New South Wales Manual of Air Traffic Services Supplementary Procedures

Procedure

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Version 46

Effective 30 November 2023

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Airservices Australia

SO2 Standards ANSP
Headquarters Surveillance and Response Group

ATTENTION
Temporary amendments may apply

Change summary

New South Wales Manual of Air Traffic Services Supplementary Procedures Version 46: Effective 30 November 2023		
Location of change	**Change description**	**CRC**
All	• No change bars applied as more than 50% of the document has been updated, significant section changes have been included. • Change to Restricted area names	30890
1.1	Editorial	
2.3	Changes to airspace names, numbers and details	
2.4	Section replaced	
2.5	Section replaced	
3	Williamtown airspace changes	
3.4	Thunder Corridor	
3.5	Coordination changes	
3.6	Coordination changes	
3.7	Airspace and coordination changes	
3.8	Airspace changes	
3.9	MAAA changes	
4.3.3	Waypoint and route update	
4.3.5	Updated paragraph	
4.3.8	Updated note	
5.1.4	Priorities update	
5.7.1.2	Diagram update	
7.1	New Restricted areas	
7.3	Updated process	
9	Updated contact numbers	

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1 Definitions

1.1 Group name abbreviations

Abbreviation	Definition
RAAF	
APP(L)	WLM Approach (Low)
APP(H)	WLM Approach (High)
OPSCDR	Operations Commander
Navy	
FHQ	Fleet Headquarters
FXP	Fleet Exercise Programme
SO3 MARWKPR	Staff Officer 3 Maritime Watchkeeper
OCS	Officer Conducting Serial
ORS	Operations Room Supervisor
PWO	Principal Warfare Officer
Army	
RCO	Range Control Officer
Airservices	
ATMD	Air Traffic Management Director
CNK	Cessnock Sector
GRN	Grafton Sector
HWE	Howe Sector
JVS	Jervis Sector
MAL	Myall Sector
MDE	Mudgee Sector
MLD	Maitland Sector
NAA	Nambucca Sector
OCN	Ocean Sector
SAS	Sydney Approach South (YSSY)
SAW	Sydney Approach West (YSRI)
SDS	Sydney Departures South
SDN	Sydney Departures North
SM	Shift Manager
SNO	Snowy Sector

Abbreviation	Definition
SOS	Sydney Operations Solo
SRI	Sydney Centre
SS	Systems Supervisor
SYSM	Sydney Shift Manager
WOL	Wollongong Sector

Note: See also *Manual of Air Traffic Services (MATS) (NOS-SAF-2000) Part 1 Definitions*

1.2   Abbreviations - Richmond

Abbreviation	Definition
LDD TA	Londonderry Training Area
LDD DZ	Londonderry Drop Zone
LFA	Low Flying Area
NTA	Northern Training Area
RT	Roll Time
RV	Rendezvous Time
STA	Southern Training Area
TOT	Time on Target

2 Operational context

2.1 Airspace administration

2.1.1 Purpose

This document:

a) describes airspace management procedures (including operating procedures and services provided to participating and non-participating aircraft);

b) describes the role of the airspace administrator; and

c) nominates the airspace Arbiter.

2.1.2 References

The primary references for airspace and air route information is the Designated Airspace Handbook (DAH) (ATS-MAN-0039).

2.1.3 Prohibited, Restricted and Danger (PRD) area administration

All Defence administered airspace and PRD area change proposals are centrally managed through the Joint Airspace Control Cell (JACC).

The Control Authority, as per the Designated Airspace Handbook (eg. FLTCDR 453SQN WLM FLT), is responsible for coordinating any changes to airspace for which they are responsible with the JACC.

Direct requests to establish temporary Defence PRD areas to the JACC via email adf.airspace@defence.gov.au.

Direct requests for temporary airspace to the OAR.

2.1.4 Primary user

The 'primary user' is the airspace administrator and will establish a priority for the use of the airspace.

The primary user must only provide access to other users if the administrator's commitments allow. This may mean the total exclusion of other airspace users.

Note:

1) *Due to the restrictive nature of this function, the role of primary user is seldom applied by airspace administrators.*

2) *As an airspace administrator, Airservices Australia (Airservices) normally performs the role of 'airspace coordinator'.*

2.1.5   Airspace coordinator

As airspace coordinator, the airspace administrator will:

a) designate airspace for its own use;

b) coordinate access to other airspace users in a manner which keeps overall inconvenience to a minimum and as far as practical will evenly spread inconvenience among all users;

c) make every effort to accommodate activities and adjust procedures and facilities to achieve this; and

d) consider the effect of airspace decisions on general and military aviation activities for which airspace is not specifically designated and provide for such activities within the airspace insofar as is practical. Alternatively, minimise airspace activation to reduce its effect on other airspace users.

2.1.6   Arbiter

The Arbiter provides services and day to day management of the airspace and will operate in accordance with the agreed procedures promulgated in MATS Supplementary Procedures.

The various airspace administrators must reach agreement on the management of the designated airspace and operations within it.

The Arbiter does not need to be a direct employee of the airspace administrator.
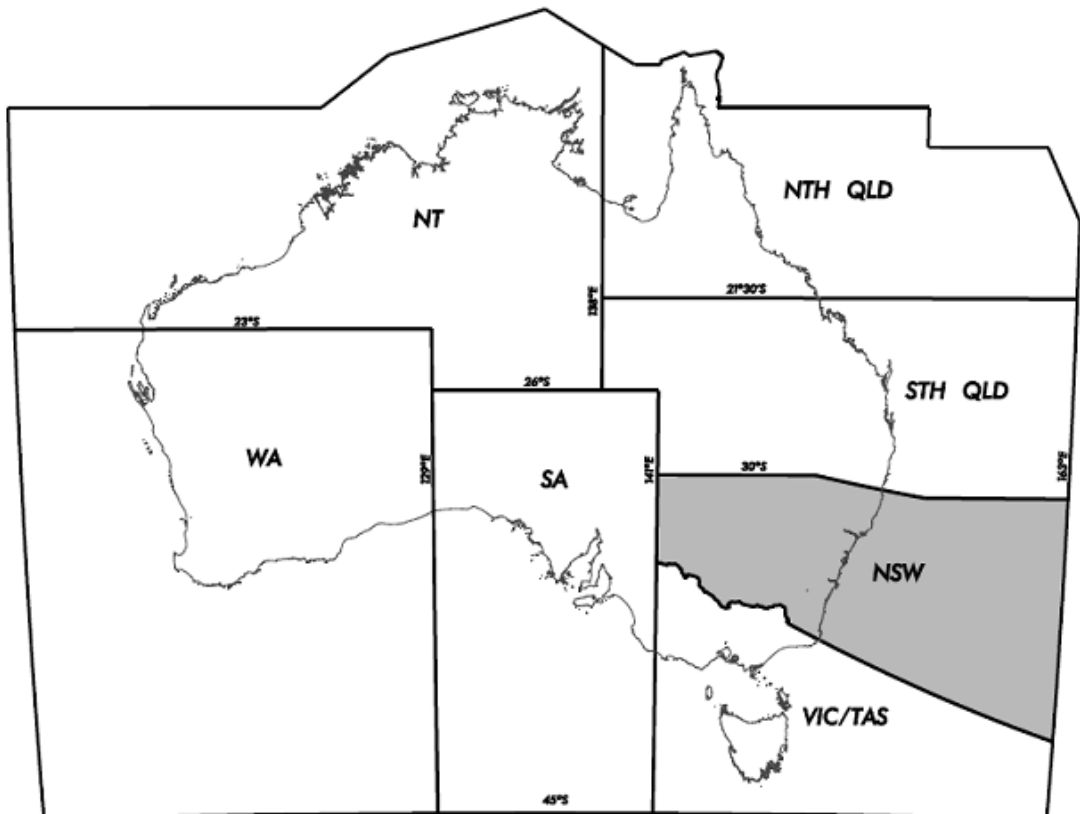
2.2 Area of responsibility

2.2.1 Dimensions

The area of responsibility for airspace and airspace management covered by these procedures is:

34 01 59S 141 00 00E, 30 00 00S 141 00 00E, 30 00 00S 149 27 52E, 31 01 44S 155 18 14E, 31 01 44S 163 00 00E, 41 48 11S 163 00 00E, 36 45 48S 148 08 10E, then along MURRAY RIVER to 34 01 59S 141 00 00E.

Figure 2.1 Area of responsibility

2.3 Airspace management and release responsibilities

2.3.1 Airspace requests and NOTAM publication

2.3.1.1 M440 A/B/C/D/E/F/G/H/J/K/L/M/N/P Tasman Sea – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Fleet HQ Potts Point (NAVY - primary user) FHQ is responsible for NOTAM and airspace buffer calculations.
Activation	NOTAM Activity in M440A/B takes precedence over the overlapping portions of R421. Activity in M441 takes precedence over the overlapping portions of M440.

2.3.1.2 M441 Beecroft Head – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Fleet HQ Potts Point (NAVY - primary user) FHQ is responsible for NOTAM and airspace buffer calculations.
Activation	NOTAM Activity in M441 takes precedence over the overlapping portions of M440 and R421.
Communications	The RSO must Monitor 243.0 MHz during M441 shore bombardment serials.

2.3.1.3 M442 A/B/C/D/E Tasman Sea – Military flying

Item	Details
Controlling authority and NOTAM responsibility	Fleet HQ Potts Point (NAVY - primary user) FHQ is responsible for NOTAM and airspace buffer calculations.
Activation	NOTAM

2.3.1.4 M443 Tasman Sea – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Fleet HQ Potts Point (NAVY - primary user) FHQ is responsible for NOTAM and airspace buffer calculations.
Activation	NOTAM FHQ has priority for the use of M443 over M550A activities. FHQ must advise of M443 activations to the WLM Military Airspace Coordinator (MAC) for tabling at each Weekly Planning Conference for the following week. Subsequent changes must be coordinated with the 81 Wing Programming Officer. Coordinate with Sydney TCU when affected, and record in the FXP.

2.3.1.5   M444 A/B/C Tasman Sea – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Fleet HQ Potts Point (NAVY - primary user) FHQ is responsible for NOTAM and airspace buffer calculations.
Activation	NOTAM

2.3.1.6   M550 A/B/C/D Williamtown – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least eight hours' notice prior to activating M550 A/B Provide at least two hours' notice prior to activating M550 C/D

2.3.1.7   R368 Albury – Military non-flying (demolition activity)

Item	Details
Controlling authority and NOTAM responsibility	ARMY RCO Albury (Army - primary user)
Activation and amendments	NOTAM The RCO must send the NOTAM request to RCO Puckapunyal. Where practical, issue the NOTAM eight hours prior to commencement of activity. If demolition activity is necessary with less than eight hours notice: a) advise as soon as possible; or b) determine if activity can be delayed until Albury Tower is open. Notify Airservices of any amendments to the hours of activity.
RCO responsibilities	Check the accuracy of the NOTAM before commencing activity. Only use the area during the published NOTAM times. Ensure that communications during demolition is always available. Before commencing demolition: a) establish contact with Albury Tower. If no contact, call the ML SS b) advise Albury Tower/ML SS of the contact phone number and radio net; and c) confirm the status of Albury Tower. ***Note:*** *Procedures for demolition are dependant on whether Albury Tower is open or not.* Suspend operations when requested. Advise Albury Tower/ML SS when activities: a) are suspended for at least one hour; or b) have ceased for the day. Advise RCO Puckapunyal to cancel the NOTAM when activities have ceased for the day

Item	Details
Albury Tower responsibilities	Approve demolition activity subject to aircraft safety and facilitation of aircraft operations.
	Separate aircraft from R368 when demolition is occurring.

2.3.1.7.1 Demolition phraseologies

Situation	Albury Tower	RCO response
Prior to the commencement of demolition activity, the RCO must attain approval from Albury Tower. When aircraft operations permit:	DEMOLITION APPROVED	ACKNOWLEDGE DEMOLITION APPROVED
When Albury Tower: a) is unable to approve activity; b) requires temporary suspension; or c) requires cancellation.	STOP DEMOLITION	ACKNOWLEDGE STOP DEMOLITION

2.3.1.8 R405 A/B Sydney – Helicopters and seaplanes

Item	Details
Controlling authority	CASA Safety Assurance Branch – Sydney Region (airspace coordinator)
Activation	H24

2.3.1.9 R406 Temora – Air displays

Item	Details
Controlling authority	Temora Historic Flight Club (airspace coordinator)
Activation	NOTAM

2.3.1.10 R408/R415 Wagga – Military non-flying

Item	Details
Controlling authority	RAAF BCP Wagga (RAAF - primary user)
Activation	NOTAM

2.3.1.11 R420F and R421A/B Nowra – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN NWA FLT (NAVY - primary user)
Activation	NOTAM Activity in M441 andM440A/B takes precedence over the overlapping portions of R421 and R420F.

2.3.1.12 R424 Canberra – Radio telescope

Item	Details
Controlling authority and NOTAM responsibility	School of Radio Physics Sydney University (primary user)
Activation	H24

2.3.1.13 R430ABCTidbinbilla – Radiation hazard

Item	Details
Controlling authority	CSIRO Tidbinbilla (primary user)
Activation	H24

2.3.1.14 R469/R470 Richmond – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN RIC FLT (RAAF - primary user) RIC TWR must advise SY TCU of any change to the status of R469 and R470.
Activation	MON-THUR 2200-1300, FRI and JF 2200-0830 (one hour earlier HDS) or as amended by NOTAM. R469 must only be activated/deactivated with R470. R470 may be activated independently.

2.3.1.15 R494 Richmond – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN RIC FLT (RAAF - primary user)
Activation	NOTAM Publish the NOTAM and advise SAW at least 30 minutes prior to activation. Do not activate R494 unless R470 and R469 are activated.
Highest useable level – Military Operations within R494	FL280 Where specific military circumstances require different altimetry procedures, the highest useable level must be recalculated to ensure that FL290 remains available in overlying CTA.
Lowest useable level – Civil Operations overflying	FL290

2.3.1.16   R504 Orchard Hills – Military non-flying

Item	Details
Controlling authority and NOTAM responsibility	OIC EODF Orchard Hills (RAAF - primary user)
Activation	R504 – JO 2300 - 0600 (one hour earlier HDS) or as amended by NOTAM

2.3.1.17   R521 Lucas Heights ANSTO Research Reactor

Item	Details
Controlling authority and NOTAM responsibility	ANSTO (primary user)
Activation	H24

2.3.1.18   R522 Marrangaroo – Military non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Holsworthy (ARMY - primary user)
Activation	NOTAM

2.3.1.19   R524 Culgoora – Radio Telescope

Item	Details
Controlling authority and NOTAM responsibility	CSIRO Narrabri (primary user)
Activation	H24

2.3.1.20   R525 Parkes – Radio Telescope

Item	Details
Controlling authority and NOTAM responsibility	CSIRO Parkes (primary user)
Activation	H24

2.3.1.21   R533 Denman – Military non-flying

Item	Details
Controlling authority and NOTAM responsibility	Thales Duty Officer (primary user)
Activation	H24

2.3.1.22   R555A/B/C/D/F Holsworthy – Military flying/non-flying

2.3.1.22.1   R555A Holsworthy – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Holsworthy (ARMY - primary user)
Activation	H24

2.3.1.22.2   R555B Holsworthy – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Holsworthy (ARMY - primary user for aviation activity below 2000 FT ARMY - primary user for non-aviation activity below 2500 FT). (Airservices - airspace coordinator 3000 FT and above).
Activation	NOTAM Only activate in exceptional circumstances and with prior agreement at the planning stage.

