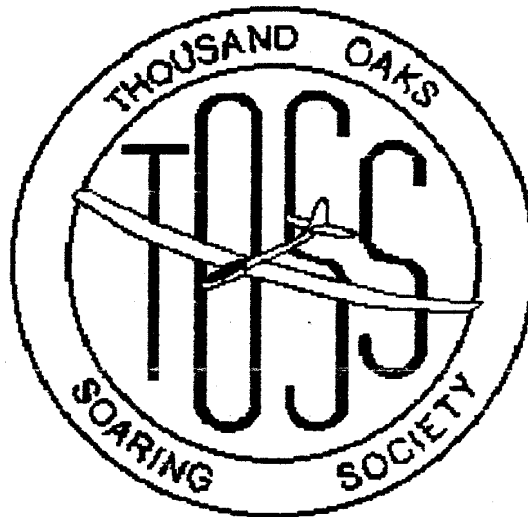


T O S S " U P



NEWSLETTER

JULY 1989

T.O.S.S. P.O. BOX 1955

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Next Contest; AUG 12th 1989

C/D: Ed Oldenburg

Type: 3,5,7

SC squared contest Aug.27th

Next Meeting: Aug 30th 1989

Place: Oaks Mall
Next to Bullocks
Hillcrest Dr. T.O.

Time 7:30 p.m.



Soap Box

First things first. Sorry about the newsletter it should have been out Monday the 24th but I had a job obligation and the AMA nats wiped out the week before.

Congratulations to Edgar Weisman. He took high score at the SWSA meet.

The nats were fun. If you have never attended a national event, let me tell you, the competition is fierce. I watched Larry Jolly slope over some trees for five minutes, sometimes dropping below tree level, to get his time. For his trouble he took a first place trophy home. The two meter fly-offs were spectacular. The banquet was very entertaining. The TOSS team didn't fare well. Joe Wurts ran off with a X/C first (again) and Myles Moran got a 13th place in the Standard class. But the third man let the team down. All I could do was land in the Columbia river.

Onward and upward. The meeting was the 26th. I now believe that you all wait for this newsletter to remind you of the meeting. Bad form. We had about eight members present. I don't want to take Ed Oldenburg's fire. So I will stick to the two items that I brought up.

1) Do you think we should have a handicap for the pilots that win consistently or place well consistently?

We tossed that back and forth a bit then came up with a contest scoring similar to that of SULA. Two classes, Sportsman and Expert, for us that are trying to get a level five win. The Sportsman may win all the marbles but the Expert is prevented from winning in the Sportsman class. We will try this for a while and see how it works. Nothing is set in concrete, so if you don't like it and have a better idea jets hear it, promise to give it a try.

2) Do you believe this club is getting overly contest orientated?

Let me say right off the bat. Everyone at

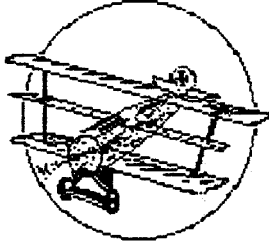
the meeting was a contest flyer. Bob DeShields brought Chuck Kasabian, a long time free flight flyer and power type. Chuck had decided that all that noise was not necessary. By the way Bob had a beautiful scale ship for show and tell.

Enough of that. Let me say that this club is an awkward size. Until we either get bigger or shrink to just a few that want to "contest" until it hurts, we're going to have to deal with this. The clubs in this area that have been in this situation are PSA, SCSA, SFYSF. The reason you might not recognize the initials are that the clubs are dormant. If you are wondering where my heart is, we have eight contest flyers and twenty nine fun flyers. Need I say more. As far as this club is concerned the contest's at other clubs can take a few months off. We need someone at the field on the weekends to meet, fly, help, have fun, with the "non contest type" members. I am hoping that we can turn those fun flyers into new contest flyers. I still believe that contest flying is what this is all about. I think we might have taken a step closer to achieving this by opening up the sportsman's class.

Now, all you fun flyers come on out and prove me right.

