Flight Information Handbook Australia

AD2 Supplement Nowra

Version 13

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Sponsored:	FLTCDR 453 SQN NWA FLT	michael.jones-evans	Digitally signed by michael.jones-evans Date: 2026.10.20 09:17:56 +11'00'
Approved:	CO 453 SQN	William TODD	Digitally signed by William TODD Date: 2026.10.21 12:36:47 +11'00'

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CHANGE SUMMARY

Section	Amendment
TOC	Editorial
AIR 5.4	Update Timings of Shoalhaven Clay Target Club
TAO 3.2	Amendment to LFA terrain clearance for L9-14

AD2 SUPPLEMENT PRODUCTION

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

AD2 SUPPLEMENT AMENDMENTS

Urgent changes to be made to the AD2 SUPP outside of AIRAC issue will have an AD2 SUPP Amendment (AD2 SUPP AMD) issued through AIS-AF.

CHANGE SUBMISSIONS

Change submissions for the YSNW AD2 SUPP are to be submitted via respective stakeholders to the FAA standards meeting. Additionally, change proposals may be submitted to the HQ-FAA OPAW group inbox for consideration. These submissions must be made prior to the dates listed below

AIRAC Date	Submission to Sponsor NLT	Cutoff for AD2 SUPP change submissions
26 Nov 26	08 Oct 26	15 Oct 26
18 Feb 27	01 Jan 27	07 Jan 27

PREFACE

1. INTRODUCTION

1.1 This Flight Information Handbook Australia (FIHA) AD2 Supplement (SUPP) Nowra (YSNW) 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 at AIS-AF FIHA AD2 Supplements.

1.2 The purpose of this instruction is to meet the requirements of *Defence Aviation Safety Regulation* (DASR), DASR SRoA – *Standard Rules of the Air*, by providing users with useable, current and correctly authorised procedures pertinent to the conduct of operations at Nowra airfield (YSNW), Jervis Bay airfield (YJBY) and the associated surrounding airspace of R421.

1.3 This AD2 SUPP covers all aircraft operational aspects at YSNW and YJBY airfields, within R421 and R420F, as well as transits to and from the East Australian Exercise Area (EAXA). Airfield emergency management and airworthiness aspects are the responsibility of CO HMAS *Albatross* under the authority of COMSPTFOR, and are articulated separately under the *Nowra Aerodrome Manual*, and/or *Jervis Bay Aerodrome Manual* and the *Nowra and Jervis Bay Aerodrome Emergency Plan*.

1.4 These local procedures apply to all state aircraft (ADF) and locally based approved civilian aircraft at Nowra (as detailed), conducting operations at YSNW or YJBY, or within R421AB, except where detailed otherwise.

1.5 This AD2 SUPP is intended to align with the *Base Flying Instruction Management System* within Air Command SI (OPS) 01-20—*Aeronautical Information Management*.

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 453 SQN.

2.3 The sponsor is FLTCDR 453 SQN NWA FLT.

2.4 The endorsement authority SO1 OPAW – HQ FAA.

3. DEFINITIONS

3.1 Definitions and abbreviations are IAW *Defence Aviation Safety Regulation* (DASR) *Glossary of Terms* and *General Planning Australia* (GPA) GEN 2.2.

3.2 Additional definitions:

a. **Locally Based Civilian Aircraft**. Locally based approved civilian aircraft are those belonging to the following operators:

i. QinetiQ,

ii. Raytheon,

iii. CHC,

iv. Skytraders, and

v. Albatross Aero Club.

b. **Non-local Aircraft**. Non-locally based ADF aircraft who intend on utilising R421, YSNW or YJBY on a regular or extended basis are expected to familiarise and comply with these instructions and procedures. If necessary, any transient aircraft (civil or state) may request a local area briefing be arranged through the Nowra Airfield Coordination Centre (ACC).

c. **Specific Approvals**. Some specific rules regarding Separation within this instruction require agreement between Nowra ATC and the aircraft operator's MAO-AM, Air Operator Certificate holder, or authorised / equivalent delegate.

d. **RPAS.** Remotely Piloted Aircraft System (RPAS) in this AD2 SUPP refers to a specifically authorised Remotely Piloted Aircraft (RPA) flight. This includes 822X SQN Specific Type A RPAS operations as described in *RAN 822X SQN Specific Type A Unmanned Aircraft System Air Traffic Management Plan*. RPAS in this AD2 SUPP does not apply to Open Category or Standard Scenario (Specific Type B) Category operations.

3.3 **Altimetry.** All levels referred to in this AD2 SUPP are in feet (ft) above mean sea level AMSL unless otherwise specified.

3.4 **Frequencies.** All frequencies referred to in this AD2 SUPP are in MHz unless otherwise specified.

4. APPLICABILITY

4.1 This AD2 SUPP applies to the conduct of flying operations and ATC services at YSNW and YJBY and the surrounding airspace. This instruction is to be read and complied with in addition to the relevant suite of military and civil aviation publications.

5. CONTENTS

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

a. Airspace

b. General Planning

c. Circuit Area and Aerodrome Operations

d. Arrivals and Departures

e. R421 Flying Training Area Operations

f. Separation

g. Abnormal Operations

h. Parachute Operations

i. Annexes

6. FLY NEIGHBOURLY REQUIREMENTS

6.1 Unless otherwise directed, all aircraft operations within R421 are to abide by the Fly Neighbourly requirements below and IAW the HMAS *Albatross* Aircraft Noise Management requirements at *Nowra Aerodrome Manual*. This includes adhering to Noise Sensitive Areas detailed in PFPS/Falconview Nowra Hazard and Noise Database (HAND) overlay.

6.2 Flying operations are to be conducted in a manner which is considerate of the local community, whilst maintaining safe operation of our aircraft and delivering the required levels of capability. All aerodrome users are required to:

a. comply with published airfield noise abatement procedures;

b. use appropriate runway length for departures to maximise height over local residents;

c. limit the height of aircraft over populated areas;

d. minimise flight over residential areas and other noise sensitive buildings such as hospitals and schools;

e. avoid low flying over known noise sensitive areas such as commercial farms, studs and livestock;

f. minimise flying late at night or early in the morning;

g. vary flight paths to share noise;

h. include aircraft noise awareness in aircrew training and familiarisation, and

i. notify local communities of major exercises or other non-routine training and flying activities.

6.3 **Coolangatta Mountain (Cullunghutti).** Cullunghutti has always been a place of importance to Aboriginal peoples and Cullunghutti Aboriginal Area was gazetted under the National Parks and Wildlife Act in 2011. Flying units shall avoid conducting any loiter, landing, or hover flying operations (eg hoist training) in culturally sensitive areas such as Cullunghutti. Minimum safe heights and low flying restrictions in the vicinity of Cullunghutti remain IAW with document and Flight Information Handbook Australia (FIHA).

6.4 **Environmental Management.** Aircraft Captains are responsible for complying with the measures as detailed within applicable *ADF Maritime Activities Environmental Management Plan* – *Procedure Cards* whilst conducting operations within R421 and the EAXA to the maximum extent possible.

AIRSPACE

1. INTRODUCTION

1.1 YSNW AD2 Supplement provides specific local airspace information that supports information within ERSA FAC, Designated Airspace Handbook (DAH) and relevant aeronautical information charts.

1.2 The electronic overlay information in EFBs and JMPS mission planning are the primary sources of boundary and coordinate information. Images and descriptions presented in this document are not to be relied upon for flight planning.

2. NOWRA CIRCUIT AREA (CIRA)

2.1 The CIRA is defined as 5NM radius of Nowra ARP. CIRA can be divided into smaller "Choppers" airspace portions for deconfliction purposes as follows:

CHOPPERS WEST – West of the 03/21 RWY strip within the CIRA

CHOPPERS NORTH – North of the 08/26 RWY strip within the CIRA

CHOPPERS SOUTH – South of the 08/26 RWY strip within the CIRA

CHOPPERS EAST – East of the 03/21 RWY STRIP within the CIRA

3. AIRFIELD MOVEMENT AREA DIVISIONS

3.1 **Helicopter Spots**. The following Helicopter Spots are designated on various taxiways at YSNW (See Annex A). They are physically marked with bidirectional numbers in addition to the standard "H" marking.

Spot-1 (Taxiway C2)	Spot-2 (Taxiway C3)	Spot-3 (Taxiway B4)	Spot-4 (Taxiway B4)
Spot-5 (Taxiway B3)	Spot-6 (Taxiway B3)	Spot-7 (Taxiway A2)	Spot-8 (Taxiway A2)

3.2 **Runway Subdivisions**. YSNW runways are divided into three subdivisions as follows:

a. Short – from the landing threshold to the 4000ft Distance to Run Marker (DTRM);

b. Centre – between the 4000ft and 2000ft DTRM; and

c. Long – from the 2000ft DTRM to the upwind threshold.

4. CIRA PADS AND OPERATING AREAS

4.1 The CIRA contains a multitude of pads, confined areas and prepared surfaces to conduct operations. Some of these are described below.

4.2 **LHD trainer (LDHT).** The LHDT is located on the Air Movements apron adjacent to taxiway B1. Its purpose is to facilitate initial and continuation of procedural flight deck training with military rotary wing aircraft. More information on the LHD Trainer is located in the Aerodrome and Circuit Operations section.

4.3 **Southern Pad (SP).** See Figure 1. The SP is located south of Runway 08/26 and is defined as the grassed area bounded by the perimeter road on the northern and eastern sides, the bomb dump fence to the south and the drainage ditch and Taxiway H to the west. ATC clearance is required for any pedestrian or vehicular access during ATC hours by radio or telephone 02 4424 1144 / 02 4449 2013. During CTAF, entry is by radio broadcast only. SP contains the following areas:

a. **Sloping Ground (SG).** Located at the southern edge of SP north of the ESA.

b. **ADS33 Testing Site.** The ADS33 Testing Site location is part of the Southern Pad. It is an international testing standard layout of cones, which enables aircrew training and aircraft test activities.

c. **Southern Pad Load Farm (SPLF).** The SPLF is the primary storage/operating area for underslung loads and is located on the north western corner of the SP. This area is defined by white gable markers.

Figure 1: Southern Pad

4.4 **Flight Deck Procedural Trainer (FDPT**). The single spot FDPTs are replicas of flight decks, which are both capable day and night usage. FDPT is depicted on the YSNW ERSA aerodrome diagram. More information on the FDPT is located in the Aerodrome and Circuit Operations section.

4.5 **Parma Creek.** Parma Creek operating area is located approximately 2.5NM to the SE of YSNW. It contains multiple confined areas in close proximity to the creek line.

4.6 **Western Pad (WP).** The WP is the grassed area west of the perimeter road and north of the drainage ditch (Figure 2). ATC clearance is required for pedestrian or vehicular access during ATC hours by radio or telephone 02 4424 1144 / 02 4449 2013. During CTAF, entry is by radio broadcast only. Given that this area of the airfield is prone to flooding, it is the responsibility of the Aircraft Captain to ascertain the suitability of the WP surface prior to conducting landings to avoid damage to the surface. ACC may NOTAM the WP out of service for landings, however this does not exclude using the WP area for hover operations.

4.7 **Western Pad Load Farm (WPLF).** The WPLF is the secondary storage/operating area for underslung loads and is located on the southern corner of the WP. This area is defined by white gable markers.

Figure 2: Western pad

4.8 **WP training spots**. Three spots exist on the WP, giving separate areas that helicopters can use for approach, hover air work, landing and departure. Spots are numbered with reference to the duty runway direction where '1' is closest to the duty runway and '3' is the furthest. The use of individual spots within the WP is not ATC directed. Aircraft Captains are responsible for spot selection, WP deconfliction and lane direction discipline on final. Approach and departure to these spots is only to be made in the direction of the duty runway, unless otherwise instructed by ATC. To eliminate the risk of air-to-air collisions on final, only one aircraft shall be on final for any of the WP Spots at any one time.

Note: The preceding aircraft has right of way to the WP.

5. LOCAL AREA GUN CLUBS

5.1 There are three gun clubs located in the vicinity of YSNW as detailed below and at Figure 3. Overflight of local shooting clubs should be avoided. The standoff distances and heights specified are obtained from the particular gun club management and comply with NSW regulations and policies governing these organisations.

5.2 **Shoalhaven Pistol Club**. Located on Gannet Road, 321°M/1.4NM from YSNW ARP (34 55.651S 150 31.482E). The club generally conducts shoots on Saturdays, Sundays and Wednesday mornings. A red flag will be flying at the main entrance during active periods. Weapons are limited to small calibre handguns and the Range has extensive overhead baffles and embankments to contain projectiles. A safety limit of 600ft AGL vertically and 200m laterally is recommended. The club President can be contacted on 02 4422 7803.

5.3 **Nowra Rifle Club.** Located on Warra Road South Nowra, 059°M/4.1NM from YSNW ARP (34 55.683S 150 36.985E). The club caters for long arm weapons and pistols. They maintain a comprehensive website (www.nowrarifleclub.com.au) which lists contacts and opening times. Due to the open nature of the Range and the calibre of weapons a safety standoff of 1000ft AGL and 1000m is recommended.

5.4 **Shoalhaven Clay Target Club**. Located on Turpentine Road in the Yerriyong State Forest, 196°M/5.9NM from YSNW ARP (35 02.054S 150 28.709E), the club is in close proximity to the Southern Confined Areas. The club generally operates on Saturday afternoons and Sundays, using shotguns only. A safety limit of 750ft AGL vertically and 250m laterally should be applied. A red flag will be flying whenever the range is active. Contact details and an online calendar of activites are available via www.shoalhavenclaytarget.org.

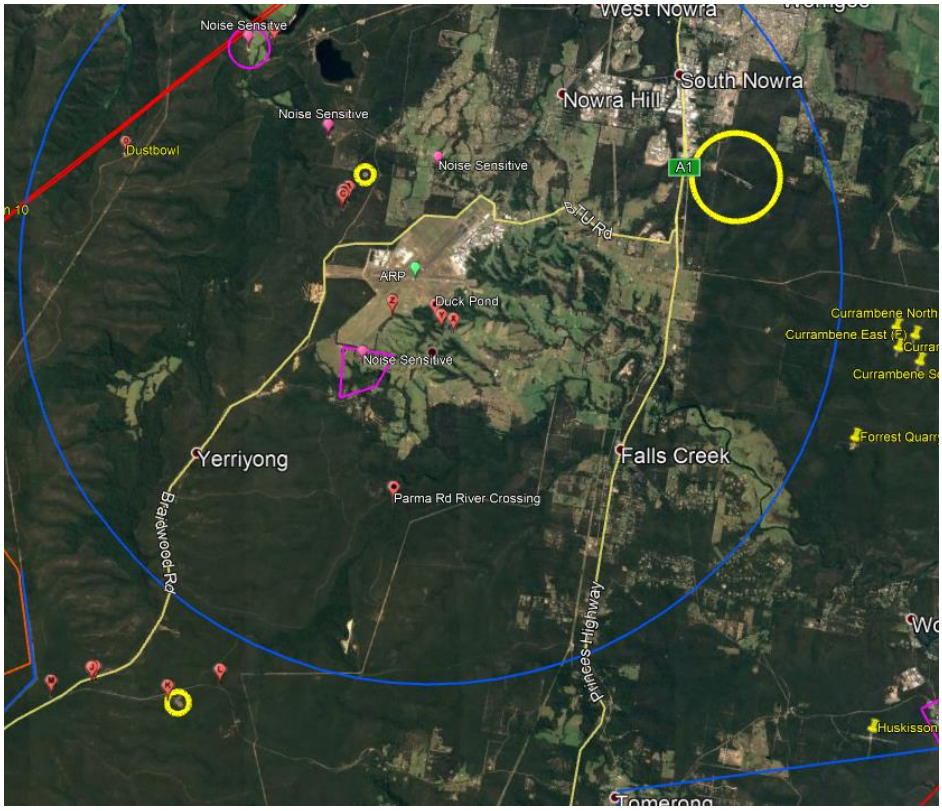


Figure 3: Local gun clubs

6. YJBY CIRCUIT AREA

6.1 The YJBY CIRA is defined within ERSA FAC as a 2NM radius centred on the YJBY ARP remaining over land, SFC to 1500ft. Detailed information is within ERSA and following chapters within this AD2 SUPP.

