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Canberra Radio Guide

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This document is a training aid for students and other non controlled airspace rated pilots. It deals with standard operations within the Canberra control zone and area.
Whilst most common situations are addressed in this guide, some issues have been ommitted to conserve space. Your flying instructor will be able to provide a more detailed study if required.

Remember: if unsure of any instruction ask ATC for clarification in clear English.

This document is designed as an aid and does not replace a pilot's responsibility to consult and comply with the Civil Aviation Safety Authority requirements.

SECTION 1 – NOTIFICATION

Flights that submit a flight plan, such as navigations or fly aways do not require notification to Canberra Ground. Such flights can skip straight to Section2 – Airways Clearance

Pilot: Canberra Ground, [CALLSIGN], [ACFT Type], POB [number of persons onboard], will be for [Barton/ Kings/ Circuits/ City flight]
ATC: Rodger [CALLSIGN]

SECTION2 – AIRWAYS CLEARANCE

A request for "Airways clearance" must be made before requesting a taxi clearance.

A request for airways clearance is made on "Canberra Ground" 121.7

Pilot: [CALL SIGN] request airways clearance. (*You do not need to initiate this call with "Canberra Ground" if you have given Notification in Section 1)*

(1) If you are conducting circuits, the response will most likely be;
ATC: [CALL SIGN] clearance, operate in the circuit area not above three thousand, squawk code 0040, [R455 active remain clear]
Pilot: Operate in the circuit area, not above three thousand, squawk 0040, [R455 active remain clear], [CALL SIGN]

(2) If you are flying to a training area, the response will most likely be;
ATC: [CALL SIGN] clearance for [Barton/Kings] track direct to [Hall/Bungendore], [assigned height], Squawk code [assigned code] [R455 active remain clear]

Pilot: Cleared to [Barton/Kings] via [Hall/Bungendore], [assigned height], Squawk [assigned code], [R455 active remain clear], [CALL SIGN]

(3) If you are conducting a city flight, the response will most likely be;

ATC: [CALL SIGN] clearance city flight [A1, A2, C1, C2], [assigned height], Squawk code [assigned code].

Pilot: Cleared city flight [A1,A2, C1, C2], [assigned height], Squawk [assigned code], [CALL SIGN]

SECTION 3 - TAXI CLEARANCE

Once Runup Checks and Pre Takeoff checks are complete.

Tune VHF radio to 127.45 or VOR (116.7) or NDB (263) and operate the audio selection panel as required.
Listen to, and note the automatic terminal information service (ATIS). Set the QNH on the subscale of the altimeter. Switch transponder to STBY.
If ATIS has not been received, the pilot should omit the phrase "received".
In this case ATC will include the relevant ATIS information.
Tune up 121.7 and check volume.

Pilot: [CALL SIGN], POB [number of persons on board], run ups complete, received [ATIS code], request taxi clearance.

ATC: [CALL SIGN], taxi to holding point [alpha] RWY [assigned RWY], [Hold short of xx] time [minutes past the hour]

Pilot : Taxi for holding point [alpha] RWY [assigned RWY], [Hold short xx], [CALL SIGN]

When taxiing to the departure runway holding point, a clearance is required to cross any runway

Pilot: [CALL SIGN] request clearance to cross runway XX

ATC: [CALL SIGN] cross runway XX *(or)* hold short of runway XX

Pilot: Cross runway XX *(or)* hold short runway XX [CALL SIGN]

SECTION 4 - INTERSECTION DEPARTURE

*Intersection departures are **not** permitted by Brindabella Flight Training. Should ATC offer an intersection departure, **pilots MUST refuse it**. However, ATC cannot delay RPT aircraft for you, therefore you may be required to enter another taxiway, especially TWY Mike if going to RWY 35, to clear the path of a taxiing RPT.*

ATC: [CALL SIGN] turn left at next taxi-way, intersection departure available.

Pilot: Enter next taxiway left, require full length.

ATC: Behind (aircraft to be followed) clear to taxi RWY [assigned RWY].

Pilot: Behind (aircraft to be followed) taxi for RWY [assigned RWY], [CALL SIGN]

SECTION 5 - TAKE OFF CLEARANCE

A take off clearance may be requested when you are ready for take off, and must be made prior to entering the runway. This call should be made when the aircraft is stationary, at the holding point of the duty runway. This call is made to "Canberra Tower" on 118.7

Pilot: Canberra Tower [CALL SIGN] ready

ATC will issue instruction for RWY entry
(DO NOT ENTER THE RUNWAY WITHOUT A CLEARANCE!)

ATC: [CALL SIGN] Canberra Tower line up *or*
ATC: [CALL SIGN] Cessna 150 on final, behind that aircraft line up and wait
Pilot: Line up [CALL SIGN] *or*
Pilot: Cessna 150 on final behind that aircraft line up and wait [CALL SIGN]
This clearance is solely to enter the RWY. DO NOT take off until given clearance. ATC may give a take off clearance in response to your ready call.