2.3.1.22.3   R555C Holsworthy – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Holsworthy (ARMY - primary user)
Activation	D 2100 – 1100 EXPH (one hour earlier HDS) or as amended by NOTAM.

2.3.1.22.4   R555D Holsworthy – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Holsworthy (Airservices - airspace coordinator)
Activation	NOTAM The RCO: d) must email requests to activate R555D to the NOF, and include the word DEMOLITION when DEMS2 will be used; and e) should provide at least one working day's notice. *Note:* *Activity heights above 3000 FT impact SY ATC operations.*

2.3.1.22.5   R555F Holsworthy – Military flying

Item	Details
Controlling authority and NOTAM responsibility	6 AVN Regiment OPSO (ARMY - primary user)
Activation	JO 2200–1400 (one hour earlier HDS) or as amended by NOTAM.

2.3.1.23   R560A/B Williamtown - Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least eight hours' notice when activating R560A/B.

2.3.1.24   R564 A/B Singleton – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	Army RCO Singleton (R564A – ARMY - primary user) (R564B – ARMY - airspace coordinator) ATC services are not provided within R564B during military flying activities
Activation	NOTAM R564A–B 2100-1300 (one hour earlier HDS) or as amended by NOTAM. R564B – NOTAM The NOTAM must include details of firing/flying activities in R564B. Do not exceed an activity height of FL130 unless mutually agreed by the RCO and BN Aisle 3 Shift Manager or ATMD.
Activation above FL130	When the upper limit is above FL130, activity periods: 1) should not exceed two hours; and 2) must be separated by at least 60 minutes. Between 0900 and 1600 local one four hour period is allowed. One-off approvals for a higher limit may be negotiated between the RCO or delegate and BN ATC.
Adjacent PJE operations	Brisbane ATC may assign a PJE pilot operating at YCNK/YEES/YSGT responsibility for not entering R564B

2.3.1.25   R570 A/B/C/D/E/F/G/H Williamtown – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least eight hours notice when activating any portion of R570. Note: R570A must be active in order to use the Thunder Corridor for transit into R570. To ensure correct flight planning by non-participating aircraft, when activating a high volume (R570EFGH) the corresponding low volume (R570ABCD) must also be activated at the same time.

2.3.1.26   R584 A/B/C/D Williamtown – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least two hours' notice when activating any portion of R584. An existing activation may be extended by NOTAM for periods of up to one hour without the two hour notice.

2.3.1.27   R588 A/B/C Williamtown – Military flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least two hours' notice when activating any portion of R588. R588B must not be activated without R588A

2.3.1.28   R596 Williamtown – Military flying/non-flying

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least two hours' notice when activating.

2.3.1.29   Williamtown CTAs C1 to C9

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN WLM FLT (RAAF - primary user)
Activation	NOTAM Provide at least two hours' notice when activating any portion of WLM CTAs C1 to C9. An existing activation may be extended by NOTAM for periods of up to one hour without the two hour notice. Activation of WLM CTA's C1 to C9 overrides all underlying civilian airspace for the duration of the activation

2.4 Airspace releases

2.4.1 Temporary releases

A NOTAM is not required when temporary releases of CTA, MOA and RAs are arranged.

2.5 Naval East Australian Exercise Area (EAXA) procedures

2.5.1 EAXA airspace and uses

2.5.1.1 Military Operating Areas

The EAXA airspace consists of Military Operating Areas:

a) M441, used for Naval shore bombardment; and

b) M440, M442, M443, and M444, used for firing, bombing and non-firing air activities including:

   i) military flying training;

   ii) radar tracking exercises involving single aircraft at low to medium altitudes;

   iii) air defence involving multiple aircraft conducting low-altitude attacks against surface targets; and

   iv) intercept exercises involving multiple aircraft conducting high-altitude intercepts.

Disruptions to military activities may not be easily accommodated and should be limited to legitimate requests.

Note: *These exercises require months of planning involving numerous units. They rely on high-cost limited availability aircraft and may be time critical 'enablers' for subsequent ADF deployments to war-like environments.*

2.5.1.2 Clearance for exercise aircraft not required

Aircraft operating within the EAXA airspace on a Fleet Task (as designated by Fleet Headquarters) do not require an airways clearance to enter EAXA airspace.

2.5.1.3 Operations in NW82 adjacent to M440

When M440 is active, ATC may assign responsibility to remain clear of M440 to military aircraft operating in NW82. ATC will use the phraseology, 'CLEARED TO OPERATE IN NW82, REMAIN CLEAR OF M440'.

2.5.1.4 Operations in CTA adjacent to M442 and M443

Consult with Sydney TCU and BN ATC when planning military operations in controlled airspace adjacent to M442 and M443. The conditions for operations must be agreed to and published.

2.5.1.5   M442 useable levels

Restricted Areas	Civil Lowest Usable Levels (LUL)	Military Highest Usable Level (HUL)
M442A	2000 FT	1000 FT
M442B	8000 FT	7000 FT
M442C	9000 FT	8000 FT
M442D	FL130	FL120
M442E	FL210	FL200

2.5.2   Communications

2.5.2.1   Normal communications procedure - transit/release requests

The ML SS and SYSM must direct coordination for transit/release to:

a)   the FXP Cell between 0700-1600 local Mon-Fri (excluding PH); or

b)   SO3 MARWKPR at other times.

Pass requests for transit/release of M441, M440, M442 C-E and M444 through the ML SS.

Pass requests for transit/release of M442 A/B and M443 through the SYSM.

Pass emergency transit requests to the ML SS as soon as possible.

Note:

1)   Direct communications between ATS providers and OCS regarding EAXA airspace are not available. Exceptions for M442 A/B and M443.

2)   FXP and SO3 MARWKPR will relay requests using military communications.

2.5.2.2   Sydney TCU communications with warships

Pass requests for transit/release of M443 through the SYSM to the warship.

When communicating with a warship about transit or airspace releases, ask to speak to the on-watch PWO or the ORS.

Note:

1)   The net may be staffed by a junior operator.

2)   Communications may be by phone.

2.5.3   Airspace release requests and resumption

2.5.3.1   Reasons for requesting an airspace release

Request an airspace release when:

a)   aircraft are subject to an in-flight emergency; or

b)   weather deviations are expected.

2.5.3.2   Weather deviations - prior notice

Advise the FXP Cell or SO3 MARWKPR of likely weather deviations on receipt of forecasts/reports from the Bureau of Meteorology or other sources.

Where possible, provide at least 30 minutes notice when requesting an airspace release due weather.

2.5.3.3   ATS provider responsibility

When requesting an airspace release:

a)   specify the MOA(s) subdivisions, levels and release period required;

b)   do not request the release of an area in its entirety (M441 excepted); and

c)   ensure that transits are conducted in the most expeditious manner to minimise the disruption to Defence activities.

Advise your supervisor when:

a)   the transit aircraft has/have vacated and the released airspace is no longer required; and

Note: *Airspace will be returned to the military and activities may resume.*

b)   aircraft will transit using the emergency transit procedures.

2.5.3.4   FXP cell/SO3 MARWKPR responsibility

The FXP Cell/SO3 MARWKPR will coordinate with the OCS(s). If a release:

a)   is approved, advise the ATS Provider using the phrase:

'PROPOSAL APPROVED FOR MIKE… (specify MOA subdivisions, levels, times, as applicable) REPORT COMPLETE'.

Note: *This indicates that a check-fire is in place and aircraft have been positioned clear of the released airspace; or*

b)   cannot be approved, advise the ATS provider that 'PROPOSAL DENIED'.

Note: *OCS may be unable to de-conflict the military activity from the requested release.*

2.5.4   Reason for transit of EAXA areas

Nothing in these procedures precludes:

a)   the pilot-in-command of an aircraft declaring a PAN/MAYDAY when subject to an emergency and transiting active MOA; or

b)   the ATS provider from requesting a temporary release/transit of a portion of the EAXA airspace for a legitimate reason. Be aware that release/transit will depend on current and pending ADF activities and limitations in military communications capabilities within the EAXA, and requests may not be approved.

2.5.5   Unauthorised emergency deviations through EAXA airspace

When possible, supplement safety alerting as follows:

a)   Advice that hazardous activities include live firing and/or fast military jets;

b)   Instructions to broadcast position reports on guard and to attempt contact with warships in the restricted area; and

c)   Consider the use of relay aircraft if the deviating aircraft is unable to broadcast.

2.5.6   Transit requests

2.5.6.1   Transit of M440 A/B

Make requests to transit M440A/B through FXP or SO3 MARWKPR irrespective of the status and configuration of R421 A/B and R420 F. NWA ATC may be able to assist when aircraft are subject to an emergency.

Note:

1)   These areas are allocated to an OCS and there may be delays in communications and in gaining the transit approval.

2)   Generally, M440 A/B will only be NOTAMed simultaneously with R420F and R421 when an increase in safety and protection between other airspace users and the activity conducted is considered necessary.

2.5.6.2   Transit of M442 A/B

When transit of M442 A/B is required by civil aircraft, SYSM may request a release of the airspace.

Make requests by phone when communications are established between SYSM and the OCS.

When contact between the ship and Sydney TCU cannot be established, Sydney TCU must contact the FXP Cell or SO3 MARWKPR.

When M442A/B has been allocated for air serials the FXP, warships and aircraft must maintain a listening watch on 135.1 MHz, and aircraft in M442 may operate on this frequency.

2.5.6.3   Transit of M442 C, D and E

SYSM must contact the FXP Cell or SO3 MARWKPR for requests to transit M442C, D and E.

2.5.7   Release/transits not approved

FHQ must accommodate releases or transits whenever military activities permit.

When a release/transit cannot be approved, apply alternate measures to ensure traffic remains clear of the active MOA. Such measures may include deviations around or over active MOA, or remaining at or returning to the departure aerodrome.

2.5.8   M443 procedures

2.5.8.1   Communications and reporting

Time	The OCS must:
At least 30 minutes prior to scheduled time for firing or air serial	Establish communications with Sydney TCU via: 1) 135.1 MHz; 2) SYSM phone; or 3) cooperating aircraft on 135.1 MHz, when practical. Notify WLM APP Supervisor.
At least five minutes prior	Confirm communications prior to commencing firing.
During firing	a) Maintain a continuous communications watch; and b) 30 minute scheduled reports.

The firing or air serial must cease if communications cannot be established or are lost.

Note: *Reliable communications between the OCS and Sydney TCU are essential whenever air or firing serials are conducted within M443, due to its proximity to Sydney (Kingsford-Smith) Airport.*

2.5.8.2   Release during delays

If a significant delay occurs, the OCS should release M443 to Sydney TCU. When released, Sydney TCU must release the portion of M443 within M550A to WLM APP via the BN ATC sector.

2.5.8.3   Resuming after delays

The OCS must provide Sydney TCU at least 10 minutes notice when resuming M443.

Sydney TCU must advise WLM APP via BN ATC Ocean Sector that the part of M443 within M550A is resumed by OCS.

2.5.8.4   Exercise cancelled/complete

OCS must advise Sydney TCU when the exercise is completed or cancelled.

2.6   R555 – Holsworthy procedures

2.6.1   R555A/B/C/D/F useable levels

Restricted Areas	Civil LUL	Military HUL-flying	Military HUL-non-flying
R555A	2500 FT	2000 FT AMSL	2500 FT (includes all buffers)
R555B/D	NOTAM upper limit	1000 FT BLW NOTAM upper limit	NOTAM upper limit (includes all buffers)
R555C	3000 FT AMSL	2000 FT AMSL	3000 FT AMSL (includes all buffers)

Restricted Areas	Civil LUL	Military HUL-flying	Military HUL-non-flying
R555F	2000 FT	1500 FT AMSL	N/A

2.6.2 Varying R555 activation times and activity heights

If a variation to activation times or activity heights is required, HRC must:

a) obtain approval from the SYSM before commencing firing; and

b) cease firing in R555B and D as soon as practical when requested by the SYSM.

Advise SYSM when firing has ceased for the day or when activities in portions of R555 has ceased before the NOTAM advice, to allow civil aircraft use of the area.

2.6.3 R555D firing procedures

2.6.3.1 NOTAM

NOTAM for all field demolitions or live firing will contain the following NOF approved text in Field E: 'R555D DEMOLITION AREA ACT [RA2] DUE MIL NON-FLYING'. This is to be applied to both 'Limited' and 'Extended' access NOTAM. Note that currently Defence will only permit one activity per NOTAM.

2.6.3.2 Coordination between SYSM and RCO

When Defence requires access to the whole of R555D, the following coordination will apply:

a) **Limited Access**. Defence accepts, and Airservices may apply, the following conditions with such NOTAM:

   i) The Defence access requirements are intermittent for the period of the NOTAM with access window duration commensurate with that of DEMS2 activities and will not exceed one 15 min maximum access per hour except in the case of a misfire where the RCO will advise SY ATC of the expected delay;

   ii) In much the same way as for R555D [DEMOLITIONS] activities, RCO will:

   - obtain approval from SY ATC for each field demolitions or live firing serial;

   - advise SY ATC immediately on completion of each serial; and

   - advise SY ATC when the activity has ceased for the day;

   iii) Defence expects reasonable access however accepts that, as airspace arbiter, SY ATC may not be able to accommodate all Defence access requests immediately and that there may be extended delays occasionally. Should delays arise, SY ATC should advise the RCO of the estimated time delay so as to enable briefing to the unit conducting the firing/demolitions activity;

b) **Extended Access.** RCO will provide advice to the SYSM NLT five days prior to the NOTAM start date/time that the NOTAM access will be extended/continuous; and

c) **Cease Firing.** The procedures for a SY ATC initiated cessation of firing/demolition will be conducted in accordance with 2.6.9.2 Cease firing.

2.6.4 R555F activation and release procedures

R555F is a designated military flying training area.

2.6.4.1 6th Aviation Regiment responsibilities

6th Aviation Regiment (6AVN REGT) provides services when there is flying in R555F, and may release the airspace to SYSM when:

    a)   the standard activation period is not required;

    b)   operations are delayed by more than one hour from 0800 local; and

    c)   operations are completed before 2359 local.

R555F may be activated or deactivated outside the standard activity periods if agreed to by SY ATC.

2.6.5 Flying activities in R555

2.6.5.1 Service provided

Provide Class G airspace services in R555.

Flying Operations are VFR unless an IFR service was previously provided by SY ATC.

2.6.5.2 Military restricted-flying zone

A military restricted-flying zone is established in R555, ½ NM south of the Bankstown CTR as the area north of the green and white broken line in 2.6 R555 – Holsworthy procedures. This restricted flying zone is to segregate military medium and heavy wake turbulence category helicopters from the Bankstown CTR.

2.6.5.3 Pilot Responsibilities

When active, aircraft do not require contact with SY ATC.

When operating within the military restricted-flying zone, the PIC must contact Bankstown Tower and advise when entering and departing the military restricted-flying zone.