7. HELO TRAINING AREAS

7.1 Helo areas facilitate air work such as maintenance test flights or general flying. The standard vertical limit is SFC-3000ft. Higher levels are available on request.

7.2 **Helo North (HN)** The lateral confines are: Intersection of YSNW CIRA boundary and high tensile north-south power lines (IVO Longreach Reporting Point); then north along power lines towards Fitzroy Reservoir; IVO the R421A boundary (refer EFB), run east along the R421A boundary until Gerringong Township; continue south coastal to Shoalhaven Heads and then along the northern bank of Shoalhaven River until intersection with the YSNW CIRA boundary.

7.3 **Helo South (HS).** The lateral confines are: Intersection of the YSNW CIRA boundary arc and 162 radial; south along the 162 radial until intersection with the R421A boundary; west along the R421A boundary until intersection with the escarpment IVO Florence Head; north along the escarpment until intersection with high tensile power lines IVO Tianjara airfield; north along the western most feature of Braidwood Road/high tensile power lines until intersection of YSNW CIRA boundary.

8. LOW FLYING AREAS (LFA) AND LOW FLYING ROUTES (LFR)

8.1 HQ-FAA SO2 Pilot Standards (SO2 PLTSTDS) is the base wide manager for low flying issues within R421 and surrounds. SO2 PLTSTDS is responsible for coordinating the promulgation of LFA/LFR as per AMC of DASR SPA.20 *"Low Flying"*.

8.2 There are fourteen dedicated low flying areas IVO Nowra. They are referred to as LFA in this publication, 'L(number)' as presented on the AUSPEC 1629 Nowra Special, or 'LIMA(number)' by voice.

8.3 The Nowra Special depicts the LFA boundaries of the YSNW Training Areas. The boundaries largely follow features depicted on the topographic chart. Where an LFA boundary follows a line feature such as a road or river, the LFA boundary is depicted by a blue line which has been drawn running parallel to the feature. This ensures that the feature itself is not obscured. Operators are to use the physical feature as the LFA boundary, rather than the adjacent blue line. Accurate boundary data is available via EFB/JMPS updates and this remains the primary reference for flight planning. Comments below are general in nature, to highlight amplifying information for each area.

8.4 **LFA 1**. Lima 1 is situated to the NNW of YSNW and extends past the R421 boundary. The southern portion of the area incorporates the Shoalhaven River and the southern boundary is the escarpment on the southern side of the river.

8.5 **LFA 2**. Lima 2 adjoins HN on the eastern boundary, lying to the west of the high tensile (north-south) power lines. It approximates the eastern arm of the Tallowa Dam on the southern side to the Dam Wall, where it follows the Shoalhaven River for the most part, back to Illaroo.

8.6 **LFA 3**. Lima 3 is situated to the NW of YSNW, encompassing the plateau between Shoalhaven River and Ettrema Creek. It mostly sits outside R421. The escarpment defines the eastern, northern and western boundaries of the adjacent waterways, and a line from Touga towards Hamlet Crown is the southern boundary.

8.7 **LFA 4**. Lima 4 is immediately to the WNW of YSNW and its eastern boundary is the YSNW CIRA boundary. The northern boundary runs approximately NW, joining the southern edge of the Shoalhaven River. The western boundary is the western escarpment of Ettrema Creek and southern boundary approximates a line from Howards Pass to the norther edge of Yalwal Plateau. Lima 4 contains significant number of confined areas and pinnacles, as defined in Annex C.

8.8 **LFA 5**. Lima 5 is situated to the west of YSNW, extends past the R421 boundary and encompasses much of the Pioneer Plateau. The Braidwood Road is the southern boundary, with the service road to Douglas Paddock as the western boundary until approximating the Shoalhaven River to Touga. The northern boundary

is, adjoining Lima 3 is the Touga-Hamlet Crown line and the area extends to the north-east to join with Lima 4 in the vicinity of Pucket Pass.

8.9 **LFA 6**. Lima 6 sits to the south of Lima 4 and to the WSW of YSNW. It encompasses the Danjera and Yalwal Plateaus. The high tensile power lines (north-south which are at a tangent to the YSNW CIRA boundary) define the eastern boundary until the intersection of the Braidwood Road down to Sassafras. The western boundary runs north along the escarpment on the western side of the Danjera Creek, joining Lima 4 in the vicinity of Ettrema Plateau.

8.10 **LFA 7**. Lima 7 is situated to the SW of YSNW, and extends past the boundary of R421. The northern boundary is the Braidwood Road until intersection with the Endrick River. The Endrick River is the western boundary until Quilty's Pass and around the south-western side of Quilty's Mountain. The National Park fire trail which leads back to Braidwood Road is the eastern boundary and adjoins Lima 8.

8.11 **LFA 8.** Lima 8 is a large area to the SW of YSNW and extends past the boundary of R421. The area encompasses the Tianjara Plateau and Porters Creek Dam. Braidwood Road is the northern boundary, and the boundary adjoins HS, extending south east around the Plateau escarpment and down to Florance Head. The southern boundary extends to the south of The Castle and Holes in the Wall features, and to the south western side of Mount Moorvan, until running north to intercept the Lima 7 boundary in the vicinity of Quilty's Mountain, and back to Braidwood Road.

8.12 **LFA 9**. Lima 9 is situated south of the YSNW CIRA encompasses the Southern Confined Areas (SCA).

8.13 **LFA 10**. Lima 10 is situated between high tensile power lines (north-south adjacent the Princess Highway), Mondayong, the eastern edge of Swan Lake and back to near Hill Top.

8.14 **LFA 11**. Lima 11 is situated to the SE of YSNW and includes the YJBY CIRA.

8.15 **LFA 12.** Lima 12 is the military area associated with Beecroft Peninsula.

8.16 **LFA 13**. Lima 13 is situated to the east of YSNW CIRA encompasses the Eastern Confined Areas (ECA).

8.17 **LFA 14.** Lima 14 is situated to the north of YSNW. LFA 14 contains the Jaspers Brush Airfield and a number of noise sensitive areas.

8.18 Local hazard data of low flying areas is available through the PFPS/JMPS Nowra Hazard and Noise Database (HAND) overlay and is managed IAW SI(NA) OPS 05-03—*Mission Planning*.

8.19 **LFR.** There are no formally promulgated LFRs within R421 and surrounds. Commanders of local units utilising their own LFRs within R421 and surrounds for currency or training are to comply with SI(NA) OPS 03-02.

8.20 **LFAs beyond R421.** NWA ATC only controls R421/R420F. Several LFAs extend beyond the boundaries of R421 into adjacent Class G airspace, where NWA ATC have no control authority or responsibility. Pilots operating in Class G airspace within LFAs are to be aware that there may be other aircraft operating within LFAs outside of R421 that are not known to or in communication with NWA ATC in accordance with normal Class G requirements. NWA ATC has no control over such aircraft, and operations within LFA portions outside of R421 are conducted IAW Class G procedures.

8.21 **Low flying in YSNW CIRA.** The NWA CIRA is included in the 6 monthly hazard surveys conducted by 723SQN. Whilst not considered as a low flying area in itself, flight down to 200ft AO is permitted to facilitate transit between the airfield and training areas within R421. Aircrew are reminded to adhere to fly neighbourly principles.

9. SHOALHAVEN BIGHT (SHBT)

9.1 **SHBT.** The SHBT boundary is from Gerringong Township, south coastal to Little Beecroft Head, remaining north of the M441 boundary or remaining north of M440A when active by NOTAM, and east out to 23 NM UXUTI (EAXA/R421 boundary), north along the boundary of R421A (151°E longitude line) to its north eastern corner, then west south-west along the R421A boundary to Gerringong Township. The vertical limit of SHBT is SFC-2000ft.

10. JERVIS BAY (JVB)

10.1 Aircraft cleared to operate in JVB are to operate over water and remain to the west of a line extending from Point Perpendicular to Bowen Island. The vertical limit of JVB is SFC–2000ft.

10.2 **Jervis Bay North (JVBN**). Aircraft requesting operations to JVB may be issued a more restrictive clearance to JVBN to facilitate separation. Aircraft cleared to operate in JVBN only are to operate over water, and remain to the north of a line extending from Moona Creek to Bindijine Beach. JVBN will be issued by day or NVG only. The vertical limit of JVBN is SFC-2000ft.

11. CONFINED AREAS (CA)

11.1 **Eastern Confined Areas (ECA).** There are five clearings located within Lima 13 for confined area operations which are located just outside the YSNW CIRA to the east. The Eastern CAs include L13-1, L13-2, L13-3, L13-4 and L13-5 as detailed within Table C.1 to Annex C. Aircraft operating to the Eastern CAs are to operate as directed by ATC and remain outside of YSNW CIRA.

11.2 **Southern Confined Areas (SCA**). There are five clearings located in close proximity to one another just outside the YSNW CIRA to the south for confined area operations. The Southern CAs are L9-1, L9-2, L9-3, L9-4 and L9-5 as detailed within Table C.1 to Annex C. Aircraft operating to the Southern CAs are to remain outside of YSNW CIRA.

11.3 **Other Confined Areas**. All Confined Areas are contained within Table C.1

12. PINNACLES (PIN)

12.1 PINs are located within the LFAs. Designated PIN location data is contained within Table C.2, Annex C.

13. REPORTING POINTS (RP)

13.1 The following RPs are available at pilot request or ATC direction:

a. November 1.0nm Final RWY 21

b. Echo 1.0nm Final RWY 26

c. Sierra 1.0nm Final RWY 03

d. Whiskey 1.0nm Final RWY 08

e. NW – Longreach – 34 52.2560S 150 30.0943E

f. NE – Swamp – 34 55.3791S 150 38.7717E

g. SE – Bay – 34 59.8231S 150 37.3087E

h. SSE – Servo – 35.0181S 150.5794E

i. SW – Park (Morton National Park) – 35 00.3280S 150 25.8893E

13.2 RPs are not mandatory tracking points, but are available to ATC or aircrew to maximise traffic flow and aid in provision of segregation/separation.

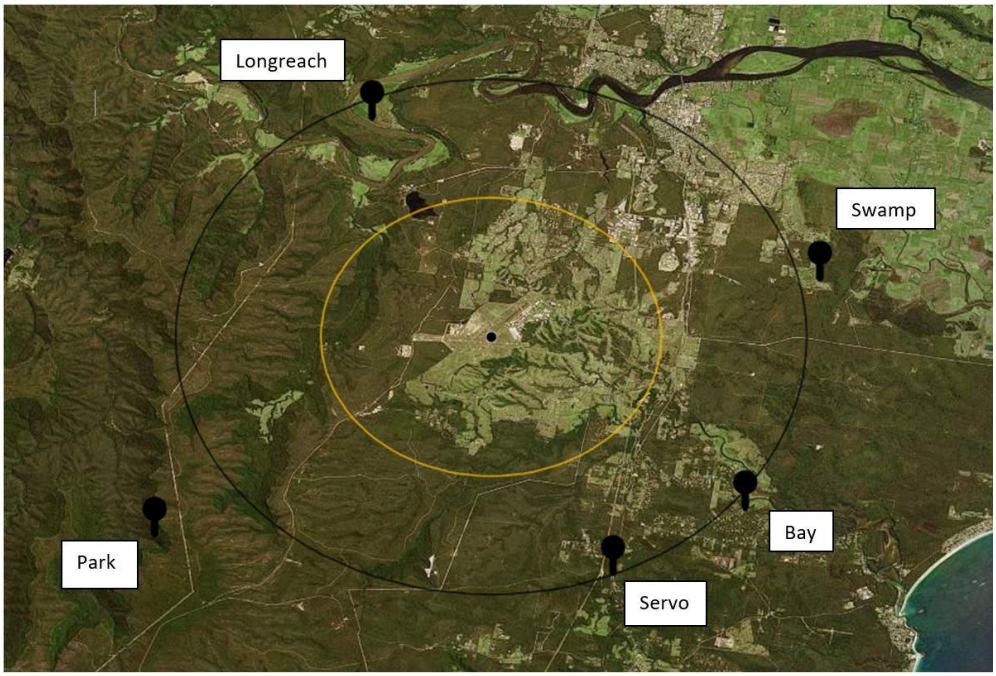


Figure 4: CIRA reporting points

14. LOCAL AREA LANDING SITES AND AIRSTRIPS

14.1 **Shoalhaven Hospital (YXNW) Helicopter Landing Site (HLS).** The HLS is for actual Aeromedical Evacuation (AME) use only as directed by the AME coordinator through NSW Ambulance Aeromedical Control Centre (02 9553 2233). This HLS is undergoing significant refurbishment and data on its future completed state is not presently available for publication.

14.2 Due to the frequent usage by NSW Air Ambulance operators, the proximity of the car park and hospital infrastructure, and other 'fly neighbourly' considerations, usage of the HLS for training purposes should be limited to approach for overshoot only.

14.3 **Jaspers Brush airstrip** (34 48.958S 150 39.710E) is a privately owned strip, which consists of two unrated grass runways; RWY 13/31 is approximately 700m in length and RWY 06/24 is approximately 650m in length.

14.4 FAA aircraft may use Jaspers Brush subject to the terms of use specified within the letter of agreement between the airfield owner and COMFAA (DPE-OBJ).

14.5 The South Coast Regional Recreational Flying Club (SCRFC) operates out of Jaspers Brush airstrip. Operations may occur within HN whilst R421 is active subject to ATC clearance; military traffic will have priority for the usage of the airspace surrounding Jaspers Brush airstrip.

14.6 **Burrier** – a non-registered grass airstrip located at 34 52.145S 150 27.301E (6.3NM 307° from YSNW)

15. EASTERN AUSTRALIAN EXERCISE AREA (EAXA)

15.1 The EAXA is defined as M440 A-P, M444 A-C, M442 A-E and M441, when activated by NOTAM, and is not controlled by Nowra ATC. ATC provides no service within the EAXA. ATC may maintain an OPS Normal time for aircraft within the EAXA at pilot request subject to ATC workload. To prevent confusion with other EAXA airspace M444 can be abbreviated to 'Mike Triple Four' when communicating with Nowra ATC.

15.2 Parts of the EAXA overlap with R421. When M440A, M440B and/or M441 are active by NOTAM at conflicting levels, the overlapping portion of R421 is not available.

16. MARITIME TRAINING AREAS

16.1 FAA aircraft regularly operate over water to conduct maritime training evolutions. Four maritime training areas have been established within R421 and surrounds. These areas are designed to reduce clearance complexity, assist in SAR provision and limit YSNW ATC SARWATCH provision OCTA.

16.2 These maritime training areas are referred to as “Whiskey (W) (number)” by voice when communicating between ATC and YSNW AD2 SUPP briefed aircraft.

16.3 AUSPEC 1629 “Nowra Special” will depict these areas when future maps are published. The standard vertical limit of these areas is SFC to A020 AMSL. Location and dimensions are as follows:

a. W1 – Situated to the NE of the city of Wollongong. Vertical limits are below the SY CTA. Lateral limits are north-south between the latitudes of 34 20S and 34 30S, east of the coast and west of EAXA. A clearance from YSNW ATC to W1 does not constitute a clearance to enter SY CTA.

b. W2 – Situated to the south of W1. Lateral limits are north-south between the 34 30 S latitude and the boundary of R421A, east of the coast and west of EAXA. This area lies within the YSHL CTAF area.

c. W3 – Situated SE of YSNW. Lateral limits are over water within the confines of M440A and outside Jervis Bay.

d. W4 – Situated SE of YSNW. Lateral limits are over water within the confines of M440B, plus an area south to Ulladulla, remaining outside Jervis Bay. A clearance to W4 implies clearance to leave and re-enter R421 within W4.

16.4 **ATC Services.** W1 and W2 are OCTA and outside NWA ATC control jurisdiction. NWA ATC radio and radar coverage in these areas is limited by terrain. Furthermore, these northern areas are in proximity to SY CTA, SY CEN airspace and YSHL CTAF. NWA ATC does not provide a control service in W1 or W2. ATC may be able to provide an OPS Normal time for aircraft in these areas at pilot request subject to controller workload.

