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... and other features

WINTER 2008

# OWNER PILOT Advantage

A Magazine for Owner/Pilots from Skytech Publications

## THE IMPORTANCE OF A RETURN TO SERVICE TEST FLIGHT



Photo by Paul Bowen

Whether you fly a two-seat training aircraft, a top-of-the-line business jet or anything in between, one constant remains: airplanes require systematic, detailed and timely maintenance to provide safe and enjoyable flight. There are a multitude of moving parts, systems, wires, nuts and bolts that come together to comprise your aircraft. During normal maintenance cycles, many of these items are inspected, tweaked and or replaced. After such maintenance, is a return to service test flight necessary? Is it required?

According to FAR 91.407\* (Operation After Maintenance, Preventive Maintenance, Rebuilding, Or Alteration), general maintenance that has not altered the flight characteristics

of the aircraft requires only an authorization for return to service by a qualified inspector and a record entry to be kept. When it comes to the safety of yourself and those who place their trust in you, is a "sign-off" really good enough? Whether your maintenance is performed through a trusted service center, a highly trained in-house department, or "Joe mechanic" the answer should always be "not good enough."

The reason a test flight should be performed is to prove that everything is operating the way it was intended to operate. These flights are structured for the anticipation of the unforeseen, with an emphasis on an all-encompassing systems check. As stated in

## ACT NOW FOR YOUR TAX ADVANTAGE!

The 2008 Economic Stimulus package, which is this issue's "Tax Facts" topic, alludes to the tax benefit opportunities for aircraft owners that are available now through the end of the year.

These benefits, which are discussed at length in the article, allow for an unlimited 50 percent bonus depreciation for new assets placed in service during 2008. A special provision relating to new aircraft purchases extends the placed-in-service date into 2009 for certain 2008 aircraft purchase contracts. In other words, you can contract this year for an aircraft delivery next year and enjoy the tax benefits in 2009.

These tax benefits don't come around often so this is definitely something to think about seriously.

And if your long-range plans include having your own light jet to fly, take advantage of the PiperJet Linkage Program. Use your bonus depreciation to purchase one of the Piper aircraft in that program so you can build up time and the type of experience you need. You will qualify for substantial savings as you move up step-by-step to PiperJet ownership. Check out this program now!

Call us at 888.386.3596

*Skytech, Inc., publisher of this magazine, is an aircraft sales and service company located in Baltimore, MD and Rock Hill, SC (Charlotte, NC metro area).*

*Your thoughts, suggestions, comments and criticism are important to us and we will always welcome reader feedback. Please respond to:*

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see **Test Flight** on page 3

## STRUGGLING ECONOMY FUELS LOWER AIRCRAFT PRICES

The outlook is gloomy. News of the struggling economy, damaging hurricanes and a close election continues to dominate water cooler conversation. It's obvious that the country needs to work through some very serious issues—from high fuel prices to the mortgage crisis—before an economic turnaround brings genuinely positive news.

In the meantime, a wait-and-see attitude pervades general aviation. In the case of some turbine aircraft such as the King Air B200, Beechjet, CJ2 and Citation II, the number for sale has doubled in the past year. The Gulfstream IV has tripled in availability while the CJ3 and Falcon 50EX have quadrupled.

Even so, most dealers we spoke with expect 2008 to end on an up note. Here's a closer look at where the aircraft markets stand right now.

### THE TURBOPROP MARKET

With few exceptions, turboprops have been quiet. Inventory has surged. Beech King Air C90Bs are right at that magic 10 percent availability mark. More than 10 percent of the market for sale can make it a buyers' season. From 2004 to the first quarter of 2008, the average King Air B200 gained 44 percent in value, which is huge.

At the time of this writing, there are more than a hundred B200s on the market; sales are slow—and average prices are trending down. If it has new everything it sells quickly. Most buyers won't wait on engines and new paint and interior.

Prices are stable for the King Air 300. While activity for the Conquest II is improv-

ing with prices staying stable, the Cessna Conquest I is experiencing a slight correction due to a supplemental inspection document (SIDS) expense. Prices are slipping for Mitsubishis, Cheyennes and Twin Commanders because of little activity.

The Vref Turboprop Index is down 1.2 percent for the recent quarter—the smallest decline of any segment.

### THE PISTON-TWIN MARKET

Most piston airplanes remain stagnant, and most dealers report that the market is slow to dead. It's amazing to us how many dealers are doing well, reporting activity similar to last year—maybe as many as one third. They appear to be staving off a recession by concentrating only on the better airplanes and providing a stepped-up level of customer service.

