

T-Craft Aero Club

Monthly Newsletter

Jan 2023



Editor – Jim Manley
Send articles & pictures
to
Secretary@t-craft.org

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IMPORTANT NOTICES

Elections and 2022 Annual Report at January Membership Meeting

(Submitted by Ivan Sudac, T-Craft Aero Club President)

The positions up for election in Jan, 2023 are:

- Ivan Sudac for President (1yr)
- Ken Kaae for Treasurer (2yr)
- Len Erickson for Director of Maintenance (3yr)

All three of these incumbents are running again for re election. If any member wants to run for one of these positions, please contact any board member. Also, **I need a member volunteer to run the election** and take the vote at the Jan meeting this month. Please contact me to volunteer.

The Board of Directors will present the annual report covering 2022

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Security Cameras, Hangar Door Fixed

(Submitted by Ivan Sudac, T-Craft Aero Club President)

Great News! Member Mike Bingham and his band of volunteers has finished installing our security cameras in the hangar. There is one camera on each aircraft and soon to be one in the conference room to monitor the key box and the safe. The cameras will be available for member viewing as well, with a secure login. More info to follow. We have a lot of money invested in these aircraft. They have appreciated greatly in the last several years. Big thanks to Mike and his crew for protecting our valuable assets!

Also, our Director of Hangar Maintenance, David Thomas, fixed the entrance door to the hangar today. It was a little wonky, but Dave set it straight. Thanks Dave!

Every year our club gets better. My heartfelt thanks and appreciation to all of you for continuing to be such great members. The future is bright!

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Winter Aircraft Pre-Heat Procedures – (Repeat)

(Submitted by Len Erickson, T-Craft Director of Maintenance)

- When you put the planes back in the hanger, make sure that the red light on the back of the pull-down outlet is on. If it is not on, reset the GFI on the pull-down plug. If is still not on, check the GFI on the outlet on the post. I also recommend turning the heater on and off with the button on the side of the smart plug.
- When you are going to fly, use the smart plug app, "KASA" to turn on both the heater and the oil sump heater approximately 2-3 hours before you fly. Make sure you select the correct plane.
- When you do your preflight, unplug the heater and the oil heater, and use the string to GENTLY retract the outlet up into the reel. Make sure the oil sump pig-tale cord will not catch on the vertical stabilizer.
- For those that have not used the system before, you have to download the KASA app from the app store, and install it on your tablet or phone.
 - The user ID is Heaters@T-Craft.org
 - The PW is T-craft.Heaters
- Allow yourself enough time to ensure the engine is warm before you start it. A great percentage of engine wear on air cooled aircraft engines occurs in the first few minutes after a cold start.
- Make sure the oil temperature is well into the green arc prior to taking off. Just bumping the bottom of the green arc is not sufficient.
- If you overnight at another airport, you are still responsible to ensure that the engine properly preheated.

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Aircraft Annual Inspections Scheduled

(Submitted by Len Erickson, T-Craft Director of Maintenance)

We have scheduled annual inspections following weeks:

- N121M January 2nd – 6th
- N4464R January 9th – 13th
- N1293F January 23rd – 27th
- N7593S March 13th – 17th
- N67375 April 3rd – 7th
- N13686 February 27th – March 3rd
- N9989E May 30th – June 3rd, (for a June sign-off)

We advised RTS (*Return To Service*, or *RTS*, is the new name of *Aero Services*) that we do not want two aircraft in for maintenance at the same time.

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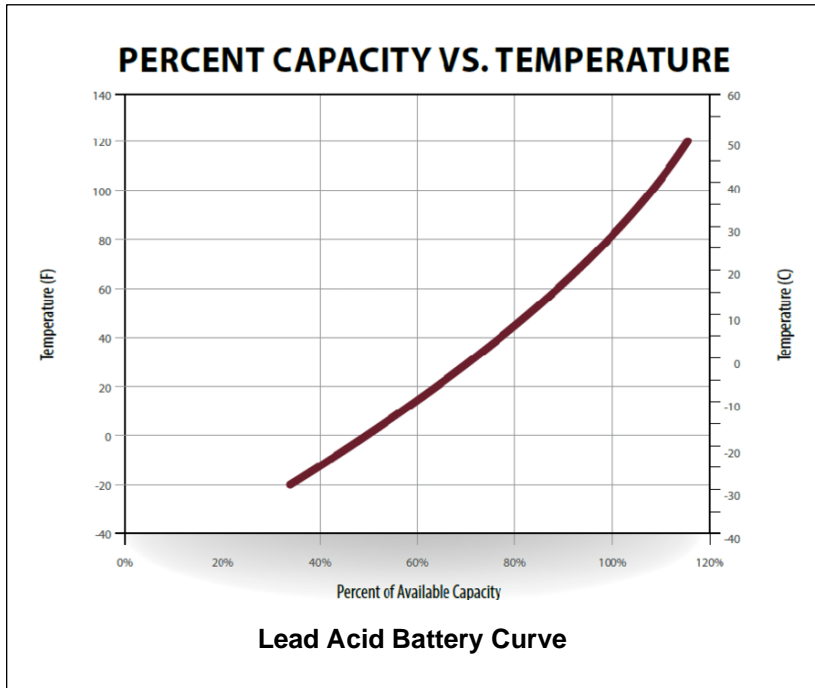
Cold Weather Operations

