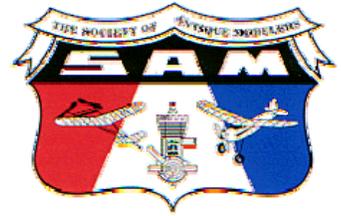


**THE NEWSLETTER OF SAM 26, THE CENTRAL  
COAST CHAPTER OF THE SOCIETY OF  
ANTIQUe MODELERS. LATE MAY 2010 #246**



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**NEXT CHAPTER MEETING:** Will be at Bob Angel's on June 16.

**THE APRIL MEETING** was held at Steve Remington's Collectair museum in Santa Barbara. Whether you've been there before or not, there's plenty to occupy your attention. Every nook and cranny is overflowing with memorabilia of both model and full size aircraft. There are many built models in all sizes, model engines, original kits, and aviation art work.

Steve is an artist himself, and puts many hours of research into his drawings and paintings of vintage aircraft, including authenticating the scenery and setting in which the subject operated. Some of the materials, particularly the artwork is for sale. If you can't visit (by Appointment) you could spend hours just perusing his web site, which is also a colorful and informative source of aviation history. Check it out at [collectair@verizon.net](mailto:collectair@verizon.net)

**A LITTLE RULES CONTEST:** Ed Hamler sent the following Email which is self explanatory. It may have some value beyond the prize offered by prompting some of us to peruse the rule book for a refresher course. The newsletter referenced is the previous one, #245 from April 2010.

Hi Bob,

In reading the contest results from the 28th SAM 26 Spring Annual in your excellent newsletter #245 I spot an illegal entry. It's obscure and I doubt that anyone else has noticed it. Just for fun I'd like to offer a prize of \$20 in your next newsletter to the member who correctly identifies that entry. In case of multiple correct answers the prize will be divided equally among the winners. Everyone is eligible but only one answer per member. Please set the deadline for entries two weeks after the publication of your #246 newsletter. (*Editor: let's make that June 12*)  
Have fun, Ed H

Thanks Ed. Unfortunately I've disqualify myself by prying the answer out of Ed to make sure any (presumably) innocent party wouldn't be embarrassed. Get a correct answer to Ed by Thursday June 12 or the 20 bucks goes back in his pocket. Ed is at 3379 Crystal Court, Napa CA 94558, or phone 707-255-3547, or [ehamler@comcast.net](mailto:ehamler@comcast.net)

**THE CHANNEL 42** frequency pin was one of two that didn't make it home from our spring annual. The second one is on its way back. Would the gentleman with the CH 42 transmitter please check for the pin and mail it to me at the Patterson Rd. address above. That's much easier for you than having me make up a new pin. Thanks.

Bob Holman just sent word that former SAM 26 member **Bob Davis** passed away last month.

**NEW HI-TEC RADIO.** Steve Hulse has been following the release of a new radio for some time. He finally obtained one and sends the enthusiastic endorsement below:

I have had my **Hitec Aurora 9** for about a month. It came with a 9 ch receiver. I have been waiting for two 7 ch receivers and resisting using the 9 in my electric glider but finally gave up and put it in. I wanted to tell you about the programming because I know how much you hate computer radios. This is the answer to your computer radio dreams and nightmares.

When you turn it on, the screen shows two soft keys: one for the plane and one for the radio. You touch the one for the radio (a wrench) and it asks you if you want to program in a new model. Hit "New". Q: Airplane, glider or heli? Ans: Airplane. Q:1 ail servo, 2 ail servo's, 2 and flaps etc. and it keeps up this question and answer routine until you are done with the radio programming. Here's the big deal though: When you select "airplane", it eliminates all programming to do with glider and heli. When you select, say "One aileron servo with no flaps", it eliminates all programming dealing with flaps. This continues through the whole programming phase.

When you're done, the screen will have tabs on it like file folders. Only tabs with things pertaining to your current plane are available or to say it better, all the junk like swash plates and spoilers, flaps, retracts etc, etc are gone. When you go back to the main menu and select the "plane" to what else, program the servo movements in the plane, it knows exactly how your plane is configured and offers only the things it needs. Instead of always being twelve steps behind my JR's, trying to decipher the horrible manual and cut through the heli crap and mixes I have no idea what to do with, this radio (I ain't kidding you one bit here) was anticipating my next moves all the way through.

I tried to make it harder by programming spoilers and flaps on a selected 3-way switch with down (spoilers) and up (flaps) elevator mixed in. I was trying to make it hard and started looking through the book on how to do it. It was like I was back in a bad JR dream. Page forward, page back.... How do I get the elevator to mix with them? I finally end-up back on the "Flap Control" page where I was in the first place, looked at the bottom left and low and behold, there is a soft key that says "Elevator Mix". Turns out it was so easy my JR frame of mind just wouldn't allow me to accept it. I push the soft key and badda boom badda bing, an elevator mix control page with a nice graph pops-up.