Dealers report phone activity picked up toward the end of summer, indicating that prices are beginning to look attractive to buyers. Some downsizing is apparent in almost every segment.

Specifically, the Cessna 414 market has fared pretty well. Though prices have trended down for years in piston twins (including 414s), airplanes with total restorations continue to find buyers who are often refugees from turboprops and light jets. Acquisition costs of these masterfully upgraded 414s and 421s can be as much as an older King Air, but fuel and overhaul costs seem much less daunting.

The Vref Light Twin Index was off 2.3 percent, while the Pressurized Twin Index fell 3.3 percent in the recent quarter.

### THE SINGLE-ENGINE MARKET

Now is a great time to buy a piston-powered aircraft—or just about any airplane. Prices for light singles have fallen seven of the last eight quarters. The Vref Light Single Index dropped another 1.3 percent last quarter.

Cessna 152s and other ready-to-go trainers have been almost immune from recession talk, actually gaining value in the last year. That's one of the decent markets.

Low-time Piper Malibu Mirages have actually become kind of scarce. Mid-to-late-1990 models brought some very strong prices last quarter due to their relative cost of operation. The Malibu is a lot cheaper to operate than a pressurized twin.

Complex singles continue to trend down. The Vref Complex Single Index slipped another 1.3 percent last quarter. Average prices in the complex single market have fallen 27 quarters in a row. •

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## PIPERJET EXCITES CROWDS AT CUSTOMER FIRST FLIGHT EVENT IN VERO BEACH, SEPT. 16-17

PiperJet position holders, prospects and dealers were treated to a special unveiling of the PiperJet at Vero Beach, Fla. The jet, which is currently undergoing flight-testing, performed several passes for the crowd including a take-off, fly-by, go-around and landing. Interest was high, and several orders for both the PiperJet and Piper Meridian were taken at the event.

This new light jet, designed to offer big cabin comfort with single engine efficiency and strong ramp appeal, will set a new standard in the category. Equipped with a Williams FJ44 FADEC powered turbofan engine, the PiperJet will be capable of 360 KTAS max cruise (+5/-2.5%), 1300 NBAA nautical mile range (+/-5%) and 800 pounds payload with full fuel. Contact Skytech for more information 888.386.3596. •

an *Air Safety Week* article, "Value of a Flight Test after Maintenance": "By definition a post-maintenance functional check-flight (FCF) is designed to avoid rude surprises for those persons not being paid to take those risks. An FCF pilot is looking for (and unsurprised by) glitches, whereas line pilots tend to trust that the airplane is serviceable."

## TEST FLIGHT: PREPARATION

Now that the need is established, let's address the how. Each airplane demands attention to those items that are specific to the type. However, there are some common factors that should always come into play. To start with, test flights should be done in close coordination with whomever has completed the maintenance on your aircraft. Obvious reasons exist for this, such as the mechanics' intimate knowledge of your systems and the ability to correct any abnormalities with less hassle. Prior to a test flight, some time should be spent reviewing any squawks that were found and addressed while in the shop.

These squawks should be combined with all normal items to form a test flight checklist. Forming and following a checklist is critical to ensuring nothing of importance is left out and will give guidance in the sometimes- hectic flight environment. This checklist should be well thought out, and is best when designed as a flow from engine start to engine stop. Initiate a test flight with a very thorough preflight. Consider removing the top cowling of the

engine, or opening access panels, to inspect all hoses, fuel lines, etc. This is also a prime location to find that tiny screwdriver your mechanic swore he left on his workbench. It is best to have a very critical eye during test flights, no matter the experience level of the shop or mechanic.

## HOW TO CONDUCT THE FLIGHT

Prior to flight, spend extra time running through all systems; verifying temperatures, pressures and other readout checks that can be accomplished on the ground. If at all possible, the flight portion should be planned in uncontrolled, non-busy airspace. In addition, test flights into IFR conditions are not recommended. In today's advanced General Aviation aircraft, it is common to spend a good portion of the flight using the autopilot. The autopilot should be inspected for proper operation during a test flight, but it is imperative that the overall "hand-feel" of the airplane is observed and determined to be proper. Control rigging and cable tensioning, among other items, can change the flight characteristics of your airplane and now is the time to determine if more tweaking is desired. *Air Safety Week* states, "The discussion on the elevator rigging problem that was present on the Jan. 8 crash of an Air Midwest Beech 1900D ends with this statement, 'There is a simple means of guarding against catastrophe. Any adjustment to flight controls should involve a dedicated flight test to prove the controls are set up correctly'."

