



EAA Chapter 166 Greater Hartford, CT



EAA 166 Newsletter

Vol. 47 – Issue 7

July-August, 2011

Experimental Aircraft Association

Chapter 166

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This month's meeting will be held on
Sunday, August 28, 2011 - 7:30 PM
at the P&W CTC

Our speakers this month will be
Bob Taylor and Ben Aaron
who will provide a slide show from their flight to Oshkosh for
AirVenture with a stop at the Henry Ford museum this summer

**Please be on time as we have to accommodate P&W security who will
be opening the building for us. Thanks.**



President's Message

It's hard to believe that summer is quickly coming to an end. I managed to add another 50 hours of flying to the RV-10 over the summer. The plane has been great for flying the family to various places. Hopefully I'm getting close to my IFR ticket, which will further increase the utility of the airplane.

Speaking of flying to various places, the Block Island fly-out was this past Saturday. While the chapter survey this past spring indicated fly-outs were a favorite of the membership, the actual attendance has been sparse. Fortunately my family was there to keep me company. Hopefully we will get increased attendance at remaining fly-outs this fall. The trip to Block Island was well worth it though when my 9 year old daughter flew the trip back from just after takeoff to downwind leg at Brainard. Visibility out the front was limited, but she did a great job flying out the side window.



In addition to Block Island, a number of chapter members made it to Oshkosh this year. As usual, it was a great show, with plenty of activities for everyone. If you have never been to the show, you have to go at least once. It is an experience you will never forget.

Looking forward to September, the next chapter event is the fall fly-in at Windham on Sunday Sept 11th starting around 10:00.

We will have a grill to cook food, so you only need to bring a side dish or desert and chairs. Given all the chapter events that have been cancelled this year due to weather, it would be nice to have a strong turnout.

In addition to the chapter fly-in, the Simsbury fly-in is scheduled a week later for Sunday the 18th, followed by the AOPA convention the following weekend on the 22nd-24th in Hartford. Both of these are large events with plenty to do and see for everyone. Hope to see you at the September events.

Aaron

Treasurer's Report – August 22, 2011

Checking Account: \$ 3,097.97
Deposits: \$ 182.03 Banquet & Dues

Total Deposits: \$ 182.03 - dues
 Total bills: \$ 41.97 – Internet
 Balance in Ck. Acct. \$ 3,238.03
 Plus decals, & etc.

Chapter Scholarship Fund ACCOUNT

Balance: \$ 558.39
 Deposits: \$ 00.00 – DAR inspection
 Bills: \$ 00.00 travel expenses to HQ
 Balance: \$ 558.39

Duly reported by Dave Armando, Treasurer

As a reminder dues are renewed in January

Construction Corner

Month	Author	Topic
August	Russ Beers	First Time Tips
September	Larry Gagnon	
October	Ken Benson	
November	Greg Prentiss	
December		Article Needed

Tips for a First-Time Builder (From another First-time Builder...)

By Russ Beers

Here are a few tid-bits that I have mostly stolen shamelessly from others during the on-going build of my Glastar Sportsman 2+2.

Tools:

For most of the more popular kits, there are good tool kits available from a couple of sources, such as Avery Tools (<http://www.averytools.com/>) that compile many of the tools needed for the assembly of an RV , Sonex or Glastar into one “kit”. This can simplify the process of creating a comprehensive tool list and shopping for all the items. That said, a number of builders take the list tools from Avery’s site and then go shopping around to see if they can get the individual tools for less. There are pluses and minuses to that, in so far as you might get a lower priced tool, but the numerous shipping costs may negate much of the benefit.



Beyond these tools are some others that can come in handy:

A belt/disk sander for shaping small parts and cleaning up rough edges of material that has been sawed. I bought a cheap Ryobi unit at a big box hardware store for a reasonable price. It has been given a very serious work-out during my build, dealing with aluminum, fiberglass and steel parts.

Next were a bench grinder with a coarse and fine wheel, and a decent bench vise with soft grips. These were also purchased locally (for about \$100 or less, if I recall). All three items were placed on a small work bench with a bit of peg-board for extra tool placement.

