

OWNER PILOT Advantage

A Magazine for Owner/Pilots from Skytech Publications



IN A WORLD OF RISING FUEL COSTS, DON'T FORGET THE VLT!

Presently the new generation of Very Light Jets has the attention of business and personal customers worldwide, with the subject of turboprops, especially single-engine models or "Very Light Turboprops" being neglected in some areas of the aviation press. But unfairly so, for there are still many conditions where a turboprop aircraft is by far the better choice. Pilatus hit the nail on the head with its advertising campaign "Never send a jet to do a PC-12's job." In the current fuel-crunched world, that statement may never have been truer.

VLJs will have their place in the market and should dutifully serve many future owner pilot's and business's needs. The allure of the

VLJ is easy to see: luxurious image, speed and ramp appeal abound. However, several factors promote the continued success of a turboprop. Moreover, with a focus on efficiency, turboprops often offer more spacious cabins and lower fuel consumption. Let's find out why.

A CASE STUDY IN ECONOMICS

As the saying goes, "the cheapest lessons are those learned through others' expense." As oil prices continue to skyrocket, the financial trends of airlines have plummeted. The airline industry's need to adjust is one of survival. What's one solution they have pro-

ADAPTABILITY AND FORWARD THINKING

As an owner/pilot, you are used to dealing with complex environments – traversing airspace, managing aircraft systems and predicting weather. This ability to multitask and evolve is inherent when operating as a competent pilot, but also when involved in many other areas of life. The keys to success are adaptability and forward thinking.

These qualities are vital in two of our articles for this issue of Advantage. The cover story details a thought process for planning a future purchase, or deciding if your current airplane meets your needs efficiently. In a world of rising fuel costs, picking the right airplane for the job can ensure future success and enjoyment.

The Maintenance Trends article outlines how the General Aviation industry as a whole is moving. The new technology discussed will change the approach service shops take in the future, and should give owners the benefit of less down time and enhanced maintenance awareness.

At Skytech, we embrace change and strive for leadership in bringing benefits to our customers.

Call us at 888.386.3596.

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

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

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aircraft value reference

INTERNATIONAL MARKET BUOYS SAGGING AIRCRAFT SALES

With the exception of a few late-model, long-range jets, the pre-owned aircraft market is loading up and the prices are going down. So far, this downturn does not appear to be as severe as many expected. As with the turbine recovery in 2003, strong demand from outside the United States may be propping up much of the general aviation fleet. Everything is being exported, from Cessna 152s and Skyhawks to \$60 million Gulfstream 550 positions. Some U.S. dealers (and manufacturers) report that 90 percent of their activity is outside the U.S.

In the States, rising fuel costs and serious worry about the economy have most dealers very nervous about the near future. We once thought that the upper end of the market doesn't notice the cost of fuel. We were wrong. With jet fuel in the neighborhood of \$7 a gallon, everyone is noticing.

THE TURBOPROP MARKET

Inventory levels have jumped, but so far there is little change in actual selling prices – partly due to meager activity. The Vref Turboprop Index was off only 0.9 percent. Abysmal airline service is keeping the demand for charter high. This is expected to keep most of the turboprop market from crashing. The King Air B200, which led this segment to record highs, is mostly flat, with early models off slightly. The Cessna Conquest with inspections complete is good. Cheyennes and Twin Commanders are feeling some downward pressure.

THE PISTON-TWIN MARKET

No improvement on the horizon for piston twins. In the recent quarter, the Vref Light Twin Index fell 1.4 percent, the eleventh consecutive quarterly drop. Barons, 310s and Senecas all fall into a niche with all the costs of a second engine, but without the benefits of speed and pressurization. One advantage is that light twins are a steal. The average 1980 A36 Bonanza is trading at 112 percent of its original new price, while the 1980 58 Baron is currently at only 74 percent of new.

Airplanes in the pressurized twin segment are not faring any better. Small businesses, the typical operator of Cessna 414s, 421s, and other cabin class-twins, are feeling the economic slowdown first and worst. The Vref Pressurized Piston Twin Index fell 1.9 percent.

THE SINGLE-ENGINE MARKET

While it's true that low-time, recently updated, well-maintained airplanes remain in short supply, there is a disturbing trend. The "off-market" market may be almost as big as the number of airplanes that are actively for sale. Many owners are just not bothering to officially list their airplane because of the expense or hassle – or as one seller put it, "What's the use?" This is most apparent in the out-of-production airplanes like Beech B55 Barons, older Cessna 210s and 310s, Piper Comanches or Aztecs. Buyers are becoming less forgiving of outdated panels and deferred maintenance.

