

The SPACE COAST AVIATOR



June 2017

Fly-out

Winter Haven Airport (KGIF)
Saturday, June 10, ETA 9:00 am

KMLB Runway 5/23 Closure

Briefing May 16, 2017

Notes thanks to Board member Ray Liles

The KMLB Staff gave a presentation today on the temporary closing of RNY 5/23 at KMLB. As the new control tower is built, it will create a line-of-sight interference of RNY 5/23 from the existing control tower.

Closing of RNY 5/23 will start around June 1, 2017. Once closed, it will remain closed until the new control tower is in operation -- sometime around February 2018. During the closure, the runway will be milled and resurfaced. New signage and edge lighting added. Timeline for resurfacing is September 2017.



Fabric crosses "X" will indicate runway closed. If physical hazards and equipment in use, lighted "X" will be used. Appropriate NOTAMs will be issued covering the closure.

Resurfacing of RNY 9L/27R is scheduled to start in early June. This will include milling, resurfacing and grooving. No scheduled completion date. Possibly September 2017 before they start resurfacing 5/23 and finally 9R/27L. → mlbair.com

Hurricane Season begins

Flying near TRW+ can damage the airplane and hurt

According to the National Hurricane Center, the official Atlantic hurricane season begins June 1, 2017. The season also brings with it severe Thunderstorms. Careful flight planning takes on a greater meaning. The first rule is to avoid ALL thunderstorms.

The FAA issued a safety pamphlet, P-8740-12, years ago, listing thunderstorm basics and avoidance. Briefly, thunderstorms produce the most violent weather hazards: hail, icing, and turbulence. Never fly closer than 5 miles to any visible storm cloud. Those with overhanging or anvil areas FAA strongly recommends increasing that distance to 20 miles or more. You can encounter hail and violent turbulence anywhere within 20 miles of very strong thunderstorms and that is a near guarantee on an anvil sides.



Never attempt flight beneath thunderstorms, even with good visibility, because of the destructive potential of shear turbulence in these areas. At the first sign of turbulence, reduce airspeed immediately to maneuvering speed, or Va. If you inadvertently penetrate a thunderstorm, maintain a straight and level altitude on a heading that will take you through the storm area in the minimum time.

In the past months, we have included a number of NTSB fatal accidents directly related to loss of control (LOC) and aircraft breakup due to thunderstorms. At least one was apparently VMC when LOC breakup occurred.

Never let "get-there-itis" take the place of good judgment. Get a thorough briefing. Fly safe. →

<http://www.nhc.noaa.gov/> FAASafety.gov/Thunderstorms

Melbourne VORTAC

Update

Since last month, from various sources we heard the parts necessary to fix the glitch in the new DVOR system were shipped from Finland to Germany for reasons and date unknown. Then reshipped, again by boat, from Germany to the U.S. with Miami as port of entry. Believed to have arrived in Miami on or about April 30, 2017. Beginning May 25, activity was observed at the facility. →



SAMI Research Project

Earn \$280 cash for participating in research

Southern AeroMedical Institute (SAMI) in collaboration with Embry Riddle is offering \$280 for participants who complete a two-day altitude performance study. Participants will perform perceptual tasks on a laptop in a high altitude chamber both at sea level and at 8,000 feet in simulated altitude.

The participant with the best performance on the tasks will receive an additional \$100 bonus to be paid after performance for all participants has been scored approximately mid-July.

To be eligible. Be 18+ years of age. Valid FAA medical certificate (Class 1, 2, or 3). A student pilot license (private license preferred). Able to devote Saturday, June 17 and Sunday, June 18 to the project at the SAMI Training Center in Melbourne FL.

Time required. Seven to eight hours of participation per day, for an estimated total of 14 - 16 total hours. Each day is comprised of approximately 3.5 hours of completing the computer-based tasks and 3.5 hours of rest time. **You must complete both days of participation to receive the payment.**

For more information: Jennifer Thropp, PhD throppj@erau.edu To register (321) 676-3200

Location: Southern AeroMedical Institute (SAMI) <http://sami-aeromedical.com/>
1698 B West Hibiscus Blvd,
Melbourne, FL 32901
(321) 676-3200

International Flight Plan Update

Implementation delayed

On May 23-24, 2017, the FAA held meetings with Nav Canada and vendors (Harris Corporation, CSRA and Leidos) to review testing results between all operating systems for implementation of the new FAA requirement for International Flight Plan (ICAO) format for all civil flights filed with Flight Service.

