

A white Pilatus PC-12 aircraft with gold and black stripes is flying over a large body of water, likely a lake. The background shows a vast landscape with green fields, a line of trees, and distant mountains under a hazy sky. The aircraft's registration number, N462PC, is visible on the tail.

popa

Pilatus Owners & Pilots Association

Winter 2008

Volume 12, Number 1

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Disclaimer

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THE PILOT IN COMMAND (P.I.C.) IS RESPONSIBLE FOR THE SAFE AND PROPER OPERATION OF HIS OR HER AIRCRAFT. IT IS THE RESPONSIBILITY OF THE P.I.C. TO OPERATE THAT AIRCRAFT IN COMPLIANCE WITH THAT AIRCRAFT'S PILOTS OPERATING HANDBOOK AND OTHER OFFICIAL MANUALS AND DIRECTIVES.

From The Board ...

“Change is the law of life. And those who look only to the past or present are certain to miss the future.”

John F. Kennedy

Uncertainty is impacting every aspect of our lives as I write this article. Change is what we need to embrace at this time; and with change comes opportunity. So it is with great anticipation that I face the New Year. With a new PC-12 NG on order, my current PC-12 operating at full tilt with my own flying, the 135 operation I have joined, fuel prices coming back into the realm of reality, and the great thinkers (or tinkerers) in Washington trying to un-stick the credit market, 2009 should be a very exciting ride.

And, it is in this spirit of change that I write this article and invite you to renew your commitment to POPA as we continue to change and evolve. We have good things in store for you!

As you may know by now, Thomas Bosshard has once again taken on the leadership role as CEO of PilBal. He has re-solidified his organization and is working closely with us at POPA to assure that his customers (our members) are getting the level of attention and cooperation we need and deserve.

At our last Board meeting, Joe Howley joined as a new member of the Board. Joe brings his enthusiasm as a pilot and relatively new PC-12 owner and a strong business background to the Board. We are pleased to have him on board!

The Board has been working hard to upgrade our annual convention and to provide “off-cycle” programs and learning opportunities for POPA members. We realize our organization is changing, and that we need to stay relevant by embracing the long-standing close relationship between Pilatus, the Pilatus Dealership network and PC-12 Owners while developing new content for our members. To this end, we are pleased to announce the following.

Set your calendars. Don't miss some of the new and exciting events scheduled for 2009.

**THE 13th ANNUAL CONVENTION
Memphis, Tennessee, June 4-6, 2009**

The agenda is almost complete...and there should be something for everyone. We will have breakout sessions for legacy owners separate from NG owners to discuss topics that matter to them both. We will have sessions on operations and safety by professional PC-12 pilots that will appeal to both private and professional pilots and operators. Vendors will display their wares as usual; but we will also have a session or two on new technology and what's of interest to PC-12 owners. And finally, we will have the normal representatives present from Pilatus, Honeywell and Pratt and Whitney to interact with you during the event.

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***“POPA...
The Voice of the
Pilatus Community!”***

From The Board (Cont'd. from Page 3)

REGIONAL OPERATORS CONFERENCE San Diego, CA - March 13, 2009

4 The 4th annual ROC will be held in conjunction with the first ever NBAA sponsored LBA (Light Business Aircraft) Convention in San Diego. This is a fantastic opportunity to get up-to-date on all the operational intelligence that Pilatus has gathered over the years. It includes a technical walk-around of the PC-12 (also available at the POPA Convention), in depth discussions by Pilatus and Pratt and Whitney experts on the PC-12, and an opportunity to get to meet the technical experts from Pilatus.

LIGHT BUSINESS AIRCRAFT (LBA) CONVENTION San Diego, CA - March 12-14, 2009

This is the first LBA Convention (sponsored by NBAA), and is planned to address the Light Business Aircraft segment of the airplane market. Pilatus will be there with a PC-12NG and staff.

MOUNTAIN FLYING COURSE Broomfield, CO - September 2009 (Date TBD)

A “skills based” fly-your-own-plane PC-12 Mountain Flying Course with SimCom instructors. This course will push your skills to a new level. At the same time, you can achieve your recurrent training requirements and a mountain flying certificate. (Read the article about the inaugural course by Pete Welles in this issue).

So, in the spirit of change and new opportunities, I invite you to get these events on your calendar. Don't lose track of them as the New Year unfolds!!!

Finally, I remind you that we are here to serve you. Please check our website from time to time; and feel free to call our Executive Director, Laura Mason, with your thoughts, ideas and/or comments. We are all about change if it is relevant and important to you, our members.

Bob MacLean
POPA President



Meet Joe Howley....

POPA's Newest Board Member!



I began flying in 1995 in a 172, and worked my way up the Cessna line (182, 210, 208) until purchasing S/N #755 in 2006.

Along with my wife of 23 years, Christine and our 3 teenage children, we are in the process of flying all over the continent in search of a perfect landing!

A Commodities Trader by profession since graduating from The Wharton School in 1981 and an avid pilot for Angel Flight Northeast. I now live in Connecticut after 45 years in the great state of New Jersey.

Traffic! Traffic!

Tales of Flying in the Gladden 1 MOA

I am the proud owner of Pilatus N121PH [serial number 1186]. I have owned my Pilatus for over three years. Since taking possession, I have been able to fly it as “single pilot operation.” I have been flying for over 32 years with over 7,000 flight hours of experience. I hold a commercial multi-engine land certificate and an instrument rating. The Pilatus PC-12 is a wonderful flying machine. It has a robust 1,200 Pratt & Whitney turbine jet engine derated to 1,200 horsepower. It can place up to 10 people and have a take off weight as great as 9,940 pounds. The Pilatus flies at a cruise true air speed of 260 knots at altitude with ease and can travel as far as 2,000 miles. For the proud few who have been able to actually fly the Pilatus PC-12 we can all agree on one thing: the Pilatus is not that easy to turn; it turns like a “big bus.” In any event...getting to the story at hand.

Ironically, on March 21, 2008, the infamous day that made nationwide news, I was returning from SIMCOM Scottsdale in my PC-12. I had just completed two days of recertification so as to allow me to continue to fly it as “single pilot in command” (only one pilot is required to fly the Pilatus, as oppose to the customary two pilot requirement per insurance underwriters’ demands). I departed Scottsdale Airport [KSDL] at approximately 9:50AM local time. My destination was Santa Ana, John Wayne [KSNA], my home base. I was traveling alone.

Due to it taking an inordinate amount of time to obtain an instrument clearance, I elected to return to John Wayne Airport under visual flight rules. The sky was clear. The winds aloft were out of the southwest at approximately 15 knots. I elected to fly 16,500 feet, via a couple of way points along the way, with the aid of my Garmin 530 GPS and KLN 90B GPS. After departing Scottsdale [SDL] I immediately flew towards the northwest so as to stay clear of the Phoenix Class B area and Alert 231 which is over Luke Air Force Base. Soon after, I attempted to obtain “flight following” with Albuquerque Traffic Control Center. Initially, Albuquerque Center requested that I “standby” due to the saturation of aircraft in the Phoenix area. In the meantime, I set my course for the Blythe VOR [BLH] so as to make sure that I did not violate the large restricted areas located just southeast and southwest of Blythe. In light of setting my course directly to BLH I noted that I would be flying through the very south corner of the Gladden 1 MOA.

Anyone who has flown along the Arizona/California border is familiar with the fact that there are many different alert, restricted and military operations areas and very few “free” airspace areas for the VFR pilot. As such, it is typical to find yourself traveling in at least one of the military operations areas in the area [e.g., Gladden, Bagdad and Quail to name a few]. A military operations area [“MOA”] is a joint civilian and military use air space which is defined in the FAA Regulations as “airspace established outside Class A airspace to separate or segregate certain nonhazardous

military activities from IFR Traffic and to identify for VFR traffic where these activities are conducted.” A “MOA” area is not owned or controlled by the military.

At approximately 10:15 a.m. I arrived in the most southern corner of the Gladden 1 MOA, as expected. Within about five minutes of my being in the Gladden 1 MOA my TCAS [traffic collision avoidance system] started to repeatedly call out “TRAFFIC” [audible voice] (the computer calls out “TRAFFIC” if it suspects that an aircraft is on a collision course with my aircraft). Upon my hearing the initial “TRAFFIC” alert I looked at my Bendix King 850 multifunction display screen (the nice thing about the Bendix King 850 multifunction display is the fact that it automatically defaults to the traffic page which is without “clutter” if the audible voice goes off). On the traffic page, I saw an intruding aircraft at my one o’clock position, 3,000 feet above and about five miles away. There was no other traffic on my screen. Five seconds later the intruding aircraft’s altitude was 2,000 feet above and about three miles away. It was still at my one o’clock position. Intellectually I was able to confirm that the engaging aircraft was traveling directly towards me at a great rate of speed (I later learned that the “close rate” between our two aircraft was approximately 1,000 miles per hour). Then, approximately five seconds later the intruding aircraft was 1,000 feet high and still at my one o’clock position heading directly towards me. The invading aircraft started to rapidly descend in one hundreds of feet increments and was approximately one mile from my aircraft. During this entire 20 to 25 second period I continued to receive the audible “TRAFFIC” warning call. In addition, on my multifunction display the engaging aircraft was yellow in color which confirmed that the ensuing aircraft was “a serious threat.” Thinking back, for a split moment of time it was sure pandemonium in my cockpit. What do I do? I am a sitting duck!

Upon seeing the intruding aircraft still at my one o’clock position and only within a one mile of me I immediately disengaged my Bendix King KFC 325 autopilot control system by using the big red emergency disengage button located on my pilot’s yoke. With both hands on my yoke I then immediately engaged my “big bus” in a 60 degree left turn. At the same time I was turning my Pilatus, I pushed the yoke full forward so as to “dive” my Pilatus from my altitude of 16,500 feet. While doing this maneuver I soon realized that I found myself “glued” to my TCAS display screen - in hindsight it was evident that I found myself in survival mode - why I didn’t look out of the cockpit during the twenty to twenty five seconds I can not explain to this day. I now know that it would not have made a difference anyway. In fact, to my amazement and chagrin I noted that the engaging aircraft then adjusted its heading by turning right so as to stay on a collision course with my aircraft. The intruding aircraft continued to rapidly descend through 16,500 feet. This guy was chasing me down! Like a dog fight. Why is this guy chasing me? Within 10 or so

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Traffic! Traffic! (Cont. from Page 5)

seconds of the start of the emergency turn the TCAS display then showed that the engaging aircraft was now at my exact altitude and literally on my aircraft. At that time I thought that the intruding aircraft was for sure going to hit my aircraft.

I thought that my death was imminent. The revelations about my wife and children came immediately to mind as we often hear about in “an almost death like experience.” I quickly looked out of the cockpit to see what was chasing me. I didn’t see another aircraft. In the midst of this chaos I believe I had descended to 14,000 or 14,500 feet [I was not in “a state of mind” to confirm exactly how far I had, in fact, descended]. Again, I was in survival mode.

Seeing the “zero - zero” symbol still on my traffic display screen I said to myself, “S**T, I need to get out of here.” I took another evasive action - instead of sitting there like a duck ready to be slaughtered, I looked outside the cockpit again from left to right and I then aggressively pulled all the way back on my yoke on my “big bus” - my Pilatus - so as to rapidly climb the aircraft. At that same time, I turned my yoke “hard” right. I rapidly ascended at least 1,000 feet. Since I still saw the engaging aircraft’s position had not changed on my traffic screen I corrected my Pilatus to fly straight and level. During this entire time I noted that the engaging aircraft was still at my exact altitude with the same indication of “zero - zero” on my traffic display. My TCAS system continued to call out “TRAFFIC.”

Absolutely confused by what was going on during the last past 90 seconds of my life, I then looked out towards the left side of my Pilatus. To my surprise, I now saw an F16 aircraft off of my left wing. Without exaggeration, the F16 was no more than 20 feet off of my left wing! What is he doing? The F16’s “nose” was slightly up which I assumed was so as to compensate for my reduced airspeed. My airspeed at the time was about 240 knots over the ground. I was easily able to see the F16 pilot due to his very close proximity to my Pilatus. The F16 pilot’s head was turned directly towards me; staring at me. The F16 pilot was wearing a white helmet with a glare shield over his face. In an instant I did a “sanity check.” “Oh, no...I did something wrong and he is going to escort me.” However, regaining a sense of reality, so many things went through my mind in an instant. “I didn’t do anything wrong.” “I am not in a restricted area.” “So why did he chase me in the sky and why is he staring at me?” “What does he want?” “He almost hit me!” “If I had made a wrong turn and pulled up at the wrong instant would we have collided?”

