Harbor Soaring Society
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FIRST CLASS MAIL

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(The Soaring) Society Column

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"The Oldest Sanctioned Soaring Club In the AMA"
Chapter # 128

June 1989 Volume 26 Number 6

June Club Meeting: The June club meeting will be held on Wednseday, June 7, 1989, 7:30 pm at the Consolidated Water District Office, 1965 Placentia Ave., Costa Mesa, Ca. The Monthly club contest will be on the 11th of June, field condtions permitting.

July Club Meeting: The July club meeting will be held on Wednesday, July 5, 1989 at 7:30 pm at the Water District Office.

MINUTES OF MAY 1989

The meeting was called to order by Pres. Chris Hurley at 7:30 p.m.

1. The minutes of the April 5th meeting were approved as published.

2. The Treasurer's report was given by Frank Chastler and approved as read.

3. New Faces:: Jim Bannon, Steve Fink, Bill Deli, Marc Maher, Will Stovell, and Jack (last name?) from Europe were introduced to the club.

4. The awards from the March 5th contest were given out by the CD, Steve Hendry.

5. Old Business:

a) Frank Chastler provided more information on our new pilot program.

b) Will Conrad provided more information on the field conditions. He added that we are in danger of losing our field and not to interfer with the workers.

c) John Lupperger made a motion that <u>everyone</u> in the club stay away from the construction workers. It was seconded and approved by the members present.

d) Shirts and jackets are still available from Dick Pantzar.

e) Felix Vivas brought up the motion for the 4th of July party and George Joy offered to have it at his house.

f) Chris Hurley would like to get together with those interested for completing the goal and return for LSF Level IV.

g) Felix Vivas announced that Airtronics has donated $500.00 for the August 7 cell F3E contest.

h) John Lupperger discussed the Astro Flight contest in June. He would like to have volunteers and will have a sign up sheet at the June 7th meeting.

6. New Business:

a) Felix Vivas would like to get a group together to go to the new McDonnell Douglas Air Museum in Santa Monica. See him if you are interested.

b) John Lupperger provided information on a proposal for a new soaring event for world class.

7. The meeting was closed at 8:30 p.m. for break and program.

Jared Stalls

FOR SALE:

Ace Olympic V
4 Channel
Single Stick
1991 RX
TX/RX/Batt./Switch/Charger
w/o Servos
NEW!!! $125.00
Contact George Joy 556-6385

HSS CONTEST DEPARTMENT

George Joy, Contest Coordinator
The following contest schedule is complete to the best of my knowledge as of this date, 3 Mar 1989

DAY	MONTH	CONTEST DIRECTOR OR INFORMATION
4	JUN	ISS Hand Launch Annual
10-11	JUN	WUSSC Modesto (?)
11	JUN	Herman Hall (HSS Monthly AMA Sanctioned)
17	JUN	SULA Monthly
17-18	JUN	John Lupperger (Astro Champs)
25	JUN	SULA SC2
8	JUL	SULA 2 Meter
9	JUL	George Joy (HSS Monthly)
15-23	JUL	AMA Nationals
16	JUL	SULA Monthly
5	AUG	SULA 2 Meter ($$$$)
6	AUG	John Lupperger (HSS Monthly)
19	AUG	SULA Monthly (?)
19-20	AUG	Felix Vivas (7CELL F3E)
27	AUG	TOSS SC2
9	SEP	SULA 2 Meter
9-10	SEP	SAM 26, Taft, Old Time Events incl. R/C Old Timer Glider.
10	SEP	_____(HSS Monthly)
17	SEP	SULA Monthly
24	SEP	ISS/SWSA SC2
8	OCT	Dave Nemecek (HSS Monthly)
14	OCT	SULA Monthly
15	OCT	PSS SC2
4	NOV	SULA 2 Meter
5	NOV	_____(HSS Monthly)
11-12	NOV	SAM 49, Taft, Old Time Events incl. R/C Old Timer Glider.
12	NOV	SULA Monthly
19	NOV	George Joy/Frank Chastler (HSS SC2)
3	DEC	_____(HSS Monthly)

CONTEST DEPARTMENT

The June contest will be an A.M.A. sanctioned contest run by Herman Hall. It will consist of a three 3/5/7 round standard format.

