

T O S S - U P



NEWSLETTER

AUGUST 1991 T.O.S.S. P.O. BOX 1955 THOUSAND OAKS, CA. 91360

A.M.A. CHARTERED CLUB # 1493

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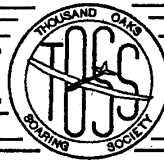
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Next Contest:	Aug 11th 1991
C/D:	Art Mc Namee
Place	Redwood School

Next Meeting:	Aug 28th 1991
Place:	CAMERON HOUSE
	Map in this issue
Time	7:30 p.m.



JULY MINUTES

OLD BUSINESS

1) DELTA CUB CONTEST has moved to November 23, 1991. Start time will be 9:00 AM, launch time to be 11:00 AM (to avoid the winds). We will try to obtain about 100 planes for the contest. Bob Swet is to create the flyers.

2) Permission has been granted to cut the grass at Paramount Ranch. Need to organize a group to do the work. Group to be headed by Don McNamee and Don Northern. Area to be cut is a 25 foot wide strip adjacent to the racetrack straight away and a landing zone.

C/D's For the Year.

Jan (Sat)	Ralph Morgan
Feb (Sun)	Edgar Weisman
Mar (Sat)	Mike Leal
Apr (Sun)	Myles Moran
May (Sat)	Bob Goldsmith
Jun (Sun)	Chuck Griswold
Jul (Sat)	Terry Koplan
Aug (Sun)	Bob Swet
Sept (Sun)	Art Mc Namee
Oct (Sat)	Mike Regan
Nov (Sun)	Eric Hendrickson
Dec (Sat)	Rich Hartman

3) Lost Hills Dump has denied us permission from using their hills as a slope soaring site.

NEW BUSINESS

1) Thomas Akers brought in and demonstrated his wind tunnel that he built for the Science Fair. Using some cardboard, posterboard, an electric fan, and a scale, he showed us the measurable difference in lift (at the same angle of attack) between flat, triangle, and '387' airfoils.

2) John Van Hamersveld had his newly designed 'VAN 50-STICK' electric "sailplane?". This high wing, ultralight construction (23 oz.) plane was designed with young builders in mind, especially in ease of construction and low cost. Using its geared driven motor, the plane is capable of R.O.G. takeoffs and reasonably steep climb outs. Without power, VAN 50-STICK will soar like a thermal glider and is capable of 'hands off' landings. Congratulations John, sounds like you found the perfect combinations.

3) Thomas Akers place FIRST in SPORTSMAN at the July SC2 contest in San Marcos. All this and more with his original Gentle Lady.

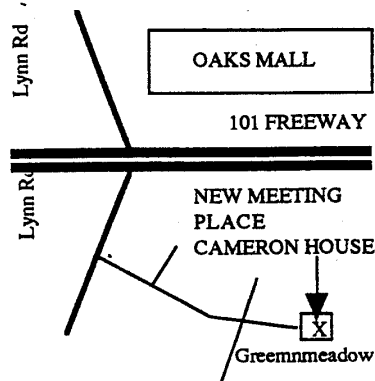
4) Mike Reagan gave an excellent presentation on Thermals. If you missed this, you'll have to settle for my notes - Bob.

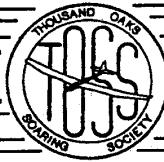
WHAT'S NEW

1) Thomas Akers completes his LSF Level 1 requirements.

2) Speaking of LEAGUE OF SILENT FLIGHT, still no one has received any communication from them. I sent my LSF Level 1 form on MAY 17.

This is the new meeting place. It's right across the freeway from the old meeting place. From Lynn Rd. turn left on Greenmeadow go to the end. You can't go any farther. Look for signs indicating the Cameron House.





So if you are waiting on something from them, 'join the club'. We will keep you posted if anyone gets anything.

3) TOSS has several more new members. Welcome aboard Frank & Kyle Kirby and Bob Fowler. We will be looking forward to seeing you at the field. And the club keeps on growing!

4) There have been some recent requests for a FOR SALE section in our monthly news letter. So we'll give this a try for a while as a service to the club's members.

5) Mike Reagan places Third in Expert and Bob Swet finishes Third in Sportman at the August SC2 Contest in Pasadena.

TOSS MONTHLY CONTEST REPORT

DATE: August 11 CD: Bob Swet TYPE: 20 minute add-em-up, no time limit per round. Three in/out landings of decreasing size. PILOTS: 14 PLANES: 19 LOCATION: Redwood School

RESULTS OPEN:

- 1st - Mike Ratner,
 - 2nd- Mike Reagan,
 - 3rd - Don Northern.
- 2 METER:
- 1st - Myles Moran

- 2nd - Bob Swet
- 3rd - Ben Matsumoto.

SPORTSMAN:

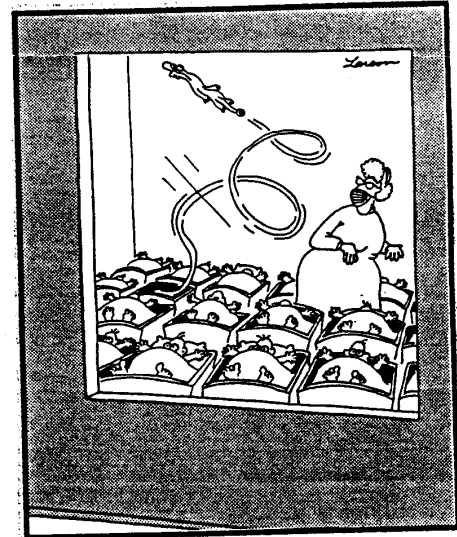
- 1st - Larry Jiminez
- 2nd - David Person.

COMMENTS: Extremely warm day. Winches, retrievers, and batteries had problems as usual. The new Rahm winch died again.