The F16 pilot continued to stay about 20 feet off my left wing for about 20 to 30 seconds. Then, the F16 started to “inch” its way forward very slowly; about five miles per hour faster than me. The F16 pilot continued to “stare” at me. When the F16 was about 75 feet in front of me, slightly to my left, I noted the F16 pilot’s helmet all the more clearer since the sun’s light was now behind him and it was creating a silhouette affect. I noted that the glare shield on his face was rose in color.

When the F16 was about 100 or 200 feet in front of me I noticed that the interior of the exhaust portion of the twin jet engines turned bright red. Then, in an instant the F16 pitched its nose straight up and ascended at a very high rate of speed. My aircraft then significantly “bounced around” due to the F16’s “jet wash.” I immediately imagined if the F16 pilot maneuvered his F16 more in “a straight line” ahead of my aircraft he would have caused a stall of my jet engine.

Then, within a few second of this Albuquerque Center called my tail number: “November One Two One Papa Hotel.” In response, I immediately responded back by saying “Pilatus One Papa Hotel.”

Before Albuquerque Center could say anything further to me another unassuming pilot interrupted. Within a minute or so I heard the pilot of a Premier Jet make a very frantic call. His call was distinctive and to the point - the Premier Jet pilot announced that he needed to take immediate evasive action so as to avoid a collision. He demanded that he be allowed to violate airspace; he needed to immediately climb through 18,000 feet due to having a “TA” [emergency traffic advisory]. Albuquerque Center advised the Premier Jet pilot to do what he needed to do. Then, within twenty or thirty seconds later the Premier Jet pilot again radioed Albuquerque Center. Again... in a very frantic voice. This time he advised ATC he had “a military jet 10 feet off [his] left wing.” Immediately after the communication between Albuquerque Center and the Premier Jet pilot I reported that I was also chased by a military jet as well. Thereafter, the Premier Jet pilot and I exchanged phone numbers. In addition, Albuquerque Center provided us phone numbers to Albuquerque Center and Luke Air Force Base.

Upon my arrival at Santa Ana – John Wayne Airport I telephoned Luke Air Force Base and talked to a gentleman who identified himself as Sgt Liggins. In short, Sgt. Liggins was very inappropriate. He was rude. Sgt. Liggins made it clear to me “that it was my word against the Air Force pilot’s word” and that I fly at my own risk if I am operating in a MOA. I asked him if he was calling me a liar. He didn’t respond. I then asked him if he had heard from the Premier Jet pilot. Sgt. Liggins said “no.” I then said that the two of us could not be lying. Sgt. Liggins went on to tell me that as far as the Air Force is concerned, nothing would be done - “lesson learned, don’t fly in a MOA again.” I then hung up on him in total frustration. I remember saying to myself that the Air Force doesn’t own the airspace; how can they be so arrogant?

Within hours of my conversation with Luke Air Force Base’s representative I was advised by Albuquerque Center and the FAA FISDO office in Scottsdale that they would do their own independent investigation. However, I soon learned that the investigation would take weeks. Senator John McCain’s office also got involved in the investigation.

In the interim, news traveled fast. Several media outlets picked up on the story, including several notable aircraft
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pilot web sites. It was a news frenzy due in part to the United States Air Force issuing a report that the Premier pilot and I were simply opportunist by simply making up the story. Early on, the Air Force's version was that we had lied in that the F16 pilot had not come within 1,000 feet of either one of us and at no time had it engaged us. In fact, it was the Air Force's suggestion that we were at fault due to our interfering with a simulated in flight fuel loading maneuver - like flying into a swarm of bees without justification [I found this position odd since my TCAS only picked up one aircraft - initially 3,000 feet high]. In echoing the Air Force's initial assessment a variety of military pilots turned up the rhetoric and propaganda by going to an additional level of personalizing the event. Many, many military personnel were having a field day and a lot of fun by reporting on their internet "blogs" how my being a lawyer only typified the events reported by me. All in all, I soon turned off the computer and avoided the media. I was simply disillusioned by the military's negative propaganda. The military was simply not willing to take any responsibility for one of their own - it was now developing into a "cold war" between the military pilots and the civilian pilots who were trying to defend me.

Ultimately, by mid June 2008 the Premier jet pilot and I were vindicated. The FAA out of Washington DC issued its findings. It was obvious that the Albuquerque Center radar tapes "spoke a thousand words" and told the chilling truth. In fact, the FAA, with the aid of the AOPA, advised all concerned that they received an assurance from the United States Air Force that the pilot in question was reprimanded for what he had done - there was simply no excuse. The extent of the reprimand I do not know.

In addition, the lesson learned by the FAA was that there was a "kink" in the traffic control system. In fact, with the aid of the AOPA the FAA has requested that their military counter parts set up a "live communication" system that will require the two agencies to communicate live with respect to all flight operations within a MOA so as to prevent what happened to me and the Premier Jet pilot.

I now believe that my perseverance paid off - to make flying that much safer for my fellow pilots.

What is sad however, is that to this day I have yet to receive the belated apology from the United States Air Force, let alone one from the infamous F16 pilot. What I am concerned about is the fact that while many arm chair pilots may suggest that I could have avoided this incident by simply staying out of the Gladden 1 MOA, I must remind all that a MOA is jointly used airspace for civilian and military use air space which is defined in the FAA Regulations as "airspace established outside Class A airspace to separate or segregate certain nonhazardous military activities from IFR Traffic and to identify for VFR traffic where these activities are conducted." A MOA is not owned or controlled by the military. As far as I know, nothing in the rules suggest that a military pilot, like the F16 pilot here, has permission to chase

a civilian pilot in a MOA just for the fun of it. One may argue that there was nothing that prevented the F16 pilot to come towards me at my one o'clock position at a high rate of speed so long as he did not come in close proximity of my Pilatus. However, the rules changed when the F16 pilot decided to indulge and follow me down the path of my wild ride to avoid a collision and then simply stare at me twenty feet off of my left wing.

Some appreciation is in order. Unlike the Premier Jet, I was fortunate to be the only person in my Pilatus. I experienced several periods of panic attacks for weeks after this incident. I can only imagine if I had other unassuming passengers traveling with me- what would have they thought? How would I been able to legitimately explain to them that "it is all my fault since the F16 jet pilot apparently has a right to fly hazardously in a MOA even if it involves scaring the people in an unassuming civilian aircraft. I think you get the picture.

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Simcom's PC-12 Mountain Flying & Optional Recurrent Training Course

by Pete Welles

10

All pilots should want to become better skilled at flying and most pilots work to this important end.

THE Mountain Flying Course in the Rockies with Simcom clearly expanded our flying skills. *(This course was held September 5th - 7th, in conjunction with the Pilatus Regional Operators Conference in Broomfield, CO).* Although it is comfortable to fly in the center of the performance envelop, safe flying at the edges is important to hone skills critical for the unusual circumstance or environment. The Mountain Flying Course was POPA's first specialized course for PC-12 pilots and it was well worth the time and cost.

WE relearned the complex and potentially unforgiving aspects of density altitude, how to tune the PC-12 for extreme high altitude conditions and then practiced what we learned in the real environment. We flew the approach into Telluride (elev. 9078'), the approach, landing and instrument departure at Aspen (elev. 7820') and did several takeoffs and landings at Leadville (elev. 9928'), the highest airport in the continental USA.

OUR instruction relayed a number of important principles. For example, high density altitude (DA) robs air for cooling. This occurs because 25% of air is used for combustion at standard temperature and altitude. At a high DA, a higher % of intake air is used for combustion leaving less for cooling. ECS and the inertial separator also rob cooling air. It can be necessary to turn off the ECS and inertial separator on takeoff to lower engine temperature and you should remember that the maximum high temperature for takeoff is 800 degrees C for a maximum duration of 5 minutes. In high DA environments, it is important to calculate the minimum static takeoff torque prior to takeoff to insure when takeoff power is added that engine is generating adequate power (torque).

WE all know that the PC-12 has superb performance. I was surprised to learn that the PC-12 cannot meet the rate of climb requirement for the Aspen Two Departure under most circumstances. Fortunately, there is an alternate departure (Lindz Four) with a more forgiving minimum climb rate requirement. Also, departing Leadville on a standard day requires 30 degrees of flap as the accelerate/stop distance exceeds the runway length at 15 degrees of flap. There are many performance limitations which do not mean a no go, but do require different procedures than we are customarily use to.

STUDYING the approach plates in advance is always a good idea. Telluride's LOC/DME Rwy 9 is a case in point. The missed approach point is 2000' above yet only .9 miles from the runway end point, a bit tricky to land at this juncture requiring over a 4,000 fpm descent at 120 kts into rising terrain. Also, were you to set up to land at an earlier and lesser required descent rate yet noticed that as you neared the threshold a deer, vehicle or other obstacle on the runway, you are already 1,000' below the lowest terrain on the missed approach track. This is not necessarily a show stopper but you want to anticipate and be on your game.

THIS course also covered the performance degradation when in icing. Ground roll, takeoff & accelerate/stop distances increase by approximately 30%. Max climb can be reduced by up to 1,100 fpm. Hold in icing can require more torque and a resulting increased fuel flow by 25-50%. Landing ground roll distances are increased by up to 90% and by up to 160% if 0 flaps are required due to boots failure.

FLYING in potentially challenging mountain winds was also covered. Highlights included the desirability of flying down the updraft side of a range so the turn radius is smaller should you need to do a 180 degree turn and that ridges should only be approached at a 45 degree or less angle so you can easily turn away from the terrain if necessary. Mountain wave, updrafts and downdrafts were also discussed.

THIS PC-12 Mountain Flying Course was packed with very important information and procedures. Our three Simcom instructors, Ted Otto, Ed Taylor and Robert Brooks, were outstanding. Only three of us got the benefit of this course which was unfortunate. Participation can only enhance your skills and is worth the commitment.

SIMCOM offered recurrent training on the third day which we all opted for. For approximately the cost of recurrent training in Orlando, we received Simcom certification for Mountain Flying, Recurrent Training, a Biannual Flight Review and an Instrument Proficiency Check.

SHOULD you wish to learn more about my experience in this course, feel free to contact me.

Pete Welles
N267WF
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TURBULENCE ACCIDENTS STILL ON THE RISE

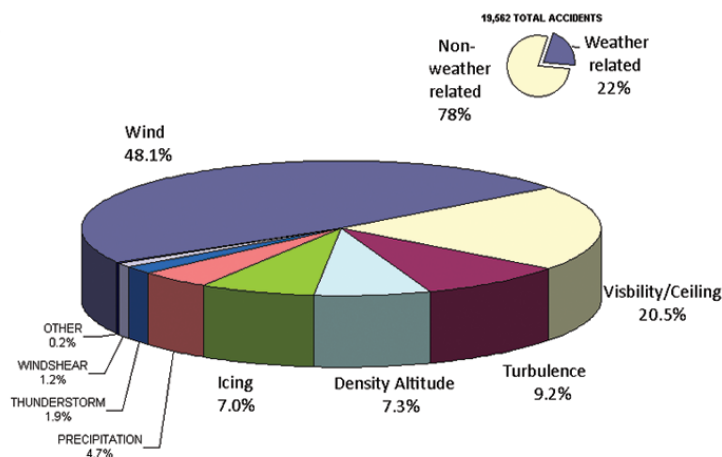
by Scott C. Dennstaedt

12

You may be surprised to hear that the atmosphere is laminar and non-turbulent most of the time. Even so, turbulence is third on the list when it comes to weather-related fatal accidents. This doesn't include thunderstorm-related fatalities which are seventh on the overall list. The really disturbing part is that the number accidents where turbulence was a contributing or causal factor has steadily increased over the last two decades.

A Federal survey was done of turbulence-related accidents using NTSB accident data from 1983 through 1997. The survey identified that turbulence was the culprit in 664 accidents which resulted in 609 deaths, 239 serious injuries and 584 minor injuries. Here's the stat that really hurts: all but one of the 609 deaths was attributed to general aviation (GA). If that doesn't get your attention, nothing will.

NTSB WEATHER RELATED ACCIDENTS BY WEATHER CONDITION



In this study there were 19,562 aircraft accidents, involving 19,823 aircraft. Weather was a contributing factor in 4,159 of these accidents. Turbulence (9.2%) remains third on the list ahead of icing (7%) and thunderstorms (1.9%).

