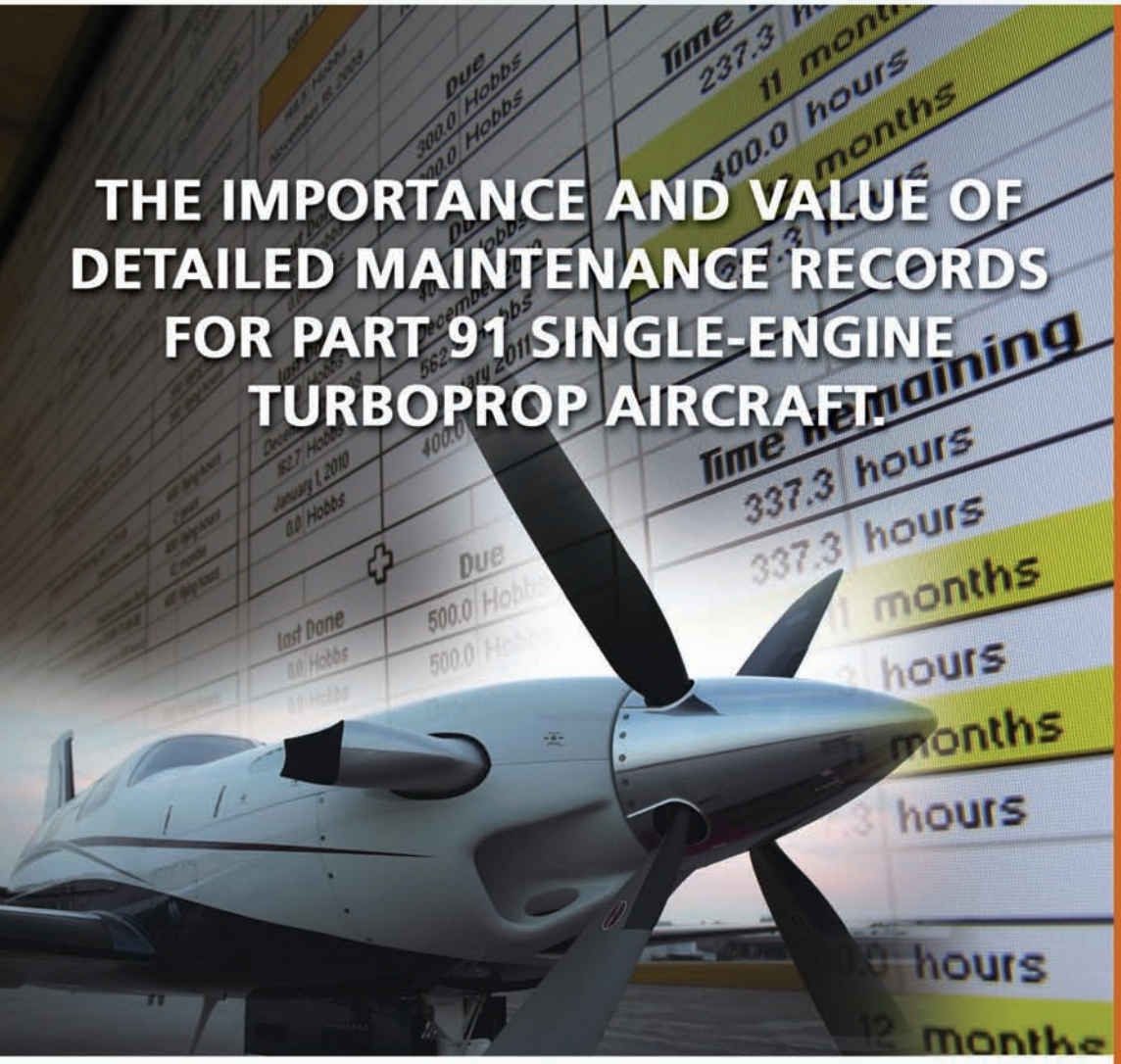
SPRING 2010

OWNER PILOT

Advantage

A Magazine for Owner/Pilots from Skytech, inc. Publications



THE IMPORTANCE AND VALUE OF DETAILED MAINTENANCE RECORDS FOR PART 91 SINGLE-ENGINE TURBOPROP AIRCRAFT.

