



AMA Charter Club #128
<http://www.1hss.org>

**HSS is the oldest AMA chartered R/C Soaring Club in the USA
Founded 1964**

JULY 2005

VOLUME 42

Southern California Soaring Clubs Thermal Duration Competition

HSS conducted the fourth Southern California Soaring Club competition for 2005 on May 22 at Fairview Park. The results had been published in the June issue of this newsletter, but there was insufficient information about the event to prepare a feature article. By good fortune, Daniel Danrich who was a former HSS club member back in the early 90's, stopped by and took some extraordinary photos. These can be seen on his photo gallery at <http://danrich.smugmug.com/gallery/552304> or on the HSS web site (www.harborsoaringsociety.org). The photo below shows Karl Hawley assisting Ross Thomas in launching his 3 meter Gnome. Daniel took this picture with his Canon 1DMKII digital camera that has a format of over 7 megapixels. The trick photography was done by Daniel, by blending the sequence of 3 pictures together in Photoshop. Thanks Daniel, for covering the event so well (complete with some very cute spectators), putting your effort into the post processing, and providing the pictures (with permission to publish) to HSS.



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PAGE 1

Several more of Daniel's photos are shown below. Tuan Le is shown about to launch his AVA, and below Tuan are just a few of the planes brought by the 51 entrants.





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SCSC Event (Continued)

Bill Eckles, one of many HSS members who assisted in putting on the event, reported that the weather was perfect. Jim Hanson who was Contest Director (on top of all the other jobs he has been performing) provided the results. There were many more great photos that will be posted on the web site. Be sure to check them out.

Ed. Note: We had included the top three winners of each class in the June issue, but had failed to assemble the extended results in the electronic version. Complete results are included in the July electronic version which is sent to all members receiving E-mail newsletters, and is also available on our web sites.

Complete Results

Contest Results for: HSS SC-2

Date: May 22, 2005

ID	Class	Name	RD 1	RD 2	RD 3	RD 4	Total	Norm by Contest	Norm by Class
11	E	Taylor, Mark	988	978	990	980	3,935	997	1,000
14	E	Vera, Edgar	988	983	960	967	3,897	987	990
2	E	Browing, Mark	970	960	974	893	3,797	962	965
12	E	Throop, Terry	980	893	998	900	3,771	955	958
5	E	Jolly, Larry	903	980	998	890	3,770	955	958
6	E	Lee, Mike	998	935	898	900	3,731	945	948
8	E	Reagan, Mike	918	923	968	899	3,707	939	942
13	E	Trist, Paul	890	935	960	897	3,682	933	936
1	E	Adamczyk, Casey	988	898	933	858	3,676	931	934
7	E	Mierop, Lex	780	913	981	937	3,610	915	917
4	E	Gomez, Manny	868	730	898	959	3,454	875	878
9	E	Sneed, Jim	690	945	894	866	3,395	860	863
10	E	Spitzer, George	885	945	504	542	2,876	729	731
3	E	Fink, Dan	840	833			1,673	424	425
24	I	Stalls, Jared	980	988	974	989	3,930	996	1,000
22	I	Morjoseph, Mike	933	920	978	979	3,809	965	969
21	I	Millett, Keith	973	953	918	810	3,653	925	929
16	I	Brooks, Tony	950	858	616	967	3,390	859	863
18	I	Graham, Eber	920	833	896	722	3,370	854	857
15	I	Aveson, Bruce	940	898	891	519	3,247	823	826
25	I	Thonet, Andy	960	755	773	737	3,225	817	820
27	I	Ian, Douglas	900	1,000	518	803	3,220	816	819
26	I	Richmond, Don	975	898	928	294	3,095	784	787
23	I	Olsen, Pete	575	893	930	476	2,873	728	731
20	I	Leduc, Peter	895	975	376	600	2,846	721	724
19	I	Le, Tuan		868	970	527	2,364	599	601
17	I	Giron, Steve	450	593		849	1,892	479	481
29	S	Borer, Dan	933	988	894	786	3,600	912	1,000
38	S	Takayama, Tak	940	940	645	852	3,377	856	938
32	S	Gomez, George	405	970	893	937	3,205	812	890
36	S	Millett, Jerry	988	915	536	675	3,114	789	865



37	S	Sallenbach, Steve	663	928	564	815	2,969	752	825
33	S	Hays, Gene	558	885	836	675	2,954	748	820
35	S	McIntosh, Doug	698	923	593	580	2,792	707	775
28	S	Anderson, Major	535	855	621	417	2,428	615	674
34	S	Krug, John	818	720	514	354	2,405	609	668
30	S	Corrales, Tony	888	895		572	2,354	596	654
31	S	Corsaro, Frank	425	515	666	575	2,180	552	606
43	R	Jolly, Larry	998	985	996	969	3,947	1,000	1,000
46	R	Takayama, Tak	915	600	986	771	3,272	829	829
49	R	Northern, Don	785	900	896	602	3,183	806	806
42	R	Hawley, Karl	955	898	900	382	3,135	794	794
48	R	Le, Tuan	563	725	898	893	3,078	780	780
41	R	Dona, Alberto	895	898	894	350	3,036	769	769
44	R	Krug, John	778	888	498	840	3,003	761	761
39	R	Adamczyk, Chris	903	840	637	491	2,870	727	727
45	R	Swet, Bob	915	938	628	333	2,814	713	713
47	R	Thomas, Ross	883	578	824	449	2,733	692	692
40	R	Barr, John	863	888	495	429	2,674	677	677
50	R	Little, Howard	555	573	548	701	2,376	602	602
51	R	Giron, Steve	663	335	634	574	2,205	559	559