The Vref Light Single Index lost 2.8 percent in value during the recent quarter. Though average selling prices were off, this is the segment where decent activity remains. There is a continuing demand, from emerging markets outside the U.S., for trainers such as Cessna 152s and Skyhawks. Also, domestic buyers still want a four cylinder Cessna 150 or Cherokee 180 that won't break the bank.

The upper end of the single-engine market is price driven. The Vref Complex Single Index was down again, losing 1.6 percent. Rising ownership costs continue to put downward pressure on this market. However, in this economy, a Beech Bonanza or Piper Saratoga makes a lot of sense. These high-performance singles can actually be used as a business tool. Plus, you're only feeding one engine. Another bright spot in the market is any Bonanza, 182, Cirrus or Saratoga with a glass cockpit. •

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HEARD IN THE PILOTS LOUNGE



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

Q. What plane deserves the title for being the world's fastest business aircraft?

A. The Gulfstream G650 business jet unveiled in March. According to Gulfstream Aerospace Corp., the G650 will be the fastest and offer the longest range of any traditional civil aircraft on the market when it

enters service in 2012. When flying its long-range cruise speed of Mach .85, the G650 will have a range of 7,000 nautical miles.

Q. What was the first manufacturer to deliver 100,000 aircraft?

A. In 1972, decades after first opening its doors as Taylor Brothers Aircraft Corporation, Piper delivered its 100,000th aircraft. Interestingly, by 1937, Piper had sold one-third of the total aircraft in the United

States. The aircraft of choice? The Cub.

Q. How fast does information flow in the fiber optic cables that connect avionics components?

A. The speed of light – almost 671 billion mph. At that speed, you could fly around the world seven times in one second.

Q. From what familiar object does the first supersonic aircraft, the Bell X-1 rocket plane, take its shape?

see Pilot's Lounge on page 4

Piper
Fly Wise



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posed? A large part of the airline industry is returning to the tried and true – turboprop aircraft. “Propeller-driven planes achieve massive fuel benefits on shorter journeys,” Kapil Kaul, of the Centre for Asia Pacific Aviation, said. “For a trip of less than 600 nautical miles, or about 90 minutes’ flying time, a turboprop may use as much as 70 percent less fuel than a similar-sized jet,” he said. Rising oil prices have driven aviation fuel cost up more than 60 percent in the past year. As an example of the turning tide, from 2002 to 2004, ATR sold between 15 and 20 of their 42 and 72 series aircraft. Now, ATR has nearly 300 world-wide orders and are ramping up production to meet the need. A few years ago it seemed the regional jets were the wave of the future and the era of the turboprop was over. Clearly that is no longer the case.

A DIFFERENCE IN DESIGN

Propeller-driven aircraft will continue to shine in both personal and business aviation use for much the same reasons they are experiencing resurgence in regional airlines. Efficiency and mission flexibility are hallmarks of turboprop lure. Propellers are much more efficient at converting horsepower into thrust than a jet. This translates into better slow-speed and takeoff performance for turboprops, opening many airports which would be unusable with a jet aircraft. In addition, the reversible propeller feature of turboprops shortens the

runway requirement when returning to land. This can be handy during periods of adverse weather when tapping the brakes would be less than desirable. The single engine simplicity enjoyed by many of the popular turboprops today further maximizes reliability and performance around the runway.

These performance parameters, when coupled with large payloads, are where the turboprop can really shine. The not-so-very-light Pilatus PC-12 and Cessna Caravan have become famous for their load carrying capabilities and both offer cabin size that would be comparable to much more expensive business jets. All of that versatility and performance coupled with the economy of a single engine have proven desirable for many years, and will continue for the foreseeable future.

LOCATION, LOCATION, LOCATION

As the age-old real estate saying states, “it’s all about location.” The same is true when determining the right fit in an aircraft purchase. A good purchaser factors the average distance of trips and type of airspace to be flown in before narrowing the field. In certain parts of the country an unrestricted climb to a requested altitude is a given. In others, it is simply wishful thinking. Aircraft operating altitudes are directly tied to engine efficiency. For turbines, efficiency almost universally means the higher the better. Jet aircraft must operate substantially higher than turboprop aircraft to achieve their highest level of efficiency.