One power tool that I did not purchase, but should have, was a low-cost band saw. I have used only a



lowly hacksaw to cut numerous brackets and generic parts. While I'm sure my doctor is in favor of all the exercise, it sure would have been faster to use a band saw!

Obviously, a good compressor is essential for the several pneumatic tools used in most kits (2x rivet gun, air drill,...). Mine is an old Craftsman 2-stage unit that required an electrician come to the house to connect a 220 volt receptacle. While it is a little noisy, it has been a trooper during the build!



If you plan on doing your own instrument panel, like I have, you'll need a number of good electrical tools, such as wire strippers, small "nippers" to cut wires and wire-ties, a small 30 watt soldering iron and good solder, and a few kinds of crimpers for solderless terminals. Some of these tools can be a bit pricey if you get good quality, so shop around, including places such as **B & C Specialty Products**

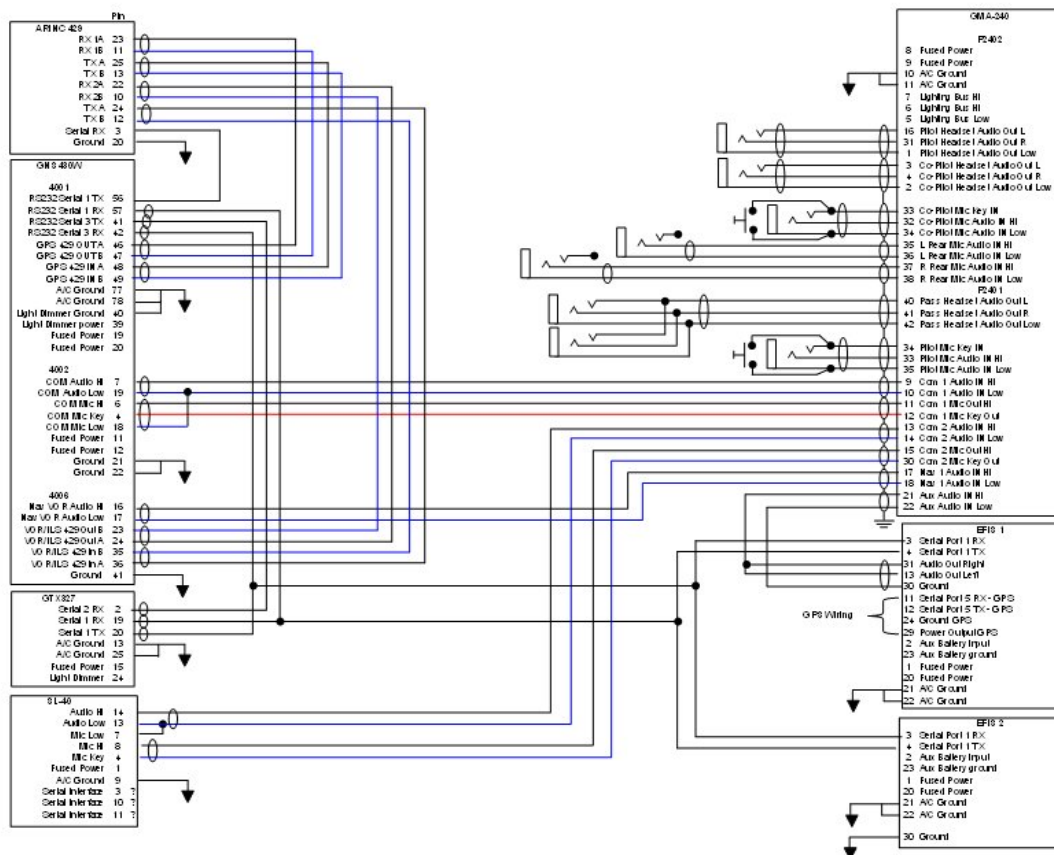


(<http://www.bandc.biz>). I have been fortunate to be able to borrow some of these tools from fellow Chapter members who are finished with their wiring projects.

