T-CRAFT AERO CLUB

AUGUST 2013 Newsletter

VOLUME 10, ISSUE 8

Trip to the Salmon on 8.16.13

Photo By: John Brown - 2013

Check Out New Plane Rates on Page 4

Have your photo featured here! Email brent@papaross.com

SCHEDULED EVENTS

SEPTEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2			

- **Board Meeting**
  September 17, 2013 @ 7pm
  Location: T-Craft Hanger
  (Note, this is an exception to the normal meeting date)

- **AOPA Safety Seminar**
  "Weather Challenge"
  September 18, 2013 @ 7pm
  Location: Hilton Garden Inn – Boise Spectrum

- **General Membership Meeting**
  September 24, 2013 @ 7pm
  Location: EAA/CAP Facility

AUGUST 26th
FUEL REIMBURSEMENT
$5.47

UP COMING EVENT!

MARK YOUR CALENDARS!
There will be a plane wash and pizza feed on October 2nd.

UNDERSTANDING AIRCRAFT AVIONICS *by Jim Hudson*

We have all learned that our priorities while flying should be in order: Aviate, Navigate, and Communicate. However, we can become very distracted and unsettled when the communications part of our piloting responsibilities presents problems. Communication in itself can be difficult or stressful, especially with ATC in some cases. Avionics equipment problems or lack of knowledge on how to operate the avionics equipment can compound our communication woe's and in some cases lead to serious consequences, or even have fatal results.

The focus of this month's safety meeting and article is on the avionics in our club aircraft. It is important to understand the operation and features of the avionics in each plane we fly. To help in that regard, I've updated the club web page with a diagram and listing of the avionics equipment in each plane. Also, all of the avionics manuals are available in pdf format. Go to the "Fleet" tab on our web page; http://www.t-craft.org/fleet.htm, then click on "Avionics Panel" or "Avionics Manuals" for the aircraft of interest. I also added avionics preflight and troubleshooting tips on the website index page under "Avionics pre-flight/troubleshooting tips"

Take some time and review the avionics manuals for the birds you fly and fully understand their operation.

If you have questions and/or would like to go over the avionics equipment in more detail, contact me or one of the club member CFI's.

At the safety class this month, we had a great turnout of 25 members putting up with cramped and hot conditions in our hanger meeting room to learn more about operating our avionics, which shows there is much interest in the topic.

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

Jim Hudson, Safety – Membership Director

PROP BLAST FROM THE DOM *by Jim Eyer*

Republished from November 2011

Even for the Seasoned Pilot, Engine Indications can be Confusing!

It's a CAVU day with a light breeze from nowhere. You decide to take advantage and go for that juicy $100 hamburger at your favorite grease joint. Blissfully en route you happen to glance at the engine instruments. You have normal oil pressure, but high oil temperature. What does this mean? Or perhaps you see indications of low oil pressure with high oil temperature. Would that make any difference? Giving you credit for even noticing these indications means you're already ahead of the game. Hate to say it but the ugly truth is that many pilots do not pay adequate attention to engine instruments. Airplanes and people are not infallible. If they were, airplanes would not come with warranties, and the term *pilot error* wouldn't be in the FAA's lexicon. Even for the seasoned pilot, engine indications can be confusing. Some indications simply mean that everything is OK. Those are the ones with a lot green on both sides of every needle. Other indications are signs of trouble, how much trouble to expect, and how soon to expect it. Key word is *expect*, making the difference between your finding trouble in time to address it, and trouble finding you after it's too late to do anything about it – the difference between a precautionary landing and a forced landing.

In addition to the way an airplane sounds and feels to the pilot, the airplane tells you about its health through the engine instruments. Two of the most important engine instruments are the oil temperature and oil pressure gauges. They are the "airplaneese" your airplane uses to describe its health. Here are some quick lessons in "plane" language.

