PLANE RAP NEWSLETTER



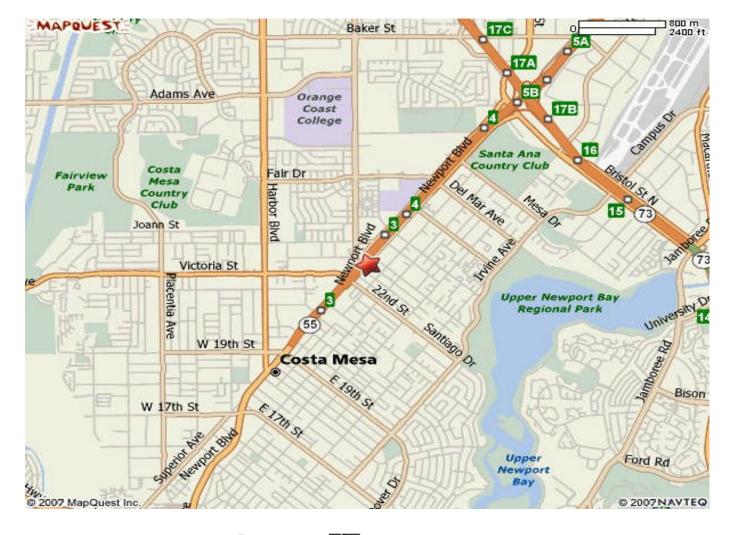
HSS is the oldest AMA chartered R/C Soaring Club in the USA
VOLUME 44

ATTENTION ALL:

July 2007 Meeting Notice

JULY 2007

The July Club meeting will be held on July 5th 6:30pm at Napa Valley Pizza & Pasta 2278 Newport Blvd. Costa Mesa. We will have a raffle and possibly some entertainment. Bring your wife or significant other Children are also invited to attend.



June 2007 Meeting

Below are some photos of our June meeting held at the Sea Scout Base on PCH.



Jim Hanson with carbon butterfly.



John Rittenhouse talking about an internet weather site at our flying field.



Dennis Anderson showing off model with how fast how high set up.



Airspeed and static pito tubes on bottom of wing.

Minutes of the Harbor Soaring Society Meeting June 6th, 2007

Officer Attendance: Jim Hanson - President and John Anderson-General Director/Secretary

Prior to the meeting, new member Walt Stewart and Ross Thomas treated us to a fascinating discussion of childhood newspaper route economics and Jim Hanson demonstrated his tiny Carbon Butterfly indoor RC to everyone's amazement and enjoyment. His demonstration ended with a graceful landing on an overhead light fixture; whereupon Ted Broberg demonstrated his excellent retrieval skills.

Jim Hanson began the regular meeting with an update on the recent positive meeting with the City Police/Park Rangers. The main point is that because of a new City of Costa Mesa Ordinance, as of June 1st the 1st violation of any type of City ordinance (including the Model Aircraft Ordinance) will be an infraction and a 2cd violation will be a misdemeanor forwarded to the District Attorney for prosecution! Along those lines, Ross Thomas noted the no-fly policy situation at Huntington Beach school/park.

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Note: All flyers at Fairview need to be keenly aware that the City now intends to lay down the law and has already begun a stepped up enforcement of the City ordinances at all City parks including Fairview Park, and after recent special training they are well aware of the sections which apply to model aircraft.

Ted Broberg raised the need for the City to process pilot permit applications on the weekends as many find it difficult to visit City Hall during regular week work hours. John Anderson will follow-up with the City (Staff had previously indicated that there would be that provision).

John Rittenhouse, a non-member flyer, had requested and was granted an opportunity to present the prospects of a weather station at Fairview. He presented a well documented overview of various available systems/costs and prospects for joining with other potential users to help the initial and operating costs. He even offered to help finance some of the considerable cost himself. The attending members expressed appreciation for his efforts; but were skeptical as regards the cost-benefit. John Anderson offered to work with him to prepare an article for the Plane Rap which would provide the membership with the "pitch".

Note: John Rittenhouse has subsequently deferred his interest in the matter. Meanwhile Fairview Flyers may wish to explore Internet-available local weather sources such as MESOWEST (mesowest@met.utah.edu). Try local sites: CQ105-Mesa Verde and CW6885 Costa Mesa. Jim Hanson and John Anderson discussed continued use of the Sea Scout Base for HSS monthly meetings given the concerns for access/parking and the desirability of a site with more space for indoor RC. Jim will explore use of the Grange Hall and John will explore the use of the City's Community Center.

Walt Cloer agreed to work with John to compile the Club's several model aircraft videos. These will be made available for the enjoyment of the club members by way of a library and meeting entertainment.

John Anderson gave a short briefing on the Sea Scout/HSS model aircraft education program. The students are now building, converting, and generally refurbishing a variety of donated models. And new students are entering into the Design-Build-Fly program. He also noted that additional donated salvageable models, kits, components and equipment would be most welcome.

The deliberately short business meeting was concluded. Member Dennis Anderson presented his model equipped with the Wind Shadow altitude and airspeed instrumentation pod. John Anderson shared his project to convert a foamy toy plane (purchased at a garage sale for a buck!) into a viable RC glider.

