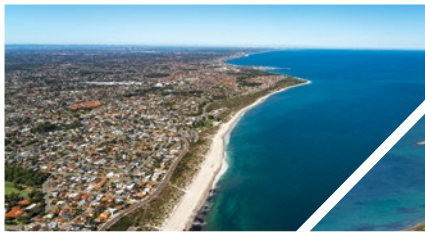
Australian Government
Civil Aviation Safety Authority





Stay OnTrack:

FLYING THE PERTH REGION

Procedures
Ground operations
Hotspots
Radio frequencies
Tracking points

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This guide is an aid for VFR pilots to use when flying into, out of and around the Perth region.
It is designed to help you in planning and conducting your flight.

The guide was developed with the assistance of operators in the Perth region.

For comments and suggestions on improving this guide, contact CASA Safety Promotion at **safety.promotion@casa.gov.au**

Disclaimer: This information has been prepared for educational purposes only and was correct at the time of publishing.
Always check ERSA, NOTAMs and weather before you fly.

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Contents

Perth procedures overview

Jandakot Class D airspace is unique as it abuts Perth CTR to the north, has Class G airspace to the west, south and east, and has Class C airspace directly above its upper limit of 1,500 ft. Jandakot Airport hosts a number of aeroplane and helicopter flying schools and, as a result, the circuit and Class G airspace surrounding Jandakot are often very busy.

Training flights regularly transit to, and operate in, the training area to the south (D104C). Know your procedures for safe flight through these areas. If departing Jandakot and planning to enter Perth Class C airspace, see the procedures listed later in this document. If you call for a clearance without having lodged a flight plan, it could lead to delays.

At Jandakot, you share the airspace with a diverse mix of traffic and pilot experience. If in any doubt about local procedures, unfamiliar or uncurrent pilots should study this guide carefully and/or call a local operator or ATC for advice. Helicopters operate routinely in the Perth/Jandakot area. Lifesaver helicopters are active in the warmer months with low-level coastal patrols a few times each day.

Local helicopter operations have 2 HLS areas on Jandakot Airfield as well as a helicopter training area within the airfield bounds. Details can be found later in this document as well as in ERSA. In all these situations, clear, concise and correct communication is the key to safe operations in this busy airspace. Study and know your procedures.

Rottnest Island (RTI) CTAF

Rottnest Island CTAF hosts a variety of traffic including private flights, VFR and IFR training flights, charter flights, military flights, helicopter shark spotting flights and parachute jumping flights. As a result, it can get quite busy at times and it is important that pilots build a clear picture of where traffic is and what it is doing while operating in the RTI CTAF. This can only occur if pilots are communicating clearly on the correct frequency.

Flights conducting IFR training should use calls that VFR pilots will understand. For example, the phrase ‘inbound on the RNAV runway 09’ will not likely be understood by a non-instrument rated pilot. A better phrase may be ‘4 miles to the west inbound for straight-in approach’.

If you are deconflicting from both instrument and visual traffic, it may be necessary to make both calls.

If you hear any calls related to parachute jumping, ensure you understand what is being said and how that will affect your operations. Parachute landing areas can be located very close to the runway centreline on finals so it is important you have a clear picture of what is happening, if in any doubt, speak up. Ask the parachute ops pilot to repeat the message if necessary and to use plain English if you do not understand. RTI is a beautiful flying destination and can be enjoyed by all if everyone communicates effectively and follows correct CTAF procedures.

General military information

Conditional RA (Restricted Area) status

The status of restricted areas (RAs) appears in the DAH and ERSA and is presented in a table on the VTC/VNC. This status indicates which types of restricted airspace it is possible to get a clearance through. NOTAMS are issued to list activation times and levels for military restricted airspace and MUST ALWAYS be consulted before flights through these areas to avoid airspace infringements.

RA conditional status legend

RA1: Pilots may flight plan through the RA and, under normal circumstances, expect a clearance from ATC.

RA2: Pilots must not flight plan through the RA unless on a route specified in ERSA GEN FPR, or by agreement with the Department of Defence. However, a clearance from ATC is not assured. Other tracking may be offered through the RA on a tactical basis.

RA3: Pilots must not flight plan through the RA and clearances will not be available.

Numerous restricted military areas surround Perth and Jandakot. Most of these areas are associated with flying training operations from RAAF Base Pearce (e.g. R155A), but several are associated with live firing of military weapons, including naval ship-to-shore gunnery. It is imperative that pilots check NOTAMS to assess the active state of these areas. Military airspace is activated by NOTAM and may become active at short notice. Check the status prior to going flying and, if in doubt while airborne, check with ATC on the frequency you are on. R155A is one of the airspace infringement hotspots in the Perth area (see following section of this document). Aircraft transiting the coastal route north or south need to be aware of its proximity. Proper planning using correct charts and current NOTAMS will help prevent airspace incursions. Also, always have your transponder turned on and monitor the correct radio frequency for the area.