FOR SALE ELECTRIC 2M GULL

by Thunder Tigre. Flown Twice. Complete W/O radio and motor batteries. Asking \$100. Contact Larry Jiminez. (805) 684-2125

How MOST OF US TOOK OUR: FIRST OFFICIAL FLIGHT



Belly button slipknots

TREASURERS REPORT

CHECK IN'S \$697.25

Chuck



HARBOR SOARING SOCIETY
(SC)² CONTEST
SEPTEMBER 29th, 1991

SIGN IN: 8:00 AM
PILOTS MEETING: 8:45 AM
FIRST FLIGHT: 9:00 AM

CONTEST DIRECTOR
BEN CLERX (714) 721-8848

ENTRY FEE: \$6.00

3 ROUNDS OF FLYING --- CONTESTANT FLYS EITHER A or B PILOTS OPTION.

(A) 4 Minute flight at 700 points. 3 points/second off of time. Landing at 300 points.

(B) 7 Minute flight at 900 points. 2 points/second off of time. Landing at 100 points.

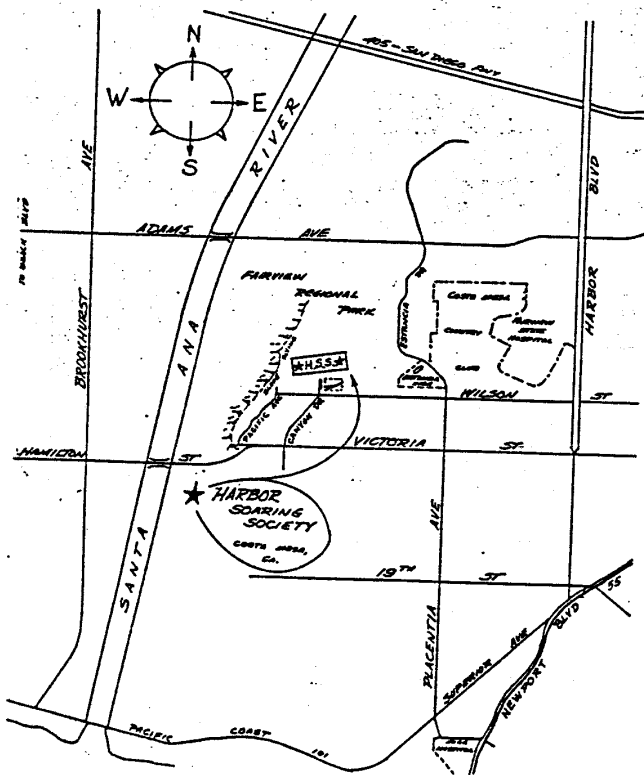
LANDINGS WILL BE RUNWAY CENTERLINE AT 100 POINTS WITH A PENALTY OF 1 point/inch.

WINCHES ARE ALL 12 VOLT.

LINE LENGTH IS 650 FEET.

LANDING SURFACE IS DIRT AND MOWED WEEDS.

ALL (SC)² RULES APPLY





Thousand Oaks Soaring Society

MIKE REAGAN on THERMALS

by Bob Swet

If you go the flying field often, it becomes easily recognizable that there two groups of R/C glider pilots. Those who can find thermals regularly and those flyers who are constantly struggling to keep their gliders aloft. Being an active member of the latter group, I was always wondering what secrets did they know. Knowing that I was not alone, Mike Reagan was coerced into giving a lecture about thermals. Below are my notes on his presentation given on July 31, 1991.

Thermals In General

- 1) Sailplanes are always gliding downward. If the rising air is moving upward faster than your plane is sinking, then the sailplane gains altitude.
- 2) Thermals come in various sizes ranging from very small to huge.

Life Cycle Of A Thermal

- 1) Air heats up over a dark surface. First forming a small dome of hot air. Note - it

does not necessarily have to be a dark surface. The only requirement is that it absorbs heat quicker than its surroundings.

- 2) As more and more air heats up, the thermal dome grows. The warm air starts to rise and cold air rushes in to take its place. It is this cold air that is the effect that we call sink.

- 3) At the altitude of thirty to forty feet, the wind has a noticeable effect. The wind will start pushing the top over.

- 4) Slowly, the top of the thermal grows into a lopsided bubble. The colder air that is replacing the warm air is denser and thus causes the base of the thermal to shrink.

- 5) Sooner or later, the base shrinks down to nothing and the bubble is free. Note - steps 4 and 5 are not the only process that cause a thermal to pop free. If the wind is blowing, the thermal will move with it. When it collides with a large object (tree line, building, or a hill) it will become detached from the ground.

Thermal Indicators

- 1) Watch for / or feel a wind direction or velocity change. This implies a thermal nearby. If the wind velocity increases, look for the thermal downwind. Similarly, if the velocity decreases, head upwind. If the wind changes

direction, look for the thermal in the same direction that the wind is blowing. Hints - The wind created by a thermal will always be heading toward the center of the thermal. Tall grass will serve as a good telltale for wind direction.

- 2) Watch what other gliders are doing in the sky. Their flight characteristics can tell you whether they are in sink or lift. Note - if they are in strong lift, you may want to join them. However, if they are too high above you, the bubble may already be detached. You could get caught too far away without sufficient altitude to make the return trip to the landing zone.

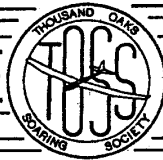
- 3) Along the same lines, watch for gliders in thermals. Pay attention to the location, altitude, time, and the wind direction. Under the same conditions, thermal generators usually kick off thermals at regular intervals. This information can increase your odds in finding a thermal during your next flight.

- 4) Bugs swarm and rise in a thermal.

- 5) Sparrows will group and eat bugs rising in thermals.

- 6) Light weight debris (dirt, leaves, paper, plastic bags) rising is a good indicator of a strong thermal.

