

EAA 983



MAPS MAPS

WHEN FLYING, WE ALL USE MAPS, WHETHER THEY BE THE PAPER KIND OR ELECTRONIC BUT WHAT IS THE MOST ECONOMICAL FOR WEEKEND FLYERS WHO DON'T WANT TO SPEND HUNDREDS, IF NOT THOUSANDS, TO MAINTAIN THEIR SUBSCRIPTIONS? INQUIRING MINDS WANT TO KNOW! SO LET'S LOOK AT SOME CURRENT CHOICES. THEN SPEND YOU DOLLARS WISELY!

It's amazing how in such a short period of time Steve Job's little invention, the iPad, has come to be the gold standard for managing your aviation needs, specifically your charts. I would like to look at several less expensive devices for doing just that. But I would be foolish NOT to use the iPad as the gold standard as you, like millions of others, might come to the conclusion that it is the cheapest, most versatile, most adaptable device available. Hey, but don't let me predispose you, so let's look at some other choices and then you decide.

Paper charts, first published in the 1930's, contain detailed topographical

information. They're fun to look at and colorful. Terminal Area Charts provide information which is drawn at half the scale of Sectionals and provide twice the detailed information of major airports. To stay with paper charts and be up to date (notice I didn't say legal. We'll address that later) you would have to buy a Sectional every six months. Sometimes the changes are minor but sometime they are major, like adding that 1000' tower that wasn't there before. Throw in a few TAC charts and your flight kitbag barely has room for that "Little John" with the "Lady J adapter", that we all seem to need more and more. (cont)



Sectional charts and TAC are colorful and fun to look at but a full set adds considerable weight to lug around. They do make good sunshades though!

A full set of Sectionals from Sporty's will run you \$9 a piece or \$342 a year. If you want the Tear Proof ones, they're \$16.95/per. This will cover 38 sectionals for the lower 48 (or 45 as Obama counts) not counting Alaska. To this, add Terminal Area Charts at \$6.20 ea. or the full set of 30 for \$189. Don't have the shekels and don't need the detail? Then you could go with WAC's (World Aeronautical Charts) that have half the detail and twice the coverage. A full set of 12 WAC charts are \$138. Now to be safe you will probably also want a set of A/FD's or Airport/Facility Directories.

These are the green books that tell you everything about the airport you are about to fly into, such as pattern altitude, fuel availability, services, etc. A set of several will cost you \$37.10 BUT you have to update them every 56 days.

Ok, what's the tally on this paper jungle? No need to reach for your E6B, I'll do the math for you. For a full set of Sectionals, TAC's and A/FD for a year you will pay a staggering \$1300! WAC charts are updated annually and you can get a set for \$138/y, a comparative bargain, but you take your chances with mid-term updates.

Of course if you are just tooling around Pecan Plantation you could get along with just a few charts but this comparison is for a complete service for a year.

Now the legal part (my lawyers made me say this). There is no place in the FAR's that state when flying VFR you need to use or have on board a chart. In fact, FAR 91.103 states "Each PIC shall, before beginning a flight, become familiar with all available information..." Well, good luck getting ALL the information and getting your airplane off the ground unless you

have a PHD from the Evelyn Wood reading institute! No mention of charts. Just another "gotcha" but back to the topic. In the AIM, Chapter 5-1-1 (e), the word "urged" is used to encourage you to keep your charts up to date, but we all know the AIM is non-regulatory. We all also know that when you screw up, get lost and land at an AF base or pierce President Whomever's private aviation bubble they will ask you whether you "complied" with the AIM suggestions. Remember your "hearing" always gets better at the "hearing", so pay your dollar and take your chances. Let move into the 21st century.

There are many handheld GPS units that will get you from point A to point B. You may elect to use a monochrome unit from the third century BC and you could get it for very few Drachmas but you might as well have one color chart, even if it's from the 1960's. In 1996 I flew a Citabria Decathlon from North Pole, Alaska with only a monochrome Garmin 195. No moving map, just a pointer that pointed in the general direction of the airport which I entered via a toggle button. You can get one of these on Ebay for under \$100. The next Garmin in the hierarchy is the 295, the first color one from Garmin. This unit has a color moving map. It's getting hard to get the updates but it does have maps for the road. On Ebay they go for anywhere from \$300/\$400 but are great little units.