Airspace infringement hotspots: north and west

1. Airspace infringement hotspot Arriving from the northwest

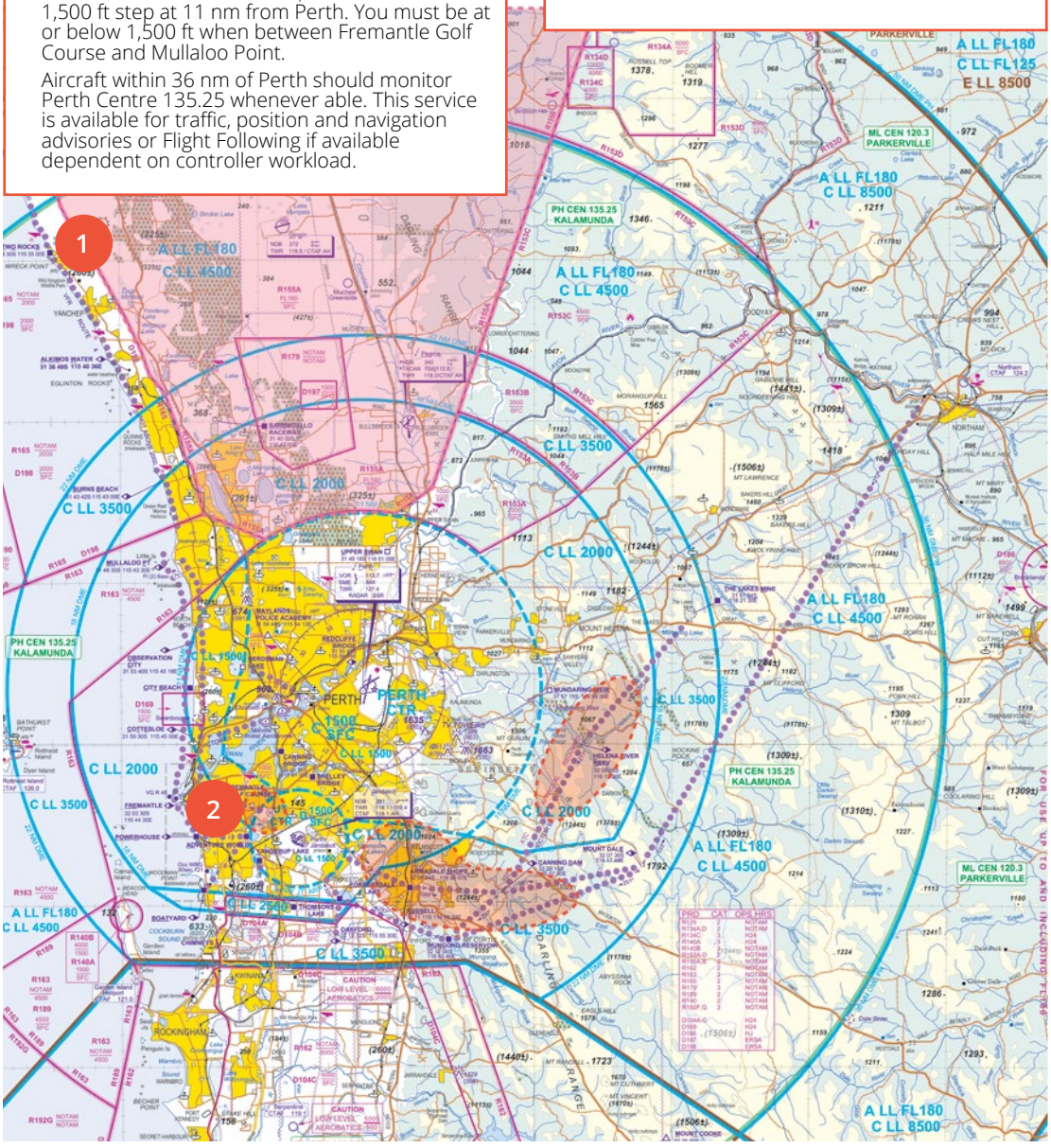
Track in the coastal corridor clear of Pearce restricted airspace and Perth controlled airspace. Be sure to observe both the Pearce restricted airspace and Perth controlled airspace steps.

Remain within 2 nm of the coastline to avoid the Pearce airspace, and remain below 2,000 ft. When in the coastal corridor, be aware of the 1,500 ft step at 11 nm from Perth. You must be at or below 1,500 ft when between Fremantle Golf Course and Mullaloo Point.

Aircraft within 36 nm of Perth should monitor Perth Centre 135.25 whenever able. This service is available for traffic, position and navigation advisories or Flight Following if available dependent on controller workload.

2. Airspace infringement hotspot Inbound via Adventure World

Report at Boatyard or Powerhouse for abbreviated clearance. Report at Adventure World. You may receive circuit joining instructions if not inferred in abbreviated clearance. Have an alternative plan and a suitable decision point if you do not receive clearance, or are unable to call prior to entering controlled airspace.



Airspace infringement hotspots: south and east

1. Airspace infringement hotspot Inbound via Forrestdale Lake

Report at Oakford or Russell for abbreviated clearance. Report at Forrestdale Lake. You may receive circuit joining instructions if not inferred in abbreviated clearance. Have an alternative plan and a suitable decision point if you do not receive clearance, or are unable to call prior to entering controlled airspace.

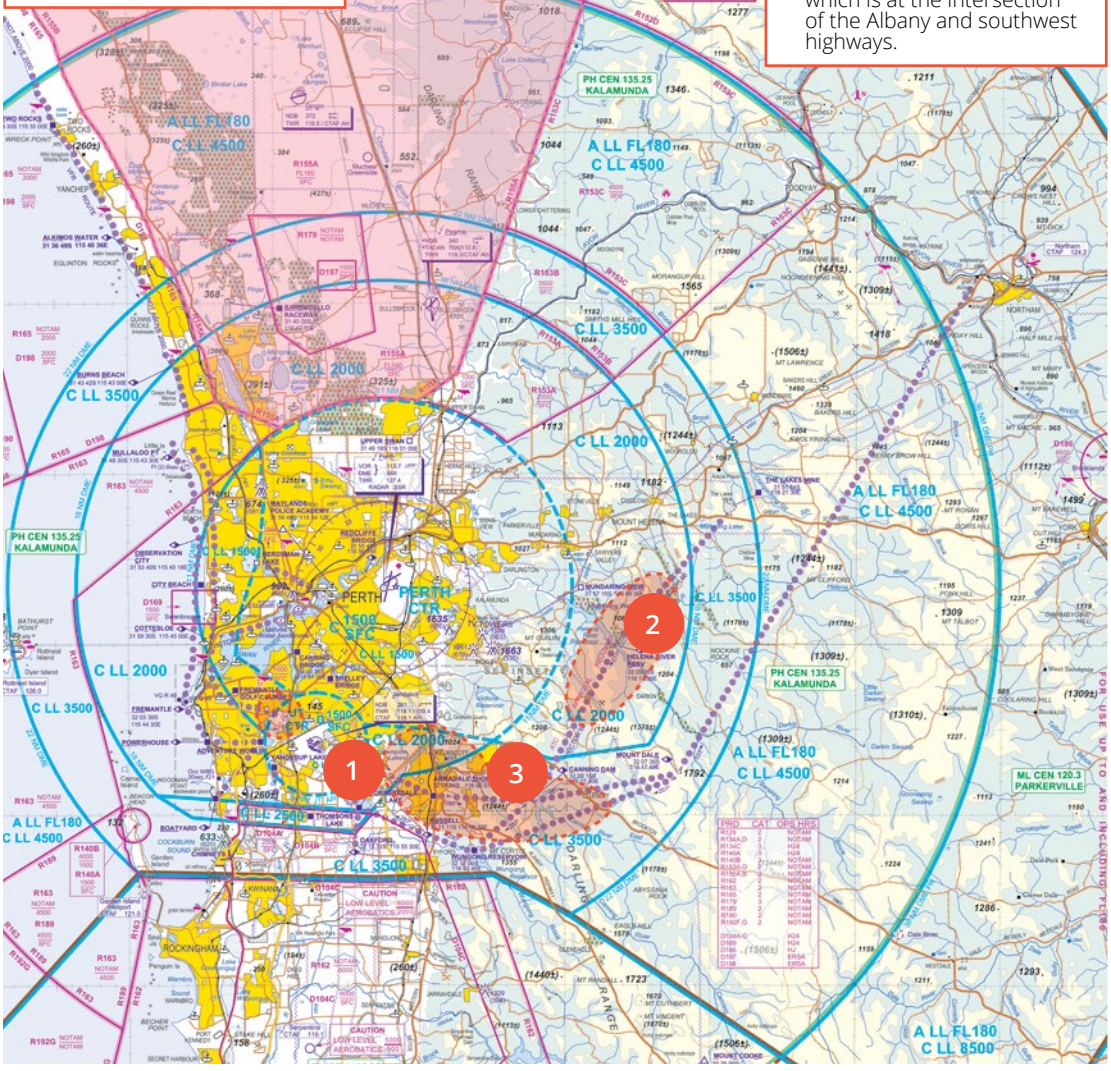
2. Airspace infringement hotspot Helena River Reservoir area

