

WINTER OPERATIONS 2011/2012

1) Aircraft engines need to be plugged in overnight when the temperatures are below 0 C – and they also need to be plugged in if there is excessive time between flights on cold days – insert the cowl plugs between flights to retain engine heat - C152s and PA44s are poor starters in the cold - C152s often stall in the cold until they warm up – to prevent this, run the engine at 1200 rpm and keep the carb heat on until the engine warms up

2) Don't excessively crank the engine – the newer lighter weight starters burn out easily. Also if the engine is cranked to the extent that the battery is almost dead, the starter relay can fuse together in the “On” position creating a situation where the engine will turn over as soon as the master is turned on – even if the key is out of the ignition switch. Let maintenance know immediately if this occurs.

3) If you are attempting to start an engine and it doesn't start contact maintenance for assistance.

4) If you are attempting to start an engine and it doesn't start consider:

- how cold it is outside
- how long it was since it was last running
- whether or not it was plugged in

If the engine is too cold it will not start!

The solution for a cold engine is to get the “Red Dragon” engine preheater and have it warm up the engine for 10 minutes – then start the engine immediately after removing the heat. If the battery has also been rundown - get a boost - see attached “Aircraft Boosting” and “Heater Light-up Procedure” instruction sheets

5) Winter fronts will be installed when the temperature stays below –7

- remember to remove cowl plugs before engine start – many students leave the cowl plugs in during their walkaround and then forget to remove them – it's better to remove them as part of the walkaround rather than risk them being left in.

6) Frost on wings – alcohol will take care of minor frost - snow and ice needs to be brushed off and aircraft put into warm hangar to be removed

7) Returning after hours – the pilot is responsible to tie-down aircraft , install control lock and cowl plugs and plug in the engine – ensure your students know where the towbars are and how to use them. Practice putting aircraft into a tiedown spot during routine training

- before going out on a flight which will return after hours ensure that there are ropes in the tiedowns, because ropes will be routinely removed for snow clearing operations.

8) On cold, but sunny days where there are puddles of meltwater on the ramp, avoid taxiing the PA44s through them because the prop blast sprays the water onto the landing gear where it freezes – sometimes icing over the gear microswitches causing issues like gear position lights malfunction, or the gear won't retract. – the solution is to put the aircraft into warm hangar to melt the ice off the landing gear.

9) Remember to check your breather tube during the walk around to ensure that it is not blocked.