

OPERATIONS INTO MT HOTHAM (YHOT)

GENERAL

Mount Hotham is the highest mountain aerodrome (4,260 feet) in Australia and is situated in a **Designated Remote Area** of the Victorian Alps. The sealed Runway 1460x30m is orientated 11/29. The Runway has manually activated lighting with standby power.

Mountain Operations

- The NZ CAA website has a useful booklet on mountain flying at: http://www.caa.govt.nz/safety_info/GAPs/Mountain_Flying.pdf

1. NIGHT AND IMC OPERATIONS

- These operations rules apply to both fixed wing and helicopter operations.
- Flights into Mt Hotham under the Night VFR rules are not permitted
- Night circuits are not permitted. During simulator training with experienced crews on a generic aerodrome i.e. it did not have the mountain modules which would allow the TAWS to function, two crews managed to hit terrain in the circuit, by forgetting how close they were to the ground. The lack of background lighting and the consequent possibility of reduced depth perception are some of the reasons for this determination.
- Commercial operators planning to fly into Mount Hotham at night or in IMC must have procedures for night and IMC operations at Mount Hotham in their operations manual that have been accepted by CASA.

2. ARRIVAL

Visual Approach to Runway 11

- Due to high terrain on approach to Runway 11, the PAPI system is set to provide a 3.9 degree visual approach slope path. This is steeper than the normal slope of 3 degrees or a gradient of 5.2%. A 3.9 degree approach slope or 6.9% gradient, increases the rate of descent by approximately 200ft/min above normal rates of descent at typical approach groundspeeds.

RNAV (GNSS) Approach Runway 29

- Due to high terrain at the western end of the runway and within the normal missed approach area, the RNAV (GNSS) approach for Runway 29 has a missed approach point (Mapt) set at 1.6 km before the Runway 29 threshold, when 0.5 Km is the norm. As there is a ravine/valley between the Mapt and the threshold it is possible to lose sight of the RWY 29 threshold after the Mapt. Additionally, the published Missed Approach

climb gradient is 3.3 degrees, which is steeper than the normal design gradient of 2.5 degrees.

- Should an engine failure occur during the approach, aircraft performance may not be adequate to maintain the 3.3 degree climb gradient during the missed approach and a higher MDA or an alternative missed approach procedure, or both, may be required.
- If visual reference is lost after becoming visual at the Mapt and below the MDA, adopting the published Missed Approach Procedure will most certainly place a high demand on aircraft performance capability and with a failed engine, an alternative missed approach procedure should be considered. The alternative procedure adopted by an RPT operator, is to maintain runway centreline, 291°M until passing 4800 feet (acceleration altitude) then conduct a climbing turn to the right onto 111°M and maintain this track until reaching the MSA. With All Engines Operating, the angle of bank is 25 degrees. With One Engine Inoperative, the angle of bank is 15 degrees. In order to ensure terrain clearance, the aircraft may need to circle to the east of the airport until achieving MSA.
- A thorough understanding of the topographic features around Mt Hotham is considered essential and Flight Crew intending to operate there should refer to a chart with adequate scale resolution to determine all important features. A WAC chart with a scale of 1:1000000 is a good start, however the Central Mapping Authority publishes topographic maps with a scale of 1:25000 and 1:100000 and these provide excellent topographic detail for contingency planning.

Reverse Thrust

- For aircraft with reverse thrust the flight manual must address the use of reverse thrust on icy runways. The possibility of runway excursions is greatly increased with a cross-wind on an ice affected runway, with reduced rudder effectiveness due to loss of the slipstream effect. It should be noted that the aerodrome is usually closed by NOTAM if ice is present on the runway.

3. GROUND

De-icing

- De-icing facilities are available at Mount Hotham (Type 1 Fluid). De-icing the aircraft is a servicing procedure and in some larger aircraft maintenance procedures are required, therefore operators/pilots will need to be trained in the de-icing procedure recommended by the manufacturer of their aircraft and which must be published in their Maintenance Control Manual (MCM) if applicable.

4. DEPARTURE

Weather Minima for Take-off

- A Visibility of 1500m.
To facilitate this assessment a white flashing Runway Visual Range light (RVR) has been placed at the end of TORA Runway 29. The RVR light is located approximately 50 metres to the left of the RWY 29 centreline. Runway 11 is also equipped with a RVR light at the end of the TODA and is located approximately 45 metres to the left of the extended centreline.
- A cloud base of 500 feet is recommended for departures from RWY 29.

Climb

- The climb gradient on take-off from Runway 29 is 4.8% due to a ridge line situated 1800M from the Runway end.
- Many light aircraft do not have sufficient performance to operate from this aerodrome. Potential users must consult the aircraft manufacturer's performance charts in the Aircraft Flight Manual (AFM) to ensure that relevant take-off and climb gradients can be satisfied.
- Helicopters typically have no single-engine climb performance at the Mount Hotham altitude.
- Mountain wave and downdraughts in the vicinity of the runway can make climb out extremely hazardous. Aircraft with limited performance, such as most aircraft with fixed pitch propellers, should not attempt to take off when conditions favour mountain waves and downdraughts.
- A special take-off procedure is required for departures on Runway 29. The airline standard departure procedure requires a climbing right turn at the departure end of the Runway (DER) onto a heading of 111°.

5. SURVIVAL

- Mount Hotham is in a remote area and therefore a survival kit appropriate to the Area must be carried (CAO 20.11 7.1(b)). It could be expected that a minimum of 14 hours in the snow could elapse before being rescued. See information on cold weather survival in ERSA EMERGENCY PROCEDURES.
- It is recommended that as a minimum the survival kit should contain the following equipment:
 - Emergency (space) blankets sufficient in number for all occupants;
 - Orange "V" sheet;
 - EPIRB (aviation type);
 - Heliograph;
 - Mini Flare Kit;
 - Waterproof matches;
 - Orienteering Compass;
 - Topographical charts covering the district;
 - Survival Booklet;
 - Rations;
 - Weather protection (sheeting) is desirable.

PERMISSION TO OPERATE INTO MOUNT HOTHAM AT NIGHT & IMC

It is a condition of permission to operate into Mount Hotham at night or in IMC that operators must comply with the requirements of sub paragraphs 1, 2, 3, 4 & 5 in this document. Operators must confirm that they will comply by email, letter or fax to Mount Hotham Airport before permission will be granted.

Pilot Name.....Arr. Date / Time.....
No. of Passengers Dep. Date / Time.....
Contact Details
Mob.....email.....Fax.....
Aircraft Details – Type / Model.....
Registration Details.....
Aircraft OperatorAddress.....
Contact Details
.....
Mob.....email.....Fax.....
Confirmation – I(please print)
have read, understood and will comply with the guidance material provided.
Signature.....Date.....

Mount Hotham Airport Contact Details

Ph. 0351 596 777

Fax. 0351 596 776

E rogerhaddrell@hotham.com.au

If in any doubt about operations at Mt Hotham, contact CASA at Moorabbin on 131757.