

# OWNER & PILOT Advantage

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



COULD THIS BE THE  
BEST YEAR EVER TO PURCHASE  
A NEW AIRCRAFT?

**IN THIS ISSUE:**

Tax Facts • 3 / Database 101 • 6

The Continuing Climb of the Singles • 8 / The Basics of BasicMed • 10



### AIRPLANES, POLITICS, AND TAXES

It's true that there is a lot of uncertainty in Washington, DC this year. The new administration is clearly behind the schedule they laid out for making some sweeping regulatory changes. That being said, the desire to fulfill campaign promises seems as strong as ever. The chances of success could certainly be debated, but the topic of our cover article is not in dispute. The stars have aligned to make this an excellent time to consider aircraft ownership.

Even if nothing else regulatory were to happen, this would be a great year to buy a business airplane. We have the full section 179 expensing election, 50% bonus depreciation, and a roaring stock market/economy. Should the proposed Trump tax plan be implemented, it's just icing on the cake. We have not seen a combination of aircraft related tax benefits like this since the good, and very old days of the 10% Investment Tax Credits. And I'm old enough to remember how beneficial they were.

Also, there has never been a better selection of business transportation related products to choose from. You can dip your toe in the water with charter, move up to fractional ownership, partnerships, and of course full aircraft ownership. And there are plenty of people, including us, that can offer you a full aircraft management agreement where all you do is tell them where you want to go and when. At Skytech, we have the expertise to guide you through all the steps. One thing is for sure. No one likes to pay taxes or waste valuable time traveling inefficiently. Call us. We can help with both.

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

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

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



## MARKET TEMPERATURE

Let's visit some recent trends in the Business Aviation Market. While Large Jet and Midsize Jet values continue to decline, the Vref Light Jet Index has remained constant over the past two quarters. The Vref Turboprop Index has also remained quite solid only declining 1% over the past 3 quarters. The Vref Large Jet, Vref Midsize Jet and Vref Late Model Midsize Indices decreased minimally, while the Vref Late Model Large Jet Index fell by 7%. The tables below show the percent change for 2016 Volume 2 and 2017 Volume 1 Vref Values. ■

VREF Turboprop	Change since 2016 – Q2	Change since 2017-Q1
2011 King Air 350i	-11%	0%
2011 Pilatus PC-12 NG	-3%	0%
2011 Daher TBM850	-8%	0%
2011 Quest Kodiak	8%	8%
2011 Cessna Caravan 208B	1%	0%
2011 Piper Meridian	-4%	0%

Vref Light Jet / Late Model Midsize / Late Model Large Jet	Change since 2016-Q2	Change since 2017-Q1
2010 Citation Mustang	-13%	-5%
2010 Phenom 100	-10%	-2%
2010 Citation CJ2+	-5%	-1%
2010 Citation XLS+	-8%	0%
2010 Challenger 605	-19%	-5%
2010 Gulfstream G550	-24%	-7%

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Visit [www.vrefonline.com](http://www.vrefonline.com) to read the entire issue of Vref Market Leader

and for information on Vref Aircraft Price Guides

# FACTS

FOR OWNER/PILOTS

## TO MAXIMIZE YOUR TAX DEPRECIATION FOR 2017 COMPLETE YOUR AIRCRAFT PURCHASE BY SEPTEMBER 30

The following table is the depreciation schedule for an aircraft that is operated under Part 91 of the Federal Aviation Regulations, purchased before and after September 30, with 50% bonus depreciation, for a calendar year taxpayer:

	Half Year Convention (before September 30)	Mid Quarter Convention (after September 30)
Year 1	60%	52.5%
Year 2	16%	19%
Year 3	9.6%	11.4%
Year 4	5.76%	6.85%
Year 5	5.76%	5.45%
Year 6	2.88%	4.8%

### MACRS Depreciation Method

Federal depreciation is governed by the Modified Accelerated Cost Recovery System (MACRS.) The application of MACRS encourages a taxpayer to purchase an aircraft during the first nine months of a tax year. Two conventions impact the actual depreciation schedule of an aircraft:

- Half year convention – all equipment purchased throughout a tax year is considered to be placed in service on July 1, and will receive one half year of depreciation deduction in the year of acquisition.
- Mid quarter convention – if a taxpayer purchases over forty percent (40%) of his equipment in the fourth quarter of the tax year, depreciation deduction is limited in the first tax year.