(Submitted by Len Erickson, T-Craft Director of Maintenance)

I write this in response to some recent difficulties members have had starting one or more of our club aircraft. These are just my Musings, however they are based on life experiences and yes Physics. Yep that dirty nasty class that only us engineers liked!

Just like people, when engines get cold, they move slower. Why you ask? Here are a few factoids:

- The lead-acid battery, whether in a car or aircraft loses $\frac{1}{2}$ of its cranking power at zero degrees F. (See the chart below) at 10° F as it was this AM, it is about 55% Cranking amps. (Capacity).
- There is a similar curve for gasoline vaporization vs temperature. It is much easier to flood and aircraft engine at low temperatures. At somewhere around 30 below zero F, gasoline will not vaporize without some help. (Growing up in Minnesota with carburetors, and standard ignition systems, we all learned to carry starting fluid.)
- Oil viscosity increases (gets thicker) as the temperature decreases. We use PhillipsTM XC 20W50 oil year round. When we change oil in cold weather, we pre-heat the oil. At 10 degrees, it pours out of the bottle very slowly.
- A high percentage of aircraft engine wear occurs in the first few minutes of operation. If the engine is cold soaked, the oil cold etc., and the engine starts, the oil pump will try to push the highly viscus oil (fluid) through the small ports and channels in the engine. It will slowly move. The pressure relief valve will open and bypass the oil filter. Some oil will get to the bearings, cam shaft, etc., but it will be cold. There will not be good lubrication! This is when engine wear occurs! **So what can we pilot-owners do?**

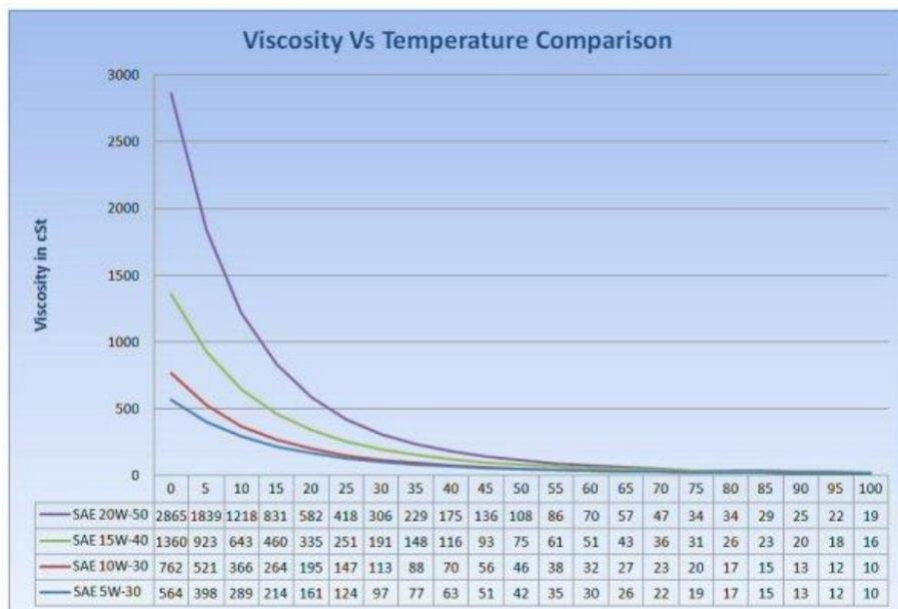


Preheat the aircraft:

1. A minimum of 2 hours when the temperature is 30 to 40 degrees.
2. 3 hours plus if it is between 10 & 30 degrees
3. 4 + hours if it is below 10 degrees F.