On certain trips, the operating altitude will not be determined by the aircraft’s performance capability, but rather the airspace and corresponding traffic of the trip to be flown. As an example, a pilot traveling from the Baltimore/Washington area to Teterboro, NJ can file a multitude of routes and altitudes, but ultimately will be given whatever New York can handle at that time. Usually this translates into lower altitudes and not-so-direct routing. For flights of this profile, the speed advantage of a VLJ can be offset by the lower altitude efficiency of a turboprop. Matching the airplane to the mission is one way to ensure long term satisfaction in an aircraft purchase.

A BRIGHT, DIVERSE FUTURE

A turbine aircraft (whether VLJ or VLT) stands to increase performance and reliability for many future operators, opening doors previously not available in the piston world. The VLJ allure is tangible and will be a part of the future of personal and business travel. This new technology and design is welcomed as a great stepping stone for the next era of private air travel. We must also be prepared to adapt to the changing times brought about by rising fuel costs and other world trends. Amidst the VLJ’s popularity, let us not forget the usefulness, efficiency and ease of operation provided by many of the single-engine turboprops offered today. •

A. .50-caliber bullet, the only known form at the time to be aerodynamically stable at supersonic speeds.

Q. Who tend to fly more accurately, women or men?

A. Women. According to a study by the Johns Hopkins University Bloomberg School of Public Health, “Flying aircraft with known mechanical problems, running out of fuel and landing with the gear up were typically male problems... Males trade accuracy for speed. Women tend to be more cautious and pay greater attention to details and rules.”

Q. Weary of taking taxis, Robert Edison Fulton, Jr. invented what “hybrid craft” in the early 1950s?

A. Fulton built the Airphibian, a car with wings. The half car, half airplane could be separated into two parts. The cockpit (with

four-wheel landing gear) could be driven home while the wings and tail section remained on the tarmac. The versatile vehicle is in the Smithsonian Institution.

Q. The Turbo Raven was an amazing aerobatic aircraft. It could climb at a rate of 7,000 feet per minute. How fast could this daredevil roll?

A. 450° per SECOND. The Turbo Raven was a one-of-a-kind show plane built for pilot Wayne Handley for extreme aerobatic flying. Lightweight composite added strength to the airframe while a 750-shaft-hp Pratt & Whitney PT6A-25C engine generated 2,800 pounds of thrust. In July of 1999, at EAA’s Air-Venture in Oshkosh, the Turbo Raven took three minutes, six seconds to reach 6,000 meters, establishing the aircraft as the fastest climbing propeller-driven aircraft in the world. The aircraft was destroyed during an air show on October 3, 1999. During a steep approach to landing, the engine flamed out

as Handley was bringing the propeller out of reverse. Handley was severely injured, but recovered quickly.

Q. What strong, little aircraft did Mooney first certify?

A. The Mooney Mite M18. Mooney certified the 65-hp, single-place aircraft in 1948.

Q. When your Pilatus PC-12 is cruising at 30,000 feet, what else could be going on at that altitude?

A. It’s likely the temperature is icy cold. Depending on when and where you’re flying, it could be a shivering minus 45 degrees Fahrenheit. A supersonic aircraft could be creating a lateral sonic boom spread of about 30 miles. High-altitude stunt junkies and military personnel might be skydiving!

Q. Who developed the world’s first operational radial aircraft tire and when?

A. In 1981, Michelin introduced the radial tire on the French Air Force Mirage. •

flights of fancy:

TRAVELING WITH KIDS ONBOARD

Flying with children can be a mix of joy and anticipation, worry and frustration. With a little forethought and preparation, you can ensure a smooth flight.

Whether the child is two years old or a teenager, talk to them about the process of boarding, strapping into the seat, and the nuances of takeoff and landing. Be specific about the behavior you expect from your young passengers.

In age-appropriate language, talk about what's ahead – from twinkling city lights to fluffy, white clouds, from turbulence that bounces the airplane to a slight pain in their ears or stomach.

Reassure your passengers that flying is safe and fun. Cultivate the child's interest in flying and ease their fears by giving them a short tour of the various parts of the aircraft. Explain how the components affect what happens to the airplane in flight. Help children see flying as an adventure.

To keep children happy and occupied during flight, parents should pack each a bag of toys, reading materials, activity books, snacks, drinks and chewing gum. For older children, consider a mini DVD player, MP3 player, or a handheld gaming system.

CHECK UP ON KIDS' HEALTH

When choosing the flight schedule, be mindful of your child's health. Never allow them to fly if they are sick or recovering from an illness, especially an upper respiratory infection. Even the slightest congestion can be very painful. A child with stomach flu will be much more susceptible to air sickness.

