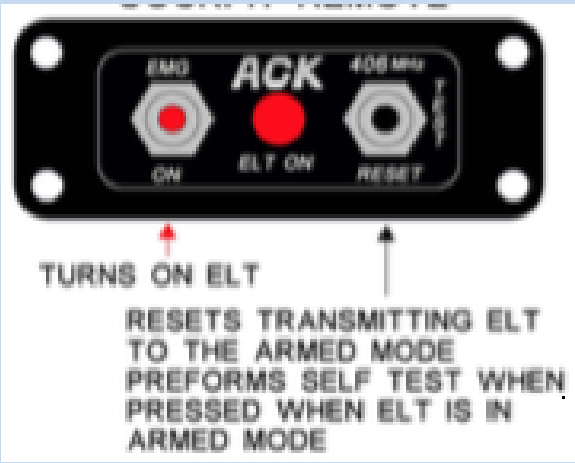
PUTTING WINGS ON YOUR DREAMS

VOLUME XIII

ISSUE 7

In the last few years we (the board) have received calls from the Cospas-Sarsat Rescue Coordination Center about the whereabouts of one of our aircraft due to the ELT transmitting a distress signal. As I recall we've had a couple calls for 93S, one or two for 89E, and I think once for 64R. These calls have been the result of inadvertently setting off the 406 MHz ELT. As you can imagine, this has cause for great concern when getting one of these calls, and has had us worried for several hours each time until we were able to locate the aircraft or pilot. Is the aircraft really down? Where are they? Do they know they set the ELT off? As it turns out, after the fact that the pilots did know that the ELT was inadvertently set off, but they re-set it as soon as possible, in some cases, within seconds. We have learned that it only takes a few seconds for the monitoring satellites to pick up a signal and report an ELT activation to the S&R authorities, including the Idaho Division of Aeronautics (who also were trying to locate the aircraft).

How does this happen?
As you may, or should know, our 406MHz ELT's have remote control switches for the ELT located somewhere on the panel. In the cases where they have been inadvertently set off, they are close to the throttle or mixture controls.



When the ELT is activated, it transmits the 406 Mhz distress signal and this is what happens: the cockpit remote will flash, and the audio alert indicator will

emit a series of 9 beeps, approximately every 50 seconds to alert the crew that the ELT is operating. If there is no emergency, reset the ELT using the "Reset" button on the remote. ***Immediately notify the appropriate search and rescue operations office. If able, call the Airforce Rescue Coordination Center at 850-283-5349 and notify a false alarm. Otherwise immediately notify FSS on 122.2 or ATC of the false activation. In addition, notify one of the board members as soon as possible.***

As part of your pre-flight briefing, you should know where the remote is located and show your passengers so that it can be activated in case of a real emergency. There have been many instances of an accident in which for some reason the ELT was not set off in a crash, and in which people survived the initial crash, but later perished because they could not be found. If you know you are on your way down, turn the ELT on via the remote control button.

CAUTION: The 406 MHz ELT's **SHOULD NOT** be tested as per older, legacy 121.5/243-MHz ELT's which could be activated briefly for testing during the first five minutes of each hour. THIS IS NOT THE CASE FOR 406-MHZ ELT's. 406-MHz ELT's are digitally coded and transmit distress immediately, as we have found out.

More details about the operation of our 406MHz ELT's can be found on our web page in the index tab, under ELT Operation Manual.

Fly Smart, Fly Safe, Have Fun, and don't forget the

"This is Stupid" Abort Now.  Button

Jim Hudson
Safety/Membership Director

T-Craft Events to look forward to for the upcoming year.

August 23rd, 2016 Captain Hook MAF-Pilot/Instructor Short field techniques seminar.

October 4th, Plane Wash
Fall Wx Class

August 2016

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			

Calendar of Events:

8/12/2016 – Board Meeting.
No General Membership during August
8/10/2016 - Accounts due
8/20/16 - Accounts past due

Fuel Reimbursement

$3.50 per gallon.