Chuck

**The
Red Baron**



**Radio Control
Model Hobbies**
77 Daily Drive
Camarillo, CA.
(805) 482-0250



Eric's Blurp

Flying the Great Race

I guess I'll start my report on the X-C by thanking Art for a job well done running the contest at Taft. A big THANK YOU also goes to Bob Swet for manning the Start/ Finish line and Turnaround for two days. Bob sat out there in the hot sun and did one heck of a job. A special thanks goes to Yan and Betsy for manning the weigh-in and handling the raffle and dinner tickets. Bob Goldsmith and Chuck also helped out on the Start line. For those of you that didn't show you missed one heck of an event. Thanks again for those that came and helped. Every contestant appreciated it. As for next year, listen up. I'm going to C/D a two day contest. I'm looking for 4 and no more than 6 people to help out at the field. Here's the deal, for the first 4 to 6 that volunteer to help and actually show up and work they each get one raffle ticket. The best part is it will be a special raffle held after the contest for those 6 and the prize is going to be an Airtronics YG4 R 1991 radio. Folks you have a darn good chance at winning this baby and I'm hoping this will entice a few to help out. Also thrown in will be a free dinner ticket for the Saturday chicken dinner. If you're interested call now to reserve your spot because I'm limiting it to 4 to 6 so the odds are pretty good on winning.

Now for this year. Friday started out Hot but the lift left something to be desired. We had 14 teams signed up and 12 actually showed with 2 from England. The Brits had some gorgeous airplanes. These gentlemen are great builders and good flyers as well. Some of the places they landed were tough to get into. I believe one of their biggest problems was the lack of a thermal sniffer as an airborne transmitter is illegal in Europe so they did not have this essential item on board. The lift started later than normal with most teams not getting high until 1:30. CYRC managed to get high around noon and went 2.4 miles on course. I held off launching till 1:30 as Joe and the rest spent the morning wearing down

winch batteries and practicing landings. Folks when I say it was weak I mean WEAK. No one could stay up. Joe launched at least a dozen times trying to stay up and couldn't. It was starting to look like CYRC might be the team to beat when the lift finally broke free at 2:00pm. I started on course at 2:10 with four teams in front of me and the further I went the higher I got and the faster I went the higher I got. I was in a shear

C/D's For the Year.

Jan 7th	Wayne Meridith
Feb 11th	Don McNamee
Mar 11th	Bob Goldsmith
Apr 9th	Eric Hendrickson
May 13th	Art McNamee
Jun 10th	Myles Moran
Jul 9th	Chuck Griswold
Aug 12th	Ed Oldenburg
Sept 9th	Bob Onstad
Oct 14th	Richard Hartman
Nov 11th	Ralph Morgan
Dec 9th	Don Northern

line having the run of a life unfortunately I was still feeling out the plane and not pushing it like I could have. Still I finished the course in 39+ minutes for the best time of the day. Talk about elated, WOW. No one was able to make a second complete run. Six teams finished the course. Todd Billman, Clarence Nikkel, Joe Who?, Keith Kindrick, and Larry Jolly in that order all within about 10 points of one another. The race was on.

I might point out Larry Jolly lost his New Roadrunner due to radio interference before the lift ever started. It was sickening to watch this beautiful plane spin in on the field with Larry running towards it with antenna held high trying to get control. Joe was also having his own radio problems with interference on landing putting a scare into him. Then during his run on course with the airplane at altitude it went into



a terminal velocity dive. To here his crew tell the story was something. I guess they were scrambling for the second transmitter to no avail and then held a discussion on what to do. Joe said after about 500 feet straight down it proceeded into an outside loop stressing things to the limit. The interference finally stopped and Joe regained control to go on and complete the course. Upon landing I understand stab rods were bent and there were other signs of over stressing. LUCKY.