According to Dr. Richard Hansen of Oregon-based Emerald Valley Wellness Center, "Susceptibility to air sickness is maximum in children between the age of four and eight." It's less common in infants and very young children.

Young or old, high levels of in-flight noise permanently damage hearing and cause fatigue. When you're flying, ensure everyone's ears are protected with earplugs or a headset, both of which come in smaller sizes for children. All flight departments as well as parents who fly even occasionally with their kids should invest in child-sized headsets.

Roomy, pressurized aircraft offer the most comfortable flight for children and create the least anxiety. Either way, equalizing air pressure will likely cause some discomfort for most kids.

"Most pressure-related ear problems develop during descent, when the air in the middle ear contracts. We deliberately 'pop' our ears to avoid the pressure build up, though children do not instinctively know how to accomplish this," explains Dr. Hansen on the Emerald Valley Wellness Center web site.

To create the same effect, allow children to eat a snack, sip a drink or chew gum to encourage swallowing. However, avoid pacifiers because they promote air swallowing, which can lead to bloating and intestinal gas pains, advises Dr. Hansen.

FLYING WITH INFANTS

The safest place for your little one is always in an approved child restraint system (CRS), not on your lap, according to the Federal Aviation Administration (FAA). Your CRS should fit in most airplane seats if it is no wider than 16 inches. Make sure it is government-approved and has this statement printed on it – "This restraint is certified for use in motor vehicles and aircraft."

If you prefer a harness-type restraint rather than a hard-backed seat, you can use one if your child weighs between 22 and 44 pounds. Make sure the harness-style restraint is approved by the FAA. Never use this type of restraint in a car.

If your child weighs more than 40 pounds, they should

strap in with the seat belt. Supplemental lap restraints or "belly belts" are not approved for use in airplanes or vehicles. The FAA also prohibits children from using booster seats and harness vests during taxi, takeoff and landing.

Of course, once onboard remember to have fun. Kids are naturally curious and enthusiastic. With planning and preparation, flying can be a joyful adventure that kindles a lifelong love of aviation and creates wonderful memories. •



MORE HELPFUL TIPS FOR TRAVELING WITH KIDS

- Before takeoff, give children a chance to play and run off their energy. It makes a long flight easier to handle.
- Offer younger kids one activity at a time to avoid boredom.
- Don't over pack. It's hard to manage the safety and comfort of your children if you're weighed down. Plus, all that stuff increases fuel costs and fills up space in the baggage compartment.
- When filing a flight plan, add "infant on board" to the remarks section.
- Eating or sipping on a non-carbonated drink helps children to relax and helps equalize pressure in the middle ear.
- Even if you don't normally have children passengers, it's smart to stow a few "emergency" items such as small and large t-shirts in case of air sickness, wipes to quickly clean up messes and spills, and small bags for dirty diapers and other trash.



ADJUSTING TO MODERN ADVANCEMENTS IN GENERAL AVIATION MAINTENANCE

Historically, airline technology always flows down to General Aviation, usually with a stop in the larger business jets. Flight Directors, active traffic avoidance, vertical profile radar, and “glass” cockpits are all examples of aviation technology flow.

INTEGRATED MAINTENANCE

If you have flown the airlines in the past decade or so you have surely heard the pilot announce a mechanical delay of some sort and note that they summoned “maintenance.” You might also have noticed that the next person that showed up went straight to the cockpit. Oddly, the captain rarely makes a distinction about whether maintenance was called up for an avionics problem or a mechanical problem. Either way, the troubleshooting process will likely

be afforded by glass cockpit displays that help pinpoint operational parameters for engines and broaden situational awareness of the total flight environment. As any pilot who has made the switch to this advanced technology can testify, the general feeling is one of “I don’t know how I ever lived without this!” That same feeling will soon be shared by the maintenance technicians who work to keep us in the air.

CUSTOMER SUPPORT – A NEW ERA

Examples of this advanced technology are starting to reach consumers. With the advent of the Next-Generation PC-12—with the fully-integrated, four-display cockpit – virtually all of the “maintenance” runs through one central computer and its respective back-ups. Just like that airlin-

to make a choice: who do we send to the airframe school, maintenance technicians or avionics technicians? The line is clearly, well, blurred. The time of greasy fingers trying to identify a possible problem has been replaced by a computer hook-up and trend downloads. It is clear that the assimilation of mechanical and electrical skills with computer technology is a pathway to the future of customer support in our segment of the industry.