As stated earlier, a test flight should serve as a check-up for all your aircraft's

systems to ensure proper operation. This includes those systems that are hardly or never used. Even if all of your flying, including the test flight, is performed during daylight hours, don't forget to check all lighting sources (inside and out). Obviously it would be prudent to pay attention to a hydraulic pump that was just replaced following an annual, but it is also a good idea to make sure all normal (and not-so-normal) systems are working properly as well. Items such as emergency gear systems, stall warning settings, low power gear warnings, anti-ice equipment and a multitude of others can be forgotten over time and may not be ready to perform when the time comes they are needed.

## REQUIRED MAINTENANCE? YES!

Our airplanes are complex machines that demand regular service attention to perform to the standards we come to expect for performance and safety. Be it a 100-hour progressive inspection, annual inspection or general maintenance on a critical system, the test flight truly is an extension of the "required" maintenance needed to keep our airplanes airworthy. •

*At Skytech, we keep dedicated service pilots on staff who perform comprehensive test flights on aircraft returning to service after 100-hour inspections, annual inspections and any other maintenance event deemed worthy. It is our goal to ensure the customer is delivered an airplane that has been thoroughly inspected and tested prior to any normal operation.*

\* Consult FAR 91.407 for exact wording of the maintenance regulation.



Stop by the pilot's lounge for intriguing anecdotes, fascinating facts and a dash of hard-earned lessons.

**Q. Although, at times, it may seem small, general aviation is actually a vast industry. How much economic activity does the industry generate?**

- A. \$5 billion
- B. \$15 billion
- C. \$150 billion

A. The answer is C. According to the General Aviation Manufacturers Association, in 2007, the general aviation sector contributed at least \$150 billion to the nation's

economy, and employed more than 1.2 million people.

**Q. Which aircraft boasts the longest production run of any civilian turboprop?**

A. The King Air. It has been in continuous production since 1964.

**Q. Where did the term "aeronautics" originate?**

A. In France. It was derived from the Greek words for "air" and "to sail."

**Q. Which country has more airports, China or the U.S.?**

A. At 1.3 billion people, China has more than four times the population of the

United States. However, the world's fourth largest country doesn't come close to the U.S. in number of airports. China has fewer than 500 airports, the U.S. has some 14,000.

**Q. What is the oldest aviation association in the United States?**

A. The Ninety-Nines International Organization of Women Pilots. The Ninety-Nines was founded in November 1929 at Curtis Field, Long Island, NY.

**Q. What's the air traffic call sign when the Pope's onboard an aircraft?**

A. Shepherd 1.

# HIGHLIGHTS FROM EXPERIENCES OF PAUL BOWEN – THE WORLD’S BEST AIR-TO-AIR PHOTOGRAPHER



Paul Bowen moved from California to Wichita, Kan. in the early '70s, the first step in a seemingly pre-destined career. A Presbyterian Pastor brought him there to become director of "Sonlight House," a halfway house and crash pad.

After a year, Paul was ready to move on and was encouraged by friends, two Cessna executives and their wives, to stay in Wichita. He was introduced to a photographer who did work for Cessna, and started working as a photographer's assistant making \$1.75 an hour. Six months later, Paul Bowen was out on his own as a freelance photographer.

## INTO THE WILD BLUE YONDER

On his first aerial photo mission, he discovered how disorienting air-to-air shooting can be as you maneuver in formation while looking through a camera lens. It was the first and last time he was airsick. He decided then that aviation photography would be his specialty. That specialty

He did an air-to-air shoot in France for the Falcon 7X jet and, fortunately, found a World War II B25 bomber, like he often uses, in a nearby country.

He has used 17 different B25s as photo platforms during his career. The tail gunner seat, with the cone removed, is a perfect spot for a photographer. He also does air-to-air shots from certain Piper and Beech aircraft that are authorized to have a door removed or a window that can be removed or opened in flight (photo to the left shows Paul in his favorite seat).

Unforgettable events in Paul's career have been sunrise and sunset shots over the Amazon jungle, and shooting in Alaska while flying low over glaciers with textures that are almost surreal, while plumes of smoke rise from a distant volcano. He also has wonderful memories of sessions at Big Sur, Calif.; the Red Rock area around Lake Powell in Ariz./Utah and the Grand Tetons near Jackson, Wyo.