I hate to say I told you so but people I think I have been on top of this radio stuff. Both Joe and Larry were flying with SC 455 receivers. The old kind. One of Joe's team members had a frequency scanner and the next morning they found a pager and voice blasting only 10 Khz away from his assigned channel 20. Read my LIPS, 1991 is here now! I think both Joe and Larry are convinced. Take your old receivers and throw them out and don't buy any Single conversion new receivers. They aren't going to work. AMA is finally running two page ads telling you what I have been saying and where did you here about TY 4 first? They are just now admitting to the problem. You can buy a true 1991 radio with Dual Conversion reviver for 135 bucks. I ask you, is it worth it? Sorry for the digression but I don't want anyone to get burned.

Back to day two. I loaned a couple of FM servos to Joe and he changed frequencies which solved his radio problems. The lift was much the same as Day one. It did start a little sooner and a few went on course by 1:30 with Joe finishing before some of us including me hadn't even gotten on course. I got nervous and left with minimum altitude only to land 4.7 miles out. Needless to say, my bubble had been bursted and back to the field we went in one heck of a hurry. We managed to get up high quickly and as we started Larry Jolly was finishing. Once on course the lift was ok except for getting into and out of the turn point. On the way back I hit terrible sink over the green fields and was below launch altitude 4 miles from the finish and sweating bullets. One rule in X-C is the closest thermal is straight ahead on course. Well, on we continued a hit a hat sucker at about

300 feet. In 4-5 turns the stabs were disappearing and the thermal sniffer was still screaming. As we thermaled up the team from SULA went flying by us. I crossed the line with a time of 51 minutes but the guys to beat were team SULA. They blistered the course in 32:09 which turned out to be the fastest time of the contest. Only 4 teams finished the course on Saturday, with only 10 points separating Joe and I and Larry was not far behind.

I was beginning to wonder about the life expectancy of a X-C glider as Clarence Nikkel crashed his ship while trying to fly someone else's plane. CYRC had a misair with another team to destroy two more and one of the English teams crashed in the highway after flying over a bunch of transmitters at the start finish line. These coupled with two crashes the previous day had lots of teams flying backup planes. Team SULA was also spending hours repairing as they kept breaking off the noses on their fuselages on landing.

With Day 2 over if was off to the Caprice for a swim and bull session by the pool. Once cooled down we all went over for the chicken dinner. It was good as always and the raffle was held. Clarence and Don McNamee won the two radios we gave away.

On the morning of Day 3, thermals were popping all over the place by 9 am. It was starting to look like a typical Taft day. Most teams were in the air by 11:30 only to find that the lift was there but it didn't go very high. Some started only to land 2-4 miles out. Larry had gone home to fly F3B in preparation for the upcoming championships. This left Joe and I to shoot it out for first place. Both of us thermaled at the start line till after 1pm with us never getting very high. I finally got impatient and went on course, yelling for Joe to come on to get the battle over. Joe started a minute after I did. About 7 miles out I stopped for the second time to thermal. Myles pulled up and said Joe was 4 miles behind us but higher. By the time I got high enough to make the turn, which was upwind, Joe can flying by. We were both heading for the turn with me slightly lower than Joe. We both made the turn and headed for home getting lower and lower. Joe found a weak thermal at 2-300



feet and I pulled into it with him at about the same altitude. We were both scratching for our lives, but as we started to slowly climb we were drifting toward the finish line. I was managing to outclimb Joe ever so little and Joe made a correction thinking the core had moved. He got the scare of his life by getting out of the thermal and was down to 100 feet before finding it again. I couldn't believe it. The thermal got stronger and we both got high. I decided to leave knowing I had to beat Joe by a minute. Joe left slightly behind me and passed me about 2.5 miles from the finish and went on to win. We got back to the field and both decided to give it a try. I decided to try my backup thermal sniffer which I hadn't used and took time to install it in the plane. Joe re-launched quickly and by the time I got in the air and going up, Joe was back on course. He completed for a second time improving on his first time by 15 minutes. I managed to get on course at low altitude with five minutes left before the start line closed. I ended up landing at the turn point.

Joe took home First Place, followed by myself, Clarence Nikkel, SULA, Jolly, Billman, Kendrick, CYRC, Cooper, the Brits and Guthmiller. I haven't had that much fun flying models. It was a great contest.