- 7) Watch for vultures. They will circle in a thermal.



Usually they'll stay within the thermal after you join them.

8) Circling Hawks will show you where the thermal is. They may leave or lead you to sink when your plane arrives. Hawks usually fly against the vortex.

9) Watch the trees nearby. They can provide two different indicators. First, if you see the bottom of their leaves, rising air is probably at that location. Secondly, a tree with its leaves remaining motionless while the leaves in adjacent trees are moving, is also a good clue.

10) Low, puffy white clouds normally indicate rising air.

11) Sink and thermals will always exist in close proximity. Sink can be used as an indicator. Try to minimize the time spent flying in sink. The best way of doing that is flying 90 degrees to the wind.

12) A sign that you are flying at the edge of a mass of rising air is a change of direction or attitude of your plane. The rising air will cause the closest wing to rise and turn you away from the thermal. So, if you find your plane taking an uncommanded turn, a turn in the opposite direction should put you back into the thermal. Note - it may sometimes be difficult to differentiate turns caused by wind and those

caused by thermals. Always be aware of the wind direction where the glider is flying (which may be unrelated to where you are standing).

FLYING IN THERMAL HINTS

1) Do not cover the same air twice when searching for a thermal. If it wasn't there the first time, it won't be there the second time either.

2) Stay with the thermal, ie., flying downwind usually works best. Occasionally a thermal may rise vertically.

3) It is better to stay in a weak thermal then it is to go searching for a strong one and then not finding it.

4) When in lift, fly your glider at its best sink rate. When searching, fly at the best lift/drag.

5) The best part of the thermal is on the upwind side. Flying the tighter circles on the upwind side is superior (the upward velocity is much greater) to more efficient flight on the downwind side.

6) Rising - falling - rising - falling usually suggests that you are flying on the downwind edge of the thermal. Head upwind.

7) Every time that you are flying in a thermal, try to learn something about its shape.

8) No two thermals are

identical.

9) FOR EXPERT PILOTS ONLY -

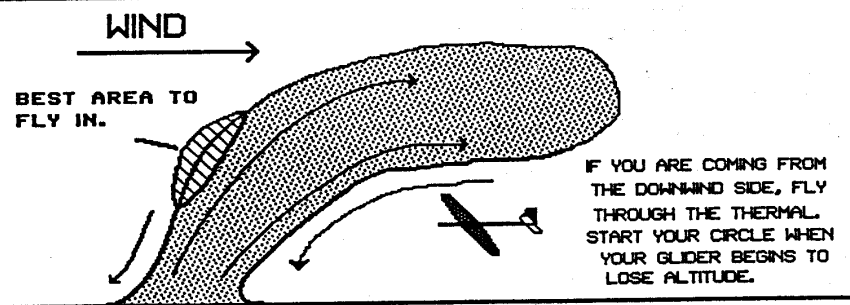
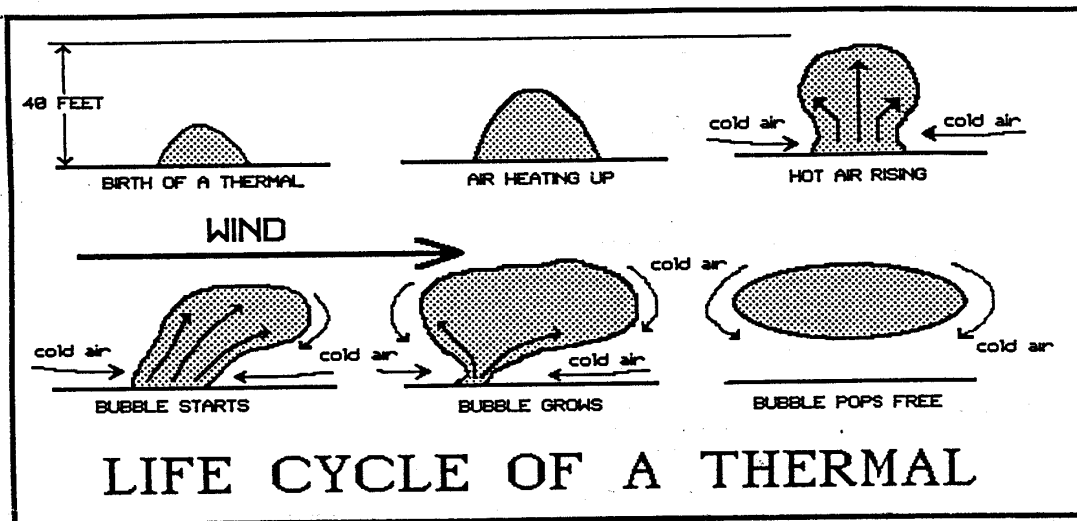
If the terrain is such that the most likely area to find thermals is downwind, look in that direction. They will be easier to locate due to side of entry and you are less likely to mix-up wind lift with thermal lift on windy days.

10) REMEMBER - you must be proportionally higher to cover the same ground distance when flying upwind on windy days.

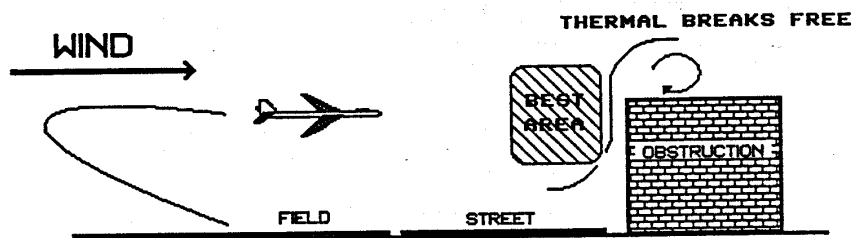
Closing Thoughts

I would specially like to thank Mike Reagan in sharing his knowledge and some of his secrets. He has graciously blessed us with physical signs that all can see. Finding a thermal will no longer appear to be magic. We hope everyone has learned something this article. It was written for the beginner to novice level glider pilot and there were many situations purposely omitted. Perhaps, there will be another article in the future on advanced thermalling.