## CAPTURING A PHENOMENON

What is his favorite Bowen photo? Probably all of the 15 shots of different airplanes flying in conditions that allow you to see the whirling patterns of their wingtip vortices. "These shots are very challenging," Paul said. "You can wait for the right conditions, then set everything up exactly as it should be, but there is no guarantee of success. It's like playing the role of a matchmaker – sometimes the magic happens and it works beautifully – and other times it just doesn't happen, no matter how carefully you plan or how hard you try.

On this page, you will see several examples of Paul's work, including one of those vortices shots. Of course, you've already seen countless examples of his photography through the years on covers and inside pages of the aviation magazines you read.

As a closing thought, Paul says that although he had a few close calls early in his career, air-to-air photography is really quite safe – if all participants are carefully briefed and the pilots are very experienced in formation flying. •

If you wish to contact Paul Bowen Photography, you can call 800.697.2580 or send an email to [info@airtoair.net](mailto:info@airtoair.net)

## A WORLD OF INTERESTING EVENTS

Paul has had aviation photo assignments in Europe and South America that sometimes also involved air-to-air shooting. He travels the globe for the Cessna Citation magazine, doing photography for stories about customers.

# FAA WORKS TO MAKE RUNWAYS, TAXIWAYS SAFER

Runways and taxiways can be dangerous places given that millions of aircraft land, take-off, taxi and park all in the immediate vicinity of ground vehicles and personnel. With a crowded tarmac, poorly marked areas and maze of yellow lines, pilots are often left guessing where to go and when.

After pilots in high-profile collisions testified that the combination creates too much confusion and could lead to deadly consequences, the Federal Aviation Administration (FAA) and industry leaders agreed, promising to make changes.

Last year, the FAA required that both medium- and large-sized airports with more

markings, too. For airports with less than 1.5 million annual passenger enplanements but more than 370,000, compliance is required by March 31, 2009. All other small airports must have the new, enhanced taxiway centerline markings in place by March 31, 2010.

## THE BIGGEST CHANGES

Given that most airports have to comply, what changes can you expect to see? To help reduce runway incursions, the FAA worked with safety experts, human factors specialists, pilots and air traffic controllers

way. Enhanced taxiway centerline markings must also contain reflective glass beads. In addition, the enhanced taxiway centerline marking must be outlined in black on light-colored pavement.

- **Perimeter Taxiways** provide an alternate path for aircraft to travel between the runway and the gate without having to cross another runway. In addition to reducing the number of runway crossings, these taxiways also increase traffic capacity. Look for procedural changes that may route you onto a different taxiway than previously.

Last year, pilots made more than 61 million takeoffs and landings, handled by some 14,000 air traffic controllers.



Diagram A: On light pavement, the new taxiway centerline design features reflective glass beads and a solid yellow line outlined in black. The new design is easier for pilots to see in various light and weather conditions.

than 1.5 million enplanements change over to new, enhanced markings, airport procedures, lighting and signage by June 30, 2008.

After reviewing the issue earlier this year, the FAA asked smaller airports certificated under Part 139 to upgrade their existing

to identify possible procedures, airport signage and markings, and technology. They focused on several areas for immediate changes—modify runway lead-on lights (diagram B), enhance painted airfield markings (diagram A), and add perimeter taxiways.

- **Runway lead-on lights** are being modified to add alternating yellow and green lights beyond the hold-short line to indicate a runway while continuing to use green centerline lights before the hold-short line. This gives pilots an additional visual cue that the aircraft is approaching the hold position and about to enter the runway. Previously, taxiway centerline lights extended from the apron to the runway with no distinction from lead-on lights.

