Flight Information Handbook Australia

AD2 Supplement Richmond (YSRI)

Version 3.0

Effective 17 Apr 2025

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Change summary

Version	Date	Change description
3.0	17 Apr 2025	AD2 Supplement production moved to above table of content.
		Minor editorial amendments throughout, simplification of paragraphs, paragraphs changed from heading to paragraph level references.
		Major structural changes, all Planning paragraphs moved to Chapter 4 Planning, all DZ Operations information moved to Chapter 5 DZ Operations and all Aerodrome Information moved to Chapter 2 Aerodrome Information.
		Incorporation of a definitions table.
		2.2 - Addition of OLA8 and clarification of safety distance responsibilities.
		2.3 – Removal of incorrect and out of data FFW data. Addition of temporary parking position.
		3.2.2.4 - Clarification of Military Stream landing procedures at Richmond.
		4.1.2 – Bookawk details added from ERSA.
		4.2.1.5 – Added bookawk details to DZ bookings.
		4.2.1.6 – Data added to capture flight details for flights without an arrival or departure portion at YSRI (e.g. LDD ops AMB – AMB).
		5.2.1.5 and 5.2.1.6 - Added bookawk details from ERSA, specifically against drop zone activity and aircraft not arriving or departing from RIC.
		5.2.2.5 - Clarified ATC will segregate VFR Drop Zone aircraft from other VFR operations.
		7.1.3 – SSR emergency codes – removed.

AD2 supplement production

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

AD2 supplement amendments

To make a change to the *YSRI AD2 Supplement* outside of a new issue date an '*AD2 SUPP Amendment*' will be issued through AIS-AF. Amendments shall be distributed for review 2 weeks prior to their WEF date.

Change request submission

Change request submissions for the *YSRI AD2 Supplement* shall be submitted via respective stakeholders to 453SQN RIC FLTCDR.

Changes will be reviewed at the Flying Operations Safety Committee (FOSC), to be held every 6 months. FLTCDR 453SQN RIC FLT is to chair this meeting with representatives from the base flying community.

Table of contents

1 AD2 supplement information

1.1 Introduction

1.1.1 Purpose

1.1.1.1 Operational procedures

YSRI AD2 Supplement provides operational airspace, planning, flying, abnormal operations and ground procedures that are directly related to aircraft operations at RAAF Base Richmond and within its associated airspace.

1.1.1.2 Supporting documents

YSRI AD2 Supplement provides specific local airspace information particularly pertinent to military flying. Additional procedures and general flying information can be found in the *ERSA FAC*, *Designated Airspace Handbook* and other relevant aeronautical information charts.

1.1.1.3 Electronic flight bag suitability

YSRI AD2 Supplement is deemed Electronic Aeronautical Information and is made available for Electronic Flight Bag use via the *Defence Aeronautical Information Service Provider AIS-AF*. AD2 SUPP documents are available via the AIS-AF FIHA AD2 Supplements.

1.1.1.4 Defence aviation safety regulations compliance

YSRI AD2 Supplement ensures compliance with Defence Aviation Safety Regulations by providing usable, current, portable and correctly authorised procedures that support flying operations within the specified area of operations.

1.1.2 Publishing

1.1.2.1 Authority

YSRI AD2 Supplement approval authority is CO 453 SQN.

The sponsor is 453 SQN Richmond Flight Commander. Major changes to the documented procedures should be endorsed by the Endorsement authorities. Endorsement authorities are:

a) CO 37 SQN;
b) CO 22 SQN and
c) CO 6 AVN REGT.

1.1.2.2 Applicable documents

YSRI AD2 Supplement is prepared in accordance with the following documents:

a) *AC SI (OPS) 01-20 – Aeronautical Information Management*
b) *(DASR) AO.GEN.05 – Management of Orders, Information and Publication (OIP)*
c) *DASR.SRoA – Standard Rules of the Air*

1.1.3 Use

1.1.3.1 Rule compliance

Aircraft locally based at YSRI are to adhere to the rules and procedures contained within.

1.1.3.2 Local operators

The following units are considered local military operators at YSRI:

a) 37 SQN;
b) 6 AVN REGT; and
c) A visiting SQN or aircraft that has received a local procedures briefing from their host SQN or 453 SQN RIC FLT, or who advises compliance with *YSRI AD2 Supplement*.

1.1.3.3 Non local operators

For aircraft not locally based at the aerodrome, advice of compliance with *YSRI AD2 Supplement* by the aircrew is required prior to ATC considering it to be a 'local aircraft' in the application of local procedures. Where doubt exists, ATC is to treat the aircraft as non-local. If necessary, transient aircraft may request a local briefing (arranged by the AD2 SUPP sponsor) prior to accepting local procedures.

1.1.4 Definitions

1.1.4.1 Glossary precedence

The terms used in *YSRI AD2 Supplement* are defined in the DASR Glossary and Australian Defence Glossary. Where a conflict may occur between the DASR Glossary and ADG, the DASR takes precedence.

1.1.4.2 AD2 specific definitions

Where terms are specific to the *YSRI AD2 Supplement* only, they are identified within this document. Within this document, the following definitions apply:

Term	Definition
FFW	Forward Firing Weapons

Term	Definition
ASP	Aircraft Safety Point
FPL	Flight Plan
LDD TA	Londonderry Training Area
NTA	Northern Training Area
RAPSL	Ram Air Parachute Static Line
RKBY	Rickabys
SAW	Sydney Approach West
SFC	Surface
STA	Southern Training Area

1.1.4.3 Levels

All levels referred to in the *YSRI AD2 Supplement* are in feet AMSL, unless otherwise specified.

1.1.5 Scope

1.1.5.1 ERSA information

YSRI AD2 Supplement applies to the conduct of flying operations and ATC services at YSRI aerodrome and the surrounding airspace. Information contained in the *YSRI AD2 Supplement* that may have civil application or may enhance overall usability is also provided in the YSRI section of *ERSA*.

2 Aerodrome information

2.1 Manoeuvring areas

2.1.1 Taxiways

2.1.1.1 Restrictions

Refer to the *ERSA FAC YSRI Aprons and Taxiways*.

2.1.1.2 Aircraft wash bay

The status of the aircraft wash bay is indicated by the yellow bag covering the control switch. When:

a) The cover is ON, the wash bay is switched OFF; or
b) The cover is OFF, the wash bay is switched ON.

2.1.2 Grassed areas

2.1.2.1 Western Grass

The Western Grass is the grassed area north of TWY Z, to within 10 m of the Richmond Flying Club TWY, the Richmond Flying Club apron and the Northern Perimeter Rd. An airfield fence line segregates the northeast portion of the western grass.

2.1.2.2 Southern Grass

The Southern Perimeter Road, the gable markers south of RWY 10/28 and the two unnamed bitumen Roads bind the southern grass east and west.