GA pilots certainly are challenged when it comes to minimizing their exposure to dangerous turbulence. There's no doubt that it's likely a combination of things that's to blame. First, detailed forecasts for turbulence are essentially non-existent, especially below FL200. Second, GA pilots are doing more briefings on their own relying on their dearth of knowledge and training to keep them away from the serious stuff. Third, GA pilots are not highly trained, mostly fly single pilot operations and don't fly heavy iron. While it is tempting to argue that most GA accidents are the fault of the pilot, turbulence puts a slightly different spin on the subject (pun intended). Turbulence forecasts are getting better with time, but don't expect any immediate relief for at least five years or more.

Turbulence isn't a well-understood phenomenon by pilots, forecasters and researchers. There are cases where it's obvious and other scenarios where it rears its ugly head without warning. SIGMETs for severe or extreme turbulence rarely get issued until pilots begin reporting the severe conditions. And, many of these reports don't make it beyond the center controller. Fortunately, they do at least make it back to the Aviation Weather Center who may issue the SIGMET after a discussion with the meteorologist at the Center Weather Service Unit (CWSU).

Weapons against mass destruction

Outside of SIGMETs (WS) and AIRMETs (WA) for turbulence, there are three offensive weapons you have to remain outside of most significant turbulence events. First, when flying in the flight levels remain clear of clouds, even layer clouds. This isn't always possible, but if there's a choice to change altitudes to get above or below the cloud deck – even a thin one, do it. Second, pilot reports (PIREPs) are your best friend when it comes to finding those smooth altitudes (if any exist) along your route of flight. Third, before you depart, take a look at the Graphical Turbulence Guidance (GTG) product found on the Aviation Digital Data Service or ADDS (see <http://adds.aviationweather.gov/turbulence/>), especially in the absence of PIREPs. At the moment, this product only provides guidance at 3,000 ft. intervals above FL200. A new release (GTG2) that will happen in 2009 will extend the guidance down to 10,000 feet and provide some other improvements.

GTG is an objective product. That is, the product is automatically generated from a forecasting model without any influence from a human forecaster whatsoever. Its primary job is to predict the presence (or absence) of clear air turbulence (CAT) only. The GTG analyses and forecasts (out to 12 hours) provide better guidance temporally and spatially than AIRMETs and SIGMETs and are shown on the ADDS display as contour maps of predicted CAT intensity, namely, null, light, moderate, severe and extreme (extreme will be dropped with GTG2). The good news is that these categories are familiar to most pilots. The bad news is that GTG is showing turbulence potential and is not a calibrated probability. The pilot has no way to distinguish between a severe event with a low probability and one that has a high probability. Everything is lumped into the same probability bucket at the moment even if the forecast is for 12 hours in the future.

Improving those reports

I had the chance to speak with turbulence expert, Dr. Robert Sharman this past summer. Dr. Sharman works at the National Center for Atmospheric Research (NCAR) in Boulder, Co.

(Continued on Page 13)

(Continued from Page 12)

and is a lead developer of the GTG product. I was curious if pilots were doing an adequate job reporting turbulence. Here's what he said pilots can do to improve their turbulence reports.

First, don't be lazy when reporting your time and location. Turbulence can be very isolated and short-lived. He said too many pilots tend to report "20 northeast of the ABC VOR." They may actually be on the 030 degree radial – and a report "northeast" puts the PIREP in the system as being on the 045 degree radial. Take the time to locate your exact radial and distance if you are not directly over an airport or VOR.

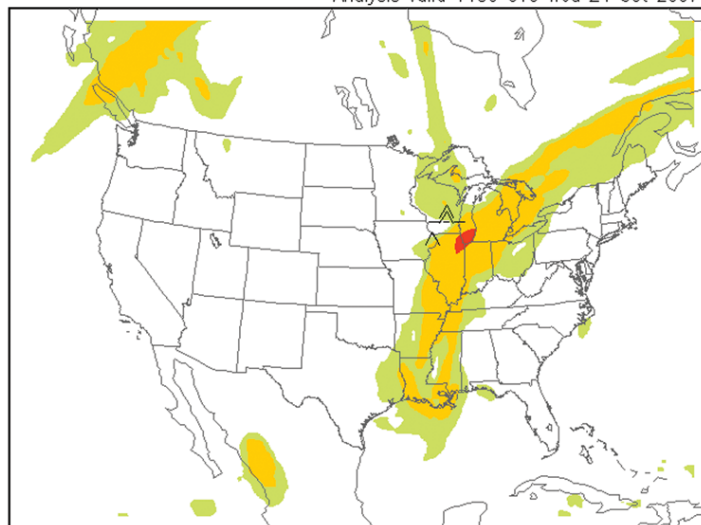
Often you can get your headset knocked off in a growing cumulus cloud, but the air is smooth as glass outside of the cloud. When making the report, Dr. Sharman suggests adding a remark that states if you were in-cloud or out-of-cloud. For example, "moderate chop at 15,000 feet, sky clear" or "moderate at 12,000 feet in cloud tops, smooth above" are both good reports. Researchers would like to know if the turbulence was due to instability or convection (in-cloud).

Avoid ambiguity; this hurts everybody. Report the actual altitudes you experienced turbulence and avoid general remarks like, "moderate-severe turbulence on climb out." Instead, say, "moderate-severe turbulence on climb through a cumulus deck, 4,000 feet through 8,200 feet."

The GTG is an automatically-generated turbulence forecast product that supplements AIRMETs and SIGMETs by identifying areas of turbulence. The GTG is not a substitute for turbulence information contained in AIRMETs and SIGMETs. It is authorized for operational use by meteorologists and dispatchers.

Turbulence forecast at FL250

Analysis valid 1100 UTC Wed 24 Oct 2007



Turb PIREP Symbols

○ Smooth	△ Light	▬ Moderate	▬ Severe
--- Smooth-Light	△-Light-Moderate	▬-Moderate-Severe	▬-Extreme

This GTG image is an analysis for turbulence potential at FL250. On this October day, there were dozens of pilot reports of severe turbulence (UUA). This prompted the Aviation Weather Center to issue a SIGMET (WS) for severe or greater turbulence from FL240 through FL360. GTG did a reasonable job, but still understated the turbulence threat on this day.

Dr. Sharman indicated that there are not enough "null" reports. That is, pilots are not reporting smooth or nearly smooth conditions. Instead, they seem to find they have lots of moderate reports, but very few null reports of turbulence. Pilots are under reporting severe turbulence events as well.

Flight watch at high altitudes

If you are flying at or above FL180, try the high-altitude En route Flight Advisory Service (EFAS), better known as flight watch. Since flight watch is organized by Air Route Traffic Control Centers (ARTCCs), there's one frequency dedicated to the high-altitude flight watch for each center. Look at the inside-back cover of the Airport/Facilities Directory (A/FD) to identify this frequency. If all else fails, there's also 122.0 MHz as well. They will be happy to take your PIREP.

Be sure when you are contacting Flight Watch, identify the facility, followed by your tail number and tell them where are located. For example, "Memphis flight watch, Pilatus 1234B is 32 miles north of the Jonesboro V-O-R, over." This allows the flight watch specialist to use the optimal transmitter to reach you quickly.

Future of turbulence research

Assuming funding remains in place, we are on the verge of a new era with respect to turbulence detection and forecasting. GTG will be updated five more times over the next five to ten years offering improvements and forecasts down to the surface. Also we will see technologies emerge such as the NEXRAD in-cloud Turbulence Detection Algorithm (NTDA), measurements of turbulence through GPS signals (called GPS occultations) and the new Turbulence Protection and Warning System (TPAWS) now installed on some commercial aircraft. While we're still a decade or more away from having this technology abruptly appear in the GA cockpit, more observations for turbulence and better forecasts will mean discovering the presence of turbulence in near real time providing a way to avoid the truly nasty bumps.

Scott C. Dennstaedt is a former NWS meteorologist and nationwide flight instructor based in Fort Mill, SC. For pilots that want in-depth weather training, Scott will soon launch his new subscription-based web site called Aviation Weather Workshops.com (see <http://avwxworkshops.com> for more details).

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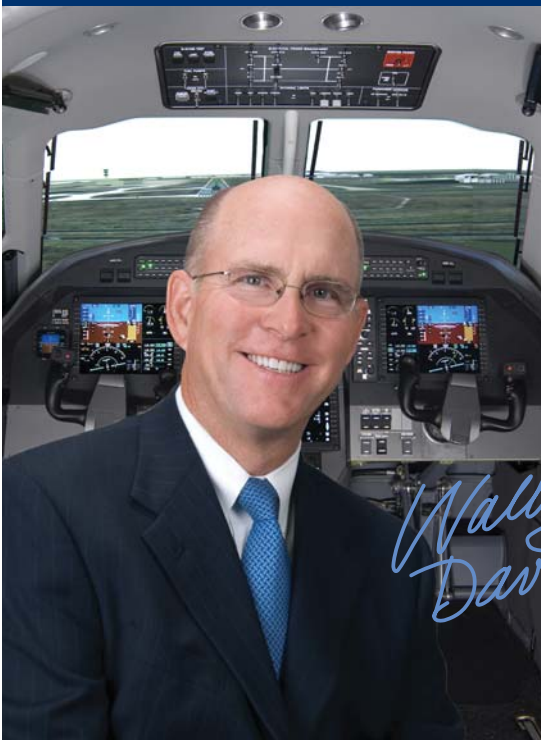
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ESTATE AND LIABILITY PLANNING

For Aircraft Operators Under A New Democratic Administration



16

Since the passage of the Economic Growth and Tax Relief Reconciliation Act of 2001, estate planners and their clients have lived in a state of limbo. The 2001 Act repeals the estate tax for the year of 2010 and then reinstates it in 2011 and beyond. In 2001, the estate tax exemption was \$600,000; which systematically increased to \$3,500,000 through 2009. The tax rate also decreased from 50% to 45%.

A key element of President-Elect Obama's platform was to freeze the exemption at \$3,500,000 and the rates at 45%, as well as prevent the repeal of the estate tax in 2010. Based on President-Elect Obama's victory, coupled with Democratic gains in the Congress, it appears likely that his proposals will become law. Regardless of how those subject to the tax might perceive it, for the first time since the passage of the 2001 Act, estate planners and their clients are now in a position to plan for the disposition of their estates, planning which goes hand-in-hand with securing protection against liability.

Part 91 aircraft owners require liability planning because FAA regulations severely limit their ability to segregate exposure after an accident. Liability waivers may protect against claims of people onboard, but won't help for plaintiffs on the ground. Sufficient liability insurance simply isn't available for Part 91 aircraft outside the context of professional management companies. Even worse, traditional liability planners

unfamiliar with FAA regulations often inadvertently increase exposure with structures the FAA would consider "commercial carriage," therefore risking denial of insurance claims. The standard asset-protection playbook of using shell companies simply doesn't work under FAA regulations.

The vast majority of potential significant claims against aircraft owners come from passengers. Substantially all personal injuries are for passengers, not innocent bystanders on the ground. Business operations are generally protected from injuries to employees by the exclusive remedy provided by workers compensation. One of the most effective tools of limiting exposure is therefore limiting passengers to employees, families, or those willing to execute waiver agreements.

Now that estate tax law is emerging from uncertainty, it is time for aircraft owners to address comprehensive planning to minimize liability exposure – planning that generally coincides with what is needed to pass inheritance to the next generation with minimum tax impact. Properly structured and maintained companies will generally protect their shareholders from personal-asset exposure. In addition, numerous classes of individuals' assets are not within the grasp of creditors. Individuals are provided statutory exemptions from attachment by both federal law and state law. Federal law

(Continued on Page 17)



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(Continued from Page 16)

generally exempts proceeds from qualified pension and profit sharing plans as well as individual retirement accounts.

State law exemptions vary significantly from one jurisdiction to another. They often include jointly owned real estate, life insurance policies, annuities, and the like. In addition, the law generally prohibits forced liquidation of trusts, limited liability companies and partnerships.

ESTATE & LIABILITY PLANNING FOR BUSINESS AIRCRAFT IS UNIQUE

An integrated liability protection and estate plan begins with assessing all of your exposure and all your non-exempt assets.

- Your aircraft is not the only source of liability. It can become a valuable asset caught up in an unrelated dispute. Owners involved in high-risk businesses (such as doctors) should consider removing equity from their aircraft. A way to do this is through debt held in a different entity.
- The next step in liability planning should be to identify your creditor-exempt assets. Non-exempt assets should be evaluated for their potential to be converted into exempt status. For example, individuals whose homes are exempt from creditors under state law might consider using non-exempt cash to pay down their mortgages.
- If only one spouse pilots the aircraft, consider transferring attachable assets to the non-pilot spouse. A husband and wife who prefer to hold assets of approximate equal value should consider transferring the exempt assets to the pilot and the non-exempt assets to the spouse.
- The next area of opportunity is the transfer of non-exempt assets into organizational structures that provide protection. These could include domestic and off-shore trusts, family limited partnerships, and other asset protection vehicles. It is also important that you simultaneously evaluate the impact of estate and gift taxes as well as income taxes on these transfers.