As advanced technology finds its way into the maintenance side of the high-end owner flown and entry-level corporate market, operators will enjoy the benefits realized by the larger business and airline jets of today. As an operator of such aircraft in today’s rapidly tech-savvy world, care must be taken to match the capability of your aircraft to that of your shop. •



start with a display on the cockpit panel. The ability to have a central information hub to pinpoint mechanical, electrical or any other miscellaneous abnormalities can be a real time saver for an industry that is always on the clock.

The future of General Aviation maintenance has its roots in this airline-conceived technology. Pilots, for some time now, have been enjoying the simplicity of operation

er. Piper is moving the same way with its Piper Jet technology. So is Cessna, with technology in the 172 that is simpler than a lot of video games. We are embarking on a new era in aviation services as many maintenance squawks are destined to be solved with – guess what – software upgrades.

In preparing to maintain future advanced aircraft, suddenly maintenance shops need

In Skytech's approach to meeting the future demand, we are beginning to incorporate different skill sets into one job that we call an Advanced Aviation Services Technician (AASST). It's a fancy term for an A&P / IA turned Avionics Tech. Or an Avionics Tech turned A&P / IA. It's rapidly becoming the same job, and Skytech intends to lead the way.

A SUCCESSFUL OPERATION IN A DEPRESSED MARKET AND AN OWNER/PILOT WITH A "DREAM MACHINE"

Peter DeSoto is one of three partners in a holding company named J.T. Walker Industries, Inc. The largest single company in the group is M.I. Windows and Doors, headquartered in Gratz, Pennsylvania – just north of Harrisburg. This company, with 32 manufacturing facilities around the nation, markets to the home construction and remodeling industries as well as major retailers like Lowe's that serve do-it-yourself homeowners.

THE IMPORTANCE OF AVIATION

M.I. Windows and Doors has an Aviation Department that operates a Citation III and occasionally uses Mr. DeSoto's personal Piper Meridian. And they use business aviation the way many enlightened owners do. The major use of their airplane is taking prospects and customers on plant tours at their manufacturing facilities around the nation – most of them located in secondary airline markets. The jet is also used in emergency situations, like rushing parts to where they are needed in case of a machine breakdown in one of those manufacturing facilities.

Peter explained a particularly important use of their company airplane this way. "On most trips, we normally fill the Citation with any home office personnel who need to go to that destination location for any reason. Companies that do not operate that way could have people sitting in their offices trying to think of reasons not to have to go to any other location, ever. And, as many of you know, when a company has locations around the nation, that lack of attention can cause resentment toward certain home office department heads and operation personnel. The feeling can easily develop that home office people never visit us and could not possibly understand the problems and needs at this location."

THE JOY OF AVIATION

Peter DeSoto is an aviation enthusiast. In addition to his Piper Meridian, he owns a Piper Cub and a T34 (Navy trainer built by Beech Aircraft in 1954). A Cessna 182 is kept in Prescott, Arizona, and a 206 is based at his grass strip in Pennsylvania.

The T34 is in pristine condition and, according to Peter, "It is the easiest airplane

to fly I've ever flown. And the Cub is lots of fun to just fly around the patch on nice days."

In addition to the makes and models mentioned, Peter owned two Mooney aircraft prior to getting his new Meridian. When asked what he thinks about the Meridian, which he purchased at Skytech, he said, "It's a Dream Machine! My wife likes it, too, because it's big and comfortable and pressurized. And since around 90% of that airplane's time is for our personal use, it is very important that she likes it!"



MERIDIAN – A WIDE-AWAKE LOOK

The Piper Meridian is one of the premier VLTs (Very Light Turboprops) referred to in our cover story for this issue. It is a versatile airplane that provides wonderfully comfortable, fast and cost-efficient transportation for up to six people on business or pleasure trips. In fact, it helps to make every business trip a real pleasure!

A Meridian can easily get in and out of airports the company jet must fly over on the way to one with longer runways.

A conservative approach to flight planning the Meridian would allow for 250 knots at 25,000 feet while burning 250 lbs/hr of fuel. Max cruise is slightly higher at 260 knots. Range with full fuel is 1,000 nautical miles.

Mac McClellan, of "Flying" magazine fame, summed it up well when he said the Piper Meridian is "as close to a jet as you can get and still have a propeller." And to many owners, including Peter DeSoto, it's as close to a perfect aircraft as you can get.

