OWNER & PILOT Advantage

A Magazine for Owners and Pilots from Skytech, inc. Publications

The new Piper M600

THE POWER OF THREE

M

WELCOME TO THE NEW PIPER M-CLASS

IN THIS ISSUE:

SOMETHING NEW TO TALK ABOUT

In this day and age, certifying a new aircraft or a major change to an existing aircraft is a very difficult task. It takes a unique combination of money, skill, and perseverance. Neither of these alone will suffice. FAA regulations and oversight have slowed the process to a veritable crawl. Just ask some companies like Honda, Diamond, Eclipse and others.

This being said, Skytech has great product news on multiple fronts. Our lead article features exciting news from Piper Aircraft. Major upgrades and safety enhancements have been made to the Mirage and Meridian product line, culminating in a name change to M350 and M500. The biggest news from Piper has to be the evolution of the Meridian line to the M600. A new wing has brought all the things an aircraft operator wants; range, payload, enhanced cabin appointments, and state of the art avionics. These are not paper airplanes. The M350 and M500 are delivering now and the M600 will join the fold by the end of this year.

Another milestone you will read about is the first flight of the Pilatus PC-24 Super Versatile Jet. On May 11th, this all new product took flight from the Pilatus factory in Stans, Switzerland for a very successful 55 minute first flight. The full flight test program started the next day, with certification expected in 2017.

In a product driven market, like aircraft, Skytech is very happy to be associated with companies like Piper and Pilatus. We would be very happy to tell you more about their products.

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.

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Vref

2015 VOLUME 1

In this edition of Market Leader we take a look at residual values. We are often asked, "Which airplane should I buy? Which one is going to appreciate in value…or lose the least?" We always respond, "Buy the one that best fits your mission…and the one you can afford to operate."

It's interesting, nonetheless, to analyze which ten-year old airplanes have retained their value the best. Some are as expected, and others – a big surprise. To be clear, all airplanes in this study are 2006 models. The % of New is a comparison of the airplane's original New price in 2006, and today's Used Retail price. It is not a forecast.

PISTON MARKET, RECENT QUARTER – The Vref Light Single and Complex Single Indices (See VrefOnline.com) are at 2 ½ to 3 year highs. Aircraft price increases have been very modest, but a stark contrast to the adjustments still going on with the Big Iron. The Cirrus SR22 is the surprise at the bottom of the list. Great speed, a parachute, and a modern composite design should have helped this airplane retain its value, but it didn't. All the composite airplanes in this study – sleek and strong, one and all – ended up in the bottom half. Could it be some pilots like their Corvettes in fiberglass, but not their airplanes?

2006 Model*	% of New
Beech Bonanza G36	61
Piper Malibu Mirage	58
Mooney Ovation 2	55
Cirrus SR22-GTS	49

TURBOPROPS, RECENT QUARTER – By far the most stable segment, the average turboprop value was unchanged this quarter. Buyers tend to be very unforgiving. Needy airplanes with run-out engines or less than excellent paint and interior could be well below book.

% OF NEW – The winners in the residual value contest are single engine turboprops. The Pilatus is not only the best turboprop for maintaining value, but with a % of New at 75%, it topped the entire study. Getting King Air performance while only paying for one engine has served the PC-12 well.

2006 Model*	% of New
Pilatus PC-12	75
Socata TBM850	66
Beech King Air C90GT	58
Beech King Air 350	55

OUR TAKE AWAY – The next time someone asks, "How much do airplanes depreciate every year?" the only correct answer is, "It depends." Clearly it depends on the aircraft, the economy, and the perception buyers, sellers, and financiers have of said aircraft. That's a fancy way of saying, it depends on the marketplace. ■

* The Tables include 2006 Models only. They depict the % of New or the ratio of today's Used Retail price compared to the original New price in U.S. dollars. The data is not adjusted for inflation. Nor does it represent a forecast. The current % of New for every year model can be found at VrefOnline.com.

Summarized from Vref's Market Leader. Available in full format at www.vrefonline.com

MANAGING IRS AUDIT RISK

One of the most common issues I discuss with prospects, clients and aircraft sales professionals: "Will I be audited by the IRS because I write off an aircraft?" Contrary to popular belief, or hangar talk with fellow aviators, statistically, it is extremely rare to be picked for an income tax audit by the Internal Revenue Service. The truth is that certain fact situations and reporting scenarios are indeed "higher" risk. The objective is to avoid these aircraft ownership structures that are more likely to draw IRS attention.

In our experience working with aircraft owners across the country in the last decade, the percentage of ATC's clients audited by the IRS is extremely low, far less than 5%. Even though it is a rare occurrence, we strongly recommend that our clients keep extremely detailed records to support the business use of their aircraft. If you are audited, the key to success is to be able to establish that the aircraft is ordinary and necessary to support your business activities, and be able to support this claim with contemporaneous documentation.