(1) If conducting circuits, the most likely response will be;
ATC: [CALL SIGN] Hold position
Pilot: Hold position [CALL SIGN]
ATC: [CALL SIGN] cleared for take off, make [left/right] circuit *or* maintain runway heading
Pilot: Clear for take off, left/right circuit *or* runway heading [CALL SIGN]

(2) If you are depating for either training area, the response will most likely be;
ATC: [CALL SIGN] cleared for take off make left/right turn.
Pilot: Clear for take off, left/right turn [CALL SIGN]
Note: ATC will advise you when to contact approach.

(3) If conducting a radar departure, the response will most likely be;
ATC [CALL SIGN] turn left/right/maintain runway heading visual, contact approach airborne, cleared for take off.
Pilot: Clear for take off, left/right heading (degrees) or runway heading [CALL SIGN]
(all instructions on any radar departure must be read back)
Altitude restrictions may be included in the take off clearance. e.g; "maintain three thousand". The pilot must then read back the altitude when acknowledging the take off clearance. e.g
Pilot: Maintain three thousand [CALL SIGN]
Do not delay on or off the runway after a take off clearance has been received. If there is any undue delay, you should advise the tower.

NOTE:
"Cleared for immediate take off ".
This instruction requires you to take off with the absolute minimum delay.
If you cannot comply with this instruction - advise the tower and do not cross the holding point.

SECTION 5 – CIRCUIT OPERATIONS

For normal circuits, a call should be made by a pilot entering the turn onto base. You are telling the Tower where you are and whether a touch and go, stop and go, or full stop is intended. If you continue downwind after making this call you can disrupt tower's traffic planning.

(1) If you are conducting a "Touch and Go";

Pilot: [CALL SIGN] base, touch and go (*or* request stop and go)
ATC: [CALL SIGN] cleared touch and go (*or* stop and go) make left/right circuit, *or* maintain runway heading.
Pilot: Clear touch and go (or stop and go), Left/right circuit *or* runway heading [CALL SIGN]

(2) If *you are conducting a "Full Stop";*

Pilot: [CALL SIGN] base full stop
ATC: [CALL SIGN] cleared to land
Pilot : Cleared to land [CALL SIGN]

ATC may not issue a landing clearance immediately, as described above. In fact, it is more likely that ATC will advise you to "continue approach" or " continue approach - report short final". Your response should be: "continue approach [CALL SIGN]"

The following are some of the trickier, but typical requests/ instructions which may be encountered in the circuit.

1). **ATC:** [CALL SIGN] request short approach. *(This is a request. it may be declined.)*
eg: Negative, [CALL SIGN] .
In any case, a response which answers the request must be given.
Pilot: Short approach *or* base, touch and go [CALL SIGN]

2). **ATC:** [CALL SIGN] number 2 to land, follow a Cessna 172 on left base, report sighting.
Pilot: Looking [CALL SIGN] , *or* Traffic sighted [CALL SIGN]

3). **ATC:** [CALL SIGN] make one left/right hand orbit *or*
ATC: [CALL SIGN] orbit until advised *or* report when orbit complete.
Pilot: Left/Right orbit [CALL SIGN]

4). **ATC:** [CALL SIGN] continue downwind until advised *or*
ATC: [CALL SIGN] continue downwind report when ready for base.
Pilot: Continue downwind, [CALL SIGN] .
When ready for base;
Pilot: [CALL SIGN] Ready base, touch and go.
ATC: [CALL SIGN] turn base when ready.
Pilot: Turn base when ready [CALL SIGN]

5). **ATC:** [CALL SIGN] go round.
Pilot: Go round [CALL SIGN]

6). **ATC:** *(after take off);* [CALL SIGN] make early left/right as soon as safely practicable.
Pilot: Make early left/right turn [CALL SIGN]

7). **ATC:** [CALL SIGN] change of runway, RWY 30. When ready turn right for right downwind RWY 30.
Pilot: Right turn for right downwind RWY 30 [CALL SIGN]

8). **ATC:** [CALL SIGN] left or right circuit available, advise.
Pilot: Left/ Right circuit [CALL SIGN]

At all times, remember: ***Aviate/Navigate/Communicate,*** *in that order!*

Remember : Do not read back an expectation

SECTION 6 - PROCEDURE TO THE TRAINING AREA

Complete after take off checks and contact approach when advised to do so.

ATC: [CALL SIGN] contact approach
Pilot: Contact approach, [CALL SIGN]

At this point, the pilot is required to tune to the apropriate approach frequency (124.5 for Kings training area or 125.9 for Barton training area). The pilot must then make the following call;

Pilot: Canberra Approach, [CALL SIGN] (turning left *or* turning right *or* maintaining runway heading), passing (current altitude) on climb to (assigned altitude)
ATC: [CALL SIGN], Canberra Approach, identified
Pilot: [CALL SIGN]

If the aircraft is being radar vectored to the training area, Tower/Approach will advise the heading onto which you should turn. Each instruction should be acknowledged with the required radar heading and callsign. When cancelling radar vectoring, tower/approach will advise:

ATC: [CALL SIGN] cancel radar heading, resume own navigation, track direct to ....
Pilot: Cancel radar heading, track direct to .... [CALL SIGN]
If amended altitude, or an altitude limit is imposed eg:
ATC: [CALL SIGN] climb to four thousand
Pilot: Climb to four thousand [CALL SIGN]

If a higher altitude is required within Barton or Kings Training Area which mean entering controlled airspace, an airways clearance must be obtained from ATC prior to entry of Class C airspace. For example;

Pilot: Canberra Approach [CALL SIGN], request to operate in "Kings Alpha" not above six thousand, and request en route climb
ATC: [CALL SIGN] clear to operate in "Kings Alpha", not above six thousand, en route climb aproved.
Pilot: Cleared to operate "Kings Alpha", not above six thousand, en route climb approved, [CALL SIGN].

