Flight Information Handbook Australia

AD2 Supplement Nowra

Version 07

Effective 05 Sep 24

Sponsored:	FLTCDR 453 SQN NWA FLT	Vanessa.Stothart Digitally signed by Vanessa.Stothart Date: 2024.07.29 15:03:42 +10'00'
Approved:	CO 453 SQN	Adrian.Buckley Digitally signed by Adrian.Buckley Date: 2024.07.29 16:37:17 +10'00'

TOC	INTRO	PRE	AIR	GEN	CIR
ARR	TAO	SEP	ABN	PAR	ANX

TABLE OF CONTENTS

CHANGE SUMMARY

Section	Amendment
Multiple	Obsolete AC SI (OPS) 3-16 references amended to read FIHA
INTRO	Added submission timelines for changes
AIR 18.3	Jaspers Brush ALA procedures updated IAW FAA MoU
ABN 3.1	MRPs have been relocated within 453 SQN OIP
SEP 4.2, 4.3, 5.1	Traffic information simplified. Training area traffic information outlined. Deconfliction paragraph simplified for clarity.
CIR 2.1	Updated FIHA references to align with current publication

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 SO1 CAS 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
05 Sep 24	01 Aug 24	15 Jul 24
28 Nov 24	24 Oct 24	10 Oct 24
20 Mar 25	13 Feb 25	30 Jan 25
12 Jun 25	08 May 25	24 Apr 25

PREFACE

1. INTRODUCTION

1.1 This Flight Information Handbook Australia (FIHA) AD2 Supplement (SUPP) Nowra (YNSW) is deemed Electronic Aeronautical Information (EAI) and is made available for Electronic Flight Book (EFB) use via the Defence Aeronautical Information Service Provider (AISP). AIS-AF FIHA AD2 Supplements are available via the AIS-AF FIHA AD2 Supplements.

1.2 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 the Eastern Australian Exercise Areas (EAXA). Airfield emergency management and airworthiness aspects are the responsibility of CO HMAS *Albatross* under the authority of COMSHORE, 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 CAS – 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 considered those belonging to the following operators:

   i. Air Affairs,

   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.

4. APPLICABILITY

4.1 This AD2 SUPP applies to the conduct of flying operations and ATC services at YSNW and YJBY, and the aerodromes' supporting airspace. Information contained in this instruction that may have civil application or may enhance overall usability is also provided in the FAC section of *En Route Supplement Australia* (ERSA).

5. CONTENTS

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

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 the EFB 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 YSNW CIRA is defined in accordance with ERSA FAC as 5NM radius of Nowra TACAN, SFC to 2000ft. Helicopter operations within the CIRA will normally be cleared not above 1500ft. Nowra CIRA can be divided into smaller 'Choppers' portions for deconfliction purposes.

3. AIRFIELD MOVEMENT AREA DIVISIONS

3.1 **Helicopter Spots**. The following Helicopter Spots, as represented on the YSNW Aerodrome Chart at Figure A.1 to Annex A, are designated on various taxiways at YSNW aerodrome to facilitate visual helicopter arrivals and departures day and night. They are physically marked with bidirectional numbers in addition to the 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**. In order to optimise operations the runways may be divided into three subdivisions. The subdivisions are:

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. CHOPPERS WEST (CHW)

4.1 CHW airspace is defined as west of 03/21 RWY strip within 5NM radius of the TACAN.

5. CHOPPERS NORTH (CHN)

5.1 CHN airspace is defined as north of 08/26 RWY strip within 5NM radius of the TACAN.

6. CHOPPERS SOUTH (CHS)

6.1 CHS airspace is defined as south of 08/26 RWY strip within 5NM radius of the TACAN.

7. CHOPPERS EAST (CHE)

7.1 CHE airspace is defined as east of 03/21 RWY strip within 5NM radius of the TACAN.

8. CIRA PADS AND OPERATING AREAS

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

8.2 **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.

8.3 **Southern Pad (SP).** See Figure 1 below. The grassed area south of 08/26 RWY strip, north of the Explosive Storage Area (ESA) and east of taxiway Hotel.

Figure 1: Southern pad

8.4 **Sloping Ground (SG).** Located at the southern edge of SP north of the Explosive Storage Area.

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

8.6 **Flight Deck Procedural Trainer (FDPT**). The single spot FDPTs are replicas of FFH and LPA flight decks, which are both capable of visual operations by day and night. Their purpose is to facilitate initial and continuation procedural flight deck training with military rotary wing aircraft. These decks are located south of the runways. More information on the FDPT is located in the Aerodrome and Circuit Operations section.

8.7 **Southern Pad Load Farm (LF).** The LF 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.

8.8 **Parma Creek.** Parma Creek operating area is located approximately 172°M at 2.5TAC. It contains multiple confined areas in close proximity to the creek line.

8.9 **Western Pad (WP).** The grassed area west of the perimeter road and north of the drainage ditch. A depiction of the Western Pad is at Figure 2 below. ATC clearance is required for pedestrian and vehicular access on to the WP either by radio or telephone 02 4424 1144 / 02 4449 2013 during Air Traffic Service (ATS) hours. During CTAF, entry is by radio broadcast only. 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.

8.10 **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

8.11 **WP training spots**. Three (3) 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.

9. LOCAL AREA GUN CLUBS

9.1 There are three gun clubs located in the vicinity of YSNW as detailed below and at Figure 4. 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.

9.2 **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.

9.3 **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.

9.4 **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 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 are available via www.shoalhavenclaytarget.org.

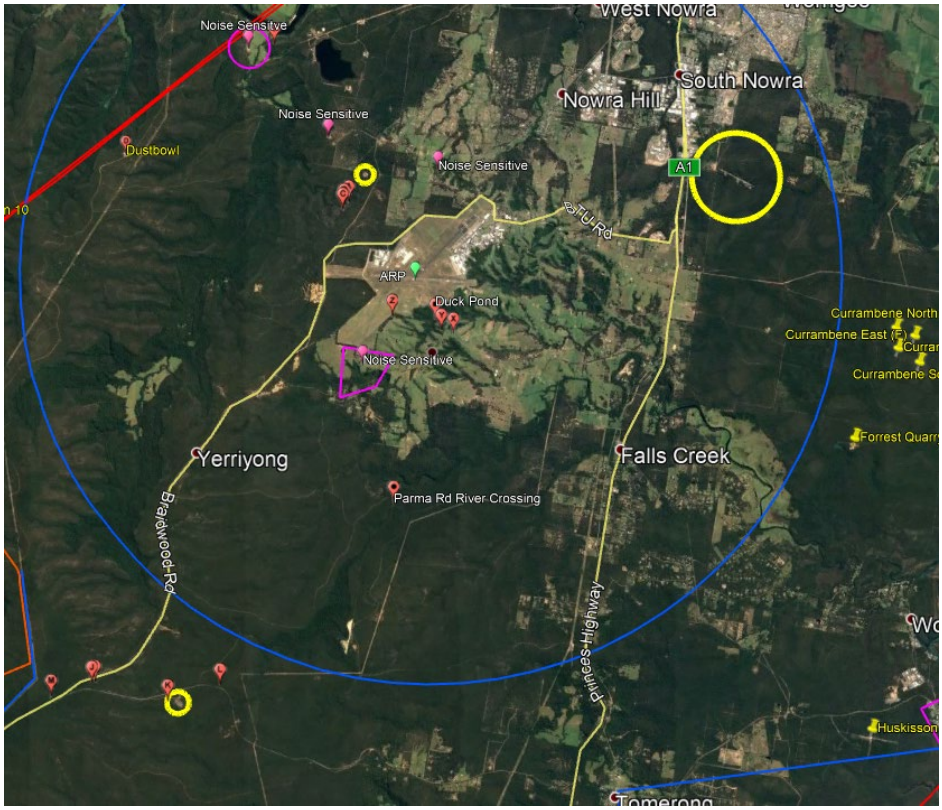

Figure 3: Local gun clubs

10. YJBY CIRCUIT AREA

10.1 YJBY (also referred to in some publications as JBAF is located 15 miles south-east of Nowra. The YJBY CIRA is defined in accordance with ERSA FAC as a 2NM radius centred on the YJBY ARP remaining over land, SFC to 1500ft. Further information on YJBY CIRA is within ERSA and following chapters within this AD2 SUPP.

11. HELO TRAINING AREAS

11.1 Helo areas facilitate air work such as maintenance test flights or general flying. The standard vertical limit is SFC-5000ft. Aircraft traffic management within these areas is commensurate with traffic complexity and/or ATC manning levels.

11.2 **Helo North (HN)** The lateral confines are: Intersection of 5 TAC NWA arc and high tensile north-south power lines (IVO Longreach Reporting Point); then north along power lines towards Fitzroy Reservoir; IVO the 15 TAC NWA arc (refer EFB), run east along 15 TAC NWA arc; at the intersection of 15 TAC NWA with R421A/R421B, follow this boundary east until Gerringong Township; continue south coastal to Shoalhaven Heads and then along the northern bank of Shoalhaven River until intersection with the 5 TAC NWA arc.