A few minutes later I'm feelin' like the God of R/C. In all, I spent about 30 minutes programming. Funny, when I first got the radio and quit drooling on the transmitter, I got the manual out. A page or two in it says "You probably don't need this manual and we don't blame you if you don't ever read it but you should read it at least once" or something to that effect. I thought HA, they never met a caveman like me. They weren't kidding. It is the most amazing piece of R/C equipment I have ever imagined much less owned. You need to check them out. Steve

 **HITEC**  
2.4GHz



**WILL I BUY ONE?** (*ED. Note*) Like most of us, I'm already up to my ears in radios. But also, I looked up the Hitec Aurora 9 sets in the Tower catalog and see the prices starting at \$430 up to \$530. Does that answer the question? But there's another drawback. If the programming is as easy as Steve says, I wouldn't be able to grumble as much about stinkin' computers. Actually there's some price relief with those radios if you're equipping multiple ships with new receivers. Almost every brand (including the Hitec) sells extra 2.4GHz RX's for about half of Futaba's price of around \$100 a pop for the mid-level RX's we generally use. Meanwhile, Futaba has been selling so many of those new R617FS receivers that they're unlikely to drop their price anytime soon. They have come up with a cheaper 2.4MHz "sport" receiver, but they took away one of the dual antennas to make sure it didn't compete with the 617 model.

**IGNITION PROBLEM SOLVED!** One of life's great adventures has to be operating spark ignition engines. There's always some unique glitch popping up which may or may not get solved during one's lifetime. It once took me two years to find an ignition problem in a B class ship. That was mostly because I gave up, flew it with a glow engine for the two years, but finally came back with more resolve. It turned out to be a hidden wire connection to a micro-switch. Since I couldn't see the connection, I'd relied on a continuity test with an ohmmeter. That test indicated it was switching ok and had continuity. What was hidden was that the multi strand wire had broken down from vibration to a single small strand attached to the switch. That wisp of wire was able to handle the small current for the ohmmeter, but not enough to pass the heavier current needed by the coil to run the engine.

**BUT THE CURRENT ADVENTURE** concerns an O&R 60, which started biting me most severely while hand propping. It wasn't backfiring, it was "front" firing. That is; firing very early with the prop coming on around at high speed and returning me one severe whack for every flip I gave it. I do wear a leather glove when hand propping, but it wasn't enough. Dick Fischer forwards a quote that's appropriate here: "Propellers are notorious for inflicting serious bodily harm while vigorously defending their space" George Aldrich.

Retarding the spark didn't help, and actually seemed to add to the engine's enthusiasm about whopping my poor finger even harder. Even retarded to about top dead center, as verified by a timing light, it was doing its thing on my fingernail. It seemed unlikely that the timer could be the problem. Something seemed to be disconnecting early, setting off the spark early. So I began looking for a loose connection or other glitch in the wiring or ignition components. This went on sporadically for a couple of weeks, but it was a wild goose chase.

Putting an O&R timer back together and adjusting the gap is a tedious little job, so I'd ignored that teardown as long as possible. Besides, the symptoms didn't seem to lead to the timer anyway. Wrong! When I finally pulled the timer, I found the problem. Whoever the Neanderthal was that owned the engine before me had used an electric starter on the poor thing, repeating the crime often. I had hand started it for some time before the problem began. It had taken awhile for the delicate little timer parts to wear in just so and create the problem.

The back side of an O&R steel drive washer has a flat that's smaller in diameter than the case front. Starter usage had ground slop into the case front, allowing the crankshaft to back up into the case when hand propped. The front shoulder on the crank's timer cam cutout was backing up against the moving point and kicking the points open early.

Detecting the problem is 95% of the solution. I lucked out by finding a couple of .010" steel shims with just the right diameter in my collection of miscellaneous junk. I epoxied the shims to the rear of the drive washer so they'd be properly centered to slip over the crank splines without dropping into the groove behind them. Next week at the field the engine hand started on the second flip. For any of you guys using starters on O&R engines I'd advise you to stop. If not, you should at least install a proper shim behind the drive washer.



**SMALL DIESEL!** Wait, take a closer look. That's a 60 size glow engine with the small diesel almost swallowed up in the carburetor.

Sorry, but I don't know the name of the diesel, the bigger glow engine, or the source of the picture. But I'd bet it came from Sweden or some other European country. Such is the way of the internet.



**Ted Patroia and son Mark prepare Ted's "Boynton", powered by a McCoy 60. This is a beautiful rare bird and would certainly qualify for the "Miss Seldom Seen Award". Design is from the Nostalgia era (post WW-2). Fuselage is a balsa planked monocoque construction.**

Charlie Reich supplied the Boynton photo.