Let's look at another manufacturer, the Anywhere Map (www.anywheremap.com). For about \$550 you can get the Freedom 7 package including the Galaxy 7" TAB II which will display all your charts with the first year subscription included. If you want a bigger screen you can upgrade to the Freedom 10, a Galaxy TAB 2. Screen shots of the plate, gadgets, and accessories can be seen at the web site above.



The Anywhere Map with Galaxy Freedom 7

Back to Garmin as they are the 850 lb gorilla in the industry. Moving up the cost ladder are several units from Garmin. The Aera series is a compact unit that uses the touch screen. Although in theory this sounds great and trouble free, trying to get your fat finger to hit the sweet spot in turbulent air isn't always easy. Then there are the Garmin 695, 696, 795 and 796 that have different features, some with XM weather. These unit can cost you up to \$2500! Of course Garmin also has a full line of panel mounted units that can integrate with your autopilot. No autopilot? Didn't think so as this article was directed to the VFR flyer. If there were a product that Garmin, Anywhere map, Jeppesen, King and Seattle Avionics could work on giving you the choice, well, wouldn't that be great and versatile? Thee is!! It's called the iPad.

The iPad was probably never envisioned by Jobs to be the "Go To" navigational map in the cockpit but thanks to the software development of companies like Foreflight and WingX it has become the most popular, even gaining ground with the Bigboys at

many of the regional and major airlines. Why? Because they are light, easily upgradable and relatively inexpensive. Much has been written about the iPad and what it can do and I can't possibly go into all the details here, but I can tell you this; I have flown with an iPad for the last year and there is a learning curve no matter which software you choose (see links below) but it will track your motion on a moving map overlaid on a VFR or IFR chart. It will store all your approach plates, A/FD information, flight plans, and overlay on your route several weather products like winds, clouds, temperatures, and even current fuel prices. Can't get all that on a paper map can you? In addition you can surf the internet, check your mail and keep appointments on your calendar page and EVERYTHING ELSE the iPad can do, which is everything your home computer can do. Now when I see guys go flying at the local flight school they have their headset in one hand and their iPad in the other. That's all you need. The FAA has deemed the charts legal for IFR flight and the plates are always updated when you log on before your flight. The situational awareness is awesome but will make you a navigational cripple if you let your time/distance skills erode. What will the iPad cost you? That depends on how much memory you opt for. If you use it just for flight then the lowest memory will do. If you want to store pictures, music, etc I would opt for the largest memory, 64 GB, and that unit would cost you \$829. Make sure you get the Wi-Fi plus cellular because it has the internal GPS. If you have the non-internal GPS you can make it work with a GPS unit from Bad Elf (<http://bad-elf.com>) for about \$100. My only negative about the iPad is the size, which for me is a little large. But wait, there's more! The new iPad mini has just arrived and I plan on trading my one year old iPad for the mini. So if there is anyone out there who wants an iPad in excellent condition let me know.

OK the choice is yours. How much do you want to spend? You can certainly get away with a monochrome unit for under \$100 or spend up to \$2500 for all the bells and whistles. For my money the iPad is the most versatile machine on the market though almost

any unit is better than paper in my opinion. Your mileage may vary.



<http://www.foreflight.com>

<http://www.hiltonsoftware.com>

<http://www.digitalcyclone.com/products/pilot-my-cast/iPad/>

<http://www.skydemon.aero>

<http://www.flightprep.com>

<http://www.seattleavionics.com/default.aspx>

Now the iPad does need software and you can get it through many of the company links above for about \$75 to \$150 a year, but every time you log on to the program they update their databases. Several of these companies also offer a free version for the iPhone and some for the Android, so you could get in on the navigating fun for literally pennies, if you already have a smart phone.