AMA News Release

May 25, 2005

MUNCIE, IN -- The Academy of Model Aeronautics (AMA) will launch the 79th National Aeromodeling Championships (historically known as the "Nats"), the world's largest model aviation event, commencing June 1, 2005 in Johnson City, TN, with Indoor Free Flight activity. Action at the International Aeromodeling Center in Muncie, IN begins July 4. More than 1,000 participants are expected to fill the skies with virtually every form of flying model imaginable. For a schedule and more information about this thrilling contest that covers six weeks and 168 separate events, go to www.modelaircraft.org/events/.

Follow This Event as it Unfolds!

Sign up now for AMA's new daily electronic newsletter, NatsNews, available FREE to all members. To subscribe, send your e-mail address to: yolandaj@modelaircraft.org. You will receive a daily e-mail with a link to the newsletter. Or, bookmark www.natsnews.org and log on daily beginning June 1, 2005. The newsletter will cover day-to-day events in a bold, new style that will bring the Nats to life on your computer screen. Expect scores, photos, and "blow by blow" descriptions of the action taking place, as well as a "behind the scenes" look at the participants and the technology they bring with them to win one of the oldest and most prestigious model airplane contests today. If you can't be there but wish you could be, www.natsnews.org could be the ticket!

Lonnie Estep – Event Coordinator

Minutes of HSS Meeting Held 7 June 2005

The meeting was called to order at 7:30 PM by our President Karl Hawley.

We are very sorry to report that Jim Parsons has had to resign as HSS Vice President. His obligations to his growing business leaves him with inadequate time to perform the Vice President responsibilities. We wish to thank Jim for all that he has contributed over the last year and one half. We have had some outstanding



Minutes of HSS Meeting Held 7 June 2005 (Cont.)

lectures and demonstrations at our club meetings, and Jim has been instrumental in working with the City of Costa Mesa Parks Department towards developing a safer place for us to fly. He met with city engineer Bart Mejia a number of times to establish the area that will be flattened for our new landing area. Thanks for all you have done, Jim, and by all means keep flying with us when you can.

Three officers, six members, and one guest were in attendance. Our guest, Ted Medelberg is interested in radio control planes, and teaching his grand kids about model flying. Ted is involved with a Landmark Education Project in which he wants to introduce model aviation to more children. Fred Hesse offered to assist Ted with his project by sharing his Adopt-A-School lesson plans.

Jim Hanson reported that the total income from the Second Annual Electric Fun Fly was over \$1,100 including entries, hot dog sales, and raffle. Tuan Le did a super job of rounding up over \$3,000 of sponsor donations for the raffle.

Karl reported that the Southern California Soaring Clubs (SCSC) competition of 22 May came off very well. Fifty one pilots participated. (See article and photos elsewhere in this issue, and results in the July electronic issue and on our web site). Many thanks to Jim Hanson who was Contest Director for the event.

Karl stated that he wants to order blank HSS nametags. In a small quantity (100), the price can be as high as \$2.00 each, but in quantities of 500, they are around \$.50 each.

Bill Eckles said that he will obtain the minutes of the last Friends of Fairview Park meeting.

Karl commented that "Concerts in the Park" will be started soon. We will try to provide a schedule.

Karl noted that the June 18 Bent Wing Glider Contest is coming up. He is not sure what the tasks will be.

Bill Eckles reported on contact with Wes De Cou of AMA. Bill was directed to request AMA guidance for the proposed Fairview Park flying permit. It was pointed out that El Dorado Silent Fliers have a permit from the City of Long Beach to fly at El Dorado Park.

Mike Gaczowski, our newsletter publisher, is continuing with his savings campaign by reducing the number of hard copy newsletters. This past month only 52 issues were mailed. Over 65 issues were E-mailed. The editor apologizes for a snafu that blocked the preparation of the expanded version of our June newsletter that is prepared for E-mail recipients and shown on our web sites. The goal is to continue a 12 page hard copy issue with an additional 3 to 5 pages included in the E-mail version. The expanded version will contain the same subject matter as the hard copy, but with more pictures and added detail to each article.

Jim Hanson reported that two Li-Po battery packs have caught fire over the last several weeks. (Please review the article on battery safety elsewhere in this issue. Ed.) Karl pointed out that an ABC fire extinguisher is needed.

Tuan Le volunteered to E-mail members to find a Vice President replacement for Jim Parsons.

Karl concluded the meeting at 8:15.

After the meeting Dennis Anderson presented photos and information he had obtained from the JPL open house that he had recently attended.

For Show and Tell, Jim Hanson brought his World Models Tai-Ji 40-s converted to electric. It is a 40 size pattern plane not a 3-D plane. He is using a 5S-3P (6Ahr) battery Jim does not sell these planes, but he is a dealer for GWS, MAXX PRODUCTS, and Mega Motors. He does not stock all of these companies products but can order kits, motors, batteries, parts, etc. from these distributors.

