



# T-CRAFT AERO CLUB

## MARCH 2014 Newsletter

VOLUME 11, ISSUE 3

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### SCHEDULED EVENTS

#### MARCH/APRIL

S	M	T	W	T	F	S
23	24	25	26	27	28	29
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	12	16	17	18	19
20	21	22	23	24	25	26

#### ⊕ General Membership Meeting

March 25, 2014 @ 7pm  
Location: EAA/CAP Facility

#### ⊕ T-Craft Board Meeting

April 8, 2014 @ 7pm  
Location: T-Craft Hanger

#### ⊕ Back Country Seminar

April 23, 2014 @ 7pm  
Location: EAA/CAP Facility

#### ⊕ Poker Run

May 3, 2014 @ 7am  
Location: T-Craft Hanger

#### ⊕ Plane Wash

May 7, 2014 @ 3pm  
Locations: T-Craft Hanger

### FUEL REIMBURSEMENT

# \$5.47



### VFR FLIGHT FOLLOWING *by Jim Hudson*

Continuing on the theme of SAR, this article will cover the use of VFR Flight following as a way to have someone "have your back" and leave radar tracks of your flight in case you run into problems, or turn up missing.

**WHAT IS VFR FLIGHT FOLLOWING:** VFR flight following is a service provided by air traffic control (ATC) and available to all VFR pilots on a workload permitting basis.

While receiving flight following, you'll be tracked on radar and be in radio contact with a controller at a Terminal Radar Approach Control (TRACON) or Air Route Traffic Control Center (ARTCC). ATC provides many services to pilots. Its primary job is to maintain safe separation between aircraft and the issuance of safety alerts. ATC will provide "safety alerts" if they judge that an aircraft is at an altitude that places it in unsafe proximity to terrain, obstructions, or other aircraft. ATC can and will vector VFR aircraft for separation with other aircraft and terrain if needed. ATC will also provide navigational assistance, weather information, severe weather avoidance vectoring (to the best of its ability using radar that is not specifically designed for the purpose), traffic advisories, and disseminating other information, severe weather avoidance vectoring (to the best of its ability using radar that is not specifically designed for the purpose), traffic advisories, and disseminating other information pertaining to safety of flight, such as encroaching on a restricted area or TFR. Vectors around weather MUST be requested by the pilot. You may also request vectors for navigational assistance. For detailed information about this service, refer to AIM 4-1-15 Radar Traffic Information Service.

**WHY USE IT:** It is a valuable asset, and it's FREE. A huge benefit of flight following is that you are in constant contact with ATC and you'll receive immediate assistance if you experience an emergency situation. Since you're already on-frequency with ATC, you can request vectors to the nearest airport or you can alert ATC if it's necessary for you to make an off-airport emergency landing. They will know your location, until you drop too low to be picked up on radar. In either case, ATC can get emergency response services in motion immediately. If you simply file a VFR flight plan, it will be at least 30 minutes after the filed time of arrival at your destination airport before any action will be taken, and it could be several hours before a search effort would start, and it may take days before search-and-rescue finds you.



Article Continued on Next Page

## VFR FLIGHT FOLLOWING – Continued

For those flying with spouses or frequent flying friends, teach them how to talk to Center (operate the PTT) in case you become incapacitated. About 20% of controllers are pilots. There are numerous cases documented where pilot-controllers have successfully guided non-pilots to a safe landing.

In addition to the added safety of using flight following, you'll get good experience using the radio and interacting with ATC. You will be listening to all Airlines and all aircraft on a IFR flight plan. You'll hear the phraseology the controllers and professional pilots use, and incorporate it into your own radio vocabulary. This could save you some time and money if you go for your IFR ticket. Another way to gain this experience is to listen to Live ATC at <http://www.liveatc.net/>. In addition to listening to traffic at many airports (including KMAN) you can listen in on ARTCC "Center" traffic, such as Salt Lake or Seattle Centers.

It's important to remember that when you're using flight following, you do not delegate any of your responsibilities as pilot in command to ATC. You are still responsible for seeing and avoiding other aircraft, remaining in visual flight conditions, maintaining altitude, and complying with the FARs.

**HOW TO USE IT:** To request flight following services, you first need to know the appropriate ARTCC frequency. Unfortunately, center frequencies are not on VFR charts. However, they are listed in the Airport Facility Directory (AFD), and in some cases specific airport information will list the ARTCC frequency. If you're departing from an airport with an operating control tower, you can ask the tower for the correct frequency to use. At a non-towered airport, you can contact the Departure frequency if there is one, or Flight Service and ask them for the center frequency. Each center (in our case Salt Lake or Seattle Center) is responsible for a large block of airspace. Within the respective center, it is broken down into smaller segments in which each segment has a separate frequency.

