



PUTTING WINGS ON YOUR DREAMS

September 2019

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IMPORTANT NOTICES

Plane Wash Coming Up

Our semi-annual plane wash happens Tuesday, 1 October. Set aside the date now. Details coming soon.

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ICAO Flight Plan Requirements – Here's How to Comply

Reprinted from Sporty's iPad Pilot News

Form Approved OMB No. 2120-0026 09/03/2006

U.S. Department of Transportation
Federal Aviation Administration

International Flight Plan

PRIORITY ADDRESSEE(S)

FILING TIME ORIGINATOR

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR

3 MESSAGE TYPE 7 AIRCRAFT IDENTIFICATION 8 FLIGHT RULES TYPE OF FLIGHT

9 NUMBER TYPE OF AIRCRAFT WAKE TURBULENCE CAT. 10 EQUIPMENT

13 DEPARTURE AERODROME TIME

15 CRUISING SPEED LEVEL ROUTE

16 DESTINATION AERODROME TOTAL EET HR MIN ALTN AERODROME 2ND ALTN AERODROME

18 OTHER INFORMATION

SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)

19 ENDURANCE HR MIN PERSONS ON BOARD EMERGENCY RADIO UHF VHF ELBA

E/ SURVIVAL EQUIPMENT POLAR DESERT MARITIME JUNGLE JACKETS LIGHT FLUORES UH VHF

D/ DINGHIES NUMBER CAPACITY COVER COLOR

A/ AIRCRAFT COLOR AND MARKINGS

N/ REMARKS

C/ PILOT-IN-COMMAND

FILED BY ACCEPTED BY ADDITIONAL INFORMATION

FAA Form 7233-4 (7-93)

After several years of delays, the requirement to file flight plans in U.S. using the ICAO format is finally here. Beginning on August 27, 2019, all flight plans must be submitted using the international standard form.

Fortunately, most of the major iPad apps and online web planning services support the ICAO flight plan form as an option when submitting a flight plan, so the infrastructure is in place to make it an easy transition for you. [Read more . . .](#)

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Big Sky Departure Phone Number for IFR Clearances From KMAN

To obtain an IFR clearance from Big Sky Departure by telephone call 208-364-5860.

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New Aircraft Tug Funding Raffle

For those of you who were not in attendance at the August membership meeting I wanted to make you aware of the announcement of a fundraising raffle that the board is holding to offset the purchase of a new tug for our aircraft. If you are curious, the tug is an Aircraft Caddy 4k, by DJ products. Watch the video at the following link. <https://www.djproducts.com/product/aircraft-tow/> The board believes that this robust unit will meet the clubs needs for a very long time and will be sufficient to help everyone in the club. To that end we are holding a raffle. The raffle is for (2) \$300 club credits. That is to say that we

will draw out of the same bucket twice and each of the two winners will receive one club credit of \$300 which can be applied to your monthly club bill.

The drawing will be held at the September 2019 Membership meeting (next meeting) which is scheduled for Tuesday September 24th at 7pm in the club hangar. You do not need to be present to win.

We will have tickets for sale at the meeting prior to the drawing. If you are unsure if you will be able to attend the meeting you can purchase tickets via mail. If purchasing by mail please provide a check payable to T-Craft Aero Club. Please mail the checks to:

T-Craft Aero Club
135 Municipal Dr.
Nampa, ID 83687

Tickets are \$20 each and you should note on the check how many tickets you are purchasing. I will put raffle tickets in the jar with your name written on the ticket as entry requests are received and I will keep a log of the entries with ticket numbers in case anyone would like to confirm that their entry was received.

The sale of 227 tickets would completely fund this purchase (including the expense of the prize).

Please let me know if you have any questions.

Sincerely, David Thomas

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TIPS, TRICKS AND FUN

TIRES—Making Them Last

By Jim Eyre, T-Craft Director of Maintenance

How we treat our expensive tires has a significant effect on how long we can expect them to last, and how long they are safe to use. Aircraft tires are relatively high on our items of safety for any flight. Other than being black, round and inflatable are about where the similarities between aircraft and auto tires end. Auto tires are typically made of synthetics rather than natural rubber or the synthetic blends of aircraft tires. These differences are substantial.

Aircraft tires flex as much as three times as auto tires do, and are designed only for limited use. Excessive heat builds up in the tire if it's used for extended periods of time of ground operation. The reason for the additional flex in aircraft tires is twofold: To save weight and allow the tire to share some of the landing gear loads experienced in aircraft operations.

