

# CLASS D

## INTRODUCTION

On 3 June 2010, there were changes to the airspace associated with the six existing general aviation aerodrome procedures (GAAP) locations. These changes involved adopting the International Civil Aviation Organization's (ICAO) class D airspace classification, along with procedures broadly aligned with those of the American Federal Aviation Administration (FAA).

Replacing the Australian-specific GAAP with the internationally recognised class D procedures is a step towards standardising Australian aviation procedures with international practices. And to increase safety through standardisation, the new class D procedures at the former GAAP aerodromes now also apply in all existing class D airspace.

Australia has adopted FAA class D procedures such as abbreviated clearances and distances from cloud, including:

- VMC criteria
- Parallel runway operations
- Abbreviated clearance by establishing two-way communications
- Maximum speeds, and
- Entry not constrained by a particular tracking point.

[Although under the new rules, you no longer have to proceed VFR within a class D control zone, IFR pilots are encouraged to proceed VFR whenever possible, and to advise ATC. Such action will remove delays that may be caused by separation requirements for IFR flights within the zone and adjoining airspace.]

## ENTERING CLASS D

### Entry points

One of the main changes pilots flying into former GAAP aerodromes should understand is that GAAP approach points are now VFR approach points, and are no longer mandatory. However, using VFR approach points, marked on the visual terminal charts with a shaded diamond, is recommended because they:

- provide an orderly path for entering the circuit
- help with noise abatement
- help to keep you out of nearby controlled airspace
- and avoid the flow of outbound traffic.

The VFR approach points are selected because they are prominent landmarks, which help with visual navigation, and make it easier for ATC to segregate traffic.

Under the new rules, ATC may still exercise the right to instruct you to enter class D airspace via a particular point.

### Clearances

You must receive a clearance before operating in a class D control zone. This could be clearance to take off, instructions for circuit entry, or transit.

Individual clearances are required for:

1. Take-off and landing;
2. Entering, crossing or taxiing along all runways;
3. **Note:** An instruction to 'Hold short of runway ... [number] left [or centre or right]' requires you to hold at a marked holding point.
4. Turns in a direction contrary to the circuit for a particular runway;
5. **Note:** An ATC circuit entry instruction acts as a clearance for a contrary turn, if required to comply with this instruction.
6. Circuits at a height other than 1,000ft; and
7. Operations on routes or at altitudes different from those published in ERSA.

### Establishing two-way communications

When an aircraft contacts air traffic control at a class D aerodrome and provides sufficient information about track or position, level, and intentions for ATC to make an informed decision, ATC may clear the aircraft to enter the airspace by simply acknowledging the transmission with the aircraft's callsign. Alternatively, and more usually, ATC will provide brief instructions to the pilot.

Such instructions include 'join crosswind', 'overfly', or 'report at [position]'. The acknowledgment authorises the aircraft to enter the class D airspace following the stated track and level, or alternative instruction given by ATC. Once clearance to enter the class D airspace is given, the pilot is required to maintain two-way communications and to comply with any subsequent ATC instructions.

This shortened procedure does not eliminate the availability of a 'traditional' airways clearance where indicated, but it provides an abbreviated clearance option for use where both pilot and ATC understand the proposed course of action.

## Readback requirements

There are no changes to readback requirements except in relation to taxi instructions. If you get a taxi instruction which includes a holding point, you must read back the name of the holding point.

You must read back:

- Any airways clearance, in full
- Any clearance or instruction to hold short of, enter, land on, conditional line-up on, wait, take-off from, cross, taxi or backtrack on, any runway
- Assigned runway, QNH directed to a specific aircraft, SSR codes, radio frequency instructions
- Altitude instructions, direction of turn, heading and speed restrictions.

## Pilot responsibilities

When operating in class D airspace, you must:

1. Sight and maintain separation from other aircraft;
2. Comply with ATC instructions while ensuring you maintain separation from other aircraft;
3. Immediately advise ATC if unable to comply with a control instruction; and
4. Advise ATC if unable to sight, or if you lose sight of, other aircraft notified as traffic.

## VMC in class D airspace

- Flight visibility at least 5,000m
- Horizontal distance from cloud of at least: 600m
- Vertical distance from cloud minimum of:  
1,000ft when above cloud;  
500ft when below cloud.