Wiring:

Make a list of all items that will require power. Lights, radios, EFIS panels, ... And use that list as your starting point to build your power distribution diagram. For my project, I used a large number of resources; on-line forums, local Chapter members, Bob Nuckolls' Aeroelectric Connection (<http://www.aeroelectric.com>). Each project is unique, so unless you farm-out the work, you'll have to largely figure it out for yourself. I made a schematic drawing of the airplane with the approximate location of each item, and then determined the length and type of wire used by each item, based on the current draw it would require. AC 43.13 Chapter 11 is a great source of information on how to do it the proper way.

Panel interconnections for a glass cockpit like mine were the biggest hurdle for me so far. Trying to determine how each component needs to connect to the other components was a mystery that took me several months to unravel, bit-by-bit. Since my radio stack is all Garmin, but the EFIS and engine monitoring is all Dynon, there were many hours consumed trying to figure out how all the pieces talk to one another. I did many pencil sketches of the diagram before starting to use Microsoft Excel to make changes easier and clearer. Here is an example of one of the early diagrams that took me only about 30 minutes to create from the hand-drawn sketch:



Other Tips:

Do the firewall-forward and panel portion of your project as late as possible. For the engine and other firewall-forward items, they will potentially get in your way while working on the rest of the fuselage, not to mention costing a princely sum. For the panel, it is always best to wait as long as possible, as the technology for panels is rapidly changing and buying too early will only shorten the time before the items may become less desirable (or at least less capable than the more recent versions). Radios, EFIS panels, ADS-B, weather systems ... they are all evolving rapidly, so save your pennies and wait as long as you can to pull the trigger on these items.

I hope these tips might be useful to other first-time builders and those just getting started. Of course, the best resources are available within our Chapter in the form of the many experienced builders and EAA Technical Counselors. Be sure to use them to check your work along the way, and get advice when you get stuck.

Good Luck!!

Summer Sojourns

Great Smoky Mountains National Park by Barry Stoner

I planned a flight to visit [former chapter members] Terry and Betsy Clark in [Crossville, Tennessee](#); and then on to the [Great Smoky Mountains National Park](#) to see and climb [Clingman's Dome](#) - the second highest peak east of the Mississippi. The total trip logged 10.9 hours using about 100 gallons of avgas for about \$600.

Terry and Betsy are doing well living in the [Crossville, TN](#) area.

From there I flew southeast into Georgia and approached the Smokeys from the south into a valley and landed at the [Macon County airport \(1A5\) in Franklin, NC](#).





Figure 1: N58250 at 1A5



Figure 2: Elevated walkway at Clingman's Dome.



Figure 3: Barry on Clingman's Dome

The visit to [Clingman's Dome](#) was the second trip objective and I was not disappointed in the views. The return flight had the usual weather confrontations that always seem to cause changes in plans.

Barry Stoner
N58250 RV-4

Baseball in Connecticut by Preston Kavanagh

Friendships start here and just keep on going.....On August 20th, two intersecting circles headed for the ball game. The chapter's three technical counselors (Larry Gagnon, Joe Gauthier and Greg Prentiss) were there with wives. Joining them were the current owners of the chapter's successful 2006-2009 RV-6A project (Larry and Joe plus Tim Dale and Bob Plourde) and wives. Both Joe and Greg were fresh back from Airventure, the weather was perfect and the New Britain Rock Cats beat the league leading New Hampshire Fisher Cats. Now if Dave Armando could just helicopter us to center field....



Figure 4: Chapter Tech Counselors Joe Gauthier, Larry Gagnon and Greg Prentiss



Figure 5: RV-6A syndicate members Joe Gauthier, Larry Gagnon, Tim Dale and Bob Plourde

Young Eagles

Reservations have begun coming in for the October 15, 2011 event at Skylark and EAA national is moving forward with a program to interest adults in aviation using a similar format to that used for Young Eagles. There will be much more on both of these items in the near future.

Images from the June event are available at:

<http://www.eaa1310.org/cpg144/thumbnails.php?album=129>

Upcoming Events

AOPA Convention & Summit

The EAA Chapters of Connecticut have been asked to Help Lend a hand in Introducing Young People to the Exciting World of Aviation at the APOA Convention on September 24th

How would you like to help a group of Boy Scouts earn their aviation merit badge? The Youth Aviation Adventure in partnership with the AOPA is putting on a half day program that encourages interests in aviation and a range of aviation-related fields in young people age 12 to 18.