To ensure a safe and seamless transition with full interoperability, the FAA has decided to delay implementation until the fall of 2017. The additional time will allow all service providers to address required changes identified in testing and integrate enhancements to the international format, while avoiding system changes during the busy summer flying season. The FAA will provide a 30-day advance notice to the public when a final date is selected later this year.

Learn more about the International Flight Plan format by visiting the FAA [website](#) for detailed instructions and simplified guidance on how to use the International Flight Plan format.

Direct comments or questions to Flight Service at the link below. →

http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/fs/res_links/flight_service_feedback/

Aviation History

Speed-read or click the date

[June 1, 1925](#). A car dealer covers himself in stamps worth \$718 and asked to be sent airmail from San Francisco to New York; the U. S. Post Office refuses to accept him.

[June 2, 1910](#). Charles Rolls in a Wright Flyer made a roundtrip non-stop crossing of the English Channel from Dover, UK, in one hour, 35 minutes. He co-founded Rolls-Royce.

[June 2, 1995](#). Two North American Rockwell B-1B "Lancers" from Dyess AFB, Texas, set three speed records on a historic around-the-world flight.

[June 3, 1973](#). The first crash of a supersonic transport aircraft occurs as a Tupolev Tu-144 goes down during a demonstration flight at the Paris Air Show.

[June 4, 1927](#). Americans Clarence D. Chamberlain and Charles A. Levine make the first non-stop flight from New York to Eisleben, Germany in a Bellanca monoplane. They fly 3,905 miles in 42 hours, 15 minutes.

[June 6, 1942](#). Japanese invade the Aleutian Islands.

[June 8, 1995](#). Capt. Scott O'Grady, USAF F-16 pilot rescued in Bosnia, after six days in hostile territory.

[June 9, 1961](#). Delivery of the first Boeing C-135 jet cargo aircraft to the USAF Military Air Transport Services.

[June 11, 1926](#). The first flight of the Ford 4-AT "Trimotor," an all-metal monoplane that competes with the three-engine Fokker and becomes a pioneer American airliner. Known affectionately as the "Tin Goose.

[June 12, 1909](#). Louis Blériot flies his Blériot XII monoplane at Issy-les-Moulineaux with two passengers, Alberto Santos-Dumont and André Fournier. This is the first time a pilot has flown with two passengers.

[June 12, 1942](#). Twelve B-24 "Liberators" made the first attack against the Ploiesti refineries.

[June 13, 1942](#). The U.S. Navy makes its first operational test with Loran (long-range navigation) equipment with a receiver mounted in a K-2 airship on a flight from the Lakehurst, N. J. Naval Air Station.

[June 14, 1912](#). Corporal Vernon Burge became U. S. Army's first enlisted pilot.

[June 15, 1928](#). Mail is transferred from an airplane in flight to a train as Lt. Karl S. Axtater flies directly over an Illinois Central train and transfers a mailbag to a railway clerk.

[June 16, 1937](#). Commercial passenger service began between New York and Bermuda by Pan American Airways, using the Sikorsky S.42B flying boat Bermuda Clipper.

[June 17, 1942](#). U.S. Army Air Forces conduct a test at Wright Field in Dayton, OH successfully picking up gliders from the ground by an airplane flying at more than 100 mph.

[June 19, 1944](#). "Marianas Turkey Shoot" U. S. Carrier-based fighters shoot down 220 Japanese planes while only 20 American planes are lost.

[June 20, 1928](#). Braniff Air Lines began operations. Later Braniff International Airways.

[June 20, 1941](#). The United States Army Air Forces is established.

[June 21, 1908](#). The first flight of the Aerial Experiment Association's (AEA) promising "June Bug" biplane, their third machine, takes place in New York State. It has a 40-hp air-cooled Curtiss engine.

[June 23, 1938](#). President Roosevelt signs Civil Air Authority Act creating Civil Aeronautics Authority of five members, an Executive Administrator and a 3-man Safety Board.

[June 25, 1928](#). The Boeing Model 83 (F4B) biplane, the last from this company in which wood is used for the wing frame and the last biplane built by Boeing, makes its first flight.

[June 26, 1909](#). The first commercial sale of an airplane in the U. S. made as Glenn H. Curtiss sells one of his planes to the Aeronautic Society of New York for \$7,500. This action spurs the Wright brothers to begin a patent suit to prevent him from selling airplanes without a license

[June 29, 1909](#). In opening demonstration flights before the United States Army at Fort Myer, Virginia, Orville Wright makes the first flight with the new Wright A built to replace the one destroyed in September 1908.