The July contest will be run by George Joy, it will consist of three rounds: Round 1 5 minutes Duration, scored 800/200; Round 2 7 minute, Man on Man, scored 900/100; Round 3 3 minute Precision Duration, scored 500/500 (Bell Curve).

Respectfully submitted, George

Anyone interested in Level IV or V Goal and Return contact George Joy. The NCC Group is planning to go out on June 17th in the Elsinore area.

The Hss Video Library R. Lowery, Librarian

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, FIBERGLAS, FLIGHT / 4
FIRST FLIGHT / 0
MONOKOTE 1 & 2 / Interesting / 3
MIG KILLERS / 3
HOOK DOWN, WHEELS DOWN / NAVY Avation Hist / 4
F3E USA Team Selection 1988Elect flight
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. If you would like to check a tape out or return one, call me, Roger Lowery, so we can meet at the field or at the club meeting or something. My number is 756-9356

Harbor Soaring Society

May Monthly Contest Results

Open Division

	Name	Actual Score	Normal Score	Class	Trophy
1	GARNER,R	2,918.1	1,000.0	E	E-1
2	HARRIS,P	2,902.9	994.8	E	E-2
3	CHASTELER,F	2,883.1	988.0	E	E-3
4	FINK,D	2,871.5	984.0	E	
5	MARTIN,T	2,792.2	956.9	E	
6	LOWERY,R	2,777.7	951.9	A	A-1
7	HURLEY,C	2,768.8	948.8	E	
8	JOLLY,L	2,757.2	944.9	G	
9	STALLS,J	2,756.9	944.8	A	A-2
10	SMITH,M	2,736.0	937.6	E	
11	SLIFF,B	2,707.6	927.9	E	
12	POULSEN,G	2,590.8	887.8	E	
13	SANDRONI,H	2,558.3	876.7	S	S-1
14	CRON,A	2,541.3	870.9	A	
15	PANTZAR,D	2,508.9	859.8	E	
16	STOVALL,W	2,489.8	853.2	S	S-2
17	OLSEN,H	2,481.6	850.4	E	
18	RICHARDSON,P	2,467.0	845.4	E	
19	CONRAD,W	2,425.0	831.0	A	
20	RITSCHKE,G	2,408.3	825.3	E	
21	WHITE,L	2,386.2	817.7	A	
22	THOMAS,R	2,360.4	808.9	E	
23	BELL,S	2,335.5	800.3	S	
24	NEMECEK,D	2,331.2	798.9	A	
25	ZINK,D	2,105.1	721.4	S	
26	FINK,S	1,919.4	657.8	A	
27	KUTCH,N	1,551.5	531.7	A	
28	HENDRY,S	1,512.4	518.3	S	

2 Meter Division

	Name	Actual Score	Normal Score
1	STALLS,J	2,911.0	1,000.0
2	SLIFF,B	2,710.5	931.1
3	WHITE,L	2,709.3	930.7
4	HALL,H	2,706.3	929.7
5	CONRAD,W	2,443.7	839.5
6	BELL,S	2,375.0	815.9
7	ZINK,D	2,369.8	814.1
8	THOMAS,R	2,307.3	792.6
9	POULSEN,G	2,246.4	771.7
10	HURLEY,C	2,224.3	764.1
11	KUTCH,N	1,494.2	513.3