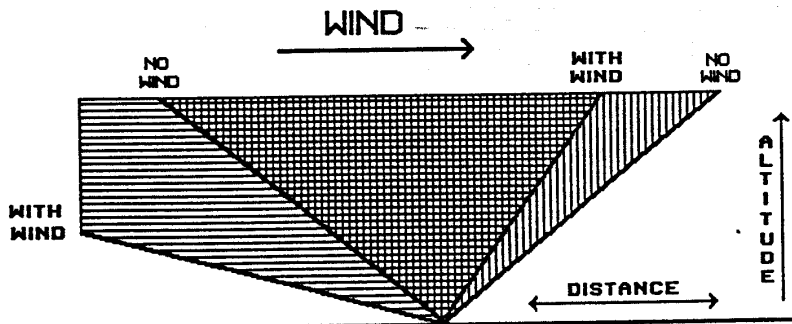
Bob



THE BEST PART OF A THERMAL



A GOOD PLACE TO LOOK EXPERT PILOTS ONLY!



WIND EFFECT ON CRUISING DISTANCE

NORMALIZED
 Max score MAY 2700
 Highest T.O.S.S. score MAY 2700
 UNLIMITED CLASS NORMALIZED TO 1000

#	NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1	REGAN	TOSS	7562	1000	853	980	1000	738	995	997	999
2	WEISMAN	TOSS	5786	487	946	830	995	1000	0	821	708
3	NORTHERN	TOSS	5576	0	876	1000	708	0	994	1000	999
4	GOLDSMITH	TOSS	5190	934	669	570	541	493	515	691	776
5	SWET	TOSS	4736	0	726	741	696	657	947	969	0
6	MORAN	TOSS	3956	0	1000	0	999	0	994	0	963
7	McNAMEE A.	TOSS	3773	0	0	0	841	0	994	975	963
8	MATSUMOTO B.	PSS	2920	0	959	0	0	0	1000	0	961
9	HARTMAN	TOSS	2740	923	0	932	0	0	0	884	0
10	RATNER	PSS	2406	0	461	0	0	0	945	0	1000
11	MORGAN	TOSS	1980	741	0	926	0	313	0	0	0
12	OLDENBURG	TOSS	1158	0	546	0	0	612	0	0	0
13	BUTKOVICK	PSS	995	0	0	0	0	0	995	0	0
14	GRISWOLD	TOSS	928	0	0	0	0	0	928	0	0
15	STAIRS	TOSS	921	0	0	0	0	0	0	0	921
16	McNAMEE D.	TOSS	882	0	0	0	0	0	0	882	0
17	JIMENEZ	TOSS	868	0	0	0	0	68.2	800	0	0
18	RODGERS	PSS	833	0	0	0	0	0	833	0	0
19	BURNS	PSS	721	0	721	0	0	0	0	0	0
20	BROOKS	PSS	649	0	649	0	0	0	0	0	0
21	KOPLAN	TOSS	573	573	0	0	0	0	0	0	0
22	LEAL M.	TOSS	393	0	185	0	208	0	0	0	0
23	SHERMAN	SVSF	349	0	0	0	0	0	0	349	0
24	HENDRICKSON	TOSS	0	0	0	0	0	0	0	0	0
25	WURTS	TOSS	0	0	0	0	0	0	0	0	0
26	NIBLEY	TOSS	0	0	0	0	0	0	0	0	0
27	WICHERT	TOSS	0	0	0	0	0	0	0	0	0
28	MORTON	TOSS	0	0	0	0	0	0	0	0	0
29	BUCKSPAN	MFCG	0	0	0	0	0	0	0	0	0
30	DEVLIN	MFCG	0	0	0	0	0	0	0	0	0
31	GRISANTI	TOSS	0	0	0	0	0	0	0	0	0

2 METER CLASS NORMALIZED TO 1000

NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1 SWET	TOSS	6185	0	688	1000	585	1000	949	1000	962
2 REGAN	TOSS	5757	0	0	934	1000	948	1000	916	959
3 MATSUMOTO B.	PSS	2913	0	1000	0	0	0	951	0	961
4 JIMENEZ	TOSS	2790	0	520	0	368	73.9	901	579	348
5 AKERS	TOSS	2733	0	0	0	0	419	939	926	450
6 RATNER	TOSS	2373	0	734	0	0	0	1000	0	639
7 MORAN	TOSS	1717	0	0	0	717	0	0	0	1000
8 LEAL	TOSS	1693	0	564	224	0	0	905	0	0
9 GOLDSMITH	TOSS	331	0	0	331	0	0	0	0	0
10 VAN-HAMERSVELT	TOSS	165	0	0	165	0	0	0	0	0
11 HENDRICKSON	TOSS	0	0	0	0	0	0	0	0	0
12 OLDENBURG	TOSS	0	0	0	0	0	0	0	0	0
13 WEISMAN	TOSS	0	0	0	0	0	0	0	0	0
14 MORGAN	TOSS	0	0	0	0	0	0	0	0	0
15 McNAMEE D.	TOSS	0	0	0	0	0	0	0	0	0