From KMAN the best way to request flight following is to first contact Big Sky Departure (Boise) on 119.6 or 126.9 (northbound). On initial contact, tell them you would like flight following, and give them your destination. They will assign you the proper squawk code, and give you the correct Salt Lake Center (KZLC) frequency. The frequency will most likely be 118.05 East or 128.05 West of a N/S magnetic imaginary line through BOI. Depending on your destination, they will give you one of these frequencies. Initially you will receive flight following from Big Sky Departure, and then they will hand you off to ZLC when you get out of their coverage area. As you progress on your flight, center will hand you off to a different frequency, or change to a different center. For example, on a NW flight you will be handed off from ZLC to Seattle Center (KZSE).

You will also have to fly at an altitude in which you can be picked up on Radar. Altitudes will depend on your route and the terrain. Radar is line of sight. Depending on your route, most likely you will have to fly from 8,500 – 12,500'. W/NW towards Baker you may get coverage at 8,500, but may have to get up to 10,500 to cross the blues. North and South bound you'll probably have to get up to 10,500 or 11,500. Eastbound, initially 7,500 and then higher as terrain rises, or your flying over mountainous terrain. On your initial contact with center, you can ask the altitude you need to fly for coverage.

Flight following, provided by Big Sky Departure on 119.6 can be used while in the practice area for another set of eyes. You should be within radar coverage above 3,500' – 4,000' MSL. If you'll be practicing maneuvers, inform ATC of your intent; they may or may not ask you for details. This will give you some practice of communicating with ATC, and utilizing flight following. Make sure to respond when they call out your tail number, and inform them on your intent to return back to KMAN.

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### 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. Dogs are allowed with a dog fee.

**CONTACT ACCOMODATION SERVICES** in McCall @ **1-800-551-8234** and mention that you are a **T-CRAFT AERO CLUB** member.

For more information go to <http://www.accommodationservices.com/Unit/Details/52956>

**T-CRAFT MEMEBERS** receive a **15% discount** off rental rate on non-holidays. (September 1st - December 15th and March 15th - June 15th) Book 2 nights and get a 3rd night **FREE!**

Transportation to cabin available from Airport: Taxi service from \$5-10 or the city bus can be taken for free.



### News Letter Contributions

Please send photos and your flying stories to [brent@papaross.com](mailto:brent@papaross.com) for inclusion on future issues.

*What else idles like a six-cylinder Harley, roars on takeoff like a dragster, and has the best bottom end in the business?*

Having just spent a big bucket of T-Craft cash for this engine, perhaps now is a good time to tell you a little bit about such an engine and why we do what we do for engine break-in. Information you've wanted to know but were afraid to ask.

The O-470 is a rugged engine that's capable of producing solid and dependable power (if properly cared for & especially during initial break-in). It distinguishes itself from other six-cylinder carbureted engines by its characteristic lope at idle and throaty exhaust stack burp.

There are 15 models of the O-470 flying. The common denominator in all models is the bore (five inches in diameter) and stroke (four inches in length). Cylinder and crankcase castings are the main differences between the various models. The basic engine has remained the same with only minor changes to accessories and peripheral equipment. Magnetos, carburetor, starter and charging system have been upgraded & improved over the years. In 1952 the O-470-A was given its birth certificate & over time another 14 models were given certification. Only eight models remain in the current TCM engine specification list. The most popular are the O-470-L, -R (91X), -S (89E), and -U (93S).

There are few issues concerning O-470 crankcases because this engine is not under the same kinds of stress that say a turbocharged engine is. While all crankcases crack, the O-470's case is remarkable in that cracks are somewhat rare. Knock on wood we have not had that experience.

Cylinder castings for this engine have changed in style & structure eight times since the late 60's. Beefed up spark plug bosses, improved exhaust port walls, combustion chamber profile changes & threaded barrel engagement areas have all been altered by subsequent cylinder



improvements. The basic O-470 engine consisted of two separate configurations identified by the shape and style of the cylinder head. Early models incorporated a parallel valve (also known as a straight valve) cylinder head, large, round intake port and small, two-bolt, exhaust port and stack assembly. The present day standard issue is the angle valve cylinder having a greater cylinder fin area and the induction and exhaust ports with a four bolt pattern.