2.1.2.2.1 Southern Grass operations during Air Traffic Services

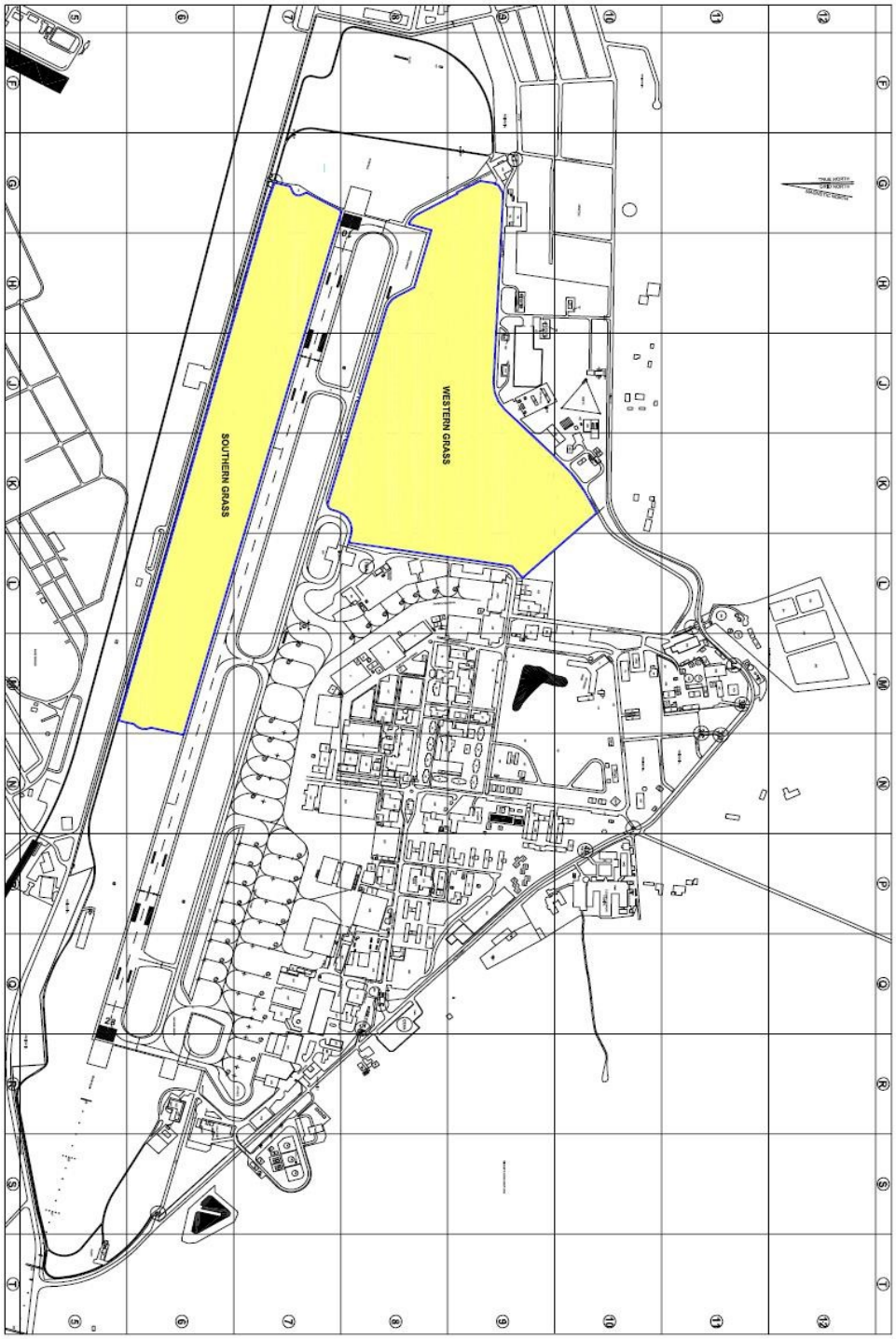
The following procedures apply when ATC is active:

a) Aircraft shall operate on the southern grass in the same direction as the RWY nominated on the ATIS; and
b) Landing and take-off clearances are required.

2.1.2.2.2 Grass manoeuvring areas – Figure 1

The Western Grass and Southern Grass manoeuvring areas are depicted in Figure 1.

Figure 1



2.2 Ordnance loading areas

2.2.1 Locations – Figure 2

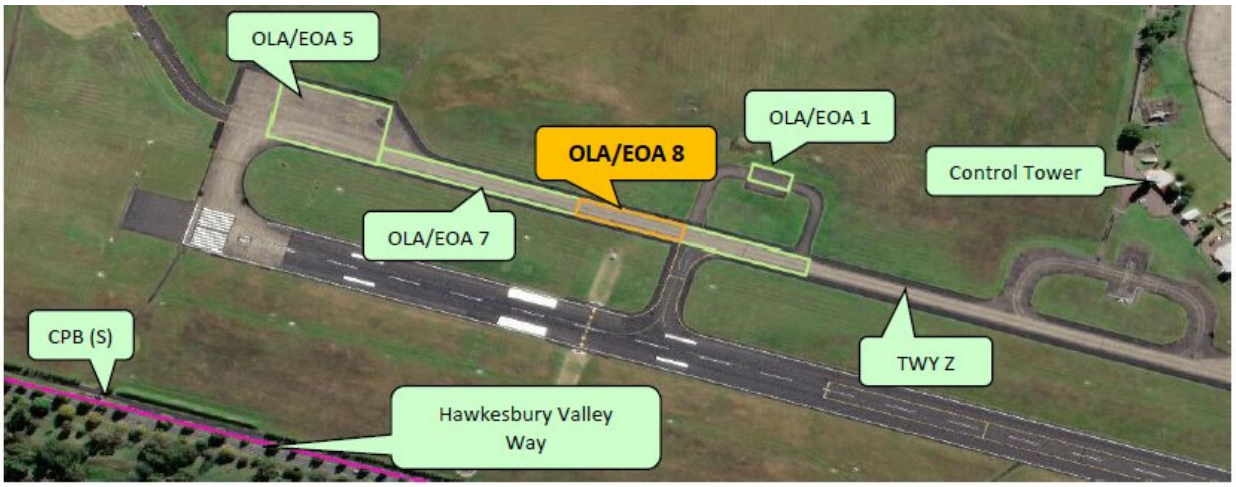
2.2.1.1 OLA 1

OLA 1 is located on TWY X.

2.2.1.2 OLA 5, OLA 7 and OLA 8

OLA 5, OLA 7 and OLA 8 are located on TWY Z4.

Figure 2



2.2.2 Safety distances

2.2.2.1 Defined safety distance

OLA 1, OLA 5, OLA 7 and OLA 8 safety distances vary due to the nature of the EO used. The unit managing the activity will define the safety distance whenever EO is present on OLA 1, OLA 5, OLA 7 or OLA 8 with assistance from 22SQN BAM. 22SQN BAM will define safety distances for base and visiting unit activities. Safety distances will be sent to ATC, ABOC and defined in NOTAMs.

2.2.2.2 NOTAM requirements

When ever OLA 1, OLA 5, OLA 7 or OLA 8 are in use a NOTAM will be raised specifying safety distances and any impact on civilian flying operations at the Western end of the airfield.

Outside of ATC hours, a NOTAM shall be raised stating that the aerodrome is not available to civil aircraft.

Coordination of this NOTAM is the responsibility of the BAM.

2.3 Forward firing weapons

2.3.1 FFW EO

2.3.1.1 Facilities

Richmond does not have an appropriate EO facility for use of FFW. Refer to Electronic Defence Explosive Ordnance Publication (EDEOP) 101 Regulation 1.2 for risk assessments involving EO if FFW are to be used at Richmond.

2.3.1.2 Temporary Parking

If an aircraft with FFW was required to land at Richmond due to an emergency, the preferred temporary parking is OLA 8 facing the 25 m range.

3 Airspace information

3.1 Richmond

3.1.1 Restricted and danger areas

3.1.1.1 Composition

RAAF Richmond airspace comprises of the following areas defined in the DAH, Section 13:

a) R469;
b) R470;
c) R494; and
d) D459.

3.1.2 Air traffic control responsibility

3.1.2.1 R470 not above 1500 FT

453 SQN RIC FLT is responsible for the provision of ATC within restricted area R470 - not above 1500 FT. Additional vertical airspace can be negotiated when required.

3.1.2.2 R470 above 1500 FT, R469 and R494

Sydney Terminal Control Unit, Approach West, under Airservices Australia, is responsible for the provision of ATC on behalf of 453 SQN RIC FLT within R470 above 1500 FT, R469 and R494.

3.1.2.3 R494 activation

R494 requires prior notice for activation by NOTAM; preferably, 48 Hours. Activation is requested to 453SQN RIC FLT

3.1.2.4 Control hours

453SQN RIC FLT provides ATC services during hours published in *ERSA*, and as varied via NOTAM. Non-controlled aerodrome procedures apply during out of hours on VHF frequency 135.5 MHz.

See Planning - Air traffic services

3.1.3 D459

3.1.3.1 Lateral limits

For plotting purposes, the following coordinates are provided:

a) 332731S 1503436E;
b) Then along the clockwise arc of a circle of 42 NM radius centred on 335638S 1511057E (SY/DME) to 331835S 1504927E;
c) Then 332613S 1505252E;
d) Then along the counter clockwise arc of a circle of 11 NM radius centred on 333627S 1504756E (RIC/TAC) to 332940S 1503734E; and
e) 332732S 1503436E.