[June 30, 1910](#). The first airplane bombing tests when Glenn H. Curtiss drops dummy bombs from his own Curtiss biplane on the shape of a battleship marked by flagged buoys on Lake Keuka, NY.

[June 30, 1928](#). The Commerce Department completed development of the low frequency radio-range navigation system. The system of four-course radio ranges will guide pilots along an airway between New York and Cleveland day and night regardless of visibility conditions.



“Say again”

Asks why he was referred to as “Ace”, the old pilot replied, “Because during the war, I was responsible for the destruction of six aircraft. Fortunately three were enemy” -Capt Ray Lancaster USAAF

Airworthiness Directive

AD’s that may affect member’s airplanes

The FAA has adopted a new [AD 2017-08-12](#) for **GROB Aircraft AG Models GROB G 109 and GROB G 109B gliders**. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as broken pivots of the tail wheel-mounting bracket resulting from corrosion and damage due to wear. We are issuing this AD to require actions to address the unsafe condition on these products.

This AD is effective May 31, 2017. → www.faa.gov

Special Airworthiness Information Bulletins

Cessna 150 and 152 models and Continental Motors 520 and 550 engines

On May 10, 2017, the FAA issued a SAIB on certain **Continental Motors, Inc., 520 and 550** series engines that outlines service instructions for identifying causes of engine kickback and recommended engine inspections following a kickback event. See the full bulletin [here](#)

On May 11, 2017, the FAA issued a SAIB on certain **Cessna 150 and 152** models that highlights the potential for loose elevator attach bolts. The SAIB was issued based on a service difficulty report of an elevator hinge bolt backing out on a C-150. The FAA recommends performing the inspections detailed in the Cessna supplemental inspection document (SID) 55-10-01. Both the SAIB and the SID(s) are [here](#). →

“There I was”

Heading indicators and compass can be handy gadgets

A PA28 pilot learned a lesson about the importance of a basic sense of direction or the use of basic navigation equipment in selecting the correct runway. The incident also serves as a reminder to Tower Controllers to be aware of the possibility that a pilot is approaching the wrong runway when an aircraft doesn’t show up where it is expected to be.

“Approach Control reported radar contact and gave me visual approach instructions for landing on Runway 14. Approaching from the east, I had [the field] in sight from about 10 miles out. From the moment I had the field in sight, I incorrectly viewed Runway 06 as my assigned runway. I had the Airport Diagram on my knee board. I simply failed to identify the assigned runway with my heading indicator, compass, or other ground references. The Approach Controller advised that the Tower Controller’s Radar was inoperable. I was asked to report a two mile left base for Runway 14. I actually reported a two mile left base for Runway 06. I was cleared to land on Runway 14, but I continued for Runway 06. On final, the Tower Controller advised he did not have me in sight. As I was touching down on Runway 06, the Tower Controller asked for my current position and I advised I was touching down. I believed I was landing on Runway 14, however I was clearly flying to the northeast. As a new private pilot with [about 100] hours of experience, I failed to properly plan for and make accurate decisions on this approach and landing. I should have been much more concerned that the Tower Controller did not have me in sight. Although I was cleared to land, the better decision would have been to execute a missed approach and land only after the Tower had me in sight.” →

[CALLBACK](#)



Accident Report

Wake turbulence an invisible hazard

On July 2, 2003, at 1005 CDT, a Beech 58P, registered to private owners, co-owned, and operated by the private pilot, collided with the ground during approach to land at the Memphis International Airport, Memphis, TN. The pilot and front seat passenger were fatally injured; the two rear-seated passengers were seriously injured. The airplane substantially damaged. The Part 91 flight originating at Peter O. Knight Airport, Tampa, FL about 0758 EDT and was on an instrument flight plan. Visual meteorological conditions prevailed at the time of the accident.

The pilot held a private certificate, with ratings for ASEL/ASES, MEL/MES, instrument airplane and a glider rating. He had a current third-class medical certificate and a current flight review. His logbook indicated 3,211.9 total hours, 3,005.2 PIC and 923.6 in multi-engine airplanes.

A review of ATC data revealed the flight was inbound from the southeast when the pilot contacted the Memphis Arrival Final East controller at 0954:55 and reported at 4,000 feet. The controller stated the pilot could expect the ILS runway 36R approach. The controller subsequently cleared the flight to descend and maintain 3,000 feet. At 0958:11, the controller instructed the pilot to reduce speed to 170 knots, and the pilot acknowledged. The controller then stated, "... caution wake turbulence when on final you'll be operating four miles in trail of an E one forty five," and the pilot acknowledged.