- **Taxiway centerlines**, previously marked with a solid yellow line, will now have dashed yellow lines on either side of the solid line in the proximity of a run-

## FAA TESTS NEW TECHNOLOGY

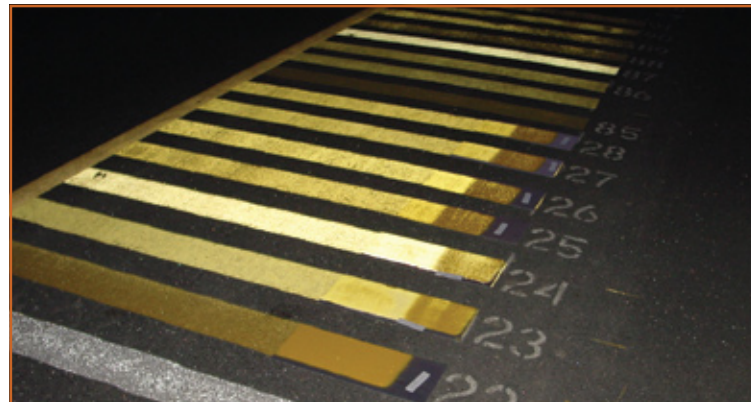
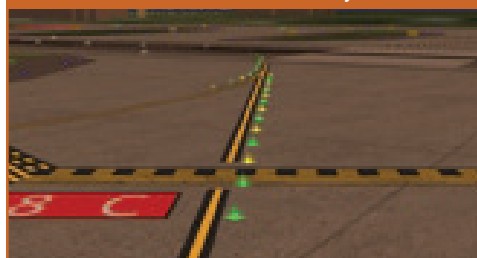
Currently, the FAA is testing a variety of systems to determine whether technology can help reduce accidents. Of the runway status lighting systems, there are two types in testing—runway entrance lights and takeoff hold lights.

“Runway entrance lights provide signals to aircraft crossing or entering a runway from an intersecting taxiway. Takeoff hold lights provide a signal to aircraft in position for take-off that another aircraft is crossing or entering the runway,” explained Henry Krakowski, chief operating officer, Air Traffic Organization during testimony before the House Subcommittee on Aviation.

“We are also testing a system at the Long



Diagram B: Previously, taxiway centerline lights extended from the apron to the runway with no distinction from lead-on lights. Now, they include alternating yellow and green lights beyond the hold-short line to indicate a runway.



When establishing new rules for airport pavement markings, the FAA evaluated various paint and bead materials for durability and performance.

Beach Airport, known as the Final Approach Runway Occupancy Signal (FAROS), which will further enhance runway safety. The FAROS system determines the occupancy of the runway by detecting aircraft or

see *Runway Safety* on page 8

## MORE THAN 800 PC-12 TURBOPROPS SOLD! NOW ENJOY SEVERAL EXCITING ENHANCEMENTS IN THE NEW UPGRADED VERSION – *THE PILATUS PC-12 NG*

The PC-12 turboprop has been incredibly successful, and now Pilatus already has more than 200 orders for their latest model, the seriously upgraded PC-12 NG (Next Generation). Obviously, it was already a popular airplane with no real competition – a fast, pressurized, single-engine turboprop with a huge comfortable cabin – a go-anywhere airplane that is equally at home taking off from a short, unimproved strip or landing in minimum conditions at a major airport.

Here is a list of some of the upgrades certain to interest and excite owner/pilots:

- The Honeywell Primus Apex fully integrated glass panel avionics system.
- A new cockpit designed by BMW Group

### WHY SELECT PRIMUS APEX?

Honeywell's system integration expertise combined with technological breakthroughs and world-class graphic displays provide the ultimate experience for pilots, enhancing their ability to fly in today's ever-changing airspace environment.

This system is much like Honeywell's Primus Epic bizjet suite, incorporating many of the features you would find in the biggest Gulfstreams and Falcons, while using the right-sized technology for features where it makes sense.

Four high-resolution, 10.4 inch displays – two primary flight displays (PFDs) and two multifunction displays (MFDs) – feature



This system is much like Honeywell's Primus Epic suite, with features found on big bizjets.

Designworks USA for improved ergonomics and aesthetics. BMW also designed the beautiful cabin interior.

- Higher performance. A PT6A-67P turboprop delivers 15 percent more thermodynamic power.
- Fully automatic pressurization control system plus an improved power generation and distribution system.

crystal clear viewing, making panel scanning easy. Integration of aircraft systems, safety sensors and navigation information decreases pilot workload and improves safety through enhanced situational awareness. Flight and weather data, charts and trip planning functions are all within easy reach.

Flexible architecture allows easy integration of hardware and software as new tech-

# Advertorial

nology becomes available. The system is compliant with all current worldwide mandates.

In addition, Apex handles the formerly manually controlled pressurization with a fully automatic control system now – another new enhancement for the PC-12 NG.

### BEAUTY AND THE BEST

A new cockpit design by BMW Group Designworks USA provides improved ergonomics and aesthetics, a very appropriate compliment to the best in a new glass panel avionics system.

