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FLIGHT INFORMATION PUBLICATION



FLIGHT INFORMATION HANDBOOK AUSTRALIA

AD2 SUPPLEMENT TOWNSVILLE (YBTL)
(EFB SUITABLE VERSION)

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Approved By

CO 452SQN

INTRODUCTION	PRE - 1
AUTHORITY	PRE - 1
DEFINITIONS	PRE - 1
APPLICABILITY	PRE - 1
CONTENT	PRE - 1
ATC SUPPORT	GEN - 1
AERODROME SERVICES	GEN - 1
ATC FREQUENCIES	GEN - 1
FLIGHT PLANNING	GEN - 1
SPEED RESTRICTIONS	GEN - 2
FLIGHT RULES	GEN - 2
ALTIMETER AND TRANSPONDER SETTINGS	GEN - 2
EXTERNAL LIGHTING ON NVD	GEN - 2
TVL TACAN	GEN - 2
VISUAL TRACKING POINTS	GEN - 2
CLASS G AIRSPACE HIGH TRAFFIC AREAS	GEN - 3
DOMESTIC AIRSPACE	AIR - 1
Circuit Area	AIR - 1
TOWN COMMON	AIR - 2
HELO WEST.....	AIR - 2
LISTENING WATCH	AIR - 3
LAVARACK CIRCUIT AREA (LVK CIRA)	AIR - 4
NORTH EASTERN TRAINING AREA (NETA)	AIR - 4
D764 BLUEWATER TRAINING AREA	AIR - 4
D779 CAPE CLEVELAND TRAINING AREA	AIR - 5
RESTRICTED AIRSPACE	AIR - 5
R743 Tiger	AIR - 7
R747 Rattlesnake Island.	AIR - 7
R768A/B Mount Stuart	AIR - 7
TOWNSVILLE FIELD TRAINING AREA (TFTA)	AIR - 7
Airspace administration.....	AIR - 8
Rotary wing operations	AIR - 8
PC21 operations	AIR - 9
FAST JET operations.....	AIR - 9
ROZ WEDGE	AIR - 9
ROZ LAVARACK	AIR - 10
GENERAL AD INFORMATION	AD - 1
OLA complex	AD - 1
Taxiway restrictions	AD - 1
STANDARD TAXI ROUTES	AD - 2
Operational Readiness Platforms (ORP)	AD - 2
Aircraft Arrestor Systems (AAS)	AD - 2
Reduced Runway Separation Standards (RRSS)	AD - 2
RAAF TVL Demolition Range	AD - 3
Noise abatement	AD - 3
Bird hazards	AD - 4
Low visibility operations	AD - 4
MET	AD - 4
HELICOPTER OPERATIONS	AD - 4
ARMING / DE-ARMING	AD - 5
Forward firing ordnance arm/de-arm procedures	AD - 6
Non-forward firing ordnance arm/de-arm procedures	AD - 6
AERODROME CHARTS	AD - 6
GENERAL	DEP - 1
TRAFFIC MANAGEMENT PLAN	ARR - 1
PAPI	ARR - 1
INITIAL AND PITCH PROCEDURES	ARR - 1
Maggy Arrival recovery procedure	ARR - 2
GENERAL EMERGENCIES	EMERG - 1
AIRCRAFT RECALL	EMERG - 1

ARFF FIRE COMMANDER	EMERG - 1
DIVERSION AERODROMES	EMERG - 1
EMERGENCY RUNWAY PROCEDURES	EMERG - 1
EMERGENCY RUNWAY LIGHTING	EMERG - 1
FUEL DUMPING	EMERG - 1
HOT BRAKE PROCEDURES	EMERG - 2
HUNG ORDNANCE PROCEDURES	EMERG - 2
HYDRAZINE PROCEDURES	EMERG - 2
PRE-MEDITATED EJECTION	EMERG - 3
RADIO FAILURE PROCEDURES	EMERG - 3
GENERAL	CIVIL - 1
PALM ISLAND TRAFFIC MANAGEMENT PLAN (PITMP)	CIVIL - 1
R736, R739, R750, R751 AND R752 – VFR TRACKING INSTRUCTIONS	CIVIL - 1
REMOTELY PILOTED AIRCRAFT SYSTEMS (RPAS)	CIVIL - 1

CHANGE SUMMARY

Due to the significant reformat of this document, change bars have not been used. A list of all non-editorial changes is listed below.

SECTION	CHANGES
All	Incorporation of procedures from TFTA Airspace Control Plan
PREFACE	Update endorsement authorities, update definition for locally based aircraft and insert definition for 'fast jet'
GEN Para 1	Define ATC support and requirements for visiting SQNs
GEN Para 2	Include AD services (ARFF, AAS, Medical) from ERSA
GEN Para 4	No requirement for FLTPLN for fast jet + PC21 for TFTA. Updated CTR/ CIRA/IAT booking process to align with ERSA
GEN Para 6	Define standard Flight Rules for local aircraft
GEN Para 8	Updated NVD lighting requirements to align with ERSA
AIR Para 1.4	Remove Pegasus Pad (no longer in use)
AIR Para 1.4.7	Updated Town Common definition to align with ERSA
AIR Para 1.4.9	Update 'Listening Watch' to include automatic approval for 5AVN when operating in Town Common/Helo West
AIR Para 1.7	Updated BLU tracking to align with ERSA
AIR Para 2.5	Clarification of airspace expiration
AIR Para 2.6 - 2.7	Nil ATS provided within RA and inclusion of airspace buffers that must be added by aircrew operating in RA.
AIR Para 2.10	Added R747 airspace administration details
AIR Para 2.11	Flying operations within R768 no longer permitted. Added process when required to operate within lateral confines.
AIR 2.12.2	Complete re-write of airspace administration for TFTA
AIR 2.13.4	Clarified 2,500FT limit only applies when operating within active RA
AD 3.4	Added Civil Bay 1 pushback procedures
AD 3.6	Updated Reduced Runway Separation (RRS) to align with updated terminology. Added fast jet aircraft accept RRS on 'wet' runway.
DEP Para 1	Updated to align with Townsville Traffic Management Plan
ARR Para 1	Updated to align with Townsville Traffic Management Plan
ARR Para 3.1	Updated Initial Point to 5NM from the ARP

AD2 SUPPLEMENT PRODUCTION

This AD2 Supplement is subject to review at least every 12 months, however, is not subject to a regular cycle. All AD2 Supplements will be published IAW AIRAC cycles.

AD2 SUPPLEMENT AMENDMENTS

To make a change to the AD2 Supplement outside of a new issue date an 'AD2 SUPP Amendment' will be issued through AIS-AF.

CHANGE SUBMISSIONS

Change submissions for the YBTL AD2 Supplement should be submitted NLT than the one month prior to an AIRAC cycle date using the objective spreadsheet [BP19240245](#).

PREFACE

1. INTRODUCTION

1.1 This FIHA AD2 SUPP YBTL is deemed Electronic Aeronautical Information (EAI) and is made available for Electronic Flight Book (EFB) use via the Defence Aeronautical Information Service Provider (AISP) AIS-AF. FIHA AD2 Supplements are available via the [AIS-AF FIHA AD2 Supplements](#).

1.2 This FIHA AD2 SUPP ensures compliance with Defence Aviation Safety Regulations (DASR) AO.GEN.05 - *Management of Orders, Information and Publication (OIP)* and DASR.SRoA - *Standard Rules of the Air* by providing usable, current, portable and correctly authorised procedures that support flying operations within the specified area of operations

2. AUTHORITY

2.1 The authority for this FIHA AD2 SUPP is AC SI (OPS) 01-20 *Aeronautical Information Management*.

2.2 The approval authority is CO 452 SQN.

2.3 The sponsor is the Senior Air Traffic Controller YBTL - [452SQN TVL FLT FLTCDR](#)

2.4 Endorsement authorities are:

- a. CO 5AVN
- b. 81WG STANDO

3. DEFINITIONS

3.1 The terms used in this AD2 SUPP are defined in the Defence Aviation Safety Regulations – [Glossary](#) and [Australian Defence Glossary](#) (aviation context). Where terms are specific to this AD2 SUPP only, they are identified within this document.

3.2 All levels referred to in this AD2 SUPP are in feet AMSL, unless otherwise specified.

3.3 Locally briefed aircraft are considered to be an aircraft operated by:

- a. 5AVN REGT
- b. a visiting SQN or ADF contractor based from YBTL after receiving a local ATC procedures brief.

3.4 The term “fast jet” includes the following aircraft types, including all variants unless specifically mentioned otherwise:

- a. F15
- b. F16
- c. F18 (including EA18)
- d. F35
- e. Hawk

4. APPLICABILITY

4.1 These procedures apply to a locally based aircraft, or transiting aircraft that advise they are familiar with this AD2 SUPP. If necessary, transient aircraft may request a local area briefing to be arranged by the AD2 SUPP Sponsor.