To cover a few loose ends, at the July meeting, Art is going to give us a demo on Monokoting and we are also going to raffle off a Airtronics 1991 radio if we get 140 bucks in the pot, so come out to the meeting and bring a few extra bucks. August will be a Vision radio demo or videos of our X-C contest which ever we decide on. Last but certainly not least is keep your eyes open for a field. The clock is running.

Eric

Electrical Q & A Art McNamee

Q. Should I buy AM or FM Equipment?

A. They both work. However, I prefer FM. A typical FM receiver amplifies and limits, or clips off, the peaks of incoming signals or noise so the signal level is constant. This greatly reduces the level of noise that might effect your transmitter. In an AM receiver the noise is always there as strong as it was received. Think of it this way— if a thorn is pressed through your shoe sole and you cut it off or clip it even with the inside of the sole. You won't feel a thing. In an AM receiver if a transmitter on your frequency is turned on, it is always heard by the receiver and causes interference. With an FM receiver if your signal is 6 db stronger than the interference your receiver is captured and it doesn't hear the other transmitter.

Q. How about single or dual conversion?

A. The signal from your transmitter is radiated at about 72MHZ (million cycles per second). It is mixed with a local signal (in your receiver) to create a two I.F.(intermediate frequency) signals. The high I.F. (typically 10.7 MHZ) and the low I.F. 455 KHZ (thousand cycles per second) Without more detail, the dual conversion reduces image frequency and improves the selectivity of the receiver (how close you can get to the adjacent channel without having problems).

Q. Who makes the best R/C equipment?

Continued Next Page



A. There are several good units on the market. Airtronics has receivers that meet 1991 specs. now and I happen to like their product. When you buy, be sure that you are comparing dual conversion receivers with 10 KHZ channel selectivity, true 1991 legal equipment.

Q. Could I use a very short antenna in my airplane? I saw a short walkie talkie type antenna on a transmitter.

A. This type antenna is a coil of wire. It looks like a full size 1/4 wave length antenna to the transmitter but it is a compromise. A short antenna in an airplane will work within limits but since your transmitted signal is effectively reduced the receiver is more likely to get into trouble. You can't beat a full size antenna. Don't cut off your antenna. More on antenna length later.

Q. What is the best way to orientate the transmitter antenna if I start to lose my plane.

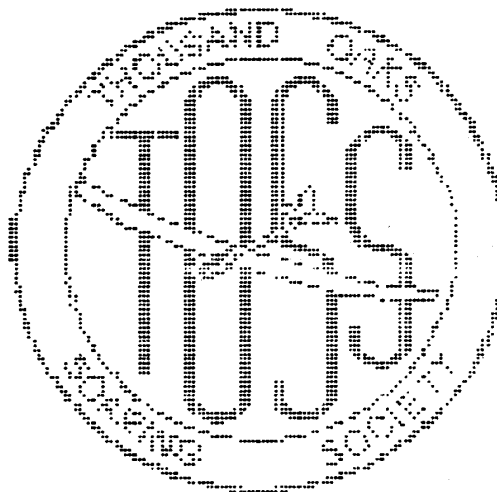
A. Your antenna should be pointed about 45 degrees to the right or left of the airplane when you are having problems.

Q. Do batteries have a memory?

A. A nicad battery does tend to develop a memory. If you don't fully charge your batteries they may get set in their ways and only charge as far as they have become accustomed. I would charge a new pack 24 hours, I recycle them every 2 weeks and I wouldn't let them run down completely. Within limits you can't overcharge them—so even if you only fly 1/2 hour still charge them 8 to 10 hours for your next flying session. I can't recommend the best batteries. They may all come from the same manufacturer.

Q. Can I shape my batteries to my plane?

A. Yes, anyway you wish as long as you keep them in series. That is. positive (center pole) of battery 1 to the negative pole of battery



2 etc. They may be side by side or two over two (most commercial packs) or end to end. The length of wire used to connect them isn't worth considering. Don't let any bare wires touch each other and DON'T cut two wires that are attached to a battery at once. At best you will have a burned spot on your nippers.