MANAGING STATE SALES TAX AUDIT RISK

Unlike IRS income tax audits, state sales and use tax audits occur on a regular basis. In some states, it is a certainty that an aircraft owner will receive a sales/use tax inquiry from the State Department of Revenue after the purchase of an aircraft. Therefore, if you are claiming a sales tax exemption on the purchase of an aircraft, you should be prepared to present documentation and flight logs to support the exemption claimed.

With the advancement of flight tracking websites and the common requirement of state aircraft registration, it is highly unlikely that you can avoid scrutiny of your aircraft from state taxing authorities by utilizing a Delaware or Montana LLC. I refer to this state tax avoidance strategy as playing a game of "hide and seek". If caught, you will owe the sales/use tax on the purchase plus penalty and interest.

State sales and use tax planning varies greatly from state to state. Some of the more common exemptions that may be available are:

- interstate commerce exemption
- occasional or private party purchase exemption
- rental and leasing exemption
- commercial business use exemption

Due to the mobile nature of an aircraft, it is important to determine if your aircraft may be subject to the jurisdiction of multiple states, such as the state of a second home or office location.

2015 LEGISLATIVE UPDATE

The House of Representatives passed HR 636, America's Small Business Tax Relief Act of 2015, in March. This bill, awaiting Senate action, will make Section 179 Expensing limits permanent at $500,000 annually. This provision applies to new or used business aircraft purchased for under $2,000,000.

On May 21, 2015, Representative Patrick Tiberi from Ohio introduced HR 2510, To Amend the Internal Revenue Code of 1986 to Modify and Make Permanent Bonus Depreciation. As the title of the bill suggests, this legislation will amend the tax code to permanently allow 50% bonus depreciation on new business aircraft purchases, eliminating the uncertainty of the current practice of Congress authorizing bonus depreciation annually.

With the latest economic news that the economy continues to struggle to recover from the recession, it appears likely that Congress will act on these legislations in the near future and introduce some much-needed certainty for business owners to invest and make capital improvement decisions. ■

Aviation Tax Consultants, LLC (www.aviationtaxconsultants.com) assists aircraft purchasers in acquiring aircraft in a tax efficient manner. Our services include the elimination or reduction of sales tax at the time of purchase, maximizing income tax savings, controlling the cost of personal use of the aircraft, complying with passive activity loss and related party leasing rules and Federal Aviation Regulations. Cooperation with clients' current tax and legal advisors is welcome and encouraged. Disclosure Under IRS Circular 230: To ensure compliance with requirements recently imposed by the IRS, we inform you that any tax advice contained in this communication, including any attachments, was not intended or written to be used, and cannot be used, for the purpose of avoiding federal tax related penalties or promoting, marketing or recommending to another party any tax related matters addressed herein.

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THE POWER OF THREE:
WELCOME TO THE NEW PIPER M-CLASS

Monday April 13, 2015 was a day of great pride and enthusiasm at the Piper factory in Vero Beach, Florida. In front of a couple hundred owners, prospects, local dignitaries, press and dealers, it was on this day that the curtains dropped and the next chapter in the future of Piper was unveiled. The response of those in attendance was overwhelmingly enthusiastic. The theme of the invitation only event was "The Power of Three", and as the name suggests, there were three main announcements on tap – all of which regarded the M-Class product line. The first two introduced us to the next step in the Mirage and Meridian lineage – re-named to reflect not only the level of advancements made in 2015, but also the growing product line that was revealed with announcement number three. And as far as excitement goes, that one is pegging the VSI!

M350 AND M500

Both the M350 and M500 are the most sophisticated versions in a long, long line of sophisticated aircraft. The hallmark of both product lines has been offering the marketplace what no other aircraft can...a pressurized, known-ice certified, radar equipped, cabin-class aircraft at a price point that is considerably lower than the next comparable competitor, or in the case of the Mirage, a class of its own. So how do you improve on this? How about making them significantly safer, easier to operate, and a portable extension of your office? That is exactly what has happened with the M350 and M500.

In 2015, the NTSB placed loss of control at the top of its "Top 10 Most Wanted" list for General Aviation. Coincidentally, Piper has just hit the nail on the head by certifying Garmin's Enhanced Autopilot Flight Control System (AFCS). Advancements in, and harnessing of technology has long been a key driver in creating a safer world for all to live in. Take the automobile industry for example. Automotive radars that foresee impending collisions and take corrective action by automatically braking are becoming more and more mainstream. Stray out of your lane and you may feel a rumble in your seat or steering wheel, alerting you to the transgression in progress. If you watched this year's Masters Tournament, you probably heard the fantastic tagline by Mercedes Benz about using the "…technology of today to make accidents a thing of the past". Perfect. Your car can be smart enough to know that something isn't right, and modern technology gives us the tools to do something about it. In its simplest form, think of Enhanced AFCS much in this same light - as a digital co-pilot who is there to watch over you, lend a nudge when you stray off the proper path, and intervene if you fail to take appropriate action. It really is that simple, and folks…it works! Unmanned aerial vehicles have proven this by amassing more than 3 million flight hours and the US Navy recently landed an unmanned aircraft on a carrier deck. It's just now that this technology is working its way into General Aviation. Make no mistake, the glass panels, traffic avoidance systems, and Vertical Profile Radars that we use today all transitioned from military and scheduled carriers. The challenge is implementing and furthermore certifying these features into a General Aviation aircraft. Piper stepped to the plate, underwent significant certification requirements, and the end results are their safest aircraft to roll through the factory doors to date. See the Enhanced AFCS section on page 6 for more information on this incredible system and do yourself a favor by scheduling a time to see it in person. It really is a fantastic platform with one goal: elevating the safety of your flight. I think we can all agree that's an endeavor worthy of our attention.