GENERAL PLANNING

1. INTRODUCTION

1.1 Nowra supports operations from a number of military squadrons (including RPAS), civilian contracted aircraft and visiting aviation units. Air Traffic Services are provided IAW the Service Level Agreement between the RAN (COMFAA and CO ALB) and RAAF (OC 44WG). Operational amendments to this service are made as agreed by FLTCDR 453 SQN NWA FLT and SO1 OPS - HQFAA.

1.2 **Contact Numbers**: IAW *Nowra Aerodrome Manual* the primary contact numbers for enquiries or operations inside R421 including YSNW or YJBY are as below. These numbers are only active during business hours or during local flying operations after hours. Emergency and other relevant contact numbers are available in YSNW and YJBY Aerodrome Manuals and *Nowra and Jervis Bay Aerodrome Emergency Plan*.

a. BH: Nowra Airfield Co-ordination Centre: 02 4449 2161

b. AH: OPSTAR Duty Air Officer (DAO): 0411 127 367

2. WEEKLY PROGRAM AND PLANNING

2.1 **Airfield Operating Hours**. Airfield operating hours are promulgated in ERSA. For flying activities outside these core hours, the ACC shall coordinate the availability of airfield services from information provided at the weekly planning meeting. In these circumstances the level and type of base services provided will be determined by LCDR Flying (ACC).

2.2 **Unscheduled Operations**. Aircraft departing or returning to YSNW during periods outside published weekly operating hours should contact the DAO and provide details. Outside published weekly operating hours the DAO mobile phone will be diverted to the Albatross Officer of the Day (OOD). ACC staff are on recall to provide advice to the OOD regarding airfield business.

2.3 **Airspace priorities**. NWA ATC will apply priorities in accordance with the following list, in descending order of priority:

a. Aircraft in accordance with FIHA ENR 1.4 para 6.1

b. Aircraft on a non-training Defence tasking

c. Aircraft on a Defence training tasking, in descending order of priority:

i. Aircraft assigned priority at the weekly planning conference

ii. Aircraft conducting student assessment flights using a 'MDSA' callsign

iii. Locally based military and civilian aircraft, including non-locally based aircraft included in the weekly planning conference, but excluding Albatross Aero Club

iv. Non-locally based aircraft not included in the weekly planning conference

d. Other aircraft operating within R421, including Albatross Aero Club.

Note: Within this list, priorities will be applied IAW FIHA ENR 1.4 para 6.2.

2.4 **Amendments.** ACC will coordinate requests for amendments to the program and publish any changes in the Airfield Daily State.

2.5 **Circuit Training Events**. All airborne training events that primarily consist of circuit operations should be planned to be conducted within the YJBY circuit area. Squadron operations departments shall program the daily flying program based on the airfield weekly planning meeting intent. In the event of program deviations, operation departments are to contact ACC to arrange appropriate de-confliction. Late notice changes are to be de-conflicted between unit duty officers and ACC.

2.6 **YSNW CIRA Planning**. In order to reduce potential of CIRA conflictions, for planning purposes the available YSNW CIRA aircraft slots are allocated by HQFAA N35 at the weekly planning meeting.

2.7 **YJBY.** YJBY supports both air and ground activities which are coordinated through the Nowra ACC and Fleet Exercise Program co-ordinator (FXPCO). Flying operations at YJBY take precedence over ground activities. Requests and requirements for either priority, exclusive or joint use of the YJBY CIRA are to be negotiated at the ACC weekly planning meeting. ACC will liaise with FXPCO and promulgate restrictions by NOTAM as required. FXPCO will determine priorities and de-confliction for PJE operations at YJBY/DRDA. When M440B is activated by NOTAM YJBY CIRA is unavailable except to units promulgated through the FXP.

2.8 **YJBY Planning**. The increased requirement for multiuser operations within YJBY CIRA negate exclusive use booking. Units planning operations within YJBY CIRA are to negotiate timeslots at the Weekly Planning Meeting cognisant of competing priorities of other users.

2.9 **General Flying (GF) Training**. GF training areas are Helo North (HN) and Helo South (HS), which are detailed within Airspace. Operations in HN and HS may conflict with instrument approach traffic. ATC or aircraft may utilise other areas to effect deconfliction or enhance training outcomes.

2.10 **Instrument Flight (IF) Training**. IF training which does not include approaches may be conducted in the GF training areas. IFR clearances and operations are subject to ATC approval and traffic configuration.

2.11 **Night Flying Brief.** All units that are flying in R421 at night should attend the night flying brief. This includes Fixed Wing operations and non-local aircraft.

2.12 **R421 Area Traffic Density Limitations**. Traffic density limitations exist in response to safety reports and analysis. Two different sets of limits exist; for when R421 is active, and for when it is uncontrolled and CTAF procedures apply. Traffic density issues should be de-conflicted IAW priorities at the ACC weekly planning. The traffic limit numbers for the specific Nowra Training Areas are detailed in Annex D. Aircraft operating in formation are considered to be one aircraft for the purposes of these limits.

2.13 **Operations with Explosive Ordnance (EO**). Detail for Arming/De-arming, Ordnance Loading Aprons (OLA), Aircraft Safety Points (ASP) and other EO operational requirements and procedures for YSNW and YJBY are contained within *Nowra Aerodrome Manual*. Aerodrome map detailing areas/licences are available for Nowra (HMAS Albatross) and YJBY (JB Range).

2.14 **Forward Firing Ordnance**. No OLAs/ASPs at YSNW contain a standing safe bearing for forward firing ordnance. Operations at YSNW with forward firing ordnance must have special arrangements and notices in place, and therefore be planned ahead IAW *Nowra Aerodrome Manual*.

2.15 **FDPT.** Bookings for the use of the FDPT are through Training Authority – Aviation's (TA-AVN) Aviation Support cell (email: cccta.avn@defence.gov.au), and require seven days' notice. Short notice bookings may be available dependent upon TA-AVN requirements.

2.16 **Parachute Activity Planning.** ADFPS are required to advise ACC minimum seven days in advance of any intended parachute activity IAW defined Parachuting Drop Zones and Areas (14 days for Other DZs), with any conflictions to be addressed at the ACC weekly planning meeting. Other ADF parachute units are required to advise ACC one month in advance of the activity.

2.17 ADF Parachute units are to advise the FXPCO of all parachuting operations for Jervis Bay Drop Areas and YJBY. FXPCO will assign parachuting FXP serials for operations within M440A/B, however the airspace will only be activated by NOTAM outside Nowra ATS hours (R421 not active). During ATS hours of operation M440A/B should only be NOTAMed when an increased level of safety is required, eg high altitude operations, as it significantly restricts other aviation activities within Jervis Bay.

2.18 Serials and operations for the proceeding seven days shall be confirmed at the ACC Weekly Planning Meeting. More detailed planning will become available 48hrs prior to jumps when ADFPS will update the ACC, these details will be published in the Airfield Daily State.

2.19 **Parachuting Jump Exercise (PJE).** De-confliction of PJE and other traffic is to be negotiated at the ACC weekly planning meeting.

2.20 **Emergency Response**. Emergency response at YSNW, YJBY and applicable training areas shall be IAW *Nowra Aerodrome Manual*, *Jervis Bay Aerodrome Manual*, *Nowra and Jervis Bay Aerodrome Emergency Plan*, and SI(NA) OPS 05 07—Aviation Emergency Response at YSNW. Airfield Rescue and Fire Fighting Service (ARFFS)/OPSTAR presence may be made available at YJBY following requests at the Nowra ACC weekly planning meeting.

3. AIRBASE RISK MANAGEMENT

3.1 Shore Force is the Aerodrome Operator (AD OPR) organisation that is responsible for ensuring safe aerodrome operational at YSNW and YJBY. COMSPTFOR is the Accountable Manager (AM) for the Shore Force AD OPR organisation. The ACC is the Shore Force element within HMAS Albatross Command that is responsible (through CO Albatross) for the management and oversight of these airfields. This includes identification of applicable hazards and implementation of associated controls.

3.2 While the AD OPR is responsible for identification and communication of aerodrome hazards, they are unable to assess the risk (consequence/likelihood) that those hazards present to the airfield users – this is the responsibility of the MAO/AO for the applicable aircraft type. Consequently, ACC maintain a Hazard Log for each airfield at the links below, and have implemented controls which seek to minimise those hazards SFARP, such as the conduct of regular FOD checks at the airfield. As described above, and in accordance with *DASR SMS ORO.05*, "It is the responsibility of the MAO to determine which aerodromes are safe and suitable for the operation of their aircraft. The suitability of an aerodrome depends on aircraft capabilities, the declared features of the aerodrome and the activity being carried out".

3.3 MAO/AOs whose aircraft operate from or to YSNW and/or YJBY are to finalise their risk management process IAW *Defence Aviation Safety Management Systems*(DASR SMS) specific to their aircraft type(s).

3.4 The airfield Hazard Registers for YSNW and YJBY can be found on the ACC SharePoint homepage or within the SHORFOR Aerodrome Hazard Register (BS12737516 DPE-OBJ).

4. FLIGHT PLANNING

4.1 **Flight Category**. All locally based aircraft operating within R421, Nowra Training Areas and EAXA will be processed as VFR unless IFR or SVFR is specifically requested or flight planned. Pilots should be aware that SVFR due visibility may require increased separation and may not be available without lengthy delays.

4.2 **RPAS Flight Category**. Navy RPAS in this instruction are to be considered IFR.

4.3 **Flight Notification**. With the exception of aircraft intending to operate exclusively within the CIRA, or requiring special handling, eg SAR or MEDEVAC, all aircraft intending to fly within R421 require the submission of a flight plan using the template provided at Annex F.

4.4 **Route field.** Due to military ATC system limitations, aircrew are to avoid using latitude and longitude positions in flight plans; their use may result in delays to airways clearance issue. VFR/IFR waypoints or range/bearing from NWA are the preferred methods.

5. CLEARANCES

5.1 **Start Clearances during ATS hours.** Start clearances will be implemented during Military Free Fall (MFF) PJE operations by day and all PJE operations at night during ATS hours at YSNW and YJBY. Additionally, start clearances may also be implemented for traffic management purposes at ATC discretion. Any requirements for start clearances shall be published by NOTAM and/or advised on the Nowra ATIS. Aircraft Captains are to contact SMC at YSNW and APP (118.35) at YJBY for start clearance.

5.2 **Start Clearance Outside of ATS hours.** Outside of ATS hours, any requirement for start clearance procedures due to PJE operations will be published by NOTAM. In these circumstances, aircraft are to contact the PJE aircraft prior to start-up on the CTAF frequency.

5.3 **Airways Clearance.** Aircraft initially departing the YSNW CIRA are to contact Airways Clearance Delivery (ACD) for airways clearance and SSR code.

5.4 Aircraft for initial operations within the CIRA are to contact Surface Movement Controller (SMC) to pass initial flight details and obtain airways clearance. Aircraft operating in YSNW CIRA wishing to depart are to advise TWR (or SMC as applicable) of their intention and requested next clearance in advance. TWR will subsequently issue an onwards clearance and code as applicable.

5.5 Helicopter operations within the YSNW CIRA are normally not above 1500ft in order to supplement traffic management procedures.

5.6 **Coded YSNW CIRA/Choppers level clearance.** Helicopters instructed by ATC to operate in the YSNW CIRA and "Choppers" areas are automatically cleared to operate not above 1500ft unless cleared for a different level. Aided or military terrain clearance operations shall have NVG/NVIS or military terrain clearance appended as applicable. Examples as follows:

a. Cleared not above 1500ft - "TAIP41 CLEARED CIRA"

b. Cleared not above 3000ft - "TAIP41 CLEARED CIRA NOT ABOVE THREE THOUSAND"

c. Cleared not above 1500ft NVG - "TAIP41 CLEARED CIRA NVG"

5.7 **Choppers Area Clearance**. Helicopters requiring operations to a 'Choppers' area are to request a clearance to that area and indicate their operating area; ATC will issue clearances in the same fashion. For Example: "Request clearance CHW, for operations WP". Aircraft are to request ATC approval to change 'Choppers' area or operating area.

5.8 When operating under a Choppers clearance, a clearance to cross/re-cross a runway or runway flight-strip that is within the cleared designated Choppers airspace is not required.

5.9 **Departure from YJBY.** If M440B is active to the surface, only aircraft with approval to operate in M440B may become airborne from YJBY. When M440B is not active to the surface during ATS hours, aircraft must not become airborne until in receipt of an airways clearance and an instruction to 'report airborne' from NWA APP. In addition, aircraft are to broadcast as required on the YJBY CIRA frequency 121.625.

The EAXA takes precedence over overlapping portions of R421/R420F. Only authorised aircraft may operate within active EAXA airspace. Aircraft operating within the EAXA must obtain an airways clearance from NWA APP prior to entering R421/R420F from the EAXA.

5.10 **LFA clearance.** Aircraft are to request airways clearance to the specific area(s) required, including areas to be transited. A callsign can request a maximum of 2 LFAs for operations at any one time to facilitate enroute navigation training. It is preferred that callsigns advise ATC once they have completed operations in a particular area in order to free up LFA slots for follow-on aircraft.

5.11 Boundaries of some LFAs extend beyond the lateral dimension of R421. Where this is the case, an ATC clearance to operate in a LFA authorises an aircraft to leave and re-enter R421 within the dimensions of the cleared LFA. LFA portions outside of R421 or within active EAXA airspace are not controlled by ATC. ATC will maintain OPS Normal times on aircraft operating in cleared LFAs. Aircraft intending to operate beyond LFA boundaries in Class G airspace or EAXA MOAs are to advise ATC as accurate information about intended operating area will expedite any required SAR response.

5.12 **CA and PIN clearance.** Clearances for specific CAs or PIN may not be issued if those locations are within a designated LFA. Instead, aircraft may be cleared for operations in that LFA. It is the responsibility of the Aircraft Captain to coordinate aircraft-to-aircraft de-confliction with other units operating in the same LFA. Specific clearances will be issued to CA/PIN not associated with a LFA if required.

5.13 **PJE Aircraft Clearances.** PJE clearances are within the Parachute Operations section.

6. COMMUNICATIONS REQUIREMENTS

6.1 **Ground vehicles.** Individual vehicles are to adopt the callsign relevant to their purpose and function on the airfield. Ground vehicle callsigns are to be approved by ACC. The callsigns contained at Table G.1 to Annex G are authorised for use on the Nowra ATC radio network. Vehicles should normally use SMCV frequency (122.05) during ATS hours and the CTAF frequency outside ATS hours.

6.2 **LFA common frequency**. LFAs 1 through 8 have been allocated 296.3 for use as an air-to-air de-confliction frequency (frequency can be used as air-to-ground for training objectives as required, eg SAREX). Aircraft are still required to maintain listening/reporting requirements with ATC Approach as cleared. LFAs 9 through 14 do not have a discrete frequency assigned to them and aircraft are to maintain listening/reporting requirements with ATC Approach as cleared. CTAF procedures apply in all LFAs outside ATC hours (R421 de-active) the discrete air-to-air frequency (296.3) must be used in LFAs 1-8 during this period for military rotary aircraft.

6.3 **Transponder.** When ATC is active, aircraft operating in the YSNW CIRA are to squawk 0100 unless otherwise directed.

6.4 **ADS-B**. Aircraft fitted with ADS-B shall select ADS-B to TRANSMIT upon taxi unless EMCOM procedures apply.

6.5 Formations shall operate transponders IAW FIHA ENR 1.1 para 16.2.

6.6 **RPAS**. RPAS communications, transponder, and reporting requirements for Specific Type A operations as defined in this instruction are IAW manned aircraft requirements. 822X SQN are to use callsign "OMEN XX" for operations within R421 and adjacent Maritime Operating Areas.

6.7 **Bherwerre repeater.** IAW ERSA FAC, YSNW Approach is available on 123.5 and 118.35. Terrain shielding often adversely impacts VHF/UHF communications within R421. 118.35 rebroadcasts to ATC via a repeater located at Bherwerre ridge (approx. 2NM to the SE of YJBY), providing improved low level communications coverage to the SE of YSNW.

