

# **T-CRAFT AERO CLUB**

## **MONTHLY NEWSLETTER**

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64R and 91X rest quietly while Jared Martens and Reggie Sellers treat their passengers to breakfast at Smiley Creek this past summer. Photo courtesy Reggie Sellers

The year 2011 is fast coming to a close. We've had some great flying stories and photos; another trip is included in the pages of this month's newsletter. The club will have an opportunity to decide the size and scope of its board and activities over the next two months, including the recent general membership meeting in October, and the January 2012 Annual Meeting, with annual elections and club business review. There are plenty of events coming that will stir the imaginations and hearts of many; look for these in the Membership Director's report in this newsletter.

### **From the Membership Director**

### **Flight Planning Tools**

As the flying season slows down, this would be a good time to look at some of the tools available for flight planning and better understanding of the weather. This month's training session we looked at some programs available for flight planning. Next month we'll look more at weather forecasting tools in Bill McGlynn's weather training class.

There is no substitute for getting out a chart and plotting the best route to take into consideration terrain, obstacles, alternate airports, and emergency landing considerations. However, once you choose your route, the flight planning tools can help streamlining the process of determining your route times, magnetic headings, and fuel burn taking into consideration of winds aloft at your cruise altitude. Most programs provide overlays of current or forecast weather, winds, TFR's, METARS, and TAF's along the route. Some also bring up airport information with a click of the mouse or mouse over an airport. The programs require you input information about yourself and aircraft (usually a one time event) for the route calculations and filing of a flight plan if you so desire. Once a route is planned, it can be saved and use to determine your flight planning information at a future time.

There are numerous flight planning tools available, of which many are free. The ones listed below were discussed in the training session this month and are all free (except some programs on smart phones). I've done a brief preview of these,

but have only used a few routinely. Some have good tutorials and training videos. My suggestion is to review them yourself to see which ones you find meet your needs, and then pick one and devote some time to learning all the features.

### **T-Craft Weight & Balance – Flight Planing Tab – Excel Program**

On T-Craft Web Page - <http://www.t-craft.org/siteindex.htm> - click on Weight & Balance Worksheet. The flight planning tab calculates the estimated time, fuel burn and cost based on trip distance. One can determine which bird will suit your trip needs for cost, speed and load capacity.

### **On – Line Flight Planning Tools**

**DUAT(s)** is the FAA's **D**irect **U**ser **A**ccess **T**erminal **S**ervice for pilots. There are two providers of this service; DTC Duat [www.duat.com](http://www.duat.com) or CSC Duats [www.duats.com](http://www.duats.com). These are the only sources that are FAA certified for obtaining a flight briefing. This service provides access to weather briefing, flight planning, and flight plan filing. The service is free to qualified pilots, student pilots with a valid pilot or student pilot certificate and medical. Each of these offer their own version of on-line flight planning tools. Other on-line programs or PC based programs require registration to Duat(s) to access information for a certified briefing.

**AOPA-Flight Planner** (AOPA Membership Required): [www.aopa.org](http://www.aopa.org) Flight Planning/Flight Planer.

Easy to use, has VFR Sectional like Chart to select flight plan route. Can enter user defined points to route. Provides profile view of route. Overlays WX and Winds on chart. Nice Nav Log indicating temp/winds along route in addition to heading, ground speed, fuel burn. Can file obtain a DUAT(s) briefing and file a flight plan.

**fitplan.com:** [www.fitplan.com](http://www.fitplan.com) I have not used this, this site is geared towards IFR pilots. It does have some video tutorials. Also smart phone apps are available.

### **On Line Weather**

**Nav Monster:** [www.navmonster.com](http://www.navmonster.com) – My Favorite.

The best format I've seen for presenting Metars, TAF's, Winds aloft, FA, PIREP's, TFR's, and NOTAMs. Many WX charts available at the click of the mouse. Airport information includes excerpt from the most current ADF, Sectional chart view, Satellite view and airport diagram if available. Provides no-wind trip time at various altitudes in the winds aloft table. One cannot file a flight plan.

**NOAA Aviation Weather Center:** A couple of popular sites for weather.

Standard Briefing: [http://www.aviationweather.gov/std\\_brief/](http://www.aviationweather.gov/std_brief/)

ADDA (Aviation Digital Data Service): <http://www.aviationweather.gov/adds/>

### **PC Based - Free**

**DTC Duat Voyager** – from Seattle Avionics, Inc:

Download from: <http://www.seattleavionics.com/DUATVoyager.aspx>

A flight planner that makes it quick and easy to plan flights, obtain weather briefings, and file flight plans. DUAT Voyager is a streamlined version of the full Voyager Flight Software system that retains many of the award-winning features of the full Voyager product. These features include both Victor and GPS Direct autorouting, a profile view that shows your flight over terrain, automatic background weather downloads, various weather overlays including NexRad radar and altitude-sensitive cloud tops (satellite images), full DUAT briefings, automatic TFR download and overlay, kneeboard printouts, electronic flight plan filing, and much more. This program has a cool feature in which you can “fly” your flight over google earth like terrain at flight altitude. It requires a fairly new computer.

