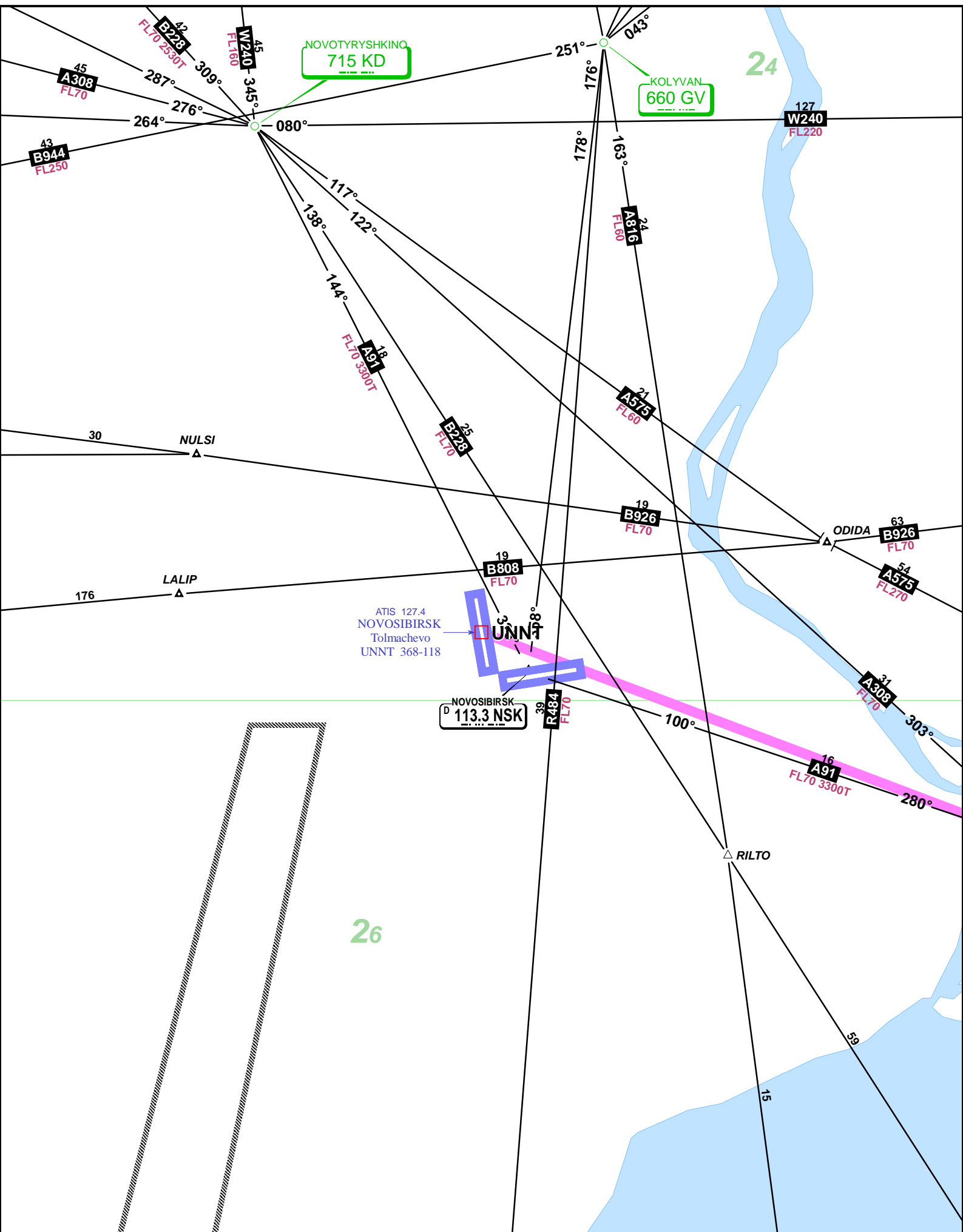


**J E P P E S E N**

***JeppView 3.6.2.0***

***JeppView 3.6.2.0***



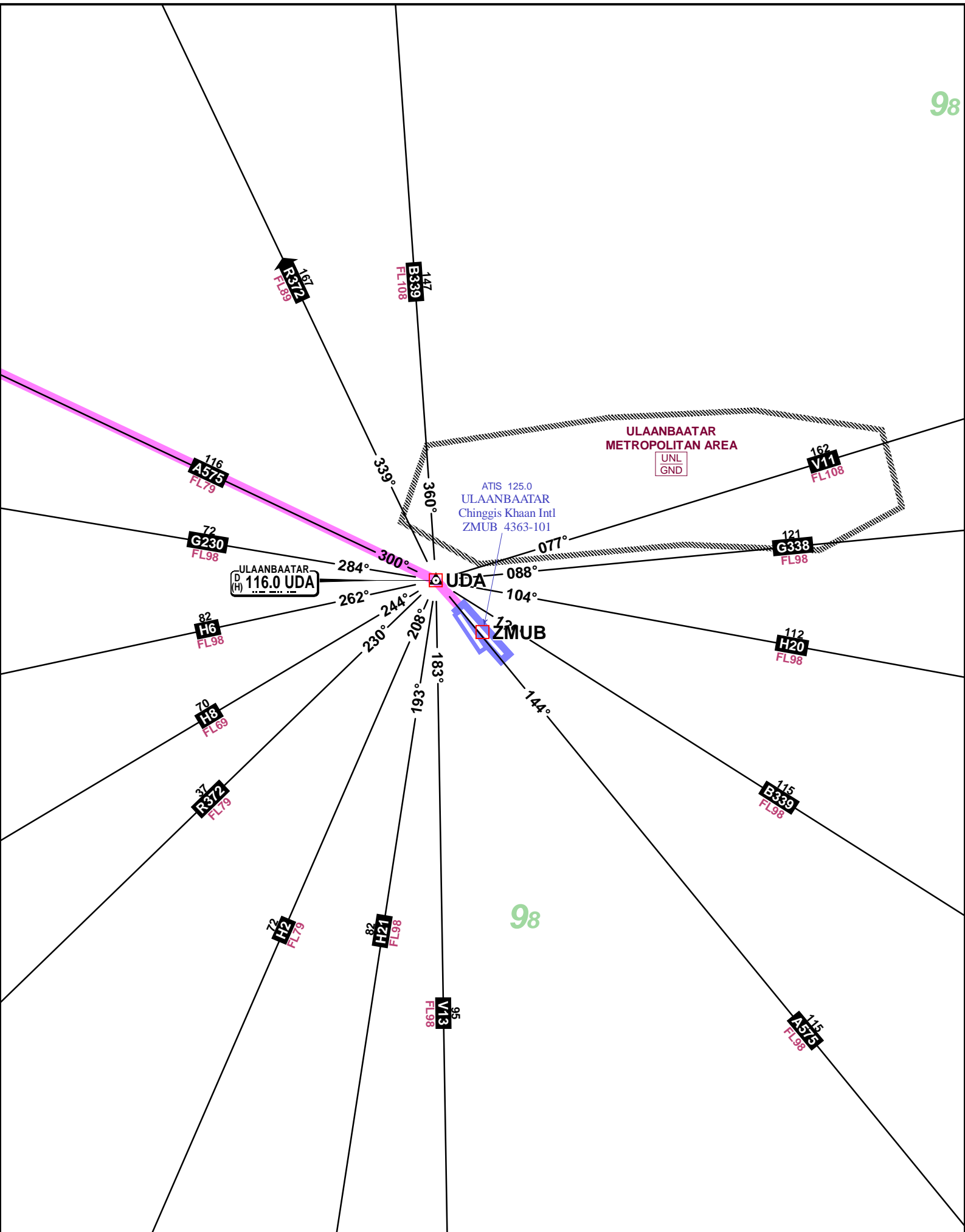
DESTINATION (UNNT -> ZMUB): ZMUB (Chinggis Khaan Intl)

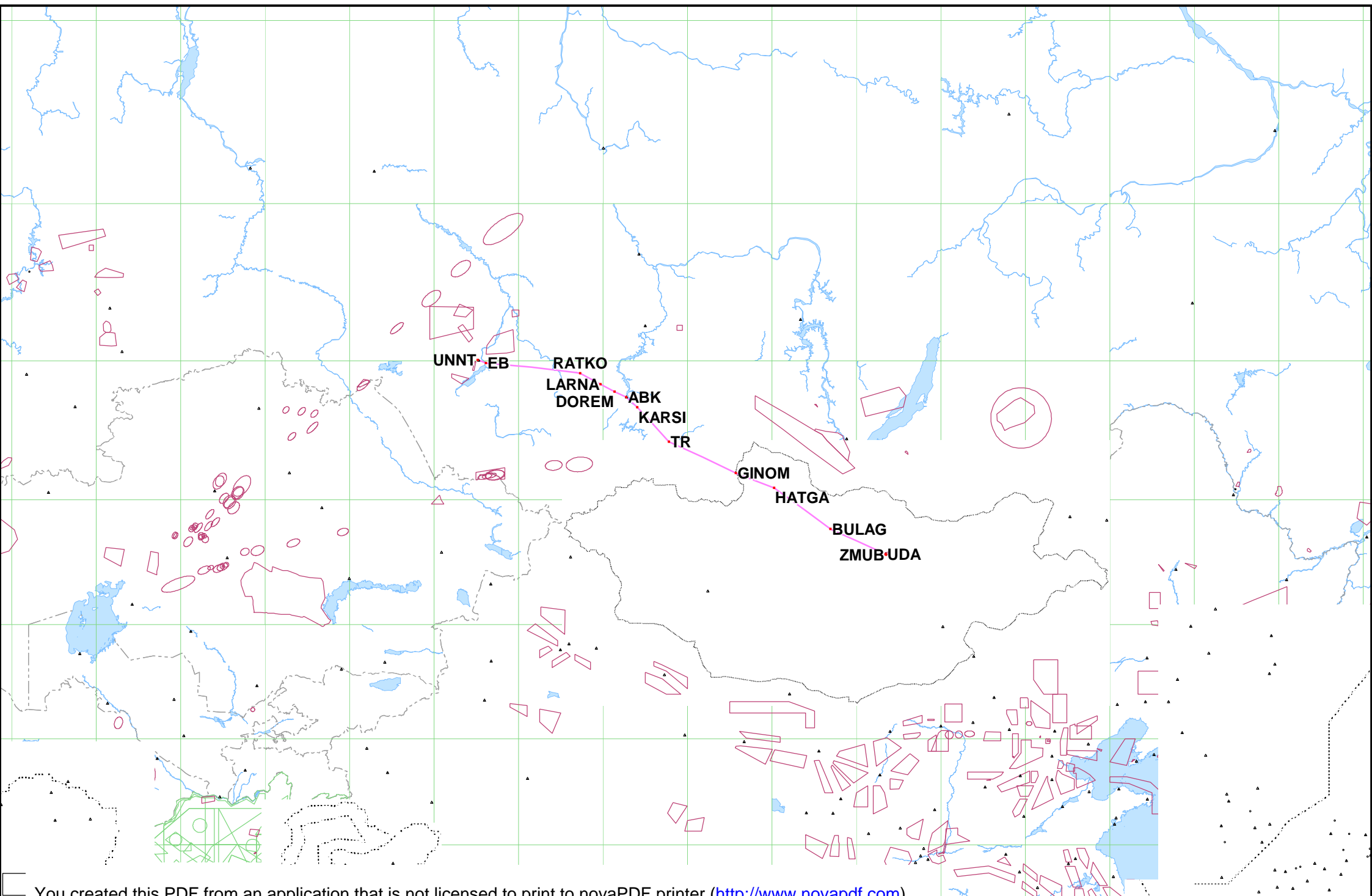
NavData Cycle 2014-10 Expired: Friday, 17 October 2014.

Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 20 Oct 2014

JEPPESEN

JeppView 3.6.2.0





UNNT/OVB  
TOLMACHEVO

22 NOV 13

**JEPPESEN**

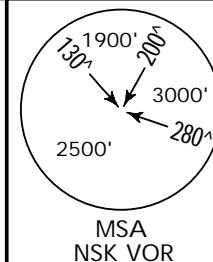
NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS  
131.3 (Russian 127.4)

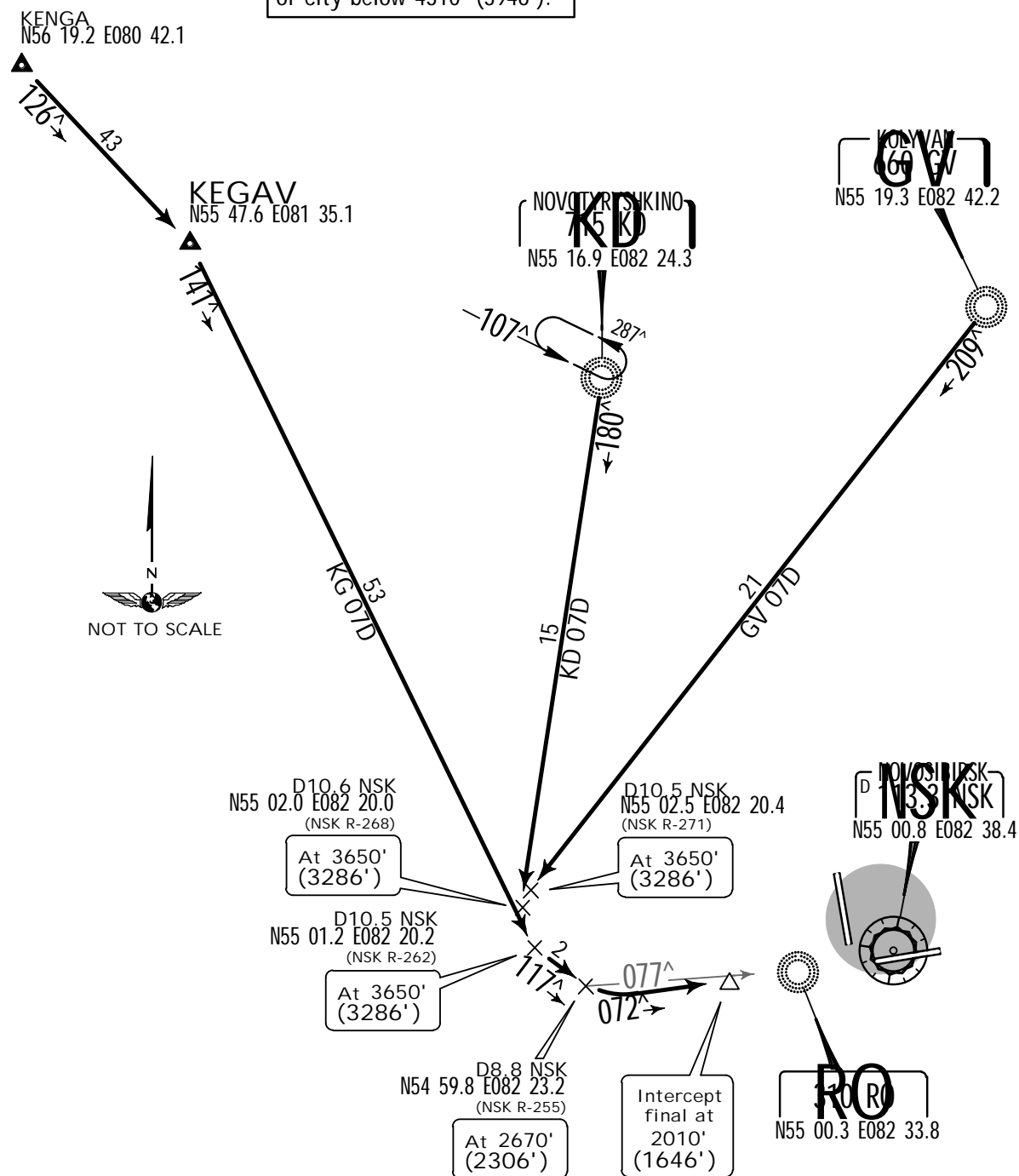
Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')

# GV 07D, KD 07D, KG 07D RWY 07 ARRIVALS



Do not overfly central part  
of city below 4310' (3946').



ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4276' - 1300m)
4310'	(3946' - 1200m)
3650'	(3286' - 1000m)
2670'	(2306' - 700m)

UNNT/OVB  
TOLMACHEVO

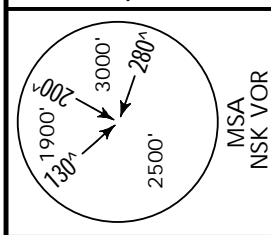
22 NOV 13

10-2A

JEPPESEN

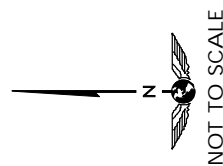
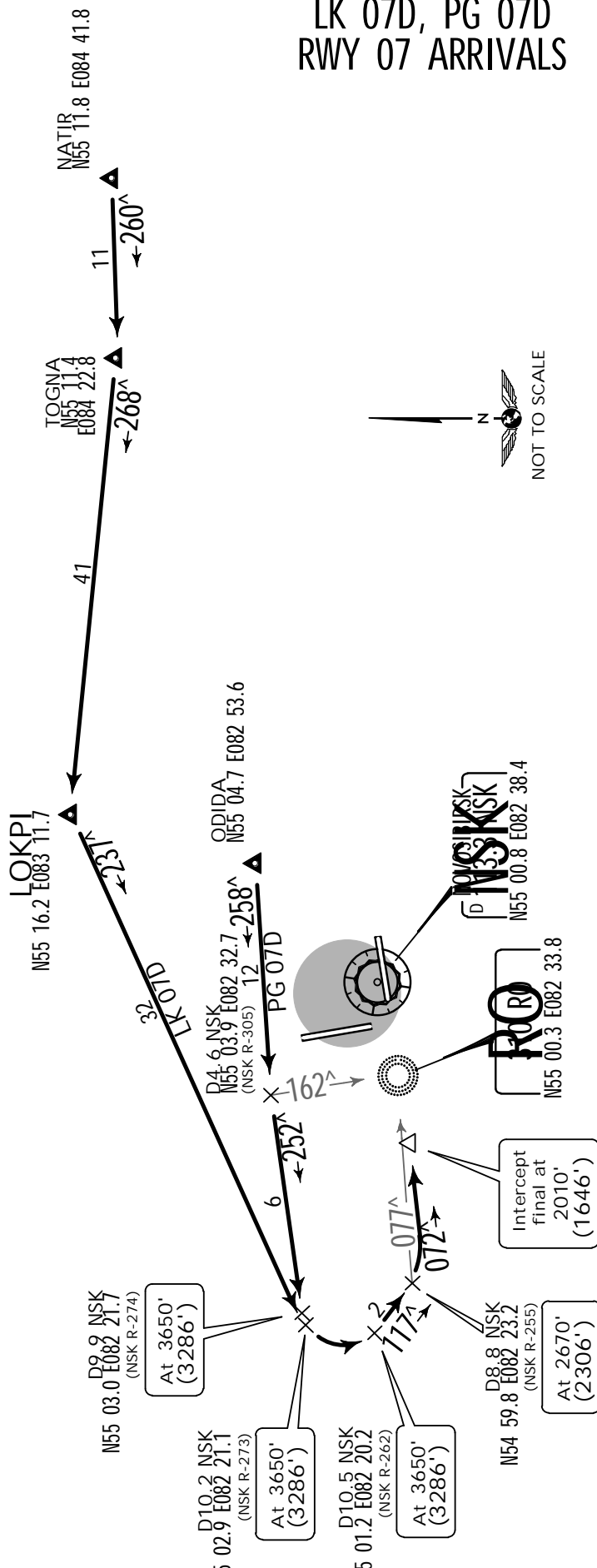
NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4276')
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MSA  
NSK VOR

LK 07D, PG 07D  
RWY 07 ARRIVALS



Do not overfly central part  
of city below 4310' (3946').

ALT/HEIGHT CONVERSION  
(QFE)

QNH	(QFE)
640'	(4276' - 1300m)
310'	(3946' - 1200m)
650'	(3286' - 1000m)
670'	(2306' - 700m)
010'	(1646' - 500m)

UNNT/OVB  
TOLMACHEVO

13 DEC 13

**JEPPESEN**

10-2B

NOVOSIBIRSK, RUSSIA  
.STAR.

.STAR

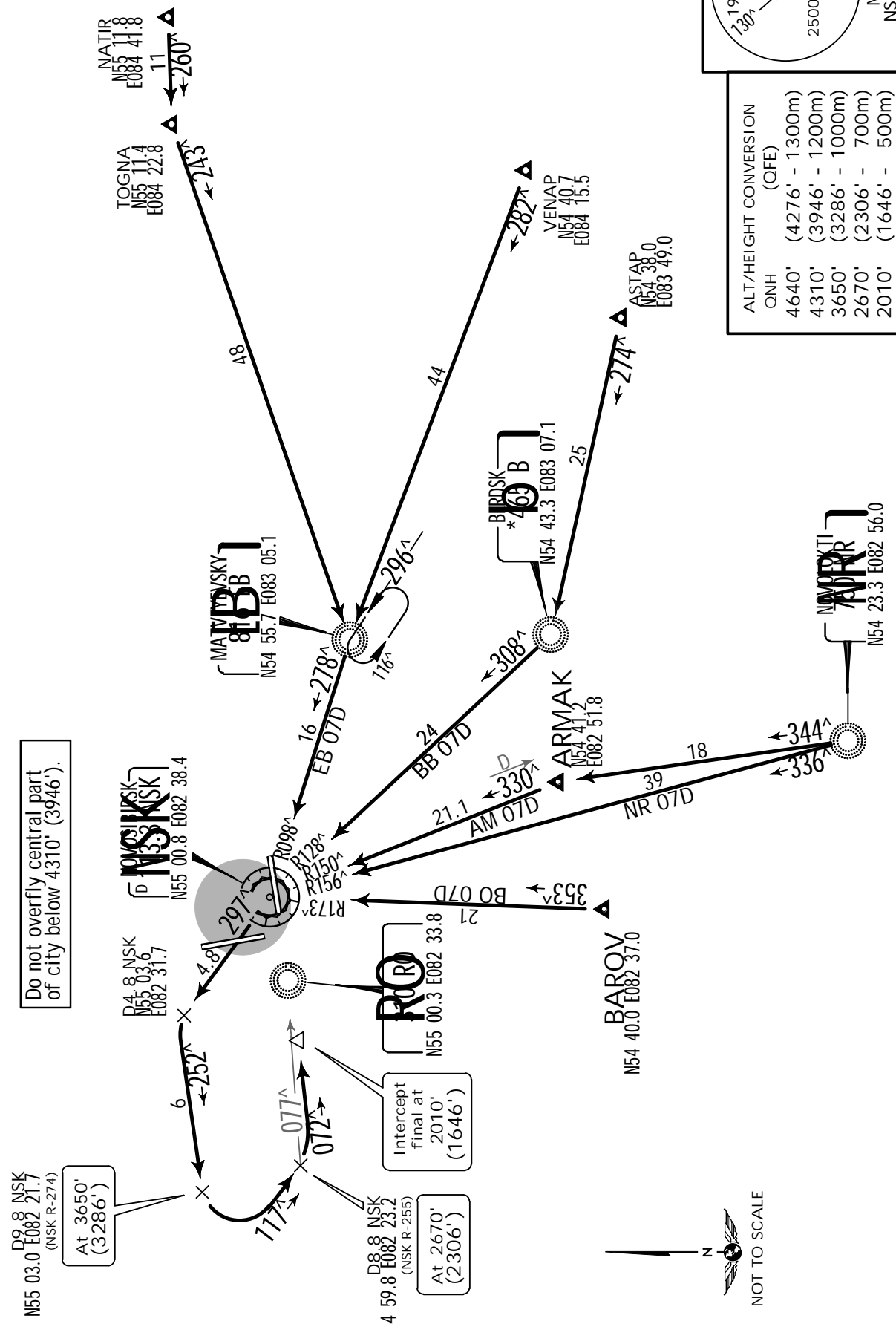
ATIS  
131.3 (Russian 127.4)

Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')

(QFE)

AM 07D, BB 07D, BO 07D, EB 07D, NR 07D  
RWY 07 ARRIVALS



UNNT/OVB  
TOLMACHEVO

13 DEC 13

**JEPPESEN**

(10-2C)

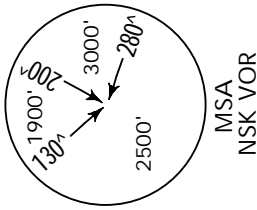
NOVOSIBIRSK, RUSSIA  
.STAR.

**.STAR.**

ATIS  
131.3 (Russian 127.4)

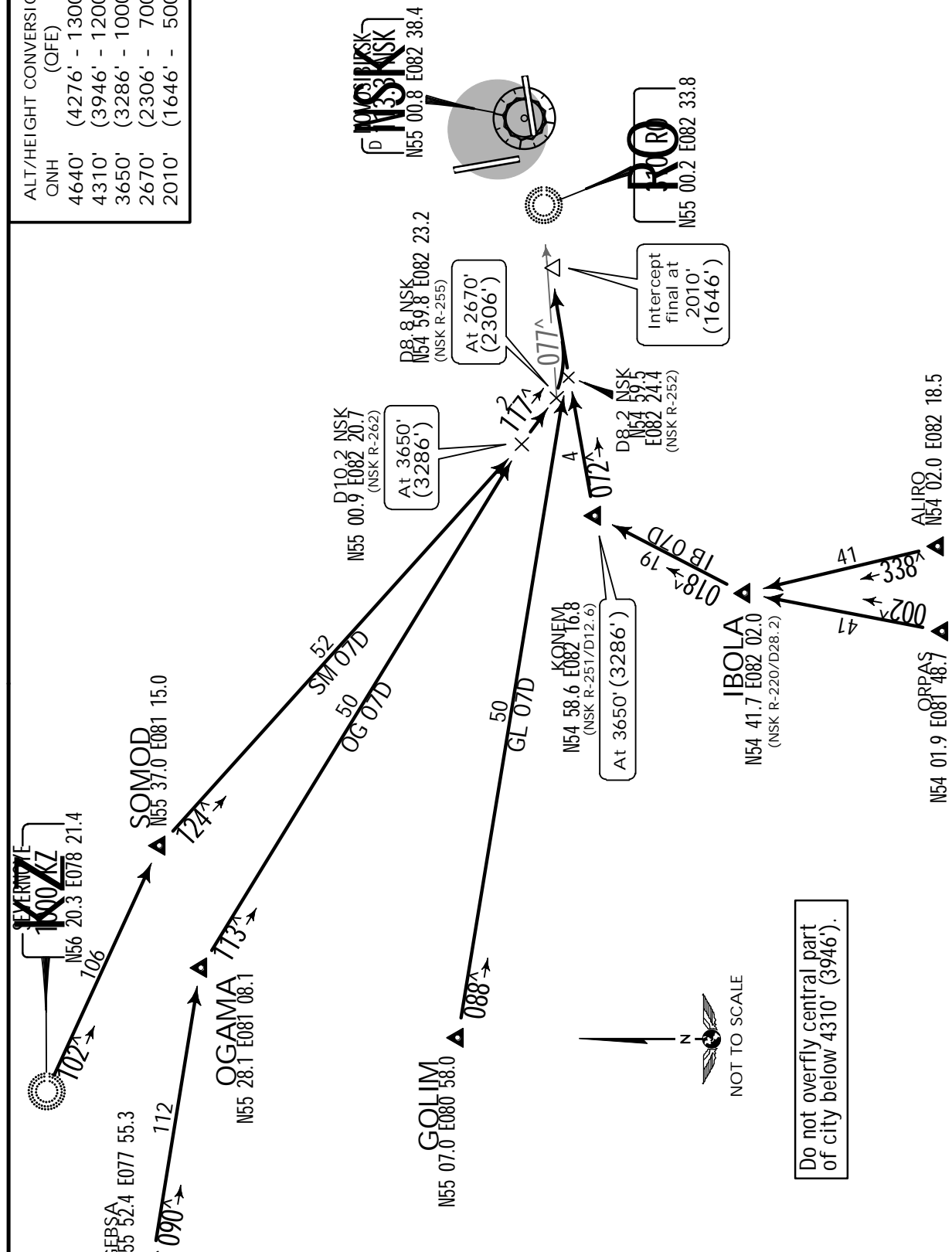
Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



GL 07D, IB 07D, OG 07D, SM 07D  
RWY 07 ARRIVALS

ALT/HEIGHT CONVERSION (QFE)
QNH
4640' (4276' - 1300m)
4310' (3946' - 1200m)
3650' (3286' - 1000m)
2670' (2306' - 700m)
2010' (1646' - 500m)



Do not overfly central part of city below 4310' (3946').



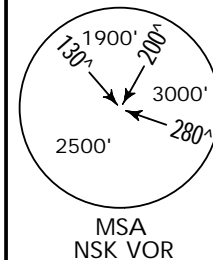
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
22 NOV 13 10-2D

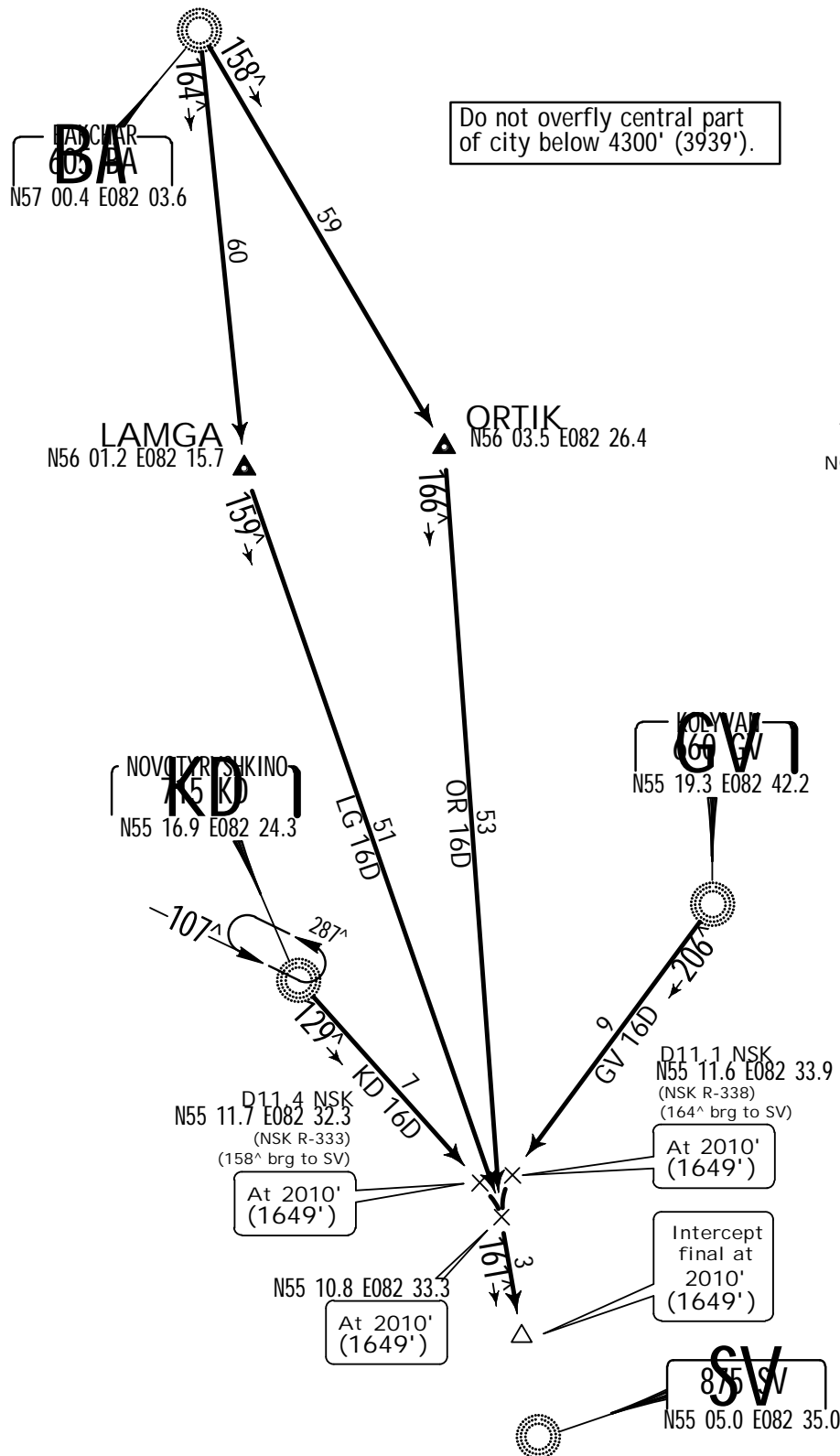
NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) Trans level: FL60	QNH on request Trans alt: 4640' (4279')	(QFE)
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## GV 16D, KD 16D, LG 16D, OR 16D RWY 16 ARRIVALS



Do not overfly central part  
of city below 4300' (3939').



ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4279' - 1300m)
4300'	(3939' - 1200m)



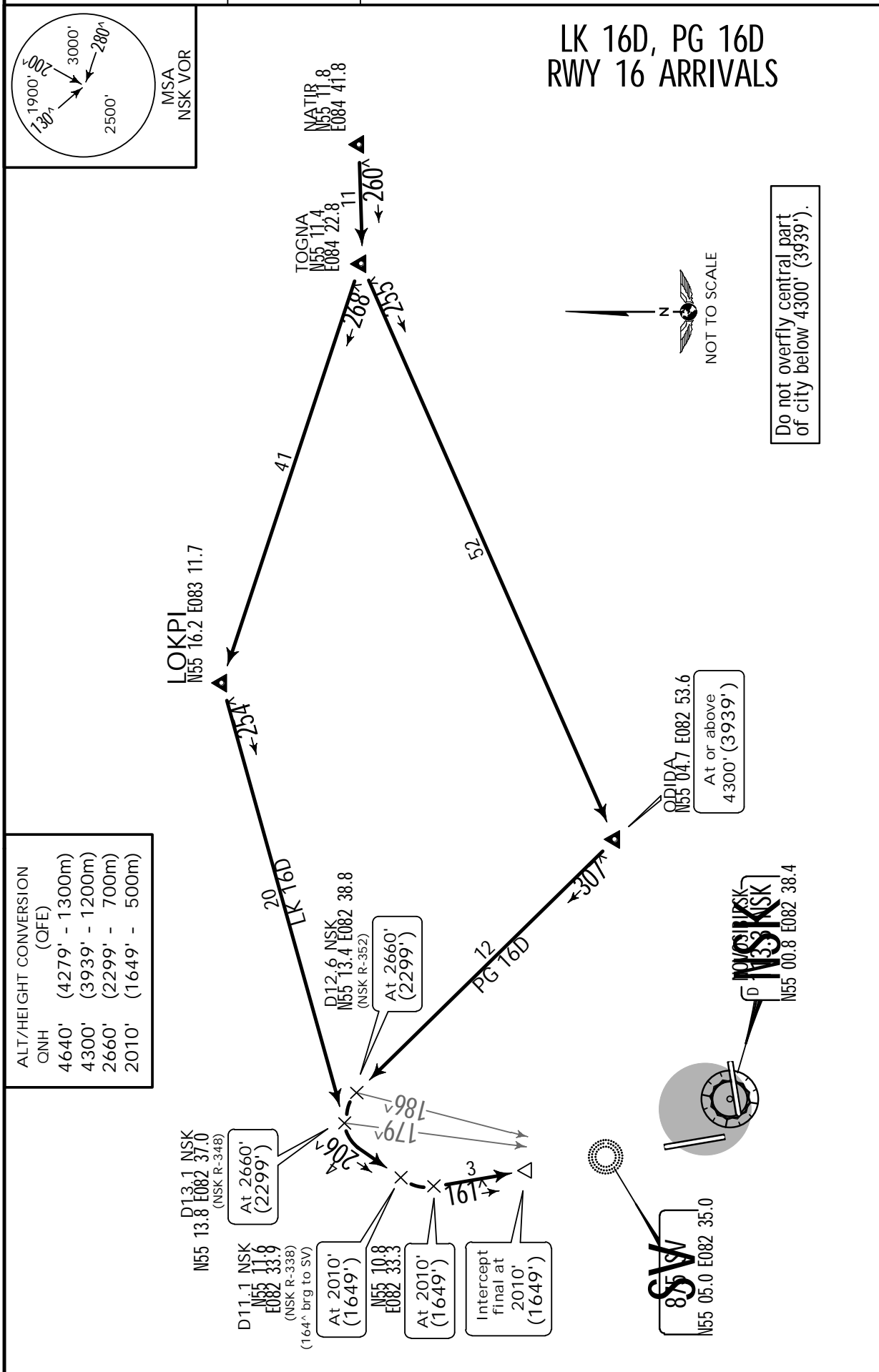
UNNT/OVB  
 TOLMACHEVO

22 NOV 13

10-2E

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4279')
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UNNT/OVB  
TOLMACHEVO

13 DEC 13

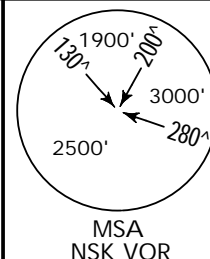
**JEPPESEN**

10-2F

NOVOSIBIRSK, RUSSIA  
...STAR.

