

T-CRAFT AERO CLUB

MONTHLY NEWSLETTER

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Several operational improvements and solutions for our low membership were discussed at the February 2011 Board Meeting; including a simpler, more efficient billing/expense tracking process, and creation of several committees addressing the more pressing needs of the club. As flying rates remain the same, our Treasurer is looking for an opportunity to purchase fuel at the best price possible while we still have a balance; unfortunately, recent world events are causing these costs to jump dramatically. Facilities reports better compliance with club security policies; hangar door pins and lock combinations are being set properly. ***We would like to thank Jeff Beers and Scott Watson for serving our club so well as president and Billing Director respectively; their investment of time and energy over the years is gratefully acknowledged by us all.***

Once again: the club secretary is soliciting names from the membership for the T-Craft Newsletter; while the secretary is fond of *Runway 29 Rolling Thunder*, members are asked to eagerly (no, QUICKLY!) respond, or else this name might be embarrassingly embossed in the type head.



Scott Armstrong gives us a grin after he "greases" a cross wind landing with Gordon Hall, Gooding, ID.

One last thing—don't miss the article in Aircraft Maintenance; it's electrifying.

From the Membership Director

On Line Education

There is a plethora of on-line information through various sources, but fortunately the FAA has consolidated some of the best on line courses in the New Wings course catalog. Here you will find many excellent courses that you can take and earn Wings credit. Even if you don't care to participate in the Wings programs, you can still benefit from taking these courses.

The link is: <http://faasafety.gov/> The course listing can be found at the Featured Courses portal on the above link and click on view catalog tab or click on: https://faasafety.gov/gslac/ALC/course_catalog.aspx

Some of the “free” courses that I recommend:

ALC-28: The Art of Aeronautical Decision-Making

ALC-40: Aviate - Navigate – Communicate

ALC-82: Do the Right Thing: Decision Making For Pilots – AOPA

If you have a BFR coming up, you may want to take a look at the new course:

ALC-25: Flight Review Prep Guide

There are many more courses that look worthwhile. I would like your feedback if you take any of these.

A new release of the Wings User's Guide has recently been published. It does a much better job of explaining the new Wings program. There is a link to the User's Guide in the bottom left corner of the WINGS Portal on the Home page listed above; just click that link to go to the User's Guide.

AOPA offers free courses (some of these are listed on the FAA course listing) at the following link:

Free On Line Courses: http://www.aopa.org/asf/online_courses/

AOPA Safety Advisor publications can be found at: <http://www.aopa.org/asf/publications/advisors.html>

As the Flight Training Magazine motto says – a good pilot is always learning. The resources above, in addition to the monthly training classes we present during T-Craft ground schools, provide a good avenue to continue to keep us mentally sharp.

Fly Smart, Fly Safe and Have Fun – Jim Hudson, Membership/Safety Director

Membership: We remain at 73 members.

Membership Drive Committee: I will be forming a committee to brainstorm ways to increase our membership. I have heard from a few members with some good ideas – thanks. The purpose of the committee will be to come up with some activities and actions to increase our membership. If you would like to participate on this committee, please let me know.

Training/Events:

March 10th 7:00 Pm Club Hanger – Bill McGlynn will conduct of his excellent Weather Class, focusing on spring weather.

Boise Tour Tour: I'm waiting to hear back from on the Boise Tower on the date. There may be one or two slots open, let me know if you're interested.

April – Date TBA – Reggie Sellers will conduct his “Survival” Class

May – Mountain Flying Class

Training/Events: All training meetings are at 7:00 PM at the hanger, unless noted otherwise.

Boise Tower Tour – I am working another tour to handle the overflow from last month. There are a few openings, so let me know if you would like to get on the next tour.

March 10th – Weather Forecasting: Bill McGlynn will give us a tune-up to get ready for more great flying this year.

April – Reggie Sellers Survival Training

May – Back Country Refresher

June – Flight Planning Software Programs

July 16th – Density Altitude and Performance, in conjunction with the Garden Valley Fly-in.

Below are some future topics that have been suggested for training. If you would like to give us some training in an area with which you're familiar, please let me know.

- 1) Do's and Don'ts of Cross Country Flying – route planning, flight following, etc.
- 2) Interesting places to go on a tank of gas
- 3) Easy to remember – Pilots rules of thumb
- 4) What happens if you screw up – Accident / Incident / Violate FAA Regulation
- 5) GPS use for VFR flights.
- 6) Engine loss and emergency landings.

(Members can participate as meetings presenters or contribute safety articles by contacting Jim Hudson.)

NEW MEMBER NOTICE

T-Craft Board approved members must be formally accepted into the Club by member vote during a General Membership Meeting. The next General Membership Meeting is scheduled for 29 March 2011, 7:00p.m., in the EAA/CAP Building, Nampa airport.