Even after a century of powered flight, we piston pilots still have to ride herd on our horsepower just about as watchfully,



that normally helps push them against the barrel walls. Without this pressure, crankcase oil leaks past the rings to the hot end of the jug, where it bakes into a "glaze" that degrades compression-sealing, even when full power is restored. This coating is so slick and hard it can only be removed by honing – which requires a top overhaul. This would be a pain since we just spent that big bucket of cash for a major overhaul not including the R and R of engine.

After the installation is complete a couple very short ground runs are accomplished to check for leaks, drips or errors. For our first actual flight we want to be in the air in a minimum amount of time after engine start. We are prepared to abort takeoff if anything sounds, smells, or feels unusual, even if we can't quite put our finger on it! Believe you me we are spring-loaded to abort, continuing only if everything seems very close to just right. Come to think about it every takeoff should have this consideration.

*Even after a century of powered flight, we piston pilots still have to ride herd on our horsepower just about as watchfully, carefully and manually as did Wilbur and Orville.*

carefully and manually as did Wilbur and Orville. This applies especially to a phase of operation that few highway drivers encounter; breaking in an overhauled engine.

According to Continental and Lycoming a new or rebuilt engine should be run hard throughout its break-in period. Why? Because reduced power robs the piston rings of the internal cylinder pressure

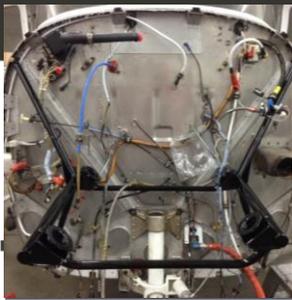
We keep our climb out gentle with as high an airspeed as we are comfortable with. This keeps as much cooling air flowing over the engine as possible. This first flight takes place directly overhead KMAN. We circle for 30-45 minutes maintaining 75-80% power. Usually at 5000' announcing our intentions to "Big Sky" which gives us a "squawk code" and they provide conflict avoidance for us

*Article Continued on Next Page*



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**"T-Craft Aero Club"**

## MESSAGE FROM THE DOM – Continued



and other aircraft. Our approach to landing is done by maintaining as high a power setting as possible and gentle descent. Use most of available R/W due to higher power. After landing we uncowl and closely inspect engine for any signs of problems, leaks, cracks, etc. This first flight will also occur right after our first full Annual on 89E.

During break-in we keep ground operations to a minimum. Use full power for takeoff and climb closely monitoring engine temps so we don't get overheating. We maintain an altitude that allows us to vary power from 75%-65% at 15 minute intervals. Any power less than 65%

Simply does not produce adequate internal pressure to force the new rings against the bores tightly enough to seat everything properly. Rich mixtures are important as the valves and valve seats benefit from the lead bath they get from lots of 100LL.

How does one know when an engine is broken in? A good indicator is when oil consumption is stabilized. We keep a detailed record of mineral oil used. We have had very good results putting 15 hours on engine. N9989E will be released to general membership with continued break-in instructions when we feel comfortable doing so.

Continental and Lycoming both state that an engine should be run frequently and consistently to remove moisture and acids that build up in the oil which are purged by heat. Also involves gaskets, seals, and hoses. I believe our club does (as long as the weather cooperates). They also state that **after** proper engine break-in to holding continuous cruise power to 65% or less for maximum engine life.

Once again I appreciate you for taking the time to read this. Probably have given you questions to ask. With your understanding and cooperation I hope to continue providing strong, reliable engines and aircraft for your safe fun flying adventures.

## SCHEDULING COURTESY'S

There have been some recent instances where members have been lax in canceling schedules on a timely basis when they know they are not going to fly, or end their flight with significant time left on their schedule (over an hour) without canceling the remaining portion. There have been other cases of members taking planes that are not scheduled. In the past there have been cases of members returning late, beyond their schedule.

Fortunately these are infrequent occurrences, however as we get into more active flying season we need to be respectful of other members. Please review the excerpts from our policy and operating procedures as they pertain to scheduling.