7. SARWATCH

7.1 Aircraft operating within R421 are provided a SARWATCH by ATC. This is to be provided IAW FIHA and *Manual of Air Traffic Services* (MATS). For training area operations, SKEDS are the primary method of maintaining SARWATCH. Listening watch is not available in R421.

7.2 **SKEDS - ATC Operations Normal (OPN).** Aircraft Captains are responsible for reporting OPN to ATC whenever aircraft are operating within the training areas, or when in the CIRA and not able to be continuously monitored by ATC. OPN calls are to be made either on the hour (H), H+15, H+30 or H+45 and shall not exceed 35 minute intervals unless a SARTIME, NOCOM time or a time nominated by ATC has been negotiated.

7.3 **CTAF OPN.** During CTAF operations Aircraft Captains are to fulfil their SARWATCH requirements by holding OPN with the SQN Duty Officer unless operating under a SARTIME or NOCOM. Cancellation of the flight following during CTAF shall be through the broadcast phrase "Cancel SARWATCH" to the holding agent.

7.4 **ATC SARWATCH requirements.** ATC is required to maintain a SARWATCH on all aircraft operating within R421/R420F, including those in YJBY CIRA or operating with a ship within R421. Aircraft may negotiate longer OPN times with ATC if required as per GEN 7.2. SARWATCH is not required if operations are contained entirely outside of R421/R420F or within active EAXA airspace, however ATC may be able hold an OPN time at pilot request, subject to radio coverage and ATC workload.

7.5 **NOCOM.** Aircraft operating in R421 and R420F may operate on NOCOM as appropriate IAW FIHA and *Manual of Air Traffic Services* (MATS) requirements. Flight details shall be submitted to ATC prior to operating on NOCOM. Aircrew requiring EMCON/NOCOM departures are to contact NWA Approach prior and confirm Flight Notification details including tracking, level, armament (including chaff and flares), POB, endurance, duration, taxi and roll time. An airways clearance (including a clearance void time) will be issued and a read-back required. NOCOM departure procedures are detailed at Annex H.

8. **NAS Fuelling Operations**

8.1 Refuelling Operations are detailed in Chapter 11 of the NAS Aerodrome Manual

CIRCUIT AREA AND AERODROME OPERATIONS

1. NOWRA (YSNW)

1.1 The *Nowra Aerodrome Manual* provides general aerodrome information. Operations are also to be conducted IAW ERSA FAC Nowra. Multiple HLS and areas of operation are contained within the Nowra CIRA as detailed in Airspace. Aircraft intending to operate in these areas are to request a clearance for the HLS and area of operations.

1.2 **Noise abatement.** Noise abatement procedures IAW ERSA. In addition to standard 'fly neighbourly' considerations aircraft are to avoid residential buildings by at least 200m laterally and 500ft vertically when conducting operations within the Nowra CIRA.

2. GROUND OPERATIONS

2.1 **Aircraft Wash Facility**. Details can be found in ERSA FAC Nowra and *Nowra Aerodrome Manual*.

2.2 **Refuelling Operations.** SI(NA) OPS 05-09—Aircraft Fuelling Operations and *Nowra Aerodrome Manual* contain the instructions, requirements and procedures for refuelling operations. This includes the procedures for the use of the fixed hot refuelling point (HRP).

3. CIRCUIT PROCEDURES

3.1 **Circuit direction.** Aircraft are to adhere to circuit directions as listed in ERSA and parallel to the nominated duty/active runway. Contra-rotating circuit operations may be requested by an Aircraft Captain or may be implemented by ATC to minimise traffic conflictions.

3.2 **Duty runway selection.** When active, ATC will select the duty runway IAW *Manual of Air Traffic Services* (MATS).

3.3 **Preferred Runway (08/26).** In order to de-conflict IF and arriving/departing traffic, RWY 08/26 shall be nominated as the preferred runway for continuous circuits, provided the maximum crosswind does not exceed 10 kt.

3.4 **Duty Runway direction.** All airfield users shall conduct operations from, or aligned to, the duty runway unless operationally essential or as dictated by ATC. This includes the operations to/from helicopter spots. Take off or landing clearance without a specified direction implies conforming to the duty runway direction.

3.5 Aircraft with an operational requirement to operate to a non-duty runway are to advise ATC using the phrase 'REQUIRE RUNWAY (number)'. Specific operations – FDPT operations, parachuting to Husbands Drop Zone (HDZ) for example – require operations aligned with a particular direction. When cleared for such operations with set alignment, there is no requirement for this request.

3.6 Whenever an operational requirement exists to conduct operations not parallel to the nominated duty RWY, aircraft captains are to request their preferred take-off and/or landing direction to TWR.

3.7 **Circuit Altitude.** Aircraft are to fly circuits at levels IAW ERSA unless otherwise cleared by ATC. Circuits to the Flight Deck Procedural Trainer are to be conducted not above 700ft.

3.8 **Non-standard circuit advice.** In addition to the requirements of FIHA, aircrew conducting circuits that do not conform with a standard circuit pattern, speed or height are to inform ATC with intentions with the "READY" call or as soon as practicable airborne. Examples include early crosswind/base turns, low level circuits, autorotations and slow approaches.

3.9 **Low Level Circuits**. Low level circuits are not to be conducted by circuit aircraft through operating areas within the CIRA containing helicopters that overlap the circuit pattern (eg FDPT).

3.10 **Lovells Drop Zone (LDZ).** Once established at LDZ operations are restricted to hover operations at or below tree top height. Aircraft joining or departing LDZ shall conform to the duty runway direction for approach and departure. Dimensions are within 'Parachuting'. Aircraft shall 'request to become airborne' and receive clearance from ATC prior to departing above tree top height in LDZ.

3.11 **Husbands Drop Zone (HDZ).** HDZ is not available for helicopter landings (unless in emergency) due to the importance of maintaining a suitable surface for parachute operations. Aircraft joining or departing HDZ shall conform to the duty runway direction for approach and departure. HDZ is not to be used when aircraft are operating to RWY 03/21 unless approved by ATC. Dimensions are within 'Parachuting'. Aircraft shall 'request to become airborne' and receive clearance from ATC prior to departing above tree top height in HDZ.

3.12 **Dust Bowl, Track Pad and Parma Creek**. ATC will clear aircraft via an appropriate 'CHOPPERS (cardinal direction)' clearance. For operations in Parma Creek, aircraft are to maintain not above 700ft unless otherwise directed by ATC.

3.13 **Night CTAF Contra-rotating Circuits**. During night CTAF where RWY and Western Pad (WP) / Southern Pad (SP) are in operation, 'parallel runway operations' must be conducted. Pad circuit traffic must orientate with the active RWY and contra-rotating CCTs (Pad vs RWY) must be conducted.

3.14 **Night CTAF Traffic Limitations.** To aid with de-confliction during night flying under CTAF operations, the maximum NWA CIRA (within 5nm) capacity is six aircraft. This includes aircraft operating solely within the CIRA, conducting instrument procedures, departing, and/or arriving aircraft. IAW Table D.1 to Annex D only 4 aircraft are able to conduct continuous operations within the NWA CIRA with the addition of up to 2 aircraft departing or arriving to/from outside the CIRA. In addition, the following night CTAF traffic limitations apply:

a. a maximum of three aircraft to the active runway;

b. a maximum of two aircraft to either the SP or WP; and

c. where the FDPT is active:

   i. maximum of two aircraft to the active RWY, and

   ii. the SP is not to be used when RWY 08 is active.

4. TAKE-OFF AND LANDING WIND INFORMATION

4.1 **Wind information.** ATC will not transmit significant crosswind information to Navy helicopters unless:

a. the helicopter is using a runway or a runway subdivision and significant crosswind/tailwind is present in accordance with FIHA ENR 1.1 2.12.1.d, or

b. the actual wind velocity is significantly different from that recorded on the ATIS.

5. AERODROME OPERATIONS

5.1 **Air Transit.** Aircraft must track by the most direct route for dispersal when instructed to 'air transit', remaining appropriately clear of all structures and flight lines, unless otherwise instructed by ATC.

5.2 **Single engine operations.** Aircraft Captains of multi engine helicopters are to notify Tower of any intention to carry out single engine work to a runway. Aircraft are to prefix any practice engine failures on take-off (regardless whether a landing or shallow climb results) with '(callsign) PRACTICE'. TWR acknowledgement using '(callsign)' after take-off, allows the aircraft to land on or climb away. On completion, the aircraft is to report '(callsign) CLIMBING AWAY' or 'PRACTICE COMPLETE'.

5.3 **Autorotation.** When conducting autorotation aircraft are to call base prior to leaving the initial autorotation altitude.

5.4 **Taxiway operations**. Helicopters may operate to/from taxiways with the following conditions:

a. helicopters operating on taxiway Bravo are to be cognisant of personnel and equipment in the vicinity of A and B hangars, CHC SAR helicopter, the LHD Trainer and traffic on the Central Apron; and

b. continuous circuits may be conducted to taxiways at ATC discretion.

5.5 **Explosive Stowage Area (ESA).** Flights directly over the ESA are restricted to not below 500ft AGL.

5.6 **Hot Refuelling Point (HRP).** HRP is located east of Taxiway B4. Aircraft shall not fly within 100 metres laterally and 200ft vertically of HRP. Helicopters are not to land at or depart directly from the HRP.

6. SUBDIVISION OPERATIONS

6.1 Runway subdivisions are to be considered separate helicopter landing sites. Aircraft Captains are responsible for manoeuvring within the runway strip to prevent over flying other aircraft operating to the runway. Aircraft Captains are also to advise ATC of their preferred direction of approach and departure from the subdivisions if it is not on runway heading.

6.2 An aircraft shall not enter, take-off, land, line-up, backtrack or cross a runway subdivision without ATC approval. Back-tracking shall be either as a ground taxi or air taxi only.

6.3 One aircraft can request two consecutive subdivisions at ATC discretion.

6.4 Aircraft requesting landing clearance shall be advised of the subdivision to land on and provided with any occupied subdivision that the aircraft will pass in order to land at the designated area (i.e. TAIPAN64, SHORT AND CENTRE OCCUPIED, RWY XX LONG, CLEARED TO LAND).

6.5 Aircraft requesting take-off clearance shall be advised of the subdivision to depart and provided with any occupied subdivisions the aircraft will overfly.

6.6 When an aircraft requesting take-off clearance will be over-flown by an aircraft landing on an upwind subdivision, the clearance shall be withheld until the landing aircraft is:

a. established within the landing subdivision; or

b. has conducted a missed approach/go-around and has overflown the position of the aircraft requesting take-off clearance.

6.7 **Autorotation subdivision operations.** At least two consecutive subdivisions are to be used for autorotation, unless otherwise agreed to by the aircraft captain. Landing clearance to an autorotative aircraft shall contain the subdivision/s that are to be used for landing and any subdivision occupied. Aircraft occupying an upwind subdivision being cleared for take-off while an autorotation is in progress is at ATC discretion.

7. SEPARATION STANDARDS

7.1 **Reduced separation**. Reduced separation standards for CIRA operations, including the application of waivers for rotary wake turbulence standards applied by Nowra ATS, are contained in FIHA.

7.2 Further information on the special application of Separation within R421 airspace is under Separation.

8. CIRCUIT AREA (CIRA) TERRAIN CLEARANCE

8.1 Terrain clearance while operating in the CIRA is the Aircraft Captain's responsibility. At night, a clearance to operate within the CIRA will be appended with NVG/NVIS or Military Terrain Clearance as requested unless the aircraft is unaided, operating to the runways, or landing/taking off from a taxiway for operations to/from a runway.

8.2 **IAP termination.** As per SI NA (OPS) 01-01, FAA Helicopters may conduct visual manoeuvring to land on completion of an IAP. When R421 is active, this is at the discretion of ATC. Terrain and obstruction clearance on commencement of these visual manoeuvres is a pilot responsibility.

9. NIGHT AIDED CIRA OPERATIONS

9.1 If able, aided aircraft operating in the CIRA will display external lighting at all times. No aided/unaided mixed operation is to occur in the circuit if any of the aircraft involved are unable to display external lighting.

9.2 Aircraft Captains may request airfield lighting be extinguished during ATS hours. ATS will only extinguish the lighting provided no other aircraft imminently require the use of this lighting. Outside of ATS hours PAL is available for use at the discretion and mutual agreement of Aircraft Captains.

9.3 During aided operations to an unlit area of the airfield ATC will, in so far as reasonably practicable, conduct a scan of the take-off and/or landing area and path prior to issuing the take-off/landing clearance. NVG aircrew are ultimately responsible for ensuring the take-off and/or landing area and approach path is clear and free from obstructions and hazards.

10. FDPT

10.1 Aircrew are required to be conversant with the FDTU Procedural Training Instructions (see TA-AVN Instructions - Bench Level Instructions, Section 4) and ANP 3300 to operate to the FDPT. Aircraft using the FDPT may fly stern, port or starboard approaches. Aircraft are to:

a. operate not above 700ft during CCTs to the FDPT;

b. conduct left CCTS to the FDPT in the RWY26 direction unless otherwise directed by ATC;

c. obtain ATC clearance for any hover operations at, landing to or takeoff from the FDPT (when ATC active); and

d. maintain communications with the FDPT at all times on 129.45 and with TWR on 118.85.

10.2 The FDPT circuit pattern is intended to segregate FDPT circuits from other aircraft operating to RWY 08/26. It may conflict with flight paths to other runways or HLS, particularly operations in the RWY 03/21 directions. The FDPT superstructure may further obstruct the view of the RWY 03/21 circuit for aircraft about to depart the FDPT. Caution should be exercised when aircraft are operating to the FDPT whilst other aircraft are operating to other than RWY 08/26.

11. LHD TRAINER (LHDT)

11.1 Aircraft for the LHDT are to call SMC for an airways clearance. Aircraft operating to the LHDT are to:

a. operate not above 100ft AGL;

b. remain north of A Hangar, remaining within the confines of the Air Movements apron and the adjacent TWY Bravo 1 (IAW Figure 16); and

c. maintain communications with the LHDT (FLYCO) on 134.125 and Nowra Ground frequency 135.85.

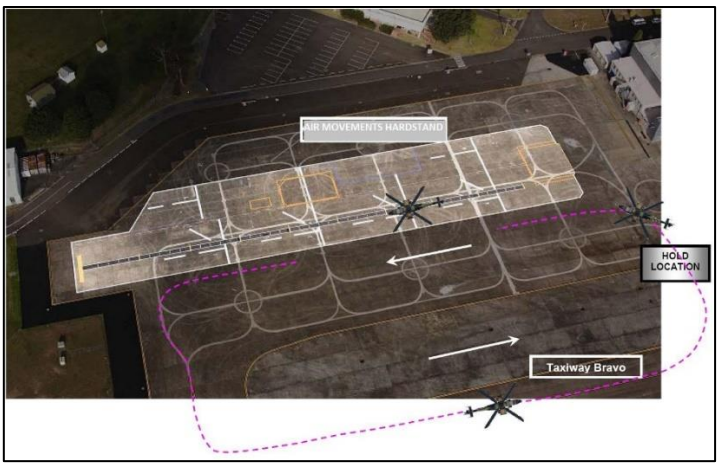


Figure 5: LHD trainer pattern (not to scale)

11.2 IAW Annex D, a maximum of three aircraft can operate to the LHDT during daylight, with a maximum of two at night. Medium or heavy lift helicopters are not to operate concurrently with light helicopters.

12. YJBY CIRCUIT AREA (CIRA)

12.1 ERSA FAC YJBY is the primary source of information for operations within the YJBY CIRA.

12.2 **Noise Abatement.** In addition to ERSA FAC YJBY, circuits should be conducted to Runway 08/26. Aircraft Captains may elect to use Runway 15/33 for operational reasons.

12.3 **Circuit Altitude**. The standard circuit altitude is 1000ft.

12.4 **Operating frequency and communications.** Aircraft are to operate IAW ERSA FAC YJBY.

12.5 **Runway Divisions (Figure 5)**. YJBY runways are divided into three portions, using approximate 1500ft segments as depicted in red below. The naming convention is as per YSNW (Short, Centre, Long). For RWY 33 Long and RWY 15 Short, the southern end of the subdivision ends at the southern edge of the runway intersection. Aircrew are to broadcast which subdivision(s) will be utilised for all runway operations.