HIGH OIL TEMP WITH NORMAL OIL PRESSURE: this is a tough one with a mountain of possibilities. No way to tell what is going on w/o further investigation. Best policy is to head for nearest airport – just in case. Err on side of safety always. High oil temperatures in flight may indicate high OAT or poor cooling during a long climb to altitude. Some airplanes just run a little hotter than others (686). May sound strange but something may be wrong with the electrical system. In some older aircraft an electrical short may cause oil temperature gauge to behave like an ammeter – higher the electrical load, the higher the indicated oil temperature. Try turning off unnecessary electrical equipment, one item at a time. Check circuit breakers and recycle the master switch. Ironically, indications of high oil temperature with normal oil pressure are common and commonly the result of *pilot error*. Did you miss something during your preflight inspection or make some sort of in-flight mistake. Was there oil leaking from bottom of cowling? Shouldn't have been. Did you even remember to check the oil? The airplane might be telling you that you have been using too much power with the mixture too lean. Pilot error? Normally you shouldn't lean the mixture when using more than 75% brake horsepower (BHP). This can cause detonation and eventually preignition. That is when parts inside the engine cylinder heat to an incandescent state, causing fuel to ignite prior to normal ignition forcing the cylinders to fire out of sequence. These conditions put a serious strain on the engine, will cause a loss of power, and may cause engine damage or even failure.

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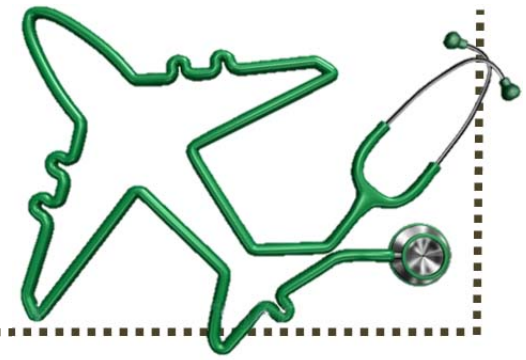
Article Continued on Page 3



PROP BLAST FROM THE DOM - *Continued.*

Check the performance section of POH to find out what constitutes 75% BHP and notice that this figure changes with pressure altitude and OAT.

Regardless of the leaning procedure used, if the engine begins to run hot or rough, you've over-leaned the mixture. Here's a way to determine whether you are running too lean: set your power and lean mixture until you believe its set properly. Now activate the carburetor heat and note indication on tachometer. If rpm increased, you've over-leaned. Heated air being less dense resulting in less air for same amount of fuel. Another common cause for high oil temp with normal oil pressure is the use of too high a power setting at too slow an airspeed. This can happen during an extended performance climb at **V_X**. You are over working the engine, airspeed is too slow to provide adequate airflow through the engine cowling for cooling and the oil is trying to compensate. If an engine runs too hot for too long, the oil pressure will eventually decrease because of thermal breakdown. Oil will lose its lubricating capacity. Now you've really got a problem. High engine temperatures can cause a loss of power and eventually engine damage or failure. Treat any engine that is overheating, detonating, or preigniting in exactly the same fashion: Smoothly reduce power, gradually enrich the mixture to full rich, lower the nose slightly to increase the airspeed. If there are cowl flaps, open them. Hold level flight – don't descend – you don't want to shock-cool the engine (may cause cylinder heads or engine casing to crack); conserve your altitude just in case you actually do have a problem, because you will come to miss altitude very quickly when you really need it and don't have it.

NORMAL OIL TEMPERATURE W/LOW OIL PRESSURE: Bit easier to deal with. Airplane is saying "I'm going to be sick." Low oil pressure is a bad sign, a warning of the onset of a few possible problems, the least of which is a gauge malfunction. There may be an obstruction in the oil line. An oil line, gasket or seal may have blown and the engine may be losing oil which will invariably lead to a high temp/low pressure issue indicating an oil circulation issue and w/o oil engine failure is imminent. Assume gauges are right and head for the nearest airport. If one gauge is wrong the worst that will happen is that you will make a safe precautionary landing. If you see oil temp rising further or if this is accompanied by decreasing oil pressure, don't panic. But do expect a partial or full loss of power as the airplane is saying "I'm dying." Look for a place to land safely and go to it immediately.

NORMAL OIL TEMPERATURE W/HIGH OIL PRESSURE: this is rare. Could be obstruction in oil line, a malfunctioning oil regulator valve, faulty gauge or an electrical problem. Airplane is saying "Something's wrong, Not sure what." Watch the gauges and proceed with caution to nearest airport. Expect oil temp to rise.