5. CONTENT

5.1 This AD2 SUPP applies to the conduct of flying operations and ATC services at YBTL aerodrome and the aerodrome's supporting airspace. Information contained in this instruction that may have civil application or may enhance overall useability is also provided in the YBTL section of Enroute Supplement Australia (ERSA).

5.2 This AD2 SUPP provides bookmarks and hyperlinks for EFB useability and is broken into the following sections:

- a. [General](#)
- b. [Airspace](#)
- c. [Aerodrome](#)

- d. [Departures](#)
- e. [Arrivals](#)
- f. [Emergencies](#)
- g. [Civil Procedures](#)

GENERAL

1. ATC SUPPORT

1.1 Air Traffic Services (ATS) hours are 2000 – 1200z daily, unless otherwise arranged. Staffing levels inside of these hours vary, and are designed around normal traffic levels.

1.2 Full ATS support capable of supporting fast jet flying, circuits and instrument approach training are only available between 2100 – 0700z Mon – Fri (exc public holidays). Limited circuit and/or instrument approach training is available between 0800 - 1200z Mon – Fri and 2200 – 0700z Sat – Sun with 24hrs prior notice. Outside of these times circuit and/or instrument approach training will generally not be available.

1.3 Requests for extended/additional ATS support may be available as per below:

- a. Short duration (less than 1hr) extension of ATS hours to support an arrival or departure – minimum 48hrs prior notice to 452sqntvlflt.opscdr@defence.gov.au or 07 4422 8109
- b. Fast jet flying (excluding transit flights) outside of 2100 – 0700z Mon – Fri (exc public holidays) – minimum four months prior notice to 452sqntvlflt.opscdr@defence.gov.au.

1.4 **Visiting Squadrons.** Regardless of the ATS support required, visiting SQNs planning an activity or exercise based out of Townsville are to contact 452sqntvlflt.opscdr@defence.gov.au early in the planning cycle, and at least 1 month prior to deployment, to assist with the development of local procedures for the conduct of the activity and coordinate a local procedures briefing.

2. AERODROME SERVICES

2.1 **Aerodrome Rescue and Firefighting Services (ARFF).** ARFF CAT 7 is provided H24. Requests for higher ARFF levels (CAT 8) shall be requested through TVL ABCP (tvlabcp@defence.gov.au) or 07 4752 1888 outside of business hours) with at least 72hrs prior notice.

2.2 **Airfield Emergency Health Response (AEHR).** Submit requests for AEHR support through a Combat Support Request (CSR)

2.3 **Aircraft Arrestor System (AAS).** BAK 12/14 hookcables are installed 445m from the thresholds of RWY 01 and RWY 19. RWY 01/19 hookcables are bolted down (not available) except with 2hrs prior notice during Cable Party hours (MON-THU 2130 - 0630z, FRI 2130 - 0400z) or 24hrs prior notice out of hours. Requests are to be directed to TVL ABCP via phone (anytime) 07 4752 1888 or email tvlabcp@defence.gov.au.

2.4 . More information regarding the AAS is contained in the [Aerodrome](#) section.

3. ATC FREQUENCIES

3.1 Townsville ATC frequencies are:

- a. Clearance Delivery: 128.1/236.1
- b. Ground: 121.8/264.6
- c. Tower: 118.3/257.8
- d. Approach: 126.8/307.8 (includes FIS within 36DME TL inside TWR HR)
- e. Brisbane Centre: 120.55 On Ground (outside TWR HR)
- f. CTAF/PAL: 118.3

4. FLIGHT PLANNING

4.1 Visiting SQNs must submit their daily flying program (FLYPRO) no later than 1600K on the preceding day to 452SQN TVL FLT (tvlabcp@defence.gov.au) and TVL Air Base Command Post (TVL.ABCP@defence.gov.au).

4.2 **Flight plans.** Flight Plans (FLTPLN) to/from YBTL must not be submitted more than 20 hours prior to EOBT to allow ATC system data processing.

4.3 Fast jet and PC-21 aircraft transiting directly between TVL and TVL Restricted Airspace do not require a FLTPLN provided a daily FLYPRO is provided to ATC. Aircraft operating on SQN/skin codes, shall ensure the SSR code is listed on the daily FLYPRO.

4.4 **Low Jet Route.** Low-level fast-jet sorties outside 36NM TVL require a low jet route NOTAM, to be submitted by the responsible flying SQN.

4.5 Circuit and Airwork Bookings. All survey aircraft, aircraft conducting airwork within TVL CTR (including circuit area) or Instrument Approach Training (IAT) must contact ATC for approval and slot time. Operators are to email airwork maps to tvl.atc@defence.gov.au prior to contacting ATC on 07 4752 1207 (for SVY/IAT) or 07 4752 1205 (for CTR AWK).

5. SPEED RESTRICTIONS

5.1 All arriving or departing aircraft (excluding fast jet), not on a SID or STAR (including radar vectors), should not exceed 250KT IAS when below 10,000FT AMSL.

5.2 Fast jet aircraft should not exceed 350KT IAS within 36DME TVL unless otherwise approved by ATC.

6. FLIGHT RULES

6.1 Aircraft within TVL CTR, CTA and RA shall be operated in accordance with IFR except:

- a. when VFR category is requested (by flight plan or by the pilot)
- b. IFR is cancelled
- c. for operations wholly within the CTR
- d. helicopter and PC21 operations unless IFR is requested/flight planned
- e. when dictated by [AC SI \(OPS\) 03-16](#) - *Air Traffic Control Procedures Variations*
- f. aircraft arriving via the 'Maggy Arrival' procedure change category to VFR at Yabulu (YBU) or Toomulla (TOOU).

7. ALTIMETER AND TRANSPONDER SETTINGS

7.1 **Altimetry procedures.** Aircraft operating in TVL domestic airspace at altitudes are to set local QNH as advised by ATC and/or ATIS broadcast.

7.2 **Transponder procedures.** Formation transponder procedures are as per [AC SI \(OPS\) 03-16](#).

8. EXTERNAL LIGHTING ON NVD

8.1 Military aircraft may conduct NVD operations within 50NM of YBTL SFC-1,000FT without displaying external lighting. Outside ATS hours military aircraft should display external lighting on receipt of a CTAF broadcast from another aircraft.

9. TVL TACAN

9.1 The TACAN experiences terrain shielding between 140R and 160R beyond 25NM at MSA.

9.2 The TACAN is not paired with or co-located with TL VOR/DME, and is therefore not to be used with any SIDs, ILS, DME or VOR approaches.

10. VISUAL TRACKING POINTS

10.1 Familiarity with the listed visual tracking points will assist traffic management and may expedite low level clearances:

- a. Cape Cleveland Lighthouse (CCL)
- b. Castle Hill
- c. Kissing Point (KSPT)
- d. Mount Black (MBC)
- e. Mount Margaret (MMT)
- f. Mouth of the Black River (MBKR)
- g. Mouth of the Bohle River (MBHR)
- h. Mouth of the Ross River, (IVO TVL Port).
- i. Orchard Rocks (ORKS)
- j. Rattlesnake Island (RKI)
- k. Ross River Dam (RRDM)
- l. Sun Zinc Refinery (SUNZ)

- m. The Lakes, YBTL 127R/1.4 NM
- n. Thornton Gap (TNP)
- o. West Point (WEP)

11. CLASS G AIRSPACE HIGH TRAFFIC AREAS

11.1 Light fixed-wing aircraft conduct flights between YBTL and Palm Island (YPAM, TL 333R 031VOR) frequently throughout daylight hours SFC – 4,000FT.

11.2 D779 is frequented by civil trainee helicopters during daylight hours, generally SFC – 1,500FT.

11.3 Tracking between TVL and TFTA is frequented by military helicopters both day and night, generally SFC – 2,500FT.

AIRSPACE

0.1 This AD2 SUPP provides specific local airspace information that supports the airspace information ERSA FAC, Designated Airspace Handbook (DAH) and relevant aeronautical information charts.

1. DOMESTIC AIRSPACE

1.1 During ATS Hours, TVL CTR and TVL CTA as defined in DAH is administered by TVL ATC. TVL APR also provides a Flight Information Service (FIS) inside Class G airspace within 36DME TL.

1.2 Outside of ATS hours the TVL CTR and TVL CTA below 8,500FT is reclassified Class G.

1.3 Air Traffic Control (ATC) may recall YBTL airspace at short notice and will provide notification in the form of an airspace NOTAM and/or ATIS broadcast.

