				



MSA DUS VOR



LOC (GS out)	IDNE DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		2650'	2340'	2020'	1700'	1380'	1060'	740'



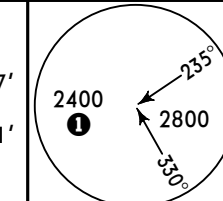
Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI	D2.8 IDNE D3.0 DUS
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743		
MAP at D0.7 IDNE/D0.5 DUS								

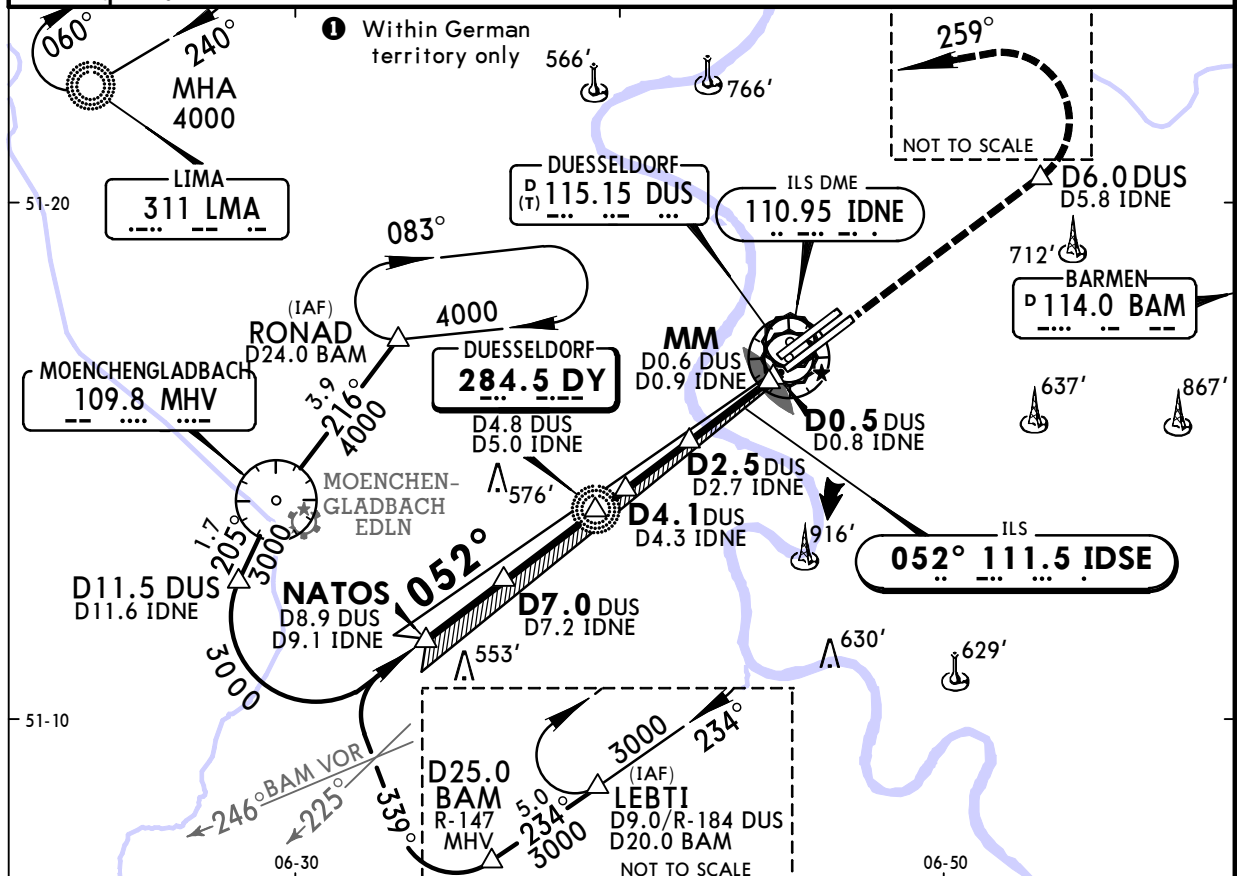
Standard		STRAIGHT-IN LANDING RWY 05L						
ILS		LOC (GS out) CDFA						
DA(H) AB: 316' (200')		C: 333' (217')		D: 343' (227')				
DA/MDA(H) 500' (384')								
FULL		ALS out		ALS out				
A	RVR 550m I		RVR 1200m		RVR 1100m			
B							RVR 1500m	
C							RVR 1800m	
D								
I W/o HUD/AP/FD: RVR 750m								

PANS OPS

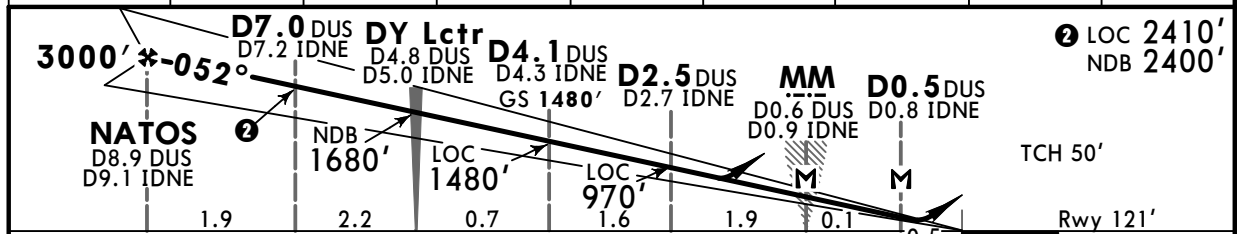
EDDL/DUS
DUESSELDORFJEPPESSEN DUESSELDORF, GERMANY
4 MAY 18 (11-2) ILS or LOC or NDB Rwy 05R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
LOC IDSE 111.5	Final Apch Crs 052°	GS D4.1 DUS 1480' (1359')	ILS DA(H) 321' (200')	Apt Elev 147' Rwy 121'	
NDB DY 284.5		Minimum Alt NATOS 3000' (2879')	NDB DA/MDA(H) Refer to Minimums		
MISSED APCH: Climb STRAIGHT AHEAD to D6.0 DUS/D5.8 IDNE, then turn LEFT onto 259° to LMA NDB climbing to 4000'.					
Alt Set: hPa (IN on req) DME required.		Rwy Elev: 4 hPa	Trans level: By ATC		Trans alt: 5000'



LOC (GS out) & NDB	DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	2720'	2400'	2090'	1770'	1450'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or							
LOC or NDB Desc Angle	3.00°	372	478	531	637	743	849
LOC: MAP at D0.6 DUS/D0.9 IDNE							

Standard		STRAIGHT-IN LANDING RWY 05R					
ILS				CDFA LOC (GS out)		CDFA NDB	
DA(H) 321' (200')				DA/MDA(H) A: 500' (379') BCD: 570' (449')		DA/MDA(H) A: 610' (489') BCD: 680' (559')	
FULL		TDZ or CL out	ALS out	ALS out		ALS out	
A	RVR 550m	RVR 550m I	RVR 1200m	RVR 1000m	RVR 1500m	RVR 1500m	
B				RVR 1400m		RVR 2100m	RVR 1800m
C					RVR 2100m	RVR 1800m	RVR 2400m
D							

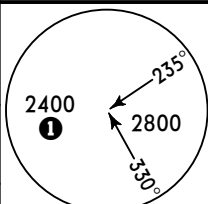
EDDL/DUS
DUESSELDORF

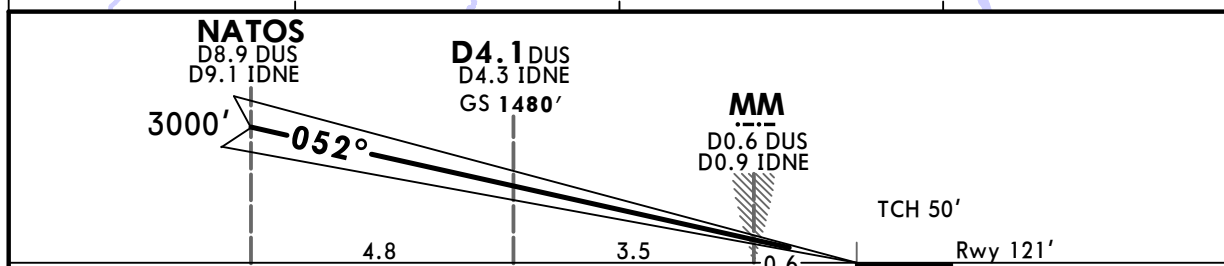
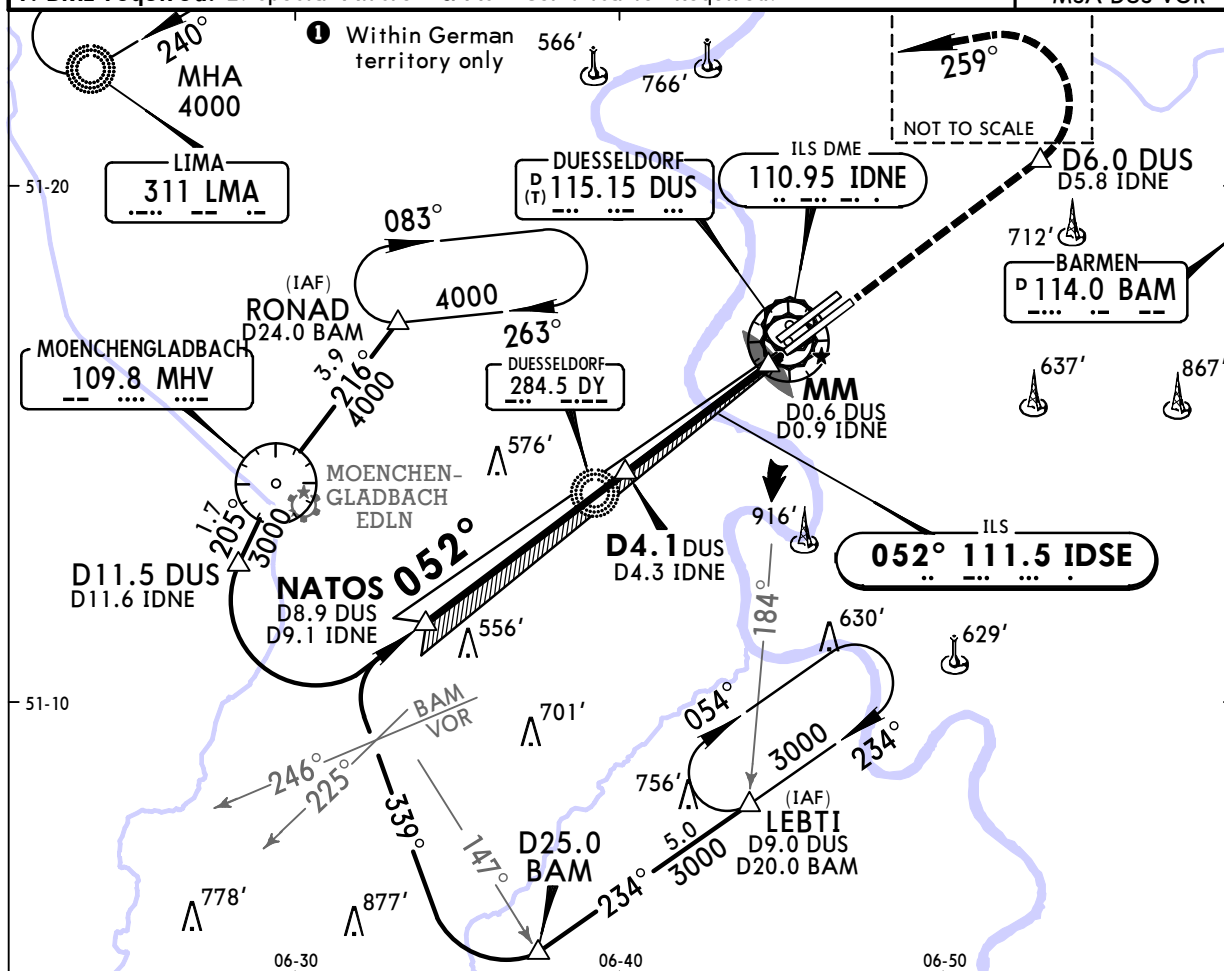
4 MAY 18

(11-2A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 05R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDSE 111.5	Final Appch Crs 052°	GS D4.1 DUS 1480' (1359')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' Rwy 121'
MISSED APCH: Climb STRAIGHT AHEAD to D6.0 DUS/D5.8 IDNE, then turn LEFT onto 259° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC 1. DME required. 2. Special Aircrew & Acft Certification Required.				
				 MSA DUS VOR



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D6.0 DUS D5.8 IDNE ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 05R	
CAT IIIA ILS I DH 50'		CAT II ILS RA 105' DA(H) 221'(100')	
RVR 200m		RVR 300m	
I CAT IIIB: Min RVR 75m			

PANS OPS

CHANGES: Communications.

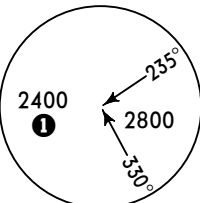
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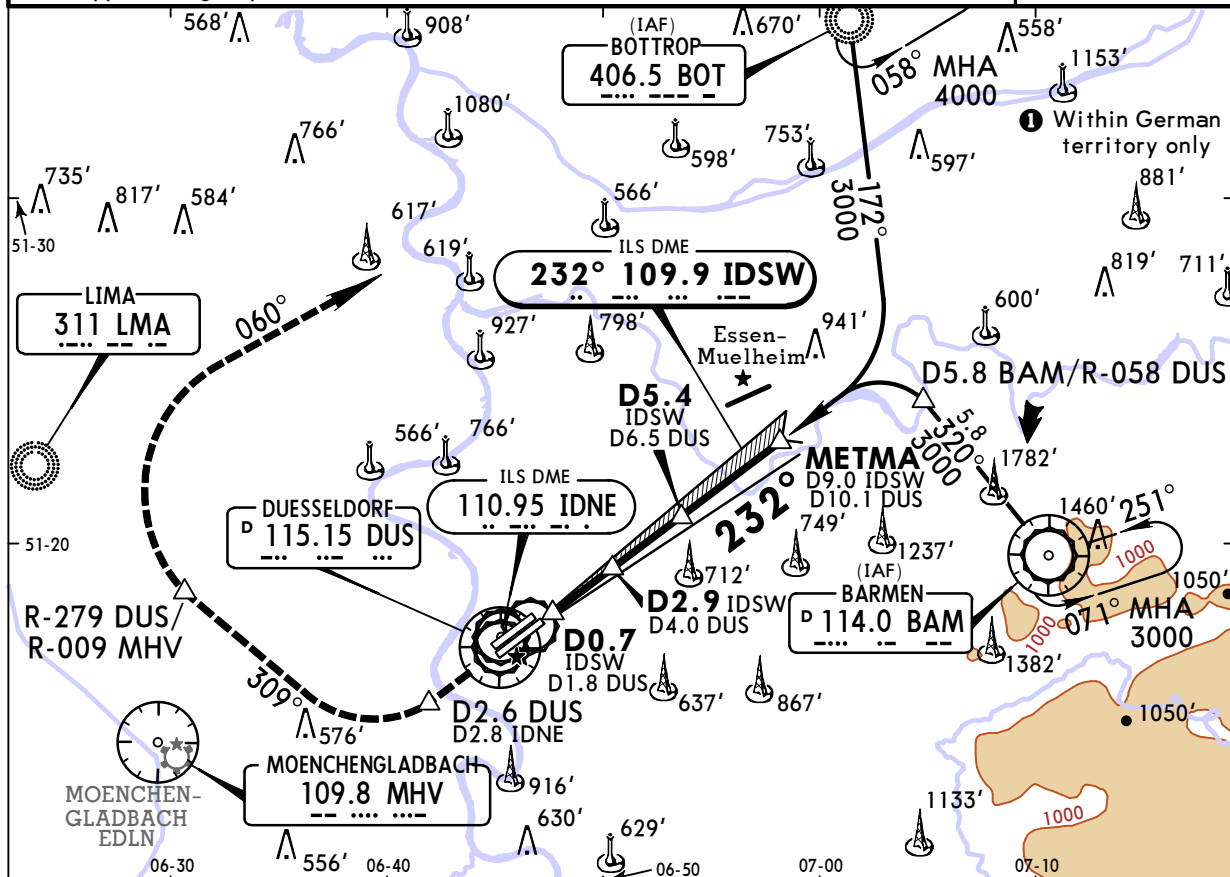
EDDL/DUS
DUESSELDORF

4 MAY 18 (11-3)

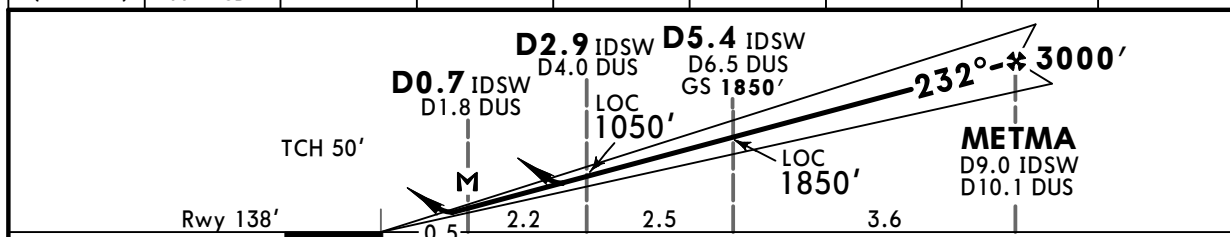
DUESSELDORF, GERMANY
ILS or LOC Rwy 23L

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
LOC IDSW 109.9	Final Aptch Crs 232°	GS D5.4 IDSW 1850' (1712')	ILS DA(H) 338' (200')	Apt Elev 147' Rwy 138'
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NNE of DUESSELDORF when approaching rwy 23L.				
				 MSA DUS VOR



LOC (GS out)	IDSW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	770'	1090'	1410'	1720'	2040'	2360'	2680'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.6 DUS D2.8 IDNE ↑
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743		
MAP at D0.7 IDSW/D1.8 DUS								

Standard		STRAIGHT-IN LANDING RWY 23L			
ILS			LOC (GS out)		
DA(H) 338' (200')			CDFA		
			DA/MDA(H) 520' (382')		
FULL		TDZ or CL out	ALS out	ALS out	
A	RVR 550m	RVR 550m I	RVR 1200m	RVR 1100m	
B					RVR 1500m
C					RVR 1800m
D					
I W/o HUD/AP/FD: RVR 750m					

PANS OPS

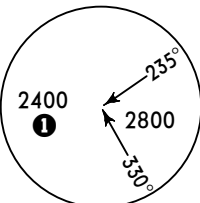
EDDL/DUS
DUESSELDORF

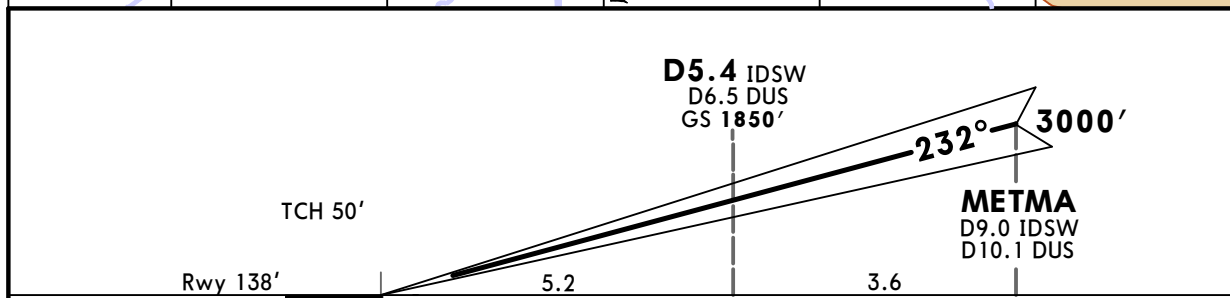
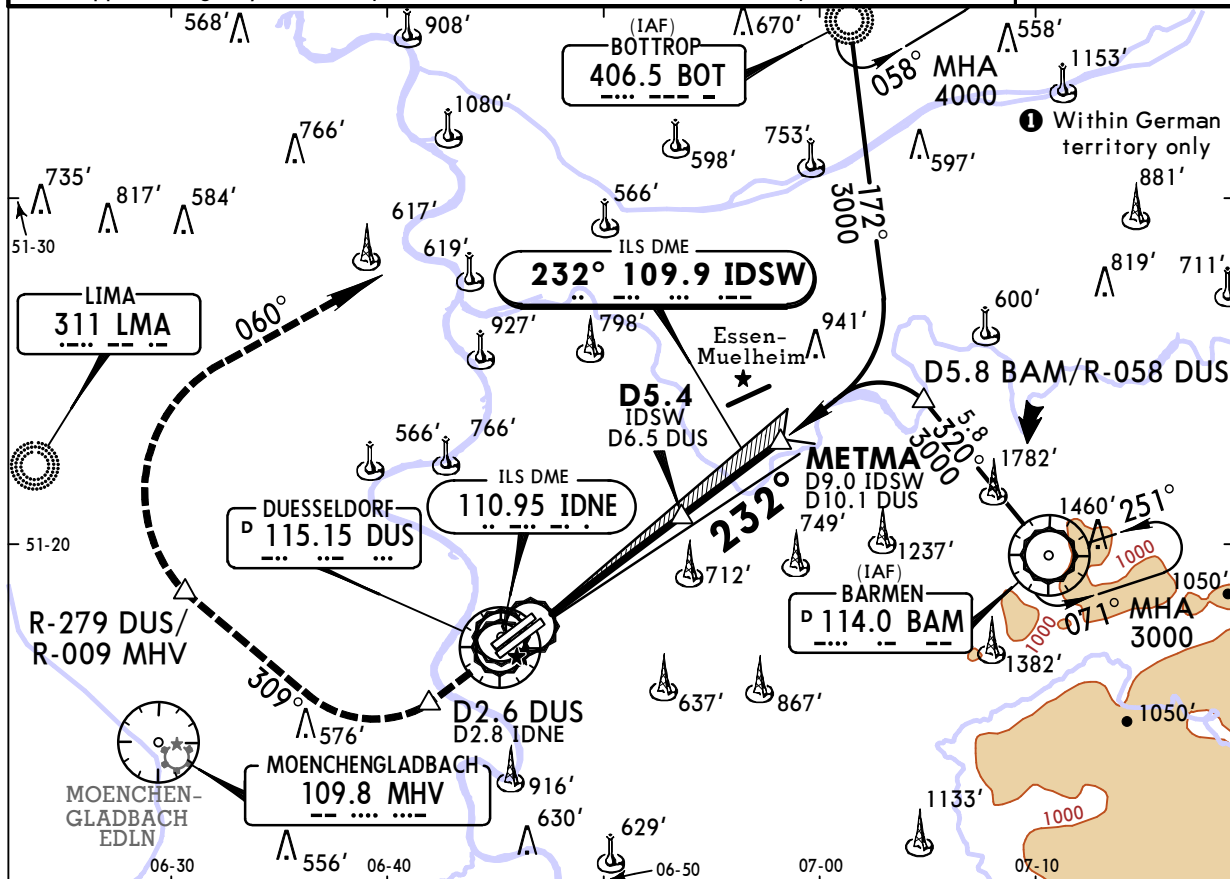
4 MAY 18

(11-3A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 23L

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
LOC IDSW	Final Apch Crs	GS D5.4 IDSW	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147'
109.9	232°	1850' (1712')		Rwy 138'
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NNE of DUESSELDORF when approaching rwy 23L. 3. Special Aircrew & Acft Certification Required.				
				 MSA DUS VOR



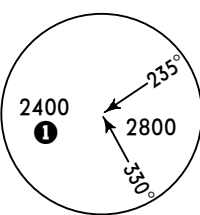
Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

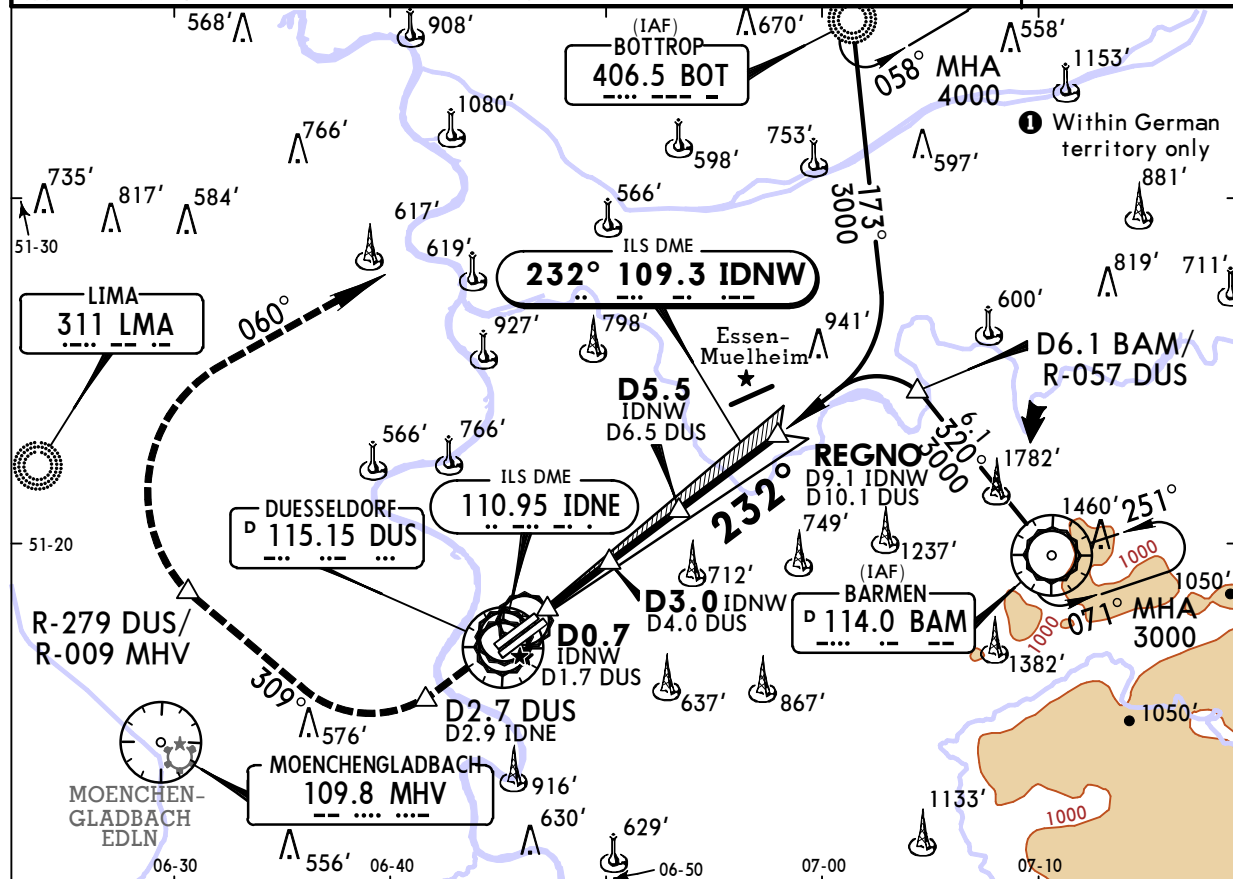
Standard		STRAIGHT-IN LANDING RWY 23L	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 92'	
RVR 200m		DA(H) 238' (100')	
RVR 200m		RVR 300m	
CAT III B: RVR 75m			

CHANGES: Communications.

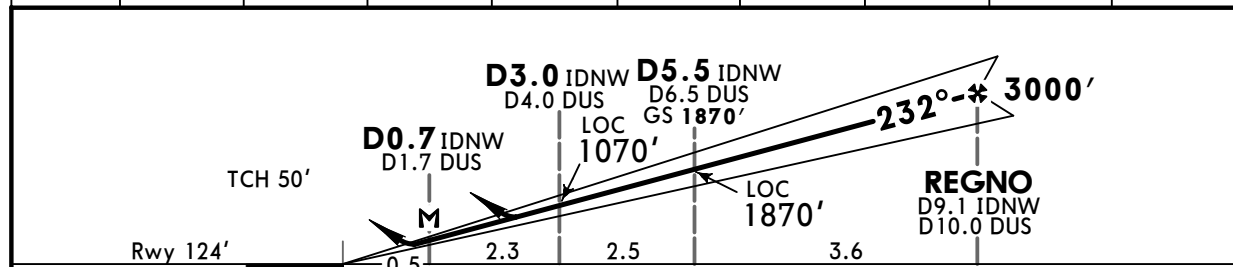
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EDDL/DUS
DUESSELDORFJEPPESEN
4 MAY 18 (11-4)DUESSELDORF, GERMANY
ILS or LOC Rwy 23R

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
LOC IDNW 109.3	Final Apch Crs 232°	GS D5.5 IDNW 1870' (1746')	ILS DA(H) Refer to Minimums	APT Elev 147' RWY 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. LACFT: See ATC State pages.				
 MSA DUS VOR				



LOC (GS out)	IDNW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	750'	1070'	1390'	1710'	2030'	2350'	2660'	2980'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE ↑
ILS GS or								
LOC Descent Angle	3.00°	372	478	531	637	743		
MAP at D0.7 IDNW/D1.7 DUS								

STRAIGHT-IN LANDING RWY 23R				LOC (GS out)	
ILS DA(H) A: 324' (200') C: 344' (220') B: 332' (208') D: 354' (230')				CDFA DA/MDA(H) 510' (386')	
FULL	TDZ or CL out	ALS out		ALS out	
A				RVR 1500m	
B	RVR 550m	RVR 550m I	RVR 1200m	RVR 1100m	
C				RVR 1800m	
D					

I W/o HUD/AP/FD: RVR 750m

CHANGES: Communications.

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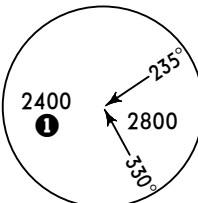
EDDL/DUS
DUESSELDORF

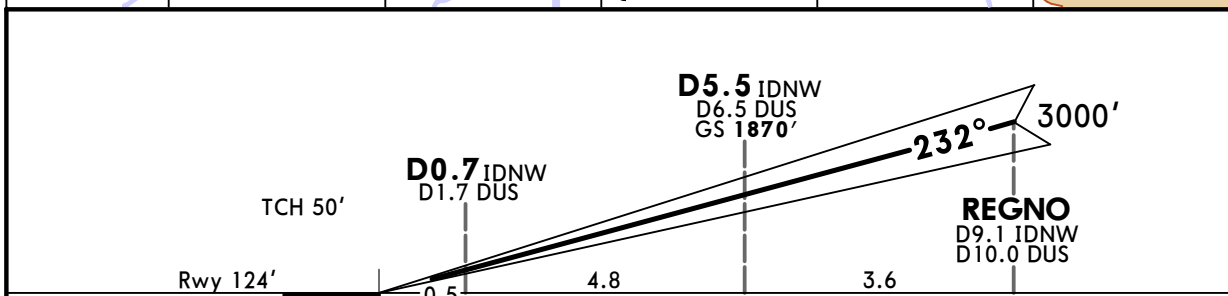
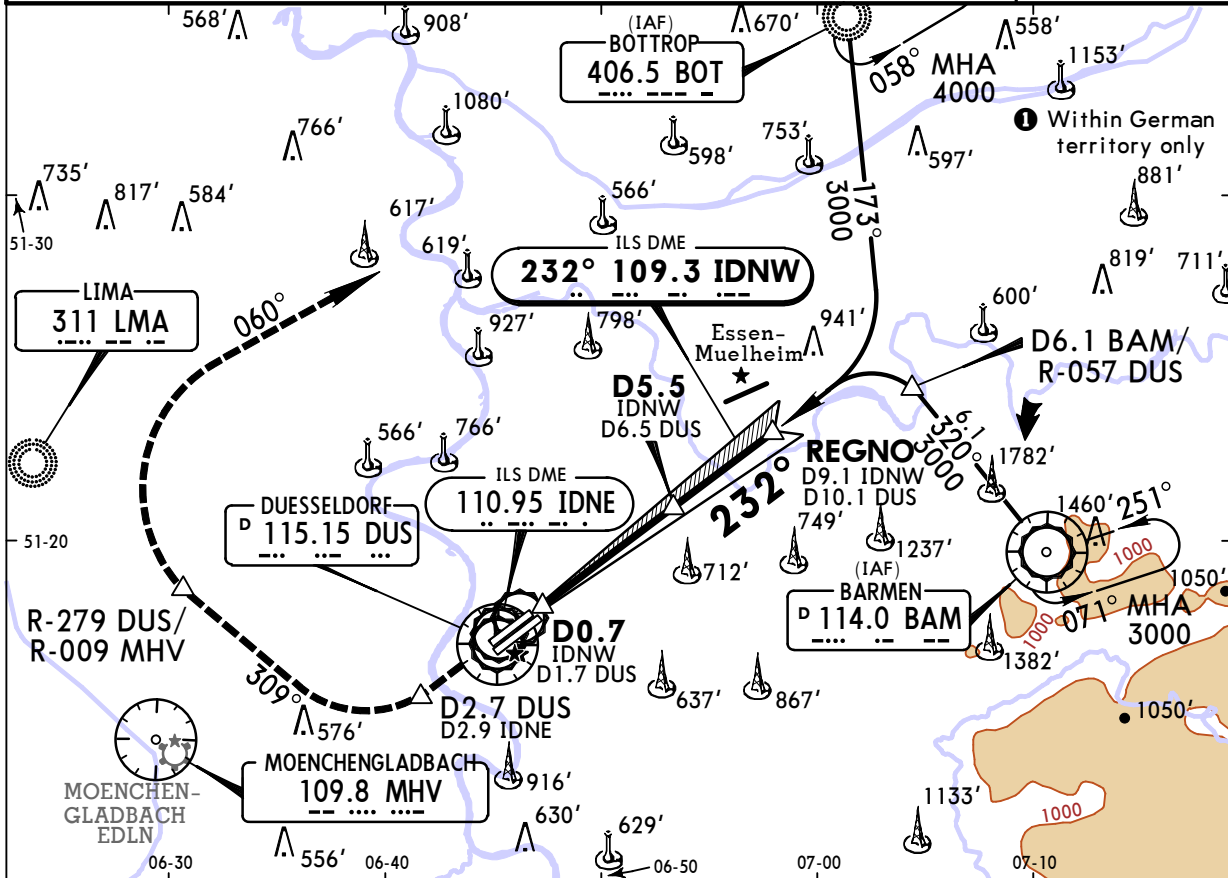
4 MAY 18

(11-4A)

DUESSELDORF, GERMANY
CAT II/III ILS Rwy 23R

BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
LOC IDNW 109.3	Final Appch Crs 232°	GS D5.5 IDNW 1870' (1746')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' Rwy 124'	
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.					
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. Special Aircrew & Acft Certification Required.					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 23R	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 100' DA(H) 224' (100')	
RVR 200m		RVR 300m	

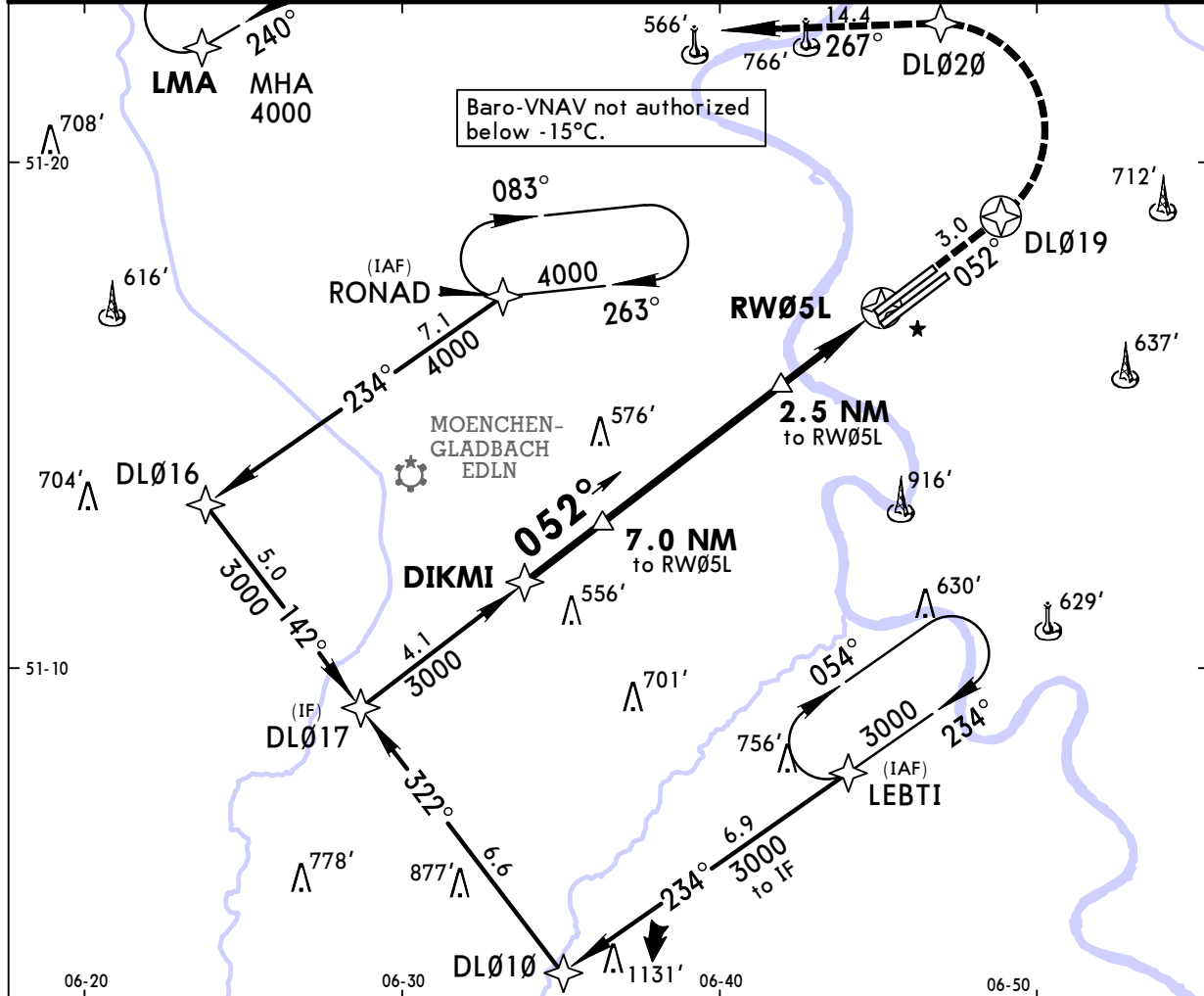
PANS OPS

EDDL/DUS
DUESSELDORF
JEPPesen
 4 MAY 18 (12-1)

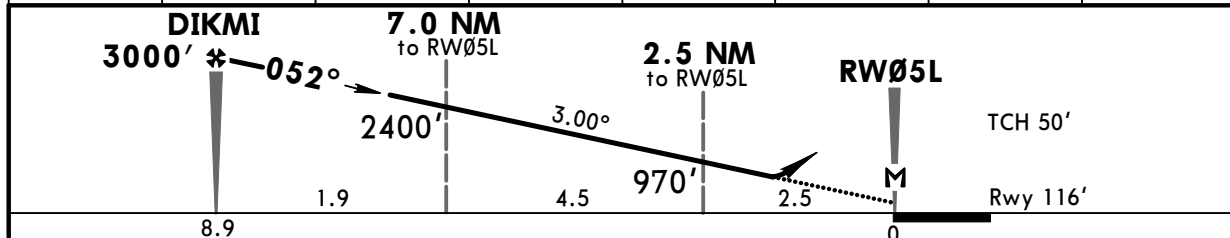
DUESSELDORF, GERMANY
RNAV (GPS) Rwy 05L

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605	
RNAV	Final ApcH Crs 052°	Minimum Alt DIKMI 3000' (2884')	LNAV/VNAV DA(H) 476' (360')	Apt Elev 147' Rwy 116'	2800
MISSED APCH: Climb on 052° to DLØ19, then turn LEFT via DLØ2Ø onto 267° to LMA climbing to 4000'.					MSA Airport (Within German territory only)
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'					



DIST to RWØ5L	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.00°	372	478	531	637	743	849	
LNAV/VNAV: MAP at DA							
LNAV: MAP at RWØ5L							

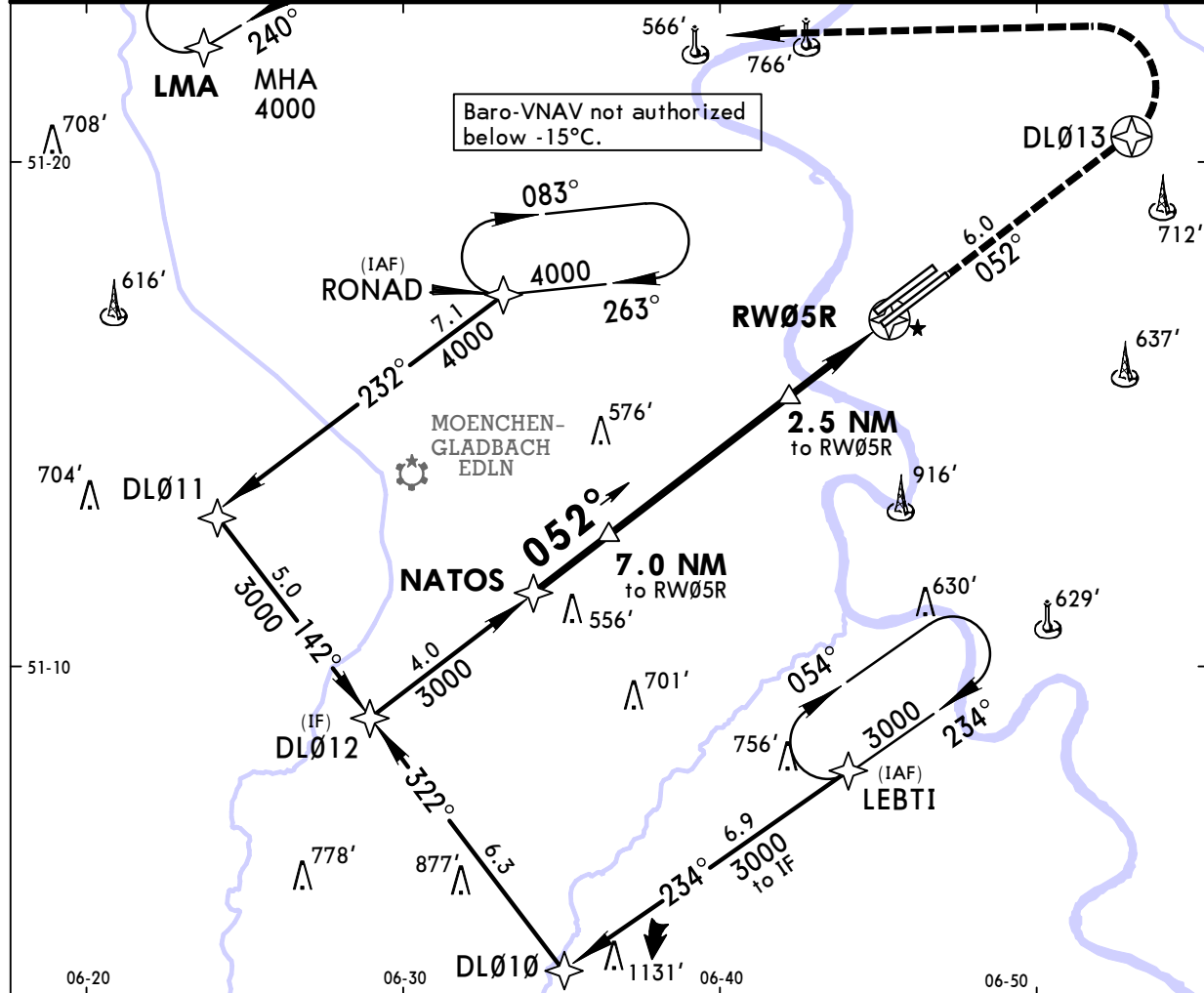
Standard		STRAIGHT-IN LANDING RWY 05L	
LNAV/VNAV		LNAV CDFA	
DA(H) 476' (360')		DA/MDA(H) 610' (494')	
ALS out		ALS out	
A		RVR 1500m	
B		RVR 1500m	
C	RVR 900m	RVR 1600m	RVR 2300m
D		RVR 1500m	RVR 2300m

PANS OPS

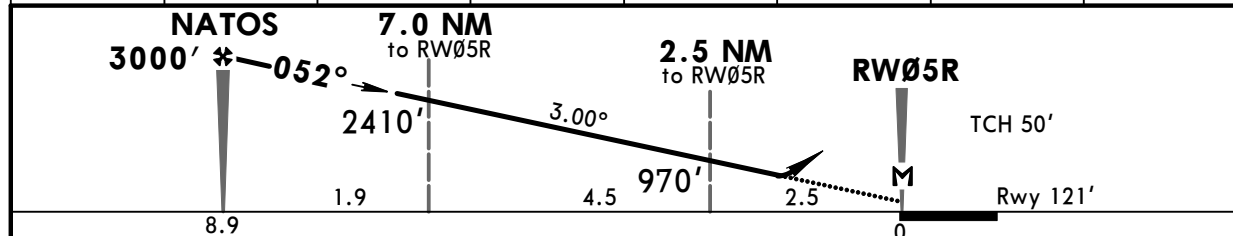
EDDL/DUS
DUESSELDORFJEPPESEN
4 MAY 18 (12-2)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 05R

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
RNAV	Final ApcH Crs 052°	Minimum Alt NATOS 3000' (2879')	LNAV/VNAV DA(H) 541' (420')	Apt Elev 147' Rwy 121'
MISSED APCH: Climb on 052° to DLØ13, then turn LEFT direct to LMA climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'				



DIST to RWØ5R	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2410'	2090'	1770'	1450'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.00°	372	478	531	637	743	849	
LNAV/VNAV: MAP at DA							
LNAV: MAP at RWØ5R							

Standard

STRAIGHT-IN LANDING RWY 05R

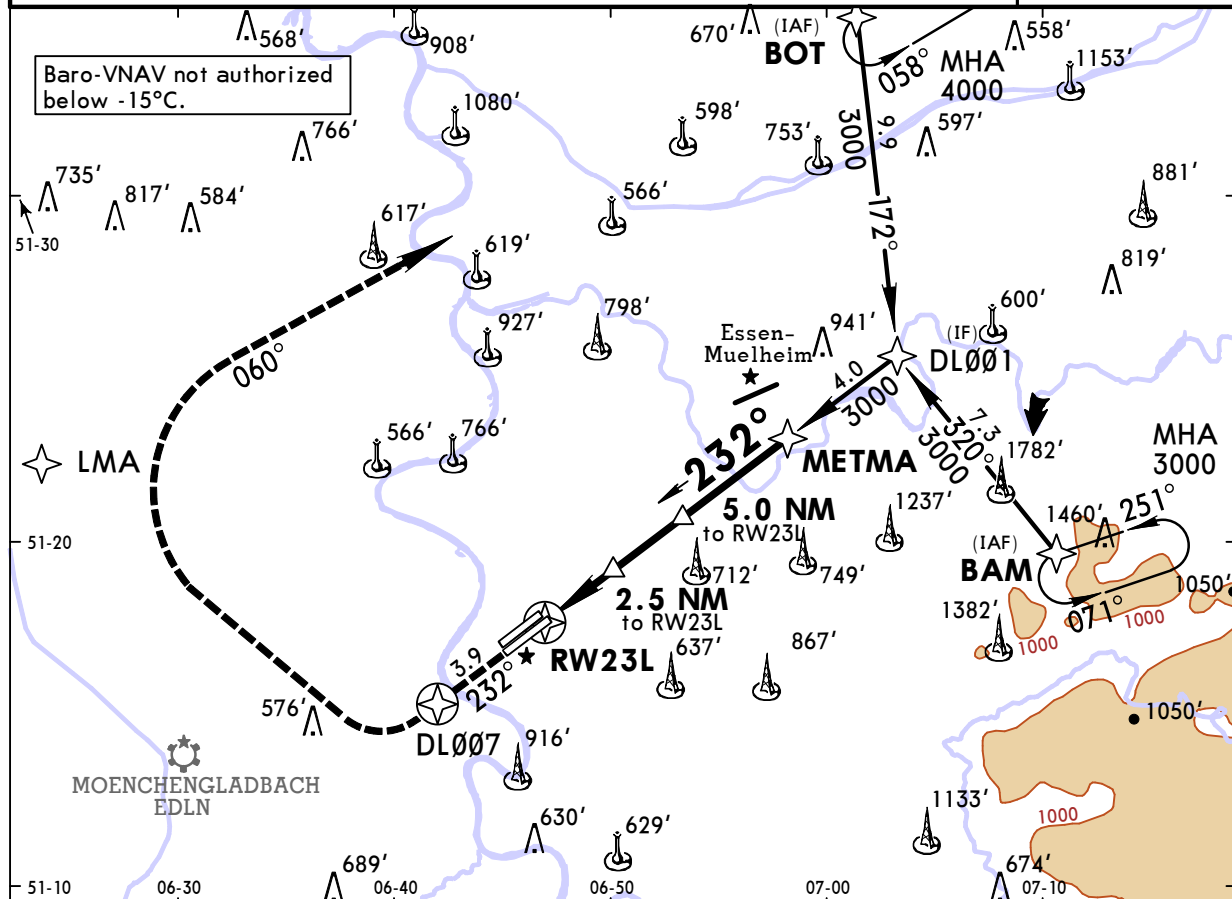
LNAV/VNAV		LNAV CDFA	
DA(H) 541' (420')		DA/MDA(H) 680' (559')	
ALS out		ALS out	
A B C D	RVR 1200m	RVR 1500m	
		RVR 1500m	
	RVR 1900m	RVR 1800m	RVR 2400m

PANS OPS

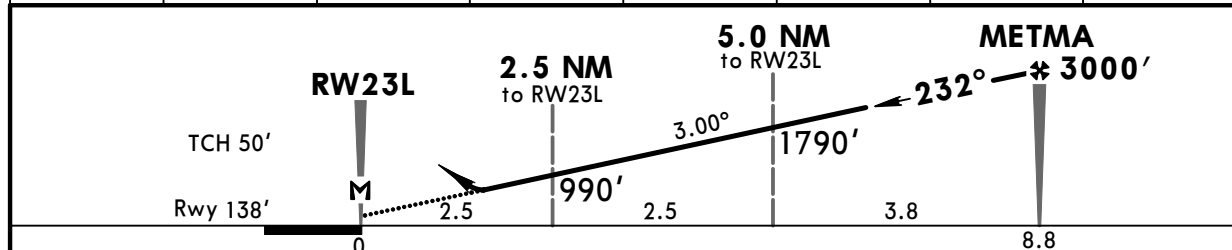
EDDL/DUS
DUESSELDORFJEPPESEN
4 MAY 18 (12-3)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 23L

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground
123.780	128.550	128.650	118.305	121.905 121.605
RNAV	Final Apch Crs 232°	Minimum Alt METMA 3000' (2862')	LNAV/VNAV DA(H) 598' (460')	Apt Elev 147' Rwy 138'
MISSED APCH: Climb on 232° to DL007, then turn RIGHT direct to LMA. Then turn RIGHT onto 060° to BOT climbing to 4000'.				2800 MSA Airport (Within German territory only)
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23L.				



DIST to RW23L	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	830'	1150'	1470'	1790'	2110'	2420'	2740'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
LNAV/VNAV: MAP at DA						
LNAV: MAP at RW23L						

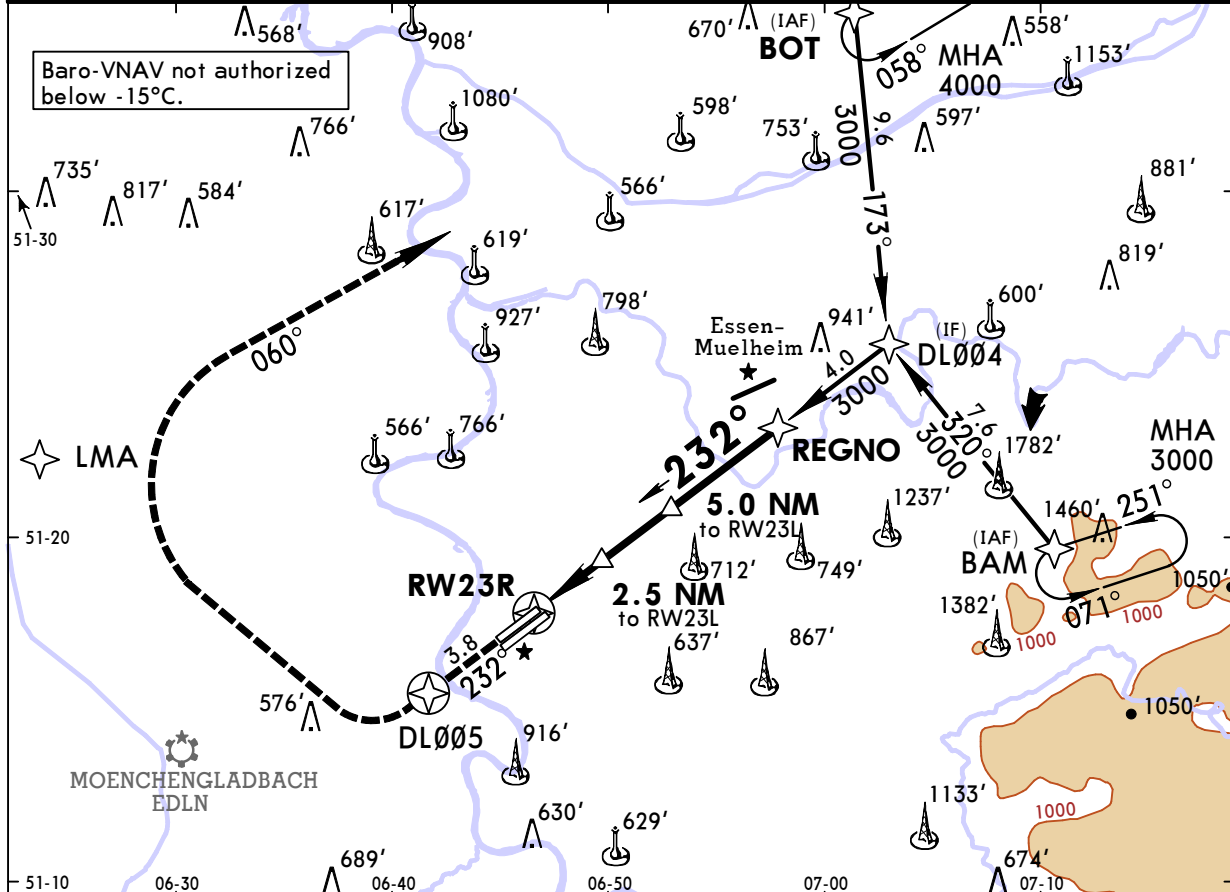
STRAIGHT-IN LANDING RWY 23L			
LNAV/VNAV		LNAV CDFA	
DA(H) 598' (460')		DA/MDA(H) A: 610' (472') BCD: 680' (542')	
ALS out		ALS out	
A		RVR 1500m	RVR 1500m
B			
C	RVR 1400m		
D		RVR 2100m	RVR 1800m RVR 2400m

PANS OPS

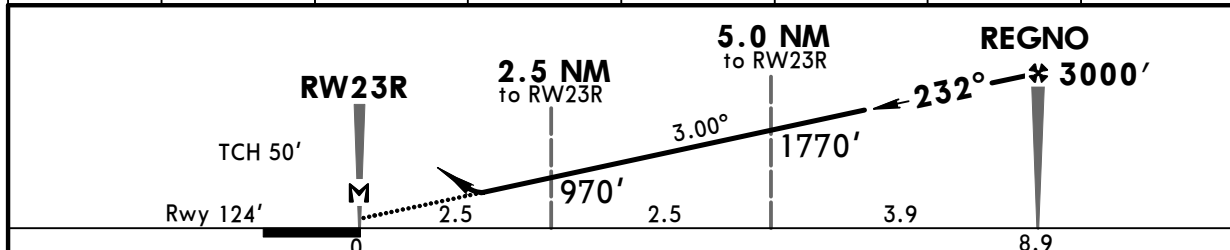
EDDL/DUS
DUESSELDORFJEPPESEN
4 MAY 18 (12-4)DUESSELDORF, GERMANY
RNAV (GPS) Rwy 23R

BRIEFING STRIP™

*D-ATIS	LANGEN Radar (APP)	*DUESSELDORF Director (APP)	DUESSELDORF Tower	*Ground	
123.780	128.550	128.650	118.305	121.905	121.605
RNAV	Final Apch Crs 232°	Minimum Alt REGNO 3000' (2876')	LNAV/VNAV DA(H) 624' (500')	Apt Elev 147' Rwy 124'	2800 MSA Airport (Within German territory only)
MISSED APCH: Climb on 232° to DL005, then turn RIGHT direct to LMA. Then turn RIGHT onto 060° to BOT climbing to 4000'.					
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000'					
Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R.					



DIST to RW23R	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	820'	1130'	1450'	1770'	2090'	2410'	2730'



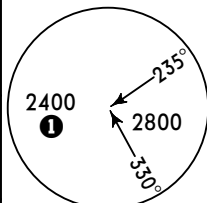
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI DL005 on 232°
Descent Angle 3.00°	372	478	531	637	743	849	
LNAV/VNAV: MAP at DA							
LNAV: MAP at RW23R							

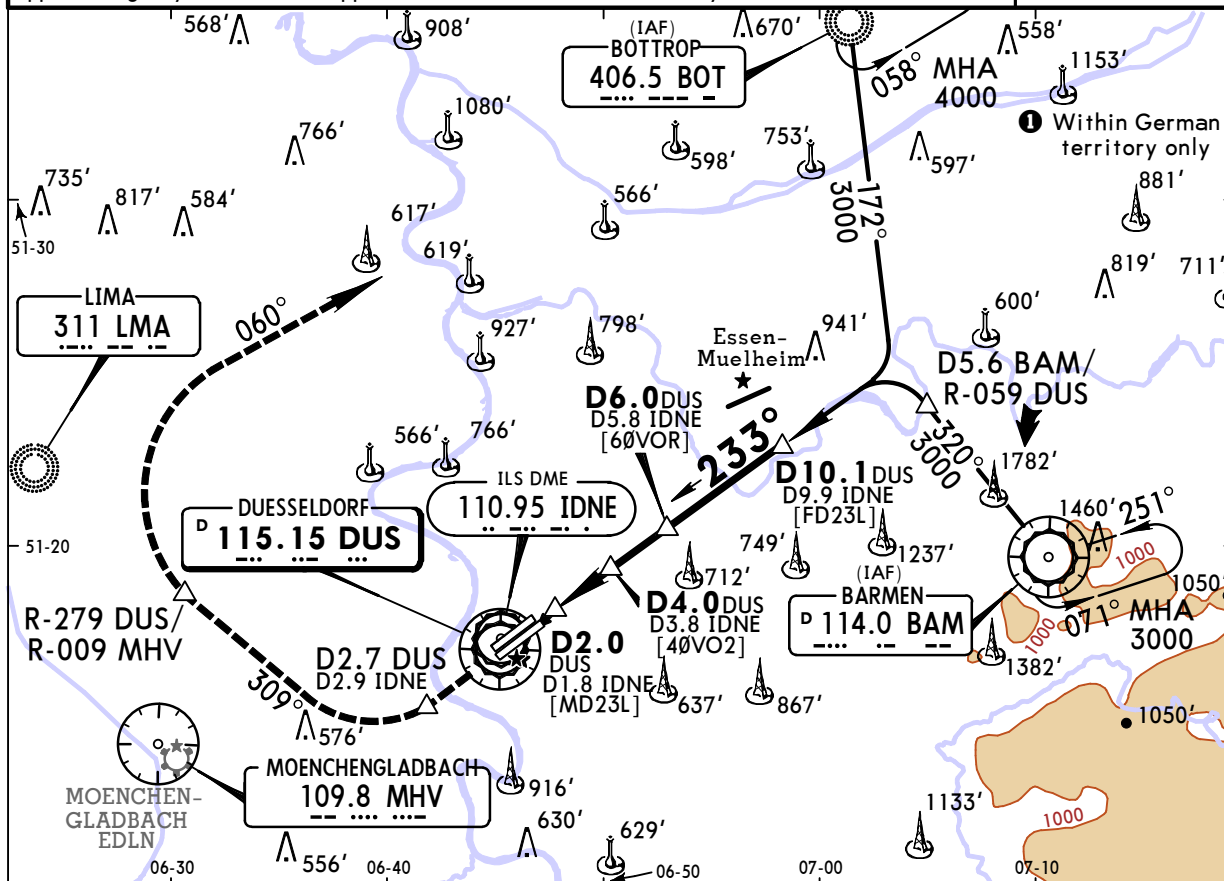
Standard				STRAIGHT-IN LANDING RWY 23R			
LNAV/VNAV				LNAV CDFA			
DA(H) 624' (500')				DA/MDA(H) 640' (516')			
ALS out				ALS out			
A	RVR 1500m			RVR 1500m			
B	RVR 1500m			RVR 1500m			
C	RVR 1500m			RVR 1600m			
D	RVR 1500m			RVR 2400m			

PANS OPS

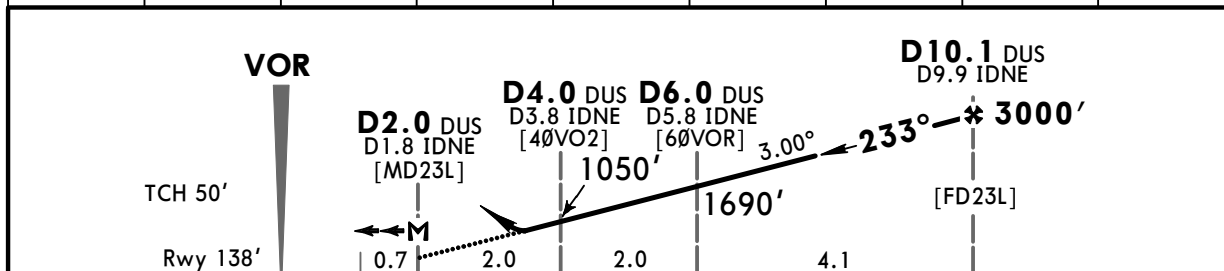
EDDL/DUS
DUESSELDORFJEPPesen DUESSELDORF, GERMANY
4 MAY 18 (13-1)
VOR Rwy 23L

BRIEFING STRIP™

*D-ATIS 123.780		LANGEN Radar (APP) 128.550		*DUESSELDORF Director (APP) 128.650		DUESSELDORF Tower 118.305		*Ground 121.905 121.605	
VOR DUS 115.15		Final Apch Crs 233°		Minimum Alt D10.1 DUS 3000' (2862')		DA/MDA(H) 700' (562')		Apt Elev 147' Rwy 138'	
MISSED APCH: Climb STRAIGHT AHEAD to D2.7 DUS/D2.9 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.									
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23L. 3. Final approach track offset 1° from runway centerline.									



DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	730'	1050'	1370'	1690'	2010'	2330'	2640'	2960'



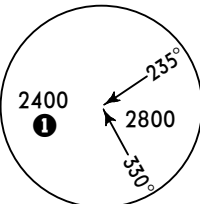
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.7 DUS D2.9 IDNE
Descent Angle	3.00°	372	478	531	637	743		
MAP at D2.0 DUS/D1.8 IDNE								

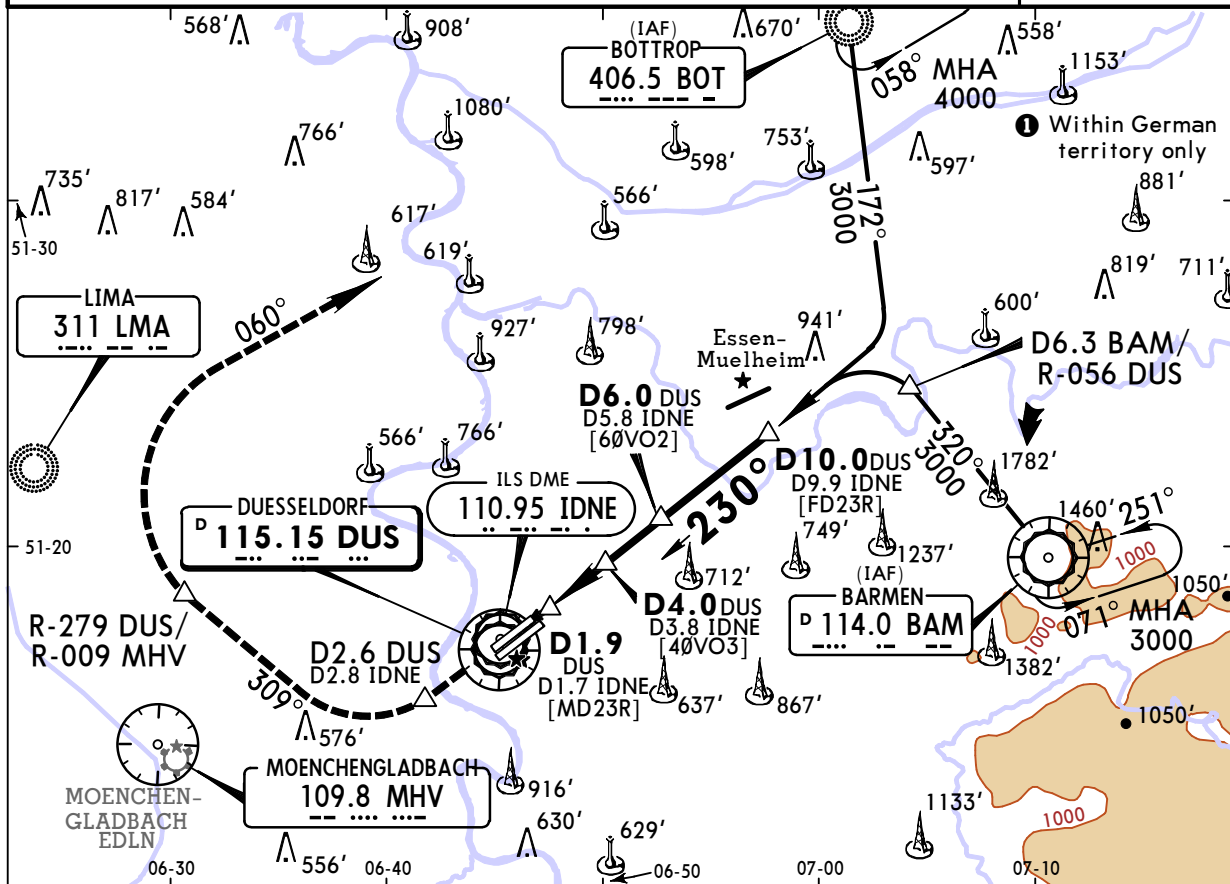
Standard		STRAIGHT-IN LANDING RWY 23L	
		CDFA	
		DA/MDA(H) 700' (562')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m	RVR 2400m	
D			

PANS OPS

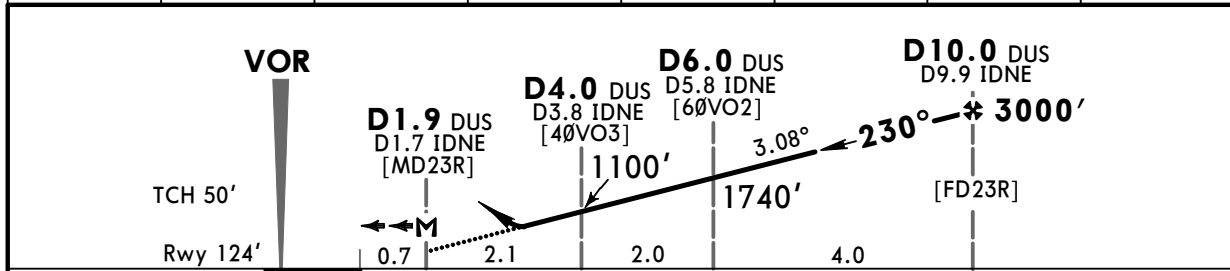
EDDL/DUS
DUESSELDORF
JEPPesen DUESSELDORF, GERMANY
 4 MAY 18 (13-2)
VOR Rwy 23R

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
VOR DUS 115.15	Final Apch Crs 230°	Minimum Alt D10.0 DUS 3000' (2876')	DA/MDA(H) 700' (576')	Apt Elev 147' Rwy 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.6 DUS/D2.8 IDNE, then turn RIGHT onto 309° inbound LMA NDB until crossing R-279 DUS/R-009 MHV. Then turn RIGHT onto 060° outbound LMA NDB to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MUELHEIM 9.0 NM NE of DUESSELDORF when approaching rwy 23R. 3. Final approach track offset 2° from runway centerline.				
 MSA DUS VOR				



DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0
ALTITUDE	780'	1100'	1420'	1740'	2060'	2380'	2690'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle	3.08°	381	490	545	654	763	872
MAP at D1.9 DUS/D1.7 IDNE							

Standard		STRAIGHT-IN LANDING RWY 23R	
		CDFA	
		DA/MDA(H) 700' (576')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m		RVR 2400m
D			

PANS OPS

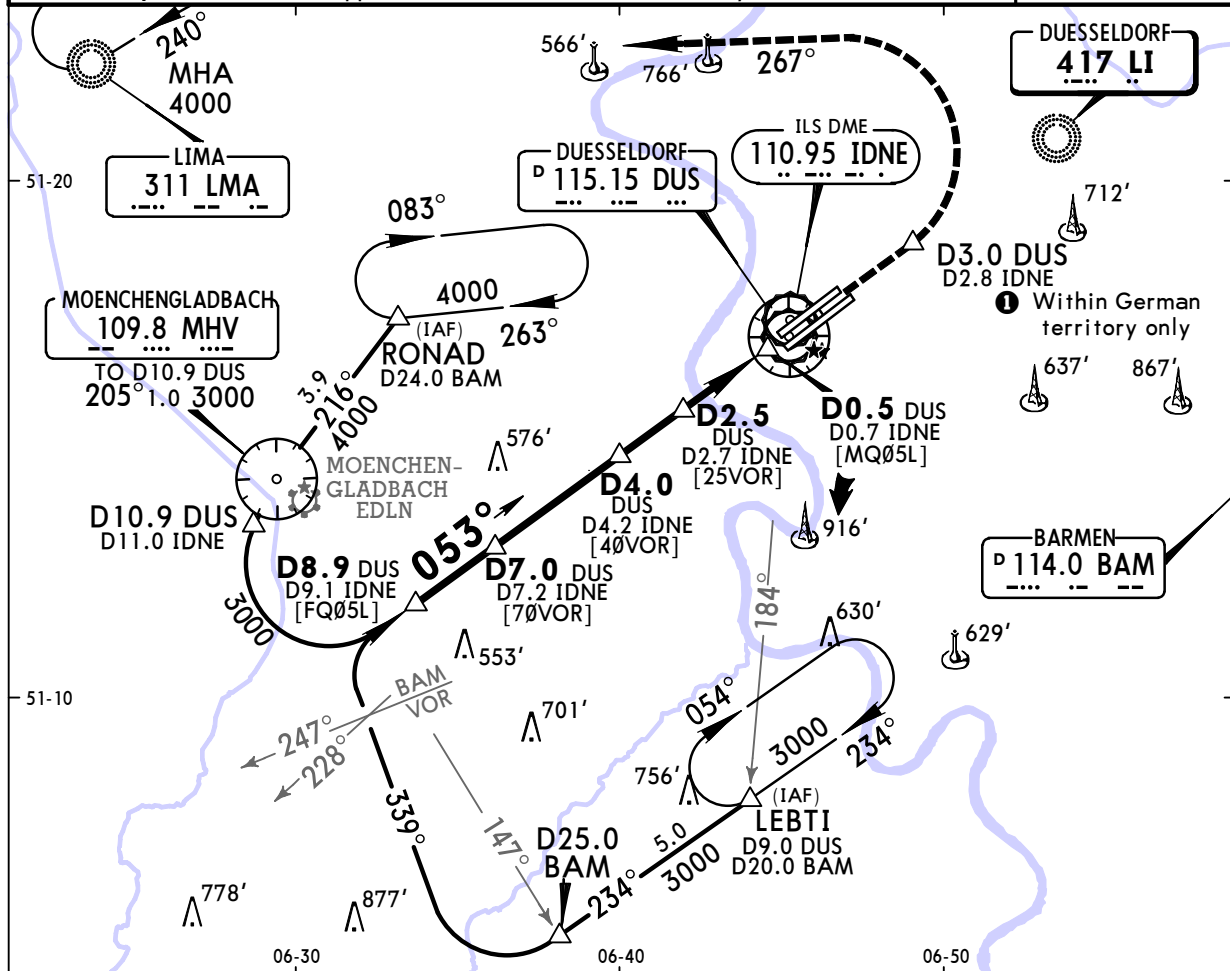
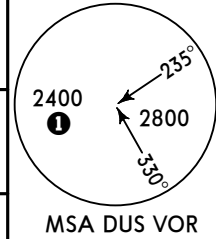
EDDL/DUS
DUESSELDORF

4 MAY 18 (16-1)

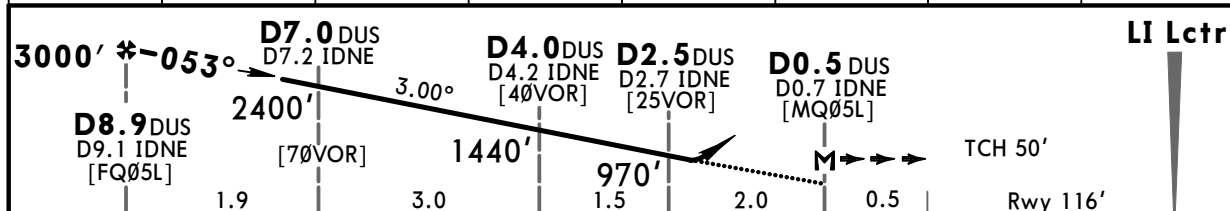
DUESSELDORF, GERMANY
NDB Rwy 05L

BRIEFING STRIP™

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
Lctr LI 417	Final Apch Crs 053°	Minimum Alt D8.9 DUS 3000' (2884')	DA/MDA(H) 680' (564')	Apt Elev 147' Rwy 116'
MISSED APCH: Climb STRAIGHT AHEAD to D3.0 DUS/D2.8 IDNE, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Final approach track offset 1° from runway centerline.				



DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160		
Descent Angle	3.00°	372	478	531	637	743	849	
MAP at D0.5 DUS/D0.7 IDNE								

Standard		STRAIGHT-IN LANDING RWY 05L	
		CDFA	
		DA/MDA(H) 680' (564')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m		RVR 2400m
D			

PANS OPS

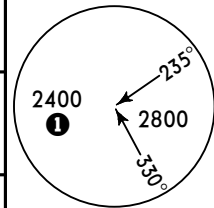
EDDL/DUS
DUESSELDORF

4 MAY 18 (18-1)

DUESSELDORF, GERMANY
SRA All Rws

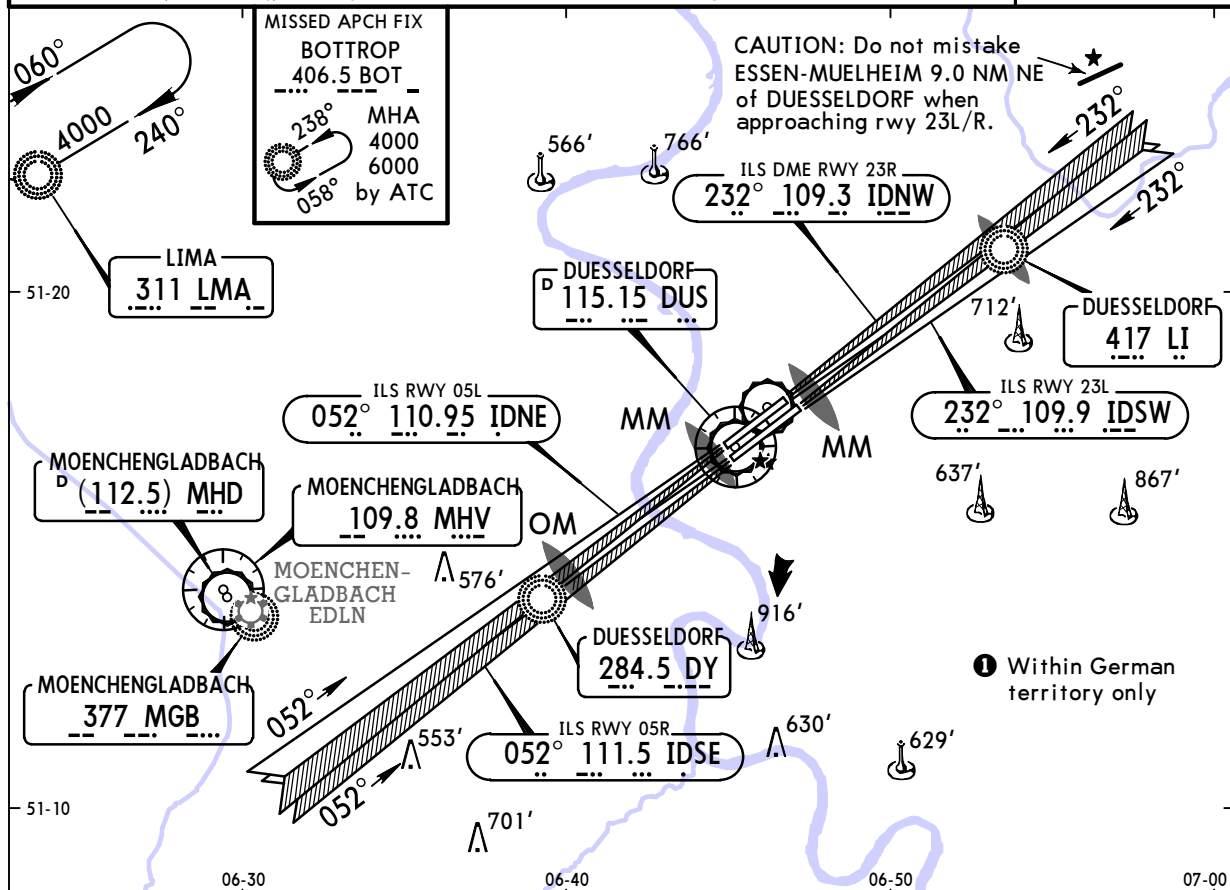
BRIEFING STRIP

*D-ATIS 123.780	LANGEN Radar (APP) 128.550	*DUESSELDORF Director (APP) 128.650	DUESSELDORF Tower 118.305	*Ground 121.905 121.605
RADAR	Final Apch Crs By ATC	Minimum Alt See table below	DA/MDA(H) Refer to Minimums	Apt Elev 147' RWY - See below

**MISSED APCH: Climb STRAIGHT AHEAD to 4000'.**

Alt Set: hPa (IN on req) Apt Elev: 5 hPa Trans level: By ATC Trans alt: 5000'

MSA DUS VOR



RADAR FIX	10.0	8.0	6.0	4.0	3.0	2.0
ALTITUDE	3200'	2600'	2000'	1400'	1100'	800'

Minimum Alt/NM	10.0 FAF
SRA 05L	3200'
SRA 05R	3200'
SRA 23L	3200'
SRA 23R	3200'

RWY	05L	05R	23L	23R
BASED ON ELEV.	116'	121'	138'	124'

Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 2.83°	348	447	497	596	695	794
MAP at THR						

Lighting-
Refer to
Airport
Chart**4000'**
↑**Standard****STRAIGHT-IN LANDING**

	SRA 05L CDFA DA/MDA(H) 830' (714')	SRA 05R CDFA DA/MDA(H) 830' (709')	SRA 23L CDFA DA/MDA(H) 950' (812')	SRA 23R CDFA DA/MDA(H) 790' (666')
	ALS out	ALS out	ALS out	ALS out
A	RVR 1500m	RVR 1500m	RVR 1500m	RVR 1500m
B	RVR 1500m	RVR 1500m	RVR 1500m	RVR 1500m
C	RVR 2400m	RVR 2400m	RVR 2400m	RVR 2400m
D	RVR 2400m	RVR 2400m	RVR 2400m	RVR 2400m

PANS OPS

CHANGES: Communications.

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EGNM/LBA
LEEDS BRADFORD

16 MAR 18

JEPPESEN
10-1P

Eff 29 Mar

LEEDS BRADFORD, UK
AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 118.030

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GENERAL**

The following procedures apply to jet ACFT and may at any time be departed from to the extent necessary for avoiding immediate danger. Every operator of ACFT using the APT shall ensure at all times that ACFT are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the APT.

1.2.2. PREFERENTIAL RWY SYSTEM

ACFT will use RWY 14 for landing and RWY 32 for take-off whenever this is possible having regard to wind, cloud base, approach aid limitations and ACFT performance and requirements. In the event of marginal conditions the RWY to be used is at the ACFT commander's discretion. However, violation of the selective RWY procedure cannot be acceptable for expedite reasons and it is regretted that inconvenience in taxiing distances and/or airborne routing must be accepted in the interest of reducing ACFT noise intrusion on the local environment.

1.2.3. NIGHT FLYING RESTRICTIONS

The APT company is subject to planning requirements imposed during the night time period (2300-0700LT). Such ACFT movements are only permitted by approval from one of the following authorities:

- Operations Director 0113-391 3202
- Airside Operations Duty Officer 0113-391 3231

Movements in the night time period by ACFT failing to meet the imposed conditions will only be permissible under the following circumstances:

- delayed landings up to 0100LT by ACFT scheduled to land between 0700-2300LT;
- in emergency cases (immediate danger to life or health, whether human or animal).

1.2.4. FANSTOP PROCEDURES

Simulated asymmetric 'go-arounds' for RWY 14 must be initiated at or above 990'.

Simulated engine-out maneuvers from RWY 14 are not permitted on departure.

1.2.5. RUN-UP TESTS

Ground running of ACFT engines is not permitted between 2300-0700LT and is subject to ATC permission at all other times.

1.3. LOW VISIBILITY PROCEDURES (LVP)**1.3.1. GENERAL**

During CAT II/III operations, special ATC procedures (LVPs) will be applied.

Pilots will be informed when these procedures are in operation via RTF and ATIS.

CAT II/III holding positions are B, D1, F1, L1 and N1 only, amber/green coded TWY centerline lights are switched on for routing guidance.

ACFT on Stands 7 thru 18L/R will normally taxi through holding positions C and D3.

Pilots must request marshaller assistance, wingtip guidance or Follow-me car if it is considered necessary, prior to start-up or after landing before entering the apron.

EGNM/LBA
LEEDS BRADFORD**JEPPESEN**

16 MAR 18

(10-1P1)

Eff 29 Mar

LEEDS BRADFORD, UK**AIRPORT BRIEFING**

1. GENERAL

1.3.2. USE OF RWYs

RWYs 14 and 32 suitable for EVS operations and lower than standard CAT I operations.

RWY 32 suitable for Other than Standard CAT II operations.

1.3.3. ARRIVAL

After completing landing run await or request taxi clearance prior to vacating the RWY or backtracking.

Entry to the main apron will be via yellow/green centerline routing guidance to B, C or D3.

ACFT will not report RWY vacated until they have entered the TWY and the ACFT is established on the full green coded centerline lights.

Pilots must not report vacated whilst they are on the portion of TWY showing mixed amber/green lights.

TWYs F, M and G not available in VIS of 800m or less.

1.4. TAXI PROCEDURES

TWY A West of C MAX wingspan 118'/36m.

TWY A between C and D3 MAX wingspan 147'/45m and MAX wheelspan 30'/9.1m.

TWY A East of D3 wingspan 118'/36m.

ACFT with wingspan between 148'/45m and 170'/52m using stand 8 must enter and exit TWY A via Link C.

TWY D MAX wingspan 200'/61m.

TWY F South of junction with TWY G MAX wingspan 61'/18.5m.

TWY N between N3 and N4 MAX wingspan 136'/41.5m.

Between TWY F and TWY G MAX wingspan 61'/18.5m.

TWYs F, G and M not available at NIGHT.

The marked centerline turning circle for wide-bodied ACFT using the RWY 32 turning pad may only be achieved using up to 52° of nose wheel steering.

Additionally, there is no straight section of the centerline parallel to RWY centerline before commencement of the 180° turn onto the RWY centerline.

Pilots are reminded not to cross red stopbars unless a specific instruction to cross a lit stopbar is given by ATC.

1.5. PARKING INFORMATION

Stands 3 and 5 thru 21C are marked for nose-in guidance with marshaller apart from Stands 7 and 8 which have electronic guidance (APIS).

1.6. OTHER INFORMATION**1.6.1. GENERAL**

There is a 328'/100m area of the RWY that provides a forward sight distance of less than 3937'/1200m (for an eye height of 10'/3m above the RWY surface) located in the area of the TDZ 32.

1.6.2. WARNINGS

Bird activity.

Pilots are advised to expect windshear and turbulence when the surface wind is between 190° and 280° above 20 KT. Some variations to reported wind readings may also occur.

EGNM/LBA
LEEDS BRADFORD**JEPPESEN**

12 DEC 14

(10-1P2)

LEEDS BRADFORD, UK**AIRPORT BRIEFING**

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. GENERAL

Unless otherwise instructed by ATC ACFT using the ILS in IMC or VMC shall not descend below 2000' before intercepting the GS nor thereafter fly below it. ACFT approaching without ILS or Radar assistance shall follow a descent path which will not result in its being at any time lower than approach path which would be followed by an ACFT using the ILS GS.

2.1.2. REVERSE THRUST

To minimize disturbance in areas adjacent to the APT, captains are requested to avoid/reduce the use of reverse thrust after landing, consistent with safe operation of the ACFT, whenever possible.

2.2. CAT II/III OPERATIONS

RWY 32 approved for CAT II/III operations, special aircrew and ACFT certification required.

EGNM/LBA
LEEDS BRADFORD

12 DEC 14

JEPPESEN
10-1P3**LEEDS BRADFORD, UK**
AIRPORT BRIEFING**3.1. START-UP & PUSH-BACK PROCEDURES**

- ATC Clearance should be requested before start-up but not before EOBT -15 minutes.
- LEEDS Delivery is responsible for passing ATC clearance to ACFT prior to start-up only.
- Push-back and start instructions may contain reference to an adjacent stand or defined point on a TWY. The term 'long push' may also be used together with a location definition.
- The push-back instruction will normally include a direction to face as East, West or South.
- Where two ACFT up to B737/A320 size request simultaneous push-back, on the main apron stands 1 thru 18, in the same direction at least one stand must separate the ACFT prior to push.
- ACFT on stands 16 and 17 can only be issued with a non-standard push-back to face West.
- ACFT on stands 17 and 18 may be offered a straight push-back into the neck of N4 holding point.

3.2. NOISE ABATEMENT PROCEDURES**3.2.1. GENERAL****RWY 14:**

After take-off maintain RWY heading to ILBF 2 DME before setting course (or ILF 2 DME when RWY 32 is being used for landing traffic).

RWY 32:

Climb straight ahead, at 1190' or ILF 0.5 DME, whichever is later, turn LEFT, 313° track, at ILF 2.1 DME reduce to minimum safe power settings and turn LEFT to make good a track of 274°. Maintain this track until ILF 3.5 DME before setting course.

Turbo-prop:

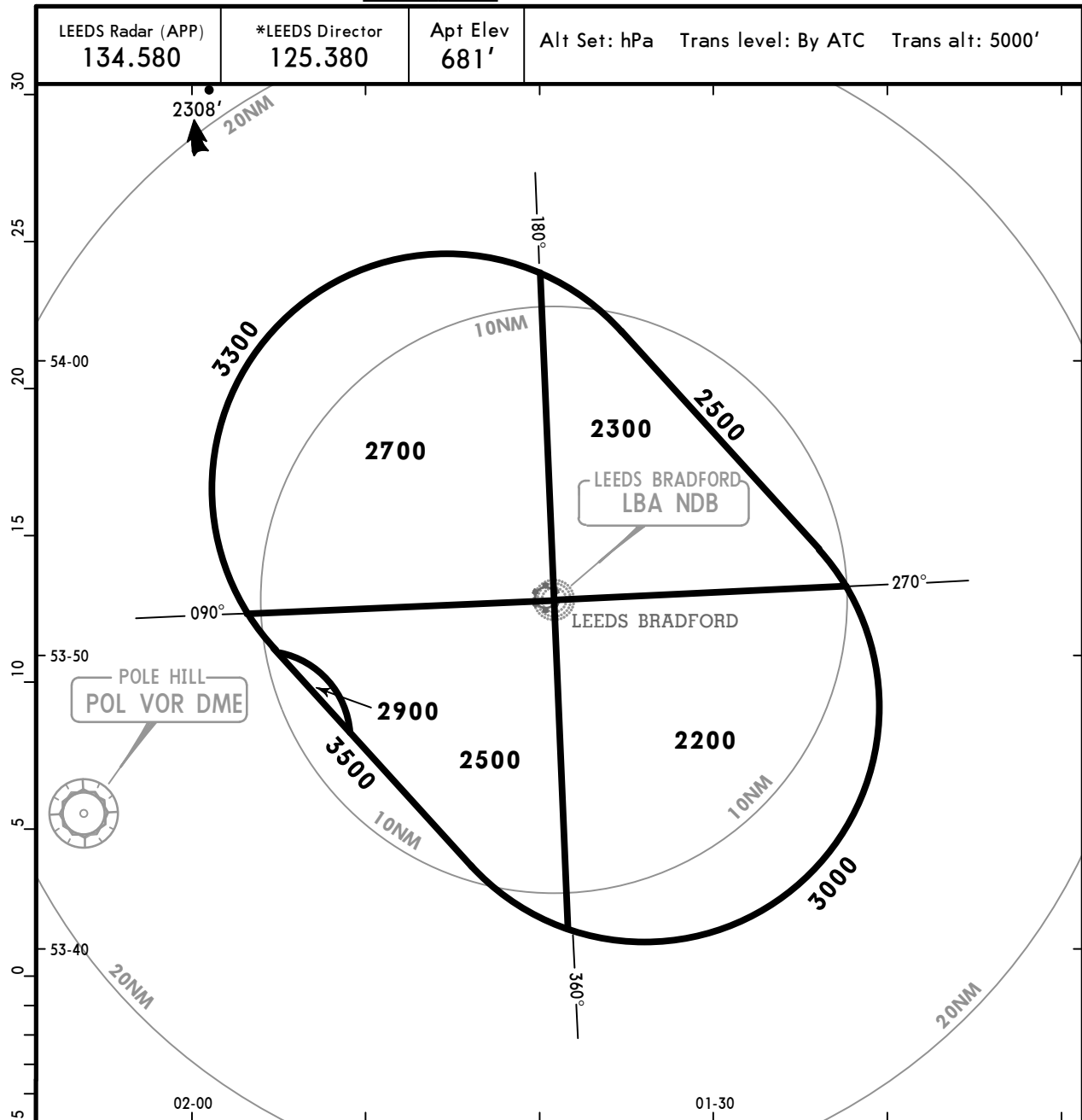
After take-off make good a track of 313° and at 2.1 DME turn onto course.

These routings are compatible with normal ATC practice. In individual cases they may be varied away to operational circumstances. The use of the Noise Preferential Routings specified above is supplementary to the noise abatement take-off techniques as used by piston-engined, turbo-prop and turbo-jet ACFT.

3.2.2. TARGET NOISE LEVELS

All ACFT (excluding supersonic and military jet ACFT) shall be operated in such a way that at the monitoring point they will not generate a noise level:

- after take-off from RWY 32 more than 85 db (A) between 0700-2300LT or 77 db (A) between 2300-0700LT;
- after take-off from RWY 14 more than 92 db (A) between 0700-2300LT or 84 db (A) between 2300-0700LT;
- on approach to RWY 32 more than 85 db (A) between 0700-2300LT or 79 db (A) between 2300-0700LT.

EGNM/LBA
LEEDS BRADFORDJEPPESEN
16 MAR 18
Eff 29 Mar 10-1RLEEDS BRADFORD, UK
RADAR MINIMUM ALTITUDES**OUTSIDE THE DESIGNATED RADAR MINIMUM ALTITUDE AREA**

The minimum altitude to be allocated by the radar controller will be either the Minimum Sector Altitude or 1000' above any fixed obstacles:

- within 5 NM ① of the aircraft and
- within the sector 15 NM ② ahead of and within 20° either side of the aircraft's track.

3 NM ① or 10 NM ② when the aircraft is within 15 NM of the radar antennae.

PROCEDURE	LOSS OF COMMUNICATION PROCEDURE
INITIAL APPROACH	Continue visually or by means of an appropriate approved final approach aid. If not possible, proceed at 3000', or at last assigned level if higher, to LBA.
INTERMEDIATE AND FINAL APPROACH	Continue visually or by means of an appropriate final approach aid. If not possible follow the Missed Approach Procedure to LBA.

EGNM/LBA LEEDS BRADFORD

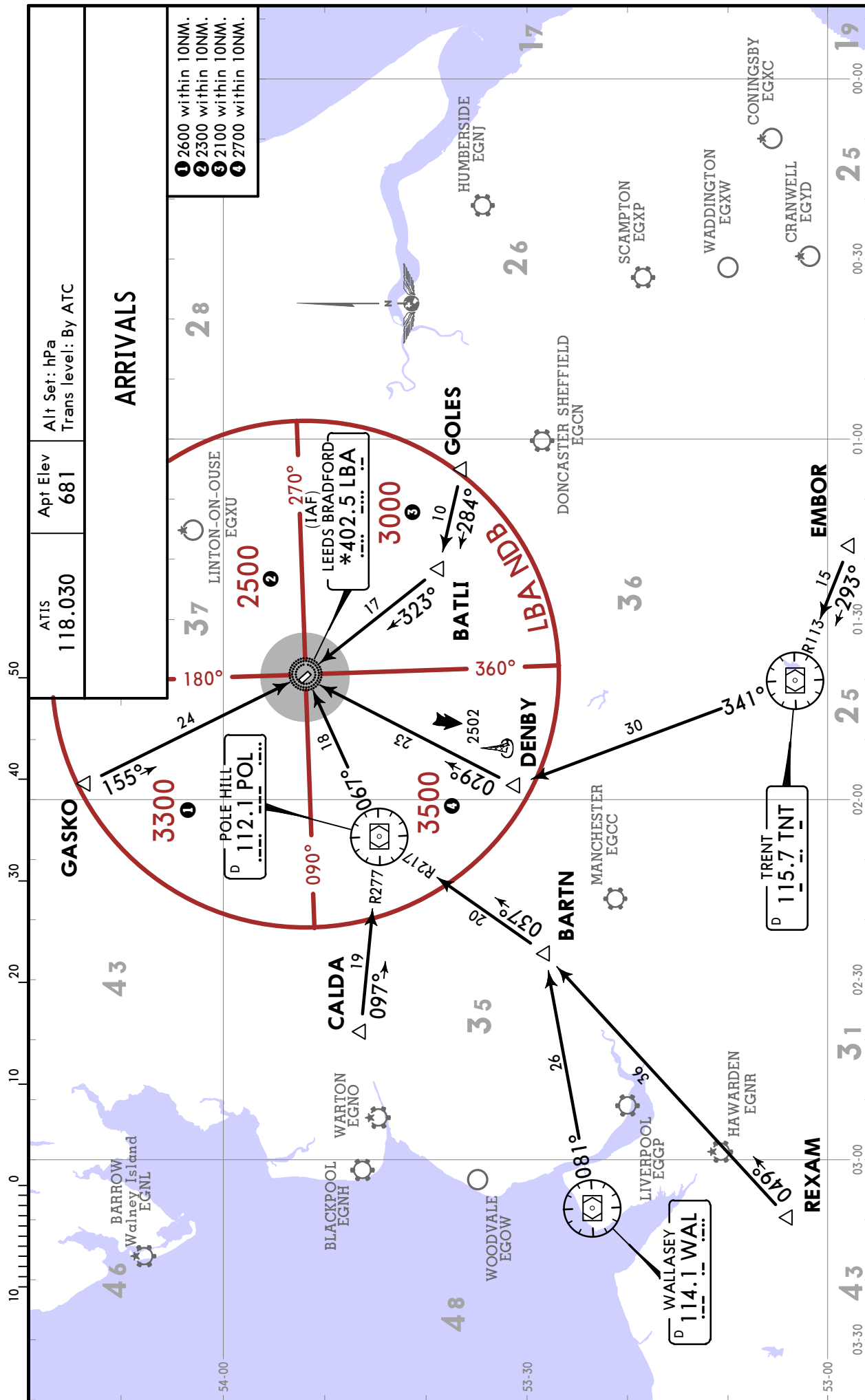
16 MAR 18

10-2

Eff 29 Mar

LEEDS BRADFORD, UK

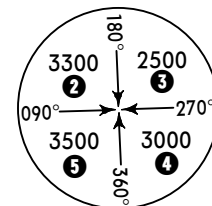
ARRIVAL



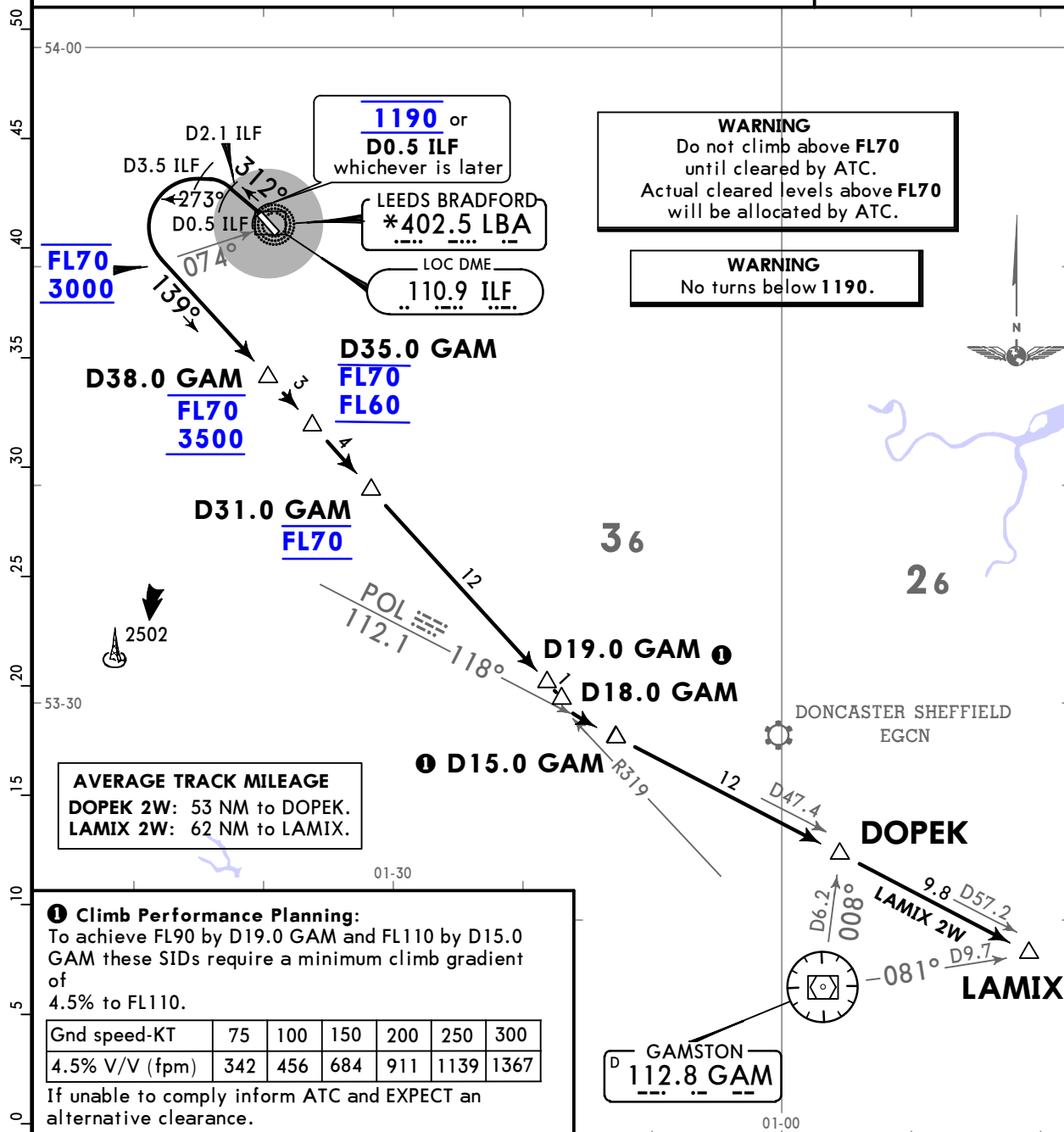
EGNM/LBA
LEEDS BRADFORDJEPPESEN
14 JUL 17 10-3LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report c/s, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority to be EGTT.

MSA
LBA NDB

- ② 2600 within 10NM.
- ③ 2300 within 10NM.
- ④ 2100 within 10NM.
- ⑤ 2700 within 10NM.

DOPEK 2W [DOPE2W]
LAMIX 2W [LAMI2W]
RWY 32 DEPARTURES**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**

INITIAL CLIMB/ALTITUDE

Climb straight ahead to 1190 or D0.5 ILF, whichever is later, turn LEFT, 312° track, at D2.1 ILF turn LEFT, 273° track, at D3.5 ILF turn LEFT, cross 074° bearing to LBA at or above 3000 (MAX FL70), intercept GAM R319 inbound, cross D38.0 GAM at or above 3500 (MAX FL70), cross D35.0 GAM at or above FL60 (MAX FL70), D31.0 GAM at FL70, to D18.0 GAM.

SID

ROUTING

DOPEK 2W

At D18.0 GAM turn LEFT, intercept POL R118 to DOPEK.

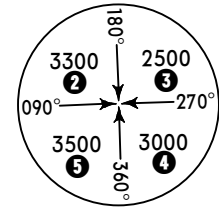
LAMIX 2W

At D18.0 GAM turn LEFT, intercept POL R118 via DOPEK to LAMIX.

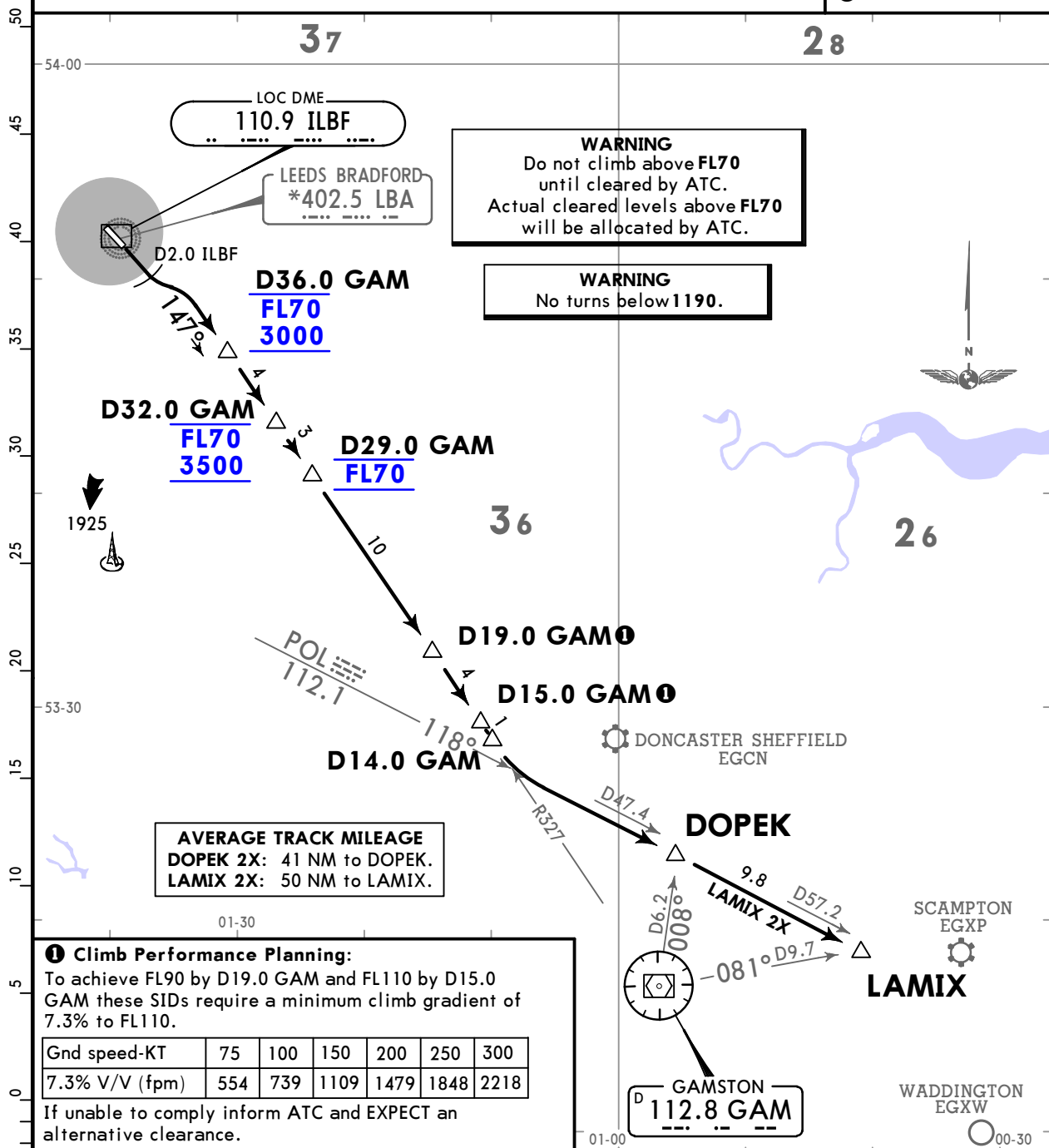
EGNM/LBA
LEEDS BRADFORDJEPPESEN
14 JUL 17 (10-3A)LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report c/s, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority to be EGTT.

MSA
LBA NDB

- ② 2600 within 10NM.
- ③ 2300 within 10NM.
- ④ 2100 within 10NM.
- ⑤ 2700 within 10NM.

DOPEK 2X [DOPE2X]
LAMIX 2X [LAMI2X]
RWY 14 DEPARTURES**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**

INITIAL CLIMB/ALTITUDE

Climb straight ahead to D2.0 ILBF, intercept GAM R327 inbound, cross D36.0 GAM at or above 3000 (MAX FL70), D32.0 GAM at or above 3500 (MAX FL70), D29.0 GAM at FL70, to D14.0 GAM.

SID

ROUTING

DOPEK 2X

At D14.0 GAM turn LEFT, intercept POL R118 to DOPEK.

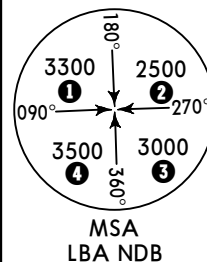
LAMIX 2X

At D14.0 GAM turn LEFT, intercept POL R118 via DOPEK to LAMIX.

EGNM/LBA
LEEDS BRADFORDJEPPESEN
10 FEB 17 (10-3B)LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report C/S, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority when routed
Northbound - N-601, P-18 to be EGPX,
Southbound - L-612, N-862 via P-17, L-8 via P-18, M-605 to be EGTT,
Westbound - Y-70, L-10 to be EGPX.
6. Climb performance planning: If unable to maintain climb gradients to achieve FL70 by NELSA inform ATC and EXPECT alternative clearance.

NELSA 3W [NELS3W]
RWY 32 DEPARTURE**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**
WARNING
Do not climb above **FL70**
until cleared ATC.

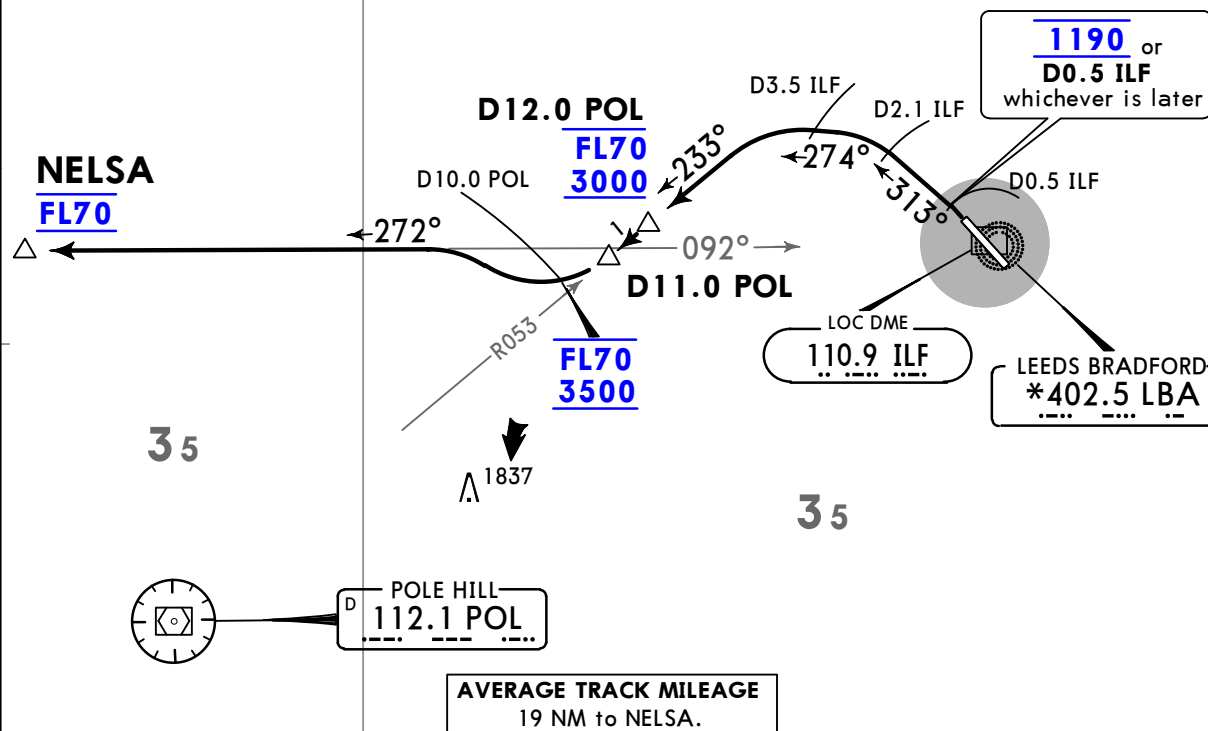
WARNING
No turns below **1190**.

- ① 2600 within 10NM.
- ② 2300 within 10NM.
- ③ 2100 within 10NM.
- ④ 2700 within 10NM.

54-00
LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

At NELSA take up a RIGHT hand hold at FL70 for 3 minutes, thereafter follow standard communication failure procedure.

▲ SSWWOC LS01 ▲ SSWWOC LS01 ▲ SSWWOC LS01 ▲ SSWWOC



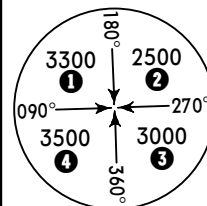
INITIAL CLIMB/ROUTING/ALTITUDE

Climb straight ahead to 1190 or D0.5 ILF, whichever is later, turn LEFT, 313° track, at D2.1 ILF turn LEFT, 274° track, at D3.5 ILF turn LEFT, intercept POL R053 inbound, cross D12.0 POL at or above 3000 (MAX FL70), to D11.0 POL, turn RIGHT, cross D10.0 POL at or above 3500 (MAX FL70), intercept 272° bearing from LBA, to NELSA at FL70.

EGNM/LBA
LEEDS BRADFORDJEPPesen
10 FEB 17 (10-3C)LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report C/S, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority when routed
Northbound - N-601, P-18 to be EGPX,
Southbound - L-612, N-862 via P-17, L-8 via P-18, M-605 to be EGTT,
Westbound - Y-70, L-10 to be EGPX.
6. Climb performance planning: If unable to maintain climb gradients to achieve FL70 by POL inform ATC and EXPECT alternative clearance.

MSA
LBA NDBPOL 2X
RWY 14 DEPARTURE**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**

43

WARNING
Do not climb above **FL70**
until cleared by ATC.

38

- ① 2600 within 10NM.
- ② 2300 within 10NM.
- ③ 2100 within 10NM.
- ④ 2700 within 10NM.

54-00

WARNING
No turns below **1190**.

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

At POL take up a RIGHT hand hold at
FL70 for 3 minutes, thereafter follow
standard communication failure procedure.

▲ SWWOC 1501 ▲ SWWOC 1501 ▲ SWWOC 1501 ▲ SWWOC 1501

LOC DME
110.9 ILBFLEEDS BRADFORD
*402.5 LBA

D2.0 ILBF

35

D10.0 POL
FL70
3500

D14.0 POL

FL70
3000

1837

10

R083

POLE HILL

D 112.1 POL

FL70

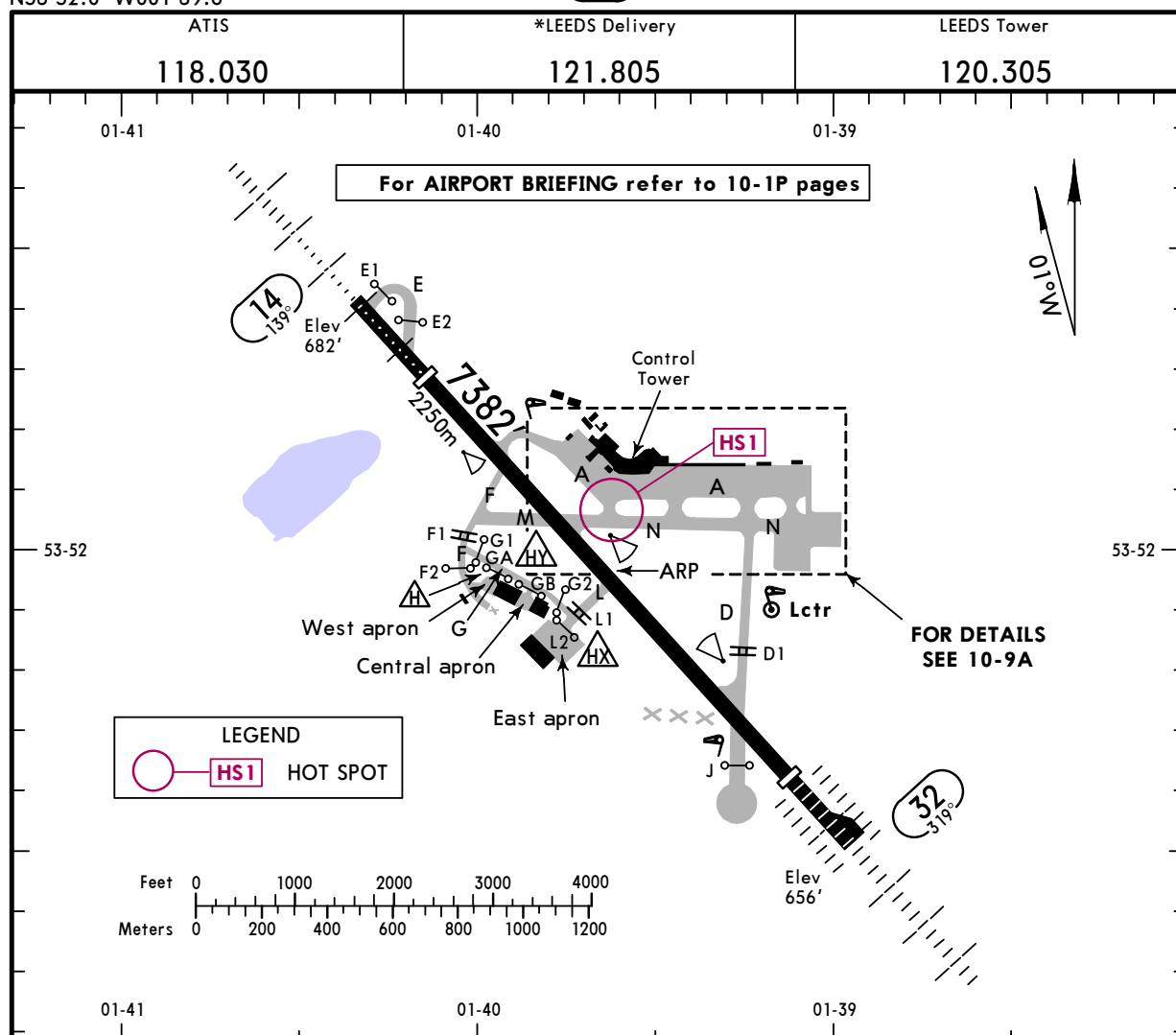
35

AVERAGE TRACK MILEAGE
23 NM to POL.

02-00

INITIAL CLIMB/ROUTING/ALTITUDEClimb straight ahead to D2.0 ILBF, turn RIGHT, intercept POL R083 inbound, cross D14.0 POL
at or above 3000 (MAX FL70), D10.0 POL at or above 3500 (MAX FL70), to POL at FL70.

EGNM/LBA
 Apt Elev **681'**
 N53 52.0 W001 39.6

JEPPESSEN
 23 MAR 18 **(10-9)** Eff 29 Mar
LEEDS BRADFORD, UK**LEEDS BRADFORD****ADDITIONAL RUNWAY INFORMATION**

					USABLE LENGTHS		TAKE-OFF	WIDTH	
RWY						LANDING BEYOND			
						Threshold			Glide Slope
14 ① 32	HIRL CL (15m) HIALS PAPI-R (3.5°) RVR					5912' 1802m	5001' 1524m	②	151' 46m
	HIRL CL (15m) HIALS-II TDZ PAPI-L (3.0°) RVR					6286' 1916m	5314' 1620m		

HOT SPOTS

(For information only, not to be construed as ATC instructions.)

HS1 Pilots are to ensure that they have clearance to enter TWY N before crossing holding point B.

① Runway grooved.

② TAKE-OFF RUN AVAILABLE

RWY 14

From rwy head	6932' (2113m)
abeam E2	6342' (1933m)
displ thresh	5912' (1802m)
twy A int	4948' (1508m)
twy F int	4701' (1433m)
twy M int	4104' (1251m)
twy L int	3159' (963m)

RWY 32

From rwy head	7185' (2190m)
displ thresh	6286' (1916m)
twy D int	5338' (1627m)
twy L int	3668' (1118m)

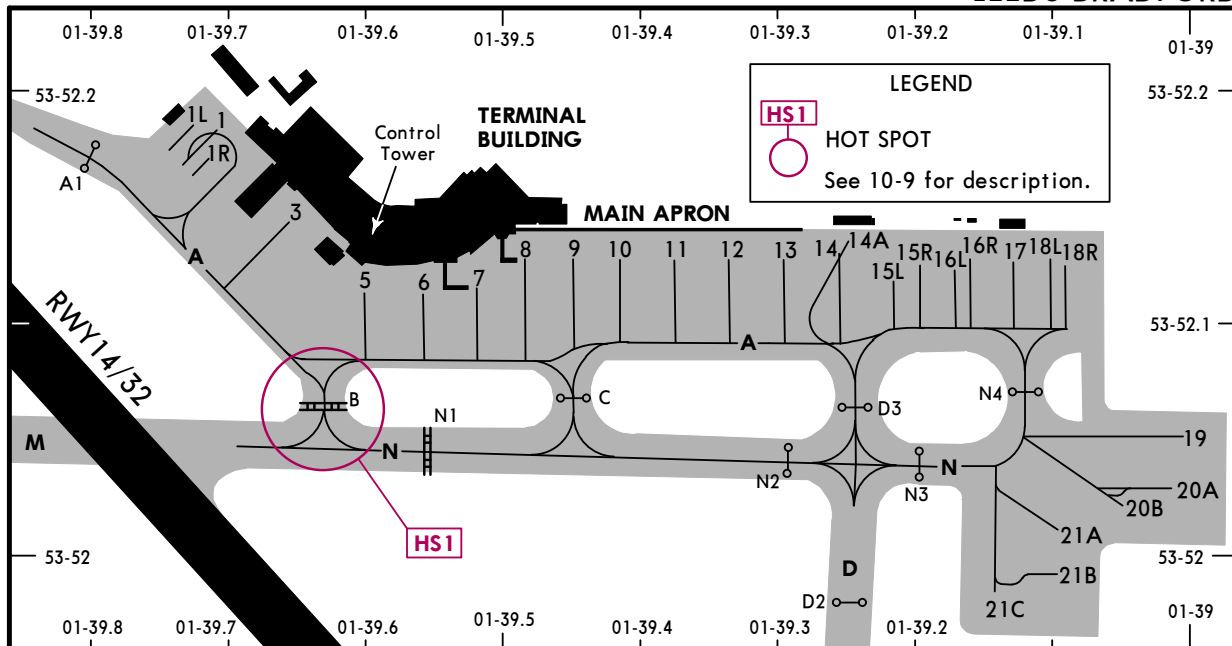
Standard**TAKE-OFF**

	Low Visibility Take-off				
	① HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL	Adequate vis ref (Day only)
A					
B	TDZ, MID, RO	TDZ, MID, RO			
C	RVR 125m	RVR 150m	RVR 200m	RVR 300m	400m
D					500m

① RWY 32: RVR 75m with approved guidance system or HUD/HUDLS.

EGNM/LBA

JEPPESSEN
 23 MAR 18 **10-9A** Eff 29 Mar

LEEDS BRADFORD, UK
 LEEDS BRADFORD
**INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
1L, 1R, 1, 3	N53 52.2 W001 39.7	17 thru 18R	N53 52.1 W001 39.1
5, 6	N53 52.1 W001 39.6	19	N53 52.1 W001 39.0
7 thru 9	N53 52.1 W001 39.5	20A	N53 52.0 W001 39.0
10, 11	N53 52.1 W001 39.4	20B thru 21B	N53 52.0 W001 39.1
12, 13	N53 52.1 W001 39.3	21C	N53 52.0 W001 39.2
14 thru 16R	N53 52.1 W001 39.2		

EGNM/LBA

JEPPESEN
 14 JAN 11 **10-9Y**
JAA COPTER MINIMUMS
LEEDS BRADFORD, UK
 LEEDS BRADFORD

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
14	ILS	874' (200')	500m / 1000m
	LOC	1190' (516')	1000m / 1000m
	NDB ❶	1190' (516')	1000m / 1000m
	NDB ❷	1860' (1186')	1000m / 1000m
	SRA	1460' (786')	1000m / 1000m
32	CAT 2 ILS	762' (100')	RA 104' - 300m
	ILS	862' (200')	500m / 1000m
	LOC	970' (308')	800m / 1000m
	NDB ❶	1050' (388')	800m / 1000m
	NDB ❷	1100' (438')	800m / 1000m
	SRA	1360' (698')	1000m / 1000m

❶ With DME.

❷ W/o DME.

CIRCLE-TO-LAND	MDA(H)	VIS
	1320' (639') ❸	1000m

❸ After NDB 14 (w/o DME): 1860' (1179').

TAKE-OFF RWY 14, 32

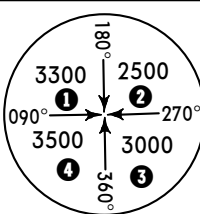
LVP must be in Force ❹				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
150m	200m	200m	250m ❺	800m

❹ Without LVP 400m are stipulated.

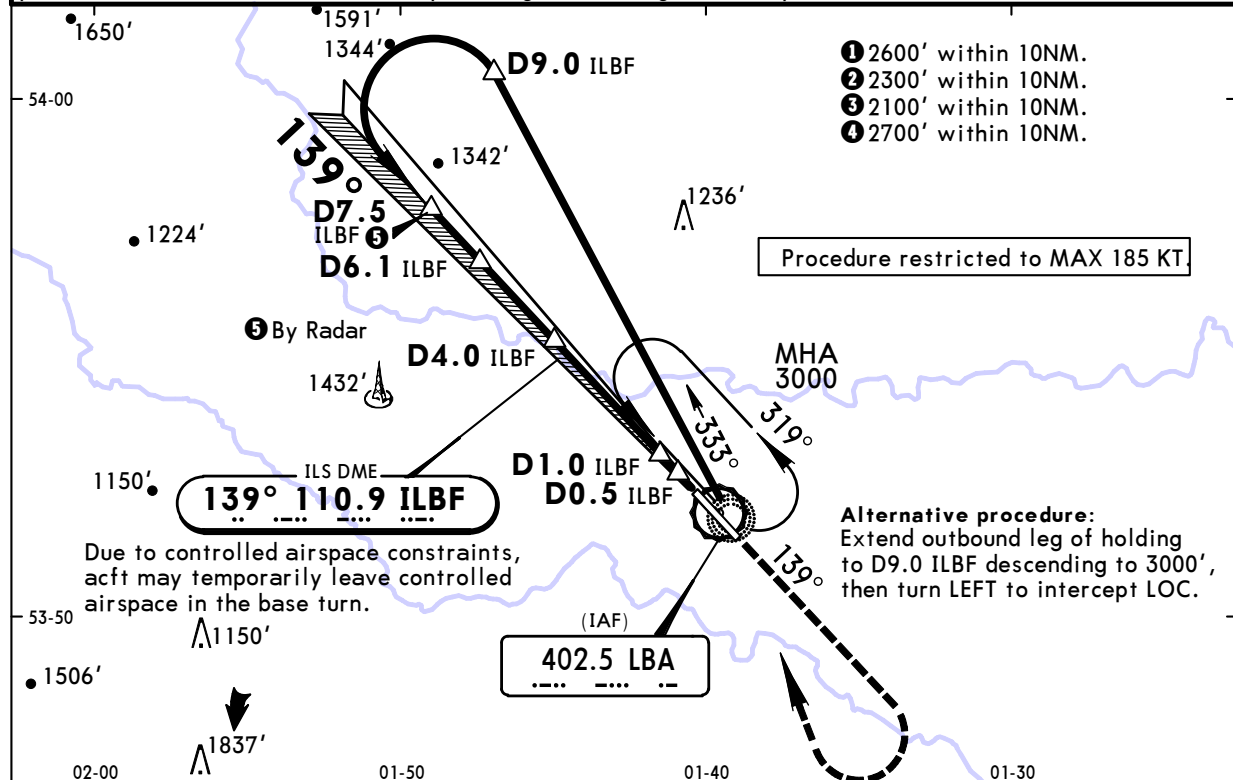
❺ Or rejected take-off distance whichever is the greater.

EGNM/LBA
LEEDS BRADFORDJEPPesen CAT C & D
23 MAR 18
Eff 29 Mar (11-1)LEEDS BRADFORD, UK
ILS DME Z or LOC DME Z Rwy 14

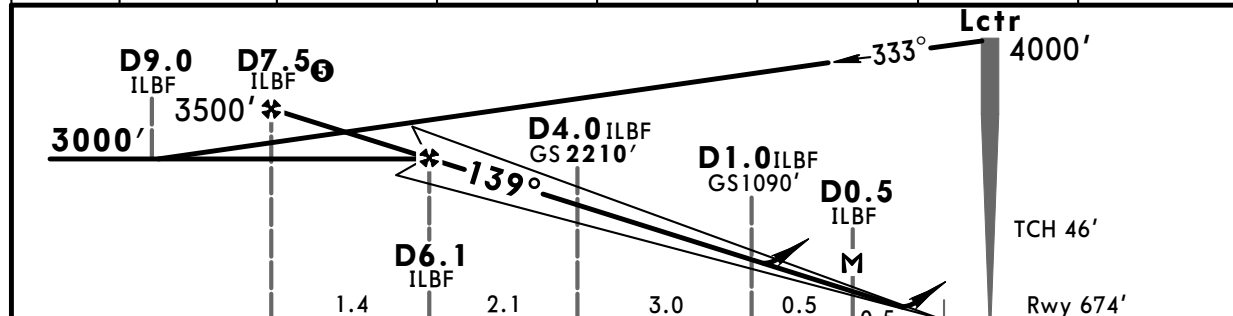
BRIEFING STRIP™

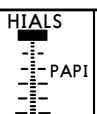
ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILBF 110.9	Final Aptch Crs 139°	GS D4.0 ILBF 2210' (1536')	ILS DA(H) 874' (200')	Apt Elev 681' Rwy 674'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'						

1. ILS DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'.
WARNINGS: 3. Pilots are warned that the ILS GS may not give full scale fly-up outside 4° right of LOC course. 4. Possible GPWS Operational Nuisance activation at 2NM from touchdown. 5. ATC may warn of possible localiser fluctuations due to preceding acft turning on the rwy.



LOC (GS out)	ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		3320'	2950'	2580'	2210'	1840'	1460'



Gnd speed-Kts	70	90	100	120	140	160		2000'
ILS GS or LOC Descent Angle	3.50°	434	557	619	743	867		
MAP at D5.0 ILBF								
Standard								

STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND	
ILS		LOC (GS out) CDFA			
DA(H) 874' (200')		DA/MDA(H) 1190' (516')			
FULL		ALS out			
A	NOT APPLICABLE		NOT APPLICABLE		Max Kts
B	NOT APPLICABLE		NOT APPLICABLE		A
C	RVR 550m 1	RVR 1200m	RVR 1600m	RVR 2400m	180
D	RVR 550m 1	RVR 1200m	RVR 1600m	RVR 2400m	205

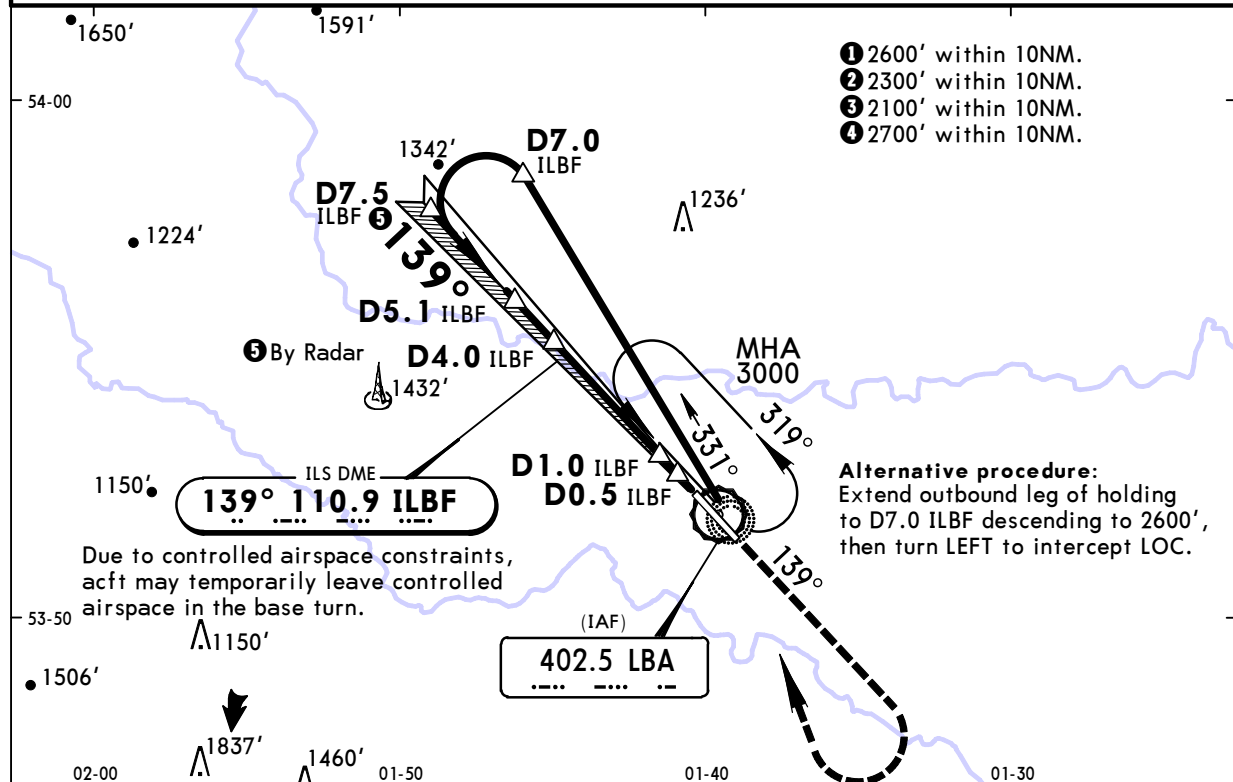
PANS OPS

1 W/o HUD/AP/FD: RVR 750m

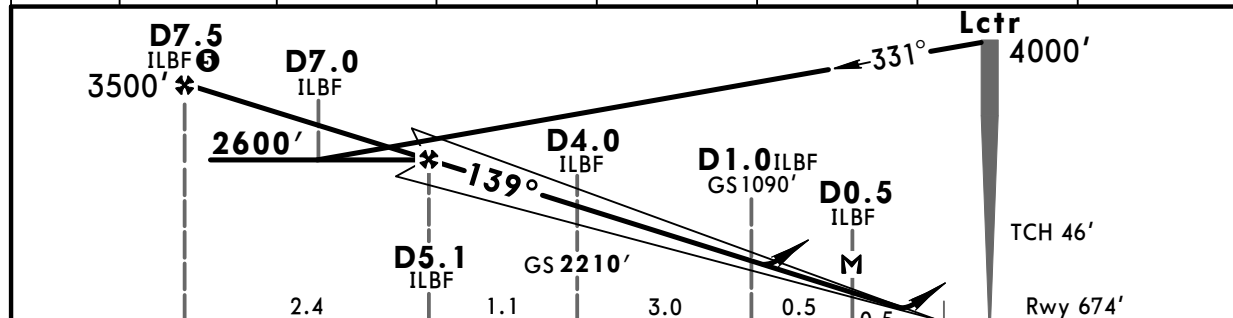
EGNM/LBA
LEEDS BRADFORDJEPPesen CAT A & B
23 MAR 18
Eff 29 Mar (11-2)LEEDS BRADFORD, UK
ILS DME Y or LOC DME Y Rwy 14

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILBF 110.9	Final Apch Crs 139°	GS D4.0 ILBF 2210'(1536')	ILS DA(H) 874'(200')	Apt Elev 681' Rwy 674'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing						
turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa		Rwy Elev: 24 hPa		Trans level: By ATC		Trans alt: 5000'
1. ILS DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. WARNINGS: 3. Pilots are warned that the ILS GS may not give full scale fly-up outside 4° right of LOC course. 4. Possible GPWS Operational Nuisance activation at 2NM from touchdown. 5. ATC may warn of possible localiser fluctuations due to preceding acft turning on the rwy.						



LOC (GS out)	ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3320'	2950'	2580'	2210'	1840'	1460'



Gnd speed-Kts	70	90	100	120	140	160		2000'
ILS GS or	3.50°	434	557	619	743	867		
LOC Descent Angle								
MAP at D0.5 ILBF								

STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND			
ILS		LOC (GS out) CDFA					
DA(H) 874' (200')		DA/MDA(H) 1190' (516')					
FULL	ALS out		ALS out	Max Kts	MDA(H)	VIS	
A	RVR 550m 1	RVR 1200m	RVR 1500m	100	1320' (639')	1500m	
B				135	1320' (639')	1600m	
C	NOT APPLICABLE		NOT APPLICABLE	C	NOT APPLICABLE		
D				D			

PANS OPS

1 W/o HUD/AP/FD: RVR 750m

CHANGES: Communications. Minimums.

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LEEDS BRADFORD 23 MAR 18
Eff 29 Mar

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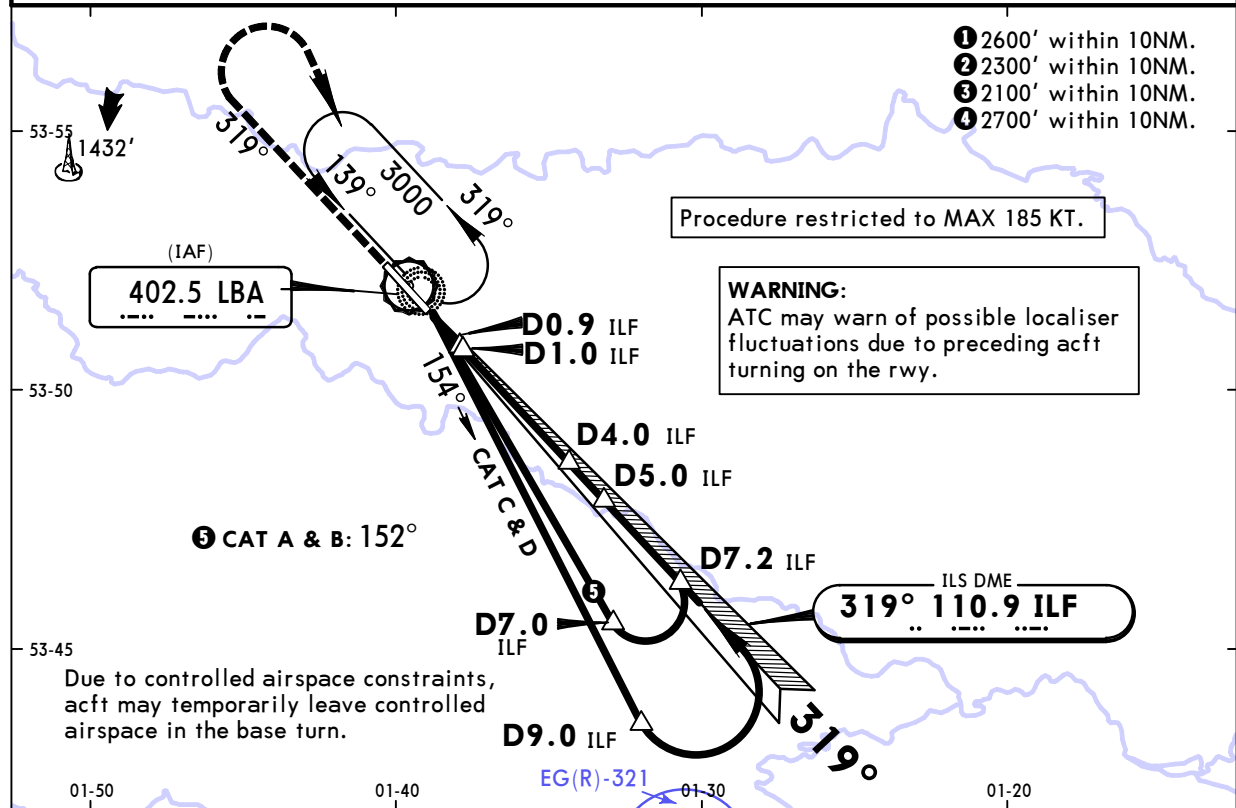
(11-3)

NDB ILS DME or NDB LOC DME Rwy 32

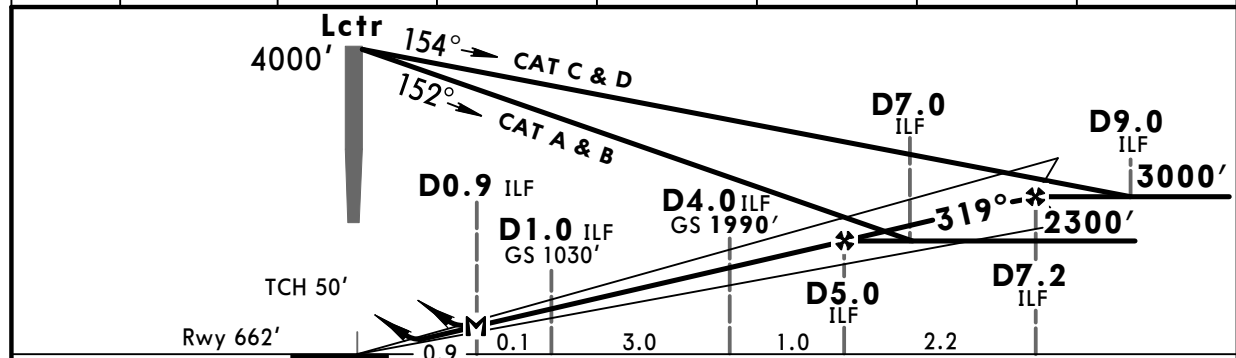
LEEDS BRADFORD, UK

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		MSA LBA NDB
LOC ILF 110.9	Final Apch Crs 319°	GS D4.0 ILF 1990' (1328')	ILS DA(H) Refer to Minimums	Apt Elev 681'	Rwy 662'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa		Rwy Elev: 24 hPa		Trans level: By ATC		Trans alt: 5000'
1. ILS DME reads zero at rwy 32 thresh. 2. Minimum altitude to commence procedure 3000'.						



LOC (GS out)	ILF DME	1.0	2.0	3.0	4.0	5.0	6.0
	ALTITUDE	1030'	1350'	1670'	1990'	2310'	2620'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	
MAP at D0.9 ILF							

Standard				STRAIGHT-IN LANDING RWY 32		LOC (GS out)		CIRCLE-TO-LAND	
ILS				CDFA		DA(MDA(H))		Max Kts	
DA(H) ABC: 862' (200') D: 872' (210')				DA(MDA(H)) 970' (308')					
FULL		TDZ & CL out	ALS out	ALS out					
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 750m	RVR 1400m			100	1320' (639') 1500m
B								135	1320' (639') 1600m
C								180	1420' (739') 2400m
D								205	1610' (929') 3600m

PANS OPS

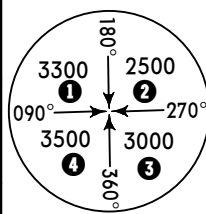
1 W/o HUD/AP/FD: RVR 750m

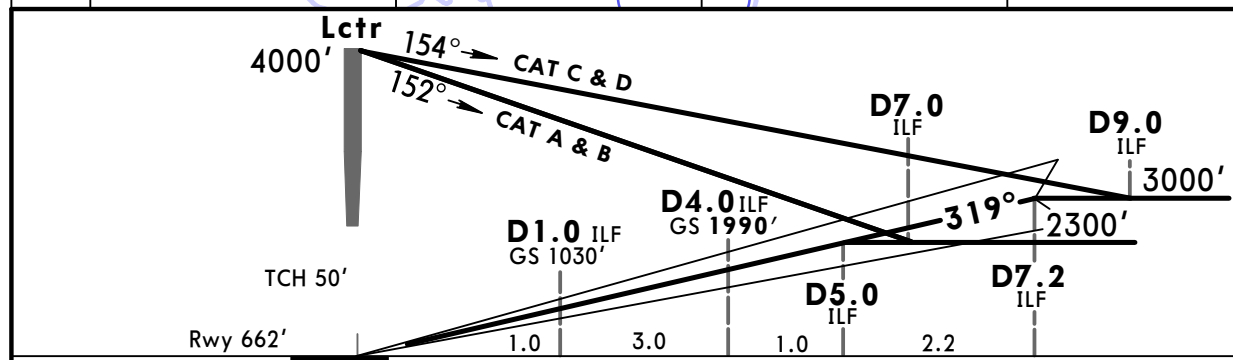
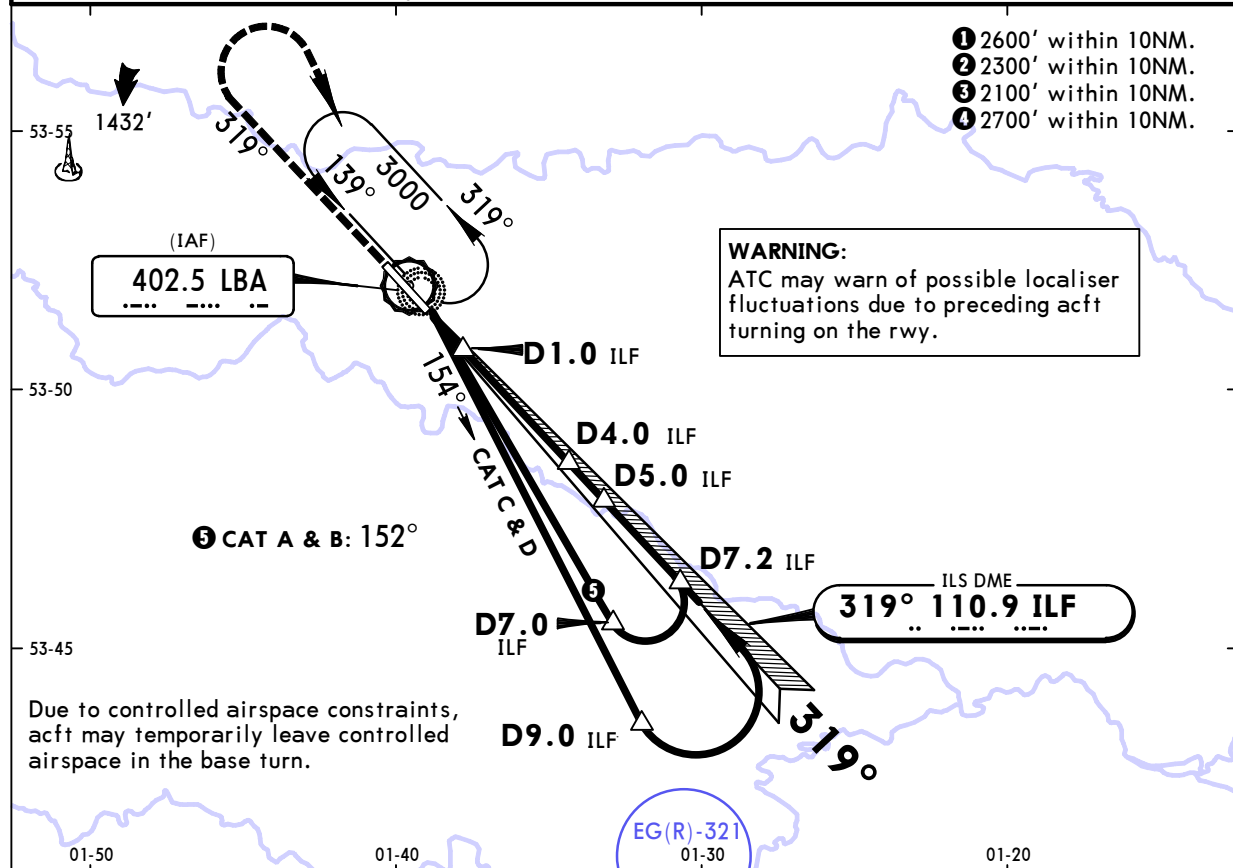
EGNM/LBA
LEEDS BRADFORDJEPPesen
23 MAR 18
Eff 29 Mar

(11-3A)

LEEDS BRADFORD, UK
CAT II/III NDB ILS DME Rwy 32

BRIEFING STRIP

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILF 110.9	Final Apch Crs 319°	GS D4.0 ILF 1990' (1328')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 681' Rwy 662'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000' 1. Special Aircrew & Aircraft Certification Required. 2. ILS DME reads zero at rwy 32 thresh. 3. Minimum altitude to commence procedure 3000'. 4. Procedure restricted to MAX 185 KT.						



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI 2000'
GS	3.00°	372	478	531	637	743	

PANS OPS

STRAIGHT-IN LANDING RWY 32						
CAT IIIA ILS	CAT II ILS			CAT II ILS		
RA 50'	ABC RA 104'			D RA 110'		
DA(H) 50'	DA(H) 762' (100')			DA(H) 767' (105')		
	OTS			OTS		
			CL out			CL out
RVR 200m	RVR 300m	RVR 350m	RVR 450m	RVR 300m	RVR 400m	RVR 450m

① CAT IIIB: Min RVR 75m.

CHANGES: Communications. Bearing.

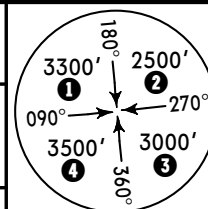
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JEPPESSEN
23 MAR 18
Eff 29 Mar (16-1) CA

LEEDS BRADFORD, UK
NDB DME Z Rwy 14

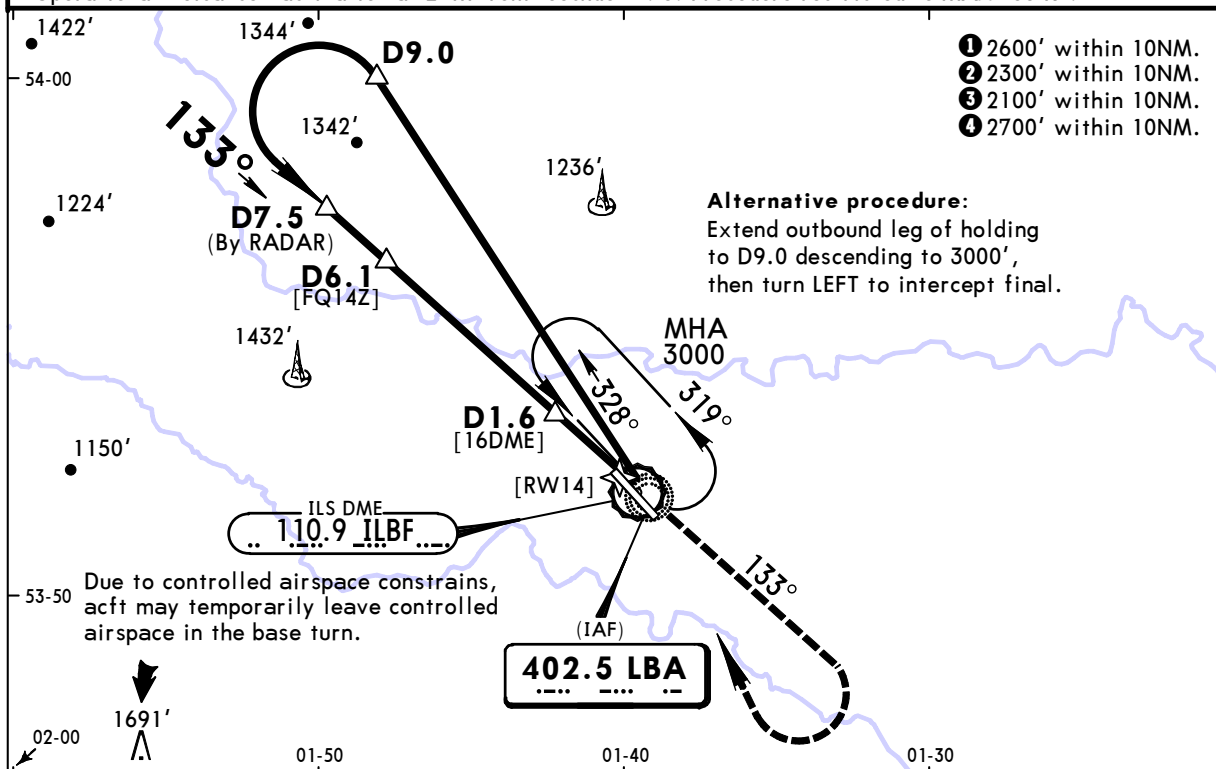
ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305	
Lctr LBA 402.5	Final Apch Crs 133°	Procedure Alt D6.1 3000' (2326')	DA/MDA(H) 1190' (516')	Apt Elev 681' Rwy 674'	



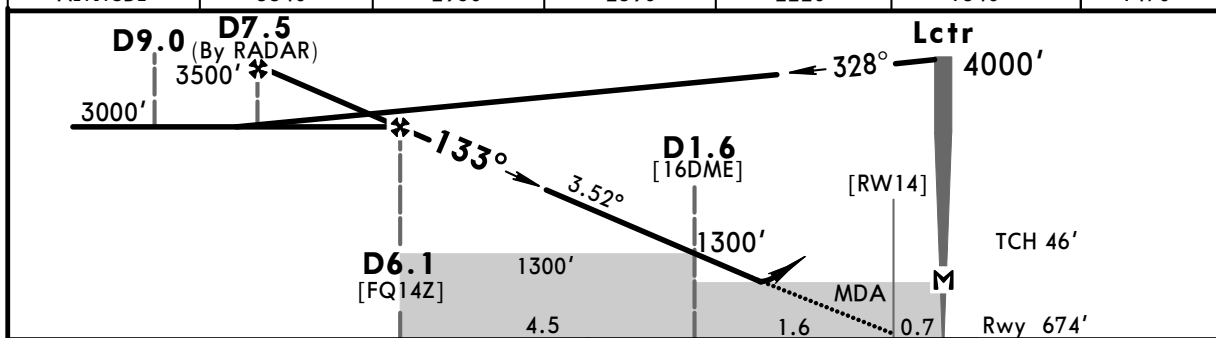
MSA LBA NDB

MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.

Alt Set: hPa	Rwy Elev: 24 hPa	Trans level: By ATC	Trans alt: 5000'
1. DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. 3. Final approach track offset 6° from runway centerline. 4. WARNING: Possible ground proximity warning system "Operational Nuisance" activation at 2NM from touchdown. 5. Procedure restricted to MAX 185 KT.			



ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3340'	2960'	2590'	2220'	1840'	1470'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.52°	436	561	623	748	872	997

MAP at Lctr

HIALS

Diagram showing a vertical column with horizontal lines, labeled HIALS at the top.

2000

Standard

STRAIGHT-IN LANDING RWY 14

CIRCLE-TO-LAND

CDFADA/MDA(H) **1190'** (516')Max
Kts.

— MDA(H) ————— VIS

—VIS

A
D

NOT APPLICABLE

A

NOT APPLICABLE

C

RVR1600m

RVR 2400m

18

1420' (739') 2400m

1610' (929') 3600m

PANS OPS

CHANGES: Communications. Bearing.

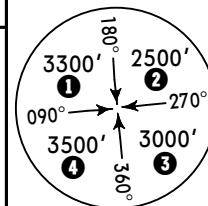
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LEEDS BRADFORDJEPPESEN
23 MAR 18
Eff 29 Mar 16-2 CAT A & BLEEDS BRADFORD, UK
NDB DME Y Rwy 14

BRIEFING STRIP

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305	
Lctr LBA 402.5	Final Apch Crs 133°	With DME Procedure Alt D5.1 2600' (1926')	With DME DA/MDA(H) 1190' (516')	Apt Elev 681' Rwy 674'	
		W/o DME Minimum Alt No FAF	W/o DME DA/MDA(H) 1860' (1186')		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.					

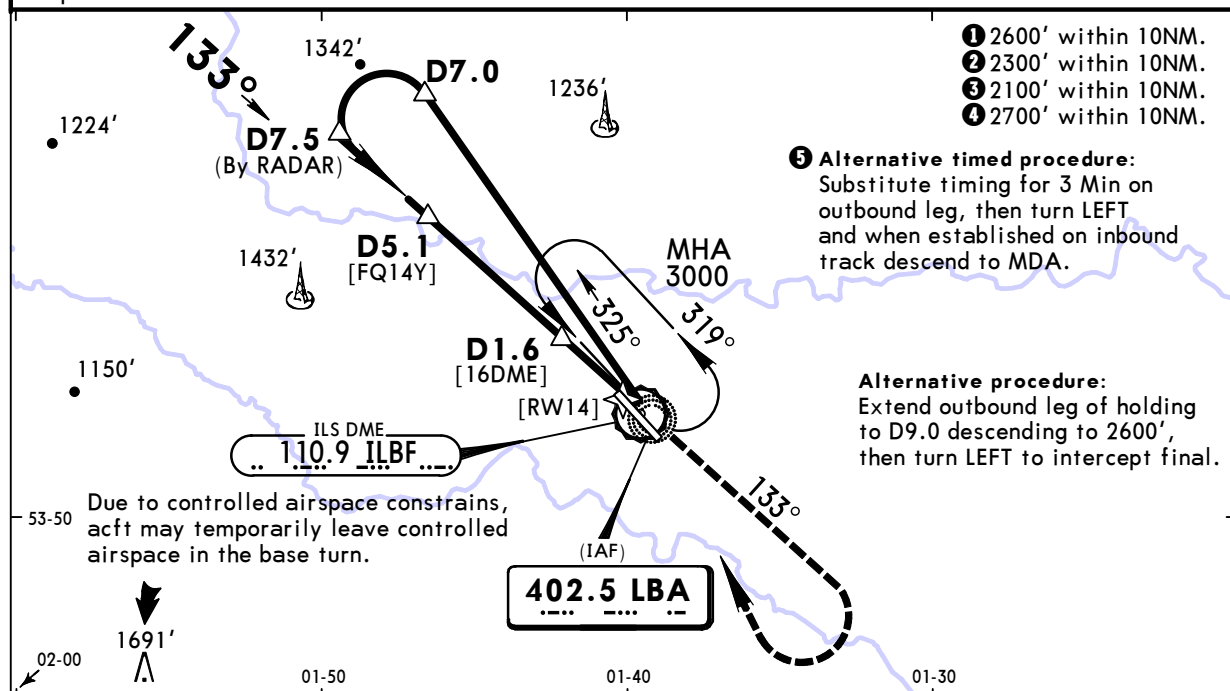
MSA LBA NDB



MSA LBA NDB

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. 3. Final approach track offset 6° from runway centerline. 4. **WARNING:** Possible ground proximity warning system "Operational Nuisance" activation at 2NM from touchdown.

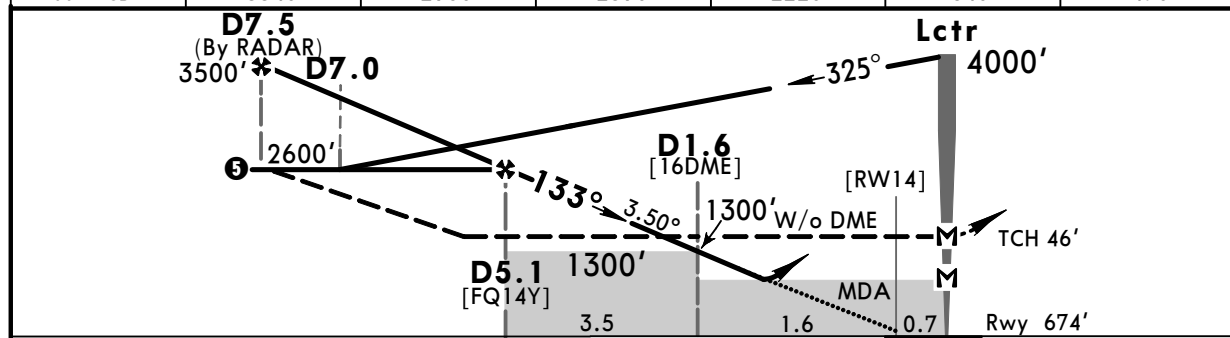


- ① 2600' within 10NM.
- ② 2300' within 10NM.
- ③ 2100' within 10NM.
- ④ 2700' within 10NM.

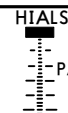
⑤ **Alternative timed procedure:**
Substitute timing for 3 Min on outbound leg, then turn LEFT and when established on inbound track descend to MDA.

Alternative procedure:
Extend outbound leg of holding to D9.0 descending to 2600', then turn LEFT to intercept final.

ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3340'	2960'	2590'	2220'	1840'	1470'



Grnd speed-Kts	70	90	100	120	140	160
Descent Angle	3.50°	434	557	619	743	867
MAP at Lctr						



2000'

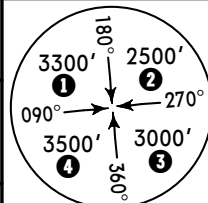
PANS OPS

STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND	
With DME		W/o DME			
CDFA		CDFA		non-CDFA	
DA/MDA(H)		DA/MDA(H)		MDA(H)	
1190' (516')		1860' (1186')		1860' (1186')	
ALS out		ALS out		ALS out	
A	RVR 1500m	RVR 1500m	RVR 4800m	RVR 5000m	Max Kts
B					100
C					135
D					

① or higher straight-in minimums.

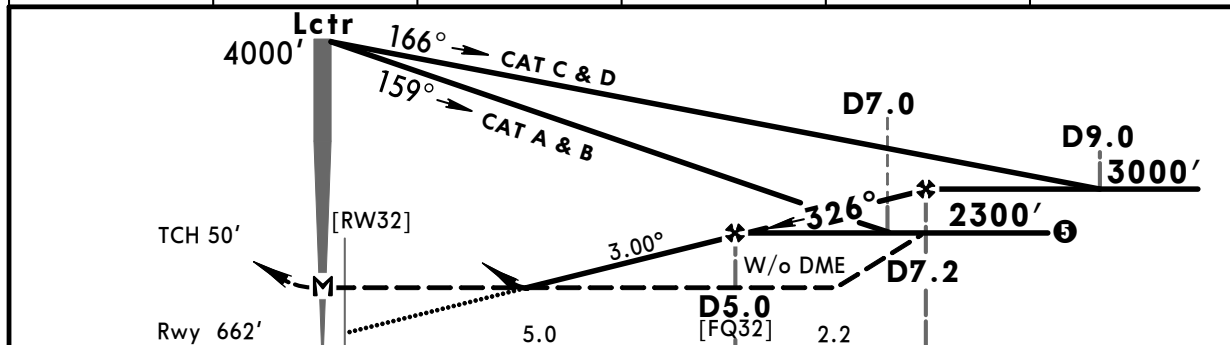
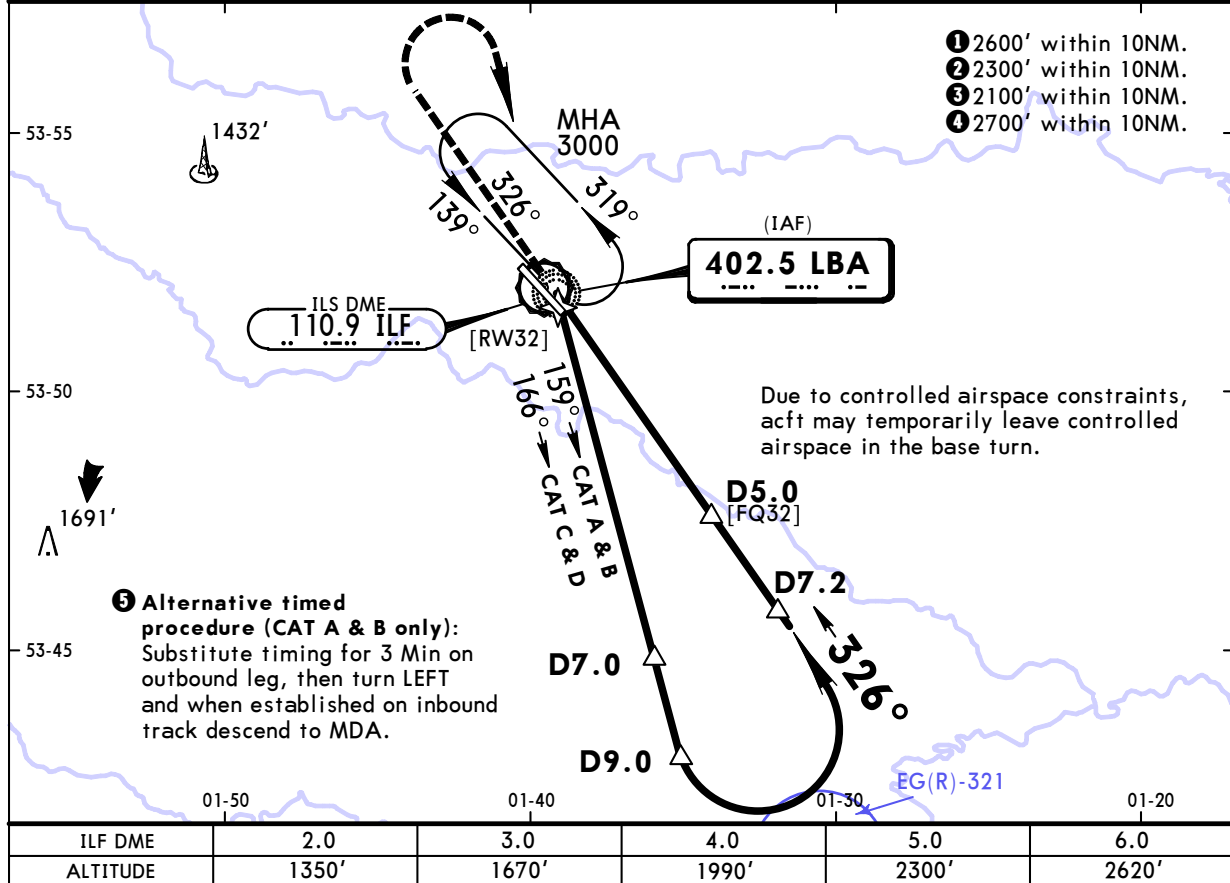
EGNM/LBA
LEEDS BRADFORDJEPPESEN
23 MAR 18 (16-3) Eff 29 MarLEEDS BRADFORD, UK
NDB DME Rwy 32

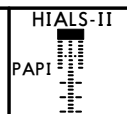
BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		
Lctr LBA 402.5	Final Apch Crs 326°	Minimum Alt (CONDITIONAL) Refer to Profile	DA/MDA(H) (CONDITIONAL) 1050' (388')	Apt Elev 681'	Rwy 662'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. DME reads zero at rwy 32 thresh. 2. Minimum altitude to commence proc 3000'. 3. Final aph track offset 7° from rwy centerline. 4. Procedure restricted to MAX 210 KT.



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at Lctr							

Standard		STRAIGHT-IN LANDING RWY 32					CIRCLE-TO-LAND	
With DME			W/o DME					
CDFA			CDFA		non-CDFA			
DA/MDA(H) 1050' (388')			DA/MDA(H) 1100' (438')		MDA(H) 1100' (438')			
ALS out			ALS out		ALS out			
A	RVR1100m	RVR1500m	RVR1300m	RVR1500m	RVR1500m	RVR2200m	Max Kts	MDA(H) VIS
B							100	1320' (639') 1500m 1
C		RVR1800m	NOT APPLICABLE				135	1320' (639') 1600m 1
D							180	1420' (739') 2400m
							205	1610' (929') 3600m

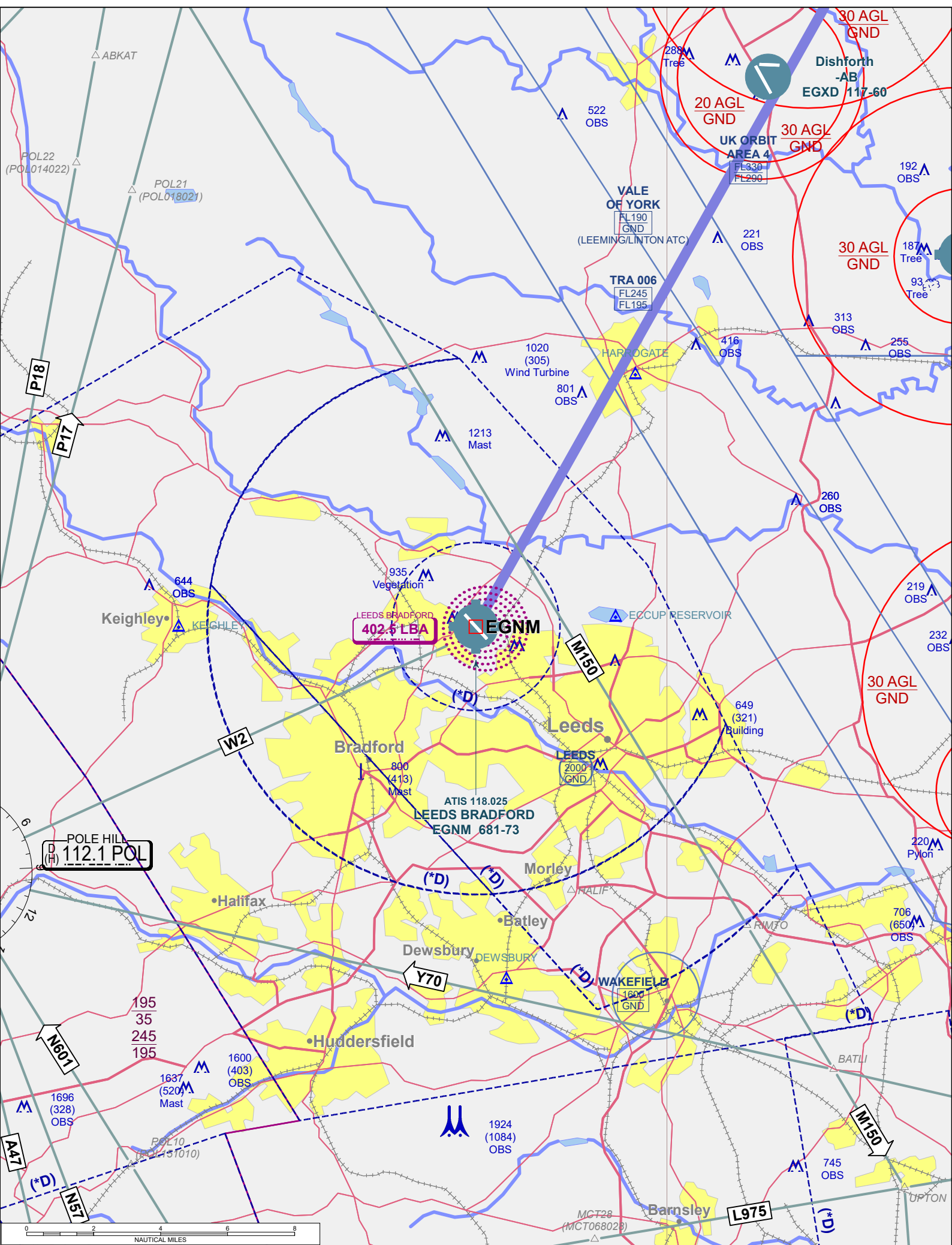
1 or higher straight-in minimums.

CHANGES: Communications. Bearings.

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JeppView 3.6.2.0

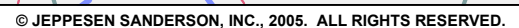
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JeppView 3.6.2.0



EGNM/LBA
LEEDS BRADFORD**JEPPESEN**
16 MAR 18

10-1P

Eff 29 Mar

LEEDS BRADFORD, UK
AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 118.030

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

The following procedures apply to jet ACFT and may at any time be departed from to the extent necessary for avoiding immediate danger. Every operator of ACFT using the APT shall ensure at all times that ACFT are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the APT.

1.2.2. PREFERENTIAL RWY SYSTEM

ACFT will use RWY 14 for landing and RWY 32 for take-off whenever this is possible having regard to wind, cloud base, approach aid limitations and ACFT performance and requirements. In the event of marginal conditions the RWY to be used is at the ACFT commander's discretion. However, violation of the selective RWY procedure cannot be acceptable for expedite reasons and it is regretted that inconvenience in taxiing distances and/or airborne routing must be accepted in the interest of reducing ACFT noise intrusion on the local environment.

1.2.3. NIGHT FLYING RESTRICTIONS

The APT company is subject to planning requirements imposed during the night time period (2300-0700LT). Such ACFT movements are only permitted by approval from one of the following authorities:

- Operations Director 0113-391 3202
- Airside Operations Duty Officer 0113-391 3231

Movements in the night time period by ACFT failing to meet the imposed conditions will only be permissible under the following circumstances:

- delayed landings up to 0100LT by ACFT scheduled to land between 0700-2300LT;
- in emergency cases (immediate danger to life or health, whether human or animal).

1.2.4. FANSTOP PROCEDURES

Simulated asymmetric 'go-arounds' for RWY 14 must be initiated at or above 990'.

Simulated engine-out maneuvers from RWY 14 are not permitted on departure.

1.2.5. RUN-UP TESTS

Ground running of ACFT engines is not permitted between 2300-0700LT and is subject to ATC permission at all other times.

1.3. LOW VISIBILITY PROCEDURES (LVP)

1.3.1. GENERAL

During CAT II/III operations, special ATC procedures (LVPs) will be applied.

Pilots will be informed when these procedures are in operation via RTF and ATIS.

CAT II/III holding positions are B, D1, F1, L1 and N1 only, amber/green coded TWY centerline lights are switched on for routing guidance.

ACFT on Stands 7 thru 18L/R will normally taxi through holding positions C and D3.

Pilots must request marshaller assistance, wingtip guidance or Follow-me car if it is considered necessary, prior to start-up or after landing before entering the apron.

EGNM/LBA
LEEDS BRADFORD**JEPPESEN**

16 MAR 18

(10-1P1)

Eff 29 Mar

LEEDS BRADFORD, UK**AIRPORT BRIEFING**

1. GENERAL

1.3.2. USE OF RWYs

RWYs 14 and 32 suitable for EVS operations and lower than standard CAT I operations.

RWY 32 suitable for Other than Standard CAT II operations.

1.3.3. ARRIVAL

After completing landing run await or request taxi clearance prior to vacating the RWY or backtracking.

Entry to the main apron will be via yellow/green centerline routing guidance to B, C or D3.

ACFT will not report RWY vacated until they have entered the TWY and the ACFT is established on the full green coded centerline lights.

Pilots must not report vacated whilst they are on the portion of TWY showing mixed amber/green lights.

TWYs F, M and G not available in VIS of 800m or less.

1.4. TAXI PROCEDURES

TWY A West of C MAX wingspan 118'/36m.

TWY A between C and D3 MAX wingspan 147'/45m and MAX wheelspan 30'/9.1m.

TWY A East of D3 wingspan 118'/36m.

ACFT with wingspan between 148'/45m and 170'/52m using stand 8 must enter and exit TWY A via Link C.

TWY D MAX wingspan 200'/61m.

TWY F South of junction with TWY G MAX wingspan 61'/18.5m.

TWY N between N3 and N4 MAX wingspan 136'/41.5m.

Between TWY F and TWY G MAX wingspan 61'/18.5m.

TWYs F, G and M not available at NIGHT.

The marked centerline turning circle for wide-bodied ACFT using the RWY 32 turning pad may only be achieved using up to 52° of nose wheel steering.

Additionally, there is no straight section of the centerline parallel to RWY centerline before commencement of the 180° turn onto the RWY centerline.

Pilots are reminded not to cross red stopbars unless a specific instruction to cross a lit stopbar is given by ATC.

1.5. PARKING INFORMATION

Stands 3 and 5 thru 21C are marked for nose-in guidance with marshaller apart from Stands 7 and 8 which have electronic guidance (APIS).

1.6. OTHER INFORMATION**1.6.1. GENERAL**

There is a 328'/100m area of the RWY that provides a forward sight distance of less than 3937'/1200m (for an eye height of 10'/3m above the RWY surface) located in the area of the TDZ 32.

1.6.2. WARNINGS

Bird activity.

Pilots are advised to expect windshear and turbulence when the surface wind is between 190° and 280° above 20 KT. Some variations to reported wind readings may also occur.

EGNM/LBA
LEEDS BRADFORD**JEPPESEN**

12 DEC 14

(10-1P2)

LEEDS BRADFORD, UK
AIRPORT BRIEFING

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. GENERAL

Unless otherwise instructed by ATC ACFT using the ILS in IMC or VMC shall not descend below 2000' before intercepting the GS nor thereafter fly below it. ACFT approaching without ILS or Radar assistance shall follow a descent path which will not result in its being at any time lower than approach path which would be followed by an ACFT using the ILS GS.

2.1.2. REVERSE THRUST

To minimize disturbance in areas adjacent to the APT, captains are requested to avoid/reduce the use of reverse thrust after landing, consistent with safe operation of the ACFT, whenever possible.

2.2. CAT II/III OPERATIONS

RWY 32 approved for CAT II/III operations, special aircrew and ACFT certification required.

EGNM/LBA
LEEDS BRADFORD

12 DEC 14

JEPPESEN
10-1P3**LEEDS BRADFORD, UK**
AIRPORT BRIEFING**3.1. START-UP & PUSH-BACK PROCEDURES**

- ATC Clearance should be requested before start-up but not before EOBT -15 minutes.
- LEEDS Delivery is responsible for passing ATC clearance to ACFT prior to start-up only.
- Push-back and start instructions may contain reference to an adjacent stand or defined point on a TWY. The term 'long push' may also be used together with a location definition.
- The push-back instruction will normally include a direction to face as East, West or South.
- Where two ACFT up to B737/A320 size request simultaneous push-back, on the main apron stands 1 thru 18, in the same direction at least one stand must separate the ACFT prior to push.
- ACFT on stands 16 and 17 can only be issued with a non-standard push-back to face West.
- ACFT on stands 17 and 18 may be offered a straight push-back into the neck of N4 holding point.

3.2. NOISE ABATEMENT PROCEDURES**3.2.1. GENERAL****RWY 14:**

After take-off maintain RWY heading to ILBF 2 DME before setting course (or ILF 2 DME when RWY 32 is being used for landing traffic).

RWY 32:

Climb straight ahead, at 1190' or ILF 0.5 DME, whichever is later, turn LEFT, 313° track, at ILF 2.1 DME reduce to minimum safe power settings and turn LEFT to make good a track of 274°. Maintain this track until ILF 3.5 DME before setting course.

Turbo-prop:

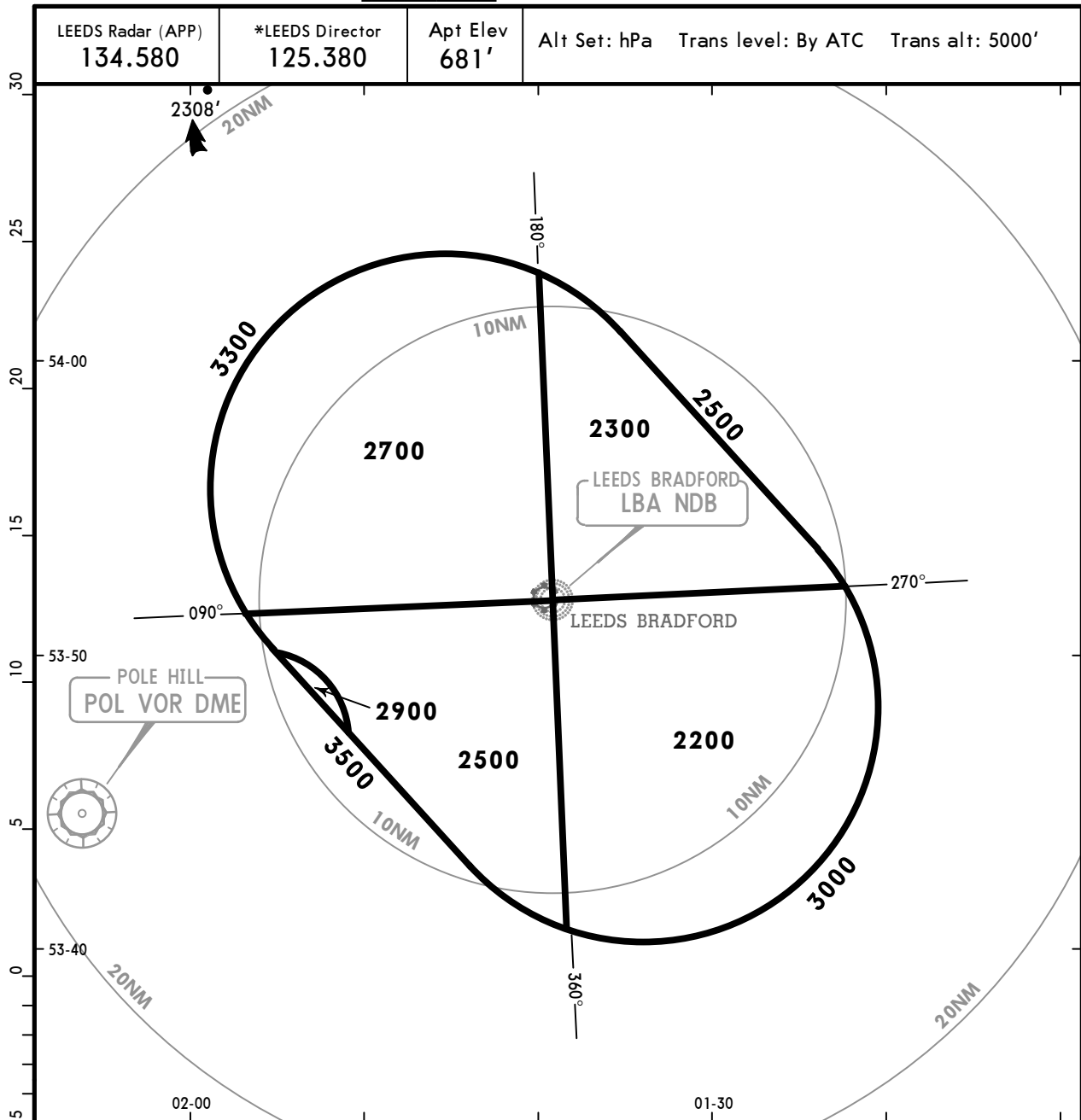
After take-off make good a track of 313° and at 2.1 DME turn onto course.

These routings are compatible with normal ATC practice. In individual cases they may be varied away to operational circumstances. The use of the Noise Preferential Routings specified above is supplementary to the noise abatement take-off techniques as used by piston-engined, turbo-prop and turbo-jet ACFT.

3.2.2. TARGET NOISE LEVELS

All ACFT (excluding supersonic and military jet ACFT) shall be operated in such a way that at the monitoring point they will not generate a noise level:

- after take-off from RWY 32 more than 85 db (A) between 0700-2300LT or 77 db (A) between 2300-0700LT;
- after take-off from RWY 14 more than 92 db (A) between 0700-2300LT or 84 db (A) between 2300-0700LT;
- on approach to RWY 32 more than 85 db (A) between 0700-2300LT or 79 db (A) between 2300-0700LT.

EGNM/LBA
LEEDS BRADFORDJEPPESEN
16 MAR 18
Eff 29 Mar 10-1RLEEDS BRADFORD, UK
RADAR MINIMUM ALTITUDES**OUTSIDE THE DESIGNATED RADAR MINIMUM ALTITUDE AREA**

The minimum altitude to be allocated by the radar controller will be either the Minimum Sector Altitude or 1000' above any fixed obstacles:

- within 5 NM ① of the aircraft and
- within the sector 15 NM ② ahead of and within 20° either side of the aircraft's track.

3 NM ① or 10 NM ② when the aircraft is within 15 NM of the radar antennae.

PROCEDURE	LOSS OF COMMUNICATION PROCEDURE
INITIAL APPROACH	Continue visually or by means of an appropriate approved final approach aid. If not possible, proceed at 3000', or at last assigned level if higher, to LBA.
INTERMEDIATE AND FINAL APPROACH	Continue visually or by means of an appropriate final approach aid. If not possible follow the Missed Approach Procedure to LBA.

EGNM/LBA
LEEDS BRADFORD

16 MAR 18

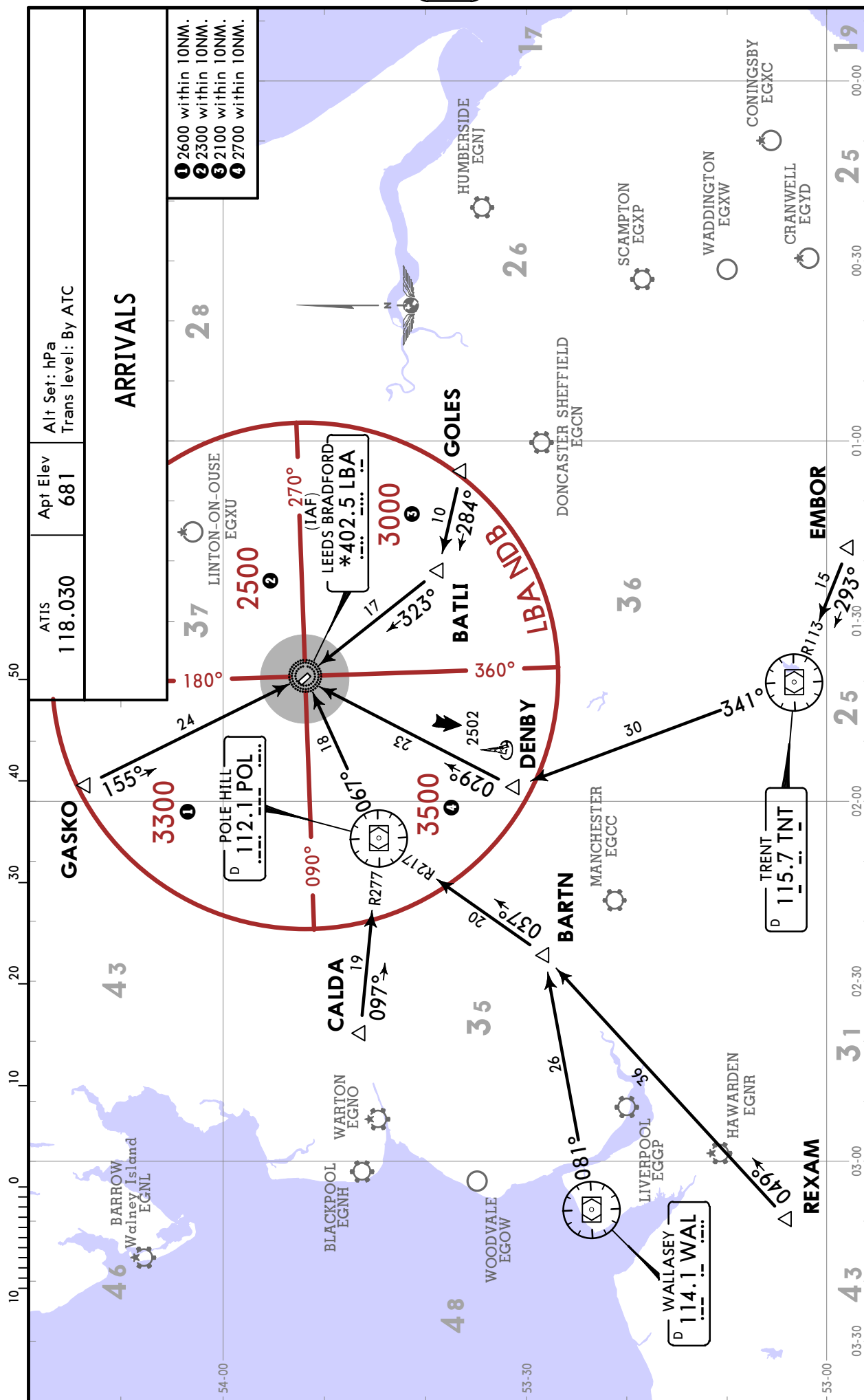
JEPPESEN

10-2

Eff 29 Mar

LEEDS BRADFORD, UK

ARRIVAL



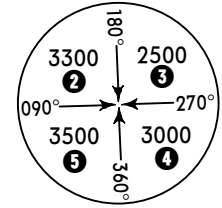
CHANGES: Communication.

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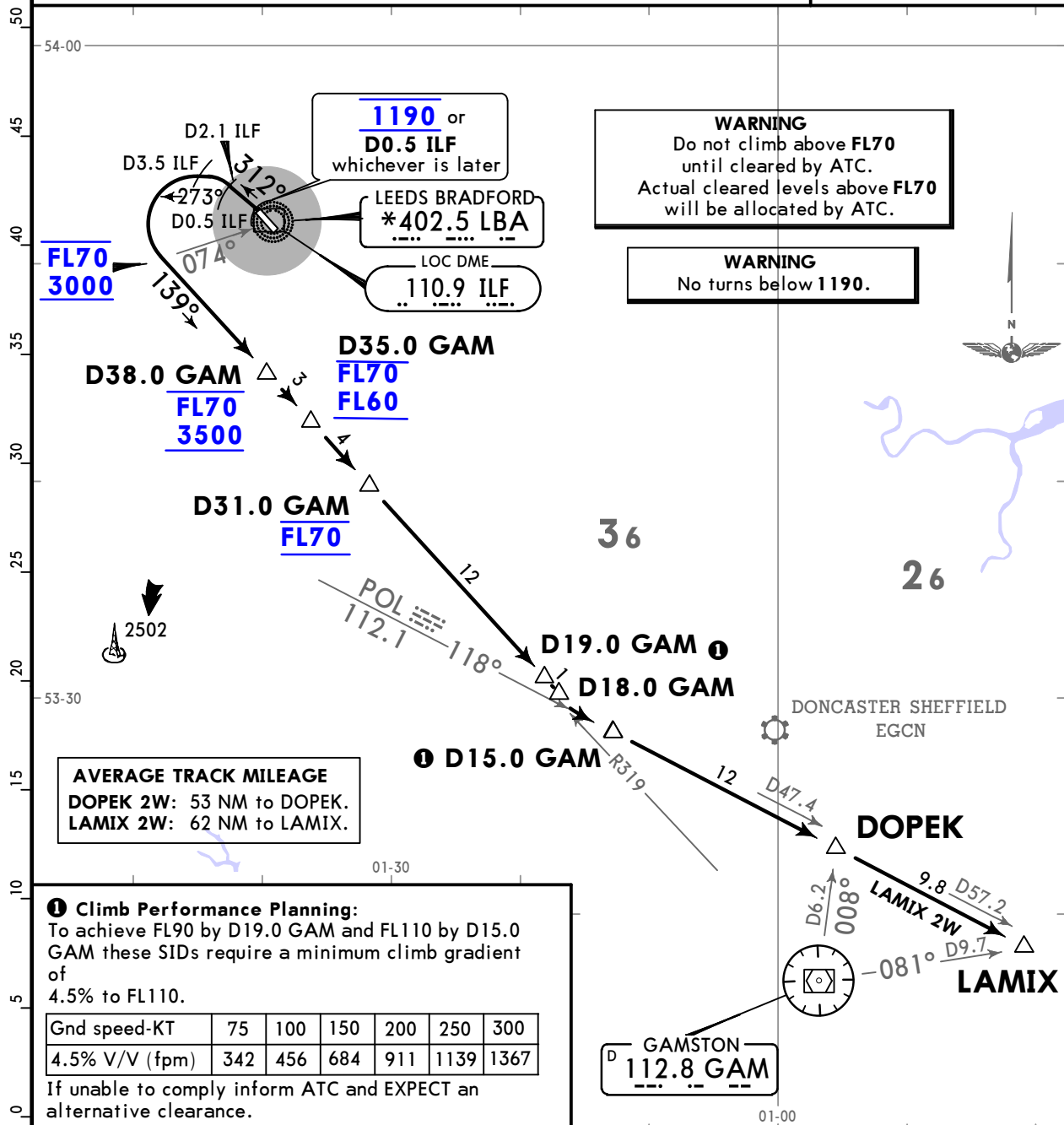
EGNM/LBA
LEEDS BRADFORDJEPPESEN
14 JUL 17 10-3LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report c/s, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority to be EGTT.

MSA
LBA NDB

- ② 2600 within 10NM.
- ③ 2300 within 10NM.
- ④ 2100 within 10NM.
- ⑤ 2700 within 10NM.

DOPEK 2W [DOPE2W]
LAMIX 2W [LAMI2W]
RWY 32 DEPARTURES**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**

INITIAL CLIMB/ALTITUDE

Climb straight ahead to 1190 or D0.5 ILF, whichever is later, turn LEFT, 312° track, at D2.1 ILF turn LEFT, 273° track, at D3.5 ILF turn LEFT, cross 074° bearing to LBA at or above 3000 (MAX FL70), intercept GAM R319 inbound, cross D38.0 GAM at or above 3500 (MAX FL70), cross D35.0 GAM at or above FL60 (MAX FL70), D31.0 GAM at FL70, to D18.0 GAM.

SID

ROUTING

DOPEK 2W

At D18.0 GAM turn LEFT, intercept POL R118 to DOPEK.

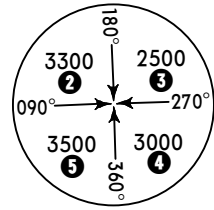
LAMIX 2W

At D18.0 GAM turn LEFT, intercept POL R118 via DOPEK to LAMIX.

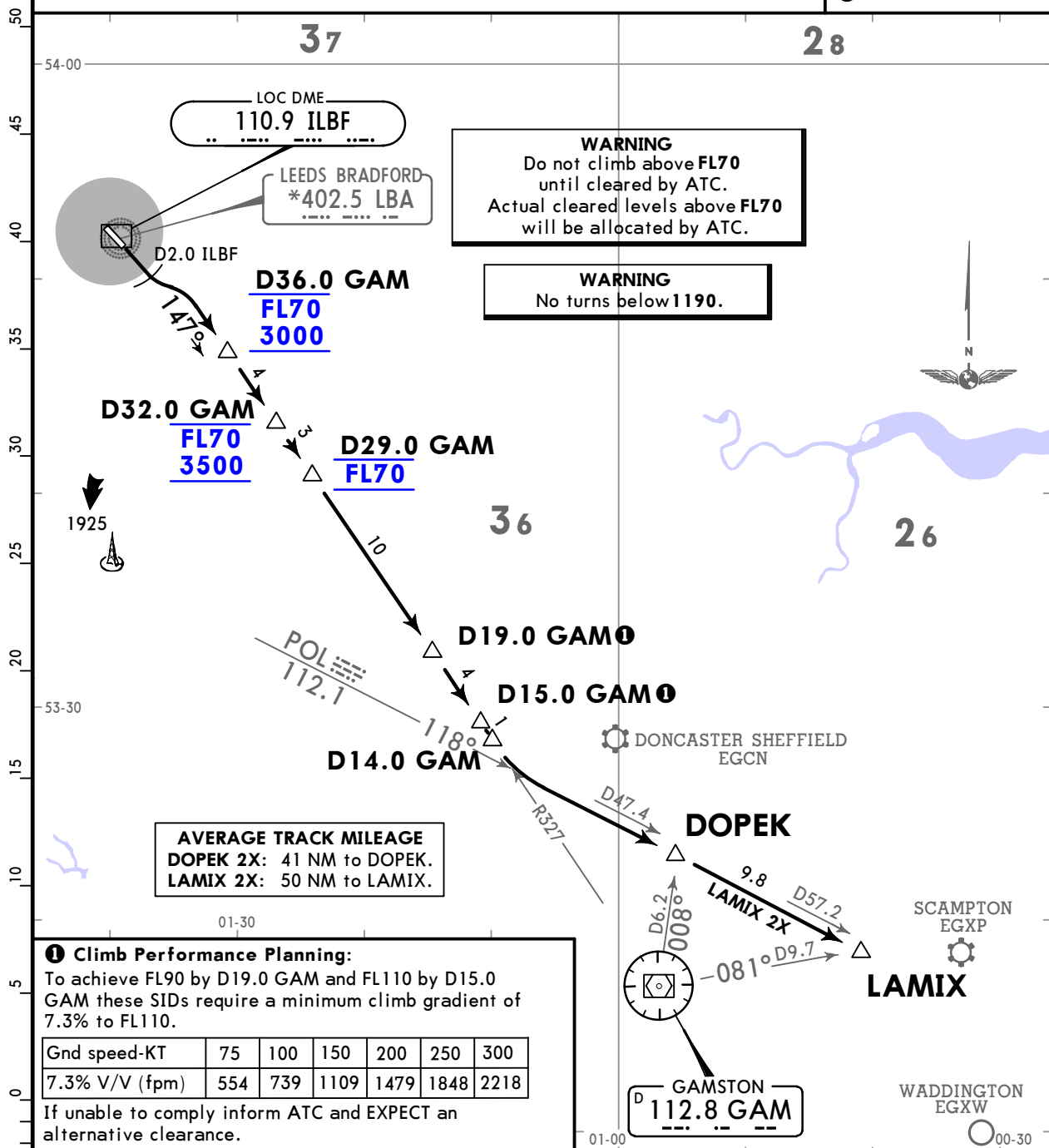
EGNM/LBA
LEEDS BRADFORDJEPPESEN
14 JUL 17 (10-3A)LEEDS BRADFORD, UK
SIDApt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report c/s, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority to be EGTT.

MSA
LBA NDB

- ② 2600 within 10NM.
- ③ 2300 within 10NM.
- ④ 2100 within 10NM.
- ⑤ 2700 within 10NM.

DOPEK 2X [DOPE2X]
LAMIX 2X [LAMI2X]
RWY 14 DEPARTURES**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**

INITIAL CLIMB/ALTITUDE

Climb straight ahead to D2.0 ILBF, intercept GAM R327 inbound, cross D36.0 GAM at or above 3000 (MAX FL70), D32.0 GAM at or above 3500 (MAX FL70), D29.0 GAM at FL70, to D14.0 GAM.

SID

ROUTING

DOPEK 2X

At D14.0 GAM turn LEFT, intercept POL R118 to DOPEK.

LAMIX 2X

At D14.0 GAM turn LEFT, intercept POL R118 via DOPEK to LAMIX.

EGNM/LBA
LEEDS BRADFORD

10 FEB 17

10-3B

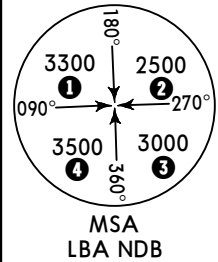
LEEDS BRADFORD, UK

SID

Apt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report C/S, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority when routed
Northbound - N-601, P-18 to be EGPX,
Southbound - L-612, N-862 via P-17, L-8 via P-18, M-605 to be EGTT,
Westbound - Y-70, L-10 to be EGPX.
6. Climb performance planning: If unable to maintain climb gradients to achieve FL70 by NELSA inform ATC and EXPECT alternative clearance.

NELSA 3W [NELS3W]
RWY 32 DEPARTURE**SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED**
WARNING
Do not climb above **FL70**
until cleared ATC.

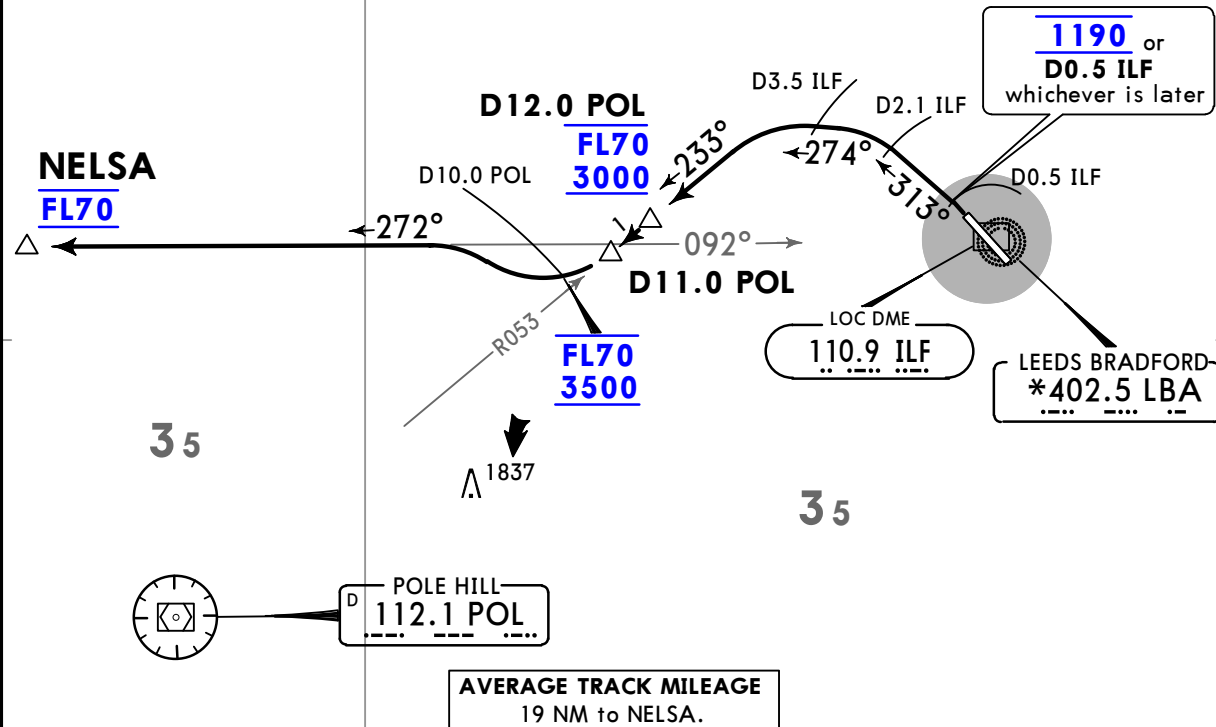
WARNING
No turns below **1190**.

- ① 2600 within 10NM.
- ② 2300 within 10NM.
- ③ 2100 within 10NM.
- ④ 2700 within 10NM.

54-00
LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

At NELSA take up a RIGHT hand hold at FL70 for 3 minutes, thereafter follow standard communication failure procedure.

▲ SSWWOC 1501 ▲ SSWWOC 1501 ▲ SSWWOC 1501 ▲ SSWWOC 1501



INITIAL CLIMB/ROUTING/ALTITUDE

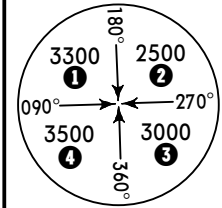
Climb straight ahead to 1190 or D0.5 ILF, whichever is later, turn LEFT, 313° track, at D2.1 ILF turn LEFT, 274° track, at D3.5 ILF turn LEFT, intercept POL R053 inbound, cross D12.0 POL at or above 3000 (MAX FL70), to D11.0 POL, turn RIGHT, cross D10.0 POL at or above 3500 (MAX FL70), intercept 272° bearing from LBA, to NELSA at FL70.

EGNM/LBA
LEEDS BRADFORD
JEPPesen
 10 FEB 17 **(10-3C)**
LEEDS BRADFORD, UK
SID

 Apt Elev
681

Trans alt: 5000

1. At first contact with LEEDS Radar or SCOTTISH Control report C/S, SID designator, current altitude and cleared altitude.
2. SIDs include noise preferential routes.
3. Enroute cruising levels will be allocated by SCOTTISH Control.
4. Do not climb above SID level until instructed by ATC.
5. EXPECT first CPDLC data link authority when routed
 Northbound - N-601, P-18 to be EGPX,
 Southbound - L-612, N-862 via P-17, L-8 via P-18, M-605 to be EGTT,
 Westbound - Y-70, L-10 to be EGPX.
6. Climb performance planning: If unable to maintain climb gradients to achieve FL70 by POL inform ATC and EXPECT alternative clearance.


 MSA
 LBA NDB

POL 2X
RWY 14 DEPARTURE
SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE AUTHORIZED

43

WARNING
 Do not climb above **FL70**
 until cleared by ATC.

38

- 1 2600 within 10NM.
- 2 2300 within 10NM.
- 3 2100 within 10NM.
- 4 2700 within 10NM.

54-00

WARNING
 No turns below **1190**.

 LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 At POL take up a RIGHT hand hold at
 FL70 for 3 minutes, thereafter follow
 standard communication failure procedure.

▲ SWWOC LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT

 LOC DME
110.9 ILBF

 LEEDS BRADFORD
***402.5 LBA**

D2.0 ILBF

35

 D10.0 POL
FL70
3500

 D14.0 POL
FL70
3000

1837

10

R083

35

 POLE HILL
D 112.1 POL
FL70
AVERAGE TRACK MILEAGE
 23 NM to POL.

02-00

INITIAL CLIMB/ROUTING/ALTITUDE

 Climb straight ahead to D2.0 ILBF, turn RIGHT, intercept POL R083 inbound, cross D14.0 POL
 at or above 3000 (MAX FL70), D10.0 POL at or above 3500 (MAX FL70), to POL at FL70.

EGNM/LBA

Apt Elev **681'**
N53 52.0 W001 39.6

JEPPESSEN

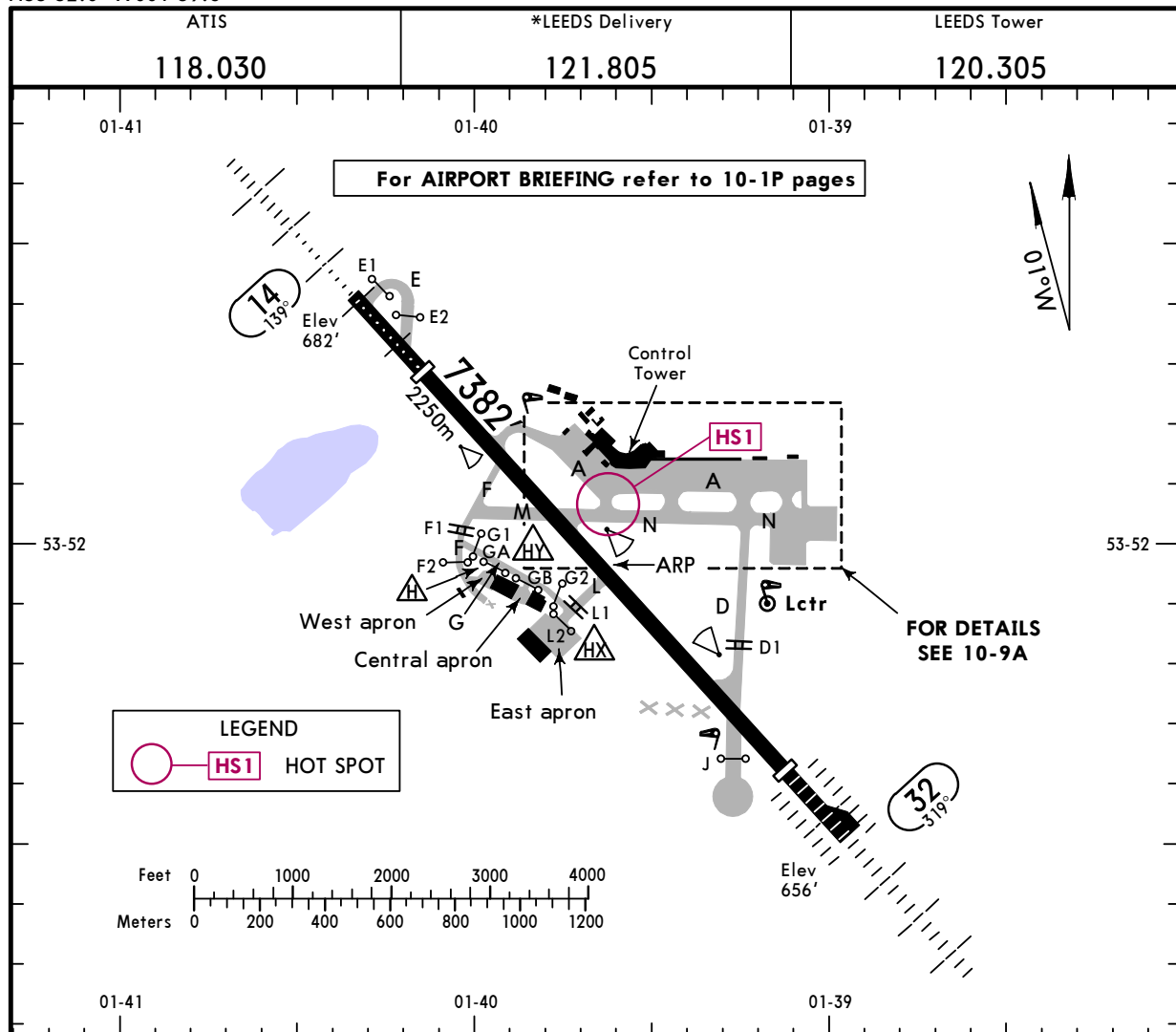
23 MAR 18

(10-9)

Eff 29 Mar

LEEDS BRADFORD, UK

LEEDS BRADFORD



ADDITIONAL RUNWAY INFORMATION

		USABLE LENGTHS		TAKE-OFF	WIDTH
RWY		Threshold	Glide Slope		
14 ① 32	HIRL CL (15m) HIALS PAPI-R (3.5°) RVR	5912' 1802m	5001' 1524m	②	151' 46m
	HIRL CL (15m) HIALS-II TDZ PAPI-L (3.0°) RVR	6286' 1916m	5314' 1620m		

HOT SPOTS

(For information only, not to be construed as ATC instructions.)

HS1 Pilots are to ensure that they have clearance to enter TWY N before crossing holding point B.

① Runway grooved.