IT'S TIME TO DUST OFF THAT ESTATE PLAN

With the entire estate and gift tax system in limbo since 2001, it has been reasonable to put re-evaluating your gift and estate structure on hold. However, President-Elect Obama's plan is to tax estate amounts exceeding \$3,500,000 at a rate of 45%. Spouses, through proper planning, may structure their estates to allow for up to \$7,000,000 merely by maximizing individual exemptions. The inevitability of death and taxes has returned. It is time for you to promptly review both your tax and liability positioning to protect your family and yourself.

Jonathan Levy, Esq.
Legal Advisor

Louis M. Meiners, Jr., CPA
Aviation Consultant

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I Wonder What Will Happen When I...

Operate the Flap Interrupt Switch?

18

When we get bored or think we have it all figured out while enroute, aka, know it all, we might try the “I wonder what will happen when I...” SPT [Special Pilot Trick] procedure.

In this case it's when I move the FLAP Interrupt Switch from the normal “NORM” position to the “INTR” position. Of course since we have all been properly trained (and know it all anyway) we know that the Flap System has now been interrupted, therefore the flaps will no longer move, just like the TRIM Interrupt switch function which disables ALL Trim operations while in the “INTR” position. However, we also receive a CAWS amber FLAPS annunciation and gong, unlike the TRIM Interruption procedure, which gives no visual or aural cue, which is what would happen if we were testing the TRIM Interrupt switch (that's another article).

So now that we moved the FLAP Interrupt switch and have gotten the CAWS annunciation and gong, and have alerted the PAX to our boredom, our “procedure” is complete and everything works as we knew it would (except maybe we forgot about the CAWS). It is now time to put the Flap Interrupt switch back to NORM.

FLAP Interrupt switch back to NORM and CAWS annunciation clear, right? Wrong. Why is the CAWS FLAPS annunciation still illuminated? Does this mean the Flaps will not work, or is this a fault of the CAWS, and the Flaps are okay? Can I clear the CAWS FLAPS annunciation while airborne?

To answer these questions I want to first give you some history of the PC 12 Flap System and its design. When the PC 12 first entered production it had the TRIM and FLAP

Interrupt switches on the center console, left side (see pictures). These switches are still this way for MSN 101 – 888. The switches were both two-way selectable to the labeled positions of NORM or INTR. On the right side of the center console there were the FLAP and TRIM Alternate Trim switches, both three-way, spring loaded to center OFF. The pilot must press to hold to the other two positions. The labeled positions are UP and DOWN.

The Flap System is driven by a single motor with a drive mechanism, which has flexible cables extending to the left and right wing inner flap actuators (inboard side of actuators). From the left and right inner flap actuators (outboard side) flexible cables extend to the center left and right flap actuators. To protect against the possibility of flap asymmetry due to a flex cable disconnect or jam, Pilatus installed multiple sensors to stop the flap system within 5° of the potential flap split or twist.

Also installed for the Flap System are the Flap Interrupt and Flap Alternate System/switches. The intent is that if Flap asymmetry could be determined to be due to a flexible cable failure the pilot could regain control of the Flap System and manually move the operable flap (wing) to a symmetrical position relative to the failed flap (wing). Where the Flap Interrupt got a little fuzzy, at least to me when I first started teaching the PC 12, was the switch-terminology. If Flap asymmetry warranted the use of the Flap Alternate the pilot would first select Flap Interrupt to “INTR”. This would “interrupt” the Flap Control and Warning System fault, which had stopped the flap motor from operating, allowing the pilot to now operate the flap motor by using the Flap Alternate switch to raise or lower the flaps. The fuzziness is due to the Trim Interrupt functions (same labels, different function/result- again, another discussion).

What Flap Alternate switch? There is not a Flap Alternate switch residing next to the Trim Alternate switch now. So where or what happened to the Flap Alternate switch and why was it removed?

The Flap Alternate switch is still in the cockpit but it is no longer accessible to the pilot. Why not? The short answer is that it was determined that it was not appropriate for the pilot to make the decision about use of this system. This unfortunately came about as the result of a fatal accident that occurred in the Czech Republic in the spring of 1998. For the final accident report, go to www.acftservices.com - Training Aids/ Known Accidents and click on the Czech Republic accident PDF line.

(Continued on Page 19)



Overspeed Indicator MSN 101-888

(Continued from Page 18)

Shortly after the final accident report, Pilatus issued a mandatory Service Bulletin to remove the Flap Alternate switch from the center console and pull/collar a circuit breaker that powers the Flap Alternate system. Factory production aircraft had the modification done starting at MSN 228. Only maintenance personnel now use the system. It is used to activate the system while testing the fault parameters for proper function and tolerances.

So why is the Flap Interrupt switch still residing next to the Trim Interrupt switch? Is there an Emergency Procedure that includes use of this switch?

The reason the Flap Interrupt switch is still on the center console is so the pilot can have something to fiddle with! Actually, although there is not an Emergency procedure that requires use of the Flap Alternate switch, there is reference to this switch in the Systems section [Section 7] of the Pilots Operating Handbook. It states operation of the Flap Interrupt switch can be used to stop the Flap system operation.

Back to the original intent of this article...So you did it! Will the Flaps work? Answer-NO. Since the intent of the Flap Interrupt was to actually re-activate a faulted (shut-off by the FCWU) motor, moving the switch to "INTR" now has the opposite effect. And setting the switch back to "NORM" has no effect either since, again, the original idea is that something is wrong with the flap system and NOBODY should be messing with a flap problem, real or not, while airborne. If you did or did not create this scenario, you must deal with it! IF there is no actual problem with the Flaps, after landing, the Flaps can be re-activated by use of the Flap Reset button.



PC12 NG (Note Trim Interrupt/Flap Interrupt Positions and Alternate Stab Trim)



PC12 MSN 101-888

This reset button, factory installed from MSN 321 and Service Bulletin for earlier, is located behind the copilot seat-side wall, on the maintenance panel. If in doubt, call maintenance before attempting another SPT.

Lastly, the Flaps, Actuators and Flex cables are now inspected annually (used to be more frequent until improvements matured). Maintenance is checking for out of tolerance movement in the actuators and cables possibly caused by normal and overspeed stress, as well as panel deformity. Pilatus installed a Flap overspeed visual annunciator (in the Flap indicator MSN 101-888) and aural tone to alert us to this, NG aircraft have multiple indications on the PFD and a voice callout.

Now I know that none of the PC 12 drivers would ever do such a thing [overspeed] but just in case, don't make a habit of extending the flaps above the approved speed for position. You should report these overspeeds when you visit maintenance (Note to NG drivers: The CAS-CMS records all!), but if you have short-term memory loss this is one of the reasons why the Feds/Pilatus both require checks of Flap Systems like this one.

*Answer to the Temp Indicator Switch will be at the Training Aids section at www.acftservices.com.

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Press the "INFO" Button

20

Members of POPA are encouraged to email/call in their questions on the Honeywell/Garmin/Universal/WSI avionics. All questions will be answered via email and phone call within a few days, and later printed with illustrations/photos in the subsequent issue of POPA magazine. Please submit questions on your avionics operational or interface issues to:

Paul Sanchez
305-389-1742
sanchezpaulk@mac.com

This month's question......comes from a PC12 operator who has a Garmin MX20 multi-function display (a fine unit succeeded only by the Garmin GMX200) with a WSI AV300 weather receiver. His question is:

I have WSI on an MX 20. Though a ground computer based radar depiction shows a complete radar picture for the whole US, my airborne has huge gaps of no coverage for large (huge) areas west of Denver. This isn't just mountains blocking the beam. Why don't the ground and airborne pics match? It's quite frustrating on a hot summer buildup day, as you become reliant / addicted to the pics.

What this PC12 operator is asking about of course are the areas in the Rocky Mountains where the WSI does not show any NEXRAD radar returns at all. Of course I can remember using the Honeywell ART2000 radar pod and getting a lot less coverage anywhere where I wanted to use a scale greater than 80 nm. But...back to the issue at hand.

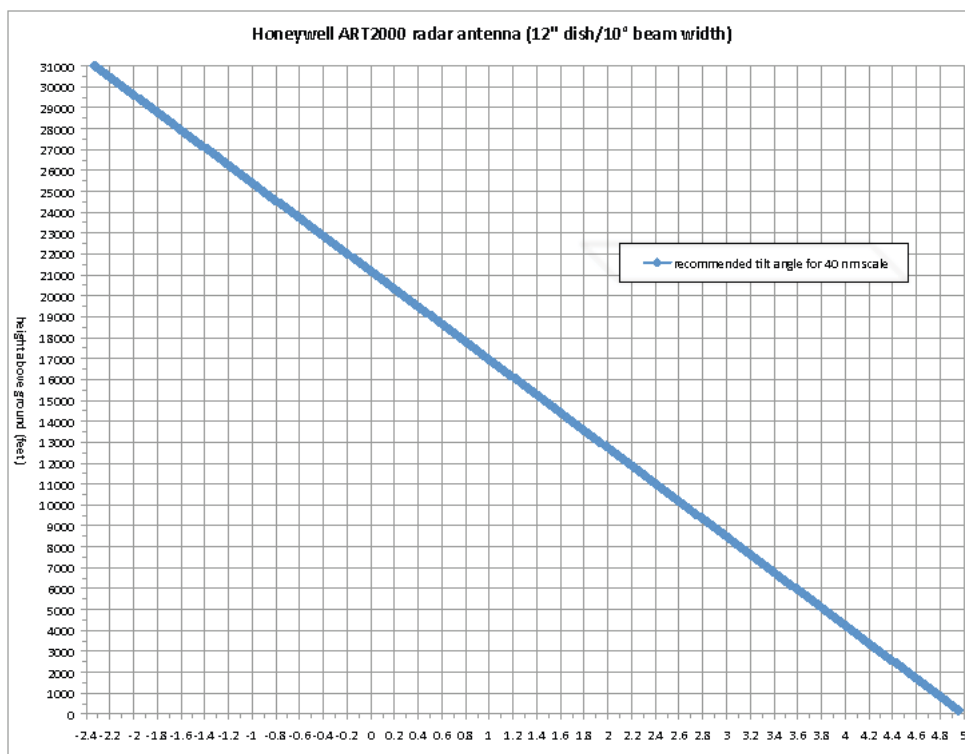


My personal opinion aside that I think the NEXRAD imagery from WxWorx is better than WSI's, the blame is not on preference of provider but in the mantra of any real estate agent "location, location, location". The National Oceanic Atmospheric Administration has great number of WSR88D weather radar sites however some of them can't quite get over the mountain ranges on the side of them. This of course means that there are areas of the Rocky Mountains where NEXRAD imagery does not exist, no matter if you are in your PC12 at FL300 and can see for 202 nm or in the FBO lobby with your laptop connected to the internet.

Now how this "NEXRAD coverage gap" is depicted can be different from Avidyne or Garmin or Honeywell, but here are some samples of the gap on a flight from Northern California to Las Vegas and of course crossing the Sierra Nevada.

Solution to case of the disappearing NEXRAD?

For the PC12 operator that is easy, use the Honeywell ART2000 that is on the starboard wing tip. Ah but of course that requires more learning/skill than just ON/OFF switch. Everyone



Tilt Angle vs. Height AGL for ART2000

(Continued on Page 21)

(Continued from Page 20)



loves composite NEXRAD imagery because it shows the maximum amount of reflectivity for a 2 km x 2 km column of air from surface up to 70,000'. A bit higher than most PC12s get up to. The WSR88D radar sites use an antenna 28' diameter with about a 0.88° beam width and output of



the Pilatus PC12 operator needs to now how use his radar pod to get the information that normally is right there in front of him on his Garmin GMX200 MFD.

You got to know your limitations!



about 750 kw. However when we have to switch over to our own radar pod, all of a sudden we are using something a bit less diameter (1 foot rather than 28 feet), a bit wider on the beam (10° rather than 0.88°), and perhaps a little bit less wattage (25 kw rather 750 kw). Which means of course that

Let's start off by saying a 1 foot diameter radar antenna (ART2000) is a lot less than a 28 feet radar antenna (NOAA WSR88D radar site on the ground). In spite of this 28 to 1 ratio of antenna size, NOAA has decided not to use any radar product greater than 248 nm. The reason why of course is because they know how diminished the signal strength is and the limit of the beam width at that distance. So if we are using an antenna that is only 3.5% of the NOAA WSR88D radar site, what is the maximum scale that we should be using in spite of the "320 nm" scale on our MFD? Let's get to the square root of the problem. 1 foot diameter divided by 28 feet diameter = 0.03571428571429. The square root of that ratio = 0.188982236504614. Now if NOAA using their 28' diameter WSR88D radar sites (and 750 kw) do not create any product greater than 248 nm, then 248 nm x 0.188982236504614 = 46.867594653144173 nm.