If requesting a clearance to enter Civil CTA/Sydney CTR from R555, you must provide your own separation with all flying and non-flying activity within R555.

2.6.6 Access for Emergency Services aircraft

2.6.6.1 Access to R555

When Emergency Services aircraft require access to R555, SY ATC must:
  a) contact HRC for access to R555 A/B/C/D via intercom. If contact cannot be made, call the:
      i)   RCO;
      ii) ARCO; and
      iii) RM.
  b) contact 6AVN REGT for access to R555F;
  c) instruct the aircraft to broadcast on the Holsworthy CTAF on entry and exit; and
  d) monitor the CTAF when within.

If contact cannot be made, advise the PIC that the status of R555 is unknown, and the aircraft must broadcast intentions on the Holsworthy CTAF.

2.6.6.2 Close proximity

If operating in close proximity to R555, emergency services aircraft must be instructed to monitor the Holsworthy CTAF, particularly if landing on or immediately east of Heathcote Road.

2.6.6.3   R555C – Heathcote Lucas Area

When R555F is active and civil emergency services aircraft require access to the Heathcote Lucas Area, SY ATC must coordinate with 6 AVN REGT.

When R555F is released or deactivated, the Heathcote Lucas Area is automatically released to SY ATC, SFC to 2500 FT AMSL.

2.6.6.3.1   Heathcote Lucas Area dimensions

The Heathcote Lucas Area is the area in R555C bounded by the intersection of Heathcote Rd and the eastern boundary of R555C south along the eastern boundary R555C to R521 then north, remaining east of Heathcote Road, to the intersection of Heathcote Road and R555C.

This area is not used by Defence for ground training or firing and may be used for flying operations.

2.6.7   Approved ground activity

Only allow blank ammunition and static illumination within R555F.

Note: *Projected pyrotechnics, battle noise simulation or devices including illumination and lasers may be a hazard to low flying aircraft.*
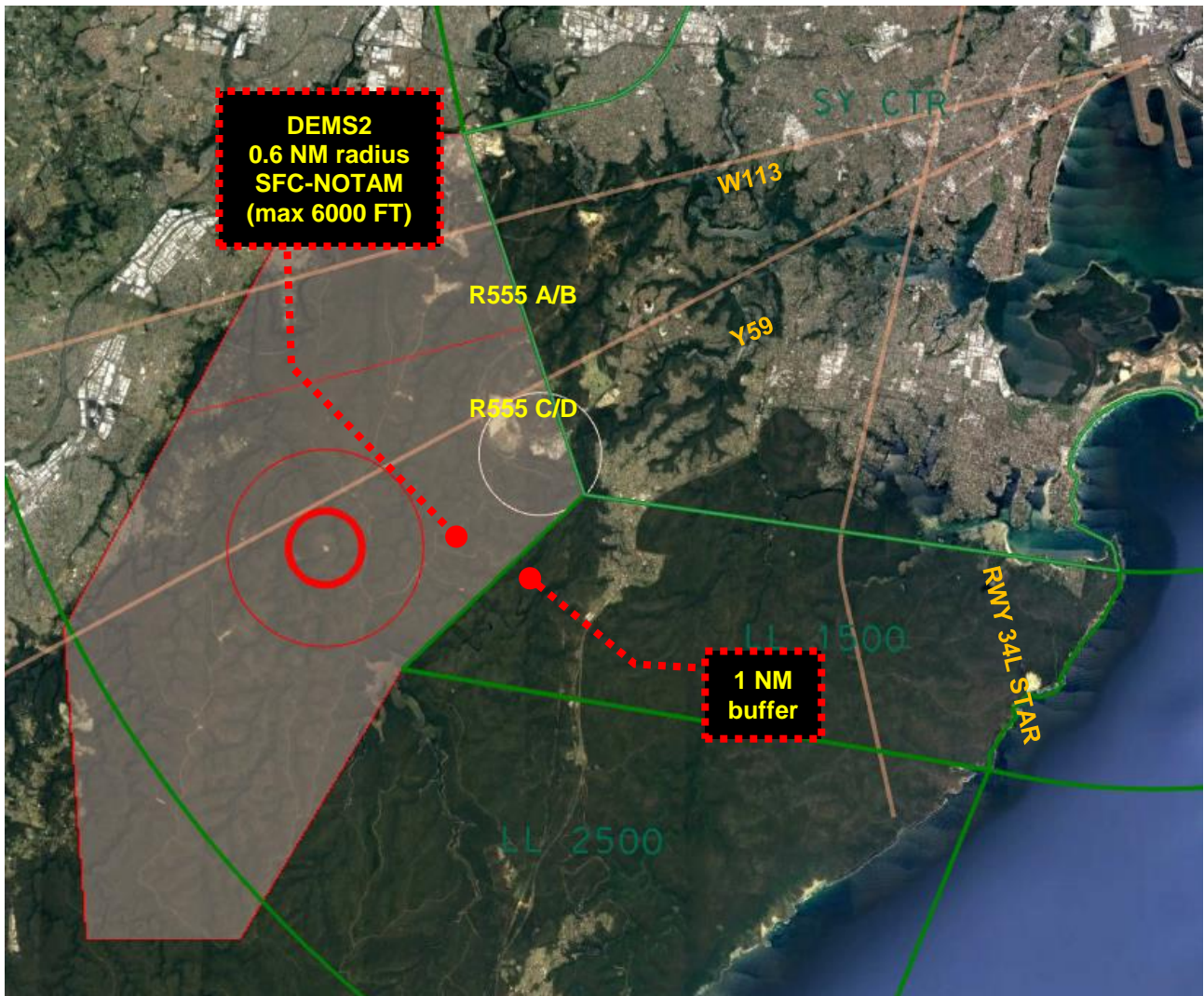
2.6.8   Demolition activity within R555

2.6.8.1   DEMS2

Use the DEMS2 area when demolition activities require a planned height exceeding 2000 FT.

The DEMS2 area is centred at S 34º 04' 41.90" E 150º 54' 36.91".

See diagram below:

2.6.8.2　Arbiter

SY ATC is the Arbiter for activities within R555 above 2000 FT including demolition activities.

2.6.8.3　Buffers

When R555D is active for demolition, SY ATC may use other portions of R555D, and must avoid the displayed DEMS2 area by an additional 1 NM buffer.

Note:

1)　The promulgated lateral dimensions do not contain aviation buffers. The horizontal area includes allowance for the extreme detonation positions and has been determined as 1100 m from the centre location.

2)　This area is depicted within Eurocat maps as a circle with a 0.6 NM radius, based on the lat/long.

The maximum activity height is 1500 m above the impact area.

2.6.8.4　Usable levels

When conducting Demolition activities, the LUL by SY ATC is the upper level specified in the NOTAM but must not exceed 6000 FT.

2.6.8.5　Hours of operation

The DEMS2 area must only be used when both R555C and D are active.

2.6.8.6　Firing and demolition in R555D

When firing and demolition will take place, apply the procedures associated with the activation for R555D Firing.

2.6.9　Coordination between Sydney TCU and RCO

2.6.9.1　RCO responsibilities

The RCO must:

    a)　establish communications with SYSM

    b)　obtain approval for demolition before commencing;

    c)　obtain individual serial clearances for demolition if required by SYSM; and

    d)　advise SY ATC when demolitions have ceased for the day.

2.6.9.2   Cease firing

SY ATC must contact the RCO when a cessation of firing is required.

Note: *Due to the lead times involved in laying charges, the ability to stop a particular demolition is limited.*

The RCO must advise SY ATC:

a)   the expected delay before firing can cease;

b)   when demolitions are rendered safe; and

c)   release R555D to SY ATC.

Once air traffic is separated from the firing area, SY ATC must return R555D to the RCO and approve the resumption of demolition activities.

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3 Normal operations – Williamtown

3.1 Ancillary information

3.1.1 Communications WLM to Aisle 3 SM

Use the telephone when communicating between WLM and the BN SM 3.

3.1.2 Hazard alerts

WLM supervisor must advise the SM/SS of any hazard alerts and, where able, provide a list of aircraft affected by the hazard alert.

The SM/SS must:

a) ensure affected aircraft are advised; and

b) advise the WLM supervisor if other aircraft require the hazard alert.

3.1.3 Diversion airfields

WLM ATC must coordinate with the affected sectors when diversion from YWLM is necessary.

The following primary diversion airfields are promulgated for military aircraft:

a)   For F35, Amberley

b)   For F18, HAWK and PC21, Richmond

3.1.4 Division of responsibility

WLM ATC is divided into:

a) WLM APP (L), providing services at 5000 FT and below, within WLM CTA/CTR and R584A; and

b) WLM APP (H), providing services above 5000 FT, within WLM CTA and all other WLM areas.

3.2 WLM Airspace, Restricted Areas and Military Operating Areas - Activation and Deactivation

3.2.1 WLM Airspace Groupings

3.2.1.1 WLM Airspace Grouping Definitions

WLM CTR and CTA airspace shall only be activated in the following groupings:

Grouping Name	WLM CTR/CTA combination
WLM Airspace 1	CTR A, CTA C1 to C5
WLM Airspace 2	CTR A and B, CTA C1 to C5
WLM Airspace 3	CTR A and B, CTA C1 to C6
WLM Airspace 4	CTR A and B, CTA C1 to C9

3.2.1.2 WLM RA/Thunder Corridor/MOA and Airspace Grouping Combinations

Activation of any portion of R584A-D, R588A-C, Thunder Corridor, or M550AD shall be concurrent with Airspace Groupings as per the table below:

WLM RA/MOA/Corridor	Airspace Grouping Requirement
R584A-D	WLM Airspace 2 or higher
Thunder Corridor	WLM Airspace 3 or higher
R588A-C	WLM Airspace 4
M550A-D	Either NIL WLM CTR/CTA or; WLM Airspace 4

Note: *M550A-D with NIL WLM CTR/CTA will be used as a contingency only, and after prior coordination.*

3.2.2   BN ATC and WLM usable levels in WLM CTR/CTA

The RAAF may use the following levels:

WLM CTA/CTR	Vertical Limits	WLM LUL	WLM HUL	BN LUL
CTR A	SFC-5000			
CTR B	SFC- 2000			
CTA C1	5000-FL125		FL120	FL130
CTA C2	2000-FL125	A030	FL120	FL130
CTA C3	2500-FL125	A030	FL120	FL130
CTA C4	4500-FL125	A050	FL120	FL130
CTA C5	2500-4500	A030		
CTA C6	FL125-FL150		FL140	FL150
CTA C7	FL150-FL180		FL170	FL180
CTA C8	FL150-FL220		FL210	FL220
CTA C9	FL150-FL600		FL580	FL600

3.2.2.1 WLM Airspace Grouping Diagrams BN ATC lowest usable levels

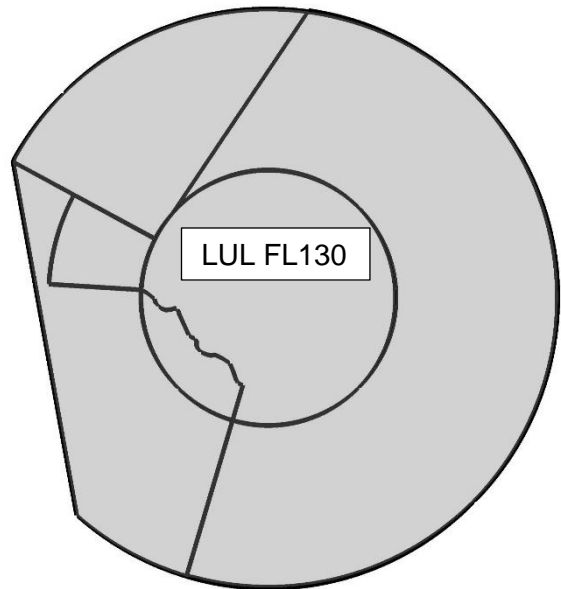To assist with controller and supervisor situational awareness, the following diagrams depict WLM Airspaces 1 to 4, with shaded areas referencing the lowest usable levels for BN ATC.
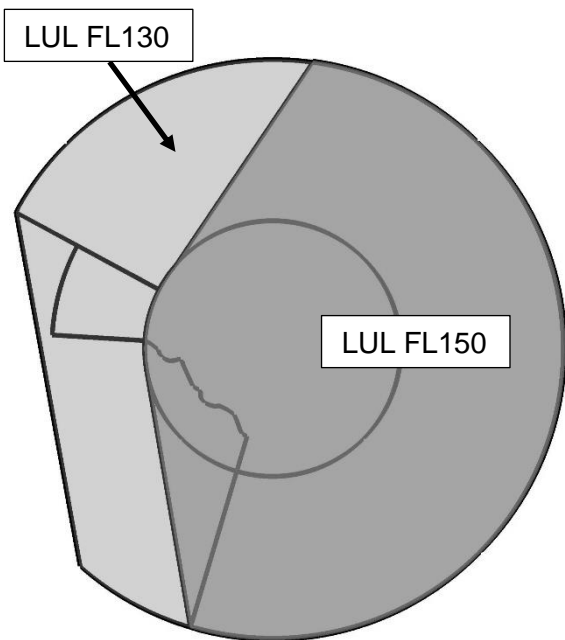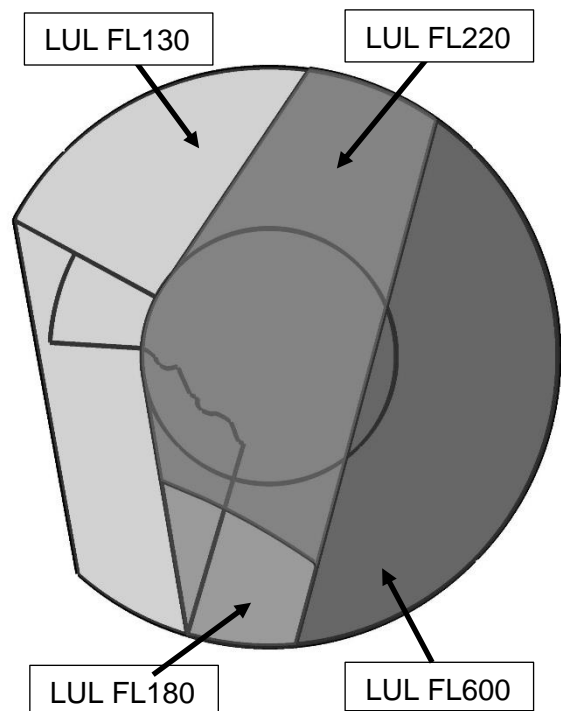
WLM Airspace 1

WLM Airspace 2

LUL FL130

LUL FL130

WLM Airspace 3

LUL FL130

LUL FL150

WLM Airspace 4

LUL FL130

LUL FL220

LUL FL180

LUL FL600
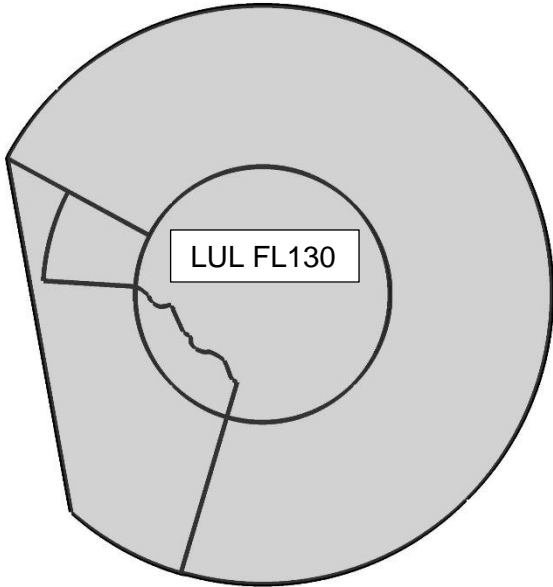
3.2.3   Activation procedures - WLM Airspace 1-4

At least 30 minutes prior to activation	Required action
WLM ATC	Check and ensure the applicable NOTAM are accurate;
At least 15 minutes prior to activation	Required action
WLM ATC	Advise MAL the WLM Airspace Grouping and the WLM Runway Mode (if applicable).
BN ENR	Conduct WLM Runway Mode coordination (if applicable) as per 3.5.2.2
On receipt of activation advice	Required action
MLD	For WLM Airspace 4 activation, advise SDN "CANCEL DIRECT TRACKING"
At least five minutes prior to activation	Required action
WLM ATC	Contact MLD, NAA, MAL and OCN Sectors for traffic information.
BN ENR sectors	Provide radar ident, after the traffic information call.