1.4 CIRCUIT AREA

1.4.1 The TVL Circuit Area (CIRA) is defined as airspace within 5NM radius of the TVL ARP, SFC to 1500FT (higher levels may be available on request).

1.4.2 The CIRA is frequented by both military and civil traffic including light, medium and heavy wake turbulence helicopters and light fixed-wing aircraft. CIRA operations are to be conducted VFR and are available by day or night.

1.4.3 Preferred Circuit Direction:

- a. RWY 01 – Left Hand CCTs, avoiding Cape Pallarenda built up areas
- b. RWY 07 – Left Hand CCTs
- c. RWY 19 – Right Hand CCTs, avoiding Cape Pallarenda built up areas
- d. RWY 25 – Right Hand CCTs

1.4.4 **Clearance.** Aircraft requiring a CIRA or CTR clearance must contact TVL SMC to obtain SSR code and airways clearance.

1.4.5 **Ground Effect.** Upon receipt of a pilot report that an aircraft is operating 'in ground effect', ATC will not treat the aircraft as airborne for the purpose of separation.

1.4.6 **Northern Grass.** Contained within the CIRA and is used for winch training. Northern Grass is not available when OLAs 1 to 5 are in use.

Figure 1 - Northern Grass



1.4.7 TOWN COMMON

1.4.7.1 The Town Common is a helicopter training area within the Circuit area to the west of Townsville.

1.4.7.2 **Definition.** The Town Common is defined as the area bounded by a line from the Radar Site (RDRS), to the western airfield boundary fence, through the HF transmitter site to the Bohle River, along the Bohle River and the coastline back to the RDRS. The Town Common has the following sectors that may be used by ATC:

- a. **Many Peaks.** The portion of Town Common north of the southern slopes of Many Peaks (MYP).
- b. **Town Common East.** The portion of Town Common east of the line running from the southern point of MYP and south of the southern slopes of MYP.
- c. **Town Common West.** The portion of Town Common west of the line running from the southern point of MYP and south of the southern slopes of MYP.

1.4.7.3 **Clearance.** Aircraft requiring a Town Common clearance must contact TVL SMC to obtain SSR code and airways clearance.

Figure 2 - Town Common



1.4.8 HELO WEST

1.4.8.1 Contained within the CIRA and activated at on request. Military and civilian helicopters operate in this area and the associated HLS Pad West.

1.4.8.2 Helo West dimensions are:

- a. **Lateral limits.** In a clockwise direction from the southern slopes of Many Peaks Range – western edge of the NOLA, requirement to remain one mile west of the coast – NDB, remaining northwest of the navaid – HF TX Site, remaining east of the facility – southern tip of Many Peaks Range, requirement to remain 1NM east of the Bohle River.
- b. **Vertical limit.** Not above 1,000FT, non standard levels available on request.

1.4.8.3 **Pad West.** Aircrew intending to operate at Pad West are responsible for ensuring the landing area is suitable for use. Unserviceabilities must be reported to ABCP.

1.4.8.4 Civilian helicopters may operate at Pad West; however, military operations have priority over civilian operations at all times.

Figure 3 - Helo West



Figure 4 - Pad West



1.4.9 LISTENING WATCH.

1.4.9.1 Once established within the assigned area, helicopters are automatically cleared to operate on 'Listening Watch' within the Town Common and Helo West. During the conduct of listening watch, the pilot

may operate within the lateral confines of an assigned area no higher than the cleared level, and is not required to report airborne or on the ground. The following conditions apply:

- a. aircraft must continuously monitor TWR frequency
- b. listening watch may be cancelled at any time by TWR using the phrase "RESUME FULL REPORTING".

1.5 LAVARACK CIRCUIT AREA (LVK CIRA)

1.5.1 LVK CIRA is activated on request and is for helicopter use only.

1.5.2 The LVK CIRA is procedurally separated with the ILS approach to RWY 01 and the RNAV-P RWY 01 approach. The LVK CIRA is not procedurally separated with any of the RWY 19 SIDs. LVK CIRA dimensions are:

- a. **Lateral limits.** The area bounded by the lateral confines of Lavarack Barracks extending up to the northern slopes of Mt Stuart. Pilots must maintain a positive fix within the LVK CIRA, as no navigational buffers have been added.
- b. **Vertical limit.** Not above 1,000FT.

Figure 5 - Lavarack Circuit Area



1.6 NORTH EASTERN TRAINING AREA (NETA)

1.6.1 The NETA is an IFR training area, defined as TL 025-080 VOR radials, 10-30DME. Entry and exit gates are runway dependant:

- a. RWY 01 – Entry Gate: KAGES, Exit Gate: REGIN.
- b. RWY 19 – Entry Gate: REGIN, Exit Gate: KAGES.

1.6.2 Levels available are generally 7,000FT-FL180.

1.7 D764 BLUEWATER TRAINING AREA

1.7.1 D764 is commonly used by civilian fixed-wing training aircraft.

1.7.2 Aircraft should expect a 'BLUEWATER' clearance via the applicable runway specific tracking listed below. A 'BLUEWATER' clearance allows an aircraft to operate within the lateral confines of D764 not above the cleared level.

- a. RWY 01:
 - (1) Outbound: via the Coast

- (2) Inbound: via the Bruce Highway
- b. RWY 19:
 - (1) Outbound: via the Bruce Highway
 - (2) Inbound: via the Coast

1.7.3 **Awareness.** Aircraft operating D764 within Class C airspace must monitor 126.8. When transiting between Class C and Class G airspace, pilots should monitor 126.7 to ensure appropriate situational awareness is maintained with respect to operations in Class G airspace within the confines of D764.

1.8 D779 CAPE CLEVELAND TRAINING AREA

1.8.1 D779 is commonly used by military and civilian helicopters. Aircraft operating in D779 should monitor 126.05 to ensure appropriate situational awareness is maintained with respect to operations in Class G airspace within the confines of D779.

1.8.2 Tracking to/from D779 is runway dependant. Standard clearances are:

- a. RWY 01:
 - (1) Outbound: Coastal Southbound not above 1,500FT
 - (2) Inbound: TVL via SUNZ, not above 1,500FT, clearance limit 'The Lakes'
- b. RWY 19
 - (1) Outbound: SUNZ DCT, not above 1500FT
 - (2) YBTL via the Coast, not above 1,500FT, clearance limit KSPT

2. RESTRICTED AIRSPACE

2.1 Townsville Restricted Airspace (RA) include the following areas:

- a. **Townsville Field Training Area (TFTA).** TFTA airspace is defined as:
 - (1) R750 'Highrange' – SFC – 5,000FT (2100-1200z Daily NOTAM OT)
 - (2) R751 'Dotswood' – SFC - NOTAM
 - (3) R752 'Highrange' – SFC - NOTAM
 - (4) R736 'Star' – SFC - NOTAM
 - (5) R739 'Star' – SFC – NOTAM
 - (6) R737ABCD 'Land' – 7,000FT – NOTAM
 - (7) D744 – SFC – 7,000FT
- b. **Mount Stuart Training Area (MSTA).** MSTA airspace includes:
 - (1) R768A - SFC – 2,000FT (2100-1200z Daily EXC PH)
 - (2) R768B - 2,000FT – 3,000FT (activated via NOTAM)

- c. **Rattlesnake Island.** R747 – SFC – NOTAM
- d. **Tiger.** R743 – 4,000FT – FL240

2.2 **Supersonic flight.** This AD2 SUPP fulfils the SADFO requirement of [AC SI \(OPS\) 03-04](#) *Supersonic Flight* to promulgate suitable supersonic airspace. The areas approved for supersonic flight are:

- a. **Overwater (primary):** R743 outside 30DME TL.
- b. **Overland:**
 - (1) **Primary.** R737ABCD.
 - (2) **Secondary.** R736, R739, R750, R751, R752 may be used for supersonic flight if TVL Land is not deemed appropriate to achieve the mission.

2.3 In addition to AC SI (OPS) 03-04, the following supersonic flight restrictions apply:

- a. Use caution, D744 is widely used by helicopter stock grazing operations and for other general aviation purposes which run concurrently with TVL Land operations.
- b. TFTA borders on higher density built up areas, apply the maximum possible avoidance buffers.

2.4 **Restricted Airspace Bookings.** TFTA (excluding R737) and MSTA airspace bookings are coordinated through the relevant RCO to ensure activities are deconflicted with any live firing activities. R737 or R743 booking requests and enquires must be emailed to tvf.atc@defence.gov.au and 452sqntvlfitt.notam@defence.gov.au NLT 48 hours prior to the requested activation time. Where it is not possible to provide sufficient notice, the email request should be accompanied by a phone call to 07 4752 1205.