The new features don't stop there. One of those is a GRS 56 Iridium Transceiver which allows for real-time text messaging, e-mails and phone calls through Garmin's Connext Satellite Service. This is another on the "you have to see this" list! Staying connected while traveling isn't just a wish list item for many operators - it's a necessity. And it's now possible at a very compelling price point. Monthly subscriptions for voice and text (SMS) are $40, and usage fees are very reasonable as well. Incoming text messages are free and outgoing are $1.00. Voice calls are charged per-minute/per month at $1.60 for the first 1 to 50 minutes and decrease in price through several tiers as usage increases. Visit Garmin's website for complete information. Text messages and e-mails are sent and received via the MFD's AUX page. Phone calls are placed using the AUX page, and can be isolated to any combination of pilot, co-pilot and cabin as necessary using the new GMA-350 audio panel. The whole process is seamless and call clarity is phenomenal.

Other notable new features on the M350 and M500 include a GTS-825 Traffic Advisory System utilizing ADS-B In as well as Active traffic, a GMA-350 Audio Panel, An EFD-1000 Aspen Standby System, Digital Pressurization, Weather Radar Map overlay, MFD profile view showing winds, terrain and obsta-

cles, aural alert integrations, Technomark Electroluminescent (EL) placards, USB charger ports in the cockpit and cabin, a built in pulse oximeter (M350), and AMETEK Active Capacitance Fuel Probes (M350 only).

THE ALL-NEW M600

Introduce yourself to the new flagship of the Piper line: the M600. An aircraft that quite literally redefines the value equation for single-engine turboprops by marrying industry leading technology with the efficiency and performance of a clean-sheet wing design. The original premise for the M600 was straightforward. From significant customer input, a mandate was established for an airframe that can carry 800 pounds in the cabin at least 1000 nautical miles with reserves and a much higher Vmo than 188 knots. In the end, those goals appeared to be simply a starting point!

To achieve the program's goals it became evident that the wing needed to be changed. What we are talking about isn't a tweak here and there. This is a new, clean-sheet, high speed airfoil, slightly swept wing design that is a far cry from current PA-46 models. The radar pod is integrated into the leading edge of the right-hand wing. Winglets bookmark each side of the 43'-2" span. Using advanced tooling and machining processes, Piper was able to add substantial strength all while reducing critical weight. This translates into a wing capable of holding 260 gallons of fuel while being structurally approved for a Vmo of 250 KCAS! It's a marriage of form, function and design. Simply put, it looks really, really good and performs just as well.

The Piper M600 features the powerful Garmin G3000 Avionics Suite

As the first turboprop to bring Garmin's touchscreen G3000 to market, the M600 is full of enough features to dedicate an entire article all to itself. Specifically designed for light turbine aircraft, the G3000 comes equipped with three 16:9 aspect ratio, 12.1 inch diagonal high resolution display units and two digital GTC 570 touchscreen controllers. Garmin's Enhanced AFCS and Connext Satellite service introduced in the M350 and M500 is integrated – including the emergency descent feature. So is the latest and greatest in Garmin's weather radar – the GWX 70. This solid state radar operates on reduced power consumption, resulting in extended life. A new Altitude Compensated Tilt (ACT) feature automatically adjusts tilt for changes in altitude. Dual GDC 74 Air Data Computers as well as Dual GRS 77 AHRS Computers provide redundancy, and an Aspen EFD 1000 is a separate and very capable back-up. A 60/40 split mode for both the PFD's and MFD allow for customization of charts, maps, engine instrumentation, weather radar, etc. Traffic avoidance is accomplished using the ADS-B IN compatible GTS 825 with an option to upgrade to the GTS 855 for TCAS 1 range and alerts. Electroluminescent lighting and an extremely well planned layout get high marks for aesthetics and usability.

The Piper M600 boasts a luxurious and sophisticated new interior

The interior of the M600 will turn some heads. Redesigned and enhanced side panels, seats and passenger components all strike a feeling of luxury that rivals the nicest of business jets. A Garmin app compatible with Apple and Android devices called FlightStream 110 replaces a cabin XM remote and allows users to control the music from anywhere in the aircraft. From larger cup holders to a new streamlined main door handle, the attention to detail is obvious throughout, and the end result is an interior that is sure to please.

