



PROPWASH



PROPWASH is published for the dissemination of information about and for this chapter and its members. President - George Myers 851-0059, Vice President - Wil Good 509-9459, Secretary – Doug Wester 881-8317, Treasurer Jeff Spencer 772-3140, Editor Wil Good 509-9459
<http://EAA190.org>

EAA Tennessee Valley Chapter 190

10 March 2006

Meeting Notice

This meeting will be held after the breakfast:

Mar 18th at 10:30

We will have further discussions regarding work with the Scouts/Young Eagles, We will also talk about our next technical meeting.

**Don't forget:
Scout Day Planning Meeting
Apr 1st @ 11:00**

Membership Form Enclosed

Wil

miles from me, looking at reported data that may be hours old. I'm building a Long EZ and have just completed my panel design and installed my first instrument. I'm looking at others and have become very interested in some very good technologies, so I thought it might be interesting we would meet around one of them.



We had our February Business meeting as usual on Saturday after the breakfast. Our topical meeting was held Tuesday evening at Baron Services. Bob Baron, who some of you may remember as the lead meteorologist on (Channel 19... I think), back in the 80s, hosted us, and the TVRGBG for a show and tell at his place of business. Bob, following the tornado of 89, became so concerned about the inability of the weather system to provide accurate and immediate weather warning to the community, that he started Baron Services, so he could develop and field the needed technology. As any of you have been around this town for the last few years know, weather

warning is no longer the short straw, but is very well provided for us over a large extended area, due in a very large part to Bob and his team's advances in radars, alerting and notification technology. No doubt many lives have been saved as a result of his work.

The reason we wanted to talk with Bob, was to get a glimpse into the methods by which weather data is provided to us lowly pilots in the cockpit. Turns out Bob is a plane owner and very active pilot, that uses many of the new technologies in his Lance. The particular system that interests me (and apparently most of our crew) and got me linked to Bob for this meeting, is the Garmin 396 XM weather depiction capabilities. Being the glorious aeronautical technician that I am, simplicity always gets my attention, and the handheld 396 is simple to install and



operate, and provides,

Baron's Services

By *Jon Moore*

As an aviator there are really only a very few things that I worry about when flying; Ice, strong convective activities (storms) and culmulo-granite. I like to have the information on these as current and accurate as possible - when I want it, and I don't want it interpreted by some fellow, or lady sitting in a comfortable chair perhaps hundreds of

through a fee based service, weather depiction and cumulo-granite clearance data in near real time.

Well Bob developed and continues to develop a network of radars for the commercial community and has developed methods of collecting and compressing for transmission, aggregate Doppler weather maps for almost anywhere in these United States. These maps are placed on the XM system and are downlinked to the 396, WxWorks system, Avidyne or other cockpit display system and registered with your GPS position 24/7/365. This provides us with a current, positionally relevant display of the weather - without having a weather radar (a nasty, expensive, often inoperative and complex device that we exalted technicians would rather not have to work with). It should be noted that the FAA is looking at ways to provide the service, but they are trying to parallel private industry in a technological boom period, so I think they **will be** years behind and probably whole stratum lower in capability than what is currently available, when they take the wraps off of what ever they are building (its just an artifact of government processes).

We had about 20 folks at the meeting and Bob gave us a tour of the facility where they make the new breed of radars, then let us fire questions at him about the technology and the particulars associated with XM. I guess one of the most interesting points is that the

depicted weather could be as much as 5 mins old. It could be very current as well. The uplinks occur every 5 minutes. The aggregate take some time build and to upload and then broadcast. It takes about 5 minutes for a weather radar to complete its scan and



build the map used for up link. I would assume that if the scans are synchronized with the uplinks the latency is near zero, but they aren't, so it could happen that the just completing weather scan finishes just after the uplink, so the completed scan would not show until the next epoch or uplink. This means that the data on average is probably 2 to 5 mins old. The precision or resolution of the depicted data is half of that of the measured data. I believe he said that the data is on 1 km centers and the up-linked image is on 2 km centers or about 1 nm resolution. That means that for a 30 knot weather system, the positional inaccuracy could be about half a nm in error (not bad). Rain rates are shown at levels from mists to torrents, and include snow.

Aviation safety took a huge leap a few years ago for the general aviation pilot, due in large part to Bob Baron and his involvement. We were honored that he gave us some of his valuable time, showed us around, and explained to us how the system works.

For those of you who get only the paper version of the

newsletter, we apologize for changing meeting times, but Bob requested a change at the last moment and we could not get hold of everyone.

Jon

The months to come bring the following:

March: DVD of "Sport Pilot Overview" after our Breakfast

April: Sun-n-Fun

May: We will host Mr. Van Stupmner of the FAA with seminar regarding the Sport Pilot Rules. This may include some kind of food and will be held in my hangar. This meeting is open to all aviators in this area and is sponsored by EAA 190 and Moontown Airport

June: 10th Scout Day

We need Young Eagle Pilots and any one who wants to help us with the Scouts. Call Lisa Brunegraff for details.

