



*Refer Temp MATS Supp 2024\_05 or  
ATS\_TLI\_24\_0069*



# **Western Australia Manual of Air Traffic Services Supplementary Procedures**

**Procedure**

**ATS-PROC-0002**

**Version 41**

**Effective 30 November 2023**

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**ATTENTION**  
**Temporary amendments may apply**

## Change summary

Western Australia Manual of Air Traffic Services Supplementary Procedures Version 41: Effective 30 November 2023		
Location of change	Change description	CRC
Various	Editorial changes.	31105
1.1	Abbreviations updated.	
1.2	CONNI changed to SAPKO.	
1.2, 2.4.3.16, 3.3.2, 3.4.7	WAVES changed to IPMOR.	
2.4.3.16. 3.3.4.2, 3.3.4.3	KEELS changed to OPEGA.	
2.4.3.5, 2.4.3.16	Navy requirement to contact ML SS changed to ML SM3.	
2.6.2	Email address updated.	
3.1.3	Pearce Eurocat RMAP combinations updated.	
3.2.2	Operations requiring R153A + 1000 FT amended to “may require”.	
3.4.7	BRIGG changed to KAGMI. SAILS changed to KALBO.	
3.5.1	TLI_23_0144 incorporated. OTKUN and RANGU SIDs included as standard routes.	
3.6	Pearce Tower Airspace deleted. Pearce AFIS added.	
3.7.1	Air Test Area Bravo deleted.	
5	Contact numbers updated.	

This document was created using Air Traffic Services (ATS) Operational Document Template (C-TEMP0256) Version 7.

[View change summaries for the previous six months](#)

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# 1 Definitions

## 1.1 Abbreviations and acronyms

Abbreviation	Definition
<b>Pearce positions</b>	
453SQN PEA FLT	453 Squadron Pearce Flight
PEA	Pearce Approach
PEN	Pearce Centre North
PEW	Pearce Centre West
PEP	Pearce Planner (ACD)
PEA TWR	Pearce Tower
PEA ASPR	Pearce Supervisor
PEA TSPR	Pearce Tower Supervisor
<b>Navy positions</b>	
FXP Cell West	Fleet Exercise Program Cell West
<b>Melbourne Centre positions</b>	
ATMD	Air Traffic Management Director
DAL	Dally
GEL	Geraldton
GVE	Grove
HYD	Hyden
JAR	Jarrah
KLA	Kella
KNE	Kalannie
LEA	Leeman
PIY	Pingelly
Southwest	South Operations, Southwest
SCR	Cross
ML SM3	Shift Manager Aisle 3
ML SS	System Supervisor
<b>Perth TCU positions</b>	
PHA	Perth Approach
PHD	Perth Departure
PNE	Perth Approach

Abbreviation	Definition
PHF	Perth Flow
PHR	Perth Centre (Providing SIS and ACD)
PH SM	Perth Shift Manager
PHN	Terminal Area North
PHS	Terminal Area South

## 1.2 Terms and definitions

Terms	Definition
Airspace Coordinator	The agency responsible for tactical management of a designated airspace block.
Pearce Restricted Areas	R153A/B/C/D, R155A/B, R156, R165, R168A/B, R162, R163, R167A/B.
Pearce Circuit Area	Lateral limits: 5 NM radius centred on the Pearce ARP within R155A (not including R153). Vertical limits: SFC – 3500 FT. <b>Note:</b> Aircraft are to maintain a 1.5 NM buffer from the boundary of civil CTA and/or remain at least 500 FT below Class C control steps overlying R153A&B except: <ul style="list-style-type: none"> <li>a) Aircraft may visually position as far east as the Great Northern Highway and operate not above 1500 FT AMSL in proximity to R153A/not above 3000 FT AMSL in proximity to R153B; and</li> <li>b) Aircraft may visually position south of Maralla Road not above 1000 FT AMSL, but no further south than an east-west line through Mt Mambup.</li> </ul>
Pearce AFIS Airspace	Lateral limits: 3 NM radius centred on Pearce TACAN within R155A. Vertical limits: SFC – 1500 FT. <b>Note:</b> Activated when Pearce AFIS is provided for arrival and departures only.
Perth Basin	The airspace and all aerodromes, ALAs and HLSs within 36 NM of the Perth VOR.
Perth TCU	Generic term for the controlling authority for all civil airspace below FL245 within 36 NM Perth.
Perth TMA	Perth CTR/CTA within 36 NM radius of Perth Airport. Pearce restricted areas within 36 NM when released by PEA ATC. SFC to FL245. TMA is subdivided into TMA North (PHN), TMA South (PHS) and TMA North East (PNE). Remaining Class G and E airspace is the responsibility of PHR.
Perth TMA Departure Gates	The waypoints by which aircraft at A090 or above exit Perth Basin. These gates are AMANA, RAVON, BROOK, CANRI, SOLUS, MANDU, IPMOR, AVNEX, OTLED and DORIS.

<b>Terms</b>	<b>Definition</b>
Perth TMA Arrival Gates	The waypoints by which aircraft at A090 or above enter Perth Basin. These gates are JULIM, SAPKO, DORIS, BOOKA, SOLUS, MANDU, IPMOR, KYEMA and DAYLR.

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## 2 Operational context

### 2.1 Airspace Administration

#### 2.1.1 Purpose

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##### 2.1.1.1 Airspace management

This document:

- a) describes airspace management procedures (including operating procedures and services provided to participating and non-participating aircraft); and
- b) nominates the airspace Controlling Authority.

#### 2.1.2 References

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The primary references for airspace and air route information is the [Designated Airspace Handbook](#) and [ERSA](#).

#### 2.1.3 Prohibited, Restricted and Danger Area (PRD) administration

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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 (e.g. FLTCDR 453SQN PEA 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](mailto:adf.airspace@defence.gov.au).

Direct requests for temporary civil airspace to the OAR.

#### 2.1.4 Primary User

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The Primary User 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.

#### 2.1.5 Airspace Coordinator responsibilities

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The Airspace Coordinator 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 and make every effort to accommodate activities and adjust procedures and facilities to achieve this; and
- c) 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 Controlling Authority

The Controlling Authority is responsible for service provision and management of the airspace, and will apply the procedures published within MATS Supp.