Yes. Get used to saying it, because the M600 will open a lot of doors. It's capable of efficiently performing many missions under a multitude of loading configurations, making it just as much at home with an owner-pilot as it is in a business pro-pilot flown application. Four adults and baggage from Baltimore to Key West: Sure thing. How about Boston to Key West with three adults and bags? You got it. If you don't need to travel across an entire coast, you can trade fuel for increased payload. There is a lot of built in flexibility. Take into consideration the price point and you have quite the value proposition in today's marketplace.

First flight of serial number 1 was accomplished on May 12, 2014. Now with three test aircraft having flown (at the time of the April event) nearly 800 hours, this program is more than just underway, it's nearing completion. Roughly 600 spins have been performed to date. Over 1,300 wind tunnel data runs have

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Continued from page 5

been completed in the University of Washington's test cell – the same used for many of Boeing's products. This includes power effects tests (while the model is producing thrust) - a level of testing not usually seen outside of military or high-level airframes. All of this translates to a product heading full steam towards certification. That is expected to happen later this year with deliveries starting in Q4.

M600 SPECIFICATIONS AND PERFORMANCE

Engine:	
Pratt & Whitney Canada:	PT6A-42A
Horsepower:	Flat Rated at 600 SHP
Fuel capacity:	260 US gallons
Weights:	
Maximum Takeoff Weight:	6,000 lbs
Maximum Ramp Weight:	6,050 lbs
Standard Equipped Weight:	3,650 lbs
Standard Useful Load:	2,400 lbs
Performance:	
Maximum Cruise Speed:	260 KTAS
Vmo:	250 KCAS
Range (NBAA Turboprop Profile)	1300 NM
Takeoff Distance (Over 50ft obs.)	2,350 ft
Landing Distance (Over 50ft obs.)	2,125 ft
Piper Extended Warranty Program:	
5 years airframe/avionics/parts and labor	
7 years/2500 hours on powerplant	
Standard Equipped List Price:	$2,825,000

*All performance and specifications are preliminary and subject to change.

This is a fantastic time to be a part of the Piper family. Whether you are an employee, in the dealer network, or most especially a current or prospective owner, these announcements reflect tangible enhancements to the fleet aimed at making already capable aircraft even more so, and a future aircraft that sets the bar even higher. Get your hands on an M350 or M500 today and get in line for the M600!

GARMIN ENHANCED AFCS FEATURES AND DESCRIPTION

- Autopilot Expanded Engagement Range: The autopilot on the M350, M500 and M600 has been designed and certified to engage up to the limits prescribed by TSO-C9c for autopilots. This translates to banks of up to +/- 75 degrees and pitch of up to +/- 50 degrees. This expanded range allows the Enhanced AFCS system to perform well beyond the normal flight environment.

- Electronic Stability Protection (ESP) w. Auto Engage LVL Mode: ESP works independently of the autopilot and monitors the aircraft's attitude while being hand flown. If a pilot banks past 45 degrees or pitches beyond 17 degrees nose up or 15 degrees nose down, the system will start to alert the pilot of his/her condition by initiating corrective control forces opposite of the direction of bank or pitch. If a pilot ignores or counteracts these control forces and remains in the ESP active zone for 50% of the last 20 seconds, the Auto Engage LVL Mode will activate, thus engaging the autopilot and returning the aircraft to a wings level / zero vertical speed state. From there, the pilot can select appropriate autopilot functions or disengage the autopilot and continue hand flying. The ESP function can be disabled for training purposes, but will default to the "On" condition for the next power up.

- Under Speed Protection (USP): USP certification allows the autopilot to remain engaged during low airspeed maneuvers and actively prevent the aircraft from stalling. The autopilot must be "On" for USP to activate. In relation to differing flight profiles, two different types of USP are available:

- Non-Altitude Critical: In this mode, the autopilot will sense an impending stall and transition to a minimum airspeed for autopilot functions. Altitude will be traded to maintain airspeed and applying power for a recovery will result in a level-off at whatever altitude the aircraft can maintain.

- Altitude Critical: In flight profiles deemed Altitude Critical, such as ALT, GP and TO/GA, the response from the autopilot will be more aggressive. In these modes, USP activates through the stall warning. The aircraft's nose will be lowered to combat the impending stall, and the aircraft will fly 2 knots above where the stall warning silences. When power is applied, the aircraft will climb to correct any incurred altitude deviation.

- Coupled Go-Around: A fantastic by-product of achieving USP certification is the ability to perform go-around procedures completely on the autopilot. Upon pushing the TO/GA button, the aircraft will pitch up to follow the flight director bars, leaving the application of power and clean-up procedures as the only manual duties left for the pilot. Once established in the go-around, the pilot can select the appropriate autopilot function to complete the missed approach procedure.

- LVL Button: The blue "LVL" button located at the top of the panel is available to pilots (or even a non-flying passenger) to activate a wings level, zero vertical speed attitude simply by pushing it. This feature is available both while hand flying and when on the autopilot. Activating the level mode cancels all armed and active modes of the autopilot that were previously engaged, but all modes are available after activation.

