The Official Publication of the Piper Owner Society

# MAGAZINE March 2018

in the Fourth Decade

The Night I Almost Died in a Plane Crash

... while Flying
a Simulator! /

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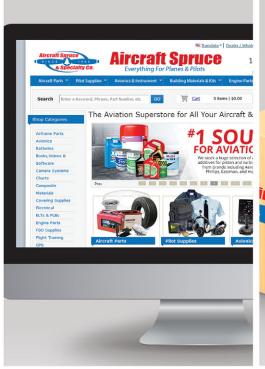
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- Avionics
  Evolution of the Autopilot
  By Bob Hart
- Tips & Tales from the Left Seat
  The Night I Almost Died in a Plane
  Crash ... while Flying a Simulator!

  By Joel Turpin
- Featured Plane
  Seminole in the Fourth Decade
  By Bill Cox



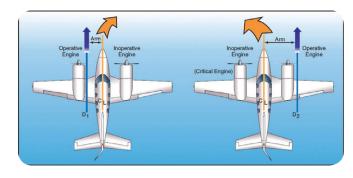
- The View from My Hangar
  Do You Know Where I Can Find ...?

  By Erich Rempert
- 32 Sky Talk
  Groundwork: How to Prep Your Plane
  for a Fresh Flying Season
  By Scott "Sky" Smith

Zen and the Art of Airplane Ownership Leaking Gas? Fix It Now!

By Scott Sherer

40 Circle of Flight
Traversing the Ragged Edge
By Tom Machum



46 Hangar Tip
Gluing With Grease!
By Erich Rempert

#### **DEPARTMENTS**

- 5 From the Publisher
- 6 On Approach
  Aviation News & Announcements
- 45 Advertiser Index & Website Directory

#### On the cover

Forty years later, the Seminole soldiers on as the least expensive training twin still in production, and one of only two in the class. Photo provided courtesy of Piper Aircraft, Inc. - www.Piper.com

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#### **PIPERS**

MAGAZINE Vol. 31 • No. 3

The Official Publication of the **Piper Owner Society** 

www.PiperOwner.org

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We proudly support EAA and AOPA.

PIPERS Magazine (ISSN 1052-5580) is the official publication of the Piper Owner Society. PIPERS Magazine is published monthly by the Aircraft Owners Group, P.O. Box 5000, N7528 Aanstad Rd., Iola, WI 54945. Periodicals postage paid at Iola, WI 54945 and additional mailing offices, POSTMASTER: Send address changes to PIPERS Magazine, P.O. Box 8551- Big Sandy, TX 75755-9766. Address all Membership/Subscription Questions and/or Address Changes to: PIPERS Magazine - PO. Box 8551 - Big Sandy, TX 75755-9766. Phone: 1-866-697-4737. Email: membercare@piperowner.org. Annual Dues: \$59.00 per year in the USA. Foreign orders, please add \$20 Canada/Mexico, \$30 Overseas. Publications Agreement No. 40049720. Eighty percent (80%) of annual dues is designated for your magazine subscription.

#### FROM THE PUBLISHER

# A New Flying Season is about to Begin ... Are You and Your **Plane Ready?**

If you're like me, you are already thinking about spring and all of the fun things you will do when it finally arrives. I'm a planner, so figuring out where I want to go and what I'm going to do when I get there is very inspiring. It can also be very invigorating, especially when it's cold outside and the symptoms of cabin fever are in full swing.

As we head into spring, use your remaining downtime to get things in order – be it your plane, hangar, garage, home or whatever. You can start by making sure all of your documentation (i.e. aircraft registration, insurance, medical, logbooks, etc.) is up to date and ready to go.

The same goes for any preseason maintenance items. No matter how big or how small the problem, get it taken care of promptly so that you can take full advantage of the coming flying season. Think about it; why sit at home impatiently waiting for your plane to get out of the shop? Worse yet, why waste even a second of precious flying time fixing something that you could have fixed yourself before the season even began?