All maintenance records, whether the airplane is piston or turbine powered, are extremely important. Lose a logbook without any backup and you will feel as if your dog just escaped from its leash and ran into the woods at night. You won't sleep until the dog or your logbook is found.

Turboprop powered aircraft offer excellent reliability, performance and capability to their operators. Along with these operational advances, turboprop aircraft maintenance requirements and record keeping can be understandably more detailed and structured. FAR 91.409(e) states the following:

(e) Large airplanes (to which part 125 is not applicable), turbojet multiengine airplanes, turbopropeller-powered multiengine airplanes, and turbine-powered rotorcraft. No person may operate a large airplane, turbojet multiengine airplane, turbopropeller-powered multiengine airplane, or turbine-powered rotorcraft unless the replacement times for life-limited parts specified in the aircraft specifications, type data sheets, or other documents approved by the Administrator are complied with and the airplane or turbine-powered rotorcraft, including the airframe, engines, propellers, rotors, appliances, survival equipment, and emergency equipment, is inspected in accordance with an inspection program selected under the provisions of paragraph (f) of this section, except that, the owner or operator of a turbine-powered rotorcraft may elect to use the inspection provisions of §91.409(a), (b), (c), or (d) in lieu of an inspection option of §91.409(f).

see *Maintenance Records* on page 4

Back From the Dead.

It was a short 18 months ago that some politicians in this country were throwing huge shovels of dirt on the face of General Aviation. The fact that some auto executives used the wrong piece of equipment to travel to Washington cast a bad shadow on our industry.

If you fast forward to today, the use of General Aviation equipment was a shining star in the tragedy of the Haiti earthquake. Aircraft of all types converged on the island nation in their time of need, most being totally funded by the owners. One of the few industries that the United States leads the world in is the production of GA airplanes, and we should be proud of that fact.

In this issue you will read about some of the hero's that stepped forward to help the Haitian people. The fact is however, that we need to keep up the efforts on behalf of our industry every day. We salute the work that AOPA does on behalf of all the aircraft owners and pilots, and are proud that they selected Skytech to be the maintenance provider on their new Cessna Caravan. For those that have not had the chance to experience the Skytech Advantage as AOPA has, we are only a phone call away.

Skytech, Inc., publisher of this magazine is an aircraft sales and service company with FBOs in Westminster, MD (DMW), Rock Hill, SC (UZA – Charlotte Metro Area) and Administrative Headquarters in Baltimore, MD (MTN).

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

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OWNER PILOT Advantage

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THE ADVANTAGE MAGAZINE STAFF REQUESTS YOUR FEEDBACK!

We would greatly appreciate hearing from you! Please tell us what you think of *Advantage* magazine and offer any thoughts you have for improving this publication. Our goal is to provide helpful, interesting information that you enjoy reading.

Your opinions, suggestions, as well as ideas for new articles and content are important for continuing improvement and growth that will serve all our readers.

Email us at:
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Thank you!

THE GLOBAL MARKET.

If you are angry about outsourced jobs, be happy about outsourced airplanes. Thanks to BRIC – Brazil, Russia, India and China – activity has resumed and prices have stabilized. For some dealers, there has been more activity in the last sixty days than the last six months. But, let's talk prices. Most markets continue to be, at the very least, price-sensitive, if not price-driven.

Two developments from the last year or two: First, the obvious – the Great Recession still lingers. Until a recovery gathers momentum, buyers will remain cautious. Secondly, we have become a nation of bargain hunters. That's ok if we're talking toasters or cars, but airplanes?! Airplanes are hand-made, custom-built machines that should be flown by professionals and maintained with great care. The cheapest one is probably not the best choice. This 'get a deal no matter what it costs' mentality is a bad thing for the American buyer, because buyers from BRIC, and other countries, are picking off many of the better airplanes – and with much less price resistance.

For most of 2009, the good airplanes were cast into the moat with the average. Now the gap between low time, excellent and their less fortunate brethren has returned – and is widening. The rough airplanes are still depressed, but prices for ready-to-go models have bottomed out – and possibly firmed up a bit.