- Emergency Descent Mode (M350): This system monitors pilot interaction when cabin pressure is higher than 14,900 feet and autopilot is engaged. If determined through a series of prompts that the pilot isn't alert, the aircraft will initiate a series of descents to lower altitudes. The higher the cabin altitude, the shorter the activation time. To see these features in action, visit *www.youtube.com/user/Skytechinc* and click on the M500 videos. ■

Piper®

Two programs make *NOW* the perfect time to take home your new Piper!

2015 MERIDIAN M500 INCENTIVE PROGRAM

Your best deal on a brand new Piper M500 is now!

- Special demonstrator pricing
- 2 years of complete maintenance covered
- 2 years of database subscription covered
- 5 years of Garmin avionics warranty
- Initial pilot training & 2 recurrent slots

$100,000 in value!

M600 PIPER LINKAGE PROGRAM

Purchase a qualifying M500 now and receive a certificate for credit towards a factory new M600 later.

- Linkage certificate would be received within 30 days of delivery of M500.
- Delivery of M600 to be no sooner than January 1st, 2016.
- Certificate expires 18 months from delivery of M500

$150,000 linkage credit!

**Program only available on certain aircraft. Expires August 31st, 2015 or when inventory is sold. Contact Skytech for complete details.*

That's *250,000* reasons to visit your Piper dealer today! Don't let this deal pass you by.
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staying connected

BY DAVE CONOVER

Whether we like it or not, virtually every facet of our daily life revolves around connectivity from a myriad of portable devices. We have become so accustomed to having cost effective instant access to voice, text, e-mail and internet, that some of us are on the verge of a panic attack when our phone or IPad batteries are depleted and we can't locate our chargers! The ability to stay "on the grid" with our portable devices has enabled us to coordinate and be very responsive with business and personal communications; however, it has also led to the expectation from others of receiving a prompt reply to their messages. This electronic exchange has been taken for granted on the ground, but when you entered the cabin of a business aircraft it wasn't feasible...until recently. Some passengers enjoy the respite afforded by their aircraft, but many folks continue to search for a solution to be able to stay in touch while airborne, making an already productive business tool that much more so. Fortunately, as is often the case, technology is constantly advancing making what once wasn't possible (or affordable) an increasingly viable option. The choices for airborne communication range from portable handsets to full blown voice and streaming web services, with pricing for the systems ranging from $1,500 to well over $150,000. Based on the wide range of capability and pricing, a careful analysis needs to be performed to determine specifically what you are looking to accomplish and exactly how much usage will be required. Once you have an idea of what you are looking to accomplish, consult your avionics service center to hone in on what systems are approved for your aircraft and gauge their operational experience with the various options. Going to either extreme on a system installation, or not knowing all the operational costs once installed, will lead to a lot of disappointment.

Some basic questions that need to be answered in an effort to provide the best solution involve the methods in which you want to communicate. Do you simply want to enable the crew to make short phone calls and send texts for basic communication? Or do you want to add in "light" e-mail and a passenger's ability to communicate? The ability for multiple users to simultaneously talk and text with "light" internet access is yet another level. The highest tier for most general and corporate aviation aircraft is the capability for multiple users to utilize a broadband WIFI with streaming internet ability and the option to use their own phones and tablets to "talk and text". The specific network to route the information from the aircraft will depend on the level of desired system. The three major players are Iridium, Inmarsat and GOGO Biz.

The Iridium Satellite constellation is one of the most familiar networks. It has been operational since the late 1990's and consists of 66 active satellites in orbit. The existing system is due to be upgraded to the second generation "Iridium Next" over the next decade which will improve bandwidth to offer better service. Currently, Iridium offers worldwide coverage for good voice transmission and texts, along with e-mail and light internet (according to most reports similar to early "dial-up" speed). Charges for Iridium usage are very nominal and usually packaged in minutes. Voice services average around $1.60 per minute and short texts can be sent for $1.00 with incoming texts received at no cost. Iridium units typically have their own text and phone number so everyone using this system will see all communications, making security a possible concern. E-mail is utilized through an Iridium APP so each user can establish their own e-mail. It does not seamlessly connect to primary e-mail services, but is a very cost effective solution if the capabilities fit your specific needs. Portable systems such as the Iridium GO can be acquired for around $1,500 and allow interface to your personal devices. On certain G1000 and G3000 applications, Garmin has a very functional interface called Garmin Connext which is controlled on the multifunction display. Texts and phone calls can be placed via the MFD and can be distributed throughout the cabin when equipped with appropriate audio panels.