## 2.2 Area of responsibility

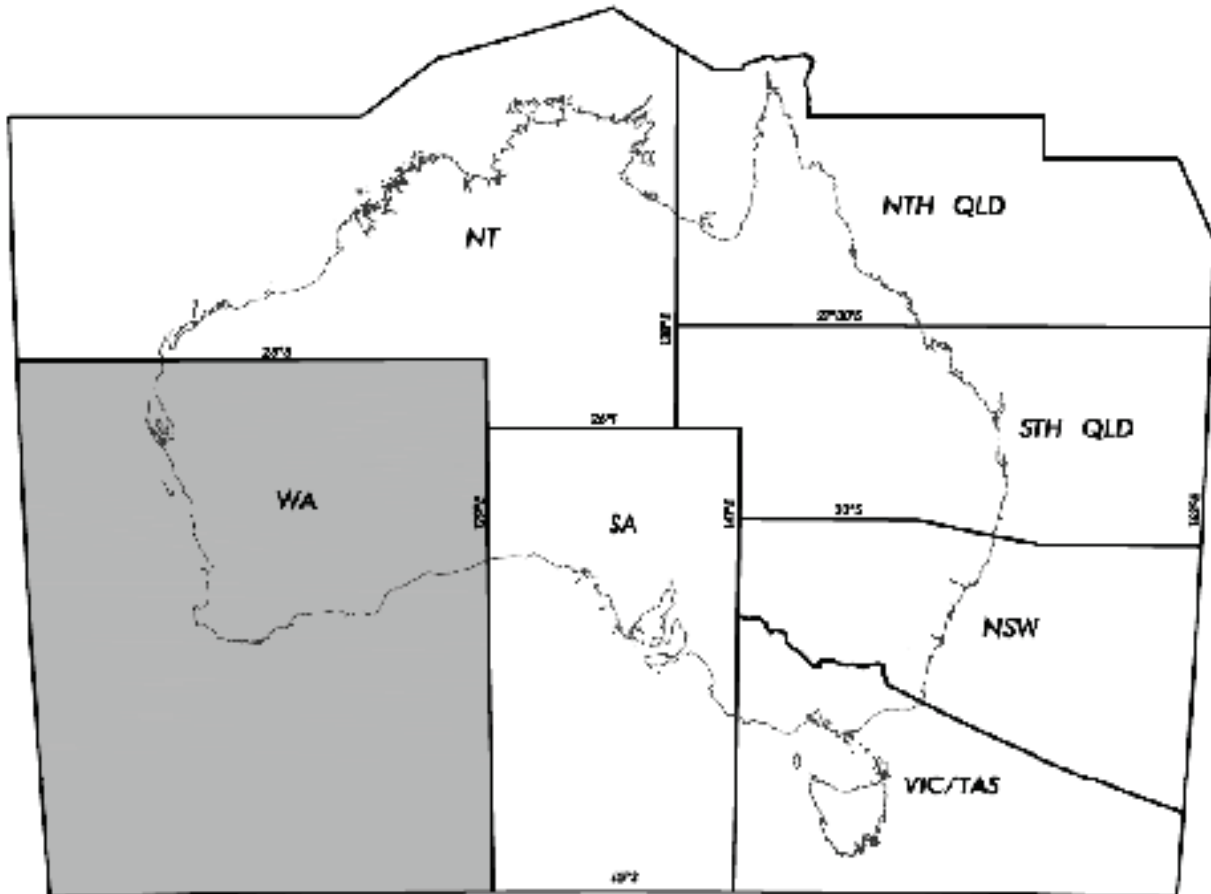
### 2.2.1 Dimensions

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

45 00 00S 107 00 00E, 23 00 00S 107 00 00E, 23 00 00S 129 00 00E, 45 00 00S 129 00 00E, 45 00 00S 107 00 00E.

A diagram of the WA MATS Supp area of responsibility is depicted as follows:

**Figure 2.1 Area of Responsibility**

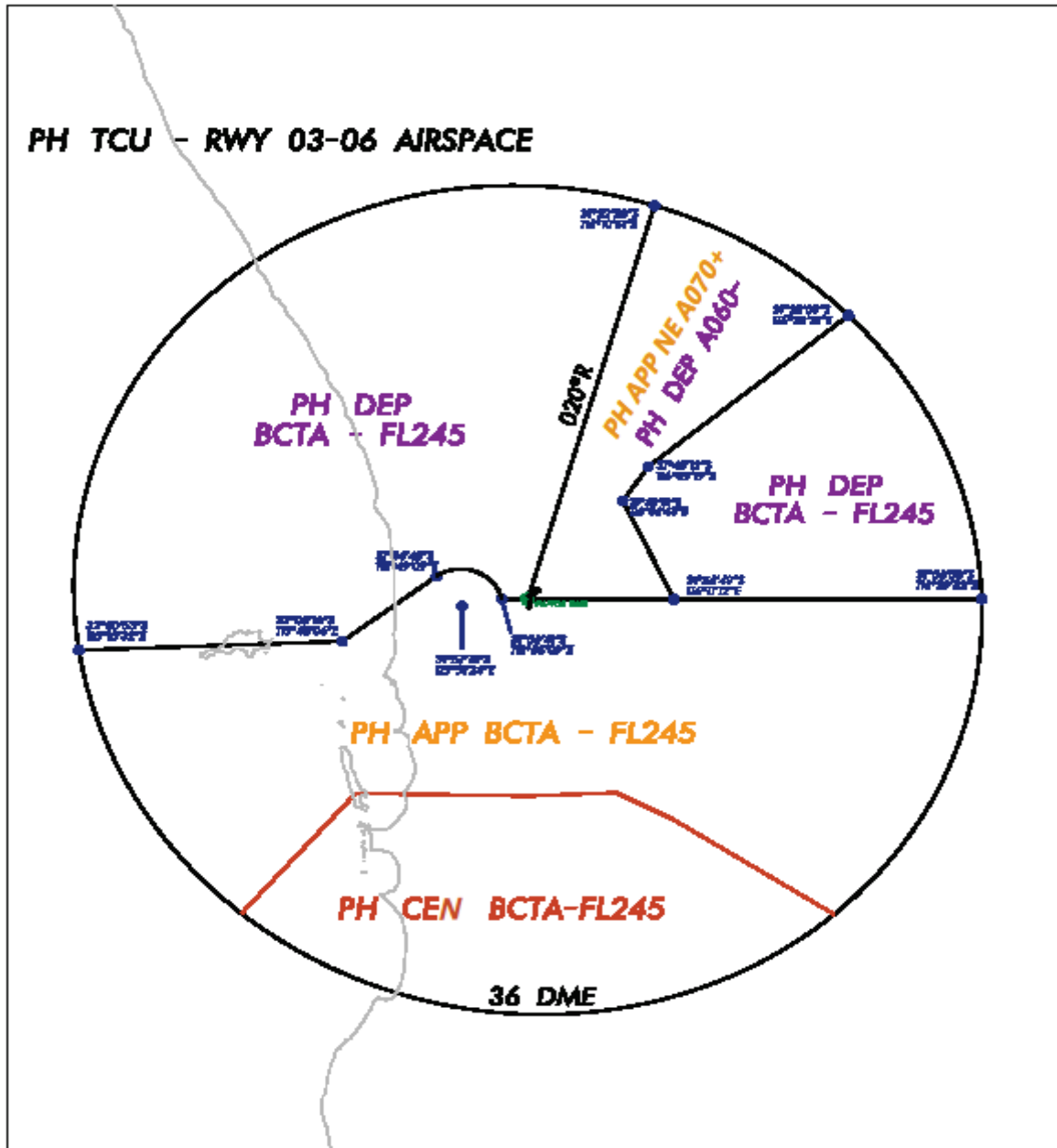


## 2.2.2 Perth TMA area of responsibility

### 2.2.2.1 RWY 03/06

When RWY 03/06 (North-East Runway Plan) is in use, Perth TMA is divided as follows:

Figure 2.2 Perth TCU – RWY 03/06 airspace



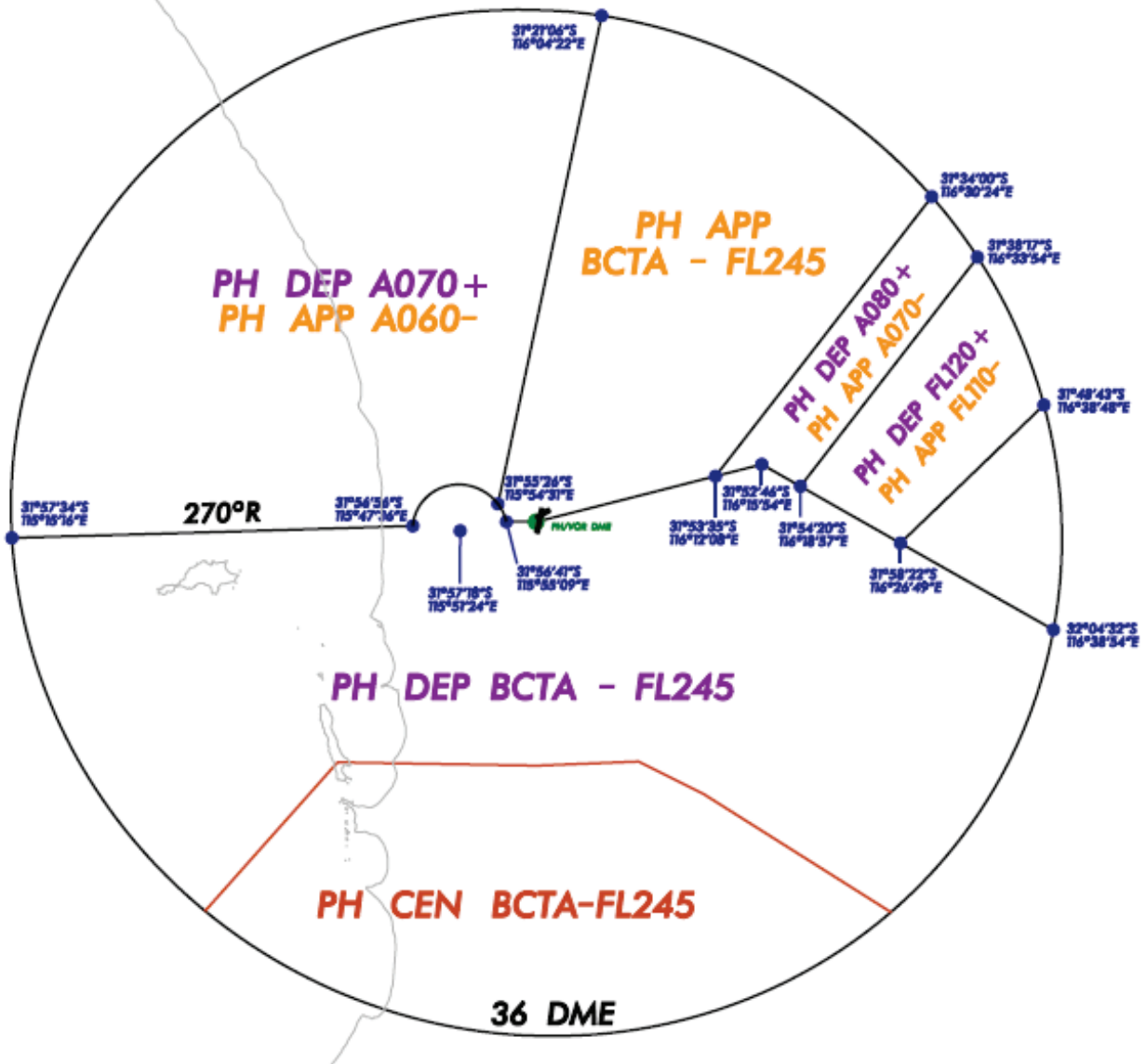
...IDGNscr3245 PH MATS SUPP.dgn 25/10/2013 11:04:36 AM

2.2.2.2 RWY 21/24

When RWY 21/24 (South-West Plan) is in use, Perth TMA is divided as follows:

Figure 2.3 Perth TCU – RWY 21/24 airspace

**PH TCU – RWY 21-24 AIRSPACE**



### 2.2.2.3 R155A active and TCU airspace within 36 NM PH

When R155A is active to FL160, Perth TMA airspace above R155A will be automatically released to PEW.

### 2.2.2.4 Position and airspace responsibility

Class C services provided by PHA and PHD positions are determined by the runway configuration plan.

Class E and G services are provided by PHR (SIS).

RWY plan	RWY	Approach (APP) control	Frequency	Departures (DEP) control	Frequency	Centre (SIS)	Frequency
South–West	21/24	PHN	123.6 MHz	PHS	118.7 MHz	PHR	135.25 MHz
		*PNE	132.95 MHz				
North–East	03/06	PHS	123.6 MHz	PHN	118.7 MHz	PHR	135.25 MHz
				*PNE	132.95 MHz		

\* PNE volume and VCS mission may be assigned to Approach control. For aircraft that enter the PNE volume hand-off to PNE and transfer to frequency 132.95.

**Note:** Functional sector PNE encompasses aircraft tracking via JULIM and SAPKO and is consistent with the lateral and vertical boundaries depicted at [Figure 2.2 Perth TCU – RWY 03/06 airspace 'PH APP NE A070+'](#).

## 2.3 Pearce Restricted Areas – responsibility

### 2.3.1 Pearce position and airspace responsibility

Position	Area of responsibility
PEA	R153 A-C and R155A, A120 and below.
PEN	<ul style="list-style-type: none"> <li>a) R155A, excluding south of the Pearce 315 TACAN radial and west of the Pearce 175 TACAN radial, above A120 (LUL A130);</li> <li>b) R155B excluding south of the Pearce 315 TACAN radial, above A120 (LUL A130);</li> <li>c) R153D, and</li> <li>d) R156.</li> </ul>
PEW	<ul style="list-style-type: none"> <li>a) R155 A&amp;B south of the Pearce 315 TACAN radial and west of the Pearce 175 TACAN radial, above A120 (LUL A130);</li> <li>b) TCU released airspace above R155A FL160 to FL245 (See <a href="#">2.2.2.3 R155A active and TCU airspace within 36 NM PH</a>); and</li> <li>c) R162, R163, R165, R167A&amp;B and R168A&amp;B.</li> </ul>

## 2.4 Airspace management and release responsibilities

### 2.4.1 QNH settings

QNH settings at Perth, Jandakot, Pearce and Gingin are regarded as equal.

### 2.4.2 Standard airspace releases

#### 2.4.2.1 Gnangara Release

Gnangara Release	Dimensions and responsibilities
Airspace released from Perth TCU to Pearce ATC to enable military aircraft to position via left initial to enter the circuit for RWY 36 at Pearce when operating to RWY 36 and the MERLO is not released to Pearce	<p><b>Lateral limits:</b> 31°47'46"S 115°59'57"E, 31°47'43"S 115°51'30"E 31°47'37"S 115°50'24"E, thence along the minor arc of a circle of 11.0 NM radius centred on YPPH/DME to 31°46'14"S 116°01'36"E 31°47'46"S 115°59'57"E.</p> <p><b>Vertical limits:</b> SFC – 1500.</p>
Released to Pearce ATC	When Pearce are operating to RWY 36 on the Southwest Plan, or when operationally required.
Level assignment	HUL for Pearce is A010 LUL for Perth is A020
Military operations	Military aircraft will contain their operations within the Gnangara Release by remaining visually east of Gnangara Lake, north of Gnangara Road and north and west of the West Swan Road and Great Northern Highway at/or below 1000 FT AMSL.
Coordination when requesting the release	PHN advises of any relevant traffic and releases Gnangara Release to Pearce.
Coordination when released to Pearce ATC	Perth TCU is not required to coordinate with PEA when aircraft for RWY 21 are assigned an instrument approach.
Coordination when cancelling the release	PEA will return the Gnangara Release to PHN when not operationally required.