Therefore, in order to maximize your aircraft depreciation deduction, you should complete your aircraft acquisition and place the aircraft in service by

September 30. If you are in the market for a new factory manufactured aircraft, this may be the time to place the order so that delivery of your new aircraft by September 30 is possible. If you are acquiring a used aircraft, this may be the time to accelerate your search process. Financing and pre-purchase inspection can add unexpected delays to the closing of the aircraft.

### PLACED IN SERVICE

An aircraft has to be “placed in service” by September 30 in order to begin depreciation. Signing a contract or making 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 you to fly in order to meet the placed in service requirement. ■

**Updated: July 2017**

**Daniel Cheung, CPA**

Aviation Tax Consultants, LLC ([www.aviationtaxconsultants.com](http://www.aviationtaxconsultants.com)) assists aircraft purchasers in acquiring aircraft in a tax efficient manner. Our consulting services include the elimination or reduction of sales and use tax at the time of purchase, maximizing income tax savings, controlling the cost of personal use of the aircraft, complying with passive activity loss and related party leasing rules and Federal Aviation Regulations. Cooperation with client’s current tax and legal advisors is welcome and encouraged.

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PUBLISHER  
Mike Fitzgerald

EXECUTIVE EDITOR AND  
WRITER  
Justin Lazzeri

COLUMNIST  
Preston Estes

GRAPHIC ARTIST  
Jennifer Longo

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MAGAZINE STAFF  
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Email us at:  
[Advantage@Skytechinc.com](mailto:Advantage@Skytechinc.com)  
800-394-1334

Thank you!

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

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# COULD THIS BE THE **BEST** YEAR EVER to Purchase a **NEW** Aircraft?



The current availability of tax benefits like 50% Bonus Depreciation and the §179 expensing election along with the potential for a large-scale overhaul of the United States tax code, could lead to a “perfect storm” of tax savings for aircraft purchasers in 2017. If the Trump administration is able to push the President’s plan for tax code overhaul through Congress, the lower tax rates in future tax years along with a significant tax savings in the current year, could result in an even bigger benefit to buying a business use aircraft this year, before the changes take place.

## PHASE OUT STARTING IN 2018

Under the current tax code, the 50% Bonus Depreciation available in 2017 for business aircraft being placed in service is being phased out starting with the 2018 tax year. The phase-out would begin with a reduction of Bonus Depreciation in 2018 from 50% to 40%. In 2019, Bonus Depreciation is further reduced to 30% and eliminated altogether for the 2020 tax year. If a taxpayer is already “on the fence” about making a new aircraft purchase, the upcoming changes to Bonus Depreciation are a serious consideration on the timing of that purchase.

While the benefits of Bonus Depreciation and §179 have been set to expire each year since 2012 only to be renewed by

Congress, there is good reason to believe that the phase-out that was passed into law in 2015 will be allowed to take place this time around. There is even the possibility that Congress could choose to completely do away with the accelerated depreciation incentive after the 2017 tax year, if a substantial overhaul of the tax code that is being promised by President Trump’s administration takes place. Even if an overhaul would not occur, the current timeline for the expiration of these benefits places a new sense of urgency on business owners trying to decide on an aircraft purchase.

## TRUMP’S GRAND TAX PLAN

The Trump administration has proposed a plan that would reduce taxes across the board for businesses and individuals. In years past, tax system overhaul plans always faced the hurdle of a divided legislature. However, with control of the House and Senate resting comfortably in the hands of the Republican Party, the likelihood of a reduction in taxes is high. Only time will tell how significant the changes will actually be, but we can speculate that some aircraft owners could end up in a “perfect storm” of tax savings based on current tax law and the proposed changes for businesses and individuals.