Use visual or distance checks to remain clear of CTA. Make sure you are tracking clear of or under the 2,000 ft step to the north. When tracking to the north above 2,000 ft OCTA, overfly Mt Dale before turning.

Step distances are from Perth, not Jandakot, therefore be cautious when using GPS.

3. Airspace infringement hotspot East of Jandakot in the Armadale Shops – Canning Dam – Mt Dale area

Tracking outbound from Jandakot to the east via Armadale Shops, do not climb above 2,000 ft until at or past Armadale Shops. Be cautious of the overlying CTA steps and be sure to track south of the Brookton highway to the Armadale Shops (SHOP) position, which is at the intersection of the Albany and southwest highways.



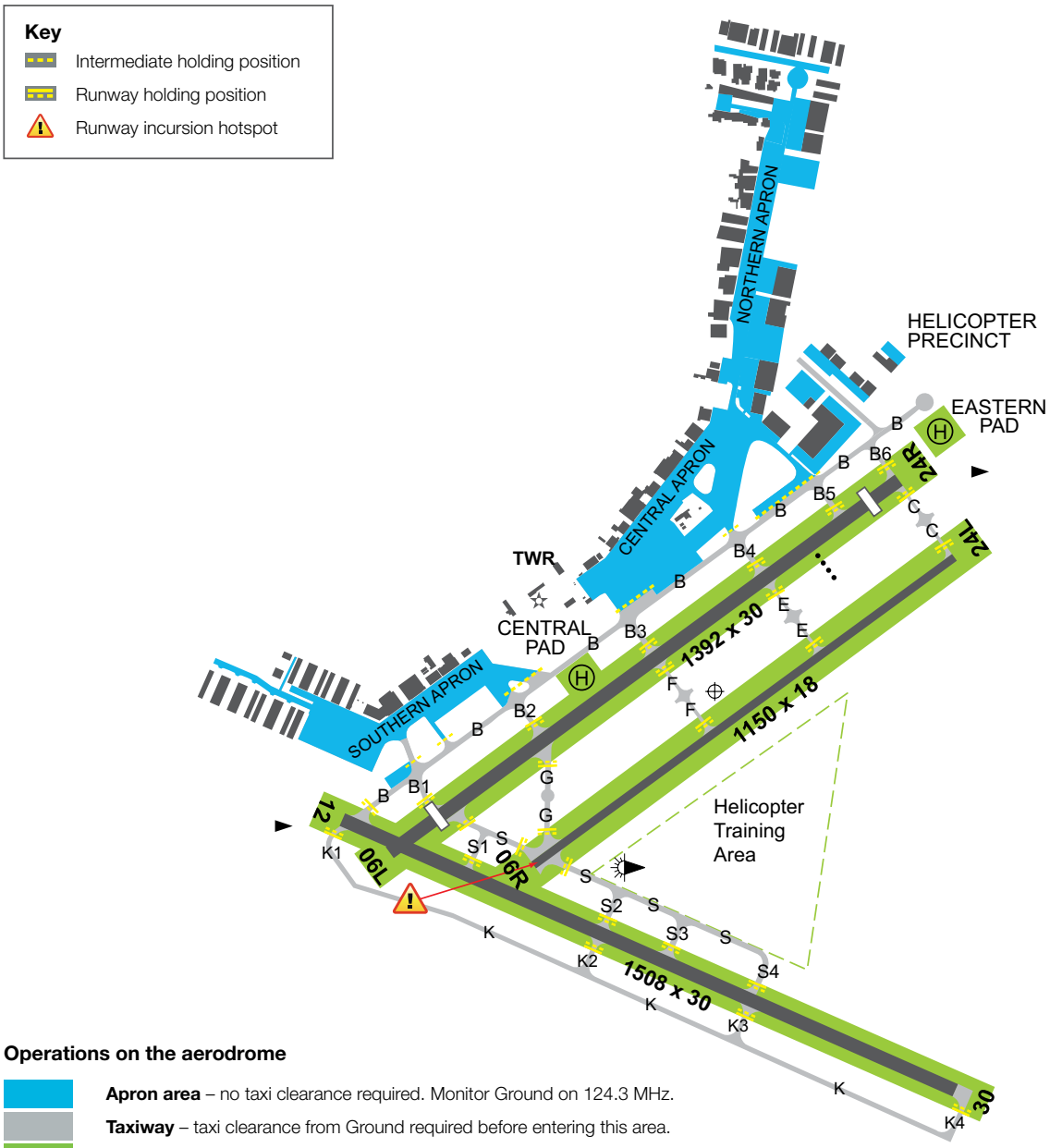
Jandakot ground operations

Due to multiple runways, a parallel runway, multiple apron areas and a diversity of aircraft types, ground operations at Jandakot must be conducted correctly and safely to minimise the risk of runway incursions and other ground incidents. There are several runway incursion hotspots at Jandakot that pilots MUST be aware of (see diagram). Pilots should make a thorough study of the apron map and plan their taxi routes accordingly. If in any doubt while taxiing, contact ATC and clarify the situation.