**BROWN JR. TUNEUP:** Recently SAM member Bob Slater E mailed a series of questions beginning with a fuel question to the SAM talk general group. I answered it and then ended up with a series of personally addressed Email questions regarding setting up his new Brown Jr. E Bay acquisition. I see no reason to let all that typing go to waste, so here's an edited down version of some of his questions and my answers. Jim Hainen also answered some other of Bob's questions to help get him started in Brown Junior flying.

**Q:** I have a gallon of Aerodyne fuel marked 70/30 for Super Cyclone, red color. I think its alcohol based but can't tell for sure by smell. Does anyone know what it is or how to tell?

**A:** I'm 95% sure it's alcohol based. The red indicates synthetic oil and 70/30 is usually a standard FAI alky/oil mix. Put a little in a suitable dish outside and light it on fire. Alky based will burn almost invisibly, even with oil added. Gasoline based will burn bright orange or red with some black smoke.

**Q:** It's alky based and burned like you said. Should I add castor to use it in a Brown?

**A:** Probably not needed, as 30% is an oil rich mix.

**Q:** I received the Ebay Brown and the points don't quite close. Should I bend the moving point to adjust? What's a good gap?

**A:** Spring steel points break easily if bent. The Brown has a method of point adjustment that you can see better with the drive washer removed. Loosen the timer's clamp ring and you can rotate that eccentric insulator inside it, which will move the fixed point in and out for adjustment.

Gap isn't critical on a Brown because the cam shape opens and closes the points so abruptly, that gap has little effect on dwell. And the Brown doesn't run fast enough that a long dwell is critical.

**Q:** Actually my Ebay buy was for two Browns, one for parts. How hard is it to remove a Brown cylinder? Thanks for your tips.

**A:** I take the cylinder off a Brown by just clamping two short lengths of 1/8" music wire into a strong vise. You space the wires just right to fit the holes in the head with only short stubs of wire sticking up. It makes the vise and music wire into a wrench. You can then turn the crankcase off the cylinder by hand.

**Q:** New problem. The prop drive washer on my Brown is absolutely smooth. It is hard to get it to grab a prop for tightening. How do I get it to do that - friction tape? Emory paper glued on to it? What? Thanks

**A:** Rough threads and friction are the main problem. Chase the threads on the crankshaft and the prop nut with 1/4-28 tap and die, which will relieve the friction and allow the prop to tighten more easily.

**Q:** It runs! Thank you for all your help. Know where I can get one of those exhaust manifolds for it? Mighty messy straight back...Many thanks again!!!

**A:** The skinny small diameter (Factory?) exhausts cut down RPM and run hotter according to my tachometer and infra red temperature taker. I made a couple extensions out of larger diameter but shorter K&S brass tubing, squashed slightly oval and held on with a garter spring around the cylinder. That was better. But I finally ended up with just the aluminum exhaust deflector shown in the Email attachment. (ED: See photo on next Page.)

Apr 28, 2010 06:39:25 AM, Bob Slater wrote:

Bob and Jim, Thanks much for your help. As I said, I'm getting a real kick out of my Brown.



Here's that Brown junior exhaust deflector mentioned earlier. It doesn't restrict exhaust flow nor cause hot running as did those restrictive little clamp-on exhaust pipes. It's held on by the spraybar and has extended "legs" down around the intake tube to prevent rotation.



**THE PACIFIC ACE SPORTSTER** was featured at show and tell at a recent SAM 21 meeting. It should look really sharp when an appropriate finish and markings are applied. Bob English is the builder. That has to be Eut Tileston's living room, where he's run out of wall and shelf space for trophies.

The ship may look quite modern, but it's a 1939, or Antique design. Its' unscaled size is 60" span and 580 sq. in., which would allow up to a .25 cu .in. glow engine for class A or B. competition. But its best attribute is probably just what the name implies, a nice looking sport flier, which would be equally acceptable on either an OT or a "back and forth" flying field.



**The F3F flies!** Dick Fischer, accompanied by your Editor went to Vandenberg AFB on May 26, 2010 to fly his F3F. Dick completed the ship late last year. He just recently put it up for its' maiden flight at Palmdale, where there's a smooth runway with lots of room for error. The VAFB outing was its' second set of flights. After all the work he'd put in on the ship, he was naturally cautious during the inaugural flights. Those white strips on the empennage are taped-on added control surfaces for the purpose of insuring solid control for the maiden flights.

The engine is an Enya 50 four stroke, which has more than adequate power and makes noises more appropriate than would a two stroke. Dick put up four flights, and on the last two he progressively removed that extra stability he'd installed on the tail feathers. Part of his caution comes from memory of another F3F he saw which crashed on three initial flight attempts by another skilled pilot. The ship is quite stable and has a surprisingly good speed range.

