

Hello fellow aviator,

Fun was had by all as Beth Berghorn and Paul Van Thomme were married this past April. We talked, ate and danced the night away at Timber Point Country Club. You may know Beth she worked for Mid Island Air Service and now works for East Hampton Airlines. Paul has been an installer at Islip Avionics for 6 years.

We would like to thank our co-sponsors Mid Island Air Service, Eastway Aircraft Services and Teledyne Mattituck Services for their participation in the 7th annual Open House/Fly In. We would also like to thank Al Schnur, the Safety Program Manager of the FAA Farmingdale FSDO, and other FAA staff for their informative seminars. We had a CAVU day. Many manufacturers were on hand to demonstrate their products and answer questions. We had a static show, giveaways, lots of hangar flying and complimentary breakfast and lunch. We look forward to seeing our customers and friends at this annual event.

www.islipavionics.com:

Jason Piastuck, Tom's son, spent part of his summer vacation working on our web site. Jason is a computer engineering major at Rensselaer Polytechnic Institute. The web site includes photos of our custom panels, links to manufacturers web sites, previous newsletters and some general information relating to avionics and flying.

Garmin 430/530:

The Garmin GNS 430 and GNS 530 remain the leading radios in popularity. The Garmin 430 has been in use since early 1999. Garmin had been repairing most GNS 430's at no charge even beyond the 1 year warranty period. Garmin is in the process of instituting and will start enforcing a flat rate repair charge for GNS 430 units that are out of warranty. Give us a call if you would like to trade in your older GNS 430 for a new unit with a new factory warranty.

Some great stuff:

The Horizon Instruments P-1000 Electronic Digital Tachometer is STC approved for installation in most single engine aircraft. This unit is custom programmed by the factory to show the aircraft's total time. This unit has indicators to show possible magneto failures both during run up and in flight.

The P2, Inc., model 6600, Audio Gear Advisory System is a great safety addition for retractable gear aircraft. As airspeed is reduced below a preset speed of typically 90 knots the system will announce, over the headset, "gear is down for landing" if the gear is down or "check gear" if the gear is not down. The system also has an audible overspeed warning and a visual annunciator on the panel. The system is STC approved for most singles and light twins. Please stop by or call us for more details and literature.

Live Nexrad weather in the cockpit:

At Oshkosh 2000 a number of avionics companies announced they would be providing live Nexrad weather in the cockpit. This was the big buzz. Many companies stated that their product would be available in about 6 months. Most companies are still working on these products nearly 1 ½ years later.

The only products currently available are Archangel and Arnav. The Archangel is a portable cockpit display unit that requires an external antenna. The antenna is not FAA approved and is not practical to install on certified aircraft. The Arnav system has limited geographical coverage areas.

There is a lot to know about Nexrad weather products. Some companies propose the use of satellite based systems. Other companies are using ground based systems. We believe that some companies are considering using combined systems.

Most Nexrad systems will provide weather data on a request/reply basis. Other systems will have continuous data broadcast.

When these products were initially introduced, it was believed the weather data returns in the cockpit would only have a 2-4 minute delay. It now appears that a 6-10 minute delay will be more realistic. This will still be very useful weather data.

It appears that the initial installation of the airborne receiver and antenna will cost between \$4000 and \$6000. In addition to the installation of the receiver and antenna the aircraft will need to be equipped with a compatible multifunction display (MFD).

Units such as the Garmin GNS 430/530, Avidyne, UPS MX-20 or Honeywell KMD 550/850 will fulfill this requirement. A basic compatible MFD starts at \$8,000. You also need Ioran or GPS to drive the MFD. We expect monthly user charges to range from about \$20 for a basic service to about \$45 for full service.

Garmin intends to use a satellite based system. They expect their GDL-49 receiver to be available in the first quarter 2002. Their system will display on the Garmin GNS 430/530 series equipment.

Honeywell is using their own ground based transmitters. They also expect first quarter 2002 delivery. The Honeywell system will display on the KMD 550/850 MFD.

I have seen operational prototypes of both the Honeywell and Garmin systems. They both look very useable. Both companies are estimating monthly fees of about \$40 for unlimited use.

Avidyne is working on several solutions. One is to use the Aircell airborne cellular network to request and receive weather data. They are also working on a satellite based system.

One of the most interesting features to me was the graphic representation of the textual METAR reports. Airport symbols on the weather screen are green for VFR, blue for marginal VFR and red for IFR. This gives a quick visual reference to the pilot looking for alternate routing.