Respectfully submitted, Fred Hesse HSS Secretary



Post-Meeting Discussions

Tuan Le reported that the State is about eight weeks behind in processing our club forms for non-profit status. Tuan will download the IRS forms and put them on the officer's page of our web site. He will then write an addendum containing instructions for the quarterly reports that must be submitted to the State and the IRS. This way, as club officers change, the procedures to maintain our non-profit status will always be available on the web site. Mike Gaczowski offered to assist Tuan with these procedures. Tuan has graciously offered to prepare and submit our initial quarterly reports.

Concerning completion of the charging station that Tuan has built, it was agreed that a fireproof material must be used on the work surface/cover. Jim Hanson volunteered to obtain a suitable fireproof material. Tuan will add a power switch that is enabled by the cover position, a combination (or key) lock, and he will attempt to install a fire extinguisher behind the cover.

Bill Eckles will check with Parks Maintenance Manager Bruce Hartley about the status of the grading.

(Editor's Note: Wednesday June 8 2005, Bill Eckles responded with the following E-mail.

I just spoke with Bruce Hartley at Costa Mesa. He's they guy who schedules and "does" the maintenance work for the city. August is about as early as we can expect to move mounds. However, he's checking to try to schedule it much earlier if he can. His concern is the politics of doing that before he has residential streets fixed and the Police Department parking lot worked on! I can understand that!

He will try to (maybe) work it in on Mondays and Fridays between their normal schedule of Tuesday -- Thursday and will call me in "a few days" with a schedule. OK? At least some feedback.

Thanks Bill, that was a quick reply.)

HSS Bent Wing Glider Competition June 18 2005

HSS held its Annual Bent Wing Glider Competition at Fairview Park last Saturday June 18th. Jim Hanson was Contest Director, and Karl Hawley was assistant CD. This was a thermal duration event for gliders with built up construction, and rudder, elevator, and spoiler controls only. We had 22 entrants who groaned and protested cruelty when Karl announced the tasks as follows. First three flights were each to be 10 minute duration for 500 points, and the landing had to be in or out of the circle for 500 points. The last three flights were to be 3 minute duration for 900 points, with a landing in a circle for 100 points proportioned for distance. Mike Reagan showed superb piloting skills for first place, and HSS member Tuan Le took second. Way to go, Tuan. The final results are shown below, and Tuan has posted flight by flight details on our web site.

HSS RES CONTEST JUNE 18, 2005

PLACE	NAME	POINTS	NORM.	PLACE	NAME	POINTS	NORM.
1	MIKE REGAN	5752	1000	12	DOUG MC INTOSH	4038	702
2	TUAN LE	5088	885	13	TAK TAKAYAMA	3891	676
3	BOB SLIFF	5054	879	14	BOB SWET	3786	658
4	DON NORTHERN	4480	779	15	FRANK CORSARO	3748	652
5	KARL HAWLEY	4475	778	16	PETE RICHARDSON	3680	640
6	JOHN KRUG	4443	772	17	MAJOR ANDERSON	3631	631
7	DAN BORER	4257	740	18	LARRY ENGAR	3086	537
8	MIKE MORJOSEPH	4180	727	19	HOWARD LITTLE	2879	501
9	BRUCE SCHAFER	4175	726	20	CHRIS ADAMCZYK	2713	472
10	ROSS THOMAS	4148	721	21	GENE HAYES	2372	412
11	JHON BAR	4136	719	22	MERRILL BRADY	0	0



A Flying What?

Steve Hendry has found another mind boggling video clip of what first appears as a model of an unlimited class racing hydroplane. Select <http://theprofilebrotherhood.com/~video/hfh.wmv> and watch five minutes of a neat radio controlled speed boat that suddenly takes off and flies about the lake like a regular 3-D aerobatic plane. Steve's comment: If thrust is greater than weight, then anything can fly.

Editor's Note

The full information on the League of Silent Flight that should have been in the June E-mail issue is included in the electronic version of this issue. This is E-mailed, and available on our web sites.

Full Details for League of Silent Flight Accomplishments

The following is the complete information on the requirements for each LSF level. Further details are available at www.silentflight.org.

League of Silent Flight **Soaring Accomplishment Program Tasks**

[Home](#) [Intro](#) [Tasks](#) [Application](#) [News](#) [Contacts](#) [Achievers](#) [History](#)
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**Section I – Introduction**

Josh Glaab (Eastern Soaring League, MD), flying a Monarch at the 1997 LSF/AMA National Championships, Photo by Dave Garwood.

The LSF Soaring Accomplishments Program consists of sequential performance tests or "Levels", as they shall be referred to hereafter, for flying radio controlled (R/C) model sailplanes which meet current FAI specifications.

Section 2-Level I (Primary)

The performance tasks pursuant to Level I are presented in the Soaring Accomplishments Program, Requirements Summary, Section 12. Upon completion and documentation of the Level I tasks, the Aspirant must submit the performance



documentation voucher to the LSF Executive Board for membership enrollment. After acceptance of the voucher, the LSF Executive Board will award the Member his LSF number and remit a Level II performance documentation voucher. The Member may then display a red I centered immediately below a Soaring Accomplishments Program insignia, and his LSF number.