Inmarsat, which started as an International maritime organization, is a multi-level provider for aviation, maritime and government operations. The SwiftBroadband is supported by the Inmarsat satellite network, providing the backbone of two-way voice, fax and data services for aircraft operating virtually anywhere in the world. Data plans are packaged by MB, billed monthly, and range on average from $5.75 to $8.00 per MB. Voice packages have monthly fees from $85.00-$999 plus any additional minute fees. Since this system will support large amounts of data transmission, you can understand how high usage will translate into very high monthly expenses. Systems such as the Aviator 200 can provide both voice and wifi data solutions. While it is somewhat frustratingly slow for high internet browsing and streaming, it does provide a worldwide network. Systems can run $80,000-$95,000 for a typical installation. Additionally, Bendix King has the Aero Wave 100 system that runs at about half of the bandwidth of the Aviator 200. However, it is also about half the price and they have developed data plans that make usage more affordable.

Lastly, Gogo Business Aviation, formerly Aircell, operates a network of ground based stations that form a solid coverage area above 10,000 ft throughout the US, along the west

coast to Alaska and slightly over the Canadian border. Gogo may sound very familiar. The Gogo Business solution currently has over 2100 commercial airline aircraft and more than 6600 business aircraft operating with one of their solutions. Depending on the specific package, Gogo combines their broadband data service with the Iridium network for voice and SwiftBroadband to add an international option if needed. Gogo offers 6 domestic monthly data plans ranging from "pay-as-you-go" to $395 -$3,995 blocks of fixed amounts of data. Voice plans can be added to suit individual needs. AirCell offers numerous system options but the most common are the ATG 2000 and 5000. Both offer high speed internet capability, and when the "Talk N Text" option is installed they can support multiple users simultaneously using their own Apple or Droid phone for voice, text, and WIFI. The typical complete ATG 2000 WIFI system will run around $80,000 and the ATG 5000 (which will support streaming internet) runs around $140,000. In April of 2015, Gogo Biz announced the new ATG 1000 with an anticipated retail cost of around $35,000, plus installation. This system will offer many of the traditional features utilizing the same network with limited internet capability. Expected deliveries are to begin sometime during 3rd quarter of 2015.

At this time I want to point out a very important recommendation. Look into data plans, as they reduce the cost per MB substantially while making the monthly billing more predictable. Should you decide on a permanently installed system, make certain that your installation center includes an off switch in the cockpit that the crew keeps in the off position until otherwise requested. If you are chartering your aircraft, or you have other people flying who are unfamiliar with the cost of data, they need to be briefed prior to flight so there are no unexpected charges. Additionally, the crew needs to ask everyone to make sure all of their devices are turned off and are disconnected from the aircraft WIFI unless they are actively using it. If they are connected they have the potential to continuously update and use data throughout the flight whether they realize it or not - which can lead to surprisingly high bills. In the case of Gogo, you can review unbilled data usage online approximately 24-48 hours after a flight and can easily spot normal e-mail versus someone streaming or watching a movie.

To recap, determine exactly what capabilities you require along with your expectations of a system. Then based on these expectations, try to estimate your usage required - as this is a major cost consideration – and enlist the help of your avionics service center, as they will likely have input (both good and bad) from other clients.

Staying connected while flying in your aircraft is no longer just a wish. As technology evolves we are likely to continue seeing advancements for General Aviation. However, significant cost reductions in system prices and usage fees are unlikely in the immediate future. The good news is you have choices to meet your needs and budget. If you want a system to simply check in and send short messages, or you want a full blown "office in the sky" to keep you and your business communications running seamlessly - either is possible. ■

For more information on many of the popular choices available today, please visit the following links:

www.Bendixking.com	**AeroWave 100**
www.Aircell.com	**Gogo Biz**
www.Iridium.com	**Iridium Go**
www.cobham.com	**Aviator 200**

