



PUTTING WINGS ON YOUR DREAMS

October 2019

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IMPORTANT NOTICES

Smith Memorial Service Info

As most of you are now aware, Lan Smith and his wife Pamela perished in the crash of 91X. I have been in contact with numerous members requesting information about services and ways to help. The outpouring of grief and well wishes shows the closeness of the pilot community. Thank you for all the thoughts and prayers for Lan and Pamela's family.

Barry Smith, Lan's brother, has emailed me information regarding the services and has invited T-Craft members to join them in mourning their loss and celebrating the lives of Lan and Pamela. Below are the service and reception times:

Saturday September 28 at 980 W
Central Road Emmett, Idaho

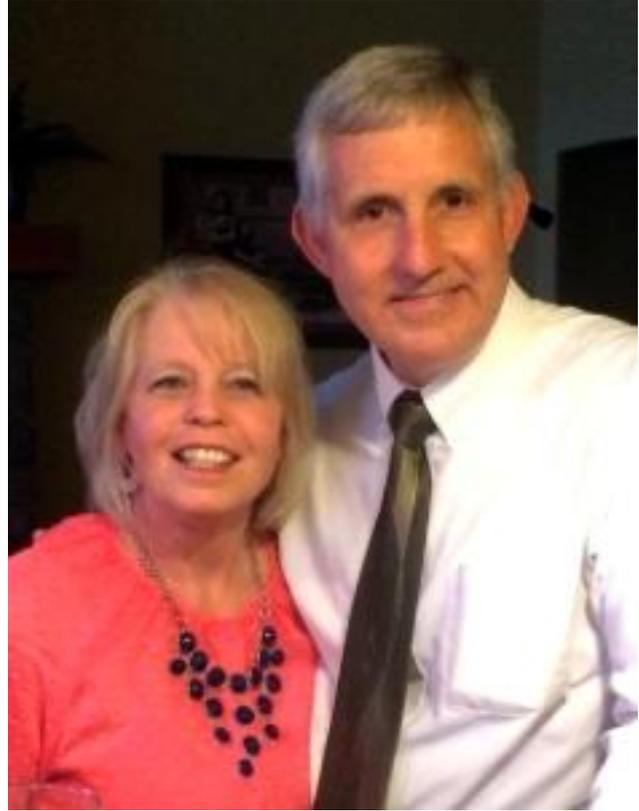
- Community gathering and family reception 3 to 4:30
- Memorial Service 5:00 - Church of Jesus Christ Stake Center

Thank you and feel free to contact me if you have any questions.

Ben Brandt, President – T- Craft Aero Club

Obituary: Lan and Pam Smith, high school sweethearts who were married 41 years and deeply loved their family, faith and the community of Emmett, Idaho, died Sept. 19, 2019 in a tragic aviation accident. They were 65. [Read more....](#)

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Plane Wash Coming Up

Our semi-annual plane wash is Tuesday, October 1st. If you recall, the last plane wash was in May on a beautiful Saturday afternoon. We had a dismal turnout, which we attribute to possibly too nice of a weekend, Mothers day weekend, and graduation weekend. We need a good turnout this time. There have been some long time members who have never been to a plane wash, or only a few. We recognize that some may not be able to make it due to other obligations, but please make this a high priority and don't assume that we have enough members that enough will show up.

If you haven't been before, its lots of fun and a good chance to meet other members. It's also a family/friend event, so bring some extra helpers. The "Official" start time is 3:00 pm (a few will start earlier to get things set-up and degreased the belly's), and we normally are finished with enough hands on deck by around 6-7 pm. We also clean up and do some maintenance on the hanger. After we're finished we'll have BBQ - Pulled Pork sandwiches, snacks and drinks. Mark you calendars and let's have a record turnout.

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Tug Raffle

Our Tug fundraising raffle proved a great success. We sold 153 tickets to 53 separate members. So, we had nearly 50% participation and, after the cost of the awards, we netted \$2,460 towards the new tug.

Winners of the \$300 flight credit were Stefan St. Marie and John Barsness. Congratulations!