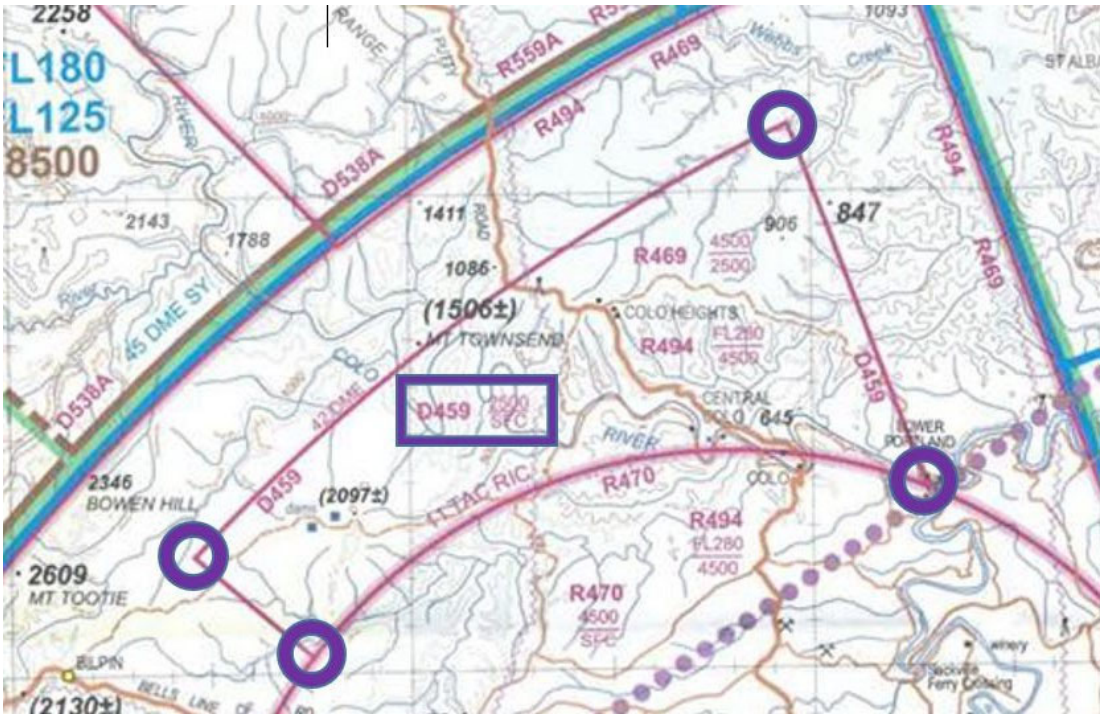
3.1.3.2 Vertical limits

Vertical limits are SFC to 2500 FT.

3.1.3.2.1 D459 – Figure 2

D459 is depicted in Figure 3.

Figure 3



3.1.4 The Amaroo step

3.1.4.1 Location

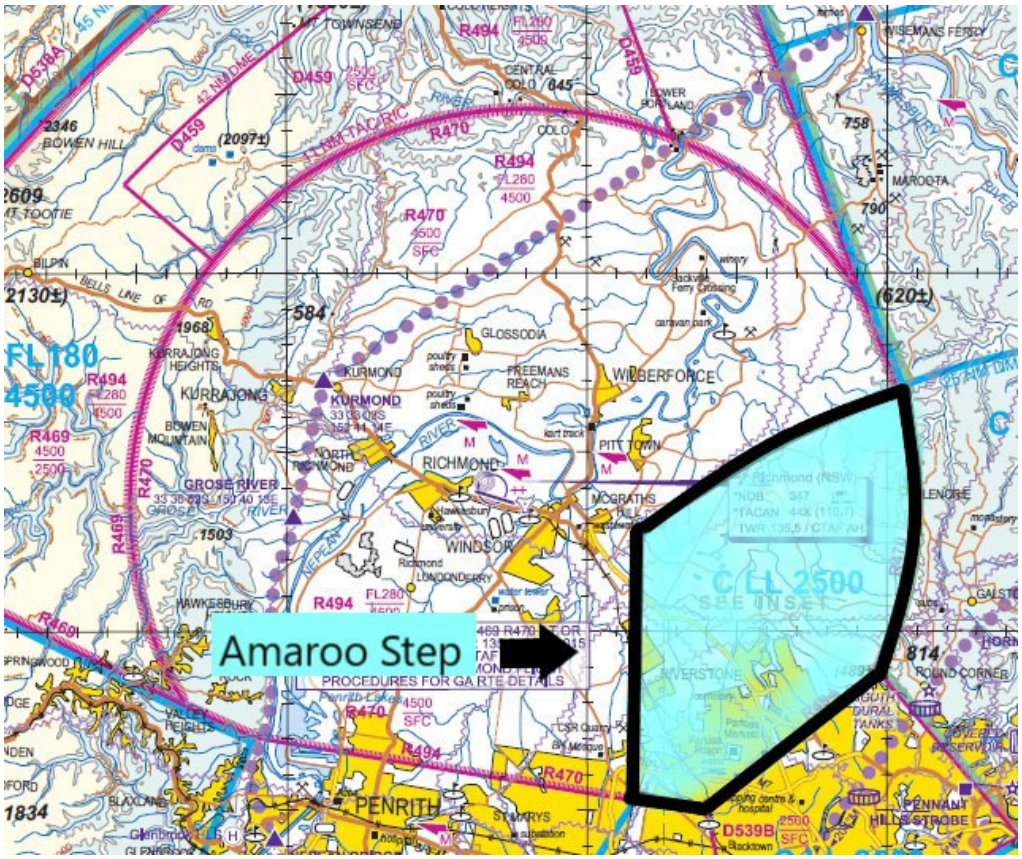
The ‘Amaroo Step’ is located in the southeast corner of R470. The lateral boundaries of the ‘Amaroo Step’ is confined within the Class C control area that overlaps R470.

Details of the Amaroo Step can be found in *DAH* as YMMM/SYDNEY CTA C06. See Figure 4.

3.1.4.2 Usage

When requesting a clearance for the entirety of R470 above 1500 FT, there is a possibility that clearances will not be available within the ‘Amaroo Step’. For example, ‘CLEARED TO OPERATE WITHIN R470 EXCLUDING THE AMAROO STEP, NOT ABOVE 4000 FT’.

Figure 4



3.2 Training areas

3.2.1.1 Normal training areas

The following are normal training areas associated with Richmond airspace:

a) Circuit area;
b) Londonderry training area;
c) Northern training area;
d) Southern training area; and
e) Area Yarra.

Note: For notification of intended operation/booking training area airspace, see 4.1.2.1

3.2.2 Circuit area

3.2.2.1 Circuit area definition

YSRI Circuit area is defined as within 6 NM of the YSRI ARP. An aircraft operating in the circuit area will be issued a clearance to the circuit area not above 1500 FT.

3.2.2.2 Circuit direction

Standard circuit direction is left.

3.2.2.3 Low level circuits

Low-level circuits must be conducted to the north for noise abatement.

3.2.2.4 Military Stream Landing Procedures

3.2.2.4.1 Initial and Pitch

In accordance with FIHA, the Initial Points are 5NM of active runway, displaced deadside, left pitch/circuit direction.

3.2.2.4.2 Low Level Initial and Pitch

Low-level (i.e. Not Above 1000ft AMSL) initial run shall be to the northern side (due noise sensitive area to south), pitch/circuit to the north. This will be cleared via specific instruction – *'Cleared low level initial, run-in and pitch north'.*

3.2.2.5 Weekend training

For noise and surrounding community considerations, weekend circuit training should not occur prior to 0800 local and should be completed by 2200 local.

3.2.3 Londonderry training area

3.2.3.1 Planning

See *YSRI AD2 Supplement Chapter 4* for LDD TA planning information.

3.2.3.2 Visual boundaries

LDD TA is bound by the following visual features:

a) Yarramundi Bridge;
b) Then east via Springwood Road;
c) Bonner Road and the Driftway to the intersection of Londonderry Road;
d) Then south via Londonderry and Northern Roads to the intersection of Vincent Road;
e) Then west along Vincent Road projecting a straight line aligned with Vincent Road to the intersection of the Nepean River (contains aircraft north of the northernmost point of the Penrith Lakes); and
f) Then north via the eastern bank of the Nepean River to Yarramundi Bridge.

3.2.3.3 Lateral limits

For plotting purposes, the following coordinates are provided:

a) 33 36.783S 150 42.000E, 33 36.750S 150 42.067E, 33 36.817S 150 42.517, 33 37.433S 150 44.333E;
b) South via Londonderry Road and the Northern Road to 33 42.350S 150 43.417E, 33 41.850S 150 39.567E; and
c) North via the eastern bank of the Nepean River to 33 36.783S 150 42.000E.