AIRCRAFT PRODUCTIVITY UPDATE

A Solid Predictor of Market Strength

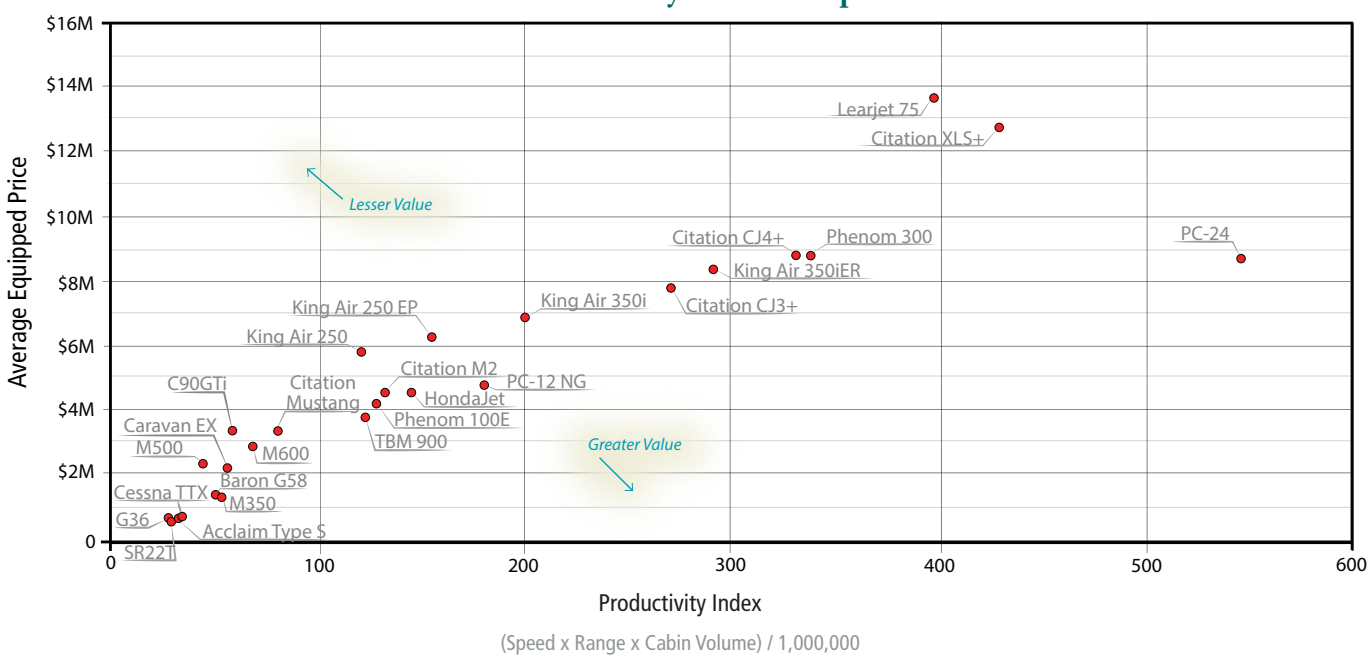
What makes an aircraft desirable? That isn't a simple question, and the answer varies depending on the one asking it. What makes one aircraft so desirable to one owner can be the very reason another won't even consider it. As the saying goes, "beauty is in the eye of the beholder". However, there's also another popular saying that carries a lot of weight in the aircraft marketplace: "The more you can do, the more valuable you are". Or in aviation terms, the more an aircraft can do, the more interest it should garner across different segments of the market, and theoretically the more valuable a commodity it will be. One only needs to take a look through the history books to see this playing out.

The Douglas DC-3 (or C-47) is a classic example. It's an aircraft that due to its capabilities had success on a variety of levels. From passenger transport, to cargo, to military, to who knows what? The DC-3 is probably the quintessential example of an aircraft that offers such strong productivity that it quite literally found a way into the record books. A few years back, Business & Commercial Aviation (B&CA) did a study on the productivity of current production aircraft. They came up with a measurement for aircraft productivity (termed by B&CA the Productivity Index) by multiplying speed by range by cabin volume and then dividing that number by 1,000,000. Next, they plotted the marketplace using the productivity index on one axis and the average equipped price on the other. The chart below is a snapshot of today's marketplace using this same formula and B&CA's information from the May 2015 Purchase Planning Handbook. The Piper M600 and Pilatus PC-24 have been added for comparison purposes. For the purpose of this exercise, cabin volume was found by multiplying cabin length by width by height. True cabin volume of all aircraft will be slightly smaller.

Now a lot of other variables have to line up for the paper number of an aircraft's productivity index to match the real world market performance. Is the aircraft priced appropriately? How is the aircraft manufactured and is the OEM stable? Is a solid support network in place to maintain the aircraft? Is it easy to get parts? Do paper numbers match real world, everyday specs? And simply, how does it fly? When the answer to all of these questions is resoundingly positive, and that is coupled to a favorable productivity index plot compared to the competition, I think you have the formula for a winner.

For those considering an aircraft purchase, the 80% rule is a good guideline to follow. Focus on acquiring an asset that can seamlessly perform the majority of your travel needs – but not necessarily 100%. For example, if you occasionally need to fly coast to coast but routinely stay under 500 miles, then buying a large jet that can do one extreme doesn't lend well to the normal profile. Stick with the aircraft that does your 80% well and fill in the rest with supplemental lift. This has proven to be a winning combination. The bottom line is, the more your aircraft can do, combined with competitive pricing, equates to value and long term demand. And that equates to a happy owner. ■

Productivity Index Comparison



(Speed x Range x Cabin Volume) / 1,000,000

PILATUS

PC-24 UPDATE

SPRING/SUMMER 2015

OFFICIAL PILATUS PRESS RELEASE - MAY 11TH, 2015

The first ever PC-24 Super Versatile Jet took off on its maiden flight on May 11, 2015 at 10:00 am local time from Buochs airport in Switzerland. Just under 1800 Pilatus staff, all of whom are directly or indirectly involved in the PC-24 project, were there to applaud the business jet as it taxied for takeoff. Prototype P01, call sign HB-VXA, flew across central Switzerland for a total of 55 minutes. The flight went exactly as planned with no problems whatsoever.

The PC-24 is capable of exceptional performance, and this maiden flight was a first opportunity to showcase some impressive credentials: the twin-engine business jet took off from runway 07 in just under 600 m (1968.5 ft) and climbed to 10,000 feet in around three minutes, where the two pilots completed a series of meticulously planned tests. The maiden flight followed a route across central Switzerland – from Altdorf to Brünig via Engelberg.

