



Newsletter  
of the  
Harbor Soaring  
Society

JANUARY 1995

H.S.S. BOARD MEMBERS

President: Roger Lackey (714) 646-3973  
Vice-President: Gerald Briggs (714) 891-0558  
Secretary: Ben Clerx (714) 721-8848  
Treasurer: Will Conrad (714) 964-0347  
Contest Coord.: Ross Thomas (714) 638-0705  
General Director: Dave Nemecek (714) 775-7196  
Newsletter Editor: Pete Young (714) 892-3473

NEWSLETTER SUBMISSIONS

The Harbor Soaring Society newsletter is published monthly. Material herein may be used by other newsletters if proper credit is given. Editorial comments and articles are welcomed. Provide all submissions to Pete Young in person or by mail to: 6592 Belgrave Ave., Garden Grove, CA 92645-1802. Please provide all material by the 15th of the month prior to publication. The Editor reserves the right to edit all material.

MEETING LOCATION

Hobby Shack Retail Store, Bandilier Circle, Fountain Valley, CA. HSS' monthly meetings are held in the conference room at the rear of the store.

PRESIDENT'S MESSAGE  
by Roger Lackey

Let's hear a round of applause for last year's Board. Steve, Sean, Erik, Del, Mike, Andy, Ross, and Pete, you all did a great job insuring the near future of our flying site so that the new Board can concentrate on generating renewed interest in the club and make the HSS even stronger and more fun to participate in.

If you didn't attend the last couple of meetings you probably weren't aware of one of the last things the 1994 Board initiated, the HSS Soaring Survey. This will be a great tool in identifying areas that can be improved in the club and to find out what the membership wants. You should have received (and hopefully returned) the survey by now. If you didn't receive one, please see me at the field or give me a call. I want to begin analyzing the responses as soon as possible.

Club meetings will be getting a facelift starting with the January 4th meeting. We are going to concentrate more on fun and entertainment with new guest speakers, demonstrations, and refreshments. I want to revive  
(continued, page 2)

PRESIDENT'S MESSAGE, cont.

the "show and tell" portion of the meetings with all kinds of hobby related items. Diversity is the key here so all you guys and gals with slope, electric, antique, strange or other stuff, bring it in. We'd love to look at it.

Tentatively the new meetings will go as follows. Refreshments and "show and tell" will be followed by a brief (as brief as possible) business meeting, followed by the evening's entertainment/speaker. To begin the New Year, 1994's year-end trophies will be passed out. In case you're not aware, there was a tie for 1st place in the Open division for the first time in the club's history. The January meeting will also be "R/C Hand Launch Glider Night" with Scott Smith, the RCHLG columnist for R/C Soaring Digest the featured speaker. Bring out those RCHLGs in completed, underway, or kit form and let's share information about this unique soaring event.

We're planning to put on a few more special event days this year. Pete Richardson has submitted what looks like a great idea. He plans to run a distance event that could incorporate all types of airplanes. Look for specifics in the near future. If you have any suggestions of your own, let us know!

In general we want to do a lot of new things this year and if it sounds like I'm looking for help already, I am. The more people we have who can volunteer time, effort, and ideas, the better our club will be. I'm also looking forward to hearing more from the various interest

groups within our ranks. Chuck and the mid-week electric guys, I'm anxious to hear from you about your activities on a regular basis. If you're not aware, this is a great group of fliers. In addition you "slope heads" are out there and are a valuable resource of the club. I'd love to hear more from you too!

We have many favorable things going for us here at HSS. A good field, diversity, and a caring membership. I'm looking forward to the good things that can be done in 1995 and with your help they will be. I hope everyone has had a Happy Holidays and I'll look forward to seeing you at the field.

MONTHLY MEETING MINUTES

¶ December meeting called to order by Steve Fink.

¶ Treasurer's reports accepted as read.

¶ Roger Lackey provided the competition report. Jim Parsons and Ross Thomas finished first and second out of 50 at the Toys for Tots contest sponsored by SULA and EDSF.

¶ SC2 competition is over until 1995.

¶ Jackie Ellerbrock, Hobby Shack's Fountain Valley store manager, will provide a 10% discount on merchandise purchased by members on club meeting nights, excluding radio systems, so come to meetings and buy modeling necessities! Thanks, Jackie!