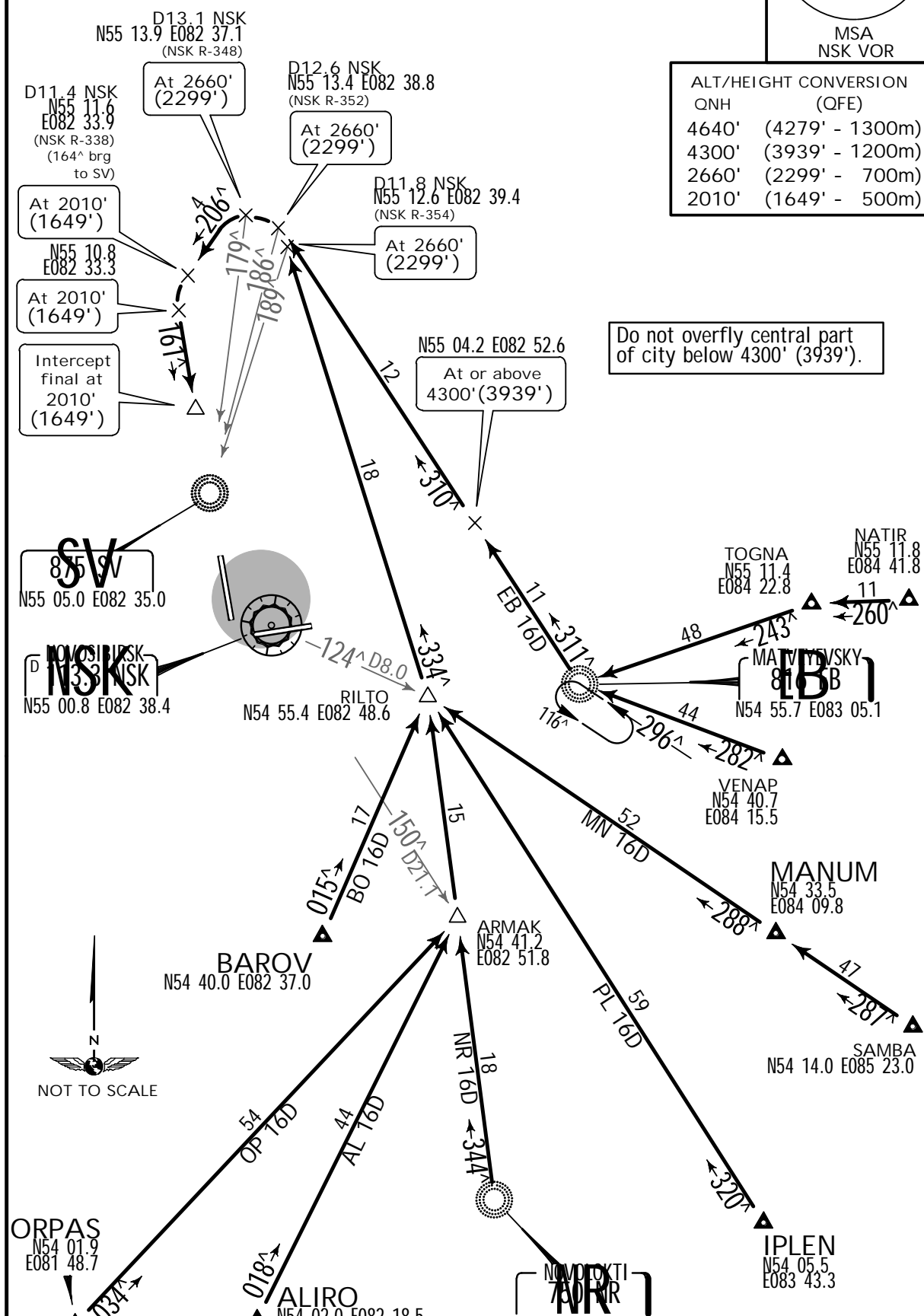
ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4279')
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AL 16D, BO 16D, EB 16D, MN 16D  
NR 16D, OP 16D, PL 16D  
RWY 16 ARRIVALS



ALT/HEIGHT CONVERSION  
QNH (QFE)

4640'	(4279' - 1300m)
4300'	(3939' - 1200m)
2660'	(2299' - 700m)
2010'	(1649' - 500m)

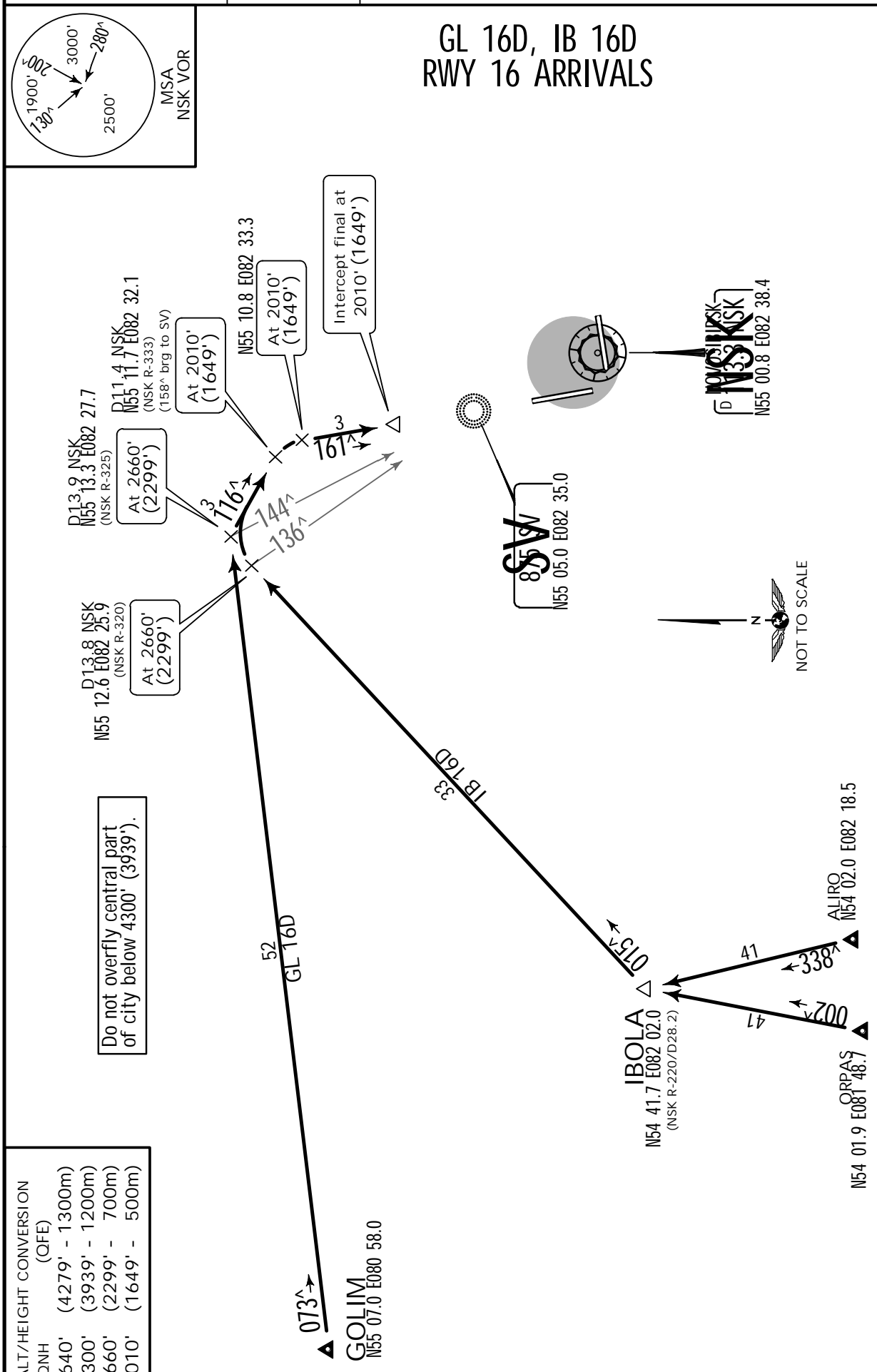


UNNT/OVB  
 TOLMACHEVO

JEPPESEN  
 13 DEC 13 10-2G

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4279')
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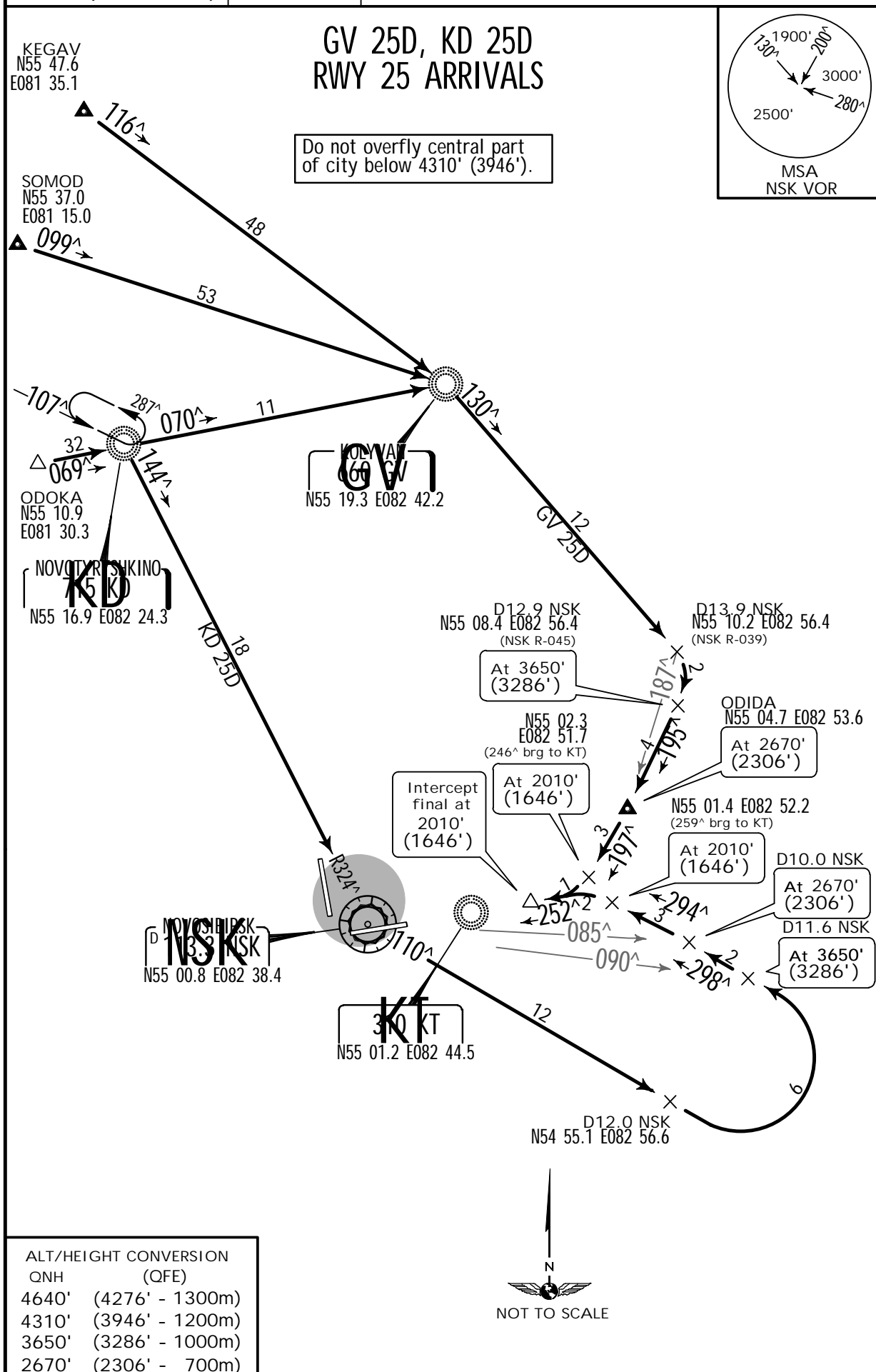


UNNT/OVB  
 TOLMACHEVO

13 DEC 13 (10-2H)

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) Trans level: FL60	QNH on request Trans alt: 4640' (4276')	(QFE)
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UNNT/OVB  
 TOLMACHEVO

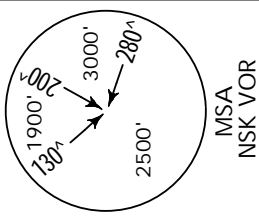
13 DEC 13

10-2J

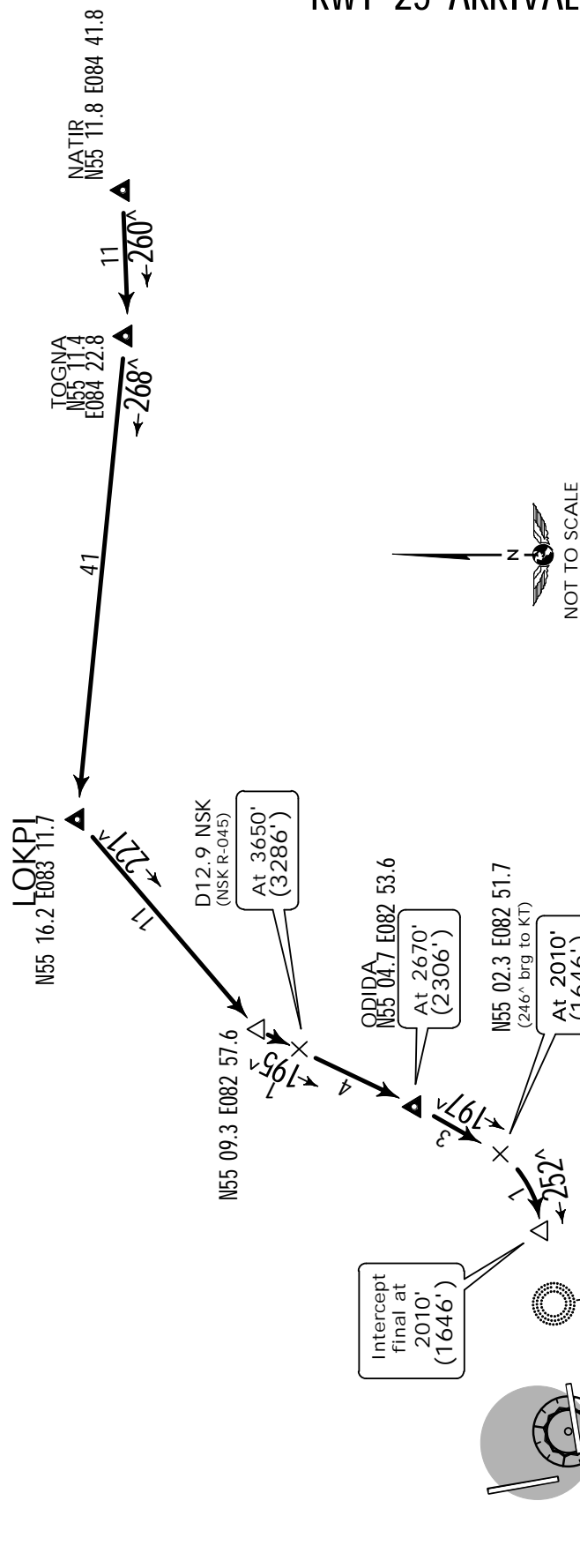
JEPPESEN

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4276')
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LK 25D  
 RWY 25 ARRIVAL



ALT/HEIGHT CONVERSION	(QFE)
640'	(4276' - 1300m)
310'	(3946' - 1200m)
650'	(3286' - 1000m)
670'	(2306' - 700m)
010'	(1646' - 500m)

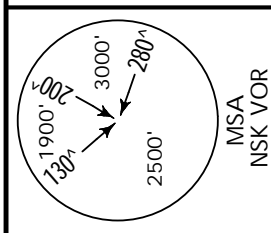
UNNT/OVB  
 TOLMACHEVO

13 DEC 13

JEPPESEN  
 10-2K

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 367'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4276')
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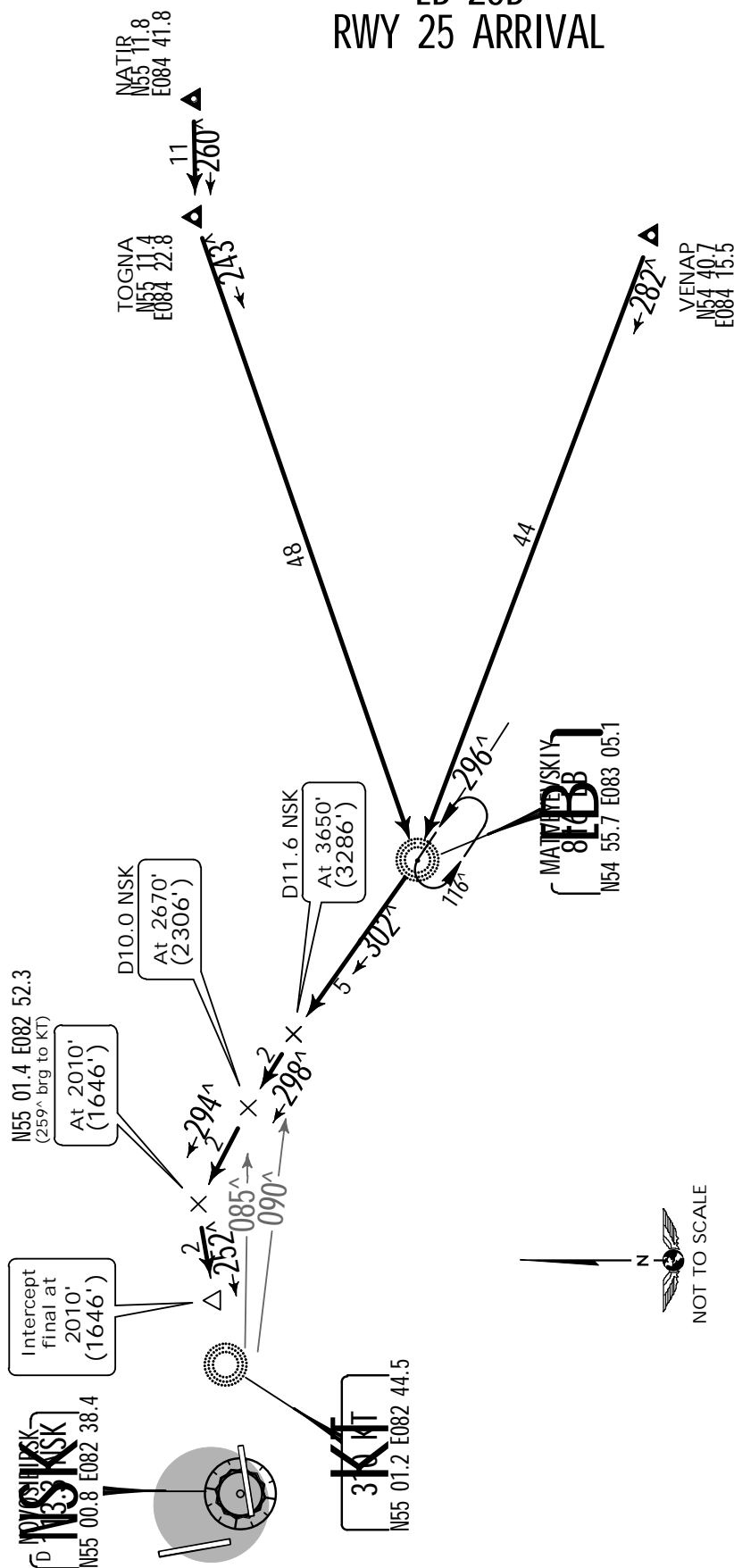


MSA  
 NSK VOR

EB 25D  
 RWY 25 ARRIVAL

Do not overfly central part  
 of city below 4310' (3946').

ALT/HEIGHT CONVERSION	QNH	(QFE)
640'	(4276' - 1300m)	
310'	(3946' - 1200m)	
650'	(3286' - 1000m)	
670'	(2306' - 700m)	
010'	(1646' - 500m)	



UNNT/OVB  
TOLMACHEVO

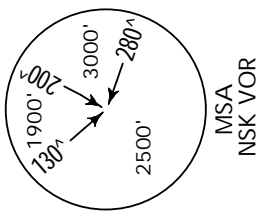
JEPPESEN  
13 DEC 13 10-2L

NOVOSIBIRSK, RUSSIA  
.STAR.

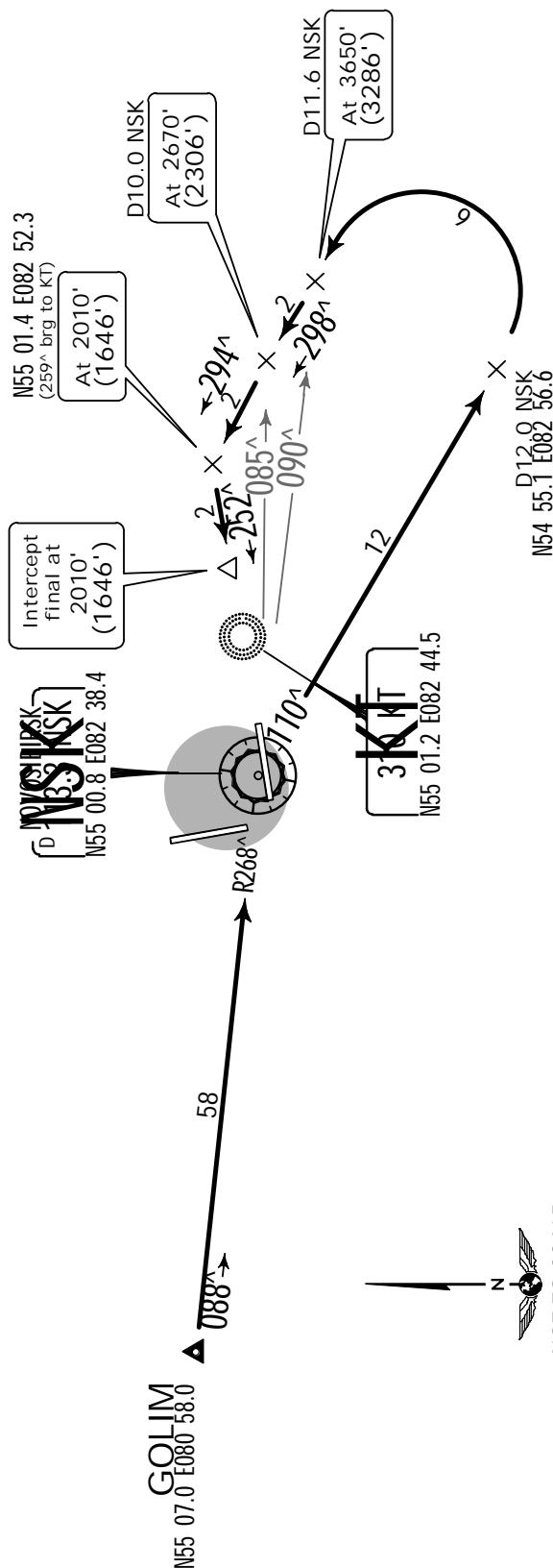
ATIS  
131.3 (Russian 127.4)

Apt Elev  
367'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



GL 25D  
RWY 25 ARRIVAL



ALT/HEIGHT CONVERSION	(QFE)
QNH	
640'	(4276' - 1300m)
310'	(3946' - 1200m)
650'	(3286' - 1000m)
670'	(2306' - 700m)
010'	(1646' - 500m)

Do not overfly central part  
of city below 4310' (3946').



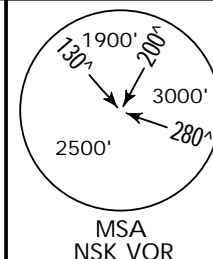
UNNT/OVB  
TOLMACHEVO

**JEPPESEN**  
22 NOV 13 10-2M

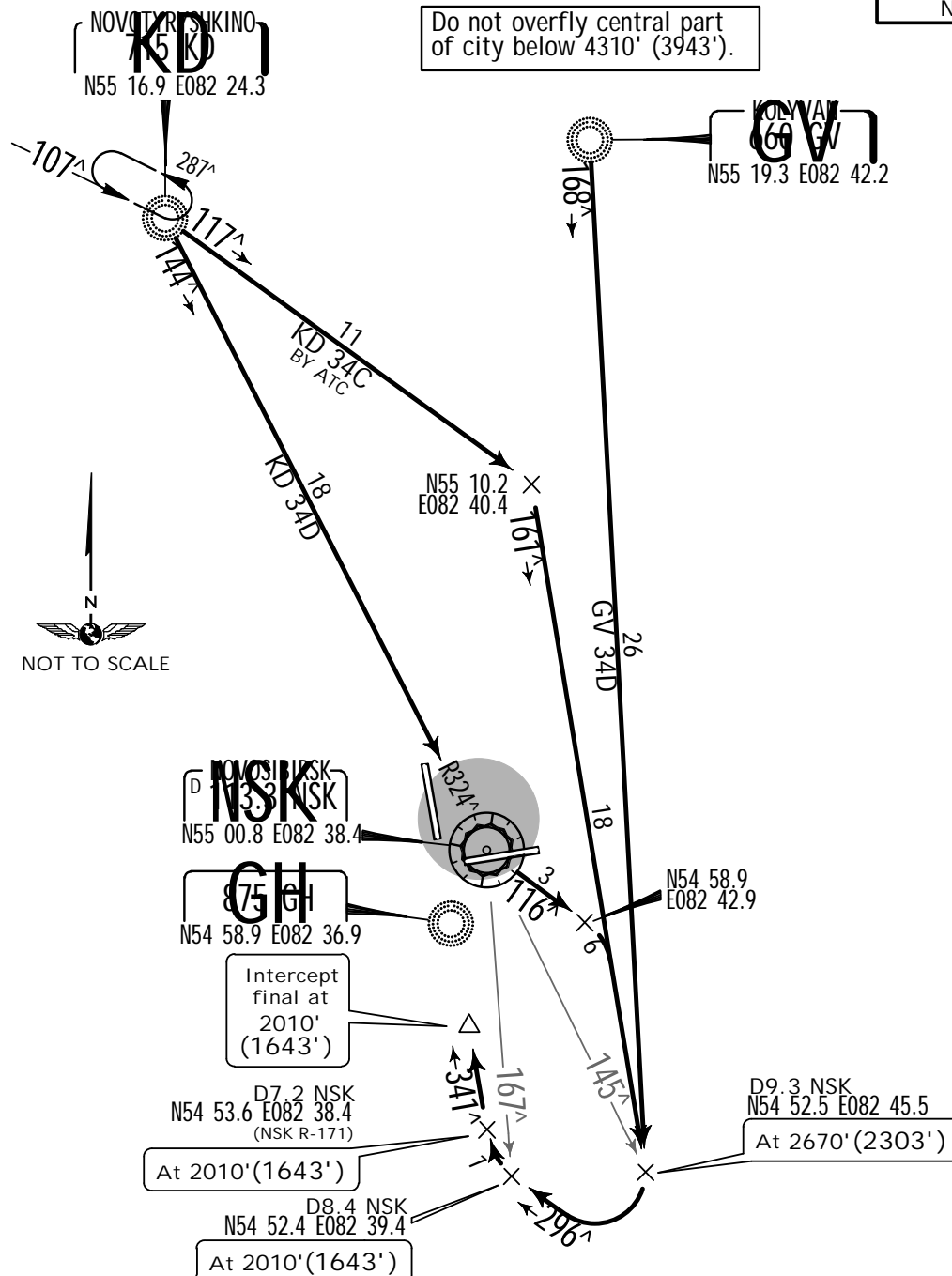
NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4273')
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# GV 34D, KD 34C, KD 34D RWY 34 ARRIVALS



Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION  
(QNE) (QFE)

4640'	(4273' - 1300m)
4310'	(3943' - 1200m)
2670'	(2303' - 700m)

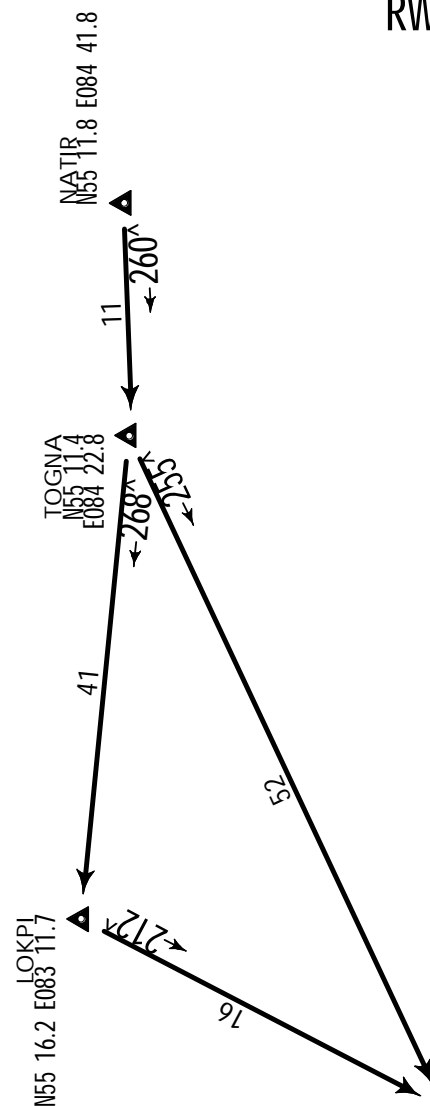
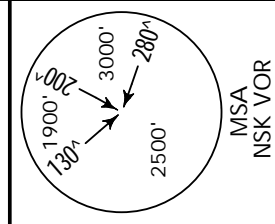
UNNT/OVB  
TOLMACHEVO

22 NOV 13 10-2N  
JEPPesen

NOVOSIBIRSK, RUSSIA  
.STAR.

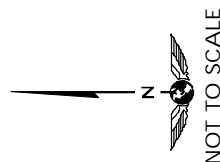
ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) Trans level: FL60	QNH on request Trans alt: 4640' (4273')	(QFE)
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## PG 34D RWY 34 ARRIVAL

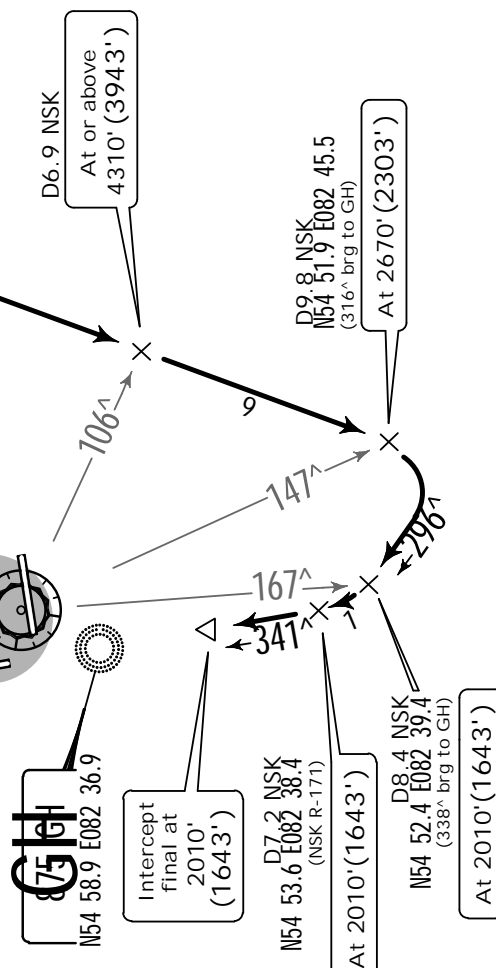


Do not overfly central part  
of city below 4310' (3943').

ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4273' - 1300m)
4310'	(3943' - 1200m)
2670'	(2303' - 700m)
2010'	(1643' - 500m)



NOVOSIBIRSK  
D 33.3  
N55 00.8 E082 38.4



UNNT/OVB  
TOLMACHEVO

13 DEC 13

**JEPPESEN**

10-2P

NOVOSIBIRSK, RUSSIA  
STAR.

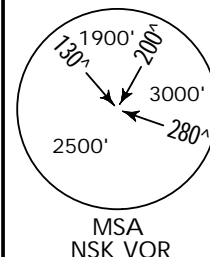
ATIS  
131.3 (Russian 127.4)

Apt Elev  
368'

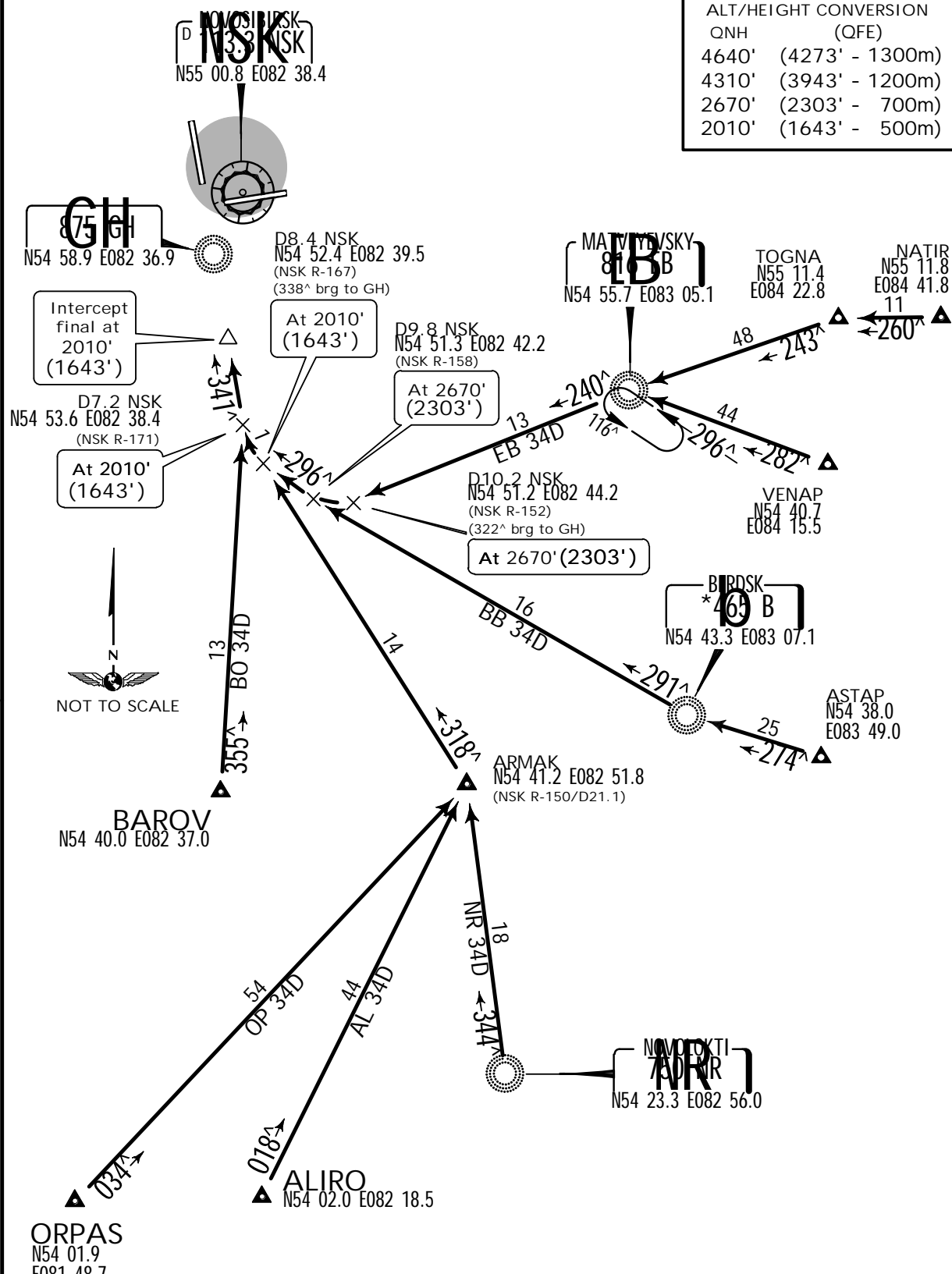
Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4273')

AL 34D, BB 34D, BO 34D  
EB 34D, NR 34D, OP 34D  
RWY 34 ARRIVALS

Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4273' - 1300m)
4310'	(3943' - 1200m)
2670'	(2303' - 700m)
2010'	(1643' - 500m)



UNNT/OVB  
TOLMACHEVO

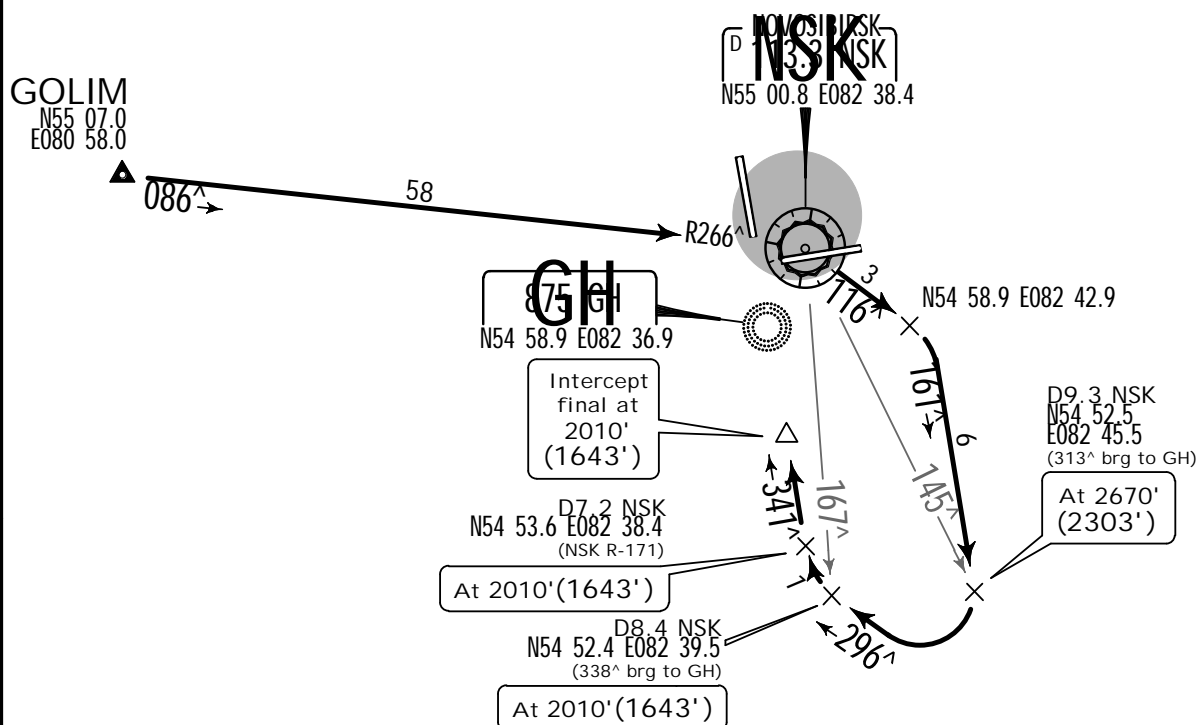
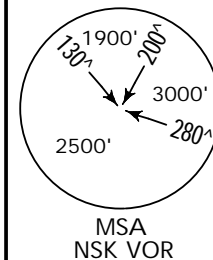
JEPPESEN  
13 DEC 13 (10-2Q)

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) Trans level: FL60	QNH on request Trans alt: 4640' (4273')	(QFE)
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GL 34D  
RWY 34 ARRIVAL

Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION  
QNH (QFE)  
4640' (4273' - 1300m)  
4310' (3943' - 1200m)  
2670' (2303' - 700m)

