

East Coast Aero Club

Winter Pre-heat Procedures

Aircraft Pre-heating is required when the temperature is under 40°F – if in doubt, ASK! Dispatch Phone: 781-274-6322

You **must call or text** the following information to the **preheat phone number 781-354-0077** on the day of your flight:

- Your name
- Aircraft
- **Engine start time** (The time you plan to turn the key to start, NOT the time your reservations starts.)

Aircraft will not be dispatched when:

- Temperatures are at or below 10°F
- Within 2 hours of **10°F**
- ECAC do not use de-icing chemicals on ECAC aircraft, therefore the sun must melt off any contamination. If there is ice or frost on your car there is likely the same on the aircraft.
- You must call or text the following information to the preheat phone number on the day of your flight:

Students and instructors are encouraged to wait until after their flight to go over ground materials so they may start their preflight ASAP.

Please make every effort to keep the ECAC office up to date if you are delayed from your original start time.

Winter Engine Starts

When flying in the winter and during cold weather spells, it is of the utmost importance to show up on time at completion of the preheat so the heat is still retained. This must be close to the engine start time you stated when requesting an engine pre-heat!

It is extremely important for you to check the oil level and viscosity during the pre-flight inspection. **If the oil does not drip off stick RIGHT AWAY get more heat!** Your CFI will also check the oil level and viscosity. - If in any doubt ask a CFI or call the office.

If you are flying solo it's **your responsibility** to **check the oil prior to start....** If the oil does not drip off stick **IMMEDIATELY - get more heat.** If in doubt ask a CFI or call the office.

Notes:

- Cold oil will not drip for several seconds. In this case it is not acceptable to initiate a start, **request more heat.**
- Even if the cylinders feel warm the oil might still be too thick.
- **If its below 20°F** and there is a light wind the heat dissipates in minutes - like it never happened.
- If there is a Tanis plugged into a plane, and for some reason it is not warm and the oil is thick, **DO NOT try to start the engine!!!** Call office for a preheat. Figure out with office, why it did not heat up and write up if needed.
- ECAC checklists direct pilots to set the throttle to result in 800 RPM on start and allow the RPM to accelerate to no more than 1,000RPM on its own.
- If after a minute or two and the RPM has not increased to 1,000RPM, you may set it there.
- The colder the temperature, the longer you should keep the RPM at 800.

Pre-heat is ultimately important. AOPA reports that starting an engine at 0°F with no pre-heat results in excessive engine wear and takes 500 hours off the engine life.

Make sure you follow ECAC rules for pre-heat.

Instruments

Cold weather causes systems and flight instruments to react slowly to your inputs. For example, the Heading Indicator and Attitude instruments should be allowed to warm up at least **3-5 minutes prior to taxi** in cold weather.

- Not allowing them to warm up results in excessive wear on the gyro bearings reducing the life of the instrument.
- The Instrument Flying Handbook advises pilots to **GENTLY** pull the heading indicator setting knob out and twist it to ensure it is not still engaged. Some will stick in and will not show a turn unless you ensure it is still not caged.

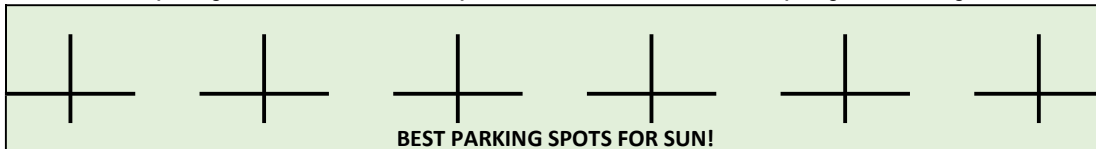
Cross-country Flying

- When flying to another airport, do not shut down for extended periods of time without arranging pre-heat services beforehand. Wind-chill can cool an engine down in as little as 15 minutes. If no preheat services are available, do not plan to shut down.
- Please include in the comments section of the reservation your intended Hobbs time, destination, and affirm you have arranged pre-heat services.
- Dispatchers will not allow you to depart if you have not arranged pre-heat services at your destination airport.

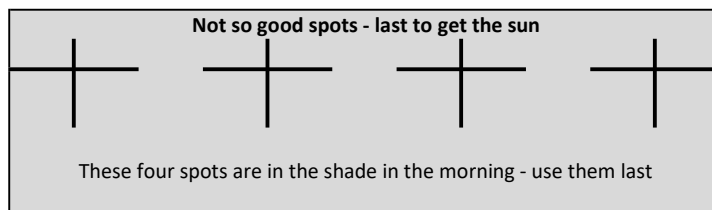
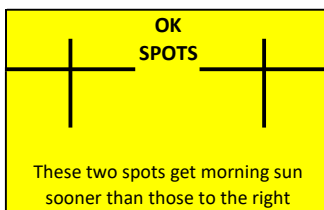
ECAC Winter Warrior Parking

Taxiway Sierra

Preferred parking locations in cold weather - park closest to TWY SIERRA - these spots get the morning sun first



WARRIOR RAMP



Gate 1A

Civil Air Terminal