

Harbor Soaring Society  
P.O. Box 1673  
Costa Mesa, CA 92626

## FIRST CLASS MAIL

WILL CONRAD  
9359 SHRIKE AVE  
FOUNTAIN VALLEY , CA 92708



### (The Soaring) Society Column

President:	George Joy	(714) 556-6385
Vice Pres:	Rich Garner	(714) 526-6734
Secretary:	Dave Nemecek	(714) 839-4317
Treasurer:	Frank Chasteler	(714) 545-2185
Contest Coord:	Ross Thomas	(714) 638-0705
General Dir:	Jared Stalls	(714) 722-1846
News Letter Ed:	Bob Sliff	(714) 895-1203

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**"The Oldest Chartered Soaring Club In the AMA"**  
**Charter # 128**

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October 1990

Volume 27 Number 10

**October Club Meeting:** The October club meeting will be held on Wednesday, October 3, 1990, 7:30 pm at the Consolidated Water District Office, 1965 Placentia Ave., Costa Mesa, Ca. The Monthly club contest will be on October 14th, field conditions permitting. Nominations for 1991 club officers will be held. Voting on the Club Frequency Utilization Plan will take place.

**November Club Meeting:** The October club meeting will be held on Wednesday, November 7, 1990 at 7:30 pm at the Water District Office.

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## MINUTES OF THE HSS SEPTEMBER 1990 CLUB MEETING

**New People:** Bill Barie who is building a Wanderer.

The minutes of the August meeting were approved as published.

It was announced that Ross Thomas is the CD for the HSS 30 September SC2 contest. A call for winches and retrievers for the contest was made. "Please bring them."

Herman Hall will be the CD for the September HSS monthly club contest. It is AMA sanctioned and will be a 3, 5, 3 minute, pilots choice.

### Old Business:

Bob Sliff provided copies of the NCC club's approach to 1991 frequency management.

Morry Smith suggested that we wait until the FCC announces what they will provide as restrictions on the 1991 frequencies.

George Joy stated that the FCC will not require 20khz band width transmitters until March of 1992.

The Treasurers report was given by Frank Chasteler and was approved as read.

Frank Chasteler announced that the current club membership is 149 members.

Frank stated that several other clubs were looking at our frequency management scheme.

The 1991 frequency management proposals listed in the club newsletter were discussed. The proposals were opened for additional changes by the membership.

A straw vote was taken of the attending members as to which proposal they would prefer. A majority voted for proposal #2, that is full implementation of the 1991 odd and even frequencies.

Frank Chasteler made a motion that the club vote on which of these frequency proposals the club will want. The vote will take place at the October meeting. In accordance with club bylaws, you must be at the meeting in order to vote, as absentee ballots are not allowed by the club bylaws. The motion was seconded and passed by the members present.

### New business:

A question was asked about what can be done about the helicopters flying very low over our field, and in one case diving on one of our planes on 9/4/90. It was suggested that a club officer get with Matt Collett (Costa Mesa PD and a club member) and ask for his suggestions.

George Joy requested that a nominating committee for 1991 club officers be formed.

I was recommended that the club look into winch safety due to some problems that have occurred recently.

It was suggested that next Saturday a field clean up crew be formed again. It was decided to do the field clean up the week before the SC2 contest.

A motion was made and seconded to allocate \$250.00 for the purchase of winch safety switches. Frank Chasteler indicated that he would find them and purchase them. The motion was passed by the members present.

A motion was made and seconded that a letter, to be published in the newsletter, would be written on the need for helping in the set up and tear down of launching equipment on normal weekends and at contests. The motion was passed. The Board will see that this is done.

A motion was made and seconded to change the October club contest date from October 7th to October 14th in order to avoid conflict with the Visalia contest. The motion was passed.

A motion was made and seconded to adjourn the meeting. It was passed by the members present.

Dave Nemecek, Secretary.

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The Contest Director for the October Club Contest will be Dave Nemecek.