We need to partner with pilots and the aviation community to work with the Scouts to achieve this introduction to aviation.

Your love of aviation and your experience and knowledge are all that's required.

Been quite a while since you last took a ground school or continuing education course? Don't let that stop you. Our subject matter is very basic and we supply you with a curriculum.

So how does the program work?

- You will have two subject areas to choose from in which you feel comfortable.
- The subjects are preflight, airport operations, instruments, power plants, aerodynamics, helicopters, glider building, aviation careers and a Jeopardy style game.
- We expect to have two instructors per subject, so you will be working with a partner.

The program is Saturday, September 24, from 9:00 AM to 2:00 PM, at CT Aero Tech, at Hartford Brainard Airport.

We know you'll have a good time and give back to the aviation community.

Hope you can help.

Contact:

Greg Prentiss

860-205-7640

greg.prentiss@gmail.com

or

Ken Benson

860-642-6185

starshinefarm@msn.com

EAA President Rod Hightower Coming to Hartford in September

I received news this week, from chapter 1310 president Chuck Drake, that a gathering and reception for EAA President Rod Hightower is in the works. The date is slated for September 24, 2011. Details are being finalized so I will have to send out email alerts as I know more. This reception will provide an opportunity for all CT and southern New England EAA chapters to have a face-to-face with our national president during the AOPA Summit period. Stay tuned for details.

Other Events

As mentioned in previous newsletters, we are adding additional regional events as information becomes available. Be sure to check dates on the latest calendar version as

some may have changed during the month as overlaps were noted. This calendar version includes events from chapters 166, 1310, 1363, 1478, 279, 324, 334 and 27. We expect to add more dates as other regional chapters forward them to us.

2011 Southern New England EAA Chapter Event Calendar			
Dates Valid as of August 23, 2011 - Event list will be updated as information becomes available			
Date or Dates	Rain Date or Day 2	Organization	Event
8/24/2011	8/25/2011	EAA Chapter 1363	Aluminum Overcast B-17- Quonset State Airport (OQU), RI
8/27/2011	9/10/2011	EAA Chapter 106	Northeast Light Sport Expo & BBQ - Lawrence Municipal Airport (KLWM)
8/28/2011		EAA Chapter 166	Monthly meeting (CTC)
9/7/2011		EAA Chapter 1363	Monthly Meeting (KOQU) Quonset Air Museum - 7:00 PM
9/10/2011		EAA Chapter 27	Annual Picnic & Chapter Open House (Meriden)
9/11/2011		EAA Chapter 166	Fly-In at Windham (KIJD)
9/14/2011		EAA Chapter 1310	Monthly Meeting (Skylark)
9/17/2011		EAA Chapter 166	Fly-Out – Destination TBD
9/18/2011	9/25/2011	EAA Chapter 324	Simsbury Fly-In
09/22 - 24/11		AOPA Aviation Summit	KHFD & Convention Center
9/25/2011		EAA Chapter 166	Monthly meeting (CTC)
TBD		EAA Chapter 27	Young Eagle Rally (Meriden)
10/1/2011		Tweed New Haven Airport	Airport Festival
10/1/2011		Chester Airport (KSNC)	Chester Airport (KSNC). Chester Air and Land Festival
10/5/2011		EAA Chapter 1363	Monthly Meeting (KOQU) Quonset Air Museum - 7:00 PM
10/8/2011		EAA Chapter 1310	Taildragger & Vintage safety seminar (Skylark)
10/12/2011		EAA Chapter 1310	Monthly Meeting (Skylark)
10/15/2011	TBD	Joint Effort	Young Eagles Flight Day (Skylark)
10/16/2011		EAA Chapter 27	Monthly Meeting (Meriden)
10/22/2011		EAA Chapter 166	Fly-Out – Destination TBD
10/30/2011		EAA Chapter 166	Monthly meeting (CTC)
TBD		EAA Chapter 27	Boy Scout Aviation Merit Badge Training Program (Meriden)
11/2/2011		EAA Chapter 1363	Monthly Meeting (KOQU) Quonset Air Museum - 7:00 PM
11/12/2011		EAA Chapter 1310	Monthly Meeting (Skylark)
11/11/2011		EAA Chapter 166	Annual Meeting & Dinner
11/13/2011		EAA Chapter 1310	Pancake Breakfast (Skylark)
11/20/2011		EAA Chapter 27	Monthly Meeting (Meriden)