Modern light GA aircraft tires are bias-ply and constructed of materials such as nylon fabric, metal (used in the bead), natural rubber, Kevlar and other compounds. Tire design and construction as well as the quality of the components used is the determining factor in the useful life and price of the tire. We buy good quality tires as they provide a level of safety, longer service life and improved resistance to foreign object damage (FOD). We do expect a certain amount of wear & tear from the flight hours our planes accomplish.

All that being said if a member lands with feet on the brakes at too high a speed just this one landing can remove gobs of rubber from the tires. Recently 91X had extensive material removed down to core of the right main tire. This expensive 8.50x6 fairly new tire was now well beyond anything acceptable safety wise. Hard to believe the individual doing this tire damage didn't know what they had done.



While a skid flat spot does not necessarily require removal from service we will swap out the tire on side of caution.

So what can we do to increase tire life?

Proper inflation and use of brakes tops the list. Tire temperature changes affect pressure so check them cold with a good gauge (available in hanger). A 3-degree (C) temp reduction will result in a one percent drop in tire pressure. The pressure marked on the tire is the maximum allowed, not the "normal" pressure. Aircraft checklist has suggested tire pressures in preflight section.



Fluids such as hydraulic, oil, fuel, and grease are very damaging to natural rubber in tires. Move aircraft forward to straighten the nose wheel before setting parking brake and performing an engine run-up to reduce stress on the nose tire and wheel. Avoid locked wheel turns when possible as they are damaging to the tread and sidewall of a tire. Avoid landing with the brakes partially on, riding brakes during taxi and/or taxiing too fast especially with long taxi distances and avoid fast cornering.

Some pilots simply land much faster than they need to and end up with heavy braking to compensate which takes its toll on tires and brake components as well. I'm sure some commercial flight operations may call for heavy braking. Smoking tires & brakes! T-Craft does not require or need to do such on landing. If you experience any event that may have done damage, e.g. hard landing, excessive braking, etc., please let us know so further airworthiness of that plane can be determined.

Check out the December 2014 Newsletter article on use of brakes by Ben Brandt. In the [March 2015 Newsletter](#) is an article on basics of brakes and how members can get the most out of our brakes and saving us money.

Please remember when braking to keep feet on floor and don't jam on the brakes. At KMAN you have almost a mile of runway so you don't have to make the first or second taxiway by skidding the tires. Allow aircraft to slow as you gradually apply brakes.

Always include a good visual inspection of tires during your preflight. Checking pressure and for damage should be routine. Tires can last a long time if properly cared for and you exercise a little common sense.

Fly safe, have fun. DOM.

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Which Altitude is it?

By Jim Hudson, T-Craft Membership Director

A question came up by one of our members about the altitude reported in our newer ADS-B Transponders; whether or not it gets its signal from the GPS, or has a GPS built in. Also, a question on why the Altimeter seemed to be off a couple of hundred feet and didn't match the pressure setting reported by ASOS. Great questions. It's always good to get questions about our aircraft.

Gordon Hall found a great explanation on AVweb about transponders.

"The altitude-reporting capability of your transponder transmits your aircraft's PRESSURE ALTITUDE (rounded off to the nearest 100 feet) whenever it receives a Mode C interrogation and is switched to ALT mode. You might recall from your private pilot ground school that pressure altitude is what the altimeter reads if you set it to 29.92" Hg. Because the transponder reports pressure altitude, the altimeter setting that you dial into your altimeter's Kollsman window has absolutely no effect on the Mode C altitude the transponder reports. It is this fact that makes "blind encoders" (which are mounted behind the panel and have no setting knob at all) practical. The transponder depends on an external altitude encoder to provide the digitized pressure altitude that the transponder needs for its Mode C replies. The encoder is connected to the same static air line as the altimeter and is wired electrically to the transponder. "

Now you might ask, "if my altimeter is set at 30.23 and the Mode C is putting out altitude referenced to 29.92, won't the controller see my altitude incorrectly?" No, because ATC's ground equipment automatically adjusts your Mode C readout for the local altimeter setting (which its computer knows about). That's why it's important always to make sure your altimeter is set to the altimeter setting that ATIS reports, or that ATC gives you. That way the controller will be verifying the same altitude that you're seeing.