The fuel account balance as of 07/12/16 was 2,760 gallons.

Top flyers for the month*

Mark Turner	12.0
Tad Jones	11.4
Greg Graybadger	9.7

Highest billing aircraft*

1891X	$3,574.00
4464R	$3,298.00
13686	$2,856.00

Hours flown for aircraft*

67375	49.9
4464R	48.5
13686	40.8

***These figures are reported at the directors meeting earlier in the month.**

Breakdown of Membership
60 Class II, 40 Class I, 4 Social and 7 voluntarily inactive and 3 inactive for BFI/Medical.

100 Members (Temporarily)

04 Social Members (non flying)
40 Class I Members (39%)
60 Class II Members (61%)
10 Inactive
Ratings

17 Student Pilots
63 Private Pilots
01 Recreational Pilots
11 Commercial Pilots
08 Air Transport Pilots
28 Instrument Pilots

Welcome New Members:

Mike Sheridan	Class I	Private
Mitch Geibel	Class II	Com/CFI
Ben Jantzi	Class II	Private
Hootan Shariat	Class I	Student
Dave Wells	Class I	Student

Accomplishments:
Tailwheel Endorsement
Tad Jones

Backcountry
Len Erickson – Level I
Tad Jones – Level 1
Mark Turner – Level II
Mike Bracke – Level II

BFR's
Mark Slusser
Joe Bejsovec

Level II Upgrades
Carl Fetterman
Todd Bennett
Bill Chapman

Jimmy Gross soloed 06-14-16
John Baglein CFI

If you've achieved a new rating, BFR, accomplishment, please inform the Membership Director Jim Hudson, or Secretary/Newsletter editor Bert Osborn

If you have news or pictures that you would like to have included in the newsletter please submit them to Bert Osborn at 1berto@cableone.net

INTERNET PHONE

The new VOIP phone has been installed and is working well. Give Reggie Sellers a pat on the back for his hard work in installing this new technology and saving T-Craft money.

From the Membership Director: Jim Hudson

MEDICAL EFORM

I've had some questions about the 3rd class Medical Reform legislations that has recently passed that will eliminate the need for 3rd class medicals. This is GREAT news. The FAA has one year to work out the details and implement the regulations for new law. You can find Q&A's at the following link. AOPA FAQ Medical Reform
We do not plan to change anything with respect to Schedule Master notifications of medical expirations until the FAA regulations are in place.

MEMBERSHIP AT 100!

At this month's board meeting we accepted **FIVE** new members and have surpassed our maximum membership limit of 98. It's been 10 years since we've had a cap on membership and ended the wait list system. We have re-activated the wait list for new applicants. If you know anyone who is interested in the club, you can refer them to our web page and if interested can fill out a wait list form: T-Craft Wait List. When our membership drops back below 98, we'll take new member applications as they come to the top of the wait list.

CFI's

One of our new members this month, Mitch Geibel is also a CFI and was approved by the board to instruct club members. We now have 7 club member CFI's on the list of 21 instructors. Only instructors on our list can instruct in club aircraft unless you get an exception from the board. A reminder for those interested in getting instruction in the Champ; only the instructors noted on the list ** are approved by the board to instruct in the Champ.

WEB PAGE UPDATES

Several updates were made to the webpage this month, mostly about reaching our maximum membership and starting a wait list. Other additions were 160 HP STC for our C172's and ELT Operation manual (Fleet), John Hook's presentation on Terrain flying (News), calendar updates to include John Hook's Short Field take-off seminar August 23rd. Updates to the instructor listing and learn to fly page. For a guide to what's on our web page review this link Webpage Guide

Hourly Rates

N1227G
$48.00

N67375
$55.00

N4464R
$68.00

N13686
$70.00

N1891X
$99.00

N9989E
$107.00

N7593S
$109.00

SQUAWKS

All of the aircraft are available for flight.

67375 Electronic Ignition Left Mag was acting out of character. Removed plugs (over 200 hrs on) and replaced with new. Operational check was good. No active squawks to report. 67375 had its oil changed on June 24.

