WorldFlight 2021 Departure Leg Pilot Briefing

Version 1.0

02/11/2021

WARNING

Information contained in this document is intended for flight simulation purposes and must not be used for any real-world aviation use.

Table of Contents

Chapter 0 Document Control

0.1 Document Identification

Document Type	Briefing
Document Name	WorldFlight 2021 Departure Leg Pilot Briefing
Document Owner	Director of Events
Version Number	1.0
Issue Date	02/11/2021
Effective Date	02/11/2021
Scope	All VATPAC/VATSIM Members.

0.2 Revision Record

Version Number	Date	Ref No / Chapter	Purpose
1.0	02/11/2021	All	New Document.

0.3 Explanations and Definitions of Terms

Abbreviation	Definition
SMC	Surface Movement Control
ADC	Aerodrome Controller
TCU	Terminal Control Unit

0.4 References

Title	Location
Manual of Air Traffic Services	https://vatpac.org/controllers/documents/
Area Local Instructions	https://vatpac.org/controllers/documents/
Aeronautical Information Publication	https://www.airservicesaustralia.com/aip/aip.asp

Chapter 1 Flight Planning

1.1 Route Planning

1.1.1 To minimise delays enroute and possible reroutes, all aircraft should plan via routes located in this document, or routes located in the ERSA Flight Planning Requirements document.

https://www.airservicesaustralia.com/aip/current/ersa/GUID_ersa-fac-2-2_09SEP2021.pdf
Non-jet aircraft should use the Flight Plan Requirements document linked above; however, should look for alternative routing using the '>' symbol.

1.2 Fuel Planning

1.2.1 Aircraft can expect significant delays enroute. Pilots can expect a lower then planned cruise speed, off-track vectoring, and/or holding. Your planned level may also not be available, so plan for increased fuel burn for flights at lower altitudes.

1.2.2 It is recommended that all pilots load a minimum of 45 minutes contingency fuel.

1.3 Pre-Departure Clearances

1.3.1 Pre-Departure Clearance (PDC) will be provided at controller discretion using the client-based private chat function. See Chapter 6 for PDC information and instructions.

1.3.2 Pilots unable to accept PDC (eg. Simulator without access to pilot client) can request a voice clearance as detailed in Chapter 7.

Chapter 2 WF2101 | Sydney > Cairns

2.1 Route

2.1.1 To minimise enroute delays and possible reroutes, all jet aircraft must plan via the route below:

DCT RIC H76 NBR H105 HACHI Q165 VOMPA Q499 NONUM DCT

2.1.2 For planning, we recommend taking the following additional fuel.

a) Taxi Fuel: 20 minutes

b) Holding Fuel: 45 minutes

c) Additional fuel if required for weather

d) Additional fuel to compensate for burn at a final level different to your planned level.

2.1.3 Aircraft parked on the Domestic Aprons (East of 16R/34L) should expect RWY 16L/34R for departure.

2.1.4 Aircraft parked on the International/Cargo Aprons (West of 16R/34L) should expect RWY 16R/34L for departure.

2.2 Departure Charts

AERODROME CHART PAGE 1

STANDARD TAXI ROUTE PAGE 1

SID RWY 34L RICMOND 5 DEP (JET)

SID RWY 34R MARUB SIX (JET) (RNAV)

SID RWY 16L KEVIN SIX (RNAV)

SID RWY 16L ABBEY THREE (JET) (RNAV)

SID SYDNEY TWO DEPARTURE (RADAR)

2.3 Departure Procedures

RNAV capable aircraft should expect the following departure procedure, depending on winds and runway configuration:

- 34L: RIC5, RIC TRANSITION (Heavy or International Aircraft)

- 34R: MARUB 6, MARUB TRANSITION (Domestic up to A333)
- 16L: KEVIN 6, KEVIN TRANSITION (Domestic up to A333)
- 16R: DEENA 7, RIC TRANSITION (Heavy or International Aircraft)

For non-jet aircraft, or aircraft unable to accept RNAV procedures:

- All runways: SYDNEY 2 (Radar SID)

2.4 Pushback

2.4.1 Once correctly reading back the PDC or clearance to the delivery controller on 133.800, pilots will be directed to the appropriate Ground frequency.

a) 121.700 (SY-E_GND) for aircraft East of RWY 16R/34L

b) 126.500 (SY_GND) for aircraft West of RWY 16R/34L

2.4.2 Prior to requesting pushback, pilots should squawk their assigned code, and select mode C (TA/RA) on their transponder. This will allow ground controllers to see your aircraft.