### 2.4.2.2 MERLO Release

MERLO Release	Dimensions and responsibilities
<p>Airspace released from Perth TCU to Pearce ATC to enable Pearce ATC to operate a 7 NM arc to PEA RWY 36 ILS/TACAN</p> <p>Only available on the North-East Plan</p>	<p><b>Lateral limits:</b> 31°48'55"S 116°04'39"E thence along the minor arc of a circle of 9.0 NM radius centred on 31°40'26"S 116°01'03"E (YPEA/TAC) to 31°49'07"S 115°58'12"E, 31°47'49"S 115°51'52"E, 31°47'22"S 115°50'43"E, thence along the minor arc of a circle of 11.0 NM radius centred on 31°56'42"S 115°57'34"E (YPPH/DME) to 31°45'51"S 115°59'49"E to 31°44'06"S 116°02'37"E, 31°35'50"S 116°05'55"E, thence along the minor arc of a circle of 22.0 NM radius centred on 31°56'42"S 115°57'34"E (YPPH/DME) to 31°41'53"S 116°16'42"E, 31°44'35"S 116°13'14"E, 31°45'13"S 116°12'25"E. 31°48'15"S 116°05'52"E.</p> <p><b>Vertical limits:</b> SFC – A045.</p>
Level assignment	<p>HUL for Pearce is A040.</p> <p>LUL for Perth is A050</p>
Military operations	PEA will monitor aircraft operations on the 7 NM arc and take positive action to ensure the aircraft remains on the arc.
Coordination when requesting the release	<p>The MERLO release will be released to Pearce ATC after coordination.</p> <p>Release is subject to traffic arriving for RWY 21. Provide traffic in the MERLO Release.</p>
Coordination when cancelling the release	When changing from the North-East Plan to the South-West Plan, PEA must return the MERLO Release.

### 2.4.2.3 Quokka Release

Quokka Release	Dimensions and responsibilities
<p>Airspace released from Perth TCU to Pearce ATC to reduce coordination for military aircraft.</p> <p>Released by Perth TCU if available, on request from PEW.</p> <p>Perth TCU may resume the Quokka Release if required.</p>	<p><b>Lateral limits:</b> 31°47'22"S 115°50'43"E, then along the minor arc of a circle of 11.0 NM radius centred on 31°56'42"S 115°57'34"E (PH/DME) to 31°48'23"S 115°49'06"E, 31°57'14"S 115°36'26"E, then along the minor arc of a circle of 18.0 NM radius centred on 31°56'42"S 115°57'33"E (PH/VOR) to 32°01'07"S 115°37'02"E, 32°13'29"S 115°40'47"E, 32°13'38"S 115°48'26"E, 31°47'22"S 115°50'43"E.</p> <p><b>Vertical limits:</b> A085 – FL245.</p>
Level assignment	<p>LUL for Pearce is A090</p> <p>HUL for Pearce is FL240</p> <p>HUL for Perth is A080</p>

## 2.4.3 Airspace requests and NOTAM publication

### 2.4.3.1 NAVY FXP Cell–West hours of operation

When a NOTAM for RAN controlled airspace is required, contact FXP Cell–West between:

- a) 0600 – 1600 Monday to Thursday; and
- b) 0600 – 1300 Fridays.

When activation is required outside these hours, contact the Maritime Operations Watchkeeper who consults with the on–call FXP Cell–West staff.

The FXP cell may operate H24 during major exercises.

### 2.4.3.2 RAAF requests for use of RAN R192 (WAXA) airspace

At least eight hours before RAAF requires RAN airspace:

- a) coordinate with FXP Cell–West during work hours; or
- b) after hours to the Maritime Operations Watchkeeper.

### 2.4.3.3 R134 A/B/C/D Bindoon Military non–flying

Item	Details
Controlling Authority and NOTAM responsibility	Army DOTAM WA (Primary User) NOTAM requests must be completed by the Army.
Activation	R134A: NOTAM R134B: NOTAM R134C: H24 R134D: NOTAM

### 2.4.3.4 R140 A/B Garden Island – Military non–flying

Item	Details
Controlling Authority and NOTAM responsibility	Navy HMAS Stirling (Primary User) FXP Cell–West
Activation	R140A: H24 R140B: NOTAM R140B may be activated at short notice due to bomb disposal requirements.



### 2.4.3.5 R146 A/B/C Lancelin – Military flying/non–flying

Item	Details
Controlling authority and NOTAM responsibility	Navy HMAS Stirling (Primary User) FXP Cell–West
Activation	NOTAM Only activate R146 B/C with R146A. Do not commence operations until ML ATC has confirmed that controlled airspace is clear.
Lancelin RSO responsibilities	The Lancelin RSO must be equipped with a phone to contact: a) ML SM3; and b) Lancelin (LDTA) Caretaker. <b>Note:</b> <i>Contact with ML SM3 is required as published routes transit the areas.</i> If the telephone fails: a) establish an alternative HF radio link with HF to a participating warship or shore based ADF unit using the area for non–flying activities; and b) check the link every 15 minutes. Suspend activities in the areas when communications or ATC radar have failed.
Lancelin Tower responsibilities	Must be open when warships conduct Naval Gunfire Support (NGS) exercises.
HF responsibilities	Communicate between ML ATC and the warship when: a) RSO phone communications have failed; and b) NGS is provided.
Airspace use	R146A contains the NGS and air to ground impact areas. R146B/C is intended as manoeuvring airspace for aircraft involved in air to ground bombing. R146A/B are also used for other flying/non–flying activities.
Airspace release	Release the areas to ML ATC when operations are suspended or discontinued. Do not recommence activities until ML ATC advises that the area is clear. The RSO may release the airspace to RAAF ATC.

**2.4.3.6 R153 A/B/C/D Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM
Separation	Pearce will operate 500 FT below the published upper limit of R153ABCD. Pearce will advise Perth TCU when operations are required to the upper limit of R153ABC. Perth TCU will assign levels 1000ft above R153ABC.

**2.4.3.7 R155A within 10NM Pearce (Pearce Tower airspace) – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM Publish the NOTAM at least 45 minutes before the airspace is required.

**2.4.3.8 R155 A/B Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM R155B will only be activated when R155A is active.

**2.4.3.9 R156 Pearce – military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM

**2.4.3.10 R162 Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM

**2.4.3.11 R163 Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM

**2.4.3.12 R165 and R168 A/B Pearce – Military flying/non-flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM

**2.4.3.13 R167 A/B Pearce – Military flying/non-flying**

Item	Details
Controlling authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM When Pearce ATC are not providing an approach service, activation is limited to a maximum NOTAM level of 7000 FT.