The BMW Group also created an area of startling beauty in the cabin, one of the most compelling things about the PC-12 – cabin space comparable to midsize business jets. This is a really big airplane, especially by single engine standards!

Most of these airplanes are outfitted with a six-place executive interior (that's

turboprop enhancement. It now delivers 15 percent more thermodynamic power, thanks to the higher heat tolerance due to improved compressor and turbine blade design (single crystal CT blades and a new compressor configuration). This results in faster climbs and higher cruise speeds. So the PC-12, praised by pilots for outstanding performance, is now outdone by its successor, the PC-12 NG. And with no sacrifice of the PC-12's legendary economy.

Also new, is a generator system with two engine-driven, 300-amp generators, three batteries (two main, one backup) in a dual bus system to provide a remarkable degree of power and redundancy.

This is an incredible airplane that has undergone major upgrades, making the next-generation Pilatus PC12 NG an airplane you really should learn more about.

The PC-12 has always been an owner/pilot favorite, and it is steadily growing in popularity with non-pilot business executives who have learned about its versatil-

## PILATUS CONTINUES TO WIN TOP HONORS FOR PC-12 PRODUCT SUPPORT

In a recent news release, Pilatus announced that they have once again received the highest industry honors for excellence through the 2008 Product Support surveys.

PC-12 owners and pilots have consistently placed Pilatus at the top, having now won the *Professional Pilot* magazine product support survey for the past seven years! The results of this important survey show that Pilatus achieved first place in all seven categories (company response time, spares availability, cost of parts, speed in AOG service, tech manuals, tech reps, service satisfaction) which in turn is a source of great satisfaction for Pilatus employees worldwide.

In addition, Pilatus has achieved top marks from *Aviation International News* for the past five years.

Speaking from Pilatus headquarters in Stans, Switzerland, Oscar J. Schwenk, President of Pilatus Aircraft, Ltd. commented: "As the worldwide fleet of PC-12 aircraft continues to grow, Pilatus has once again proven that we are committed to the delivery of a customer support experience that is nothing short of excellent. We place great value on the loyalty and trust shown by our customers and we are very happy that they choose to reward us through these independent product support surveys."

With over two million hours of flight time, the PC-12 has gained a reputation for quality, versatility and efficiency. Featuring a number of significant improvements over its predecessor, that have been discussed on this spread, the PC-12 NG and Pilatus once again set the bar for product excellence and product support.

Minimizing downtime is vitally important to PC-12 operators, and Pilatus continually strives to maintain its enviable track record.



With cabin space and comfort comparable to midsize bizjets, this is a big airplane!

six seats in the cabin, plus pilot and co-pilot seats in the cockpit). And there is a forward lav, with privacy doors separating it from the cabin and the cockpit.

### A NEW PERFORMANCE BOOST

Improved performance was achieved with a Pratt & Whitney Canada PT6A-67P

ity, performance, value and comfort. So if you want one anytime in the near future, act now! There's a long line of customers waiting already. •

Call Skytech for answers to your questions or to get more information about this amazing airplane. Call 888.386.3596 to talk with us.



## 2009 AIRCRAFT DELIVERY CAN QUALIFY FOR BONUS DEPRECIATION

The House of Representatives and the Senate passed the final version of the economic stimulus package on February 7, 2008. Two key provisions in the package that will benefit the general aviation industry are the return of 50 percent bonus depreciation and the increase of Section 179 Expensing. President Bush signed the economic stimulus package into law on February 13, 2008.

By fully integrating your aircraft into your trade or business, you can generate tremendous tax savings by deducting the operating expenses and depreciation deductions on the aircraft. Bonus depreciation was a huge success in 2002 and it gave the general aviation industry a tremendous boost. Effective for aircraft purchase placed in service on or after January 1, 2008, 50 percent bonus depreciation will be available in 2008. Bonus depreciation applies only to new, factory manufactured business aircraft. Certain demonstration aircraft not previously titled may also qualify.

### REVIEW OF REQUIREMENTS

Generally, in order to qualify for bonus depreciation, the aircraft must be placed in service by the end of the tax year. You should have legal title of the aircraft and the aircraft should be available for use prior to December 31, 2008.

In order to maximize the tax deductions, it is important that a proper ownership structure be set up for the purchase of the aircraft. Should the aircraft be owned in a

single member limited liability company or in an existing corporation? Should the corporation be incorporated in Delaware? Should the aircraft be chartered for Part 135 use? Would sales or use tax be due on the purchase?