12.6 **Load Farm (Figure 5).** The load farm located on the southern side of RWY 08/26 is to be called 'Jervis Bay Load Farm'.

Figure 6: Jervis Bay runway sub-divisions and load farm

12.7 **ADFPS Operations.** Mixed PJE and non-PJE aircraft operations are not permitted. Non-PJE aircraft operating in the YJBY CIRA at the commencement of a period of exclusive/priority use for PJE will be directed to land or depart the CIRA. ATC will keep inbound aircraft separated until completion of the PJE activity.

12.8 Aircraft requiring access to YJBY during exclusive PJE operations in ATS hours are to request clearance through ATC who will coordinate with the DZSO. During CTAF contact the DZSO/PJE aircraft for approval.

12.9 **RPAS Operations**. RPAS (Remotely Piloted Aircraft System) operated by 822X SQN stage, launch and recover from YJBY. Approach and departure is made via dedicated RPAS Gate and Transit Corridors (TC) and these are contained in Annex E.

12.10 **RPAS Concurrent operations** – launch and recovery to YJBY: 822X SQN may operate RPAS from YJBY. To facilitate concurrent operations between RPA and manned aircraft at YJBY, the following procedures apply:

a. **ATC hours of operation**. ATC may restrict CIRA operations to de-conflict with launch and recovery of RPAS.

b. **CTAF hours of operation.** During CTAF hours, due to the absence of the additional risk controls provided by an ATC service, RPAS will revert to the baseline segregation limitations specified in the Air Traffic Management Plan (ATMP) for Navy Specific Type A RPAS. The RPWO acting as Aircraft Captain for an RPA is to ensure that either 1500FT or 1NM exists between the current and planned position of an RPA and any manned aircraft, based on a geographic feature.

12.11 **YJBY Manager.** When staffed, the YJBY Manager (Callsign 'JB OPS') is AVBL on 121.625 (R421 active) or 118.85 (CTAF) for parking, ground handling, airfield hazard details and other relevant information. Aircrew should broadcast intentions on arrival and departure to update the manager on the state of operations.

12.12 **YJBY CIRA Obstruction Lights.** Whilst the airfield is unlit there are obstruction lights at YJBY which are widely dispersed, including Bherwerre Ridge (1.8NM ESE of ARP), the RAN School of Survivability and Ship Safety, and several buildings within the confines of the airfield perimeter. There is no central control for the operation of these lights. Any aircraft operations at YJBY requiring the shutdown of the obstruction lighting will require 48 hours' notice. Requests to switch off the obstruction lights are to be made to the YJBY Manager on 0417 407 471 or the ACC on 4449 2161. The ACC will raise a NOTAM.

ARRIVALS AND DEPARTURES

1. TRAINING AREA ARRIVALS AND DEPARTURES

1.1 **Abbreviated clearances.** Aircraft departing YSNW and cleared to a Training Area in R421 do not require a full airways clearance. A cleared route of flight need not be specified and aircraft are to track direct IAW their last assigned level unless otherwise instructed by ATC. This also applies when clearance is issued between Training Areas. VFR aircraft returning to YSNW from the Training Areas within R421 do not require a full airways clearance and may be issued only a visual approach.

1.2 **Inbound calls.** Aircrew must make every effort to advise ATC of intentions at the earliest possible opportunity to assist in ATC planning process. On first contact with TWR on arrival, aircrew are to pass position and intentions to ATC; eg 'Taipan 48, 5NM to the north east, tracking for final runway 21, full stop'. If tracking is made via an RP, include the name of the tracking point as the position.

2. HELICOPTER SPOT OPERATIONS

2.1 Helicopter Spots shall be utilised by default for all helicopter arrivals and departures that do not require the use of a runway. Use of a RWY or other area must be specifically requested by the aircraft. ATC may use the RWYs or other manoeuvring areas as required for traffic management.

2.2 Take-offs and landings to the Helicopter Spots should be parallel to the duty RWY direction. Normally the most upwind Helicopter Spot parallel to the RWY is designated for departures, and the downwind Helicopter Spot designated for arrivals. Helicopter Spots have been designed to allow simultaneous arrivals and departures of an adjacent Helicopter Spot.

2.3 Post landing at a Helicopter Spot, helicopters shall not vacate the Spot until in receipt of a taxi clearance from ATC (SMC).

3. DEPARTURE PROCEDURES

3.1 Unless otherwise directed, local aircraft departing transfer automatically from TWR to APP within 2NM of the upwind threshold. For local helicopters transfer within 2NM of the aerodrome boundary or NLT 1500ft.

4. NIGHT CTAF ARRIVALS

4.1 When CTAF/non-controlled, circuit joins to the active runway are to be conducted IAW FIHA. A join utilising at least three legs of the circuit for the RWY in use is preferred. Aircraft Captains are responsible for ensuring appropriate radio transmissions and separation is given to established traffic.

4.2 Helicopters recovering for a full-stop where crossing an active circuit is not required, should plan to recover via a visual approach to the appropriate Helicopter Spot within the 'dead' (non-active) side of the circuit.

5. YJBY CIRA TRANSIT/ARRIVAL/DEPARTURE

5.1 **YJBY CIRA.** When R421 is active, ATC shall issue relevant traffic information to aircraft departingor arriving to YJBY or transiting the YJBY CIRA. Additionally, aircraft operating within adjacent or overlapping areas shall be provided traffic information or separated as dictated by ATC requirements. During Nowra ATS HR aircraft operating to adjacent/overlapping areas may elect to not broadcast on YJBY Ops frequency if they advised of 'no traffic'

5.2 Aircraft are to broadcast on the YJBY CIRA CTAF should their operations infringe the YJBY aerodrome (ATS HR)/CIRA (CTAF).

6. RPAS DEPARTURE AND APPROACH PROCEDURES

6.1 **Departure**. Once an RPAS has obtained an airways clearance, the RPAS will be instructed to 'REPORT AIRBORNE' when departing from a non-controlled landing area.

6.2 For controlled aerodromes, the RPAS will be required to operate in a similar manner to manned aircraft and contact Surface Movement Control for taxi or pre take off instructions, after which the RPAS may contact the Tower reporting 'READY'. The Tower Controller will clear the RPA for take-off. The RPAS will contact Approach Control IAW local instructions.

6.3 Unless departing IAW a predefined procedure, similar to a SID, the RPAS is to set course within 1NM unless directed otherwise.

6.4 **Approach**. RPA recovery procedures are contained within the RPAS operations manual. The RPAS may be instructed to make an approach to a landing ground by ATC either via predefined procedures, similar to a STAR or other local military arrival procedure, or in a similar manner to a visual approach by an instruction to 'MAKE APPROACH TO (location)'.

6.5 An instruction to 'MAKE APPROACH TO' requires the RPA to track and manoeuvre in the same manner as a Visual Approach IAW FIHA however, the RPA is to circle within 1NM of the landing ground. If the landing ground is uncontrolled, eg YJBY, the RPAS will be instructed to report on the ground. If the landing ground is within a controlled aerodrome, eg YSNW, the RPAS must be given a landing clearance.

R421 AND ADJACENT FLYING TRAINING AREA OPERATIONS

1. LOW FLYING AREAS (LFA)

1.1 The training areas supporting YSNW based aircraft are defined in Airspace section and imagery is at Annex B. Exact boundary coordinates for flight planning purposes are available in mission planning software and in the EFB.

1.2 LFAs are delineated into two groups for traffic density limits and procedural alignment. The separation is LFAs 1-8 and LFAs 9-14.

1.3 LFA operations may include low flying, formation flying, pinnacle and confined area air work, air-ground SAREX for eg, provided there are no other restrictions in place (eg noise avoidance).

1.4 Aircraft must be cleared for the area they are intending to use when ATC is active. If an aircraft needs to transit from one operating location to another location through an intermediary LFA, they must either overfly any intermediary LFA clear of its vertical dimensions, or be cleared via the intermediary LFA being transited. There are no transit levels established within the LFAs.

1.5 Designated LFAs lie over or near environmental sensitive areas within the region. These areas include Morton National Park, Booderee National Park and Budawang Wilderness Area. Aircraft Captains are reminded of 'fly neighbourly' principles when operating IVO these areas.

2. LFA 1-8

2.1 The vertical limits of LFAs 1-8 are SFC-3000ft. A higher level can be requested by aircraft if required.

2.2 LFA 1-8 are approved as terrain flight training areas.

2.3 **Discrete LFA frequency.** For operations in LFA 1-8 aircraft are to broadcast on the discrete UHF air-to-air common frequency 296.3. This is in addition to maintaining standard ATC or CTAF communication.

2.4 Aircraft are to establish two-way communication via 296.3 with other callsigns already in that LFA and are not to descend below 500'AO until this is achieved. Aircraft are to maintain communication with other aircraft while they are in that LFA. Aircraft transiting overhead should maintain listening watch on 296.3 if intending to join an adjacent LFA.

2.5 Additional common frequency broadcast requirements when operating in LFA 1-8 include when transiting between LFAs, or when commencing/transiting/completing a designated evolution (eg 'operations complete L4-4, transiting L4-5, established L4-5 for CA operations').

2.6 The following limitations apply in those areas contained within LFAs 1-8:

a. A maximum of three callsigns only in each individual LFA (1-8),

b. Only one aircraft type (i.e. rotary/fixed wing) in each LFA, and

c. Local rotary wing have priority over all other aircraft.

2.7 **Landing Restriction.** LFA 7 and LFA 8 (Tianjara) contains a former artillery training area within its boundaries that has unspecified amounts of live unexploded ordnance (UXO). Aircraft are prohibited from landing within designated UXO areas unless in emergency conditions.

3. LFA 9-14

3.1 The vertical limits of LFAs 9-14 is SFC-1500ft. A higher level can be requested by aircraft if required.

3.2 LFA 9-14 are not approved as terrain flight training areas except for FAA aircraft where specifically permitted by FAA instructions.

3.3 A clearance to operate to LFA 14 is inferred in a HN clearance.

3.4 In LFAs 9-14, there is no discrete air-to-air common frequency. Aircraft are to make normal clearance requests or broadcasts as required by FIHA (R421 active/not active).

3.5 The following limitations apply in those areas contained within LFAs 9-14:

a. Two (2) callsigns only in each LFA (9-14),

b. Only one aircraft type (i.e. rotary/fixed wing) in each LFA, and

c. Local rotary wing have priority over all other aircraft.

3.6 LFA 14. The primary purpose of LFA 14 is to enable emergency/autorotation training to continue below 200'AO while remaining within Helo North. Aircraft are not to conduct NoE in this LFA.

4. 822X RPAS OPERATIONS IN R421

4.1 822X RPAS operations are typically conducted from YJBY with launch and recovery conducted IAW ATC clearances (when R421 active) and generally via endorsed transit lanes. Detailed information of flight profiles is contained in approved RPAS OIP, available on the 822X SQN intranet page and at BS67286691(DPE).

4.2 Standard operating altitude for the RPA is 300ft to 10000ft. Operations in Jervis Bay are normally conducted in a block height between 3500ft to 4500ft in order to facilitate use of Jervis Bay by other airspace users up to 2000ft.

4.3 Minimum height for RPAS flights over land is 1000ft AGL while over water the following height limits apply:

a. 1000ft in Jervis Bay, estuaries and water ways;

b. 500ft over open ocean.

4.4 **RPAS navigation requirements.** ATC require the RPA to maintain precise track keeping for separation and segregation purposes. When operating within a defined area, the RPAS Mission Commander is to apply navigation and system tolerances to ensure the possible position of the RPA is wholly contained within the operating area.

5. EAST AUSTRALIAN EXERCISE AREA (EAXA) PROCEDURES

5.1 The booking and management of EAXA airspace is the responsibility of the FXP Coordinator – East (FXPCO-E). Aircraft are not to proceed into active EAXA airspace unless approved through the FXPCO.

5.2 When EAXA is activated by NOTAM, it is the aircraft's responsibility to ensure they have the appropriate approval required to enter the area.

5.3 NWA ATC does not provide a control service within the EAXA. When overlapping portions of the EAXA and R421AB/R420F are concurrently active, the EAXA portion is not available for use by NWA ATC. Aircraft will only be cleared to/from the EAXA airspace as required. ATC do not maintain copies of the FXP and are unable to regulate activities within the EAXA.

5.4 When ATC has no further frequency requirements for an aircraft departing to the EAXA, the aircraft will be 'cleared tactical'. ATS surveillance identification and SARWATCH is automatically terminated upon entry into the EAXA. In instances where SARWATCH is unable to be held by another agency ATC may hold SARWATCH on request by the Aircraft Captain.

5.5 The Officer Commanding Serial (OCS) is responsible for all aircraft under their control and for containing aircraft within their allocated exercise areas. IAW Australian Fleet Tactical Publication (AFTP) 4 (K)—*Australian Fleet Training Instructions* aircraft operating within the EAXA are expected to remain clear of active adjacent airspace boundaries (R421AB/R420F). When aircraft are transiting the EAXA en route to or from a fleet serial Aircraft Captains are responsible for remaining clear of other active areas. If required to transit areas activated for other serials Aircraft Captains shall coordinate clearance through the HQJOC Maritime Operations Watchkeeping Officer prior to departure. If required, approval to enter those areas is to be gained from the OCS of the activity being conducted.

5.6 FXP Cell Contact Details:

a. FXPCO Ph – 02 9537 4652 Email – ffgd.fxpcell@defence.gov.au

b. (AH) HQJOC - SO3 DOM REG Ph – 02 6218 4339

5.7 All aircraft shall maintain a listening watch on Guard whilst in the EAXA.

6. EAXA TRANSIT RADIALS (LANES)

6.1 Three tracks from position UXUTI (previously NWA TACAN, now decommissioned) have been nominated as Transit Radials (TR) to aid the entry and exit to the outer areas of the EAXA. The TRs may also be referred to as Transit Lanes. Each TR consists of a lane based on a centre radial, with boundaries plus or minus 1NM. TRs are permanently active unless deactivated in the remarks column of the FXP. They are:

a. Transit Radial 1 (TR1) - UXUTI 077R (090ºT) to 95NM

b. Transit Radial 2 (TR2) - UXUTI 117R (130ºT) to 120NM

c. Transit Radial 3 (TR3) - UXUTI 162R (175ºT) to 120NM

6.2 Aircraft operating in the outer EAXA areas are to use the transit radials tracking to/from the areas. IAW Australian Fleet Tactical Publication (AFTP) 4 (K)—*Australian Fleet Training Instructions* all aircraft operating from YSNW intending to use a Transit Radial are to confirm the TR in Flight Plans and Accept/Tasking messages. The OCS of serials should indicate in their tasking message if an aircraft is to join via a TR and which Radial is to be used.

6.3 While flying along a TR in the EAXA:

a. Aircraft outbound from YSNW are to fly at odd thousands, and aircraft inbound to YSNW at even thousands, in accordance with cruising levels within FIHA.

b. Aircraft should be established at an appropriate height before entering a TR clear of R421.

c. Aircraft departing a TR into their assigned area are to remain at their transit level until they are a minimum of 1NM clear outside of the Lane boundary and have received clearance from their serial Aircraft Control Unit (or EAGLE CONTROL), to vary altitude as required.

6.4 Transit through the EAXA is possible via TR1 or TR2. TR3 may be used for transit to or from the EAXA via the southern boundary of M440. IFR aircraft using TR3 are to ensure that adjacent civil airspaces are not compromised. ATC will only advise Melbourne Centre of outbound IFR aircraft using TR3. NWA ATC may provide aircraft entering areas immediately adjacent to Nowra airspace with direct tracking where possible.

7. SHOALHAVEN GORGE

7.1 The Shoalhaven Gorge extends along the Shoalhaven River from the western boundary of L1 to Tallowa Dam (TLD). Although the Gorge lies outside controlled airspace, locally based aircraft frequently conduct low-level operations and training within the area, which may result in an increased risk of conflict with opposing traffic. This risk is further exacerbated by the surrounding terrain, which restricts both communication capability and manoeuvring options.