**2.4.3.14 R179 Pearce – military flying/non-flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	NOTAM

**2.4.3.15 R184 Lancelin – Military flying/non-flying**

Item	Details
Controlling Authority and NOTAM responsibility	Navy HMAS Stirling (Primary User)
Activation	NOTAM

**2.4.3.16 R189, R192 A/B/C/D/E/F/G and R196 Stirling – military flying-non-flying**

Item	Details
Controlling Authority and NOTAM responsibility	Navy HMAS Stirling (Airspace Coordinator) FXP Cell-West  When the areas are no longer required, either FXP Cell-West or a qualified Maritime Operations Watchkeeper must cancel the NOTAM.
Activation	NOTAM  Outside of the Pearce ATC operating hours, if the navy activates R196 and R192B concurrently, either R196 or R192B will not be active above FL150.
Tolerances	Navy agrees to provide appropriate tolerances to contain flying and firing activity within the confines of R192AB allowing 2.5 NM separation to be used between aircraft on the OPEGA – IPMOR – OPEGA (T12) route and the boundary of RAN controlled areas.  When a vertical standard for separation is not practicable, military ATC shall apply a lateral standard of 2.5 NM separation between any aircraft outside of R192ABCDEFG and R196 with the boundary, regardless of the type of activity within R192 and R196.
Priorities for use of RAN controlled areas	Priorities in descending order are: 1) Operations; 2) Operational lead up training; 3) Formal exercises; 4) RAN training; and 5) RAAF training.  <b>Note:</b> The WAXA planning guide and an operations planning calendar is available on the Defence Intranet.
Airspace release	FXP Cell-West may transfer control to 453SQN PEA FLT. If the areas are not required, release the areas to ML SM3. ML SM3 advises Perth TCU when the specified release period commences and finishes.  Do not commence firing within the areas until the ML SM3 has advised that the area is clear of non-participating Aircraft.
Coordinate transit with Pearce when active	When Pearce is active, Southwest coordinates with Pearce if transit of the areas is required.
Transit route	The navy will accommodate transit of the areas, including R168B when activated outside of Pearce ATC operating hours, on the OPEGA – IPMOR – OPEGA track for civil flights.
Alternative access	Do not deny access to the OPEGA – IPMOR route to UPRs with destinations other than Perth.  The navy coordinates with PH SM and ATMD to arrange a NOTAM and suitable routes. The navy will only require such changes when high priority activities associated with international fleet operations are necessary.

**2.4.3.17 R190 Stirling – Military flying/non-flying**

Item	Details
Controlling Authority and NOTAM responsibility	Navy HMAS Stirling (Airspace Coordinator)
Activation	NOTAM

**2.4.3.18 R191 Stirling – Military flying/non–flying**

Item	Details
Controlling Authority and NOTAM responsibility	Navy HMAS Stirling (Primary User) FXP Cell–West
Activation	NOTAM
Airspace use	Carrier support

**2.4.3.19 D193 Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	JO HJ or as amended by NOTAM

**2.4.3.20 D197 Muchea range – Firing**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	HJ or as amended by NOTAM

**2.4.3.21 D198 Pearce – Military flying**

Item	Details
Controlling Authority and NOTAM responsibility	FLTCDR 453SQN PEA FLT (Primary User)
Activation	JO HJ

## 2.5 Navigation Exercises (NAVEXs)

### 2.5.1 Flight planning

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#### 2.5.1.1 NAVEX beyond Pearce RAs

Plan NAVEXs to avoid Class C airspace within Perth TMA. Pearce ATC can tactically manage the FPL to avoid Perth TCU Class C airspace.

#### 2.5.1.2 Non-standard NAVEX

Military will not plan above A090 when planning NAVEXs within the area bounded by YPEA–PEA010050 – Cadoux – YCUN – VEMON due west to the CTA boundary along the CTA boundary to 36PH – PH VOR – YPEA.

Provide 24 hours' notice to Perth TCU and ML SM3 when flights that involve multiple aircraft are planned for:

- a) non-standard NAVEXs;
- b) air displays;
- c) large formations; or
- d) flights that require non-standard routing.

## 2.6 Significant Event Flypasts

### 2.6.1 Significant Events

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Defence advises Airservices on flypasts of significant importance that require aircraft to meet specific on target times.

Significant event flypasts include, but not limited to, ANZAC Day and Remembrance Day.

### 2.6.2 Notification process

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For significant event flypasts, Defence will:

- a) Notify Airservices via email at: [perth.tcu@airservicesaustralia.com](mailto:perth.tcu@airservicesaustralia.com) 5 days prior to the flypast. Email to include "Attn: Procedures Specialist".
- b) Email will include all relevant details of the flypast such as:
  - i) Holding position;
  - ii) Run-in track;
  - iii) Time over target; and
  - iv) Total time from holding position to time over target, or if multiple targets time over final target.
- c) Contact Perth TCU on (08) 9476 8620 prior to the significant event flypast to confirm details and discuss any issues that may impact on meeting the time over target.

## 2.7 HAWK TCAS ground testing RAAF Pearce

### 2.7.1 Notification process

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Prior to conducting TCAS ground tests, 79 SQN Maintenance Coordinator or Duty Engineer:

- a) emails the PH SM at [perth.tcu@airservicesaustralia.com](mailto:perth.tcu@airservicesaustralia.com) before the planned testing, using the 'TCAS Ground Testing Notification Proforma 79SQN Pearce';
- b) contacts the PH SM on (08) 9476 8620 confirming the allocated test time and aircraft details have been received;
- c) 15 minutes prior to testing, contacts the PH SM on (08) 9476 8620 confirming the start of the ground test; and
- d) on completion of the TCAS testing, notifies the PH SM.

The PH SM:

- a) forwards the email notification to ML SM3; and
- b) notifies ML SM3 when testing is about to occur and when complete.

### 2.7.2 Timing of TCAS ground testing

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To de-conflict with civil air traffic, testing will be carried out during normal week-day activation of Pearce Restricted Areas (0000–0900z Mon–Fri).

To de-conflict with military air traffic, testing will be planned to take place just after activation or just before de-activation of the Pearce Restricted Areas.

### 2.7.3 Mode 3/A code selection

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Hawk 127 aircraft squawk 2100 in accordance with [AIP ENR](#).

## 2.7.4 TCAS ground testing notification proforma 79SQN Pearce

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**For action:** Airservices Australia – Perth TCU Shift Manager

79SQN are conducting TCAS testing on a Hawk 127 aircraft, refer below for the test details.

TCAS Ground Testing Details.

Aircraft Type – Hawk 127

Location – RAAF Base \_\_\_\_\_

IFF Mode 3/A code – 2100

Mode S address – \_\_\_\_\_ (Hex address for aircraft – obtain from VH-101B44A27-10-CAP)

Max altitude 29 000 FT

Test duration approx \_\_\_\_\_ hrs

Test times \_\_\_\_\_ to \_\_\_\_\_

Date of test – \_\_\_\_\_

Contact phone number for the duration of test – \_\_\_\_\_

Submit via email [perth.tcu@airservicesaustralia.com](mailto:perth.tcu@airservicesaustralia.com)



## 3 Normal operations

### 3.1 Pearce Restricted Areas activation and deactivation

#### 3.1.1 Activation procedures

15 minutes prior to Pearce Restricted area activation	Required action
PEA ASPR	Advise PH SM and JAR of activation time
At the activation time:	Required action
PEA	Contact PHN and PHR for traffic
PHN and PHR	Handover traffic
PEW	Contact Perth TMA and Southwest for traffic
Southwest	Handover traffic

#### 3.1.2 Deactivation procedures

Before NOTAM expiry, cancellation or review	Required action
PEA ASPR	Advise JAR and PH SM of deactivation time
At the activation time	Required action
PEW	Coordinate and handover traffic
PEA	

#### 3.1.3 Pearce Eurocat RMAP Combination

Perth TCU, Pearce and Southwest use the following RMAP proforma to display the activation of restricted airspace.

