# A Magazine for Owners and Pilots from England Publications

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## Business Aviation: It's Everywhere you NEED to be!

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### A SOLID FOUNDATION FOR SUCCESS

Several years ago, one of our customers purchasing a new Pilatus told us he was all set on insurance because he had a brother in law "in the business". Well, he soon found out that insuring your car, home, or even life was not the same as insuring a multi-million dollar business aircraft. After almost compromising the entire transaction, things were sorted out, an aviation insurance professional was brought in, and he spent the next several years happily flying his PC-12.

Aircraft ownership can be very rewarding for both business and personal use. As this issue of our magazine will point out, a systematic, structured approach to aircraft ownership is necessary to obtain the desired effect. If you are not in a position to know this information yourself or have a trusted advisor, it is critical to find someone to help you through the maze. This person can be an aircraft sales professional, experienced aircraft manager, or in some cases a professional pilot. Do your homework, get the right help, and the future will be much smoother.

If you're thinking about business aircraft and need some assistance, let us know. At Skytech, we sell airplanes, fly airplanes, fix airplanes, fuel and store them. After 38 years we've seen about everything in business aviation. We're happy to talk about full or part ownership, charter, or fractional. After all, we love to talk about airplanes.

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

#### Please respond to: Mike Fitzgerald Executive Vice-President mfitzgerald@skytechinc.com

### IN AN INDUSTRY WHICH HAS BECOME EXCESSIVELY PRICE ORIENTED, WE SHOULD POINT OUT AIRPLANES ARE LEGENDARY FOR HOLDING VALUE.

In 1989, if you had purchased a new Rolls Royce Silver Spur and a new Beechcraft A36 Bonanza, which would have held its value better?

With all the talk of hardship in recession in general aviation, many might say that the Rolls should have a better residual value. That would be wrong. Our apologies to all of you Rolls Royce drivers, but the average 1989 Silver Spur is only worth a paltry 16% of its original value while the 1989 A36 is currently trading at 63% of new. Many piston singles have done even better. The typical 1989 Piper Malibu is currently worth about 68% of its new price.

In an industry which has become excessively price oriented, we should point out airplanes are legendary for holding value.

VrefOnline.com includes eleven market indices, allowing subscribers to quickly survey each segment. While each index is important, it does not imply every aircraft in the respective compilation behaved in unison.

Probably the most important takeaway from these indices is, for several years now, just about everything with a propeller has stabilized – some quarters up, some down, some flat. The jet segments, however, have not been able to break the downward trend. This does not foretell the future, but for all the jet indices since 2008, it's been steadily downhill. For those of us who are price sensitive, it remains a great time to be a buyer.

### ANOTHER LOOK AHEAD...FROM THE BUNKER...OK, FROM UNDER THE DESK –

**FB** 

Last quarter when we mentioned a couple of threats to life as we know it – Russia and Ukraine – we thought it probably wouldn't get much scarier than that. Well, that was before Ebola and the other scourge, ISIS, dominated the headlines. Good grief! It makes the drought, wildfires, and flooding (yes, all three) in Arizona almost seem benign.

We at Vref have been students of the General Aviation marketplace for well over twenty years. During that time there have been several recessions, many wars, and numerous dastardly despots and politicians. I would submit to you that strife, whether real or amplified by CNN, is a normal part of living on this planet, in this solar system.

Our industry has survived and even prospered through some pretty challenging times. And, here we are, living proof that life goes on. Besides if something truly bad happened, like an asteroid with our name on it, getting a deal on a Mooney 201 really won't matter that much.

Summarized from Vref's Market Leader.

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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).



# BONUS 2 0 1 4 DEPRECIATION

Information valid as of November 2014

### **2014 ACQUISITION**

If you are in the market for a business aircraft, time is running out to complete a purchase for 2014. Dealer inventory is running low for new aircraft. Pre-purchase inspection and repair of squawks may add to the time line for closing on a used aircraft. If financing is required, you should be getting preapproved immediately.