OLD BUSINESS

¶ Club elections were held, with the 1995 board being:

Roger Lackey - President  
Jerry Briggs - Vice Pres.  
Ben Clerx - Secretary  
Will Conrad - Treasurer  
Pete Young - Editor

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MONTHLY MEETING MINUTES, cont.

Ross Thomas - Contest  
Coordinator  
Dave Nemecek - General  
Director

¶ Steve Fink will be picking up new winch and retriever line. Contact him for more details or to pick up replacement line.

NEW BUSINESS

¶ A novice class was proposed to encourage greater contest participation and new membership.

¶ Larry Tuohino discussed exploring diversity of club interests in order to bring more members into the club, and to encourage exchange of ideas and information concerning all phases of soaring. A proposal was made to designate individuals to report on separate aspects of the hobby.

¶ Meeting adjourned.

Erik Marcussen, Secretary

DIVERSITY IS AN HSS STRENGTH

Isn't it great whenever someone brings out something unusual to fly? Immediately the aircraft is eyeballed, dissected, opinions formed, and discussions begin. Do you ever wonder what's going on in other parts of this "lift seeking" hobby? More importantly, where are these pilots in the HSS? Of the possible categories - such as slope, vintage scale, modern scale, electrics, handlaunch - the most visible and active part of HSS are the members flying AMA Thermal Duration. This is a proud crowd which regularly dishes out a high level of excellence against the other Southern California

soaring clubs. Keep it goin'!!! This is largely the same group which maintains the winches, serves on the HSS Board, and represents all Estancia glider guiders to the City and County governments. Their commitment deserves recognition and it is no surprise that the club is strongly aligned to this prime interest.

AMA surveys indicate that most modelers fall into a diverse group generally referred to as "fun flyers." By and large, this grouping includes the slopers, beginners, scale enthusiasts, and the electric fliers. They are all around the Estancia flying site but rarely join in or participate in HSS events or meetings.

Whether the problem is in the club's Thermal Duration focus, age or experience differences, or individuals' attitudes is unimportant. What is important for the long term benefit of all R/C soarers is to "open the doors" to these groups. In doing so, we all must come to believe in the value of "diversity within the group."

Diversity exists in any group. All clubs have differences as no two club members are alike. As model builders, we naturally focus on our individual projects attaching great significance to our latest creation. Unfortunately we might tend to write off another group as "unimportant", "less than pure", or even "outlaw". Any single HSS member with this twist of character can be humorous, but as an HSS philosophy this may be disastrous. In the long run, a club defined too narrowly  
(continued, page 4)

DIVERSITY.... continued

eventually may lose the majority as interests migrate within this great hobby! Acceptance of an expanded HSS vision will attract a wider pool of talent bringing with it high quality individuals with new ideas and technologies.

Conflict arises when different groups are unaware of what the differences are or even worse that differences even exist. It's important to recognize one tends to blame individuals in the other group for any conflicts. Understanding differences is the first step towards conflict resolution. Successful beginners and flying sites are scarce in this hobby, let's work at maintaining both. Fun flyers, slopers, scale enthusiasts, and electric flyers are natural allies, not our enemies. Let's join together and work for the common good, not stand apart!

Next month - "Is there order on the slope?"

I invite your inputs and comments.

-- Larry Tuohino

#### ITEMS OF GENERAL INTEREST

1) Soaring Society of America (SSA) 1995 Soaring Calendars can be ordered by mailing \$13.20 (which includes S&H) to the SSA, PO Box E, Hobbs, NM 88240. Better yet, save S&H by bringing your order to the HSS January 4th meeting so we can make a group buy. Other SSA soaring items can also be ordered. Contact Larry Tuohino for more information at (714) 548-7968.

2) Available through Don Edberg are T-shirts marking

Prof. Michael Selig's low speed airfoil testing at the University of Illinois. Price is \$15 apiece, sizes small through extra-large. All proceeds are donated to fund further airfoil research and testing. For more information, contact Don at (714) 552-1812.

3) Pasadena Soaring Society has established a telephone hotline for buying and selling sailplane products. Call (818) 666-0189, follow the voice prompts; "1994" is the code to hear messages only.