Aircraft Maintenance

Contact Jim Eyre [cell:(208)794-0667] with squawks, and use the notification feature found on-line in [Schedule Master](#) to alert pilots intending to use impacted aircraft. Write the tachometer time on the Squawk Sheet clipboard found on the hangar wall. Sign your name, and include a phone number where you can be contacted. Document Hobbs time for all other recordings. Report leaks immediately.

T-CRAFT MAINTENANCE

If you have not already read the article on **ELECTRICAL SYSTEM BASICS** -Please do so by going to www.t-craft.org/ and look under Site Index.

During the initial attempt at starting the new engine on N-7593S the magneto(s) failed to operate correctly. It was discovered that the Impulse Coupling (designed to convert slow rotation of starter into faster rotation of magneto rotor) flyweights did not move outward. This outward movement is to prevent their narrow ends from contacting the stop pin, allowing free rotation of cam plate & rotor. Confused? Read on...

IGNITION SYSTEM

In the days of old many aircraft were not equipped with an electrical system. They were equipped with a magneto system, which supplied electrical energy to the engine ignition system only. Airplanes still use an independent magneto system, but in addition are equipped with an electrical system. The magneto system does not depend upon the airplane electrical system for operation. You can turn the electrical system off in flight by turning the master switch "OFF" and the engine will continue to operate efficiently, utilizing the electrical energy provided by the magnetos. However, this should not be done since battery power is necessary to operate other electrical equipment (radio, lights, etc.).

The idea behind a magneto is simple. It is basically an electrical generator that has been tuned to create a periodic high-voltage pulse rather than continuous current. The first person to develop the idea of a high-tension magneto was Andre Boudeville, but his design omitted a condenser (capacitor); Frederick Simms & Robert Bosch were the first to develop a practical high-tension magneto (mid-1800s). Because it requires no battery or other source of energy, the magneto is a compact & reliable self-contained ignition system. Most small lawn mowers, chain saws, trimmers & other small gasoline engines do not need a battery. Instead they actually generate the power for the spark plug using a magneto (you pull a cord to spin magneto). The idea behind any ignition system is to generate an extremely high voltage – on the order of 20,000 volts – at exactly the right time. The voltage causes a spark to jump across the spark plug's gap, & the spark ignites the fuel. The magneto ignition system is used on most aircraft engines because it does not depend on an external source of energy such as the electrical system. However, the magneto must be actuated by rotating the engine before current is supplied to the ignition system. The aircraft battery furnishes electrical power to operate the starter system; the starter system actuates the rotating element of the magnetos; and the magneto then furnishes the spark to each cylinder to ignite the fuel/air mixture. After the engine starts, the starter system is disengaged, and the battery no longer has any part in the actual operation of the engine.

T-Craft aircraft engines are equipped with a dual ignition system; that is, two magnetos to supply the electrical current to two spark plugs for each combustion chamber. One magneto system supplies the current to one set of plugs; the second magneto system supplies the current to the other set of plugs. This is the reason that the ignition switch has four positions: "OFF," "LEFT," "RIGHT," and "BOTH." With the switch in the "L" or "R" position, only one magneto is supplying current and only one set of spark plugs is firing. With the switch in the "BOTH"

position, both magnetos are supplying current and both sets of spark plugs are firing. Advantages of the dual system include - increased safety in case one magneto fails so that the engine will continue operating on one mag until a landing can be made; and improved burning and combustion of the mixture giving you improved performance. You should always check both systems during your engine run up prior to flight. This check should be accomplished in accordance with the POH for that aircraft.

It is important to turn the ignition switch to “BOTH” for flight and completely “OFF” when shutting down the engine after flight. Even with the electrical master switch “OFF” and the ignition switch on either “BOTH” or “LEFT” or “RIGHT” magnetos, the engine could fire if the propeller is moved from outside the airplane. Also, if the magneto switch ground wire is disconnected or broken, the magneto is “ON” even though the ignition switch is in the “OFF” position. Keep this in mind every time you move the prop!

Now for the fun part of this discussion: go to the following site and play with a magneto!
http://www.undaerospace.com/cbt_files/virtualengine/Magneto/virtual%20Engine.swf

--Jim Eyre, Maintenance Director

FROM THE BOARD

Winter Flying Hours are in effect from December through February. You can fly all three of your Minimum Hours in one of these months, or two of these months, or one hour in each of these months. Contact a Board Member if you have any questions.

***** Members wishing to maintain currency may attend the following meetings*****

Next Board Meeting: 8 March 2011, 7:00p.m., T-Craft Hangar training room.