② TAKE-OFF RUN AVAILABLE

RWY 14

From rwy head	6932' (2113m)
abeam E2	6342' (1933m)
displ thresh	5912' (1802m)
twy A int	4948' (1508m)
twy F int	4701' (1433m)
twy M int	4104' (1251m)
twy L int	3159' (963m)

RWY 32

From rwy head	7185' (2190m)
displ thresh	6286' (1916m)
twy D int	5338' (1627m)
twy L int	3668' (1118m)

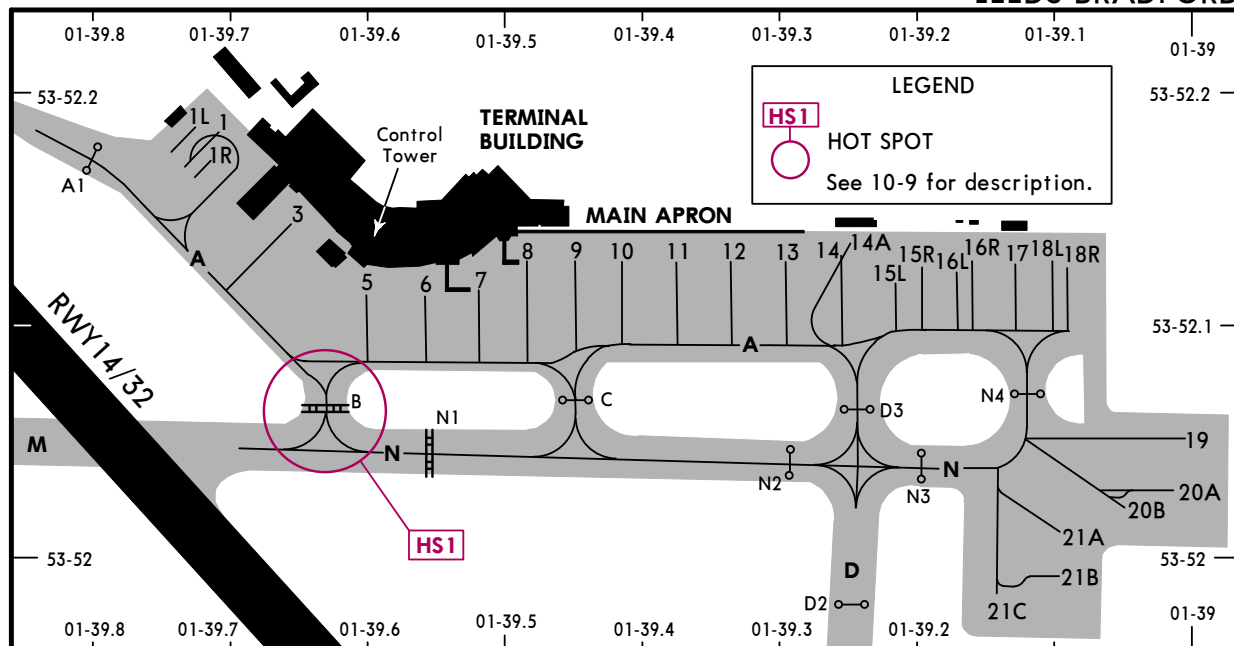
Standard

TAKE-OFF

	Low Visibility Take-off				
	① HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
A					
B	TDZ, MID, RO	TDZ, MID, RO			
C	RVR 125m	RVR 150m	RVR 200m	RVR 300m	400m
D					500m

① RWY 32: RVR 75m with approved guidance system or HUD/HUDLS.

EGNM/LBA

23 MAR 18 **10-9A** Eff 29 MarLEEDS BRADFORD, UK
LEEDS BRADFORD**INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
1L, 1R, 1, 3	N53 52.2 W001 39.7	17 thru 18R	N53 52.1 W001 39.1
5, 6	N53 52.1 W001 39.6	19	N53 52.1 W001 39.0
7 thru 9	N53 52.1 W001 39.5	20A	N53 52.0 W001 39.0
10, 11	N53 52.1 W001 39.4	20B thru 21B	N53 52.0 W001 39.1
12, 13	N53 52.1 W001 39.3	21C	N53 52.0 W001 39.2
14 thru 16R	N53 52.1 W001 39.2		

EGNM/LBA

JEPPESEN
 14 JAN 11 **10-9Y**
JAA COPTER MINIMUMS
LEEDS BRADFORD, UK
 LEEDS BRADFORD

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
14	ILS	874' (200')	500m / 1000m
	LOC	1190' (516')	1000m / 1000m
	NDB ❶	1190' (516')	1000m / 1000m
	NDB ❷	1860' (1186')	1000m / 1000m
	SRA	1460' (786')	1000m / 1000m
32	CAT 2 ILS	762' (100')	RA 104' - 300m
	ILS	862' (200')	500m / 1000m
	LOC	970' (308')	800m / 1000m
	NDB ❶	1050' (388')	800m / 1000m
	NDB ❷	1100' (438')	800m / 1000m
	SRA	1360' (698')	1000m / 1000m

❶ With DME.

❷ W/o DME.

CIRCLE-TO-LAND	MDA(H)	VIS
	1320' (639') ❸	1000m

❸ After NDB 14 (w/o DME): 1860' (1179').

TAKE-OFF RWY 14, 32

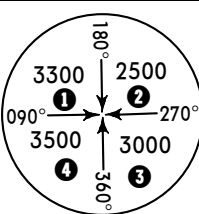
LVP must be in Force ❹				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
150m	200m	200m	250m ❺	800m

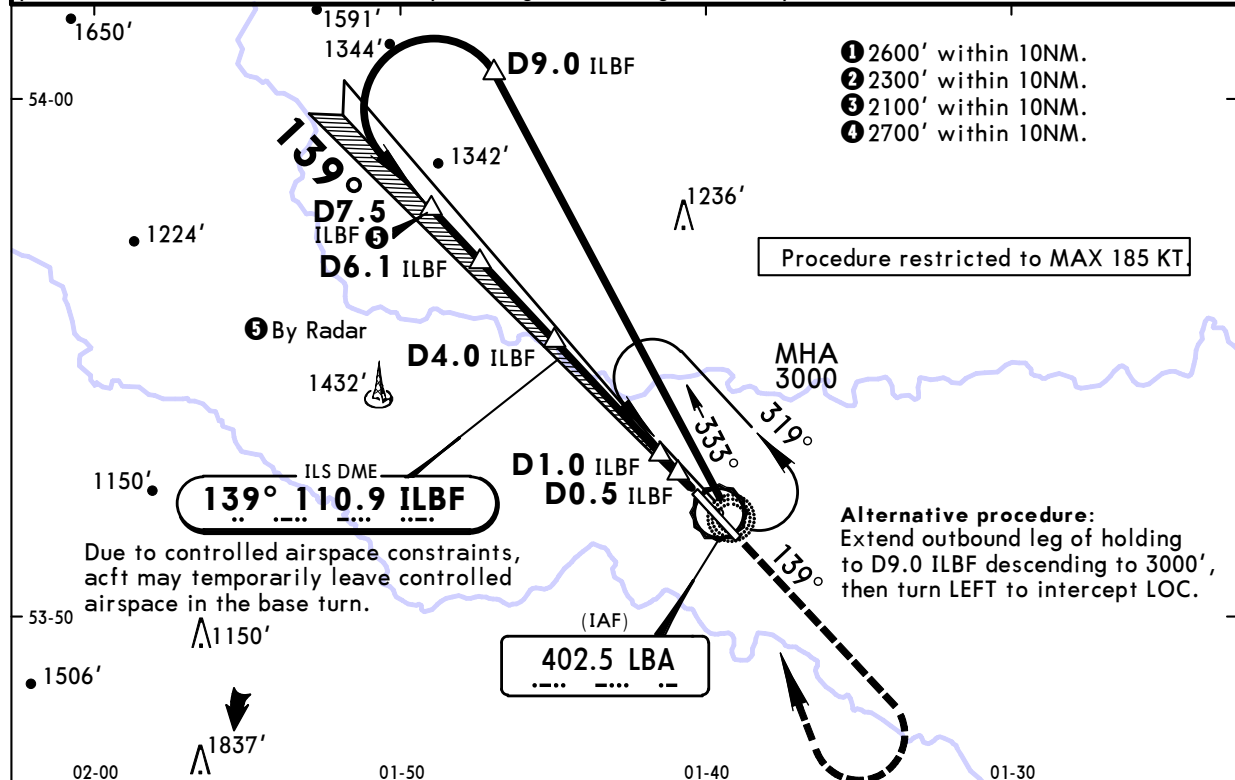
❹ Without LVP 400m are stipulated.

❺ Or rejected take-off distance whichever is the greater.

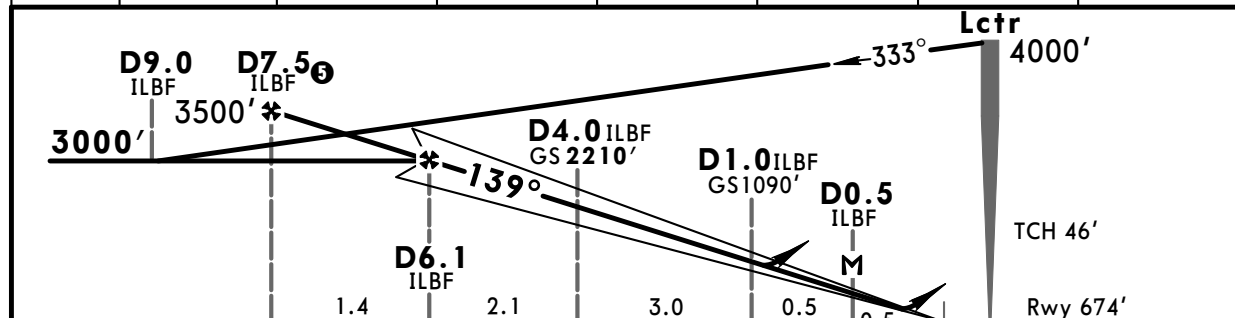
EGNM/LBA
LEEDS BRADFORDJEPPesen CAT C & D
23 MAR 18
Eff 29 Mar (11-1)LEEDS BRADFORD, UK
ILS DME Z or LOC DME Z Rwy 14

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILBF 110.9	Final Aptch Crs 139°	GS D4.0 ILBF 2210'(1536')	ILS DA(H) 874'(200')	Apt Elev 681' Rwy 674'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa		Rwy Elev: 24 hPa		Trans level: By ATC		Trans alt: 5000'
1. ILS DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. WARNINGS: 3. Pilots are warned that the ILS GS may not give full scale fly-up outside 4° right of LOC course. 4. Possible GPWS Operational Nuisance activation at 2NM from touchdown. 5. ATC may warn of possible localiser fluctuations due to preceding acft turning on the rwy.						



LOC (GS out)	ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		3320'	2950'	2580'	2210'	1840'	1460'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
ILS GS or	3.50°	434	557	619	743	867	
LOC Descent Angle							
MAP at D5.0 ILBF							

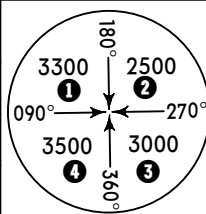
STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND	
ILS		LOC (GS out) CDFA			
DA(H) 874' (200')		DA/MDA(H) 1190' (516')			
FULL	ALS out	FULL	ALS out	Max Kts	MDA(H) VIS
A	NOT APPLICABLE	A	NOT APPLICABLE	180	1420' (739') 2400m
B	NOT APPLICABLE	B	NOT APPLICABLE	205	1610' (929') 3600m
C	RVR 550m 1	C	RVR 1200m		
D	RVR 1200m	D	RVR 1600m		
	RVR 2400m		RVR 2400m		

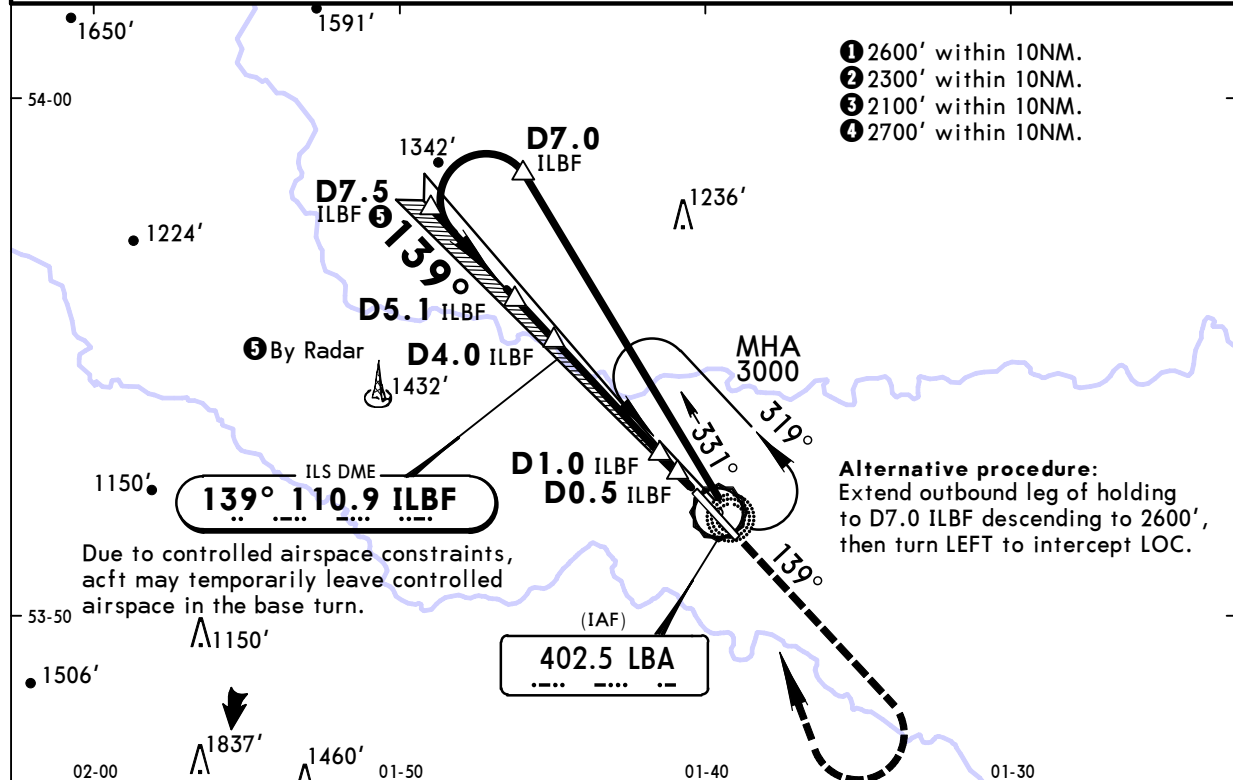
PANS OPS

1 W/o HUD/AP/FD: RVR 750m

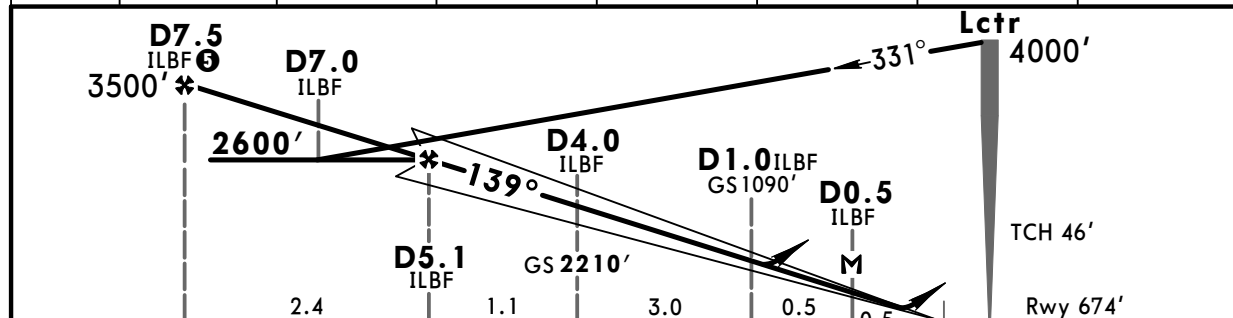
EGNM/LBA
LEEDS BRADFORDJEPPESEN CAT A & B
23 MAR 18
Eff 29 Mar (11-2)LEEDS BRADFORD, UK
ILS DME Y or LOC DME Y Rwy 14

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILBF 110.9	Final Apch Crs 139°	GS D4.0 ILBF 2210' (1536')	ILS DA(H) 874' (200')	Apt Elev 681' Rwy 674'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa		Rwy Elev: 24 hPa		Trans level: By ATC		Trans alt: 5000'
1. ILS DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. WARNINGS: 3. Pilots are warned that the ILS GS may not give full scale fly-up outside 4° right of LOC course. 4. Possible GPWS Operational Nuisance activation at 2NM from touchdown. 5. ATC may warn of possible localiser fluctuations due to preceding acft turning on the rwy.						



LOC (GS out)	ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3320'	2950'	2580'	2210'	1840'	1460'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or	3.50°	434	557	619	743	867	
LOC Descent Angle							
MAP at D0.5 ILBF							

Standard		STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND			
		ILS		LOC (GS out) CDFA					
		DA(H) 874'(200')		DA/MDA(H) 1190'(516')					
		FULL		ALS out		ALS out		Max Kts	MDA(H) _____ VIS _____
A		RVR 550m I		RVR 1200m		RVR 1500m		100	1320' (639') 1500m
B								135	1320' (639') 1600m
C		NOT APPLICABLE		NOT APPLICABLE				C	NOT APPLICABLE
D								D	

PANS OPS

1 W/o HUD/AP/FD: RVR 750m

CHANGES: Communications. Minimums.

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EGNM/LBA

LEEDS BRADFORD

23 MAR 18
Eff 29 Mar

JEPPesen

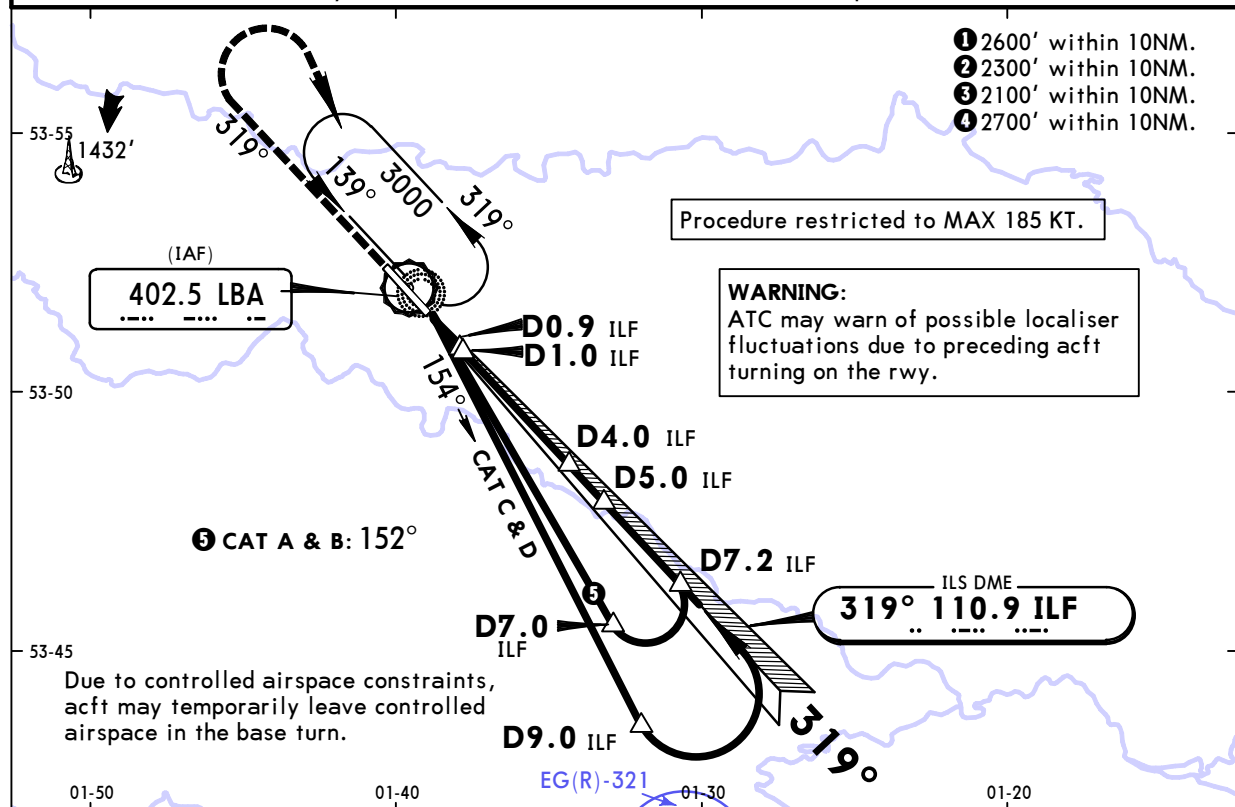
(11-3)

NDB ILS DME or NDB LOC DME Rwy 32

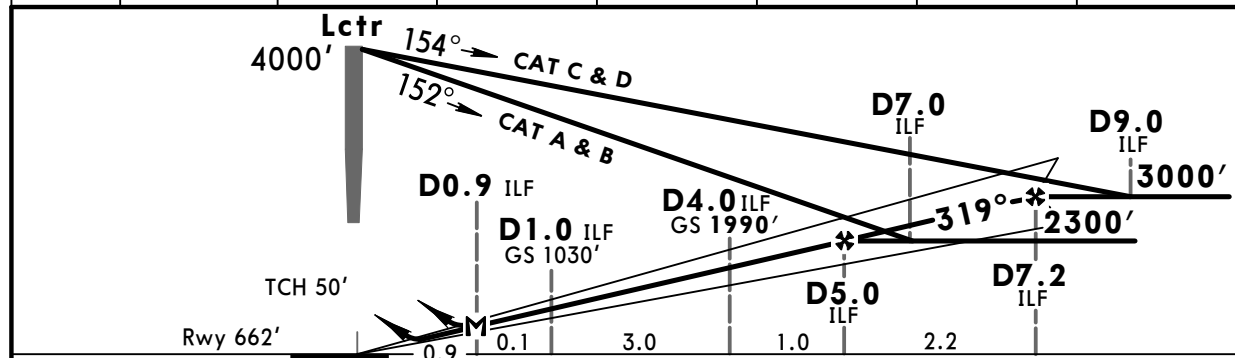
LEEDS BRADFORD, UK

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		MSA LBA NDB
LOC ILF 110.9	Final Apch Crs 319°	GS D4.0 ILF 1990' (1328')	ILS DA(H) Refer to Minimums	Apt Elev 681'	Rwy 662'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						
Alt Set: hPa		Rwy Elev: 24 hPa		Trans level: By ATC		Trans alt: 5000'
1. ILS DME reads zero at rwy 32 thresh. 2. Minimum altitude to commence procedure 3000'.						



LOC (GS out)	ILF DME	1.0	2.0	3.0	4.0	5.0	6.0
	ALTITUDE	1030'	1350'	1670'	1990'	2310'	2620'



Gnd speed-Kts	70	90	100	120	140	160		
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849	
MAP at D0.9 ILF								

Standard					STRAIGHT-IN LANDING RWY 32		LOC (GS out) CDFA		CIRCLE-TO-LAND	
					ILS		CDFA			
					DA(H) ABC: 862' (200') D: 872' (210')		DA/MDA(H) 970' (308')			
					FULL	TDZ & CL out	ALS out	ALS out	Max Kts	MDA(H) VIS
A									100	1320' (639') 1500m
B	RVR 550m	RVR 550m 1	RVR 1200m						135	1320' (639') 1600m
C									180	1420' (739') 2400m
D									205	1610' (929') 3600m

1 W/o HUD/AP/FD: RVR 750m

EGNM/LBA
LEEDS BRADFORDJEPPesen
23 MAR 18
Eff 29 Mar

(11-3A)

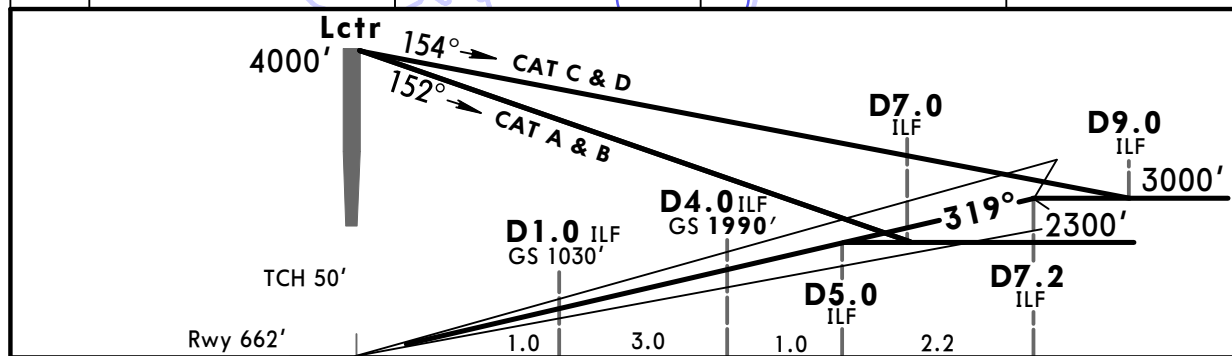
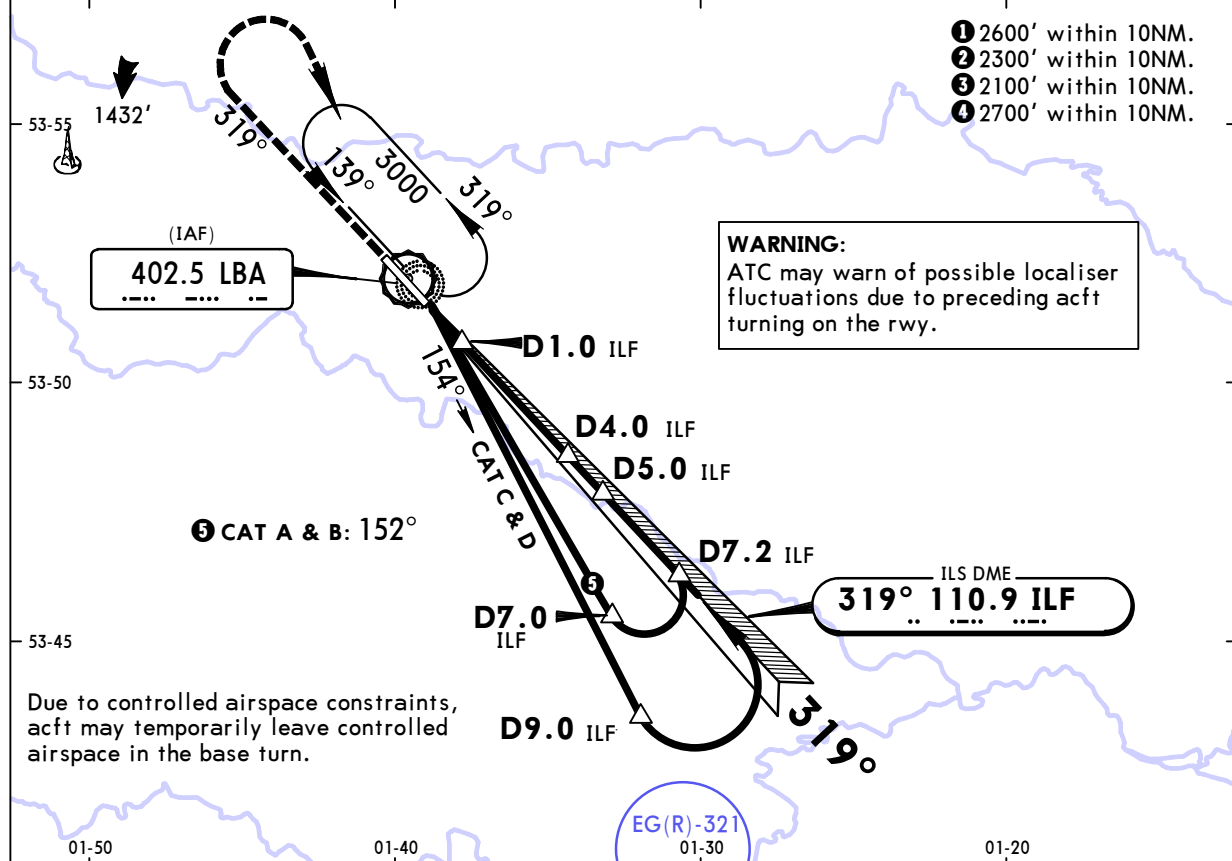
LEEDS BRADFORD, UK
CAT II/III NDB ILS DME Rwy 32

BRIEFING STRIP

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
LOC ILF 110.9	Final Apch Crs 319°	GS D4.0 ILF 1990' (1328')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 681'	Rwy 662'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. Special Aircrew & Aircraft Certification Required. 2. ILS DME reads zero at rwy 32 thresh.
3. Minimum altitude to commence procedure 3000'. 4. Procedure restricted to MAX 185 KT.



Gnd speed-Kts	70	90	100	120	140	160	
GS	3.00°	372	478	531	637	743	

Standard

STRAIGHT-IN LANDING RWY 32

CAT IIIA ILS		CAT II ILS		CAT I ILS	
RA 104' DH 50'		RA 104' DA(H) 762' (100') OTS		RA 110' DA(H) 767' (105') OTS	
RVR 200m		RVR 300m		RVR 450m	
RVR 300m		RVR 350m		RVR 450m	
RVR 450m		RVR 500m		RVR 550m	

CAT IIIB: Min RVR 75m.

CHANGES: Communications. Bearing.

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EGNM/LBA
LEEDS BRADFORD

JEPPESSEN
23 MAR 18
Eff 29 Mar

LEEDS BRADFORD, UK
NDB DME Z Rwy 14

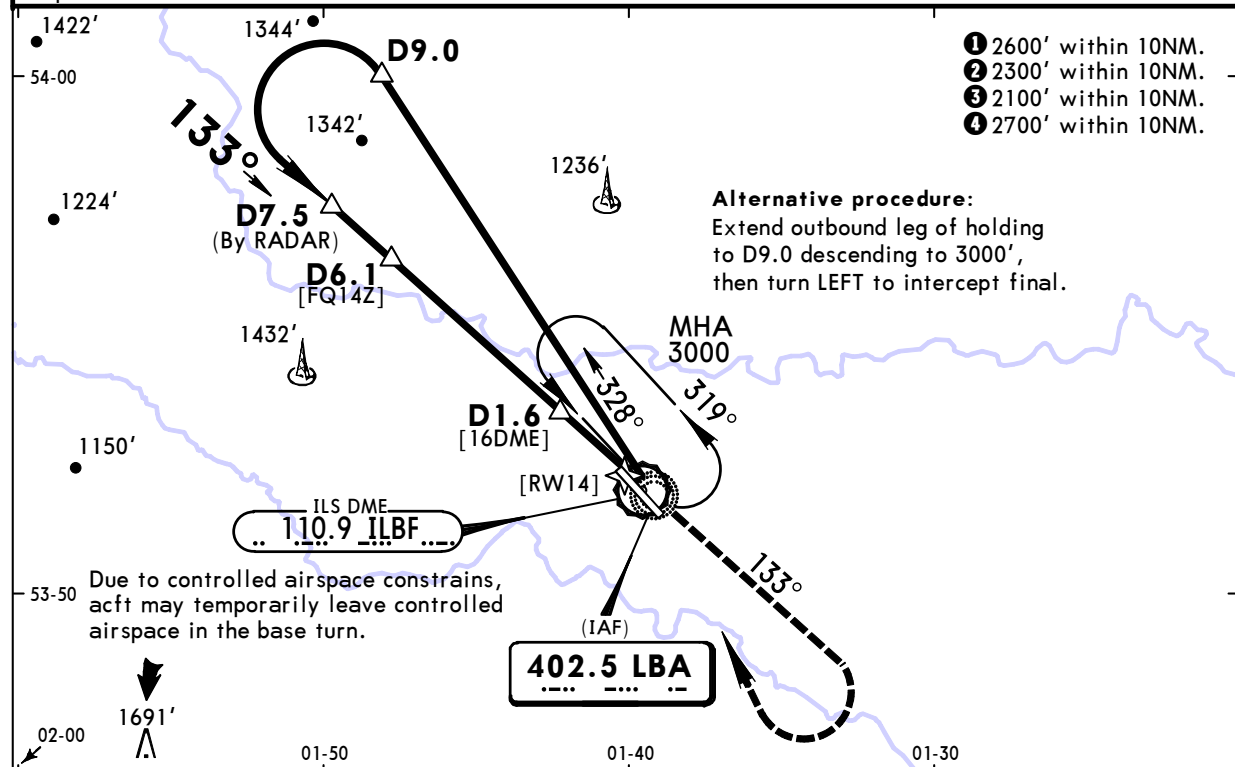
ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		
Lctr LBA 402.5	Final Apch Crs 133°	Procedure Alt D6.1 3000' (2326')	DA/MDA(H) 1190' (516')	Apt Elev 681' Rwy 674'		

MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.

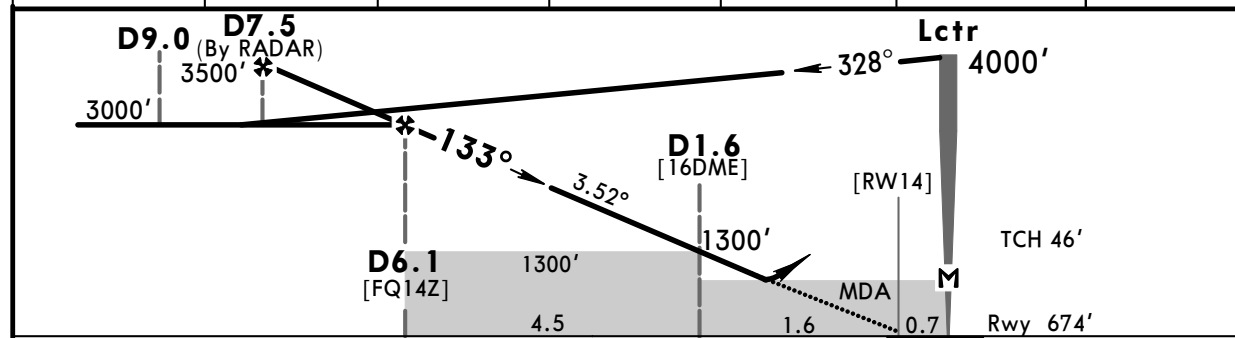
MSA LBA NDB

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. 3. Final approach track offset 6° from runway centerline. 4. **WARNING:** Possible ground proximity warning system "Operational Nuisance" activation at 2NM from touchdown. 5. Procedure restricted to MAX 185 KT.



ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3340'	2960'	2590'	2220'	1840'	1470'



Gnd speed-Kts	70	90	100	120	140	160		
Descent Angle 3.52°	436	561	623	748	872	997		
MAP at 1ctr								

Standard

STRAIGHT-IN LANDING RWY 14

CIRCLE-TO-LAND

CDFA

DA/MDA(H) **1190'**(516')

Max

— MDA(H) ————— VIS.

A

NOT APPLICABLE

A

NOT APPLICABLE

c

RVR1600m

RVR 2400m

	180
--	-----

1420' (739') 2400m

1410' 0000 5100

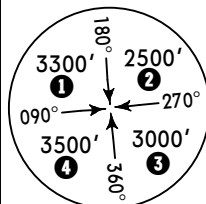
PLANS OPS

CHANGES: Communications. Bearing.

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EGNM/LBA
LEEDS BRADFORDJEPPESEN
23 MAR 18
Eff 29 Mar 16-2 CAT A & BLEEDS BRADFORD, UK
NDB DME Y Rwy 14

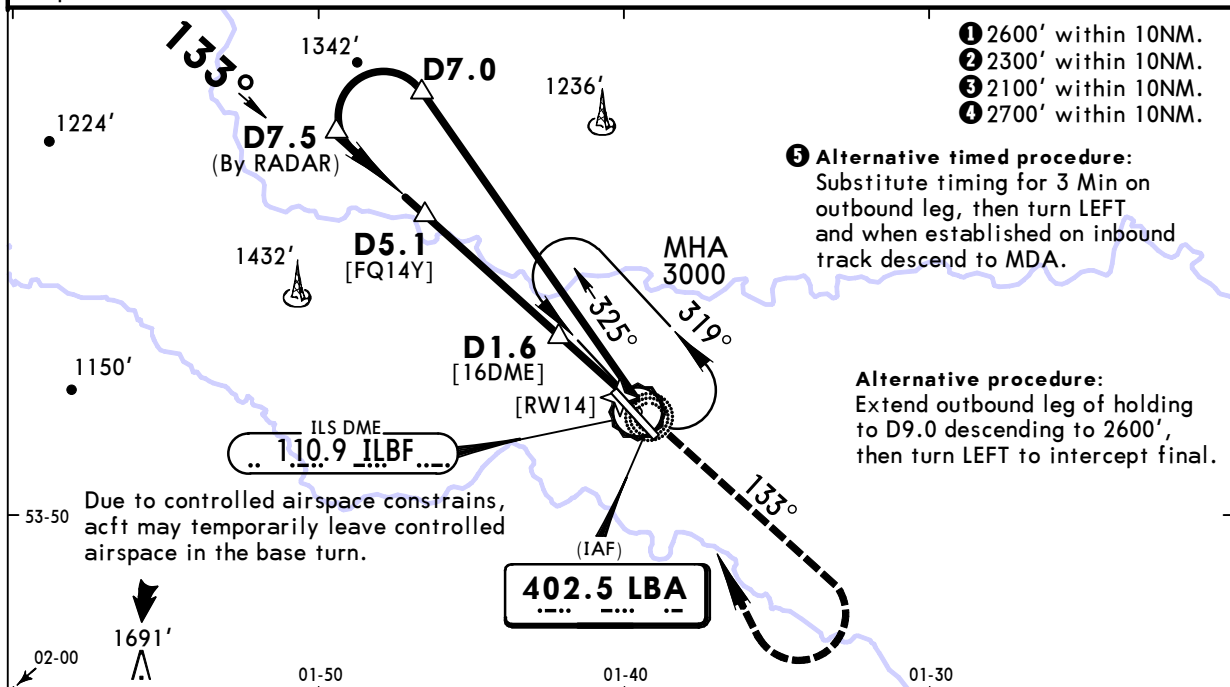
BRIEFING STRIP

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		 MSA LBA NDB
Lctr LBA 402.5	Final Apch Crs 133°	With DME Procedure Alt D5.1 2600' (1926')	With DME DA/MDA(H) 1190' (516')	Apt Elev 681' Rwy 674'		
		W/o DME Minimum Alt No FAF	W/o DME DA/MDA(H) 1860' (1186')			
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						

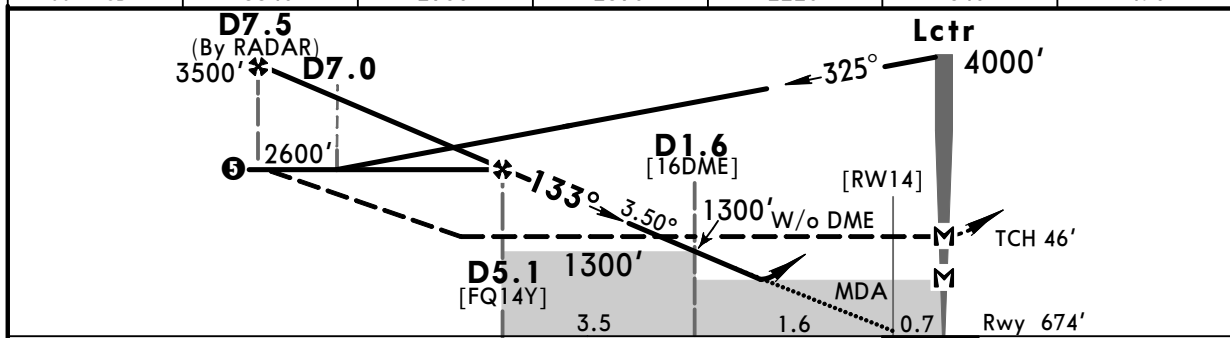
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.

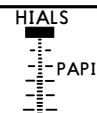
Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. DME reads zero at rwy 14 thresh. 2. Minimum altitude to commence procedure 3000'. 3. Final approach track offset 6° from runway centerline. 4. **WARNING:** Possible ground proximity warning system "Operational Nuisance" activation at 2NM from touchdown.



ILBF DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3340'	2960'	2590'	2220'	1840'	1470'



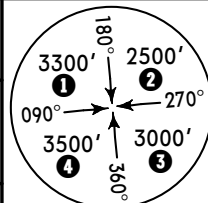
Grnd speed-Kts	70	90	100	120	140	160	 2000'
Descent Angle	3.50°	434	557	619	743	867	
MAP at Lctr							

Standard STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND			
With DME		W/o DME		Max Kts		MDA(H) VIS	
CDFA	DA/MDA(H)	CDFA	DA/MDA(H)	100	135	1320' (639')	1500m
ALS out	1190' (516')	ALS out	1860' (1186')			1320' (639')	1600m
A	RVR 1500m	RVR 1500m	RVR 4800m				
B			RVR 5000m				
C	NOT APPLICABLE				C	NOT APPLICABLE	
D	NOT APPLICABLE				D	NOT APPLICABLE	

or higher straight-in minimums.

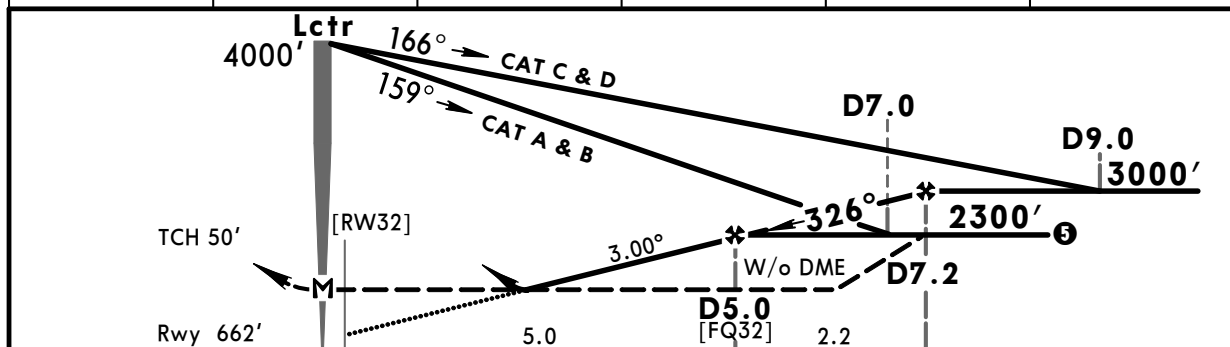
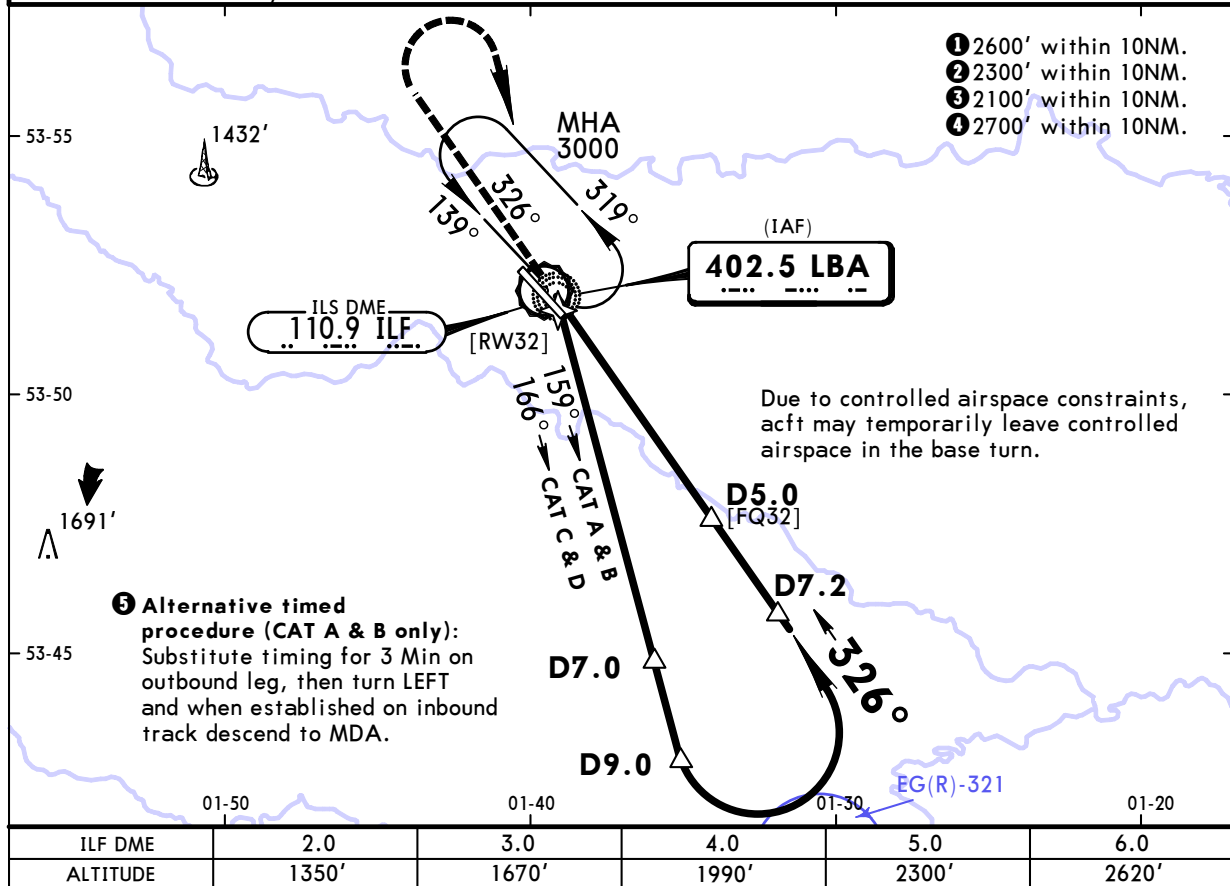
EGNM/LBA
LEEDS BRADFORDJEPPESEN
23 MAR 18 (16-3) Eff 29 MarLEEDS BRADFORD, UK
NDB DME Rwy 32

BRIEFING STRIP™

ATIS 118.030		LEEDS Approach (R) 134.580		LEEDS Tower 120.305		
Lctr LBA 402.5	Final Apch Crs 326°	Minimum Alt (CONDITIONAL) Refer to Profile	DA/MDA(H) (CONDITIONAL) 1050' (388')	Apt Elev 681'	Rwy 662'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then climbing turn RIGHT and return to Lctr at 3000'.						

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 5000'

1. DME reads zero at rwy 32 thresh. 2. Minimum altitude to commence proc 3000'. 3. Final apch track offset 7° from rwy centerline. 4. Procedure restricted to MAX 210 KT.



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI 2000'
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at Lctr							

STRAIGHT-IN LANDING RWY 32						CIRCLE-TO-LAND	
With DME CDFA			W/o DME				
DA/MDA(H) 1050' (388')			DA/MDA(H) 1100' (438')			DA/MDA(H) 1100' (438')	
ALS out			ALS out			ALS out	
A	RVR 1100m		RVR 1300m	RVR 1500m	RVR 1500m	Max Kts	MDA(H) VIS
B		RVR 1500m			RVR 2200m	100	1320' (639') 1500m 1
C						135	1320' (639') 1600m 1
D		RVR 1800m	NOT APPLICABLE			180	1420' (739') 2400m
						205	1610' (929') 3600m

1 or higher straight-in minimums.

CHANGES: Communications. Bearings.

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ENVA/TRD
VAERNES**JEPPESEN**
23 MAR 18 (10-1P)**TRONDHEIM, NORWAY**
AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 127.550

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GENERAL**

The following noise abatement procedures are mandatory for all ACFT between 2300-0700LT and H24 for ACFT with MTOM more than 7000kg unless deviations are required in the interest of safety. Instructions which will imply deviations from noise abatement procedures will include the phrase "DISREGARD NOISE ABATEMENT".

1.2.2. PREFERENTIAL RWY SYSTEM

Between 2300-0700LT RWY 09 will be used for landings and RWY 27 for take-off when traffic permits. ATC will apply conditions described in ICAO Doc 4444 para 7.2.6 so that normal rules for RWY-in-use are followed under these circumstances:

- Braking action is less than 'GOOD';
- When the ceiling is lower than 1500' or the visibility is less than 5000m;
- When wind shear has been reported or forecasted or when thunderstorms are expected to affect the approach or departure; and
- When crosswind component, including gusts, exceeds 10 KT, or the tailwind component, including gusts, exceeds 5 KT.

1.2.3. RUN-UP TESTS

Between 2300-0700LT engines must not be reversed beyond idle reverse, unless so warranted by reasons of safety.

After maintenance, engine testing applying more than idle thrust shall take place at TWY Y between A1 and A2, tail pointing West. Between 2300-0700LT engine testing shall be avoided.

Between 0700-2300LT engine testing lasting maximum 15 MIN in power setting idle can be performed at parking stands or outside hangars.

1.2.4. EXCEPTIONS

Through ATC, Avinor may grant exemption from the provisions stated above for safety reasons or when special circumstances seriously impair the APT capacity.

The pilot-in-command may deviate from these provisions for safety reasons.

Necessary flights regarding control of communication and navigation equipment are exempted from these provisions.

Ambulance flights, SAR and military flights may be exempted from these provisions for both military-registered ACFT, as well as civil-registered ACFT in military operation.

1.3. LOW VISIBILITY PROCEDURE

RVR 550m or less: When LVP is in force only one ACFT is allowed in the maneuvering area at a time.

Minimum RVR 400m for departure.

1.4. TAXI PROCEDURES

If an ACFT after landing, due to RTF congestion or other reasons, cannot obtain contact with VAERNES Ground, the pilot shall completely vacate the landing RWY and hold position until contact with VAERNES Ground can be established. The ACFT considered to be clear of the RWY when the whole ACFT has passed the holding point on the TWY used for vacating the RWY.

ENVA/TRD
VAERNES**JEPPESEN**
23 MAR 18 (10-1P1)**TRONDHEIM, NORWAY**
AIRPORT BRIEFING

1. GENERAL

TWY N Follow-me is required during night.

All TWYs except TWYs B2 and N MAX outer wheelspan 49'/15m.

TWY B2 MAX outer wheelspan 39'/12m.

TWY N MAX wingspan 79'/24m, outer wheelspan 26'/8m.

TWYs H and W MAX wingspan 118'/36m.

TWY J from TWY Y to stand 41L MAX wingspan 213'/65m, South of stand 41L MAX wingspan 171'/52m.

Four engine code E and F ACFT should apply minimum power on engine number 1 and 4 during taxiing.

TWY Y is not available for ACFT code E and F between TWYs A4 and A5.

1.5. PARKING INFORMATION

Stands 30 thru 37 Safegate equipped.

Flush lead-in lights to stands 22 thru 38.

Visual Docking Guidance System available at stands 30 thru 37.

Marshaller is mandatory on stands 38 thru 45, and on stands 22 thru 29 if offset parking is not used.

1.6. OTHER INFORMATION

Wind shear and/or moderate to severe turbulence may occur on and South of final RWY 09 with wind from South-Southeast above 25 KT.

On visual APCH it is recommended to fly North of centerline and establish on final closer to RWY.

Loss of headwind may occur on short final RWY 27 when wind from West above 20 KT.

180 degree turn on the asphalt part of the RWY is not allowed because asphalt may break up.

Birds in vicinity of APT.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. GENERAL

Noise abatement procedure is part of published approach procedures, including visual approach chart.

Shorter visual approaches are allowed from the North to RWY 09 and for propeller ACFT to 2NM to RWY 27, provided a clearance to shorten the approach has been received.

2.2. OTHER INFORMATION

2.2.1. POINT MERGE SYSTEM

STAR is based on Point Merge System (PMS), and accommodates Basic Continuous Descent Operations (B-CDO).

Arriving traffic established on the STAR may at any time be cleared direct to the Merge Point (MP), and must be prepared for this.

Succeeding arriving ACFT can thus be turned directly to the MP when sufficient spacing to preceding traffic is achieved. By doing this, an accurate sequence can be attained while allowing the ACFT to maintain own navigation (LNAV). When cleared direct to the MP, and also cleared for an instrument approach, the ACFT shall follow "transition" from MP to final, as displayed on the chart for the relevant instrument approach procedure.

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27 OCT 17 (10-1P2)

Eff 9 Nov

TRONDHEIM, NORWAY
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

De-icing of ACFT will occur on platforms M1A or M1B for code C or smaller ACFT, centred on M1 for code D or larger ACFT.

Before start-up, contact handling agent and request de-icing.

When requesting start-up, inform Ground/Tower that de-icing is needed.

Contact Ground/Tower for taxi instructions to the de-icing platform.

ACFT may be towed to the de-icing platform if friction is acceptable.

Before entering the de-icing platform, contact de-icing agency.

When de-icing is finished, contact Ground/Tower for taxi clearance.

3.2. ENROUTE CLEARANCE AND PRIMARY SID

When alternate SIDs exist to a SID endpoint, the longer SID will normally be issued to jet and turboprop ACFT with filed TAS 300 KT or more. Normally, the shorter SID will be issued to turboprop ACFT with filed TAS of less than 300 KT. In both cases the PIC can expect to be cleared DCT SID end point as soon as TFC, terrain and NAP permits.

3.3. START-UP AND PUSH-BACK PROCEDURES

Contact Ground/Tower before start-up and push-back.

Push-back Procedures from stands 22 thru 29:

Standard push-back from stand 22 is straight back.

Standard push-back from stands 23-29 is to face North on TWY H except CRJ and Turboprop ACFT that shall perform a straight push-back.

Offset parking to leave stand by own power is allowed for ACFT size DH8C and smaller on stands 22-28 and ACFT size DH8D and smaller on stand 29.

Push-back Procedures from stands 30 thru 37:

Standard push-back from stands 30-37 is for code C ACFT up to size B738 straight back, for A321, B739, MD80-series and MD90 onto TWY W to face East or West as instructed by ATC.

Standard push-back from stand 30 and 31 for code D ACFT is onto TWY Y, to face East or West as instructed by ATC.

Push-back Procedures from stands 38 and 39:

Standard push-back from stand 38 and 39 is onto TWY W to face East or West as instructed by ATC.

Push-back Procedures from stands 40 thru 45:

Standard push-back from stands 40-45 is to face North on TWY J, except CRJ that shall perform a straight push-back.

After push-back from stand 41L, ACFT shall be pulled forward to start-up position J1.

After push-back from stands 43 thru 45, ACFT shall be disconnected at start-up position J2.

Start-up position J1 and J2 are marked with blue parallel lines on TWY J.

3.4. NOISE ABATEMENT PROCEDURES**3.4.1. GENERAL**

Noise abatement procedure is part of published SIDs.

For jet ACFT a direct routing can be anticipated after passing 2500' AMSL.

For propeller ACFT departing on RWY 09 and all ACFT departing RWY 27 to the North a turn for visual departure can be anticipated after passing 1000' AMSL.

ENVA/TRD
VAERNESJEPPESEN
16 MAR 18 10-2TRONDHEIM, NORWAY
RNAV STARATIS
127.550Apt Elev
56

Alt Set: hPa Trans level: By ATC

1. RNAV 1 (GNSS).
2. GNSS required.
3. Class A GNSS shall not be used.
4. RADAR service shall be available.
5. Loss of RNAV capability, request vectoring.
6. Vectoring may be used for sequencing.
7. Descend as cleared by ATC.

NUPGO 2L [NUPG2L]
RWY 09 RNAV ARRIVAL

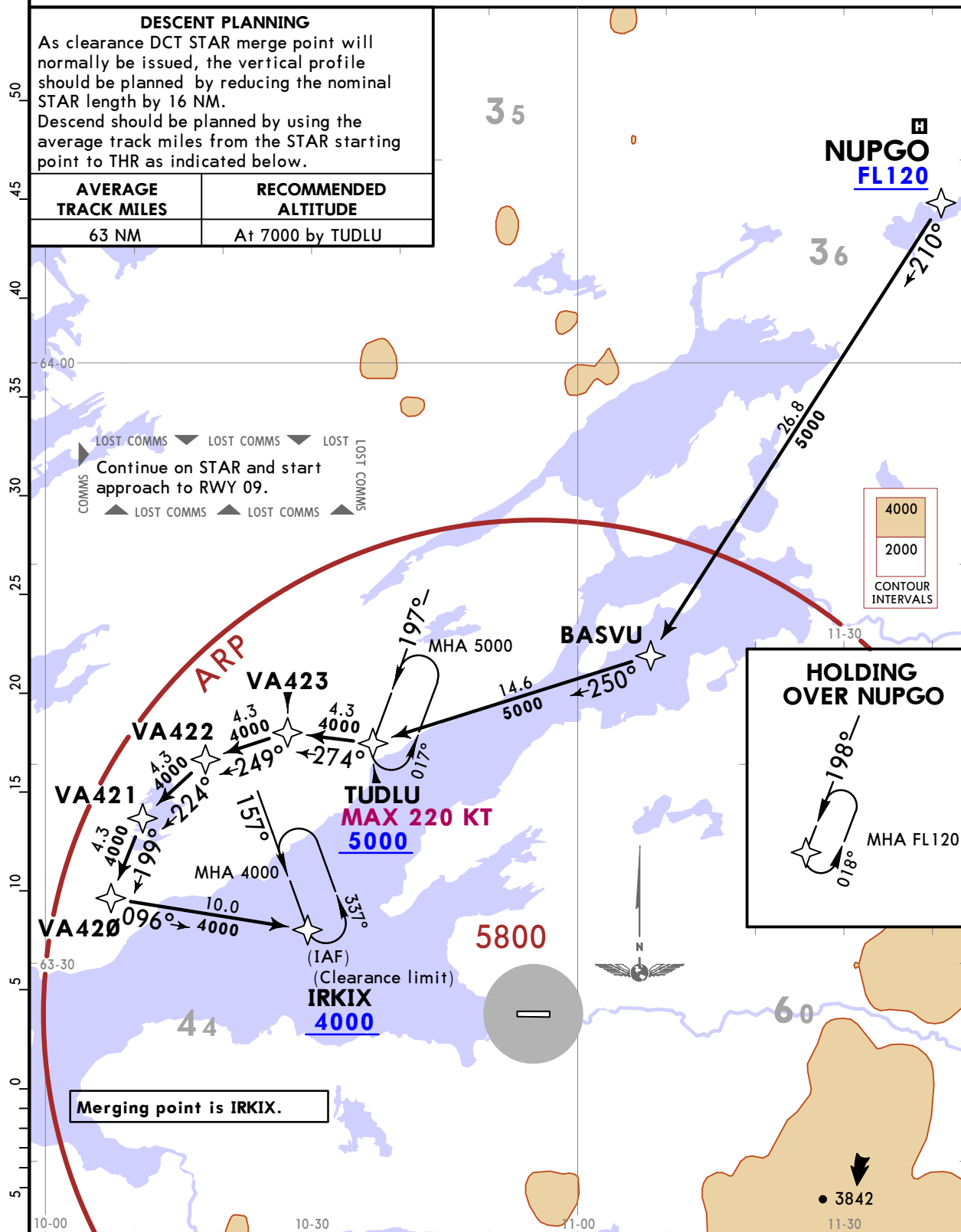
DESCENT PLANNING

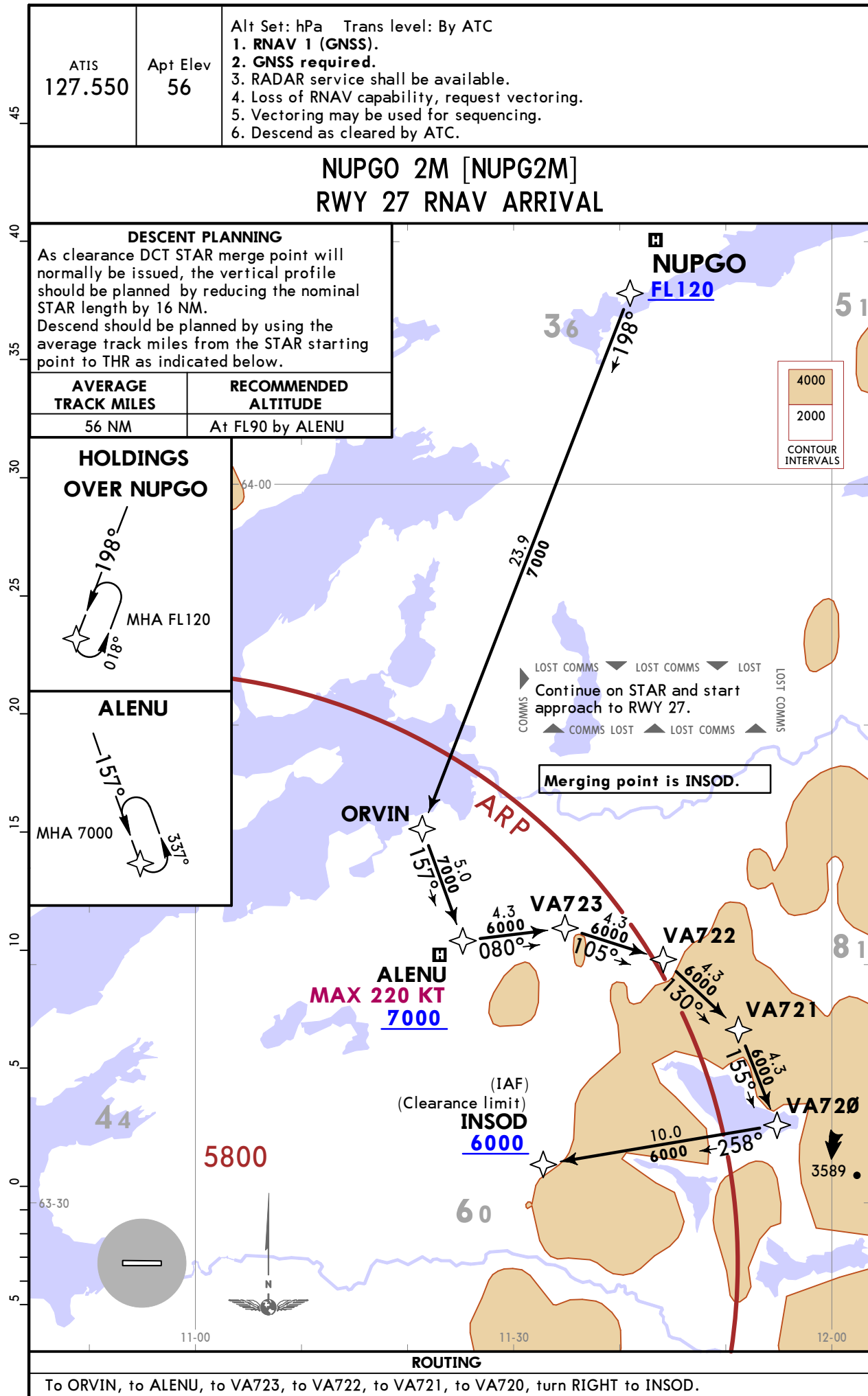
As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

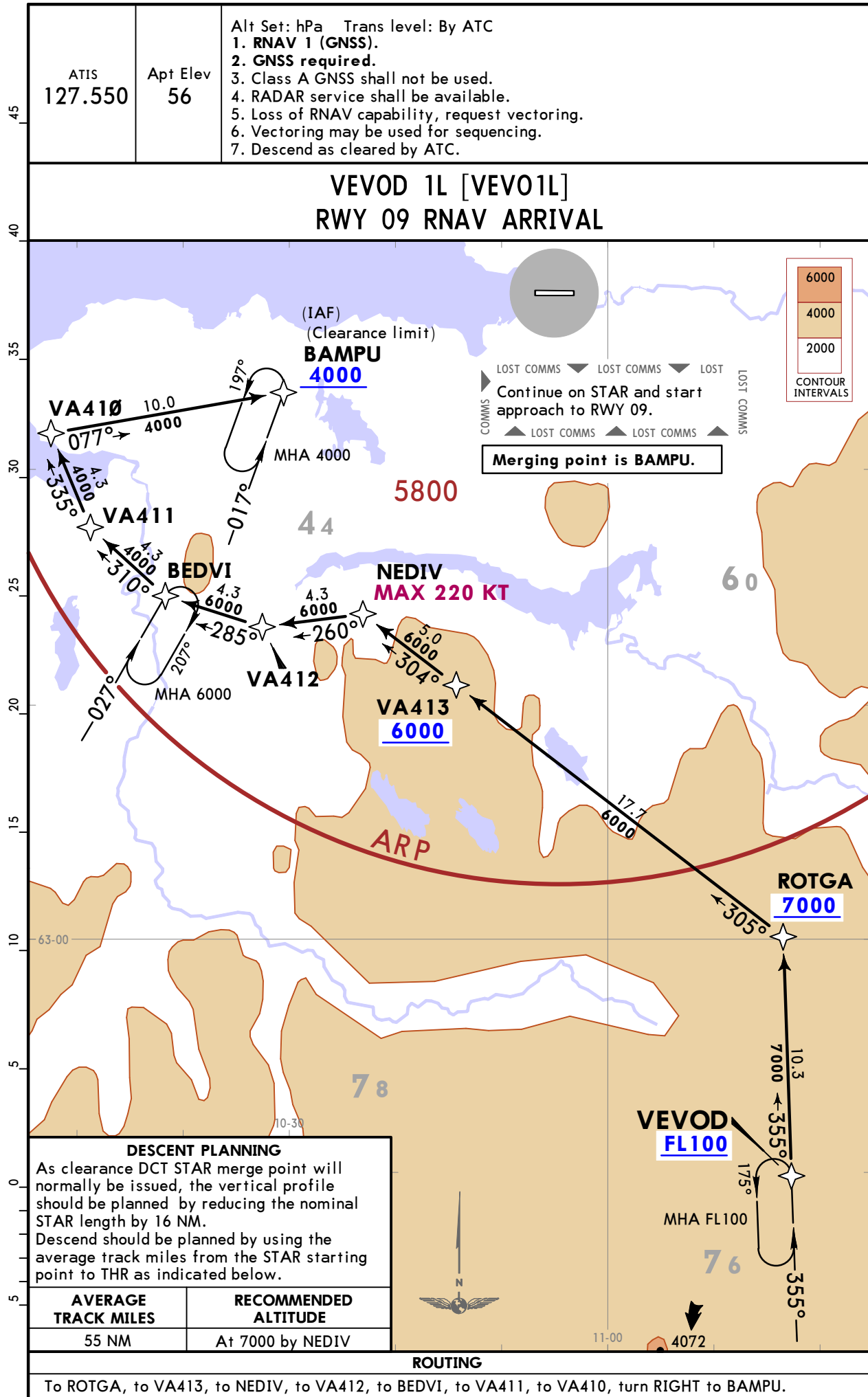
AVERAGE
TRACK MILESRECOMMENDED
ALTITUDE

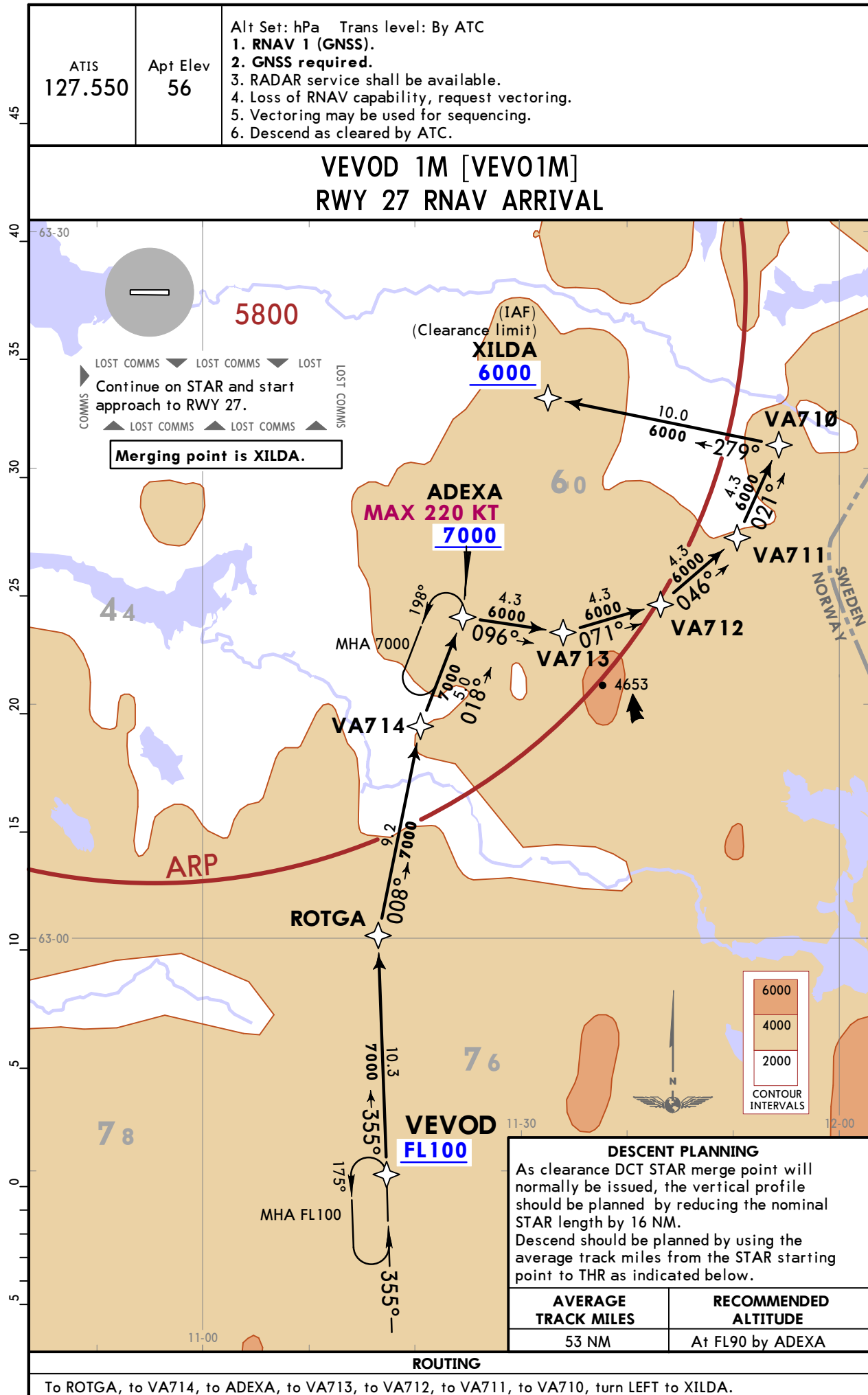
63 NM

At 7000 by TUDLU



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16 MAR 18 (10-2A)TRONDHEIM, NORWAY
RNAV STAR

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16 MAR 18 (10-2B)TRONDHEIM, NORWAY
RNAV STAR

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 16 MAR 18 **(10-2C)**
TRONDHEIM, NORWAY
RNAV STAR


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VAERNES

JEPPesen
16 MAR 18 (10-2D)

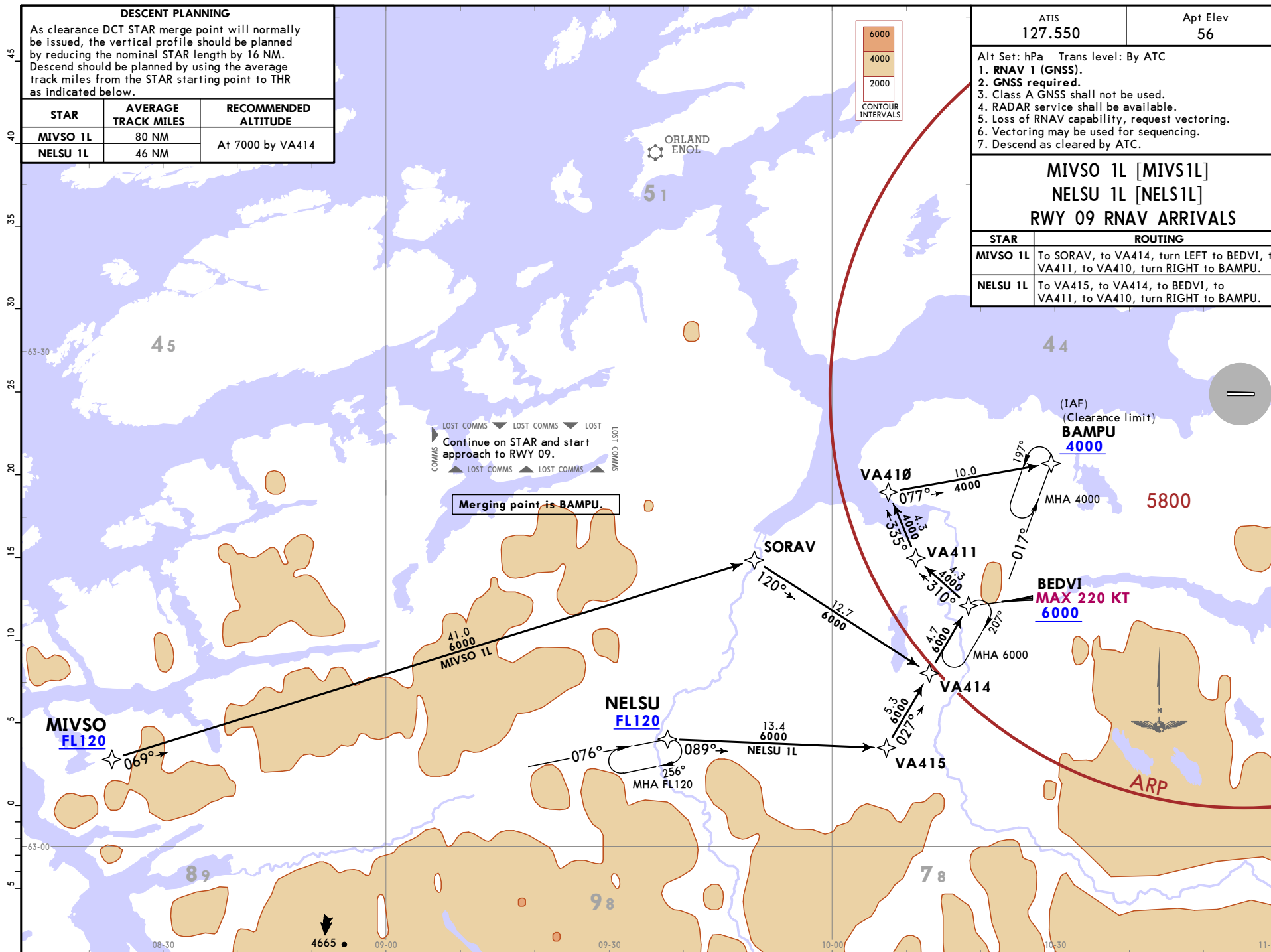
TRONDHEIM, NORWAY
RNAV STAR

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

STAR	AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
MIVSO 1L	80 NM	At 7000 by VA414
NELSU 1L	46 NM	

ATIS 127.550		Apt Elev 56	
Alt Set: hPa Trans level: By ATC			
1. RNAV 1 (GNSS).			
2. GNSS required.			
3. Class A GNSS shall not be used.			
4. RADAR service shall be available.			
5. Loss of RNAV capability, request vectoring.			
6. Vectoring may be used for sequencing.			
7. Descend as cleared by ATC.			
MIVSO 1L [MIVS1L] NELSU 1L [NELS1L] RWY 09 RNAV ARRIVALS			
STAR		ROUTING	
MIVSO 1L	To SORAV, to VA414, turn LEFT to BEDVI, to VA411, to VA410, turn RIGHT to BAMPU.		
NELSU 1L	To VA415, to VA414, to BEDVI, to VA411, to VA410, turn RIGHT to BAMPU.		



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VAERNES

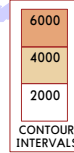
JEPPESSEN
16 MAR 18 10-2E

TRONDHEIM, NORWAY
RNAV STAR

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

STAR	AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
MIVSO 1M	114 NM	At FL90 by ADEXA
NELSU 2M	77 NM	



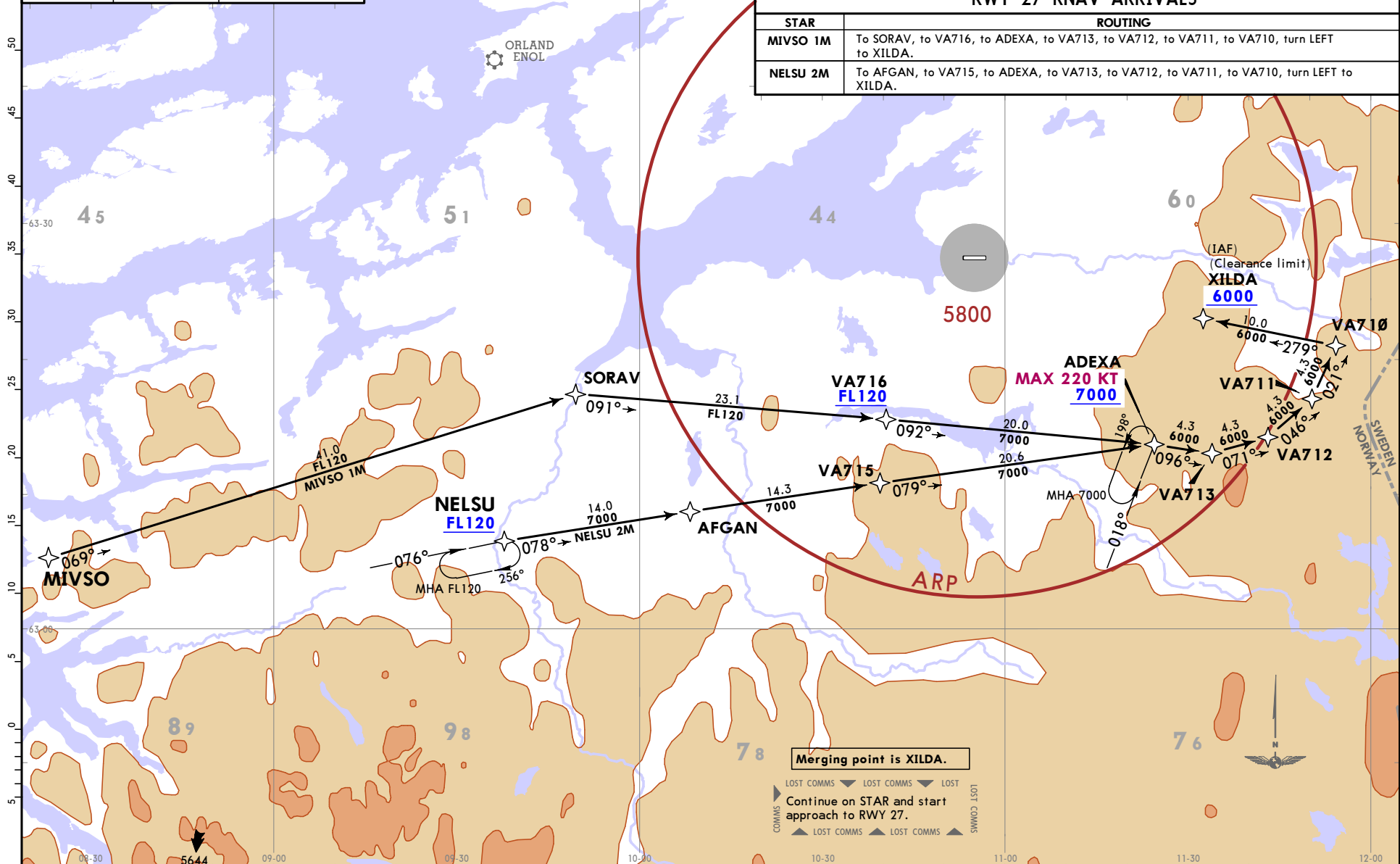
ATIS
127.550

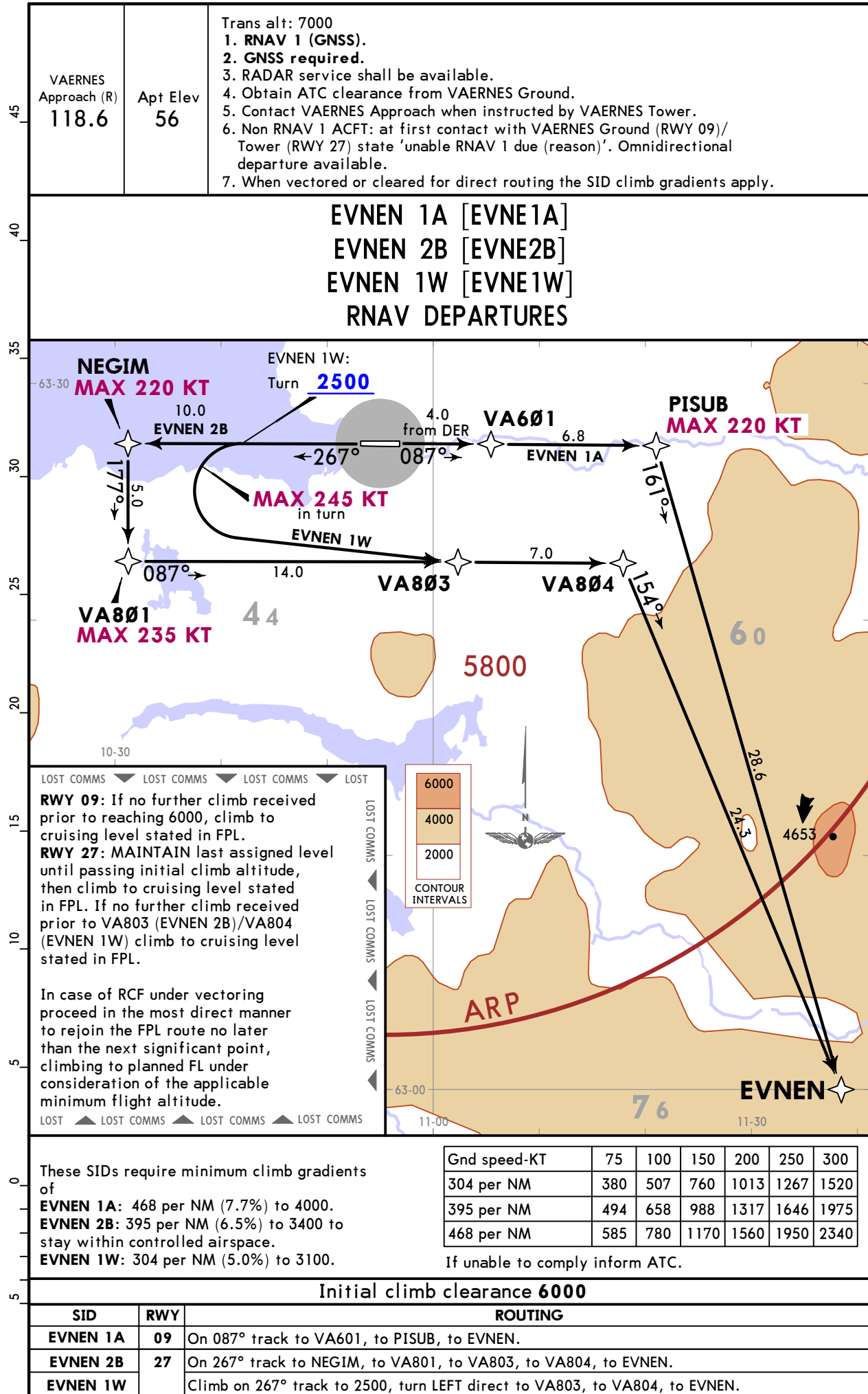
Apt Elev
56

- Alt Set: hPa Trans level: By ATC
1. RNAV 1 (GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV capability, request vectoring.
 5. Vectoring may be used for sequencing.
 6. Descend as cleared by ATC.

MIVSO 1M [MIVS1M], NELSU 2M [NELS2M] RWY 27 RNAV ARRIVALS

STAR	ROUTING
MIVSO 1M	To SORAV, to VA716, to ADEXA, to VA713, to VA712, to VA711, to VA710, turn LEFT to XILDA.
NELSU 2M	To AFGAN, to VA715, to ADEXA, to VA713, to VA712, to VA711, to VA710, turn LEFT to XILDA.

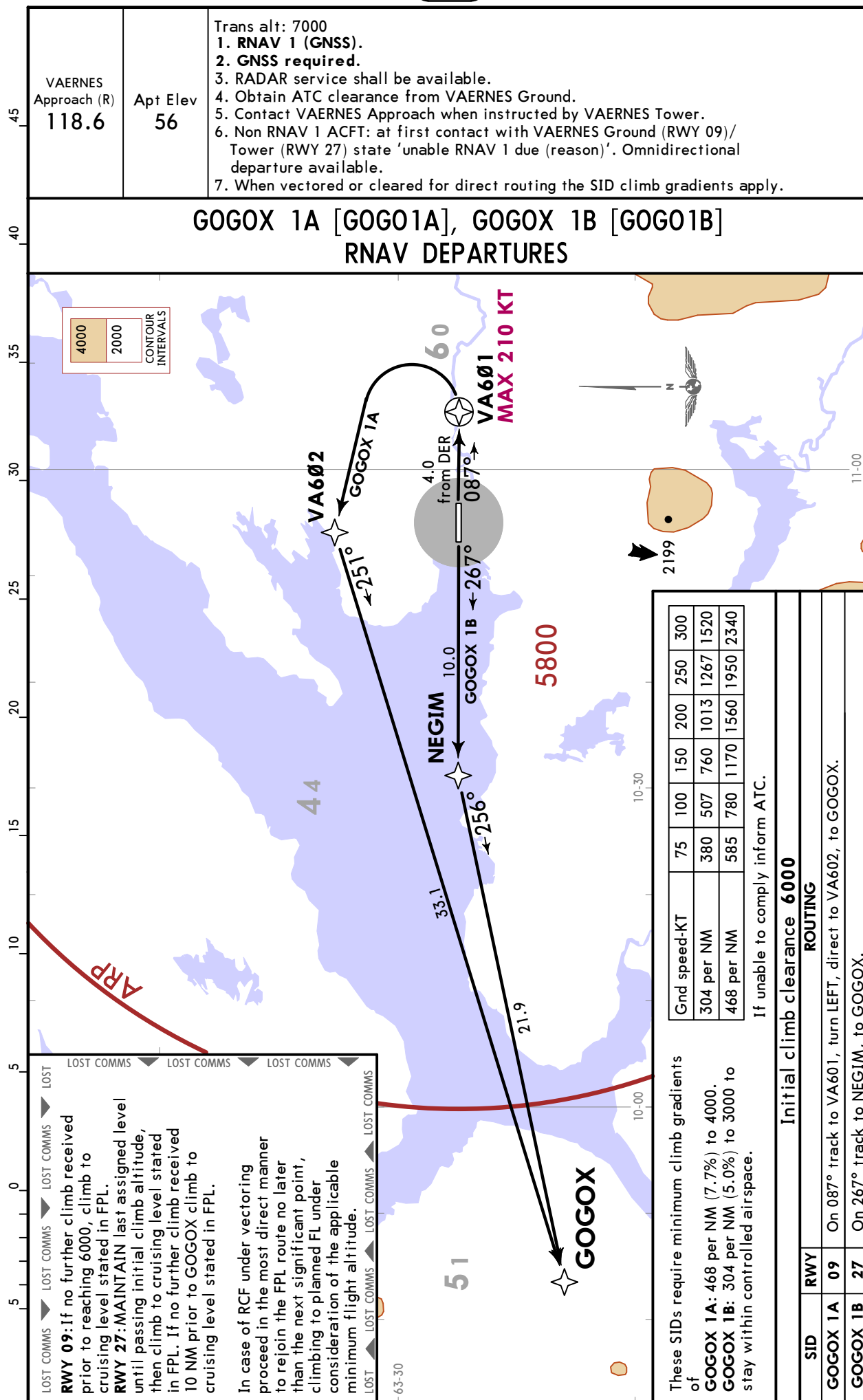


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VAERNESJEPPESEN
16 MAR 18 10-3TRONDHEIM, NORWAY
RNAV SID

ENVA/TRD
VAERNES

JEPPESEN
16 MAR 18 (10-3A)

TRONDHEIM, NORWAY
RNAV SID



ENVA/TRD
VAERNES

JEPPESSEN
16 MAR 18 (10-3B)

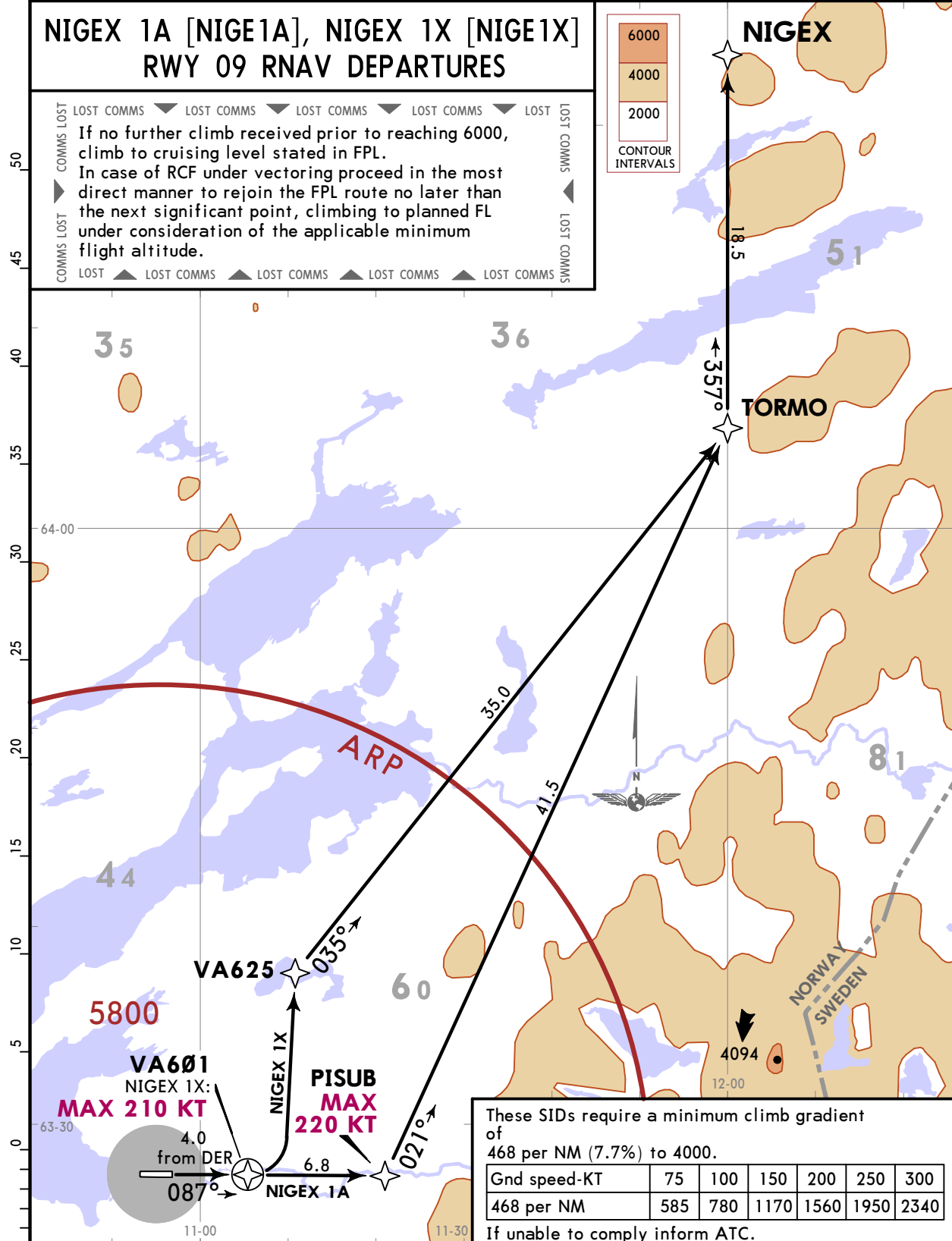
TRONDHEIM, NORWAY
RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. RNAV 1 (GNSS). 2. GNSS required. 3. RADAR service shall be available. 4. Obtain ATC clearance from VAERNES Ground. 5. Contact VAERNES Approach when instructed by VAERNES Tower. 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 7. When vectored or cleared for direct routing the SID climb gradients apply.
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**NIGEX 1A [NIGE1A], NIGEX 1X [NIGE1X]
RWY 09 RNAV DEPARTURES**

If no further climb received prior to reaching 6000, climb to cruising level stated in FPL.

In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.



These SIDs require a minimum climb gradient of 468 per NM (7.7%) to 4000.

Gnd speed-KT	75	100	150	200	250	300
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

SID	ROUTING
NIGEX 1A	On 087° track to VA601, to PISUB, turn LEFT to TORMO, to NIGEX.
NIGEX 1X	On 087° track to VA601, turn LEFT direct to VA625, to TORMO, to NIGEX.

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VAERNES

JEPPESSEN
16 MAR 18 (10-3C)

TRONDHEIM, NORWAY

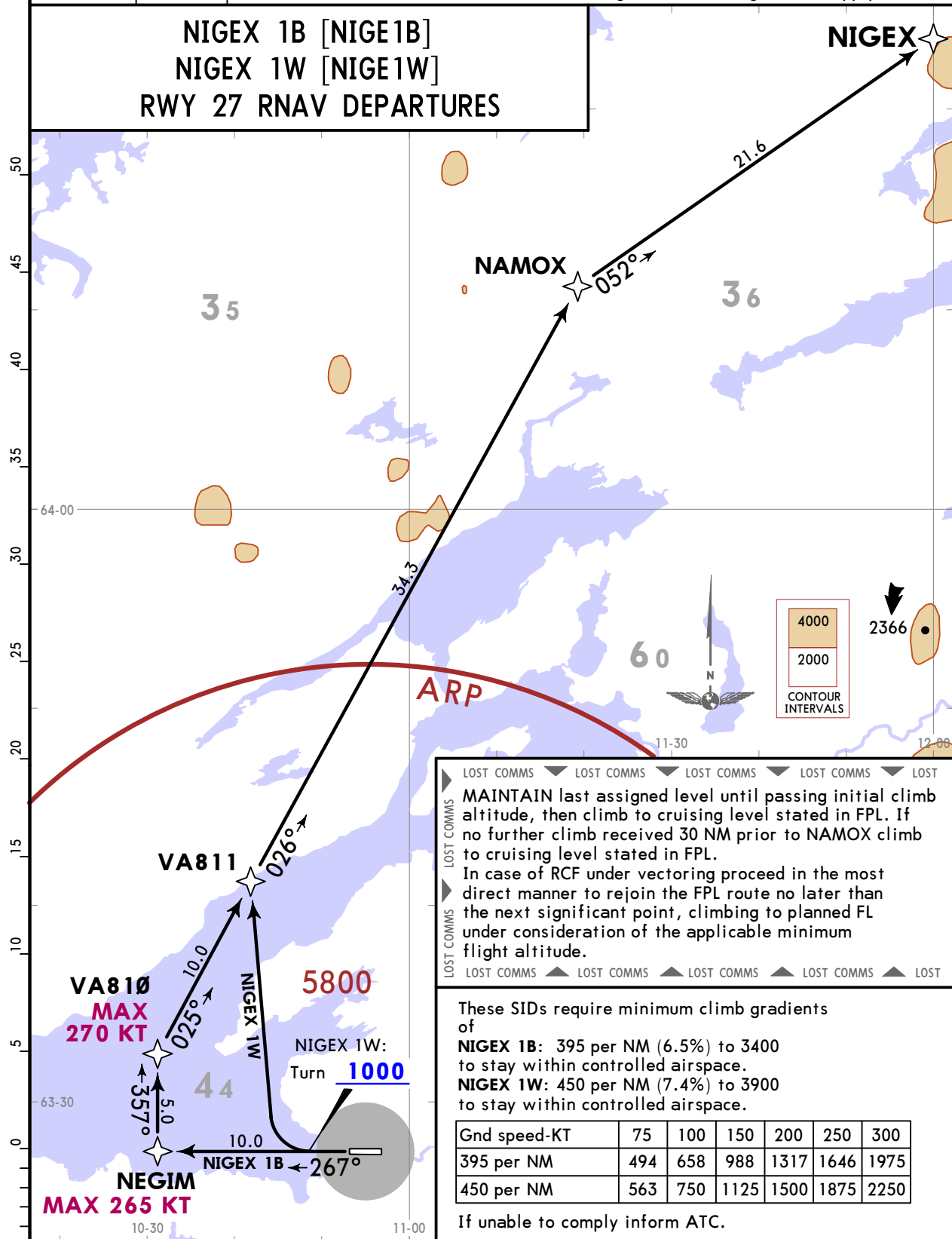
RNAV SID

VAERNES
Approach (R)
118.6

Apt Elev
56

- Trans alt: 7000
1. **RNAV 1 (GNSS).**
 2. **GNSS required.**
 3. RADAR service shall be available.
 4. Obtain ATC clearance from VAERNES Ground.
 5. Contact VAERNES Approach when instructed by VAERNES Tower.
 6. Non RNAV 1 ACFT: at first contact with VAERNES Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 7. When vectored or cleared for direct routing the SID climb gradients apply.

NIGEX 1B [NIGE1B]
NIGEX 1W [NIGE1W]
RWY 27 RNAV DEPARTURES

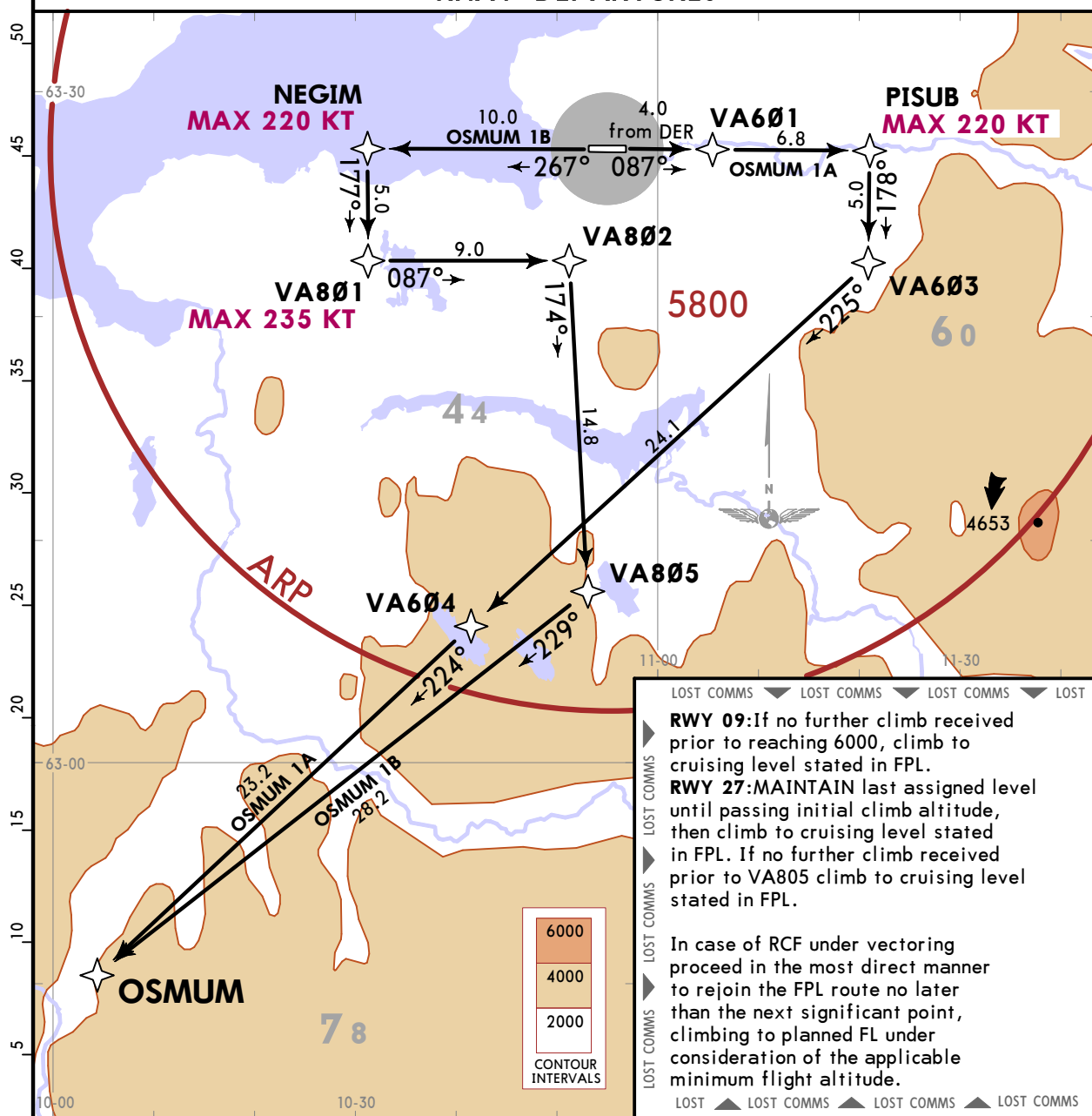
Initial climb clearance **6000**

SID	ROUTING
NIGEX 1B	On 267° track to NEGIM, to VA810, to VA811, to NAMOX, to NIGEX.
NIGEX 1W	Climb on 267° track to 1000, turn RIGHT direct to VA811, to NAMOX, to NIGEX.

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16 MAR 18 (10-3D)TRONDHEIM, NORWAY
RNAV SIDVAERNES
Approach (R)
118.6Apt Elev
56

- Trans alt: 7000
1. RNAV 1 (GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Obtain ATC clearance from VAERNES Ground.
 5. Contact VAERNES Approach when instructed by VAERNES Tower.
 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/ Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 7. When vectored or cleared for direct routing the SID climb gradients apply.

OSMUM 1A [OSMU1A] OSMUM 1B [OSMU1B] RNAV DEPARTURES



These SIDs require minimum climb gradients of

OSMUM 1A: 468 per NM (7.7%) to 4000.

OSMUM 1B: 395 per NM (6.5%) to 3400 to stay within controlled airspace.

Gnd speed-KT	75	100	150	200	250	300
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

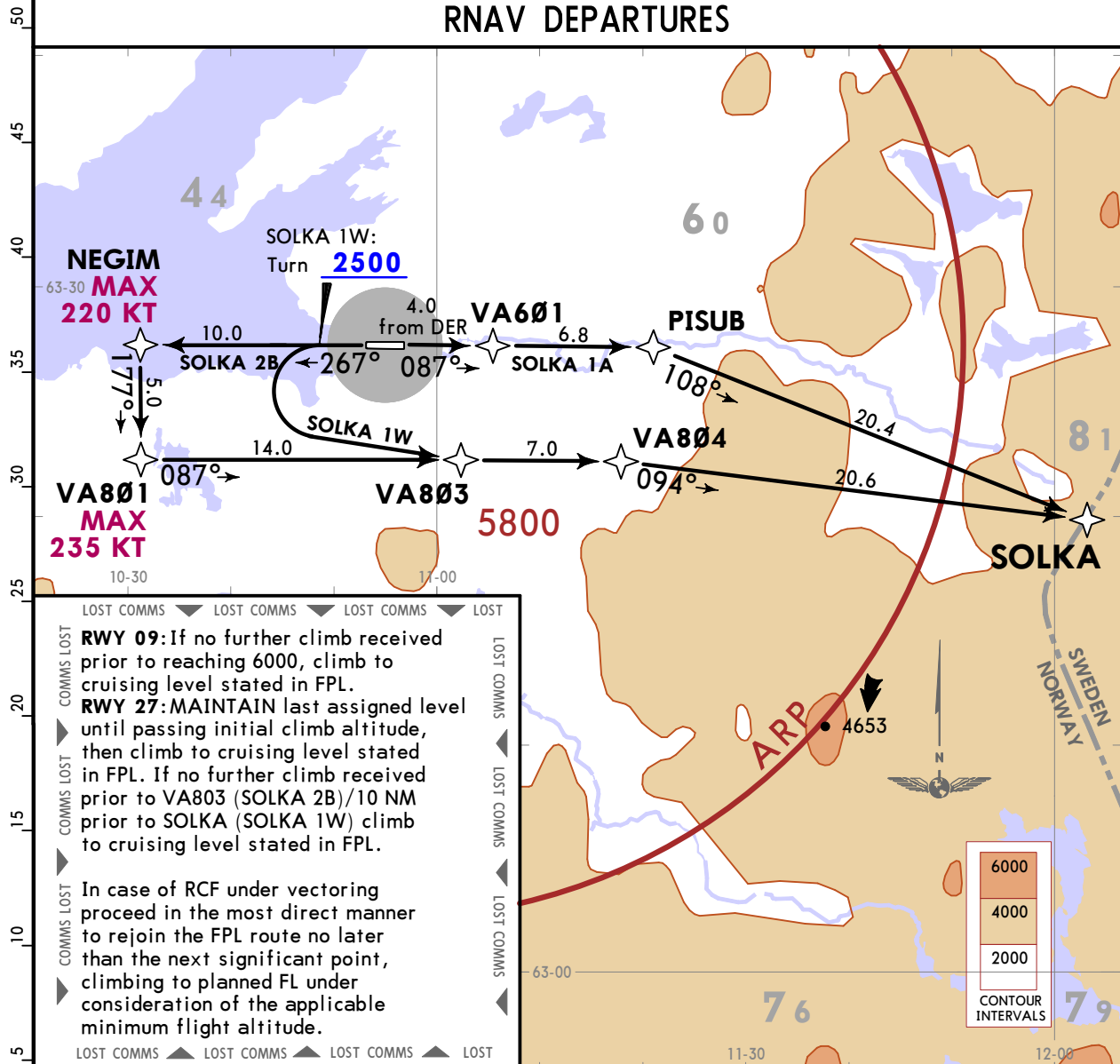
SID	RWY	ROUTING
OSMUM 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to OSMUM.
OSMUM 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to OSMUM.

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16 MAR 18 (10-3E)TRONDHEIM, NORWAY
RNAV SIDVAERNES
Approach (R)
118.6Apt Elev
56

Trans alt: 7000

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Obtain ATC clearance from VAERNES Ground.
5. Contact VAERNES Approach when instructed by VAERNES Tower.
6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
7. When vectored or cleared for direct routing the SID climb gradients apply.

SOLKA 1A [SOLK1A]
SOLKA 2B [SOLK2B]
SOLKA 1W [SOLK1W]
RNAV DEPARTURES



These SIDs require minimum climb gradients of

SOLKA 1A: 468 per NM (7.7%) to 4000.**SOLKA 2B:** 395 per NM (6.5%) to 3400 to stay within controlled airspace.**SOLKA 1W:** 304 per NM (5.0%) to 3100.

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

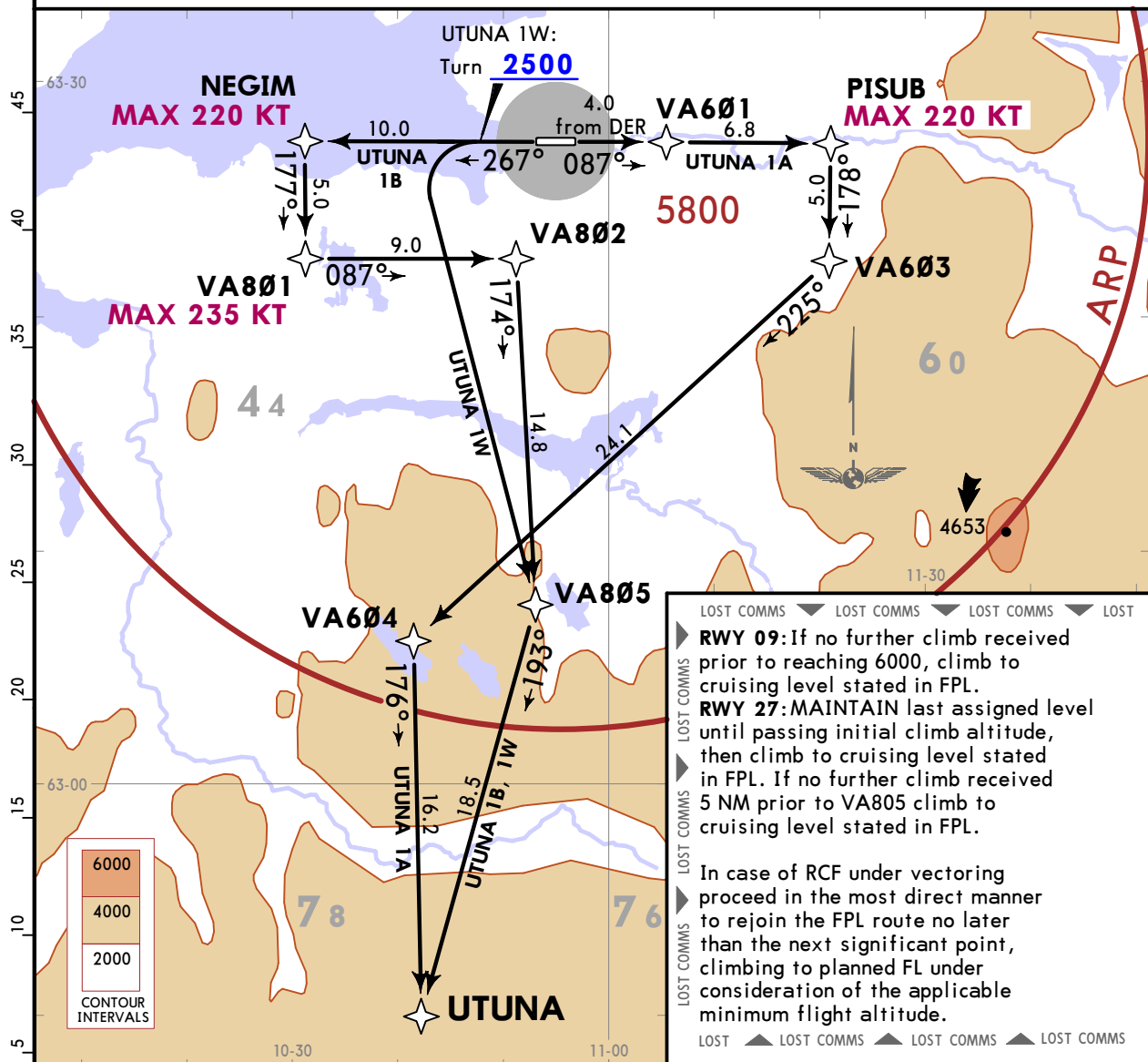
Initial climb clearance 6000

SID	RWY	ROUTING
SOLKA 1A	09	On 087° track to VA601, to PISUB, to SOLKA.
SOLKA 2B	27	On 267° track to NEGIM, to VA801, to VA803, to VA804, to SOLKA.
SOLKA 1W		Climb on 267° track to 2500, turn LEFT direct to VA803, to VA804, to SOLKA.

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16 MAR 18 (10-3F)TRONDHEIM, NORWAY
RNAV SIDVAERNES
Approach (R)
118.6Apt Elev
56

- Trans alt: 7000
1. RNAV 1 (GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Obtain ATC clearance from VAERNES Ground.
 5. Contact VAERNES Approach when instructed by VAERNES Tower.
 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/ Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 7. When vectored or cleared for direct routing the SID climb gradients apply.

UTUNA 1A [UTUN1A] UTUNA 1B [UTUN1B] UTUNA 1W [UTUN1W] RNAV DEPARTURES



These SIDs require minimum climb gradients of

UTUNA 1A: 468 per NM (7.7%) to 4000.

UTUNA 1B: 395 per NM (6.5%) to 3400 to stay within controlled airspace.

UTUNA 1W: 304 per NM (5.0%) to 3100.

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

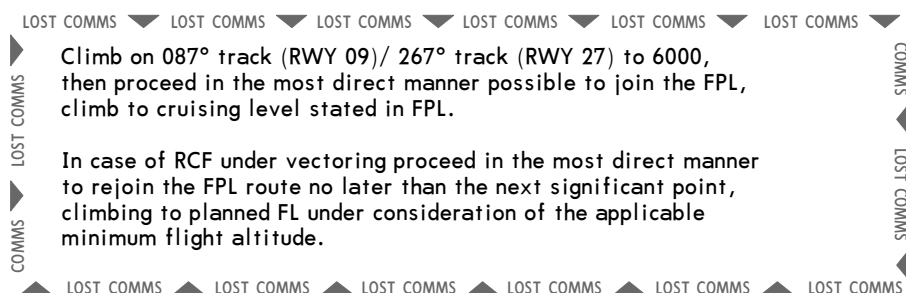
SID	RWY	ROUTING
UTUNA 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to UTUNA.
UTUNA 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to UTUNA.
UTUNA 1W		Climb on 267° track to 2500, turn LEFT direct to VA805, to UTUNA.

ENVA/TRD
VAERNES**JEPPESEN**
16 MAR 18 **(10-3G)****TRONDHEIM, NORWAY**
DEPARTUREVAERNES
Approach (R)
118.6Apt Elev
56

Trans alt: 7000

1. Contact VAERNES Approach when instructed by VAERNES Tower.
2. RADAR service shall be available.
3. When vectored or cleared for direct routing the omnidirectional SID climb gradients apply.

OMNI 2A
NOT TO BE USED WHEN EN(D)-354 IS ACTIVE
OMNI 2B
OMNIDIRECTIONAL DEPARTURES



These SIDs require minimum climb gradients of

OMNI 2A: 510 per NM (8.4%) to 4000.

OMNI 2B: 304 per NM (5.0%) to 3000 .

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
510 per NM	638	850	1275	1700	2125	2550

If unable to comply inform ATC.

Initial climb clearance 6000

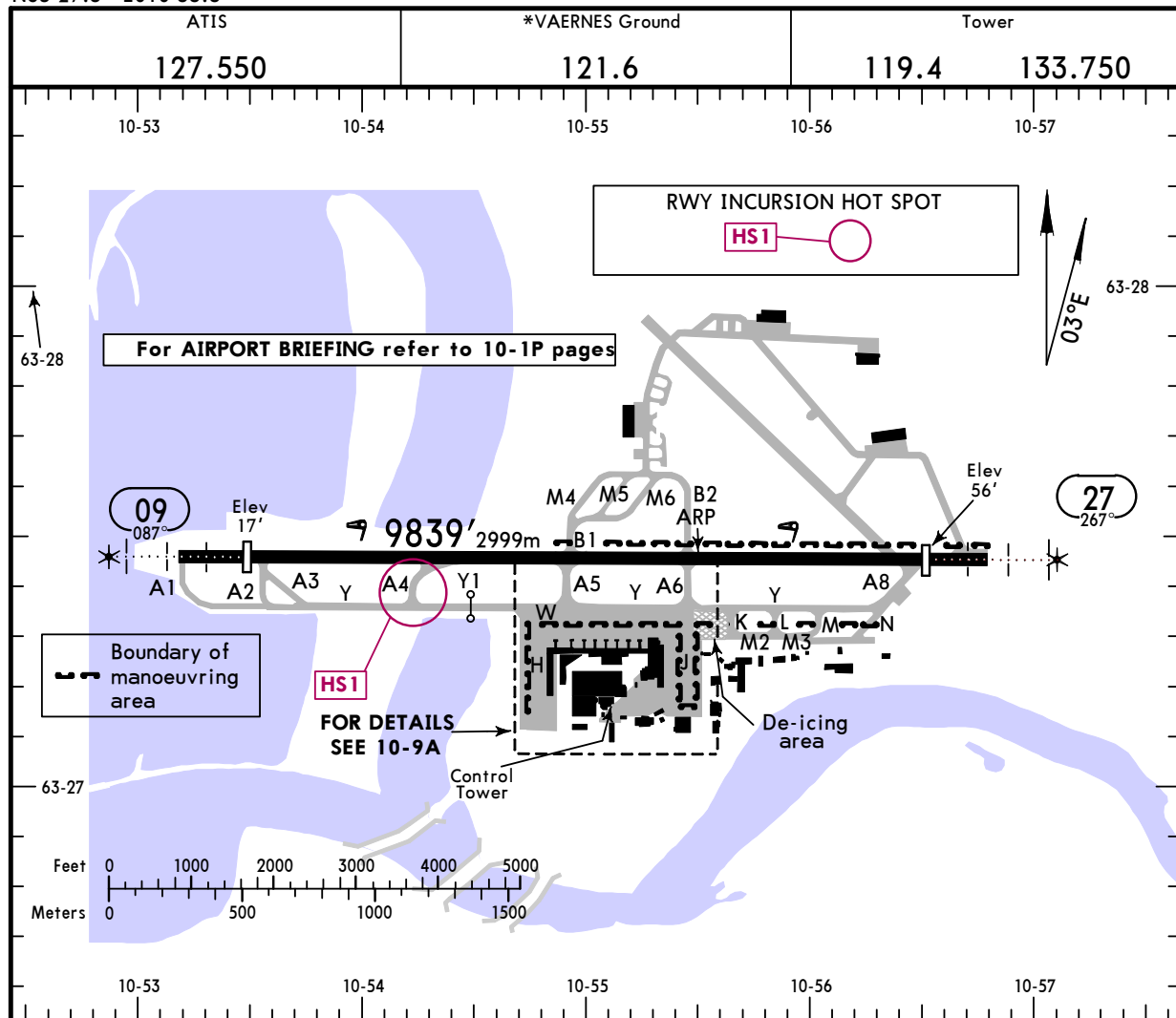
SID	RWY	ROUTING
OMNI 2A	09	Climb on 087° track, EXPECT further clearance from ATC, turn at or above 4000.
OMNI 2B	27	Climb on 267° track, EXPECT further clearance from ATC, turn at or above 3000.

ENVA/TRD

 Apt Elev **56'**
 N63 27.5 E010 55.5

JEPPesen

21 OCT 16 (10-9)

TRONDHEIM, NORWAY
VAERNES

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond		
09	HIRL (60m) CL (15m) HIALS PAPI (3.0°)	8025' 2446m	7053' 2150m	2	148' 45m
27	HIRL (60m) CL (15m) HIALS SFL CGL PAPI (3.4°)	8100' 2469m	6817' 2078m		

1 Rwy grooved.

2 TAKE OFF RUN AVAILABLE

RWY 09:

From rwy head 8855' (2699m)
 twy A2/A3 int 7874' (2400m)
 twy A4 int 5922' (1805m)
 twy A5 int 4190' (1277m)
 twy B1 int 4124' (1257m)
 twy A6/B2 int 2710' (826m)

RWY 27:

From rwy head 8855' (2699m)
 twy A8 int 8100' (2469m)
 twy A6/B2 int 5240' (1597m)
 twy B1 int 3871' (1180m)
 twy A5 int 3806' (1160m)

When an aircraft is cleared to line up on the rwy from position A8, the pilot-in-command shall inform ATC if full runway length will be used for take-off.

HOT SPOT

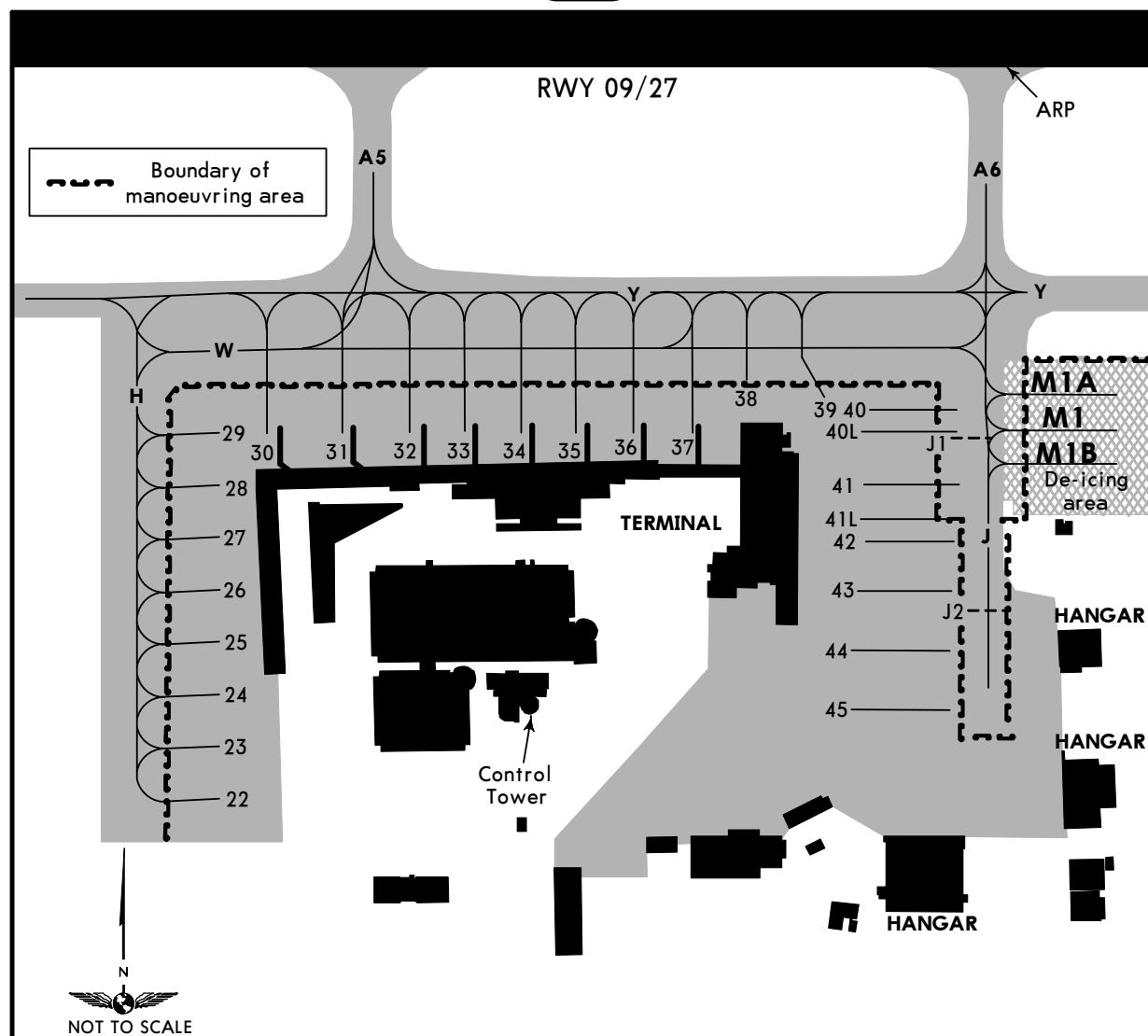
(For information only, not to be construed as ATC instructions.)

HS1 Angled twy, difficult to see traffic on final rwy 09.

Standard
TAKE-OFF

	RCLM (DAY only) or RL	NIL (DAY only)
A		
B		
C	400m	500m
D		

ENVA/TRD

21 OCT 16 **JEPPESEN**
(10-9A)TRONDHEIM, NORWAY
VAERNES**INS COORDINATES**

STAND No.	COORDINATES	ELEV	STAND No.	COORDINATES	ELEV
22	N63 27.1 E010 54.8	35	41 thru 42	N63 27.3 E010 55.3	35
23 thru 27	N63 27.2 E010 54.8	35	43 thru 45	N63 27.2 E010 55.3	36
28 thru 30	N63 27.3 E010 54.8	35			
31, 32	N63 27.3 E010 54.9	34			
33, 34	N63 27.3 E010 55.0	34			
35, 36	N63 27.3 E010 55.1	34			
37	N63 27.3 E010 55.2	34			
38	N63 27.3 E010 55.2	33			
39	N63 27.3 E010 55.3	35			
40, 40L	N63 27.3 E010 55.3	35			

ENVA/TRD **JEPPESEN**
31 OCT 14 **10-9Y** Eff 13 Nov**JAA COPTER MINIMUMS**
TRONDHEIM, NORWAY
VAERNES

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
09	ILS ①	217' (200')	600m / 1000m
	ILS ②	307' (290')	700m / 1000m
	ILS ③	543' (526')	800m / 1000m
	ILS ④	717' (700')	800m / 1000m
	LOC ②	460' (443')	1000m / 1000m
	LOC ③	560' (543')	1000m / 1000m
	LOC ④	720' (703')	1000m / 1000m
	RNAV (LNAV/VNAV) ⑤	700' (683')	1000m / 1000m
	RNAV (LNAV/VNAV) ④	830' (813')	1000m / 1000m
	RNAV (LNAV) ⑥	720' (703')	1000m / 1000m
	RNAV (LNAV) ⑦	900' (883')	1000m / 1000m
	RNAV (LNAV) ④	1150' (1133')	1000m / 1000m
27	ILS	278' (222')	650m / 1000m
	LOC	700' (644')	1000m / 1000m
	RNAV (LNAV/VNAV)	900' (844')	1000m / 1000m
	RNAV (LNAV)	960' (904')	1000m / 1000m

- ① Missed apch climb gradient mim 5.0%
 ② Missed apch climb gradient mim 4.0%
 ③ Missed apch climb gradient mim 3.0%
 ④ Missed apch climb gradient mim 2.5%
 ⑤ Missed apch climb gradient mim 3.3%
 ⑥ Missed apch climb gradient mim 4.5%
 ⑦ Missed apch climb gradient mim 3.5%

CIRCLE-TO-LAND ⑧	MDA(H)	VIS
	1240' (1184')	1000m

⑧ Not authorized North of airport.

TAKE-OFF RWY 09, 27

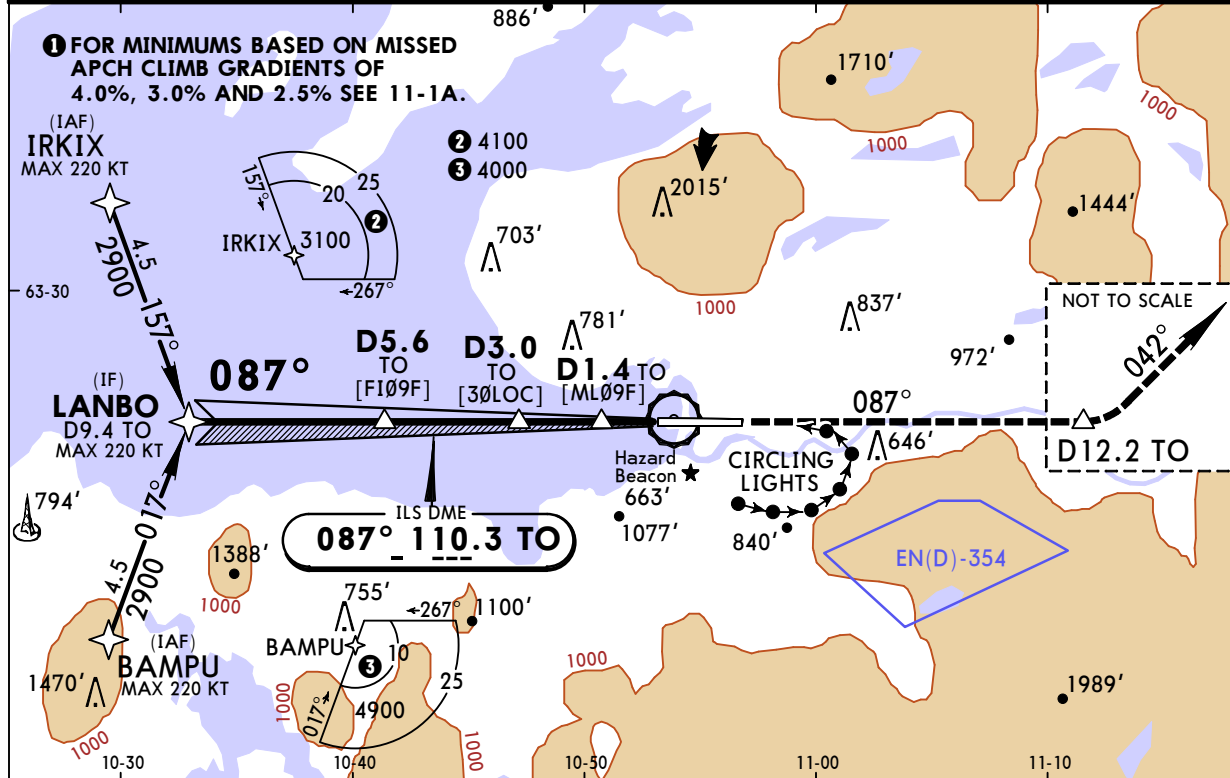
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
400m			400m ⑨	800m

⑨ Or rejected take-off distance whichever is the greater.

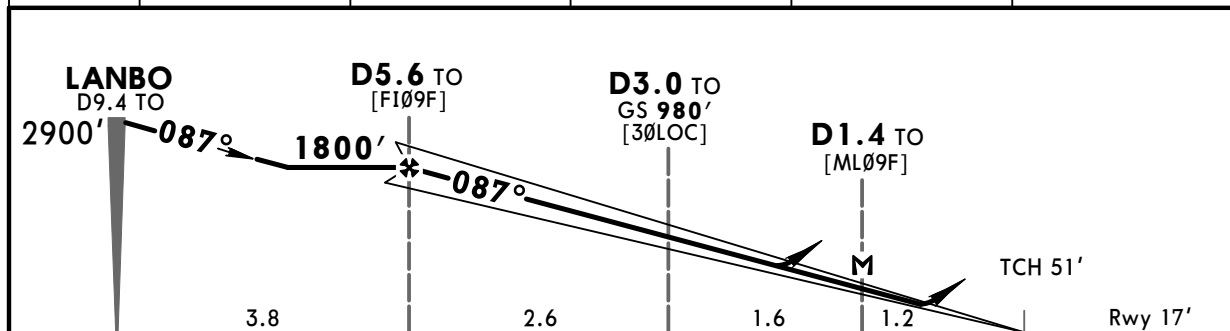
ENVA/TRD
VAERNESJEPPESEN
17 NOV 17 (11-1)TRONDHEIM, NORWAY
ILS or LOC Rwy 09

BRIEFING STRIP™

ATIS 127.550	VAERNES Approach (R) 118.6	*VAERNES Director (APP) 119.150	VAERNES Tower 119.4 133.750	*Ground 121.6
LOC TO 110.3	Final Aptch Crs 087°	GS D3.0 TO 980' (963')	ILS DA(H) Refer to Minimums	Apt Elev 56' Rwy 17'
MISSED APCH: Climb on 087° to 4000'. Expect vectoring. If below 3200' at D12.2 TO, turn LEFT and continue climb on 042°. MISSED APCH WITH LOST COMM: SQUAWK A7600. At D12.2 TO turn LEFT direct to IRKIX for new apch. Climb to 4100'.				
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000' 1. DME required. 2. RNAV transitions: RNAV 1 (GNSS required). MIM 160 KT until D4.0 TO.				
				5800 MSA ARP



LOC (GS out)	TO DME	5.0	4.0	3.0	2.0
	ALTITUDE	1620'	1300'	980'	660'



Gnd speed-Kts	70	90	100	120	140	160		
ILS GS	3.00°	372	478	531	637	743	849	
LOC Descent Angle	3.04°	376	484	538	645	753	861	
MAP at D1.4 TO								

Standard				CIRCLE-TO-LAND			
STRAIGHT-IN LANDING 09				Not authorized North of airport			
Missed apch climb gradient min 5.0% DA(H) A: 217' (200') C: 234' (217') B: 226' (209') D: 244' (227')							
FULL		ALS out		Max Kts	MDA(H)	VIS	
A	RVR 750m	RVR 1200m		100	1240' (1184')	1500m	
B				135	1430' (1374')	1600m	
C	RVR 800m			180	2140' (2084')	2400m	
D				205	2140' (2084')	3600m	

PANS OPS

ENVA/TRD

 **JEPPESEN**
17 NOV 17 **(11-1A)**
TRONDHEIM, NORWAY
VAERNES**ILS & LOC RWY 09 MINIMUMS**

BASED ON:

MISSED APCH CLIMB GRADIENT MIM 4.0%

Standard				
		ILS	LOC (GS out)	
DA(H)		A: 307' (290') C: 327' (310') B: 319' (302') D: 337' (320')	CDFA DA/MDA(H) 460' (443')	
		FULL	ALS out	ALS out
A	RVR 900m	RVR 1400m	RVR 1500m	
B				
C	RVR 1000m		RVR 1700m	RVR 2100m
D				

MISSED APCH CLIMB GRADIENT MIM 3.0%

Standard				
		ILS	LOC (GS out)	
DA(H)		A: 543' (526') C: 564' (547') B: 556' (539') D: 574' (557')	CDFA DA/MDA(H) A: 560' (543') C: 610' (593') B: 590' (573') D: 640' (623')	
		FULL	ALS out	ALS out
A	RVR 1500m		RVR 1500m	
B				
C	RVR 2100m	RVR 2400m	RVR 2300m	RVR 2400m
D			RVR 2400m	

MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard				
		ILS	LOC (GS out)	
DA(H)		A: 717' (700') C: 737' (720') B: 729' (712') D: 748' (731')	CDFA DA/MDA(H) A: 720' (703') C: 770' (753') B: 740' (723') D: 790' (773')	
		FULL	ALS out	ALS out
A	RVR 1500m		RVR 1500m	
B				
C	RVR 2400m		RVR 2400m	
D				

**ENVA/TRD
VAERNES**

31 OCT 14

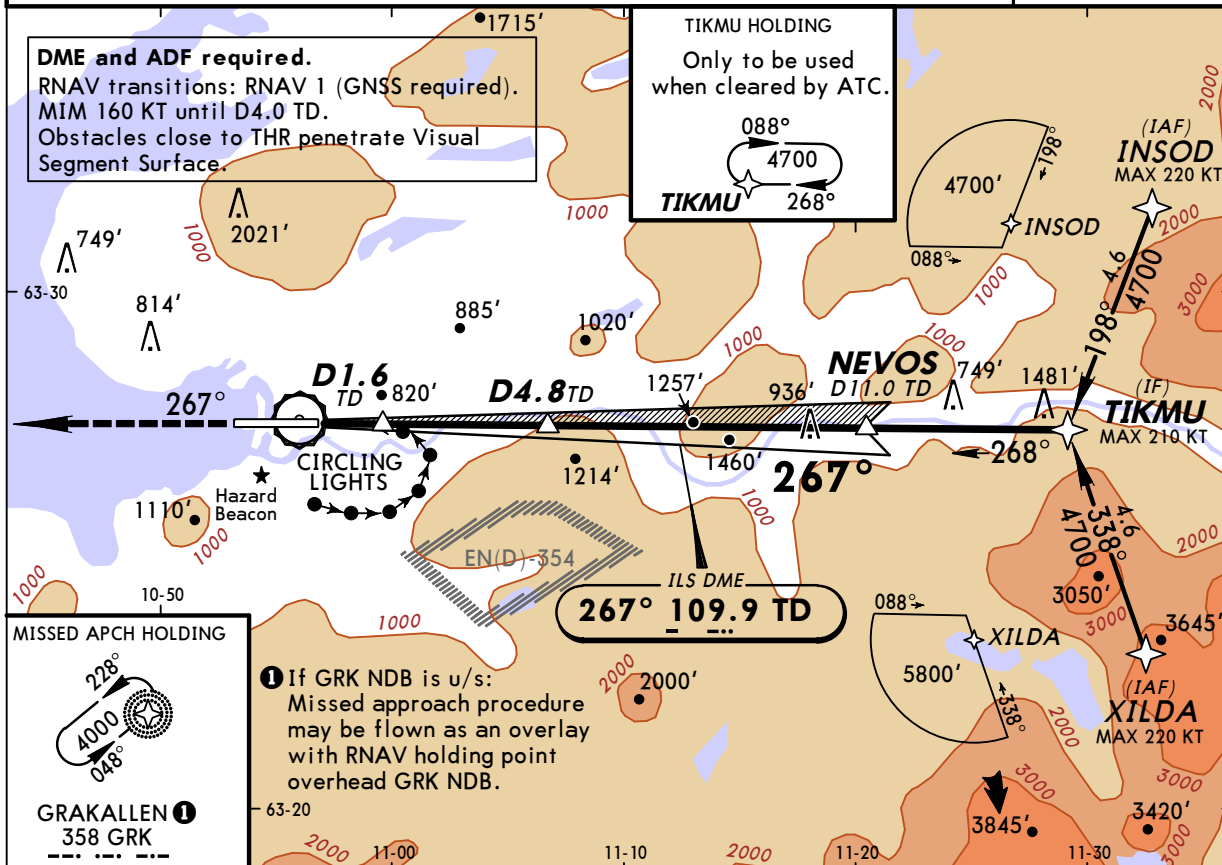
JEPPESSEN
31 OCT 14 (11-2) Eff 13 Nov

TRONDHEIM, NORWAY
■ ILS or LOC Rwy 27

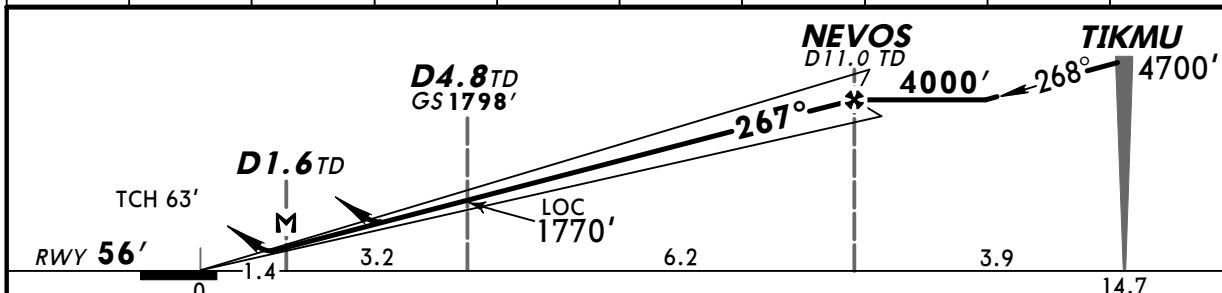
ATIS		VAERNES Approach (R)		*VAERNES Director (APP)		VAERNES Tower		*Ground	
127.550		118.6		119.150		119.4 133.750		121.6	
LOC TD 109.9	Final Apch Crs 267°	GS DA.8 TD 1798' (1742')		ILS DA(H) Refer to Minimums		Apt Elev 56' RWY 56'		5800'	
MISSED APCH: Climb on 267° to 4000', then turn LEFT direct to GRK NDB. Enter GRK NDB holding, climbing to 4000'.									
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: By ATC		Trans alt: 7000'			
MSA ARP									

DME and ADF required.
RNAV transitions: RNAV 1 (GNSS required).
MIM 160 KT until D4.0 TD.
Obstacles close to THR penetrate Visual Segment Surface.

TIKMU HOLDING
Only to be used
when cleared by ATC.



LOC (GS out)	TD DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	740'	1110'	1470'	1830'	2190'	2560'	2920'	3280'



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>ILS GS or</i>							
<i>LOC Descent Angle</i> 3.40°	421	541	602	722	842	63	
<i>MAP at D1.6 TD</i>							

Standard

STRAIGHT-IN LANDING

LOC (GS out)

CIRCLE-TO-LAND

Not authorized North of airport

DA(H)		B: 293' (237')	D: 315' (259')	DA(H)	700' (644')	Max Kts	MDA(H)	VIS
		FULL/Limited	ALS out		ALS out			
A	RVR 800m	RVR 1200m	RVR 1500m	100	1240' (1184')	1500m		
B				135	1430' (1374')	1600m		
C		RVR 1300m	CMV 2400m	180	2140' (2084')	2400m		
D				205	2140' (2084')	3600m		

CHANGES: Procedure. Minimums.

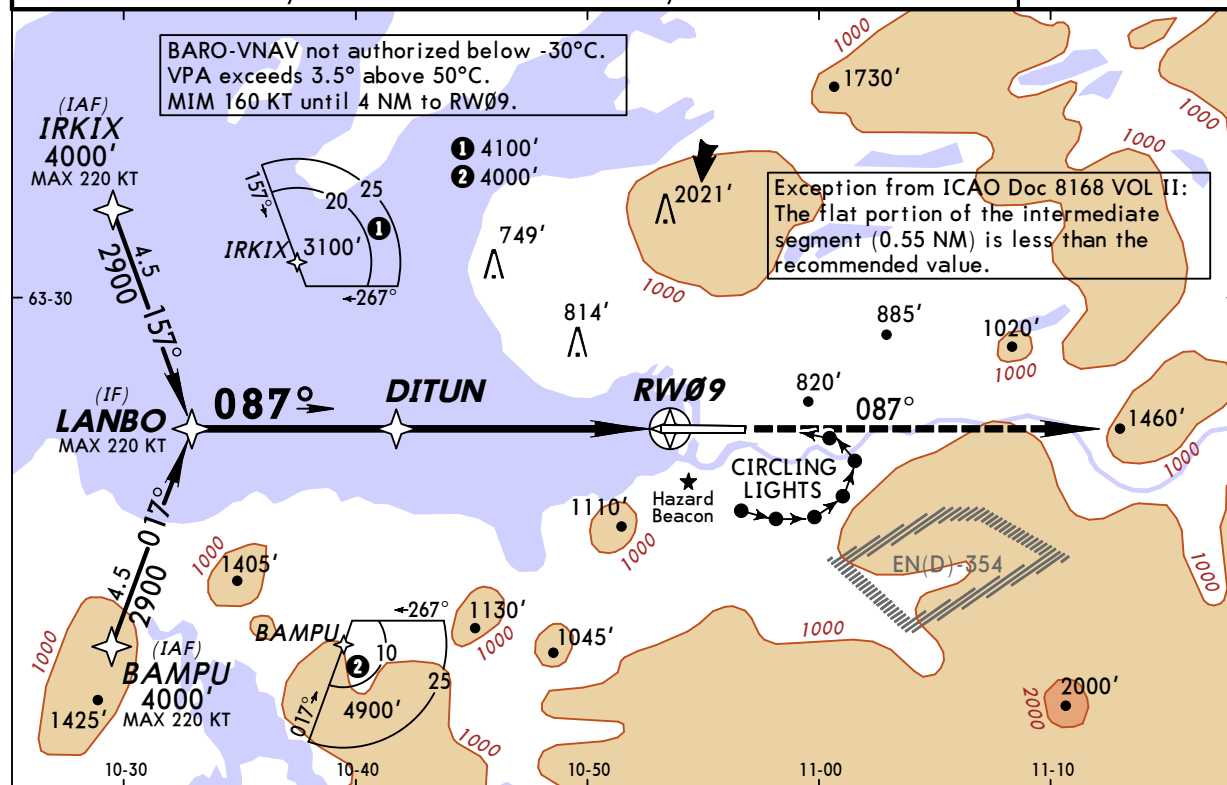
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VAERNES**

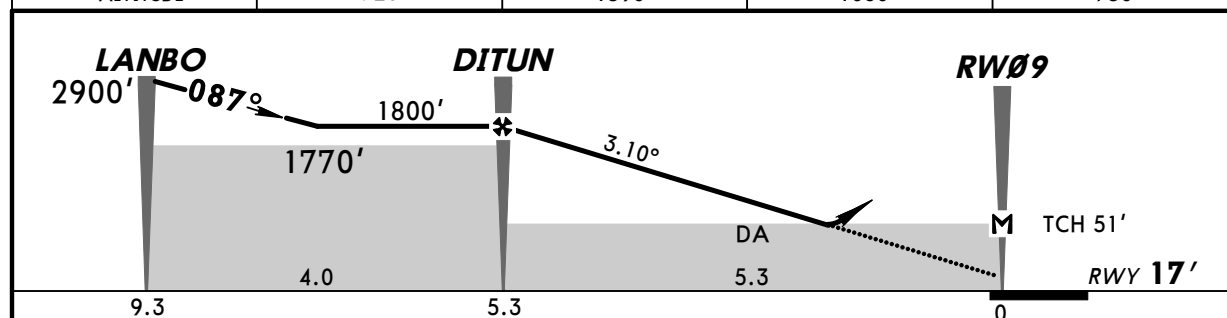
JEPPESEN
31 OCT 14 (12-1) Eff 13 Nov

TRONDHEIM, NORWAY
RNAV (GNSS) Rwy 09

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
RNAV	Final Apch Crs 087°	Procedure Alt DITUN 1800' (1783')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 56' RWY 17'
MISSED APCH: Climb STRAIGHT AHEAD on 087° to 3300'. Expect vectoring. MISSED APCH WITH LOST COMM: SQUAWK A7600. At VA605 turn LEFT direct to IRKIX for new apch. Climb to 4100'.				TAA 25 NM IAF
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to RWØ9	5.0	4.0	3.0	2.0
ALTITUDE	1720'	1390'	1060'	730'



<i>Gnd speed-Kts</i>	70	90	100	120	140	160		Refer to Missed Apch above
<i>Descent Angle</i> 3.10°	384	494	548	658	768	878		
<i>MAP at RW09</i>								

Standard		STRAIGHT-IN-LANDING					CIRCLE-TO-LAND		
LNAV/VNAV			LNAV					Not authorized North of airport	
Missed apch climb grad mim 3.3%		Missed apch climb gradient mim							
2.5%		4.5%		3.5%		2.5%			
DA(H)		DA(H)		DA(H)		DA(H)			
A: 830' (813')		DA(H)		A: 900' (883')		A: 1150' (1133')			
B: 840' (823')		AB: 720' (703')		B: 930' (913')		B: 1170' (1153')			
C: 860' (843')		C: 740' (723')		C: 960' (943')		C: 1190' (1173')			
D: 880' (863')		D: 770' (753')		D: 990' (973')		D: 1210' (1193')			
DA(H) 700' (683')		DA(H)		DA(H)		DA(H)			
ALS out		ALS out		ALS out		ALS out			
Max K1s		MDA(H)		VIS					
A		RVR 1500m		RVR 1500m		RVR 1500m		100 1240' (1184') 1500m	
B		RVR 1500m		RVR 1500m		RVR 1500m		135 1430' (1374') 1600m	
C		CMV 2400m		CMV 2400m		CMV 2400m		180 2140' (2084') 2400m	
D		CMV 2400m		CMV 2400m		CMV 2400m		205 2140' (2084') 3600m	

CHANGES: MSA/TAA. Procedure. Minimums.

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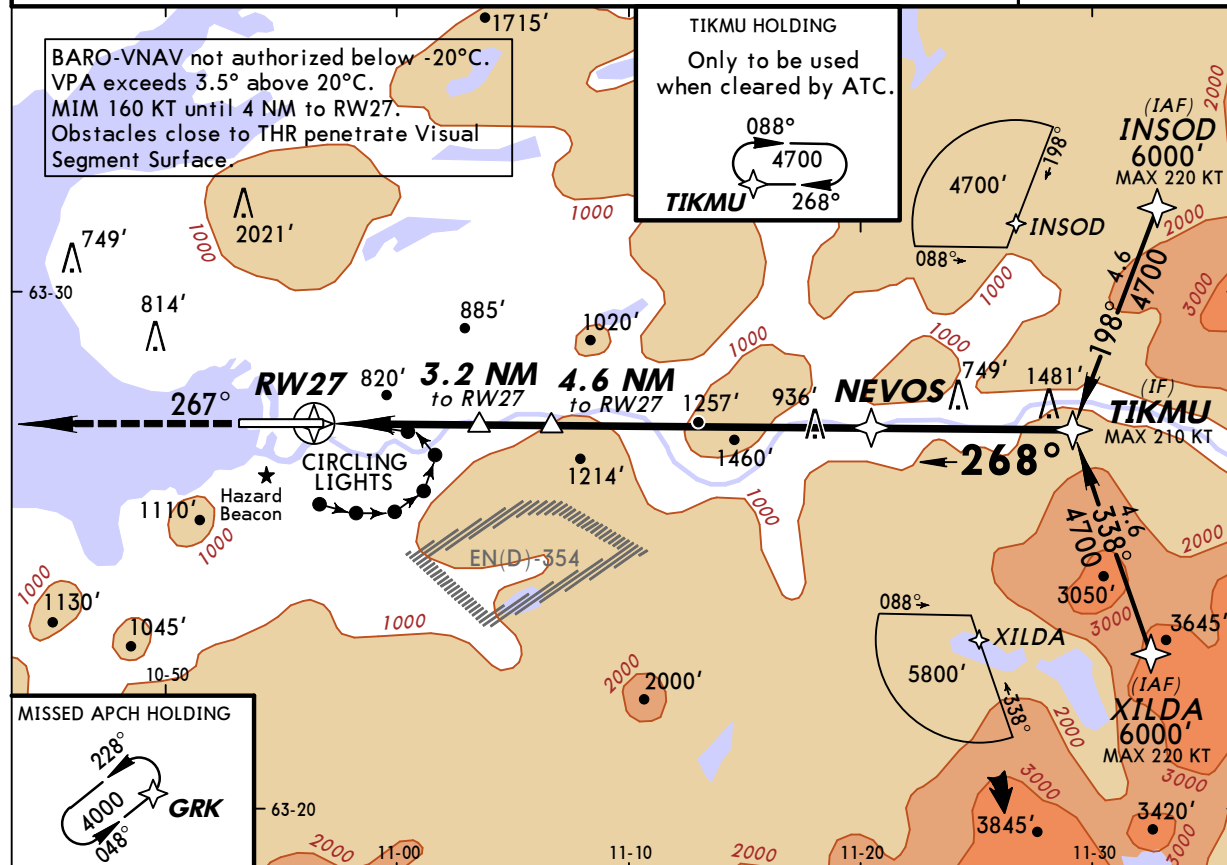
**ENVA/TRD
VAERNES**

31 OCT 14

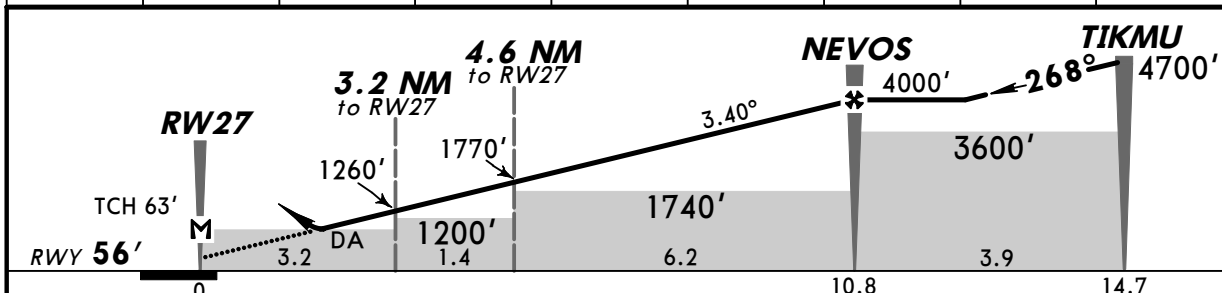
JEPPESSEN
31 OCT 14 (12-2) Eff 13 Nov

TRONDHEIM, NORWAY
■ RNAV (GNSS) Rwy 27

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
RNAV	Final Apch Crs 268°	Procedure Alt NEVOS 4000' (3944')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 56' RWY 56'
MISSED APCH: Climb on 267° to 4000', then turn LEFT direct to GRK. Enter GRK holding, climbing to 4000'.				TAA 25 NM IAF
Alt Set: hPa	Rwy Elev: 2 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to RW27	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1200'	1560'	1920'	2280'	2650'	3010'	3370'	3730'



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>Descent Angle</i> 3.40°	421	541	602	722	842	963	
<i>MAP at RW27</i>							

Standard		STRAIGHT-IN LANDING		CIRCLE-TO-LAND	
LNAV/VNAV		LNAV		Not authorized North of airport	
DA(H) C: 910' (854') AB: 900' (844') D: 920' (864')		DA(H) 960' (904')		MDA(H) _____ VIS _____	
ALS out		ALS out			
A	RVR 1500m	RVR 1500m		100	1240' (1184') 1500m
B				135	1430' (1374') 1600m
C	CMV 2400m	CMV 2400m		180	2140' (2084') 2400m
D				205	2140' (2084') 3600m

CHANGES: MSA/TAA. Procedure. Minimums.

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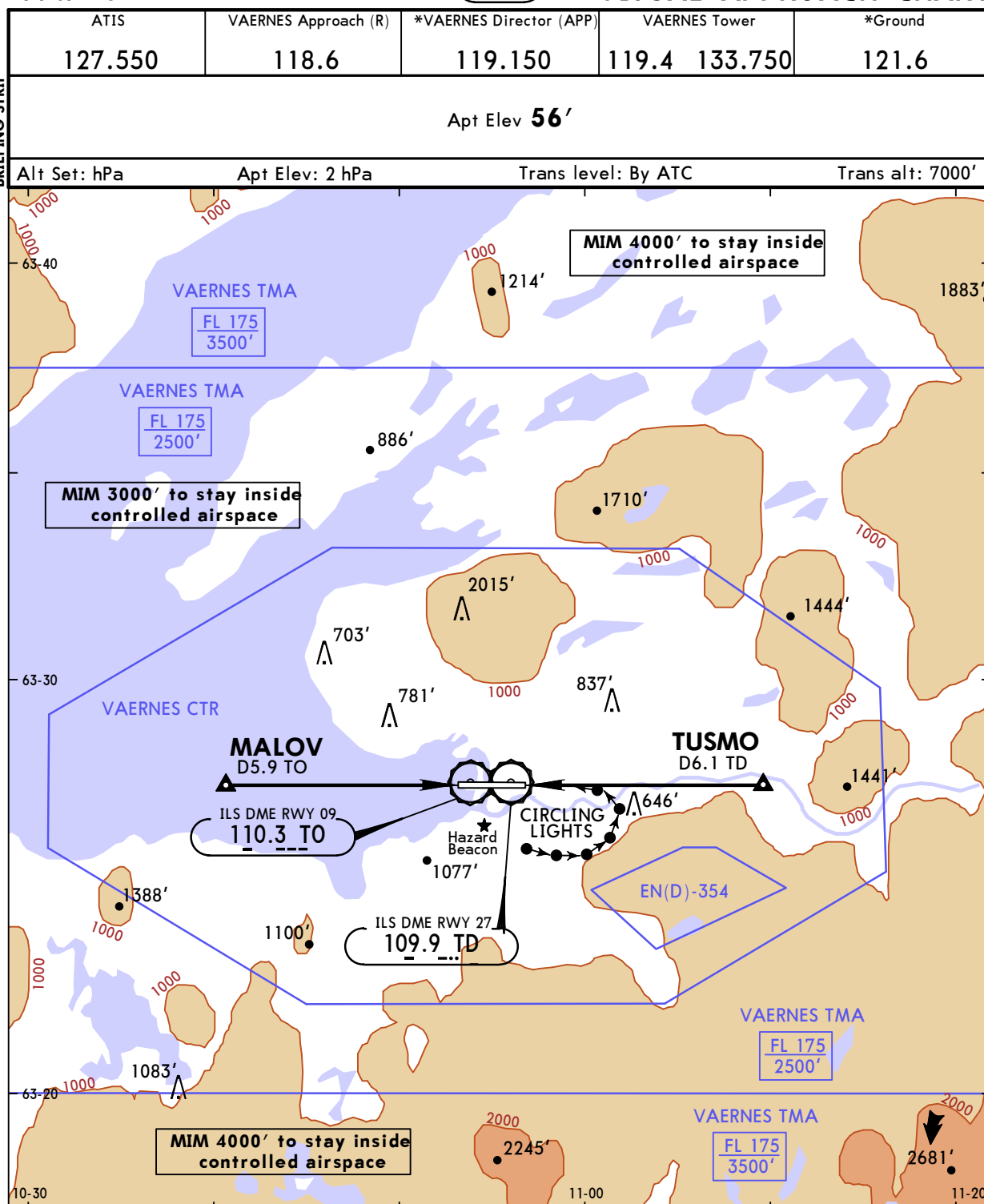
30 DEC 16

(19-10)

JEPPesen

TRONDHEIM, NORWAY
VISUAL APPROACH CHART

BRIEFING STRIP™

**VISUAL APPROACH PROCEDURES**

In order to reduce noise disturbances and to avoid VFR traffic, the following procedures apply when making visual approaches to RWY 09 or RWY 27:

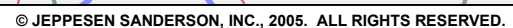
Unless otherwise authorized or directed by ATC, an ACFT having been cleared for a visual approach shall:

- Execute the approach so as to be established on final approach track outside:
RWY 09: MALOV/D5.9 TO
RWY 27: TUSMO/D6.1 TD
- Maintain minimum 2500' until starting turn to final, and establish a final approach descent not below ILS glideslope/ PAPI on slope signal.
- When cleared by ATC, shorter visual approaches are allowed from the North to RWY 09 and for Propeller ACFT to 2 NM final RWY 27.

JEPPESEN

JeppView 3.6.2.0

JeppView 3.6.2.0

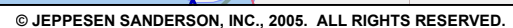


JeppView 3.6.2.0

BIRCH 3A

FL500
FL195

 (BODO ATCC)



ENVA/TRD
VAERNES**JEPPESEN**
23 MAR 18 (10-1P)**TRONDHEIM, NORWAY**
AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 127.550

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GENERAL**

The following noise abatement procedures are mandatory for all ACFT between 2300-0700LT and H24 for ACFT with MTOM more than 7000kg unless deviations are required in the interest of safety. Instructions which will imply deviations from noise abatement procedures will include the phrase "DISREGARD NOISE ABATEMENT".

1.2.2. PREFERENTIAL RWY SYSTEM

Between 2300-0700LT RWY 09 will be used for landings and RWY 27 for take-off when traffic permits. ATC will apply conditions described in ICAO Doc 4444 para 7.2.6 so that normal rules for RWY-in-use are followed under these circumstances:

- Braking action is less than 'GOOD';
- When the ceiling is lower than 1500' or the visibility is less than 5000m;
- When wind shear has been reported or forecasted or when thunderstorms are expected to affect the approach or departure; and
- When crosswind component, including gusts, exceeds 10 KT, or the tailwind component, including gusts, exceeds 5 KT.

1.2.3. RUN-UP TESTS

Between 2300-0700LT engines must not be reversed beyond idle reverse, unless so warranted by reasons of safety.

After maintenance, engine testing applying more than idle thrust shall take place at TWY Y between A1 and A2, tail pointing West. Between 2300-0700LT engine testing shall be avoided.

Between 0700-2300LT engine testing lasting maximum 15 MIN in power setting idle can be performed at parking stands or outside hangars.

1.2.4. EXCEPTIONS

Through ATC, Avinor may grant exemption from the provisions stated above for safety reasons or when special circumstances seriously impair the APT capacity.

The pilot-in-command may deviate from these provisions for safety reasons.

Necessary flights regarding control of communication and navigation equipment are exempted from these provisions.

Ambulance flights, SAR and military flights may be exempted from these provisions for both military-registered ACFT, as well as civil-registered ACFT in military operation.

1.3. LOW VISIBILITY PROCEDURE

RVR 550m or less: When LVP is in force only one ACFT is allowed in the maneuvering area at a time.

Minimum RVR 400m for departure.

1.4. TAXI PROCEDURES

If an ACFT after landing, due to RTF congestion or other reasons, cannot obtain contact with VAERNES Ground, the pilot shall completely vacate the landing RWY and hold position until contact with VAERNES Ground can be established. The ACFT considered to be clear of the RWY when the whole ACFT has passed the holding point on the TWY used for vacating the RWY.

ENVA/TRD
VAERNES**JEPPESEN**
23 MAR 18 **10-1P1****TRONDHEIM, NORWAY**
AIRPORT BRIEFING

1. GENERAL

TWY N Follow-me is required during night.

All TWYs except TWYs B2 and N MAX outer wheelspan 49'/15m.

TWY B2 MAX outer wheelspan 39'/12m.

TWY N MAX wingspan 79'/24m, outer wheelspan 26'/8m.

TWYs H and W MAX wingspan 118'/36m.

TWY J from TWY Y to stand 41L MAX wingspan 213'/65m, South of stand 41L MAX wingspan 171'/52m.

Four engine code E and F ACFT should apply minimum power on engine number 1 and 4 during taxiing.

TWY Y is not available for ACFT code E and F between TWYs A4 and A5.

1.5. PARKING INFORMATION

Stands 30 thru 37 Safegate equipped.

Flush lead-in lights to stands 22 thru 38.

Visual Docking Guidance System available at stands 30 thru 37.

Marshaller is mandatory on stands 38 thru 45, and on stands 22 thru 29 if offset parking is not used.

1.6. OTHER INFORMATION

Wind shear and/or moderate to severe turbulence may occur on and South of final RWY 09 with wind from South-Southeast above 25 KT.

On visual APCH it is recommended to fly North of centerline and establish on final closer to RWY.

Loss of headwind may occur on short final RWY 27 when wind from West above 20 KT.

180 degree turn on the asphalt part of the RWY is not allowed because asphalt may break up.

Birds in vicinity of APT.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. GENERAL

Noise abatement procedure is part of published approach procedures, including visual approach chart.

Shorter visual approaches are allowed from the North to RWY 09 and for propeller ACFT to 2NM to RWY 27, provided a clearance to shorten the approach has been received.

2.2. OTHER INFORMATION

2.2.1. POINT MERGE SYSTEM

STAR is based on Point Merge System (PMS), and accommodates Basic Continuous Descent Operations (B-CDO).

Arriving traffic established on the STAR may at any time be cleared direct to the Merge Point (MP), and must be prepared for this.

Succeeding arriving ACFT can thus be turned directly to the MP when sufficient spacing to preceding traffic is achieved. By doing this, an accurate sequence can be attained while allowing the ACFT to maintain own navigation (LNAV). When cleared direct to the MP, and also cleared for an instrument approach, the ACFT shall follow "transition" from MP to final, as displayed on the chart for the relevant instrument approach procedure.

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VAERNES**JEPPESEN**
27 OCT 17**10-1P2****Eff 9 Nov****TRONDHEIM, NORWAY**
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

De-icing of ACFT will occur on platforms M1A or M1B for code C or smaller ACFT, centred on M1 for code D or larger ACFT.

Before start-up, contact handling agent and request de-icing.

When requesting start-up, inform Ground/Tower that de-icing is needed.

Contact Ground/Tower for taxi instructions to the de-icing platform.

ACFT may be towed to the de-icing platform if friction is acceptable.

Before entering the de-icing platform, contact de-icing agency.

When de-icing is finished, contact Ground/Tower for taxi clearance.

3.2. ENROUTE CLEARANCE AND PRIMARY SID

When alternate SIDs exist to a SID endpoint, the longer SID will normally be issued to jet and turboprop ACFT with filed TAS 300 KT or more. Normally, the shorter SID will be issued to turboprop ACFT with filed TAS of less than 300 KT. In both cases the PIC can expect to be cleared DCT SID end point as soon as TFC, terrain and NAP permits.

3.3. START-UP AND PUSH-BACK PROCEDURES

Contact Ground/Tower before start-up and push-back.

Push-back Procedures from stands 22 thru 29:

Standard push-back from stand 22 is straight back.

Standard push-back from stands 23-29 is to face North on TWY H except CRJ and Turboprop ACFT that shall perform a straight push-back.

Offset parking to leave stand by own power is allowed for ACFT size DH8C and smaller on stands 22-28 and ACFT size DH8D and smaller on stand 29.

Push-back Procedures from stands 30 thru 37:

Standard push-back from stands 30-37 is for code C ACFT up to size B738 straight back, for A321, B739, MD80-series and MD90 onto TWY W to face East or West as instructed by ATC.

Standard push-back from stand 30 and 31 for code D ACFT is onto TWY Y, to face East or West as instructed by ATC.

Push-back Procedures from stands 38 and 39:

Standard push-back from stand 38 and 39 is onto TWY W to face East or West as instructed by ATC.

Push-back Procedures from stands 40 thru 45:

Standard push-back from stands 40-45 is to face North on TWY J, except CRJ that shall perform a straight push-back.

After push-back from stand 41L, ACFT shall be pulled forward to start-up position J1.

After push-back from stands 43 thru 45, ACFT shall be disconnected at start-up position J2.

Start-up position J1 and J2 are marked with blue parallel lines on TWY J.

3.4. NOISE ABATEMENT PROCEDURES

3.4.1. GENERAL

Noise abatement procedure is part of published SIDs.

For jet ACFT a direct routing can be anticipated after passing 2500' AMSL.

For propeller ACFT departing on RWY 09 and all ACFT departing RWY 27 to the North a turn for visual departure can be anticipated after passing 1000' AMSL.

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16 MAR 18 10-2TRONDHEIM, NORWAY
RNAV STARATIS
127.550Apt Elev
56

Alt Set: hPa Trans level: By ATC

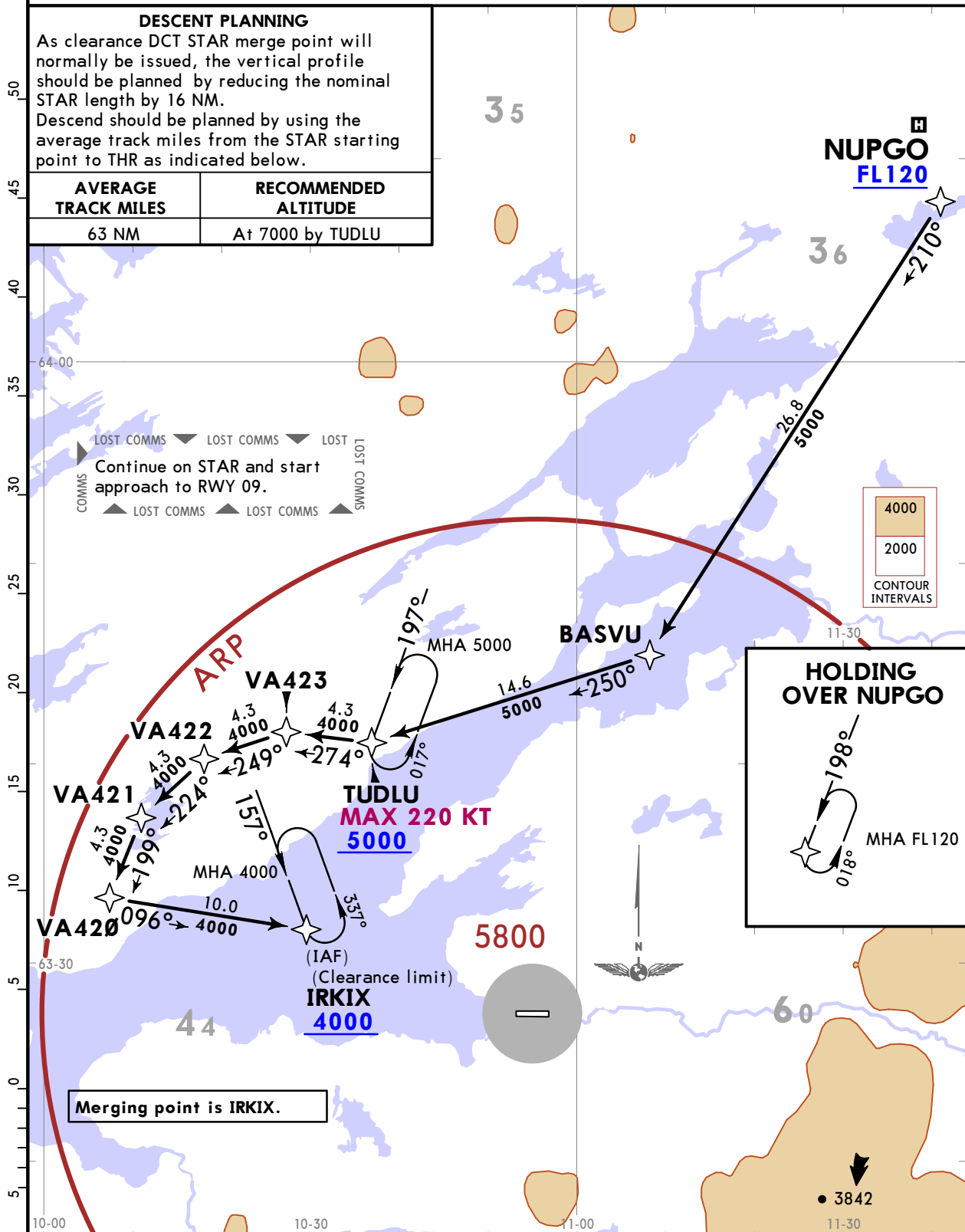
1. RNAV 1 (GNSS).
2. GNSS required.
3. Class A GNSS shall not be used.
4. RADAR service shall be available.
5. Loss of RNAV capability, request vectoring.
6. Vectoring may be used for sequencing.
7. Descend as cleared by ATC.

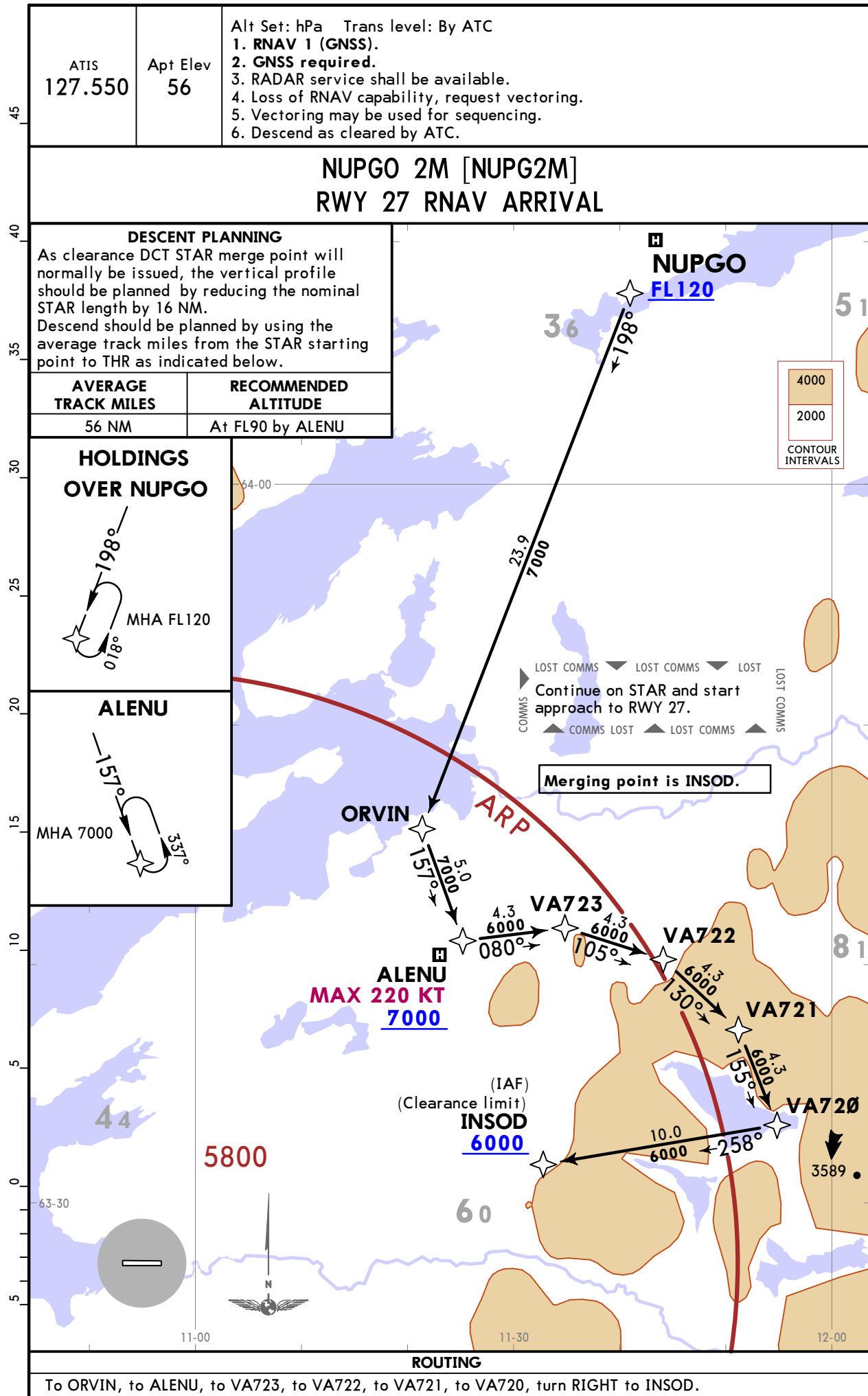
NUPGO 2L [NUPG2L]
RWY 09 RNAV ARRIVAL

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
63 NM	At 7000 by TUDLU

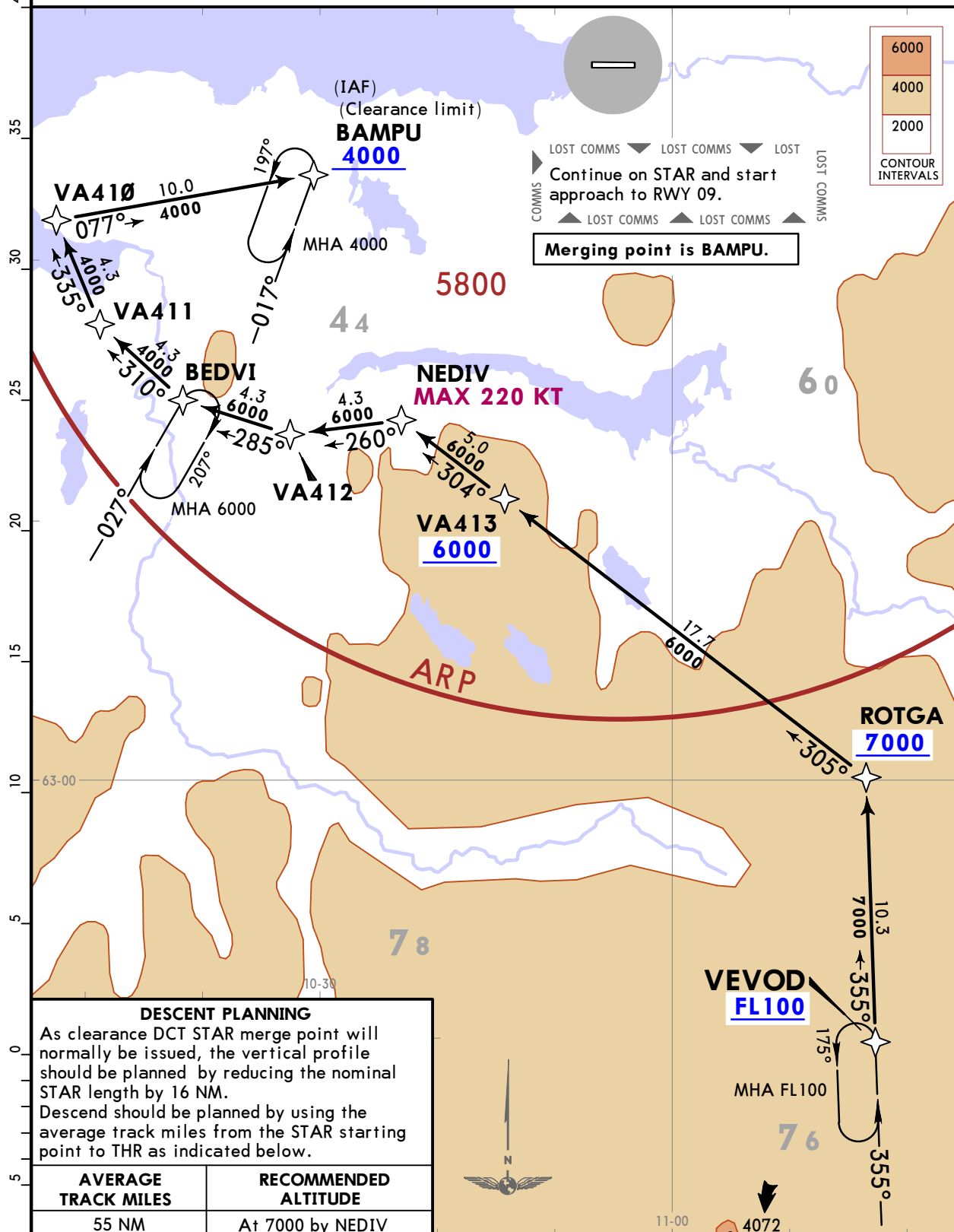


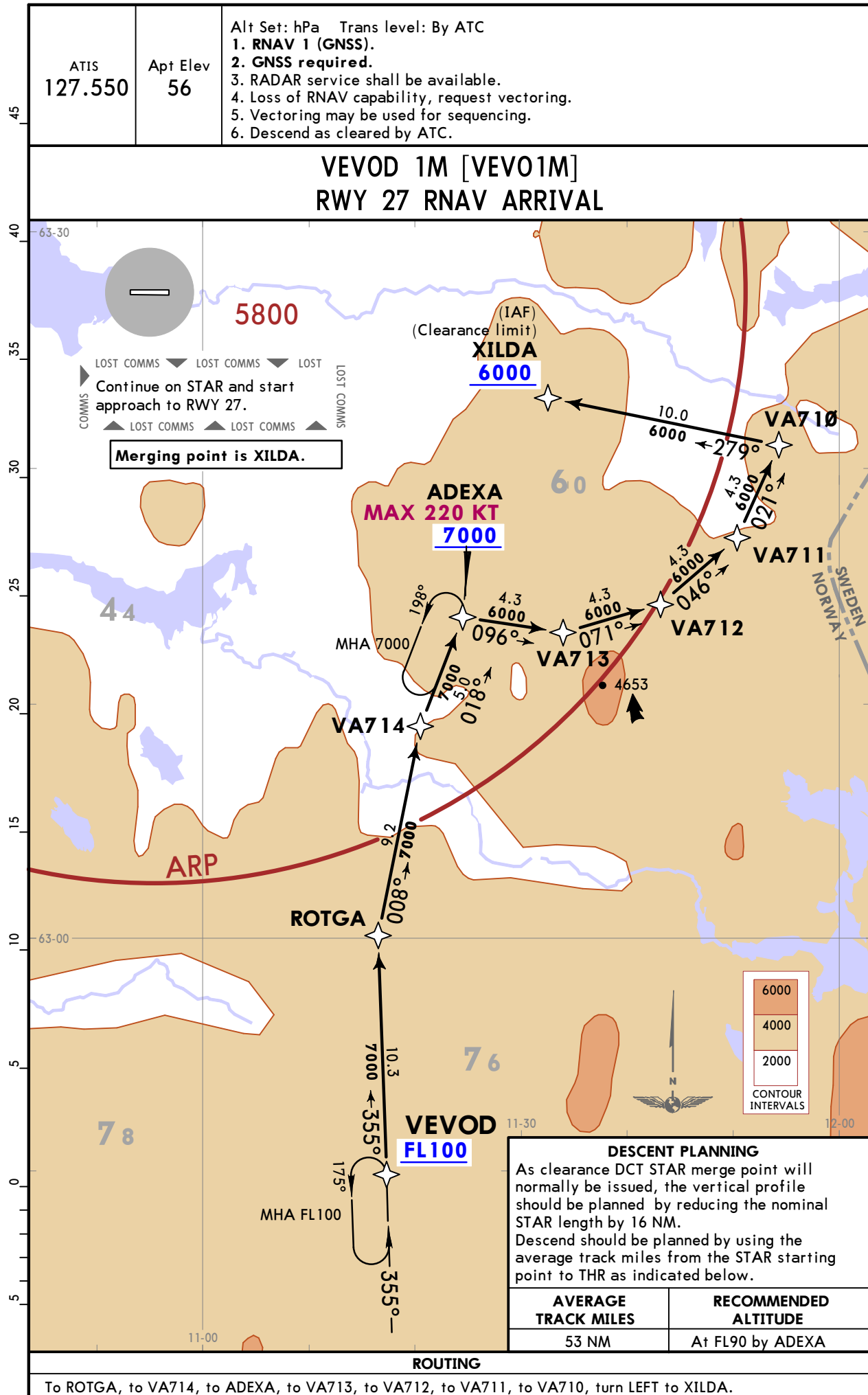
ENVA/TRD
VAERNESJEPPESEN
16 MAR 18 (10-2A)TRONDHEIM, NORWAY
RNAV STAR

ENVA/TRD
VAERNESJEPPESEN
16 MAR 18 (10-2B)TRONDHEIM, NORWAY
RNAV STARATIS
127.550Apt Elev
56

- Alt Set: hPa Trans level: By ATC
1. RNAV 1 (GNSS).
 2. GNSS required.
 3. Class A GNSS shall not be used.
 4. RADAR service shall be available.
 5. Loss of RNAV capability, request vectoring.
 6. Vectoring may be used for sequencing.
 7. Descend as cleared by ATC.

VEVOD 1L [VEV01L] RWY 09 RNAV ARRIVAL



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JEPPesen
 16 MAR 18 **(10-2C)**
TRONDHEIM, NORWAY
RNAV STAR


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VAERNES

JEPPesen
16 MAR 18 (10-2D)

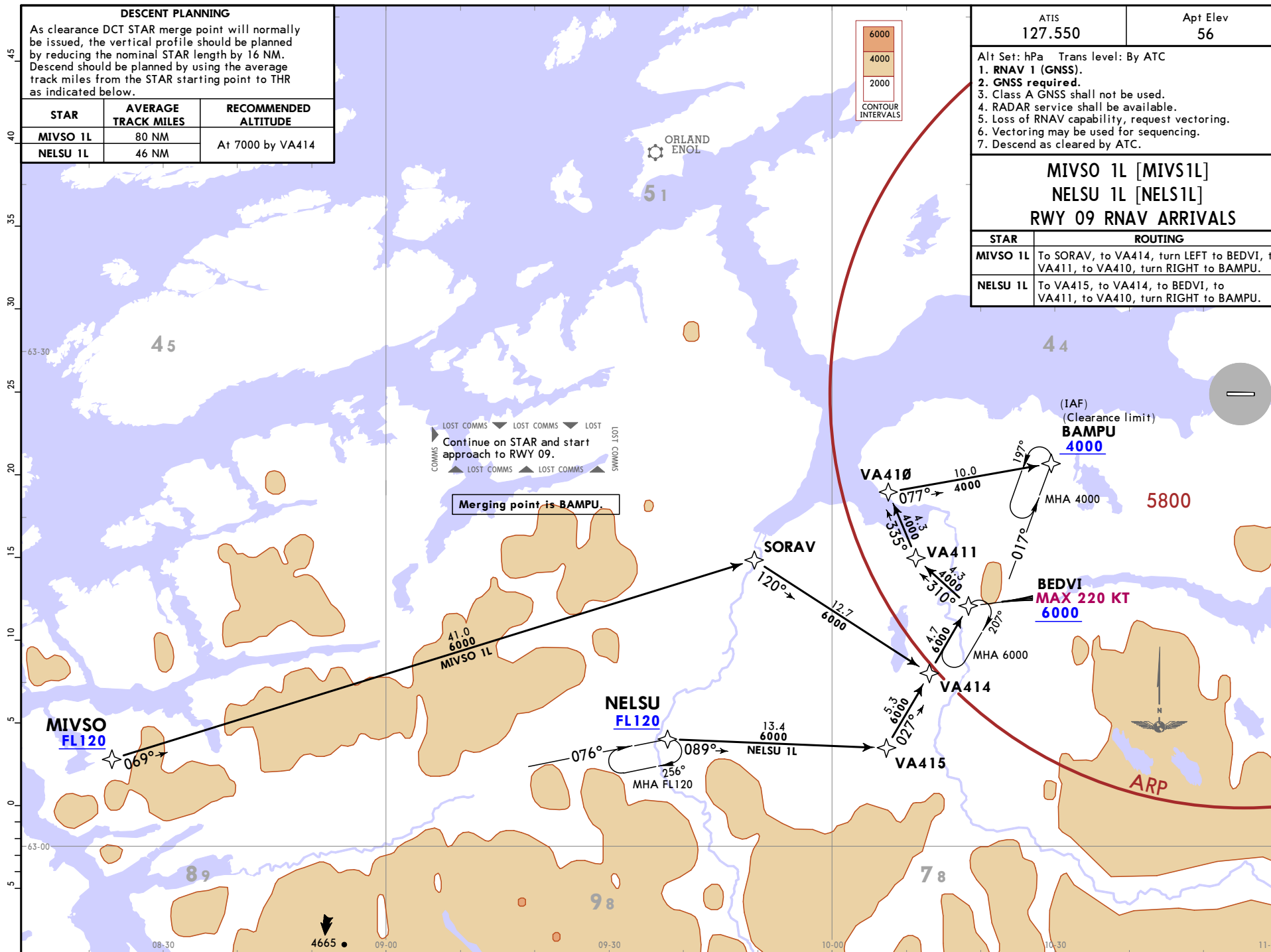
TRONDHEIM, NORWAY
RNAV STAR

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

STAR	AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
MIVSO 1L	80 NM	At 7000 by VA414
NELSU 1L	46 NM	

ATIS 127.550		Apt Elev 56	
Alt Set: hPa Trans level: By ATC			
1. RNAV 1 (GNSS).			
2. GNSS required.			
3. Class A GNSS shall not be used.			
4. RADAR service shall be available.			
5. Loss of RNAV capability, request vectoring.			
6. Vectoring may be used for sequencing.			
7. Descend as cleared by ATC.			
MIVSO 1L [MIVS1L] NELSU 1L [NELS1L] RWY 09 RNAV ARRIVALS			
STAR		ROUTING	
MIVSO 1L	To SORAV, to VA414, turn LEFT to BEDVI, to VA411, to VA410, turn RIGHT to BAMPU.		
NELSU 1L	To VA415, to VA414, to BEDVI, to VA411, to VA410, turn RIGHT to BAMPU.		



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VAERNES

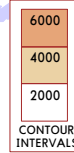
JEPPesen
16 MAR 18 10-2E

TRONDHEIM, NORWAY
RNAV STAR

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16 NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

STAR	AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
MIVSO 1M	114 NM	At FL90 by ADEXA
NELSU 2M	77 NM	



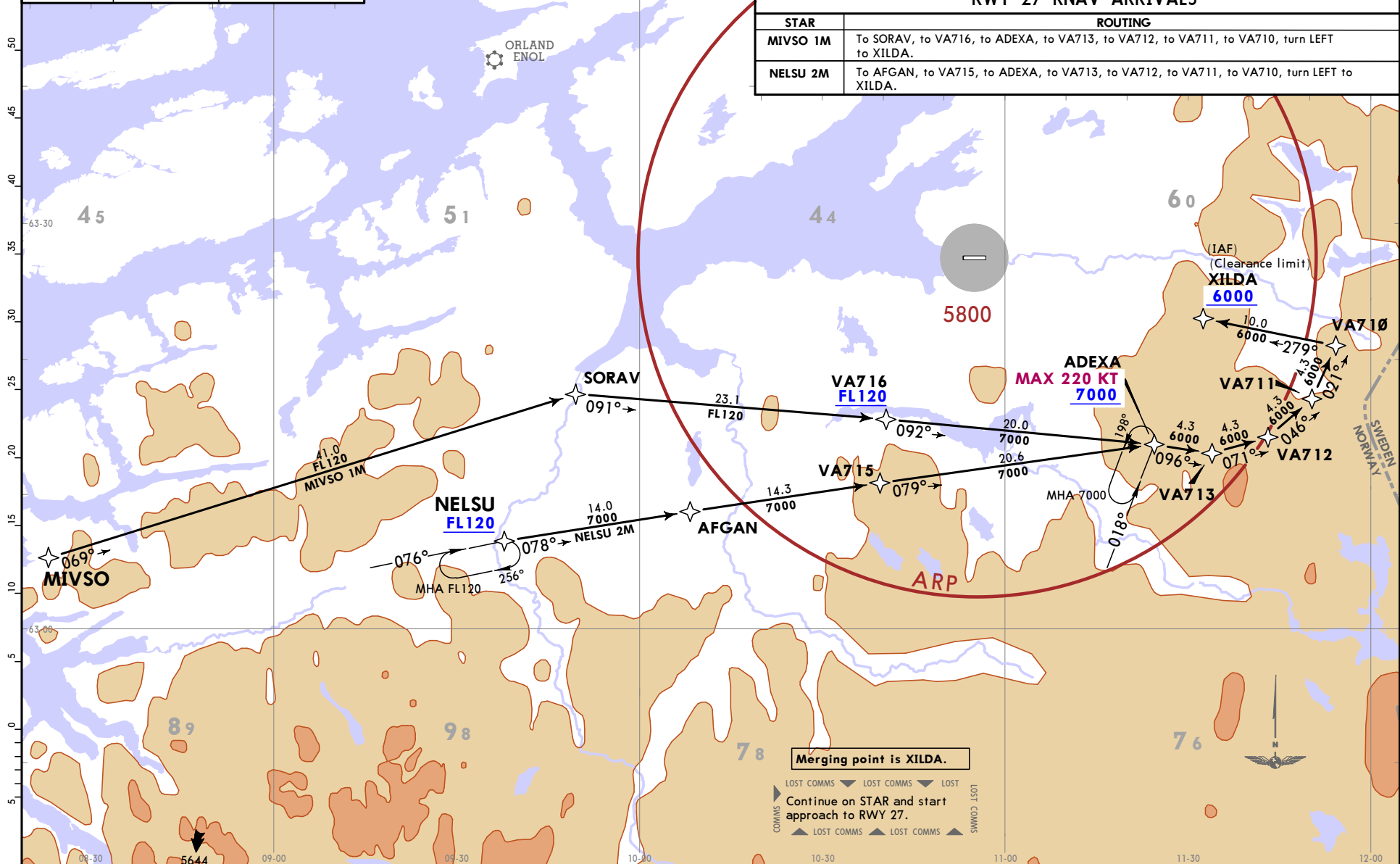
ATIS
127.550

Apt Elev
56

- Alt Set: hPa Trans level: By ATC
1. RNAV 1 (GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV capability, request vectoring.
 5. Vectoring may be used for sequencing.
 6. Descend as cleared by ATC.

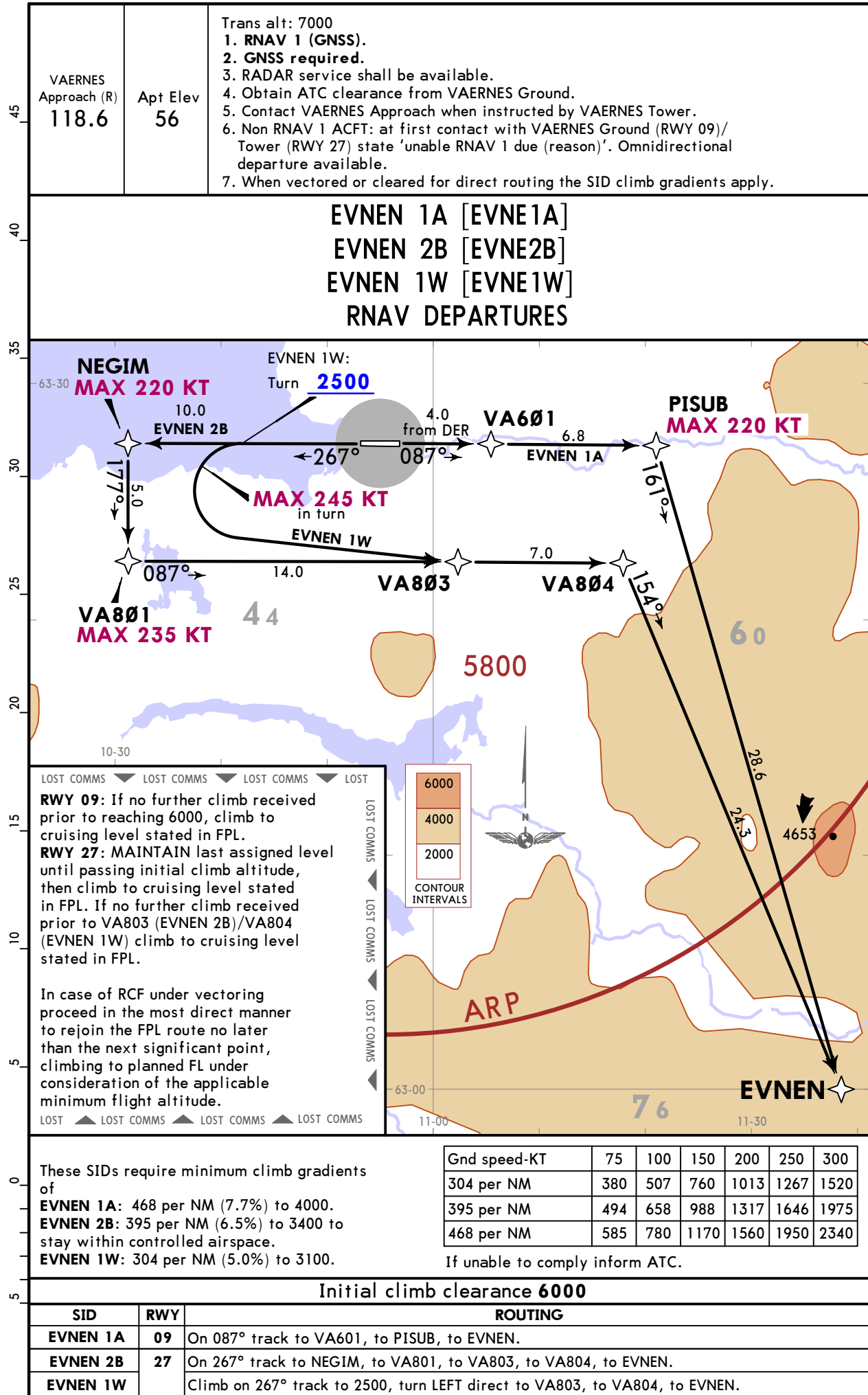
MIVSO 1M [MIVS1M], NELSU 2M [NELS2M]
RWY 27 RNAV ARRIVALS

STAR	ROUTING
MIVSO 1M	To SORAV, to VA716, to ADEXA, to VA713, to VA712, to VA711, to VA710, turn LEFT to XILDA.
NELSU 2M	To AFGAN, to VA715, to ADEXA, to VA713, to VA712, to VA711, to VA710, turn LEFT to XILDA.



Merging point is XILDA.

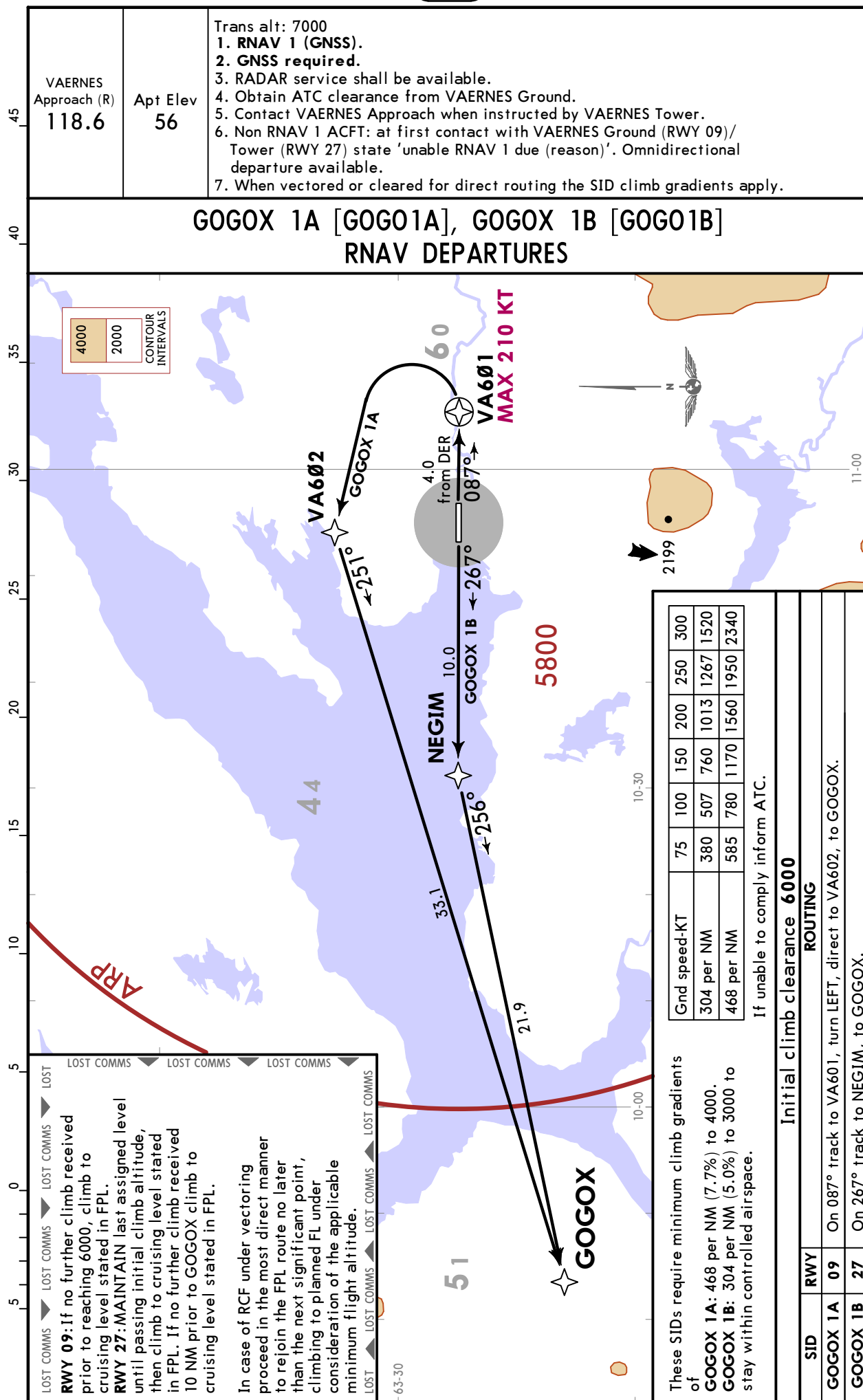
Continue on STAR and start approach to RWY 27.

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16 MAR 18 10-3TRONDHEIM, NORWAY
RNAV SID

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VAERNES

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16 MAR 18 (10-3A)

TRONDHEIM, NORWAY



CHANGES: New format.

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VAERNES

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16 MAR 18 (10-3B)

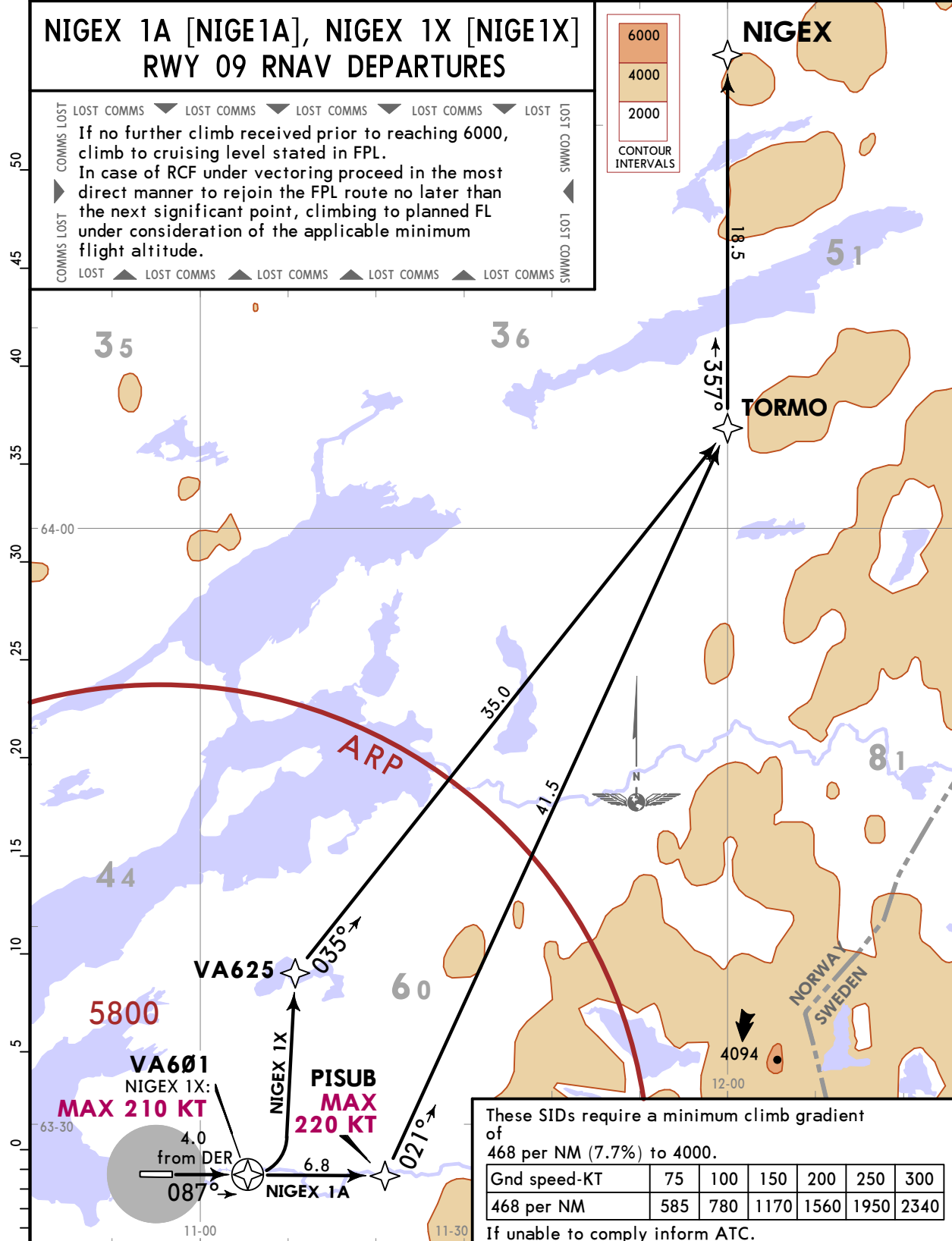
TRONDHEIM, NORWAY
RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. RNAV 1 (GNSS). 2. GNSS required. 3. RADAR service shall be available. 4. Obtain ATC clearance from VAERNES Ground. 5. Contact VAERNES Approach when instructed by VAERNES Tower. 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 7. When vectored or cleared for direct routing the SID climb gradients apply.
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**NIGEX 1A [NIGE1A], NIGEX 1X [NIGE1X]
RWY 09 RNAV DEPARTURES**

If no further climb received prior to reaching 6000, climb to cruising level stated in FPL.

In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.



These SIDs require a minimum climb gradient of 468 per NM (7.7%) to 4000.

Gnd speed-KT	75	100	150	200	250	300
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

SID	ROUTING
NIGEX 1A	On 087° track to VA601, to PISUB, turn LEFT to TORMO, to NIGEX.
NIGEX 1X	On 087° track to VA601, turn LEFT direct to VA625, to TORMO, to NIGEX.

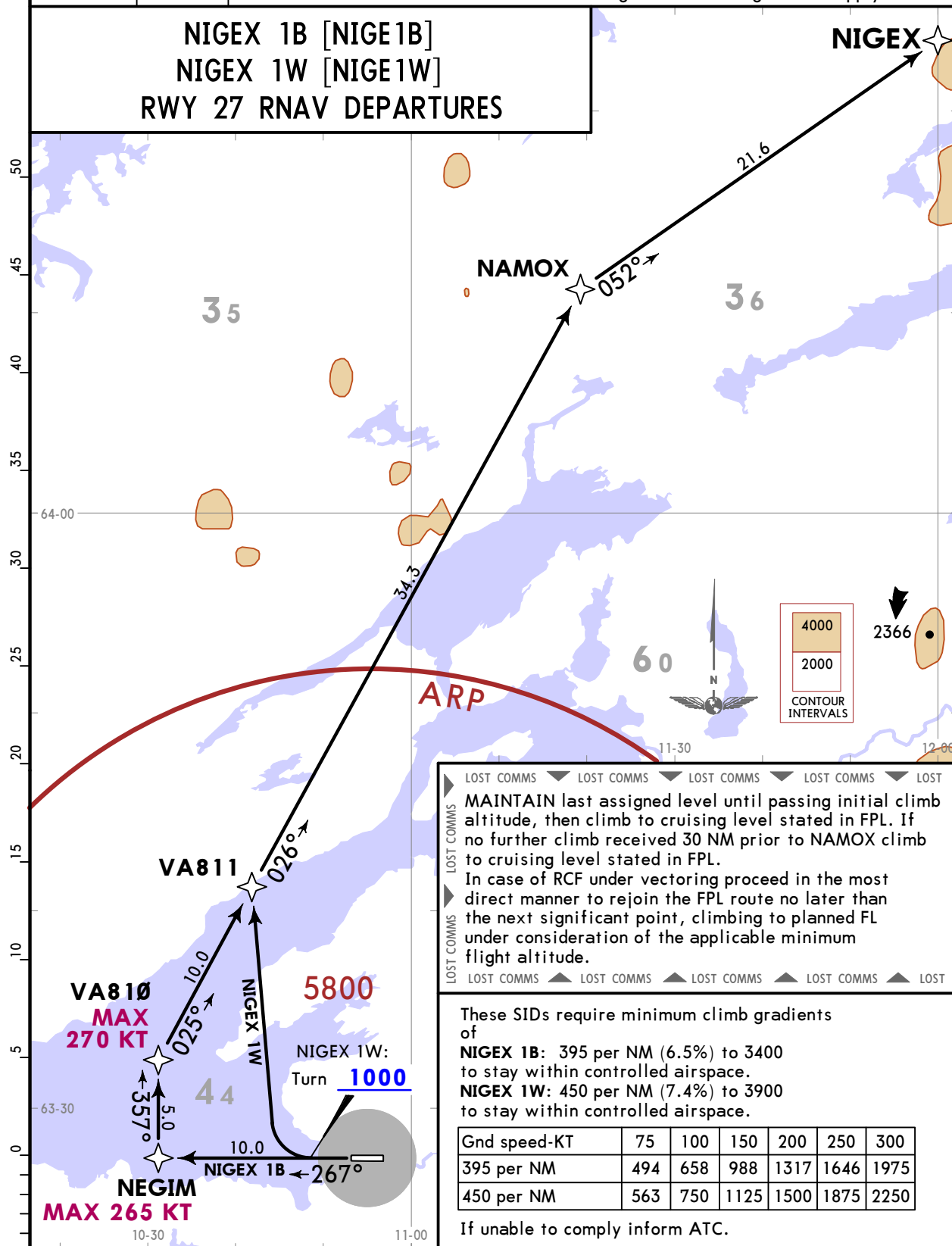
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16 MAR 18 (10-3C)

TRONDHEIM, NORWAY
RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. RNAV 1 (GNSS). 2. GNSS required. 3. RADAR service shall be available. 4. Obtain ATC clearance from VAERNES Ground. 5. Contact VAERNES Approach when instructed by VAERNES Tower. 6. Non RNAV 1 ACFT: at first contact with VAERNES Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 7. When vectored or cleared for direct routing the SID climb gradients apply.
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NIGEX 1B [NIGE1B]
NIGEX 1W [NIGE1W]
RWY 27 RNAV DEPARTURES

Initial climb clearance **6000**

SID	ROUTING
NIGEX 1B	On 267° track to NEGIM, to VA810, to VA811, to NAMOX, to NIGEX.
NIGEX 1W	Climb on 267° track to 1000, turn RIGHT direct to VA811, to NAMOX, to NIGEX.

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16 MAR 18 (10-3D)

TRONDHEIM, NORWAY

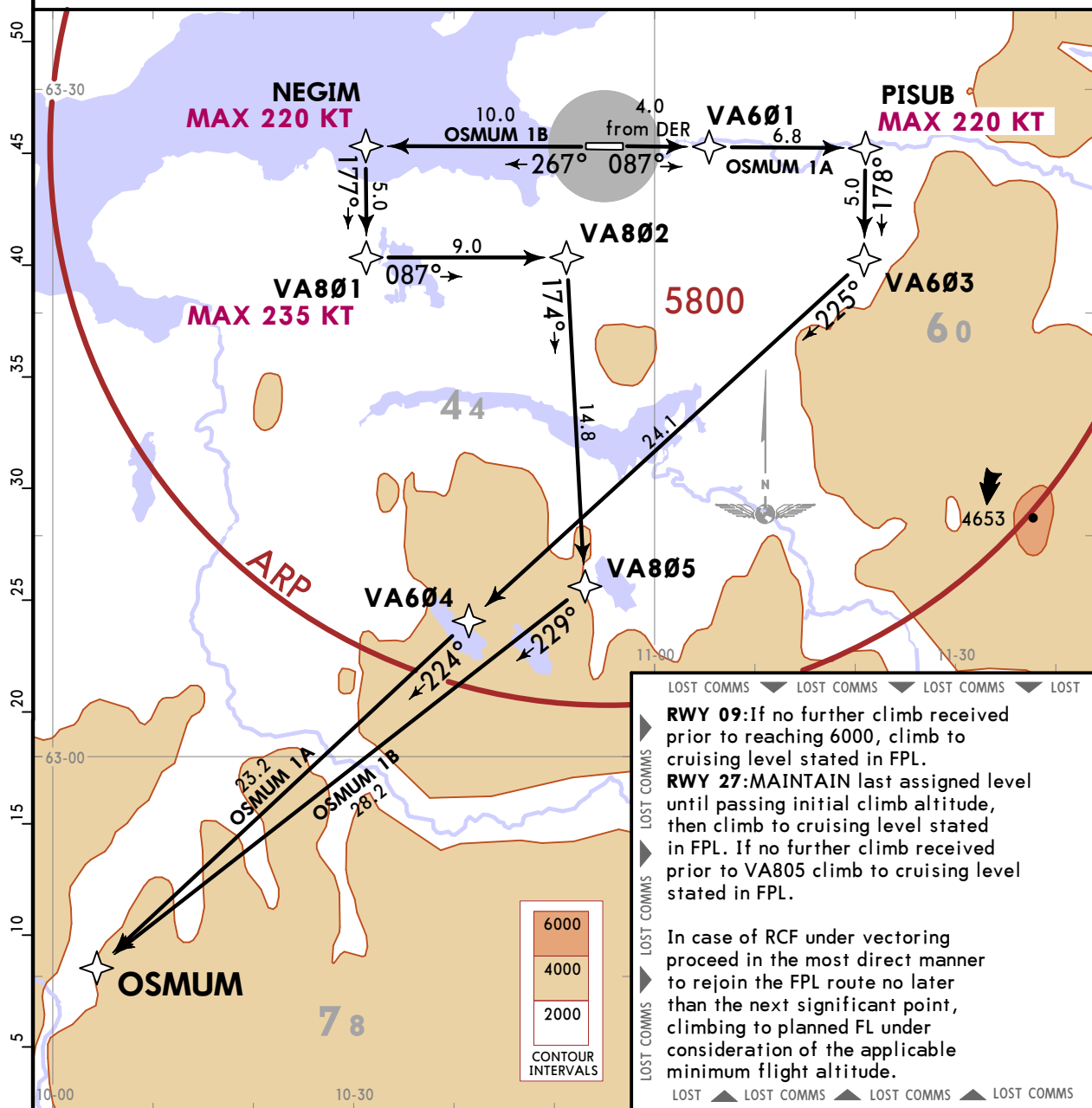
RNAV SID

VAERNES
Approach (R)
118.6

Apt Elev
56

- Trans alt: 7000
1. **RNAV 1 (GNSS).**
 2. **GNSS required.**
 3. RADAR service shall be available.
 4. Obtain ATC clearance from VAERNES Ground.
 5. Contact VAERNES Approach when instructed by VAERNES Tower.
 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/ Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 7. When vectored or cleared for direct routing the SID climb gradients apply.