11.3 **Helo South (HS).** The lateral confines are: Intersection of the 5 TAC NWA arc and 162 radial; south along the 162 radial until intersection with the 23 TAC NW arc; west along the 23 TAC NWA arc 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 5 TAC NWA arc.

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

12.1 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"*.

12.2 There are fourteen (14) 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.

12.3 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.

12.4 **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.

12.5 **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.

12.6 **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.

12.7 **LFA 4**. Lima 4 is immediately to the WNW of YSNW and its eastern boundary is the 5 TAC NWA Arc. 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.

12.8 **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.

12.9 **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 5 TACAN Arc) 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.

12.10 **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.

12.11 **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.

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

12.13 **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.

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

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

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

12.17 **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.

12.18 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*.

12.19 **LFR.** There are no formally promulgated LFRs within R421 and surrounds.

12.20 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.

12.21 **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.

13. SHOALHAVEN BIGHT (SHBT)

13.1 **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 TAC NWA (EAXA 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 SBHT is SFC-2000ft.

14. JERVIS BAY (JVB)

14.1 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.

14.2 **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.

15. CONFINED AREAS (CA)

15.1 **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.

15.2 **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.

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

16. PINNACLES (PIN)

16.1 PINs are located within the LFAs above. Designated PIN location data is contained within Table C.2 to Annex C.

17. REPORTING POINTS (RP)

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

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

18. LOCAL AREA LANDING SITES AND AIRSTRIPS

18.1 **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.

18.2 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.

18.3 **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.

18.4 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).

18.5 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.

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

19. EASTERN AUSTRALIAN EXERCISE AREA (EAXA)

19.1 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 with the exception of ATC SARWATCH.

19.2 Parts of the EAXA overlap with R421. When portions of the EAXA are NOTAM active, the overlapping portion of R421 is not available.

20. MARITIME TRAINING AREAS

20.1 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.

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

20.3 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.

20.4 **ATC Services.** Aircrew are reminded that W1 and 2 are OCTA and outside YSNW ATCs control jurisdiction. YSNW ATC radio and radar coverage in these areas is impacted by terrain. Furthermore, these northern areas are in proximity to SY CTA, SY CEN airspace and YSHL CTAF. As such YSNW ATC is only able to provide an ops normal SARWATCH. Aircrew are to advise which W area they are in at each OPN call to expedite any potential SAR effect.

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 CAS - 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 **Planning and Priorities**. ATC will prioritise movements IAW priorities determined by ACC. Priorities will be determined at the ACC weekly planning meeting. Planned concurrent operations at YJBY and in Jervis Bay are de-conflicted at the ACC weekly planning meeting. Any confliction generated between parachuting operations and other airspace users will be directed to the ACC for adjudication at the ACC weekly planning meeting.

2.4 **Amendment**s. 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 six available YSNW CIRA aircraft slots are allocated as follows:

a. 3x 723 SQN (EC135), noting 723 SQN shall use YJBY by day for CCT OPS.

b. 3x 725/808/816 SQN (MH-60R).

2.7 **CIRA Limitations**. IFR aircraft are not permitted to operate in the YJBY CIRA. Continuous circuits at YSNW by IFR category aircraft are not permitted.

2.8 **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.

2.9 **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.

2.10 **General Flying (GF) Training**. The GF Flight Training areas are Helo North (HN) and Helo South (HS) as detailed within Airspace. Operations in HN and HS may conflict with instrument approach traffic.

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

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. COMSHORE 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. Eg the conduct of regular FOD checks at the airfield. As described above, and in accordance with *DASR ORO.05*, "It is the responsibility of the MAO to determine which aerodromes are safe and suitable for the operation of their aircraft". It is the responsibility of the AD OPR to communicate all hazards to the MAO/AO such that the risks to their respective aircraft/operations can be appropriately assessed/managed and accepted where considered appropriate.

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 Manual* (DASM) 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 for the EAXA will be processed as VFR unless IFR or SVFR is specifically requested. All locally based helicopters may be cleared SVFR for operations in NWA Training Areas IAW FIHA ENR 1.2 Section 1.2. 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**. Whilst local RPAS operations are primarily conducted in VMC, defined 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 and should utilise the template provided within 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.

4.5 Aircraft taxiing for operations confined within the CIRA only shall contact Nowra SMC to pass their flight details and obtain clearance.

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. When required, Aircraft Captains are to contact SMC for start clearance at Nowra, and APP (118.35 MHz) for YJBY.

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 Whilst the CIRA is 2000ft, helicopter operations will be cleared 'not above 1500ft' unless specifically requested in order to supplement traffic management procedures.

5.6 A formation airways clearance request requires the formation type and number of aircraft.

5.7 **Taxi Clearance.** Endurance is to be provided on taxi for all SARTIME/NOCOM operations.

5.8 **Dangerous cargo and Explosive Ordnance/Stores**. Aircraft Captains shall notify ATC of any dangerous cargo or EO stores being carried when requesting taxi and landing instructions, unless the information has previously advised, IAW FIHA ENR 1.1.

5.9 **Choppers Area Clearance**. Rotary aircraft requiring operations to a Choppers North, South, East, or West area are to request a clearance to that area and indicate their intended area of operation. For Example: "Request clearance CHW, for operations WP". Aircraft shall be cleared to the Choppers area (eg CHW) for operations at the stated area of operations (eg WP), not above 1500ft, unless otherwise requested. Aircraft with a current clearance to a Choppers area, requesting a change to their operating area within the cleared Choppers airspace may do so subject to ATC approval.

5.10 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.

5.11 **Departure from YJBY.** Aircraft requesting departure from YJBY who have not established contact with NWA ATC are to contact NWA APR on 118.35 MHz primary or 123.5 MHz secondary for an SSR code prior to taxiing. When an YJBY NOTAM advises that 'START CLEARANCES ARE REQUIRED' aircraft must contact NWA APR, on primary or secondary, for start clearance due to possible PJE activity. Aircraft are to be in receipt of an airways clearance and establish two way communications with NWA APR on 118.35 MHz or 123.5 MHz prior to becoming airborne. Aircraft should also broadcast their departure on the YJBY CIRA frequency 121.625 MHz IAW Aerodrome and Circuit Area Operations – Jervis Bay Airfield communications procedures.

5.12 **LFA clearance.** A callsign (single aircraft or formation) requiring operations within designated LFAs is 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.

5.13 Boundaries of some LFAs extend beyond the lateral dimension of R421. An ATC Clearance to operate in a LFA where this is the case, authorises an aircraft to leave and re-enter R421 within the dimensions of the cleared LFA.

5.14 **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.

5.15 **PJE Aircraft Clearances.** PJE aircraft airways clearances are found within the Parachute Operations section.

6. COMMUNICATIONS REQUIREMENTS

6.1 **Aircraft callsigns**. Individual aircraft are to adopt the nationally approved (within MATS) squadron callsign and the last two numbers of the aircraft tail number as the sortie callsign. Formations are to adopt the squadron callsign, with a colour suffix, and followed by the individual position number in the formation. Military SAR aircraft will utilise the callsign 'RESCUE 9' and the tail number (eg RESCUE 948).

6.2 **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 MHz) during ATS hours and the CTAF frequency outside ATS hours.

6.3 **LFA common frequency**. LFAs 1 through 8 have been allocated 296.3 MHz 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 MHz) must be used in LFAs 1-8 during this period for military rotary aircraft.

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

6.5 **ADSB**. Aircraft fitted with ADSB shall select ADSB to TRANSMIT upon taxi unless EMCOM procedures apply.

6.6 For aircraft operating in close or standard formation, the formation leader shall squawk mode C and ADSB. Other formation aircraft shall select transponder to standby. Any aircraft leaving a formation must squawk their assigned code, mode C and ADSB.

6.7 **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.

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 area operations SKED is generally used and maintained though Operations Normal procedures as described below. Listening watch is not available in R421.

7.2 **ATC Operations Normal (OPN).** Aircraft Captains are responsible for reporting OPN to ATC whenever aircraft are operating within the Nowra training areas, or when in the CIRA and not able to be continuously monitored by ATC, eg operating behind a visual obstruction. 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 previously 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 **Jervis Bay CIRA SARWATCH.** Nowra APR may maintain a SARWATCH (through OPN/SKED) for all aircraft operating within the YJBY CIRA. Should a SQN OPS desk stand-up at YJBY, a SARWATCH is to be maintained with the OPS desk (including those originating and/or terminating at YJBY). In the event that the YJBY OPS desk is to close, the operating SQN is to advise NWA APR of any current SARWATCH arrangements prior to closing.

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 the approach supervisor prior, and confirm Flight Notification details including outbound and inbound track, 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. Speechless departure procedures are detailed at Annex H.

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.