4) Paul Ikona of SWSA has opened California Soaring Products (CSP) at 1010 N. Citrus Ave., Covina 91722, (818) 966-7215, FAX 966-7915. CSP, a distributor for Slegers International, has everything from "basic entry level glider kits and radio systems to the latest, most technically sophisticated competition ships and equipment." CSP also stocks adhesives, composites, tools and hardware, and covering materials. Hours are 9AM to 6PM (Monday thru Thursday), 9AM to 9PM (Friday), and 11AM to 6PM (Saturday and Sunday).

FYI

... congrats to Jim Parsons and Ross Thomas for finishing 1-2 at this year's Toys for Tots held at SULA, competition was tough ... the 1st Annual Winter Soaring Festival at Indio was spectacular with many gorgeous scale ships being aero-towed to altitude ... Dennis Brandt made the longest flight of the weekend with his 4.2 meter ASW-24, took home a nice cash bonus... don't forget to renew both your AMA and HSS memberships for 1995 ... what will PSS,  
(continued, page 5)

FYI, continued

HSS JANUARY MONTHLY

NCC, EDSF, and HSS have in common for 1995? Give up? All have announced plans to fly "Classics" category gliders in 1995, sounds like the start of possible club vs club competitions ... seen at the December HSS Monthly: Al Cron and Gordon Ritschke tap-dancing on top of Gordon's Aquila XL ... "Flat As A Pancake" Award: to Chris Cabaj for backing out of his parking slot, should have picked up his TX first ... Seen at the field: Pete Young's K&A Flinger HLG, Chris Cabaj's 100" Czech Vega-Termik, very nice craftsmanship ... Curt Nehring's informative article on glider flaps, featured in the AMA National Newsletter..

DATE: Sunday, January 8  
CD: Mike Aguirre  
FORMAT: 3 rounds precision duration, 4"/6"/8" pilot's choice, graduated circle landings  
EVENTS: Classics, Unlimited, 2M.  
START TIME: Pilots' meeting 8:45AM

CLASSICS

	NAME	SCORE	PLACE
1	ROSS THOMAS	2675	1ST.
2	DICK PANTZAR	2638	
3	GORDON RITSCHKE	2348	
4	WILL CONRAD	2329	
5	BOB SLIFF	2285	
6	PETE YOUNG	2173	

2 METER

	NAME	SCORE	NORMALIZED	PLACE
1	GORDON POULSEN	2827	1000	1ST.
2	RICK BRIGGS	2774	981	2ND.
3	MIKE AGUIRRE	2658	940	3RD.
4	ROSS THOMAS	2565	907	
5	JOE RODRIGUEZ	2548	901	
6	JIM PARSONS	1930	683	

DECEMBER 1994 MONTHLY RESULTS

OPEN CLASS

	NAME	CLASS	SCORE	NORMALIZED	PLACE
1	BILL DUNCAN	EXPERT	2962	1000	1ST.EXP
2	ROGER LACKEY	EXPERT	2953	997	2ND.EXP
3	BEN CLERX	EXPERT	2948	995	3RD.EXP
4	JOE RODRIGUEZ	GUEST	2924	987	
5	MIKE AGUIRRE	EXPERT	2892	976	
6	PAT STOKER	EXPERT	2837	958	
7	AL CRON	EXPERT	2816	951	
8	JERRY BRIDGEMAN	EXPERT	2741	925	
9	RICK LACY	GUEST	2710	915	
10	RICK BRIGGS	ADV.	2650	895	1ST.ADV.
11	TOM VINCENT	EXPERT	2616	883	
12	BOB SLIFF	EXPERT	2595	876	
13	JIM PARSONS	EXPERT	2526	853	
14	DAVE NEMECEK	EXPERT	2465	832	
15	DENNIS WILSON	GUEST	2428	820	
16	ERIC THORNTON	SPTS.	2416	816	1ST.SPTS.
17	DAN WILSON	GUEST	2372	801	
18	ROSS THOMAS	EXPERT	2337	789	
19	GEORGE AZVEDO	SPTS.	2246	758	
20	CURT NEHRING	EXPERT	2199	742	
21	NICK BUZOLICH	EXPERT	1299	439	