2.4.3 When requesting pushback, pilots only need to state the bay they are requesting pushback from. E.g., “Sydney Ground, QFA32, Intl Bay 9, request pushback.” To which the pilot can expect:

a) Hold position/Standby

b) Give way to XXXX, Pushback Approved

c) Pushback approved, tail XXX

2.4.4 Pilots should show courtesy when pushing back, utilising minimal space where possible to accommodate other pilots in the vicinity. Traffic avoidance on the ramp is the pilot (and ground crews) responsibility.

2.5 Taxi

2.5.1 Standard Taxi Routes will be used at Sydney. However, to ensure clarity for pilots unfamiliar with Sydney’s operations; more detailed information is available via the link below:

STANDARD TAXI ROUTE PAGE 1

2.5.2 When calling Sydney Ground for taxi, a pilot must report the current ATIS information (available on 126.250 or via Datalink). E.g. “Sydney Ground, Qantas 32, received Alpha, request taxi.”

2.5.3 Departures from runway 16L/34R should contact tower upon turning onto B10 for further instructions as required.

2.5.4 Pilots may be asked if they are able to accept an intersection departure based on operational requirements.

2.6 Takeoff

2.6.1 Upon reaching the holding point, all aircraft should automatically switch to the appropriate tower frequency. For aircraft on RWY16L/34R, they should contact 120.500 upon turning onto B10.

2.6.2 Aircraft should not contact the Tower controller until they are at the holding point and are the next aircraft to depart (unless taxiing runway 16L/34R). The correct phraseology to use is “Sydney Tower, QFA400, Ready.”

2.7 Enroute Holding

2.7.1 To reduce or stop the flow of traffic into Cairns, holding will be utilised where required. Aircraft may be held at any of the following points:

a) VOMPA (Unpublished Hold)

b) FISHY (Unpublished Hold)

c) NONUM (Unpublished Hold)

Aircraft may be held at other points as required by ATC.

2.8 STAR Clearance/Descent

2.8.1 Pilots will be issued a STAR clearance by Brisbane Centre prior to their top of descent.

2.8.2 All pilots can expect to be issued:

a) NONUM3A (RWY 15 – ILS) or NOMUM3W (RWY 15 – RNAV)

b) No STAR, DCT LEBAD for RNAV-W (RWY 33)

2.8.3 If you are not issued a STAR clearance prior to your TOD, this is likely due to congestion and additional track miles will be issued to accommodate.

2.8.4 To ensure separation on descent, all pilots must plan their descent at M.78/280kts. This can be done in the VNAV Descent/DES page of your FMC.

2.9 Approach

2.9.1 On first contact with Cairns Approach, pilots are asked to provide the following information:

a) Callsign

b) Altitude Assigned

c) ATIS Information

d) Current Conditions

e.g. “Cairns Approach, VOZ123 on descent 9000, received B, on-top”

2.9.2 Pilots inbound to Cairns can expect either.

a) ILS (RWY 15) or RNAV-W (RWY 15)

b) RNAV-W (RWY 33)

2.9.3 Aircraft must follow altitude and speed restrictions outlined on the STAR/Approach charts. If you are not able to, advise the Approach controller as soon as practical.

2.9.4 Once established on the LOC or RNAV, pilots should report established. After which the Approach controller will direct you to contact Cairns Tower.

e.g. “Cairns Approach, VOZ123 established”

2.10 Landing

2.10.1 On first contact with Tower, advise your callsign only. In response you will receive one of the following:

a) “VOZ123, Cairns Tower”

b) “VOZ123, Cairns Tower, Runway XX, cleared to land”

c) “VOZ123, Cairns Tower, Expect late landing clearance”

2.10.2 Aircraft may receive a landing clearance as last as 50ft. Please be prepared for a late clearance; or even clearance while another aircraft is shown still on the runway.