UNNT/OVB  
TOLMACHEVO

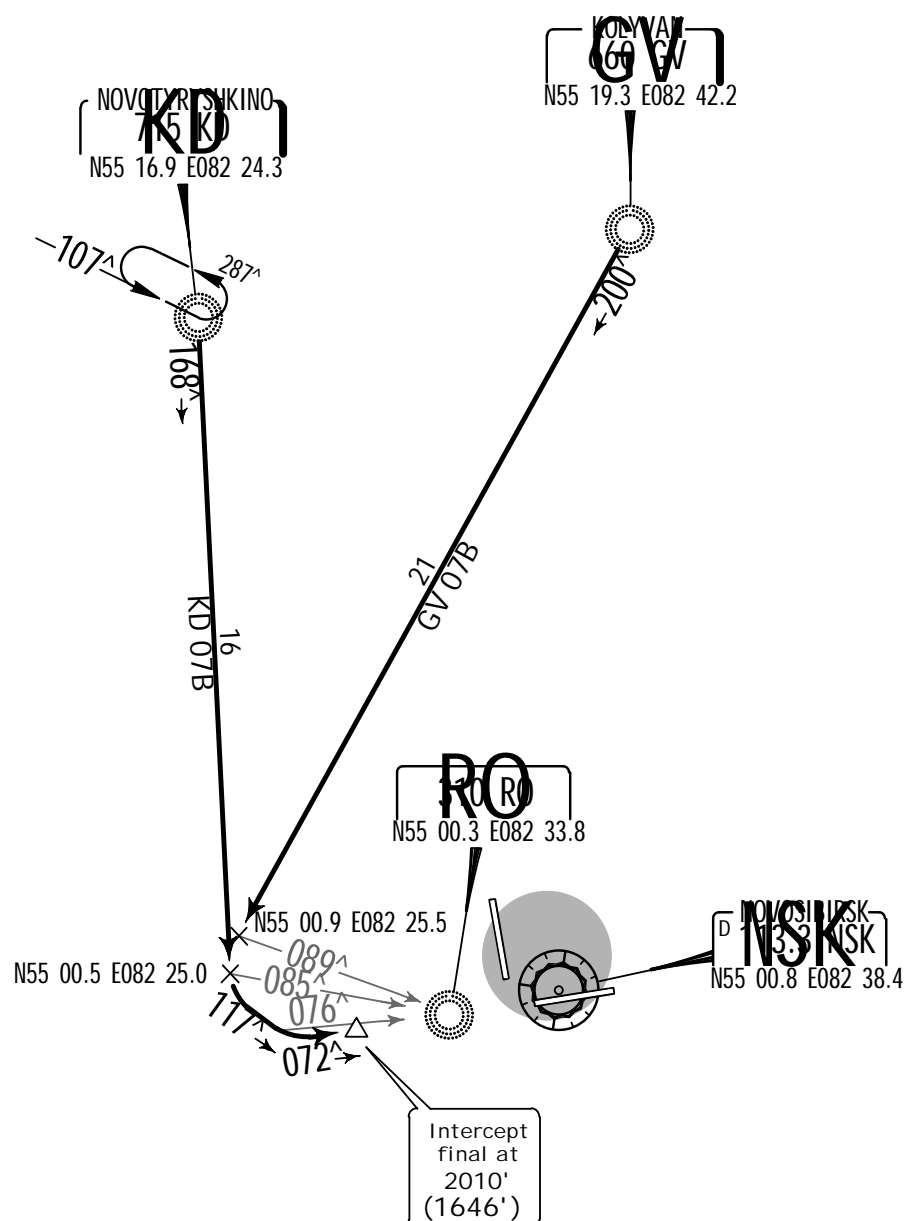
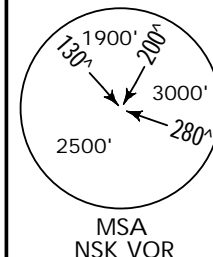
**JEPPESEN**  
22 NOV 13 10-2S

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4276')
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# GV 07B, KD 07B RWY 07 ARRIVALS

CAT A &amp; B



ALT/HEIGHT CONVERSION  
QNH (QFE)  
4640' (4276' - 1300m)

UNNT/OVB  
TOLMACHEVO

22 NOV 13

**JEPPESSEN**

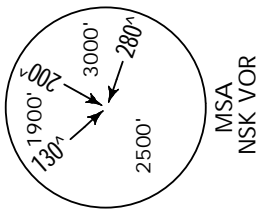
(10-2T)

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS  
131.3 (Russian 127.4)

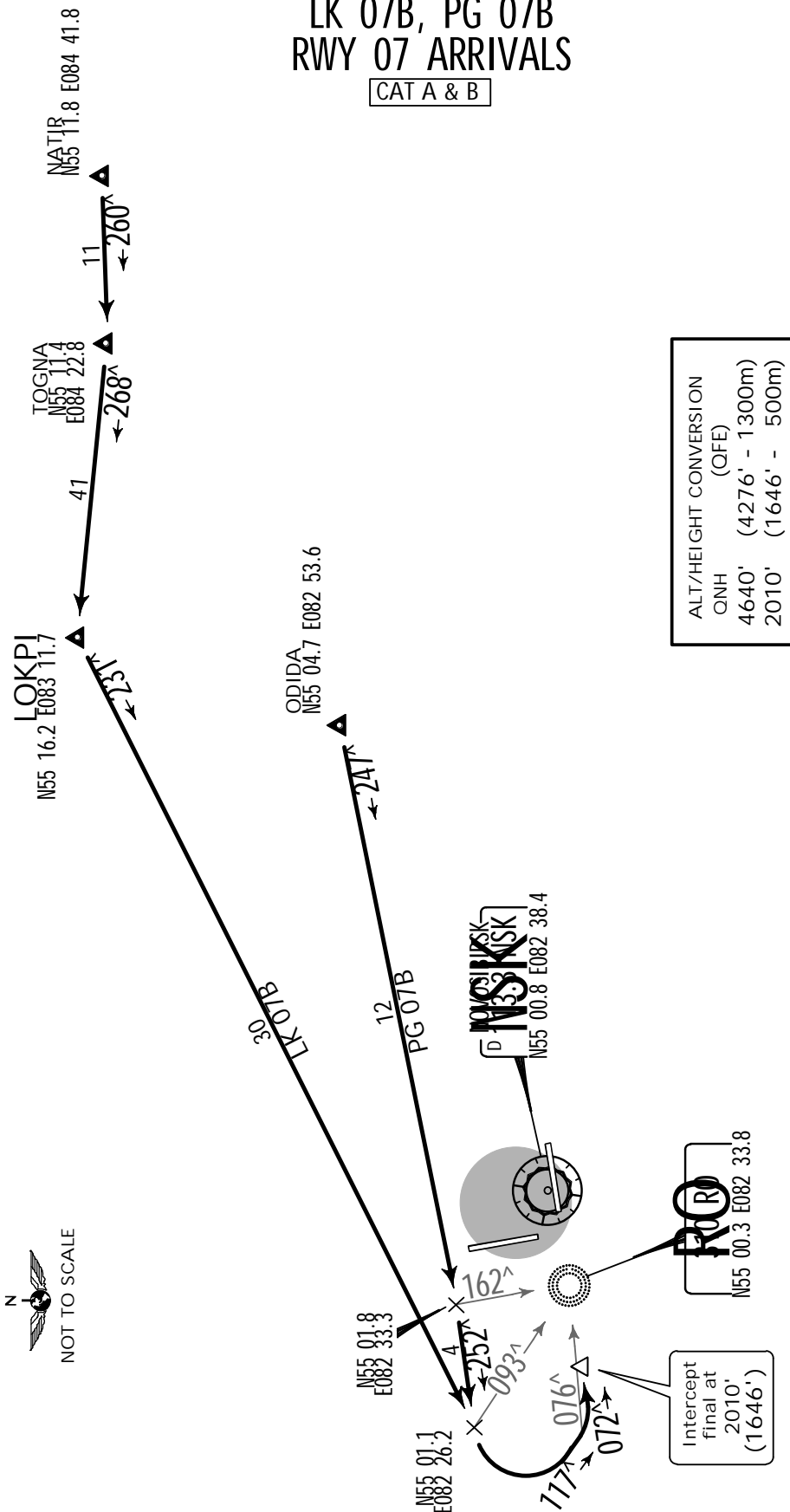
Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



# LK 07B, PG 07B RWY 07 ARRIVALS

CAT A &amp; B



ALT/HEIGHT CONVERSION	QNH (QFE)
4640'	(4276' - 1300m)
2010'	(1646' - 500m)


 N55 00.3 E082 33.8

Intercept  
final at  
2010'  
(1646')

UNNT/OVB  
TOLMACHEVO

13 DEC 13

**JEPPESEN**
$$(10-2U)$$

NOVOSIBIRSK, RUSSIA  
.STAR.

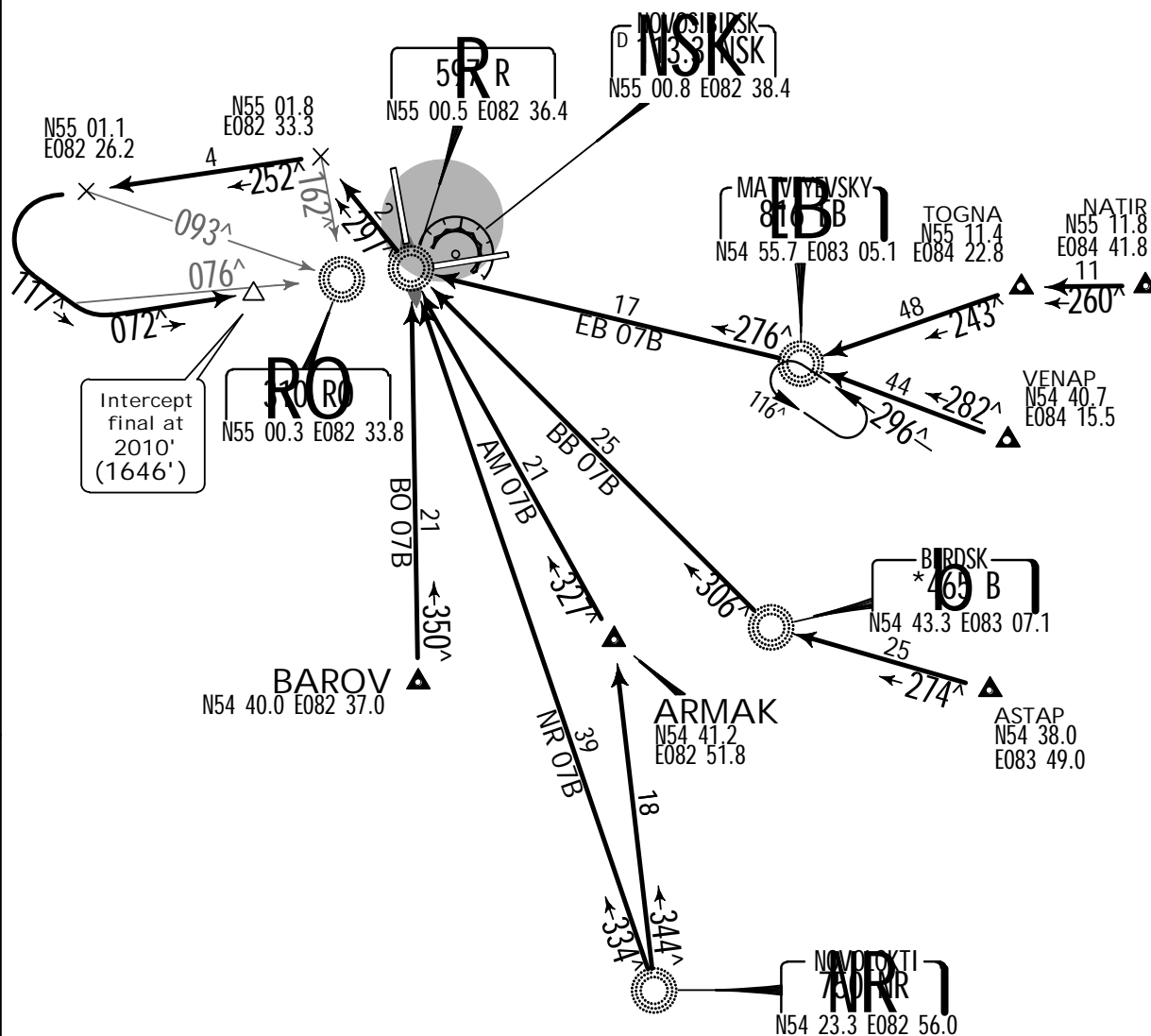
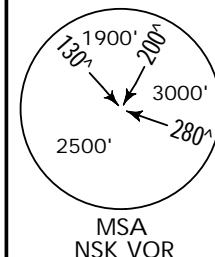
ATIS  
131.3 (Russian 127.4)

Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4275')

AM 07B, BB 07B, BO 07B, EB 07B, NR 07B  
RWY 07 ARRIVALS

CAT A &amp; B



ALT/HEIGHT CONVERSION  
QNH (QFE)  
4640' (4276' - 1300m)

NOT TO SCALE

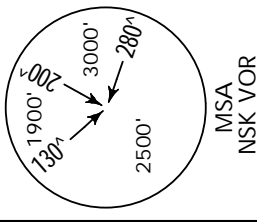


UNNT/OVB  
TOLMACHEVO

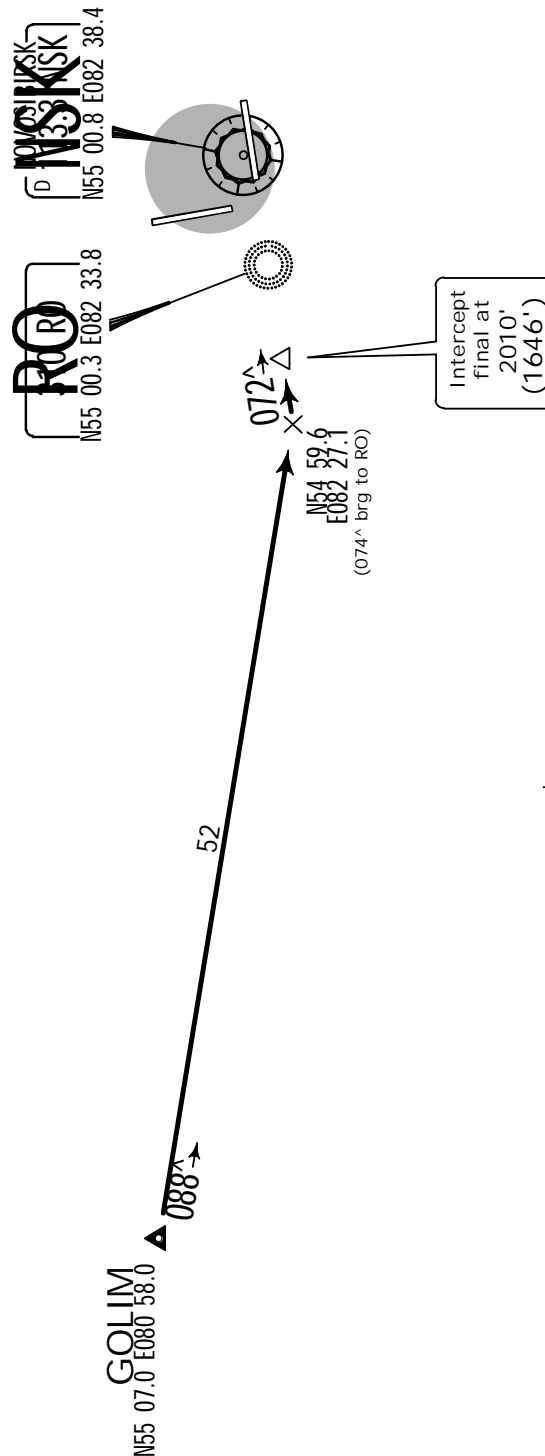
JEPPESEN  
13 DEC 13 (10-2V)

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4276')
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GL 07B  
RWY 07 ARRIVAL  
CAT A & B



ALT/HEIGHT CONVERSION  
(QFE)  
QNH 640' (4276' - 1300m)  
010' (1646' - 500m)

UNNT/OVB  
TOLMACHEVO

JEPPESEN  
19 JUL 13 (10-2W) .Eff.25.Jul.

NOVOSIBIRSK, RUSSIA  
.STAR.

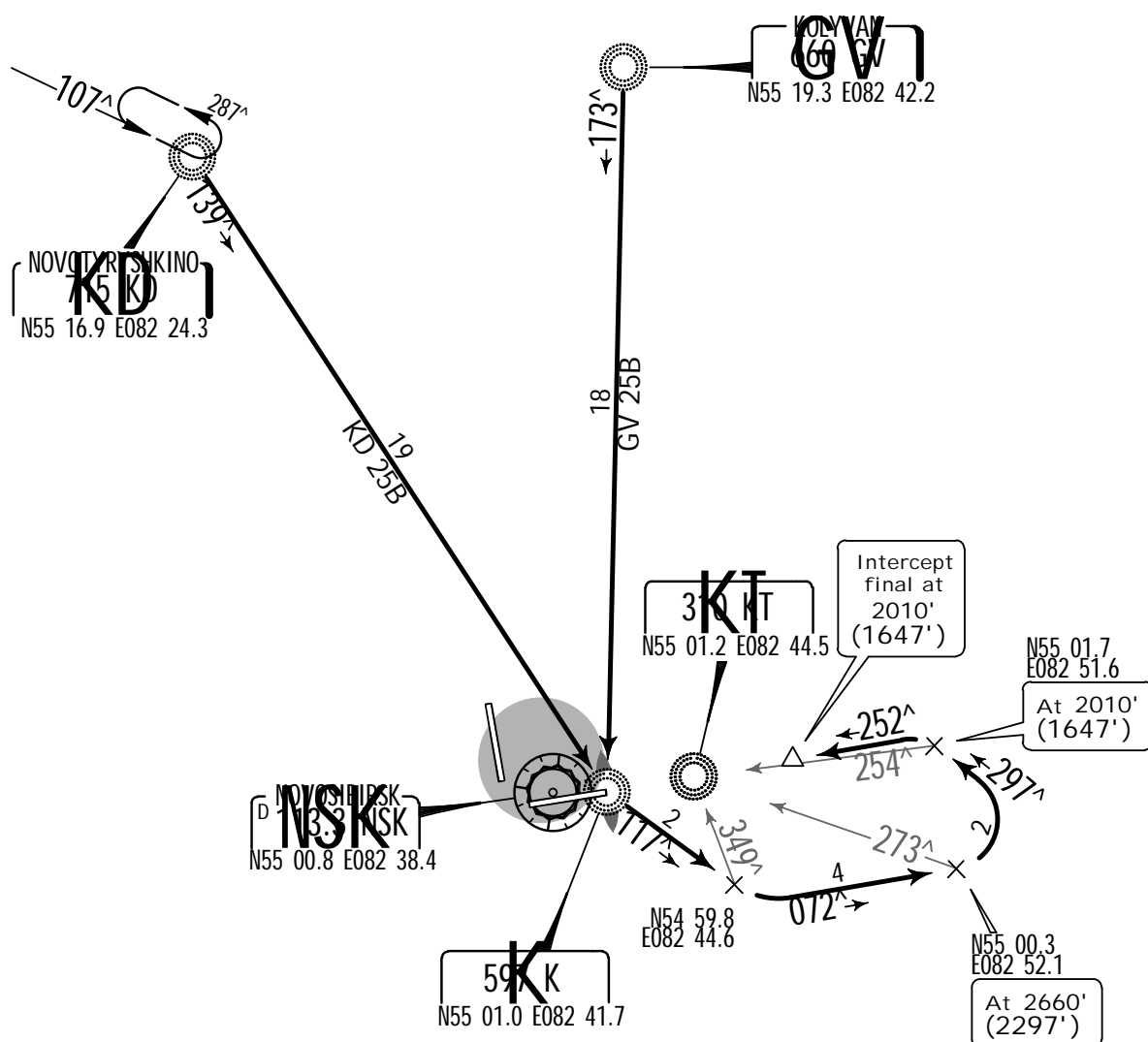
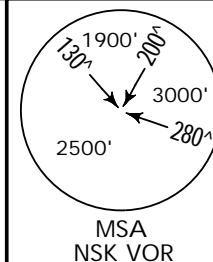
ATIS  
131.3 (Russian 127.4)

Apt Elev  
368'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4277')

GV 25B, KD 25B  
RWY 25 ARRIVALS  
CAT A & B

Do not overfly central part  
of city below 4300' (3937').



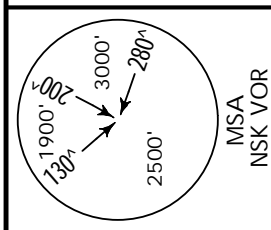
ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4277' - 1300m)
4300'	(3937' - 1200m)
2660'	(2297' - 700m)

UNNT/OVB  
 TOLMACHEVO

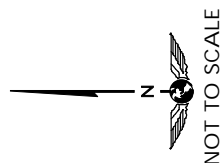
19 JUL 13 10-2X .Eff.25.Jul.

NOVOSIBIRSK, RUSSIA  
 .STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4277')
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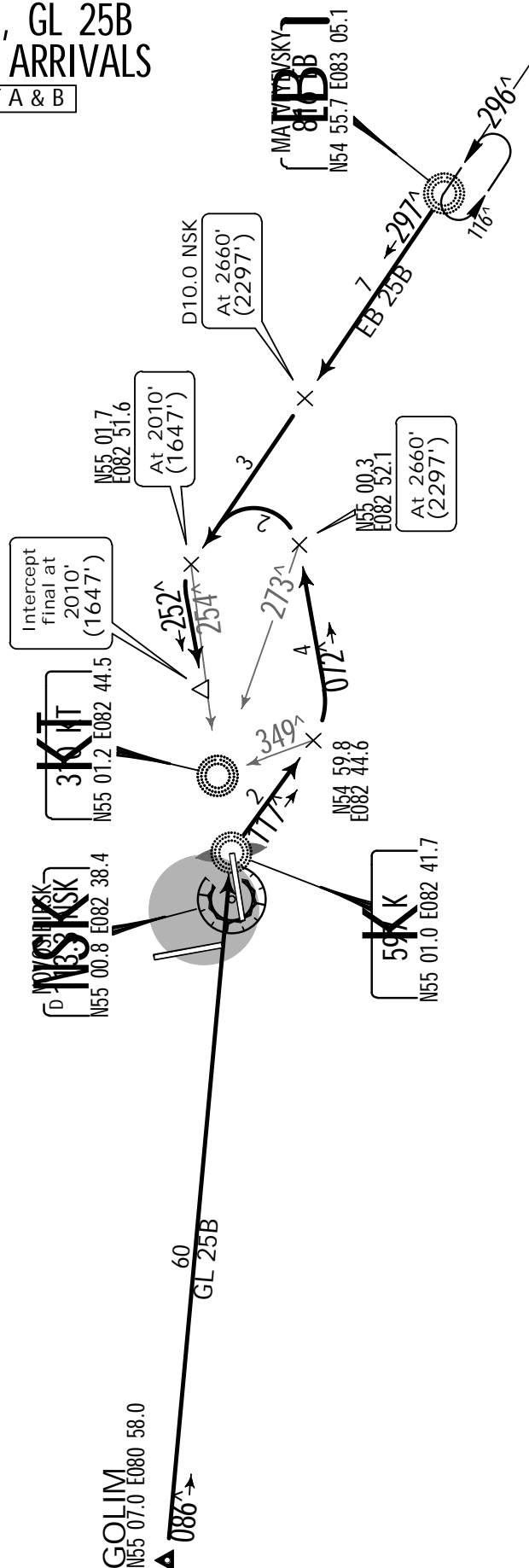


EB 25B, GL 25B  
 RWY 25 ARRIVALS  
 CAT A & B



Do not overfly central part  
 of city below 4300' (3937').

ALT/HEIGHT CONVERSION QNH (QFE)
640' (4277' - 1300m)
300' (3937' - 1200m)
660' (2297' - 700m)
010' (1647' - 500m)



UNNT/OVB  
TOLMACHEVO

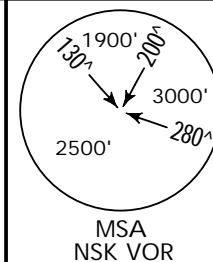
**JEPPESEN**  
22 NOV 13 (10-2X1)

NOVOSIBIRSK, RUSSIA  
.STAR.

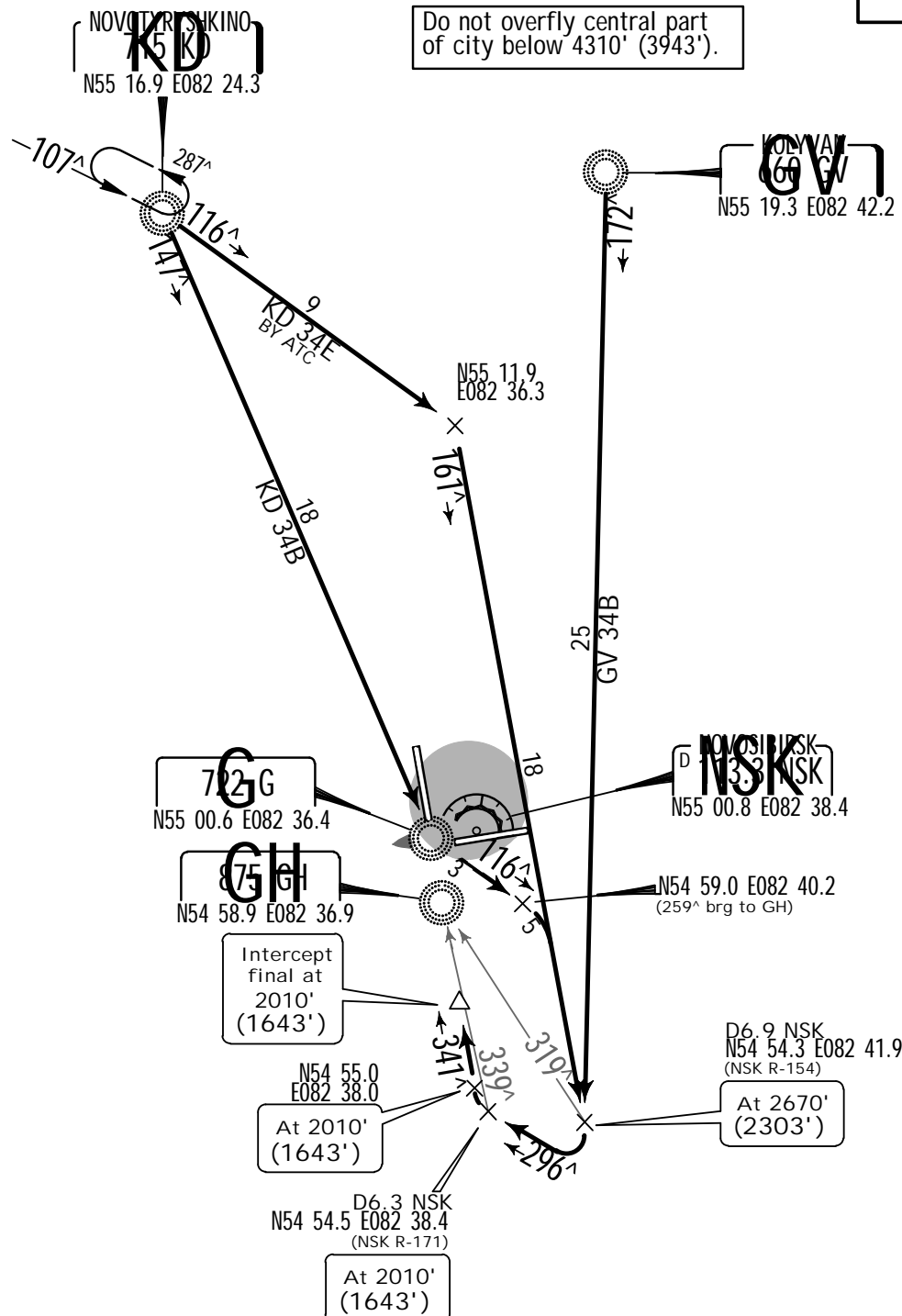
ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4273')
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## GV 34B, KD 34B, KD 34E RWY 34 ARRIVALS

CAT A &amp; B



Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION  
(QNE) (QFE)

4640'	(4273' - 1300m)
4310'	(3943' - 1200m)
2670'	(2303' - 700m)



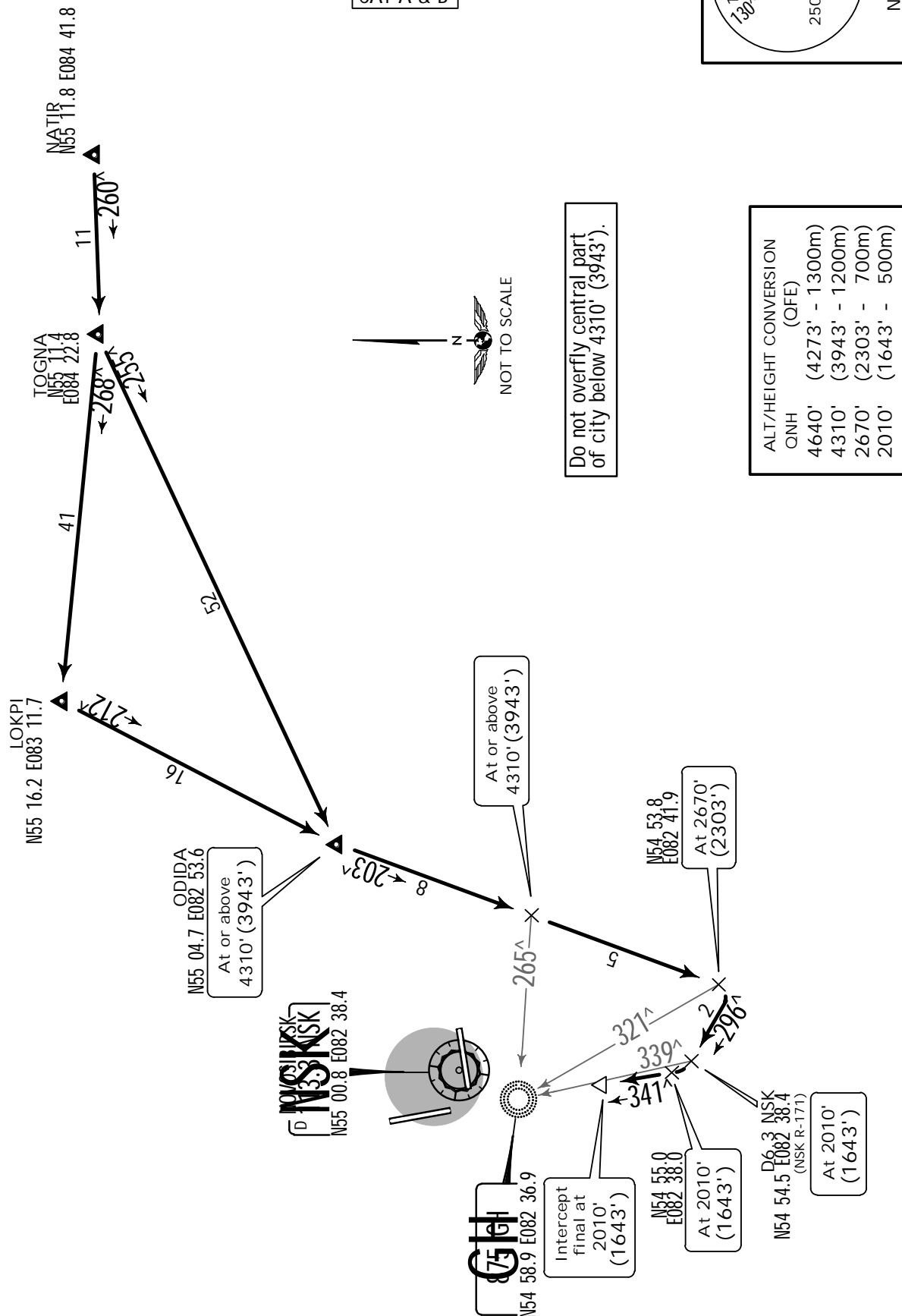
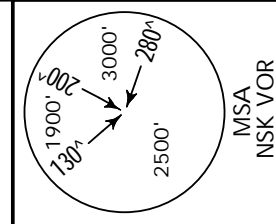
UNNT/OVB  
TOLMACHEVO

22 NOV 13 10-2X2  
JEPPESSEN

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 Trans alt: 4640' (4273')
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PG 34B  
RWY 34 ARRIVAL  
CAT A & B



UNNT/OVB  
TOLMACHEVO

**JEPPESSEN**  
13 DEC 13 10-2X3

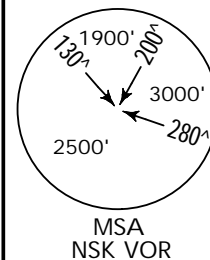
NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS	Apt Elev	Alt Set: MM (hPa on request)	QNH on request	(QFE)
131.3 (Russian 127.4)	368'	Trans level: FL60	Trans alt: 4640' (4273')	

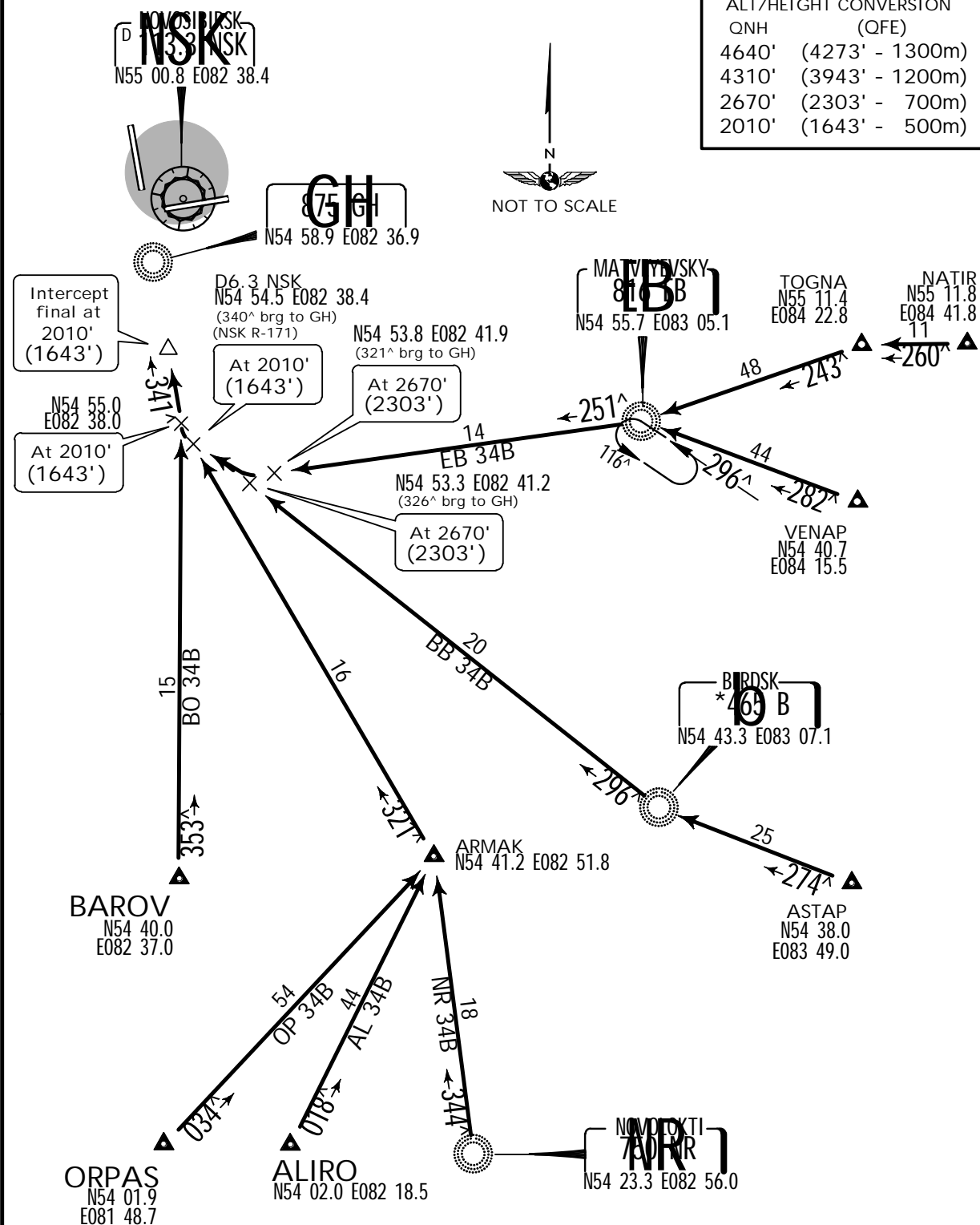
AL 34B, BB 34B, BO 34B, EB 34B, NR 34B, OP 34B  
RWY 34 ARRIVALS

CAT A & B

Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4273' - 1300m)
4310'	(3943' - 1200m)
2670'	(2303' - 700m)
2010'	(1643' - 500m)



UNNT/OVB  
TOLMACHEVO

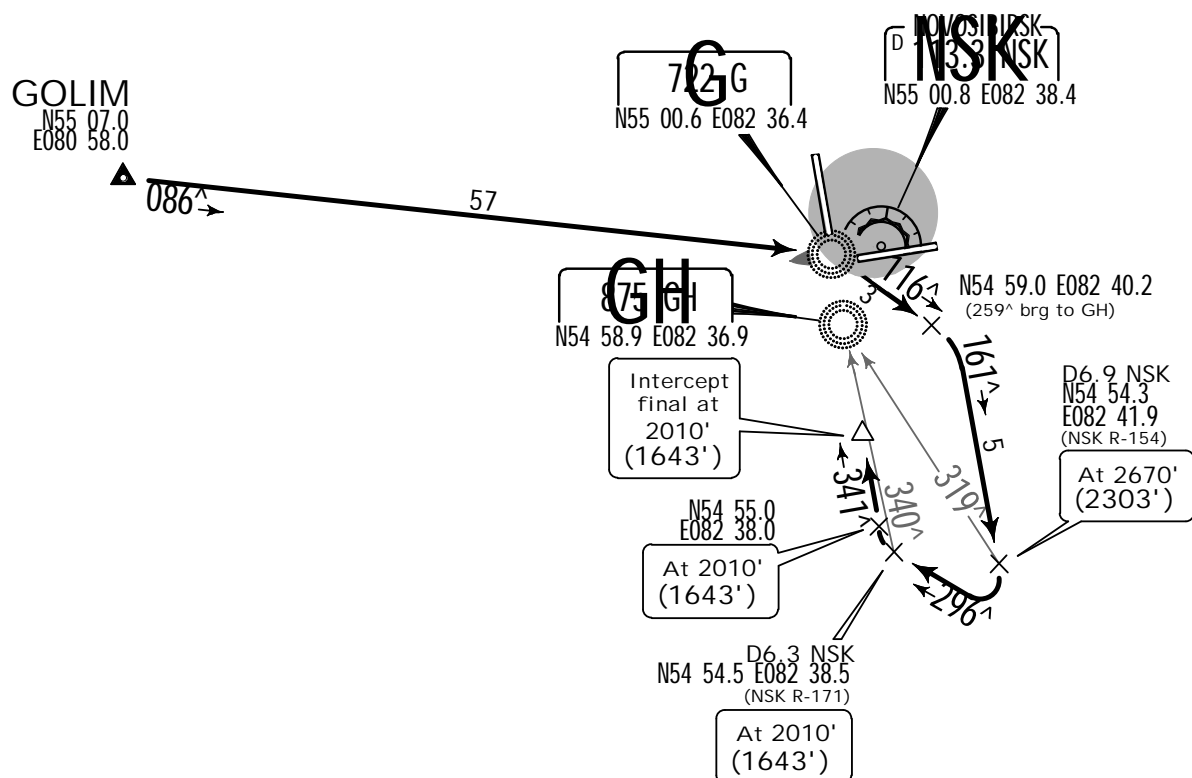
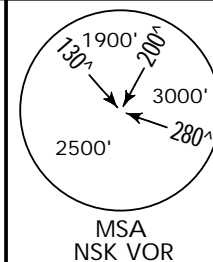
JEPPESEN  
13 DEC 13 (10-2X4)

NOVOSIBIRSK, RUSSIA  
.STAR.