**Duats Cirrus** – Download at: <http://duats.com/classic/cirrus.shtml>

This is an older program that provides quick and easy to use flight planning, obtaining WX briefing, and filing of flight plans with little frills. You get the DUATs flight log and text flight briefing. I have used program for many years and find that it with NavMonster meets most of my needs.

**Duats Golden Eagle** – From Duats <http://duats.com/classic/cirrus.shtml>

This has similar features as DTC Voyager and AOPA on line flight planning program.

### **Smart Phone APPs**

I don't have a smart phone (yet) and I'm sure there are many more apps. These are some I've heard about.

**ForeFlight** iPhone App: <http://www.foreflight.com/ipad>

I have seen demonstrations of ForeFlight and it looks very powerful.

**DUAT iPhone App** - Apple App store on your iPhone or through iTunes

**WingX:** <http://www.hiltonsoftware.com/index2.html>

Is probably the most robust application for any pilot with an Android phone. The feature list is very extensive and the price reflects that at \$99 dollars. Also for iPhone Apps.

If you have used and are familiar with these or other flight planning programs and would like to share your knowledge with other club members, please let me know.

*Fly Smart, Fly Safe and Have Fun,*  
Jim Hudson

**Membership:** We currently are at 72 members.

**New Pilot Ratings:** Congratulation to Preston Riley, New CFI. Preston has been added to the club approves instructor listing.

### **Training/Events:**

November 1st 7:00 PM Club Hanger - WX Forecasting/ New Models - Bill McGlynn

November 2nd 7:00 PM Hilton Garden Inn, 7699 West Spectrum St., Boise - AOPA: Radio Communication Done Right

November 11 9:30AM Sandpoint, ID at the Bird Aviation Museum and Invention Center, Special Events Honoring Veterans

November 13th 8:00 AM to 12:00 Noon -Warhawk Air Museum -10th annual Pancake Breakfast Honoring Veterans

November 29<sup>th</sup> 7:00 PM At Club Mtg. Weight & Balance - Why It's Important to Know

*T-Craft welcomes our new members:*

Steve Chaffin - Class II Student Pilot - Checkride scheduled.

Ben Maxwell - Class I Student Pilot - Close to checkride

Robert Shepherd - Class I Student Pilot - Close to Solo

## **Aircraft**

### **Prop Blast from your DOM**

## **Maintenance**

Usually about this time of the year the floor/cowling and oil pan heaters are set out and energized to help keep our girls nice and warm. We would run these continually through the winter months, and if you needed proof, you could review our electric bills.

Recently we discovered rust in the crank cases of our engines during rebuild. Our mechanics suspect that running the heaters continuously promotes this rust, so a change to our preheating

process is being made. T-Craft members are now being asked to perform the preheating process shortly before their flights.

As soon as you arrive at the hangar, plug in the oil pan and floor/cowling heater, then start your pre-flight preparations and checks. You will find two (2) power cords per aircraft. These are not plugged in. New members not familiar with where and how to energize these heating tools must ask for help in **advance** of their intended flights, to make sure they understand the process.

It usually takes about 30 minutes to do a “**good**” preflight, giving the heaters time to take the chill off the engine to your aircraft. A blanket is placed over the cowling to help keep the heat contained. Replace this blanket after your flight.

T-Craft pilots may employ other pre-heating tactics. They can request that members using the aircraft before them plug in the heaters before their post flight inspections (we all do a good post flight, don’t we?). Members can also visit their aircraft before a scheduled flight to energize its heaters, or enlist the help of another T-Craft member to perform this task for them.

If the OAT drops below freezing and remains there for any length of time, we might go back to hooking up the heaters full time.

Finally, it is the responsibility of all T-Craft members to care and operate our aircraft in a responsible and safe manner. **BEFORE doing a power run up, our aircraft engines need to be warm and increasing in temperature, indicated by temperature gauge needle movement as it releases from bottom and continues to swing into the green/operating zone.**

It is always best that the engine temperature gauge needle be in the “green” before all operations. This will mean winter flying is going to cost us additional time on our Hobbs meters. We have to expect this and be kind to our engines so that they provide us with many hours of safe flight.