The changes to the tax code that President Trump has proposed would reduce the number of individual tax brackets to three rates (12%, 25%, & 33%), which would reduce the current top individual rate from 43.8% (39.6% rate plus Net Investment Income Tax of 3.8%) to 33%. The plan would also reduce capital gains and qualified dividends to a max rate of 20% from the current max capital gains rate of 43.8% for short term and 23.8% for long term capital gains. While there is a great opportunity for everyone to save on their individual taxes in this plan, the big savings could be realized by high-income earners with the change in the corporate income tax rates.

Currently, the maximum corporate tax rate is 35%. The proposal from President Trump would reduce the corporate rate to a flat 15%, which would be a boon to corporations in

the United States which have always faced the challenge of competing globally while having one of the highest corporate tax rates in the world. While this is a significant strategy to improve the profitability of corporations, the current plan also proposes that flow-through entities (LLC's, Partnerships, S-Corps) could pay the same tax rate of 15%, that corporations would be paying. This would be a monumental change to the tax code for taxpayers that are paying taxes on flow-through income at their individual rates, sometimes as high as 43.8%!

While it will likely be this summer (2017) or later until we have a true idea of what actual changes will take place in the tax code, there is no doubt that current tax benefits available to aircraft purchasers coupled with the potential changes on the horizon should leave purchasers of business aircraft optimistic that they will have a significant tax benefit from the ownership of a new aircraft.



## HUGE BENEFIT TO AIRCRAFT BUYERS

The current tax environment for business aircraft owners provides the opportunity to purchase an aircraft, new or used, and deduct a significant amount of the acquisition cost in 2017. With the top tax rate at 43.4% on ordinary income for high-earners, every deduction counts in reducing what could amount to a massive tax burden at the current rates. Another way that a significant reduction in tax rates in the future could benefit aircraft owners now, is the ability to reduce taxable income that is taxed at the current higher rates and only be subject to the lower rates when the recapture of depreciation occurs in the future at time of sale. Currently, if an aircraft owner in an LLC,



**THERE IS NO DOUBT THAT CURRENT TAX BENEFITS AVAILABLE TO AIRCRAFT PURCHASERS COUPLED WITH THE POTENTIAL CHANGES ON THE HORIZON SHOULD LEAVE PURCHASERS OF BUSINESS AIRCRAFT OPTIMISTIC THAT THEY WILL HAVE A SIGNIFICANT TAX BENEFIT FROM THE OWNERSHIP OF A NEW AIRCRAFT...**



Partnership, or S-Corporation is forced to recognize a gain from recapture of depreciation at time of sale, they are recognizing that gain as ordinary income and paying tax at their ordinary income rate (as high as 43.4%).

Under the proposed changes to the tax code made by President Trump, ordinary income from LLC's, Partnerships, and S-Corporations would be taxed at the new corporate rate of 15%. If an aircraft owner is able to deduct depreciation on the acquisition cost of the aircraft now and use the deductions against income taxed at a 43.4% rate and then only be subject to a 15% tax rate on the recapture of depreciation when the aircraft is sold, the net tax savings of 28.4% would be huge for the taxpayer.

While there are no guarantees that there will be a major overhaul to the United States Tax Code, Trump has proven capable at defying the odds up until now and the prospect of significant change is as good as it has ever been. If you have ever considered an aircraft purchase or have been trying to find the right time to make your aircraft purchase, this may be the best opportunity in a decade to capitalize on the tax benefits to make that purchase.

You should utilize the services of an educated aviation tax professional for your specific situation. Aviation taxation is a complex area that typically goes beyond the capabilities of most tax return preparers and there is no "cookie cutter" solution that fits every taxpayer. Ascendant Aviation Tax & Accounting specializes in aviation taxation and works with your CPA to provide a custom solution to your specific tax needs. ■

### Written by The Tax Team at FlyWealthServe LLC

Originally titled "Trump's Tax Plan and Changes to Bonus Depreciation May Make 2017 the Best Year Ever to Buy a Business Aircraft".