In order to begin depreciation, an aircraft has to be placed in service before December 31, 2014. Signing a contract or placing a deposit will not satisfy the "placed in service" requirement. You should have legal title to the aircraft and the aircraft should be available to fly in order to meet the "placed in service" requirement.

### 2014 VS. 2015

Even without tax incentives like bonus depreciation or Section 179 Expensing, it is advantageous to complete a purchase in December. The purchase of the aircraft will be subject to the MACRS (double declining balance) method of depreciation. The following table illustrates the depreciation deductions available for a 2014 and 2015 purchase of a Piper Meridian at \$2,300,000:

### **NEW PIPER MERIDIAN PURCHASE**

Purchase Date	Dec. 15, 2014	Jan. 15, 2014
Cumulative Depreciation on December 31, 2015	\$989,000	\$460,000
Length of Ownership	13 months	12 months
Cumulative Income Tax Savings based on 45% marginal tax bracket	\$445,050	\$207,000

### LOOKING AHEAD TO 2015

The November election results generated some optimism regarding the renewal of some critical income tax incentives that business aircraft owners have been accustomed to in recent years. However, it appears that no tax legislations will be passed by the lame-duck Congress until December, at the earliest.

50% bonus depreciation for new aircraft and \$500,000 Section 179 Expensing for new or used aircraft are both expected to be in the tax extender legislation S.2260 Expiring Provisions Improvement Reform and Efficiency (EXPIRE Act). Obviously, it is far from certain that the President will sign the tax extender legislation. ATC will be monitoring any developments closely in the next few weeks. Please check our website for the latest updates.



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FALL/WINTER 2014

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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 and ideas for new articles and content are important for continuing improvement and growth that will serve all our readers.

#### Email us at: Advantage@Skytechinc.com 800-394-1334

Thank you!

The Pilot-In-Command is solely responsible for the safe and proper operation of his/her aircaft and it is the responsibility of the pilot-incommand to operate that aircaft in compliance with that aircaft's Pilot's Operating Handbook and other official manuals and directives.

#### www.skytechinc.com



### Business Aviation: It's Everywhere you NEED to be!

usiness aviation has always been a very misunderstood subset of the General Aviation community. Often perceived as a perk of only the one percent of the one percent - requiring at least a Fortune 500 status for admission - it simply seems out of reach for most companies and individuals. In reality, those that utilize business aviation come in all shapes, sizes, and annual revenue statuses, from the largest of companies to the individual start-up. As an industry, business aviation contributes \$150 billion dollars annually to the U.S. economy, employs 1.2 million people, and impacts every corner of the country from the largest cities to the smallest towns. The United States is the clear, world-wide leader in the use. production, and sale of business aircraft. And yet its impact is either largely forgotten by those standing on the sidelines or mislabeled by politicians and media looking to gain votes or ratings. So what is the reality of business aviation? Who really uses it and why? What options are available and how do you go about determining where to start?

### A MELTING POT WITH COMMON NEEDS

What image comes to mind when you think of a person stepping off a business aircraft? A CEO or president dressed in a suit and tie, briefcase in one hand, cell phone in the other, walking towards an awaiting limo? Undoubtedly, the image of a powerful and busy executive plays out in airports every day. But you will also find a farmer in blue jeans commuting to check on fields, a group of employees shuttling to a remote job site for a day of testing, or even a technology firm transporting ultra sensitive equipment for a make-or-break demonstration. Just as there is no model for what one must look like to gain entry to the business aviation world, there is also no limit to the reason for its justification. In the National Business Aviation Association's 2014 Business Aviation Fact Book, many eye opening statistics support these claims.

"Only about 3 percent of U.S. business aircraft are flown by Fortune 500 companies, while the remaining 97 percent are operated by a broad cross-section of organizations, including governments, universities, charitable organizations and businesses – large, medium and small. Furthermore, most business aviation flights involve time-critical trips by sales, technical and middle management employees, not trips by top executives. The vast majority of the U.S. companies that utilize business aircraft -85 percent - are small and mid-size businesses, many of which are based in the dozens of communities across the country where the airlines have reduced or eliminated service."