UPCOMING EVENTS CALENDAR

Jan 4 HSS Monthly Meeting @ Hobby Shack, Fountain Valley  
 Jan 6-8 Horizons Hobby Expo @ Long Beach Convention Center  
 Jan 8 HSS Monthly, Fairview Park  
 Jan 13-15 International Modelers Show, Pasadena Convention Center

Feb 4, 5 Southwest Winter Soaring Contest, Gilbert, AZ

For more information, call Mike Aguirre at (714) 645-6419 or Pete Young at (714) 892-3473

NICKEL METAL HYDRIDE  
 VS  
 NICKEL CADMIUM BATTERIES  
 by Doug Ingraham

*[Editor's note: this original article first appeared in the newsletter of the Pasadena Soaring Society, Robin Riggs, editor, and has been extensively edited and reformatted. Mike Lee, RCM "Pit Stop" columnist, discussed his experience with NiMH batteries in the October 1994 issue of RCM. Any glider fliers with additional information or comments are encouraged to share their experiences -- PWY]*

There is a lot of interest in nickel-metal hydride (NiMH) battery cells for use with RC and this interest has peaked with the recent introduction of HydriMax batteries from Hobbico. I did some research to discover if the touted advantages are real. I have a Gates data sheet on their GMH-1100AA and GMH-2400CS NiMH cells. The Gates specs on the GMH-1100AA are slightly less than the claimed specs from the Hobbico advertisement; the closest size AA cell that Sanyo makes is the N-700AE. For the GMH-2400CS sub-C cell, the closest sized Sanyo cell is the N-1700SCE. The following table compares the specs of these cells.

AA cell comparison	GMH-1100AA	N-700AE	Notes
Typical capacity (mah)	1100	770	0.2C discharge rate
Minimum capacity (mah)	1000	700	
Cycle life	500	1000	
Diameter (mm)	14.1	13.8	
Height (mm)	49.0	49.5	
Weight (grams)	24.5	27.	
Self-discharge	25.	15.	per cent per month
Internal resistance	.036	.011	ohms
Sub-C cell comparison	GMH-2400CS	N-1700SCE	Notes
Typical capacity (mah)	2400	1850	0.2C discharge rate
Minimum capacity (mah)	2150	1700	
Cycle life	500	1000	
Diameter (mm)	22.1	22.0	

NiMH batteries, cont.

Height (mm)	42.2	42.0	
Weight (grams)	52.	53.	
Self-discharge	25.	15.	per cent per month
Internal resistance	.025	.0055	ohms

My findings are that the Gates NiMH batteries offer about 50% more capacity, not twice, the capacity of equivalently sized Sanyo NiCds. At higher discharge rates, the capacity of both NiMH and NiCds will be reduced, but the NiMH suffers much more from this effect. In addition, the NiMH's voltage drops off much faster under load due to their much higher internal resistance.

Larry Sribnick of SR Batteries cites other disadvantages associated with NiMH cells:

- High self-discharge rates greatly elevated by temperature.
- More sensitive to vibration, higher price and lower cycle life.
- Suffer from vent weeping. This can break down wires and insulation over time. (PWY note: ... and cause havoc inside a TX!)
- Requires a [peak detection] charger designed to detect the flatter peak when fully charged.
- Cannot be charged at rates greater than [C/10] safely.
- Limited cell shapes and capacities available presently.
- Internal resistance 3 - 4 times higher than NiCds.

Many of these problems will be solved by simply waiting a few more years. The one that will prevent the use of these cells in the electric flight environment is the inability of the NiMH cells to be charged at rates greater than [C/10] for quick recharges. NiCds have a great advantage because their chemical reaction during charging is endothermic - the cells actually get colder under charge, and this allows elevated charging rates. The temperature rise seen in NiCds only occurs when the cell approaches full charge. The NiMH charging reaction is exothermic so the heat of reaction must be eliminated through conduction to the outside case and eliminated via conduction or radiation, or the cell will damage itself.

Conclusions: I will not be flying these cells in my planes because the smallest NiMH cells available are larger, heavier, and have a higher internal resistance than the smaller NiCds, and cannot be field-charged. This makes them inappropriate for use as a receiver pack in an electric powered model. Unless you are going for extremely low current draw (under 2 amps), these cells offer no practical advantage as a power source for an electric motor because the voltage sags and the capacity drops quickly under higher loads. Also, their [one hour] charge rate makes them impractical for most electric flight purposes.

