

Subject: Low Visibility Operations

Aim	Resources	Time Allotted
To present techniques for operating in low visibility conditions.	- Projector - GLP 012 Slide Package	30 minutes

Teaching Points

The following factors into consideration:

1. Gross Weight:

The gross weight should not exceed the allowable weight for the planned density altitude (WAT chart).

2. Wind:

The pilot should always be aware of wind direction and speed and how the wind might affect ground speed and turning radius.

3. Turning Radius:

Distance traveled increases with speed therefore turning downwind will increase the turning radius.

4. Weather:

It is important for the pilot to receive proper weather briefings prior to any flight. Consideration should be given to both existing and forecast conditions, particularly with regard to wind, precipitation, changing conditions, frontal size and intensity.

5. Terrain:

Consideration must be given to the terrain of intended flight, flat, hilly or mountainous, if mountainous the availability of a route through low passes. The terrain should be constantly monitored for possible landing sites in case of rapidly deteriorating weather.

6. Time of Day:

Flight in reduced visibility is restricted to take-off not before one hour after sunrise and shall be completed one hour before sunset. The time of sunrise and sunset varies with latitude and pilots can obtain that information from the nearest FSS or in the AIP, GEN Section 1.6.4.

7. Communications:

It should be considered that at reduced altitude the broadcast range is reduced and therefore it might be difficult maintaining communications for flight following (Section 3 - 3.2), receiving weather reports and notifying a ground station about changes to the planned route or possible emergencies.

8. White-out:

White-out is normally a loss of visual reference and is the most common cause of accidents during winter flying. Flat light, an open white surface blending with the sky, and no discernible horizon makes it difficult to detect falling snow from clouds ahead. Entering falling snow could cause loss of visual reference. If the area ahead looks doubtful, turn around. Do not fly passed your present reference point without the next reference point in sight. The most dangerous part of the flight is landing the helicopter in reduced visibility and loose and light snow. It is imperative to have a good, fixed and dark reference point for landing. This is also true in good visibility since visual reference could be lost landing, depending on the amount of loose snow.

9. Fuel Consideration: COM **Section 4.1.2**

10. Aircraft Minimum Speed:

On encountering low visibility operations, the helicopter shall be flown at a *reduced* airspeed that will provide the pilot adequate opportunity to see and avoid obstacles.

The minimum safe airspeed shall be in accordance with the Height/Velocity diagram in the approved RFM for the applicable type but in any case not less than;

Bell 204/205 **35 kts**
Bell 212 **35 kts**

Should the operation be such, that the airspeed needs to be reduced even further, i.e. beyond this minimum speed, the pilot shall not proceed any further on the selected route. In this case, either a safe landing shall be made at the nearest suitable landing site, or a turn around shall be initiated.

Exam – Low Visibility Operations Exam