1.2 Multiple designated HLS and areas of operations are contained within the Nowra CIRA as detailed in Airspace. Aircraft intending to operate in one of these areas are to request a clearance for the specific HLS and area of operations.

1.3 **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 **Taxiing.** IAW FIHA ENR 1.1 Section 10.15.2.2, wheeled helicopters, where practicable, are encouraged to "ground taxi" on prepared surfaces to minimise rotor wash and its effects.

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

2.3 **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 to all areas within the airfield boundary as follows:

a. Fixed wing – 2000ft;

b. Rotary wing – 1200ft; and

c. Flight Deck Procedural Trainer – not above 700ft.

3.8 **Non-standard circuit advice.** 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 captains shall 'request to become airborne' and receive clearance from ATC prior to departing above tree top height. Aircraft joining or departing LDZ shall conform to the duty runway direction for approach and departure. Dimensions are published within 'Parachuting'.

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 captains shall 'request to become airborne' and receive clearance from ATC prior to departing above tree top height. 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 published within 'Parachuting'.

3.12 **Dust Bowl, Track Pad and Parma Creek operating areas**. 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 provide surface wind to Navy helicopters unless:

a. the Aircraft Captain requests the surface wind, or

b. the actual wind speed 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 buildings; fuelling, navigation and other airfield facilities; 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 restrictions:

a. medium helicopters operating to/from taxiway Bravo, between inverts 2-5 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;

b. continuous circuits are not to be conducted to any taxiway; and

c. ATC and Aircraft Captains are to be cognisant of adjacent buildings, other aircraft and possible vehicle and pedestrian traffic when authorising and conducting such operations.

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

5.6 **Hot Refuelling Point (HRP).** The fixed HRP is located off Taxiway Bravo 4. Aircraft shall not fly within 100 metres of, and shall be >200ft AGL when flying overhead, the HRP. Aircraft are permitted to ground taxi, hover taxi and approach/depart to Taxiway Bravo adjacent the HRP.

6. SUBDIVISION OPERATIONS

6.1 Runway subdivisions are to be considered separate helicopter landing sites and accordingly, use of one is not restricted by the others. 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.** Unless the Aircraft Captain agrees to a single subdivision landing, at a minimum, two consecutive subdivisions are to be used for autorotation. Landing clearance to an autorotative aircraft shall contain the subdivision/s that are to be used for landing and any subdivision occupied by another aircraft. Authorisation for aircraft occupying an upwind subdivision, being cleared for take-off while an autorotation is in progress will be at the discretion of ATC. No additional traffic information will be passed to the aircraft requesting the take-off clearance unless deemed significant by ATC.

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. This includes operations to the Flight Deck Procedural Trainers. At night, a clearance to operate within the CIRA will be appended with NVG or Military Terrain Clearance as requested unless the aircraft is 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 R421AB are active this is at the discretion of ATC. Terrain and obstruction

clearance on commencement of these visual manoeuvres is a pilot responsibility. ATC and aircrew are not required append “VISUAL” to assign terrain clearance for such clearances at YSNW.

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.

10.2 Aircraft are to operate to the FDPT not above 700ft during operations to the trainer.

10.3 Aircraft are to conduct left CCTS (RWY 26 direction) to the FDPT unless otherwise directed by ATC.

10.4 Aircraft are not to land or take off from the FDPT without a clearance from ATC.

10.5 Aircraft operating to the FDPT are to maintain communications with the FDPT at all times on 129.45MHz and with TWR on 118.85 MHz.

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 MHz and Nowra Ground frequency 135.85 MHz.

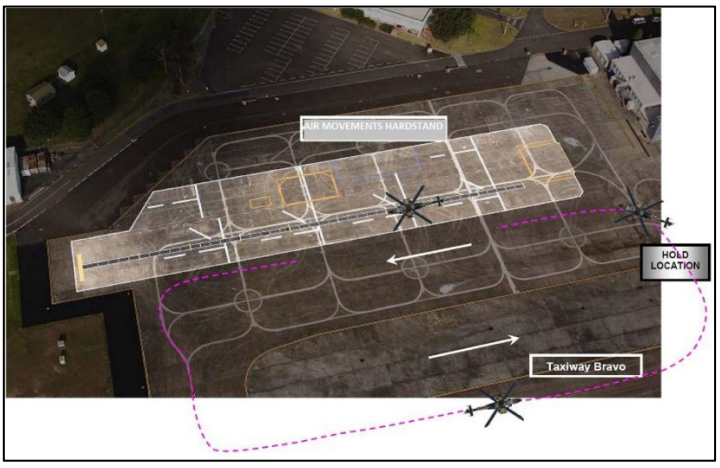

Figure 4: LHD trainer pattern (not to scale)

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

12. YJBY

12.1 The YSNW and YJBY Aerodrome Manuals provide general aerodrome information. All operations are to be conducted IAW ERSA FAC Jervis Bay and FIHA ENR 1.1 Sub-section 10.1 as applicable.

12.2 **Noise Abatement.** ERSA outlines the noise abatement procedures for YJBY. Of note, aircraft are to avoid overflights of HMAS Creswell, Wreck Bay and Jervis Bay Village. Additionally, whenever possible, circuits should be conducted to Runway 08/26. Aircraft Captains may elect to use Runway 15/33 for operational reasons.

13. YJBY CIRCUIT PROCEDURES

13.1 **Circuit Traffic Density.** The maximum number of aircraft operating within the YJBY CIRA is 5 aircraft IAW Annex D. A maximum of three rotary aircraft may conduct continuous circuit operations. Jervis Bay airfield confined areas (L11-1 and L11-2) area not to be utilised during circuit training operations. All other mixed type operations are to be conducted IAW with this document.

13.2 **Circuit Altitude**. Circuits are to be flown at 1000ft (800ft AGL) on YSNW QNH.

13.3 For statistics on the use of YJBY, Aircraft Captains are requested to advise APR of the number of circuits conducted within the YJBY CIRA on completion of their YJBY operations.

13.4 **Runway Divisions**. Runways are divided into three sections, using 1500ft runway markings for delineation. For RWY 33 Long and RWY 15 Short, the southern end of the division ends at the southern edge of the runway intersection (see Figure 17). Division naming convention is as per YSNW (Short, Centre, Long). For autorotation and OEI abort training, normally two divisions will be required however Aircraft Captains may elect to use a single division.

13.5 **Basic Training Sorties.** During ab-initio basic circuit training, standard and low level circuit patterns shall be flown, without deviation, to ensure that student learning outcomes are achieved.

13.6 **Load Farm.** The load farm located on southern side of RWY 08/26 will be called ‘Jervis Bay Load Farm’. This will avoid any confusion when operating on YSNW CTAF frequency.

Figure 5: Jervis Bay runway sub-divisions and load farm

13.7 **Operating frequency and communications.** When R421 is active, aircraft and vehicles operating at YJBY shall broadcast intentions on 121.625 MHz IAW ERSA, and Class G communication at FIHA ENR 1.1 Sec 10.1. These calls should be maintained even if operating as the only aircraft in the YJBY CIRA. Aircraft should monitor NWA Approach frequency to the maximum extent possible. When YSNW is operating as a CTAF and R421 is de-active, aircraft and vehicles shall operate IAW OCTA/CTAF procedures on 118.85 MHz.

13.8 **Circuit Arrivals.** Aircraft joining the YJBY CIRA, where possible, are to be conducted IAW FIHA ENR 1.1, Sub-sections 10.11 through 10.15; and 11.15.5 as applicable. Aircraft inbound to YJBY either for continuous CIRA operations or landing, will be re-cleared to operate within the Jervis Bay circuit area once established inside the CIRA.

13.9 **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.

13.10 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.

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

13.12 **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. As participant aircraft, 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.

13.13 **YJBY Manager.** The YJBY Manager (callsign 'JB OPS') is contactable on 121.625 MHz when R421 is active or 118.85 MHz when on CTAF. Aircraft should contact JB OPS with intentions upon entering the CIRA area, for parking, ground handling, airfield hazards, or any other applicable matters. The CIRA departure call is necessary for updating the YJBY Manager on the state of airfield operations.

13.14 **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, regardless of tracking via an RP or not, aircrew are to pass position and intentions to ATC IAW *General Planning Australia* (GPA) 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. NIGHT MIXED ARRIVALS AND DEPARTURES

3.1 Night aided operations departing from or arriving to the circuit are acceptable with unaided operations in the circuit provided all aircraft are displaying external lighting, or another separation standard is applied.

4. NIGHT CTAF ARRIVALS

4.1 When CTAF/non-controlled, circuit joins to the active runway are to be conducted IAW FIHA ENR 1.1, Sub-sections 10.11 through 10.15. 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 departing/arriving to YJBY or transiting the YJBY CIRA. Additionally, aircraft operating within adjacent/overlapping areas shall be provided traffic information or separated as dictated by ATC requirements.

5.2 Aircraft are to broadcast on the YJBY CIRA CTAF should their operations infringe the YJBY CIRA.

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 MHz. This is in addition to maintaining standard ATC or CTAF communication.