Look for holding points and get clearance prior to crossing

Jandakot helicopter operations

Jandakot has 2 helicopter pads (central and eastern) as well as a helicopter training area. The Airfield Diagram on the following page shows the location of these sites. Outside tower hours or when Class G airspace is in place, ALL helicopter arrivals and departures are to be conducted from HLS or RWY. Unless otherwise approved by ATC, all helicopters arriving to or departing from the JKT CTR must comply with the fixed-wing procedures listed in ERSA. ERSA lists numerous other helicopter operations requirements and these should be read and understood by all helicopter pilots prior to operating in Jandakot airspace.



Operations on the aerodrome

Apron area – no taxi clearance required. Monitor Ground on 124.3 MHz.

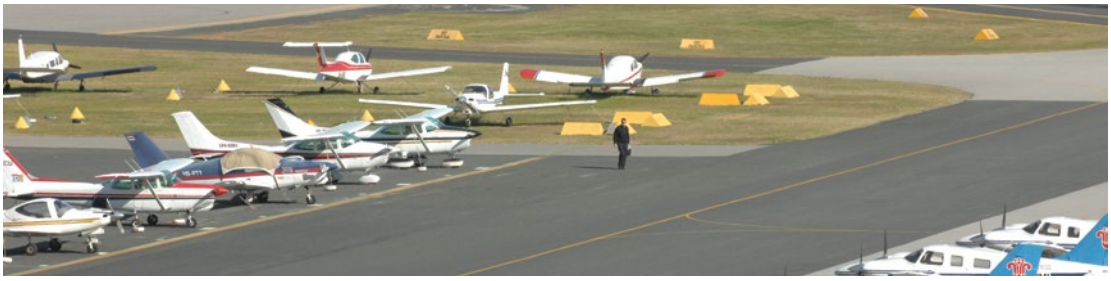
Taxiway – taxi clearance from Ground required before entering this area.

Runway – specific clearance required from ATC before entering this area.

Definitions

Apron area	A defined area intended to accommodate aircraft for purposes of loading or unloading passengers, mail, cargo, fueling, parking or maintenance.
Taxiway	A defined path established for the taxing of aircraft and intended to provide a link between one part of the aerodrome and another.
Runway	A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Ground operations



Key areas when planning to navigate around an aerodrome are:

- study the layout, paying particular attention to complex intersections and RWY incursion hotspots in ERSA
- anticipate your taxi route to and from the RWY in use based on information from the ATIS, NOTAMs, ERSA, recent experience and the aerodrome chart
- have the aerodrome chart or diagram readily available to use during the planning phase and while taxiing
- check the route on which you are taxiing against the chart or ERSA and again, pay special attention to complex intersections
- continually scan for conflicting traffic and holding point markings
- confirm your assigned route if you are in doubt about the taxi instructions received from a controller.

A specific clearance is required to enter, backtrack, line-up on, cross or take-off from a runway. When taxiing, ensure you have received a specific clearance to cross any runway on your taxi route.

The clearance will include your callsign and the words 'CROSS RWY XX'. An ATC clearance to line-up does not authorise the pilot to backtrack on the runway.

While taxiing, the use of standard operating procedures and your radio will increase the safety of operations. This includes following instructions from ATC, confirming your understanding of ATC instructions by ensuring correct readbacks, maintaining situational awareness, using all resources available and ensuring effective pilot/controller communication practices. At the holding point, ensure your 'ready' call is on the correct frequency.

Using non-standard radio calls or readbacks affects the ability of ATC to understand your intentions and confirm that you have understood your clearance.

The principle of good communication is to effectively articulate:

- who you are
- where you are
- what you want.

When landing, runway confusion can be avoided by:

- paying careful attention to runways in clearances
- always reading back an assigned runway in full
- taking sufficient time during the approach briefing to determine how positive runway identification will be achieved, particularly if using a non-precision, circling or visual approach
- visually identifying the correct runway before entering or landing on it, depending on weather conditions
- distinguishing between runway lighting and taxiway lighting, which are coloured differently.

Radio use – Requesting taxi clearance

ATIS available on Freq 128.65, NDB 281 (TWR Hrs Only)
Telephone (08) 9476 8755

Jandakot Terminal Information _____ **Runway** _____ **Wind**_____

X-Wind_____ **Visibility**_____ **Cloud**_____ **Temperature**_____ **QNH** _____

Requesting taxi clearance:

Before calling surface movement control, check that your radio receiver is functioning correctly and obtain the current ATIS. The preferred method for checking your radio is to monitor the ATIS.

Jandakot Ground Freq 124.3

Jandakot Ground, _____

(*Aircraft callsign*), _____ **P.O.B.**

(_____ (*Dual / Solo if applicable*))

Received _____ (*ATIS*),

at _____ (*Location on airfield eg, GA*), departure via _____

(exit point). **Request taxi.**

read back

Cleared to taxi, runway

_____ **via Taxiway**

_____ (*Taxi route Details*), **Cross / Hold at**

_____ (*Holding point instructions*), _____ (*Callsign*).

Local traffic regulations

Start approval required for fixed wing aircraft conducting circuit training operations during tower hours.

Contact Jandakot Ground on 124.3 to obtain start approval.

Jandakot Ground, _____

(*Aircraft callsign*), _____

at _____ (*Location on airfield*),

Received _____ (*ATIS*),

request start for circuits.

read back

Cleared to start or expect a delay of

_____

Radio use – Holding points and take-off clearance

Ground FREQ 124.3

Jandakot Ground, _____

(*Aircraft callsign*), _____

_____ **Request cross holding point**_____ (*Holding point identifier*)

read back

Cross / Hold holding point

_____ (*Holding point identifier*).____ (Callsign).

Tower FREQ 118.1 / 119.4

Jandakot Tower, _____

(*Aircraft callsign*),_____ **Ready Runway** _____ (*runway number*), for departure _____ (east, south, west).