AOPA has also entered the fray with their just announced FlyQ EFB. This used to be a freebee which I really liked. It was accessible from my iPhone and gave me all the frequencies and pertinent information on airports. One of the best features is it would automatically find the airport nearest you and place it first on the list. Other nearby airports would be in descending order. This kept me from having to pull out and fire up my iPad for just a local flight at a unfamiliar airport. Is AOPA going for the big bucks by entering into competition with their best advertisers? They are late to the game and after meeting Tyson Weihs, co-founder of Foreflight (one sharp cookie) they have a lot of catching up to do.

IPAD



iPad



iPad mini



Garmin Aera touch screen



Garmin 796 with XM weather

ADS-B

ADS-B In, Out. Are you confused, what's it all about? Now you can get all your questions answered at **ADS-B Academy** by Garmin. Go to

WWW.GARMIN.COM/ADS-B

You can expect a more detailed article on the ins and outs of ADS-B in/out in a future issue

New members:

Curt & Judy Farley 300HPO
Stearman 1943

Keith Brown & Chris Filidoro
they fly the Trike

Mike Montefusco who is an FAA FAAST team member is tireless in providing and refining safety seminars to help reduce the number aviation accidents. Mike gives seminars and flight instruction for all areas of aviation in fixed wing airplanes. He has developed a bi-annual checklist of things that might be performed during the bi-annual flight.

On the following pages you will find a Flight Review Outline followed by a Flight Review Checklist which Mike uses for the rides he gives and it might help you prepare for your next Bi-annual.

NOW if you're the type who doesn't like to take rides, regardless of the "threat" level, and a Bi-annual is a non-threat level, then see the story about the FAA FAAST safety program in the next column. The FAAST program is a progressive recertification program which you can take at your leisure over a two year period. Maybe you'll even learn something new!

The November EAA meeting was a combination educational forum/BBQ lunch. Mike Montefusco gave an excellent presentation on the FAA's FAAST program. Not sure what that is? In the past you were required to take a bi-annual flight review to remain current and keep updated on the latest hot topics. FAR 61.56 defines a Flight Review as a minimum of one hour of ground review and one hour of flight review, minimum. Of course how much can you review and can you even knock the cobwebs off your maneuvers in the that amount of time? Maybe you get the heebie-geebes when you take a flight review, even though you know it's a non-threat event.

With the FAA's FAAST (FAAFlight Safety Team) program you can now do a "progressive" recurrent. During your two year period you can attend three seminars (of your choosing) and complete three Events, which are similar to the old "Wings" program. I have gone to two seminars in the last two weeks and they were very informative. There are many different subject areas covered and you can find one near your location. FMI: <https://www.faasafety.gov/SPANS/events/EventList.aspx>

The Flight Activities are a series of maneuvers that you accomplish with an instructor. Complete three of these activities and three seminars and your two year bi-annual clock starts over! The level of ratings is selected on line and a program is tailored to your ratings. Flight activities can be found here: <https://www.faasafety.gov/WINGS/pub/accreditedactivities/activitySearch.aspx>

After the meeting a hangar cleaning was followed by a BBQ lunch!



Flight Review Outline

(Select representative flight demonstrations from this list)

- ☐ Aircraft systems
- ☐ Preflight
- ☐ Engine start & taxi
- ☐ Pre-Takeoff
- ☐ Takeoff and initial climb
- ☐ Enroute climb
- ☐ Level off
- ☐ Cruise
- ☐ Turns (shallow, medium, steep)
- ☐ Slow Flight
- ☐ Stalls and spin awareness
- ☐ Attitude instrument flying
- ☐ Partial Panel
- ☐ Use of Flight Following
- ☐ Emergency descent and slip
- ☐ Forced landing
- ☐ Go around
- ☐ Unusual Attitudes
- ☐ Pattern entry and operations
- ☐ No flap
- ☐ Half flap
- ☐ Full flap
- ☐ Approach and Landing
- Crosswind ☐ Takeoff ☐
- Landing
- Short field ☐ Takeoff ☐
- Landing
- Soft field ☐ Takeoff ☐
- Landing
- ☐ Takeoff and Landing
- Single Engine Aircraft : _____
- Multi-Engine Aircraft: _____