Q. What building materials might effect the receiver's signal?

A. Any metal or carbon fiber. Long servo leads, carbon fiber capped spars and the new carbon fiber cloth are the main culprits. The best answer is to keep your antenna as far away from all of the above as possible. If you use steel or carbon fiber in the fuselage try running the antenna out the wing and connect it to the receiver with an alligator clip. If you have problems with putting it in the wing let at least a foot of antenna hang free in the clear. At 72.5 MHZ a 1/4 wave antenna, should be 38.7 inches long. At 53.4 MHZ (ham band) 52.5 inches will do. Antennas are frequency sensitive, Don't cut them short.

Q. What's all this about RF, IF, and TY channel 4? Any connection?



A. RF is radio frequency IF is intermediate frequency. Our R/C equipment operate from 72.030 MHZ to 75.870 MHZ. Channel 4 TV covers a 6MHZ spectrum from 66 to 72 MHZ. The audio carrier operates at 71.72 to 71.50 MHZ. Normally no problem to us. However if you try to fly near Mt. Wilson with their mega watt transmitters you will probably eat your shorts.

Art McNamee

Dear Art:

I want your address. I understand everything except the part about eating your shorts.

Confused in Camarillo

Come to think about it, I don't understand that part either. Thanks a bunch Art. All right lets keep this going. What next. Call or write those questions in. I'll get them in the next letter.

Chuck

ATTENTION!

WINCH FOR SALE

Warren Buster, one of the original members of TOSS, has a Ford long shaft winch for sale. \$150.00 with battery. The battery might not be good. Call Warren at home (805) 496-1092

**LOW STYLE TECH STUFF,
David Swain**

So you're a newcomer to our sport and you've made it past all the routine hazards... which is up, down, left, right - hard landings-

and worst of all hard launches. You've decided its time to compete with the others. They seem to be having more fun, and your enthusiasm is just starting to wander a little. What's the best all-around beginners contest sailplane? Your little 2meter/ 2channel ship which is a little heavy and sort of beat up just won't cut it if you want to be in the running.

Now's the time to upgrade a little -but don't get crazy. A Windsong looks great but it sure isn't a beginners first contest ship. The plane - radio - pilot combination is wrong. Slow down- think about what you'll need? Your 4 channel radio and 3 servos (why do they do that?) should work for the plane you're thinking about building. If you built your first ship all the knives, pins, sandpaper and a flat place should still be waiting for you.

My personal choice would have to be the Airtronics Oly 2. There are other kits out there that would do the job, but for me the Oly 2 fills the bill. Airtronics quality, machine cut parts, strong fuselage, 99" wing and it builds very fast. Airtronics always has plenty of hardware (hinges, tow hook, pushrods, etc.) a good plane for the money. Cost wise it runs about \$45 to \$60 dollars depending where you purchase it. Covering takes about 3 rolls of Monokote. That will leave you a little for repairs. It has a two piece wing, for easy transport and handling.

Continuing to the flying phase- it's slow, floats and thermals well, making it easy for the newcomer to relax during those first contest rounds. Flat bottom airfoil with lots of wing area make for a higher launch, and the wing is easier to spot than a 2 meter at altitude. Built with spoilers, it comes down at a good clip for spot landings.

In summary, a simple machine that will help you learn all you need for your first contests and your LSF #1 AND #2.

David



League of Silent Flight

P.O. Box 517
Winfield, Illinois 60190 USA

To: LSF Executive Board
P.O. Box 517
Winfield, Illinois 60190

I, _____ (please print), will support the philosophies, concepts and criteria set forth in the Bylaws of THE LEAGUE OF SILENT FLIGHT and give notice herewith of intention to attain Level I of the LSF Soaring Accomplishments Program, and by so doing earn full recognition and privilege of membership.

(Signature)

Mailing Address: _____

AMA (or other FAI Affiliate) Licence or Membership No. _____

Note: ALL CORRESPONDENCE TO THE LSF MUST INCLUDE AT LEAST \$1.00 IN US STAMPS OR CHECK / M.O. FOR POSTAGE