2.4 Aircraft are to establish two-way communication via 296.3 MHz 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 MHz 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.

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 BS6409287 (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 serialised, coordinated and approved through the FXPCO.

5.2 When EAXA is activated by NOTAM, only aircraft that have been serialised for that area and coordinated through the Fleet Exercise Program (FXP) cell are to request a clearance to 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 – fhq.ftpcell-e@defence.gov.au

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

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

6. EAXA TRANSIT RADIALS (LANES)

6.1 Three Nowra (NWA) TACAN radials 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) - NWA 077TAC (090ºT) to 95NM

b. Transit Radial 2 (TR2) - NWA 117TAC (130ºT) to 120NM

c. Transit Radial 3 (TR3) - NWA 162TAC (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 ENR 1.7 Section 5.

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.

SEPARATION

1. GENERAL

1.1 The intensity/complexity of operations within R421AB and the application of Class C services means this finite portion of airspace can be rapidly absorbed by aircraft, directly affecting aviation activities.

1.2 Reduced separation standards or other specialised procedures may be applied to some aircraft as detailed within Participants / Non-participants in each sub-section. The application of these standards and procedures beyond what is detailed below requires approval from the aircraft operator's MAO-AM, Civil Air Operator's Chief Pilot, or authorised delegate IAW FIHA.

2. APPLICATION OF CLASS D SERVICES WITHIN R421AB

2.1 After receiving endorsement from the primary Nowra airspace user (Navy FAA) MAO-AM, Air Commander Australia (ACAUST) authorised a major amendment to FIHA directing the RAAF Air Traffic Service Provider (ATSP) at YSNW to provide State aircraft and locally based approved civilian aircraft a Class D service at their aerodrome and associated airspace.

3. PARTICIPATION IN CLASS D SERVICES

3.1 The modified services and procedures detailed in this sub-section are applicable to:

a. All state aircraft (ADF); and

b. Civilian aircraft belonging to the following operators:

i. Air Affairs,

ii. Raytheon,

iii. CHC, and

iv. Skytraders, and

v. Toll.

3.2 These procedures do not apply to the below aircraft, which are to be provided Class C separation within R421AB.

a. Heavy fixed wing IFR aircraft during departure and approach flight phase below 10,000FT

b. Non-approved civilian aircraft

c. Non-approved foreign military aircraft.

4. CLASS D SERVICE - AIR TRAFFIC CONTROL PROCEDURES

4.1 **Separation**. IAW FIHA and *Manual of Air Traffic Services* (MATS) when a Class D service is applied:

a. IFR aircraft will be separated from IFR/SVFR aircraft;

b. SVFR aircraft (due visibility) will be separated from SVFR;

c. IFR aircraft will not be separated from VFR aircraft, rather ATC will provide traffic information service on relevant VFR aircraft;

d. VFR aircraft will not be separated from IFR/SVFR aircraft; rather ATC will provide traffic information service on all relevant aircraft.

4.2 **Traffic information.** Traffic information will be passed when ATC assess that aircraft will come into proximity to each other (eg <3NM and/or 1000ft) This facilitates situational awareness for relevant aircrew, whilst enabling amended tracking to be requested by aircrew and/or directed by ATC.

4.3 **Training areas.** Aircraft joining training areas within R421 will be advised of other traffic in the training area by the use of the phrase "NUMBER #", which indicates how many aircraft are within that area.

5. DECONFLICTION

5.1 All aircraft within R421AB will be deconflicted during critical stages of flight, which is defined as the departure and approach phase from/to an airfield when aircraft manoeuvrability is restricted. Examples include:

a. On departure, conflicting aircraft will be deconflicted from upwind/departure path; and

b. On approach, conflicting aircraft will be deconflicted from final path.

5.2 Outside the circuit area, lateral, visual or vertical deconfliction may still be employed in order to minimise collision risk and reduce ATC/cockpit workloads.

6. EXTANT PRACTICES

6.1 ATC will provide a radar approach service within R421AB and issue positive control instructions to any aircraft where required.

6.2 All required conditions of entry to a Restricted Area remain extant, i.e. only aircraft in receipt of an ATC clearance (military or civil) may enter R421AB. Furthermore, entry into R421AB is subject to conditions and the applications of priorities as per ERSA.

7. CLASS C VMC CRITERIA

7.1 As outlined within FIHA, the employment of Class C VMC during the application of Class D procedures should be considered as an additional risk control.

7.2 Class C VMC is to be used within R421AB when active.

8. SEPARATION WITHIN R421 FROM EAXA

8.1 **Radar control.** When any of the EAXA areas immediately adjacent to R421 are activated by NOTAM for military flying, ATC will apply a 3NM buffer from any aircraft under radar control to the applicable EAXA boundary to ensure separation is achieved between any aircraft operating in the EAXA and the aircraft operating in R421.

8.2 *Manual of Air Traffic Services* (MATS) requires YSNW ATC to separate aircraft from adjacent active EAXA areas when active, normally by the application of a RADAR separation standard of at least 3NM when designated as 'FLYING'. This inhibits full and effective use of already limited training areas and some instrument approaches to YSNW. To minimise the impact of active EAXA airspace, ATC may approve self-separation from the EAXA for approved aircraft under the following procedure.

8.3 Aircraft self-separation from the EAXA is approved for Navy FAA aircraft and other operators with a formal agreement between Nowra ATC and the operator's approved delegate.

8.4 All other aircraft will be subject to the normal 3NM separation requirement.

8.5 In order to maximise use of limited available airspace, when approved aircraft are operating adjacent to active EAXA restricted areas under their own navigation (eg not being vectored by ATC), Aircraft Captains are responsible for their own separation with adjacent active EAXA airspace when operating in R421A/B, unless serialised IAW FXP procedures.

8.6 Under self-separation requirements, there is no minimum separation standard except to remain clear of the applicable restricted area or airspace. SQNs and individual units may promulgate specific tracking, navigation, or separation tolerances based on individual aircraft type navigation system performance and/or specific flight conditions. Aircraft operating in the EAXA should be remaining clear of R421 IAW AFTP 4(K).

8.7 Nowra ATC will inform self separating aircraft at clearance issue, or prior to airspace activation, when EAXA airspace is active. Furthermore, when self-separating with an EAXA area, Aircraft Captains are expected to be aware of planned serials in adjacent EAXA areas during their period of operation.

8.8 **Radar pick-up.** For aircraft operating under self-separation from the EAXA and requesting radar vectoring, Nowra ATC will not vector aircraft until separated by an applicable ATC standard. To facilitate this ATC may use the phrase 'WHEN READY FLY HEADING (degrees) [VISUAL]' where separation remains the Aircraft Captain's responsibility.

9. SEPARATION BETWEEN NAVY RPAS AND MANNED AIRCRAFT

9.1 **Separation within Defence Restricted Areas.** ATC may utilise aircraft separation standards IAW MATS, except:

a. Visual separation responsibility shall not be assigned to the RPA; and

b. Vertical separation standard V1 (500ft) is not to be applied.

9.2 Wake turbulence separation. Navy RPA are to be considered a light category aircraft for the purpose of wake turbulence separation. Additional requirements for wake turbulence separation of RPA and manned aircraft are:

a. The RPA must not enter the wake turbulence envelope of any manned aircraft, including opposite direction aircraft

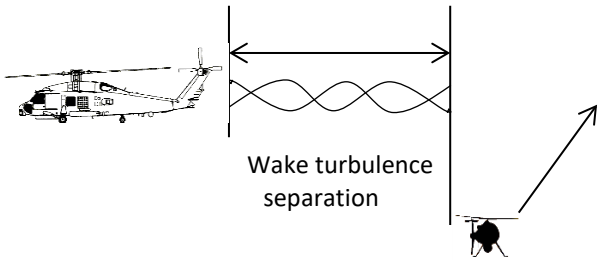

Figure 6: RPA wake turbulence separation

b. The minimum wake turbulence separation between the RPA and manned light category aircraft is 1NM.

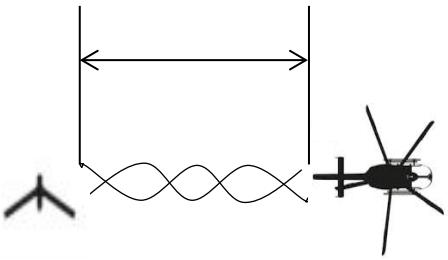

Figure 7: Minimum RPA/light aircraft category wake turbulence separation

10. SEPARATION BETWEEN PARACHUTING OPERATIONS AND NON-PJE AIRCRAFT

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

ABNORMAL OPERATIONS

1. ABNORMAL AIRCRAFT OPERATIONS

1.0 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*.

1.1 **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 MHz outside of ATS hours. ARFFS also monitor 406 MHz 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.

1.2 **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 ENR 1.1. Dumping of fuel for maintenance test or validation flight requirements should occur in Helo South airspace or SHBT whilst complying with the above requirements.