Regardless of the company, the motives for choosing business aviation often mirror themselves. The following is a sampling of many of the most commonly cited reasons:

- Maximizing time on location and reducing the amount of time that an employee is away from their job.
- Flexibility to make changes as the mission dictates, whether it's times of departure, arrival, destination airports or even adding stops.
- Reaching multiple destinations in a timely & efficient manner.
- Arriving closer to your destination by accessing areas that aren't served by the airlines. Business aviation serves 10 times the number of airports compared to airlines.
- In a day and age filled with airport security threats and fear of disease, private aviation allows companies to travel only with those they know, in a safe and secure environment.
- Utilizing the cabin of the aircraft as a secure working environment enables team members to strategize on the way to and from your destination.
- Removing the unpredictability of airline travel such as layovers, missed connections, etc...
- Transporting sensitive or valuable equipment.
- Boosting employee morale. Reducing the amount of travel and time spent away from home can have a significant impact on an employee's personal life.
- Taking advantage of opportunities as they present themselves. Many times the best opportunities require fast action. Business aviation can give companies a leg up on the competition.
- Arriving fresh and presenting a strong image. Reducing travel time and headaches allows employees to arrive at their peak. Showing up in a business aircraft projects the image of a successful company.
- Supporting humanitarian and charity efforts such as helping an area recovering from a natural disaster, transporting military veterans in need of a lift or assisting in the movement of children in need to specialized care away from home. The humanitarian network of those with access to business aircraft is vast.

### LIONS AND TIGERS AND BEARS....

So you've decided that using a business aircraft can help your company achieve its goals. Now what? There are a multitude of options for one to choose from, but knowing where to start and who to talk to can be a daunting task. If you have the benefit of already knowing someone who uses business aviation, that would be a great place to start. As in most industries, look to see how long a company has been in business and their track record. You can quickly sort out those that are proven and those that still have a ways to go.

On-demand air charters are in essence the gateway to using business aviation. You simply request a flight for service to/from a destination and the charter company will come back with a quote. If you agree, sign up and enjoy your ride. There is no long term commitment, although you may find operators that will offer discounted rates if you purchase a block of time (commonly referred to as "block charter"). If you anticipate flying 50 hours a year or less and can plan your trips in advance, the charter market can be a good fit. Charter companies are regulated by the FAA and must meet strict operational, maintenance and training standards to acquire and maintain their government issued Operating Certificate. Although illegal, some individuals will pose as charter operators without the proper credentials and thus FAA oversight. It's a good idea to check for a proper certificate prior to doing business with any new operator. A downside to the charter market is being subject to an operator's availability, and the range of quotes you may receive. If the airplane you desire is already booked or down for maintenance, then it's off to the next option. Quotes will include all of the legs needed to reposition the airplane to your location and back to the operator's home base if necessary. Finding a charter near you can save on these costs.

As your travel needs increase, so do your options for how to meet them. Membership programs and fractional ownership are two common options available if you need trip assurance, but don't quite need an entire aircraft. A typical membership program ensures guaranteed access to aircraft (outside of some standard restrictions) for a specified amount of time each year. To gain access to the program there will commonly be an upfront sign-up fee, a monthly member fee, a monthly management fee and a reduced hourly rate on the aircraft. Most plans require a term commitment of around three years. Fractional programs take this concept one step further. With a fractional program, you purchase an interest in a specific aircraft usually for a term of around five years. The size of the share purchased will directly relate to the number of hours you have available to fly in a given year. Similar to membership programs, a monthly management fee and hourly rate are also common practice.

At the end of the term, the managing company typically sells the asset and the owners can either claim a capital loss or opt to purchase a new asset. With both membership and fractional programs there are limitations that must be considered. Restrictions on peak day usage, lead time to request a flight, and the ability to go beyond your allotted hours can prove limiting depending on your needs.