Yearly Standings - Open Division
Through May

	Name	Score	#	Average
1	GARNER,R	4,872.4	5	974.5
2	CHASTELER,F	4,857.2	5	971.4
3	MARTIN,T	4,777.0	5	955.4
4	WHITE,L	4,622.5	5	924.5
5	SLIFF,B	4,552.9	5	910.6
6	LOWERY,R	4,550.9	5	910.2
7	HURLEY,C	4,501.5	5	900.3
8	PANTZAR,D	4,399.3	5	879.9
9	RITSCHKE,G	4,370.3	5	874.1
10	CONRAD,W	4,222.8	5	844.6
11	THOMAS,R	4,185.5	5	837.1
12	HENDRY,S	4,139.9	5	828.0
13	HARRIS,P	3,971.7	4	992.9
14	STOVALL,W	3,915.0	4	783.0
15	RICHARDSON,P	3,736.8	4	934.2
16	STALLS,J	3,618.9	4	904.7
17	POULSEN,G	3,552.6	4	888.2
18	NEMECEK,D	3,402.1	4	850.5
19	CRON,A	3,218.5	4	804.6
20	LAMPRECHT,D	2,846.4	3	948.8
21	JOY, G	2,722.7	3	907.6
22	RANDOLPH,W	2,526.4	3	842.1
23	FINK,S	2,510.7	3	836.9
24	BELL,S	2,465.4	3	821.8
25	LUPPERGER,J	1,900.8	2	950.4
26	DANRICH,D	1,896.6	2	948.3
27	SANDRONI,H	1,757.5	2	878.8
28	ZINK,D	1,611.1	2	805.6
29	CHASTELER,F	1,537.4	2	768.7
30	KUTCH,N	1,515.0	2	757.5
31	FINK,D	984.0	1	984.0
32	ENGER,L	951.2	1	951.2
33	DEE,M	943.8	1	943.8
34	SMITH,M	937.6	1	937.6
35	HALL,H	909.5	1	909.5
36	OLSEN,H	850.4	1	850.4
37	LEE,T	818.6	1	818.6
38	QUISENBERRY,J	689.2	1	689.2
39	EGOLF,D	686.8	1	686.8
40	WEBSTER,D	599.2	1	599.2
41	WENTWORTH,C	552.4	1	552.4

Yearly Standings - 2 Meter Division
Through May

	Name	Class	Score	#	Average
1	WHITE,L	A	4,705.0	5	941.0
2	SLIFF,B	E	4,673.8	5	934.8
3	CONRAD,W	A	4,598.0	5	919.6
4	HURLEY,C	E	4,560.6	5	912.1
5	THOMAS,R	E	4,546.4	5	909.3
6	POULSEN,G	E	3,585.3	4	896.3
7	LAMPRECHT,D	E	2,870.7	3	956.9
8	HALL,H	A	2,645.9	3	882.0
9	BELL,S	S	2,616.3	3	872.1
10	JOY,G	E	2,548.4	3	849.5
11	STALLS,J	A	2,000.0	2	1,000.0
12	LUPPERGER,J	E	1,809.9	2	905.0
13	LOWERY,R	A	1,672.3	2	836.2
14	FINK,S	A	1,487.1	2	743.6
15	KUTCH,N	A	1,388.6	2	694.3
16	QUISENBERRY,J	A	868.7	1	868.7
17	ZINK,D	S	814.1	1	814.1
18	CRON,A	A	539.1	1	539.1

HOW TO FLY THE 205

by LARRY JOLLY

Back in 1978, Woody Blanchard received a copy of Dr. Eppler's (then new) Eppler 205. Woody was good enough to send a copy of the airfoil to his friend Lee Renaud. Shortly thereafter, the Sagitta was born. What was significant about the Sagitta is that it was the first U.S. kit design to emphasize a moderate wing loading with a high L/D.

Note that while this airplane did compete in FAI and do well, it was primarily designed as an AMA duration model. People soon realized the advantage the 205 gave them.

The 205 gave the flyer the ability to cover a lot of ground, therefore giving him a better chance of encountering lift and still yielding a moderate sink rate. Once lift was encountered, the 205 responded as well as, or better than, any flat bottom section climbing up and away. When altitude was reached, the nose could be dropped and the model would soon come up on "the step" and zoom across the sky.