OSMUM 1A [OSMU1A]
OSMUM 1B [OSMU1B]
RNAV DEPARTURES



These SIDs require minimum climb gradients of

OSMUM 1A: 468 per NM (7.7%) to 4000.
OSMUM 1B: 395 per NM (6.5%) to 3400
to stay within controlled airspace.

Gnd speed-KT	75	100	150	200	250	300
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

SID	RWY	ROUTING
OSMUM 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to OSMUM.
OSMUM 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to OSMUM.

CHANGES: New format.

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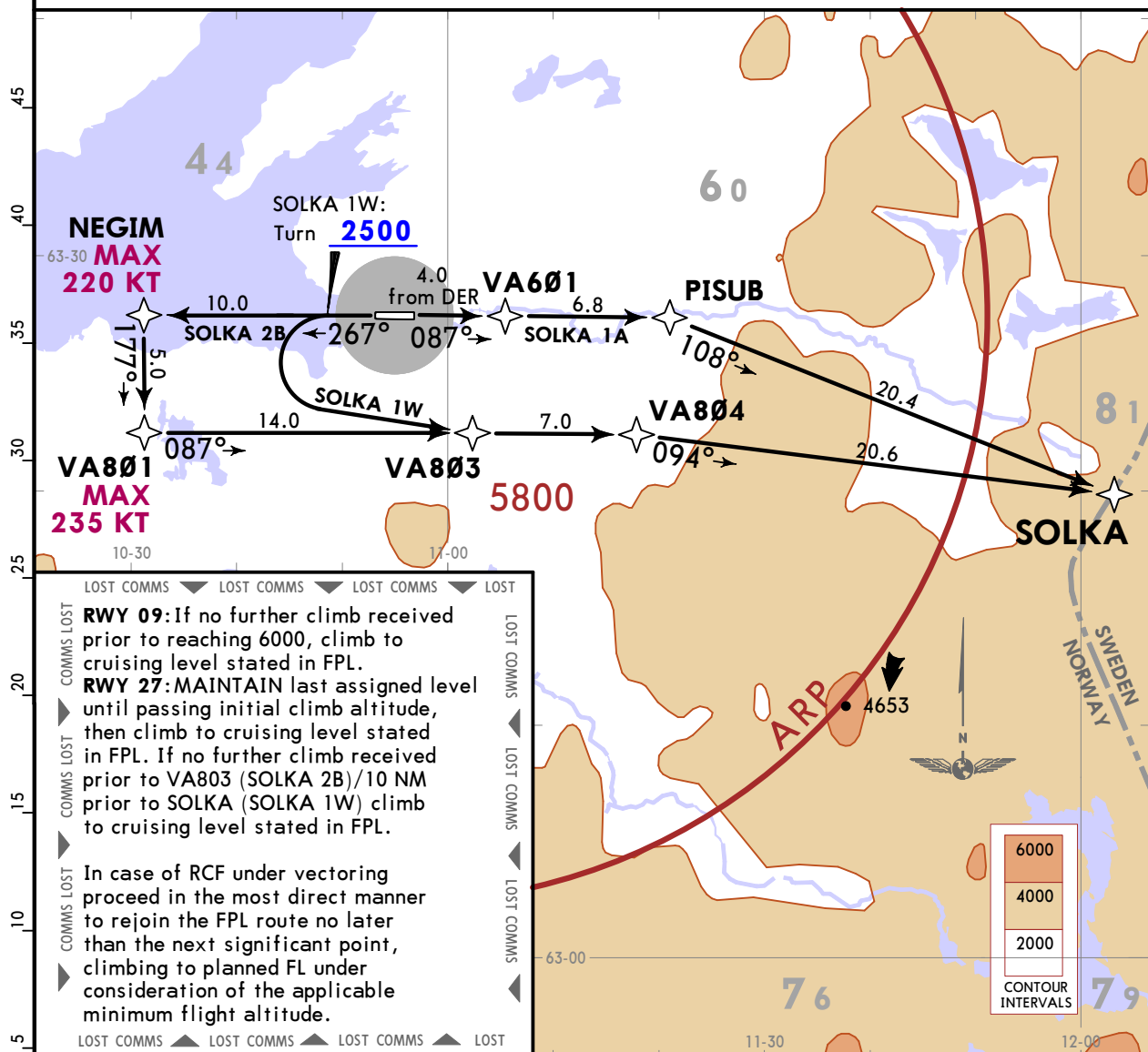
ENVA/TRD
VAERNES

JEPPESSEN
16 MAR 18 (10-3E)

TRONDHEIM, NORWAY
RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. RNAV 1 (GNSS). 2. GNSS required. 3. RADAR service shall be available. 4. Obtain ATC clearance from VAERNES Ground. 5. Contact VAERNES Approach when instructed by VAERNES Tower. 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/ Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 7. When vectored or cleared for direct routing the SID climb gradients apply.
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SOLKA 1A [SOLK1A]
SOLKA 2B [SOLK2B]
SOLKA 1W [SOLK1W]
RNAV DEPARTURES



These SIDs require minimum climb gradients of

SOLKA 1A: 468 per NM (7.7%) to 4000.

SOLKA 2B: 395 per NM (6.5%) to 3400 to stay within controlled airspace.

SOLKA 1W: 304 per NM (5.0%) to 3100.

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

SID	RWY	ROUTING
SOLKA 1A	09	On 087° track to VA601, to PISUB, to SOLKA.
SOLKA 2B	27	On 267° track to NEGIM, to VA801, to VA803, to VA804, to SOLKA.
SOLKA 1W		Climb on 267° track to 2500, turn LEFT direct to VA803, to VA804, to SOLKA.

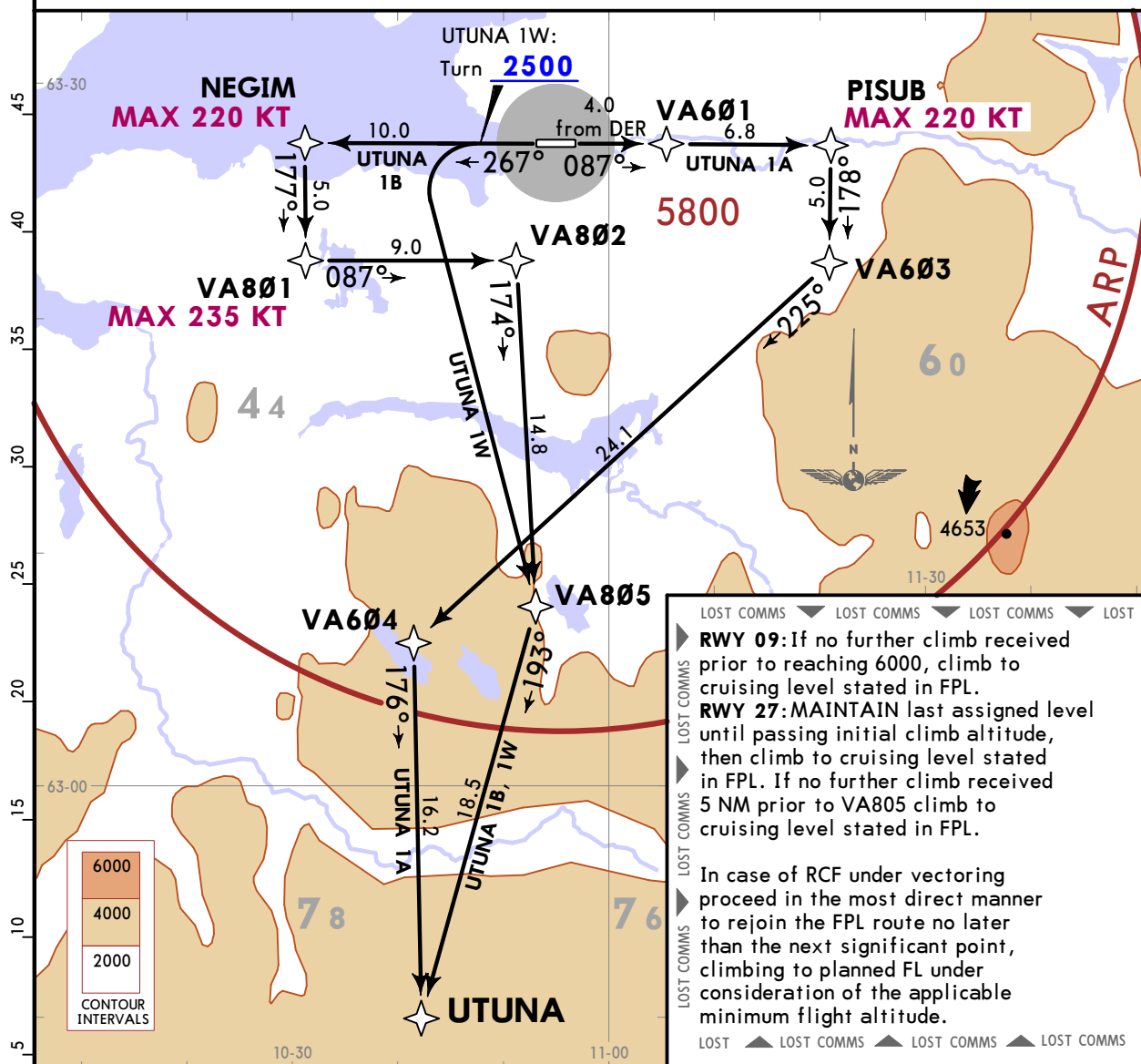
ENVA/TRD
VAERNES

JEPPESEN
16 MAR 18 (10-3F)

TRONDHEIM, NORWAY
RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. RNAV 1 (GNSS). 2. GNSS required. 3. RADAR service shall be available. 4. Obtain ATC clearance from VAERNES Ground. 5. Contact VAERNES Approach when instructed by VAERNES Tower. 6. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/ Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 7. When vectored or cleared for direct routing the SID climb gradients apply.
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UTUNA 1A [UTUN1A]
UTUNA 1B [UTUN1B]
UTUNA 1W [UTUN1W]
RNAV DEPARTURES



These SIDs require minimum climb gradients of

UTUNA 1A: 468 per NM (7.7%) to 4000.

UTUNA 1B: 395 per NM (6.5%) to 3400 to stay within controlled airspace.

UTUNA 1W: 304 per NM (5.0%) to 3100.

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
395 per NM	494	658	988	1317	1646	1975
468 per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000**

SID	RWY	ROUTING
UTUNA 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to UTUNA.
UTUNA 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to UTUNA.
UTUNA 1W		Climb on 267° track to 2500, turn LEFT direct to VA805, to UTUNA.

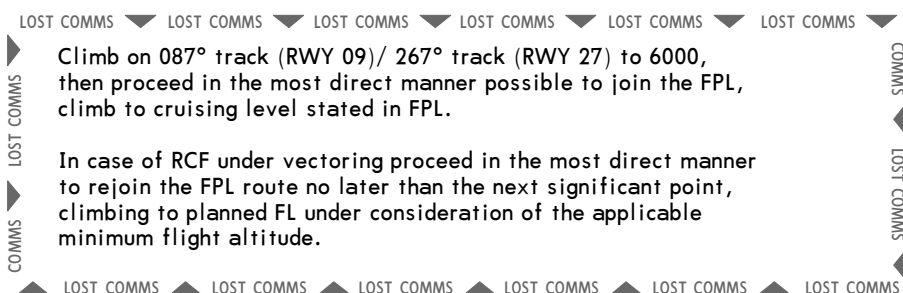
ENVA/TRD
VAERNES

JEPPESEN
 16 MAR 18 **(10-3G)**

TRONDHEIM, NORWAY
DEPARTURE

VAERNES Approach (R) 118.6	Apt Elev 56	Trans alt: 7000 1. Contact VAERNES Approach when instructed by VAERNES Tower. 2. RADAR service shall be available. 3. When vectored or cleared for direct routing the omnidirectional SID climb gradients apply.
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OMNI 2A
 NOT TO BE USED WHEN EN(D)-354 IS ACTIVE
OMNI 2B
OMNIDIRECTIONAL DEPARTURES



These SIDs require minimum climb gradients of
OMNI 2A: 510 per NM (8.4%) to 4000.
OMNI 2B: 304 per NM (5.0%) to 3000 .

Gnd speed-KT	75	100	150	200	250	300
304 per NM	380	507	760	1013	1267	1520
510 per NM	638	850	1275	1700	2125	2550

If unable to comply inform ATC.

Initial climb clearance 6000

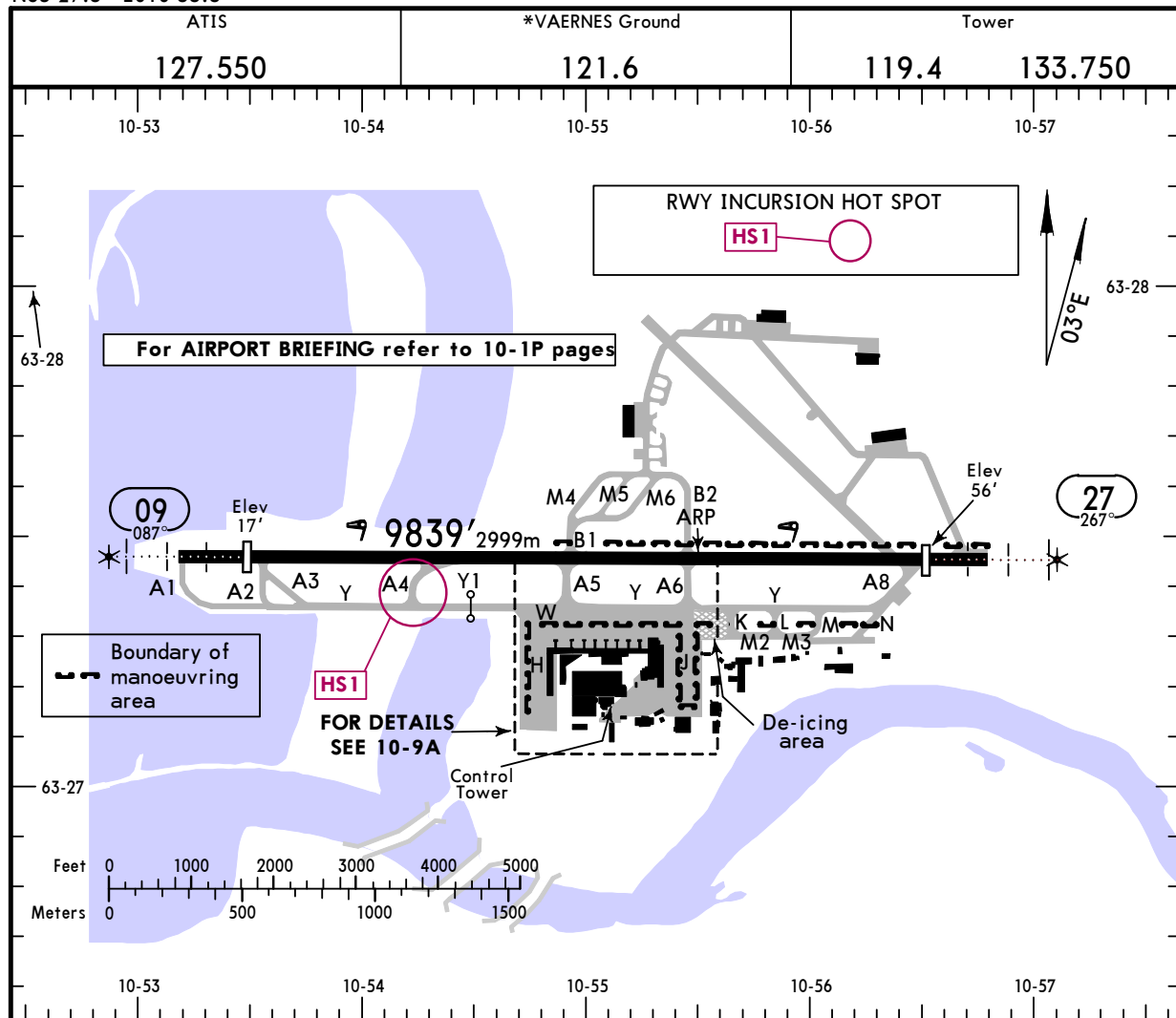
SID	RWY	ROUTING
OMNI 2A	09	Climb on 087° track, EXPECT further clearance from ATC, turn at or above 4000.
OMNI 2B	27	Climb on 267° track, EXPECT further clearance from ATC, turn at or above 3000.

ENVA/TRD

 Apt Elev **56'**
 N63 27.5 E010 55.5

JEPPesen

21 OCT 16 (10-9)

TRONDHEIM, NORWAY
VAERNES

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond		
09	HIRL (60m) CL (15m) HIALS PAPI (3.0°)	8025' 2446m	7053' 2150m	2	148' 45m
27	HIRL (60m) CL (15m) HIALS SFL CGL PAPI (3.4°)	8100' 2469m	6817' 2078m		

1 Rwy grooved.

2 TAKE OFF RUN AVAILABLE

RWY 09:

From rwy head 8855' (2699m)
 twy A2/A3 int 7874' (2400m)
 twy A4 int 5922' (1805m)
 twy A5 int 4190' (1277m)
 twy B1 int 4124' (1257m)
 twy A6/B2 int 2710' (826m)

RWY 27:

From rwy head 8855' (2699m)
 twy A8 int 8100' (2469m)
 twy A6/B2 int 5240' (1597m)
 twy B1 int 3871' (1180m)
 twy A5 int 3806' (1160m)

When an aircraft is cleared to line up on the rwy from position A8, the pilot-in-command shall inform ATC if full runway length will be used for take-off.

HOT SPOT

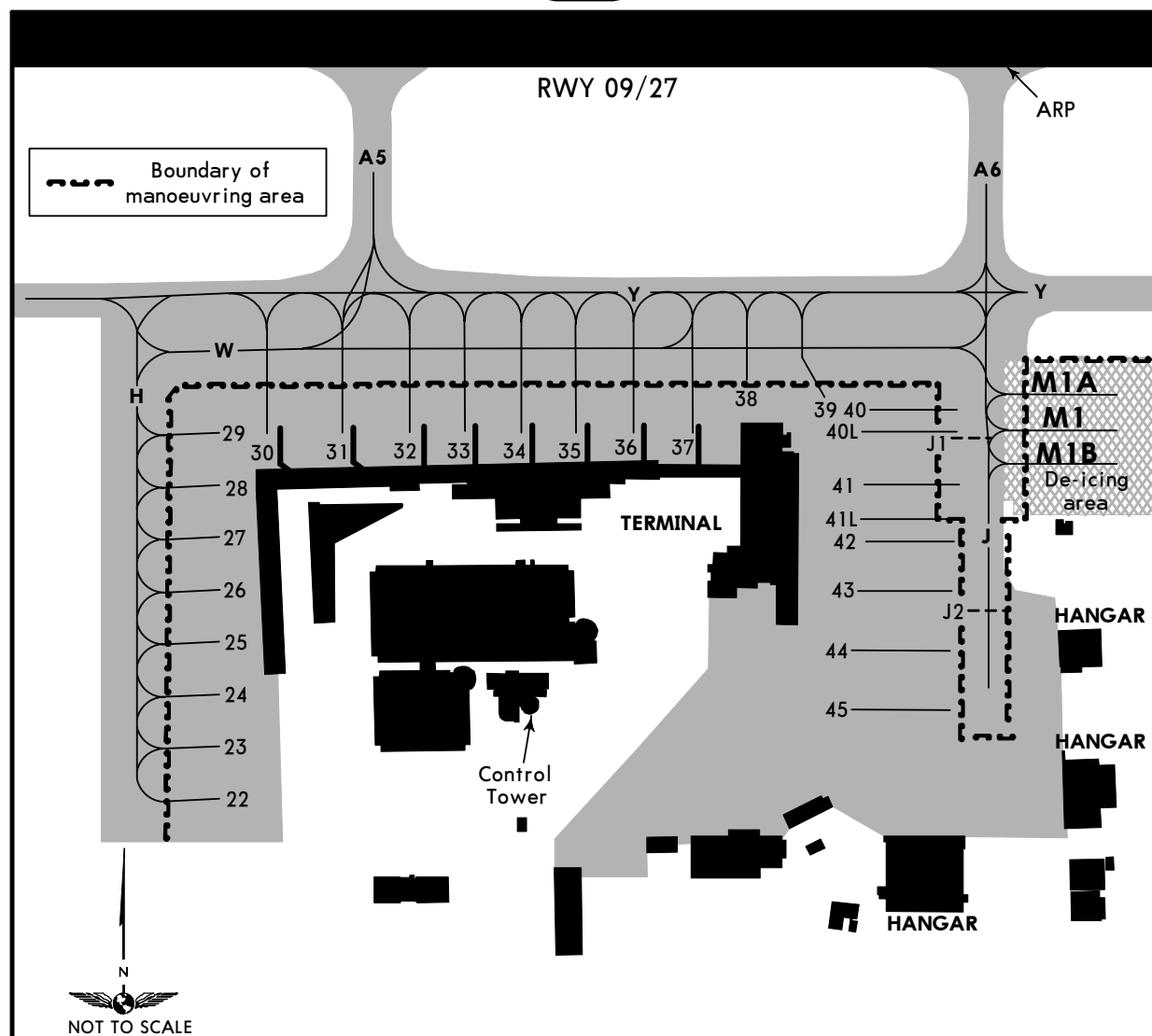
(For information only, not to be construed as ATC instructions.)

HS1 Angled twy, difficult to see traffic on final rwy 09.

Standard
TAKE-OFF

	RCLM (DAY only) or RL	NIL (DAY only)
A		
B		
C	400m	500m
D		

ENVA/TRD

21 OCT 16 **JEPPESEN**
(10-9A)**TRONDHEIM, NORWAY**
VAERNES**INS COORDINATES**

STAND No.	COORDINATES	ELEV	STAND No.	COORDINATES	ELEV
22	N63 27.1 E010 54.8	35	41 thru 42	N63 27.3 E010 55.3	35
23 thru 27	N63 27.2 E010 54.8	35	43 thru 45	N63 27.2 E010 55.3	36
28 thru 30	N63 27.3 E010 54.8	35			
31, 32	N63 27.3 E010 54.9	34			
33, 34	N63 27.3 E010 55.0	34			
35, 36	N63 27.3 E010 55.1	34			
37	N63 27.3 E010 55.2	34			
38	N63 27.3 E010 55.2	33			
39	N63 27.3 E010 55.3	35			
40, 40L	N63 27.3 E010 55.3	35			

ENVA/TRD **JEPPESEN**

31 OCT 14

10-9Y**Eff 13 Nov****JAA COPTER MINIMUMS****TRONDHEIM, NORWAY**
VAERNES

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
09	ILS ①	217' (200')	600m / 1000m
	ILS ②	307' (290')	700m / 1000m
	ILS ③	543' (526')	800m / 1000m
	ILS ④	717' (700')	800m / 1000m
	LOC ②	460' (443')	1000m / 1000m
	LOC ③	560' (543')	1000m / 1000m
	LOC ④	720' (703')	1000m / 1000m
	RNAV (LNAV/VNAV) ⑤	700' (683')	1000m / 1000m
	RNAV (LNAV/VNAV) ④	830' (813')	1000m / 1000m
	RNAV (LNAV) ⑥	720' (703')	1000m / 1000m
	RNAV (LNAV) ⑦	900' (883')	1000m / 1000m
	RNAV (LNAV) ④	1150' (1133')	1000m / 1000m
27	ILS	278' (222')	650m / 1000m
	LOC	700' (644')	1000m / 1000m
	RNAV (LNAV/VNAV)	900' (844')	1000m / 1000m
	RNAV (LNAV)	960' (904')	1000m / 1000m

- ① Missed apch climb gradient mim 5.0%
 ② Missed apch climb gradient mim 4.0%
 ③ Missed apch climb gradient mim 3.0%
 ④ Missed apch climb gradient mim 2.5%
 ⑤ Missed apch climb gradient mim 3.3%
 ⑥ Missed apch climb gradient mim 4.5%
 ⑦ Missed apch climb gradient mim 3.5%

CIRCLE-TO-LAND ⑧	MDA(H)	VIS
	1240' (1184')	1000m

⑧ Not authorized North of airport.

TAKE-OFF RWY 09, 27

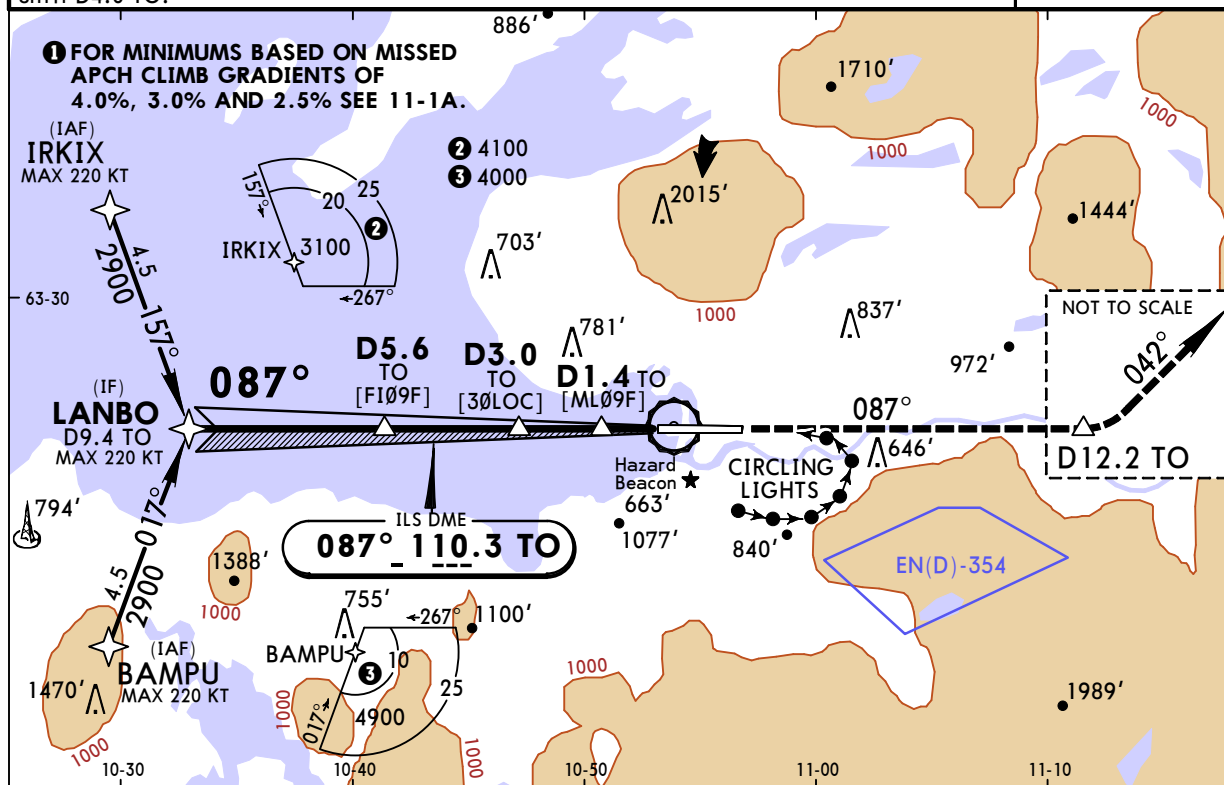
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
400m			400m ⑨	800m

⑨ Or rejected take-off distance whichever is the greater.

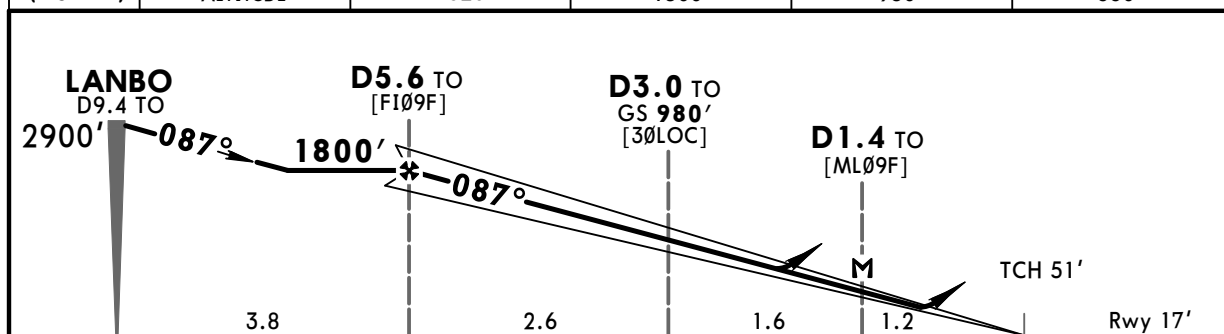
ENVA/TRD
VAERNESJEPPESEN
17 NOV 17 (11-1)TRONDHEIM, NORWAY
ILS or LOC Rwy 09

BRIEFING STRIP™

ATIS 127.550	VAERNES Approach (R) 118.6	*VAERNES Director (APP) 119.150	VAERNES Tower 119.4 133.750	*Ground 121.6
LOC TO 110.3	Final Aptch Crs 087°	GS D3.0 TO 980' (963')	ILS DA(H) Refer to Minimums	Apt Elev 56' Rwy 17'
MISSED APCH: Climb on 087° to 4000'. Expect vectoring. If below 3200' at D12.2 TO, turn LEFT and continue climb on 042°. MISSED APCH WITH LOST COMM: SQUAWK A7600. At D12.2 TO turn LEFT direct to IRKIX for new apch. Climb to 4100'.				
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000' 1. DME required. 2. RNAV transitions: RNAV 1 (GNSS required). MIM 160 KT until D4.0 TO.				
				5800 MSA ARP



LOC (GS out)	TO DME	5.0	4.0	3.0	2.0
	ALTITUDE	1620'	1300'	980'	660'



Gnd speed-Kts	70	90	100	120	140	160		
ILS GS	3.00°	372	478	531	637	743	849	
LOC Descent Angle	3.04°	376	484	538	645	753	861	
MAP at D1.4 TO								

Standard				CIRCLE-TO-LAND			
STRAIGHT-IN LANDING 09				Not authorized North of airport			
Missed apch climb gradient min 5.0%							
DA(H) A: 217' (200') C: 234' (217') B: 226' (209') D: 244' (227')							
FULL		ALS out		Max Kts	MDA(H)	VIS	
A	RVR 750m	RVR 1200m		100	1240' (1184')	1500m	
B				135	1430' (1374')	1600m	
C	RVR 800m			180	2140' (2084')	2400m	
D				205	2140' (2084')	3600m	

PANS OPS

ENVA/TRD

 **JEPPESEN**
17 NOV 17 **(11-1A)**
TRONDHEIM, NORWAY
VAERNES**ILS & LOC RWY 09 MINIMUMS**

BASED ON:

MISSED APCH CLIMB GRADIENT MIM 4.0%

Standard				
ILS			LOC (GS out)	
DA(H) A: 307' (290') C: 327' (310')			CDFA	
B: 319' (302') D: 337' (320')			DA/MDA(H) 460' (443')	
FULL		ALS out	ALS out	
A	RVR 900m	RVR 1400m	RVR 1500m	
B	RVR 1000m			
C			RVR 1700m	RVR 2100m
D				

MISSED APCH CLIMB GRADIENT MIM 3.0%

Standard				
ILS			LOC (GS out)	
DA(H)			CDFA	
A: 543' (526') C: 564' (547')			DA/MDA(H) A: 560' (543') C: 610' (593')	
B: 556' (539') D: 574' (557')			B: 590' (573') D: 640' (623')	
FULL		ALS out	ALS out	
A	RVR 1500m		RVR 1500m	
B				
C	RVR 2100m	RVR 2400m	RVR 2300m	RVR 2400m
D			RVR 2400m	

MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard				
ILS			LOC (GS out)	
DA(H)			CDFA	
A: 717' (700') C: 737' (720')			DA/MDA(H) A: 720' (703') C: 770' (753')	
B: 729' (712') D: 748' (731')			B: 740' (723') D: 790' (773')	
FULL		ALS out	ALS out	
A	RVR 1500m		RVR 1500m	
B				
C	RVR 2400m		RVR 2400m	
D				

ENVA/TRD
VÆRNE

31 OCT 14

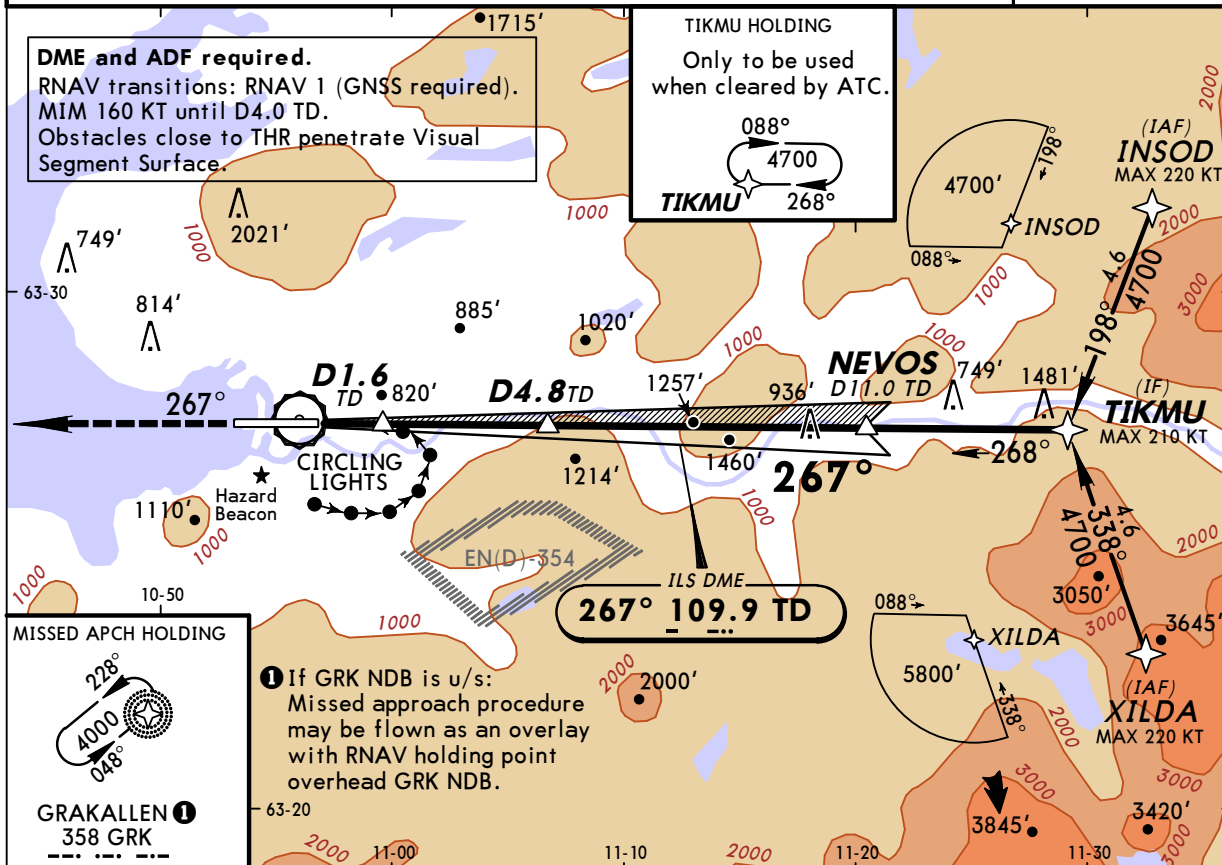
JEPPESSEN
31 OCT 14 (11-2) Eff 13 Nov

TRONDHEIM, NORWAY
■ ILS or LOC Rwy 27

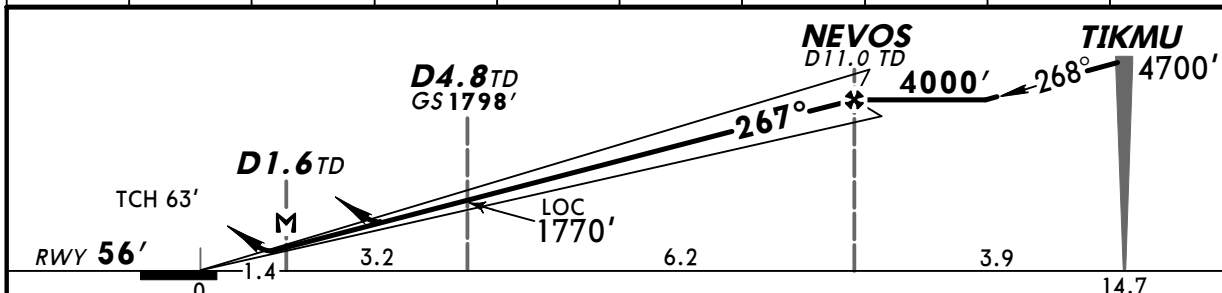
ATIS 127.550		VAERNES Approach (R) 118.6		*VAERNES Director (APP) 119.150		VAERNES Tower 119.4 133.750		*Ground 121.6	
LOC TD 109.9		Final Apch Crs 267°		GS DA.8 TD 1798' (1742')		ILS DA(H) Refer to Minimums		Apt Elev 56' RWY 56'	
MISSED APCH: Climb on 267° to 4000', then turn LEFT direct to GRK NDB. Enter GRK NDB holding, climbing to 4000'.									5800'
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: By ATC		Trans alt: 7000'		MSA ARP	

DME and ADF required.
RNAV transitions: RNAV 1 (GNSS required).
MIM 160 KT until D4.0 TD.
Obstacles close to THR penetrate Visual Segment Surface.

TIKMU HOLDING
Only to be used
when cleared by ATC.



LOC (GS out)	TD DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	740'	1110'	1470'	1830'	2190'	2560'	2920'	3280'



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>ILS GS or</i>							
<i>LOC Descent Angle</i> 3.40°	421	541	602	722	842	963	
<i>MAP at DJ.6 TD</i>							

Standard		STRAIGHT-IN LANDING		CIRCLE-TO-LAND	
		ILS LOC (GS out)		Not authorized North of airport	
A: 278' (222') C: 303' (247') B: 293' (237') D: 315' (259')		DA(H) 700' (644')			
FULL/Limited		ALS out		Max Kts	MDA(H) VIS
A	RVR 800m	RVR 1200m	RVR 1500m	100	1240' (1184') 1500m
B				135	1430' (1374') 1600m
C				180	2140' (2084') 2400m
D		RVR 1300m	CMV 2400m	205	2140' (2084') 3600m

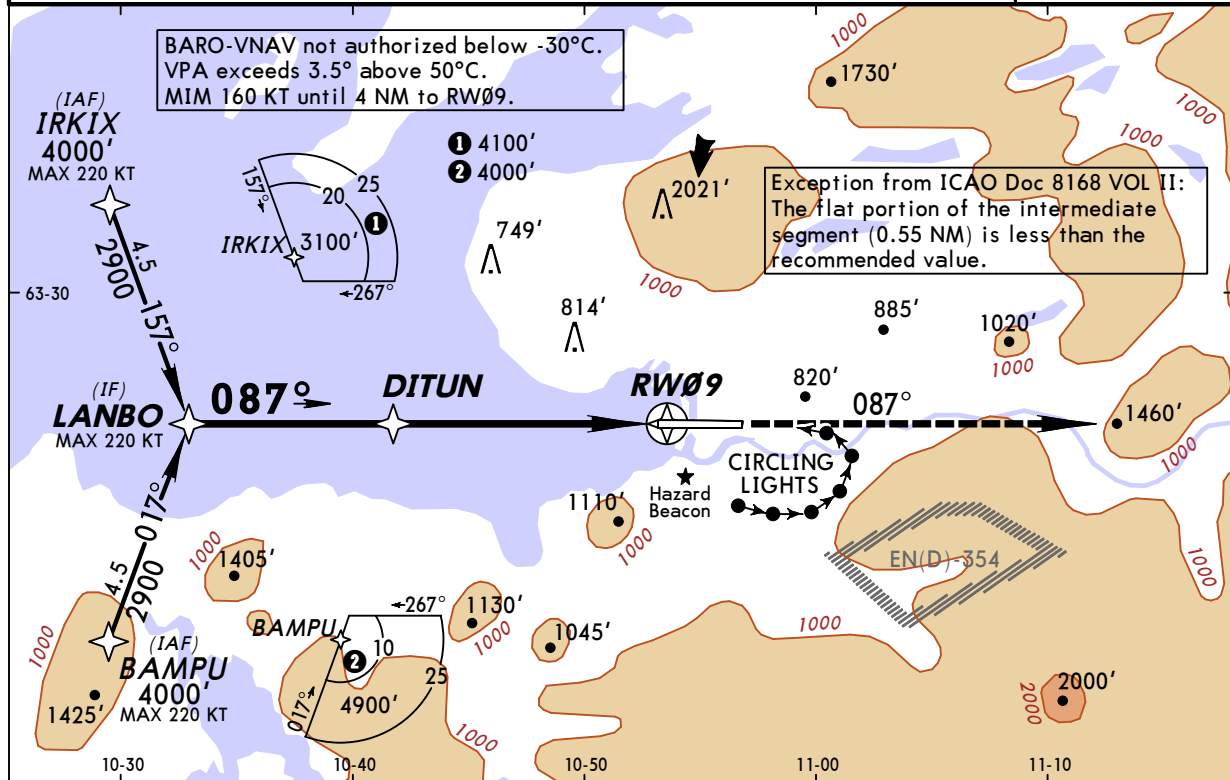
CHANGES: Procedure. Minimums.

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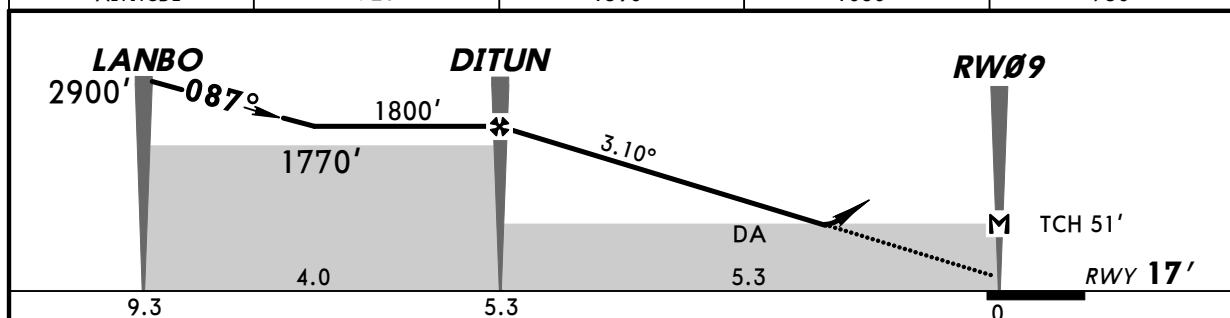
ENVA/TRD
VAERNESJEPPESEN
31 OCT 14 (12-1) Eff 13 NovTRONDHEIM, NORWAY
RNAV (GNSS) Rwy 09

BRIEFING STRIP

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
RNAV	Final Aptch Crs 087°	Procedure Alt DITUN 1800' (1783')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 56' RWY 17'
MISSED APCH: Climb STRAIGHT AHEAD on 087° to 3300'. Expect vectoring. MISSED APCH WITH LOST COMM: SQUAWK A7600. At VA605 turn LEFT direct to IRKIX for new apch. Climb to 4100'.				TAA 25 NM IAF
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to RW09	5.0	4.0	3.0	2.0
ALTITUDE	1720'	1390'	1060'	730'



Gnd speed-Kts	70	90	100	120	140	160		HIALS	
Descent Angle	3.10°	384	494	548	658	768	878	PAPI	Refer to Missed Apch above
MAP at RW09									

Standard		LNAV/VNAV		STRAIGHT-IN LANDING		LNAV		CIRCLE-TO-LAND	
Missed apch climb grad mim 3.3%		Missed apch climb grad mim 2.5%		Missed apch climb grad mim 4.5%		Missed apch climb grad mim 3.5%		Not authorized North of airport	
DA(H)		DA(H)		DA(H)		DA(H)		DA(H)	
A: 830' (813')		A: 830' (813')		A: 720' (703')		A: 900' (883')		A: 1150' (1133')	
B: 840' (823')		B: 840' (823')		B: 740' (723')		B: 930' (913')		B: 1170' (1153')	
C: 860' (843')		C: 860' (843')		C: 760' (743')		C: 960' (943')		C: 1190' (1173')	
D: 880' (863')		D: 880' (863')		D: 770' (753')		D: 990' (973')		D: 1210' (1193')	
ALS out		ALS out		ALS out		ALS out		ALS out	
RVR 1500m		RVR 1500m		RVR 1500m		RVR 1500m		RVR 1500m	
CMV 2400m		CMV 2400m		CMV 2400m		CMV 2400m		CMV 2400m	
Max Kts		Max Kts		Max Kts		Max Kts		Max Kts	
100		100		100		100		100	
135		135		135		135		135	
180		180		180		180		180	
205		205		205		205		205	

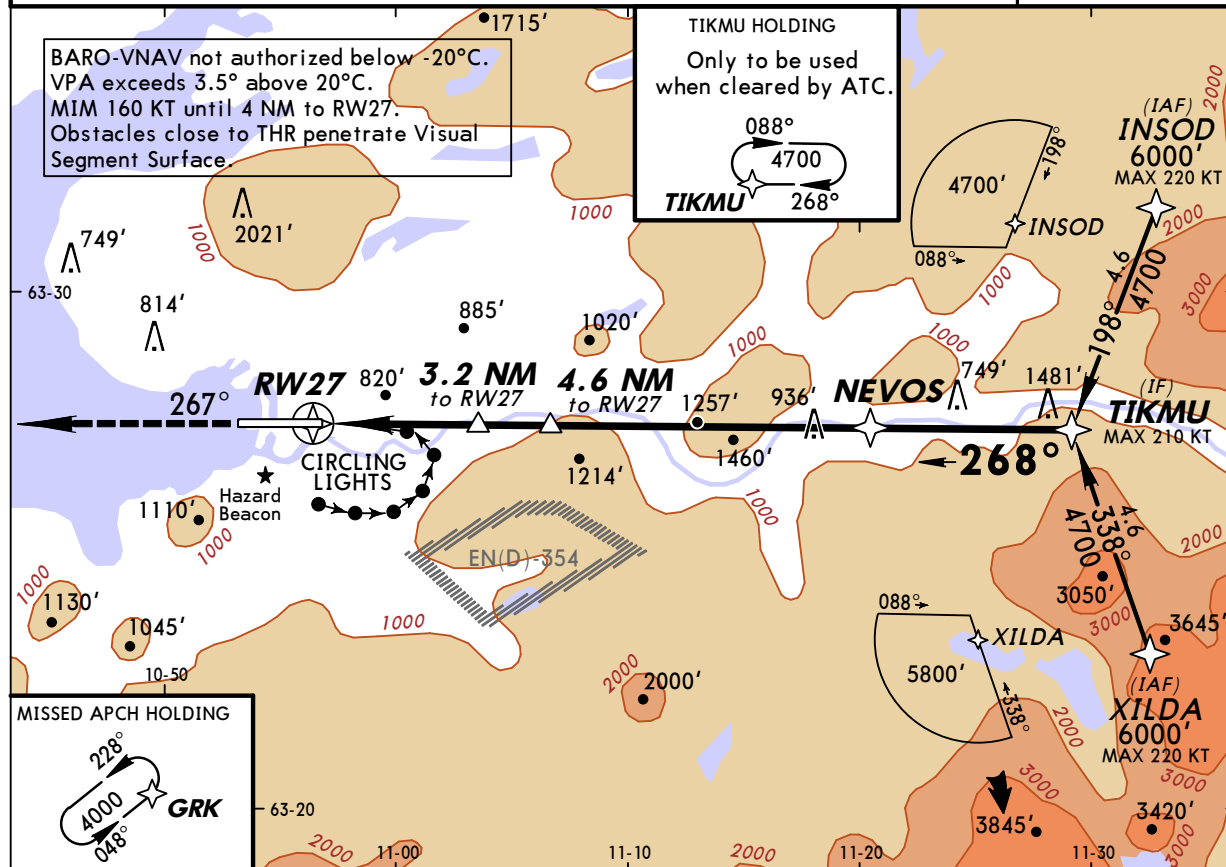
**ENVA/TRD
VAERNES**

31 OCT 14

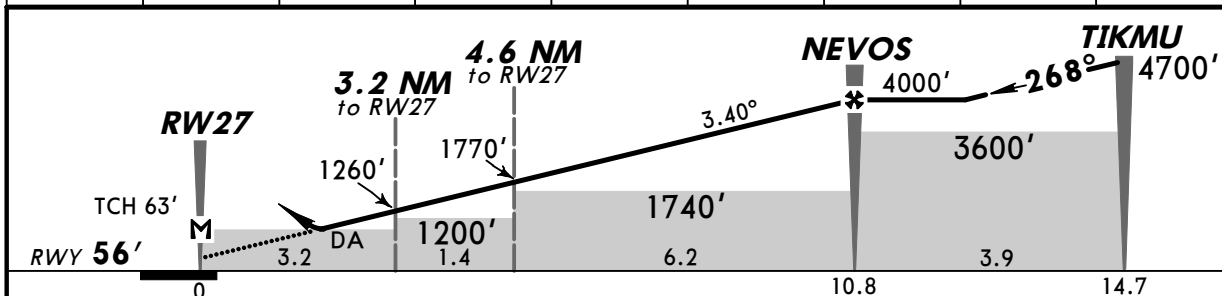
JEPPESSEN
31 OCT 14 (12-2) Eff 13 Nov

TRONDHEIM, NORWAY
■ RNAV (GNSS) Rwy 27

ATIS 127.550		VAERNES Approach (R) 118.6		*VAERNES Director (APP) 119.150		VAERNES Tower 119.4 133.750		*Ground 121.6	
RNAV	Final Apch Crs 268°	Procedure Alt NEVOS 4000' (3944')	LNAV/VNAV DA(H) Refer to Minimums		Apt Elev 56' RWY 56'		TAA 25 NM IAF		
MISSED APCH: Climb on 267° to 4000', then turn LEFT direct to GRK. Enter GRK holding, climbing to 4000'.									
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: By ATC		Trans alt: 7000'			



DIST to RW27	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1200'	1560'	1920'	2280'	2650'	3010'	3370'	3730'



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>Descent Angle</i> 3.40°	421	541	602	722	842	963	
<i>MAP at RW27</i>							

Standard		STRAIGHT-IN LANDING		CIRCLE-TO-LAND	
LNAV/VNAV		LNAV		Not authorized North of airport	
DA(H) C: 910' (854')		DA(H) 960' (904')			
AB: 900' (844') D: 920' (864')					
ALS out		ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m	RVR 1500m		100	1240' (1184') 1500m
B				135	1430' (1374') 1600m
C	CMV 2400m	CMV 2400m		180	2140' (2084') 2400m
D				205	2140' (2084') 3600m

CHANGES: MSA/TAA. Procedure. Minimums.

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ENVA/TRD
VAERNES

30 DEC 16

JEPPESEN

TRONDHEIM, NORWAY VISUAL APPROACH CHART

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6

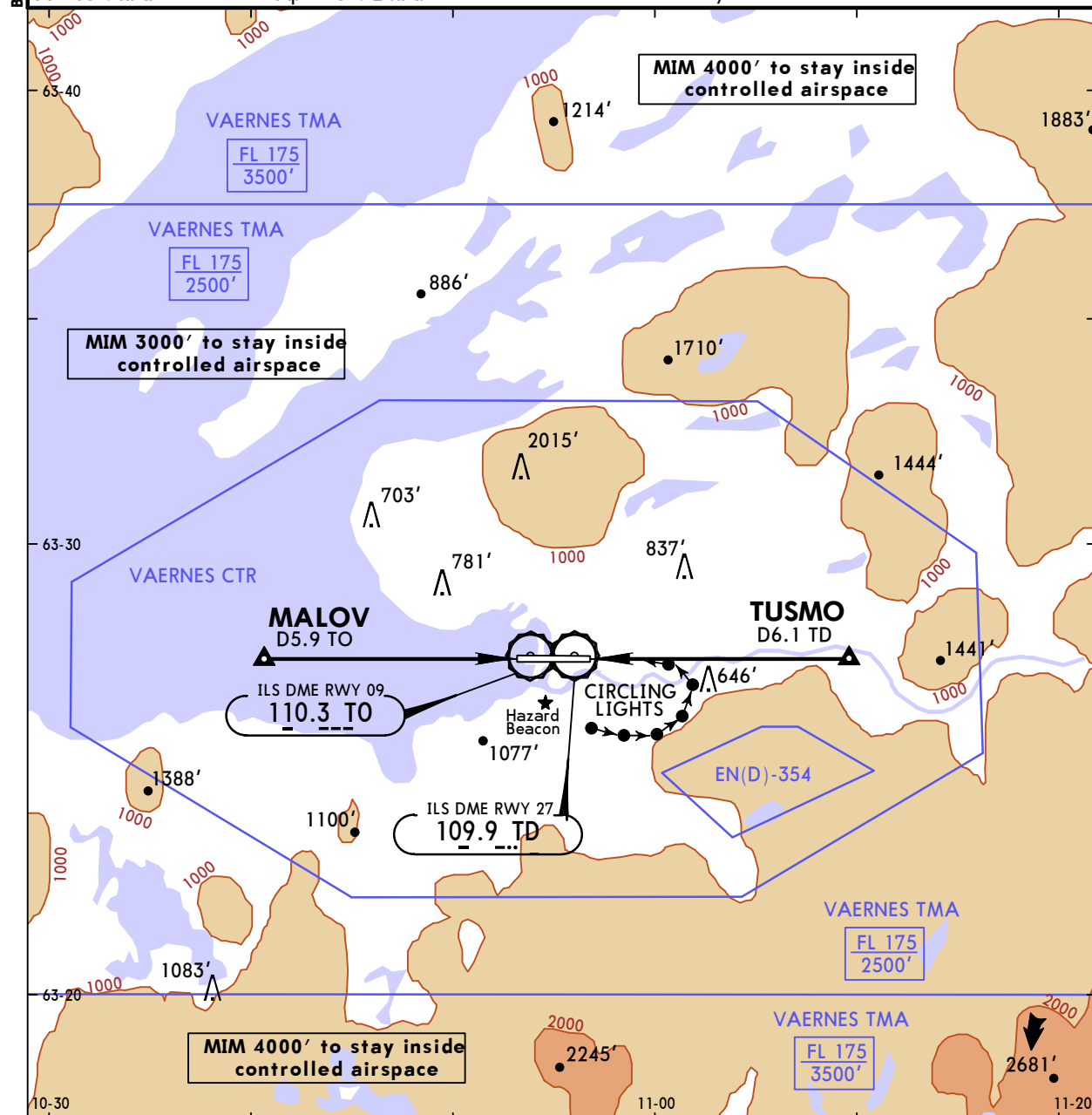
Apt Elev **56'**

Alt Set: hPa

Apt Elev: 2 hPa

Trans level: By ATC

Trans alt: 7000'



VISUAL APPROACH PROCEDURES

In order to reduce noise disturbances and to avoid VFR traffic, the following procedures apply when making visual approaches to RWY 09 or RWY 27:

Unless otherwise authorized or directed by ATC, an ACFT having been cleared for a visual approach shall:

- a) Execute the approach so as to be established on final approach track outside:
RWY 09: MALOV/D5.9 TO
RWY 27: TUSMO/D6.1 TD
- b) Maintain minimum 2500' until starting turn to final, and establish a final approach descent not below ILS glideslope/ PAPI on slope signal.
- c) When cleared by ATC, shorter visual approaches are allowed from the North to RWY 09 and for Propeller ACFT to 2 NM final RWY 27.

ENTC/TOS
LANGNES

13 MAY 16

10-2

Eff 26 May

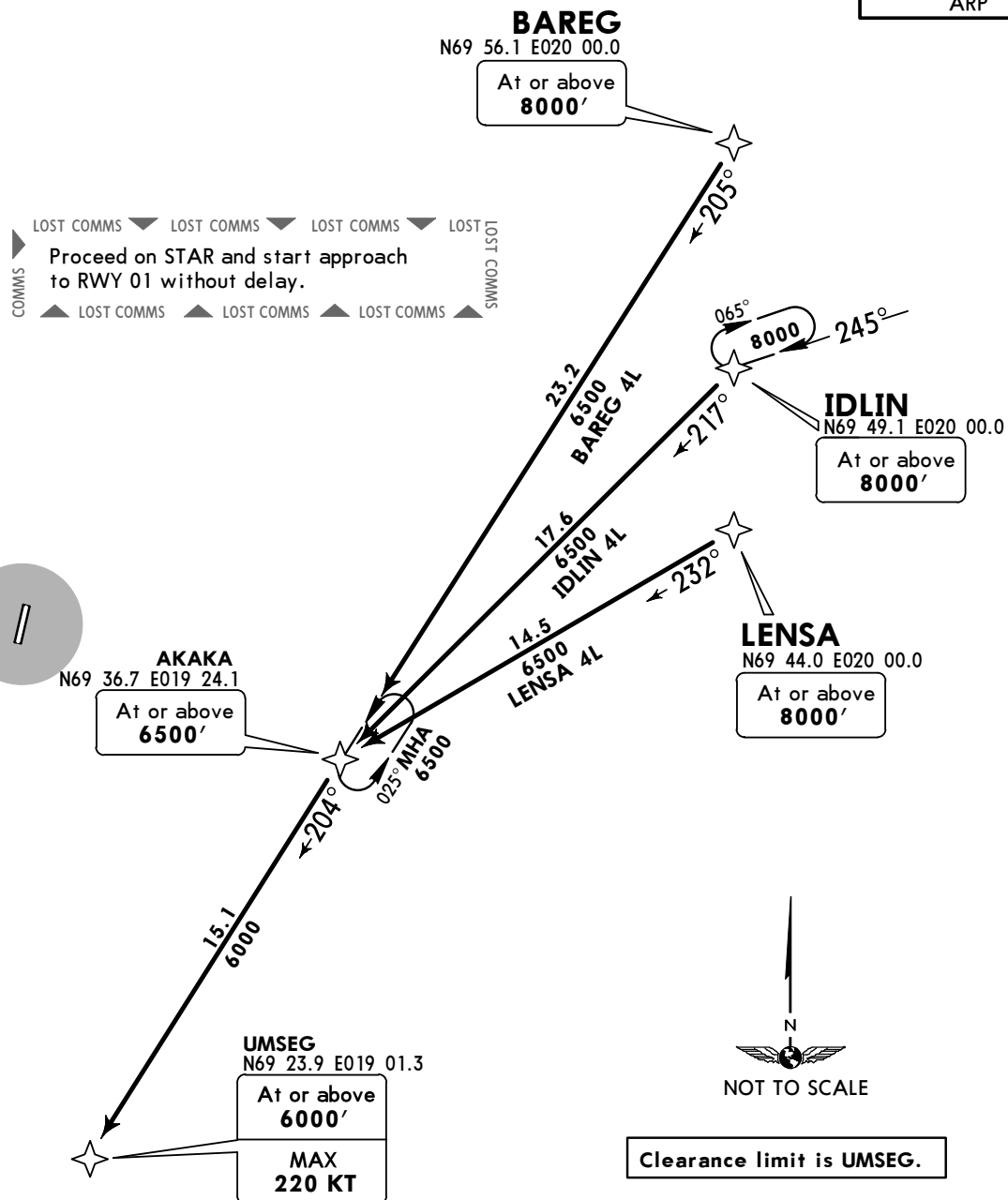
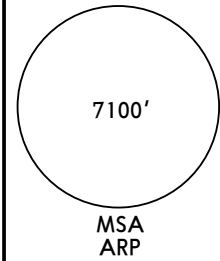
TROMSO, NORWAY
RNAV STAR

 *ATIS
126.125

 Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

BAREG 4L [BARE4L]
IDLIN 4L [IDLI4L]
LENSA 4L [LENS4L]
RNAV


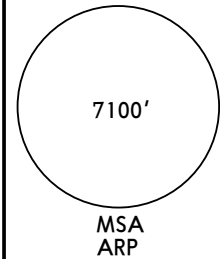
STAR	RWY	ROUTING
BAREG 4L	01	From BAREG to AKAKA, to UMSEG.
IDLIN 4L		From IDLIN to AKAKA, to UMSEG.
LENSA 4L		From LENSEA to AKAKA, to UMSEG.

ENTC/TOS
LANGNES
JEPPesen
 13 MAY 16 **(10-2A)** **Eff 26 May**
TROMSO, NORWAY
RNAV STAR

 *ATIS
126.125

 Apt Elev
32'

 Alt Set: hPa Trans level: By ATC Trans alt: 7000'
 1. RNAV 1 (GNSS, except class A GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

BAREG 2M [BARE2M]
IDLIN 2M [IDLI2M]
LENSA 2M [LENS2M]
RNAV


LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 Proceed on STAR and start approach to RWY 19 without delay.
 ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

Clearance limit is APSIM.

 Direct distance from APSIM to:
 Langnes Apt 17 NM

APSIM
 N69 55.0 E019 22.5
 At or above
5000'
BAREG
 N69 56.1 E020 00.0
 At or above
8000'

 13.0
 5000
BAREG 2M

← 257°

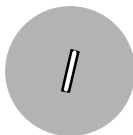
 14.3
 5000
IDLIN 2M

 17.1
 5000
LENSA 2M

← 287°

← 303°

 065°
 8000
 245°

IDLIN
 N69 49.1 E020 00.0
 At or above
8000'
LENSA
 N69 44.0 E020 00.0
 At or above
FL120


NOT TO SCALE

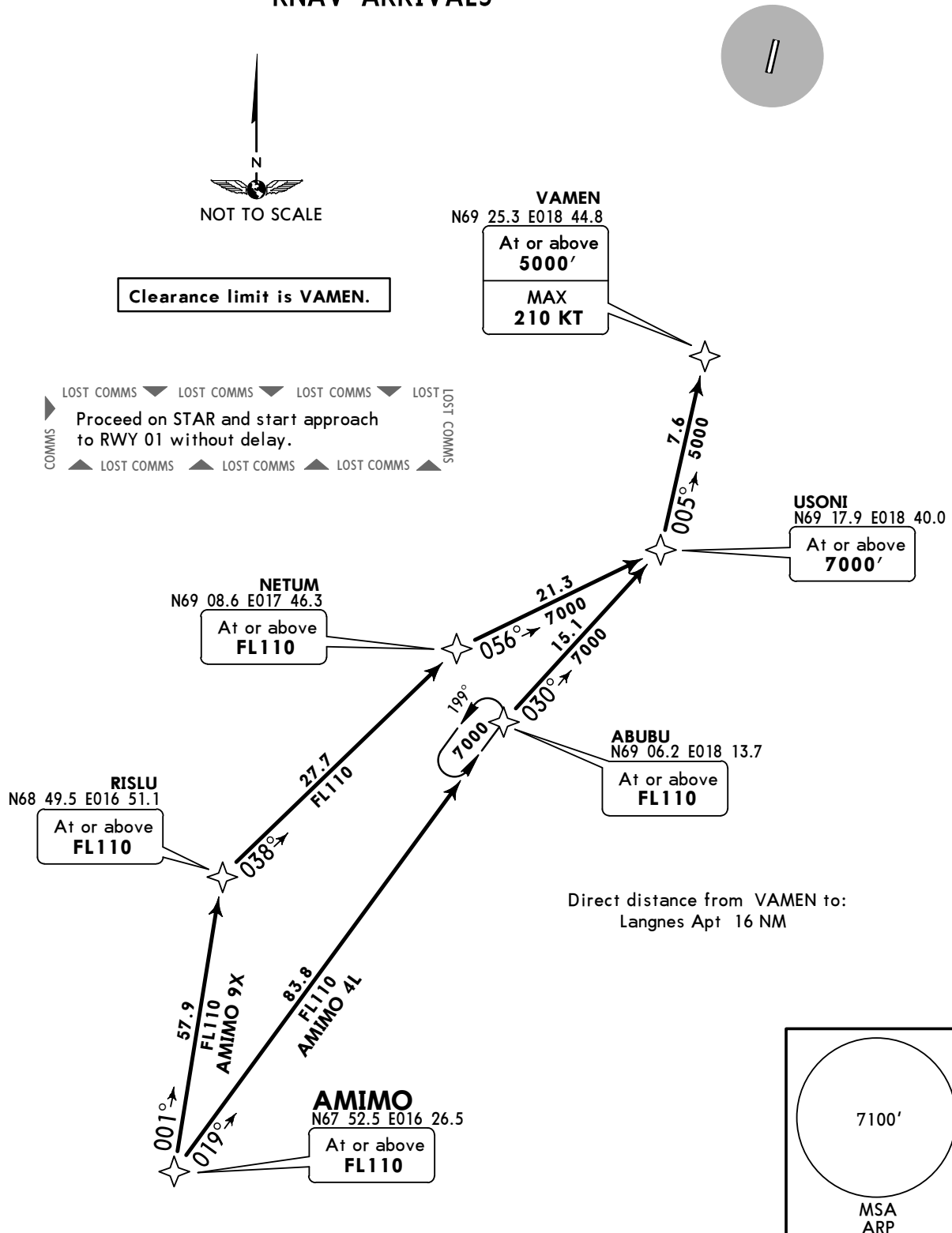
STAR	RWY	ROUTING
BAREG 2M	19	From BAREG to APSIM.
IDLIN 2M		From IDLIN to APSIM.
LENSA 2M		From LENSEA to APSIM.

ENTC/TOS
LANGNESJEPPESEN
2 SEP 16 10-2B Eff 15 SepTROMSO, NORWAY
RNAV STAR*ATIS
126.125Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

AMIMO 4L [AMIM4L] AMIMO 9X [AMIM9X] RNAV ARRIVALS



STAR	RWY	ROUTING
AMIMO 4L	01	To ABUBU, to USONI, to VAMEN.
AMIMO 9X		To RISLU, to NETUM, to USONI, to VAMEN.

ENTC/TOS
LANGNESJEPPESEN
2 SEP 16 10-2C Eff 15 SepTROMSO, NORWAY
RNAV STAR*ATIS
126.125Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

AMIMO 1W [AMIM1W]
RNAV ARRIVAL

7100'

MSA
ARP

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

COMMS ▲ Proceed on STAR and start approach to RWY 01 without delay. ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

Clearance limit is UMSEG.

UMSEG
N69 23.9 E019 01.3At or above
6000'MAX
220 KTTULDA
N69 14.6 E018 58.1At or above
7000'VABUG
N68 58.3 E018 26.1At or above
FL110AMIMO
N67 52.5 E016 26.5At or above
FL110

NOT TO SCALE

Direct distance from UMSEG to:
Langnes Apt 17 NM

RWY

01

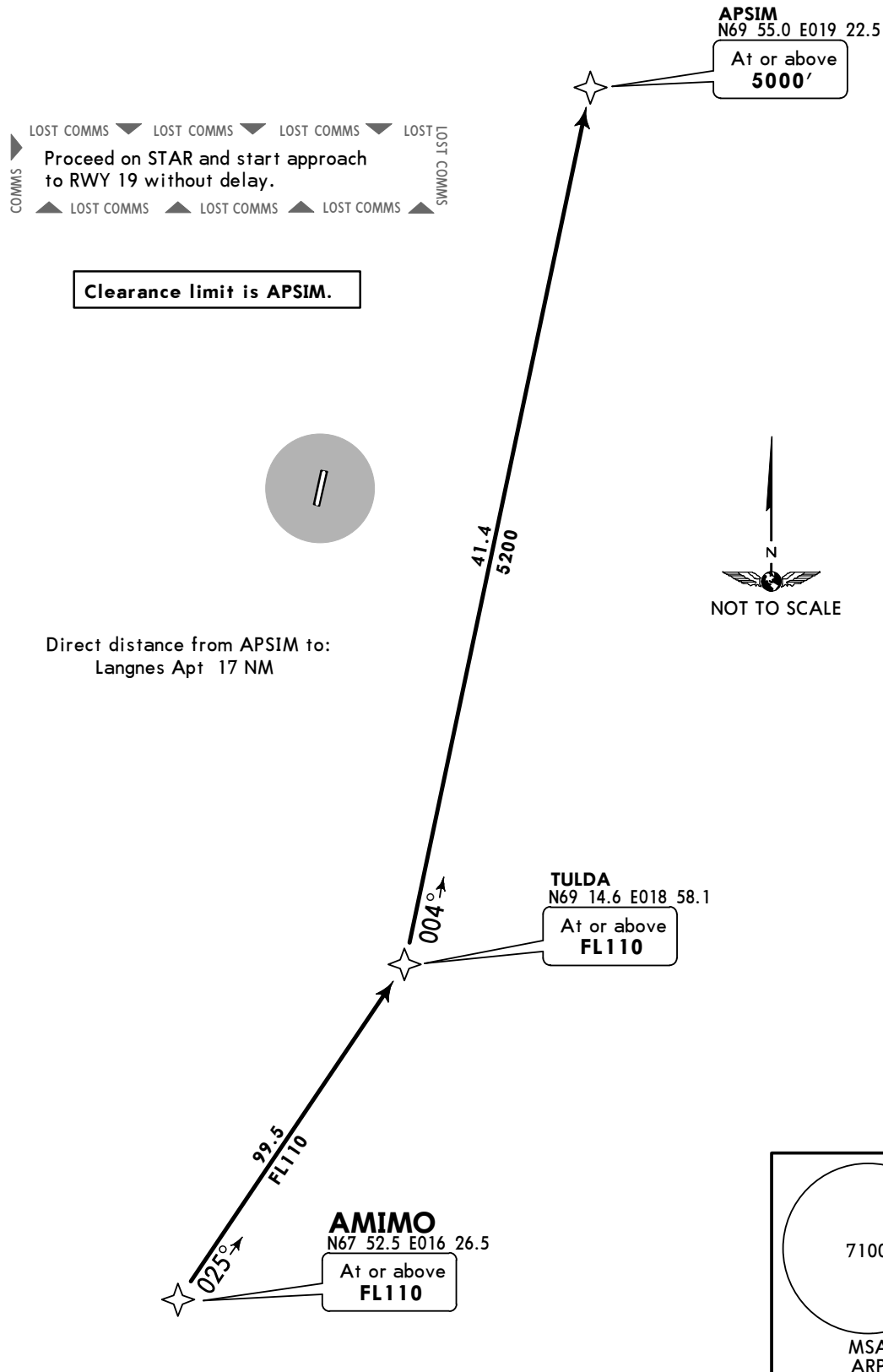
ROUTING

To VABUG, to TULDA, to UMSEG.

ENTC/TOS
LANGNES**JEPPESEN**
13 MAY 16 **(10-2D)** **Eff 26 May****TROMSO, NORWAY**
RNAV STAR*ATIS
126.125Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS, except class A GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

AMIMO 2M [AMIM2M]
RNAV**RWY****19****ROUTING**

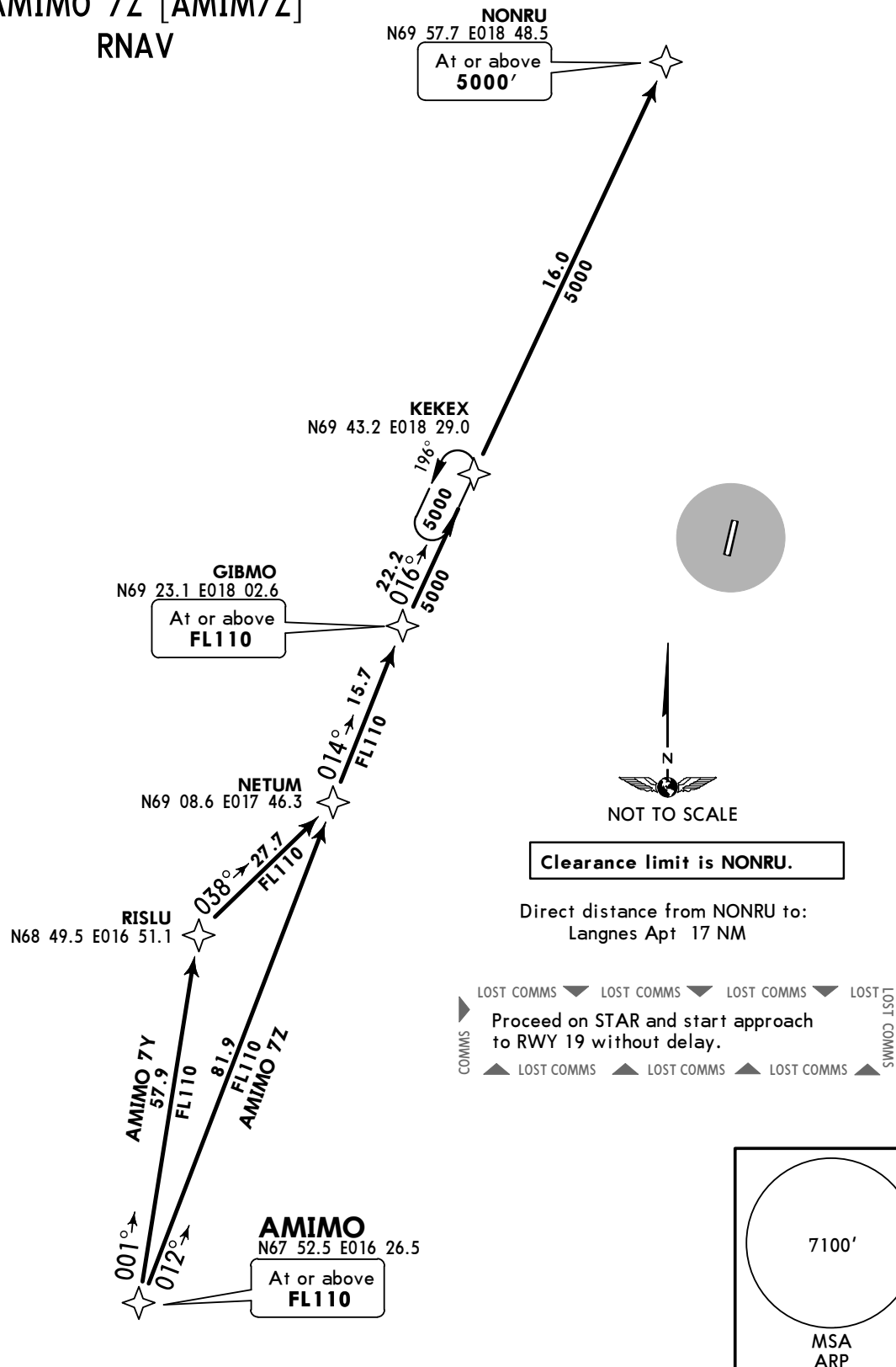
From AMIMO to TULDA, to APSIM.

ENTC/TOS
LANGNES
JEPPesen
 13 MAY 16 **10-2E** **Eff 26 May**
TROMSO, NORWAY
RNAV STAR

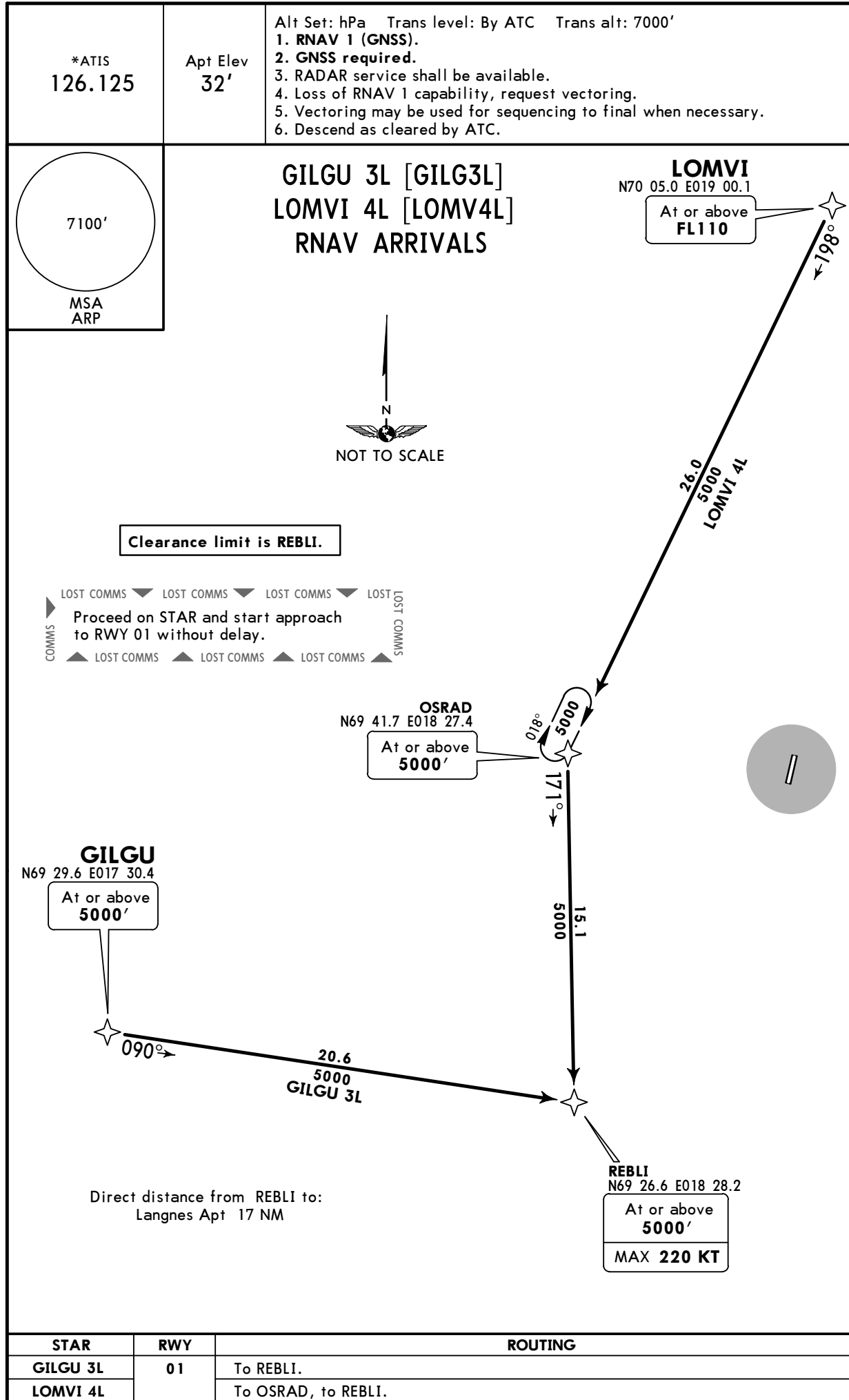
 *ATIS
126.125

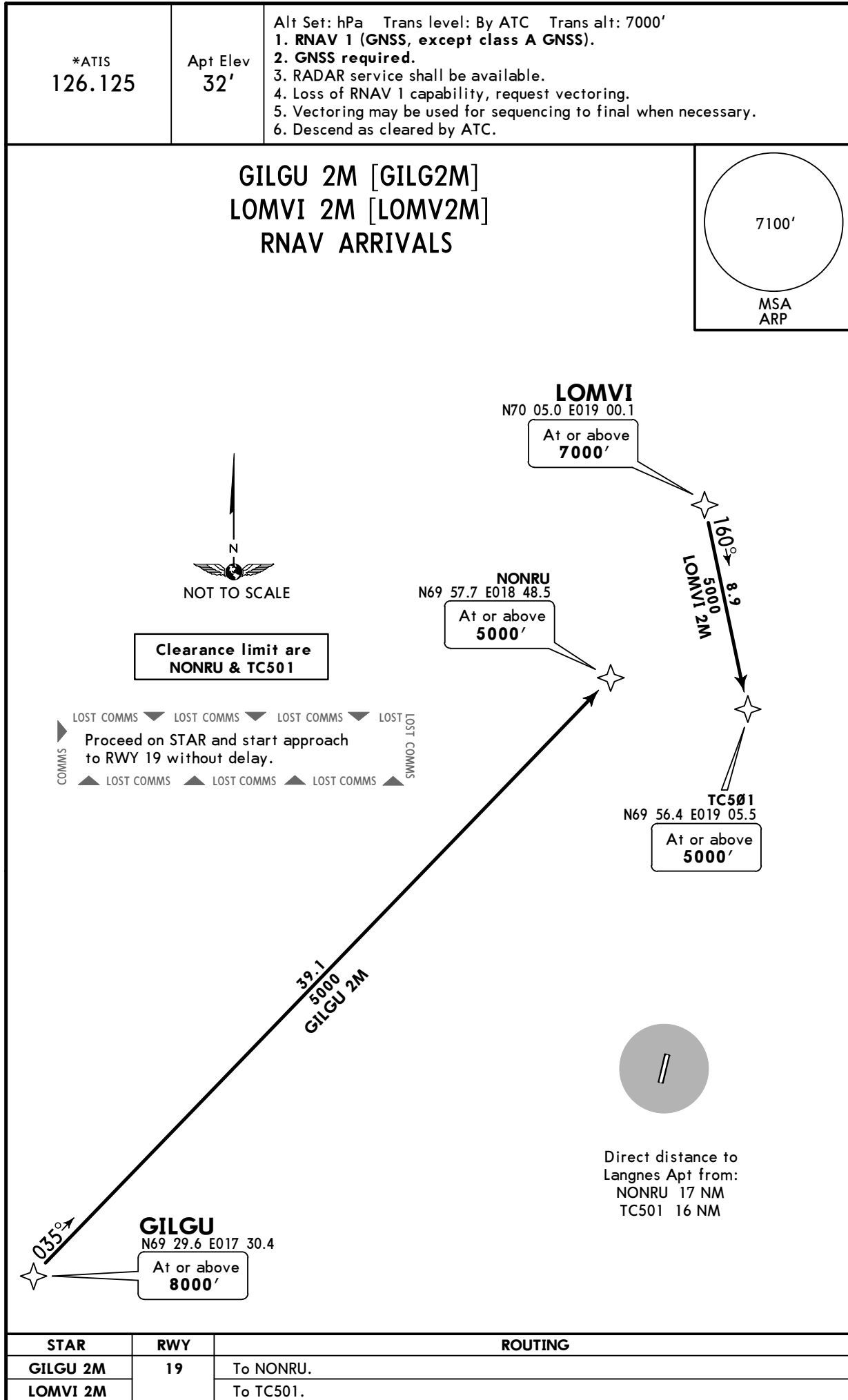
 Apt Elev
32'

 Alt Set: hPa Trans level: By ATC Trans alt: 7000'
 1. RNAV 1 (GNSS, except class A GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

AMIMO 7Y [AMIM7Y]
AMIMO 7Z [AMIM7Z]
RNAV


STAR	RWY	ROUTING
AMIMO 7Y	19	From AMIMO to RISLU, to NETUM, to GIBMO, to KEKEX, to NONRU.
AMIMO 7Z		From AMIMO to NETUM, to GIBMO, to KEKEX, to NONRU.

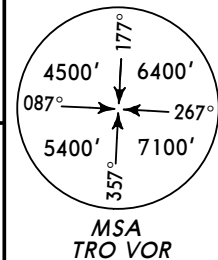
ENTC/TOS
LANGNES
JEPPesen
 2 SEP 16 **10-2F** **Eff 15 Sep**
TROMSO, NORWAY
RNAV STAR


ENTC/TOS
LANGNES
JEPPESSEN
 2 SEP 16 **(10-2G)** **Eff 15 Sep**
TROMSO, NORWAY
RNAV STAR


ENTC/TOS
LANGNES
JEPPESSEN
 20 FEB 15 **10-2H** **Eff 5 Mar**
TROMSO, NORWAY
STAR

 *ATIS
126.125

 Apt Elev
32'

 Alt Set: hPa
 Trans level: By ATC Trans alt: 7000'
 1. Vectoring will be used for sequencing.
 2. Descent as cleared by ATC.


LURAP THREE LIMA (LURAP 3L) [LURA3L]
SENJA EIGHT MIKE (SJA 8M)
RWYS 01, 19 ARRIVALS

LOST COMMS
 LOST COMMS
 LOST COMMS
 Proceed on STAR and start approach to assigned RWY.
 COMMS
 COMMS
 COMMS

1 4500' if cleared for approach to RWY 19.

Direct distance to Langnes Apt from:
 KBV 11 NM
 KV 8 NM



GIBMO
 N69 23.1 E018 02.6

At or above
5500'

SENJA
414 SJA
 N69 09.7 E017 49.0

MACKA
 N69 50.6 E018 31.5

ILS DME
P (110.9) TC
 N69 40.5 E018 54.9

LURAP
 N69 05.4 E018 16.0
 (TRO R-196/D40.0)

(Clearance limit)
KVALSUND
362 KV
 N69 48.7 E019 00.2

At or above
5000'

ILS DME
109.9 TR

TROMSO
P 113.8 TRO
 N69 42.2 E018 59.8

(IAF)
KOBBE
283 KBV
 N69 30.3 E018 49.3

At or above
5500'

MOLON
 N69 18.0 E018 39.3

At or above
7000'

HOLDING
OVER
KBV
 Clearance limit



STAR	RWY	ROUTING
LURAP 3L	01	On 026° track, intercept TRO R-190 inbound via MOLON to TC 15.0 DME, intercept 006° bearing to KBV.
SJA 8M	19	On 013° bearing via GIBMO to MACKA, turn RIGHT, along TRO 13.0 DME arc, when passing TRO R-346 turn RIGHT, intercept TR or 186° bearing to KV.

ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 **10-3** Eff 29 Mar

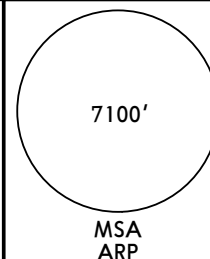
TROMSO, NORWAY
RNAV SID

*TROMSO Approach
123.750

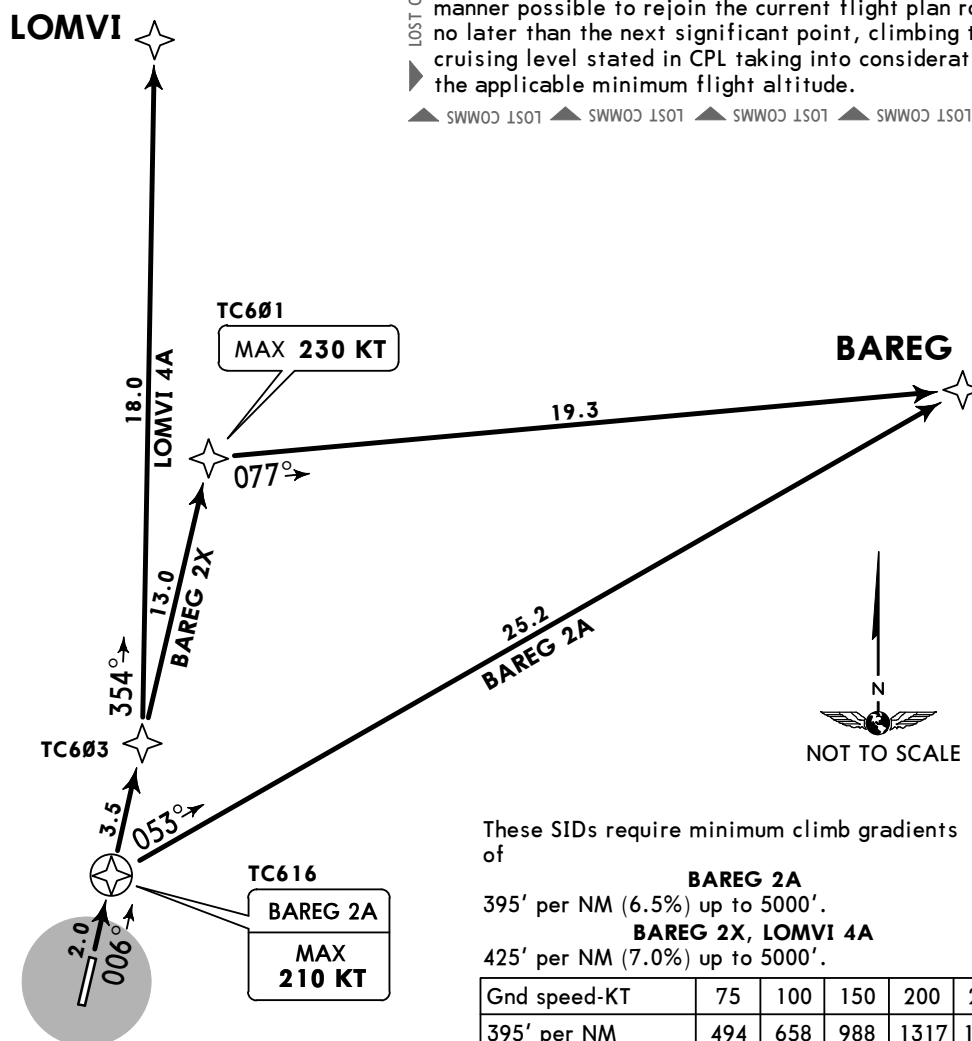
Apt Elev
32'

Trans level: By ATC Trans alt: 7000'
1. **RNAV 1 (GNSS).**
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

BAREG 2A [BARE2A]
BAREG 2X [BARE2X]
LOMVI 4A [LOMV4A]
RWY 01 RNAV DEPARTURES



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO
▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.
▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC



These SIDs require minimum climb gradients of

BAREG 2A
395' per NM (6.5%) up to 5000'.
BAREG 2X, LOMVI 4A
425' per NM (7.0%) up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	988	1317	1646	1975
425' per NM	531	708	1063	1417	1771	2125

If unable to comply inform ATC.

Initial climb clearance **FL90**

SID	ROUTING
BAREG 2A	On 006° track to TC616, to BAREG.
BAREG 2X	On 006° track to TC601, to BAREG.
LOMVI 4A	On 006° track to TC603, to LOMVI.

ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 (10-3A) Eff 29 Mar

TROMSO, NORWAY
RNAV SID

*TROMSO Approach 123.750	Apt Elev 32'	Trans level: By ATC Trans alt: 7000' 1. RNAV 1 (GNSS). 2. Surveillance service shall be available. 3. Contact TROMSO Approach when instructed by TROMSO Tower. 4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 5. When vectored or cleared for direct routing the SID climb gradients apply.
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MSA
ARP

BAREG 2B [BARE2B]
LOMVI 4B [LOMV4B]
RWY 19 RNAV DEPARTURES

TC708

MAX
185 KT

LOMVI 4B

← 276°

5.5

TC707

LOMVI 4B

MAX
185 KT

5.8

← 186°

4.0

TC704

MAX
210 KT

6.0

BAREG 2B

086° →

TC706

029° →

16.0

TC710

355° →

15.5

32.1

BAREG

LOST COMMS

▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.

LOST COMMS

LOST COMMS

▶

LOST CO

▲ S W W O C I S O T ▲ S W W O C I S O T ▲ S W W O C I S O T ▲ S W W O C I S O T ▲ S W W O C I S O T

N

NOT TO SCALE

These SIDs require minimum climb gradients of
BAREG 2B: 377' per NM (6.2%) up to 4000'.
LOMVI 4B: 413' per NM (6.8%) up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
377' per NM	471	628	942	1256	1570	1884

If unable to comply inform ATC.

Initial climb clearance FL90

SID	ROUTING
BAREG 2B	On 186° track to TC704, turn LEFT to TC706, to BAREG.
LOMVI 4B	On 186° track to TC707, turn RIGHT to TC708, turn RIGHT, to TC710, to LOMVI.

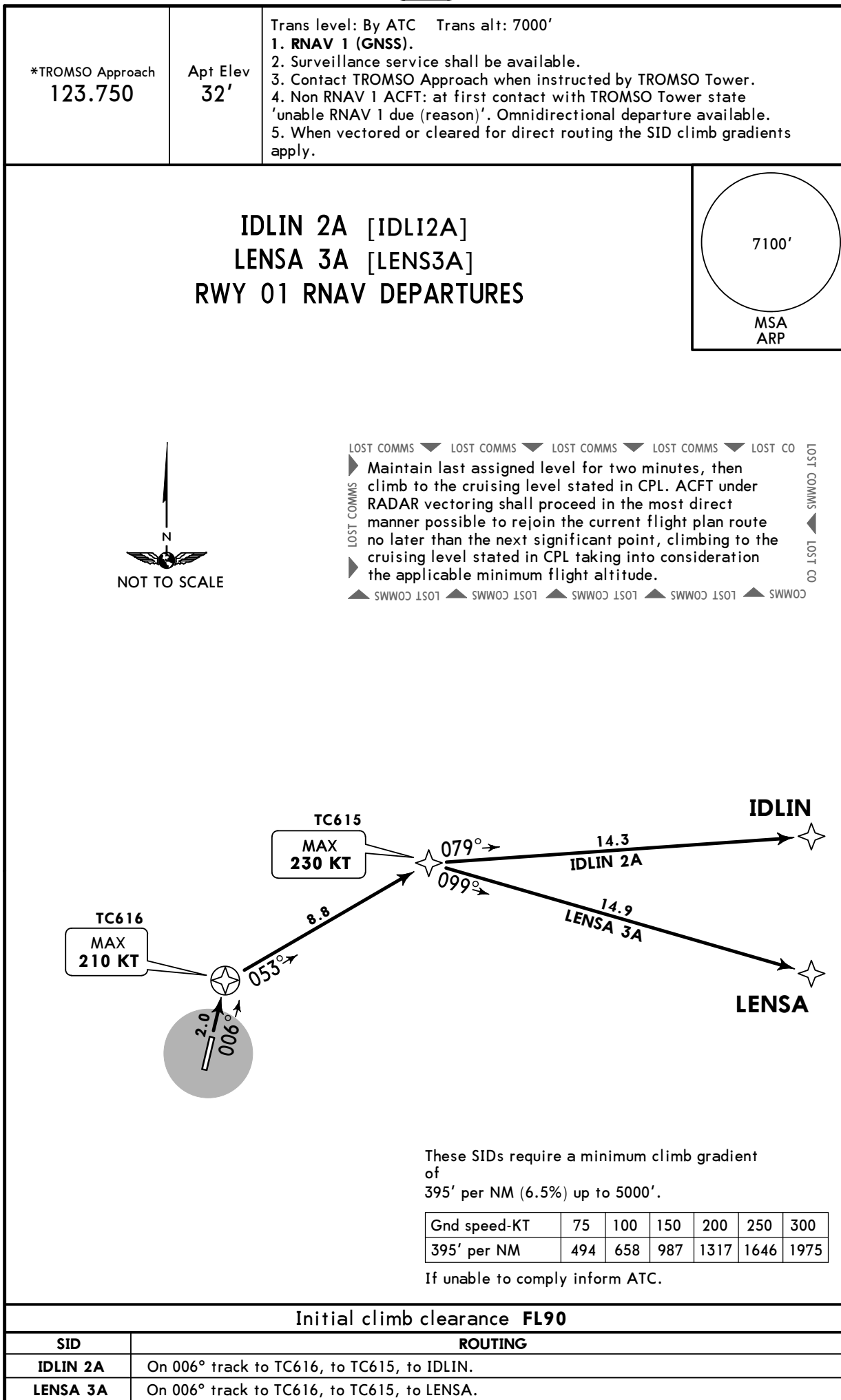
CHANGES: General instructions revised.

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ENTC/TOS
LANGNES

JEPPesen
 23 MAR 18 **(10-3B)** Eff 29 Mar

TROMSO, NORWAY
RNAV SID



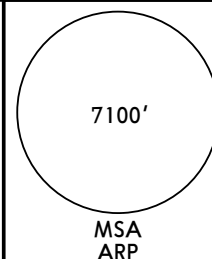
ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 (10-3C) Eff 29 Mar

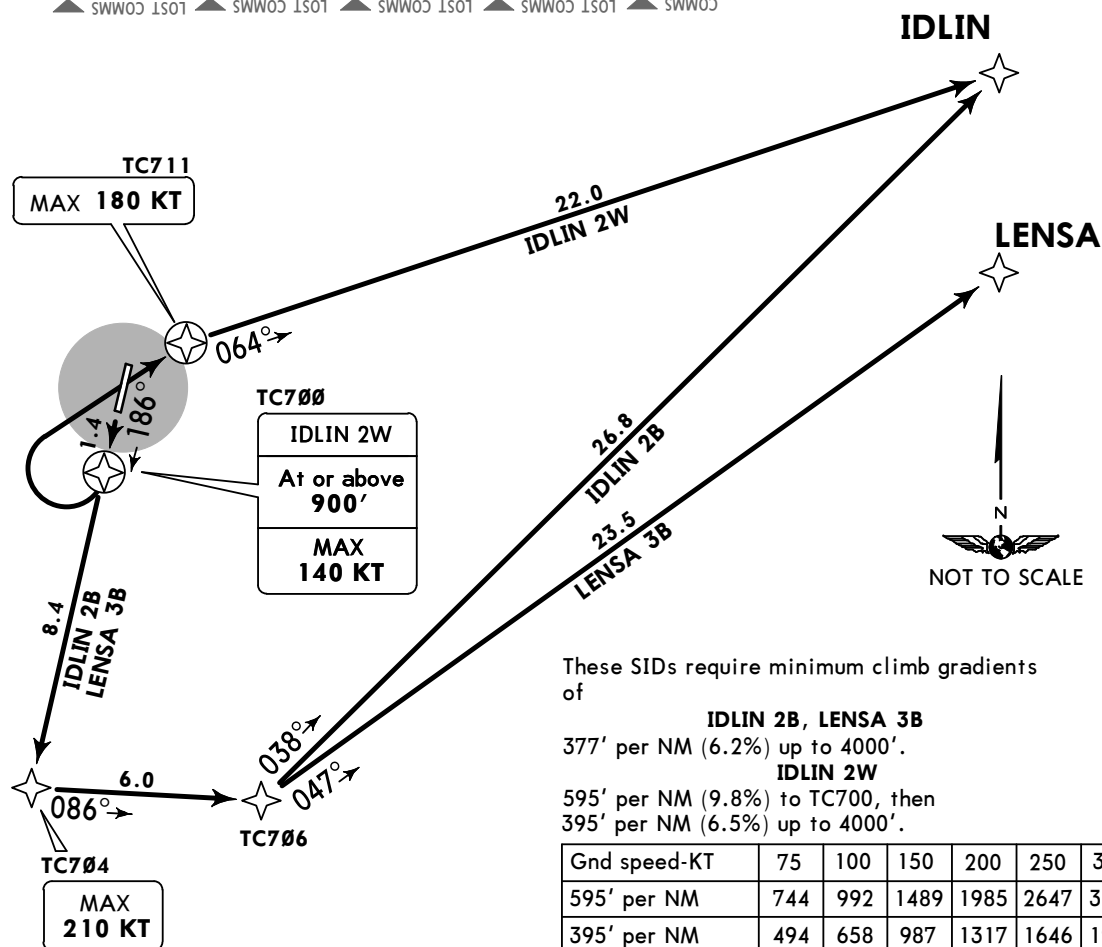
TROMSO, NORWAY
RNAV SID

*TROMSO Approach 123.750	Apt Elev 32'	Trans level: By ATC Trans alt: 7000' 1. RNAV 1 (GNSS). 2. Surveillance service shall be available. 3. Contact TROMSO Approach when instructed by TROMSO Tower. 4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 5. When vectored or cleared for direct routing the SID climb gradients apply.
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IDLIN 2B [IDLI2B]
 IDLIN 2W [IDLI2W]
 LENS 3B [LENS3B]
 RWY 19 RNAV DEPARTURES



▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.



These SIDs require minimum climb gradients of

IDLIN 2B, LENS 3B
377' per NM (6.2%) up to 4000'.

IDLIN 2W
595' per NM (9.8%) to TC700, then
395' per NM (6.5%) up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
595' per NM	744	992	1489	1985	2647	3176
395' per NM	494	658	987	1317	1646	1975
377' per NM	471	628	942	1256	1570	1884

If unable to comply inform ATC.

Initial climb clearance **FL90**

SID	ROUTING
IDLIN 2B	On 186° track to TC704, turn LEFT to TC706, to IDLIN.
IDLIN 2W	On 186° track to TC700, turn RIGHT, direct to TC711, to IDLIN.
LENSA 3B	On 186° track to TC704, turn LEFT to TC706, to LENS A.

ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 **(10-3D)** **Eff 29 Mar**

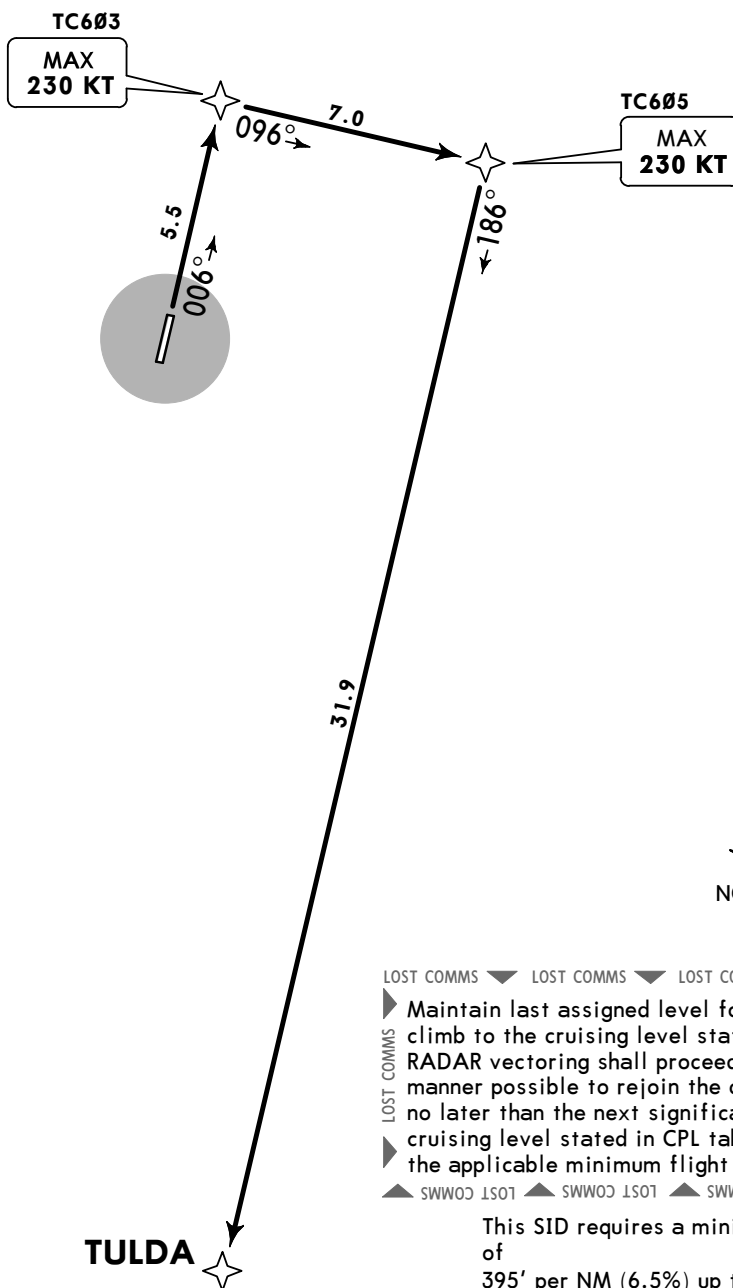
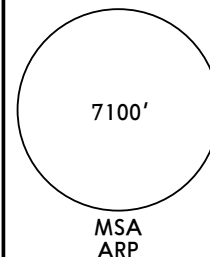
TROMSO, NORWAY
RNAV SID

*TROMSO Approach
123.750

Apt Elev
32'

- Trans level: By ATC Trans alt: 7000'
1. **RNAV 1 (GNSS).**
 2. Surveillance service shall be available.
 3. Contact TROMSO Approach when instructed by TROMSO Tower.
 4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 5. When vectored or cleared for direct routing the SID climb gradients apply.

TULDA 1A [TULD1A]
RWY 01 RNAV DEPARTURE



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO
▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.
▶ LOST COMMS
▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC

This SID requires a minimum climb gradient of
395' per NM (6.5%) up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	987	1317	1646	1975

If unable to comply inform ATC.

Initial climb clearance FL90

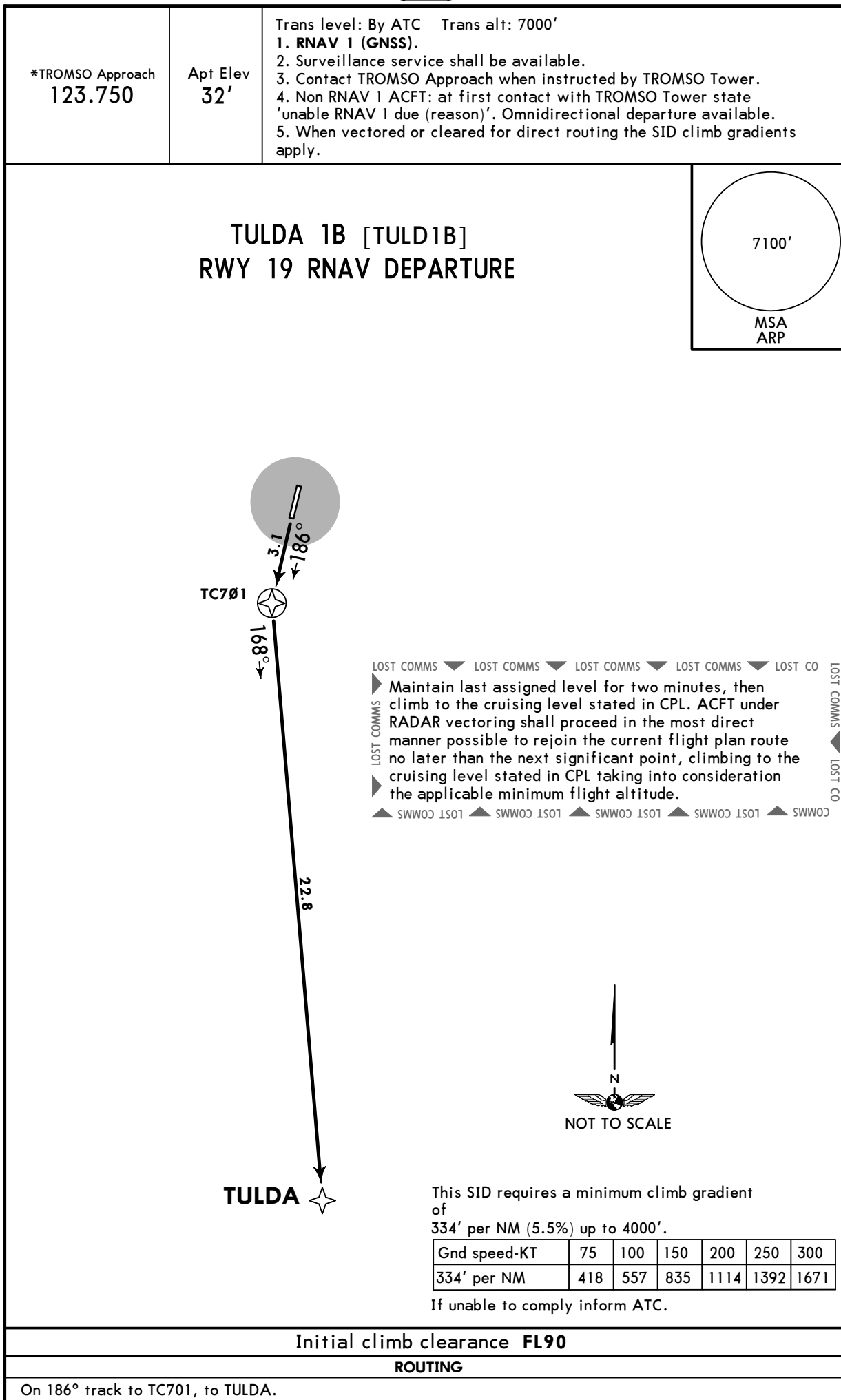
ROUTING

On 006° track to TC603, turn RIGHT to TC605, turn RIGHT to TULDA.

ENTC/TOS
 LANGNES

JEPPESSEN
 23 MAR 18 **10-3E** Eff 29 Mar

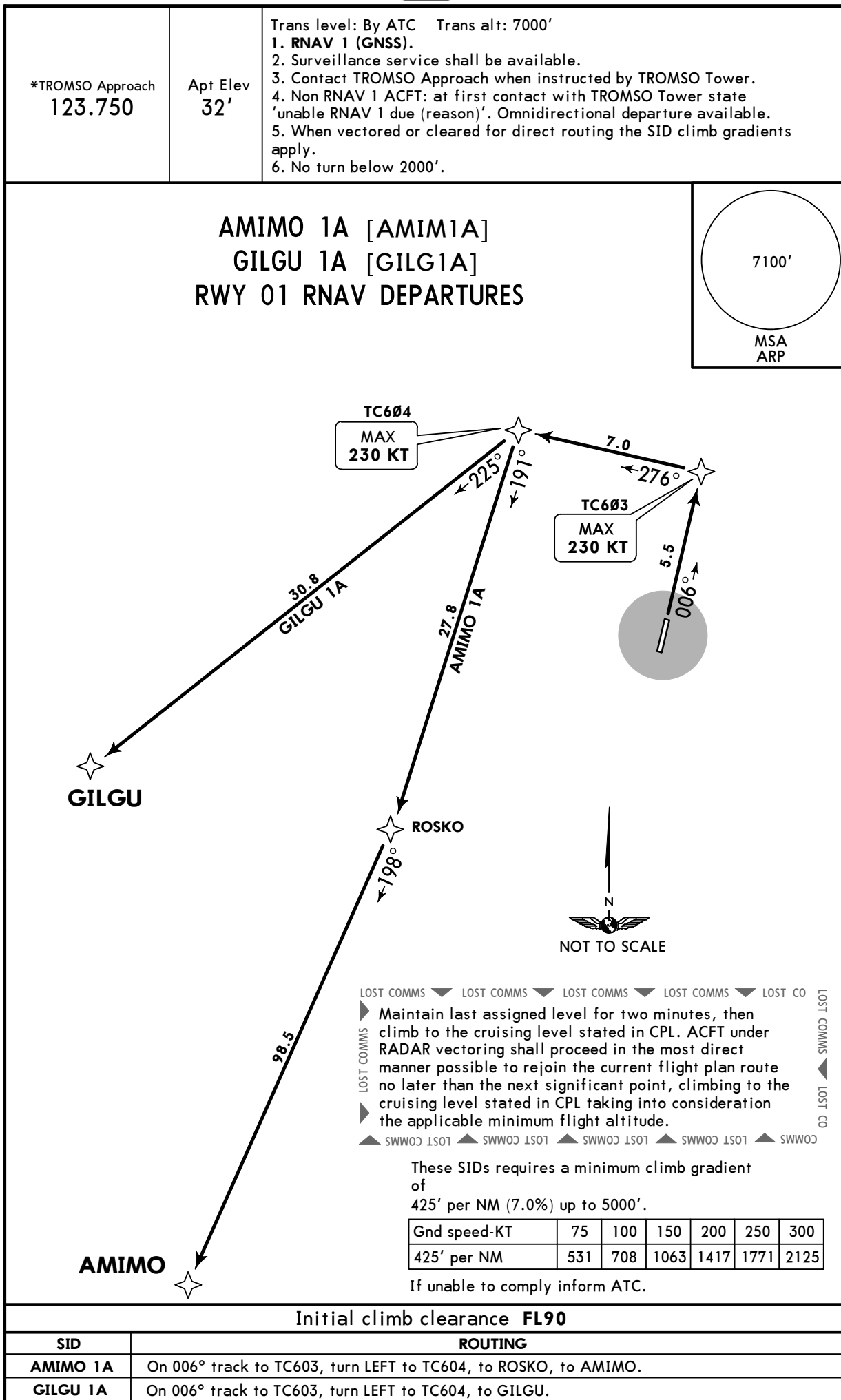
TROMSO, NORWAY
RNAV SID



ENTC/TOS
 LANGNES

JEPPESSEN
 23 MAR 18 **10-3F** Eff 29 Mar

TROMSO, NORWAY
RNAV SID



ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 **(10-3G)** Eff 29 Mar

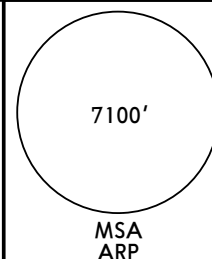
TROMSO, NORWAY
RNAV SID

*TROMSO Approach
123.750

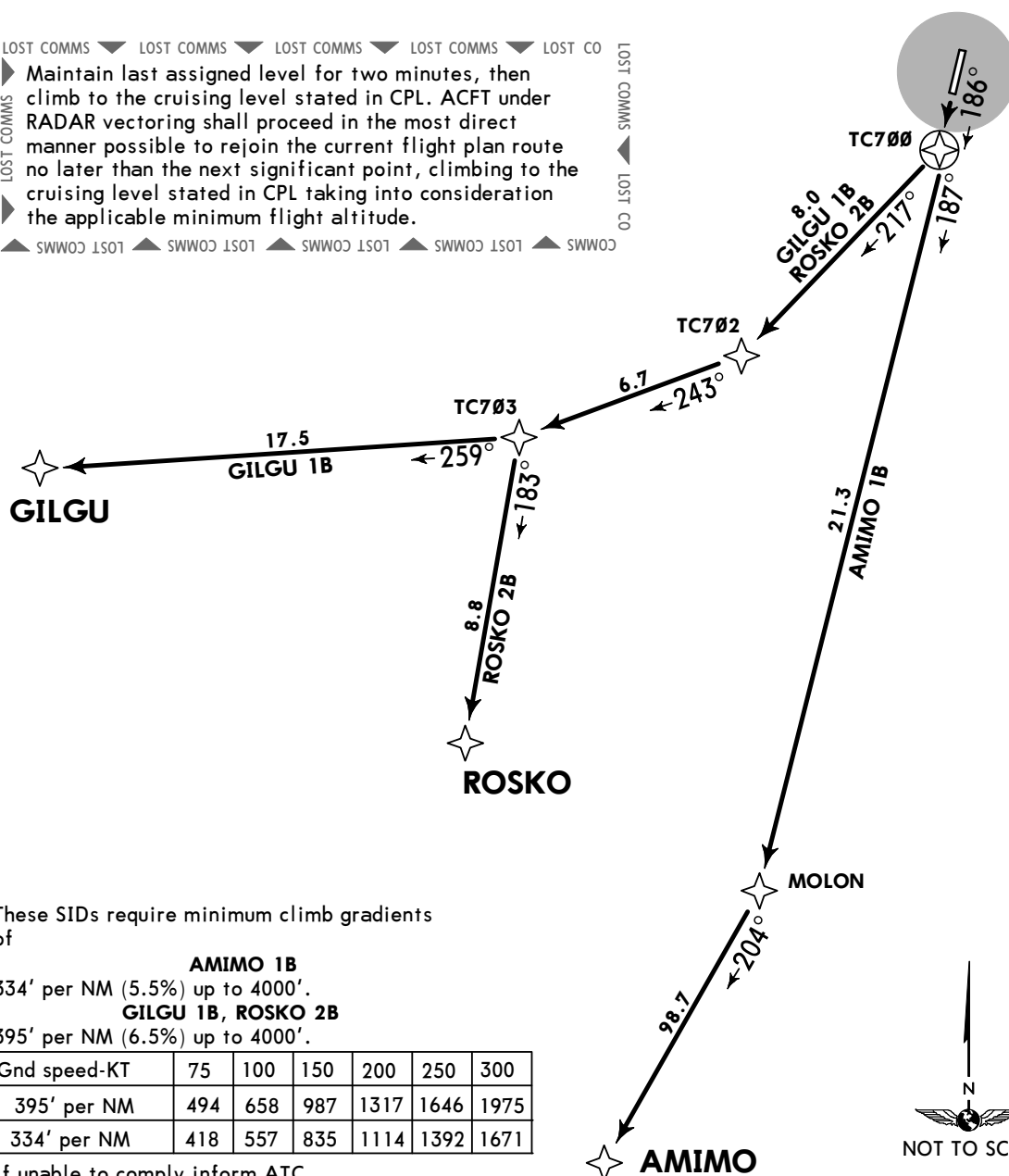
Apt Elev
32'

Trans level: By ATC Trans alt: 7000'
1. RNAV 1 (GNSS).
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

**AMIMO 1B [AMIM1B]
GILGU 1B [GILG1B]
ROSKO 2B [ROSK2B]
RWY 19 RNAV DEPARTURES**



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO
▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.
▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC



These SIDs require minimum climb gradients of

AMIMO 1B
334' per NM (5.5%) up to 4000'.
GILGU 1B, ROSKO 2B
395' per NM (6.5%) up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	987	1317	1646	1975
334' per NM	418	557	835	1114	1392	1671

If unable to comply inform ATC.

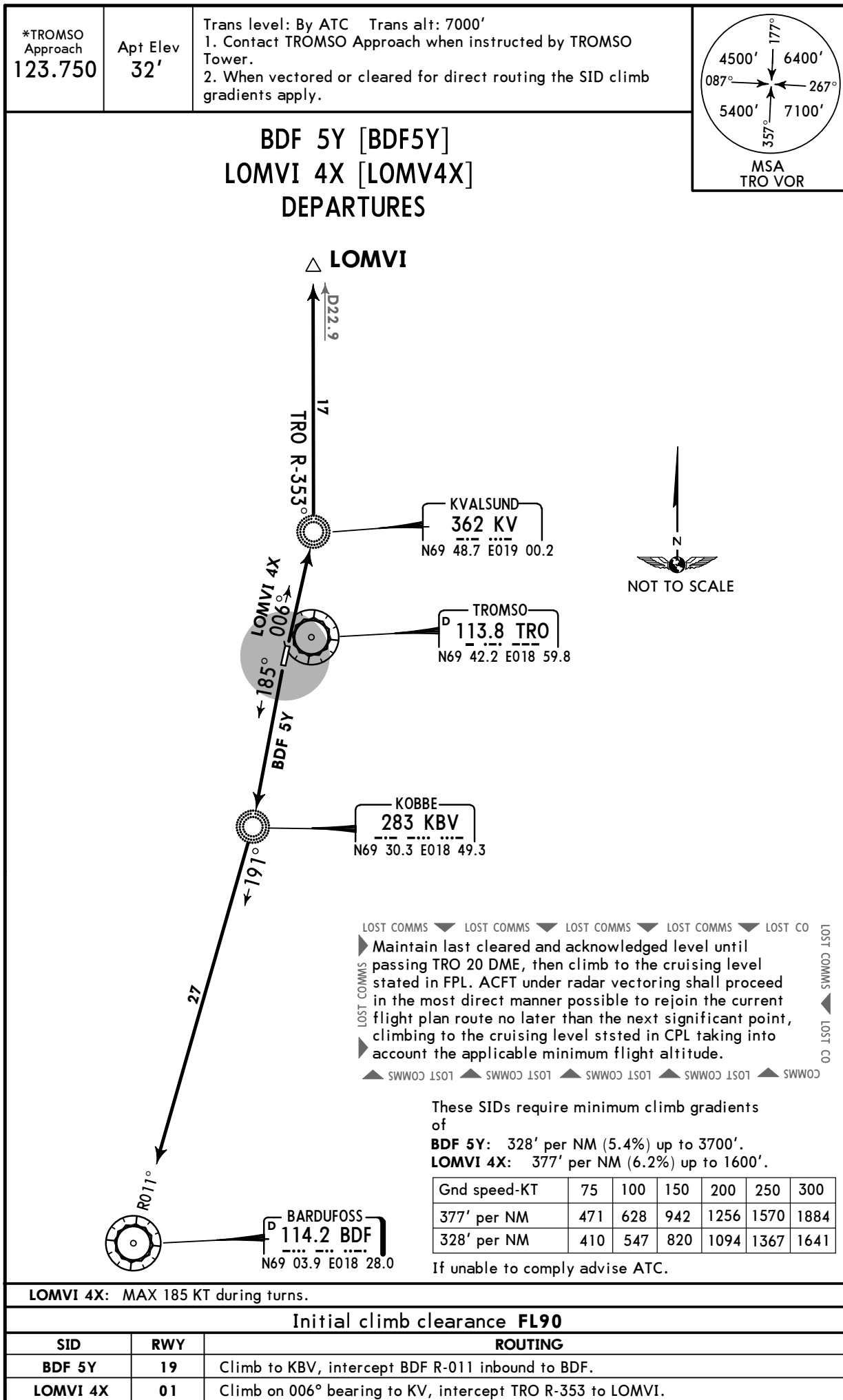
Initial climb clearance **FL90**

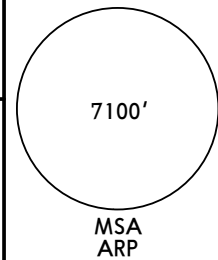
SID	ROUTING
AMIMO 1B	On 187° track to MOLON, to AMIMO.
GILGU 1B	On 186° track to TC700, to TC702, to TC703, to GILGU.
ROSKO 2B	On 186° track to TC700, to TC702, to TC703, to ROSKO.

ENTC/TOS
 LANGNES

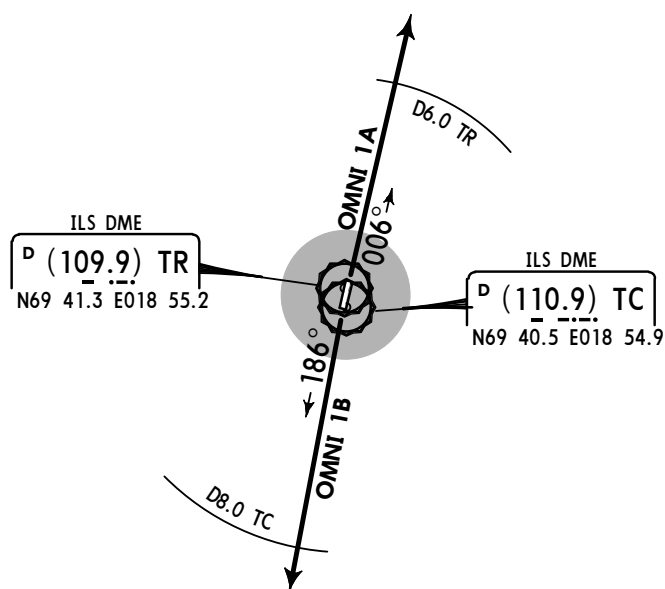
JEPPESEN
 23 MAR 18 **(10-3H)** Eff 29 Mar

TROMSO, NORWAY
SID



ENTC/TOS
LANGNES**JEPPESEN**
23 MAR 18 **10-3J** **Eff 29 Mar****TROMSO, NORWAY**
DEPARTURE*TROMSO
Approach
123.750Apt Elev
32'Trans level: By ATC Trans alt: 7000'
Contact TROMSO Approach when instructed by
TROMSO Tower.

OMNI 1A, OMNI 1B
OMNIDIRECTIONAL DEPARTURES
EXPECT RADAR VECTORING BY TROMSO APPROACH TO JOIN
THE CLEARED ATS ROUTE



These departures require minimum climb gradients
of

Rwy 01: 456' per NM (7.5%) up to 3500'.

Rwy 19: 492' per NM (8.1%) up to 4500'.

Gnd speed-KT	75	100	150	200	250	300
492' per NM	615	820	1230	1641	2051	2461
456' per NM	570	760	1139	1519	1899	2279

If unable to comply advise ATC.

Initial climb clearance FL90

RWY	ROUTING
OMNI 1A	Climb on 006° track to D6.0 TR, then start turn when cleared by ATC.
OMNI 1B	Climb on 186° track to D8.0 TC, then start turn when cleared by ATC.

ENTC/TOS

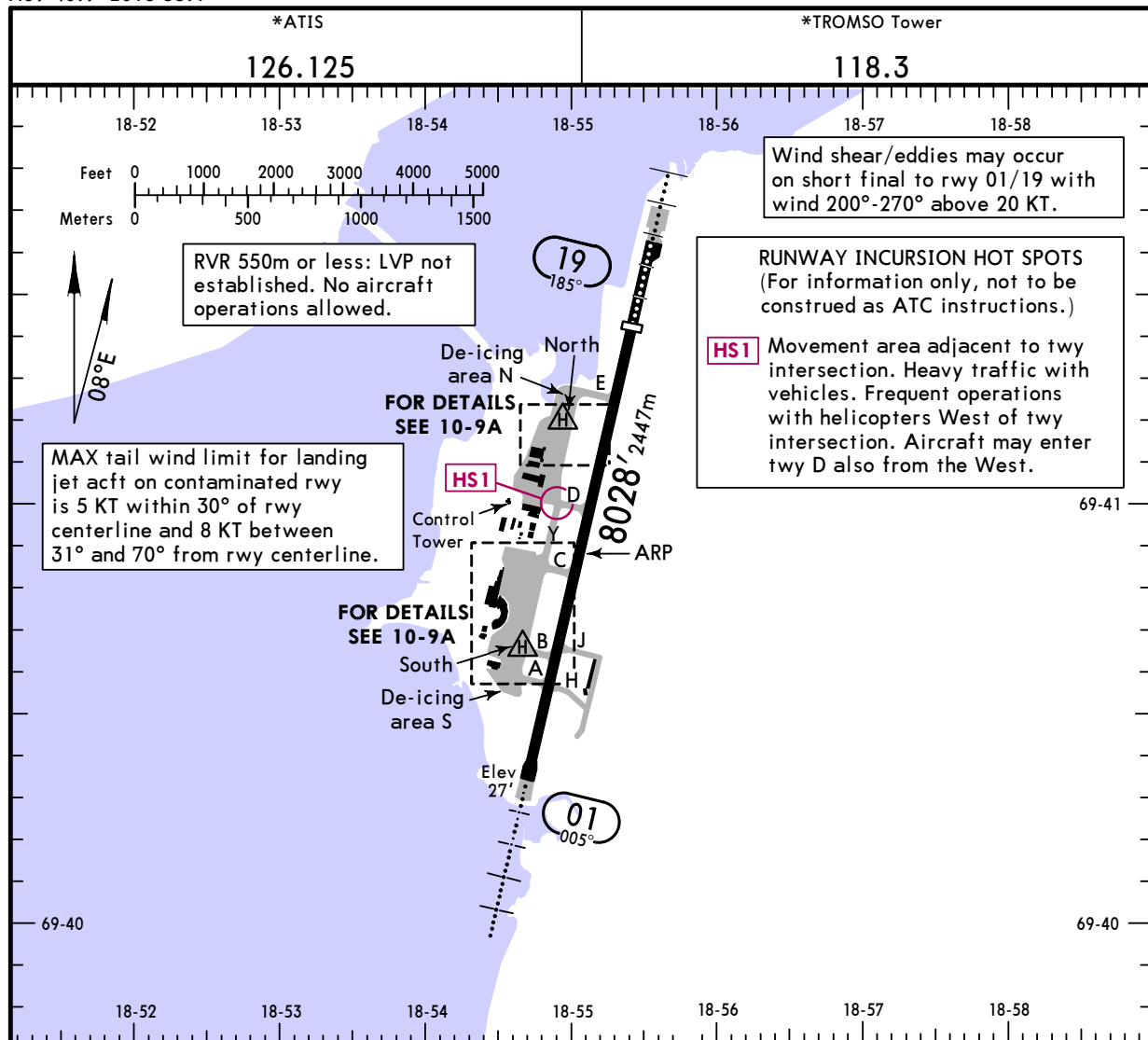
Apt Elev **32'**
N69 40.9 E018 55.1

JEPPESEN

7 SEP 18 **(10-9)** Eff 13 Sep

TROMSO, NORWAY

LANGNES



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		LANDING	BEYOND		
01 ① 19	HIRL (60m) CL (60m) HIALS SFL PAPI (4.0°)	7844' 2391m	7176' 2187m	②	148' 45m
		6572' 2003m	5782' 1762m		

① Rwy 01/19 grooved.

② TAKE-OFF RUN AVAILABLE

RWY 01:

from rwy head 8028' (2447m)

twy H int 6627' (2020m)

twy A int 6621' (2018m)

twy B int 6207' (1892m)

twy J int 6060' (1847m)

twy C int 4970' (1515m)

RWY 19:

from rwy head 7844' (2391m)

twy E int 5489' (1673m)

twy D int 3829' (1167m)

twy C int 2874' (876m)

NOISE ABATEMENT PROCEDURE

Aircraft with MTOM 2500 KG or more, shall not overfly island of Tromsoya below 2000'.

Standard

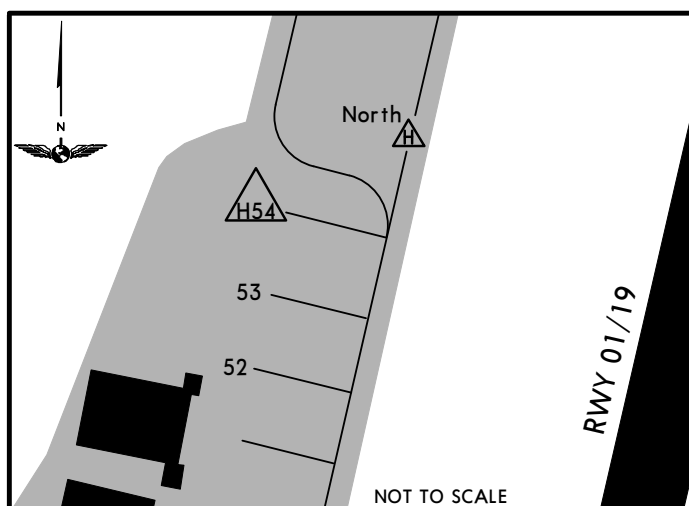
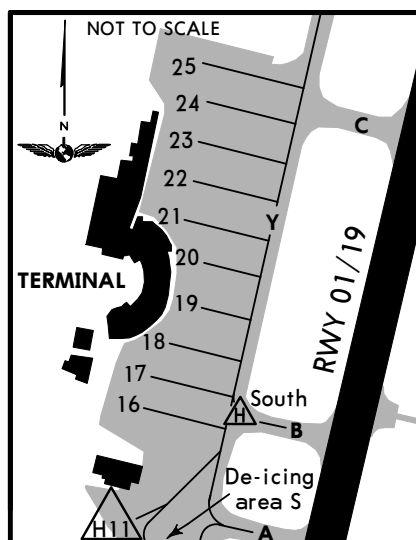
TAKE-OFF

A
B
C
D

RVR 500m

ENTC/TOS**JEPPESEN****TROMSO, NORWAY**

7 SEP 18

(10-9A)**Eff 13 Sep****LANGNES****INS COORDINATES**

STAND No.	COORDINATES	ELEVATION
16	N69 40.7 E018 54.4	29
17	N69 40.7 E018 54.5	30
18	N69 40.7 E018 54.5	31
19	N69 40.7 E018 54.6	30
20	N69 40.8 E018 54.6	29
21	N69 40.8 E018 54.5	27
22, 23	N69 40.8 E018 54.6	27
24, 25	N69 40.9 E018 54.6	27
52	N69 41.1 E018 54.8	17
53	N69 41.2 E018 54.9	15
H11	N69 40.6 E018 54.5	27
H54	N69 41.2 E018 54.8	13

Special requirements for aircraft operators performing commercial transportation

The aircraft operator shall stipulate special crew qualification requirements, REF EASA AMC1 ORO.FC.105.

For operations with jet ACFT in PANS OPS code C/D:

- 1 OCT - 30 APR: CAT C

- 1 MAY - 30 SEP: CAT B.

For operations with other types of aircraft: CAT B required all year round.

The aircraft operator shall stipulate special limitations with regard to surface wind.

The aircraft operator shall stipulate special requirements with regard to runway status.

Departure procedures, take-off minima, take-off weight limitations shall be documented.

The aircraft operator shall document fulfilment of the requirements above to CAA Norway at least 14 days prior to commencing operations. CAA Norway will, after evaluating the documentation and finding it adequate, issue a letter of compliance. A copy of this letter has to be carried by the crew and presented to local airport authorities or representatives of CAA Norway on request.

ENTC/TOS18 JAN 13 **JEPPESEN**
10-9Y**JAA COPTER MINIMUMS****TROMSO, NORWAY**
LANGNES

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
01	ILS ❶	352' (325')	750m / 1000m
	ILS ❷	684' (657')	750m / 1000m
	ILS ❸	764' (737')	750m / 1000m
	LOC ❷	750' (723')	1000m / 1000m
	LOC ❸	760' (733')	1000m / 1000m
	RNAV ❹	710' (683')	1000m / 1000m
	RNAV ❶	930' (903')	1000m / 1000m
	RNAV ❸	1260' (1233')	1000m / 1000m
19	ILS ❶	289' (274')	600m / 1000m
	ILS ❸	413' (398')	750m / 1000m
	LOC	860' (845')	1000m / 1000m
	RNAV	1040' (1025')	1000m / 1000m

❶ Missed apch climb gradient mim 4.0%.

❷ Missed apch climb gradient mim 3.0%.

❸ Missed apch climb gradient mim 2.5%.

❹ Missed apch climb gradient mim 5.0%.

CIRCLE-TO-LAND ❺	MDA(H)	VIS
	840' (808') ❻	1000m
RNAV 01	1260' (1228')	1000m
RNAV 19	1040' (1008')	1000m
RNAV A ❼	860' (828')	1000m
RNAV A ❸	900' (868')	1000m
RNAV A ❹	1040' (1008')	1000m

❺ Not authorized West of airport.

❻ After LOC 19: MDA(H) 860' (828').

❼ Missed apch climb gradient mim 3.5%.

❸ Missed apch climb gradient mim 3.0%.

❹ Missed apch climb gradient mim 2.5%.

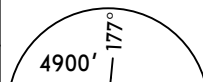
TAKE-OFF RWY 01, 19

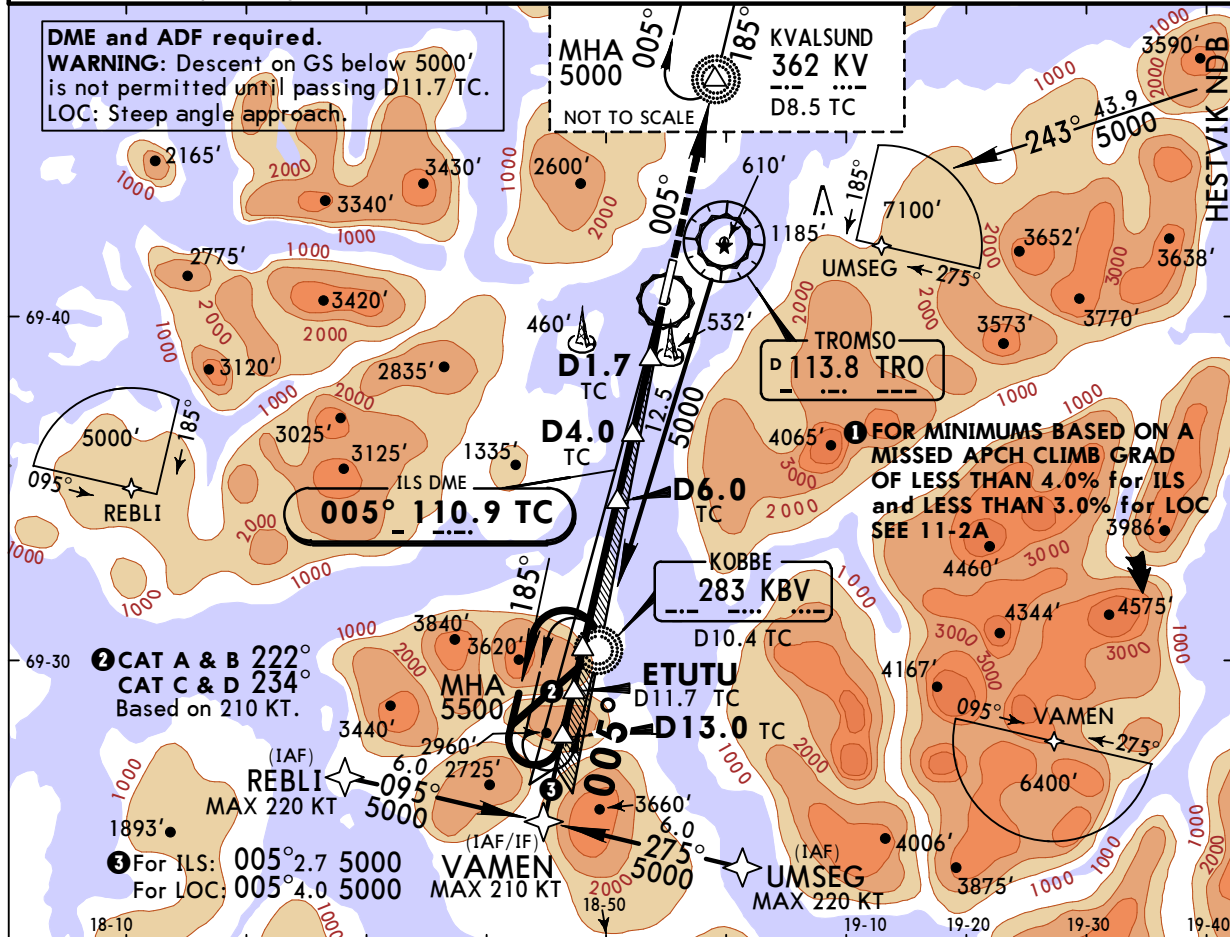
RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
550m		550m ⑩	800m

⑩ Or rejected take-off distance whichever is the greater.

ENTC/TOS
LANGNESJEPPESSEN
10 JUN 16 (11-1)TROMSO, NORWAY
●ILS or LOC Rwy 01

BRIEFING STRIP™

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3		 MSA KBV NDB
LOC TC 110.9	Final Aptch Crs 005°	GS D4.0 TC 1746' (1719')	ILS DA(H) Refer to Minimums	Apt Elev 32' Rwy 27'		
MISSED APCH: Climb on 005° to KV Lctr (D8.5 TC), then turn LEFT climbing on 345°. When passing 3500' turn LEFT direct to KV Lctr, climbing to 5000' and hold.						
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'
WARNING: Steep GS angle.						



LOC (GS out)	TC DME ALTITUDE	6.0 2580'	5.0 2160'	4.0 1730'	3.0 1310'	2.0 880'
Start turn at 5000'	D13.0 ETUTU	D11.7 TC	D10.4 TC	D6.0 TC	D4.0 TC	D1.7 TC
1 Min	4700'	4400'	2550'	750'	49'	Rwy 27'
	1.3	1.3	4.4	2.0	2.3	1.6
			10.3			0

Gnd speed-Kts	70	90	100	120	140	160		005° ↑ KV 362/ D8.5 TC
ILS GS or LOC Descent Angle	496	637	708	850	991	1133		
MAP at D1.7 TC								

STRAIGHT-IN LANDING RWY 01				CIRCLE-TO-LAND	
ILS Missed apch climb gradient mim 4.0% A: 352' (325') C: 385' (358') B: 372' (345') D: 402' (375') DA(H) 750' (723')		LOC (GS out) Missed apch climb gradient mim 3.0% DA(H) 750' (723')		Not authorized West of airport	
FULL/Limited		ALS out		Max Kts	MDA(H) VIS
A	RVR 800m	RVR 1500m		100	840' (808') 1500m
B	RVR 900m	RVR 1500m		135	850' (818') 1600m
C	RVR 1000m	RVR 1600m		180	2660' (2628') 2400m I
D	RVR 1000m	RVR 1700m		205	2960' (2928') 3600m

I After LOC (GS out): VIS 3400m.

CHANGES: None.

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PANS OPS

ENTC/TOS
LANGNES

10 JUN 16 (11-2)

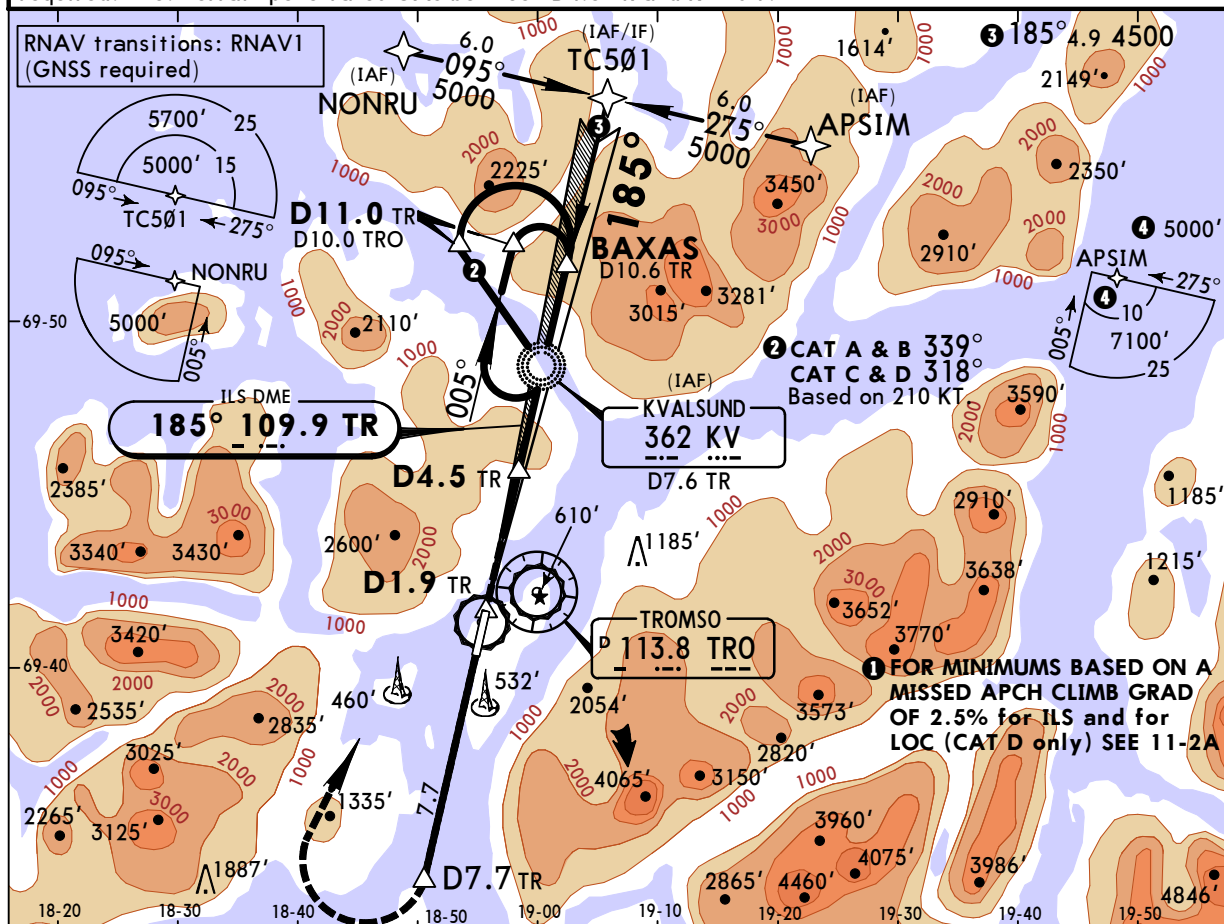
TROMSO, NORWAY
①ILS or LOC Rwy 19

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3	
LOC TR 109.9	Final Apch Crs 185°	GS D4.5 TR 1934' (1919')	ILS DA(H) Refer to Minimums	Apt Elev 32'	Rwy 15'
MISSED APCH: Climb STRAIGHT AHEAD to 3000' or D7.7 TR whichever earlier. Turn RIGHT (CAT C: MAX 160KT, CAT D: MAX 185KT) to intercept and proceed on 012° to KV Lctr, climbing to 5000' and hold. Do not turn before MAP.					

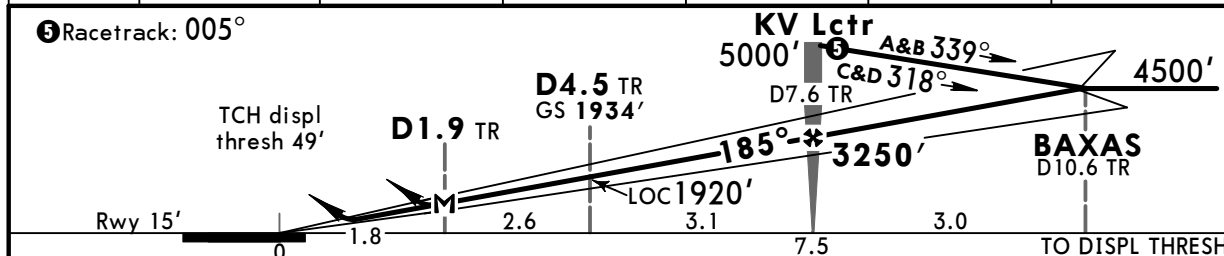
MSA KV Lctr

Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000'

1. **DME and ADF required.** 2. **WARNING:** Steep GS angle, appropriate acft and crew qualification required. 3. Terrain penetrates OAS between D4.5 TR and KV Lctr.



LOC (GS out)	TR DME	3.0	4.0	5.0	6.0	7.0
	ALTITUDE	1290'	1710'	2140'	2570'	2990'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or LOC Descent Angle 4.00°	496	637	708	850	991	1133	
MAP at D1.9 TR							

Standard			STRAIGHT-IN LANDING RWY 19				CIRCLE-TO-LAND		
ILS Missed apch climb gradient mim 4.0%			LOC (GS out) DA(H) ABC: 860' (845') Missed apch climb gradient mim 2.8% DA(H) D: 860' (845')				Not authorized West of airport		
DA(H)	A: 289' (274') C: 322' (307') B: 309' (294') D: 339' (324')								
	FULL	Limited	ALS out		ALS out	Max Kts	MPA(H)	VIS	
A	RVR 600m	RVR 750m	RVR 1300m	RVR 1500m		100	880' (848')	1500m	
B	RVR 650m		RVR 1400m			135	880' (848')	1600m	
C	RVR 700m					180	2660' (2628')	2400m I	
D	RVR 800m		RVR 1500m	CMV 3100m	CMV 3800m	205	2960' (2928')	3600m I	

1 After LOC (GS out): VIS 3800m.

CHANGES: LOC frequency.

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ENTC/TOS
LANGNES **JEPPESEN**
14 SEP 12 **11-2A** Eff 20 Sep**TROMSO, NORWAY****ILS RWY 01 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 3.0%**

Standard		STRAIGHT-IN LANDING RWY 01	
		ILS	
		A: 684' (657') C: 718' (691')	
		B: 704' (677') D: 734' (707')	
		FULL/Limited	ALS out
A	RVR 1500m		
B			
C	CMV 2400m		
D			

ILS or LOC RWY 01 MINIMUMS**MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 01		CIRCLE-TO-LAND	
		ILS		Not authorized West of airport	
		A: 764' (737') C: 798' (771')			
		B: 784' (757') D: 815' (788')			
		FULL/Limited	ALS out	Max Kts	MDA(H) VIS
A	RVR 1500m		RVR 1500m	100	840' (808') 1500m
B				135	850' (818') 1600m
C	CMV 2400m		CMV 2900m	180	2660' (2628') 2400m 1
D			CMV 3100m	205	2960' (2928') 3600m 2

After LOC (GS out): **1** IS 3600m/ **2** S 3800m.**ILS RWY 19 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 19	
		ILS	
		A: 413' (398') C: 445' (430')	
		B: 430' (415') D: 1033' (1018')	
		FULL/Limited	ALS out
A	RVR 1100m		RVR 1500m
B			
C	RVR 1300m		RVR 2000m
D	CMV 2400m		

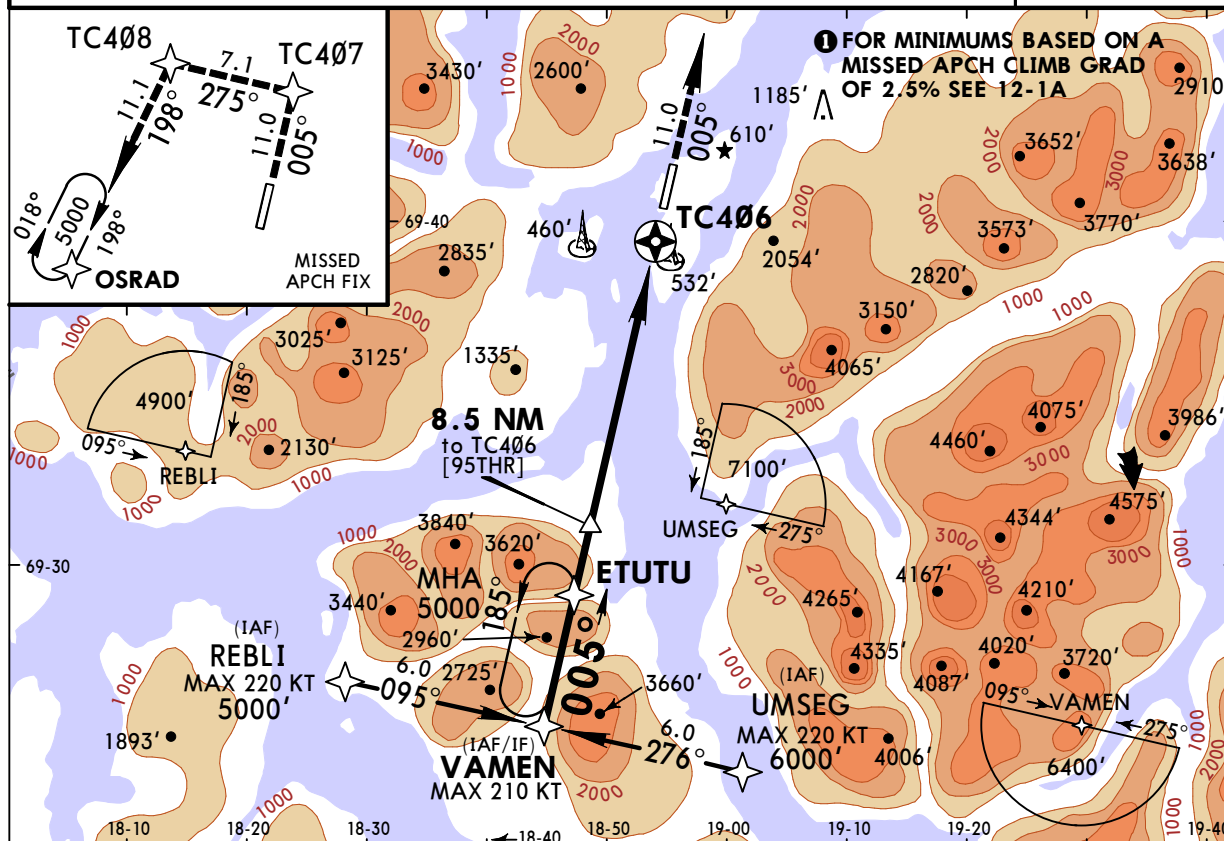
LOC RWY 19 MINIMUMS**MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 19		CIRCLE-TO-LAND	
		LOC (GS out)		Not authorized West of airport	
		A: 1030' (1015')			
		ALS out		Max Kts	MDA(H) VIS
D	CMV 4100m	CMV 4900m		205	2960' (2928') 4900m

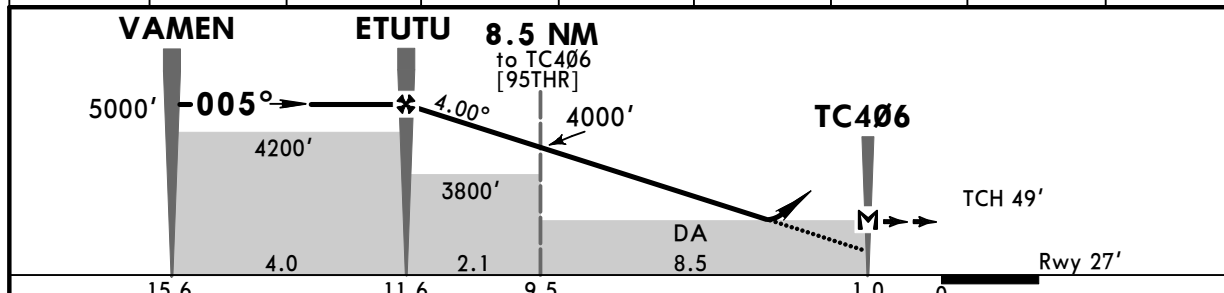
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16
Eff 26 May (12-1)TROMSO, NORWAY
ORNAV (GNSS) Rwy 01

BRIEFING STRIP

*ATIS		*TROMSO Approach		*TROMSO Tower	
126.125		123.750		118.3	
RNAV	Final Aptch Crs 005°	Procedure Alt ETUTU 5000' (4973')	DA(H) Refer to Minimums	Apt Elev 32' Rwy 27'	7100' MSA ARP
MISSED APCH: Climb on 005° to TC407, then turn LEFT to TC408. Turn LEFT to OSRAD at 5000' and hold.					
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to TC406	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	4330'	3900'	3480'	3050'	2630'	2200'	1780'	1360'



Gnd speed-Kts	70	90	100	120	140	160	TC407 on 005°
Descent Angle 4.00°	496	637	708	850	991	1133	
MAP at TC406							

Standard STRAIGHT-IN LANDING RWY 01				CIRCLE-TO-LAND	
Missed apch climb gradient mim 5.0%		Missed apch climb gradient mim 4.0%		Not authorized West of airport	
DA(H)		DA(H)			
A: 710' (683')		A: 930' (903')			
C: 810' (783')		C: 1010' (983')			
B: 760' (733')		B: 970' (943')			
D: 850' (823')		D: 1040' (1013')			
ALS out		ALS out			
A		A			
RVR 1500m		RVR 1500m			
B		B			
CMV 2900m		CMV 3600m			
CMV 3100m		CMV 3800m			
CMV 2900m		CMV 3600m			
CMV 3100m		CMV 3800m			
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CMV 3100m		CMV 3800m			

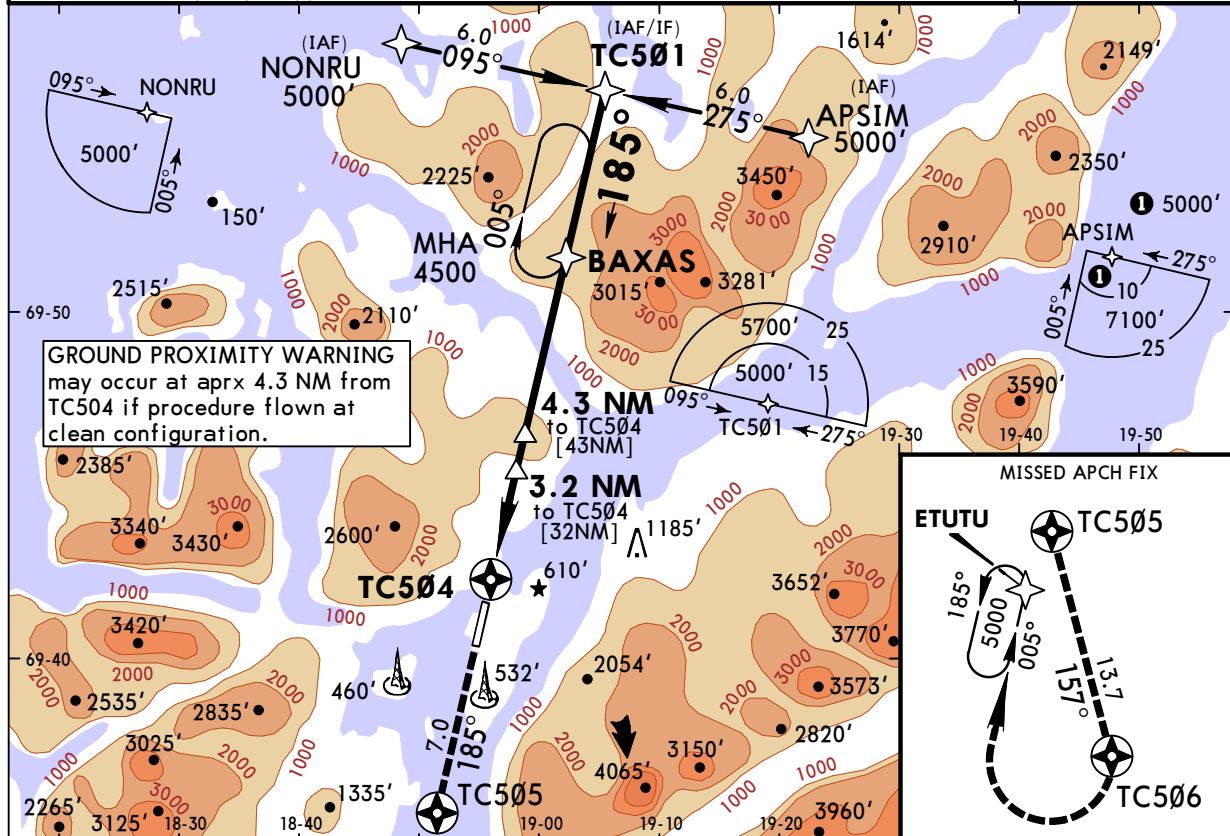
ENTC/TOS
LANGNES **JEPPESEN**
13 MAY 16 **12-1A** Eff 26 May**TROMSO, NORWAY****RNAV RWY 01 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 01		CIRCLE-TO-LAND	
		DA(H) A: 1260' (1233') C: 1310' (1283')		Not authorized	
		B: 1280' (1253') D: 1330' (1303')		West of airport	
		ALS out		Max Kts	MDA(H) VIS
A	CMV 5000m			100	1270' (1238') 5000m
B				135	1290' (1258') 5000m
C				180	2660' (2628') 5000m
D				205	2960' (2928') 5000m

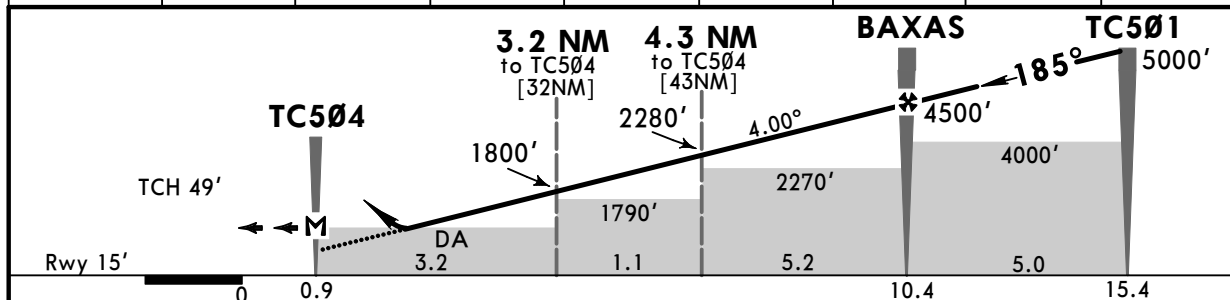
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16 (12-2) Eff 26 MayTROMSO, NORWAY
RNAV (GNSS) Rwy 19

BRIEFING STRIP

*ATIS		*TROMSO Approach		*TROMSO Tower	
126.125		123.750		118.3	
RNAV	Final Aptch Crs 185°	Procedure Alt BAXAS 4500' (4485')	LNAV DA(H) 1040' (1025')	Apt Elev 32' Rwy 15'	TAA 25 NM IF
MISSED APCH: Climb on 185° to TC505, then turn LEFT to TC506. Turn RIGHT to ETUTU, climbing to 5000' and hold. Acft may request direct routing to ETUTU after passing 5000'.					
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000'					
WARNING: Steep angle approach.					



DIST to TC504	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
ALTITUDE	1300'	1720'	2150'	2570'	2990'	3420'	3840'	4260'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI	TC505 on 185°
Descent Angle 4.00°	496	637	708	850	991	1133		
MAP at TC504								

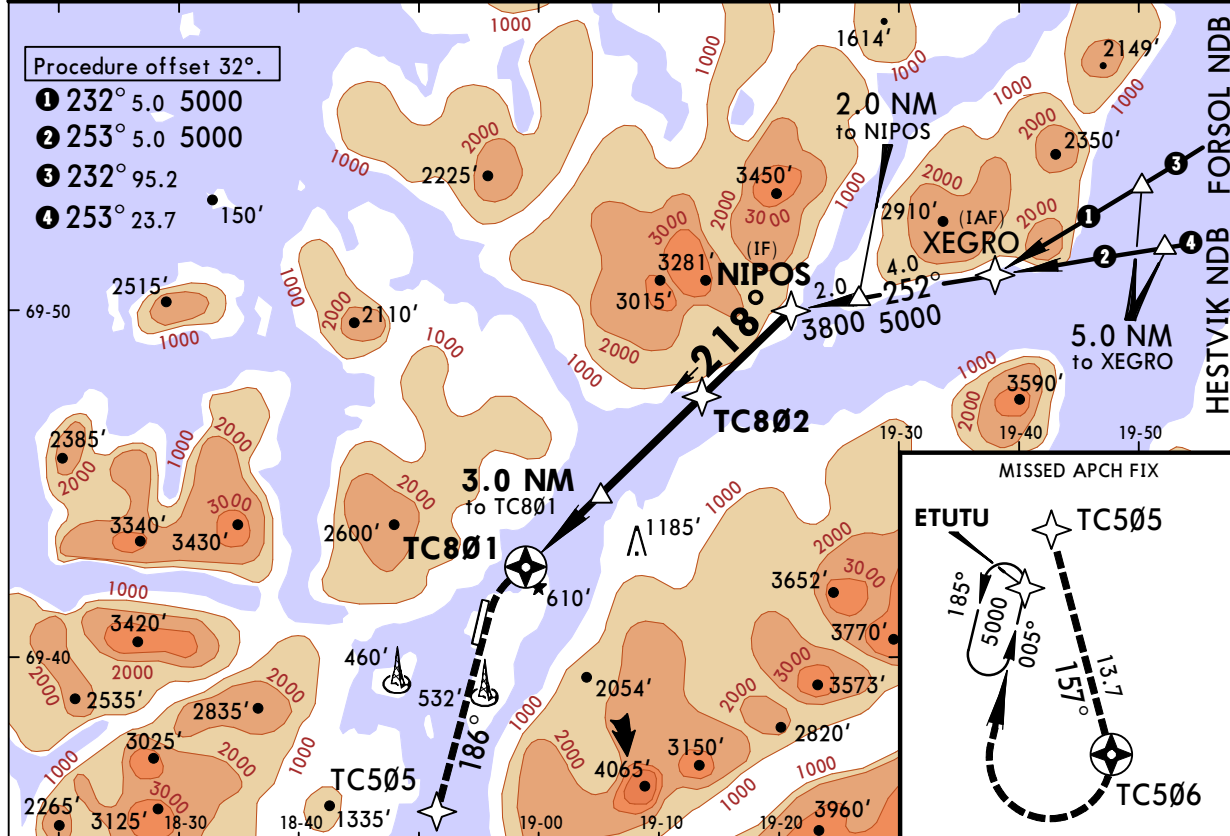
Standard				CIRCLE-TO-LAND			
STRAIGHT-IN LANDING RWY 19				Not authorized West of airport			
LNAV							
DA(H) 1040' (1025')							
ALS out				Max Kts	MDA(H)	VIS	
A	RVR 1500m			100	1060' (1028')	1500m	
B				135	1060' (1028')	1600m	
C				180	2660' (2628')	4900m	
D	CMV 4100m	CMV 4900m		205	2960' (2928')	4900m	

PANS OPS

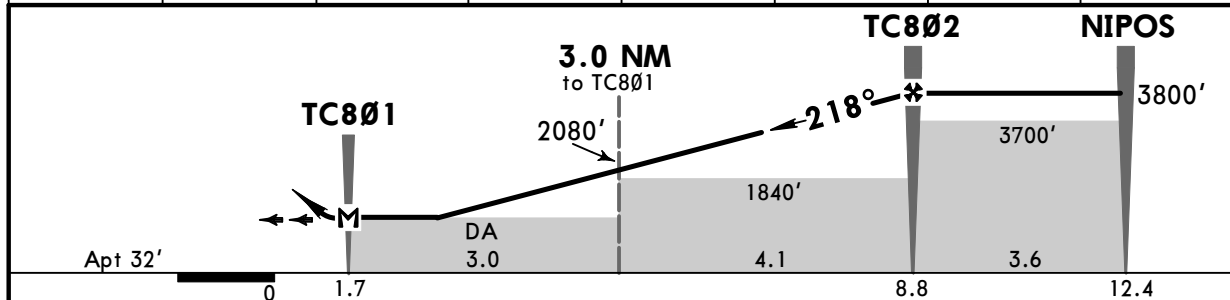
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16
Eff 26 May (12-3) CAT A & BTROMSO, NORWAY
RNAV (GNSS) A

BRIEFING STRIP™

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3	
RNAV	Final Apch Crs 218°	Procedure Alt TC802 3800' (3768')	MDA(H) Refer to Minimums	Apt Elev 32'	7100' MSA ARP
MISSED APCH: Turn LEFT to intercept and proceed on 186° to TC505, then turn LEFT to TC506. Turn RIGHT direct to ETUTU, climbing to 5000' and hold. Acft may request direct routing to ETUTU after passing 5000'.					
Alt Set: hPa Apt Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'	
WARNING: Steep angle approach.					



DIST to TC801	1.0	2.0	3.0	4.0	5.0	6.0	7.0
ALTITUDE	1240'	1660'	2080'	2500'	2920'	3340'	3760'



Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart	TC505 on 186° LT
Descent Angle 4.00°	496	637	708	850	991	1133		
MAP at TC801								

Standard		CIRCLE-TO-LAND Not authorized West of airport Missed apch climb gradient mim 3.5%, 3.0% and 2.5%	
	Max Kts	MDA(H)	VIS
	A 100	860' (828')	1 1500m
	B 135	890' (858')	2 1600m
	C	NOT APPLICABLE	
		D	

1 After missed apch climb grad mim 3.0%: 900' (868')/ mim 2.5%: 1040' (1008').

2 After missed apch climb grad mim 3.0%: 910' (878')/ mim 2.5%: 1060' (1028').

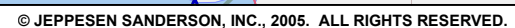
CHANGES: Procedure.

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PANS OPS

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JeppView 3.6.2.0



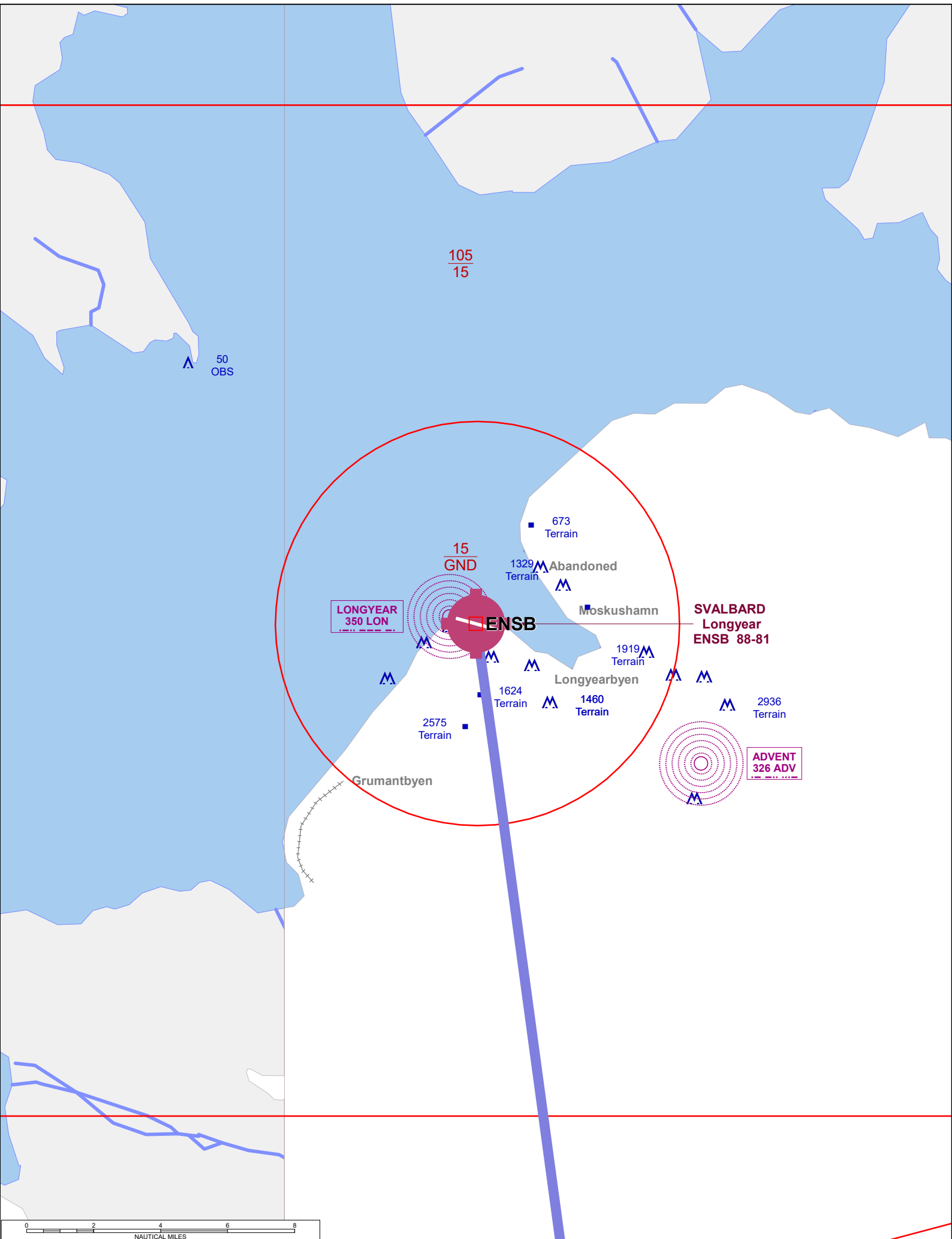
6.0.2 DESTINATION (ENTC -> ENSB): ENSB (Longyear)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JEPPESEN

JeppView 3.6.2.0

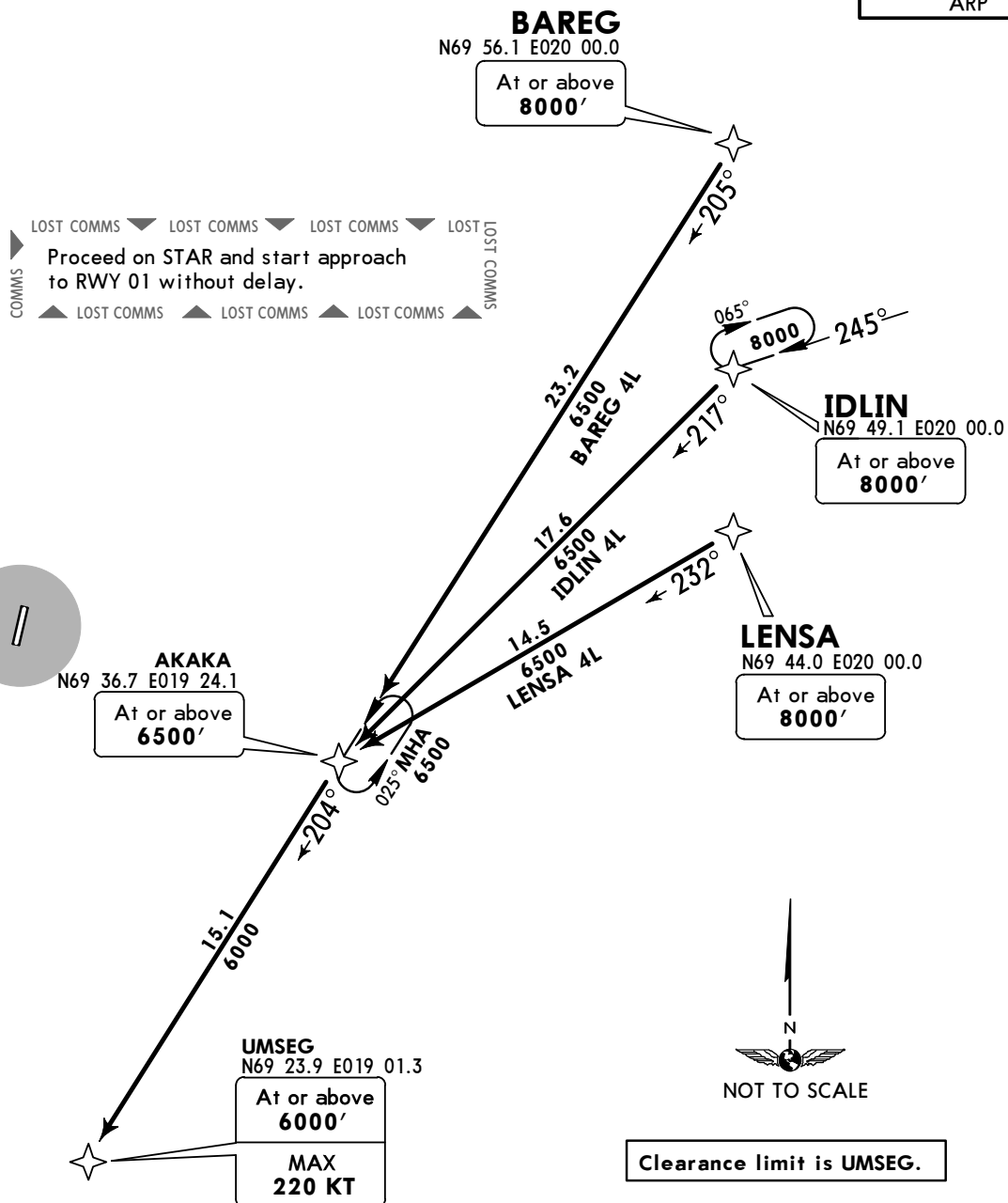
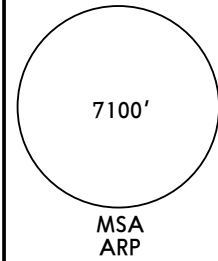


ENTC/TOS
LANGNES
JEPPesen
 13 MAY 16 **10-2** **Eff 26 May**
TROMSO, NORWAY
RNAV STAR

 *ATIS
126.125

 Apt Elev
32'

 Alt Set: hPa Trans level: By ATC Trans alt: 7000'
 1. **RNAV 1 (GNSS).**
 2. **GNSS required.**
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

BAREG 4L [BARE4L]
IDLIN 4L [IDLI4L]
LENSA 4L [LENS4L]
RNAV


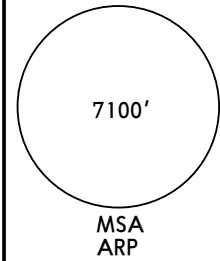
STAR	RWY	ROUTING
BAREG 4L	01	From BAREG to AKAKA, to UMSEG.
IDLIN 4L		From IDLIN to AKAKA, to UMSEG.
LENSA 4L		From LENSEA to AKAKA, to UMSEG.

ENTC/TOS
LANGNES
JEPPesen
 13 MAY 16 **(10-2A)** **Eff 26 May**
TROMSO, NORWAY
RNAV STAR

 *ATIS
126.125

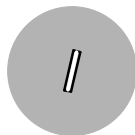
 Apt Elev
32'

 Alt Set: hPa Trans level: By ATC Trans alt: 7000'
 1. RNAV 1 (GNSS, except class A GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

BAREG 2M [BARE2M]
IDLIN 2M [IDLI2M]
LENSA 2M [LENS2M]
RNAV

 LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲
 Proceed on STAR and start approach to RWY 19 without delay.

Clearance limit is APSIM.

 Direct distance from APSIM to:
 Langnes Apt 17 NM

APSIM
 N69 55.0 E019 22.5
 At or above
5000'
BAREG
 N69 56.1 E020 00.0
 At or above
8000'
IDLIN
 N69 49.1 E020 00.0
 At or above
8000'
LENSA
 N69 44.0 E020 00.0
 At or above
FL120


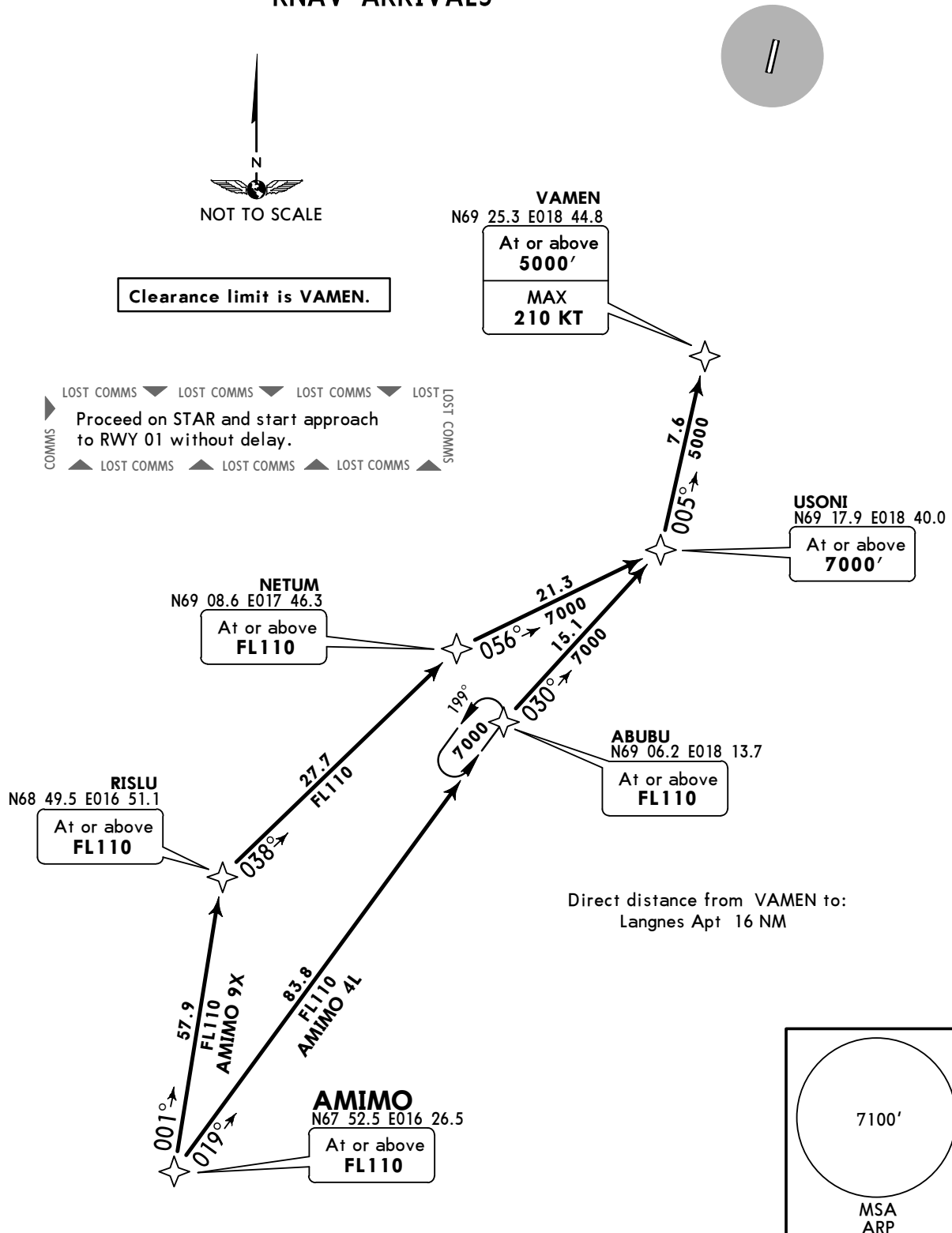
STAR	RWY	ROUTING
BAREG 2M	19	From BAREG to APSIM.
IDLIN 2M		From IDLIN to APSIM.
LENSA 2M		From LENSEA to APSIM.

ENTC/TOS
LANGNESJEPPESEN
2 SEP 16 10-2B Eff 15 SepTROMSO, NORWAY
RNAV STAR*ATIS
126.125Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

AMIMO 4L [AMIM4L] AMIMO 9X [AMIM9X] RNAV ARRIVALS

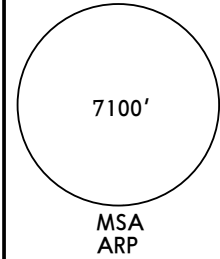


STAR	RWY	ROUTING
AMIMO 4L	01	To ABUBU, to USONI, to VAMEN.
AMIMO 9X		To RISLU, to NETUM, to USONI, to VAMEN.

ENTC/TOS
LANGNESJEPPESEN
2 SEP 16 10-2C Eff 15 SepTROMSO, NORWAY
RNAV STAR*ATIS
126.125Apt Elev
32'

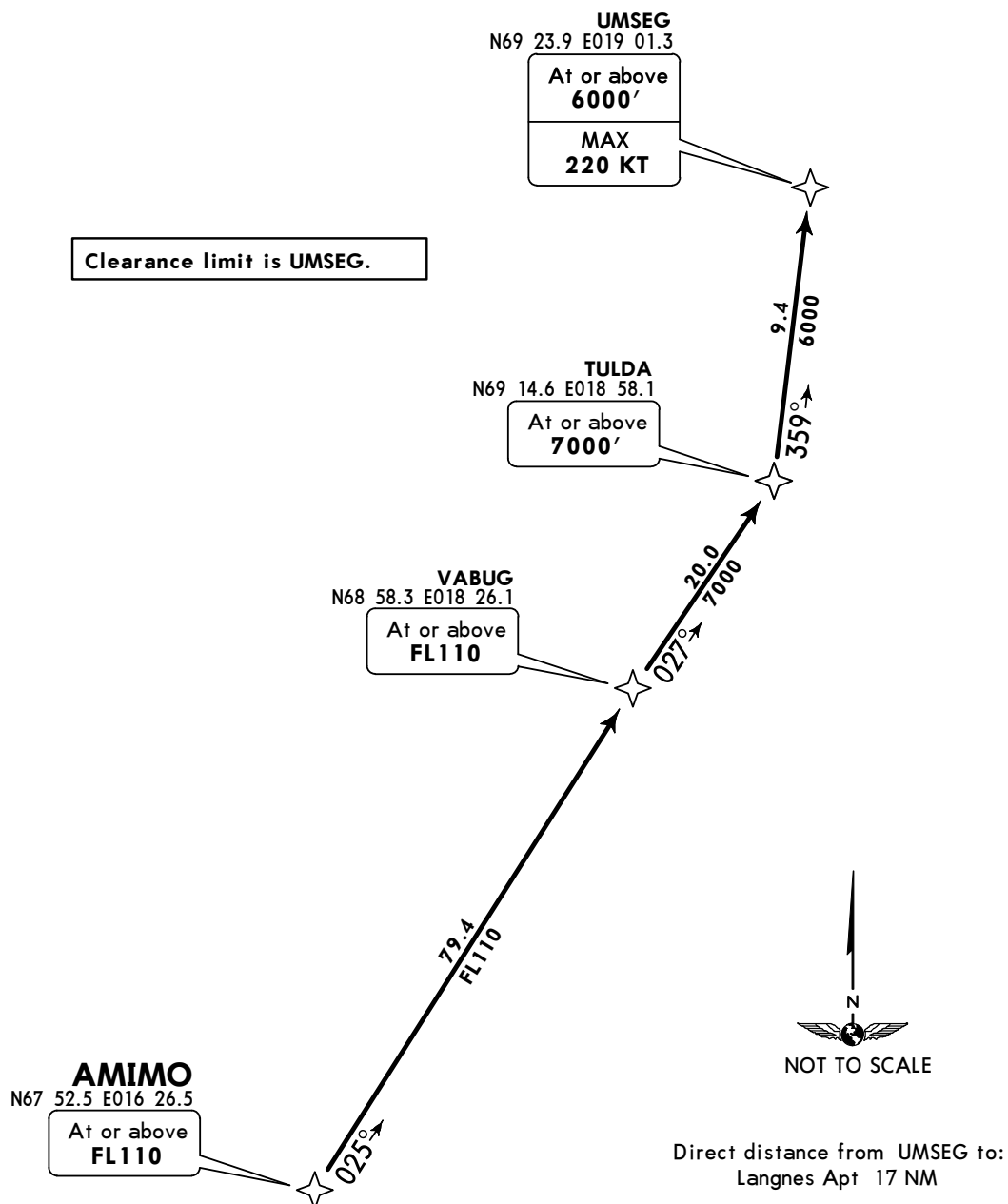
Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

AMIMO 1W [AMIM1W]
RNAV ARRIVAL

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

COMMS ▲ Proceed on STAR and start approach to RWY 01 without delay. ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

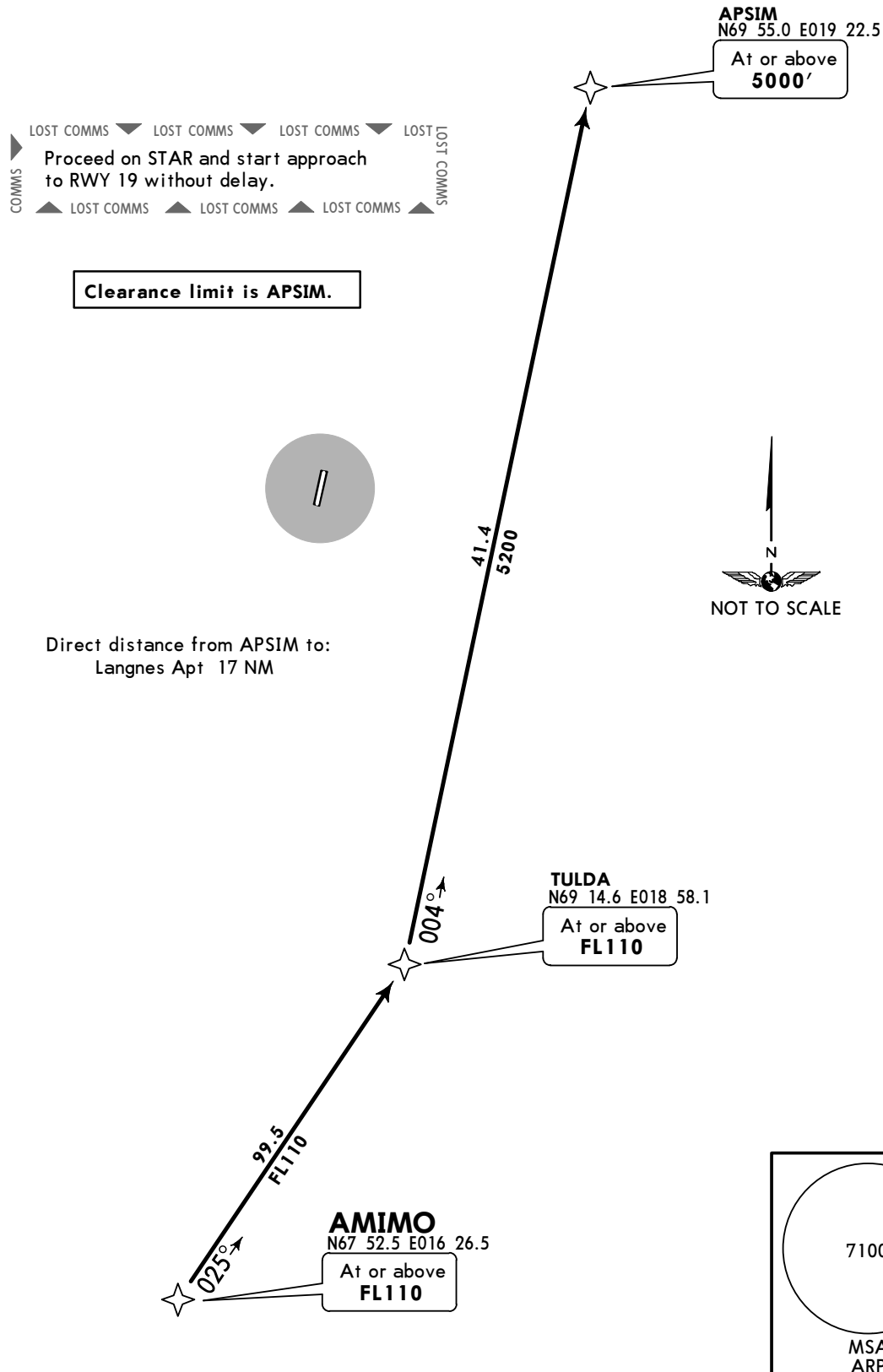


RWY	ROUTING
01	To VABUG, to TULDA, to UMSEG.

ENTC/TOS
LANGNES**JEPPESEN**
13 MAY 16 **(10-2D)** **Eff 26 May****TROMSO, NORWAY**
RNAV STAR*ATIS
126.125Apt Elev
32'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. RNAV 1 (GNSS, except class A GNSS).
2. GNSS required.
3. RADAR service shall be available.
4. Loss of RNAV 1 capability, request vectoring.
5. Vectoring may be used for sequencing to final when necessary.
6. Descend as cleared by ATC.

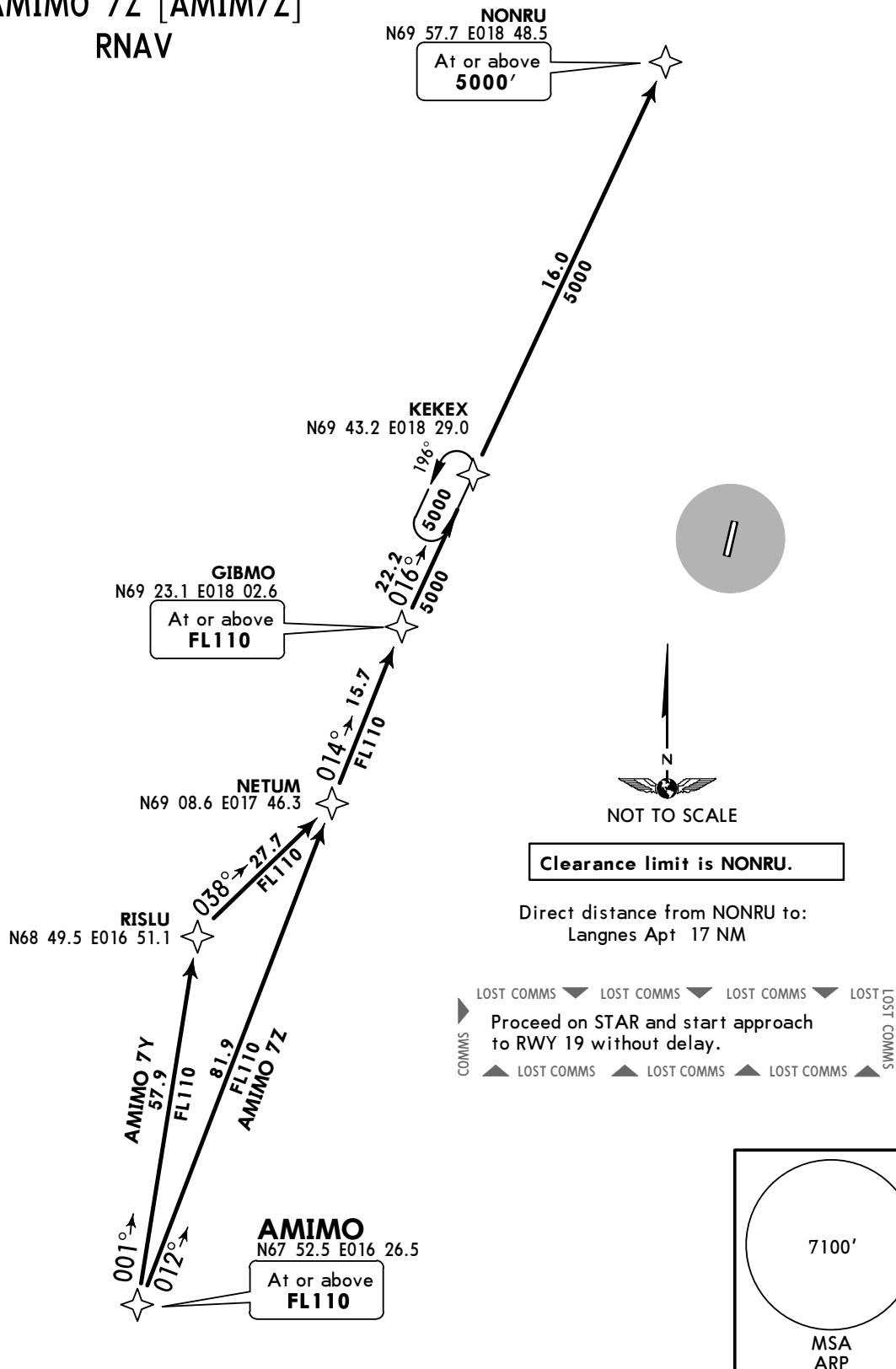
AMIMO 2M [AMIM2M]
RNAV**RWY****19****ROUTING**

From AMIMO to TULDA, to APSIM.

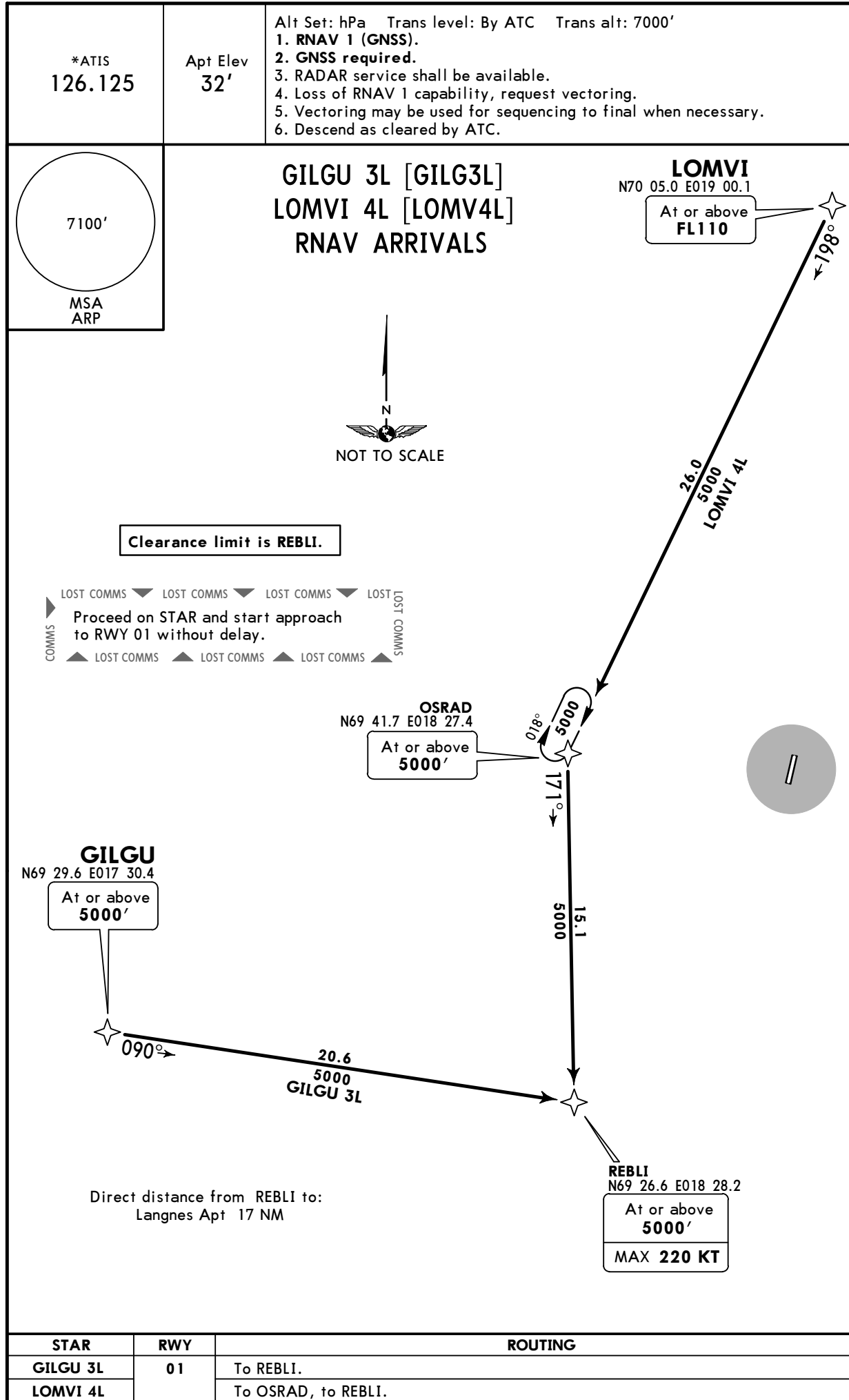
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16 10-2E Eff 26 MayTROMSO, NORWAY
RNAV STAR*ATIS
126.125Apt Elev
32'

- Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. RNAV 1 (GNSS, except class A GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

AMIMO 7Y [AMIM7Y]
AMIMO 7Z [AMIM7Z]
RNAV



STAR	RWY	ROUTING
AMIMO 7Y	19	From AMIMO to RISLU, to NETUM, to GIBMO, to KEKEX, to NONRU.
AMIMO 7Z		From AMIMO to NETUM, to GIBMO, to KEKEX, to NONRU.

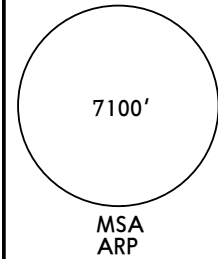
ENTC/TOS
LANGNES
JEPPesen
 2 SEP 16 **10-2F** **Eff 15 Sep**
TROMSO, NORWAY
RNAV STAR


ENTC/TOS
LANGNES
JEPPESSEN
 2 SEP 16 **(10-2G)** **Eff 15 Sep**
TROMSO, NORWAY
RNAV STAR

 *ATIS
126.125

 Apt Elev
32'

 Alt Set: hPa Trans level: By ATC Trans alt: 7000'
 1. RNAV 1 (GNSS, except class A GNSS).
 2. GNSS required.
 3. RADAR service shall be available.
 4. Loss of RNAV 1 capability, request vectoring.
 5. Vectoring may be used for sequencing to final when necessary.
 6. Descend as cleared by ATC.

GILGU 2M [GILG2M]
LOMVI 2M [LOMV2M]
RNAV ARRIVALS

**Clearance limit are
NONRU & TC501**

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

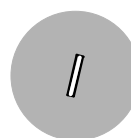
Proceed on STAR and start approach to RWY 19 without delay.

LOMVI
 N70 05.0 E019 00.1

 At or above
7000'
NONRU
 N69 57.7 E018 48.5

 At or above
5000'
TC501
 N69 56.4 E019 05.5

 At or above
5000'
GILGU
 N69 29.6 E017 30.4
 At or above
8000'

 39.1
 5000
GILGU 2M

 Direct distance to
 Langnes Apt from:
 NONRU 17 NM
 TC501 16 NM

STAR	RWY	ROUTING
GILGU 2M	19	To NONRU.
LOMVI 2M		To TC501.

ENTC/TOS
LANGNES

JEPPESSEN
20 FEB 15 (10-2H) Eff 5 Mar

TROMSO, NORWAY

STAR

***ATIS**
126.125

Apt Elev
32'

Alt Set: hPa
Trans level: By ATC Trans alt: 7000'
1. Vectoring will be used for sequencing.
2. Descent as cleared by ATC.

MSA
TRO VOR

LURAP THREE LIMA (LURAP 3L) [LURA3L]

SENJA EIGHT MIKE (SJA 8M)

RWYS 01, 19 ARRIVALS

LOST COMMS LOST COMMS LOST COMMS

Proceed on STAR and start approach to assigned RWY.

▲ SWW03 1501 ▲ SWW03 1501 ▲

1 4500' if cleared for approach to RWY 19.

(Clearance limit)

KVALSUND
362 KV
N69 48.7 E019 00.2

At or above
1 5000'

ILS DME
109.9 TR

TROMSO
113.8 TRO
N69 42.2 E018 59.8

(IAF)
KOBBE
283 KBV
N69 30.3 E018 49.3

At or above
5500'

MOLON
N69 18.0 E018 39.3

At or above
7000'

Direct distance to Langnes Apt from:

KBV 11 NM
KV 8 NM

NOT TO SCALE

STAR	RWY	ROUTING
LURAP 3L	01	On 026° track, intercept TRO R-190 inbound via MOLON to TC 15.0 DME, intercept 006° bearing to KBV.
SJA 8M	19	On 013° bearing via GIBMO to MACKA, turn RIGHT, along TRO 13.0 DME arc, when passing TRO R-346 turn RIGHT, intercept TR or 186° bearing to KV.

HOLDING OVER KBV

Clearance limit

SENJA
414 SJA
N69 09.7 E017 49.0

GIBMO
N69 23.1 E018 02.6
At or above **5500'**

MACKA
N69 50.6 E018 31.5

KVALSUND
362 KV
N69 48.7 E019 00.2
At or above **1 5000'**

TROMSO
113.8 TRO
N69 42.2 E018 59.8

KOBBE
283 KBV
N69 30.3 E018 49.3
At or above **5500'**

MOLON
N69 18.0 E018 39.3
At or above **7000'**

LURAP
N69 05.4 E018 16.0
(TRO R-196/D40.0)

CHANGES: General instructions & STAR SJA 8M revised; lost comms established.

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ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 **10-3** Eff 29 Mar

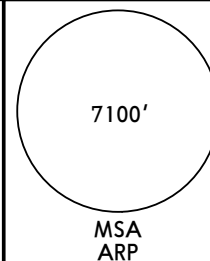
TROMSO, NORWAY
RNAV SID

*TROMSO Approach
123.750

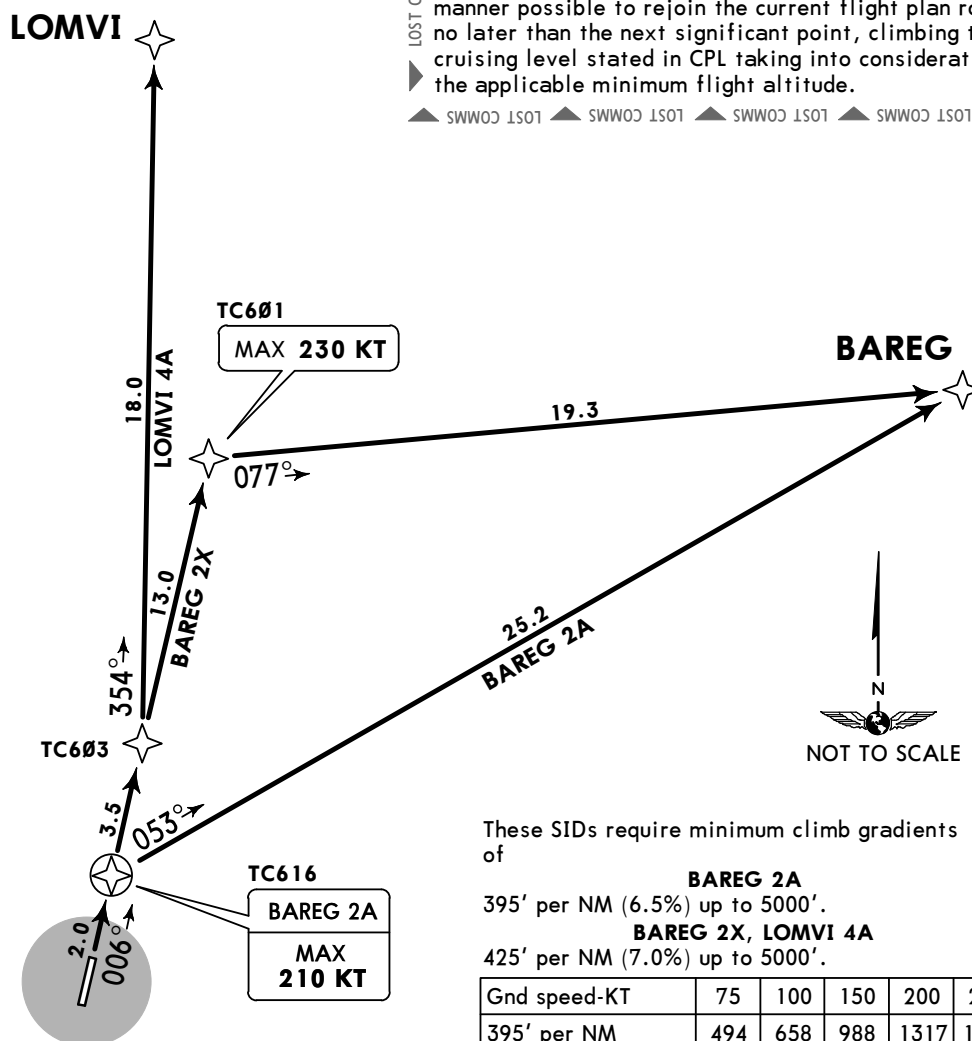
Apt Elev
32'

Trans level: By ATC Trans alt: 7000'
1. **RNAV 1 (GNSS).**
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

BAREG 2A [BARE2A]
BAREG 2X [BARE2X]
LOMVI 4A [LOMV4A]
RWY 01 RNAV DEPARTURES



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO
▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.
▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC



These SIDs require minimum climb gradients of

BAREG 2A
395' per NM (6.5%) up to 5000'.
BAREG 2X, LOMVI 4A
425' per NM (7.0%) up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	988	1317	1646	1975
425' per NM	531	708	1063	1417	1771	2125

If unable to comply inform ATC.

Initial climb clearance **FL90**

SID	ROUTING
BAREG 2A	On 006° track to TC616, to BAREG.
BAREG 2X	On 006° track to TC601, to BAREG.
LOMVI 4A	On 006° track to TC603, to LOMVI.