For those interested to learn more about our newest transponders, the link to the Garmin 335/345 Xponder manual. http://static.garmin.com/pumac/190-01499-00_f.pdf

Differences in Altimeter reading from ASOS/ATIS reports.

When one sets the pressure setting reported by ASOS or ATIS in the Kollsman window, why does the altimeter reading not agree with the known field elevation in most cases? Or setting the altimeter to the known field elevation, why does the pressure reading in the Kollsman window not match that reported by ASOS?

I have usually found agreement within +/- 50' and it varies from time to time. If it's off more than 100' over a period of time, I'd suspect the altimeter. With our birds with the Garmin G5 units, I've found differences in the conventional altimeter and the G5, usually with 50'. If consistently off more than that, I'd be suspect of the altimeter.

Several factors can cause discrepancies between ASOS/ATIS reports and altimeter settings.

One factor is the ASOS/ATIS equipment error of reporting barometric pressure. The accuracy of the pressure reporting is +/- 0.02", or +/- 20' in elevation. For those interested to learn more about ASOS, see: [ASOS User Guide](#)

Another factor is the timeliness of ATIS/ASOS reports. ATIS is normally reported hourly, unless significant weather changes. There could be changes in pressure from the beginning of a report to the end of a report. ASOS is updated every minute, which will track rapid pressure changes in the weather more frequently. However, if you get a ASOS report from the internet, or apps such as ForeFlight, they could be

20 minutes to several hours difference from a current report if not updated. It's best to get a report off the radio.

Error in setting the Kollsman window. With the conventional altimeter, there could easily be 30'-40' error in setting the pressure setting, or reading the altimeter altitude from the known field elevation. With the new Garmin G-5's, one can dial in the exact altimeter setting, and read the altitude to the nearest 20". I've found these to be within 40' of the reported pressure setting compared to the field elevation.

Altimeter Accuracy.

Altimeters are broadly required to comply with [FAR 43 Appendix E](#) limits for accuracy. Technically this is regulatory for IFR flight, but TSO'd "sensitive altimeters" will generally meet these requirements - at least when they left the factory. VFR aircraft are not required to have the pitot static system checked.

The accuracy requirements provided in FAR 43 are based on mechanical altimeters, and are subject to a number of requirements (friction error limits, hysteresis limits, etc.), but the test tables there are a good guide to the accuracy of "typical" altimeters. One of the specs allow +/- 30' at 3,000' elevation and as much as +/- 80' tolerance at 10,000'.

So, combining all of this together - If we have two aircraft flying along indicating the same altitude (say 10,000 feet) and both altimeters are *perfect* there will be zero feet of vertical separation between them (the static ports of each aircraft will be at the exact same altitude).

On the other hand if both aircraft are at the outer edge of tolerance (one +80ft, one -80ft) there will be 160 feet of vertical separation between them (discounting visual "slop" in the analog altimeter and assuming the pointer is *perfectly* on the line and the pressure setting is *perfectly* dialed in). Knowing this should make one cautious if you "think" you have the same altimeter setting of another aircraft close by, and "think" you are at the same altitude, or separated by a safe vertical distance apart.

GPS Altitude.

GPS altitude can be off as much as +/- 400' for non WAAS gps reported altitudes compared to the altimeter reading. From Garmin:

"GPS heights are based on an ellipsoid (a mathematical representation of the earth's shape), while USGS map elevations are based on a vertical datum tied to the geoid (or what is commonly called mean sea level). Basically, these are two different systems, although they have a relationship that has been modeled. The main source of error has to do with the arrangement of the satellite configurations during fix determinations. The earth blocks out satellites needed to get a good quality vertical measurement. Once the vertical datum is taken into account, the accuracy permitted by geometry considerations remains less than that of horizontal positions. It is not uncommon for satellite heights to be off from map elevations by +/- 400 ft. Use these values with caution when navigating"

I rely on the barometric settings on the altimeter if I've received a recent ASOS report, however the GPS altitude would be a good back-up if it's been a while since getting a ASOS report, such as in the Backcountry. If however I'm on the ground in the BC, I set the altimeter to the known field elevation and use the Fly Idaho runway profile to get the correct altitude depending which end of the runway I'm at.

I hope this clears up some things on Altimeter settings, and makes one aware of some of the errors one might expect if you're in close proximity to another aircraft when you "think" you're good because you have the same pressure setting. If all else fails, look out the window and avoid the terra firma!!