9989E was squawked that the fuel caps were hard to remove. They were lubricated and working fine. The pilot door stop was missing pin recently and was replaced. Please be careful that door does not open too far. If windy day hold on to door while open.

7593S The VSI was damaged on 7593S when installing the new IFR certified Garmin. The avionics shop put in a temporary while the damaged one is being repaired. The temporary VSI looks a bit different than the one we are used too. 7593S is ADS-B OUT compliant. IFR biannual certification completed. Battery was replaced which we hope solves the "slow to crank" squawk. She cranked nicely twice for me. 3 good shots prime on first crank. No prime 2nd crank. About 3 minutes between cranks.

1891X No squawks to report. 1891X had her oil changed July 9.

4464R No squawks to report. Maintenance replaced the pilot side PTT. She is running strong

13686 Right side portable PTT wires torn from socket. Soldered wires today & functional test was good. PLEASE use care when plugging/unplugging headset into this temporary setup. This is the way it will be until I can get the yoke grip replaced. Function of my time & aircraft availability. 686 was grounded because of an electrical failure. When 13686 had its electrical failure, a new alternator was overnighted at no charge and the bird was back on line the next day. The cost for the reconditioned alternator was $650.00.

1227G SkyTec starter removed & shipped for factory overhaul due to bad solenoid. Downtime depends on factory turn-a-round & shipping time. The window latch has been fixed, new fasteners have been installed on the cowling and the heater duct has been capped. That will reduce the heat in the cockpit.

The DOM (Director of Maintenance) Jim Eyre is putting labels near the tachometers on all of the birds so we can tell when an airplane is nearing the 50 hour time for oil changes. If you are scheduled for an extended trip and the oil change time will fall in the middle of your trip, advise Jim and the oil change can be done before you leave.
++ You should notice black tape next to tachometer in each plane telling when next oil change is due. Please let me know if due time is close before you take her beyond that due time. Thanks.
++ Log Program – you tell us when you put oil in a plane so we can track engine usage. Each checklist clearly states minimum & maximum amount of oil that particular aircraft wants as we have determined over several years. Overfilling the sump wastes oil and misdiagnosing a nonexistent oil burning problem. If you desire to put more than checklist calls for please show at next plane wash to clean undercarriage of oil blown out breather tube. IF you can't read the dip stick please see your AME ASAP.

The DOM Jim Eyre attended the Garmin open house Thursday, July 14 in Portland.

ADS-B REPORT

93S and 686 have both been upgraded to WAAS certified Garmin 430's. 93S is now ADS-B out compliant. 89E, 64R and 375 will follow. T-Craft will try to upgrade 2 aircraft per year.

MEMBERSHIP DUES

Effective February 1, 2016 membership dues were established at $60.00 per month. That rate combined with the low hourly charges for the airplanes and the great maintenance under the watchful of Maintenance Director Jim Eyre makes T-Craft the leader in high quality, low cost flying.

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.

OFF FIELD FUEL REIMBURSEMENT

If you purchase fuel off site you will be reimbursed at the club rate per gallon, currently at $3.50/gal. In order to get the reimbursement, send your receipt(s) to the club mail address to the attention of Reggie Sellers, or scan a legible copy and email to Reggie Sellers. DO NOT put your receipt in the club pouch, these are for Nampa fuel receipts only and your personal receipt will probably get lost.

Send your pictures to Bert Osborn at 1berto@cableone.net

A weather front. Photograph courtesy of Reggie Sellers.

Idaho City/Loman Fire – Photograph courtesy of Jim Hudson 7/27/2016

Idaho Power C-Generation Plant -- Langley Gulch - Payette County, Idaho
Photo courtesy of Bert Osborn

The Western Treasure Valley from a Pilot's Point of View
Photograph courtesy of Bert Osborn

AVOID OVER-SERVICING OIL

Jim Eyre Director of Maintenance

Our aviation engines often retain oil outside the sump after shutdown for some time. Over-servicing with oil is unfortunately too common. Overfilling the sump with oil is not good on several counts, but it continues to happen all too often. It wastes oil and can cause other engine issues, including misdiagnosing a nonexistent oil burning problem. An aircraft engine tends to trap oil outside the sump for quite some time after shutdown-much more so than an auto engine.