I am not a big fan of flying in sub-zero temperatures. Our aircraft engines do not have cold weather oil cooler shields installed. The oil coming out of the cooler will be super cooled and will get highly viscous. This will cause the bypass valve to open as noted above.

As a foot note, I grew up in East Central Minnesota (east side of St Paul). I purchase my first car in 1973, a Dodge Duster with a carburetor and one of the first electronic ignitions. I lived in International Falls MN for 10+ years and Grand Forks ND for 4 years. When it is -40 F (straight up temperature, not wind-chill), it takes 20+ miles of driving before the flat spot on the tires "rounds out". Until then, you get used to the bump bump bump going down the road. Modern electronic ignitions, fuel injection, and multi-grade synthetic oils are a godsend! I have watched more than one person spin their tires on ice until they blew-out! (Tried not to laugh, We had told them what would happen).



Typical Oil Viscosity Curve

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Hangar Electrical Upgrades

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

Three new circuits have been added to the panel and wired to the outlets. I need to get out there this weekend and reroute one of the extension cords to a different (new) outlet. We shouldn't have any more issues with breakers flipping.

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FAA Weather Camera Program Expansion: Suggestions Accepted

(Submitted by FAA FAASTeam)

Notice Number: NOTC2755

The FAA Weather Cameras have proven to be a valuable resource in preflight planning and in-flight decision making and have had a significant impact in reducing weather related accident and flight disruption. The program is in the process of planning the expansion of the program into more states. If you have an opinion on where weather cameras could be placed to aid in your flight operations, you can provide a suggestion at: <https://forms.gle/4gRWqRnjsK2iJSHN7> (please provide feedback NLT December 20th)

To learn more about the FAA Weather Camera Program, you can view a webinar presentation (from December 6, 2022) at the following link: <https://www.youtube.com/watch?v=5Nul-Khiog4>

POC: Cohl Pope, Weather Camera Program Manager, WCAMExp@FAA.gov

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Jet Lag Flight Safety (video 00:01:23)

(Submitted by FAA FAASTeam)

In the latest episode of the *Pilot Minute* video series (youtu.be/iFLCbRaxMb8), Federal Air Surgeon Dr. Susan Northrup explains how jet lag circadian rhythm disruption can lead to flight safety risks and cause you to feel unwell in a variety of ways. The video also points out some tips to help prevent jet lag from affecting your flight performance. [See video...](#)

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CALENDAR & CLUB STATS

Month Ahead

January 2023

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 Jan 2023: Accounts due

12 Jan 2023: Board mtg, 7pm, via Zoom

20 Jan 2023: Accounts past due

24 Jan 2023: Membership mtg, venue TBD

25 Jan 2023: Last flight day in billing period

New Members

Shaun Christensen - Class I – Student

Lee Gientke – Class I – Student

Resigning Members

Jason Reisinger – Class II

Connor Darragh – Class II

Achievements

None this month

Member Stats

120 Members (after new members & resignations)

98 Active flying members (cap: 14 x 7 = 98)

26 on wait list-(12-18 month wait)

39 Class I Members (35%)

81 Class II Members (65%)

10 Inactive (voluntary suspension)

22 Suspended (18%—BFR/Med/attend/billing/ Inc 10 inactive)

Member Ratings

13 Student Pilots

66 Private Pilots

29 Commercial Pilots

12 Air Transport Pilots

49 Instrument Rated Pilots (not all are current)

OUR FLEET

(Rates Effective 26 Oct 2022. Click [ScheduleMaster](#) to see latest aircraft status - login required)



C-152 (110HP) [N67375](#) \$76.00/hr



C-172M (160HP) [N13686](#) 92.00/hr



C-172 (160HP) [N4464R](#) \$92.00/hr



C-172N (180HP) [N1293F](#) \$105.00/hr



C-182P (230HP) [N9989E](#) \$147.00/hr



C-182Q (230HP) [N7593S](#) \$147.00/hr



C-182Q (230HP) [N121M](#) \$147.00/hr

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FUEL REIMBURSEMENTS

\$6.25 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 hangar 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 hangar), fuel card or keys missing from the key bag, key bag not zipped or put away, hangar door pins not fully secured, hangar doors left open, hangar lights left on, the hangar itself not locked. 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

Check Lists (Revised): The checklists have been updated and available on the club website/Fleet page. Updates include an item to check Tach time and compare to oil change time, mixture settings on take-off to agree with POH, updated KBOI Dep/Approach frequencies to agree with revised airspace, elimination of vacuum check with aircraft with no vacuum and some formatting changes.