SECTION 7 - PROCEDURE FROM THE TRAINING AREA

When operations are nearing completion within 5 minutes of inbound time, remain in Class G airspace. Tune to 127.45 and take note of ATIS. Then contact Canberra Approach on 124.5 or 125.9, and advise of your intention to return in 5 minutes, as follows;

Pilot: Canberra Approach, [CALL SIGN] returning in five minutes.
ATC: [CALL SIGN]

Note: Unless specifically requested by ATC, the above procedure is not mandatory, it is simply a courtesy call to assist in ATC's traffic sequencing.

When you are ready to return to Canberra;

Pilot: Canberra Approach [CALL SIGN] , (location), (altitude), received (ATIS), inbound, request airways clearance.
ATC: [CALL SIGN] Approach, clearance track direct to Canberra maintain four thousand, QNH XXXX
Pilot: Direct to Canberra, maintain four thousand, QNH XXXX [CALL SIGN]

Note: If other tracking information is required by ATC eg via Black Mountain Tower, the instruction should be read back to ATC and complied with.

Further instructions may be given from ATC as the aircraft approaches the circuit area. For Example;

ATC: [CALL SIGN] join right downwind RWY 30 *or*
ATC: [CALL SIGN] track for straight in approach RWY 12
Pilot: Right downwind RWY 30 *or* straight in RWY 12, [CALL SIGN]

In due course approach will instruct the aircraft to make a visual approach;

ATC: [CALL SIGN] make visual approach contact Tower 118.7
Pilot: Visual approach Tower 118.7 [CALL SIGN]

A visual approach allows a pilot to manoeuvre an aircraft to final approach by entering the circuit at a nominated place. The pilot may continue descent but may not climb back to a vacated level.

At this point, the pilot should tune to Canberra Tower on 118.7

Pilot: Canberra TWR [CALL SIGN]
ATC: [CALL SIGN] Canberra TWR report base/ final/ short final.
Pilot: [CALL SIGN] base/final/short final
ATC: [CALL SIGN] cleared to land Runway 30 *(or otherwise directed)*

SECTION 8 - PROCEDURES FOR CITY FLIGHTS

City flights are predetermined routes over the city. Deviation from these published procedures must be requested from ATC whilst airborne.

Pilot: [CALL SIGN] request orbits over Parliament House.
ATC: [CALL SIGN] orbits of Parliament House approved, report when complete.
ATC will give appropriate instruction for re-entry into the circuit.

SECTION 9 - AFTER LANDING

Exit the RWY via the first most practical taxiway. Do not remain on the runway for a prolonged period. The tower may give any specific instructions at this stage, e.g

ATC: [CALL SIGN] expedite clearance of the runway
ATC: [CALL SIGN] take second taxiway left/right
ATC: [CALL SIGN] take taxiway direct to the GA park.
Note: *This taxiway is TWY Kilo (Golf is direct to airline apron off 30)*
ATC: [CALL SIGN] clear backtrack, take first taxiway left/right
ATC: [CALL SIGN] take runway left

To all of the above, readback all instructions, followed by your callsign.

When crossing the RWY holding point after landing, tune 121.7.

Pilot: Canberra Ground [CALL SIGN]
ATC: [CALL SIGN]

Note:If your taxiing back to the tarmac involves crossing RWYs refer to Section 2.

SECTION 10 - RADIO FAILURE PROCEDURE

Conduct standard Radio Failure cockpit checks;
Check headset connections
Check volume controls
Check to see if both headsets/ microphones are dead
Check circuit breakers
Try hand mike/ overhead speaker (refer to the avionics switchpanel)
Check correct frequency
Try to transmit on another frequency, eg. 121.7, 118.7, 124.5, 125.9
Transponder code : Squawk code 7600
Listen to ADF (263khz),VOR (116.7mhz). ATC may transmit instructions on these frequencies.
Make all normal radio calls - prefix with 'Transmitting blind'.
Do not make unnecessary calls. The problem may be receiver.
When report short final watch tower for light signals.

LIGHT SIGNALS (Radiate from within the control tower, NOT on top of it)

	IN-FLIGHT	**ON THE GROUND**
Steady Green	Clear to Land	Clear for Takeoff
Steady Red	Give way, continue circling	Stop
Green Flashes	Return for Landing	Clear to Taxi
Red Flashes	Aerodrome unsafe, Don't Land	Taxi Clear of Landing Area
White Flashes	No Significance	Return to starting point on airfield