SPORTSMAN CLASS NORMALIZED TO 1000

NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1 JIMENEZ	TOSS	3825	0	703	358	1000	0	764	0	1000
2 AKERS	TOSS	2584	0	1000	1000	584	0	0	0	0
3 BOCKWOLDT	TOSS	1524	0	0	0	0	524	1000	0	0
4 LEAL	TOSS	1000	1000	0	0	0	0	0	0	0
5 LEWIS	TOSS	1000	0	0	0	0	1000	0	0	0
6 BUTKOVIC	PSS	902	0	0	0	902	0	0	0	0
7 RODGERS J.	MFCG	645	0	0	0	0	0	0	0	645
8 VAN-HAMERSVELT	TOSS	643	0	0	134	0	0	509	0	0
9 GOLDSMITH	TOSS	379	379	0	0	0	0	0	0	0
10 IMES	SCSA	368	368	0	0	0	0	0	0	0
11 PERSON D.	TOSS	352	0	0	0	0	0	0	0	352

1991 (SC) TEAM STANDINGS

HSS = 27,372.6
 HSS (TEAM#2) (PLAYERS) = 26,070.8
 PSS = 25,446.1
 TP6 = 25,310.6
 TOSS = 24,921.6
 MCC = 24,181.8
 DUST = 23,109.0
 SULA = 22,082.6
 ISS = 20,097.0
 SWSA = 15,525.7
 EDSF = 14,194.1
 SFVF = 10,476.1
 MRCS = 8,993.5

SOUTHERN CALIFORNIA SOARING CLUBS
RESULTS OF PSS (SC)12 CONTEST OF 08/18/91
CONTEST DIRECTOR - BEN MATSUMOTO

PLACE NAME	CLUB	CLASS	SCORE	NORMAL
1 KINDRICK, KEITH	PSS	EXPERT	2954.2	1000.0
2 BILLMAN, TODD	ISS	EXPERT	2951.3	999.0
3 REAGAN, MIKE	TOSS	EXPERT	2944.5	996.7
4 WURTS, JOE	PSS	EXPERT	2935.0	993.5
5 EDEBERG, DON	DUST	EXPERT	2924.5	989.9
6 JOY, GEORGE	HSS	EXPERT	2922.5	989.3
7 MORAN, MYLES	TOSS	EXPERT	2921.0	988.8
8 ANDERSON, GARY	TPG	EXPERT	2918.0	987.7
9 MEININGER, FRED	PSS	SPORTSMAN	2908.0	984.4
10 GARNER, RICH	HSS	EXPERT	2893.9	979.6
11 MATSUMOTO, BEN	PSS	EXPERT	2888.2	977.7
12 HENDRY, STEVE	HSS	EXPERT	2861.9	971.3
13 HIGGINOTHAM, MARC	ISS	EXPERT	2849.6	964.6
14 RICHARDSON, PETE	HSS	EXPERT	2835.6	959.9
15 LEPPLA, FRANK	PSS	EXPERT	2831.9	958.6
16 MACKENZIE, SCOTT	SFVF	EXPERT	2831.5	958.5
17 SAGE, FRED	NCC	EXPERT	2812.3	952.0
18 ZINK, DON	HSS	EXPERT	2808.4	950.6
19 SANDRONI, HUGO	DUST	EXPERT	2800.9	948.1
20 VAN GUNDY, DON	TPG	EXPERT	2798.3	947.2
21 FARLESS, DAVID	PSS	EXPERT	2798.2	947.2
22 LACKEY, ROGER	HSS	EXPERT	2779.3	940.8
23 KEIL, DAVID	NCC	SPORTSMAN	2773.9	939.0
24 MCNAMEE, ART	TOSS	EXPERT	2773.5	938.8
25 TILLMAN, NORR	NCC	EXPERT	2770.4	937.8
26 SHELBY, RICH	ISS	EXPERT	2759.9	934.2
27 CHASTAIN, BLAYNE	PSS	EXPERT	2759.1	933.6
28 WEISMAN, EDGAR	TOSS	EXPERT	2743.7	928.7
29 DOIG, AL	NCC	EXPERT	2734.6	925.7
30 SWET, BOB	TOSS	SPORTSMAN	2712.0	918.0
31 BUTOVICH, DAVID	PSS	SPORTSMAN	2694.8	912.2
32 STARK, TONI	PSS	EXPERT	2689.9	910.5
33 NIGG, DON	SULA	EXPERT	2663.0	901.4
34 RODRIGUEZ, JOE	ISS	SPORTSMAN	2663.0	900.5
35 SMITH, JAMES	NONE	EXPERT	2660.4	899.6
36 NORENBURG, LOWELL	TPG	SPORTSMAN	2657.6	899.6
37 ATWELL, BLAIR	DUST	EXPERT	2637.1	892.7
38 DREWE, PATRICK	PSS	SPORTSMAN	2606.4	882.3
39 JOY, BRYAN	HSS	SPORTSMAN	2604.4	881.6
40 DOUGLAS, IAN	SWSA	EXPERT	2604.2	881.5
41 GATTI, MARK	PSS	SPORTSMAN	2599.5	879.9
42 GERMANE, BRIAN	PSS	SPORTSMAN	2591.3	877.2
43 KARP, BILL	HSS	SPORTSMAN	2577.7	872.6
44 CHASTAIN, ROGER	MRCs	SPORTSMAN	2566.6	868.8
45 BLEDSOE, RICH	PSS	SPORTSMAN	2561.9	867.2
46 BONNANO, TONY	TPG	EXPERT	2555.4	865.0
47 VALDES, ARON	SULA	EXPERT	2554.3	864.6
48 HALLFORD, PHILIP	PSS	SPORTSMAN	2542.2	860.5
49 VICKERS, DON	PSS	EXPERT	2539.7	859.7
50 SPITZER, GEORGE	SULA	EXPERT	2524.7	854.6
51 PITTEN, MICHAEL	PSS	SPORTSMAN	2485.3	841.3
52 LONG, DICK	ISS	SPORTSMAN	2485.3	841.3
53 AKERS, THOMAS	DUST	SPORTSMAN	2455.5	834.6
54 WALDEN, WILLIAM	TOSS	SPORTSMAN	2436.6	824.8
55 CONWAY, PATRICK	PSS	SPORTSMAN	2427.4	821.7
	TPG	SPORTSMAN	2386.8	807.9