Section 3 - Levels II Through IV (Intermediate)

As in the previous Level, the vouchers are submitted, accepted, and a voucher for the next Level is returned. As earned, the Red II will be displayed to the immediate left of the Soaring Accomplishments Program insignia, the III to the right, and the IV centered immediately above the insignia.

Section 4 - Level V (Advanced)

Level V is formulated to recognize advanced knowledge, skill and determination in R/C model soaring. Skill in slope soaring is mandatory, as Level V is intended to delineate extensive experience in all facets of R/C model soaring. The earned silver V will be displayed immediately above the red IV.

Section 5 - Witnesses

Verification of each task of each Level requires the signature of qualified witnesses.

The approved witnesses for non-competitive requirements shall be:

- a. Level I: One witness, over 21 years of age, who is not related to the pilot, or one witness, holding Level I status or higher, who is not related to the pilot.
- b. Level II: Same as for Level I.
- c. Level III: Two witnesses, as in Level I.
- d. Level IV: Same as for Level III.
- e. Level V: Two witnesses, each holding Level II status or higher, who are not related to the pilot.

The approved witness for competitive requirements shall be either the contest Director or the Official Scorer.

Section 6 - Procedures

The tasks required at all Levels must be performed with the following restrictions: (a) all work done at Level I must commence after the voucher is received; (b) requirements for the subsequent Levels may be achieved any time after the previous Level form has been postmarked. However, these said requirements will be nullified if the postmarked form sent is returned due to errors or incompleteness; a single performance may be used for only one Level.

Section 7- Thermal Duration Flight



*1997 LSF/AMA National Championships
Photo by Dave Garwood.*

A thermal duration flight commences at the time of release from the end of towline or at release of hand launch. The distance from the extreme end of towline, at the winch, hi-start hold-down, towman, vehicle, or towline return device to the attach point at the model shall be no more than 300 meters (984.3 feet). Tow men and vehicles shall be limited to a maximum of sixty (60) seconds from launch to towline release. Towing by means of aircraft or other airborne devices is expressly forbidden.



A flight shall be deemed a thermal duration flight if, in the opinion of the pilot and witnesses, the lift being used to remain aloft is primarily attributable to thermal activity. Termination must be with a landing within 200 meters (656.2 feet) of the launch point, which is the point at which the model first become airborne.

Section 8 - Slope Duration Flight

A slope duration flight commences with either a simple hand-launch or a launch from the end of a towline, as defined in Section 7. The flight shall be deemed a slope duration flight if, in the opinion of the pilot and witnesses, the lift being used to remain aloft is primarily attributable to wave-action or winds blowing upslope on a ridge, hill, cliff, wall, etc. Termination must be with a landing within 200 meters (656.2 feet) of the launch point.



Jack Strother and his Sailaire, Brookville Dam.

Section 9- Precision Spot Landing

A precision spot landing is accomplished by landing the sailplane so that the extreme forward tip of the nose or forward most point of the longitudinal centerline, at rest, is within the required distance from the center of a designed spot on the ground. All precision spot landing flights must commence with a launch meeting the specifications for towline lengths and methods outlined in Section 7, except that the towline shall be not less than 75 meters (246.1 feet) in length. The landing shall be voided if the model jettisons or loses parts, comes to rest in an inverted position or touches any person or object while landing. However, contact with a spot-marker which does not noticeably impede the flight or landing of the model is permissible.

Section 10 - Goal and Return Flight

A goal and return flight is a thermal duration flight which commences with a launch as specified in Section 7. After towline release, the sailplane must be flown over the launch point and then to a pre-designated goal a minimum straight line distance away, as specified in the Soaring Accomplishments Program, Requirements summary, Section 12, and back to the launch point.

Section 11 - Competition

Competition requirements specified in the Soaring Accomplishments Program, Requirements Summary, section 12, may be fulfilled only in LSF recognized contests which are defined to be those meeting the following specifications:

A-Size

All contestants must compete at the same location on the same date.

1. Level II - Five (5) or more participants
2. Level III - Ten (10) or more participants
3. Level IV - Fifteen (15) or more participants
4. Level V - Twenty (20) or more participants



B - Rounds

Three or more separate opportunities to score

C - Events

Fifty percent (50%) or more of the contest events must adhere to at least one of the following guidelines:

1. Thermal Event Guideline - Extended thermal duration, distance, or speed; precision aerobatics, or altitude.
2. Slope Events Guideline - Duration, distance, speed, precision aerobatics, or altitude.

Two alternative methods of scoring may be used to meet competition requirements. Either the Place System, where a place is recognized to be first (1st), second (2nd), or third (3rd) in the final standing of a contest; or the Competition Points System, where a minimum total of competition points from any six (6) contests may be used. Competition points are computed by first dividing the participant's score by the winner's score and multiplying by 100; then, multiplying the resultant value by one (1) plus the number of lower standing contestants. A minimum of six (6) contests must be flown no matter which scoring method is used.