All members are encouraged to print out your own checklist. Laminated versions will be placed in the aircraft in the next few weeks. Use of the T-Craft checklist are optional, but many members find them useful.

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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 hangar are locked and secure; hangar door pins in, doors locked, hangar locked.
- Gust Lock installed, pitot tube cover installed. It gets windy at times in the hangar when the doors are open.
- There have been several instances lately of the tug being used and not returned to its parking spot (or plugged in). This doesn't appear on the post flight checklist as not everyone uses the tug. The tug was even left on once which completely drained the battery. Not great for its health. Please triple check everything post flight (prior to leaving the hangar).

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SCHEDULE MASTER (REVISED)

ATTENDANCE (IN-PERSON OR ONLINE) REQUIREMENT REINSTATED

90 Day Attendance and Day/Night Currency (Revised): A field was set up in the "Status" tab in Schedule Master to show the date that your 90 day attendance will expire. You'll get a notification via email 30-days prior to that date from Schedule Master. You will also get a message after that notification when you log on to Schedule. Your flying and scheduling privileges will be suspended as per club policy if you do not attend a club function prior to, or on that date in the 90 day attendance box. Membership meetings, board meetings, and other club functions are credit for attendance.

There also are two fields that can be used by members to set your flying 90 day expiration dates. You will get notification from Schedule Master 30 days prior to the expiration dates you set.

Scheduling Guidelines (Revised): A reminder of our scheduling guidelines per our policy.

Sharing aircraft between as many as 14 flying members per aircraft can result in lack of availability. The following are some guidelines the T-Craft Board encourages you to follow to reduce scheduling conflicts and increase availability.

- Do not block out time to fly that you don't intend to use. Blocking out aircraft so it will be available "just in case" makes it very difficult for other members to plan time to use an aircraft. If pilots block out multiple weekends weeks or even months in advance and then cancel some of the trips it has a very negative impact on other members, resulting in complaints. Things come up, weather changes and sometimes we just don't meet our personal minimums to fly safely. In these instances, PLEASE cancel your flight! We want you to feel it is o.k. to cancel, just don't schedule multiple trips knowing you will cancel the one that doesn't fit into your yet to be determined work schedule.
- If you are flying multiple days your number of hours flown should be equal to or greater than the number of days you have the aircraft scheduled for. For example, if you scheduled an aircraft for Friday evening until Monday morning you should expect to put a minimum of 4 hours on the aircraft.
- If you have been flying quite a bit and would potentially be willing to give up your schedule, wait until only a few days out to schedule your aircraft to give others who are struggling to plan ahead the opportunity to get out and enjoy Idaho's incredible flying.

For those who are having trouble scheduling aircraft try the following:

- Use the notification function in Schedule Master to notify you of a cancellation so you can schedule the aircraft as soon as the cancellation is submitted.
- Schedule ahead of time, you can schedule 90 days in advance.
- For long trips you can schedule up to 14 days consecutively, longer with board approval.
- Call the member who has the aircraft and time slot you want/need and see if they can swap or may already be looking at canceling the flight but haven't canceled yet.
- Use common sense and respect other members.

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BILLING & LOGGING

Billing: 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 (revised): The FlightLog System is NOT connected to Schedule Master. 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.

- LOG OUT BEFORE FLIGHT:
 - Enter destination. Make it as specific as possible so the DOM can continue to project 100 hour and annual inspections. This also helps if you do not return as scheduled.
- LOG IN AFTER FLIGHT:
 - Enter fuel, oil usage
 - Enter Hobbs Time. This is the basis for billing / reconciling accounts and also for maintenance

projections. If the Hobbs meter is inaccurate when you fly PLEASE call the person that flew before you and work it out.

- **Enter Tach Time.** Please be accurate and use a flashlight if necessary to see all of the numbers. 4 digits to the left of the decimal and one to the right are required. Tach time is required so that we can receive more accurate information and advisories for Oil Changes. If the Time to Service is 8 hours or less, there is a warning that comes up in yellow. If the Time to Service is down to "0" there is a RED Warning and a message to call the DOM before you fly. This should not happen as we are striving to be timely with our oil changes.
- 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.