3.2.4   Activation procedures - R584 A/B/C/D, R588 A/B/C, M550A/B/C/D

At least 30 minutes prior to activation	Required action
WLM ATC	Check and ensure the applicable NOTAM are accurate.
On receipt of activation advice	Required action
MLD	For R588A/B or M550A activation, advise SDN "CANCEL DIRECT TRACKING"
At least five minutes prior to activation	Required action
BN ENR sectors where applicable	Provide traffic information and/or radar ident to WLM APP (H)

3.2.5 Deactivation procedures - WLM 1-4, R584 A/B/C/D, R588 A/B/C and M550A/B/C/D

Prior to deactivation	Required action
WLM ATC	1) If deactivating early, advise the BN SM3 of the deactivation times; 2) Confirm the applicable NOTAM have been requested; and 3) Advise affected BN ENR sectors of any traffic.
BN SM3	Advise the relevant sectors/BN SM2 of the airspace deactivation. For deactivation of WLM airspace to CTAF, SON, ARL, and CNK
MLD	For WLM 4, R588A/B and/or M550A advise SDN "DIRECT TRACKING AVAILABLE"
MLD	For deactivation of WLM airspace to CTAF advise WOL and SDN
OCN	If deactivating early, advise HWE.

3.2.6 Activation procedures - M550A/B/C/D with NIL WLM CTR/CTA

Note: *M550A-D with NIL WLM CTR/CTA will be used as a contingency only.*

At least 30 minutes prior to activation	Required action
3CRU	Check and ensure the applicable NOTAM are accurate.
At least five minutes prior	**Required action**
3CRU	Contact GRN, MAL, NAA, MLD and OCN Sectors for traffic information.
Prior to airspace activation	**Required action**
BN ENR sectors	Provide 3CRU radar ident/traffic information on the EASTROC hotline.

3.2.7 Deactivation procedures - M550A/B/C/D with NIL WLM CTR/CTA

Prior to deactivation	Required action
3CRU	1) Advise the BN SM3 of the deactivation times; 2) Confirm the applicable NOTAM have been requested; and 3) Advise affected BN ENR sectors of any traffic.
BN SM 3	1) Advise SYSM of any changes to relevant NOTAM; and 2) Advise the relevant sectors of the airspace deactivation.
MLD/OCN	Advise SDN "DIRECT TRACKING AVAILABLE"

3.2.8 Activation procedures – R560A/B, R570A/B/C/D/E/F/G/H

At least 30 minutes prior to activation	Required action
WLM ATC	Check and ensure the applicable NOTAM are accurate.
At least five minutes prior to activation	**Required action**
BN ENR sectors where applicable	Provide traffic information and/or radar ident via the WLM APP (H) hotline.

3.2.9   Deactivation procedures – R560A/B, R570A/B/C/D/E/F/G/H

Prior to deactivation	Required action
WLM ATC	1) Advise the BN SM of the deactivation times; 2) Confirm the applicable NOTAM have been requested; and 3) Advise affected BN ENR sectors of any traffic.
BN SM 3	1) Advise BN SM2 and ML SM2 and SM3 of any changes to relevant NOTAM; and 2) BN and ML SMs will advise the relevant sectors of the airspace deactivation.

3.3   Temporary releases of WLM CTAs, RAs, and MOAs

3.3.1   Releasing WLM CTA, R584 A/B/C/D and R588 A/B/C

WLM ATC may release any combination of WLM CTA, R584 A/B/C/D and R588 A/B/C or portion thereof.

When releasing to or resuming from BN ATC	Required action
WLM ATC	Coordinate to BN SM 3.
BN SM 3	Advise affected sectors within Aisle 3. For R588C advise BN SM2.
BN SM2	For R588C advise GRN.
MLD	For WLM CTA C9, R588A/B advise SDN "DIRECT TRACKING AVAILABLE"/"CANCEL DIRECT TRACKING" (if applicable).

3.3.2   Releasing R560AB, R570A-H

WLM ATC may release any combination of R560AB, R570A-H or portion thereof.

When releasing to or resuming from BN ATC	Required action
WLM ATC	Coordinate to BN SM 3.
BN SM 3	1) Advise affected sectors within Aisle 3 2) Advise BN SM 2 and ML SM 2 and ML SM 3
BN SM 2, ML SM2 and ML SM 3	Advise affected sectors within their aisle

3.3.3   Releasing M550 A/B/C/D

WLM ATC may release any combination of M550A/B/C/D or portion thereof.

When releasing M550 A/B/C/D	Required action
WLM ATC	Coordinate the release to BN SM3.
On receipt of release advice	**Required action**
BN SM 3	Advise OCN, BN SM 2 and GRN of the release
OCN	Advise HWE of the release
30 minutes before airspace must be resumed	**Required action**
WLM ATC	Coordinate with the BN SM 3 when a time has not been specified.
On receipt of resumption advice	**Required action**
BN SM 3	Advise OCN
OCN	Advise HWE and check for traffic. Provide relevant traffic to WLM ATC before airspace is resumed Release the airspace back to WLM as early as possible

3.4 Thunder Corridor

3.4.1 Purpose of and access to Thunder Corridor

3.4.1.1 Release and blanket clearance

The Thunder Corridor is a release of Class A and C airspace and a blanket clearance within Class E airspace of defined dimensions of BN ENR Civil Class A, C, and E airspace to WLM ATC. The Thunder Corridor comprises four segments (A/B/C/D), each with different RAAF usable levels.

3.4.1.2 Purpose

The Thunder Corridor should be requested to facilitate transit of military aircraft between WLM CTA and R560/R570.This corridor restricts civil aircraft operations and use should be limited to that necessary.

3.4.1.3 Access

Access to the Thunder Corridor for transit to and from R560 & R570 is an essential requirement for operations by the Air Combat Group (ACG). Delays to mission prepared aircraft departing WLM or returning from R560 & R570 will involve a significant operational penalty and could have flight safety implications.

3.4.1.4 Emergencies and weather deviations

Ad hoc requests for transit of the corridors to facilitate traffic management, weather deviations or emergency diversions should be accommodated where possible.

3.4.1.5 Aircraft communications

Military aircraft will remain on WLM ATC frequencies when operating within the corridor.

3.4.1.6 Separation from the Thunder Corridor

BN ATC will separate using the applicable surveillance standard from the Thunder Corridor boundary. Defence can operate up to the boundary.

BN ATC will not allow VFR on top, or VFR climb and descent in the Class E portion of the Thunder Corridor.

3.4.1.7 Separation within the Thunder Corridor

WLM ATC is responsible for separating military aircraft within the Thunder Corridor.

3.4.1.8 Traffic information within the Thunder Corridor

WLM ATC is responsible for providing traffic information to military aircraft within the Class E portion of the Thunder Corridor.

If a VFR aircraft is observed within the Class E portion of the Thunder Corridor:

a) coordinate to other affected unit(s); and

b) pass traffic information if required.

3.4.1.9   Thunder Corridor VFR Flight Following

BN ENR must advise WLM ATC when a VFR aircraft receiving a Flight Following service, intends to enter the Thunder Corridor
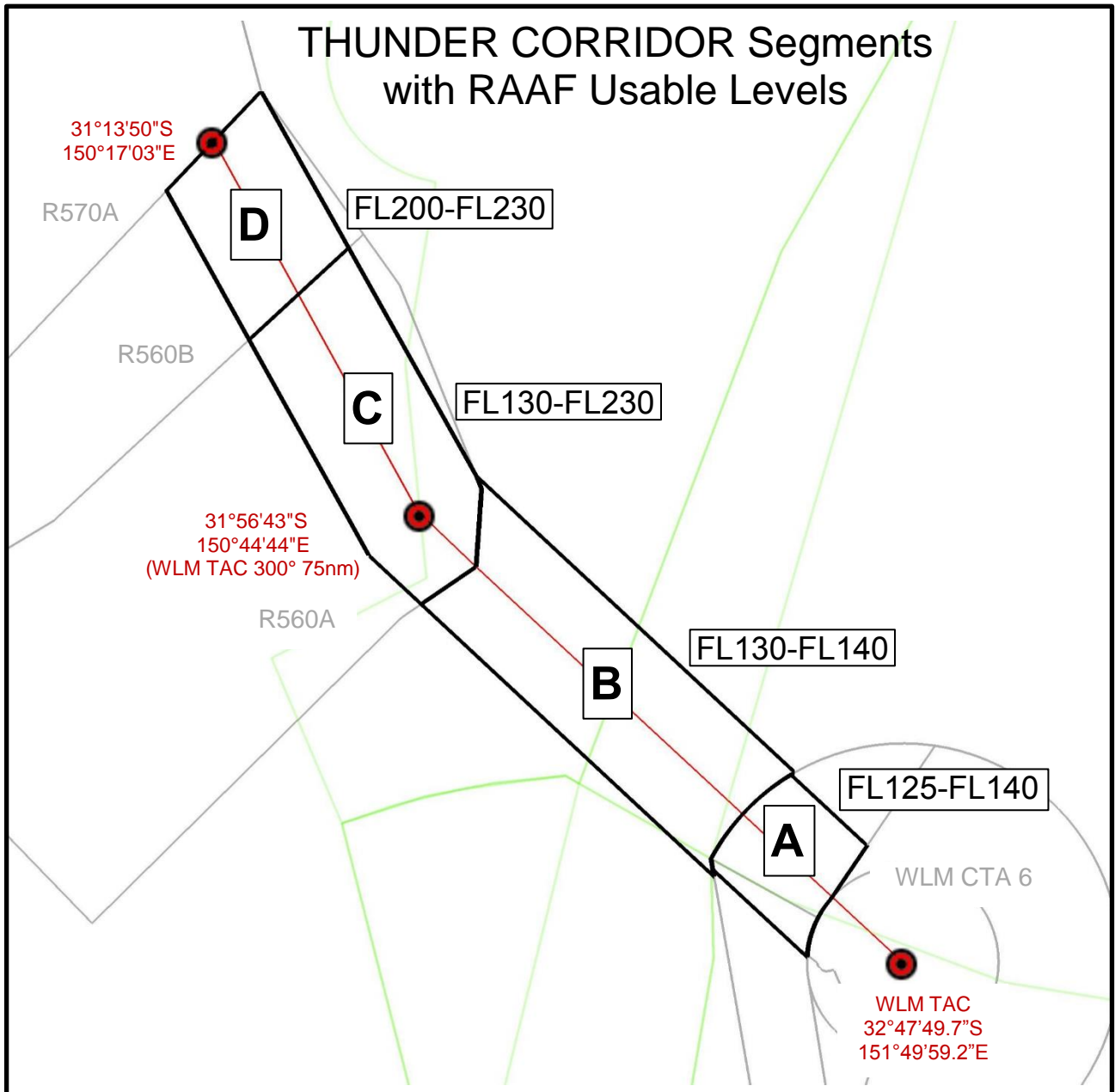
3.4.2   Thunder Corridor dimensions

3.4.2.1   Thunder Corridor

3.4.2.1.1   Dimensions

Thunder Corridor Segment	Dimensions	Standard RAAF usable levels
A	32° 34' 29"S 151° 45' 01"E 32° 40' 36"S 151° 40' 08"E then along a 11nm counter-clockwise arc centred on WLM TAC {32° 47' 50"S 151° 49' 59"E) then 32° 47' 16"S 151° 36' 58"E 32° 37' 16"S 151° 24' 06"E 32° 36' 02"S 151° 23' 51"E then along a 25nm clockwise arc centred on WLM TAC {32° 47' 50"S 151° 49' 59"E) then 32° 26' 25"S 151° 34' 38"E	FL125 to FL140
B	31° 52' 22"S 150° 52' 12"E 32° 26' 09"S 151° 35' 10"E then along a 25nm clockwise arc centred on WLM TAC {32° 47' 50"S 151° 49' 59"E) then 32° 36' 02"S 151° 23' 51"E 32° 38' 05"S 151° 24' 17"E 32° 06' 58"S 150° 44' 42"E 32° 02' 43"S 150° 52' 08"E 31° 53' 50"S 150° 52' 54"E	FL130 to FL140
C	32° 01' 23"S 150° 37' 41"E 31° 36' 39"S 150° 21' 41"E 31° 26' 14"S 150° 35' 08"E 31° 52' 22"S 150° 52' 12"E 31° 53' 50"S 150° 52' 54"E 32° 02' 43"S 150° 52' 08"E 32° 06' 58"S 150° 44' 42"E	FL130 to FL230
D	31° 19' 28"S 150° 10' 39"E 31° 08' 11"S 150° 23' 26"E 31° 26' 14"S 150° 35' 08"E 31° 36' 39"S 150° 21' 41"E	FL200 to FL230

3.4.2.2 Thunder Corridor Diagram

The following diagram is a visual representation of the Thunder Corridor Segments, with RAAF usable levels, and includes the nominal track from WLM TAC, as well as relevant WLM RAs/CTAs and BN sector boundaries.

THUNDER CORRIDOR Segments with RAAF Usable Levels

31°13'50"S
150°17'03"E

R570A

D FL200-FL230

R560B

C FL130-FL230

31°56'43"S
150°44'44"E
(WLM TAC 300° 75nm)

R560A

FL130-FL140

B

FL125-FL140

A

WLM CTA 6

WLM TAC
32°47'49.7"S
151°49'59.2"E

3.4.2.3   Activation and Display of Thunder Corridor

Activate the Thunder corridor segments as per the table below:

Restricted Area	Corridor Segments Required
R560A only or R560A+B	A and B
R560B only or R570A	A, B, C, and D

BN ENR is not required to display the Thunder corridor segments which are wholly contained within R560 when R560 is active. If restricted areas R560A and/or R560B are released to BN ATC while R570A is active, ensure Thunder corridor segment C and D are displayed.