read back

Cleared for take-off runway

_____ *(runway identifier*), _____ **(left/right turn, maintain runway heading)**

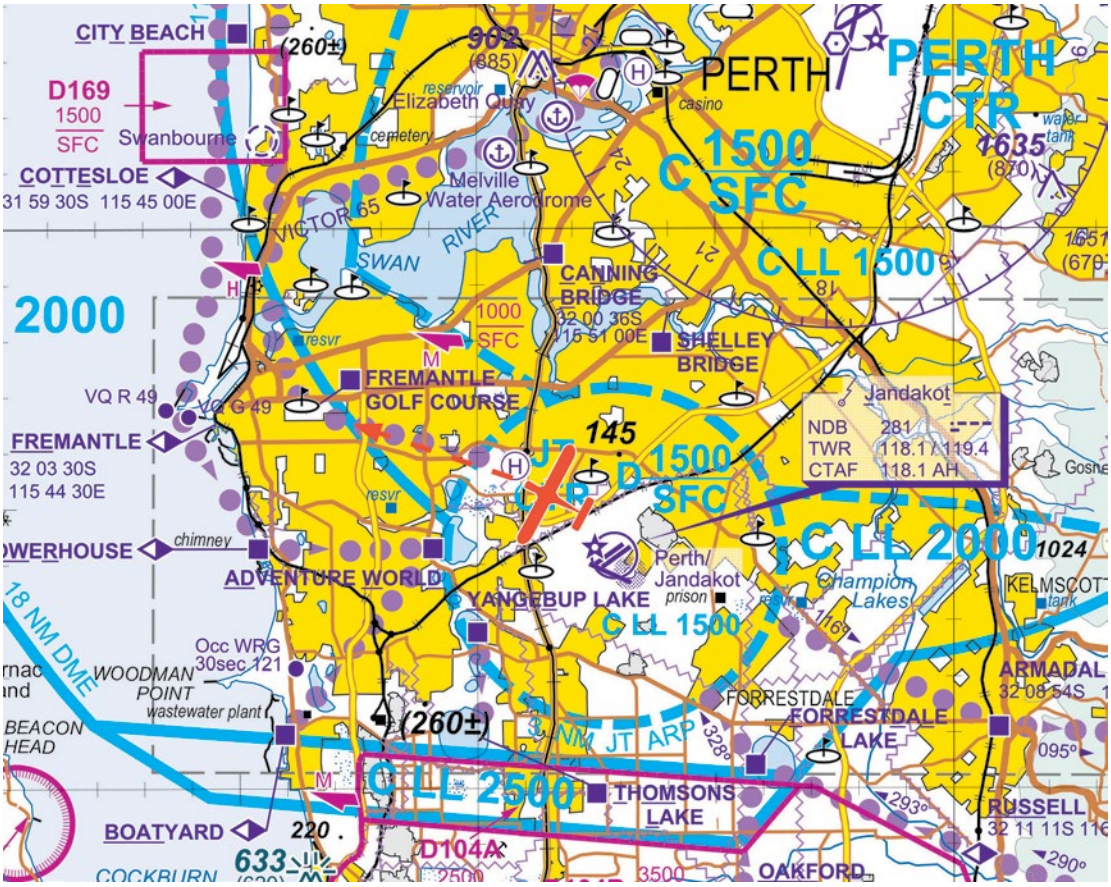
_____ *(Callsign*)**.**

The following components of an ATC transmission require accurate readback:

1. an ATC route clearance in its entirety, and any amendments
2. en route holding instructions
3. any route and holding point specified in a taxi clearance
4. any clearances, conditional clearances or instructions to hold short of, enter, land on, line-up on, wait, take-off from, cross, taxi or backtrack on any runway
5. any approach clearance
6. assigned runway, altimeter settings directed to specific aircraft, radio and radio navigation aid frequency instructions
7. SSR codes, data link logon codes
8. level instructions, direction of turn, heading and speed instructions.

Departure and tracking – west

All VFR aircraft are required to depart JKT CTR into Class G airspace.
Departure altitude is 1,000 ft.

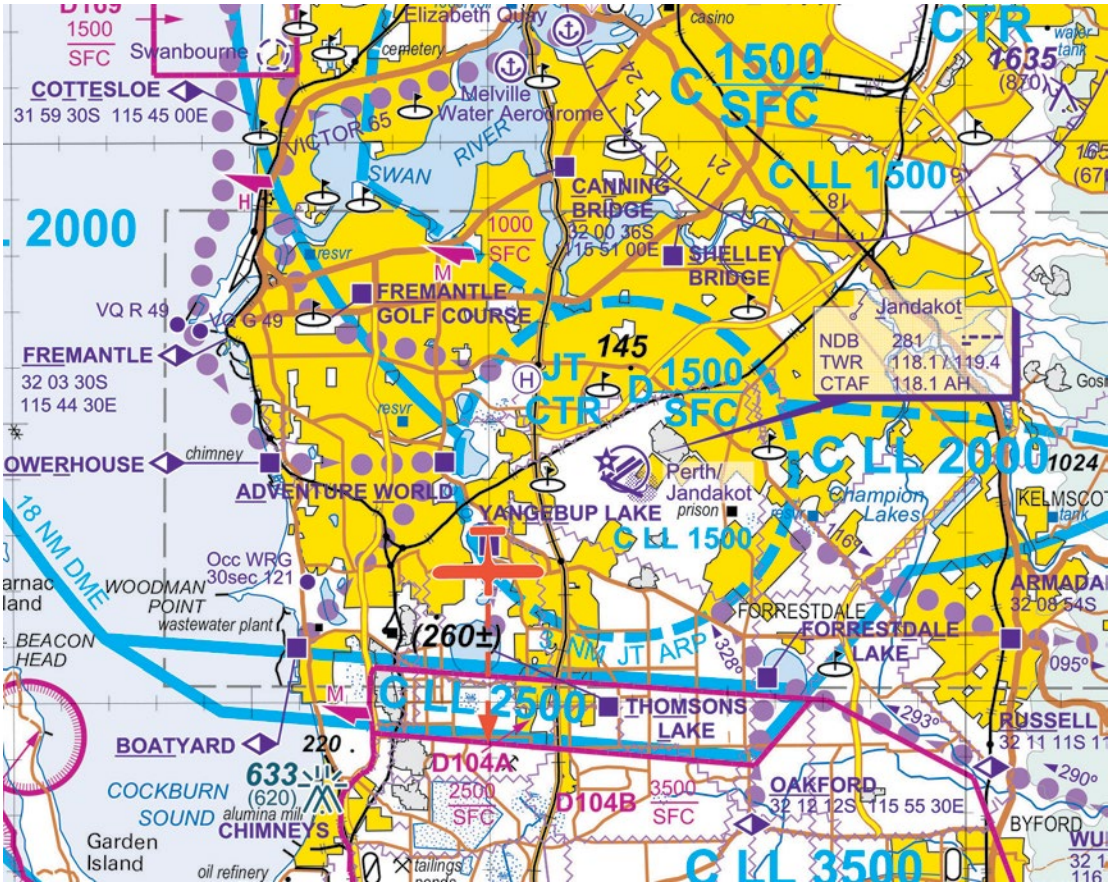



Fiona Stanley Hospital


Fremantle golf course

Departure and tracking – south

All VFR aircraft are required to depart JKT CTR into Class G airspace.
Departure altitude is 1,000 ft.