Important Airspeeds

Important Airspeeds

Rotate: _____ • V_{MC} : _____
• V_Y : _____ V_X : _____ • V_{YSE} : _____
_____ V_Y : _____
• Enroute Climb: MP: _____ RPM: _____
_____ • Emergency Descent: _____

• Cruise: _____ • V_{LE} : _____
• Descent: _____ • V_{FE} : _____
• Pattern & Low Cruise: _____

Single-/Multi-Engine Aircraft Performance

• Final Approach: _____ • Normal
Takeoff Distance: _____
• Go Around: _____ • Normal
Landing Distance: _____
• V_A : _____ • Accel-STOP
Distance: _____
• V_{Glide} : _____ • Accel-GO
Distance: _____
• Emergency Descent: _____
• Usable Fuel: _____ gals
• V_{FE} : _____ • Fuel Burn in Climb: _____ gph
• V_{LO} : _____ • Fuel Burn in Cruise: _____ gph
• V_{LE} : _____ • Endurance: _____ hours



Can you name this airplane?

ANS: Narushevich Ring Wing

Flight Review Checklist

1.Oral Discussion CFI ____ hours
Date: _____

2.Oral Discussion (continued, if
required) CFI ____ hours Date: _____

3.Aircraft :_____ hours
CFI ____ hours Date: _____

4.Aircraft :_____ hours
CFI ____ hours Date: _____

5.Aircraft :_____ hours
CFI ____ hours Date: _____

Aircraft :_____ hours total
CFI ____ hours total
FLIGHT REVIEW COMPLETE
ON: _____

Ground Review Outline

Part 43-

☐ Preventive maintenance
(Appendix A, (c))

Part 61-

☐ Medical type and duration
(61.23)

☐ Logbooks entries (61.51)

☐ Medical deficiency (61.53)

☐ Flight review requirement
(61.56)

☐ Day/night currency for carrying
pax (61.57)

☐ Private Pilot privileges/
limitations (61.113)

Part 91-

☐ PIC responsibility and authority
(91.3)

☐ Airworthiness (91.7)

☐ Flight manual, markings,
placards (91.9)

☐ Reckless ops (91.13)

☐ Dropping objects (91.15)

☐ Alcohol and drugs (91.17)

☐ Portable electronic devices
(91.21)

☐ ASRS (NASA) confidentiality
(91.25)

☐ PIC preflight actions (91.103)

☐ Seat belts/shoulder harnesses
(91.107)

☐ Formation flying (91.111)

☐ Right of way (91.113)

☐ Speed limits (91.117)

☐ Min safe altitudes (91.119)

☐ Altimeter settings (91.121)

☐ Compliance with ATC

clearances (91.123)

☐ Light gun signals (91.125)

☐ Operations in Class G airspace
(91.126)

☐ Operations in Class E airspace
(91.127)

☐ Operations in Class D airspace
(91.129)

☐ Weather, Comm, Mode C
requirements:

☐ Operations in Class C airspace
(91.130)

☐ Operations in Class B airspace
(91.131)

☐ Operations in Class A airspace
(91.135)

(91.133, 91.137, 91.141)

☐ Operations in Restricted/
Prohibited airspace

☐ Emergency Air Traffic Rules
(91.139)

☐ Operating near Space Flights
(91.143)

☐ VFR fuel reserves (91.151)

☐ VFR weather minimums

(91.155)

☐ Special VFR (91.157)

☐ VFR cruising altitudes (91.159)

☐ IFR rules (91.167-187)

☐ Airworthiness certificate
required (91.203)

☐ ELTs (91.207)

☐ Use of aircraft lights (91.209)

☐ Oxygen requirements (91.211)

☐ Inoperative equipment (91.213)

☐ Transponder and Mode C
reqmt's (91.215)

☐ Aerobatic limitations (91.303)

☐ Parachute requirements
(91.307)

