

ISLIP AVIONICS INC

135 Schaeffer Dr.
L.I. MacArthur Airport
Ronkonkoma, NY 11779



Phone: (631) 588-3543
Fax: (631) 588-1313
E-mail: sales@islipavionics.com

Summer 2010 Newsletter

Dear fellow pilots and aircraft owners,

I am writing this newsletter just after returning from a very exciting week at AirVenture Oshkosh 2010. Even with the heavy rains before the show, the turn out seemed good. It is obvious that there is still a lot of spirit in aviation. It seems that fuel prices have dropped slightly and have stabilized. Let's keep the spirit alive!

ELT Update. This past February, NOAA officially stopped monitoring 121.5 MHz for ELT alerts due to inefficiency caused by false alarms and crashes without activation. The internationally coordinated Cospas-SARSAT satellite system now only monitors 406 MHz for *digitally encoded* distress signals. The FCC has announced that it will no longer allow the use of older generation analog ELTs broadcasting on 121.5 MHz. The FAA, however, has not made it a requirement to replace the old with the new just yet. There still remains some confusion regarding this issue. The new 406 MHz units that are presently available, with one exception, broadcast on both 406 and 121.5MHz. Although we have not seen an interpretation in writing, it is our understanding that the new dual frequency units *are* acceptable.

What does this mean to aircraft owners? Although the FAA has not yet mandated the installation of a new 406 MHz unit, you will probably need to change over to one shortly. The new ELT system requires an antenna change and the installation of a new panel control unit in addition to the new ELT itself. This usually means opening up the interior of the aircraft to route new wiring. Most non-pressurized GA aircraft can be converted for under \$2000.

There are options that also transmit last known GPS position. The units presently available with this capability require connection to an existing panel mount GPS. There are several units that will be available shortly that have an internal GPS receiver.

The new installation requires a post installation test. This test requires special test equipment that verifies that the unit is transmitting correctly. After the installation of the new system, the aircraft owner must register their new ELT with NOAA. Each ELT has a unique 15-digit hexadecimal code that identifies you and your aircraft. After you register the unit, you will receive in the mail a decal that must be attached to the unit in the aircraft.

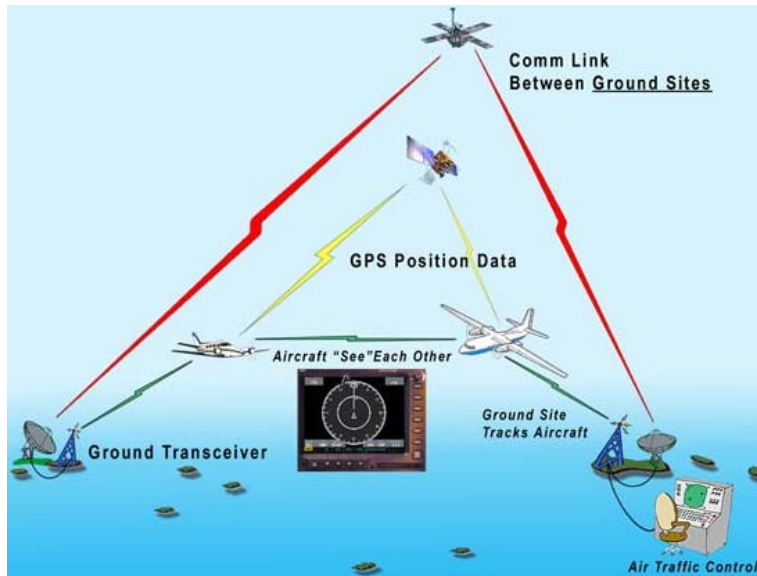
The bottom line is safety. The new ELT systems will help locate accident aircraft more rapidly, therefore increasing the chances of survival. Now is the time to upgrade!

Loran Update. As many of you know, the Loran system is being de-commissioned in the United States. Most of the stations are no longer on-line. We started installing Loran systems in 1984 and continued to do so until GPS became a viable replacement in the mid 1990's. Many of our customers have had over 20 years of good service from their Northstar M1 Lorans. It is now time to move on and install a new GPS system. If you are not planning on removing your Loran, an INOPERATIVE placard should be installed on the unit.



ADS-B Update. ADS-B, "Automatic Dependent Surveillance - Broadcast" is part of what the FAA calls the "Next Gen" ATC system. Many of you have heard of the Capstone Project in Alaska several years ago; this was a test bed for the NextGen system. The ADS-B system works in addition to the present ATC Radar system. The FAA has recently passed regulations that will require the installation of ADS-B OUT on all aircraft by 2020 that wish to continue operating in most controlled airspace. The FAA is already installing the necessary ground stations. It is their plan to have the ground station infrastructure for ADS-B completed by 2013.

What is ADS-B? First I must state the difference between ADS-B OUT and ADS-B IN. ADS-B OUT continually broadcasts your *GPS Latitude and Longitude*. This is done one of two ways; either by a Mode S transponder which broadcasts on 1090 MHz or via a UAT (Universal Access Transceiver) on 978 MHz.



ADS-B IN requires a UAT receiver. It receives traffic data from ATC, traffic data from surrounding ADS-B OUT equipped aircraft, from ground stations, and eventually weather data stations and satellites. This information will be presented on a variety of compatible Multi-Function Displays (MFDs).