ENTC/TOS
LANGNES
JEPPesen
 23 MAR 18 **(10-3A)** Eff 29 Mar

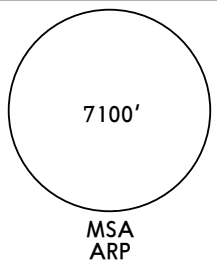
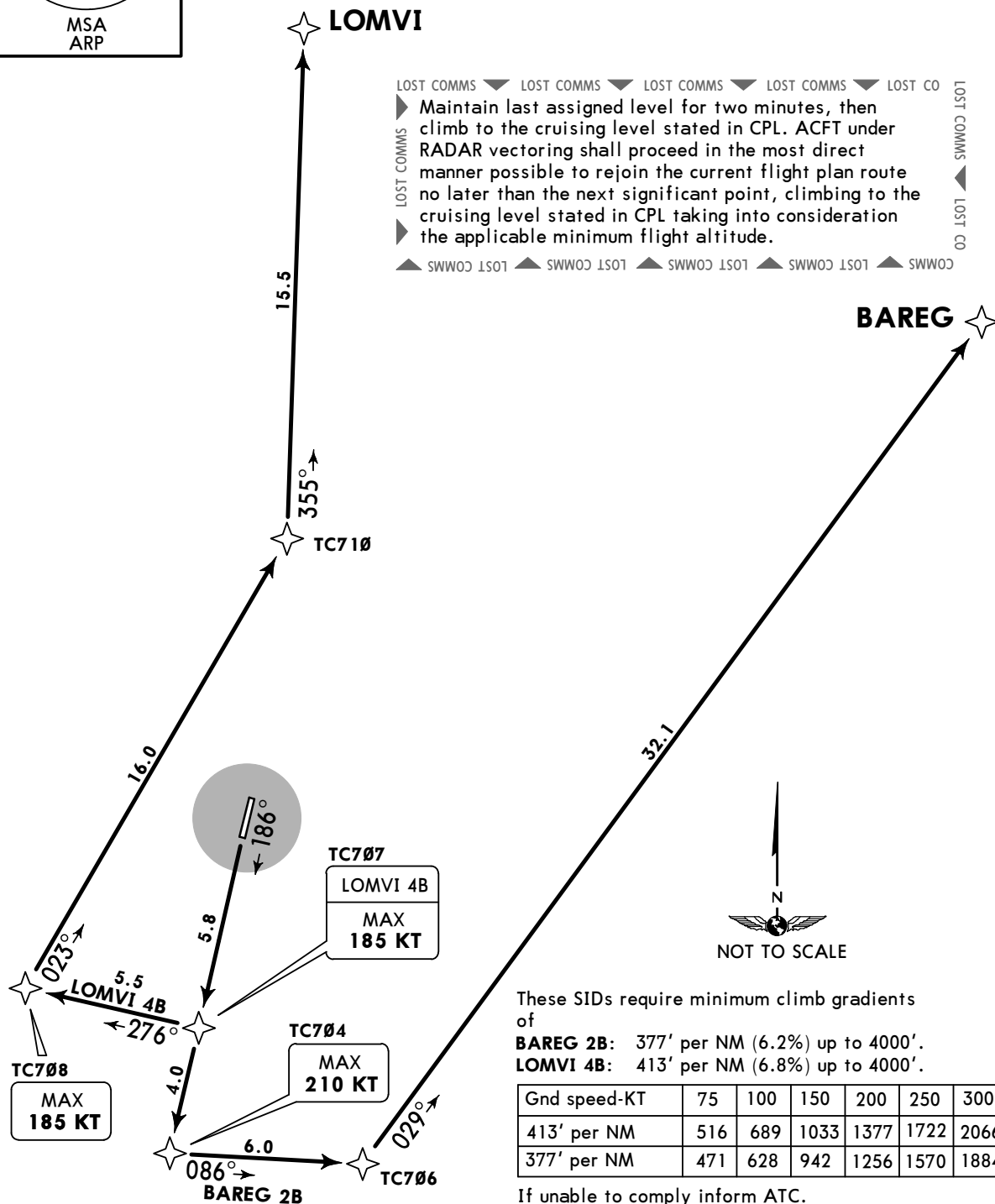
TROMSO, NORWAY
RNAV SID

 *TROMSO Approach
123.750

 Apt Elev
32'

Trans level: By ATC Trans alt: 7000'

1. **RNAV 1 (GNSS).**
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

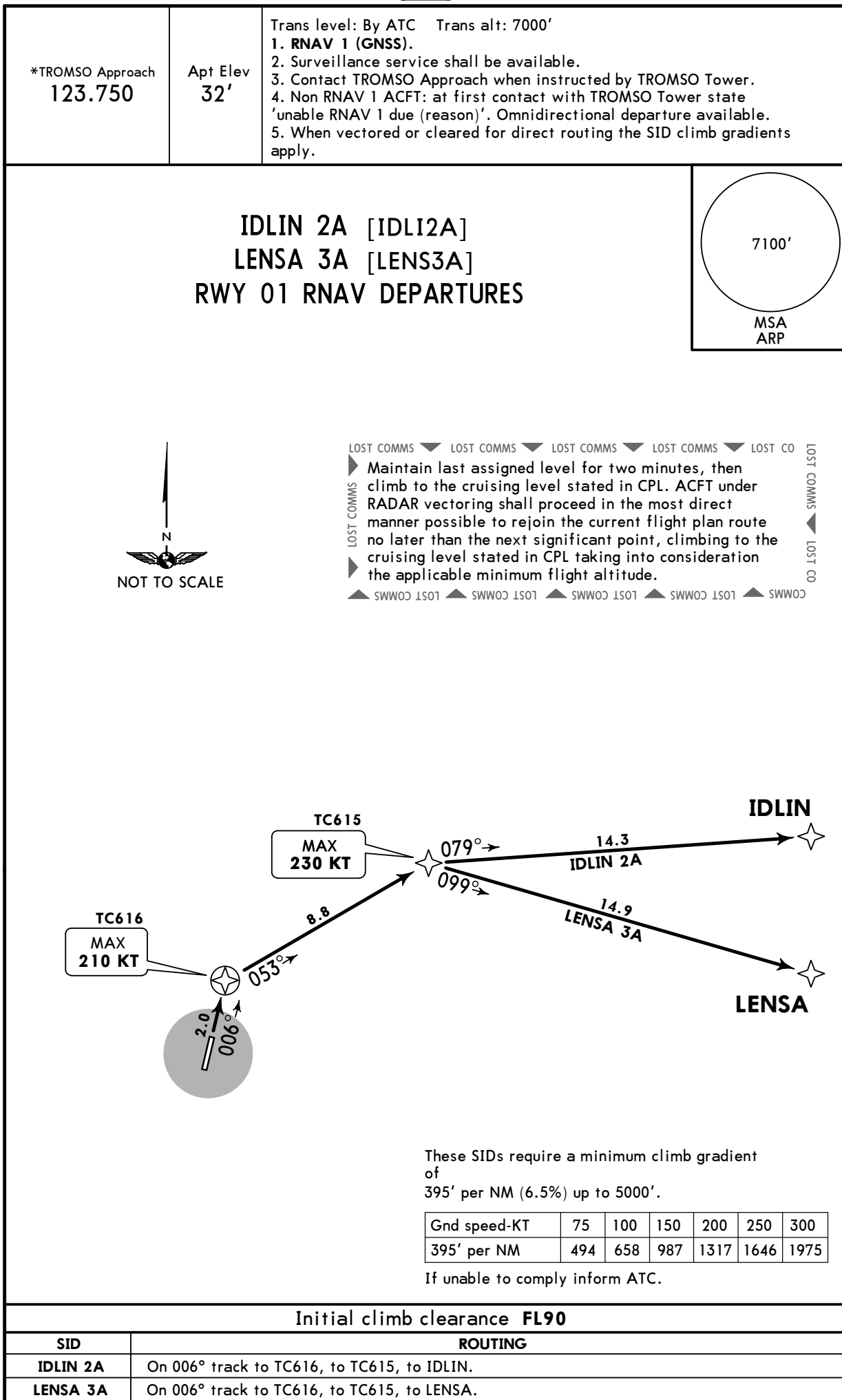

BAREG 2B [BARE2B]
LOMVI 4B [LOMV4B]
RWY 19 RNAV DEPARTURES
Initial climb clearance **FL90**

SID	ROUTING
BAREG 2B	On 186° track to TC704, turn LEFT to TC706, to BAREG.
LOMVI 4B	On 186° track to TC707, turn RIGHT to TC708, turn RIGHT, to TC710, to LOMVI.

ENTC/TOS
LANGNES

JEPPesen
 23 MAR 18 **(10-3B)** Eff 29 Mar

TROMSO, NORWAY
RNAV SID



ENTC/TOS
LANGNES

JEPPESEN
23 MAR 18 (10-3C) Eff 29 Mar

TROMSO, NORWAY
RNAV SID

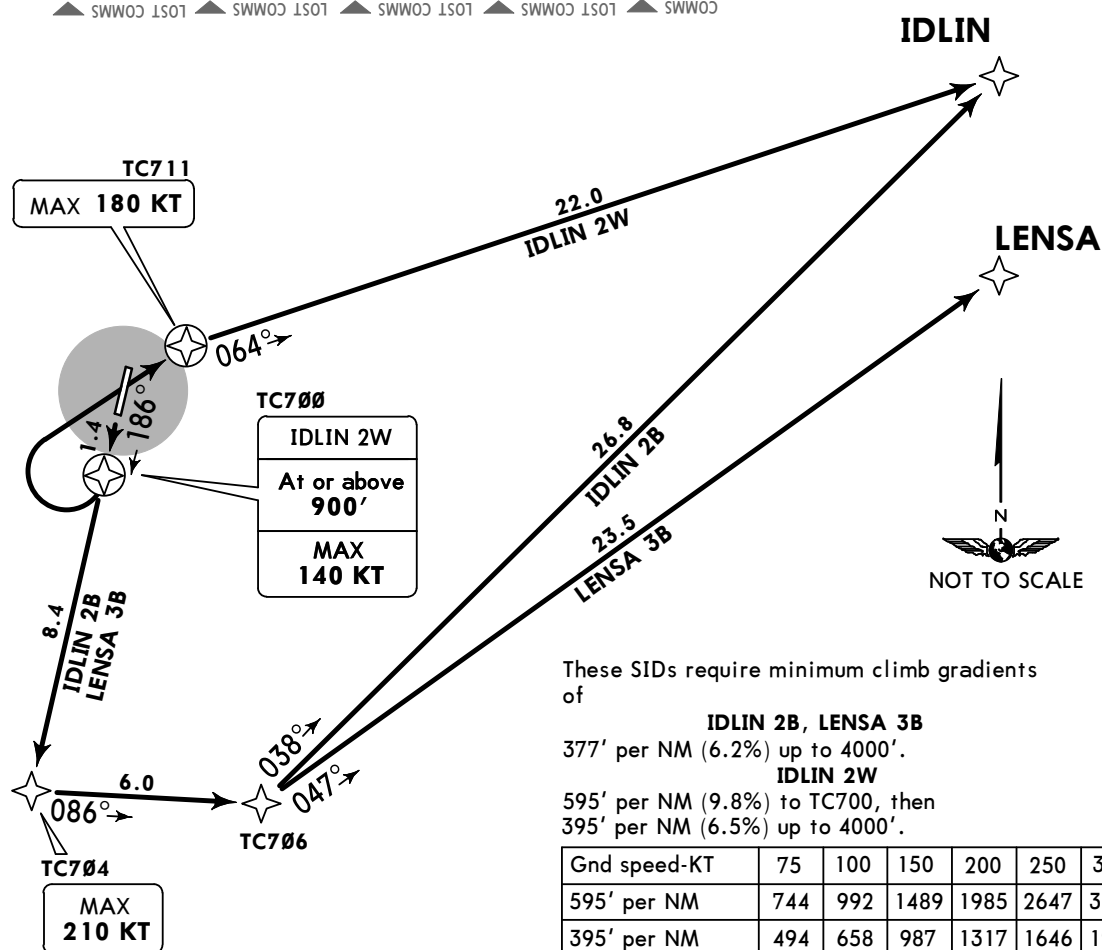
*TROMSO Approach 123.750	Apt Elev 32'	Trans level: By ATC Trans alt: 7000' 1. RNAV 1 (GNSS). 2. Surveillance service shall be available. 3. Contact TROMSO Approach when instructed by TROMSO Tower. 4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 5. When vectored or cleared for direct routing the SID climb gradients apply.
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IDLIN 2B [IDLI2B]
IDLIN 2W [IDLI2W]
LENSA 3B [LENS3B]
RWY 19 RNAV DEPARTURES

7100'

MSA
ARP

▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.



These SIDs require minimum climb gradients of

IDLIN 2B, LENS 3B
377' per NM (6.2%) up to 4000'.

IDLIN 2W
595' per NM (9.8%) to TC700, then
395' per NM (6.5%) up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
595' per NM	744	992	1489	1985	2647	3176
395' per NM	494	658	987	1317	1646	1975
377' per NM	471	628	942	1256	1570	1884

If unable to comply inform ATC.

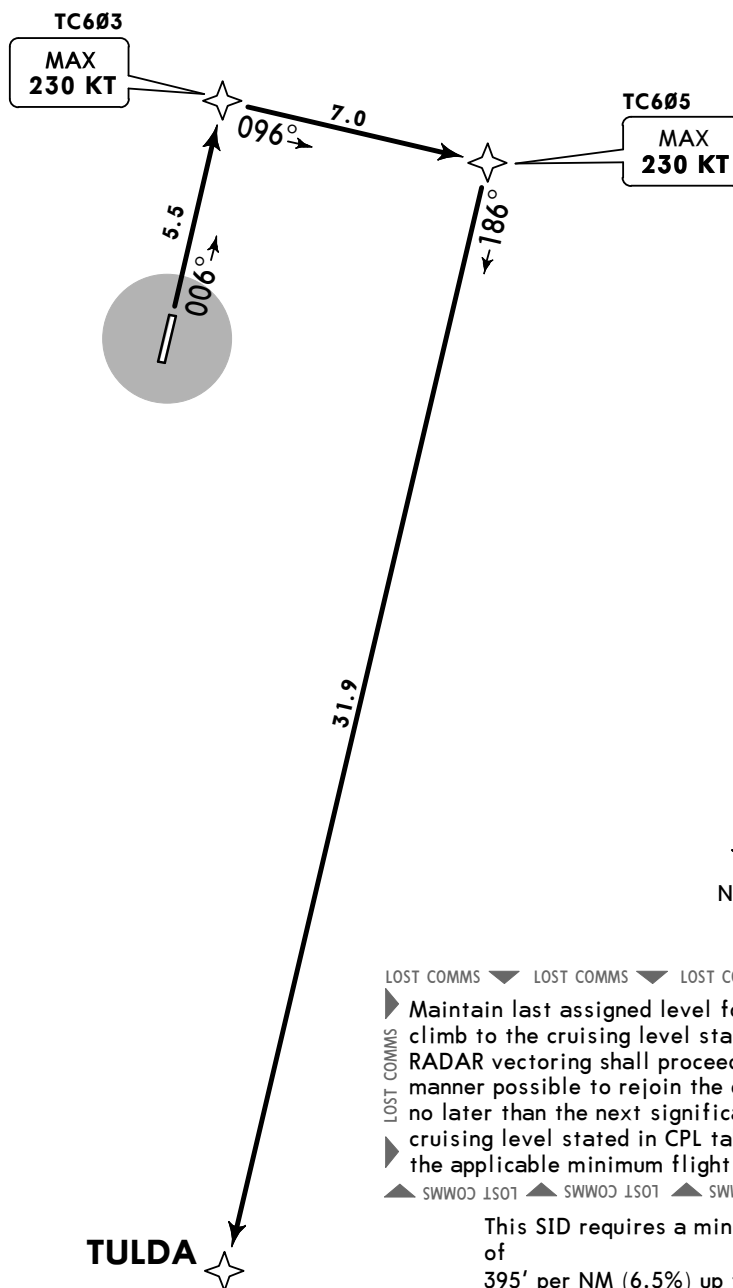
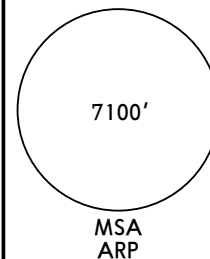
Initial climb clearance **FL90**

SID	ROUTING
IDLIN 2B	On 186° track to TC704, turn LEFT to TC706, to IDLIN.
IDLIN 2W	On 186° track to TC700, turn RIGHT, direct to TC711, to IDLIN.
LENSA 3B	On 186° track to TC704, turn LEFT to TC706, to LENSEA.

ENTC/TOS
LANGNES**JEPPesen**
23 MAR 18 **(10-3D)** **Eff 29 Mar****TROMSO, NORWAY**
RNAV SID*TROMSO Approach
123.750Apt Elev
32'

Trans level: By ATC Trans alt: 7000'

1. **RNAV 1 (GNSS).**
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

TULDA 1A [TULD1A]
RWY 01 RNAV DEPARTURE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO

▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.

LOST COMMS ▼ LOST CO

▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC

This SID requires a minimum climb gradient of
395' per NM (6.5%) up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	987	1317	1646	1975

If unable to comply inform ATC.

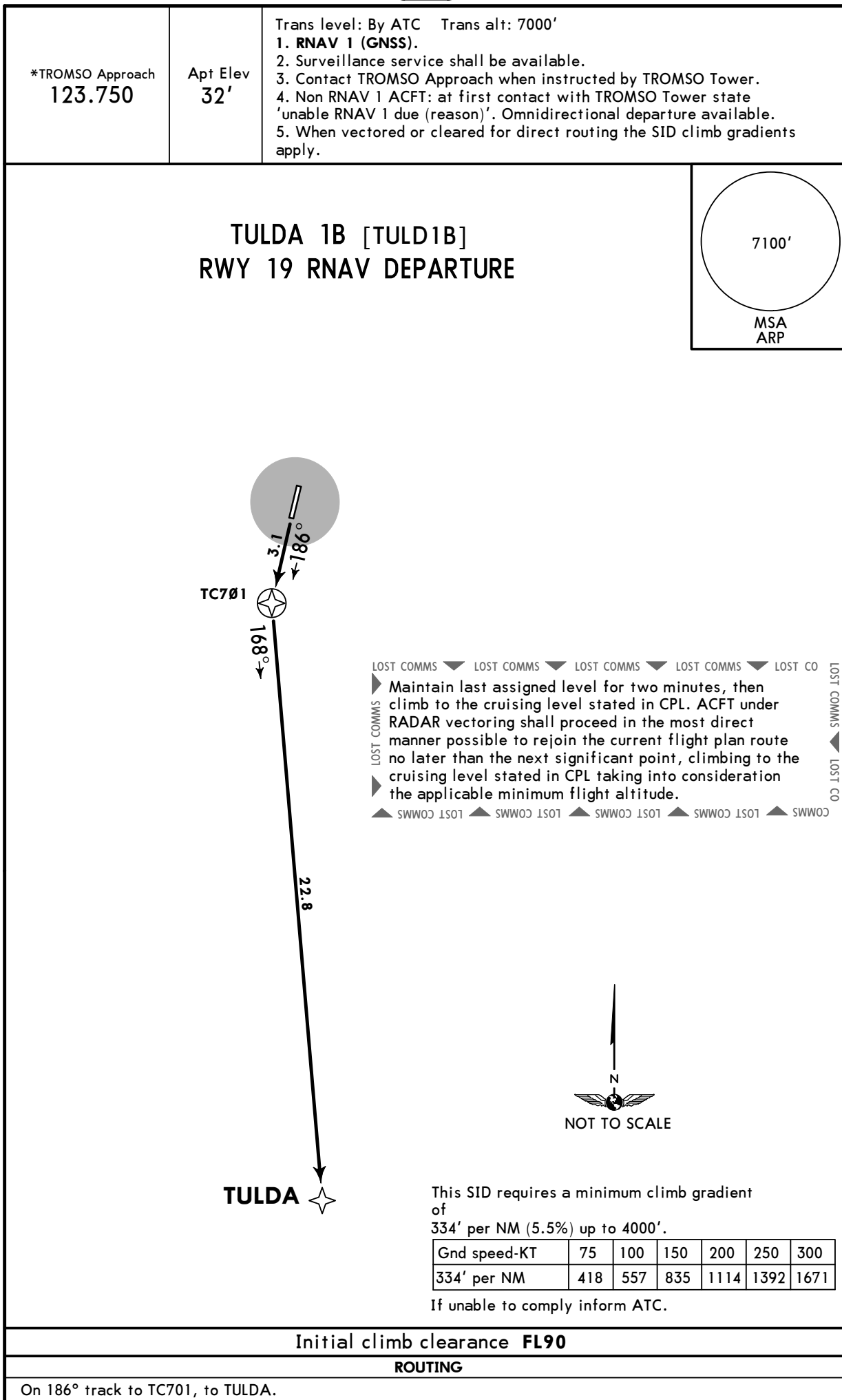
Initial climb clearance FL90**ROUTING**

On 006° track to TC603, turn RIGHT to TC605, turn RIGHT to TULDA.

ENTC/TOS
 LANGNES

JEPPESSEN
 23 MAR 18 **10-3E** Eff 29 Mar

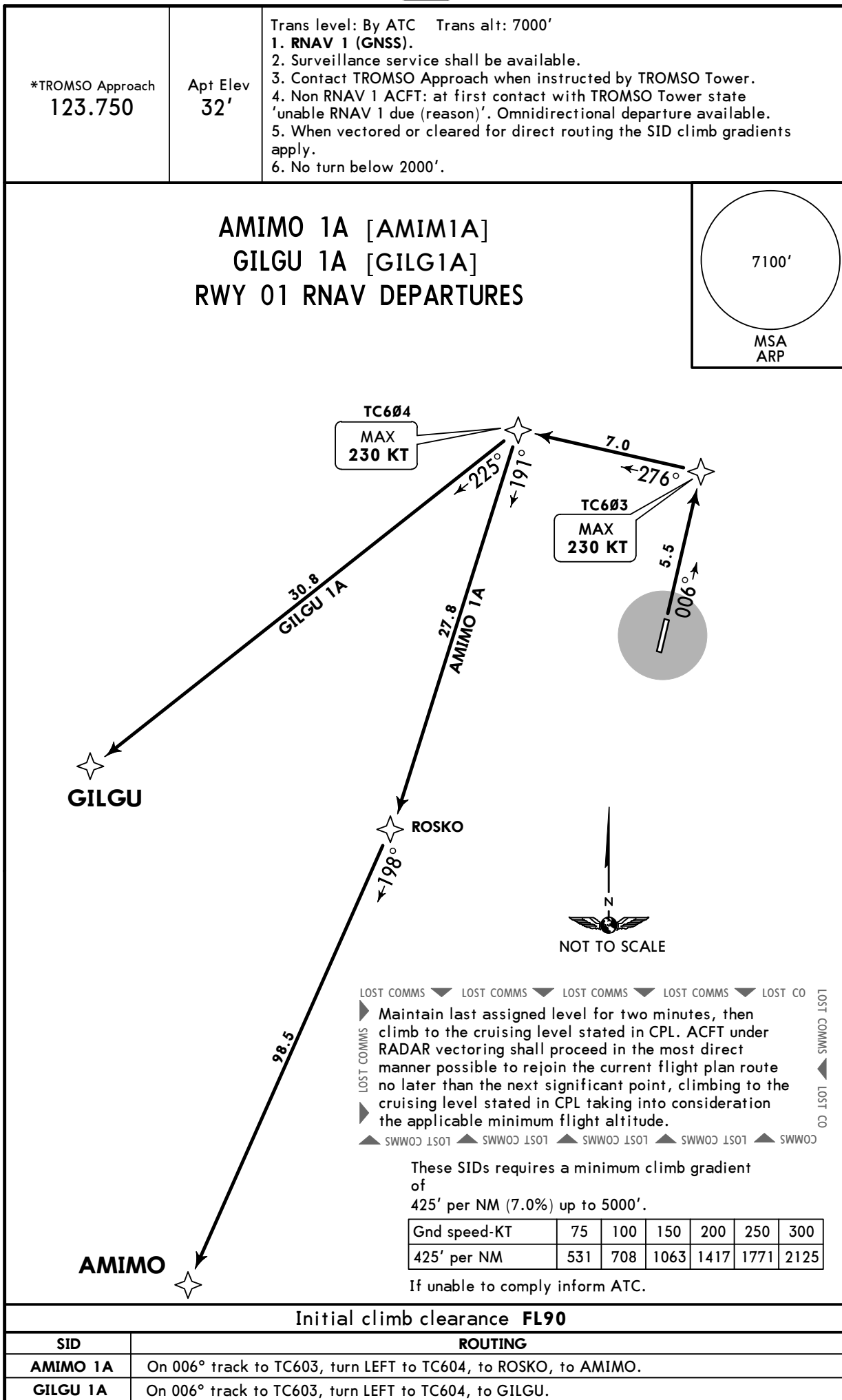
TROMSO, NORWAY
RNAV SID



ENTC/TOS
 LANGNES

JEPPESSEN
 23 MAR 18 **10-3F** Eff 29 Mar

TROMSO, NORWAY
RNAV SID



ENTC/TOS
LANGNES

JEPPESSEN
23 MAR 18 **(10-3G)** Eff 29 Mar

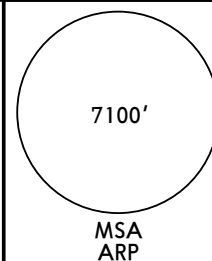
TROMSO, NORWAY
RNAV SID

*TROMSO Approach
123.750

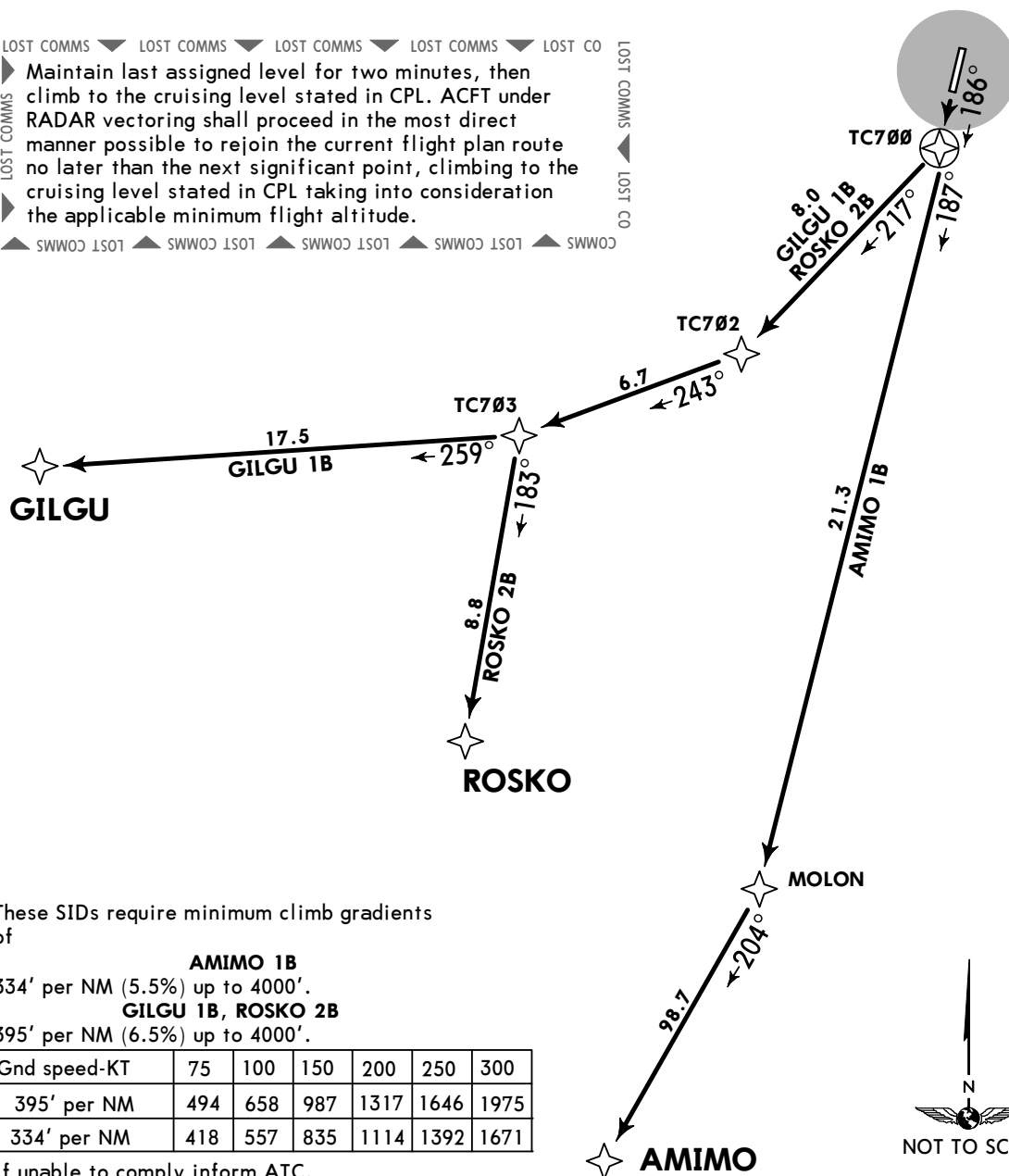
Apt Elev
32'

Trans level: By ATC Trans alt: 7000'
1. RNAV 1 (GNSS).
2. Surveillance service shall be available.
3. Contact TROMSO Approach when instructed by TROMSO Tower.
4. Non RNAV 1 ACFT: at first contact with TROMSO Tower state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
5. When vectored or cleared for direct routing the SID climb gradients apply.

**AMIMO 1B [AMIM1B]
GILGU 1B [GILG1B]
ROSKO 2B [ROSK2B]
RWY 19 RNAV DEPARTURES**



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST CO
▶ Maintain last assigned level for two minutes, then climb to the cruising level stated in CPL. ACFT under RADAR vectoring shall proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, climbing to the cruising level stated in CPL taking into consideration the applicable minimum flight altitude.
▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC LOS1 ▲ SWWOC



These SIDs require minimum climb gradients of

AMIMO 1B
334' per NM (5.5%) up to 4000'.
GILGU 1B, ROSKO 2B
395' per NM (6.5%) up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	987	1317	1646	1975
334' per NM	418	557	835	1114	1392	1671

If unable to comply inform ATC.

Initial climb clearance **FL90**

SID	ROUTING
AMIMO 1B	On 187° track to MOLON, to AMIMO.
GILGU 1B	On 186° track to TC700, to TC702, to TC703, to GILGU.
ROSKO 2B	On 186° track to TC700, to TC702, to TC703, to ROSKO.

ENTC/TOS
LANGNES

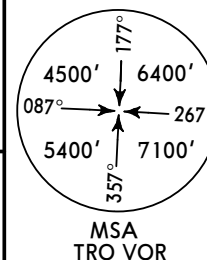
JEPPESEN
23 MAR 18 **(10-3H)** Eff 29 Mar

TROMSO, NORWAY
SID

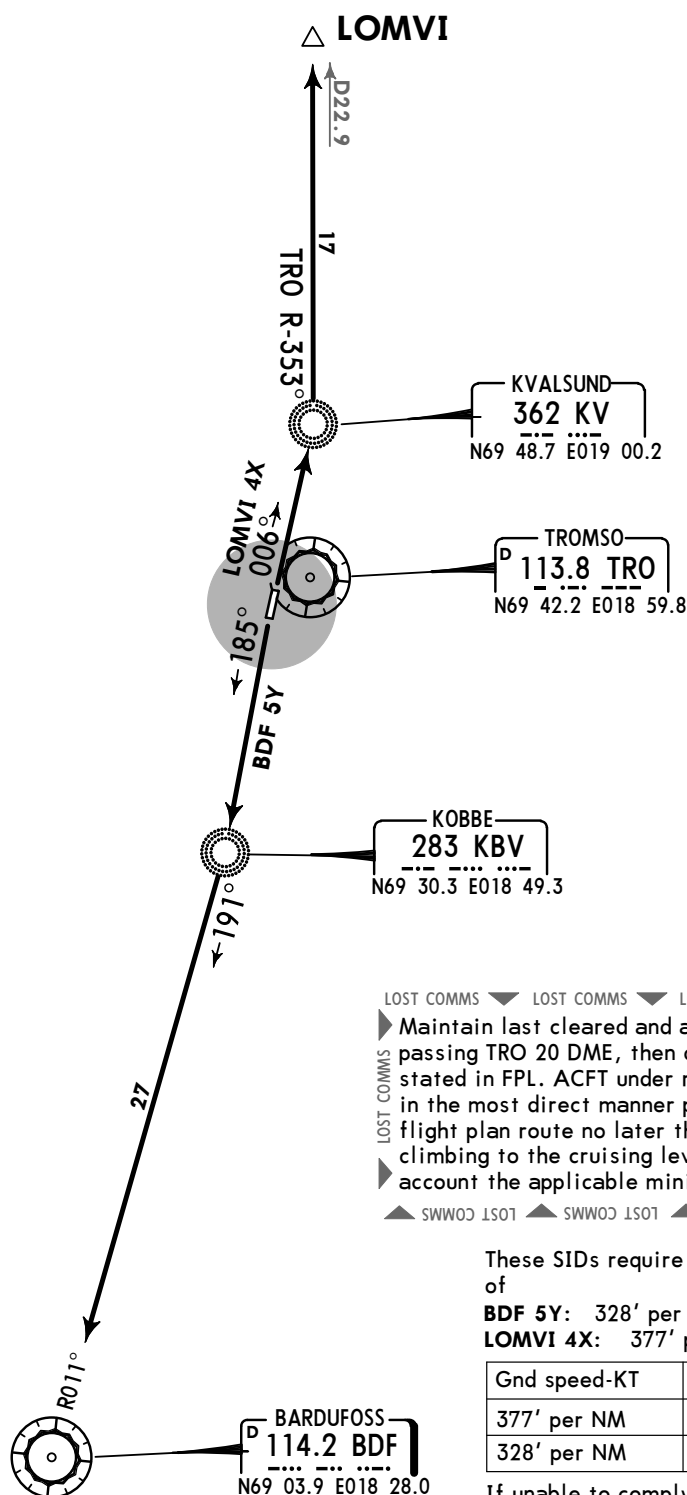
*TROMSO
Approach
123.750

Apt Elev
32'

Trans level: By ATC Trans alt: 7000'
1. Contact TROMSO Approach when instructed by TROMSO Tower.
2. When vectored or cleared for direct routing the SID climb gradients apply.



**BDF 5Y [BDF5Y]
LOMVI 4X [LOMV4X]
DEPARTURES**



These SIDs require minimum climb gradients of
BDF 5Y: 328' per NM (5.4%) up to 3700'.
LOMVI 4X: 377' per NM (6.2%) up to 1600'.

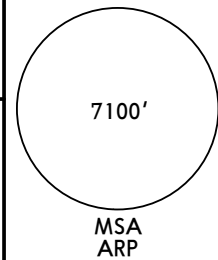
Gnd speed-KT	75	100	150	200	250	300
377' per NM	471	628	942	1256	1570	1884
328' per NM	410	547	820	1094	1367	1641

If unable to comply advise ATC.

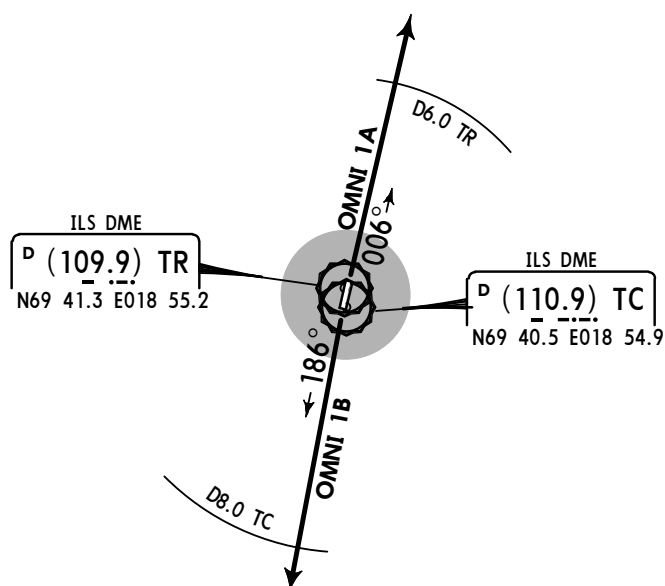
LOMVI 4X: MAX 185 KT during turns.

Initial climb clearance FL90

SID	RWY	ROUTING
BDF 5Y	19	Climb to KBV, intercept BDF R-011 inbound to BDF.
LOMVI 4X	01	Climb on 006° bearing to KV, intercept TRO R-353 to LOMVI.

ENTC/TOS
LANGNES**JEPPESEN**
23 MAR 18 **10-3J** **Eff 29 Mar****TROMSO, NORWAY**
DEPARTURE*TROMSO
Approach
123.750Apt Elev
32'Trans level: By ATC Trans alt: 7000'
Contact TROMSO Approach when instructed by
TROMSO Tower.

OMNI 1A, OMNI 1B
OMNIDIRECTIONAL DEPARTURES
EXPECT RADAR VECTORING BY TROMSO APPROACH TO JOIN
THE CLEARED ATS ROUTE



These departures require minimum climb gradients
of

Rwy 01: 456' per NM (7.5%) up to 3500'.

Rwy 19: 492' per NM (8.1%) up to 4500'.

Gnd speed-KT	75	100	150	200	250	300
492' per NM	615	820	1230	1641	2051	2461
456' per NM	570	760	1139	1519	1899	2279

If unable to comply advise ATC.

Initial climb clearance FL90

RWY	ROUTING
OMNI 1A	Climb on 006° track to D6.0 TR, then start turn when cleared by ATC.
OMNI 1B	Climb on 186° track to D8.0 TC, then start turn when cleared by ATC.

ENTC/TOS

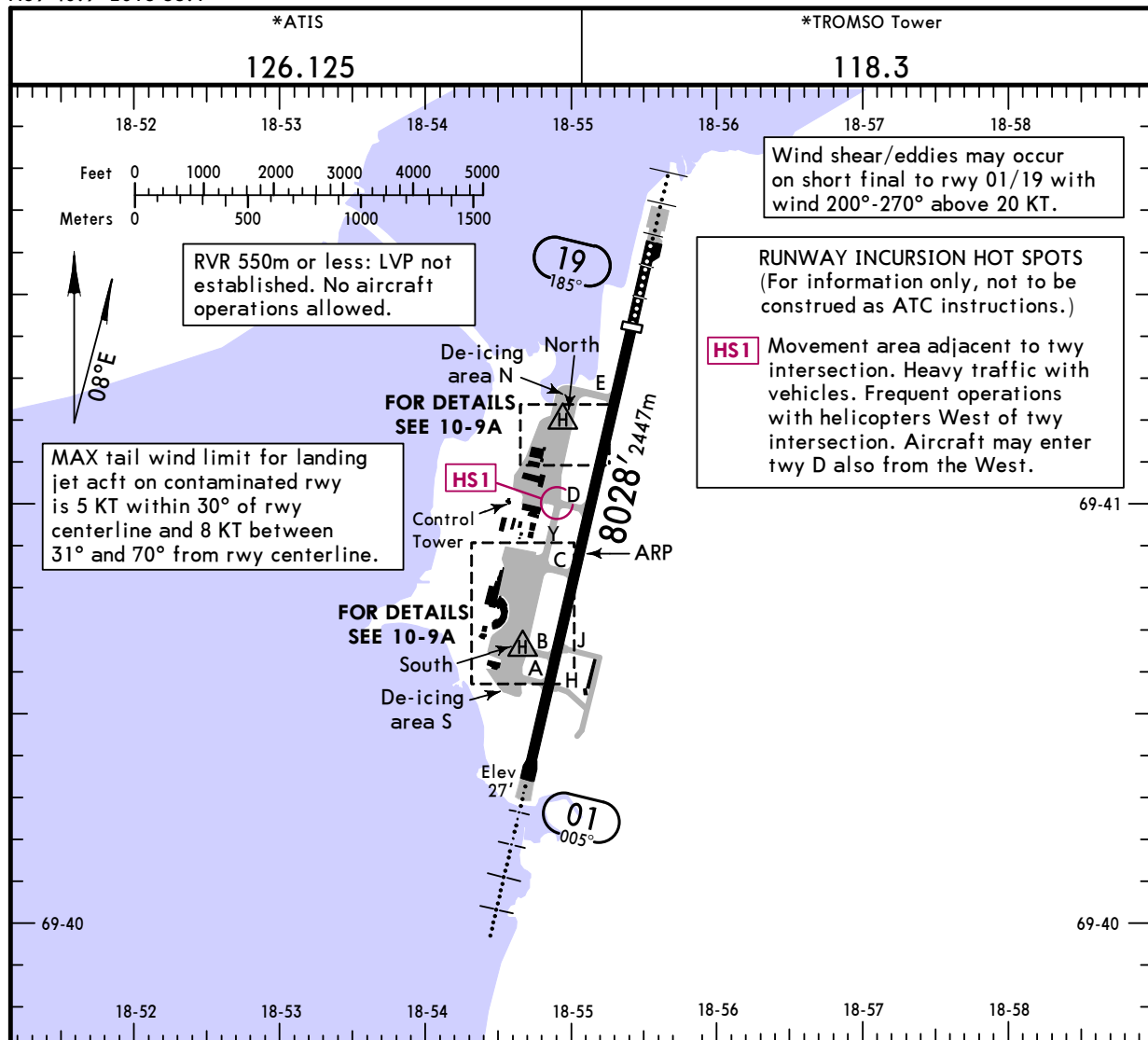
Apt Elev **32'**
N69 40.9 E018 55.1

JEPPESEN

7 SEP 18 **(10-9)** Eff 13 Sep

TROMSO, NORWAY

LANGNES



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		LANDING	BEYOND		
01 ① 19	HIRL (60m) CL (60m) HIALS SFL PAPI (4.0°)	7844' 2391m	7176' 2187m	②	148' 45m
		6572' 2003m	5782' 1762m		

① Rwy 01/19 grooved.

② TAKE-OFF RUN AVAILABLE

RWY 01:

from rwy head 8028' (2447m)

twy H int 6627' (2020m)

twy A int 6621' (2018m)

twy B int 6207' (1892m)

twy J int 6060' (1847m)

twy C int 4970' (1515m)

RWY 19:

from rwy head 7844' (2391m)

twy E int 5489' (1673m)

twy D int 3829' (1167m)

twy C int 2874' (876m)

NOISE ABATEMENT PROCEDURE

Aircraft with MTOM 2500 KG or more, shall not overfly island of Tromsoya below 2000'.

Standard

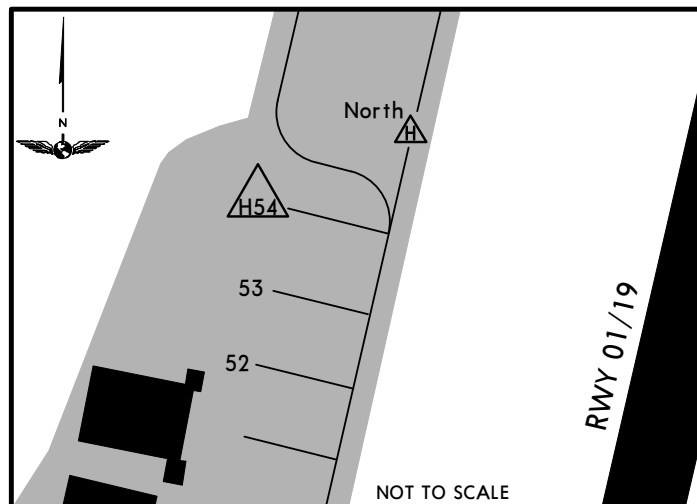
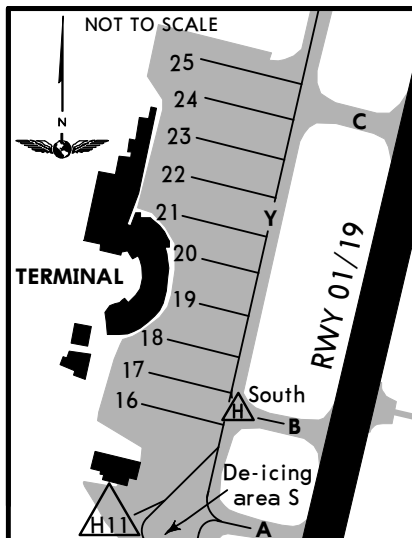
TAKE-OFF

A
B
C
D

RVR 500m

ENTC/TOS**JEPPESEN****TROMSO, NORWAY**

7 SEP 18

(10-9A)**Eff 13 Sep****LANGNES****INS COORDINATES**

STAND No.	COORDINATES	ELEVATION
16	N69 40.7 E018 54.4	29
17	N69 40.7 E018 54.5	30
18	N69 40.7 E018 54.5	31
19	N69 40.7 E018 54.6	30
20	N69 40.8 E018 54.6	29
21	N69 40.8 E018 54.5	27
22, 23	N69 40.8 E018 54.6	27
24, 25	N69 40.9 E018 54.6	27
52	N69 41.1 E018 54.8	17
53	N69 41.2 E018 54.9	15
H11	N69 40.6 E018 54.5	27
H54	N69 41.2 E018 54.8	13

Special requirements for aircraft operators performing commercial transportation

The aircraft operator shall stipulate special crew qualification requirements, REF EASA AMC1 ORO.FC.105.

For operations with jet ACFT in PANS OPS code C/D:

- 1 OCT - 30 APR: CAT C

- 1 MAY - 30 SEP: CAT B.

For operations with other types of aircraft: CAT B required all year round.

The aircraft operator shall stipulate special limitations with regard to surface wind.

The aircraft operator shall stipulate special requirements with regard to runway status.

Departure procedures, take-off minima, take-off weight limitations shall be documented.

The aircraft operator shall document fulfilment of the requirements above to CAA Norway at least 14 days prior to commencing operations. CAA Norway will, after evaluating the documentation and finding it adequate, issue a letter of compliance. A copy of this letter has to be carried by the crew and presented to local airport authorities or representatives of CAA Norway on request.

ENTC/TOS18 JAN 13 **JEPPESEN**
10-9Y**JAA COPTER MINIMUMS****TROMSO, NORWAY**
LANGNES

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
01	ILS ❶	352' (325')	750m / 1000m
	ILS ❷	684' (657')	750m / 1000m
	ILS ❸	764' (737')	750m / 1000m
	LOC ❷	750' (723')	1000m / 1000m
	LOC ❸	760' (733')	1000m / 1000m
	RNAV ❹	710' (683')	1000m / 1000m
	RNAV ❶	930' (903')	1000m / 1000m
	RNAV ❸	1260' (1233')	1000m / 1000m
19	ILS ❶	289' (274')	600m / 1000m
	ILS ❸	413' (398')	750m / 1000m
	LOC	860' (845')	1000m / 1000m
	RNAV	1040' (1025')	1000m / 1000m

❶ Missed apch climb gradient mim 4.0%.

❷ Missed apch climb gradient mim 3.0%.

❸ Missed apch climb gradient mim 2.5%.

❹ Missed apch climb gradient mim 5.0%.

CIRCLE-TO-LAND ❺	MDA(H)	VIS
	840' (808') ❻	1000m
RNAV 01	1260' (1228')	1000m
RNAV 19	1040' (1008')	1000m
RNAV A ❼	860' (828')	1000m
RNAV A ❸	900' (868')	1000m
RNAV A ❹	1040' (1008')	1000m

❺ Not authorized West of airport.

❻ After LOC 19: MDA(H) 860' (828').

❼ Missed apch climb gradient mim 3.5%.

❸ Missed apch climb gradient mim 3.0%.

❹ Missed apch climb gradient mim 2.5%.

TAKE-OFF RWY 01, 19

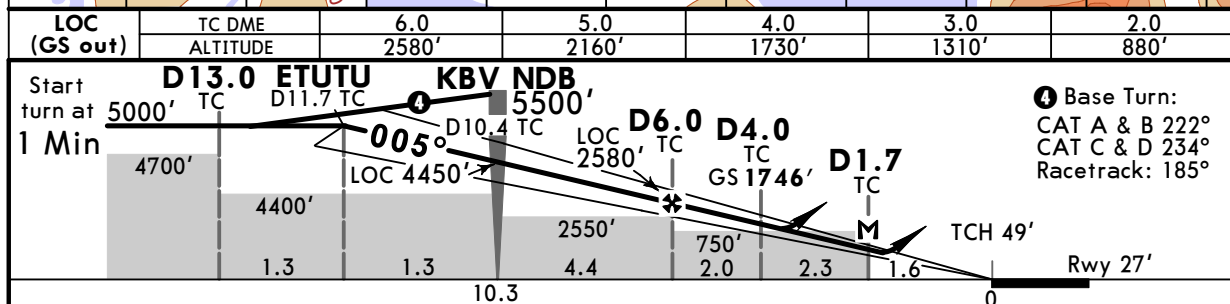
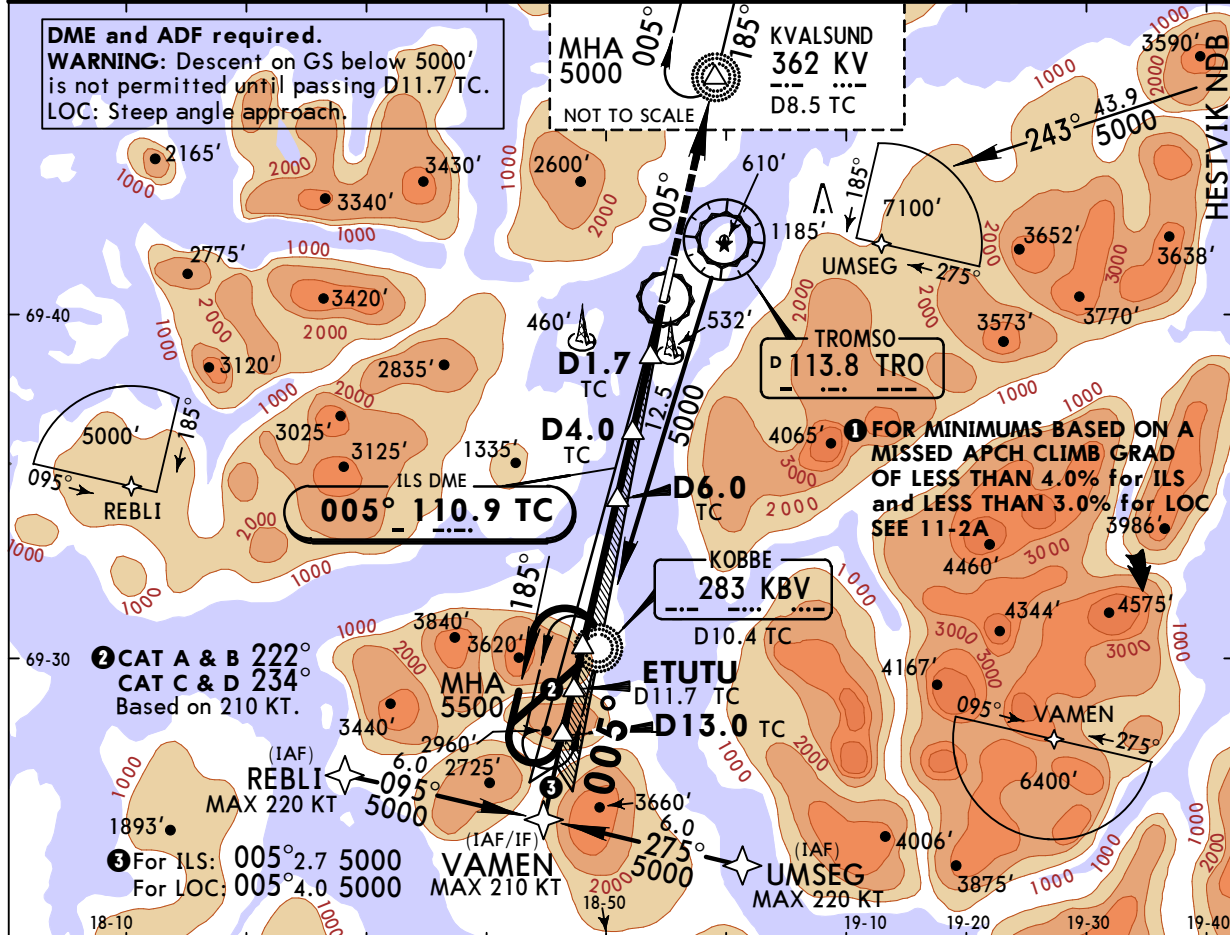
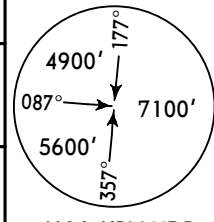
RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
550m		550m ⑩	800m

⑩ Or rejected take-off distance whichever is the greater.

ENTC/TOS
LANGNESJEPPESSEN
10 JUN 16 (11-1)TROMSO, NORWAY
●ILS or LOC Rwy 01

BRIEFING STRIP™

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3	
LOC TC 110.9	Final Appch Crs 005°	GS D4.0 TC 1746' (1719')	ILS DA(H) Refer to Minimums	Apt Elev 32'	Rwy 27'
MISSED APCH: Climb on 005° to KV Lctr (D8.5 TC), then turn LEFT climbing on 345°. When passing 3500' turn LEFT direct to KV Lctr, climbing to 5000' and hold.					
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000' WARNING: Steep GS angle.					



Gnd speed-Kts	70	90	100	120	140	160		HIALS	005°	KV
ILS GS or								PAPI		362/
LOC Descent Angle	4.00°	496	637	708	850	991	1133	PAPI		D8.5
MAP at D1.7 TC										TC

Standard				STRAIGHT-IN LANDING RWY 01				CIRCLE-TO-LAND			
ILS				LOC (GS out)				Not authorized West of airport			
Missed apch climb gradient mim 4.0%				Missed apch climb gradient mim 3.0%							
A: 352' (325') C: 385' (358')				DA(H) 750' (723')							
B: 372' (345') D: 402' (375')											
FULL/Limited		ALS out		ALS out		Max Kts		MDA(H)		VIS	
A	RVR 800m	RVR 1500m		RVR 1500m		100		840' (808')		1500m	
B	RVR 900m	RVR 1600m		CMV 2700m		135		850' (818')		1600m	
C	RVR 1000m	RVR 1700m		CMV 3400m		180		2660' (2628')		2400m	I
D	RVR 1000m					205		2960' (2928')		3600m	

I After LOC (GS out): VIS 3400m.

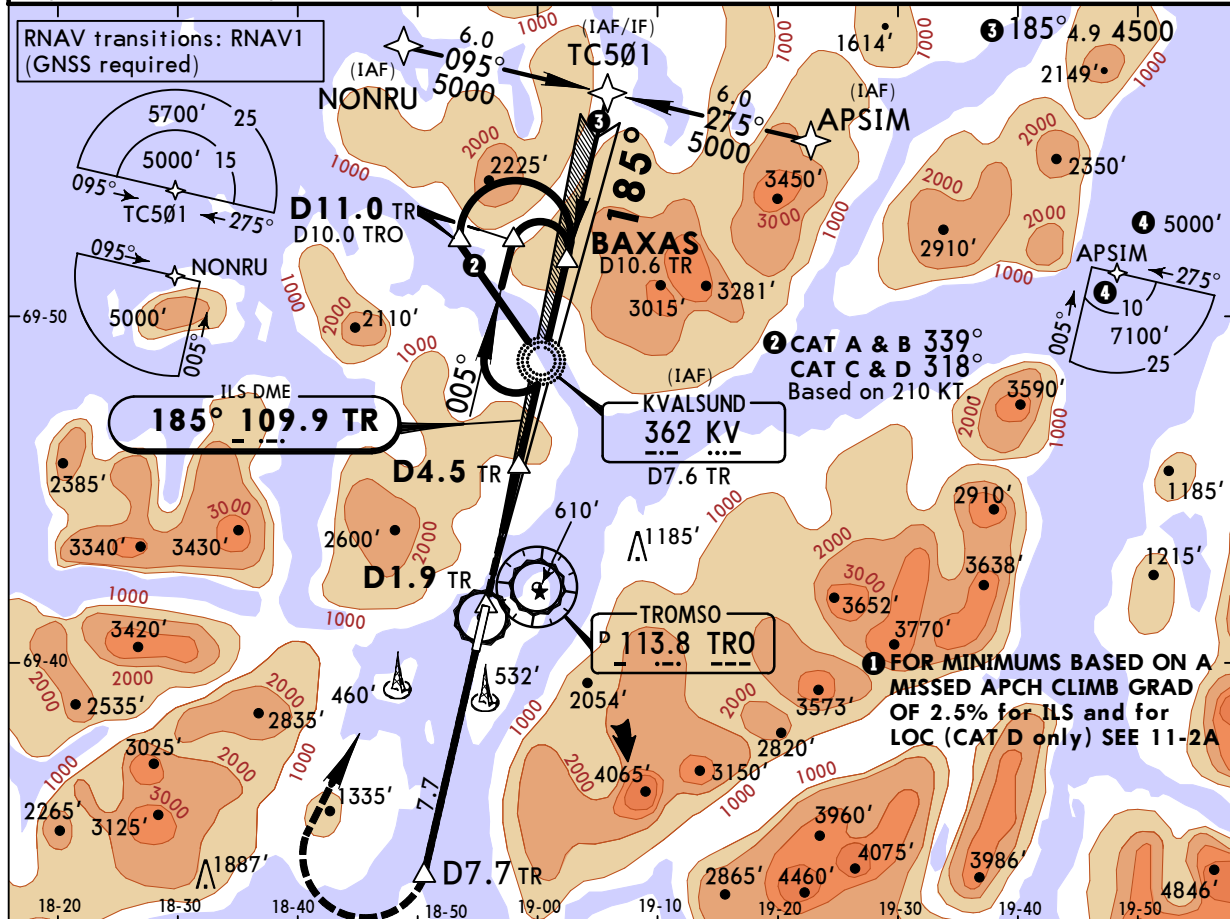
CHANGES: None.

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ENTC/TOS
LANGNESJEPPesen
10 JUN 16 (11-2)TROMSO, NORWAY
● ILS or LOC Rwy 19

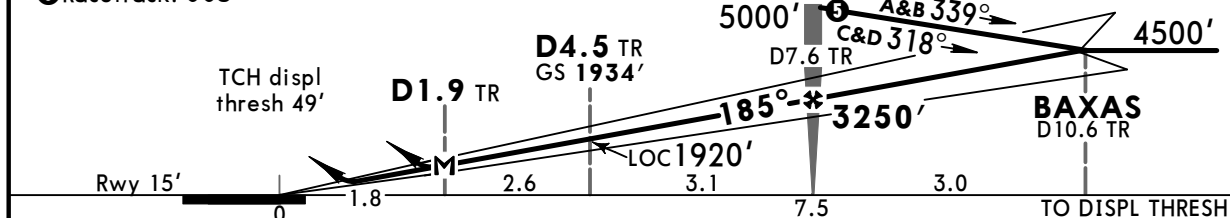
BRIEFING STRIP™

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3		 MSA KV Lctr
LOC TR 109.9	Final Apch Crs 185°	GS D4.5 TR 1934' (1919')	ILS DA(H) Refer to Minimums	Apt Elev 32' Rwy 15'		
MISSED APCH: Climb STRAIGHT AHEAD to 3000' or D7.7 TR whichever earlier. Turn RIGHT (CAT C: MAX 160KT, CAT D: MAX 185KT) to intercept and proceed on 012° to KV Lctr, climbing to 5000' and hold. Do not turn before MAP.						
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'
1. DME and ADF required. 2. WARNING: Steep GS angle, appropriate acft and crew qualification required. 3. Terrain penetrates OAS between D4.5 TR and KV Lctr.						



LOC (GS out)	TR DME ALTITUDE	3.0	4.0	5.0	6.0	7.0
		1290'	1710'	2140'	2570'	2990'

⑤ Racetrack: 005°



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Descent Angle 4.00°	496	637	708	850	991	1133
MAP at D1.9 TR						

Standard				STRAIGHT-IN LANDING RWY 19				CIRCLE-TO-LAND			
ILS				LOC (GS out)				Not authorized West of airport			
Missed apch climb gradient mim 4.0%				DA(H) ABC: 860' (845')							
DA(H) A: 289' (274') C: 322' (307')				Missed apch climb gradient mim 2.8%							
B: 309' (294') D: 339' (324')				DA(H) D: 860' (845')							
FULL		Limited	ALS out			ALS out	Max Kts	MPA(H)		VIS	
A	RVR 600m		RVR 1300m				100	880' (848')		1500m	
B	RVR 650m	RVR 750m					135	880' (848')		1600m	
C	RVR 700m		RVR 1400m				180	2660' (2628')		2400m I	
D	RVR 800m		RVR 1500m				205	2960' (2928')		3600m I	

I After LOC (GS out): VIS 3800m.

CHANGES: LOC frequency.

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ENTC/TOS
LANGNES **JEPPESEN**
14 SEP 12 **11-2A** **Eff 20 Sep****TROMSO, NORWAY****ILS RWY 01 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 3.0%**

Standard		STRAIGHT-IN LANDING RWY 01	
		ILS	
		A: 684' (657') C: 718' (691')	
		B: 704' (677') D: 734' (707')	
		FULL/Limited	ALS out
A	RVR 1500m		
B			
C	CMV 2400m		
D			

ILS or LOC RWY 01 MINIMUMS**MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 01		CIRCLE-TO-LAND	
		ILS		Not authorized West of airport	
		LOC (GS out)			
		A: 764' (737') C: 798' (771')			
		B: 784' (757') D: 815' (788')			
		FULL/Limited	ALS out	Max Kts	MDA(H) VIS
A	RVR 1500m		RVR 1500m	100	840' (808') 1500m
B				135	850' (818') 1600m
C	CMV 2400m		CMV 2900m	180	2660' (2628') 2400m 1
D			CMV 3100m	205	2960' (2928') 3600m 2

After LOC (GS out): **1** IS 3600m/ **2** S 3800m.

ILS RWY 19 MINIMUMS**MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 19	
		ILS	
		A: 413' (398') C: 445' (430')	
		B: 430' (415') D: 1033' (1018')	
		FULL/Limited	ALS out
A	RVR 1100m		RVR 1500m
B			
C	RVR 1300m		RVR 2000m
D	CMV 2400m		

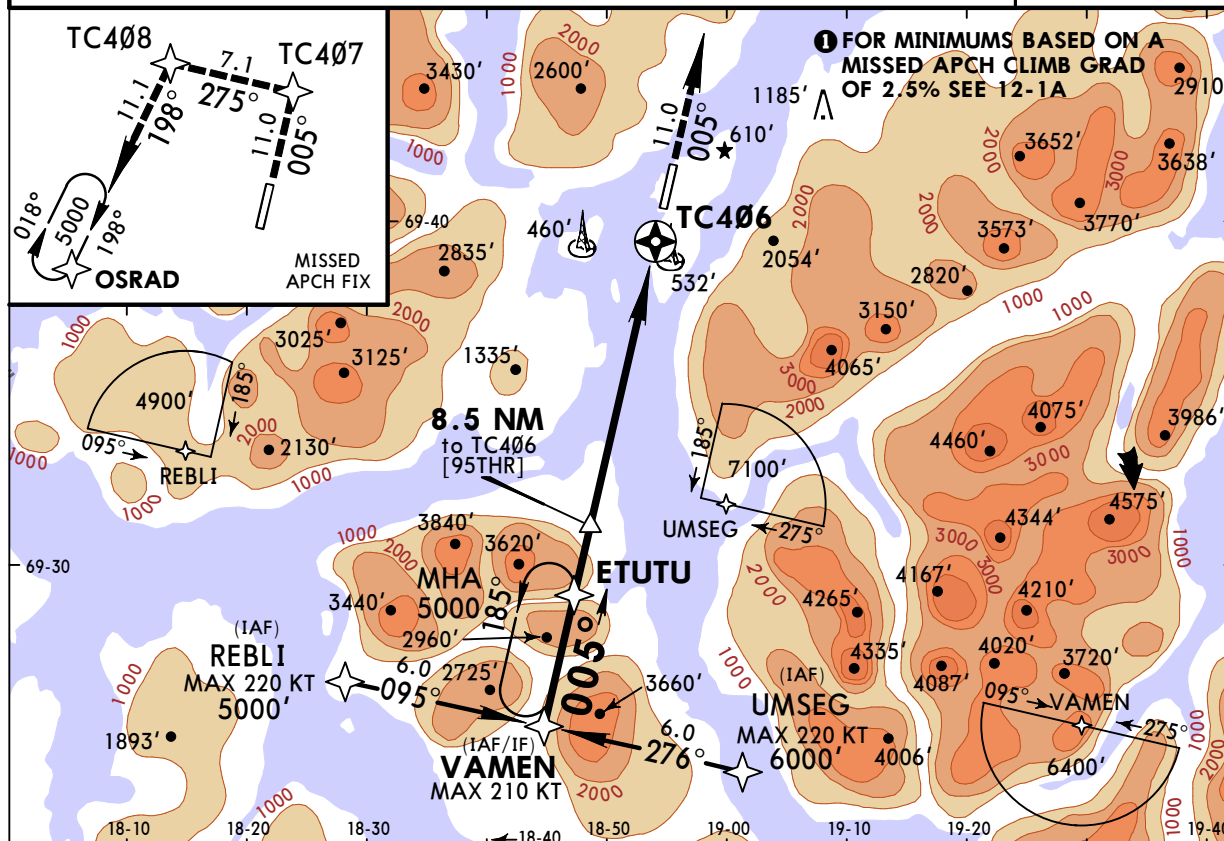
LOC RWY 19 MINIMUMS**MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 19		CIRCLE-TO-LAND	
		LOC (GS out)		Not authorized West of airport	
		A: 1030' (1015')			
		ALS out		Max Kts	MDA(H) VIS
D	CMV 4100m	CMV 4900m		205	2960' (2928') 4900m

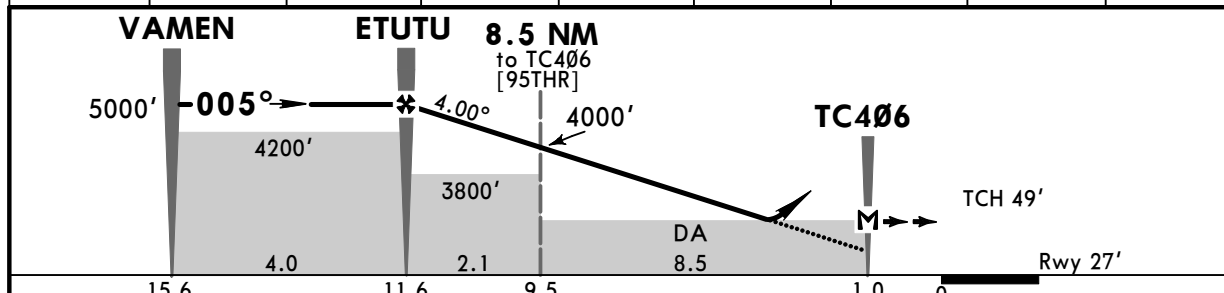
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16
Eff 26 May (12-1)TROMSO, NORWAY
ORNAV (GNSS) Rwy 01

BRIEFING STRIP

*ATIS		*TROMSO Approach		*TROMSO Tower	
126.125		123.750		118.3	
RNAV	Final Apch Crs 005°	Procedure Alt ETUTU 5000' (4973')	DA(H) Refer to Minimums	Apt Elev 32' Rwy 27'	7100' MSA ARP
MISSED APCH: Climb on 005° to TC407, then turn LEFT to TC408. Turn LEFT to OSRAD at 5000' and hold.					
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to TC406	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	4330'	3900'	3480'	3050'	2630'	2200'	1780'	1360'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI TC407 on 005°
Descent Angle 4.00°	496	637	708	850	991	1133	
MAP at TC406							

Standard STRAIGHT-IN LANDING RWY 01				CIRCLE-TO-LAND	
Missed apch climb gradient mim 5.0%		Missed apch climb gradient mim 4.0%		Not authorized West of airport	
DA(H)		DA(H)			
A: 710' (683')		A: 930' (903')			
C: 810' (783')		C: 1010' (983')			
B: 760' (733')		B: 970' (943')			
D: 850' (823')		D: 1040' (1013')			
ALS out		ALS out			
A		A		Max Kts	MDA(H) VIS
RVR 1500m		RVR 1500m		100	1260' (1228') 1500m
B		B		135	1280' (1248') 1600m
C		C		180	2660' (2628') 3600m 1
D		D		205	2960' (2928') 3800m 2

After missed apch climb grad mim 4.0%: **1** VIS 4500m/ **2** 4900m.

CHANGES: Bearings.

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PANS OPS

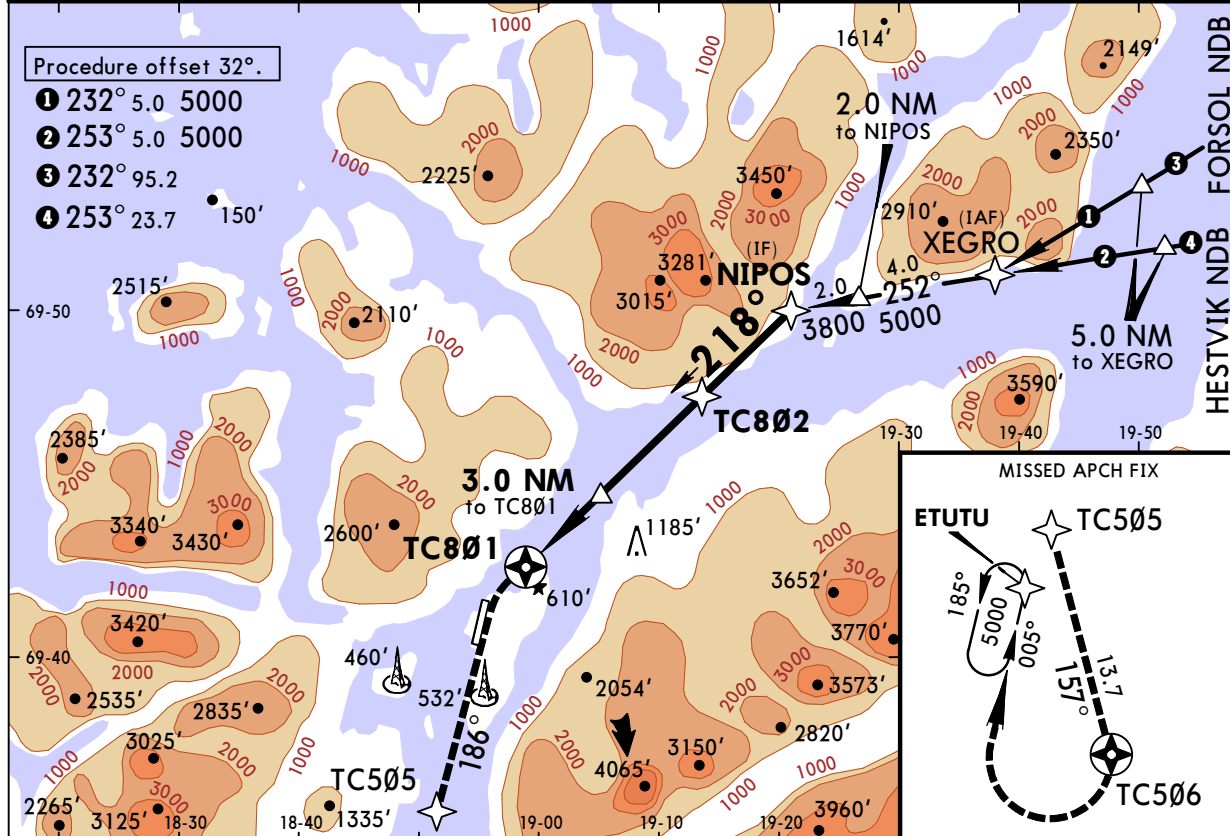
ENTC/TOS
LANGNES **JEPPESEN**
13 MAY 16 **12-1A** **Eff 26 May****TROMSO, NORWAY****RNAV RWY 01 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 2.5%**

Standard		STRAIGHT-IN LANDING RWY 01		CIRCLE-TO-LAND	
		DA(H) A: 1260' (1233') C: 1310' (1283') B: 1280' (1253') D: 1330' (1303')		Not authorized West of airport	
		ALS out		Max Kts	MDA(H) VIS
A	CMV 5000m			100	1270' (1238') 5000m
B				135	1290' (1258') 5000m
C				180	2660' (2628') 5000m
D				205	2960' (2928') 5000m

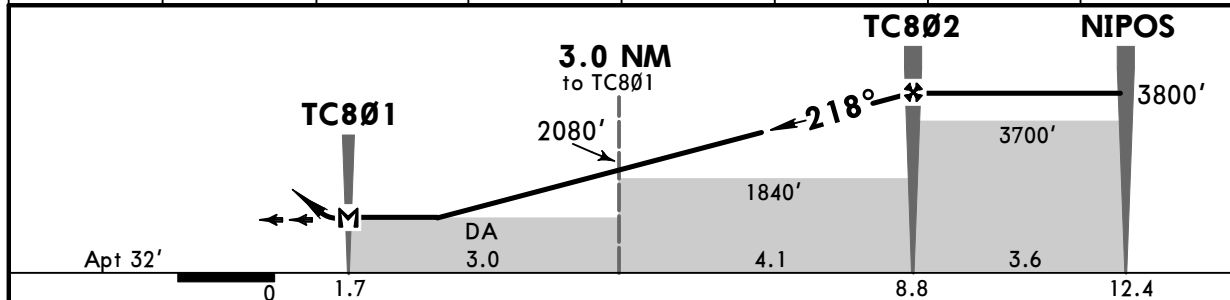
ENTC/TOS
LANGNESJEPPESEN
13 MAY 16
Eff 26 May (12-3) CAT A & BTROMSO, NORWAY
RNAV (GNSS) A

BRIEFING STRIP™

*ATIS 126.125		*TROMSO Approach 123.750		*TROMSO Tower 118.3	
RNAV	Final Apch Crs 218°	Procedure Alt TC802 3800' (3768')	MDA(H) Refer to Minimums	Apt Elev 32'	7100'
MISSED APCH: Turn LEFT to intercept and proceed on 186° to TC505, then turn LEFT to TC506. Turn RIGHT direct to ETUTU, climbing to 5000' and hold. Acft may request direct routing to ETUTU after passing 5000'.					
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 7000' WARNING: Steep angle approach.					



DIST to TC801	1.0	2.0	3.0	4.0	5.0	6.0	7.0
ALTITUDE	1240'	1660'	2080'	2500'	2920'	3340'	3760'



Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart	TC505 on 186° LT
Descent Angle 4.00°	496	637	708	850	991	1133		
MAP at TC801								

Standard		CIRCLE-TO-LAND Not authorized West of airport Missed apch climb gradient mim 3.5%, 3.0% and 2.5%	
	Max Kts	MDA(H)	VIS
	A 100	860' (828')	1 1500m
	B 135	890' (858')	2 1600m
	C	NOT APPLICABLE	
D			

1 After missed apch climb grad mim 3.0%: 900' (868')/ mim 2.5%: 1040' (1008').**2** After missed apch climb grad mim 3.0%: 910' (878')/ mim 2.5%: 1060' (1028').

CHANGES: Procedure.

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PANS OPS

ENSB/LYR
LONGYEAR

19 FEB 16

JEPPESEN**Eff 3 Mar**

SV ALBARD, NORWAY

RNAV SID

Apt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. **RNAV 1.**
2. **GNSS required.**
3. Class A GNSS shall not be used.
4. Obtain ATC clearance from LONGYEAR Information.
5. Contact by LONGYEAR Information as instructed.
6. Non RNAV 1 ACFT: no IFR departure available.
7. Vessels crossing departure area could require more than 6.1 % climb gradient and must be avoided visually or by other means.

5100'

MSA ARP

AMPIS 1A [AMPI1A]
RNAV

AMPIS
N77 57.5 E017 43.1

Aircraft under vectoring shall proceed in the most direct manner possible to rejoin the CPL route no later than the next significant point, climbing to the CPL cruising level under consideration of the applicable minimum flight altitude.

SB520
N78 14.1 E015 39.7

**MAX
205 KT**

Direct distance from
Longyear Apt to:
SB520 3 NM

SB521
N78 10.7 E016 03.1

114° ↗

24.7

This SID requires a minimum climb gradient of 371' per NM (6.1%) up to 3600'.

Gnd speed-KT	75	100	150	200	250	300
371' per NM	464	618	928	1237	1546	1855

If unable to comply inform ATC.

Initial climb clearance 5500'

ROUTING

RWY

On 098° track to SB520, turn RIGHT direct to SB521, then to AMPIS.

ENSB/LYR
LONGYEAR

19 FEB 16

JEPPESEN**Eff 3 Mar**

SV ALBARD, NORWAY

RNAV SID

Apt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. **RNAV 1.**
2. **GNSS required.**
3. Class A GNSS shall not be used.
4. Obtain ATC clearance from LONGYEAR Information.
5. Contact by LONGYEAR Information as instructed.
6. Non RNAV 1 ACFT: state 'UNABLE RNAV 1 DUE (reason)' at first contact with LONGYEAR Information. Omnidirectional departure available.
7. Vessels crossing departure area could require more than 3.3 % climb gradient and must be avoided visually or by other means.

5100'

MSA ARP

AMPIS 1B [AMPI1B]
GOLOL 1B [GOLO1B]
RNAV

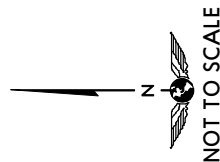
AMPIS 1B

This SID requires a minimum climb gradient of 322' per NM (5.3%) up to 3900'.

Gnd speed-KT	75	100	150	200	250	300
322' per NM	402	537	805	1073	1342	1610

If unable to comply inform ATC.

Maintain last assigned level for 2 minutes, then climb to CPL cruising level.



Direct distance from
Longyear Apt to:
SB420 3 NM

Initial climb clearance 5500'

ROUTING

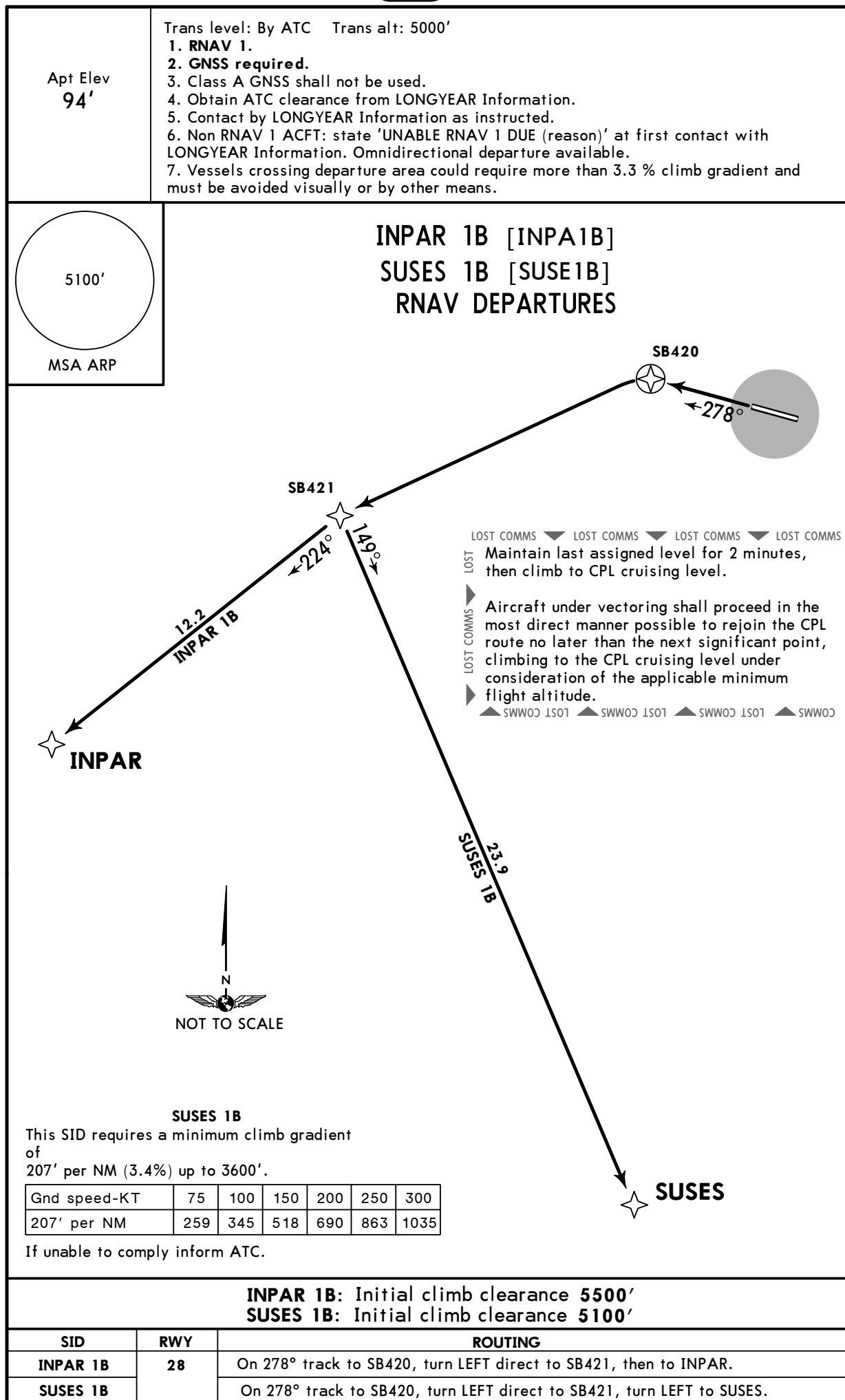
SID	RWY	ROUTING
AMPIS 1B	28	On 278° track to SB420, turn RIGHT direct to SB422, turn RIGHT to AMPIS.
GOLOL 1B		On 278° track to SB420, 334° track to GOLOL.

AMPIS
N77 57.5 E017 43.1

ENSB/LYR
LONGYEAR

JEPPESEN
 19 JAN 18 **10-3B** Eff 1 Feb

SVALBARD, NORWAY
RNAV SID



ENSB/LYR
LONGYEAR **JEPPESEN**
19 JAN 18 **10-3C** **Eff 1 Feb****SVALBARD, NORWAY**
DEPARTUREApt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. Obtain ATC clearance from LONGYEAR Information.
2. Contact as instructed by LONGYEAR Information.
3. Vessels crossing departure area could require more than 3.3 % climb gradient and must be avoided visually or by other means.

OMNI 2B
RWY 28 OMNIDIRECTIONAL DEPARTURE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

▶ Climb on 278° track to 3000', then proceed in the most direct manner possible to join the CPL route, climbing to CPL cruising level.

LOST COMMS ▼ LOST COMMS ▼

▶ Aircraft under vectoring shall proceed the most direct route to join the CPL route, climbing to the CPL cruising level.

▲ SWW03 1501 ▲ SWW03 1501 ▲ SWW03 1501 ▲ SWW03 1501

Initial climb clearance 5500'**ROUTING**

Climb on 278° track, EXPECT further clearance from ATC, turn at or above 3000'.

ENSB/LYR

Apt Elev 94'
N78 14.8 E15 27.9

JEPPESEN

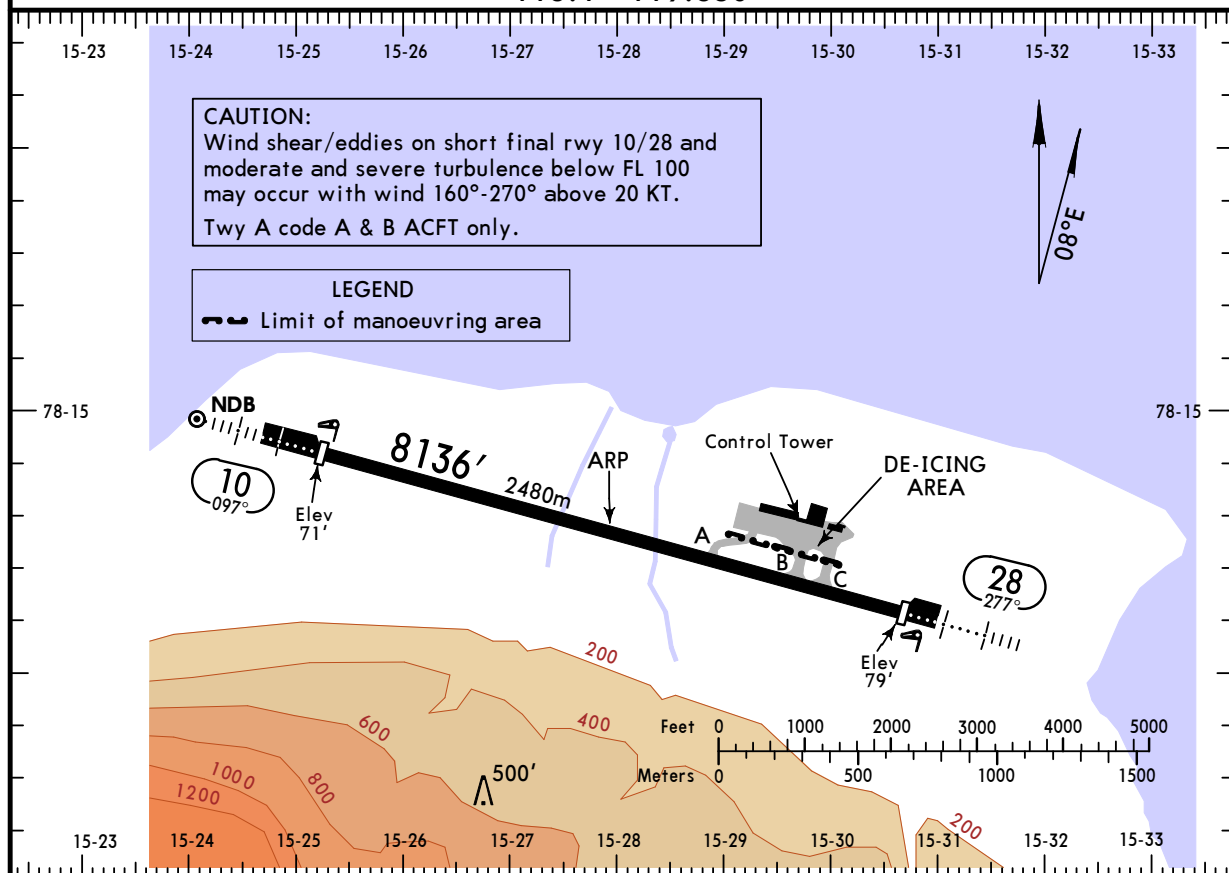
19 FEB 16 (10-9) Eff 3 Mar

SVALBARD, NORWAY

LONGYEAR

LONGYEAR Information

118.1 119.850



ADDITIONAL RUNWAY INFORMATION

RWY								USABLE LENGTHS		TAKE-OFF	WIDTH
								Threshold	Glide Slope		
10	①	HIRL ②	CL ②	HIALS	SFL	TDZ	PAPI (3.0°)	6522' 1988m	5854' 1784m	7244' 2208m	148'
28		HIRL ②	CL ②	HIALS	SFL	TDZ	PAPI (3.4°) ③	7014' 2138m		④	45m

① Rwy 10/28 grooved.

② spacing 60m

③ PAPI Rwy 28: Both left and right hand bar is directed 8° SOUTH of rwy centerline.
Restricted to MAX 5.8NM from threshold.

④ TAKE OFF RUN AVAILABLE

RWY 28:

From rwy head 7415' (2260m)
 twy C int 6020' (1835m)
 twy B int 5709' (1740m)
 twy A int 4675' (1425m)

LOW VISIBILITY PROCEDURE (LVP)

LVP will be activated when RVR 800m or less.

If holding position markings are no longer visible, or have reduced effect, only one acft on the manoeuvring area will be allowed at a time.

SPECIAL REQUIREMENTS FOR ACFT OPERATORS PERFORMING COMMERCIAL TRANSPORT

The acft operator shall stipulate:

- special crew qualification requirements (Cat B, REF EASA AMCI ORO.FC.105),
- special requirements with regard to surface winds
- and special requirements with regard to runway status.

Departure procedures, take-off minimums and take-off weight limitations shall be documented.

The acft operator shall ensure document fulfillment of the requirements above to CAA Norway at least 14 days prior commencing operations. CAA Norway will, after evaluating the documentation and finding it adequate, issue a letter of compliance. A copy has to be carried by the crew and presented to local airport authorities or representatives of CAA Norway on request.

	TAKE-OFF	
	RCLM (DAY only) or RL	NIL (DAY only)
A	550m	
B		
C		
D		

ENSB/LYR **JEPPESEN**
19 FEB 16 **10-9Y** Eff 3 Mar**JAA COPTER MINIMUMS**
SVALBARD, NORWAY
LONGYEAR

STRAIGHT-IN RWY	DA(H) / MDA(H)	RVR (ALS/ALS out)
10 ILS	486' (415')	800m / 1000m
LOC	950' (879')	1000m / 1000m
RNAV Z (LNAV/VNAV) ①	1070' (999')	1000m / 1000m
RNAV Z (LNAV/VNAV) ②	1160' (1089')	1000m / 1000m
RNAV Z (LNAV/VNAV) ③	1290' (1219')	1000m / 1000m
RNAV Z (LNAV)	1650' (1579')	1000m / 1000m
RNAV Y (LNAV)	1110' (1039')	1000m / 1000m
28 LOC ②	510' (431')	1000m / 1000m
LOC ③	1160' (1081')	1000m / 1000m
LOC ④	1300' (1221')	1000m / 1000m
RNAV (LNAV) ②	1430' (1351')	1000m / 1000m
RNAV (LNAV) ④	1470' (1391')	1000m / 1000m

① Missed apch climb gradient mim 5.0%.

② Missed apch climb gradient mim 4.0%.

③ Missed apch climb gradient mim 3.0%.

④ Missed apch climb gradient mim 2.5%.

CIRCLE-TO-LAND ⑤	MDA(H)	VIS
	950' (856')	1000m
After RNAV Z 10	1650' (1556')	1000m
After RNAV Y 10	1110' (1016')	1000m
After LOC 28	1300' (1206')	1000m
After RNAV 28	1470' (1376')	1000m
After RNAV A ⑥	650' (556')	1000m

⑤ Not authorized South of airport.

⑥ Authorization required. 120 KT/ 25° bank angle during circling.

TAKE-OFF RWY 10, 28

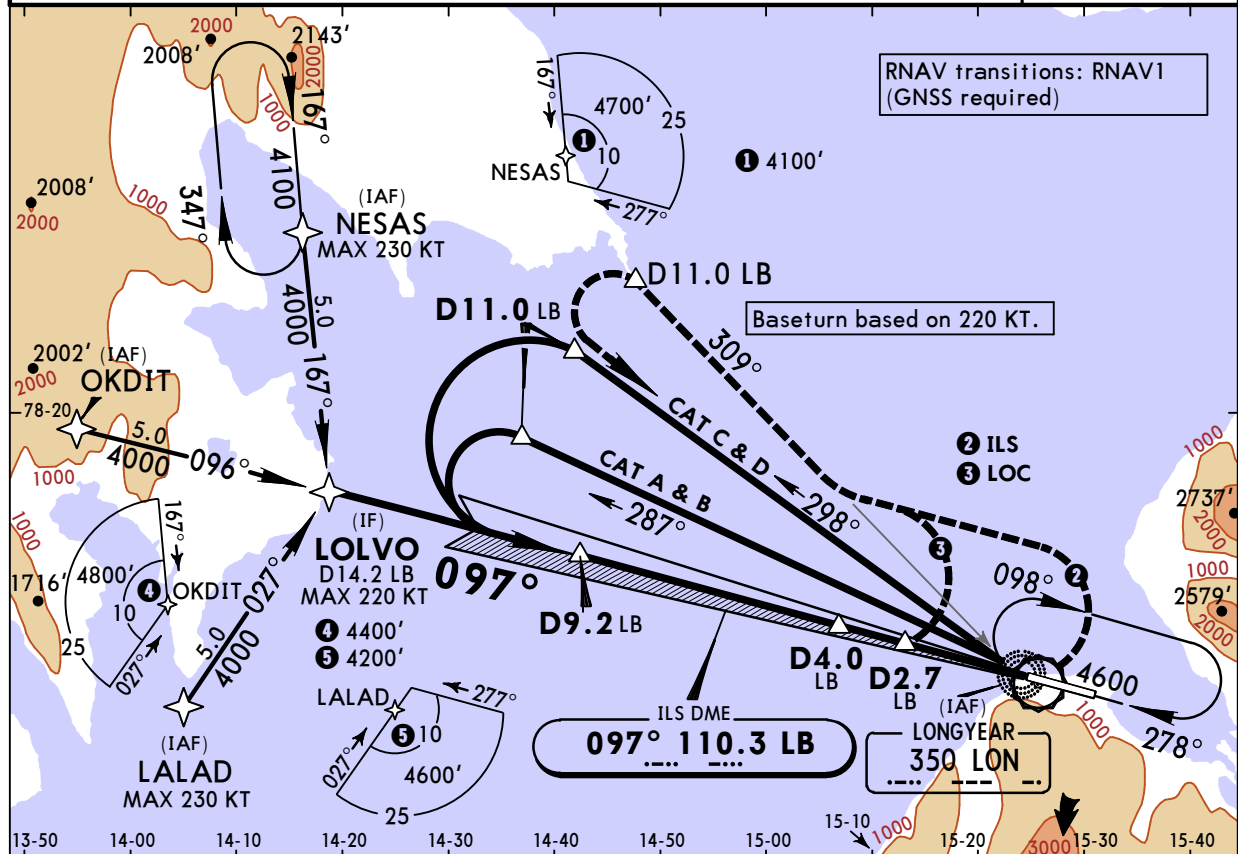
LVP must be in Force				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
550m			550m ⑦	800m

⑦ Or rejected take-off distance whichever is the greater.

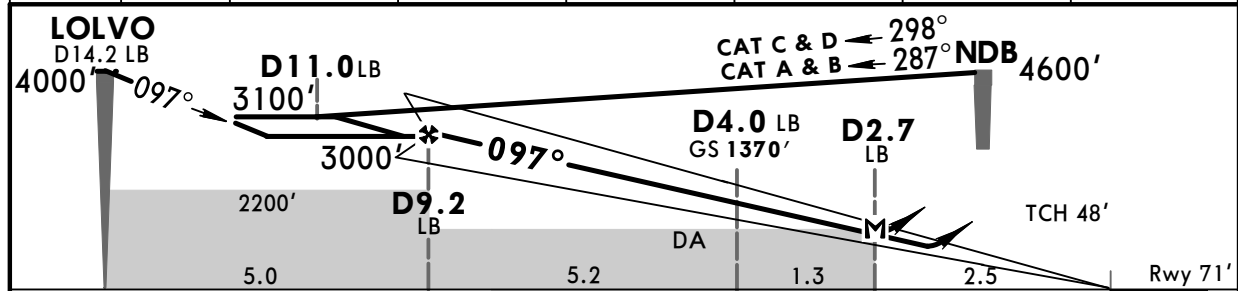
ENSB/LYR
LONGYEARJEPPESEN
19 FEB 16 (11-1) Eff 3 MarSVALBARD, NORWAY
ILS or LOC Rwy 10

BRIEFING STRIP™

LONGYEAR Information 118.1 119.850					
LOC LB 110.3	Final Apch Crs 097°	GS D4.0 LB 1370' (1299')	ILS DA(H) Refer to Minimums	Apt Elev 94'	Rwy 71'
MISSED APCH: Turn LEFT to intercept and proceed on 309° from NDB. At D11.0 LB turn LEFT to NDB. Enter holding climbing to 4600'. LOC: Do not turn before passing MAP. MAX speed during turns: CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000' 1. ADF and DME required. 2. LOC not to be used outside 15° either side of course line.					MSA LON NDB



LOC	LB DME	9.0	8.0	7.0	6.0	5.0	4.0
(GS out)	ALTITUDE	2960'	2640'	2320'	2000'	1680'	1370'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or							
LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D2.7 LB							

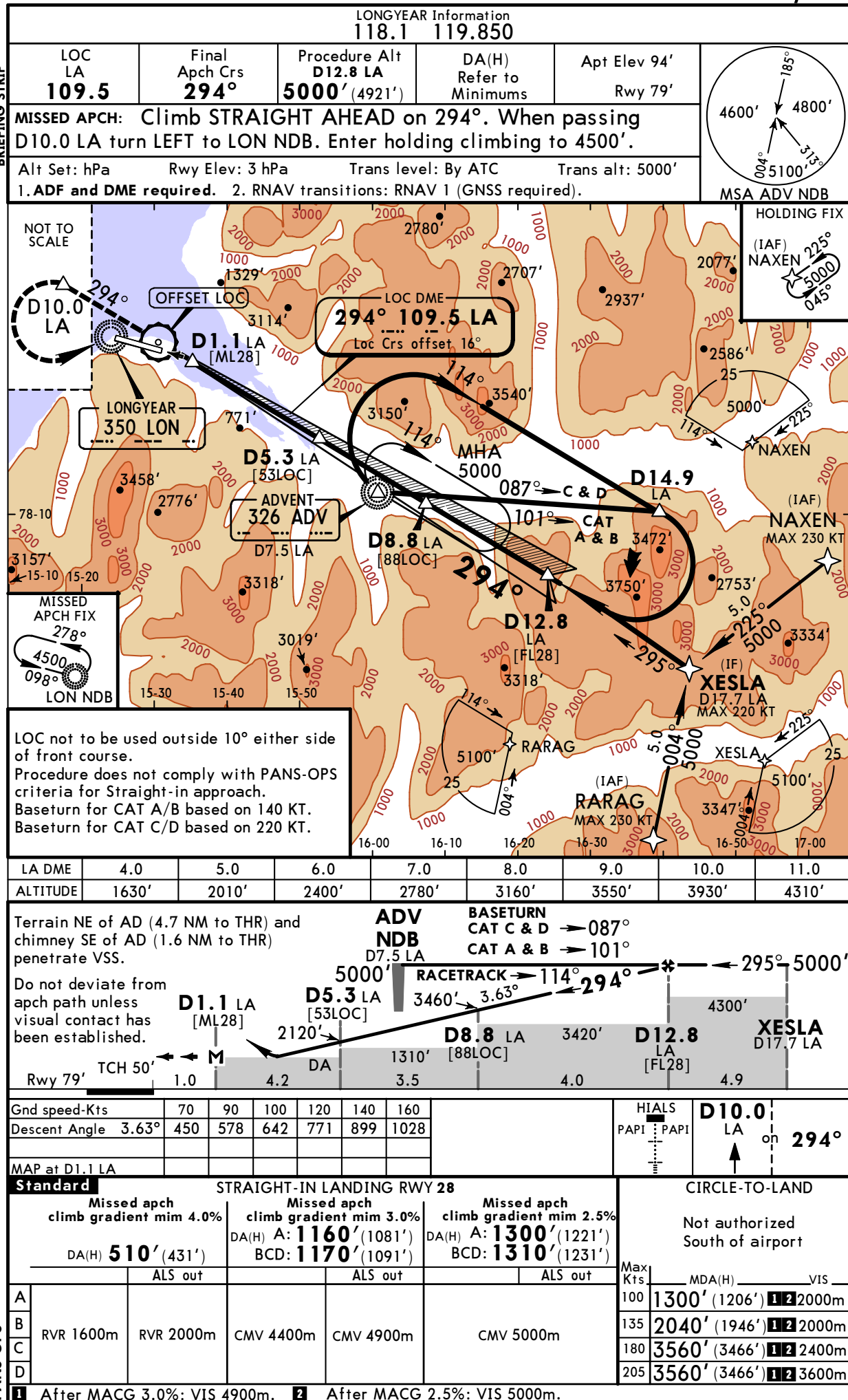
Standard STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Not authorized South of airport	
DA(H)	A: 486' (415') B: 521' (450')	C: 631' (560') D: 786' (715')	DA(H) AB: 950' (879') C: 1000' (929') D: 1310' (1239')	Max Kts	
	FULL/Limited	ALS out	ALS out	100	950' (856') 1500m
A	RVR 1500m	RVR 1500m	RVR 1500m	135	2040' (1946') 1600m
B	CMV 2100m	CMV 2400m	CMV 2400m	180	3560' (3466') 2400m
C	CMV 2400m	CMV 5000m	CMV 5000m	205	3560' (3466') 3600m
D	1 After LOC (GS out): 980' (886'). 2 After LOC (GS out): VIS 5000m.				

CHANGES: Procedure. Minimums.

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ENSB/LYR
LONGYEARJEPPesen
19 FEB 16 (11-2) Eff 3 MarSVALBARD, NORWAY
LOC Rwy 28

BRIEFING STRIP™



PANS OPS

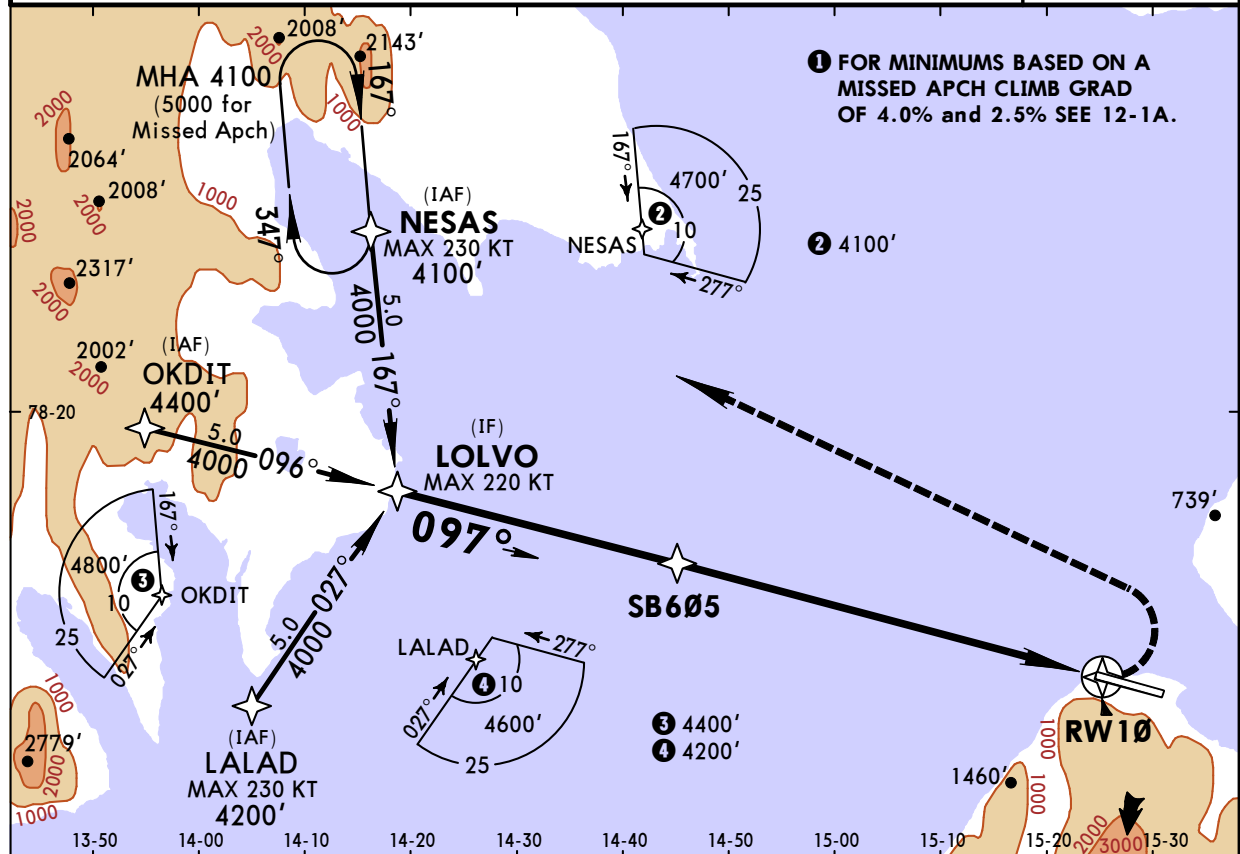
ENSB/LYR
LONGYEARJEPPESEN
19 FEB 16
Eff 3 Mar (12-1)SVALBARD, NORWAY
ORNAV (GNSS) Z Rwy 10

BRIEFING STRIP™

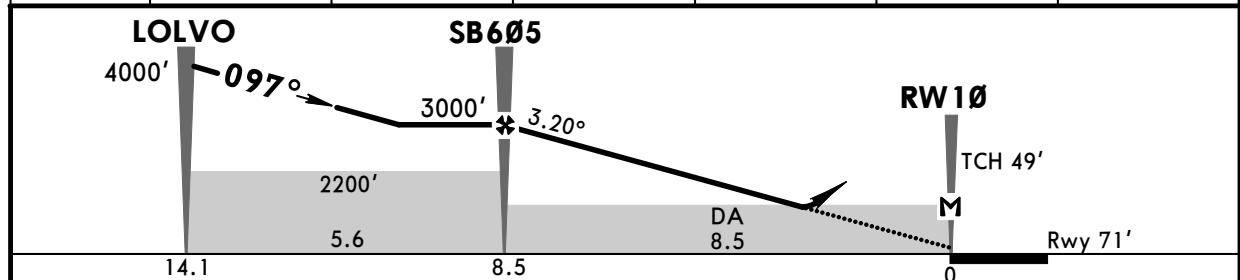
LONGYEAR Information

118.1 119.850

RNAV	Final Apch Crs 097°	Procedure Alt SB605 3000' (2929')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 94' Rwy 71'	TAA 25 NM IAF
MISSED APCH: Turn LEFT direct NESAS and enter holding climbing to 5000'.					
MAX speed during turns: CAT A: 100 KT CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000' Baro-VNAV not authorized below -35°C.					



DIST to RW10	8.0	7.0	6.0	5.0	4.0	3.0
ALTITUDE	2840'	2500'	2160'	1820'	1480'	1140'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI	Refer to Missed Apch above
Descent Angle 3.20°	396	510	566	679	793	906		
MAP at RW10								

STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
LNAV/VNAV		LNAV		Not authorized South of airport	
DA(H)	MACG mim 5.0%	DA(H)	MACG mim 5.0%		
A: 1070' (999')	C: 1190' (1119')	A: 1650' (1579')	C: 2130' (2059')		
B: 1110' (1039')	D: 1300' (1229')	B: 1940' (1869')	D: 2380' (2309')		
ALS out		ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m			100	11650' (1556') 1500m 3
B				135	2300' (2206') 1600m 3
C				180	3560' (3466') 2400m 3
D	CMV 2400m			205	3560' (3466') 3600m 3

1 After LNAV approaches: MDA(H) 1680' (1586'). 2 After LNAV with MACG 2.5%: MDA(H) 2330' (2236').
3 After LNAV approaches: VIS 5000m.

CHANGES: New procedure.

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ENSB/LYR
LONGYEAR **JEPPESEN**
19 FEB 16 **(12-1A)** Eff 3 Mar**SVALBARD, NORWAY****RNAV (GNSS) Z RWY 10 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 4.0%**

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV/VNAV	
DA(H)	A:	1160'(1089')	C: 1380'(1309')
	B:	1180'(1109')	D: 1540'(1469')
		ALS out	
A	RVR 1500m		
B			
C	CMV 2400m		
D			

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV	
DA(H)	A:	1650'(1579')	C: 2320'(2249')
	B:	2080'(2009')	D: 2570'(2499')
		ALS out	
A	CMV 5000m		
B			
C			
D			

MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV/VNAV	
DA(H)	A:	1290'(1219')	C: 1770'(1699')
	B:	1300'(1229')	D: 2010'(1939')
		ALS out	
A	RVR 1500m		
B			
C	CMV 2400m		
D			

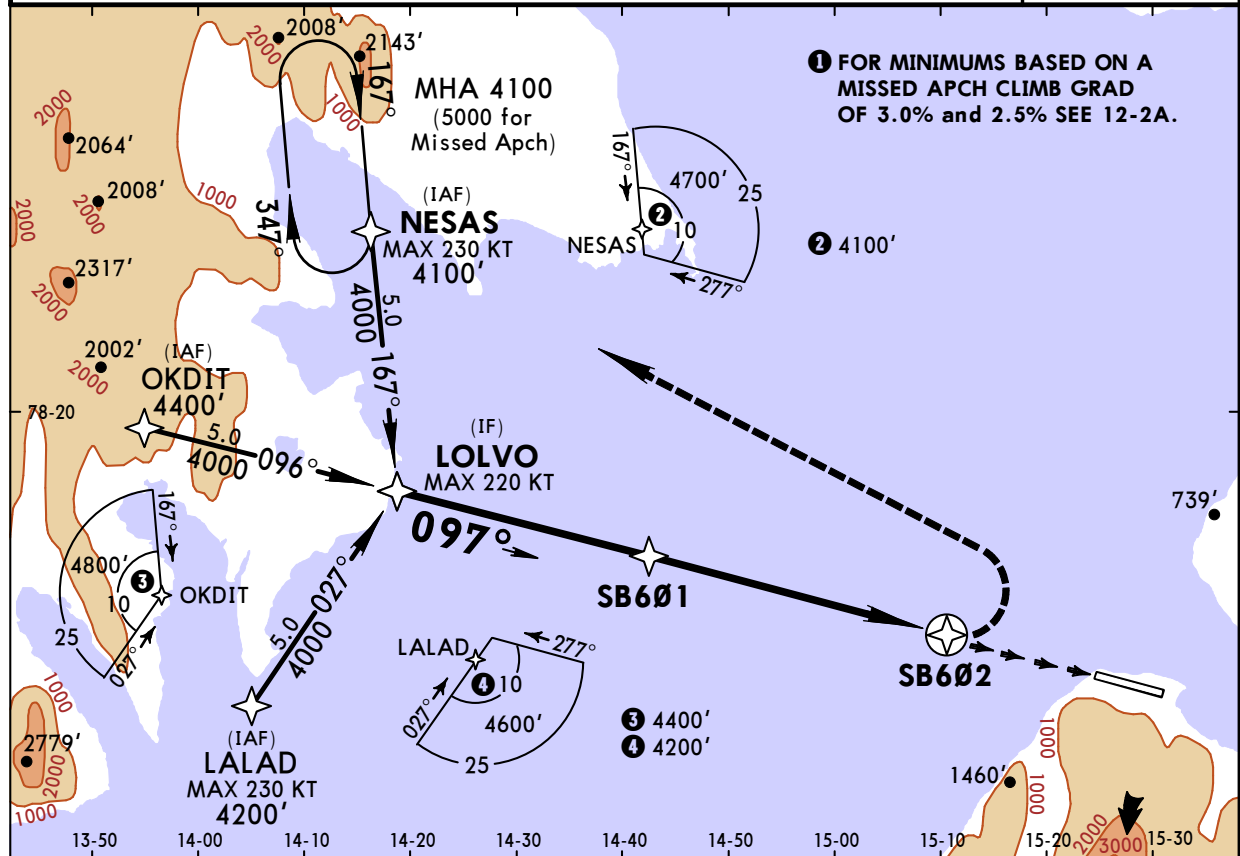
Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV	
DA(H)	A:	1650'(1579')	C: 2610'(2539')
	B:	2300'(2229')	D: 2860'(2789')
		ALS out	
A	CMV 5000m		
B			
C			
D			

ENSB/LYR
LONGYEARJEPPesen
19 FEB 16
Eff 3 Mar (12-2)SVALBARD, NORWAY
ORNAV (GNSS) Y Rwy 10

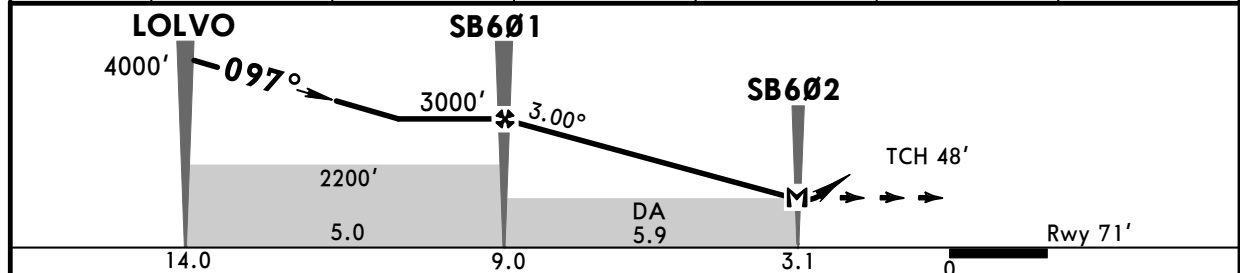
BRIEFING STRIP™

LONGYEAR Information
118.1 119.850

RNAV	Final Apch Crs 097°	Procedure Alt SB601 3000' (2929')	LNAV DA(H) Refer to Minimums	Apt Elev 94' Rwy 71'	TAA 25 NM IAF
MISSED APCH: Turn LEFT direct NESAS and enter holding climbing to 5000'. MAX speed during turns: CAT A: 100 KT CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000'					



DIST to SB602	5.0	4.0	3.0	2.0	1.0	0.0
ALTITUDE	2710'	2390'	2070'	1750'	1430'	1110'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI Refer to Missed Apch above
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at SB602							

STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
Standard LNAV MACG min 5.0% DA(H) ABC: 1110' (1039') D: 1150' (1079')		LNAV MACG min 4.0% DA(H) C: 1160' (1089') AB: 1110' (1039') D: 1230' (1159')		Not authorized South of airport	
ALS out		ALS out		Max Kts	MDA(H) VIS
A RVR1500m		RVR1500m		100	1140' (1046') 1500m
B				135	2040' (1946') 1600m
C CMV 2400m		CMV 2400m		180	3560' (3466') 2400m 1
D				205	3560' (3466') 3600m 1 2

PANS OPS

1 After MACG 2.5%: VIS 5000m. **2** After MACG 3.0%: VIS 5000m.

CHANGES: New procedure.

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ENSB/LYR
LONGYEAR **JEPPESEN**
19 FEB 16 **12-2A** Eff 3 Mar**SVALBARD, NORWAY****RNAV (GNSS) Y RWY 10 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 3.0%**

Standard		STRAIGHT-IN LANDING RWY 10
		LNAV
		C: 1260' (1189')
DA(H) AB: 1110' (1039')		D: 1320' (1249')
		ALS out
A	RVR 1500m	
B		
C	CMV 2400m	
D	CMV 5000m	

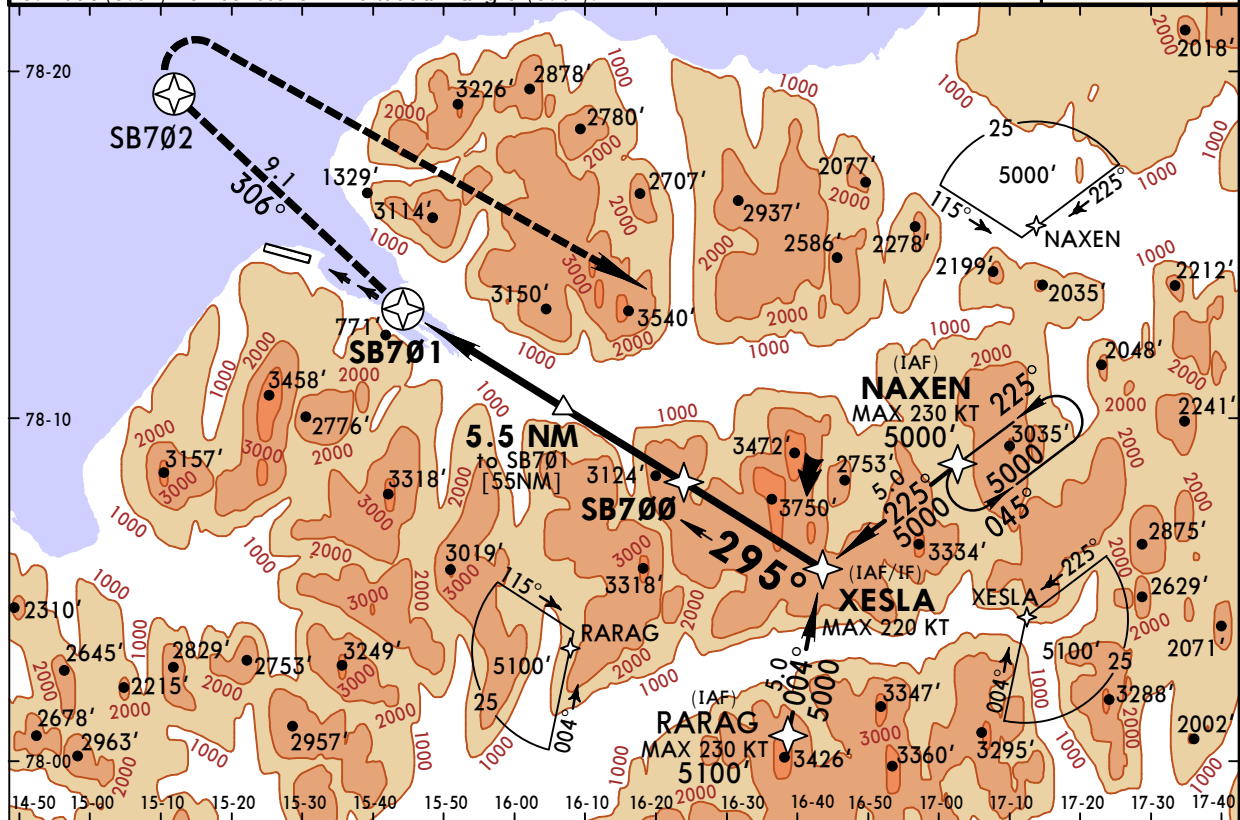
MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard		STRAIGHT-IN LANDING RWY 10
		LNAV
		C: 1310' (1239')
DA(H) AB: 1110' (1039')		D: 1370' (1299')
		ALS out
A	RVR 1500m	
B		
C	CMV 5000m	
D		

ENSB/LYR
LONGYEARJEPPesen
9 SEP 16 (12-3) Eff 15 SepSVALBARD, NORWAY
RNAV (GNSS) Rwy 28

BRIEFING STRIP

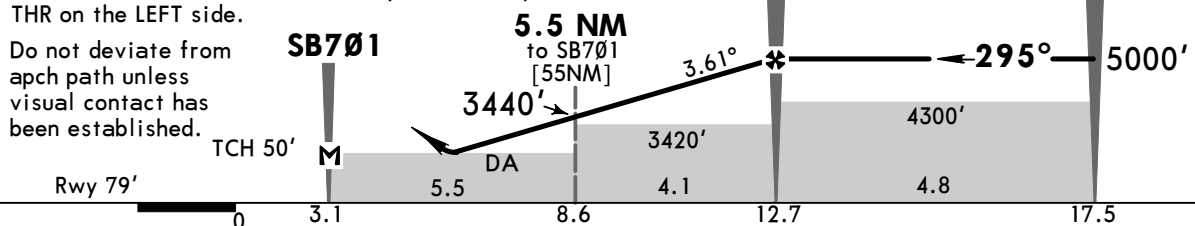
LONGYEAR Information 118.1 119.850					
RNAV	Final Apch Crs 295°	Procedure Alt SB700 5000' (4921')	LNAV DA(H) Refer to Minimums	Apt Elev 94'	Rwy 79'
MISSED APCH: Proceed to SB702 then turn RIGHT direct to NAXEN and enter holding at 5000'.					TAA 25 NM IAF
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000'					
1. Final approach track offset 17° from rwy centerline. 2. Procedure does not comply with PANS OPS criteria for STRAIGHT IN approach. 3. VPA (3.6°) not consistent with PAPI angle (3.4°).					



DIST to SB701	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	1710'	2100'	2480'	2860'	3240'	3630'	4010'	4390'

VSS penetrated by terrain from 5.7 NM to 4.5 NM prior to THR on the RIGHT side and chimney at 1.7 NM prior to THR on the LEFT side.

Do not deviate from apch path unless visual contact has been established.



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI SB702
Descent Angle	3.61°	447	575	639	767	894	
MAP at SB701							

Standard

STRAIGHT-IN LANDING RWY 28

CIRCLE-TO-LAND

LNAV MACG mim 5.0%		LNAV MACG mim 4.0%		LNAV MACG mim 2.5%		Not authorized South of airport
DA(H) C: 1450' (1371') D: 1510' (1431')		AB: 1430' (1351') DA(H) C: 1480' (1401') D: 1540' (1461')		A: 1470' (1391') B: 1490' (1411') C: 1530' (1451') D: 1570' (1491')		
ALS out		ALS out		ALS out		
A	NOT APPLICABLE		CMV 5000m	CMV 5000m	Max Kts	MDA(H) VIS
100					1470' (1376') 1 5000m	
135					2040' (1946') 5000m	
180					3560' (3466') 5000m	
D	CMV 5000m			205	3560' (3466') 5000m	

After MACG 2.5%: MDA(H) 1490' (1396').

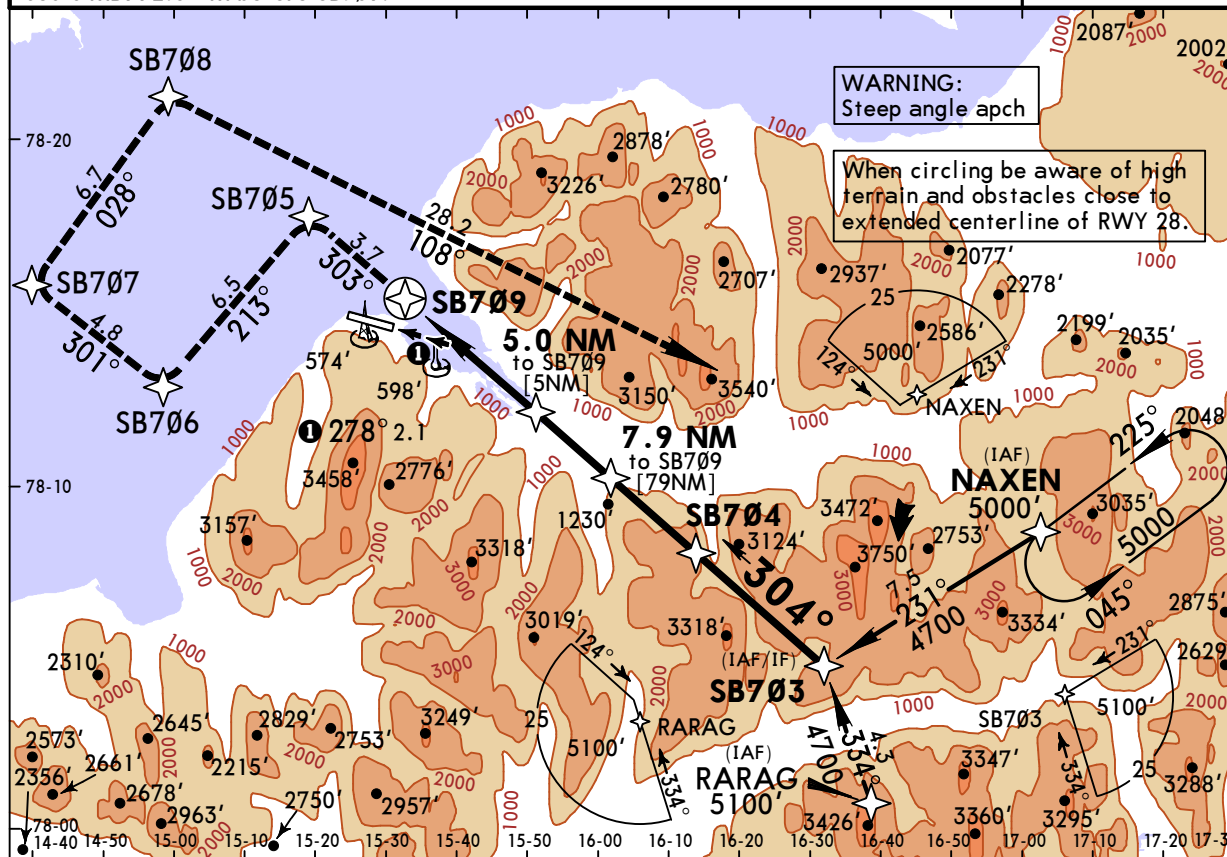
CHANGES: None.

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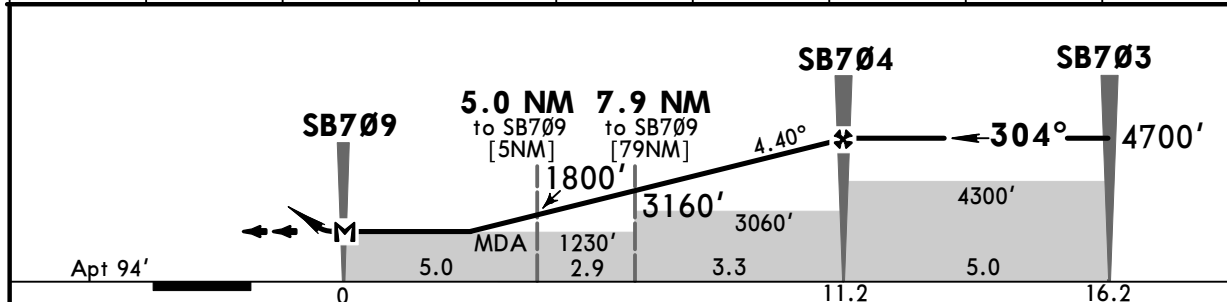
ENSB/LYR
LONGYEARJEPPESSEN
9 SEP 16
Eff 15 Sep 12-4 CAT A & BSVALBARD, NORWAY
RNAV (GNSS) A

BRIEFING STRIP

LONGYEAR Information 118.1 119.850					
RNAV	Final Apch Crs 304°	Procedure Alt SB704 4700' (4606')	MDA(H) 650' (556')	Apt Elev 94'	TAA 25 NM IAF
MISSED APCH: Proceed to SB705 then to SB706 then to SB707 then to SB708 then to NAXEN. Enter holding climbing to 5000'.					
Alt Set: hPa Apt Elev: 3 hPa Trans level: By ATC Trans alt: 5000' 1. VPA (4.40°) not consistent with PAPI angle (3.4°). 2. The published angle intersects MDA 2.6 NM before SB709.					



DIST to SB709	4	5	6	7	8	9	10	11
ALTITUDE	1340'	1800'	2270'	2740'	3200'	3670'	4130'	4600'



Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart	SB705 LT
Descent Angle 4.40°	545	701	779	935	1091	1247		
MAP at SB709								

PANS OPS

Standard		CIRCLE-TO-LAND			
		AUTH required 120KT/25° Bank during circling Not authorized South of airport			
		Max Kts	MDA(H)	VIS	
	A	100	650' (556')	1500m	
	B	120	650' (556')	1600m	
	C		NOT APPLICABLE		
	D				

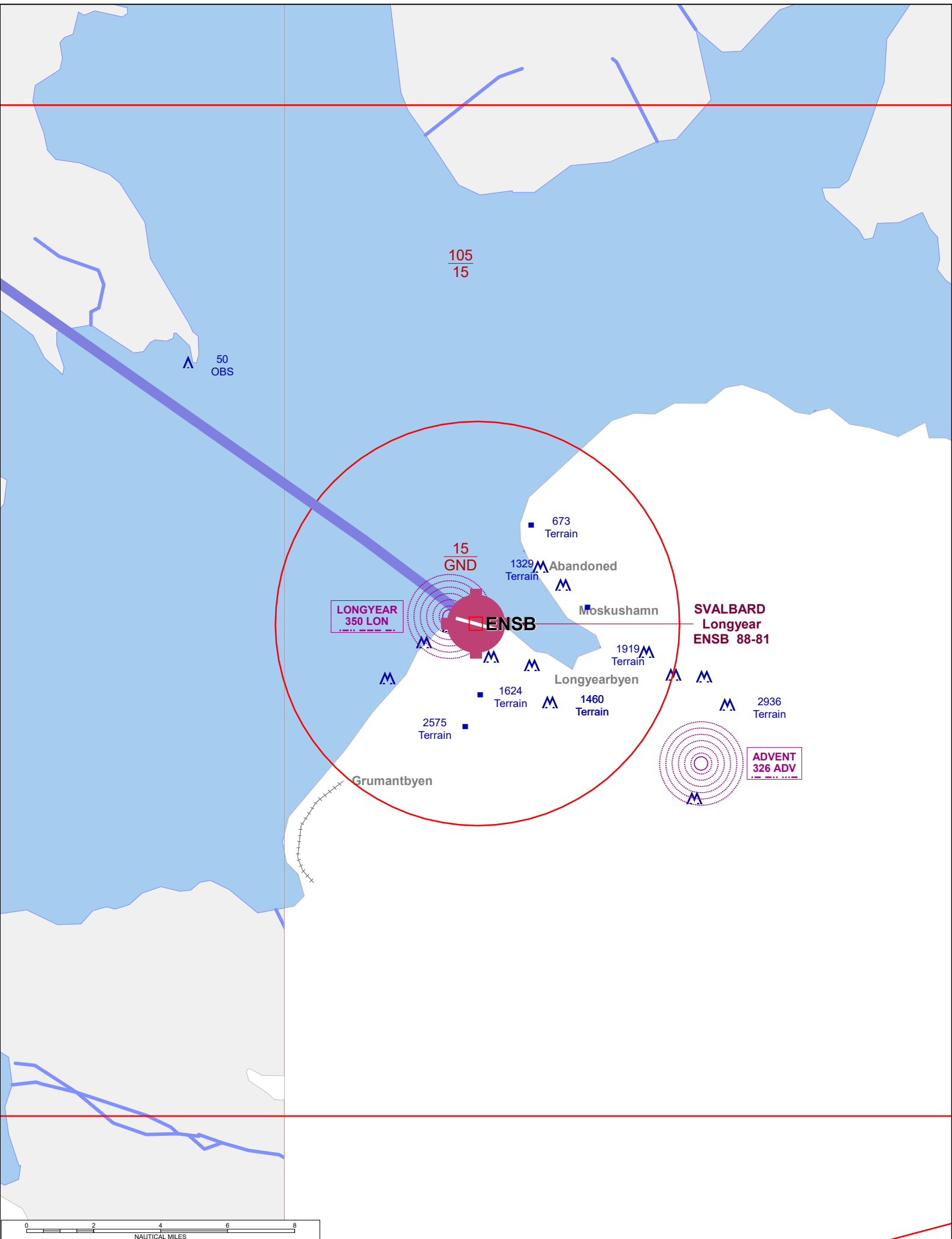
7.0.1 DEPARTURE (ENSB -> BGTL): ENSB (Longyear)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JEPPESEN

JeppView 3.6.2.0



ENSB/LYR
LONGYEAR

19 FEB 16

JEPPESEN**Eff 3 Mar**

SVALBARD, NORWAY

RNAV SID

Apt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. **RNAV 1.**
2. **GNSS required.**
3. Class A GNSS shall not be used.
4. Obtain ATC clearance from LONGYEAR Information.
5. Contact by LONGYEAR Information as instructed.
6. Non RNAV 1 ACFT: no IFR departure available.
7. Vessels crossing departure area could require more than 6.1 % climb gradient and must be avoided visually or by other means.

5100

MSA ARP

AMPIS 1A [AMPI1A]
RNAV

AMPIS
N77 57.5 E017 43.1

Maintain last assigned level for 2 minutes, then climb to CPL cruising level.

SB520
N78 14.1 E015 39.7

**MAX
205 KT**

Direct distance from
Longyear Apt to:
SB520 3 NM

SB521
N78 10.7 E016 03.1

174°

24.5

This SID requires a minimum climb gradient of 371' per NM (6.1%) up to 3600'.

Gnd speed-KT	75	100	150	200	250	300
371' per NM	464	618	928	1237	1546	1855

If unable to comply inform ATC.

Initial climb clearance 5500'

ROUTING

RWY

On 098° track to SB520, turn RIGHT direct to SB521, then to AMPIS.

ENSB/LYR
LONGYEAR

19 FEB 16

JEPPESEN**Eff 3 Mar**

SVALBARD, NORWAY

RNAV SID

Apt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. **RNAV 1.**
2. **GNSS required.**
3. Class A GNSS shall not be used.
4. Obtain ATC clearance from LONGYEAR Information.
5. Contact by LONGYEAR Information as instructed.
6. Non RNAV 1 ACFT: state 'UNABLE RNAV 1 DUE (reason)' at first contact with LONGYEAR Information. Omnidirectional departure available.
7. Vessels crossing departure area could require more than 3.3 % climb gradient and must be avoided visually or by other means.

5100'

MSA ARP

AMPIS 1B [AMPI1B]
GOLOL 1B [GOLO1B]
RNAV

AMPIS 1B

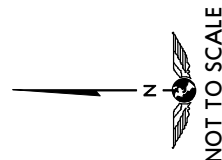
This SID requires a minimum climb gradient of 322' per NM (5.3%) up to 3900'.

Gnd speed-KT	75	100	150	200	250	300
322' per NM	402	537	805	1073	1342	1610

If unable to comply inform ATC.

Maintain last assigned level for 2 minutes, then climb to CPL cruising level.

Aircraft under vectoring shall proceed in the most direct manner possible to rejoin the CPL route no later than the next significant point, climbing to the CPL cruising level under consideration of the applicable minimum flight altitude.



Direct distance from
Longyear Apt to:
SB420 3 NM

Initial climb clearance 5500'

ROUTING

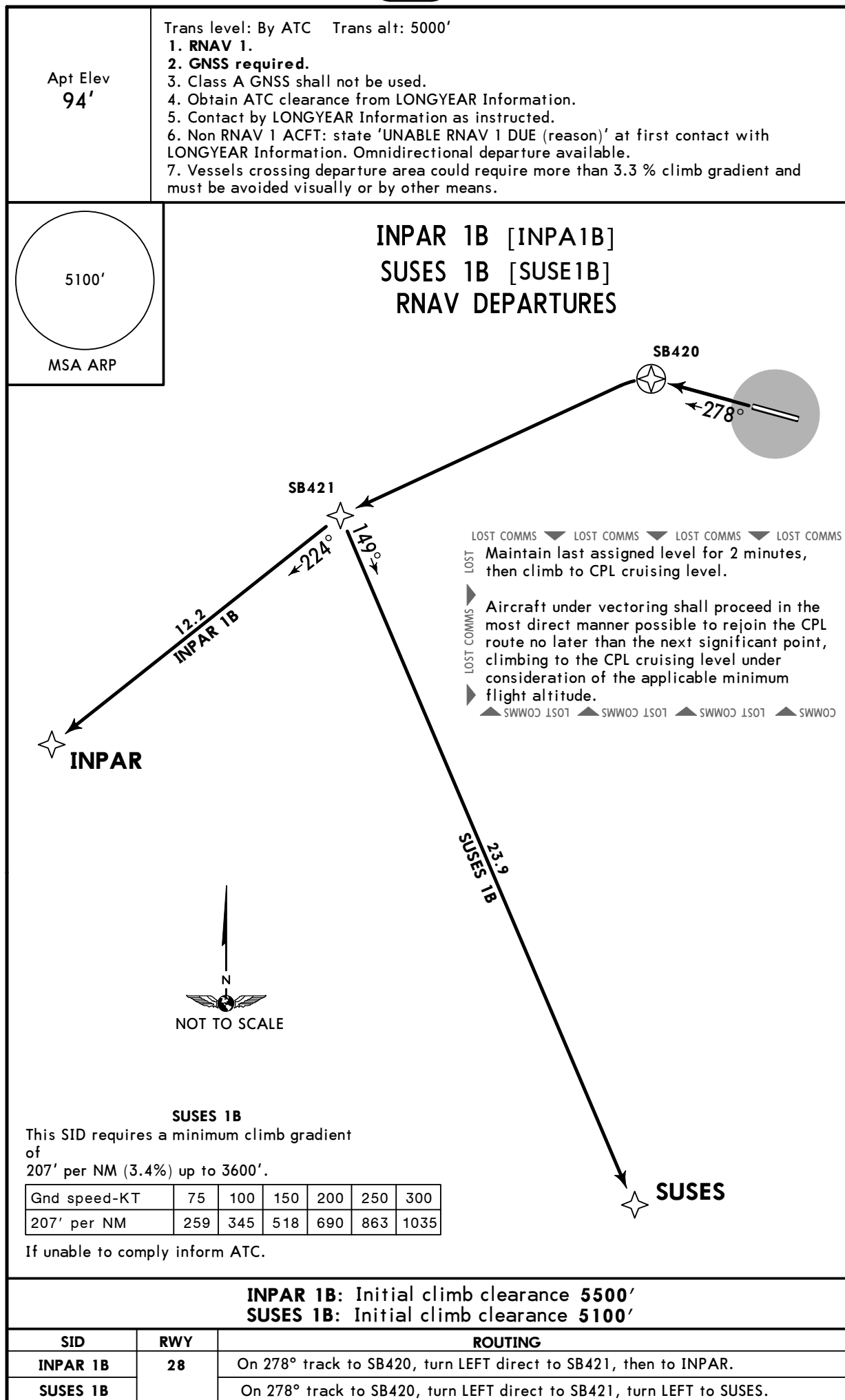
SID	RWY	ROUTING
AMPIS 1B	28	On 278° track to SB420, turn RIGHT direct to SB422, turn RIGHT to AMPIS.
GOLOL 1B		On 278° track to SB420, 334° track to GOLOL.

AMPIS
N77 57.5 E017 43.1

ENSB/LYR
LONGYEAR

JEPPESEN
 19 JAN 18 **10-3B** Eff 1 Feb

SVALBARD, NORWAY
RNAV SID



ENSB/LYR
LONGYEAR

19 JAN 18

**JEPPESEN**

(10-3C)

Eff 1 Feb

SVALBARD, NORWAY

DEPARTURE

Apt Elev
94'

Trans level: By ATC Trans alt: 5000'

1. Obtain ATC clearance from LONGYEAR Information.
2. Contact as instructed by LONGYEAR Information.
3. Vessels crossing departure area could require more than 3.3 % climb gradient and must be avoided visually or by other means.

OMNI 2B
RWY 28 OMNIDIRECTIONAL DEPARTURE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

► Climb on 278° track to 3000', then proceed in the most direct manner possible to join the CPL route, climbing to CPL cruising level.

LOST Aircraft under vectoring shall proceed the most direct route to join the CPL route, climbing to the CPL cruising level.

▲ SWWOC 1SOT ▲ SWWOC 1SOT ▲ SWWOC 1SOT ▲ SWWOC 1SOT

Initial climb clearance **5500'**

ROUTING

Climb on 278° track, EXPECT further clearance from ATC, turn at or above 3000'.

ENSB/LYR

Apt Elev **94'**
N78 14.8 E15 27.9

JEPPESEN

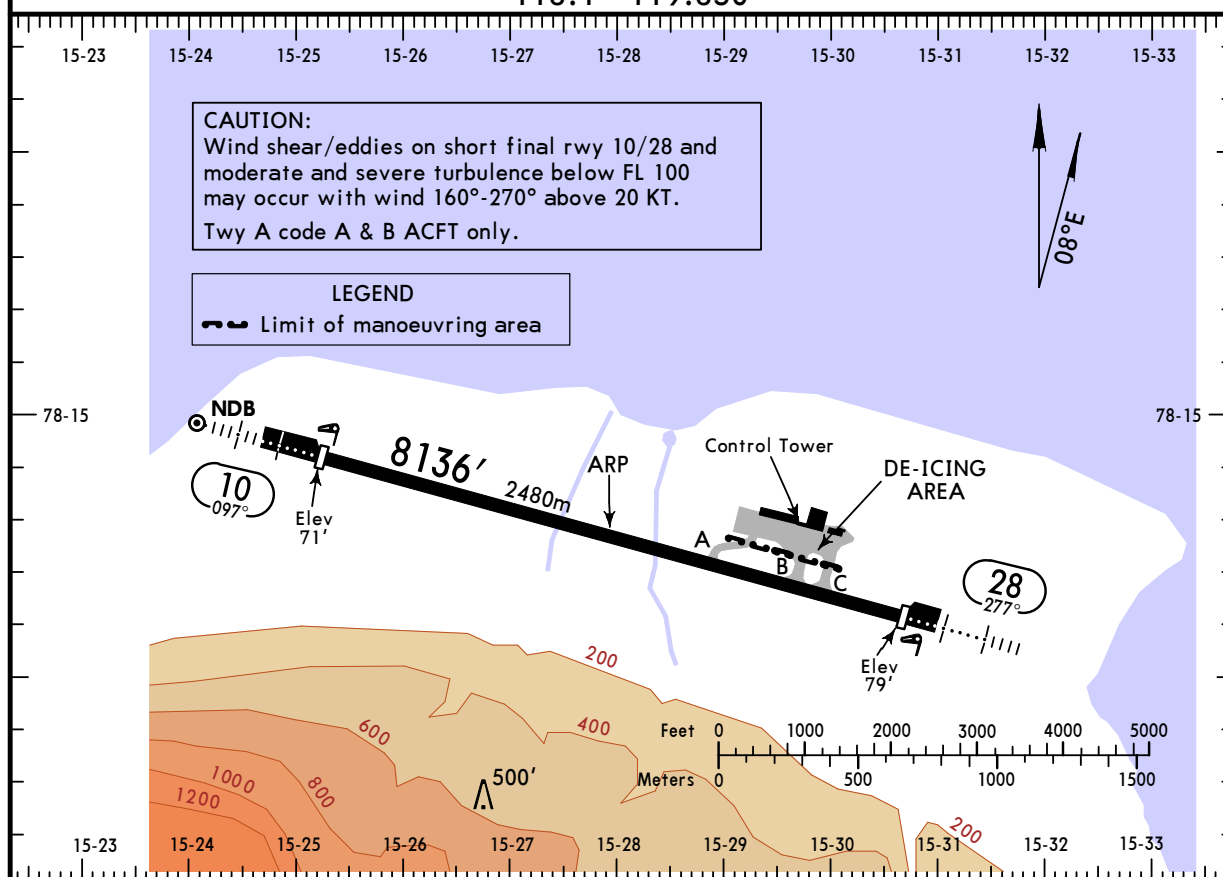
19 FEB 16 **(10-9)** Eff 3 Mar

SVALBARD, NORWAY

LONGYEAR

LONGYEAR Information

118.1 119.850



ADDITIONAL RUNWAY INFORMATION

RWY								USABLE LENGTHS		TAKE-OFF	WIDTH
								Threshold	Glide Slope		
10	①	HIRL ②	CL ②	HIALS	SFL	TDZ	PAPI (3.0°)	6522' 1988m	5854' 1784m	7244' 2208m	148'
28		HIRL ②	CL ②	HIALS	SFL	TDZ	PAPI (3.4°) ③	7014' 2138m		④	45m

① Rwy 10/28 grooved.

② spacing 60m

③ PAPI Rwy 28: Both left and right hand bar is directed 8° SOUTH of rwy centerline.
Restricted to MAX 5.8NM from threshold.

④ TAKE OFF RUN AVAILABLE

RWY 28:

From rwy head 7415' (2260m)
 twy C int 6020' (1835m)
 twy B int 5709' (1740m)
 twy A int 4675' (1425m)

LOW VISIBILITY PROCEDURE (LVP)

LVP will be activated when RVR 800m or less.

If holding position markings are no longer visible, or have reduced effect, only one acft on the manoeuvring area will be allowed at a time.

SPECIAL REQUIREMENTS FOR ACFT OPERATORS PERFORMING COMMERCIAL TRANSPORT

The acft operator shall stipulate:

- special crew qualification requirements (Cat B, REF EASA AMCI ORO.FC.105),
- special requirements with regard to surface winds
- and special requirements with regard to runway status.

Departure procedures, take-off minimums and take-off weight limitations shall be documented.

The acft operator shall ensure document fulfillment of the requirements above to CAA Norway at least 14 days prior commencing operations. CAA Norway will, after evaluating the documentation and finding it adequate, issue a letter of compliance. A copy has to be carried by the crew and presented to local airport authorities or representatives of CAA Norway on request.

Standard

TAKE-OFF

	RCLM (DAY only) or RL	NIL (DAY only)
A	550m	
B		
C		
D		

ENSB/LYR **JEPPESEN**
19 FEB 16 **10-9Y** Eff 3 Mar**JAA COPTER MINIMUMS**
SVALBARD, NORWAY
LONGYEAR

STRAIGHT-IN RWY	DA(H) / MDA(H)	RVR (ALS/ALS out)
10 ILS	486' (415')	800m / 1000m
LOC	950' (879')	1000m / 1000m
RNAV Z (LNAV/VNAV) ①	1070' (999')	1000m / 1000m
RNAV Z (LNAV/VNAV) ②	1160' (1089')	1000m / 1000m
RNAV Z (LNAV/VNAV) ③	1290' (1219')	1000m / 1000m
RNAV Z (LNAV)	1650' (1579')	1000m / 1000m
RNAV Y (LNAV)	1110' (1039')	1000m / 1000m
28 LOC ②	510' (431')	1000m / 1000m
LOC ③	1160' (1081')	1000m / 1000m
LOC ④	1300' (1221')	1000m / 1000m
RNAV (LNAV) ②	1430' (1351')	1000m / 1000m
RNAV (LNAV) ④	1470' (1391')	1000m / 1000m

① Missed apch climb gradient mim 5.0%.

② Missed apch climb gradient mim 4.0%.

③ Missed apch climb gradient mim 3.0%.

④ Missed apch climb gradient mim 2.5%.

CIRCLE-TO-LAND ⑤	MDA(H)	VIS
	950' (856')	1000m
After RNAV Z 10	1650' (1556')	1000m
After RNAV Y 10	1110' (1016')	1000m
After LOC 28	1300' (1206')	1000m
After RNAV 28	1470' (1376')	1000m
After RNAV A ⑥	650' (556')	1000m

⑤ Not authorized South of airport.

⑥ Authorization required. 120 KT/ 25° bank angle during circling.

TAKE-OFF RWY 10, 28

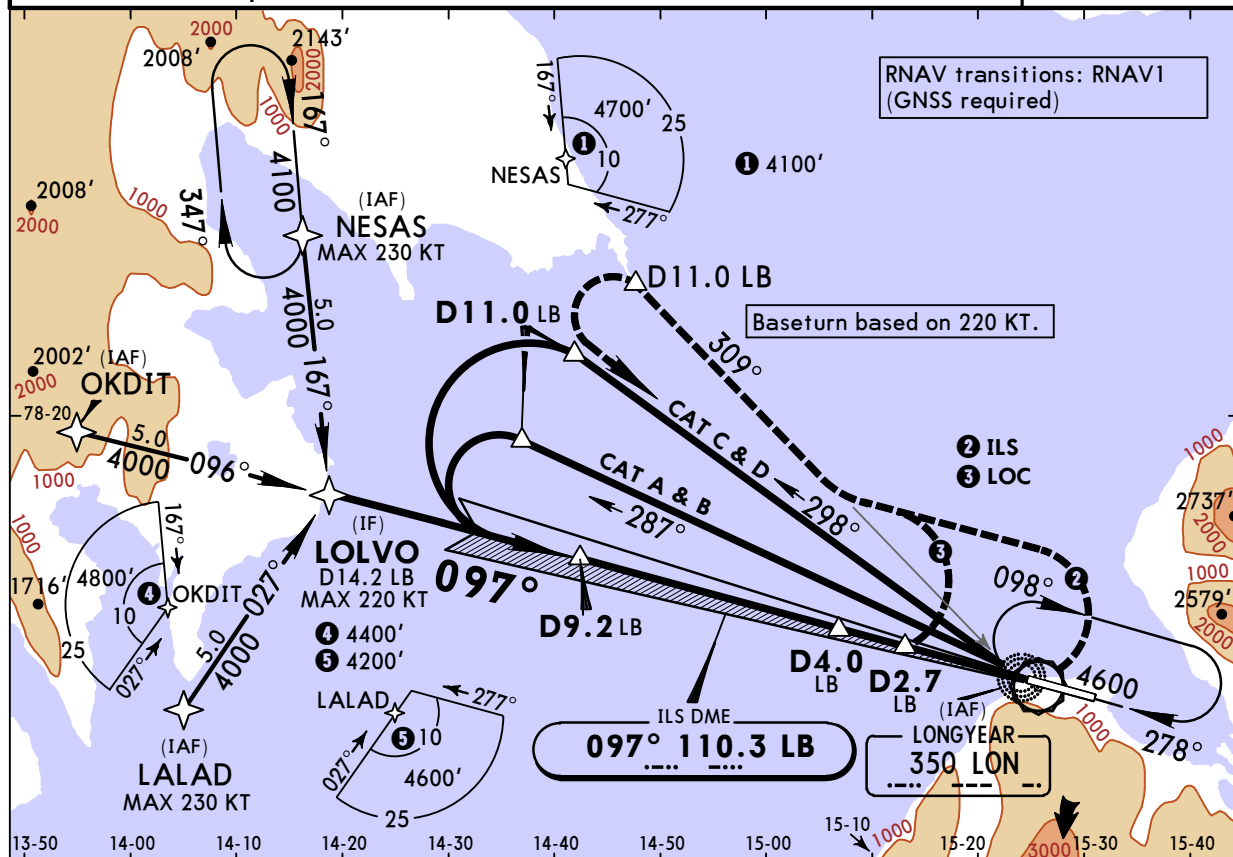
LVP must be in Force				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
550m			550m ⑦	800m

⑦ Or rejected take-off distance whichever is the greater.

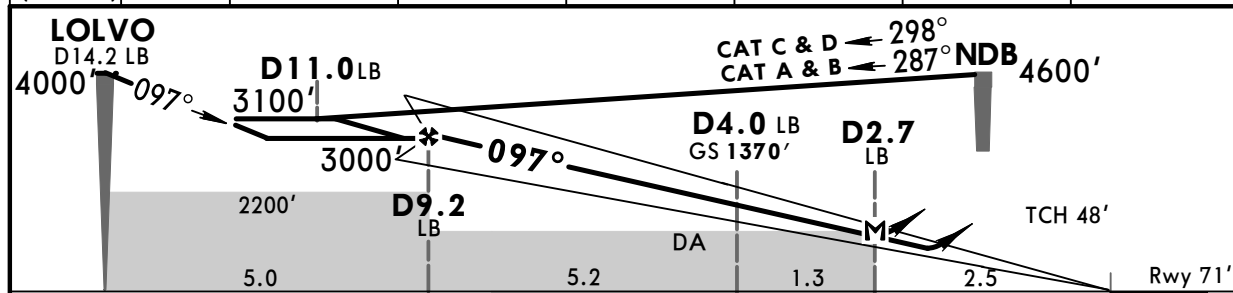
ENSB/LYR
LONGYEARJEPPESEN
19 FEB 16 (11-1) Eff 3 MarSVALBARD, NORWAY
ILS or LOC Rwy 10

BRIEFING STRIP™

LONGYEAR Information 118.1 119.850					
LOC LB 110.3	Final Apch Crs 097°	GS D4.0 LB 1370' (1299')	ILS DA(H) Refer to Minimums	Apt Elev 94'	Rwy 71'
MISSED APCH: Turn LEFT to intercept and proceed on 309° from NDB. At D11.0 LB turn LEFT to NDB. Enter holding climbing to 4600'. LOC: Do not turn before passing MAP. MAX speed during turns: CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000' 1. ADF and DME required. 2. LOC not to be used outside 15° either side of course line.					MSA LON NDB



LOC	LB DME	9.0	8.0	7.0	6.0	5.0	4.0
(GS out)	ALTITUDE	2960'	2640'	2320'	2000'	1680'	1370'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or							
LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D2.7 LB							

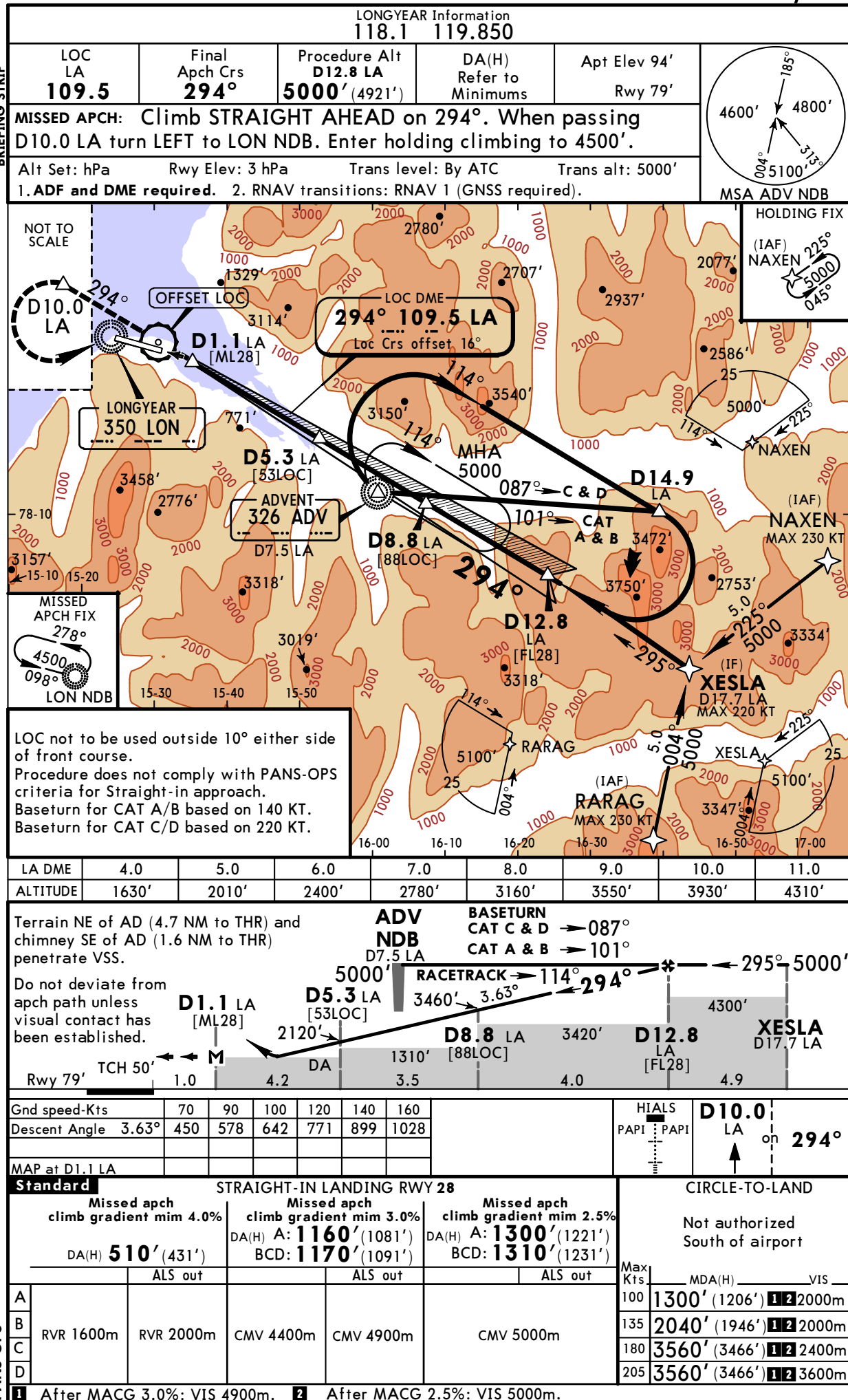
Standard STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Not authorized South of airport	
DA(H)	A: 486' (415') B: 521' (450')	C: 631' (560') D: 786' (715')	DA(H) AB: 950' (879') C: 1000' (929') D: 1310' (1239')		
	FULL/Limited	ALS out	ALS out	Max Kts	MDA(H) VIS
A	RVR 1500m	RVR 1500m	RVR 1500m	100	950' (856') 1500m
B				135	2040' (1946') 1600m
C	CMV 2100m	CMV 2400m	CMV 2400m	180	3560' (3466') 2400m
D	CMV 2400m		CMV 5000m	205	3560' (3466') 3600m

PANS OPS

1 After LOC (GS out): 980' (886'). 2 After LOC (GS out): VIS 5000m.

ENSB/LYR
LONGYEARJEPPesen
19 FEB 16 (11-2) Eff 3 MarSVALBARD, NORWAY
LOC Rwy 28

BRIEFING STRIP™



PANS OPS

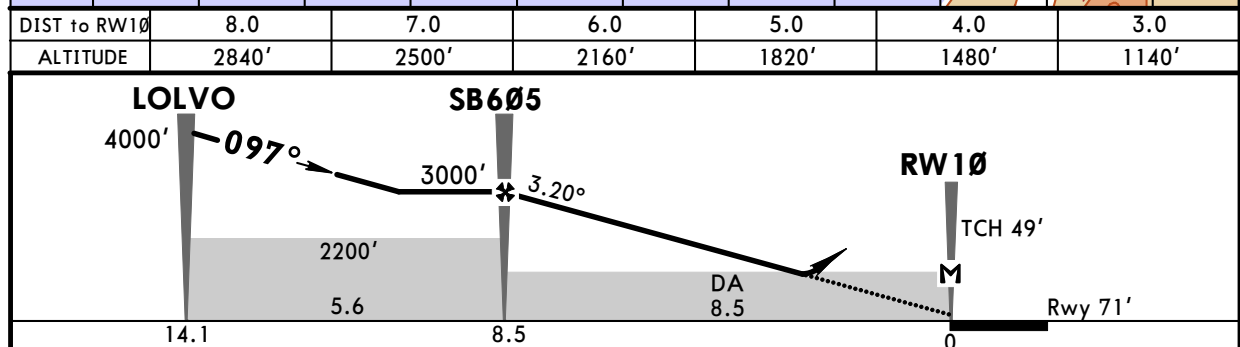
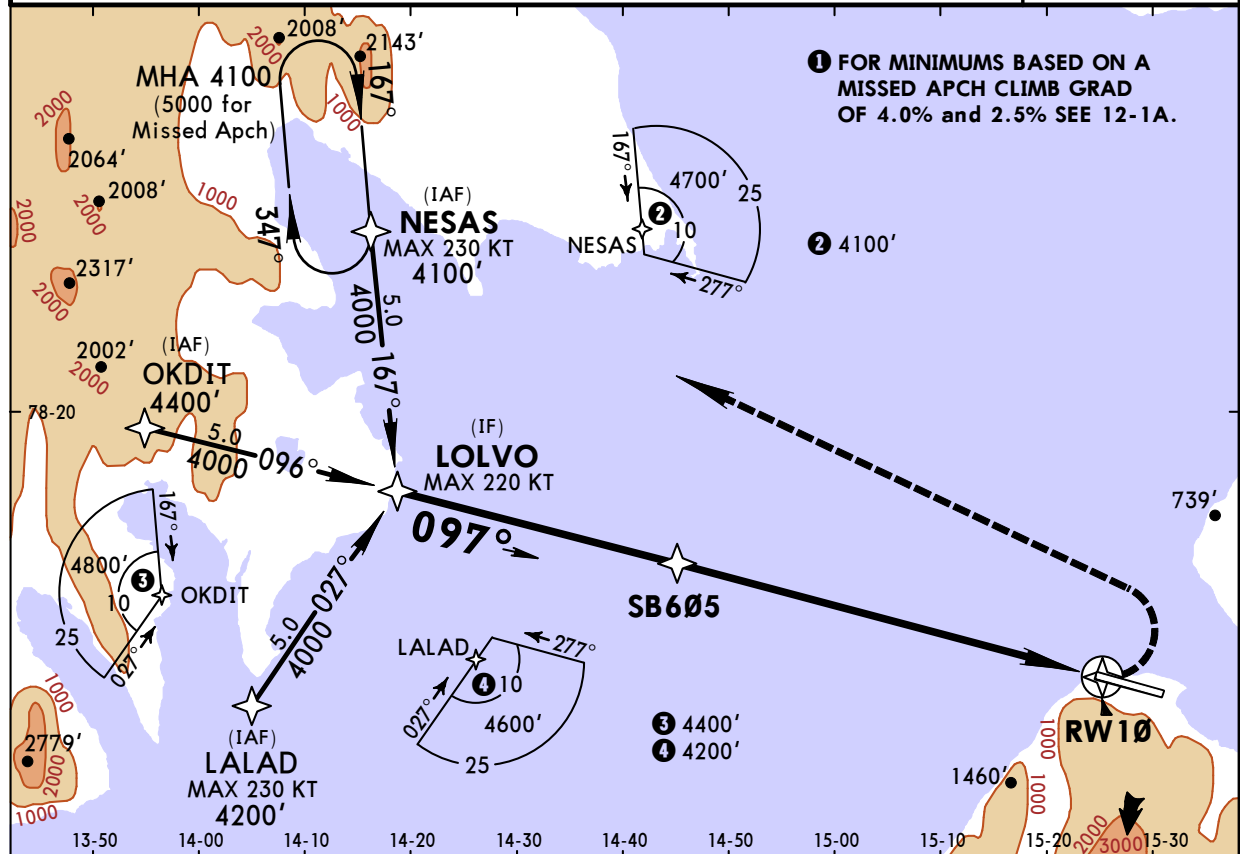
ENSB/LYR
LONGYEARJEPPESEN
19 FEB 16
Eff 3 Mar (12-1)SVALBARD, NORWAY
ORNAV (GNSS) Z Rwy 10

BRIEFING STRIP™

LONGYEAR Information

118.1 119.850

RNAV	Final Apch Crs 097°	Procedure Alt SB605 3000' (2929')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 94' Rwy 71'	TAA 25 NM IAF
MISSED APCH: Turn LEFT direct NESAS and enter holding climbing to 5000'.					
MAX speed during turns: CAT A: 100 KT CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000' Baro-VNAV not authorized below -35°C.					



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI	Refer to Missed Apch above
Descent Angle 3.20°	396	510	566	679	793	906		
MAP at RW10								

STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
LNAV/VNAV DA(H) MACG mim 5.0% A: 1070' (999') C: 1190' (1119') B: 1110' (1039') D: 1300' (1229')		LNAV DA(H) MACG mim 5.0% A: 1650' (1579') C: 2130' (2059') B: 1940' (1869') D: 2380' (2309')		Not authorized South of airport	
ALS out		ALS out		Max Kts	MDA(H) VIS
A	RVR 1500m	CMV 5000m		100	11650' (1556') 1500m 3
B				135	2300' (2206') 1600m 3
C				180	3560' (3466') 2400m 3
D	CMV 2400m			205	3560' (3466') 3600m 3

PANS OPS

① After LNAV approaches: MDA(H) 1680' (1586'). ② After LNAV with MACG 2.5%: MDA(H) 2330' (2236').
③ After LNAV approaches: VIS 5000m.

CHANGES: New procedure.

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ENSB/LYR
LONGYEAR **JEPPESEN**
19 FEB 16 **(12-1A)** Eff 3 Mar**SVALBARD, NORWAY****RNAV (GNSS) Z RWY 10 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 4.0%**

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV/VNAV	
DA(H)	A:	1160'(1089')	C: 1380'(1309')
	B:	1180'(1109')	D: 1540'(1469')
		ALS out	
A	RVR 1500m		
B			
C	CMV 2400m		
D			

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV	
DA(H)	A:	1650'(1579')	C: 2320'(2249')
	B:	2080'(2009')	D: 2570'(2499')
		ALS out	
A	CMV 5000m		
B			
C			
D			

MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV/VNAV	
DA(H)	A:	1290'(1219')	C: 1770'(1699')
	B:	1300'(1229')	D: 2010'(1939')
		ALS out	
A	RVR 1500m		
B			
C	CMV 2400m		
D			

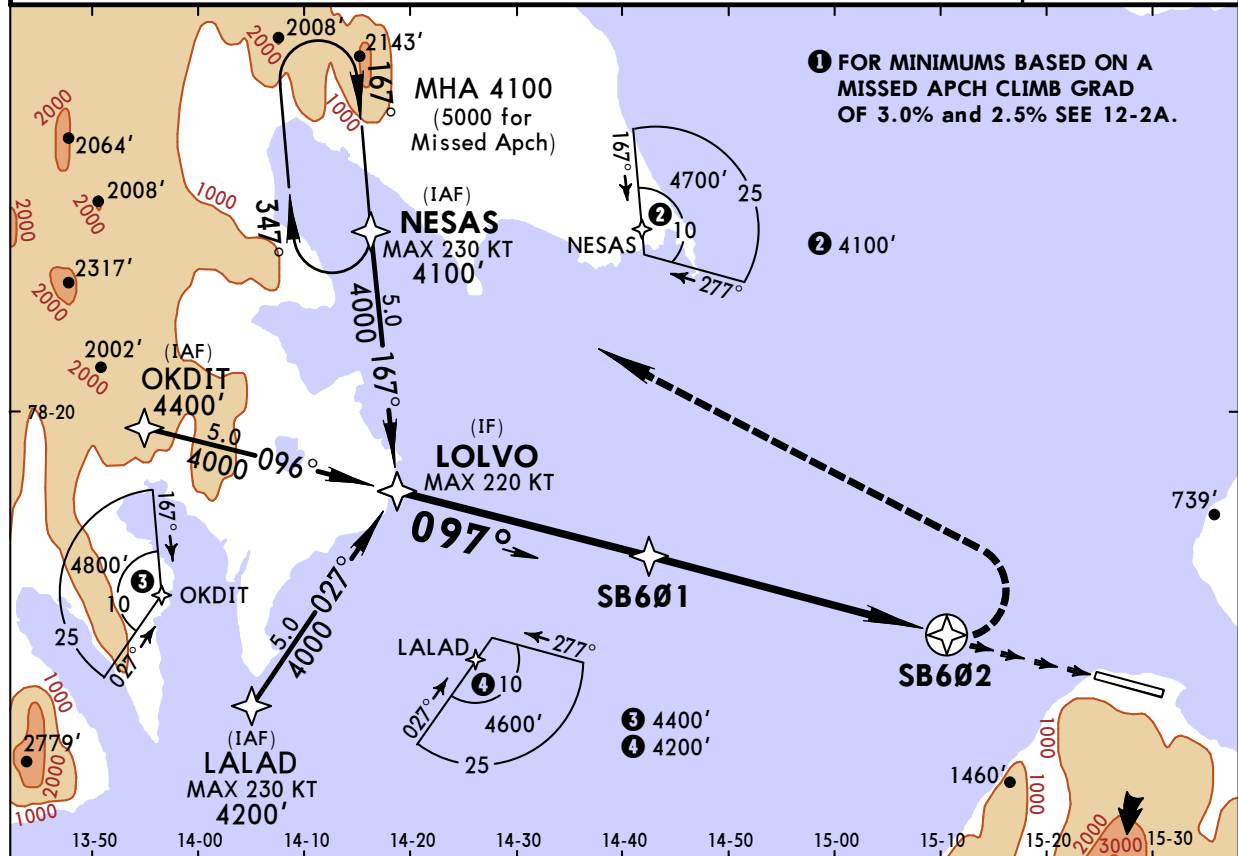
Standard		STRAIGHT-IN LANDING RWY 10	
		LNAV	
DA(H)	A:	1650'(1579')	C: 2610'(2539')
	B:	2300'(2229')	D: 2860'(2789')
		ALS out	
A	CMV 5000m		
B			
C			
D			

ENSB/LYR
LONGYEARJEPPesen
19 FEB 16
Eff 3 Mar (12-2)SVALBARD, NORWAY
ORNAV (GNSS) Y Rwy 10

BRIEFING STRIP™

LONGYEAR Information
118.1 119.850

RNAV	Final Apch Crs 097°	Procedure Alt SB601 3000' (2929')	LNAV DA(H) Refer to Minimums	Apt Elev 94' Rwy 71'	TAA 25 NM IAF
MISSED APCH: Turn LEFT direct NESAS and enter holding climbing to 5000' . MAX speed during turns: CAT A: 100 KT CAT B: 130 KT, CAT C: 160 KT, CAT D: 185 KT.					
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000'					



ENSB/LYR
LONGYEAR **JEPPESEN**
19 FEB 16 **12-2A** Eff 3 Mar**SVALBARD, NORWAY****RNAV (GNSS) Y RWY 10 MINIMUMS****MISSED APCH CLIMB GRADIENT MIM 3.0%**

Standard		STRAIGHT-IN LANDING RWY 10
		LNAV
		C: 1260' (1189')
DA(H) AB: 1110' (1039')		D: 1320' (1249')
		ALS out
A	RVR 1500m	
B		
C	CMV 2400m	
D	CMV 5000m	

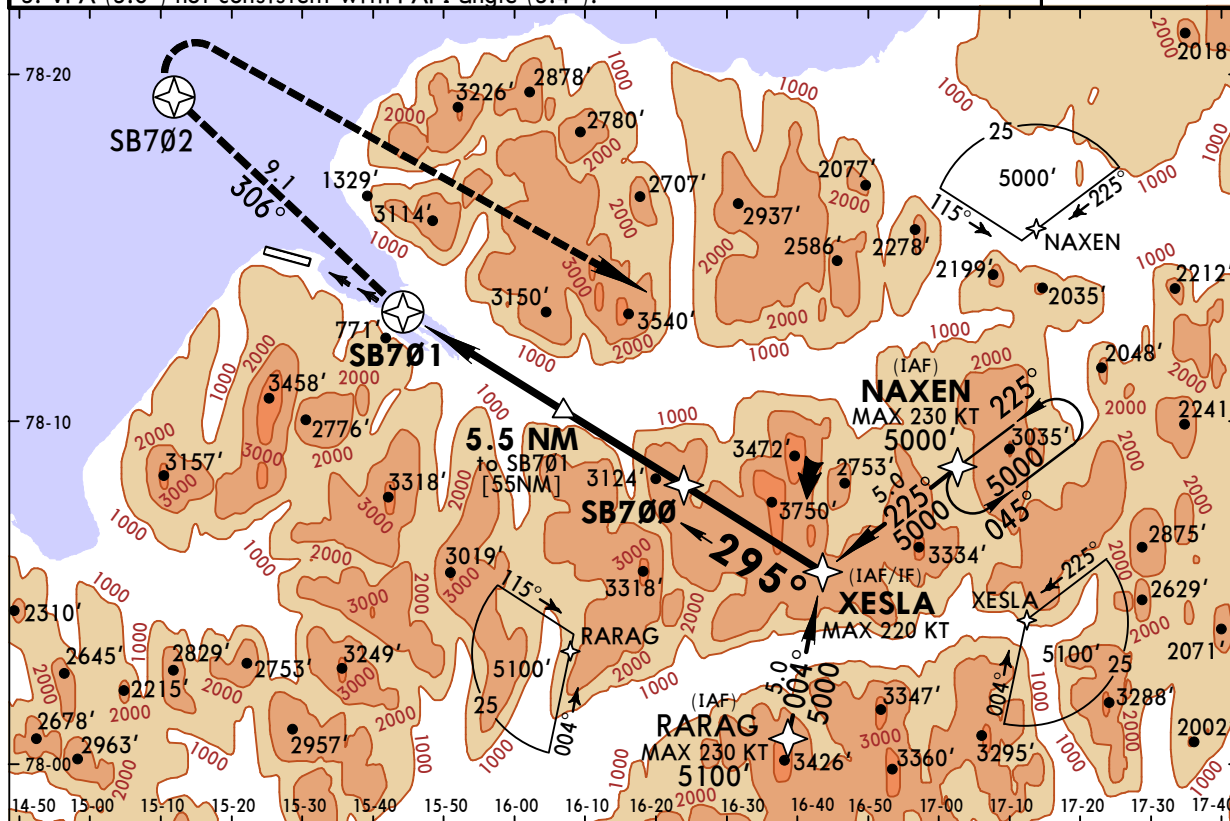
MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard		STRAIGHT-IN LANDING RWY 10
		LNAV
		C: 1310' (1239')
DA(H) AB: 1110' (1039')		D: 1370' (1299')
		ALS out
A	RVR 1500m	
B		
C	CMV 5000m	
D		

ENSB/LYR
LONGYEARJEPPesen
9 SEP 16 (12-3) Eff 15 SepSVALBARD, NORWAY
RNAV (GNSS) Rwy 28

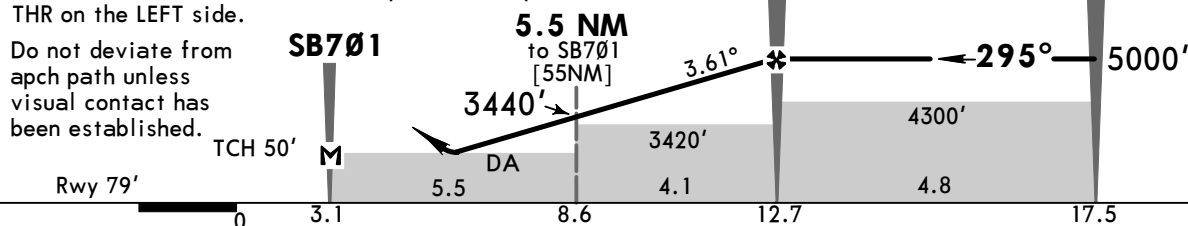
BRIEFING STRIP

LONGYEAR Information					
RNAV	Final Apch Crs 295°	Procedure Alt SB700 5000' (4921')	LNAV DA(H) Refer to Minimums	Apt Elev 94'	
MISSED APCH: Proceed to SB702 then turn RIGHT direct to NAXEN and enter holding at 5000'.					TAA 25 NM IAF
Alt Set: hPa Rwy Elev: 3 hPa Trans level: By ATC Trans alt: 5000'					
1. Final approach track offset 17° from rwy centerline. 2. Procedure does not comply with PANS OPS criteria for STRAIGHT IN approach. 3. VPA (3.6°) not consistent with PAPI angle (3.4°).					



VSS penetrated by terrain from 5.7 NM to 4.5 NM prior to THR on the RIGHT side and chimney at 1.7 NM prior to THR on the LEFT side.

Do not deviate from apch path unless visual contact has been established.



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.61°	447	575	639	767	894	1022
MAP at SB701						

Standard

STRAIGHT-IN LANDING RWY 28

CIRCLE-TO-LAND

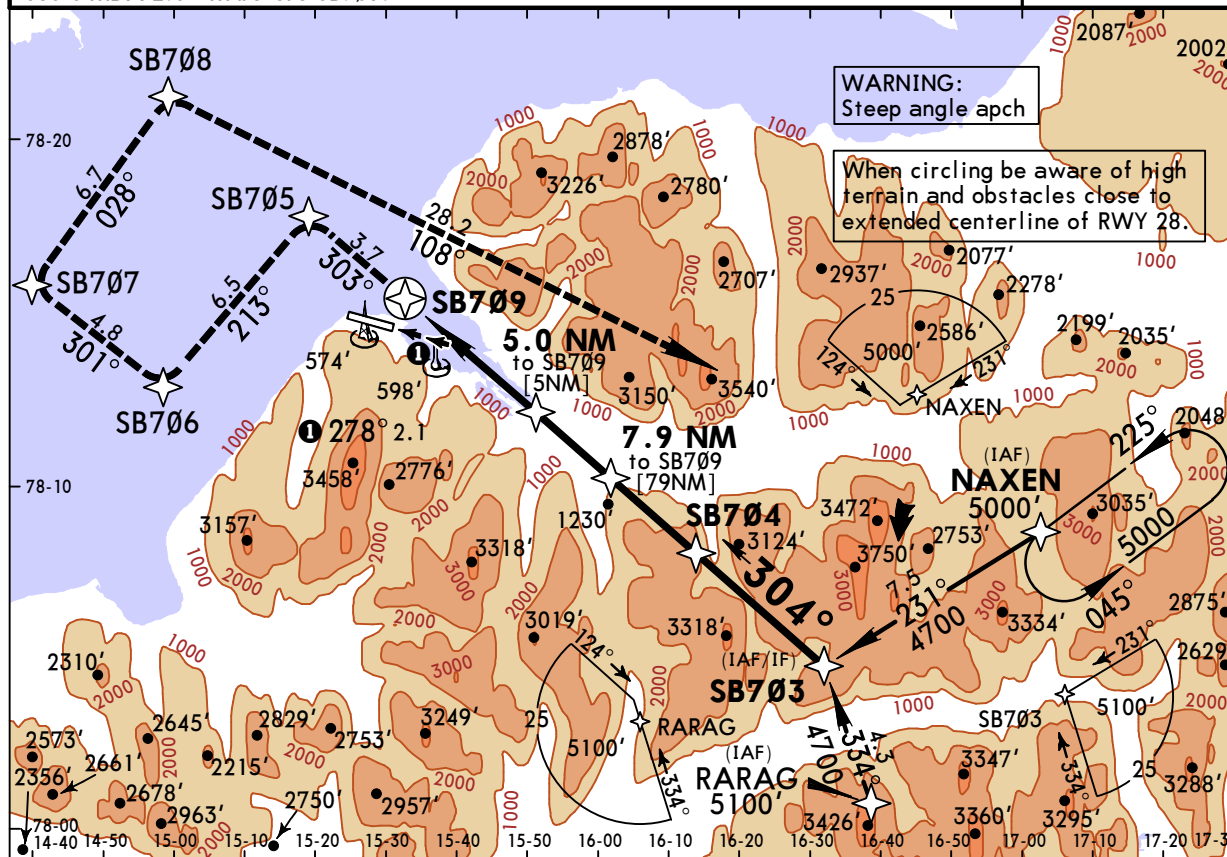
LNAV MACG mim 5.0%		LNAV MACG mim 4.0%		LNAV MACG mim 2.5%		Not authorized South of airport	
DA(H) C: 1450' (1371') D: 1510' (1431')		AB: 1430' (1351') DA(H) C: 1480' (1401') D: 1540' (1461')		A: 1470' (1391') B: 1490' (1411') DA(H) C: 1530' (1451') D: 1570' (1491')			
ALS out		ALS out		ALS out		Max Kts	MDA(H) VIS
A	NOT APPLICABLE	CMV 5000m	CMV 5000m	100	1470' (1376')	5000m	
B				135	2040' (1946')	5000m	
C				180	3560' (3466')	5000m	
D				205	3560' (3466')	5000m	
CMV 5000m							

ENSB/LYR
LONGYEARJEPPesen
9 SEP 16
Eff 15 Sep 12-4 CAT A & BSVALBARD, NORWAY
RNAV (GNSS) A

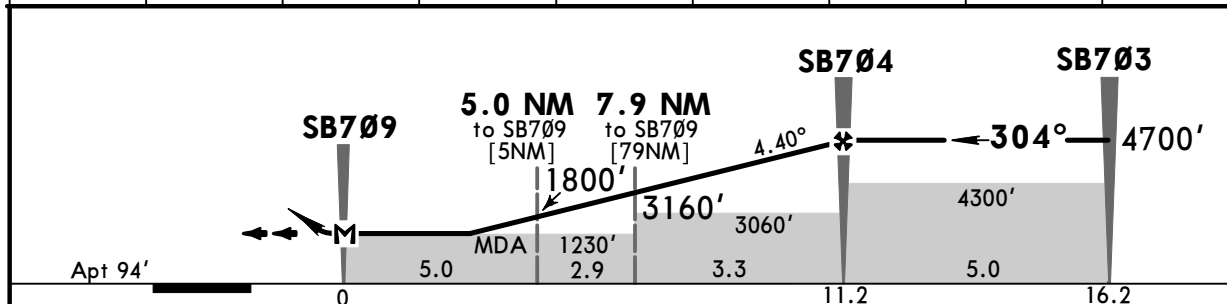
BRIEFING STRIP

LONGYEAR Information
118.1 119.850

RNAV	Final Apch Crs 304°	Procedure Alt SB704 4700' (4606')	MDA(H) 650' (556')	Apt Elev 94'	TAA 25 NM IAF
MISSED APCH: Proceed to SB705 then to SB706 then to SB707 then to SB708 then to NAXEN. Enter holding climbing to 5000'.					
Alt Set: hPa Apt Elev: 3 hPa Trans level: By ATC Trans alt: 5000' 1. VPA (4.40°) not consistent with PAPI angle (3.4°). 2. The published angle intersects MDA 2.6 NM before SB709.					



DIST to SB709	4	5	6	7	8	9	10	11
ALTITUDE	1340'	1800'	2270'	2740'	3200'	3670'	4130'	4600'



Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart	SB705 LT
Descent Angle 4.40°	545	701	779	935	1091	1247		
MAP at SB709								

PANS OPS

Standard			CIRCLE-TO-LAND	
			AUTH required	
			120KT/25° Bank during circling	
			Not authorized	
			South of airport	
		Max Kts	MDA(H)	VIS
	A	100	650' (556')	1500m
	B	120	650' (556')	1600m
	C		NOT APPLICABLE	
	D			

BGTL/THU
THULE AB**JEPPESEN**
18 MAY 18 **10-3** **Eff 24 May****THULE, GREENLAND**
RNAV SIDApt Elev
252'

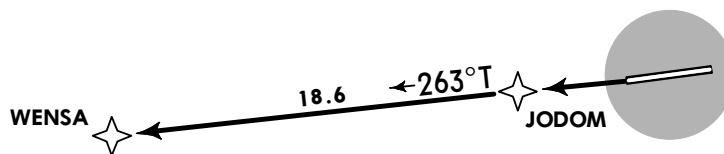
Trans level: FL90 Trans alt: 6500'

1. **GPS required.**
2. **RNAV 1.**
3. **RADAR required for non-GPS equipped aircraft.**
4. **Special aircrew and aircraft authorization required.**
5. Effective by NOTAM.
6. CAUTION: High terrain in all quadrants.
7. Severe turbulence may occur near ice cap in area True N-S. EXPECT severe downdrafts on final approach when wind speeds exceed 30 KT from 125°T-225°T.
8. Procedure design based on true course and radials. Magnetic variation not applied.
9. IAP and departure procedure altitudes are not temperature corrected.
10. Minimum vectoring altitudes are temperature corrected at -10° C/14° F in all areas except for a 3 NM radius around the ASR antenna and from the 214°T radial clockwise to 304°T radial from 3 NM to 60 NM.

THULE 1 RNAV DEPARTURE

[THULE1]

(RWY 26T)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 26T: Standard (or lower than standard,
if authorized).

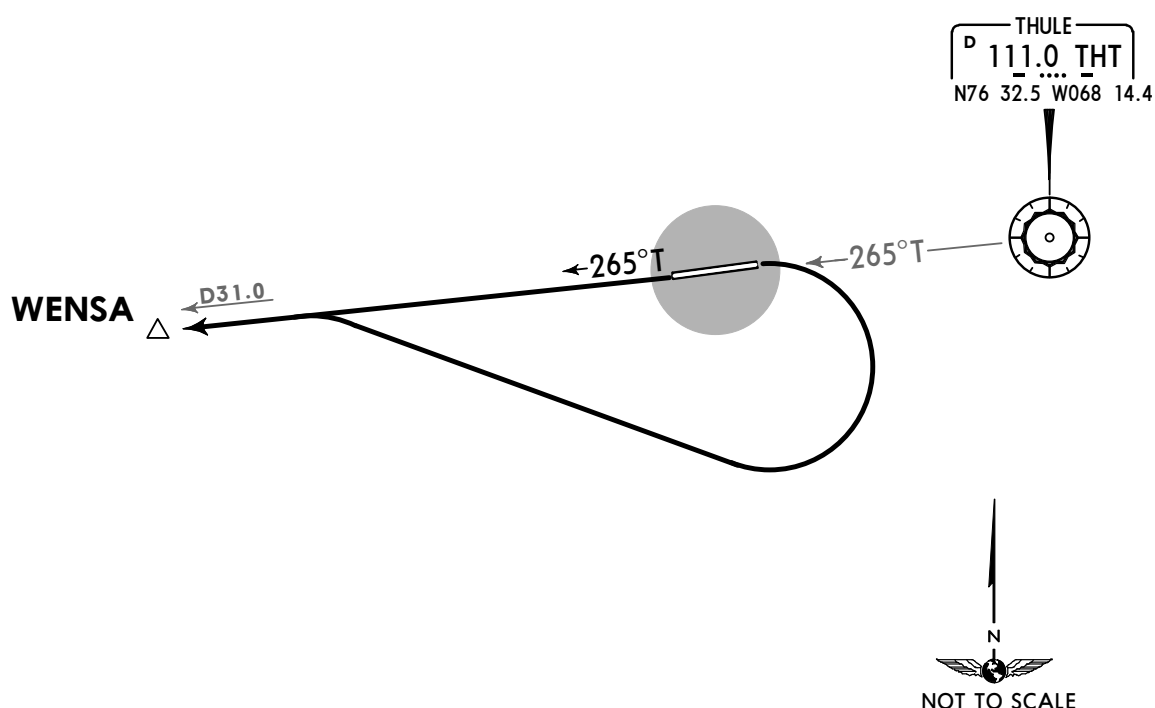
INITIAL CLIMB

Climb direct JODOM, then track 263°T to WENSA, MAINTAIN FL100. EXPECT further ATC instructions
10 minutes after departure.

BGTL/THU
THULE AB**JEPPESEN**
18 MAY 18 **(10-3A)** **Eff 24 May****THULE, GREENLAND****SID**Apt Elev
252'

Trans level: FL90 Trans alt: 6500'

1. CAUTION: High terrain in all quadrants.
2. Procedure design based on true course and radials. Magnetic variation not applied.
3. Departure procedure altitudes are not temperature corrected.
4. Minimum vectoring altitudes are temperature corrected at -10°C/14°F in all areas except for a 3NM radius around the ASR antenna and from 214°T radial clockwise to 304°T radial from 3 NM to 60 NM.
5. Severe turbulence may occur near ice cap in area True N-S. EXPECT severe downdrafts on final approach when wind speeds exceed 30 KT from 125°T-225°T.
6. Rwy 08T departure not authorized for CAT E aircraft.

WENSA 2 DEPARTURE
[WENSA2]**SPEED RESTRICTION**Rwy 08T: Do not exceed 250 KIAS
until intercepting THT R-265T.This SID requires take-off minimums
(for standard minimums, refer to airport chart):Rwy 08T: Standard (or lower than standard, if
authorized) with minimum climb of 880'/NM to 6000'
or 2400-3 for climb in visual conditions.Rwy 26T: Standard (or lower than standard, if
authorized) .

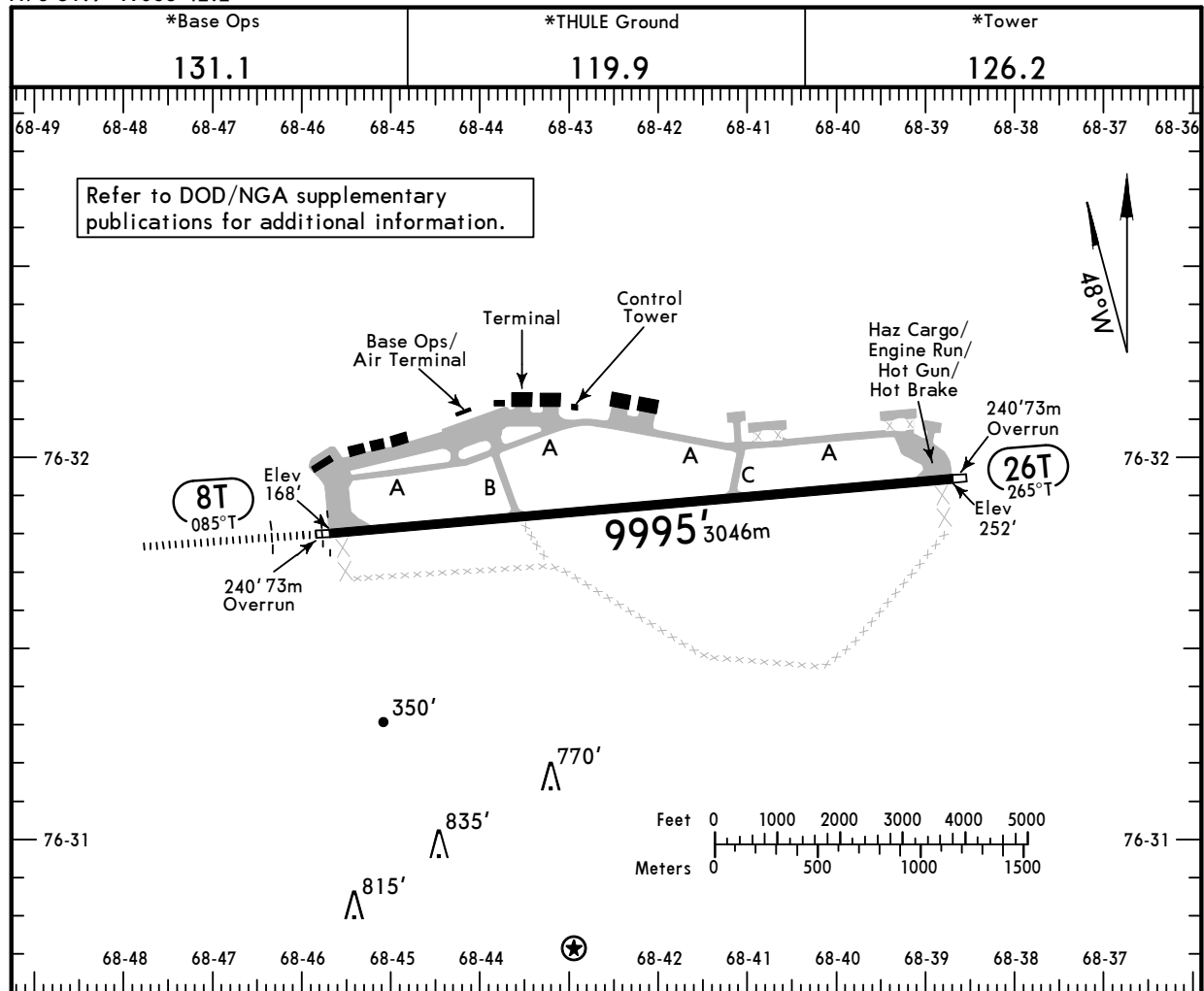
Gnd speed-KT	75	100	150	200	250	300
880' per NM	1100	1467	2200	2933	3667	4400

OBSTACLESRwy 08T: Contour lines 448' to 3625' from DER, 346'
LEFT to 779' RIGHT of centerline, up to 0' AGL/
334' MSL. Terrain 64' to 4672' from DER, 1757' LEFT
to 517' RIGHT of centerline, up to 376' MSL.

RWY	VISUAL CLIMB OVER AIRPORT
08T	Climb in visual conditions to cross Thule AB at or above 2500' before proceeding on course.
RWY	ROUTING
08T	Execute climbing RIGHT turn to FL100, intercept THT R-265T outbound to WENSA. EXPECT further ATC instructions 10 minutes after departure.
26T	Intercept THT R-265T outbound to WENSA, climb and MAINTAIN FL100. EXPECT further ATC instructions 10 minutes after departure.

BGTL/THU
 Apt Elev **252'**
 N76 31.9 W068 42.2


JEPPesen

 6 OCT 17 **(10-9)** **Eff 12 Oct**
THULE, GREENLAND**THULE AB**
 Refer to DOD/NGA supplementary
 publications for additional information.
ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			
		Threshold	Landing Beyond	Take-Off	Width
8T 26T	HIRL ALSF-I REIL PAPI-L (angle 3.00°)		9057' 2760m		150'
	HIRL				46m

1 No 180° turns.
Military**TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE**

	All Rwy's	
	Adequate Vis Ref	STD
1 & 2 Eng	1/4	1
3 & 4 Eng		1/2

OBSTACLE DP: Diverse departures not authorized, use WENSA ONE or VCOA.

TAKE-OFF OBSTACLES: Rwy 08T: Terrain beginning 130' from DER, 25' left of centerline, 259' MSL, terrain 448' from DER, 346' left of centerline, 234' MSL, terrain 4672' from DER, 1757' left of centerline, 376' MSL, terrain 64' from DER, 517' right of centerline, 255' MSL, terrain 2674' from DER, 563' right of centerline, 304' MSL, terrain 3625' from DER, 779' right of centerline, 334' MSL.

Rwy 08T for climb in visual conditions 2400-3, Climb visually over Thule airport to remain within 6 NM. Cross Thule airport at or above 2500' MSL, then proceed on course. Maximum airspeed 250 knots. Do not enter restricted airspace to the east of the runway. Use caution high terrain in all quadrants. Aircrews must notify ATC prior to executing this VCOA departure.

BGTL/THU

6 OCT 17

 **JEPPESEN****10-9S****Eff 12 Oct****THULE, GREENLAND****Standard****THULE AB**

STRAIGHT-IN RWY		A	B	C	D
8T	ILS Z	719' (515')	719' (515')	719' (515')	719' (515')
	FULL/Limited	1³/₈	1³/₈	1³/₈	1³/₈
	ALS out	1⁷/₈	1⁷/₈	1⁷/₈	1⁷/₈
	ILS Y ❶	509' (305')	509' (305')	509' (305')	509' (305')
	FULL/Limited	5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1¹/₈	1¹/₈	1¹/₈	1¹/₈
	ILS X ❷	493' (289')	493' (289')	493' (289')	493' (289')
	FULL/Limited	5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	LOC Z ❸	780' (576')	780' (576')	780' (576')	780' (576')
		1	1	1¹/₄	1¹/₄
	ALS out	1	1	1⁵/₈	1⁵/₈
	LOC Y ❶ ❸	560' (356')	560' (356')	560' (356')	560' (356')
		5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	LOC X ❷ ❸	540' (336')	540' (336')	540' (336')	540' (336')
		5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	RNAV ❹	960' (756')	960' (756')	960' (756')	960' (756')
		1	1	1³/₄	1³/₄
	ALS out	1	1¹/₄	2	2
	VOR DME ❺	1020' (816')	1020' (816')	1020' (816')	1020' (816')
		1	1	1⁷/₈	1⁷/₈
	ALS out	1	1¹/₄	2¹/₂	2¹/₂

❶ Missed apch climb gradient min 300'/NM to 1600'.

❷ Missed apch climb gradient min 300'/NM to 7000'.

❸ Continuous Descent Final approach.

CIRCLE-TO-LAND ❹	90 KT	120 KT	140 KT	165 KT
After all other approaches ❺	1140' (888')	1140' (888')	1280' (1028')	1440' (1188')
	❻ 1 ¹ / ₄	❻ 1 ¹ / ₄	3	3

❹ Not authorized North of rwy.

❺ CAUTION: When VGSI Rwy 26T inop, circling to Rwy 26T NIGHT not authorized.

❻ Or higher minimums of preceding straight-in approach.

TAKE-OFF

	All Rwys	
	Adequate Vis Ref	STD
1 & 2 Eng	1/4	1
3 & 4 Eng		1/2

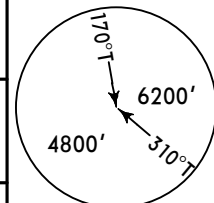
BGTL/THU
THULE AB

JEPPESEN
23 MAR 18
Eff 29 Mar **11-1** ILS

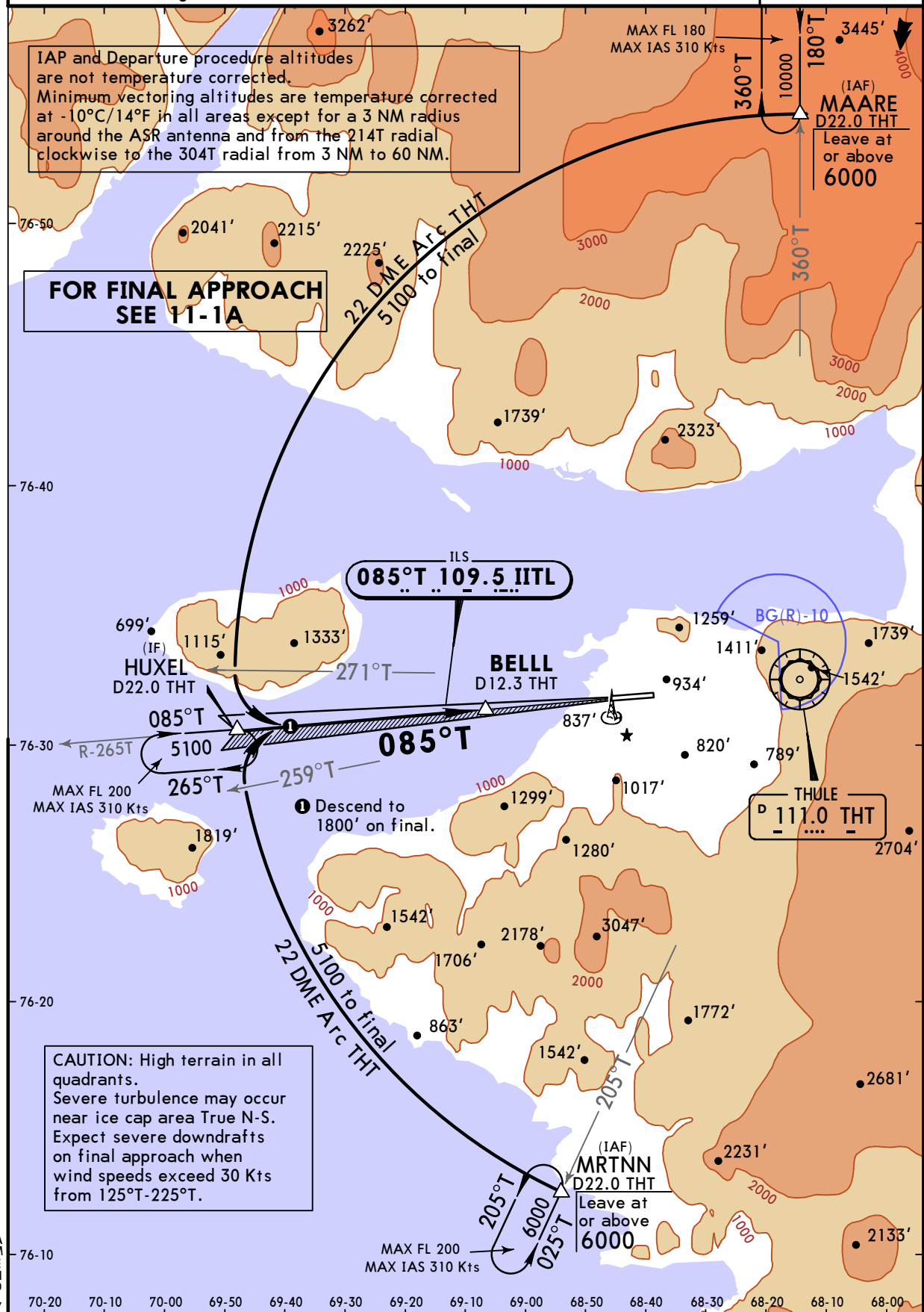
SEN THULE, GREENLAND
DLS or LOC DME Z Rwy 8 TRUE

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-1A	ILS DA(H) Refer to chart 11-1A	Apt Elev 252' TDZE 204'	

Alt Set: IN Trans level: FL 90 Trans alt: 6500'
 1. **Special Aircrew & Aircraft Certification Required.** 2. EMERG SAFE ALT 100 NM
 8300'. 3. All bearings are true.



MSA
THT VOR



CHANGES: None.

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BGTL/THU
THULE AB

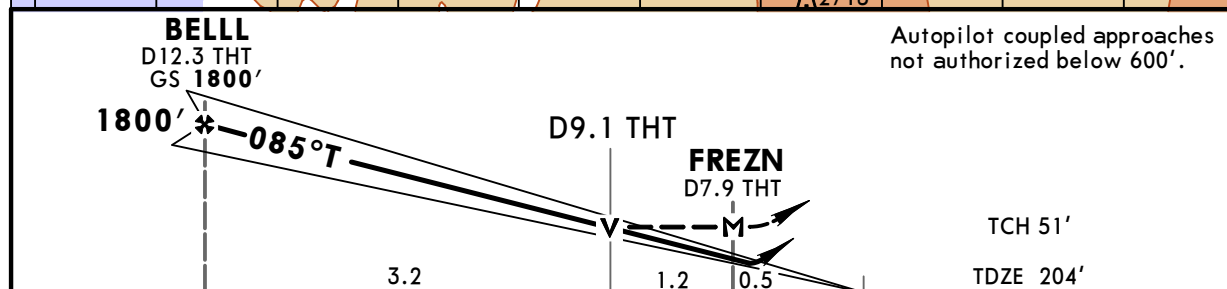
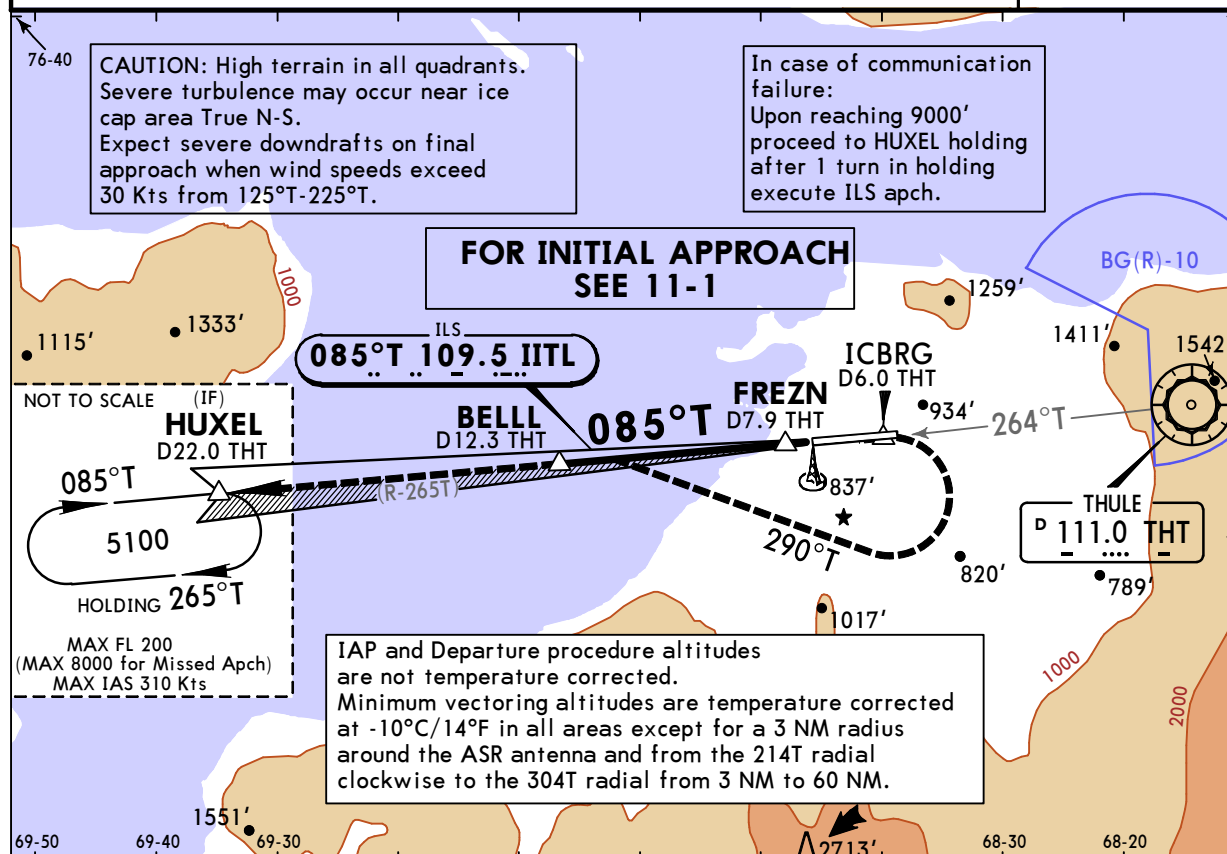
23 MAR 18
Eff 29 Mar

JEPPESSEN

(11-1A) IL

EN THULE, GREENLAND
ILS or LOC DME Z Rwy 8 TRUE

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
LOC IITL 109.5	Final Aptch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 719' (515')	Apt Elev 252'	
MISSED APCD: Climb via THT R-264T to ICBRG/D6.0 THT, then turn RIGHT track 290°T climbing to 5100' and intercept the THT R-265T to HUXEL and hold, continue climb in hold to 5100'. Radar monitoring required.					
Alt Set: IN Trans level: FL 90 Trans alt: 6500' 1. Special Aircrew & Acft Certification Required. 2. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true. 5. VGSI and descent angle not coincident.					



Gnd speed-Kts	70	90	100	120	140	160		ICBRG THT on 111.0 R-2641
GS 3.00°	372	478	531	637	743	849		
MAP at FREZN								

Military		STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND	
		ILS		LOC (GS out)		Not authorized North of rwy	
		DA(H) 719' (515')		MDA(H) 780' (576')			
		FULL	ALS out		ALS out	Max Kts	MDA(H) _____ VIS _____
A	13 ³ / ₈	17 ⁷ / ₈	1 ¹ / ₂	1	90	1140' (888')	1 ¹ / ₄
B					120		
C			1 ¹ / ₄	1 ⁵ / ₈	140	1280' (1028')	3
D					165	1440' (1188')	3

CHANGES: Missed approach.

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BGTL/THU
THULE AB

JEPPESSEN
23 MAR 18
Eff 29 Mar

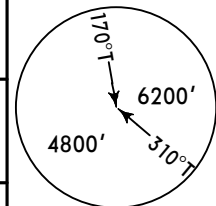
THULE, GREENLAND
DME Y Rwy 8 TRUE

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-2A	ILS DA(H) Refer to chart 11-2A	Apt Elev 252' TDZE 204'	

Alt Set: IN Trans level: FL 90 Trans alt: 6500'

1. **Special Aircrew & Aircraft Certification Required.**

2. EMERG SAFE ALT 100 NM 8300'. 3. All bearings are true.



MSA
THT VOR

IAP and Departure procedure altitudes are not temperature corrected. Minimum vectoring altitudes are temperature corrected at -10°C/14°F in all areas except for a 3 NM radius around the ASR antenna and from the 214T radial clockwise to the 304T radial from 3 NM to 60 NM.

**FOR FINAL APPROACH
SEE 11-2A**

**① MISSED APCH CLIMB GRAD
MIM 300'/NM TO 1600'**

(IAF)
MAARE
D22.0 THT
Leave at
or above
6000

ILS
085°T 109.5 IITL

BELL
012.3 TH

BG(R)-

THULE
D 111.0 THT

MRTNN
D22.0 TH

Leave at
or above

CAUTION: High terrain in all quadrants.
Severe turbulence may occur near ice cap area True N-S. Expect severe downdrafts on final approach when wind speeds exceed 30 Kts from 125°T-225°T.

**A
M
E
N
D
7**

CHANGES: None.

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BGTL/THU
THULE AB

23 MAR 18
Eff 29 Mar

JEPPESEN

11-2A

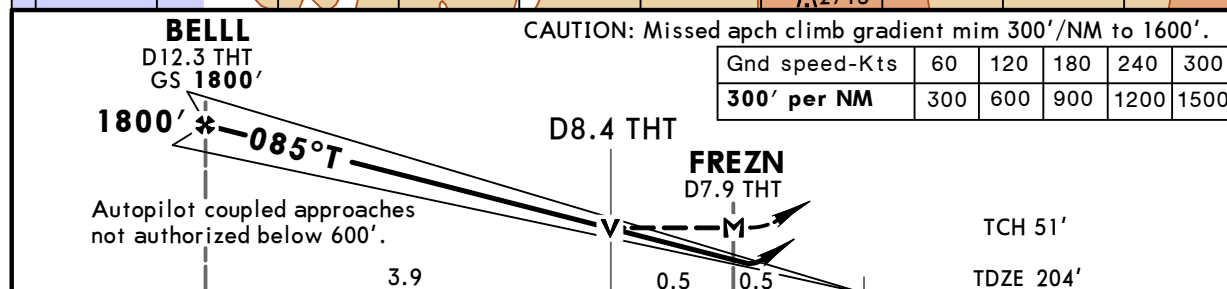
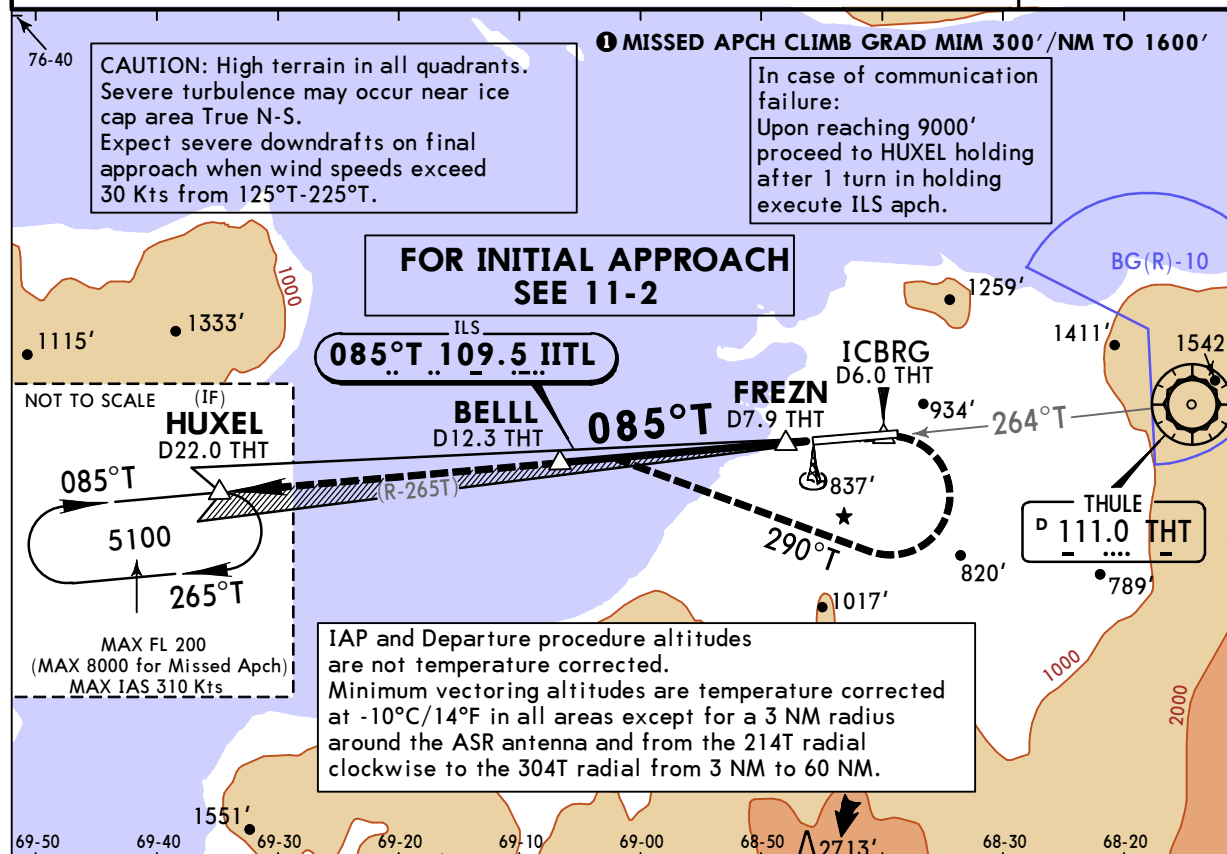
① ILS or LOC DME Y Rwy 8 TRUE

THULE, GREENLAND

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 509' (305')	Apt Elev 252'	TDZE 204'
MISSED APCH: Climb via THT R-264T to ICBRG/D6.0 THT, then turn RIGHT track 290°T climbing to 5100' and intercept the THT R-265T to HUXEL and hold, continue climb in hold to 5100'. Radar monitoring required.					
Alt Set: IN		Trans level: FL 90		Trans alt: 6500'	
1. Special Aircrew & Acft Certification Required. 2. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true. 5. VGSI and descent angle not coincident.					