The model strip at Vandenberg is a nice one, and was built by the Vandenberg Wingbusters club, which unfortunately has recently disbanded. But anyone with an AMA license and access to the base can still use the field after going through the appropriate "Hoops". The nicely paved large runway is hidden by the weeds behind Dick

We held the John Pond Commemorative OT/RC event here a couple of times, years before the paved runway was built. It worked out well, but on the third year we planned it, some instinct kicked in and we moved the location. Sure enough, the Marine Corp held a tactical exercise in the area, which was announced quite late, and which would have preempted us from flying there.

**WHY DOES MY PLAYBOY TUCK UNDER?** I've flown a Playboy Junior in 1/2A Texaco for years. And for years it's had an odd type of pitch instability. If I don't watch it and put in elevator correction, it will start a shallow dive, then pick up speed and try to tuck under. I've often asked FF guys about this and never got a satisfactory answer. Most said they'd never observed the problem.

Then in the June '10 issue of Model Aviation, "If it flies" Columnist Dean Pappas gave an explanation. I won't try to repeat the whole thing, but here's my summary: With a fairly forward balance point a ship will usually respond to increased airspeed by nosing up a little. But with a more rearward balance point, such as for maximum gliding performance this airspeed sensitivity can reverse itself. As airspeed picks up, there is a tucking tendency that left unattended would result in a tuck under to an inverted position (assuming lateral stability).

Dean was talking mostly about flying wings, but also about short coupled ships and those with highly cambered airfoils. The playboy Jr. has a nice long tail moment, but with a fairly small stabilizer. It does have an under-cambered airfoil. It makes me wonder if the free flight guys use a more nose heavy balance point for stability. I always thought they balanced on the "teetering edge" for maximum glide.

Dean's explanation is a practical one, but I still don't understand the aerodynamic theory behind the tucking tendency. I've considered that maybe the Clark Y type airfoil on the stab might just become more effective at lifting as speed increased. That could increase the tails lifting ability, which would cause downward pitch. If anyone can add to this discussion, I'd like to publish it.



**THE RB SPECIAL** is a relatively rare engine, but not quite on the endangered species list. It's a 29 size which could probably hold its own against most anything but a McCoy 29. You don't see an intake in these two shots, because it's a sidewinder front rotary type with the intake on the right side, sort of like the Cannon engine. In fact I believe there was some relationship between those two engines.

Notice that simple rear mounted timer, tucked nicely away from the prop. One peculiarity I don't care for is that the drive washer has no positive connection to the crankshaft, apparently relying on just friction to drive the prop. I guess I couldn't quite believe that until I saw it spelled out in one of Charlie Bruce's articles.

**THE SCHMIDT RANCH CONTEST** (May 22&23) enjoyed a nice day Saturday according to a quick report and photo from Eut Tileston. Oddly enough on that same day, about 300 miles to the south we were blown out of our Saturday flying session by sustained 40 MPH winds. But the wind did slow the flying down at the ranch on Sunday.



Here's Eut's aerial view from his little photo plane. It looks like about an average turnout, just counting the vehicles tucked away here and there. The takeoff is normally from that nice mowed area toward the west (toward us) and into the prevailing wind. The flying and landing area is the many acres in the same direction, away from where the camera is pointed, and also the large field area to the right of the picture.

**MINIATURE SAM MODELS** are being promoted by SAM Secretary Tommy Gray. With the small light RC equipment available today, this has become a more practical possibility. Also to be considered is the fact that availability of flying fields keeps shrinking as population soaks up open space. Electric power would be especially useful, although .01 and .02 engines would work. Here's an excerpt from Tommy's web site, which is being set up at [SmallOldTimers.com](http://SmallOldTimers.com).

- Wingspans no larger than 24" Monoplane 18" biplane
- 2.4 GHz radio gear (because of multi-plane mass launch events, etc.) for R/C versions
- Must use original materials and construction techniques (Balsa, no foam, etc)
- Modern adhesives and coverings allowed but vintage coverings preferred
- Planes must maintain the outlines and proportions of the original design
- Both RC, Rubber Powered, and Gliders are O.K. as long as they follow the above criteria
- "SmallOldTimers" legal designs are for both Indoor and Outdoor venues

**THE LAST WORD:** I've heard that Powermaster fuels is going out of business. I don't know if it's another result of our environmental protection agency's protectionism, or just the intense competition for cheap fuel. This isn't a big loss, because there are probably too many fuel makers anyway, and Powermaster was in no way particularly outstanding. When there are too many competitors, too much advertising is required to compete, which drives the cost up for all.

**THE JIMMY ALLEN POSTAL** for 2010 can be flown any time from now until October 5, unless my fuzzy memory has failed me again. If so, there's time for Robby to correct me well before that date.

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