There are many avionics manufacturers working on the design and approval of ADS-B equipment. The FAA has announced that all installations will require approval by TC or STC. We were recently told at an FAA Engineering training session that after some installation experience is gained, they will probably allow the Field Approval Process for these installations.

Garmin is now presently selling the GTX330 ES "Extended Squitter" to comply with ADS-B OUT. This is also available as a factory upgrade on standard GTX330 units for a nominal fee. We expect to have a lot more information within the next six month's time and will keep you posted.

Battery Service Update. We now have capabilities to test, inspect, and repair NiCd batteries, emergency battery systems, and sealed lead acid batteries. We can make arrangements to pick up and drop off your batteries at ISP, FRG, FOK and HWV. We can provide prompt turn times at reasonable prices.



Hangar Space. We are looking for one or two long-term hangar tenants at our facility. Call Fred for pricing and availability.

Other News, Hints and Good Information:

WAAS Upgrade. Garmin has recently announced that it has discontinued maintenance service on the early GNS 430 and 530 units that are 28 volt only, unless the unit has been upgraded to WAAS. This is due to a parts availability issue. Garmin has also announced that they will no longer make the XL series units. If you have not already, you should upgrade your unit to a GNS 430W or 530W.

ARROW. Each time we work on an aircraft, we check the registration and airworthiness certificate. We do this to verify the airplanes model, serial number and registered owner. The FARs require that the airworthiness certificate must be displayed inside the aircraft in a manner that it can be seen from the exterior of the aircraft. It is the aircraft owner/operators responsibility to make sure these documents are properly displayed in the aircraft. If your airworthiness certificate is worn or damaged, it is easy to get a replacement at the FSDO office. *On a side note, the FARs require that the seller of an aircraft returns the old registration to the FAA within 60 days of the sale of the aircraft. You must list the buyers name and address. Details of the sale must be recorded on the back of the old registration card.*

Aircraft Maintenance Records. It is the aircraft owner/operators responsibility to maintain the proper records (commonly referred to as "log books") for their aircraft. Maintenance records include 337 forms, Instructions for Continued Airworthiness (ICAW) on modifications done to the aircraft, installation and operating manuals, and much more. Keep your records organized and store them in a safe place. Please bring them in with your airplane if we are doing any service or work to it.

Instructions for Continued Airworthiness. New major alterations require that instructions for continued airworthiness be provided as part of the approval data package. An important example in the avionics world is the annual inspection requirements of the Garmin GNS-430W/ 530W systems. The accomplishment of these inspections MUST be noted in your aircraft or avionics log books. Although the IA or Repair Station doing your annual inspection is responsible for researching any major alterations done to the airplane, it still remains your overall responsibility to make sure these required inspections are performed and signed off properly.

Lithium Ion Batteries. Many of us own devices such as cell phones and lap top computers that utilize these batteries. Many of the lap top companies have had battery recalls after the explosion and burning of the battery packs. At a recent FAA training seminar, we received a great deal of data on these batteries. In our own shop, one of our cell phones got wet. It was laid on a bench to dry. Shortly later it emitted smoke, exploded, fell off the bench and started burning. Imagine being in flight, using your lap top for charts and approach plates and having it explode and burn. The FAA found that the most common failure is during and slightly after charging. They determined that the best way to put out a lithium ion battery fire is to dump water on it. It seems to dissolve the electrolyte and it cools the remaining cells.

Shows and Conferences. Members of the IAI staff attended the AEA "Aircraft Electronics Association" annual convention in Orlando, Florida. Staff members receive as much as 40 hours of FAA approved training at this trade show. Staff members also attended the Sun N Fun and Oshkosh Air Shows. Attendance to these shows gives our staff the ability to keep up with the latest technologies. Plus, it is Plane Old Fun!



Beyond Economical Repair. As many of the popular legacy radios age, their repair and maintenance becomes difficult and complicated due to the age of the internal components and their deterioration over time. In many cases, new parts are no longer available. If we determine that the labor and parts to repair a particular unit will exceed the replacement value of the unit, we will notify the customer that it is Beyond Economical Repair. In many cases, we will be able to offer an exchange unit at a reasonable price. We are seeing this problem with the King KX-170B series, Collins Micro Line series and all of the ARC Cessna Radios. Although these were excellent radios in their day, they are approaching the end of their useful life. Many of these radios are over 30 years old. Time for NEW!

Email and Website. Please visit our website: www.islipavionics.com for great information and links to many popular avionics and aviation websites. You can also find links to our old newsletters (back as far as 1994!) and updated pictures of our recent and older installs.

If you know of anyone who wishes to receive our newsletter please have them send an email to rick@islipavionics.com along with their current mailing address, phone number(s) and other such information so that we can update our database and make sure we keep in touch.

Contact Us. Our phone number is (631) 588-3543 and is answered Monday through Friday from 7:30 am to 4:30 pm. We do not have a voice mail system. However, we do check our email several times daily. Our email addresses are as follows:

fred@islipavionics.com

tres@islipavionics.com

Thank you for your continued support!

Happy Flying,

Fred & the crew of Islip Avionics:

Tres, Pat, Paul, Danny, Tom, Marc, Oscar & Rick