The concept of live weather availability in the cockpit is great. For the VFR pilot and the average general aviation IFR pilot, these systems should provide a viable and safe weather avoidance system. I am not sure that this form of weather avoidance is the total solution for the hard core IFR pilot. These new products along with airborne weather radar, thunderstorm detection or stormscope equipment should provide a seamless solution.

The IFR pilot's goal is to avoid hazardous weather. These hazards include heavy precipitation, turbulence, lightning associated with convective activity and avoidance of icing conditions. Nexrad is a radar based system. The system provides the intensity of precipitation and the movement trends of the precipitation.

Software Updates policy changes:

Garmin has changed their policy regarding operational software updates. In the past Garmin provided updates free of charge and reimbursed us for the labor. Under new policy Garmin provides the software updates free of charge, including labor to units that are still under new product warranty. For units that are out of warranty, over 1 year old, a \$90 labor charge will apply.

Factory and Installation warranty features:

We register the factory warranties of all new equipment that we sell. This entitles our customers to the full advantage of the equipment manufacturer's warranty. The manufacturer's warranty covers the equipment. We warranty our installation workmanship to be free from defects for five years. We do not warranty damage caused by normal wear and tear or misuse. Our warranty covers ground shipping for products and equipment that are under factory warranty. The customer is responsible for the expense of any express shipping.

If you are away on a trip and have an avionics problem, we usually can refer you to a shop that can make warranty repairs. We do not pay for installation repairs that we have not authorized.

Did you know?

Your aircraft battery is the primary source of back up electrical power in most cases. We highly recommend that you replace your battery every 2 years. A fresh battery could prevent you from becoming stranded. A fresh battery should give you a 1 hour back up in case of alternator failure during IFR conditions. As soon as an alternator failure has been determined, turn off all nonessential equipment to increase battery life. Immediately notify ATC of your problem.

A handheld com radio with an external antenna is a great idea for IFR flight. A simple handheld GPS is also a great backup. Most handheld units come with rechargeable batteries. This is great until the battery does not hold the charge or runs out. Most handhelds have optional inexpensive battery packs that hold standard AA alkaline batteries. Equip yourself for these emergencies. We recommend changing the alkaline batteries in the battery pack once a year.

A magnetic direction indicator or wet compass is a required instrument for any flight. A compass is a primary instrument for both VFR and IFR flight. The weather related temperature fluctuations of spring and fall is a frequent cause of compass failure. This is due to the expansion and contraction of the fluid against the seals inside the compass. Air bubbles form as the fluid drains and evaporates. As the fluid leaks out, the compass becomes undampened and erratic.

About 1/3 of reported directional gyro failures are actually due to the wet compass being out of calibration. The pilot thinks the DG is precessing after making a few turns and resetting the DG to the magnetic compass. In these cases the DG is correct and the deviation card for the compass is in error.

A wet compass should be checked and a new deviation card installed whenever an alteration has been made to the avionics or instruments that could change magnetic fields in the aircraft. The wet compass should also be checked and a new deviation card installed any time the aircraft has been moved to a new base over 1,000 miles or at least every 4-5 years.

Aerotech Publications 1-800-235-6444:

The aircraft owner/operator is responsible for keeping the maintenance records on his/her aircraft. The Adlog system is an aircraft record keeping system that puts the records in an 8 ½" x 11" 3 ring binder. The binder holds logbooks, form 337's and weight and balance records. The binder also holds AD's on sheets that have places to sign off AD compliance and places to list equipment model and serial numbers. It takes some time to set up the binder but it is well worth the time. The initial service for a single engine aircraft is \$102 with shipping. After the first year, there is an \$18 charge to keep the system current. As part of the service, Aerotech Publications provides an AD list for use during your annual inspection and provides sheets for each new AD that may apply to your aircraft.

Equipment approvals:

Goodrich has received TSO and STC approval on their Skywatch HP system. This system is a high performance version of the Skywatch Traffic system for faster aircraft. There will be an upgrade program for existing Skywatch systems.

Ryan International has obtained TSO and STC approval on their 9900 BX series. This is an active interrogation system.

Send us an Email at sales@islipavionics.com

We are updating our customer database with email addresses. In the future we would like to send our newsletter via email. We would like to read about your ideas and questions concerning avionics and flying.

Feature Installations:

N98BS (BDR/FLL) a Grumman G73 Mallard owned by *Jack Bart* received a Garmin GPS-400.