3.4.2.4   Thunder Corridor activation procedures

Prior to activation	Required action
WLM ATC	• Advise NAA: REQUEST THUNDER CORRIDOR [segment letters] at [time] [level(s) if other than the standard release]

On receipt of activation advice	Required action
NAA	1) Advise MLD, SON, CNK, and ARL (if for segments C or D) REQUEST THUNDER CORRIDOR [segment letters] at [time] [level(s) if other than the standard release], and obtain approval. 2) Advise BN SM 3 THUNDER CORRIDOR [segment letters] ACTIVE at [time] [level(s) if other than the standard release]; and 3) Advise WLM ATC THUNDER CORRIDOR [segment letters] ACTIVE at [time] [level(s) if other than the standard release] i. **or** 4) Advise WLM ATC THUNDER CORRIDOR NOT AVAILABLE and advise the estimated delay for activation.

Note: *The Thunder Corridor may take up to 10 minutes to be released by BN ATC.*

3.4.2.5   Thunder Corridor deactivation procedures

When deactivating	Required action
WLM ATC	Advise NAA: THUNDER CORRIDOR DEACTIVATED.
On receipt of deactivation advice	Required action
NAA	Advise MLD, CNK, ARL, SON, and BN SM 3 THUNDER CORRIDOR DEACTIVATED.

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3.5 Coordination and control practices - general

3.5.1 Separation and airspace boundaries

3.5.1.1 Sequencing

For aircraft arriving via the same STAR WPT, where possible, BN ATC will establish a default trail of 3 minutes between aircraft of similar performance.

Note: *Due to the proximity and dynamic nature of Sydney TCU and CNK operations, BN Enroute may not be able to provide a trail of 3 minutes between arrivals from South and Southwest of WLM, and with respect to arrivals from the North.*

3.5.1.2 Joint separation responsibility

BN and SY ATC will separate using the applicable surveillance or procedural standard from restricted area and MOA boundaries. Defence can operate up to the boundary.

BN ATC, WLM ATC, and 3CRU must separate aircraft under surveillance by 2.5 NM from the boundary of the WLM CTR/CTA for which they are responsible, unless:

a) the aircraft is in civil uncontrolled airspace; or

b) the aircraft is operating in a MAAA in accordance with the procedures in 3.9 Military AAR and AEW&C Airspace (MAAA) operations.

Note: *Where CTA/RA/MOA/Thunder Corridor boundaries overlap the greater standard applies.*

3.5.2 Coordination and radar hand-offs

3.5.2.1 WLM responsibility

WLM ATC must provide a radar hand-off on flights that will affect BN ATC:

a) at least 2.5 NM from the CTA/CTR;

b) prior to the lateral boundary of RA/MOA; or

c) prior to the HUL for the relevant CTA/CTR or restricted area.

If unable, contain the aircraft within WLM airspace until a radar ident is completed.

3.5.2.2 3CRU responsibility

3CRU must coordinate with the appropriate BN ATC sector before clearing aircraft to depart restricted areas under their control.

3.5.2.3 BN ATC responsibility

BN ATC must provide a radar hand-off:

a) at least 2.5 NM from the lateral boundary of CTA/CTR; or

b) at least 5 NM from the lateral boundary of RA/MOA.

Advise WLM ATC when a coordinated aircraft is not identified.

3.5.3 Radar hand-offs - WLM ATC to MLD/NAA/MAL/OCN

3.5.3.1 Hand-off restrictions

Unless coordinated otherwise, a radar hand-off for aircraft departing/transiting WLM airspace into MLD/NAA/MAL/OCN airspace is a clean handoff with the following conditions:

a) If WLM ATC advise "VIA SID" on the hand-off, BN ATC will ensure that the aircraft tracks and climbs via the SID until established in BN airspace

b) BN ATC will separate from R584A, R588A-C, Thunder Corridor, and M550 when active; and

c) For aircraft re-cleared by WLM ATC through R588A/B/C (e.g. DCT PMQ/UGPOT/KADSI/CFS), WLM ATC have no lateral restrictions within R588A/B/C.

3.5.3.2 Hand-offs assigned FL120 or below

For aircraft assigned FL120 or below:

a) Hand-off to MAL aircraft exiting WLM CTA north of WLM-MATLA-OLTIN and for aircraft via the KEXAR SID,

b) Hand off to MLD aircraft exiting WLM CTA south of WLM-MATLA-OLTIN, not on the KEXAR SID.

3.5.3.3   Alternative frequency transfers after hand-off

If MAL acknowledges the hand-off with the phrase "(callsign) IDENTIFIED", transfer the aircraft to NAA.

3.5.4   Radar hand-offs - MLD/NAA/MAL to WLM ATC

3.5.4.1   Hand-off restrictions

a) A radar hand-off for aircraft entering WLM airspace from MLD/NAA/MAL airspace is a clean hand-off in CTA, and includes no vertical restrictions on descent into MAL Class E airspace; and

b) If BN ATC advise "VIA STAR" on the hand-off, WLM ATC will ensure that the aircraft tracks and descends via the STAR until established in WLM airspace.

3.5.5   Radar hand-offs restrictions: all other sectors

Back coordinate any changes to clearance between BN and WLM ATC sectors.

WLM ATC must hand-off aircraft planned through M550 to the east to OCN when active.

3.5.6   Standard assignable levels

3.5.6.1   Departures

If the flight planned/requested level is	Standard assignable levels
Above FL120	FL120
At or below FL120	Planned/requested level

Coordinate with affected sectors when high performance aircraft require a level above the standard assignable level.

Note:

1) *BN ATC may require a 'NEXT' call when the aircraft or formation reports 'READY.'*

2) *These levels do not apply to aircraft transiting, WLM RAs/MOAs before entering civil ATC.*

3.5.6.2   Arrivals

FL130 is the standard assignable level for arrivals within WLM CTA. Coordinate when this level will not be issued.

3.6 Coordination and control practices – WLM Airspaces 1 to 4, R584A-D, R588A-B, and M550A-D

3.6.1 Initial Coordination

3.6.1.1 Inbound from BN ATC

Coordinate the following information for arrivals or transit aircraft prior to 20nm from WLM CTR/CTA, R584A/D, R588A/B and M550A/B/C/D:

a) Callsign;

b) ADEP and ADES;

c) Estimate for:

    i) WLM, A/WLM or other relevant position; or

    ii) For aircraft arriving YWLM via LAXUM, PUDUT, ASUVA, EKIPU, or OVLUX the estimate for that waypoint;

d) Level, if not FL130; and

e) "NO STAR" if the aircraft arriving YWLM will not be issued a STAR.

As far as practicable, BN ATC shall advise WLM when the previously coordinated estimate varies by more than 2 minutes, until a radar ident/hand-off is performed.

3.6.2 WLM Runway Modes and QNH

3.6.2.1 Runway Modes

WLM shall advise the WLM Runway Mode in accordance with the table below.

WLM Runway Modes	STARs to be assigned	SID/STAR RWY
MODE 12	ASUVA1, EKIPU1, OVLUX1, PUDUT1, LAXUM1A	RWY 12
MODE 12B	AS MODE12 except LAXUM1B vice LAXUM1A	RWY 12
MODE 30	ASUVA1, EKIPU1, OVLUX1, PUDUT1, LAXUM1A	RWY 30
MODE 30B	As MODE 30 except LAXUM1B vice LAXUM1A *For traffic management, BN ATC may delay aircraft inside BN airspace prior to commencing the LAXUM1B RWY 30 STAR.*	RWY 30

3.6.2.1.1 STAR Issue

When applicable to the aircraft type, BN CEN will ensure STARs are issued based on the advised mode.

Requests for WLM STARs that are not included in the table above, and requests for any STAR outside WLM ATC hours of operation (WLM CTAF), must be coordinated.

Note: *Responsibilities for STAR issue are detailed in Letters of Agreement. HWE sector will not issue a STAR to aircraft entering M550A/B/C/D directly from their airspace.*

3.6.2.1.2   SID Issue

Where applicable, WLM ATC will issue the RNAV SID based on the SID RWY in the advised mode. Aircraft on a different SID RWY issued prior to a mode change will remain on that SID RWY. WLM ATC will advise MAL of any SID RWY change for these aircraft.

3.6.2.2   Runway Mode Advice

On initial airspace activation, and as soon as is practicable for any subsequent changes, WLM ATC shall advise MAL of the WLM Runway Mode (including the time if in the future).

BN ENR will conduct coordination in accordance with the following table:

On receipt of Runway Mode advice	Required action
MAL	Advise MLD/NAA and SON of Mode change Advise OCN of the runway only.
MLD	Advise CNK/ARL of Mode change Advise SDN and WOL of the runway only.

3.6.2.3   YWLM QNH

MAL will source the WLM QNH from the WLM ATIS transmitted via CADAS. If CADAS is not available, WLM ATC must provide MAL the WLM QNH:

a) before activating WLM airspace; and

b) whenever there is an amendment.

3.6.3   Provide taxi advice

3.6.3.1   Flights into MLD/NAA/MAL

WLM ATC must provide taxi advice to MAL for:

a) all IFR flights; and

b) VFR flights that enter Class C airspace.

Taxi coordination must include:

a) Callsign;

b) ADES;

c) RNAV SID identifier if applicable. WLM ATC shall include the SID RWY if it is different to the SID runway applicable to the RWY MODE;

d) Level (if other than FL120); and

e) Any level/route change.

3.6.3.2   Flights into OCN

WLM ATC must provide:

a)   taxi advice to OCN for IFR flights planned through M550A/B/C/D; and

b)   a radar hand-off.

Taxi coordination must include:

a)   the cleared level; and

b)   any amended route.

3.6.4   Aircraft transiting WLM airspace at or below FL120

WLM ATC must take transiting aircraft at or below FL120 on frequency unless otherwise coordinated.

3.6.5   Aircraft transiting Class G (MAL) on climb to CTA

If an aircraft will transit Class G airspace on climb to CTA, transfer the aircraft to the control frequency and instruct them to broadcast on the Class G frequency.

MAL must advise WLM ATC when traffic information must be issued, or request that the aircraft be transferred to the Class G frequency.

When practicable, WLM shall pass advised traffic information to the aircraft.

3.6.6   Aircraft on descent into Class G aerodromes

When aircraft descend into Class G aerodromes from WLM airspace, WLM ATC must clear the aircraft to leave controlled airspace descending:

a)   visual by day;

b)   on a visual approach or the relevant instrument approach, by day or night; or

c)   where the base of CTA is above the applicable grid LSALT.

On radar hand-off to MAL, WLM ATC must coordinate the assigned level and specify restrictions for further descent.

When WLM ATC has cleared an aircraft to leave controlled airspace descending on an instrument approach and the aircraft subsequently reports 'VISUAL,' MAL may issue '(Callsign) LEAVE CONTROLLED AIRSPACE DESCENDING VISUAL.'

Do not amend the clearance at night.

Note: *For the purposes of hand-offs for Class G aerodromes, hand-offs are considered clean hand-offs, with BN ATC being responsible for ensuring that aircraft do not subsequently infringe M550.*

3.6.7 Civil aircraft transiting M550A/B/C/D

3.6.7.1 Separation responsibility

WLM ATC is responsible for:
- a) identifying conflicts between civil transits of M550A/B/C/D;
- b) negotiating and confirming separation responsibility with BN ATC; and
- c) separating/segregating military activities from transiting aircraft.

Note: *Separating/segregating military activities may be achieved by providing a suitable airspace/track release to BN ATC to enable the provision of appropriate service levels when M550A/B/C/D transits are approved.*

3.6.7.2 Communications responsibility

BN ATC should maintain communications with and provide alerting service to aircraft transiting M550A/B/C/D

Note: *WLM has limited VHF coverage.*

3.6.7.3 Clearance requests

BN ATC must relay clearance requests to WLM ATC (Planner) and provide:

- a) callsign;
- b) aircraft type;
- c) radar ident (if appropriate);
- d) SSR code;
- e) route;
- f) level (including AT, ON CLIMB or ON DESCENT); and
- g) expected time clear.

3.6.7.4 Clearance available

If clearance is available, WLM ATC will respond with:
- a) callsign;
- b) route;
- c) level (including AT, ON CLIMB or ON DESCENT); and
- d) frequency requirements (if not advised, assume NIL).

Prefix the clearance with 'FROM WLM ATC' when an aircraft is not in receipt of an airways clearance before the transit.

3.6.7.5 Advice when clear

BN ATC must advise WLM ATC when transiting aircraft are clear.

3.6.7.6 Military aircraft exiting M550A/B/C/D

3CRU/WLM ATC should advise BN ATC the initial clearance at least five minutes before an IFR military flight intends to exit M550A/B/C/D, and provide:

    a) a hand–off at least 20 NM prior to the boundary if identified; or

    b) the boundary estimate at least five minutes prior to the aircraft exiting if not identified.

If an aircraft contacts BN centre directly without prior coordination from 3CRU/WLM, BN centre will confirm if WLM ATC has any restrictions within M550A/B/C/D prior to issuing onwards clearance.

3.7 Coordination and control practices – R560 and R570

3.7.1 Civil aircraft transiting R560 and R570

3.7.1.1 Separation responsibility

WLM ATC is responsible for:

    a) identifying conflicts between civil transits of R560 and R570;

    b) negotiating and confirming separation responsibility with BN ATC; and

    c) separating/segregating military activities from transiting aircraft.

Note: *Separating/segregating military activities may be achieved by providing a suitable airspace/track release to BN ATC to enable the provision of appropriate service levels when R560/R570 transits are approved.*

3.7.1.2 Communications responsibility

BN ATC should maintain communications with and provide alerting service to aircraft transiting R560 and R570.

Note: *WLM has limited VHF coverage.*

3.7.1.3 Advice when clear

BN ATC must advise WLM ATC when transiting aircraft are clear due to limited surveillance coverage.

3.7.2 Coordination – Operations within R560/R570

3.7.2.1 Inbound to R560/R570

Prior to entry into R560/R570 BN Centre will coordinate:

    a) an estimate and level with WLM PLNR; and

    b) a radar ident to WLM APP (H),

WLM APP (H) may provide entry instructions to BN Centre if required.

3.7.2.2 Outbound from R560/R570

3CRU/WLM ATC must provide:

    a)   at least 5 minutes notice prior to an aircraft's departure from R560/570; and

    b)   a radar ident to BN Centre before exiting.

BN Centre will provide onwards clearance.

If an aircraft contacts BN centre directly without prior coordination from 3CRU/WLM, BN centre will confirm if the WLM ATC has any restrictions within R560/R570 prior to issuing onwards clearance.

3.8   SSR code management

3.8.1   Emergency codes

The following BN sectors must confirm receipt of an emergency code if observed within the following airspaces:

Sector	Airspace
MAL	WLM airspaces 1-4, R588A-C, and the portions of M550A/D in OCN, Thunder Corridor segments A and B.
OCN	The portions of M550A/D in OCN/HWE airspace.
MDE	R560/R570 airspaces when active, and Thunder Corridor segments C and D.

Note: *Garbling is not always the cause of emergency code activation and WLM ATC/3CRU may be dealing with an emergency.*

3.8.2   Formation splits

WLM SQNs have permanently allocated codes which are internally assigned. When an aircraft is required to split from formation, the pilot will squawk the assigned SSR code before calling ATC for clearance and will advise the SSR code in use.

BN ATC may use the advised code or instruct the aircraft to squawk a Eurocat assigned code.

3.8.3   In-trail fighters

BN ATC may request WLM fighters in-trail to squawk their discrete WLM code.