Because of this possibility it's probably not a good idea to do an immediate sump check for oil quantity right after shutdown. The chance of overfilling the sump is quite high then as is the likelihood of making an error of just how much oil really is in the engine.

Aircraft oil is thick and there are a number of locations that oil can get temporarily pooled up or "lost". Some of these areas include oil lines, oil passages, the oil cooler and the filter. So temporary trapping/pooling of oil is not at all uncommon.

A wait of at least 20 minutes (more time is better) is a good idea before checking oil levels. One way to prove this to yourself with a particular airplane is to check the dipstick right at shutdown and then again the next day. You may well find up to 2 quarts miraculously appears overnight depending on the basic sump capacity and design of the engine. Results will vary.

Besides the obvious waste of money and release of oil blown overboard to the environment, it can cause sump oil foaming and misting and the oil breather system will try to get rid of the excess by blowing oil all over the belly of your aircraft. Some member on a creeper has to spray that belly at plane wash! It can also lead us to the incorrect assumption that we have an engine blow-by problem or possibly a leak.

To prevent overfilling make sure aircraft is on level ground. This is especially true for taildraggers. There are a number of variables in dipstick design to accommodate engines and engine compartment dimension constraints. Make sure you can read the markings on the dip stick and have an idea where you expect the level to be on the stick. Plus ensure the stick is locked back in place after checking.

Aircraft engines are designed with worst case flying scenarios in mind. That is a design so you will not run out of oil even if the engine uses oil at its maximum factory design limits for the engine application –that's upwards of a quart an hour in an 0-470 in a worst case scenario.

We can save oil and money and our engines will be just as happy with less than the sump being filled to the maximum capacity for routine local flying. Look at the individual aircraft checklist and you will see both minimum and maximum oil quantities we have determined over time.

Most engines are happy and run at nearly the same temperatures with one to two quarts less than the maximum. Moreover, the tendency to lose oil out the breather is generally significantly reduced as well when the engine is operated with a less than maximum quantity of oil in the sump.

Don't be concerned about any loss of lubrication capability or engine heating issues as actual testing has shown an engine operates just fine with the recommended

minimum oil capacity as shown on our checklists. The absolute minimum oil before damage is much less than recommended operating minimums.

During full power/takeoff you will use more oil (and possibly just as much when at very low power levels in flight), so flight training operations and short flights will tend to increase oil usage noticeably. Also, infrequent flying will tend to increase oil use, both from drying internal seals to leaking external seals such as in the case of Continentals with leaking pushrod tube seals located below the cylinders (they are not designed like this in Lycomings).

Local flying uses more oil because of the more frequent takeoffs and the constant changes in power as opposed to a climb to altitude and set up for a long cruise. Conversations with other owners over the years have shown this as typical operational oil use variations under varying flight regimes.

Some upfront tips: *verify recommended oil quantity on appropriate check list, *be absolutely obsessive with clean funnels and tools when filling with oil, *take care to keep junk from falling into the sump when filler is open, *wait 20 or more minutes before adding oil to a hot engine.

Please Contact me, Jim Eyre DOM for any aircraft or avionics issues. 208-794-0667.

Fun safe enjoyable flying is what I want for you.

NASA research plane gets X number, new name

June 22, 2016 by General Aviation News Staff Leave a Comment

WASHINGTON, D.C. — With 14 electric motors turning propellers and all of them integrated into a uniquely-designed wing, NASA will test new propulsion technology using an experimental airplane now designated the X-57 and nicknamed "Maxwell."

Photo courtesy NASA Langley/Advanced Concepts Lab, AMA, Inc.

NASA Administrator Charles Bolden highlighted the agency's first X-plane designation in a decade during a keynote speech at the American Institute of Aeronautics and Astronautics (AIAA) annual Aviation and Aeronautics Forum and Exposition, commonly called Aviation 2016.