*Jim Eyre*, Director of Maintenance

*Contact Jim Eyre [cell:(208)794-0667] with squawks, and use the notification feature found on-line in Schedule Master to alert pilots intending to use impacted aircraft. Write the tachometer time on the Squawk Sheet clipboard found on the hangar wall. Sign your name, and include a phone number where you can be contacted. Document Hobbs time for all other recordings. Report leaks immediately.*

## From the Board

### Flying rates (effective 26 July 2011)

375	-	\$58.00*
64R	-	\$84.00
686	-	\$86.00
91X and 0YD	-	\$121.00
93S	-	\$124.00

\*[all rates recorded per hour “wet”]

**Fuel re-imbursement for October 2011: \$4.89gal**

(Review your receipts and confirm \$.25/gallon is recorded. Report any discrepancies **ASAP** to Dennis Wheeler.)

## Cold Weather This & That

Why do people go out of their way to fly during the cold weather months since it seems to be such a hassle? The easy engine starts of summer have given way to preheats & longer careful warm ups once prop is turning.

Like humans, airplanes aren't particularly fond of very cold temperatures & require a bit of extra preparation to get going. This time will produce dividends in the long run.

Winter flying can be a lot of fun & provide pleasant flying memories. The cold, dense air boosts engine power, aids wing lift, & is often very 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. Taking the time to prepare yourself & aircraft will increase safety & comfort.

I've been queried as to why we removed wheel pants. Wheel pants can pack with snow/ice & then lock up wheels. Non-rotating wheels make for exciting & expensive experiences. Wheel pants prevent a thorough preflight inspection & when the brakes freeze after taxiing in snow & ice the pants make it very difficult to break the wheels loose. This would be especially painful if you parked outside in the cold for an extended period of time.

With persistence & lots of priming aircraft engines can be started & will run when cold-soaked. But the engine will be damaged for lack of lubrication as the excessive priming dilutes & washes off existing oil film on cylinder walls. Excessive priming becomes necessary because avgas doesn't vaporize very well below approximately 20 degrees F.

The only reasonable course of action is to preheat. Preheating is done 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. Batteries are miniature chemical reactors that produce electricity; 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 to try a start with a low battery. This will only compound the situation.

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 all the 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 cowlings openings.

A hole located 6-9 inches up from the exit end of breather tube ("whistle slot") should be checked as it provides engine venting if the end of tube ices over & is blocked (say after taxi through icy slush).



When OATs get down near freezing, any water in the fuel system will cause big problems. Fuel selectors can freeze in position & engines can stop when fuel lines are blocked. Especially problematic if parking outside in the elements for extended time.

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.

If landing & taxiing through snow minimize brake usage since warm brakes melt any snow upon stopping, then the snow refreezes, locking the plane in position. Bad if you are parking outside for extended time.

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 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. Those that fly OYD will notice some tape across front of oil cooler. This is to restrict airflow and help bring oil temps up.

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. These are minor inconveniences compared to the payoff.

All this sermonizing has served to remind me that I'm not exempt from the rules of common sense.

Have fun, be safe. Jim-e

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### **NEW MEMBER NOTICE**

**T-Craft Board approved members** must be formally accepted into the Club by member vote during a General Membership Meeting. The next General Membership Meeting is scheduled for 29 November 2011, 7:00p.m., in the EAA/CAP Building, Nampa airport.

# MEMBER CONTRIBUTION

Jared Martens and I decided to fly two of the club planes to Smiley Creek in July this year. Jared had 64R, and I was in 91X. Jared had a friend from college. I had a Korean War veteran pilot and another (non-pilot) friend with me. We left early from Nampa and headed over Idaho City, up the canyon past Warm Springs and Bull Trout, then around the corner at Stanley, making our way to Smiley Creek for breakfast. The scenery was absolutely breathtaking. I just can't get enough of the pristine mountain lakes and the Sawtooth ridges.

We flew tandem on the way home and I was able to get some great photos of Jared flying 64R.



Flying is liberating and I appreciate the ability to fly in the back country with my friends. I am very grateful for T-Craft and our birds.

Reggie Sellers

*(Reggie Sellers and Jared Martins (above right, far left) treat their passengers to breakfast at Smiley Creek Lodge, a clean and well-kept facility north of Ketchum, Idaho. Photo courtesy Reggie Sellers)*



Jared Martens flying 64R along the Sawtooth Range in the Stanley Basin, summer 2011. Photo courtesy Reggie Sellers

## General Information

\*\*\* Members wishing to maintain currency may attend the following meetings\*\*\*

**Next Board Meeting:** 8 November 2011, 7:00p.m., T-Craft Hangar training room.

**Next General Membership Meeting:** 29 November 2011, 7:00 p.m., EAA/CAP Hangar, Nampa, Id

## **Upcoming Local and Regional Events**

*If you have read or know of events to come, please send the Secretary ([jlvanho@msn.com](mailto:jlvanho@msn.com)) a quick e-mail.*

## **Special Announcements**

There are no announcements at this time.