Next General Membership Meeting: 29 March 2011, 7:00 p.m., EAA/CAP Hangar, Nampa, Id

Flying rates effective 8/31/10 (all hours recorded per hour “wet”):

375	-	\$52.00
64R	-	\$77.00
686	-	\$79.00
91X and 0YD	-	\$109.00
93S	-	\$112.00

Fuel re-imburement for February 2011: \$4.03/gal.

(Review your receipts and confirm \$.25/gallon is recorded. Report any discrepancies **ASAP** to Dennis Wheeler.)

Upcoming Local and Regional Events

(See Jim Hudson’s note above.)

If you have read or know of events to come, please send the Secretary (jlvanho@msn.com) a quick e-mail.

Websites of Interest

The official website of T-Craft Aero Club Inc., www.t-craft.org
Nampa, Id. Airport news, <http://www.nampaairport.org/airport/Category/news>
Survival, and back country gear, www.cubgearstore.com
www.shortfield.com
www.backcountrypilot.org
Idaho Aviation Association, <http://www.flyidaho.org>
Idaho Aviation Association Calendar of events, <http://www.itd.idaho.gov/aero/>
Oregon State, <http://www.aviation.state.or.us/>
AOPA's "Let's Go Flying!", <http://www.aopa.org/letssofarflying/>
FAA, http://tfr.faa.gov/tfr_map_ims/html/index.html
TFRs on WACs or Sectionals, <http://airspace.nifc.gov/mapping/nifc/index.cfm>
TFRs along your route, <http://www.navmonster.com/>
Large fires, some including TFRs, http://activefiremaps.fs.fed.us/lg_fire2.php
AOPA Flight Safety on-line courses, http://www.aopa.org/asf/online_courses/
<http://www.weather.gov/aq/sectors/pacnorthwest.php>
National Weather Service – Boise Office, <http://www.wrh.noaa.gov/boi/>
Fire Reporting, <http://www.firedetect.noaa.gov/viewer.htm>
Runway safety, <http://www.faa.gov/go/runwaysafety>
http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/
<http://aviationweather.gov/adds/metars/>
http://aviationweather.gov/adds/icing/icing_nav.php?icg_type=CIPSEV50&height=max&fcst_hr=0
<http://www.aopa.org/index.html>
<http://www.wrh.noaa.gov/satellite/?wfo=boi>
<http://www.ghcc.msfc.nasa.gov/GOES/goeswestpacus.html>
<http://www.wrh.noaa.gov/zoa/cwa.php>

Reminders

Answers concerning our Club, Policies, or even locating a **New Member Application Form** for your friend or family member can be found on the T-Craft website: www.t-craft.org.

T-Craft Business Cards and Pamphlets are available. Share them with friends and acquaintances in the community who may be looking for piloting opportunities.

Properly sign out your aircraft, including the correct designation; for example, Local, Cross Country, Maintenance, Replacement Aircraft Search, etc. If an aircraft moves, breathes, or sneezes, it **MUST** be correctly documented for maintenance and billing.

Delete the remainder of any unused flight time from Schedule Master immediately after landing. Somebody may be able to use that time.

T-Craft Members are responsible for keeping their **contact information** (phone numbers, email addresses, postal address) updated in **Schedule Master**. To check or update your information, login to ScheduleMaster, click the "User" tab at the top, then click the link that says "Click here to edit your user info".

Ask any Board Member for a copy of any of the Minutes, or you can e-mail the Secretary (jlvanho@msn.com), and have a copy sent right to your home.

Got something aviation **you want to sell**? Post it in the T-Craft Newsletter. Send your advertisement to the Secretary, jlvanho@msn.com.

Thanks to all who have sent us photos for our newsletters. We encourage anyone with a camera and a steady hand to submit your stories and pictures for our February 2011 edition. We love piloting, and we love seeing the places our aircraft are flown.

THE FINAL TOUCH.....

F16 vs. C-130

A C-130 was lumbering along when a cocky F-16 pilot flashed by.
The jet jockey decided to show off.



The fighter jock told the C-130 pilot, 'watch this!' and promptly went into a barrel roll followed by a steep climb. He then finished with a sonic boom as he broke the sound barrier. The F-16 pilot asked the C-130 pilot what he thought?



The C-130 pilot said, 'That was impressive, but watch this!'
The C-130 droned along for about 5 minutes and then the C-130
Pilot came back on and said: 'What did you think of that?'
Puzzled, the F-16 pilot asked, 'What the heck did you do?'
The C-130 pilot chuckled. 'I stood up, stretched my legs, walked
to the back, relieved my bulging bladder, and got a cup of coffee and a
Cinnamon roll.'

The moral of the story is....

**When you are young and foolish -
Speed and flash may seem a good thing!**

**When you get older and smarter -
Comfort and dull is not such a bad thing!**