

# T-Craft Aero Club

December 2012



**Featured Photo**  
**Next month have your photo here!**  
**Email [db5477@gmail.com](mailto:db5477@gmail.com) with**  
**your photo**

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## **MAINTENANCE DIRECTORS MESSAGE**

by Jim Eyre

### **Winter Flying Tidbits**

Suppose you've noticed that the easy engine starts of summer have given way to preheats & longer careful warm ups once the prop is turning.

Winter flying can be a lot of fun & provide pleasant flying memories. The cold, dense air boosts engine power, aids wing lift & is often stable & smooth. After a winter front passes we can get crystal-clear air with great visibilities. Winter flying can be an anticipated adventure, or it can be a huge struggle. Like humans airplanes aren't particularly fond of very cold temperatures & require a bit of extra preparation to get going. Taking the time to prepare yourself & aircraft will increase safety & comfort.

I've been queried as to why we removed the wheel pants. When taxiing in snow & ice the wheel pants can pack up, thus locking up the wheels. Non-rotating wheels make for exciting & expensive experiences. Wheel pants prevent a thorough

preflight inspection & when the brakes freeze pants make it very difficult to break the wheels loose.

With persistence & lots of priming aircraft engines can be started & run when cold-soaked. But the engine will be damaged for lack of lubrication as excessive priming dilutes & washes off existing oil film on cylinder walls & may also cause a carburetor fire (you could then exercise your emergency egress procedure).

Preheating helps to ensure adequate lubrication during the start & initial engine warm up phase of operation & to aid in better fuel vaporization. A good preheat will make your battery's life easier. Their output is diminished severely in cold weather. At freezing temps the battery will crank only about half as long as it would at 70 degrees F. The contracted metal of a cold engine makes for increased resistance that the battery must overcome causing it to discharge more amperes & straining the starter. Don't attempt a start with an under charged battery. This will only compound the situation.

## ...Continued

As the engine warms up moisture from engine & oil vaporizes & is vented overboard through the breather tube. The breather tube may freeze shut causing the engine's internal pressures to increase until the crankcase oil seal is pushed out of position, resulting in the speedy exit of engine oil as it flows aft over the fuselage & windshield. Continental engines (182) are particularly susceptible to have these tubes freeze. The tubes exit the engine case a few inches aft of the propeller flange & then are routed rearward along the top of the engine. During the run from front to aft the aluminum tube is exposed to cold air coming through the cowling openings. The exit end of breather tube should be checked for blockage (especially if aircraft has taxied through snow or icy slush).

When OATs get down near freezing any water in the fuel system will cause big problems. Do the Cessna wing rock during preflight. Check fuel drains & sump. Fuel selectors can freeze in position so move selector thru all positions. Remember to place on Both for T/O.

After engine start allow engine to slowly warm up at 1,000 to 1,200 rpm unless it is necessary to reduce rpm to keep from exceeding oil pressure redline. As the oil warms up the rpm can be slowly increased. Please allow plenty of time for the engine to warm up. The hydraulic lifters, which adjust the valve lash to compensate for engine expansion during warm up & operation, are dependent on oil to work correctly. We use multi-viscosity oil (Phillips XC 20W-50) allowing oil to circulate easier throughout the engine immediately after engine start.

Minimize brake usage if taxiing thru snow since warm brakes will melt any snow upon stopping, then refreezes, locking the plane in position. Could ruin your entire day.

Aircraft engines are sensitive creatures. In a long descent or during traffic pattern work in cold weather, reduce power gradually to avoid shock cooling the engine. Gross throttle reductions should be avoided at all times in any air-cooled, piston-engine airplane. Shock or sudden cooling can lead to expensive problems.

Just because the air is cold & dense doesn't mean you shouldn't lean. The scavenging agents in avgas require some heat, usually around 1,200 F., to keep lead from depositing itself in the combustion chamber & on plugs.

Don't consider taking off until the oil temperature has stabilized at least at the bottom of the green. 182 drivers - don't try to expedite the warming of the engine by closing the cowl flaps. Airflow is not sufficient during ground operation & you'll only end up with lukewarm oil & hot heads. Consider closing cowl flaps in climb if the CHT hasn't reached its normal operating range. You can do nearly as much damage by running an engine too cool as you can running it too hot. It is vital to maintain working oil temperatures.