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Lemon Pledge OK for Windscreens

After extensive testing, the Board of Directors, has approved Lemon Pledge as our default windscreen cleaner. It performs equally well when compared to previous brands, but costs only \$5.00 per can rather than \$20.00. As the Plexus black cans are used up, they will be replaced with the yellow cans of Pledge. The same product remains approved for cleaning the airplane leading edges.

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Aviation Safety Standdown 19 October



The poster features a blue header with the text "Aviation Safety Standdown" in white, accompanied by a white graphic of two arrows pointing up and down. To the right is the logo of the National Aeronautics and Space Administration (NASA). Below the header, the text "Win a survival kit vest!" is written in orange, followed by "WINGS Credit Available" in blue. The date "October 19, 2019" is prominently displayed in white on an orange background, with the time "9:00am - 3:00pm" and location "Best Western Vista Inn, Boise, ID" below it. Further details include "Registration & Coffee and Doughnuts at 8:15am" and a note to "Ask for the Aviation Safety Standdown Special Room Rates".

Click here for information and to register:

more

<http://events.r20.constantcontact.com/register/event?llr=wkdvkg8ab&oeidk=a07eglu9jj10e4ed1a1>

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N4464R Custom License Plate Available



Former member, Jim Schiers, has a personal license plate for N4464R that he will let expire in October.

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TIPS, TRICKS AND FUN

11 Things You Must Do With Your Pilot's License (Reprinted from Air Facts Journal)

You worked hard, paid a lot of money and earned your pilot's license. Congratulations! Now what do you do? It's a question that comes up more often than most pilots care to admit. Sure, you'll want to take friends and family up for a ride, but once you've done that a few times, you may find yourself looking for new missions.

The good news is that your flying adventures are limited only by your imagination (and to a certain extent, your budget). When you think about it, this is probably one of the main reasons you learned to fly—the unbelievable freedom and possibilities that come with the title “pilot in command.”

Everyone's dream list will vary, but let me suggest 11 things that every pilot should do before they die. Call it a bucket list if you want, but I consider it a flight plan for a fulfilling life in the cockpit: [Read more...](#)



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That Gut Feeling Might Save Your Life

(Reprinted from Air Facts Journal)



As pilots we've all experienced it, that nagging feeling that something's not quite right. The instruments are all in the green. The navigation is spot on and you know exactly where you are. The weather couldn't be better but... Call it what you will. Gut feeling, experience, or lack of it. Even when passengers or crew don't share that gut feeling, you should pay attention to it. It might save your life. [Read more...](#)

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The art of compromise

(Reprinted from AOPA ePilot)

Understanding wing loading and the compromises that aircraft designers must balance could help you find an airplane in your personal "sweet spot." [Read more >](#)



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Quiz: I follow roads

(Reprint from AOPA ePilot)

How sharp is your VFR cross-country knowledge? Test yourself with a long-distance scenario in [this AOPA Air Safety Institute quiz](#)



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Your ADS-B Questions Answered: Get the Facts Here

FAA Safety Team Notice Number: NOTC9709

Am I safer with ADS-B when I am operating in the National Airspace System (NAS)?

A 5-year FAA study, which focused on general aviation (GA) and small air taxi accidents in the continental U.S. and small air taxi accidents in Alaska between 2013 and 2018, focused on general aviation (GA) and small air taxi accidents in the continental U.S. and small air taxi accidents in Alaska between 2013 and 2018. The results show a significant reduction in the accident and fatal accident rates for aircraft equipped with ADS-B Out and In compared with those that were not equipped, in part due to the cockpit displays that pilots typically add when installing the avionics. The results show a significant reduction in the accident and fatal accident rates for aircraft equipped with ADS-B Out and In compared with those that were not equipped, in part due to the cockpit displays that pilots typically add when installing the avionics. ADS-B In provides air-to-air and ground-to-air (from FAA radar) traffic and through the 978 MHz UAT link, a variety of weather products, including local and regional NEXRAD and weather at airports.

The study showed that Alaska air taxis with ADS-B In experienced an overall accident rate that was 55-percent less than those unequipped. That translates to approximately 90 accidents avoided between 2005 and 2017.