MSA
THT VOR



Gnd speed-Kts	70	90	100	120	140	160		ICBRG THT on 111.0 ↑ R-2641
GS 3.00°	372	478	531	637	743	849		
MAP at FREZN								

Military

STRAIGHT-IN LANDING RWY 8T

Missed apch climb gradient min 300'/NM to 1600'

CIRCLE-TO-LAND

Not authorized North of rwy

DA(H) 509' (305')			MDA(H) 560' (356')		Max Kts	MDA(H)	VIS
FULL		ALS out		ALS out			
A	5/8	1 1/8	1/2	1	90	1140' (888')	1 1/4
B					120		
C			5/8		140	1280' (1028')	3
D					165	1440' (1188')	3

CHANGES: Missed approach.

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BGTL/THU
THULE AB

JEPPESEN

6 OCT 17

Eff 12 Oct

(11-3)

ILS or LOC DME X Rwy 8 TRUE

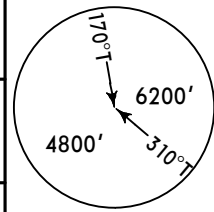
THULE, GREENLAND

BRIEFING STRIP™

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-3A	ILS DA(H) Refer to chart 11-3A	Apt Elev 252' TDZE 204'	
Alt Set: IN Trans level: FL 90 Trans alt: 6500'					
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true.					

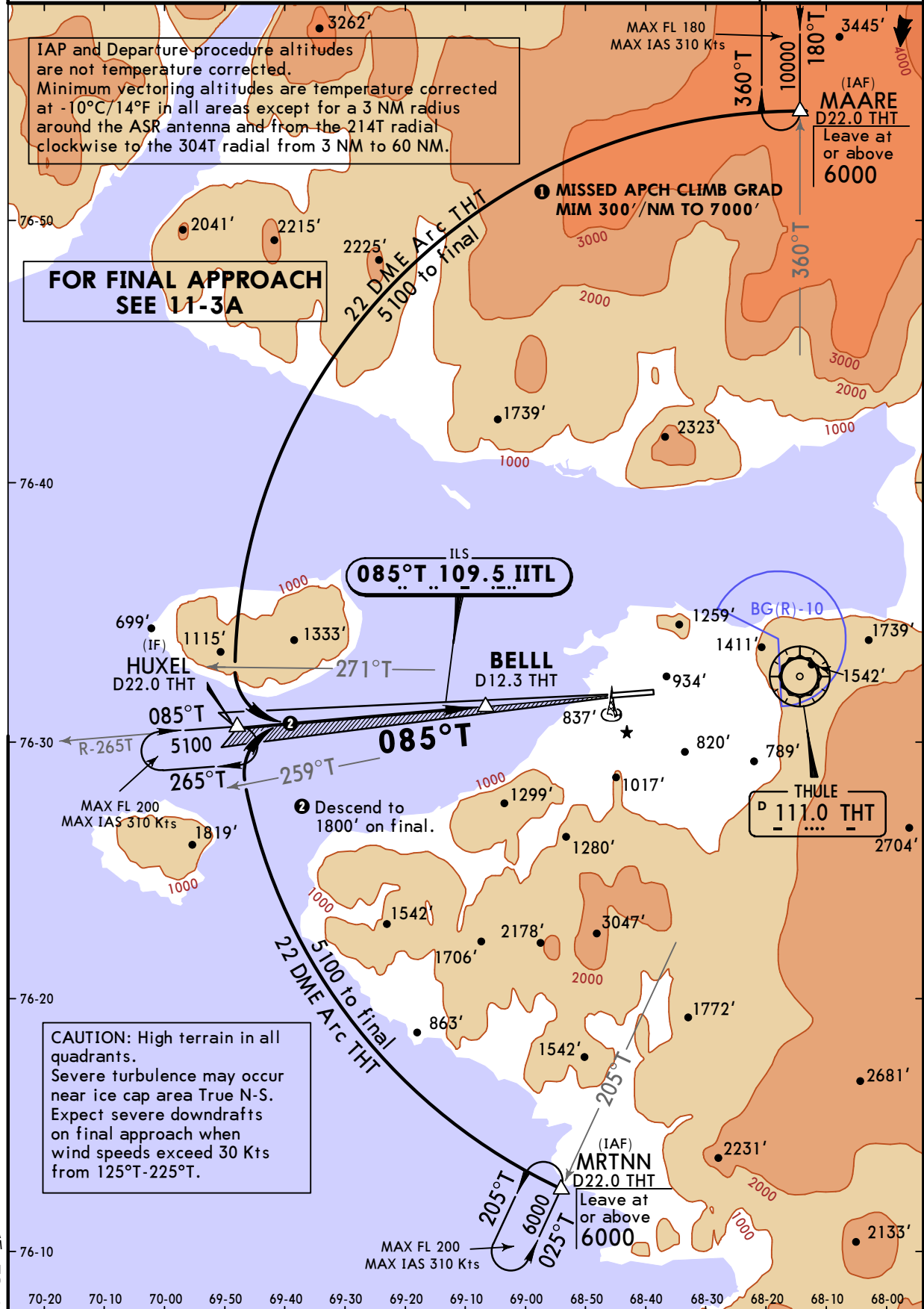
170°T
6200'
4800'
310°T

MSA
THT VOR



IAP and Departure procedure altitudes are not temperature corrected.
Minimum vectoring altitudes are temperature corrected at -10°C/14°F in all areas except for a 3 NM radius around the ASR antenna and from the 214T radial clockwise to the 304T radial from 3 NM to 60 NM.

FOR FINAL APPROACH
SEE 11-3A



CAUTION: High terrain in all quadrants.
Severe turbulence may occur near ice cap area True N-S.
Expect severe downdrafts on final approach when wind speeds exceed 30 Kts from 125°T-225°T.

A
M
E
N
D

6

CHANGES: Altitudes.

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BGTL/THU
THULE AB6 OCT 17
Eff 12 Oct

JEPPESEN

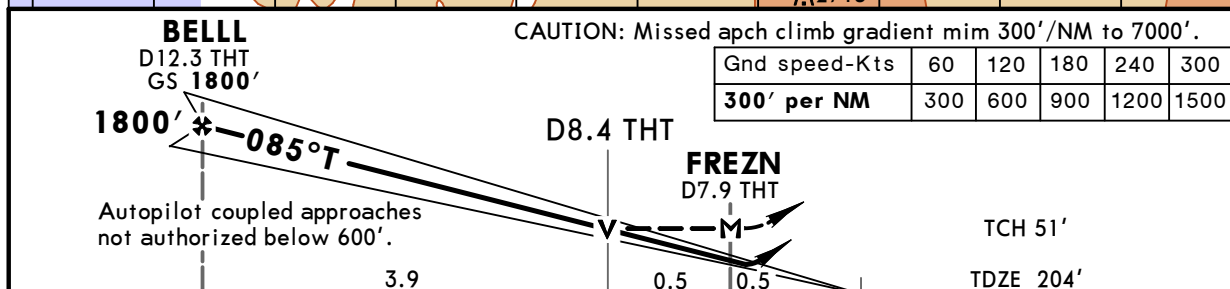
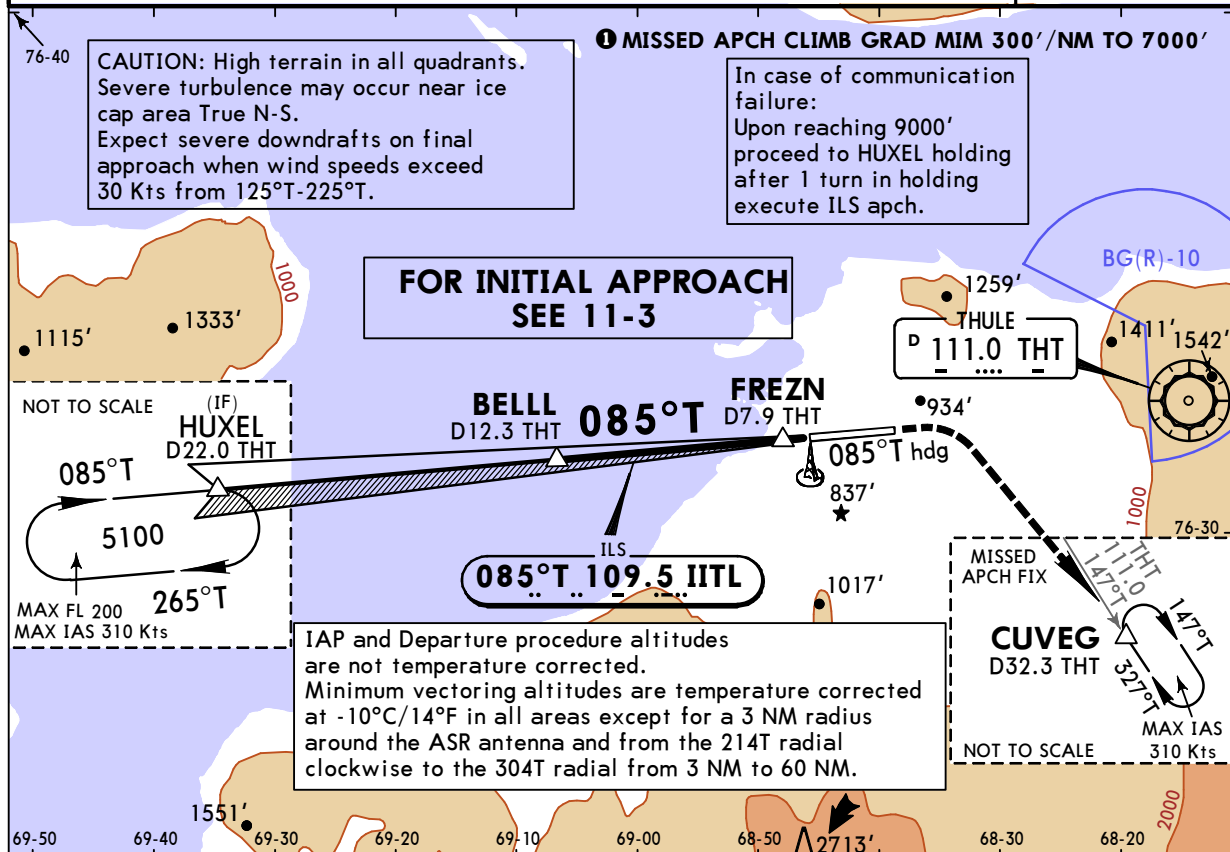
(11-3A)

ILS or LOC DME X Rwy 8 TRUE

THULE, GREENLAND

BRIEFING STRIP

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 493' (289')	Apt Elev 252' TDZE 204'	 MSA THT VOR
MISSED APCH: Climb to 1100' via heading 085°T, then climbing RIGHT turn to 9000' to CUVEG. Expect radar vectors. RNAV or ATC radar monitoring required.					
Alt Set: IN Trans level: FL 90 Trans alt: 6500'					
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 4. EMERG SAFE ALT 100 NM 8300'. 5. All bearings are true. 6. VGSI and descent angle not coincident.					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-I REIL PAPI	1100' via 085°T hdg
GS 3.00°	372	478	531	637	743	849		
MAP at FREZN/D7.9 THT								

Military STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND	
Missed apch climb gradient mim 300'/NM to 7000'				Not authorized North of rwy	
ILS		LOC (GS out)			
DA(H) 493' (289')		MDA(H) 540' (336')			
FULL		ALS out		Max Kts	
				90	1140' (888') 1 1/4
				120	
				140	1280' (1028') 3
				165	1440' (1188') 3

BGTL/THU
THULE AB

6 OCT 17

Eff 12 Oct

(12-1)

JEPPESEN

THULE, GREENLAND
RNAV (GPS) Rwy 8 TRUE

BRIEFING STRIP

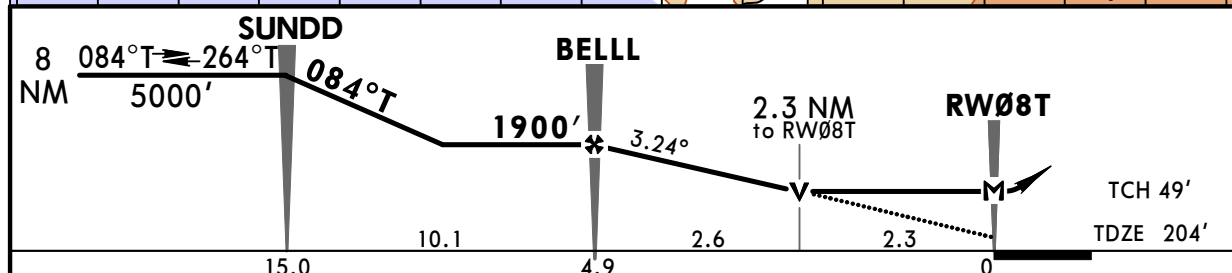
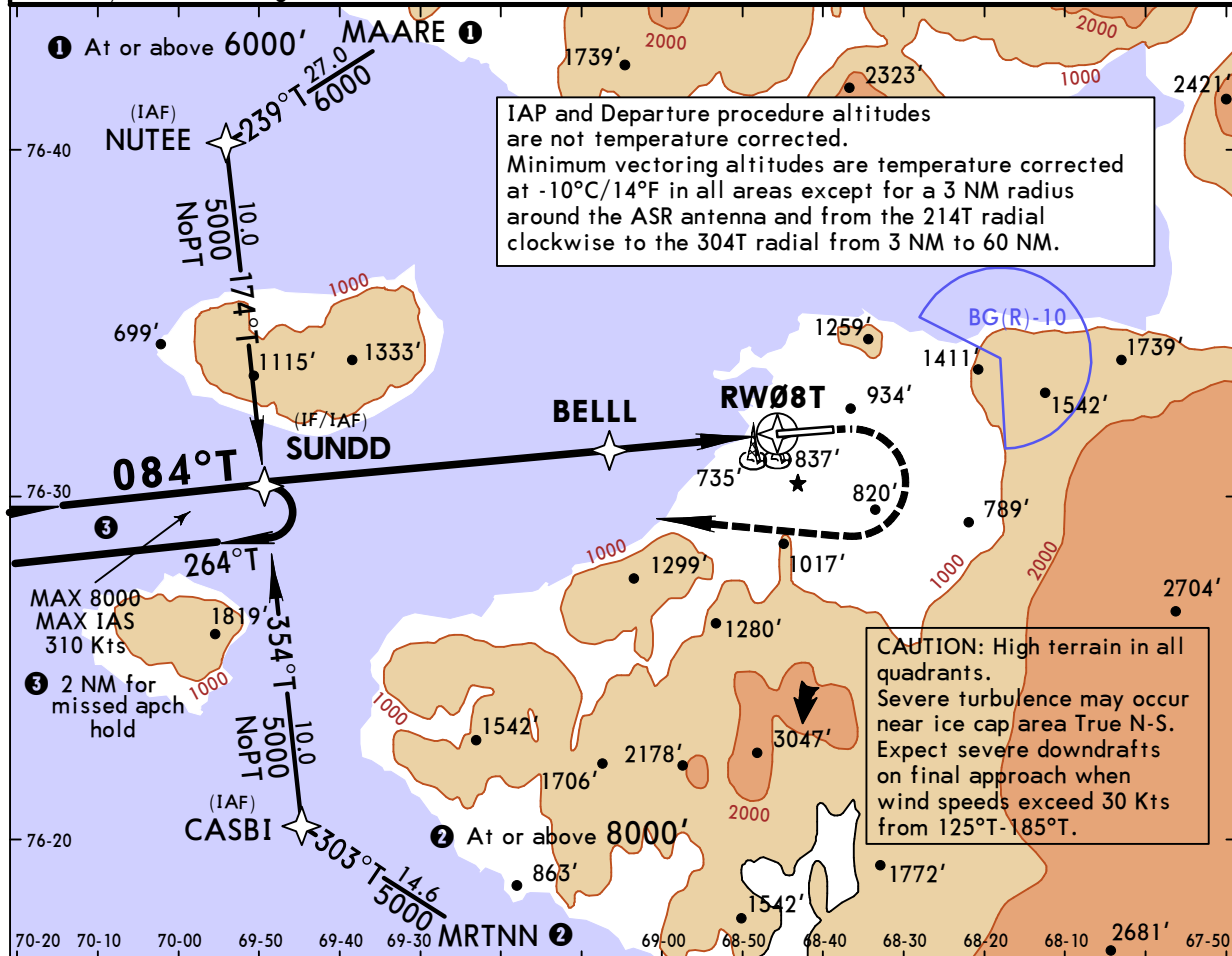
*THULE Approach (R)		*THULE Tower		*Ground		5000' MSA RW08T
134.1		126.2		119.9		
RNAV	Final Aptch Crs 084°T	Minimum Alt BELL 1900' (1696')	LNAV MDA(H) 960' (756')	Apt Elev 252' TDZE 204'		
MISSED APCH: Climbing RIGHT turn to 5000' direct SUNDD, do not exceed 240 KIAS until turn completion, and hold, continue climb in hold to 5000'.						

Alt Set: IN

Trans level: FL 90

Trans alt: 6500'

1. **SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED.** 2. CAUTION: When Rwy 26T VGSi inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. Circling visibility reduction by helicopters not authorized. 5. VGSi and descent angles not coincident (VGSi angle 3.00°/TCH 49'). 6. All bearings are true.



Gnd speed-Kts	70	90	100	120	140	160	ALSF-I	5000'	→	SUNDD
Descent Angle	3.24°	401	516	573	688	803	917	REIL	→	
MAP at RW08T								PAPI	→	

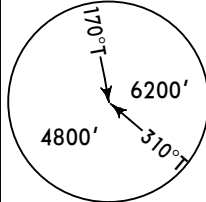
Military				STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND			
				LNAV				Not authorized North of rwy			
				MDA(H) 960' (756')				Max Kts			
				ALS out				MDA(H)		VIS	
A	1/2				1			90	1140' (888')	1 1/4	
B	3/4				1 1/4			120			
C								140	1280' (1028')	3	
D	1 3/4				2			165	1440' (1188')	3	

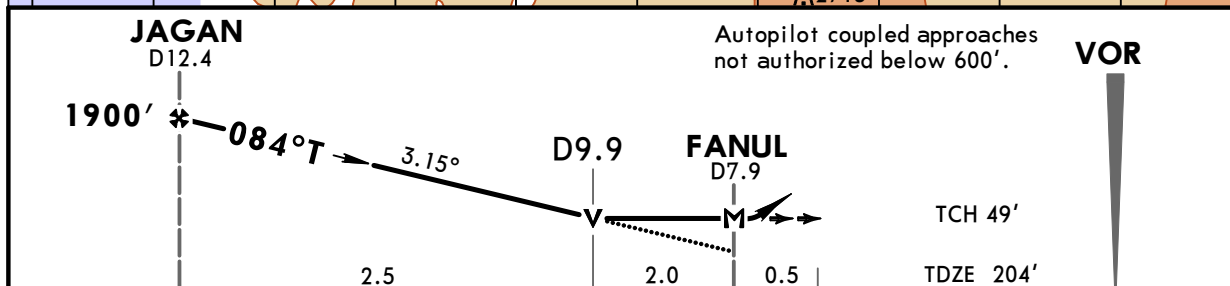
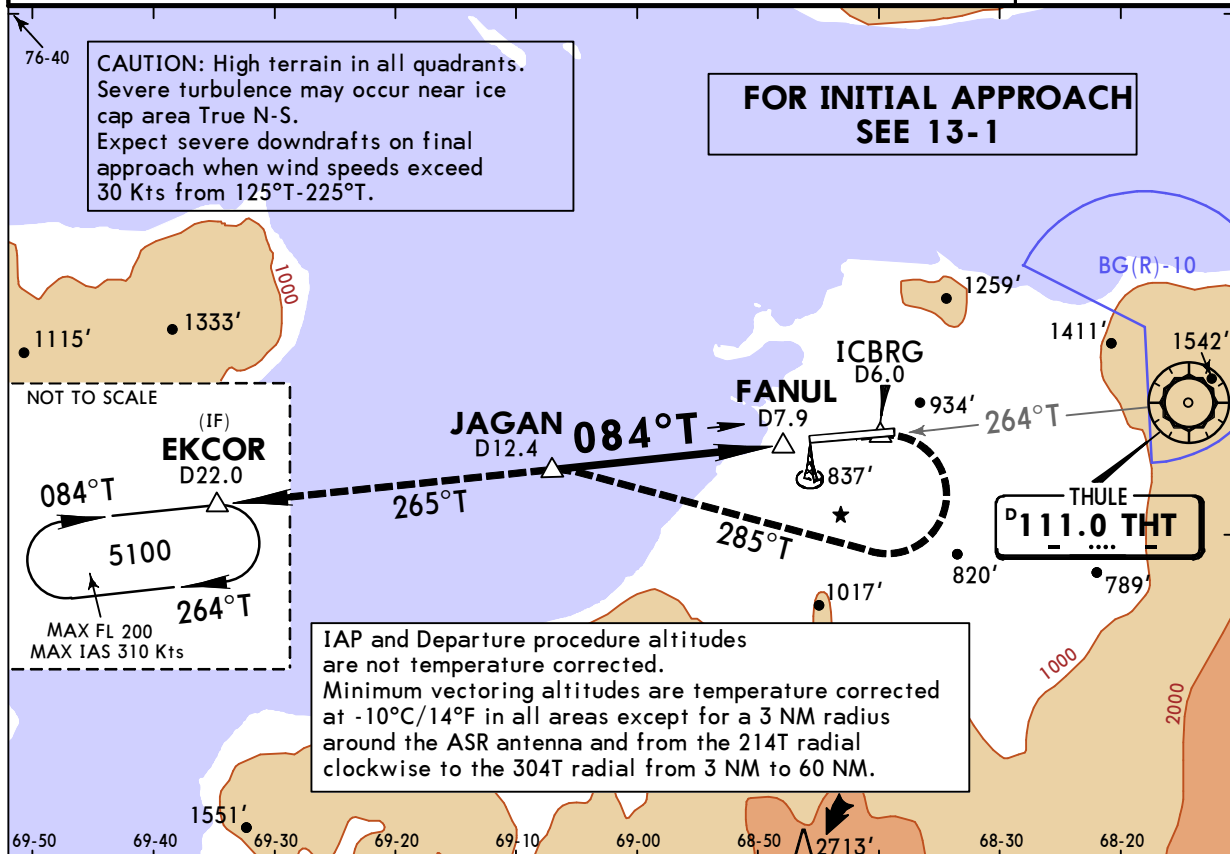
CHANGES: Procedure.

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BGTL/THU
THULE ABJEPPESEN
23 MAR 18
Eff 29 Mar (13-1A)THULE, GREENLAND
VOR DME Rwy 8 TRUE

BRIEFING STRIP

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
VOR THT 111.0	Final Apch Crs 084°T	Minimum Alt JAGAN 1900' (1696')	MDA(H) 1020' (816')	Apt Elev 252' TDZE 204'	 MSA THT VOR
MISSED APCH: Climb via THT R-264T to ICBRG/D6.0, then turn RIGHT track 285°T climbing to 5100' and intercept the THT R-265T outbound to EKCOR and hold, continue climb in hold to 5100'. Radar monitoring required.					
Alt Set: IN Trans level: FL 90 Trans alt: 6500'					
1. Special Aircrew & Aircraft Certification Required. 2. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true.					

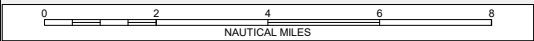


Gnd speed-Kts	70	90	100	120	140	160	ALS F-I REIL PAPI	ICBRG ↑ on 111.0 R-264T	THT 111.0
Descent Angle 3.15°	390	502	557	669	780	892			
MAP at FANUL									

Military STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND			
MDA(H) 1020' (816')				Not authorized North of rwy			
ALS out				Max Kts	MDA(H)	VIS	
A	1/2	1		90	1140' (888')	1 1/4	
B	3/4	1 1/4		120	1280' (1028')	3	
C	1 1/8	2 1/2		140	1440' (1188')	3	
D				165			

CHANGES: Missed approach.

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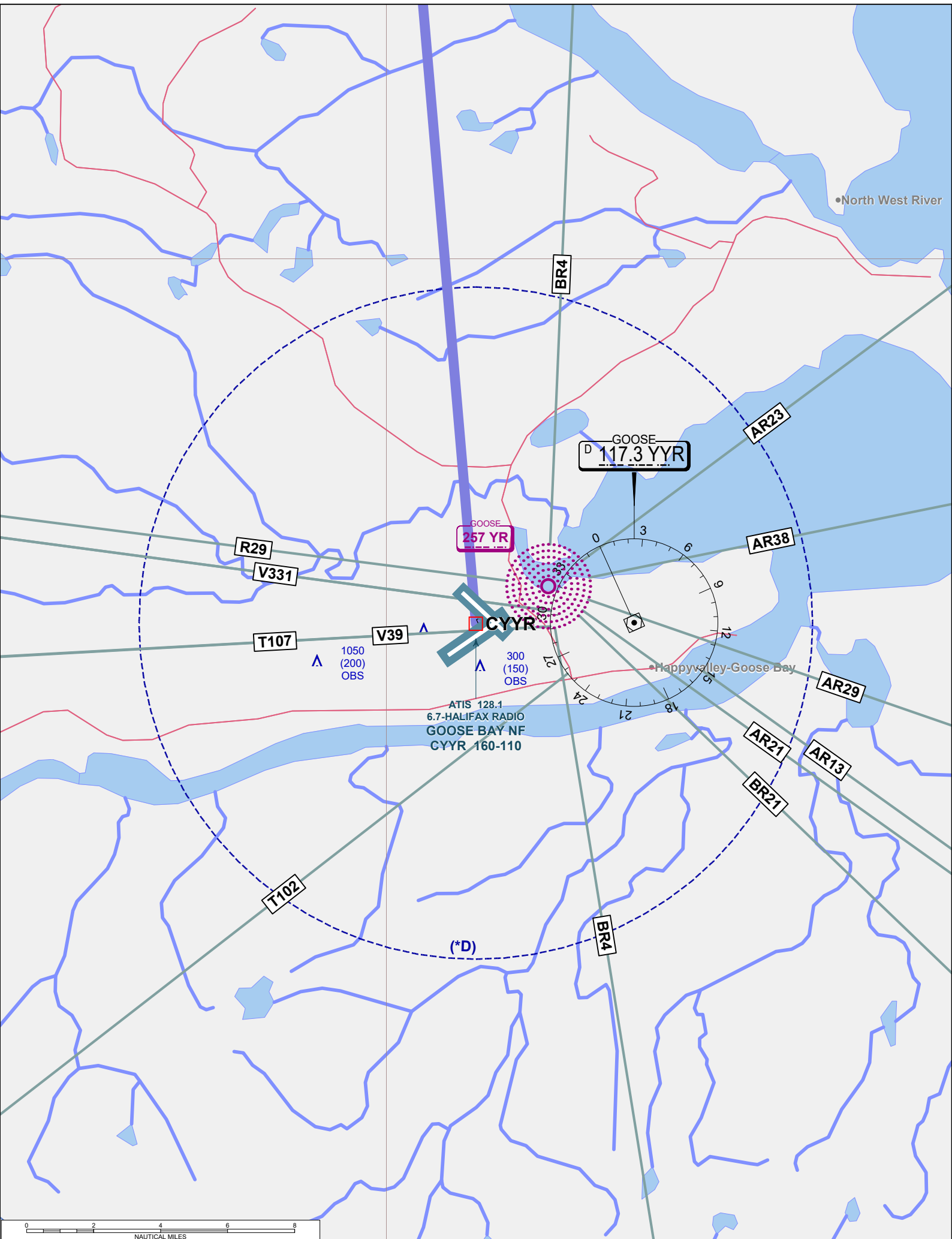
8.0.2 DESTINATION (BGTL -> CYYR): CYYR (Goose Bay)

NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JEPPesen

JeppView 3.6.2.0



BGTL/THU
THULE AB**JEPPESEN**
18 MAY 18 **10-3** **Eff 24 May****THULE, GREENLAND**
RNAV SIDApt Elev
252'

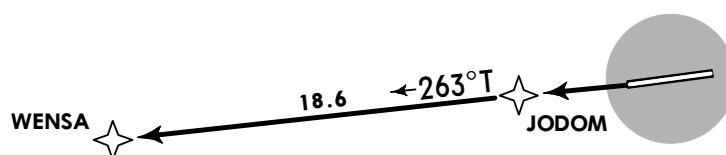
Trans level: FL90 Trans alt: 6500'

1. **GPS required.**
2. **RNAV 1.**
3. **RADAR required for non-GPS equipped aircraft.**
4. **Special aircrew and aircraft authorization required.**
5. Effective by NOTAM.
6. CAUTION: High terrain in all quadrants.
7. Severe turbulence may occur near ice cap in area True N-S. EXPECT severe downdrafts on final approach when wind speeds exceed 30 KT from 125°T-225°T.
8. Procedure design based on true course and radials. Magnetic variation not applied.
9. IAP and departure procedure altitudes are not temperature corrected.
10. Minimum vectoring altitudes are temperature corrected at -10° C/14° F in all areas except for a 3 NM radius around the ASR antenna and from the 214°T radial clockwise to 304°T radial from 3 NM to 60 NM.

THULE 1 RNAV DEPARTURE

[THULE1]

(RWY 26T)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 26T: Standard (or lower than standard,
if authorized).

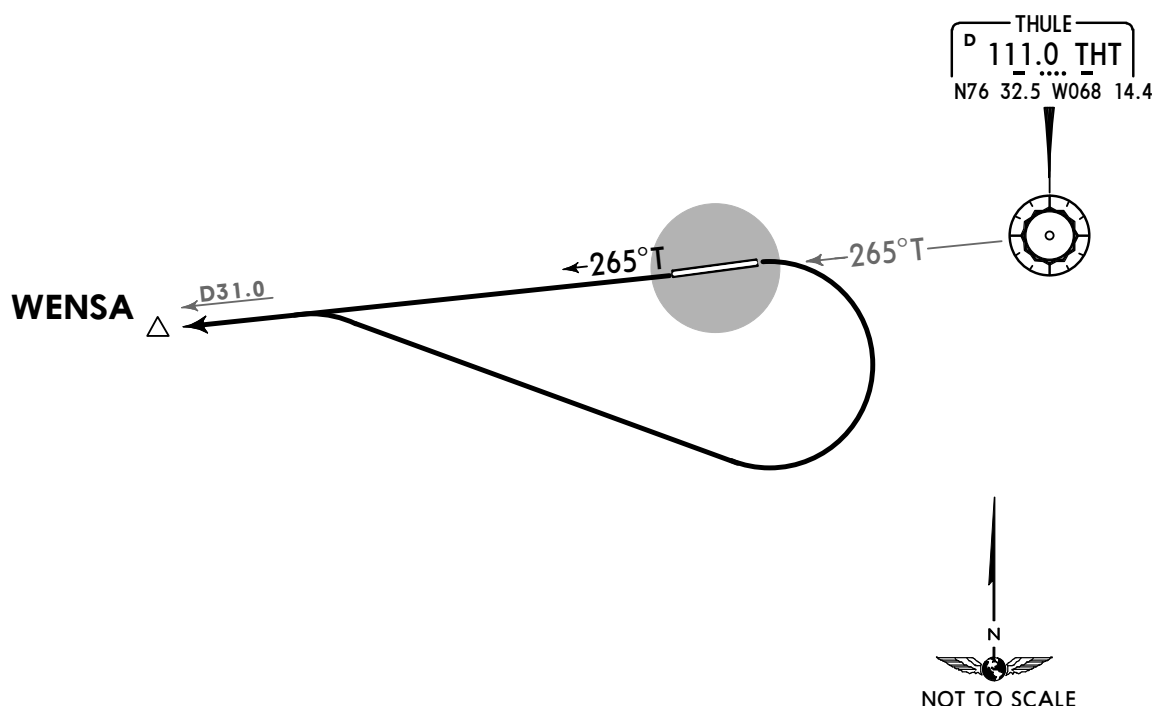
INITIAL CLIMB

Climb direct JODOM, then track 263°T to WENSA, MAINTAIN FL100. EXPECT further ATC instructions 10 minutes after departure.

BGTL/THU
THULE AB**JEPPESEN**
18 MAY 18 **(10-3A)** **Eff 24 May****THULE, GREENLAND**
SIDApt Elev
252'

Trans level: FL90 Trans alt: 6500'

1. CAUTION: High terrain in all quadrants.
2. Procedure design based on true course and radials. Magnetic variation not applied.
3. Departure procedure altitudes are not temperature corrected.
4. Minimum vectoring altitudes are temperature corrected at -10°C/14°F in all areas except for a 3NM radius around the ASR antenna and from 214°T radial clockwise to 304°T radial from 3 NM to 60 NM.
5. Severe turbulence may occur near ice cap in area True N-S. EXPECT severe downdrafts on final approach when wind speeds exceed 30 KT from 125°T-225°T.
6. Rwy 08T departure not authorized for CAT E aircraft.

WENSA 2 DEPARTURE
[WENSA2]**SPEED RESTRICTION**Rwy 08T: Do not exceed 250 KIAS
until intercepting THT R-265T.This SID requires take-off minimums
(for standard minimums, refer to airport chart):Rwy 08T: Standard (or lower than standard, if
authorized) with minimum climb of 880'/NM to 6000'
or 2400-3 for climb in visual conditions.Rwy 26T: Standard (or lower than standard, if
authorized) .

Gnd speed-KT	75	100	150	200	250	300
880' per NM	1100	1467	2200	2933	3667	4400

OBSTACLESRwy 08T: Contour lines 448' to 3625' from DER, 346'
LEFT to 779' RIGHT of centerline, up to 0' AGL/
334' MSL. Terrain 64' to 4672' from DER, 1757' LEFT
to 517' RIGHT of centerline, up to 376' MSL.

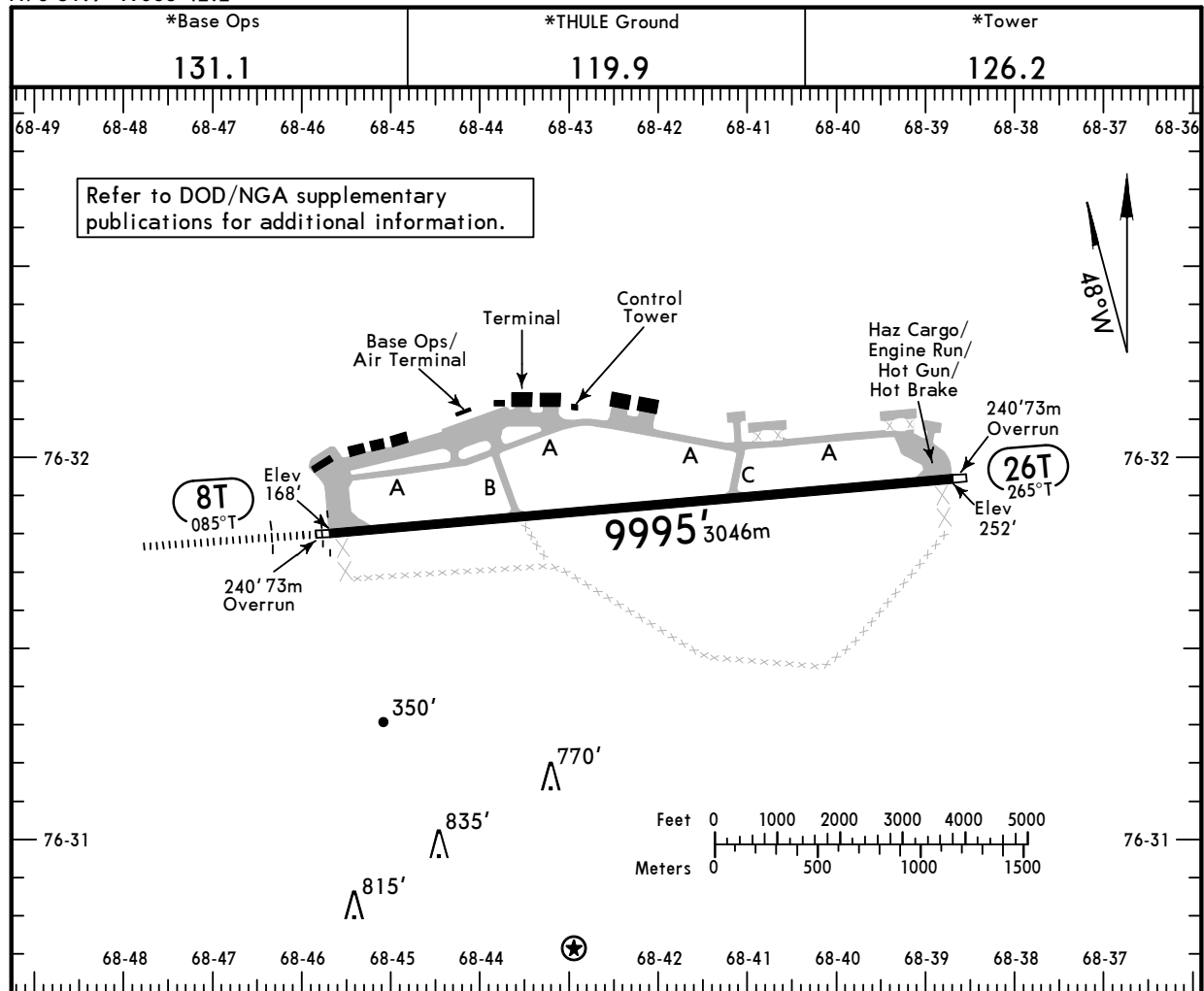
RWY	VISUAL CLIMB OVER AIRPORT
08T	Climb in visual conditions to cross Thule AB at or above 2500' before proceeding on course.
RWY	ROUTING
08T	Execute climbing RIGHT turn to FL100, intercept THT R-265T outbound to WENSA. EXPECT further ATC instructions 10 minutes after departure.
26T	Intercept THT R-265T outbound to WENSA, climb and MAINTAIN FL100. EXPECT further ATC instructions 10 minutes after departure.

BGTL/THU

 Apt Elev **252'**
 N76 31.9 W068 42.2

JEPPesen

 6 OCT 17 **(10-9)** Eff 12 Oct

THULE, GREENLAND
THULE AB

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			
		Threshold	Landing Beyond	Take-Off	Width
8T	HIRL ALSF-I REIL PAPI-L (angle 3.00°)		9057' 2760m		150'
26T	HIRL				46m

1 No 180° turns.

Military TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

	All Rwy's	
	Adequate Vis Ref	STD
1 & 2 Eng	1/4	1
3 & 4 Eng		1/2

OBSTACLE DP: Diverse departures not authorized, use WENSA ONE or VCOA.

TAKE-OFF OBSTACLES: Rwy 08T: Terrain beginning 130' from DER, 25' left of centerline, 259' MSL, terrain 448' from DER, 346' left of centerline, 234' MSL, terrain 4672' from DER, 1757' left of centerline, 376' MSL, terrain 64' from DER, 517' right of centerline, 255' MSL, terrain 2674' from DER, 563' right of centerline, 304' MSL, terrain 3625' from DER, 779' right of centerline, 334' MSL.

Rwy 08T for climb in visual conditions 2400-3, Climb visually over Thule airport to remain within 6 NM. Cross Thule airport at or above 2500' MSL, then proceed on course. Maximum airspeed 250 knots. Do not enter restricted airspace to the east of the runway. Use caution high terrain in all quadrants. Aircrews must notify ATC prior to executing this VCOA departure.

BGTL/THU

6 OCT 17

 **JEPPESEN****10-9S****Eff 12 Oct****THULE, GREENLAND****Standard****THULE AB**

STRAIGHT-IN RWY		A	B	C	D
8T	ILS Z	719' (515')	719' (515')	719' (515')	719' (515')
	FULL/Limited	1³/₈	1³/₈	1³/₈	1³/₈
	ALS out	1⁷/₈	1⁷/₈	1⁷/₈	1⁷/₈
	ILS Y ❶	509' (305')	509' (305')	509' (305')	509' (305')
	FULL/Limited	5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1¹/₈	1¹/₈	1¹/₈	1¹/₈
	ILS X ❷	493' (289')	493' (289')	493' (289')	493' (289')
	FULL/Limited	5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	LOC Z ❸	780' (576')	780' (576')	780' (576')	780' (576')
		1	1	1¹/₄	1¹/₄
	ALS out	1	1	1⁵/₈	1⁵/₈
	LOC Y ❶ ❸	560' (356')	560' (356')	560' (356')	560' (356')
		5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	LOC X ❷ ❸	540' (336')	540' (336')	540' (336')	540' (336')
		5⁵/₈	5⁵/₈	5⁵/₈	5⁵/₈
	ALS out	1	1	1	1
	RNAV ❹	960' (756')	960' (756')	960' (756')	960' (756')
		1	1	1³/₄	1³/₄
	ALS out	1	1¹/₄	2	2
	VOR DME ❺	1020' (816')	1020' (816')	1020' (816')	1020' (816')
		1	1	1⁷/₈	1⁷/₈
	ALS out	1	1¹/₄	2¹/₂	2¹/₂

❶ Missed apch climb gradient min 300'/NM to 1600'.

❷ Missed apch climb gradient min 300'/NM to 7000'.

❸ Continuous Descent Final approach.

CIRCLE-TO-LAND ❹	90 KT	120 KT	140 KT	165 KT
After all other approaches ❺	1140' (888')	1140' (888')	1280' (1028')	1440' (1188')
	❻ 1 ¹ / ₄	❻ 1 ¹ / ₄	3	3

❹ Not authorized North of rwy.

❺ CAUTION: When VGSI Rwy 26T inop, circling to Rwy 26T NIGHT not authorized.

❻ Or higher minimums of preceding straight-in approach.

TAKE-OFF

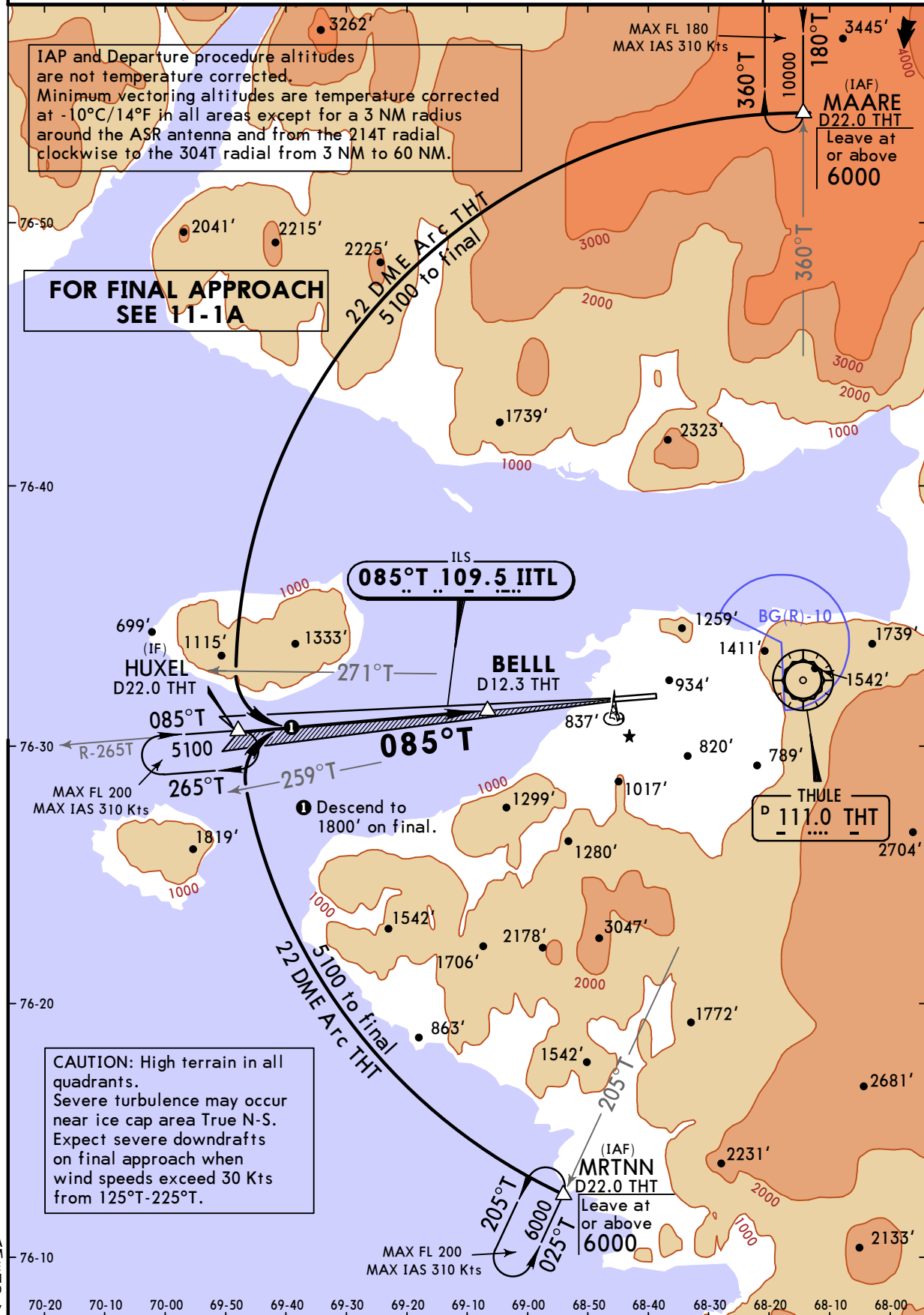
	All Rwys	
	Adequate Vis Ref	STD
1 & 2 Eng	1/4	1
3 & 4 Eng		1/2

BGTL/THU
THULE ABJEPPESEN
23 MAR 18
Eff 29 Mar (11-1)THULE, GREENLAND
ILS or LOC DME Z Rwy 8 TRUE

BRIEFING STRIP™

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-1A	ILS DA(H) Refer to chart 11-1A	Apt Elev 252' TDZE 204'	
Alt Set: IN		Trans level: FL 90		Trans alt: 6500'	
1. Special Aircrew & Aircraft Certification Required. 2. EMERG SAFE ALT 100 NM 8300'. 3. All bearings are true.					

MSA
THT VOR



CHANGES: None.

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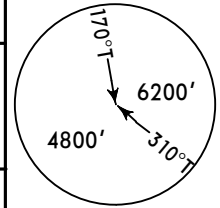
BGTL/THU
THULE ABJEPPESEN
23 MAR 18
Eff 29 Mar

(11-1A)

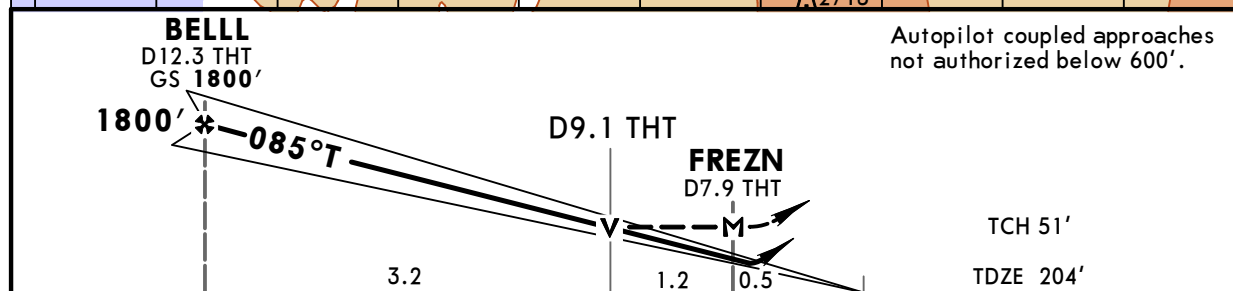
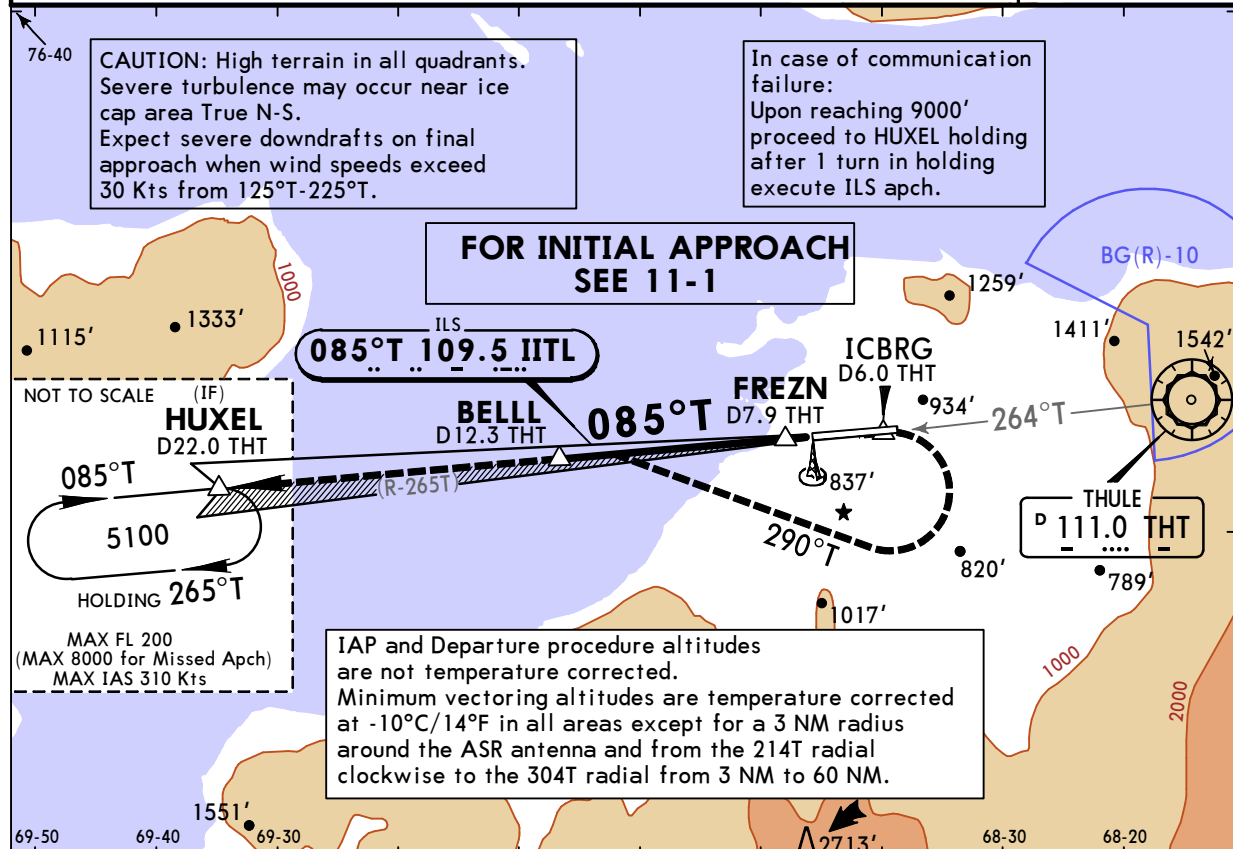
THULE, GREENLAND
ILS or LOC DME Z Rwy 8 TRUE

BRIEFING STRIP

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 719' (515')	Apt Elev 252'	TDZE 204'
MISSED APCH: Climb via THT R-264T to ICBRG/D6.0 THT, then turn RIGHT track 290°T climbing to 5100' and intercept the THT R-265T to HUXEL and hold, continue climb in hold to 5100'. Radar monitoring required.					
Alt Set: IN Trans level: FL 90 Trans alt: 6500' 1. Special Aircrew & Acft Certification Required. 2. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true. 5. VGSI and descent angle not coincident.					



MSA THT VOR



Gnd speed-Kts	70	90	100	120	140	160	ALS F-I REIL PAPI	ICBRG on 111.0 R-264T
GS	3.00°	372	478	531	637	743		
MAP at FREZN								

Military		STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Not authorized North of rwy			
DA(H) 719' (515')		MDA(H) 780' (576')		Max Kts			
FULL	ALS out		ALS out		MDA(H)	VIS	
A	1 3⁄8	1 7⁄8	1⁄2	1	90	1140' (888')	1 ¼
B					120		
C			1 ¼	1 5⁄8	140	1280' (1028')	3
D					165	1440' (1188')	3

CHANGES: Missed approach.

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BGTL/THU
THULE AB



23 MAR 18

25 MAR 18
Eff 29 Mar

11-2

• ILS or LOC DME Y Rwy 8 TRUE

THULE, GREENLAND

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-2A	ILS DA(H) Refer to chart 11-2A	Apt Elev 252' TDZE 204'	

Alt Set: IN

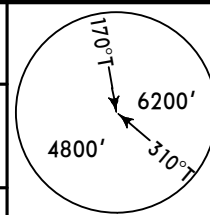
Trans level: FL 90

Trans alt: 6500'

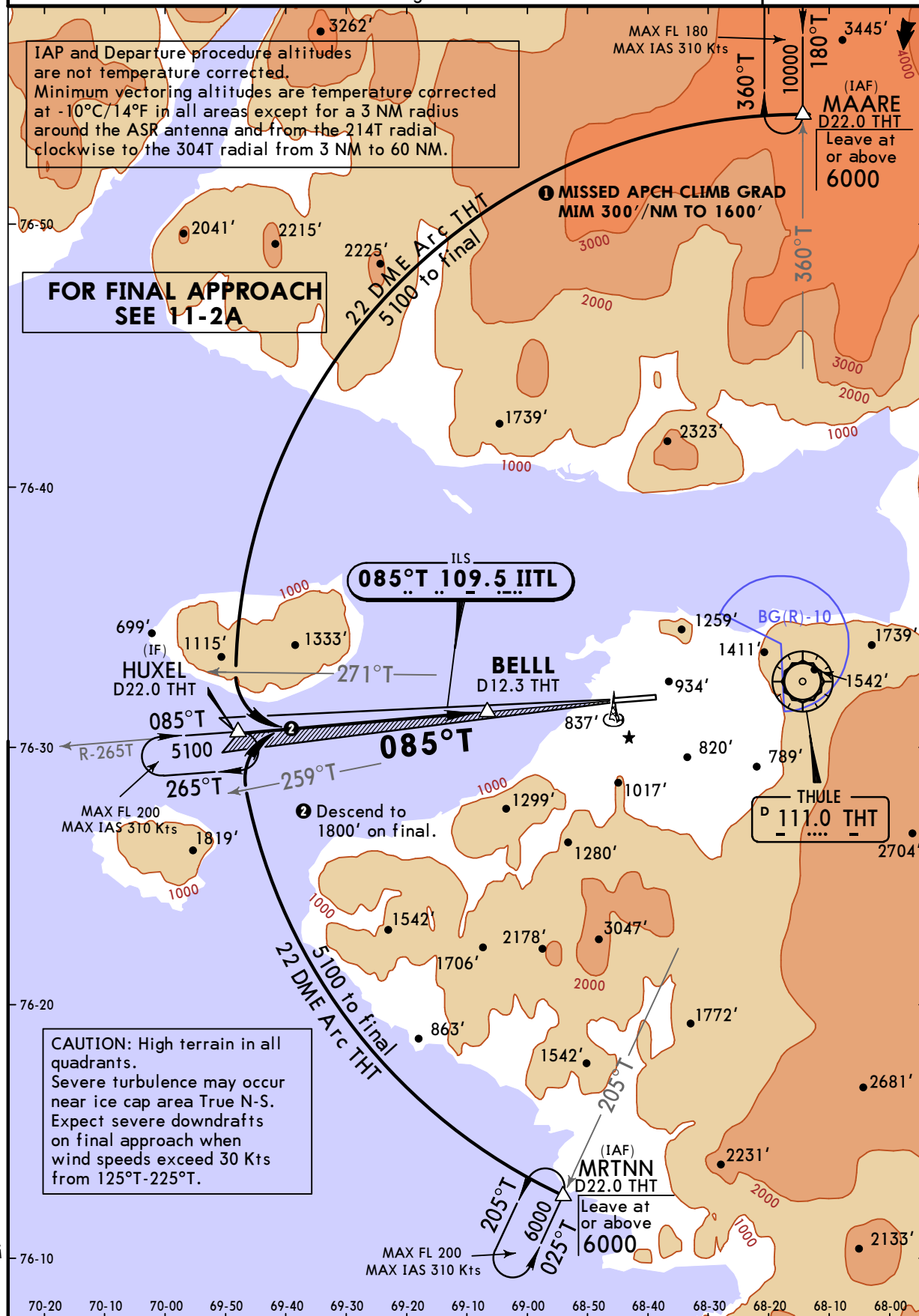
1. Special Aircrew & Aircraft Certification Required.

2. EMERG SAFE ALT 100 NM 8300'. 3. All bearings are true.

MSA
THT VOR



BRIEFING STRIP™



**A
M
E
N
D
7**

CHANGES: None.

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BGTL/THU
THULE AB23 MAR 18
Eff 29 Mar

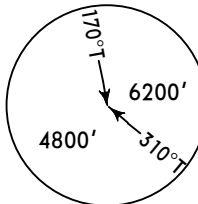
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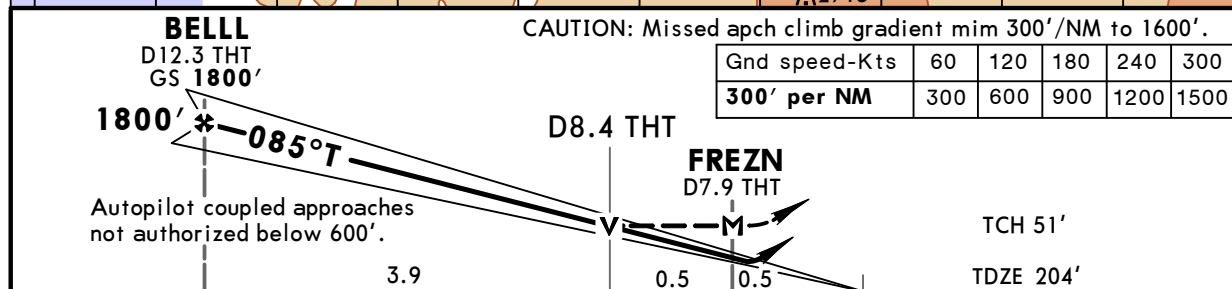
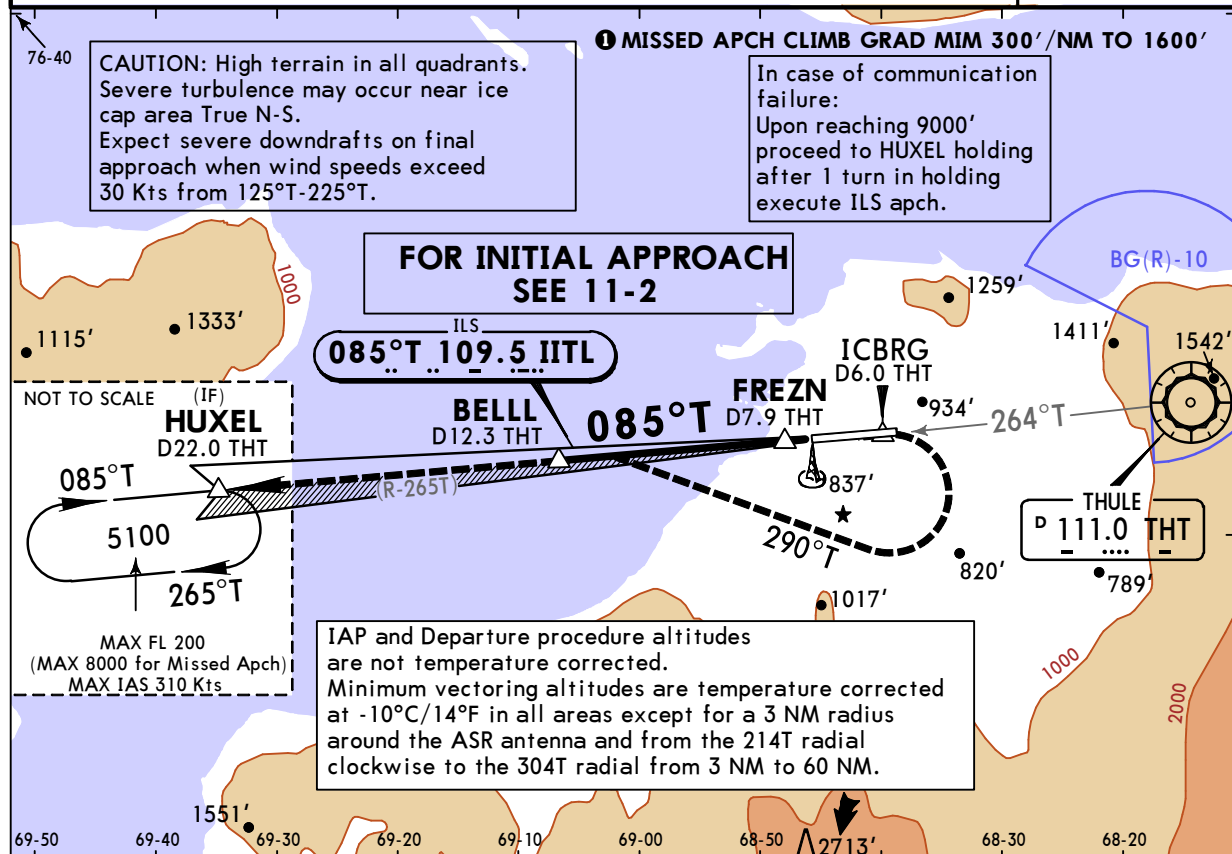
(11-2A)

ILS or LOC DME Y Rwy 8 TRUE

THULE, GREENLAND

BRIEFING STRIP™

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 509' (305')	Apt Elev 252' TDZE 204'	 MSA THT VOR
MISSED APCH: Climb via THT R-264T to ICBRG/D6.0 THT, then turn RIGHT track 290°T climbing to 5100' and intercept the THT R-265T to HUXEL and hold, continue climb in hold to 5100'.					
Radar monitoring required.					
Alt Set: IN		Trans level: FL 90		Trans alt: 6500'	
1. Special Aircrew & Acft Certification Required. 2. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true. 5. VGSI and descent angle not coincident.					



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849
MAP at FREZN						
ALS F-I REIL PAPI						
ICBRG THT on 111.0 R-264T						

Military STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND			
Missed apch climb gradient mim 300'/NM to 1600'				Not authorized North of rwy			
ILS		LOC (GS out)		Max Kts		MDA(H)	
DA(H) 509' (305')		MDA(H) 560' (356')				VIS	
FULL		ALS out					
A			1/2	90	1140' (888')	1 1/4	
B				120			
C	5/8	1 1/8		140	1280' (1028')	3	
D			5/8	165	1440' (1188')	3	

CHANGES: Missed approach.

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BGTL/THU
THULE AB

6 OCT 17

11-3

• ILS or LOC DME X Rwy 8 TRUE

THULE. GREENLAND

*THULE Approach (R)		*THULE Tower		*Ground	
134.1		126.2		119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS Refer to chart 11-3A	ILS DA(H) Refer to chart 11-3A	Apt Elev 252' TDZE 204'	

Alt Set: IN

Trans level: FL 90

Trans alt: 6500'

1. Special Aircrew & Acft Certification Required. 2. Radar required.

3. EMERG SAFE ALT 100 NM 8300'. 4. All bearings are true.

MSA
THT VOR

IAP and Departure procedure altitudes are not temperature corrected.
Minimum vectoring altitudes are temperature corrected at -10°C/14°F in all areas except for a 3 NM radius around the ASR antenna and from the 214T radial clockwise to the 304T radial from 3 NM to 60 NM.

**FOR FINAL APPROACH
SEE 11-3A**

① MISSED APCH CLIMB GRAD
MIM 300'/NM TO 7000'

(IAF)
MAARE
D22.0 THT
Leave at
or above
6000

ILS
085°T 109.5 IITL

BELL

085°T

5100 to final
DME Arc THT

CAUTION: High terrain in all quadrants.
Severe turbulence may occur near ice cap area True N-S. Expect severe downdrafts on final approach when wind speeds exceed 30 Kts from 125°T-225°T.

(IAF)
MRTNN
D22.0 TH
Leave at
or above
6000

BRIEFING STRIP™

**A
M
E
N
D**

CHANGES: Altitudes.

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BGTL/THU
THULE AB6 OCT 17
Eff 12 Oct

JEPPESEN

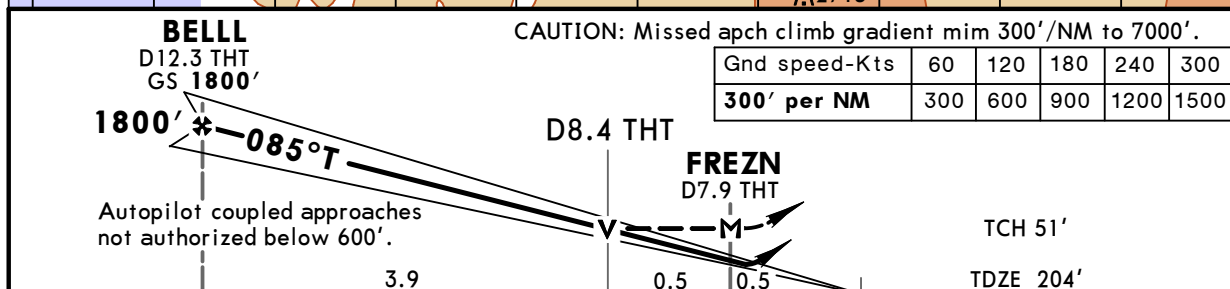
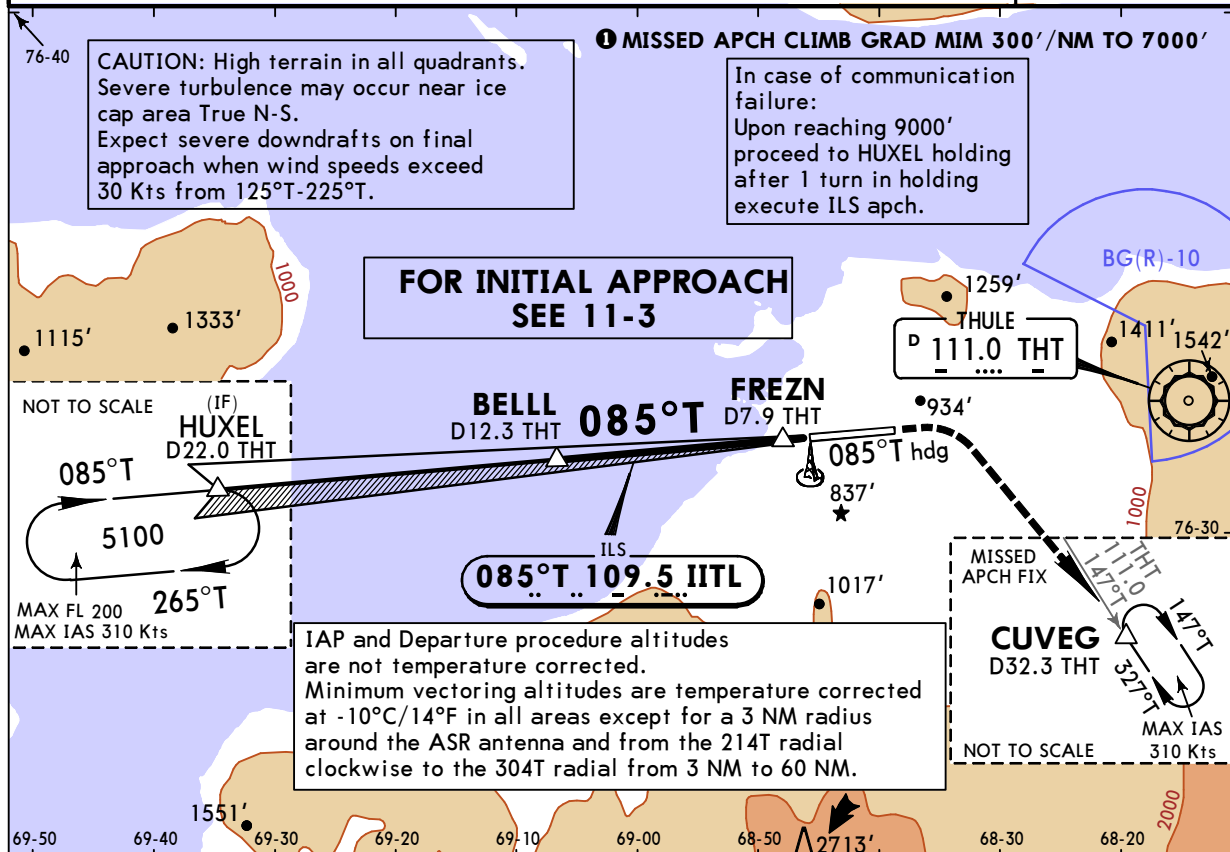
(11-3A)

ILS or LOC DME X Rwy 8 TRUE

THULE, GREENLAND

BRIEFING STRIP

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
LOC IITL 109.5	Final Apch Crs 085°T	GS BELL 1800' (1596')	ILS DA(H) 493' (289')	Apt Elev 252' TDZE 204'	 MSA THT VOR
MISSED APCH: Climb to 1100' via heading 085°T, then climbing RIGHT turn to 9000' to CUVEG. Expect radar vectors. RNAV or ATC radar monitoring required.					
Alt Set: IN Trans level: FL 90 Trans alt: 6500'					
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. CAUTION: When Rwy 26T VGSI inop, circling to Rwy 26T not authorized at night. 4. EMERG SAFE ALT 100 NM 8300'. 5. All bearings are true. 6. VGSI and descent angle not coincident.					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-I REIL PAPI	1100' via 085°T hdg
GS 3.00°	372	478	531	637	743	849		
MAP at FREZN/D7.9 THT								

Military STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND	
Missed apch climb gradient mim 300'/NM to 7000'				Not authorized North of rwy	
ILS		LOC (GS out)			
DA(H) 493' (289')		MDA(H) 540' (336')			
FULL		ALS out		Max Kts	
				90	1140' (888') 1 1/4
				120	
				140	1280' (1028') 3
				165	1440' (1188') 3

BGTL/THU
THULE AB

6 OCT 17

Eff 12 Oct

(12-1)

JEPPESEN

THULE, GREENLAND
RNAV (GPS) Rwy 8 TRUE

BRIEFING STRIP

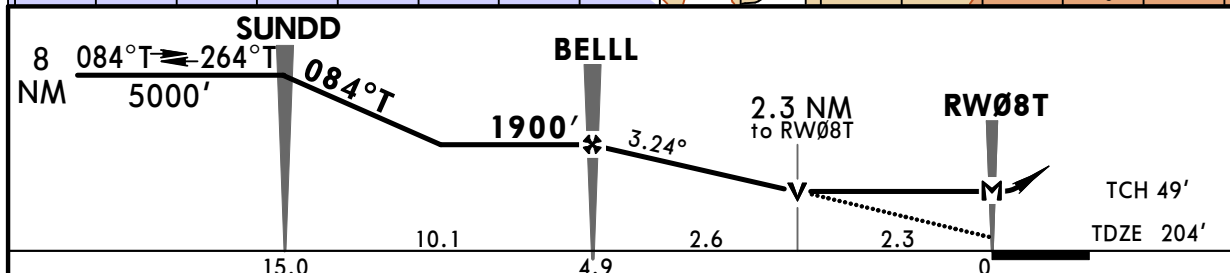
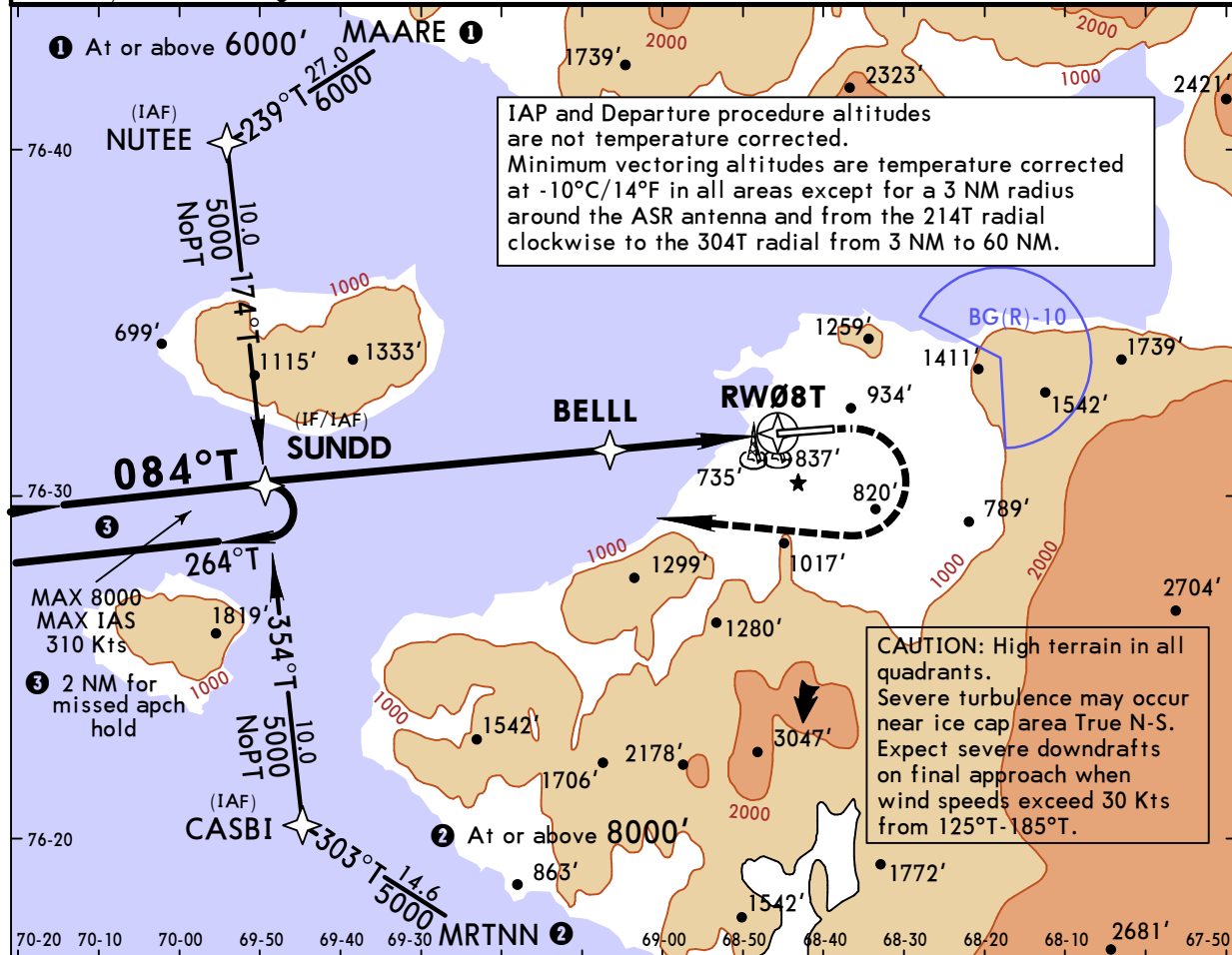
*THULE Approach (R)		*THULE Tower		*Ground		5000' MSA RW08T
134.1		126.2		119.9		
RNAV	Final Aptch Crs 084°T	Minimum Alt BELL 1900' (1696')	LNAV MDA(H) 960' (756')	Apt Elev 252' TDZE 204'		
MISSED APCH: Climbing RIGHT turn to 5000' direct SUNDD, do not exceed 240 KIAS until turn completion, and hold, continue climb in hold to 5000'.						

Alt Set: IN

Trans level: FL 90

Trans alt: 6500'

1. **SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED.** 2. CAUTION: When Rwy 26T VGSi inop, circling to Rwy 26T not authorized at night. 3. EMERG SAFE ALT 100 NM 8300'. 4. Circling visibility reduction by helicopters not authorized. 5. VGSi and descent angles not coincident (VGSi angle 3.00°/TCH 49'). 6. All bearings are true.



Gnd speed-Kts	70	90	100	120	140	160	ALS F-I	5000'	RT	SUNDD
Descent Angle	3.24°	401	516	573	688	803	917			
MAP at RW08T										

Military

STRAIGHT-IN LANDING RWY 8T

CIRCLE-TO-LAND

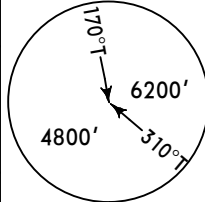
LNAV				Not authorized North of rwy	
MDA(H) 960' (756')					
			Max Kts	MDA(H)	VIS
A	1/2	1	90	1140' (888')	1 1/4
B	3/4	1 1/4	120		
C	1 3/4	2	140	1280' (1028')	3
D			165	1440' (1188')	3

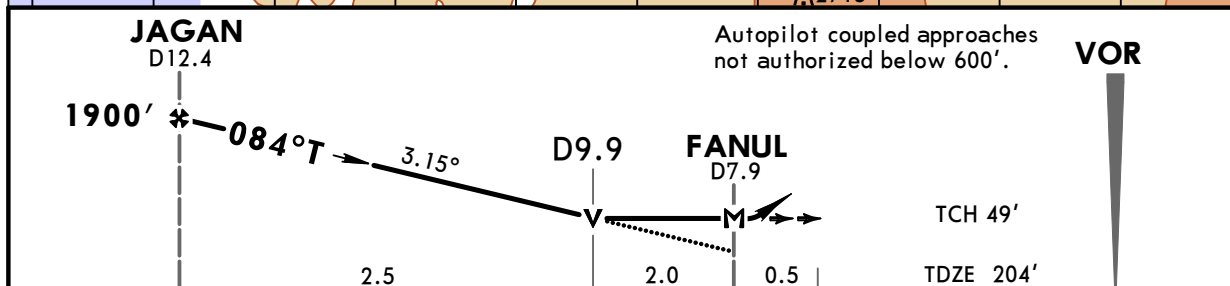
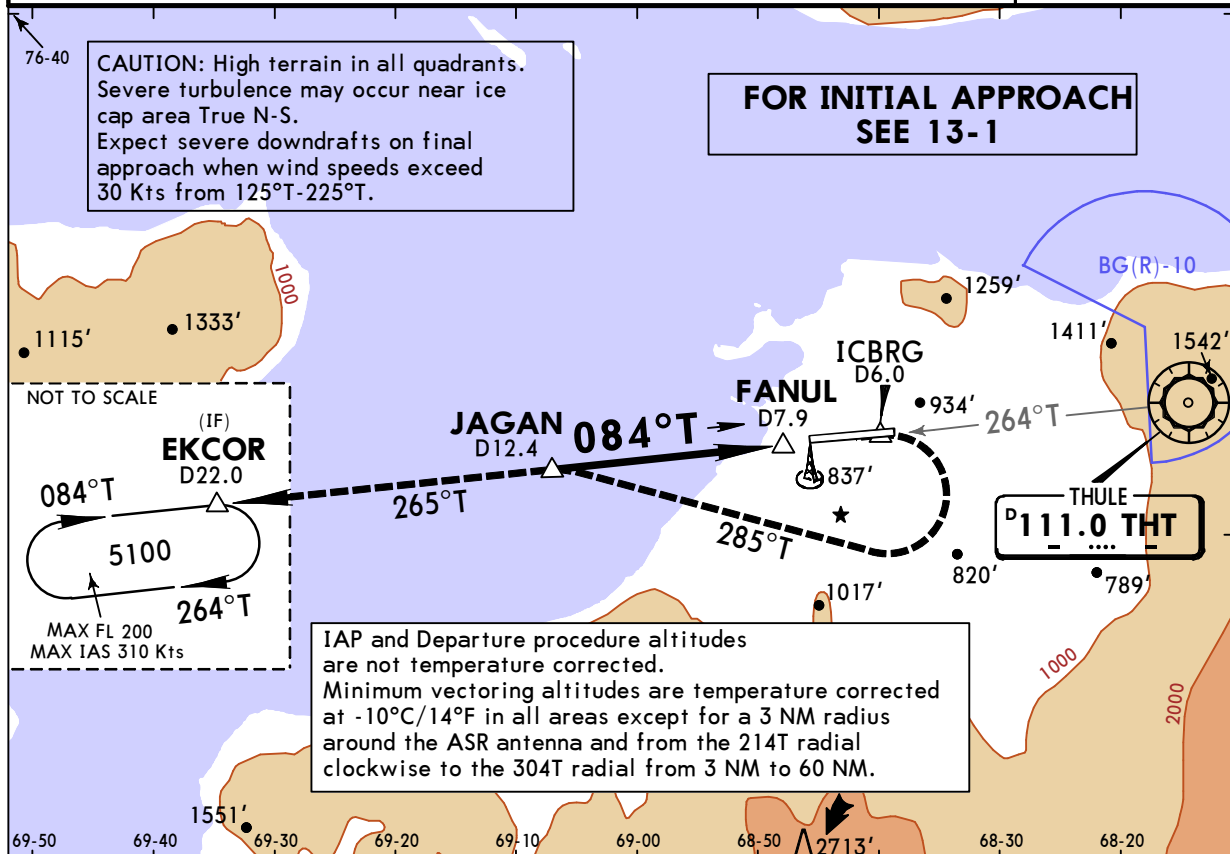
CHANGES: Procedure.

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BGTL/THU
THULE ABJEPPESEN
23 MAR 18
Eff 29 Mar (13-1A)THULE, GREENLAND
VOR DME Rwy 8 TRUE

BRIEFING STRIP

*THULE Approach (R) 134.1		*THULE Tower 126.2		*Ground 119.9	
VOR THT 111.0	Final Apch Crs 084°T	Minimum Alt JAGAN 1900' (1696')	MDA(H) 1020' (816')	Apt Elev 252' TDZE 204'	 MSA THT VOR
MISSED APCH: Climb via THT R-264T to ICBRG/D6.0, then turn RIGHT track 285°T climbing to 5100' and intercept the THT R-265T outbound to EKCOR and hold, continue climb in hold to 5100'. Radar monitoring required.					
Alt Set: IN					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-I REIL PAPI	ICBRG ↑ on 111.0 R-264T
Descent Angle 3.15°	390	502	557	669	780	892		
MAP at FANUL								

Military STRAIGHT-IN LANDING RWY 8T				CIRCLE-TO-LAND			
MDA(H) 1020' (816')				Not authorized North of rwy			
ALS out				Max Kts	MDA(H)	VIS	
A	1/2	1		90	1140' (888')	1 1/4	
B	3/4	1 1/4		120	1280' (1028')	3	
C	1 1/8	2 1/2		140	1440' (1188')	3	
D				165			

CHANGES: Missed approach.

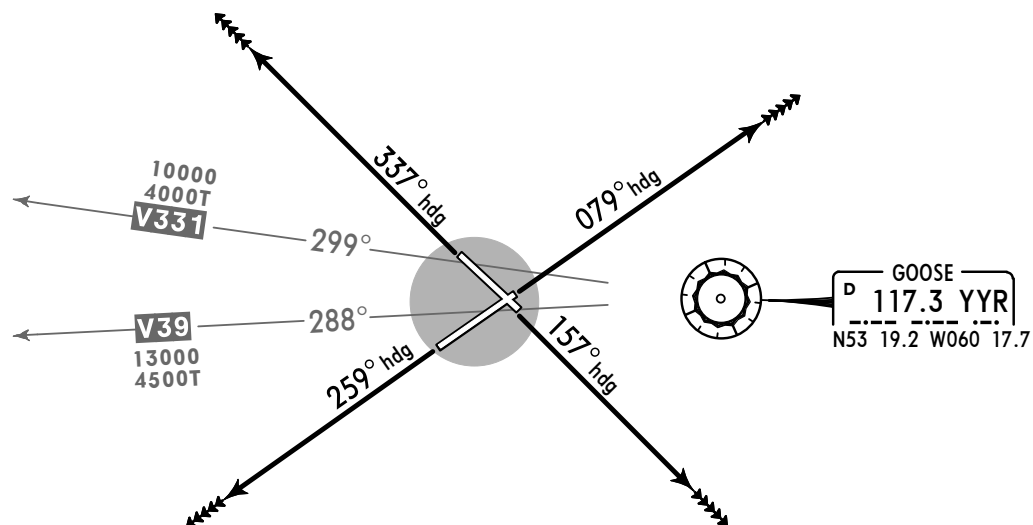
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CYYR/YYR
GOOSE BAY**JEPPESEN**

28 MAR 14

10-3

Eff 3 Apr

GOOSE BAY, NFLD**SID***GOOSE
Departure
119.5*GANDER
Center
120.4
when Dep inop.Apt Elev
160'Trans level: FL 180 Trans alt: 18000'
Safe Altitude within 100 NM 6000'.**GOOSE BAY TWO DEPARTURE (CYYR2.) (VECTOR)**

Transponder Mode A/3 Code 7600

On recognition of communication failure 10 minutes or less after take-off and in IFR weather conditions, proceed as follows:

1. Upon reaching 6000' or last assigned altitude, whichever is higher, proceed directly on course;
2. Maintain this altitude for 10 minutes after take-off; then
3. Climb to flight planned altitude.

Note: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.

ROUTING

Climb runway heading for vectors.

ALTITUDEMAINTAIN
6000'

CYR/YR

Apt Elev '160'
N53 19.2 W060 25.6



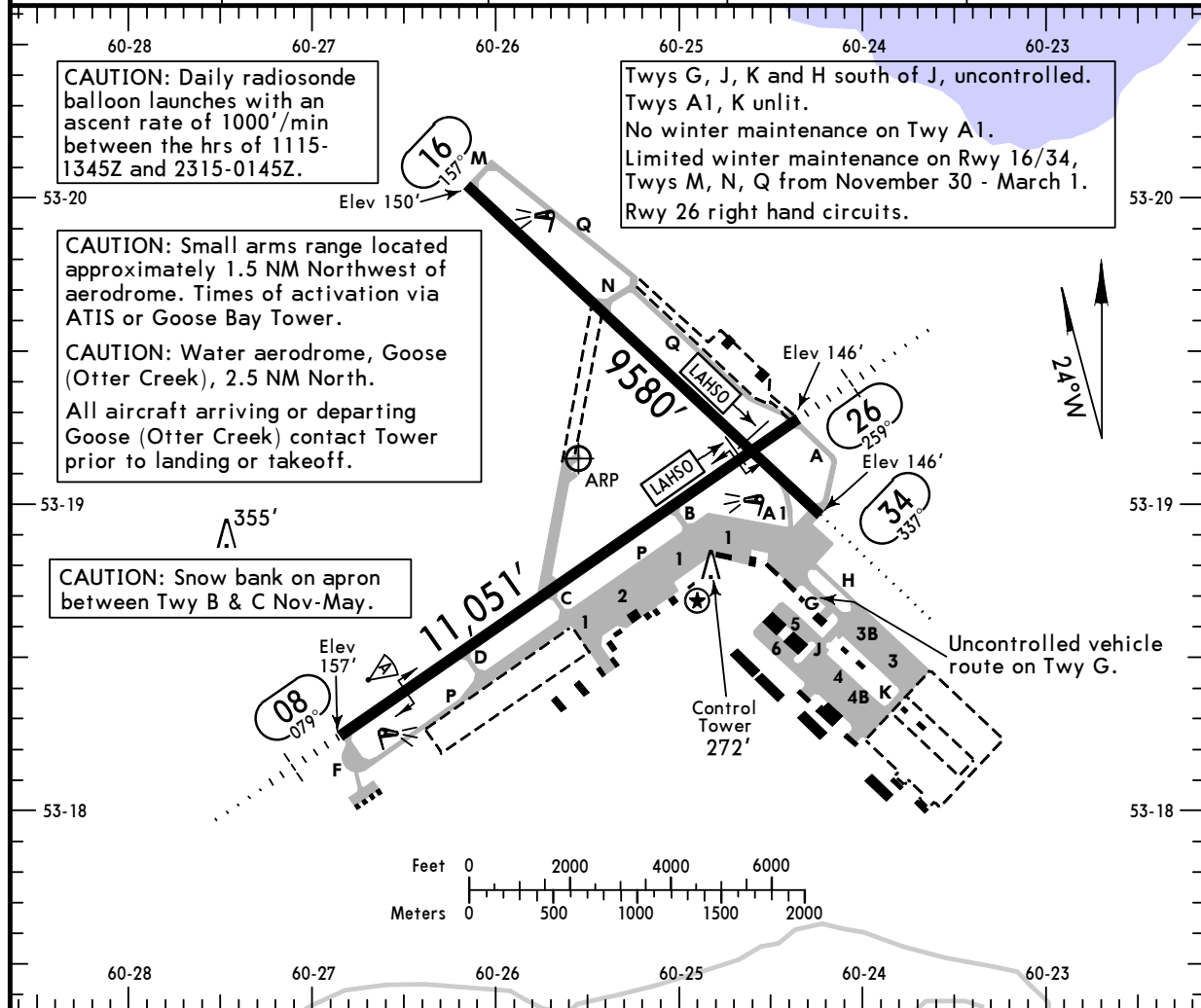
3 JAN 14

10-9

GOOSE BAY, NFLD

GOOSE BAY

ATIS	GOOSE Clearance Delivery	Ground	Tower	*GOOSE Departure
128.1	118.1	121.9	119.1	119.5



ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS		LAHSO Distance	WIDTH
		Threshold	Landing Beyond Glide Slope		
08 26	HIRL SSALR (non-std) ① PAPI-R (angle 3.0°) RVR		10,001'	16/34 9650'	200'
	HIRL SSALR ① PAPI-L (angle 3.0°)		10,051'		
16 34	HIRL REIL ① PAPI-R (angle 3.0°)			08/26 7400'	200'
	HIRL ALS-(yellow) ① PAPI-L (angle 3.0°)				

① For aircraft with eye-to-wheel height up to 25'.

TAKE-OFF & DEPARTURE PROCEDURE				
	Rwys 08, 16	Rwy 26	Rwy 34	
	Climb runway heading to 1100' before proceeding on course.	Climb runway heading to 1500' before proceeding on course.	1 Requires a minimum climb gradient of 220'/NM to 1600' on runway heading before proceeding on course.	Climb visual to 1600' before proceeding on course.
A	1/2	1/2	1/2	1
B				1 1/2
C				2
D				

1 DEPARTURE CLIMB RATE V/V (FPM)

GROUND SPEED	90	120	140	160	180	200	250	300
220 FT/NM	330	440	520	590	660	740	920	1100

CYR/YYR

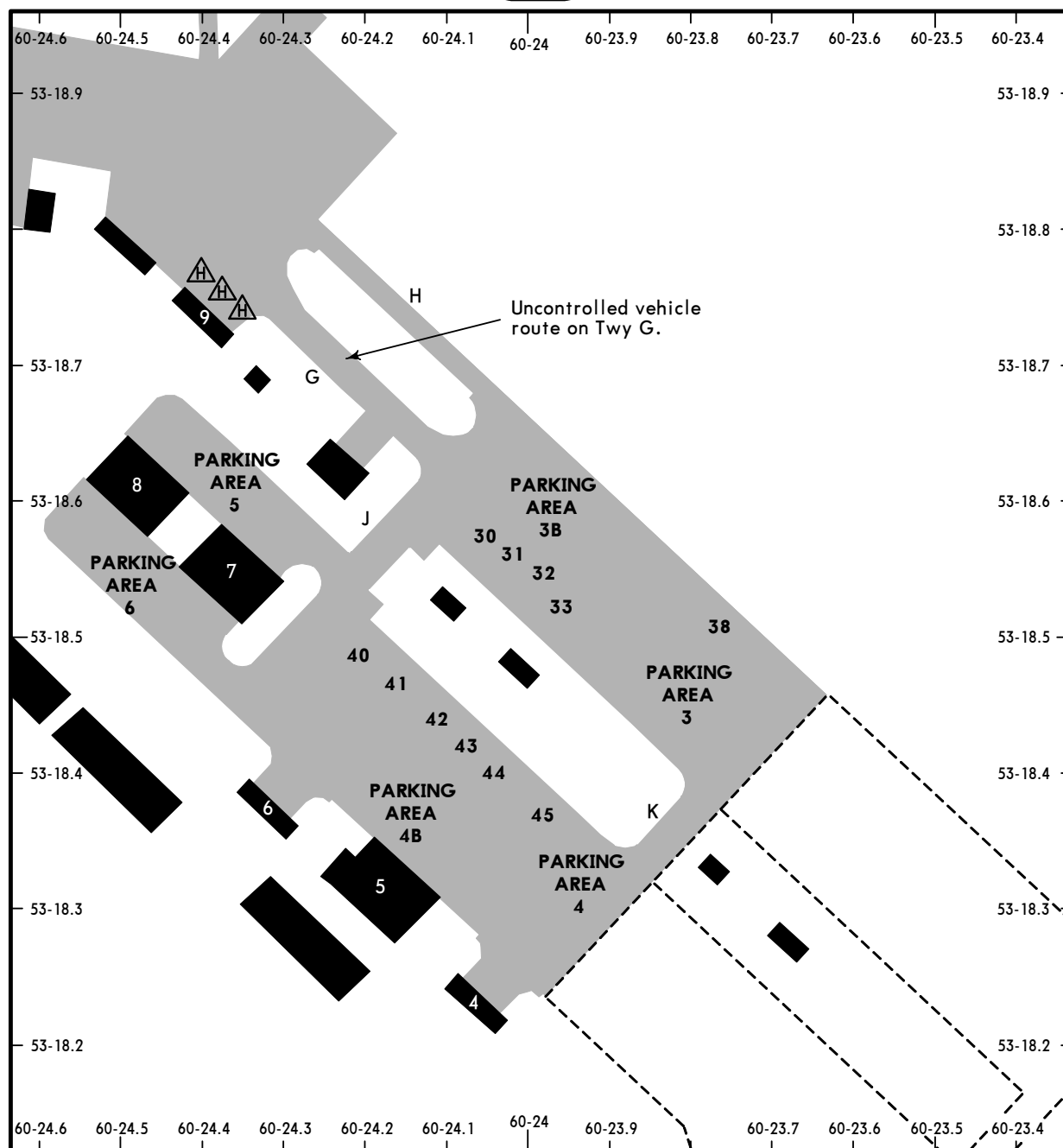
JEPPESEN

GOOSE BAY, NFLD

3 JAN 14

(10-9A)

GOOSE BAY

**PARKING SPOT COORDINATES**

SPOT No.	COORDINATES
30, 31	N53 18.6 W060 24.0
32	N53 18.6 W060 23.9
33	N53 18.5 W060 23.9
38	N53 18.5 W060 23.8
40, 41	N53 18.5 W060 24.2
42, 43, 44	N53 18.4 W060 24.1
45	N53 18.4 W060 24.0

CYR/YYR
GOOSE BAY

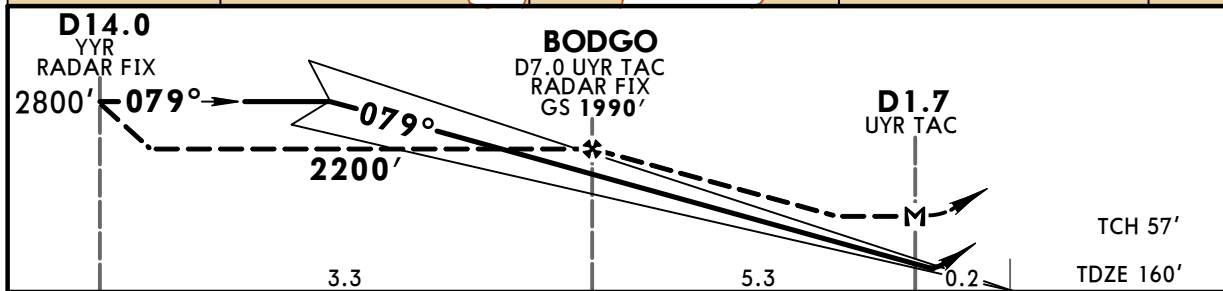
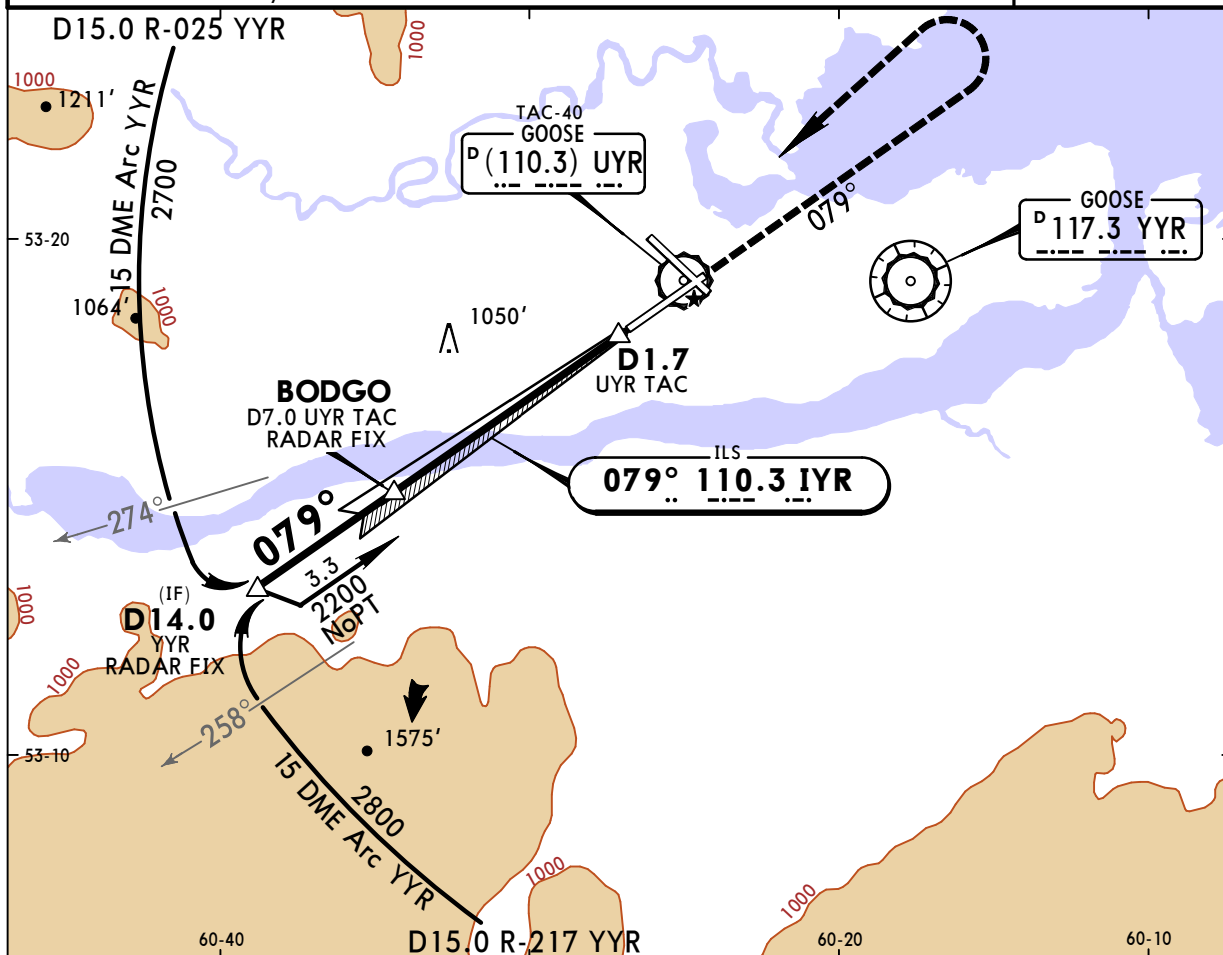
JEPPesen

15 JUL 16 (11-1) Eff 21 Jul

GOOSE BAY, NFLD
ILS Z (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
LOC IYR 110.3	Final Apch Crs 079°	GS BODGO 1990' (1830')	ILS DA(H) 360' (200')	Apt Elev 160' TDZE 160'
MISSED APCH: Climb to 3100' on track of 079°. LEFT turn to BODGO.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED. 3. Localizer reliable only within 15° either side of centerline.				
MSA UYR TAC				



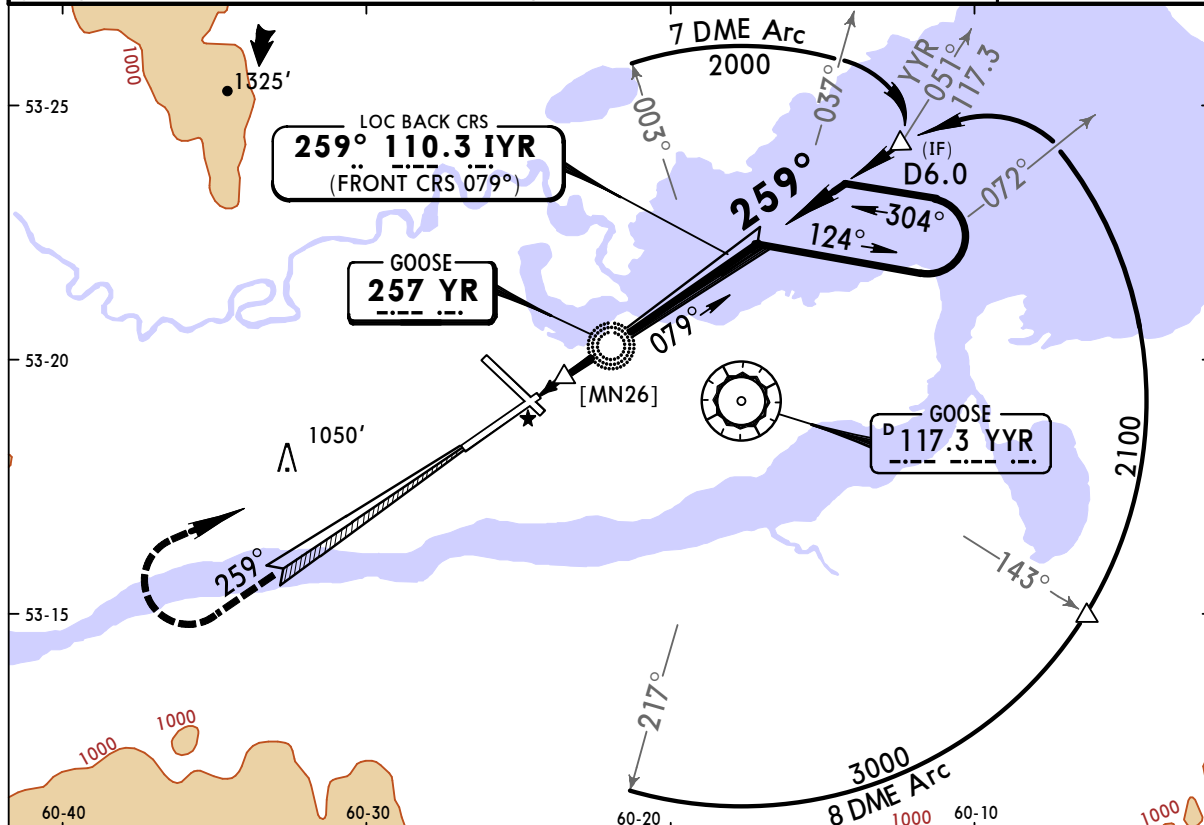
Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	079°	LT	BODGO
GS	3.00°	372	478	531	637	743	PAPI	↑	on		
MAP at D1.7 UYR TAC											

STRAIGHT-IN LANDING RWY 08					CIRCLE-TO-LAND	
ILS DME			LOC (GS out) DME		Max Kts	MDA(H)
DA(H) 360'(200')			MDA(H) 560'(400')			
FULL			HIALS out		90 120 140 165	660'(500') - 1½ 660'(500') - 2 900'(740') - 2
A	RVR 26 or ½		1			
B						
C						
D						

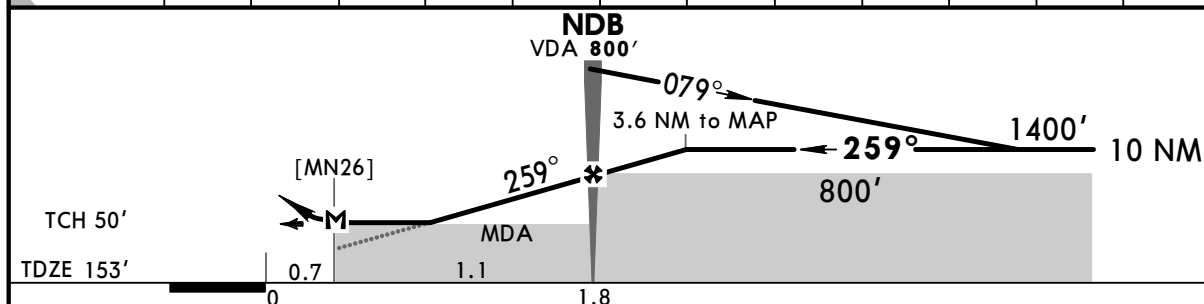
CYR/YYR
GOOSE BAYJEPPesen
15 JUL 16
Eff 21 Jul (11-2)GOOSE BAY, NFLD
LOC (BACK CRS) Z
or NDB (DND) Rwy 26

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
LOC IYR 110.3		Final Apch Crs 259° (Front Crs 079°)		VDA NDB 800' (647')		LOC (BACK CRS) MDA(H) 480' (327')		Apt Elev 160' TDZE 153'	
NDB YR 257						NDB MDA(H) 600' (447')			
MISSED APCH: Climb to 2000' on track of 259°. RIGHT turn to YR NDB at 3100'.									
Alt Set: INCHES									



NM to MAP	1.1	2.0	3.0	4.0	5.0	5.7	7.0	8.0	9.0	10.0	11.0	11.8
VDA ALTITUDE	480'	870'	1210'	1540'	1880'	2100'	2550'	2890'	3220'	3560'	3900'	4170'



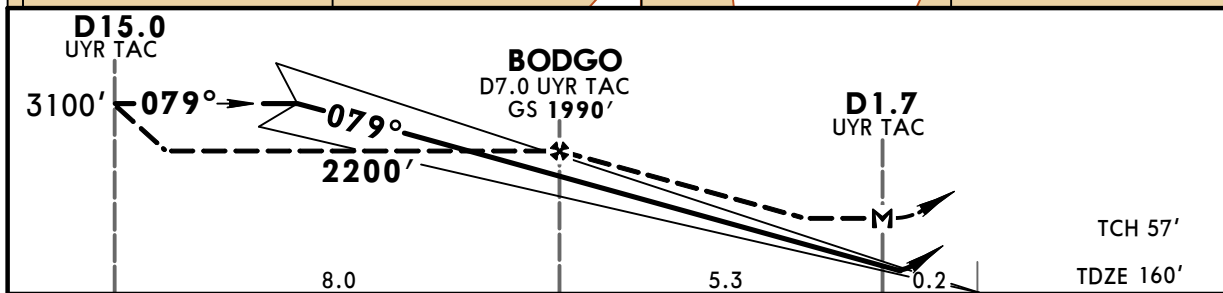
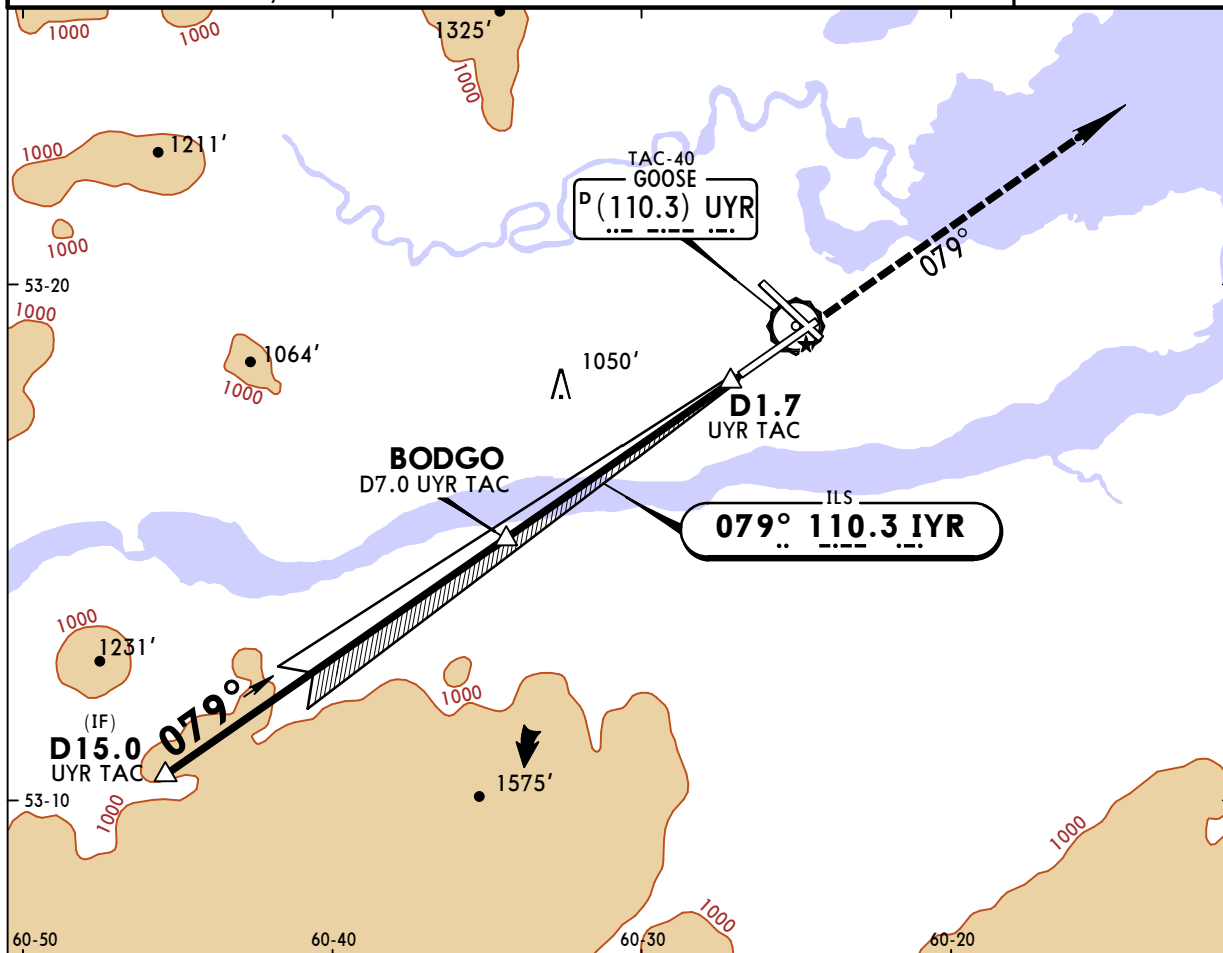
Gnd speed-Kts	70	90	100	120	140	160	SSALR	2000'	3100'	YR
VDA	3.17°	393	505	561	673	785	PAPI	259°	RT	257
NDB to MAP	1.1	0:57	0:44	0:40	0:33	0:28	0:25			

STRAIGHT-IN LANDING RWY 26				CIRCLE-TO-LAND			
LOC (BACK CRS)		NDB		Max Kts		MDA(H)	
MDA(H) 480' (327')		MDA(H) 600' (447')		90		660' (500') - 1½	
HIALS out		HIALS out		120		660' (500') - 2	
RVR 50 or 1		1		140		NOT AUTHORIZED	
A				D			

CYR/YR
GOOSE BAYJEPPesen
15 JUL 16 (11-3) Eff 21 JulGOOSE BAY, NFLD
ILS Y (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
LOC IYR 110.3	Final Apch Crs 079°	GS BODGO 1990' (1830')	ILS DA(H) 360' (200')	Apt Elev 160' TDZE 160'
MISSED APCH: Climb to 3100' on 079° to D15.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED. 3. Localizer reliable only within 15° either side of centerline.				
MSA UYR TAC				

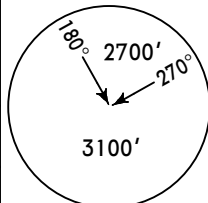


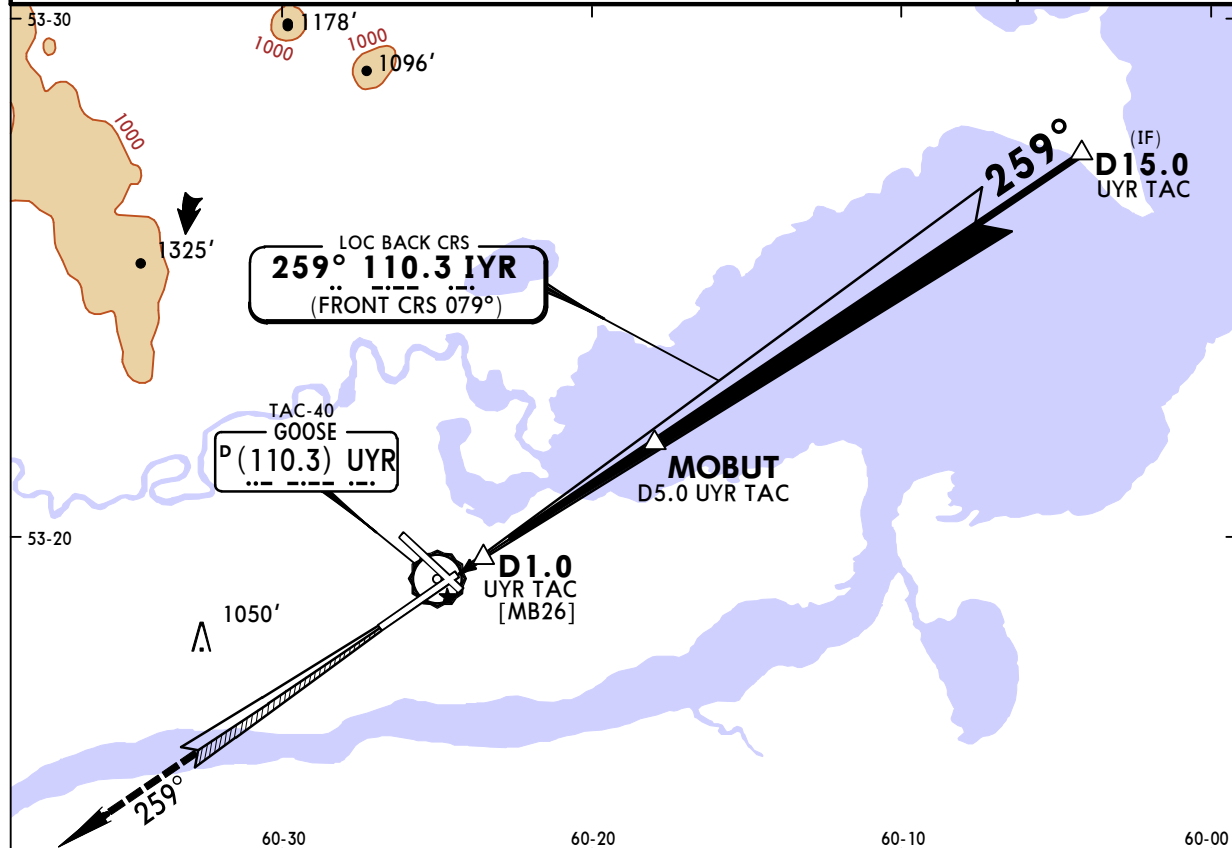
Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	on 079°	D15.0
GS	3.00°	372	478	531	637	743	PAPI			
MAP at D1.7 UYR TAC										

Military				STRAIGHT-IN LANDING RWY 08				CIRCLE-TO-LAND			
ILS DME				LOC (GS out) DME				MDA(H)			
DA(H) 360' (200')				MDA(H) 560' (400')							
FULL				HIALS out				Max Kts			
A									90	660' (500') - 1½	
B									120		
C	RVR 26 or ½				1				140	660' (500') - 2	
D									165	900' (740') - 2	

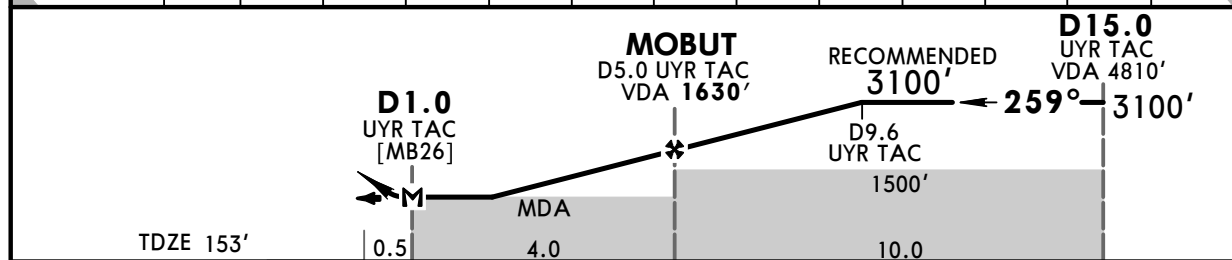
CYYR/YYR
GOOSE BAYJEPPESEN
15 JUL 16
Eff 21 Jul (11-4)GOOSE BAY, NFLD
LOC (BACK CRS) Y (DND) Rwy 26

BRIEFING STRIP

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
IYR LOC 110.3	Final Apch Crs 259° (Front Crs 079°)	VDA MOBUT 1630' (1477')	LOC (BACK CRS) MDA(H) 480' (327')	Apt Elev 160' TDZE 153'
MISSED APCH: Climb to 3100' track 259° to D15.0. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Back course no glide slope. 3. Ignore glide path indications. 4. Localizer reliable only within 10° either side of centerline. 5. Procedure turn NOT AUTHORIZED.				
				 MSA UYR TAC



NM to UYR TAC	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	15.0
VDA ALTITUDE	480'	670'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4810'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	259°	D15.0
VDA	3.00°	372	478	531	637	743	849	PAPI	PAPI	
MAP at D1.0 UYR TAC										

Military STRAIGHT-IN LANDING RWY 26						CIRCLE-TO-LAND			
LOC (BACK CRS)									
MDA(H) 480' (327')									
HIALS out						Max Kts	MDA(H)		
A	1					90	660' (500') -1½		
B						120			
C						140	660' (500') -2		
D						165	900' (740') -2		

CYR/YYR
GOOSE BAYTACAN Azimuth
Required

15 JUL 16

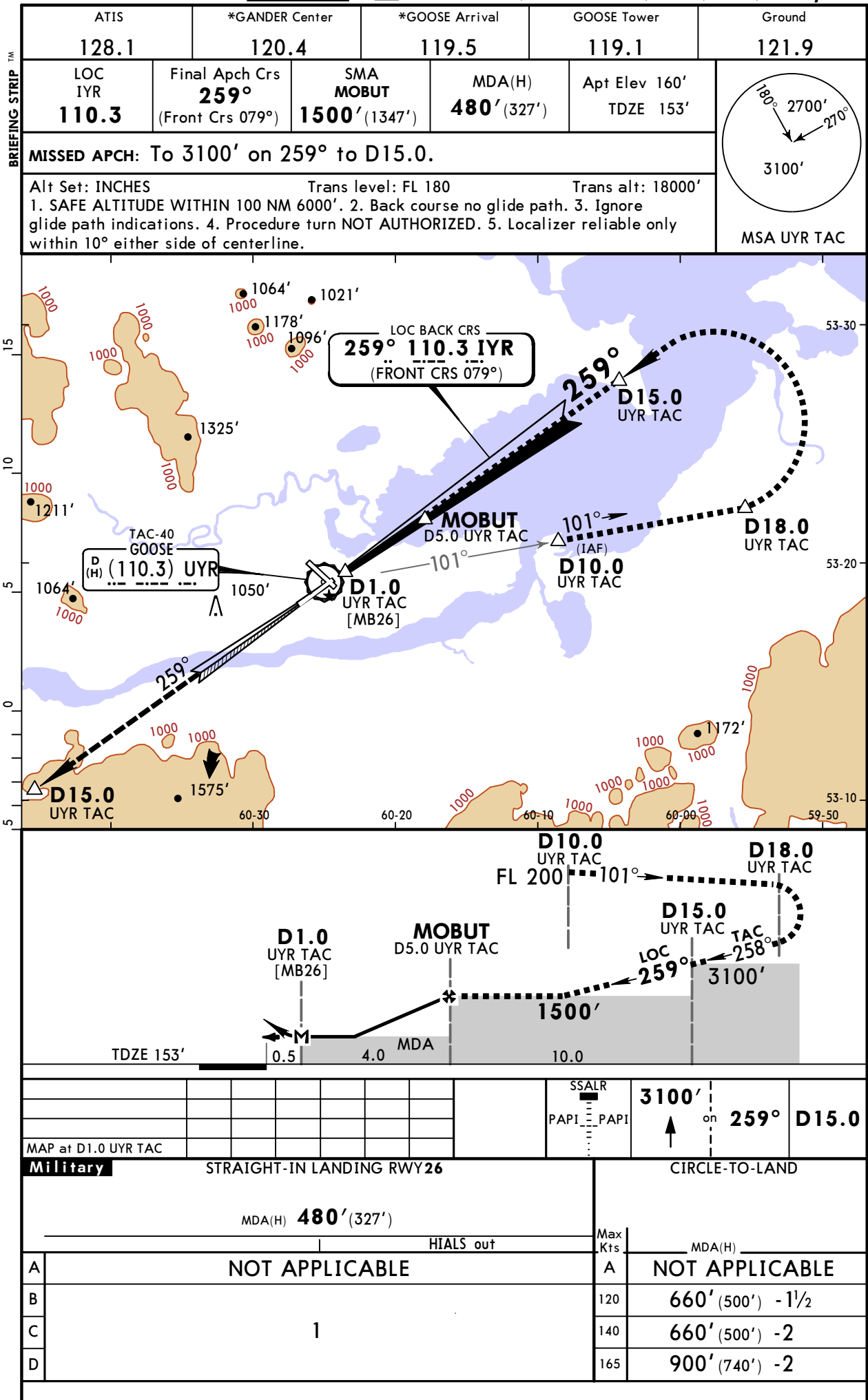
Eff 21 Jul

JEPPESEN

CAT B, C & D

GOOSE BAY, NFLD

(11-5) HI LOC (BACK CRS) X (DND) Rwy 26



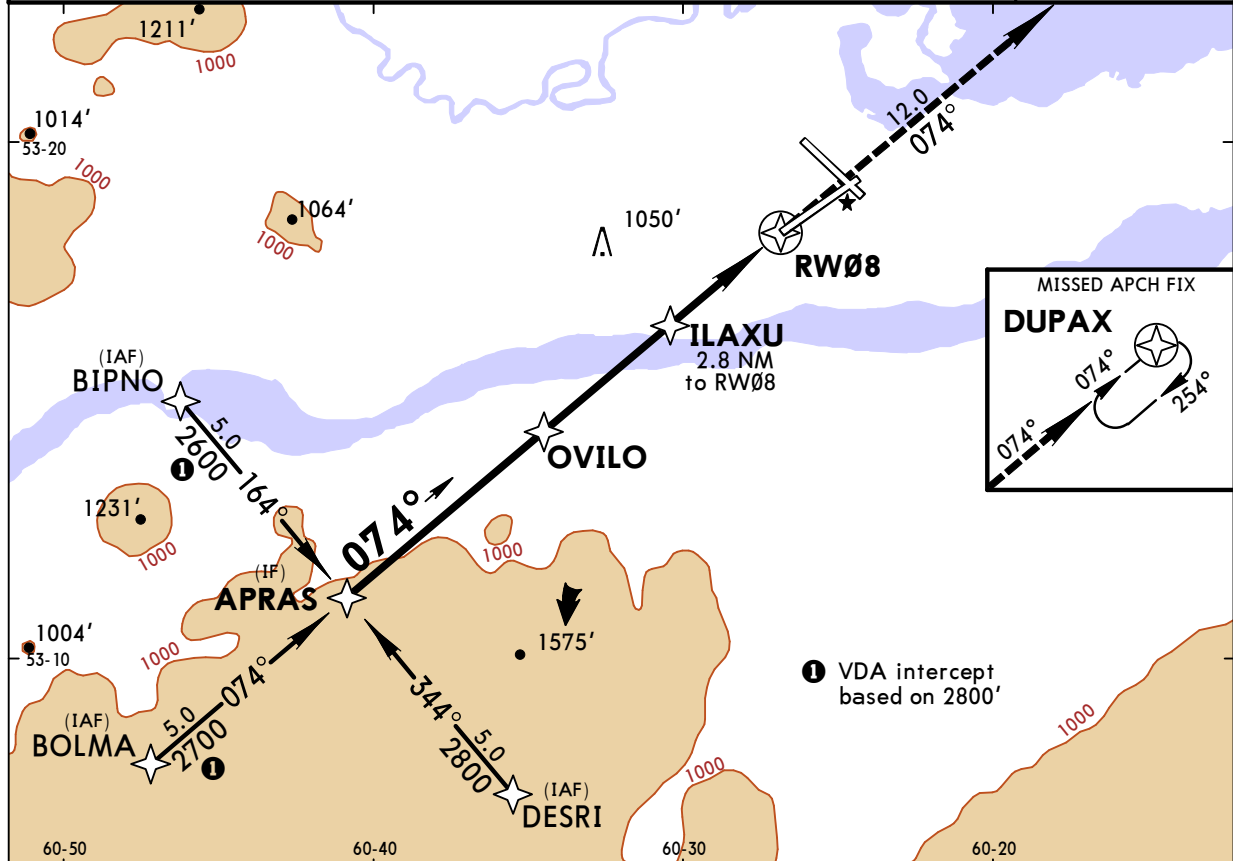
CYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep

(12-1)

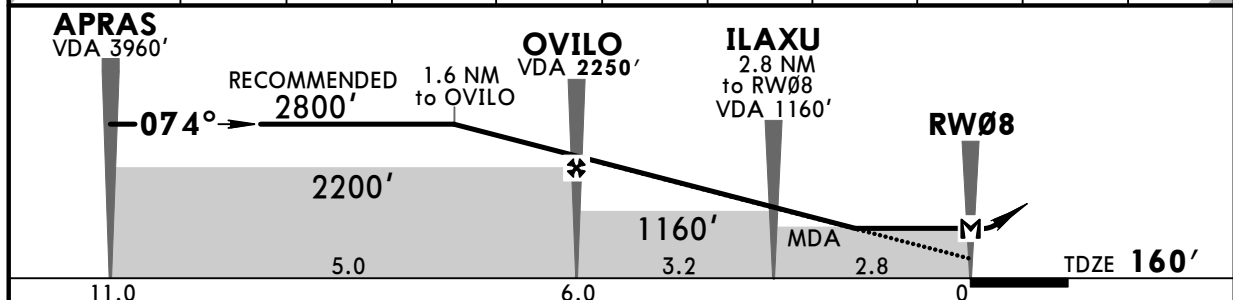
GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 08

BRIEFING STRIP

ATIS	*GANDER Center	*GOOSE Terminal	GOOSE Tower	Ground
128.1	120.4	119.5	119.1	121.9
RNAV	Final Apch Crs 074°	VDA OVILO 2250' (2090')	LNAV MDA(H) 720' (560')	Apt Elev 160' TDZE 160'
MISSED APCH: Climb to 3100' track 074° to DUPAX then hold.				
Alt Set: INCHES			Trans level: FL 180	
1. SAFE ALTITUDE WITHIN 100 NM 6000'.			Trans alt: 18000'	
				3100'
				MSA RW08



NM to RW08	11.0	10.0	9.0	7.6	7.0	6.0	5.0	4.0	3.0	1.5
VDA ALTITUDE	3960'	3610'	3270'	2800'	2590'	2250'	1910'	1570'	1230'	720'



Gnd speed-Kts	70	90	100	120	140	160	SSALR		3100'	074° DUPAX	
VDA	3.21°	398	511	568	682	795	PAPI	PAPI	↑		
MAP at RW08											

STRAIGHT-IN LANDING RWY08						CIRCLE-TO-LAND					
LNAV											
MDA(H) 720' (560')											
HIALS out						Max Kts	MDA(H)				
A						90	720' (560') - 1 3/4				
B						120					
C	1 1/4					140	720' (560') - 2				
D						165	900' (740') - 2				

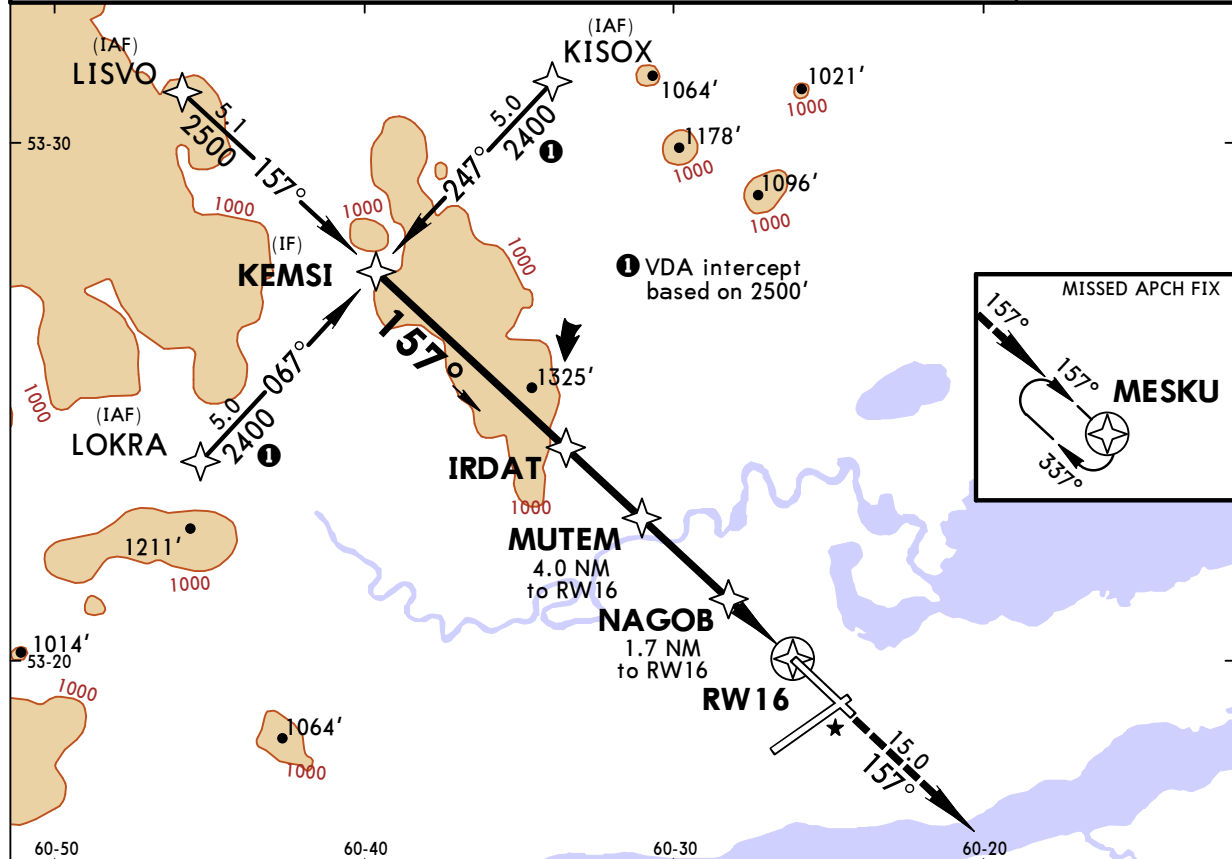
CYJR/YJR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep

(12-2)

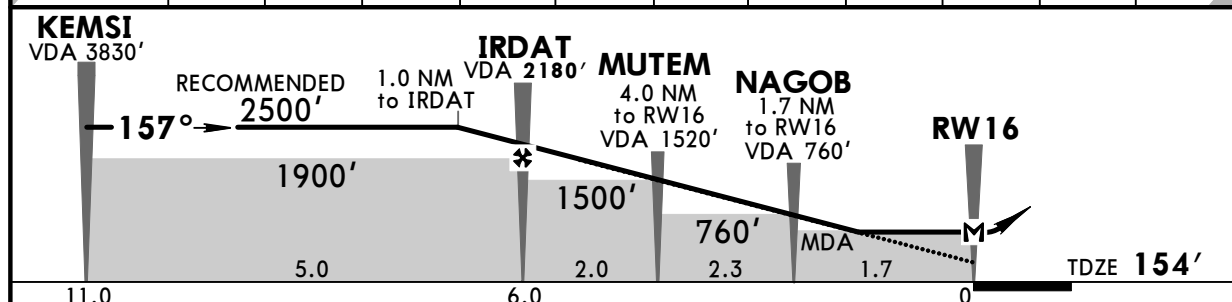
GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 16

BRIEFING STRIP

ATIS		*GANDER Center		*GOOSE Terminal		GOOSE Tower		Ground	
128.1		120.4		119.5		119.1		121.9	
RNAV	Final Apch Crs 157°		VDA IRDAT 2180' (2026')		LNAV MDA(H) 520' (366')		Apt Elev 160' TDZE 154'		3100' MSA RW16
MISSED APCH: Climb to 3100' track 157° to MESKU then hold.									
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'.									



NM to RW16	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	3830'	3500'	3170'	2840'	2500'	2180'	1850'	1520'	1190'	860'	520'



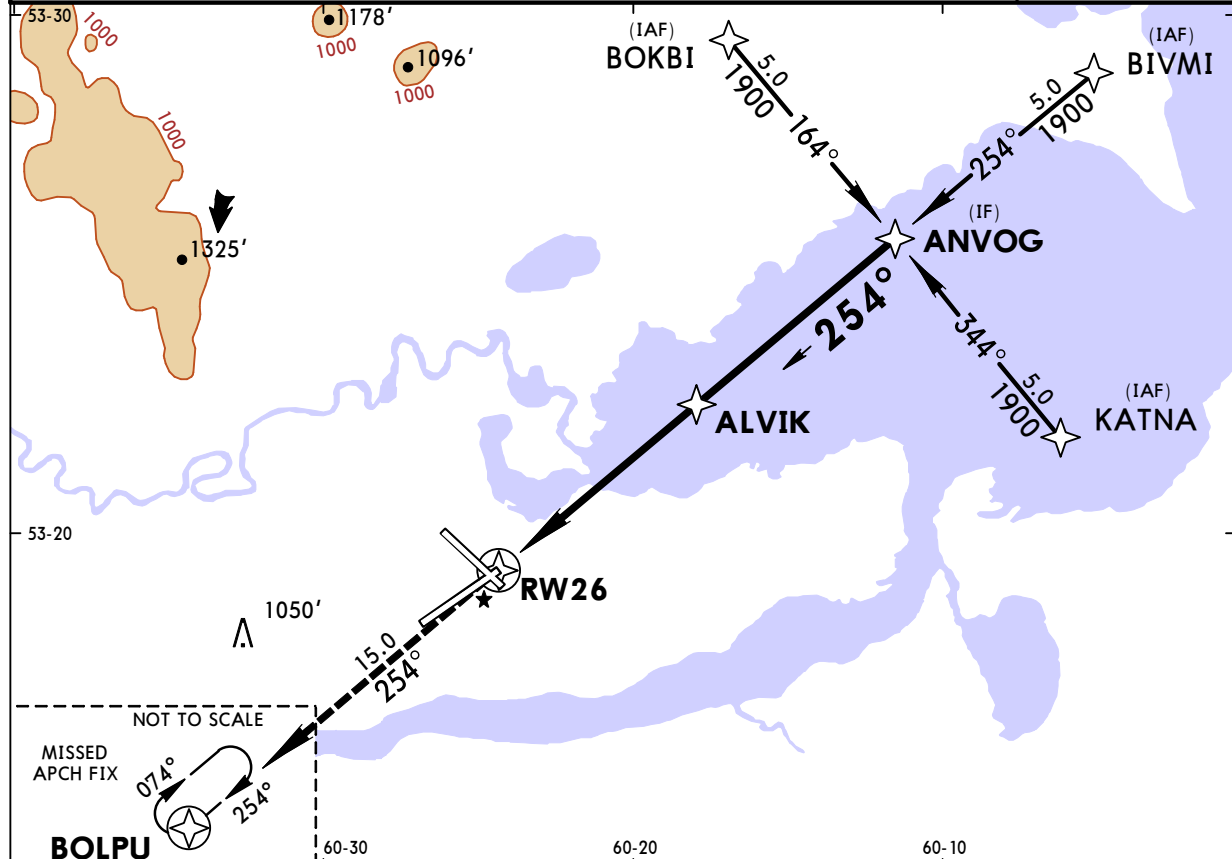
Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI	3100'	157°	MESKU
VDA	3.11°	385	495	550	660	770				
MAP at RW16										

STRAIGHT-IN LANDING RWY16						CIRCLE-TO-LAND			
LNAV						Max Kts			
MDA(H) 520' (366')						MDA(H)			
A	1¼					90	660' (500') - 1½		
B						120	660' (500') - 2		
C						140	660' (500') - 2		
D						165	900' (740') - 2		

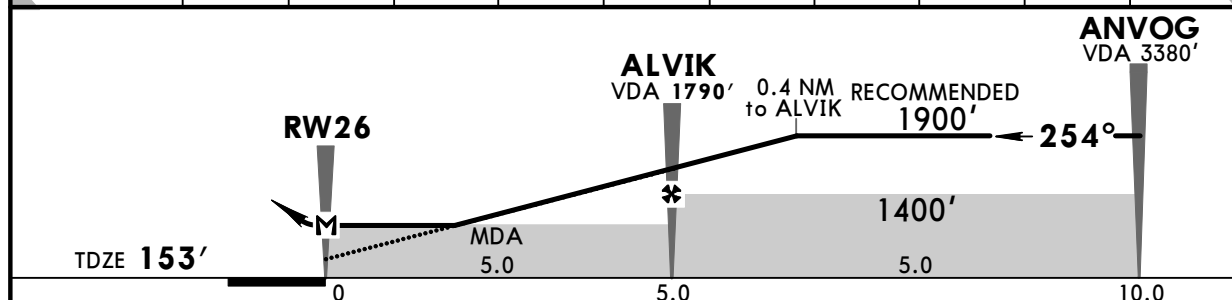
CYYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep (12-3)GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 26

BRIEFING STRIP

ATIS	*GANDER Center	*GOOSE Terminal	GOOSE Tower	Ground
128.1	120.4	119.5	119.1	121.9
RNAV	Final Apch Crs 254°	VDA ALVIK 1790' (1637')	LNAV MDA(H) 500' (347')	Apt Elev 160' TDZE 153'
MISSED APCH: Climb to 3100' track 254° to BOLPU then hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 6000'.				
				3100' MSA RW26



NM to RW26	1.0	2.0	3.0	4.0	5.4	6.0	7.0	8.0	9.0	10.0
VDA ALTITUDE	500'	830'	1150'	1470'	1900'	2110'	2430'	2740'	3060'	3380'



Gnd speed-Kts	70	90	100	120	140	160	SSALR		3100'	254°	BOLPU
VDA	3.00°	372	478	531	637	743	849	PAPI	PAPI		
MAP at RW26											

STRAIGHT-IN LANDING RWY 26						CIRCLE-TO-LAND			
LNAV MDA(H) 500' (347')						Max Kts 90 120 140 165			
HIALS out						MDA(H) 660' (500') - 1½			
1						660' (500') - 2			
						900' (740') - 2			

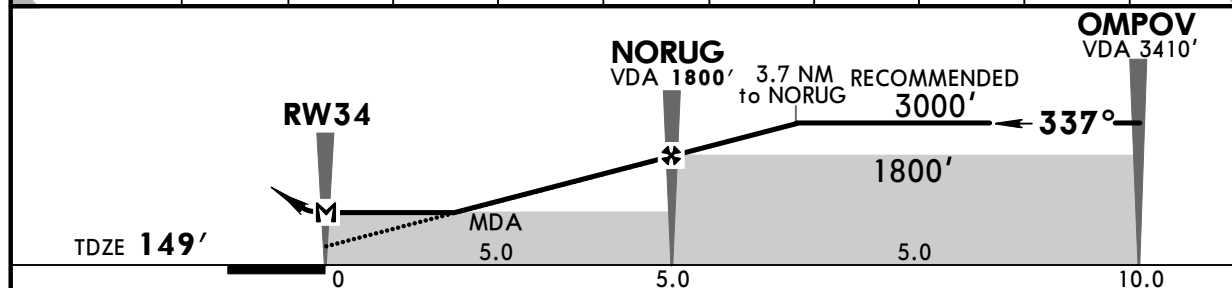
CYJR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep (12-4)GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 34

BRIEFING STRIP™

ATIS		*GANDER Center		*GOOSE Terminal		GOOSE Tower		Ground	
128.1		120.4		119.5		119.1		121.9	
RNAV	Final Apch Crs 337°		VDA NORUG 1800' (1651')		LNAV MDA(H) 540' (391')		Apt Elev 160' TDZE 149'		3100' MSA RW34
MISSED APCH: Climb to 3100' track 337° to ALTUB then hold.									
Alt Set: INCHES				Trans level: FL 180		Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'.									



NM to RW34	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.0	8.7	10.0
VDA ALTITUDE	540'	840'	1160'	1480'	1800'	2130'	2450'	2770'	3000'	3410'



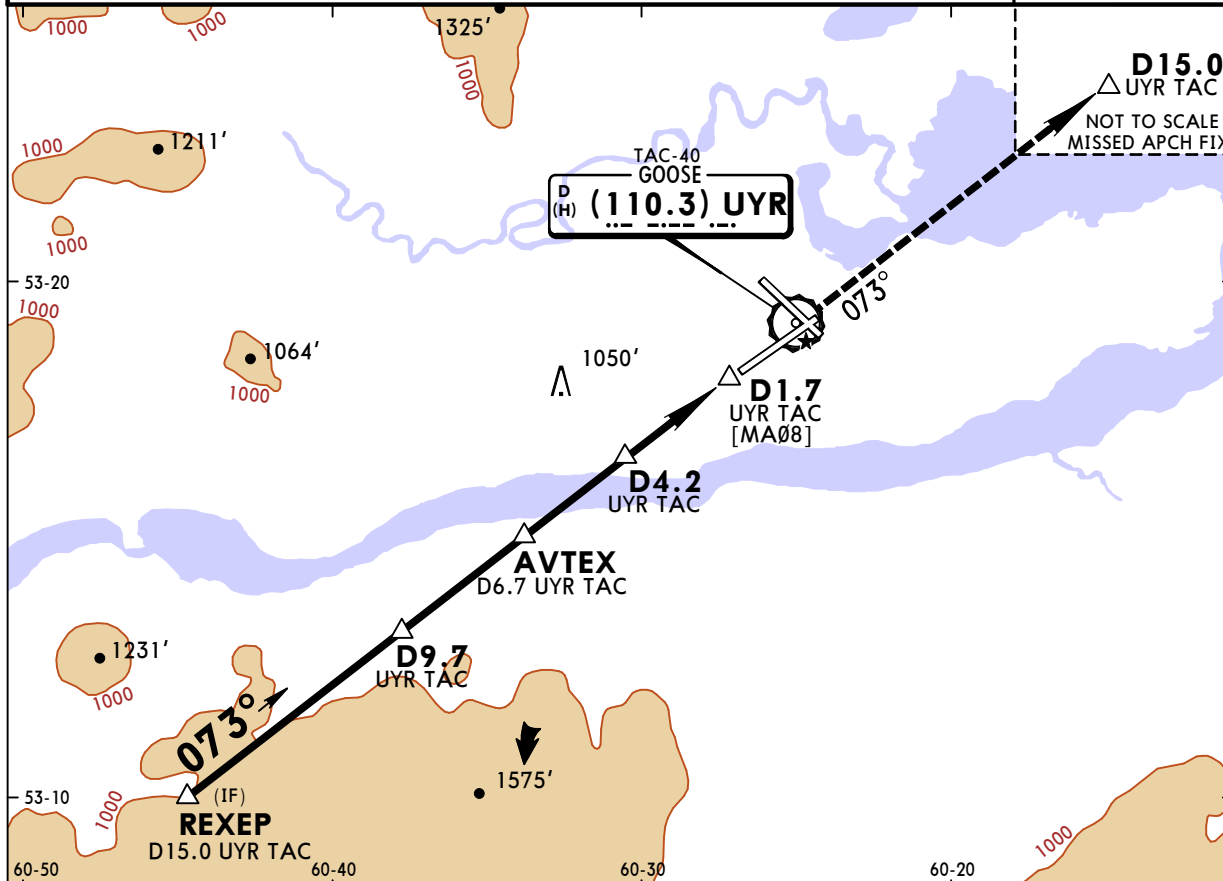
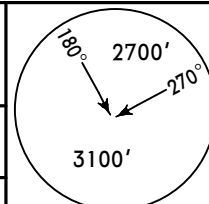
Gnd speed-Kts	70	90	100	120	140	160	ALS	3100'	337°	ALTUB
VDA	3.03°	375	482	536	643	750	PAPI	↑		
MAP at RW34										

STRAIGHT-IN LANDING RWY34						CIRCLE-TO-LAND			
LNAV MDA(H) 540' (391')						Max Kts			
ALS out						90	660' (500') - 1½		
1¼						120	660' (500') - 2		
						140	660' (500') - 2		
						165	900' (740') - 2		

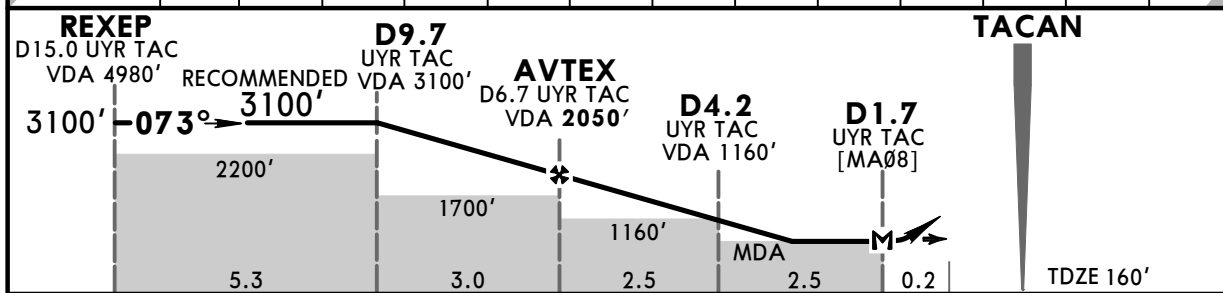
CYR/YR
GOOSE BAYJEPPesen
15 JUL 16 (14-1) Eff 21 JulGOOSE BAY, NFD
TACAN (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
TACAN UYR CH 40		Final Apch Crs 073°		VDA AVTEX 2050' (1890')		MDA(H) 720' (560')		Apt Elev 160' TDZE 160'	
MISSED APCH: To 3100' outbound UYR TAC R-073 to D15.0.									
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.									
									MSA UYR TAC



NM to UYR TAC	15.0	14.0	13.0	12.0	11.0	9.7	9.0	8.0	7.0	6.0	5.0	4.0	3.0
VDA ALTITUDE	4980'	4630'	4270'	3920'	3570'	3100'	2860'	2510'	2150'	1800'	1440'	1090'	720'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	UYR TAC	D15.0
VDA	3.33°	412	530	589	707	825	PAPI	↑	CH 40	
MAP at D1.7 UYR TAC									R-073	

Military			STRAIGHT-IN LANDING RWY 08			CIRCLE-TO-LAND				
			MDA(H) 720' (560')							
			HIALS out			Max Kts				
A	1¼						90	MDA(H)		
B							120	720' (560') - 1¾		
C							140	720' (560') - 2		
D							165	900' (740') - 2		

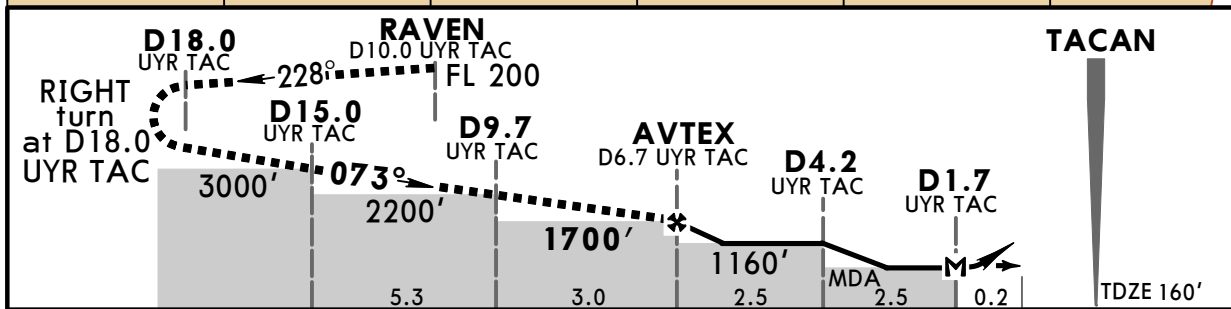
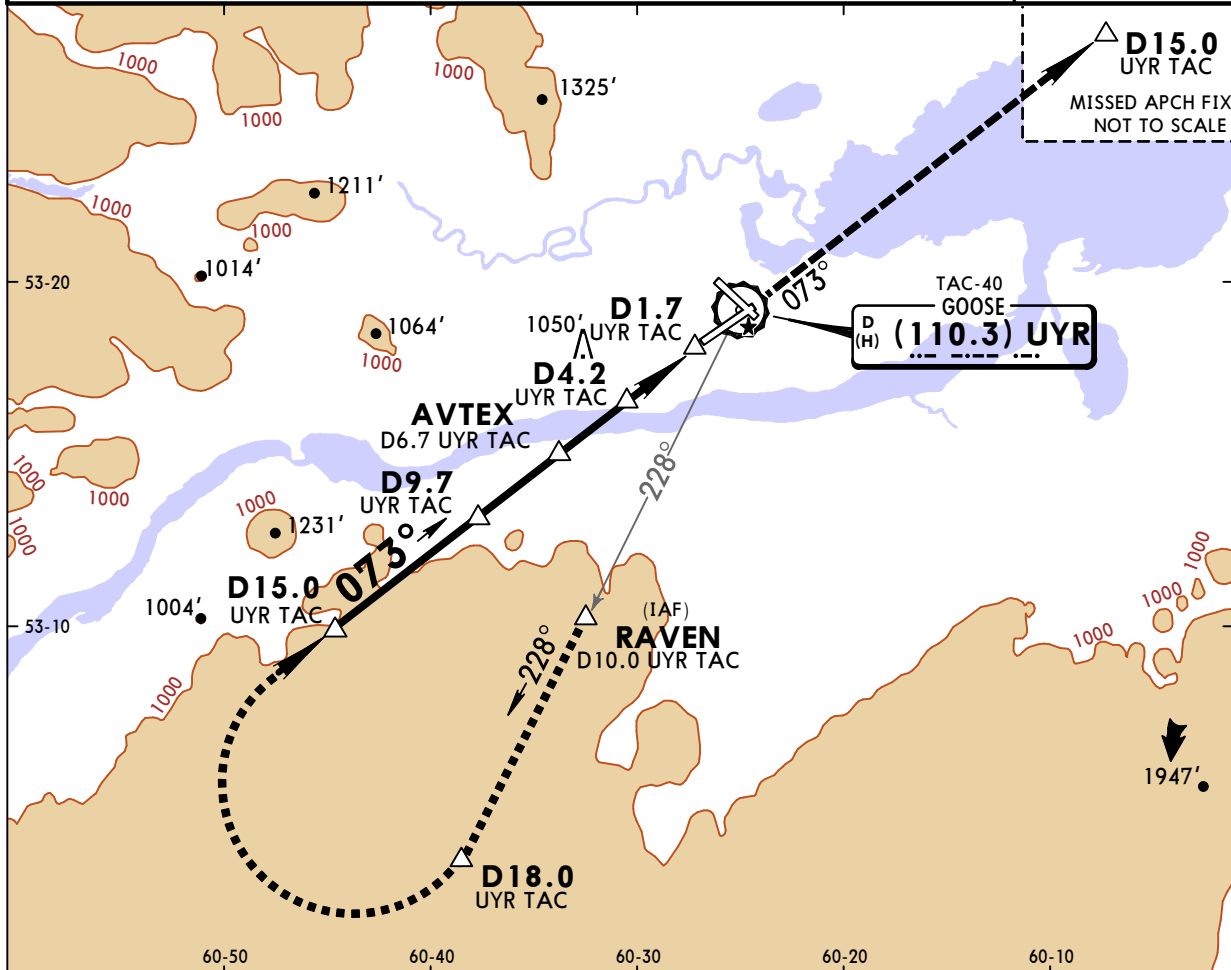
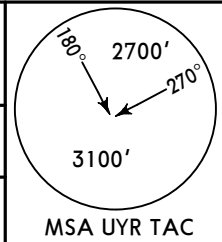
CYR/YYR
GOOSE BAYJEPPESEN
15 JUL 16
Eff 21 Jul

CAT B, C & D

GOOSE BAY, NFD
HI TACAN (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 073°	SMA AVTEX 1700' (1540')	MDA(H) 720' (560')	Apt Elev 160' TDZE 160'
MISSED APCH: To 3100' outbound UYR TAC R-073 to D15.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				



MAP at D1.7 UYR TAC	SSALR	3100'	UYR TAC CH 40 R-073	D15.0
	PAPI			

STRAIGHT-IN LANDING RWY 08			CIRCLE-TO-LAND	
MDA(H) 720' (560')			Max Kts	MDA(H)
NOT APPLICABLE			A	NOT APPLICABLE
			120	720' (560') - 1 3/4
			140	720' (560') - 2
			165	900' (740') - 2

CYYR/YJR
GOOSE BAY

JEPPESSEN

15 JUL 16 (14-3)

Eff 21 Jul

GOOSE BAY, NFLD

TACAN (DND) Rwy 26

ATIS	*GANDER Center	*GOOSE Arrival	GOOSE Tower	Ground
128.1	120.4	119.5	119.1	121.9

QC STRIP	TACAN UYR CH 40	Final Apch Crs 264°	VDA DUNID 1950' (1797')	MDA(H) 480' (327')	Apt Elev 160' TDZE 153'	

MISSED APCH: To 3100' outbound on UYR TAC R-264 within D14.0.

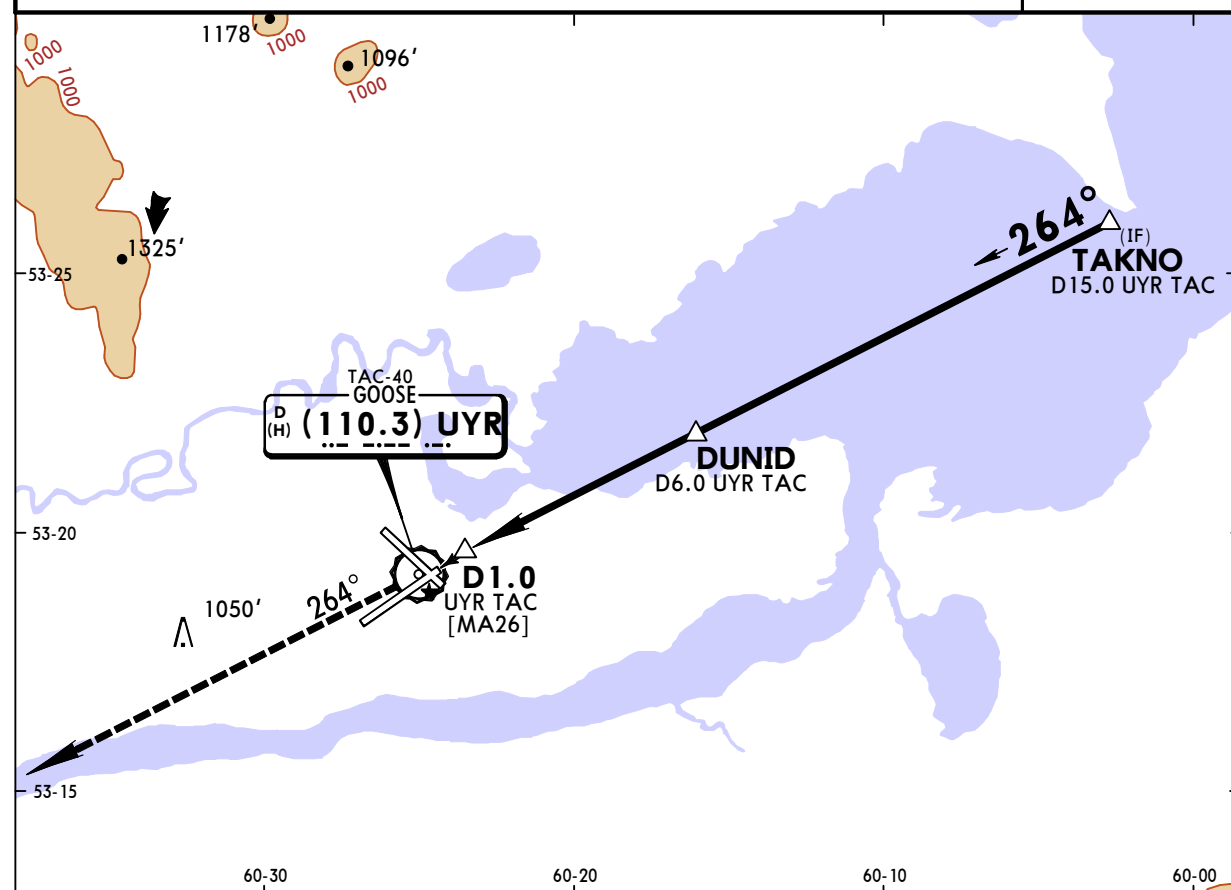
Alt Set: INCHES

Trans level: FL 180

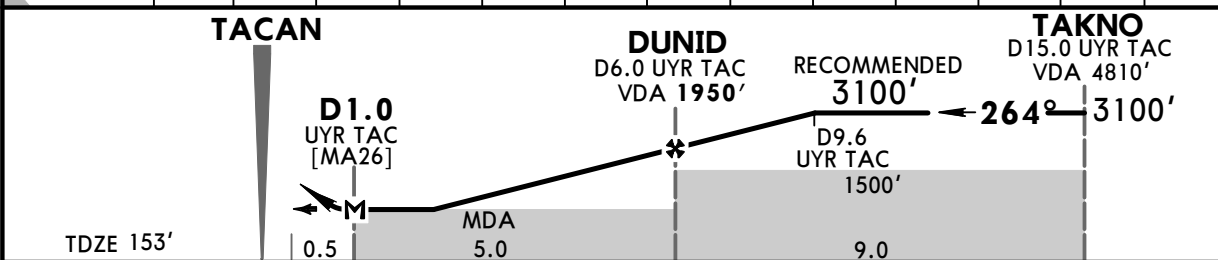
Trans alt: 18000'

1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.

MSA UYR TAC



NM to UYR TAC	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	15.0
VDA ALTITUDE	480'	670'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4810'



Gnd speed-Kts	70	90	100	120	140	160		UYR TAC on CH 40 within D14.0 R-264	
VDA 3.00°	372	478	531	637	743	849			
MAP at D1.0 UYR TAC									

Military

STRAIGHT-IN LANDING RWY26

CIRCLE-TO-LAND

MDA(H) **480'**(327')

HIALS outMax
Kts.

MDA(H)

660' (500') - 1½

660' (500') -2

900' (740') -2

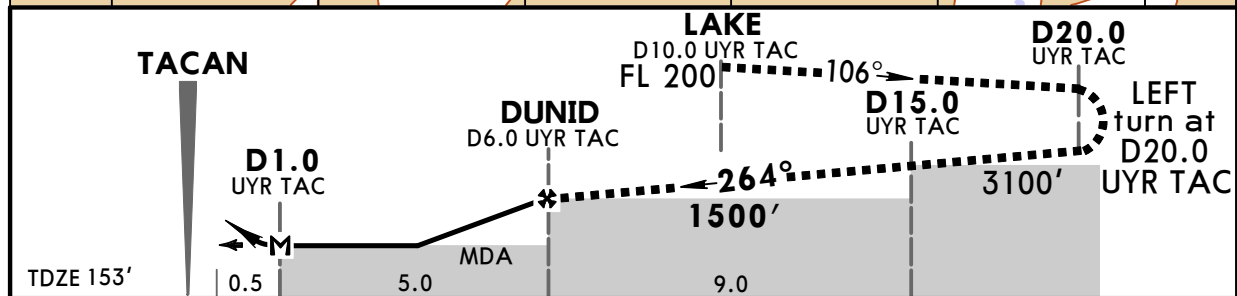
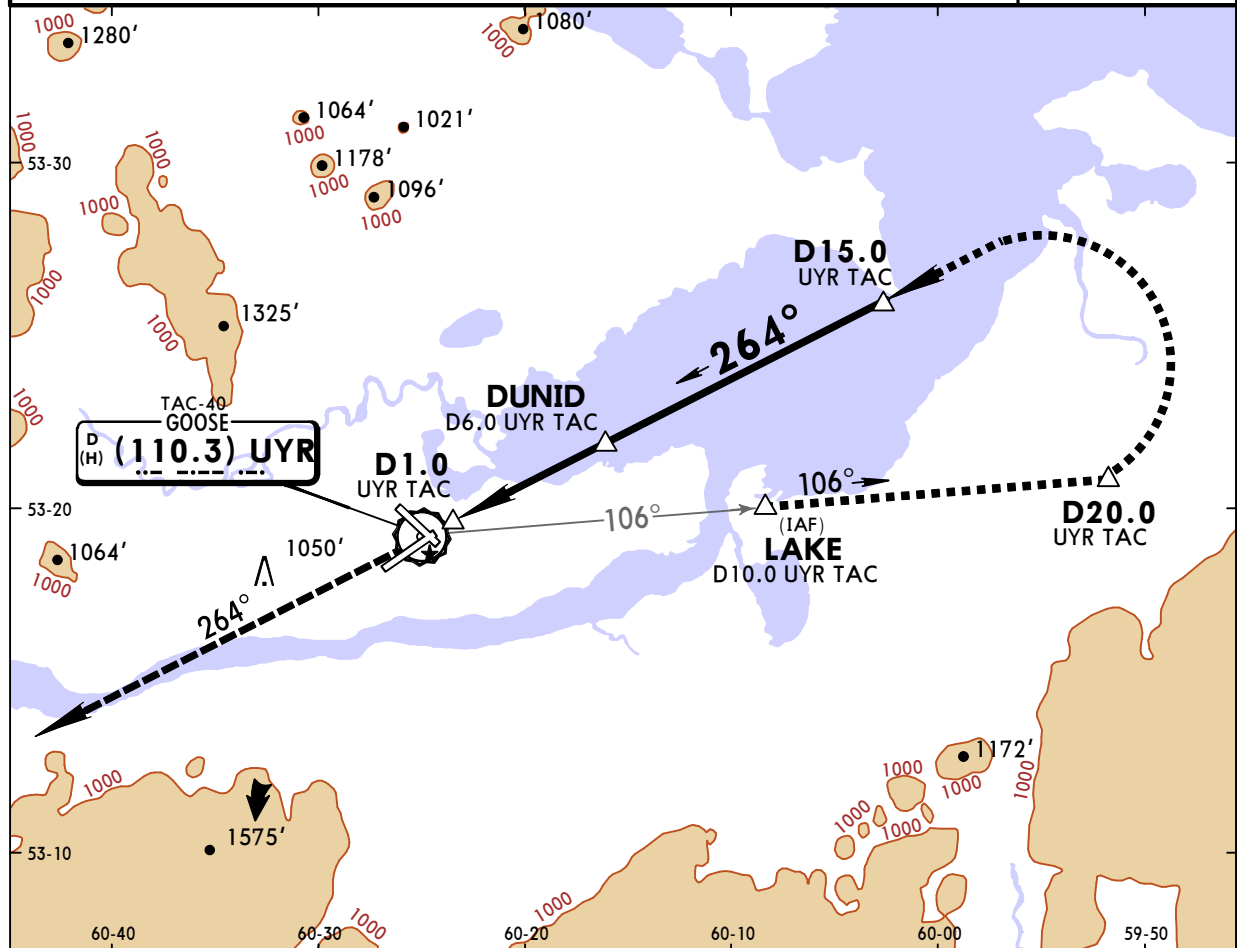
CYR/YYR
GOOSE BAYJEPPESSEN
15 JUL 16
Eff 21 Jul

CAT B, C & D

GOOSE BAY, NFLD
HI TACAN (DND) Rwy 26

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 264°	SMA DUNID 1500' (1347')	MDA(H) 480' (327')	Apt Elev 160' TDZE 153'
MISSED APCH: To 3100' outbound on UYR TAC R-264 within D14.0.				
Alt Set: INCHES 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				MSA UYR TAC

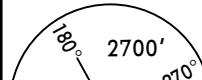


MAP at D1.0 UYR TAC	SSALR	3100'	UYR TAC	on CH 40 within D14.0
	PAPI			
	PAPI			

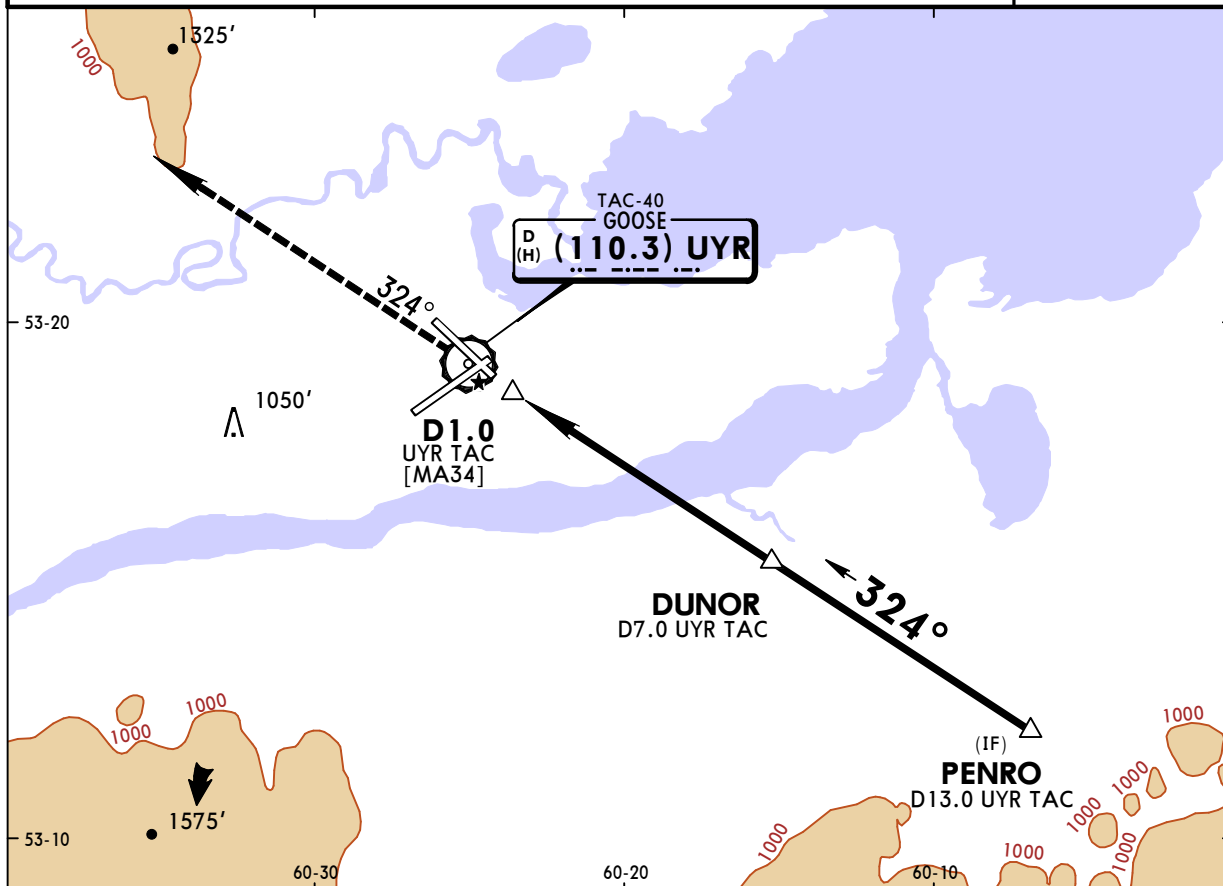
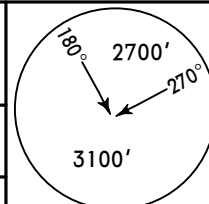
Military			CIRCLE-TO-LAND		
STRAIGHT-IN LANDING RWY26					
MDA(H) 480' (327')			Max Kts		
HIALS out			MDA(H)		
A	NOT APPLICABLE		A	NOT APPLICABLE	
B			120	660' (500') -1½	
C	1		140	660' (500') -2	
D			165	900' (740') -2	

CYR/YR
GOOSE BAYJEPPesen
15 JUL 16 (14-5) Eff 21 JulGOOSE BAY, NFLD
TACAN (DND) Rwy 34

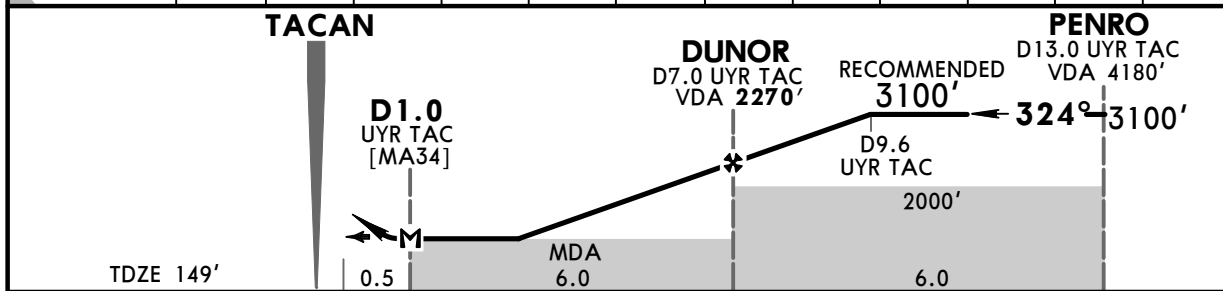
BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
TACAN UYR CH 40		Final Apch Crs 324°		VDA DUNOR 2270' (2121')		MDA(H) 540' (391')		Apt Elev 160' TDZE 149'	
MISSED APCH: To 3100' on UYR TAC R-324 within D14.0.									 180° 2700' 270° 3100'
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.									

MSA UYR TAC



NM to UYR TAC	1.6	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	13.0
VDA ALTITUDE	540'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4180'



Gnd speed-Kts	70	90	100	120	140	160	ALS	3100'	UYR TAC	D14.0
VDA	3.00°	372	478	531	637	743	849	PAPI	CH 40	within
MAP at D1.0 UYR TAC									R-324	

Military		STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND	
		MDA(H) 540' (391')					
		ALS out				Max Kts	MDA(H)
A	1¼				90	660' (500') - 1½	
B					120		
C					140	660' (500') - 2	
D					165	900' (740') - 2	

CYYR/YYR
GOOSE BAY
JEPPesen
 15 JUL 16
 Eff 21 Jul

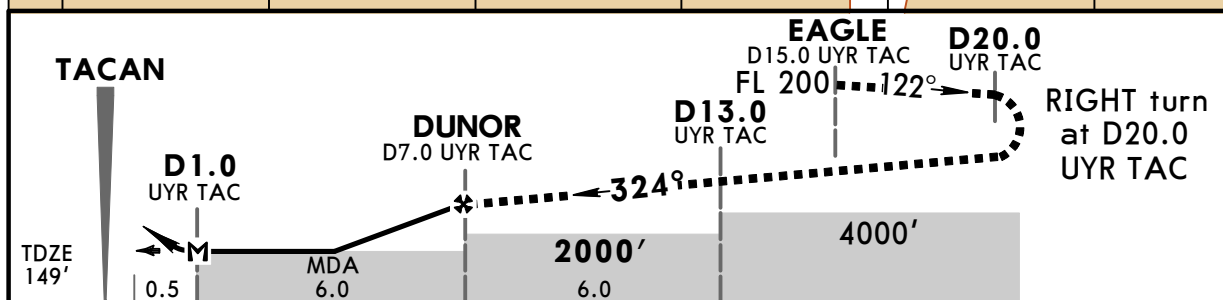
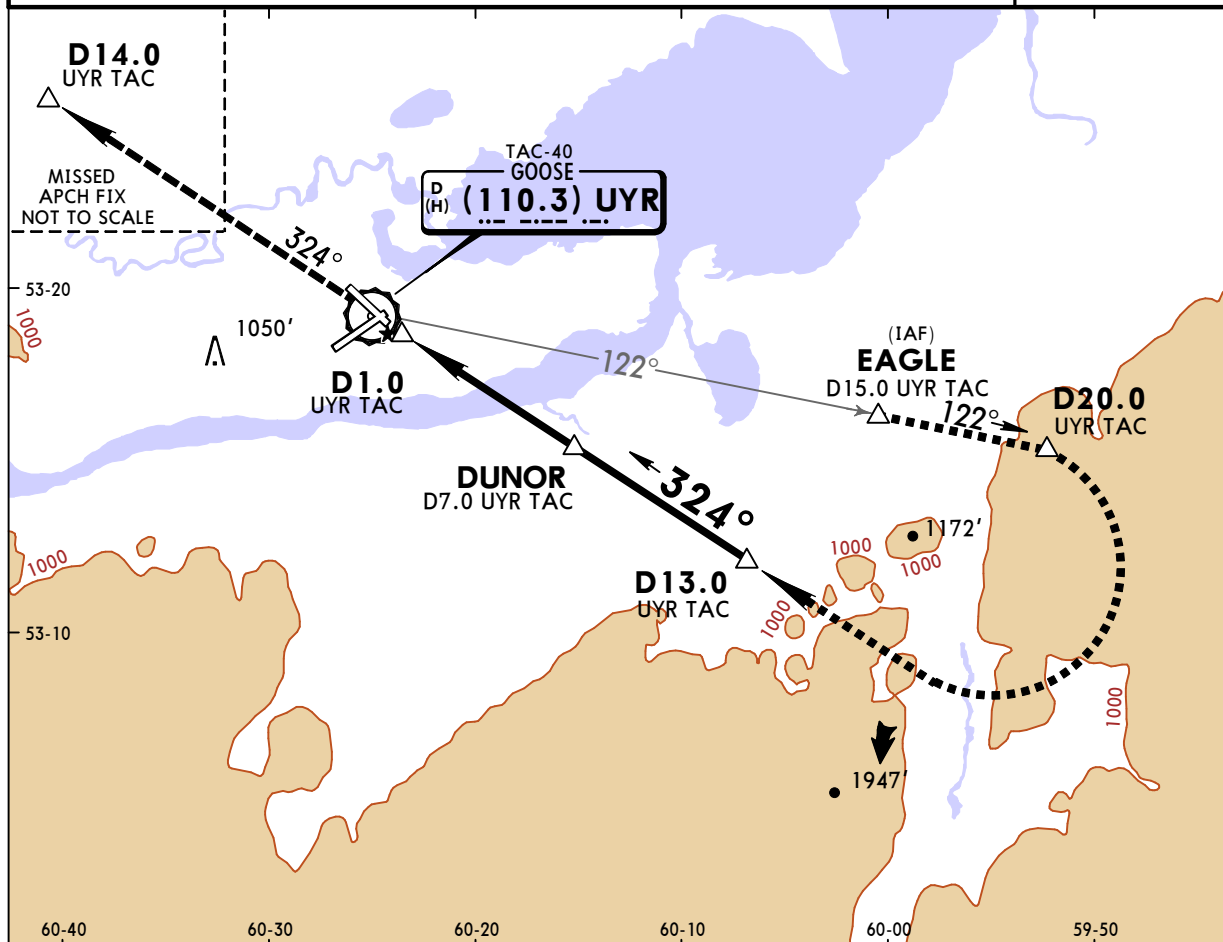
CAT B, C & D

GOOSE BAY, Nfld
HI TACAN (DND) Rwy 34

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
TACAN UYR CH 40		Final Apch Crs 324°		SMA DUNOR 2000' (1851')		MDA(H) 540' (391')		Apt Elev 160' TDZE 149'	
MISSED APCH: To 3100' on UYR TAC R-324 to D14.0.									
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.									

MSA UYR TAC

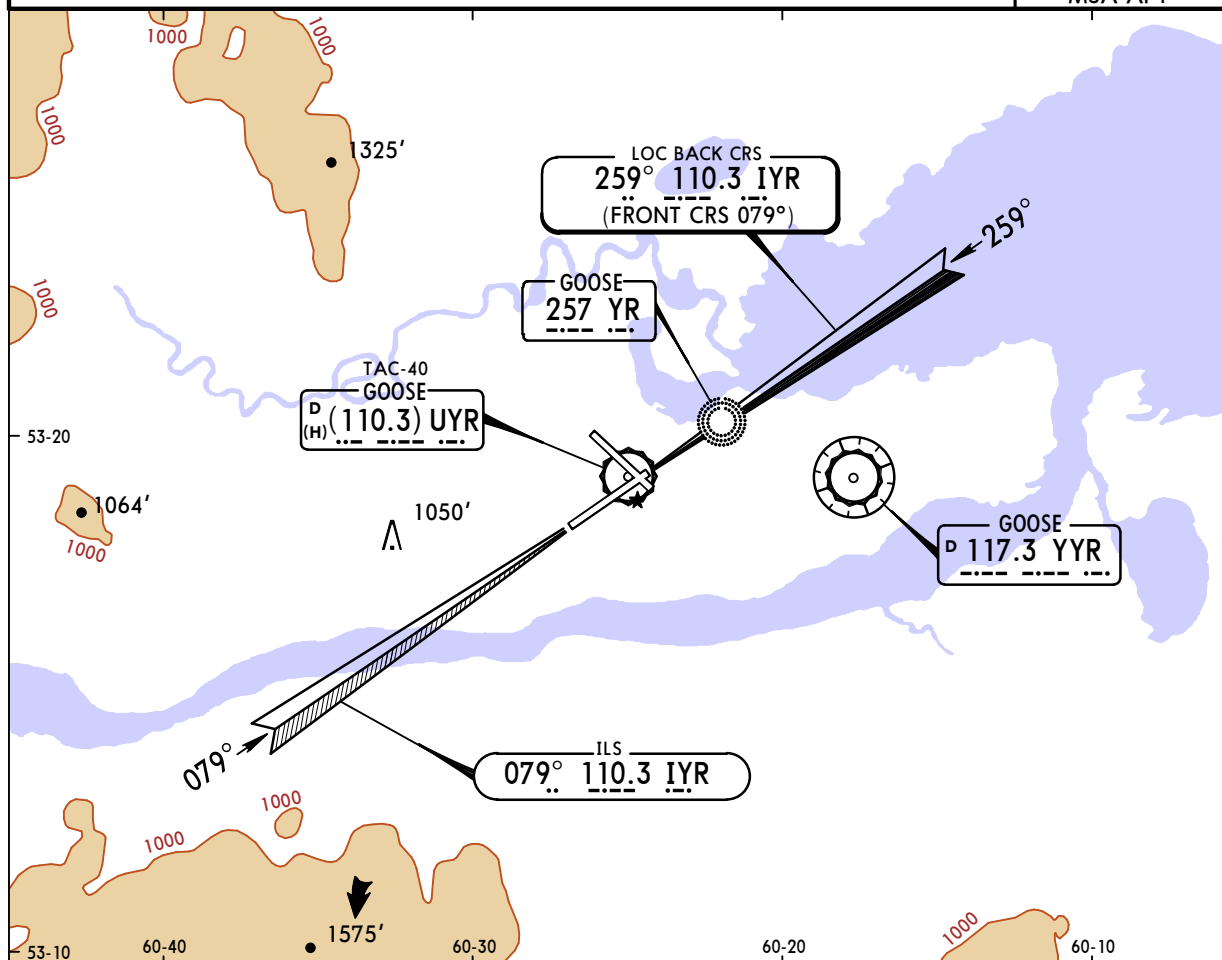


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CYJR/YJR
GOOSE BAYJEPPESEN
4 NOV 16
Eff 10 Nov (18-1)GOOSE BAY, NFLD
PAR (DND) Rwy 08, 26

BRIEFING STRIP

ATIS 128.1	*GANDER Center 120.4	*GOOSE Terminal 119.5	GOOSE Radar 119.9	GOOSE Tower 119.1	Ground 121.9
RADAR	Final Apch Crs By ATC	Minimum Alt No FAF	DA(H) Refer to Minimums	Apt Elev 160' TDZE-See below	3100' MSA APT
Missed Approach-See below.					
Alt Set: INCHES 1. SAFE ALTITUDE WITHIN 100 NM 6000'. Trans level: FL 180 Trans alt: 18000'					

**Missed Approach:**

PAR Runway 08: Climb to 3100' heading 079°. RIGHT turn direct to YR NDB. Hold inbound 259° at 3100'.

PAR Runway 26: Climb to 3100' heading 250°. LEFT turn direct to YR NDB. Hold inbound 259° at 3100'.

RWY 08

PAR TCH 55'

TDZE 160'

RWY 26

PAR TCH 59'

TDZE 153'

Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart
RWY 08,26 PAR GS 3.00°	372	478	531	637	743	849	

Military

STRAIGHT-IN LANDING

PAR 08

DA(H) 360' (200')

FULL

PAR 26

DA(H) 353' (200')

FULL

A	RVR 26 or 1/2	1/2
B		
C		
D		

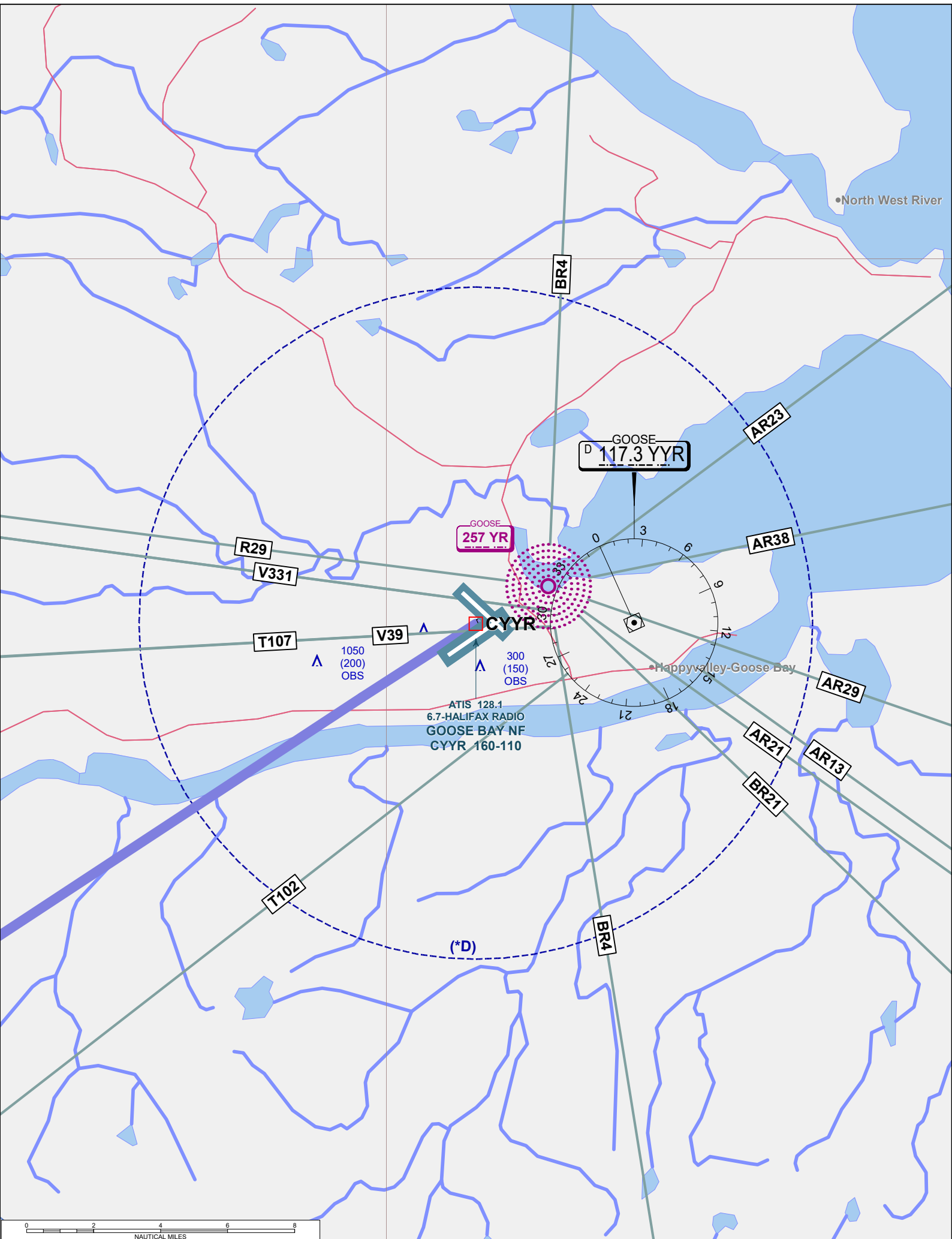
9.0.1 DEPARTURE (CYYR -> CYOW): CYYR (Goose Bay)

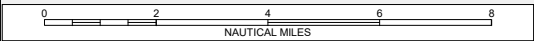
NavData Cycle 2009-1 Expired: Friday, 13 February 2009.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 05 Oct 2018

JEPPesen

JeppView 3.6.2.0



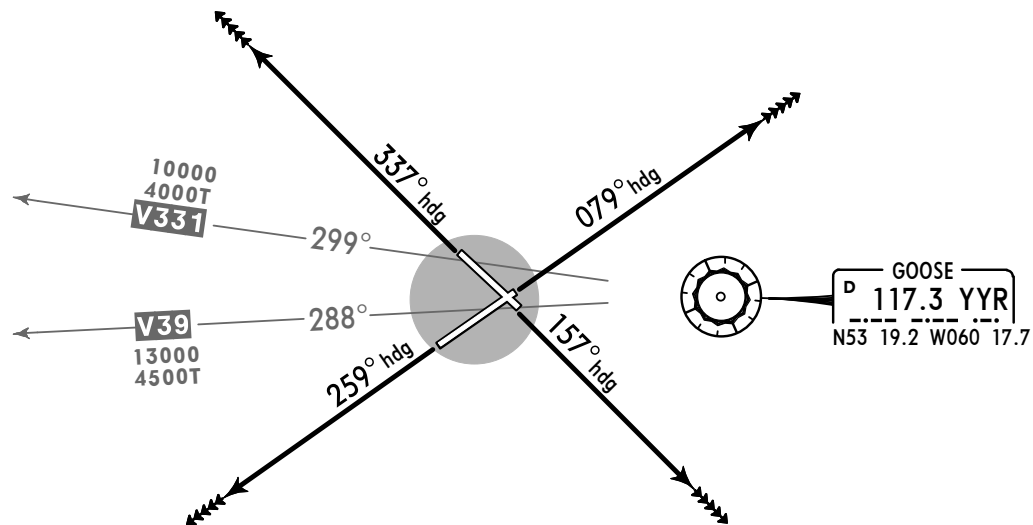


CYYR/YYR
GOOSE BAY**JEPPESEN**

28 MAR 14

10-3

Eff 3 Apr

GOOSE BAY, NFLD**SID***GOOSE
Departure
119.5*GANDER
Center
120.4
when Dep inop.Apt Elev
160'Trans level: FL 180 Trans alt: 18000'
Safe Altitude within 100 NM 6000'.**GOOSE BAY TWO DEPARTURE (CYYR2.) (VECTOR)**

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

Transponder Mode A/3 Code 7600

On recognition of communication failure 10 minutes or less after take-off and in IFR weather conditions, proceed as follows:

1. Upon reaching 6000' or last assigned altitude, whichever is higher, proceed directly on course;
2. Maintain this altitude for 10 minutes after take-off; then
3. Climb to flight planned altitude.

Note: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

ROUTING

Climb runway heading for vectors.

ALTITUDEMAINTAIN
6000'

CYR/YYR

Apt Elev **160'**
N53 19.2 W060 25.6



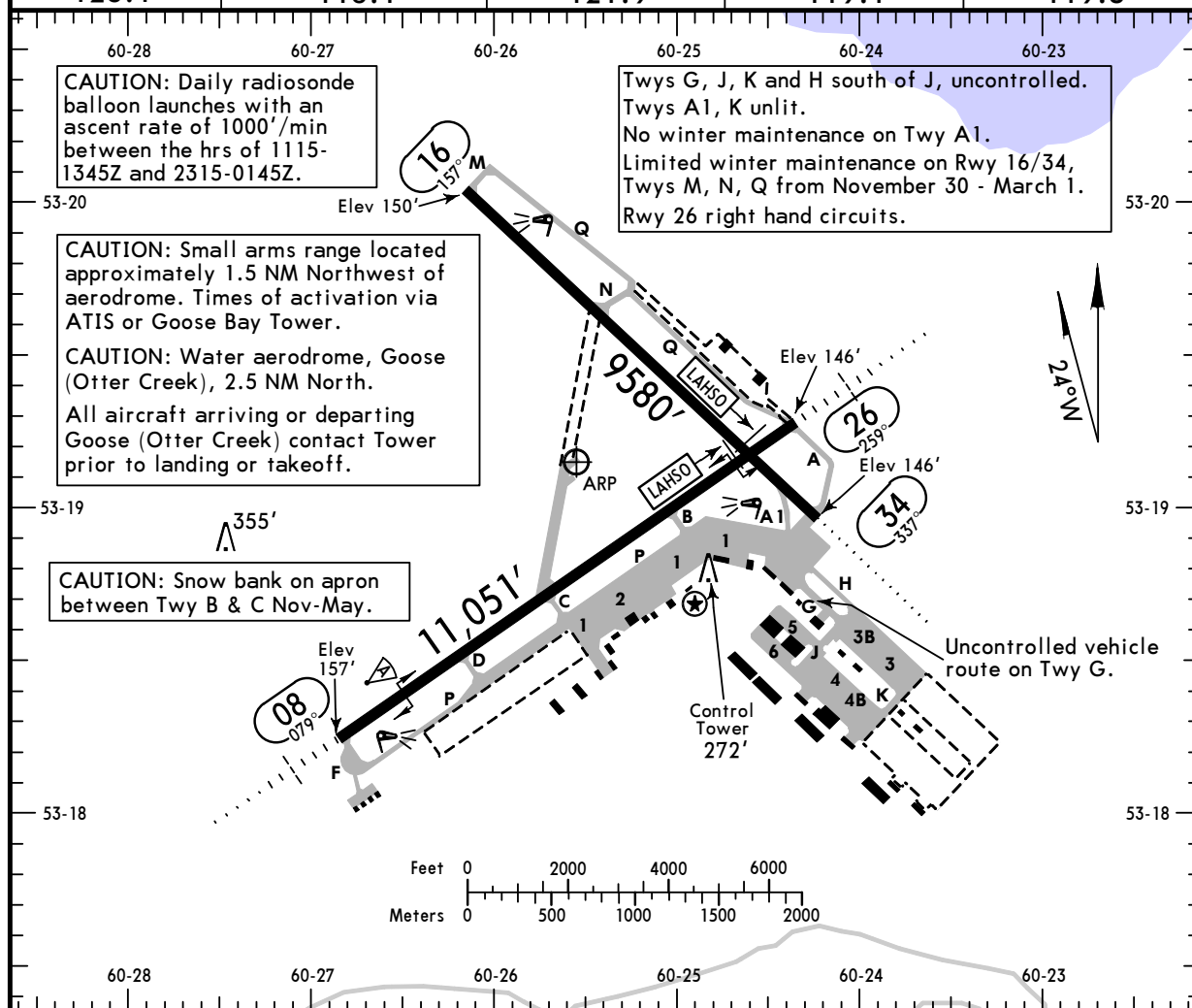
3 JAN 14

10-9

GOOSE BAY, NFLD

GOOSE BAY

ATIS	GOOSE Clearance Delivery	Ground	Tower	*GOOSE Departure
128.1	118.1	121.9	119.1	119.5



ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS		LAHSO Distance	WIDTH
		— LANDING Threshold —	BEYOND Glide Slope		
08 26	HIRL SSALR (non-std) ① PAPI-R (angle 3.0°) RVR		10,001'	16/34 9650'	200'
	HIRL SSALR ① PAPI-L (angle 3.0°)		10,051'		
16 34	HIRL REIL ① PAPI-R (angle 3.0°)			08/26 7400'	200'
	HIRL ALS-(yellow) ① PAPI-L (angle 3.0°)				

① For aircraft with eye-to-wheel height up to 25'.