On the GMX200 or KMD850 we have a 20 nm, 40 nm, 80 nm and up. As we are limited more so by the diameter of the ART2000 antenna rather than the scale on the MFD, 40 nm becomes the preferred scale to use with a 1 foot diameter antenna.

Tilting at windmills...

Next of course in the radar pod learning/skill level path is the tilt angle of the ART2000 with respect to the terrain below. This is where more operator error occurs in weather radar pod operation than any other. If you don't use the tilt function so that bottom half of your 10° beam touches the ground just at displayed scale, you are not going to be seeing what you need to be seeing. At 21,100' AGL the bottom of your 10° beam will hit the ground at the 40 nm scale. If you more than 21,100' AGL you'll need to tilt downward slightly, if less than 21,100' AGL you'll need to till upward slightly.

(Continued on Page 22)

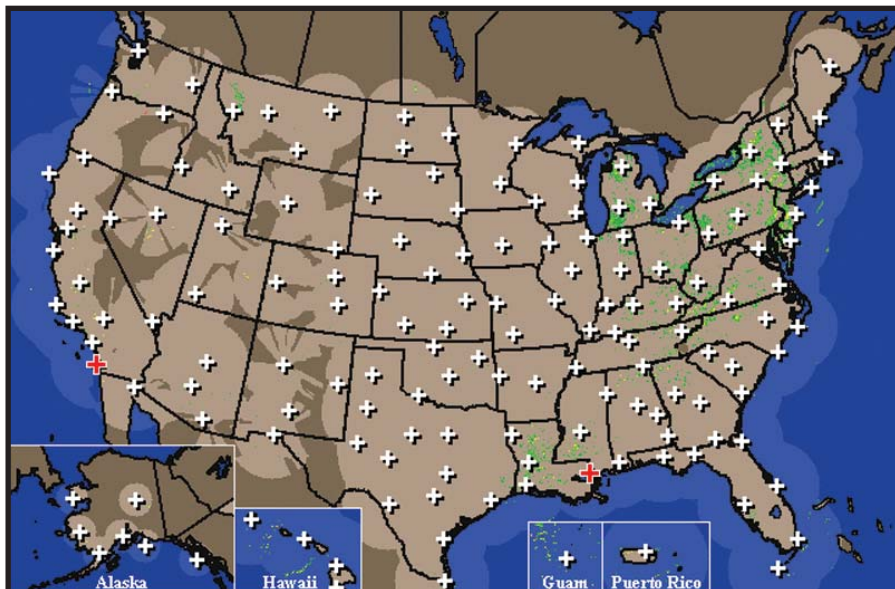


Press the "INFO" Button (Continued from Page 21)

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Easy enough to describe but more so difficult in the air unless you have been taught quite well how to determine the estimated tilt angle for you height AGL, and then how to read the intercept point of the beam on the ground. Training in your aircraft is your best solution.

Paul k. Sanchez, CFII-MEI
561-929-0665 - Home
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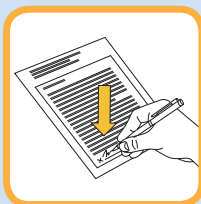


Paul Sanchez has been teaching aircraft systems and avionics software since 1989. Articles on avionics/flight operations have been published in Aviation Safety magazine, IFR magazine, Twin & Turbine magazine, Malibu/Mirage Owner Pilots Association magazine and POPA magazine. He does PC-12 initial and recurrent training as a staff instructor with Aviation Training Management, Inc.

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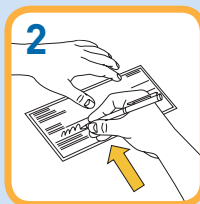
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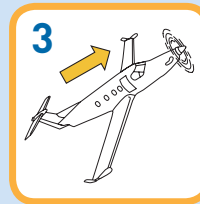
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ASK LANCE TOLAND...

26

My current insurance policy is underwritten through an agent who placed my coverages on my PC-12 through AIG Aviation. Given recent financial events and the news on AIG, should I be concerned?

You have every reason to be concerned about these events and how they relate to AIG being able to back up their promise to pay. If your agent or Broker was not in touch with you immediately you have even bigger concerns. My immediate response to clients was to contact every agency AIG client and review what we had extracted from the company, not from CNN, CNBC or the internet. Many of our clients elected to move their coverage to other markets immediately and some felt that riding things out worked best for them.

AIG was the world's largest insurance company and by some measures still is. AIG Insurance Group as a company is still very strong; as a matter of fact they have more policy holder surpluses on hand to handle claims than any other domestic insurer. Their Parent Company is where the real problem lies, in the financial services sector. The following talking points extracted from an AIG intercompany communiqué will enlighten you.

This is lengthy, but if entirely read, it's encouraging stuff. What it does not mention is AIG's current premium to surplus ratio (< 1% - 1). If AIG Insurance Group were totally removed from their parent AIG, this ratio alone should give them AAA+ paper.

Summary of AIG's Arrangements with the Federal Reserve Bank of New York

- AIG has three separate arrangements with the New York Fed, each of which provides a distinct benefit to the company.
- First, an \$85 billion credit facility for two years. These funds are used for collateral obligations related to the AIG Financial Products' (AIG FP) credit default swap portfolio and for general corporate purposes. AIG pays interest on this credit facility at a rate based on 3-month Libor (London interbank offered rate) plus 8.50%.
- Second, a \$37.8 billion facility for AIG's Securities Lending program. Under this agreement, the Fed borrows investment grade, fixed income securities from AIG's domestic life insurance companies, on commercial terms and conditions, in exchange for cash. This arrangement provides liquidity to AIG while providing enhanced credit protection to the Fed by giving it possession of third-party investment grade securities.
- Third, a \$20.9 billion Commercial Paper Funding Facility (CPFF). Under this arrangement, the Fed purchases commercial paper from four participating AIG affiliates, thereby providing additional cash to AIG. During normal credit market conditions,

(Continued on Page 27)

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(Continued from Page 26)

companies like AIG could sell short-term debts into the commercial paper market for working capital and other short-term expenses (for example, inventories and accounts receivables), but that market has seized up in the current economic environment. The commercial paper facility enables AIG now to sell short-term notes to the Fed. The proceeds from issuing the commercial paper have already helped AIG reduce its outstanding balance under the original Fed loan, while meeting the company's working capital needs.

\$85 Billion Credit Facility

- AIG has signed a definitive agreement with the Federal Reserve Bank of New York for a two-year, \$85 billion revolving credit facility.
- AIG is using the funds for collateral obligations related to the AIG Financial Products' (AIG FP) credit default swap portfolio and the Securities Lending program, and for general corporate purposes.
- AIG will pay interest on the credit facility at a rate based on 3-month Libor (London interbank offered rate) plus 8.50%.
- AIG will pay an initial gross commitment fee of 2% of the total facility on the closing date. AIG also will pay a commitment fee of 8.50% per year on the undrawn amount. The interest and commitment fees will be payable by increasing the outstanding balance.
- AIG will repay the credit facility, among other things, with funds from the sale of certain assets and by issuing debt or equity. These mandatory repayments permanently reduce the amount available to AIG under the credit facility.
- The credit facility is secured by a pledge of the capital stock and assets of certain of AIG's subsidiaries, subject to exclusions. Those exclusions include certain property which cannot be pledged by AIG because of the terms of its debt instruments. Additionally, the assets of regulated subsidiaries, assets of foreign subsidiaries and assets of special purpose vehicles are excluded.

Equity Participation

- Under the agreement with the Federal Reserve Bank of New York, AIG will issue a new series of Preferred Stock to a trust. The trust will hold the Preferred Stock for the benefit of the U.S. Treasury.
- The Preferred Stock will hold approximately 79.9% of the total shareholder voting power.
- The issuance of the Preferred Stock, convertible into Common Stock following a special shareholders meeting to amend AIG's restated certificate of incorporation, would normally require the approval

of shareholders according to the shareholder approval policy of the New York Stock Exchange (NYSE).

- But the Audit Committee of the AIG Board of Directors determined that the delay necessary to secure shareholder approval prior to the issuance of the Preferred Stock would seriously jeopardize AIG's financial viability.
- Therefore, the Audit Committee, pursuant to an exception provided in the NYSE's shareholder approval policy for such a situation, expressly approved AIG's decision not to seek shareholder approval that would be otherwise required under that policy. The NYSE has accepted AIG's application of the exception.
- AIG is mailing all shareholders a letter notifying them of its intention to issue the Preferred Stock without seeking their approval and will proceed to issue the Preferred Stock when it receives all material approvals from governmental authorities required for the issuance.

\$37.8 Billion Securities Lending Agreement

- The Federal Reserve Bank of New York has agreed to provide liquidity to AIG's securities lending program by borrowing investment grade, fixed income securities from AIG's domestic life insurance companies, on commercial terms and conditions, in exchange for cash. In this arrangement, the Fed acts in its traditional capacity as lender of last resort.
- The total amount the Fed is authorized to borrow is \$37.8 billion. The lending agreements were executed on October 8.
- This arrangement is an effective method to provide liquidity to AIG's Securities Lending program while providing enhanced credit protection to the Fed by giving them possession of third-party investment grade securities.
- The arrangement allows additional time for AIG to work toward its current strategy to wind down its Securities Lending program.
- This arrangement is separate and distinct from the \$85 billion credit facility, which is a loan from the Fed. This new arrangement contemplates the Fed stepping in as a counterparty in a traditional commercial financing transaction, on commercial terms and conditions, which reflects the Fed's status as lender of last resort.
- AIG, the Fed and State insurance regulators are working cooperatively to support the interests of the company and its policyholders. This is one example of this cooperative effort.

(Continued on Page 28)

ASK LANCE TOLAND...(Continued from Page 27)

Outstanding Balance under Fed Arrangements

- Every Wednesday, the Federal Reserve posts on its website AIG's outstanding balance under the Fed agreements.
- Of the \$122.8 billion available—the \$85 billion credit facility plus the \$37.8 billion made available under the securities lending agreement—AIG had an outstanding balance of \$83.5 billion as of October 29.
- \$65.5 billion is under the credit facility. AIG is using the funds from this facility primarily for collateral obligations related to the AIG Financial Products' (AIG FP) credit default swap portfolio and general corporate purposes.
- \$17.7 billion is in cash collateral in exchange for third-party investment grade fixed income securities borrowed by the New York Fed under AIG's Securities Lending program.
- AIG has paid \$331 million in interest and fees on the \$85 billion credit facility.

Commercial Paper Funding Facility

- On October 7, 2008, the Federal Reserve Board announced the creation of the Commercial Paper Funding Facility (CPFF) to provide a liquidity backstop to U.S. issuers of commercial paper through a special purpose vehicle (SPV) that will purchase three-month unsecured and asset-backed commercial paper directly from eligible issuers.
- Beginning on October 29, 2008, four affiliates of AIG registered and began to issue in the New York Fed's CPFF.
- AIG Funding, Inc., International Lease Finance Corporation, Curzon Funding LLC and Nightingale Finance LLC may issue up to approximately \$6.9 billion, \$5.7 billion, \$7.2 billion and \$1.1 billion, respectively, of commercial paper under the CPFF.
- AIG's participation in the CPFF is on the same terms and conditions as other companies that have recently announced plans to participate in this program.
- Proceeds from the issuance of the commercial paper will be used to refinance AIG's outstanding commercial paper as it matures, meet other working capital needs and make voluntary prepayments under AIG's \$85 billion credit facility with the New York Fed.
- The CPFF program expires on April 30, 2009 unless extended by the Federal Reserve Board.

Greenberg's Proposal for Changes to Fed Credit Terms

- AIG is working in close coordination with the Federal Reserve to consider all serious proposals that can benefit taxpayers and AIG shareholders. AIG's focus is to maximize the value of its businesses and protect its policyholders, so the company can both repay the Federal Reserve loan and emerge as a vital, ongoing business.

Impact on AIG

- AIG's insurance companies remain financially healthy and are meeting all policyholder obligations.
- Insurance is a regulated business. Regulators ensure that each AIG member insurance company has adequate assets to back each policy and meet all policyholder obligations. Policyholders are protected and their policies are safe.
- AIG companies intend to honor all of their commitments to policyholders and customers.