For the continental U.S., the average rate reduction across four types of accidents (mid-air, controlled flight into terrain (CFIT), weather-related, and CFIT plus weather accidents) was approximately 50-percent for equipped aircraft, with a cut in the fatal accident rate of about 90-percent. That translates to about 36 fewer accidents and 16 fewer fatal accidents between 2013 and 2017.

As additional aircraft are equipped and more time goes by, the FAA will be able to get a more precise handle on the direct safety benefits of the technology. After January 1, 2020, all aircraft flying in "rule" airspace will be required to carry ADS-B Out.

You can read more about this study and the benefits of ADS-B by reading the FAA Safety Briefing article "Better with ADS-B – The Proof Is In" here: <https://adobe.ly/2JqKxal>

Please see our FAQs at <https://www.faa.gov/nextgen/equipadsb/resources/faq/> or contact us at adsb@faa.gov

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Howard Whittig Flies Again

(Written by Linda Whittig, Submitted by David Thomas, T-Craft Director of Safety & Hangar)

Howard Whittig was only 17 when he enlisted, so he finished out his senior year of high school in Notus, Idaho, and graduated a semester early. He entered the Navy four days after his 18th birthday, and two days before the Christmas of 1944.

Whittig went through boot camp at the Naval Training Center in San Diego before being stationed at Ream Field in Imperial Beach, California. The Navy had started using this field for carrier landing practice in the 1920s, expanding it in 1943 during World War II. In July of '43 Naval Auxiliary Air Station Ream Field was commissioned, just months before Whittig's arrival. It was while he was at Ream Field that he was trained as an aviation machinist mate, working primarily with Hellcat F6F carrier-based fighter planes. His duties included performing preflight checks for the pilots, washing the outside with carbon tetrachloride, maintaining the insides (apparently pilots could be rather messy) and taxiing the planes.

Whittig tells the story of doing a preflight check on a plane, grounding it with a hydraulic issue. He then left to go on a three-day leave. He returned to base to hear his name being called over the loudspeaker with directions to report immediately to the Captain's office. Knowing no good could be coming out of this, he went directly to find out that the plane had been flown and had crashed in the ocean. Thankfully the pilot had escaped unharmed.

Needless to say, Whittig was in big trouble, but luckily a fellow mate had witnessed the report and had seen it being torn up by a chief petty officer. The paper shreds were rescued from the garbage can and taped back together exonerating Whittig. Mechanics at that time were known to ground their planes for unfounded reasons when they were going on leave so there would be less work for them upon their return. The officer had suspected the hydraulic claim was a bogus one so had ripped up the document without confirming for himself – a mistake that yielded a three-level demotion along with a transfer while Whittig got promoted to maintaining the skipper's plane.

In October of 1945, he passed through Camp Elliott and Treasure Island San Francisco before landing on the CVE-83 escort carrier USS Sergeant Bay. Whittig spent the rest of his time in the Navy as a Yeoman in the Marshall Islands. He was honorably discharged as a petty officer third class in August of 1946.



His love for aviation continued though and using the GI Bill, he took flying lessons in a Piper Cub at the Caldwell Airport. On one training flight with his instructor, just after clearing a power line at the end of the runway, the engine died. With no way to restart it, the instructor took over the controls and guided them back to safely land at the airport. Another time, on a solo flight, the engine did the same thing, forcing Whittig to land in a nearby pasture. He walked away that day thinking it was a sign and the third time he might not be so lucky. He was one cross-country flight away from getting his pilot's license – a dream he never realized.



When T-Craft Aero Club member, David Thomas, heard Whittig's story, he knew he wanted to take the 92-year-old veteran for a flight. On a nearly perfect Sunday morning in August, Thomas took Whittig, his wife of 67 years, Teresa, and their daughter, Linda, on a flight to Sulphur Creek for breakfast. You could hear the excitement in Whittig's voice (once he got used to how close the microphone has to be to his



mouth) as he picked out rivers and fire lookout stations and other landmarks in his beloved home state. The flight concluded with a couple of laps around the family estate near Notus where Whittig has farmed since 1947.

A big thank you to David Thomas for being so thoughtful and offering Whittig

this special memory-making day.