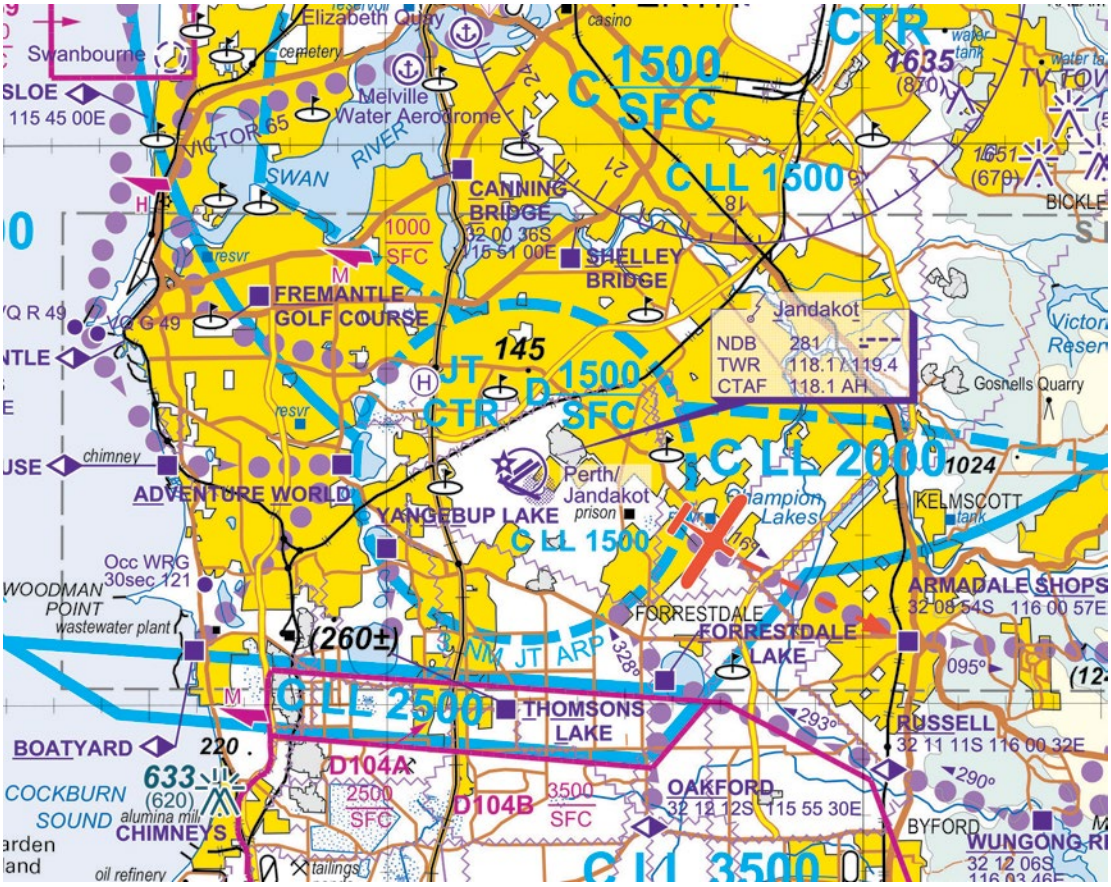


Yangebup Lake

Thomsons Lake

Departure and tracking – east

All VFR aircraft are required to depart JKT CTR into Class G airspace.
Departure altitude is 1,000 ft.