Winter flying requires the correct mental attitude, a commitment to pay extra attention to the care & maintenance of aircraft, & a willingness to wait out some weather (thank you Bill McGlynn). These are minor inconveniences compared to the payoff.

Have fun, be safe, & please don't do anything foolish.



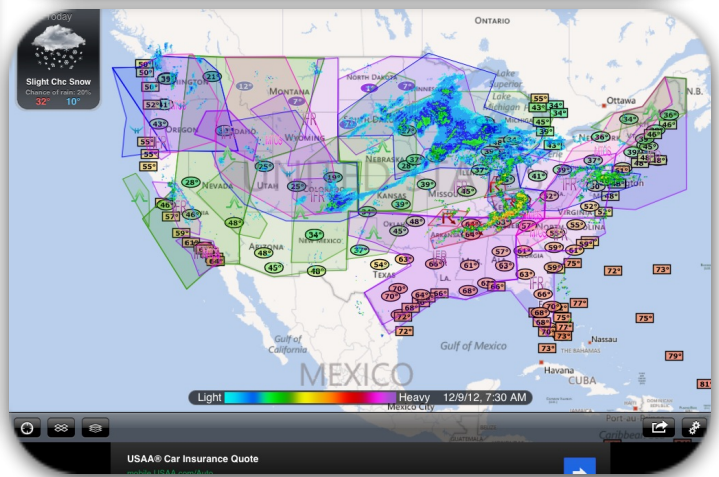
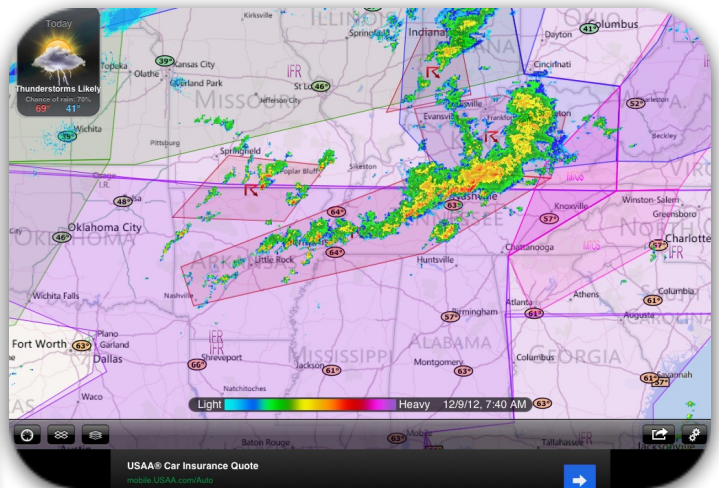
Lauren Downer SOLO'ed  
on December 8th!

Lauren comes from a heritage of Idaho aviators. Her great grandparents, who were both pilots, built the Smith Prairie airport in the 1940s as a way of quickly accessing their Lumber mill from the Boise Valley. In 2005 the beautiful state owned airport (2U0) was renamed Smith Prairie Downer Memorial Airport.

Lauren has been instructed by Preston Riley and Jim Hudson.

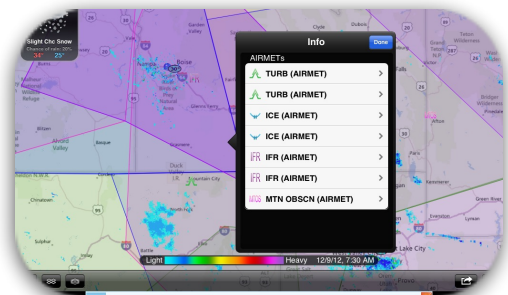
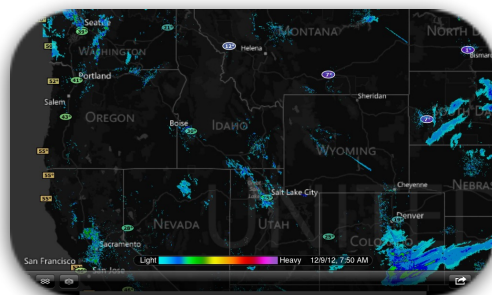
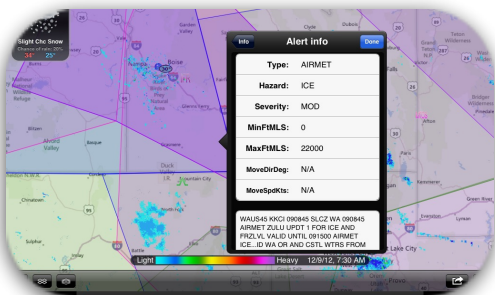






## Some screen shots of MyRadar App showing Airmets & Sigmet

This is a great app for viewing the weather radar. The settings allow you to also overlay the Airmets, Sigmet, Clouds, etc.