7.2 In order to minimise unnecessary risk, locally based and appropriately briefed aircraft should comply with the following principles when conducting low level operation within the Shoalhaven Gorge:

a. All planned low-level transits in the Gorge between the western boundary of L1 and TLD are to be conducted in an eastbound direction.

b. Westbound transit within the Gorge at low level is permitted only where operationally essential.

SEPARATION

1. INTRODUCTION

1.1 Nowra ATC provide a Class D Air Traffic Service (ATS) as approved by OC 44WG IAW AIP/FIHA to all aircraft operating within R421AB when active.

1.2 The application of standards and procedures beyond what is detailed below requires approval from the aircraft operator's MAO-AM, Head of Flying Operations, or authorised delegate IAW FIHA.

2. PROVISION OF CLASS D ATS

2.1 Unless otherwise varied by these instructions, all aircraft will receive a Class D ATS when operating within R421AB. A radar approach service is provided within R421AB by 'Nowra Approach'. All aircraft are to comply with the relevant procedures for operation in Class D airspace as specified in AIP/FIHA.

2.2 **Airways clearances**. ATC airways clearances are required for aircraft to operate within R421AB.

2.3 **Traffic information.** Traffic information will be passed IAW Class D procedures to build pilot situational awareness, while providing opportunity for pilots to request amended tracking if deemed necessary. Pilots may request ATC assistance to avoid other traffic.

2.4 **Training area operations**. ATC will advise aircraft joining training areas within R421 of other traffic in the same training area by the use of the phrase "NUMBER #", which indicates how many aircraft are within that area.

2.5 Pilots established in a training area are responsible for deconflicting their operations with those of other aircraft in the same area, and for containing their operation within the boundaries of training areas in which they are cleared to operate.

2.6 Aircraft may not be provided with traffic information on aircraft operating within adjacent training areas including the CIRA. Operations near boundaries may be in close proximity to unknown traffic. Aircraft may request traffic information on adjacent areas.

3. SEPERATION WITH EAXA

3.1 **Normal procedures.** ATC are required to apply separation between aircraft operating within R421AB and the EAXA areas immediately adjacent to R421 when activated by NOTAM for military flying. This will generally involve application of a surveillance separation standard between aircraft and the EAXA boundary, or ATC restrictions on operations to ensure aircraft do not enter the EAXA airspace. Operations in close proximity to active EAXA airspace may not be possible.

Note: Aircraft that are serialised or approved for activity on the FXP are considered participants in EAXA activities and thus do not require separation with the EAXA.

3.2 **Self-separation.** Navy FAA aircraft are approved by COMFAA to self-separate from EAXA. Other operators are approved to self-separate from the EAXA provided they have established a formal agreement between Nowra ATC and the operator's approved delegate.

3.3 Nowra ATC will inform self-separating aircraft that EAXA airspace is active or about to become active. Self-separating aircraft captains are expected to be aware of planned serials in adjacent EAXA areas during their period of operation. Once such aircraft are informed of the active airspace, they assume responsibility for self-separation by remaining clear of the airspace. SQNs and operators may promulgate specific tracking, navigation or separation tolerances based on individual aircraft type navigation system performance and/or specific flight conditions.

3.4 Aircraft operating in the EAXA shall not enter R421AB without a clearance.

3.5 **ATC radar vectors**. Nowra ATC shall not vector self-separating aircraft until a separation standard exists with the EAXA boundary. To facilitate this ATC may issue an instruction 'WHEN READY FLY HEADING (DEGREES) [VISUAL]', in which case responsibility for separation with the EAXA will remain with the pilot until an ATC separation standard is established.

4. SEPARATION BETWEEN PARACHUTING OPERATIONS AND NON-PJE AIRCRAFT

4.1 Separation procedures between parachute operations and non-PJE aircraft can be found under the Parachute Operations section.

ABNORMAL OPERATIONS

1. ABNORMAL AIRCRAFT OPERATIONS

1.1 Abnormal operations constitute any deviance from the intended means of flight, including training to handle such deviations. Further information on abnormal operations may be found in *Nowra Aerodrome Manual*.

1.2 **ARFFS and Emergency Monitoring During CTAF**. IAW ERSA FAC Nowra and the Aerodrome Emergency Plan, Airfield Rescue and Fire Fighting Service (ARFFS) monitor and are contactable on CTAF frequency 118.85 outside of ATS hours. ARFFS also monitor 406 beacon frequency but are unable to locate. OPSTAR DAO also monitors CTAF and 406 beacon frequencies, and is able to locate the position of the beacon if required.

1.3 **Fuel dumping**. Should only occur IAW Maritime Safety Bureau—*ADF Maritime Activities Environmental Management Plan (MA EMP)*(PA7—Fuel Dumping and Abnormal Release of Aircraft Stores), and FIHA. Dumping of fuel for maintenance test or validation flight requirements should occur in Helo South airspace or SHBT whilst complying with the above requirements.

1.4 **Hung Ordnance.** In the event of ordnance failing to release and to allow the aerodrome to prepare to receive aircraft with hung ordnance, aircraft are to:

a. Declare a PAN advising specific details of incident

b. Aircraft carrying Ordnance containing HCC 1.1 will recover clear of built-up areas and will land at ASP/OLA from which the aircraft departed

c. Aircraft carrying Ordnance containing HCC classes other than 1.1 shall:

   i. Recover clear of built-up areas and will join for a straight-in or down-wind to land on the duty runway

   ii. Move to the ASP/OLA from which the aircraft departed

   iii. Remain 1000 m clear of the Nowra Hill ATC Radar when approaching YSNW.

1.5 Aircraft Emergencies with Explosive Ordnance On-board. Aircraft in an emergency state, able to return to YSNW, are to recover to YSNW and the appropriate ASP/OLA, and handle the EO IAW extant procedures. Two emergency OLAs are also available closer to the coast if a transit to YSNW from the EAXA cannot be made or risked. These are:

a. Beecroft Range Helo Pad (L12-1 IAW Annex C, HOTSPOT–233.40), and

b. Western end of RWY 08/26 at YJBY.

1.6 Aircraft Captains that force land with high explosive ordnance embarked, away from the YSNW or emergency OLAs are to ensure that a cordon of at least 400 m is immediately placed around the aircraft.

1.7 **Hung Dipping Sonar Transducer**. In the event the dipping sonar transducer ("dome") cannot be recovered into the aircraft and is not jettisoned in place, following the 'freestream' procedure Aircraft Captains are to consider the most suitable area for the dome to be recovered. Aircraft Captains are to advise ATC of the Payed Out Cable Length (POCL) to facilitate clearances and separation. For operations from YSNW:

a. If a safe recovery ashore cannot be made, the dome should be jettisoned in shallow water adjacent to HMAS Creswell, avoiding the Jervis Bay Marine Park, to facilitate its recovery

b. If a recovery ashore is considered viable, the Western Pad is the preferred recovery location.

1.8 **Hot brake procedures.** Aircraft with hot brakes or wheel fire shall advise ATC of the condition, any ordnance or dangerous cargo, and their intentions. Aircraft should proceed to the appropriate 'Safe Area', located at the threshold of each RWY. Where possible the aircraft is to point towards the OVERRUN. In more extreme cases, the ACFT will vacate the RWY and stop on the parallel TWY. On reaching the Hot Brake Safe

Area, aircraft are to be shut-down and wait arrival of ARFF to commence cooling operations. The aircraft captain is to liaise with ARFF on ground frequency.

1.9 Armed Aircraft with hot brakes must comply with weapons safety procedures.

1.10 **Wheel fire.** Aircraft are to come to a stop and shut-down immediately. ATC are to direct ARFF to the aircraft. The Aircraft Captain is to liaise with ARFF on ground frequency. Normal fire evacuation procedures are to be followed.

1.11 **Pre-meditated ejection.** The Pre-meditated ejection area is Shoalhaven Bight.

1.12 **Hot Lane.** Hot Lane procedures are IAW ERSA FAC.

1.13 **Emergency runway lighting**. Refer to the *Nowra Aerodrome Manual* Chapter 4 for emergency runway lighting information.

2. RPAS ABNORMAL OPERATIONS

2.1 **Emergencies.** When experiencing an emergency, the RPAS MC / RPWO will broadcast the nature of the emergency along with intentions to NWA APP or CTAF Frequencies as appropriate.

2.2 **Loss of Link (LOL).** When the data-uplink is lost, the RPA will squawk 7400 and fly a pre-programmed LOL route to a safe recovery position while RPAS crew attempt to regain control. If link is not re-established the MC will declare 'Loss of Link, Loss of Link, Loss of Link' to ATC (or CTAF broadcast) with an estimate of the arrival time of the RPA over its recovery area. The RPA will continue to autonomously track as per its LOL programming, which is predetermined by the RPAS Crew. Communications between NWA APP and the RPAS crew are not impacted by LOL. Typically the RPA will be programmed to track via Gate East (35 9.3741S 150 45.8411E) and enter a 20 minute holding pattern within 1NM of YJBY ARP at 2500ft, after which time it will then recover to YJBY.

2.3 **Navigation System Failure.** The RPA uses GPS as its primary means of navigation and positions are updated to the GCS multiple times per second. In the event of a full navigation system failure the AVO will visually navigate the RPA back to YJBY using the payload camera and direction from ATC, where a recovery will then be conducted.

2.4 **Loss of Propulsion.** In the event of an engine failure, the AVO will direct the RPA to a desired point of recovery that presents the least risk to personnel and property IAW the RPAS emergency procedures.

2.5 If any doubt exists as to the safe recovery of the aircraft following an abnormal indication, it will be navigated to a safe location and flight will be terminated. Emergency calls will be made on ATC frequencies if the RPA presents any risk to personnel or other airspace users.

3. REDUCED AIR TRAFFIC SERVICE CONCEPT OF OPERATIONS

3.1 Mission Risk Profiles (MRPs) have been created to provide direction in the provision of Air Base Air Traffic Service (ABATS) in the event of reduced staffing and limited ATC endorsements at 453 SQN NWA FLT. These MRPs are IAW 453 SQN NWA FLT Local Instructions (DPE-OBJ).

3.2 **Traffic Management.** Traffic will be managed by ATC. Restrictions may be imposed during periods of reduced ATS CONOPS.

3.3 **Notification**. Should manning shortfalls cause a reduction in services below those stipulated in ERSA, the Airfield Coordination Centre is to be informed:

a. immediately, when the period impacted is within the current working week; and

b. at the Weekly Planning Meeting in all other circumstances.

4. ATS SURVEILLANCE SYSTEM FAILURE / IMPACT

4.1 When the Nowra Radar is unavailable and an aircraft is at or below 5000ft, ATC is unable to:

a. apply ATS Surveillance System separation, or

b. provide continuous surveillance monitoring.

4.2 Level of Failure. For the purposes of this instruction there are two levels of failure that will impact the ability to provide ATS Surveillance Service below 5000ft:

a. NWA Radar System Failure (NSF), and

b. Total System Failure (TSF).

4.3 All aircraft shall be informed in the event of either a NSF or TSF; ATC will regulate traffic flow and, if required, implement emergency separation IAW *Manual of Air Traffic Services* (MATS) "Emergency Separation".

4.4 **Cessation of Services.** If the decision is made to cease ATS, all aircraft shall be informed of the radar failure (if not previously advised) and CTAF or AWIS procedures shall be implemented.

4.5 **Long Term Total System Failure.** In the event of a total system failure the decision to continue ATS will be determined by 453 SQN NWA FLTCDR, in consultation with HQ-FAA and ACC, and will require the implementation of traffic regulations.

4.6 **Traffic Management.** Traffic restrictions may be imposed during periods of radar failure. ATC will have reduced ability to process IFR and Special VFR aircraft below radar coverage, aircraft intending to operate IFR or Special VFR may experience delays during outages, and Special VFR clearances may not be available. Traffic density in all training areas is described at Annex D and will be managed at the ACC weekly planning meetings.

PARACHUTE OPERATIONS

1. INTRODUCTION

1.1 YSNW, YJBY, and Jervis Bay are regularly utilised as parachuting jump exercise (PJE) training areas for ADF parachute units; primarily the Australian Defence Force Parachuting School (ADFPS).

1.2 Parachuting operations are conducted in parallel with other flying operations and require appropriate separation. All ADF and sponsored foreign Parachute units conducting parachute activities within R421 are bound by the procedures described herein.

1.3 **Planning**. See General Planning.

1.4 **Parachuting Unit Liaison Officer Briefings**. Any PJE activity in the Nowra airspace is to have a nominated Parachuting Unit Liaison Officer (PULO). Prior to any PJE activity ACC will brief the PULO on the relevant operating procedures. The PULO is then responsible for briefing all personnel involved in the activity. The PULO will also attend the relevant ACC weekly planning meeting, where this cannot be achieved the ADFPS Liaison Officer is to attend.

1.5 **Night drops.** The PULO is to attend 723 SQN for night flying brief if PJE operations are to be conducted at night. In addition, the PULO will receive a brief from ACC on the airfield layout, vehicle movement restrictions and light signals.

1.6 **Communications.** Parachute units conducting descents at Nowra and YJBY are to:

a. Provide radio communications at the DZ between ATC, the releasing aircraft and DZSO. Communication between DZSO and ATC is not required for operations at the Jervis Bay Drop Zone (JBDZ) or Darling Roads Drop Zone (DRDZ), however the DZSO is to monitor the designated ATC frequency

b. Advise ATC/ACC (as relevant) in the event paratroops have landed on runways, taxiways or aprons and conduct a FOD check following landings at YJBY.

2. PARACHUTE DESCENT TYPES

2.1 The following descent types may be conducted within R421:

a. Static Line (SL) descents from a height of up to 1500ft AGL to Husbands DZ (HDZ) and DRDZ

b. Ram Air SL (RAPSL) descents use square/steerable parachutes at exit heights normally 4,000ft to 12000ft AGL.

c. Military Free Fall (MFF) descents use square/steerable parachutes with an exit height of up to 15,000ft AGL and canopy activation heights above 2,500ft AGL.

d. High Altitude Parachute Operations (HAPO). HAPO includes High Altitude Low Opening (HALO) and High Altitude High Opening (HAHO). Descents may use supplementary oxygen from heights above 10,000ft. Operations within DZs will be coordinated at the ACC weekly planning meeting

i. HALO is a free fall descent with an exit altitude between 10,000 - 25,000ft. Canopy activation heights will normally be 4,000 - 7,000ft AGL.

ii. HAHO is a descent utilising square/steerable parachutes which activate upon, or shortly after exit; at altitudes from 10,000-25,000ft. HAHO descents may last for 30 minutes and transit up to 50km under canopy.

3. PARACHUTING DROP ZONES AND AREAS

3.1 **Terminology.** In this section, the following definitions apply.

i. **Drop Zone:** The intended landing area on to which the parachutists will descend.

ii. **Drop Area:** The airspace through which the parachutists will descend after leaving the parachuting aircraft.

iii. **Separation:** The application of defined standards by ATC to ensure aircraft maintain a prescribed minimum distance from other aircraft or parachutists.

3.2 **Husbands Drop Zone (HDZ).** HDZ is located on the extended centreline of RWY 21 and is depicted at Figure 6.

3.3 **Husbands Static Line Drop Area (HSLDA)**. HSLDA is a volume of airspace above HDZ, SFC to 2000FT. HSLDA shares identical boundaries with HDZ. PJE aircraft will normally dispatch paratroopers from 1500FT when dropping in HSLDA.

3.4 In the event of injuries requiring transport away from HDZ and expedited transport across the airfield, emergency vehicles or the DZSO may contact ATC and request access.

Figure 7: Husbands drop zone

3.5 **Lovells Drop Area (LDA).** LDA is depicted in Figure 7, and is defined as a circle of 1NM radius centred on the Target (56H KG 73207 28181). Parachutes may drop at LDA from any level, however drops above FL120 are subject to civil ATC approval. All drops in VMC by day from A100 or below shall automatically use a drop area of reduced dimensions, unless the full 1NM radius is specifically requested by the pilot. When the reduced LDA is in use, parachutes shall remain within the 1NM radius of the same target, whilst also remaining southeast of a boundary formed by two line features, shown by the dashed line in Figure 7:

i. Braidwood Road, and

ii. the east / west line feature of the prominent tree line paralleling Parma Rd which extends east from the intersection with Braidwood Road to intersect with the prominent tree line which runs north-south on the eastern edge of HDZ.