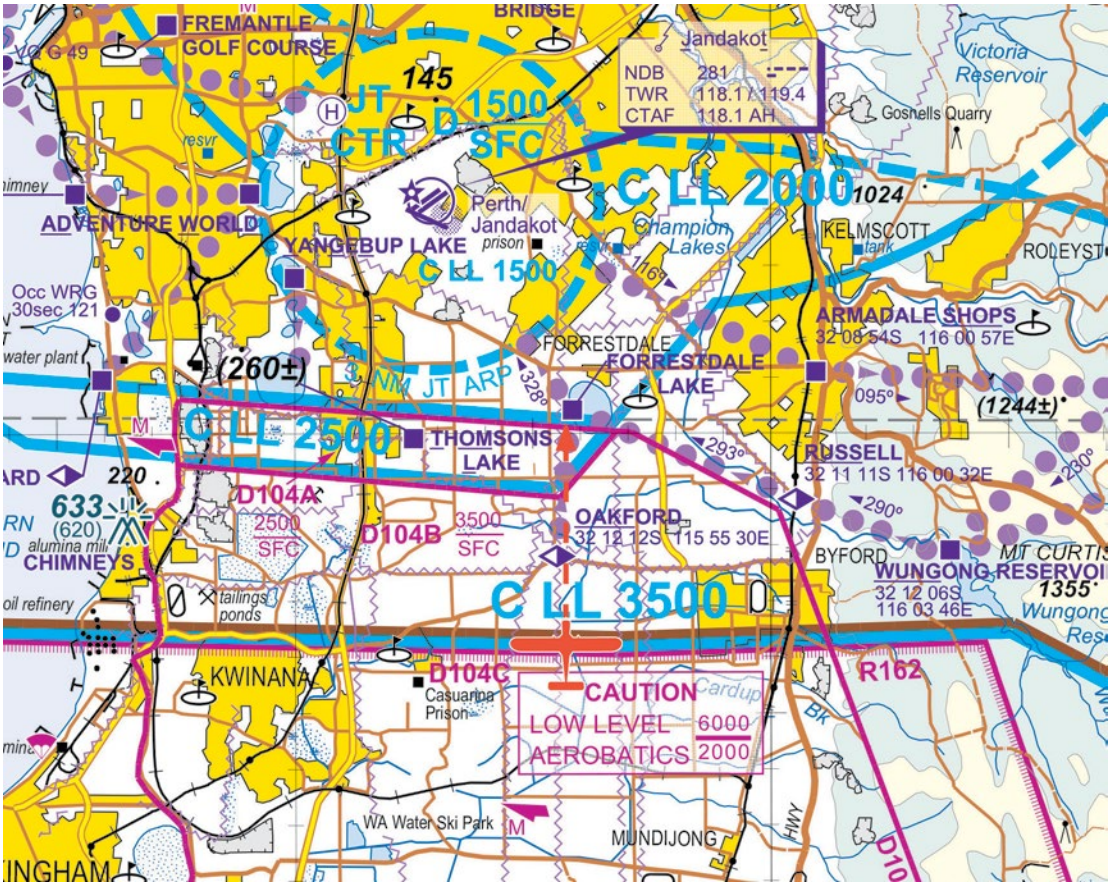
Armadale SHOP

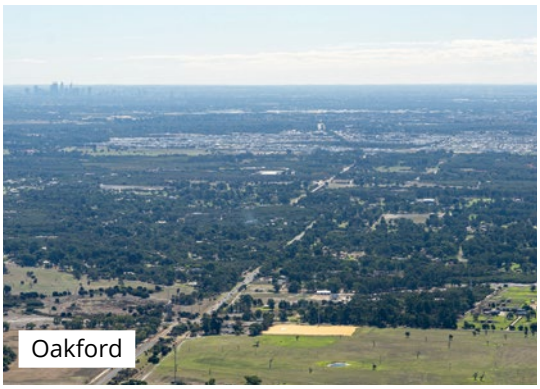
Arrival and tracking – from the west

Aircraft inbound to Jandakot are to display landing light where possible. During daylight hours, JKT CTR entry altitude is 1,500 ft. VFR aircraft arriving from the west should track via and report at BOAT or POWR then report at ADWD.

Arrival and tracking – from the south

Aircraft inbound to Jandakot are to display landing light where possible. During daylight hours, JKT CTR entry altitude is 1,500 ft. VFR aircraft arriving from the south should track via, and report at, OAKF and FDL.



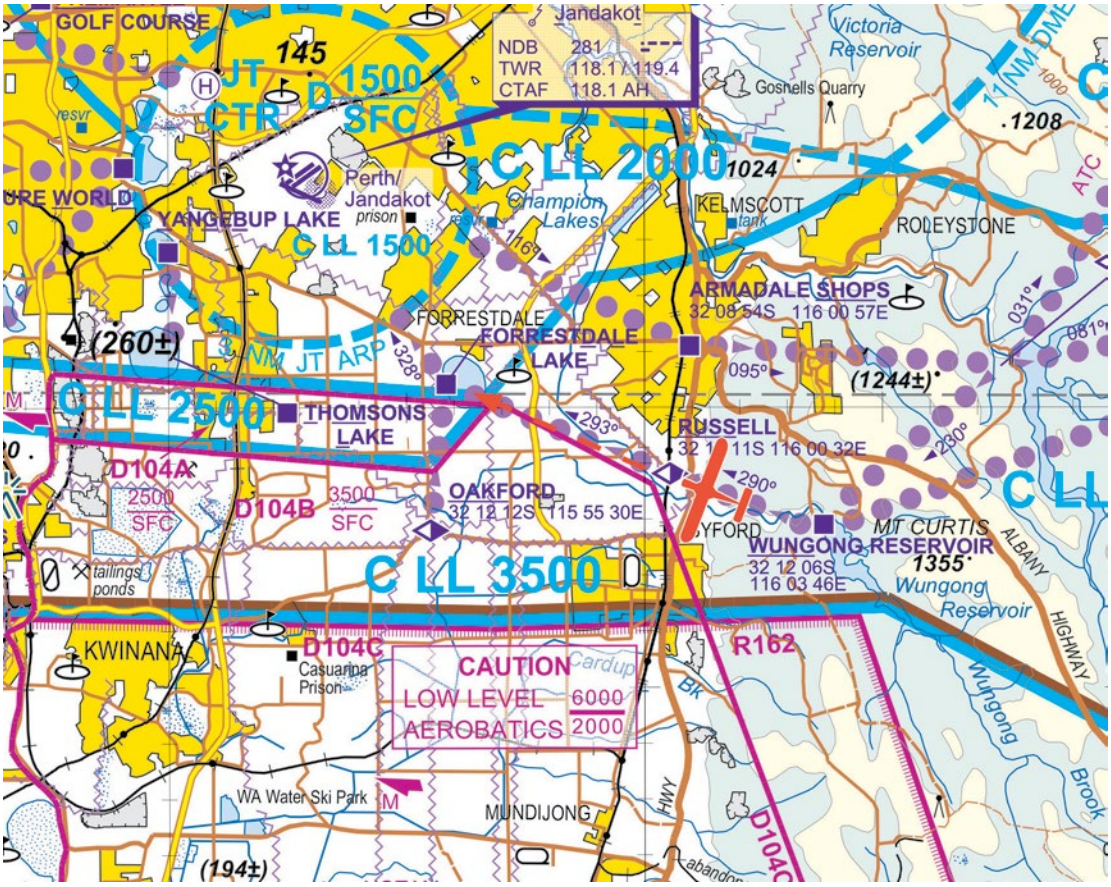


Oakford

Forrestdale Lake

Arrival and tracking – from the east

Aircraft inbound to Jandakot are to display landing light where possible. During daylight hours, JKT CTR entry altitude is 1,500 ft. VFR aircraft arriving from the east should track via, and report at, RUSS and FDL.



Russell

Wungong Reservoir

Coastal lane

When heading southbound in the coastal lane, ensure you remain over water at all times as northbound aircraft will be tracking over land. The Pearce airspace starts just 2 nm inland. Northbound traffic should be aware of this and not travel too far inland and be below 4,000 ft by Cervantes and 2,000 ft by Lancelin. Approaching Mullaloo Point, commence your descent to below 1,500 ft to stay clear of the Perth CTA step. This is an area of high numbers of violations of controlled airspace.