I may buy a set of NiMH cells for my transmitter if I should ever need to fly longer than the 3 hours I get now with factory 500 mah NiCd cells. Before I do this, I would buy high capacity NiCds (750 mah) which will fit in the same space as the 500 mah cells and would give me 4.5 hours of duration without NiMHs' self-discharge worries. The NiMH cells might be usable in a slope or thermal sailplane since you need a larger capacity pack for these applications and vibration is not a factor.

FOR SALE

- Windspiel Kestrel 19 scale glider, 132" span, FG fuse, ready to fly, ailerons, flaps, T-tail, \$600; Super Plank, unlimited thermal design, proven contest winner, 134" span, with Vision 8SP system installed, completely ready to fly, \$850. Blair Atwell, (310) 425-3645.

- TEKOA Shadow 118, SD7037, includes six servos and 1200 mah RX pack, custom plug-in wing harness, \$450; Falcon 880, SD3021, includes six servos and 850 mah RX pack, custom plug-in wing harness, \$400; custom carrying boxes (2) for Shadow 118 and Falcon 880, 3/8" ply with Formica veneer, must see to appreciate, each \$100; Grand Esprit V-tail sailplane by Airtronics, kit NIB with carbon fiber boom, \$200; Vision TX, CSL upgrade, TauComm antenna, spare TX NiCd pack, ch. 12, \$400; 2 Airtronics 8 ch RXs @ \$100; 3 RCD 7 ch RXs @ \$60; Vision TX module and RX crystal, ch 48, \$60; Black & Decker drill press, 5 speed, 1/2" chuck, \$80; Steve Fink 714 645-0459 - Comergy F3B (Synergy IV molded wings, Muller Comet fuse and tail), very good condition, \$650 with 6 metal gear servos, \$600 with wing servos, includes RX battery, carbon joiner. Muller King, imported from Germany, good condition, \$550 with 6 metal gear servos, \$500 with wing servos only, includes RX battery, carbon joiner. F3E model built by Steve Neu, 80" span, plane only, \$70; with elevator and 2 metal gear aileron servos, \$130; with Astro FAI Cobalt 60 motor and speed control, \$300. Contact Don Edberg, (714) 552-1812 for info. All prices negotiable.

- Airtronics Championship Series FM system, 7 channels, Ch #26, gold stickered, 2 dual conversion 8 ch FM/PPM RXs, new TX and RX batteries, 4 94831 BB mini servos, 4 mixing modules, many other extras, \$215. Airtronics TX carrying case, \$20. Morry Smith (714) 548-5353.

- Mako, RG-15 airfoil, reduced to \$300 OBO. Sealy Laser, S-3021 airfoil, glass fuse, balsa/foam wing, 124" span, slip-on nosecone, kit NIB, \$140. Mike Aguirre (714) 645-6419

- Falcon 880, SD 7037, with 4 JR 341s, 2 Airtronics 102s, RCD Rx, Vision Ch 57 module, wingbag, battery, harness, \$525 firm, \$400 with servos only, \$250 airframe only. Curt Nehring, (909) 592-2105.

- P-51 Penetrator high performance slope ship, NIB, \$65. Kyosho scale Zero, ARF electric with 05 motor, battery, props, etc, still in box, \$130. Pat Stoker, (310) 598-9029.

- LJMP Meteor, NIB, glass fuse, 120" span, \$140. Airtronics Legend, NIB, \$180. Ridge Rat, glass fuse, RTF, \$75. Midwest Silent Squire, foam wing, NIB, \$30. Dave Nemecek (714) 775-7196.

- 2M Whisper, RTF less radio, \$125. Bill Duncan, (714) 892-8665.

- NIB kits: Super Cheetah \$45, Bird of Time \$650, Sig Super Sinbad \$25, JASCO Floater 110 \$25, Questor \$15, Gold Coast Vortex 2M \$40, DCU Wind Weasel \$25. Futaba FP-7FG 7 ch radio, TX & RX + RCD Platinum RX, \$95. FP-4FG 4 ch radio, TX and RX, \$60. Pete Young, (714) 892-3473.