Reach The Tax Team at FlyWealthService LLC at 330 Aviation Way; Frederick, MD 21701 or call 844-246-9687. Visit [www.flywealthserve.com](http://www.flywealthserve.com) for more information.



# DATABASE 101

By Rick Shepard

Delivering a new Piper to its owner is one of my favorite parts of the job. Whether I am handing over the keys to a brand new airplane, or an airplane that is simply new to them, it's still an exciting time filled with emotion, celebration, and a lot of new information. One of the items that I cover with the new owner, usually a week or two after the closing is the process of managing a modern glass cockpit and its required databases. I feel it is important enough that I make "Database 101" its own separate class, not to get lost in the excitement of closing day.

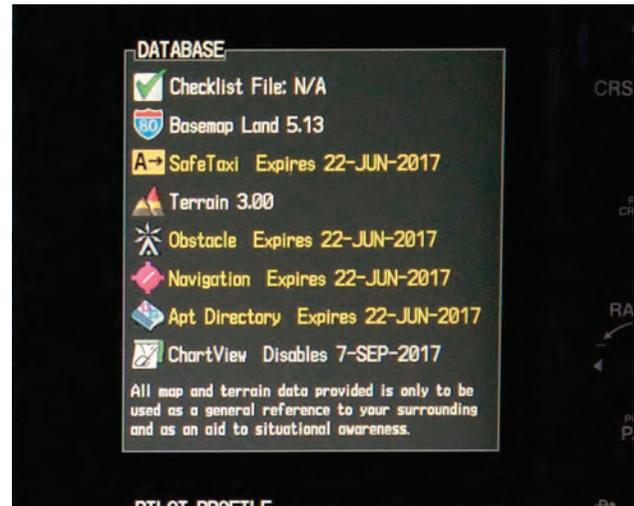
First, let's face the facts! I know I cannot go more than a few days without receiving some sort of notification on my smart phone saying that I have an update available. Why should my advanced glass cockpit be any different? Updating databases can be about exciting as checking tire pressure, but finding out that your charts are locked out on the morning of a big trip because they are four months old and not knowing how to load new ones can be inconvenient as well. I find that owners and pilots who regularly perform updates and stay current with the procedure for their specific aircraft find the process to be quick and relatively painless. However, if being involved with managing your databases isn't possible, I highly suggest finding someone that can do this for you.

Interesting Fact: In just one NavData cycle from Jeppesen (13 cycles per year) there are over 100,000 records that are constantly changing. Having outdated data can not only be an inconvenience, but could impact the safety of flight.

## WHERE TO START?

The equipment in your cockpit will dictate which databases to buy. Details such as the number of displays in your panel, your software level, and the coverage area desired will play into the decision making process. Owners with G1000 cockpits enabled with Jeppesen Chartview

will find it easiest to purchase their data from Jeppesen through what is known as a PilotPak. PilotPak bundles the different databases you will want or need into one package. Although it is possible to buy the data a la carte, the PilotPak is the most cost effective way to get full coverage. Coverage for the lower 48 states with approach charts will be approximately \$1500 per year in a PilotPak. The databases included in the PilotPak are: NavData, Obstacles,



SafeTaxi, AOPA or AC-U-KWIK Airport Directory, Terrain, and Charts. For you bucket listers, when the time comes to take your airplane to that far away destination that may not be included in your normal coverage area, you can get a Trip Kit from Jeppesen, ensuring you will have current NavData and Charts wherever your adventure takes you.

All data from Jeppesen and Garmin are assured compliance with all Data Quality Requirements (DQRs) by virtue of a Type 2 letter of Authorization (LOA) from the FAA, and depending on what rules you fly under, that data may be used as a paper chart replacement. Refer to AC 91-78, USE OF CLASS 1 or CLASS 2 ELECTRONIC FLIGHT BAG (EFB) for more information.