☐ Operating Limitations (91.325)

☐ Owner/operator responsibility
(91.403)

☐ Return to service requirements
(91.405)

☐ Annual and 100 hour
inspections (91.409)

☐ Altimeter and static sys checks
(91.411)

☐ Transponder checks (91.413)

☐ Maintenance records (91.417)

Aviation Safety Concerns
(Discussion)

☐ Runway incursions

☐ Wake turbulence

☐ Critical weather situations

☐ Cockpit resource management

☐ Use of onboard navigation
equipment

☐ Aeronautical Decision Making

FLIGHT REVIEW SUMMARY
FOR:

INSTRUCTOR:



The New Airbus 390?



Redbird Simulators

To the left is a Redbird FMX full motion simulator. This simulator can be used for all types of training, subject to FAA maximums according to the rating you seek.

ABOUT REDBIRD SIMULATORS

Redbird Flight Simulations was established in 2006 with the specific purpose making simulation more accessible to the general aviation industry. Since its inception Redbird has delivered innovative, reliable and high-quality training devices to flight schools, colleges, universities and individual pilots around the world. With more than 300 devices in service worldwide, Redbird has quickly become the fastest growing and most innovative simulator provider in the industry.

Mission Redbird

- 1 Deliver fully capable and comprehensive flight training devices at prices that every flight school can afford.
- 2 Re-define the industry standard with functionally rich, durable simulators backed by the best service and support.
- 3 Keep our products and our customers on the leading edge.
- 4 Leverage our collective backgrounds in technology, the best-of-the-best off the shelf technologies, and a passion for

aviation to deliver truly revolutionary training devices.

Do you find it hard or too expensive to maintain your Instrument proficiency? i can help.

I spent time with Redbird simulator operator, Bill Ervin, located at Midway airport in Midlothian, who checked me out in its operation . If you would like to do your 6 landings, holding and tracking in a Redbird simulator I will be happy to operate it for a nominal fee plus the the cost of the simulator. This could amount to half of the cost of doing it in the airplane.

FMI: <http://motionairflight.com>

Call Tom at 817-579-1850

AND NOW A FEW WORDS FROM OUR SPONSORS

Pilots Needed

Pilots needed to fly the
Granbury High School
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at 9:00. (about 50 kids)

Please let me know if you
can fly by November 15.

ksasser@charter.net



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Here's STUFF we don't want. Maybe you do!
(otherwise called WANT ADS)

FLY the BEST - F.8L Falco N89WH

Flying the P-51 "Crazy Horse" was a bucket list experience. Flying Roy LoPresti's SwiftFury was another such experience. Owning and flying Falco N89WH, aka "Madame H," equals either.

TTAF 346/SMOH 346. Stunning Italian design - beautiful, fast, responsive, based at OTX1 (Pecan Plantation, TX). Plans built by Willard Hofler with excellent quality construction. IO-320 B1A Lycoming, 8.5 g/hr cruise at 155 knts/hr, aerobatic design loads, GPS, NavCom, Com, autopilot, electric trim, leather interior. No damage history. **Henderson Roy** ifraviator@aol.com \$84,000 US 206-399-6980

KIT FOR SALE

Plans # 21556 purchased 1989. Empennage and left wing have been completed, all parts for right wing present. Fuse frame for wing joint also present. Phlogiston wing spar option. Finishing kit and quick-build fuselage option are still available from Van's (according to Van's website). I bought a flying RV-6 after finishing the first wing, so it's time to let the project go. Good workmanship (modesty aside). Asking \$3500, reasonable offers considered. Great inexpensive way to get into building.

Pics at <https://picasaweb.google.com/N889RV/RV6KitForSale?authkey=Gv1sRgCNC93ezCj7TrkwE#>
Located at Nassau Bay airport (OTX0). jpsowell@windstream.net

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the slippery stuff)**

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Please join us for the best Christmas Party of the year, the
2012 EAA Chapter 983 Christmas Party Saturday,

December 8 @ the Pecan Plantation Clubhouse ballroom