RMAP option	Displayed maps
PEA 1	R153 ABC + R155A
PEA 2	R153 ABCD + R155AB
PEA 3	R153 ABCD + R155AB + R165
PEA 4	R153 ABCD + R155AB + R156
PEA 5	R153 ABCD + R155AB + R156 + R165 + R168AB
PEA 6	R153 ABCD + R155AB + R156 + R163 + R165 + R167AB + R168AB

### 3.1.4 Separation and airspace boundaries

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#### 3.1.4.1 Pearce Areas/airspace releases and Perth TCU

Perth and Pearce ATC apply half the applicable surveillance standard from the respective common airspace boundaries.

**Exceptions:**

Perth ATC must coordinate with Pearce ATC when aircraft track west of the WOORA – HAIGH track.

**Gnangara Release**

When the Gnangara Release is active, Perth ATC uses 3 NM separation from the boundary.

#### 3.1.4.2 Pearce Areas/airspace releases and Southwest

Southwest separate traffic from the Pearce Restricted Area boundaries and airspace releases by the applicable surveillance standard (5 NM). Pearce may operate up to the boundary of the restricted or released areas.

**Exceptions:**

PH – SOLUS – JOSBU. Pearce provides 1.5 NM separation between activities in R162 and the eastern boundary of R162. No coordination is required to Pearce ATC when R162 is active and aircraft are established on or east of the PH – SOLUS – JOSBU track.

### 3.1.5 Monitoring aircraft and airspace boundaries

---

Monitor aircraft close to lateral boundaries, particularly:

- a) on the 9 NM arc for the PH RWY 21 IALs; and
- b) on the 7 NM arc for the Pearce RWY 36 IALs.

## 3.2 Perth Basin Traffic Management Plans (TMP)

### 3.2.1 Selection of TMP

#### 3.2.1.1 Runway in use and airspace plan

The TMP is determined by the runway(s) nominated on the Perth DATIS and determines how the airspace and aerodromes within the Perth Basin will operate:

Runway plan	Runway
South–West	21
	24
North–East	03
	06

Perth ATC is responsible for deciding which TMP is used by Pearce and Perth.

Pearce will prioritise the use of RWY 18 when able.

**Note:**

- a) The intent is to align the operations of both aerodromes to the maximum extent possible. [DAP](#) – West, Noise Abatement Procedures Perth Section 1 describes the selection of preferred runways at Perth and links the selection at Perth with wind conditions at Pearce when Pearce Restricted Areas are active.
- b) The availability of instrument approach aids, weather conditions, aircraft type, pilot notified operational requirement and availability of arrester barriers/cable at Pearce may impact on the preferred runway and/or non-coordinated runway plan.

### 3.2.2 The TMP and agreed procedures

Perth runway plan	Pearce runway	Airspace release(s) to Pearce	Restriction to operations	Agreed procedures
North–East	05/23/18	Gnangara if operationally required	Nil	Nil
North–East	36	Merlo	9 NM TACAN arc not available – no IAL for CAT C, D and E aircraft	Pearce ASPR advises PH SM of requirement for IAL when Pearce weather conditions are Expect Instrument Approach. Aircraft requiring 9 NM TACAN arc approaches must not be coordinated by PEA prior to 15 NM of the IAF (MUGOB).
South–West	05/23/18	Gnangara if operationally required	Nil	Nil required
South–West	36	Gnangara	No IAL available in VMC conditions	Pearce recoveries via visual approaches only.
			No IAL available in VMC conditions	Pearce ASPR advises PH SM of requirement for IAL when Pearce weather conditions are Expect Instrument Approach. Aircraft requiring 7 NM or 9 NM TACAN arc approaches must not be coordinated by PEA prior to 15 NM of the IAF. Perth nominates and uses RWY 24 to the greatest extent possible. Pearce uses TACAN 05 to the greatest extent possible.
			Avon valley recoveries, visual approaches RI RWY 36, 130SQN low level navigation exercises may require R153A +1000.	PEA obtains airspace IAW Western Australia MATS Supp <a href="#">2.4.3.6</a> .

### 3.2.3 Runway changes at Perth and Pearce

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#### 3.2.3.1 Minimise conflicts

The runway change procedure is intended to minimise conflicts between traffic management requirements at aerodromes within the Perth basin. Where possible, Perth and Pearce operates on the preferred runways and manage airspace using the procedures for that TMP.

When the aerodromes are operated using the least preferred runway combinations, Perth and Pearce will agree on the most efficient use of airspace.

#### 3.2.3.2 Runway change criteria RWY 03 to RWY 21

When the tailwind component on Perth RWY 03 does not exceed the allowed parameters and Pearce RWY 18 tailwind exceeds 5 kt, Perth will delay change to RWY 21 until advised that the tailwind on RWY 18 is less than 5 kt.

#### 3.2.3.3 Coordination required

Perth and Pearce must liaise when a change to the TMP is required.

Before changing the Perth TMP, PHF advises Pearce ASPR.

### 3.2.4 South –West plan and RWY 36R IAP operations during IMC

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#### 3.2.4.1 Perth Flow responsibilities

When Pearce RWY36 instrument approaches are required while Perth is operating to the South–West plan, the Perth Flow:

- a) utilises RWY24 as much as possible;
- b) strategically sequences Pearce approaches to RWY36 with aircraft arriving RWY21;
- c) provides early advice of EAT or time to commence final; and
- d) gives equal priority to military traffic for Pearce RWY36 IALs.

**Note:** *Extensive delays can be expected.*

#### 3.2.4.2 Pearce responsibilities

Pearce must not depart aircraft that will increase the IAL requirements in these conditions.

Aircraft being sequenced for RWY36 IAP must be for full stop landing.

### 3.2.5 North-East plan and Pearce RWY 36 – VMC recoveries by day for 79SQN aircraft

---

During periods of low traffic on North-East plan, Perth TCU may accommodate HAWK aircraft via the 9 TAC arc.

Give priority to traffic departing Perth.

Pearce ASPR contacts the PH SM to check the likelihood of such approaches being available before coordinating between affected sectors.

*Note: 79SQN HAWK aircraft require RWY 36 9 TAC arc tracking to complete some sorties to a full stop landing.*

### 3.2.6 Pearce IAP aircraft

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Treat aircraft returning to Pearce for a full stop landing in instrument conditions that require an instrument approach with equal priority to scheduled/non-scheduled RPT.