12/7/2011		EAA Chapter 1363	Monthly Meeting (KOQU) Quonset Air Museum - 7:00 PM - Holiday Social dinner - bring a meal and enjoy the company
12/3/2011		EAA Chapter 27	Holiday Dinner & Awards Banquet
12/9/2011		EAA Chapter 1310	Holiday Dinner

In addition to this event, EAA National has a searchable calendar with more events that you can access here: <http://www.eaa.org/calendar/>

EAA Calendar Events listed within 100 miles of KHFD

http://www.eaa.org/calendar/eventlist.aspx?SearchState=&SearchCountry=&Zip_Code=06106&Miles=100&MilesType=M&AirportID=HFD&EventType=&EventTitle=&StartDate=&EndDate=

Chapter Fly-Outs – 2011 - Chris Wilson

The weather knocked out each and every attempt at scheduling a fly-out this year until last weekend at Block Island. Unfortunately, the forecast didn't solidify until late in the week and people made other plans so our turnout was light. We will continue to try as the season progresses (see calendar for proposed dates).

Members Moving On

Chapter 166 lost a couple of members to new jobs this summer. Professional opportunities took Nanji & Vibha Chandra nearer to the OSH mother ship. They moved their RV-7A project and settled in the suburban Milwaukee area. Nanji informs me that 166 members will be welcome when OSH calls.

Tim Burgeois opted on an amazing opportunity to join Scaled Composites earlier this summer. Tim left his engineering position at Pratt & Whitney, moved to the Mohave Desert facility. He is looking forward to working on cutting edge (space bound?) projects. He promises to keep us informed when he starts his own GA build and has volunteered as a guest speaker when he visits his family back here in CT from time to time.

Noise Abatement Advisory for Brainard Airport

To all users and tenants of Brainard Airport,

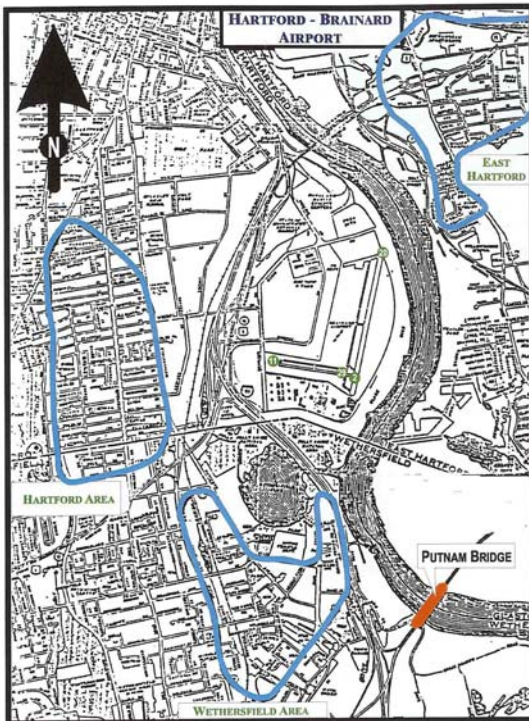
There has been a recent increase in the number of noise complaints from the residential area south of the airport. In the interest of being good neighbors I would like to remind all pilots of the airport's voluntary noise abatement program. Please review the attached

material and please forward this email to any club members, flight students, employee pilots, etc. as possible. I would also appreciate if printed copies be posted in areas where pilots visit any of the airport businesses.

