

Radio Control

Soaring

Dan Pruss



At the Harris Hill Lift Over Drag, National Soaring Society meet at Harris Hill, N.Y. last spring; left to right: Dennis Ellington (timer), Charlie Blodgett (launching), Don Kirywk (winching) and Wes Woodward. A Standard Class "A" sailplane was the overall winner.



Above: Chris Corven, age 10, Level II, is member of Greater Detroit Soaring & Hiking Society and threat to the older guys. Below: Kelly Pike, left, is coaching two Junior Class fliers, Steve Kremer and Monty Sullivan.



Elmira: That Harris Hill bunch—Harris Hill Lift/over Drag—was at it again in May at Elmira, N.Y. Hosting one of the first N.S.S. contests of the season, the HHL/D crew held a two-day meet May 17 and 18. Overall results for the two days included the following:

Saturday, May 17	Sunday, May 18	Overall
1. R. Beltz*	1. R. Beltz*	1. R. Beltz*
2. W. Johnson	2. K. Pike	2. K. Pike
3. D. Lear	3. D. Lear	3. D. Lear
4. K. Pike	4. D. Goughnour	4. R. Moreland
5. D. Holley	5. C. McKinley	5. D. Clark

* Standard Class "A" Sailplanes

HHL/D has earned the reputation of being able to manage some of the finest contests held anywhere. Their annual September contest—held on Harris Hill, the birthplace of full-scale soaring some four and a half decades ago—is a yearly gathering of over a hundred RC sailplane enthusiasts. The contests have always been expertly managed by gentlemen like Ernie Heyworth, Jim Gray, Dick Pike, and Tim Shaddock—to name but a few.

The events, while a slight departure from the rule book, have always been innovative and most challenging. So if you're looking for one of the best contests with some of the finest flyers in the country, plan on Elmira in the fall. The scenery alone is worth the price of admission.

Dallas: UFOs at night? Nope. Just Mark Jones and the Dallas League of Silent Flight

(love that name) holding a "night-fly." This, I believe, is the first time this was attempted with RC Sailplanes. Results? Successful if not spectacular.

Fifteen contestants made up the first contest with the ingenuity of the modelers attributing to its success. With visibility of the model being most important and of greatest concern, this problem was overcome with the use of fluorescent tape (bicycle safety tape) stuck along the outline of wings and along the bottom of fuselages. Another idea to enhance visibility was to string a half a dozen three-volt pen-light bulbs, positioning one at the nose, one at the tail, and four along the wing.

Winch-type launches were possible by using a 12-volt, hand held Q-Beam Sport Lite and following the model with a beam of light until release. Reflective tape on the parachute aided in its retrieval.

Best time for the day—er, ah, night—was 07:52 by Jimmy Lee Jones—with average times for the contest being between five and six minutes! Must be something about the Texas air. Anyway, whoever said, "He who hoots with the owls cannot expect to soar with the eagles" didn't know the Dallas club.

Detroit/Lansing: Two columns ago basic winch design was discussed. If the mechanics of winch systems have gone through a refinement process over the years, the tow lines themselves have also gone through this same process.

By the age-old system of trial and error, tow lines of various materials have been experimented with. These included monofilament line, dacron, nylon, and wire! The strength of these various materials fell somewhere between that of dental floss and anchor chain! The material best suited was found to be nylon.

As planes became larger, the lines needed to be stronger—or so it was felt. Now there is a school of thought that says planes have to be designed because of current winch design. A case now exists which is not unlike the chicken or the egg's claim of being first. True, if lines are so heavy, the smaller (Standard Class) ships are somewhat handicapped. Yet, if they are competing only against themselves, that is within their own class, then the launch system is the same for all.

Back to line size. Strength of about 125-pound test (size 15 as per yarn and thread houses) has been the unofficial, accepted criterion by most flyers—both Sunday and competition types. The twisted variety is lower in cost when compared with the braided type; however, the wear factor is less. Yet if motorized bikes are used for retrieval, the braided line burns through (a common occurrence at contests) just as easily as the twisted type.


It has been said that certain flyers with certain 16-foot winged behemoths lay claim to the fact that they can break any tow line at any time during a launch. No trophy commit-

continued on page 74

\$12.95

WESTERN

R/C SAILPLANE
AND FIELD BOX
BY JEF'S FRIENDS



Builds in 2 to 6 hours including radio installation

A sturdy, reliable, easily repaired, low cost trainer

No covering, painting, or decorating required

Made of water resistant corrugated cardboard

Field Box kit included

Vital Statistics:

<p>MATERIAL: 200 lb. test B flute corrugated cardboard with No. 1 white finish both sides.</p> <p>SPAN: 84"</p> <p>LENGTH: 31 1/2"</p> <p>ASPECT RATIO: 12.4</p> <p>WING AREA: 330 sq. in.</p>	<p>AIRFOIL: Under cambered</p> <p>STAB AREA: 78 sq. in.</p> <p>STAB AIRFOIL: Flat</p> <p>WEIGHT: 15 oz. w/o gear, 21-28 oz. flying weight.</p> <p>SURFACE LOADING, TYPICAL: 8 oz. per sq. ft.</p> <p>DIHEDRAL: 0°</p>
--	---

AVAILABLE AT YOUR HOBBY STORE OR WRITE:

Please send _____ Western Wind kit(s) at \$12.95 plus \$1.00 each postage and handling.