While I have no official word, I assume it will be the Standard 3, 5, 7, pilots choice. [Ed.]

More at the Club Meeting.

## HSS 1990 CONTEST SCHEDULE

OCT 6-7 .....	VISALIA CONTEST
OCT 6-7 .....	ASTRO CONTEST
OCT 14 .....	HSS CLUB CONTEST*
OCT 28 .....	SWSA SC2 CONTEST
NOV 11 .....	HSS CLUB CONTEST*
NOV 18 .....	DUST SC2 CONTEST
DEC 2 .....	TORREY PINES SC2 CONTEST
DEC 9 .....	HSS CLUB CONTEST

## Club Name Tags and Decals

Club name tags and decals for new members are available from Frank Chasteler. Check with Frank to see if yours are in.

## THE HSS VIDEO LIBRARY

The following club owned videos are available for viewing.

Name .....	Comment .....	Rating (0-5)
Saber Jet .....	F-86 History/shoot-em-ups .....	4
Striking Back .....	.....	4
Foam, Fiberglass, Flight .....	.....	4
First Flight .....	.....	0
Monokote 1 & 2 .....	Interesting .....	3
MIG Killers .....	.....	3
Hook Down, Wheels Down .....	NAVY Aviation Hist .....	4
F3E USA Team Selection 1988 ..	Elect flight .....	none
Dawn Patrol .....	WWI Movie .....	4
Thunderbolt, Flight For The Skys .	WWI Air Combat .....	5

More tapes are being added all the time. All tapes are in VHS format. For information about the tapes ask at the next meeting. (ed.)

**HARBOR SOARING SOCIETY  
OPEN CLASS MONTHLY CLUB CONTEST  
SEPTEMBER 9, 1990, H. HALL, CD**

PLACE/NAME	WINS	CLASS/SCORE/NORM/TROPHY
1. STALLS, J	EXP	2945.0 1000.0 E-1
2. JOY, G	EXP	2906.0 986.8 E-2
3. MARTIN, T	EXP	2885.0 979.6 E-3
4. ZINK, D	EXP	2834.0 962.3
5. WHITE, L	EXP	2827.0 959.9
6. LONG, D	ONE	ADV 2814.0 955.5 A-1
7. SLIFF, B	EXP	2774.0 941.9
8. SANDRONI, H	ONE	ADV 2767.0 939.6 A-2
9. KUTCH, N	ONE	ADV 2731.0 927.3
10. HENDRY, S	ONE	ADV 2692.0 914.1
11. GARNER, R	EXP	2657.0 902.2
12. THOMAS, R	EXP	2623.0 890.7
13. ANDERSON, V	ONE	SPT 2592.0 880.1 S-1
14. RICHARDSON, P	EXP	2557.0 868.3
15. NEMECEK, D	EXP	2550.0 865.9
16. LAIR, D	NONE	SPT 2550.0 865.9 S-2
17. CHASTELER, F	EXP	2492.0 846.2
18. GERBIN, B	EXP	2485.0 843.8
19. ERNST, R	GST	2473.0 839.7
20. STOVALL, L	ONE	SPT 2443.0 829.5
21. COLLINS, T	GST	2421.0 822.1
22. LACKEY, R	ONE	SPT 2358.0 800.7
23. CRON, A	TWO	ADV 2351.0 798.3
24. AMIES, J	ONE	ADV 2350.0 798.0
25. NEHRING, K	NONE	SPT 2341.0 794.9
26. MILLS, A	NONE	SPT 2337.0 793.5
27. DUNCAN, B	ONE	SPT 2295.0 779.3
28. JOY, B	NONE	SPT 2267.0 769.8
29. PARSONS, J	TWO	SPT 2106.0 715.1
30. RITSCHKE, G	EXP	2097.0 712.1
31. BUZOLICH, N	NONE	SPT 2078.0 705.6
32. DURHAM, J	EXP	1917.0 650.9
33. GERMANE, B	ONE	SPT 1900.0 645.2
34. DANRICH, D	SCRATCH	
35. FINK, S	SCRATCH	
36. PANIZAR, D	SCRATCH	
37. FORD, G	SCRATCH	