2.10.3 Once landed, vacate the runway as quickly as possible; and contact ground without prompt on 121.700. They will direct you to a parking area with available space.

2.10.4 Aerodrome charts are available here:

AERODROME CHART PAGE 1

Chapter 3 WF2103 | Cairns > Darwin

3.1 Flight Planning

3.1.1 To minimise enroute delays and possible reroutes, all jet aircraft must plan via the route below:

DCT NONUM KONDA J61 DUMAV Q91 ALLEE Q23 VEGPU DCT

3.1.2 All aircraft should uplift additional fuel to account for heavy congestion prior to departure and enroute. For planning, we recommend taking the following additional fuel.

a) Taxi Fuel: 20 minutes

b) Holding Fuel: 45 minutes

c) Additional fuel if required for weather

d) Additional fuel to compensate for burn at a final level different to your planned level.

3.2 Departure Charts

AERODROME CHART PAGE 1

SID CAIRNS TWO DEPARTURE (RADAR) - RWYS 15/33

3.2.1 WORLDFLIGHT ROUTE 2

All aircraft should expect the following departure procedure, depending on runway configuration:

- RWY 15/33: CAIRNS 2 (Radar SID)

3.3 Pushback

3.3.1 Once a pilot has correctly readback their clearance to the delivery controller on 128.750, they will be directed to the Ground frequency 121.700.

3.3.2 Prior to requesting pushback, pilots should squawk their assigned code, and select mode C (TA/RA) on their transponder. This will allow ground controllers to see your aircraft.

3.3.3 When requesting pushback, pilots only need to state the bay they are requesting pushback from. E.g., "Cairns Ground, ANO20, Bay 15, request pushback." To which the pilot can expect:

a) Hold position/Standby

b) Give way to XXXX, Pushback Approved

3.3.4 Pilots should show courtesy when pushing back, utilising minimal space where possible to accommodate other pilots in the vicinity. Traffic avoidance on the ramp is the pilot (and ground crews) responsibility.

3.4 Taxi

3.4.1 When calling Cairns Ground for taxi, a pilot must report the current ATIS information (available on 131.100 or via Datalink). E.g., "Cairns Ground, ANO20, received Alpha, request taxi."

3.4.2 Cairns only has a taxiway with reduced length to both RWY 15/33. As such, aircraft who can expect taxi via a "Dirt Taxiway" for both RWY 15/33. This taxiway will run as an extension of taxiway B, parallel to runway 32/14.

3.5 Takeoff

3.5.1 Prior reaching the holding point, all aircraft should switch to the tower frequency on 124.900 unless instructed. Aircraft should not contact the Tower controller until they are at the holding point and are the next aircraft to depart. The correct phraseology to use is "Cairns Tower, JST2, Ready."

3.5.2 All aircraft will be assigned a heading by Tower to fly once airborne on the CS2 departure.

3.6 Enroute Holding

3.6.1 To reduce or stop the flow of traffic into Darwin, holding will be utilised where required. Aircraft may be held at any of the following points:

a) DUMAV (Unpublished Hold)

b) SETGO (Unpublished Hold)

c) BUNDY (Unpublished Hold)

d) ALLEE (Unpublished Hold)

Aircraft may be held at other points as required by ATC.

3.7 STAR Clearance/Descent

3.7.1 All pilots can expect to be issued:

a) VEGPU6A (RWY 29 - ILS)

b) VEGPU6P (RWY 11 – RNAV-Y)

3.7.2 If you are not issued a STAR clearance prior to your top of descent, this is likely due to congestion and additional track miles will be issued to accommodate.

3.7.3 To ensure separation on descent, all pilots must plan their descent at M.78/280kts. This can be done in the VNAV Descent/DES page of your FMC.