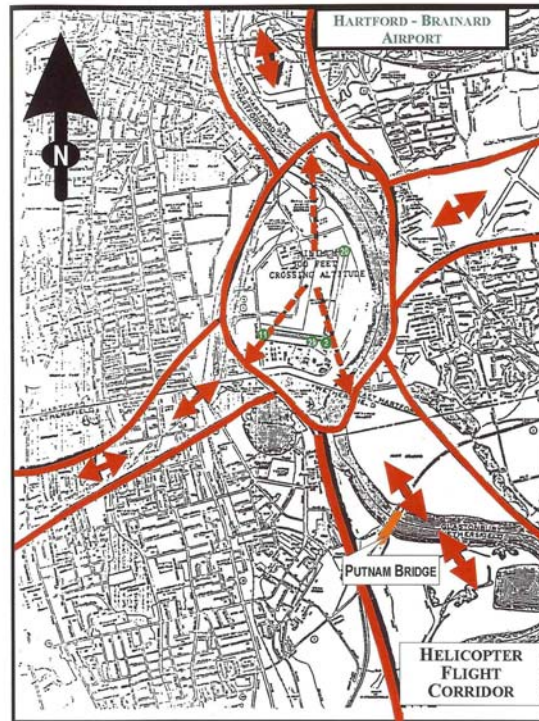
Safety will always be the most important part of any flight, but being a good neighbor can be second. Thank you in advance for your cooperation and participation in our noise abatement program. Please fly safe, and quietly when you can.

Kurt Sendlein

Airport Operations Coordinator - Hartford-Brainard, Windham and Danielson Airports
Connecticut Dept. of Transportation
251 Maxim Road, Hartford, CT 06114
(860) 566-7037



RESIDENTIAL NOISE SENSITIVE AREAS
Avoid overflight of outlined areas whenever possible.



HELICOPTER FLIGHT CORRIDOR
Please follow the flight corridor designated by the red outline.



EZ-Pass™ for General Aviation or User Fees by Yet Another Name?

Devices, like the one pictured below, appeared at the end of the Bridgeport (KBDR) runways recently. They may foretell things to come. Yes, the lights do look like they belong to a standard, run-of-the-mill VASI array. However, when you look a little closer, you will see a white rectangular shape with a sloping end. That, my fellow pilots, is a

camera. It is apparently designed to record the N numbers of inbound aircraft so that landing fees can be assessed.



These cameras were installed by Vector Airfield Solutions, a Virginia based company, to monitor and bill transient traffic. This setup consists of a day/night camera, infrared illuminator, motion sensor, and a solar panel with battery box. All data collected is sent to Vector's offsite servers where it is processed for billing. For the time being, KBDR tenants are exempt from landing fees, so all tenant data will supposedly be discarded.

<http://www.vector-us.com/>

It appears that when an aircraft arrives at KBDR, makes several touch and go or stop and go landings without turning off the runway, it may not be billed for multiple cycles. Airport management says that an aircraft doing touch and go landings will only be billed for one landing. It also appears that a helicopter which lands at one of the FBOs or helipads will not activate the cameras and therefore not be billed. What remains to be seen is how the new billing system will affect the Airport traffic count at KBDR. Pilots are notorious for not going to airports where they are billed for landing.

With the recent passage of legislation transferring GA airport management from ConnDOT to private or semi-private organizations, these devices may herald the start of a trend. The quasi-governmental Connecticut Airport Authority is currently ramping its operations up. I expect to hear 'rumbles' shortly about requiring each GA airport to function as an independent 'revenue center', instead of being siphons from the only profitable entity in the State's airport portfolio, Bradley. Private contractors operating our state owned airports may be forced to make each airport self-sustaining. From a business

perspective, one way to do that is by capturing revenue from those who use each facility. However their introduction is publicly presented, placing these devices on state owned airport taxiways seems like a back-door way to impose user fees, while dressing them up a little differently (silk purses from sow's ears?).

It seems that [Vector Airport Solutions](#) (VAS) is positioned correctly to generate revenue, no matter who operates each airport. Their system is analogous to a taxi meter or EZ-PASS™, both of which are end-user agnostic. They just count the money, time and, in this case, arrivals, while billing for their (VAS) services and equipment. The company has little concern about who operates a facility, or whether the airport is profitable. It would be interesting to know whether VAS factored in legislation enabling the evolution of Connecticut's airport management and which politicians were beneficiaries of its largess.