TAKE-OFF & DEPARTURE PROCEDURE				
	Rwys 08, 16	Rwy 26	Rwy 34	
	Climb runway heading to 1100' before proceeding on course.	Climb runway heading to 1500' before proceeding on course.	1 Requires a minimum climb gradient of 220'/NM to 1600' on runway heading before proceeding on course.	Climb visual to 1600' before proceeding on course.
A	1/2	1/2	1/2	1
B				1 1/2
C				
D				2

1 DEPARTURE CLIMB RATE V/V (FPM)

GROUND SPEED	90	120	140	160	180	200	250	300
220 FT/NM	330	440	520	590	660	740	920	1100

CYR/YYR

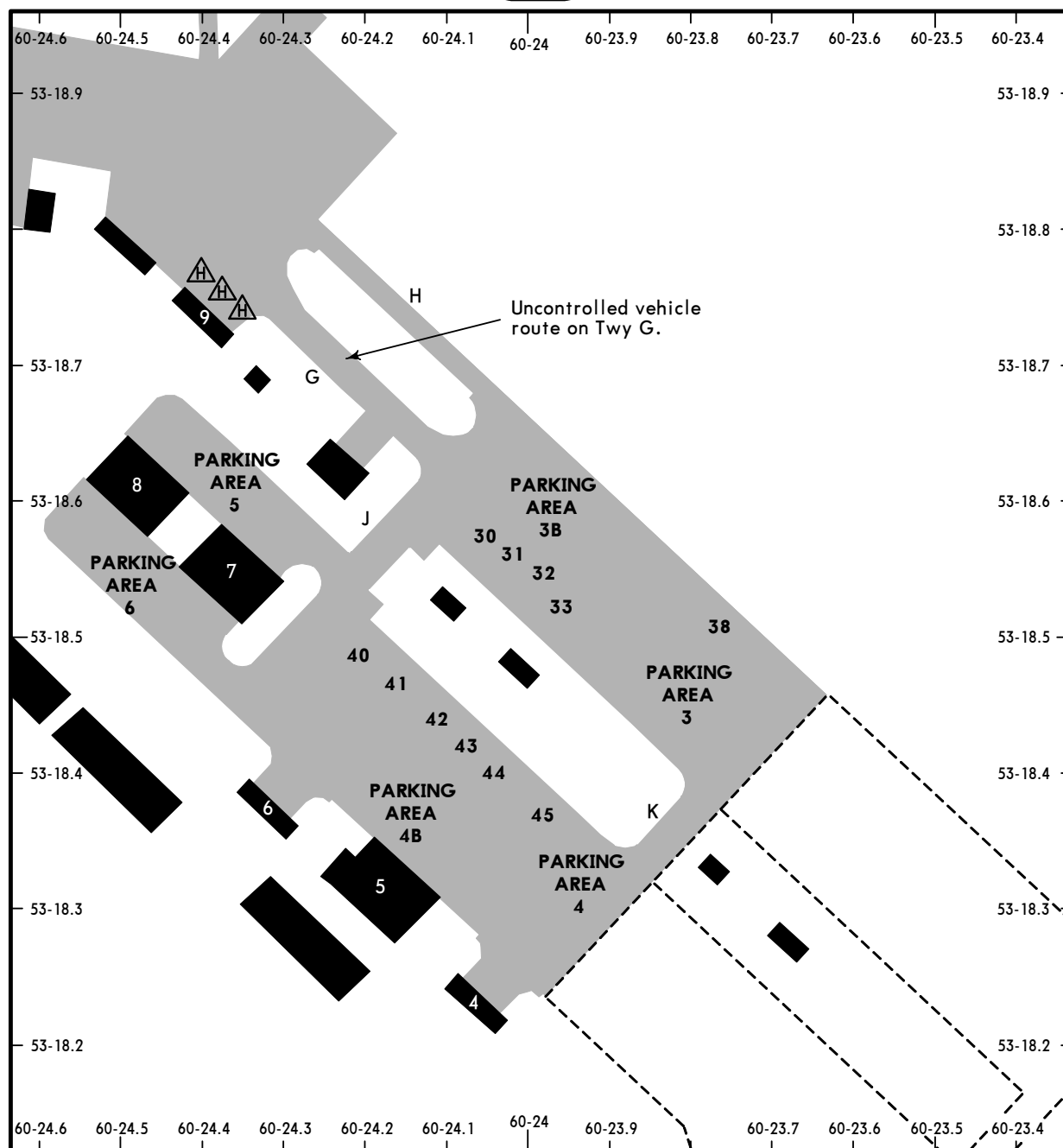
JEPPESEN

3 JAN 14

(10-9A)

GOOSE BAY, Nfld

GOOSE BAY

**PARKING SPOT COORDINATES**

SPOT No.	COORDINATES
30, 31	N53 18.6 W060 24.0
32	N53 18.6 W060 23.9
33	N53 18.5 W060 23.9
38	N53 18.5 W060 23.8
40, 41	N53 18.5 W060 24.2
42, 43, 44	N53 18.4 W060 24.1
45	N53 18.4 W060 24.0

CYR/YYR
GOOSE BAY

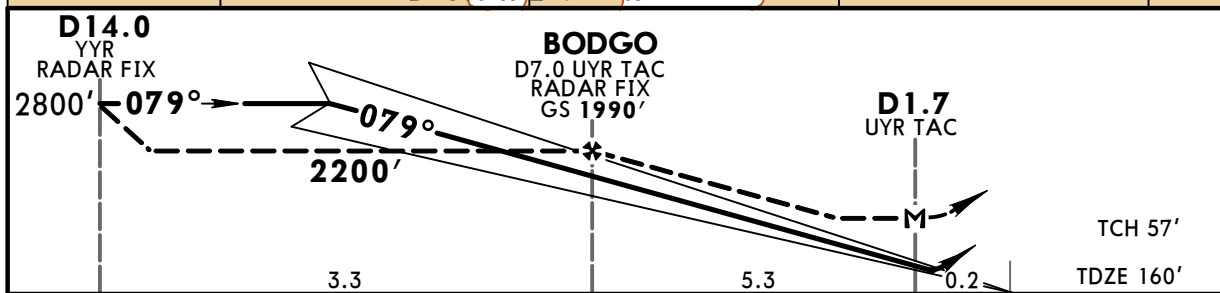
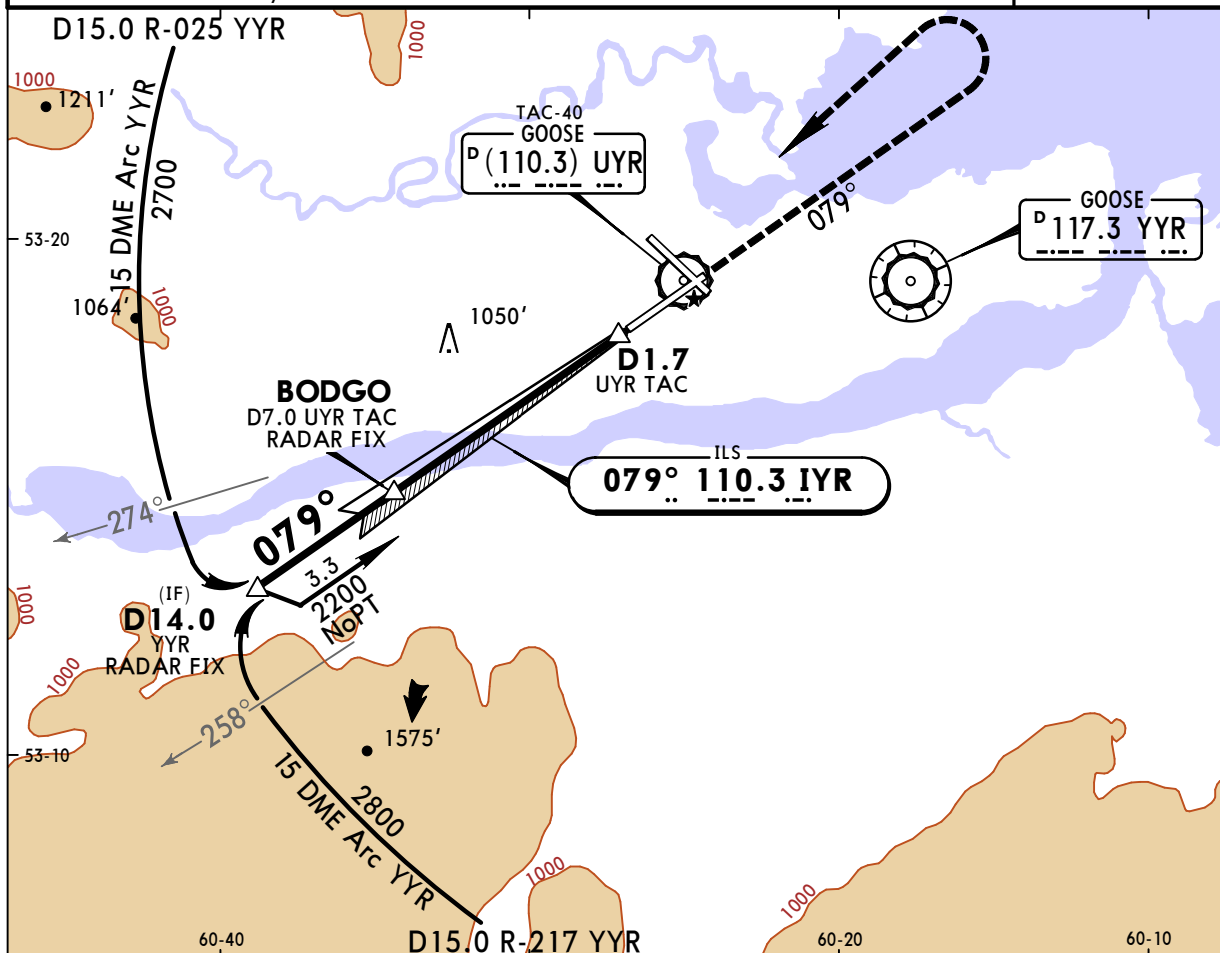
JEPPesen

15 JUL 16 (11-1) Eff 21 Jul

GOOSE BAY, Nfld
ILS Z (DND) Rwy 08

BRIEFING STRIP™

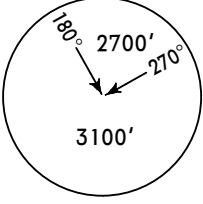
ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
LOC IYR 110.3	Final Apch Crs 079°	GS BODGO 1990' (1830')	ILS DA(H) 360' (200')	Apt Elev 160' TDZE 160'
MISSED APCH: Climb to 3100' on track of 079°. LEFT turn to BODGO.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED. 3. Localizer reliable only within 15° either side of centerline.				
MSA UYR TAC				

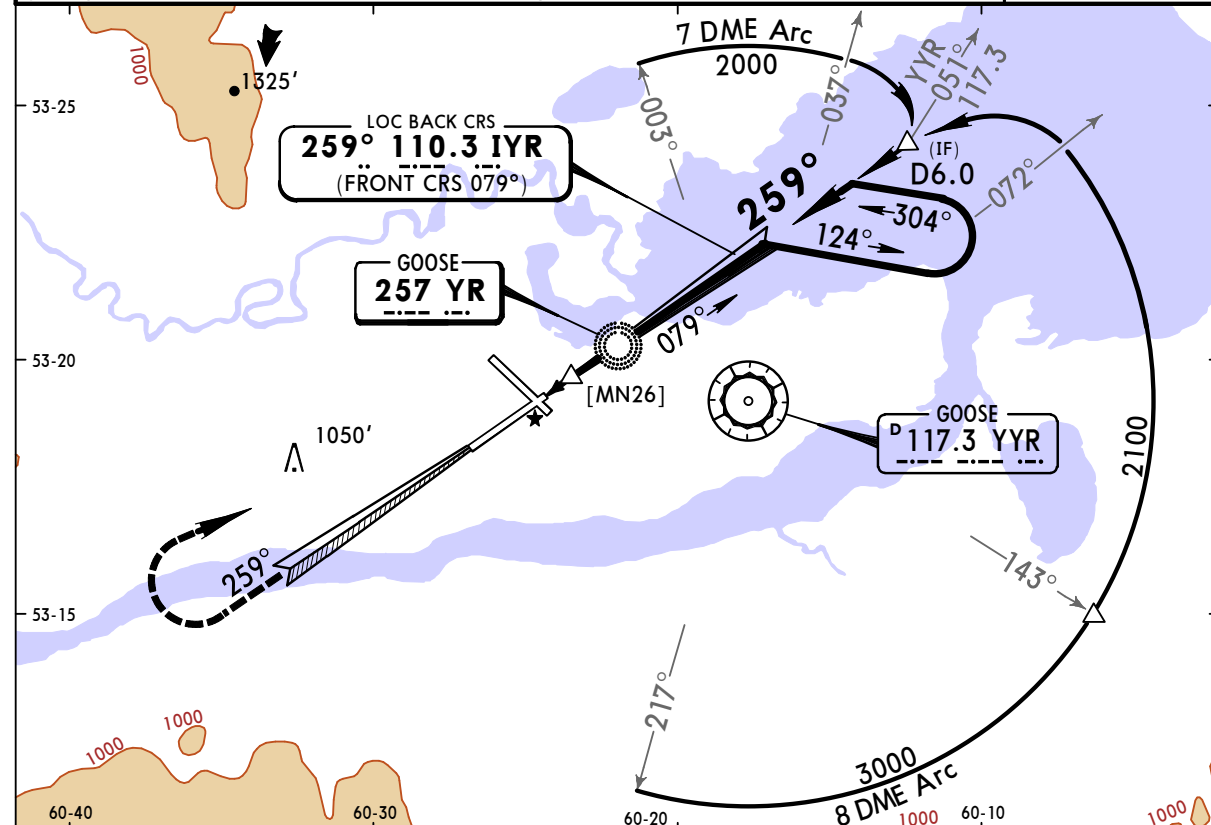


Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	079°	LT	BODGO
GS	3.00°	372	478	531	637	743	PAPI	↑	on		
MAP at D1.7 UYR TAC											

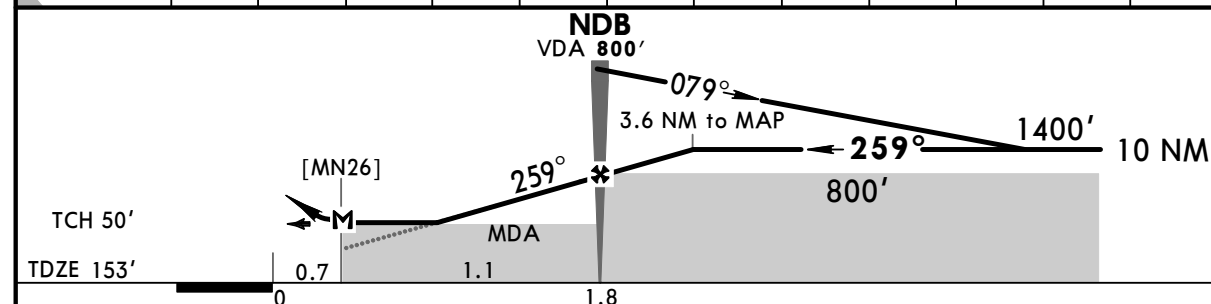
STRAIGHT-IN LANDING RWY 08					CIRCLE-TO-LAND			
ILS DME			LOC (GS out) DME		Max Kts	MDA(H)		
DA(H) 360'(200')			MDA(H) 560'(400')					
FULL				HIALS out				
A	RVR 26 or 1/2			1		90	660'(500') - 1 1/2	
B						120		
C						140		660'(500') - 2
D						165		900'(740') - 2

CYYR/YR
GOOSE BAY
JEPPesen
 15 JUL 16
 Eff 21 Jul **(11-2)**
GOOSE BAY, NFLD
LOC (BACK CRS) Z
or NDB (DND) Rwy 26

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
LOC IYR 110.3	Final Apch Crs 259° (Front Crs 079°)	VDA NDB 800' (647')	LOC (BACK CRS) MDA(H) 480' (327')	Apt Elev 160'
NDB YR 257			NDB MDA(H) 600' (447')	TDZE 153'
MISSED APCH: Climb to 2000' on track of 259°. RIGHT turn to YR NDB at 3100'.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Back course no glide slope. 3. Ignore glide path indications. 4. Localizer reliable only within 10° either side of centerline.				
				 MSA YR NDB



NM to MAP	1.1	2.0	3.0	4.0	5.0	5.7	7.0	8.0	9.0	10.0	11.0	11.8
VDA ALTITUDE	480'	870'	1210'	1540'	1880'	2100'	2550'	2890'	3220'	3560'	3900'	4170'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	2000'	3100'	YR
VDA	3.17°	393	505	561	673	785	PAPI	259°	RT	257
NDB to MAP	1.1	0:57	0:44	0:40	0:33	0:28	0:25			

STRAIGHT-IN LANDING RWY 26				CIRCLE-TO-LAND			
LOC (BACK CRS)		NDB		Max Kts		MDA(H)	
MDA(H) 480' (327')		MDA(H) 600' (447')					
HIALS out		HIALS out		90		660' (500') - 1½	
RVR 50 or 1		1		120		660' (500') - 2	
				140			
				D		NOT AUTHORIZED	

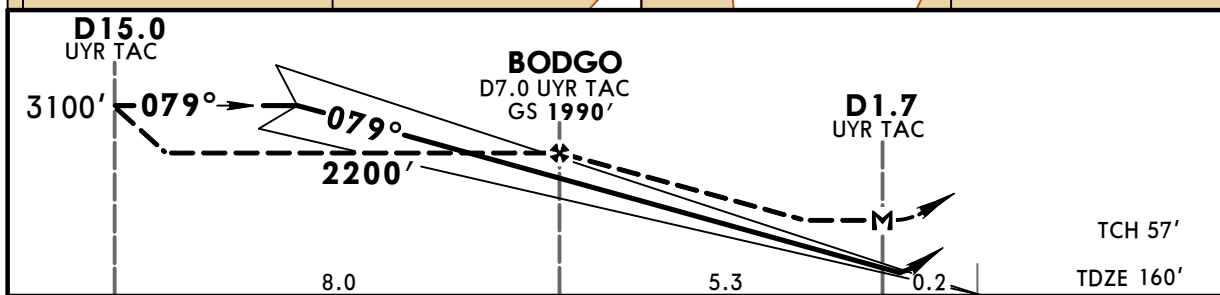
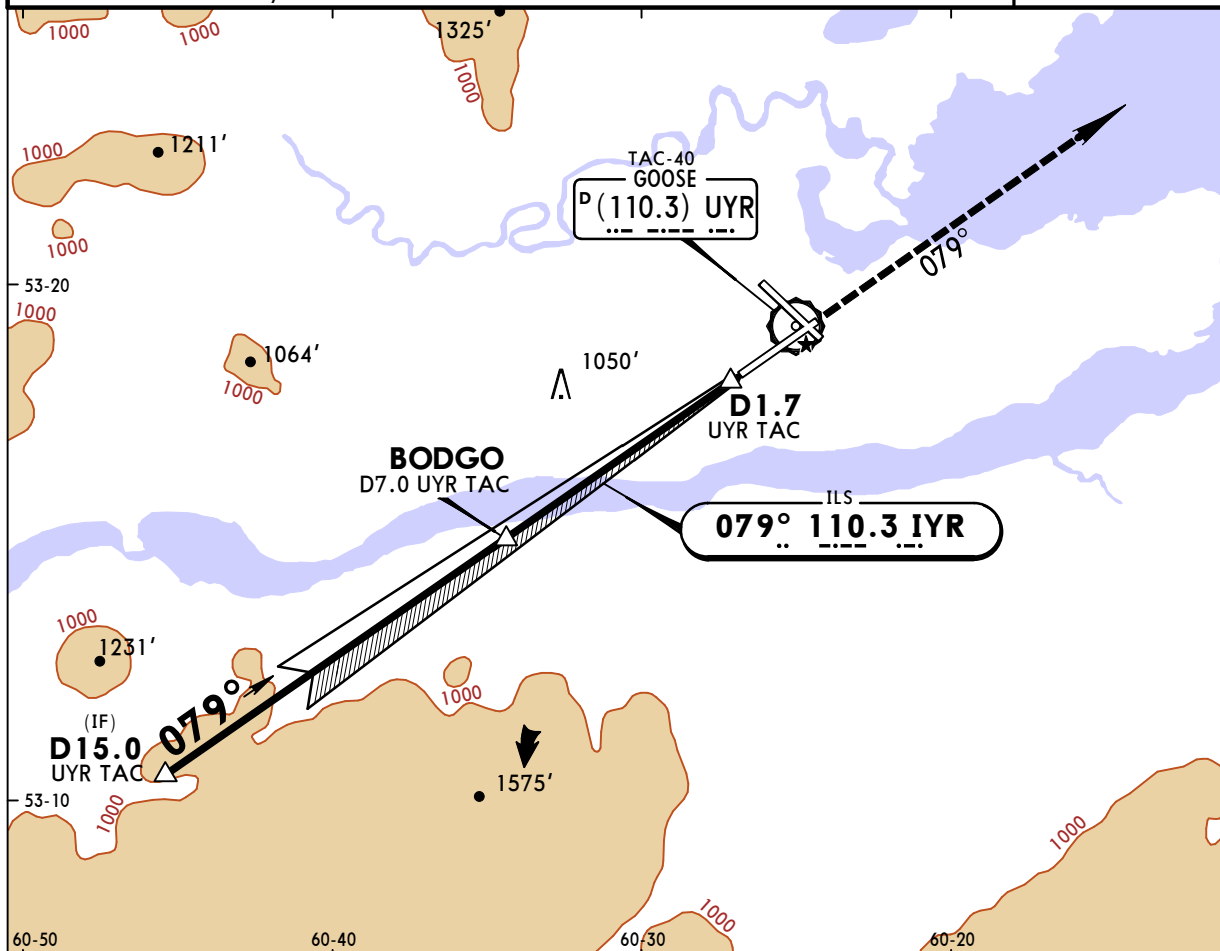
CYYR/YR
GOOSE BAY
JEPPesen

15 JUL 16 (11-3) Eff 21 Jul

GOOSE BAY, NFLD
ILS Y (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
LOC IYR 110.3	Final Apch Crs 079°	GS BODGO 1990' (1830')	ILS DA(H) 360' (200')	Apt Elev 160' TDZE 160'
MISSED APCH: Climb to 3100' on 079° to D15.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED. 3. Localizer reliable only within 15° either side of centerline.				
MSA UYR TAC				



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	on 079°	D15.0
GS	3.00°	372	478	531	637	743	PAPI			
MAP at D1.7 UYR TAC										

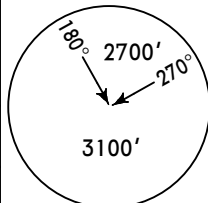
Military				STRAIGHT-IN LANDING RWY 08				CIRCLE-TO-LAND			
ILS DME				LOC (GS out) DME				MDA(H)			
DA(H) 360' (200')				MDA(H) 560' (400')							
FULL				HALS out				Max Kts			
A									90	660' (500') - 1½	
B									120		
C	RVR 26 or ½				1				140	660' (500') - 2	
D									165	900' (740') - 2	

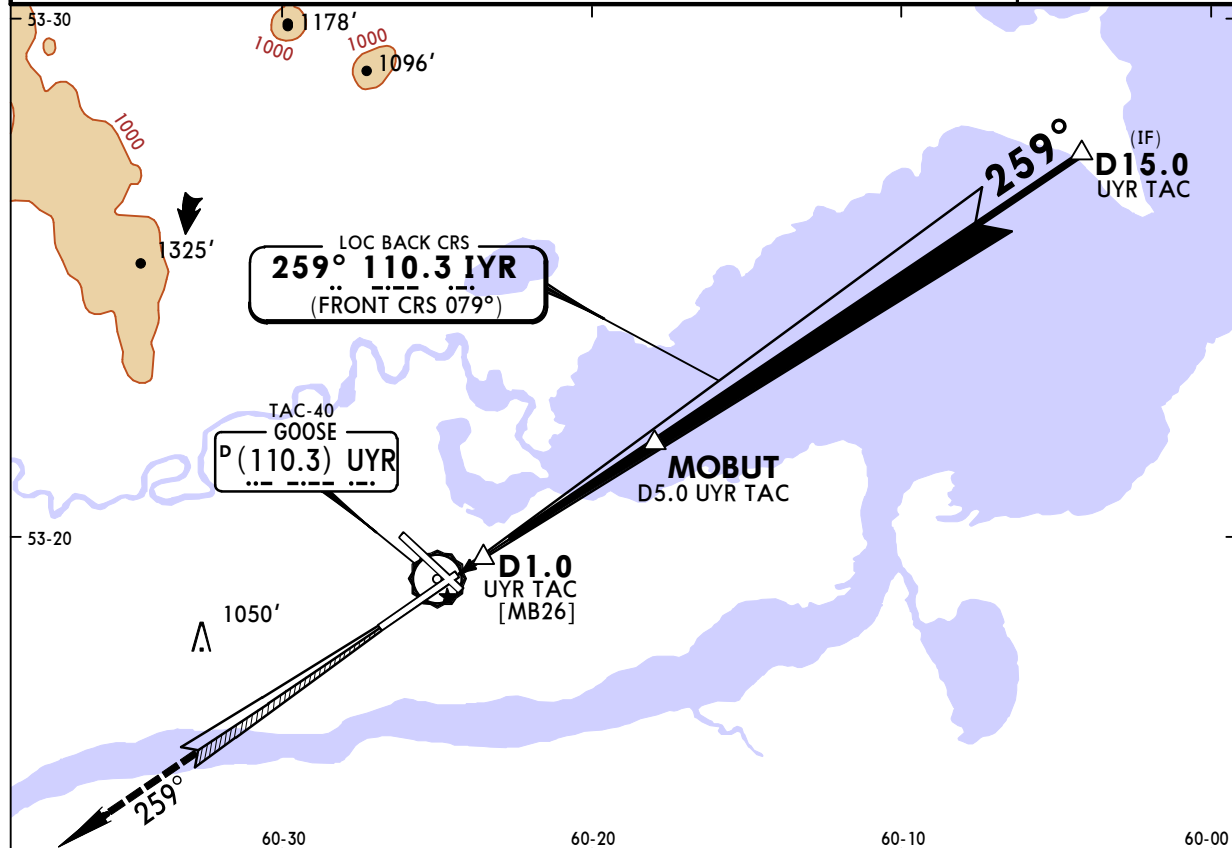
CYR/YYR
GOOSE BAYJEPPESEN
15 JUL 16
Eff 21 Jul

(11-4)

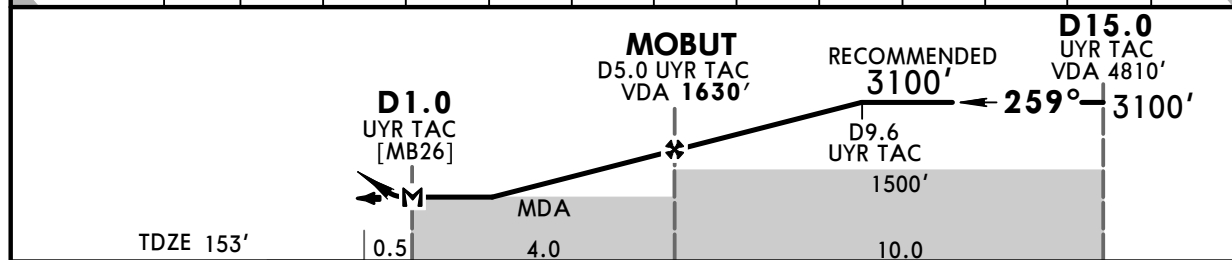
GOOSE BAY, NFLD
LOC (BACK CRS) Y (DND) Rwy 26

BRIEFING STRIP

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
IYR LOC 110.3	Final Apch Crs 259° (Front Crs 079°)	VDA MOBUT 1630' (1477')	LOC (BACK CRS) MDA(H) 480' (327')	Apt Elev 160' TDZE 153'
MISSED APCH: Climb to 3100' track 259° to D15.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Back course no glide slope. 3. Ignore glide path indications. 4. Localizer reliable only within 10° either side of centerline. 5. Procedure turn NOT AUTHORIZED.				
				 MSA UYR TAC



NM to UYR TAC	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	15.0
VDA ALTITUDE	480'	670'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4810'



Gnd speed-Kts	70	90	100	120	140	160		SSALR	3100'	259°	D15.0
VDA	3.00°	372	478	531	637	743	849	PAPI			
MAP at D1.0 UYR TAC											

Military

STRAIGHT-IN LANDING RWY 26

LOC (BACK CRS)

MDA(H) 480' (327')

HIALS out

A
B
C
D

1

Max
Kts
90
120
140
165

CIRCLE-TO-LAND

MDA(H)

660' (500') -1½

660' (500') -2

900' (740') -2

CYR/YYR
GOOSE BAYTACAN Azimuth
Required

15 JUL 16

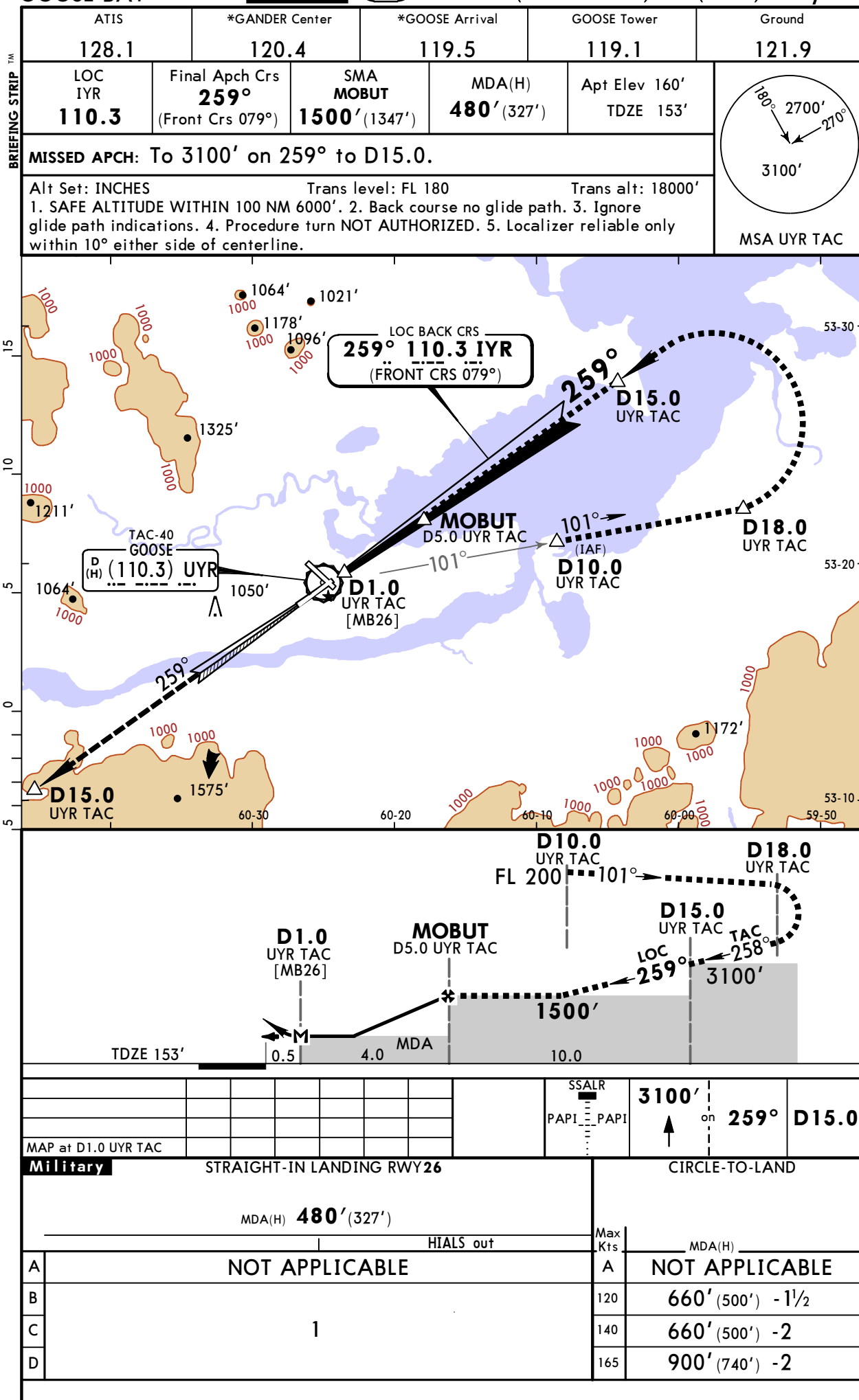
Eff 21 Jul

JEPPESEN

CAT B, C & D

GOOSE BAY, NFLD

(11-5) HI LOC (BACK CRS) X (DND) Rwy 26



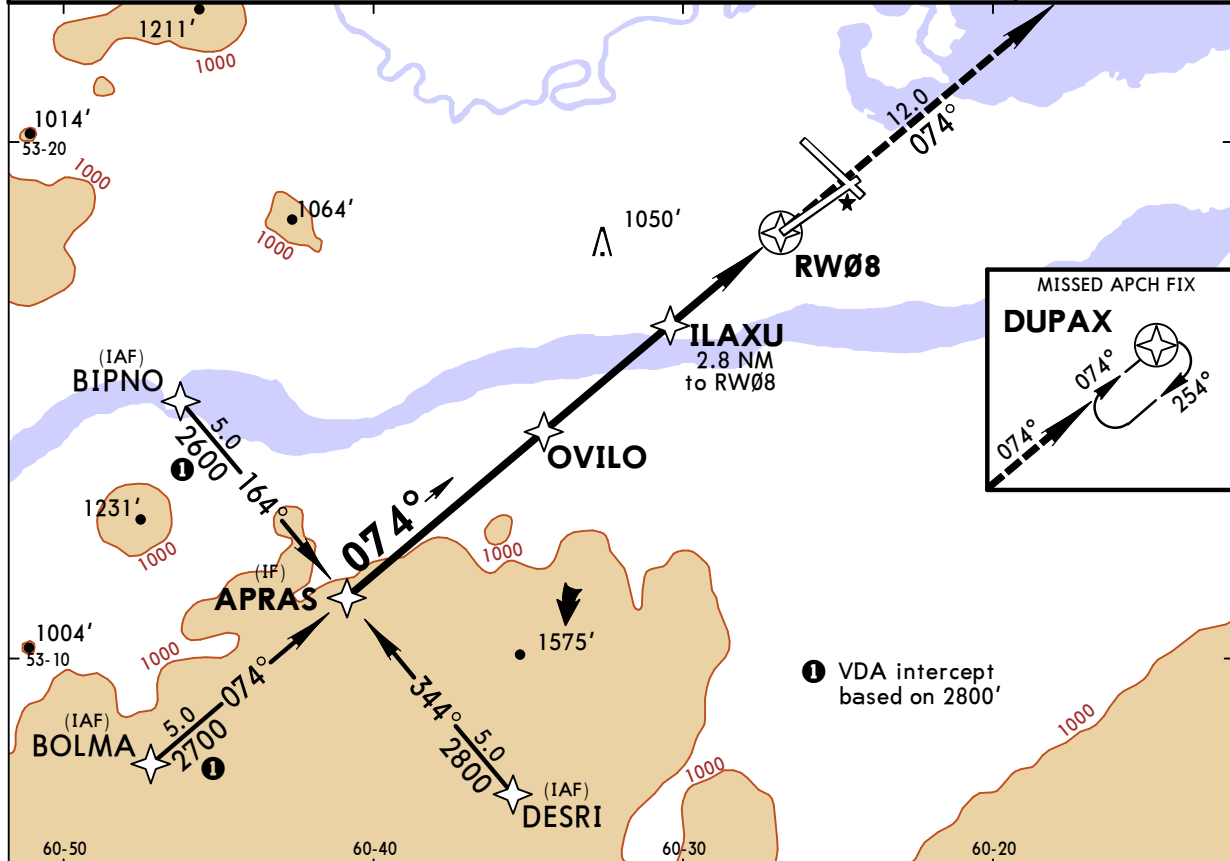
CYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep

(12-1)

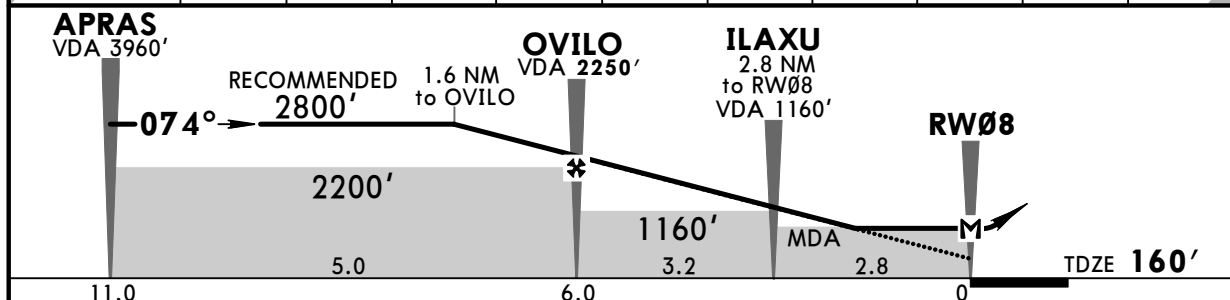
GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 08

BRIEFING STRIP

ATIS		*GANDER Center		*GOOSE Terminal		GOOSE Tower		Ground	
128.1		120.4		119.5		119.1		121.9	
RNAV	Final Apch Crs 074°	VDA OVILO 2250' (2090')	LNAV MDA(H) 720' (560')	Apt Elev 160' TDZE 160'	3100' MSA RW08				
MISSED APCH: Climb to 3100' track 074° to DUPAX then hold.									
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. SAFE ALTITUDE WITHIN 100 NM 6000'.									



NM to RW08	11.0	10.0	9.0	7.6	7.0	6.0	5.0	4.0	3.0	1.5
VDA ALTITUDE	3960'	3610'	3270'	2800'	2590'	2250'	1910'	1570'	1230'	720'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	074°	DUPAX
VDA	3.21°	398	511	568	682	795	PAPI	↑		
MAP at RW08										

STRAIGHT-IN LANDING RWY08						CIRCLE-TO-LAND			
LNAV									
MDA(H) 720' (560')									
HIALS out						Max Kts	MDA(H)		
A						90	720' (560') - 1 3/4		
B						120			
C	1 1/4					140	720' (560') - 2		
D						165	900' (740') - 2		

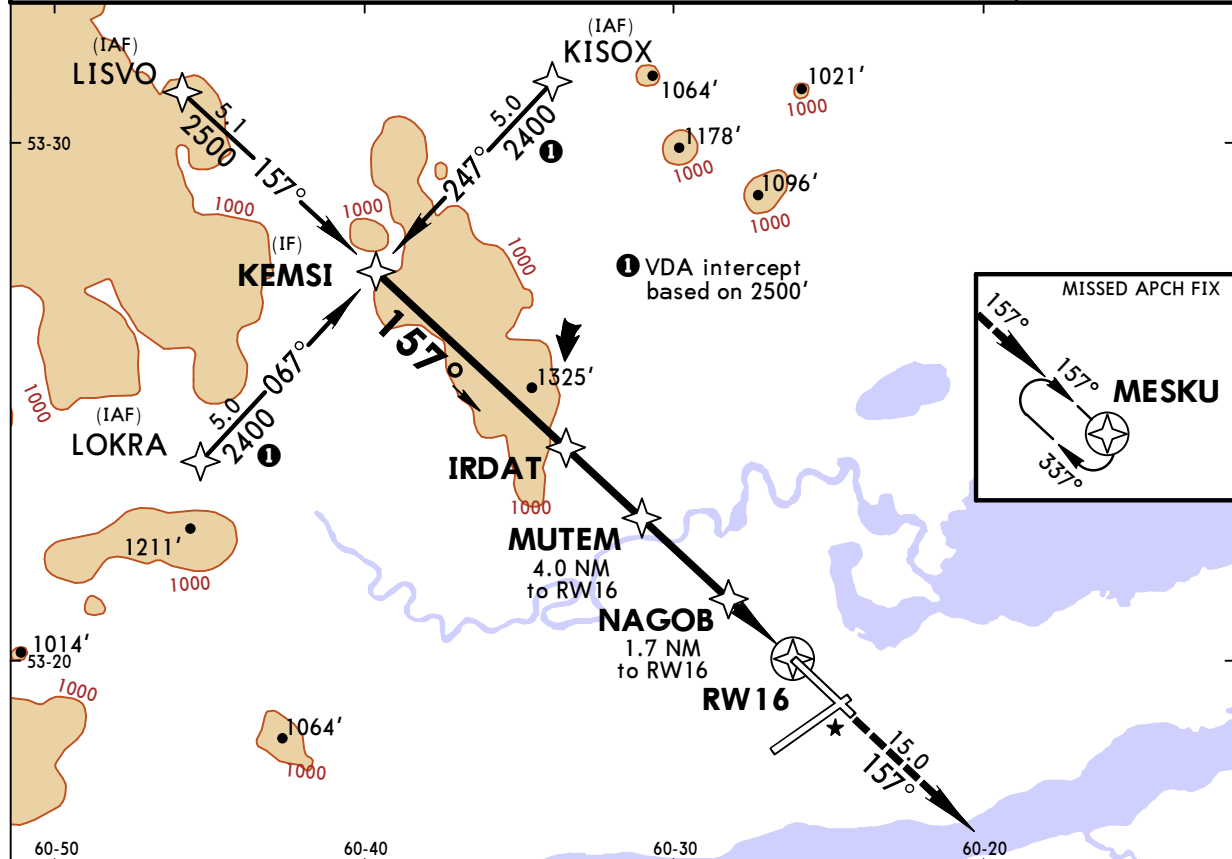
CYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep

(12-2)

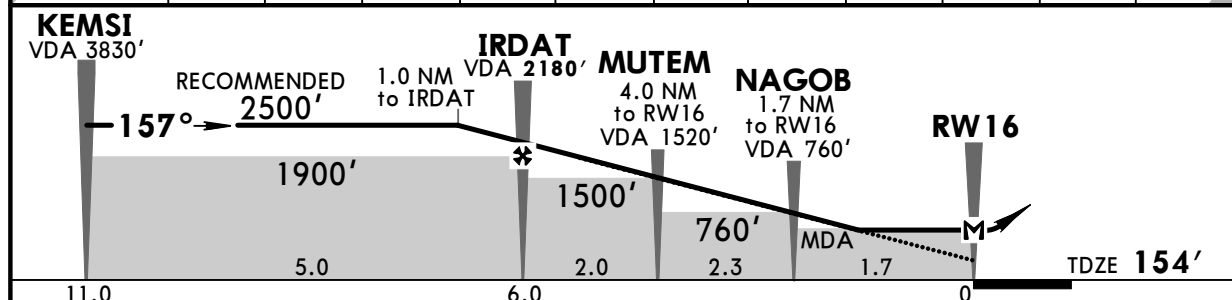
GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 16

BRIEFING STRIP

ATIS	*GANDER Center	*GOOSE Terminal	GOOSE Tower	Ground
128.1	120.4	119.5	119.1	121.9
RNAV	Final Apch Crs 157°	VDA IRDAT 2180' (2026')	LNAV MDA(H) 520' (366')	Apt Elev 160' TDZE 154'
MISSED APCH: Climb to 3100' track 157° to MESKU then hold.				
Alt Set: INCHES			Trans level: FL 180	
1. SAFE ALTITUDE WITHIN 100 NM 6000'.			Trans alt: 18000'	
				3100'
				MSA RW16



NM to RW16	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	3830'	3500'	3170'	2840'	2500'	2180'	1850'	1520'	1190'	860'	520'



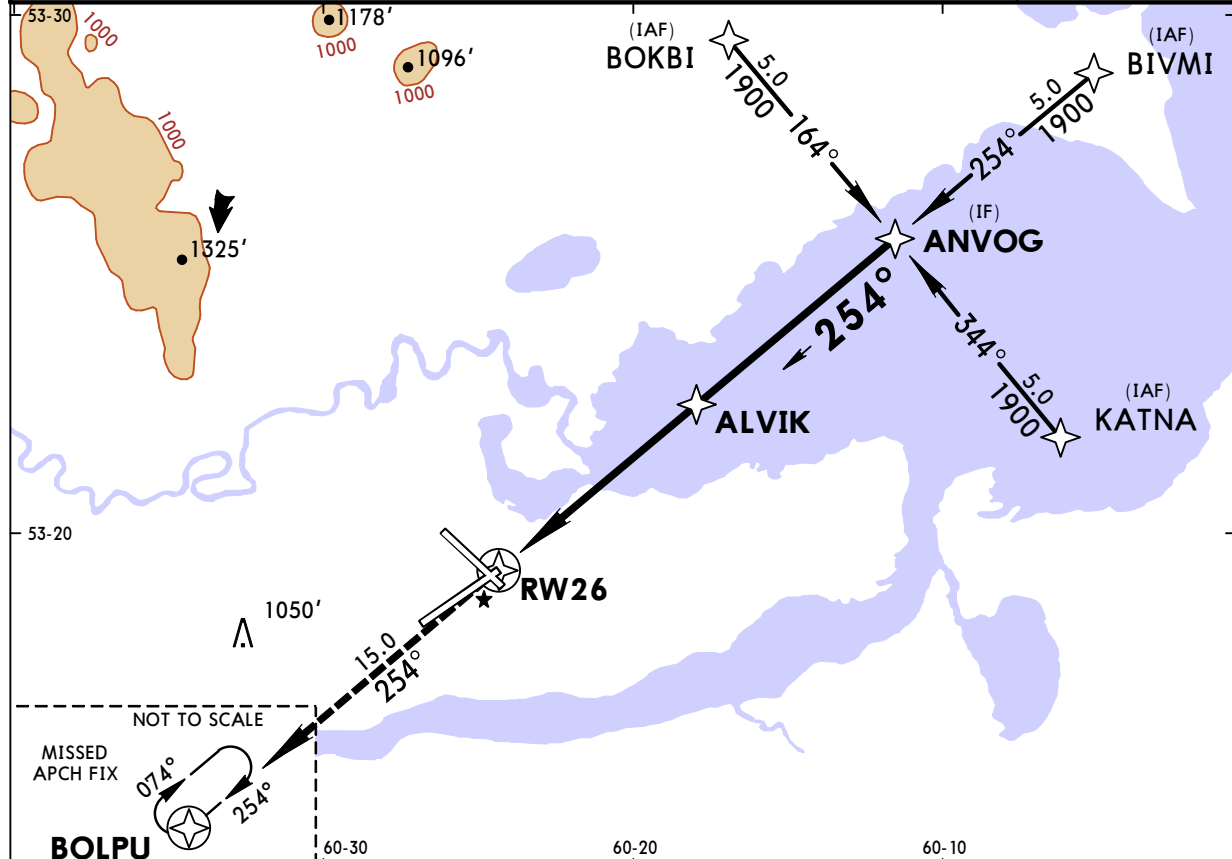
Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI	3100'	157°	MESKU
VDA	3.11°	385	495	550	660	770				
MAP at RW16										

STRAIGHT-IN LANDING RWY16						CIRCLE-TO-LAND			
LNAV						Max Kts			
MDA(H) 520' (366')						MDA(H)			
A	1¼					90	660' (500') - 1½		
B						120	660' (500') - 2		
C						140	660' (500') - 2		
D						165	900' (740') - 2		

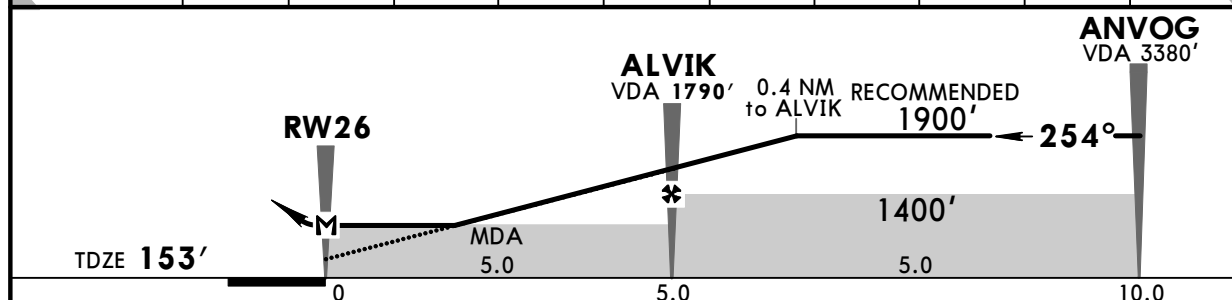
CYYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep (12-3)GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 26

BRIEFING STRIP

ATIS	*GANDER Center	*GOOSE Terminal	GOOSE Tower	Ground
128.1	120.4	119.5	119.1	121.9
RNAV	Final Apch Crs 254°	VDA ALVIK 1790' (1637')	LNAV MDA(H) 500' (347')	Apt Elev 160' TDZE 153'
MISSED APCH: Climb to 3100' track 254° to BOLPU then hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'.				MSA RW26



NM to RW26	1.0	2.0	3.0	4.0	5.4	6.0	7.0	8.0	9.0	10.0
VDA ALTITUDE	500'	830'	1150'	1470'	1900'	2110'	2430'	2740'	3060'	3380'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	254°	BOLPU
VDA	3.00°	372	478	531	637	743	PAPI PAPI			
MAP at RW26										

STRAIGHT-IN LANDING RWY 26						CIRCLE-TO-LAND			
LNAV MDA(H) 500' (347')						Max Kts			
HIALS out						MDA(H)			
A						90	660' (500') - 1½		
B						120			
C						140	660' (500') - 2		
D						165	900' (740') - 2		

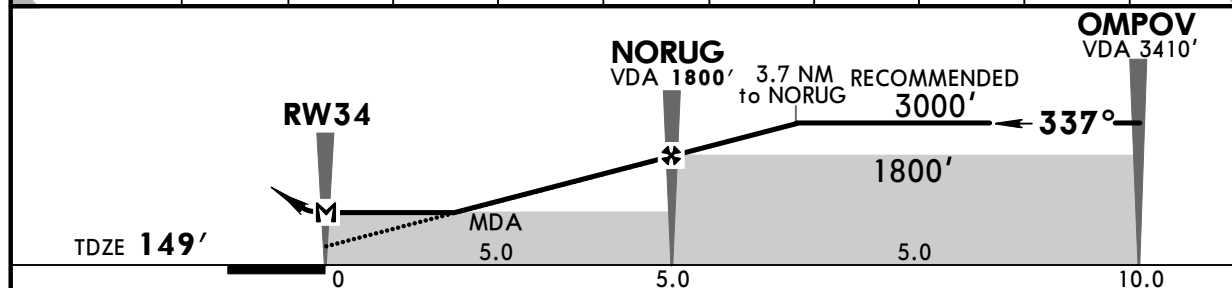
CYR/YYR
GOOSE BAYJEPPESEN
9 SEP 16
Eff 15 Sep (12-4)GOOSE BAY, NFLD
RNAV (GNSS) (DND) Rwy 34

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Terminal 119.5		GOOSE Tower 119.1		Ground 121.9	
RNAV	Final Apch Crs 337°	VDA NORUG 1800' (1651')	LNAV MDA(H) 540' (391')		Apt Elev 160' TDZE 149'		3100' MSA RW34		
MISSED APCH: Climb to 3100' track 337° to ALTUB then hold.									
Alt Set: INCHES		Trans level: FL 180			Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'.									



NM to RW34	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.0	8.7	10.0
VDA ALTITUDE	540'	840'	1160'	1480'	1800'	2130'	2450'	2770'	3000'	3410'

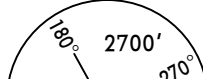


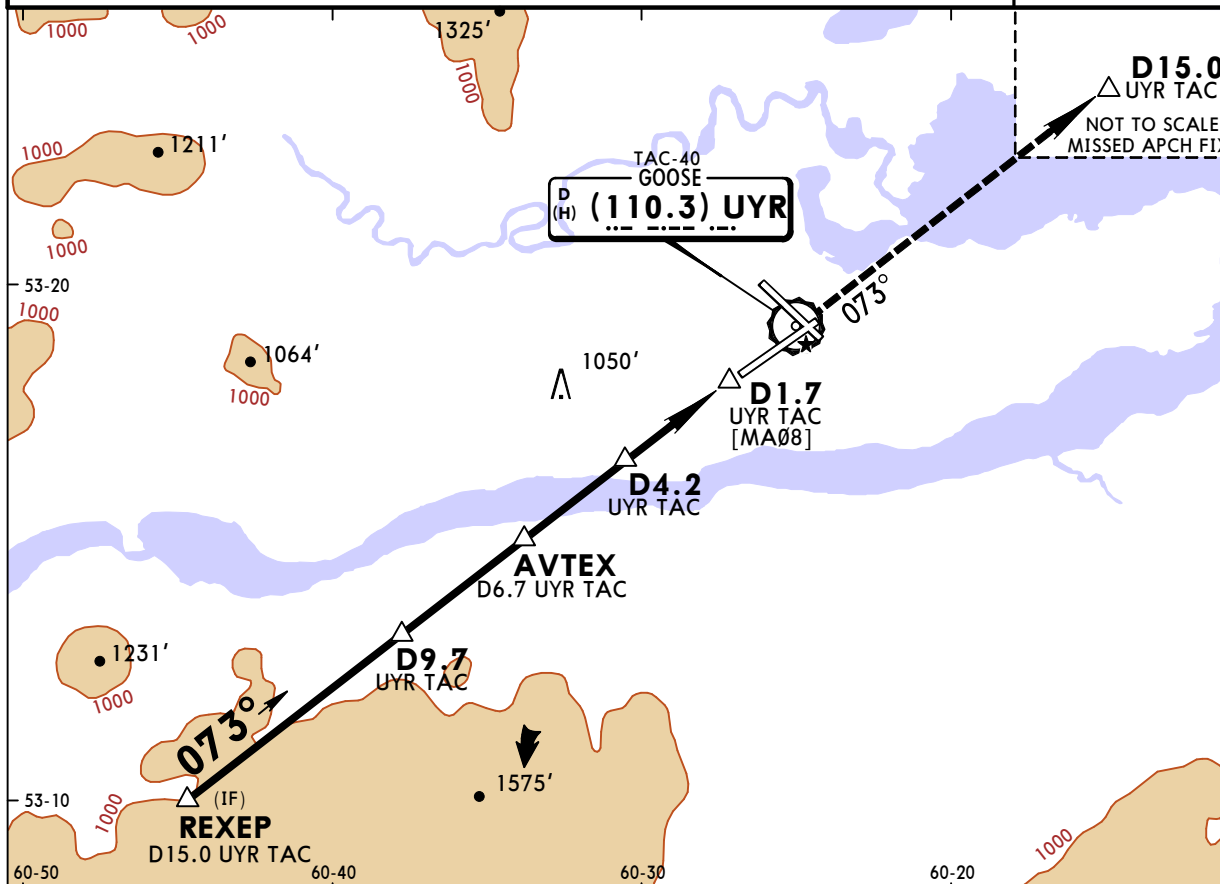
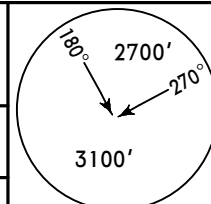
Gnd speed-Kts	70	90	100	120	140	160	ALS	3100'	337°	ALTUB
VDA	3.03°	375	482	536	643	750	PAPI	↑		
MAP at RW34										

STRAIGHT-IN LANDING RWY34						CIRCLE-TO-LAND			
LNAV MDA(H) 540' (391')						Max Kts			
ALS out						MDA(H)			
A						90	660' (500') - 1½		
B						120			
C	1¼					140	660' (500') - 2		
D						165	900' (740') - 2		

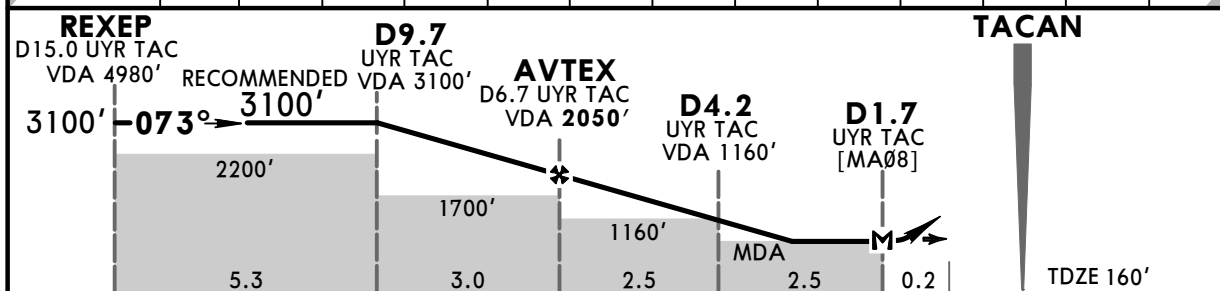
CYR/YR
GOOSE BAYJEPPesen
15 JUL 16 (14-1) Eff 21 JulGOOSE BAY, NFLD
TACAN (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
TACAN UYR CH 40		Final Apch Crs 073°		VDA AVTEX 2050' (1890')		MDA(H) 720' (560')		Apt Elev 160' TDZE 160'	
MISSED APCH: To 3100' outbound UYR TAC R-073 to D15.0.									
Alt Set: INCHES		Trans level: FL 180				Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.									



NM to UYR TAC	15.0	14.0	13.0	12.0	11.0	9.7	9.0	8.0	7.0	6.0	5.0	4.0	3.0
VDA ALTITUDE	4980'	4630'	4270'	3920'	3570'	3100'	2860'	2510'	2150'	1800'	1440'	1090'	720'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	UYR TAC	D15.0
VDA	3.33°	412	530	589	707	825	PAPI	↑	CH 40	
MAP at D1.7 UYR TAC									R-073	

Military		STRAIGHT-IN LANDING RWY 08				CIRCLE-TO-LAND	
		MDA(H) 720' (560')					
		HIALS out				Max Kts	MDA(H)
A	1¼				90	720' (560') - 1¾	
B					120		
C					140	720' (560') - 2	
D					165	900' (740') - 2	

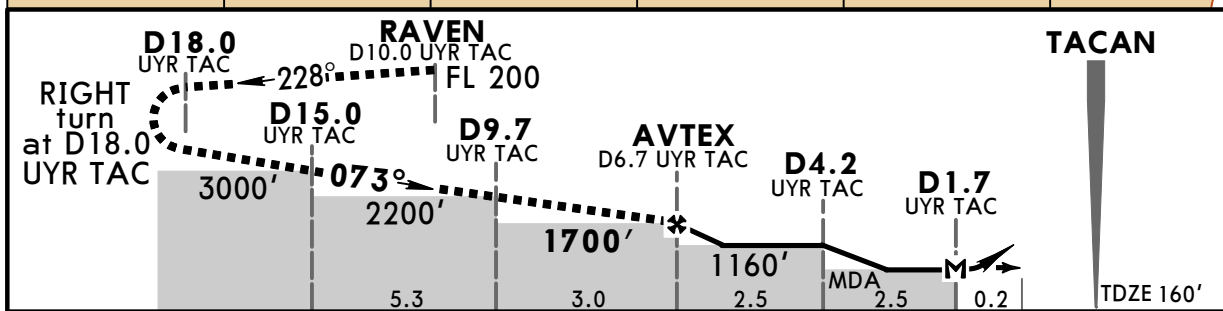
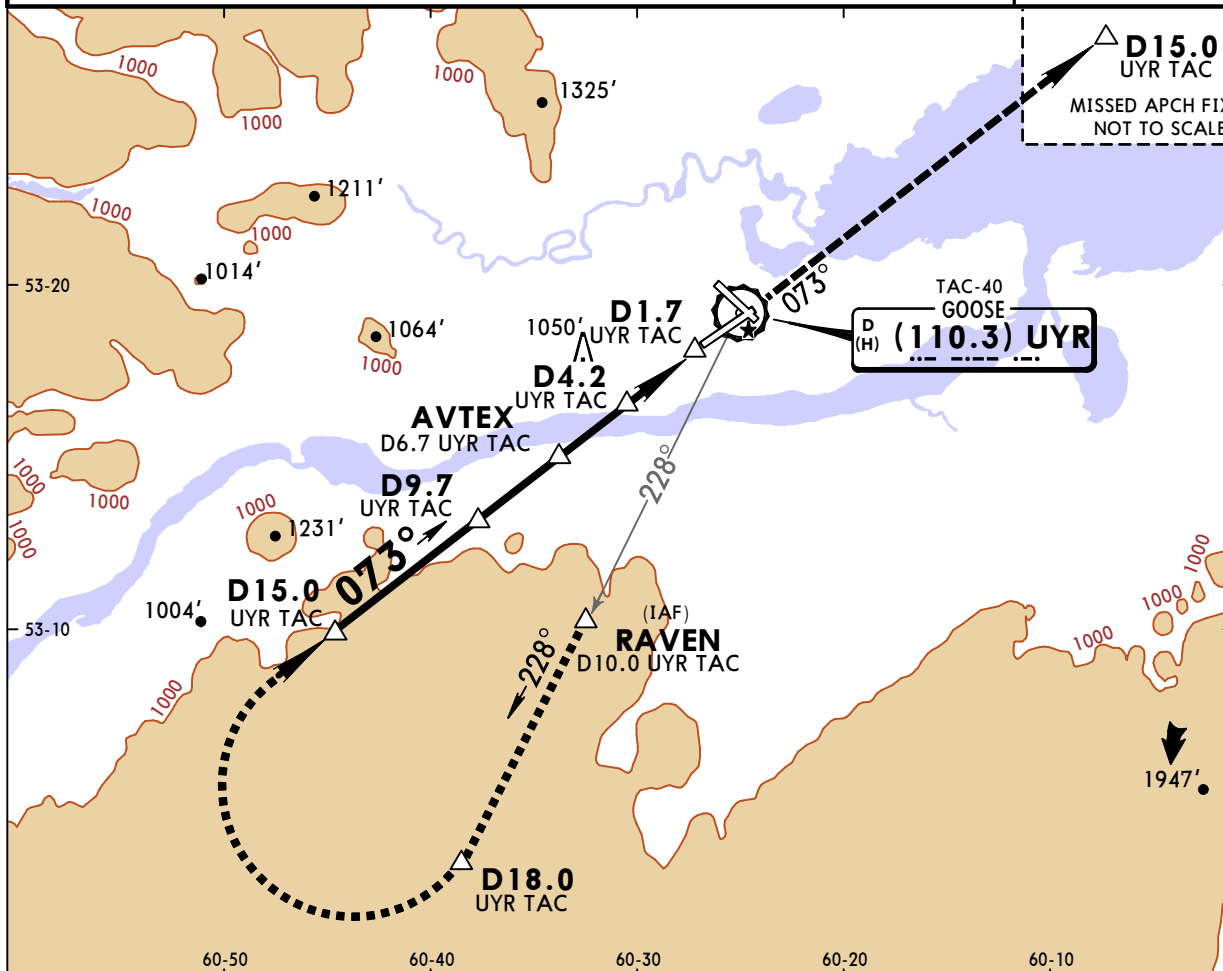
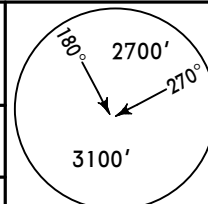
CYR/YYR
GOOSE BAYJEPPESEN
15 JUL 16
Eff 21 Jul

CAT B, C & D

GOOSE BAY, NFD
HI TACAN (DND) Rwy 08

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 073°	SMA AVTEX 1700' (1540')	MDA(H) 720' (560')	Apt Elev 160' TDZE 160'
MISSED APCH: To 3100' outbound UYR TAC R-073 to D15.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				



MAP at D1.7 UYR TAC	SSALR	3100'	UYR TAC CH 40 R-073	D15.0
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Military			STRAIGHT-IN LANDING RWY 08		CIRCLE-TO-LAND	
			MDA(H) 720' (560')			
			HIALS out		Max Kts	MDA(H)
A	NOT APPLICABLE				A	NOT APPLICABLE
B					120	720' (560') - 1 3/4
C	1 1/4				140	720' (560') - 2
D					165	900' (740') - 2

CYYR/YYR
GOOSE BAY

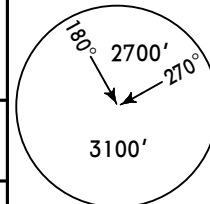
JEPPESEN

15 JUL 16 (14-3) Eff 21 Jul

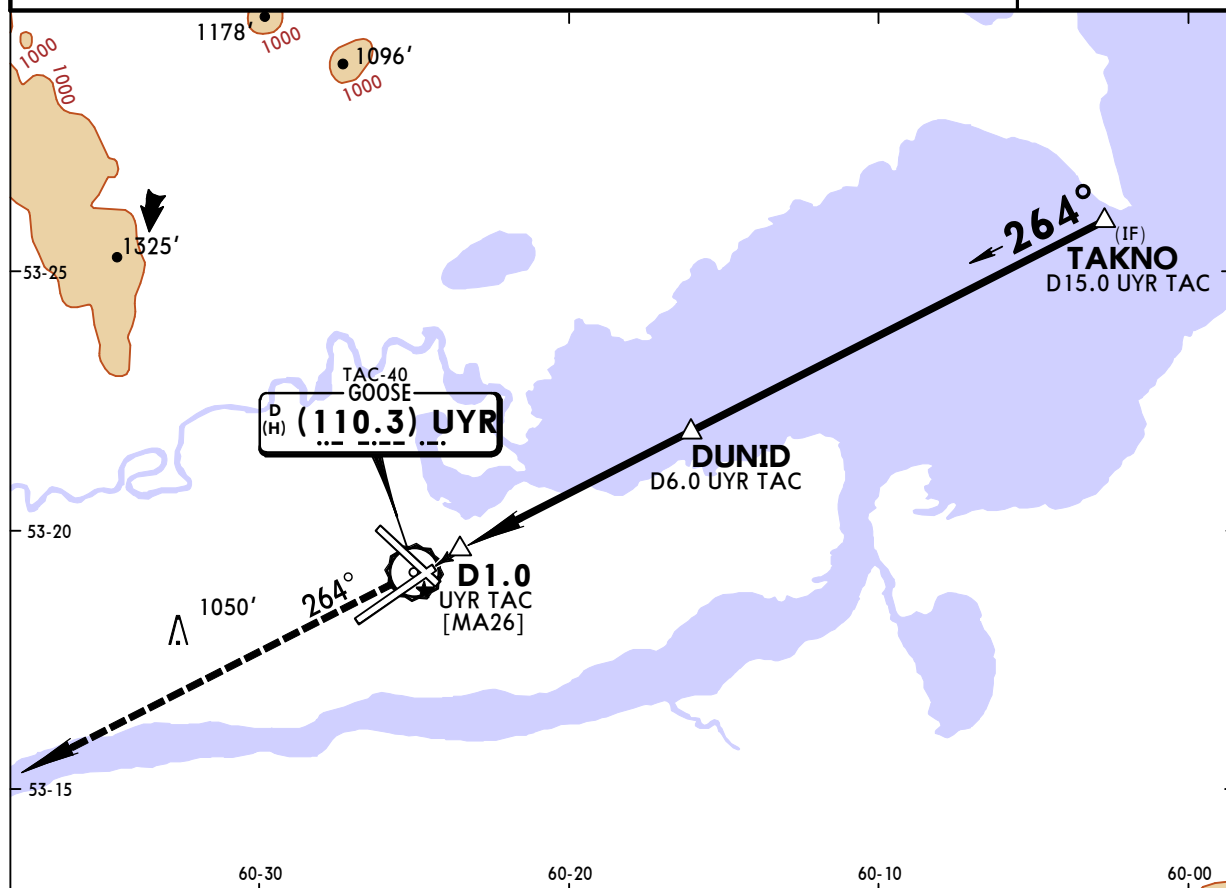
GOOSE BAY, NFLD
TACAN (DND) Rwy 26

BRIEFING STRIP

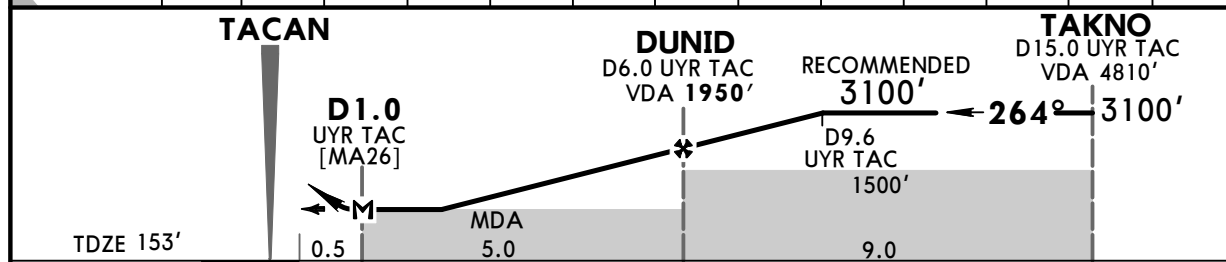
ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 264°	VDA DUNID 1950' (1797')	MDA(H) 480' (327')	Apt Elev 160' TDZE 153'
MISSED APCH: To 3100' outbound on UYR TAC R-264 within D14.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				



MSA UYR TAC



NM to UYR TAC	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	15.0
VDA ALTITUDE	480'	670'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4810'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3100'	UYR TAC	D14.0
VDA	3.00°	372	478	531	637	743	PAPI	↑	on CH 40	within
MAP at D1.0 UYR TAC									R-264	

Military

STRAIGHT-IN LANDING RWY 26

CIRCLE-TO-LAND

		MDA(H) 480'(327')		Max Kts	MDA(H)	
A	1			90	660' (500') -1½	
B				120		
C				140	660' (500') -2	
D				165	900' (740') -2	

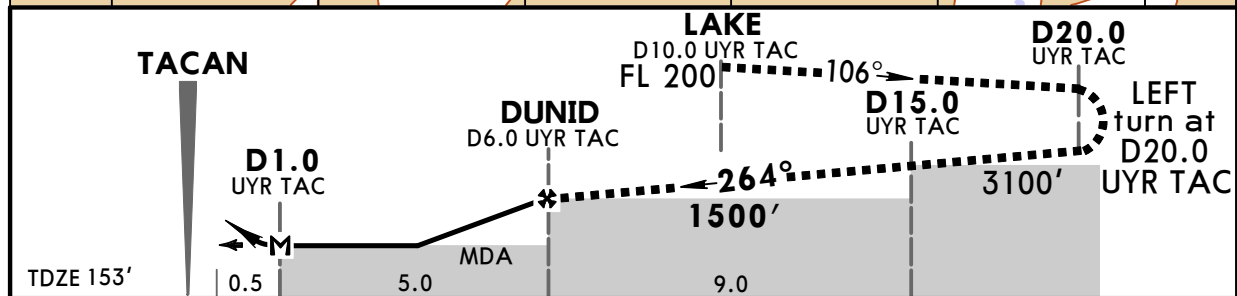
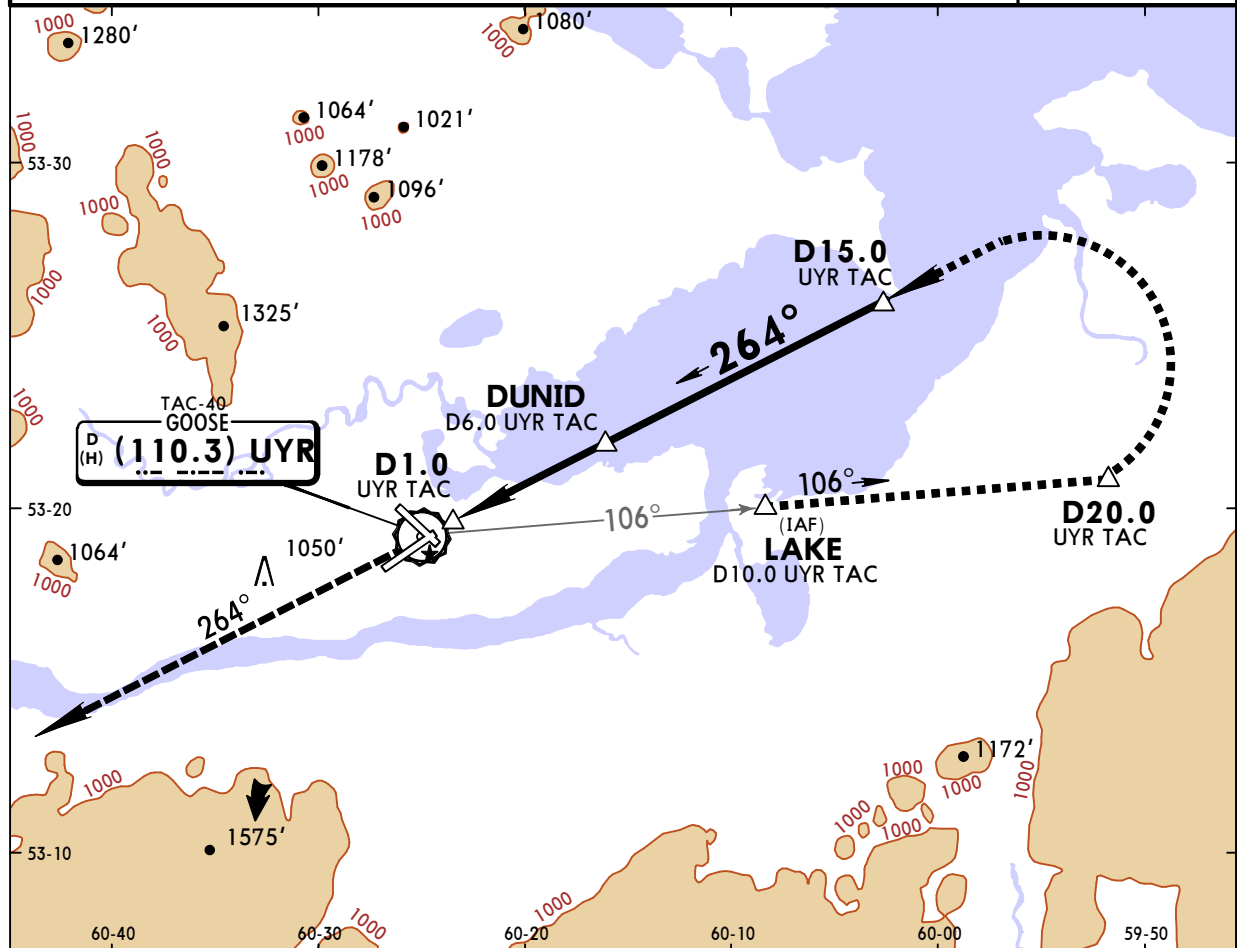
CYR/YYR
GOOSE BAYJEPPESSEN
15 JUL 16
Eff 21 Jul

CAT B, C & D

GOOSE BAY, NFLD
HI TACAN (DND) Rwy 26

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 264°	SMA DUNID 1500' (1347')	MDA(H) 480' (327')	Apt Elev 160' TDZE 153'
MISSED APCH: To 3100' outbound on UYR TAC R-264 within D14.0.				
Alt Set: INCHES 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				MSA UYR TAC

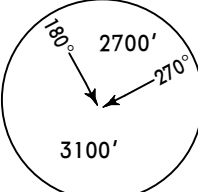


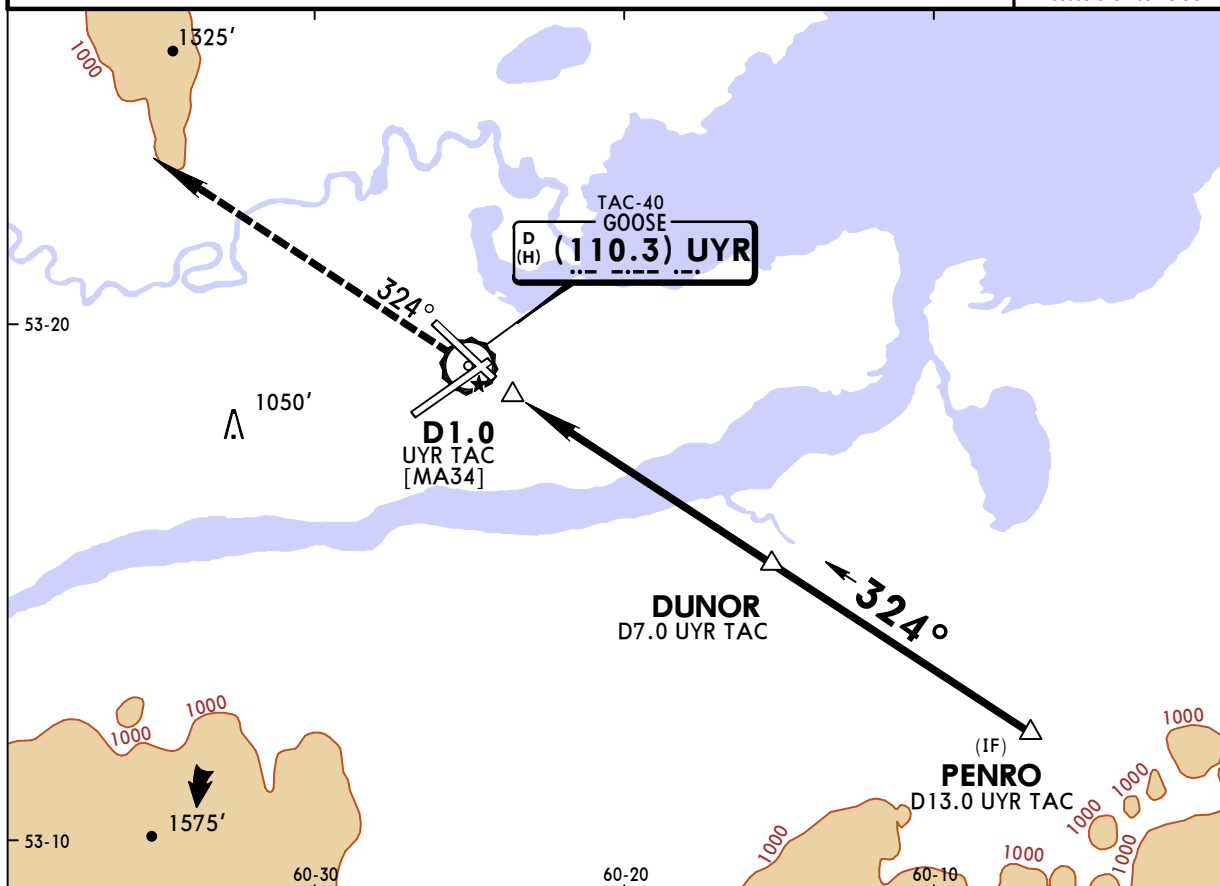
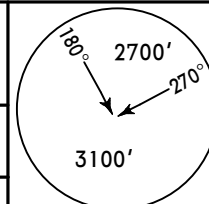
MAP at D1.0 UYR TAC	SSALR	3100'	UYR TAC	D14.0
	PAPI		on CH 40	
			R-264	

Military			CIRCLE-TO-LAND		
STRAIGHT-IN LANDING RWY26					
MDA(H) 480' (327')			MDA(H)		
HIALS out			NOT APPLICABLE		
A	NOT APPLICABLE		Max Kts	NOT APPLICABLE	
B	1		120	660' (500') - 1½	
C			140	660' (500') - 2	
D			165	900' (740') - 2	

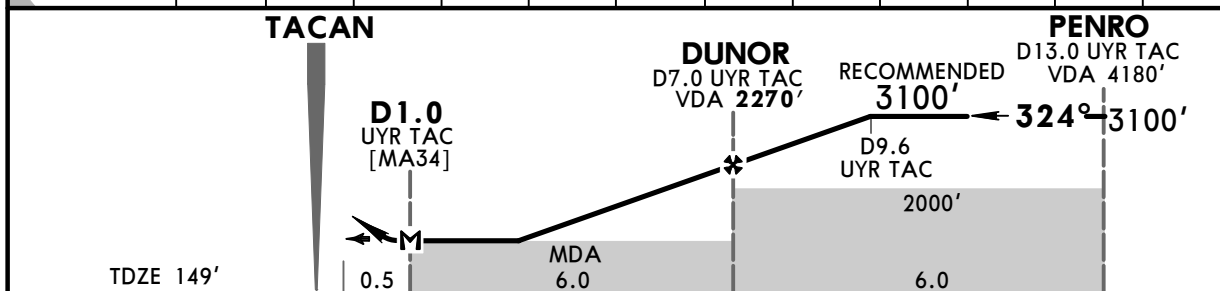
CYR/YR
GOOSE BAYJEPPESSEN
15 JUL 16 (14-5) Eff 21 JulGOOSE BAY, NFLD
TACAN (DND) Rwy 34

BRIEFING STRIP™

ATIS 128.1		*GANDER Center 120.4		*GOOSE Arrival 119.5		GOOSE Tower 119.1		Ground 121.9	
TACAN UYR CH 40		Final Apch Crs 324°		VDA DUNOR 2270' (2121')		MDA(H) 540' (391')		Apt Elev 160' TDZE 149'	
MISSED APCH: To 3100' on UYR TAC R-324 within D14.0.									
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.									
									MSA UYR TAC



NM to UYR TAC	1.6	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.6	11.0	12.0	13.0
VDA ALTITUDE	540'	990'	1310'	1630'	1950'	2270'	2580'	2900'	3100'	3540'	3860'	4180'



Gnd speed-Kts	70	90	100	120	140	160	ALS	3100'	UYR TAC	D14.0
VDA	3.00°	372	478	531	637	743	849	PAPI	CH 40	within
MAP at D1.0 UYR TAC									R-324	

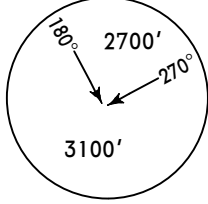
Military		STRAIGHT-IN LANDING RWY 34										CIRCLE-TO-LAND					
MDA(H) 540' (391')																	
ALS out												Max Kts	MDA(H)				
A	1¼														90	660' (500') - 1½	
B															120		
C															140	660' (500') - 2	
D															165	900' (740') - 2	

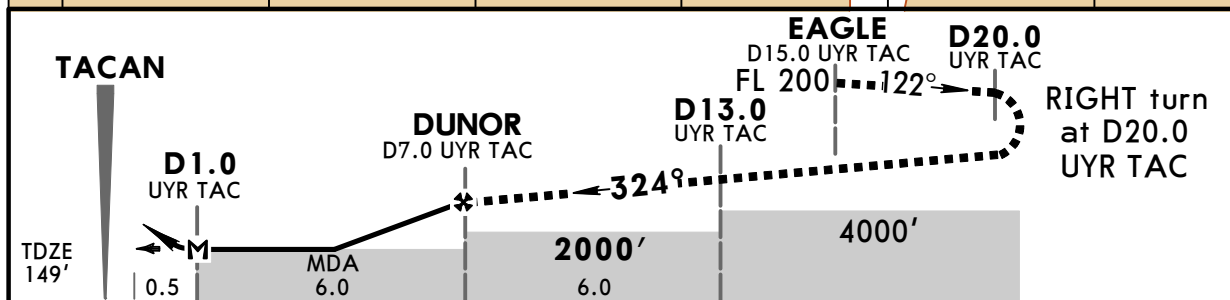
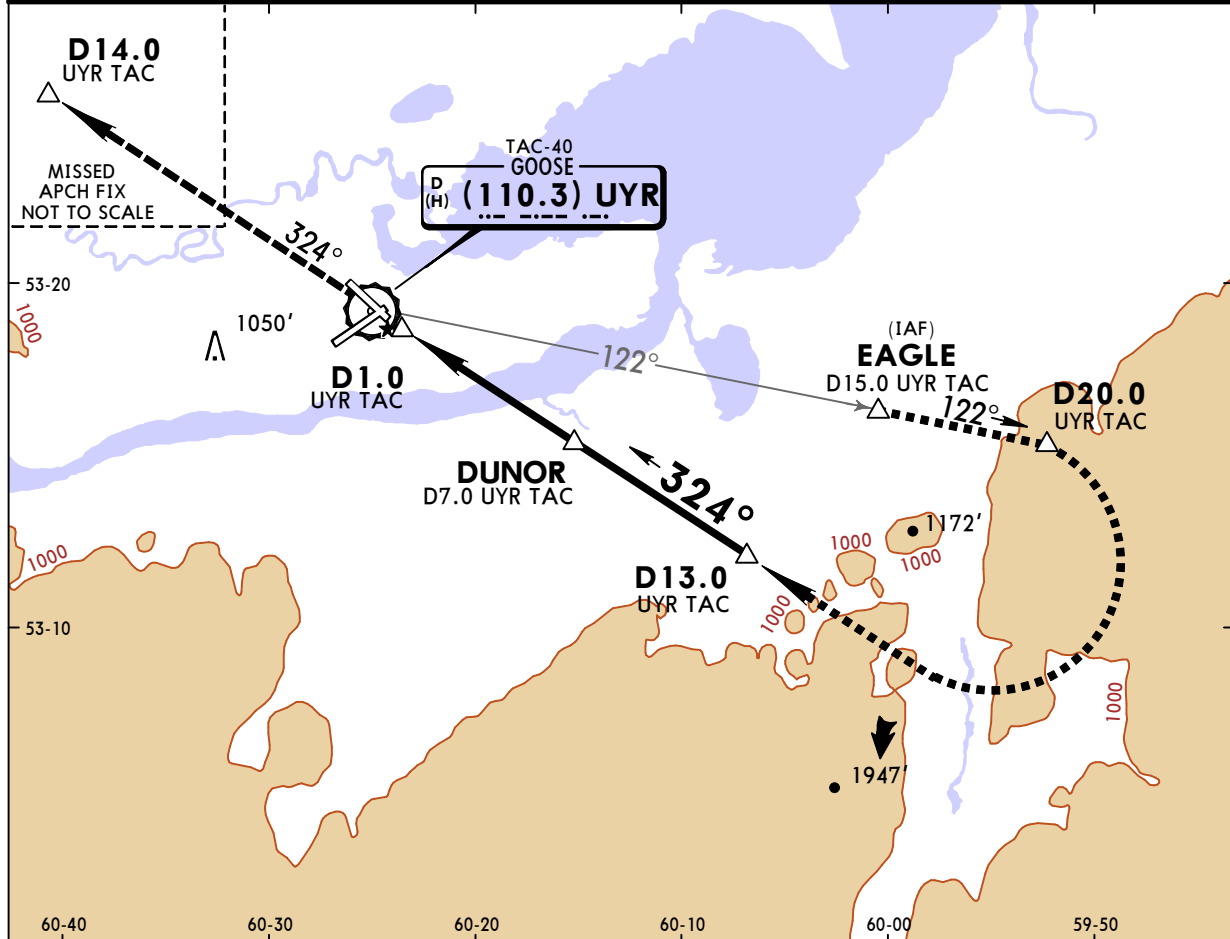
CYYR/YYR
GOOSE BAY
JEPPesen
 15 JUL 16
 Eff 21 Jul

CAT B, C & D

GOOSE BAY, Nfld
HI TACAN (DND) Rwy 34

BRIEFING STRIP™

ATIS 128.1	*GANDER Center 120.4	*GOOSE Arrival 119.5	GOOSE Tower 119.1	Ground 121.9
TACAN UYR CH 40	Final Apch Crs 324°	SMA DUNOR 2000' (1851')	MDA(H) 540' (391')	Apt Elev 160' TDZE 149'
MISSED APCH: To 3100' on UYR TAC R-324 to D14.0.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 6000'. 2. Procedure turn NOT AUTHORIZED.				 MSA UYR TAC

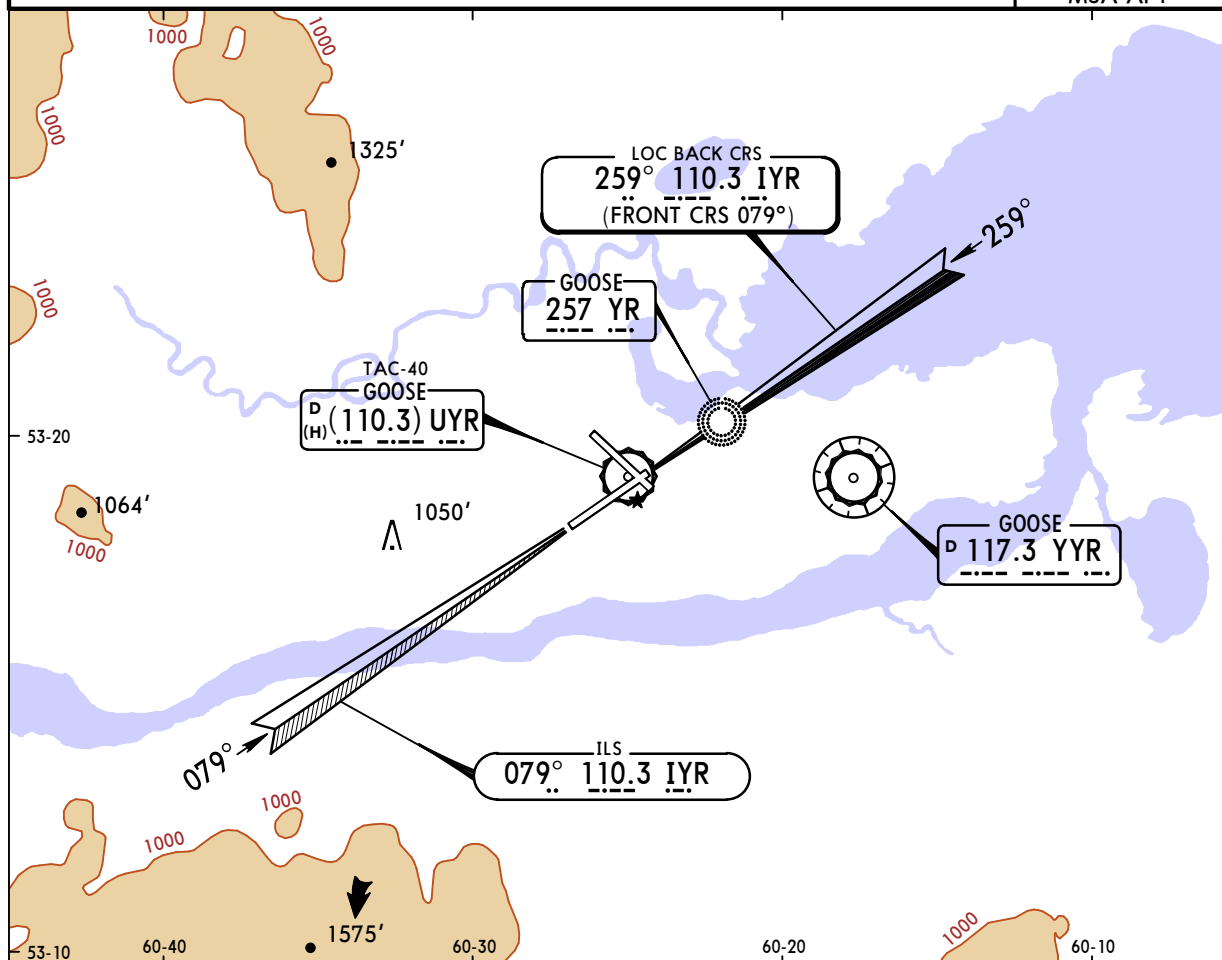


TACAN TDZE 149' 0.5 MDA 6.0 2000' 6.0 4000'					EAGLE D15.0 UYR TAC FL 200 122° D20.0 UYR TAC RIGHT turn at D20.0 UYR TAC
MAP at D1.0 UYR TAC					3100' on UYR TAC CH 40 R-324 D14.0
Military					CIRCLE-TO-LAND
STRAIGHT-IN LANDING RWY 34 MDA(H) 540' (391') ALS out					Max Kts A NOT APPLICABLE 120 660' (500') -1½ 140 660' (500') -2 165 900' (740') -2
NOT APPLICABLE 1¼					

CYR/YYR
GOOSE BAYJEPPESEN
4 NOV 16
Eff 10 Nov (18-1)GOOSE BAY, NFLD
PAR (DND) Rwy 08, 26

BRIEFING STRIP

ATIS 128.1	*GANDER Center 120.4	*GOOSE Terminal 119.5	GOOSE Radar 119.9	GOOSE Tower 119.1	Ground 121.9
RADAR	Final Apch Crs By ATC	Minimum Alt No FAF	DA(H) Refer to Minimums	Apt Elev 160' TDZE-See below	3100' MSA APT
Missed Approach-See below.					
Alt Set: INCHES 1. SAFE ALTITUDE WITHIN 100 NM 6000'. Trans level: FL 180 Trans alt: 18000'					

**Missed Approach:**

PAR Runway 08: Climb to 3100' heading 079°. RIGHT turn direct to YR NDB. Hold inbound 259° at 3100'.

PAR Runway 26: Climb to 3100' heading 250°. LEFT turn direct to YR NDB. Hold inbound 259° at 3100'.

RWY 08

PAR TCH 55'

TDZE 160'

RWY 26

PAR TCH 59'

TDZE 153'

Gnd speed-Kts	70	90	100	120	140	160	Lighting - Refer to Airport Chart
RWY 08,26 PAR GS 3.00°	372	478	531	637	743	849	

Military**STRAIGHT-IN LANDING****PAR 08**DA(H) **360'** (200')

FULL

PAR 26DA(H) **353'** (200')

FULL

A	RVR 26 or 1/2	1/2
B		
C		
D		

JEPPESEN OTTAWA, ONT
1 JUN 18 **10-2** **RNAV STAR**



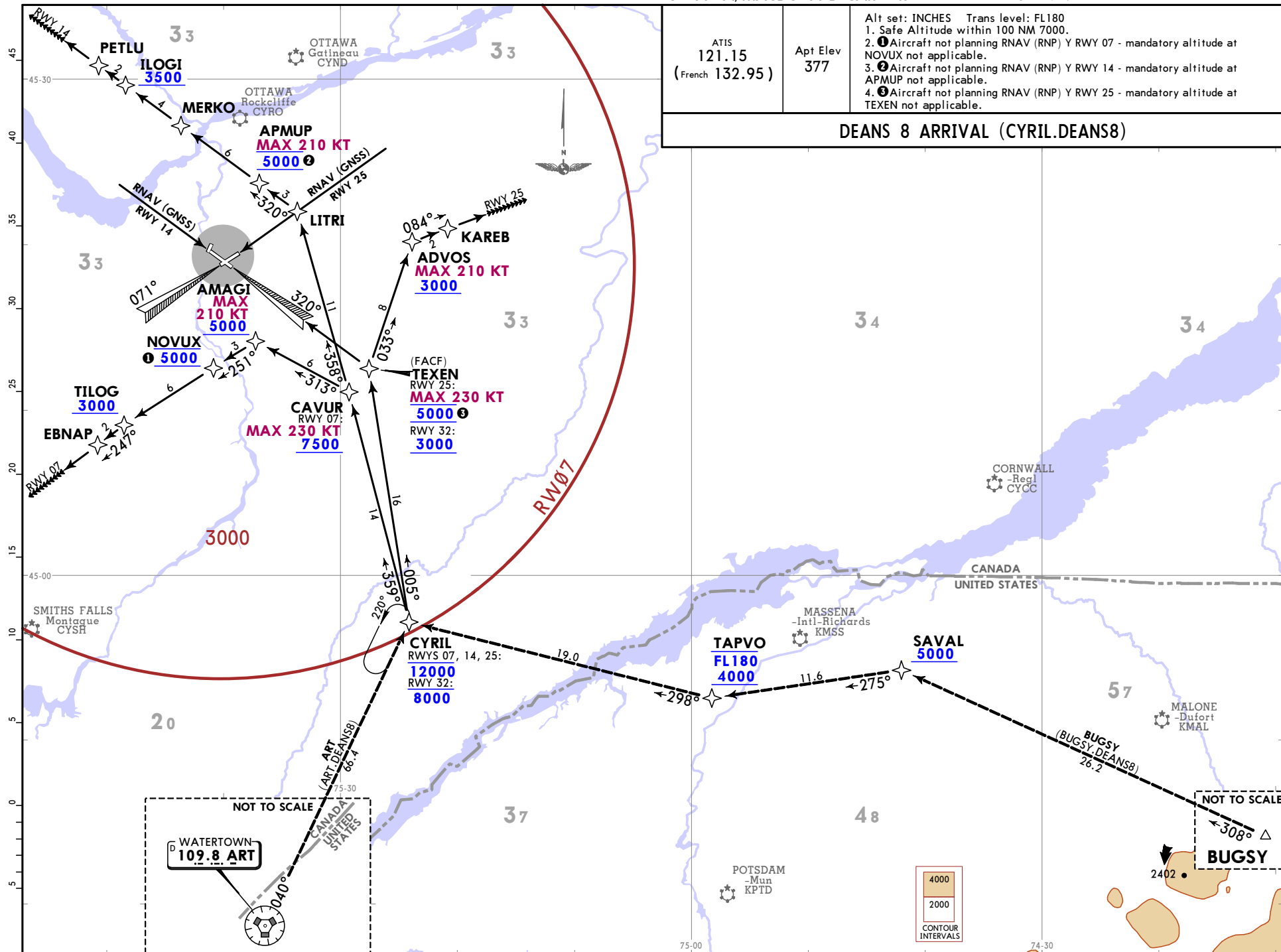
CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL

JEPPesen
1 JUN 18 (10-2A)

OTTAWA, ONT
RNAV STAR

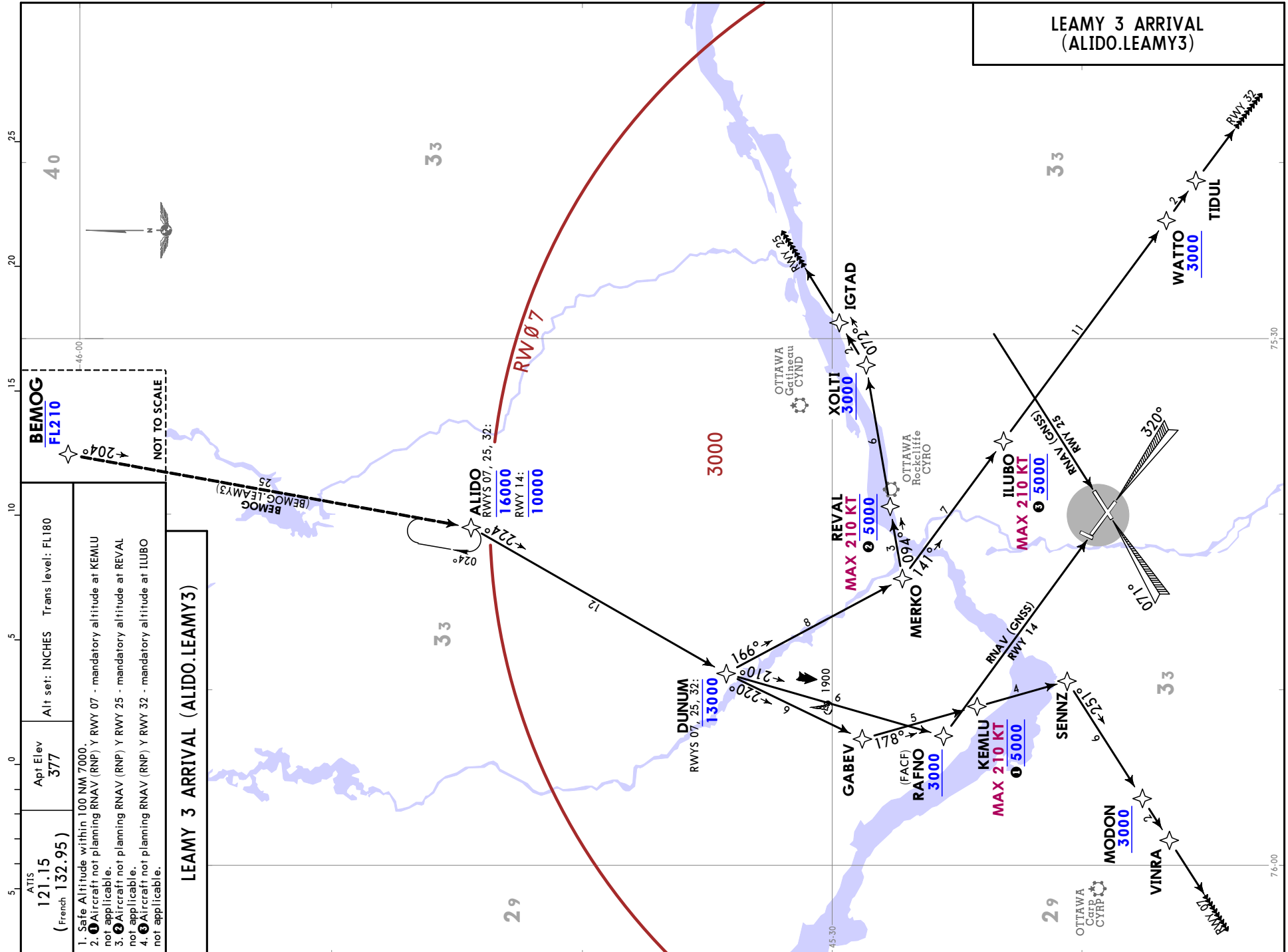
ATIS 121.15 (French 132.95)	Apt Elev 377	Alt set: INCHES Trans level: FL180 1. Safe Altitude within 100 NM 7000. 2. ① Aircraft not planning RNAV (RNP) Y RWY 07 - mandatory altitude at NOVUX not applicable. 3. ② Aircraft not planning RNAV (RNP) Y RWY 14 - mandatory altitude at APMUP not applicable. 4. ③ Aircraft not planning RNAV (RNP) Y RWY 25 - mandatory altitude at TEXEN not applicable.
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DEANS 8 ARRIVAL (CYRIL.DEANS8)



CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL

JEPPESSEN OTTAWA, ONT
1 JUN 18 (10-2B) RNAV STAR

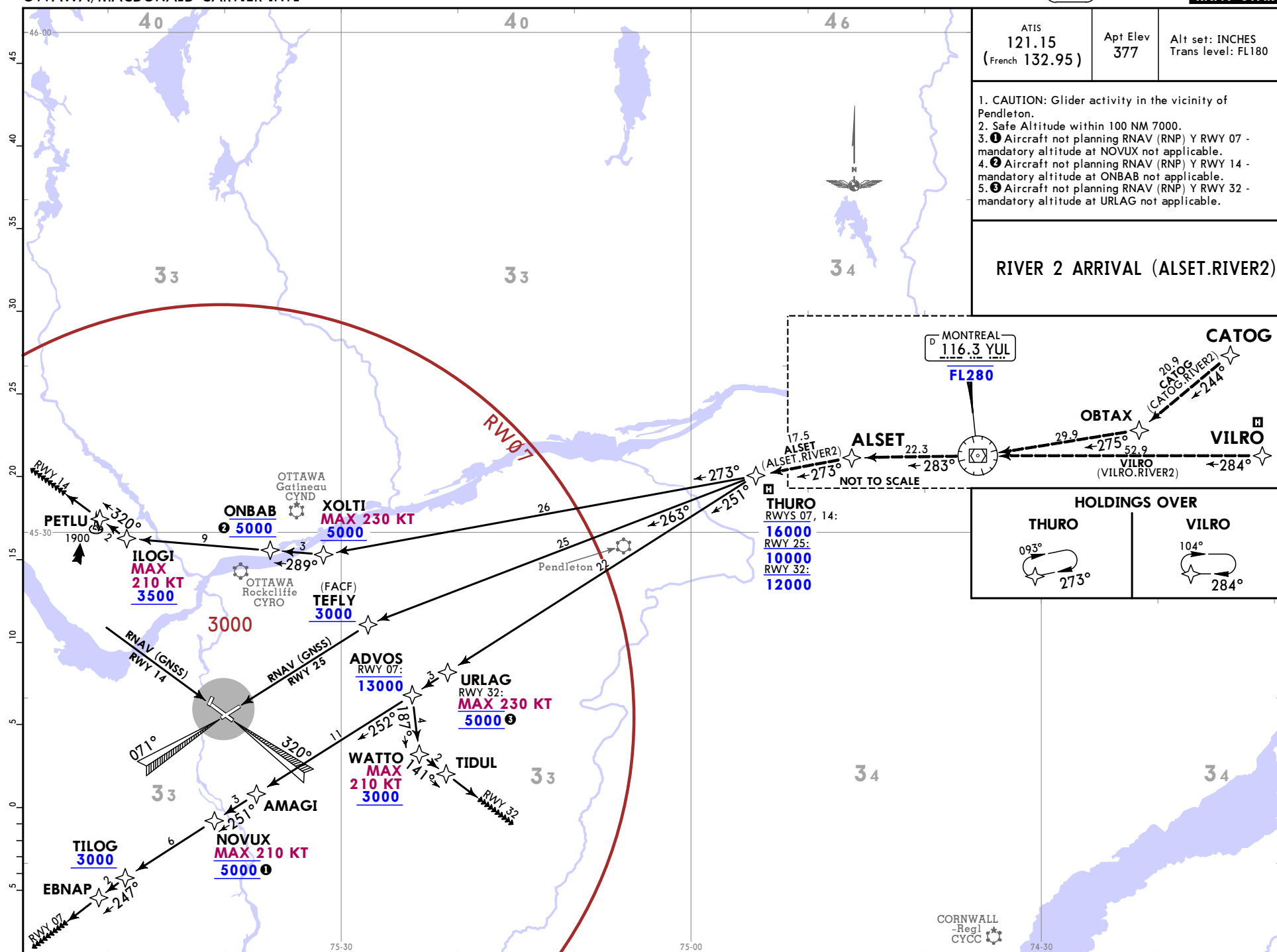


OTTAWA, ONT
RNAV STAR



CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL

1 JUN 18 (10-2D)

RNAV STAR

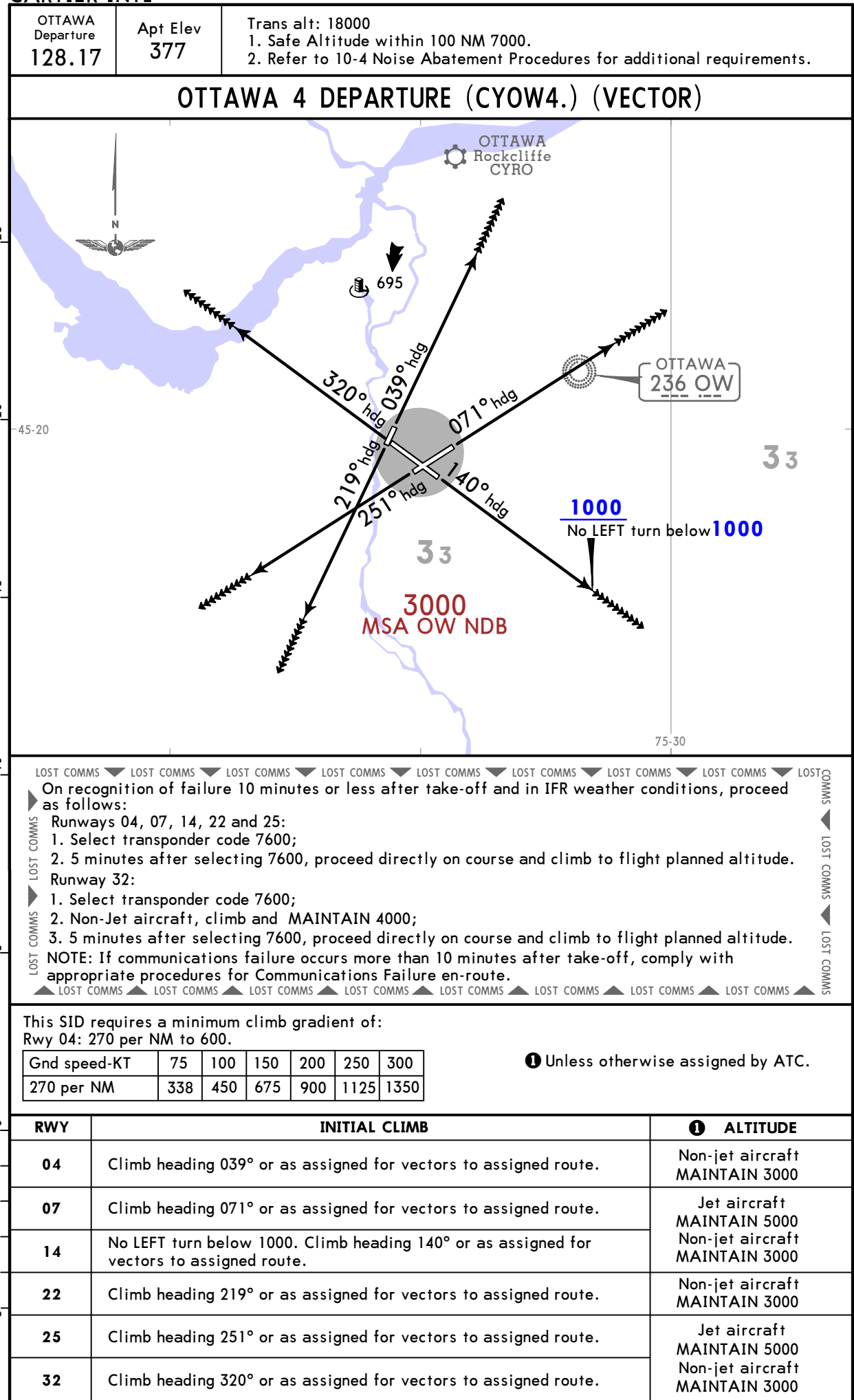
CHANGES: New format.

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CYOW/YOW
OTTAWA/MACDONALD-
CARTIER INTL

JEPPESEN
1 JUN 18 10-3

OTTAWA, ONT
SID



CYOW/YOW

**NOISE**

OTTAWA, ONT

OTTAWA/MACDONALD-CARTIER INTL

NOISE ABATEMENT PROCEDURES

DAYLIGHT : LT plus 4 HOURS = UTC(Z)
STANDARD: LT plus 5 HOURS = UTC(Z)

JET AIRCRAFT**RESTRICTIONS**

Summer - May 1 thru September 30

The use of Rwy 32 for departure by turbojet and turbofan aircraft on technical stops or charter operations is not permitted between the hours of 2300 and 0700 local time daily.

Under extenuating circumstances, permission to operate during restricted hours may be granted (passenger flights only) through prior authorization by the Airport General Manager or his designated official.

PREFERENTIAL RUNWAY DETERMINATION

Controllers will designate runways to divert as many take-offs and landings as possible, consistent with safety of operations, from flight over residential areas adjacent to the airport. Pilots should be prepared to use runways other than 32 for take-offs and 14 for landings when conditions permit the use of such other runways.

DEPARTURE PROCEDURES

RWY	① NADP (Noise Abatement Departure Procedure)
ALL RWYS	1 or 2

① See Jeppesen Canada ATC para 7.6.

Rwys 07, 14, 32 - climb on runway heading to 3000' before proceeding on course.

ARRIVAL PROCEDURES - VFR AND VISUAL APPROACH**A. VFR**

1. Circuit height 2500' (weather permitting)
2. Right hand circuits on Rwys 07 and 14
3. Maintain 2500' as long as practicable before commencing descent
4. Remain on or above glide slope or assumed 3 degree glide path.

B. VISUAL APPROACHES

ATS MAY PROVIDE VECTORS DIRECT TO THE FINAL APPROACH FIX.
AIRCRAFT MUST:

1. Intercept final at or outside the final approach fix
2. Remain on or above ILS glide slope or assumed 3 degree glide path
3. Maintain the last assigned altitude until established on final.

TRAINING FLIGHTS

1. Permitted from 0800-2200 hours local time. No training on Sunday.
2. No VFR training circuits on Rwys 14 and 32 below 2500'.
3. Climb on runway heading to 2500'.
4. No practice circling procedures to Rwy 14.

PROPELLER DRIVEN AIRCRAFT**DEPARTURE PROCEDURES**

Rwy 32 - Climb on runway heading to 1500' before proceeding on course.

ARRIVAL PROCEDURES - VFR

Circuit height 1500'. Right hand circuits for Rwys 07, 14 and 22 (weather permitting).

Rwys 04, 14 - Maintain 1500' until established on final approach (weather permitting).

TRAINING FLIGHTS

1. Permitted from 0815-2359 hours local time.
2. No VFR training circuits on Rwys 14 or 32 below 1500'.
3. No practice circling procedures to Rwy 14.

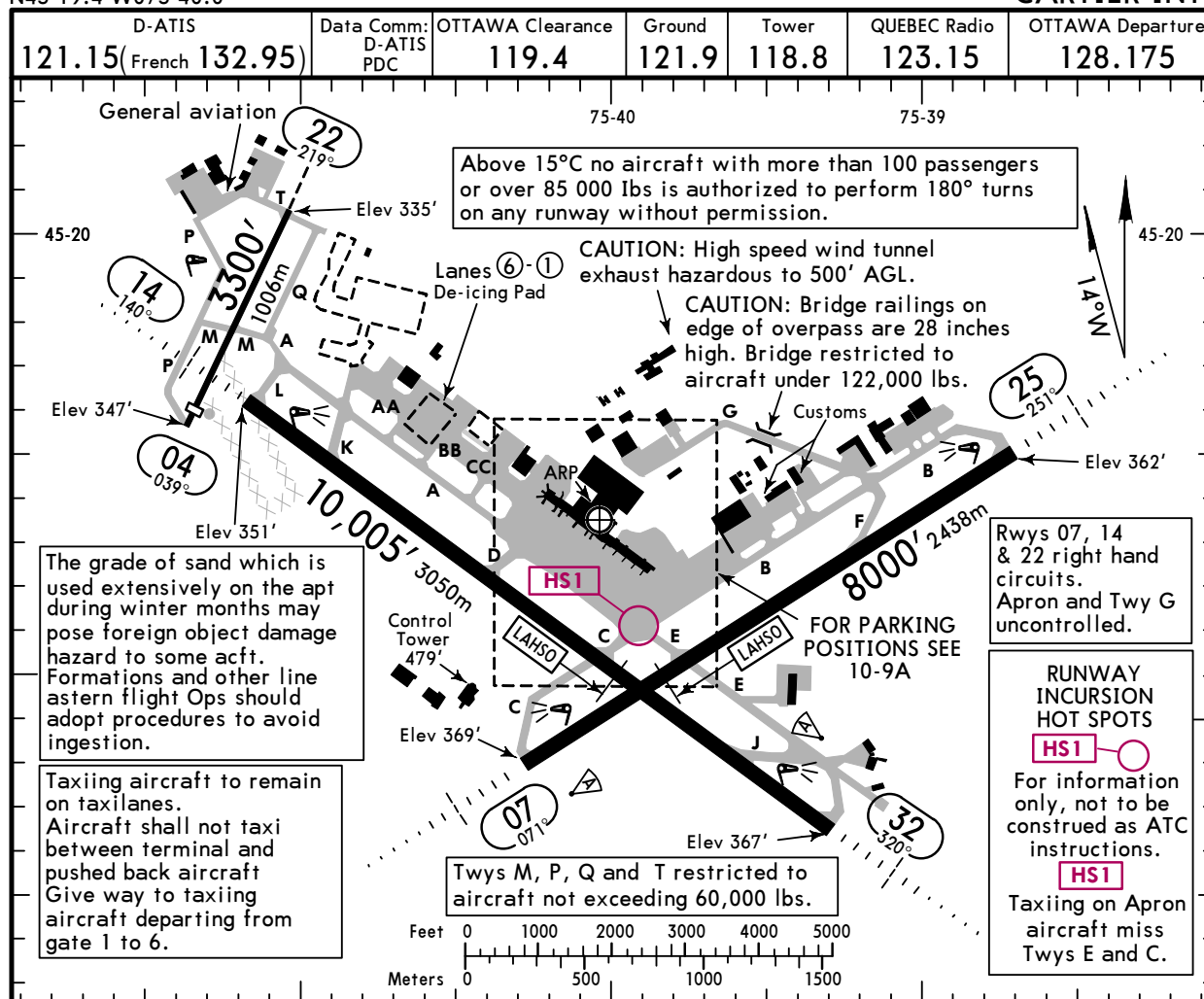
CYOW/YOW

Apt Elev **377'**
N45 19.4 W075 40.0

JEPPesen

7 SEP 18

(10-9) Eff 13 Sep

OTTAWA, ONT
OTTAWA/MACDONALD
-CARTIER INTL

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		LAHSO Distance	WIDTH
		LANDING Threshold	BEYOND Glide Slope		
04	22	3049' 929m			75' 23m
07	25		6912' 2107m		197' 60m
14	32		8977' 2736m	14/32 5729' 1746m 07/25 6377' 1944m	197' 60m

① Restricted to aircraft not exceeding 60,000 lbs.

② For aircraft with eye-to-wheel height up to 45'.

TAKE-OFF & DEPARTURE PROCEDURE

Rwy 1 2 07, 3 4 25, 3 32		Rwy 5 14		6 Rwy 22	8 Rwy 04
		No LEFT turn below 1000'.		7 Requires a min climb gradient of 420'/NM to 5200' when CY(A)-528 or CY(A)-534(S) active.	9 Requires a minimum climb gradient of 270'/NM to 600'.
Authorized Air Carriers	All Other Aircraft	Authorized Air Carriers	All Other Aircraft		
HIRL or RCLM		HIRL or RCLM			
A/B	RVR 12 or 1/4	RVR 26 or 1/2	RVR 12 or 1/4	1/2	1/2
C/D					

① Climb between heading 131° counterclockwise to 228° to remain clear of CY(A)-528 or CY(A)-534(S) when active.

② Rwy 07: Road to 377' MSL abeam departure end of runway, 300' left and right of rwy centerline. Trees to 433' MSL approximately 400' past departure end of rwy, both left and right of rwy centerline.

③ Climb between hdg 228° clockwise to 131° to remain clear of CY(A)-528 or CY(A)-534(S) when active.

④ Rwy 25: Trees to 423' MSL approximately 0.1 NM past departure end of rwy, 300' left of rwy centerline.

⑤ Rwy 14: Requires a min climb gradient of 430'/NM to 5100' when CY(A)-528 or CY(A)-534(S) active. Trees to 443' MSL approximately 0.3 NM past departure end of rwy, 400' left and right of rwy centerline.

⑥ Rwy 22: Trees to 410' MSL within 0.2 NM of departure end of rwy.

⑧ Rwy 04: Building to 359' MSL approximately 160' past departure end of rwy, 500' left of rwy centerline. Trees to 410' MSL approximately 0.2 NM past departure end of rwy.

DEPARTURE CLIMB RATE V/V (FPM)

GROUND SPEED	90	120	140	160	180	200	250	300
9 270 FT/NM	410	540	630	720	810	900	1130	1350
7 420 FT/NM	630	840	980	1120	1260	1400	1750	2100
5 430 FT/NM	650	860	1010	1150	1290	1440	1800	2150

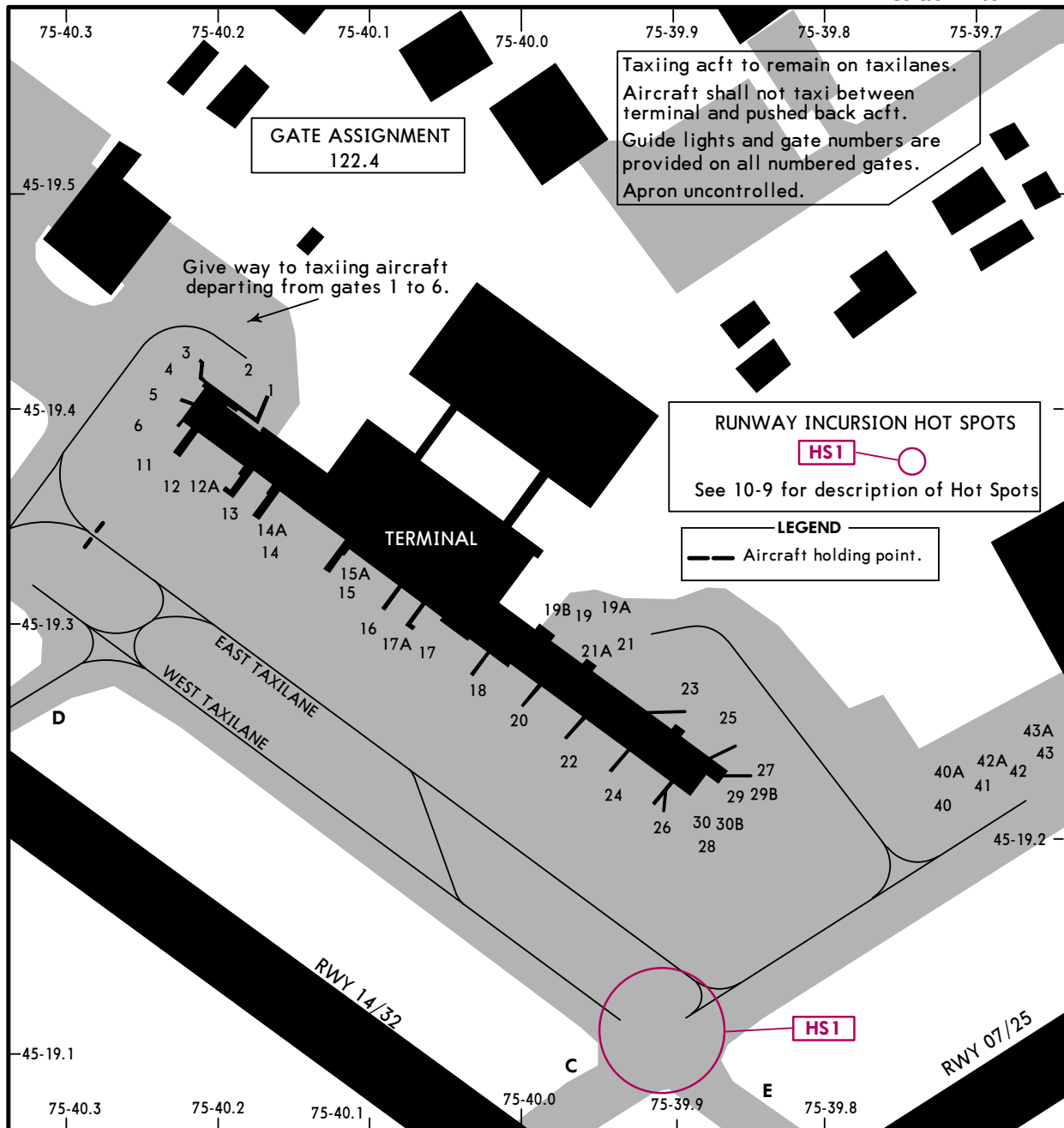
CYOW/YOW

JEPPesen

7 SEP 18

10-9A

Eff 13 Sep

OTTAWA, ONT
OTTAWA/MACDONALD
-CARTIER INTL

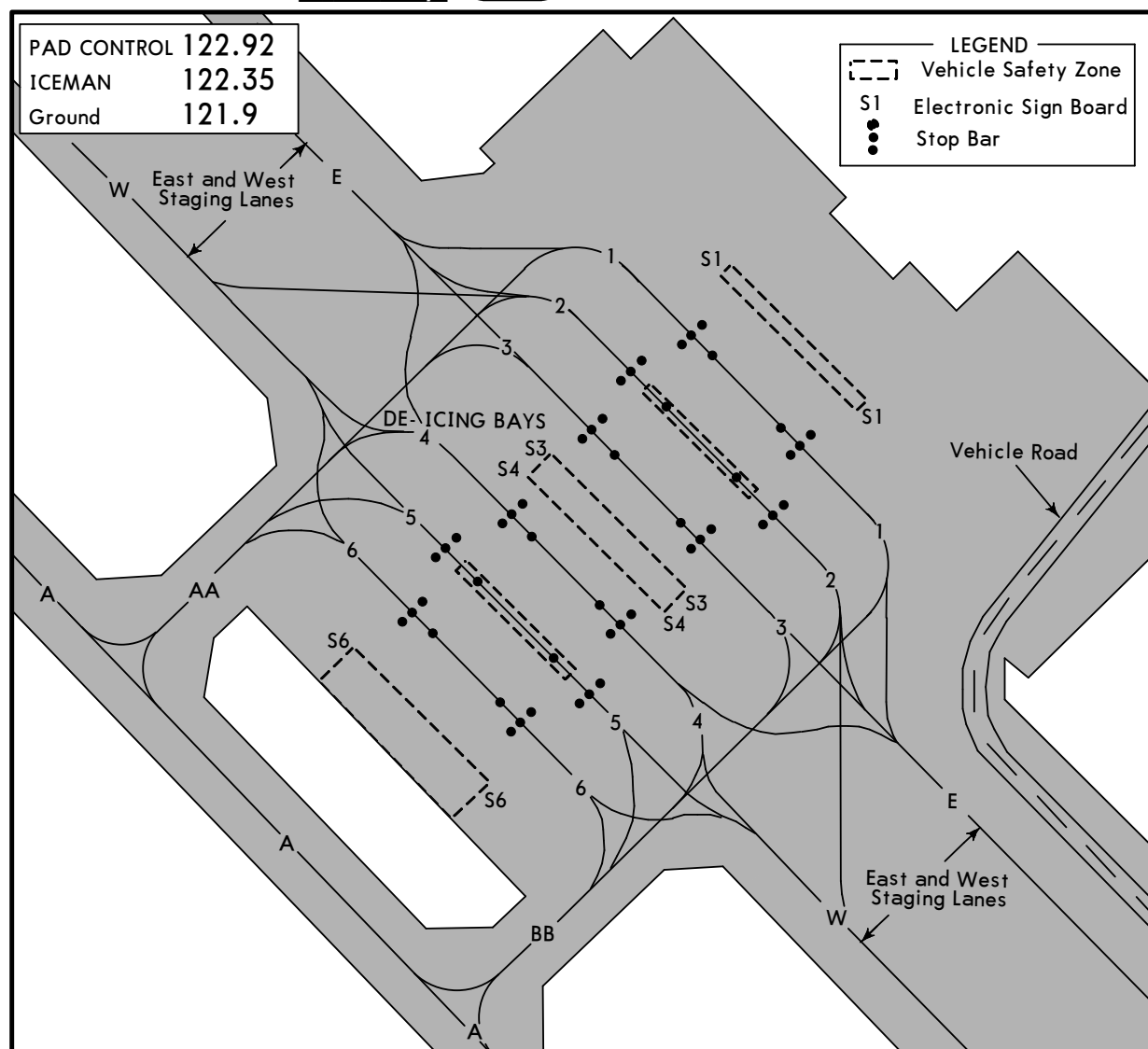
PARKING STAND COORDINATES

STAND No.	COORDINATES
1 thru 6, 11, 12, 12A, 13	N45 19.4 W075 40.2
14, 14A	N45 19.3 W075 40.2
15, 15A, 16, 17, 17A	N45 19.3 W075 40.1
18, 19	N45 19.3 W075 40.0
19A	N45 19.3 W075 39.9
19B, 20	N45 19.3 W075 40.0
21, 21A	N45 19.3 W075 39.9
22	N45 19.2 W075 40.0
23	N45 19.3 W075 39.9
24	N45 19.2 W075 39.9
25	N45 19.3 W075 39.9
26	N45 19.2 W075 39.9
27	N45 19.2 W075 39.8
28, 28B, 29	N45 19.2 W075 39.9
29B	N45 19.2 W075 39.8
30, 30B	N45 19.2 W075 39.9
40, 40A, 41, 42, 42A, 43, 43A	N45 19.2 W075 39.7

CYOW/YOW


JEPPESEN
 18 MAY 18
 Eff 24 May

(10-9B)

OTTAWA, ONT
OTTAWA/MACDONALD-CARTIER INTL

Note: Bay 2-refer to sign board 1 and 3. Bay 5-refer to sign board 4 and 6.

DE-ICING OPERATIONS

1. Contact PAD CONTROL on 122.92 30 minutes prior to departure if de-icing required. Notify of any special treatments prior to taxi to CDF.
2. Contact Ottawa Ground after pushback for taxi to CDF.
3. Hold short of the CDF on K, AA, BB or CC and contact PAD CONTROL for further taxi.
4. Follow instructions and electronic sign boards to de-icing bays.
5. Stop on yellow crossbar and advise PAD CONTROL immediately once brakes are set.
6. Once instructed, contact ICEMAN on 122.35 to confirm brakes set, aircraft configured and engines at idle.
7. After de-icing, configure aircraft for taxi, however, DO NOT MOVE AIRCRAFT.
8. Once instructed, contact PAD CONTROL for taxi.
9. Follow instructions to designated exit point. Holding short of twy A, contact Ottawa Ground on 121.9.

TYPE I - All Clear Lift-Off E188

TYPE IV - UCAR ADF ENDURANCE EG106 100%

BAY RESTRICTIONS

- Bay 1, 3, 4, 6 - May be used by aircraft with wingspans 118' (36m) or less
- Bay 2 - May be used by aircraft with wingspans 170' (52m) or less
- Bay 5 - May be used by aircraft with wingspans 262' (80m) or less
- Note: AA and BB may be used by aircraft with wingspans 118' (36m) or less

AD HOC FLIGHTS

1. Obtain a projected acceptance time for de-icing from PAD CONTROL on 122.92 or via phone 613-558-1850.
2. Submit Authorization form via fax 613-248-0860 or via e-mail ops@aeromagyow.com
3. An estimate of litres required will be provided to flight crew.
4. Ad hoc aircraft not abiding by the above may be denied service at the CDF.

CYOW/YOW**OTTAWA, ONT**
OTTAWA/MACDONALD-CARTIER INTL**GATE DE-ICING ORIGINATING FLIGHTS**

- A. Gate de-icing approved (frost only) under the following conditions:
- i) Active precipitation is not forecasted for the operational period.
 - ii) Apron conditions are such as to allow the recovery of spent fluid (no snow, ice, sand, gravel, etc).
 - iii) De-icing required is Wings & Tail only. Aircraft requiring fuselage must taxi to CDF.
 - iv) Required fluid to de-ice aircraft is anticipated to be less than 50 litres.
 - v) Wind speeds do not exceed 15 knots.
- B. De-icing for originating flights will take place 60-90 minutes before scheduled departure time.
- C. Staff will conduct initial inspection of aircraft to determine the requirement for de-icing and will proceed with spray if required.
- D. Airlines must ensure aircraft are configured and ready for de-icing prior to the above time. De-icing will take place under the assumption that origination flights are configured.
- E. De-icing confirmation will be sent electronically or via fax to airline operations following de-icing. Flight crews requiring additional information may contact PAD CONTROL on 122.92.
- F. No holdover time is provided for on gate de-icing.

GATE DE-ICING - TURN FLIGHTS

- A. Gate de-icing approved (frost only) under all conditions listed for gate de-icing origination flights.
- B. Aircraft must notify PAD CONTROL as soon as possible when de-icing is required.
- C. De-icing will take place once the flight crew confirms that the aircraft is configured, brakes are set and all doors are closed. Radio communication between the flight crew and PAD CONTROL must be maintained during de-icing.
- D. De-icing information and confirmation of staff and equipment away will be reported to the flight crew once de-icing is completed.
- E. De-icing confirmation will be sent electronically or via fax to airline operations immediately following de-icing.
- F. No holdover time is provided for on gate de-icing.

CENTERALIZED DE-ICING FACILITY OPERATIONS

- A. Flow - North to South
- Entry point is K or AA via Alpha. Aircraft must hold short of the CDF on the entry point and establish radio contact with PAD CONTROL on 122.92.
- Flow South to North
- Entry point is CC or BB via Alpha. Aircraft must hold short of the CDF on the entry point and establish radio contact with PAD CONTROL on 122.92.
- B. Follow taxi instructions via East Line to Bays 1, 2, 3 or via West Line to Bays 4, 5, 6.
- C. Aircraft will be staged on the East/West Line short of AA/BB when necessary.
- D. When exiting via K or CC, aircraft will be instructed to advise PAD CONTROL when holding short K/CC. Aircraft must maintain radio communication with PAD CONTROL until advised to contact Ottawa ground.

NOTE: Aircraft intended on returning to terminal gates after de-icing must drip dry for 25 minutes on CDF.

DE-ICING REQUIREMENTS

- A. Flight crews must indicate areas of aircraft requiring de-icing. External instruments, gears and other sensitive components are by request only.
- B. If no special instructions are given, "Wings and Tail" will mean upper surface of wings, upper and lower surfaces of horizontal stabilizer & vertical stabilizer, including rudder. "Full Body" will mean all surfaces noted in B., plus fuselage and radome.
- C. Aircraft requiring visual or tactile inspections must indicate to PAD CONTROL on initial contact.

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

9 SEP 16

(11-1)

Eff 15 Sep

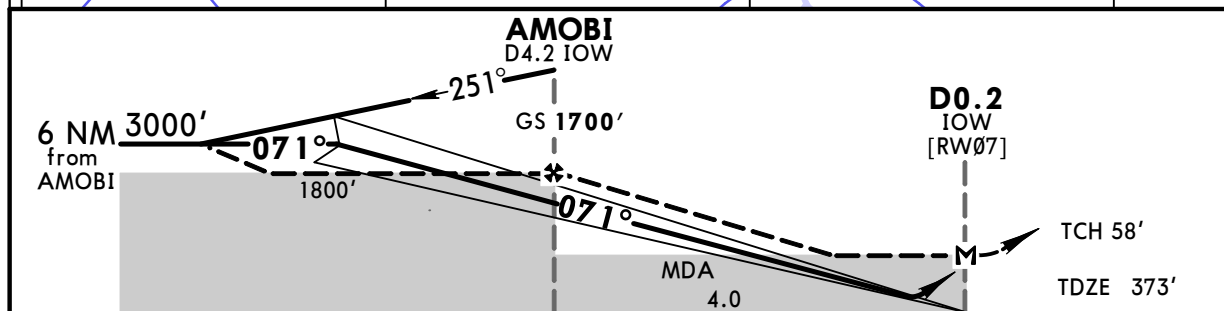
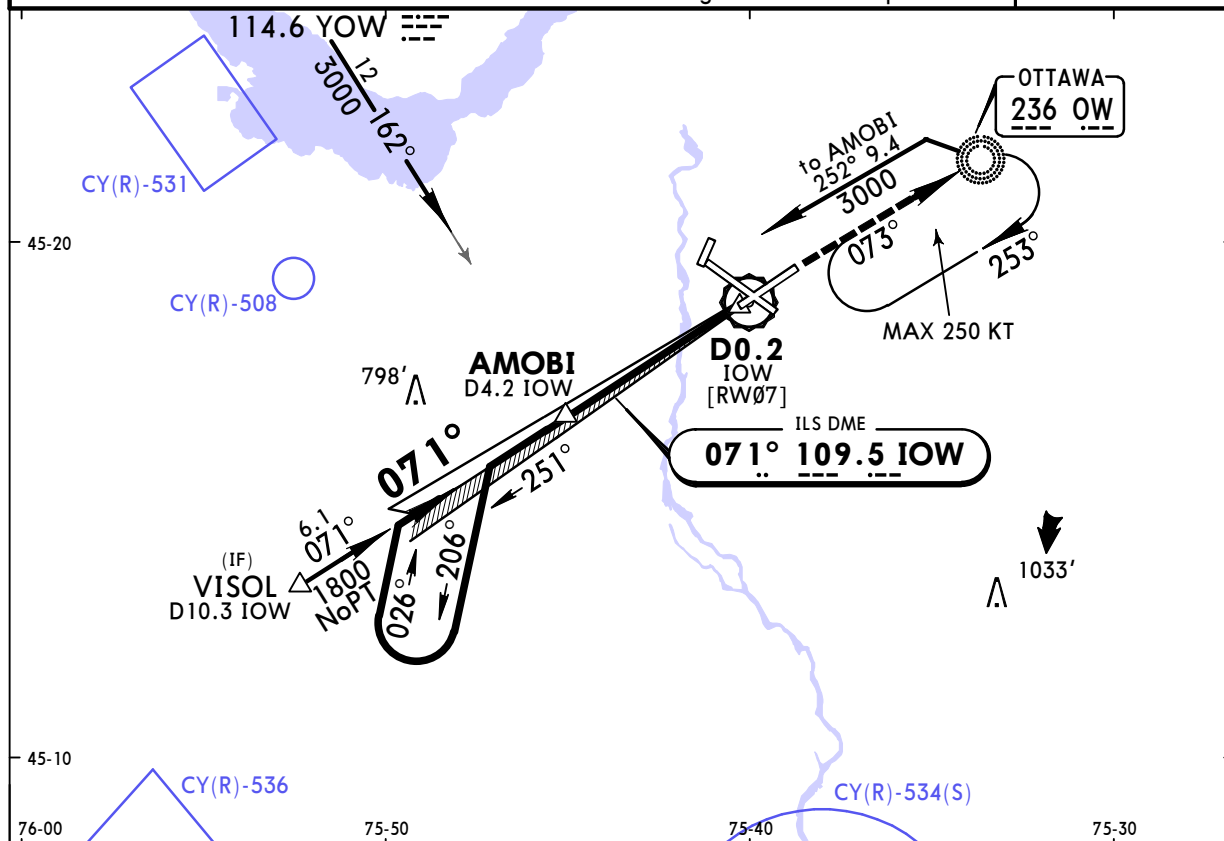
JEPPESEN

OTTAWA, ONT

ILS Rwy 07

BRIEFING STRIP™

D-ATIS		QUEBEC Radio		OTTAWA Arrival		OTTAWA Tower		Ground	
121.15 (French 132.95)		123.15		135.15		118.8		121.9	
LOC IOW 109.5	Final Apch Crs 071°	GS AMOB1 1700' (1327')		ILS DA(H) 573'(200')		Apt Elev 377' TDZE 373'		3000' MSA OW NDB	
MISSED APCH: Climb to 3000' direct OW NDB. As required shuttle climb.									
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport.									



Gnd speed-Kts	70	90	100	120	140	160	SSALR PAPI 3000'	D	OW 236
GS	3.00°	372	478	531	637	743			
MAP at D0.2 IOW or AMOB1 to MAP	4.0	3:26	2:40	2:24	2:00	1:43			

ILS DME		STRAIGHT-IN LANDING RWY 07		CIRCLE-TO-LAND	
DA(H) 573' (200')		LOC (GS out) DME		LOC (GS out) VOR	
FULL		MDA(H) 680' (307')		MDA(H) 760' (387')	
		HIALS out		HIALS out	
				Max Kts	
				MDA(H)	
A				90	880'(503') - 1½
B				120	880'(503') - 2
C	RVR 26 or 1/2	RVR 50 or 1		140	880'(503') - 2
D				165	1080'(703') - 2¼

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

9 SEP 16

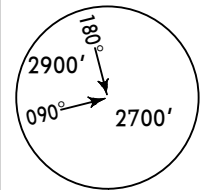
(11-2)

Eff 15 Sep

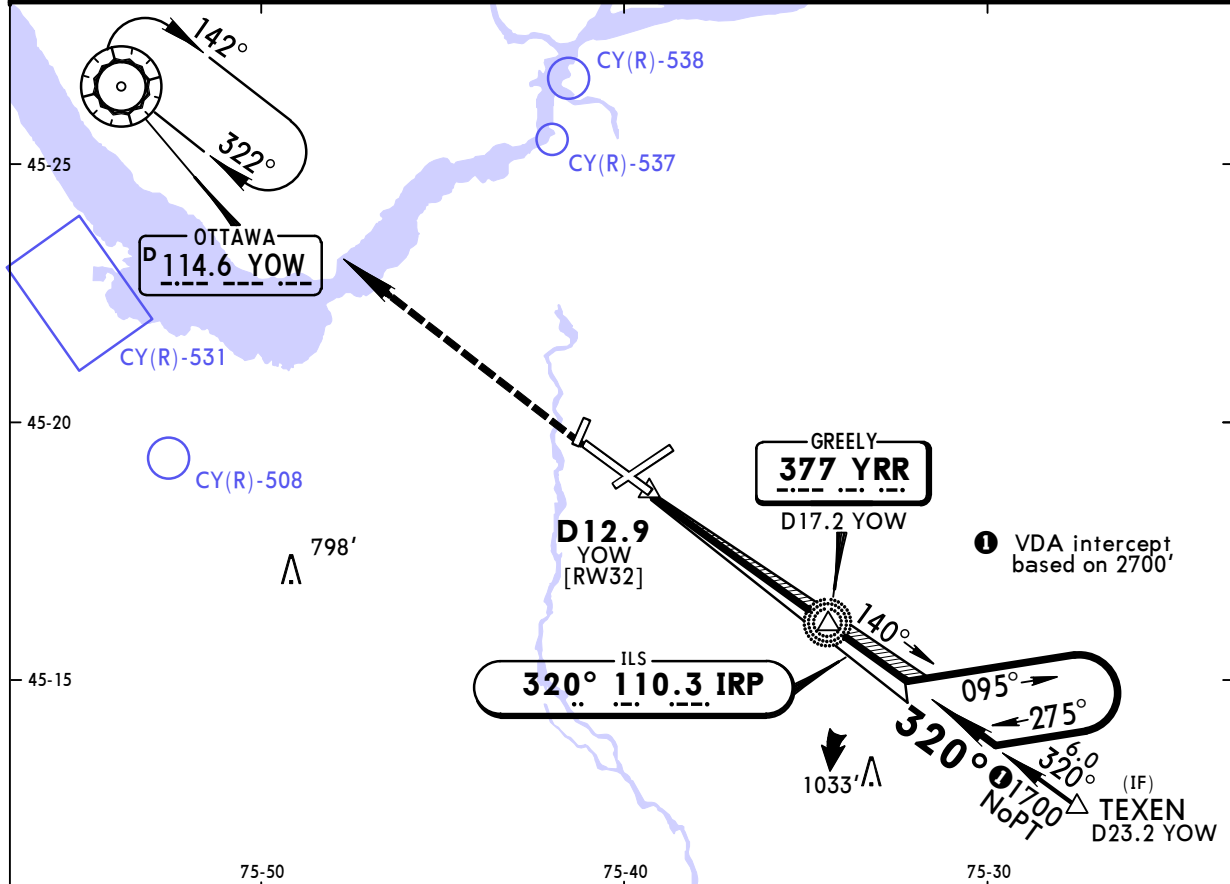
OTTAWA, ONT
ILS Rwy 32

BRIEFING STRIP

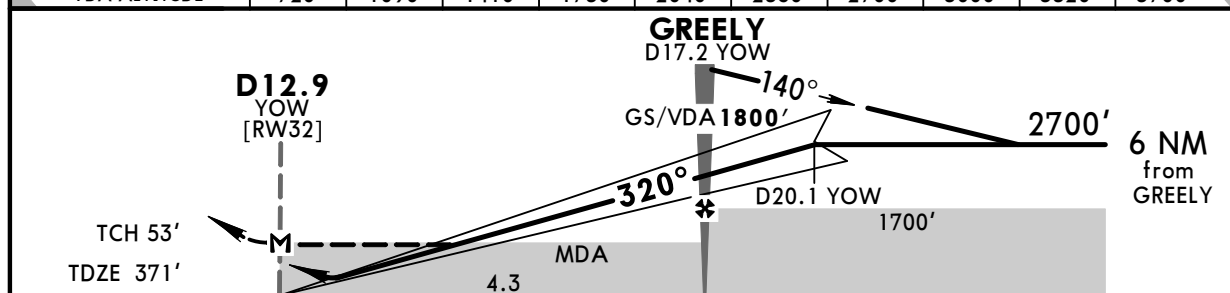
D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
LOC IRP 110.3	Final Apch Crs 320°	GS GREELY 1800' (1429')	ILS DA(H) 571' (200')	Apt Elev 377' TDZE 371'
MISSED APCH: Climb to 3000' direct to YOW VOR.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport.				



MSA YRR NDB



NM to YOW DME	13.8	15.0	16.0	17.0	18.0	19.0	20.1	21.0	22.0	23.2
VDA ALTITUDE	720'	1090'	1410'	1730'	2040'	2360'	2700'	3000'	3320'	3700'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	YOW
GS/VDA	3.00°	372	478	531	637	743	849		114.6
MAP at D12.9 YOW or GREELY to MAP	4.3	3:41	2:52	2:35	2:09	1:51	1:37		

STRAIGHT-IN LANDING RWY32

CIRCLE-TO-LAND

ILS or ILS DME DA(H) 571' (200')		LOC (GS out) or LOC (GS out) DME MDA(H) 720' (349')		Max Kts	MDA(H)
FULL		HIALS out			
A	RVR 26 or 1/2	RVR 50 or 1		90	880' (503') - 1½
B				120	
C				140	880' (503') - 2
D				165	1080' (703') - 2¼

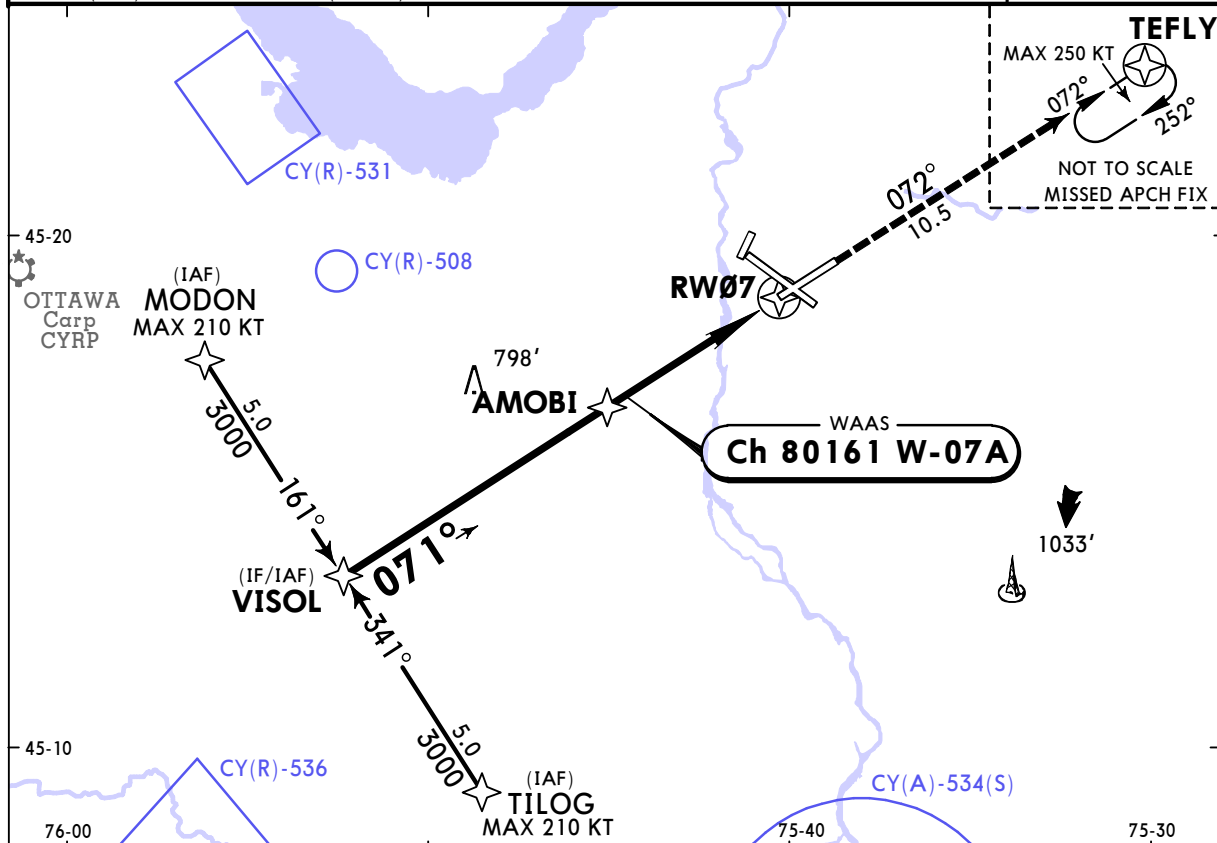
CHANGES: Procedure revised.

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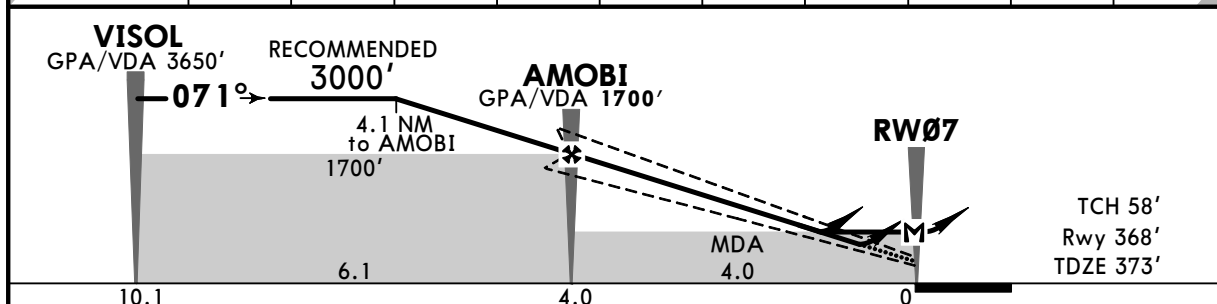
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPESEN
7 SEP 18 (12-1)OTTAWA, ONT
RNAV (GNSS) Z Rwy 07

BRIEFING STRIP™

D-ATIS	QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)	123.15	135.15	118.8	121.9
WAAS Ch 80161 W-07A	Final Apt Crs 071°	GPA AMOB1 1700' (1332')	LPV DA(H) 569' (201')	Apt Elev 377' Rwy 368'
MISSED APCH: Climb to 3000' track 072° to TEFLY. As required shuttle climb.				3000
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				MSA RW07
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) and above 54°C (129°F).				



NM to RW07	10.1	9.0	8.1	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	3650'	3290'	3000'	2660'	2340'	2020'	1700'	1380'	1060'	740'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	072°	TEFLY
GPA/VDA	372	478	531	637	743	849	PAPI			
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW07										

STRAIGHT-IN LANDING RWY 07			CIRCLE-TO-LAND	
LPV DA(H) 569' (201')	LNAV/VNAV DA(H) 657' (289')	LNAV MDA(H) 740' (372')	Max Kts	MDA(H)
FULL	FULL	HIALS out	90	880' (503') - 1½
			120	880' (503') - 2
			140	880' (503') - 2
			165	1080' (703') - 2¼
A				
B				
C	RVR 26 or ½	RVR 50 or 1		
D		RVR 50 or 1		

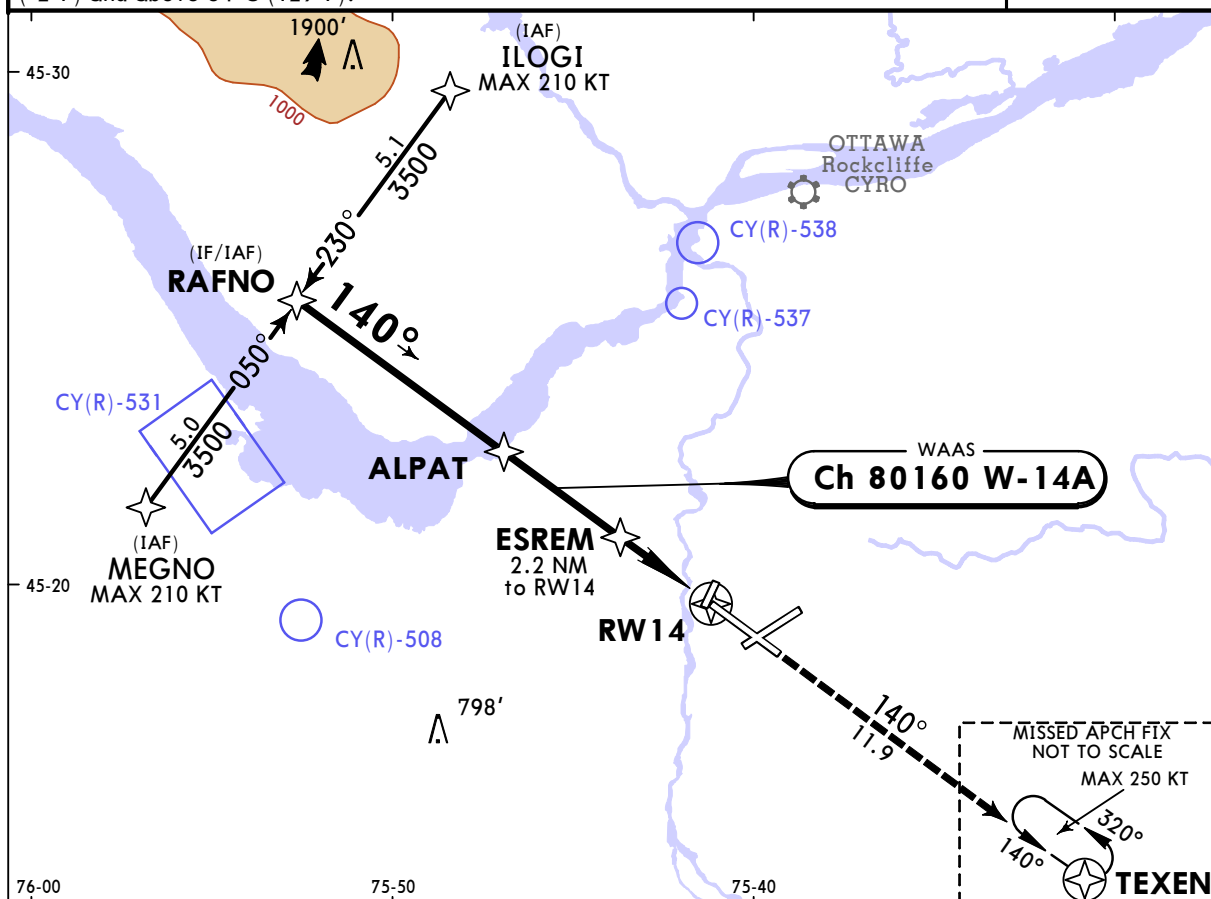
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

7 SEP 18

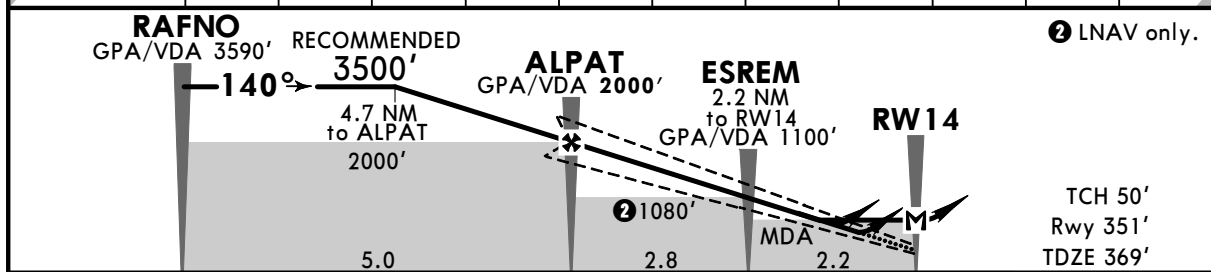
(12-2)

OTTAWA, ONT
RNAV (GNSS) Z Rwy 14

D-ATIS		QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)		123.15	135.15	118.8	121.9
WAAS Ch 80160 W-14A	Final Apch Crs 140°	GPA ALPAT 2000' (1649')	LPV DA(H) 601' (250')	Apt Elev 377' Rwy 351'	 2900 MSA RW14
MISSED APCH: Climb to 3000' track 140° to TEXEN. As required shuttle climb.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).					



NM to RW14	10.0	9.7	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.1
VDA ALTITUDE	3590'	3500'	3270'	2950'	2630'	2310'	1990'	1670'	1360'	1040'	740'



10.0			5.0				0			
Gnd speed-Kts	70	90	100	120	140	160				
GPA/VDA 3.00°	372	478	531	637	743	849				
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW14										

STRAIGHT-IN LANDING RWY14				CIRCLE-TO-LAND	
LPV DA(H) 601' (250')		LNAV/VNAV DA(H) 621' (270')	LNAV MDA(H) 740' (389')	Max Kts	MDA(H) _____
A	1	1	1¼	90	880' (503') - 1½
B				120	
C				140	880' (503') - 2
D				165	1080' (703') - 2¼

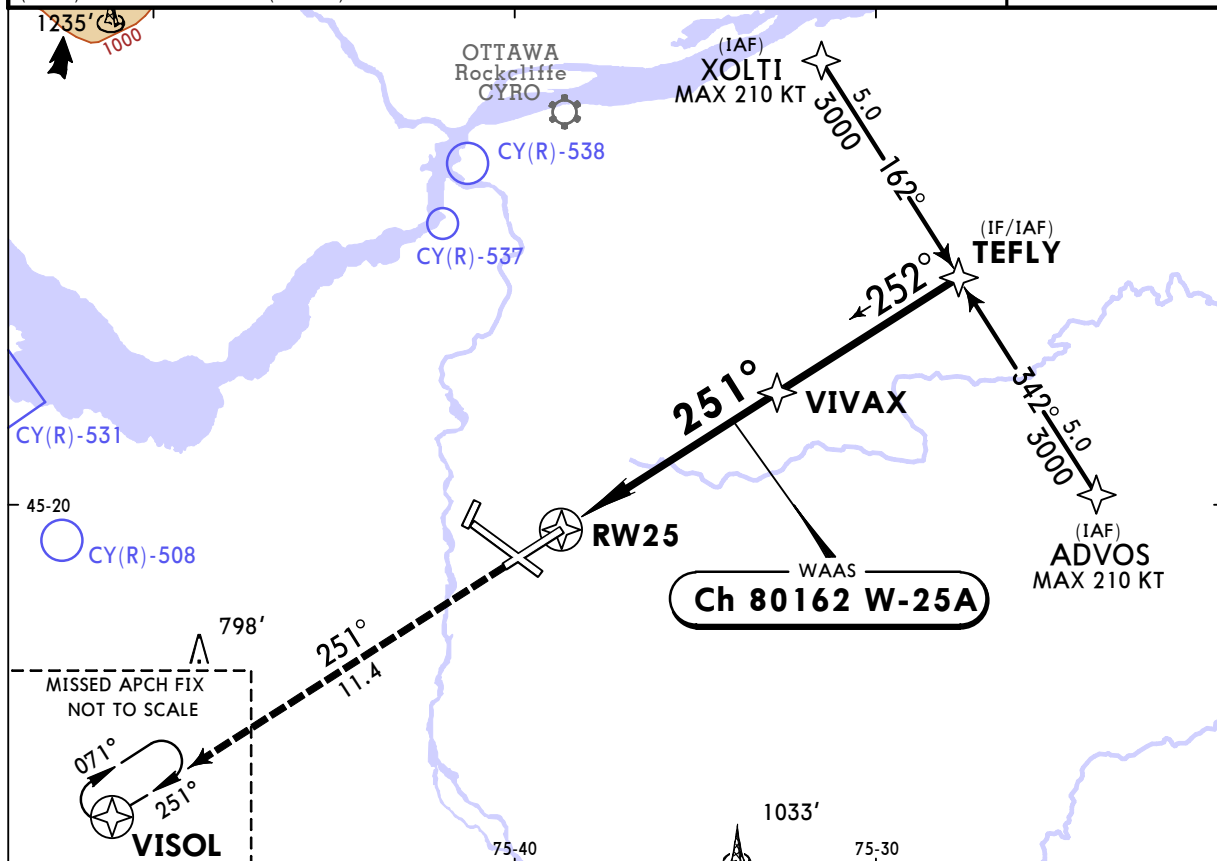
CHANGES: Lighting.

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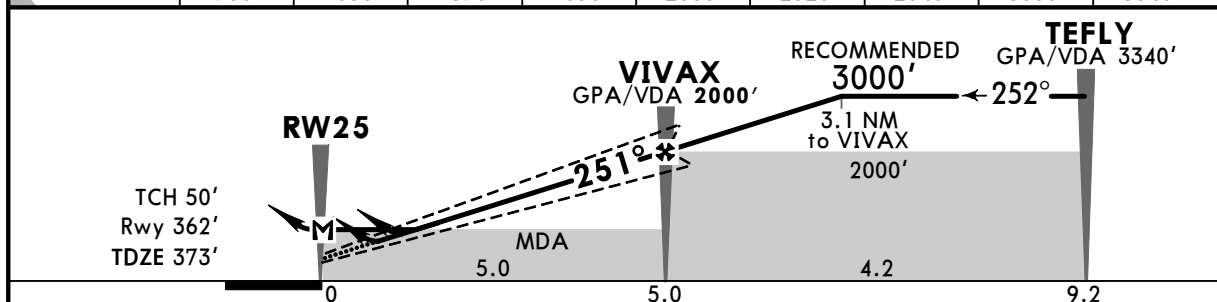
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPESEN
7 SEP 18
Eff 13 Sep (12-3)OTTAWA, ONT
RNAV (GNSS) Z Rwy 25

BRIEFING STRIP™

D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
WAAS Ch 80162 W-25A	Final Apch Crs 251°	GPA VIVAX 2000' (1638')	LPV DA(H) 612' (251')	Apt Elev 377' Rwy 362'
MISSED APCH: Climb to 3000' track 251° to VISOL. As required shuttle climb.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).				
3000 MSA RW25				



NM to RW25	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.1	9.2
VDA ALTITUDE	760'	1050'	1370'	1690'	2000'	2320'	2640'	3000'	3340'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	251°	VISOL
GPA/VDA	3.00°	372	478	531	637	743	849	PAPI		
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW25										

STRAIGHT-IN LANDING RWY25			CIRCLE-TO-LAND	
LPV	LNAV/VNAV	LNAV	Max Kts	MDA(H)
DA(H) 612' (251')	DA(H) 659' (298')	MDA(H) 760' (398')	90	880' (503') - 1½
FULL	FULL	HIALS out	120	880' (503') - 2
A			140	880' (503') - 2
B			165	1080' (703') - 2¼
C	1	1		
D				

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

JEPPESEN

7 SEP 18

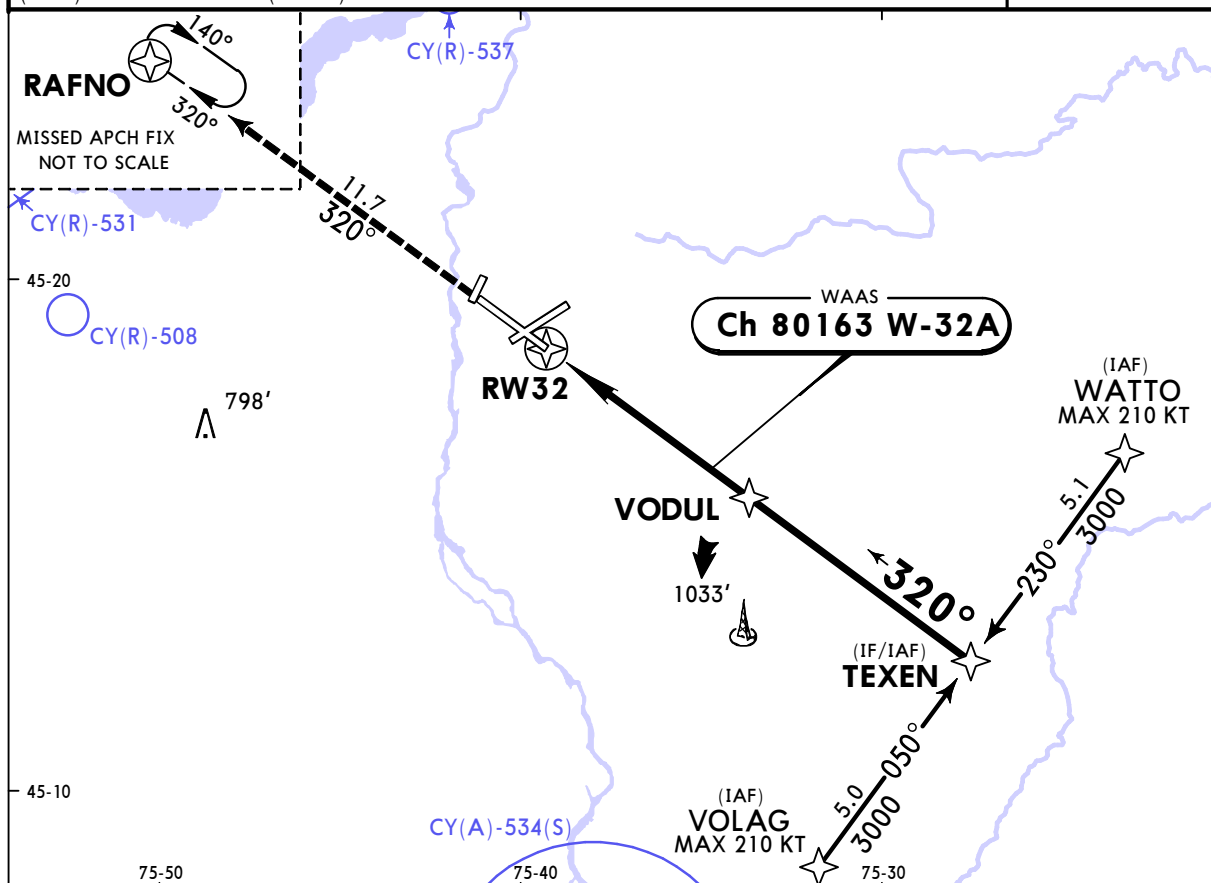
Eff 13 Sep

(12-4)

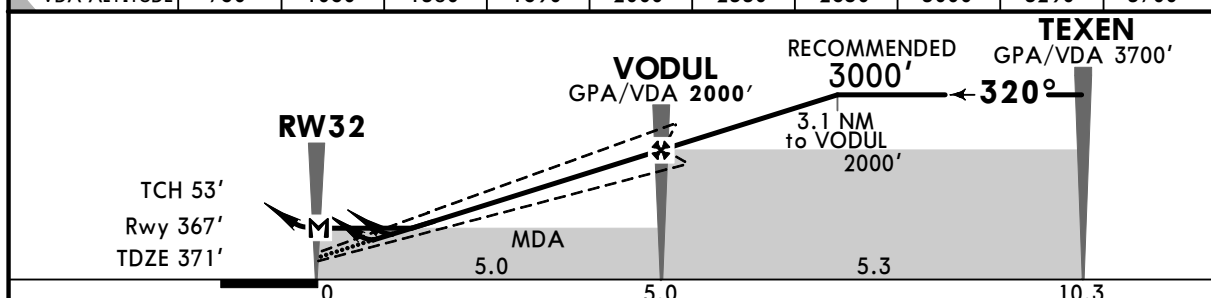
OTTAWA, ONT
RNAV (GNSS) Z Rwy 32

BRIEFING STRIP™

D-ATIS		QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)		123.15	135.15	118.8	121.9
WAAS Ch 80163 W-32A	Final Apch Crs 320°	GPA VODUL 2000' (1633')	LPV DA(H) 567' (200')	Apt Elev 377' Rwy 367'	3000 MSA RW32
MISSED APCH: Climb to 3000' track 320° to RAFNO. As required shuttle climb.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).					



NM to RW32	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.1	9.0	10.3
VDA ALTITUDE	760'	1060'	1380'	1690'	2000'	2330'	2650'	3000'	3290'	3700'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	320°	RAFNO
GPA/VDA	3.00°	372	478	531	637	743	849			
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW32										

STRAIGHT-IN LANDING RWY32			CIRCLE-TO-LAND		
LPV	LNAV/VNAV	LNAV			
DA(H) 567' (200')	DA(H) 654' (287')	MDA(H) 760' (393')			
FULL	FULL	HIALS out			
A			Max Kts		
B			90	880'(503') - 1½	
C	RVR 26 or 1/2	RVR 50 or 1	120	880'(503') - 2	
D			140	880'(503') - 2	
			165	1080'(703') - 2¼	

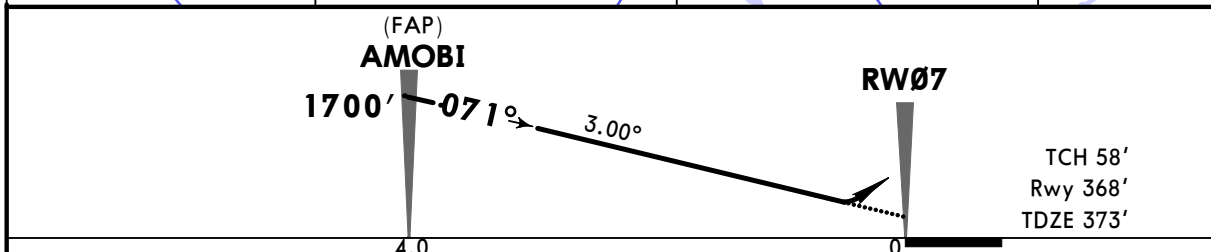
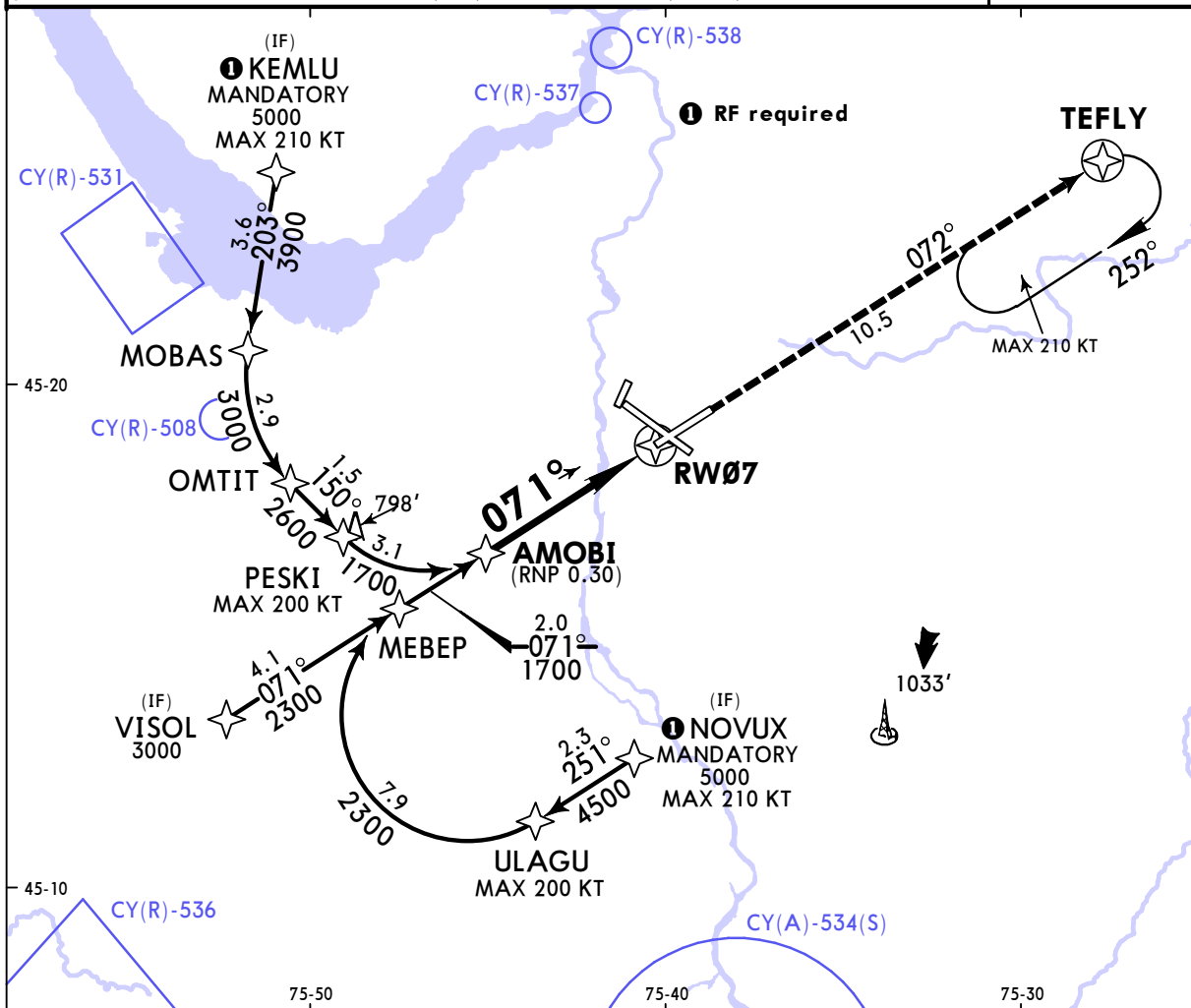
CHANGES: Distance and altitude table.

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CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPESEN
7 SEP 18 (12-20)OTTAWA, ONT
RNAV (RNP) Y Rwy 07

BRIEFING STRIP™

D-ATIS		QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)		123.15	135.15	118.8	121.9
RNAV	Final Apch Crs 071°	Minimum Alt AMOB 1700' (1332')	RNP 0.30 DA(H) 769' (401')	Apt Elev 377' Rwy 368'	2900 MSA RW07
MISSED APCH: Climb to 3000' track 072° to TEFly.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 7000'. 3. Intensive training area NW of airport. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -18°C (0°F) and above 54°C (129°F).					



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743
MAP at DA						

STRAIGHT-IN LANDING RWY 07
RNP 0.30
DA(H) **769'** (401')
FULL

A	
B	
C	
D	

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL
JEPPesen
 7 SEP 18 **16-1** Eff 13 Sep

OTTAWA, ONT
NDB Rwy 25

BRIEFING STRIP™

D-ATIS

QUEBEC Radio

OTTAWA Arrival

OTTAWA Tower

Ground

121.15 (French 132.95)	123.15	135.15	118.8	121.9
------------------------	--------	--------	-------	-------

NDB OW 236	Final Apch Crs 253°	VDA OTTAWA 1720' (1347')	MDA(H) 820' (447')	Apt Elev 377' TDZE 373'
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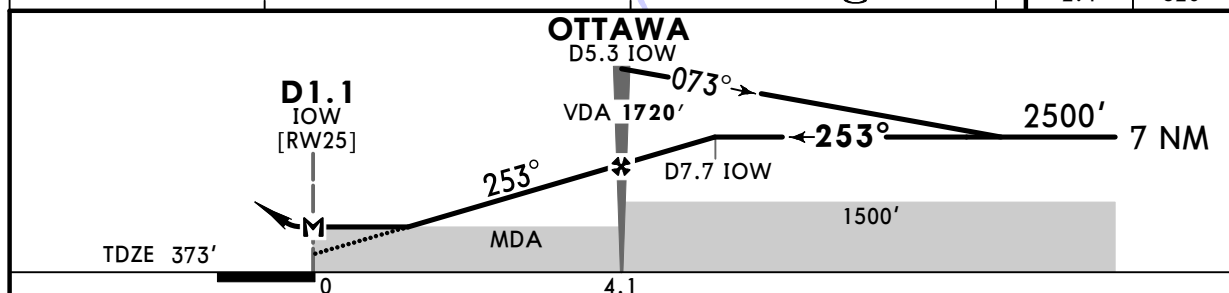
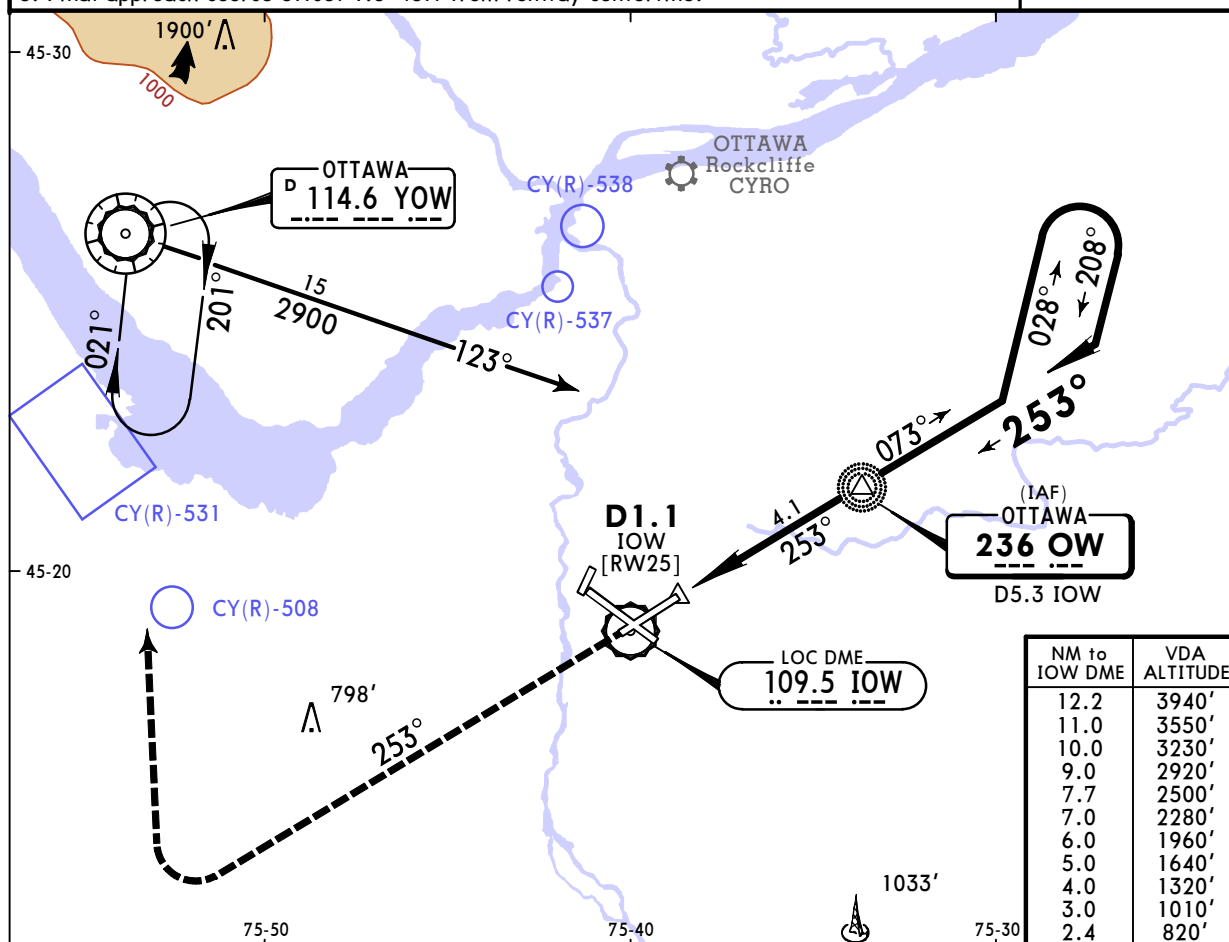
3000

MISSED APCH: Climb to 3000' track 253°. Then **RIGHT** turn direct to YOW VOR.

Alt Set: INCHES	Trans level: FL 180	Trans alt: 18000'
-----------------	---------------------	-------------------

1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport.
 3. Final approach course offset 1.8° left from runway centerline.

MSA OW NDB



Gnd speed-Kts	70	90	100	120	140	160	3000' 253°
VDA 3.00°	372	478	531	637	743	849	
MAP at D1.1 IOW							
OTTAWA to MAP	4.1	3:31	2:44	2:28	2:03	1:45	

STRAIGHT-IN LANDING RWY 25				CIRCLE-TO-LAND			
NDB or NDB DME							
MDA(H) 820' (447')							
ALS out				Max Kts	MDA(H)		
A	1			90	880' (503') - 1½		
B				120	880' (503') - 2		
C				140	880' (503') - 2		
D				165	1080' (703') - 2¼		

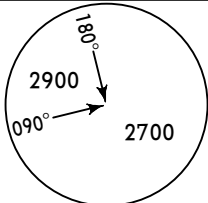
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

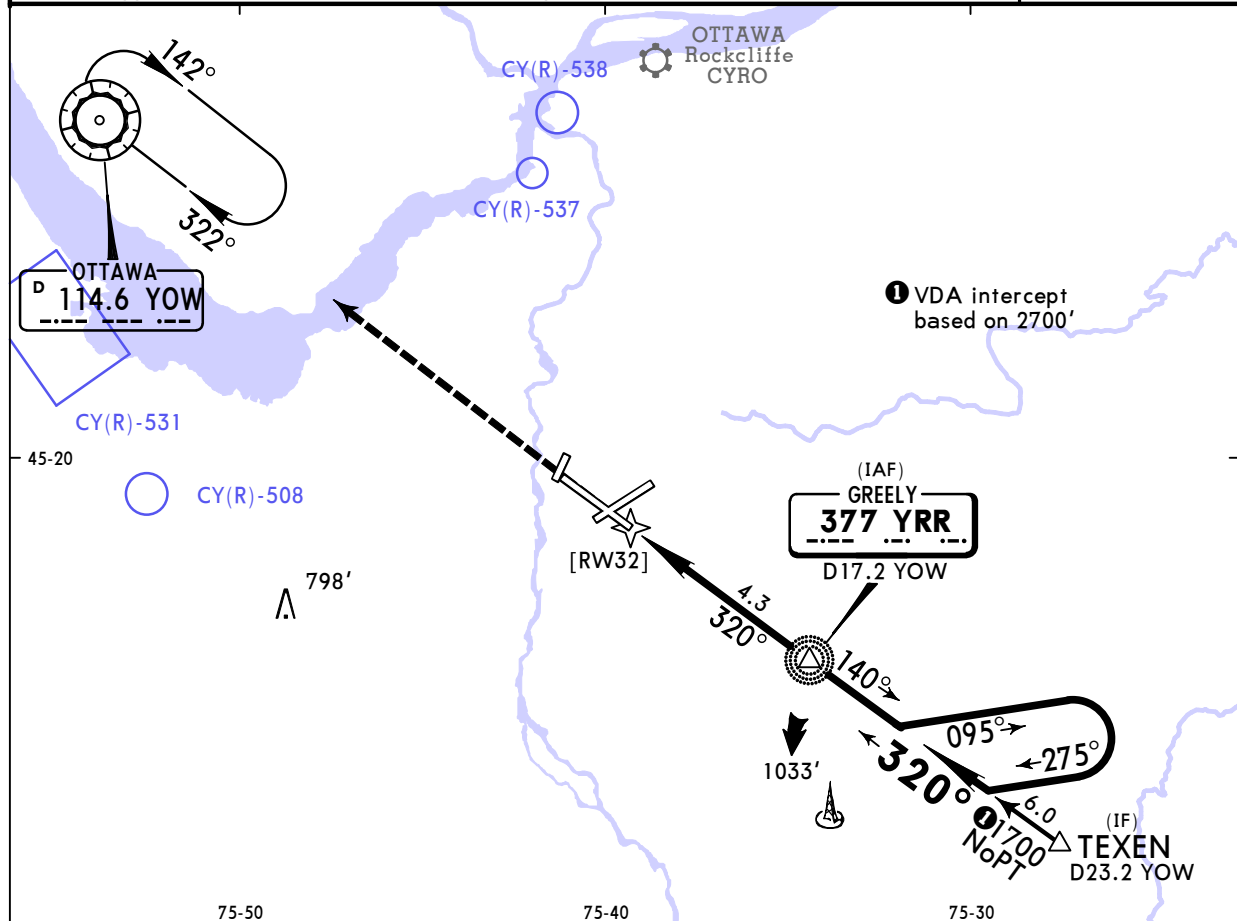
7 SEP 18

(16-2) Eff 13 Sep

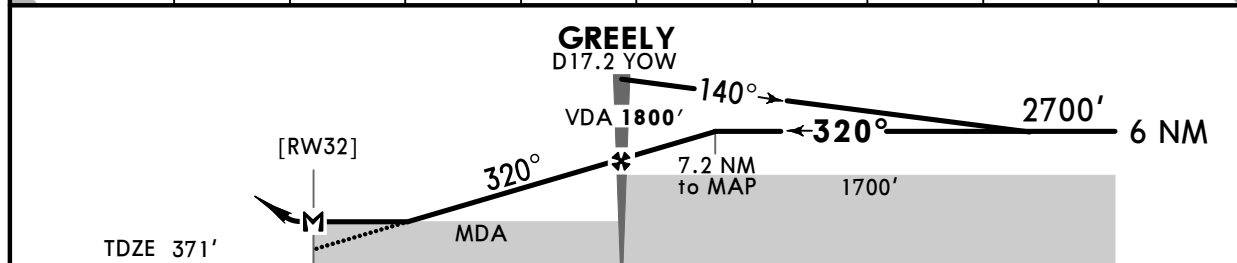
OTTAWA, ONT
NDB Rwy 32

BRIEFING STRIP™

D-ATIS	QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)	123.15	135.15	118.8	121.9
NDB YRR	Final Apch Crs	VDA GREELY	MDA(H)	Apt Elev 377'
377	320°	1800' (1429')	1200' (829')	TDZE 371'
MISSSED APCH: Climb to 3000' direct to YOW VOR. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. Final approach course offset 0.2° from runway centerline.				
				
MSA YRR NDB				

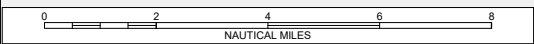
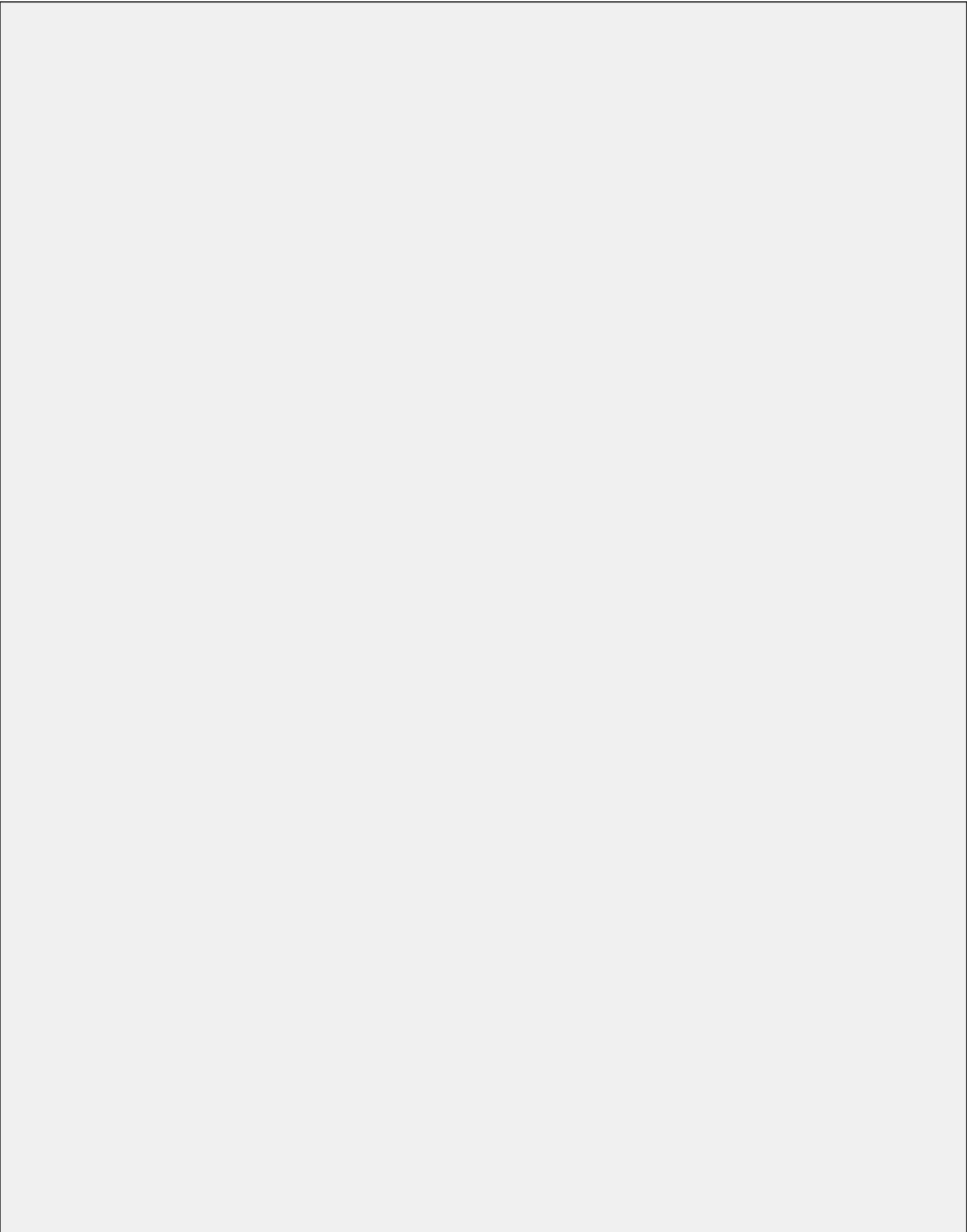


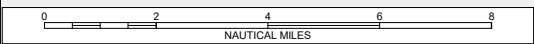
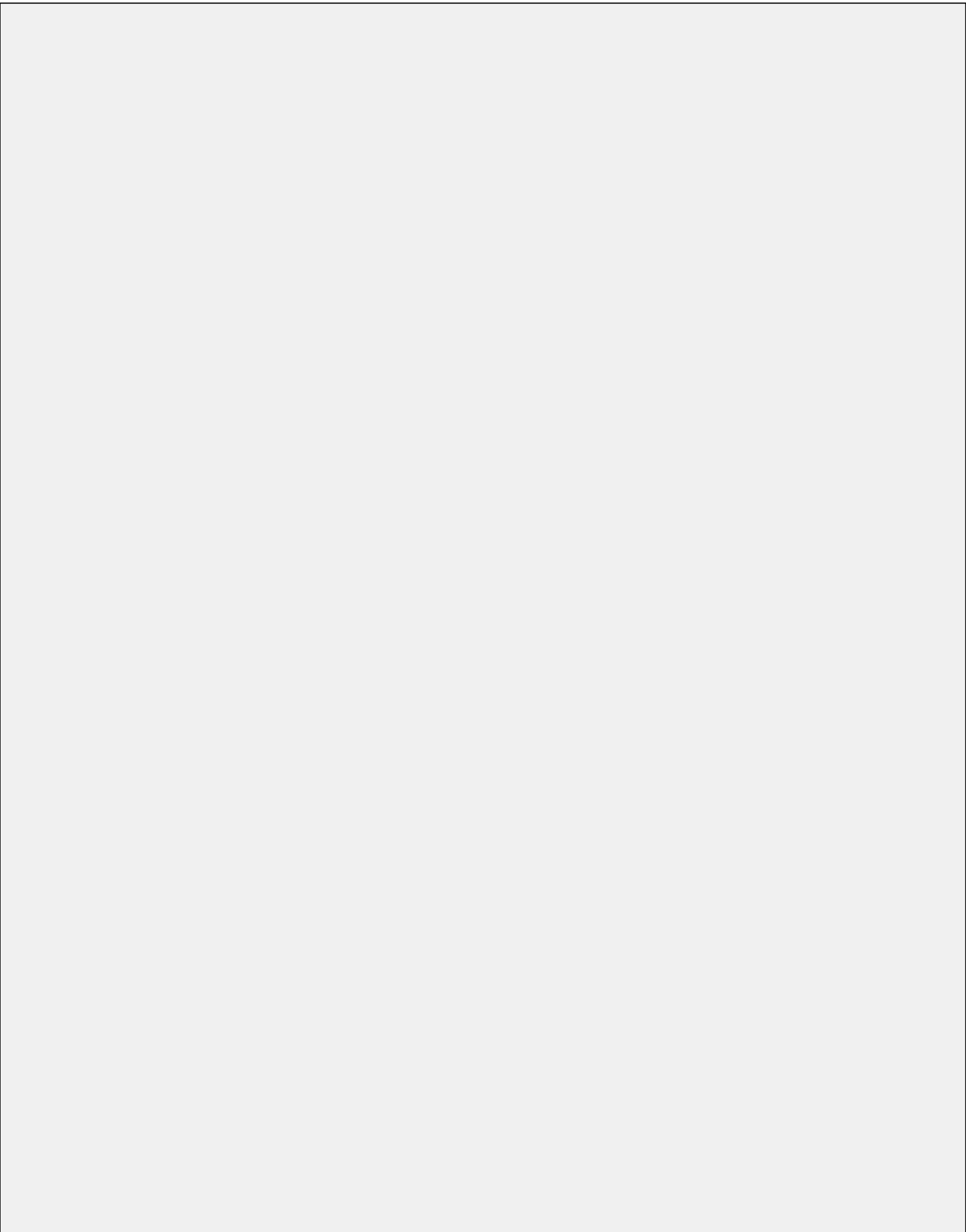
NM to MAP	2.4	3.0	4.3	5.0	6.0	7.0	8.0	9.0	10.3
VDA ALTITUDE	1200'	1380'	1800'	2010'	2330'	2650'	2970'	3290'	3700'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	YOW
VDA	3.00°	372	478	531	637	743	PAPI	↑	114.6
GREELY to MAP	4.3	3:41	2:52	2:35	2:09	1:51	1:37		

STRAIGHT-IN LANDING RWY 32				CIRCLE-TO-LAND			
MDA(H) 1200' (829')				MDA(H)			
HIALS out				Max Kts			
				90			
				120			
				140			
				165			
2				1200' (823') - 2½			





JEPPESEN OTTAWA, ONT
1 JUN 18 **10-2** **RNAV STAR**

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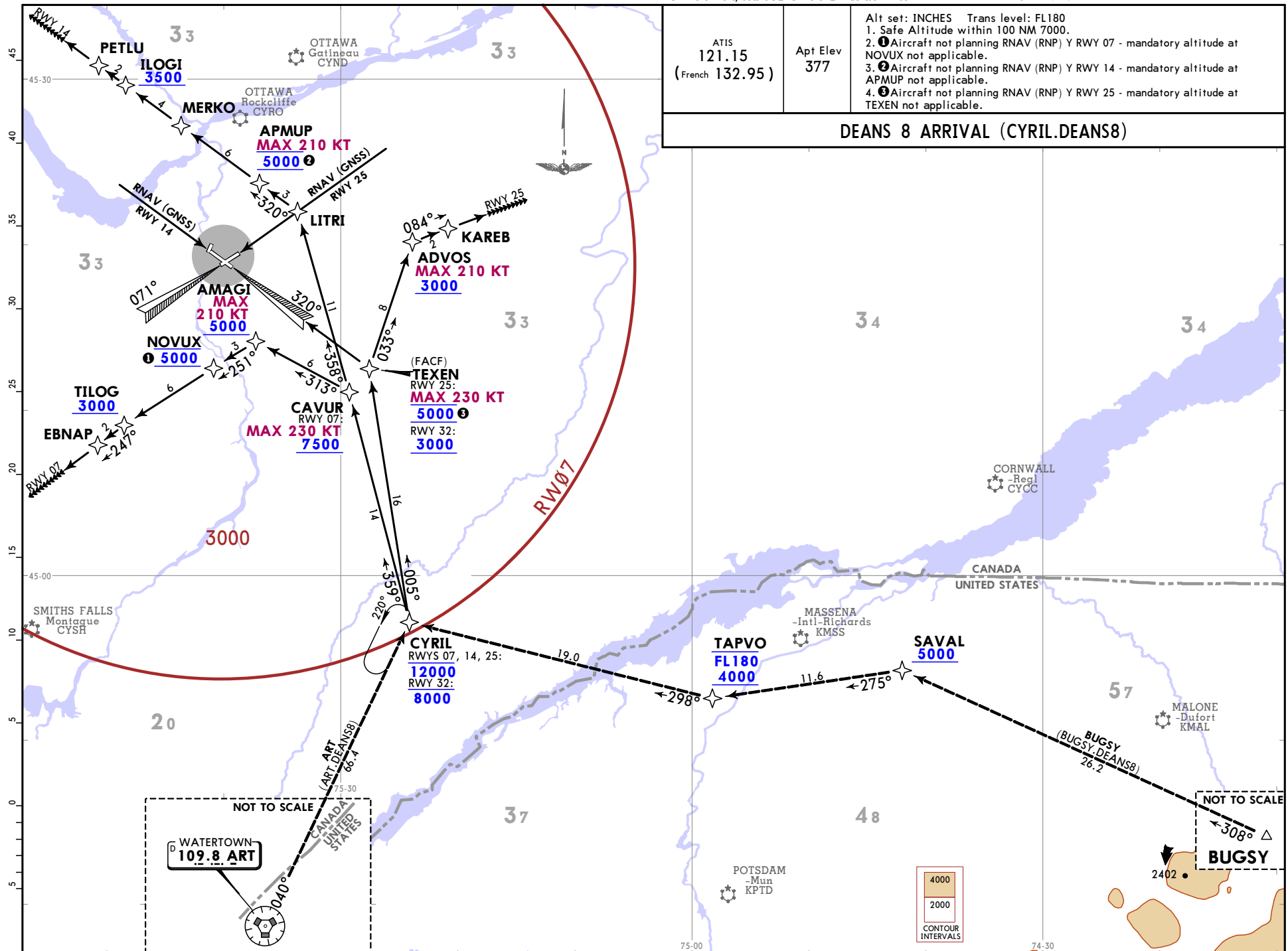
CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL

JEPPesen
1 JUN 18 (10-2A)

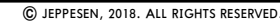
OTTAWA, ONT
RNAV STAR

ATIS 121.15 (French 132.95)	Apt Elev 377	Alt set: INCHES Trans level: FL180 1. Safe Altitude within 100 NM 7000. 2. ① Aircraft not planning RNAV (RNP) Y RWY 07 - mandatory altitude at NOVUX not applicable. 3. ② Aircraft not planning RNAV (RNP) Y RWY 14 - mandatory altitude at APMUP not applicable. 4. ③ Aircraft not planning RNAV (RNP) Y RWY 25 - mandatory altitude at TEXEN not applicable.
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DEANS 8 ARRIVAL (CYRIL.DEANS8)



JEPPESSEN OTTAWA, ONT
1 JUN 18 **10-2B** **RNAV STAR**

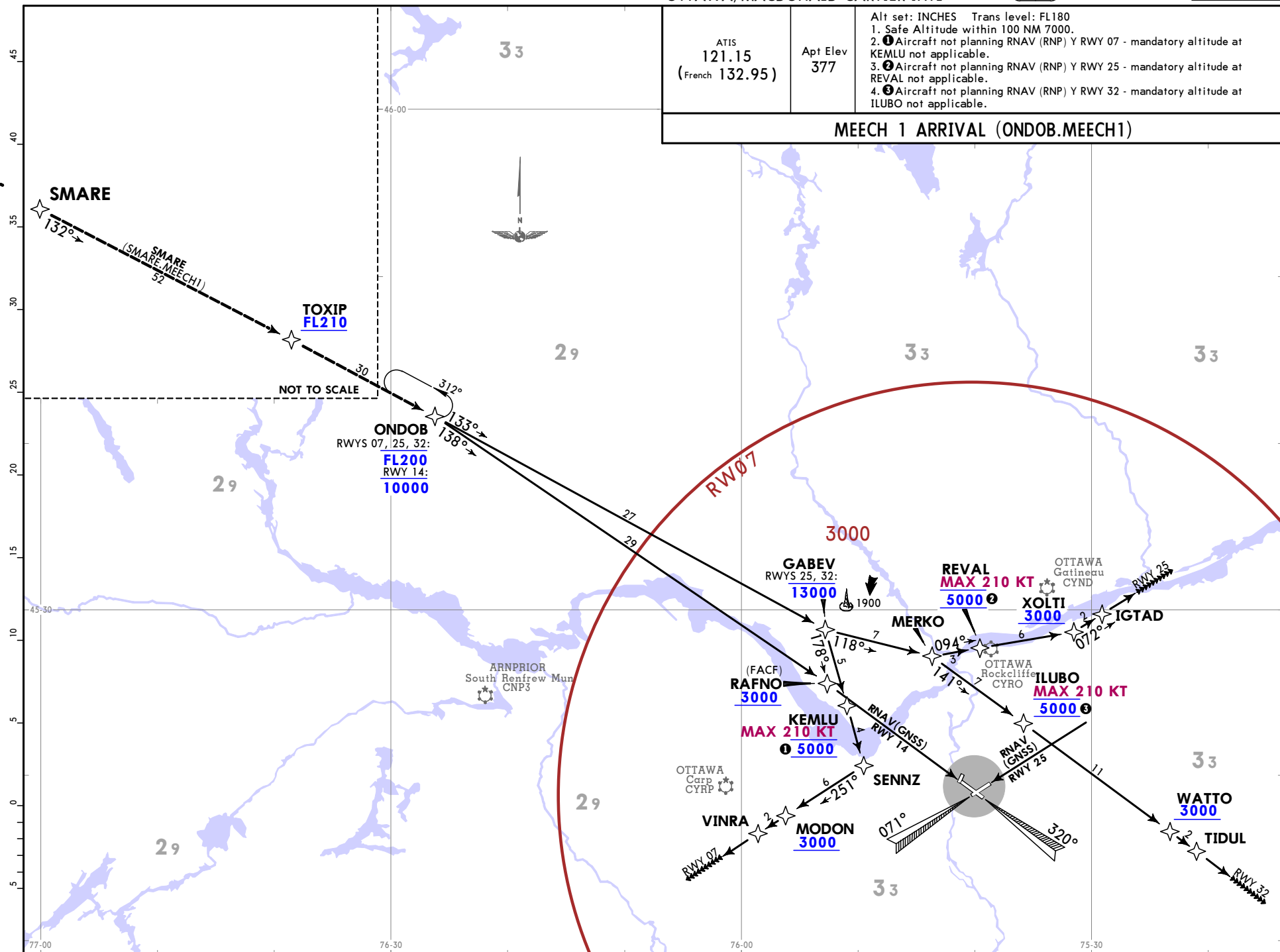


CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL 1 JUN 18 (10-2C)

OTTAWA, ONT
RNAV STAR

ATIS 121.15 (French 132.95)	Apt Elev 377	Alt set: INCHES Trans level: FL180 1. Safe Altitude within 100 NM 7000. 2. ① Aircraft not planning RNAV (RNP) Y RWY 07 - mandatory altitude at KEMLU not applicable. 3. ② Aircraft not planning RNAV (RNP) Y RWY 25 - mandatory altitude at REVAL not applicable. 4. ③ Aircraft not planning RNAV (RNP) Y RWY 32 - mandatory altitude at ILUBO not applicable.
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MEECH 1 ARRIVAL (ONDOB.MEECH1)



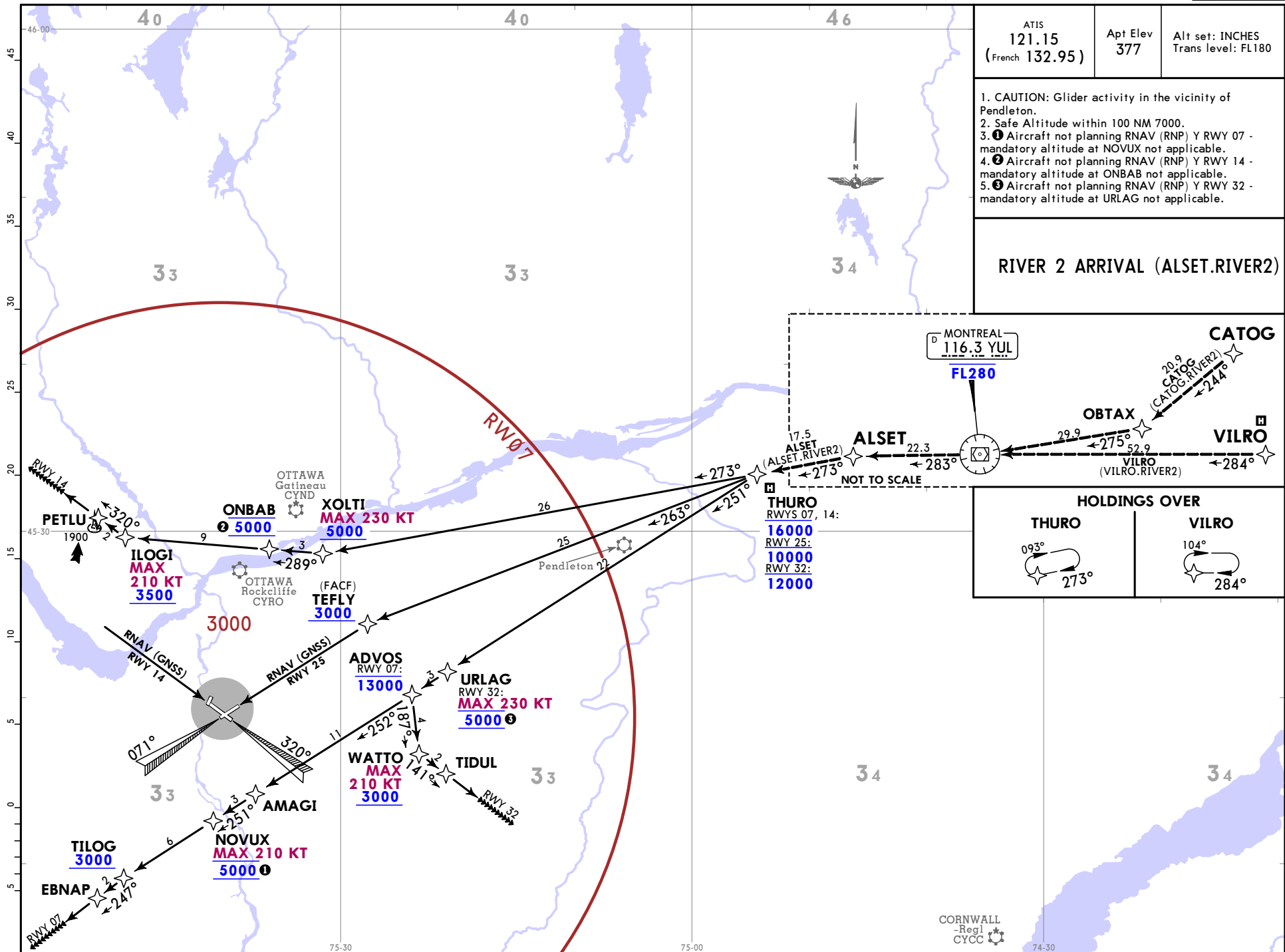
CYOW/YOW
OTTAWA/MACDONALD-CARTIER INTL

JEPPESSEN OTTAWA, ONT
1 JUN 18 (10-2D) RNAV STAR

ATIS 121.15 (French 132.95)	Apt Elev 377	Alt set: INCHES Trans level: FL180
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1. CAUTION: Glider activity in the vicinity of Pendleton.
2. Safe Altitude within 100 NM 7000.
3. ① Aircraft not planning RNAV (RNP) Y RWY 07 - mandatory altitude at NOVUX not applicable.
4. ② Aircraft not planning RNAV (RNP) Y RWY 14 - mandatory altitude at ONBAB not applicable.
5. ③ Aircraft not planning RNAV (RNP) Y RWY 32 - mandatory altitude at URLAG not applicable.

RIVER 2 ARRIVAL (ALSET.RIVER2)



CYOW/YOW
OTTAWA/MACDONALD-
CARTIER INTL

JEPPESEN
1 JUN 18 10-3

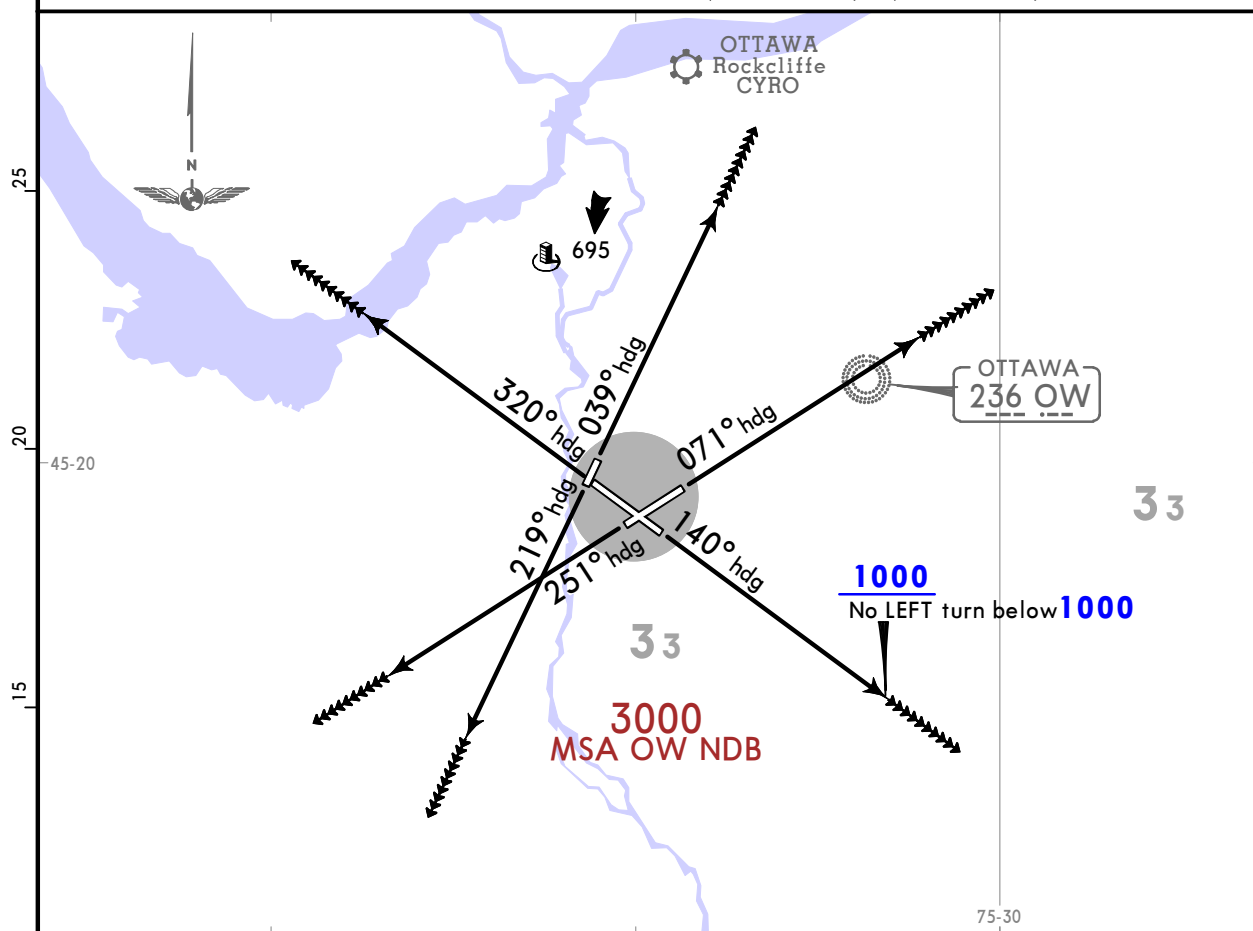
OTTAWA, ONT
SID

OTTAWA
Departure
128.17

Apt Elev
377

Trans alt: 18000
1. Safe Altitude within 100 NM 7000.
2. Refer to 10-4 Noise Abatement Procedures for additional requirements.

OTTAWA 4 DEPARTURE (CYOW4.) (VECTOR)



On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, proceed as follows:
Runways 04, 07, 14, 22 and 25:
1. Select transponder code 7600;
2. 5 minutes after selecting 7600, proceed directly on course and climb to flight planned altitude.
Runway 32:
1. Select transponder code 7600;
2. Non-Jet aircraft, climb and MAINTAIN 4000;
3. 5 minutes after selecting 7600, proceed directly on course and climb to flight planned altitude.
NOTE: If communications failure occurs more than 10 minutes after take-off, comply with appropriate procedures for Communications Failure en-route.

This SID requires a minimum climb gradient of:
Rwy 04: 270 per NM to 600.

Gnd speed-KT	75	100	150	200	250	300
270 per NM	338	450	675	900	1125	1350

① Unless otherwise assigned by ATC.

RWY	INITIAL CLIMB	① ALTITUDE
04	Climb heading 039° or as assigned for vectors to assigned route.	Non-jet aircraft MAINTAIN 3000
07	Climb heading 071° or as assigned for vectors to assigned route.	Jet aircraft MAINTAIN 5000
14	No LEFT turn below 1000. Climb heading 140° or as assigned for vectors to assigned route.	Non-jet aircraft MAINTAIN 3000
22	Climb heading 219° or as assigned for vectors to assigned route.	Non-jet aircraft MAINTAIN 3000
25	Climb heading 251° or as assigned for vectors to assigned route.	Jet aircraft MAINTAIN 5000
32	Climb heading 320° or as assigned for vectors to assigned route.	Non-jet aircraft MAINTAIN 3000

CYOW/YOW

**NOISE**

OTTAWA, ONT

OTTAWA/MACDONALD-CARTIER INTL

NOISE ABATEMENT PROCEDURES

DAYLIGHT : LT plus 4 HOURS = UTC(Z)
STANDARD: LT plus 5 HOURS = UTC(Z)

JET AIRCRAFT**RESTRICTIONS**

Summer - May 1 thru September 30

The use of Rwy 32 for departure by turbojet and turbofan aircraft on technical stops or charter operations is not permitted between the hours of 2300 and 0700 local time daily. Under extenuating circumstances, permission to operate during restricted hours may be granted (passenger flights only) through prior authorization by the Airport General Manager or his designated official.

PREFERENTIAL RUNWAY DETERMINATION

Controllers will designate runways to divert as many take-offs and landings as possible, consistent with safety of operations, from flight over residential areas adjacent to the airport. Pilots should be prepared to use runways other than 32 for take-offs and 14 for landings when conditions permit the use of such other runways.

DEPARTURE PROCEDURES

RWY	① NADP (Noise Abatement Departure Procedure)
ALL RWYS	1 or 2

① See Jeppesen Canada ATC para 7.6.

Rwys 07, 14, 32 - climb on runway heading to 3000' before proceeding on course.

ARRIVAL PROCEDURES - VFR AND VISUAL APPROACH

- A. VFR
1. Circuit height 2500' (weather permitting)
 2. Right hand circuits on Rwys 07 and 14
 3. Maintain 2500' as long as practicable before commencing descent
 4. Remain on or above glide slope or assumed 3 degree glide path.
- B. VISUAL APPROACHES
- ATS MAY PROVIDE VECTORS DIRECT TO THE FINAL APPROACH FIX. AIRCRAFT MUST:
1. Intercept final at or outside the final approach fix
 2. Remain on or above ILS glide slope or assumed 3 degree glide path
 3. Maintain the last assigned altitude until established on final.

TRAINING FLIGHTS

1. Permitted from 0800-2200 hours local time. No training on Sunday.
2. No VFR training circuits on Rwys 14 and 32 below 2500'.
3. Climb on runway heading to 2500'.
4. No practice circling procedures to Rwy 14.

PROPELLER DRIVEN AIRCRAFT**DEPARTURE PROCEDURES**

Rwy 32 - Climb on runway heading to 1500' before proceeding on course.

ARRIVAL PROCEDURES - VFR

Circuit height 1500'. Right hand circuits for Rwys 07, 14 and 22 (weather permitting).
 Rwys 04, 14 - Maintain 1500' until established on final approach (weather permitting).

TRAINING FLIGHTS

1. Permitted from 0815-2359 hours local time.
2. No VFR training circuits on Rwys 14 or 32 below 1500'.
3. No practice circling procedures to Rwy 14.

CYOW/YOW

Apt Elev **377'**
N45 19.4 W075 40.0

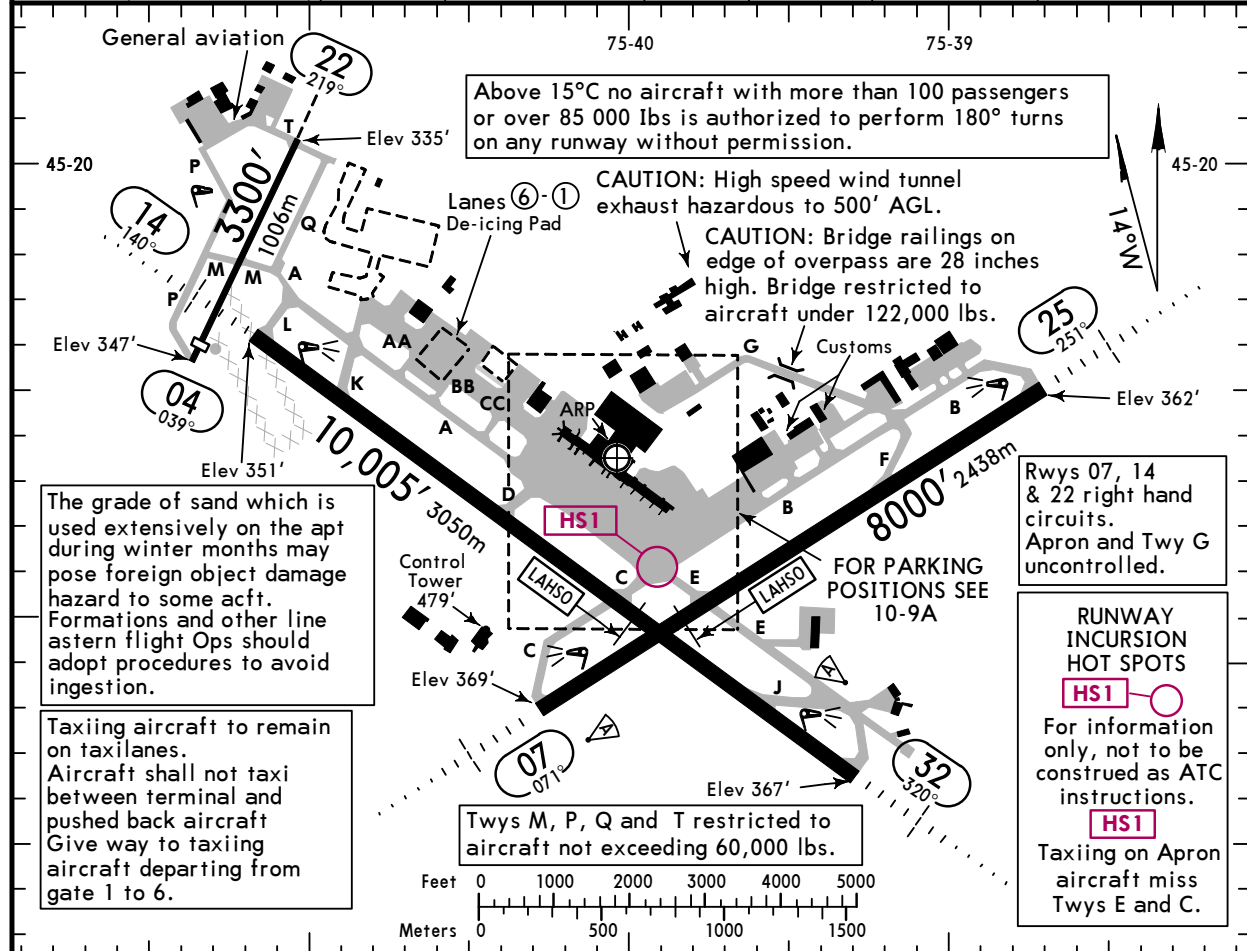
JEPPesen

7 SEP 18

10-9 Eff 13 Sep

OTTAWA, ONT
OTTAWA/MACDONALD
-CARTIER INTL

D-ATIS 121.15 (French 132.95)	Data Comm: D-ATIS PDC	OTTAWA Clearance 119.4	Ground 121.9	Tower 118.8	QUEBEC Radio 123.15	OTTAWA Departure 128.175
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ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		LAHSO Distance	WIDTH
		— LANDING Threshold	BEYOND Glide Slope		
04  22		3049' 929m			75' 23m
07 25	HIRL SSALR  PAPI-L (angle 3.0°) grooved RVR		6912' 2107m		197'
	HIRL SSALR  PAPI-L (angle 3.0°) grooved			14/32 5729' 1746m	60m
14 32	HIRL SSALR  PAPI-R (angle 3.0°) grooved			07/25 6377' 1944m	197'
	HIRL SSALR  PAPI-L (angle 3.0°) grooved RVR		8977' 2736m		60m

① Restricted to aircraft not exceeding 60,000 lbs.

② For aircraft with eye-to-wheel height up to 45'.

TAKE-OFF & DEPARTURE PROCEDURE

ARRIVAL, DEPARTURE, & DEPARTURE PROCEDURE					
Rwy 12 07, 34 25, 33 32		Rwy 5 14		6 Rwy 22	8 Rwy 04
		No LEFT turn below 1000'.		7 Requires a min climb gradient of 420'/NM to 5200' when CY(A)-528 or CY(A)-534(S) active.	9 Requires a minimum climb gradient of 270'/NM to 600'.
Authorized Air Carriers		Authorized Air Carriers	All Other Aircraft		
HIRL or RCLM		HIRL or RCLM			
A/B	RVR 12 or 1/4	RVR 26 or 1/2	RVR 12 or 1/4	RVR 26 or 1/2	1/2
C/D					1/2

1 Climb between heading 131° counterclockwise to 228° to remain clear of CY(A)-528 or CY(A)-534(S) when active.

2 Rwy 07: Road to 377' MSL abeam departure end of runway, 300' left and right of rwy centerline. Trees to 433' MSL approximately 400' past departure end of rwy, both left and right of rwy centerline.

3 Climb between hdg 228° clockwise to 131° to remain clear of CY(A)-528 or CY(A)-534(S) when active.

4 Rwy 25: Trees to 423' MSL approximately 0.1 NM past departure end of rwy, 300' left of rwy centerline.

5 Rwy 14: Requires a mim climb gradient of 430'/NM to 5100' when CY(A)-528 or CY(A)-534(S) active. Trees to 443' MSL approximately 0.3 NM past departure end of rwy, 400' left and right of rwy centerline.

6 Rwy 22: Trees to 410' MSL within 0.2 NM of departure end of rwy.

8 Rwy 04: Building to 359' MSL approximately 160' past departure end of rwy, 500' left of rwy centerline. Trees to 410' MSL approximately 0.2 NM past departure end of rwy.

