

# Hot Air



## Message from the President

December 2013

Our end-of-year tradition of holding a free raffle at the December club meeting continues Wednesday December 4th. Our Vice President, Jerry Lake, has been busy pulling the goodies together and we should have a great bunch of stuff. Hope to see all of you in attendance!

If you are planning to attend the meeting, we will also be electing club officers for 2014. All positions are available to anyone interested in supporting the club by volunteering. Anyone interested in volunteering and knowing more about the responsibilities associated with the various positions, please contact me or one of the other club officers. We can also discuss the responsibilities for a position you might be interested in prior to the vote. Please consider supporting the club by volunteering.

Speaking of volunteering, those of you who have been to Entradero lately know that our field is probably in the worse shape it has ever seen. The reason for this is twofold. First, the construction of the improved water treatment sump that was scheduled to start in August led the baseball guys to stop working on the field, since the fences were to be torn down and the outfield covered in excavated earth. Second, the irrigation water was turned off to conserve money, also due to the proposed park improvements.

The work at Entradero is still scheduled to occur. However, we do not know the new date. The baseball guys are not going to work on the field as long as the work is scheduled. I have discussed helping out dragging / leveling the infield and

performing minor field work that would enhance our ability to fly. The baseball guys agreed that our club could perform these tasks if we wanted to do the work. I am planning to retire the middle of December and should have time to do some field maintenance. Anyone willing to help?

December is always full of family commitments, preparations for the Holidays and the possibility of questionable weather. Regardless, we will attempt to schedule the December Fun-Fly's and see if we can get some participation and clear weather. The Del Cerro Fun-Fly will be held Saturday, December 7th. Start time will be around noon. The Entradero Fun-Fly will be held Saturday, December 21st. Gates open around 8:00 AM.

### Next Meeting

**Wednesday,  
December 4th  
7:30 pm**

**La Romeria Park  
19501 Inglewood Ave**

The first Wednesday in January is the 1st of the month, so we will not be having a meeting in January. However, the Fun-Fly's will be held, weather permitting, January 4th (Del Cerro) and January 18th (Entradero).

Additionally, mark your calendars for the Wednesday, February 5th club meeting. We won't be having a raffle at the meeting.

However, we will be having our annual swap meet. This is a great time to clear out the old modeling paraphenalia you don't want any more and bring some new stuff home.

It is always interesting to see what shows up. I always seem to go home with something unexpected.

If you get the chance, make sure to thank your club officers who volunteer their time in keeping your

### Upcoming Fun-Flys

**Del Cerro  
Entradero**

**December 7th  
December 21st**



club alive. I hope everyone has a happy, healthy and safe Holiday Season. I am looking forward to seeing all of you at one of the fields or at the meeting.

All the best,  
- Jeff

## Report from the Treasurer

### PSF Treasurer's Report

Month ending 10/31/13

by: Mike Lewis, [treasurer@peninsulasilentflyers.com](mailto:treasurer@peninsulasilentflyers.com)

For the month ending 10/31, no changes have been made to the accounts, other than the usual \$0.13 in interest income. For future reports, I expect the 11/30/13 report will reflect a \$500 deduction from the operating fund to fund the annual December holiday raffle. Until next meeting, happy flying!

-Mike Lewis, Treasurer

## Building Notes - Art Hobby Odyssey 2.7M Sailplane (Part I)

*(This is the first of a multi-part article submitted by club member Steve Kratz. - Ed)*

Recently, I was looking for a new glider to add to my inventory, so I checked with several of my PSF colleagues for suggestions. One of them recommended checking out the Art Hobby line of sailplanes, since I was planning to build a light weight 2+ meter rig for thermal flying. Of course, any plane I own also needs to perform well at Del Cerro so that was definitely a consideration.