SOUTHERN CALIFORNIA SOARING CLUBS
RESULTS OF PSS (SC)12 CONTEST OF 08/18/91
CONTEST DIRECTOR - BEN MATSUMOTO

PLACE NAME	CLUB	CLASS	SCORE	NORMAL	TROPHY
56 MORTON, JEFF	MRCs	SPORTSMAN	2384.9	807.3	
57 CLERX, BEN	HSS	EXPERT	2358.9	798.5	
58 RODGERS, JOHN	NONE	EXPERT	2291.9	775.8	
59 DANRICH, DAN	HSS	SPORTSMAN	2210.1	748.1	
60 FOSTER, WILLIAM	MRCs	SPORTSMAN	2206.1	746.8	
61 BROOKS, NOEL	PSS	SPORTSMAN	2171.7	735.1	
62 FINK, STEVEN	DUST	SPORTSMAN	2134.7	722.6	
63 PARSONS, JIM	XX	SPORTSMAN	2131.8	721.6	
64 SLOBOD, ED	XX	SPORTSMAN	2111.0	714.6	
65 GABRIEL, PINA	SFVF	SPORTSMAN	1976.9	649.2	
66 HARDY, BOB	PSS	SPORTSMAN	1951.1	640.4	
67 GLASS, ROBERT	MRCs	SPORTSMAN	1913.5	647.7	
68 JULIEN, HERBERT	MRCs	SPORTSMAN	1909.6	646.4	
69 KOSHPOULOS, GEORGE	PSS	SPORTSMAN	1906.2	645.3	
70 GORDON, KEN	NCC	EXPERT	1843.1	623.9	
71 RAYMOND, ALAN	DUST	SPORTSMAN	1837.1	621.9	
72 SHORT, HOWARD	SULA	EXPERT	1789.5	603.7	
73 GOODWIN, BROWNE	MRCs	SPORTSMAN	1726.3	584.4	
74 RATNER, MIKE	PSS	EXPERT	1437.9	486.7	
75 VALDES, AL	TPG	SPORTSMAN	447.2	151.4	
76 STAIRS, PETER	TOSS	SPORTSMAN	146.0	49.4	
77 BUKSHAN, ROBERT	PSS	SPORTSMAN	0.0	0.0	
	PSS	SPORTSMAN	0.0	0.0	
	PSS	SPORTSMAN	0.0	0.0	

BOB SWET ADVANCES TO EXPERT

"XX" AFTER NAME MEANS PERSON HAS WON ONE TROPHY AS A SPORTSMAN

Southern California Soaring Clubs
RESULTS OF PSS (SC)12 CONTEST OF 08/18/91
TEAM SCORES

PSS 22	HSS 11	TOSS 7	ISS 5	MCC 5	JUST 6	IFC 6	SULA 4	MRCs 6	SFVF 3	SWSA 1	ESF 3
3300.8	989.3	996.7	990.9	959.5	959.9	967.7	910.5	872.6	914.4	831.5	
995.5	979.6	986.8	940.3	950.4	948.1	945.0	907.3	879.4			
984.4	971.3	939.0	937.8	938.8	937.2	887.2	849.7	746.8	714.4		
977.7	964.6	933.6	901.4	931.7	934.6	884.6	685.7	640.4			
3955.6	3934.8	3858.1	3807.0	3764.8	3667.8	3467.6	3240.9	3087.1	2772.9	261.3	