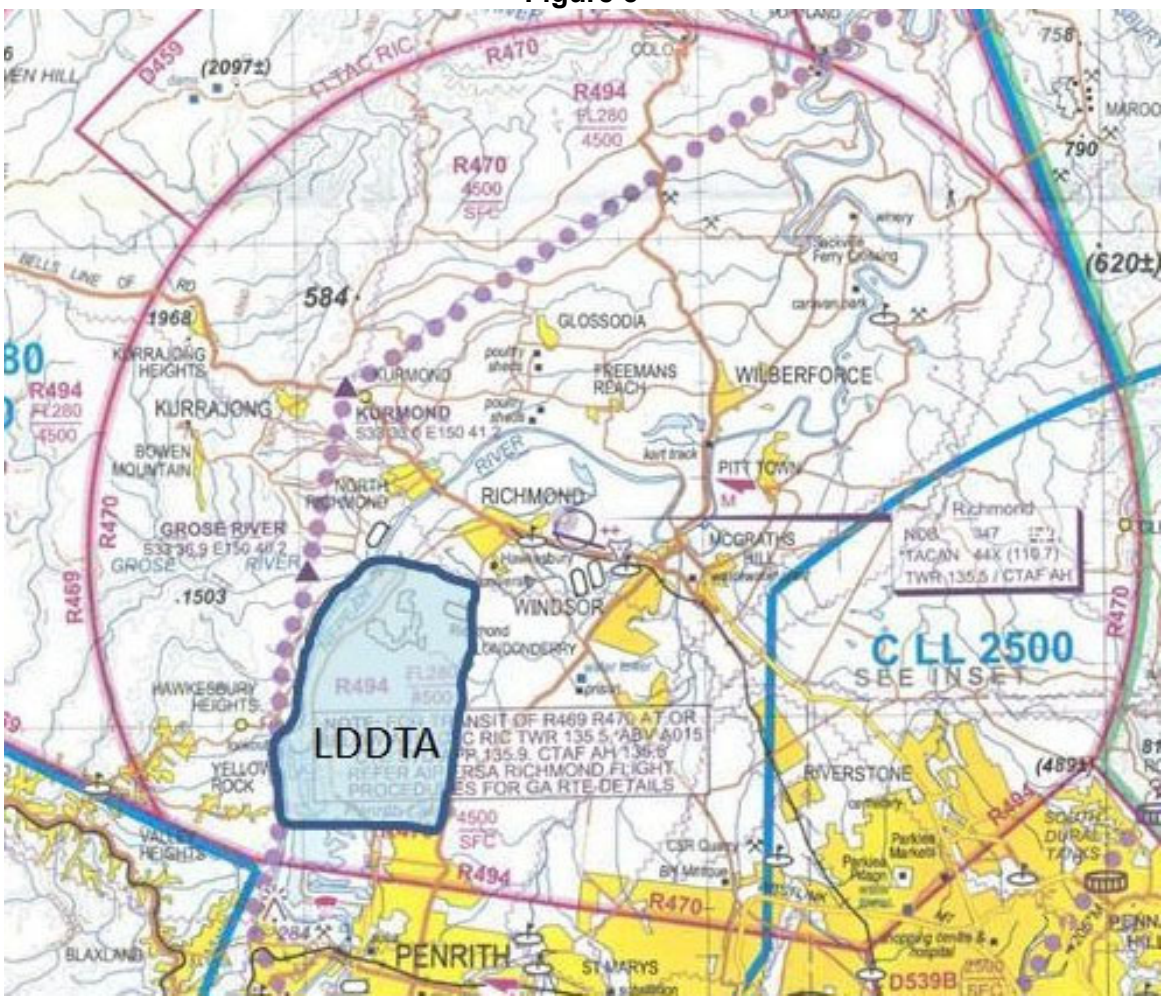
3.2.3.4 Vertical limits

Vertical limits are SFC to 1500 FT.

3.2.3.5 LDD TA – Figure 5

LDD TA is depicted in Figure 5.

Figure 5


R470
R494
FL280
4500
R459
(2097±)
584
1968
KURRAJONG HEIGHTS
KURRAJONG
BOWEN MOUNTAIN
GROSE RIVER
.1503
GLOSSODIA
FREEMANS REACH
WILBERFORCE
KURMOND
PITT TOWN
RICHMOND
NORTH RICHMOND
MCGRATHS HILL
WINDSOR
LDDTA
C LL 2500
SEE INSET
HAWKESBURY HEIGHTS
YELLOW ROCK
RIVERSTONE
PENRITH
ST MARYS
BLAXLAND
D539B
(620±)
790
(489±)

3.2.4 Northern training area

3.2.4.1 Location

The NTA is contained within R470.

3.2.4.2 Usage

The NTA is primarily used by the RAAF Richmond Flying Club.

3.2.4.3 Lateral limits

The NTA is bound by:

a) The intersection of the North-South (# 31/32) power line and Bells Line of Road;
b) North along the power transmission line to the R470 boundary at 33°26'15"S 150°42'59"E;
c) East along the R470 boundary to the Hawkesbury River;
d) Via straight lines joining 33°27'10"S 150°53'40"E, 33°30'20"S 150°55'30"E,33°34'00"S 150°53'20"E, 33°34'20"S 150°50'05"E, 33°33'20"S 150°50'10"E;
e) Then West via Kurmond Road to Kurmond; and
f) Via Bells Line of Road to the intersection of the North-South power line (# 31/32).

3.2.4.4 Vertical limits

NTA operations are normally up to 6000 FT. Pilots may request operations to higher altitudes.

3.2.4.5 NTA – Figure 6

NTA is depicted in Figure 6.

3.2.5 Southern training area

3.2.5.1 Location

The STA is contained within R470.

3.2.5.2 Usage

The STA is primarily used by the RAAF Richmond Flying Club.

3.2.5.3 Lateral limits

The STA is bound by:

a) Richmond Train Station;
b) West to the water tank at 33°35'13"S 150°42'43"E;
c) Via a straight line to the R470 airspace boundary at 33°33'46"S 150°35'11"E;
d) Following the R470 airspace boundary south through to the Northern Road;
e) Northern Road to the intersection with Richmond/Blacktown Road; and
f) Richmond Road to George and Macquarie Street to the railway overpass.