If you're looking for advice on preseason maintenance or need help with a nagging technical problem, post your questions on the new Piper Owner Society Forum at www.PiperOwner.org. Forum moderator Scott Sherer, A&P Consultant Erich Rempert and scores of fellow owners are standing by and ready to assist..

Soar to new heights this spring - and remember, we're here to help!

Diana Jones

President and Publisher



PIPERS 5

#### **Aviation News & Announcements**

# Breakthrough year for BasicMed

25,000 pilots cleared to fly



May 1, 2017, probably doesn't carry much significance to the average person, but to more than 25,000 pilots, that date was a game changer. May 1<sup>st</sup> marked the implementation of BasicMed, or the biggest shift in aeromedical certification for general aviation pilots since the 1960s. Barely six months old, BasicMed has already sparked an interest in medical reform across the globe and contributed to some major aviation milestones, but perhaps its most noteworthy accomplishment is giving thousands of pilots their wings back.

If you don't know how BasicMed works, here's a primer: The new regulations allow pilots to fly aircraft up to 6,000 pounds, up to 250 knots indicated airspeed, with five passengers, day, night, VFR, IFR, and at altitudes up to 18,000 feet msl. Pilots must visit a state-licensed physician every four years for a physical exam and take an online aeromedical course every two years.

While medical reform may be a no-brainer to most pilots, that wasn't the case in Washington, D.C. For years AOPA and other aviation groups tried to spur change through the regulatory process with no result, so AOPA changed its strategy and began to pursue congressional action. After a grueling legislative process and push from GA pilots and allies in Congress, BasicMed was finally signed into law by President Barack Obama on July 15, 2016.

With only 4 percent of bills ever becoming law, the passage of BasicMed marked a monumental victory for the GA community led by AOPA's government affairs and advocacy team.

"Burdensome rules, costly and outdated processes were the main drivers for getting third class medical reform through Congress. It was a huge victory for general aviation and we couldn't have done it without our members and allies on Capitol Hill," said AOPA President and CEO Mark Baker.

When it passed as part of an FAA funding extension, the Wall Street Journal acknowledged medical reform as a "big win" for AOPA and private pilots.

Eddie Addison, a Lancair pilot based in Georgia, said, "Aviation is a core competency in my life which explains my continuation of the painful experience to maintain my third class medical. BasicMed is a great Christmas present to my wife Renae and me. We thank and applaud all of those who led the charge to get it passed."

Among other issues, the expensive medical testing – sometimes unnecessary and duplicative – for certain special issuances forced some pilots out of aviation for a period of time. To help get those pilots back into the cockpit, AOPA has developed its Rusty Pilots seminars as part of its You Can Fly umbrella program. Nearly 8,000 pilots have attended an AOPA Rusty Pilots seminar, and almost 2,000 pilots are back in the air, many of those flying under BasicMed.

For pilots who are questioning whether to trade their third class medical certificate for BasicMed, AOPA stands ready to help and has developed a number of tools to simplify the process. Prior to BasicMed's release, AOPA created its Fit to Fly page, which includes an instructional video, answers to frequently asked questions, and a special guide just for physicians to help alleviate confusion with the new medical process.

While AOPA knew there would be many questions concerning BasicMed, the association did not anticipate the tens of thousands of calls the Pilot Information Center would receive. Composed of skilled pilots, medical experts, and flight instructors, the

AOPA Pilot Information Center took in more than 30,000 calls, emails, and contacts on BasicMed and had to designate a hotline just for the topic. Nearly one-third of the department's contacts this year have been related to BasicMed.

Another resource for those with complicated medical or legal issues related to medicals is AOPA Pilot Protection Services, composed of a team of legal experts. On average the Legal Services Plan staff assists more than 4,200 pilots a year with their aviation-related legal matters. And although BasicMed has been a hot topic of conversation, the Legal Services Plan is available to discuss any aviation-related matters.