Example:

- (a) Winner earns a score of 531
- (b) Participant earns a score of 312
- (c) Participant beats 5 other contestants.
- (d) Participant's Competition Points are:
 $312 / 531 \times 100 \times (1 + 5) = 352.$

D - FAI World Records

The establishing of a world record - recognized by the Federation aeronautique Internationale - shall constitute the requirements for a contest win. However, six contests or records or a combination of six contests and records must be recorded on all performance vouchers from Level II through Level V. The 12,000 point requirement must also be fulfilled for Level V.

Section 12 - Summary of Requirements

LSF Accomplishments Summary

Requirements	Primary	Intermediate			Advanced
Level	I	II	III	IV	V
Thermal Duration	5 min.	15 min.	30 min	1 hr	2 hrs.
Slope Duration	15 min.*	1 Hr.*	2 hrs.*	4 hrs.*	8 hrs.
Precision Spot Landing	5 landings 3m (9.84 ft) or less	10 landings 1.5m (4.92 ft. or less)	None	None	None
Goal and Return	None	None	1km (0.62 mi.)	2km (1.24 mi.)	10km(6.2 mi)
Competition	None	6 contests** w/ 1 place or 3,000 pts	6 contests** w/ 2 place or 4,500 pts	6 contests** w/ 2 places and 1 win or 6,000 pts	6 contests** with 12,000 points including 3 wins

* A second thermal flight which meets the basic Thermal Duration requirement for this Level may be flown in lieu of the Slope Duration requirement. However, the second thermal flight may not be flown on the same day.

** Section Section 11 - D (FAI World Records)



Lithium Polymer Battery Safety Precautions

Jim Hanson is a dealer for several brands of Lithium Polymer battery packs suitable for electric powered aircraft. He suggests that everyone using these types of batteries be especially careful in handling, charging, and using precaution after a crash. The following is a set of safety precautions for these battery types.

Safety Precautions

For Lithium Polymer and NiCD cell or battery packs.

1. Never fast-charge **any battery** type unattended.
2. Never charge Li-Poly cells or battery packs at any rate unattended.
3. Only charge Li-Poly cells or battery packs with a charger designed specifically for Lithium polymer chemistry. Examples of chargers with Lithium charging capabilities include;

Astro 109 Lithium	Great Planes Triton
Kokam USA LIPO 402, LIPO 102, and LIPO 202	Schulze ISL 636
Bishop Power Products Apache S 1215 or S 1500	Dura Trax ICE
4. Li-Poly cells can ignite because of unmatched cell capacity or voltage, cell damage, charger failure, incorrect charger setting and other factors.
5. Always use the correct charging voltage. Li-Poly cells or battery packs may ignite if they are connected to a charger supplying more than 6 volts per cells.
6. Always make sure the charger is working properly.
7. Always charge Li-Poly cells or battery packs where no harm can result, no matter what happens. We suggest a brick box or likeness. Have sand handy in a bucket for any need to extinguish any fire. NEVER use water on any cells or battery packs.
8. Never charge a cell or battery pack in a model. A hot pack may ignite wood, foam, plastic, or etc.
9. Never charge a cell or battery pack inside a motor vehicle or in a vehicle's engine compartment.
10. Never charge a cell or battery pack on a wooden workbench or on any flammable material.
11. If a cell or battery pack is involved in a crash:
 - a. Remove the cell or battery pack from model.
 - b. Carefully inspect the cell or battery pack for shorts in the wiring or connections. If in doubt, cut all wires from cell or battery pack.
 - c. Disassemble the pack.
 - d. Inspect cells for dents, cracks and splits. Dispose of damaged cells. (see below)
12. Dispose of cells or battery packs as follows:
 - a. Discharge; with the cells or battery pack in a safe area, connect a moderate resistance across the terminals until the cell or battery pack is discharged. CAUTION: cell or battery pack may be hot.
 - b. Discard:
 - i. NiMH: place in regular trash.
 - ii. NiCD: recycle (cadmium is toxic).
 - iii. Li-Poly: puncture plastic envelope, immerse in salt water for several hours and place in trash.
13. Handle all cells or battery pack with care, as they can deliver high currents if shorted. Shorting by a wedding ring, for example, will remove a finger.
14. Always store cell or battery pack in a secure location where they cannot be shorted or handled by children.
15. When constructing a battery pack, always use cells of the same capacity (mAh).



The New Charging Station

Tuan Le took responsibility for getting the new charging station put together, and has done a magnificent job. He has six positions set up presently, with beautiful workmanship and a great design.