3.9   Military AAR and AEW&C Airspace (MAAA) operations

3.9.1   Airspace and service

Section 5.2 AIP ENR lists the defined volumes for MAAA operations. Provide services within MAAA volumes as per the extant airspace classification.

3.9.2   Approving MAAA operations up to the boundary of Restricted Areas/Military Operating Areas

Instruct AEW&C and tanker aircraft to operate up to the boundary of adjoining Restricted Areas/Military Operating Areas:

AEW&C and tanker clearance request	ATC response
(Callsign) REQUEST CLEARANCE TO OPERATE IN (MAAA designator) (levels). MARSA WITH AIRCRAFT WITHIN (restricted area/MOA designator).	(Callsign) CLEARED TO OPERATE IN (MAAA designator) (levels). MARSA WITH AIRCRAFT WITHIN (Restricted Area/MOA designator).

> ***Note:*** *All aircraft manoeuvring will be contained within the MAAA.*

3.9.3   Approving MAAA operations to enter adjoining Restricted Areas/MOAs

AEW&C and tanker clearance request	ATC response
Request clearance to exit the MAAA and enter the adjoining Restricted Area/MOA.	(Callsign) CLEARED TO EXIT (MAAA designator) FOR (Restricted Area/MOA designator).

> ***Note:*** *AEW&C/tanker manoeuvring for the Restricted Area will be contained within the MAAA and maintains MARSA with aircraft within the Restricted Area/Military Operating Areas.*

3.9.4 Approving aircraft within Restricted Areas/MOAs to operate in adjoining MAAA

AEW&C and tanker clearance request	ATC Response
(Callsign) REQUEST CLEARANCE TO EXIT (Restricted Area/MOA designator) to OPERATE IN (MAAA designator) (levels).	(Callsign) CLEARED TO OPERATE IN (MAAA designator) (levels).
If tanker receives request for refuel aircraft to exit the Restricted Area and enter the MAAA: (Callsign) REQUEST TANKING OPS (MAAA designator). (Number of receiving aircraft).	(Callsign) CLEARED TANKING OPS (MAAA designator). ATC is not required to issue MARSA clearances to the tanker or receiving aircraft.

Note:

1) *The tanker will relay the clearance to the aircraft involved.*

2) *All aircraft will operate MARSA.*

3) *All manoeuvring will be contained within the MAAA and the Restricted Areas/MOAs.*

The tanker will advise ATC that 'TANKING OPS COMPLETE' when the receiving aircraft have re-entered the Restricted Area/MOA.

3.9.5 Coordination between civil ATC and military authorities

Coordination is not required when AEW&C and tanker aircraft within an MAAA:

a) require entry into the adjoining restricted area/Military Operating Area; or

b) will operate MARSA.

The RAAF Regional Surveillance Director (RSD) will contact civil ATC where necessary to clarify details on aircraft emergencies and unusual/unauthorised movements. If there are any concerns, civil ATC must end the call and contact the RSD to confirm the authenticity of the call.

3.9.6 Flight planning

Enter RMK/MARSA (Restricted Area/MOA designator) OPS in the flight plan when AEW&C and tanker aircraft intend to operate within a MAAA and up to the boundary of the adjoining restricted area.

3.9.7 Communications

Aircraft operating within an MAAA must maintain primary communications within civil ATC.

3.9.8   SAR responsibility

Scenario	SAR responsibility
Aircraft operating within military Restricted Areas/MOAs and receiving aircraft involved in AAR within a MAAA.	Military
AEW&C/tanker aircraft operating within a MAAA.	BN ATC

When a military aircraft declares an emergency on the civil frequency, relay the details to RAAF ATC.

4 Normal operations – Nowra

4.1 Ancillary information

4.1.1 Communications NWA to ML sectors

ML sectors must identify themselves before speaking.

Note: *NWA has no indication to advise who is calling them.*

4.2 Restricted Areas activation and deactivation

4.2.1 Airspace groupings

Nowra airspaces are grouped as follows:

Airspace	Areas
Nowra Low	R421 A/B
Nowra High	NWA Low airspace and R420F

Note: *NWA airspace may activate in configurations different to the table above.*

4.2.2 Activation procedures - NWA High or Low

Prior to Nowra airspace activation	Required action
NWA ATC	Advise JVS and WOL
If the activation time is different to NOTAM	**Required action**
JVS	Advise SM (or SS if unavailable)

4.2.3 Deactivation procedures - NWA High or Low

At the deactivation time	Required action
NWA ATC	Advise JVS and WOL

4.3 Coordination and control practices

4.3.1 Usable levels

Restricted Areas	LUL for civil ATC	HUL for NWA ATC
NWA LOW	FL130	FL120

4.3.2   Standard assignable levels

4.3.2.1   Level coordination and readback not required

You do not need to coordinate or readback a standard assignable level.

4.3.2.2   Departures from Nowra

Assign departures from NWA FL120 or the planned level, whichever is lower.

4.3.2.3   Arrivals to Nowra

Assign arrivals that are above NWA LOW airspace FL130.

4.3.3   Clearances between WLM and Nowra

4.3.3.1   YWLM to YSNW

Clear aircraft departing YWLM to Nowra via OMGAB H536 NWA.

Note: *MLD will not clear aircraft above FL280 unless a higher level is required for separation with traffic outbound from YSSY.*

4.3.3.2   YSNW to YWLM

Prior coordinate an aircraft departing YSNW for WLM Restricted Areas/MOAs, or landing at YWLM, before assigning a level above FL280.

4.3.3.3   Arrivals to NWA from M550A

Clear aircraft departing M550A for YSNW via NOBAR-OMLAV-ABASS-NWA at FL290 or above, or coordinate.

OCN must separate these flights from traffic overflying TESAT that WOL has coordinated.

4.3.4 Aircraft departing M550 for NWA

Apply the following coordination process for aircraft departing M550 to NWA:

From sector	To sector	Required action
OCN	WOL	Provide ident. A WOL readback of 'no requirements' approves assignment of FL290.
OCN	SDS	Provide heads-up. HMI hand-off aircraft to YMMM before 45NM SY and transfer aircraft at or abeam NOBAR.
WOL	NWA PLNR (cold line)	Advise estimate, level (if not standard), SSR code.
SDS	WOL	Assign descent to FL130. Hand-off to prior to ABASS.
WOL	JVS and SRI	Provide radar ident for traffic OCTA.
	NWA APP (hot line)	Verbal hand-off. Advise if JVS does not have an ident. ***Note:*** *NWA will presume no traffic unless advised.*
SDS	NWA APP	Transfer aircraft. ***Note:*** *WOL will have jurisdiction when the aircraft is transferred to NWA.*

4.3.5   Aircraft departing NWA northbound via ABASS

Apply the following coordination process for aircraft departing NWA northbound via ABASS. This routing is only available for flights planning to operate in M550; flights with no airwork planned must be cleared to WLM via TESAT.

From sector	To	Required action
NWA PLNR	Aircraft	Clear as planned, FL120 if planned level is above.
	WOL	Provide taxi advice, and include route, level (if not standard) and SSR code. **Note:** WOL will activate the FDR and have jurisdiction.
WOL	NWA PLNR	Approve or amend clearance as required.
	SDS	Provide taxi advice and clearance issued. Negotiate restrictions and level to be assigned.
NWA APP	WOL (hot line)	Provide a verbal hand-off before ABASS. **Note:** If aircraft cannot be accepted by WOL, NWA will contain the aircraft within their airspace.
WOL	NWA APP	Issue level approved by SDS.
WOL	SDS	HMI hand-off.
NWA APP	SDS	Transfer aircraft at the boundary.

4.3.6   Aircraft transiting or arriving NWA high or low

4.3.6.1   ML ATC responsibility

Apply the following coordination process between ML ATC and NWA:

Situation	From	To	Action
20 NM from NWA boundary, or as soon as possible after receiving the movement report prior to the boundary	ML ATC	NWA PLNR (cold line)	Advise: a) estimate; b) level (if not standard); and c) SSR code.
Prior to the NWA boundary	CTA Sector	NWA APP (hot line)	Verbal hand-off Frequency transfer

Note:

1) *ML ATC will instruct aircraft from Class G airspace to call NWA APP for clearance 10 NM from the boundary.*

2) *Due to the retention of label jurisdiction and the complete radar coverage of NWA Areas, coordination from NWA to ML is not required unless the aircraft requests a level/route change.*

4.3.6.2   NWA ATC responsibility

Apply the following coordination process between NWA and ML ATC:

Situation	From	To	Action
Prior to change of assigned level or route within NWA Areas	NWA APP	ML ATC	Request change of level/route
At the NWA boundary	NWA APP	CTA Sector	Frequency transfer

4.3.7   Arriving aircraft

Apply the following procedures to facilitate unrestricted descent for arrivals to NWA:

From sector	To sector	Required action
WOL	JVS and SRI (when applicable)	Provide a radar ident for traffic OCTA.
	NWA APP (hot line)	Verbal hand-off. Advise if JVS does not have an ident. *Note:* NWA will presume no traffic unless advised.
JVS	NWA PLNR (cold line)	Advise an estimate of possible traffic OCTA.

4.3.8   Aircraft outbound from NWA areas

Apply the following coordination process for aircraft departing NWA Restricted Areas:

From sector	To	Required action
NWA PLNR	Aircraft	Clear as planned, FL120 if planned level is above.
	ENR Sector (cold line)	Provide taxi advice, and include route, level (if not standard) and SSR code. *Note:* WOL will activate the FDR and have jurisdiction.
ENR Sector	NWA PLNR	Approve or amend clearance as required.
NWA APP	Class G	Provide DEP, level, SSR code.
NWA APP	ENR Sector (hot line)	Provide a verbal hand-off and frequency transfer. *Note:* If aircraft cannot be accepted, NWA will contain the aircraft within their airspace. *Note:* When direct tracking is desirable for aircraft that will enter the SY TMA, WOL may coordinate to SDS on departure.

4.3.9   Aircraft from Class G to NWA APP

4.3.9.1   Back coordination not required

Back coordination is not required when arriving aircraft transferred from Class G airspace to NWA APP are assigned descent and/or issued track changes within 45 degrees of the nominal track.

4.4 Procedures when NWA ATC is not available

4.4.1 AEP Procedures

When AEP Procedures are required and NWA ATC is not available, Airservices must advise HMAS Albatross through the:

a) Duty Air Officer; or

b) the Officer of the day.

4.4.2 Nowra emergency Evacuation Procedures

In the event of an emergency evacuation NWA ATC will release R421/R420F to WOL/JVS.

When releasing R421/R420F	Required action
NWA ATC	• Coordinate the release to ATMD/SS • Coordinate the release to WOL (hot line) • Provide relevant traffic information, if time permits
WOL	• Advise JVS • Provide relevant traffic information to JVS
WOL	Provide ATS IAW the underlying airspace depicted in AIP
JVS	Provide class G service and approval to operate in R421 only
NWA ATC	Advise ML sector (phone) if the duration of airspace release is more than one hour. Coordinate if deactivation is required and negotiate who will deactivate R421/R420F via NOTAM

5 Normal operations – Richmond

5.1 Runway and airspace management between RIC TWR and SY TCU

5.1.1 Change of area status

RIC TWR must advise SY TCU when there is any change to the status of R469 and R470.

5.1.2 Service provision in R469 and R470

5.1.2.1 Division of responsibility

SAW provides services in R469 when active.

SAW and RIC TWR jointly provide services in R470 when active in accordance with 5.1.3 Usable levels.

5.1.2.2 SAW provides DEP and APP services

SAW must:

    a)   provide a departures and approach control services for YSRI; and

    b)   sequence and separate aircraft to the arrival threshold.

In addition to procedures published in DAP (East), SAW may use SID, SID (Radar) and IAL plates for YSRI as published in RAAF FLIP Terminal.

5.1.3 Usable levels

Restricted Areas	LUL for SAW	HUL for RIC ATC
R470	2500 FT	1500 FT

5.1.3.1 Transfer responsibility

RIC TWR and SAW may coordinate an airspace release amending these levels.

5.1.4 Priorities within YSRI airspace

Military aircraft have priority for use of military airspace except as specified in 5.1.6.1.1 Priority for AMAROO airspace use.

5.1.5   Low level airspace and runway changes

RIC TWR must advise SAW:

a)   before changing the duty runway; and

b)   whenever LDD TA, LDD DZ, RKBY DZ, NTA, STA are activated or deactivated.

5.1.6   YSSY RWY 16 PRM operations

5.1.6.1   AMAROO airspace

AMAROO airspace is the intersection of R470 and Class C airspace described in DAH as YMMM/SYDNEY CTA C06.

5.1.6.1.1   Priority for AMAROO airspace use

Aircraft using RWY 16 PRM at YSSY have priority for use of AMAROO airspace.

5.1.6.2   Processing traffic to YSRI

During RWY 16 PRM operations in YSSY, SAW will process aircraft to YSRI via a RWY 28 instrument approach procedure only when RIC TWR has approved descent to at least 2000 FT.

Note:

1)   Approaches to RWY 10 are not affected by this restriction.

2)   Published missed approach procedures for both runways are not affected.

5.1.7   Civil ILS training at YSRI

5.1.7.1   Prior coordination with RIC SMC

When a civil aircraft requests an Instrument approach at YSRI, SAW/SRI must provide RIC SMC with the callsign, SSR code, aircraft type and ETA.

The SMC must advise SAW/SRI if a delay is expected or holding prior the approach will be required.

5.1.7.2   Coordinate with RIC TWR

SAW must:

a)   coordinate with RIC TWR and advise the aircraft's callsign, position, intentions and onwards clearance; and

b)   issue the clearance to the aircraft prior to transfer to the tower.

5.1.8 Instrument approaches at YSRI

5.1.8.1 Transfer points

SAW must transfer aircraft conducting instrument approaches to RIC TWR by the following points:

Approach name	TWR/SAW R470	SAW R470
ILS (all - vectors to final)	Established on LOC	PEBRA
ILS-Y RWY 28 (Military)	060R	PEBRA
ILS-Z RWY 28 (Civil)	060R	PEBRA
ILS-X RWY 28 (Military)	O/H outbound	PEBRA (inbound)
TACAN RWY 28	060R	FAF
TACAN RWY 10	300R	FAF
NDB (all)	O/H outbound	Established inbound
RNP RWY 28	SRIEI (IF)	SRIEF (FAF)
RNP RWY 10	XRHWI (IF)	XRHWF (FAF)

Note: *Aircraft conducting the RNP 127 to YWST are not required to be transferred to RIC TWR.*

5.1.8.2 Phraseologies

When coordinating instrument approach details, use the full approach title, runway number and the transition if not previously coordinated.

You do not need to include the runway number when coordinating an ILS approach.

5.1.9 Reciprocal Runway Operations (RRO) at YSRI

SAW may apply RRO provided a surveillance standard will always exist.

RRO may be applied using a non-surveillance separation standard:

  a) between arriving aircraft until the first aircraft is assured of landing;
  b) in the event of a missed approach a visual or non-surveillance separation standard can be maintained; or
  c) between an arriving and departing aircraft until the departing aircraft is:
    i)   identified and a surveillance separation standard can be applied; or
    ii) airborne and RIC TWR advises that visual separation can be applied.