Piston Singles

Activity is still not what it should be, but definitely improved. As mentioned before, the level of interest and selling price depends on the geography of the buyer. Offshore buyers have provided a kind of aviation stimulus package by regularly outbidding domestic shoppers. This has established a floor under the market and even put upward pressure on some airplanes. The Vref Light Single Index was flat for the recent quarter. Complex Singles managed a tiny increase. See VrefOnline.com. Most Beechcraft singles are unchanged; older Cessna 172s & 182s, up slightly; Cessna 210s creep up after a very long flat period; most Mooneys leveled out; most Pipers unchanged; Cherokee Sixes managed an uptrend. Another positive influence in the single-engine market is a thriving light sport segment. If a new light sport airplane costs more than $100k, a used Bonanza, 210 or Mooney 201 at $100k, looks like a steal.

Turboprops

Though prices may be flat, activity continues to move up. Price-conscious buyers are moving in, before prices move up. The Vref Turboprop Index is unchanged for the second quarter in a row. A flurry of year-end activity helped remove some of the better deals and the most motivated sellers. Historically, Beech King Airs are usually the first turboprops to recover. However, no upward movement is detected at this time. Cessna Conquests, active, but flat; older Avantis, PC-12s and TBMs down slightly; Piper Cheyennes and Twin Commanders, stable.

The Year Ahead

If you are reading this, congratulations on surviving the toughest year general aviation has ever known. In early 2009, it seemed that no one would ever buy, sell, or get a loan for an airplane again. Now that there is a market, let's look at who is buying what. Sometime during the last recovery, 2006, 2007, it became clear that aviation was going global. Sure, the housing bubble was a good short-term thing that drove the U.S. economy for awhile, but emerging nations were largely responsible for taking aviation to record highs. The current recovery, if you agree there is one, is being driven mostly by exports. Buyers from BRIC, to name a few, are concentrating on new or like-new airplanes. High time or decades-old airplanes are being left for U.S. consumption. It may prove easier to find a wife for George Costanza in 2010, than a buyer for a 1979 runout in need of paint. •

TAX FACTS
FOR OWNER/PILOTS

ARE YOU A CANDIDATE FOR A PIPER MATRIX AND $320,000 OF INCOME TAX DEDUCTIONS IN 2010?

Consider the following scenario:

You (or your employee) have a Monday morning meeting with a prospect located 500 miles away. In order to make the appointment you will need to leave Sunday

afternoon. Allowing for drive time, shuttle time from parking and getting through security, you will need to leave home at 1pm for the 4pm departure from the big regional airport. If you're fortunate there will be no delays and you will make your connecting flight arriving at your destination Sunday evening for another night in a hotel. Your meeting goes well but now you have to reverse the process. Assuming everything is on time you won't miss your connection, and you'll arrive home late Monday evening, long after dinner and bedtime for the family.

Consider the alternative:

You leave home on Monday morning at 7:00am, drive to the local general aviation airport, board your personal aircraft piloted by a professional pilot. You polish up your PowerPoint presentation during the three hour flight and land at a general aviation airport close to your prospect's place of

business. After the meeting, you board your aircraft for the trip home. You arrive home relaxed and in time for your child's little league game.

Tax Year	2010
Purchase Price	$869,000
Potential Tax Deductions due to Depreciation	$318,600
Potential Income Tax Savings due to Depreciation*	$127,400
Potential Sales Tax Savings (6%)	$52,140

** This illustration assumes the purchase of a base price $869,000, 100% business use Piper Matrix by September 30, 2010 and the combined federal and state income tax rates of 40%.*

Do you have trouble retaining key employees because of quality of life issues relating to business travel? Have you reviewed your travel and entertainment budget? Are you looking for ways to trim expenses relating to meals, hotel, rental car and airfare? Does your business travel take you to cities that "you can't get there from here?" Are you getting tired of the necessary but ever increasing time consuming security measures at commercial airports?

Welcome to the possibility of solving many of these problems with a personal general aviation aircraft while realizing a tremendous income tax benefit. You can purchase a state of the art Piper Matrix, hire a professional pilot (or fly it yourself), expand your business, provide better customer service, improve the morale of your employees, and realize a $127,000 income tax reduction come April 15, 2011.