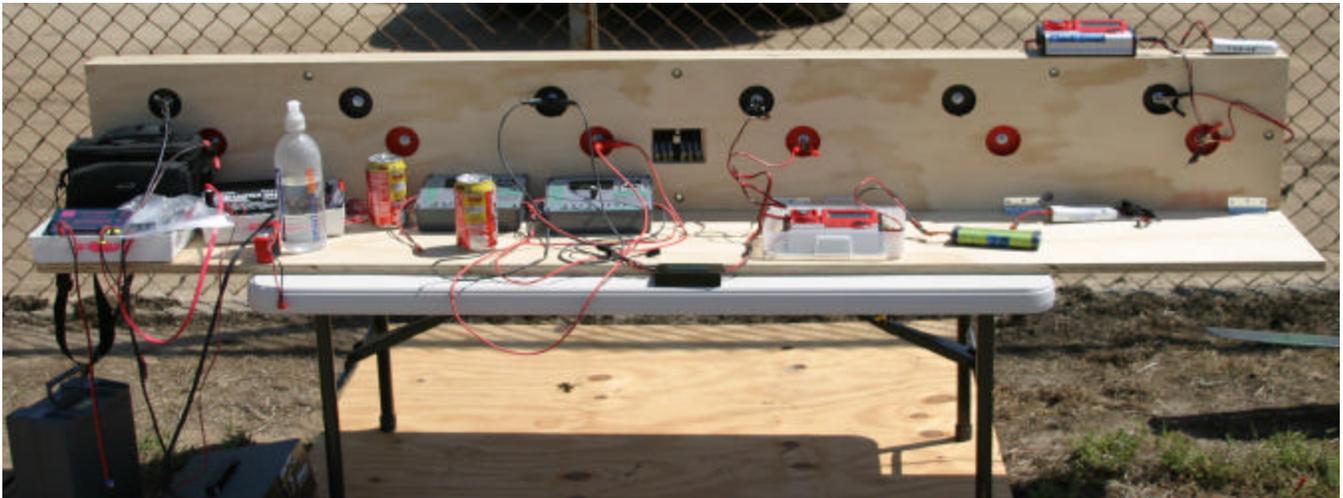
Tuan has provided a spare power supply he was no longer using that is perfect for the job. It is an extremely noise and ripple free 12 Volt DC supply, good to 100 Amps, and intended for hi-fi speaker systems. It also features built-in circuit breakers and runs off of 120 VAC. It was important not to use a simple 12 Volt transformer/rectifier as seen in so many automobile battery chargers, since the AC ripple has 18 to 20 volt peaks which destroy many model battery charging systems. Using this power supply eliminated the need to buy several car batteries to provide proper source voltage.

Tuan has designed six positions where each user accesses the 12 Volts through metal studs that are inset into the back board thus providing isolation from shorts. Very nice safety concept. He has a work table that hinges down so that users can set their chargers and batteries on it, and then hinges up to cover everything when not in use. This station will be attached to the outside wall of our shed, and have some form of weather protection (yet to be designed) and a lock to control access. It is intended for member use, and guests of our flying field.

The picture below shows the preliminary station that Tuan made available at the Electric Fun Fly. It is setting on a portable table, and was so popular that consideration should be given to expanding the six positions.

Update: After the conclusion of the last club meeting, a discussion was held on how to complete the charging station design and installation. It was agreed that Tuan would put an AC power switch triggered by the work table/cover. Either a combination lock (or a key offered to club members) will be used to secure the cover. In addition, the cover will be made of non-flammable material, and an ABC type fire extinguisher will be placed behind the cover.

Thanks Tuan. You saw a problem that was not getting solved. You stepped in, and came up with a great solution. A lot of time, effort, and personal cost of materials went into this project.



More From Our Master of Aerial Photography

The following is a discussion of the techniques that Jim Ward is using, and plans to use, as he continues to take aerial photos of the proposed Orange County River Park area for the Huntington Beach Wetlands Conservancy.

Aerial Photography – by Jim Ward

Pictures taken above the subject offer a unique study of a subject. Patterns that are not observable from ground level become obvious from the air. Changes in landscape over time become more definable and the pictures are very dramatic.



My first aerial photography was a curiosity. I purchased a small digital camera and created a foam box with a remote control device to operate the shutter. I attached this to a RC plane with rubber bands. With the plane aloft I successfully took pictures and captured video. This was some what random but over time I became more skilled at positioning the plane in the air to get the shot I wanted. It was a curiosity and after I was satisfied it could be done I went on to other projects.

Soon I was approached by someone with a need for inexpensive aerial photography. After a discussion of specifics I designed an aircraft. Based on my previous success I developed the successful concept in a larger vehicle capable of carrying a larger more quality camera aloft. Thanks to digital technology I've inexpensively taken over 400 pictures from the air. But like, like a box of chocolates, you don't know what you are going to get. But feasibility was shown and some of the chocolates were excellent!

Technology advances allow more sophistication. Many digital cameras have an AV (Audio Visual) Output signal. This allows a remote observation of what the camera "sees" in real time(i.e. the digital display screen on the back of the camera). This signal can be fed to a small, battery operated transmitter on the aircraft. The transmitter has a range of 2000'. A receiver on the ground can convert this signal to visual and display it on a standard television - in color! At the same time the image can be recorded on a VCR or CD Rom. Therefore it allows us to frame and choose the picture we want before we take it as well as gives us a perspective of photographing the same area at different times. A forest in spring is different than the same forest in summer or fall or winter. A record of this can show us what to expect one year to the next.

That is our current capability, but we can do more.

Shortly will become available a small device that will overlay GPS information along with direction and speed of the aircraft on the signal from the camera. This will greatly enhance the ability to frame and duplicate the same scene from the same spot in space. I am sure this will present many challenges and learning experiences but not out of reach.