5.1.10 Airspace release responsibilities between RIC TWR and SAW

Coordinate separation responsibility between RIC TWR and SAW when YSRI training areas are active, or when SAW has released airspace to RIC TWR.

When RIC TWR has:

a) restrictions, advise SAW using phrase:
'[CALLSIGN], YOUR SEPARATION [RELEASED/ACTIVE AIRSPACE], CLEARED [APPROACH TYPE] or MAINTAIN [restriction];' or

b) no restrictions, advise SAW using the phrase:
'[CALLSIGN], NO RESTRICTIONS [RELEASED/ACTIVE AIRSPACE], CLEARED [APPROACH TYPE] or MAINTAIN [restriction]'.

5.1.11 Coordination of transiting aircraft

When an aircraft requests to transit SAW or RIC TWR airspace coordinate:

a) aircraft type;

b) SSR code;

c) flight rules; and

d) vertical and/or lateral restrictions if applicable.

5.1.12 No restrictions

Unless coordinated otherwise, transfer aircraft from SAW to RIC TWR with no restrictions on descent.

5.2 Clearances

5.2.1 Type of departure

Assign the type of departure in the following order of preference:

1) Visual Departure (VSD);

2) SID (Radar); or

3) Procedural SID.

5.2.2 Level assignment

Assign departing aircraft A050 or flight planned level if lower.

5.2.3 Formation (N) Procedure

RIC TWR must advise SAW if a 'FORMATION (N) PROCEDURE' is required when coordinating the clearance. This coordination means that:

a) the aircraft will be issued a Richmond (N) Departure;

b) if departing RWY 10, the aircraft requires heading 095 till 4 TAC;

c) if departing RWY 28, the aircraft requires heading 285 till 4 TAC; and

d) all subsequent heading changes must be less than 90 degrees.

5.2.4 'NEXT' call

RIC TWR must advise SAW of the Runway number with the 'NEXT' call.

For a visual departure SAW is only required to append 'VISUAL' with the departure instruction when assigning a level below the RTCC.

RIC TWR must append 'VISUAL' to the departure instruction as required.

5.3 Amended route clearances

5.3.1 When M550 active

When an aircraft departing YSRI plans through M550 and the area is active, SPL must:

a) coordinate with BN OCN; and

b) advise RIC SMC if an amended route clearance is required.

Use these coded clearances to describe the amended route:

When SAW advises RIC SMC of the following coded clearance	The aircraft must be re-cleared via
DIPSO 1 (B474)	ANKUB TESAT DIPSO thence via G595 to ATNAT then direct to NUBNI thence via UY70 BISAB thence via UJ328 to ISTEM then via Flight Planned Route
DIPSO 2 (B580)	ANKUB TESAT DIPSO thence via G595 to ATNAT then direct to NUBNI thence via UY70 BISAB thence via UJ328 to MISLY then via Flight Planned Route
DIPSO 3 (A579)	ANKUB TESAT DIPSO then via G595 to ATNAT then direct to NUBNI then direct to UPSAD then via Flight Planned Route
DIPSO 4 (B450)	ANKUB TESAT DIPSO then via G595 to ATNAT then direct to ABARB then via Flight Planned Route

When an amended route is required, SPL must advise the ML FDC who must:

a) amend the FDR to indicate the new route; and

b) send a change message.

5.4 Richmond arrivals – out of hours

When an aircraft arriving YSRI is subject to an emergency phase, advise RIC ATC OOH and RIC Fire Watch Room.

5.5 Unplanned movements at Richmond during Sydney curfew

5.5.1 Approved operators

The procedures in this section may be used at YSRI during curfew hours at Sydney by:

a) RIC TWR when a SAW controller is not available; and

b) Sydney Operations Solo (SOS) endorsed controllers to facilitate single arrivals or departures at YSRI.

5.5.2 Limitations

Do not use these procedures for:

a) formation flights;

b) flights operating below MSA including low level parachute operations;

c) military terrain clearance requests; or

d) NVG operations.

5.5.3 Coordination

Coordinate with SAS during curfew hours unless otherwise advised.

5.5.4 Resuming R469 and R470

When a SAW controller is not available, advise RIC TWR.

RIC TWR must resume R469 and R470.

When RIC TWR resumes R469 and R470, Sydney TCU will treat the airspace within R469, R470 and the lateral limits of R494, at 5000 FT and below, as reserved airspace:

a) from the time an arriving aircraft transfers to RIC TWR until the aircraft has landed; and

b) until an aircraft departing YSRI has transferred to Sydney TCU.

5.5.5 Arriving aircraft

5.5.5.1 Sydney TCU responsibilities

For aircraft arriving YSRI, SAS must:

a) pass RIC TWR a YSRI estimate, SSR code, and requested approach procedure;

b) clear the aircraft to the IAF of a pilot interpreted approach procedure and not below A050; or vector the aircraft to the RWY 28 ILS outside R470 at not below 3000 FT;

c) instruct the aircraft to call RIC TWR prior to the IAF, or established on the RWY 28 LOC, for approach clearance; and

d) have no vertical restrictions.

5.5.5.2   RIC TWR responsibilities

RIC TWR must:

a)   maintain SARWATCH using a time at the IAF for a pilot interpreted approach, or the IF if the aircraft will be radar vectored to the RWY 28 ILS;

b)   coordinate with SAS in the event of a missed approach; and

c)   keep the aircraft on frequency if, after a missed approach, the pilot will manoeuvre for the IAF of an approach.

If the aircraft requires radar vectors for a subsequent approach, RIC TWR must transfer the aircraft to SAW once established above the MSA.

5.5.6   Departing aircraft

5.5.6.1   RIC TWR responsibilities

For departing aircraft YSRI, RIC TWR must:

a)   clear the aircraft via a procedural SID or, if not suitable, provide tracking instructions. Do not issue a SID (Radar);

b)   assign 5000 FT;

c)   coordinate clearance and SSR code with SAS; and

d)   advise departure time to SAS.

5.5.6.2   Sydney TCU responsibilities

SAS must:

a)   coordinate with affected units; and

b)   identify the aircraft on first contact.

5.6   Training areas

5.6.1   PJE training areas

Training area	Uses
Londonderry Training Area (LDD TA) Established for fixed wing aircraft operating VFR to conduct airdrop operations onto the Londonderry Drop Zone (LDD DZ) and to facilitate VFR Army aviation training.	**Dimensions:** **Visual boundary features**: Yarramundi Bridge, then east via Springwood Road, Bonner Road and The Driftway, to the intersection of Londonderry Road (UBD maps 83, 84); then south via Londonderry and Northern Roads to the intersection of Vincent Road (UBD maps 104, 124, 144); then west along Vincent Road projecting a straight line aligned with Vincent Road to the intersection of the Nepean River (contains aircraft north of the northernmost of the Penrith Lakes) (UBD maps 144, 143, 142, 122); then north via the eastern bank of the Nepean River to Yarramundi Bridge (UBD maps 122, 102, 83). **Coordinates**: 33°36'47"S 150°42'00"E, 33°36'45"S 150°42'04"E, 33°36'49"S 150°42'31"E, 33°37'26"S 150°44'20"E; then south via Londonderry and Northern Roads to 33°42'21"S 150°43'25"E, 33°41'51"S 150°39'34"E; then north via the eastern bank of the Nepean river to 33°36'7"S 150°42'00"E. **Vertical limits:** SFC to A015
Londonderry Drop Zone (LDD DZ) Available for all cargo airdrops and personnel.	4 NM south west of YSRI within the LDD TA. **Clearance:** Issue clearance to operate within R470 NA015. *Note:* *The preferred run-in direction for extracted loads is North to South. The run track is typically flown 180 degrees magnetic executing right patterns, however ATC can approve alternate patterns.*
Rickabys Drop Zone (RKBY DZ) Available for personnel drops only	1 NM directly east of YSRI. **Clearance:** Issue clearance to operate within R470 NA015. *Note:* *The run-in track and drop pattern is usually 313 DEG MAG, right pattern or 133 DEG MAG, left pattern.*

5.6.2   Local training areas

Northern Training Area	**Dimensions:** The intersection of the North-South (# 31/32) power line and Bells line of Road; North along the power transmission line to the R470 boundary at 33°26'15''S 150°42'59''E; then East along the R470 boundary to the Hawkesbury river; via straight lines joining 33°27'10"S 150°53'40"E, 33°30'20"S 150°55'30"E, 33°34'00"S 150°53'20"E, 33°34'20"S 150°50'05"E, 33°33'20"S 150°50'10"E; then West via Kurmond Road to Kurmond; via Bells Line of Road to the intersection of the North-South power line (# 31/32).
	Note: *Northern Training Area operations are normally up to 6000 FT AMSL, based on Richmond QNH. Pilots may request operations to higher altitudes.*
Southern Training Area	**Dimensions:** Richmond Train station; West to the water tank at 33°35'13''S 150°42'43''E.
	via a straight line to the R470 airspace boundary at 33°33'46"S 150°35'11"E, follow the R470 airspace boundary south through to the Northern Road, Northern Road to the intersection with Richmond/Blacktown Road, Richmond Road to George and Macquarie Street to the railway overpass, the railway line west to Richmond railway station.
	Note: *Southern Training Area operations are normally up to 4000 FT AMSL, based on Richmond QNH. Pilots may request operations to higher altitudes.*

When aircraft are operating within the Southern and Northern Training areas while ATS services are available, restrict operations as necessary to assure separation with other traffic.
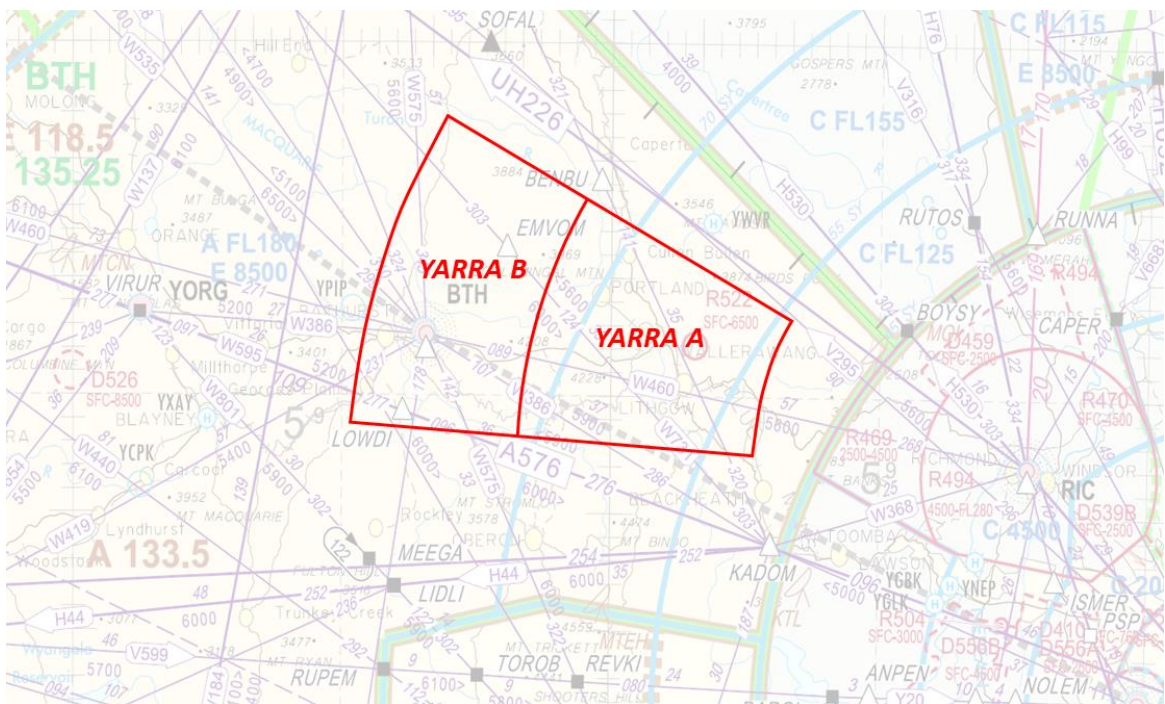
5.7 Area YARRA

5.7.1 Airspace description

5.7.1.1 Dimensions

YARRA A	YARRA B
RI TACAN 261R to 286R, 27 NM to 49 NM RIC A090 and above	RI TACAN 261R TO 286R, 49 NM to 64 NM RI FL130 and above.

Note: *Area YARRA is within Class C and E airspace and used for the flight testing of military aircraft.*

Workload permitting, you may expand the dimensions of Area YARRA on pilot request. You may restrict the availability of Area YARRA if necessary.

5.7.1.2 Diagram

5.7.2 Flight planning

For operations within Area YARRA, flights will be planned as follows:

a) Via a point within the YARRA airspace, either as a Lat/Long or a radial and distance RIC; and

b) An entry in Field 18 indicating the expected duration and vertical limits of the airwork, for example: 'RMK/AWK YARRA B, BETWEEN Axxx AND FLxxx, XXXX MINUTES'.

5.7.3   ATS

BTH Sector provides ATS within Area YARRA. Specify the limits for the operation when issuing the clearance, for example:

'(Callsign), CLEARED TO OPERATE WITHIN AREA YARRA A, BETWEEN AXXX AND FLXXX'.

Aircraft must request MARSA Procedures when more than one aircraft request operations within the Area YARRA and separation cannot be provided.

Note: *Crews operating below Area YARRA are responsible for maintaining their own separation from R522.*

5.7.4   Non-transponder operations

5.7.4.1   Workload permitting

BTH may approve the intentional shutdown of an aircraft transponder, workload and traffic permitting.

Aircraft requesting such operations should indicate the details on flight notification and on first contact.

5.7.4.2   RIC TACAN not available

When RIC TACAN is not available, the area of operation must be within R560A or as determined by Sydney TCU and BTH.

5.7.4.3   Clearance limitations

Non transponder operations may be approved, provided that the Richmond TACAN and NDB are serviceable, and with the following limitations:

a)   Shut down transponder when established on the RIC R-285 outside 27 TACAN;

b)   At or below FL120; and

c)   Clearance limit 55 TACAN RIC, or outside CTA (i.e. below A085).

Levels above FL120 and/or clearance limit beyond 55 TACAN RIC may be approved on request, traffic and workload permitting.

More extensive non transponder operations will not be approved in Area YARRA. Crews planning tasks requiring such operations should consider the use of R560A.

Note: *This is due to the proximity of routes outbound from Sydney.*

5.7.4.4 Phraseology

When separation exists between YARRA aircraft and other aircraft, an airways clearance for non transponder operations may be issued and phrased as follows:

ATC clearance	Pilot response
MRNR123 EXPECT APPROVAL TO SHUT DOWN TRANSPONDER WHEN ESTABLISHED ON THE RIC R-285 OUTBOUND, REPORT ESTABLISHED	MRNR123 ESTABLISHED
MRNR123 TRACK OUTBOUND VIA THE RIC R-285, CLEARANCE LIMIT 55 TACAN MAINTAIN FLIGHT LEVEL 120, TRANSPONDER SHUTDOWN APPROVED, (REPORT RUN COMPLETE BY TIME MM)	TRACK OUTBOUND VIA THE RIC 285 TACAN RADIAL, CLEARANCE LIMIT 55 TACAN, FLIGHT LEVEL 120, MRNR123

5.7.4.5 Transponder on between runs

Multiple runs outbound along the RIC R-285 may be requested. Normal operation of the aircraft transponder is required between runs.