With more than 25,000 pilots now flying under BasicMed, optimism for it continues to grow. Though not even a year old, BasicMed has achieved some great milestones thus far. Flight instructors and Civil Air Patrol volunteers are able to fly under the regulations, and for those seeking a tropical adventure, the Bahamian Civil Aviation Authority agreed to welcome BasicMed pilots into its airspace. Already allowing sport pilots, the Bahamas' recent acceptance of BasicMed will let thousands more aviators venture to the island getaway.

The success of BasicMed has been noticed in other countries as well. In 2016, the United Kingdom took steps to improve the medical process and now, pilots can self-certify their fitness to fly. Most recently, Australia introduced a Basic Class 2 Medical—similar to BasicMed, in which pilots can visit a general practitioner instead of an aviation medical examiner.

Though there's been great success with third class medical reform, the work is not yet over. AOPA continues to encourage Canada and Mexico to allow U.S.-based BasicMed pilots to fly there, and as more third class medicals near expiration, AOPA anticipates many more pilots to jump on the BasicMed bandwagon.

Article provided courtesy of Aircraft Owners and Pilots Association – www. AOPA.org

#### FAA Issues AD on Piper PA-28 **Fuel Selector Cover Placards**



The FAA has issued an airworthiness directive (AD) affecting numerous Piper PA-28 series single-engine aircraft, requiring inspection of the fuel tank selector cover to verify that the left and right fuel tank selector placards are positioned properly, and replacing those found not to conform.

The AD takes effect Feb. 7, and affects 17,957 airplanes of U.S. registry, the FAA said, estimating the cost of each inspection at \$42.50, and the cost of any required placard installation at \$51.76.

Before further flight after Feb. 7, the left and right fuel selector cover placards of affected airplanes must be inspected for proper installation using Part I of Piper Aircraft, Inc. Service Bulletin No. 1309, dated Oct. 10, 2017. If fuel selector placards are properly installed, no further action is required, according to the AD.

If improper installation of the left and right fuel selector placards is found during the inspection, fabrication and installation of temporary left and right fuel selector placards is required before further flight, in accordance with the AD, or the specified permanent placards may be installed.

Within the next 100 hours' time-inservice after Feb. 7, the temporary placard must be replaced with permanent left and right fuel selector placards, the AD says.

AOPA reported in May 2017 that the FAA had circulated an airworthiness concern sheet advising operators of the problem and requesting reports of any nonconforming fuel selector cover placards. In issuing the AD, the FAA noted that it had "evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design."

The FAA will accept comments on the AD by March 9 online at http:// PIPEROWNER.ORG





www.regulations.gov or by mail to U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Please include docket number FAA-2018-0015 and Product Identifier 2017-CE-045-AD at the beginning of your comments.

Article provided courtesy of Aircraft Owners and Pilots Association – www.AOPA.org

# Trig Introduces New TMA44 and TMA45 Audio Panels

TRIG

With the exception of an aircraft that is unserviceable,

there can't be many things as irritating or tiresome as poor quality audio. Edinburgh based Trig Avionics solves this problem with their new audio panels which start shipping in January.

Aircraft owners can select from two models, the superior TMA45 panel and standard TMA44 panel. Both units benefit from a high-quality and simple-to-use interface, matched with impressive audio and entertainment technology. Trig audio panels are a natural companion for Trig TY96 and TY96A stack radios; however, they support third party products too.

Both audio panels are dual comm, dual nav and fully featured for IFR and VFR flight. The TMA45 has comprehensive entertainment features with Bluetooth wireless support for music and mobile devices. The TMA45 hosts 2-6 seats, and has Trig Digital Noise Reduction (TDNR) to automatically select the optimum level of intercom squelch and mic threshold, reducing cockpit noise. Trig Active Mute (TAM) further reduces unwanted background noise from radio static, producing class leading audio. These features allow customers to enjoy the comprehensive stereo music and entertainment. The TMA44 hosts 2-4 seats and has mono entertainment and communication options. Each audio panel has a built in intercom and marker beacon receiver.