LOOKING TO THE FUTURE

When asked about future goals for the company, Peter's reply was, "Our immediate goal is survival! The current national downturn in the housing market has forced us to reduce our employee base from 5,000 to 3,000! That's the total reduction in our three companies, each of which is related to the housing market. Fortunately, the replacement business in that market is better than new construction sales."

He went on to say, "We still have a great and dedicated team of people in our companies. They have been the key to our past success and they will be the key to our success in the future. The market will recover. There are sections of the country where the housing market is seriously depressed, and complete recovery will probably take years. But it will happen."

And we can be sure that aviation will continue to have a major role in the company's success.

THE SKYTECH ADVANTAGE

Peter DeSoto experienced the Skytech Advantage firsthand while investigating and purchasing his Piper Meridian. Here is what he said about it. "I thought Skytech was fantastic. Everything I asked of them they took care of quickly and without question. I can't think of anything they could have done better than they did!"

We look forward to handling Mr. DeSoto's future aviation needs, including one of our specialties – caring for that wonderful Piper Meridian "Dream Machine" of his! •



MAXIMIZING TAX DEDUCTIONS FOR PERSONAL USE OF A BUSINESS AIRPLANE

Non-business use of a business aircraft results in a pro rata disallowance of all fixed and variable expenses. However, business use may include personal use by employees provided it is taxed to them as compensation, and their aggregate compensation is ordinary, necessary and reasonable in amount. When a taxpayer owns a business, he often has the opportunity to structure his personal use as either subject to a pro rata disallowance or as compensation. Because the employee is taxed under a valuation method prescribed by the Internal Revenue Code Regulation 1.61(21)(g), and the employer is generally allowed to deduct actual costs, it is important for the taxpayer to consider the disparity between the deduction allowed his company and his personal income charge. Particularly during the initial 5 years of ownership, the taxpayer will often find that the compensation charge is less than the corresponding deduction allowed to his company.

A GUIDE FOR ESTIMATING

When personal use is taxed as compensation, the regulations impute income in 2 steps: a mileage charge and a terminal charge. The mileage charge is based on the gross takeoff weight of the aircraft and the distance traveled. Both the mileage charge and the terminal charge are adjusted every 6 months. Nonetheless, the table on this page provides a reasonable estimate of the per passenger compensation charge that may be used for tax planning purposes.

When personal use is primarily personal entertainment use by a specified individual, (generally a 10% or greater stockholder or officer), special rules limit the employer's deduction to the amount taxed to the

employee. However, these regulations do not limit the amount taxed to the employee to the deduction of the employer. It is therefore imperative first to determine if the employee is a specified individual, and second, is his use primarily entertainment or other personal use. Entertainment use would include travel to sporting events, theater and vacation. Common examples of non-entertainment use include commuting, visiting family members, visiting the sick and the like.

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Louis M. Meiners, Jr. is an Indiana attorney and CPA who serves as president of Advocate Aircraft Taxation Company. Advocate's practice is limited to serving the needs of owners and operators of aircraft. Services include aircraft operational analysis, sales and use tax management on aircraft acquisitions, income tax planning, federal excise tax planning, and representation before taxing authorities. Meiners can be reached at (888) 325-1942, or loum@advocatetax.com.

Weight	Charge per mile
< 6000 lbs. - example all single engine piston aircraft, light piston twins, Piper Meridian, TBM 700, Eclipse 500	.12¢
6000 -10,000 lbs. - example Cessna 402, Piper Navajo, Cessna Caravan, Pilatus PC 12, Citation Mustang, Embraer Phenom 100	.25¢
10,000 - 25,000 lbs. - example Beech King Air, Citation CJ - Citation X, Learjets	.60¢
> 25,000 lbs. - example Gulfstreams, Challengers, Falcons	.75¢
The terminal fee does not vary based on size of the aircraft and is approximately \$40 per leg per person.	

ENTERTAINMENT FLIGHTS

The Internal Revenue Service has issued proposed regulations that deal with entertainment flights by specified individuals. These regulations contain significant guidance but hint of substantial potential changes. All aircraft operators have a duty to keep contemporaneous records as to the business purpose of the trip, who traveled on the aircraft, and any person visited during the trip. These records should also clearly indicate the nature of the personal use of the business aircraft; deductibility may be determined by documentation. •

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This article is designed to provide information of general interest to the public and is not intended to offer specific legal advice. You should consult Advocate Aircraft Taxation Company or your tax and aviation advisor if you have a matter requiring attention.