Now that you have purchased your databases, how do you get them into the aircraft? This requires loading the JDM or Jeppesen Distribution Manager (previously known as JSUM) onto your computer as the

interface tool. It can be downloaded free of charge from the Jeppesen website. The JDM will allow you to load a specific database to the appropriate SD card for your application. For NavData, the preferred media is a 2 GB SanDisk SD card that you can pick up locally. Databases such as Terrain, Safe Taxi, Obstacles, Airport Directory, and Charts are referred to as Supplemental Databases and must be loaded to the SD cards provided by Garmin and reside in the bottom card slot in your PFD/MFD. If you are wondering how often you need to go through this exercise of updating databases, the answer is... it depends. Each database has its own update cycle ranging from 14 days to 56 days or as needed (i.e. Terrain data). Lucky for us, our glass cockpits are pretty good about telling us when a cycle is going to expire on the first screen during start up.

There are some built in features in the Garmin glass cockpits that make managing databases easier- one is the Standby Navigation Database feature. For instance, there is a solution if you're leaving on a week long trip that spans two database cycles but you can't load the new cycle while you are on the road. Jeppesen makes the next NavData cycle available for download 10 days prior to the actual start date. Keeping in mind this data is not valid until that specific future date; you can upload the future cycle as the Standby Database. This allows you to fly the first part of your trip with legal and current data, and the Standby Database will automatically load to the Active Navigation Database upon the first power up within the new cycle date. Another nice feature, depending on your software level, is Database Synchronization. This allows you to load the supplemental data to one card and upon power up, the system automatically synchronizes the data to all of the displays.

After a little bit of repetition, the process can be grasped with relative ease. Here are some of the most common issues I see in reference to databases:

- Loading the wrong database to the wrong SD card.
- Placing the wrong SD card in the wrong slot.
- SD card write protection switch inadvertently placed in "lock."
- Not using a Garmin supplied Supplemental Data SD card.
- DB Mismatch CAS message (PFD's and MFD have different

database versions or regions installed).

- Corrupt data file/Corrupt SD card/Damaged or Inoperative micro SD card adapter.
- Data purchased that is incompatible with the software level of the aircraft.

Database management doesn't have to be intimidating. Having the ability to make updates on your own allows for greater flexibility in preparing for upcoming flights. Whether it's your first glass cockpit or you simply want to start managing databases yourself, contact your local service center to help you feel comfortable taking on the task of updating your modern panel. ■

## NOTES

- Always erase Nav card to start, then load Nav data onto clean card.
- Never erase supplemental cards. Just load data.
- Nav card moves between all screens (1 update). Take out when finished.
- Supplemental cards live in the units always.
- Standby navigation database will automatically update the active navigation database when unit is powered on within cycle date range.
  - Nav databases loaded "early" will/should be stored automatically on the bottom cards in the standby database.

### Tips:

- Shutoff non-essential electric (Fuel off, fans, door, lights, heat)
- Use C/B's to power on/off individual screens.
- Terrain takes a long time - GPU recommended.
- Make sure units are off when removing/inserting cards.
- Most answers will be YES.



**Rick Shepard**  
Piper Sales - South



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# THE CONTINUING CLIMB OF THE SINGLES

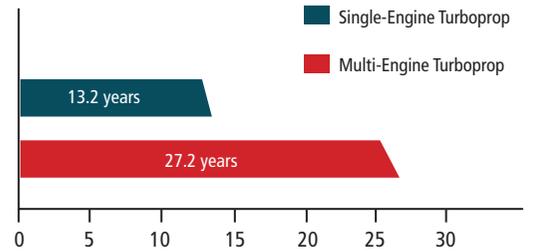
Single-engine turboprop aircraft are steadily expanding their reach around the globe. In March of 2017, the European Aviation Safety Agency (EASA) finally approved commercial air transport in single-engine turbine operations at night and in instrument meteorological conditions – twenty years after the same approval was received in the United States. Although late to the game, the same overwhelming reasons for ultimate approval were found. Quite simply, the single-engine turboprops have a safety record that meets (and exceeds) that of comparable twin-engine aircraft. That combined with modern, fuel efficient designs allow the ability to make air travel more affordable and accessible to the region. Taking a look at how the fleet has evolved in the United States paints a clear picture of how the two segments have grown.