**CLUB CONTEST, 2 METER CLASS SEPT 1990**

PLACE/NAME	SCORE/NORM/TROPHY
1. MARTIN, T	2884.0 1000.0 .1
2. SLIFF, B	2812.0 975.0 .2
3. STOVALL, L	2691.0 933.1 .3
4. JOY, G	2643.0 916.4
5. ERNST, R	2643.0 916.4
6. CONRAD, W	2599.0 901.2
7. RICHARDSON, P	2581.0 894.9
8. JOY, B	2563.0 888.7
9. ANDERSON, V	2502.0 867.5
10. THOMAS, R	2496.0 865.5
11. LACKEY, R	2342.0 812.1
12. WHITE, L	2277.0 789.5
13. KUTCH, N	2260.0 783.6
14. NEHRING, C	2160.0 749.0
15. PARSONS, J	2093.0 725.7
16. LONG, D	2044.0 708.7
17. DUNCAN, B	2015.0 698.7
18. DURHAM, J	1825.0 632.8
19. BUZOLICH, N	1661.0 575.9
20. COLLINS, T	1393.0 483.0
21. HENDRY, S	1290.0 447.3
22. FINK, S	900.0 312.1
23. DE ROCCO, C	824.0 285.7

**HSS 2 METER YEARLY STANDINGS  
BEST 6 OF 8 CONTESTS**

PLACE/NAME	SCORE/CONTESTS
1. MARTIN, T	5713.1 .6
2. WHITE, L	5581.5 .6
3. JOY, G	5544.9 .6
4. THOMAS, R	5517.5 .6
5. RICHARDSON, P	5510.6 .6
6. STOVALL, L	5037.0 .6
7. HENDRY, S	4913.5 .6
8. FINK, S	4860.4 .6
9. PARSONS, J	4597.4 .6

**HSS OPEN STANDINGS  
BEST 6 OF 8 CONTESTS**

PLACE/NAME	STATUS/SCORE/CONTESTS
1. JOY, G	EXP 5897.4 .6
2. WHITE, L	EXP 5865.9 .6
3. ZINK, D	EXP 5776.7 .6
4. STALLS, J	EXP 5761.7 .6
5. GARNER, R	EXP 5755.0 .6
6. SANDRONI, H	ADV 5682.3 .6
7. MARTIN, T	EXP 5628.1 .6
8. FINK, S	EXP 5551.0 .6
9. NEMECEK, D	EXP 5533.6 .6
10. CHASTELER, F	EXP 5498.2 .6
11. THOMAS, R	EXP 5464.6 .6
12. RICHARDSON, P	EXP 5374.6 .6
13. CRON, A	ADV 5320.0 .6
14. HENDRY, S	ADV 5145.4 .6
15. KUTCH, N	ADV 5113.7 .6
16. SLIFF, B	EXP 4705.2 .5
17. GERMANE, B	SPT 4626.8 .6
18. RITSCHKE, G	EXP 4532.0 .6
19. ANDERSON, V	SPT 4428.9 .6
20. STOVALL, L	SPT 4397.4 .6
21. BUZOLICH, N	SPT 4396.8 .6
22. PARSONS, J	SPT 4384.1 .6
23. LONG, D	ADV 4092.9 .5
24. PNATZAR, D	EXP 4030.3 .6
25. DURHAM, J	EXP 3579.2 .5
26. AMIES, J	ADV 3556.4 .4
27. GIBBS, D	ADV 3395.6 .4
28. BONANNO, T	ADV 3185.3 .4
29. HENDRY, M	ADV 2692.5 .3
30. LOWERY, R	EXP 2691.8 .4
31. JOY, B	SPT 2401.1 .3
32. MILLS, A	SPT 2164.7 .3
33. LAIR, D	SPT 2119.5 .3
34. DUNCAN, B	SPT 1984.7 .3
35. NEHRING, C	SPT 1984.5 .3
36. LUPPERGER, J	EXP 1920.8 .2
37. STOKER, P	EXP 1854.7 .2
38. LACKEY, R	SPT 1751.1 .2
39. COLLETT, M	SPT 1706.6 .2
40. BRATRUD, R	EXP 1419.1 .2
41. LAWHEAD, G	SPT 1289.9 .4
42. LAMPRECHT, D	EXP 993.2 .1
43. GERBIN, B	EXP 984.3 .1
44. CHASTELER, T	EXP 955.2 .1
45. BRANDT, D	EXP 939.6 .1
46. MAHER, M	SPT 909.7 .1
47. DE ROCCO, C	SPT 853.2 .3
48. DANRICH, D	ADV 850.8 .2
49. GERBIN, R	EXP 843.8 .1
50. ANKENBAUER, S	SPT 840.0 .2
51. ANDERSON, J	ADV 824.8 .1
52. CHAMBERLIN, R	SPT 238.1 .1
53. CONRAD, W	ADV 0.1 .1