HIGH OIL TEMP W/LOW OIL PRESSURE: Two gauges indicating serious trouble. Airplane is saying "I'm Dying." Don't waste time trying to work this one out because both gauges can't be wrong. Engine is definitely about to give up the ghost. Find a spot to land and treat the engine as though it has already failed. Get the approach right the first time – you may not have an engine for a go-around. Don't bet your life or the lives of others on a gauge malfunction.

Any engine indications that are not normal are just that – Not Normal. Listen to your airplane. If something doesn't look right, expect a problem and you won't ever be caught off guard. Don't Panic. You won't just fall out of the sky. If the engine is still running then you still have an airplane. If not then you at least have a glider. Continue to fly either one for as long as it will fly. Remember to look outside. *AVIATE, NAVIGATE, and COMMUNICATE*.

Your primary responsibility to yourself, passengers, loved ones, and strangers on the ground is to keep it in the air until otherwise necessary. Don't get caught in the same trap as the airliner crew that crashed into the Everglades in 1972 when the pilots were distracted by a panel problem. The gear was down and locked, but 100 people perished because a $10 landing gear position light burned out. A smart pilot on the ground is a safe pilot in the air, and a pilot who listens to his airplane will be a smart pilot on the ground again.

IN THE KNOW

FROM THE BOARD:

Most, if not all of us, are aware that fuel prices have risen since our last fuel purchase. Dennis Wheeler did an excellent job of monitoring and timing the markets within the limits we are allowed by the AvCenter and secured our fuel at a $0.60 increase from the last batch. We are already into the new fuel and the new price is $5.47 /gallon. Please be sure to check out the new rates listed to the right in the SQUAWKS / RATES section.

BFR PREPARATION:

The FAA has a Flight Review Preparation Course to help prepare for the oral portion of the BFR. It is available in the Aviation Learning Center at: https://www.faasafety.gov/gslac/ALC/course_content.aspx?pf=1&preview=true&cID=25. This is a great way to impress your CFI (and possibly save some cash) as you prepare for your BFR.

WEB PAGE UPDATES.

In addition to the avionics materials listed above, all aircraft have pdf versions of their respective POH under the "Fleet" tab.

CABIN FOR RENT

This cabin, available for rent, is located in McCall's Spring Mountain Ranch and owned by a club member. It has access to the clubhouse, year round hot tub, fitness center, seasonal swimming pool, and tennis courts. Internet available in the clubhouse. Located about a mile from downtown McCall, Payette Lake and the McCall airport.

T-Craft members will receive a 15% discount off the rental rate on non-holidays.

Sep 1st - Dec 15th and Mar 15th - Jun 15th, book 2 nights and get a third night free.

Dogs are allowed with a dog fee.

Contact Accommodation Services in McCall @ 1-800-551-8234 and mention that you are a T-Craft Aero Club member.

http://www.accommodationservices.com/Unit/Details/52956

SQUAWKS/RATES

Always check current squawks on Schedule Master and Hangar Wall

See New Rates Beginning August 26, 2013
Monthly Dues $131.00

N67375: **$61.00 per Hour**

N13686: **$86.00 per Hour**

Developed fuel leak in same tank repaired last September (right). Removed & found break along weld line. Tank under warranty. Shipped for repair (still much cheaper than new tank. Could not locate used one). Oil temp gauge in for calibration. Shoulder harness holding bracket over pilot door repaired. Be extra careful when removing/replacing belt in any aircraft. Should be mission capable by the 24th.

N4464R: **$84.00 per Hour**

100 hrs from engine TBO, getting estimates on engines now.

N1891X: **$125.00 per Hour**

N9989E: **$128.00 per Hour**

Com2 works great, Com1 intermittent difficulty receiving. Down for avionics work to include radio circuit breaker and Com1. Scheduled down till August 29th. Refer to Schedule Master for possible early release.

N7593S: **$128.00 per Hour**

Finis hed 100 hr inspection on August 23rd.

All BIRDS

Water buckets are available in the hangar for cleaning the leading edges of our birds following each of your flights. Please clean the leading edges, windscreens and interiors so that the planes are clean and ready for the next member.