ATIS 131.3 (Russian 127.4)	Apt Elev 368'	Alt Set: MM (hPa on request) Trans level: FL60	QNH on request Trans alt: 4640' (4273')	(QFE)
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GL 34B  
RWY 34 ARRIVAL  
CAT A & B

Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION  
QNH (QFE)  
4640' (4273' - 1300m)  
4310' (3943' - 1200m)  
2670' (2303' - 700m)



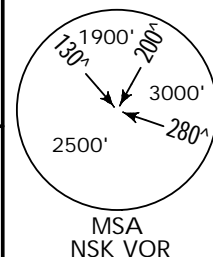
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
25 MAY 12 (10-3) .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.

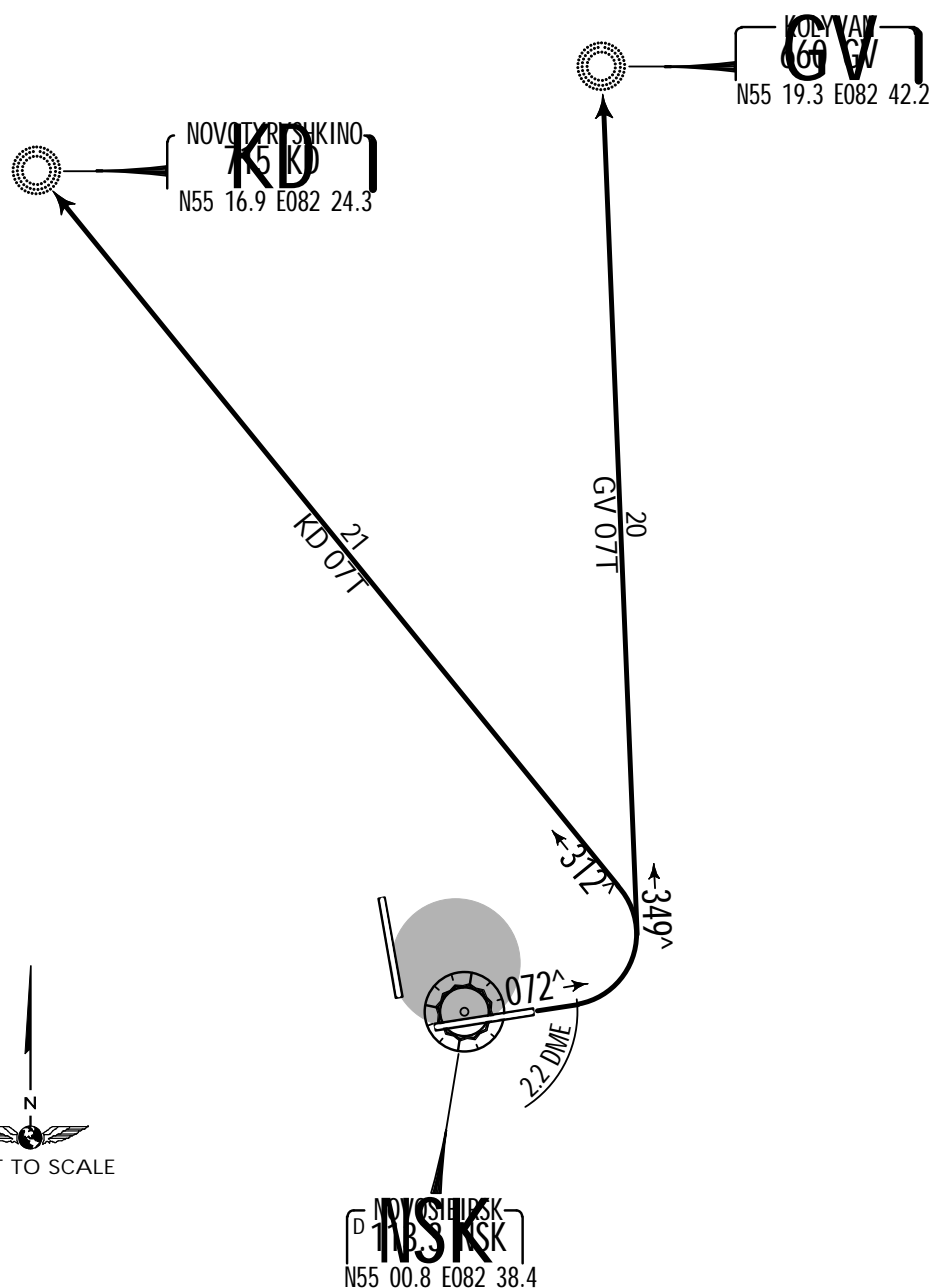
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4275')  
Take-off shall be carried out with noise abatement  
procedures according to Flight Operation Manual.



# GV 07T, KD 07T RWY 07 DEPARTURES

Do not overfly central part  
of city below 4310' (3945').



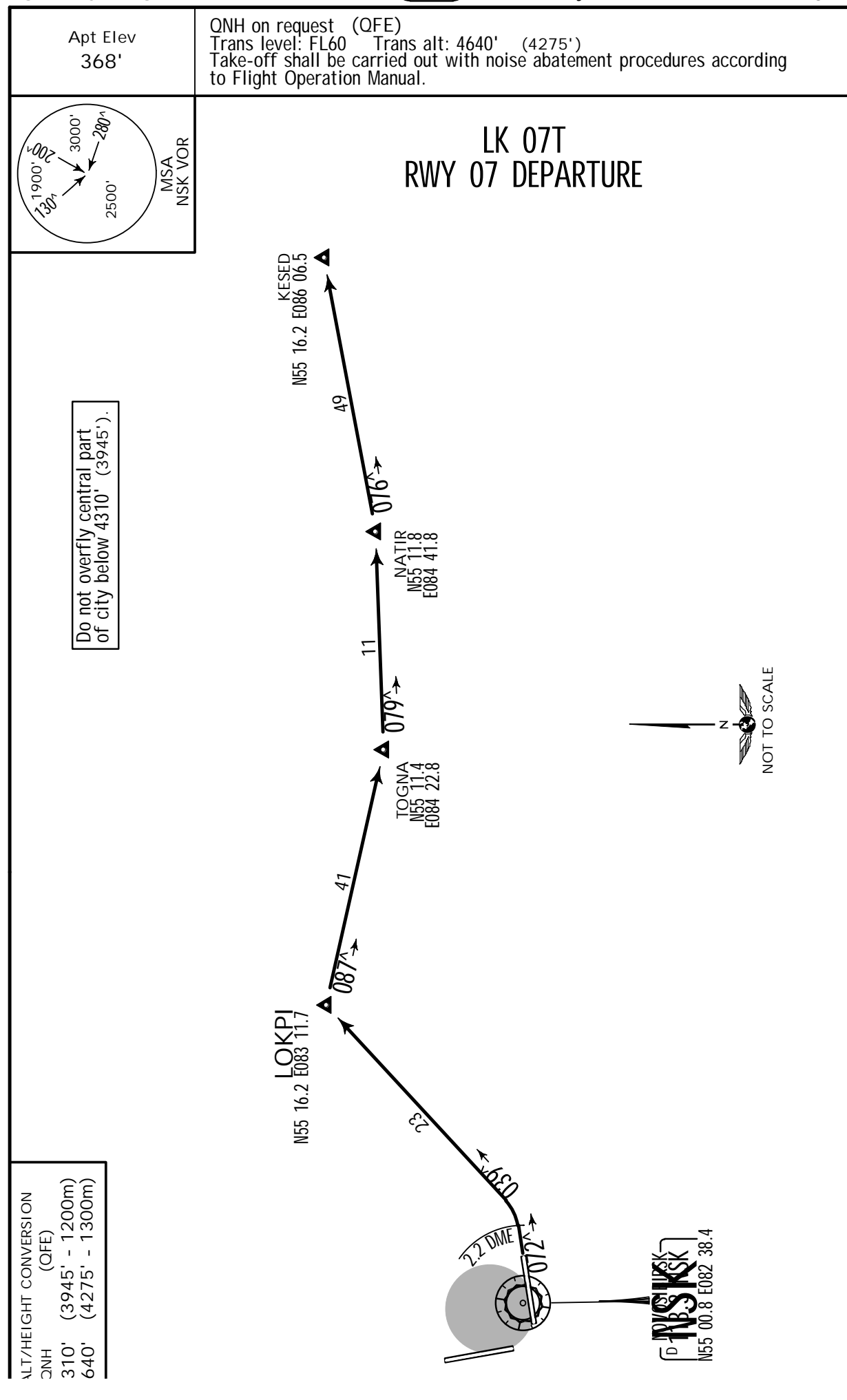
NOT TO SCALE

ALT/HEIGHT CONVERSION  
QNH (QFE)  
4310' (3945' - 1200m)

UNNT/OVB  
TOLMACHEVO

JEPPESEN  
25 MAY 12 (10-3A) .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.

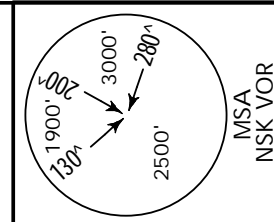
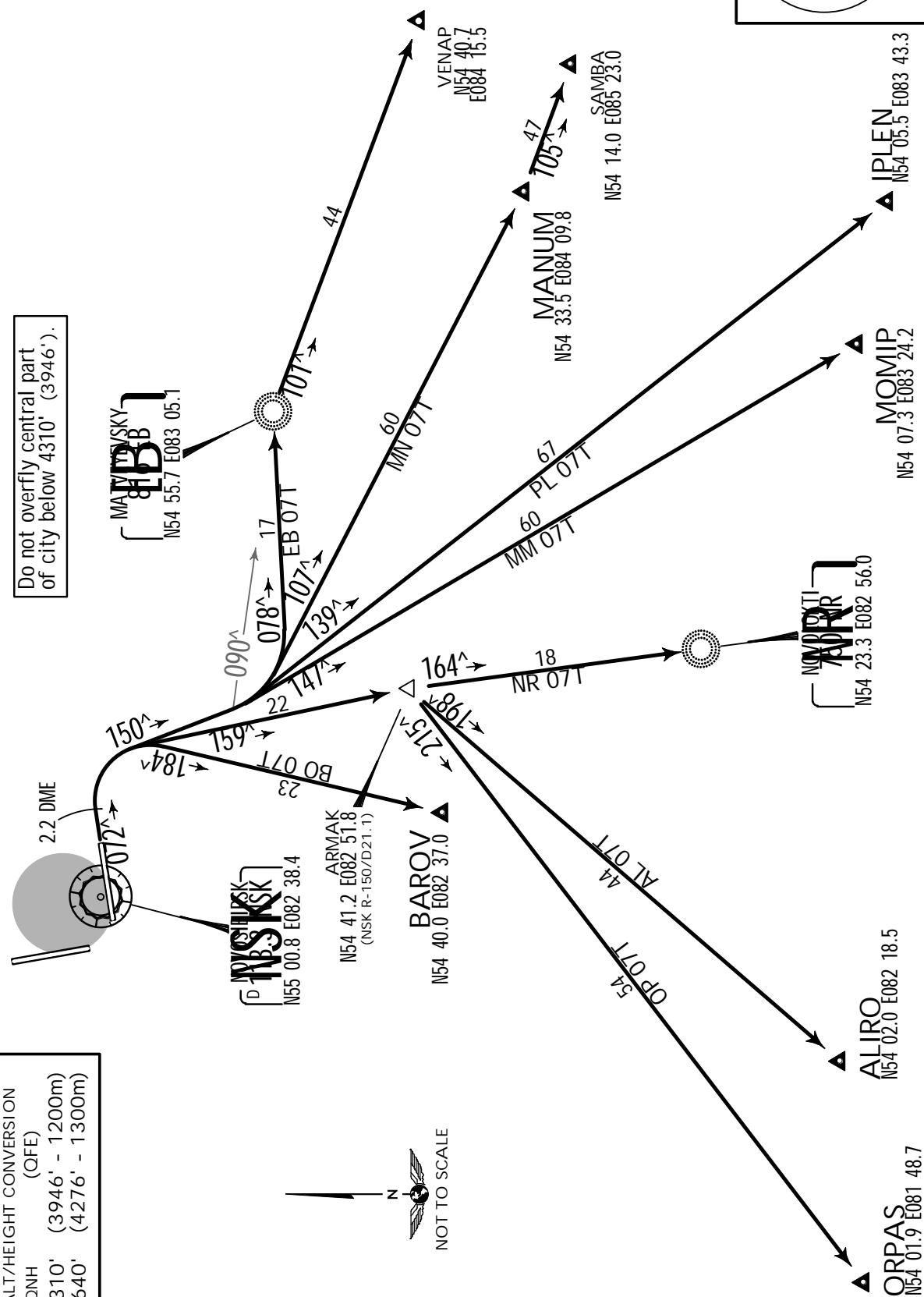


UNNT/OVB  
TOLMACHEVO

13 DEC 13

10-3B

JEPPESEN

NOVOSIBIRSK, RUSSIA  
.SID.Apt Elev  
368'QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')  
Take-off shall be carried out with noise abatement procedures according to Flight Operation Manual.AL 07T, BO 07T, EB 07T, MM 07T, MN 07T  
NR 07T, OP 07T, PL 07T  
RWY 07 DEPARTURESDo not overfly central part  
of city below 4310' (3946').

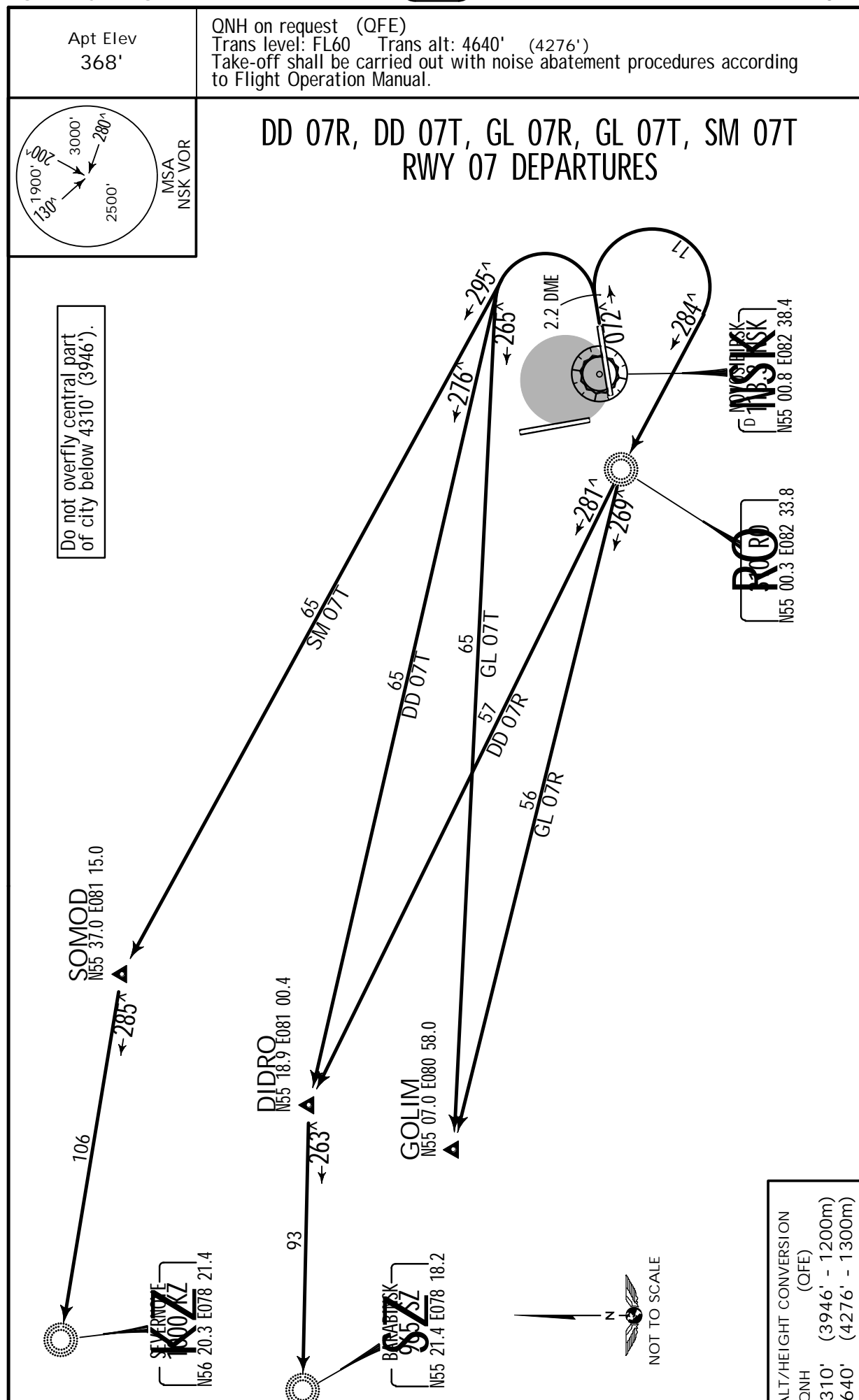
ALT/HEIGHT CONVERSION

QNH (QFE)  
310' (3946' - 1200m)  
640' (4276' - 1300m)

UNNT/OVB  
TOLMACHEVO

JEPPESEN  
13 DEC 13 10-3C

NOVOSIBIRSK, RUSSIA  
.SID.



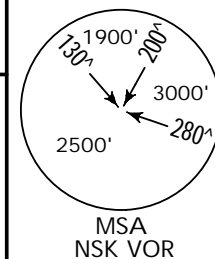
UNNT/OVB  
TOLMACHEVO

25 MAY 12 **10-3D** .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.

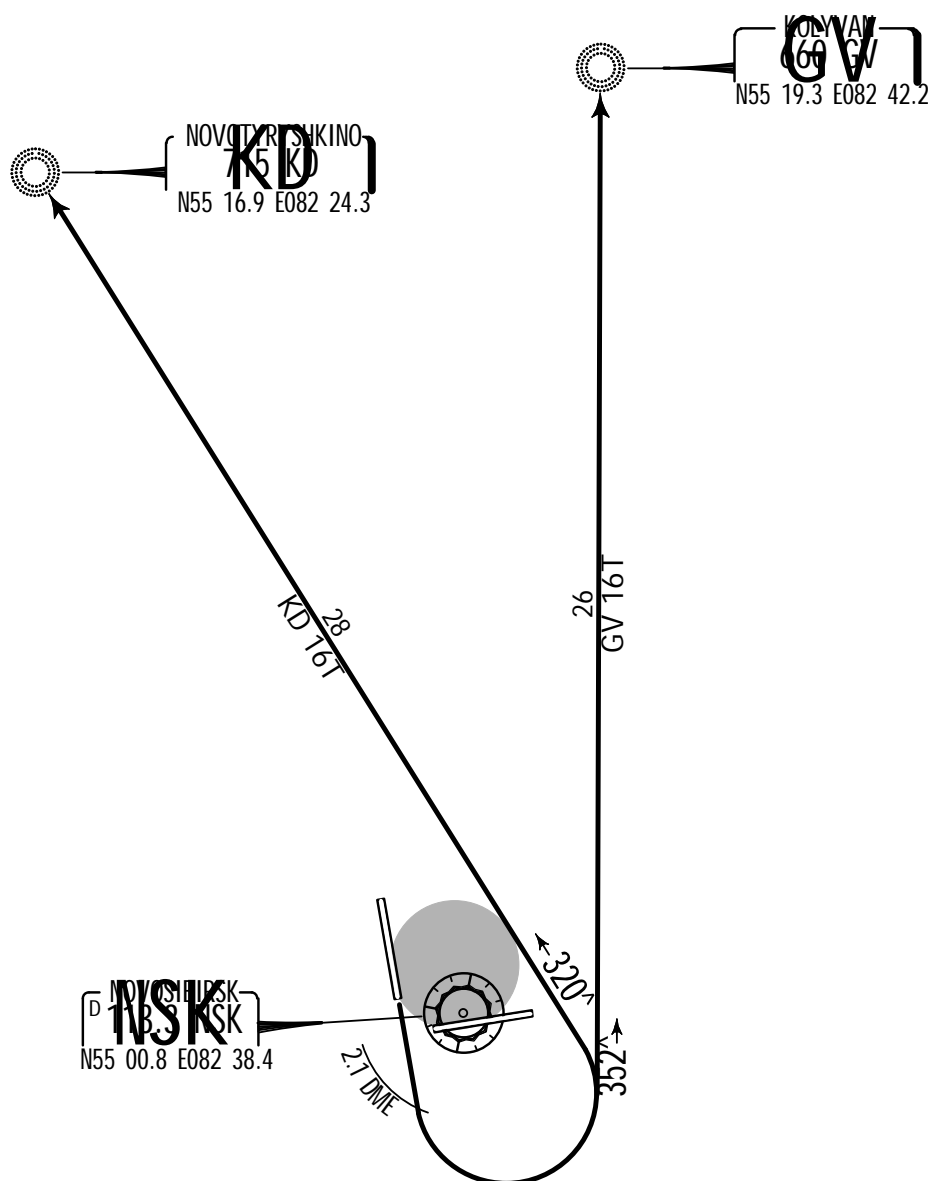
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4278')



GV 16T, KD 16T  
RWY 16 DEPARTURES

Do not overfly central part  
of city below 4300' (3938').

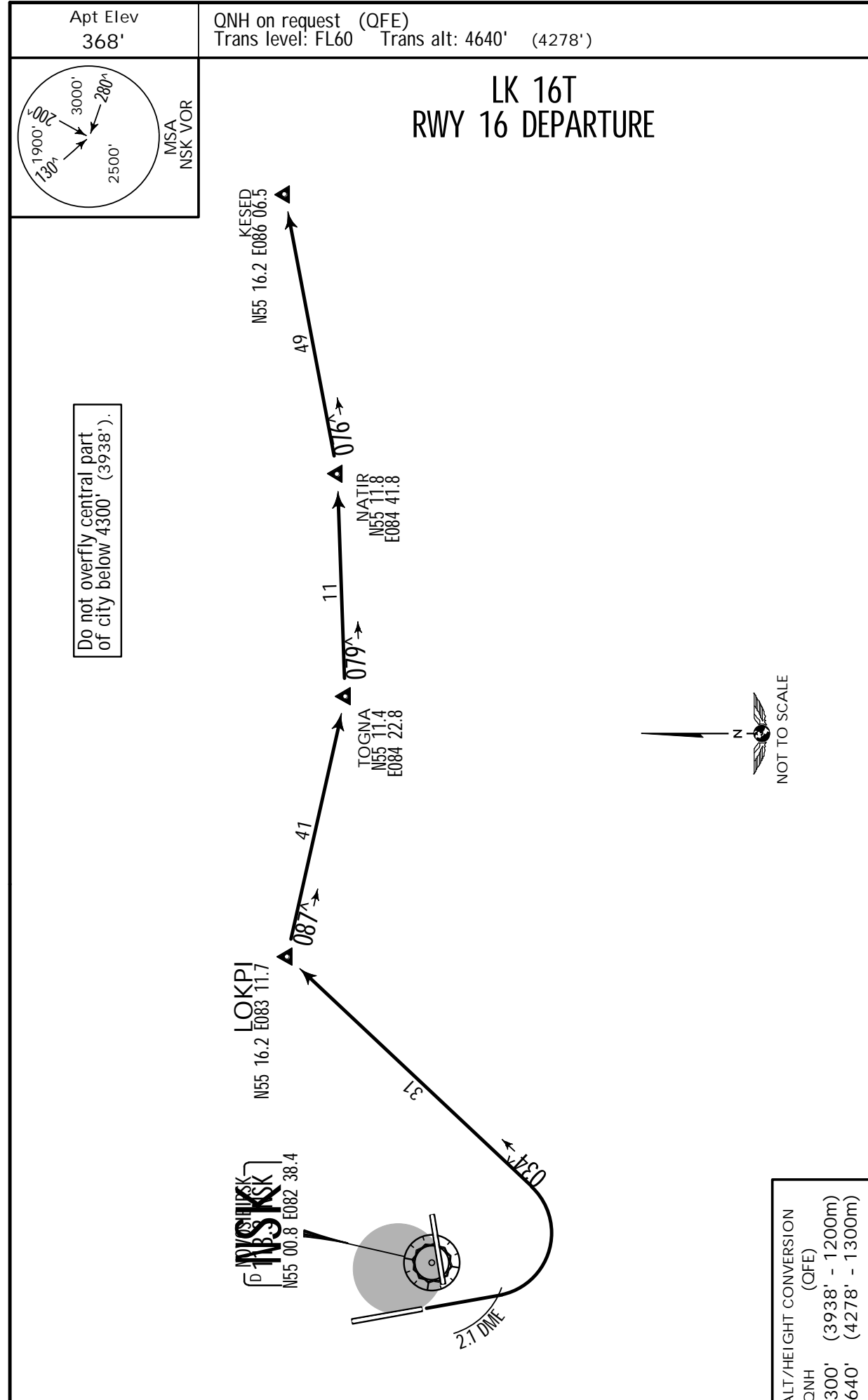


ALT/HEIGHT CONVERSION  
QNH (QFE)  
4300' (3938' - 1200m)

UNNT/OVB  
TOLMACHEVO

JEPPESEN  
25 MAY 12 (10-3E) .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.



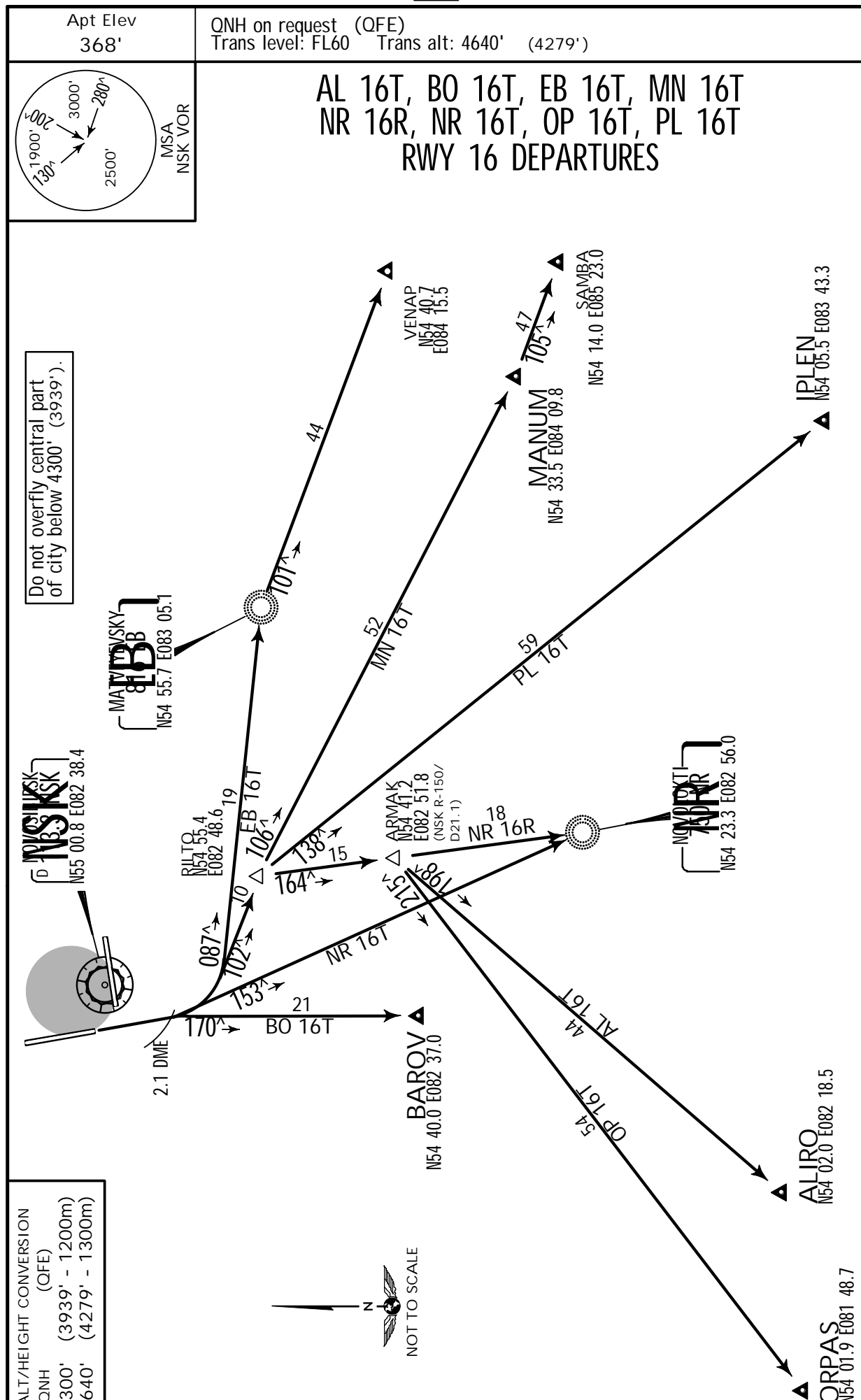
UNNT/OVB  
TOLMACHEVO

13 DEC 13

**JEPPESEN**

(10-3F)

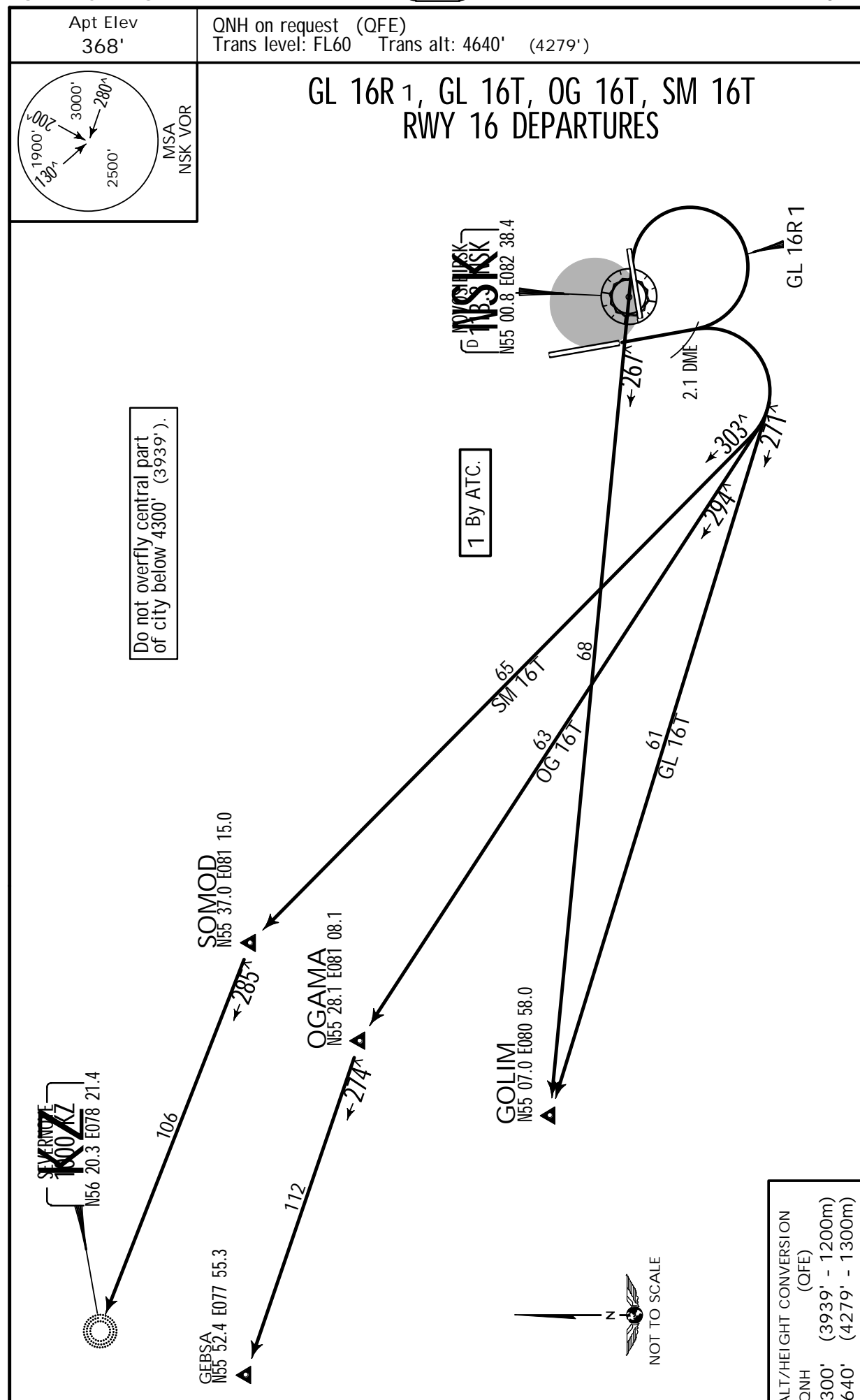
NOVOSIBIRSK, RUSSIA  
.SID.



UNNT/OVB  
TOLMACHEVO

13 DEC 13 **JEPPESEN**  
(10-3G)

NOVOSIBIRSK, RUSSIA  
.SID.





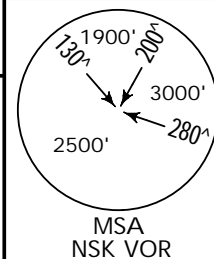
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
22 NOV 13 (10-3H)

NOVOSIBIRSK, RUSSIA  
.SID.

Apt Elev  
368'

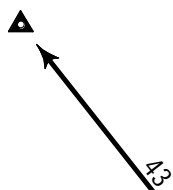
QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



GV 25T, KD 25T, KG 25T  
RWY 25 DEPARTURES

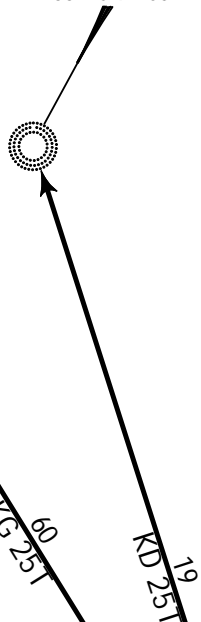
Do not overfly central part  
of city below 4300' (3936').