10. KUTCH, N	4361.9 .6
11. ANDERSON, V	4347.0 .6
12. SLIFF, B	4266.8 .5
13. BUZOLICH, N	3895.5 .6
14. LONG, D	3604.9 .5
15. BONANNO, T	3232.4 .4
16. DURHAM, J	2954.3 .4
17. HALL, H	2375.5 .3
18. JOY, B	2374 .3
19. DUNCAN, B	1982.6 .3
20. STALLS, J	1947.0 .2
21. LUPPERGER, 1889.8	.2
22. COLLETT, M	1738.1 .2
23. CONRAD, W	1702.7 .2
24. LACKEY, R	1305.5 .2
25. STOKER, P	1182.4 .2
26. LAMPRECHT, D	854.3 .1
27. LAWHEAD, G	764.3 .1
28. NEHRING, C	749.0 .1
29. DANRICH, D	683.9 .1
30. LAIR, D	579.9 .1
31. DE ROCCO, C	285.7 .1
32. CHAMBERLIN, R	210.1 .1
33. ANKENBAUER, S	187.8 .1
34. ZINK, D	0.1 .1

# COMPOSITE MOLDING TECHNIQUES FOR SAILPLANE FUSELAGES AND CONTROL SURFACE ACCESSORIES

by E.S. Popko & J.G. Smith

Extracted from Soar Tech No. 5, Jan 1986

## Part 6

### \*\*ATTACHING CONTROL AND R/C FIXTURES\*\*

#### Servo Mounts

Servo mounts can be simple wooden beams spanning across the body or more elaborate plastic plywood trays. The exact position and type will depend on your airborne equipment sizes and linkages. We tend to use plywood trays because they are easy to make and change and they greatly stiffen the fuselage by increasing torsional resistance.

The simplest way to make a snug fitting plywood tray is to make a template from stiff cardboard. Use the cardboard template to cut out an 1/8" air-ply copy. Press fit the tray to insure that it fits snugly but doesn't overly stress the body. Sand or file the tray edges if there are high spots. Apply 5 minute epoxy to the joint and use a heat gun to flow the epoxy down into the joint and through to the underside. As before, roughen up the surface of the lay up to insure a good bond to the epoxy.

If the nose is large, flexing during landings can break the bond between the fuselage and the tray. Silicone sealing compound can be better than epoxy for designs with this problem.

#### Control Lead-outs

One of the best ways to run control surface lead-outs through the fuselage is to mold an exit sleeve right through the side of the fuselage. The sleeve maintains the clean lines of the body and provides a frictionless pushrod guide. Drill 1/8" holes at each position and cant the drill to approximate the lead-out angle if it's not perpendicular to the fuselage. Use a small round file to clean out the hole and to refine the lead-out angle. We tend to use 1/16" diameter steel pushrods or 10-speed bicycle derailleur cable inside Ni-Rod housings. Cut a length of Ni-Rod a little longer than the minimum length needed to support your pushrod. Roughen the Ni-Rod and the fuselage surface (around the exit hole) with sandpaper. Insert a piece of stiff music wire through the Ni-Rod to keep it aligned with the axis of the servo pushrod. Shore up the Ni-Rod from inside the fuselage with balsa to maintain the correct angle.