Having some experience with building and flying molded sailplanes, I was familiar with most of the popular brands of high performance F3F and F3B ships, but had not heard of Art Hobby planes before. After some investigation of AH's website, I was intrigued. Rather than using CNC machined molds and fiberglass or carbon fiber construction, AH makes high performance planes using wings that have a black poplar wooden skin vacuum bagged onto a foam core with a carbon fiber reinforced wooden spar. Theoretically, this should produce a

strong and lightweight wing that conforms precisely to the airfoil shape. After reviewing the entire AH offering in 2.5M to 3M range, I had trouble deciding between the Thermic 2.5M X tail version and the newer Odyssey 2.7M X tail. A quick phone call to Andre at Art Hobby to talk through the various merits of both designs yielded the following information:

### Thermic

Approx. 17 oz. kit weight

HN 1033 airfoil

606 sq. in. of wing area

Can be built as a 2 channel, RES or full-house glider

### Odyssey

Approx. 23 oz kit weight

SD 7080 airfoil w/ high aspect ratio wing

607 sq. in. of wing area

Can be built as a 2 channel, RES or full house glider



## Building Notes - Art Hobby Odyssey 2.7M Sailplane (Part I) - Cont.

Andre explained that the Odyssey had a “better airfoil which has a wider speed range” and “the Thermic was out of stock at the moment”. Well that sealed the deal for me and in spite of the higher wing loading, I ordered the Odyssey. The kit arrived within 5 business days and I proceeded to inspect the contents immediately upon receipt.

Here is where it began to sink in that this wasn't the usual ARF kit that I was so used to building but a real “kit” that you have to actually build. If you're accustomed to just installing the electronics, setting the CG and programming before flying, you need to know that this will be a different sort of experience.

First order of business after opening the box was to weigh the kit parts. The actual weight of the kit was very close to the weight published on the website at 23 oz. Remember; this is before adding the weight of epoxy, lacquer, nose lead and electronics. I was budgeting 33 oz. as the RTF weight which would provide a wing loading in the 7 oz. per sq. ft. range. This is still in floater territory but definitely on the heavier side compared to a built up glider.

Regardless, I was counting on the airfoil and rigid airframe to produce an efficient sailplane that can thermal well and handle some serious speed. When compared to molded planes of similar size, the Odyssey would still be considered a lightweight which is why I plan on adding a ballast tube. Some of you will recall how I promised to include ballast on the last project plane I built (The Del Cerro Special) only to be disappointed when I opted not to, but this time I really mean it!

After a comprehensive accounting of all the parts in the kit and those listed in the instructions it was clear that I didn't have enough parts to produce a complete flying model. There were no servo covers and the only thing that remotely resembled a tow hook was a single straight piece of heavy gauge wire. Andre at AH explained that servo covers are optional since each kit can be built into several different configurations and I would have to buy servo covers from AH or make my own. As for the tow hook, a piece of wire comes with the kit but if

you want an adjustable hook you need to buy it or fabricate one. In addition, the instructions don't explain how to fabricate a functional tow hook out of the piece of wire. Frankly, for \$370 I expected to have these “options” included.

The instructions suggest building and finishing the wings first, apparently to reduce the compulsion to rush the job and risk a warped / hastily finished wing. It seems wise since it became clear that the wing building piece of this puzzle was going to take a serious chunk of time. Not only was it necessary to cap the wing joints with fiberglass and epoxy but one must also sand, shape and join the center sections of the wing, reinforce with more glass and epoxy, drill 2 mounting holes (perfectly), cut out the servo bays, reinforce those with glass, cut out the control surfaces, apply sanding sealer, sand and finally apply one last coat or two of lacquer to the finished product. Whew!

For someone used to plug-and-play ARF's and RR planes this is a relatively huge investment in time and effort. On the other hand, those who enjoy crafting a fine flying thing from bits of wood (including cabinet makers) will no doubt feel a real sense of accomplishment and take pride in all the little details of wood construction that I, now that I've built one, would rather avoid completely.

AH recommends using Deft sanding sealer and lacquer clear coat for its planes and while it was fairly easy finding the clear coat, the sanding sealer was another matter altogether. Checked Lowes, Home Depot and OSH only to find that this product was not stocked anywhere. The only alternative was to order it from Amazon. If you don't like starting and stopping a build like this, I strongly suggest ordering all the required materials well in advance of ordering the kit from AH. It wouldn't be a bad idea to use this down time to brush up on your woodworking skills. You're gonna need them on this build.

### The Fuselage

While waiting for the sanding sealer and against the advice in the AH instructions, I jumped into the





## Building Notes - Art Hobby Odyssey 2.7M Sailplane (Part I) - Cont.

fuselage build and found this to be much more familiar territory. It's a really simple pod-and-boom design that won't intimidate anyone. Suggested locations for various components and cutouts are clearly stenciled on the pod. Of course the first thing I did was re-allocate all of the locations and modify the pod accordingly.

