

# Hot Air



## Message from the President

March 2015

Our monthly meeting will be held this Wednesday, March 4th. Jerry has a great selection of goodies for the monthly raffle. Hope you can make it.

The Newsletter made a late appearance that appeared to impact the number of PSF'ers that attended the meeting. The number of folks bringing stuff for sale and trade for the Swap Meet was similarly low. Those in attendance agreed that we should have a redo of the Swap Meet in April. So, we will try again in April.

West Torrance Little League is underway at Entradero Park. Their schedule has games Tuesday through Friday evening and Saturdays. Be advised that even though Sundays and Mondays throughout the season are unscheduled, there may be organized practices on those days. If teams are practicing on the adjacent fields to our flying area, our guidelines for flying at the park dictate that no flying should occur.

Construction continues at the park. Our field has been sprayed to kill the weeds. A new, higher, outfield fence has been installed. Watch your landing approach until you have the glide slope down. I have not been able to get a date from the City for either the installation of sod on the field or completion of the upgrades as a

whole. I don't think they know the answers, since we have gone beyond their last predicted dates. Regardless, be patient and don't fly over any of the construction workers.

### Next Meeting

**Wednesday,  
March 4th**

**La Romeria Park  
7:30pm**

Del Cerro has been rinsed by the recent rains. As is typical this time of year, the trails down the hillside have changed due to the loose soil being washed away. Be extra cautious if you need to hike down the hill to recover a plane. The newly exposed surfaces can be slick.

It is not too early to start thinking about the Chino Planes of Fame air show which will be held May 2-3. The link below has all the details. The show always features a bunch of historic aircraft in the air. It is definitely a "must-do" for any airplane buff.

### Upcoming Fun-Flys

**Del Cerro      March 7th  
Entradero     March 20th**

This month's Del Cerro Fun Fly will be Saturday, March 7th. Folks usually show up between 12:00 and 1:00. The Entradero Fun-Fly will be Friday, March 20th. Flying can start as early as 8:00 AM.

I hope to see you at one of the fields or the meeting.

-Jeff

***Remember: The annual "swap meet" will run again in April.***



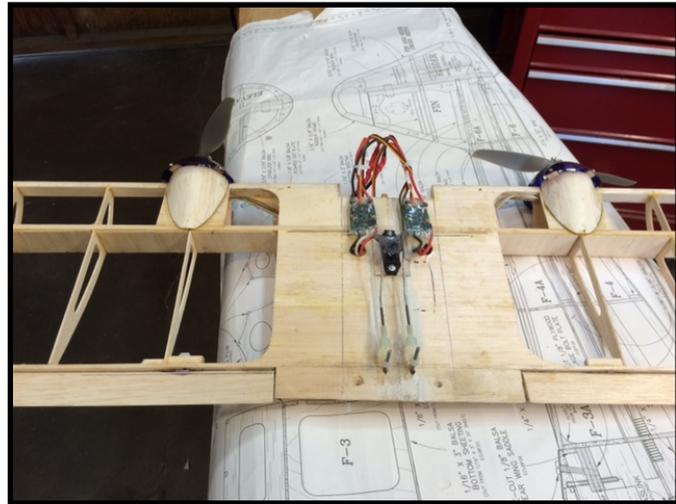
## Kit Bashing a Piper Cub - Part II - Alan Templin

Work on my J3 Cub Bi-Plane has gone slowly, due to the engineering change notices that the design reviewers requested. The change notices involved changing from a bi-motor to a tri-motor. Aeronautical engineer Kingsley reviewed the bi-motor design and declared “it’s going to take a lot of nose weight to balance”. Then he added, “consider adding a 3rd motor instead of a lot of lead weights”. That turned out to be very good advice. The plane is almost complete and ready to be covered.



This plane is based on the Great Planes Electric Cub kit, circa 2000. The nearly complete tri-plane wing is being assembled by the handsome owner. Without the front motor, the battery would have to protrude out the front of the cowl to achieve the correct center of gravity. Note the tundra wheels - another engineering change implemented due to the owner’s apparent lack of ability to land on the infield. This is a relatively large plane for a park flyer, with a 59-in wingspan.

I used 18-amp Castle Thunderbird ESCs to provide a 3-amp BEC. With the addition of the 3rd motor, I could have used smaller ESCs on the wing, and used the BEC on the front motor. The ESCs are connected by a ‘Y’ harness to the receiver throttle port. One BEC is disconnected to avoid regulator oscillations between the two BECs. The front motor ESC is behind the firewall and is connected to the ‘gear’ port on the receiver. The ‘gear’ is then



*This is a view of the bottom side of the wing, showing the single aileron servo and the 2 wing ESCs.*

slaved to the throttle using the mix function of the transmitter. This allows trim and travel settings of the front motor independent of the wing motors.



The bottom of the plane allows access to the battery and hatch cover. The 3S-2200ma battery is still in front of the CG by several cm, which allows easy adjustment of the CG.

The wing cowls are cut from the top of water bottles, and colored with a magic marker. I used a very long mount in the front to get the CG right. The wings use short surface mounts, since the wings were not designed with torsional strength to hang motors way out in front of the wing. The



*With the cowls removed you can see the motor mounts.*

wings use RimFire 200 motors at 100 watts each, turning a 7x5 prop. The front motor is a RimFire 300, providing 150 watts to an 8x6 prop, for a total of 350 watts on a 3.2 lb. airplane. All motors are set at 0.0 degrees thrust, with the hope that the large wheels and high wing motors will provide enough down thrust for good flight. The motors can be shimmed after the test flights, if needed. This pre-supposes the plane survives the maiden flight.

The Stock Great Planes kit recommended a speed 600 motor with a 7-cell 8.4 volt 2000ma NiCad battery. This heavy combination provided about 125 watts of power to an 8x4 prop, but it weighed the same as this tri-plane. The stock plane also used an on-off micro switch for the throttle. Full power or no power. I guess you flew until the battery ran down, then landed by toggling the motor on final approach. Sounds exciting!

-Alan



*Just to prove the plane really does balance correctly, this is a shot of it on the balancer, ready for covering.*

### Upcoming Event

Club members may be interested to know that 'Fifi', the last flying B-29 will be touring So. Cal. this month as follows:

- Camarillo Airport                      March 2-8
- Palm Springs Air Museum            March 9-15
- Signature North (Van Nuys)        March 18-22

Just in case you're feeling flush, a 1-hour ride in the nose is available for \$1600.

Visit this [short history of the Boeing Plant #2](#) where B-17's, B-29's and many other aircraft were built.

### Club Officers and Volunteers for 2015

- President:                      Jeff Chambers  
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