Apply 5 minute epoxy and chopped strand to the area around the hole on the inside and outside of the fuselage. Use a heat gun to flow the epoxy through and around the entire lead out area. When the epoxy has set but not cured rock hard, remove the music wire from the Ni-Rod sleeve and trim the excess epoxy and Ni-Rod flush with the fuselage. When the epoxy is hard, file or sand away high spots. After painting, only a thin, elliptical opening will appear leaving a drag-free streamlined control opening.

#### Epenague Controls

Some fuselage designs have flying stabilizers and

require pivots, control/support rods, and interior control horns. Pivots and support rod ferrules are typically 1/8" brass tubing and are permanently bonded to the fuselage. To attach these pieces, drill slightly oversized holes at the required locations and cut the brass tubing ferrule about 1/8" longer than needed.

Roughen the outside of the ferrule with sandpaper and insert any required control horns or bellcranks at this time. Align the ferrules so that their axes are perpendicular to the vertical plane of the fuselage. One way to do this is to insert a length of music wire through the ferrule and use it as a leveling guide. The oversized holes permit the ferrules to move a bit while you are aligning them. When you have them correctly positioned, put a drop of thin CA at the holes to set the alignment. Re-check the alignment and, if it is ok, apply epoxy/strand from inside the fuselage. Flow it through the hole with a heat gun and then let it cure thoroughly. File the ferrule ends flush with the fuselage and you will have strong flutter-free pivots.

#### Molded Canopies

For some designs, we mold opaque canopies in the same way we make the fuselage. One would use a simple one-part mold for doing this. Two layers of six ounce cloth is sufficient and the final assembly can be painted and finished just like the fuselage. The mold may be made by simply copying an existing plastic canopy.

#### Miscellaneous Fixtures

Fixture requirements will vary a great deal from design to design, but the overall mounting techniques are similar to the ones already discussed. Towhook blocks can be attached and leveled properly by using a mixture of 5 minute epoxy and chopped strand. A rubber nose skid might be attached to the body with small screws at the extremes. They screw into small wooden blocks glued inside the fuselage with epoxy and chopped strand.

A nose weight ballast chamber for lead shot is made by epoxying an air-ply bulkhead near the nose. The shot can be poured in and out of the chamber through a small opening sealed with a machine set screw.

An interior antenna tube with external rear exit (for long antennas) is accomplished by spot epoxying a Ni-Rod to the inside bottom of the fuselage. The rod exit is made like a control lead-out. Be sure to roughen the Ni-Rod with sandpaper wherever you apply epoxy.

*To be continued next month!*

*\*\*\* (Next month--Painting and Finishing.)\*\*\**

June 24, 1990

An Open Letter to All the Soaring Clubs of Southern California:

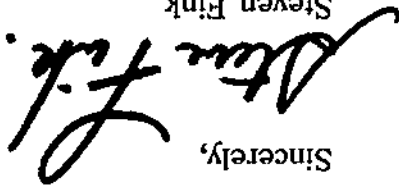
On behalf of the membership of the Soaring Union of Los Angeles, I want to thank you for attending our SC<sup>2</sup> contest in May. And we at SULA hope you will join us again next year as well.

The contest format that was used, while consistent with SC<sup>2</sup> rules, and while looking good on paper, proved to be somewhat cumbersome. Our intent was to have a soaring contest, fun for all. Indeed, our philosophy at SULA is that our hobby is a source of individual satisfaction, either in competition or fun-flying, and it should remain fun.

In the future, our SC<sup>2</sup> contest formats will be designed by members of SULA to remain within the rules and so a good time can be had by all. We have an excellent flying site, standardized winches and a great group of pilots that want to be your hosts. Again.