Outright ownership of an aircraft is the most flexible and custom option available. There is literally no end to how you can structure your department to meet your needs, and there are options available to offset ownership costs if desired, such as entering into a partnership or adding your airplane to a charter provider's certificate to work when you aren't flying it. Business aircraft are flown everyday by owner-pilots who use their license to support company endeavors. If you aren't a pilot, that's okay as well. Oftentimes a company will hire a qualified pilot to operate and oversee the aircraft, and for the ultimate in support and back-up, a professional aircraft management company can take care of everything. The advantage gained by utilizing the services of an experienced aircraft management company can pay big dividends throughout your ownership cycle. In the largest of examples, in-house flight departments give companies complete control over their travel department. Nothing can beat owning your own airplane for giving you complete control over your schedule and whole ownership allows companies to maximize tax advantages.

If you find yourself standing on the sidelines wondering whether business aviation is a viable option for your company, realize that you aren't wandering into a world dominated by the monopolizing few. Business aviation is a vast and wonderful tool being utilized everyday by businesses large and small and options exist to satisfy your needs. The one common thread shared by everyone? Business aviation simply offers companies the ability to do what can't be done in any other form of transportation: delivering an unmatched experience, all while saving our most precious resource - time. Whether it's allowing you to maximize the work done in a day, or return early enough to be there for a personal commitment, there's something about gaining control of time that just can't be beat. See for yourself. •



For more information on the value of Business Aviation, visit www.noplanenogain.org

# IT'S NOT OVER UNTIL IT'S IN THE HANGAR.....







and then some.

A common saying amongst tailwheel pilots is "you're not finished flying the airplane until it's in the hangar". In reality, the same is true no matter what type of airplane you fly – a Piper J-3 Cub or an Airbus A380. You aren't out of the game until the airplane is safely secured and removed from external threats. This extends way beyond engine shut-down. Ask any pilot what peaks their "potential for bending metal" meter and they're likely to say a missed-approach in bad weather, gusty crosswind landings, or night-time circling approach in mountainous terrain. While it's true that these merit the attention they receive, very few pilots (if any), will point to the alarming danger that occurs after being willingly reunited with terra firma. The truth is, ground mishaps are an incredibly costly and an exceedingly disproportionate piece of the "bent metal" pie for all aircraft. It's a real problem, but it's a problem that can easily be mitigated if given proper attention.

### **HOW BIG OF A PROBLEM IS IT?**

So you bend a wingtip or scrape your spinner; no big deal right? As in most things in life, what you initially see is just scratching the surface (pun intended). Benjamin Goodheart, Ph. D., the Director of Aviation Safety & Claims Management for AirSure Limited, has a front row seat to just how costly ground mishaps are. "Roughly three-guarters - sometime more - of the claims we see at AirSure are ground loss related. While it seems logical that ground losses should cost relatively little despite their frequency, the opposite is often true. When an aircraft is damaged during ground handling, the actual damage to the aircraft can make up only a small part of the loss. If an aircraft misses a trip, charter costs add up quickly, and if it is on a 135 certificate, lost profits are a very costly part of a claim. Beyond the costs of repairs and supplemental lift, if an aircraft is substantially damaged, there may be a loss in value of up to 20 percent in the most severe cases. On a multimillion dollar aircraft, the cost of a ground loss can grow incredibly quickly." The following chart shows the average per claim cost due to ground handling issues for the claims handled by AirSure since 2003.



### **PREVENTATIVE MEASURES**

Much can be done to mitigate your chances of filing a claim. Whether you are a single operator, small flight department, or large company, recognizing the problem exists is step number one. Determining and implementing measures to mitigate risks and report future occurrences is an industry best practice. The Flight Safety Foundation has an entire section dedicated to ground accident prevention. It's a wealth of information and can be found at http://flightsafety.org/archives-and-resources/ ground-accident-prevention-gap.

Dr. Goodheart explains a number of simple measures operators can adopt to significantly reduce their chances of an incident. "Consistent use of wing walkers and adherence to standard marshalling procedures is critical to effective ramp communication. Having a whistle at the ready to signal a stop during tow is a simple step that avoids confusion during busy operations. Using proper height, high visibility cones (with reflective material) is helpful in establishing clearance areas near and between aircraft."