2.5 **Airspace Expiration.** RA automatically reverts to the extant airspace marked on aeronautical charts at the NOTAM expiration time. Short notice (less than 2hrs notice) extensions are generally not available. All activities must be completed and aircraft vacated RA prior to the NOTAM expiration time. Aircraft that are required to operate outside of exercise airspace activation times may do so, subject to extant Aeronautical Information Publication (AIP) airspace priorities and flight planning requirements.

2.6 **ATS within RA.** Unless specified by ATC, ATS are not provided to military/contracted aircraft within RA. Identification will be automatically terminated on approval to change frequency or when advised "Cleared Operating". Aircraft may nominate 'OPS NORMAL' or SARTIMES with tac C2 or ATC.

2.7 **Airspace Buffers.** The vertical limits of RA are usable levels by non-participating aircraft. To ensure the appropriate buffer with other airspace users aircrew are to apply the following buffers to the published vertical limits:

Operating Level	Vertical Buffer
Subsonic Operations	
Below 10,000FT	1,000FT
Between 10-000FT - FL270	2,000FT
Above FL270	3,000FT
Supersonic Operations	
All Levels	4,000FT

Note. Aircraft operating within R737 do not need to apply a buffer to the lower limit of R737 when D744 is active.

2.8 **Airspace Gates.** The following gates are used for transit to/from TVL RA:

Name	Bearing (TL VOR)	Latitude/Longitude
SALSA	TL225R019	19 26.1714S 146 29.4479E
SIERRA	TL270R030	19 10.4611S 146 14.1637E
TANGO	TL280R040	19 02.2116S 146 05.4023E
THORNTON GAP	TL240R018	19 21.5000S 146 27.7000E
JOCKO	TL230R016	19 23.0000S 146 31.0000E
REGIN	TL070R025	19 09.1591S 147 11.3567E
KAGES	TL040R025	18 57.6607S 147 04.9975E

2.12.2 AIRSPACE ADMINISTRATION

2.12.3 Upon activation, R750, R737 and D744 are automatically administered by 452SQN TVL FLT, unless otherwise coordinated. Upon activation, remaining TFTA airspace is automatically administered by TFTA Range Control, unless otherwise coordinated.

2.12.4 **Restrictions on activation.** TFTA RA is not to be activated for flying activities outside of TVL ATC hours except when:

- a. TFTA RA will be under the control of a TACP; and
- b. prior approval has been sought from TVL ATC.

2.12.5 **Airspace Release Process.** Nominated C2 agencies (ASOC/RSO/RSO(Air)/TACP) shall coordinate appropriate airspace releases from 452SQN TVL FLT prior to commencing operations. If portions of the exercise airspace are not required for extended periods, the airspace may be released back to 452SQN TVL FLT.

2.12.6 **Priority transit.** Where required, TVL ATC will coordinate with the relevant C2 agency to obtain clearance for priority aircraft to transit the airspace, and advise an approximate duration for the delay. The C2 agency will then coordinate to impose vertical or lateral restrictions or a complete CHECK FIRE as directed from TVL ATC. The relevant C2 agency will contact TVL ATC when the required restrictions are established. TVL ATC will advise Range Control when the restrictions are no longer required.

2.13 **Check Fire.** For ATC/RSO/TACP coordination a 'Check Fire' is considered to check fire any live fires as well as any small/very small/micro UAS operations (as defined in DASR UAS) are operating below 400FT AGL in the applicable airspace. Larger UAS (such as Shadow) cannot be landed quickly and will be deconflicted between ATC and the applicable C2 agency.

2.14 ROTARY WING OPERATIONS

2.14.1 **Standard Tracking.** Aircraft to/from YBTL and TFTA shall normally be tracked as follows (by day and night):

- a. RWY 01:
 - (1) Outbound: Thornton North VFR Route (TNPN) not above 1,500FT
 - (2) Inbound: Thornton South VFR Route (TNPS) not above 1,500FT
- a. RWY 19:
 - (1) Outbound: Thornton South VFR Route (TNPS) not above 1,500FT
 - (2) Inbound: Thornton North VFR Route (TNPN) not above 1,500FT

2.14.2 **Clearance Request.** To facilitate appropriate airspace releases, aircraft are to advise ATC of any intended use of active RA at clearance request.

2.14.3 **Separation with TFTA.** The following applies to rotary wing aircraft:

- a. **VFR operations.** ATC will not provide separation with TFTA airspace; aircraft captains are solely responsible for this. Pilots may request advice of the airspace status.
- b. **IFR operations.** ATC assumes responsibility for separation with TFTA airspace unless this is specifically assigned to the pilot.

2.14.4 **Vertical Limit.** Due to the increased separation buffers required, aircraft operating within active RA not published via NOTAM for Military Flying are to operate not above 2,500FT AMSL unless otherwise cleared by TVL APR.

Note: R750 is not activated via NOTAM unless extending the hours listed in DAH. Unless R751 is active for Military Flying, clearance is required from ATC prior to operating in R750 above 2,500FT AMSL.

2.14.5 PC21 OPERATIONS

2.14.5.1 **Standard Tracking.** Aircraft to/from YBTL and TFTA shall normally be tracked as follows (by day):

- a. RWY 01:
 - (1) Outbound: Thornton North VFR Route (TNP) at 2,500FT
 - (2) Inbound: Thornton South VFR Route (TNPS) at 1,500FT
- a. RWY 19:
 - (1) Outbound: Thornton South VFR Route (TNPS) at 2,500FT
 - (2) Inbound: Thornton North VFR Route (TNP) at 1,500FT

2.14.6 Airspace Access Procedures.

- a. **Entry.** Remain within D744 until in receipt of a clearance from the applicable C2 agency and maintain 2500FT. Line of sight communications between C2 agency and ingress aircraft may be restricted.
- b. **Exit.** Establish within D744 and depart D744 at 1500FT. Aircraft are to remain below the TVL Control Area (CTA) steps until in receipt of a clearance from 452SQN TVL FLT.

2.14.7 FAST JET OPERATIONS

2.14.8 **Airspace Entry/Exit.** Fast jet aircraft should track via the following procedures to and from the airspace:

- a. **Entry.** Fast jet aircraft departing TVL for the exercise airspace are to track via TANGO at 17 000FT. Once established in R737C, contact the applicable C2 agency for onwards clearance. If unable to establish two-way communications, aircraft shall remain within R737C and climb to block level 26 000FT – 27 000FT. Once established in the block level, aircraft may operate within the lateral confines of the area of operations. Aircraft shall not descend below 26 000FT unless in receipt of a clearance from the applicable C2 agency.
- b. Track shortening may be approved by the controlling C2 agency either direct to TVL ATC or via the pilot. If track shortening availability is advised to the pilot vice TVL ATC, they will need to advise TVL ATC that they are in receipt of C2 approval. ATC approval for the track shortening approved by the airspace C2 is traffic and workload dependent.
- c. **Exit.** In order to avoid delays on recovery, aircraft departing exercise airspace for TVL are to provide 10 minutes notice to TVL ATC prior to recovery. Aircraft are to request tracking as follows:
 - (1) **Via TANGO/SIERRA.** Aircraft formations can return at a single level between 12 000FT to 15 000FT inclusive. This enables formations to be deconflicted if there is a requirement to hold in airspace prior to SIERRA/TANGO whilst awaiting clearance. Multiple formations are to be vertically separated by 1000FT prior to leaving exercise airspace.
 - (2) **Via JOCKO.** Return via JOCKO is only to be used if R752 is active. Aircraft are to return at 9000FT and TVL Approach (APR) may request an 'at JOCKO by time' for sequencing.
 - (3) **Via SALSA.** Return via SALSA is only to be used if R752 is not active. Aircraft are to return at 9000FT and TVL APR may request an 'at SALSA by time' for sequencing.

2.14.9 **D744.** D744 is situated underneath R737, from SFC – 7,000FT. Aircrew are advised that civilian general aviation aircraft, including helicopters (both general aviation and Army) may be operating in D744. Aircrew are to exercise caution when operating in D744 as traffic information will not be available.

2.14.10 When both D744 and R737 are active, fixed wing aircraft operating in the airspace control area may utilise that portion of D744 contained within CTA without coordination to TVL ATC provided they are operating VFR.