AIG's Future Direction

- AIG has a number of remarkable businesses with leadership positions in the world's most desirable markets and significant competitive advantages that could not be recreated.
- AIG's renewed focus will be on its core property and casualty insurance business—U.S. property-casualty and foreign general insurance—while also maintaining an ownership interest in foreign life insurance operations.
- AIG expects to generate sufficient liquidity to repay the outstanding balance of its loan from the Federal Reserve Bank of New York and address its capital structure.
- AIG is exploring divestiture opportunities for many high-quality businesses and trophy assets. As these businesses are well-run, attractive operations, they offer prospective buyers the greatest potential for growth and profitability.
- AIG is also considering alternatives for its Financial Products (FP) business and its Securities Lending program. AIG is winding down the FP operations, which are not writing any new business.
- The AIG United Guaranty mortgage guaranty insurance business has stopped writing second-lien mortgages, but continues to write first-lien mortgage business.
- AIG expects to emerge as a smaller, formidable and more nimble enterprise in the future—solidly profitable with good long-term growth prospects and where employees will be proud to work.

Other dynamics should still be factored into one's decision to stay or move from AIG as an insurer. AIG Aviation has recently lost a number of key executives including their CEO of General Aviation, Senior Underwriters and claims adjusters. Although these recent departures have not impacted our current dealings with AIG Aviation, with regard to dialing servicing one could argue changes may impact normal claims handling being outsourced to independent claims adjusters in the case of catastrophic loss.

It is imperative that your Broker be familiar with each state's insurance statute as it relates to moving business from one company to another or commenting on a company's finance

(Continued on Page 29)

(Continued from Page 28)

strength. Consider the State of New York's statue as it relates to advise given on insurance companies and policies written in that state.

NYS Insurance Law § 2604: False statements as to insurers - No person shall either (i) willfully make, circulate or transmit to another any statement written, printed or by word of mouth, which is untrue in fact and is directly or by inference derogatory to the financial condition, or affects the solvency or financial standing, of any insurer doing business in this State or (ii) knowingly counsel, aid, procure or induce another to start, transmit or circulate any such statement.

As you can see there are many factors to consider when placing your PC-12 insurance outside of marketing and looking for the lowest price. Test your agent or Broker on their comprehensive knowledge of the market to see if they are looking over the horizon for you.

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GA Feeling Gloomy Over Economy

30

General aviation is groaning under the weight of a weakened economy, high fuel prices and scarce credit. Everyone is feeling the pinch—from major aircraft manufacturers to small business owners to airport operators.

“Eight years ago, when you went to Europe, our dollar was stronger than the Euro. Now, it isn’t. It’s gotten really, really bad in the last eight years, along with gas prices and everything else,” said Jim Gorman, founder and president of Gorman Aviation.

Located in Lewisville, Texas, Gorman provides repair administration for military, commercial and civilian aircraft operators and offers aftermarket sales of new and recertified avionics, instruments and rotatable parts. He also specializes in supplying hard-to-find aircraft parts for current production and older aircraft.

How do operators react to higher fuel costs?

- 76% switch FBOs to find lower-priced fuel
- 40% fly at slower speeds
- 28% request more direct routings
- 19% cut back on hours flown
- 15% tanker fuel

(Courtesy of National Business Aviation Association)

“With the weaker dollar, it costs companies a lot more to keep inventory on the shelf. People aren’t stocking as much stuff as they used to when the economy was a lot better. They have to order parts, which can make lead times extremely long. That causes a delay in getting equipment back to the customer,” said Gorman.

Fixed based operators like John Dors, owner and founder of Instrument Overhaul Service of San Diego, are seeing a decline in optional upgrades and new installations. Operators are mostly opting for mandated items, which cuts into the company’s bottomline.

“General aviation is by-in-large a discretionary income-based business. For 50 percent of customers, aviation is a hobby. When the economy is bad, our industry is one of the first to feel it, and conversely when the economy is good our industry is the last to gain,” said Dors, who manages two Federal Aviation Administration-certified service centers that repair, install and sell avionics and instruments for most fixed- and rotor-wing aircraft.

At Sumter County Airport located in Sumter, South Carolina, business and air traffic are down substantially.

“We’re seeing it in the recreational flyer, first and foremost. As the gas prices skyrocketed, the recreational flying came to a virtual standstill. We continue to see the recreational flyer being very discriminating on when they fly and why. The hundred dollar hamburger-kind of flying is becoming a lot less frequent,” said Jeremy Bauer, airport manager for Sumter County Airport.

Jeff Knauer, professional pilot and assistant airport manager for Sumter County Airport, agreed, “For most of the FBOs that I talk to, their business is off. The general number that everybody has been talking about is 20 percent. But, I suspect that by the end of the year those numbers will be bigger than that. We’re off by about 20 percent. Although, if November finishes up the way that it started, we’ll probably be down about 35 percent.

“Pilots are becoming much more cost conscious. For instance, in corporate aviation, pilots often buy fuel as a courtesy to the FBO—as a thank you for being there and having all of these services available. We’re getting a lot more of them saying, ‘I’m sorry. I can’t buy here. I have to buy somewhere else that’s a little bit cheaper.’ So now, courtesy buying is part of the economic-driven decision making,” said Knauer.

The National Business Aviation Association agrees that high fuel costs are changing operational behaviors. “The Federal Aviation Administration (FAA) has reported that activity at general aviation airports declines significantly because of fuel costs, and as an example has cited operations at Springfield, Ill., which have declined as much as 30 percent in the face of high fuel costs.”

Jet, Turboprop Deliveries Up

With all the bleak reports, November brought one bit of good news, according to the General Aviation Manufacturers Association (GAMA). The organization reported an increase in turboprop and business jet shipments in the first nine months of 2008. When compared to the same period in 2007, business jets gained 30 percent and turboprops edged up 14 percent.

(Continued on Page 31)

Fast Facts

When fuel prices spike, consumption drops. Purchase of Jet-A fuel declines by 10%-20% while AvGas falls by 30%-40%.

(Courtesy of National Business Aviation Association)

(Continued from Page 30)

Unfortunately, pistons dropped more than 11 percent. While the upswing in turboprops and business jet shipments more than offset the decrease in piston-powered aircraft deliveries, the news isn't necessarily good, according to industry watchers.

“Notwithstanding these positive third quarter numbers for turbine powered aircraft deliveries, our industry is experiencing difficulties due to the weakness of the global economy,” said Pete Bunce, GAMA president and CEO.

“Reacting to the lead and lag nature of this economic slowdown, several companies have announced layoffs and are working very aggressively to retain orders and encourage new ones. Even as the price of fuel has declined from the debilitating high levels we saw this past summer, the uncertainty of financial markets worldwide is negatively impacting the entire aviation industry.”

When it comes to sales of pre-owned aircraft, inventory is surging and prices are falling, according to Vref, the aircraft market data and price guide. The trend has some industry experts guessing that the glut of lower priced aircraft will lead to fewer new aircraft sales over the next two years, which could soften the general aviation market even more.

**Kristine
Knauer**

Christine Knauer, a freelance aviation writer, has more than 13 years experience writing for and about aircraft and avionics manufacturers, flight service centers, aviation technology and industry-related issues. She holds a master's degree in aviation, a bachelor's in mass communications, and has taken private pilot flight and ground training. A contributing editor for Avionics News, her articles also have appeared in Twin & Turbine Magazine, AutoPilot Magazine, American Bonanza Society Magazine, International Federation of Airline Pilots Association New Technology Journal and other industry publications.

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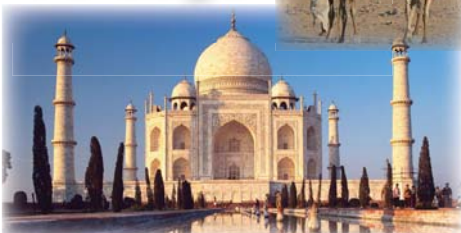


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What You Need to Know: Rules, Regulations, Requirements in Brief...

Whether you're planning a trip outside the United States, preparing your operating budget or just curious about what the Department of Homeland Security is working on for general aviation, here is a round up of the rules, regulations and requirements that affect you.

Request Your Plastic Certificate

This year, be sure to request your plastic pilot's certificate and retire your paper version to a scrapbook or frame it for your office wall. The Federal Aviation Administration (FAA) is requiring pilots to switch to the counterfeit-resistant certificates by March 31, 2010. After March, you do not have piloting privileges until you have your plastic pilot certificate in hand.

Those of you with non-pilot certificates, such as ground instructors, flight engineers and mechanics, have until March 31, 2013 to make the switch. Temporary, student, and flight instructor certificates are not impacted by the rule. Visit www.faa.gov/licenses_certificates to request your plastic certificate through the FAA's web site. The cost is \$2.

Hold Onto Your Medical Certificate Longer

Last July, the FAA revised its rules on airman medical certificates for pilots under the age of 40 at the time of their most recent medical exam. Third-class medical certificates, required for private pilots, are now valid for five years instead of three. First-class medical certificates, required for airline transport pilots, are now valid for one year instead of six months.

Expect Aircraft Re-registration Requirement Soon

The FAA is mulling a proposal that would require operators to re-register their aircraft every three years instead of the existing one-time, non-expiring registration. Periodic re-registration is designed to improve the accuracy of aircraft registry records.

To reduce the workload on the FAA, the program would be phased in over three years with operators re-registering based on the month their original certificate was issued. The proposal designated October 2008 as the start date of the program's phase-in and re-registrations to begin but as of November, the FAA hadn't made a final ruling.

The current registration fee is \$5. However, industry experts expect changes to the fee structure, too, with the initial registration set at more than \$100 and re-registration about half that amount.

Consider Upgrading to a 406 MHz ELT

After February 1, 2009, your 121.5 MHz emergency Locator transmitter (ELT) will offer limited assistance in the event of an emergency landing or crash. Although there is no FAA mandate to upgrade, the international COSPAS-

SARSAT satellite system has discontinued satellite-based monitoring leaving only ground-based receivers, which are weaker and provide less coverage, to pick up distress signals. In addition to offering satellite-based monitoring, the 406 MHz units are more reliable and not as prone to false signals.

Plan to Upgrade Your CVR, FDR

While you're planning your three-year aircraft-operating budget, add an upgraded cockpit voice recorder (CVR) and flight data recorder (FDR) to the list of must-have items. Basically, all turbine-powered aircraft with 10 or more seats operating under parts 91, 121, 129, and 135 must be equipped with the modified systems by April 7, 2012, according to the FAA's final rule. The ruling requires a variety of changes, which include the recording time, power source, sampling rate and location. According to FAA estimates, the cost of the upgrade is between \$8,140 and \$19,900, depending on the aircraft.

Know the Rules for Arriving and Departing the U.S.

Beginning May 18, 2009, the U.S. Customs and Border Protection (CBP) requires pilots (or their designee) to submit advance notice and passenger plus crew manifest information to the CBP electronically, no later than 60 minutes prior to departing the U.S. for an international location or arriving from outside the U.S. Pilots must compare the manifest data to the information on the passenger's Department of Homeland Security-approved travel document. For more information, visit www.cbp.gov.

Watch for DHS' Safety Rules for Large GA Aircraft

The Department of Homeland Security is proposing a large aircraft security program that includes a mandate for U.S. operators of aircraft exceeding 12,500 pounds maximum take-off weight to implement security programs that would be subject to compliance audits by TSA. The proposed regulation requires operators to verify that passengers are not on the No-Fly portion of the federal government's consolidated terrorist watch list.

The TSA also wants to implement baseline standards of security for general aviation operations with biennial auditing of the security program, require fingerprint-based criminal history records check and terrorist name check for flight crews, and require onboard checks for unauthorized persons, property and accessible weapons.

Christine Knauer, a freelance aviation writer, has more than 13 years experience writing for and about aircraft and avionics manufacturers, flight service centers, aviation technology and industry-related issues. A contributing editor for Avionics News, her articles also have appeared in Twin & Turbine Magazine, AutoPilot Magazine, American Bonanza Society Magazine, International Federation of Airline Pilots Association New Technology Journal and other industry publications.

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True Value

"It's the economy stupid."

- Bill Clinton

Bill Clinton used this quote during his successful bid for presidency against George Bush Sr. in 1992.



Here we are again. It's still about the economy; funny how H thinks keep repeating themselves and this time it may be a little different - at least that's what we are hearing. Housing prices are in the gutter, stock prices are down, General Motors is losing millions of dollars by the minute, Lehman Brothers is bankrupt and the list goes on.

Much later George W. Bush during his presidency said *"There may be some tough times here in America. But this country has gone through tough times before, and we're going to do it again."*

I'm not here to talk about the economy, at least not directly. My daily job is to manage a mid-sized company and like many of you I can't help but wonder what is on the horizon (not the one on your flight deck). From the news, one would believe that the economy is out of airspeed, stalled and in a nose dive. We know what happens after that, we pick up airspeed and pull out right?