1.3 **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.

1.4 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–233.40Mhz), and

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

1.5 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.

1.6 **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.

1.7 **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.

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

1.9 **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.

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

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

1.12 **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 Relocatable Surveillance Radar (NWARSR) 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. NWARSR 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 lfailure 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 NWARSR Systems Failure. 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. The PULO is to attend 723 SQN for night flying brief (0630Z) 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.

1.5 **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 Drop Zones are the ‘intended landing area’ onto which the parachutists will descend. Drop Areas are ‘airspaces through which the parachutist will descend’ after leaving the PJE aircraft.

3.2 **HDZ.** HDZ is located on the extended centreline of RWY 21 and is depicted at Figure 8. Three target areas, A, B, and C, are established within HDZ that are specifically used for MFF operations; these are depicted at Figure 7.

3.3 In the event of serious injuries requiring transport away from HDZ, emergency vehicles are to contact ATC and request clearance to access the airfield.

Figure 8: Husbands drop zone

3.4 **Husbands Static Line Drop Area (HSLDA)**. HSLDA is a volume of airspace above HDZ, SFC to 2000FT. PJE aircraft will normally dispatch paratroopers from 1500FT within the lateral boundaries of HSLDA. HSLDA and its generic drop axis is depicted at Figure 9.

3.5 **Husbands Drop Area (HDA).** HDA is defined as a 1NM circle centred on either HDZ target A, B or C, as depicted at Figure 7. Use of HDA significantly restricts aviation activities to all movement areas at YSNW.

Figure 9: Husbands drop area

3.7 **Lovells Drop Zone (LDZ).** LDA is formed by the east / west line feature of the prominent tree line paralleling Parma Rd which extends west to intersect Braidwood Road and east to intersect with the prominent tree line which runs north-south on the eastern edge of HDZ. A north-south line feature of Braidwood Road is also used, which extends north to the intersecting point with the east-west line feature and south to the intersection between Braidwood Road and a minor track junction. The southern extremity of the north-south line feature and the eastern extremity of the east-west line feature LDA are joined by an arc of

1NM radius centred on the Target A. LDA is limited SFC to 10,000ft AGL and overlays the LDZ, as depicted at Figure 10.

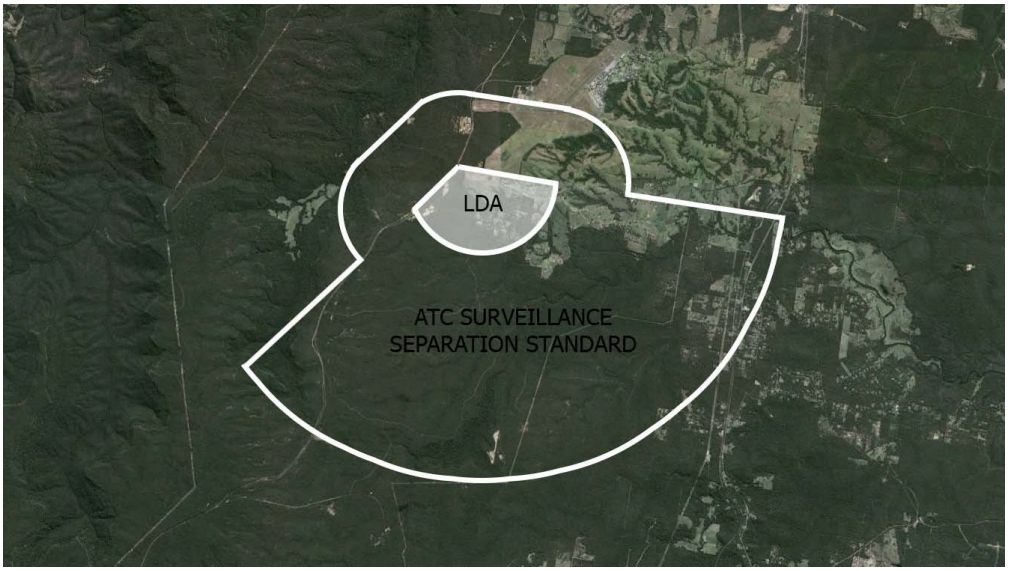

Figure 10: Lovells drop zone and drop area

3.8 **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, as depicted at Figure 11:

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

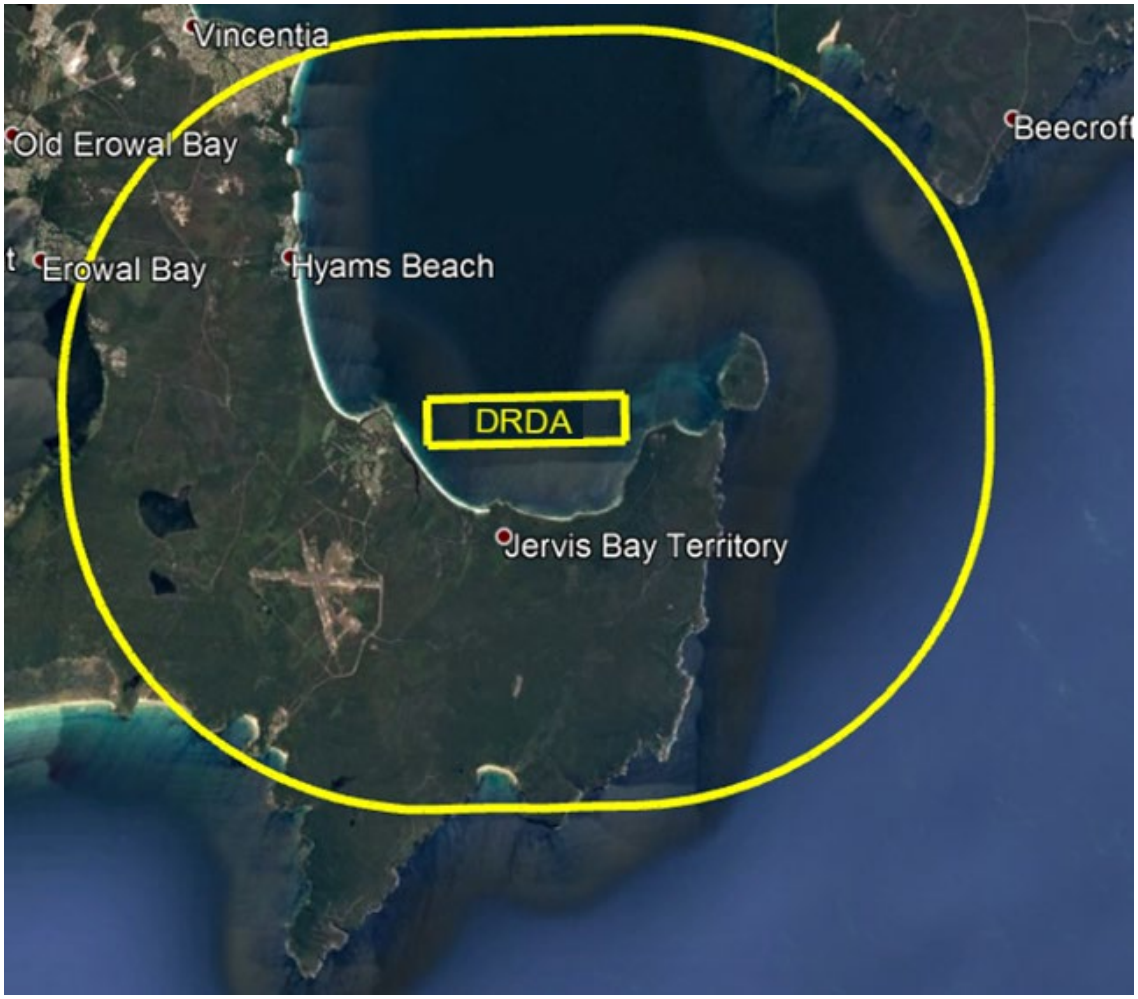

Figure 11: Darling road drop zone/area and ATC surveillance separation (outer line)

3.9 **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. The yellow oval within Figure 11 depicts the 3NM ATC surveillance separation minima which may be employed by ATC to effect separation between PJE and non-PJE activity.

3.10 **Jervis Bay Drop Zone (JBDZ).** JBDZ is located within the boundary of YJBY, with the drop target located to the North East of the RWY intersection as shown at Figure 12.