- 4.3 All T-Craft aircraft shall be scheduled through Schedule Master
- 4.4 Schedules may be made up to 90 days in advance
- 4.5 No member shall schedule more than 480 hours (20 days, 28,800 minutes) total time within a 90 day period without prior approval by the board.
- 4.6 All reservations shall be cancelled if the member is unable to keep the reservation (fly the aircraft). One hour per day at the scheduled aircraft rate may be assessed at the discretion of the board for failure to do so.
- 4.7 Reserved time shall be lost unless the member picks up the aircraft within 30 minutes of the scheduled reservation start time.
- 4.8 A member shall contact a board member if unable to return the aircraft as scheduled
- 4.9 The Hobbs Meter shall be used to determine flying time. If any part of the next number is visible, this is the number you will use to calculate your flight time.
- 4.10 Following a flight members shall;
  - 4.10.1 Clean and Spray wax all leading edges
  - 4.10.2 Clean all windscreens
  - 4.10.3 Remove all trash from the cabin of the aircraft
  - 4.10.4 Vacuum the cabin of the aircraft as necessary
  - 4.10.5 Failure to complete items in 4.10 may result in a charge to the member's account of one half the scheduled hourly rates.
- 4.11 Out of town tie down fees are to be paid by the member flying the aircraft.
- 7.1 A Member wishing to fly shall schedule the aircraft through Schedule Master and is responsible to cancel through Schedule master if the flight cannot be made.
- 7.2 Aircraft shall be logged out using the electronic flight log application on the computer in the hangar or the computer in the office area. If computers are down due to power outage or other event log aircraft out using paper log sheet.
- 7.3 The aircraft shall be logged out before the aircraft leaves the hangar, noting the destination of the flight.

# Poker Run

## Saturday, May 3<sup>rd</sup>, 2014

Best hand – 60% of pot,  
 2<sup>nd</sup> place – 20% of pot,  
 3<sup>rd</sup> place – 10% of pot

Join us for lunch at  
 12:00 at the T-Craft hangar!  
 Cheeseburger, chip and a drink for \$5

- Signup and rules at T-Craft hangar\* between 7:00 & 9:00 am;
- \$10 per hand buy in (one hand per occupant), best five cards used for hand;
- There are seven stops, so you may turn in up to seven envelopes per player. You may only collect one envelope per player, per airstrip;
  - Nampa, Emmett, Payette, Weiser, Ontario, Parma and Homedale



- You may have as many players as your aircraft can legally carry;
- Envelopes MUST remain sealed and can only be opened at the Nampa airport by a designated T-Craft representative;
- You do not have to start at Nampa, but you must turn in your envelopes at the T-Craft hangar by 1:00.

## SQUAWKS/RATES

Always check current squawks on Schedule Master and Hanger Wall

### MONTHLY DUES \$70



**N67375:**

**\$62.00 per Hour**



**N13686:**

**\$86.00 per Hour**

Tie in 406 ELT with G430 at a later date.



**N4464R:**

**\$84.00 per Hour**



**N1891X:**

**\$125.00 per Hour**

100 hour due. Inspection of engine only.



**N7593S:**

**\$128.00 per Hour**

In annual. Inverter removed & shipped for bench check. No word yet from vendor. If non-repairable, replacement cost around \$550. Old inverter needs oscilloscope to check which our local avionics shop doesn't have. Newer models produce different signal that can be checked with local equipment. Will tie in 406 ELT with G430 during annual giving a more accurate reading of plane location if ELT is activated.



**N9989E:**

**\$128.00 per Hour**

Engine replacement and annual completed. 406 ELT was tied in with G430. ELT remote switch being placed in upper left space where old audio panel was located, just above avionics master switch. Stainless steel screws in inspection plates that were causing unnecessary damage were replaced with proper screws. Dennis had talked to Metcalf about this earlier. New prop and governor installed.

**EMMETT WINGS & WHEELS FLY-IN**  
**April 19<sup>th</sup> at 7:00 AM**

## COMPLETED BFR'S

### MARCH 2014

- **Chuck Carlson** - Michael Seager, CFI
- **Doug Case** - Jim Hudson, CFI
- **Gary Blecha** - Gordon Hall, CFI



Sponsor a New Member and Recieve One Hour of flight Credit (C152)

MEMBERSHIP STATUS

# 67

Members

## VFR FLIGHT FOLLOWING – Continued

**WORKLOAD PERMITTING:** ATC's first priority is separating and sequencing of IFR traffic, and VFR flight following is provided on a "workload permitting" basis. Don't expect a busy controller to take you on. If you are denied service, consider waiting five or ten minutes until the frequency is less congested or you fly into another controller's radar sector.

**WHAT IT IS NOT:** Flight following is not a substitute for a VFR flight plan. A VFR flight plan and WX briefing should be obtained and filed with Flight Service to insure search and rescue services. It also is not to be used for WX services. ARTCC will provide weather information, such as altimeter settings, and alert you to significant weather systems. For weather information, one should contact En route Flight Advisory Service (EFAS), better known as Flight Watch on 122.0

**REAL TIME TRACKING:** Another benefit of using flight following is that your flight can be tracked in real time, and also a history of your flight (radar bread crumbs) is available. Two of the leading sites and apps are:

Flight Aware: <http://flightaware.com/>

Flightradar 24: <http://www.flightradar24.com>  
(has an awesome app for ipad)

**NOT FOR ALL FLIGHTS:** Obviously there are times when filing a flight plan or using flight following does not make sense, or is impractical. Flights into the backcountry are often too low for radar coverage, or communication to Flight Service through RCO's. In those situations, many of us "file" with our spouse or friend. You should let someone know your flight route and expected time of arrival or return. If you "file" with someone other than Flight Service, make sure they know what to do, and who to call if you turn up missing.