Jon Roper Marketing Manager at Trig said, "With a choice of two audio panels Trig has created options for all pilots. Those looking for a fully featured stereo and Bluetooth audio panel will fit the TMA45 superior panel. Those pilots wanting key features but great value will most likely buy our TMA44 standard panel."

The TMA45 is a plug and play retro-fit for GMA340 audio panels. The TMA44 uses an industry standard 44 pin connector, making a simple retro-fit with older audio panels easy. Both panels are 33mm high and have the same form factor.

You can order a TMA44 or TMA45 through Trig's extensive Approved Trig Dealer network. For details visit: www.trig-avionics.com.

#### Janitrol Aero Announces FAA Approval for an AMOC to the Recent AD on South Wind Cabin Heaters

The Alternate Method of Compliance (AMOC) will enable owners of 8000-series South Wind heaters to upgrade their systems and exempt them from AD requirements.



Keith Bagley, president of Hartzell Engine Technologies (HET), announced that the company has received FAA approval for a global Alternate Method of Compliance (AMOC) covering AD 2017-06-03 on South Wind 8000-series cabin heaters.

The AD requires that owner/operators of South Wind (formerly Meggitt/Stewart-Warner) heaters comply within the next 10-hours of heater operating time or next scheduled maintenance activity, whichever occurs first and then repeat compliance every two years or 250 hours.

"The AD will require a Pressure Decay Test (PDT) on the South Wind heater's combustion tube. For the tube to pass, it cannot have any leaks," Bagley explained. "The FAA estimates that 90-percent of these heaters will fail the PDT. And, according to the AD, any tubes that fail must be replaced. The AD does not

allow for any repairs to the combustion tube."

"Our AMOC allows the replacement of the failed South Wind combustion tube on an 8000-series heater with a new design Janitrol Aero combustion tube and a new solid-state cycling switch," he said. "The crossover design of the new Janitrol Aero combustion tube is more crack resistant than the South Wind design."

HET has created an instructional video that explains the required pressure decay test (PDT) and highlights the company's design and manufacturing for the new combustion tube. The video is available at: https://www.youtube.com/watch?v=ucobN6Hidzw.

"In addition, areas of the new Janitrol Aero tube that are exposed to extreme temperatures are treated with  $Durakoat^{TM}$  heat-resistant coating, which further enhances the unit's reliability and longevity," Bagley said.

Bagley also explained that by following the combustion chamber replacement procedures outlined in the AMOC (or through a complete replacement of the South Wind heater with a new Janitrol Aero cabin heater), the owner/operator is relieved of the ongoing two-year/250 hour compliance requirements outlined in the AD.

"When incorporating our AMOC, along with the new Janitrol Aero combustion tube and solid-state cycling switch, the South Wind heater also receives a new spark plug and fuel nozzle, as well as parts needed to overhaul the fuel pump and solenoids," he said.

Janitrol Aero AMOC kits for unpressurized aircraft will be available in mid-February, kits for pressurized aircraft will follow by early April. List price of the Janitrol Aero AMOC Kits is \$3,495 for unpressurized aircraft and \$4,295 for pressurized aircraft, not including installation and overhaul labor. Bagley estimates the installed price will fall between that of a standard overhaul and the cost of a new Janitrol Aero cabin heater.

"The AMOC represents a viable and affordable option to upgrade their heater and relieve owners of repetitive AD compliance every two years," Bagley said.

He also explained that the AMOC Kit can be installed by select heater repair stations and that Janitrol Aero intends to begin offering South Wind heaters with the AMOC incorporated

on an exchange basis as well. Pricing for the AMOC Exchange heaters will be announced in late February when the units are available.

New FAA PMA approved Janitrol Aero heaters and STC kits to replace South Wind heaters can also be purchased directly from HET or through one of its authorized distributors. Contact information can be found at: www.Janitrol.Aero/distributor.