NEW MEMBER: *Welcome Back Rich Kalbus. Rich is a former member who left a few years ago, but couldn't stand to watch planes fly over and missed the camaraderie of club members and re-joined this month.*

MEMBERSHIP STATUS:
70
+1
Members

Sponsor a New Member and receive one hour of flight credit (C152)

DEAR FELLOW CLUB MEMBERS,

I would like to mention a few things that I have observed that have been the cause of just a few issues with our billing process. Please read the items below and do what you can to help correct them.

- Please log the plane out prior to your flight. Many are forgetting this important step.
- Please check the Hobbs meter **PRIOR** to turning on the master switch and use that time as your start time.
- Please call me (861-6274) to advise me of logging issues such as wrong Hobbs times or planes not logged out so I can investigate and solve the issues when they are fresh in our minds. If I am not able to answer please leave a detailed message.
- Please make sure to use two digits, a decimal point and a third digit as your Hobbs time, eg. xx.x
- Please observe the hours flown and the charges associated. This will indicate any problems with your entries. We have actually had flights charges well over $100,000 due to errors in Hobbs time entries.
- Please record any fuel and oil use when logging your plane back in. These numbers are very helpful to other members and our DOM.
- Please pay your account in full on or before the 10th of each month. I hate assessing late fees nearly as much as our members hate paying them. I would sincerely like to thank the vast majority of our members for paying their accounts on time. Although for the most part we are doing very well, we continue to have 5 to 7 members late each month.

And MOST IMPORTANTLY, ignore these items if you are already doing them. Have a great time flying our birds.

ALL THE BEST,

Reggie Sellers, T-Craft Billing

News Letter Contributions

Please send photos and your Flying Stories to brent@papaross.com for inclusion on future issues. Thanks

Cassiar Mountains near Bob Quinn Lake

Photo By: Ben Brandt

PLANNING, PLANNING, PLANNING! *by Ben Brandt*

Installment 1 of 3

What is the key to a fun and exciting trip through Canada? That's right, planning. This summer I was fortunate to have the opportunity to ferry an aircraft to Wolf Lake Alaska (4AK6). Obviously, I jumped at the chance to spend 2 to 3 days enroute over scenic and sometimes intimidating terrain. As a bonus my son Josh, who just graduated from high school, was able to join me on this trip of a lifetime. Actually, as I am writing this he is still in Alaska but we will get to that later.

The Airplane

Our chariot for the trip north was a 1980 PA-18 150 with 26" tundra tires, 3" extended gear, belly pod and a G696. Although it's not the fastest plane I have flown it seemed to be tailored for such a trip. We weren't in a hurry so the 72 to 74 kts ground speed didn't bother us but with 34.4 gallons useable and an approximate no headwinds range of 300 nautical miles it does present some logistical issues when it comes to refueling. At times we encountered headwinds that reduced our ground speed to 52 to 54 kts. It's safe to say I became comfortable with aggressive leaning over 27 hours of flying in a 3 day span.

The Routes

There are 4 basic routes to choose from when crossing Canada**.** The western most route is up the coast or the *Coastal Route*. Many pilots will select this route if their goal is to overfly Canada. From numerous departure points within the U.S. you can reach Ketchikan Alaska without stopping for fuel in a number of single engine piston aircraft. The distance is 535 to 605 nautical miles depending on departure airport. With good weather this is a quick flight and an excellent way to avoid the additional costs (fees and high priced fuel) associated with flying in Canada.

Working our way east the next route is the *Cassiar Highway Route*. This route provides the shortest distances between fuel stops but is subject to the same weather that can beset the *Coastal Route* from time to time and takes you through somewhat remote and mountainous terrain. In my research I noted that this route is typically not mentioned and the pilots that prefer this route are greatly outnumbered by those who consider this route only as a last resort.

Next we have The Trench, if you are unfamiliar with this route simply open Google Maps, select terrain and look for the obvious trench that starts a little Northwest of Prince George and heads straight for the Yukon. *The Trench* is the most popular, low terrain allows for travel along this route even in poor weather conditions. Since *The Trench* is well traveled and there are numerous places to land along the way this route provides a number of *outs* should a pilot find himself in deteriorating conditions.

Article Continued on Page 6

"If the wings are traveling faster than the fuselage, it's probably a helicopter - and unsafe."