As can be seen from these graphs, the single-engine turboprop is on schedule to outpace the multi-engine turboprop in the near future. At the last report, the spread in hours flown stands at 63,625 – almost indistinguishable on the graph above. That is combined with an average fleet age difference of 14 years. It seems the same trends that have seen the single-engine turboprops rise domestically will develop in Europe for the same reasons: newer/modern designs, efficient operation, more affordable ownership, and proven safety records. Sounds like a winning combination no matter where you call home.

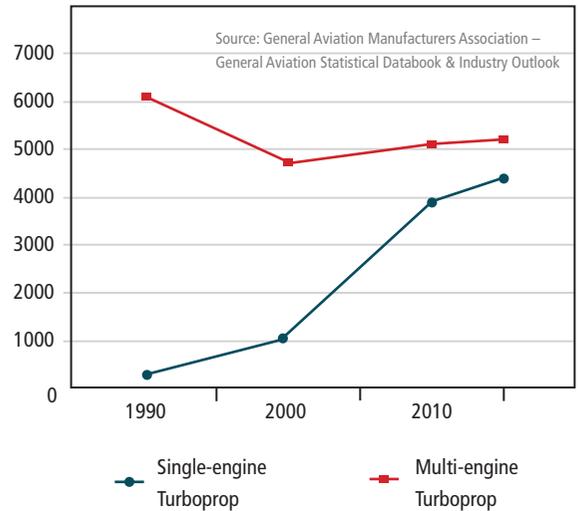
Source: General Aviation Manufacturers Association  
 2016 General Aviation Statistical Databook & 2017 Industry Outlook  
<https://gama.aero>



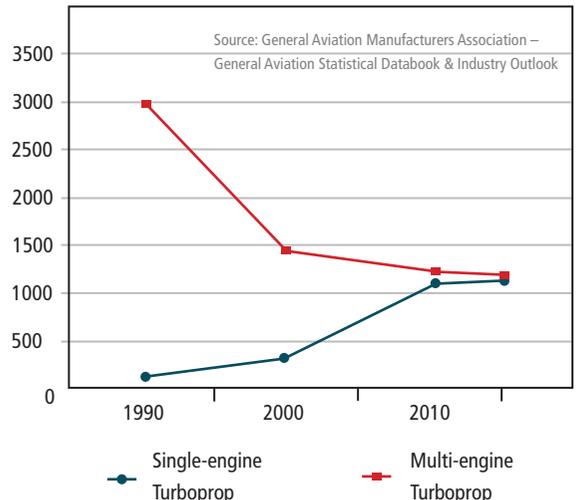
Average Age of Registered U.S. General Aviation Fleet



Active U.S. General Aviation and On-Demand Part 135 Aircraft



U.S. General Aviation and On-Demand Part 135 Total Hours Flown (in thousands) by Use and Aircraft Type



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PC-12 NG



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## THE DIFFERENCE BETWEEN THE HAVES AND THE HAVE KNOTS

We all love speed, but at what price? Compared to a TBM 930 on a 500 nm trip you'll only see a slim 15 minute difference in the Pilatus PC-12 NG. With a cabin that comfortably seats up to 9, a private lavatory, and lower total 5-year ownership and operating costs, the case for a new PC-12 NG over a TBM 930 is easy math. Visit [www.pc-12advantage.com](http://www.pc-12advantage.com) to learn how the PC-12 NG really does have it all.

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# The



# of BasicMed

As of May 1, 2017, pilots have a new option to meet FAA medical certification standards and continue flight operations. Third Class Medical Reform, or BasicMed as it's termed, is the culmination of many years of work spearheaded by The Aircraft Owners and Pilots Association (AOPA). In a sign of what can hopefully be things to come throughout the changing FAA landscape, this new rule takes a common sense approach to a topic many pilots will face at some point in their flying career: how do you continue flying when you can't pass a Third, Second, or First Class medical exam but are otherwise a healthy individual? In its simplest form, there are 4 steps to complete in the BasicMed process:

**Step 1** – Fill out the Pilot Information (Section 2) on the Comprehensive Medical Examination Checklist

**Step 2** – Visit your doctor for an exam specific to your BasicMed requirement. Have your doctor fill out the remaining portion of the Medical Examination Checklist. This exam is required at least once every four years to the date of your last exam.