KENGA  
N56 19.2 E080 42.1

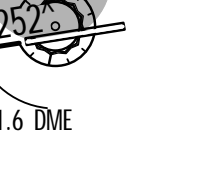
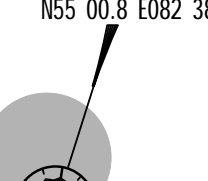
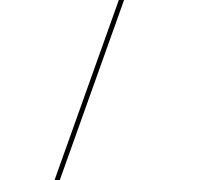
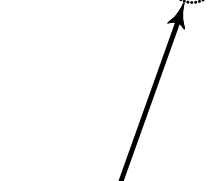
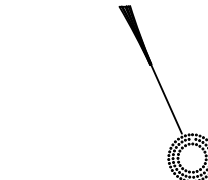


KEGAV  
N55 47.6 E081 35.1

NOVOTYRSKINO  
N55 16.9 E082 24.3



KOLVA  
N55 19.3 E082 42.2

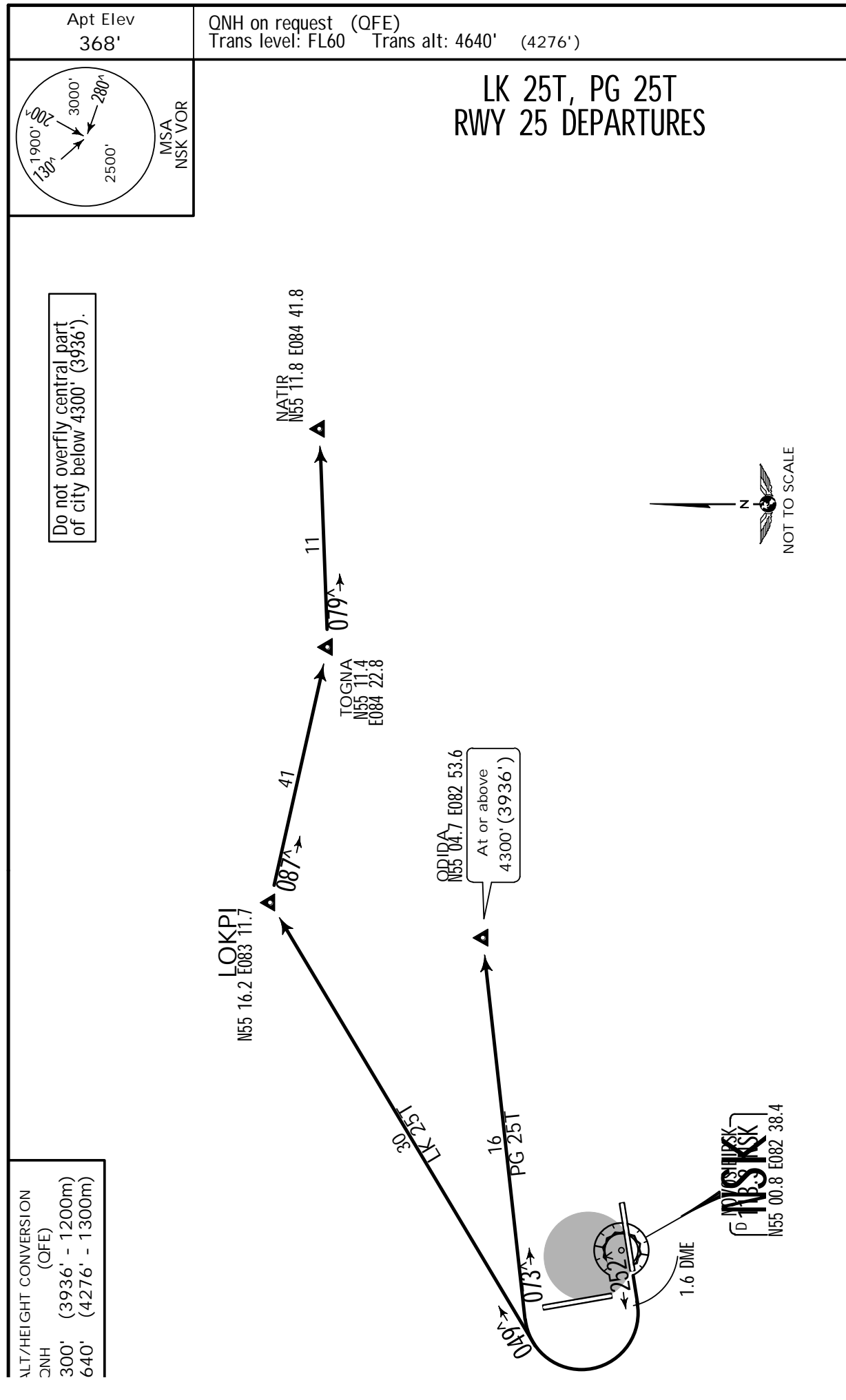


ALT/HEIGHT CONVERSION  
QNH (QFE)  
4300' (3936' - 1200m)

UNNT/OVB  
TOLMACHEVO

22 NOV 13 **JEPPESEN**  
10-3J

NOVOSIBIRSK, RUSSIA  
.SID.



UNNT/OVB  
TOLMACHEVO

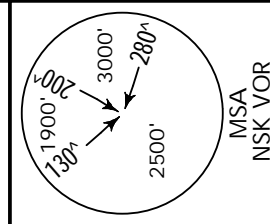
13 DEC 13 **10-3K**

NOVOSIBIRSK, RUSSIA  
.SID.

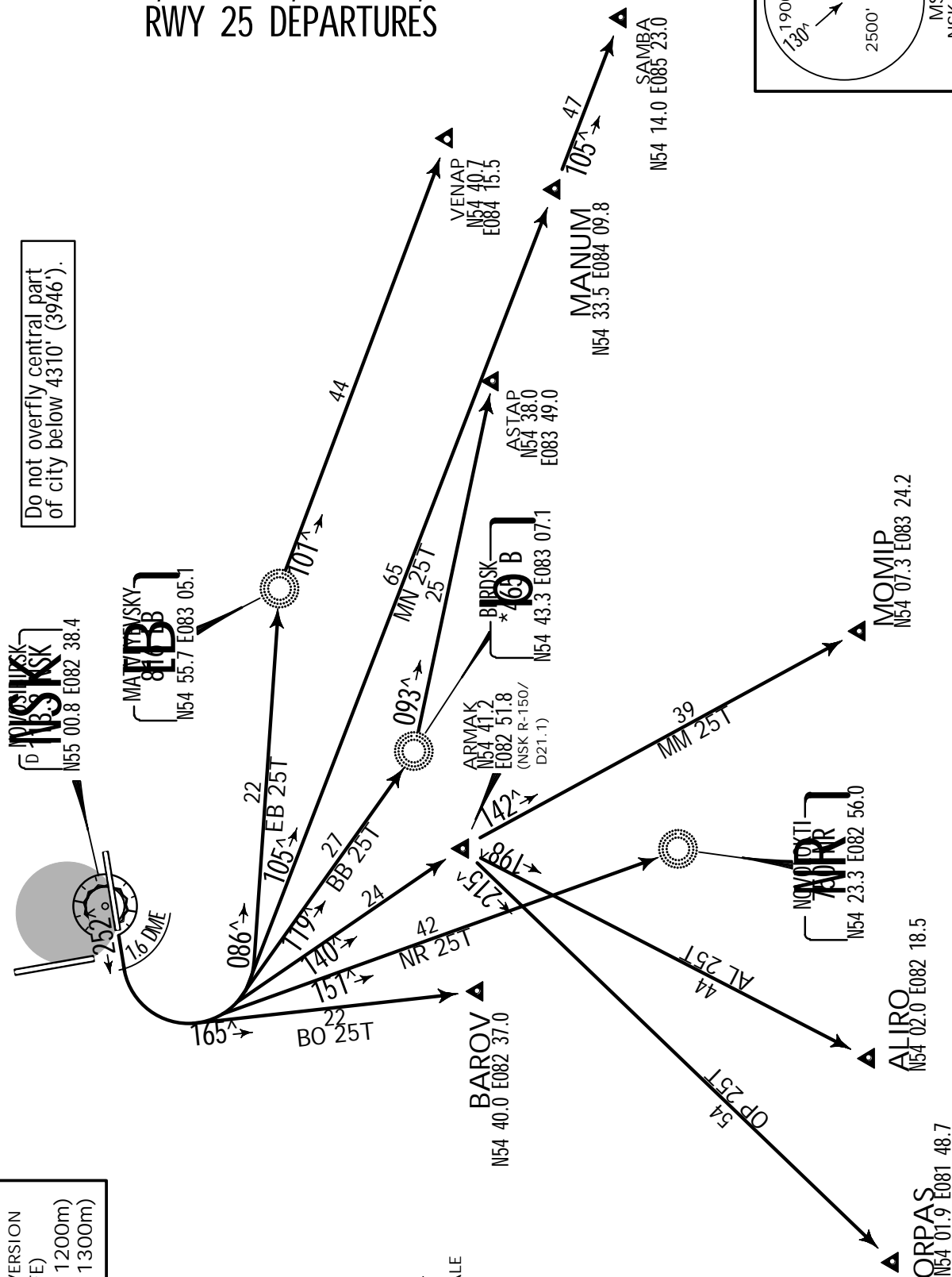
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')

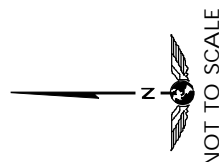
AL 25T, BB 25T, BO 25T, EB 25T  
MM 25T, MN 25T, NR 25T, OP 25T  
RWY 25 DEPARTURES



Do not overfly central part  
of city below 4310' (3946').



ALT/HEIGHT CONVERSION  
QNH (QFE)  
310' (3946' - 1200m)  
640' (4276' - 1300m)



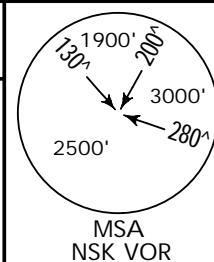
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
13 DEC 13 (10-3L)

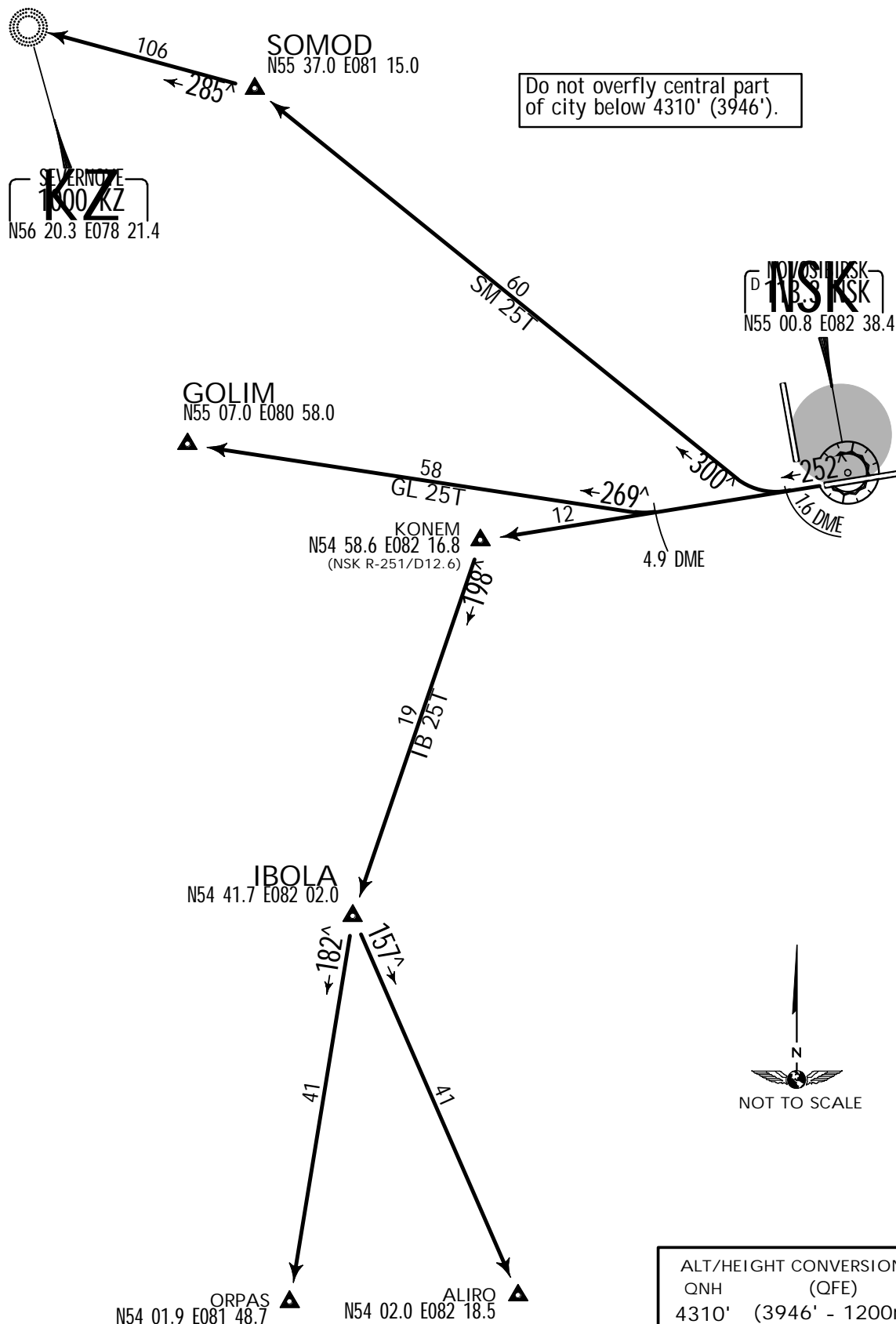
NOVOSIBIRSK, RUSSIA  
.SID.

Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



GL 25T, IB 25T, SM 25T  
RWY 25 DEPARTURES



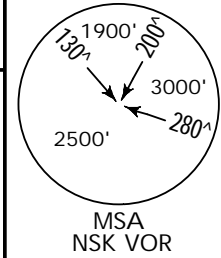
UNNT/OVB  
TOLMACHEVO

25 MAY 12 **JEPPESEN** (10-3M) .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.

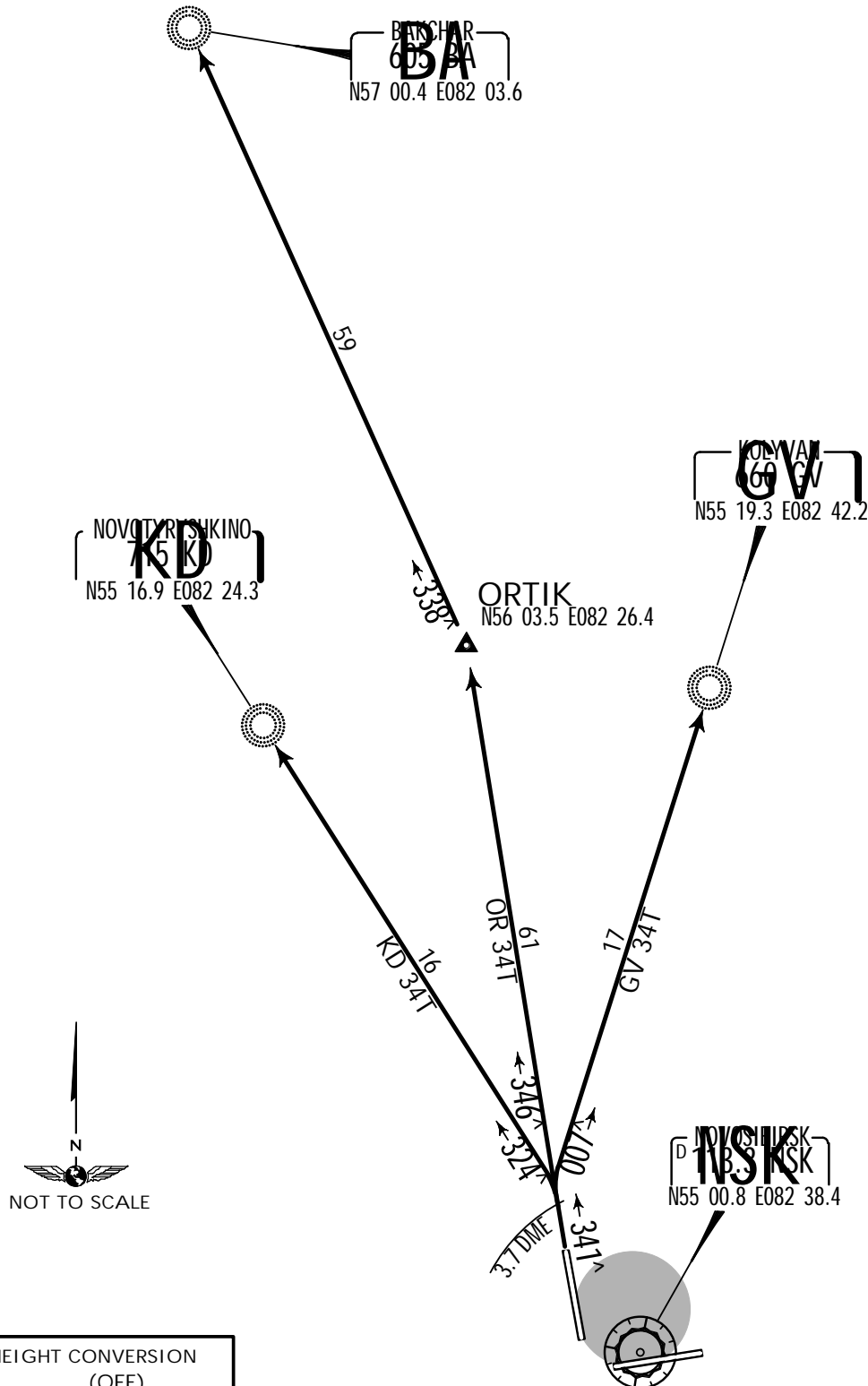
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4272')



GV 34T, KD 34T, OR 34T  
RWY 34 DEPARTURES

Do not overfly central part  
of city below 4310' (3942').

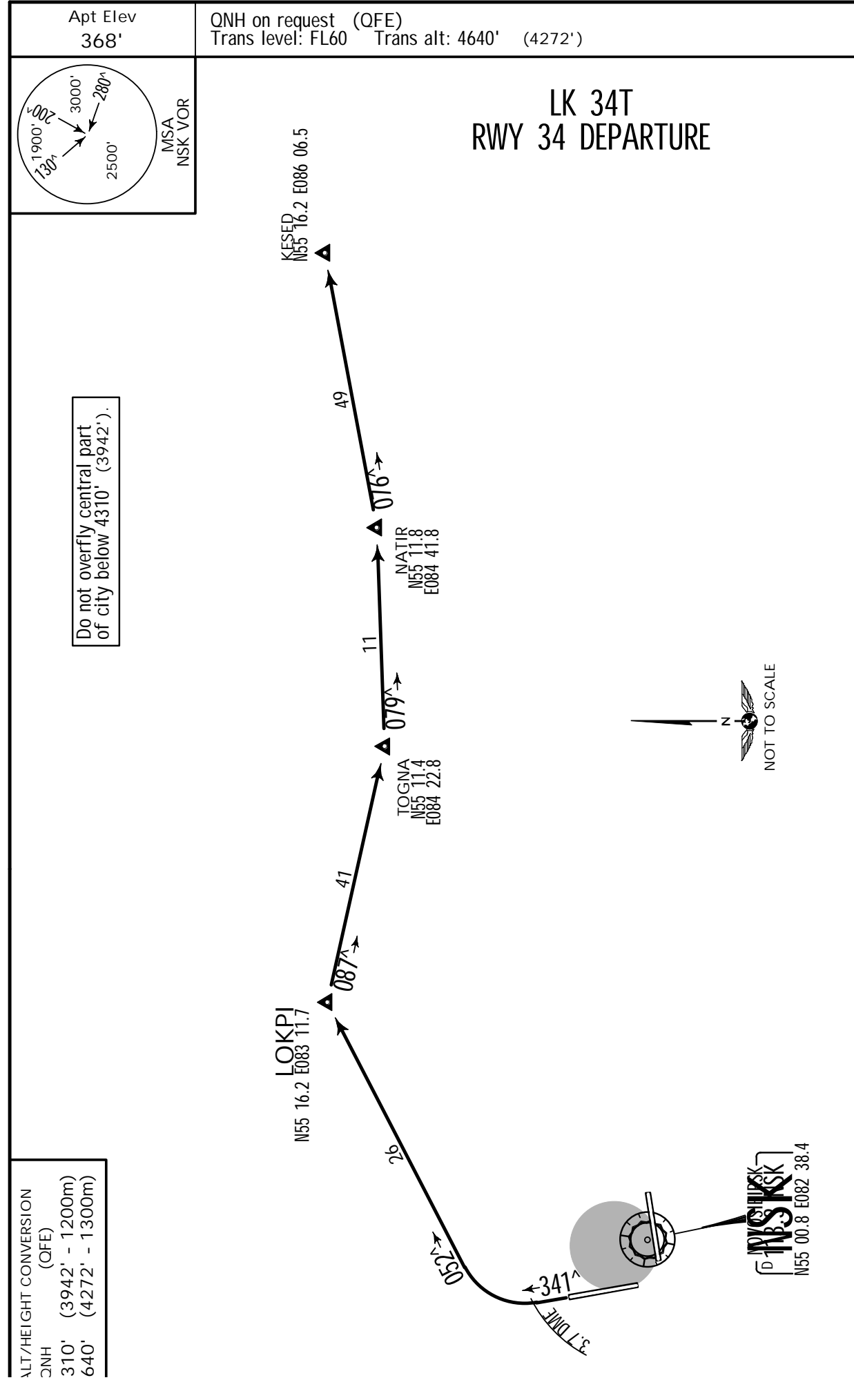


ALT/HEIGHT CONVERSION  
QNH (QFE)  
4310' (3942' - 1200m)

UNNT/OVB  
TOLMACHEVO

25 MAY 12 **JEPPESEN** 10-3N .Eff.31.May.

NOVOSIBIRSK, RUSSIA  
.SID.



UNNT/OVB  
TOLMACHEVO

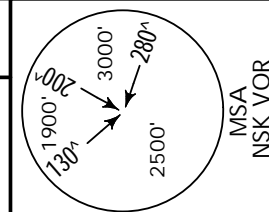
13 DEC 13

10-3P

NOVOSIBIRSK, RUSSIA  
.SID.

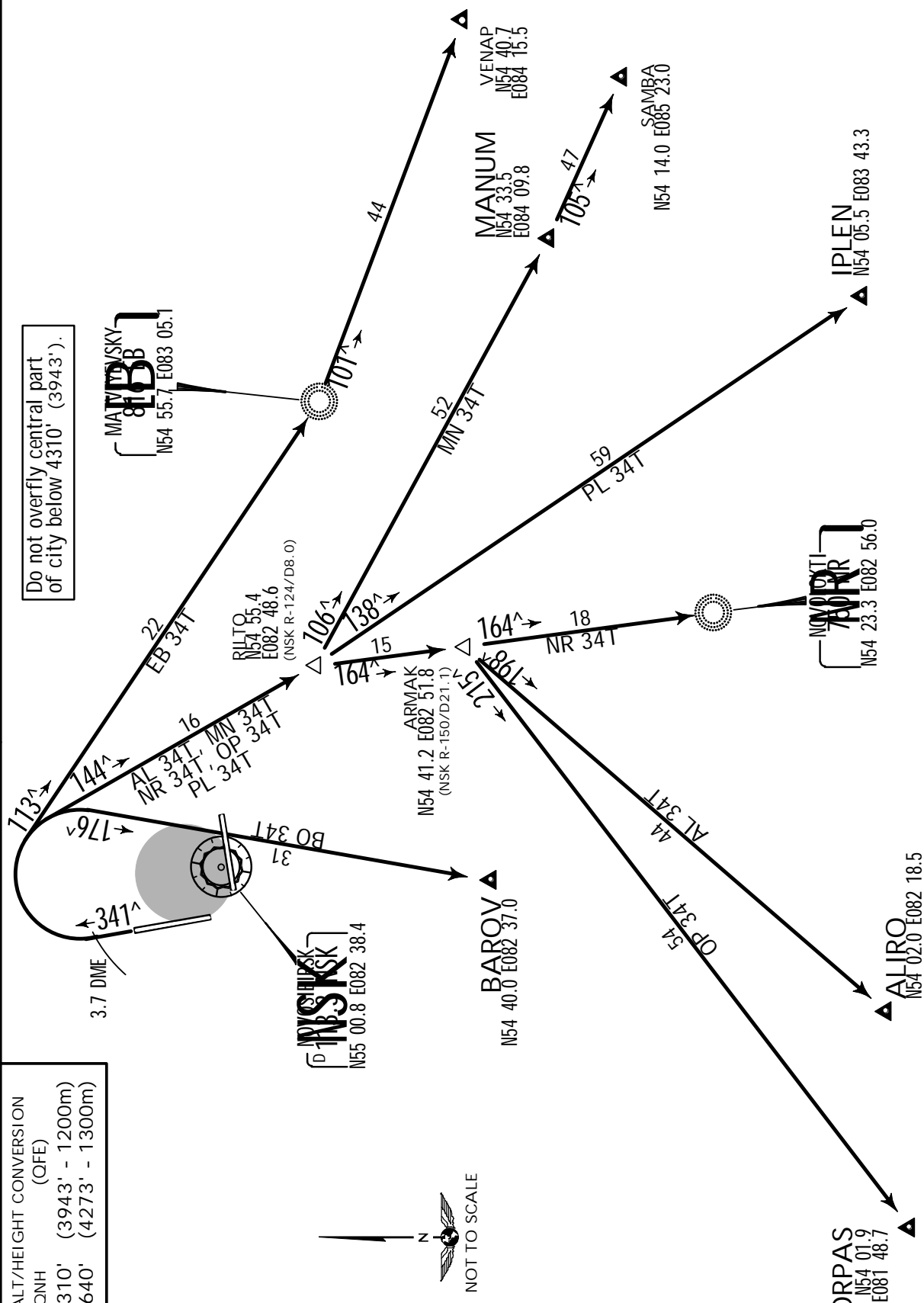
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4273')

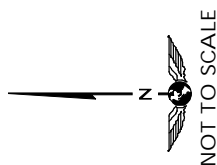


AL 34T, BO 34T, EB 34T, MN 34T  
NR 34T, OP 34T, PL 34T  
RWY 34 DEPARTURES

Do not overfly central part  
of city below 4310' (3943').



ALT/HEIGHT CONVERSION  
QNH (QFE)  
310' (3943' - 1200m)  
640' (4273' - 1300m)



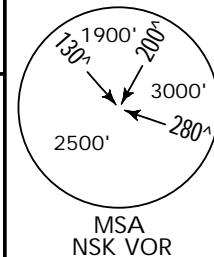
UNNT/OVB  
TOLMACHEVO

13 DEC 13 (10-3Q)

NOVOSIBIRSK, RUSSIA  
.SID.

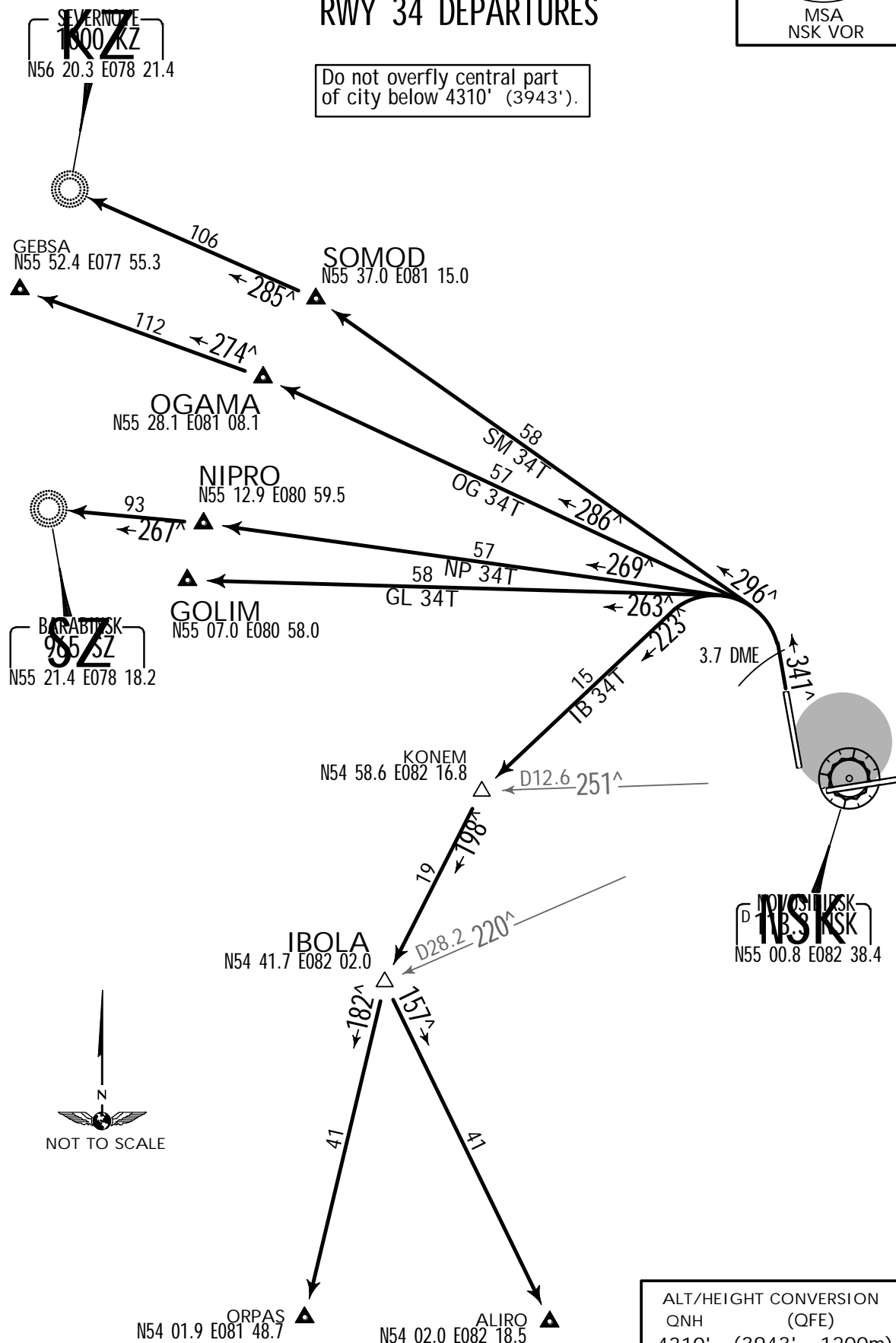
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4273')



GL 34T, IB 34T, NP 34T  
OG 34T, SM 34T  
RWY 34 DEPARTURES

Do not overfly central part  
of city below 4310' (3943').





UNNT/OVB  
TOLMACHEVO

13 DEC 13

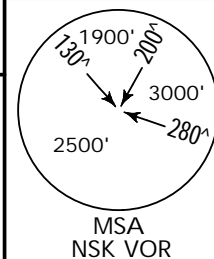
**JEPPESEN**

10-3S

NOVOSIBIRSK, RUSSIA  
.SID.

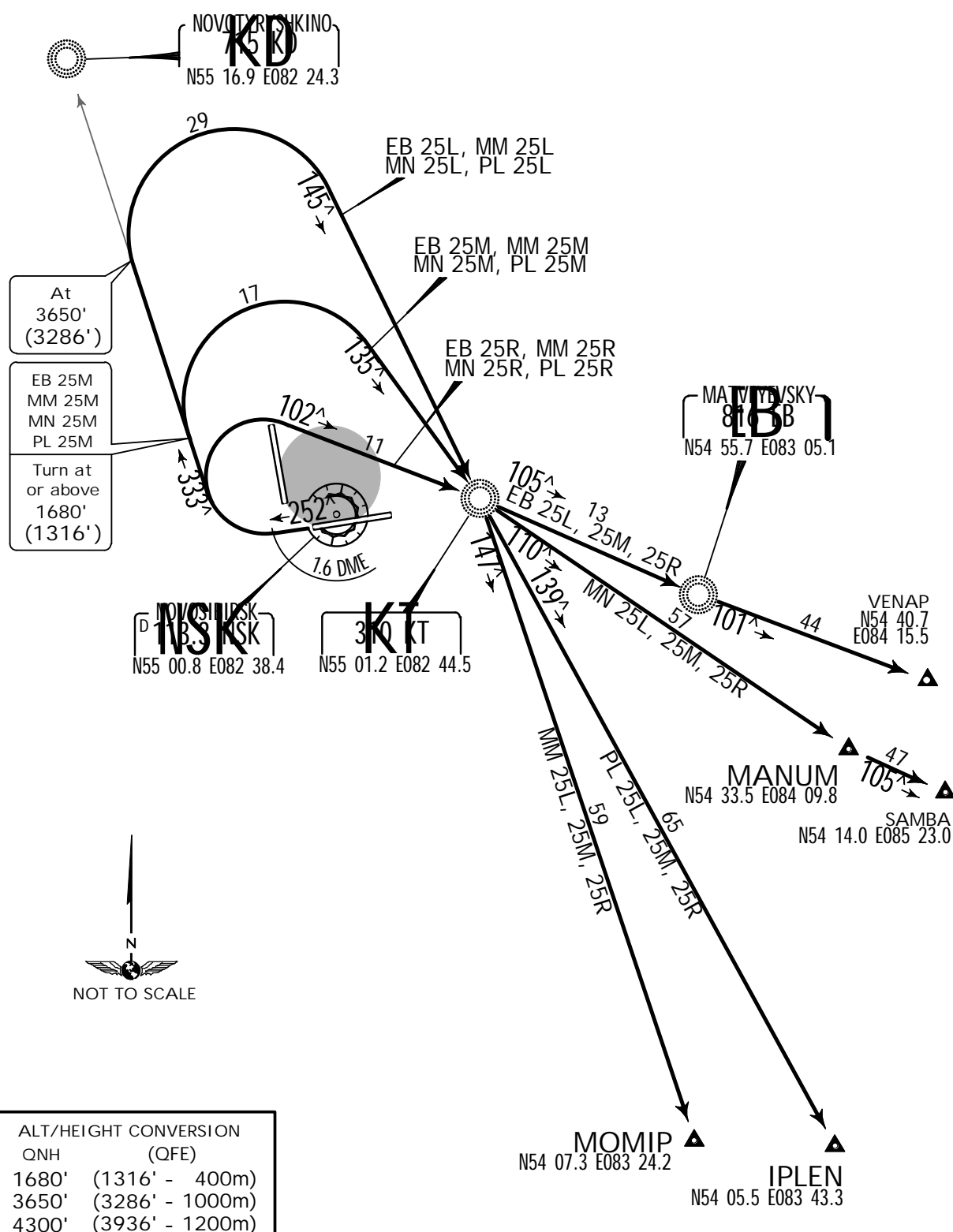
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



EB 25L, EB 25M, EB 25R  
MM 25L, MM 25M, MM 25R  
MN 25L, MN 25M, MN 25R  
PL 25L, PL 25M, PL 25R  
RWY 25 DEPARTURES  
BY ATC

Do not overfly central part  
of city below 4300' (3936').



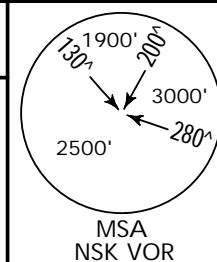
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
13 DEC 13 10-3T

NOVOSIBIRSK, RUSSIA  
.SID.

Apt Elev  
368'

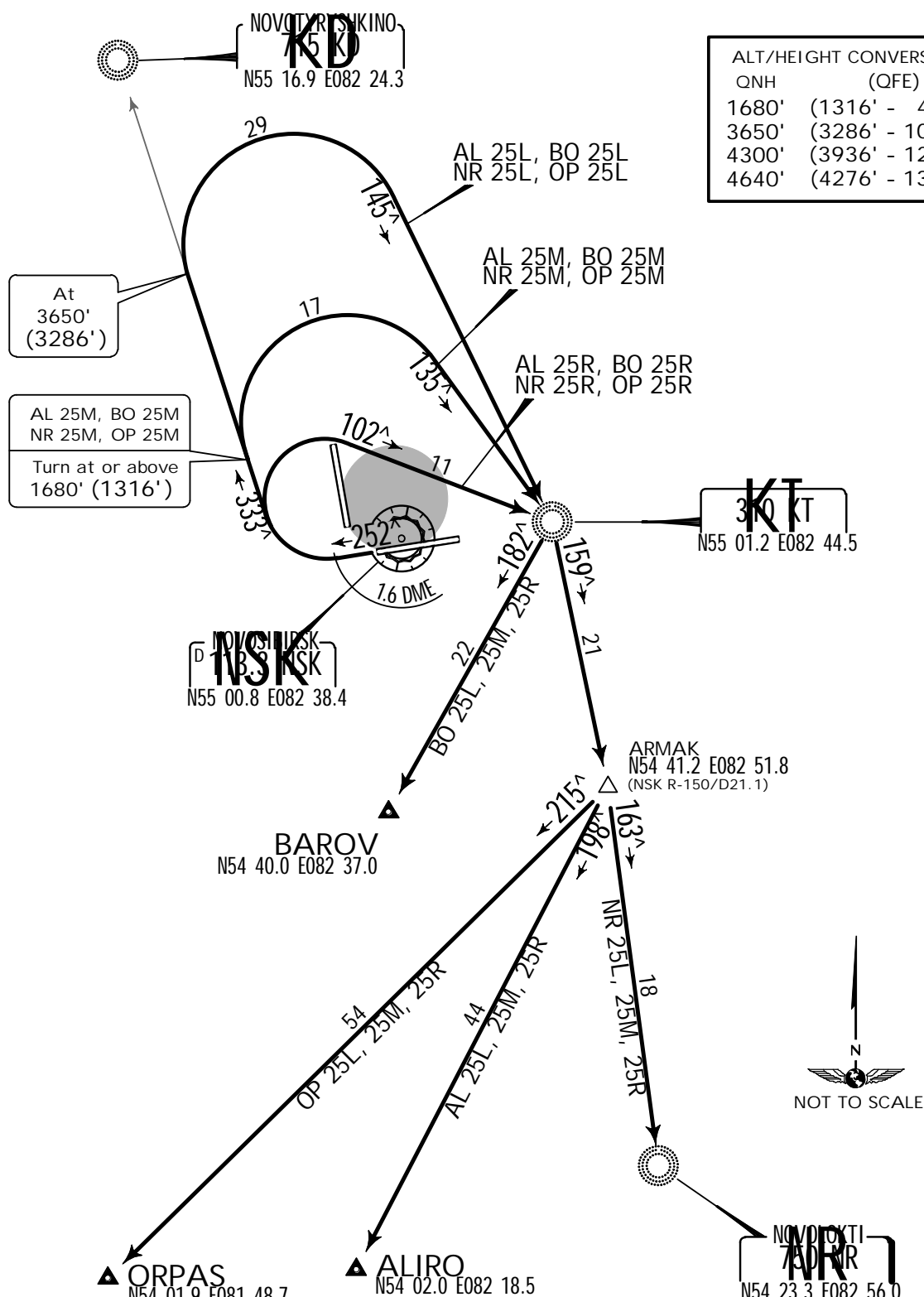
QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4276')



AL 25L, AL 25M, AL 25R  
BO 25L, BO 25M, BO 25R  
NR 25L, NR 25M, NR 25R  
OP 25L, OP 25M, OP 25R  
RWY 25 DEPARTURES  
BY ATC

Do not overfly central part  
of city below 4300' (3936').

QNH	(QFE)
1680'	(1316' - 400m)
3650'	(3286' - 1000m)
4300'	(3936' - 1200m)
4640'	(4276' - 1300m)



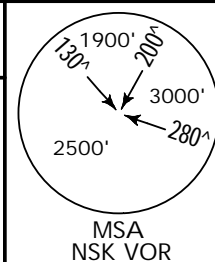
UNNT/OVB  
TOLMACHEVO

JEPPESEN  
4 NOV 11 (10-3U) .Eff.17.Nov.

NOVOSIBIRSK, RUSSIA  
.SID.

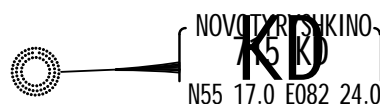
Apt Elev  
368'

QNH on request (QFE)  
Trans level: FL60 Trans alt: 4640' (4277')



GL 25R  
RWY 25 DEPARTURE  
BY ATC

Do not overfly central part  
of city below 4300' (3937').