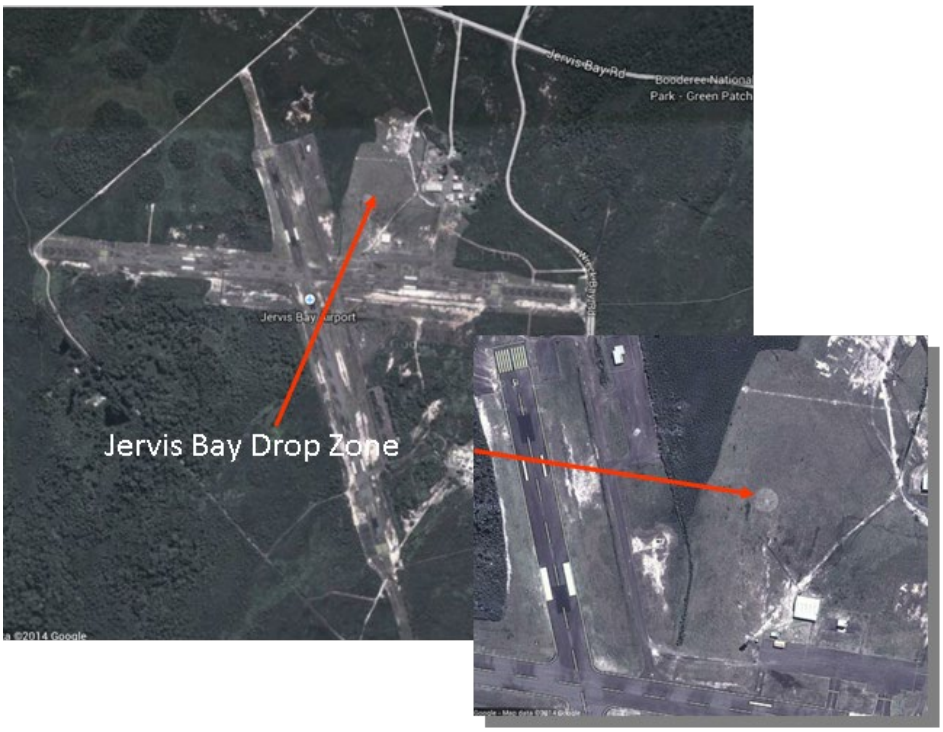

Figure 12: Jervis Bay drop zone and target (inset)

3.11 **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 13. 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 13: Jervis Bay drop area

3.12 **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).

3.14 **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.

3.15 **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.** The ATC separation minimum from the edge of Drop Areas is normally 3NM. Some standing separation line features are depicted in the figures below. Other line features may be specified for separation purposes; the procedures for which are described below.

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 for 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.

4.4 **Night Operations.** For all night operations, ATC separation will be based on the requirement for paratroopers to remain within the designated dimensions of the drop area. ATC is required to separate non-PJE aircraft from the drop area by applying either 3NM laterally or 1000ft vertically. ATC lateral separation areas are depicted in the relevant drop area figures.

4.5 **Reduced Lateral Separation for PJE Operations At or Below 10,000ft**. IAW *Manual of Air Traffic Services* (MATS) ATC may reduce lateral separation with the application of a Line-Feature. This applies to LDA. In addition to the regulations stipulated in MATS, a minimum cloud base of 4000ft applies for trainee paratroopers and minimum cloud base of 2500ft for qualified paratroopers.

4.6 **LDA**. ATC may apply lateral separation of 1NM to the Line Feature within LDZ as per para 4.5 above. This separation may be reduced once all paratroops are sighted by ATC. The southern gable markers running west to east of RWY 08/26 and extending south-east are the northern limit of the 1NM from LDA; non-PJE aircraft operations on and north of RWY 08/26 are separated from LDA.

4.7 **JVBN**. JVBN is established laterally separated from JBDA and DRDA, permitting concurrent operations.

4.8 **HSLDA.** During HSLDA operations, non-PJE aircraft operating on RWY 08/26, the SP or outside 5NM to the south, are considered separated from HSLDA. Flying operations at the FDPT shall not be permitted whilst PJE to HSLDA is occurring.

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,

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

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

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

5.2 **JBDA Separation Procedures**. When JBDA is active with ADF parachuting, ATC may instruct:

a. when approved aircraft are concurrently operating in Jervis Bay (JVB);

i. the ADF PJE aircraft:

'ALL DROPS TO REMAIN SOUTH OF THE JERVIS BAY COASTLINE', and

ii. the approved aircraft operating not above 2000ft AGL:

'REMAIN NORTH EAST OF THE LINE BETWEEN PLANTATION POINT AND BOWEN ISLAND '.

b. any approved aircraft operating not above 2000ft AGL outside of JVB to:

i. 'REMAIN NORTH WEST OF THE LINE BETWEEN SUSSEX INLET AND EROWAL BAY ', or

ii. 'REMAIN 1NM SOUTH EAST OF A LINE BETWEEN GOVERNOR HEAD AND ST GEORGES HEAD ', or

iii. 'REMAIN 1NM FROM ANY TOPOGRAPHICAL LINE FEATURE OUTSIDE OF THE JBDA'.

c. any approved aircraft operating between 2000ft and 5000ft AGL to remain 2NM from any topographical line feature outside the JBDA.

5.3 Approved aircraft must comply with the ATC instruction. Figure 14 maps a representation of the typical topographical line features as required by the prospective ATC instructions for JBDA described above.

5.4 ADF parachutists are responsible for remaining within JBDA, and when instructed by ATC, south of the Jervis Bay coast line.

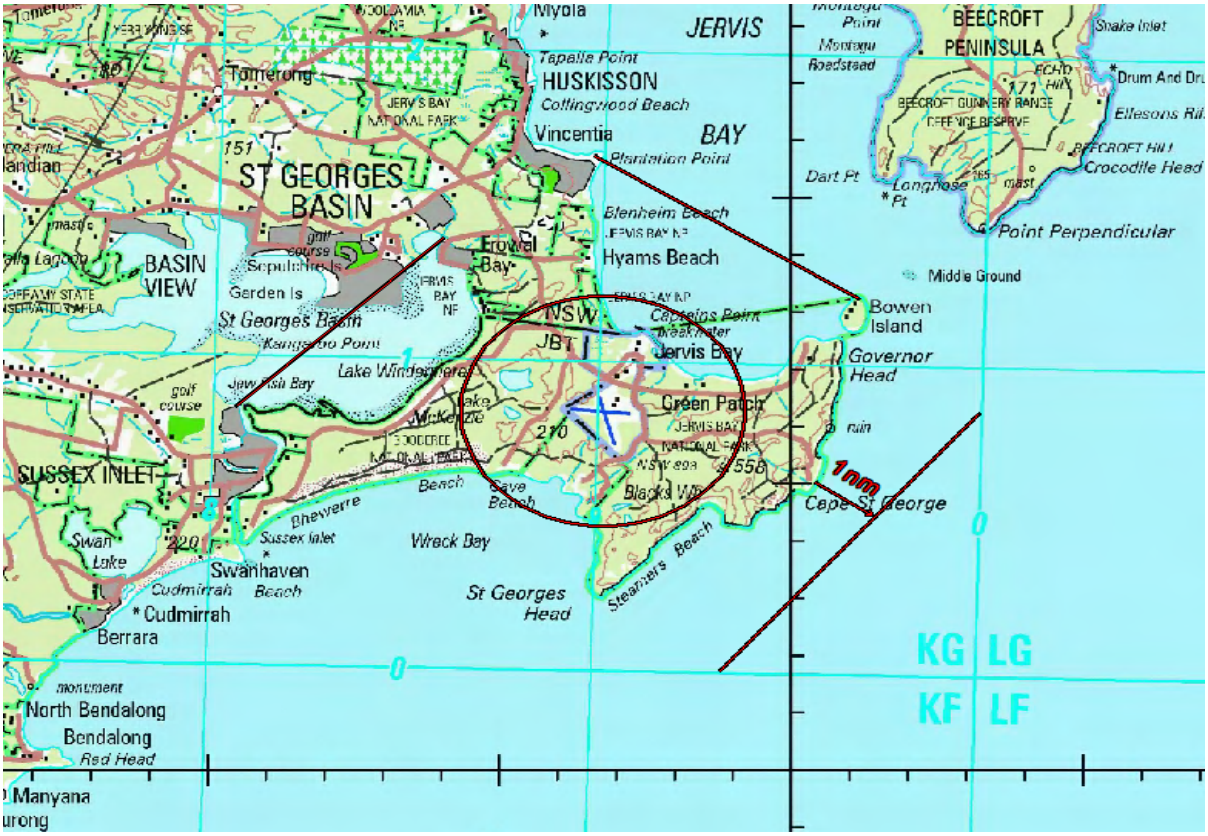

Figure 14: JBDA typical line feature map

6. CTAF SEPARATION

6.1 **Basis.** CTAF PJE Separation (with/without AWIS) relies on compliance with FIHA ENR 5.5 Section 2 and shall be based on the requirement for parachutists to be dropped, and remain within 1NM of the target.

6.2 **Procedures.** When CTAF PJE is occurring at Nowra non-PJE aircraft are to contact the PJE aircraft on the CTAF frequency prior to start, or approaching five nautical miles from the airfield.

6.3 When CTAF PJE is occurring within DRDA or JBDA, non-PJE aircraft are to contact the PJE aircraft approaching five nautical miles from the nominated DA or prior to start. A NOTAM will be released when PJE ops are occurring outside of ATS hours.