The interaction between the Internal Revenue Code and the Federal Aviation Regulations requires the advice of an aviation tax specialist in order to create an ownership structure that will maximize your income tax benefits and keep you in compliance with the myriad of federal regulations. Please contact Aviation Tax Consultants (ATC) for a no-obligation review of your current business and tax structure and to determine if you are a candidate for a business aircraft. •

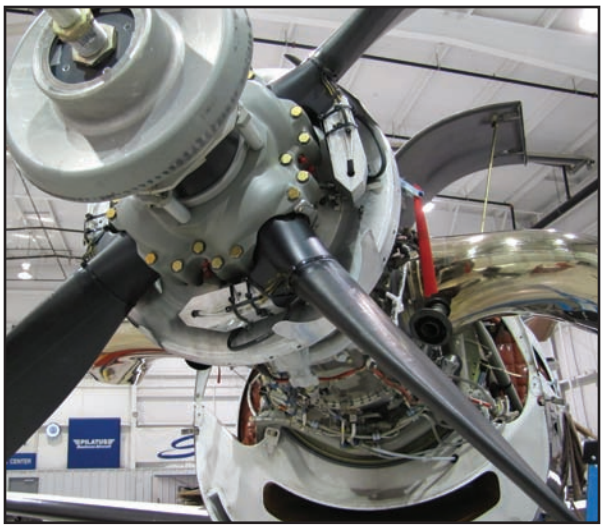
Daniel Cheung, CPA,
Member

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

FAR 91.409(f) continues by stating that aircraft operating under the described definitions must comply and show records of approved inspections programs. For aircraft operations under Part 91 the two options that exist are "A current inspection program recommended by the manufacturer" or any other inspection program that is approved by the Administrator.* In other words, these airplanes must adhere to approved maintenance plans and have documentation that highlights the status of inspections and life-limited parts.

In all of the FARs mentioned, one exclusion stands out. Nowhere does it indicate that this regulation applies to single-engine turboprop aircraft. A "Turbopropeller-powered multiengine airplane" is the only variety turboprop mentioned. Does this mean that Part 91 operators of single-engine turboprops are exempt from such detailed maintenance procedures and record keeping? Legally…yes, however, working with your trusted maintenance shop to find a derivative of these standards that fits your particular application is a very wise and accepted practice that can increase the safety, reliability and overall value of your single-engine turboprop. The manufacturers' inspection programs were developed as a standard for maintaining your airplane to manufacturer specifications and should be closely followed regardless of the number and type of engine your airplane uses.

The FARs lack of mentioning single-engine turboprops is likely a result of when it was written and not a judgment that single-engine turboprops don't require detailed maintenance and record keeping. Looking at the General Aviation Manufacturers Association (GAMA) yearly statistical reports, the rise of single-engine turboprops can clearly be seen.



Type of Turboprop	1989 Report	1999 Report	2009 Report
Two Engine	5,779	4,939	5,456
One Engine	N/A	650	3,450
Other	185	29	N/A

Information collected from GAMA www.gama.aero

The reason "turbopropeller-powered multiengine" airplanes, in addition to the others mentioned, are required to perform such detailed maintenance and keep such complete records are the same reasons an operator of a single-engine turboprop should. The difference is that the Part 91 single-engine turboprop operator is not required to adhere to such standards per FAA rules. A 50 hour a year single-engine turboprop that is flown in good weather and only on Sundays is probably not going to need the same oversight as a corporate aircraft that sees in excess of 300 hours a year in all types of weather. Work with your shop to determine what is suggested for your particular aircraft and situation. Frequency of use is not the only deciding factor. Even though an annual inspection is all that is required by law under part 91 for single-engine turboprops, the safety afforded by closely following a manufacturer approved inspection program and tracking all necessary information is tangible and should not be overlooked.

Inspection Intervals

Chapter five of the manufacturer's maintenance manual specifies the maintenance and inspection schedule required for your aircraft, engines, component parts and appliances. This document provides a detailed description of the necessary actions and intervals between those requirements. The intervals are expressed as hours of time in service, calendar intervals or cycles. The inspections are designated as Phase or Type, normally occurring at 100-300 hour intervals. Operators of single-engine turboprops can work with their shops to determine inspection intervals that are tailored to their airplanes' yearly usage.

There are usually more life-limited components requiring ongoing maintenance or inspections on turbine aircraft compared to piston powered airplanes. A few potential examples of these items are landing gear actuators, fuel spark igniters, pressurization components, propellers, wings, etc… Depending on the airplane, the list can be long and tracking it requires a detailed approach.