An Embraer ERJ 145 regional jet was on approach to runway 36C, approximately four miles north of the pilot's position. At 0959:46, the controller provided the pilot a vector to join the localizer for runway 36R and instructed him to reduce speed to 160 knots. The pilot acknowledged, and the controller cleared the flight for the ILS runway 36R approach. At 1000:47, the controller stated, "... caution wake turbulence contact tower ...". The pilot contacted the Memphis Tower, and at 1000:59, the controller cleared the flight to land on runway 36R. The pilot acknowledged, and no further radio communication was received from the flight.

The airplane was on approach to runway 36R and had descended to approximately 10 to 15 feet above the runway. A witness on a parallel taxiway reported the accident airplane yawed left, then rolled left, and collided with the ground inverted. Examination of the airframe, engines, and propellers revealed no evidence of mechanical malfunction. Both propellers exhibited twisting of the blades and chord wise gouges, and each propeller low pitch stop displayed an impression mark.



Target separation analysis of the radar data for the accident airplane's approach to runway 36R showed that an Embraer ERJ 145 landed on runway 36C approximately 120 seconds before the accident airplane attempted to land on runway 36R. The last recorded horizontal separation between the two airplanes was 3.53 nautical miles. Radar data, wind data, and wake vortex characteristics were utilized to develop a ground track and wake vortex profile for the two airplanes. According to the study, "the wake vortex of the ... [Embraer ERJ 145] ... could have migrated toward the ... [Beech 58P's] flight path." The study also states, "FAA ... guidance suggests that a separation of 120 seconds is sufficient for the wake to dissipate or move away from the runway. Furthermore, wake dissipation is enhanced in ground effect." According to FAA guidelines, for purposes of wake turbulence separation, runways 36R and 36C are considered as a single runway because of their proximity to each other, and the separation minima for a "small" aircraft (Beech 58P) following a "large" aircraft (Embraer ERJ 145) is four miles.

FAA Order 7110-65P ATC states in Section 5-5-4, Minima; Wake Turbulence Application: paragraph "f. TERMINAL. ...separate an aircraft landing behind another aircraft on the same runway ... by ensuring the following minima will exist at the time the preceding aircraft is over the landing threshold: NOTE - Consider parallel runways less than 2,500 feet apart as a single runway because of the possible effects of wake turbulence. 1. Small behind large - 4 miles."

The NTSB determines the probable cause(s) of this accident as follows:

An encounter with wake turbulence on approach, which resulted in the pilot's inability to maintain control and subsequent in-flight collision with the ground. → [ATL03FA113](#)

Mystery Airplane

Can you identify this airplane?



First prize is bragging rights

Email your answer to email@mlbpilots.org

Congratulations this month to **John Twitchell, Bob Schofield, Kiko Picornell, Joanne Mills and Etienne Florin** all identified the May mystery airplane as the Martin PBM Mariner. The similar looking but single rudder Martin Mars was a popular choice for others.

The PBM first flew on February 18, 1939. Martin developed the maritime patrol bomber to complement the PBY Catalina already seeing extensive patrol service. Introduced in September 1940 the PBM continued in service through World War II, the Cold War and the Korean War. The Glenn L Martin Company produced 1,365 in a dozen variations that included changes in horsepower, armament, anti-submarine radar and a few in transport category.

According to Jane's World War II Aircraft, the PBM-5 had a range of 2,600 nm, a ceiling of 19,000ft, max speed of 180kts, with a crew of seven or more depending on the mission, and could carry 4,000lbs of bombs, depth charges or torpedoes.

Beside the U.S. Navy and Coast Guard, the PBM served with the UK, Australia, Netherlands, Argentina and Uruguay who retired the last aircraft in February 1964. Used in maritime patrol operations against German U-Boats, air search and rescue operations, patrol bomber bombardier training, seaplane pilot training, and communications research. It can now be found in various museums around the country.



In December 1945, a formation of five Grumman TBM Avenger torpedo bombers disappeared on a training flight from NAS Fort Lauderdale, FL. The "Flight 19" story is frequently included in folklore about the Bermuda Triangle.

A PBM-5 based at NAS Banana River, now Patrick AFB, disappeared while on patrol in search of Flight 19. Not long after the PBM departed, a mid-air explosion was seen off the coast of Florida.