48T after Skyline's panel work

PLANNING, PLANNING, PLANNING! - *Continued.*

The last route working West to East is the *AlCan Highway* route. This route is typically selected by pilots that are departing from locations in the Midwest or further east. This is the longest route but many consider this route to be the safest due to the flat terrain, highway for reference and emergency landings and help on the ground should it be needed.

Our Route

After a lot of research on the internet and late night discussions over campfires in the Idaho back country I selected the *Cassiar Highway.* All of my research and most of my conversations pointed me toward *The Trench* but three things solidified my selection. First, Toby Ashley a great pilot and even better friend suggested we take the *Cassiar* (if you weren't going up the coast that is), second, the distance between fuel stops was shorter. The hop from McKenzie to Watson Lake through *The Trench* would exhaust my available fuel if I ran into any significant headwinds and there is no fuel to be had over this 400 nautical mile stretch of Canadian wilderness. Third, the weather forecast on the NOAA NCEP GFS model was showing a strip of clear up the *Cassiar* and potential soup over *The Trench* (thank you **Bill McGlynn** for the weather class, this tool has been invaluable).

In my opinion the Cassiar Highway route isn't fairly represented. Many present this route as traveling over rugged terrain devoid of civilization and services, subject to unpredictable weather and potentially hazardous turbulence. Having spent time flying in the Idaho back country I was very comfortable flying this route and found that the majority of the time I had a highway or other suitable landing area within sight and easily accessible should something go wrong. The scenery was spectacular, we met helpful pilots along the way and fuel was readily accessible. The weather, well we would soon find that the locals considered the weather very predictable, to quote James a very helpful Huey pilot we met in Smithers, "it will be clear from here to Mezidian Lake but Bob Quinn is always in the dog &*%$ if there is any weather around". This would be a bit of a concern as we planned to refuel at Bob Quinn (Quinn Lake on the map).

Getting Started

While planning was a big part of preparing for this trip building new piloting skills and aircraft preparation were equally as important.

First, I needed to be competent and insurable in N5348T. Most insurance companies require 10 hours dual in make and model with a qualified instructor before they will insure a pilot in a tail-wheel aircraft. After searching for insurance I settled on AVEMCO. Their rates and policy requirements were the best match for the mission.

I began my instruction with Bob Cox, an excellent instructor with time flying everything from Champs to Airbus 320's. It took me a bit to wake up my feet, but with Bob's guidance my skills quickly increased and soon I could consistently make decent landings in N5348T. Now I just needed to get some hours under my belt to ensure I was prepared to handle the conditions I would see throughout the trip. With a handful of trips into the Idaho back country and numerous tips from Toby Ashley my skills and confidence continued to increase. T-Crafts annual fly-in to Garden Valley was my last opportunity to sharpen my skills. With 25 hours in N5348T we were ready to head north.

During the two months I was learning to fly N5348T numerous hours were spent going over the aircraft to identify any mechanical issues that may pose a problem on such a long trip. Working with Toby, Roy and the guys at Skyline and Performance air 48T was in tip top shape by late July and ready to head to Alaska.

Final Preparations

With a route, a departure date and an airplane we were ready to go. The last week of preparation consisted of checking the weather, looking at the route, checking the weather, packing our gear, checking the weather, calculating fuel stops, checking the weather……you get the picture. Oh, I almost forgot eAPIS! Crossing the border requires a little more planning and effort then it used to. To fly a private aircraft from the US to Canada and back to the US requires the pilot to file an electronic Advanced Passenger Information System report with US Customs and Border Patrol. The first time to file it is a little daunting. However, once you have been through the process it is much simpler than it initially appears.

I logged into the eAPIS site a month or so before the intended departure date. I registered online and in about 5 days I received my account information. Now, I was all set to file. So, I filed. Upon submitting my filing a pop-up on my screen let me know that my departure date was 30 days or more in the future. As I would later find out the CBP agent at Northway gets irritated if you file more than a few hours in advance. However, I would suggest if it is your first time file a couple of weeks in advance. This gives you the opportunity to learn the system under less stressful conditions. If you don't cross and have an eAPIS on file it just goes away and there is no penalty. If you cross without one on file or you file incorrectly you risk a $5,000.00 to $10,000.00 fine. Yes, officer Journey treated me like I was an idiot and was generally a jerk but he could do little more than tell me how stupid he thought I was as I had a valid eAPIS in hand.

Departure!