SOUTHERN CALIFORNIA SOARING CLUBS
1991 Annual Standings

BEST
5 of 7

Name	Class	Club	Score	Contests	Name	Class	Club	Score	Contests
1 ATWELL, B	EXPERT	DUST	4981.9	5	94 GORDON, A	SPORTSMAN	DUST	1967.8	
2 EDBERG, D	EXPERT	DUST	4939.9	5	95 CLARK, D	EXPERT	NCC	1942.4	
3 REAGAN, M	EXPERT	TOSS	4932.3	5	96 WARNER, G	EXPERT	NCC	1911.8	
4 CLERX, B	EXPERT	HSS	4910.0	5	97 SWET, B	SPORTSMAN	TOSS	1878.2	
5 MORAN, M	EXPERT	TOSS	4768.6	5	98 VAN GUNDY, S	SPORTSMAN	TPG	1843.6	
6 BLEDSOE, R	EXPERT	TPG	4743.3	5	99 BOTKIN, V	SPORTSMAN	ISS	1840.4	
7 CHASTELER, F	EXPERT	HSS	4734.6	5	100 MEININGER, F	SPORTSMAN	PSS	1807.7	
8 TILLMAN, N	EXPERT	NCC	4709.8	5	101 CRANFORD, K	SPORTSMAN	DUST	1783.8	
9 LACKEY, R	EXPERT	HSS	4708.7	5	102 HOLLEY, M	EXPERT	SWSA	1771.2	
0 SAGE, F	EXPERT	NCC	4703.1	5	103 STARK, T	EXPERT	PSS	1761.4	
1 LEVDE, M	EXPERT	PSS	4698.8	5	104 GUSTIN, R	EXPERT	DUST	1753.7	
2 ANDERSON, G	EXPERT	TPG	4682.9	5	105 JULIEN, H	SPORTSMAN	MRCs	1722.8	
3 VAN GUNDY, D	EXPERT	TPG	4669.4	5	106 McCOLGAN, D	SPORTSMAN	SWSA	1634.3	
4 JOY, G	EXPERT	HSS	4652.9	5	107 SADORF, S	SPORTSMAN	ISS	1580.3	
5 RODRIGUEZ, J	SPORTSMAN	ISS	4645.0	5	108 MORTON, J	SPORTSMAN	MRCs	1546.3	
6 CHASTAIN, B	EXPERT	PSS	4632.5	5	109 MEIJA, J	SPORTSMAN	DUST	1533.5	
7 VICKERS, D	EXPERT	SULA	4619.6	5	110 SLOBOD, E	SPORTSMAN	SFVF	1507.0	
8 WEISMAN, E	EXPERT	TOSS	4618.4	5	111 SMITH, S	SPORTSMAN	DUST	1458.9	
9 HENDRY, S	EXPERT	HSS	4617.1	5	112 LAUGHLIN, S	SPORTSMAN	EDSF	1450.5	
0 SHELBY, R	EXPERT	ISS	4591.2	5	113 GLASS, R	SPORTSMAN	PSS	1445.2	
1 MARTIN, T	EXPERT	HSS	4571.6	5	114 WALDEN, W	SPORTSMAN	PSS	1442.0	
2 JOY, B	SPORTSMAN	HSS	4563.3	5	115 GABRIEL, P	SPORTSMAN	PSS	1437.2	
3 FINK, S	SPORTSMAN	DUST	4503.2	5	116 SHORT, H	EXPERT	SULA	1415.3	
4 KEIL, D	SPORTSMAN	NCC	4496.4	5	117 WILSON, D	SPORTSMAN	EDSF	1412.3	
5 DOUGLAS, I	EXPERT	SWSA	4480.4	5	118 AVESON, D	EXPERT	SWSA	1395.8	
6 SANDRONI, H	EXPERT	DUST	4478.7	5	119 ANDREWS, R	SPORTSMAN	ISS	1382.1	
7 GERMANE, B	SPORTSMAN	HSS	4417.6	5	120 LEAL, M	SPORTSMAN	TOSS	1369.2	
8 DOIG, A	EXPERT	NCC	4412.2	5	121 CROOK, J	SPORTSMAN	ISS	1279.0	
9 THOMAS, R	EXPERT	HSS	4406.0	5	122 POWELL, R	SPORTSMAN	DUST	1268.9	
0 BUTOVICH, D	SPORTSMAN	PSS	4331.0	5	123 GRISANTI, P	SPORTSMAN	MRCs	1163.3	
1 SPITZER, G	SPORTSMAN	PSS	4283.2	5	124 FAULKENHAM, R	SPORTSMAN	ISS	1121.5	
2 RAYMOND, K	EXPERT	NCC	4218.6	5	125 VALDES, A	SPORTSMAN	TPG	1010.4	
3 PETTEN, M	SPORTSMAN	ISS	4149.9	5	126 KINDRICK, K	EXPERT	PSS	1000.0	
4 KUTCH, N	EXPERT	HSS	4142.1	5	127 NIBLEY, B	EXPERT	TOSS	982.3	
5 PARSONS, J	SPORTSMAN	HSS	4133.9	5	128 BURNS, R	EXPERT	PSS	977.8	
6 ZINK, D	EXPERT	HSS	4113.9	5	129 TIMBS, N	EXPERT	NONE	970.6	
7 RATNER, M	EXPERT	PSS	4112.6	5	130 NORTHERN, D	EXPERT	TOSS	968.6	
8 CRON, A	EXPERT	HSS	4096.3	5	131 BRANDT, D	EXPERT	HSS	962.3	
9 WAGER, M	SPORTSMAN	TPG	4092.8	5	132 LEPPLA, F	EXPERT	PSS	959.9	
0 AKERS, T	SPORTSMAN	TOSS	4021.9	5	133 BAUDER, K	SPORTSMAN	ISS	939.0	
1 LONG, D	SPORTSMAN	DUST	3993.5	5	134 STOKER, P	EXPERT	SULA	938.6	
2 WURTS, J	EXPERT	PSS	3956.9	4	135 HARRIS, P	EXPERT	HSS	935.8	
3 CONWAY, P	SPORTSMAN	TPG	3955.6	5	136 LABARRE, R	SPORTSMAN	NCC	932.0	
4 STROBEL, R	SPORTSMAN	TPG	3916.6	5	137 WILKENS, D	SPORTSMAN	ISS	926.7	
5 MATSUMOTO, B	EXPERT	PSS	3906.8	4	138 ADDIS, S	EXPERT	SULA	925.7	
6 GERBIN Jr, R	EXPERT	HSS	3692.0	4	139 MAZUR, F	SPORTSMAN	NCC	918.5	
7 MILLS, A	SPORTSMAN	SULA	3600.7	5	140 HUNTER, J	EXPERT	NCC	918.2	
8 MCNAMEE, A	EXPERT	TOSS	3583.1	4	141 BUKSHPAN, R	SPORTSMAN	PSS	901.8	