After eyeballing the overall proportions of the airframe I decided to shorten the fuselage boom by 1 centimeter to reduce the amount of nose weight required. The rudder hangs way off the back of the boom and isn't very light so in addition to whacking the boom down a bit I also drilled some big holes in the rudder and covered it with Micro Cote. Drilling holes in the boom and installing the control rods and housings was drama-free.



Holes in the rudder to save on nose weight



Control cable routing was straightforward

The pod is relatively huge compared to an F3F or F3B ship and there's plenty of room for everything including the kitchen sink, so installing ballast is straight forward. In fact, I opted to construct a series of ballast

plugs that could be threaded onto a bar to eliminate the weight of an actual tube in the interest of lower un-ballasted flying weight.

### The Wings

Like most AH designs the wings can be built into various configurations such as polyhedral, dihedral or straight with flaps and ailerons, ailerons only, spoilers only or nothing at all. In spite of the amount of work required to build and finish the wings this is one of the attractions of the Art Hobby planes in that

they allow you to customize the design to produce a plane that fits your vision and how you want fly the finished product.

I decided to build the Odyssey as a full-house glider with a classic DLG style tail that could be winched, sloped or hand launched anywhere there might be lift and suitable for Del



Lots of room for electronics

Cerro, Point Fermin or Field of Dreams, which are all local flying venues. Adding flaps was essential since it seems I have totally forgotten how to land a plane without them after flying so much at Pt. Fermin where flaps are mandatory for F3F restarts and safely landing moldies with full ballast loads. Some PSF'ers would probably argue that I never could land very well in the first place so suggesting that I "forgot" is somehow misleading.

The wing building steps outlined in the manual are as follows:

- 1) Apply epoxy and glass to the wing ends to seal against the effects of the lacquer on the foam cores.
- 2) Fabricate the joiner blocks for the center wing joint.
- 3) Join the center wing panels and joiner blocks with epoxy
- 4) Reinforce the center joint with strips of glass and epoxy
- 5) Perfectly drill the 2 mounting holes for the wing saddle bolts
- 6) Sand and brush on sanding sealer
- 7) Sand some more...
- 8) Apply lacquer clear coat

**Building Notes - Art Hobby Odyssey 2.7M Sailplane (Part I) - Cont.**

9) More sanding

(.....not done yet.....)

10) Cut out flaps and ailerons

11) Seal exposed edges of the flaps and ailerons

12) Reattach flaps and ailerons to wing

13) Cut out 4 servo bays

14) Build servo boxes

15) Reinforce servo bays

16) Install servo boxes mounts

17) Sand to a fine polish

(.....now you're done!)

The wings started out weighing 14.1 oz. before assembly which is roughly 60% of the kit weight. After gluing, reinforcing and finishing, they

weighed 15.5 oz. and had absorbed 1.4 oz. of materials. This included 2 light coats of sanding sealer and 2 even lighter coats of clear lacquer. To keep the weight to a minimum, I went to Rockler (a retail wood working store) and got a high gloss finishing kit which consisted of sanding discs in grits from 2400 to 12000. This is one way to create a very smooth wing without slapping on extra finishing coats that only add to the RTF weight. It's a lot of work but the wooden wings eventually got very smooth.

This would be the approximate starting point if you were building a standard molded or ARF sailplane. But as I said, Art Hobby sells kits.



Foam core wing

*(Stay tuned for Part II next month - Final build through first flights)*

**Note from Entradero...**

*Recently, a resident adjacent to Entradero spoke to one or more of our members about the ongoing need to keep the Entradero gates locked. Evidently, individuals continue to access the fields at night to indulge in various roudy activities.*

*The resident was not upset with club members and understands that our club is only one of several groups with access to the facilities. However, they asked that we be diligent about locking the gates when leaving the area.*



## Our Famous End-of-Year Raffle!



*This is the one you've been waiting all year for...*

*Come to the December meeting and get a free ticket to win any of the many great prizes in this month's raffle.*



### Club Officers and Volunteers for 2013

- President: Jeff Chambers  
310-370-0771
- Vice President: Jerry Lake  
310-370-6697
- Treasurer: Mike Lewis  
310-987-8178
- Secretary: John Spielman  
310-378-0951
- Newsletter: Chris Newton  
310-347-6806

*Want to help out your club?*

*Why not consider volunteering as a club officer in 2014?*