The old adage of 'What goes up must come down' continues to prevail whether you are piloting an aircraft or are involved in the business cycle. But during these turbulent times, what can we do? A very successful friend of mine once said, "All you can do is ride the wave."

I think we can all agree that economic cycles occurred in the past and will continue to occur in the future. What can we learn from these and how should we react to them? We certainly have choices; we can follow the crowd who typically reels in their spending, waiting until the media tells them it's ok to be optimistic again. We could take a different strategy by looking for "True Value", with the knowledge and confidence that when the economic cycle completes, intrinsic value remains.

Value, what is it really? A simple definition is, "something is worth whatever you think its worth."

Think about that for a second...something is worth whatever you think its worth; that explains a lot. It explains why Textron stock dropped from the mid 60s to the teens in a few months. Do we really believe that the value of the company has dropped to a fourth of what it was worth a few months ago? Textron has the same facilities, same people and in many cases the same ability to earn profits going forward.

If we agree that "True Value" remains even if others don't, then let's assume this same philosophy about our aircraft

and the equipment within. If we decide to sell our aircraft in a down market, we will certainly lose real dollars. Too many of us fret over the value of our aircraft even when we have no intention of selling it; the "True Value" has remained unchanged.

Often we hold off on major purchases for our aircraft during a down market, thinking we will wait until better days, when a better strategy (assuming one intends to keep their aircraft) would be to make the necessary upgrades during a down economy.

Bargains abound in the current economy; companies are offering incredible discounts. Unfortunate for those companies, there are very few purchasers out there willing to spend money. Often discounting doesn't change the pattern, once the market rebounds; pricing goes back up and manufacturers can't keep up with the demand ...go figure. So in other words, we as consumers are essentially waiting for "things to improve" and in the end, pay higher prices. This pattern makes one suspect that consumers have not thought about the "True Value" of a particular purchase.

So how should we react to these business cycles? There is no one single clear path, yet keeping the correct perspective about the economy and its business cycles would certainly help. Knowing they occur and knowing that value is simply what we believe something is worth allows us to be more objective about the business cycle.

So what is your PC-12 worth? What is the "True Value" of a new flat panel glass upgrade with synthetic vision?

A very good friend of mine purchased a new Harley Davidson motorcycle and went searching for a helmet. He stopped in a local motorcycle shop and asked the owner which helmet he should buy; the \$150 helmet or the \$500 helmet? The motorcycle shop owner without knowing anything about economics simply asked...

"How much value do you place on your head?"

Paul De Herrera COO
Universal Avionics Systems Corp.
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Call Paul Rose For A Proposal

A Day At The Office...By Mark Smith

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I guess it's a reflection of the current economic situation that the charter market seems to have slowed a bit. Facing the slowing in business, I was glad to pick up a charter from Napa, CA to Dubuque, IA and return. Even better is that it was just an overnigher; meaning that I would only have to spend one night on the road.

The customer required an early morning pickup as he had a meeting to attend later that afternoon. The weather promised to cooperate with a high pressure spreading across from the west coast to the Mid-Atlantic states. That meant clear skies and light winds. Even the winds cooperated with a slight tailwind most of the way. An uneventful 5.7 hours later we landed on runway 31 at Dubuque Regional Airport after having only made one slight detour for a buildup over Wyoming. Even with the time change putting us into the afternoon, the buildups that dot the Midwest during the afternoon had failed to materialize. I like that.

The next morning I got my DUATS brief and filed for a 1PM departure. The green blob that had shown up on radar the day before off the coasts of Oregon, Washington and California had moved eastward and was approaching the eastern edge of Wyoming. The winds had not increased appreciably and promised to be mostly a crosswind rather than a direct headwind. An occluded front had moved into the Midwest, but at least the flight to Scottsbluff looked to be a repeat of the previous day. The good thing was we were leaving before the thunderstorm gods would be stirring and raising their clouds to heights above my capability and spitting out heavy rain, turbulence and lightning. Well, that was all good as long as we left early and headed west turning time backwards.

There is a saying about "the best laid plans" that depicts things don't always go the way we plan them. My passenger showed up three hours late. By this time the radar showed the green, yellow and red blobs of activity moving slowly eastward and becoming much more active as we moved later in the day. It was going to take me 7.4 hours to make it to Napa, so Scottsbluff offered a 2.4 hour leg where I could top off before I hit the weather. We were already 3 hours late, but the leg to Scottsbluff was uneventful. At FL280 we were above the scattered layers and the bigger buildups were mostly to the south, affecting Colorado. Traffic on center freq indicated that the only deviation requests were off in that direction, however most of the airliners were still searching for that altitude where there coffee cups showed no ripples on the surface. It didn't seem they could find smooth air anywhere from 310 to 410. I wanted to tell them that it was smooth at 280, but knew most of the carriers CFOs wouldn't allow them to burn the extra kerosene at my altitude.

After passing over 100 miles of under-cast, Scottsbluff came out in to the clear. Great, a visual approach with only a 20 knot gusty wind to identify the approaching

change in the weather. Topped off, I was ready to depart and make use of what daylight I had left and to escape the approaching front. After searching for my passenger, I found him at the airport restaurant ordering a meal. Another 40 minute delay put us further behind and the departure would be into a series of rain funnels, very dark clouds and lightning in the area. I chose to shallow out the climb to stay VMC out of the bottoms of the clouds that were exhibiting virga and to visually circumnavigate the rain funnels while still meeting the altitudes that Denver Center needed me to climb to in order to meet minimum IFR altitudes. I informed Denver that I was deviating north to find a route that would keep me out of the worst of the weather. I was able to finally climb to FL280 and found myself on top of most of the weather but was at 45 degrees off my intended course to Medicine Bow. Ten minutes further down the track I was able to work around a larger buildup and was cleared direct to Lucin.

Then the last bit of daylight closed down on me. I had over 4 hours left to go and Nexrad was nothing but yellow and red between here and the coast of California. Unable to see anything ahead, unless I wanted to turn on the Recognition Lights to confirm I was in cloud, it was me and the radar. I found that in that area at FL280 with tilt set at +1.7 and at 40nm range (ground clutter disappeared at around 30nm) I was able to detect and navigate my way through the mess. The next sight of terra firma came with a glimpse of the city lights of Salt Lake City. I had kept my wing light on for most of the time as I kept picking up ice at FL280 and -28C. Nothing really serious, but the boots had a difficult time shedding it.

Communications with center was pretty light so you tend to listen to all of the other conversations. After passing Salt Lake, a Cherokee called and asked for a flight following. He had departed Wendover and was on his way to the Salt Lake area. It was dark and there was a lot of weather in the area. The Cherokee pilot had climbed to 10.5 and was requesting vectors from Salt Lake even though he professed to be VFR in VMC. I have my doubts. The controller was doing his best to help the Cherokee, but without being IFR, there is little he could provide except in the form of suggestions. The MEA for that route was 13.5. If you have flown in that area, you will probably determine the lights of Salt Lake should be visible from Wendover at an altitude of 10,500 feet, thus my doubts about the Cherokee being VFR. The question came up about several mountains along the Cherokee's route of flight that extended above his flight altitude. After some subtle coaxing by the controller and the confession the Cherokee pilot did not have the mountains in sight, the pilot made the decision to turn around and return home. I let out a breath of relief as I envisioned the conversation was going to end with an ELT going off. I give the Cherokee pilot (and the controller) kudos for realizing that things were not safe and calling it off before the building errors brought it to a tragic end.

(Continued on Page 39)

(Continued from Page 38)

Soon enough I was approaching the Sierras over Reno and starting down towards Napa. The winds over the Sierras, as the air is compressed between the mountains and the overlying atmosphere, began to increase and reflect the roughness of the terrain. The headwinds increased to 75 knots and slowing to penetration speed made for a rough ride through to the Sacramento valley. Along with the turbulence comes much more moist air, meaning more and heavier icing. Fortunately as the ice was thicker, the boots worked their magic better. The weather at Napa had been 4900 broken on the METAR, but the ASOS (the tower was closed at this late hour) now gave 300 few, 900 broken, 2100 overcast with the winds 190 at 18 gusts to 24. That meant a localizer approach to 36 with a circle (at night) to 18. Circling would be close to minimums (600 ft). What a way to close out a long day. Never one to turn down any assistance, I requested NorCal vector me to final for the approach. It made for a longer trip around the Bay Area (Oakland and San Francisco were almost clear and provided me with a great alternate should Napa be worse than forecast) but eased my workload. Descent from the FAF brought Napa in to sight and the rest is history.

My final leg of the night was returning home to Sacramento. I filed IFR and was off. Mather was reporting 12,000 broken with doable winds. I broke out 10 miles from the field at around 3,000' for the visual. A long day, filled with fun, experiences, learning, nervousness, and challenge.

Wouldn't trade it for a desk any day...

Mark Smith – Chief Pilot
N629MC
Rocklin, CA

One last comment...Maybe because of the altitudes that we use, the controllers have been great in providing direct to routings. Many times it has been given without asking. Airliners ask for and are given direct to routing as a routine function. GPS routing allows us to file almost direct most of the time, but in those instances where airway routing is used, ask for "direct to".

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Simcom Q&A

Ted Otto

totto@simulator.com

FALL 2008 QUESTIONS and ANSWERS!

Question #1

Is a successful Autopilot Test required for flight?

ANSWER: Autopilot test is not required for flight. However, the autopilot will not operate without a successful test. And, for the NG owners, there is no test of the AFCS for up to complete; it's automatic.

Question #2

For A/C with dual AHARS of ADAHRS, what indication will we receive if both pilots are using the same system?

ANSWER: If both the right and left side crews are using the same AHRS, or ADAHARS, a box will show up on the EADI showing which system both sides are using.

Question #3

What does the acronym M.E.M.S. mean for the MEMS gyro?

ANSWER: The acronym M.E.M.S. stands for Micro Electronic Machine System.

Question #4

On Series 9 & 10 A/C ... the LG IND circuit breaker trips (battery bus), what indications can we expect?

ANSWER: Loss of the battery buss, of pulling the LG IND circuit breaker produces an unexpected indication. We might expect to see no landing gear indications. However, with the PCL at idle you will see both red and green indications for the main gear, and a red indication for the nose gear.

WINTER 2008 QUESTIONS!

1. Reference to oil servicing, when is the engine considered HOT and COLD, according to the POH?
2. Most everyone knows the required tire (TYRE) pressure for the main and nose tire, but what are the speed limits for both tires?
3. What are the recommended extended storage procedures for Stage 1 and Stage 2 in the POH?
4. There is a mooring placard at the nose gear. Where are we supposed to attach the mooring line?

Journey To The Galapagos

Flying a PC-12 brings the ultimate fun into private aviation experience. With the comfort, the speed, the pressurization and the range, you can access most anywhere in the world. This article will describe journey earlier this year to the land of Darwin - the islands of the Galapagos. Located 604 miles off the coast of Ecuador in the Pacific Ocean., they are a province of Ecuador and the islands are all part of Ecuador's national park system,

The Galapagos

The Galápagos Islands, an archipelago of volcanic islands situated around the equator, consists of 13 main islands, 6 smaller islands, and 107 rocks and islets. It is believed the oldest island formed between 5 and 10 million years ago while the youngest islands, Isabela and Fernandina, are still being formed.

The Islands were first charted in 1684 by the buccaneer Ambrose Cowley. He named them after some of his fellow pirates or after the English noblemen who helped the pirates' cause. More recently, the Ecuadorian government renamed most of the islands with Spanish names. While the Spanish names are official, many people continue to use the older English names which were the names used when Charles Darwin visited.

Air Journey set its eye on flying to the Galapagos back in 2007. Many subjects had to be researched. First, were private planes allowed on the islands? Was there refueling capability available? What types of authorizations were required, etc?



While the process started slowly, we were able to knock out every one of the questions. For the question of whether you can fly your plane to the islands of the Galapagos, the answer is yes. But you will require authorization from the Ecuadorian Civil Aviation. You then have to arrange to send jet fuel in drums to the islands for refueling since there is no refueling capability there.

We learned we have to fly out to the Galapagos via the airport of Guayaquil in order to get the airplane sprayed for insects, bugs, and any type of virus' that are not present on the islands. These sprays are applied to the outside of the plane as well as the inside of the plane.