5.7.4.6 Radio failure

An aircraft suffering a radio failure whilst operating within Area YARRA should:

a) follow ERSA procedures;

b) hold at their present position for three minutes; and

c) then proceed to destination in accordance with flight plan (if operationally acceptable).

5.8 NSW Police Force SSR Codes

NSW Police Force callsigns and allocated codes must only be used:

a) within 45 DME SY;

b) by VFR flights; and

c) in conjunction with the associated aircraft registration from the following table:

Aircraft registration	Callsign	SSR code
VH-PHW	POLAIR 21	0021
VH-PQZ	POLAIR 22	0022
VH-PHB	POLAIR 23	0023
VH-PHM	POLAIR 24	0024
VH-PHZ	POLAIR 25	0025
VH-DVV	POLAIR 26	0026
VH-DFV	POLAIR 27	0027
VH-DQV	POLAIR 28	0020
VH-PPH	POLAIR 29	0010

Routine planned operations in CTA should be flight planned.

ATC may assign system generated codes for individual operations.

5.9   Controlled abandonment of aircraft

The controlled abandonment area is RIC006/011 with the aircraft tracking
006 DEG MAG. The recommended abandonment altitude is A100, with a minimum of
A020.

5.10   Airborne fuel dumping

Unless limited by emergency conditions, only permit fuel dumping beyond 10 NM
North-West of Richmond at A100.

Note: *A100 satisfies the statutory 6000 FT AGL minimum.*

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6 Normal operations – Canberra

6.1 RAAF Aircraft operations at Canberra International Airport

6.1.1 RAAF responsibility

When ATC services are required at Canberra International Airport outside the normal hours of operations, the RAAF will:

a) provide at least 12 hours' notice when possible; and

b) limit such requests to aircraft carrying:

    i) the Prime Minister of Australia;

    ii) the Governor-General;

    iii) foreign heads of state;

    iv) members of the royal family; and

    v) ministers of the Commonwealth of Australia.

6.1.2 Airservices responsibility

When staff are available, Airservices will provide tower and approach services:

a) for persons listed in b) i) to iv) 6.1.1 RAAF responsibility; and

b) until 2400 local for Ministers of the Commonwealth of Australia.

Airservices will advise the RAAF whenever a requested service cannot be provided.

6.2 Defence Firing Areas - adjacent to Canberra International Airport (D457 and D458)

6.2.1 CB Tower and Majura RCO communications during firing

Use the following instructions to ensure intentions and instructions are understood. Do not use 'check fire' procedures for normal operations. Only use these instructions during abnormal operations such as IFERs where an aircraft may have no opportunity to avoid D457 or D458.

Canberra Tower	Meaning	Defence response	Meaning
CHECK FIRE	Stop firing activity	ACKNOWLEDGE CHECK FIRE	We have ceased firing
CANCEL CHECK FIRE	Commence firing	ACKNOWLEDGE CANCEL CHECK FIRE	We will commence firing

Defence must:

  a) advise CB ATC if unable to cease firing due to an unsafe weapon or unexploded ordnance;

  b) secure the range as soon as practical; and

  c) advise ATC.

6.2.2 Flare activities

Flare activity is contained within D457 and D458 however, due to the visible nature of flares, Defence must advise ATC (Canberra Tower) of flare activity prior to use. This advice will include a start and finish time.

7 Abnormal operations

Note: *These procedures are not to be used as a routine traffic management strategy, rather to accommodate circumstances where there is an increased likelihood of deviations by civil traffic into restricted airspace.*

7.1 Applicable Restricted Areas, Military CTAs, and MOAs

This section is applicable to the following restricted areas, military CTAs, and MOAs only;

- WLM CTR A/B, WLM CTA C1-C9
- R584 A/B/C/D
- R588 A/B/C
- R596
- M550 A/B/C/D
- R560 A/B
- R570 A/B/C/D/E/F/G/H

Where severe weather is expected to affect a subset of the restricted areas described above, limit traffic and restricted area management measures to the affected airspace.

7.2   Status

The likelihood of aircraft diverting into active restricted areas will be defined by status levels.

There are three regular status levels (Green, Amber and Red) describing the likelihood of deviations, and one status level (Black) describing situations where civil aircraft are deviating or will imminently deviate into restricted airspace to preserve safety of flight.

GREEN	No expected changes to operations based on current forecasts, published NOTAM Restricted area activations, ADF aviation related programs, and system (surveillance and communications) capability.
AMBER	Adverse weather is forecast but the impact is expected to be minor. No significant impact on the compatibility of civil operations with military activity is expected. Short term deviations around isolated thunderstorms or similar is considered likely. A manageable increase in coordination is likely, however the increase in workload should always remain manageable under normal internal management processes.
RED	Adverse weather is forecast and expected in the near future. The weather severity and position is expected to significantly impact on the compatibility of civil operations with military activity. Widespread deviations have commenced or are anticipated to commence. Increased coordination is required and controller workload will be abnormally high.
BLACK	Indicates a situation that has unexpectedly escalated or causes a flight crew to declare an emergency to manoeuvre clear of the weather hazard. Civil aircraft are, or will be, imminently deviating into active restricted airspace contrary to their current clearance in order to preserve safety of flight

7.3   Process

The BN SM3 will monitor the status of the airspace and if Status level is assessed as AMBER, RED or BLACK, BN SM3 will consult with 453SSQN WLM FLT and apply the following procedures if agreed.

7.3.1   Status AMBER

7.3.1.1   BN SM3 or appropriate OCA holder actions

a) Review acceptance rate;

b) Consider implications of weather and traffic management;

c) Review sectorisation and use of Planner consoles to maximise existing sector capacity;

d) Consider alternative route clearances for arriving and departing aircraft;

e) Notify external agencies via the NCC as per NAAM clause 2.4; and

f) Facilitate the short-term activation of restricted airspace in consultation with 453SQN WLM FLT where it is practical to do so.

7.3.1.2   453SQN WLM FLT actions

a) Initiate contact with flying SQN(s) requesting them to:

i)   Review current and planned flying activity

ii) Identify periods that may facilitate airspace releases to Airservices Australia; and

iii) Assess the feasibility of using alternate airspace for planned military operations.

b) 453SQN WLM FLT will provide BN SM3 an initial assessment as soon as possible.

7.3.2   Status RED

7.3.2.1   BN SM3 or appropriate OCA holder actions

a) Implement traffic management procedures;

b) Request airspace releases from 453SQN WLM FLT as appropriate for traffic management purposes;

c) Review expected delays against document ERSA and NOTAM information and initiate hazard alerting;

d) Update notification to external agencies via NCC as per NAAM clause 2.4; and

e) Consult with at agreed time intervals until the conditions improve and status is assessed as Amber or better.

7.3.2.2   453SQN WLM FLT actions

a) Contact the flying SQN executive to determine options to delay, redirect or cancel as appropriate;

b) Determine the ability to de-conflict military operations from potential diverting civil aircraft;

c) Provide BN SM3 an initial assessment as soon as possible; and

d) Implement appropriate weather releases.

7.3.3   Status BLACK

7.3.3.1   BN SM3 or appropriate OCA holder actions

a) Initiate ground stop where possible for all flights planned to proceed into the affected airspace;

b) Notify the WLM Approach Supervisor immediately when it is obvious, or when notified, that an aircraft will enter an active RA/MOA/CTA without a clearance.

c) Report unavoidable deviations resulting in RA/MOA/CTA penetration via CIRRIS and complete other required notifications including ATSB if required;

d) Consider actively diverting aircraft in flight to other aerodromes and complete associated notification requirements; and

e) Consult with 453SQN WLM FLT at periods of not more than 30 minutes or as otherwise agreed until the conditions improve to a status Red or better or all military airspace is de-activated without further activation expected.

7.3.3.2   453SQN WLM FLT actions

a) Where possible, initiate local aircraft return or other action to remove airborne assets to an area of safe airspace;

b) Determine VHF frequency requirements for civil aircraft deviating into RA/MOA/CTA where military aircraft continue to operate at non-vertically separated levels
Note: this will be 121.5;

c) Where possible, pass relevant details of Military activity to civil units to facilitate Safety Alerts or Traffic Avoidance advice; and

d) Facilitate airspace release and/or deactivation as soon as possible.

8 Business continuity

8.1 ATS system management

8.1.1 Equipment failure

8.1.2 WLM coordination line failure

In the event of a failure of direct voice coordination lines between WLM ATC and BN ENR, available redundant means of communication shall be used.

For hot line failures, cold lines shall be used instead. For the complete failure of hot and cold lines, direct console telephone numbers shall be used. These numbers are only for contingency use and shall not be used in normal operation.

BN ENR consoles	
MAL	(07) 3258 1328
MLD	(07) 3258 1329
CNK	(07) 3258 1324
OCN	(07) 3258 1331
WLM ATC consoles	
WLM PLNR (clearance delivery)	(02) 4034 7923
WLM APP (H)	(02) 4034 7924
WLM APP (L)	(02) 4034 7922

BN ENR technical staff shall ensure that a job is logged to resolve the failure of the Telstra Leased Line as a matter of urgent priority.

8.1.3 WLM radar not available

Provide 'Airborne' advice for departing aircraft to MLD sector for aircraft entering CTA in the MATLA-WLM-MAKOR airspace segment.

Note: *Once airborne advice has been provided, it is not necessary to keep aircraft within WLM airspace if the radar hand-off cannot be completed.*

8.1.4 NWA and ML radar/Eurocat system failure

ML sectors must advise NWA when aircraft position reports are required.

8.1.5 ATS civil contingency

When an ATS contingency affects Airservices Australia administered airspace, the ATMD or Contingency Response Manager will brief adjacent and other relevant Defence unit(s).

8.2   Sydney TCU contingency

8.2.1   Richmond Restricted Areas

8.2.1.1   When Airservices is unable to provide a service in R469/R470/R494

Where possible, the RAAF must provide services to military aircraft within R469/R470 and R494, if Airservices is unable to do so.

Obtain agreement from Airservices before interacting with the portion of Sydney CTA above 2500 FT that overlaps the south-eastern portion of R470 and R494 indicated below.
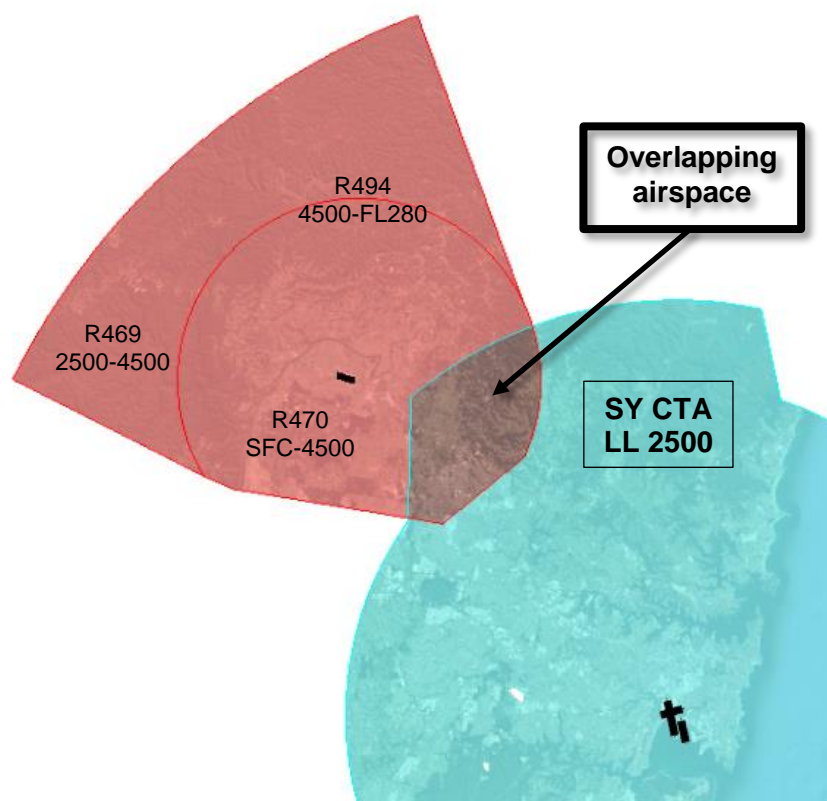
Note:

1) *Defence may resume Richmond Restricted Areas at any time.*
2) *Responsibility for ATS provision will be described in the activation NOTAM.*

8.2.1.2   Sydney TCU evacuation

Advise RIC TWR if the TCU will be evacuated and hand-off aircraft to the appropriate agency(s).

9   Contact numbers

Contact	Phone number
Army	
6th Aviation Regiment	0419 528 777
R368 Albury RCO	02 6053 5234
D457/458 Canberra RCO	02 6241 5696 0416 266 580 or 0416 266 583 (AH)
R522 Marrangaroo RCO	02 8782 1216/88 or 0413 186 354 (AH)
R564 Singleton RCO	02 6575 0345 or 0418 166 358
R555 Holsworthy RCO	02 8782 1288 or 0413 186 354 (AH)
R555 Holsworthy Assistant RCO (ARCO)	02 8108 1981 or 0417 296 731
R555 Range Manager (RM)	0429 917 778
Navy	
HMAS Albatross Duty Air Officer	0411 127 367
Officer of the Day	0408 975 825
SO3 MARWKPR at FHQ	02 6128 4339
FXP Cell, FHQ	02 9537 4652 Alt (A) 0411 253 135
RAAF - NWA	
FLTCDR 453SQN NWA FLT	02 4424 2541 or 0411 405 145
OPSCDR 453SQN NWA FLT	02 4424 1166 or 0438 459 209
NWA APP	02 4424 1820
NWA TWR	02 4424 1144
RAAF - RIC	
FLTCDR 453SQN RIC FLT	02 4077 8694 or 0432 648 987
RIC TWR	02 4579 2014 or 02 4587 1018
RIC ATC OOH	0437 926 209 or 0432 929 843
RIC Fire Watch Room	02 4587 2655
RAAF - WLM	
FLTCDR 453SQN WLM FLT	02 4034 0390 or 0417 315 973
WLM APP Supervisor	02 4034 7973
OPSCDR 453SQN WLM FLT	0400 493 005
Surveillance Manager	02 4034 9416
3CRU Co-ordination	02 4034 9310

Contact	Phone number
RAAF - AMB	
OPSCDR 452SQN AMB FLT	07 5361 3345
AMB APP Supervisor	07 5361 3349
Brisbane Centre	
BN ATC Aisle 3 Shift Manager	07 3866 3315
BN SS	07 3866 3420
Sydney TCU	
SYSM	02 9556 6636 or 02 9556 6853
SAW (in case of intercom failure)	02 9556 6512
SDS (in case of intercom failure)	02 9556 6517
Melbourne Centre	
ML ATC Shift Manager 2	03 9235 7496
ML SS	03 9235 7402
Canberra	
Canberra Tower	02 6268 5850
NOF nof@airservicesaustralia.com	02 6268 5063
Other	
Tidbinbilla	02 6201 7940
Thales Australia Duty Officer (R533 Denman)	1800 234 583