It is very important to keep a log of the cycles on your airplane as this is the key number used in determining whether certain items are in need of

see ***Maintenance Records*** *on page 5*

continued from page 4

overhaul/replacement or have useful time remaining. For example, when no cycle information is known, engine shops tend to lean on the conservative side and overhaul or replace items that may not need the work. This can represent a major expense to the owner and could have been avoided by simply keeping a cycle log. If you aren't already, consult your shop to determine the parameters needed for your cycle log.

In addition to life-limited items, tracking the status of all applicable Airworthiness Directives (ADs), Service Bulletins (SBs) and Service Information Letters (SILs) is a necessary and important part of maintaining your aircraft to the highest standard.

Methods of Tracking

As with all airplanes, the responsibility of ensuring that the aircraft is maintained in airworthy condition falls on the owner or operator. There are several options available for owners and operators to help manage the inspection and maintenance status of their airplanes. Programs such as the CAMP Maintenance Management service, allows you to accurately track and predict all the maintenance requirements of your aircraft. Certain top-tier maintenance facilities offer similar in-house services to their customers at a nominal charge. Either way, keeping good up-to-date records is extremely important in both the safety and value of your airplane.

Pay Now or Pay Later

Your airplane may represent a substantial asset of your business or personal portfolio. When or if it comes time to sell your aircraft, a potential buyer is going to want evidence that their purchase is maintained to the highest standards possible. Anything less is going to subtract from the value of the airplane. The benchmark most pre-purchase inspections will consult is the manufacturers' inspection program. Maintaining your aircraft to those standards and possessing detailed and organized reports of inspection status, life-limited items and any applicable ADs, SBs or SILS will provide a future prospective buyer with a clear picture of the information needed to make their decision. If such records are not kept, it can very easily detract value or cause the seller to shell out major expenses to bring their airplane to industry accepted standards for the sale.

The performance and capability of single-engine turboprops match and sometimes surpass those of comparable multi-engine airplanes; all while enjoying single-engine simplicity and efficiency. In a lot of ways, a snapshot of the current fleet is proving that many of the single-engine turboprops in service today are of newer technology simply from the shear fact that they didn't exist ten years ago. The single-engine turboprop is a growing commodity that has proven it belongs. Reliability and safety records back up such claims. Maintaining these aircraft to the highest standard possible is necessary in continuing the single-engine turboprop's climb. It is in the best interest of all parties that you work closely with your trusted shop to determine the maintenance plan and recording option that works for your application. There is no one right answer for everyone, but as in most areas of life and business, being proactive has its rewards. Oh yeah, and remember to keep track of those cycles! •

Skytech offers maintenance inspection and component life-limit tracking services to their customers at a very nominal fee. Contact Skytech for more information.

* Consult FAR 91.409 for a complete breakdown of the regulation.

SERVING GA:
AOPA IS LEADING BY EXAMPLE.

General Aviation has many unsung heroes that are constantly in the trenches fighting for the rights we love and use every time we set foot in our airplane. The Aircraft Owners and Pilots Association (AOPA) is one of the largest contributors in this constant battle. Founded in 1939, the issues in focus may have evolved, but AOPA's mission statement has remained very much the same. AOPA is poised to protect the interests of General Aviation while keeping flying safe, affordable and enjoyable for all. This means bringing their message everywhere from Capitol Hill, to mainstream media and every town from coast to coast.

The enormity of AOPA's mission requires that it utilizes the very tools it works tirelessly to protect. Like many businesses and individuals, their job would be immeasurably harder if not impossible if the only option was reliance on the airlines for transportation. Until recently, AOPA's fleet consisted of a Bonanza and Cessna Citation for business use and executive/staff transport. These airplanes worked well, but left a gap that prompted a search for a new member of the fleet. In 2009, after an exhaustive search for the right airplane a Cessna Grand Caravan was added to the mix.