6.4 **Restrictions**. When HSLDA is in use, following clearance from the PJE aircraft, Navy aircraft starting, taxiing, arriving or departing may operate NTH of RWY 08/26 until established 1NM from the HSLDA provided they are in constant communication with the PJE aircraft throughout. All other aircraft separation with PJE operations is to occur IAW FIHA ENR 5.5 - 2.

7. PJE AIRCRAFT CLEARANCES

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

a. HDA, or LDA

“(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”.

7.2 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)”

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

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

8. CONCURRENT GROUND OPERATIONS

8.1 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

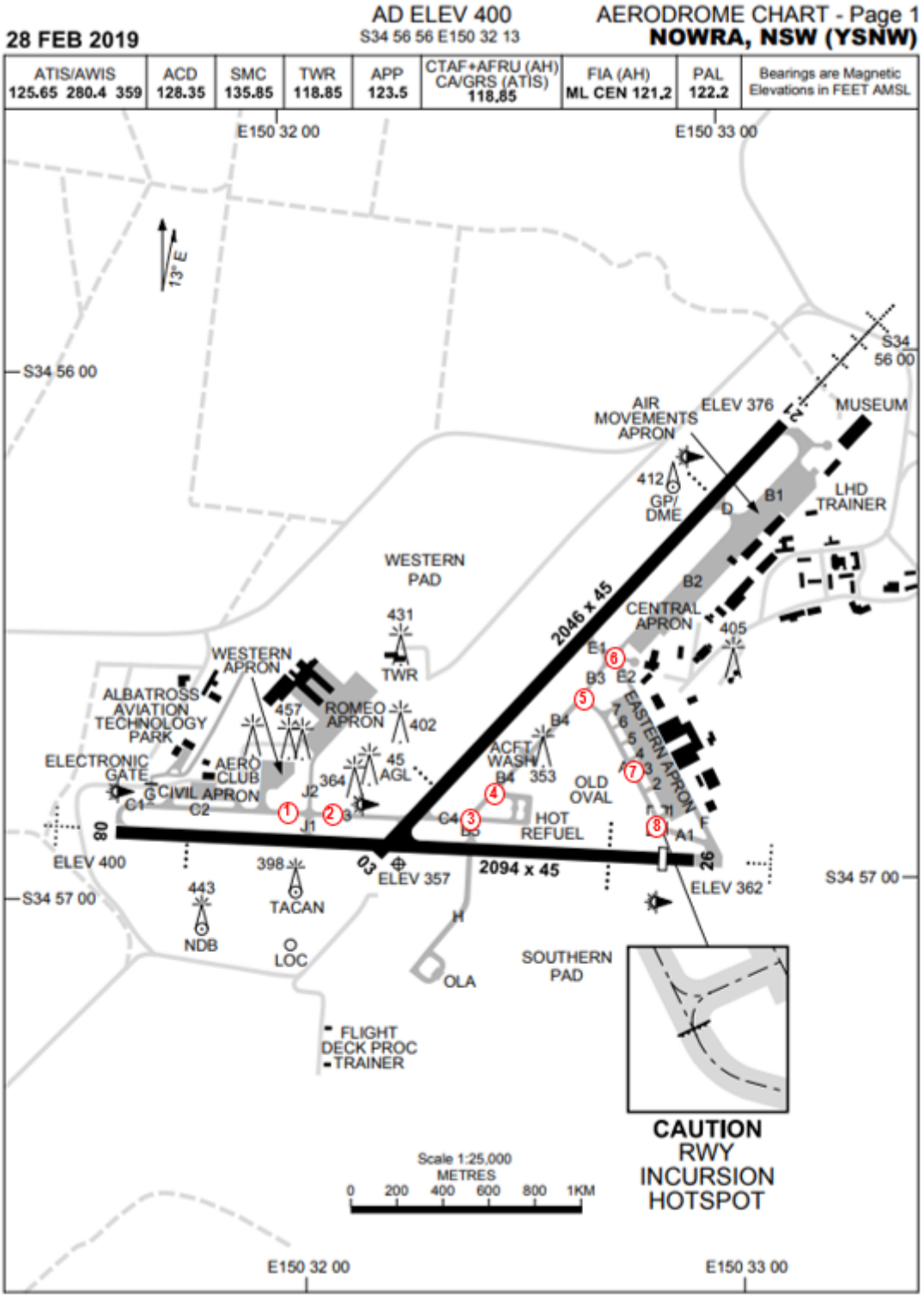

Figure A.1: YSNW aerodrome chart

TOC	INTRO	PRE	AIR	GEN	CIR
ARR	TAO	SEP	ABN	PAR	ANX

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	NWA TACAN	WGS 84	COMMENTS
L1-1		295/21.5TAC	34 43.62S 150 11.47E	Wingello Forest Airstrip
L2-1		311/13.15TAC	34 46.41S 150 22.49E	Kangaroo Valley/Mearnsie's Pad
L2-2		318/8.8TAC	34 49.30S 150 26.86E	Budgong/Gravel Pit
L2-3		306/9.3TAC	34 49.98S 150 24.52E	
L4-1		302/10.4TAC	34 49.58S 150 23.09E	Ettrema/Yalwal Creek near Shoalhaven River intersection. 2 CAs Previously Riverbed
L4-3		285/9TAC	34 52.72S 150 22.29E	Previously McKenzie Station
L4-4		272/7.5TAC	34 55.09S 150 23.15E	Danjera Dam/Dam Wall Pad
L4-5		267/7.8TAC	34 55.60S 150 22.63E	Not suitable for landing Yalwal Mine Shaft
L6-1		256/8.9TAC	34 57.07S 150 21.13E	Diggers Flat
L6-2		245/9.9TAC	34 58.94S 150 20.16E	Previously Fletchers Crown CA
L8-1		212/13.6TAC	35 06.65S 150 20.18E	Tianjara LS
L8-2		199/19.8TAC	35 13.91S 150 19.41E	Previously Porters Creek LS
L8-3		200/25.7TAC	35 18.48S 150 14.64E	Not suitable for landing Wombat Hole
L9-1	Southern CA	207/6.5TAC	35 01.96S 150 26.85E	Previously Mike
L9-2	Southern CA	204/6TAC	35 01.79S 150 27.44E	IVO Braidwood and Turpentine Rd Previously Juliet
L9-3	Southern CA	204/6TAC	35 01.79S 150 27.49E	IVO Braidwood and Turpentine Rd Previously India
L9-4	Southern CA	196/5.7TAC	35 02.03S 150 28.56E	IVO Braidwood and Turpentine Rd Previously Kilo
L9-5	Southern CA	191/5.3TAC	35 01.84S 150 29.33E	Previously Lima
L11-1	YJBY CIRA	134/14TAC	35 08.84S 150 41.22E	YJBY Circle Pad Previously Victor
L11-2	YJBY CIRA	133/14TAC	35 09.04S 150 41.69E	YJBY Seasprite Pad Previously Tango

L12-1	*Individual*	103/16.3TAC	35 04.27S 150 49.84E	**Restricted OPS:** EMG use or PN from BWR RCO REQD. HOTSPOT Beecroft (233.40Mhz). Within confines of Beecroft Weapons Range.
L13-1	Eastern CA	082/6TAC	34 57.61S 150 39.32E	Previously Echo
L13-2	Eastern CA	083/6.3TAC	34 57.72S 150 39.61E	Previously Foxtrot
L13-3	Eastern CA	086/6.4TAC	34 58.03S 150 39.68E	Previously Hotel
L13-4	Eastern CA	085/6.1TAC	34 57.85S 150 39.35E	Previously Golf
L13-5	Eastern CA	098/5.7TAC	34 58.95S 150 38.72E	Previously Forest Quarry
L15-1		204/11.3TAC	35 05.98S 150 23.71E	Wandean Rd
Dust Bowl	CHW/CHN	282/3.7TAC	34 55.40S 150 27.95E	
Track Pad	CHW/CHN	278/3.5TAC	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 TAC	34 59.33S 150.98E	

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

TABLE C.2: PINNACLE DATA

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

In depth detail for all 822X operations can be found on the DPE at BS6409287.