3.8 Approach

3.8.1 On first contact with Darwin Approach, pilots are asked to provide the following information:

a) Callsign

b) Altitude Assigned

c) ATIS Information

d) Current Conditions

e.g. “Darwin Approach, TGG475 on descent 9000, received C, on-top”

3.8.2 Pilots inbound to Darwin can expect either.

a) ILS (RWY 29)

b) RNAV-Y (RWY 11)

3.8.3 Aircraft must follow altitude and speed restrictions outlined on the STAR/Approach charts. If you are not able to, advise the Approach controller as soon as practical.

3.8.4 Once established on the LOC or RNAV, pilots should report established. After which the Approach controller will direct you to contact Darwin Tower.

e.g. “Darwin Approach, VOZ123 established”

3.9 Landing

3.9.1 On first contact with Tower, advise your callsign only. In response you will receive one of the following:

e) “VOZ123, Darwin Tower”

f) “VOZ123, Darwin Tower, Runway XX, cleared to land”

g) “VOZ123, Darwin Tower, Expect late landing clearance”

3.9.2 The Tower may ask you to reduce speed on final approach.

3.9.3 Aircraft may receive a landing clearance as last as 50ft. Please be prepared for a late clearance and, subject to operational requirements, a clearance to land when another aircraft may be showing as on the runway.

3.9.4 Once landed, vacate the runway as quickly as possible; and contact ground without prompt on 121.800. They will direct you to a parking area with available space.

3.9.5 Aerodrome charts are available here:

AERODROME CHART PAGE 1

Chapter 4 WF2102 | Darwin > Singapore

4.1 Flight Planning

4.1.1 To minimise enroute delays and possible reroutes, all jet aircraft must plan via the route below:

DCT JULIE J61 IKUMA A464 KIKEM M774 KADAR M774 OBDOS DCT

All aircraft should uplift additional fuel to account for heavy congestion prior to departure and enroute. For planning, we recommend taking the following additional fuel.

a) Taxi Fuel: 20 minutes

b) Holding Fuel: 45 minutes

c) Additional fuel if required for weather

d) Additional fuel to compensate for burn at a final level different to your planned level.

4.2 Departure Charts

AERODROME CHART PAGE 1

SID JULIE FIVE DEP (JET) (RNAV)

SID DARWIN SEVEN DEPARTURE (RADAR)

4.2.1 WORLDFLIGHT ROUTE 3

All RNAV capable jet aircraft should expect the following departure procedure, depending on runway configuration:

- RWY 11/29: JULIE 5

Non-jet aircraft and aircraft unable to accept RNAV procedures:

- All runways: DARWIN 7 (Radar SID)

4.3 Pushback

4.3.1 Once a pilot has correctly readback their clearance to the delivery controller on 126.800, they will be directed to the Ground Frequency 121.800.

4.3.2 Prior to requesting pushback, pilots should squawk their assigned code, and select mode C (TA/RA) on their transponder. This will allow ground controllers to see your aircraft.

4.3.3 When requesting pushback, pilots only need to state the bay they are requesting pushback from. E.g., "Darwin Ground, SIA1, Bay 2, request pushback." To which the pilot can expect:

a) Hold position/Standby

b) Give way to XXXX, Pushback Approved

4.3.4 Pilots should show courtesy when pushing back, utilising minimal space where possible to accommodate other pilots in the vicinity. Traffic avoidance on the ramp is the pilot's responsibility.

4.4 Taxi

4.4.1 When calling Darwin Ground for taxi, a pilot must report the current ATIS information (available on 128.250 or via Datalink). E.g., "Darwin Ground, ANO20, received Alpha, request taxi."

4.4.2 Darwin only has taxiways to the threshold of runway 11/29 on the south side of the field via A. Aircraft departing from aprons north of runway 11/29. Aircraft will be asked to taxi via the "Dirt Taxiway" for runway 29. This taxiway will run parallel to runway 11/29 as an extension of taxiway Z.

4.5 Takeoff

4.5.1 Upon reaching the holding point, all aircraft should switch to the tower frequency automatically (133.100). Aircraft should not contact the Tower controller until they are at the holding point and are the next aircraft to depart. The correct phraseology to use is "Darwin Tower, JST2, Ready."

Chapter 5 Additional Information

5.1 Speed on Descent

5.1.1 To minimise delays for arriving traffic, all pilots are reminded of the requirement to abide by the speed restrictions on their assigned STAR.