# Garmin Announces New 2018 Classroom Pilot Training Classes



Garmin announced expanded pilot training opportunities for 2018 to include additional classes throughout the United States. Instructor-led training classes are available for the GTN 650/750 touchscreen navigator series, the G500/G600 glass flight display systems, and all Garmin Integrated Flight Decks. Supplemental eLearning opportunities are also available, and additional training for the G500 TXi/G600 TXi and G3X Touch series will be added later in the year.

These new training opportunities and locations provide pilots with varying levels of experience a handson approach to learning Garmin avionics in a classroom environment taught by experienced certified flight instructors. Unless otherwise noted, all classes are hosted at Garmin Headquarters in Olathe, Kan., and include a factory tour, lunch and a Kansas City BBQ dinner.

#### G1000/G1000 NXi Pilot Training

Intended to serve both novice and experienced aviators, this two-day course will explore the capabilities of the G1000 Integrated Flight Deck by providing hands-on, scenario-based training in a classroom environment. The course will focus on flight planning, instrument procedures, vertical navigation, and the automatic





Continued on page 44

by Bob Hart - www.AvionixHelp.com

# EVOLUTION of the AUTOPIOT









An early Autoflite autopilot and a Narco Omnigator MKII (left) compared to the recently certified Trio Pro Pilot with servos (right).

#### ev·o·lu·tion

Noun: the gradual development of something, especially from a simple to a more complex form.

have written a number of "evolution" articles over the past few years, including features on the history of audio control, navcoms, mode S transponders and headsets (see "Resources" sidebar). In each of these cases, it was apparent that GA avionics technology evolves rather slowly between the time an initial version of a product or idea is introduced and the point at which the enhanced final version is made available.

Last month, I suggested that EFIS was going to be the hot topic in avionics for 2018 and that the autopilot would be a close second. That's because autopilot technology made a giant leap in available features/benefits, safety and affordability in 2017. These products are now making their way into legacy airplanes.

Often, it is just one company that drives these types of improvements. In this case, however, there are *four* manufacturers driving this new, affordable autopilot market, and that is a very good thing for the GA aircraft owner.

It seems like I've been talking a lot about autopilots recently. Trio and TruTrak have been getting all the mileage as of late, but both Garmin and Genesys/STEC have also introduced new and better autopilots for GA – and they, too, are coming in at a significantly lower price point.

Let's take a look at how the limited features and benefits found in earlier autopilots compare to what is now available from these four manufacturers.

#### **Early Autopilots**

The first autopilot can be credited to Lawrence Sperry, who successfully test flew an autopilot in 1913, if you can imagine that. Sperry is also responsible for the invention of the gyro, a critical element in autopilots.

In the 1950s, Don Mitchell (later Mitchell/Edo Air) began creating a GA autopilot and had six models by 1961. Piper first offered an autopilot in 1958 as an option on their Tri-Pacer, while Cessna/ARC first introduced an autopilot as an option in their 1962 172C model.

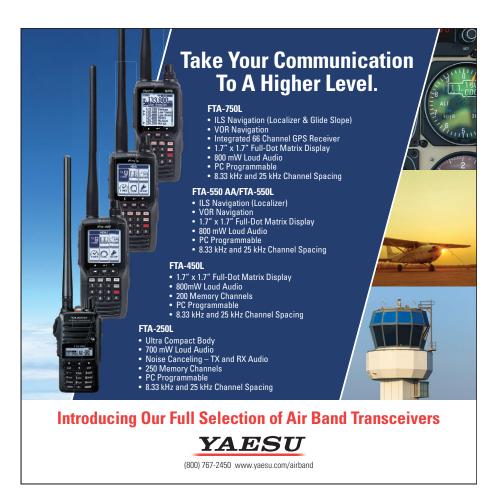


An early Narco Omnigator.

Early models were roll axis only. They kept the wings level, and when interfaced to the basic nav radios of the day, could track a nav signal but with limited accuracy and reliability. A few years later, if you added a DG or an HSI, you could also track a heading.

Two-axis models with basic altitude hold would follow, as would glideslope coupling. Over time, reliability got better, but any real bells and whistles were limited to just bells; whistles would come later.