PiperJet

PIPERJET

Design Review

PIPERJET MEETS ALL EXPECTATIONS ON HISTORIC FIRST FLIGHT!

The flight occurred Wednesday, July 30, 2008 at 11:11 AM – the first flight of the first jet built by one of the first aircraft companies in U.S. history.

There is no doubt that this sleek and revolutionary jet will set a new standard for all light jets now in existence and all others to come. This is the jet many owner/pilots have been waiting to own!

The PiperJet incorporates many new design features, and the first flight was focused on taking an early look at basic handling characteristics, the effects on pitch trim with power changes, and basic operation of the engine's FADEC control system.



TEST PILOT SUMMARY

"The PiperJet exhibited excellent control response around all three axes," said test pilot David Schwartz. "The ergonomics and the basic operation of the side stick control were excellent, with well-balanced and harmonized control inputs required for the air speeds that we tested. Moreover, the expected levels of pitch trim change with power applications was minimal and easy to overcome."

A single Williams FJ44-3AP engine, rated at 3,000 pounds of thrust, provides smooth, blazing speed. In the PiperJet application, the engine is de-rated to approximately 2,400 pounds of thrust.

"The FADEC control on the Williams engine greatly reduces pilot workload, allowing greater focus on controlling and navigating the PiperJet," said Schwartz. "Pushing the single power level full forward for take-

off results in a smooth but rapid buildup of thrust and acceleration."

Another confirmation from the first flight was the lack of cabin noise inside the PiperJet – one of the many positive attributes resulting from designing the engine installation well aft in the vertical tail, behind



the pressure bulkhead. "The resulting lack of cabin noise was even better than expected," said the other test pilot, Buddy Sessions. "Even without sound insulation or an interior, the cabin was exceptionally quiet. It will be even quieter in the completed airplane. In all, our customers should be very pleased with the quiet cabin and lack of engine vibration."

WHAT'S COMING NEXT?

With completion of first flight, the PiperJet has begun a 50-hour initial flight test program to expand the envelope and

further investigate the aerodynamic configuration and basic flight performance. Piper test pilots expect to retract the landing gear on the PiperJet's next flight, after which they will make several more flights to expand the high-speed envelope, eventually reaching 360 KTAS. Envelope expansion will also include higher operating altitudes, up to a maximum of 35,000 feet.

Piper plans an unveiling of the PiperJet for existing and prospective customers and the news and aviation media in late Summer or Fall at the Piper factory in Vero Beach, Fla., during which Piper test pilots will demonstrate the PiperJet's full flight capabilities.

"Today marks the beginning of a new era for Piper Aircraft as the company literally takes flight into a whole new realm of performance, luxury and capability," said Piper

President & CEO James K. Bass. "With this major milestone in the PiperJet's development, we are witnessing our future – one that is built on a strong and lasting heritage and reputation for innovation and excellence." •



PiperJet East, a wholly owned subsidiary of Skytech, Inc., is the exclusive PiperJet dealer and authorized service center for 15 eastern states and the District of Columbia.

The Skytech-Advantage is your advantage.

BENEFIT #1

Skytech people specialize in high-end private, owner-flown aircraft, as well as entry-level corporate aircraft. In other words, *we specialize in your needs*, offering service and expertise to provide you with enjoyable, worry-free aircraft operation. Your total satisfaction is always our goal.

BENEFIT #2

We understand that as an owner/pilot, you lead a demanding business/professional life. So you sometimes need advice and counseling regarding aircraft acquisition and technical services. *Supporting you in these areas is a specialty of ours.* As a result, many customers form personal bonds of trust and friendship with our people.

BENEFIT #3

Skytech has more than 30 years of technical service experience and two FAA-certified repair stations, Rock Hill, SC (CRS C41R727N) and Baltimore, MD (CRS LF1R294K). As part of our quality control, your service is performed by a team of *A&P mechanics experienced with your make and model aircraft* and led by an independent FAA-certified inspector (IA).



BENEFIT #4

For inspections and maintenance, *dedicated service pilots and a Malibu are available at each location to transport customers home, and then back to our facility when their aircraft is ready.* We also feature industry-leading expertise in major airframe repair for our core aircraft makes and models. Computerized maintenance records assure that all maintenance and repair information is always available for logbook entry or any other need.

BENEFIT #5

You get top-level work at a fair price, and those two factors define VALUE! Skytech's systems and processes meet the stringent underwriting requirements for one of the world's largest, most respected aviation insurers. Considering a recommendation like that, great work, fair price and real value, why would you go anyplace else?