Have fun, Fly safe and Don't do anything Stupid,
Jim

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A Reminder About Emergency Beach Landings
(Reprinted from AVWeb Insider)



The video accompanying this blog made the rounds a couple of weeks ago. It's a short clip of a Cessna Cutlass ditching off Ocean City, Maryland, on July 17. The pilot was lauded—rightly—for flying a textbook ditching. He emerged wet, but uninjured.

That's not the important part, however. The top takeaway is that the pilot—23-year-old Trevor Deihl—made the right decision to land in the water and not try to shoehorn the airplane onto a crowded beach. When the video circulated, we didn't run it as a news item because crashes happen every day and the only reason this one was any different is the video, otherwise known as click bait. [Read more . . .](#)

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Point of No Return
(Reprinted from AOPA ePilot)

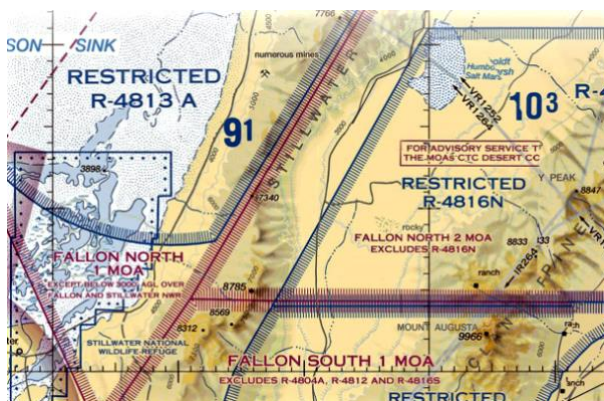


Short, steep, and nestled against a ridge, Idaho's Dewey Moore airstrip is a discouraged destination for all but a select few pilots, as one unprepared aviator learned the hard way. (Photo in composite image courtesy of Todd Simmons.) [Watch the video](#) ≥

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Special Use, Special Rules—Quiz
(Reprint from AOPA ePilot)

Special-use airspace violations come with consequences. Remain clear with this AOPA Air Safety Institute quiz. [Take the quiz >](#)



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TAF by Text

(Reprinted from AOPA ePilot)



A simple text message puts current conditions and terminal forecasts at your fingertips, just one of the new tools that enhance your weather awareness [Watch the video](#)

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CALENDAR

Month Ahead - 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					

Coming Events

- 9/10/2019: Accounts due
- 9/10/2019: Board Meeting 7pm, T-Craft Hangar
- 9/20/2019: Accounts past due
- 9/24/2019: Membership Meeting, 7pm, T-Craft Hangar

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CLUB STATS

Member Stats

112 Members
23 On wait list.
39 Class I Members (35%)
35 Class II Members (65%)
12 Inactive (voluntary)
29 Suspended (26%) (BFR/Med/Attend/Billing,
Including 12 Inactive)

Member Ratings

11 Student Pilots
70 Private Pilots
01 Recreational Pilots
16 Commercial Pilots
14 Air Transport Pilots
40 Instrument Rated Pilots

New Members

Daniel Sigler – Class I
Eric Bridges – Class II
Ken Woller – Class II
Clay Conner – Class I

New Ratings/Accomplishments

Scott Henscheid – BFR
Eric Bridges – BFR
Jim Eyre – BFR
Pete Glick – CFI ASEL
Chris Nebrigich – Back Country Level 1
Regis Deglans - Solo (CFI – Jim Hudson)



Regis Deglans – Solo

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HOURLY RATES

(New Rates Effective 1/31/2019)



N64375
\$65.00



N4464R
\$73.00



N13686
\$75.00



N1293F
\$90.00



N1891X
\$125.00



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 STATUS

- **375:** Nose shimmy addressed
- **93F:** Pilot door mechanism was bent and not closing properly. Repaired
- **686:** Left wing strobe power supply replaced
- **64R:**
 - Small center knob for panel lights missing
 - Landing light breaker wire chaffing
- **91X:** Right main tire replaced
- **89E:** Pilot PTT switch removed and replaced
- **93S:** New oil cooler installed
- **Additional Maintenance highlights:**
 - Be careful moving sun visors to avoid scratching windscreen
 - Clean suction cup circles from windshield
 - Don't adjust external trim tabs. Notify DOM for correct maintenance

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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 repeatedly 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

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](#)