### **MODEL SPECIFIC NEEDS**

Ever flown into an airport to be greeted by an enthusiastic Line Service Technician who would just love to "peek inside your cool airplane"? Of course you have. Now maybe that person is a seasoned employee with many hours of experience on your type of aircraft, but it's more likely that your airplane is new and exciting because, well, it's new and exciting. Before you throw the proverbial keys to this person and entrust its safe being in your absence, take some time to ensure they know any specific requirements. Tow limits, propeller clearance on certain tugs,

parking brake status, and blind spots – you know your airplane better than most; feel free to share. If possible, stick around and help with securing it. You have much more invested in its wellbeing then the person on the tug.



The silver lining in all of this is that if the overwhelming majority of claims being filed are due to ground mishaps, then the overall safety of the industry is in good shape. Airplanes when flown and maintained properly are a fantastically safe and reliable mode of transportation. Even better news: we can positively affect our chances of becoming a part of the ground mishap web. We can't eliminate all possibilities but doing some homework, following industry guidelines, and simply not turning your back to the aircraft until it's safe and secure will go a long way to protecting your investment.

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### The Importance and Value of Detailed Maintenance Records for Part 91 Single-Engine Turboprop Aircraft

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ll maintenance records, whether an airplane is piston or  $\mathbf{1}$ 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, turbopropellerpowered 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 turbinepowered 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).

FAR 91.409(f) continues by stating that aircraft operating under the above 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 lifelimited parts.

In all of the FARs mentioned, one exclusion stands out. Nowhere does it indicate that this regulation applies to singleengine turboprop aircraft. A "Turbopropeller-powered multiengine airplane" is the only variety turboprop mentioned. Does this mean that operators of Part 91 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 FARs omission 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.

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. 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 and resale value 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

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Continued from page

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 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 can be 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, allow 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 aircraft represents a substantial asset in 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 was maintained to the highest standards possible. Anything less is going to detract 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.

The performance and capability of single-engine turboprops match, and many times, surpass those of comparable multi-engine airplanes; all while enjoying single-engine simplicity and efficiency. That is a recipe for success and the industry delivery reports confirm it. Maintaining these aircraft to the highest standard possible (regardless of the number of engines) is in everyone's best interest. Work closely with your trusted shop to determine the maintenance plan and recording options that work 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.

- \* Consult FAR 91.409 for a complete breakdown of the regulation.
- \*\* Revised from the Spring 2010 Issue of OPA

# **EPILATUS PC-24**UPDATE

### FALL/WINTER 2014

### A FANTASTIC FIRST IMPRESSION -

The word is out and the Pilatus PC-24 is garnering tremendous L industry praise and customer approval in the form of orders. A common phrase heard at shows when people see the PC-24 for the first time, is "boy, this is bigger than I imagined." Yes - the PC-24 is a lot of airplane and to place it in any of the existing jet categories isn't quite accurate. Just as the PC-12 did before, the PC-24 is defining a new class of its' own: the Super Versatile Jet (SVJ). Combining turboprop-like runway performance with a cabin that rivals or exceeds many medium size jets sets the PC-24 apart from the competition. To the right is some information on the cabin dimensions of the PC-24, but for a fantastic visual on just how big it really is compared to other models, visit to the Pilatus website and click on the PC-24 "Cabin" page for a graphic comparator. For an even more impressive visual, go to the "Performance and Specs" page and scroll to the bottom for the "Size Comparator". This handy tool shows just how the PC-24 stacks up to several competitive aircraft. As many of the initial position holders have figured out for themselves, the PC-24 represents a lot of airplane for the price combined with unbelievable performance, cutting-edge features and proven Swiss ingenuity.

### **POWERPLANT INNOVATION -**

There's a lot to like about the engines on the PC-24. Let's take a quick look at a few of of the innovative features that will be a part of this revolutionary aircraft.



- The Williams FJ44-4A engines chosen to propel the PC-24 will be equipped with a passive thrust vectoring duct. This feature requires no moving parts and works to harness the exhaust of the PC-24 at given power settings and use it to the aircraft's performance and efficiency advantage.
- A "Quiet Power Mode" replaces the need for a separate APU but gives the PC-24 all of the benefits of having one, such as powering electrical systems and heating and cooling the cabin independent of a ground power source. This "sub-idle" feature is an industry first and eliminates the need for purchasing and maintaining a stand-alone system.
- The Williams engines will be FADEC and have an auto-throttle feature.