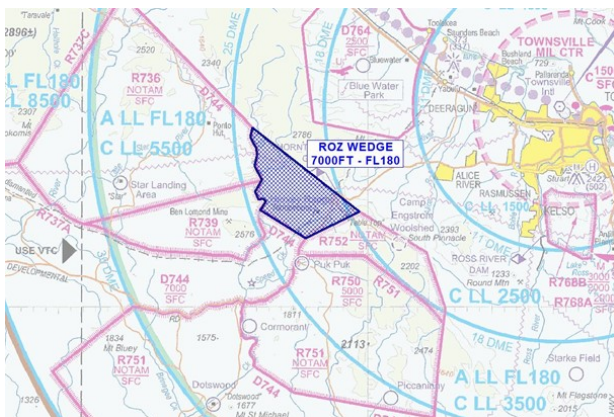
2.14.11 ROZ WEDGE

2.14.12 ROZ WEDGE is an airspace release established to allow transit between R752 and R736/R739. ROZ WEDGE has the following dimensions and procedures:

- a. Lateral:

- 2.14.13 The controlling C2 agency (or aircraft if no C2) shall coordinate ROZ WEDGE airspace releases from 452SQN TVL FLT prior to commencing operations. If ROZ WEDGE is not required, the airspace shall be released back to 452SQN TVL FLT at the earliest opportunity.

Figure 7 - ROZ Wedge



2.15 ROZ LAVARACK

a. **Lateral.** A circle radius 10NM centre on Lavarack Barracks (S19 19.27 E146 48.05, 55K DU 79078 63623).

b. **Vertical.** FL120 – FL160.

(1) Lowest Usable Level (LUL): FL130

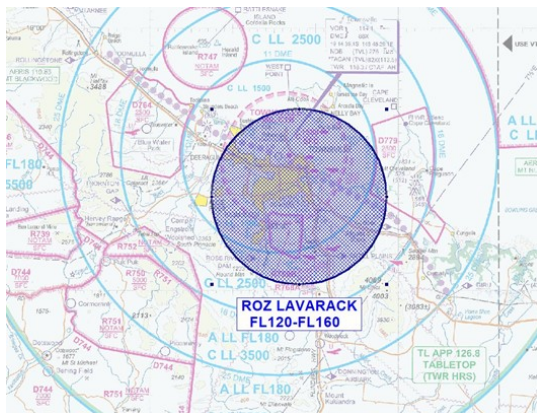
(2) Highest Usable Level (HUL): FL150

(3) Alternative levels may be available through TVL ATC.

2.15.2 Aircraft operating in ROZ LAVARACK are to operate Military Authority Assumes Responsibility for Separation of Military Aircraft (MARSA) with other aircraft in ROZ LAVARACK and monitor Guard (243.0 MHz).

2.15.3 Aircraft not operating within ROZ LAVARACK will be separated from ROZ LAVARACK by ATC.

Figure 8 - ROZ LAVARACK



AERODROME

1. GENERAL AD INFORMATION

1.1 The [YBTL Aerodrome Manual](#) provides general aerodrome information.

2. OLA COMPLEX

2.1 The OLA complex is depicted at Figure 1 and is divided into three areas:

- Northern OLA (NOLA), which contains parking areas 1-5.
- Southern OLA (SOLA), which contains parking areas 6-10.
- Maritime OLA (MOLA), which contains parking areas 11-14.

2.2 The NOLA and SOLA are suitable for parking fast jet aircraft or similar. The MOLA is suitable for parking large transport aircraft. MOLA 11 is the only OLA suitable for parking C5, P8 and C17 type aircraft.

2.3 ATC controls the OLA complex area for aircraft taxi movements. ABCP coordinates aircraft parking allocations and all other access requirements.

Figure 1 - OLA



3. TAXIWAY RESTRICTIONS

3.1 The following taxiway restrictions apply to military aircraft:

- TWY B west of TWY L limited to no larger than C27.
- TWY E2 limited to no larger than C130/P3. P8 and E7 require pavement concessions.
- TWYs S, T, U, V, W and Z limited to fast jets no larger than F18F/G.
- TWY A north of TWY D reduced to 15m width. RAAF C-17 and P8 permitted.

3.2 The following guidance on restrictions applies:

- RAAF C17 aircraft may operate on minimum 15m wide TWY IAW [86WG C-17A Minimum Taxiway Requirements at 96WG Aerodromes](#). This allows RAAF C17 to operate on TWYs A1-7, G1-2, and if pavement concession is granted TWY E1.
- RAAF P8 may operate on minimum 15m wide TWY IAW [92WG SI \(OPS\) 03-19](#). This allows RAAF P8 to operate on TWYs A1-7, G1-2, and if pavement concession is granted TWYs E1-2 and M.

3.3 **Wide bodied aircraft.** Wide bodied aircraft landing RWY 01 are required to roll through and turn on the northern end of the runway, then back-track to TWY D2 or A1. Wide bodied aircraft are restricted to:

- a. TWY D2
- b. TWY A1, A2, A3
- c. TWY K.

3.4 **Civil Terminal Bay 1.** Aircraft parked on the Civil Terminal Bay 1 (including wide bodied aircraft) must pushback behind Bay 2 using the pushback markings. Aircraft must not pushback through TWY K onto TWY A without ATC approval.

3.5 Clarification on TWY restrictions for specific aircraft types should be directed to townsville.baao@defence.gov.au.

4. STANDARD TAXI ROUTES

4.1 **Ordinance Loading Areas (OLAs).** To mitigate ATC's limited visibility of the OLA Complex, taxi clearance requests must include the aircraft's OLA position.

4.1.1 To ensure flow efficiency, the following taxi routes apply:

- a. TWY V and TWY T movements must be in a clockwise direction.
- b. RWY 01 departure:
 - (1) NOLA: taxi via V – U2 – U1 – T – S – E2
 - (2) SOLA: taxi via T – S – E2
 - (3) MOLA: taxi via M – E2, unless C17 or similar then taxi via M – G2.
- c. RWY 01 arrival:
 - (1) NOLA: taxi via W – V
 - (2) SOLA: taxi via W – V – U2 – U1 – T
 - (3) MOLA: taxi via G2 – M.
- d. RWY 19 departure:
 - (1) NOLA: taxi via V – W
 - (2) SOLA: taxi via T – U1 – U2 – V – W
 - (3) MOLA: taxi via M – G2.
- e. RWY 19 arrival:
 - (1) NOLA: taxi via E2 – T – U1 – U2 – V
 - (2) SOLA: taxi via E2 – S – T
 - (3) MOLA: taxi via E2 – M, unless C17 or similar then taxi via G2 – M.

5. OPERATIONAL READINESS PLATFORMS (ORP)

5.1 The RWY 01/19 ORPs are not available while civilian aircraft are using the RWY. Pilots expecting to use the ORPs must contact ATC when flight planning.

6. AIRCRAFT ARRESTOR SYSTEMS (AAS)

6.1 [AC SI \(OPS\) 03-16](#) Annex C provides detailed AAS information. The Townsville [Aerodrome Emergency Plan](#) provides Base AAS response actions.

6.2 YBTL has two BAK 14 hook cables installed on RWY 01/19, located 445m (1,460ft) from the thresholds. The normal departure end cable position during hookcable equipped fast jet operations is UP.

6.3 If an aircraft engages the cable, RWY 01/19 will be unusable for approximately 20-30 minutes. If an aircraft is planning to engage the cable, conditions permitting, ATC will endeavour to sequence that aircraft last.

7. REDUCED RUNWAY SEPARATION STANDARDS (RRSS)

7.1 Reduced Runway Separation (RRS) is provided IAW [AC SI \(OPS\) 03-16](#). Locally based fast jet aircraft agree to accept RRS with a wet runway.

7.2 **Hot lane procedures.** The COLD lane for RWY 01/19 is on the **west** (OLA) side of the runway. Use of the east (civil terminal) side of the runway as the COLD lane is **prohibited** unless approved by ATC.

8. RAAF TVL DEMOLITION RANGE

8.1 The Demolition Range is comprised of an exclusion zone defined as a 400m radius of the point S19 14 54.2 E 146 45 08.2 (261/0.74 NM from TVL ARP) up to 2,000FT AMSL, as depicted in Figure 2.

Figure 2 - RAAF TVL Demolition Range



8.2 Demolitions are planned to have minimal impact on operations; however, should unsuccessful detonations requiring a soak time incur the following restrictions apply:

- a. Instrument approaches are not available
- b. Left circuits to RWY 01 or RWY 07 are not available
- c. Right circuits to RWY 25 or RWY 19 are not available
- d. Helicopters operating in Helo West, Pad West or the Town Common must remain clear of the demolition range.