All was not roses, however. The 205 has a rather peaky performance chart. This means that the airfoil performance degrades rapidly once the angle of attack exceeds a relatively small angle, either positive or negative. In simple terms, the ability of a model equipped with a 205 to cover ground is greatly affected by the method by which the pilot flies the elevator. If you are flying, or are planning to fly a model equipped with a 205 airfoil, there is a definite technique involved in getting the most performance out of it. Believe it or not, the technique starts in the workshop. By definition, the Eppler 205 is a moderately thin, medium camber, laminar flow section. Laminar flow sections, which are designed to have the air passing over them, stay attached farther aft on the wing surface than a turbulated section. To get maximum performance, the wing must be built as true as possible. Do not sharpen the leading edge radius in an attempt to go faster. This only causes the 205 to stall at a lower angle of attack than would normally occur. Some method of glide path control must be included. Since AMA sailplane contests are won on the ground, you must plan and install some method to adjust the glide path of the model. Spoilers, flaps, or dive brakes are the most commonly used method to adjust the glide slope.

I have used all of the above and have found that while all have their relative merits, spoilers are the most commonly used and when mastered, give the most reproducible results.

Next, before the model ever leaves the shop, you should have the smoothest wing possible, a working glide path control, and the center of gravity must be in the proper location.

Before you close that workshop door, I almost forgot to tell you that the single greatest factor affecting the stalling speed of your 205-equipped aircraft will be the wing loading. This means that you can either add more wing to your heavy model or find a method to remove some of that lead in the nose. While building and finishing your sailplane, pay careful attention to the tail surfaces. Build them strong but keep them as light as possible. Pay careful attention to the paint and primer on the fuselage aft of the wing trailing edge. Two ounces of weight in the tail is good for six ounces in the nose. This yields a net gain of eight ounces overall, or an increase of 1/3 ounce per square foot in a 900 square inch model. Not a whole lot you might say, but believe me, when you are trying to make an early morning landing without benefit of a head wind, it makes a difference on how much real estate you'll cover.

Next, check that the tail plane has 2.5 degrees positive deflection in reference to the wing's centerline. This should be the neutral stick and elevator trim lever position. Now off to the flying field to master this nasty old 205.

AT THE FIELD

Assemble your model and check for proper radio operation. It is essential for smooth flight that the control surfaces return to center when deflected and released. I always prefer a hand glide, but if you are not capable of hand launching a model with reasonable results, it's perfectly acceptable to put it up the line immediately.

Regardless, I'm going to assume that the handgliding yielded a respectable flat glide without need of trimming the tail plane. Now that we know that this thing is going to fly, let's think about what we are going to look for in this first winch launch. Once off the line, point the model into the wind an remove your thumb from the stick. The model should glide nice and flat without showing signs of climbing or diving or accelerating.

If your model is behaving, then make a 180 degree turn and let the model commence downwind. The model's ground speed should increase and it may give the illusion of dropping the nose slightly. If your model does not show these tendencies, then adjust the elevator trim lever until it settles down. Note that the trim lever should be adjusted one click at a time, as it should not take much angular deflection of the tail plane to create a noticeable difference in glide angle. I hope you still have plenty of altitude left. If not, launch again. If you have safe altitude, maneuver the aircraft so that its flight path is perpendicular to your field of vision. This will best enable you to observe the angle of attack of your aircraft whilst in the glide. With model so positioned and flying at normal cruising speed, proceed to gently bring the nose up by applying up elevator.