BENEFIT #6

We have been tracking sales of specific aircraft important to our customers for more than two decades. Our extensive database allows us to follow the market closely and use this information for up-to-date pricing, allowing us to spot trends long before other dealers and brokers. (This is particularly helpful in brokering an aircraft and advising the owner when an offer is acceptable).

Here are 10 MAJOR BENEFITS FOR YOU!

BENEFIT #7

Our multiple OEM affiliations plus more than 140 years of cumulative sales experience representing all the major airframe manufacturers provide a wide range of specialized knowledge and expertise that is valuable to you when purchasing an aircraft.

BENEFIT #8

With one of the most complete product lines in general aviation, *we have the ability to move owners up step-by-step* from the entry-level Piper Archer to the Pilatus PC-12 or on up to the PiperJet .

BENEFIT #9

A dealer of all Piper aircraft for many years, Skytech is the major PiperJet dealer in the nation, with a franchise of 15 states and the District of Columbia. Those of you who want an owner/flown jet in the future can move up to a PiperJet, taking advantage of Piper's step-up bonus plan. *It can save you a substantial sum of money – and we can help!*



There are untold BENEFITS to you from Skytech's position as the only sales and service facility in the nation that represents three major aircraft OEMs. The aircraft involved are the Pilatus PC-12, the Cessna Caravan and the entire Piper line – including the soon-to-come PiperJet – with factory-authorized service for all these aircraft.

BENEFIT #10

Our long-term relationships are a major asset for you – major insurance underwriters, financing resources that specialize in our product lines and several elite brokers – enabling us to place a customer with the broker most experienced in their aircraft. Plus, Skytech's Baltimore headquarters is in close proximity to Washington, DC, and our relationships with current and former FAA personnel are carefully maintained.

As you can easily see, it is true that our Skytech-Advantage is actually your advantage. So join our steadily growing group of very satisfied customers now!

Contact Skytech, Inc. 888.386.3596

Skytech, inc.

Experience the Skytech-Advantage

Martin State Airport – Baltimore, MD (MTN)
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www.skytechinc.com

A WORD To The WISE

by Dave Conover



As cockpits become increasingly integrated and we progress into higher performance aircraft, pilots move closer to becoming a systems monitor instead of a hands-on “stick and rudder” pilot. The technology in today’s aircraft dramatically increases situational awareness, reliability, and in short, vastly improves our safety. Regardless of the avionics equipment in our aircraft, there are two common denominators: keeping our overall proficiency up to a level equivalent to the conditions we expect to fly in (obviously FAA standards or above), and making sure we have a properly functioning auto-pilot that we thoroughly understand!

TEST IT – THEN TRUST IT

While it’s possible to operate a private aircraft, single-pilot in IFR conditions without an autopilot, it is easy to appreciate having a properly functioning autopilot to allow us to process the information that is inherent with IFR flight. However, we have to have a high level of confidence in old

“George” when we ask him to assist us.

Regardless of the autopilot, there is almost always a “press to test” or “auto test” cycle that the autopilot needs to complete prior to being engaged. This “test mode” typically checks the electronics in the system and in many cases sends signals to the servos to make sure everything is responding properly. Additionally, virtually every autopilot requires a pre-flight test to be performed by the pilot. We all know the drill and have differing methods of compliance, but in short we need to engage the system, command it to drive the servos and make certain that we can override the system manually should an un-commanded action occur. Most likely, if a step in the test process is missed, it is this one. Yet, I would propose that it is probably one of the most important steps in the process. If the autopilot does not respond properly during the pre-flight test or the amount of force needed to override the servos changes even slightly (or feels excessive), it should be reported to maintenance. Additionally, it provides information to the pi-

lot, prior to the flight, as to just how much faith he wants to place in the system.

OTHER CONSIDERATIONS

With respect to maintenance, it is not uncommon for servos and clutch assemblies to be installed in areas that are subjected to a myriad of contaminants and atmospheric conditions. These can have a dramatic affect on the performance of the system. Most manufacturers’ recommend an annual inspection/cleaning of the servos, clutches and associated bridal cables to keep the system up to recommended tolerances. While you may or may not notice the extra fine-tuning this provides, it is a pro-active preventative measure that will detect problems before they can manifest into a failure.

Most of us can buckle down and safely hand-fly during IFR flight. However, it does get busy, and having a little extra confidence that old “George” is up to the task allows us to appreciate and utilize our technology to its full potential. •



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