Piper first offered an autopilot in 1958 as an option on their Tri-Pacer, while Cessna/ARC first introduced an autopilot as an option in their 1962 172C model.







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For subsequent access, simply go to the Forums tab on Piper-Owner.org and log in using your new user ID and password ... it's that easy!

\*Your customer number is the 11-digit number on your official Piper Owner Society membership card. The number also appears on the mailing label of your magazine. If you do not have your customer number or you have any troubles getting set up, please email samanthah@JPMediaLLC.com for assistance.

#### **Modern Autopilots a Decade Ago**

Avidyne introduced EFIS systems in 2003 for Cirrus aircraft (and later Piper) which included *solid-state* Attitude and Heading Reference Systems (AHRS). Cirrus models with the Avidyne Integra EFIS systems generally used the System 55X, STEC's flagship model that required a *gyro* turn-coordinator for roll axis sensing.



Garmin G1000.

In 2004, Garmin introduced their G1000 fully-integrated EFIS System and followed up a few years later with the GFC-700 autopilot, designed to interface with the G1000's AHRS system. Now owners had "big glass" screens and the reliability of a solid-state AHRS driven autopilot. The combination was revolutionary but was only available as an OEM option.

Avidyne did something unusual in 2010. They introduced their DFC90 autopilot controller as a direct replacement for the STEC System 55X's controller. Though only applicable to Cirrus aircraft at that time, the DFC90 offered a feature that we had never seen in an autopilot for GA. It was the first autopilot with a "Straight & Level" button, a safety feature that is really catching on today.

#### **Autopilots Today**

The following are the *basic* features found in virtually all current autopilots in use:

#### **Single-Axis:**

- Wings Level
- · VOR/ILS and GPS Tracking
- Tracking of Heading with optional DG, HSI or PFD
- GPSS Roll-Steering with optional interface

#### **Two-Axis:**

The horizontal axis features listed above, plus ...

- Altitude Hold
- Glideslope coupling (on some models)

Here are the *premium* features\* we find in many late models and virtually all new autopilots:

- **Altitude Preselect:** Set an altitude and the autopilot climbs or descends to that altitude and levels out. The pilot works the throttle(s).
- **Vertical Speed Control:** Set a rate of climb or descent and the autopilot will maintain that speed. The pilot maintains the throttle settings.
- **Flight Director:** The flight director serves as a visual indication of where the autopilot wants the plane to go. This has been a common feature on the more expensive autopilots for many years and a great tool for reducing pilot load in IFR.
- Envelope Protection, Overspeed/Underspeed Protection: Thanks to marketing, each of the four manufacturers calls it something different, but it is essentially the same thing. Once the autopilot is programmed to the aircraft's maximum and minimum speed, G-force limits and safe bank angle, it takes over when these parameters are exceeded. This is a significant step in the evolution of the autopilot!

- Auto Trim: A step up from trim prompting. Most autopilots with altitude hold capability will alert you when too much force is being applied to the horizontal stabilizer, and you manually adjust. Auto Trim corrects the trim issue automatically.
- **Track Offset:** One way to minimize traffic on the airways is to offset your track and run parallel to it. Today's new autopilots have this feature.
- Emergency Level Mode and Go Around: As mentioned, Avidyne introduced the "Straight and Level" button in their DFC-90 autopilot for the Cirrus back in 2010. Now, all of the new autopilots (listed below) feature a button that immediately takes the aircraft to straight and level flight. Garmin and STEC even provide a "Go Around" button for missed approaches another significant improvement in the evolution of the GA autopilot.

\*Note: almost all the newer features we find in modern autopilots are in the Pitch Axis!

#### **Pre-2017 Autopilot Options**

Prior to AirVenture Oshkosh 2017, STEC has been the dominant player in autopilots, with Century Flight Systems a somewhat distant second and Avidyne making their small contribution. Here's a peek at what was available prior to the Oshkosh announcements, along with the estimated price (installed) for each. I show this for perspective.