## 3.3 Aircraft exiting the Perth Basin

### 3.3.1 Aircraft A090 and above

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#### 3.3.1.1 Clearance issue

Clear aircraft planned A090 and above that have planned to exit the Perth Basin:

- a) via a TMA Departure gate;
- b) via the relevant SID if departing Perth;
- c) if not departing Perth, via the [Standard route clearances](#) table and then via points to get established on the flight planned route; and
- d) departing Perth or Pearce (when Pearce TCU active) maintain A050.

Coordinate with ML SM 3 when an operator is unable to comply with Australian Flight Planning requirements to determine what tracking is required outside Perth TMA airspace.

Where an operator is unable to depart via a published procedural SID or requires departure contrary to the traffic management plan, Perth ACD clears the aircraft on the radar SID via the planned procedural SID end waypoint, thence flight planned route.

Perth TCU processes aircraft that are not cleared via a procedural SID via the SID route to comply with noise abatement procedures.

#### 3.3.1.2 Level assignment

After departure coordination is completed, Perth ATC may assign aircraft transiting into Class C airspace FL180 or the planned level, whichever is lower.

### 3.3.2 Standard route clearances

When planned via the following gates	Ensure aircraft are cleared via
AMANA (jet)	AMANA
RAVON (non-jet)	RAVON
SOLUS	SOLUS
MANDU	MANDU
IPMOR	IPMOR
AVNEX (jet)	[AVPES VENUP] AVNEX
OTLED (non-jet)	[OSADA IRNOD LEVKA] OTLED
<b>On the South–West plan</b>	
BROOK (jet)	BROOK
CANRI (non-jet)	CANRI PUMRY
<b>On the North–East plan</b>	
BROOK (jet) then H18 MUBID	(AR) [AMANA MECKI BIRER] MUBID
BROOK (jet) then H18 BURGU Y135	(AR) [AMANA MECKI BIRER] HECTO (HECTO YESP for destination YESP)
BROOK (jet) then H18 BURGU Y53	(AR) [AMANA MECKI BIRER] MEMUP
CANRI (non-jet)	(AR) DORIS PIKIL thence next flight planned waypoint beyond PUMRY (PIKIL YNOV for destination YNOV)

For aircraft departing Perth, the waypoints in square brackets [ ] will not be issued by Clearance Delivery.

### 3.3.3 Pearce departures entering Perth or Southwest controlled airspace

#### 3.3.3.1 Pearce airways clearance delivery

Clear aircraft that plan to enter Perth CTA:

Planned	Clearance
Below A050	Flight planned route and level.
Between A050 and A080 inclusive	Flight planned route, MAINTAIN A050.
A090 and above	Via the TMA gate and route in accordance with the Traffic Management Plan in use and MAINTAIN A050.
<p><b>Note:</b></p> <p>1) <i>Navigation exercises must plan to avoid CTA C within 36 NM of Perth.</i></p> <p>2) <i>2FTS 'CUN diversions' planned A090 or below may be cleared YPEA – YCUN and will be processed subject to Perth TMA traffic.</i></p> <p>3) <i>Flights that plan to transit the Quokka release and enter Perth Class G may be assigned MAINTAIN FL120.</i></p>	

Clear aircraft that plan to enter Southwest CTA:

Planned	Route exits restricted airspace	Clearance
Below A090	ALL	Flight planned route, [LEVEL].
A090 and above	36–60 NM PH (above R153D)	Flight planned route, MAINTAIN A080.
	Remainder	Flight planned route, and: <ol style="list-style-type: none"> <li>a) [LEVEL] for aircraft planned between A090 and FL140 inclusive; or</li> <li>b) MAINTAIN FL150 for aircraft planned FL150 or above.</li> </ol>

#### 3.3.3.2 Level assignment and coordination on departure

Pearce ATC provides heads–up coordination to the relevant Perth/Southwest position.

On receipt of heads–up coordination, Perth/Southwest coordinates a level.



### 3.3.4 Control practices for aircraft outbound from PH/JT

#### 3.3.4.1 Perth TCU to PEW

Do not assign departing aircraft above A060 until heads-up coordination with PEW is completed. After coordination, assign a maximum of FL180 for aircraft planned at or above FL180, or a level up to the planned level if below FL180.

Coordinate any tracking that is different to the standard route.

In addition to the conditions of a clean hand-off as detailed in [Manual of Air Traffic Services \(MATS\) \(NOS-SAF-2000\)](#), PEW may vector or track aircraft direct to a waypoint provided the aircraft remains in PHD airspace.

#### 3.3.4.2 PEW/PEN to Southwest – controlled airspace

Do not assign above FL180 until level and/or tracking details have been entered into the GLOBAL\_OPS\_INFO field by Southwest.

Aircraft may be cleared direct AVNEX, OTLED or OPEGA without coordination to Southwest.

PEW is responsible for separation until the aircraft pass AVNEX or OTLED.

#### 3.3.4.3 Southwest to PEW

Enter tracking and level instructions in the GLOBAL\_OPS\_INFO field in the following order:

- a) Direct tracking when track shortening past AVNEX/OTLED or OPEGA is available (e.g ESDEG\);
- b) NVR or coordinated level – this may be omitted if it coincides with the level issued in a restriction (e.g. 290); and
- c) Restriction, if applicable (e.g. ESDEG\290R240x16E or ESDEG\R350x16ESDEG).

**Note:** *Tracking and level instructions will not be entered until departing aircraft are coupled in Eurocat. This is to avoid overwrite issues with INTAS.*

Assign at least FL160 to aircraft departing Pearce Restricted Areas.

**Note:** *This will provide separation with Pearce training areas.*

#### 3.3.4.4 Coordination between Southwest and Pearce

When coordinating between Southwest and Pearce:

- a) Apply clean hand-offs between Pearce and Southwest;
- b) Pre-coordinate aircraft that will re-enter preceding sectors airspace; and
- c) Coordinate aircraft that infringe or re-enter R168A unless the nominal track from Pearce resulted in the infringement.

### **3.3.5 Using the GLOBAL\_OPS\_INFO field – outbound**

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Only Southwest sectors may enter tracking and level instructions into the GLOBAL\_OPS\_INFO field for outbound aircraft that are entering Southwest airspace.

## **3.4 Aircraft entering the Perth Basin**

### **3.4.1 Issue STARs for YPPH, YPJT, YPEA**

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Issue STARs where published for IFR aircraft at or above A090 that are arriving at YPPH, YPJT or YPEA.

*Note:* STAR plates include expectations to receive radar vectors to YPEA/YPJT inside 36 NM Perth.

### **3.4.2 When a STAR cannot be accepted**

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Process aircraft that cannot accept a STAR via the relevant STAR waypoints and include VNAV requirements where specified.

### **3.4.3 Non-standard tracking**

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Requests for non-standard tracking must be coordinated to PHF by the initiating agency prior to the amended clearance being issued.

### **3.4.4 Responsibilities for aircraft transiting Pearce areas inbound to YPPH/YPJT**

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#### **3.4.4.1 Southwest to PEW – controlled airspace**

Heads-up coordination to PEW is not required when:

- a) FL190 is assigned; and
- b) the aircraft is on the standard route or pre-coordinated tracking.

#### **3.4.4.2 PEW to Perth TCU**

Prior to coordination, PEW may assign A090 or the planned level if it is below A090.

PEW coordinates with Perth TCU prior to hand-off.

On receipt of coordination, Perth TCU coordinates a level.