CENTRAL ARIZONA SOARING LEAGUE  
 PROUDLY PRESENTS THE SEVENTH ANNUAL  
**SOUTHWEST WINTER SOARING CONTEST**  
 FEBRUARY 4th & 5th, 1995  
*FIRST OF THE 1995 TRIAD SERIES*  
 NEW FIELD LAYOUT @ LOTS LESS WALKING @ SAME GREAT BBQ

**TASK:**

Saturday, Feb. 4th, 1995

- First round will be a 3 minute Precision/Duration.
- Rounds 2-4 will be a Three round Triathlon contest.
- Fifth round will be a 5 minute Precision/Duration.

Sunday, Feb. 5th, 1995

- First round will be a 3 minute Precision/Duration.
- Second round will be a 5 minute Precision/Duration.
- Third round will be a 7 minute Precision/Duration.

**LANDINGS:**

L6 modified

**CLASS:**

Unlimited - 444(D)

**LAUNCHING SYSTEM:**

Rahm winch, 12v battery w/ constant charging and "Big Wheel" retrievers.

**SITE:**

CASL FLYING FIELD - Rodeo Park: Ray and Val Vista Rds, Gilbert, Az.

**RADIOS:**

1991 AMA Gold Sticker required. "HAM" license required for 6M.

**A.M.A.:**

1995 AMA cards will be required at registration time. One pilot per plane. One plane per pilot with a backup on same frequency allowed if primary determined unflyable by the C.D. All AMA rules apply.

**ENTRY FEE:**

\$30.00 (non-refundable). ENTRIES LIMITED TO THE FIRST 130 APPLICATIONS RECEIVED. Preregistration closes Jan 10, 1995. An engraved name tag and a free lunch is included.

**AWARDS:**

- 1st-5th - TRIATHALON
- 1st-5th - PRECISION/DURATION
- FIRST PLACE GRAND CHAMPION
- 1st Place Junior
- 1st Place Senior
- 1st Place Team Trophies of the top four members of an AMA chartered club team.

**BBQ:**

Saturday evening at the field, great food, good spread \$10.00 per person (include payment with entry).

**T-SHIRTS:**

CASL will be taking *pre-orders* for SWSC '95 T-shirts, cost \$12 for T-shirt w/pocket, \$20 for Golf style shirt w/pocket. Sizes in adult are M, L, XL, XXL. There will be a very, very limited selection at field.

**RAFFLE:**

Great Hobby Items!! Sunday, immediately after contest.

**C.D.:**

Jack Finn  
 (For information call Iain Glithero, 602/839-1733)

Make all checks payable to:

Central Arizona Soaring League

Mail to:

Iain Glithero @ CASL  
 1118 W. Lindner Ave.  
 Mesa, Az. 85210

**SOUTHWEST WINTER SOARING CONTEST @ FEBRUARY 4th/5th, 1995**

NAME \_\_\_\_\_ PHONE ( ) \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY/STATE/ZIP \_\_\_\_\_

AMA # \_\_\_\_\_ FREQUENCY: #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_

Check if under 18 on 1/1/95  TEAM (Must be AMA chartered) \_\_\_\_\_

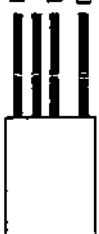

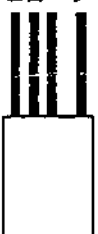



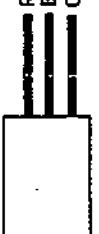

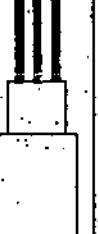





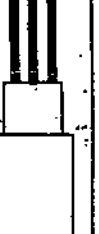



ENTRY FEE: \$30.00

BBQ: \$10.00 x \_\_\_\_\_ = \$ \_\_\_\_\_

SWSC '95 SHIRTS: Golf \$20.00 x \_\_\_\_\_ = \$ \_\_\_\_\_ SIZE: Med ; Lg ; XLg ; XXLg