DEPARTURE CLIMB RATE V/V (FPM)

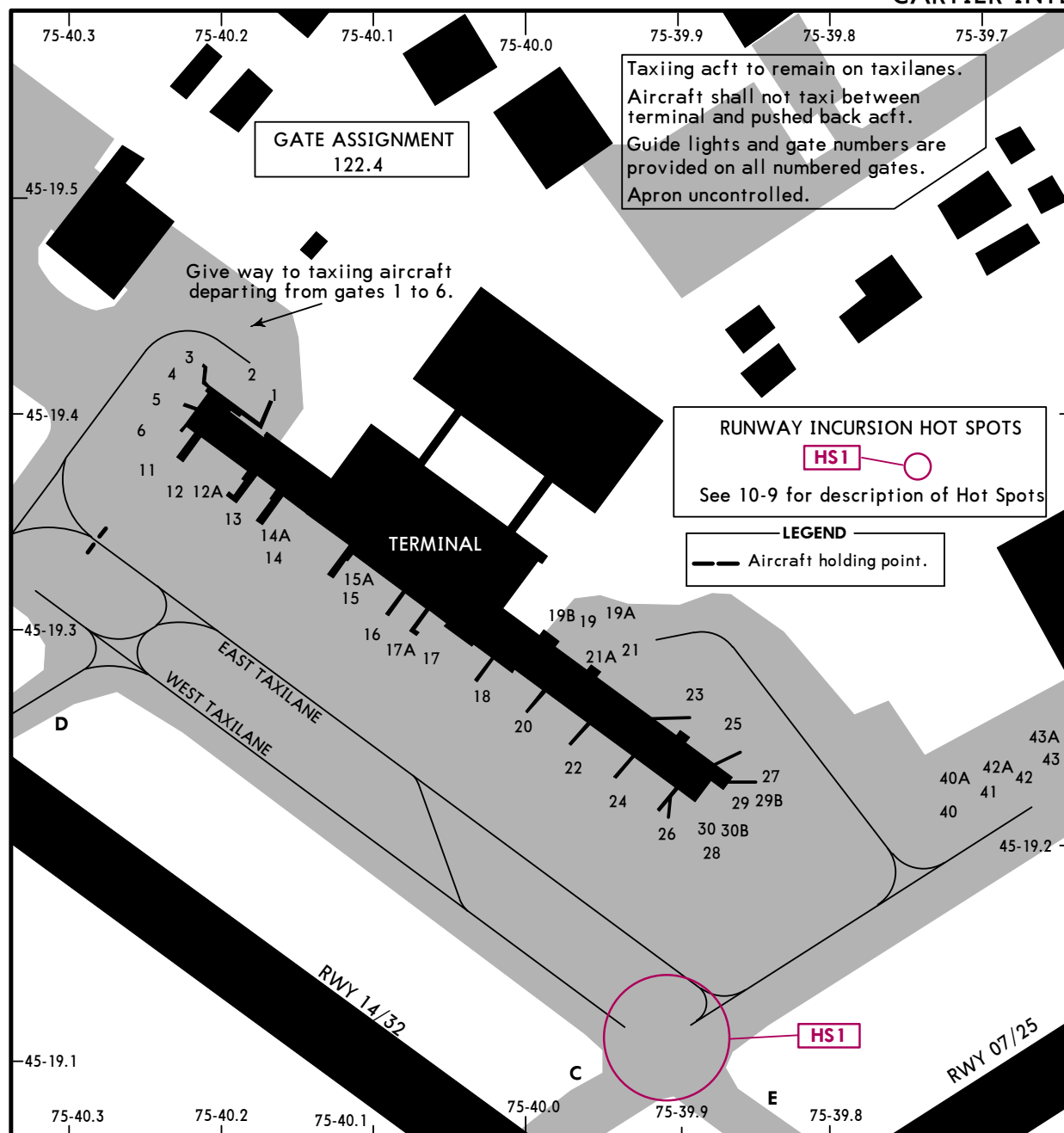
GROUND SPEED	90	120	140	160	180	200	250	300
9 270 FT/NM	410	540	630	720	810	900	1130	1350
7 420 FT/NM	630	840	980	1120	1260	1400	1750	2100
5 430 FT/NM	650	860	1010	1150	1290	1440	1800	2150

CYOW/YOW

JEPPesen

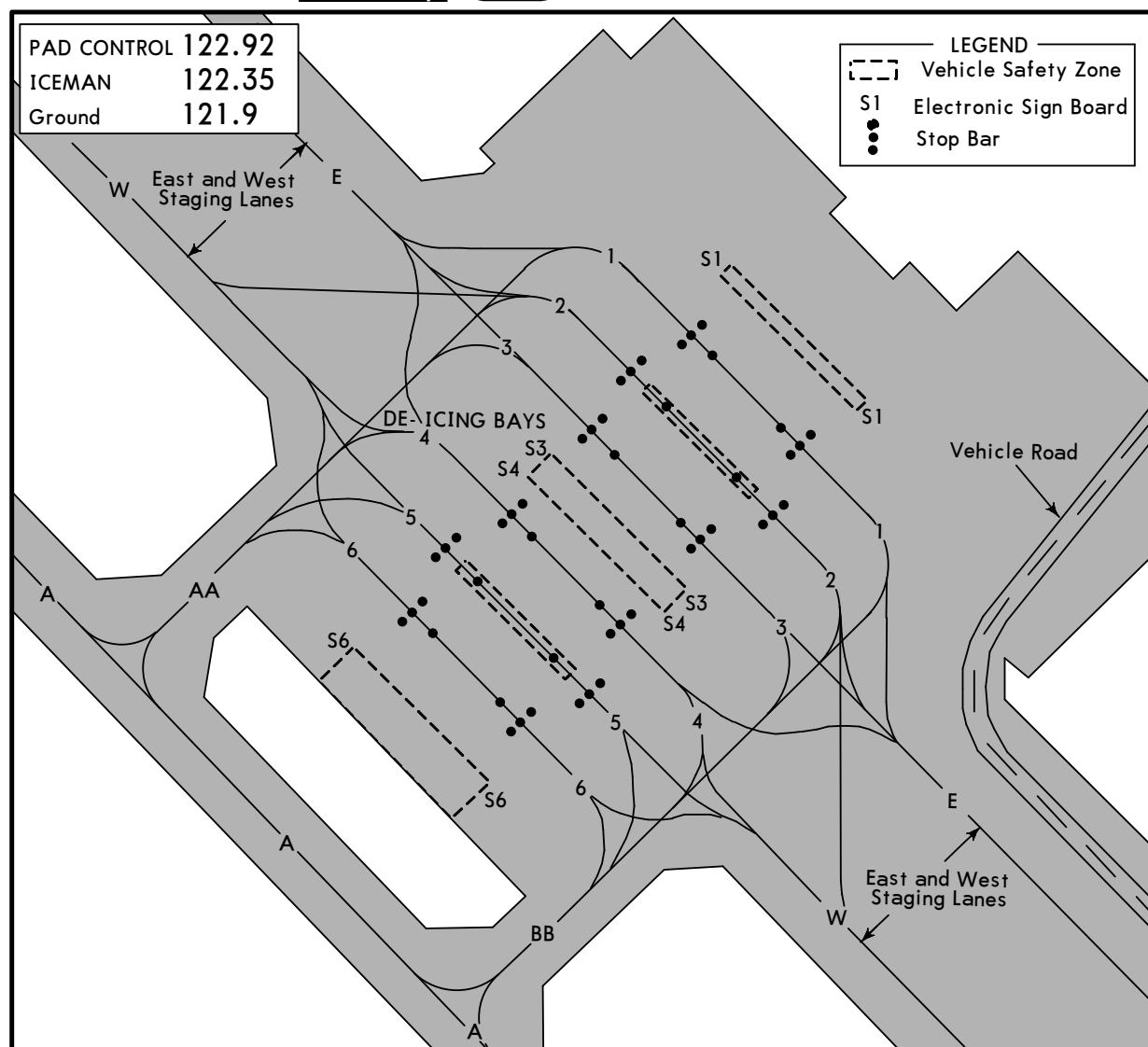
7 SEP 18 **10-9A** Eff 13 Sep

OTTAWA, ONT
OTTAWA/MACDONALD
-CARTIER INTL



PARKING STAND COORDINATES

STAND No.	COORDINATES
1 thru 6, 11, 12, 12A, 13	N45 19.4 W075 40.2
14, 14A	N45 19.3 W075 40.2
15, 15A, 16, 17, 17A	N45 19.3 W075 40.1
18, 19	N45 19.3 W075 40.0
19A	N45 19.3 W075 39.9
19B, 20	N45 19.3 W075 40.0
21, 21A	N45 19.3 W075 39.9
22	N45 19.2 W075 40.0
23	N45 19.3 W075 39.9
24	N45 19.2 W075 39.9
25	N45 19.3 W075 39.9
26	N45 19.2 W075 39.9
27	N45 19.2 W075 39.8
28, 28B, 29	N45 19.2 W075 39.9
29B	N45 19.2 W075 39.8
30, 30B	N45 19.2 W075 39.9
40, 40A, 41, 42, 42A, 43, 43A	N45 19.2 W075 39.7

CYOW/YOW**JEPPESEN**
18 MAY 18
Eff 24 May (10-9B)**OTTAWA, ONT**
OTTAWA/MACDONALD-CARTIER INTL

Note: Bay 2-refer to sign board 1 and 3. Bay 5-refer to sign board 4 and 6.

DE-ICING OPERATIONS

1. Contact PAD CONTROL on 122.92 30 minutes prior to departure if de-icing required. Notify of any special treatments prior to taxi to CDF.
2. Contact Ottawa Ground after pushback for taxi to CDF.
3. Hold short of the CDF on K, AA, BB or CC and contact PAD CONTROL for further taxi.
4. Follow instructions and electronic sign boards to de-icing bays.
5. Stop on yellow crossbar and advise PAD CONTROL immediately once brakes are set.
6. Once instructed, contact ICEMAN on 122.35 to confirm brakes set, aircraft configured and engines at idle.
7. After de-icing, configure aircraft for taxi, however, DO NOT MOVE AIRCRAFT.
8. Once instructed, contact PAD CONTROL for taxi.
9. Follow instructions to designated exit point. Holding short of twy A, contact Ottawa Ground on 121.9.

TYPE I - All Clear Lift-Off E188

TYPE IV - UCAR ADF ENDURANCE EG106 100%

BAY RESTRICTIONS

- Bay 1, 3, 4, 6 - May be used by aircraft with wingspans 118' (36m) or less
- Bay 2 - May be used by aircraft with wingspans 170' (52m) or less
- Bay 5 - May be used by aircraft with wingspans 262' (80m) or less
- Note: AA and BB may be used by aircraft with wingspans 118' (36m) or less

AD HOC FLIGHTS

1. Obtain a projected acceptance time for de-icing from PAD CONTROL on 122.92 or via phone 613-558-1850.
2. Submit Authorization form via fax 613-248-0860 or via e-mail ops@aeromagyow.com
3. An estimate of litres required will be provided to flight crew.
4. Ad hoc aircraft not abiding by the above may be denied service at the CDF.

CYOW/YOW**OTTAWA, ONT**
OTTAWA/MACDONALD-CARTIER INTL**GATE DE-ICING ORIGINATING FLIGHTS**

- A. Gate de-icing approved (frost only) under the following conditions:
- i) Active precipitation is not forecasted for the operational period.
 - ii) Apron conditions are such as to allow the recovery of spent fluid (no snow, ice, sand, gravel, etc).
 - iii) De-icing required is Wings & Tail only. Aircraft requiring fuselage must taxi to CDF.
 - iv) Required fluid to de-ice aircraft is anticipated to be less than 50 litres.
 - v) Wind speeds do not exceed 15 knots.
- B. De-icing for originating flights will take place 60-90 minutes before scheduled departure time.
- C. Staff will conduct initial inspection of aircraft to determine the requirement for de-icing and will proceed with spray if required.
- D. Airlines must ensure aircraft are configured and ready for de-icing prior to the above time. De-icing will take place under the assumption that origination flights are configured.
- E. De-icing confirmation will be sent electronically or via fax to airline operations following de-icing. Flight crews requiring additional information may contact PAD CONTROL on 122.92.
- F. No holdover time is provided for on gate de-icing.

GATE DE-ICING - TURN FLIGHTS

- A. Gate de-icing approved (frost only) under all conditions listed for gate de-icing origination flights.
- B. Aircraft must notify PAD CONTROL as soon as possible when de-icing is required.
- C. De-icing will take place once the flight crew confirms that the aircraft is configured, brakes are set and all doors are closed. Radio communication between the flight crew and PAD CONTROL must be maintained during de-icing.
- D. De-icing information and confirmation of staff and equipment away will be reported to the flight crew once de-icing is completed.
- E. De-icing confirmation will be sent electronically or via fax to airline operations immediately following de-icing.
- F. No holdover time is provided for on gate de-icing.

CENTERALIZED DE-ICING FACILITY OPERATIONS

- A. Flow - North to South
- Entry point is K or AA via Alpha. Aircraft must hold short of the CDF on the entry point and establish radio contact with PAD CONTROL on 122.92.
- Flow South to North
- Entry point is CC or BB via Alpha. Aircraft must hold short of the CDF on the entry point and establish radio contact with PAD CONTROL on 122.92.
- B. Follow taxi instructions via East Line to Bays 1, 2, 3 or via West Line to Bays 4, 5, 6.
- C. Aircraft will be staged on the East/West Line short of AA/BB when necessary.
- D. When exiting via K or CC, aircraft will be instructed to advise PAD CONTROL when holding short K/CC. Aircraft must maintain radio communication with PAD CONTROL until advised to contact Ottawa ground.

NOTE: Aircraft intended on returning to terminal gates after de-icing must drip dry for 25 minutes on CDF.

DE-ICING REQUIREMENTS

- A. Flight crews must indicate areas of aircraft requiring de-icing. External instruments, gears and other sensitive components are by request only.
- B. If no special instructions are given, "Wings and Tail" will mean upper surface of wings, upper and lower surfaces of horizontal stabilizer & vertical stabilizer, including rudder. "Full Body" will mean all surfaces noted in B., plus fuselage and radome.
- C. Aircraft requiring visual or tactile inspections must indicate to PAD CONTROL on initial contact.

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

9 SEP 16

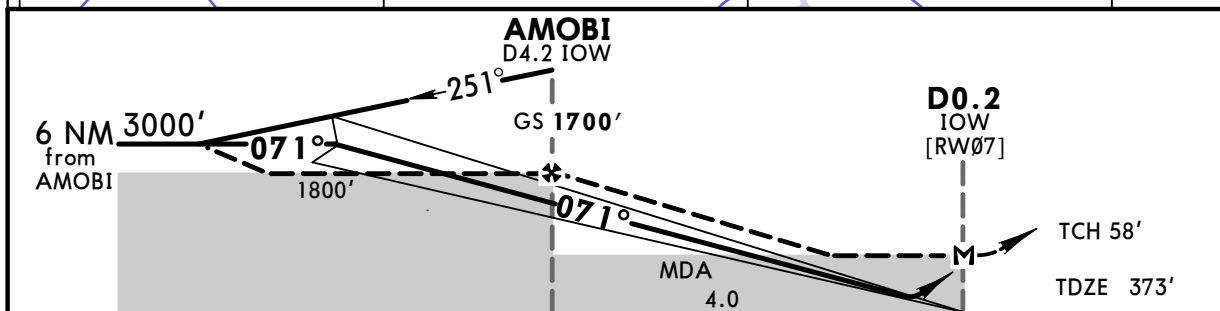
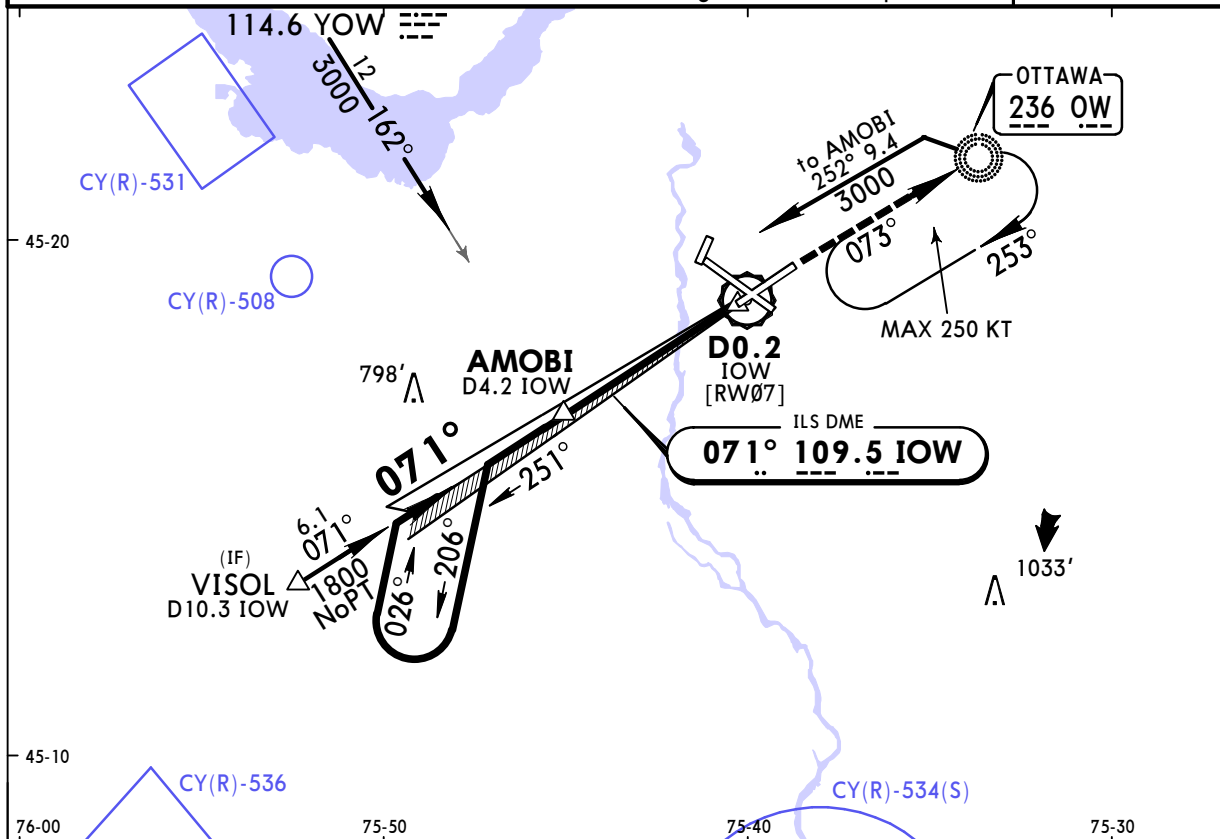
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Eff 15 Sep

OTTAWA, ONT
ILS Rwy 07

BRIEFING STRIP™

D-ATIS		QUEBEC Radio		OTTAWA Arrival		OTTAWA Tower		Ground	
121.15 (French 132.95)		123.15		135.15		118.8		121.9	
LOC IOW 109.5	Final Apch Crs 071°	GS AMOB1 1700' (1327')		ILS DA(H) 573'(200')		Apt Elev 377' TDZE 373'		3000' MSA OW NDB	
MISSED APCH: Climb to 3000' direct OW NDB. As required shuttle climb.									
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport.									



Gnd speed-Kts	70	90	100	120	140	160	SSALR PAPI	3000'	D	OW 236
GS 3.00°	372	478	531	637	743	849				
MAP at D0.2 IOW or AMOB1 to MAP 4.0	3:26	2:40	2:24	2:00	1:43	1:30				

ILS DME		STRAIGHT-IN LANDING RWY 07		CIRCLE-TO-LAND	
LOC (GS out) DME		LOC (GS out) VOR		CIRCLE-TO-LAND	
DA(H) 573' (200')		MDA(H) 680' (307')		MDA(H) 760' (387')	
FULL		HIALS out		HIALS out	
A		B		C	
RVR 26 or 1/2		RVR 50 or 1		RVR 50 or 1	
Max Kts		MDA(H)		MDA(H)	
90		880'(503') - 1 1/2		880'(503') - 1 1/2	
120		880'(503') - 2		880'(503') - 2	
140		1080'(703') - 2 1/4		1080'(703') - 2 1/4	
165					

CHANGES: Procedure revised.

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CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

9 SEP 16

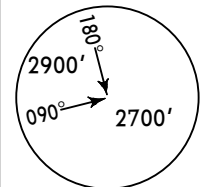
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Eff 15 Sep

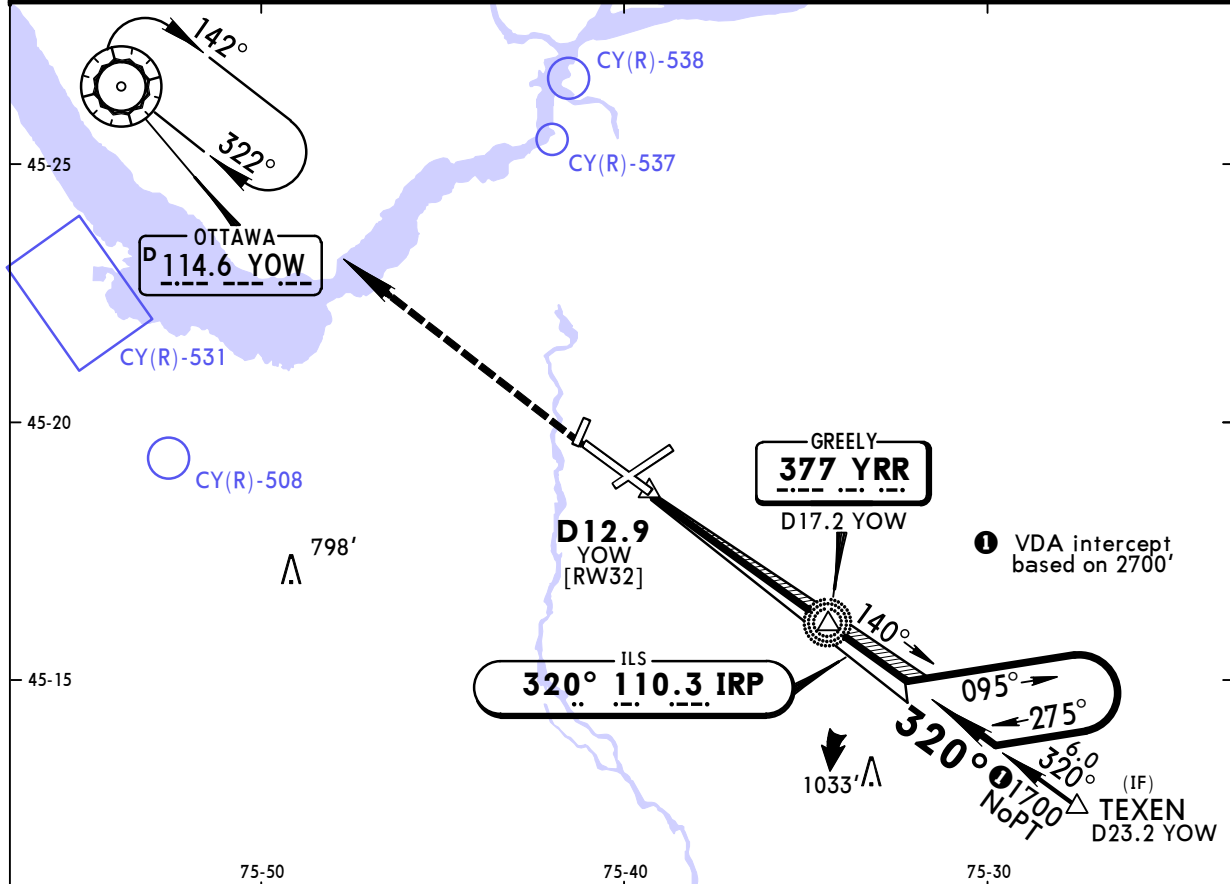
OTTAWA, ONT
ILS Rwy 32

BRIEFING STRIP

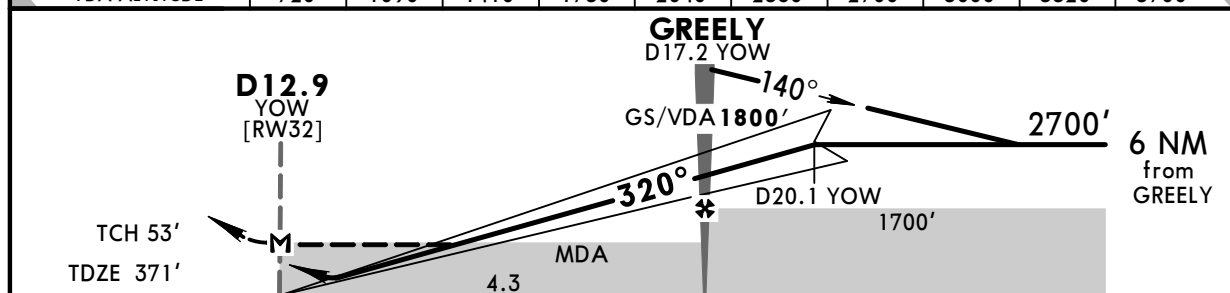
D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
LOC IRP 110.3	Final Apch Crs 320°	GS GREELY 1800' (1429')	ILS DA(H) 571' (200')	Apt Elev 377' TDZE 371'
MISSED APCH: Climb to 3000' direct to YOW VOR.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport.				



MSA YRR NDB



NM to YOW DME	13.8	15.0	16.0	17.0	18.0	19.0	20.1	21.0	22.0	23.2
VDA ALTITUDE	720'	1090'	1410'	1730'	2040'	2360'	2700'	3000'	3320'	3700'



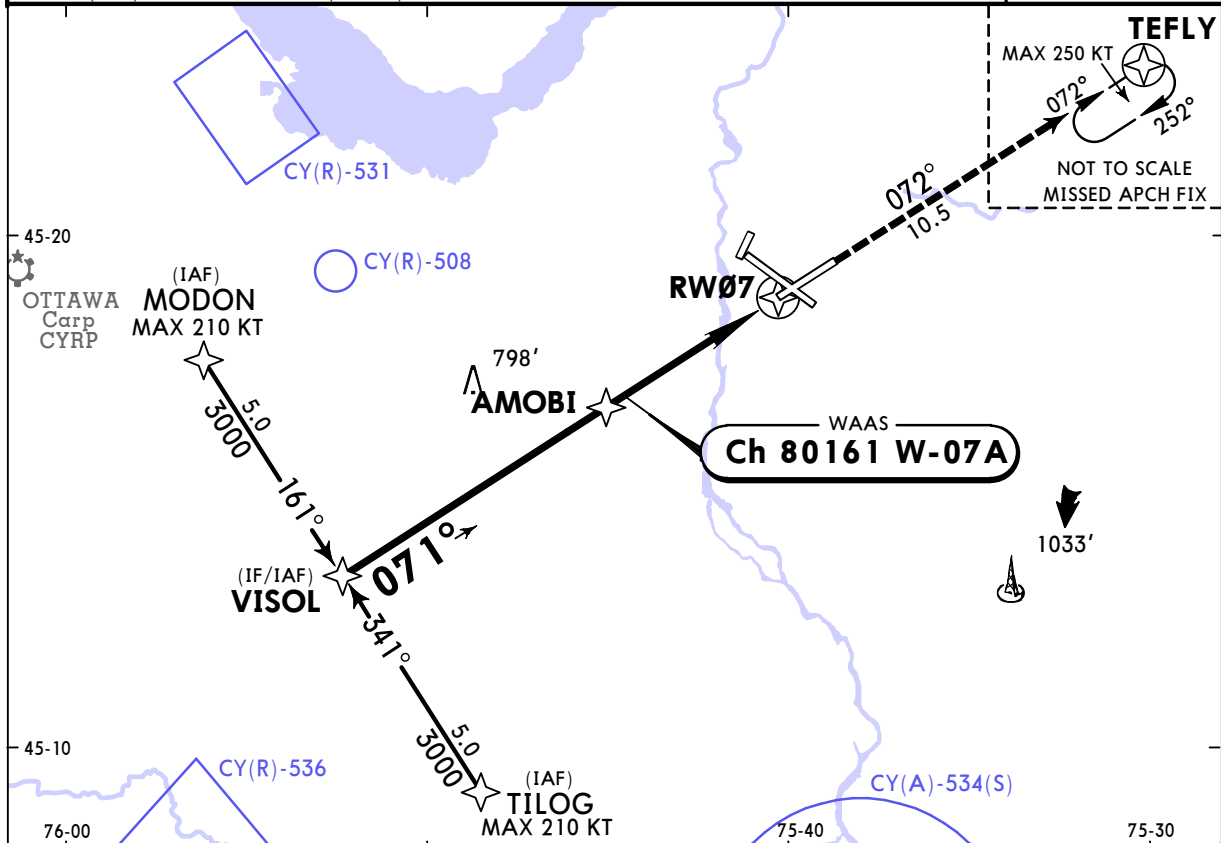
Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	YOW
GS/VDA	3.00°	372	478	531	637	743	849		114.6
MAP at D12.9 YOW or GREELY to MAP	4.3	3:41	2:52	2:35	2:09	1:51	1:37		

STRAIGHT-IN LANDING RWY32				CIRCLE-TO-LAND			
ILS or ILS DME DA(H) 571' (200')		LOC (GS out) or LOC (GS out) DME MDA(H) 720' (349')		Max Kts		MDA(H)	
FULL		HIALS out		90		880' (503') - 1½	
RVR 26 or ½		RVR 50 or 1		120		880' (503') - 2	
				140		880' (503') - 2	
				165		1080' (703') - 2¼	

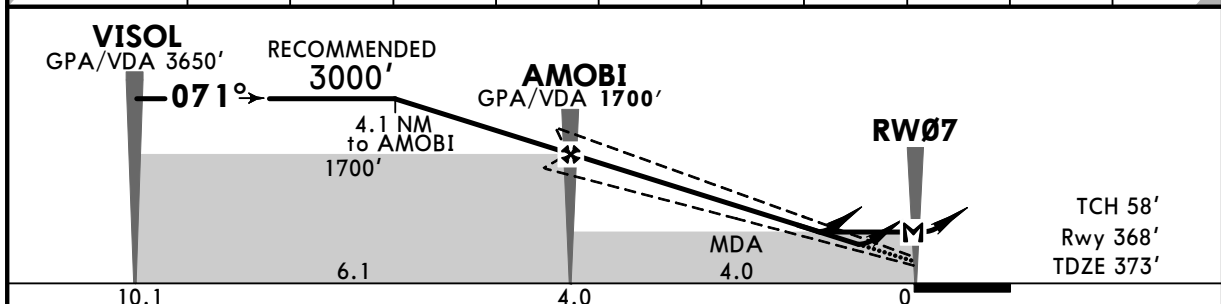
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPESEN
7 SEP 18 (12-1)OTTAWA, ONT
RNAV (GNSS) Z Rwy 07

BRIEFING STRIP™

D-ATIS	QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)	123.15	135.15	118.8	121.9
WAAS Ch 80161 W-07A	Final Aptch Crs 071°	GPA AMOB1 1700'(1332')	LPV DA(H) 569' (201')	Apt Elev 377' Rwy 368'
MISSED APCH: Climb to 3000' track 072° to TEFly. As required shuttle climb.				3000
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				MSA RW07
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) and above 54°C (129°F).				



NM to RW07	10.1	9.0	8.1	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	3650'	3290'	3000'	2660'	2340'	2020'	1700'	1380'	1060'	740'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	072°	TEFLY
GPA/VDA	372	478	531	637	743	849	PAPI			
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW07										

STRAIGHT-IN LANDING RWY 07			CIRCLE-TO-LAND	
LPV DA(H) 569'(201')	LNAV/VNAV DA(H) 657'(289')	LNAV MDA(H) 740'(372')	Max Kts	MDA(H)
FULL	FULL	HIALS out	90	880'(503') - 1½
			120	880'(503') - 2
			140	880'(503') - 2
			165	1080'(703') - 2¼
A				
B				
C	RVR 26 or ½	RVR 50 or 1		
D		RVR 50 or 1		

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

7 SEP 18

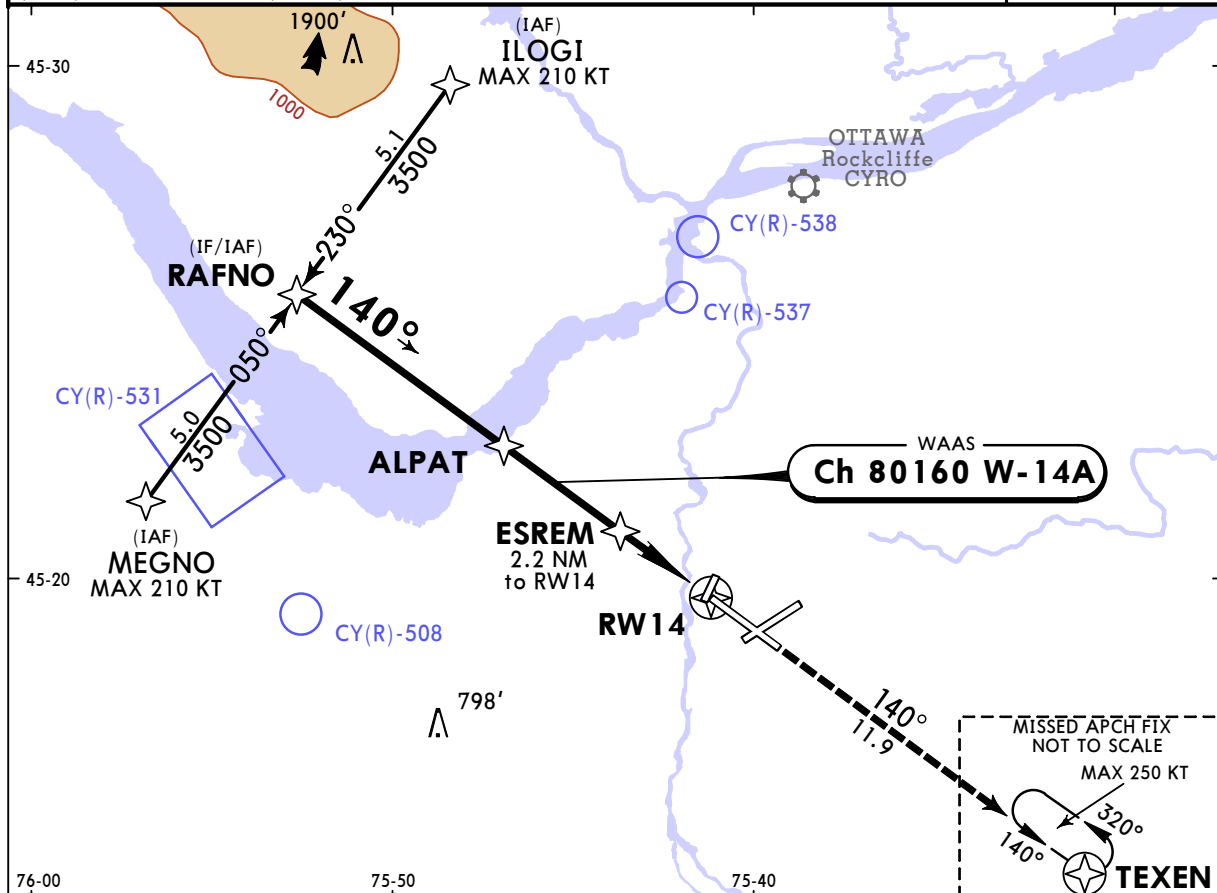
JEPPESEN

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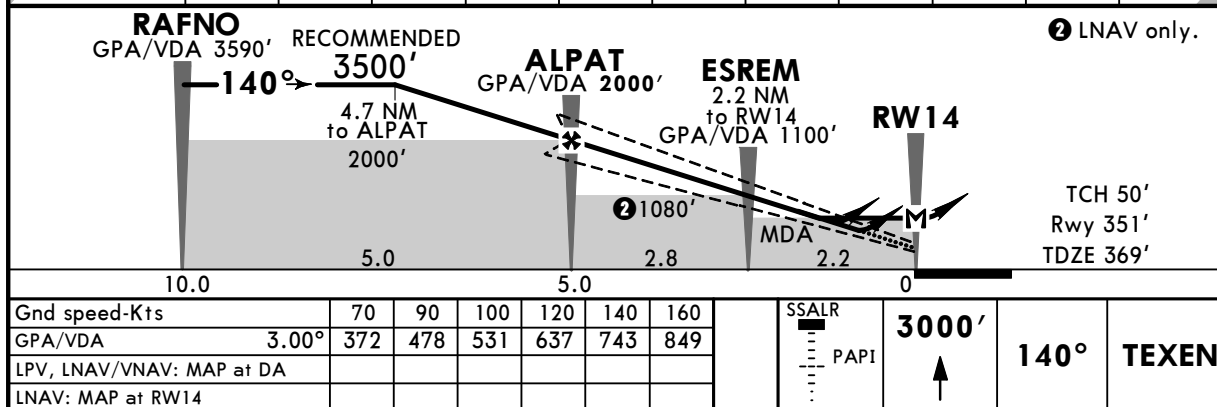
OTTAWA, ONT
RNAV (GNSS) Z Rwy 14

BRIEFING STRIP™

D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
WAAS Ch 80160 W-14A	Final Apch Crs 140°	GPA ALPAT 2000' (1649')	LPV DA(H) 601' (250')	Appt Elev 377' Rwy 351'
MISSED APCH: Climb to 3000' track 140° to TEXEN. As required shuttle climb.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).				
				2900 MSA RW14



NM to RW14	10.0	9.7	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.1
VDA ALTITUDE	3590'	3500'	3270'	2950'	2630'	2310'	1990'	1670'	1360'	1040'	740'



STRAIGHT-IN LANDING RWY14			CIRCLE-TO-LAND	
LPV DA(H) 601' (250')	LNAV/VNAV DA(H) 621' (270')	LNAV MDA(H) 740' (389')	Max Kts	MDA(H)
A			90	880'(503') - 1½
B			120	880'(503') - 2
C	1	1	140	880'(503') - 2
D		1¼	165	1080'(703') - 2¼

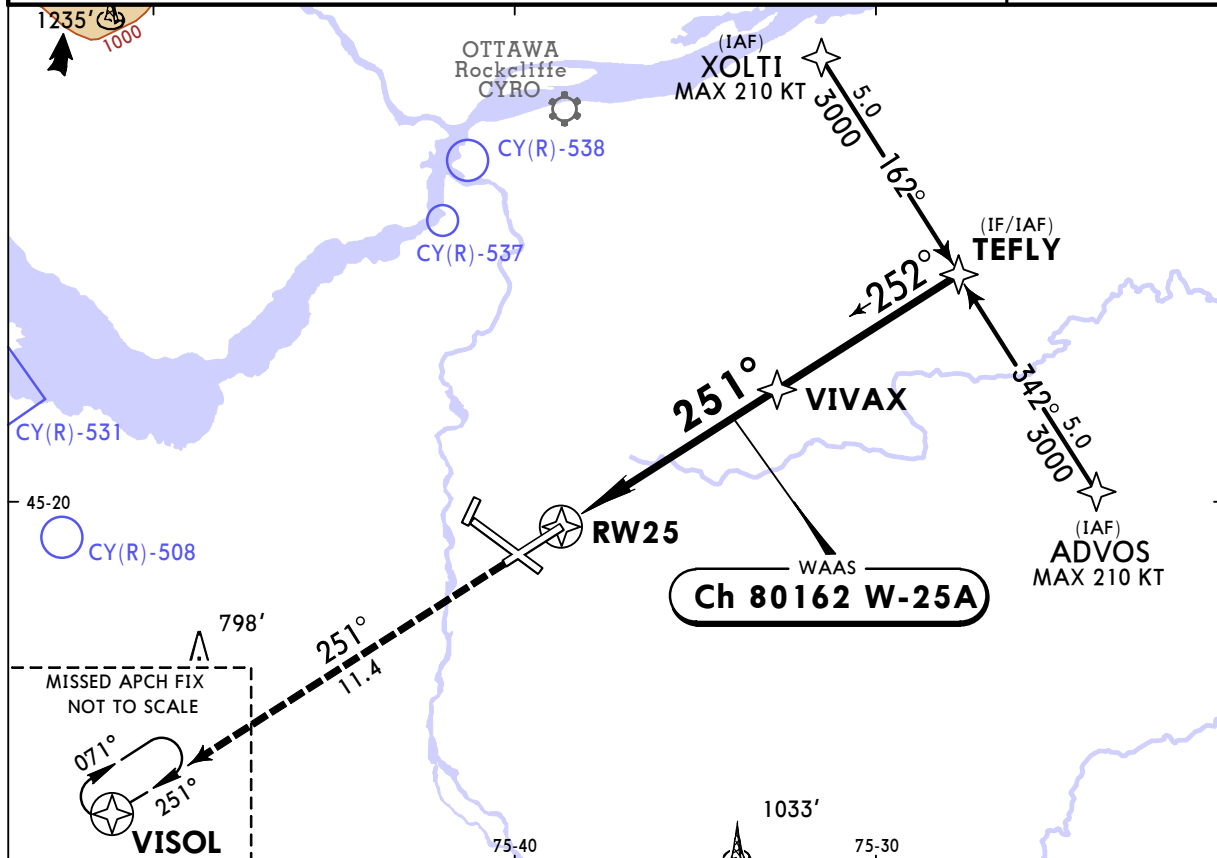
CHANGES: Lighting.

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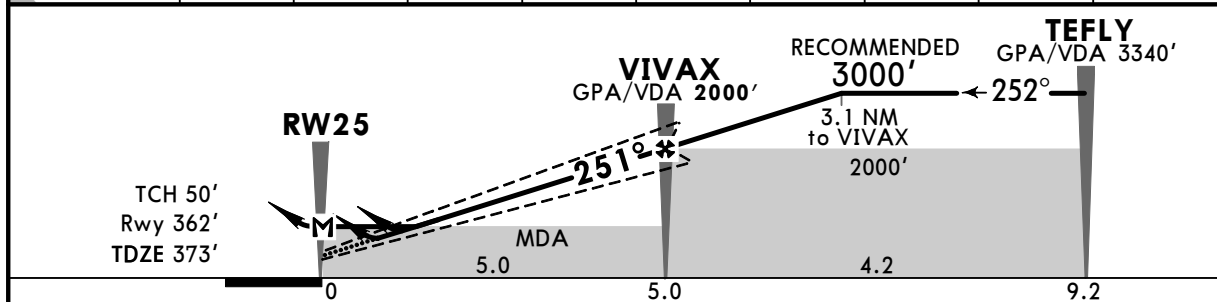
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPESEN
7 SEP 18
Eff 13 Sep (12-3)OTTAWA, ONT
RNAV (GNSS) Z Rwy 25

BRIEFING STRIP™

D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
WAAS Ch 80162 W-25A	Final Apch Crs 251°	GPA VIVAX 2000' (1638')	LPV DA(H) 612' (251')	Apt Elev 377' Rwy 362'
MISSED APCH: Climb to 3000' track 251° to VISOL. As required shuttle climb.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).				
3000 MSA RW25				



NM to RW25	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.1	9.2
VDA ALTITUDE	760'	1050'	1370'	1690'	2000'	2320'	2640'	3000'	3340'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	251°	VISOL
GPA/VDA	3.00°	372	478	531	637	743	849	PAPI		
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW25										

STRAIGHT-IN LANDING RWY25			CIRCLE-TO-LAND	
LPV	LNAV/VNAV	LNAV	Max Kts	MDA(H)
DA(H) 612' (251')	DA(H) 659' (298')	MDA(H) 760' (398')	90	880' (503') - 1½
FULL	FULL	HIALS out	120	880' (503') - 2
A			140	880' (503') - 2
B			165	1080' (703') - 2¼
C	1	1		
D				

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

JEPPESEN

7 SEP 18

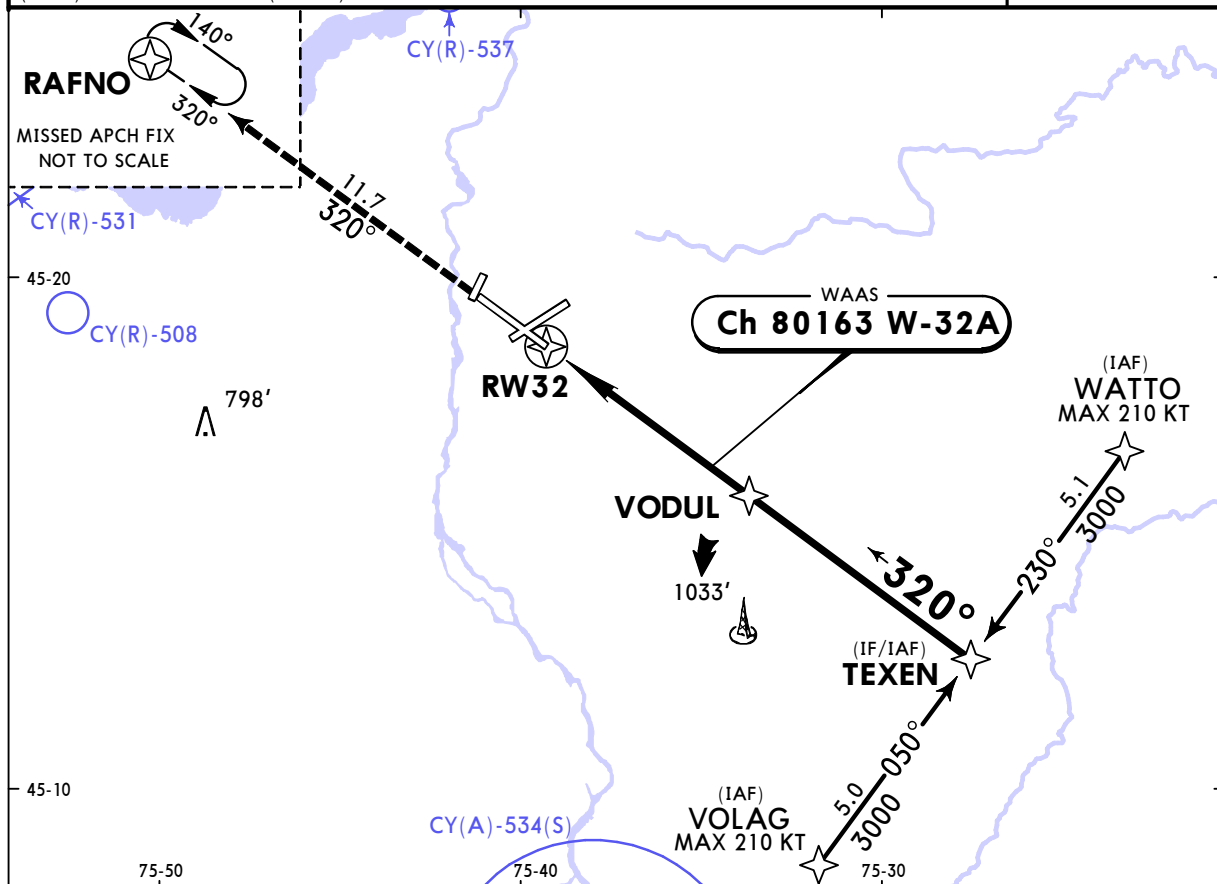
Eff 13 Sep

(12-4)

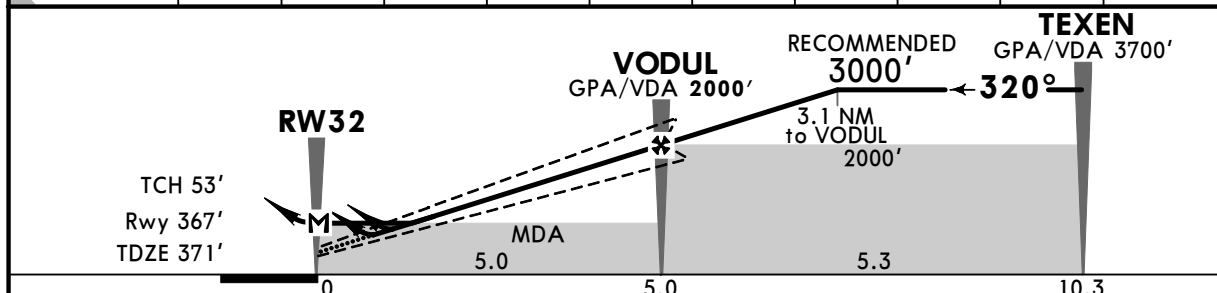
OTTAWA, ONT
RNAV (GNSS) Z Rwy 32

BRIEFING STRIP™

D-ATIS		QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)		123.15	135.15	118.8	121.9
WAAS Ch 80163 W-32A	Final Apch Crs 320°	GPA VODUL 2000' (1633')	LPV DA(H) 567' (200')	Apt Elev 377' Rwy 367'	3000 MSA RW32
MISSED APCH: Climb to 3000' track 320° to RAFNO. As required shuttle climb.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).					



NM to RW32	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.1	9.0	10.3
VDA ALTITUDE	760'	1060'	1380'	1690'	2000'	2330'	2650'	3000'	3290'	3700'



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	320°	RAFNO
GPA/VDA	3.00°	372	478	531	637	743	849	PAPI		
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW32										

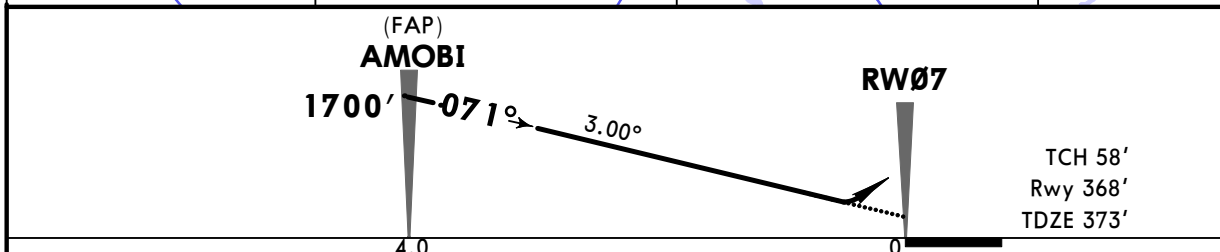
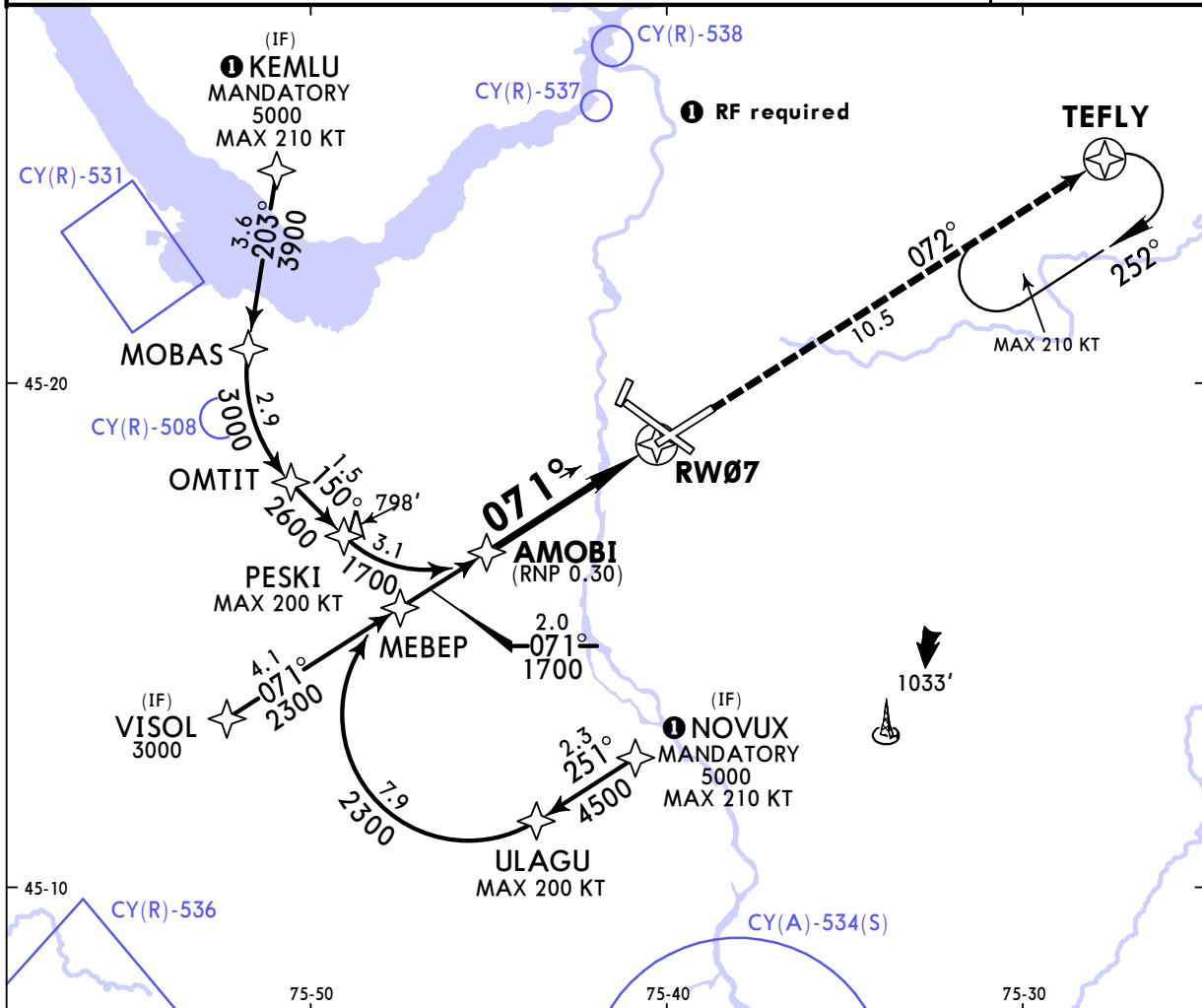
STRAIGHT-IN LANDING RWY32			CIRCLE-TO-LAND		
LPV	LNAV/VNAV	LNAV			
DA(H) 567' (200')	DA(H) 654' (287')	MDA(H) 760' (393')			
FULL	FULL	HIALS out			
A			Max Kts	MDA(H)	
B			90	880'(503')	- 1½
C	RVR 26 or 1½	RVR 50 or 1	120	880'(503')	- 2
D			140	880'(503')	- 2
			165	1080'(703')	- 2¼

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

JEPPesen
7 SEP 18 12-20

OTTAWA, ONT
RNAV (RNP) Y Rwy 07

D-ATIS 121.15 (French 132.95)		QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
RNAV	Final Apch Crs 071°	Minimum Alt AMOB 1700' (1332')	RNP 0.30 DA(H) 769' (401')	Apt Elev 377' Rwy 368'	 2900 MSA RW07
MISSED APCH: Climb to 3000' track 072° to TEFly.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 7000'. 3. Intensive training area NW of airport. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -18°C (0°F) and above 54°C (129°F).					



Gnd speed-Kts	70	90	100	120	140	160		3000' ↑	072°	TEFLY
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at DA										

STRAIGHT-IN LANDING RWY 07

RNP 0.30

DA(H) **769'** (401')

FULL

A	
B	RVR 50 or 1
C	
D	

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

7 SEP 18

(12-21)

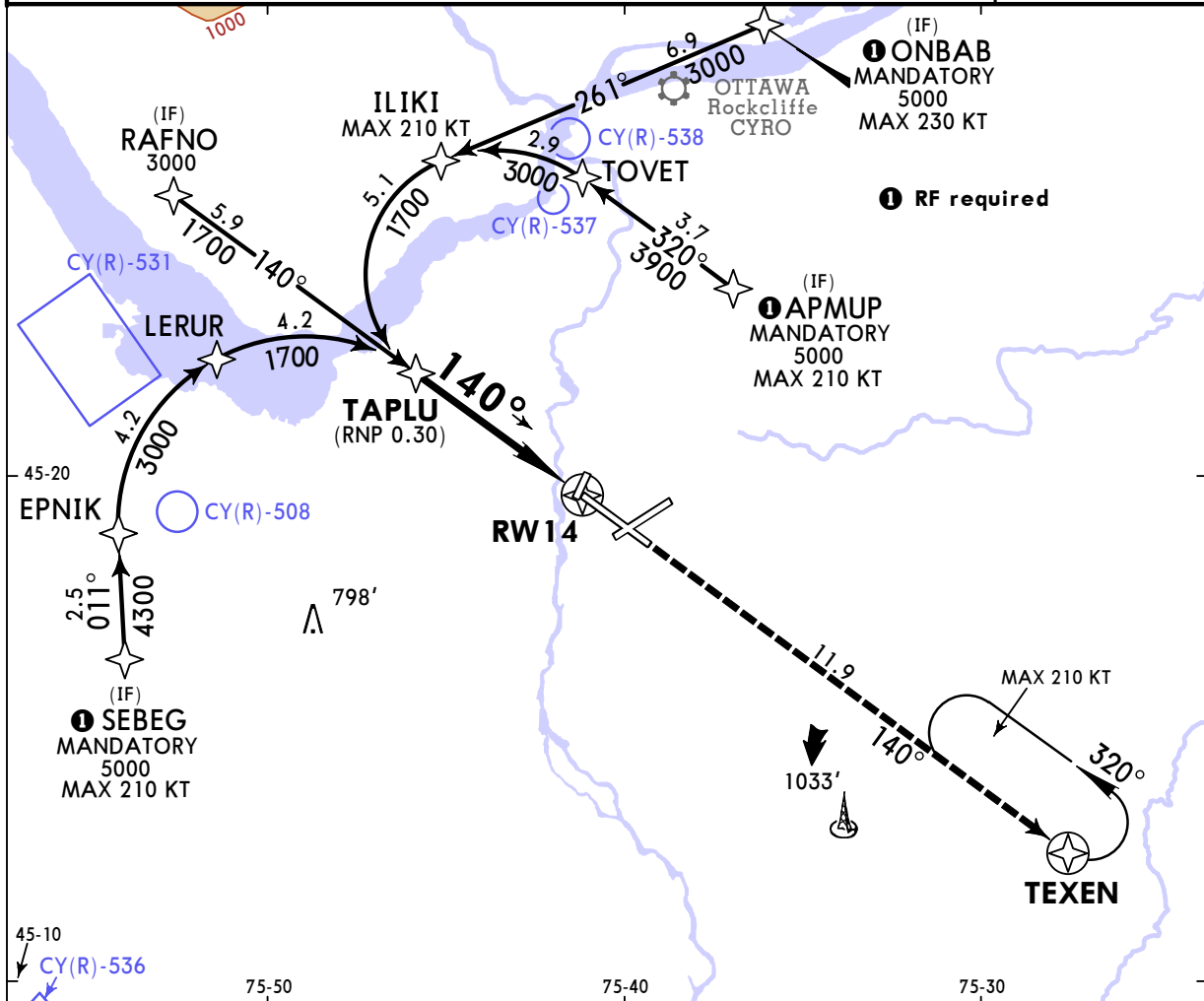

JEPPesen

OTTAWA, ONT

RNAV (RNP) Y Rwy 14

BRIEFING STRIP™

D-ATIS	QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)	123.15	135.15	118.8	121.9
RNAV	Final Apch Crs 140°	Minimum Alt TAPLU 1700' (1349')	RNP 0.15 DA(H) 669' (318')	Apt Elev 377' Rwy 351'
MISSED APCH: Climb to 3000' track 140° to TEXEN.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 7000'. 3. Intensive training area NW of airport. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) and above 54°C (129°F).				
				2900 MSA RW14



(FAP) TAPLU 1700'							RW14 TCH 50' Rwy 351' TDZE 369'		
4.1							0		
Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	140°
Glide Path Angle	3.00°	372	478	531	637	743	PAPI	↑	TEXEN
MAP at DA									

STRAIGHT-IN LANDING RWY 14

RNP 0.15 DA(H) 669' (318')					RNP 0.30 DA(H) 743' (392')				
A									
B									
C	1					1¼			
D									

CHANGES: Lighting.

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CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

JEPPESEN

7 SEP 18

12-22

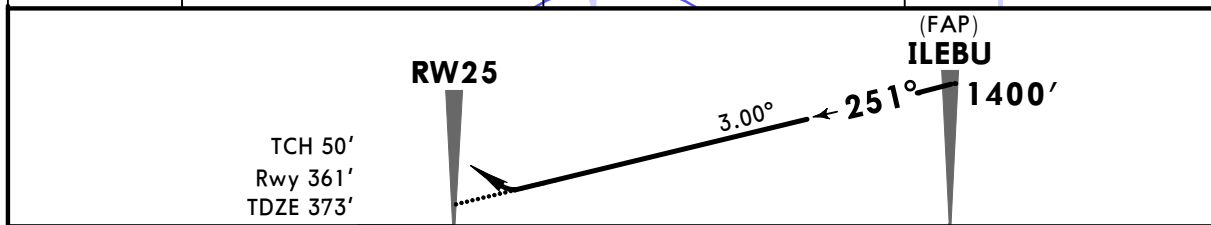
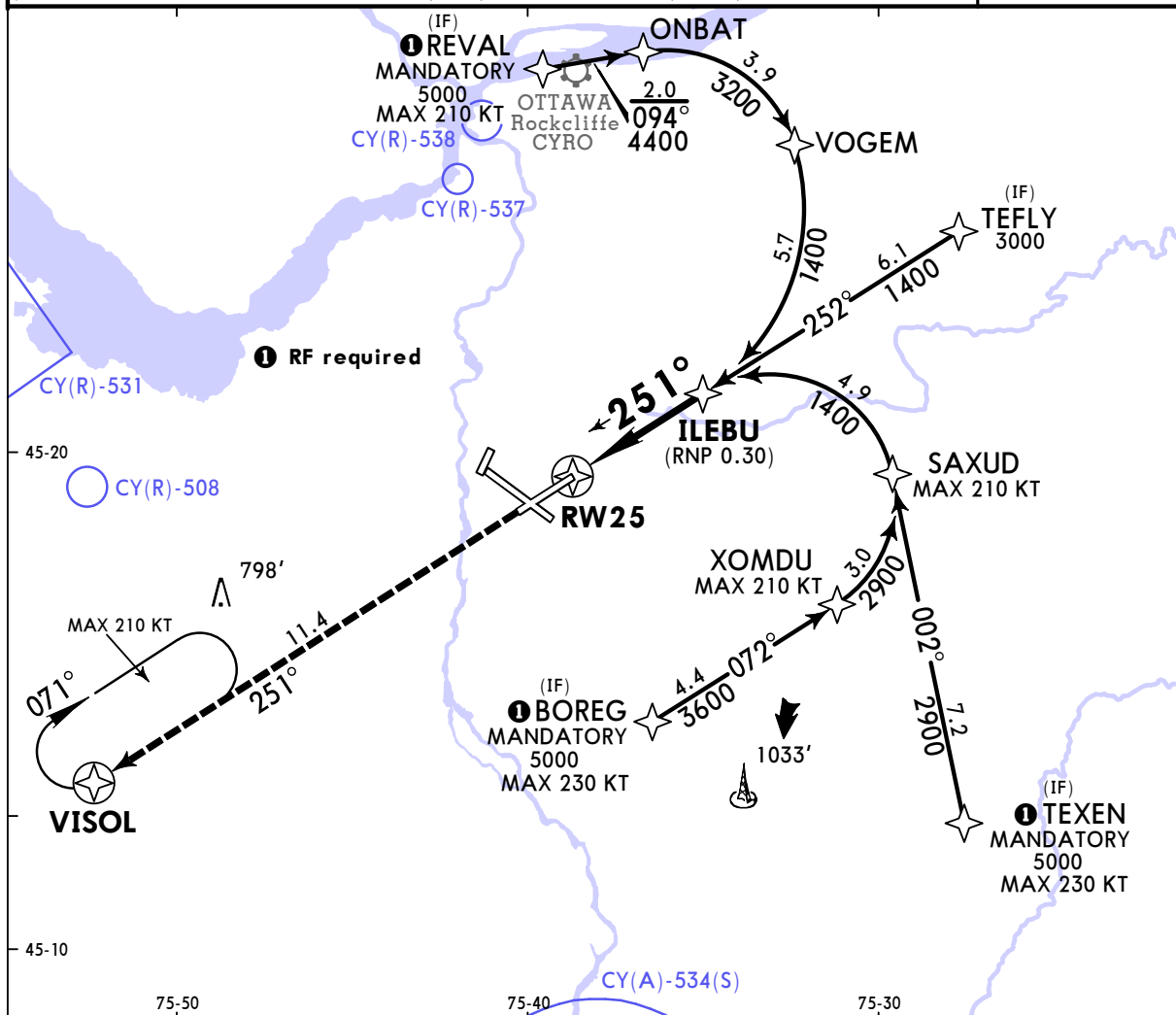
Eff 13 Sep

RNAV (RNP) Y Rwy 25

OTTAWA, ONT

BRIEFING STRIP™

D-ATIS 121.15 (French 132.95)	QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
RNAV	Final Apch Crs 251°	Minimum Alt ILEBU 1400' (1039')	RNP 0.15 DA(H) 684' (323')	Apt Elev 377' Rwy 361'
MISSED APCH: Climb to 3000' track 251° to VISOL.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 7000'. 3. Intensive training area NW of airport. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) and above 54°C (129°F).				
				2900 MSA RW25



Gnd speed-Kts	70	90	100	120	140	160	SSALR	3000'	251°	VISOL
Glide Path Angle	3.00°	372	478	531	637	743	849	PAPI		
MAP at DA										

STRAIGHT-IN LANDING RWY 25

RNP 0.15 DA(H) 684' (323')		RNP 0.30 DA(H) 737' (376')	
A			
B	1		1
C			
D			

CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL

7 SEP 18

JEPPESEN

12-23

Eff 13 Sep

OTTAWA, ONT

RNAV (RNP) Y Rwy 32

D-ATIS		QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)		123.15	135.15	118.8	121.9
RNAV	Final Aptch Crs 320°	Minimum Alt MIXOT 1400' (1033')	RNP 0.10 DA(H) 688' (321')	Apt Elev 377' Rwy 367'	

MISSED APCH: Climb to 3000' track 320° to RAFNO.

Alt Set: INCHES

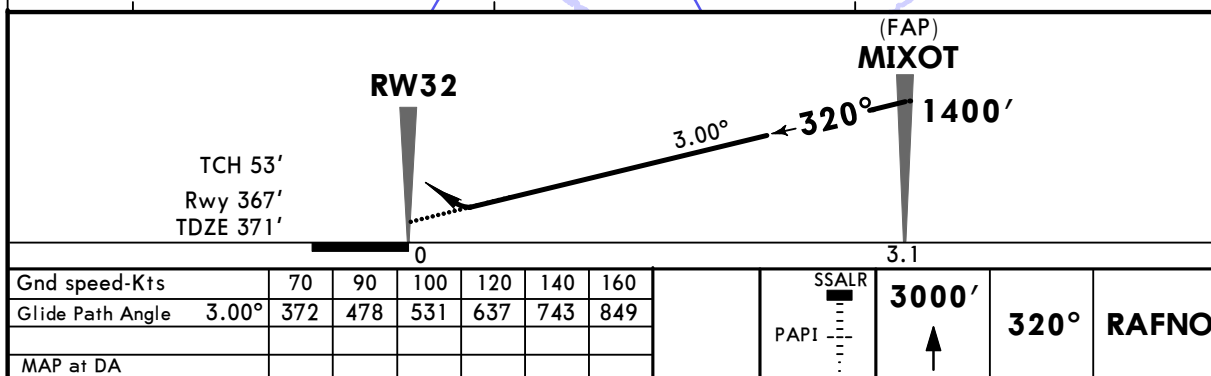
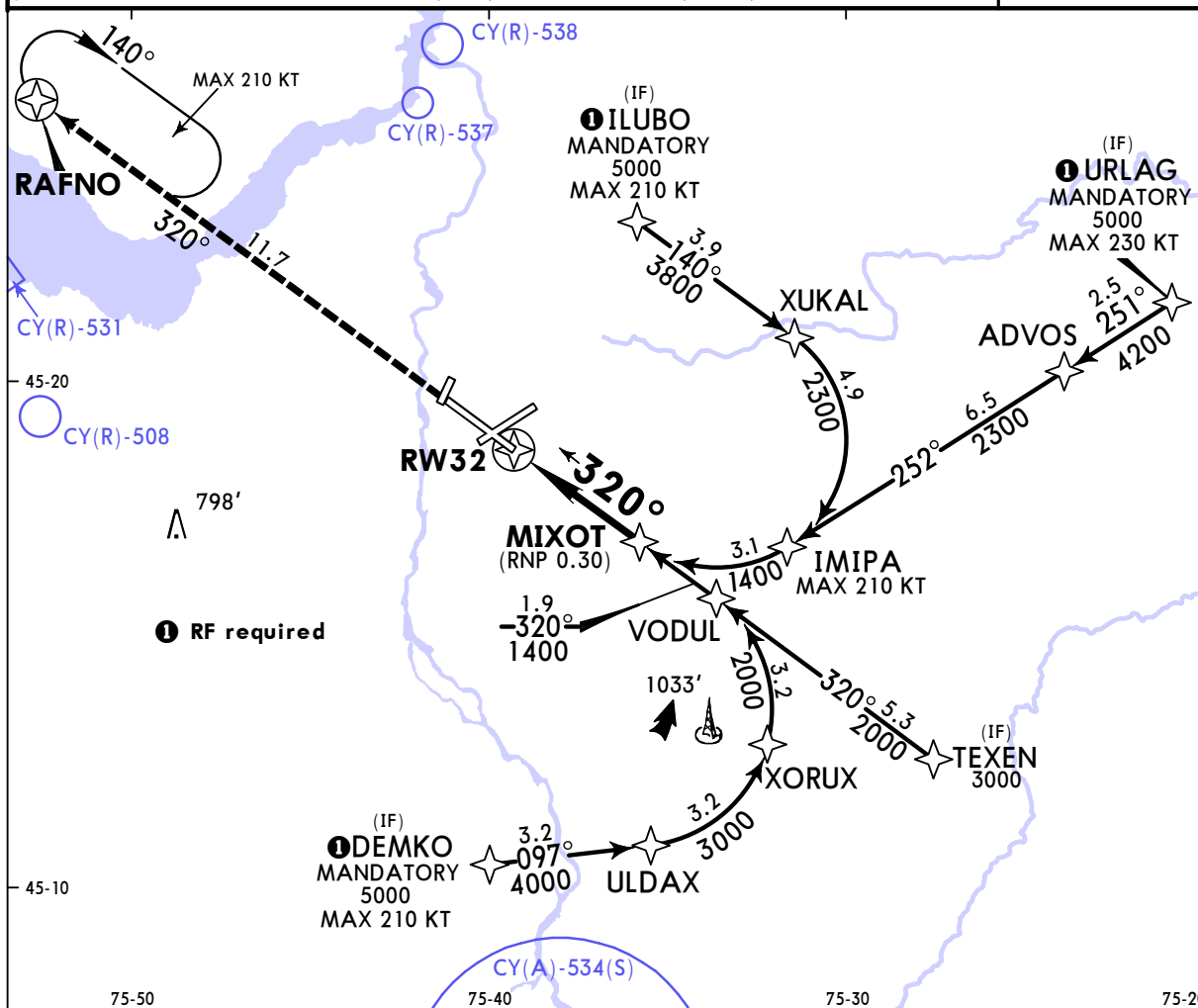
Trans level: FL 180

Trans alt: 18000'

1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 7000'.

3. Intensive training area NW of airport. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) and above 54°C (129°F).

MSA RW32



STRAIGHT-IN LANDING RWY 32			
RNP 0.10 DA(H) 688' (321') FULL		RNP 0.15 DA(H) 744' (377') FULL	
RNP 0.30 DA(H) 806' (439') FULL			
A	RVR 50 or 1	RVR 50 or 1	RVR 50 or 1
B			
C			
D			

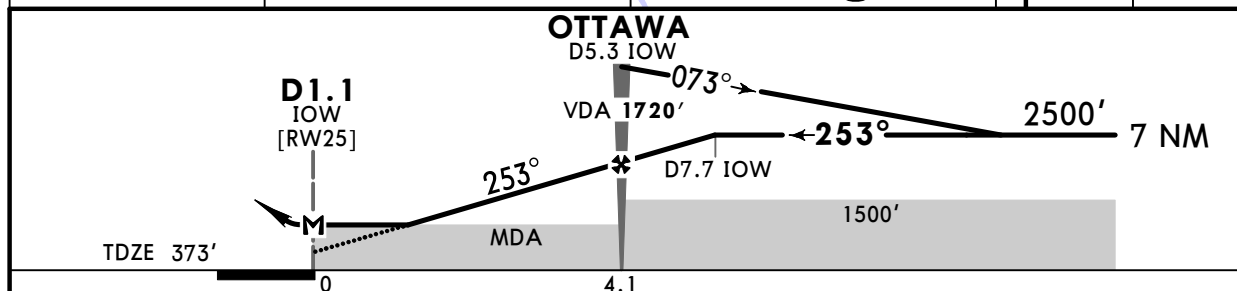
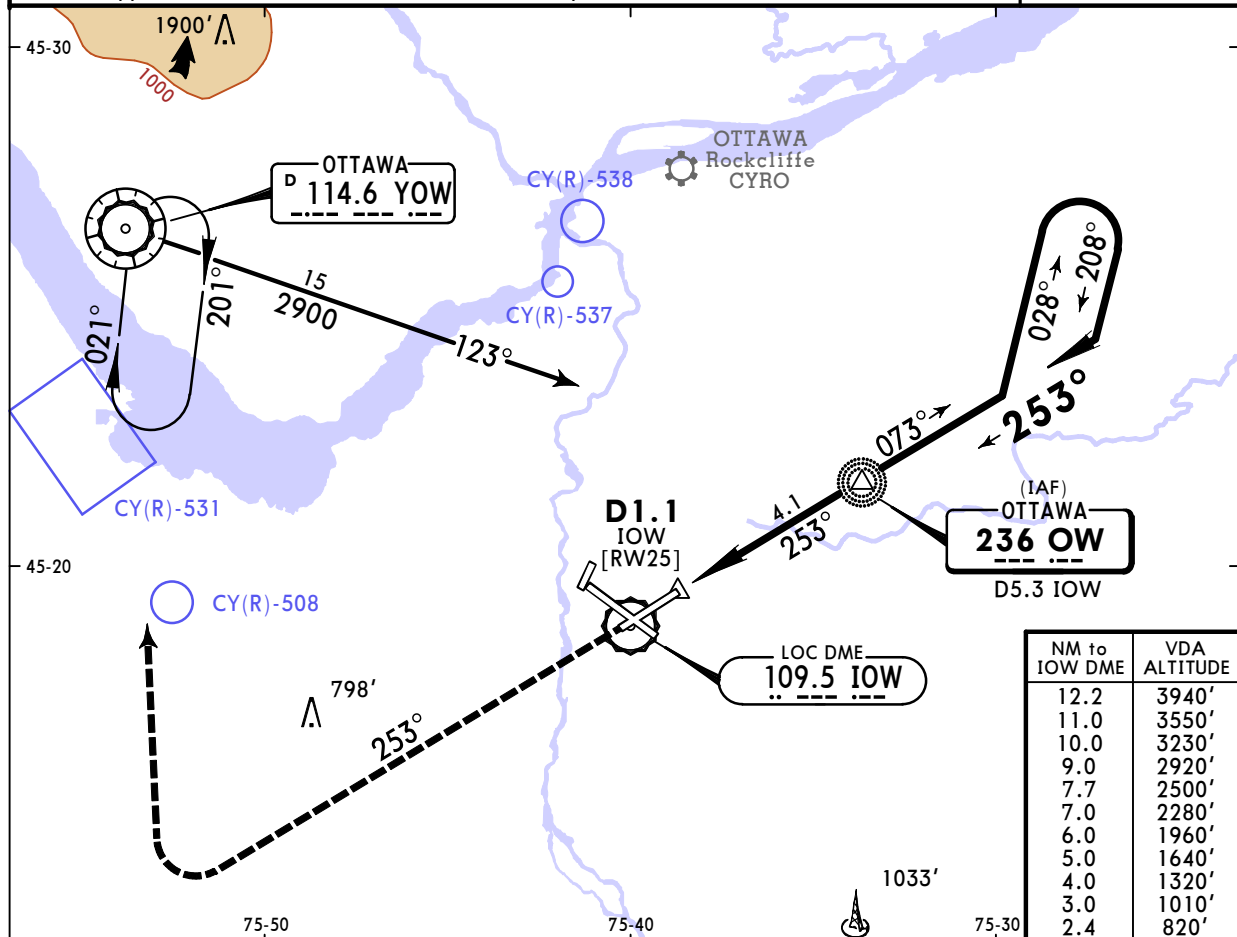
CHANGES: None.

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CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTLJEPPesen
7 SEP 18 **16-1** Eff 13 SepOTTAWA, ONT
NDB Rwy 25

BRIEFING STRIP™

D-ATIS 121.15 (French 132.95)		QUEBEC Radio 123.15	OTTAWA Arrival 135.15	OTTAWA Tower 118.8	Ground 121.9
NDB OW 236	Final Apch Crs 253°	VDA OTTAWA 1720' (1347')	MDA(H) 820' (447')	Apt Elev 377' TDZE 373'	3000 MSA OW NDB
MISSED APCH: Climb to 3000' track 253°. Then RIGHT turn direct to YOW VOR.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'					
1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. Final approach course offset 1.8° left from runway centerline.					

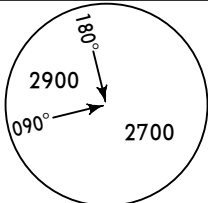


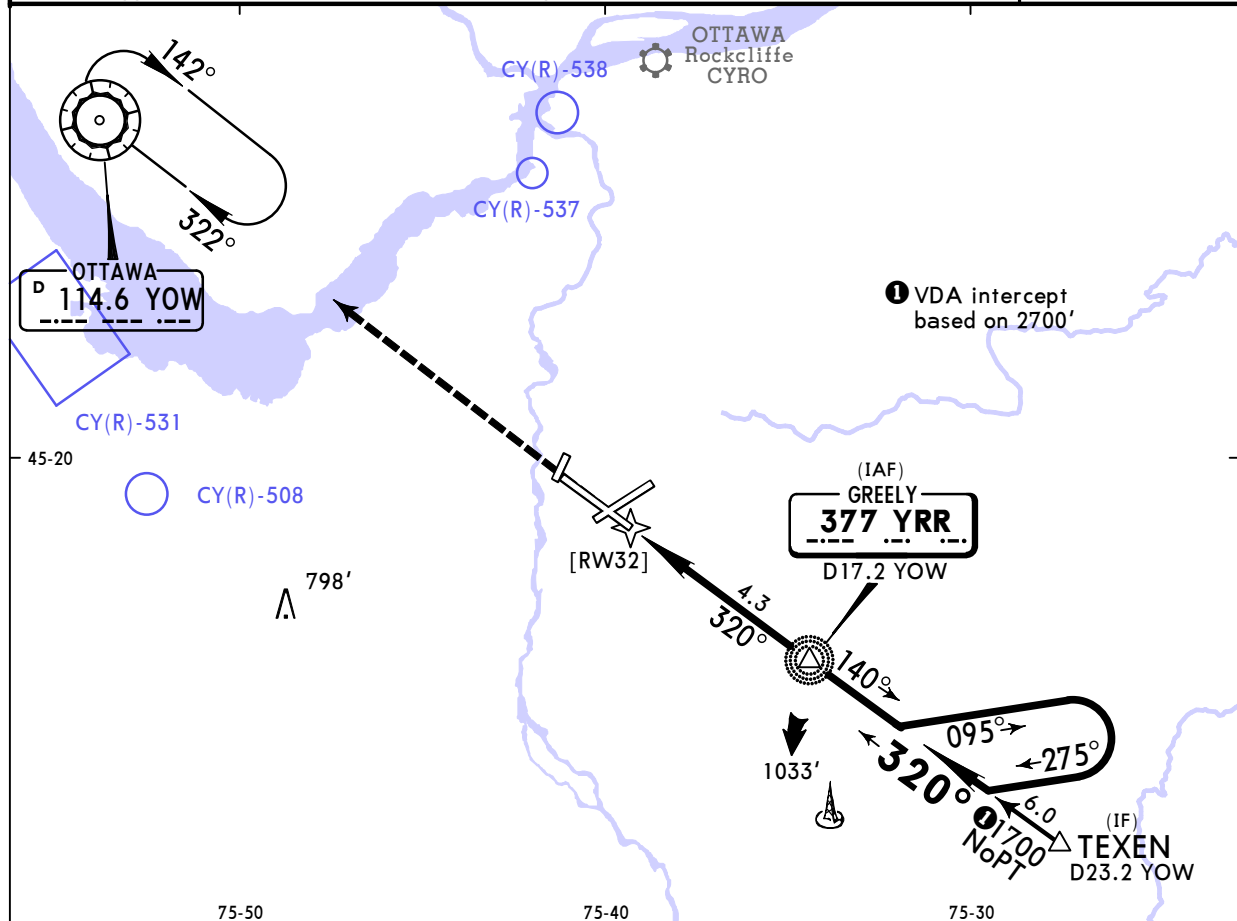
Gnd speed-Kts	70	90	100	120	140	160	SSALR PAPI 3000' ↑ 253°
VDA 3.00°	372	478	531	637	743	849	
MAP at D1.1 IOW							
OTTAWA to MAP	4.1	3:31	2:44	2:28	2:03	1:45	

STRAIGHT-IN LANDING RWY 25				CIRCLE-TO-LAND			
NDB or NDB DME							
MDA(H) 820' (447')							
ALS out				Max Kts	MDA(H)		
A	1			90	880' (503') - 1½		
B				120	880' (503') - 2		
C				140	880' (503') - 2		
D				165	1080' (703') - 2¼		

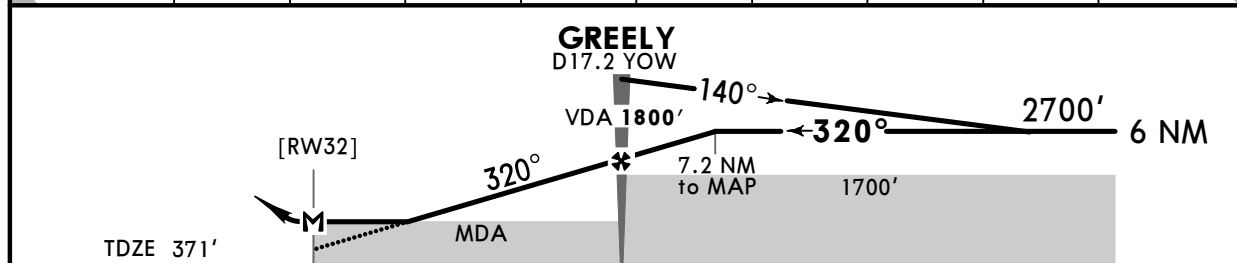
CYOW/YOW
OTTAWA/MACDONALD
-CARTIER INTL7 SEP 18 **(16-2)** Eff 13 SepOTTAWA, ONT
NDB Rwy 32

BRIEFING STRIP

D-ATIS	QUEBEC Radio	OTTAWA Arrival	OTTAWA Tower	Ground
121.15 (French 132.95)	123.15	135.15	118.8	121.9
NDB YRR	Final Apch Crs	VDA GREELY	MDA(H)	Apt Elev 377'
377	320°	1800' (1429')	1200' (829')	TDZE 371'
MISSSED APCH: Climb to 3000' direct to YOW VOR. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. SAFE ALTITUDE WITHIN 100 NM 7000'. 2. Intensive training area NW of airport. 3. Final approach course offset 0.2° from runway centerline.				
				
MSA YRR NDB				



NM to MAP	2.4	3.0	4.3	5.0	6.0	7.0	8.0	9.0	10.3
VDA ALTITUDE	1200'	1380'	1800'	2010'	2330'	2650'	2970'	3290'	3700'



0							4.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Gnd speed-Kts	70	90	100	120	140	160																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

STRAIGHT-IN LANDING RWY 32				CIRCLE-TO-LAND			
MDA(H) 1200' (829')				Max Kts			
HIALS out				MDA(H)			
A	2			90	1200' (823') - 2½		
B				120			
C				140			
D				165			

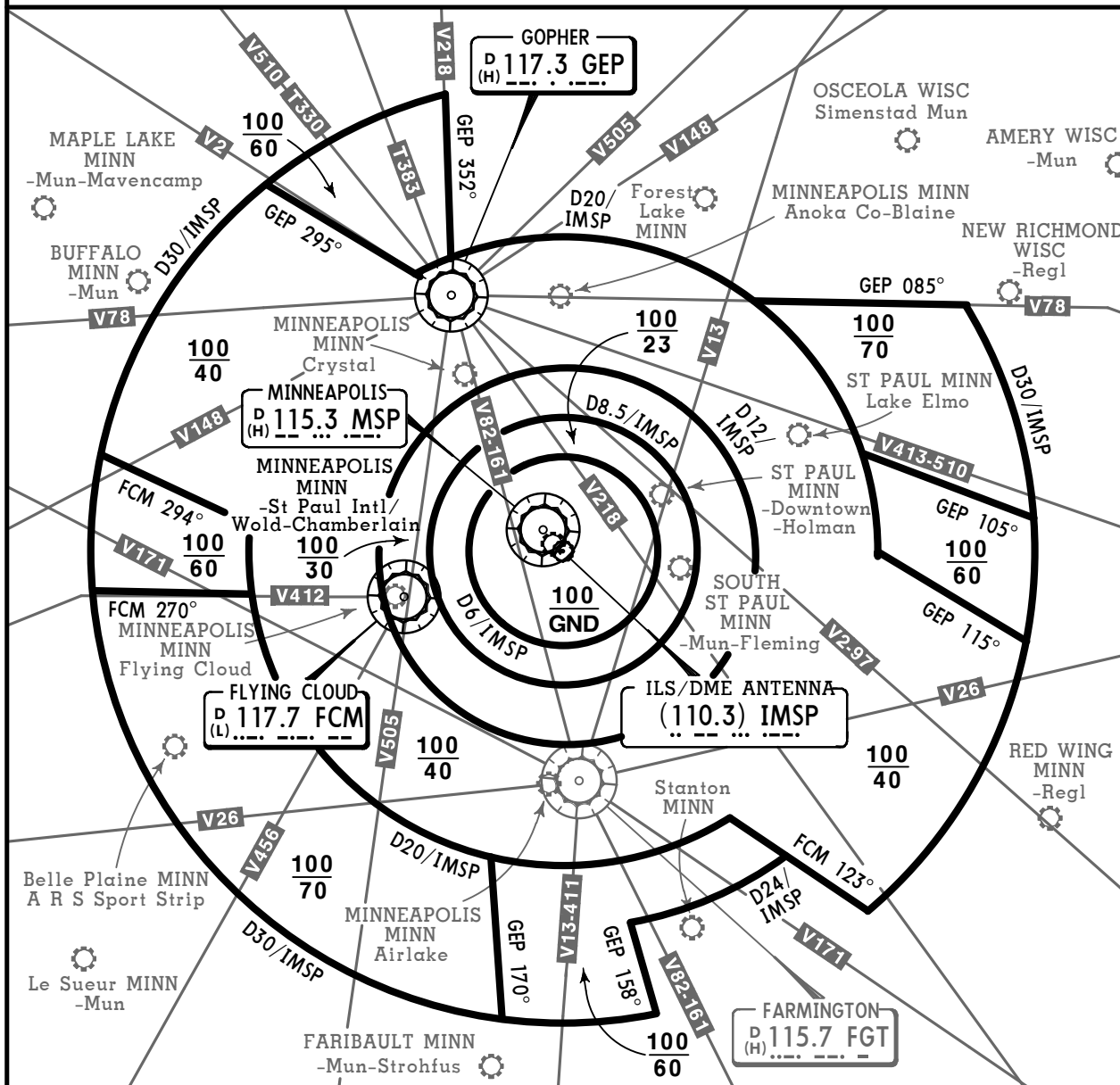
MINNEAPOLIS CLASS B AIRSPACE

CLASS B AIRSPACE VFR COMMUNICATIONS

(NE) **Minneapolis App (R)** 121.2

(S) **Minneapolis App (R)** 134.7

(NW) **Minneapolis App (R)** 126.5



FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS
SEE FAR 91.131, 91.117 AND 91.215

FLIGHT PROCEDURES

IFR Flights-

Aircraft operating within the Class B airspace must be operated in accordance with ATC clearances and instructions.

VFR Flights-

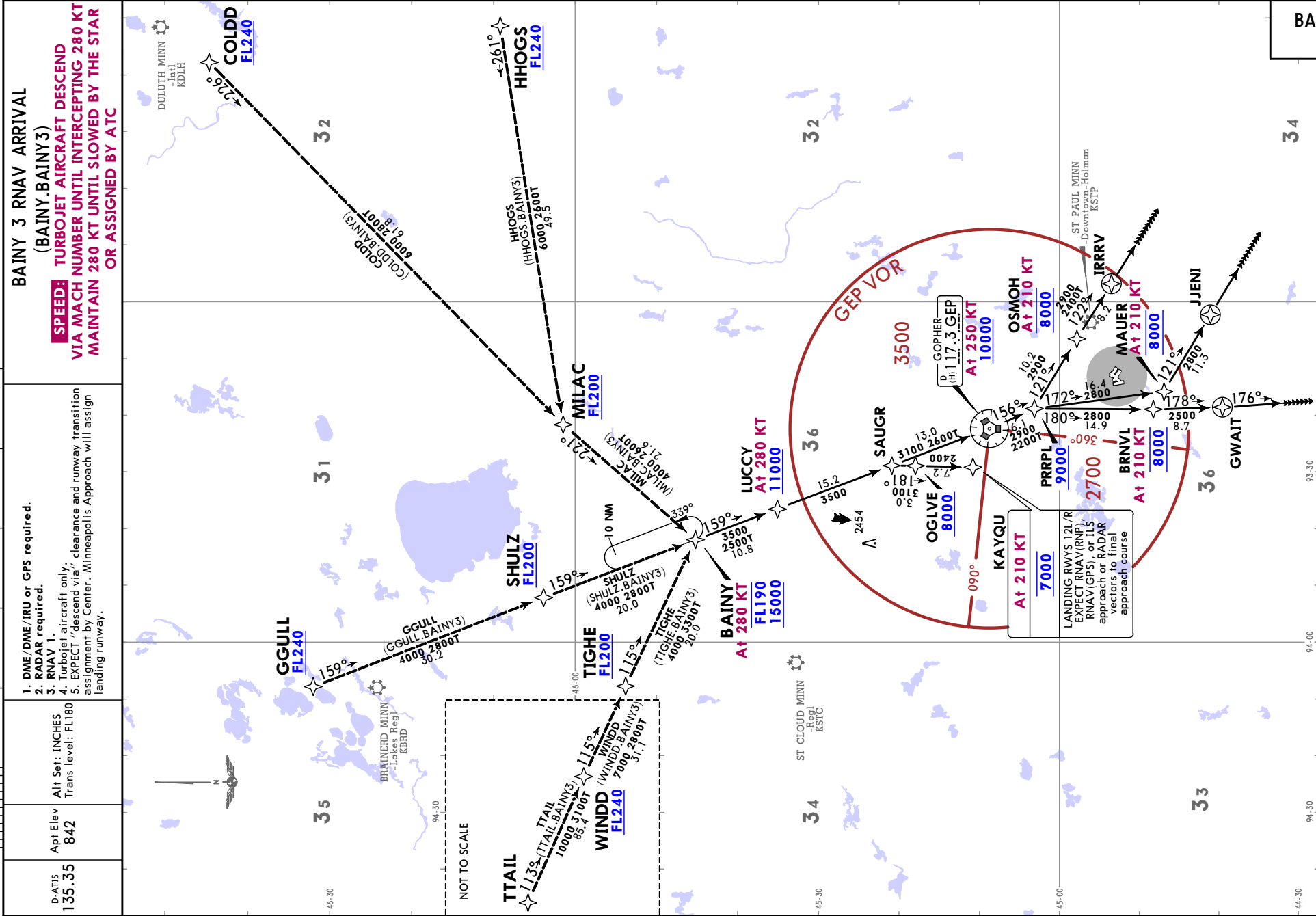
1. Arriving aircraft should contact Minneapolis Approach Control on the specified frequencies. Although arriving aircraft may be operating beneath the floor of the Class B airspace on initial contact, communications should be established with Approach Control for sequencing and spacing purposes.
2. Aircraft departing the primary airport are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B airspace. Aircraft departing from other than Minneapolis-St Paul International/Wold-Chamberlain Airport whose route of flight would penetrate the Class B airspace should give this information to ATC on appropriate frequencies.
3. Aircraft desiring to transit the Class B airspace must obtain an ATC clearance to enter the Class B airspace and will be handled on an ATC workload permitting basis.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

22 SEP 17 10-2

RNAV STAR

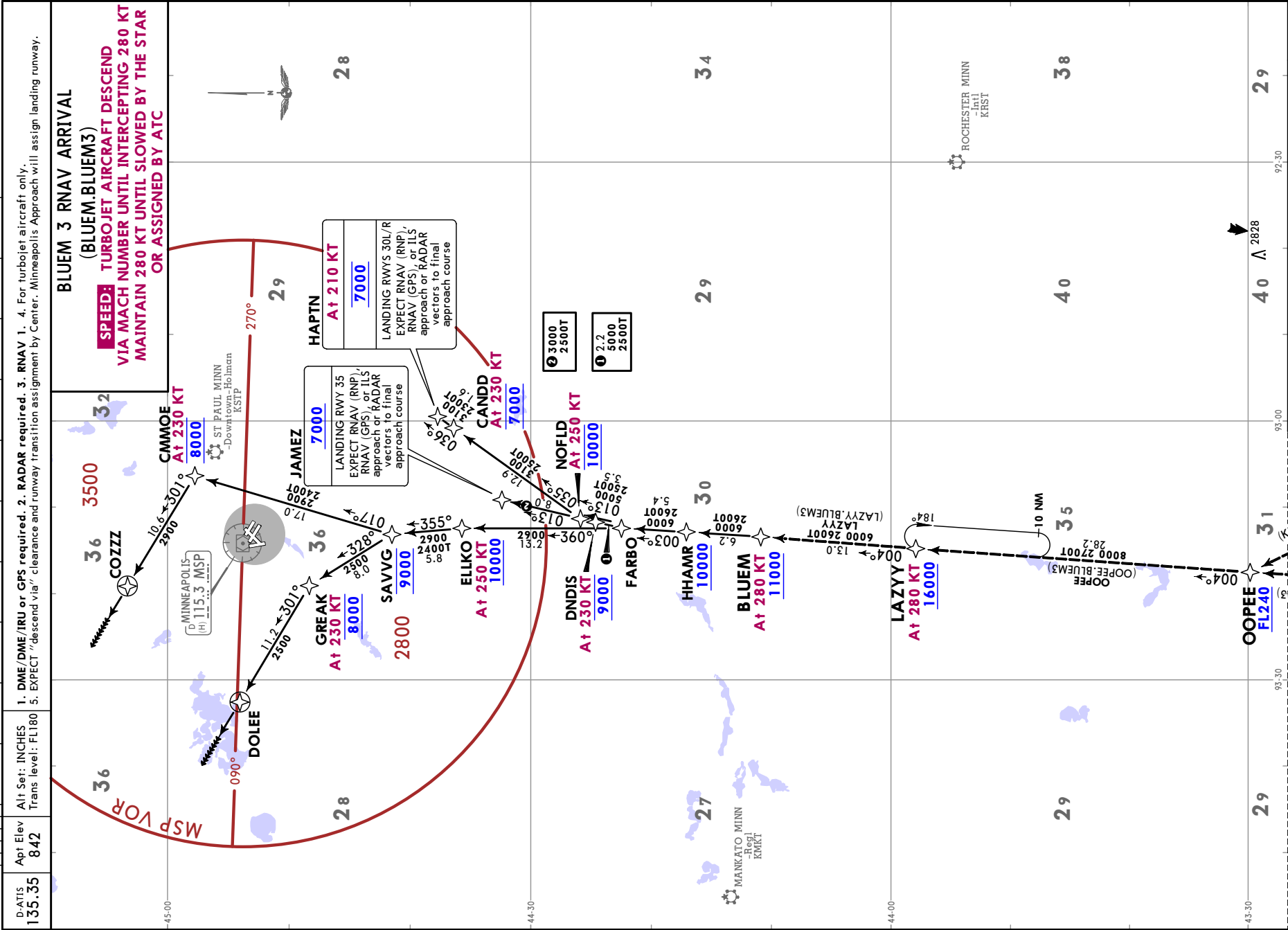
BAINY 3 RNAV ARRIVAL
(BAINY.BAINY3)



KMSPP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESSEN
22 SEP 17 (10-2A)

MINNEAPOLIS
MINN
RNAV STAR

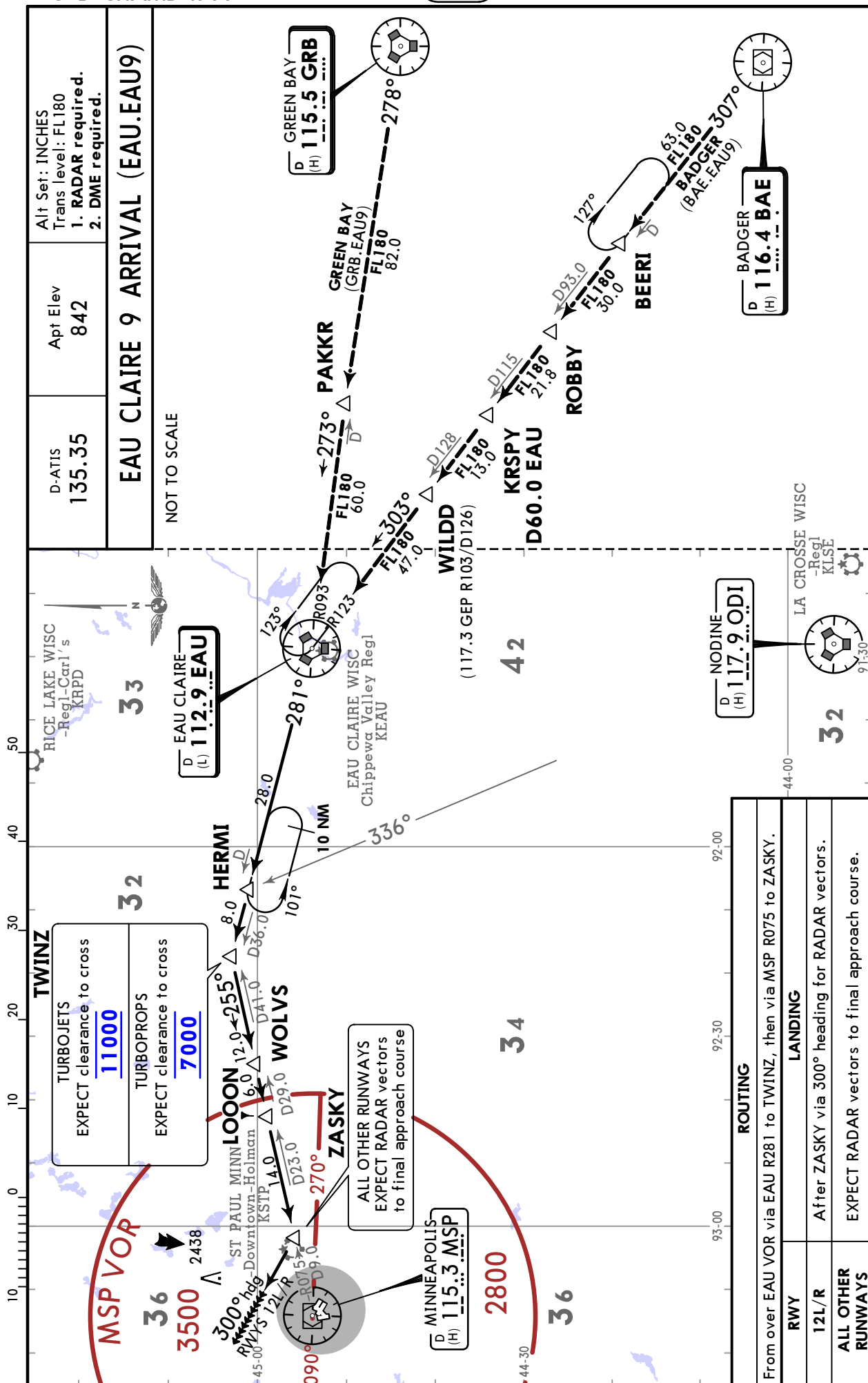


BLUEM 3 RNAV ARRIVAL (BLUEM.BLUEM3)	
ROUTING	
From BLUEM on track 004° to HHAMR, then on track 003° to FARBO.	
LANDING	
From FARBO on track 360° to ELLKO, then on track 355° to SAVVG, then on track 328° to GREEK, then on track 301° to DOLEE, then on track 301° EXPECT RADAR vectors to final approach course.	
From FARBO on track 360° to ELLKO, then on track 355° to SAVVG, then on track 017° to CMMOE, then on track 301° to COZZZ, then on track 301° EXPECT RADAR vectors to final approach course.	
From FARBO on track 013° to NOFLD, then on track 035° to CANDD, then on track 036° to HAPTN, EXPECT RNAV (RNP), RNAV (GPS), or ILS approach or RADAR vectors to final approach course.	
From FARBO on track 013° to DNDIS, then on track 013° to JAMEZ, EXPECT RNAV (RNP), RNAV (GPS), or ILS approach or RADAR vectors to final approach course.	

KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

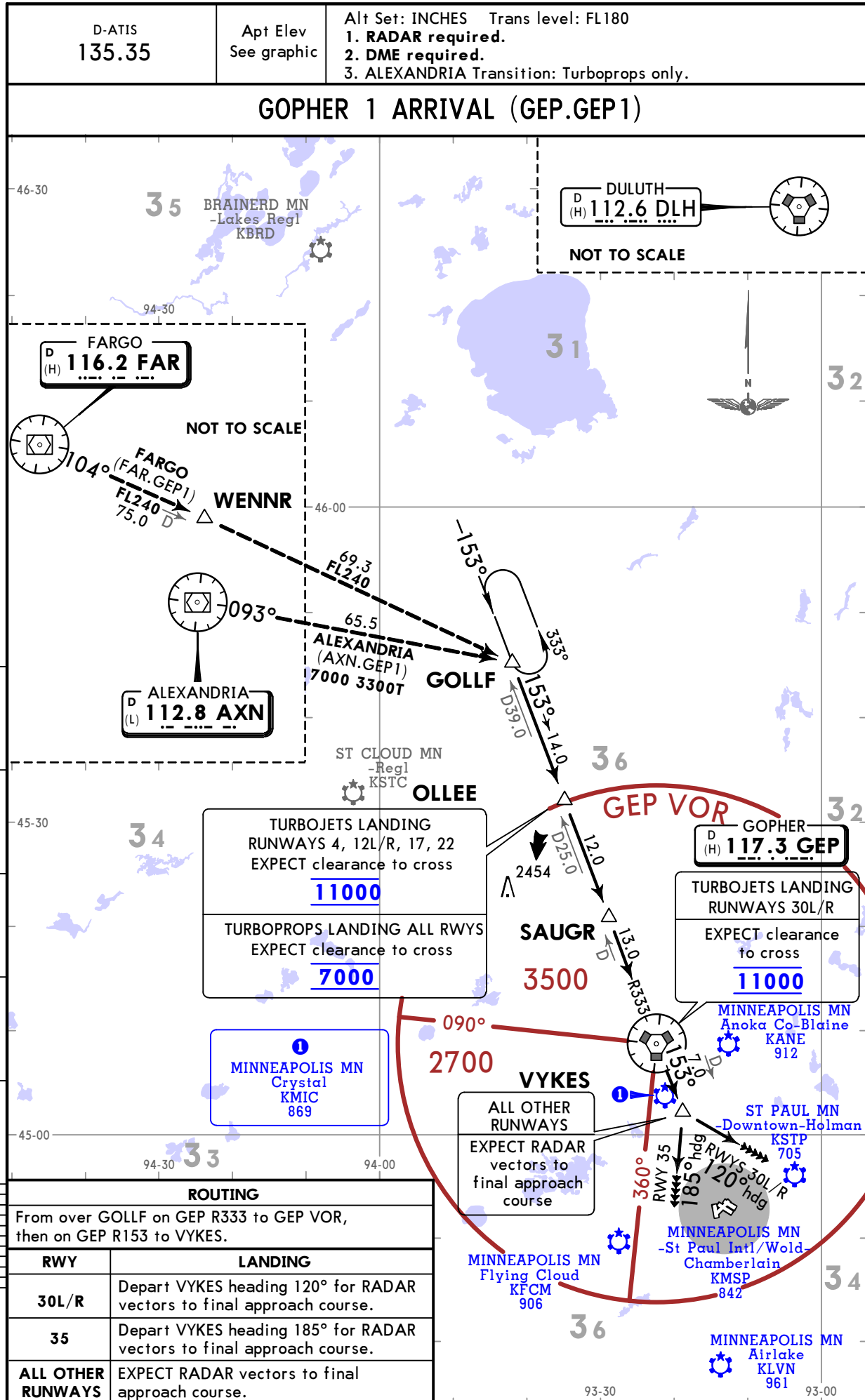
JEPPESEN
 9 FEB 18 **(10-2B)**

MINNEAPOLIS, MINN
STAR



KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen
 9 FEB 18 (10-2C)

MINNEAPOLIS, MINN
STAR


KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN
7 SEP 18 (10-2D) Eff 13 Sep

MINNEAPOLIS, MINN

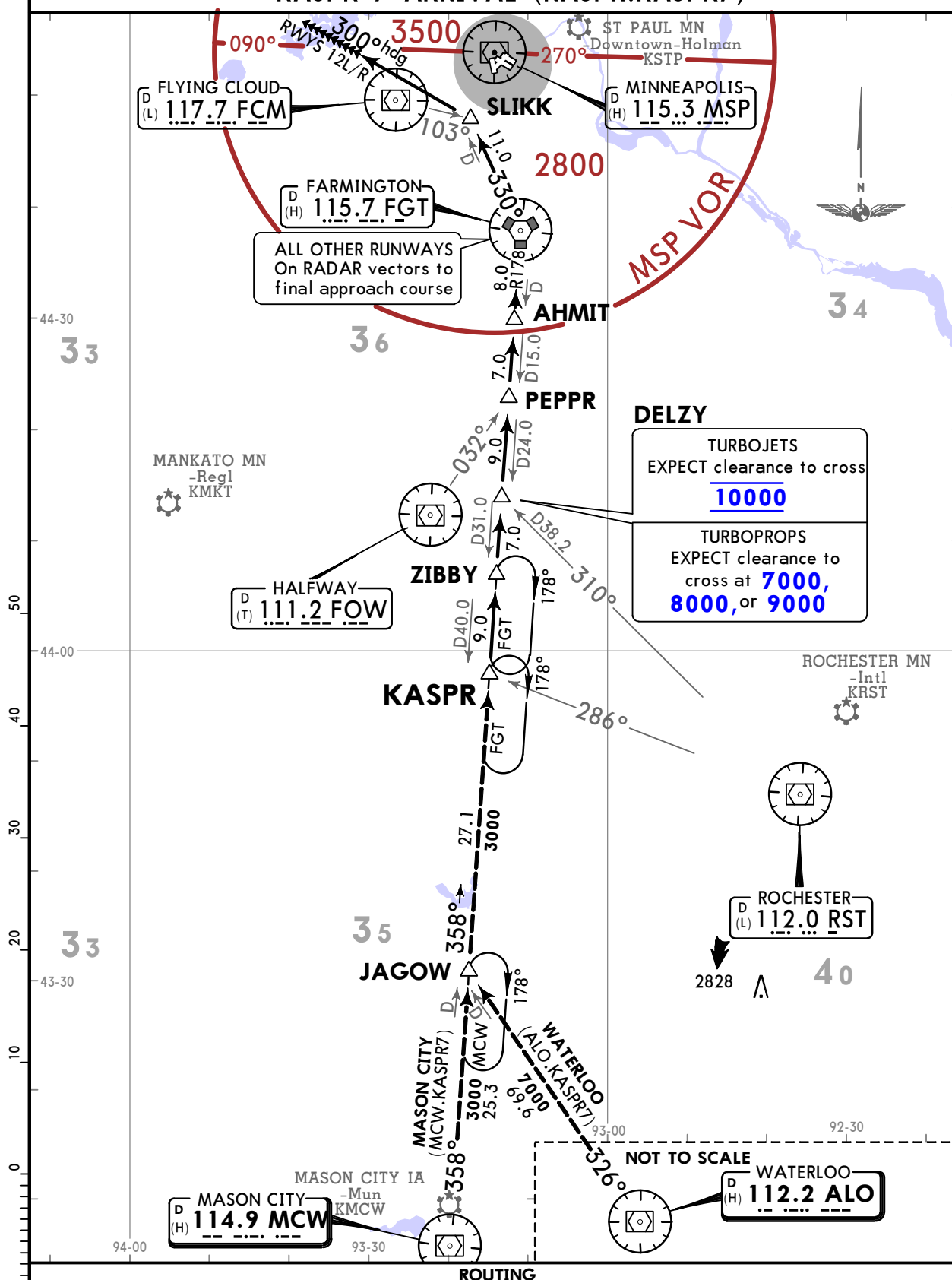
STAR

D-ATIS
135.35

Apt Elev
842

Alt Set: INCHES
Trans level: FL180
1. DME and RADAR required.
2. MASON CITY Transition: Turboprops only.

KASPR 7 ARRIVAL (KASPR.KASPR7)



From over KASPR on FGT R178 to FGT VOR.

RWY	LANDING
12L/R	After FGT VOR on FGT R330 to SLIKK then on 300° heading for RADAR vectors to final approach course.
ALL OTHER RUNWAYS	At FGT VOR on RADAR vectors to final approach course.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN MINNEAPOLIS, MINN

22 SEP 17 10-2E

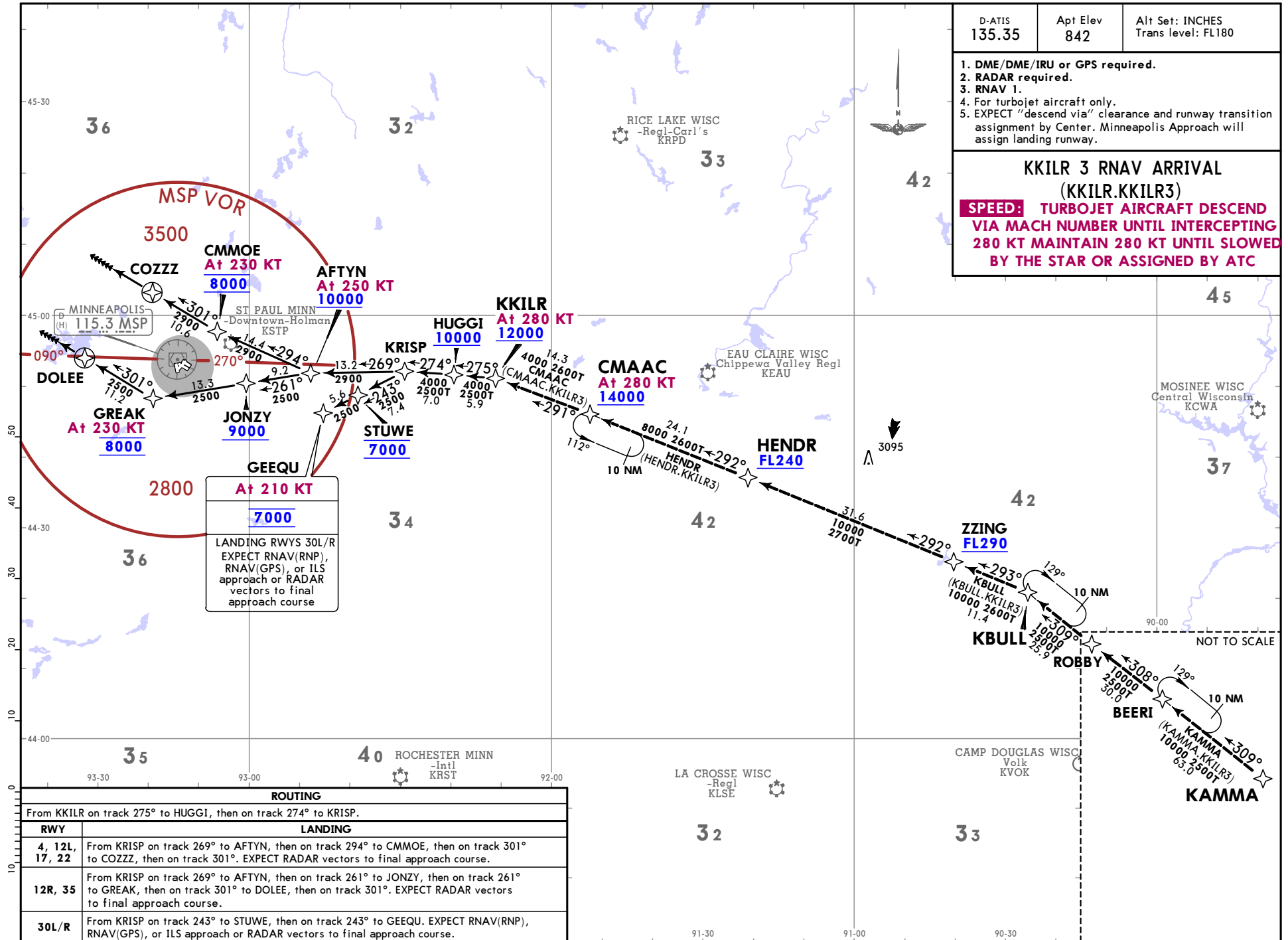
RNAV STAR

D-ATIS 135.35	Apt Elev 842	Alt Set: INCHES Trans level: FL180
------------------	-----------------	---------------------------------------

1. DME/DME/IRU or GPS required.
2. RADAR required.
3. RNAV 1.
4. For turbojet aircraft only.
5. EXPECT "descend via" clearance and runway transition assignment by Center. Minneapolis Approach will assign landing runway.

KKILR 3 RNAV ARRIVAL
(KKILR.KKILR3)

SPEED: TURBOJET AIRCRAFT DESCEND
VIA MACH NUMBER UNTIL INTERCEPTING
280 KT MAINTAIN 280 KT UNTIL SLOWED
BY THE STAR OR ASSIGNED BY ATC



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

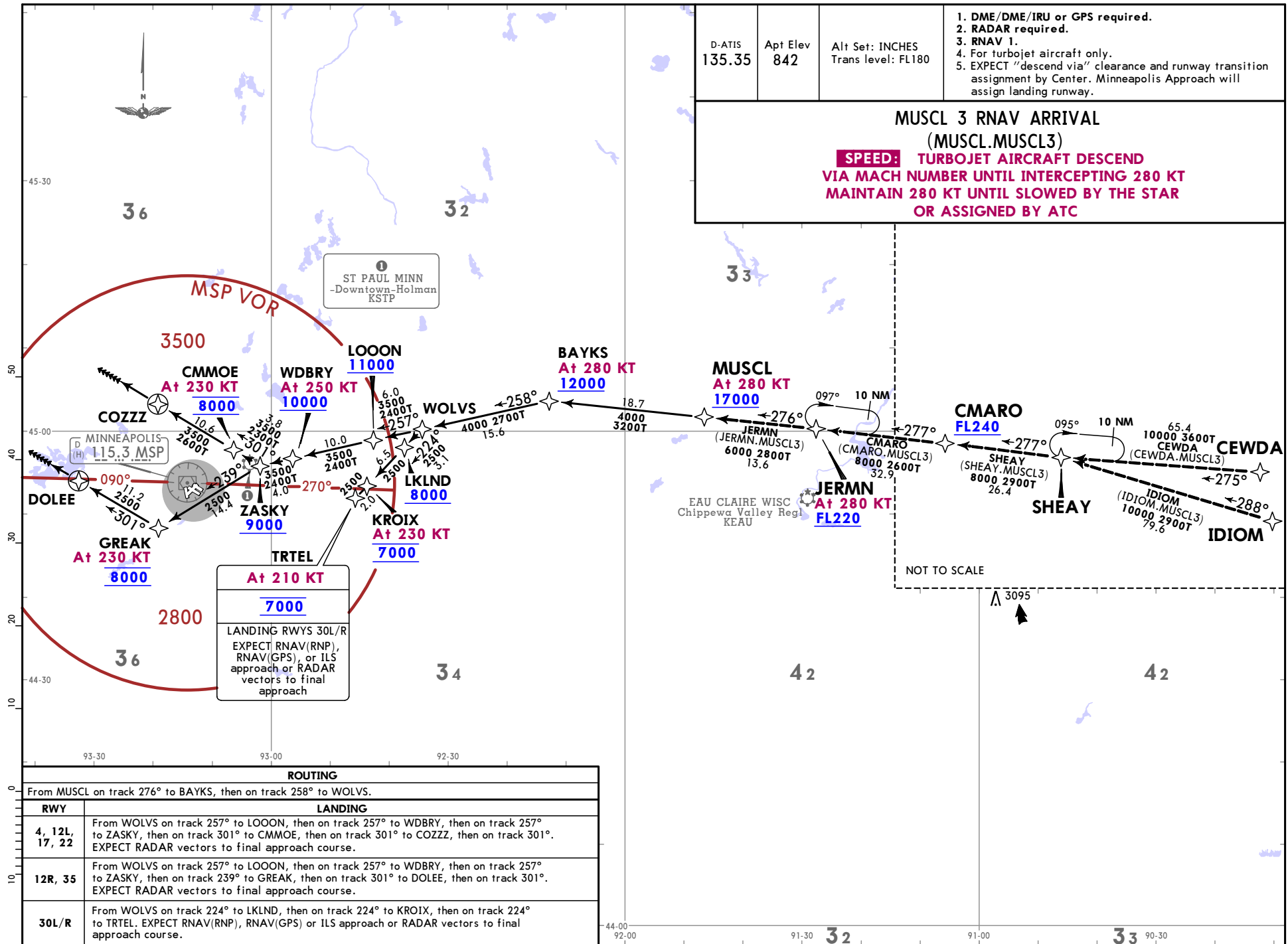
JEPPesen
22 SEP 17 10-2F

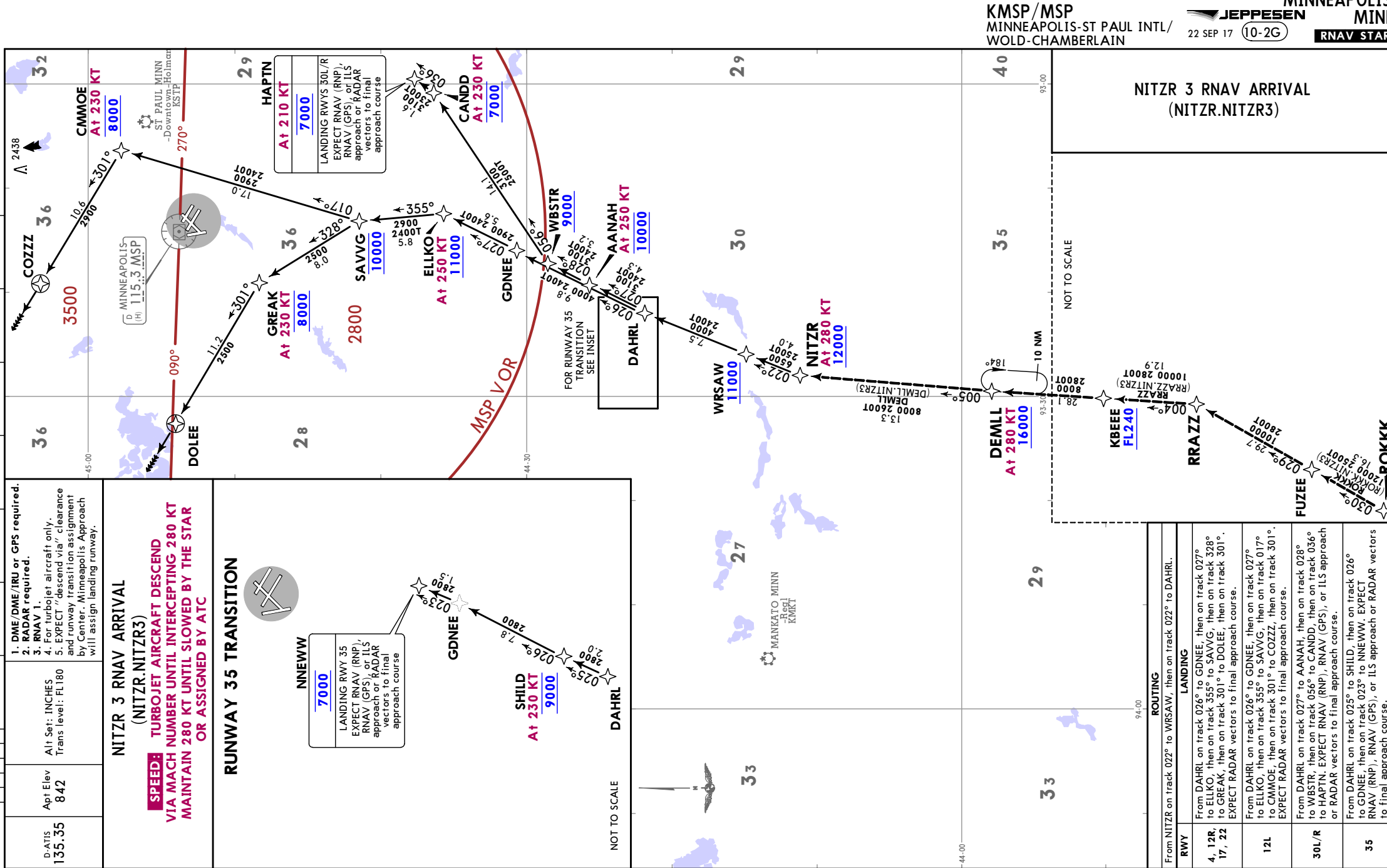
MINNEAPOLIS, MINN
RNAV STAR

D-ATIS 135.35	Apt Elev 842	Alt Set: INCHES Trans level: FL180	1. DME/DME/IRU or GPS required. 2. RADAR required. 3. RNAV 1. 4. For turbojet aircraft only. 5. EXPECT "descend via" clearance and runway transition assignment by Center. Minneapolis Approach will assign landing runway.
------------------	-----------------	---------------------------------------	---

MUSCL 3 RNAV ARRIVAL
(MUSCL.MUSCL3)

SPEED: TURBOJET AIRCRAFT DESCEND
VIA MACH NUMBER UNTIL INTERCEPTING 280 KT
MAINTAIN 280 KT UNTIL SLOWED BY THE STAR
OR ASSIGNED BY ATC

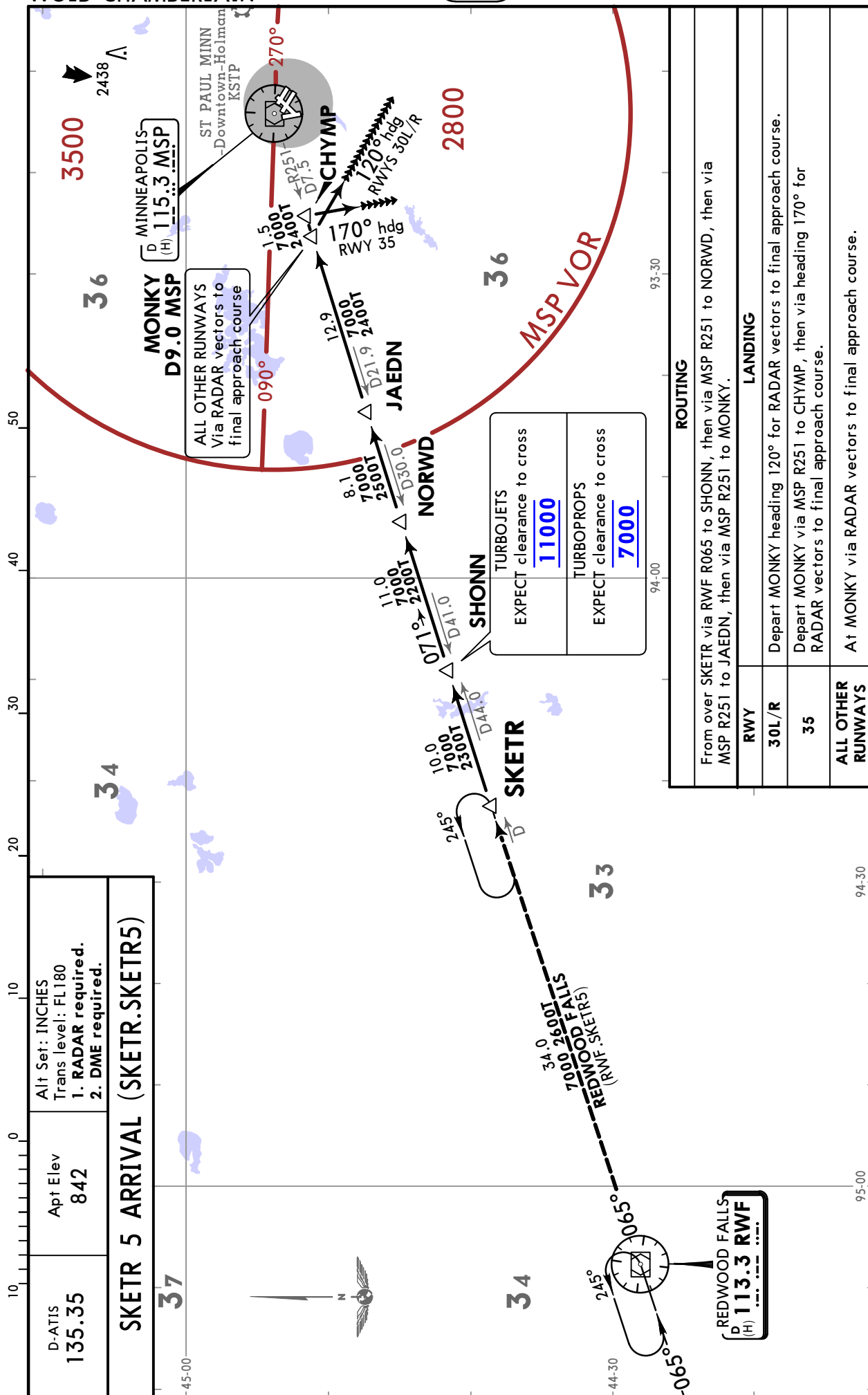




KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen
 22 SEP 17 (10-2H)

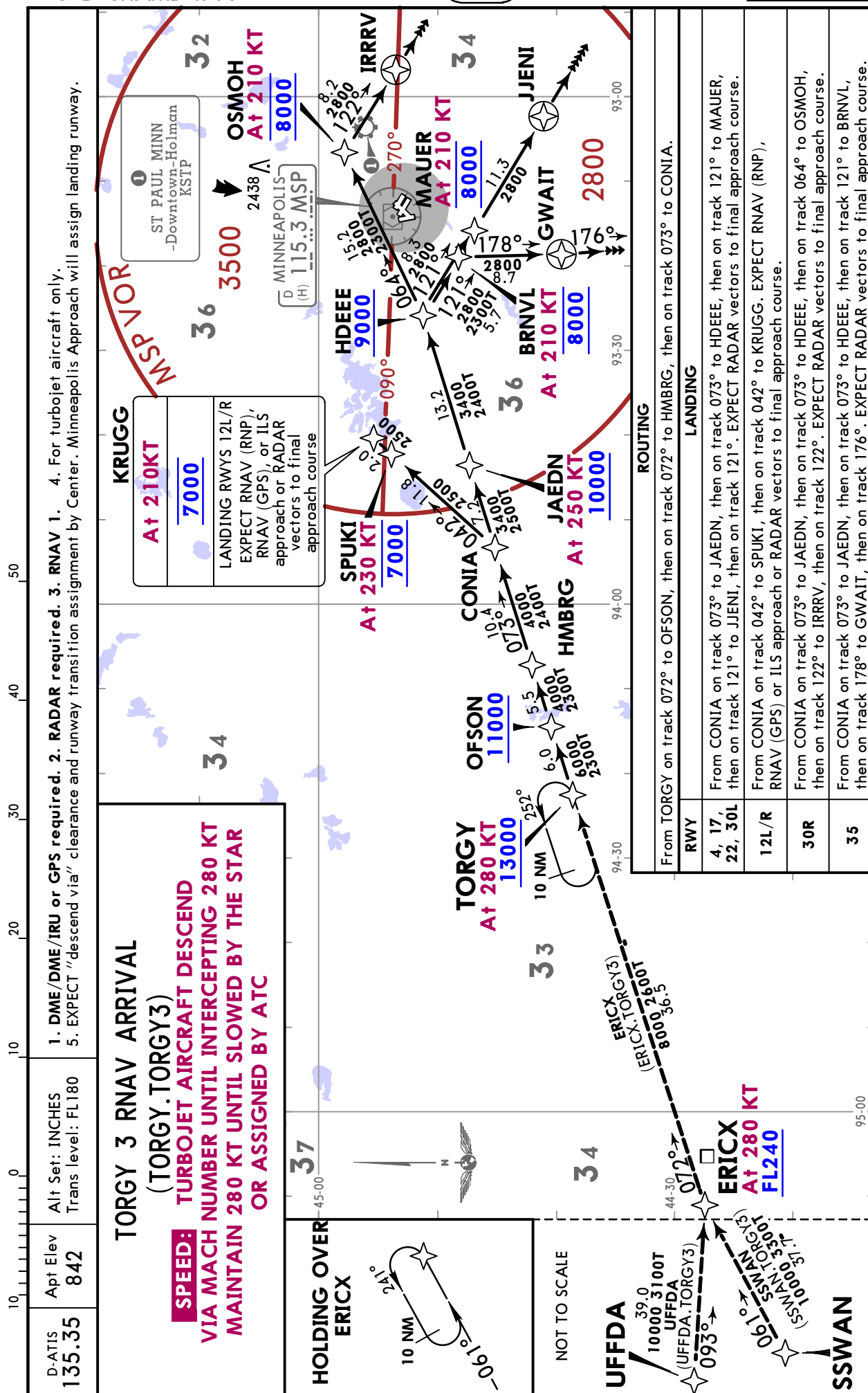
MINNEAPOLIS, MINN
STAR



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

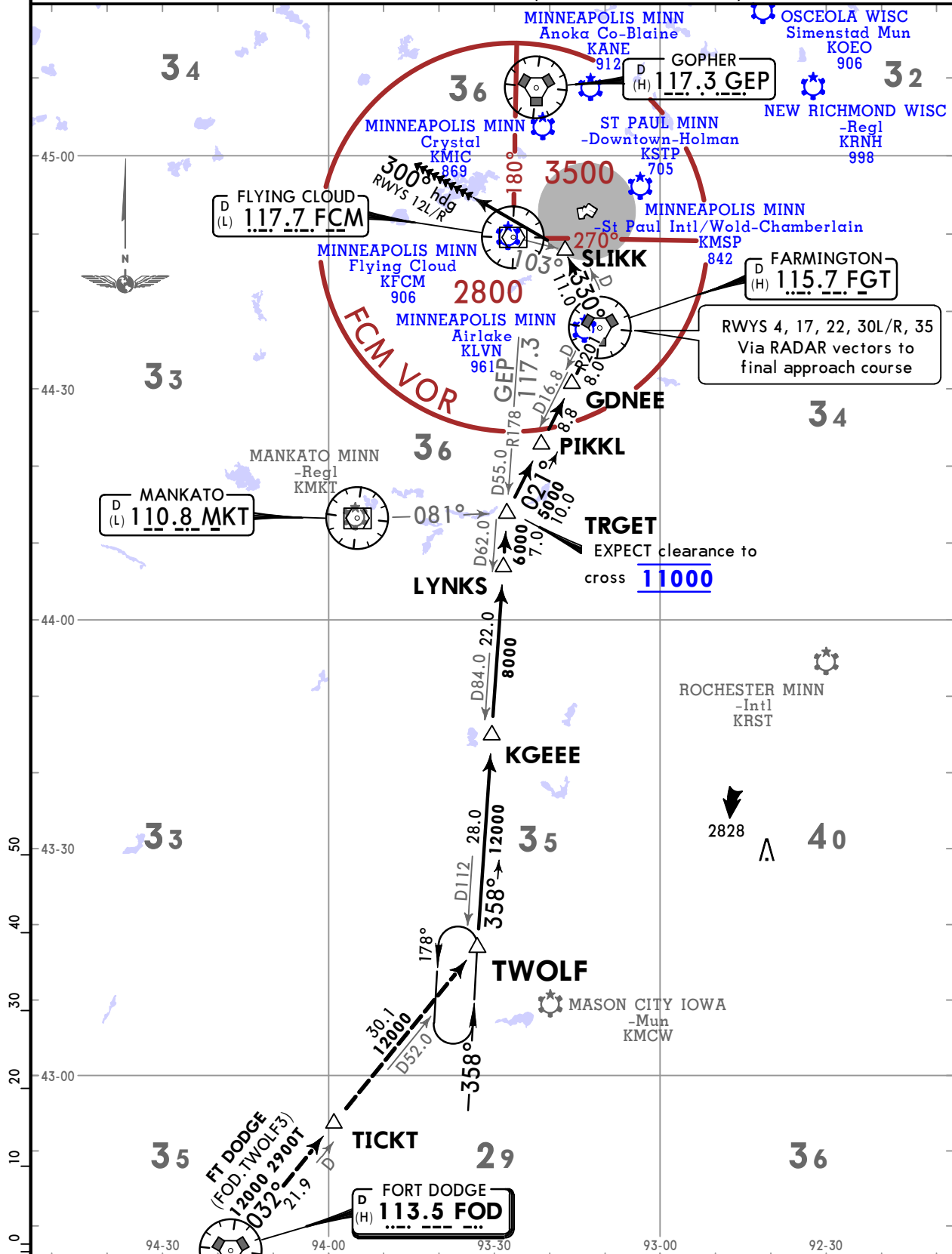
JEPPESSEN
22 SEP 17 (10-2J)

MINNEAPOLIS, MINN
RNAV STAR



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAINJEPPESEN
22 SEP 17 (10-2K)MINNEAPOLIS, MINN
STARD-ATIS
135.35Apt Elev
See graphicAlt Set: INCHES Trans level: FL180
1. DME and RADAR required.

TWOLF 3 ARRIVAL (TWOLF.TWOLF3)



ROUTING

From over TWOLF via GEP R178 to KGEE, then as depicted to TRGET.

RWY
12L/R

LANDING

From over TRGET via FGT R201 to FGT VOR, then via FGT R330 to SLIKK, then via 300° heading for RADAR vectors to final approach course.

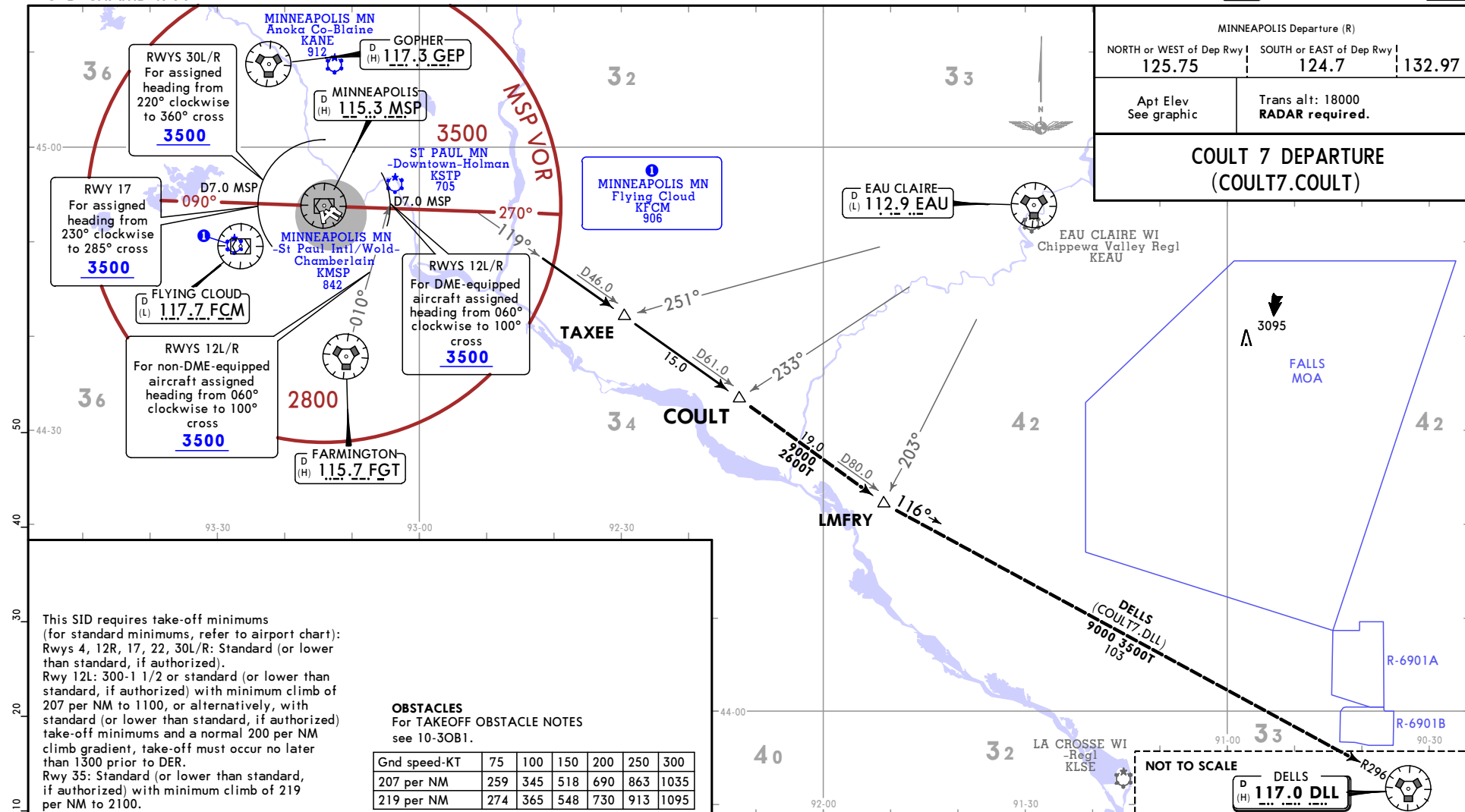
4, 17, 22,
30L/R, 35

From over TRGET via FGT R201 to FGT VOR, then via RADAR vectors to final approach course.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN MINNEAPOLIS, MINN

23 MAR 18 **10-3** Eff 29 Mar **SID**



INITIAL CLIMB

TOP ALTITUDE

JETS: 7000
PROP: 5000

ROUTING

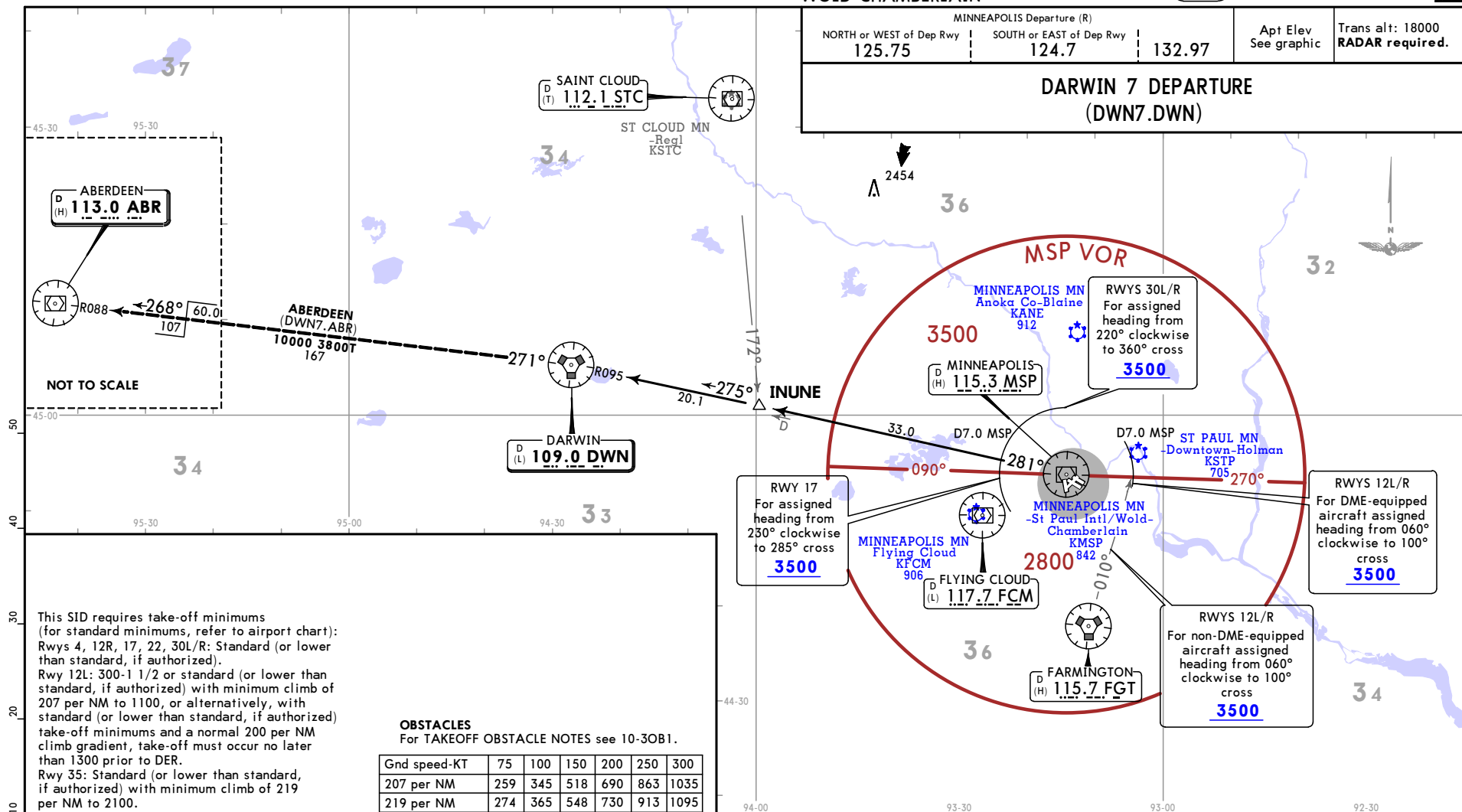
On transition or assigned route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

23 MAR 18 10-3A Eff 29 Mar SID

MINNEAPOLIS Departure (R)			Apt Elev	Trans alt: 18000
NORTH or WEST of Dep Rwy	SOUTH or EAST of Dep Rwy		See graphic	RADAR required.
125.75	124.7	132.97		

DARWIN 7 DEPARTURE
(DWN7.DWN)



This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 4, 12R, 17, 22, 30L/R: Standard (or lower than standard, if authorized).
Rwy 12L: 300-1 1/2 or standard (or lower than standard, if authorized) with minimum climb of 207 per NM to 1100, or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200 per NM climb gradient, take-off must occur no later than 1300 prior to DER.
Rwy 35: Standard (or lower than standard, if authorized) with minimum climb of 219 per NM to 2100.

OBSTACLES
For TAKEOFF OBSTACLE NOTES see 10-30B1.

Gnd speed-KT	75	100	150	200	250	300
207 per NM	259	345	518	690	863	1035
219 per NM	274	365	548	730	913	1095

INITIAL CLIMB

ALL RUNWAYS	Fly assigned heading for RADAR vectors to intercept MSP R281 and DWN R095 to DWN VOR. Turbojet aircraft MAINTAIN 7000 or lower assigned altitude. All other aircraft MAINTAIN 5000 or lower assigned altitude.
RWYS 4, 22, 35	Initially assigned heading.
DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°. Cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude if unable to comply, advise ATC as soon as possible prior to departure.
NON-DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°, cross FGT R010 at or above 3500, MAINTAIN assigned altitude if unable to comply, advise ATC as soon as possible prior to departure.
RWY 17	For assigned headings from 230° clockwise to 285°. Cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.
RWYS 30L/R	For assigned headings from 220° clockwise to 360°, cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.

TOP ALTITUDE

JETS: 7000
PROPS: 5000

ROUTING

On assigned transition.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAINJEPPESEN
22 SEP 17 (10-3B)

MINNEAPOLIS, MINN

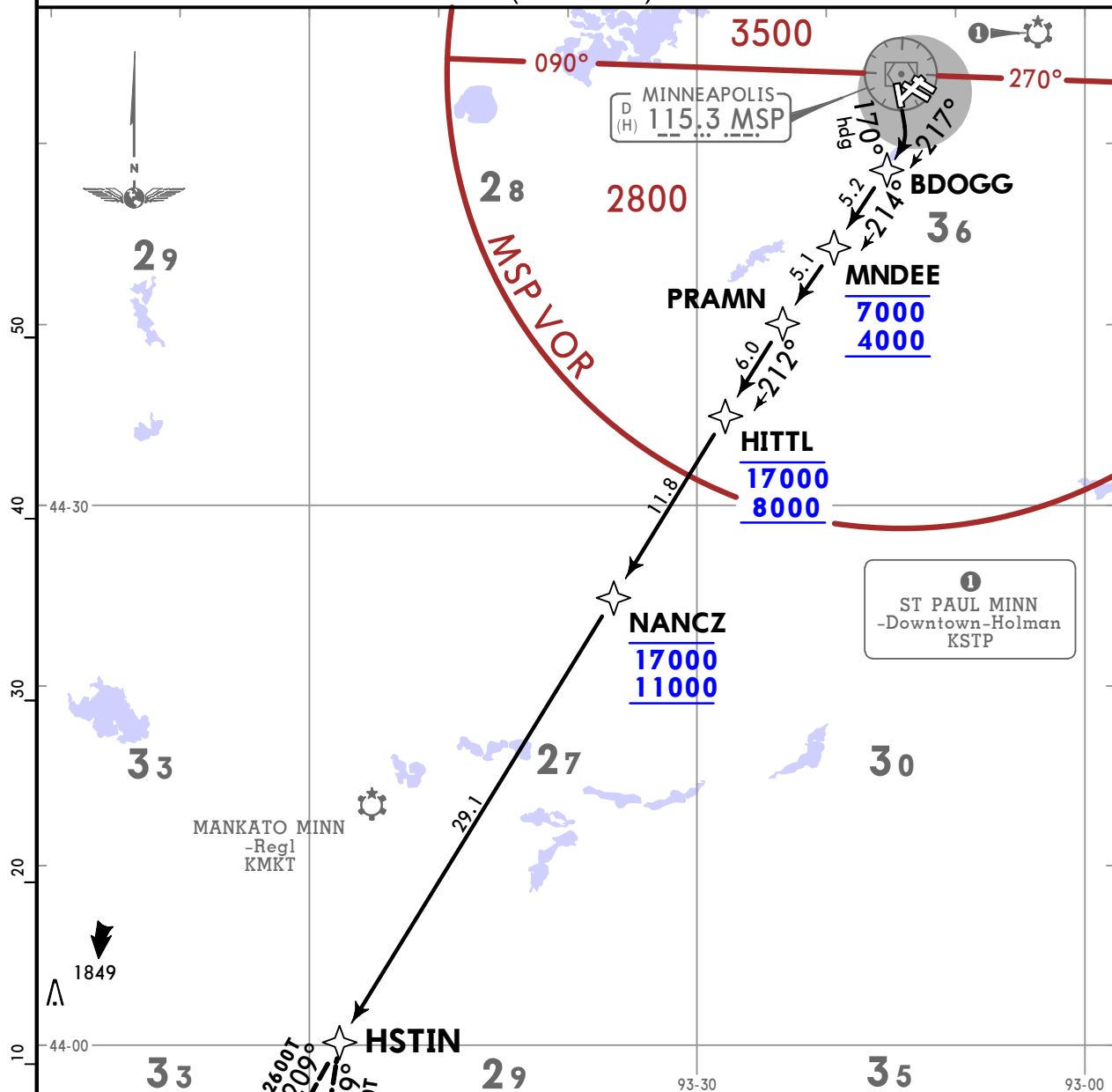
RNAV SID

MINNEAPOLIS Departure (R)

NORTH or WEST
125.75SOUTH or EAST
124.7Apt Elev
842

Trans alt: 18000

1. RADAR required for Non-GPS equipped aircraft.
2. RNAV 1. 3. DME/DME/IRU or GPS required.
4. For use by turbojet aircraft only.

HESTIN 4 RNAV DEPARTURE (HSTIN4.HSTIN)
(RWY 17)

OBSTACLES

For TAKEOFF OBSTACLE NOTES see 10-30B1.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwy 17: Standard (or lower than standard, if authorized).
All other runways: Not authorized - Air traffic.

INITIAL CLIMB

TOP ALTITUDE

Climb heading 170° to intercept course 217° to BDOGG, then on track 214° to cross MNDEE between 4000 & 7000, then on track 214° to PRAMN, then on track 212° to cross HITTL between 8000 & 17000, then on track 212° to cross NANCZ between 11000 & 17000, then on track 212° to HSTIN.

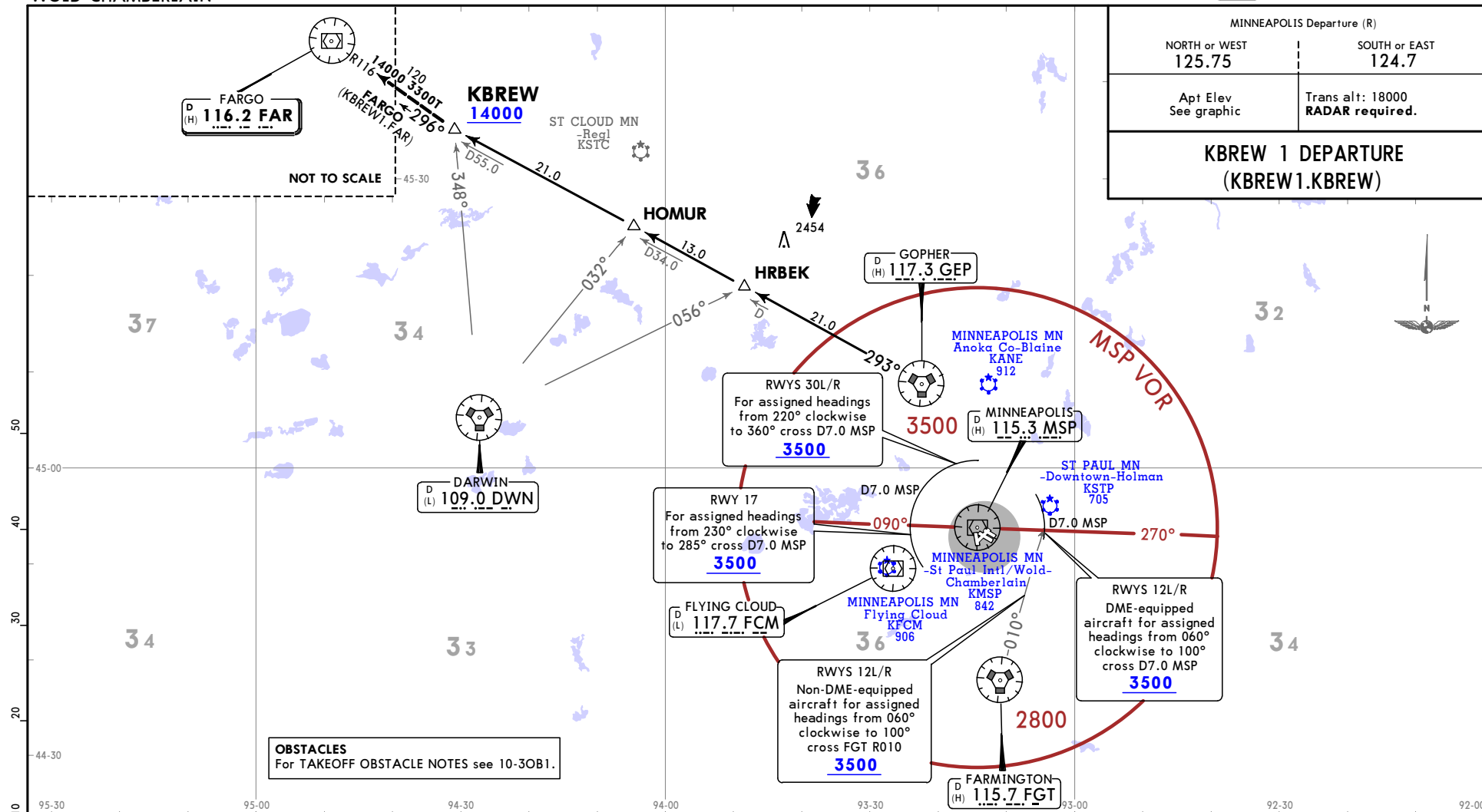
17000

ROUTING

At HSTIN, on transition. MAINTAIN 17000. EXPECT filed altitude 10 minutes after departure.

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN MINNEAPOLIS, MINN
26 JAN 18 10-3C Eff 1 Feb SID



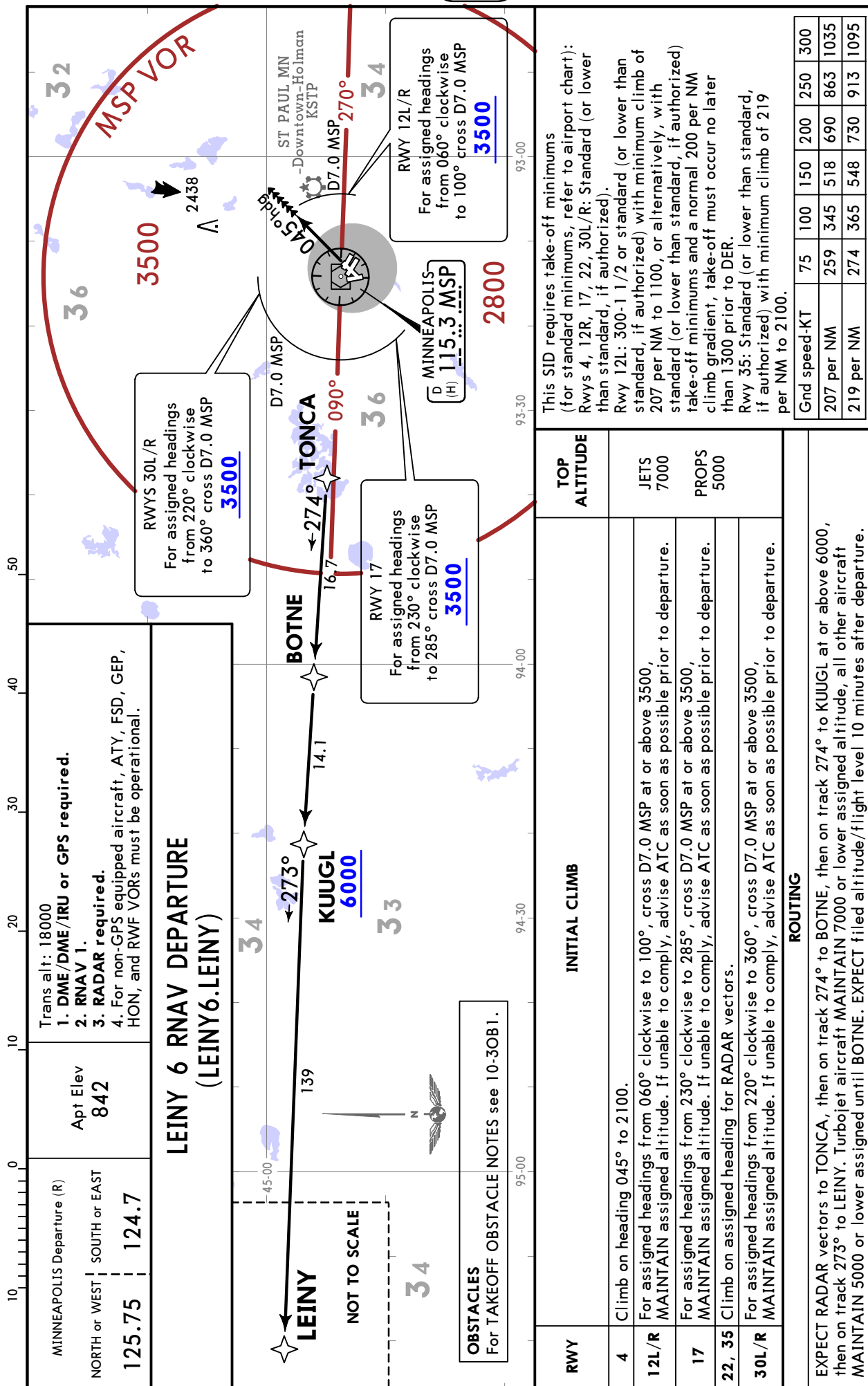
MINNEAPOLIS Departure (R)	
NORTH or WEST 125.75	SOUTH or EAST 124.7
Apt Elev See graphic	Trans alt: 18000 RADAR required.
KBREW 1 DEPARTURE (KBREW1.KBREW)	

INITIAL CLIMB		TOP ALTITUDE	This SID requires take-off minimums (for standard minimums, refer to airport chart): Rwys 4, 12R, 17, 22, 30L/R: Standard (or lower than standard, if authorized). Rwy 12L: 300-1 1/2 or standard (or lower than standard, if authorized) with minimum climb of 207 per NM to 1100, or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200 per NM climb gradient, take-off must occur no later than 1300 prior to DER. Rwy 35: Standard (or lower than standard, if authorized) with minimum climb of 219 per NM to 2100.						
ALL RUNWAYS	Fly assigned heading for RADAR vectors to GEP VOR, then on GEP R293 to KBREW. MAINTAIN ATC assigned altitude.	Assigned by ATC							
RWYS 4, 22, 35	Initially assigned heading.								
DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°, cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.								
NON-DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°, cross FGT R010 at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.								
RWY 17	For assigned headings from 230° clockwise to 285°, cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.								
RWYS 30L/R	For assigned headings from 220° clockwise to 360°, cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.								
ROUTING									
On transition or assigned route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.									
			Gnd speed-KT	75	100	150	200	250	300
			207 per NM	259	345	518	690	863	1035
			219 per NM	274	365	548	730	913	1095

KMSP/MSP
**MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN**

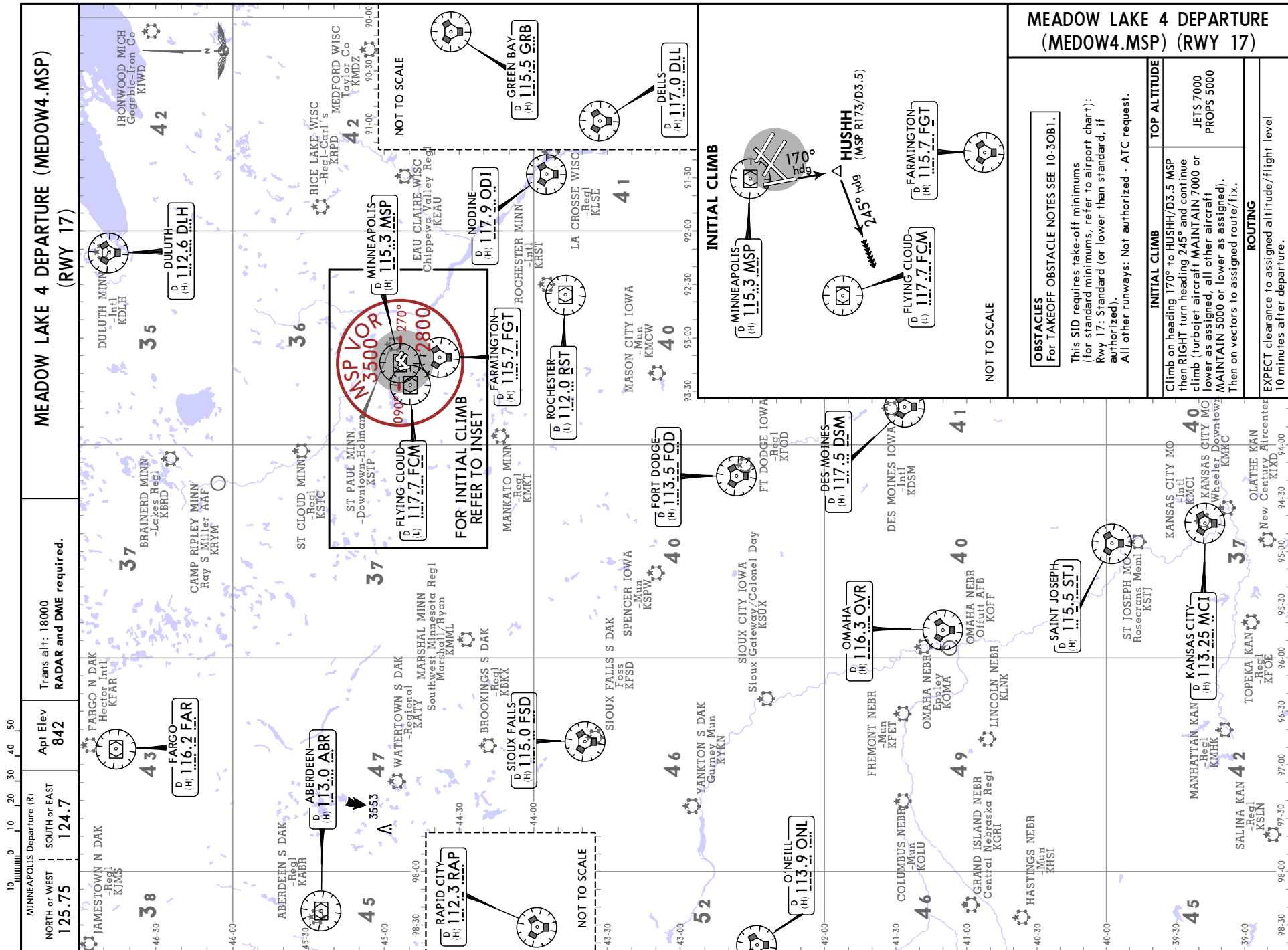
JEPPesen
26 JAN 18 **10-3D** Eff 1 Feb

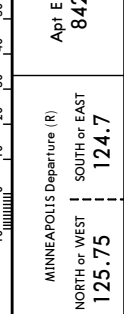
MINNEAPOLIS, MINN
RNAV SID



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPesen MINNEAPOLIS, MINN
22 SEP 17 10-3E SID





CHANGES: None.

MINNEAPOLIS Departure (R)		Apt Elev	MINNEAPOLIS 8 DEPARTURE (MSP8.MSP)	
NORTH or WEST	SOUTH or EAST	842	Trans alt: 18000 1. RADAR required. 2. DME required for Rwy 17, 30L/R Departures.	
125.75	124.7			

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 4, 12R, 17, 22, 30L/R: Standard (or lower than standard, if authorized).
Rwy 12L: 300-1 1/2 or standard (or lower than standard, if authorized) with minimum climb of 207 per NM to 1100, or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200 per NM climb gradient, take-off must occur no later than 1300 prior to DER.

Rwy 35: Standard (or lower than standard, if authorized) with minimum climb of 219 per NM to 2100.

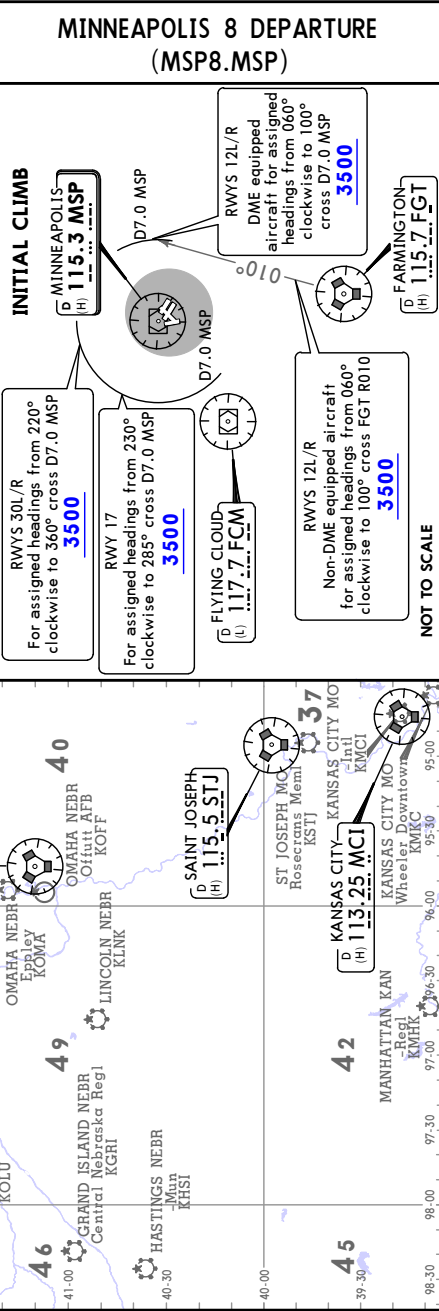
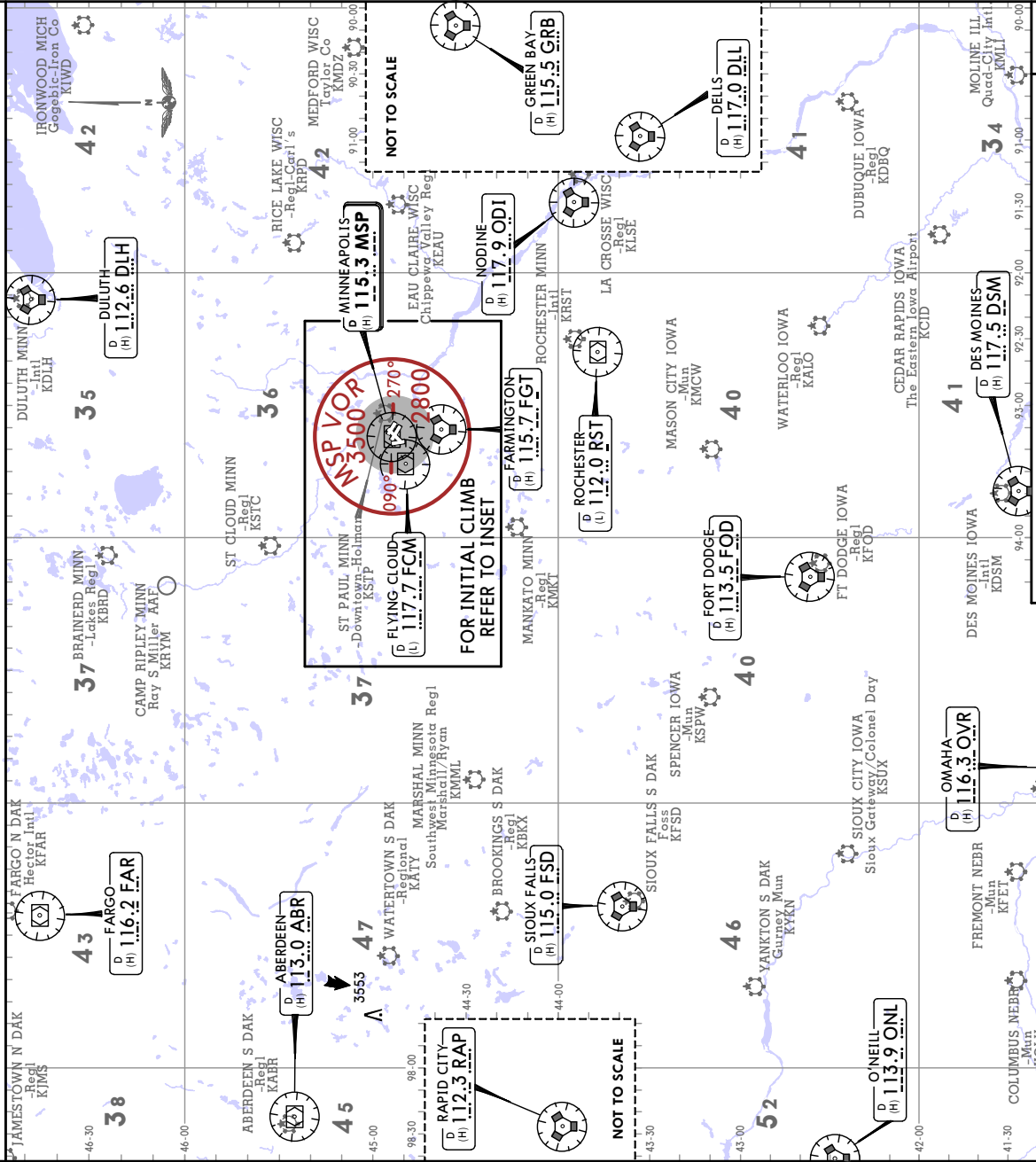
Gnd speed-KT	75	100	150	200	250	300
207 per NM	259	345	518	690	863	1035
219 per NM	274	365	548	730	913	1095

OBSTACLES
For TAKEOFF OBSTACLE NOTES SEE 10-30B1.

RWY		INITIAL CLIMB	TOP ALTITUDE
ALL RUNWAYS		Fly assigned heading for RADAR vectors to join filed/assigned route. Turbojet aircraft MAINTAIN 7000 or lower assigned altitude. All other aircraft MAINTAIN 5000 or lower assigned altitude.	
DME EQUIPPED AIRCRAFT RWYS 12L/R		For assigned headings from 060° clockwise to 100° cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.	
NON-DME EQUIPPED AIRCRAFT RWYS 12L/R		For assigned headings from 060° clockwise to 100°, cross FGT R010 at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.	JETS 7000 PROPS 5000
RWY 17		For assigned headings from 230° clockwise to 285° cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.	
RWYS 30L/R		For assigned headings from 220° clockwise to 360° cross D7.0 MSP at or above 3500, MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.	

ROUTING

EXPECT clearance to assigned altitude/flight level 10 minutes after departure.



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

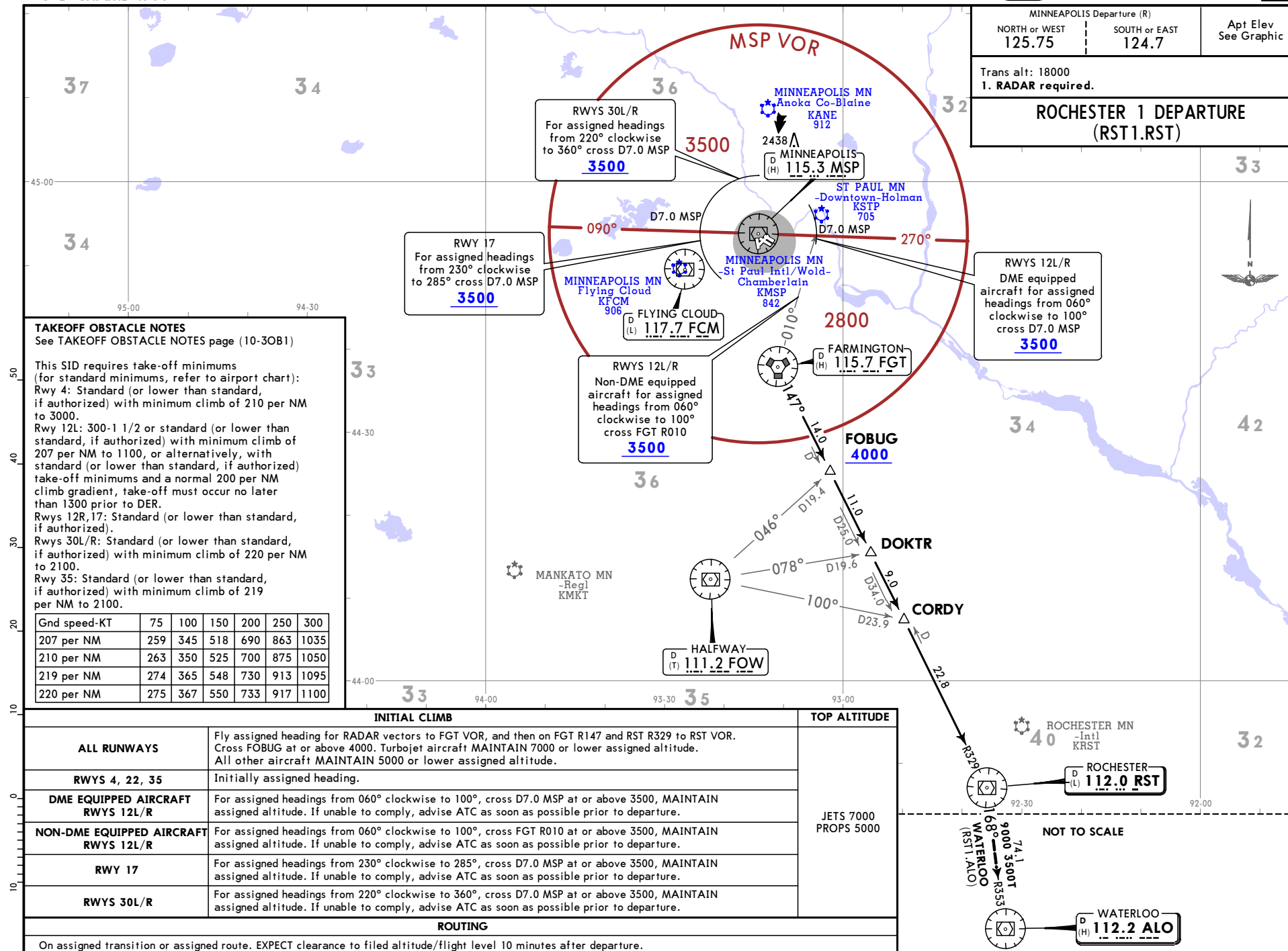
JEPPESEN
9 FEB 18 10-3F

MINNEAPOLIS
JEPPIVIEW 3.6.2.0
SID



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN MINNEAPOLIS, MINN
7 SEP 18 10-3H Eff 13 Sep SID



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

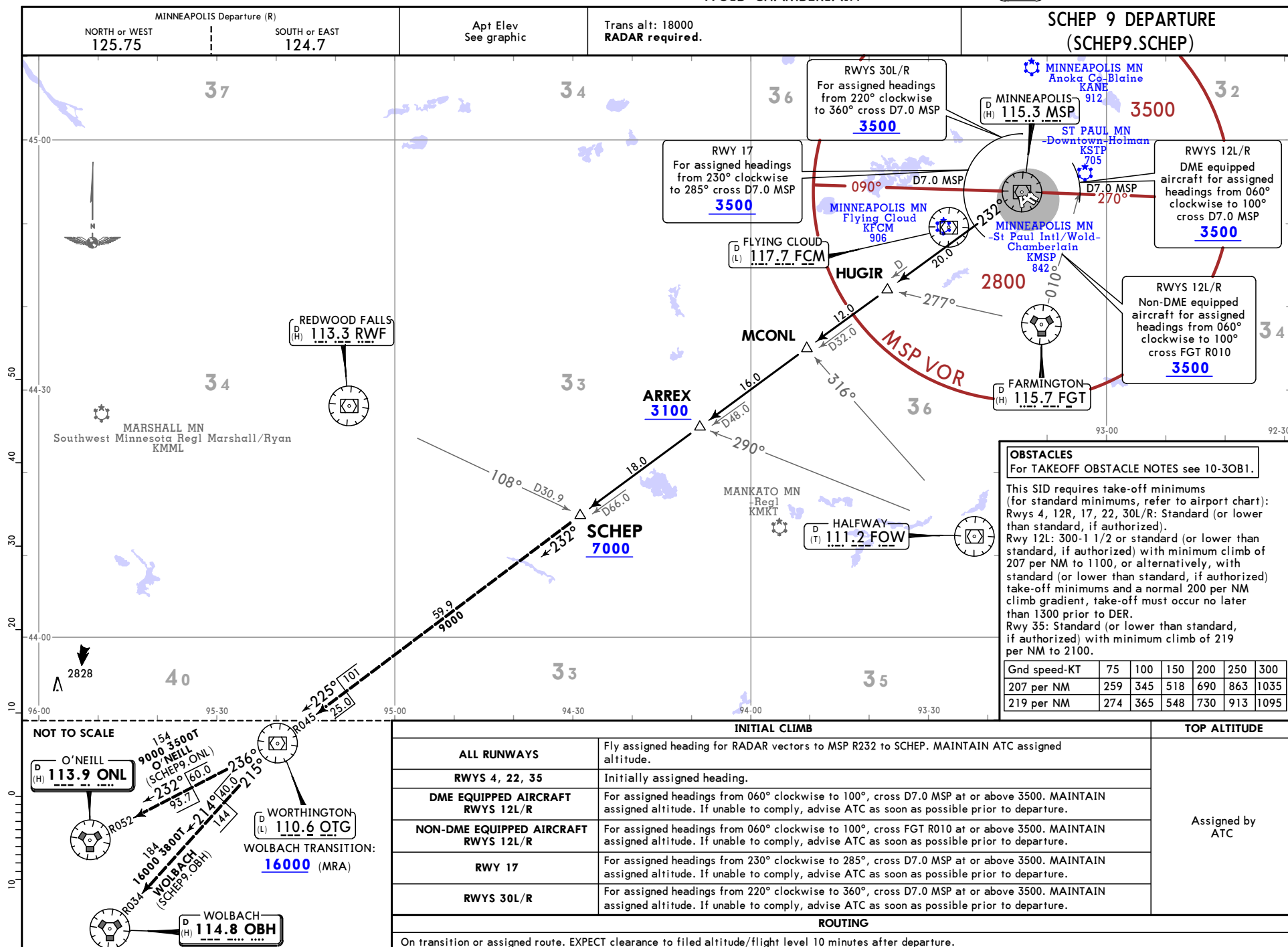
MINNEAPOLIS, MINN

7 SEP 18

10-3J

Eff 13 Sep

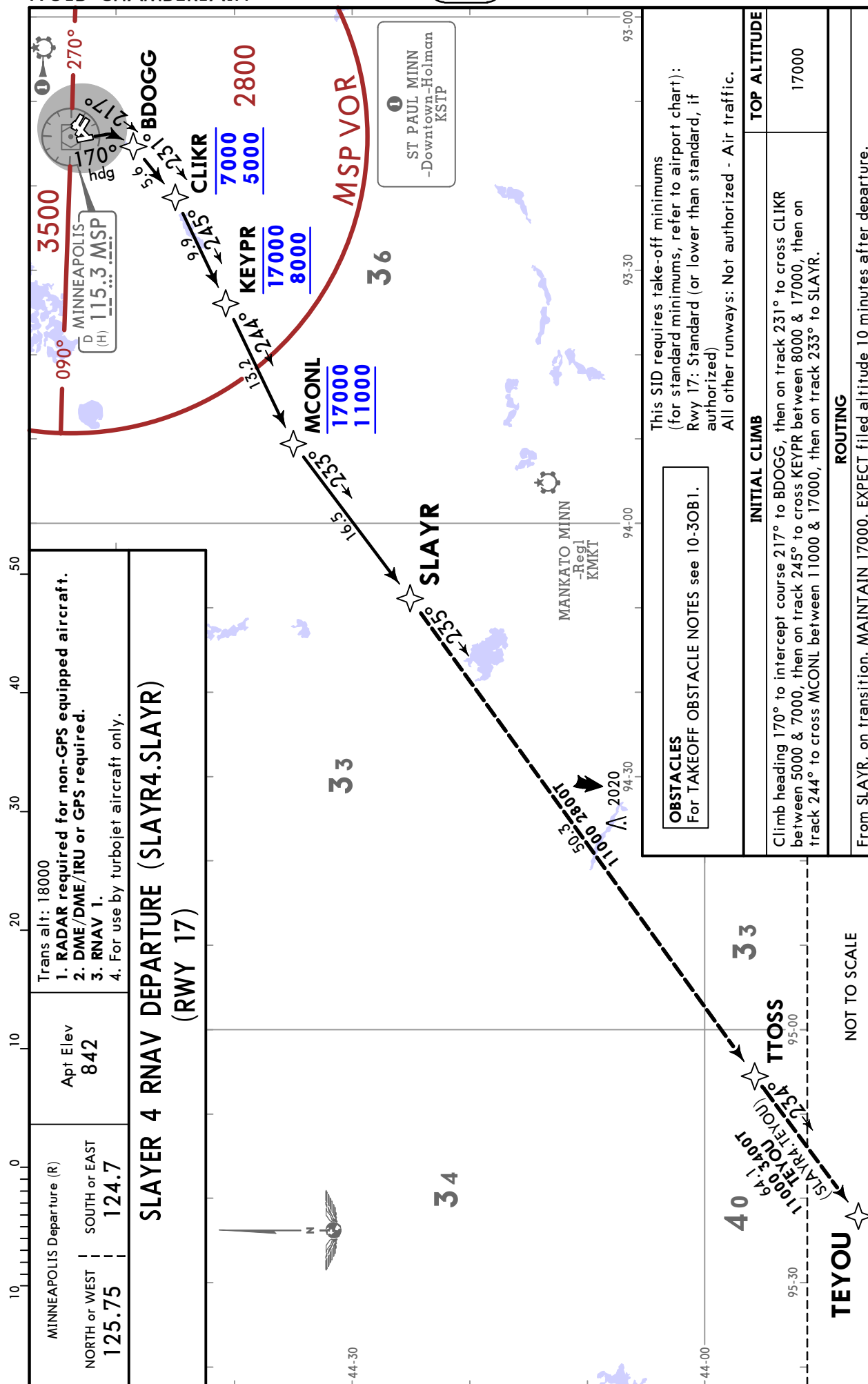
SID



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN
22 SEP 17 (10-3K)

MINNEAPOLIS, MINN

RNAV SID

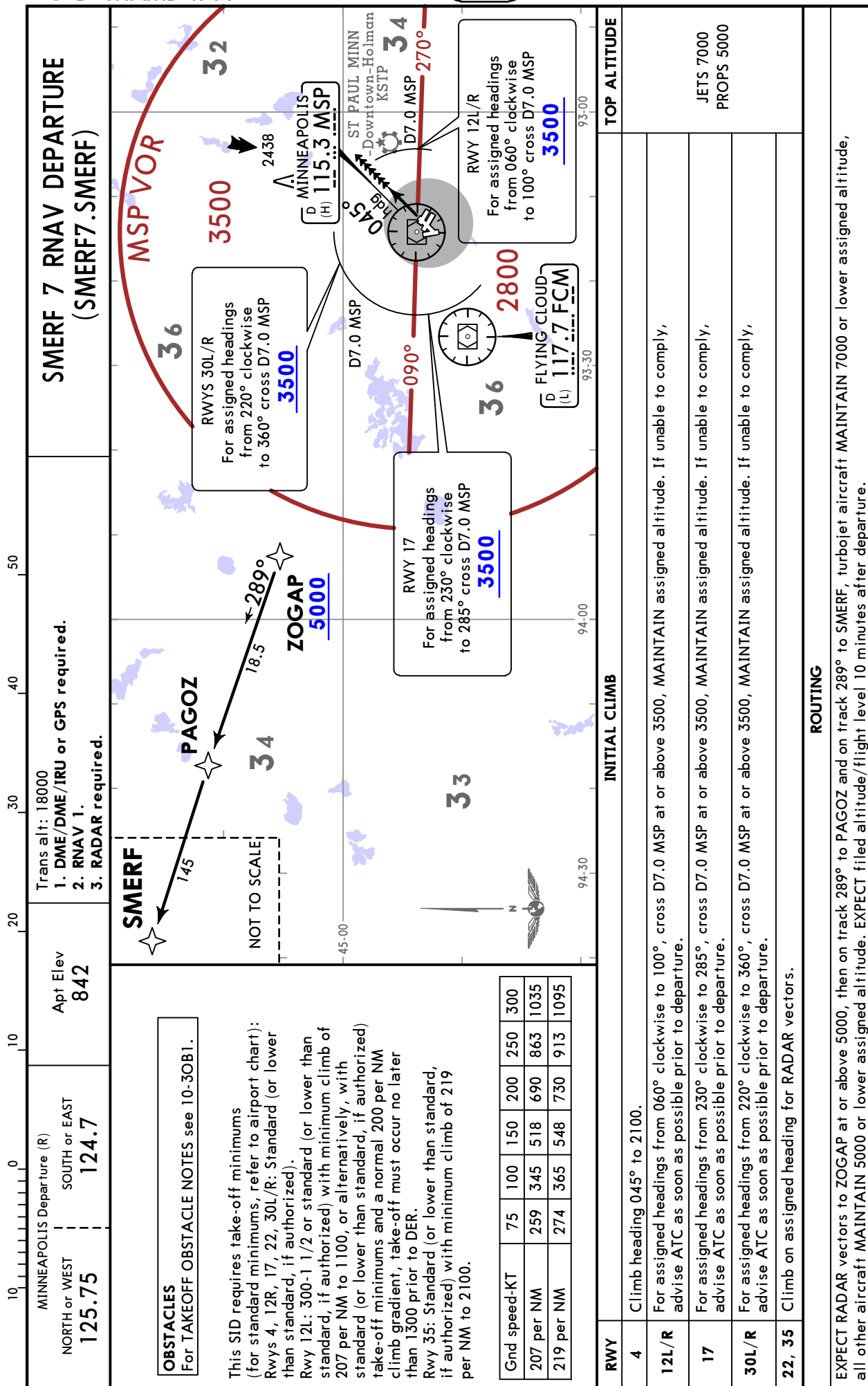
CHANGES: New format.

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KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

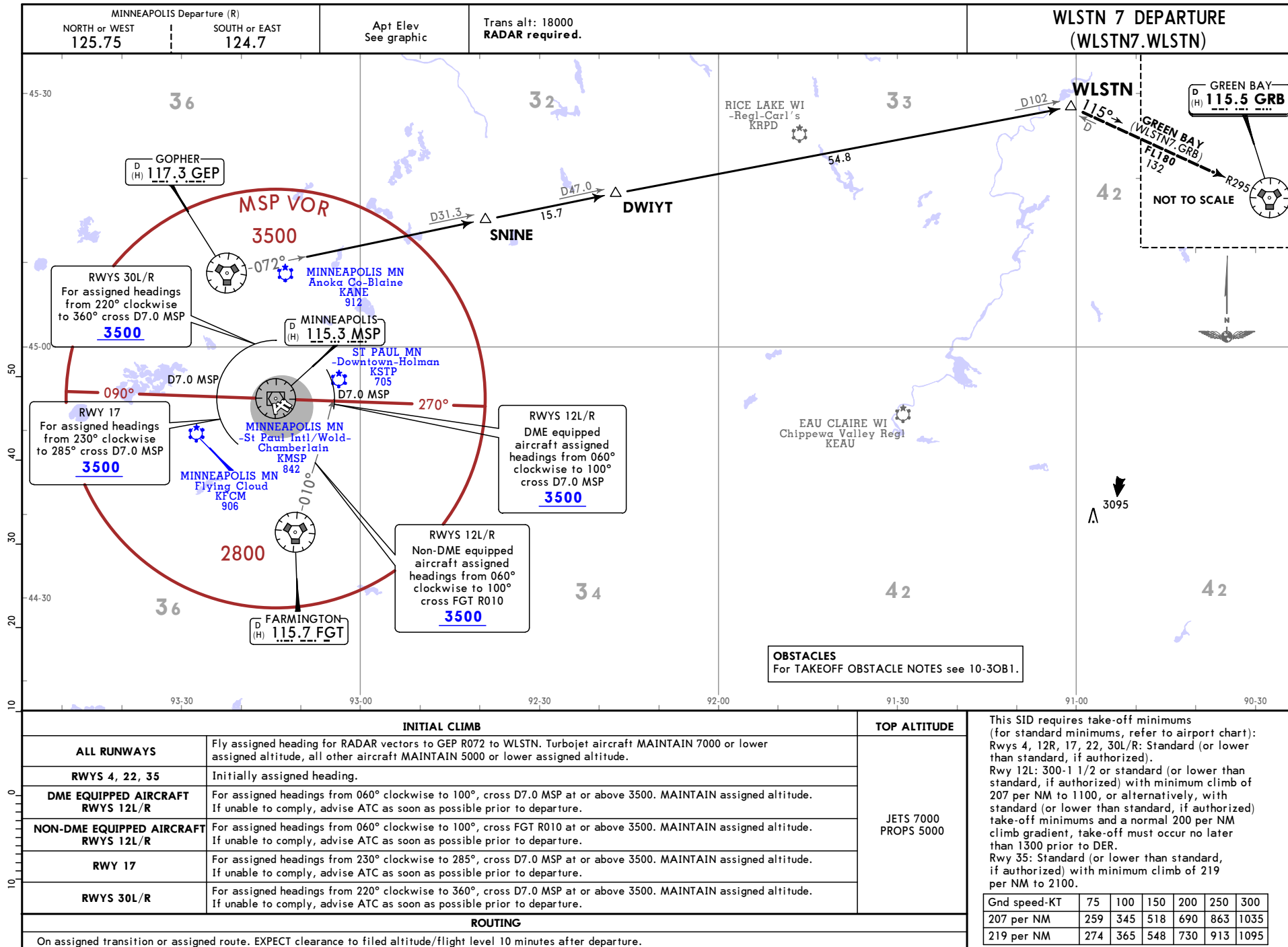
22 SEP 17 10-3L

MINNEAPOLIS, MINN
RNAV SID



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN MINNEAPOLIS, MINN
9 FEB 18 **10-3M** **SID**



KMSP/MSP
**MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN**

JEPPESEN MINNEAPOLIS, MINN
9 FEB 18 **(10-3N)** **SID**

MINNEAPOLIS Departure (R)
NORTH or WEST
125.75
SOUTH or EAST
124.7

Apt Elev
See graphic

Trans alt: 18000
RADAR required.

**ZMBRO 7 DEPARTURE
(ZMBRO7.ZMBRO)**



EAU CLAIRE WISC
Chippewa Valley Regl
KEAU

3095

OBSTACLES
For TAKEOFF OBSTACLE NOTES see 10-30B1.

NODINE
D (H) 117.9 ODI

LA CROSSE
-Regl
KLSE

ROCHESTER
D (L) 112.0 RST

ROCHESTER MINN
-Intl
KRST

HALFWAY
D (T) 111.2 FOW

MANKATO MINN
-Regl
KMKT

FARMINGTON
D (H) 115.7 FGT

JEDET
D 4000

RWYS 12L/R
DME equipped
aircraft assigned
headings from 060°
clockwise to 100°
cross D7.0 MSP
3500

RWYS 12L/R
Non-DME equipped
aircraft assigned
headings from 060°
clockwise to 100°
cross FGT R010
3500

RWY 17
For assigned headings
from 230° clockwise
to 285° cross D7.0 MSP
3500

RWYS 30L/R
For assigned headings
from 220° clockwise
to 360° cross D7.0 MSP
3500

MINNEAPOLIS MINN
Anoka Co-Blaine
KANE
912

MINNEAPOLIS MINN
-St Paul Intl/Wold-
Chamberlain
KMSP
842

MINNEAPOLIS MINN
Flying Cloud
KFCM
906

ST PAUL MINN
-Downtown-Holman
KSTP
705

MINNEAPOLIS MINN
Anoka Co-Blaine
KANE
912

MINNEAPOLIS MINN
Anoka Co-Blaine
KANE
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MINNEAPOLIS MINN
Anoka Co-Blaine
KANE
912

INITIAL CLIMB

ALL RUNWAYS

Fly assigned heading for RADAR vectors to MSP R138 to JEDET at or above 4000, then on ODI R301 to ZMBRO.
Turbojet aircraft MAINTAIN 7000 or lower assigned altitude, all other aircraft MAINTAIN 5000 or lower assigned altitude.

RWYS 4, 22, 35

Initially assigned heading.

**DME EQUIPPED AIRCRAFT
RWYS 12L/R**

For assigned headings from 060° clockwise to 100°, cross D7.0 MSP at or above 3500. MAINTAIN assigned altitude.
If unable to comply, advise ATC as soon as possible prior to departure.

**NON-DME EQUIPPED AIRCRAFT
RWYS 12L/R**

For assigned headings from 060° clockwise to 100°, cross FGT R010 at or above 3500. MAINTAIN assigned altitude.
If unable to comply, advise ATC as soon as possible prior to departure.

RWY 17

For assigned headings from 230° clockwise to 285°, cross D7.0 MSP at or above 3500. MAINTAIN assigned altitude.
If unable to comply, advise ATC as soon as possible prior to departure.

RWYS 30L/R

For assigned headings from 220° clockwise to 360°, cross D7.0 MSP at or above 3500. MAINTAIN assigned altitude.
If unable to comply, advise ATC as soon as possible prior to departure.

ROUTING

On assigned transition or route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.

TOP ALTITUDE

JETS 7000
PROPS 5000

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 4, 12R, 17, 22, 30L/R: Standard (or lower than standard, if authorized).
Rwy 12L: 300-1 1/2 or standard (or lower than standard, if authorized) with minimum climb of 207 per NM to 1100, or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200 per NM climb gradient, take-off must occur no later than 1300 prior to DER.
Rwy 35: Standard (or lower than standard, if authorized) with minimum climb of 219 per NM to 2100.

Gnd speed-KT	75	100	150	200	250	300
207 per NM	259	345	518	690	863	1035
219 per NM	274	365	548	730	913	1095

KMSP/MSP**MINNEAPOLIS, MINN**
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN**TAKEOFF OBSTACLE NOTES**

- RWY 4:
TREES BEGINNING 800' FROM DER, 301' LEFT OF CENTERLINE, UP TO 75' AGL/925' MSL.
ROD ON BUILDING 2528' FROM DER, 1174' LEFT OF CENTERLINE, 78' AGL/922' MSL.
FENCE BEGINNING 13' FROM DER, 486' LEFT OF CENTERLINE, UP TO 6' AGL/860' MSL.
STACK 4535' FROM DER, 480' LEFT OF CENTERLINE, 139' AGL/949' MSL.
- RWY 12L:
TREE 1.1 NM FROM DER, 1691' LEFT OF CENTERLINE, 92' AGL/991' MSL. LIGHT POLE
AND CAMERA ON WALL BEGINNING 398' FROM DER, 561' RIGHT OF CENTERLINE, UP
TO 23' AGL/832' MSL.
- RWY 12R:
TREE 1479' FROM DER, 561' LEFT OF CENTERLINE, 86' AGL/855' MSL. OBSTACLE LIGHT
ON POLE 1002' FROM DER, 753' LEFT OF CENTERLINE, 53' AGL/852' MSL.
- RWY 17:
POLE 409' FROM DER, 530' RIGHT OF CENTERLINE, 29' AGL/866' MSL. BUILDING 2619'
FROM DER, 881' LEFT OF CENTERLINE, 97' AGL/918' MSL. BUILDING 1956' FROM DER,
904' LEFT OF CENTERLINE, 61' AGL/866' MSL. TREE 2619' FROM DER, ON CENTERLINE,
79' AGL/900' MSL.
- RWY 22:
TREES BEGINNING 2659' FROM DER, 867' RIGHT OF CENTERLINE, 94' AGL/934' MSL.
- RWY 30L:
ANTENNA ON TOWER 3550' FROM DER, 1333' LEFT OF CENTERLINE, 111' AGL/937' MSL.
- RWY 30R:
BILLBOARD SIGN 1463' FROM DER, 848' RIGHT OF CENTERLINE, 31' AGL/880' MSL.
- RWY 35:
TREES BEGINNING 2553' FROM DER, 770' RIGHT OF CENTERLINE, 100' AGL/919' MSL.
TREES BEGINNING 1989' FROM DER, 194' LEFT OF CENTERLINE, UP TO 87' AGL/906'
MSL. BUILDINGS BEGINNING 5.4 NM FROM DER, 1781' LEFT OF CENTERLINE, UP TO 889'
AGL/1743' MSL.

KMSP/MSP

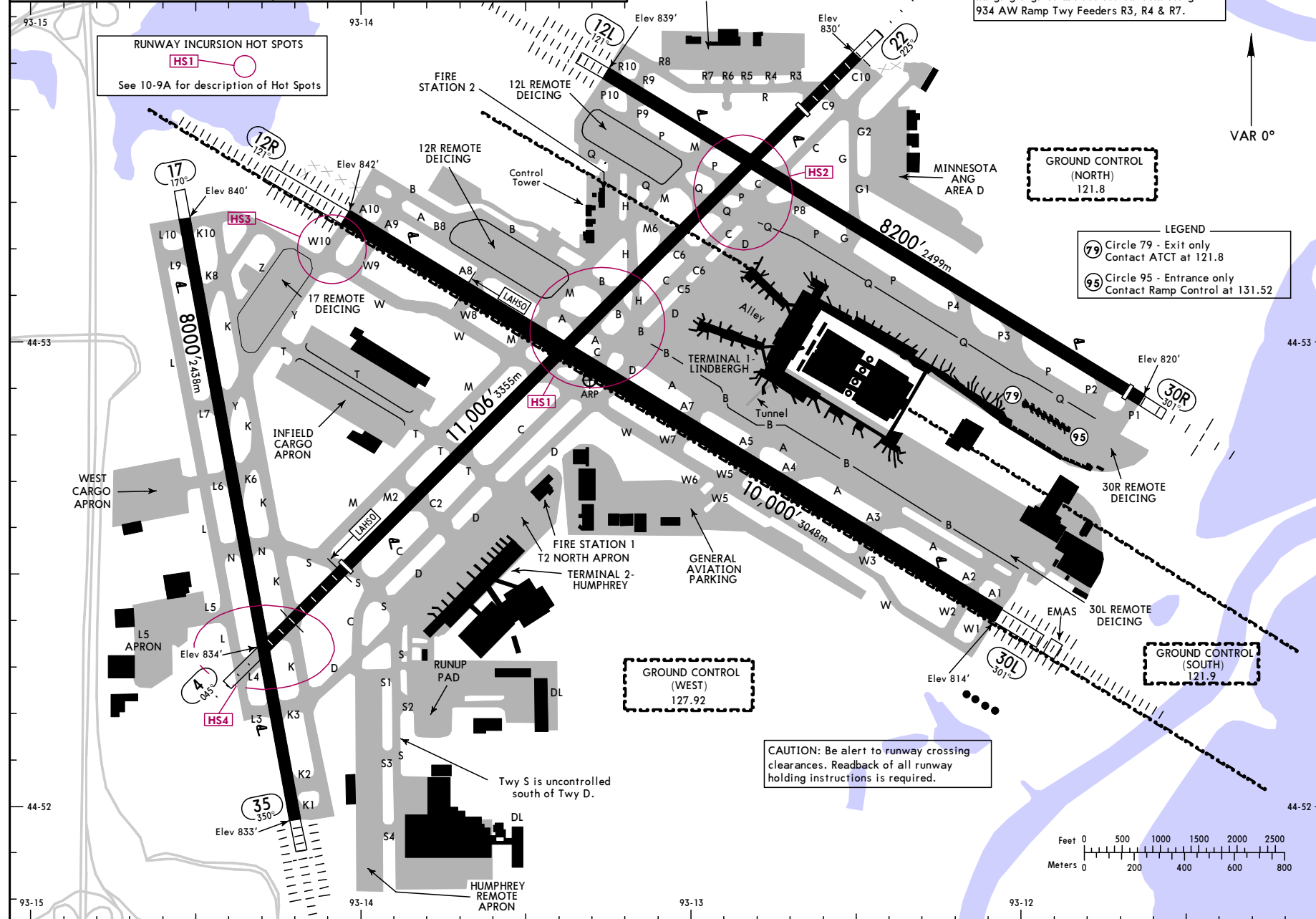
JEPPesen

Apt Elev **842'**
N44 52.9 W093 13.3

4 MAY 18 (10-9)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

DEPARTURE D-ATIS 120.8	Data ACARS: D-ATIS PDC TWIP	Comm CPDLC: DCL	MINNEAPOLIS Clearance (Cpt) 133.2	Metering 133.575	Ground North 121.8	South 121.9	West 127.92
VOT 111.0 (Limited)							
Rwys 4/22, 12R/30L 126.7	Tower Rwy 12L/30R 123.95	Rwy 17/35 123.67	North or West of Dep Rwy 125.75	MINNEAPOLIS Departure (R) South or East of Dep Rwy 124.7	East of Dep Rwy 17 132.975		



CHANGES: Taxiway Q realigned, pavement modified.

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KMSP/MSP



MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

GENERAL

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

Low-level wind shear alert system.

Terminal Doppler Weather Radar.

No Stage 1 noise category civil aircraft.

Training flights prohibited.

All unscheduled aircraft at Terminal 2-Humphrey are required to contact Terminal 2 Gate Control at 122.95 or (612) 726-5742 prior to arrival.

General aviation flights must terminate at the FBO or US Customs unless approved by the airport manager.

All General Aviation aircraft with less than 20 passengers that need to clear US customs should contact Signature Flight Support at 128.95 or (612) 726-5700 prior to arrival.

All aircraft are required to contact Ground Metering prior to pushback.

Birds on and in the vicinity of airport.

Vehicles parked along South end of Taxiway S.

Runway Status Lights are in operation.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		LAHSO Distance	TAKE-OFF	WIDTH
		Threshold	Glide Slope			
4 ① 22	HIRL MALSR PAPI-L (angle 3.0°) RVR	9456' 2882m				150' 46m
		10,006' 3050m		Twy K 8550' 2606m		
① Rwy grooved.						
12R ② 30L	HIRL CL ALSF-II TDZ ③ PAPI-L RVR		8969' 2734m			200' 61m
			8898' 2712m	Twys A9/W9 8150' 2484m		
② Rwy grooved. ③ Angle 3.0°.						
12L ④ 30R	HIRL CL ALSF-II TDZ ⑤ PAPI-L RVR	⑥	6275' 1913m			150' 46m
			8000' 2438m	6976' 2126m		
④ Rwy grooved. ⑥ LDA 7620'.						
⑤ Angle 3.0°.						
17 ⑦ 35	HIRL CL REIL PAPI-R (angle 3.0°) RVR					150' 46m
			6950' 2118m			
⑦ Rwy grooved. ③ Angle 3.0°.						

RUNWAY INCURSION HOT SPOTS

HS1

For information only, not to be construed as ATC instructions

HS1

Complex geometry at the intersection of Twy A, B, C, D, H and the Rwy 4/22 and Rwy 12R/30L intersection, requiring caution for Rwy crossings in this area.

HS2

Complex geometry at the intersection of Twy C, D, P, Q and the Rwy 4/22 and Rwy 12L/30R intersection, requiring caution for Rwy crossings in this area.

HS3

Twy/Rwy geometry and traffic flow.

HS4

Complex geometry at Rwy 4 approach end. Rwy 4 departures check compass to verify correct runway heading.

CHANGES: Usable lengths.

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE						
Rwys 12R, 17, 30L/R						
2 operating RVRs are required All operating RVRs are controlling			Adequate Vis Ref	STD		
CL & HIRL	CL, or RCLM & HIRL			3 & 4 Eng	1 & 2 Eng	
TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10		RVR 16 or 1/4	RVR 24 or 1/2		RVR 50 or 1
Rwy 12L						
1 With Mim climb of 207'/NM to 1100'					Other	
2 operating RVRs are required. All operating RVRs are controlling.		Adequate Vis Ref	STD			
CL & HIRL	CL, or RCLM & HIRL		RVR 16 or 1/4	3 & 4 Eng	1 & 2 Eng	300-1 1/2
TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	RVR 24 or 1/2		RVR 50 or 1		
1 Alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1300' prior to departure end of runway.						
Rwy 35						
With Mim climb of 219'/NM to 2100'						
2 operating RVRs are required All operating RVRs are controlling		Adequate Vis Ref	STD			
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng		
TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	RVR 16 or 1/4	RVR 24 or 1/2		RVR 50 or 1	
Rwys 4, 22						
Both RVRs are required and controlling		Adequate Vis Ref	STD			
RCLM & HIRL			3 & 4 Eng	1 & 2 Eng		
TDZ RVR 10 Rollout RVR 10		RVR 16 or 1/4	RVR 24 or 1/2		RVR 50 or 1	
OBSTACLE DP						
Rwy 4 - Climb heading 045° to 2100' before turning left.						
Rwys 30L & 30R - Climb heading 301° to 2100' before turning right.						
Rwy 35 - Climb heading 350° to 2100' before proceeding on course.						
FOR FILING AS ALTERNATE						
ILS Rwy 12L/R ILS Rwy 30L/R ILS Z Rwy 35		ILS Z Rwy 30L/R		RNAV (RNP) Y Rwy 12L/R RNAV (RNP) Y Rwy 30L/R RNAV (RNP) Y Rwy 35		LOC Rwy 4 LOC Rwy 12L/R LOC Rwy 17 LOC Rwy 22 LOC Rwy 30L/R LOC Rwy 35
ILS Z Rwy 30L/R		RNAV (GPS) Rwy 4 RNAV (GPS) Rwy 22 RNAV (GPS) Z Rwy 12L/R RNAV (GPS) Z Rwy 30L/R RNAV (GPS) Z Rwy 35		Other		
A	600-2	700-2	800-2	800-2	NA	
B	700-2					
C	900-2 3/4					
D	900-2 3/4					

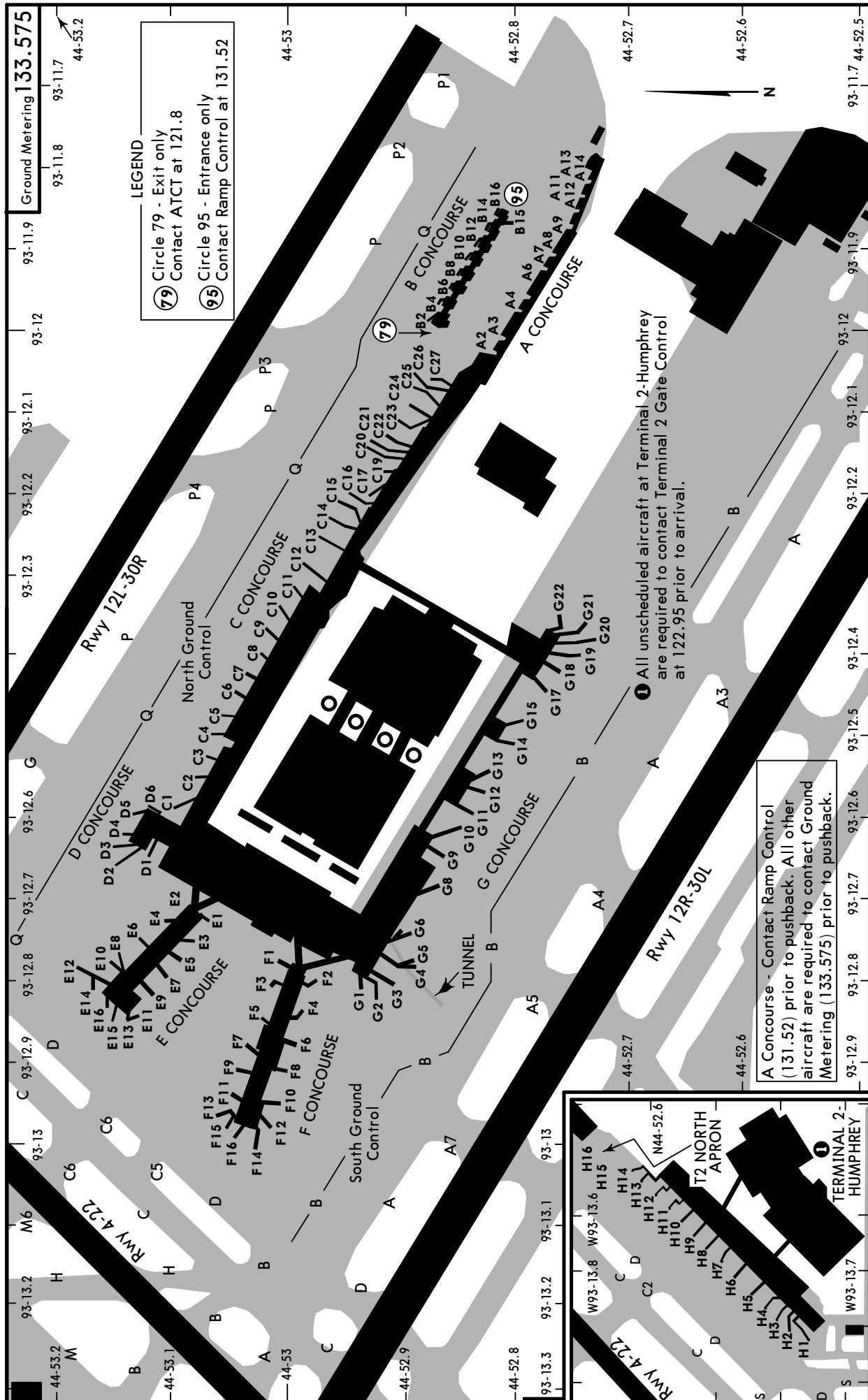
A
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12

KMSP/MSP

4 MAY 18

(10-9B)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN



CHANGES: Notes, Txy Q, pavement modified.