Keep slowing the model until it stalls. Note that if elevator is gently applied, the aircraft should not stall abruptly. Ideally, the aircraft should at first begin to climb, then slow and begin to mush tail down, losing altitude. With just a little more tail plane deflection, forward motion should halt and the nose should drop as the stall is encountered. If your aircraft exhibits these tendencies, then try adding a bit of nose weight temporarily. This should dampen the pitching to acceptable limits. If the weight helps, then fix it in the nose permanently. Now you will know what to expect when you land your aircraft, as all good landings start with a good approach and end when the aircraft is flaired to a stall. If no lift is encountered during this first flight, then set up for a normal landing approach, leaving yourself plenty of room on final so that you don't hit an obstacle if the model over-shoots.

If lift is encountered, proceed. One of the characteristics of the 205 that is different from a conventional flat bottom is the way it behaves in a thermal turn. If the lift is great, you will not be able to notice much difference, as the model will sky-out on the basis of wing loading instead of aerodynamics. What I'm looking for is one of those early morning or late evening thermals that would just as soon leave you as take you out. Anyway, remember the way the 205 responded as you eased the elevator aft. Remember the fine line between slow flight and mushing stall degrading the glide. Think back to contests where you've seen two models enter a low thermal and one model skies-out and the other falls out. Often the model that fell out had a pilot that was attempting to maximize his climb in the weak thermal. While he tried harder, he succeeded in placing the 205 on the back side of its glide curve and caused the model to mush out of the thermal.

Because of this fine line, I prefer to fly the thermal on elevator trim. That is, when lift is encountered, and I am ready to start my circle, I commence the turn and click in two or three clicks of up trim. While I'm sure you can probably fly your model up through the thermal, I find it easier to adjust the aircraft to that fine line and use the rudder to kill the stall, adjusting the aircraft's airspeed by opening or closing the circle. Try this, I believe that you will find a better climb than what you would get by attempting to fly your 205 up the thermal.

So here's to onward and upward. Speaking of upward, if you're still in that thermal, you model's probably getting pretty high. Let's think about it before we leave our thermal. If you remember Thornburg's rule, you know that you always leave or exit a thermal from the back side. Because sink follows lift, you want to get a "flying start" to scoot through any patches of bad air. That is, you let the sailplane come into the wind, commence the circle downwind, and as you reach the back side of the circle, you turn the nose into the wind and give opposite rudder so that the aircraft's nose is now pointed into the wind (and hopefully back to the field).

Note that if you left the up trim on the transmitter, your model will now begin to porpoise. This is because you must reduce the angular difference or decalage between the wing and the stabilizer to allow the model to cruise. It is very important that you bring the elevator trim back to neutral so that you can cover the maximum amount of real estate, enabling you to reach that next thermal.

The most common pitfalls in this area of performance are: too much up trim causing the model to lose energy in all of its climbs and dives, and to the other extreme, over-diving. The reason we use the 205 is because of its excellent L/D without too much compromise in the other areas of airfoil performance. Observe the tendency of the airfoil to show you its point of maximum L/D. By carefully applying down trim, one click at a time, you will be able to see the point where the model exhibits its best ground covering tendencies. One more click and the model just builds up speed and the L/D goes in the trash. If you have followed this article to this point, you should be able to summarize it as follows: 1) I must build a true model for maximum performance; 2) I must fly my model and observe and identify two major points on its performance curve. The first point is the amount of tail plane deflection I will need for best climb performance in a thermal. The second point is the tail plane setting that will give me the maximum glide angle.

The above is the essence of this article to this point. I did forget to tell you that the maximum climb position of elevator trim is also the position that will yield you the highest tow. During a normal contest flight, I check that the elevator trim is properly set. A healthy toss will insure that the model reaches the necessary flying speed that it will need if the line breaks. If you zoom launch, you will find it necessary to hold excessive down stick during the actual zoom to overcome the up trim. Once the launch is complete, I immediately trim for maximum cruise. If lift is encountered, I trim for maximum climb. Several of you have already figured that I basically fly the elevator in two trim modes.