**Step 3** – After completing both steps 1 and 2, visit AOPA online to take a BasicMed course.

**Step 4** – After successfully completing the course and passing a quiz, you will be able to print out a BasicMed certificate of completion to be added to your logbook along with the FAA Comprehensive Medical Examination Checklist completed by your doctor. This exam (and quiz)

must be completed every two years to the end of the month of your last completion.

*After completing these steps, all that is left to do is fly!*

This new rule not only has the ability to extend pilot's flying careers, but also outlines the types of aircraft and flight profiles that are still available for one taking advantage of the new rule.

### Operating Limitations under BasicMed

- Aircraft with a maximum certificated takeoff weight of up to 6,000 pounds
- No more than six occupants (1 pilot / 5 passengers)
- Flight conducted within the United States
- Flying at an indicated airspeed of 250 knots or less
- Flying at an altitude at or below 18,000 feet mean sea level
- No flying for compensation or hire, except in limited situations permitted by FAR 61.113 such as charitable flying, sharing costs of the flight with passengers, and flying in conjunction with a business, only if the flight is incidental to that business and does not carry any passengers or property for compensation or hire.

For a complete breakdown of what is allowed and what isn't under BasicMed and to start the process for yourself, visit AOPA on their website: <https://basicmedicalcourse.aopa.org>.

**The Piper M-Class product line (especially the all-new M600) represents the pinnacle of aircraft available under the new BasicMed ruling.**

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a Word to the Wise

## THE ADS-B COUNTDOWN

BY PRESTON ESTES - VICE PRESIDENT OF SERVICE



The January 1, 2020 deadline for ADS-B compliance may seem distant at present, but father time doesn't take many breaks and it will be here before you know it.

The numbers don't lie, and the vast majority of the General Aviation fleet still needs to make the upgrade. It's important to plan ahead for this deadline, as supply chain and scheduling logjams should be expected the closer we get. Below are several key points about ADS-B as well as a new logo we'll be using in future issues as added reminders. Please consult with your maintenance provider for more information on options specific to your aircraft.

*With ADS-B, pilots for the first time see what controllers see: displays showing other aircraft in the sky. Cockpit displays also pinpoint hazardous weather and terrain, and give pilots important flight information, such as temporary flight restrictions.*

*ADS-B also provides greater coverage since ground stations are so much easier to place than radar. Remote areas without radar coverage, like the Gulf of Mexico and parts of Alaska, now have surveillance with ADS-B.*

### WHAT IS THE DIFFERENCE BETWEEN ADS-B OUT AND ADS-B IN?

*ADS-B Out refers to an aircraft broadcasting its position and other information. ADS-B In refers to an aircraft receiving the*

*broadcasts and messages from the ground network such as TIS-B and FIS-B. ADS-B In is not mandated by the ADS-B Out rule. If an operator chooses to voluntarily equip an aircraft with ADS-B In avionics, a compatible display is also necessary to see the information. Refer to AC 20-165B for information on ADS-B OUT and AC 20-172B on ADS-B IN installation and certification.*

### **Under the rule, ADS-B Out performance will be required to operate in:**

1. Class A, B, and C airspace.
2. Class E airspace within the 48 contiguous states and the District of Columbia at and above 10,000 feet MSL, excluding the airspace at and below 2,500 feet above the surface.
3. Class E airspace at and above 3,000 feet MSL over the Gulf of Mexico from the coastline of the United States out to 12 nautical miles.
4. Around those airports identified in 14 CFR part 91, Appendix D.

*ADS-B in pilot cockpit advisory services consist of Flight Information Service-Broadcast (FIS-B) and Traffic Information Service-Broadcast (TIS-B). These are free services transmitted automatically to aircraft equipped to receive ADS-B. ■*

**Source:** <https://www.faa.gov/nextgen/equipadsb/faq>