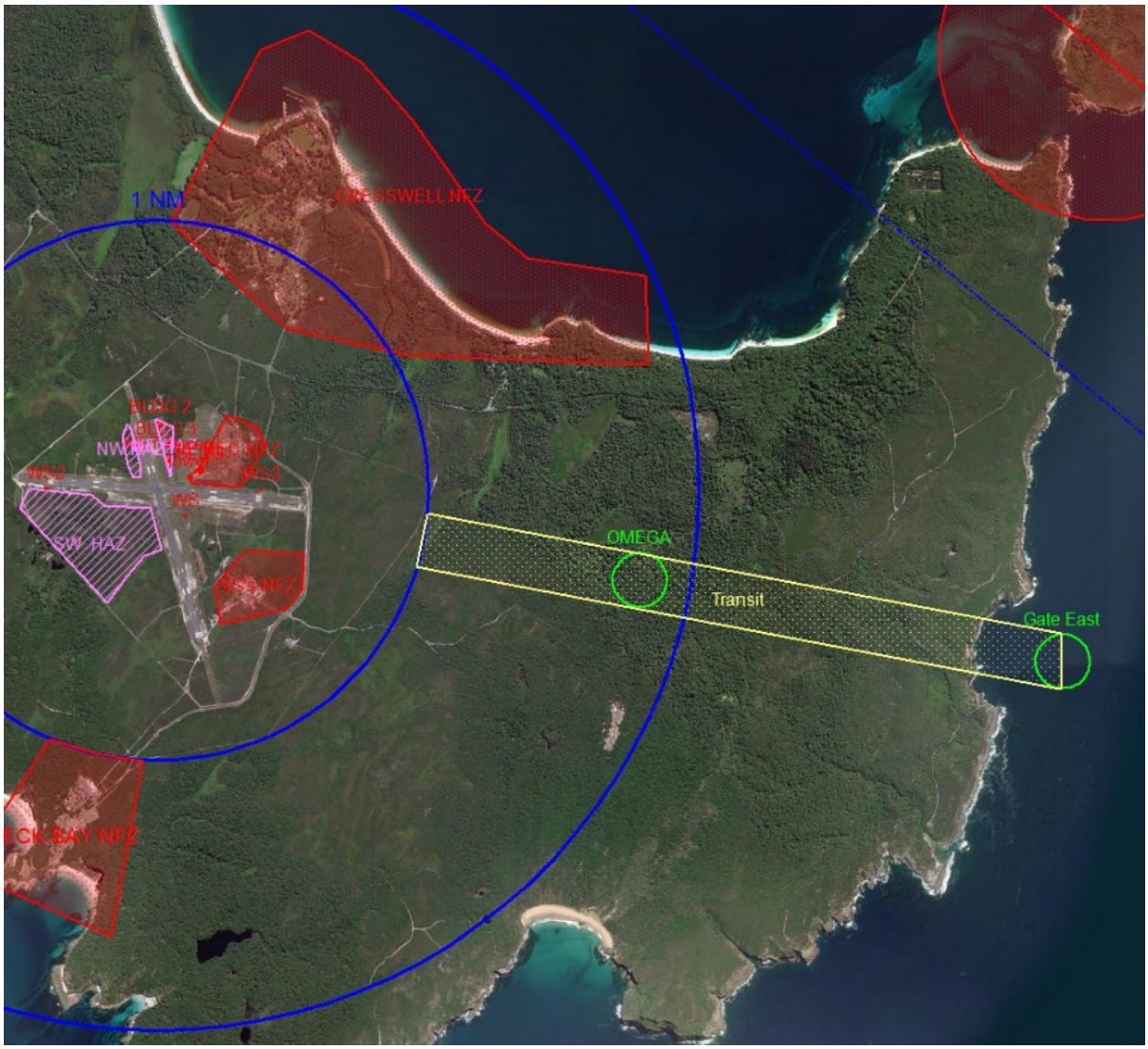

Figure E.1 – Gate East

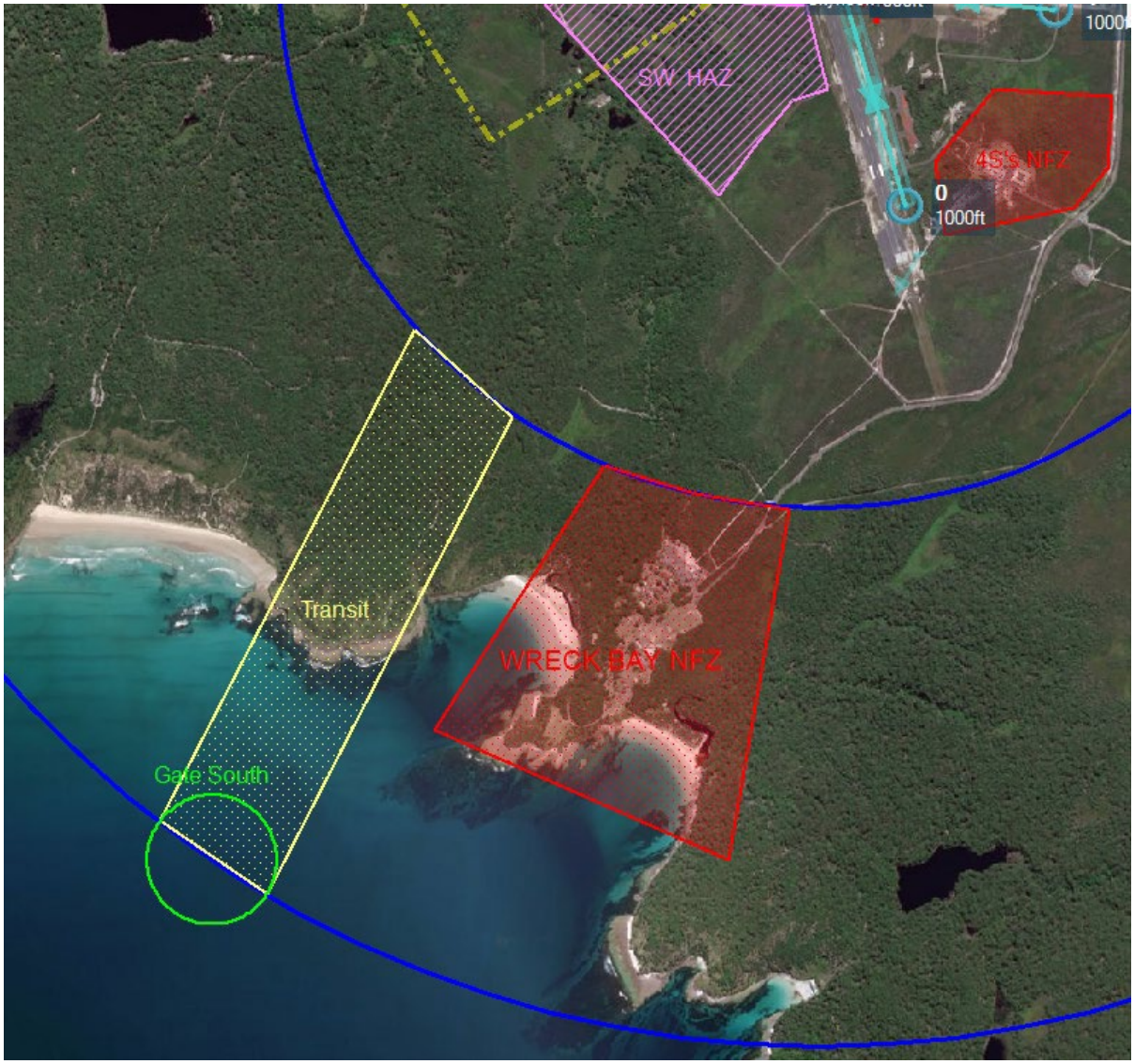

Figure E.2 – Gate South

ANNEX F – NOWRA LOCAL FLIGHT PLANNING TEMPLATE

1. NOWRA LOCAL FLIGHT PLANNING 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 for ADATS to accept the FPN)

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.

ANNEX I – DROP ZONE SAFETY OFFICER CHECKLIST

DROP ZONE SAFETY OFFICER CHECKLIST

SERIAL	EVENT	ACTION	REMARKS
1	**Planning Phase:** a. Submit proposed programme to ACC for inclusion in the Weekly Planning Meeting and Daily Airfield State. Attend night flying brief at ACC 1600 on day of jump.	Army Unit	Wed of week prior to jump
2	**DZ Preparation:** a. Army Ambulance and Med teams at DZ b. Mark Line Feature (if Req'd) b. Met forecast c. Establish and maintain Comms with ATC/CTAF	 Army Unit Army Unit Army/Met Army Unit	 DZSO DZSO DZSO DZSO
3	**Parachuting Phase:** a. PJE aircraft on freq b. PJE aircraft advises ATC and DZSO of wind cone c. Aircraft requests "Clear Live" from DZSO d. "Clear Live" from DZSO to aircraft e. Aircraft requests "Clear Live" from ATC f. Nil conflicting aircraft g. "Clear to Drop" from ATC to aircraft h. "Stick of ... gone" from aircraft to ATC and DZSO i. DZSO to count canopies j. Aircraft not to descend below canopies	 Aircrew All Aircrew DZSO Aircrew ATC ATC Aircrew DZSO Aircrew	 For CTAF ops PJE aircraft is to make all appropriate transmissions. For operations above NWA airspace aircraft is to contact applicable ATC agency for clearances
4	**Jump Complete:** a. "All paratroops on ground" for each pass to A/C b. "All paratroops on ground" A/C to ATC	 DZSO Aircrew	
5	**Stop Drop Procedure:** a. Initiated by "Stop Drop" three times	 All	 May be ordered by any unit if confliction or risk to aircraft or personnel is perceived
6	**Descents Complete:** a. Advise ATC "all descents complete"	 DZSO	 End of day's operation or weather holds