## Special VFR

You must not conduct a VFR flight in class D airspace when VMC do not exist. However, at your request, ATC may authorise you to operate to a special VFR clearance. A special VFR clearance only applies within the class D control zone.

When operating under a special VFR clearance, you are responsible for ensuring that:

1. The flight is conducted clear of cloud;
2. Visibility is not less than 1,600 metres for fixed wing aircraft and 800m for helicopters; and
3. The flight is conducted in accordance with CAR 157 with regard to low flying.

## Maximum speed within a class D control zone

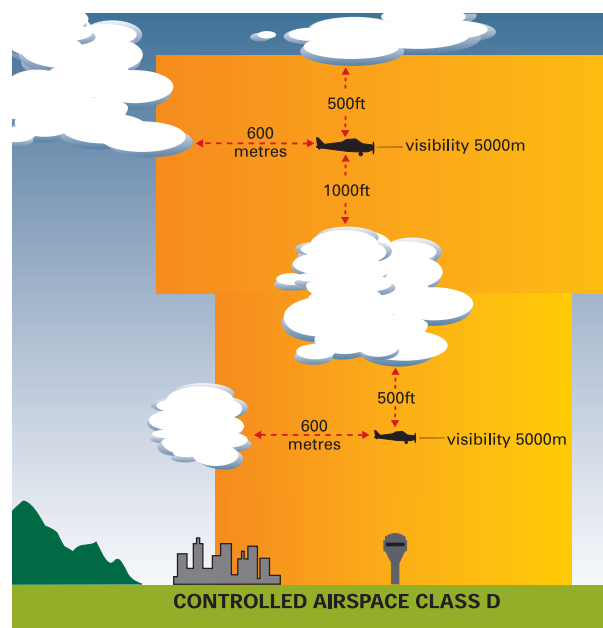
Unless ATC authorises otherwise, your indicated airspeed should not exceed 200kt within 4nm and 2500ft above the elevation of the aerodrome.

## Separation

In class D airspace, ATC will provide the following air traffic services to aircraft:

- IFR flights will be separated from IFR and special VFR flights
- Special VFR flights will be separated from other special VFR flights when the visibility is less than VMC
- IFR flights will receive traffic information about VFR flights
- VFR flights will receive traffic information about IFR and other VFR flights
- Traffic avoidance advice and sequencing will be available on request.

*You must keep a vigilant lookout for other aircraft even if you have received traffic information.*



Under the new procedures, if you're flying VFR, you are entirely responsible for **avoiding the wake turbulence** from heavier aircraft ahead, including when you are landing. The same applies if you're flying IFR and you accept responsibility to follow or maintain own separation with a heavier aircraft ahead. For these circumstances, ATC assistance will be limited to issuing a wake turbulence caution.

## Surface movement control

Surface movement control (SMC) has been re-introduced at the former GAAP aerodromes and is now provided at ALL controlled aerodromes.

### On initial taxi

Before taxiing or 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.

When ready to taxi, make a taxi call to SMC, giving the following details:

1. aircraft type and callsign;
2. number of POB (not required for VFR flights);
3. identification of ATIS code received;
4. location on aerodrome;
5. flight rules (not required for VFR flights);
6. intentions (crosswind circuit training, first intended landing point, etc); and
7. for training flights, whether dual or solo.
8. 'request taxi'.

If an airways clearance is required you should make your request to SMC when ATC is operating, or to the appropriate ATC centre when the control zone is deactivated.

To minimise delays to your departure, you should notify flight details using the national aeronautical information processing system (NAIPS) as the preferred option. You can also telephone, fax or, as a last resort, radio SMC.

Where possible, you should carry out your pre-take-off checks in a run-up bay. A taxi clearance to a particular runway holding point entitles you to conduct your pre-take-off checks using an en-route run-up bay.

Never enter or cross a runway en route to the holding point or run-up bay unless specifically cleared to do so by ATC.

When vacating a holding bay, you must give way to aircraft on the taxiway

## Ready for take-off

When you are ready for departure and first in line at the holding point, select the relevant tower frequency, and report:

- [Callsign] 'ready', and
- The designator of the departure runway.
- Departure direction or intentions  
for example, 'ABC, Ready runway [Left/Centre/Right] For [Upwind/Crosswind/Downwind] departure.'