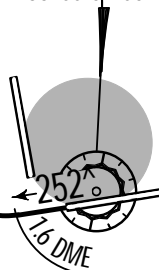


GOLIM  
N55 07.0 E080 58.0

60 ← 263^

At or above  
1680' (1317')

NOVOSIBIRSK  
N55 00.8 E082 38.4



ALT/HEIGHT CONVERSION  
QNH (QFE)  
1680' (1317' - 400m)  
4300' (3937' - 1200m)

UNNT/OVB  
TOLMACHEVOJEPPESEN  
9 JUL 04 10-4NOVOSIBIRSK, RUSSIA  
.NOISE.

## NOISE ABATEMENT PROCEDURES

## GENERAL

Noise abatement procedures shall be executed by crews of all aircraft.  
Overflying the central part of the city at or below 4310' (3945' - 1200m)  
is prohibited.

## ARRIVALS

Runway 07 is noise preferential and shall be used for approach to the  
greatest extent possible.

## Restrictions

Restrictions for cross-wind and tail-wind components are as in accordance  
with the Airplane Flight Manual for the specified aircraft type. It is allowed  
to land on runway when friction coefficient is 0.3 or more.

Straight-in approach is allowed on landing heading 072^ when transition level  
has been reached before a distance of 16.2 NM or more.

## DEPARTURES

The noise abatement procedures stated below shall not be executed at the  
expense of reduction of flight safety or in case of engine failure during  
take-off.

## Restrictions

Restrictions on maximum cross-wind and tail-wind components are as in  
accordance with the Airplane Flight Manual for the specified aircraft type.  
It is allowed to take-off from dry and wet runway when friction coefficient  
is 0.3 or more.

## Runway 07 special take-off procedure

During take-off the initial turn shall be carried out at 1.1 NM from departure  
threshold.

UNNT/OVP

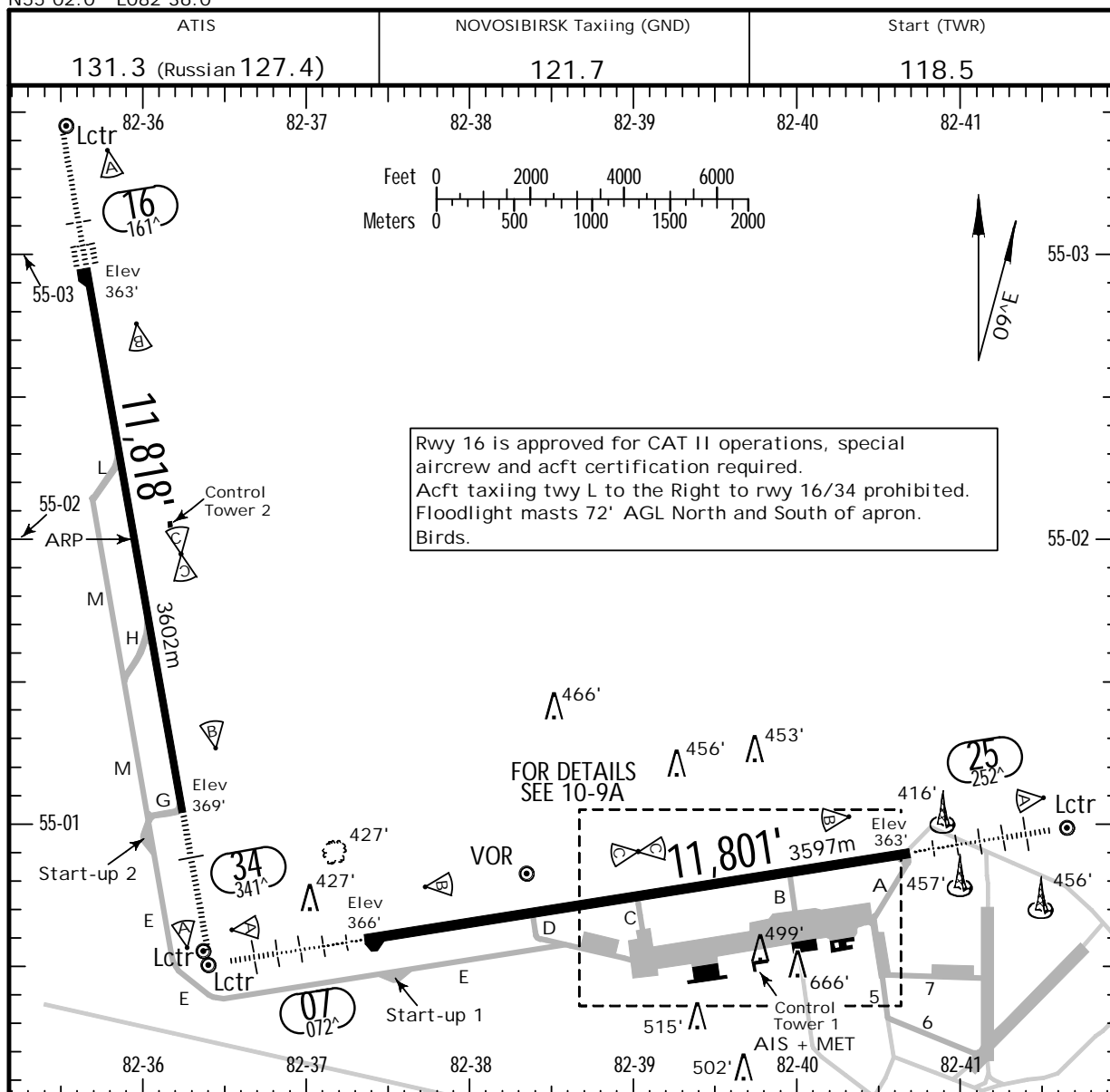
Apt Elev 368  
N55 02.0 E082 36.0

JEPPESEN

5 SEP 14 (10-9)

NOVOSIBIRSK, RUSSIA

TOLMACHEVO



# ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond		
07	25	HIRL (60m) HIALS PAPI-L (angle 3.0°) RVR	10,768' 3282m	1	197' 60m

## 1 TAKE-OFF RUN AVAILABLE

### RWY 07:

From rwy head 11,801' (3597m)  
twy D int 7864' (2397m)  
twy C int 5902' (1799m)

### RWY 25:

From rwy head 11,801' (3597m)  
twy B int 9012' (2747m)  
twy C int 5899' (1798m)

16	HIRL(60m) CL(15m) HIALS-II TDZ PAPI-L (3.0°) RVR	10,846' 3306m	2	148' 45m
34	HIRL(60m) CL(15m) HIALS PAPI-L (3.0°) RVR			

## 2 TAKE-OFF RUN AVAILABLE

### RWY 34:

From rwy head 11,818' (3602m)  
twy H int 7546' (2300m)

## TAKE-OFF

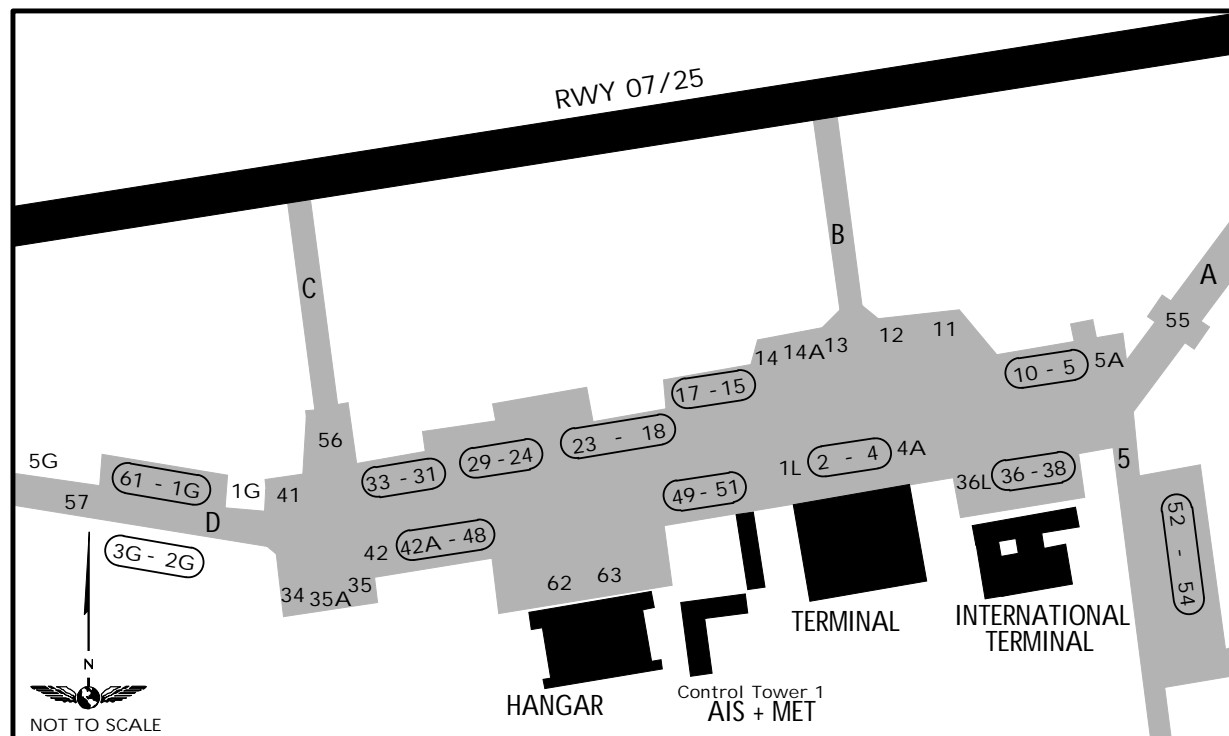
	Rwys 16/34	AIR CARRIER (JAA)	All Rwys
	LVP must be in force	LVP must be in force	RCLM (DAY only) or RL
A	RL & CL	RCLM (DAY only) or RL	
B	200m (150m)	250m	400m
C			

UNNT/OVB

5 SEP 14 **JEPPESEN**  
(10-9A)

NOVOSIBIRSK, RUSSIA

TOLMACHEVO



### INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
2	N55 00.6 E082 40.0	37	N55 00.6 E082 40.3
3	N55 00.6 E082 40.1	55	N55 00.7 E082 40.5
5	N55 00.7 E082 40.4	56	N55 00.6 E082 39.1
10	N55 00.7 E082 40.2	57, 61	N55 00.6 E082 38.7
11	N55 00.7 E082 40.1		
12	N55 00.7 E082 40.0		
13	N55 00.7 E082 39.9		
14	N55 00.6 E082 39.9		
15 thru 17	N55 00.6 E082 39.8		
36	N55 00.6 E082 40.2		

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NOVOSIBIRSK, RUSSIA  
TOLMACHEVO

STRAIGHT-IN RWY		A	B	C	D
07	ILS	565' (200')	565' (200')	565' (200')	565' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB 1 with FAF	710' (345') R900m	710' (345') R900m	710' (345') R900m	710' (345') R900m
	ALS out	R1500m	R1500m	R1600m	R1600m
16	NDB 1 w/o FAF	1110' (745') C2700m	1110' (745') C2700m	1110' (745') C2700m	1110' (745') C2700m
	ALS out	C3500m	C3500m	C3500m	C3500m
	CAT 2 ILS	462' (100') RA104' R350m	462' (100') RA104' R350m	462' (100') RA104' R350m	462' (100') RA104' R350m
	ILS	562' (200')	562' (200')	562' (200')	562' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
25	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB 1 with FAF	680' (318') R750m	680' (318') R750m	680' (318') R750m	680' (318') R750m
	ALS out	R1400m	R1400m	R1400m	R1400m
	NDB 1 w/o FAF	720' (358') R1000m	720' (358') R1000m	720' (358') R1200m	720' (358') R1200m
	ALS out	R1600m	R1600m	R1600m	R1600m
	ILS	563' (200')	563' (200')	563' (200')	563' (200')
	FULL	R550m	R550m	R550m	R550m
34	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB 1 with FAF	720' (357') R900m	720' (357') R900m	720' (357') R900m	720' (357') R900m
	ALS out	R1500m	R1500m	R1600m	R1600m
	NDB 1 w/o FAF	1320' (957') C3800m	1320' (957') C3800m	1320' (957') C3800m	1320' (957') C3800m
	ALS out	C4500m	C4500m	C4500m	C4500m
34	ILS	568' (200')	568' (200')	568' (200')	568' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB 1 with FAF	700' (332') R800m	700' (332') R800m	700' (332') R800m	700' (332') R800m
	ALS out	R1500m	R1500m	R1500m	R1500m
34	NDB 1 w/o FAF	1010' (642') C2300m	1010' (642') C2300m	1010' (642') C2300m	1010' (642') C2300m
	ALS out	C3000m	C3000m	C3000m	C3000m

1 Continuous Descent Final Approach.

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CIRCLE-TO-LAND 1	A	B	C	D
to rwy 07/25 2	760' (396') ceiling 200m- V2500m	860' (496') ceiling 200m- V2500m	960' (596') ceiling 280m- V3000m	1060' (696') 5 ceiling 310m- V4000m
to rwy 16 3	760' (399')	860' (499')	960' (599')	1060' (699') 6
to rwy 34 4	770' (403') ceiling 200m- V2500m	860' (493') ceiling 200m- V2500m	960' (593') ceiling 280m- V3000m	1060' (693') 7 ceiling 310m- V4000m

1 FOR RUSSIAN USERS ONLY.

2 Circling height based on rwy 07/25 thresh elev of 364'.

3 Circling height based on rwy 06 thresh elev of 361'.

4 Circling height based on rwy 34 thresh elev of 367'.

5 Widebodied acft: MDA(H) 1350' (986') CEIL 400 VIS 5000m.

6 Widebodied acft: MDA(H) 1350' (989') CEIL 400 VIS 5000m.

7 Widebodied acft: MDA(H) 1360' (993') CEIL 400 VIS 5000m.

## TAKE-OFF RWY 07, 16, 25, 34

LVP must be in force					
Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A					
B	125m	150m	200m	250m	400m 500m
C					
D	150m	200m	250m	300m	

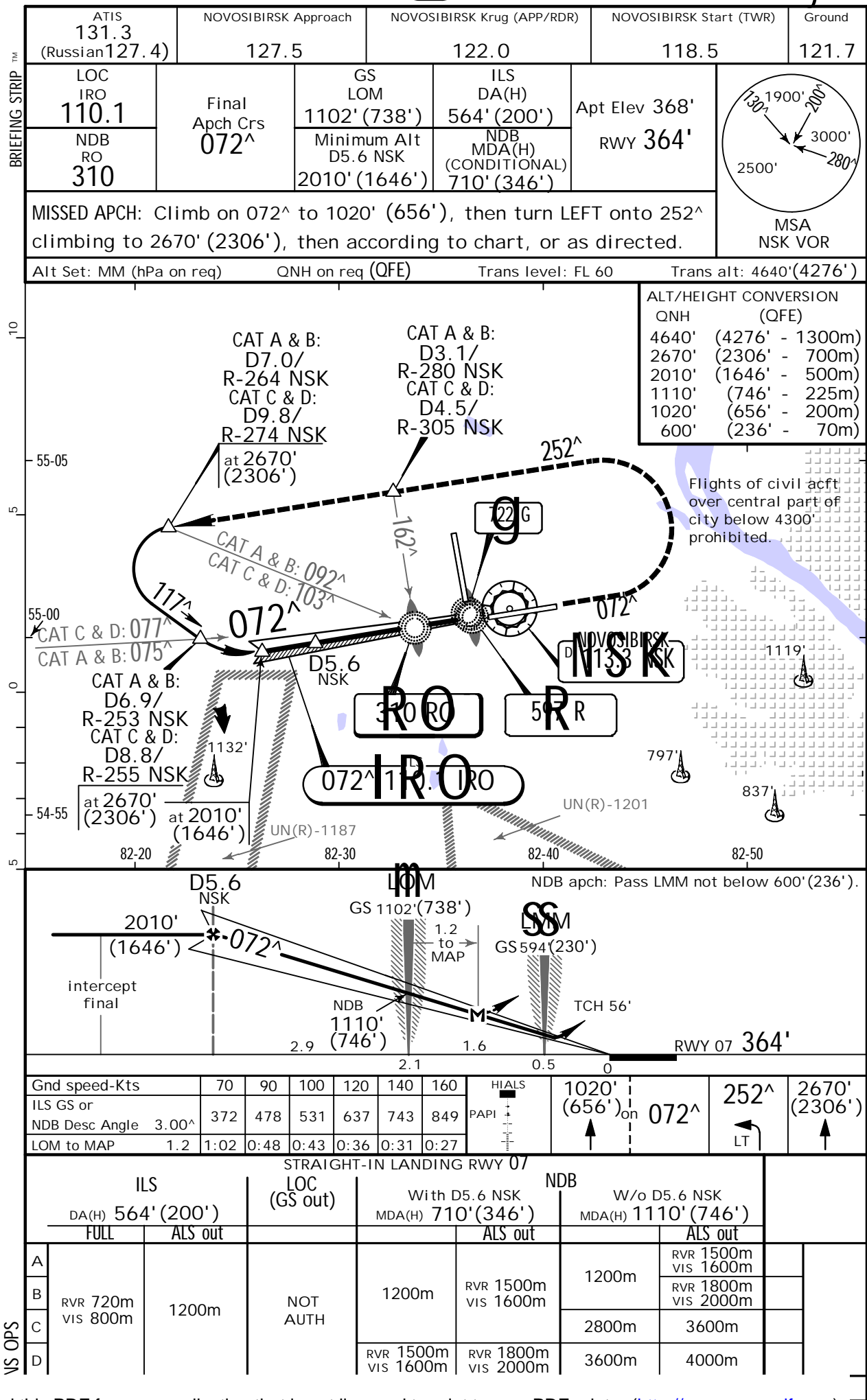


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21 MAR 14

(11-1)

JEPPESSEN

NOVOSIBIRSK, RUSSIA  
ILS or 2 NDB Rwy 07

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TOLMACHEVO

21 MAR 14

(11-2)

**JEPPESEN**

EN NOVOSIBIRSK, RUSSIA  
ILS DME or 2 NDB Rwy 16

ATIS <b>131.3</b> (Russian 127.4)		NOVOSIBIRSK Approach <b>127.5</b>		NOVOSIBIRSK Krug (APP/RDR) <b>122.0</b>		NOVOSIBIRSK Start (TWR) <b>118.5</b>		Ground <b>121.7</b>	
LOC ISV <b>109.7</b>		Final Apch Crs <b>161<sup>^</sup></b>		GS LOM <b>1066' (705')</b>		ILS DA(H) <b>561' (200')</b>		Apt Elev <b>368'</b>	
NDB SV <b>875</b>				Minimum Alt D5.0 ISV <b>2010' (1649')</b>		NDB MDA(H) (CONDITIONAL) <b>680' (319')</b>		RWY <b>361'</b>	

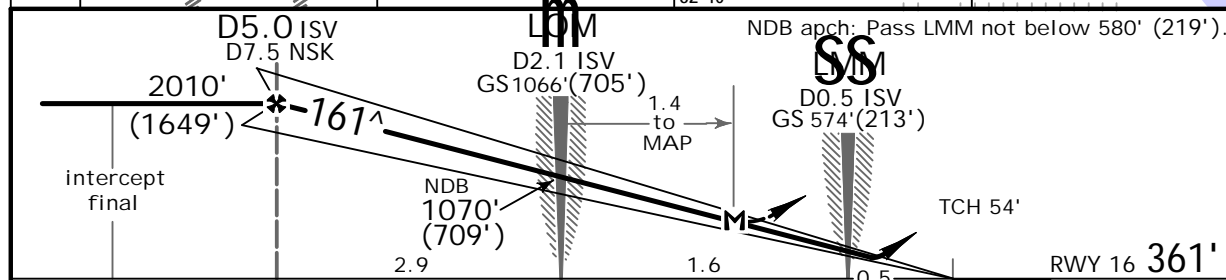
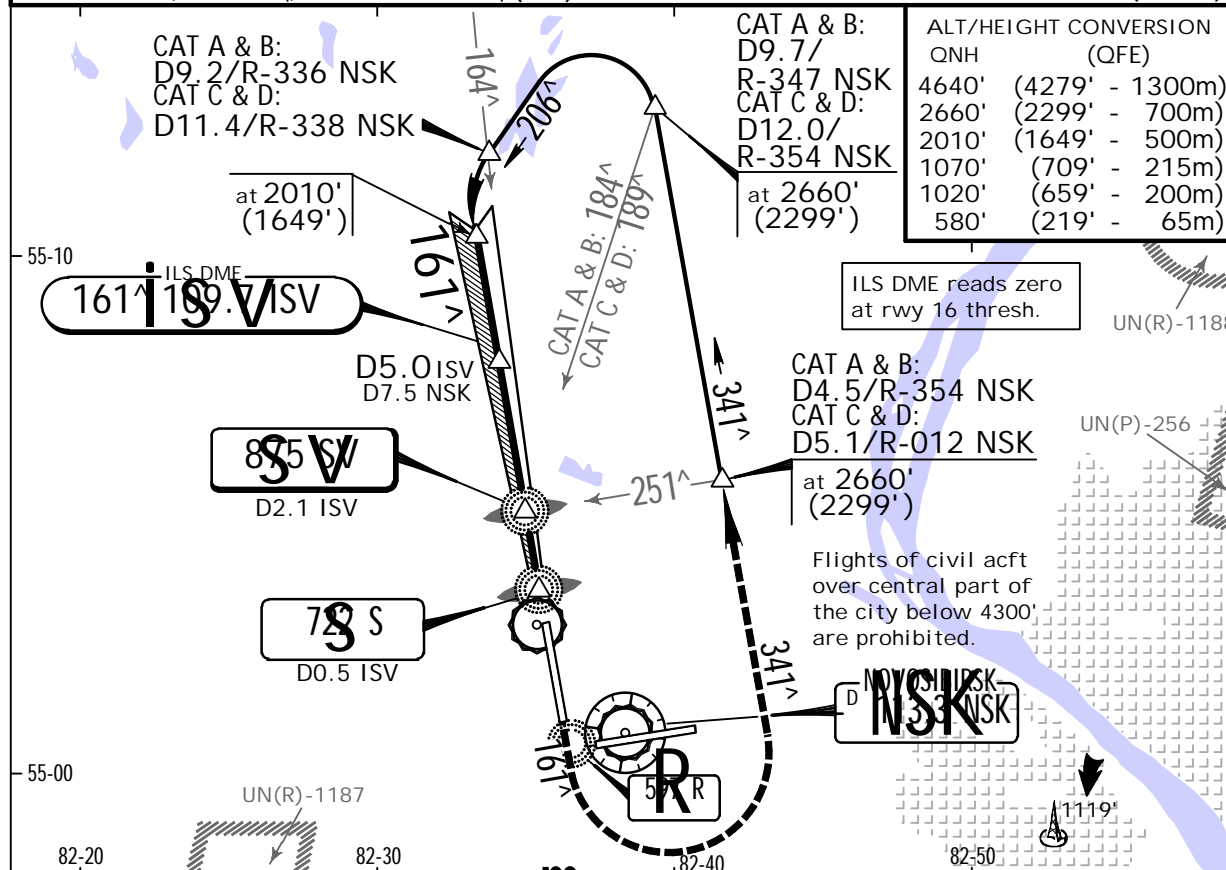
Diagram showing a 3000' radius with various bearing and distance markers:

- 1900'
- 200'
- 3000'
- 280'
- 2500'
- 130'

MISSED APCH: Climb on 161° to 1020' (659'), then turn LEFT onto 341° climbing to 2660' (2299'), then according to chart or as directed.

MSA NSK VOR

Alt Set: MM (hPa on reg)      QNH on reg (QFE)      Trans level: FL 60      Trans alt: 4640' (4279')



Gnd speed-Kts	70	90	100	120	140	160				
ILS GS or NDB Desc Angle 3.00^	372	478	531	637	743	849				
LOM to MAP 1.4	1:12	0:56	0:50	0:42	0:36	0:31				

STRAIGHT-IN LANDING RWY 16									
ILS				LOC (GS out)	NDB				
DA(H) 561'(200')			With FAF MDA(H) 680'(319')		W/o FAF MDA(H) 720'(359')				
FULL	TDZ or CL out	ALS out			ALS out		ALS out		
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m	
B									
C									
D					RVR 1500m VIS 1600m		RVR 1500m VIS 1600m	RVR 1800m VIS 2000m	

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JEPPESEN  
21 MAR 14 11-2A

NOVOSIBIRSK, RUSSIA  
CAT II ILS DME Rwy 16

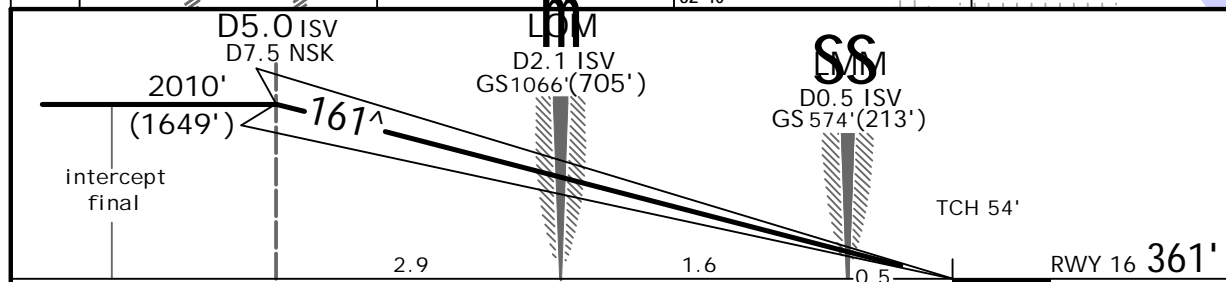
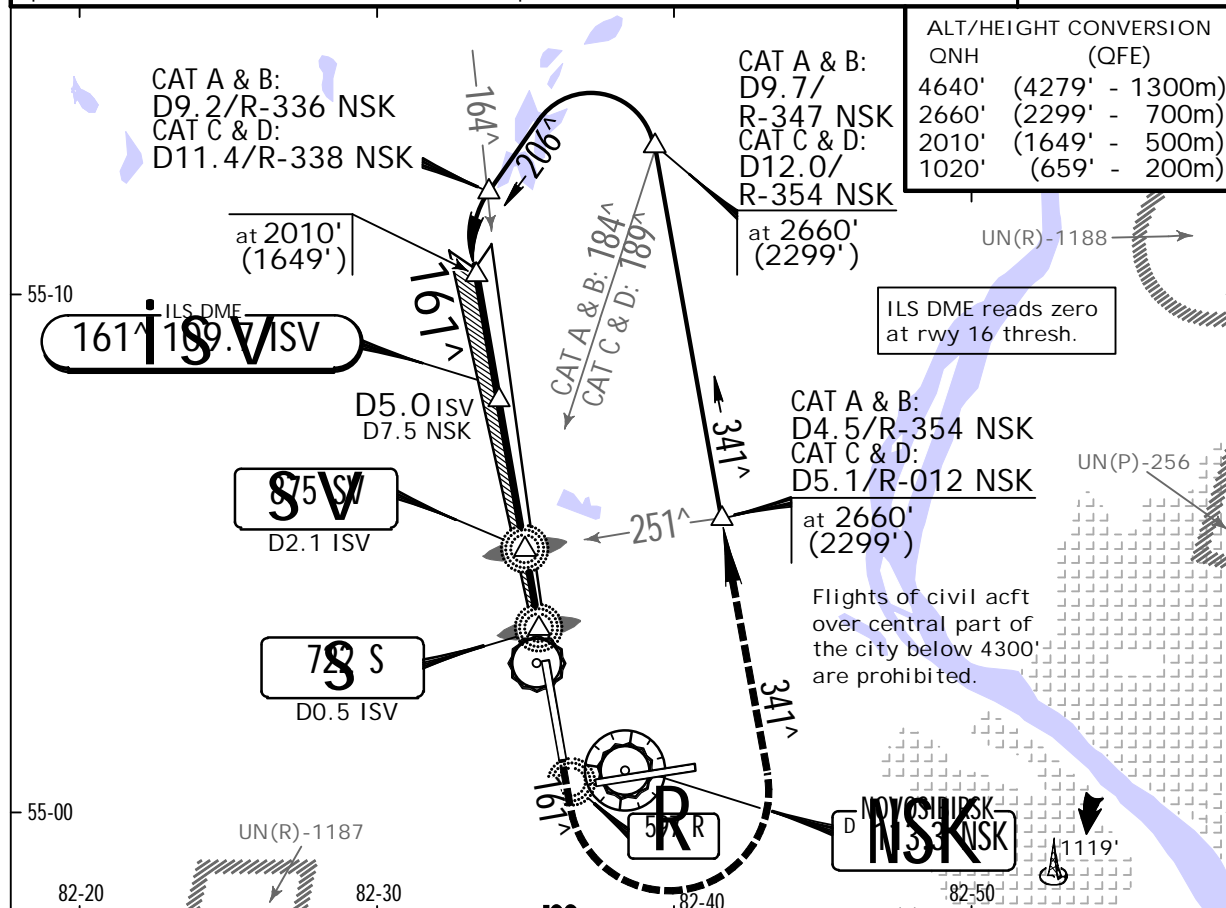
BRIEFING STRIP

ATIS	NOVOSIBIRSK Approach	NOVOSIBIRSK Krug (APP/RDR)	NOVOSIBIRSK Start (TWR)	Ground
131.3 (Russian 127.4)	127.5	122.0	118.5	121.7
LOC	Final	GS	CAT II ILS	Apt Elev
ISV	Apch Crs	LOM	RA 104'	368'
109.7	161^	1066' (705')	DA(H) 461' (100')	RWY 361'

MISSED APCH: Climb on 161^ to 1020' (659'), then turn LEFT onto 341^ climbing to 2660' (2299'), then according to chart or as directed.

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 60 Trans alt: 4640' (4279')  
Special Aircrew & Aircraft Certification Required.

MSA NSK VOR



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II	1020' (659')	161^	341^	2660' (2299')
GS	3.00^	372	478	531	637	743	849	↑	on 161^	LT	↑

STRAIGHT-IN LANDING RWY 16  
CAT II ILS  
RA 104'  
DA(H) 461' (100')

RVR 300m

NS OPS

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TOLMACHEVO

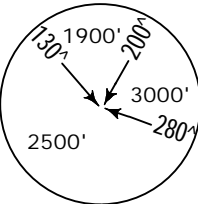
21 MAR 14

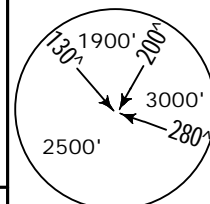
(11-3)

JEPPesen

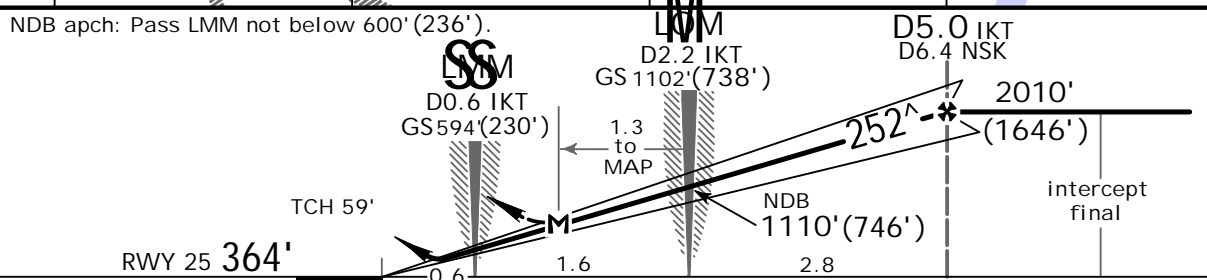
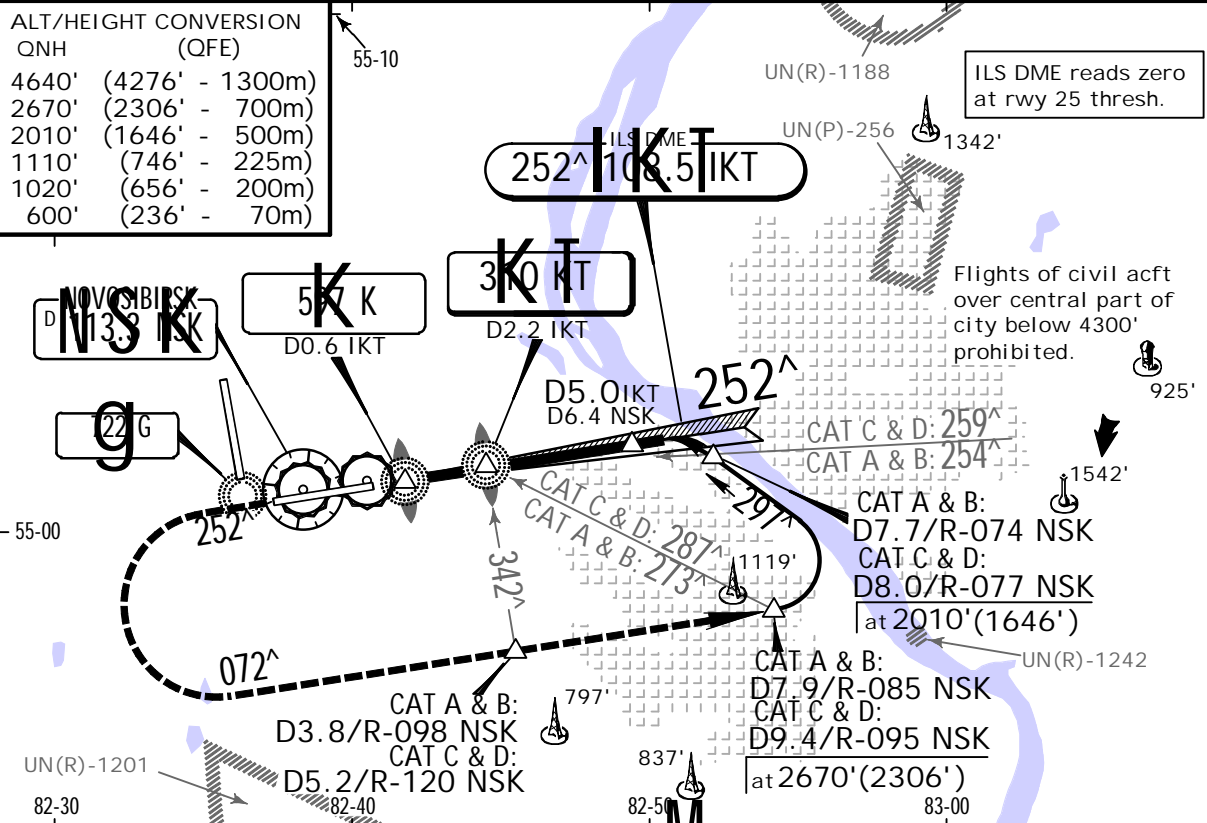
NOVOSIBIRSK, RUSSIA  
ILS DME or 2 NDB Rwy 25

BRIEFING STRIP

ATIS 131.3 (Russian 127.4)		NOVOSIBIRSK Approach 127.5		NOVOSIBIRSK Krug (APP/RDR) 122.0		NOVOSIBIRSK Start (TWR) 118.5		Ground 121.7	
LOC IKT 108.5		Final Apch Crs 252^		GS LOM 1102' (738')		ILS DA(H) 564' (200')		Apt Elev 368' RWY 364'	
NDB KT 310				Minimum Alt D5.0 IKT 2010' (1646')		NDB MDA(H) (CONDITIONAL) 720' (356')			
MISSED APCH: Climb on 252^ to 1020' (656'), then turn LEFT onto 072^ climbing to 2670' (2306'), then according to chart.								 MSA NSK VOR	
Alt Set: MM (hPa on req)      QNH on req (QFE)      Trans level: FL 60      Trans alt: 4640' (4276')									



ALT/HEIGHT CONVERSION	QNH	(QFE)
4640'	(4276' - 1300m)	
2670'	(2306' - 700m)	
2010'	(1646' - 500m)	
1110'	(746' - 225m)	
1020'	(656' - 200m)	
600'	(236' - 70m)	



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1020' (656') on 252°	072° LT	2670' (2306')
ILS GS or NDB Desc Angle 3.00°	372	478	531	637	743	849	PAPI			
LOM to MAP	1.3	1:07	0:52	0:47	0:39	0:33				

STRAIGHT-IN LANDING RWY 25				NDB			
ILS		LOC (GS out)	With FAF MDA(H) 720' (356')	W/o FAF MDA(H) 1320' (956')		RVR	VIS
DA(H) 564' (200')	ALS out			ALS out	ALS out		
FULL	ALS out						
A						1200m	1800m
B						1500m	2000m
C	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m	1500m	2400m
D				RVR 1500m VIS 1600m	RVR 1800m VIS 2000m	4400m	4800m

VS OPS



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21 MAR 14

**JEPPESEN**

NOVOSIBIRSK, RUSSIA  
ILS DME or 2 NDB Rwy 34

ATIS <b>131.3</b> (Russian 127.4)		NOVOSIBIRSK Approach <b>127.5</b>		NOVOSIBIRSK Krug (APP/RDR) <b>122.0</b>		NOVOSIBIRSK Start (TWR) <b>118.5</b>		Ground <b>121.7</b>	
LOC IGH <b>111.1</b>		Final Apch Crs <b>341<sup>^</sup></b>		GS LOM <b>1106' (739')</b>		ILS DA(H) <b>567' (200')</b>		Apt Elev <b>368'</b>  RWY <b>367'</b>	
NDB GH <b>875</b>				Minimum Alt D5.0 IGH <b>2010' (1643')</b>		NDB MDA(H) (CONDITIONAL) <b>700' (333')</b>			

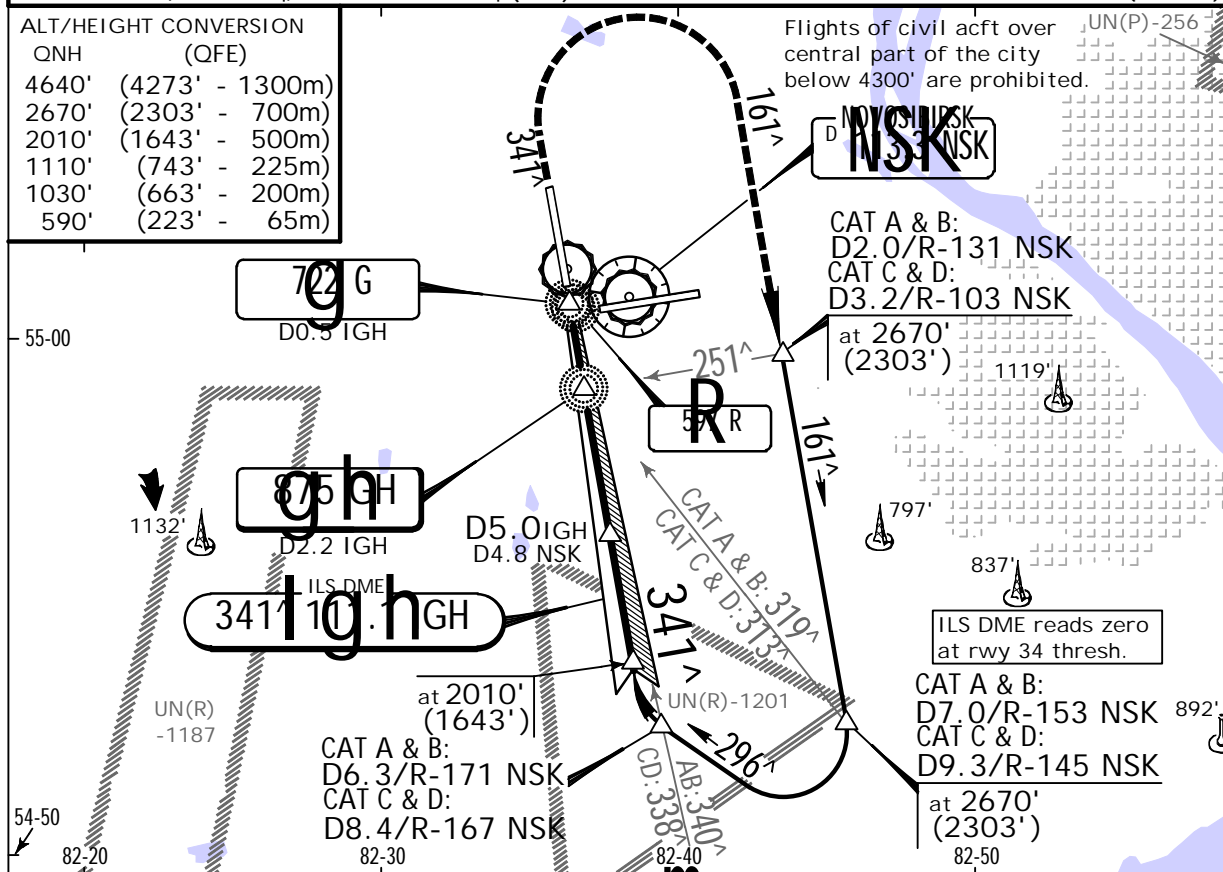
MISSED APCH: Climb on 341° to 1030' (663'), then turn RIGHT onto 161° climbing to 2670' (2303'), then according to chart.