8.3 ATC will advise if these restrictions are in place at the time of booking CIRA or instrument training.

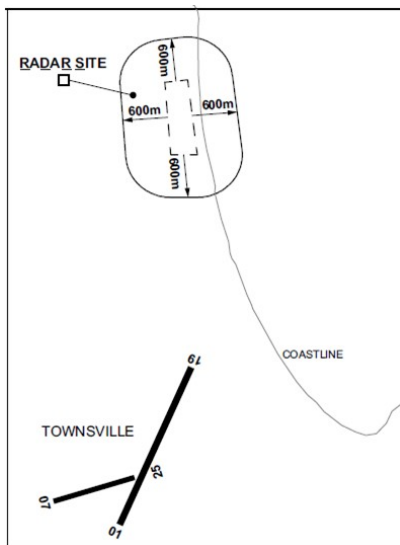
9. NOISE ABATEMENT

9.1 **Pallarenda.** Aircraft departing RWY 01 or RWY 07 on a visual departure, including VFR, must remain at least 600m clear of Pallarenda built up areas when below 2,000FT unless directed by ATC. This may be achieved as follows:

- a. YBCS/YPAM departure maintain upwind until over water then remain over water at least 600m clear of Pallarenda.
- b. Westerly departures:
 - (1) conduct left turn remaining at least 600m south of Pallarenda; or
 - (2) maintain upwind until over water then remain over water at least 600m clear of Pallarenda and conduct left turn north of VFR waypoint RDRS (the radar site) or when above 2,000FT.

9.2 Practice engine failures are not permitted on left crosswind RWY 01.

Figure 3 - Noise Sensitive Area



10. BIRD HAZARDS

10.1 Bird hazards at YBTL exist up to 3,000FT, with high risk during the December to May seasonal period at dawn and dusk. Refer to the [YBTL Aerodrome Manual](#) for more detailed wildlife hazard information.

11. LOW VISIBILITY OPERATIONS

11.1 RWY 01/19 is capable of supporting LDG with a RWY VIS of not less than 800M.

11.2 Manual RV readings are provided to the control TWR. Transmissometers are not installed.

12. MET

12.1 ATC must advise MET of any observed or reported hazardous or non-forecast deteriorations in the weather (e.g. Wind Shear).

12.2 **Warnings.** In the event of an Aerodrome Warning, a Cyclone Watch or a Tsunami Alert affecting the local region during ATS hours, ATC must notify:

- the ABCP, who will notify local flying units
- Townsville Airport (TAPL) Safety Officer.

13. HELICOPTER OPERATIONS

13.1 **Wake Turbulence Management.** In addition to authorised waivers permitted under [AC SI \(OPS\) 03-16](#) to facilitate minimal departure delays due fixed wing aircraft wake turbulence affecting RWY 01/19, military helicopters departing to the West may be instructed to 'depart from Bravo 1, remain West of the NDB'. If instructed to remain West of the NDB, on departure remain 760m displaced from RWY 01/19.

13.2 **Simultaneous Runway Operations.** Helicopters may conduct simultaneous operations to one runway provided:

- The preceding helicopter is at least 1,000FT upwind of the landing area allocated to the following aircraft.
- ATC specifies 'Short/Centre/Long' in the landing clearance:
 - Short – the first 1,000FT
 - Centre – the centre 1,000FT

(3) Long – the last 1,000FT of the RWY in use.

c. For RWY 01/19 short, centre or long' may be used. For RWY 07/25 short and long may be used.

13.3 Subsequent take off by the second helicopter with the upwind end of the runway occupied is only permitted for offset departures.

13.4 **Offset Departures.** Conditions permitting, ATC may approve offset departures by specifying '*Offset Departure Left/Right, Cleared for Take-off*'. Aircraft must:

- a. offset their departure as directed to avoid the upwind aircraft
- b. not conduct a practice engine failure after take-off
- c. maintain as close as practicable the take-off direction in use
- d. when outside the RWY strip and clear of the other aircraft, resume normal circuit procedures or proceed as directed by ATC.

13.5 **Ground Effect.** Upon receipt of a pilot report that an aircraft is operating 'in ground effect', ATC will not treat the aircraft as airborne for the purpose of separation.

14. ARMING / DE-ARMING

14.1 **Aircraft Safety Points (ASP).** There are five ASP, which are also depicted at Figure 4:

- a. **ASP1.** Used for forward firing weapons, located within the runway strip and has a 100m safety radius. When in use, the safety radius area is restricted to mission essential personnel (MEP) arming aircraft. Any ordnance templates that cannot be contained within the Commonwealth property boundary are to have an endorsed EO safety case accepted by the applicable authority.
- b. **ASP2** is decommissioned.
- c. **ASP3.** Used for forward firing weapons, located within the runway strip and has a 100m safety radius. When active, only the areas relevant to the Aircraft Weapon System Safety Template contained within the 100m projection hazard safety footprint must be restricted to MEP and arming aircraft. Any ordnance templates that cannot be contained within the Commonwealth property boundary are to have an endorsed EO safety case accepted by the applicable authority.
- d. **ASP4** may be utilised for non-forward firing ordnance has a 100m safety radius. When in use, the safety radius area is restricted to MEP and arming aircraft.
- e. **ASP5** is for helicopter flares only and has a 100m safety radius. When in use, the safety radius area is restricted to MEP and arming aircraft.

14.2 Use of ASP1 or ASP3 closes RWY 01/19 to civilian aircraft. Once aircraft are armed or de-armed, pilots must expedite to take-off or to taxi clear of the runway strip.

Figure 4 - Aircraft Safety Points



14.3 FORWARD FIRING ORDNANCE ARM/DE-ARM PROCEDURES

14.3.1 Aircraft with forward firing ordnance must arm or de-arm IAW the following procedures:

- RWY 01 departure.** Taxi to ASP1 for arming. On completion conduct departure process without delay.
- RWY 01 arrival.** Taxi to ASP3 on TWY W to de-arm. On completion, taxi clear of the runway strip without delay.
- RWY 19 departure.** Taxi to ASP3 via TWY W. On completion conduct departure process without delay.
- RWY 19 arrival.** Taxi to ASP1 for de-arming. On completion, taxi clear of the runway strip without delay.

14.4 NON-FORWARD FIRING ORDNANCE ARM/DE-ARM PROCEDURES

14.4.1 Aircraft with non-forward firing ordnance must arm or de-arm IAW the following procedures:

- Departures.** Arming procedures are specified in the RAAF Base Townsville Explosive Ordnance Safety Instruction.
- RWY 01 arrival.** Taxi via TWY W and proceed to the designated OLA parking position. With prior notice and traffic permitting, ASP3 may be used to de-arm. If ASP3 will be used, the pilot must advise SQN operations to alert ground crew to meet the aircraft and advise ATC this has been actioned. Once de-armed, the aircraft and ground crew must vacate the runway strip without delay.
- RWY 19 arrival.** Taxi to the designated OLA parking position. With prior notice and traffic permitting, ASP4 may be used to de-arm. If ASP4 will be used, the pilot must advise SQN operations to alert ground crew to meet the aircraft and advise ATC this has been actioned.

15. AERODROME CHARTS

15.1 Charts support YBTL include:

- WAC 3219.

- b. Aerodrome Obstruction Chart Type A: 11th Edition FEB 2010.
- c. MIL AD Obstruction Chart Type A: RWY 01/19 and RWY 07/25 JUN 2017.

DEPARTURES

1. GENERAL

1.1 **Departure Types.** Where weather conditions allow and unless otherwise requested by the pilot, departing aircraft should be cleared on a Visual Departure with the following exceptions:

- a. all IFR BE20/B350 and medium or heavy wake turbulence category fixed wing aircraft shall be cleared via the following SIDs:

Cleared Waypoint	SID
WALTA	WALTA (X) departure
JEMMA	JEMMA (X) departure
ANRUB	ANRUB (X) departure
CATEY	CATEY (X) departure
CARMN	CARMN (X) departure
PEWEE	PEWEE (X) departure
SWIFT	SWIFT (X) departure

- b. Alternative departure types may be requested from Clearance Delivery.

1.2 **Departure levels.** Aircraft, including military special requirements flights, should expect to be issued an initial level of 6,000FT from Clearance Delivery. Further climb may be expected on first contact with TVL APR or departure instruction from TVL TWR.

1.3 **Frequency Transfers.** There are no automatic frequency transfers from TWR to APR. When directed to 'airborne contact APR', aircraft should contact APR within 2NM upwind.

1.4 **Instrument training.** All aircraft conducting instrument training, other than arriving aircraft, may expect a clearance at 6,000FT direct to either:

- a. The initial approach fix
- b. AGPOK for overhead approaches (including the VOR-A and NDB-A).

ARRIVALS

1. TRAFFIC MANAGEMENT PLAN

1.1 Aircraft planned above 10,000FT arriving to Townsville can expect to be tracked via the Traffic Management Plan (TMP). Aircraft should expect to be tracked via a STAR (or relevant sequencing point) for the following approaches:

- a. RWY 01: ILS-Z or RNAV-Z
- b. RWY 19: RNAV-Z*
- c. Other approach types may be requested through TVL APR or Brisbane Centre (e.g. Initial & Pitch).