N257GT a new SOCAT A TB-20 sold by Airlink Inc. to *James Michels III* of Langhorne, PA received a Honeywell KMD-550 MFD, KMH-870 Traffic Advisory system and a Goodrich WX-500 Stormscope.

N23QR (FRG) a Piper Aztec owned by *Quick & Reilly* received a Garmin GNS-430.

N200QR (FRG) a Cessna 206 Amphib owned by *Quick & Reilly* received a Garmin GPS-155XL.

N31593 (FRG) a Piper Lance owned by *David Beller* received a Goodrich WX-900 Stormscope.

N28622 (ISP) a Grumman Tiger owned by *Joe Gabriel* received a Goodrich WX-900 Stormscope and Honeywell KX-155 nav/com.

N72MM (FRG) a Beech King Air 200 operated by *Northeastern Aviation* received a Garmin GPS-400.

N47US (ISP/MTH) a Beech Duke owned by *Joe Buzzetta* received a Garmin GNS-530.

N192SB(MTP) a Cessna 206 owned by *Steve Corwin* received a Honeywell KMD-550 MFD, a Goodrich WX-500 Stormscope and a JPI EDM-700 engine monitor.

N8781M(ISP) a Beech A23 owned by *Eamon MacKenzie* received a Garmin GPS-155XL, a PS Engineering PM 6000 M/S audio panel and a King KX-175B.

N355HR (ISP) an American Eurocopter Astar owned by *Tim Orr* and operated by *Excell Air* received a Garmin GNS-430 and a Honeywell/Bendix King KCS-55A HSI system.

N8361H (ISP) a Piper Archer owned by *Mike Castellano* received a Garmin GNS-530 and Goodrich WX-500 Stormscope.

N93HP (HTO) a Bell 206 operated by *East Hampton Airlines* received a Garmin GNC-530.

N718JB (ISP) a Beech Baron owned by *Dean Edelman* received a PS Engineering PM 7000 M/S, a Garmin GNS-530, a Goodrich WX-500 Stormscope and an Avionics Innovations AI-CD player.

N3641M (HWV) a Piper Cherokee Six owned by *Bill & Skip Fehr* received a PS Engineering PM 7000 M/S, a Garmin GNS-530 and an S-Tec 50 autopilot.

N7277X (ISP) a Cessna 206 owned by *Walter Gezari* received a Shadin Micro Flow L Fuel Totalizer.

N8116P (FRG) a Piper Commanche owned by *Emil Tari* received a Garmin GNS-420.
N6288X (HWV) a Cessna 206 owned by *George Cole* received a Horizon P1000 Digital Tachometer.
N407MR (FRG) a Bell 206 operated by *NY Helicopter Charter* received a Honeywell KLX-135A com/gps.
N326RM (ISP) a Cessna Caravan managed by *Excell Air* received a Garmin GNS-530.
N182HB (ISP) a Cessna 182 owned by *Ken DeFazio* received a Garmin GNS-430.
N207MJ (BDR) a Morine Saulnier Paris Jet owned by *Jack Bart* received a Goodrich WX-500 stormscope.
N2825T (FRG) a Piper Arrow owned by *Dan Beatty* received a Honeywell KMD-150 MFD and KN-64 DME.
N1182J (ISP) a Rockwell 112 owned by *Svein Faret* received a Honeywell KLN-94 GPS and KMD-150 MFD.
N756ZD (ISP) a Cessna 206 Amphib owned by *North American Air Charter* received an S-Tec 50 autopilot, a Honeywell avionics package and an Electronics International FS-450 fuel totalizer.
N90BX (FRG) a Rockwell 112 owned by *Rus Bruinsma* received a Garmin GNS-430 and horizon P1000 digital tachometer.
N49369 (FRG) an Aviat Huskey owned by *Mike Schwerin* received a Garmin GNS-430.
N522CA (ISP) a Piper Aztec owned by *Bill Abazis* received a Sandel EHSI system with Sperry C14 gyros.
N77X (ISP) a new Cessna Caravan owned by *Walter Gezari* received a Shadin Digiflow L fuel computer.

We have enclosed our In-Flight Avionics Troubleshooting Guide. Please put this useful guide in your Pilot's Operating Handbook for future reference and use.

We hope you and your families are well and are having a happy holiday season.
We are grateful to have provided another year of avionics and instrument service for you and all of our customers

Happy Flying,

Fred

FAA CRS# FJ1R141K

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