3.6 When LDA is in use, other aircraft operating to or from YSNW can expect additional delays due to the proximity of the drop area to the aerodrome, and the associated separation standards ATC are required to apply. Refer to PAR 4: PJE – ATC Separation for further information.

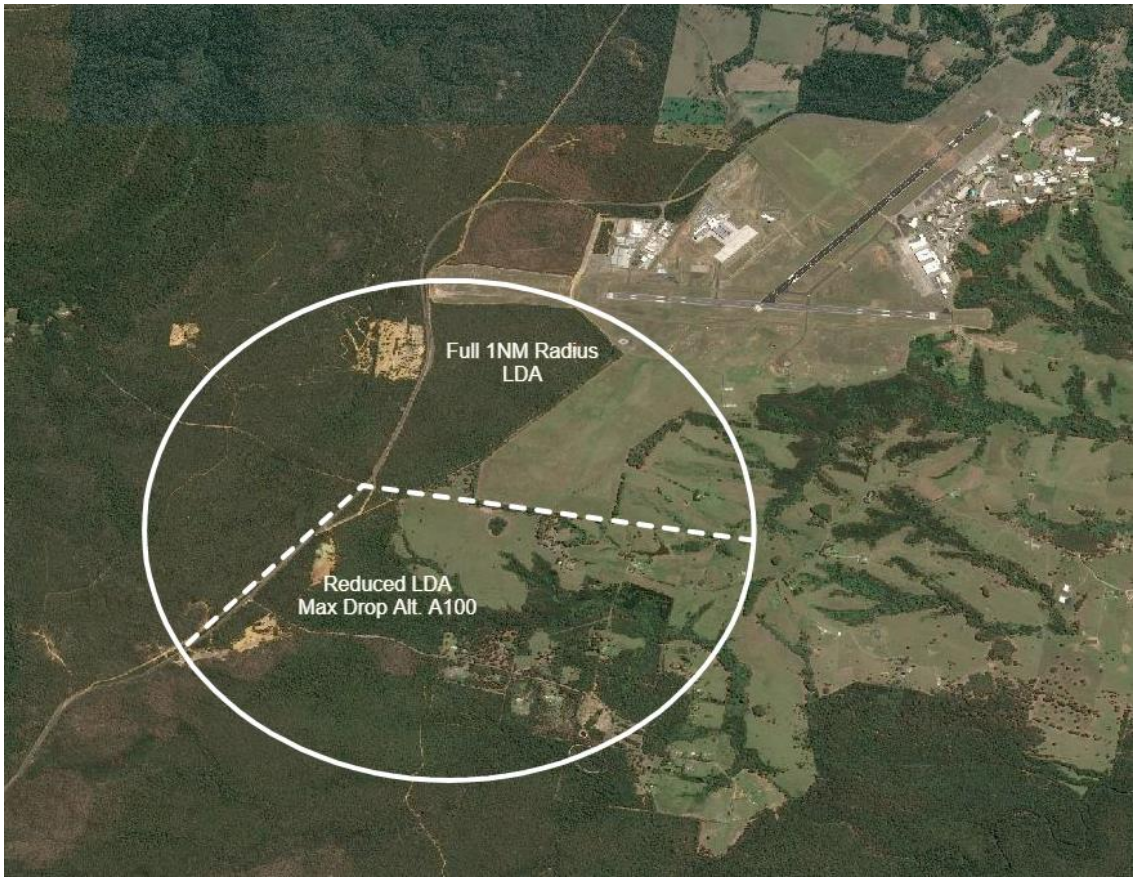


Figure 8 Full and reduced Lovells Drop Area

3.7 **Darling Road Water Operations Drop Zone (DRDZ).** The DRDZ is located at the southern end of Jervis Bay and is the static line water DZ. It is also the primary Fleet Anchorage. The DRDZ is contained within the following coordinates, as depicted at Figure 8:

a. 35 7.278S 150 42.912E

b. 35 7.236S 150 44.902E

c. 35 7.614S 150 44.914E

d. 35 7.656S 150 42.924E

3.8 **Darling Road (Water Operations) Drop Area (DRDA).** DRDA is a volume of airspace above DRDZ, SFC to 2000FT as depicted at Figure 9. PJE aircraft will dispatch paratroops when established within lateral boundaries of DRDA. ATC will apply additional buffers to these boundaries to achieve the required separation standards.

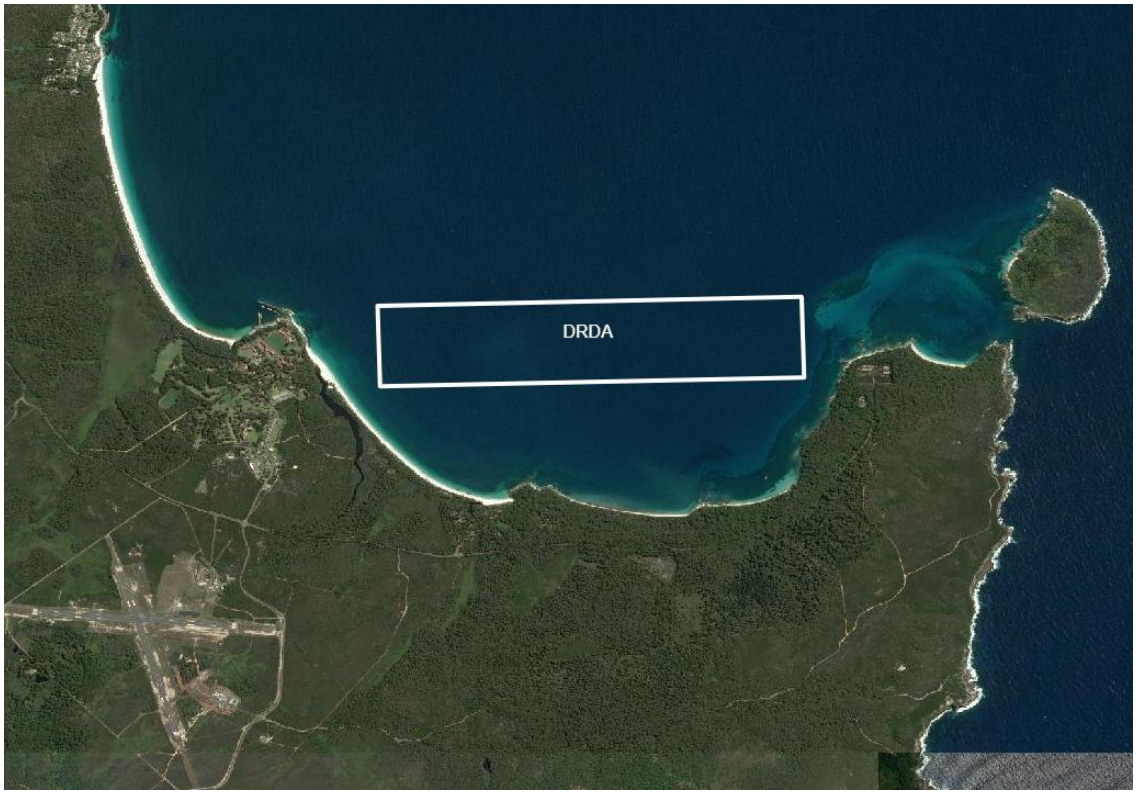


Figure 9: Darling road drop zone/area and ATC surveillance separation (outer line)

3.9 **Jervis Bay Drop Zone (JBDZ).** JBDZ is the drop target located to the North East of the RWY intersection as shown at Figure 9.

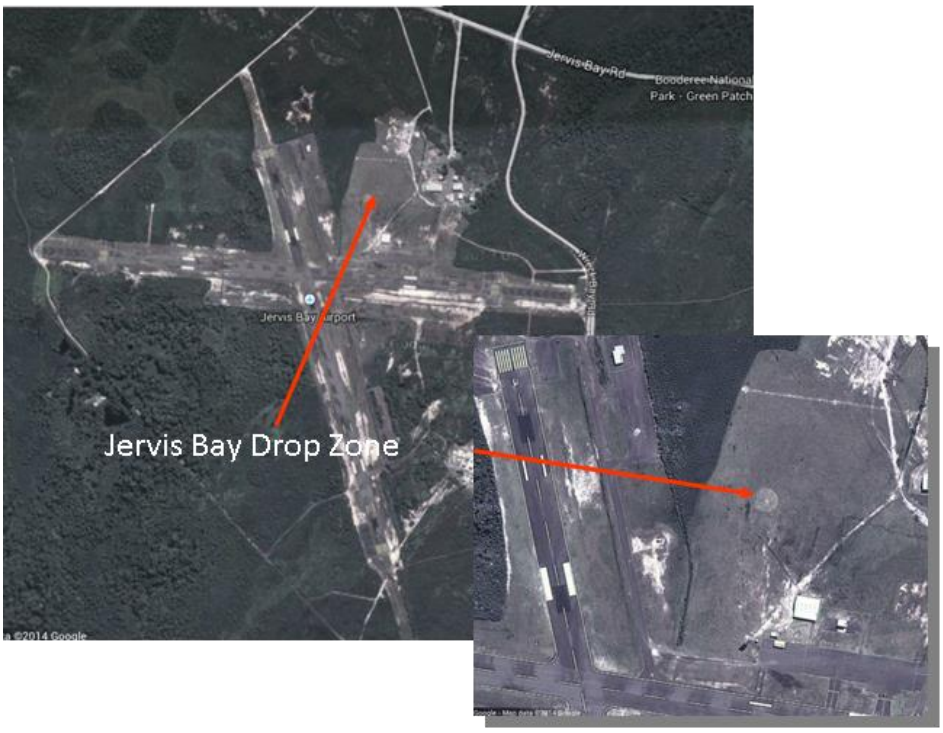


Figure 10: Jervis Bay drop zone and target (inset)

3.10 **Jervis Bay (Airfield) Drop Area (JBDA).** JBDA is contained within a two nautical mile radius of the runway intersection at YJBY and is depicted at Figure 10. On request from ATC, JBDA may be reduced to one nautical mile radius of the runway intersection only after concurrence with the PJE aircraft and the Drop Zone Safety Officer (DZSO).

Figure 11: Jervis Bay drop area

3.11 **Other Drop Zones.** PJE can be conducted at numerous other drop zones throughout R421. Use of other DZs or variations to approved DZs in this document require minimum 14 days prior notice to the ACC and ATC for consideration. Prior approval is to be sought through CO ALB and E&IG for any PJE drops to Albatross domestic areas (i.e. Tom Smith Oval).

3.12 **Museum Drop Zone (MDZ).** The MDZ drop target is located at the Northern end of RWY 21 adjacent to the FAA Museum. This is the primary DZ for any parachute displays at Nowra. Use of MDZ requires 14 days prior notice to the ACC and ATC for consideration.

3.13 **Jaspers Brush Drop Zone (JSBDZ).** The JSBDZ is located within the Helo North training area with the target area (or point of impact) centred on Jaspers Brush Airfield as described earlier in this section. Use of JSBDZ requires 14 days prior notice to the ACC and ATC for consideration.

4. PJE - ATC SEPARATION

4.1 **PJE Separation.** ATC are required to separate non-PJE aircraft from parachutists by defined standards, and will issue clearances and restrictions as required to assure separation during the conduct of PJE activities. ATC are often required to apply additional buffers to the minimum separation standards in order to assure they are achieved, so aircraft should generally expect airborne operations to be restricted to distances greater than shown in any Drop Area diagrams in this document.

4.2 Except for PJE aircraft, no other flying operations within any Drop Area and associated separation volume will be permitted from 'Clear to drop' until parachutes are reported on the ground, or by day have been sighted by ATC with visual separation provided.

4.3 **PJE visual separation**. ATC will only apply visual separation of airborne aircraft from drop areas by day within the NWA CIRA. SL operations require the paratroopers to exit the aircraft within the designated boundary of the HSLDA. ATC will only provide visual separation between SL paratroopers and non-PJE aircraft operating within the NWA CIRA. Visual separation can be applied to MFF operations only once canopies have been sighted by ATC. Helicopters hovering in ground effect or air taxiing are not considered to be airborne for the purposes of separation.

4.4 **HSLDA.** HSLDA is not procedurally separated from Nowra aerodrome. During HSLDA operations, TWR may apply visual separation between parachutes and non-PJE aircraft operating to RWY 08/26, the Southern Pad or other landing sites at Nowra provided the flight path and wake turbulence effects will not conflict with parachutists, including potential go-around. Flying operations at the FDPT shall not be permitted whilst PJE to HSLDA is occurring.

4.5 **LDA**. LDA is not procedurally separated with Nowra aerodrome. ATC cannot permit take-offs or landings at Nowra with parachutes in the air in LDA unless TWR can visually observe and separate all parachutes with non-PJE aircraft. When PJE is occurring at LDA, non-PJE aircraft can expect delays either holding on the ground at Nowra, or holding airborne away from the aerodrome in order to separate with parachutes until either TWR can apply visual separation, or until all canopies are on the ground. The orange area shown in Figure 12 is outside LDA, but too close to be separated by means other than visual. ATC cannot allow aircraft to be airborne in or near the orange area unless visual separation can be applied, and aircraft operating in or near this area can expect regular delays of up to 10 min on the ground whilst PJE is underway at LDA.

Figure 12: LDA impact on YSNW

.4.6 **JVBN**. JVBN is established laterally separated from JBDA and DRDA, permitting concurrent operations. Aircraft intending to operate within Jervis Bay can expect a JVBN clearance during planned parachuting at JBDA or DRDA.

5. PJE SEPARATION AT OR BELOW 15,000FT IN JBDA

5.1 FIHA permits MAO-AMs to approve a specialised separation standard. The application of separation through the use of line features up to FL150, or 15,000ft, between ADF parachuting and approved aircraft is available subject to the following conditions:

a. The wind is permissible for ADF parachuting within the required topographical area,

a. Other than the parachute aircraft, approved aircraft must be operating VMC, by day or NVD,

b. Subject to prior agreement, parachute aircraft are responsible for separation with other parachute aircraft, and

c. Approved aircraft are all Navy FAA aircraft and other ADF operators with a formal agreement.

6. PJE AIRCRAFT CLEARANCES

6.1 Aircraft involved in the conduct of PJE to a drop area within the Nowra CIRA shall be cleared as follows:

a. LDA (or other approved free fall drop area)

"(CALLSIGN) CLEARED CIRA NOT ABOVE (level), ALL DROPS TO REMAIN WITHIN (drop area descriptor)"

b. HSLDA

"(CALLSIGN) CLEARED CIRA NOT ABOVE 2,000ft, ALL DROPS TO REMAIN WITHIN HSLDA".

6.2 Aircraft involved in the conduct of PJE to Jervis Bay drop areas shall be cleared as follows:

a. "(CALLSIGN) CLEARED 5NM YJBY (or alternate requested airspace) NOT ABOVE (level), ALL DROPS TO REMAIN WITHIN (Drop Area descriptor)"

6.3 Dynamic clearance changes to both drop type/area and aircraft tracking may be permitted subject to ATC approval.

6.4 At ATC discretion, blanket airways clearances may be available for all drop areas.

6.5 Operations to HSLDA require individual drop clearances from ATC when active.

7. CONCURRENT GROUND OPERATIONS

7.1 Aircraft are permitted to have engines started with rotors engaged, provided they are on the ground and outside the lateral confines of drop areas. This is inclusive of hover operations, air taxi and air transit. Such operations at the FDPT are not permitted while HSLDA is in use.