#### **Genesys/STEC:**

System 20: Basic Roll only with VOR/ILS/GPS Tracking
<b>System 30:</b> Same with basic Altitude Hold $\$17,300$
System 40: Same as the System 20 in 3-1/8" configuration\$11,600
<b>System 50:</b> Same as the System 30 in 3-1/8" configuration\$17,700
Note: GPSS and Electric trim are an option on the above sys-



tems. Heading track requires an optional DG or HSI.

**System 55X:** This was the standard in GA for 2016! Full featured with GPSS (standard), Glideslope Coupling and Vertical Speed Command......\$21,500

Note: Altitude Preselect and Auto Trim are an option on the 55X. STEC also offers a System 60-2 and System 65 for larger aircraft.

#### **Century Flight Systems:**



Century 4000 autopilot from Century Flight Systems.

Century 2000: Two-Axis with Full VOR/ILS/GPS
Tracking, Glideslope Coupling, Trim Prompting,
with DG.....\$24,500

#### **2018 Autopilot Options**

(listed alphabetically)

#### Garmin GFC 500



This is Garmin's first digital, retrofit autopilot for GA aircraft weighing less than 6,000 pounds. The system includes all the basic features of a two-axis autopilot, including full VOR/ILS/GPS tracking\* with GPSS roll-steering, Altitude Hold, Glideslope Coupling and Flight Director.

Garmin's G5 EFIS PFD instrument with its internal AHRS will provide roll and pitch sensing for the GFC 500. Not to be outdone by Trio and TruTrak, the GFC 500 also adds Vertical Speed command and Altitude Preselect. Add the G5 DG or HSI and you add heading track.

The GFC also includes the safety features first introduced to GA by Trio and TruTrak. When engaged, the GFC 500 uses what Garmin calls ESP to raise or lower the nose when an overspeed or underspeed situation is present. Additionally, it also

keeps the pilot from exceeding safe bank angles that could lead to a stall. Of course, the GFC 500 also comes with the aforementioned "Straight and Level" button.

The pricing for the GFC 500 looks like this:

• G5 EFIS PFD	2,149
• GFC 500 Autopilot	6,995
(Pitch Trim is an option at \$1,500 additional)	
• G5 DG or HSI/ with GAD29 (for Tracking	gand

 Heading
 \$2,995

 Total list price (excluding labor)
 \$12,139

Learn more at: http://bit.ly/Garmin\_GFC\_500

\*The GFC 500 with the optional G5/GAD29 adapter *appears* to be compatible with Garmin GTN and 400/500 series navigators only. You'll already need to have made a significant commitment to Garmin (or plan to) to use this autopilot.

#### Garmin GFC 600

The GFC 600 is designed for aircraft weighing more than 6,000 pounds. Unlike the GFC 500, the 600 includes an internal AHRS system and can link to the G500/600TXi PFD/MFD.

Pricing for the GFC 600 starts at \$19,995.

Learn more at: http://bit.ly/Garmin\_GFC\_600



Garmin GFC 600

#### Genesys/STEC 3100 Digital Flight Control System



STEC has been the dominant manufacturer for GA retrofit autopilots for years. The Digital S-TEC 3100, unlike the GFC 500, is self-contained with internal AHRS and requires no external sensors. It is full-featured by 2018 standards with all the basic features plus Vertical Speed Control, Altitude Preselect, Envelope Protection/Alerting and Level Flight button.

I have limited information on the S-TEC 3100 right now, but it appears the pricing starts at about \$16,200 (plus installation).