### USING YOUR BONUS IN 2009

If taking delivery in 2008 is not feasible, the legislation allows taxpayer to take advantage of bonus depreciation in 2009 if certain conditions are met. The requirements to take advantage of bonus depreciation in 2009 are as follows:

1. Sign a binding contract to purchase the aircraft by December 31, 2008.
2. Make a non-refundable deposit of the lesser of:
  - (a) 10 percent of the cost or
  - (b) \$100,000, and
3. The aircraft should have an estimated production period exceeding four months.
4. The cost of the aircraft exceeds \$200,000.
5. Take delivery and place the aircraft in service by December 31, 2009.

This is an important planning opportunity for many taxpayers. The number of qualifying new aircraft that are available for delivery in 2008 is limited. If you are a current aircraft owner, this will allow you to structure a proper disposal of your aircraft, either by trade, sale or a like-kind exchange to avoid the recapture of depreciation previously taken.

ground surveillance systems in Spokane, Wash. One system, the Nova 9000 Surface Management System, uses X-band radar to detect movement on the airport surface, and the other system, the Critical Area Management System, places millimeter wave sensors along runways and taxiways to detect movement on the airport surface.

Even if successful, each of the systems

### IMPORTANCE OF PLANNING

Purchasing a business aircraft can generate a tremendous income tax saving. Considering the various compliance requirements with the Internal Revenue Code, the Federal Aviation Regulations and state sales and use tax regulations, it is important that you allow sufficient time to plan for the acquisition to take advantage of bonus depreciation in either 2008 or 2009.

*Daniel Cheung, CPA is a member of Aviation Tax Consultants, LLC (ATC). ATC assists aircraft purchasers in acquiring aircraft in a tax efficient manner. Our services include the elimination or reduction of sales and use tax at the time of purchase, maximizing income tax savings, controlling the cost of personal use of the aircraft, avoiding passive activity loss rules and complying with Federal Aviation Regulations. Cooperation with client's current tax and legal advisors is welcome and encouraged.*

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will take time to install making it highly unlikely they'll be operational in the near future. With or without technology, awareness is a pilot's greatest tool against accidents. Clear, concise markings and information should go a long way to help everyone navigate the airport safely. •

**Runway Safety**  
from page 5

vehicles on the runway surface. If a monitored area on the runway is occupied, FAROS activates a signal to alert the pilot that it is potentially unsafe to land," continued Krakowski.

In his testimony, Krakowski explained that the FAA is also testing two low-cost



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# NEW! AN AFFORDABLE GLASS PANEL SYSTEM FOR 600 MAKES AND MODELS OF AIRCRAFT

Whether your airplane is an old favorite that you can't give up, or a newer craft with out-of-date avionics, you probably wish you could get today's avionics technology for an affordable price. But considering the very high cost of a new glass panel plus installation and possibly an STC, that just isn't possible, is it?

## ACTUALLY, IT'S QUITE PROBABLE

Aspen Avionics Evolution Flight Display equipment provides a new way of looking at avionics, bringing the most advanced technology and capability from the commercial and business aviation markets into general aviation cockpits.

Many old-time owner/pilots and others may see a similarity here to what Ed King did a few decades ago when he left Collins Radio to address the needs of the

General Aviation market for up-to-date technology of the times at a price most owners could afford to pay. King Radio soon became a leader in the field around the world, second only to Collins in sales and first in personal and small business aircraft market share.

Could Aspen Avionics be the King Radio counterpart of today?

Because of system and installation simplicity and the fact that an AML-STC (Approved Model List – Supplemental Type Certificate) for Evolution Flight Displays now covers 600 makes and models of aircraft for this equipment, it is probable that the service center you use could install it in your airplane. And their installation price should reflect the ease with which it can be done.