**WHO DO YOU CALL:** Call Idaho State Communications 208-846-7600 or 800-632-8000.

- Ask for Aeronautics
- Tell Dispatcher: I wish to report an overdue aircraft
- Leave your contact information.

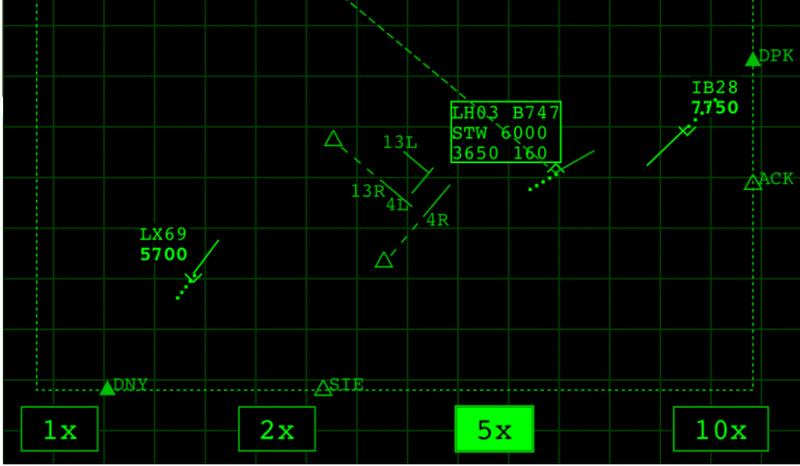
### OTHER METHODS OF FLIGHT FOLLOWING:

SPOT tracker <http://www.findmespot.com/en/> This device can be used to leave real-time "bread crumb" tracks every 10 minutes via satellite of your GPS location, that can be seen by anyone on Google Earth via web browser on a PC, tablet or smart phone. It can also send a text message and/or email that you have arrived safely and has an SOS button that will imitate a search. The subscription with automatic 10 min tracking is \$150/yr.

CLOUD-AHOY.

[www.cloudahoy.com](http://www.cloudahoy.com)

This is an app that runs on a iPhone/iPad and also tracks your GPS position and flight data (altitude,



speed, heading, and more). It can transmit your location and track real-time, as long as you have cell coverage. If out of coverage, it will store the data on your device until you can connect via cell or Wi-Fi. These flight paths can be shared with others real-time. The subscription is free for 35 days, \$20 for 3 months, or \$45/yr.

Cell Phone. Leave it on and keep it charged. You may be able to text in locations where you cannot call. Your flight route can be determined through cell phone forensics up to the point of where coverage is lost.

**SUMMARY:** I hope that you can see the value of using flight following and other flight tracking methods, so that in the "hopefully" unlikely event that something bad happens you will have help and assistance on its way in a very timely basis. Should search and rescue efforts be necessary, preventative measures will help to locate you as soon as possible.

*Fly Smart, Fly Safe, Have Fun, and don't forget the "This is Stupid" Abort Now button.*



Jim Hudson  
Safety/Membership Director

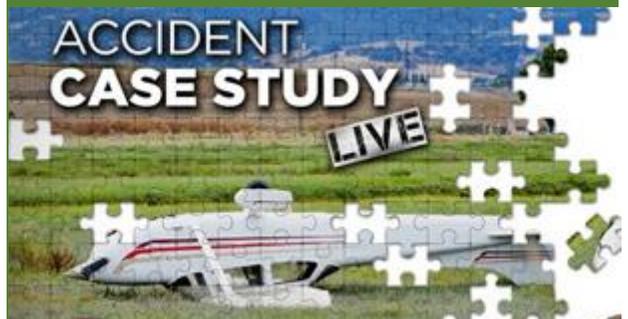
## FREE AOPA Accident Case Study

Thursday April 03, 2014

07:00 PM – 09:00 PM

Hilton Garden Inn - Boise Spectrum

7600 West Spectrum Street, Boise



Working with several compelling real-life cases, presenter and audience will play the role of accident investigator to figure out what went wrong, and why.