We will look forward to seeing you in 1991.

Sincerely,



Steven Fink

President

Soaring Union of Los Angeles

In accordance with the club wishes, the board met to discuss the direction we might wish to go in regards to frequency allocation in 1991.

The board came up with the following possibilities:  
( Discussion of these possibilities will be at the next 2 club meetings, before any votes will be taken.)

1. Use of even numbered channels only for one year, silver or gold stickered radios.

PRO's:

- A. Allows most radios presently being used.
- B. Very little need for anyone to check transmitters, which means, no one will have to play policeman.

CON's:

- A. Loss of the use of the odd freq's.
- B. possibility of losing the odd freq's to another service (ie. pagers).
- C. We could lose the participation of new flyers (new members) to our club.
- D. Silvered stickered radios still not be allowed at any AMA sanctioned contest.

2. Full implimentation of AMA freq's, all numbers useable.

PRO's:

- A. Provides the safest flying conditions for all pilots and planes.
- B. Reduces freq. pile-ups
- C. All freq's available, therefore allowing for new members with new equipment to join our ranks.

CON's:

- A. Only gold stickered radios allowed.
- B. All of us will have to be policeman.

3. Allow all number freq's from 11 thru 34, even numbers only between 38 and 56.

PRO's:

- A. Gold radios only on lower freq's, but allows silver or gold stickered radios on upper freq's.

CON's:

- A. No new flyers if they buy odd freq's on the upper section.
- B. Single conversion recievers could be hit by 3rd order intermodulation from the lower freq's, as stated by Airtronics and futaba.

# SILENT WINGS SOARING ASSOCIATION

Invites you to our SC squared contest

October 28, 1990

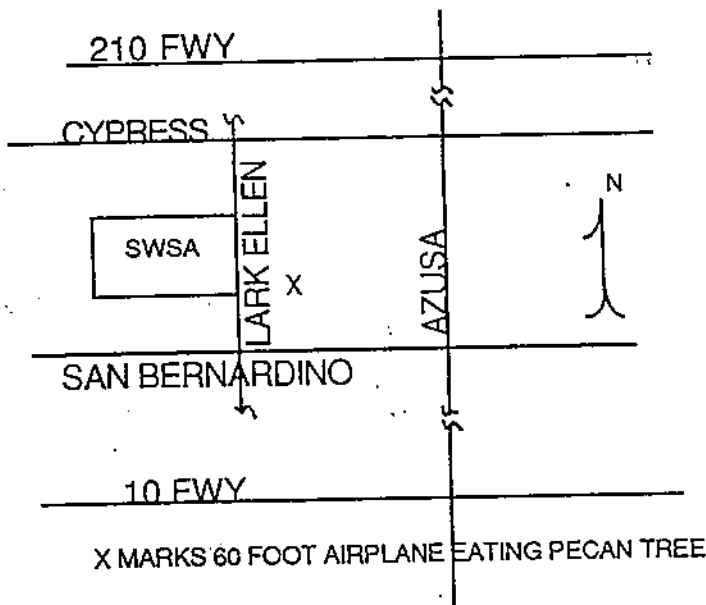
DATE: Sunday October 28, 1990

Place: SWSA field, Covina, Ca.

Time: Pilot meeting 09:15

FIRST FLIGHT 09:30  
C/D: Ian Douglas (714) 621-2522

Club President: Pete Olsen (714) 597-2095



NOTE: Channel 22 cannot be used due to interference.

*1005 - Right LARK ELLEN LEFT  
RAMONIA*

## SWSA FLYING SITE, COVINA CA.

- Events: Three rounds of precision duration. Fly one of each.
  - 3 minute scored 700 flight/ 300 landing
  - 5 minute scored 800 flight/ 200 landing
  - 7 minute scored 900 flight/ 100 landing
- Landings: Carrier type, scored 100 inches either side of centerline.  
Grass field
- Equipment: 12 volt winches with retrievers  
650 feet to turnaround.