1 RECOMMENDATIONS AND INSTRUCTIONS FOR WINTER FLYING

WINTER FLYING

RECOMMENDATIONS AND INSTRUCTIONS

FLIGHT PREPARATION

History teaches us that many accidents and mishaps in winter flying could have been prevented if flight preparation had been appropriate.

Aircraft flying over areas that are very difficult to search and rescue shall be equipped with marking and rescue equipment, incl. survival equipment, as appropriate for the area being flown over. Minimum equipment on board aircraft is discussed in the Air Ops Regulation no. 695/2012, which is accessible on the website of the Icelandic Transport Authority.

There are examples of pilots flying cross-country in the winter wearing light summer clothes that do not comply with the above regulations or common sense.

It is important for pilots to read the information in the Airplane Flight Manual regarding winter flight conditions. It is also important that pilots are aware of the weather conditions and forecasts before embarking on a flight. It is also important that pilots obtain information on the condition of the proposed landing sites and have appropriate survival equipment on board.

In the years 2002 to 2015, there were at least 11 aviation accidents and mishaps in Iceland in winter conditions where the pilot's preparation and decision-making were a contributing factor in the above-mentioned accidents and mishaps.

Whiteouts, ice or snow on landing sites, hollow ice on unpaved runways, snow showers, airframe icing and more comes into play.

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Icelandic Transport Authority

WINTER FLYING

CONDITIONS

WHITEOUTS

Whiteouts can occur in blowing snow, snow showers and when the distribution of light on snow-covered ground does not form any shadows. Whiteouts are not predictable.

The condition of snow-covered runways is impossible to assess from the air. It can only be examined on the ground.

HOLLOW ICE

Hollow ice can form in temperatures below freezing on unpaved runways. There may be holes in the surface even though it looks smooth. The surface of such runways can also become dangerously soft when the temperature rises well above freezing.

During snow showers, in local area flights, it is sensible to fly upwind of the airport if conditions allow so that it is possible to retreat from snow showers and land. There are several examples of unplanned cross-country flights when pilots have had to retreat from snow showers between them and the airport.

It is impossible to safely assess altitude over snow-covered land as well as water and dark sand and it is therefore unrealistic to trust one's own assessment. It is necessary for pilots to study the ground elevation on a map and compare it with cruising altitude.

Particular attention needs to be paid to the preparation of flights on aircraft that are parked outside. It must be ensured no icing is present that can affect the performance of the aircraft and flight instruments. If an aircraft is standing outside with a small amount of fuel in the tanks, moisture can form on the inner surface of the tanks, which then condenses into water in the fuel.

In still weather conditions on a cold winter day, temperature inversions may form where the temperature at cruising altitude may be somewhat higher than at lower altitudes. Such conditions may produce freezing rain.