This is true, and the reason I do it is efficiency. I figure that my aircraft has only so much potential energy, that is the launch height. Gravity is a given, and taking out atmospheric conditions, the only thing that will bring your model down at a faster than expected rate is increasing the drag. Even more important is that your sailplane will exhibit specific behavior for a given tail plane setting. If you have observed your model and remember the way your ship behaves, you will have a basis for which to make in-flight judgments. For instance, you're in maximum cruise mode and suddenly the model's tail raises and the model accelerates. Now, if you know you didn't give the model an elevator command you can pretty well guess that model has entered better air and you are about to start climbing. This basis for decision making is extremely important for the contest pilot.

How many times have you seen guys come smoking through the landing circle, cart-wheeling their model or hitting their timer? This was not bad luck, no matter how much they might complain. A blown approach yields a very predictable blown landing.

Let's launch our 205 equipped sailplane again. That's it, a good amount of line tension, now throw the model. As the model climbs, pull in some up, stretch that line. As you start to round over the top, some pulsing could prove prudent. Now, let off the up elevator, tap the winch one last time hard, now pull up elevator, and get off the winch pedal at the same time. You may need a little down to round over the top into the glide. You guys are launching much better than when we started! Now let's concentrate on landing this thing. I hope that all of you currently have some sort of approach, but from what I've seen at contests, I believe that there might be a great deal of hit and miss arrivals going on out there.

Anyway, enough critism!! I want you to think back to the early part of this article. Do you remember what happens when you let the nose drop on the 205? That's right, the speed comes up, and the aircraft starts covering a lot of ground. Conversely, if you pull back on the elevator so that you go passed the minimum sink mode, that old drag bucket starts tugging on the tail and the model begins to lose altitude, mushing out of the sky. Let's get your sailplane in that condition, nose into the wind. Notice that the model is now covering much less ground. I presume that you have spoilers on this dog, so let's use them.

Use your elevator trim to hold the nose up. Now on the count of three, raise the spoilers and at the same time pull in 3/4 up elevator. It is very important that both controls are applied simultaneously. If you apply spoilers too quickly, there will be a very rapid nose down pitch applied to the sailplane. Very untidy indeed! With the spoilers up, notice how the sink rate increases. See how much elevator you can pull in. The model should be able to take full up elevator without stalling. Practice closing the spoilers.

Often times I've seen people get into trouble because they didn't know to or didn't think to close their spoilers. Think of your spoilers as you would the accelerator of your car. You must train yourself to apply them as needed to adjust your glide path. Never, and I mean never, open your spoilers full and attempt an approach and landing. I guarantee you'll land short.

As I said, a good landing starts with a good approach. So let's go through one. I'm going to give you the approximate place you should be time wise, but let's get the landing right, then worry about the precision.

With two minutes to go in your flight, determine the wind direction, deposit yourself on the upwind side of the circle, with the wind directly at your back. Check the wind again at 1:30 and again at one minute to go. Forget about moving after one minute to go, it will just throw your landing off.

Ideally, you have learned from the first part of this article and you are skied-out. Lose altitude as necessary, but remember to save plenty of altitude for your approach. Nothing looks sillier that to come "bonsaiing" out of a thermal, only to get caught in sink and consequently land short.

Position the model so that it is directly downwind from you approximately one football field away from you and 200 feet high (about half launch height). If the wind is blowing hard, either carry more speed into the window or don't start from as far downwind. This is your approach window. I like to enter the window with normal gliding speed, read that cruise, at 60 seconds to go. Place the elevator trim in the thermal position.

I usually circle until 50 seconds to go, then I bring the sailplane directly towards me, gliding at a decreasing angle that will place the model 40 feet high as it approaches me. It will be, of course, necessary to hold down elevator to achieve this glide angle.

Now make a 90 degree turn either way and carry that line for 100 feet. Try to achieve a line that will not take the model over people, or worse, other transmitters. We don't want to arrive early.

On this leg of the approach, you should conserve that 40 foot altitude. That doesn't mean you should just release the stick to neutral. If you do, the model will zoom back to altitude because of its excess speed.