T-shirt \$12.00 x \_\_\_\_\_ = \$ \_\_\_\_\_

TOTAL ENCLOSED: \$ \_\_\_\_\_

TYPE	NEUTRAL	TO SERVO	TO BATTERY
KRAFT 'C'	1.4MSEC	 RED + X BLACK - ORANGE S	 RED + X BLACK - X
KRAFT 'A'	1.9MSEC	 RED + X BLACK - YELLOW S	 RED + X X BLACK -
KRAFT KD PROPO 'KB'	1.4MSEC	 RED + X BLACK - BLUE S	 RED + X BLACK - X
FUTABA 'G'	1.31MSEC	 RED + X BLACK - GREY S	 RED + X BLACK -
FUTABA 'J'	1.5MSEC	 BLACK - RED + WHITE S	 BLACK - RED + X
AIRTRONICS	1.5MSEC	 RED OR WHITE STRIPE + BLACK - BLACK S	 RED OR WHITE STRIPE + BLACK - X
JR	1.5MSEC	 BROWN - RED + ORANGE S	 BROWN - RED + X
HITEC/RCD WORLD-FM POLKS/ARISTO	1.5MSEC	 BLACK - RED + WHITE S	 BLACK - RED + X
DEANS ACE	1.5MSEC	 NEGATIVE - POSITIVE + SIGNAL S	 NEGATIVE - POSITIVE + X
		+ POSITIVE - NEGATIVE S SIGNAL X NOT USED	+ POSITIVE - NEGATIVE S SIGNAL X NOT USCO

reprinted by request, this listing was originally composed by Pete Waters, electronics columnist in RC Reports Magazine.  
- PWY

Harbor Soaring Society

P.O. Box 1673  
Costa Mesa, CA 92628

A.M.A. Chartered Club #128

"The Oldest A.M.A. Chartered Soaring Club  
in the World"

APPLICATION FOR MEMBERSHIP IN THE HARBOR  
SOARING SOCIETY FOR 1995  
JANUARY to DECEMBER



I understand that by applying for membership  
in the Harbor Soaring Society, I must be a  
current member of the A.M.A. (Please Print)

NAME \_\_\_\_\_ HOME PH. ( ) \_\_\_\_\_  
ADDRESS \_\_\_\_\_ WORK PH. ( ) \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

A.M.A. NUMBER \_\_\_\_\_ (PROOF OF STATUS REQUIRED)  
DATE OF BIRTH \_\_\_\_\_

NEW APPLICANTS - (17 years or older) =\$25.00  
SENIOR MEMBER - (17 years or older) = \$20.00  
JUNIOR MEMBER - (16 years or younger) \$ 6.00  
(renewal or new)

FAMILY MEMBER - (For each additional renewal or new  
member at the same address) \$ 5.00  
(Separate applications required)

New applicants making application for senior membership between July  
1st. and October 31st. pay a reduced rate of \$10.00. New applicants  
making application between November 1st. and December 31st. will pay the  
annual rate indicated above. Such dues will makes the new member paid in  
full for the following year.

A signature is required by all Harbor Soaring Society members,  
agreeing to comply with the current A.M.A. Safety Code and the current  
HSS General Field Rules and Field Safety Rules.

The undersigned attests that: I will operate my model using only  
radio control frequencies currently allowed by the Federal  
Communications Commission. Further, any transmitter that I use at any  
designated HSS flying field must have a certified R/CMA-AMA gold sticker  
affixed indicating that it was manufactured or modified for operations at  
20 KHz frequency separation. I understand that my failure to comply with  
the above restrictions will result in nullification of liability coverage  
for damages caused or claimed.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
TOTAL DUES OWED AND ATTACHED \$ \_\_\_\_\_  
SIGNATURE OF CLUB OFFICER RECEIVING APPLICATION \_\_\_\_\_



The Oldest Chartered  
Soaring Club  
in the  
A.M.A.



Charter # 128

**HSS JANUARY MEETING**

**DATE:** Wednesday, 4 January,  
7:30PM

**LOCATION:** Hobby Shack,  
Fountain Valley

**SPEAKER:** Scott Smith, RCHLG  
columnist for R/C Soaring  
Digest.

**SHOW AND TELL:**

- RCHLGers INVITED! Bring your latest hot ships!
- All other gliders and soaring aircraft welcome!

**10% DISCOUNT** on Hobby Shack merchandise (excluding radios) for club members on meeting night only!

**RENEW 1995 AMA AND HSS MEMBERSHIPS!**



**P.O. Box 1673  
Costa Mesa, CA 92628**



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