#### **3.4.4.3 PHF to PEW**

Coordinate sequencing instructions to PEW when required.

### **3.4.5 Using the GLOBAL\_OPS\_INFO field – inbound**

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Only PHF or Southwest / Pearce under direction of PHF may enter instructions into the GLOBAL\_OPS\_INFO field for aircraft inbound to YPPH and YPJT.

### 3.4.6 Coordination between RAAF Pearce and Southwest

Voice coordination is not required for aircraft entering Pearce Restricted Areas from Southwest Class G airspace provided a system hand-off to Pearce TCU (via Eurocat label transfer) is completed 10 NM prior to the applicable airspace boundary.

### 3.4.7 QANTAS DARP transit requests – Inbound to Perth

By 0800Z the day prior to the flight:

- a) Qantas will request DARP transit of R165/R168AB on or west of the POKIP – KAGMI track from the PEA ASPR.
- b) Pearce ASPR advises ML SM3 via email [ml.sm3@airservicesaustralia.com](mailto:ml.sm3@airservicesaustralia.com)

The day of the flight:

- a) If an approved transit is withdrawn, Pearce ATC will advise ML SM3 via email [ml.sm3@airservicesaustralia.com](mailto:ml.sm3@airservicesaustralia.com) 30 minutes prior to activation of the Pearce Restricted Areas.
- b) Pearce ASPR will, once QFA10 is established within surveillance coverage, approve tracking to BITAP, KALBO or IPMOR if the tactical traffic disposition allows.

**Note:** Pilots will only request transit of R165/R168AB if approved by Pearce ATC the day prior.

## 3.5 Transit of Pearce Areas

### 3.5.1 Standard routes

Aircraft on Perth standard routes may transit Pearce Restricted Areas on routes above A100 as detailed in these instructions. Exceptions to standard routes are detailed in the table below.

**Note:** The standard route clearance tables and [ERSA GEN FPR](#) describe these. The route structure is dependent on the Traffic Management Plan.

If the aircraft flight plans to transit	Issue clearance via
R162 at any level	planned route
R165, R168AB, R156 below FL160	OTKUN SID. RANGU SID, or OTKUN – UPTEK – BUVEL at or below A050, or an alternate route through civil CTA

**Note:**

- a) Levels up to A100 may be available on request.
- b) For OTKUN – UPTEK – BUVEL route, see [ERSA](#) – Pearce.

## **3.6 Pearce Aerodrome Flight Information Service (AFIS)**

### **3.6.1 Activation**

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#### **3.6.1.1 Pearce AFIS Officer (AFISO) responsibility**

When Pearce AFIS airspace is required, the Pearce AFISO:

- a) arranges NOTAM publication;
- b) advises PH SM by telephone 20 minutes before activation; and
- c) advises PHR on activation.

When the Pearce AFIS is activated, the Pearce AFISO:

- a) broadcasts details at activation of the Pearce AFIS Airspace; and
- b) provides an Aerodrome Flight Information Service.

Pearce AFISO may contact Perth TCU to request an accurate ETA.

#### **3.6.1.2 Perth TCU responsibility**

PHR will advise Pearce AFISO of traffic at the time of activation.

PHR will broadcast details prior to activation of the Pearce AFIS airspace.

### **3.6.2 Aircraft arriving at Pearce during AFIS**

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#### **3.6.2.1 Pearce AFISO responsibility**

If the observed weather differs significantly from that provided by the automated weather information service (AWIS), advise Perth TCU at least 20 minutes before the aircraft's ETA.

#### **3.6.2.2 Perth TCU responsibility**

Transfer the aircraft to the Pearce AFIS frequency (118.3 MHz) prior to the airspace boundary.

### **3.6.3 Aircraft departing Pearce during AFIS activation**

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#### **3.6.3.1 Departing aircraft**

Aircraft will contact Perth Centre for an airways clearance in accordance with ERSA.

## 3.7 RAAF test flights

### 3.7.1 Test flight areas

Pearce Air Test Area	Lateral limit	Vertical limit
Alpha	Civil airspace within the lateral confines of R155A/B/156 west of the 350 PEA TACAN radial and west of the 190 PEA TACAN radial in R155A.	FL160 – FL450 inclusive  Southwest LUL FL470
PEW must coordinate with both LEA and PIY when requiring an Air Test Area.		

**Note:**

- a) *Pearce based aircraft occasionally require operations above FL150 over land to conduct performance checks. The checks require unrestricted climb, random manoeuvring at altitude and unrestricted descent.*
- b) *RAAF Hawk aircraft may also require these areas when a sea state of greater than five exists or when other factors preclude over water operations.*

### 3.7.2 Air test release and return

#### 3.7.2.1 Pearce responsibilities

PEW requests the release of the air test airspace from Southwest.

Release the airspace to Southwest and provide traffic information when:

- a) the area is no longer required; or
- b) it is requested. The RAAF must vacate the area as quickly as possible.

#### 3.7.2.2 Southwest responsibilities

Southwest may:

- a) refuse release of the air test airspace;
- b) negotiate alternate dimensions (e.g. west of the Pearce 360 TACAN radial); and
- c) resume the airspace at any time.

Southwest should release the airspace to PEW as soon as practical and provide traffic information when released.

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## **4 Business continuity**

### **4.1 ATS system management**

#### **4.1.1 Changing radar settings**

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When primary radar site adjustments at either the PH or KMD radar are required, Perth TCU coordinates with the radar technicians, ML SS and Pearce ATC.

#### **4.1.2 Perth TCU equipment failure**

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Follow the Eurocat Degraded Mode Operations Handbook (TCU) when there is an equipment failure.

Report all failures to the ML SS and Service Desk, Airways.

#### **4.1.3 Telephone usage**

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Contact relevant sectors via telephone if communication lines are affected.

#### **4.1.4 ATS civil contingency**

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When an ATS contingency affects Airservices administered airspace, the ATMD or Contingency Response Manager will forward a checklist appropriate to the contingency to the relevant Defence unit(s) by fax or email. Defence will use the checklist to respond to the ATS contingency.

### **4.2 Pearce TWR emergency operations**

#### **4.2.1 Tower not open**

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If Pearce tower is not open, advise the Pearce RFFS, the Pearce Duty Controller and the 453SQN PEA FLTCDR when an unplanned or emergency operation will affect the Pearce aerodrome.

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## 5 Contact numbers

<b>RAAF Pearce</b>	
FLTCDR	0467 718 182
OPSCDR (Tower)	08 9571 7442
Tower	08 9571 7442
ASPR	08 9476 8622
TSPR	08 9571 7442
Pearce Duty Controller/Pearce Emergency mobile	0404 824 081
OPSCDR (Approach)	08 9476 8651
RFFS	08 9571 7333
<b>Melbourne Centre</b>	
ML SM 3	03 9235 7492
ATMD	03 9235 7420
ML SS	03 9235 7402
<b>Perth TCU</b>	
SM	08 9476 8620
<b>Navy</b>	
FXP Cell–West	08 9580 2010 After hours: 0418 225 754
Maritime Operations Watchkeeper	02 6128 4339
Lancelin Caretaker/Range Control	08 9655 1118 or 0438 201 804
Lancelin Tower	08 9655 1659
<b>Army</b>	
Bindoon Range	08 9576 5001 or 0412 564 121

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