Another available feature to be exploited is camera positioning on the aircraft. Currently the tilt of the camera is the only variable and it is fixed before each flight. It is possible to secure the camera in such a way that the tilt, sway and telephoto may be remotely controlled. The value, for example of sway would be to compensate for crosswinds. However use of this capability may overtax the pilot. I know it would me. Therefore I propose using a GIB (Air Force for Guy in Back). In Viet Nam the pilot flew the plane and the GIB flew the mission (recon, weapons, weather, etc) I would build a camera carrying module that can be remotely controlled by another transmitter in the hands of the GIB. The major factor to success is the level of teamwork achieved. While not as dramatic as the movie "Top Gun" I am sure the emotions of the RC pilot and GIB can reach similar proportions especially during early training.

Up to this point everything described is off the shelf available and relatively inexpensive. However there is the current ability to remove the pilot. It has been shown possible to computer preprogram a flight path to include various GPS positions with loiter, real time divert and return. I believe this was accomplished by 3 MIT grad students and inexpensive it was not. In my opinion, a future goal but not practical - at this time.

Equipment needed to implement GIB:

GPS Overlay electronics \$150	4 Servos \$100	
Design and construction of camera module \$200	Receiver \$ 60	
Eclipse 7 Transmitter \$200	2 Battery \$ 60	total \$770

James M. Ward 714-776-2141

New Club T-Shirts

Karl Hawley has received the new shipment of HSS T-shirts. They have the club logo on the back in full color, and a small sailplane on the front. These high quality shirts are priced as follows: T-Shirt, no pocket, \$5; T-Shirt with pocket, \$7; Golf shirt with a polo collar and a front pocket, \$13. These are available to all members. Contact Karl and get yours before they are all sold out.



July 5th Meeting Notice

The next meeting will be Tuesday July 5th 2005, at the Irvine Water District. The address is 15600 Sand Canyon Drive. There are exits for Sand Canyon Drive on both the 5 and 405 freeways.

The business meeting starts at 7:30 PM. Come find out how you can support **your** club.

Still having trouble getting there?
Try using MAPQUEST at the following address:

<http://www.mapquest.com/directions/>



President's Message

You may have heard by now that Jim Parsons had to vacate his post as our vice-president. We wish well and thank him for all the things he did for the hobby and our club. He will be greatly missed. His leaving opens up the position of vice-president for the rest of the year. (Elections will be held for all offices later this year). If you have been thinking about how you could help the club or if you know of someone who would be **willing** to serve, contact me or better yet, attend the next HSS club meeting and make yourself known.

Be sure you read the article by Jim Hanson on battery safety precautions on page 12. We all have heard stories about Li-Poly batteries catching on fire and causing damage. The only I would add to the article is that a fire extinguisher should be part of everyone's toolbox. The club is going to add one to our trailer to be used with our new charging station (see the article on page 13). More on that later.

Karl Hawley, HSS President

Here is a FUN Topic

Your editor received this exciting E-mail in mid June, and it is being shared here and by word of mouth. Pass it on to anyone you know that might be interested. Also, this has already been forwarded to Casey Adamczyk, one of our members who might leap at this opportunity.

We're a small research company involved in very small UAVs and guided munitions. We fly (and crash a lot) at Fairview park during the week. We're looking for part time help putting together various rocket and airplane prototypes. It might be a fun and educational experience for a young person interested in aerospace and electronic engineering.

If anyone in the society has ideas for leads, we'd appreciate it. By browsing our website, they can get a pretty good idea of the projects we're into.

Thanks in advance,
Jim Hynes

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Club Monthly Competition Results

While HSS has been quite busy supporting SCSC monthly competitions (we conducted the March and May contests at Fairview), we have neglected our own monthly thermal duration events. However, they are still occurring, and it is good to see some new pilots participating. Below is the results for the year to date for these competitions.

HSS Year to Date Contest

EXPERT	Jan	Feb	Mar	Apr	May	Jun	Jul*	Aug	Sep	Oct	Nov	Dec	TOTALS
Tom Vincent	902		958			928							2788
Tom Copp	1000		450			935							2385
Mark Taylor			1000										1000
Jim Sneed			930										930
Ben Clerx						998							998
SPORTSMAN													
Tuan Le			1000										1000
RES													
John Krug	1000	986	1000		992	1000							4978
Ross Thomas	991	1000	992		804	785							4572
Karl Hawley		800	248		1000	592							2640
Jeff Donoho			915		940	611							2466
Chris Adamczyk		956	357										1313
Tuan Le					984								984
Erv Szego					630								630

Harbor Soaring Bulletin Board

A new E-mail/bulletin board for HSS has been opened, called the CostaMesaSoaring group at Yahoo! Groups, a free, easy-to-use email group service. (This group was moderated by an unknown someone who turned out to be Jeff Gortatowski - Ed).

To learn more about the CostaMesaSoaring group, please visit <http://groups.yahoo.com/group/CostaMesaSoaring> (where you may join the group if you wish - Ed).

To start sending messages to members of this group (after you have joined), simply send E-mail to CostaMesaSoaring@yahoogroups.com .

If you do not wish to belong to CostMesaSoaring, you may unsubscribe by sending an email to CostaMesaSoaring-unsubscribe@yahoogroups.com .

Note that we may be able to use this bulletin board as a method of notifying all members of important information that needs immediate distribution. More to come on this concept.