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Prop Balance = Smooth Moves

(Submitted by Jim Eyre, T-Craft Director of Maintenance)

Informational support from: Lycoming & TCM Continental Service Information Letters, Key Reprints & Service Instructions #1243, Superior Air Parts, Engine Components Inc. (ECI), local Precision Propeller Service, & our local mechanics.

A smooth running engine lessens both metal and pilot fatigue, reduces avionics and instrument maintenance and impresses passengers. Our engine overhauls are done by competent shops, however no extraordinary balancing was specified. The engines in our airplanes have a number of parts that move back and forth (reciprocate) as part of normal operation. Weight variations between like parts (such as pistons) create imbalances and vibrations. Engine manufacturers and engine overhaul facilities strive to match the weights of each piston in a set of pistons, set of connecting rods, and set of wrist pins.

The goal of balancing is to bring the center of the rotating weight (mass) into alignment with the rotational center of the crankshaft. Because there are manufacturing tolerances built into propellers that allow them to be mounted onto the crankshaft flange, after removal and reinstallation they should be rebalanced. The smoothness achieved is the result of a dynamic propeller balance.

Dynamic prop balancing is only effective at decreasing vibrations that occur at propeller rpm. These vibrations are called first-order vibrations because they occur once for each crankshaft-propeller rotation. Excessive half-order (half-order vibrations occur when the spark plugs fire and the power stroke starts in the cylinders). First-order vibrations are destructive as rivets loosen, wear in avionics and instruments is accelerated and pilot fatigue increases. Engine mount vibration isolators aren't very effective at dampening these frequencies.

Continental and Lycoming both suggests that the crankshaft, connecting rods with bolts & nuts, pistons, piston pins, counterweights and all counterweight attaching hardware be sent in for balancing from engine repair and overhaul facilities. In addition to this general list Lycoming starter gear supports (also called ring gears or flywheels) and Continental crankshaft alternator face gears must be balanced to achieve the smoothest running engine. Some of these parts are balanced statically and some dynamically. When the weight of a nut affects engine balance, it's a strong signal that balancing is important.

Not only are connecting rods matched by weight, they're also matched by the weight distribution between the big end and small end of the rod. All engine manufacturers and all engine rebuilders have written standards outlining their weight tolerances for each component. TCM Service Information Letter 02-1, titled "Piston Position Identification and Piston Weights," lists piston weights by two-gram divisions.

If the center of the rotating weight mass is one one-thousand of an inch out of alignment with centerline of the crankshaft, rule of thumb says that this creates a 0.3 IPS (Inches Per Second) imbalance. All manufactures of balancing equipment agree that 0.3 IPS is too high. Imbalance measured in IPS is an expression of velocity. Imbalance can also be expressed in units of gravity (Gs) or in displacement (in milliliters or 0.001).

Twenty to 30 years ago, when manufacturing wasn't well controlled, overhaul shops had to stock large quantities of each piston part number, for instance, and weigh each piston in an attempt to match piston weights. This practice is known as *tolerance matching* or *tolerance stacking*. Because of advances in manufacturing and power of competition, today all manufacturers sell parts sets that are very closely matched in weight.

The first balancing equipment was created by Chadwick-Helmuth to balance rotor blades of helicopters. In 1990 the FAA approved the technology for propeller-engine balancing. Today the process is approved as a minor alteration and as such requires only a logbook entry.

Recently 3 of our fleet had the prop dynamically balanced. After finding small cracks in air box, fairings, and loose nuts, etc., it was decided that the props needed checked for balance. Dynamically balancing the prop wouldn't help if we were flying a worn-out engine or beat up propeller. However 64R, 93S, and 91X have low time engines in top airworthy condition so there was a very good chance that a dynamic prop balance would transform them into even smoother movers.

Mo Miller (Pro Balance LLC) was our choice to accomplish the dynamic balancing. He has been balancing props for several decades including many of the Reno Air Racers. He also built race engines for years. He is a believer. Mo has kept records showing that the propellers on 80-90 percent of the hundreds of airplanes he tested were out of balance.

