



Hugh Stock flying his Magnum 12 as John Baxter launches. John is first Level V. Picture was taken at the 1975 LSF Tournament.

Below: Chet Atkin's scale Caproni spans 11 ft., weighs 8.5 lbs., fiberglass fuselage. Scratch-built, it's Chet's threat to '76 competition.



THE GREAT Bi-Centennial RC Sailplane race! Open to the first 17 AMA chartered clubs that pre-register (one club for each frequency). The task will be a cross-country goal and return race—total distance of 76 kilometers (got it? 1776).

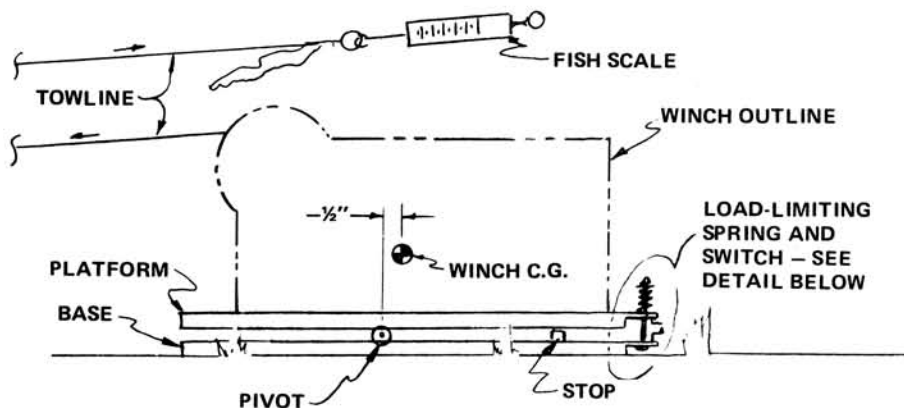
Scheduled for July 17, in conjunction with the Seventh S.O.A.R. Nationals, the race will have the following restrictions:

1. Open only to AMA chartered clubs.
2. One entry per club.
3. No restrictions as to sailplane functions, but sailplane must be within AMA size and weight criteria.
4. Sailplane must have a red, white, and blue color scheme and carry a patriotic slogan or theme (press on lettering works good for this).
5. A club may enter one sailplane and flier.
6. One back-up flier will be allowed.
7. Both fliers must be LSF—level III or higher.
8. Individual clubs must provide at least the following:
 - a) an assistant (back-up flier can serve as assistant); b) a chase vehicle; c) a timer (timer to be exchanged with other clubs); d) their own launch equipment (maximum launch potential of 300 meters will be allowed on hand-tow, high-start, and winch devices).
9. Any number of re-launches will be allowed during the race (S.O.A.R. will provide winches only for the initial launch).
10. Sailplanes entered in this task need not be entered in the regular S.O.A.R. Nationals competition; however, pilots must be.

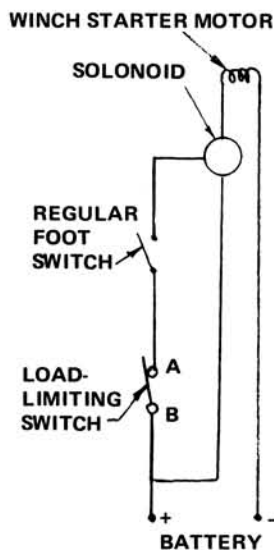
Prizes will include awards for the shortest overall time, longest leg, least number of launches and most patriotic looking sailplane.

So make this a club effort! Pick your
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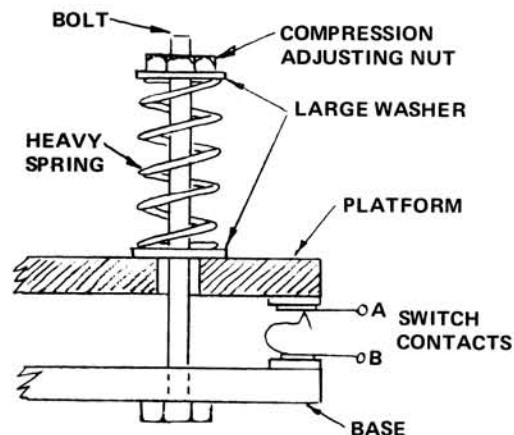
New concept in winches does away with line breakage.