Witnesses on the tanker SS Gaines Mills reported seeing a mid-air explosion. The ship's Captain reported searching for survivors in a pool of oil, but found none. No wreckage was found. The escort carrier USS Solomons also reported losing radar contact with an aircraft at the same position and time. An investigation by the Navy lists a couple probable causes. First, although there was a regulation of no smoking on the PBM series aircraft due to Avgas fumes collecting in the bilges, the Navy believes a crewmember could have begun smoking. The second possibility; an electrical spark in the hull may have ignited Avgas fumes in the bilges. Flight crews gave the PBM series the nickname "the flying gas tank" due to the prevalent odor of Avgas in the airplane.

On April 11, 2017 a monument, bearing the names of the 13-crew members on that flight, Callsign "Training 49," was dedicated at Patrick AFB. " → https://en.wikipedia.org/wiki/Martin_PBM_Mariner
<http://www.floridatoday.com/story/news/local/2017/04/11/patrick-memorial-honors-crew-lost-aviation-mystery/100288756/>



NOTAMS

A free service to members

MEMBERSHIP DUES

Your membership dues are for the calendar year. If your dues are overdue, membership will expire on March 1 please make your check payable to **"MAPA" and mail to MAPA, P.O. Box 702, Melbourne, FL 32902. DUES REMAIN \$15. You can also renew through Pay Pal.** Go to the [MAPA website](#) and click renew/join via Pay Pal. You do not have to belong to Pay Pal. If you change your mailing or email address during the year **please** notify the Secretary by mail or email: email@mlbpilots.org . Thanks.

MEMBER PROFILE

Please keep your member profile up-to-date, **particularly your email address**. Send any change to email@mlbpilots.org. Complete your name and any changes you need to make. We need your correct email address and any other information you would like us to have. All information stays with us. Guaranteed!

[Sale, Trade, Swap, Good Deals, Rentals, Services, Wanted, & Freebie Stuff](#)

If you have NOTAMs of interest for the members, e-mail your items to email@mlbpilots.org. Please notify us when your ad is no longer required.

FIT Aviation Maintenance Facility. We are expanding our capabilities and services.

Avionics: ADS-B. We have started to receive the first of the new Garmin ADS-B systems and have completed our first installation. These systems come in a variety of configurations including ADS-B out only, ADS-B out/in both options can either include a built in WAAS GPS or can take a GPS feed from a GNS430W or GTN series navigator. The ADS-B in can be displayed on a GTN or on an iPad with an optional wireless connect adapter.

Bendix King KT74. A popular direct slide in replacement for the KT76 series transponder. We have had a few of these out in the fleet paired with GNS-430Ws for a couple of years with perfect service records. Still the cheapest ADS-B out solution if you already have a WAAS Navigator.

Stratus ESG finally released! Production numbers have been limited so availability is not yet assured, but we are prepared to work with a customer who would like to install one of these devices. We're planning to install one in our Citabria as soon as the units are more readily available and will have more operational data at that time.

New Dealer Status:

Genysis (S-Tec) Authorized Service Center/Dealer
Powerflow Systems Tuned Exhaust Dealer (These really work!)
Garmin Authorized Service Center/Dealer
Avidyne Authorized Service Center/Dealer
Aspen Avionics Authorized Service Center/Dealer

Shop Services:

Routine Inspections and Repairs
Pitot-Static/IFR/Xpder Certifications
Dynamic Prop Balancing
Sheet metal Fabrication and Repair
Corrosion Repair and paint touch up
Aircraft parts

MAPA members are always welcome to swing by for a visit. Rod Kern, Director of Maintenance, is available for information, to answer your questions, discuss your options or add you to the schedule: 321-674-6517

FIT Aviation offers full service 100LL at \$3.99 per gallon for MAPA Members. Non-members \$4.24 per gallon. Obviously, the price will vary with wholesale costs. This is full serve, at your hangar (south side) or on FIT ramp.

Come fly our 180 HP Piper Apache! Climb at 2000 FPM, cruise 150-172 MPH, full IFR with a GTN-650 and ADS-B In/Out. \$160 per flight hour dry. Burns 12-18 GPH. Check us out at www.aerovalkaria.com for more information on joining our club.



Come fly our Cessna 182! Full IFR with a Garmin 530 and STEC-30 autopilot. Leather interior. Cruise 140-160 MPH. This is a stable, fun flying aircraft. \$100 per flight hour dry. Check us out at www.aerovalkaria.com for more information on joining our club.