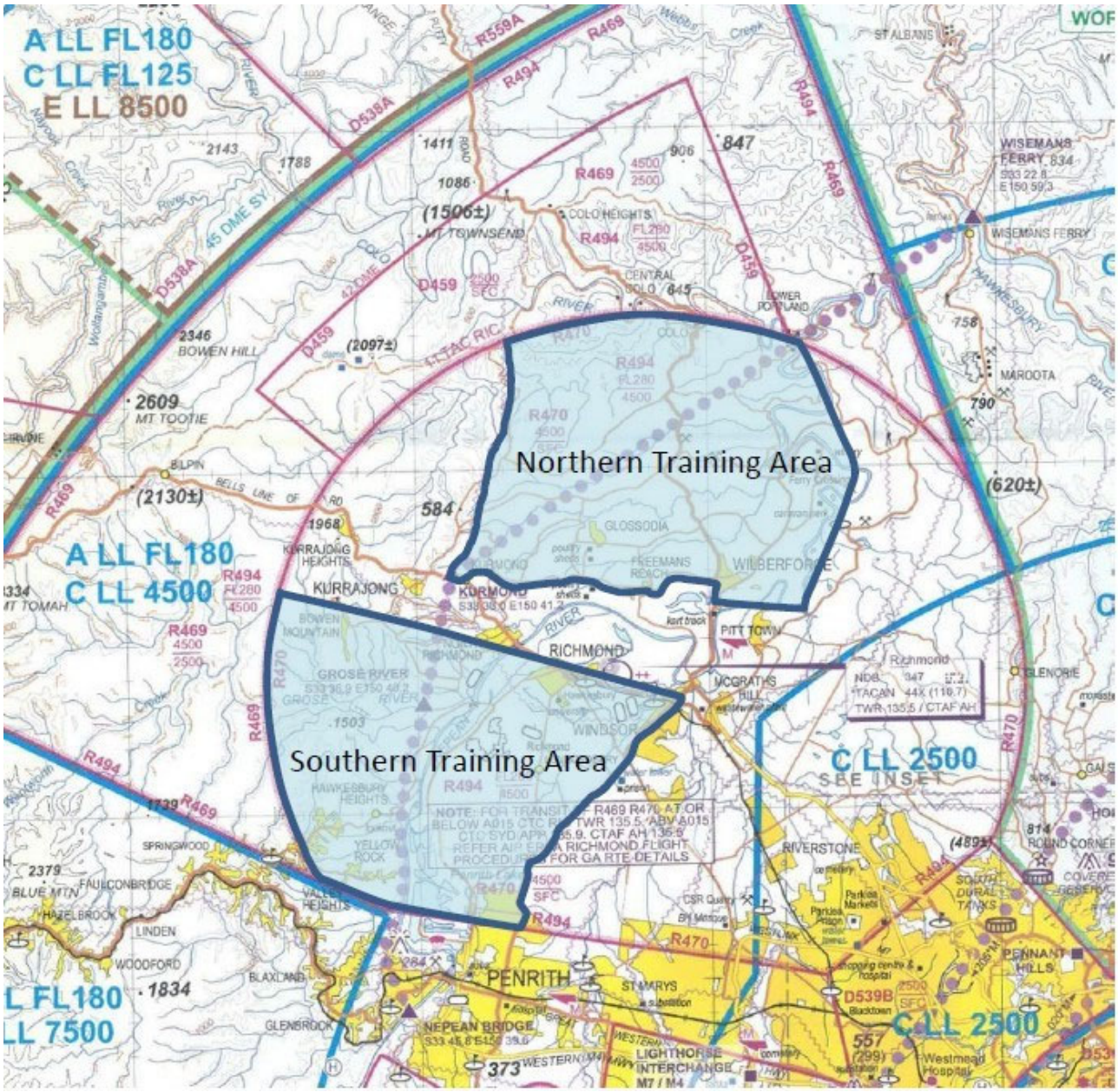
3.2.5.4 Vertical limits

STA operations are normally up to 4000 FT. Pilots may request operations to higher altitudes.

3.2.5.5 STA – Figure 6

STA is depicted in Figure 6.

Figure 6


A LL FL180
C LL FL125
E LL 8500
Northern Training Area
Southern Training Area
A LL FL180
C LL 4500
C LL 2500
SEE INSET
C LL 2500
L FL180
L 7500
Richmond
NDB 347
TACAN 44X (116.7)
TWR 135.5 / CTAF AH
PENRITH
KURRAJONG
RICHMOND
WISEMANS FERRY
MAROOTA
BOWEN HILL
MT TOOTIE
MT TOMAH
BLUE MTN
WOODFORD
GLENBROOK
NEPEAN BRIDGE
LIGHTHORSE INTERCHANGE
M7 / M4
Westmead Hospital
PENNANT HILLS
RIVERSTONE
D538A
D459
R469
R494
R470
(1506±)
(2130±)
(2097±)
(620±)

3.2.6 Area Yarra

3.2.6.1 Location and purpose

Area Yarra is located west of R494. It is used as an AMG and SRG training area whenever operations in R494 (or Sydney CTA within the lateral confines of R494) are impractical. It is also used for the flight testing of military aircraft.

3.2.6.2 Lateral and vertical limits

Area Yarra is in Class C and E airspace and is defined as follows:

a) Yarra A - RIC TACAN 261R to 286R, 27 NM to 49 NM, A090 and above; and
b) Yarra B - RIC TACAN 261R to 286R, 49 NM to 64 NM, FL130 and above.

3.2.6.3 Area expansion

To facilitate an aircraft's operations, the dimensions of Area Yarra can be expanded on pilot request, controller workload permitting. Likewise, the controller can restrict the availability of Area Yarra should the need arise.

3.2.6.4 Richmond TACAN unserviceability

Operations when the RIC TACAN is unavailable will be on an opportunity basis in an area as coordinated between the relevant approach agencies or in R560A.

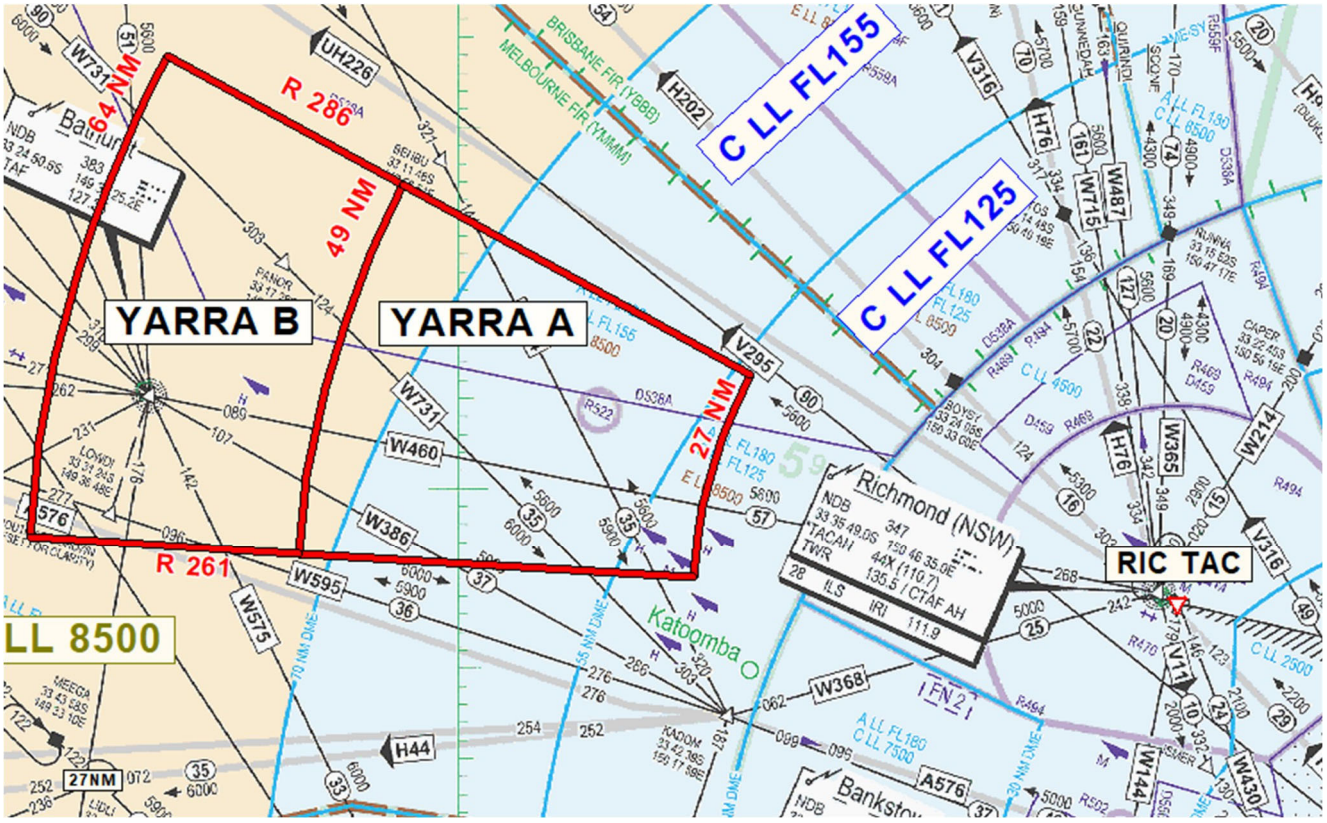
3.2.6.5 Planning

See Planning - Area Yarra

3.2.6.6 Area YARRA – Figure 7

Area Yarra is depicted in Figure 7.

Figure 7


YARRA B
YARRA A
R 286
R 261
64 NM
49 NM
27 NM
C LL FL155
C LL FL125
LL 8500
RIC TAC
Richmond (NSW)
Katoomba
BRISBANE FIR (YBBB)
MELBOURNE FIR (YMMM)
W731
W460
W386
W595
W575
W368
V295
V316
H202
H44
A576
W487
W715
W365
W214
W144
W430
V11
UH226
27NM

4 Planning

4.1 Air Traffic Services

4.1.1 Richmond Tower

4.1.1.1 Services

Richmond Tower (453 SQN RIC FLT) provides a Class C service to all airspace users.

4.1.1.2 Out of hours services

Seventy-two hours prior notice is required for aircraft movements requiring ATS outside of ATC hours. 453 SQN RIC FLT will provide ATS for all foreign military and heavy wake turbulence category aircraft movements when provided with such notice. All other requests for OOH ATS will be considered subject to ATC capability. RIC ABOC will inform 453 SQN RIC FLT when they become aware of planned OOH movements.