The AOPA Cessna Grand Caravan

AOPA's Grand Caravan is equipped with Garmin G1000 avionics, a comfortable 10-place interior, the new TKS anti-icing system and all of the other features that make the Caravan such a useful tool for so many. Internally referred to as a "comfortable mobile office", the Caravan has the ability to move a lot of staff, cargo or both - all while maintaining productivity. Additionally the Caravan allows AOPA to access airports both big and small in support of their mission. In reference to the Caravan's rough and short field capability, it was said that "if you can't go into an airport with the Caravan, you probably shouldn't go - period". Currently AOPA's membership is holding steady at around 415,000 strong. The Caravan allows AOPA President Craig Fuller and other AOPA staffers to visit many of these members and the key decision makers that affect them along with the supplies needed to support the mission. When asked about the Caravan, Chris Dancy, AOPA's Director of Media Relations, said "the Caravan is a marvelous fit for AOPA and fills so many needs - not the least of which was demonstrating the utility of GA." AOPA's Caravan has recently been fitted with a very appropriate "N" number. N394GA signifies the founding year for AOPA - 1939 – as well as a core synopsis of their mission – 4 General Aviation.

12 Meetings + 2 Speeches + 7 States + 10 Days = 1 Caravan

The AOPA Foundation, Inc. is a tax-exempt charitable, educational, and scientific organization that educates the public on the value of general aviation. The AOPA Foundation works to improve aviation safety, preserve and improve community airports, and encourages learning to fly for career and personal benefit – all in the interest of ensuring the future of general aviation in America. Karen Gebhart, the AOPA Foundation President, recently flew the Caravan in support of this goal on an East to West coast trip of more than 12 meetings and two speeches across seven states in 10 days. Five people embarked on the journey in the Caravan from AOPA's headquarters in Frederick, Maryland and were able to conduct business along the way. As Karen wrote in her blog:

"…we literally set up a mobile flying office – with four computers humming away, intermittent Internet access en route and office supplies from a printer to cameras to capture the trip. We were ready for anything along the way. One thing we can say for certain, the Caravan holds a lot of cargo! We packed for work, meetings, dinners, a couple of pilot group speeches I will be doing on the back end of this trip, and clothing for three parts of the country with various Wx. We could never have accomplished this trip with so many stops and so much gear any other way than GA."

To read more about this journey that clearly shows the usefulness of GA that we all know and appreciate, visit http://blog.aopa.org/outreach/?cat=3.

Working on Both Fronts

Adding the Caravan to AOPA's fleet has created new opportunities. In situations where a face-to-face meeting is the best way to conduct business, the Caravan, with its people- and cargo-hauling capabilities, has allowed crucial staff members who might otherwise have had to stay behind to instead be a part of the meeting. And staffers making a Caravan trip for the first time have invariably come away impressed its comfort and – more importantly – its utility as a mobile office.

Chris Dancy added that it is imperative to have the Caravan available and maintained to the highest standard. "Having the service close by and responsive is incredibly important to us." At Skytech we hope to do our part in supporting AOPA's very worthy cause.

Look to see AOPA's Caravan at various events throughout the year including Sun N Fun, Oshkosh and various airport open houses and hangar meetings throughout the country on its way to meet with local pilots and decision makers in support of GA's future. •

"A MILE OF HIGHWAY GETS YOU A MILE OF HIGHWAY, BUT A MILE OF RUNWAY OPENS UP THE WORLD"

This often heard statement in General Aviation circles succinctly defines what aircraft and an airport can provide to a community and the individuals who call it home. The same attributes that make General Aviation such a vital business tool – versatility, rapid adaptability and pin point precision - are also key in times of crisis response. It is extremely likely that the first responders to a devastated area in the United States arrived courtesy of General Aviation airplanes, helicopters or airports. The United States is well equipped to take advantage of relief missions through a network of more than 4,000 General Aviation airports. Abroad, the limited availability of airports beyond international varieties makes relief to outlying areas challenging - but not impossible. As it has done in the past, General Aviation was one of the first providers of support and medical relief to an area of natural disaster – this time in Haiti.

Images of the devastation suffered throughout Haiti from the massive earthquake filled media outlets from the onset. It became apparent very early on that the residents of Haiti were going to need help and fast. Shortly after the disaster, volunteers, medical professionals and supplies starting showing up for those in need. As with all disasters, quickly providing help and supplies is paramount in saving as many lives as possible. In most mainstream media outlets, how people and supplies are transported to areas in need is often overlooked. After the tragedy, Port-au-Prince's airline service was disabled at the Toussaint L'Ouverture International Airport. Military relief efforts started to spool up, but needed time. General Aviation was quickly on the ground - highlighting not only some of the key advantages GA offers, but also the generosity and good will from those within aviation's inner circle.