FOR SALE: 1981 Mooney M20K (231). Recently invested \$42,000.00+ on a completely overhauled Zero Time Engine (Less than 5 hours now on an 1800 TBO engine). This included a \$6,100.00 Prop Overhaul by Aircraft Propeller Works, Auburndale, FL. All new accessories from Mags to Prop Gov to Wiring Harness to all Oil and Fuel Lines. Alternator replaced as well. (Engine now carries a 2 Year Warranty or 480 hrs. by Don George, LLC. Orlando, FL)



Still that fast 160-170k, 10gph Turbo Charged/Intercooled airplane with KFC-200 Autopilot, KCS-55 HSI, New Windshield in 2015, Current Annual through 06/17. 4 place 02, Hot Prop, Speed Brakes, Entry Step, Rudder Pedal Extensions. Local Owned & Hangared at MLB. Asking \$99,900. (Below Vref) For additional info contact Bill, 321-266-3396, or Chuck, 321-223-3776.



1940 PIPER J-4A CUB COUPE • \$35,000 • **FOR SALE TO GOOD HOME** • Rare! Very clean 1940 J-4A. AFTT 2195, Engine SMOH 160, Prop SNEW 25 (Sensenich W72CK-42 wood climb prop). Continental A-65-8, slick mags, complete records, wood spar, no recurring ADs, four sealed lift struts. Annual just completed in January 2017. Recent extensive exterior detailing and dope refinishing. No electrical system. Battery powered two place intercom wired to Icom A-24 battery powered comm with external antenna (based at Class D airport, no comm problems). Cub: asking \$35k. Hi-Res pics available online: www.imsaviation.com/n26735/. Please email or text since I can be hard to reach by phone. isaac@imsaviation.com • Telephone: 321-652-2722. Plane is based MLB North side hangar I-10. If you see me out there, come by and take a look.



Pilot Supplies: Fallon Aviation is offering **MAPA members a 5% discount on purchases** made in the shop. Located at 673 South Apollo Blvd, they carry most pilot needs. They offer free shipping on most pilot supplies. <http://www.fallonaviation.com/> Call Kristina Fallon 321-345-9464

"ViewFromAbove" is offering biplane rides in their Waco YMF-5. Enjoy the open cockpit experience and a piece of history. Excellent birthday or anniversary gift. Rides tailored to suit your wishes. For more information, 321-777-1146 or 1-844-two ride (896-7433) www.viewfromabovefl.com

The Indian River Flying Club. Fly our Garmin 430 GPS equipped, MLB based C-172 for IFR training or local sightseeing. Try our C-152 based in Valkaria for low cost training. Or, fly our PA-28, Archer with a Garmin 430 GPS from MLB for local or long distance flights. Nominal deposit with reasonable monthly dues. Web www.fly-irfc.com

MAPA has new caps. They are \$10 each and will be available at all MAPA sponsored events. email@mlbpilots.org



Modine Aviation: CJ Modine offers **excellent** flight training for Private Pilot, Instrument, Commercial and Multi engine rating in your aircraft or our Cessna C-172R and Piper PA-28. Both IFR certified. Also Flight Reviews, Instrument Proficiency Checks, Transition Training, Insurance required training, local orientation flights for visiting pilots and a whole lot more! Current MAPA members get 10% off our already great rates! www.modineaviation.com Call (321) 604-2438.

IFR rating, refresher or want to keep current? Save money by logging time on a BATD (Basic Aviation Training Device) that rents for \$45/hr here in Melbourne. Available for any CFII to use with a student. An FAA approved BATD allows you to log 10 hours towards an instrument rating, or do all the approaches and holding required to keep current, for less than half the cost of renting a Cessna 172. The BATD has a GNS430, simulator, so you can familiarize yourself before flying a rental plane with one. Please contact Derek (321) 848-8335, or Liz (321) 652-5760 (evenings or weekends). We look forward to helping you achieve your goal.



2 GPS MAP 496 \$900.00 each XM Weather antenna Charging cord (cigarette lighter) York mount. Call CJ Modine 321.604.2438 flymodine@gmail.com



Garmin GPS MAP 696 with yoke mount, XM antenna, extra cigarette lighter plugin cord, 120-volt charger, updated operating software and more. Asking \$1150.00.
Call CJ 321.604.2438



AvMap GeoPilot Plus GPS for sale. Uses CMAP Compact Flash card, new card purchased in July 2016. Unit works well. Online manual http://www.avmap.us/upload/files/Geopilot_English.pdf
Comes with GPS/Display, power cord (12 V) and GPS antenna, \$150.
Bill Werner 321-501-5434



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