4.1.1.3 Short Notice Deactivation

Where no further military flights or activities are expected for a specific day, and this is confirmed by AMCC, Richmond ABOC, Flight Plan data, AMTACS, FPARS and Airspace Booking System indications, ATC may cease services early (generally not before 1830 Mon-Thu, and 1600 Fri). Early deactivation enables 453 SQN RIC FLT to efficiently manage equipment maintenance, staffing levels, and other priorities (e.g. National Defence Strategy activities). ATS provided on Sat, Sun and Public Holidays may regularly activate/deactivate for known military movements only.

4.1.2 Local military flying

4.1.2.1 Notification of Airwork within Richmond Airspace

All circuit, instrument approach training, training area, and DZ operations require notification to ATC via ‘Book Airwork’ airspace booking system – https://raaf.bookawk.com. The intent of this system is to enable ATC to identify and forecast complex activities and/or activities with competing priorities. If unable to use the booking system for any reason (including OPSEC), or conflicting operations are already booked, contact Richmond Tower.

4.1.2.2 Night sorties flight planning

When planning night sorties, the aircraft captain shall notify ATC by FPL, bookawk.com, or contact 453 SQN RIC FLT prior to 1600 Local where practicable.

4.1.2.3 Operations within R469, R494 or R470 above 1500 FT

Operations within R470 above 1500 FT, or within R469 or R494 (including the lateral confines of R469 and R470 when R494 it is not active) require the submission of a FPL. The FPL shall be from YSRI to YSRI. Field 18 shall contain the following information: 'RMK/AWK R469 R470 R494'.

4.1.2.4 VFR operations within R470 at or below 1500 FT

Circuit, airdrop and static line parachute operations are normally conducted within R470 not above 1500 FT. Aircraft operating under VFR and remaining within R470 and not above 1500 FT, are not required to submit a FPL.

4.1.2.5 Ground activities LDD TA

All ground activities planned for LDD TA, including helicopter pilot training, helicopter landing site HLS training and confined area training are to be de-conflicted and booked using TASMIS at least 72 hours in advance.

4.2 Drop zone bookings

4.2.1 Drop Zone Use and Bookings

4.2.1.1 Primary DZ for personnel drops

RKBY DZ is the primary DZ for all personnel parachuting activities. RIC DZ and LDD DZ may be used when the primary DZ is not available.

4.2.1.2 Seventy-two hour prior notice

DZ bookings are to be lodged by the user unit using the TASMIS at least 72 hours in advance. Notification shall include:

a) unit name, location and telephone contact number;
b) date(s) requested;
c) time period of use;
d) number and nature of drop loads; and
e) DZ party provision or requirement.

4.2.1.3 Less than seventy-two hours prior notice

Requests for bookings within 72 hours require telephone contact with 22SQN OPSO to confirm availability.

4.2.1.4 22SQN responsibilities

The 22SQN OPSO shall ensure that:

a) the bookings register is maintained for each DZ;

b) conflicting requests for DZ usage are resolved using the following basic priority;
   i. Agreement between requesting units for mutual de-confliction; and
   ii. Referral to parent FEG; and
c) Activity details are recorded appropriately;
d) 22SQN to provide confirmation receipt with instruction to book Airspace for DZ activity on https://raaf.bookawk.com (see para 5.2.1.5)

4.2.1.5 Drop Zone Airspace Booking

Once accurate timings of Drop Zone activity are known, operators are to book airspace/advise ATC via https://raaf.bookawk.com. If activity conflicts with other DZ bookings, see para 5.1.1.4 (Richmond ABOC to coordinate application of priorities).

4.2.1.6 Flight plans not arriving/departing Richmond

For flights without a departure or arrival portion at YSRI (e.g. YAMB-YAMB), operators are to either:

a) call Richmond Tower to confirm receipt of Flight Plan (due to limitations with AFTN Addressing systems associated with some flight planning systems resulting in ATC not receiving information of intended operation); or

b) submit Flight Plan including a portion arriving or departing YSRI, with note in ‘RMK/’ field advising intentions;

Failure to ensure ATC is notified via ‘bookawk.com’ and receipt of FPL (especially during night sorties) may see activity be inadvertently unsupported.

4.2.1.7 Drop Zone Activity Priorities

See Planning - Active DZ - Impact of DZ operations and priorities

4.2.2 Active Drop Zones

4.2.2.1 Impact of DZ operations and priorities

DZ operations may affect concurrent activities such as circuits, instrument approach training and other flying operations. The lowest priority event can expect holding delays. During DZ operations, priorities are:

a) Planned DZ operations;
b) Arrivals and departures;
c) Circuits and instrument approach training;

Note: *Concurrent DZ operations (e.g. more than one DZ in use at any one time) may incur significant delays to one and/or all DZ aircraft, and other airspace users.*

Note: *Company/SQN traffic can adjust priorities through negotiation with ATC. E.g. DZ operations giving priority to ARR or DEP.*

4.2.2.2 Start approvals and 'propellers/engines stopped' reports

A start approval is required whenever parachute drops are conducted onto the Richmond DZ. Additionally, 'propellers/engines stopped' reports are required. ATC shall notify these requirements by both NOTAM and ATIS broadcast.

4.2.2.3 Approval of engine starts

When start approvals are required, ATC may approve engine start while parachutes are still airborne, provided that the parachutes have been sighted by ATC and are assured of a landing on or near the designated DZ.

4.2.2.4 DZ procedures, clearances and other requirements

See Drop Zone Operations

4.3 Departures

4.3.1 Richmond

4.3.1.1 Standard instrument departures

For details on standard instrument departures, see *TERMA* or *DAP East YSRI.*

4.3.1.2 Departure levels

Departing aircraft will be assigned A050 or Flight Planned level if lower.

4.3.1.3 R560 active

When R560 is activated (via WWX Airspace NOTAMS), pilots shall plan via amended routing as per *ERSA* and as promulgated by the release of a WWX NOTAM.

4.4 Noise abatement procedures

4.4.1 Richmond

See *ERSA FAC YSRI Noise Abatement Procedures*.

4.5 Local routes

4.5.1 General aviation route

See *ERSA FAC YSRI Flight Procedures*.

4.5.2 Cadet air experience route

See Australian Air Force Cadets Elementary Flying Training School Supplementary Aerodrome Guide.

4.6 Area Yarra

4.6.1 Planning

4.6.1.1 Flight planning requirements

Flights are to be planned via a point within the Yarra airspace, either as a latitude and longitude coordinate or a bearing and distance and include an entry in Field 18 indicating the expected duration and vertical limits of the air work, for example: ‘RMK/AWK YARRA B, BETWEEN AXXX AND FLXXX, XXXX MINUTES’.

4.6.1.2 MARSA

Where multiple aircraft plan to operate within Area Yarra and undertake operations where they cannot be provided a separation service, pilots should consider requesting MARSA procedures.

4.6.2 Transponder usage

4.6.2.1 Shutdown of transponder

Limited operations involving intentional shutdown of aircraft transponder may be approved, workload and traffic permitting, and at the discretion of the Melbourne Centre Bathurst Sector Controller. Aircraft requesting such operations should indicate the details on flight notification and on first contact with Melbourne Centre. Due to the proximity of routes outbound from Sydney, nil-transponder operations, when approved, may be conducted, provided that the Richmond TACAN and NDB are serviceable.

When approved, clearance to shut down the transponder will be granted when established on the RIC 285R outside 27 TACAN:

a) cleared at or below FL120; and
b) clearance limit 55 TACAN RIC.

4.6.2.2 Multiple or modified transponder runs

Multiple runs outbound along the RIC TACAN 285R may be requested. Normal operation of the aircraft transponder will be required between runs. Levels above FL120 and/or clearance limit beyond 55 TACAN RIC may be approved on request, traffic and workload permitting. More extensive non-transponder operations will not be approved in Area Yarra (consider the use of R560 instead).

4.7 Meteorology

4.7.1 Products

4.7.1.1 AWIS and ATIS

AWIS is available on 02 9353 6448. ATIS is available on 02 4587 2589.

4.7.1.2 Forecasting products

TAF CAT A, METAR/SPECI, and AD WRNG are available forecasting products..

5 Drop zone operations

5.1 General procedures

5.1.1 All DZ

5.1.1.1 VFR operations

Drop aircraft within restricted areas R469/R470/R494 shall normally operate VFR. IFR operations require the submission of a FPL.