5.1.2 Aircraft not on a STAR should maintain not above 250kt (or cruise speed if less than 250kt) below 10,000ft.

5.1.3 If you have been assigned a speed restriction, you should maintain that until it become necessary to slow down to configure for landing.

5.1.4 If you have been assigned a speed restriction which self-cancels, you must maintain that speed until the cancellation point, then resume profile speed, complying with published speed restrictions where required.

5.2 Waypoint Crossing Times

5.2.1 Please ensure you are using the actual time (UTC) in your simulator.

5.2.2 Brisbane or Melbourne Centre may ask you to cross a point at a certain time to sequence you better for arrival. The instruction will take the form of:

"VOZ123, ADJUST SPEED TO CROSS NONUM AT 46, THEN PUBLISHED SPEED."

5.2.3 Pilots should use their GPS or FMC and find their current ETA for that point. If it is before the specified time, reduce your speed until the ETA updates to reflect the time assigned by ATC, then, maintain that speed until crossing the fix. If after the specified time, increase speed until the ETA matches the assigned time and maintain speed until crossing the fix. Your aircrafts FMC may be able to do this automatically by setting the time of crossing for the point.

Once you have crossed the fix, you should maintain profile speed while complying with any published speed restrictions.

5.2.4 If you are unable to slow down/speed up enough to cross the fix at the specified time, advise ATC that you are maintaining a maximum/minimum safe speed and your estimated time for that point. You may expect radar vectors or holding to make up the remaining delay.

5.2.5 If you are still unsure, advise ATC that you are unable to comply and they will issue alternative instructions.

Chapter 6 Pre – Departure Clearance Guide

6.1 What is a PDC?

Pre-departure clearance is a method of providing clearance via a simulated method of CPDLC. However, it utilises the VATSIM network's private message function. When a controller issues a pilot a PDC, it will send a message to their pilot client with the appropriate text clearance. The pilot will then readback the clearance. This reduces communications via voice which ensures that the frequency is not overwhelmed.

6.2 What does it provide to pilots?

Pilots will receive a clearance which will look like the following example:

"PDC 070925. VOZ1421 B738 YSSY 2100. CLEARED TO YBCS VIA RIC5 DEP RWY34L. ROUTE RIC H76 NBR H105 HACHI Q165 VOMPA Q499 NONUM. CLIMB VIA SID TO 050. DEP FREQ 123.000. SQUAWK 3616. ONLY READBACK SID, SQUAWK CODE, AND BAY NO. ON 133.800. "

6.3 Pilot Readback

Pilots are required to readback the Runway, Departure Procedure, Squawk Code & advise Bay Number. The call to Clearance Delivery should follow the following format:

PILOT: "Sydney Delivery VOZ1421 PDC readback"

ATC: "VOZ1421 Sydney Delivery, Go Ahead"

PILOT: "Delivery, VOZ1421 Cleared to Cairns, Runway 34L, RIC5 Departure, Squawk 1234."

ATC: "VOZ1421, contact ground on 121.700 for push"

Chapter 7 Voice Clearances

7.1 Voice Clearance Format

Voice clearances will be the alternative method for providing clearances when pilots are unable to receive PDCs. Voice clearances in Australia are an adaptation of ICAO format which look like the following example:

“CPA2122, CLEARED TO CAIRNS VIA RICHMOND, FLIGHT PLANNED ROUTE. RICHMOND 5 DEPARTURE, RICHMOND TRANSITION, RUNWAY 34L. CLIMB VIA SID 5,000. SQUAWK 4424 DEPARTURES 123.000”

7.2 Pilot Readback

Unlike with PDCs, Pilots are required to readback the whole voice clearance.

PILOT: “CLEARED TO CAIRNS VIA RICHMOND, FLIGHT PLANNED ROUTE, MARUB 6 DEPARTURE, MARUB TRANSITION RUNWAY 34R. CLIMB VIA SID 5,000. SQUAWK 4424 DEPARTURES 123.000; CPA2122”

ATC: “CPA2122, contact ground on 126.500 for push”