ANNEX A - YSNW HELICOPTER SPOTS

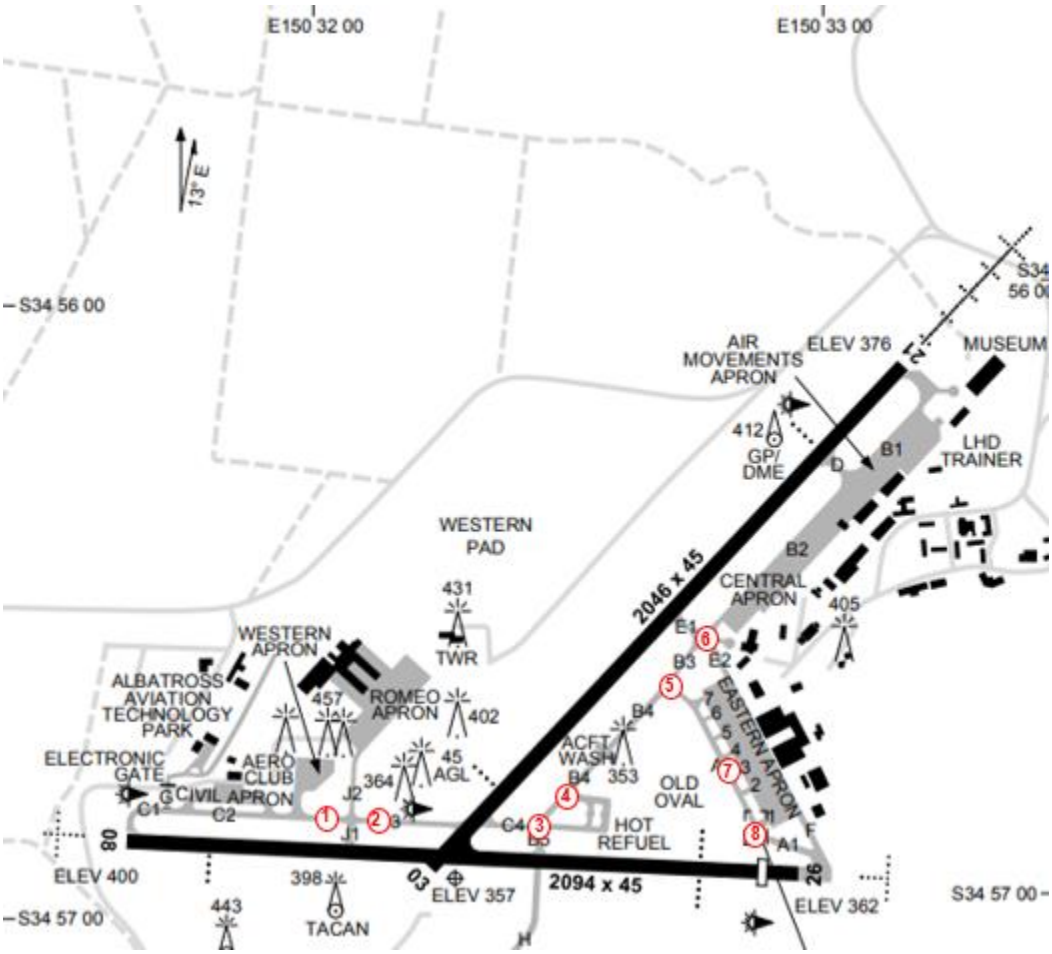


Figure A.1: YSNW helicopter spots 1 - 8

ANNEX B - TRAINING AREAS

[REFER TO AUSPEC 1629 “NOWRA SPECIAL”]

ANNEX C – CONFINED AREA AND PINNACLE DATA

TABLE C.1: CONFINED AREA AND HELICOPTER LANDING SITE DATA

AREA	LOCATION	Bearing/Distance from NWA NDB	WGS 84	COMMENTS
L1-1		295/21.5	34 43.62S 150 11.47E	Wingello Forest Airstrip
L2-1		311/13.15	34 46.41S 150 22.49E	Kangaroo Valley/Mearnsie's Pad
L2-2		318/8.8	34 49.30S 150 26.86E	Budgong/Gravel Pit
L2-3		306/9.3	34 49.98S 150 24.52E	
L4-1		302/10.4	34 49.58S 150 23.09E	Ettrema/Yalwal Creek near Shoalhaven River intersection. 2 CAs
L4-3		285/9	34 52.72S 150 22.29E	Previously McKenzie Station
L4-4		272/7.5	34 55.09S 150 23.15E	Danjera Dam/Dam Wall Pad
L4-5		267/7.8	34 55.60S 150 22.63E	**Not suitable for landing** Yalwal Mine Shaft
L6-1		256/8.9	34 57.07S 150 21.13E	Diggers Flat
L6-2		245/9.9	34 58.94S 150 20.16E	
L8-1		212/13.6	35 06.65S 150 20.18E	Tianjara LS
L8-2		199/19.8	35 13.91S 150 19.41E	
L8-3		200/25.7	35 18.48S 150 14.64E	**Not suitable for landing** Wombat Hole
L9-1	Southern CA	207/6.5	35 01.96S 150 26.85E	
L9-2	Southern CA	204/6	35 01.79S 150 27.44E	
L9-3	Southern CA	204/6	35 01.79S 150 27.49E	
L9-4	Southern CA	196/5.7	35 02.03S 150 28.56E	
L9-5	Southern CA	191/5.3	35 01.84S 150 29.33E	
L11-1	YJBY CIRA	134/14	35 08.84S 150 41.22E	
L11-2	YJBY CIRA	133/14	35 09.04S 150 41.69E	
L12-1	*Individual*	103/16.3	35 04.27S 150 49.84E	**Restricted OPS:** EMG use or PN from BWR RCO REQD. HOTSPOT Beecroft (233.40). Within confines of Beecroft Weapons Range.
L13-1	Eastern CA	082/6	34 57.61S 150 39.32E	
L13-2	Eastern CA	083/6.3	34 57.72S 150 39.61E	
L13-3	Eastern CA	086/6.4	34 58.03S 150 39.68E	
L13-4	Eastern CA	085/6.1	34 57.85S 150 39.35E	
L13-5	Eastern CA	098/5.7	34 58.95S 150 38.72E	
HS-1	Helo South	204/11.3	35 05.98S 150 23.71E	
Dust Bowl	CHW/CHN	282/3.7	34 55.40S 150 27.95E	
Track Pad	CHW/CHN	278/3.5	34 55.80S 150 28.50E	120m x 25m section of open scrub E/W orientation. **Caution:** Large wires 500m west
Parma Creek	CHS	172/2.5	34 59.33S 150.98E	

*Note: Confined Area suitability and usage remains at the Aircraft Captain's discretion.

TABLE C.2: PINNACLE DATA

PINNACLE	Bearing/Distance NWA NDB	WGS 84	COMMENTS
One	298/9.1	34 51.11S 150 23.59E	LFA4
Two	280/10.9	34 52.73S 150 19.87E	LFA4
Three	286/13.2	34 50.67S 150 17.95E	LFA4
Four	272/5.5	34 55.57S 150 25.52E	LFA4. See *Note.
Five	260/6.7	34 56.67S 150 23.89E	LFA4
Six	275/10.4	34 53.83S 150 19.83E	LFA4
Seven	269/9.4	34 55.02S 150 20.84E	LFA4 (Reynolds Saddle)
Eight	287/7.4	34 53.34S 150 24.19E	LFA4
Nine	286/7.2	34 53.54S 150 24.27E	LFA4
Ten	265/5.2	34 56.25S 150 25.75E	LFA4. See *Note.
Eleven	280/12.6	34 52.01S 150 17.93E	LFA4

*Note: PIN 4 and PIN 10 require specific clearance from ATC to operate in addition to LFA clearance due to proximity to the CIRA.

ANNEX D – NOWRA TRAINING AREA TRAFFIC DENSITY

TABLE D.1: NOWRA TRAINING AREA VFR/IFR TRAFFIC LIMIT NUMBERS

Area / Location	Full ATC	CTAF
Nowra CIRA (Includes Areas/Pads below)	6 + 2[1]	4 + 2[2]
Choppers North (CHN) (WP, Dust Bowl, Track Pad)	Considered Part of CCT	Not used in CTAF
Choppers South (CHS) (SP, FDPT, LF, SG, Parma Ck)	Considered Part of CCT	Not used in CTAF
Choppers West (CHW) (WP, Dust Bowl, Track Pad)	Considered Part of CCT	Not used in CTAF
Choppers East (CHE) (SP, Parma Ck)	Considered Part of CCT	Not used in CTAF
Flight Deck Procedural Trainer (FDPT)	Considered Part of SP	Considered Part of Southern Pad[3]
LHD Trainer (LHDT)	3 Day, 2 Night	3 Day, 2 Night
Husband's Drop Zone (HDZ)	3	3
Lovells Drop Zone (LDZ)	3	3
Western Pad (WP)	3	3 Day, 2 Night
Load Farm (LF)	1	1
Southern Pad (SP) (FDPT, SG, LF, DSD-33)	3	3 Day, 2 Night
Sloping Ground (SG)	1	1
Load Farm (LF)	1	1
Shoalhaven Bight (SHBT)	5	5
Jervis Bay (JVB)	3	3
Jervis Bay North (JVBN)	2	2
Jervis Bay Airfield (YJBY) (Includes CAs in LF11)	5	4
Each Confined Area	1	1
Jervis Bay Airfield Drop Zone (JBDZ)	2 x up to C130 size	2 x up to C130 size
Darling Road Drop Zone (DRDZ)	2 x up to C130 size	2 x up to C130 size
Helo North (HN)	As per ATC capacity	4
Helo South (HS)	As per ATC capacity	4
Low Flying Areas (LFA)		
LFA 1-8	3	3
LFA 9-14	2	2
Individual Confined Areas	1	1
Instrument Approaches	4[6]	4[6]

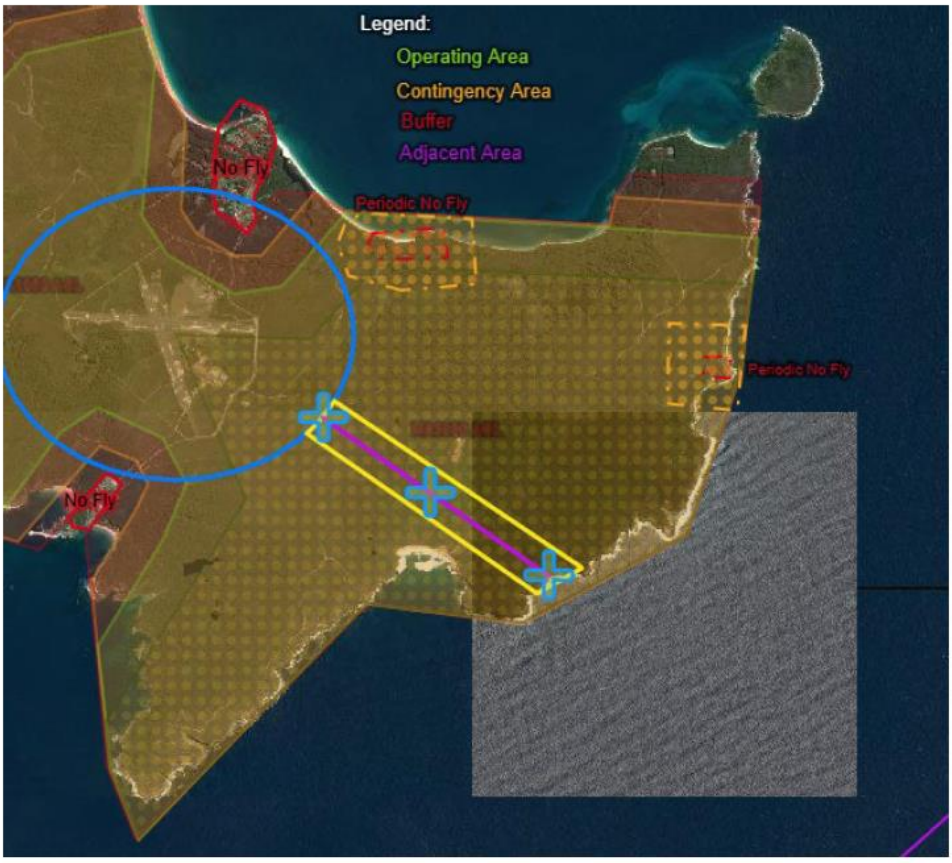
*Notes:

1. CIRA includes all operating areas within a 5NM radius of YSNW. The 6 plus 2 indicates that 6 aircraft can operate within the 5NM radius and 2 other aircraft can be either departing or entering the 5NM area
2. CIRA includes all operating areas within a 5NM radius of YSNW. The 4 plus 2 indicates that 4 aircraft can operate within the 5NM radius and 2 other aircraft can be either departing or entering the 5NM area
3. Maximum of 3 to active RWY during night CTAF, and further reduced to 2 if FDPT is also active. Total CIRA numbers are reduced for CTAF due to radio traffic density on CTAF frequency including traffic operations outside of the YSNW CIRA
4. With RWY 08 and FDPT active during night CTAF no other aircraft are permitted to operate to any other part of the Southern Pad due to conflicting circuit direction
5. Only 1 aircraft shall conduct Nap of the Earth (NoE) flight within a LFA at any one time. Concurrent NoE flights within a single LFA is prohibited.
6. A maximum of 4 aircraft total conducting instrument approaches at any one time.
7. Formations count as one aircraft for the purposes of these limits in all airspace

ANNEX E – RPAS OPERATIONS YJBY

Note: In depth detail for all 822X operations can be found on the DPE at BS67286691.

Figure E.1 – Gate East



ANNEX F – NOWRA LOCAL FLIGHT PLANNING (FPL) TEMPLATE

1. NOWRA LOCAL FPL TEMPLATE

1.1 The following template is to be utilised for aircraft planning to operate wholly within R421 or transit to the EAXA:

Departure: YSNW .

Destination: YSNW .

Route Description: (Route Directory)

DCT NWA090023

DCT NWA120023

DCT NWA160023

DCT NWA220023

DCT NWA270015

DCT NWA330015

DCT NWA010015

DCT NWA050023

DCT

(Note: the 'DCT' is required in front of each waypoint and at the end of the FPL for ADATS to accept the FPL)

RMK/ .

(Note: insert your intentions in the remarks field, eg HN ILSY CCT. Abbreviations found in AIP and YSNW AD2 SUPP may be utilised)

1.2 Remaining information is as required IAW SQN and/or aircraft requirements.

ANNEX G – APPROVED LOCAL CALLSIGNS

TABLE G.1: APPROVED NOWRA/JERVIS BAY GROUND VEHICLE CALLSIGNS

Function/Unit	Callsign
ATC	Ranger (number)
ACC	Ops (number)
AMS	Air Movements (number)
FAASC	FAASC (number)
Medical	Ambulance (number)
Fire	Fire Controller (number) or Truck (number)
WSO	Safety (number)
Airfield Maintenance	Maintenance (number)
Airfield Sweeper	Sweeper (number)
Mower	Grasscutter (number)
OPSTAR	OPSTAR (number)
Tow Motor	(SQN or Company) tow motor (number)
Airfield Lighting Maintenance	Civil (number)
HRP/Refueller	Refueller (number)
Wildlife Management	Chaser (number)
Others	To be approved by ACC

ANNEX H – NOCOM SILENT DEPARTURE PROCEDURES

1. NOCOM SILENT DEPARTURE PROCEDURES

1.1 **Daylight**. At nominated taxi time, taxi to the holding point for duty runway (or holding point for runway entry), where the lead will move forward to the holding point when formation is ready. Any unserviceable aircraft are to contact SMC and continue taxiing back to the lines under the control of ATC. For serviceable aircraft, the tower will indicate clearance via signal lamp as follows:

a. Steady green light – clear for take-off;

b. Steady red light – hold in present position, expect no more than a two minute delay; or

c. Flashing red light – contact tower for instructions.

2.1 **Night operations**. At nominated taxi time, taxi to the holding point for duty runway (or holding point for runway entry), with strobe/nav lights off (form lights on) and:

a. Lead selects strobes and landing light when formation is ready and the tower will indicate clearances per daylight lamp signals;

b. Unserviceable aircraft will select strobes on and contact SMC, when clear of the formation, for return to the lines; and

c. Tower will make general broadcasts regarding significant weather as necessary.

3.1 **Frequency monitoring**. Frequency monitoring is to occur at the following points:

a. SMC - while taxiing;

b. TWR - as aircraft approaches the holding point when taxiing, during operations within the CIRA or as directed by ATC; and

c. APP - IAW ERSA FAC 'LOCAL TRAFFIC REGULATIONS' and at all times operating within R421 unless otherwise directed.