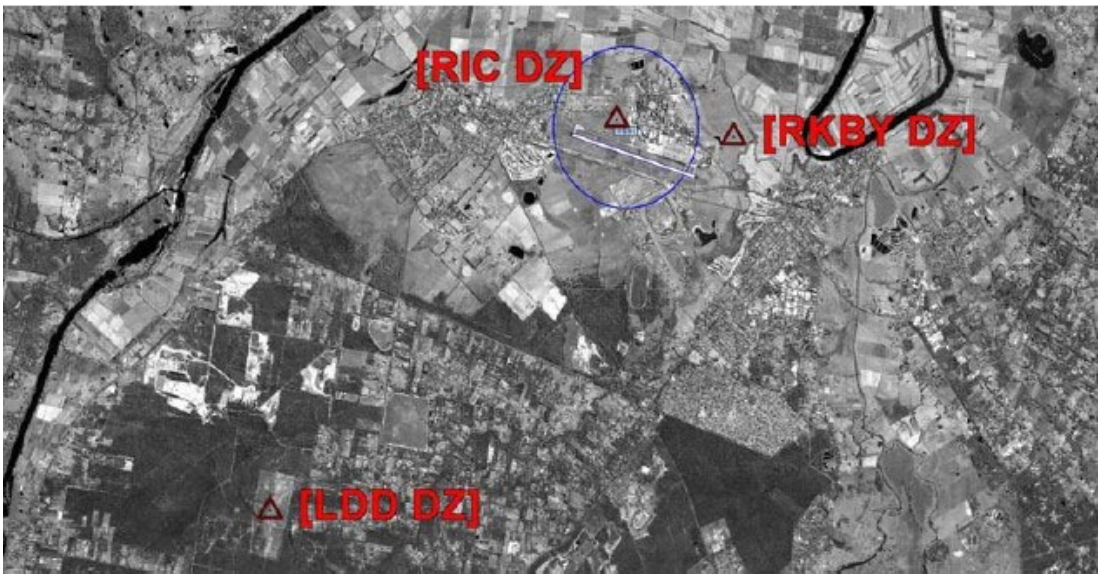
5.1.1.2 Drop zone safety officer responsibility

The DZSO must ensure that the DZ survey provided to the operating unit accurately reflects the position of any visual markers in use. Points of Impact coordinates are to be provided in WGS 84 datum.

5.1.1.3 Drop zones within R470

R470 contains the three drop zones and is depicted in Figure 8.

Figure 8



5.1.1.4 Drop zone purposes

The purpose of each DZ is as follows:

a) LDD DZ. Cargo (light and heavy equipment - helibox/compacts and CDS) and personnel (free fall and RAPSL only);
b) RKBY DZ. Personnel only (free fall, RAPSL or static line); and
c) RIC DZ. Cargo (helibox), personnel (free fall and RAPSL), helicopter winch training and slung loads.

5.1.1.5 Approval for use

Approval authority for the use of any DZ is the ABXO.

5.1.1.6 Out of hours drops

Airdrops shall not be conducted whilst R469/470 is deactivated. Operations planned outside of normal ATC hours must be coordinated through 22SQN ABOC to facilitate adjusted ATC hours.

5.1.1.7 DZSO clearances

A drop clearance is required from the DZSO for each DZ.

5.1.1.8 Cancel drop clearance

ATC will use the phrase ‘STOP DROP’ to cancel a drop clearance. A read back is required.

5.1.1.9 Monitoring frequencies

Drop aircraft must monitor both the ATC and DZSO frequencies.

5.1.1.10 Personnel on board

The drop aircraft shall advise ATC of the number of jumpers planned in a stick. The aircraft will update the remaining personnel on board on recovery.

5.1.1.11 Priorities

See Planning - Active Drop Zones - Impact of DZ operations and priorities

5.2 Drop zone details

5.2.1 Londonderry drop zone

5.2.1.1 Location

LDD DZ is situated 4 NM southwest of Richmond within the LDD TA. See Figure 9.

5.2.1.2 Low level static line personnel drops

LDD DZ is not available for low level (1000FT AGL) static line personnel drops due to the surface condition.

5.2.1.3 Airways clearance

Locally based airdrop aircraft shall be issued with the ATC clearance `CLEARED TO LDD DZ NOT ABOVE *(ALTITUDE)'*. This shall clear the aircraft to track to and then operate within R470, remaining on or west of the run-in track 181 DEG magnetic, to LDD DZ, in a right circuit pattern, at the cleared altitude.

Each circuit pattern is expected to overfly the Drop Zone. Deviations from the 'standard' drop zone pattern (e.g. direction, orbits, amended inbound leg turn point etc) require ATC clearance.

Note: *Run-in track establishes the aircraft west of the Richmond CBD. Other activities (e.g. VFR Rotary Wing and Light Fixed Wing Aircraft) may be segregated from LDD DZ activities by being instructed to remain east of Richmond CBD.*

Note: *Exception, during LDD DZ formation activities, formation lead aircraft will be established on or west of the run-in track, other formation aircraft are approved to operate east of that track due operational requirements.*

5.2.1.3.1 Drop clearance

A drop clearance is only required from ATC when operating above 1500 feet AMSL.

5.2.1.4 Segregation of Operations

Londonderry Drop Zone operations, where VFR, will be segregated from other VFR operations in a manner in which Drop Zone aircraft will not require to manoeuvre unless specifically instructed. Where IFR, full separation from other airspace users will be provided. Springwood Nepean Model Aircraft Club operations will be precluded from occurring during Londonderry Drop Zone activities.

Note: *Some DZ aircraft may have TCAS Resolution Advisories (RA) inhibited during DZ operations due to operational requirements.*

5.2.1.5 Run-in course/track

The preferred run-in direction for extracted loads is north to south due to the proximity of built up areas south of the LDD DZ.

5.2.1.6 Drop zone dimensions

The cleared DZ area within the LDD TA is approximately 1150 m long by 550 m wide. Refer to user unit DZ surveys for accurate dimensions.

5.2.1.7 Londonderry Drop Zone image

Figure 9

5.2.2 Rickabys drop zone

5.2.2.1 Location

RKBY DZ is established near Rickabys Creek, adjacent to the fuel farm on the eastern perimeter of Richmond aerodrome. RKBY DZ is depicted in Figure 10.

5.2.2.2 No cargo drops

RKBY DZ is not available for any form of cargo airdrop due to its proximity to built up areas.

5.2.2.3 Airways clearance

Locally based drop aircraft shall be issued with the ATC clearance 'CLEARED TO RKBY DZ, NOT ABOVE *(ALTITUDE)*'. This shall clear the aircraft to track to and then operate within R470, to RKBY DZ, in a right circuit pattern, at the cleared altitude.

5.2.2.3.1 Drop clearance

A drop clearance is required from ATC.

5.2.2.4 Run-in course/track (static line)

Drop aircraft shall fly a right circuit pattern unless otherwise coordinated with ATC. The run-in track and drop pattern is typically:

a) 309 DEG magnetic, right pattern (default); or
b) 129 DEG magnetic, left pattern.

Each circuit pattern is expected to overfly the Drop Zone. Deviations from the 'standard' drop zone pattern (e.g. direction, orbits, amended inbound leg turn point etc) require ATC clearance.

Note: *During RKBY DZ formation activities, formation lead aircraft will be established on the run-in track, other formation aircraft are approved to operate laterally offset of that track due operational requirements.*

5.2.2.5 Segregation of Operations

Rickaby's Drop Zone operations, where VFR, will be segregated from other VFR operations in a manner in which Drop Zone aircraft will not require to manoeuvre unless specifically instructed. Where IFR, full separation from other airspace users will be provided.

Note: *Some DZ aircraft may have TCAS Resolution Advisories (RA) inhibited during DZ operations due to operational requirements.*

5.2.2.6 Drop zone dimensions

The dimensions of the DZ are approximately 1050 m x 550 m. Operating units are to refer to an approved DZ surveys for accurate DZ dimensions.

5.2.2.7 Rickabys Drop Zone image

Figure 10

5.2.3 Richmond drop zone

5.2.3.1 Location

RIC DZ is established on the Western Grass on Richmond aerodrome. See Figure 11.

5.2.3.2 Drop clearance

A drop clearance is required from ATC.

5.2.3.2.1 Explosive ordnance on OLA 1

RIC DZ is not available when Class 1.1 explosives are on OLA 1.