GENERAL ARRANGEMENT



WIRING DIAGRAM



LOAD-LIMITING SPRING AND SWITCH DETAILS

CHET TUTHILL
12-2-75

RC Soaring (continued)

Schwinn bicycle, a \$425 crate of balsa wood from Midwest Products Co.—call that one a life-time supply just as the five 25-ft. rolls of Monokote (with iron) from Top Flite are. Two Magnum 12s from Soarcraft, a Du-Bro Tri*Star helicopter, a Kraft 61 engine, six—count 'em—radios from EK Logictrol and, from Cox/Sanwa and Airtronics an Aquila with radio—a Gere Biplane with radio and engine, and a Q-Tee with engine and radio. You'll note that some of the prizes are in the non-sailplane field. This will enable you to encourage your other-than-sailplane-enthusiasts (word is that there are just a few left) to get in on the raffle.

Support the team! Support the manufacturers!

While on the subject of contests, the AMA Nationals in Dayton will have a three-day soaring event under the C.D. Bob Miller and the D.A.R.T.S.

Because of the "heavy" schedule, especially among the clubs supporting the FAI eliminations, the L.S.F. Tournament will be a one-site contest again this year. San Francisco is the general area, and Contest Director Kirby Parker, LSF/721, is going to take all of the blame this year. Details as they become available.

In the October, 1975, issue of *Model Aviation*, a near solution to tow-line breakage was described as proposed by "Greater Detroit" and Lansing fliers. This month Chet Tuthill of the Coffee Airfoilers has sent us drawings for a "better mousetrap." His and Jim Robinson's article follows.

Answer to Towline Breakage

One problem that plagues the RC soaring community is the problem of towline breakage. It forces the contest director to rule in favor of a re-flight for a contestant, even though he knows in his own mind that the contestant involved will routinely be the only one at the contest that will consistently break the line. It worries the other contestants when line breakage occurs because when they follow a launch where the line broke they are afraid of a weakened line. Also, line breakage always seems to occur at the wrong time; sometimes resulting in a rapid re-kitting of the model on the tow; and nearly always results in a few hairy moments of pilot spasms during recovery.

The "answer" will not prevent line breakage, but it will place the cause definitely as being a fault of the line and not the contestants. It will take all decision making away from the C.D. because a contestant will get an automatic re-flight if a line breaks. The answer lies in a maximum available line force which is set below floor-boards the winch he will get the max-

imum force available. But, by using the usual pulsing action, known around here as the "Tennessee Toe-Tap," he can obtain the desired tow in a regular manner. Thus, the system functions as all winches do up to the allowable maximum load without fear of breaking the line. The system will work with any winch: 12-volt, 6-volt, 2-in. drum, 4-in. drum, or whatever. The system requires no modification to any winch. It can be calibrated (if required) very easily.

The system, devised by Jim Robinson of the Coffee Airfoilers, is shown in the figure. The heart of the system is the mount on which the winch is placed. The mount is held down by the weight of the winch but can be further restrained as deemed necessary. The platform which supports the winch is attached to the base by way of a pivot rod. Rotation of the platform about this rod is restricted by the compression spring. Rotation of the platform, caused by the pull on the towline, is sensed by the switch which cuts power to the solenoid when the pull reaches a pre-set value. If the pull does not reach the pre-set value, nothing happens. As the pull exceeds the pre-set value, the power to the winch is cut, the pull reduced, power is restored, and the cycle repeats cyclically as required to maintain the applied force at the pre-set limit (which is pre-set to a value below the line breakage point). Actual operation is easier than it is to describe in words. The amount of allowable force is easily varied by screwing in or out on the nut on the spring rod while holding the fish scale (or equivalent) and noting the pull exerted on the towline.

Try it—it works—you'll like it.

New Clubs

Well through their first year with many activities under their wings is the Western Pennsylvania Conference on Soaring. Dave Burt, Gene Shelkey and Co. have got the Blairsville, PA area "off the ground." So, if you're interested in joining an RC Sailplane Club and you're from that area, contact either of the above. Addresses: Dave Burt, 180 S. 8th St., Apt. 4, Indiana, PA. 15701; Gene Shelkey, 217 Euclid Ave., Scottdale, PA. 15683.

The newly formed Mid-Ohio Soaring Society (MOSS) is made up of at least 24 members from the Columbus area. Their first effort at a club newsletter was excellent. If you're looking for thermals and a club in Mid-Ohio, contact William F. Duemmel, 7766 Candlewood Lane, Worthington, OH 43085.

And while we're on the subject of addresses: National Soaring Society (NSS—\$10); c/o Stanley Pfof, 1481 Howell Branch Rd., Winter Park, FL 32789.

League of Silent Flight (LSF—Free); P.O. Box 39068 Dept. AM, Chicago, IL 60639.

My address: Dan Pruss, Box 490 Dept. AM, Plainfield, IL 60544.