During the balancing process the top cowling was removed so Mo could hook up his vibration sensor to the engine just aft of the propeller. This sensor converts motion into electrical signals that are fed into a processor box. This box plots the magnitude of the mass imbalance and the location (azimuth) of the imbalance with reference to the propeller disk. A solution is derived and

simple weights (aircraft quality screws, nuts, washers) are attached to the aluminum propeller spinner backing plate using a degree wheel protractor placed over spinner. The zero-degree mark on the protractor is aligned with the propeller blade that had reflective tape applied – the location of the required weight(s) is then referenced to the appropriate angle on the protractor.

The engine is then ground run up to an rpm representative of cruise power such as 2200 rpm. This is above the excitement rpm of the engine mounts. The processor is then able to plot the effect of the initial weight solution and create a final solution. This process is repeated until Mo is satisfied we have reached optimal balance.

93S took 21.3 grams to achieve 0.04 IPS. 64R took 35.6 grams to achieve 0.04 IPS. 91X took 5.7 grams for 0.03 IPS. All final readings considered excellent.

Though far from being the hanger flying topic of the month, propeller balancing does improve comfort, reliability, and dependability. Safe, fun flying to all.

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Weather Wait

(Submitted by Joe Bejsovec, T-Craft Member)

When is an old guy too old to erupt? I'm not there yet. But when I go cross-country I schedule an extra (weather) day. So far, on two occasions, I've used it. On the return day I call Prescott FS (at 800-992-7433) for weather and Notams; but also heed that nasty statement, "VFR flight not recommended." Looking out the window, I can see there's something to it, so I plan to extend my stay. My wife Janet is disappointed because she has chores to do. I'm the opposite - piss on the mower and vacuum, I'm going to enjoy this lay-over, steak and whisky. Next day, after the storm passes we're clear to head home.

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CALENDAR

Month Ahead - October

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	31		

Coming Events

- 10/1/2019: Plane wash 3pm, T-Craft Hangar
- 10/8/2019: Board Meeting 7pm, T-Craft Hangar
- 10/10/2019: Accounts due
- 10/20/2019: Accounts past due
- 10/29/2019: Membership Meeting, 7pm, T-Craft Hangar

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CLUB STATS

Member Stats

108 Members
22 On wait list.
35 Class I Members (32%)
73 Class II Members (68%)
12 Inactive (voluntary)
23 Suspended (26%) (BFR/Med/Attend/Billing,
Including 12 Inactive)

Member Ratings

12 Student Pilots
67 Private Pilots
01 Recreational Pilots
15 Commercial Pilots
13 Air Transport Pilots
40 Instrument Rated Pilots

BFRs

Logan Schwisow
Kent Murri
Rob Starr
Clay Conner
Chris Rood

New Members

Clay Gregg – Class I

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HOURLY RATES

(New Rates Effective 1/31/2019)



N64375
\$65.00



N4464R
\$73.00



N13686
\$75.00



N1293F
\$90.00



N9989E
\$128.00



N7593S
\$128.00

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FUEL REIMBURSEMENTS

\$4.70 per gallon

We receive a significant discount from the AV Center published prices. **PLEASE REMEMBER TO REMOVE YOUR FUEL RECEIPT** from the fuel pumps so others will not see our fuel price. Also, please do not broadcast our price to non-members.

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AIRCRAFT CARE

Windscreen Care

When cleaning the windscreen, use only vertical strokes. Do not use circular strokes. Over time, circular movement of the cleaning towel will leave a corresponding mark in the screen that will require replacement.

Post Flight

We are continuing to see many instances of lack of care and taking the time to make sure that you're (and our) planes and hanger are put away properly. Gust locks, pitot tube covers not installed, flaps left down, doors not locked, seat belts not put away, master left on = dead battery, avionics master not turned off, lights not turned off (except its advisable to leave the beacon light on as a warning the master was left on), bugs not cleaned thoroughly from all leading edges, windows streaked, dirt and trash not cleaned out (plane and hanger), fuel card or keys missing from the key bag, key bag not zipped or put away, hanger door pins not fully secured, hanger doors left open, hanger lights left on, the hanger itself not locked, lock code not returned to 0000. There should be no need for any such reminders, as a matter of common courtesy we should leave an aircraft in a clean condition after we have flown it. We learned as early as first grade, if we create a mess, we clean it up. That's the grown-up thing to do. PLEASE take you time when ending your flight and be vigilant on taking care of these items.