5.2.3.3 Entry to RIC DZ/western grass

Entry to the Drop Zone requires an ATC clearance. Request for entry can be made to callsign 'RICHMOND GROUND' on VHF frequency 121.65 MHz or by telephoning Richmond Tower on 02 4587 1201. Approval for entry to the DZ does not constitute an ATC clearance to enter other airfield area.

5.2.3.4 RIC DZ free fall parameters

The normal RIC DZ free fall parachute drop area to the RIC DZ target is the area bound by:

a) Richmond Bridge (SE end) at North Richmond (33º 35.118'S 150º 43.477'E);
b) Freemans Reach – Intersection Kurmond Rd and Dorothy St (33º 33.471'S 150º 47.805'E);
c) Windsor Bridge at Windsor (33º 36.194'S 150º 49.331'E);
d) Intersection of Richmond Road and George St Bligh Park (33º 38.392'S 150º 47.048'E); and
e) UWS Hawkesbury Campus (33º 36.794'S 150º 44.767'E).

See Figure 12.

5.2.3.5 Drops outside of RIC DZ free fall parameters

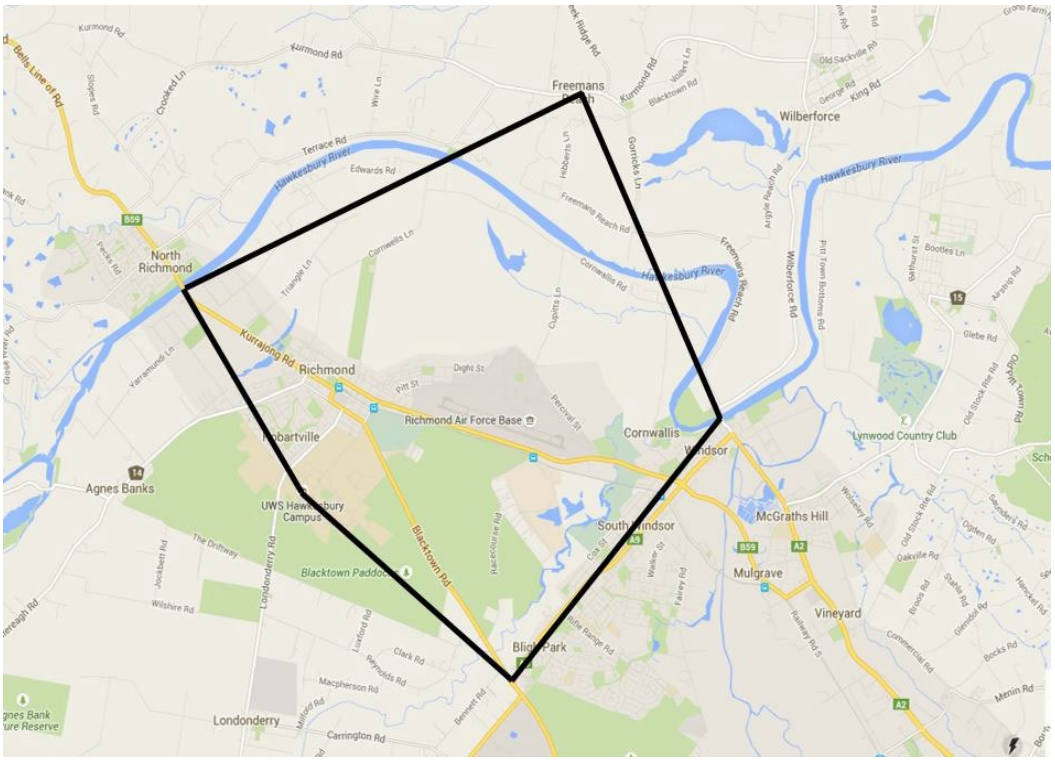
Military free fall drops outside of the normal RIC DZ free fall parachute drop area require coordination with ATC. Provide Run-in Track and Drop Point reference the Drop Zone.

5.2.3.6 Image of RIC DZ/Western Grass

Figure 11

5.2.3.7 Image of RIC DZ free fall parameters

Figure 12



6 Other military operations and procedures

6.1 Tactical exercise operations

6.1.1 Richmond

6.1.1.1 Inbound

Inbound tactical exercise aircraft not in receipt of a clearance shall request a clearance no less than 10 NM prior to the restricted area boundary.

6.1.2 Night flying operations

6.1.2.1 Local night flying training

Local night flying training shall normally be conducted Monday to Thursday, excluding public holidays. Circuit and instrument approach training should be completed by 2300 local. High priority training may occur on the authority of SQN Commanding Officers.

6.1.2.2 NVG training – aerodrome lighting

Aircraft requiring aerodrome lighting will be given priority over aircraft conducting NVG training. ATC will advise NVG aircraft of the estimated timings of non-NVG movements as soon as practicable to aid sortie planning.

6.2 Military helicopter procedures

6.2.1 Richmond

6.2.1.1 Helicopter landing sites Runway 10/28

Two HLS have been established on RWY 10/28:

a) RWY 10/28 Long, from the departure end arrestor cable until the end of the runway; and
b) RWY 10/28 Short, the landing threshold until the arrival end arrestor cable.

6.2.1.2 Simultaneous helicopter operations

Two helicopters may operate to these established HLS simultaneously under the following conditions:

a) The landing clearance is given using the phrase ‘CALLSIGN, RWY 10/28 SHORT/LONG CLEARED TO LAND’;
b) A take-off clearance from RWY 10/28 short when RWY 10/28 long is occupied shall be via offset departure, with the use of the phrase ‘CALLSIGN, OFFSET LEFT/RIGHT, RWY 10/28 SHORT CLEARED FOR TAKE-OFF’;
c) Aircraft conducting an offset departure will remain within the RWY Strip offset to the south and maintain own separation from the aircraft in the long position, until they re-join a standard upwind leg;
d) Practice engine failure after take-off procedures are not available whilst RWY 10/28 long is occupied unless otherwise negotiated with other relevant traffic; and
e) Offset departures are not to be conducted at night unless both aircraft are NVG or MTC.

6.2.1.3 Autorotation practice

Aircraft intending to conduct a practice autorotation are to advise this intention and landing area with the base call.

6.2.1.3.1 180/360 degree autorotation’s

180/360 degree autorotation’s may be approved subject to ATC discretion, the request is to be made no later than downwind and with intended landing area..

6.2.1.4 Slow approaches

Any intention to make a slow approach is to be requested no later than established on the downwind leg.

6.3 Chaff/flare operations

6.3.1 Richmond

6.3.1.1 Hung flare

On detection of a Hung flare aircraft are proceed in accordance with aircraft publication. ASP which are located on TWY A and E are available for taxi. OLA1 is also usable by certain aircraft types.

7 Emergencies

7.1 Procedures

7.1.1 Alternate landing runways

7.1.1.1 RWY 10/28 not available

If RWY 10/28 is not available, possible alternates include:

a) TWY Z;
b) Southern Grass; or
c) Western Grass.

7.1.2 Aircraft arrestor systems

7.1.2.1 RWY 10/28

Hook cable arrestor systems are located at both ends of RWY 10/28.

7.1.2.2 Emergency hook cable arrests - priority

Emergency hook cable arrests have priority over all other traffic, unless there is an aircraft with a higher-level emergency. ATC shall consider recovering as many other aircraft as possible prior to the arrest.

7.1.3 Airborne fuel jettison

7.1.3.1 Designated area

Unless limited by emergency conditions, fuel jettison should be carried out beyond 10 NM northwest of Richmond at 10, 000 FT (satisfies the statutory 6000 FT AGL minimum).

7.1.4 Controlled aircraft abandonment

7.1.4.1 Designated area

The controlled abandonment area is RIC006011 with the aircraft tracking 006 DEG magnetic. The recommended abandonment altitude is 10 000 FT, with a minimum of 2000 FT.

8 References

Title	Number
En Route Supplement Australia (ERSA) https://www.airservicesaustralia.com/aip/aip.asp?pg=10	FAC YSRI
Designated Airspace Handbook (DAH) https://www.airservicesaustralia.com/aip/aip.asp?pg=10	-
Departure and Approach Procedures (DAP) https://www.airservicesaustralia.com/aip/aip.asp?pg=10	-
YSRI Aerodrome Manual Richmond Aerodrome Manual (DPN Only)	
Australian Air Force Cadets Elementary Flying Training School Supplementary Aerodrome Guide (Link to be sourced)	TBD