Pilatus PC-24 compared to a Citation XLS



Pilatus PC-24 cabin compared to a Citation CJ4

### Visit the official Pilatus website at www.pilatus-aircraft.com

• The engines will have a best in class 5000 TBO.

There's a lot of substance in all of these bullet points and we'll touch on these and several more key points as the PC-24 works towards first flight, through flight testing, and ultimately achieves certification.

The Pilatus PC-24 isn't simply another business jet added to the marketplace. It's a thoroughly precise, Swiss designed and built, masterpiece with wings. Pilatus is celebrating their tremendous 75 year anniversary in 2014, and the PC-24 looks to carry the torch as the company flagship for a long time. Skytech is the appointed Sales Representative for the PC-24 in PA, MD, DC, VA, WV, NC, SC, TN, KY and OH. We would be thrilled to talk more about this aircraft and provide additional information. Contact us via email at PilatusSales@skytechinc.com, call 888-386-3596 or stop into one of our FBOs at the Carroll Country Regional Airport (KDMW) in Westminster, Maryland or the York County Airport (KUZA) in Rock Hill, South Carolina.



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a word to the wise

### AVOID THE SLIP

### BY DAVE CONOVER

As the leaves change color and the days get shorter, thoughts of all the variables regarding winter flight operations quickly come to the forefront. Most items are readily available in the pilot's operating handbook and worthy of a quick review.

Not commonly noted on smaller aircraft are the effects on takeoff and landing performance with wet runways and that it can have an impact similar to being slush covered. Larger twin engine aircraft have detailed data to predict landing and takeoff performance under a myriad of weather and runway conditions. However, on many aircraft, the charts tend only to show frozen contamination and still leave a lot to the discretion and interpretation of the pilot with respect to all other conditions. Regardless of the contamination type, one issue remains constant - trying to determine the exact runway condition is crucial to making an educated "go-no-go" decision. The list of reporting variables can be rather daunting - taken from a vehicle, prior aircraft reports, friction measurements (MU meter), NOTAM, cross winds, runway slope, grooved runway or not to aid in displacing water or any reports of "ponding" of water, etc. In any case, some studies support adding 50% to your projected landing roll on wet runways and up to 100% if you have any indication there may be standing water. This is somewhat of a worst case scenario, but hydroplaning can be insidious and not only with respect to braking performance. It can lead to loss of control at speeds much slower than sometimes anticipated.

When it comes to frozen contamination, being able to

accurately ascertain the difference between patchy ice/snow, loose/compacted snow or ice, is essential in calculating runway requirements for takeoff and landing. According to data from the Flight Safety Foundation: standing water or slush covered runways increase distances by 2.0-2.3; compacted snow 1.6-1.7 and snow/ice combinations can add 3.5-4.5 times the required landing distance!

Less than stellar flight conditions add yet another factor to consider. Some folks carry more speed on the approach than required. Whether they land with the extra speed or allow it to bleed off prior to touchdown, this will have an impact on runway requirements. A basic rule of thumb is; if your speed is 10% above normal approach, whether you bleed it off prior to landing or not, your landing distance is increased by a minimum of 20%. Additionally, if we have ice on the aircraft, we typically have a minimum icing speed along with reduced flaps that increases landing distances further. Depending on the aircraft, this can increase landing distances by 20% to over 55%.

In a nutshell, as with most things in flying, thoroughly reviewing procedures and aircraft data in advance of inclement weather goes a long way to ensuring a positive outcome of the flight. Additionally, during our annual training we need to practice all of the various aircraft configurations, be familiar with how they affect aircraft performance, and the techniques required for operating with varying runway conditions. This familiarization will greatly aid you in "avoiding the slip" and preventing any unwanted "excursions" when operating in less than optimal conditions.

Ref: Flight Safety Foundation ALAR Tool Kit briefing notes 8.3, & 8.5. FAA Advisory Circular 91-6A. Surviving the Contaminated Runway - Twin & Turbine March 2012.