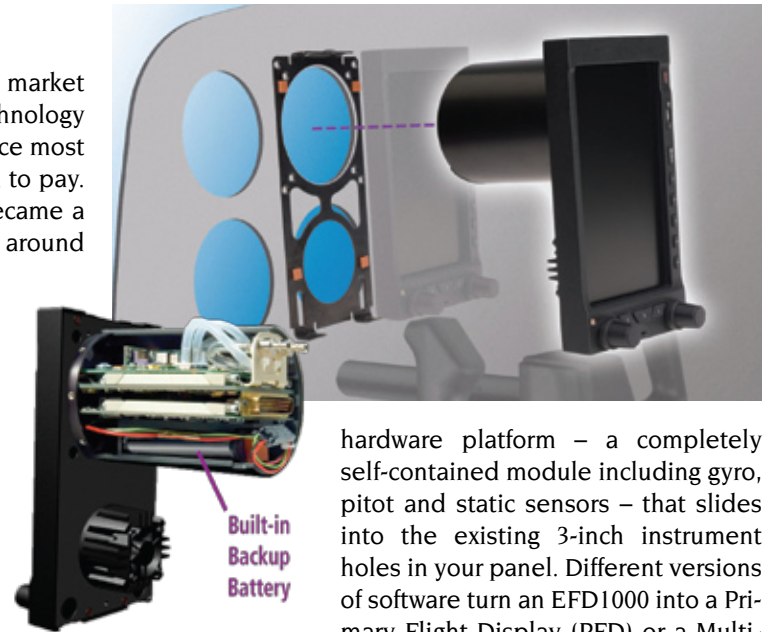
## A NEW DESIGN CONCEPT

Aspen's position is that getting the latest aviation technology shouldn't always mean spending a lot of money on equipment or installation. Their products are affordable, easy to install and easy to own.

The Evolution Flight Display System, based on the latest digital electronics and LCD technologies, allows you to quickly and easily upgrade the vertical pairs of instruments in your six-pack, from one to three pairs, all at once or one at a time, as your needs and budget require. The PFD is certified and certification is expected for the two MFDs in March 2009.

Not only is the system designed to work with whatever is currently in your panel – extending the life of your existing avionics – the Evolution System evolves with you via future software upgrades, maximizing your investment.

Aspen Avionics uses an innovative, patent pending approach to make this flexibility possible. The EFD1000 is a common



hardware platform – a completely self-contained module including gyro, pitot and static sensors – that slides into the existing 3-inch instrument holes in your panel. Different versions of software turn an EFD1000 into a Primary Flight Display (PFD) or a Multi-Function Display (MFD).

Aspen offers a range of PFDs and MFDs to allow you to configure your system for your requirements. Upgrading from one model of display to another is as easy as loading new software, so you can build on your original investment as your needs grow.

No more tearing out the old to start anew! •

*Skytech, Inc. is an Aspen Avionics dealer with Evolution Flight Display System installation experience. Call 888.386.3596 for more information.*



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# A WORD To The WISE

by Dave Conover



## TURBINE ENGINE CORROSION PREVENTATIVE MEASURES

As is the case with many aspects of an airplane's continued airworthiness status, a proactive approach to maintenance can pay dividends over time. One prime example is the topic of turbine engine corrosion and the measures we can take to reduce the issue. Engine corrosion is a result of the deterioration of material in reaction with the environment of which it is in. The key to managing corrosion is to reduce the exposure of those elements that create the chemical reaction.

## TYPES OF WASHES

In short, there are two types of washes to help reduce environmental contaminants. The most common wash recommendation is the desalination compressor and compressor turbine wash. This is a simple process that utilizes "clean" water to remove salt deposits on engines that are operating

in "salt laden" environments. The second type of wash is a more periodic wash that utilizes both water and chemical steps to remove more stubborn chemicals adhering to internal engine components. This is more commonly referred to as a "performance recovery" wash. In addition to these methods of internal engine washing, there is also a recommended fresh water or solvent external wash that can be effective in removing salt or other corrosive chemicals from the outside casing of the engine.

## WASH SCHEDULE

The nature and frequency of a compressor wash is dependent on the operating environment of the aircraft. In certain parts of the United States the risk is lower than others. In general, the closer you are to the coast or any other body of water, the more at risk you are of collecting harmful salt and environmental deposits. It is best to consult your shop and work out a proactive ap-

proach to a wash schedule that suits your mission. A shop trained on your engine has the tools and knowledge to help you map a course that best limits your chances of dealing with a corrosion issue.

## ALTERNATIVE MEASURES

In addition to the washes, there are some Pratt & Whitney approved corrosion inhibiting products that can be manually applied to parts of the engine to deter a problem. These products, such as LPS Procyon, can be obtained and applied locally. The application is a continuous effort, and must be re-applied based on use and the environment.

Prevention is the key to keeping your engine operating at peak efficiency and performance; and in limiting the exposure to harmful contaminants that can do costly damage. As mentioned earlier, consult your shop and make sure you are on the right path. •



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