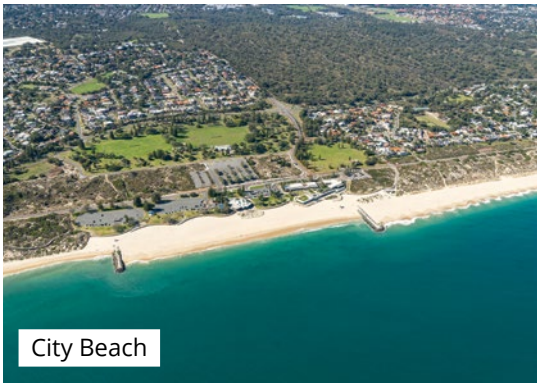
Alkimos water

Burns Beach

Looking south towards Mullaloo point

Aircraft within 36 nm of Perth should monitor Perth Centre 135.25 whenever able. This service is available for traffic, position and navigation advisories or Flight Following if available dependent on controller workload.

Observation City

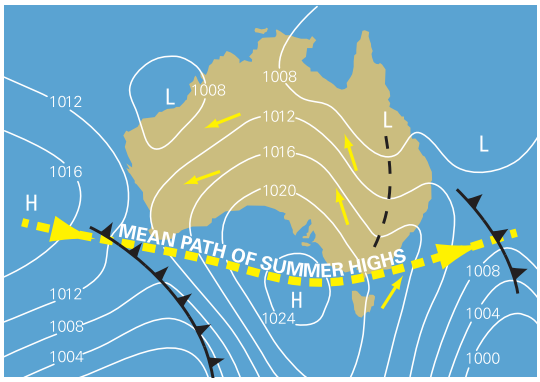


City Beach

Cottesloe Beach

Weather in Perth

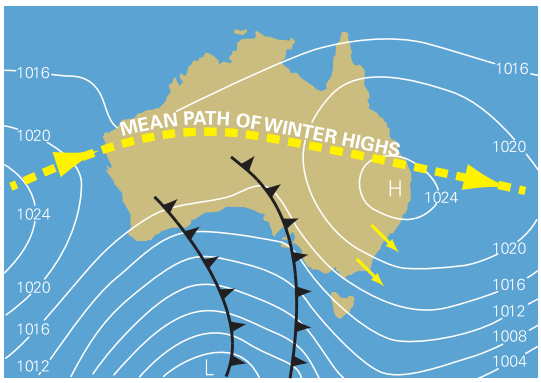
The climate of south-west Australia is largely of Mediterranean type with mostly cool wet winters and warm to hot dry summers. It is useful to consider flying conditions from a 'winter' (May to September) and a 'summer' (November to March) perspective. There is a transitional period between the 2 seasons, with October and April being the transition months.



Summer

Summer, with its long periods of clear skies, presents the best flying conditions; however, hazards may be present in the form of:

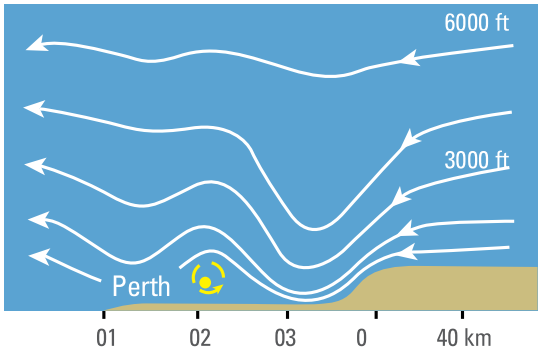
- thunderstorms
- tropical cyclones (occasionally)
- mechanical turbulence (particularly near the Darling Scarp)
- dust storms
- low cloud (occasionally), particularly coastal.
- smoke (from bushfires).



Winter

Adverse flying conditions in winter are usually associated with one of the following systems:

- orographic lifting of low-level moist air by the terrain leading to extensive low cloud
- cold fronts
- fog, particularly on the days following the passage of a cold front
- cut-off lows
- cloud bands
- localised convergence of moist air near the coast, giving rise to low cloud and drizzle



The diagram above depicts the disturbed flow and rotor formation between the Darling Scarp and the coast.

Radio use and general procedures when Jandakot Tower is closed

- CTAF – AFRU 118.1
- Class C airspace above 1,500 ft remains active when JKT TWR is closed.
- During daylight hours, standard Class D departure and arrival tracks should be used.
- A maximum of 5 aircraft may operate for circuit training.
- Aircraft conducting circuit training outside of tower hours should broadcast intentions downwind.
- Outside tower hours, circuit directions are:
  - RWY 06L – right
  - RWY 12, 24R and 30 – left
  - RWY 06R/24L – not available.

Calls recommended ALL the time

Situation	Example broadcast
1. Before take-off or during taxi	Jandakot traffic, C172, ZTQ taxiing runway 06L for training area, Jandakot.
2. Inbound at least 10 nm from the aerodrome or further for high performance aircraft	Jandakot traffic, C172, ZTQ one-zero miles south inbound 1,500, estimating circuit at two five, Jandakot.
3. Overflying or in the vicinity of Jandakot outside of tower hours, but not landing, or further for high performance aircraft	Jandakot traffic, C172, ZTQ one-zero miles south 1,500, overflying, estimating overhead two five, Jandakot.

Calls when there is OTHER TRAFFIC

Situation	Example broadcast
4. Entering a runway	Jandakot traffic, C172, ZTQ lining up 06L, Jandakot.
5. Joining the circuit	Jandakot traffic, C172, ZTQ joining crosswind, runway 24/06, Jandakot.
6. Making a straight in approach, not less than 3 nm from the touchdown threshold*	Jandakot traffic, C172, ZTQ joining 3 nm final, straight-in approach runway 06L, Jandakot.
7. Joining on base leg	Jandakot traffic, C172, ZTQ joining base, runway 06L, Jandakot.
8. During an instrument approach, either when established at the final approach fix, or when commencing the missed approach	Jandakot traffic, C172, ZTQ conducting missed approach, runway 06, tracking to the south east, climbing 3,000, Jandakot.
9. Once clear of the runway(s)	Jandakot traffic, C172, ZTQ runway 06L vacated, Jandakot.

*Pilots should be aware that a GNSS indication of 3 nm from an aerodrome may not be 3 nm to the runway threshold.

Frequencies	
Jandakot Ground	**124.3**
Jandakot Tower	**118.1 or 119.4**
ATIS	**128.65 or 281**
Perth Center	**135.25**
Jandakot CTAF	**118.1**

Contact phone numbers	
Jandakot Tower	**08 9476 8833**
ATIS	**08 9476 8755**
CENSAR	**1800 814 931**

AVSAFETY

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The AvSafety seminars are an ideal opportunity for industry to interact with CASA, discuss local issues and ask questions of the regulator.

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