July: Oshkosh

August: Annual Grass field Flyin at Moontown. Details on time and location will be sent out by email and will also be included in the newsletter as usual.

So come out and join us!



Nice Form Rickie!

Meeting Minutes

We opened the meeting at 10:35 a.m. with 10 members in attendance. George led off with talking about the upcoming trip to Baron's Services and ensuring that we sent out an email as a reminder for the technical demonstration. Plan on our May Fly-in being a Potluck Dinner meeting with a Sport Pilot overview. The FAA FSDO will be on hand to brief us. We set a tentative date for the Scout Day as June 10th. We will have a few more meetings to plan and coordinate for that day. April 1st will be the next Scout Day George ran through the list of airshows that he will be involved with over the next few months. The weather is getting very nice so that means the shows are preparing to hit full stride. The meeting was concluded with Wyn Cole presenting the Velocity Info Video. Wyn went to Sebastian and took a test ride in a velocity at the velocity factory. It is the coveted canard aircraft. Kit prices begin at \$31,250 with fast-build kit options. <http://www.velocityaircraft.com/>



3/21 - 3/21/2006	Wright-Patterson AFB (Dayton), OH	Wings and Things Guest Lecture Series - Col (Ret) Wolfgang Samuel, Contact Information: Sarah Greiner (937) 255-3286 Email Address: nationalmuseum.us.af@wpafb.af.mil Website: http://www.wpafb.af.mil/museum
4/4 - 4/10/2006	Lakeland, FL	Sun 'n Fun Fly-In, Lakeland Linder Reg. Airport LAL Contact Information: (863) 644-2431 Email Address: Website: http://www.sun-n-fun.org/content/#
4/22 - 4/22/2006	Peacree City, GA	WWII Day Boots, Wheels and Wings, Falcon Field FFC Contact Information: Chris Madrid 678-364-1110 Email Address: Website: http://www.dixiewing.org
5/5 - 5/5/2006	Wright-Patterson AFB (Dayton), OH	C-141 Hanoi Taxi Final Flight, Contact Information: Sarah Greiner (937) 255-3286 Email Address: nationalmuseum.us.af@wpafb.af.mil Website: http://www.wpafb.af.mil/museum
7/24 - 7/30/2006	Oshkosh, WI	EAA AirVenture, Oshkosh OSH Contact Information: Ask for Tom Email Address: Website: www.eaa.org

Regular Events

1st Saturday

Lawrenceville, GA (LZU) Ch 690
Winchester Municipal, TN (BGF) Ch 699

2nd Saturday

Murfreesboro, TN (MBT) Ch 419
Rome, GA (RMG) Ch 709

3rd Saturday

Chattanooga TN, (3M3) Ch 150
Covington, GA (9A1) Ch 1025
Dawson, GA 9 (16J) Ch 354
Moontown Airport, AL (3M5) Ch 190
Tulahoma Airport (KAYX)

4th Saturday

Kennesaw, GA (RYY) Chap 268
Dayton, TN (2AO) CAP
Memphis, TN (M01)
Shelbyville, TN 7-11 am



Gordie and Tom with two more Young Eagle Plus Riders; Whitney Treece and JB Economy. Both have parents serving in our armed forces. JB's father is on his way home from a 6 month stay in Baghdad. Whitney's mother is at Ft. Rucker going through the early phases of Army Air Traffic Control

Calendar of Events



**EAA Chapter 190
Membership Data Form
For The Year 2006**



We invite you to join your fellow aviator enthusiast in advancing the spirit of flight. We support the local community through public displays and fly-ins, our kids through the Young Eagles Program, and aircraft builders and pilots through highly interactive exchanges. We want to thank all of you who have supported our Chapter over the years and would appreciate your continued support.

Membership dues for the calendar year are due in January. New members joining during the year may prorate the annual dues (\$15) for the remaining number of months in the calendar year. Full privileges require National EAA membership. Applications can be provided (800-843-3612) or completed on-line at www.eaa.org. For current and new members, **please update our database each year by filling out the membership form below and send it, along with your check for \$15.00 (payable to EAA Chapter 190) to our Treasurer:**

Jeff Spencer
109 Malor Circle
Madison, AL 35758

For questions, call (H) (256) 772-3140, or (W) (256) 544-7498, or email at jlspace@hiwaay.net

NEEDED

Name: _____

Home Address: _____

City / State / Zip: _____

Home Phone: _____ Home Email Address: _____

EAA Member Number: _____ Expires: _____

NICE TO KNOW, BUT OPTIONAL

Work Name / Address: _____

City / State / Zip: _____

Work Phone: _____ Work E-mail Address: _____

Do You Have an Airplane / Project? Model / Year / How Far Complete / Comments? _____

What Would You Like EAA 190 To Do This Year? _____

Application for membership brings with it a degree of commitment of your time toward the betterment of sport aviation and the Chapter. Be prepared to help.