Oil Usage

Fellow members/owners - in the big scheme of things OIL is relatively inexpensive. However, over time we have established a norm for each aircraft on how much oil a particular engine is comfortable with. Jim Hudson has taken his time to produce a comprehensive check list for each aircraft. Included in the pre-flight section it states minimum/maximum oil to check for. Do not go by what the POH says, i.e. engine has a 12 qt capacity. 93S for example would blow oil out breather tube along belly of aircraft until dip stick reads 8. Please use checklist for amount of oil necessary for all T-Craft aircraft. As I have repletely said, if you are determined to dump more oil into sump than necessary please present yourself at plane wash to clean the bellies. I keep putting 6-7 Qts oil on back shelf and it disappears quickly. Remember to note oil used on log program. Also putting unnecessary amounts of oil into an engine really screws up any attempt to determine what actual oil usage is. An engine has to work harder if sump is over-filled with oil. Read Aircraft Oil Usage on our web site under Site Index. James Eyre

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Check Lists

The club has developed check list for each bird which contain key information on the plane from the POH and some club specific items; oil levels, tire pressures, reminders to log in-out, and clean up items. It's not mandatory that you use a club check list, in fact many members develop their own, which is a good way to get intimate with the details. We've had laminated version in each aircraft, but over time, they grow legs and walk off. Members are encouraged to print out a copy of the club check list for yourself or download the pdf version and have it on your iPad/phone/tablet or build one for yourself. There's a word file as well as pdf version of the club website under the Fleet page. I'm in the process of updating the check-list to include some of the newer avionics, and other items that crop up. If you happen to find any discrepancies or have comments, let me know – Jim Hudson

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HANGAR SECURITY

- Please check to make sure you don't have the airplane keys or fuel card in your pocket.
- Make sure the plane and hanger are locked and secure; hanger door pins in, doors locked, hanger locked.
- Gust Lock installed, pitot tube cover installed. It gets windy at times in the hanger when the doors are open.

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SCHEDULE MASTER

90 Day Attendance and Day/Night Currency

Some of you, in fact most by now have probably received email notices from SM that you're 90 day T-Craft attendance will expire on a certain date. A field was set up in the Status tab to show that expiration date in. This is a way to keep track and notify you of your upcoming 90-day attendance expiration date. You'll get a notice 30-day prior to that date from Schedule Master. You will also get a message after that notice when you log on to Schedule Master. As per club policy, your scheduling and flying privileges will be suspended if you exceed this date, and any future schedules will be canceled if you're suspended. You will NOT be automatically suspended by schedule master if this date is exceeded. You will get notification by the membership director when he suspends your privileges, since there are some circumstances for exceptions.

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BILLING

Billing Tips

There have been a few mistakes made with the Flight Log System logging so I am writing this in hopes of helping with the billing accuracy.

The Flight Log System is NOT connected to Schedule Master in that if you Log a plane out in the Flight Log System and then decide not to fly, you need to log the plane back in. Cancelling the flight in the Schedule Master on-line system WILL NOT cancel the flight in the Flight Log System. You have to do BOTH.

When you log a plane in PLEASE hit the GREEN FINISH button. If you hit the cancel button, the flight will not be logged back in making it very difficult and confusing for the next member to take that airplane.

If the Hobbs meter is inaccurate when you fly PLEASE call the person that flew before you and work it out. We are all owners of the planes and it is important that the billing is accurate.

Please Remit Payment In Full By The 10th Of The Month. Your account will be PAST DUE if not received by the 20th and there will be a \$10.00 late fee. There will be a finance charge if your account is over 30 days past due and flying privileges will be suspended.

Logging Tips

- Log before and after flights (Make sure it actually logs your time!)
- Please check hobbs time as this is the basis for billing / reconciling accounts and also for maintenance projections
- Enter fuel and oil destination
- Request from Jim Eyre to include a specific destination so that he can continue to project 100 hour / annual inspections

Report any issues to me at 208.861.6274 / email regluvs2fly@gmail.com

Thank you and Happy Flying, Reggie Sellers [Back to the Top](#)