Two new members shared their background: Tom Cody is a newcomer gaining experience and having fun with his Ez-Star. And Walt Stewart is a returning modeler, having flown FF and RC for many years. To help welcome them, John A. took them on a brief tour of the Sea Scout model aircraft shops and facilities.

HSS RES Woody contest



Half dozen RES Woodies



John Kruge launches extended Gnome

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John Barr launching his own design RES



Ross Thomas launching 2 meter Gnome For David Whittington



Bruce Schaefer Launches 3meter Gnome



Bruce's Gnome in flight

On Saturday June 19, 2007 the Harbor Soaring Society sponsored a soaring contest for RES (Rudder Elevator Spoiler) wooden built up gliders. 9 brave souls came out to loft there trusty Gliders into skies over Fairview Park in search of the elusive thermals that mysteriously appear and drift over flying area, and then attempt to land on that small spot in the assigned landing area and at the designated time. This dear fellow modelers is RES Woody thermal duration competition. Below are the entrants and results for this event.

Your Pres. Jim Hanson

Contest Results for: HSS JUNE 16 2007 RES WOODY

			RD	RD	RD	RD		Norm by
ID	Class	Name	1	2	3	4	Total	Contest
1	R	ROSS THOMAS	798	888	900	876	3,462	1,000
7	R	ERV SZEGO	540	897	885	922	3,244	937
2	R	JOHN KRUG	978	411	843	984	3,216	929
4	R	JOHN BARR	873	345	882	870	2,970	858
9	R	MIKE MORJOSEPH	910	964	947		2,821	815
6	R	BRUCE SCHAEFER	774	685	452	894	2,805	810
5	R	KARL HAWLEY	579		953	928	2,460	711
3	R	TED BROBERG	661	315	354	846	2,176	629
8	R	DAVID WHITTINGTON	417	795	345	456	2,013	581

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Upcoming Events

Tuesday, July 3 Turner Classic Movie (TCM) Cable Channel, Many old time aviation movies scheduled, get your VCR's and DVD recorders ready.

Editor's P-26 Peashooter

Well, the RC Groups, E-Zone contest deadline of June 20 arrived before I was ready to maiden and post proof of flight photos on E-Zone. The same was true for a number of other entrants. Charlie Manzano made a special voting category for these non-flying models. My Peashooter came in first and gets an "honorable mention". The model is ready for flight now but my Spektrum DX-6 is back to Horizon, I'm trying to get a new replacement transmitter. It still has LCD display problems and I just can't trust it. I may use my Hitec Eclipse and Berg 6 GIII receiver for the Peashooter. Just got a channel checker with Ch 13 crystal from RC Direct, can't be too careful. (See my write-up on Spektrum below) Pics are of recent taxi-test and addition of exhaust pipes and wheel pant décor.

BTW, I bought a nifty little tubing bender for exhaust pipes at Harbor Fright, does 1/8, 3/16 and 1/4 " K&S brass or aluminum tubing nicely. (Harbor Freight Cat # 94571, \$6.99)



Newsletter Inputs-Needed by 3rd Friday of Each Month- Repeat Request

I need to receive newsletter inputs, with descriptive text (and 640x480 size photos if possible) by email by around the third Friday of each month. This gives me time to assemble a draft newsletter, get it to the Publisher, Mike Gaczkowski, and for Mike to finalize, print, and e-mail it to all hands by around the first of the month. Send or phone inputs to me, Gary Gullikson, by e-mail ggullikson@socal.rr.com by phone (714) 539-8880 or by mail to 10242 Parliament Ave, Garden Grove, CA 92840

I Am a Recovering Spektrum DX-6 User

Actually I intend to re-acquire the habit when I get my DX-6 transmitter back from Horizon Hobbies (again). Many of us bought Spektrum 2.4 ghz systems in hopes of achieving glitch free and interference free flying with no concerns about frequency control. Many of us have gotten the performance as advertised and swear by Spektrum as "true believers". A few of us, however, have had unexplained crashes where everything works normally on the ground afterwards unless the crash has damaged something. Here is what I have learned from study of my own Spektrum applications and reading information on the E-Zone and other sources:

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Spektrum receivers are said to draw more current than most state of the art 72 mhz receivers. They are thus more prone to shut-down due to sudden drops in voltage, as supplied by the <u>linear</u> battery eliminator circuit. (BEC) section of electronic speed controls (ESC), than are most 72 mhz receivers.

Here is a relevant quote from the instruction sheet that came with my Berg -6 GIII 72mhz receiver, presumably from Mr. Berg. It pertains to all kinds of speed controls and receivers, especially Spektrum receivers:

"CAUTION"

"When being used in electric airplanes, the receiver and servos are frequently supplied their power via the throttle cable from the Electronic Speed Control (ESC). Most ESC's are equipped with a voltage regulator circuit which acts as a Battery Eliminator circuit (BEC). BEC's are specified to supply a certain (maximum) current- should this limit be exceeded then the output voltage will be reduced. This means that your receiver and servos could now be operating at voltage levels below their specified minimum. This may cause servo slowdown, motor cut-out and, in worst case, failure of the radio link. With several of the small servos which are used these days, we have measured start up and reversal currents in excess of 1 amp each.