9 BONANNO, T	EXPERT	SULA	3544.8	4	142 SMITH, J	EXPERT	NONE	900.5	
0 CHILD, M	SPORTSMAN	EDSF	3478.8	4	143 MORENO, M	SPORTSMAN	ISS	889.1	
1 HIGGINBOTHAM, M	EXPERT	ISS	3382.0	4	144 DeGREVE, P	SPORTSMAN	PSS	882.3	
2 GATES, M	EXPERT	HSS	3379.3	4	145 OTHON, M	SPORTSMAN	ISS	880.4	
3 RICHARDSON, P	EXPERT	HSS	3296.8	4	146 GATTI, M	SPORTSMAN	PSS	879.9	
4 CHASTELER, T	EXPERT	HSS	3291.0	4	147 ADOCK, K	SPORTSMAN	ISS	871.0	
5 FINK, D	EXPERT	SULA	3194.3	4	148 SNEDDEN, J	SPORTSMAN	ISS	869.4	
6 NEHRING, C	SPORTSMAN	HSS	3099.7	5	149 KOPLAN, T	EXPERT	TOSS	868.3	
7 PERKINS, D	EXPERT	PSS	2910.9	5	150 NEMECEK, D	EXPERT	HSS	857.0	
8 SLIFF, B	EXPERT	HSS	2879.2	5	151 TROUT, C	SPORTSMAN	NONE	840.2	
9 NIGG, D	EXPERT	SULA	2851.1	3	152 ANDERSON, B	EXPERT	TPG	838.2	
0 POULSEN, G	EXPERT	HSS	2804.1	4	153 ABATO, G	SPORTSMAN	SFVF	819.2	
1 GARNER, R	EXPERT	HSS	2781.4	4	154 SILVA, M	SPORTSMAN	ISS	817.9	
2 SPENCER, R	EXPERT	SULA	2781.3	5	155 DEVLIN, E	SPORTSMAN	PSS	806.2	
3 VALDES, A	SPORTSMAN	TPG	2763.3	5	156 RAGANS, M	SPORTSMAN	EDSF	803.7	
4 BILLMAN, T	EXPERT	ISS	2756.3	5	157 MERRIFIELD, H	SPORTSMAN	TPG	783.4	
5 MEIENBERG, K	EXPERT	NCC	2747.0	3	158 BARNHART, J	SPORTSMAN	EDSF	781.2	
6 FARLESS, D	EXPERT	PSS	2737.1	3	159 RODGERS, J	EXPERT	NONE	775.8	
7 JOLLY, L	EXPERT	SULA	2725.8	3	160 ROHOLT, C	SPORTSMAN	ISS	772.3	
8 NDRENBURG, L	SPORTSMAN	SFVF	2718.1	3	161 AVESON, B	SPORTSMAN	SWSA	760.0	
9 BROOKS, N	SPORTSMAN	PSS	2667.3	4	162 KLATSKIN, B	SPORTSMAN	SULA	744.0	
0 MACKENZIE, S	EXPERT	SFVF	2655.7	3	163 CONDON, S	SPORTSMAN	TPG	743.0	
1 RITTER, C	SPORTSMAN	DUST	2651.5	3	164 PETERS, B	SPORTSMAN	EDSF	731.6	
2 FINKENBINER, K	EXPERT	NCC	2647.6	3	165 GRAHAM, H	SPORTSMAN	SWSA	725.4	
3 CONDON, S	SPORTSMAN	TPG	2646.0	3	166 STAFFORD, I	EXPERT	NCC	724.4	
4 HALLFORD, P	SPORTSMAN	PSS	2636.8	3	167 HUSMANN, C	SPORTSMAN	SULA	714.5	
5 JENKINS, H	EXPERT	ISS	2602.5	3	168 CALLAHAN, J	SPORTSMAN	SULA	703.8	
6 LARSEN, O	EXPERT	DUST	2601.2	3	169 HATCH, J	EXPERT	DUST	698.7	
7 OLSEN, R	EXPERT	SWSA	2575.5	3	170 BAUDER Jr., K	SPORTSMAN	ISS	688.2	
8 YOUNG, B	SPORTSMAN	HSS	2564.2	4	171 HARDY, B	SPORTSMAN	MRCs	660.4	
9 HALL, D	SPORTSMAN	DUST	2539.7	3	172 BITZBERGER, J	EXPERT	SWSA	654.5	
0 CHASTAIN, R	SPORTSMAN	PSS	2465.6	3	173 LANDERS, A	SPORTSMAN	DUST	654.4	
1 SCHNEIDER, S	SPORTSMAN	TPG	2414.1	3	174 KOSHPOULOS, G	SPORTSMAN	PSS	643.3	
2 RITTER, G	EXPERT	DUST	2379.2	3	175 SNEDEN, T	SPORTSMAN	TPG	635.1	
3 OLSEN, P	EXPERT	SWSA	2336.8	3	176 SHERMAN, M	SPORTSMAN	NCC	630.0	
4 PUCHALSKI, M	EXPERT	SULA	2288.9	3	177 STEVENS, J	EXPERT	SULA	624.4	
5 FOSTER, W	SPORTSMAN	MRCs	2283.4	3	178 WILSON, J	SPORTSMAN	EDSF	617.0	
6 GOODWIN, B	SPORTSMAN	MRCs	2276.1	4	179 NAVE, J	SPORTSMAN	SFVF	597.8	
7 DANRICH, D	SPORTSMAN	HSS	2265.4	3	180 CONDON, D	SPORTSMAN	TPG	595.1	
8 FRAZEE, B	SPORTSMAN	EDSF	2262.9	3	181 BUZOLICH, N	SPORTSMAN	HSS	586.4	
9 GERBIN, R	EXPERT	HSS	2228.0	3	182 DAVIDSON, P	SPORTSMAN	DUST	574.8	
0 STAIRS, P	SPORTSMAN	TOSS	2174.9	4	183 SOWELL, D	SPORTSMAN	EDSF	563.7	
1 KARP, B	SPORTSMAN	MRCs	2136.4	3	184 QUAYLE, J	SPORTSMAN	DUST	549.8	
2 MERENDA, K	SPORTSMAN	DUST	2110.6	4	185 MORRIS, M	SPORTSMAN	SFVF	520.0	
3 LUEKEN, J	EXPERT	NCC	1983.8	2	186 LOVELL, C	SPORTSMAN	TPG	503.2	
					187 SIMMER, R	SPORTSMAN	TPG	501.5	
					188 JOHNSON, B	SPORTSMAN	EDSF	452.3	
					189 WILSON, D	SPORTSMAN	EDSF	364.2	
					190 COLLINS, T	SPORTSMAN	SULA	291.8	
					191 CHAMBERLIN, R	SPORTSMAN	HSS	0.0	
							MRCs	0.0	