Learn more at: http://bit.ly/ S-TEC\_3100

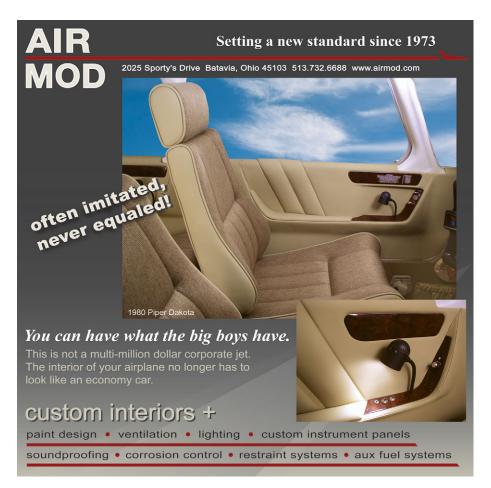
#### **Trio Avionics Pro Pilot**





Like I said, Trio and TruTrak have been getting a lot of attention lately – from the industry and from me! I have covered both the Trio and TruTrak systems in recent issues so I'm not going to get too specific here (see "Resources" to reference previous articles). Let's just say that like the Prego pasta sauce commercial of old, the phrase "It's in There" applies equally well to the Trio Pro Pilot!

All of the basic and most of the premium features are there: full tracking (including GPSS IFR approaches when coupled to a WAAS GPS), Altitude Hold and PreSelect, Vertical Speed Control, Auto Trim, Track Offset, Envelope Protection and the Straight and Level button. The Pro Pilot does not support a





flight director, but Trio has thousands of quality autopilots in the air and their technology is well proven.

The Trio Pro Pilot (including the required STC and install kit) runs \$6,000\* for most Piper and Cessna singles. The final installed price is likely under \$10,000.

Learn more at: http://bit.ly/Trio\_ProPilot

\*Note: New lower price! The Cessna 180/195 Series and the Piper PA32 series install kits are a little higher, but the worst (or is it the best?) scenario is \$6,500 complete, plus installation.

#### TruTrak Vizion Autopilot



TruTrak, like Trio, is not a new player in the autopilot business. Yes, their market has been the Experimental/Light Sport market for the last 15 years, but without the FAA breathing heavy over their shoulders, TruTrak (and Trio and Dynon) have been able to advance their technology faster than the certified market.

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While the legacy aircraft owner is just now getting Envelope Protection, Straight and Level buttons and other affordable features like Altitude Preselect and Vertical Speed, TruTrak customers have had these options available to them for years. It's all in there, minus the Flight Director and Go-Around button!

Pricing for the TruTrak Vizion is \$5,000 (excluding the required \$200 STC available through EAA). The final installed price should be less than \$9,000.

Learn more at: http://bit.ly/TruTrak\_Vizion

#### Conclusion

I believe that any pilot who flies IFR should have an autopilot on their equipment list, especially if they are a low-time pilot with a fresh IFR ticket! However, as an avionics advisor, I have been hard pressed to suggest that a legacy aircraft owner invest, especially in the more desirable 2-axis autopilot *unless* he or she has a very long-term plan for the aircraft. Even a basic, two-axis unit (like a STEC System 30) represents a big chunk of change to an aircraft owner who has tired avionics and an ADS-B mandate to meet.

Thankfully, that has all changed. It's great that Garmin has entered the market and STEC now offers a more affordable alternative, but if you're look-



ing for someone to thank, look to Trio and TruTrak. It was they who brought this affordable technology to pilots years ago, and it was the FAA who recognized it.

If you feel that you *need* a flight director or a Go-Around button, the big guys may be right for you and your budget. But if not, I think the choice is obvious and I hope that you will support the little guys too!

Until next time, I wish you Safe and Happy Flying!

Bob Hart - www.AvionixHelp.com



**Bob Hart** purchased his first airplane in 1971at age 21. He's owned five others since. As a Senior Avionics Consultant at Eastern Avionics, Bob has personally sold over \$20 million in Avionics. Bob now offers avionics advice through many on-line forums and through his website: www.AvionixHelp.com and is semi-retired. After living in Colombia, South America, for a few years, he is now

back in sunny Florida.

Editor's Note: Bob Hart is a regular participant on the Cessna Owner Organization's and Piper Owner Society's forums and is available to answer your avionics-related questions. To contact him, visit www.CessnaOwner.org or www. PiperOwner.org, click the Forums tab, and scroll down to the "Avionics" forum. COO or POS membership is required.