## **Websites of Interest**

(Hover your pointer over the link, hold down the Ctrl key, then click your left mouse button.)

[http://activefiremaps.fs.fed.us/lq\\_fire2.php](http://activefiremaps.fs.fed.us/lq_fire2.php), Large fires, some including TFRs  
<http://airspace.nifc.gov/mapping/nifc/index.cfm>, TFRs on WACs or Sectionals  
[http://aviationweather.gov/adds/icing/icing\\_nav.php?icg\\_type=CIPSEV50&height=max&fcst\\_hr=0](http://aviationweather.gov/adds/icing/icing_nav.php?icg_type=CIPSEV50&height=max&fcst_hr=0)  
<http://aviationweather.gov/adds/metars/>  
<http://faasafety.gov/>  
[http://tfr.faa.gov/tfr\\_map\\_ims/html/index.html](http://tfr.faa.gov/tfr_map_ims/html/index.html), FAA  
[http://www.aopa.org/asf/online\\_courses/](http://www.aopa.org/asf/online_courses/)  
[http://www.aopa.org/asf/online\\_courses/](http://www.aopa.org/asf/online_courses/), AOPA Flight Safety on-line courses  
<http://www.aopa.org/asf/publications/advisors.html>  
<http://www.aopa.org/index.html>  
<http://www.aopa.org/letsstoflying/>, AOPA's "Let's Go Flying!"  
<http://www.aviation.state.or.us/>, Oregon State  
<http://www.faa.gov/go/runwaysafety>, Runway safety  
[http://www.faa.gov/news/safety\\_briefing/](http://www.faa.gov/news/safety_briefing/), FAA Safety Briefings  
[http://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aircraft/airplane\\_handbook/](http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/)  
<http://www.firedetect.noaa.gov/viewer.htm>, Fire Reporting  
<http://www.flyidaho.org>, Idaho Aviation Association  
<http://www.itd.idaho.gov/aero/>, Idaho Aviation Association Calendar of events  
<http://www.nampairport.org/airport/Category/news>, Nampa, Id. Airport news  
<http://www.navmonster.com/>, TFRs along your route  
[http://www.undaerospace.com/cbt\\_files/virtualengine/Magneto/virtual%20Engine.swf](http://www.undaerospace.com/cbt_files/virtualengine/Magneto/virtual%20Engine.swf), Magneto Fun!  
<http://www.weather.gov/aq/sectors/pacnorthwest.php>  
<http://www.wrh.noaa.gov/boi/>, National Weather Service – Boise Office  
<http://www.wrh.noaa.gov/satellite/?wfo=boi>  
<http://www.wrh.noaa.gov/zoa/cwa.php>  
<http://www.gohcc.msfc.nasa.gov/GOES/goeswestpacus.html>  
[https://faasafety.gov/gslac/ALC/course\\_catalog.aspx](https://faasafety.gov/gslac/ALC/course_catalog.aspx)  
[www.backcountrypilot.org](http://www.backcountrypilot.org)  
[www.cubgearstore.com](http://www.cubgearstore.com), Survival, and back country gear  
[www.shortfield.com](http://www.shortfield.com)  
[www.t-craft.org](http://www.t-craft.org), the official website for T-Craft Aero Club Inc.



## Reminders

**Answers** concerning our Club, Policies, or even locating a **New Member Application Form** for your friend or family member can be found on the T-Craft website: [www.t-craft.org](http://www.t-craft.org).

**T-Craft Business Cards and Pamphlets** are available. Share them with friends and acquaintances in the community who may be looking for piloting opportunities.

**Delete** the remainder of any unused flight time from ScheduleMaster immediately after landing. Somebody may be able to use that time.

T-Craft Members are responsible for keeping their **contact information** (phone numbers, email addresses, postal address) updated in **ScheduleMaster**. To check or update your information, login to ScheduleMaster, click the "User" tab at the top, then click the link that says "Click here to edit your user info".

Got something aviation **you want to sell**? Post it in the T-Craft Newsletter. Send your advertisement to the Secretary at: [jlvanho@msn.com](mailto:jlvanho@msn.com).



Jared Martin with friends at Smiley Creek airport, summer 2011. Photo courtesy Reggie Sellers



The editor made a pitch attitude adjustment with Reggie's photo. (photo courtesy Reggie Sellers)



Redfish Lake summer 2011. Photo courtesy Reggie Sellers

*Thanks to all who have sent us stories and photos for our newsletter. Be sure to send us yours.*

**Fin**