Note: Aircraft unable to conduct the RNAV-Z should expect to be tracked via an alternate instrument approach or via 'ADNOD' or 'LEBOT' for sequencing, and issued a VISUAL APPROACH when conditions allow.

1.2 Aircraft arriving YBTL at or below 10,000FT, or from TVL RA, should expect a visual approach (weather permitting).

1.3 **ATIS.** Due to the TMP, the ATIS will broadcast '*expect instrument approach*' regardless of weather conditions. Military exercise aircraft and all fast jets are exempt; however, if arriving from outside 36NM (not from RA) anticipate a straight-in instrument approach to the main duty runway as above.

2. PAPI

2.1 The RWY 19 PAPI should not be used beyond 5NM from the threshold because it does not provide terrain clearance over Magnetic Island.

3. INITIAL AND PITCH PROCEDURES

3.1 **Initial point (IP).** The IP is defined as a point 5NM from the ARP, displaced 1,000FT laterally to the dead side of the runway centreline, as required by the intended pitch direction.

3.2 **Pitch direction.** ATC will advise pitch direction prior to 15NM TL. The preferred pitch direction is west of RWY 01/19, however, pitch to the east may be required for separation.

3.3 **Close initial.** Close right initial for RWY 01 is defined as north of Mt Stuart (as depicted in Figure 1).

3.4 **Altitude and speed requirements.** The following altitude and speed requirements apply:

- a. Fast jet aircraft. Minimum altitude 2,500FT at initial, descending to 1,500FT for the pitch, unless directed by ATC. Maximum speed at initial should not exceed 350KT.
- b. Non-jet aircraft. Minimum altitude 1,500FT at initial, descending to 1,000FT for the pitch, unless directed by ATC.

Figure 1 - Initial Procedures RWY 01



Figure 2 - Initial Procedures RWY 19



3.5 MAGGY ARRIVAL RECOVERY PROCEDURE

3.5.1 Pilots planning the “*Maggy Arrival*” must include a Maggy Arrival request in the 10 or 5 minute RTB notification. Pilots should confirm requested transition, request for a “*Southern Loop*” and landing intentions on departure call from the training areas with TVL APR. On first contact TVL APR will advise if the Southern Loop is available and if holding outside controlled airspace (OCTA) is expected at the Cape Cleveland Lighthouse (CCL) or north-west of Magentic Island (MCI).

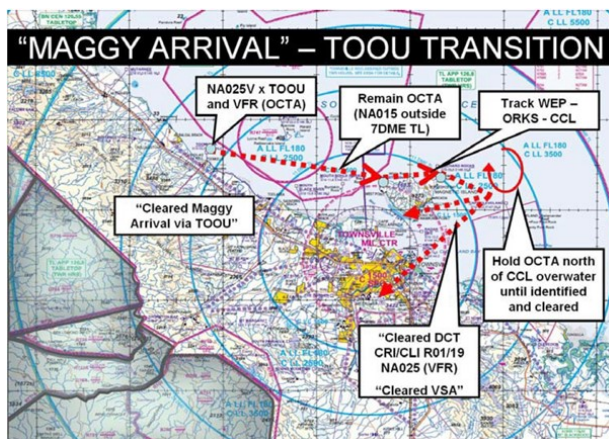
3.5.2 **Transition points.** The Maggy Arrival has two coded clearance transition points that facilitate recovery: *Toomulla* (TOOU) and *Yabulu* (YBU). Figure 3 and Figure 4 depicts the TOOU/YBU transitions.

3.5.3 **Tracking.** Track via initial airways clearance and expect further descent when available. Once clear of RA, traffic permitting and upon a pilot report of 'visual', TVL APR will issue coded clearance: "[Callsign], CLEARED MAGGY ARRIVAL via [TOOU or YBU] RUNWAY [01 OR 19], EXPECT SOUTHERN LOOP or SOUTHERN LOOP NOT AVAILABLE, EXPECT [LEFT OR RIGHT] PITCH".

3.5.4 The TOOU and YBU coded clearance authorises:

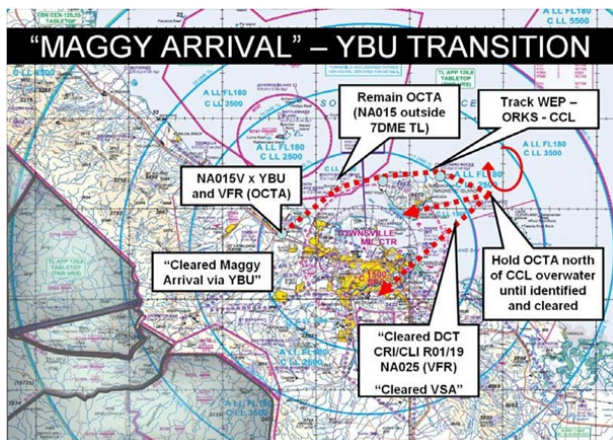
- a. **TOOU Transition.** Tracking from current position direct to TOOU, on descent to not above 2,500FT VISUAL, with an automatic category change from IFR to VFR at TOOU. Aircraft must establish not above 2,500FT VISUAL no later than TOOU, with a requirement to report once established OCTA.

Figure 3 - Maggy Arrival TOOU Transition



- b. **YBU Transition.** Tracking from current position direct to YBU, on descent to not above 1,500FT VISUAL, with an automatic category change from IFR to VFR at YBU. Aircraft must establish not above 1,500FT VISUAL no later than YBU, with a requirement to report once established OCTA.

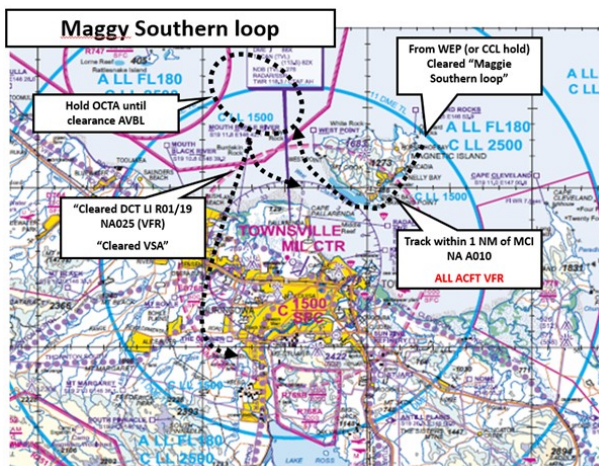
Figure 4 - Maggy Arrival YBU Transition



3.5.5 **OCTA tracking and holding.** Once OCTA, track WEP – ORKS – CCL, remaining OCTA over water (outside 7DME TL).

- a. **Southern Loop Not Available.** If Southern Loop is not available, report approaching CCL, and if an alternative clearance is not provided, hold OCTA over water north of CCL, remaining visually clear of D779. If identification is lost behind Magnetic Island, expect onwards clearance once re-identified or holding instructions.
- b. **Southern Loop Available.** If cleared the Southern Loop, track via the southern shores of MCI (within 1NM) not above 1000FT and establish OCTA to the north west of MCI. Expect onwards clearance or holding instructions.

Figure 5 - Maggy Arrival - Southern Loop



3.5.6 **Onwards clearance.** Expect an onwards clearance from OCTA to close right or left initial [RWY 01/ RWY 19] not above 2,500FT. This level enables climb to remain clear of R768A and/or terrain as well as to enable climb to initial and pitch height. If R768B is active, for RWY 01 arrivals can expect a clearance not above 3,000FT.

EMERGENCIES

1. GENERAL EMERGENCIES

1.1 Aircraft experiencing an emergency are to squawk 7700, broadcast a PAN or MAYDAY call on the operating and GUARD frequency, and proceed IAW Emergency Procedures in ERSA, unless otherwise stipulated in this document.

2. AIRCRAFT RECALL

2.1 When it appears that weather conditions may become marginal or when hazardous weather or aerodrome conditions exist, ATC must notify the relevant flying squadron operations and seek advice on the possibility of SQN aircraft recall.

3. ARFF FIRE COMMANDER

3.1 Upon landing, emergency aircraft may contact the Fire Commander directly on frequency 131.0.

4. DIVERSION AERODROMES

4.1 Diversion of local military aircraft may be required due to adverse/hazardous weather conditions or runway obstruction. Suitable diversion aerodromes and main runway lengths are:

- a. **Primary:** Cairns – 3,196m
- b. **Secondary:**
 - (1) Proserpine – 2,073m
 - (2) Mackay – 1,981m
 - (3) Rockhampton – 2,568m
- c. **Emergency:**
 - (1) Charters Towers – 1,736m
 - (2) Ingham – 1,500m
 - (3) TFTA Puk Puk – gravel all weather strip suitable for aircraft with MTOW of 7,000kg or less.
 - (4) TFTA Benning Field – gravel all weather strip, C130 capable.