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KMSP/MSP4 MAY 18 **(10-9C)****MINNEAPOLIS, MINN**
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN**PARKING GATE COORDINATES**

GATE No.	COORDINATES	GATE No.	COORDINATES
Concourse A		Concourse E	
A2 thru A4	N44 52.8 W093 12.0	E1, E2, E4	N44 53.1 W093 12.7
A6 thru A9	N44 52.8 W093 11.9	E3, E5	N44 53.1 W093 12.8
A11	N44 52.7 W093 11.9	E6 thru E9	N44 53.1 W093 12.8
A12 thru A14	N44 52.7 W093 11.8	E11	N44 53.1 W093 12.8
		E10, E12, E14, E16	N44 53.2 W093 12.8
		E15	N44 53.2 W093 12.9
Concourse B		Concourse F	
B2, B4	N44 52.9 W093 12.0	F1 thru F5	N44 53.0 W093 12.8
B6	N44 52.9 W093 12.0	F6 thru F9	N44 53.0 W093 12.9
B8, B10	N44 52.9 W093 11.9	F10, F12, F14	N44 53.0 W093 13.0
B12, B14	N44 52.8 W093 11.9	F11	N44 53.1 W093 12.9
B15, B16	N44 52.8 W093 11.9	F13, F15, F16	N44 53.1 W093 13.0
Concourse C		Concourse G	
C1, C2	N44 53.1 W093 12.6	G1 thru G5	N44 52.9 W093 12.8
C3 thru C5	N44 53.1 W093 12.5	G6, G8, G9	N44 52.9 W093 12.7
C6 thru C9	N44 53.0 W093 12.4	G10, G11	N44 52.9 W093 12.6
C10 thru C13	N44 53.0 W093 12.3	G12, G13	N44 52.8 W093 12.6
C14 thru C16	N44 53.0 W093 12.2	G14, G15, G17	N44 52.8 W093 12.5
C17, C19, C20	N44 52.9 W093 12.2	G18, G22	N44 52.8 W093 12.4
C21 thru C27	N44 52.9 W093 12.1	G19 thru G21	N44 52.7 W093 12.4
Concourse D		Terminal 2 - Humphrey	
D1	N44 53.1 W093 12.7	H1 thru H4	N44 52.4 W093 13.8
D2	N44 53.2 W093 12.7	H5	N44 52.5 W093 13.8
D3, D4	N44 53.2 W093 12.6	H6 thru H9	N44 52.5 W093 13.7
D5, D6	N44 53.1 W093 12.6	H10	N44 52.5 W093 13.6
		H11 thru H16	N44 52.6 W093 13.6

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4 MAY 18

(10-9C1)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

OVERFLOW AIRCRAFT PARKING AREAS

Minneapolis-Saint Paul International/Wold-Chamberlain Airport
Overflow Aircraft Parking PlanBackground

MAC, MSP ATCT and MSP users have entered into an agreement to identify parking areas and implement procedures which will allow accommodation of any arrival unable to proceed immediately to its assigned parking location or any departure aircraft unable to proceed immediately to a departure runway. The overflow aircraft parking plan allocates parking positions in specific areas as indicated on the airport diagram below. Parking positions are assigned so as to not impact flight operations, and to maintain taxiway access to/from runways and aircraft parking positions.

Procedures

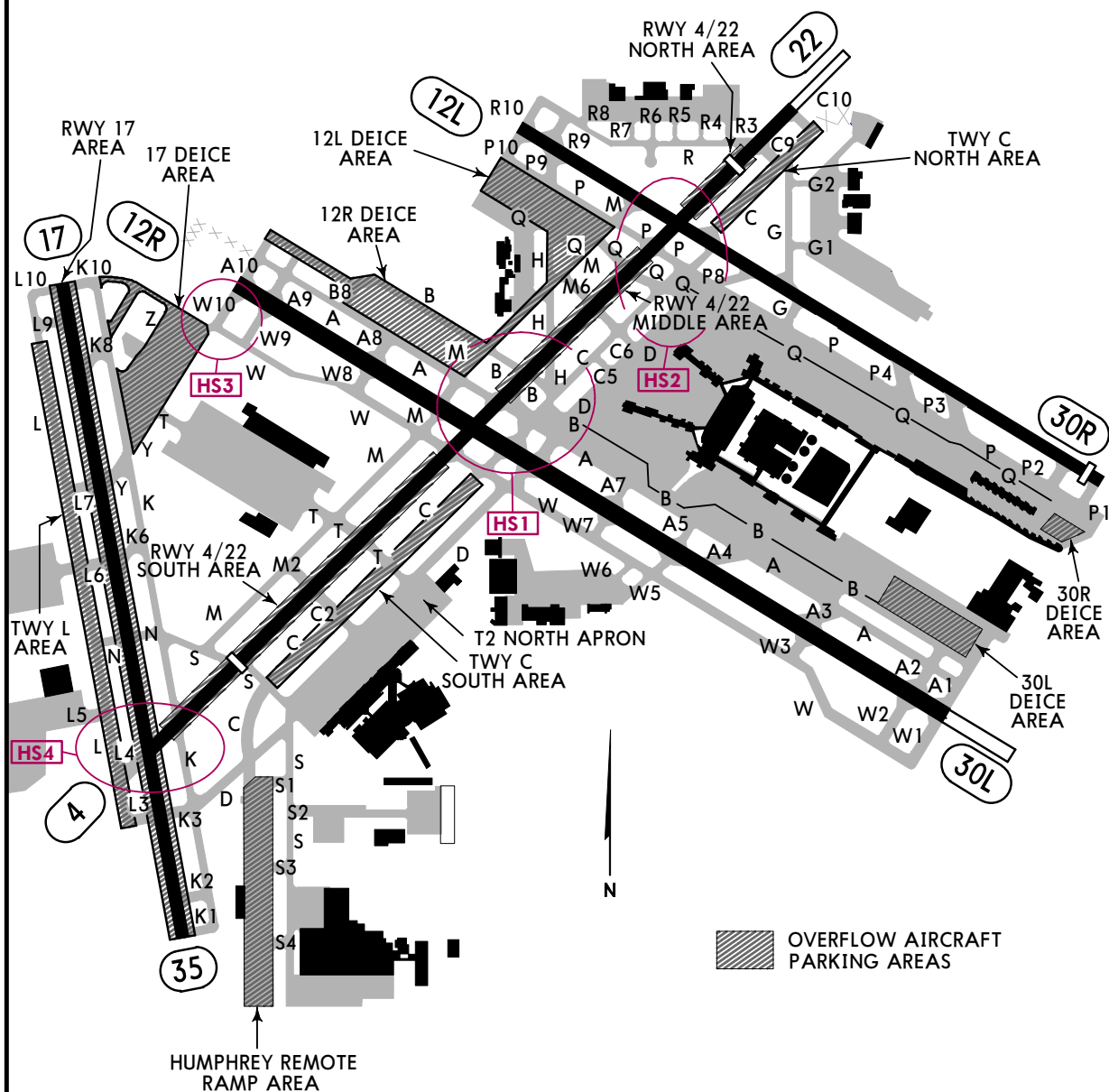
ASDE-X Surveillance System in use. Operate transponders with Mode C on all taxiways and runways.

When ATIS announcement "overflow parking procedures in effect" is made, flight crews are to anticipate assignment to an overflow parking position if necessary.

Arrival aircraft report gate assignment on initial contact with Minneapolis ATCT.

Upon landing, follow ATC directions to assigned overflow parking position.

Monitor MSP ATCT on assigned frequency while parked in overflow aircraft parking positions.

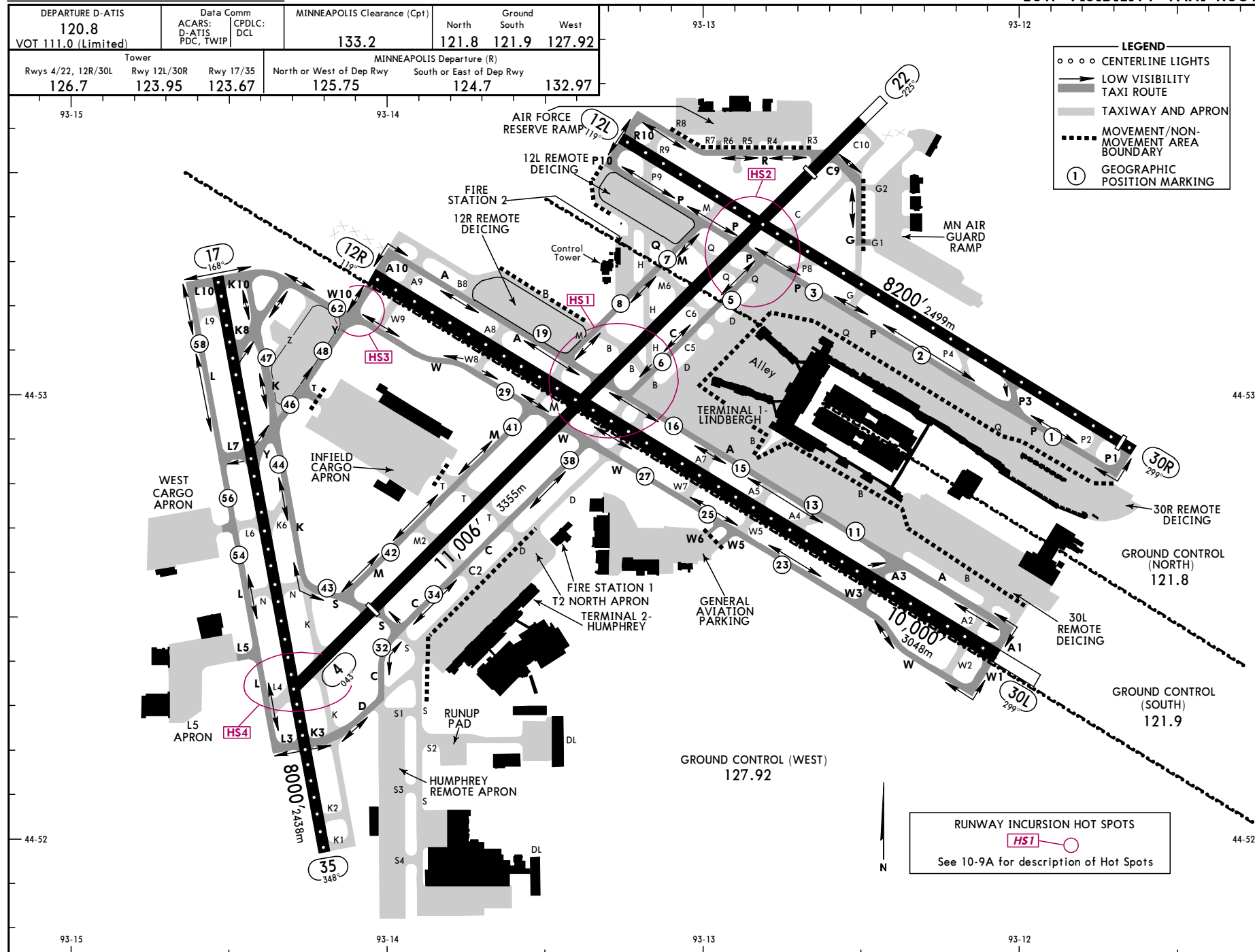


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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN
LESS THAN RVR 1200 to 600

JEPPesen

SMGCS

(10-9D) 4 MAY 18 MINNEAPOLIS, MINN
LOW VISIBILITY TAXI ROUTES

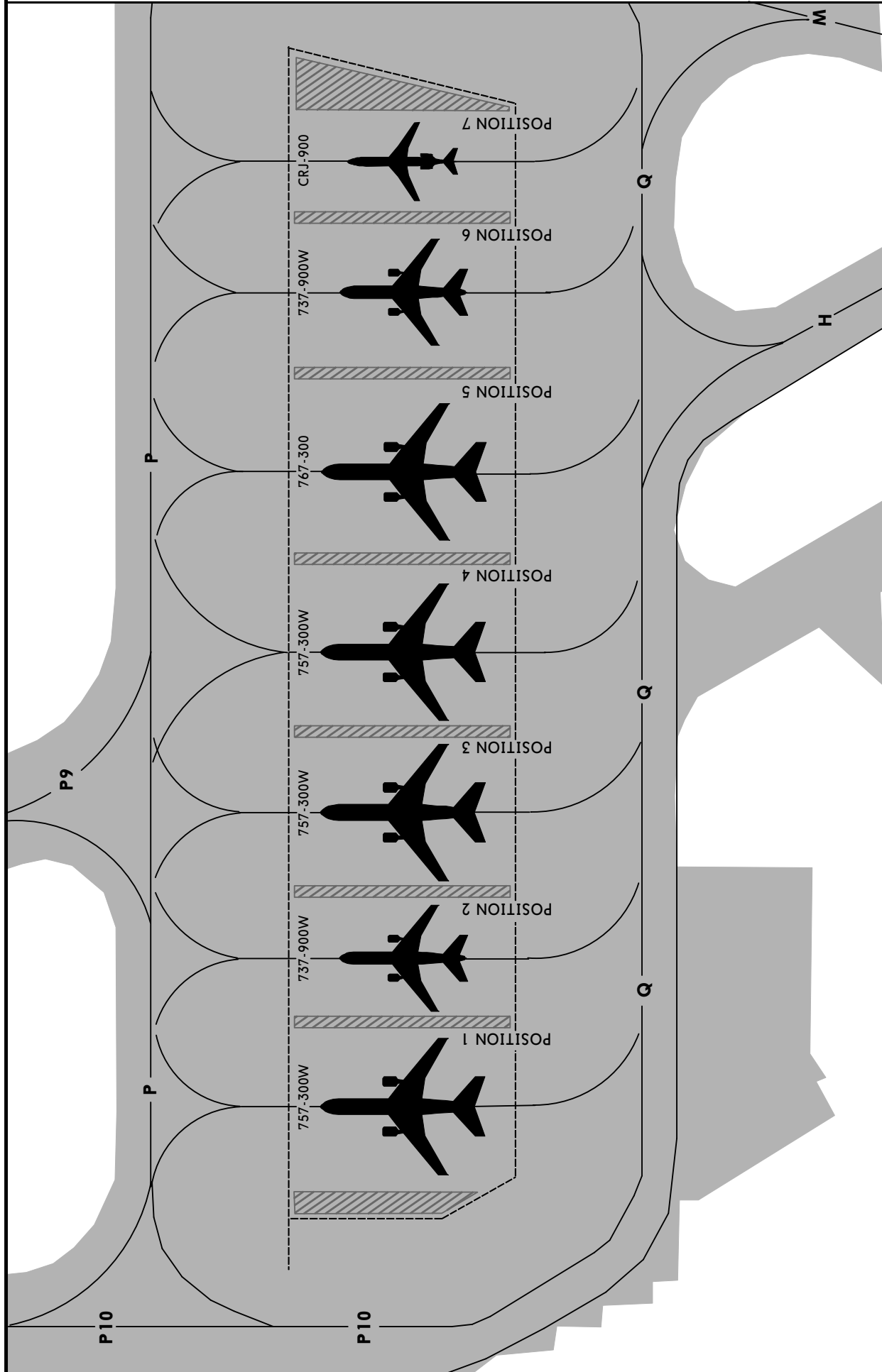


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JEPPESEN
4 MAY 18 **10-9F**

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

RWY 12L DEICING PADS



CHANGES: Deicing pads updated.

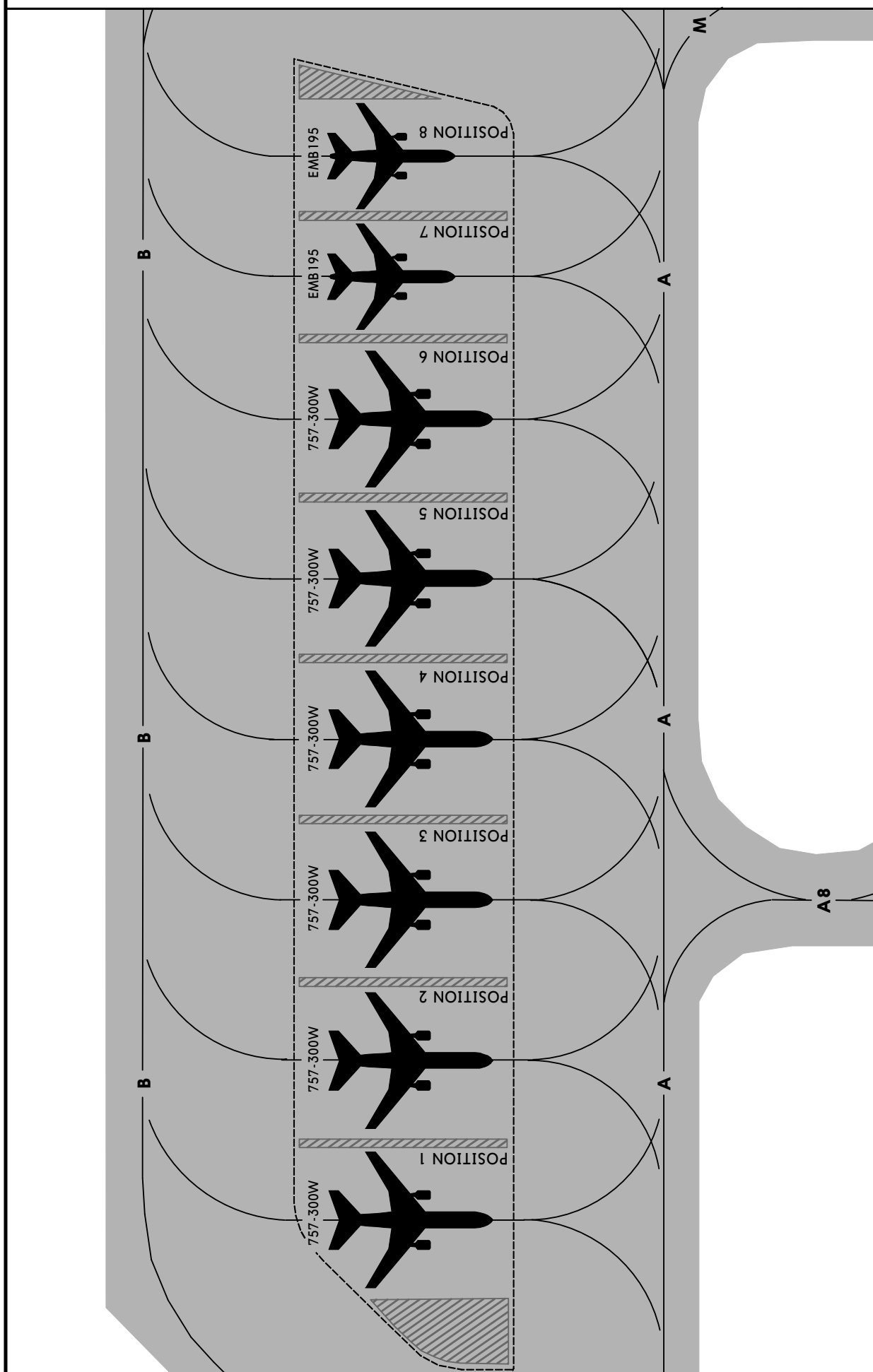
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JEPPESEN
4 MAY 18 (10-9F1)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

RWY 12R DEICING PADS

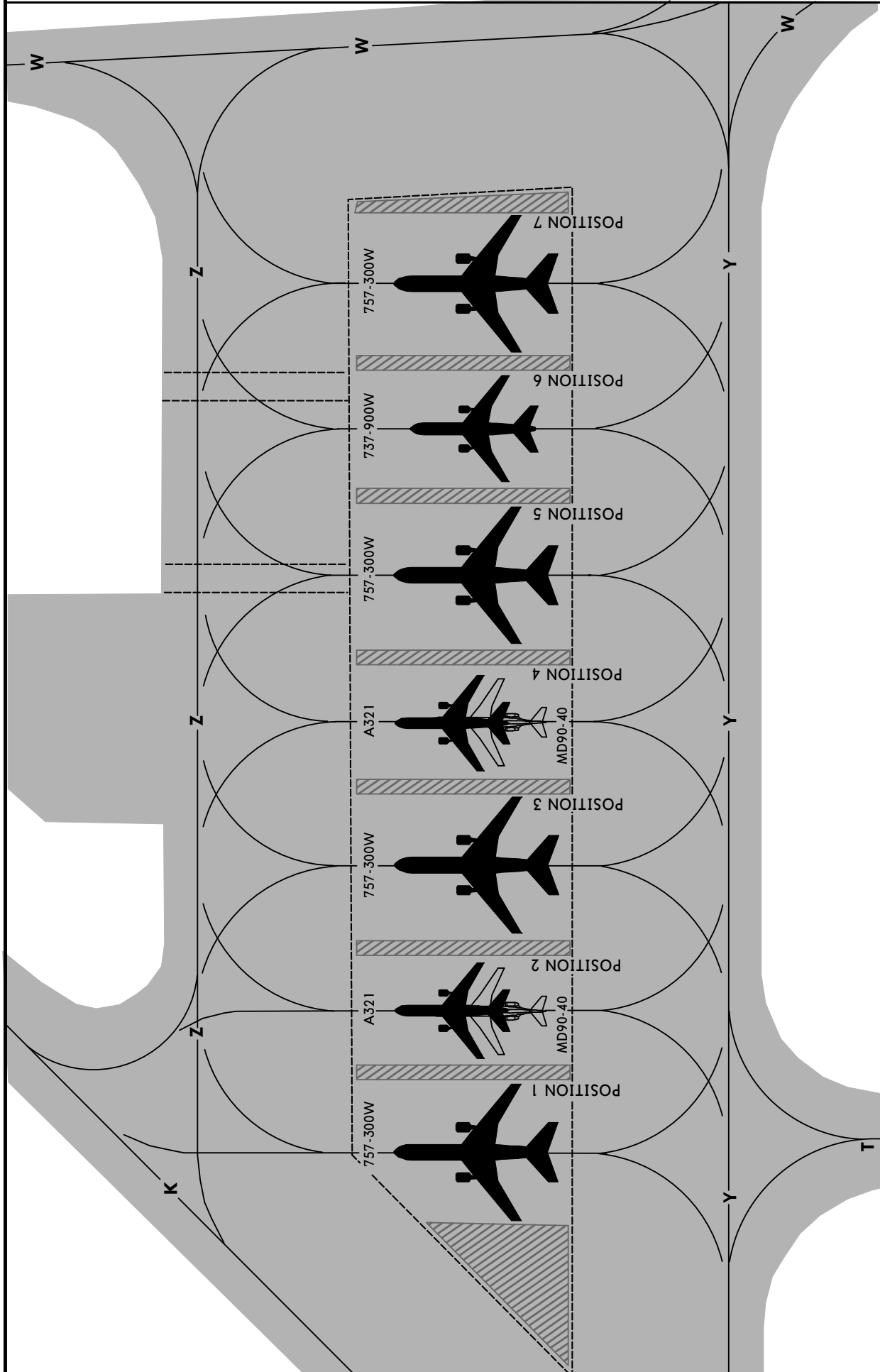


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JEPPESEN
4 MAY 18 (10-9F2)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

RWY 17 DEICING PADS



CHANGES: Deicing pads updated.

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JEPPesen
4 MAY 18 (10-9F3)

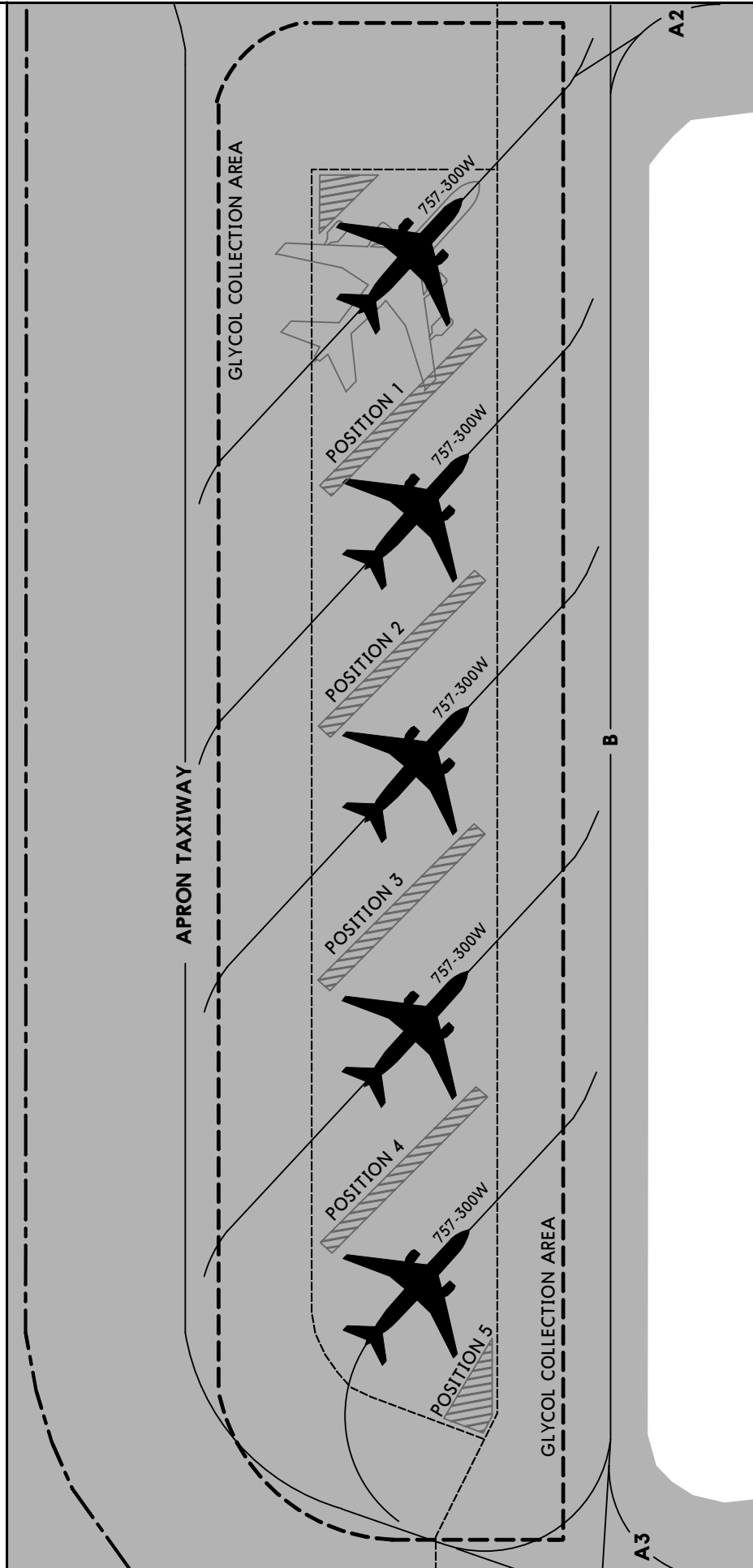
MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

RWY 30L DEICING PADS

NOTES:

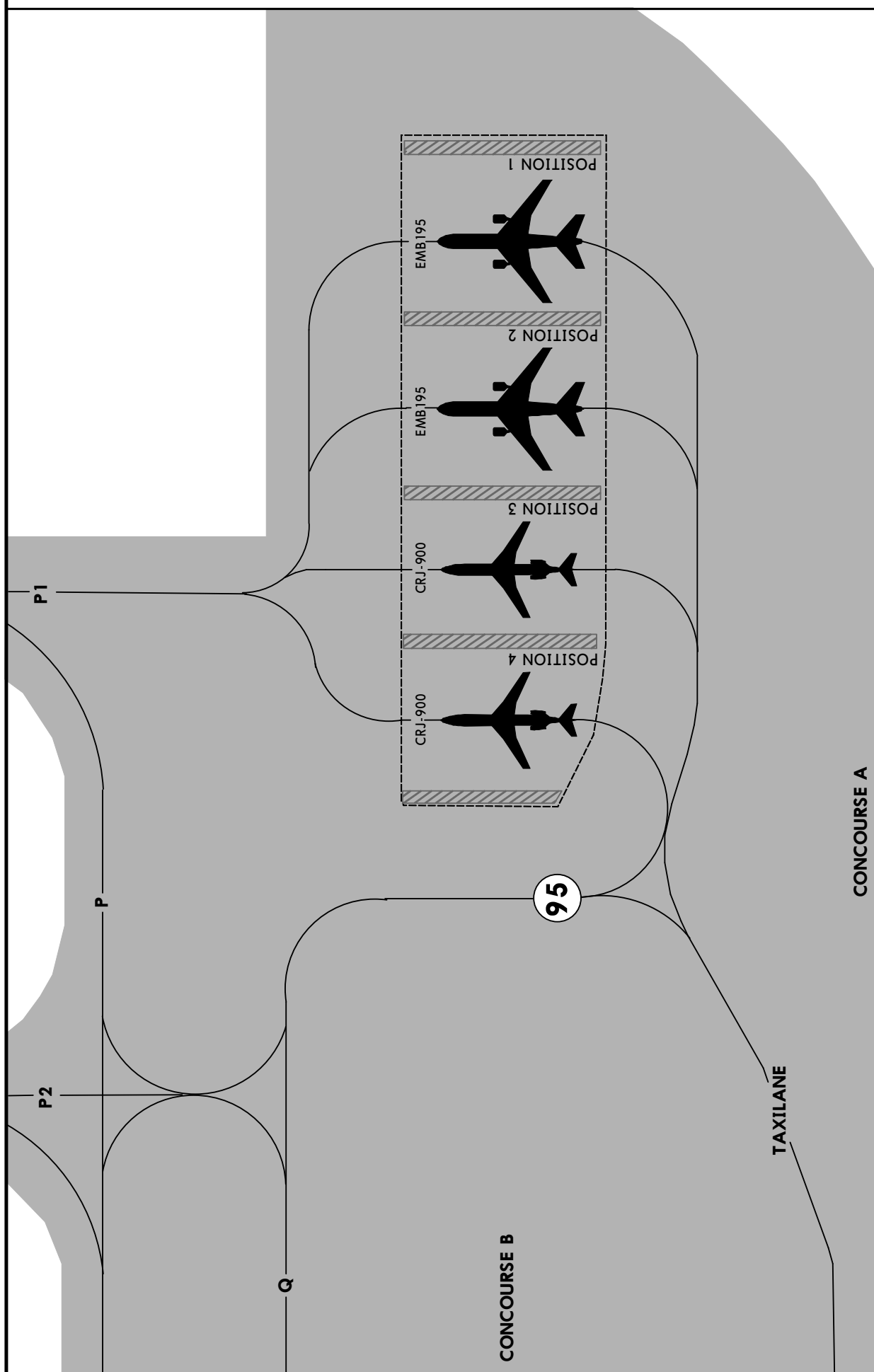
1. WHEN WIDEBODY AIRCRAFT (AIRCRAFT LARGER THAN A 757W) ENTER THE RUNWAY 30L DEICING PAD, THE FOLLOWING RESTRICTIONS SHALL APPLY:
- (A) THE AREA WITHIN 160' OF APRON TAXIWAY CENTERLINE SHALL BE CLOSED AND CLEAR OF ALL VEHICLES, EQUIPMENT, ETC.
 - (B) DEICING POSITIONS ALONG PATH OF WIDEBODY AIRCRAFT ENTERING THE DEICING PAD SHALL BE VACATED.

- (C) ADJACENT DEICING POSITION(S) SHALL BE CLOSED AND SAFETY AREAS ADJACENT TO AIRCRAFT CENTERLINE SHALL BE CLEAR OF ALL VEHICLES, EQUIPMENT, ETC.
- (D) POSITIONS WEST OF WIDEBODY POSITION MAY BE USED IN NORMAL OPERATIONS ONCE THE WIDEBODY AIRCRAFT IS PARKED ON ITS LEAD-IN LINE AND REMAINS 107' CLEAR OF TAXIWAY B.
- (E) APRON TAXIWAY BEHIND PARKED WIDEBODY POSITION SHALL BE CLOSED.



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4 MAY 18

10-9F4**MINNEAPOLIS, MINN****MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN****RWY 30R DEICING PADS**

KMSP/MSP

JEPPESEN
4 MAY 18 (10-9F5)

MINNEAPOLIS, MINN
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

T2-HUMPHREY REMOTE APRON DEICING PADS

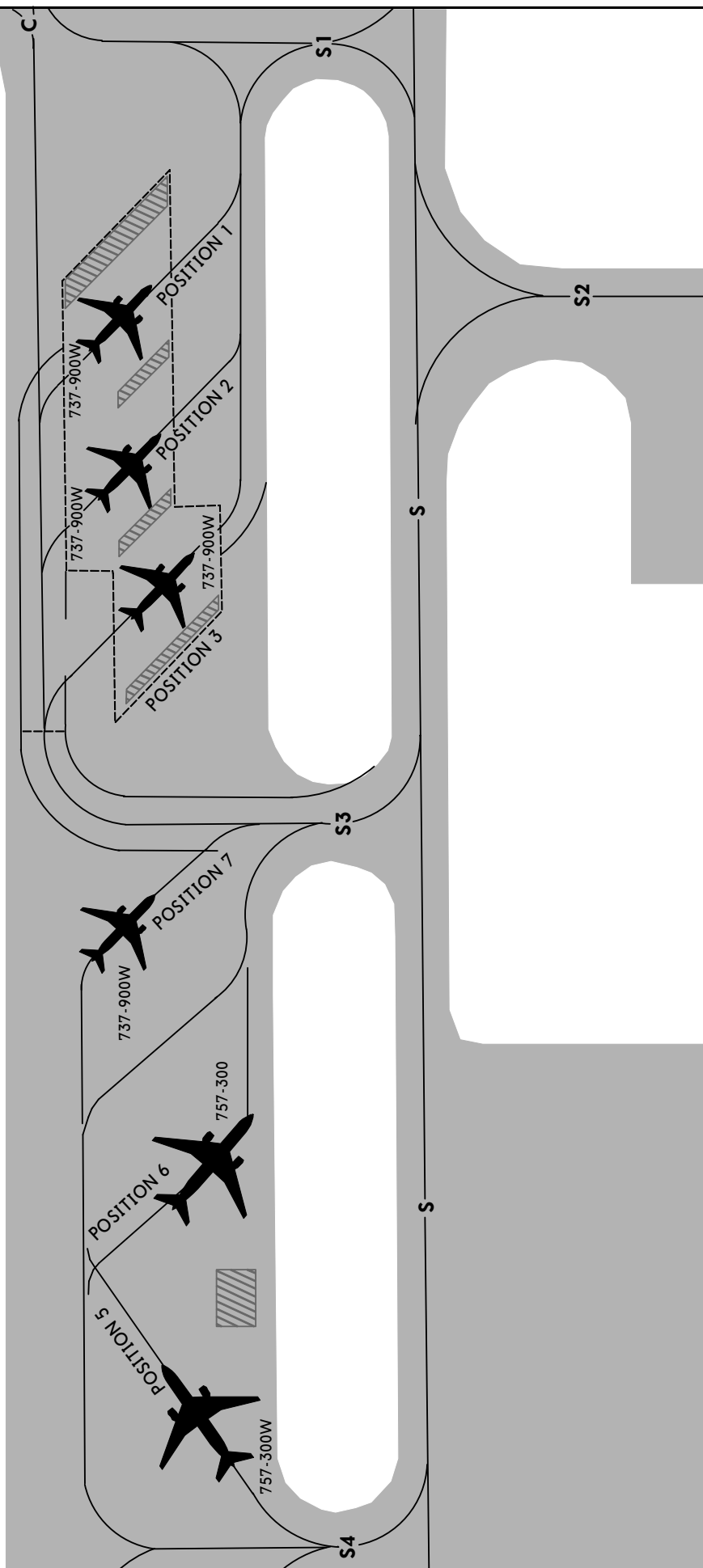
OPERATIONAL NOTES:

1. TAXIWAY S1 RESTRICTED TO 757A AND SMALLER.

2. TAXIWAY C BEHIND DEICING AREA SHALL BE:

A) CLOSED WHEN AIRCRAFT ARE IN POSITIONS 1 AND 2.

B) RESTRICTED TO 737-800A AND SMALLER AIRCRAFT WHEN AIRCRAFT ARE IN POSITION 3.



KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

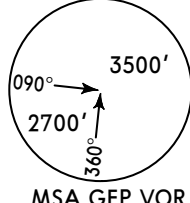
JEPPESEN

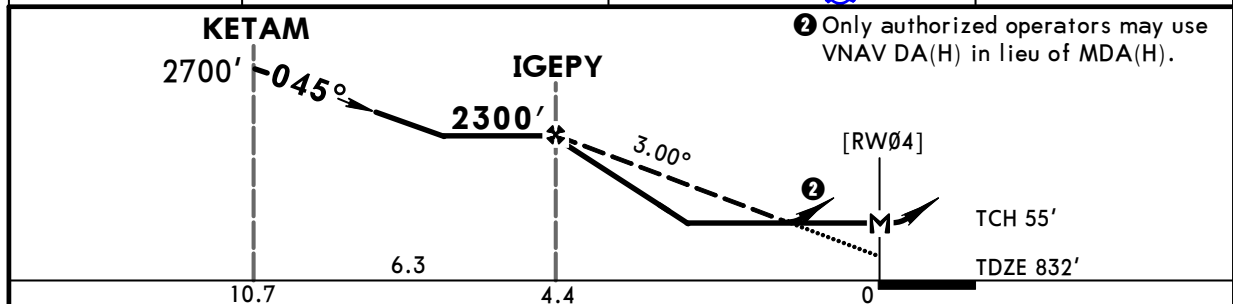
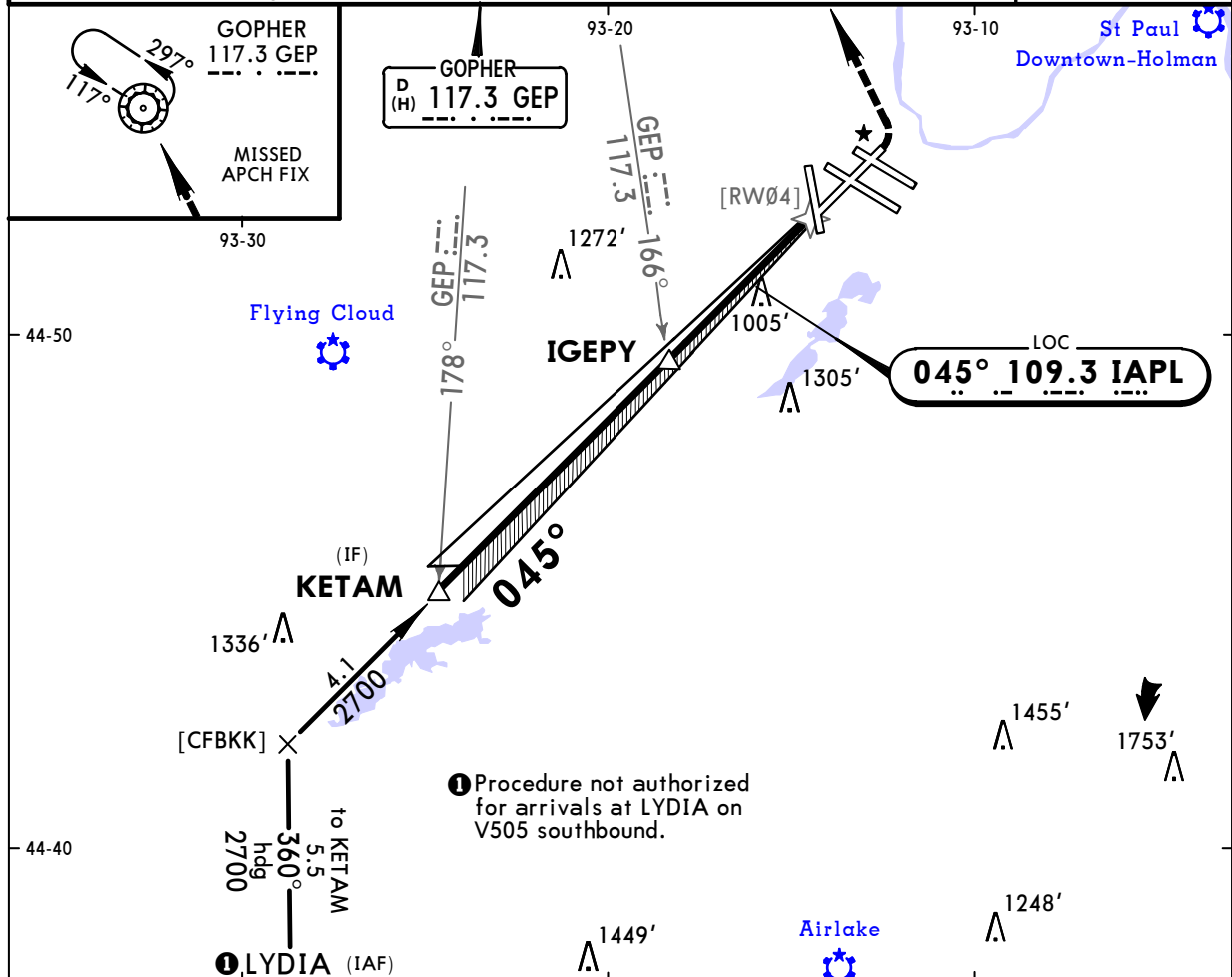
24 APR 15 (11-1)

MINNEAPOLIS, MINN

LOC Rwy 4

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			North	Ground South	West
135.35	119.3	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	121.8	121.9	127.92
LOC IAPL 109.3	Final Apch Crs 045°	Minimum Alt IGEPY 2300' (1468')	MDA(H) 1340' (508')	Apt Elev 842' TDZE 832'				
MISSED APCH: Climb to 1500', then climbing LEFT turn to 3000' direct GEP VOR and hold.								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'				
1. VGSi and descent angles not coincident.								
						MSA GEP VOR		



Grnd speed-Kts	70	90	100	120	140	160	MALSR	1500'	3000'	LT	GEP 117.3
Descent angle 3.00°	372	478	531	637	743	849	PAPI	↑	↓	→	
IGEPIY to MAP	4.4	3:46	2:56	2:38	2:12	1:53	1:39				

TERPS				STRAIGHT-IN LANDING RWY4		CIRCLE-TO-LAND	
				MDA(H) 1340' (508')		C	
				RAIL out		ALS out	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1	Max Kts		MDA(H)	
B				90		1360' (518') - 1	
C				120		1460' (618') - 1 3/4	
D	RVR 55 or 1	1 1/4	1 3/8	140		1660' (818') - 2 3/4	
				165			

TERPS AMEND 1B 30 APR 2015

CHANGES: TDZE, circling minimums.

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KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/ 30 DEC 16
WOLD-CHAMBERLAIN Eff 5 Jan

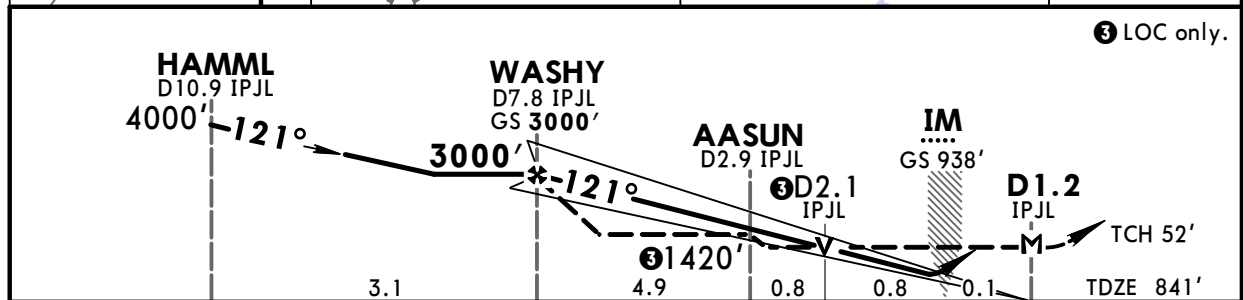
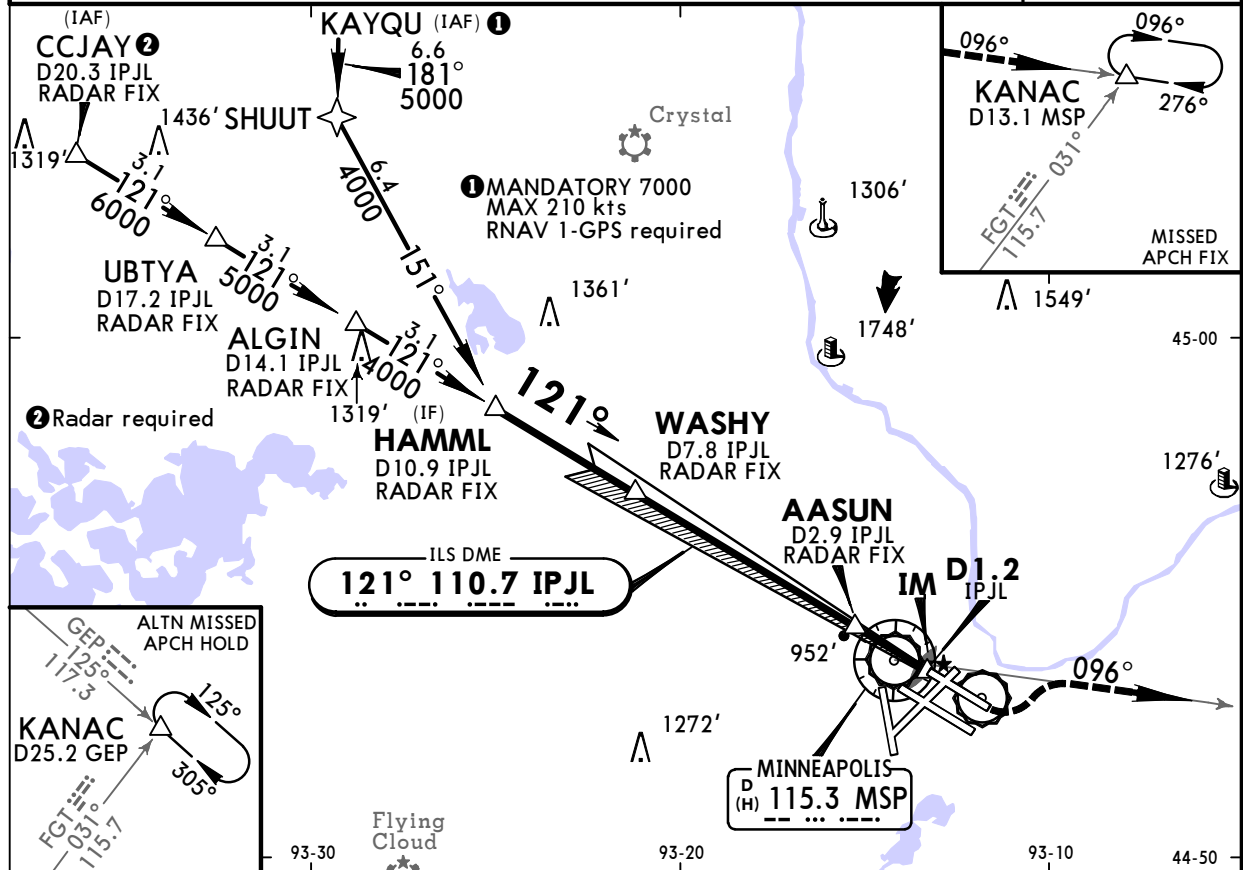
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MINNEAPOLIS, MINN

ILS or LOC Rwy 12L

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower				Ground		
135.35	119.3	Rwy 12L/30R 123.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	North 121.8	South 121.9	West 127.92	
LOC IPJL 110.7	Final Apch Crs 121°	GS WASHY 3000' (2159')	ILS DA(H) 1041' (200')	Apt Elev 842' TDZE 841'	3500' 090° → ← 270° 2800' MSA MSP VOR			
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. DME or radar required. 2. Simultaneous approach authorized with Rwy 12R.								
3. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 79').								



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		1300'	3000'	MSP 115.3
GS 3.00°	372	478	531	637	743	849	PAPI		↑	LT	R-096
MAP at D1.2 IPJL or WASHY to MAP	6.6	5:39	4:24	3:58	3:18	2:50					

TERPS			STRAIGHT-IN LANDING RWY12L		CIRCLE-TO-LAND	
ILS			LOC (GS out)			
DA(H) 1041' (200')			MDA(H) 1220' (379')			
FULL	TDZ/CL out	ALS out	ALS out		Max Kts	MDA(H)
A					90	1360' (518') - 1
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	120	1460' (618') - 1 3/4
C				RVR 50 or 1	140	1660' (818') - 2 3/4
D				RVR 35 or 3/4	165	

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Procedure.

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TERPS AMEND 11 5 JAN 2017

KMSP/MSP

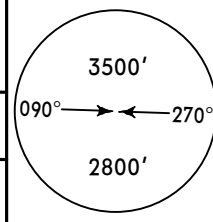
MINNEAPOLIS-ST PAUL INTL/ 30 DEC 16

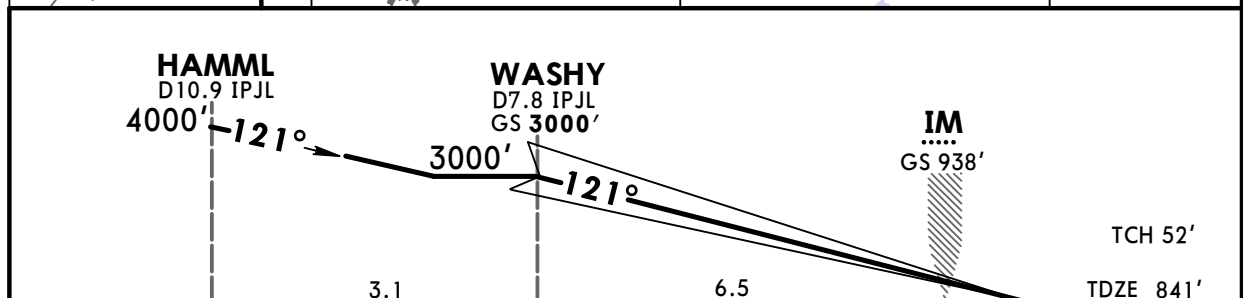
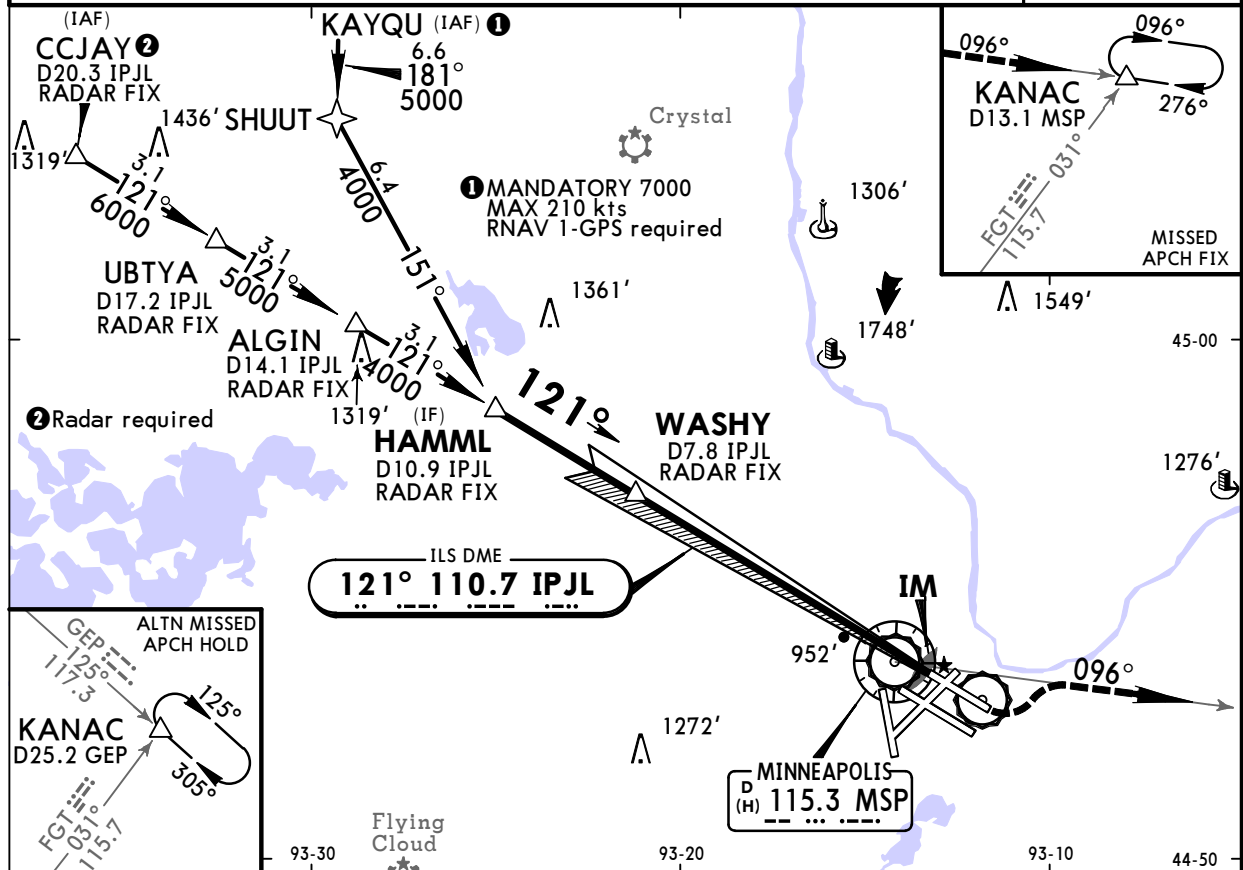
WOLD-CHAMBERLAIN

Eff 5 Jan

11-2A
ILS Rwy 12L CAT II & III
MINNEAPOLIS, MINN

BRIEFING STRIP

D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground	
135.35	119.3	Rwy 12L/30R 123.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	North 121.8	South 121.9	West 127.92	
LOC IPJL 110.7	Final Apch Crs 121°	GS WASHY 3000' (2159')	CAT III Refer to Minimums	CAT II ILS RA 91' DA(H) 941'(100')	Apt Elev 842' TDZE 841'	 MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew & Acft Certification Required. 2. DME or radar required. 3. Simultaneous approach authorized with Rwy 12R. 4. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 79').								



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		MSP	
GS	3.00°	372	478	531	637	743	849		1300'	3000'
									↑	LT
										on
										R-096

TERPS

STRAIGHT-IN LANDING RWY 12L

CAT III ILS	CAT II ILS
	RA 91' DA(H) 941'(100')
RVR 7	RVR 12

1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: Procedure.

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TERPS AMEND 11 5 JAN 2017

KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/ 30 DEC 16

WOLD-CHAMBERLAIN

Eff 5 Jan

11-2B

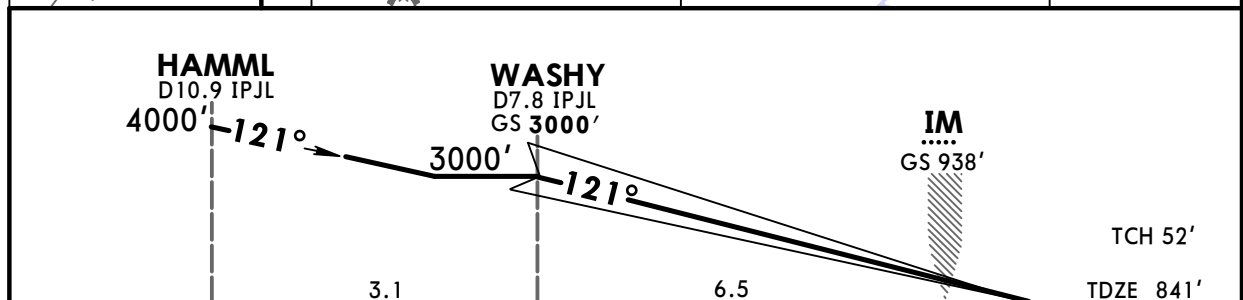
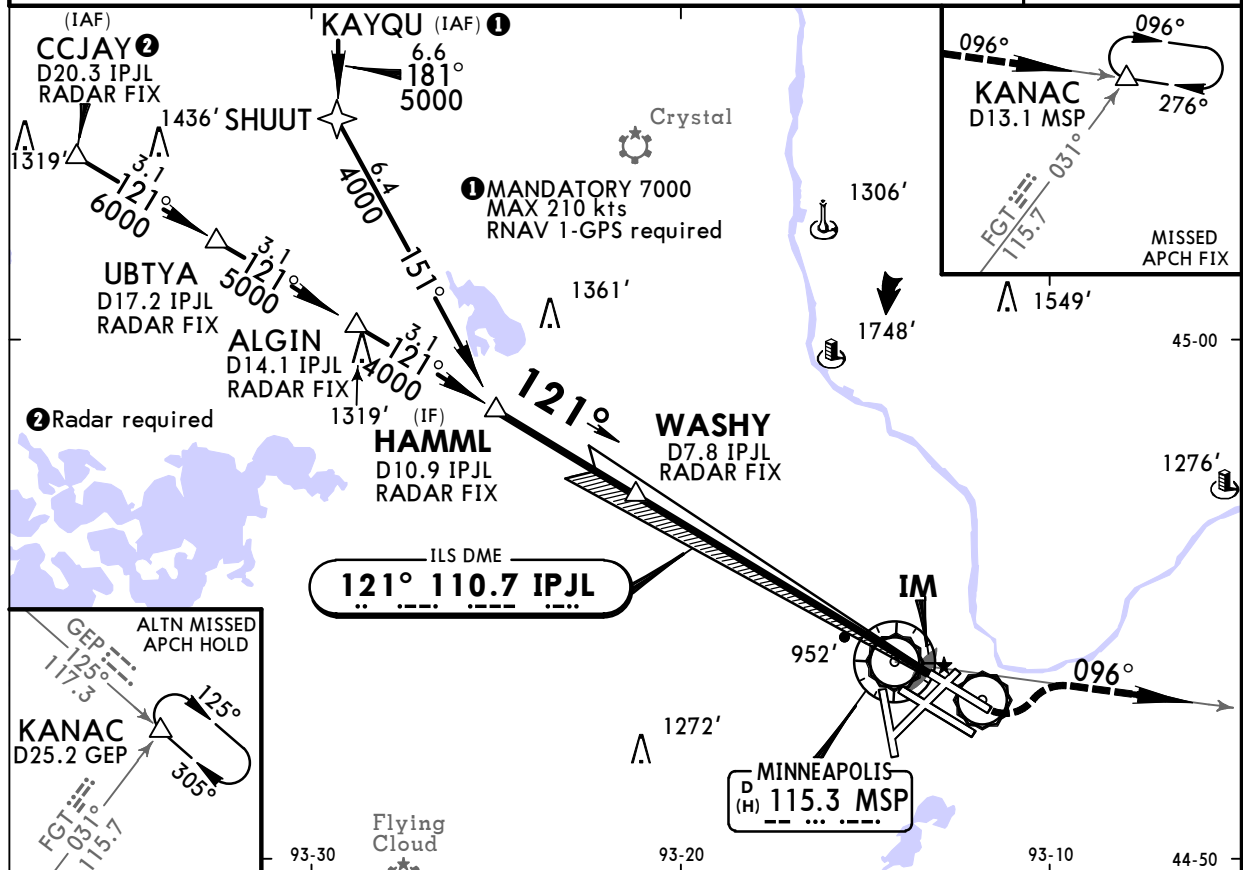
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MINNEAPOLIS, MINN

ILS Rwy 12L SA CAT I

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	119.3	Rwy 12L/30R 123.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	121.8	121.9	127.92
LOC IPJL 110.7	Final Apch Crs 121°	GS WASHY 3000' (2159')	SA CAT I ILS RA 147' DA(H) 991' (150')		Apt Elev 842' TDZE 841'	3500' 090° → ← 270° 2800' MSA MSP VOR	
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. Special Aircrew & Acft Certification Required. 2. DME or radar required.							
3. Simultaneous approach authorized with Rwy 12R. 4. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 79').							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		1300'	3000'	MSP
GS	3.00°	372	478	531	637	743	PAPI		↑	LT	115.3
											R-096

TERPS

STRAIGHT-IN LANDING RWY 12L

1 SA CAT I ILS
RA 147'
 DA(H) **991'** (150')

RVR 14

1 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

CHANGES: Procedure.

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TERPS AMEND 11 5 JAN 2017

KMSP/MSP

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MINNEAPOLIS, MINN

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

30 DEC 16

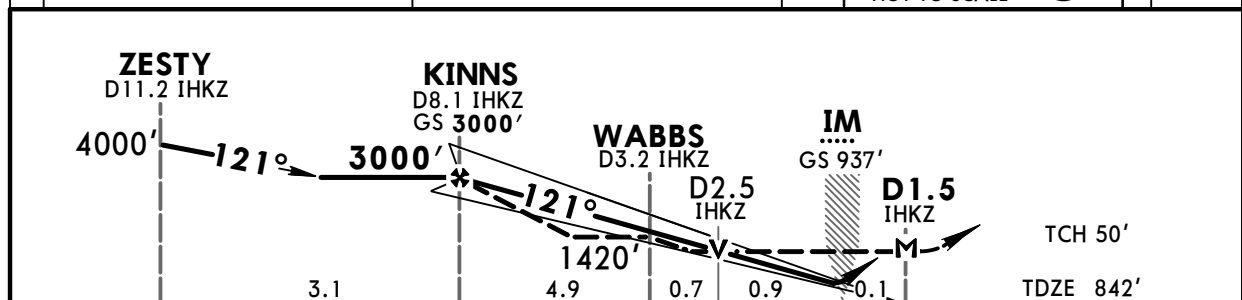
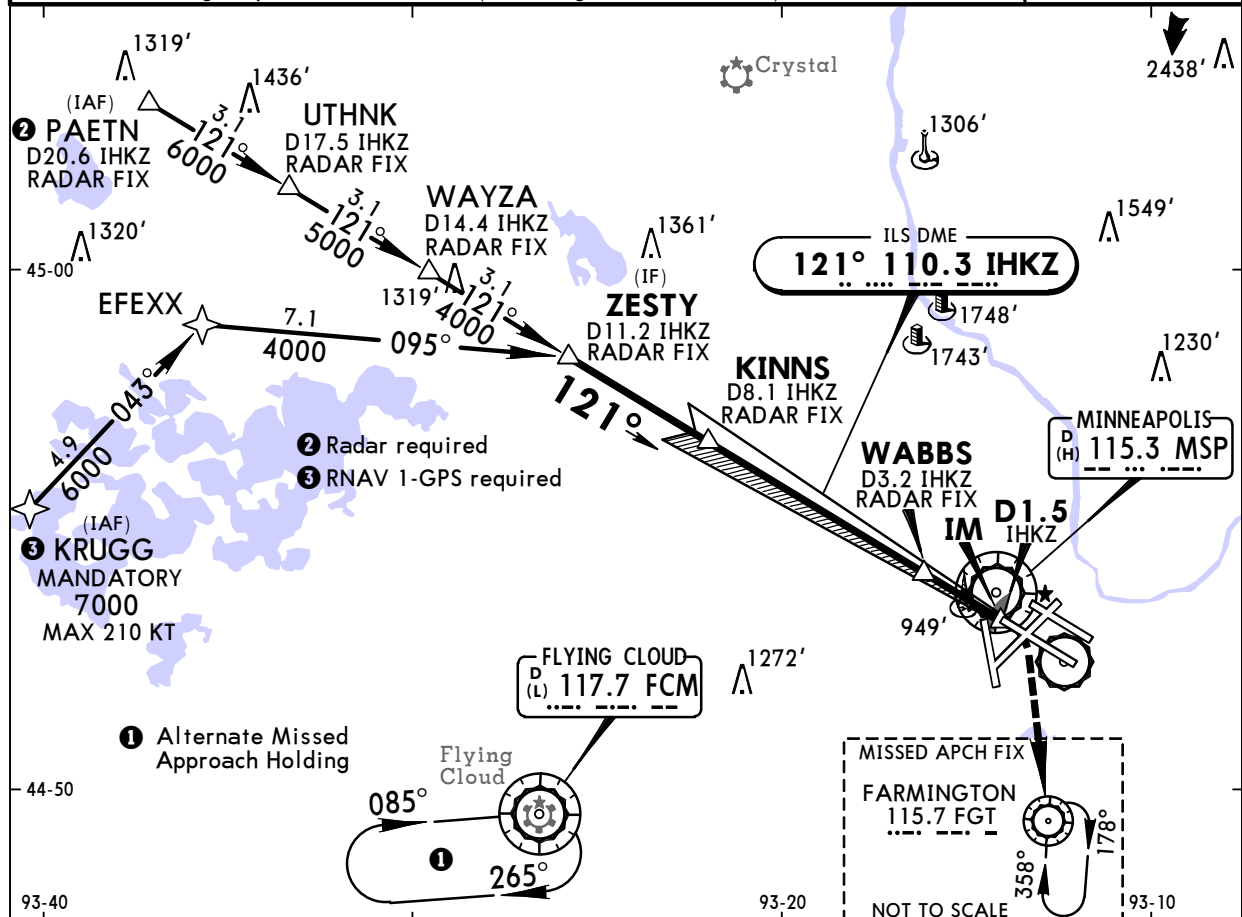
(11-3)

Eff 5 Jan

ILS or LOC Rwy 12R

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	126.95	Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	121.8	121.9	127.92
LOC IHKZ 110.3	Final Apch Crs 121°	GS KINNS 3000' (2158')	ILS DA(H) 1042' (200')	Apt Elev 842' TDZE 842'	3500' 090° → ← 270° 2800' MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct							
FGT VOR and hold.							
Alt Set: INCHES							
1. DME or Radar required.		Trans level: FL 180		Trans alt: 18000'			
2. Simultaneous approach authorized with Rwy 12L.							
3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 66').							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	1300'	3000'	→	FGT 115.7
GS 3.00°	372	478	531	637	743	849		↑	→ RT		
MAP at D1.5 IHKZ or KINNS to MAP 6.6	5:39	4:24	3:58	3:18	2:50	2:28					

TERPS					STRAIGHT-IN LANDING RWY12R			CIRCLE-TO-LAND		
ILS					LOC (GS out)			C		
DA(H) 1042' (200')					MDA(H) 1240' (398')					
FULL		TDZ/CL out		ALS out	ALS out		Max Kts	MDA(H)		
A							90	1360' (518') - 1		
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4		RVR 24 or 1/2	RVR 50 or 1	120			
C					RVR 35 or 3/4	RVR 60 or 1 1/4	140	1460' (618') - 1 3/4		
D							165	1660' (818') - 2 3/4		

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Procedure.

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TERPS AMEND 12 5 JAN 2017

KMSP/MSP

 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen

MINNEAPOLIS, MINN

30 DEC 16

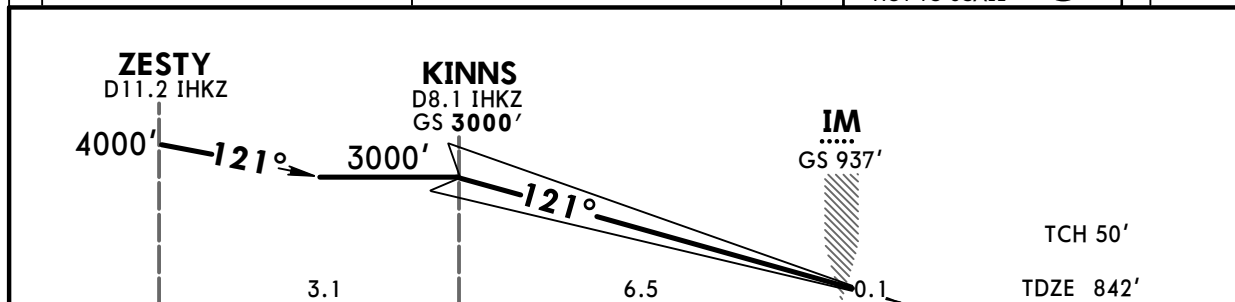
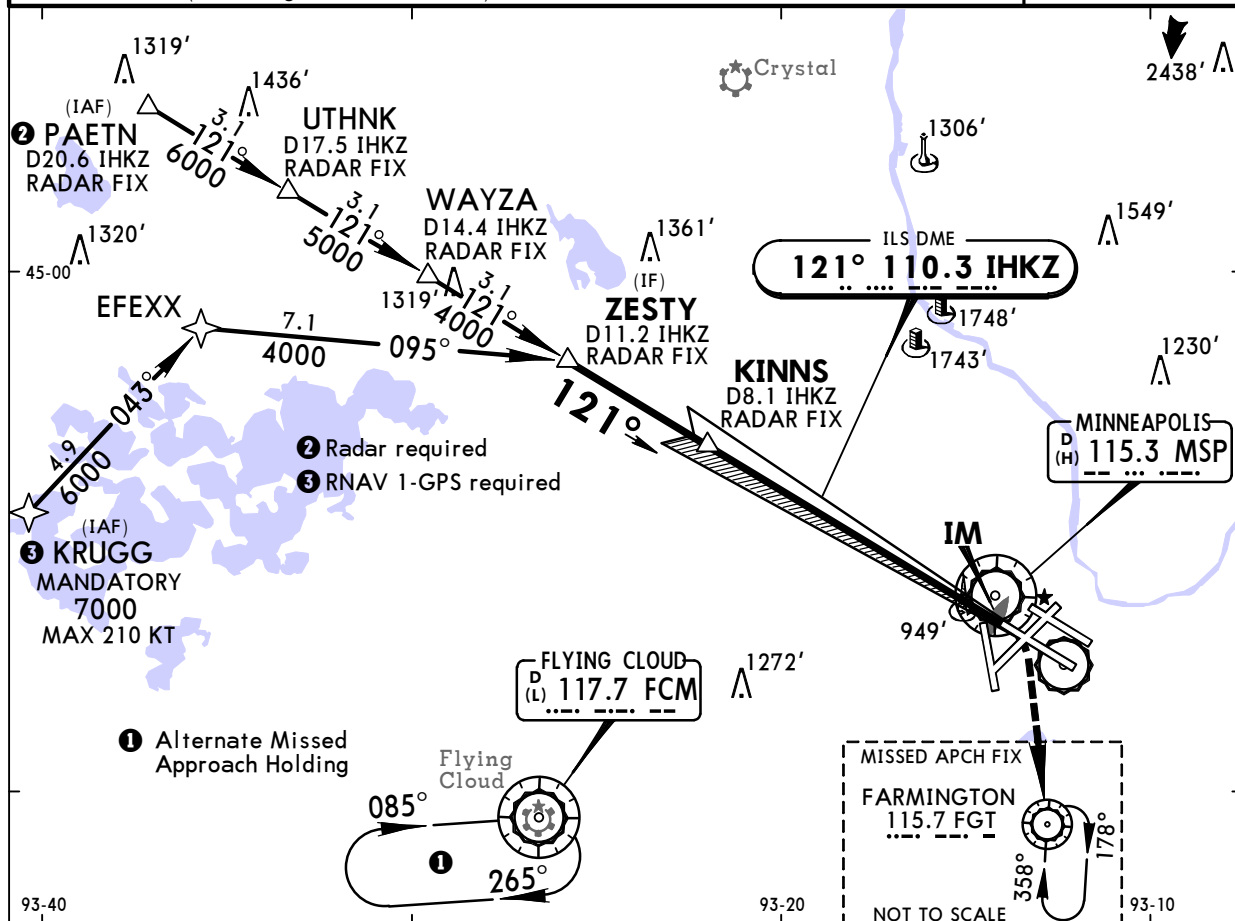
Eff 5 Jan

11-3A

ILS Rwy 12R CAT II & III

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			North	Ground South	West
135.35	126.95		Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	121.8	121.9	127.92
LOC IHKZ 110.3	Final Apch Crs 121°	GS KINNS 3000' (2158')	CAT III Refer to Minimums	CAT II ILS RA 102' DA(H) 942'(100')	Apt Elev 842' TDZE 842'	3500' 090°→←270° 2800' MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold.								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'				
1. Special Aircrew & Acft Certification Required. 2. DME or Radar required. 3. Simultaneous approach authorized with Rwy 12L.4. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 66').								



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		1300'	3000'	D→	FGT 115.7
GS	3.00°	372	478	531	637	743	PAPI		↑	RT		

TERPS AMEND 12 5 JAN 2017

TERPS		STRAIGHT-IN LANDING RWY 12R	
CAT III ILS		CAT II ILS RA 102' DA(H) 942'(100')	
RVR 6		1 RVR 12	

1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: Procedure.

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KMSP/MSP

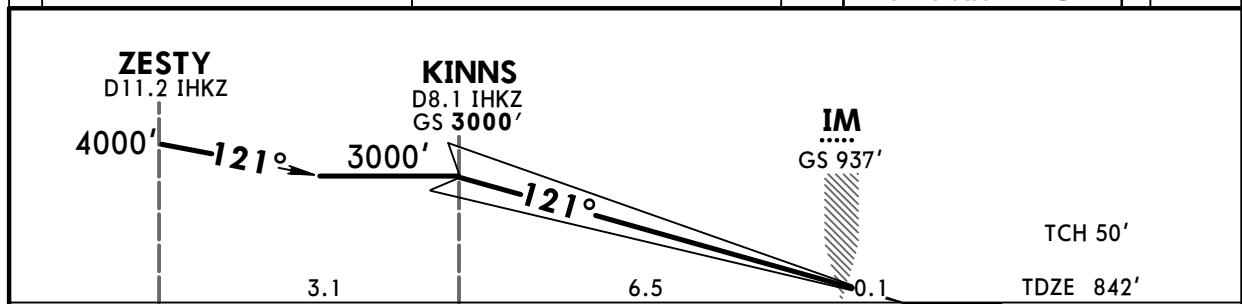
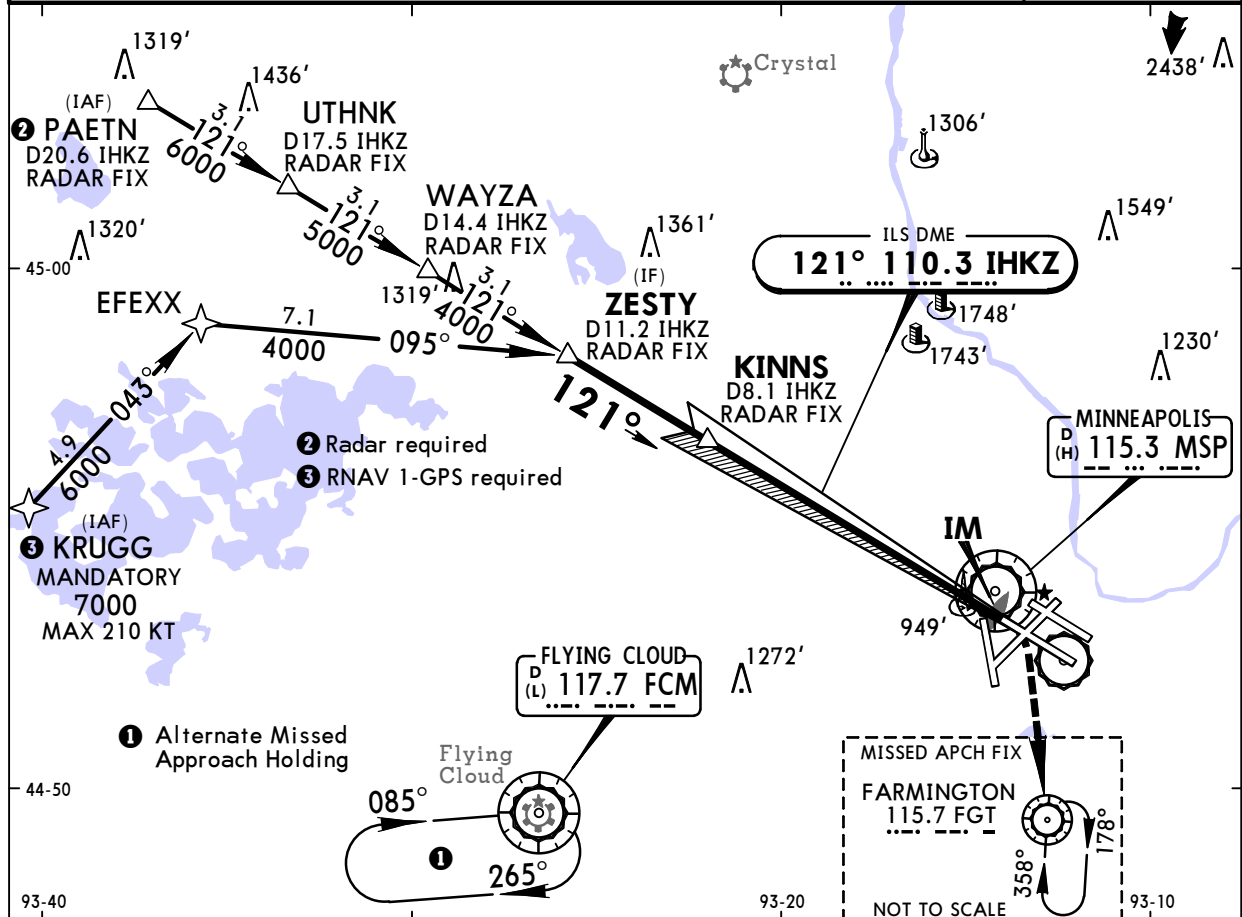
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen

 30 DEC 16
 Eff 5 Jan **(11-3B)**
MINNEAPOLIS, MINN
ILS Rwy 12R SA CAT I

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			North	Ground South	West
135.35	126.95		Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	121.8	121.9	127.92
LOC IHKZ 110.3	Final Apch Crs 121°	GS KINNS 3000' (2158')	SA CAT I ILS RA 168' DA(H) 992' (150')		Apt Elev 842' TDZE 842'	3500' 090° → ← 270° 2800' MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold.								
Alt Set: INCHES								



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		1300'	3000'	D →	FGT 115.7
GS	3.00°	372	478	531	637	743	PAPI		↑	RT		

TERPS

STRAIGHT-IN LANDING RWY 12R

1 SA CAT I ILS
RA 168'

 DA(H) **992'** (150')

RVR 14

1 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

CHANGES: Procedure.

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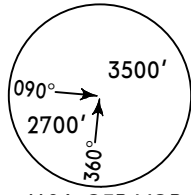
TERPS AMEND 12 5 JAN 2017

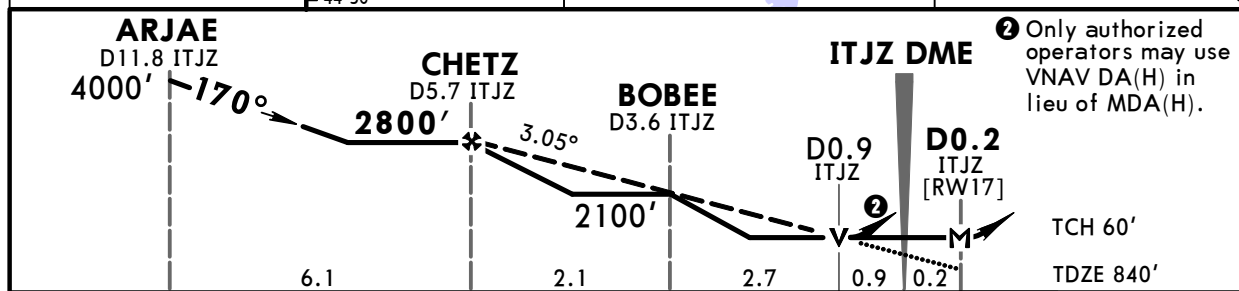
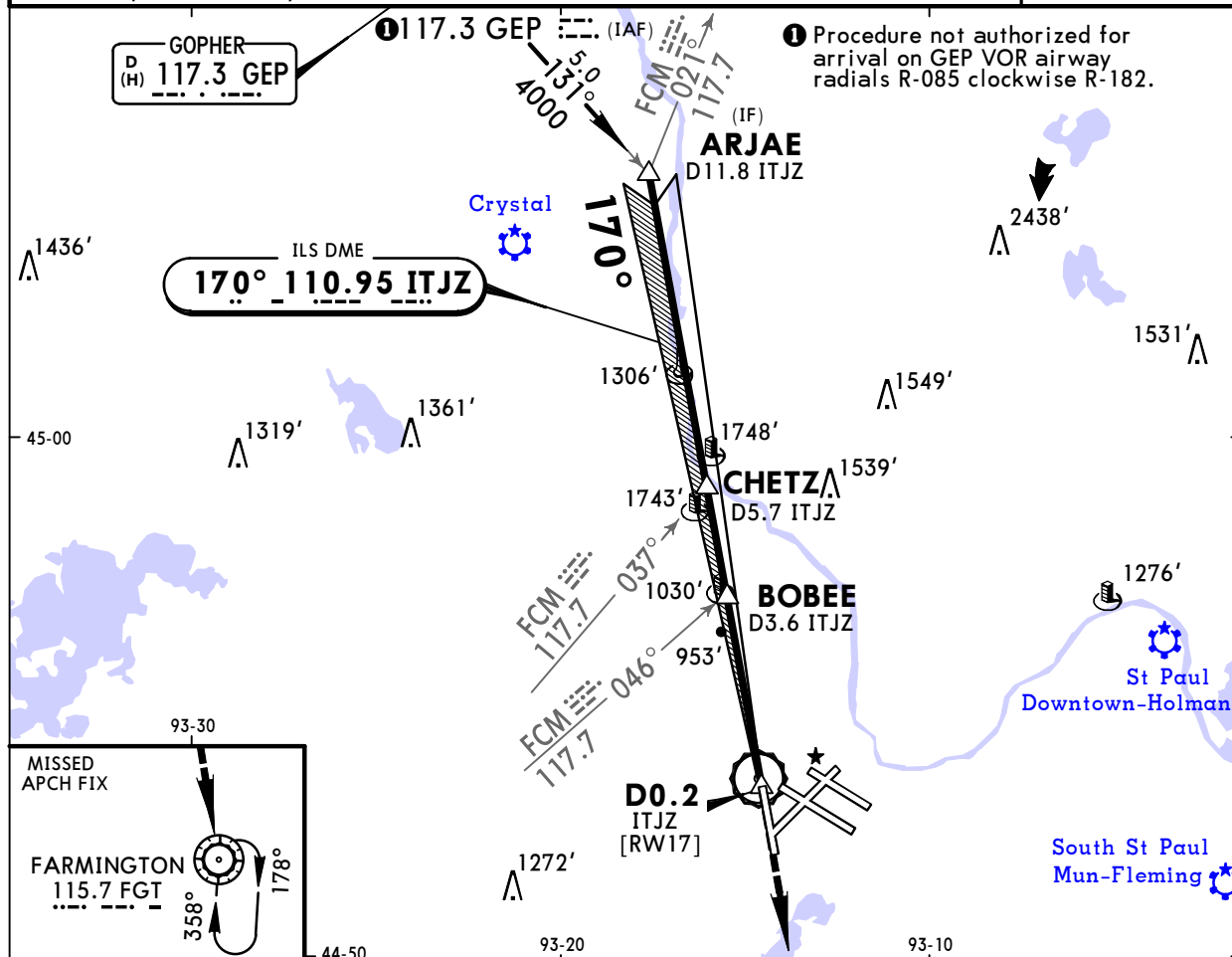
KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen
 24 APR 15 **(11-4)**

MINNEAPOLIS, MINN
LOC Rwy 17

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
Rwy 17/35 135.35	119.3	Rwys 4/22, 12R/30L 123.67	Rwy 12L/30R 126.7	123.95	121.8	121.9	127.92
LOC ITJZ 110.95	Final Apch Crs 170°	Minimum Alt CHETZ 2800' (1960')	MDA(H) (CONDITIONAL) 1220' (380')	Apt Elev 842' TDZE 840'			
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		MSA GEP VOR	
1. Helicopters visibility reduction below RVR 40 not authorized.							



Gnd speed-Kts	70	90	100	120	140	160	REIL		1300'	3000'	FGT
Descent angle 3.05°	378	486	540	648	755	863	PAPI-R		↑	RT	115.7
MAP at D0.2 ITJZ or CHETZ to MAP	5.9	5:03	3:56	3:32	2:57	2:32	2:13				

TERPS		STRAIGHT-IN LANDING RWY 17			CIRCLE-TO-LAND			
MDA(H) 1220' (380')		MDA(H) 2100' (1260')				1 With BOBEE		Without BOBEE
1 With BOBEE		Without BOBEE				MDA(H) _____		MDA(H) _____
A	RVR 55 or 1	RVR 60 or 1 1/4			Max Kts 90	1360' (518') - 1		2100' (1258') - 1 1/4
B		1 1/2			120			2100' (1258') - 1 1/2
C		3			140	1460' (618') - 1 3/4		2100' (1258') - 3
D					165	1660' (818') - 2 3/4		

1 Dual VOR receivers or DME required

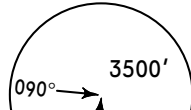
CHANGES: TDZE, circling minimums.

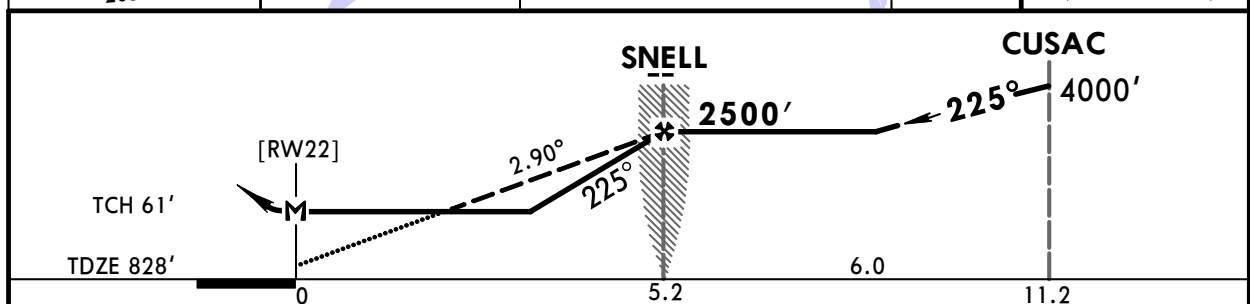
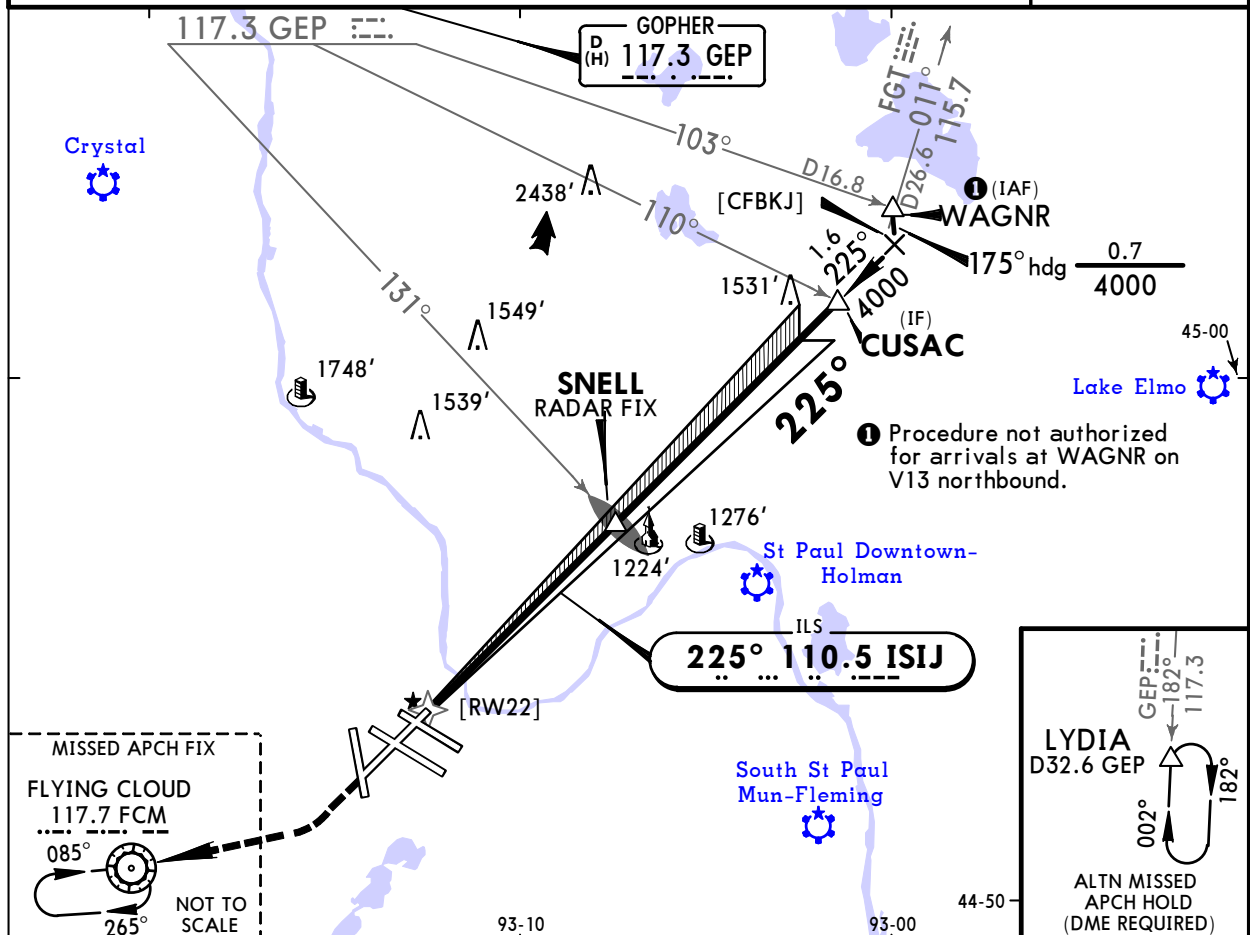
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TERPS AMEND 1B 30 APR 2015

KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen
 24 APR 15 **(11-5)**
MINNEAPOLIS, MINN
LOC Rwy 22

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
	135.35	119.3	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	North	South	West
				126.7	123.95	123.67	121.8	121.9	127.92
	LOC ISIJ	Final Apch Crs	Minimum Alt SNELL	MDA(H)	Apt Elev 842'				
	110.5	225°	2500' (1672')	1420' (592')	TDZE 828'				
MISSED APCH: Climb to 2000', then climbing RIGHT turn to 3000' direct FCM VOR and hold, or as directed by ATC.									
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'			
MSA GEP VOR									



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	2000'	3000'	D RT	FCM 117.7
Descent angle 2.90°	359	462	513	616	718	821		↑	↗		
SNELL to MAP	5.2	4:27	3:28	3:07	2:36	2:14		1:57			

TERPS				CIRCLE-TO-LAND			
STRAIGHT-IN LANDING RWY22							
MDA(H) 1420' (592')							
RAIL out		ALS out		Max Kts	MDA(H)		
A				90	1420' (578') - 1		
B	RVR 40 or 3/4		RVR 50 or 1	120			
C	1 1/4		1 3/8	140	1460' (618') - 1 3/4		
D			1 3/4	165	1660' (818') - 2 3/4		

CHANGES: TDZE, circling minimums, note deleted.

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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPesen

30 DEC 16
Eff 5 Jan

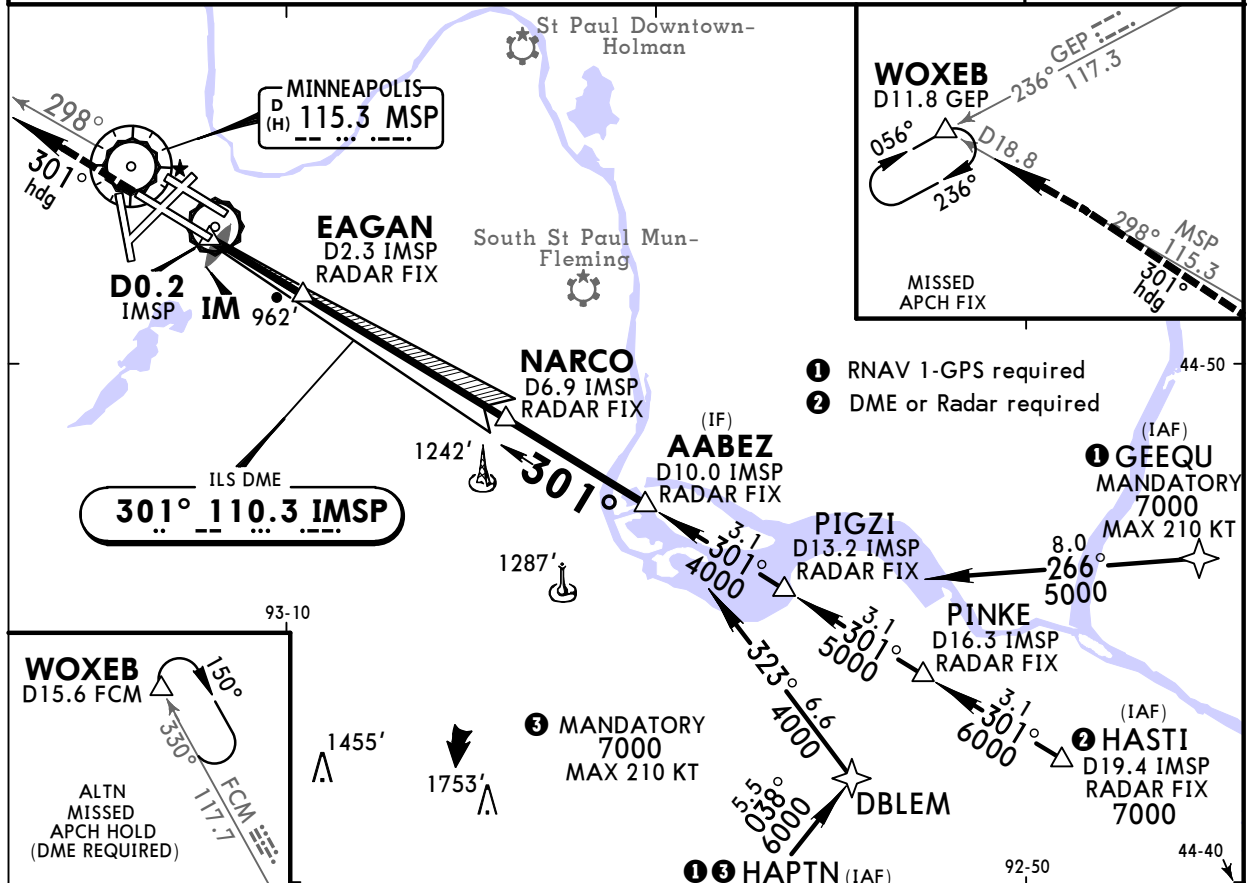
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MINNEAPOLIS, MINN

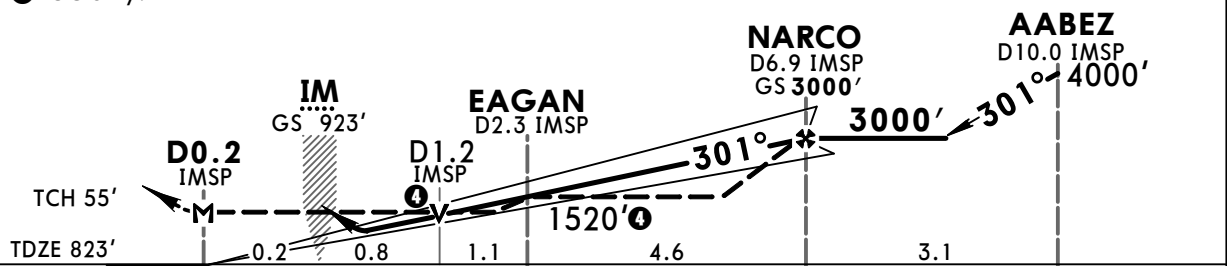
ILS or LOC Rwy 30L

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	121.8	121.9	127.92
LOC IMSP 110.3	Final Apch Crs 301°	GS NARCO 3000' (2177')	ILS DA(H) 1023' (200')	Apt Elev 842' TDZE 823'		3500' 090° → ← 270° 2800' MSA MSP VOR	
MISSED APCH: Climb to 1300', then climb to 3000' on heading 301° and outbound on MSP VOR R-298 to WOXEB INT/D11.8 GEP and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. DME or Radar required. 2. Simultaneous approaches authorized with Rwy 30R and ILS V Rwy 35 (CONVERGING). 3. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 78').							



④ LOC only.



Gnd speed-Kts	70	90	100	120	140	160	ALS F-II			
GS 3.00°	372	478	531	637	743	849	PAPI			
MAP at D0.2 IMSP or NARCO to MAP 6.7	5:45	4:28	4:01	3:21	2:52	2:31				

1300'

↑

3000'

↑

301°

hdg

MSP

and

115.3

R-298

TERPS						STRAIGHT-IN LANDING RWY30L			CIRCLE-TO-LAND		
ILS			LOC (GS out)								
DA(H) 1023' (200')			MDA(H) 1220' (397')								
FULL			TDZ/CL out			ALS out			Max Kts		
A			RVR 18			RVR 24			1360' (518') - 1		
B			RVR 24			RVR 35			1460' (618') - 1 3/4		
C			RVR 40			RVR 50			1660' (818') - 2 3/4		
D			RVR 50			RVR 60					

① RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Procedure.

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TERPS AMEND 47 5 JAN 2017

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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPesen

30 DEC 16
Eff 5 Jan

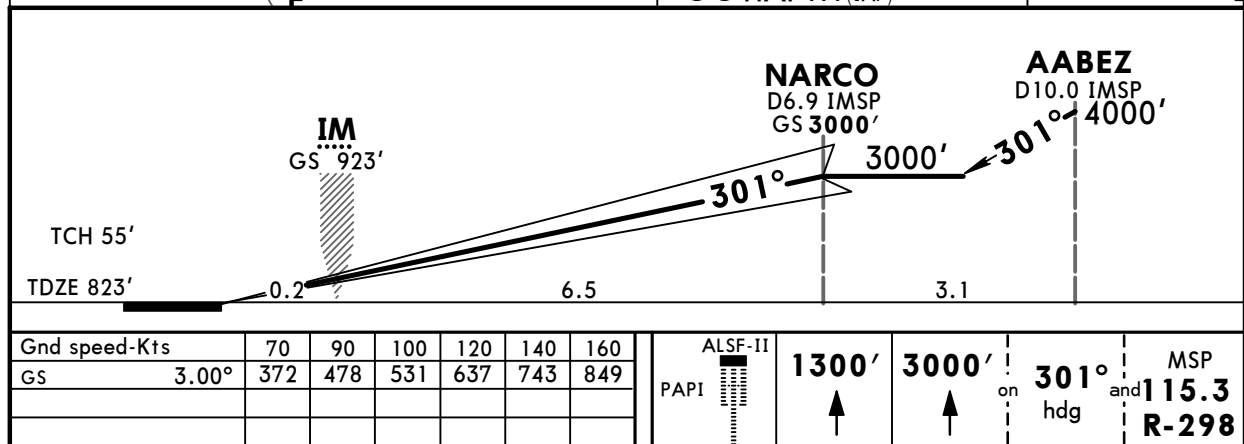
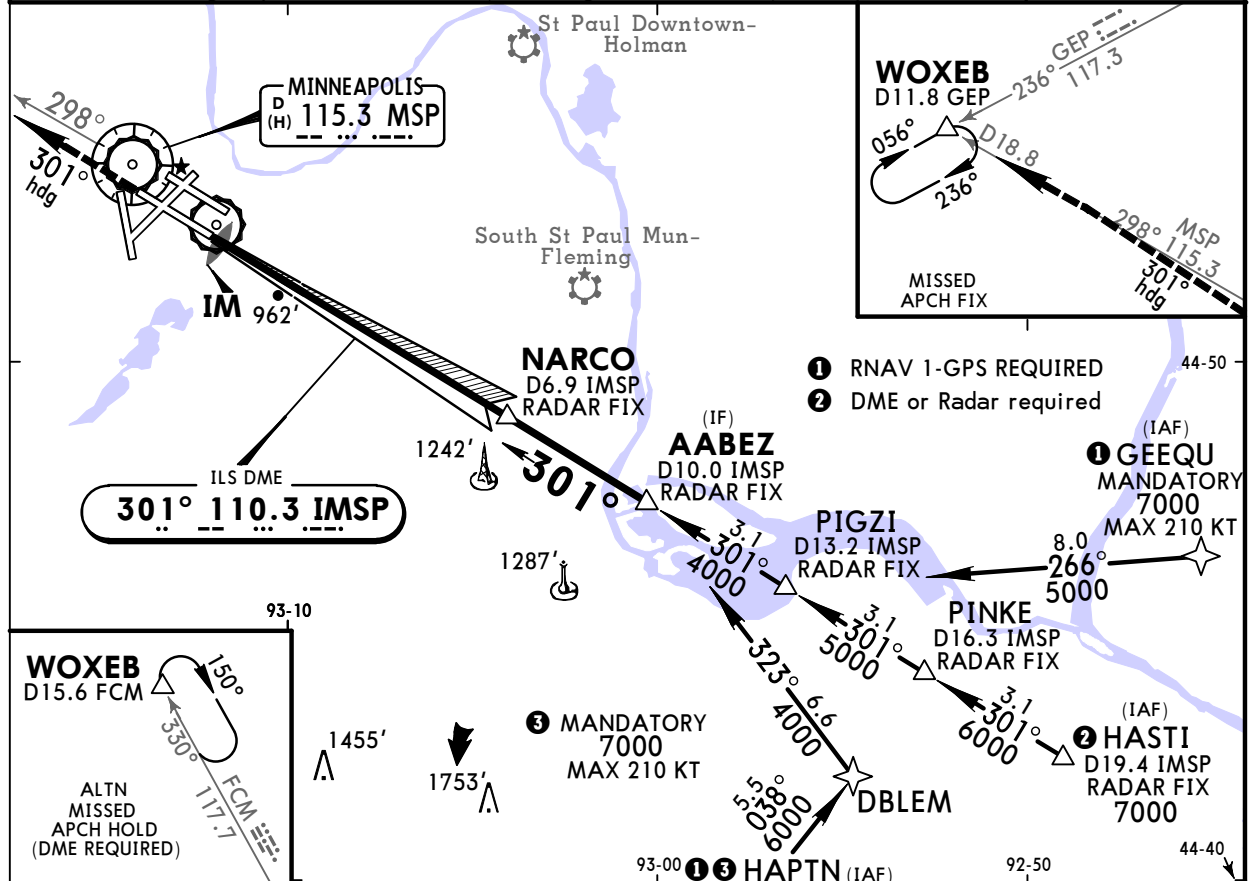
11-6A

MINNEAPOLIS, MINN

ILS Rwy 30L CAT II

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35					
135.35	126.95	126.7	123.95	123.67	121.8	121.9 127.92	
LOC IMSP	Final Apch Crs	GS NARCO	CAT II ILS RA NOT AUTH	Apt Elev 842'	3500' 090°→←270° 2800' MSA MSP VOR		
110.3	301°	3000' (2177')	DA(H) 923' (100')	TDZE 823'			
MISSED APCH: Climb to 1300', then climb to 3000' on heading 301° and outbound on MSP VOR R-298 to WOXEB INT/D11.8 GEP and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Special Aircrew & Acft Certification Required. 2. DME or Radar Required.							
3. Simultaneous approaches authorized with Rwy 30R and ILS V Rwy 35 (CONVERGING).							
4. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 78').							



TERPS

STRAIGHT-IN LANDING RWY30L

CAT II ILS
RA NOT AUTH
DA(H) 923'(100')

1 RVR 12

1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: Procedure.

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TERPS AMEND 47 5 JAN 2017

KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

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30 DEC 16
Eff 5 Jan

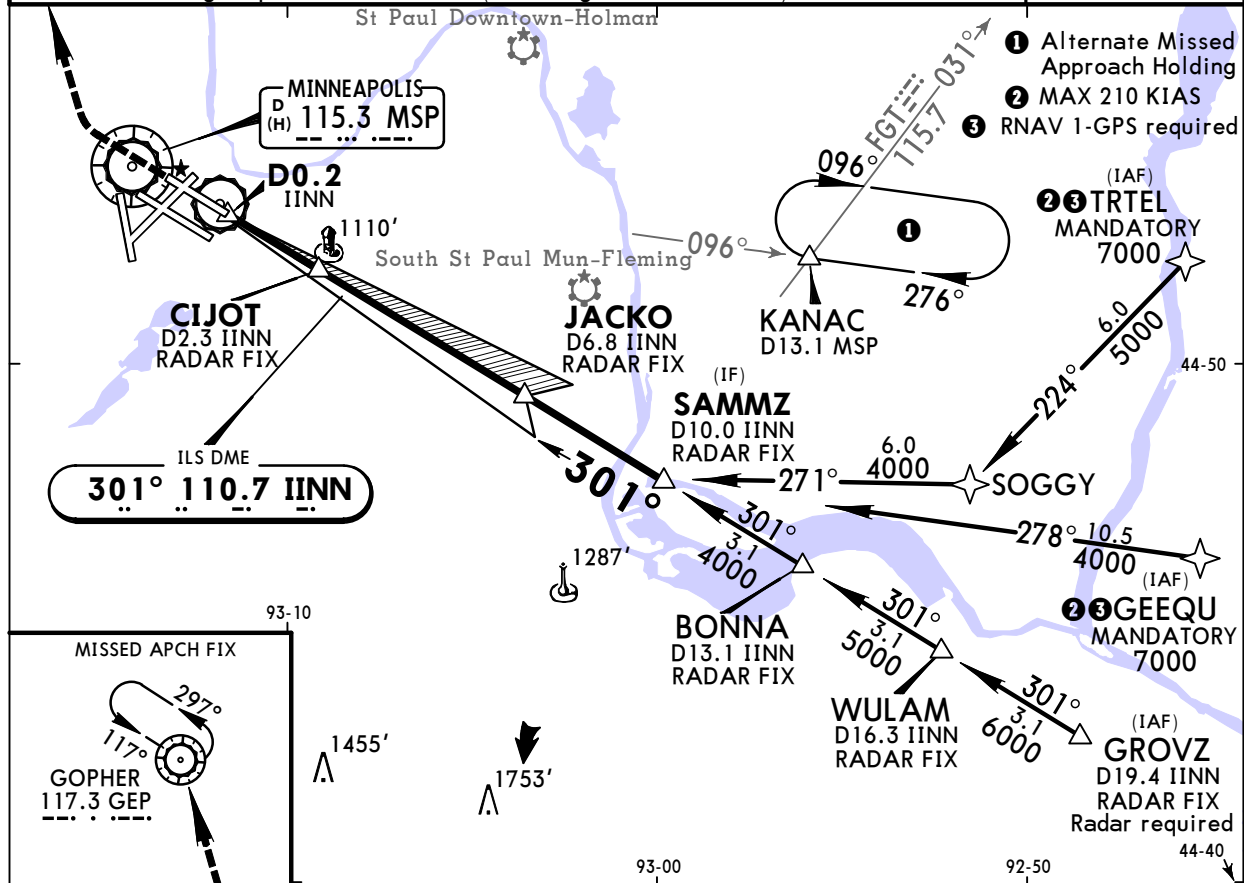
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MINNEAPOLIS, MINN

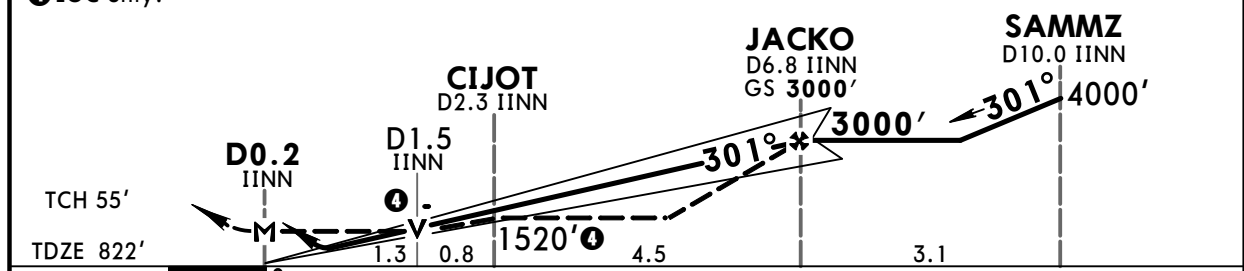
ILS or LOC Rwy 30R

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			Ground		
		Rwy 12L/30R	Rwys 4/22, 12R/30L	Rwy 17/35	North	South	West
135.35	119.3	123.95	126.7	123.67	121.8	121.9	127.92
LOC IINN	Final Apch Crs	GS JACKO	ILS DA(H)	Apt Elev 842'	3500' 090°→←270° 2800' MSA MSP VOR		
110.7	301°	3000' (2178')	1072' (250')	TDZE 822'			
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct GEP VOR and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. DME or Radar required.							
2. Simultaneous approaches authorized with Rwy 30L and ILS V Rwy 35 (CONVERGING).							
3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 71').							



④ LOC only.



0												
Gnd speed-Kts	70	90	100	120	140	160	MALSF PAPI MALSF	1300' ↑	3000' ↗ RT	D→	GEP 117.3	
GS	3.00°	372	478	531	637	743						849
MAP at D0.2 IINN or JACKO to MAP	6.7	5:45	4:28	4:01	3:21	2:52						2:31

TERPS

STRAIGHT-IN LANDING RWY30R

ILS		LOC (GS out)		CIRCLE-TO-LAND	
DA(H) 1072' (250')		MDA(H) 1320' (498')			
FULL		ALS out		Max Kts	
				MDA(H)	
A		RVR 40 or 3/4	RVR 50 or 1	90	1360' (518') - 1
B		RVR 40 or 3/4	RVR 50 or 1	120	1460' (618') - 1 3/4
C		RVR 60 or 1 1/4	RVR 60 or 1 1/4	140	1660' (818') - 2 3/4
D		RVR 60 or 1 1/4	RVR 60 or 1 1/4	165	1660' (818') - 2 3/4

CHANGES: Procedure.

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KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN30 DEC 16
Eff 5 Jan

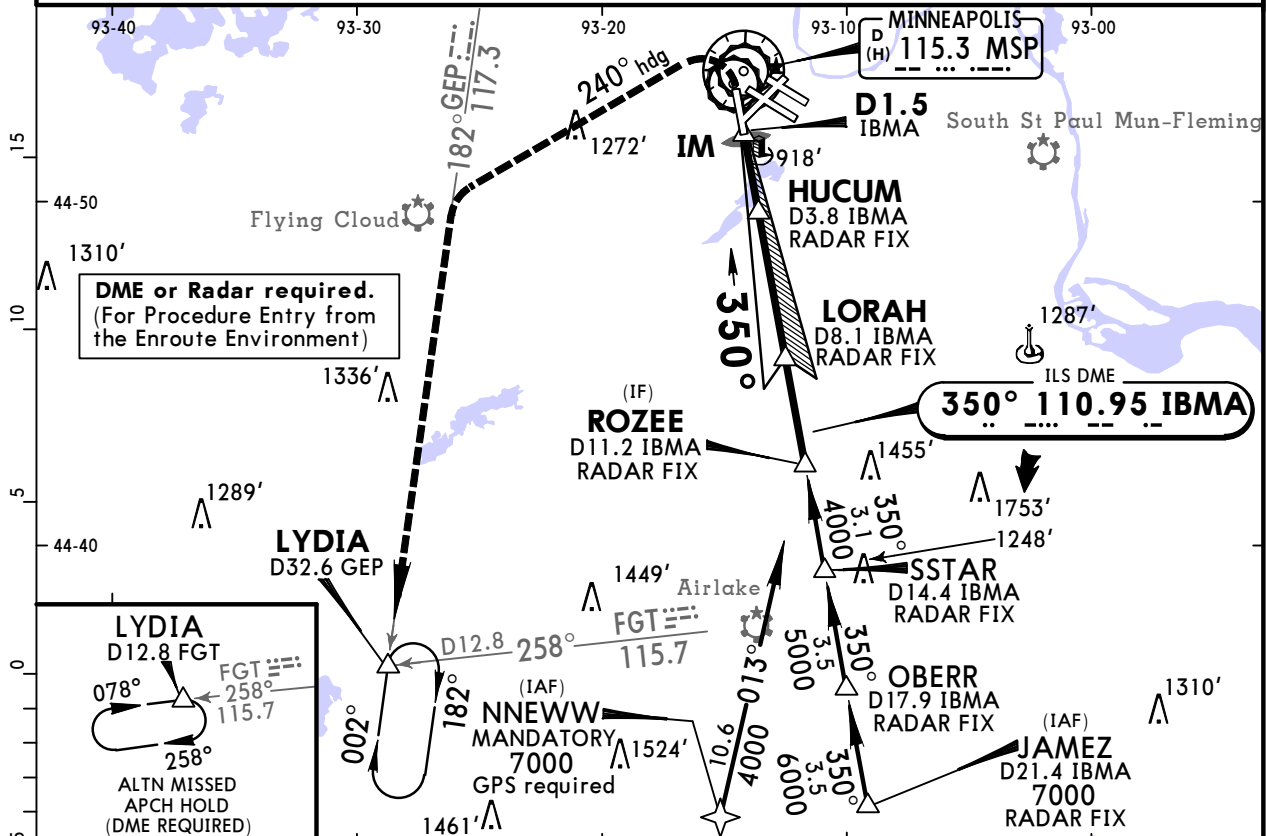
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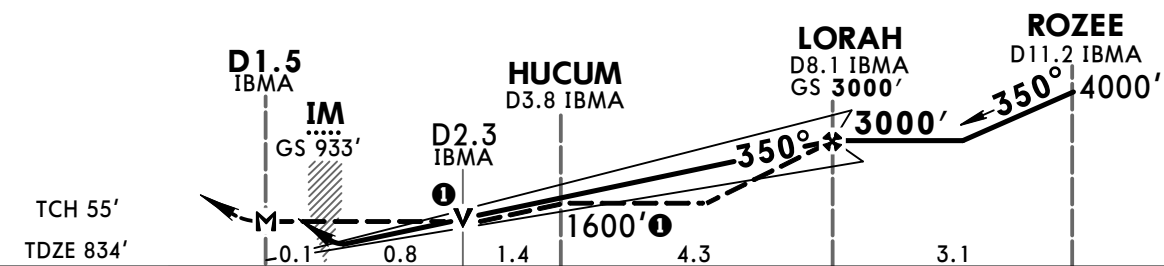
MINNEAPOLIS, MINN

ILS Z or LOC Rwy 35

D-ATIS	MINNEAPOLIS Approach (R)	Rwy 17/35	MINNEAPOLIS Tower Rwys 4/22, 12R/30L	Rwy 12L/30R	North	Ground South	West
135.35	118.725	123.67	126.7	123.95	121.8	121.9	127.92
LOC IBMA	Final Apch Crs	GS LORAH	ILS DA(H)	Apt Elev 842'	3500' 090° → ← 270° 2800'		
110.95	350°	3000' (2166')	1034' (200')	TDZE 834'			
MISSED APCH: Climb to 1600' then climbing LEFT turn to 3000' on heading 240° and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold.							MSA MSP VOR
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME or Radar required. 2. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 71').							



① LOC only.



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849
MAP at D1.5 IBMA or LORAH to MAP	6.6	5:39	4:24	3:58	3:18	2:50

ALSIF-II	PAPI
1600'	3000'

1600'	3000'	240°	GEP
↑	LT	on	and 117.3 R-182

TERPS

STRAIGHT-IN LANDING RWY35

CIRCLE-TO-LAND

ILS				LOC (GS out)		Max Kts	MDA(H)		
DA(H) 1034' (200')				MDA(H) 1180' (346')					
	FULL	TDZ/CL out	ALS out		ALS out				
A	RVR 18 or 1/2	1 RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	90	1360' (518') - 1		
B						120			
C						RVR 30 or 5/8	RVR 55 or 1 1/4	140	1460' (618') - 1 3/4
D								165	1660' (818') - 2 3/4

① RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Procedure.

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KMSP/MSP

 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

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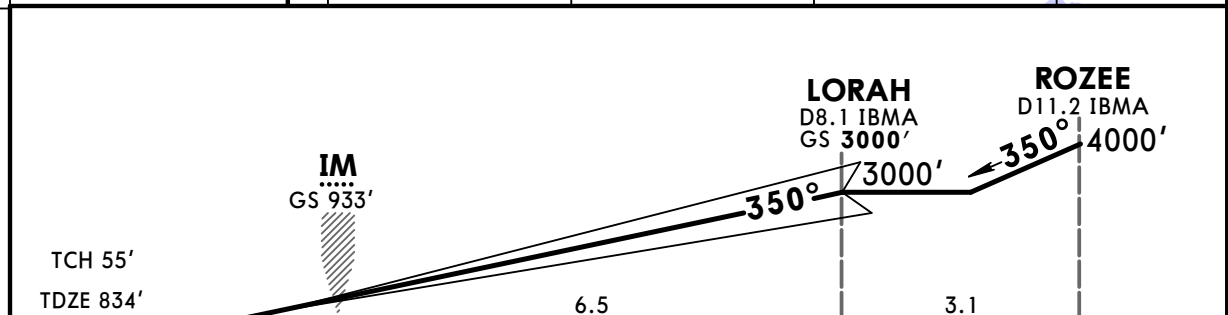
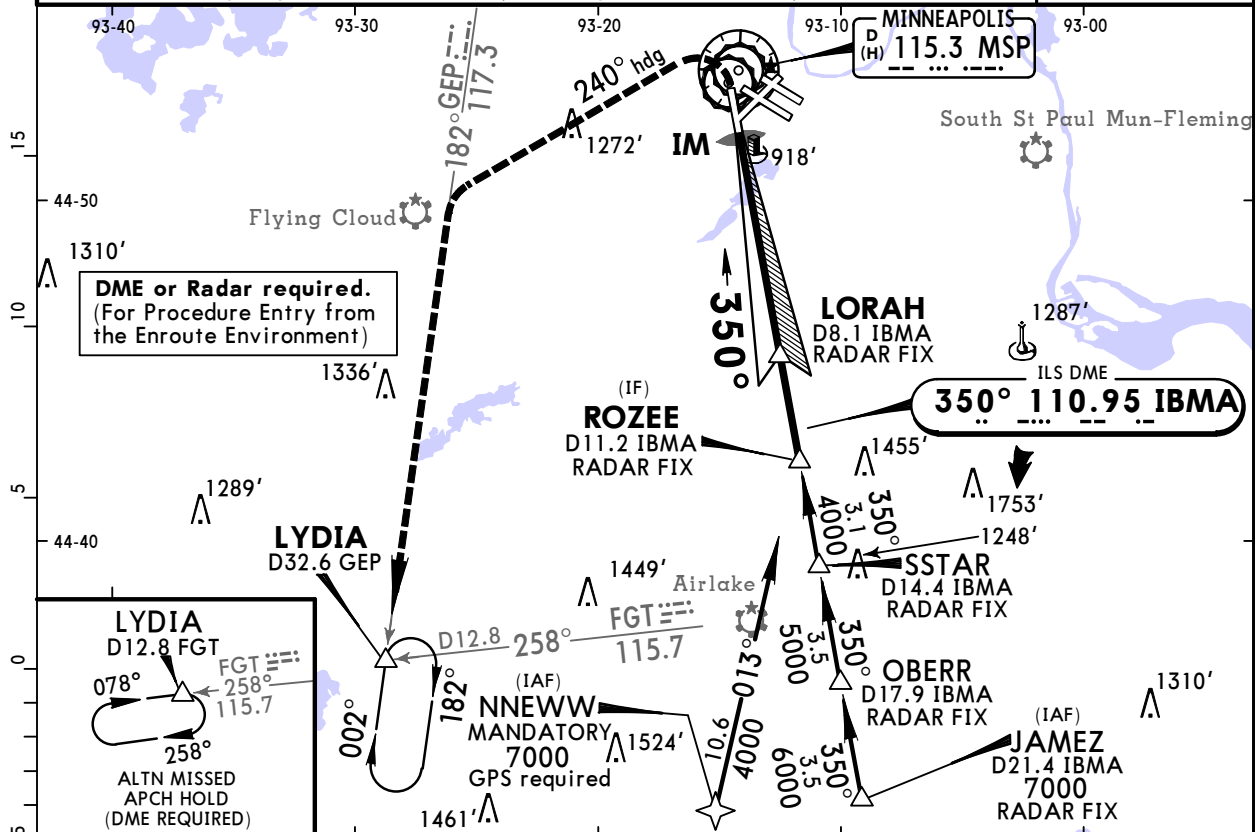
30 DEC 16

11-8A

Eff 5 Jan

MINNEAPOLIS, MINN
ILS Z Rwy 35
CAT II & III

BRIEFING STRIP™	D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		South		West	
	135.35		118.725		Rwy 17/35	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	121.8		121.9		127.92
	LOC		Final		CAT III		CAT II ILS		Apt Elev		842'		3500' 090° → ← 270° 2800' MSA MSP VOR
	IBMA		Apch Crs		Refer to		RA 106'		TDZE		834'		
	110.95		350°		Minimums		DA(H)						
			(2166')				944'(110')						
MISSED APCH: Climb to 1600' then climbing LEFT turn to 3000' on heading 240°and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold.													
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'													
1. Special Aircrew & Acft Certification Required. 2. DME or Radar required.													
3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 71').													



		0 0.1											
Gnd speed-Kts		70	90	100	120	140	160	ALSF-II PAPI	1600' ↑	3000' LT ↶	on	240° hdg	GEP and 117.3 R-182
GS	3.00°	372	478	531	637	743	849						

TERPS		STRAIGHT-IN LANDING RWY 35	
CAT III ILS		CAT II ILS RA 106' DA(H) 944'(110')	
RVR 6		RVR 12	

TERPS AMEND 5 5 JAN 2017

KMSP / MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

30 DEC 16
Eff 5 Jan

11-8B

MINNEAPOLIS, MINN

ILS Z Rwy 35 SA CAT I

D-ATIS	MINNEAPOLIS Approach (R)	Rwy 17/35	MINNEAPOLIS Tower Rwys 4/22, 12R/30L	Rwy 12L/30R	North	Ground South	West
135.35	118.725	123.67	126.7	123.95	121.8	121.9	127.92

LOC IBMA 110.95	Final Apch Crs 350°	GS LORAH 3000' (2166')	SA CAT I ILS RA 157' DA(H) 984'(150')	Apt Elev 842' TDZE 834'
------------------------------	----------------------------------	-------------------------------------	--	--------------------------------

MISSED APCH: Climb to 1600' then climbing LEFT turn to 3000' on heading 240° and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold.

Alt Set: INCHES

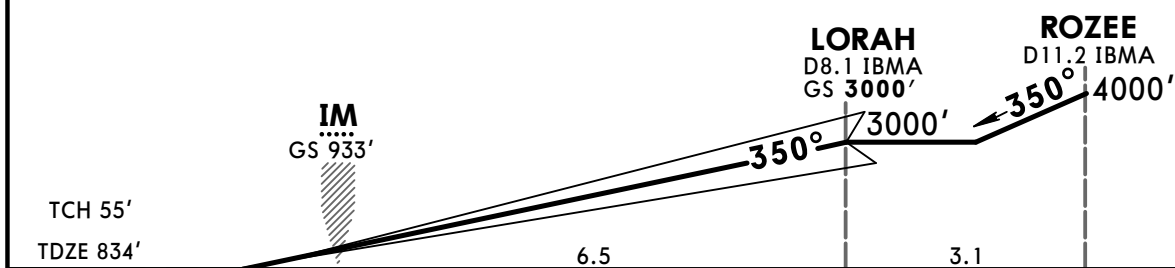
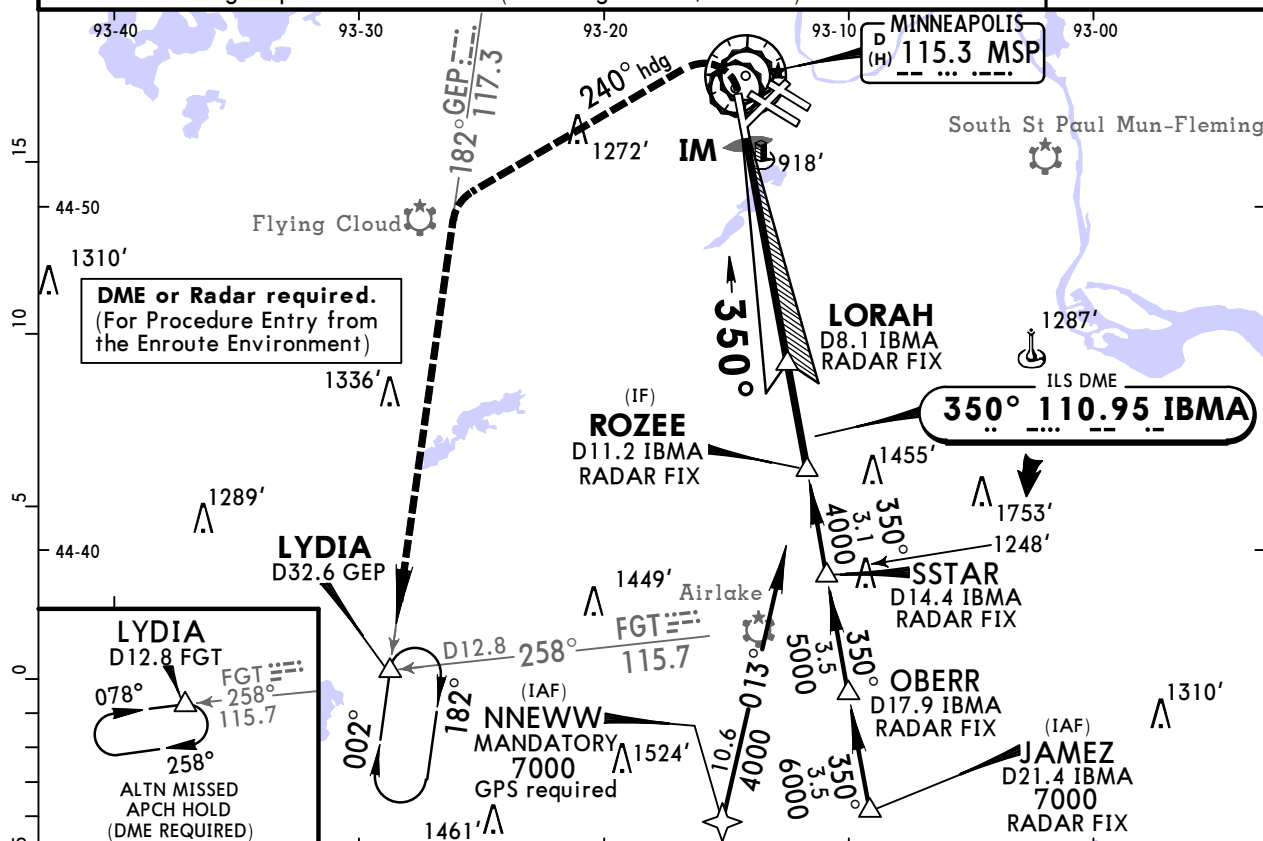
Trans level: FL 180

Trans alt: 18000'

1. Special Aircrew & Acft Certification Required. 2. DME or Radar required.

3. VGSI and ILS glidepath not coincident (VGSI angle 3.00° /TCH 71°).

MSA MSP VOR



0		0.1					ALSF-II		1600'		3000'		240°		GEP	
Gnd speed-Kts	70	90	100	120	140	160	PAPI		↑		LT on		hdg		and 117.3	
Gs	3.00°	372	478	531	637	743									R-182	

TERPS

STRAIGHT-IN LANDING RWY 35

1 SA CAT I ILS

RA 157'

DA(H) **984'** (150')

RVR 14

1 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

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TERPS AMEND 5 5 JAN 2017

KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

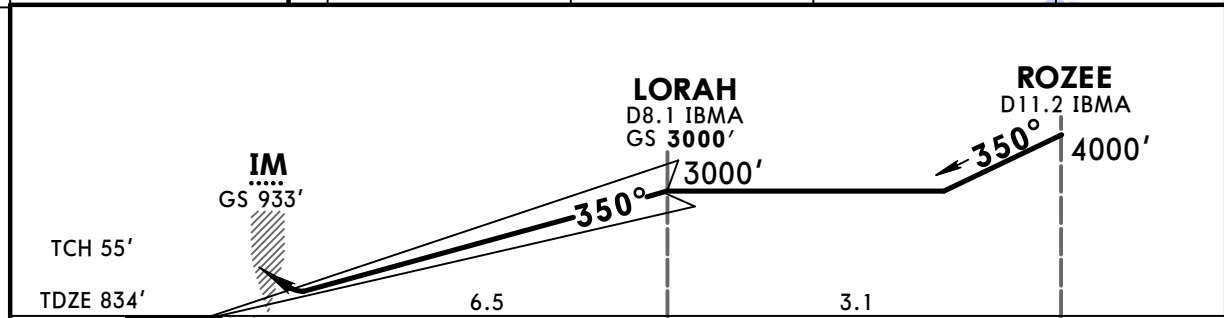
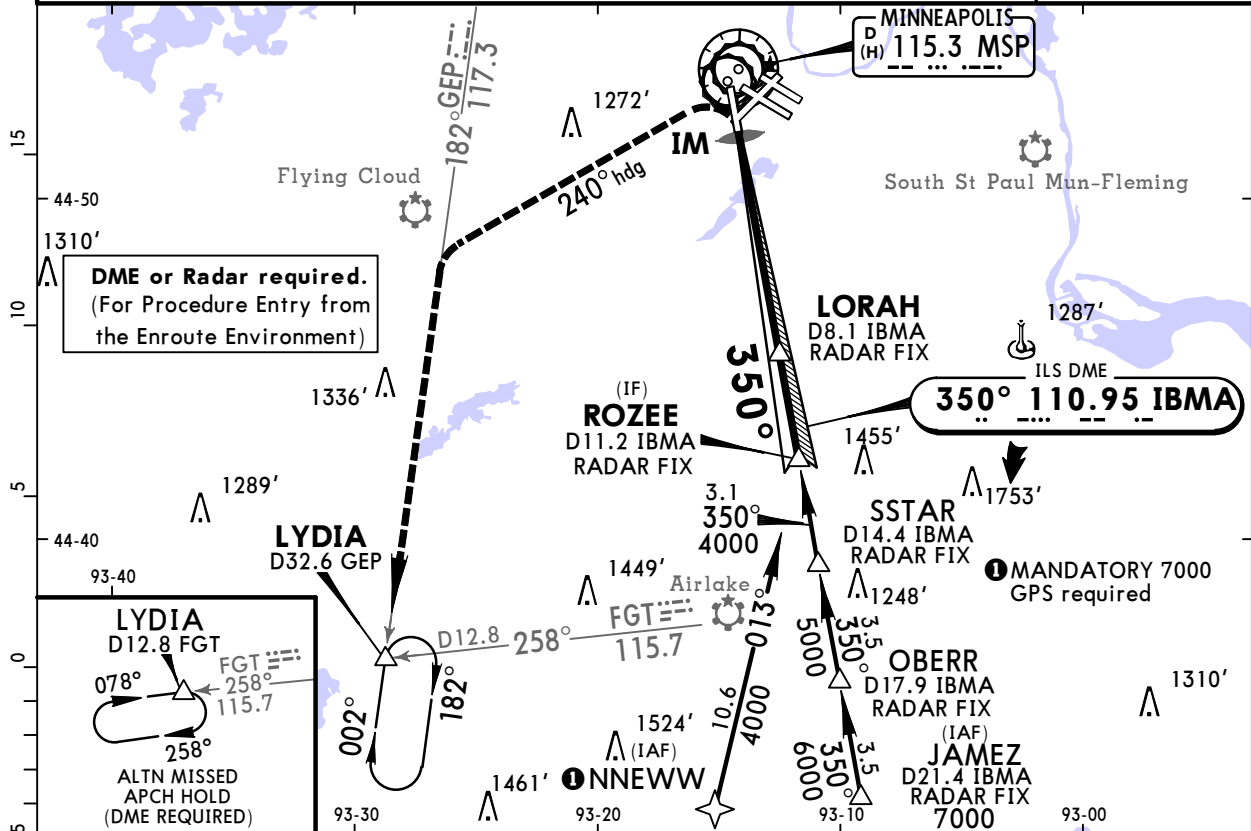
JEPPesen

30 DEC 16 (11-9) Eff 5 Jan

MINNEAPOLIS, MINN
ILS V Rwy 35
(CONVERGING)

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground	
135.35	118.725	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	Rwy 12L/30R 123.95	North 121.8	South 121.9	West 127.92
LOC IBMA 110.95	Final Apch Crs 350°	GS LORAH 3000' (2166')	ILS DA(H) 1684' (850')	Apt Elev 842' TDZE 834'	3500' 090° → ← 270° 2800' MSA MSP VOR		
MISSED APCH: Climbing LEFT turn to 3000' on heading 240° and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Simultaneous approach authorized. 2. No autoland on ILS V Rwy 35 (Converging). 3. VGSI and ILS glidepath not coincident (VGSI angle 3.0°/TCH 71').							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	240°	GEP
GS	3.00°	372	478	531	637	743	849	PAPI	←	on
										LT
										hdg
										and
										R-182

TERPS

STRAIGHT-IN LANDING RWY 35

ILS

DA(H) 1684' (850')

FULL

TDZ or CL out

ALS out

A

B

C

D

3

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPesen

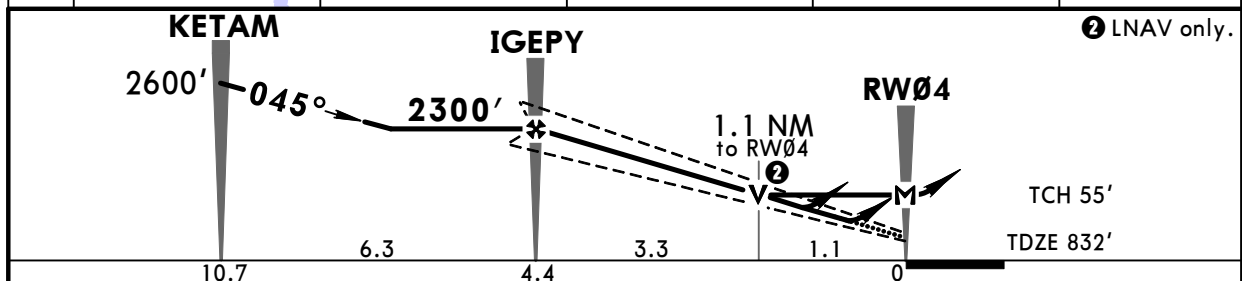
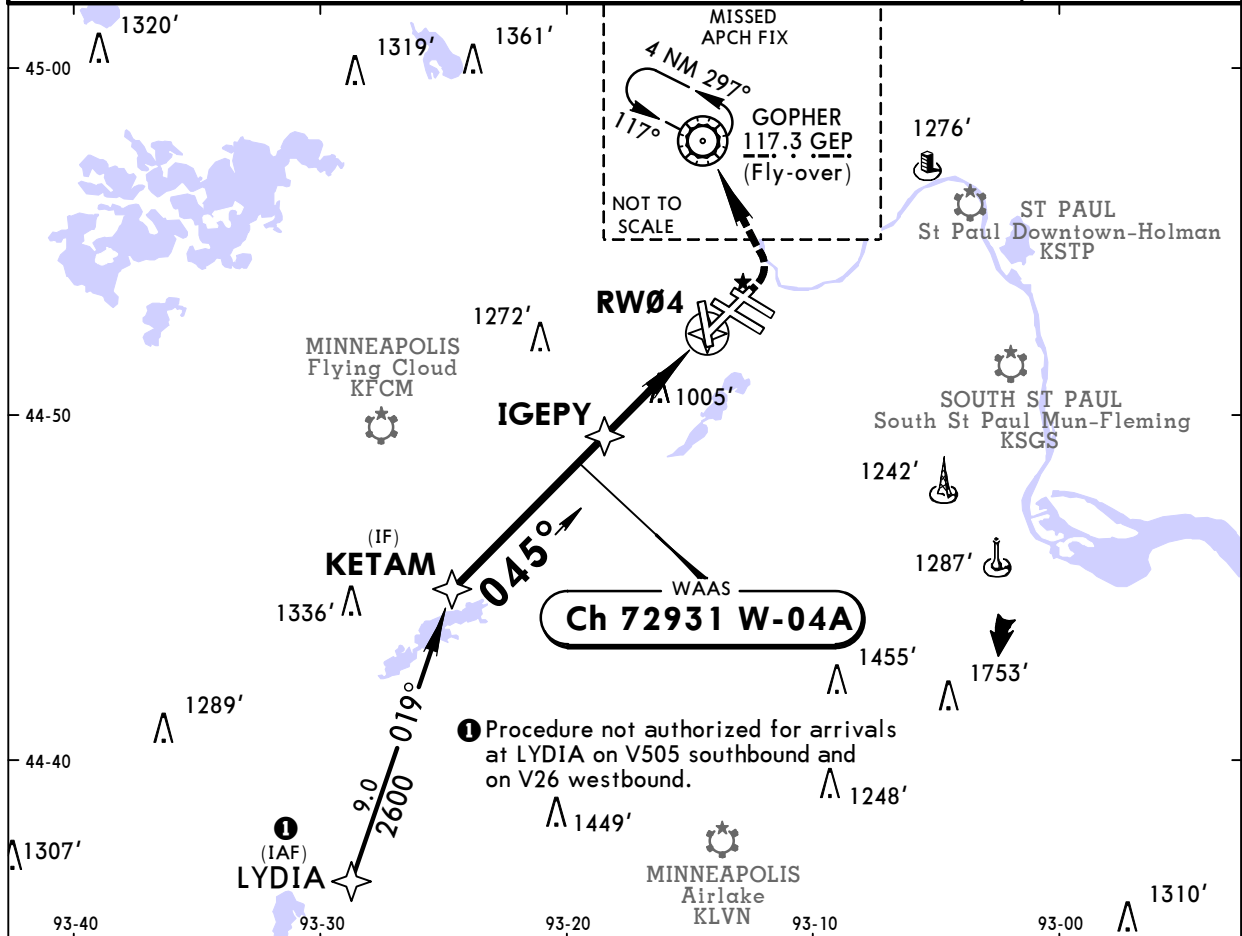
3 NOV 17 (12-1) Eff 9 Nov

MINNEAPOLIS, MINN

RNAV (GPS) Rwy 4

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		North	Ground South	West
135.35	119.3	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	121.8	121.9	127.92
WAAS Ch 72931 W-04A	Final Apch Crs 045°	Minimum Alt IGEPY 2300' (1468')	LPV DA(H) 1032' (200')	Apt Elev 842' TDZE 832'	3500 MSA RW04		
MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' direct GEP VOR and hold.							
Alt Set: INCHES							



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1300'	3000'	GEP
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI	↑	LT	117.3
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW04										

TERPS				STRAIGHT-IN LANDING RWY 4				CIRCLE-TO-LAND			
LPV		LNAV/VNAV		LNAV		LNAV		CIRCLE-TO-LAND		CIRCLE-TO-LAND	
DA(H) 1032' (200')		DA(H) 1279' (447')		MDA(H) 1260' (428')		MDA(H) 1260' (428')		Max Kts		MDA(H)	
RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		90		1360' (518') - 1	
A	1										
B	RVR 24	RVR 40	RVR 50	1 1/2	RVR 24	RVR 50					
C	or 1/2	or 3/4	or 1		or 1/2	or 1					
D					RVR 40 or 3/4	RVR 60 or 1/4					
					RVR 45 or 7/8	1 3/8					

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Minimums, notes.

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TERPS AMEND 2C 9 NOV 2017

KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESSEN

3 NOV 17

Eff 9 Nov

(12-2)

MINNEAPOLIS, MINN

RNAV (GPS) Z Rwy 12L

BRIEFING STRIP™

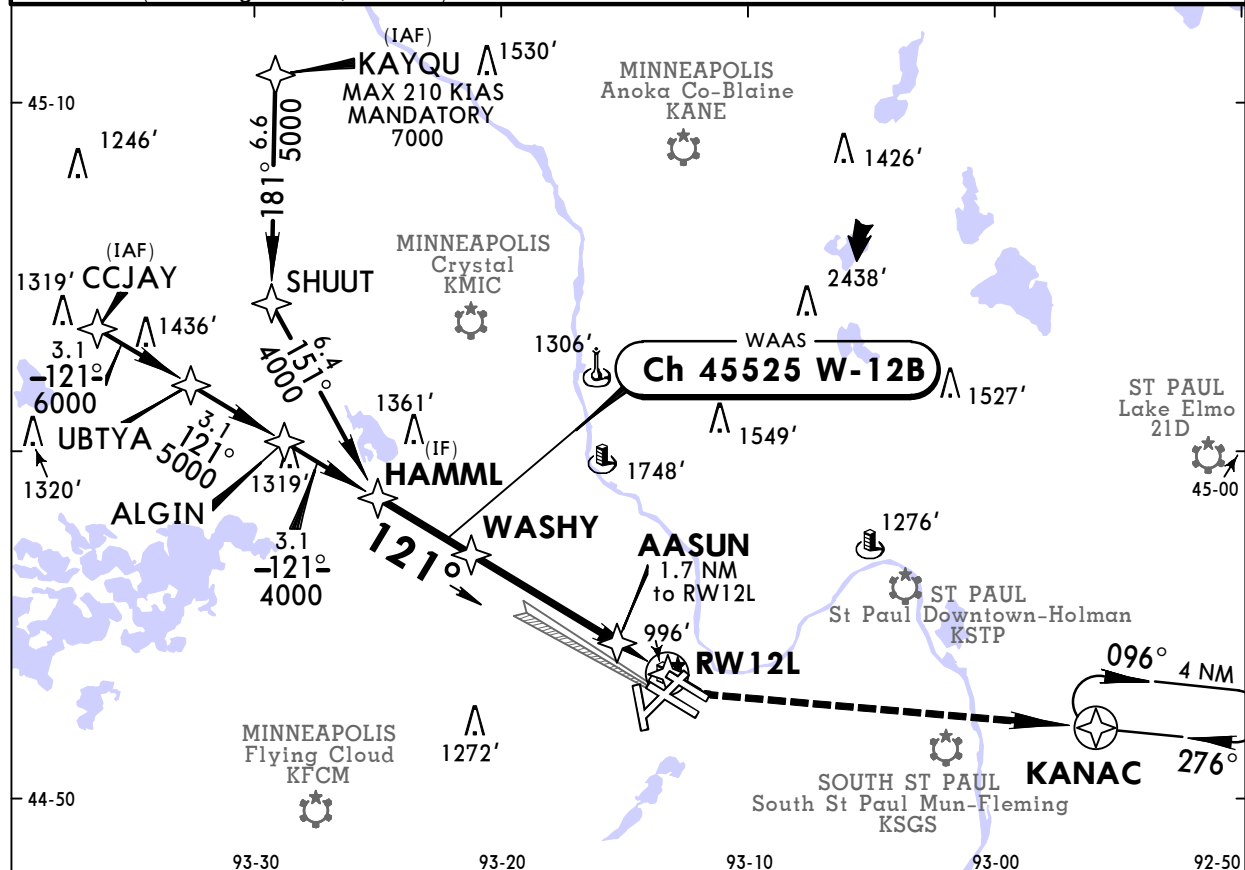
D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground		
135.35	119.3		Rwy 12L/30R 123.95	Rwys 4/22, 12R/30L 126.7	North 121.8	South 121.9	West 127.92
WAAS Ch 45525 W-12B	Final Apch Crs 121°	Minimum Alt WASHY 3000'(2159')	LPV DA(H) 1041'(200')	Apt Elev 842' TDZE 841'		3500 MSA RW12L	
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' direct KANAC and hold.							

Alt Set: INCHES

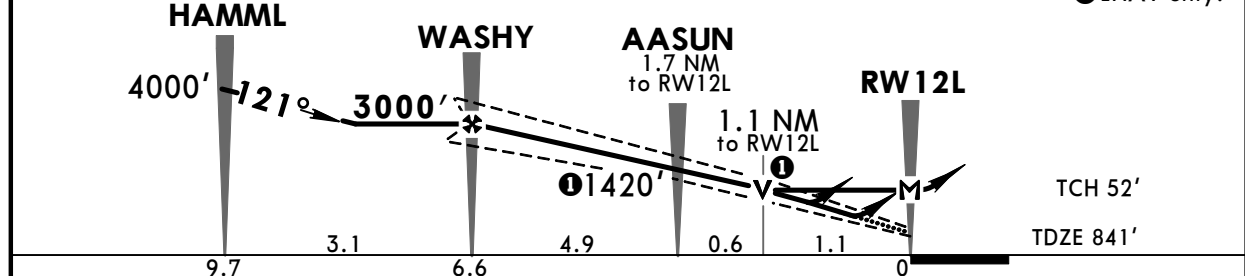
Trans level: FL 180

Trans alt: 18000'

1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -20°C (-4°F) or above 54°C (130°F). 2. Simultaneous approach authorized with Rwy 12R. 3. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 4. LNAV procedure not authorized during simultaneous operations. 5. DME/DME RNP-0.30 not authorized. 6. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 79').



① LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	ALSFI-II	1300'	3000'	LT	→ KANAC
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI				
LPV, LNAV/VNAV: MAP at DA											
LNAV: MAP at RW12L											

TERPS

STRAIGHT-IN LANDING RWY 12L

CIRCLE-TO-LAND

LPV				LNAV/VNAV		LNAV		C Max Kts.	MDA(H)
DA(H) 1041'(200')				DA(H) 1211'(370')		MDA(H) 1260'(419')			
TDZ/CL out		ALS out		ALS out		ALS out			
A									
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 24 or 1/2	RVR 50 or 1	90	1360'(518') - 1
C						RVR 40 or 3/4	RVR 60 or 1 1/4	120	
D								140	1460'(618') - 1 3/4
								165	1660'(818') - 2 3/4

CHANGES: None.

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TERPS AMEND 5A 17 AUG 2017

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN
JEPPesen
 20 OCT 17 (12-3)

MINNEAPOLIS, MINN
RNAV (GPS) Z Rwy 12R

BRIEFING STRIP

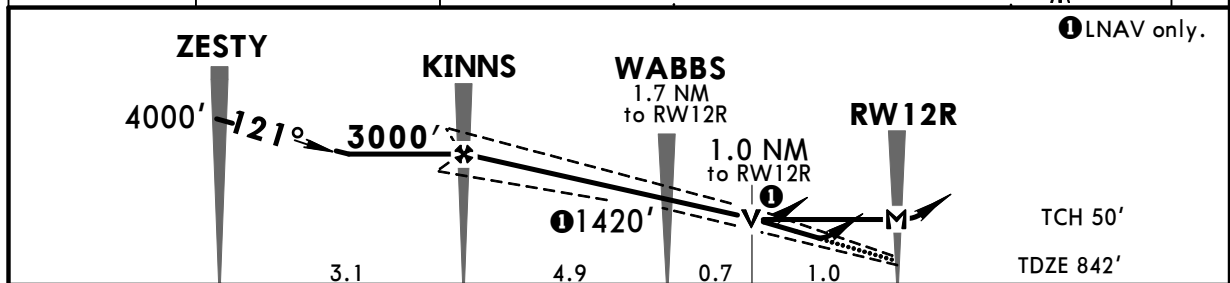
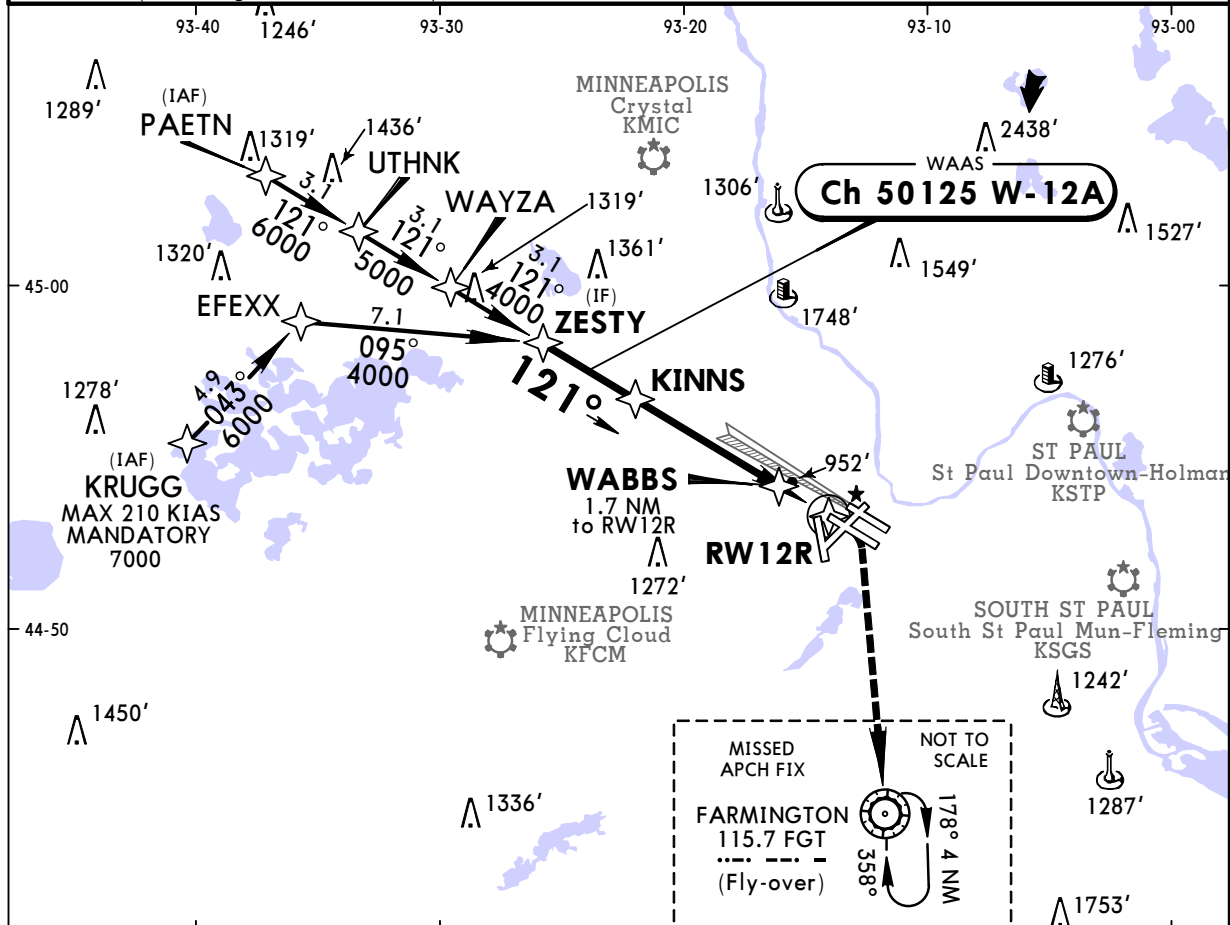
D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground	
135.35	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
		126.7	123.95	121.8	121.9	127.92
WAAS Ch 50125 W-12A	Final Apch Crs 121°	Minimum Alt KINNS 3000' (2158')	LPV DA(H) 1042' (200')	Apt Elev 842' TDZE 842'	3500 MSA RW12R	
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' direct FGT VOR and hold.						

Alt Set: INCHES

Trans level: FL 180

Trans alt: 18000'

1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -20°C (-4°F) or above 54°C (130°F). 2. Simultaneous approach authorized with Rwy 12L. 3. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 4. LNAV procedure not authorized during simultaneous operations. 5. DME/DME RNP-0.30 not authorized. 6. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 66').



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II	1300'	3000'	FGT 115.7
Glide Path Angle	3.00°	372	478	531	637	743	PAPI	↑	RT	
LPV, LNAV/VNAV: MAP at DA										
LNAV: MAP at RW12R										

TERPS				STRAIGHT-IN LANDING RWY 12R						CIRCLE-TO-LAND	
LPV DA(H) 1042' (200')				LNAV/VNAV DA(H) 1211' (369')		LNAV MDA(H) 1220' (378')		 Max Kts	MDA(H) _____		
TDZ/CL out		ALS out		ALS out							
A	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 24 or 1/2	RVR 50 or 1	90	1360' (518') - 1		
B						RVR 35 or 3/4	RVR 55 or 1 1/4	120			
C								140			
D								165			
									1460' (618') - 1 3/4		
									1660' (818') - 2 3/4		

CHANGES: LPV minimums.

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TERPS AMEND 4A 12 OCT 2017

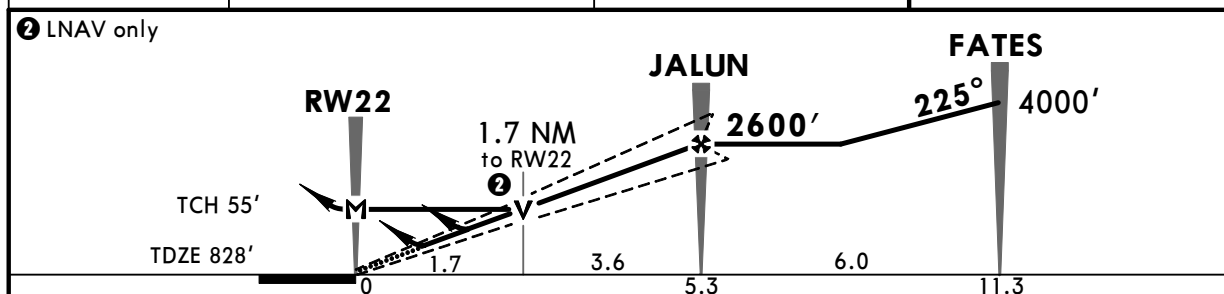
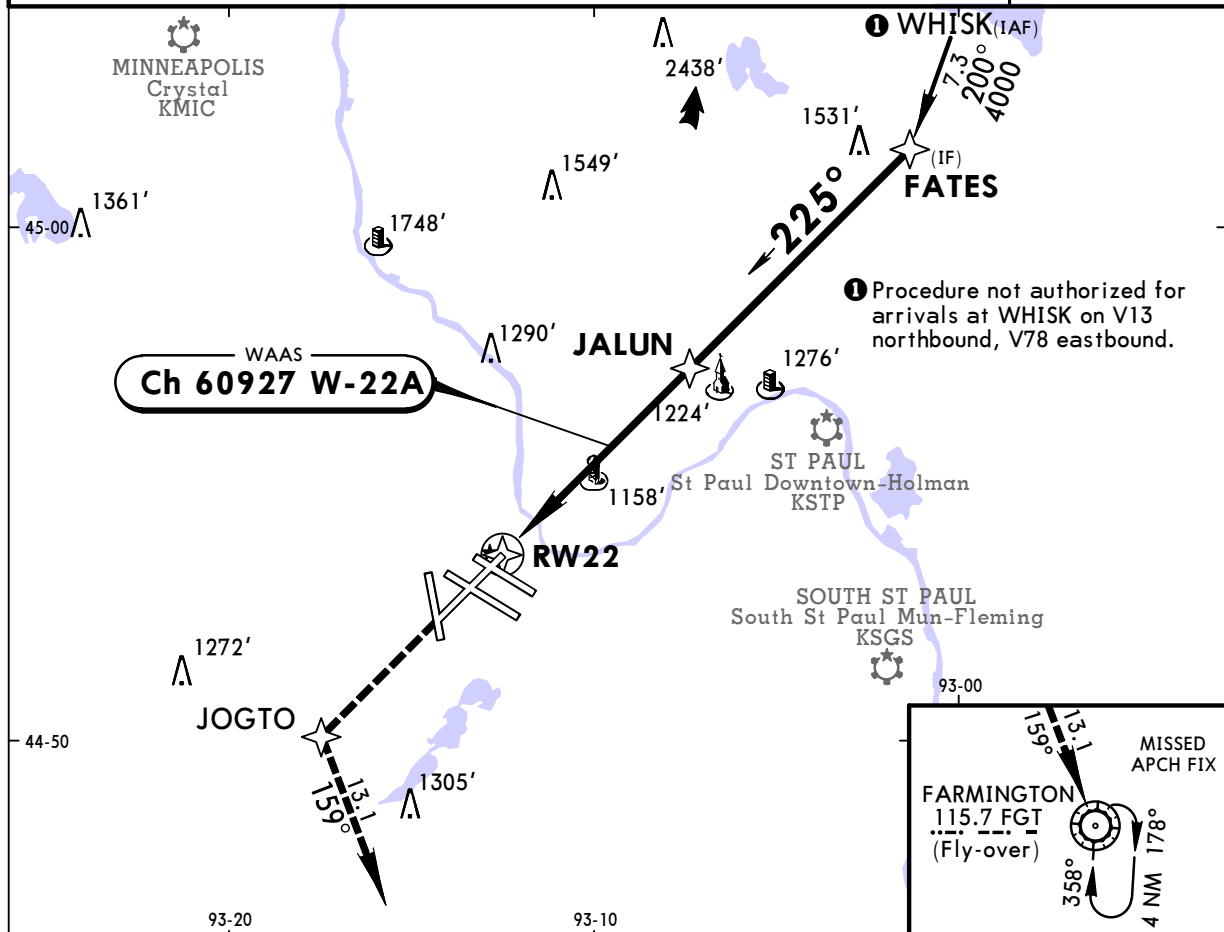
KMSP/MSP
 MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN

JEPPesen
 20 OCT 17 (12-4)

MINNEAPOLIS, MINN
RNAV (GPS) Rwy 22

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground		
			Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
135.35	119.3		126.7 123.95		121.8	121.9	127.92
WAAS Ch 60927 W-22A	Final Apch Crs 225°	Minimum Alt JALUN 2600' (1772')	LPV DA(H) 1190' (362')	Apt Elev 842' TDZE 828'		3500 MSA RW22	
MISSED APCH: Climb to 3000' direct JOGTO and on track 159° to FGT VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -27°C (-16°F) or above 54°C (130°F). 3. VGSI and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	3000' ↑ JOGTO	3000' ↑ JOGTO
Glide Path Angle	3.00°	372	478	531	637	849		
LPV, LNAV/VNAV: MAP at DA								
LNAV: MAP at RW22								

TERPS				STRAIGHT-IN LANDING RWY 22				CIRCLE-TO-LAND			
LPV		LNAV/VNAV		LNAV		LNAV		CIRCLE-TO-LAND		CIRCLE-TO-LAND	
DA(H) 1190' (362')		DA(H) 1227' (399')		MDA(H) 1420' (592')		MDA(H) 1420' (592')		MDA(H) 1420' (592')		MDA(H) 1420' (592')	
RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out	
A		B		C		D		E		F	
RVR 40 or 3/4		RVR 45 or 7/8		RVR 40 or 3/4		RVR 60 or 1/4		RVR 40 or 3/4		RVR 60 or 1/4	
1 1/8		1 1/4		1 1/4		1 3/4		1 1/8		1 1/4	
140		140		140		140		140		140	
1660' (818') - 2 3/4		1660' (818') - 2 3/4		1660' (818') - 2 3/4		1660' (818') - 2 3/4		1660' (818') - 2 3/4		1660' (818') - 2 3/4	

CHANGES: None.

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TERPS AMEND 1B 30 APR 2015

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN



11 AUG 17 (12-5)

MINNEAPOLIS, MINN
RNAV (GPS) Z Rwy 30L

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			Ground		
		Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	North	South	West
135.35	126.95	126.7	123.95	123.67	121.8	121.9	127.92

WAAS Ch 56225 W-30A	Final Apch Crs 301°	Minimum Alt NARCO 3000' (2177')	LPV DA(H) 1023' (200')	Apt Elev 842' TDZE 823'	
----------------------------------	----------------------------------	---	-------------------------------------	----------------------------	---

MISSED APCH: Climb to 3000' direct WOXEB and hold.

Alt Set: INCHES

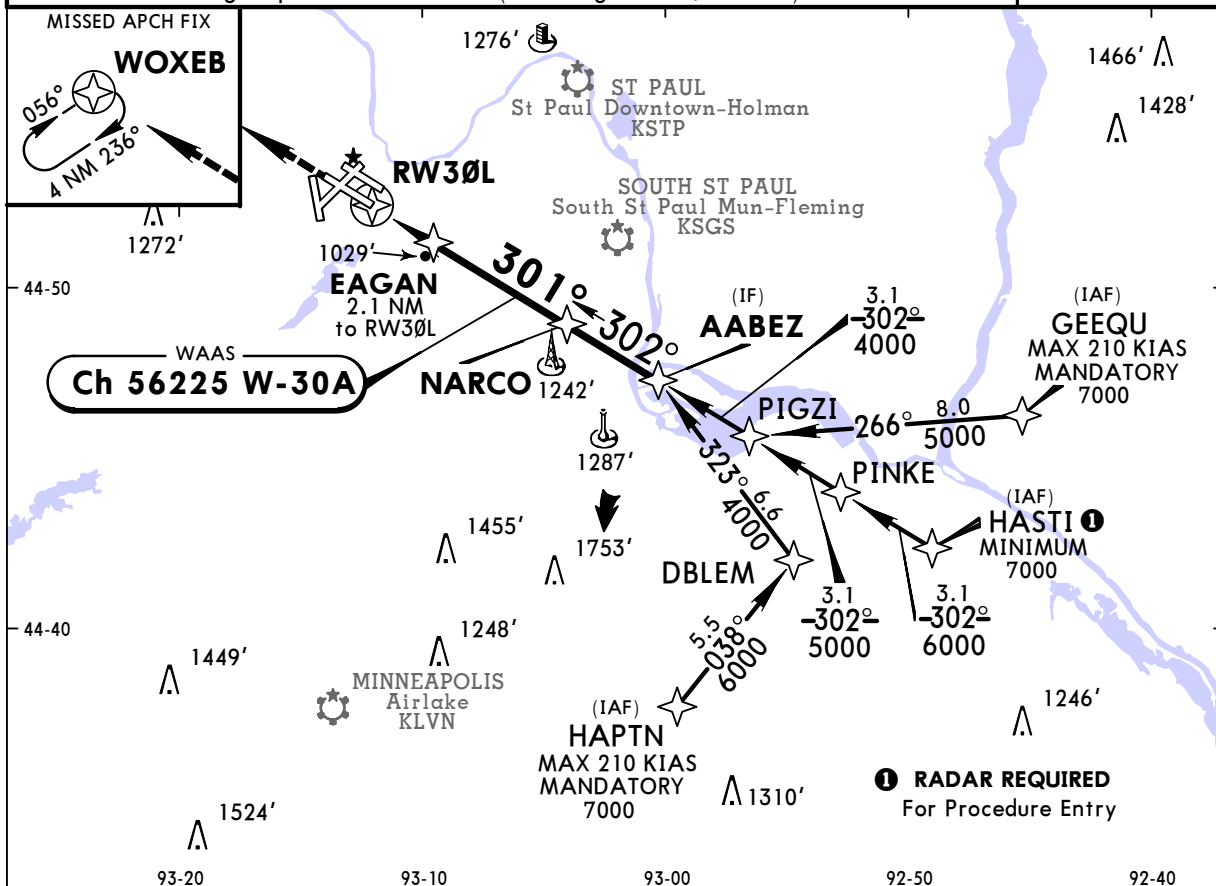
Trans level: FL 180

Trans alt: 18000'

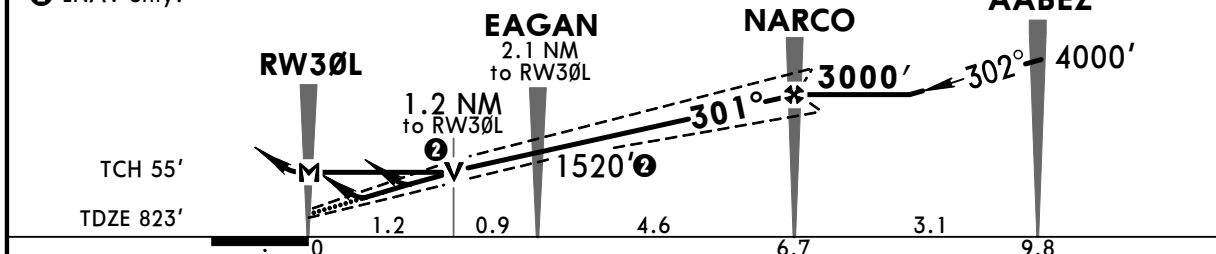
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) or above 54°C (130°F).
2. Simultaneous approaches authorized with Rwy 30R and ILS V Rwy 35 (CONVERGING).
3. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations.
4. LNAV procedure not authorized during simultaneous operations.
5. DME/DME RNP-0.30 not authorized.
6. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 78').

3500

MSA RW30L



② LNAV only.



Gnd speed-Kts	70	90	100	120	140	160			WOXE
Glide Path Angle 3.00°	372	478	531	637	743	849			
LPV, LNAV/VNAV: MAP at DA									
LNAV: MAP at RW30L									

TERPS

STRAIGHT-IN LANDING RWY 30L

CIRCLE-TO-LAND

LPV DA(H) 1023' (200')				LNAV/VNAV DA(H) 1130' (307')		LNAV MDA(H) 1280' (457')		C Max Kts MDA(H)		
TDZ/CL out		ALS out	ALS out		ALS out					
A	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 50 or 1	90	1360' (518') - 1	
B								120		
C						RVR 45 or 7/8	1 3/8	140		1460' (618') - 1 3/4
D								165		1660' (818') - 2 3/4

CHANGES: LPV Visibilities.

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TERPS AMEND 5A 17 AUG 2017

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

JEPPESEN

11 AUG 17 (12-6)

MINNEAPOLIS, MINN
RNAV (GPS) Z Rwy 30R

BRIEFING STRIP™

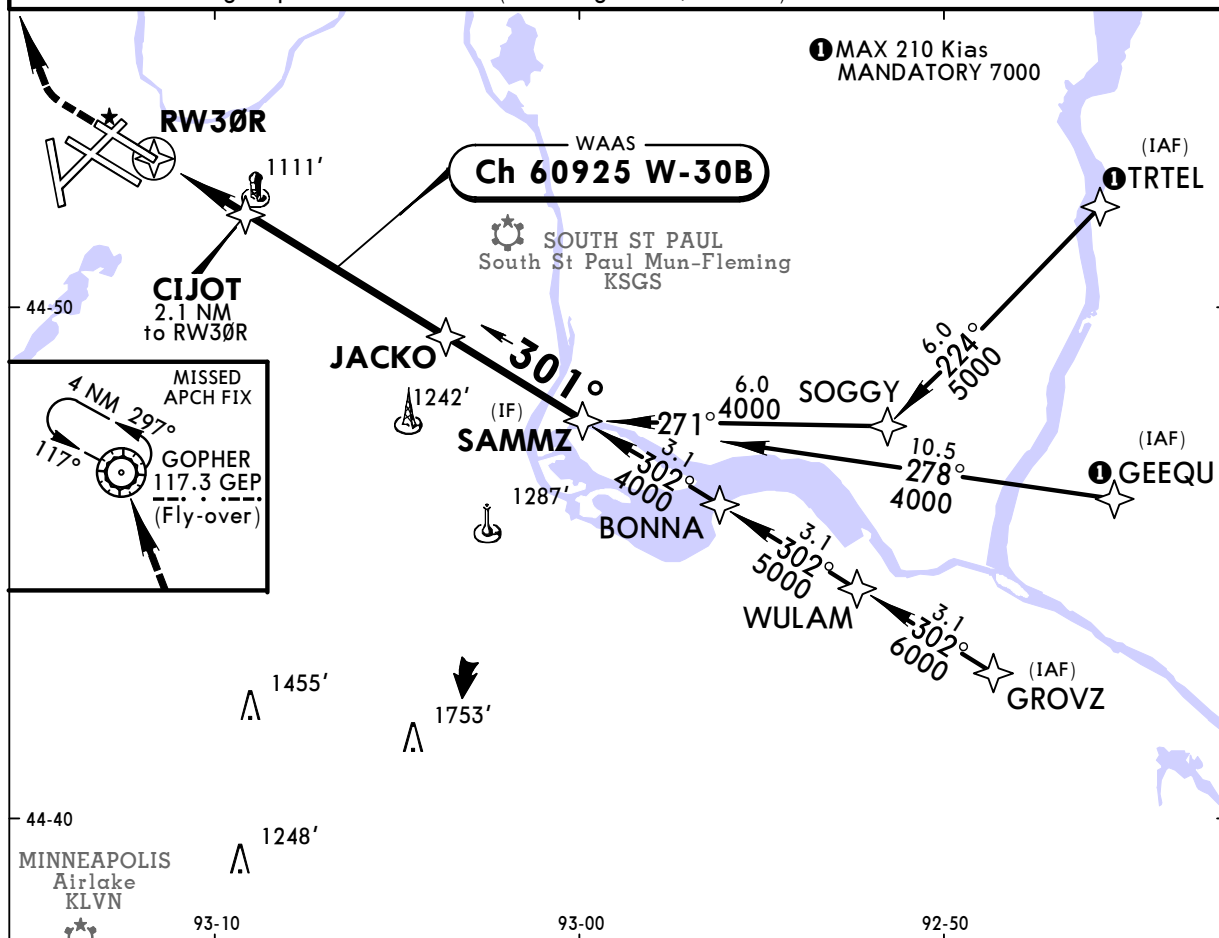
D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower	Rwy 17/35	North	Ground South	West
135.35	119.3	Rwy 12L/30R 123.95 Rwys 4/22, 12R/30L 126.7	123.67	121.8	121.9	127.92
WAAS Ch 60925 W-30B	Final Apch Crs 301°	Minimum Alt JACKO 3000' (2178')	LPV DA(H) 1072' (250')	Apt Elev 842' TDZE 822'	3500 MSA RW30R	
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct GEP VOR and hold.						

Alt Set: INCHES

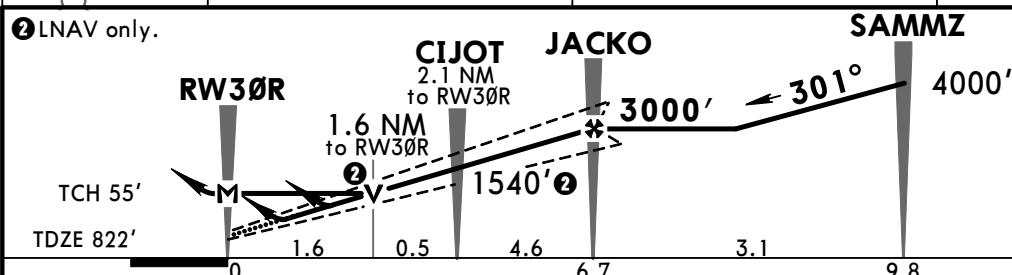
Trans level: FL 180

Trans alt: 18000'

1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) or above 54°C (130°F). 2. Simultaneous approaches authorized with Rwy 30L and ILS V Rwy 35 (CONVERGING). 3. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 4. LNAV procedure not authorized during simultaneous operations. 5. DME/DME RNP-0.30 not authorized. 6. VGSI and RNAV glidepath not coincident (VGSI angle 3.0°/TCH 71').



② LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	MALSF	1300'	3000'	GEP	117.3
Glide Path Angle	3.00°	372	478	531	637	743	PAPI	↑	RT	→	
LPV, LNAV/VNAV: MAP at DA											
LNAV: MAP at RW30R											
TERPS											
STRAIGHT-IN LANDING RWY 30R						CIRCLE-TO-LAND					
LPV	DA(H) 1072' (250')	LNAV/VNAV	DA(H) 1316' (494')	LNAV	MDA(H) 1400' (578')	C					
	ALS out		ALS out		ALS out						
A						Max Kts	MDA(H)				
B	RVR 40 or 3/4	1 3/8	1 5/8	RVR 40 or 3/4	RVR 50 or 1	90	1400' (558') -1				
C						120	1460' (618') -1 3/4				
D						140	1460' (618') -1 3/4				
						165	1660' (818') -2 3/4				

CHANGES: None.

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TERPS AMEND 4 22 JUN 2017

KMSP/MSP
MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

11 AUG 17 (12-7)

MINNEAPOLIS, MINN
RNAV (GPS) Z Rwy 35

BRIEFING STRIP™

D-ATIS

MINNEAPOLIS Approach (R)

Rwy 17/35

MINNEAPOLIS Tower
Rwys 4/22, 12R/30L

Rwy 12L/30R

North

Ground
South

West

135.35

118.725

123.67

126.7

123.95

121.8

121.9

127.92

WAAS

Ch 90128

W-35A

Final

Apch Crs

350°

Minimum Alt

LORAH

3000' (2166')

LPV

DA(H)

1034' (200')

Apt Elev 842'

TDZE 834'

MISSED APCH: Climb to 3000' direct CHETZ and on track 335° to GEP VOR and hold.

Alt Set: INCHES

Trans level: FL 180

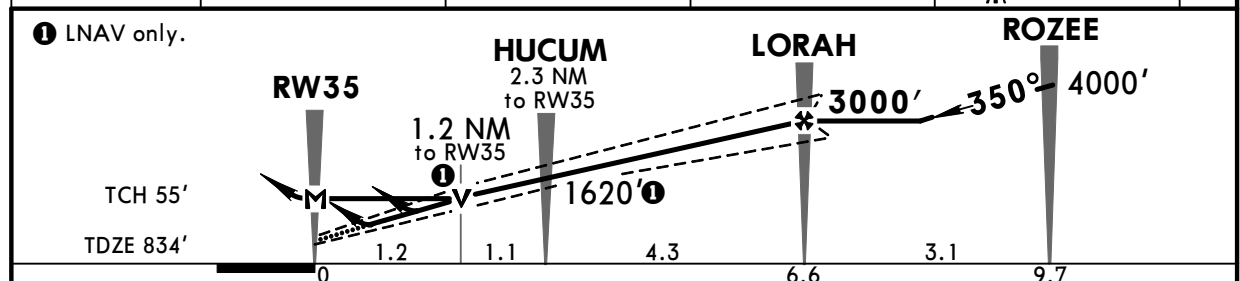
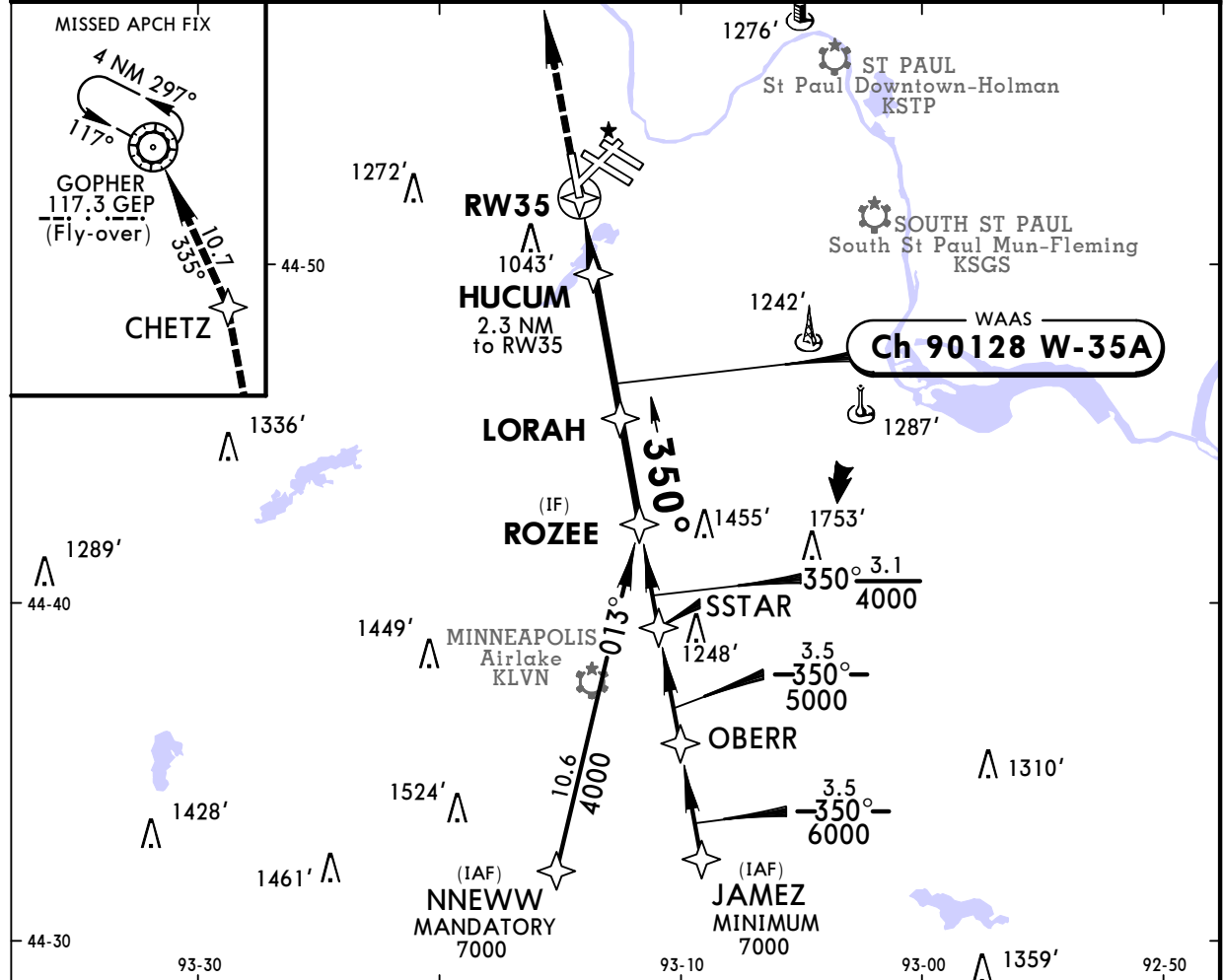
Trans alt: 18000'

1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) or above 54°C (130°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/ TCH 71').

3500

MSA RW35

UNTERVORSTRI



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II	3000'	CHETZ
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI		
LPV, LNAV/VNAV: MAP at DA									
LNAV: MAP at RW35									

TERPS						STRAIGHT-IN LANDING RWY 35			CIRCLE-TO-LAND		
LPV			LNAV/VNAV			LNAV					
DA(H) 1034' (200')			DA(H) 1204' (370')			MDA(H) 1300' (466')					
TDZ/CL out			ALS out			ALS out			Max Kts		
									MDA(H)		
A									90	1360' (518') - 1	
B	RVR 18	RVR 24	RVR 40	RVR 40	RVR 60	RVR 24 or 1/2	RVR 50 or 1		120		
C	or 1/2	or 1/2	or 3/4	or 3/4	or 1 1/4	RVR 50 or 1	1 3/8		140	1460' (618') - 1 3/4	
D									165	1660' (818') - 2 3/4	

CHANGES: LPV visibilities.

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TERPS AMEND 4A 17 AUG 2017

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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

30 DEC 16

Eff 5 Jan

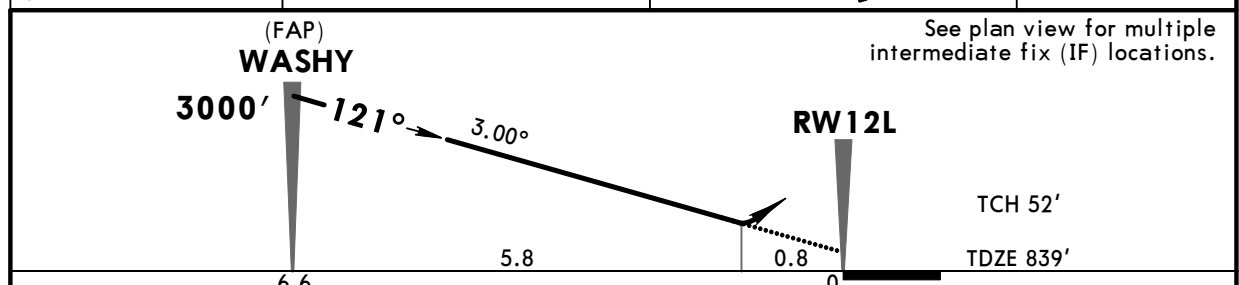
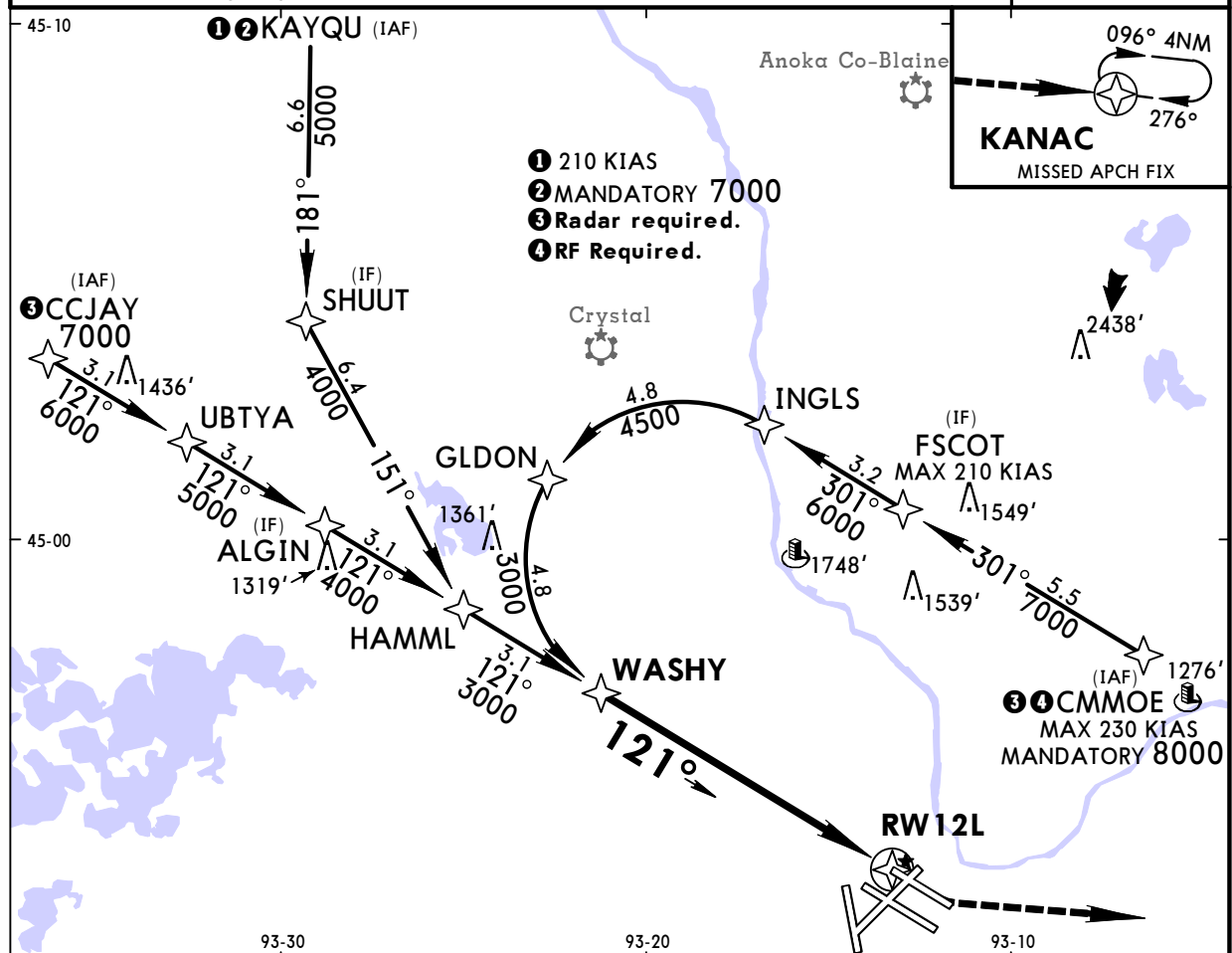
(12-20)

MINNEAPOLIS, MINN

RNAV (RNP) Y Rwy 12L

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower				Ground	
		Rwy 17/35	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
135.35	119.3	123.67	126.7	123.95	121.8	121.9	127.92
RNAV	Final Apch Crs 121°	Minimum Alt WASHY 3000' (2161')	RNP 0.15 DA(H) 1150' (311')	Apt Elev 842' TDZE 839'	3500' MSA RW12L		
MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' direct KANAC and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. For uncompensated Baro-VNAV systems, procedure not authorized below -20°C (-4°F) or above 54°C (130°F). 4. VGSi and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1300'	3000'	LT	KANAC
Glide Path Angle	3.00°	372	478	531	637	743	PAPI	↑	↑	LT	→
MAP at DA											

TERPS				STRAIGHT-IN LANDING RWY 12L			
RNP 0.15		RNP 0.30		RNP 0.15		RNP 0.30	
DA(H) 1150' (311')		DA(H) 1241' (402')		DA(H) 1150' (311')		DA(H) 1241' (402')	
ALS out		ALS out		ALS out		ALS out	
A							
B							
C	RVR 24 or 1/2	RVR 50 or 1	RVR 45 or 7/8	RVR 24 or 1/2	RVR 50 or 1	RVR 45 or 7/8	1 3/8
D							

KMSP/MSP
**MINNEAPOLIS-ST PAUL INTL/
 WOLD-CHAMBERLAIN**

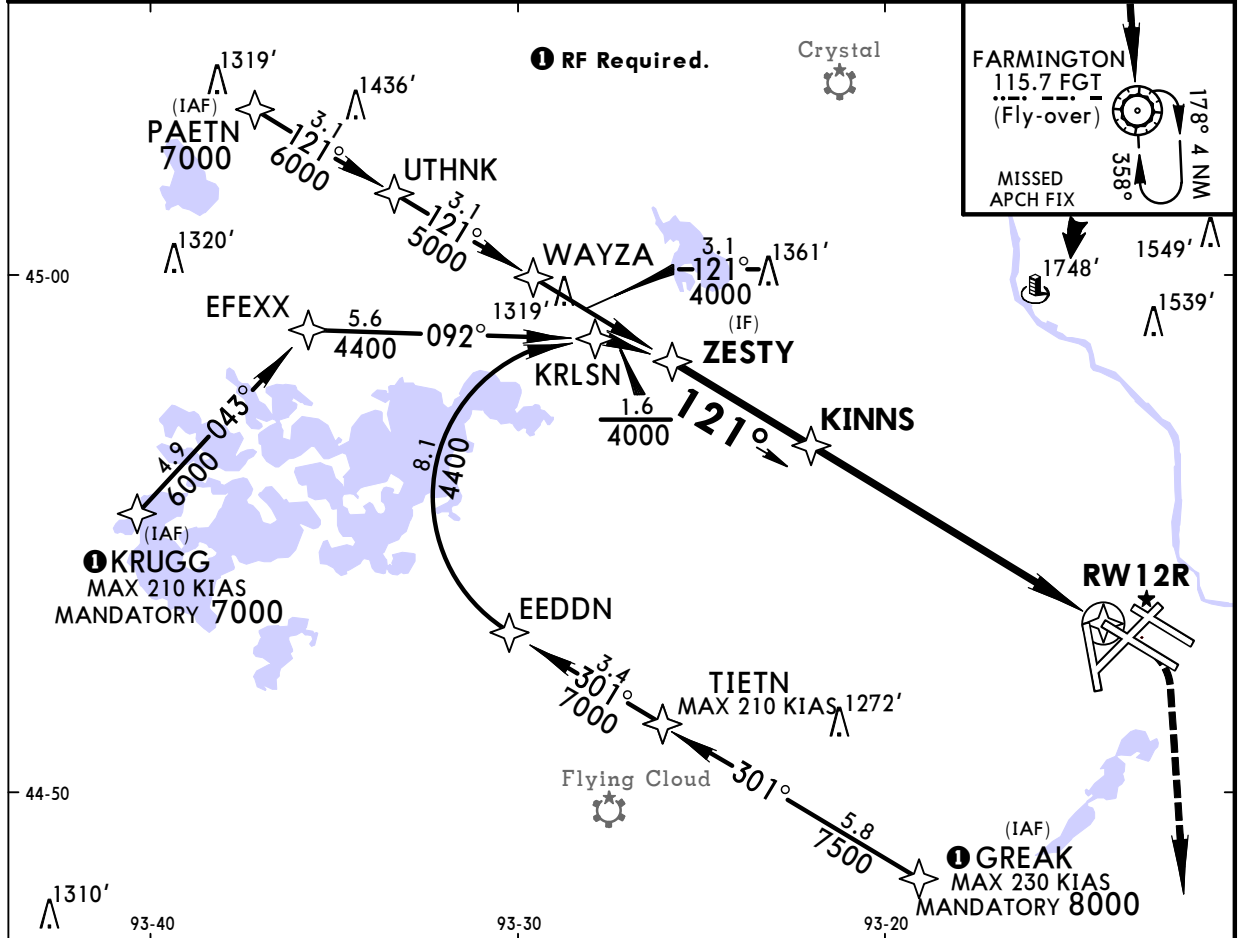
 30 DEC 16
 Eff 5 Jan

12-21

MINNEAPOLIS, MINN
RNAV (RNP) Y Rwy 12R

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower				Ground	
		Rwy 17/35	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
135.35	126.95	123.67	126.7	123.95	121.8	121.9	127.92
RNAV	Final Apch Crs 121°	Minimum Alt KINNS 3000' (2158')	RNP 0.15 DA(H) 1191' (349')	Apt Elev 842' TDZE 842'	3500' MSA RW12R		
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' direct FGT VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. Simultaneous approach authorized with Rwy 12L. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -20°C (-4°F) or above 54°C (130°F). 5. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 66').							



ZESTY (FAP) KINNS RWY 12R 4000' 121° 3000' 3.00° 0.9 TCH 50' TDZE 842' 9.7 3.1 6.6 5.7 0 <table><tr><td>Gnd speed-Kts</td><td>70</td><td>90</td><td>100</td><td>120</td><td>140</td><td>160</td></tr><tr><td>Glide Path Angle 3.00°</td><td>372</td><td>478</td><td>531</td><td>637</td><td>743</td><td>849</td></tr><tr><td>MAP at DA</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> ALSF-II PAPI 1300' 3000' RT FGT 115.7										Gnd speed-Kts	70	90	100	120	140	160	Glide Path Angle 3.00°	372	478	531	637	743	849	MAP at DA						
Gnd speed-Kts	70	90	100	120	140	160																								
Glide Path Angle 3.00°	372	478	531	637	743	849																								
MAP at DA																														

TERPS AMEND 1 5 JAN 2016

RNP 0.15		RNP 0.30	
DA(H) 1191' (349')		DA(H) 1251' (409')	
ALS out		ALS out	
A			
B			
C	RVR 40 or 3/4	RVR 60 or 1/4	RVR 45 or 7/8
D			13/8

CHANGES: Note, transitions, minimums.

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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

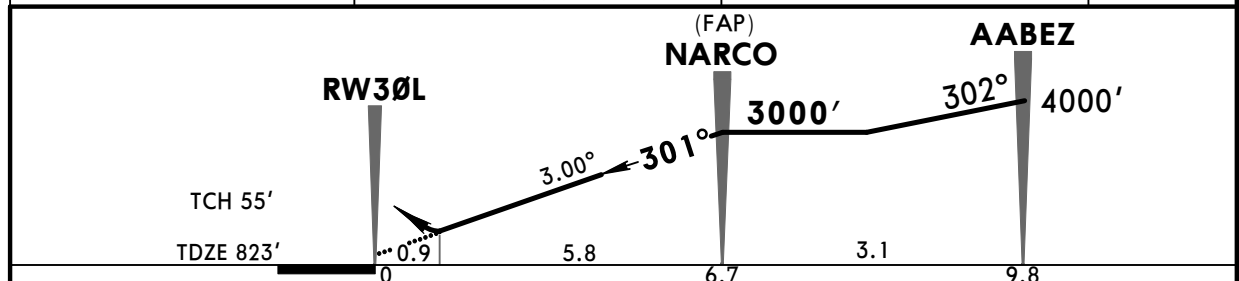
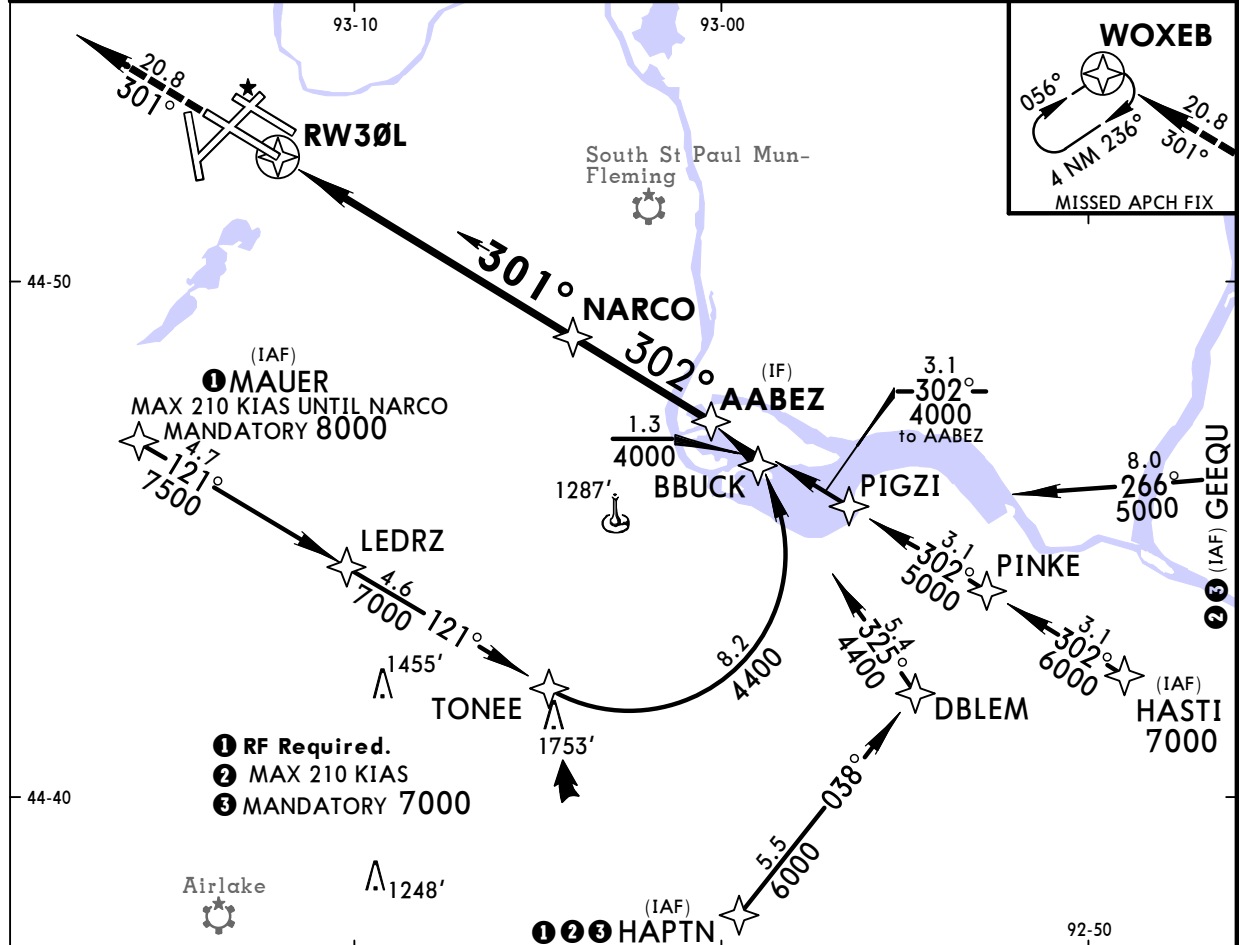
10 FEB 17

(12-22)

JEPPESEN MINNEAPOLIS, MINN
RNAV (RNP) Y Rwy 30L

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	126.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	Rwy 12L/30R 123.95	121.8	121.9	127.92
RNAV	Final Apch Crs 301°	Minimum Alt NARCO 3000' (2177')	RNP 0.30 DA(H) 1150' (327')	Apt Elev 842' TDZE 823'	3500' MSA RW30L		
MISSED APCH: Climb to 3000' on track 301° to WOXEB and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. Simultaneous approaches authorized with Rwy 30R and ILS V Rwy 35 (CONVERGING). 4. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) or above 54°C (130°F). 5. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 78').							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	301°	WOXEB
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI	↑	on	
MAP at DA										

TERPS

STRAIGHT-IN LANDING RWY 30L

RNP 0.30

DA(H) 1150' (327')

ALS out

A

B

C

D

RVR 30 or 5/8

RVR 60 or 1 1/4

TERPS AMEND 1 5 JAN 2016

CHANGES: None.

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KMSP/MSP

MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN

10 FEB 17

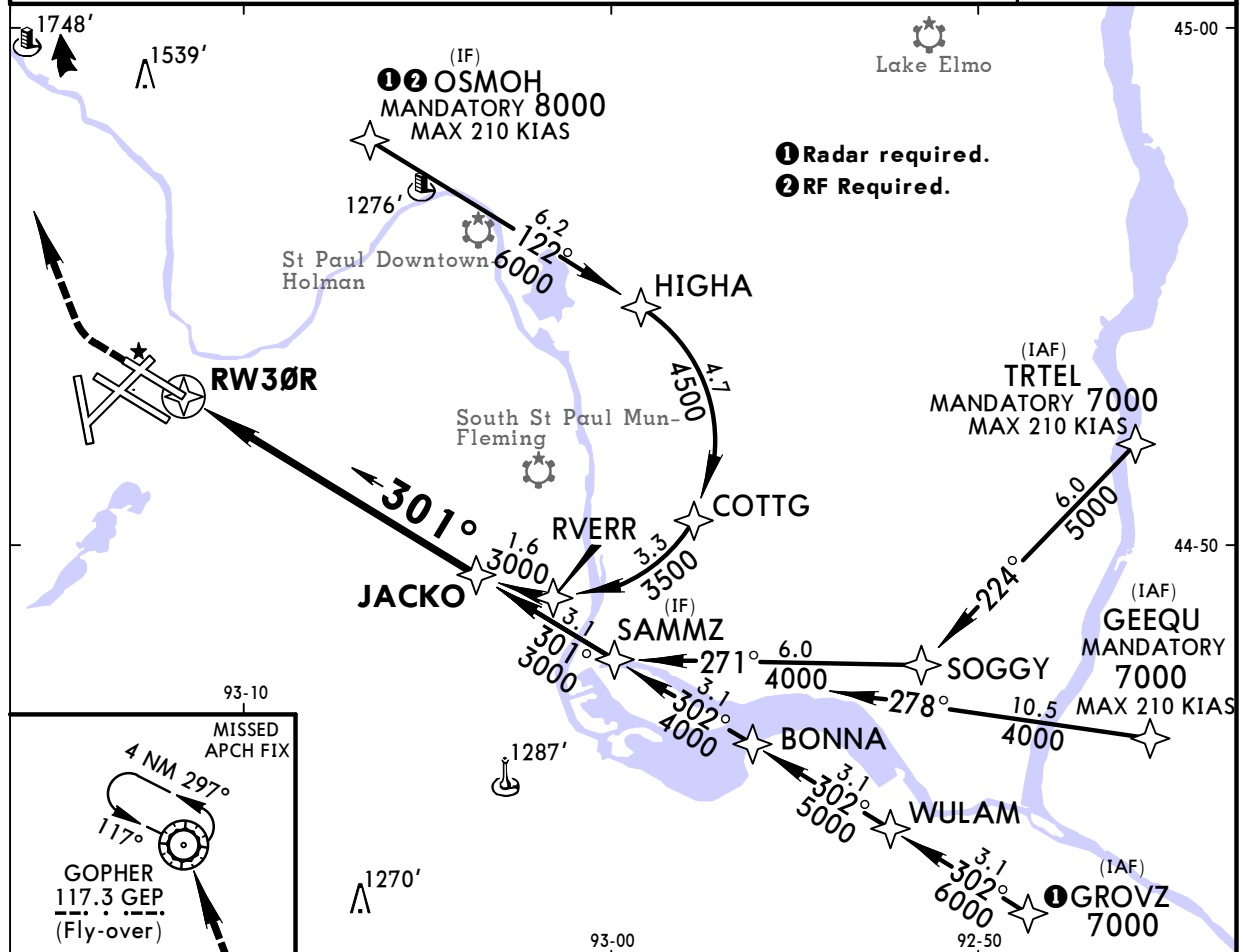
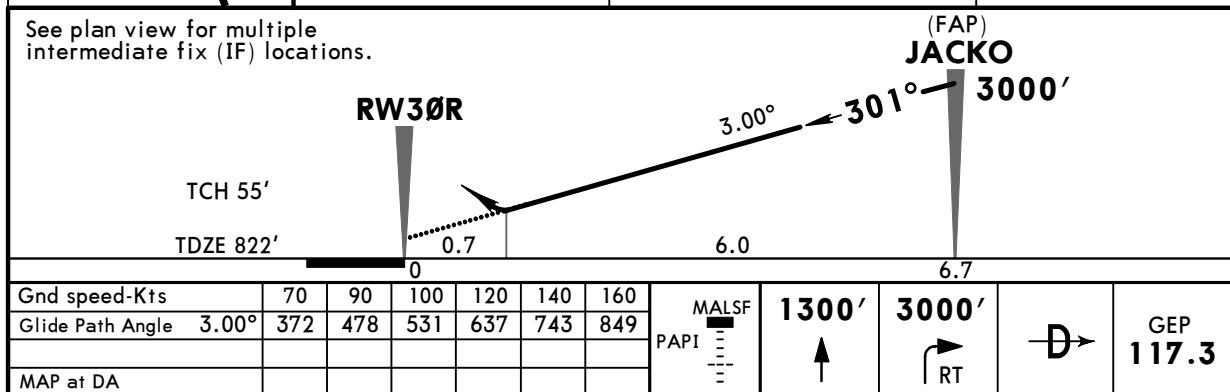
(12-23)

MINNEAPOLIS, MINN

RNAV (RNP) Y Rwy 30R

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	119.3	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	Rwy 12L/30R 123.95	121.8	121.9	127.92
RNAV	Final Apch Crs 301°	Minimum Alt JACKO 3000' (2178')	RNP 0.15 DA(H) 1097' (275')	Apt Elev 842' TDZE 822'	3500' MSA RW30R		
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' direct GEP VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. Simultaneous approach authorized with Rwy 30L and ILS V Rwy 35 (CONVERGING). 4. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) or above 54°C (130°F). 5. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 71').							

See plan view for multiple
intermediate fix (IF) locations.

TERPS		STRAIGHT-IN LANDING RWY 30R	
RNP 0.15		RNP 0.30	
DA(H) 1097' (275')		DA(H) 1298' (476')	
ALS out		ALS out	
A			
B			
C	RVR 40 or 3/4	RVR 45 or 7/8	1 3/8
D			1 5/8

CHANGES: GEEQU mandatory altitude.

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TERPS AMEND 1 5 JAN 2016

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MINNEAPOLIS-ST PAUL INTL/
WOLD-CHAMBERLAIN24 APR 15
Eff 30 Apr

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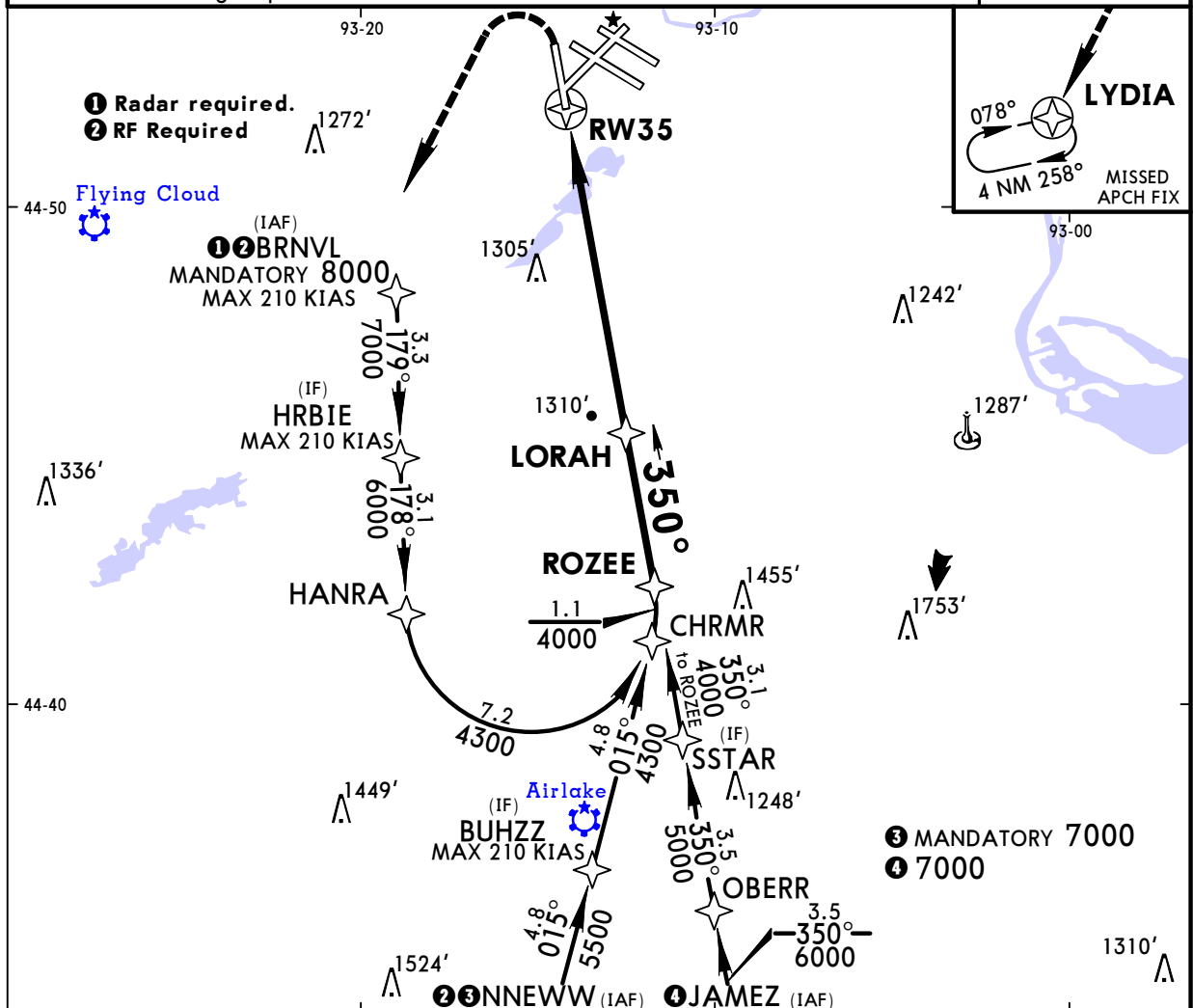
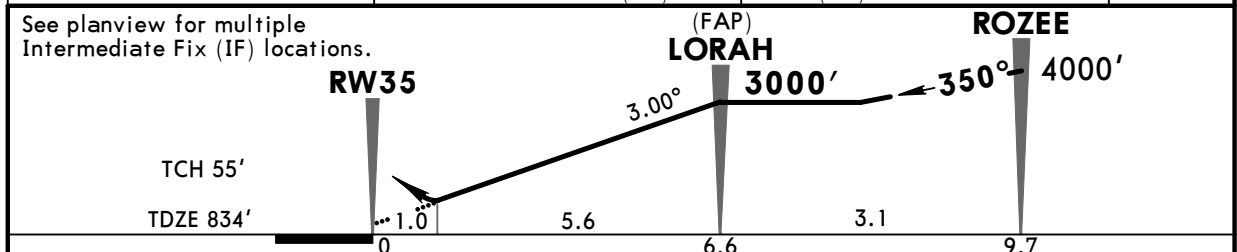
MINNEAPOLIS, MINN

(12-24)

RNAV (RNP) Y Rwy 35

BRIEFING STRIP

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower				Ground	
		Rwy 17/35	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
135.35	118.725	123.67	126.7	123.95	121.8	121.9	127.92
RNAV	Final Apch Crs	Minimum Alt	RNP 0.11	Apt Elev 842'	3500' MSA RW35		
	350°	LORAH	DA(H)				
	3000' (2166')	1213' (379')	TDZE 834'				
MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' direct LYDIA and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) or above 54°C (130°F).							
4. VGSI and RNAV glidepath not coincident.							

See planview for multiple
Intermediate Fix (IF) locations.

Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 1300' 3000' LT →	1300' 3000'	LT →	→ LYDIA
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at DA										

TERPS

STRAIGHT-IN LANDING RWY 35

RNP 0.11		RNP 0.16		RNP 0.30	
DA(H) 1213' (379')		DA(H) 1291' (457')		DA(H) 1345' (511')	
ALS out		ALS out		ALS out	
A					
B	RVR 40 or 3/4	RVR 60 or 1 1/8	RVR 60 or 1 1/8	1 1/2	1 1/4
C					
D					

CHANGES: Procedure.

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TERPS AMEND 2 30 APR 2015