Coming Events For 2005

Sunday	June 26	Fifth SCSC thermal duration contest at ISS, Reid Park Community Center, on Orange St. between Chase Rd. and Center St. Riverside, CA.
Sunday	July 3	Sixth HSS monthly club thermal duration competitions at Fairview Park.
Tuesday	July 5	HSS monthly meeting, 7:30 PM, at the Irvine Water District offices. Address is 16500 Sand Canyon Avenue, in Irvine.
Sat-Sun	July 9-10	Summer Fest 2005 Electric Fun Fly, Black Sheep Squadron, Apollo XI Field, Sepulveda Basin, Van Nuys, CA. Tony Naccarato CD, 818-842-5062.
Sat-Sun	July 16-17	Sierra Silent Soarers 3 rd annual Gamblers Gala, Gardnerville Nevada.
Sunday	July 17	Inland Soaring Society's (ISS) 3 rd Annual RES Challenge. Reid Park Community Center, on Orange St. between Chase Rd. and Center St. Riverside, CA.
Tuesday	August 2	HSS monthly meeting, 7:30 PM, at the Irvine Water District offices. Address is 16500 Sand Canyon Avenue, in Irvine.
Sunday	August 7	Seventh HSS monthly club thermal duration competitions at Fairview Park.
Sunday	August 7	Built up Bent Wing Contest for RES, Thousand Oaks Soaring Society (TOSS), Redwood School. Arthur Mcnamee CD, 805-526-6292.
Sunday	August 21	Flying Aces Squadron 70 Golden Age Flying Scale at Fairview Park, Costa Mesa, contact Clint Brooks (Contest Director) 310-350-3192.
Sunday	August 28?	Seventh SCSC thermal duration contest at TOSS?
Sunday	September 4	Eighth HSS monthly club thermal duration competitions at Fairview Park.
Tuesday	September 6	HSS monthly meeting, 7:30 PM, at the Irvine Water District offices. Address is 16500 Sand Canyon Avenue, in Irvine.
Sunday	September 25	Eighth SCSC thermal duration contest at ISS, Reid Park Community Center, on Orange St. between Chase Rd. and Center St. Riverside, CA.
Sunday	October 2	Ninth HSS monthly club thermal duration competitions at Fairview Park.
Tuesday	October 4	HSS monthly meeting, 7:30 PM, at the Irvine Water District offices. Address is 16500 Sand Canyon Avenue, in Irvine.
Sunday	October 30	Ninth SCSC thermal duration contest at TPG, San Diego, CA.
Tuesday	November 1	HSS monthly meeting, 7:30 PM, at the Irvine Water District offices. Address is 16500 Sand Canyon Avenue, in Irvine.
Sunday	November 6	Tenth HSS monthly club thermal duration competitions at Fairview Park.
Sunday	November 20	Tentative tenth SCSC thermal duration contest by SULA at (TBS).
Sunday	December 4	Eleventh HSS monthly club thermal duration competitions at Fairview Park.
Sunday	December 11	Flying Aces Squadron 70 World War II Flying Scale at Fairview Park, Costa Mesa, contact Clint Brooks (Contest Director) 310-350-3192.

Plane Rap Classified Ads

Any member with planes or equipment that they wish to sell may advertise for free in this newsletter. Contact Fred Hesse by phone (714) 963-5838 or E-mail at fhesse@socal.rr.com .



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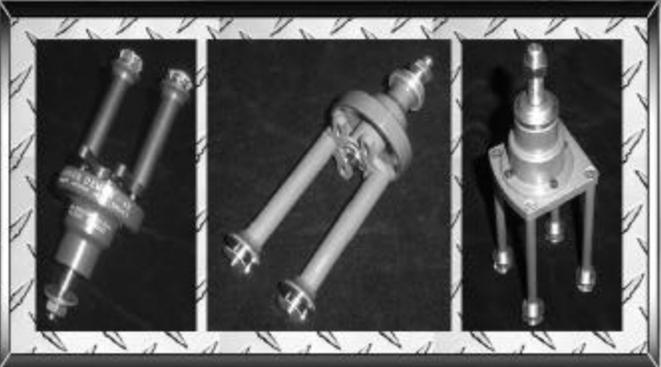
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Have you checked out Hobby People's Wednesday Sale?

The prices on the items in this special Wednesday sale have been dramatically reduced for one day only! Some items are limited to stock on hand. Prices good from 9am pacific Wednesday to 9am pacific Thursday.

Use the following address: <http://www.hobbypeople.net/specials/24hoursale01.asp>



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LSF Coordinator	Jeff Donoho	(562) 868-2190	jdonoho@ellisonsc.com
Field Marshal	George Azvedo	(714) 832-7819	No E-mail address

See our NEW web site at www.HarborSoaringSociety.org for a bright new club image. Our other web site can still be viewed at www.1hss.org. Both will feature the latest news, the color issue of Plane Rap, and more.

**NEXT CLUB MEETING AT IRVINE WATER DISTRICT, TUESDAY, 5 JULY 2005.
THIS PRINTED ISSUE IS LIMITED TO 12 PAGES TO REDUCE MAILING COSTS.
VISIT OUR WEB SITES TO SEE THE EXPANDED VERSION OF THIS NEWSLETTER.**