The General Aviation aircraft flown in support of earthquake victims in Haiti ranged from Gulfstreams to Pipers and everything in between. Organizations such as Corporate Aircraft Responding in Emergencies (CARE) matched medical and disaster specialists with aircraft that could provide transportation. Supplies were loaded from staging areas in the US and aircraft departed on missions of humanity. While much of the relief was centered on the major city of Port-au-Prince, the outlying areas were receiving support through any means necessary.

*see **Haiti Relief Efforts** on page 9*

Supplies and personnel being unloaded from Lee Morse's PC12 during a relief mission to the Jacmel.

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PC-12 Air Force

The Pilatus Owners and Pilots Association (POPA) indicate that many of their members have taken part in humanitarian flights to and from Haiti. "The PC-12 is the ideal aircraft for these missions," said POPA President Bob MacLean. "With the main airport in Port-au-Prince locked down, the relief organizations needed to be able to get into smaller airfields – with no lights, no tower – surrounding the city. They needed to be able to land on dirt airstrips. The PC-12 can do all that. It also has a large cargo capacity, the flexibility to carry people or supplies and it has the range to fly 700 miles to Haiti, hold before landing and return."

From the onset, many Pilatus owners and operators have donated their aircraft, time and expertise to contribute in any way possible. Gaining access to smaller airfields such as in the towns of Cape Haitien, Jacmel, Pignon and many others is vital to reaching those who are cut-off from land based support. The PC-12's impressive attributes have proven invaluable for these missions.

No Runway – No Problem

Tradewind Aviation, an Oxford, Connecticut based charter service that operates Cessna Grand Caravans among other aircraft, has helped out in times of natural disasters before. They were among other GA volunteers delivering supplies when Hurricane Katrina hit the U.S. in 2005. In the Caribbean, Tradewind Aviation normally flies travelers to vacation destinations such as St. Bart, Anguilla and St. Martin. The short field capabilities and cargo capacity of the Caravan make it a perfect match for such destinations. Volunteering their services to the Haitian relief effort was a natural decision. "We are unique because of the type of aircraft we fly," said Eric Zipkin, who along with his brother David owns Tradewind Aviation. During the Katrina relief there were operational airports available. In Haiti, that is not always the case. Utilizing the Caravan's short field capability, robust construction for off runway usage and cargo carrying ability, the Tradewind Aviation airplanes began delivery supplies to the town of Leogane – about 20 miles southwest of Port-au-Prince near the actual epicenter of the quake. Leogane, which is not serviced by an airport, was effectively cut-off from all outside help from the shear devastation inflicted on the surrounding roads and terrain. Supplies that were stacking up near major cities could not reach the town. A 1,200 foot long by 25 feet wide stretch of public road that was in serviceable condition was selected to base supply delivery operations to the town. After a few initial flights, a chainsaw was brought in to fell trees along the road to lengthen the "runway". The residents of this town were gravely in need of supplies and without air support that would not have been possible.

Versatility, not just of the Pilatus PC12 and Cessna Caravan but of General Aviation as a whole, is paramount for those that utilize business aircraft. The advantages these aircraft bring to business and personal life can be immeasurable. Those same attributes, coupled with the generosity of owners and operators, is on display during times of need - showing the world the true colors of the General Aviation community. •

Tradewind Aviation delivered supplies to the town of Leogane by converting a stretch of road to a makeshift runway.

PILATUS GARNERS 1ST SPOT IN PRO PILOT SURVEY FOR THE 8TH CONSECUTIVE YEAR.

SKYTECH HIGHEST RANKING SERVICE CENTER IN NETWORK.

Once again, for the 8th year in a row, Pilatus Product Support was voted #1 in the turboprop category of the annual survey by Professional Pilot Magazine. This survey, which is distributed to owners and operators of aircraft throughout the entire world, takes into account several parameters including:

- The response time of service centers
- The availability of spare parts
- The cost of parts
- Aircraft on Ground (AOG) service support
- Aircraft technical manuals
- Aircraft technical representatives
- Overall service satisfaction

In the combined overall ranking of both jets and turboprops, Pilatus came in 2nd overall, trailing only slightly behind Gulfstream for the top spot. This continued success is proof of not only an incredibly well designed aircraft but also the top notch service network that supports the fleet.