When all of the hurdles of authorizations, checking fuel and reviewing the parking were done, we were ready to go and fly to the islands. And off we went. The PC-12 was part of a group of turbine aircraft made up of TBM's and a Beech Duke Turbine Conversion. While the leg from Florida to Guayaquil was not an endurance record, the close to eight hours flight time was certainly a lesson for the other short leg airplanes.

We met with the rest of the group that evening in Guayaquil and got ready for an early flight to the Galapagos in the morning. Our destination airport was Baltra, 635 miles due east of the Pacific Coast of Ecuador in the middle of the Pacific Ocean.

Getting There

The range of the PC-12 will allow the plane to go non-stop from Florida to Guayaquil, Ecuador. On our journey we preferred to organize stops after 3-4 hours of flight. That's why on this particular journey we made stops in Cayman for lunch, then Panama for a couple of days to visit the canal and then from Panama down to Guayaquil.

The distance from Panama to Guayaquil is 668 nautical miles. Since the flying regulation is handled by the ICAO rules, single engine aircraft - piston or turbine - cannot be more than 150 nautical miles off shore. Over the leg of Panama to Guayaquil which is 670 nautical miles straight south, the rules make us skirt the coast of Colombia en route to Cali where we will turn south before reaching the Cali VOR and then direct to Guayaquil. That will add about 100nm to the route.

In Guayaquil the plane will go through decontamination inside the cabin as well as outside and the paperwork will be processed in order to fly to the islands. At the time of the year we did the journey, late January to early February, weather is not an issue along the shore line and in the islands. The same is true for the wind since we are right on the equator.

The next day we launched west over the emptiness of the Pacific Ocean en route for the Galapagos archipelago. The first island we'll encounter is the island of San Cristobal.

(Continued on Page 42)



THE GALAPAGOS (Continued from Page 41)

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Our destination is the Santa Cruz. The total distance between Guayaquil and Santa Cruz is 635 nautical miles. It's a very simple route since we are just following the route UW2 from the Guayaquil VOR (GYV) to the Galapagos VOR (GLV). Radio contact is sporadic on the route of flight but reporting can be handled through any airliner if you happen to encounter one.

Landing

The airport on the island of Baltra, called Seymour, offers a single asphalt runway 7,900' long at an elevation of 145'. There is no radar control environment. Parking is pretty straight forward and refueling out of drums can be done on arrival or departure by choice of the pilot.



The pier to board is close to the airport, but since Air Journey plays it safe, we decided to add one night prior to the cruise to face any weather, mechanical or ATC delays. The trip to our hotel takes about 1½ hours involving a taxi, boat and bus.



Handling

This is certainly where part of the fun disappears while flying to South America. The countries of Ecuador and Peru, while friendly to general aviation, have a tendency of associating airplane ownership to deep pockets. And the cost associated by landing in Ecuador is roughly \$1,000 per landing. Because of the fuel capability and capacity of the PC-12, a refueling is not required in the Galapagos. If we had to do so, expect to pay about \$15 per gallon of jet fuel out of the drum.

Visiting the islands of the Galapagos

Because we are on different islands, the best and most unique way to see the most, to enjoy the particularity of each place, to visit the Darwin Center and to even do diving is via cruise ship. There are different facilities from your own private yacht which can be chartered (the Catamaran Millenium at www.GalapagosYachts.com), deluxe motor yachts (Eclipse at www.discovergalapagos.com) to cruise ships including the

Explorer II and the Santa Cruz (www.discovergalapagos.com).

Returning Home

The established and published route is to reverse the outbound portion by flying back to Guayaquil and refuel and then back to Panama. After studying the charts, it appears that the distance between Guayaquil and the Galapagos (at 635 nautical miles) is the same as flying back to San Jose with a beautiful island in the middle called El Coco. For 2009, we are looking at getting authorization to use that route to speed up the return process.

Thierry Pouille
Air Journey
www.AirJourney.com



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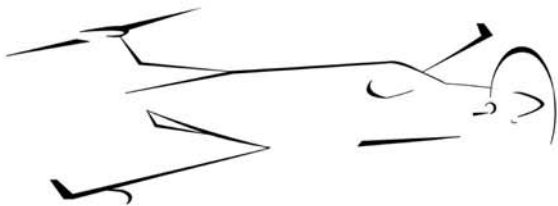
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interests.

Press Releases

September 29, 2008

Banyan Avionics Continues Expansion of its High Speed Data Program

Banyan's avionics department has recently completed a High Speed Data/WI-FI installation on a Boeing Business Jet (BBJ). The installation was done at the customer's home base during a minimum maintenance inspection. The existing Honeywell MCS-6000 Satellite Communication system was retrofitted with a Honeywell HD-710 and augmented with the EMS CNX-200 Router. Voice and Data services were provided by industry leader Satcom Direct. The installation also included removing the legacy Magnastar telephone system and replacing it with the Iridium based ICS-200 with six wireless handsets from International Communications Group (ICG).

"High Speed Data/ WI-FI is what business travelers want, they have it in the workplace, in their homes, even in the local coffee shop, and so why not have it when on board their aircraft. The days of traveling on a corporate or commercial aircraft and arriving at your destination only to hurry to the hotel and hook your laptop to the DSL line are over, VIP clientele desire better and now that technology has arrived. Passengers can enjoy the same Blackberry experience and Internet surfing they enjoy every where else," says Brian Wilson, Banyan's Director of Avionics.

"I was very pleased with the professionalism and expertise provided by the Banyan Avionics team. The flexibility they offered by doing the installation in my hangar and working with our own interior shop, allowed me to co-ordinate other needed projects on the aircraft," stated Jeff Klingenberg, Director of Maintenance on the BBJ. "Banyan provided comprehensive answers to my questions before and during the installation and even provided additional assistance with other interior projects to ensure our aircraft was delivered in a timely manner," said Klingenberg.

With fuel prices at an all time high and the U.S. Dollar at an all time low, Wilson has also developed an avionics travel team that is available for remote work in the United States, South America and Europe. "The projects we have done in Europe saved the customer a substantial amount since payment was in U.S. Dollars instead of the Euro," stated Wilson.

Banyan's avionics department has dedicated hangar space, a structural team, and technicians available for comprehensive avionics installations, repairs, and modifications. Banyan is recognized for top regional sales for Rockwell Collins, has earned FAA Diamond Awards, and is an authorized dealer for all major avionics manufacturers. Banyan is certified as both an FAA and EASA repair station and has also earned repair station designations for Argentina, Brazil and Venezuela.



FOR IMMEDIATE RELEASE

WESTERN AIRCRAFT SELECTS AERO AIR AS PILATUS PC-12 SATELLITE SERVICE CENTER



WESTERN AIRCRAFT

Boise, Idaho
September 25, 2008

Western Aircraft, Inc. Pilatus Center has appointed Aero Air of Hillsboro, Oregon an authorized satellite service center for the Pilatus PC-12.

Western Aircraft's COO, Allen Hoyt, stated that "Western Aircraft is pleased to announce that Aero Air is the latest company to join the Pilatus PC-12 support team as our newest Satellite Service Center. There are about 140 PC-12s in the northwestern US, and we have always had the philosophy that new PC-12 owners will have service facilities close and convenient to their home bases." Aero Air's proximity to Portland provides operators in Oregon and southern Washington with another option for maintenance.

With a history dating back to 1956, Aero Air and its 120 employees and 75,000 square feet of hangar space are ready to serve PC-12 customers in the North West. Aero Air is an Authorized Honeywell Dealership and we also offer a full range of inspection/hot section and overhaul services for the PWC PT-6A-67 engine.

Western Aircraft has been the Northwest's authorized Pilatus PC-12 Sales and Service center since 1996, and routinely maintaining 80 to 90 PC-12s per year. In 2004 Pilatus Business Aircraft Ltd. recognized Western Aircraft as The Pilatus PC-12 Dealer of The Year along with The Excellence in PC-12 Service and Support Award. With the growing fleet of the PC-12, and Western's commitment to high levels of excellence, the selection of Aero Air as a satellite service center was a perfect fit.

The new relationship between Western Aircraft and Aero Air will benefit both of these companies and also the PC-12 owners in this region of the country. For additional information on either company, please visit their respective websites: Western Aircraft—www.westair.com and Aero Air—www.aeroair.com.

*Pilatus Aircraft, Ltd.
Stans, October 6, 2008*

PILATUS RECEIVES EXCELLENT FEEDBACK FROM HONEYWELL APEX USERS

With deliveries of the PC-12 NG well underway, early feedback from operators has proven that Honeywell's Primus Apex avionics system was an excellent choice for the next generation of this legendary aircraft. The PC-12 NG was announced during NBAA 2006 with the official launch taking place one year later at NBAA 2007. The Honeywell Primus Apex system was developed specifically for the PC-12 NG to reduce pilot workload and improve systems integration. As a derivative of the Honeywell Primus Epic system found in much larger aircraft, the Primus Apex system benefits from a wealth of research and development.

Speaking from Broomfield, Colorado Mr. Nicolas Newby, VP of Customer Service at Pilatus Business Aircraft, Ltd. commented: "Deliveries of the PC-12 NG began in May 2008 and we have now handed over nearly 50 examples of this enhanced version to customers worldwide. The global fleet of PC-12 aircraft currently surpasses 800 units and Pilatus continues to evaluate customer feedback as part of their constant improvement policy. We are delighted to learn that the Honeywell Primus Apex system has been well received by users and we look forward to delivering system growth and enhancements over the life cycle of the avionics platform."

Featuring a number of significant improvements needs of an ever changing marketplace. As aircraft capability and the worldwide fleet expand, the PC-12 NG continues to find new interest from a wide variety of operators.

*Pilatus Aircraft, Ltd.
Stans - October 6, 2008*

PILATUS FINDS UNPRECEDENTED INTEREST FROM JET CUSTOMERS

Pilatus notes a record level of interest from Jet customers. From global economic corrections to record oil prices, there is little doubt that change can occur very quickly indeed. However, the old saying that every cloud has a silver lining could well be true in the case of Pilatus and their new PC-12 NG. Apart from the strong order book that Pilatus currently enjoys, PC-12 dealers report significantly increased interest from the tier of jet customers immediately above the famous turboprop. Pilatus Centers from Australia to the USA report that customers are expressing a desire to step out of their thirsty jet aircraft in to the ultra efficient PC-12 NG. With a cabin size comparable to jet aircraft costing more than twice as much and a fuel burn saving of up to 50 percent, the case for the PC-12 NG has never been stronger.

Speaking from Pilatus headquarters in Stans, Switzerland, Mr. Oscar J. Schwenk, Chairman & CEO of Pilatus Aircraft Ltd commented: "Pilatus takes great pride in its ability to offer the marketplace a thoroughly efficient workhorse with versatility and capabilities that rival those of aircraft costing twice as much. Our ongoing commitment to the PC-12 continues through our recent introduction of the PC-12 NG which offers pilots sophisticated flight management capabilities and system integration to further enhance operating efficiencies."

Featuring a number of significant improvements over its predecessor, including a fully integrated Honeywell Primus Apex avionics system, a completely new cockpit designed by BMW Group DesignworksUSA, and a more powerful Pratt & Whitney Canada PT6A engine, the PC-12 NG continues to lead this important category through innovation, quality and exceptional customer support. The demand for the world's best selling turboprop continues unabated as the global fleet now surpasses 800 units. Pilatus is proud to offer the market a viable alternative to less fuel efficient aircraft with the associated environmental benefits.



Photo Courtesy of Don Peterson

News, Announcements, Notes...

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To all our POPA Members and their extended Families, we wish you Happy Holidays and a Happy New Year!



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News, Announcements, Notes (Cont.)...

PILATUS 2009 CALENDAR

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March 13, 2009	Regional Ops Conf. San Diego, CA
April 21-26 th	Sun-N-Fun Lakeland, FL
May 21-23 rd	AERO Expo Acapulco, MX
June 4-7 th	POPA Memphis, TN
July 21-25 th	ALEA Savannah, GA
July 27-Aug. 2 nd	EAA Oshkosh, WI
September 16-20 th	Reno Air Races Reno, NV
October 20-22 nd	NBAA Orlando, FL
October 28-31 st	MMOPA Scottsdale, AZ
November 5-7 th	AOPA Tampa, FL

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#643 N643PC	Lance Bearden Lubbock, TX
#1021 N324BK	Rodney Barreto Coral Gables, FL
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The Pilatus Owners & Pilots Association has been granted exemption from income tax under Section 501(c)(7) of the United States Internal Revenue Code. The Internal Revenue Service (IRS) has classified POPA as a "social club" and has assigned Employer Identification Number EIN #31-1582506 to our Association. Annual dues are not deductible as a charitable contribution, but members will likely be able to deduct annual dues as a business expense. Consult your tax advisor for details.

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