Example: A popular 25A ESC with a 1 ½ amp BEC specifies 3 'standard' servos max at 11 volts. A typical 3 cell Lipo battery produces about 12 volts, The BEC capacity, or the ESC, when using 2 miniature servos is probably reached. With 3 servos, the limit may be exceeded at short intervals, with 4 servos, failure is likely to occur.

Suggestion: Always check the maximum BEC current specified by the Manufacturer of the ESC and dimension your servo count accordingly to prevent BEC overload and unexpected motor shutdown and /or radio link failure"

(End of RC Direct/Berg Quote)

Note, if each of your four (4) servos were pulling one amp, they could even exceed a 3-amp rated Phoenix 25's BEC's capacity, especially if one or more servos were defective or control linkage is binding, or if it's a hot day and your ESC overheats, or if your ESC's BEC section is not performing to specified maximum. Using a Spektrum receiver, with it's increased amp draw can make matters worse.

It is my understanding that when the supply voltage from the BEC drops below the voltage required by the Spektrum receiver, it will go into "fail safe" mode, controls will freeze and plane will crash unless receiver resets in time for you to regain control.

Other contributing factors can include 1) A defective/weak battery pack, too small capacity battery pack, or nearly discharged battery pack and sudden application of throttle or 2) one or more defective servo(s) and/or binding servo linkage causing heavier than normal current draw and overheating of the BEC section of the ESC causing BEC to shut down.

A 3-cell lipo pack may read 12 volts without load but considerably less with a heavy load. If you have the proper meter setup, try to check the voltage and current in the receiver and servo circuit while servos are being cycled and as you vary from low to full throttle. Don't assume anything!!

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Not being an engineer, I tend to follow the crowd. Many e-power flyers are now starting to use add-on "switching-type" BEC devices when they are using more than two servos in a given model regardless of manufacturer's 3amp BEC ratings that are now becoming common in ESC's. People using Spektrum receivers with their heavier current draw and sensitivity to voltage drops in BEC output, should probably bite the bullet and use an add-on BEC such as the Park BEC or Ultimate BEC (aka UBEC) just to be on the safe side when using three or more servos. Makers of switching type BEC devices claim that you can use up to six servos. I won't go into "why", please read their data sheets. The other alternative is to disable the BEC and use a good fully charged 4-cell receiver and servo pack just like the ones used with IC engine powered planes if your model can carry the weight and you can remember to keep it charged.

I installed a Park BEC in my P-26 Peashooter and hope it will help protect it from an unexplained crash. I realize that there is much controversy, truths and half-truths about the above. I am struggling to understand electric powered model technology myself and offer this to other club members in hopes it may prevent "unexplained crash" problems for you.

PS: The above is somewhat repetitive to the stuff I put in last month's RAP about BEC's overheating and shutting down. I think it bears some repetition if it saves your pride and joy.

Didja know that Spektrum binding plugs can be used as shorting plugs for programming Berg receivers, etc.?

My RC/Direct Berg Channel Checker Personal Frequency Monitor just came in the mail with the 9" "Sticky" antenna for 72mhz. The monitor costs \$29 plus Berg crystal \$5.99, it needs a crystal on your frequency and a 9-volt battery. Green, yellow, and red LED's light up to indicate "clear", "some interference", or "don't fly". Not a bad idea for flying where there may be some confused person or newbie in the parking lot flipping his transmitter to check something and he is ON YOUR FREQUENCY!

Editor, Gary Gullikson

Ross Thomas' Good Ole Lanzo Bomber

In Ross's words:

"1938 Lanzo "Bomber, "80" wing span, 4 1/2 - 5 lbs, AXI 2820-12 brushless out runner, jeti 40 amp controller, 4200 lipo batt. Built in 1985, competed in 1985 Nationals in Lake Charles, Louisiana. Won Open Old-timer at Astro champs numerous times. has won every old timer event our club has put on. Originally powered by Astro flight 40 Cobalt geared motor, with a 26 cell 800 ma batt pack, Joe Ballasch controller"







Classified Ad

Tim Beegan, HSS Member: Do you have a need for machine work? I can do small parts for R/C planes. Call me at (949) 646-6285 or see me at the field for consulting.

HSS Sponsors

The following companies are the proud sponsors of Harbor Soaring Society. They give us special offers, and make contributions to our Adopt-A-School program. In return, please support them, and mention that you saw them advertised in the HSS Plane Rap newsletter.

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Our web site is www.1hss.org.

CLUB MEETINGS ARE AT! 7:30 PM, 1ST THURSDAY OF EACH MONTH AT THE NEWPORT SEA BASE AT 1931 WEST COAST HIGHWAY, NEWPORT BEACH. SEE MAP IN THIS ISSUE FOR DIRECTIONS AND PARKING INSTRUCTIONS.

SEE THE COLOR VERSION SENT BY E-MAIL AND AVAILABLE ON OUR WEB SITE.

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