

COLD WEATHER OPERATIONS

FLYING IN ICING CONDITIONS

In TTT – Aviation Ltd. operations, flying in icing conditions is permitted according to limitations set by aircraft flight manual (AFM) and airworthiness certificate. If freezing rain, -drizzle or -fog (FZRA, FZDZ, FZFG) occurs or it is forecast at the time of flight, flying is not permitted.

Carburettor icing is likely when air humidity is high and air temperature between +10...-5°C. Carburettor temperature indicator is on yellow arc. First symptoms of carburettor icing are drop in engine rpm (fixed-pitch propeller) or in manifold pressure (constant-speed propeller) and rough engine running. Finally carburettor icing leads to severe problems in engine run, loss of power and engine shutdown.

Carburettor icing may be prevented by using carburettor heat when reducing power, and on cross-country flights by opening it every 15-20 minutes or if engine running problems occur. Carburettor heat shall be opened fully, kept open for 1-2 minutes and closed completely. Partial opening of carburettor heat is not allowed.

Continental O-200-engine is known to be very prone to carburettor icing problems. This engine is used in unmodified Cessna 150 aircraft (OH-CET). However, all aviation engines equipped with carburettor may freeze if conditions are favorable.

USE OF HANGAR

TTT – Aviation has a lot for aircraft in Malmi aircraft hangar 1. This lot is on rotating basis, and airfield duty officer instructs parking in more detail. Parking lot is billed on a daily basis; if aircraft is not used for several days, it may be parked outdoors and taken into the hangar before continuing flights.

When moving aircraft indoors, its fuel tanks should not be full of cold fuel. When warming up, fuel expands and may leak into hangar. Due to risk of fire, airport duty officers move leaking aircraft outdoors and bill for cleaning.

If aircraft is kept outdoors, an electrical heater should be placed inside the cockpit and into the engine bay. When preparing the a/c for a flight, all heaters and electrical wires shall be stored in a secure place.

CLEANING A/C BEFORE FLIGHT

Before flight all snow, ice and frost shall be removed. Special attention shall be paid for the cleaning of leading edges of wings, horizontal and vertical stabilizer, pitot-static system and hinges of control surfaces.

Cleaning may be done by using soft brush, mixture of hot water and alcohol or hot air blower. Use of pure hot water is not allowed, since it may refreeze on the surfaces of a/c.

Hot air blower should be used with low or medium heat and moved constantly: aircraft surface should feel only warm if touched with bare hands. This is to reduce risk of fire and damage to surfaces (especially windows). In no circumstance aircraft shall be scraped: rivets, surface panels or windows may get damaged

It is recommended to keep the a/c in hangar before every flight in winter.

FUEL

If ice is accumulated into the fuel tanks, ice crystals may hinder the function of fuel sample valves. After a fuel sampling make sure all the valves are completely closed.

Approved for operational use 1.12.2011

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