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

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TIPS, TRICKS, AND FUN

Garmin 430/530 Training Webinar Videos

(Reprinted from www.CaptainSchiff.com)

This web page contains links to eight GNS 430/530 training videos done by Captain Barry Schiff—good pro study material for those days we can't fly. [Read more...](#)



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Unstable (Final) Approaches—History, Fiction, and Fact

(Reprinted from Air Facts Journal)



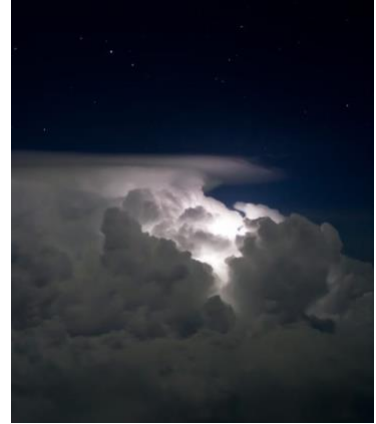
A score and more years ago, "stable approach" came into vogue as an attempt to reduce airline accidents. Why? All those airline landing accidents came from unstable approaches, so unstable approaches must be the major causal factor, right? Reality may be a bit more complicated than that—especially for GA pilots. [Read more...](#)

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Flying in Night Skies

(Reprinted from Air Facts Journal)

We knew much of the world by its night skies flying 707s and 727s in the 60s through 90s. South America's towering CBs and Saint Elmo's fire, North Atlantic auroras, North America's continent-spanning squall lines, and Europe's icy winters were as familiar to us as the roads and towns commuting to work. This is about those nights and the crews of that time. [Read more...](#)



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Christmas as a Forward Air Controller Over Laos

(Reprinted from Air Facts Journal)



My most memorable missions occurred around Christmas of 1972, when I was a 23-year-old Forward Air Controller flying the OV-10 Broncos. Two days before Christmas, we received word that three of our former comrades had been shot down near Saravane in southern Laos. They were Raven FACs serving as part of covert CIA operations in Laos flying Cessna O-1 Bird Dogs and North American T-28 Trojans. [Read more...](#)

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Fuel Gauge Accuracy

(Reprinted from Pilot Workshops)

"The fuel gauges in the airplane I rent don't accurately reflect how much fuel is available. They can show empty even though there's gas in the tank. I've been told that aircraft fuel gauges only need to be accurate when the tanks are empty. Is that true?" [Read more...](#)



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ADS-B Traffic Quiz: How Does It Work?

(Reprinted from Sporty's iPad Pilot News)

The FAA has managed to make the traffic component of ADS-B both easy and hard. There's a new set of acronyms, like UAT, TIS-B, 1090ES, ADS-B Out, ADS-R, FIS-B, but do they really matter at the end of the day? The short answer is yes and you should know what they mean, but the good news is once you're properly equipped and up in the air, the system "just works" and will provide a complete traffic picture on your iPad or panel in most parts of the U.S. [Take the quiz...](#)



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Top 10 Mistakes iPad Pilots Make

(Reprinted from Sporty's iPad Pilot News)



Everyone was once a beginner with the iPad (even if some of us don't like to admit it). And like most things in life, the way we move from beginner to expert is by trial and error. Along the way, many of us made some mistakes with the iPad and aviation apps. But don't feel bad – most pilots make the same ones at least once. Here's our list of the 10 most common mistakes: [Read more...](#)

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Trust Your Instruments

(Reprinted from AOPA ePilot)

Pilots have no choice but to rely on the gauges if we want to stay right-side up in the clouds and find our destinations in low visibility. But we also know the vacuum systems that have traditionally powered our attitude instruments are



failure prone—and the mechanical instruments themselves have limitations that make them unreliable in extreme pitch and roll excursions. That's why we've come up with elaborate instrument cross-checks and put so much emphasis on partial-panel training. [Read more...](#)

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FAA Proposes Incorporating Pilot Certification Standards in Regulation

(Reprinted from AOPA ePilot)

The FAA set a January 11 deadline for public comment on a rulemaking proposal that would incorporate over 30 testing and certification standards for pilots, instructors, mechanics, and others into a single Part 61 regulation.

The **proposal** published December 12 references various sets of airman certification and practical test standards, which the FAA seeks to incorporate into the certification requirements established in present regulations. The **regulatory docket** for this rulemaking proposal contains each of the practical test standards (PTS) and airman certification standards (ACS) for the various ratings that the FAA proposes to codify in regulation, though no modification of the standards to be integrated is proposed at this time. [Read more...](#)



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