5. EMERGENCY RUNWAY PROCEDURES

5.1 Should RWY 01/19 be closed, aircraft that cannot hold until the runway re-opens may use TWY A for an emergency landing. TWY A best supports the RWY 01 direction due to an orientation change north of TWY G. ATC must ensure the pilot is aware of this orientation change so that the most practicable landing decision can be made.

5.2 Alternatives to TWY A are:

- a. divert to another airfield
- b. use the serviceable portion of RWY 01/19
- c. use RWY 07/25
- d. use TWY B in the event that either:
 - (1) RWY 07/25 is unavailable
 - (2) RWY 01/19 crosswind exceeds aircraft or pilot endorsement and the aircraft cannot divert to an alternate aerodrome.

6. EMERGENCY RUNWAY LIGHTING

6.1 Refer to the [YBTL Aerodrome Manual](#) for emergency runway lighting information. In the event of emergency runway lighting being required, ARFFS may lay an emergency light path.

7. FUEL DUMPING

7.1 Preferred location is north of Magnetic Island over water, not below 6,000FT; however, ATC may advise an alternate location.

7.2 Pilots must advise ATC of their preferred heading and any other requirements. A 'racetrack' pattern must not be used.

8. HOT BRAKE PROCEDURES

8.1 When advised an aircraft may have hot brakes, ATC must issue taxi instructions and dispatch ARFFS as follows:

- a. **Primary option.** Aircraft taxi to and park in front of the OLA, remaining clear of OLA taxiways when parked.
- b. **Secondary option or if time critical.** Aircraft to taxi to an isolated hot brake areas as depicted at Figure 1.

Figure 1 - Hot Brake Areas



9. HUNG ORDNANCE PROCEDURES

9.1 ATC must support aircraft recovering with hung ordnance as follows:

- a. issue instructions so the aircraft may track clear of built up areas
- b. advise ARFF and ABCP that the aircraft is inbound, including the ordnance type and ensure ARFF respond. ABCP will advise relevant ground crews of the inbound aircraft.
- c. issue taxi instruction to the most suitable ASP.

10. HYDRAZINE PROCEDURES

10.1 Aircraft that utilise hydrazine to power the aircraft emergency flight control system, such as F-16, can pose a serious personal safety risks due hydrazine venting. To safely isolate the aircraft after landing, ATC must direct the pilot to a remote hot brake area as depicted in Figure 1.

11. PRE-MEDITATED EJECTION

11.1 The premeditated ejection areas are:

- a. **VMC.** Town Common (see Airspace section), over land.
- b. **IMC.** Over water within a 4NM radius centred around the position TVL 345R 012 TAC.

12. RADIO FAILURE PROCEDURES

12.1 **Communications failure.** In the event of a communication failure, aircraft are to squawk 7600, broadcast intentions on the operating frequency and GUARD. Aircraft should climb to the appropriate sanctuary level and proceed IAW Emergency Procedures in ERSA for the last known duty runway at TVL, remaining clear of R768 at all times and:

- a. **Fast jet.** Attempt to operate IAW last issued clearance for five minutes then track to TANGO clear of any active ACMs. Then track direct TVL at or below 15 000FT (aircraft must be not above 15, 000FT at TANGO).
 - (1) **Runway 01.** From overhead TVL descend as required to conduct ILS-Z approach.
 - (2) **Runway 19.** From overhead TVL descend and track via the Instrument Approach Fix (IAF) for the TACAN Runway 19 approach.
- b. **PC21.** Track as follows:
 - (1) **VMC.** Track via THORNTON GAP remaining clear of any active ACMs, descend to remain below CTA steps, then direct TVL not above 2000FT visual.
 - (2) **IMC.** Track via THORNTON GAP remaining clear of any active ACMs then direct TVL at/on climb to 9000FT.
 - i **Runway 01.** From the overhead descend as required to conduct the ILS-Z approach.
 - ii **Runway 19.** From the overhead descend to Minimum Safe Altitude (MSA) and track via IAF for TACAN Runway 19 approach.
- c. **Rotary Wing.** Land as required or egress the area.

12.2 ATC and the applicable C2 agency shall coordinate when either agency suspects an aircraft has a radio failure. Upon receiving advice, or expecting that an aircraft has suffered a radio failure, the C2 agency shall cease all activity conflicting with this procedure and deconflict other aircraft that may be impacted by the recovery procedure.

12.3 **HEFOEF.** In addition to the procedures contained in FLIP, for an aircraft experiencing radio failure, use of the following Hydraulics, Electrics, Fuel, Oxygen, Engines and Flight Control (HEFOEF) SSR codes to identify additional malfunctions in addition to radio failure may assist ATC awareness:

- a. 7701 Hydraulics
- b. 7702 Electrics
- c. 7703 Fuel
- d. 7704 Oxygen
- e. 7705 Engines
- f. 7706 Flight Controls.

CIVIL PROCEDURES

0.1 This section contains flying instructions that apply to civil aircraft only and may be published in ERSA

1. GENERAL

1.1 **Nil Transponder.** Nil transponder aircraft should expect clearance via a published VFR route not above 1,500FT. Prior ATC approval is required from ATC on (07) 4752 1207.

1.2 Departures from the TL 138 to 195 VOR radial conflict with R768A and R768B. Expect requirement to either reach 2,000FT (R768A) or 3,000FT (R768A and R768B) by 6DME, or remain visually clear of R768A and R768B.

1.3 Visual approaches from the TL 138 to 195 VOR radial conflict with R768A and R768B. Expect requirement to either maintain 2,000FT (R768A) or 3,000FT (R768A and R768B) until 6DME, track via the LOC, remain west of the Ross River from WPT Ross River Dam (RRDM) or remain visually clear of R768A and R768B.

2. PALM ISLAND TRAFFIC MANAGEMENT PLAN (PITMP)

2.1 The PITMP applies to all aircraft below 5,000KG MTOW flying between YBTL and YPAM. Aircraft should plan direct YBTL/YPAM and in VMC should expect the following coded clearances:

- a. **Cordelia Clearance.** All aircraft track YBTL – east of the Radar Site (RDRS) – east of Cordelia Rocks (CORD) – YPAM or YPAM – east of C – east of RDRS – YBTL, level as cleared by ATC.
- b. **Rattlesnake Clearance.** All aircraft track YBTL – mouth of the Bohle River (MBHR) – west of Rattlesnake Island (RKI) – YPAM or YPAM – west of RKI – MBHR – YBTL, level as cleared by ATC.

2.2 **Runway specific tracks.** Depending on runway combinations in use, track:

- a. RWY 01 and RWY 07:
 - (1) Departures: Expect Cordelia Clearance.
 - (2) Arrivals: Expect Rattlesnake Clearance.
- b. RWY 19 and/or RWY 25:
 - (1) Departures: Expect Rattlesnake Clearance.
 - (2) Arrivals: Expect Cordelia Clearance.

2.3 When R747 is active, expect amended route clearance in accordance with ATC requirements. ATC will advise should direct tracking be available.

3. R736, R739, R750, R751 AND R752 – VFR TRACKING INSTRUCTIONS

3.1 When R736, R739, R750, R751 and R752 are active, VFR aircraft to / from YBTL must track:

- a. R750 (D 2100-1200, OT NOTAM) – track north of Hervey's Range Developmental Road.
- b. R736 and R739 only – track south of Greenvale to YBU railway line.
- c. R751 and/or R752 – track north of Hervey's Range Developmental Road.
- d. R736, R739, R751 and R752 ACT SIMUL – track south of Greenvale to YBU railway and north of Hervey's Range Developmental Road between Payne's Lagoon and TNP.
- e. Visual NAV LGT LCA at Paynes Lagoon (S19 27.5 E146 03.3) and Speed Creek (S19 28.4 E146 20.5).

4. REMOTELY PILOTED AIRCRAFT SYSTEMS (RPAS)

4.1 All RPAS requests are to be sent to 452sqntvflit.rpas@defence.gov.au.

4.2 A minimum of 3 business days PN is required. Approval is subject to timings, ATC workload and area of operations.

4.3 After approval, ATC reserve the right to restrict or cancel RPAS operations due to higher priorities.

4.4 Requests are to include:

- a. Operator details and contact instructions (primary and secondary phone, plus email)
- b. Date and Time (with alternate if applicable).

- c. RPAS type, weight and brief description.
- d. Area of operations, including LAT/LONG and/or street address including radius. Include a map screenshot if available.
- e. Operating height (FT AGL) and elevation of AO.
- f. Any specific operating conditions.
- g. Procedures for abnormal operations (lost link, escaped RPAS, communication failure).