In soloing-as in other activities-it is far easier to start something than it is to finish it.

- Amelia Earhart, '20 Hours: 40 Minutes,' 1928

# WHAT IS MY ABORT PLAN?

Safety - Membership Director

As safety director, I worry about members doing the right thing, as well as myself in stressful situations. Flying should not be stressful, but we should always be cautious and prepared for the unexpected, and not get complacent.

During BFR's I stress simulated engine failure emergencies, simulated IFR situations. For many, they have not practiced these since their last BFR. Being mentally prepared and rehearsing in your mind what you would do in a critical situation, may save crucial seconds in an emergency situation, even if you haven't practiced recently.

One thing we should always ask ourselves prior to take-off is, "what is my abort plan". This item is on the check list, but often we become complacent in using them. If I loose my engine, or possibly not have full power, what will I do?

Have a Plan. Mentally review your plan every time before you take off. If you're not at a familiar airport, research the area where you would need to abort. A good guideline is as follows:

Immediately pitch and maintain best glide speed.

**0-50' AGL** - back onto the runway / straight ahead

**50-500' AGL**- pick a landing area +/- 30 degrees either side

**500-1000' AGL** - pick a landing area +/- 90 degrees either side

**>1000 AGL** - turn back to the airport if it's the safest alternative

**Cruise Altitude** – Always be looking for a safe spot to land, consider routes with alternatives on your flight plan. IFR – I follow roads

On your next flight, just prior take-off – ask yourself – What is my abort plan? Then recite back to yourself or your passenger what it is.

For other perspectives on this or similar topics, please review the following previous newsletters.

- ◆ February 2009 – “What’s your abort plan”?
- ◆ December 2009 – “Engine Failure on Take-Off” – Specific advice for Nampa airport.
- ◆ July 2010 – “Dead Stick landings”. Tips on practicing simulated emergency landings without power.
- ◆ February 2012 - “Complacency”
- ◆ March 2012 - “The Impossible Turn”

Fly Smart, Fly Safe, Have Fun, and – Don't do anything Stupid!

Jim Hudson

## Club Meetings

### ◆ Board Meeting

January 8, 2012 7:00 PM

@ the T-Craft Hangar

### ◆ Safety Meeting – Winter Survival

January 17, 2012 7:00 PM

@ the T-Craft Hangar

### ◆ General Membership Meeting

January 29th, 2012 7:00 PM

@ the EAA/CAP Facility 2012 Club

Officer Reports and Elections

Join T-Craft on  
Facebook!

[https://www.facebook.com/  
groups/164768522373/](https://www.facebook.com/groups/164768522373/)



## Membership

Our Membership count is down one to 70 Members

- ◆ Sponsor a new member and receive 1 hour of flight credit (C152)



## Squawks/Status

**\*\*Always check current squawks on Schedule Master and hangar wall\*\***

N67375 - \$58 per hour

From Feb 4 to March 29, 2013

Plane will be Grounded for installation of New Engine

N13686 - \$86 per hour  
Ready To Fly

N4464R - \$84 per hour  
Ready To Fly

N1891X - \$121 per hour

In for Inspection due to Metal particles in oil filter. Update will be provided when available.

N7593S - \$124 per hour

Auto Pilot operational. Review operation of Navomatic 300A in the POH Supplement. Aircraft currently certified for VFR flight Only

### ALL BIRDS

Floor Heaters are to be used continuously this winter. Please reinstall after your flight and verify operation along with putting the blanket over the Cowling. If OAT is below 30 F you could plug in oil pan heater while doing preflight.

**HOWEVER - DO NOT LEAVE OIL PAN HEATER PLUGGED INTO AIRCRAFT AFTER YOUR FLIGHT**



Getting a couple of the grandkids (Matthew & Madelynn) started early.  
Chuck Carlson

Fuel Reimbursement  
\$4.87

### News Letter

#### Contributions

Please send photos and your Flying Stories to [db5477@gmail.com](mailto:db5477@gmail.com)

for inclusion on future issues.

Thanks