Interesting & Helpful Links

CT Legislators

<http://www.cga.ct.gov/asp/menu/CGAFindLeg.asp>

New information for pilots regarding taxi instructions and read-backs at towered airports

<http://www.faa.gov/documentLibrary/media/Notice/N7110.528.pdf>

Security Notams and TFRs locator

<http://www.aopa.org/whatsnew/notams.html>

Google Earth 3D TFR locator

<http://airspace.nifc.gov/mapping/nifc/index.cfm?isNIFC=True>

How to Overlay Sectional Aeronautical Charts in Google Earth

<http://www.wikihow.com/Overlay-Sectional-Aeronautical-Charts-in-Google-Earth>

Digital - Airport/Facility Directory (d-A/FD)

http://www.naco.faa.gov/index.asp?xml=naco/online/d_afd

Connecticut AME Listings

<http://flightphysical.com/search/search6two.cgi?State=CONNECTICUT&Areacode=&Zip=&Lastname=>

ForeFlight Mobile HD for iPad

(Weather, flight planning, AOPA directory, along with all the other apps, Internet, email, etc)

<http://www.foreflight.com/ipad>

iFly 700 GPS

<http://www.ifly.adventurepilot.com/>

SkyChartsPro (for iPad)

(Virtual stitching-together of all Sectionals, IFR Low, TAC and FLY charts plus A/FDs, SIDs, STARs, and Approach Plates)

www.skycharts.net

Uncle Jack – B-17 memories with Gary Sinese
<http://www.sleepingdogtv.com/reel/Uncle-Jack.aspx>

Spidertracks Aviator
(Aircraft Location System That Survives Every Crash — So You Can, Too)
<http://spidertracks.com/Home.mvc>

Aircraft Piston Engine Cooling Systems by Peter Law:
<http://www.enginehistory.org/Convention/2005/Presentations/LawPete/Cooling.pdf>

Tools on-the-cheap Soda Blaster for Carb Cleaning & Rebuilding
http://www.aircooledtech.com/tools-on-the-cheap/soda_blaster/

Cooling Aircraft Engines:
<http://www.experimentalaircraft.info/homebuilt-aircraft/aircraft-engines-cooling.php#>

Aircraft Wiring for Smart People (A Bare-Knuckles How-To Guide)
http://www.eaa.org/experimenter/articles/0903_aircraft_wiring.pdf

Chapter 27 Newsletter
<http://www.eaa27.org/newsletter/oct-2009.pdf>

Chapter 1310 Newsletters
<http://www.eaa1310.org/newsletters.htm>

Very cool sheet metal techniques
<http://www.youtube.com/watch?v=CwvBqRRvu00>
<http://www.lazzemetalshaping.com/>

LAX Arrival (Cockpit View – Very Cool)
<http://www.youtube.com/watch?v=0ac0bXkxM3E>

To Join EAA Chapter 166

We welcome new members. Our membership application is on www.EAA166.org in the **Chapter Library** section.

NOTE 1: Chapter dues are \$16 and run for a calendar year (Jan-Dec) unless one signs up Oct thru Dec, in which case his or her dues are good for that period and carry thru the following year.

NOTE 2: If you are not already a member of EAA, our parent organization, it's easy to become one by calling (1-800-5646-322). Be sure to tell them you're joining EAA (national) as a prerequisite for membership in Chapter 166.

Be sure to send our newsletter editor, Jack Hilditch, wmjack@t3cs.net an email to be put on the e-mailing list ASAP while your membership application is in the snail-mail to our Treasurer! To join EAA (national) click <http://www.eaa.org/memberbenefits.html> or call: 1-800-JOIN-EAA.

2010 EAA CHAPTER 166 MEMBERSHIP FORM

Please fill in the following information and mail with your dues to:

**EAA Chapter 166, c/o Dave Armando
1765 New London Turnpike
Glastonbury, CT 06033**

(Dues are \$16.00 per year, due in January, make checks payable to: EAA Chapter 166)

Name: _____

Wife or Significant Other Name: _____

Home Phone: _____ Mobile Phone: _____

Street: _____

City _____ State _____

Zip _____

Email address: _____

EAA Membership No: _____ Expiration date: _____

Pilot rating(s) held: _____

A & P ratings held: _____

Do you own an aircraft?: _____ Make & Model: _____

Registration No: _____

Are you building an aircraft?: _____ Make & Model: _____

% completed? _____

Are you restoring an aircraft?: _____ Make & Model: _____

% completed? _____