"With the return of piloted X-planes to NASA's research capabilities – which is a key part of our 10-year-long New Aviation Horizons initiative – the general aviation-sized X-57 will take the first step in opening a new era of aviation," Bolden said.

As many as five larger transport-scale X-planes also are planned as part of the initiative. Its goals – like the X-57 – include demonstrating advanced technologies to reduce fuel use, emissions and noise, and accelerate their introduction to the marketplace, NASA officials explain.

The X-57 number designation was assigned by the U.S. Air Force, which manages the history-making process, following a request from NASA. The first X-plane was the X-1, which in 1947 became the first airplane to fly faster than the speed of sound.

“Dozens of X-planes of all shapes, sizes and purposes have since followed – all of them contributing to our stature as the world’s leader in aviation and space technology,” said Jaiwon Shin, associate administrator for NASA’s Aeronautics Research Mission Directorate. “Planes like the X-57, and the others to come, will help us maintain that role.”

NASA researchers working directly with the hybrid electric airplane also chose to name the aircraft “Maxwell” to honor James Clerk Maxwell, the 19th century Scottish physicist who did groundbreaking work in electromagnetism. His importance in contributing to the understanding of physics is rivaled only by Albert Einstein and Isaac Newton.

As part of a four-year flight demonstrator plan, NASA’s Scalable Convergent Electric Propulsion Operations Research project will build the X-57 by modifying a recently procured, Italian-designed Tecnam P2006T twin-engine light aircraft.

Its original wing and two gas-fueled piston engines will be replaced with a long, skinny wing embedded with 14 electric motors – 12 on the leading edge for take offs and landings, and one larger motor on each wing tip for use while at cruise altitude.

NASA’s aeronautical innovators hope to validate the idea that distributing electric power across a number of motors integrated with an aircraft in this way will result in a five-time reduction in the energy required for a private plane to cruise at 175 mph.

Several other benefits would result as well, according to NASA officials.

“Maxwell” will be powered only by batteries, eliminating carbon emissions and demonstrating how demand would shrink for lead-based aviation fuel still in use by general aviation.

Energy efficiency at cruise altitude using X-57 technology could benefit travelers by reducing flight times, fuel usage, as well as reducing overall operational costs for small aircraft by as much as 40%. Typically, to get the best fuel efficiency an airplane has to fly slower than it is able. Electric propulsion essentially eliminates the penalty for cruising at higher speeds, officials explain.

Finally, as most drivers of hybrid electric cars know, electric motors are more quiet than conventional piston engines. The X-57’s electric propulsion technology is expected to significantly decrease aircraft noise, making it less annoying to the public.

The X-57 research started as part of the NASA Aeronautics Research Mission Directorate’s Transformative Aeronautics Program’s Convergent Aeronautics Solutions project, with the flight demonstrations being performed as part of the Flight Demonstration Concepts project in the Integrated Aviation Systems Program.

TEFLON PAINT

By Julie Johnsson Bloomberg News July 08, 2016

Boeing plans to test whether new nonstick aircraft coatings may provide a simple solution to an age-old aviation hazard: icing.

The paints are designed to cause ice to slide harmlessly off a plane's wings and flight-control surfaces, where dangerous buildups can cause stalls or make aircraft difficult to control. They may help with another issue as well: bug splats that disrupt the flow of air over a jetliner's wings.

JASON REDMOND/AFP/Getty Images/File 2015

The new aircraft paint is designed to help ice slide harmlessly off of wings and external flight-control surfaces, while also helping maintain smooth air flow over wings, which lowers fuel usage.

Those are among technologies that Boeing and Brazil's Embraer unveiled Thursday, along with an Embraer E175 jet that will be converted into a flying laboratory. It's the first time Boeing has tested potential breakthroughs and processes on another manufacturer's aircraft under its ecoDemonstrator Program, an effort aimed at boosting innovation and mitigating aviation's effect on the environment.