Test pilot Paul Mulcahy, who has some 11,000 hours under his belt, flew the PC-24 as pilot in command. He has already test flown countless aircraft types and has acquired a wealth of experience on twin-engine business jets. "Everything looks great so far! Beautiful handling – the PC-24 flies just as expected – a real Pilatus aircraft!", reported our second experienced test pilot, Reto Aeschlimann, by radio from the cockpit.

Throughout the flight, the PC-24 was accompanied and monitored by a PC-21. As is normal on maiden flights, the PC-24 landing gear was not retracted on this occasion. Twelve flight test engineers watch the flight from the ground as they kept and eye on a stream of real-time flight data received from the PC-24. Had the need arisen, these experts could have given the pilots crutial decision-making information: another means of ensuring the safest possible conditions for the entire maiden flight.

In recent months, the PC-24 handling characteristics had been trailed and refined during numerous tests using simulators and models placed in a wind tunnel. As part of the development team, our two pilots were involved in these tests; their role during the maiden flight was the verity the accuracy of the theoretical assumptions.

THE FIRST SWISS BUSINESS JET

"It's an emotional moment for sure, and another major milestone in the Pilatus and Swiss aviation history", says Oscar J. Schwenk, Chairman of the Board of Directors. "Seeing our new business jet take off on its maiden flight is something we've workd very hard for, and dreamt about for a long time. Today, at last, that 'Swiss Dream' became a reality!" Like the other members of the test crew, Schwenk's face is a vison of delighted enthusiasm.

The onlookers burst into another round of applause as the wheels of the PC-24 gently came into contact with the tarmac. Paul Mulcahy earned more applause as he left the cockpit, saying to the crowd that this is "a real Pilatus aircraft!"

On May 13, 2015 HB-VXA took off for its second test flight and retracted its gear for the first time as it flew across Switzerland.

CHALLENGING TEST FLIGHT PROGRAM

A total of three PC-24 prototypes will be built and used to complete a rigorous test program of some 2,300 hours over the next two years. Fewer than half those hours will actually be flown in Switzerland, the remainder will be flown elsewhere. Certification and initial deliveries of the first aircraft to come off the production line are planned from 2017.

For more information on the PC-24 and delivery positions, contact a Skytech representative. ▪

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a word to the wise

SAFETY, SECURITY, PRODUCTIVITY AND FLEXIBILITY

BY JUSTIN LAZZERI

For those utilizing General Aviation, these aren't just casual marketing adjectives. These are the very reasons why traveling via a private aircraft is preferred by many, and at times essential. As I'm writing this piece, the TSA report of screening failures allowing mock explosives or banned weapons through security checkpoints is crossing national headlines. A 95 percent failure rate does not paint a pretty picture. It seems like every couple weeks there is another report that solidifies the justification for private air travel. One week it's a security threat, the other a health scare, and sprinkled amongst them all are the everyday travel nightmares of crammed cabins, cancelled flights, and missed connections.

However, reports and ads attacking private/business aviation are apparently good for ratings because they don't seem to be going away either. Whether these reports focus on the minority while conveniently leaving out the overwhelming majority, or use less than accurate information; one thing is certain: public perception of General Aviation is a constant battle worthy of our attention. The truth is, it's much more than just public perception at stake. If left unchecked, the perception can lead to a reality that none of us want to see. Airport closures, higher fees, and ultimately less career interest by future generations are some examples of the threats that exist to General Aviation today.

A commercial for a phone company ran not too long ago showing three pampered "twenty-somethings" exiting a business jet, driving across the hangar in luxury cars only to board another jet. The point of the ad was to say they don't need to save money on a phone plan because they're "rich."

This is nothing new. Perception versus reality is a battle as old as the first business aircraft. For fans of the popular TV show "Mad Men" that recently wrapped up its final season, one scene towards the end has an exchange that even approached this concept. Set in the early 70's, an advertising executive (Peter Campbell) is meeting with Learjet who is looking for new representation. When asked how he views their business, Peter tells the company that they need to change their image and stop marketing their planes as a "frivolous extravagance" of the rich and famous, and that instead "corporate executives should be your core business", reflecting the useful tool that it is.

Fortunately for us, there are several organizations with the preservation of our freedoms at the forefront of their agenda. Monitoring, protecting and strengthening public perception everywhere from Capitol Hill to the national media to local communities is one of their primary goals. However, they can't do it all by themselves. I urge you to make it a goal of yours' as well. Several of the organizations that work to protect General Aviation are listed below. Many have fantastic resources available on their website. Take a look and happy flying. ■

Aircraft Owners and Pilots Association (AOPA) - *www.aopa.org*
National Business Aviation Association (NBAA) - *www.nbaa.org*
National Air Transportation Association (NATA) - *www.nata.aero*
Alliance for Aviation across America - *www.aviationacrossamerica.com*