MSA NSK VOR

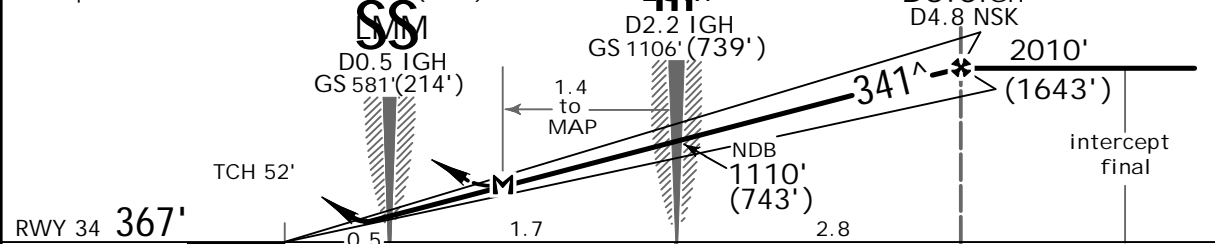
Alt Set: MM (hPa on req)	QNH on req (QFE)	Trans level: FL 60	Trans alt: 4640' (4273')
--------------------------	------------------	--------------------	--------------------------


ALT/HEIGHT CONVERSION	
QNH	(QFE)
4640'	(4273' - 1300m)
2670'	(2303' - 700m)
2010'	(1643' - 500m)
1110'	(743' - 225m)
1030'	(663' - 200m)
590'	(223' - 65m)

Flights of civil acft over central part of the city below 4300' are prohibited.



NDB apch: Pass LMM not below 590' (223').



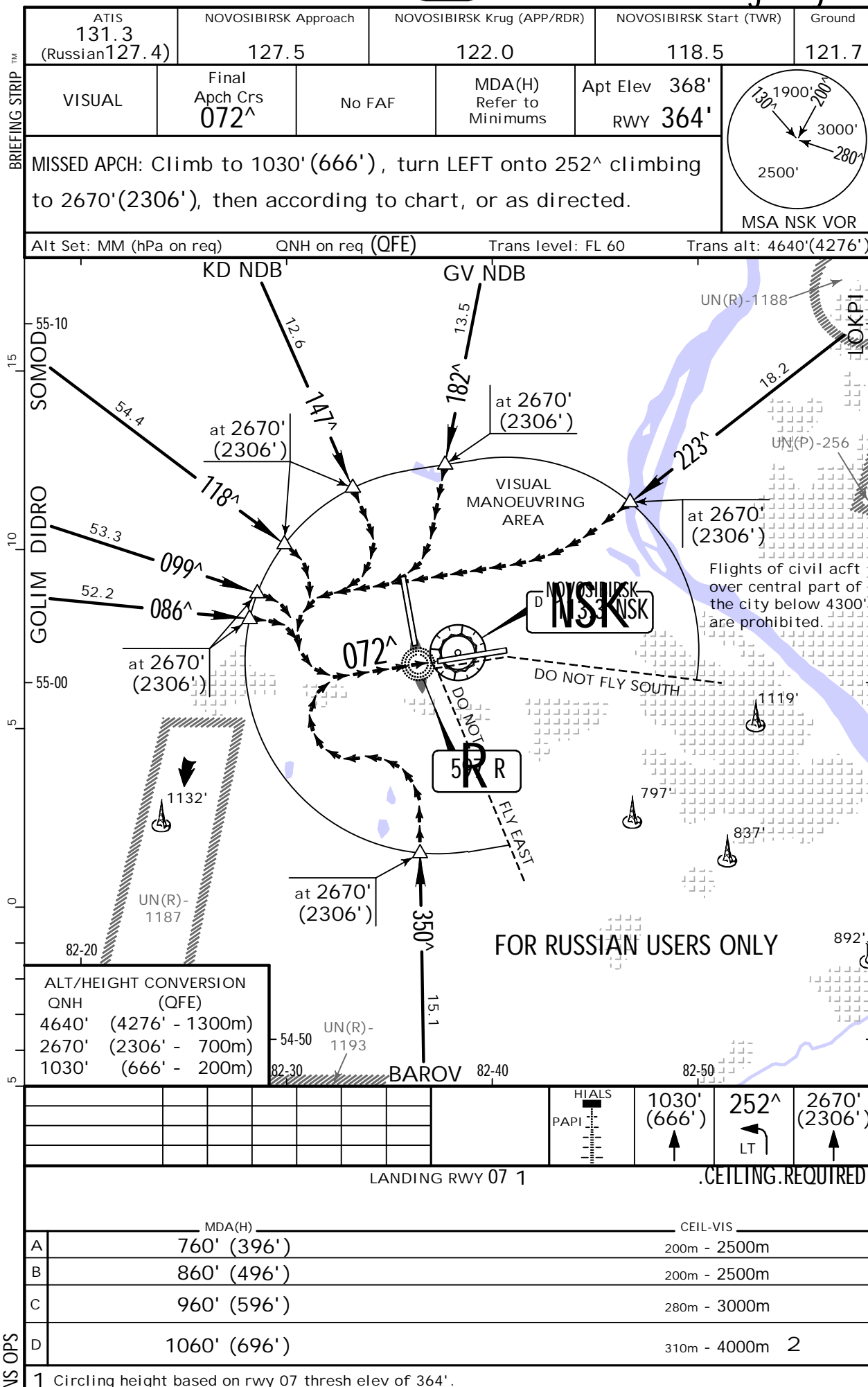
Gnd speed-Kts	70	90	100	120	140	160		1030' (663') <sub>on</sub>	341 <sup>^</sup>	161 <sup>^</sup> RT	2670' (2303')
ILS GS or NDB Desc Angle 3.00 <sup>^</sup>	372	478	531	637	743	849					
LOM to MAP 1.4	1:12	0:56	0:50	0:42	0:36	0:31					

STRAIGHT-IN LANDING RWY 34									
ILS			LOC (GS out)	NDB					
DA(H) 567' (200')		With FAF MDA(H) 700' (333')		W/o FAF MDA(H) 1010' (643')					
FULL	ALS out			ALS out		ALS out			
A	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m		
B									
C						RVR 1800m VIS 2000m	2800m		
D						RVR 1500m VIS 1600m	2800m	3200m	

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JEPPESEN  
25 JUL 14 (19-10)

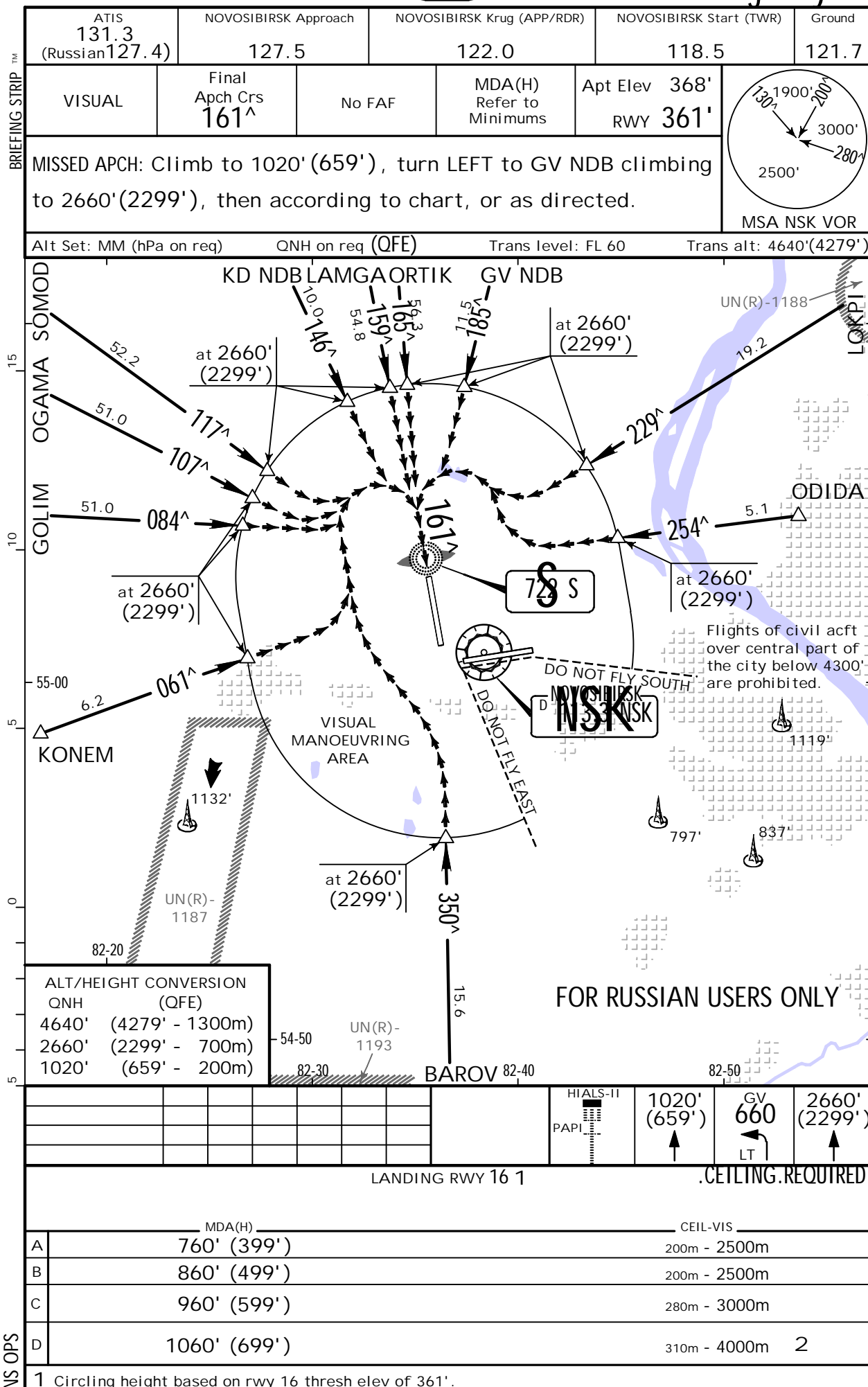
NOVOSIBIRSK, RUSSIA  
Circling Rwy 07



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JEPPESSEN  
25 JUL 14 19-11

NOVOSIBIRSK, RUSSIA  
Circling Rwy 16



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TOLMACHEVO

**JEPPESEN**  
25 JUL 14 (19-12)

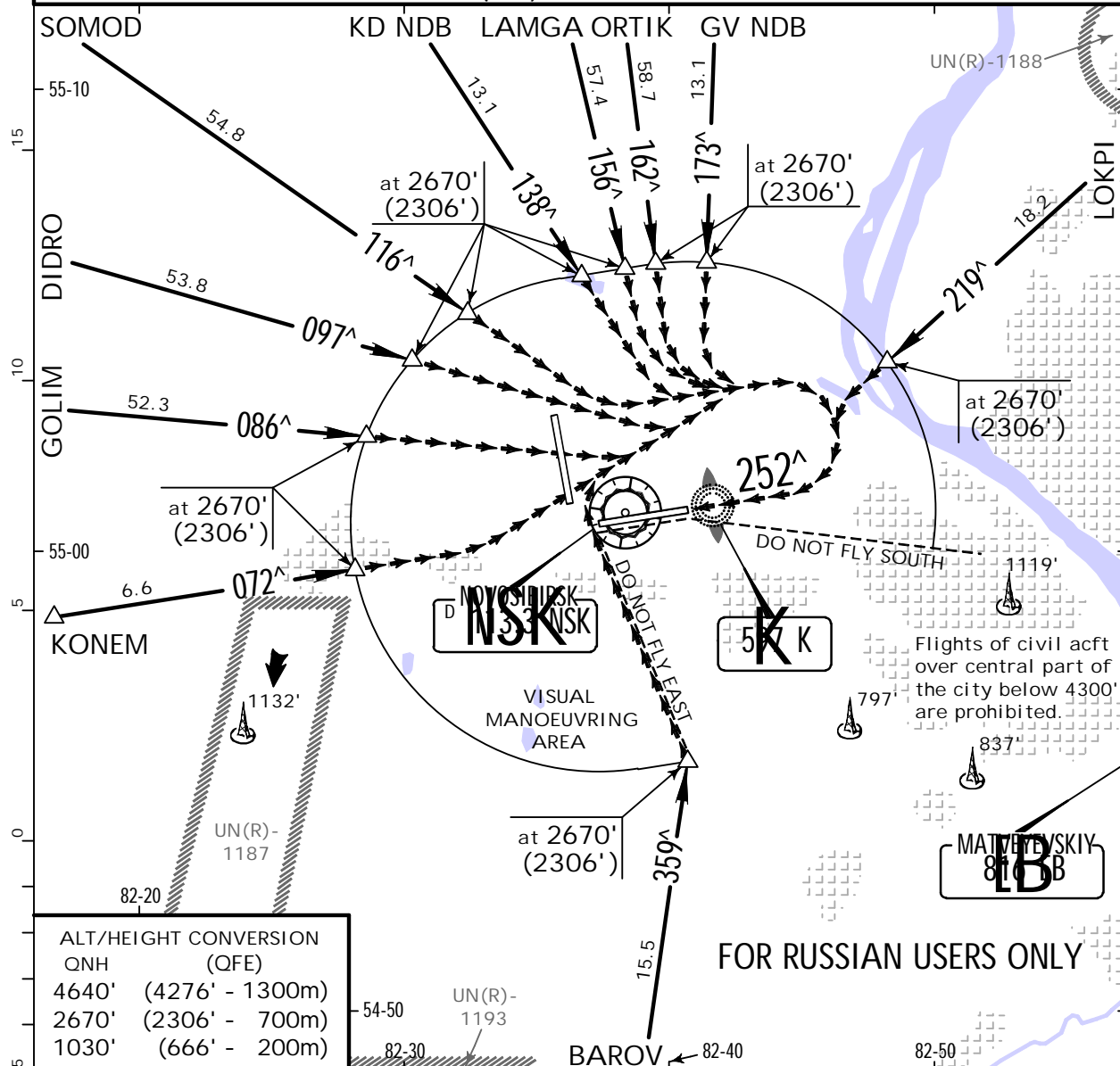
NOVOSIBIRSK, RUSSIA  
Circling Rwy 25

ATIS <b>131.3</b> (Russian 127.4)	NOVOSIBIRSK Approach		NOVOSIBIRSK Krug (APP/RDR)		NOVOSIBIRSK Start (TWR)	Ground
	127.5		122.0		118.5	121.7
VISUAL	Final Apch Crs <b>252<sup>^</sup></b>	No FAF	MDA(H) Refer to Minimums	Apt Elev <b>368'</b> RWY <b>364'</b>		

MISSED APCH: Climb to 1030' (666'), turn LEFT to EB NDB climbing to 2670' (2306'), then according to chart, or as directed.

MSA NSK VOR

Alt Set: MM (hPa on reg)      QNH on reg (QFE)      Trans level: FL 60      Trans alt: 4640'(4276')



						HIALS	1030' (666')	EB 816	2670' (2306')
						PAPI	↑	LT	↑

LANDING RWY 25 1

**.CEILING REQUIRED.**

	MDA(H)	CEIL-VIS
A	760' (396')	200m - 2500m
B	860' (496')	200m - 2500m
C	960' (596')	280m - 3000m
D	1060' (696')	310m - 4000m    2

VS OPS

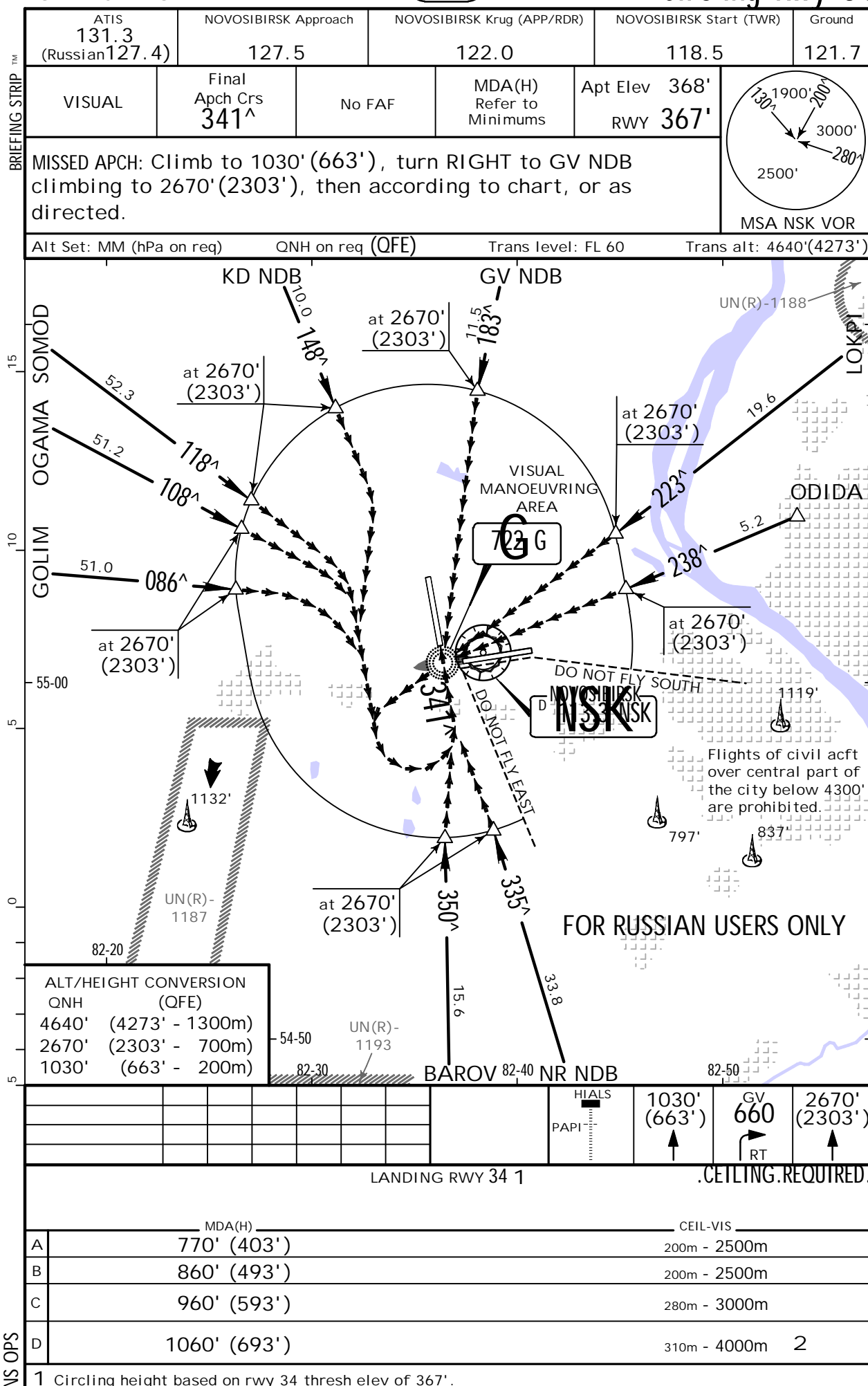
1 Circling height based on rwy 25 thresh elev of 364'.



UNNT/OVB  
TOLMACHEVO

JEPPESEN  
25 JUL 14 (19-13)

NOVOSIBIRSK, RUSSIA  
Circling Rwy 34



ZMUB/ULN

CHINGGIS KHAAN INTL

23 MAY 14

(10-3)

.Eff.29.May.



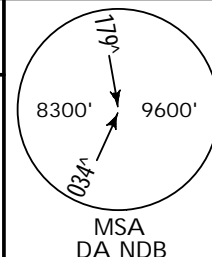
JEPPESEN

ULAANBAATAR, MONGOLIA

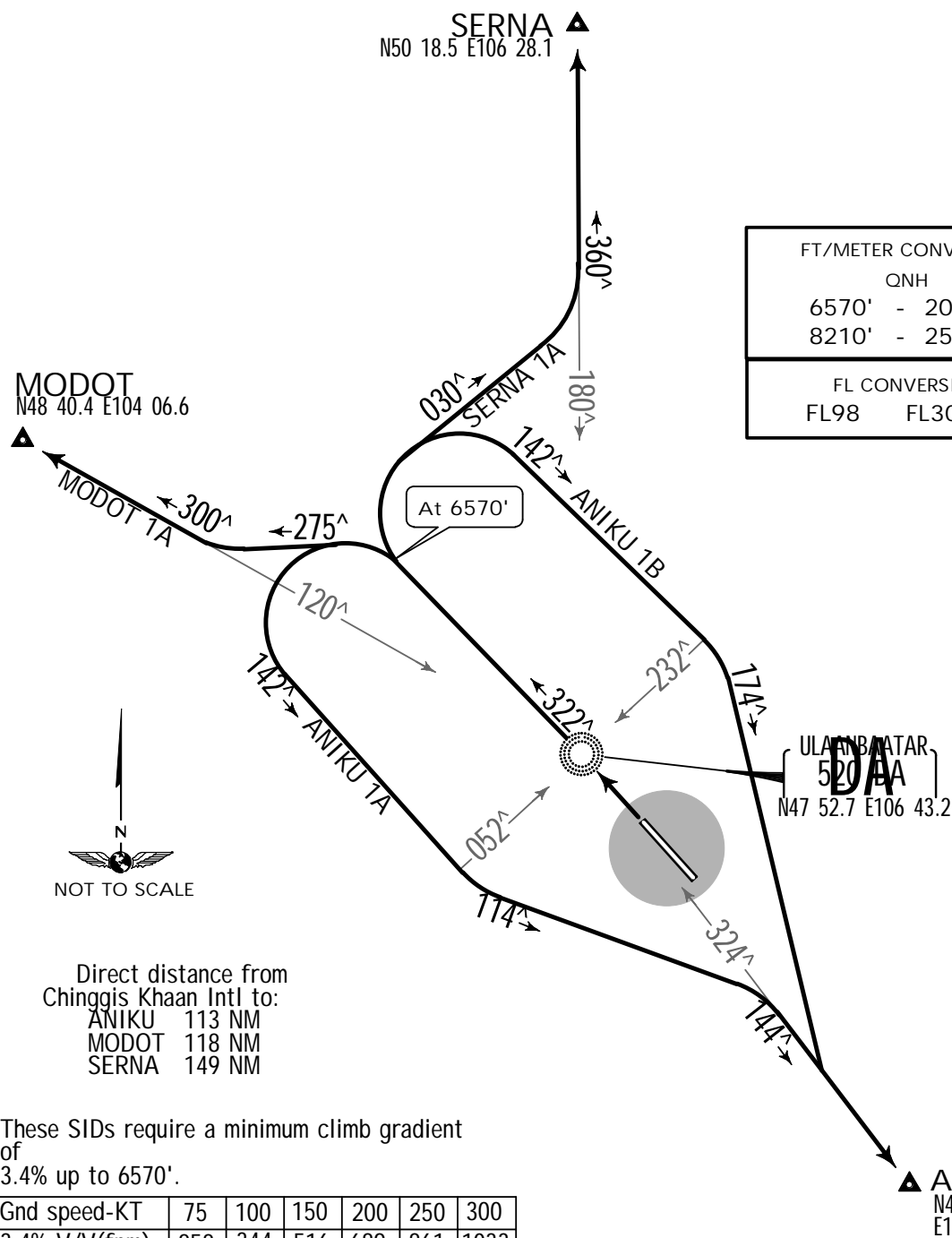
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Apt Elev  
4364'

Trans level: FL98 Trans alt: 8210'



# ANIKU 1A, ANIKU 1B MODOT 1A[MODO1A], SERNA 1A[SERN1A] RWY 32 DEPARTURES



## FT/METER CONVERSION

QNH

6570' - 2000m

8210' - 2500m

## FL CONVERSION

FL98 FL3000m

NOT TO SCALE

SID	ROUTING
ANIKU 1A	To DA, on 322° bearing up to 6570', turn LEFT, 142° track, when passing 052° bearing to DA turn LEFT, 114° track, intercept 144° bearing from DA to ANIKU.
ANIKU 1B	To DA, on 322° bearing up to 6570', turn RIGHT, 142° track, when passing 232° bearing to DA turn RIGHT, 174° track, intercept 144° bearing from DA to ANIKU.
MODOT 1A	To DA, on 322° bearing up to 6570', turn LEFT, 275° track, intercept 300° bearing from DA to MODOT.
SERNA 1A	To DA, on 322° bearing up to 6570', turn RIGHT, 030° track, intercept 360°

ZMUB/ULN

Apt Elev 4364'  
N47 50.6 E106 46.1

21 FEB 14

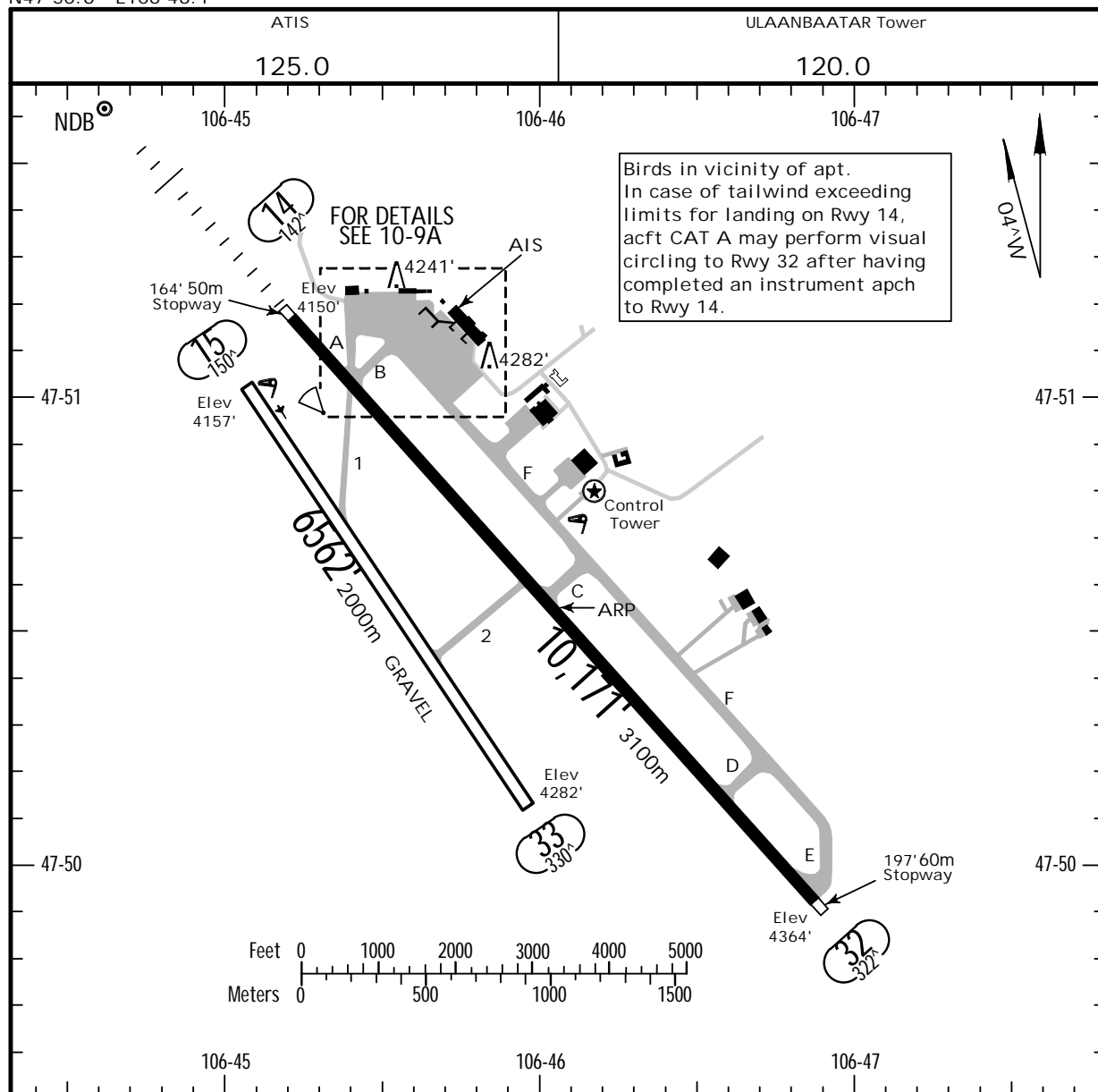
(10-9)

.Eff.6.Mar.

CHINGGIS KHAAN INTL

JEPPesen

ULAANBAATAR, MONGOLIA



# ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			WIDTH
		LANDING BEYOND		TAKE-OFF	
		Threshold	Glide Slope		
14	HIRL (60m) HIALS PAPI-L (angle 2.67°) RVR		9320' 2841m	NA	148'
32	HIRL (60m) RVR				45m
15				NA	164'
33		NA			50m

## TAKE-OFF

AIR CARRIER (JAA)

Rwy 32

LVP must be in force

RCLM (DAY only)  
or RL

RCLM (DAY only)  
or RL

A		
B	250m	400m
C		
D	300m	

ZMUB/ULN

21 FEB 14 (10-9A) .Eff.6.Mar. ULAANBAATAR, MONGOLIA  
CHINGGIS KHAAN INTL



INS COORDINATES

STAND No.	COORDINATES	ELEV
1 thru 4	N47 51.2 E106 45.5	4163
5	N47 51.2 E106 45.6	4167
6	N47 51.2 E106 45.6	4170
7	N47 51.1 E106 45.7	4170
8	N47 51.1 E106 45.7	4177
9	N47 51.1 E106 45.8	4180
10	N47 51.1 E106 45.8	4183
11	N47 51.1 E106 45.8	4180
12, 13	N47 51.0 E106 45.7	4183
14	N47 51.1 E106 45.7	4177

Stand 1 and 2 de-icing.

ZMUB/ULN


**JEPPESEN**  
 5 SEP 14  
 Eff. 18 Sep. 10-9S

 Standard  
**ULAANBAATAR, MONGOLIA**  
 CHINGGIS KHAAN INTL

STRAIGHT-IN RWY	A	B	C	D
14 ILS Z or Y or X or U 1	4675' (525') 1500m	4675' (525') 1500m	4675' (525') 1700m	4675' (525') 2000m
ALS out	1600m	1600m	2400m	2800m
ILS Z or Y or X or U 2	4839' (689') 1500m	4839' (689') 1500m	4839' (689') 2400m	4839' (689') 2800m
ALS out	1600m	1600m	3200m	3600m
ILS Z or Y or X or U 3	5019' (869') 1500m	5019' (869') 1500m	5019' (869') 3200m	5019' (869') 3600m
ALS out	2000m	2000m	4000m	4400m
ILS W	5036' (886') 1500m	5036' (886') 1500m	5036' (886') 3200m	NOT AUTHORIZED
ALS out	2000m	2000m	4000m	
VOR	5810' (1660') 5000m	5810' (1660') 5000m	5810' (1660') 5000m	5810' (1660') 5000m
NDB	5810' (1660') 5000m	5810' (1660') 5000m	5810' (1660') 5000m	5810' (1660') 5000m
NDB-2	5910' (1760') 5000m	5910' (1760') 5000m	5910' (1760') 5000m	NOT AUTHORIZED

1 Missed apch climb gradient MIM 4.8%.

2 Missed apch climb gradient MIM 3.5%.

3 Missed apch climb gradient MIM 2.5%.

**TAKE-OFF RWY 32**

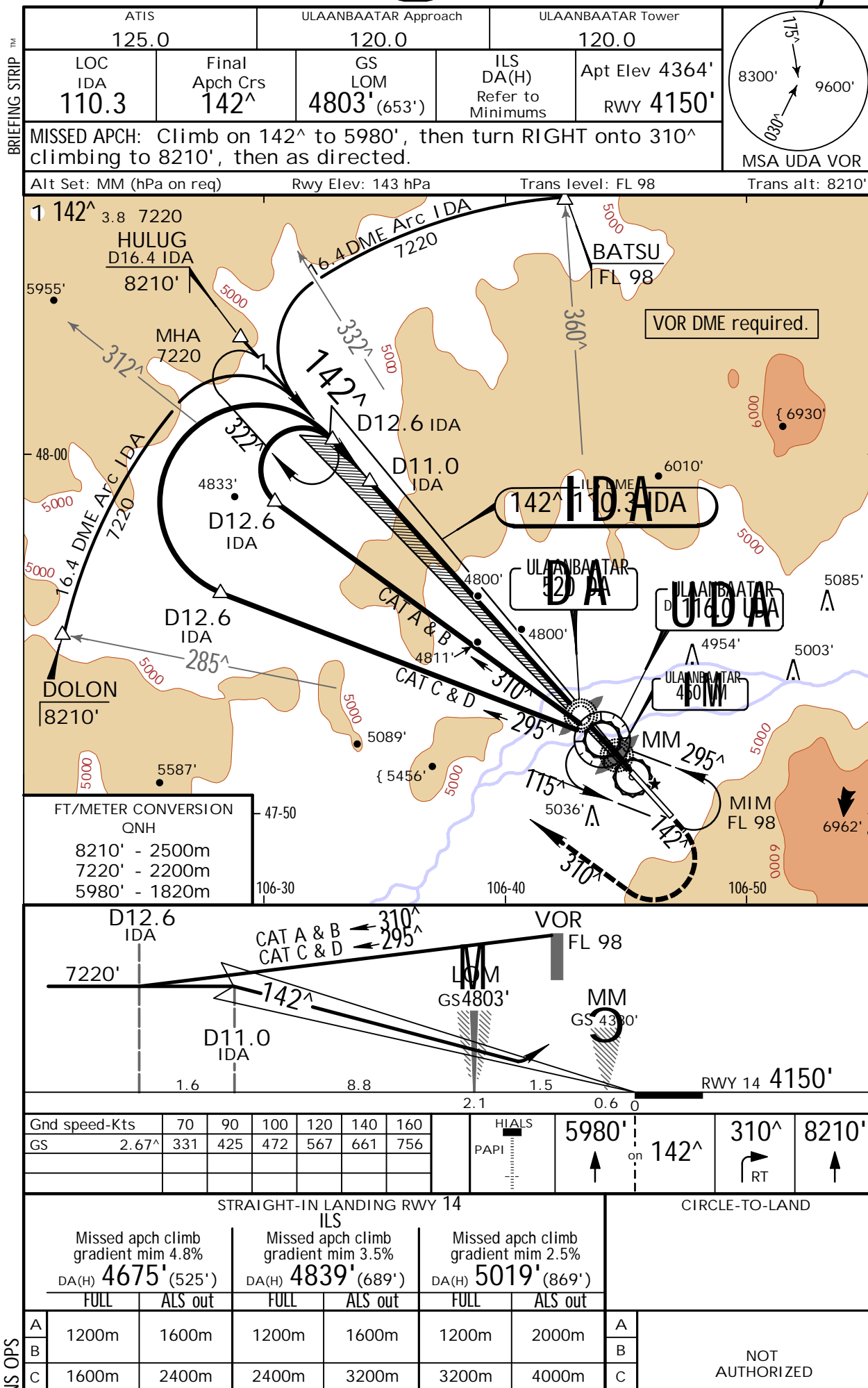
LVP must be in Force		
RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A 250m	400m	500m
B 300m		
C 300m		

ZMUB/ULN

CHINGGIS KHAAN INTL

JEPPESEN  
21 FEB 14 (11-1) .Eff.6.Mar.