Focusing on Pilatus specific results, Skytech, Inc. captured the highest marks for PC12 service centers within the world-wide network. This "best of the best" honor validates Skytech's commitment to provide world-class service to their growing list of customers and provides a solid foundation for a continued march towards that goal. •

SUPPORT AIRCRAFT MINIMIZE DOWNTIME AND SIMPLIFY SERVICE EVENT TRANSPORTATION.

Skytech employs two dedicated service-support aircraft - Piper Malibu's whose roles are to ensure our owners never feel out of reach or on their own. This elite service has always been a staple of Skytech's belief that we support our customers long after the sale and reflects our understanding of the important role we play in their total aviation experience.

Off-site emergency support is just one function of Skytech's aircraft. Transportation to and from service events is another tangible Skytech Advantage offered to our customers. Dedicating entire days away from the office to wait for your service event to be completed, traveling to and from service facilities on the dreaded airlines or coordinating alternate modes of transportation aren't concerns for Skytech's customers.

At Skytech we're there for you long after the sale. Dedicated support aircraft – another example of your Skytech Advantage.

Piper PILATUS Cessna A Textron Company

Martin State Airport – Baltimore, MD (MTN)
York County Airport – Rock Hill, SC (UZA)
Carroll County Regional Airport – Westminster, MD (DMW)

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A WORD To The WISE

by Dave Conover

WITH PRIST®...

Turbine engines can take a lot of abuse and continue to "burn" as long as fuel is supplied. Furthering turbine dependability, "with Prist®" is commonly heard around an FBO during refueling. Prist® is the brand name for a Fuel System Icing Inhibitor (FSII) that dominates the market so well that it has become like asking for a Kleenex® when what you want is a tissue. Let's examine the back story of this industry accepted phrase and discover why it is so important to the engine's reliability and our safety.

Some non-particulate water is omnipresent in aviation fuel in two distinct forms: "dissolved" and "free". As fuel cools, its ability to retain "dissolved" water decreases and the water becomes "free". At certain temperatures, this "free" water can form ice crystals or remain as a super-cooled liquid and quickly freeze upon reaching fuel lines or filters leading to fuel starvation and engine failure. Additionally, water in aviation fuel can harbor microbes such as algae which can further restrict fuel movement.

This problem became keenly apparent in the late 1950's, as more jet aircraft were flying to higher and higher altitudes for longer times. Action was taken after the crash of a B-52 in 1958 was attributed to ice in the fuel causing five of the eight engines to fail due to fuel starvation. Subsequently, two main forms of ice formation deterrent in aviation fuel systems were developed: internal fuel heating systems or a Fuel System Icing Inhibitor (FSII) additive.

Prist® is the most commonly used brand name of a Fuel System Icing Inhibitor (FSII), but in its basic form, FSII is Diethylene Glycol Monomethyl Ether, or DiEGME. DiEGME was chosen for use as a FSII because it has an affinity for free water and it depresses the temperature at which water freezes. It acts like anti-freeze and prevents the formation of ice. The freezing point of Jet A without FSII additives is -40 degrees Celsius. With FSII additives, the freezing point of Jet A is pushed significantly lower. FSII acts as an algaecide as well, limiting the growth of the microbes that can clog fuel filters just as successfully as ice. The specifications defined for allowable concentrations of DiEGME in fuel are from 0.10 to 0.15 volume percent. Turbine fuel has been pre-blended with FSII by fuel suppliers and the military for over 40 years and has proven through countless tests to meet the standards of volume percent. The consequences of improper mixing can lead to any number of emergency situations. In 2004 a Beech (B-400A) suffered a dual engine flameout at altitude due to improper FSII levels.

This event caused the industry spotlight to shine even brighter on the importance of properly blended fuel additives. Since then, FBOs and fuel providers moved the additive ratio higher on their watch list and have diligently increased testing to ensure percentages are correct. Clearly a Fuel System Icing Inhibitor is an integral part of reliable turbine engine operation and safety throughout the flight environment. The next time you say "with Prist®" when requesting fuel you'll know a little more about the background and why those words are so important. •