Carry this line for about 100 feet or five seconds. At 25 seconds to go, turn 90 degrees downwind. Go straight downwind holding enough down elevator to keep cruising and ideally, by the time you reach 18 seconds, you should be down to 25 feet, about 75 feet downwind, but moving. At 18 seconds turn 90 degrees on a path that will cross the landing circles perpendicular to the wind direction. We are officially on base and are definitely going to land.

Now, with 12-15 seconds to go, turn 90 degrees into the wind and directly towards the circle. The model should be 15 feet up and, again, cruising. What comes next depends on the wind. If it's blowing hard, you may need to push the model towards the landing circle. More than likely you will need to start slowing the model. This is the time to start applying the spoilers and up elevator.

An ideal approach would be for the model to start from 15 feet altitude, 75 feet out and glide straight towards the center of the circle, constantly but evenly losing altitude so that it touches down at the 95 mark away from you and slides to the 100.

I have found that the model should be about three feet above the ground as it nears the edge of the 25 foot circle away from you. Any higher, and you will have trouble keeping it from overshooting the center of the circle. Anyway, you must use up elevator and spoilers to fly down this final leg.

As you approach the edge of the landing circle, make sure that you have the wings level because this is not the time to have to make rudder corrections. Now you have the wings flat, the model is three feet off the ground and you are about to nail the center of the circle.

Carefully slow the model by applying spoiler and up elevator. As you get closer to the center of the circle, use more up elevator. A proper landing will occur as you pull in full up elevator and full spoilers inches off the ground at the 90 point mark. The model should touch down flat and stop very near the center of the landing center.

Notice that the difficult part is being three feet above the end of the tape, with a moderate glide speed, on course. If you can master the approach up to this point, you will achieve good landings. Don't ever give down elevator in an attempt to save an approach too high. The air speed will increase and the model will probably overshoot, at least, and may damage the model as you crash into the ground.

The entire approach was designed to give you as much leeway as possible. With all the check points built in, you should be able to use spoilers and elevator to correct for a too high or too fast approach. An approach that is too low or slow is corrected by turning early. Please note that any deviations should be corrected as early as possible. It is not wise to wait until the edge of the circle is coming up to plan your landing. It is simply too late at that point to do anything about it.

Things to remember: If you catch yourself too fast or high as you cross the threshold of the circle, immediately apply full spoiler and full up elevator. If you do it right, you will be able to scavenge many more points than diving into the ground, and the model will be flyable for the next round.

I have found it helpful for my timer to stop counting down with eight seconds to go. You simply will have too great an urge to "dork" the model when your timer reaches zero. I found that if I am on approach, eight seconds is the last checkpoint I need. I would rather concentrate on a 100 point landing one second off perfect, than crash into a 70 pointer on time. You can still win with one second off!

Larry

WELCOME TO THE SOARING UNION of LOS ANGELES's SOUTHERN CALIFORNIA SOARING CLUB's SOARING CONTEST

SUNDAY 25 JUNE, 1989

LOCATION: SULA FIELD.
CAL STATE, CARSON, CA.

ENTRY FEE: $6.00 MUST BE AMA MEMBER

PILOTS MEETING: 8:45 A.M.
FIRST FLIGHT: 9:00 A.M.
CHECK FLIGHTS: 8:00 to 8:30 A.M. "ONLY"

TASK: 3 ROUNDS

1. 4 MIN. PRECISION SCORED 800/200 pts
2. 7 MIN. MAN/MAN SCORED 900/100 pts
3. 5 MIN. MAN/MAN SCORED 900/100 pts

LANDING: SULA RUNWAY STYLE!

PLAQUES; 1-5 EXPERT; 1-3 SPORTSMAN
EQUIPMENT: 12 VOLT WINCHES/RETRIEVERS
CONTEST DIRECTOR: Steve Addis (213) 835-7631