ULAANBAATAR, MONGOLIA  
ILS DME Z Rwy 14

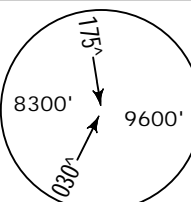


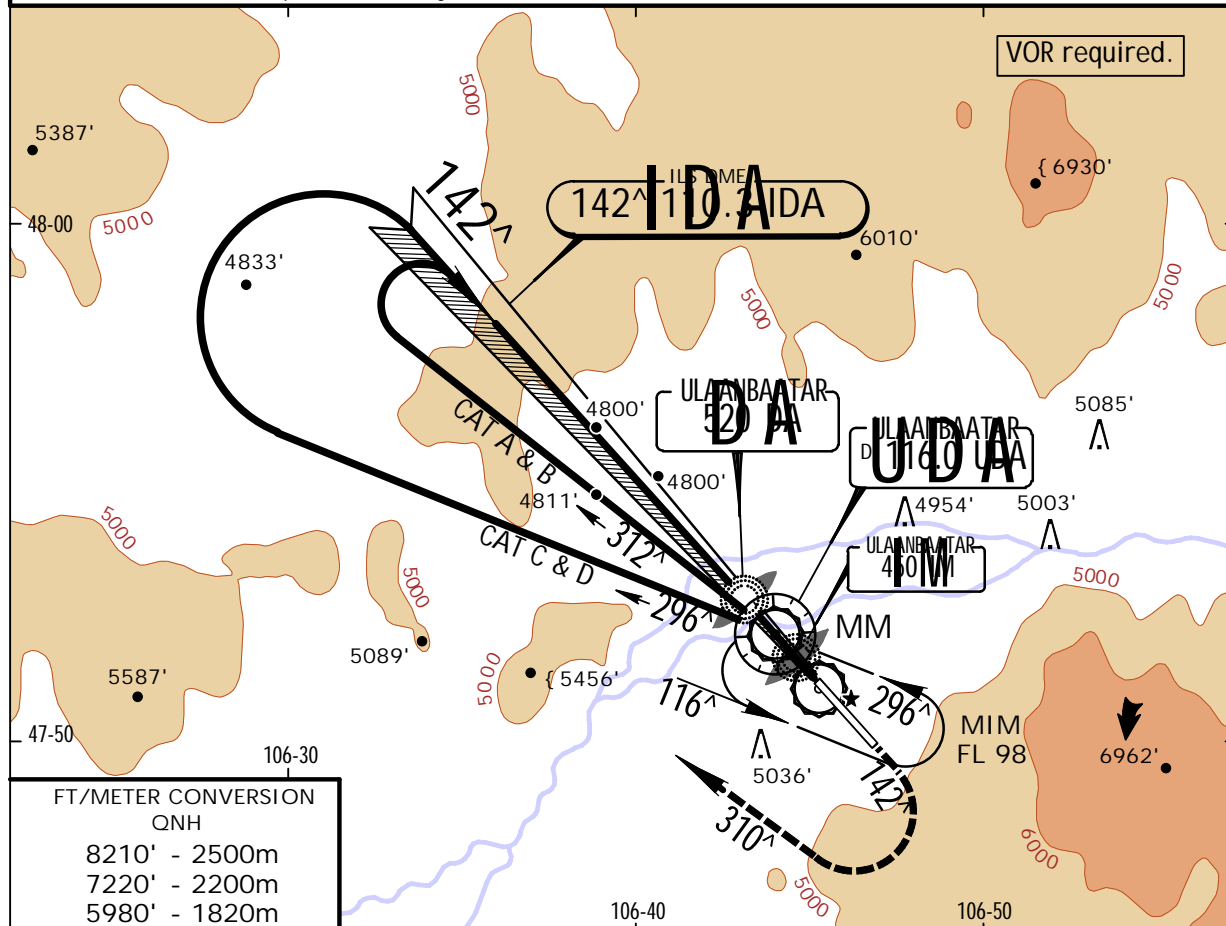
**ZMUB/ULN**  
CHINGGIS KHAAN INTL

**JEPPESEN**  
21 FEB 14 (11-2) .Eff.6.Mar.

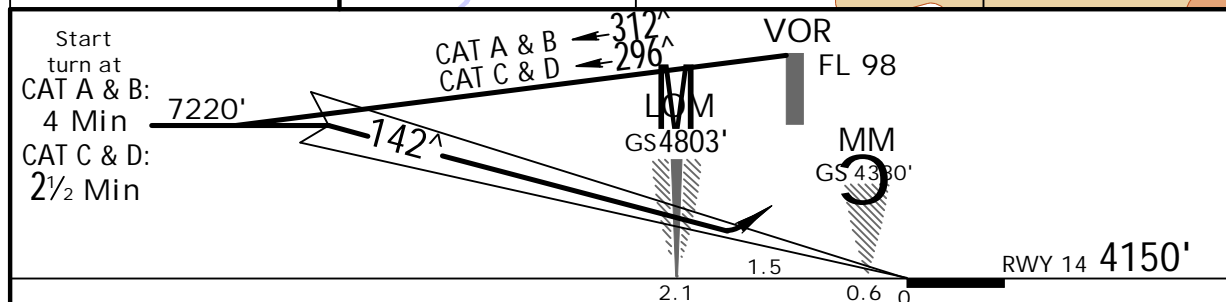
**ULAANBAATAR, MONGOLIA**  
ILS DME Y Rwy 14

BRIEFING STRIP

ATIS 125.0		ULAANBAATAR Approach 120.0		ULAANBAATAR Tower 120.0		
LOC IDA 110.3	Final Apch Crs 142^	GS LOM 4803' (653')	ILS DA(H) Refer to Minimums	Apt Elev 4364' RWY 4150'		
MISSED APCH: Climb on 142^ to 5980', then turn RIGHT onto 310^ climbing to 8210', then as directed.						
Alt Set: MM (hPa on req)		Rwy Elev: 143 hPa		Trans level: FL 98		
						MSA UDA VOR Trans alt: 8210'



FT/METER CONVERSION QNH	
8210'	2500m
7220'	2200m
5980'	1820m



Gnd speed-Kts	70	90	100	120	140	160	HIALS		5980'	142^	310^	8210'
GS	2.67^	331	425	472	567	661	PAPI		↑	on	RT	↑

STRAIGHT-IN LANDING RWY 14						CIRCLE-TO-LAND	
Missed apch climb gradient mim 4.8%		Missed apch climb gradient mim 3.5%		Missed apch climb gradient mim 2.5%		NOT AUTHORIZED	
DA(H) 4675' (525')		DA(H) 4839' (689')		DA(H) 5019' (869')			
FULL	ALS out	FULL	ALS out	FULL	ALS out		
A	1200m	1600m	1200m	1600m	1200m	2000m	A
B	1600m	2400m	2400m	3200m	3200m	4000m	B
C	1600m	2400m	2400m	3200m	3200m	4000m	C
D	1600m	2400m	2400m	3200m	3200m	4000m	D

VS OPS



ZMUB/ULN

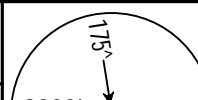
CHINGGIS KHAAN INTL

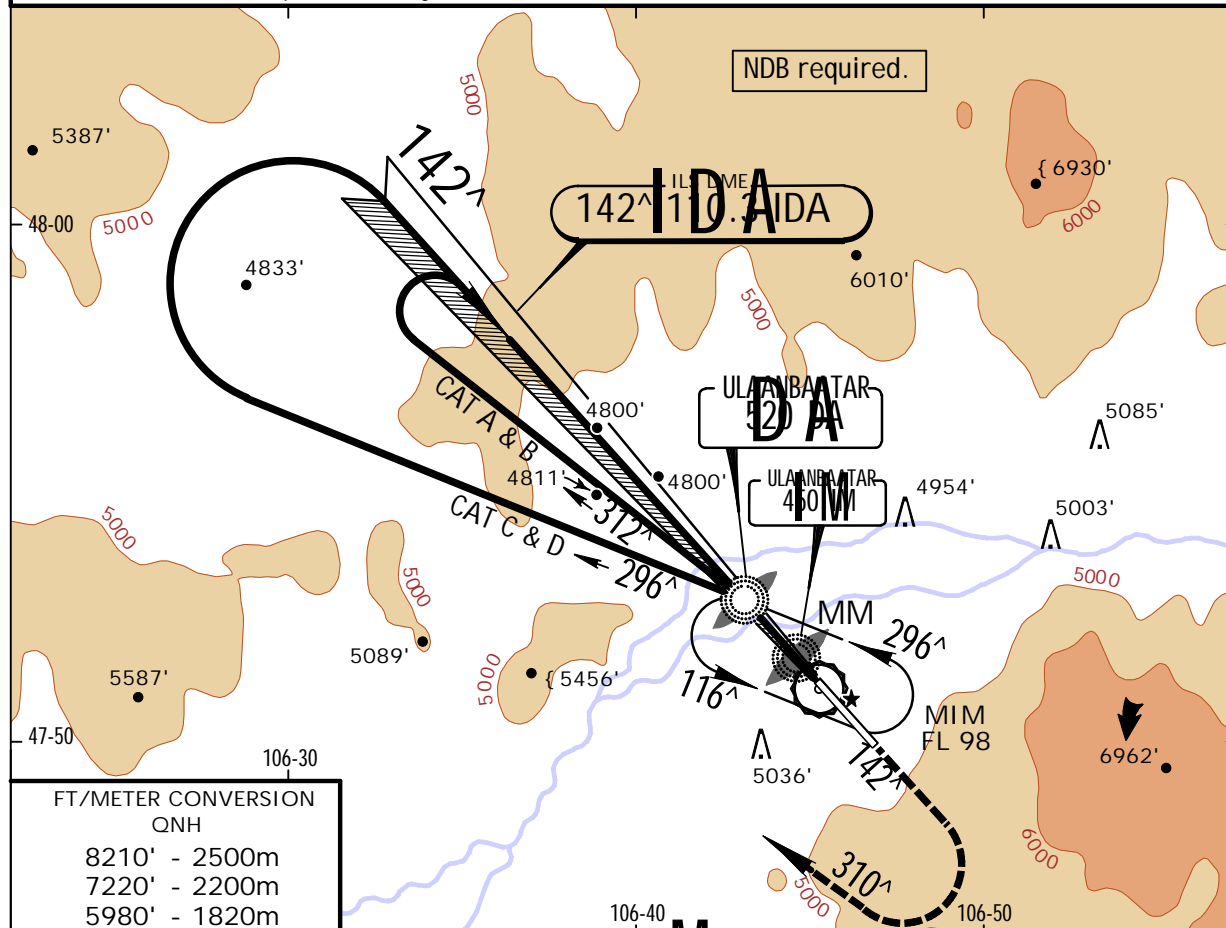
JEPPESEN

21 FEB 14 (11-3) .Eff.6.Mar.

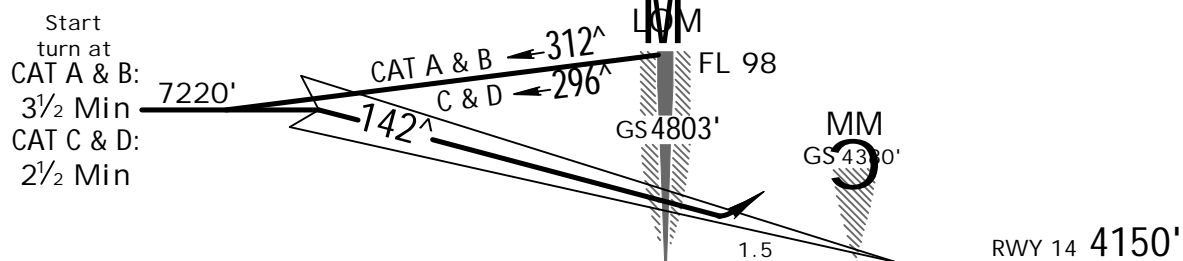
ULAANBAATAR, MONGOLIA  
ILS DME X Rwy 14

BRIEFING STRIP

ATIS 125.0		ULAANBAATAR Approach 120.0		ULAANBAATAR Tower 120.0		
LOC IDA 110.3	Final Apch Crs 142^	GS LOM 4803'(653')	ILS DA(H) Refer to Minimums	Apt Elev 4364' RWY 4150'		
MISSED APCH: Climb on 142^ to 5980', then turn RIGHT onto 310^ climbing to 8210', then as directed by ATC.						
Alt Set: MM (hPa on req)		Rwy Elev: 143 hPa		Trans level: FL 98		
						Trans alt: 8210'



FT/METER CONVERSION QNH	
8210'	2500m
7220'	2200m
5980'	1820m



Gnd speed-Kts	70	90	100	120	140	160	HIALS		5980'	142^	310^	8210'
GS	2.67^	331	425	472	567	661	PAPI		↑	↑	RT	↑

STRAIGHT-IN LANDING RWY 14						CIRCLE-TO-LAND	
Missed apch climb gradient mim 4.8%		Missed apch climb gradient mim 3.5%		Missed apch climb gradient mim 2.5%			
DA(H) 4675' (525')		DA(H) 4839' (689')		DA(H) 5019' (869')			
FULL	ALS out	FULL	ALS out	FULL	ALS out		
A	1200m	1600m	1200m	1600m	1200m	2000m	A
B							B
C	1600m	2400m	2400m	3200m	3200m	4000m	C
						NOT AUTHORIZED	

VS OPS



ZMUB/ULN

CHINGGIS KHAAN INTL

21 FEB 14  
Eff. 6 Mar.

JEPPesen

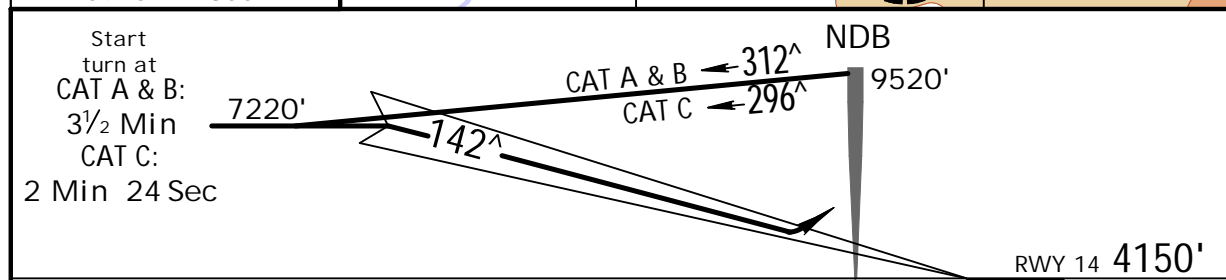
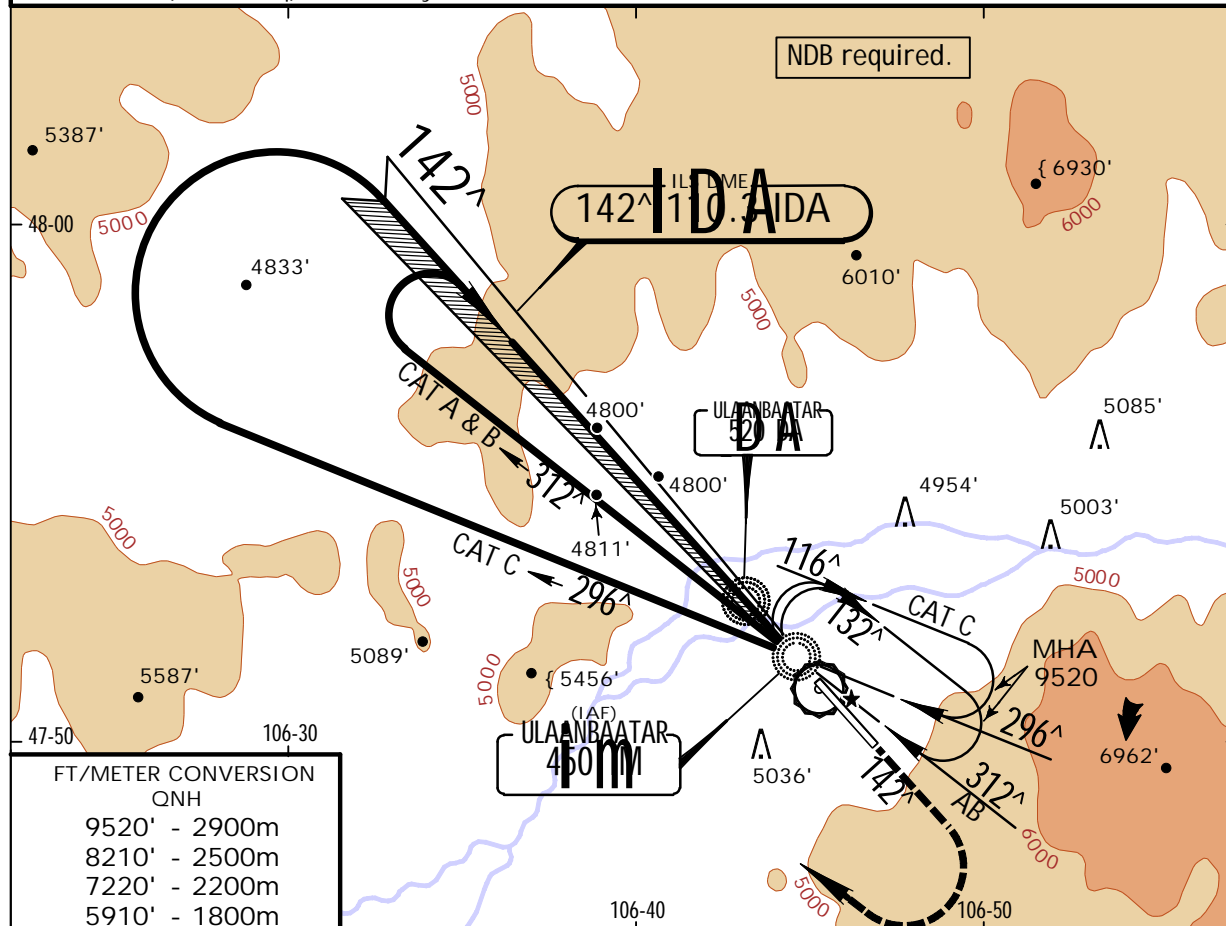
(11-4)

CAT A, B & C

ULAANBAATAR, MONGOLIA  
ILS DME W Rwy 14

BRIEFING STRIP

ATIS 125.0		ULAANBAATAR Approach 120.0		ULAANBAATAR Tower 120.0		 MSA IM NDB
LOC IDA 110.3	Final Apch Crs 142^	GS No alt published	ILS DA(H) 5036' (886')	Apt Elev 4364' RWY 4150'		
MISSED APCH: Climb on 142^ to 5910', then turn RIGHT climbing to 7220', then as directed by ATC.						
Alt Set: MM (hPa on req)		Rwy Elev: 143 hPa		Trans level: FL 98		Trans alt: 8210'



Gnd speed-Kts	70	90	100	120	140	160	
GS	2.67^	331	425	472	567	756	

STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND	
ILS					
DA(H) 5036' (886')					
FULL		ALS out			
A	1200m	2000m		A	NOT AUTHORIZED
B				B	
C	3200m	4000m		C	
D	NOT AUTHORIZED			D	

VS OPS

ZMUB/ULN

CHINGGIS KHAAN INTL

5 SEP 14

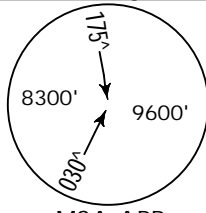
(11-5)

.Eff.18.Sep.

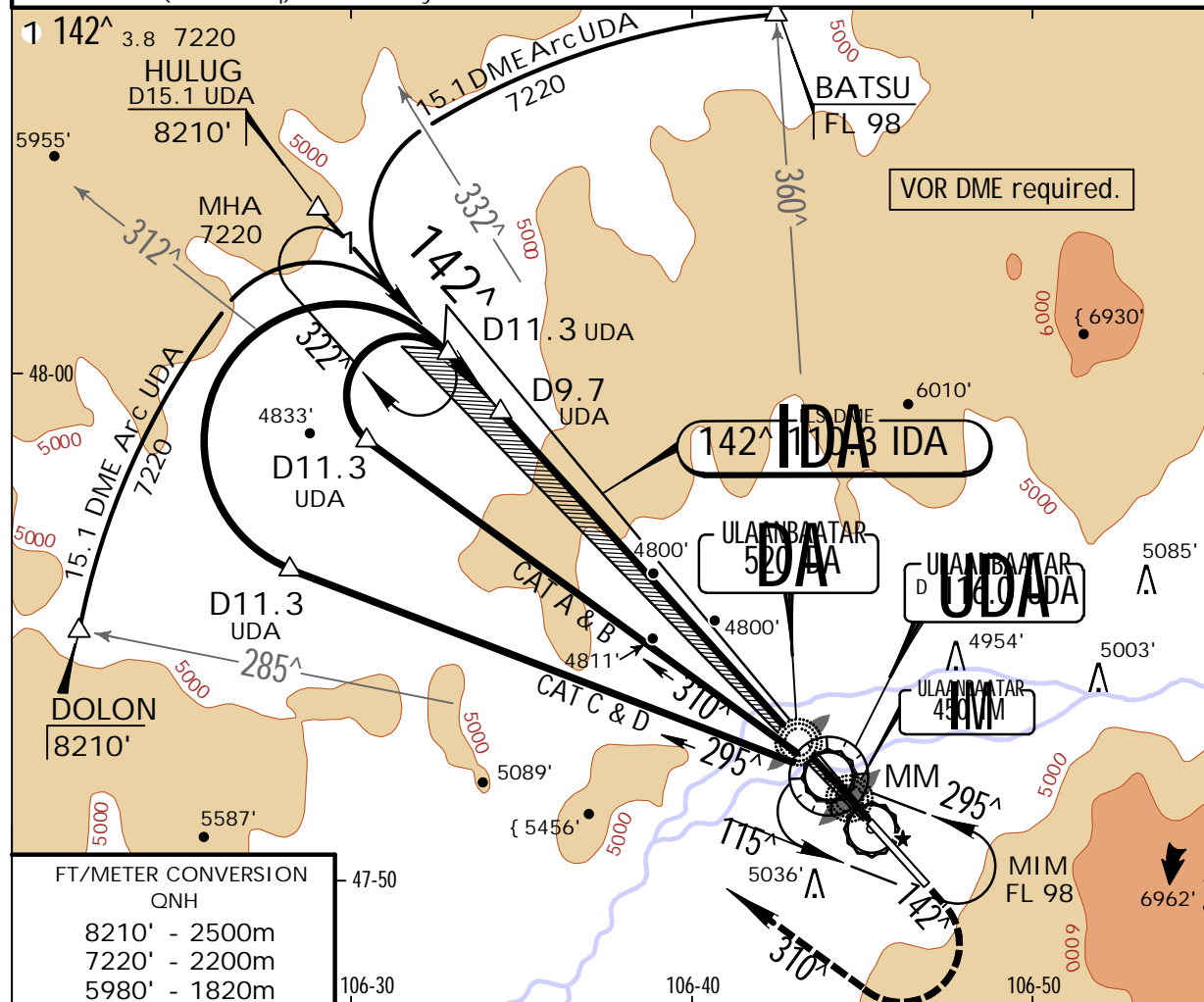
JEPPESEN

ULAANBAATAR, MONGOLIA  
ILS DME U Rwy 14

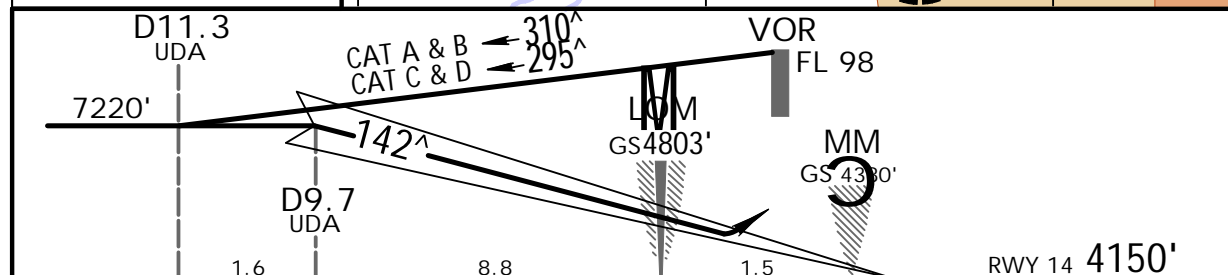
BRIEFING STRIP

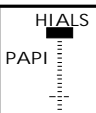
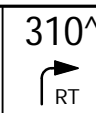
ATIS 125.0		ULAANBAATAR Approach 120.0		ULAANBAATAR Tower 120.0		
LOC IDA 110.3	Final Apch Crs 142^	GS LOM 4803' (653')	ILS DA(H) Refer to Minimums	Apt Elev 4364' RWY 4150'		
MISSED APCH: Climb on 142^ to 5980', then turn RIGHT onto 310^ climbing to 8210', then as directed.						

Alt Set: MM (hPa on req) Rwy Elev: 143 hPa Trans level: FL 98 Trans alt: 8210'



FT/METER CONVERSION QNH	
8210' - 2500m	47-50
7220' - 2200m	
5980' - 1820m	106-30



Gnd speed-Kts	70	90	100	120	140	160		
GS	2.67°	331	425	472	567	661		

STRAIGHT-IN LANDING RWY 14							CIRCLE-TO-LAND	
Missed apch climb gradient mim 4.8%		Missed apch climb gradient mim 3.5%		Missed apch climb gradient mim 2.5%		NOT AUTHORIZED		
DA(H) 4675' (525')		DA(H) 4839' (689')		DA(H) 5019' (869')				
FULL		ALS out		FULL				ALS out
A	1200m	1600m	1200m	1600m	1200m	2000m	A	
B							B	
C	1600m	2400m	2400m	3200m	3200m	4000m	C	

VS OPS

ZMUB/ULN

CHINGGIS KHAAN INTL

5 SEP 14

(13-1)

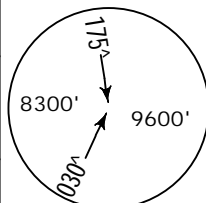
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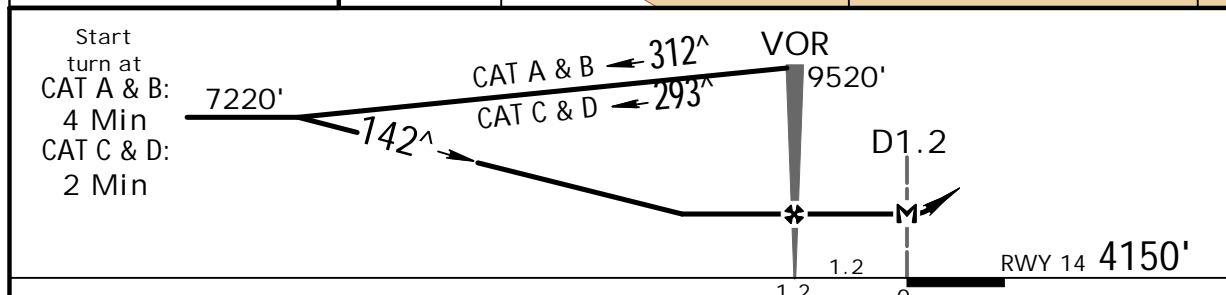
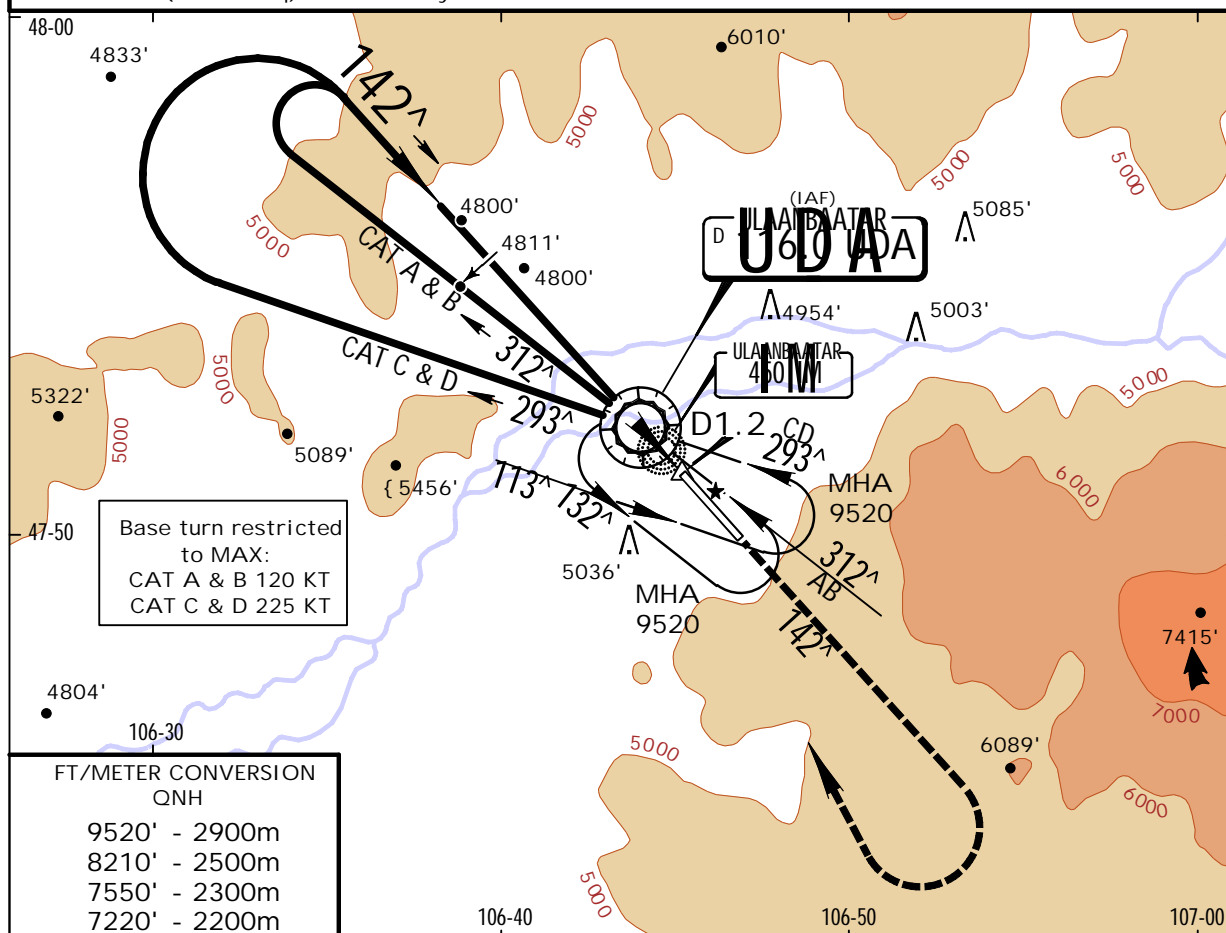
JEPPesen

ULAANBAATAR, MONGOLIA

VOR Rwy 14

BRIEFING STRIP™

ATIS 125.0		ULAANBAATAR Approach 120.0		ULAANBAATAR Tower 120.0		
VOR UDA 116.0	Final Apch Crs 142^	Minimum Alt No Alt published	MDA(H) 5810' (1660')	Apt Elev 4364' RWY 4150'		
MISSED APCH: Climb on 142^ to 7550', then turn RIGHT to VOR climbing to 9520'.					MSA ARP	
Alt Set: MM (hPa on req)		Rwy Elev: 143 hPa		Trans level: FL 98		



MAP at D1.2				HIALS	7550'	142^	9520'	UDA 116.0
				PAPI	↑	on	RT	

STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND			
MDA(H) 5810' (1660')							
ALS out							

A	5000m				A	NOT AUTHORIZED		
B					B			
C					C			
D					D			

NS OPS

ZMUB/ULN

CHINGGIS KHAAN INTL

**JEPPESEN**

5 SEP 14 (16-1) .Eff.18.Sep.

ULAANBAATAR, MONGOLIA

NDB Rwy 14

ATIS
ULAANBAATAR Approach
ULAANBAATAR Tower

125.0		120.0		120.0	
NDB DA <b>520</b>	Final Apch Crs <b>142°</b>	Minimum Alt No Alt published	MDA(H) <b>5810'</b> (1660')	Apt Elev <b>4364'</b> RWY 14 <b>4150'</b>	

**MISSED APCH: Climb on 142° to 7550', then turn RIGHT to NDB climbing to 9520'.**

Alt Set: MM (hPa on req)      Rwy Elev: 143 hPa      Trans level: FL 98      Trans alt: 8210'

MSA ARP

Base turn restricted to MAX:  
 CAT A & B 130 KT  
 CAT C & D 215 KT

FT/METER CONVERSION  
 QNH  
 9520' - 2900m  
 8210' - 2500m  
 7550' - 2300m  
 7220' - 2200m

Start turn at CAT A & B: 3½ Min  
CAT C & D: 2 Min

NDB 9520'

2.1 to MAP

RWY 14 4150'

Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI	7550' ↑ on 142°	9520' RT	DA 520
NDB to MAP	2.1	1:48	1:24	1:16	1:03	0:54				

STRAIGHT-IN LANDING RWY 14

MDA(H) **5810'** (1660')

ALS out

CIRCLE-TO-LAND

A
B
C
D

5000m

A
B
C
D

NOT AUTHORIZED

US OPS

ZMUB/ULN

CHINGGIS KHAAN INTL

5 SEP 14  
Eff. 18. Sep.

SEP 14  
F 18 Sen

(16-2)

CAT A, B &amp; C

SEP 14 16-2 CAT A, B & C NDB-2 Rwy 14

# NDB-2 Rwy 14

ATIS		ULAANBAATAR Approach		ULAANBAATAR Tower	
125.0		120.0		120.0	
NDB IM 450	Final Apch Crs 142 <sup>^</sup>	Minimum Alt No FAF	MDA(H) 5910' (1760')	Apt Elev 4364' RWY 14 4150'	

MISSED APCH: Climb on 142° to 5910'. Passing NDB turn RIGHT climbing to 7220', then as directed by ATC.

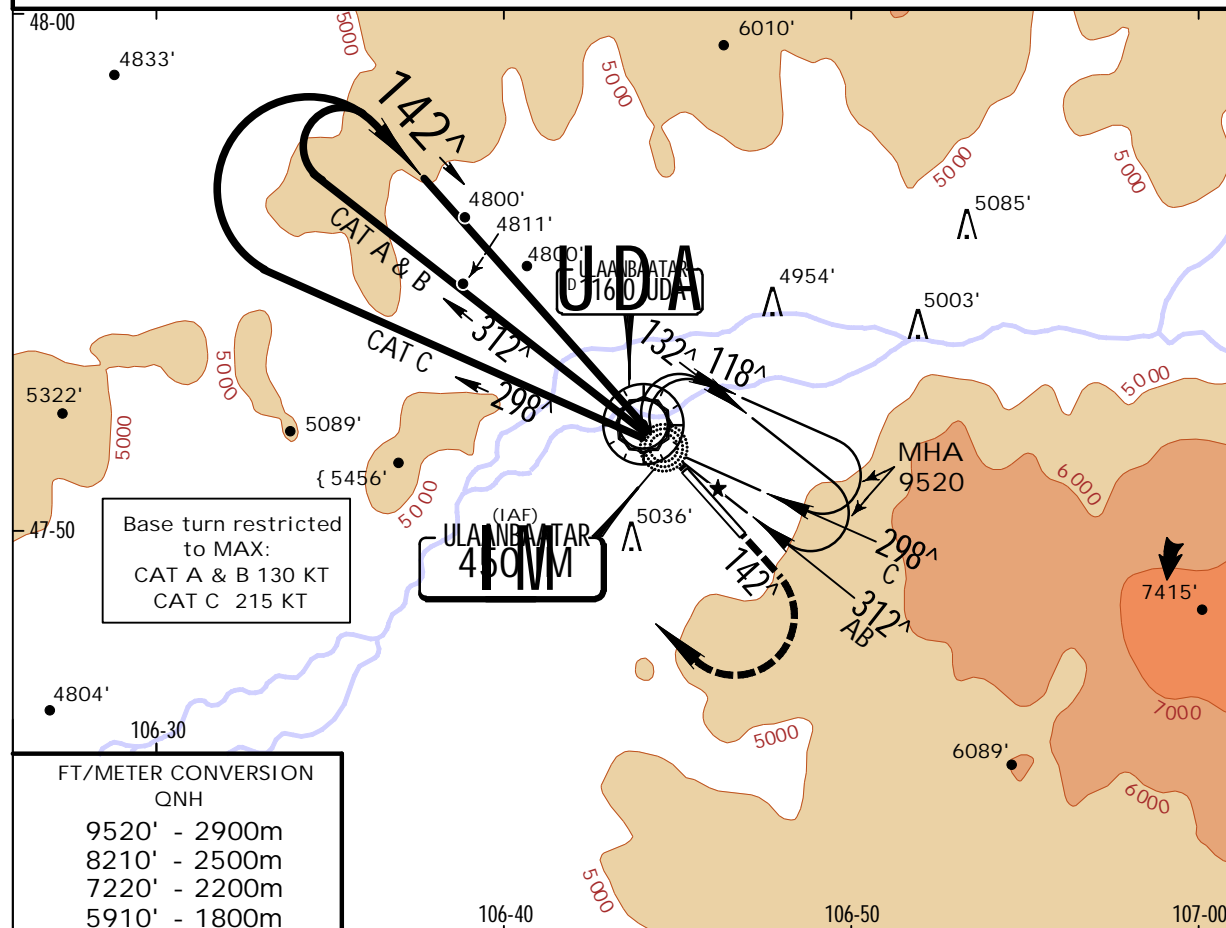
MSA ARP

Alt Set: MM (hPa on req)

Rwy Elev: 143 hPa

Trans level: FL 98

Trans alt: 8210'



Start  
turn at

CAT A & B:  
31/2 Min

CAT C:

2 Min 20 sec

[illegible]

RWY 14 4150'


HIALS  
PAPI

5910' on 142^

STRAIGHT-IN LANDING RWY 14

CIRCLE-TO-LAND

MDA(H) 5910' (1760')

---

ALS out

A	3200m
B	
C	5000m
D	NOT AUTHORIZED

A	NOT AUTHORIZED
B	
C	
D	