## After landing

Before landing, plan your taxi route to your parking position. After landing, vacate the runway as soon as practicable. Remember that aircraft on a taxiway must give way to aircraft vacating a runway.

If you have landed on a runway that intersects another runway, you may cross the intersecting runway, but you must not vacate onto the intersecting runway unless ATC has cleared you to do so.

After vacating a runway, you must not enter, re-enter, cross or taxi along any runway unless ATC has cleared you to do so. Contact SMC; advise your current location and your intentions or destination on the aerodrome.

## Flying in the circuit

ATC may issue a sequencing instruction with a take-off or touch-and-go clearance. When issued with a sequencing instruction, you must follow the aircraft you have been sequenced to follow.

Unless otherwise instructed by ATC, you must report downwind when starting the downwind leg. This report should include aircraft type, callsign, 'downwind' and intentions [full-stop or touch-and-go]. If there is too much radio traffic for the call to be made in this position, report mid-downwind or late-downwind as appropriate. ATC will issue a sequencing instruction based on your position in the circuit.

If you wish to conduct a non-standard circuit, such as a glide or flapless approach, advise the tower with your downwind report. This advice will also alert other circuit traffic.

You must get tower approval before conducting simulated engine failure training. (Note: local aerodrome procedures may preclude such operations). You must also obtain tower approval before conducting simulated engine failure training in a multi-engine aircraft within 5nm of a controlled aerodrome.

In sequencing aircraft, ATC will indicate the position of the preceding aircraft by reference to a leg of the circuit or as a clock bearing, and describe it either as a specific type or in general terms (e.g., Cessna or twin). Unless ATC instructs otherwise SSR Transponder should be turned to ON/ALT code 3000.

ATC may issue a sequence number. Sequence numbers specify the landing sequence position of an aircraft with respect to any preceding aircraft.

The instruction 'follow' requires you to sight the preceding aircraft, and regulate your speed and approach path to achieve separation. If you cannot see and identify the preceding aircraft, you must advise the tower.

A landing clearance does not diminish your responsibility to maintain sufficient separation from the preceding aircraft during landing.

## Inbound call

You must establish and maintain two-way communications with the class D tower before entering the control zone from class G airspace.

You should make your inbound call approaching the relevant VFR approach point. Alternatively, you may establish initial contact with the tower when you are around eight to 10 miles from the airport.

Your inbound call should include: type, callsign, position, level, ATIS code received, and intentions (for example, 'inbound').

You should squawk code 3000 and ALT just prior to contacting the tower with your inbound call.

## DEPARTURES

### Into class G airspace

When departing the control zone into class G airspace, you should do so on **upwind**, **crosswind** or **downwind** by extending the relevant leg of the circuit and then tracking clear of VFR approach points and associated routes.

As a VFR flight, you do not need to make a departure call when departing the control zone directly into class G airspace. Nor do you need to request approval to change frequency when transiting from the class D control zone into class G airspace.

### Into class C airspace

If you are departing directly into class C airspace, the airways and departure clearances issued by ATC will authorise you to operate in both class D and class C airspace.

### Transit of a class D control zone

If you intend to overfly the class D control zone from class G airspace without landing, it is recommended you plan to do so via a VFR approach point.

You must establish two-way communications with ATC before reaching the control zone boundary, so you should make your call approaching the relevant VFR approach point. Alternatively, you may establish initial contact with the tower when you are around eight to 10nm from the aerodrome.

Your call should include: type, callsign, position, level, ATIS code received and intentions (for example, 'overflying for [next tracking point]').

### Flight near class D airspace

When you're flying in class G airspace near a class D control zone boundary, you should monitor the tower frequency to assist awareness of traffic entering and leaving the control zone.

## Licensing

A private pilot licence holder who has the logbook entry to fly an aircraft as pilot in command (PIC) in a control zone at a GAAP aerodrome, may, on or after 3 June 2010 fly an aircraft as PIC in class D non-radar airspace.

In addition, a licensed private pilot will be eligible for the log book entry to fly an aircraft as PIC in a control zone which has no radar service.

## DISCLAIMER

This information is a brief outline of the practices and procedures adopted at class D aerodromes on 3 June 2010, and is designed to provide insight into the general philosophy behind the procedures. This information is not necessarily definitive and the information should not be used operationally without first cross-referencing with the appropriate documentation.