Jef's Friends
P.O. Box 511
Brisbane, CA 94005

MAM-4

NAME _____

ADDRESS _____

CITY, STATE _____ ZIP _____

(Calif. residents add 6% sales tax)

RC Soaring

continued from page 25

tee has yet come up with a suitable award for this heroic achievement. It has been said that winchmasters do not have a warm spot in their hearts for such displays of airmanship. (To quell any rumors to the contrary, winchmasters do have hearts.)

Bud Manning and Tom Kelley of the C.A.R.D.S./Lansing and Bud Pell and Art Slagle of the G.D.S.&H.S./Detroit discussed the problem of the above and may have found a very workable solution. Although too new to try on a national level, it has been successfully tried at local club gatherings.

For wear and durability, the 125-pound test line is used. However, a "weak link"—a six-foot length of 45-pound test fishing line—is tied in between the parachute or flag and the regular tow line.

With a slight amount of prudence, the heaviest ships can be launched to heights attained before. Yet, any lurching or jerking can break the line. The technique is not unlike the fisherman that successfully lands a twenty-pound musky while fishing with a six-pound test line.

Carry the "weak-link" system a step further, if the main tow line breaks, this can be attributed to line wear, etc. Result: a relaunch. However, if the "weak-link" breaks, then it is considered overstressing the winch system, and no relaunch is given. The chance of the "weak-link" fraying or wearing is very slight due to the fact it is seldom in contact with the ground. It can be inspected before each flight because it's the section of line usually handled during retrieval and "hook-up." While not perhaps the cure-all for the elimination of attempted reflights, this does seem to be a step towards that end.

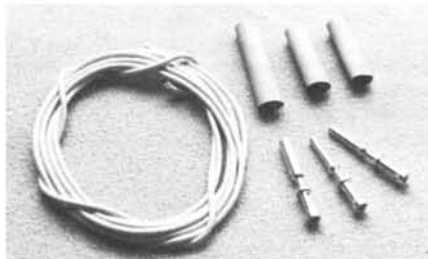
Albuquerque: Seems as though the elusive 10-kilometer goal and return for Level V in the League of Silent Flight is not too elusive for the A.R.S.E.s (Albuquerque Radio Sailplane Enthusiasts). Dave Thornburg, LSF/581, started it all by being the first to achieve this distance task. Buzz Averill, LSF/523, followed shortly thereafter. Recently, Steve Work, LSF/571, also accomplished the task. John Baxter, LSF/024, from California, traveled to Albuquerque and he too managed the 6.24 miles out and back. It should be mentioned that Jack Hiner, LSF/383, as of this writing, is the only other Level V aspirant to accomplish the goal task.

Other L-S Efforts: Chris Corven, LSF/940, can lay claim to being the youngest LSF member. At the age of ten and working on Level III

of the accomplishment program, Chris is another Junior to watch. His performances with his Aquila in standard class and Legionaire in unlimited class have left more than a few open fliers with thoughts of sending him away to camp during the next contest season.

New Products: From Su Karta Hobbies comes a clever antenna installation kit. With the majority of flyers running the antenna through the fuselage, it is sometimes inconvenient to make a quick change with one's receiver. There are also times when the antenna length far exceeds the fuselage length and an installation out through the wing would be preferred.

The antenna connector—called "Shove-it"—comes with material enough for two airplanes.



New Sailplane Organization: Well, gentlemen of the sport, it has happened. The women have organized. W.I.N.G.S.—Women In National Glider Soaring—is a group boasting a membership from at least six states. President of the newly formed organization is: Margaret Gill, 216 Stutely Lane, Springfield, Ill. 62704. This address also serves as the organization's address. Lila Stamm of Grandview, Mo., is the Vice President and Helen Olsen of Springfield, Ill., serves as Secretary/Treasurer.

Individually, the members have been most active as flyers and the newly formed organization—which incidentally is the only organized all-women group of modeling—fielded a team at the 1975 RC Soaring Nationals. Don't know what'll develop from here guys, but we might expect conversations to drift from the normal everyday topic to talk such as:

He: Mildred, why are you recovering that wing?

She: Well, Harvey, the new fall colors look so groovy and besides the old covering clashed with my new four channel . . .

He: What new four channel?

She: Well, I was walking by Al's Hobby the other day and there in the window was the cutest rig on sale so I thought I might as well save you some money so I bought it.

Or . . . Gee Bertram, if we move the band-saw over there in the corner, the drill press can go over against the wall, and then the nuts and bolts drawers can be moved over there next to the picture of Gordon Pearson.

In spite of what may happen, ladies—welcome! But in the name of Le Gray, don't confuse decolletage for decalage or I know a bunch of guys that will be going back to pylon racing! (My address is: Rt. 2, Box 490, Plainfield, Ill. 60544.)

COMPETITION NEWSLETTER

CN 8-75



ACADEMY OF MODEL AERONAUTICS

806 FIFTEENTH STREET, N.W.

WASHINGTON, D.C. 20005



The 6th RC Soaring Nationals this year featured separate Grand Champion recognition for Standard and Unlimited; Mark Smith (Calif.), left, was the Standard Class Grand Champion while Frank Deis (Ala.), right, was the Unlimited Class Grand Champion. Smith was the Standard Class winner of both the Two-Minute Precision and Ten-Minute Duration tasks. Deis was tops in Unlimited Ten-Minute Duration, but Bob Gill (Ill.) was the Unlimited Two-Minute Precision winner. Bob Thacker (Calif.) with a Baby Bowlus won the Scale competition. Greg Smith (Ala.) was the best Jr./Sr. flyer. Jim Porter (Iowa) took the honors

for the Best Original Design, and the magnet spoiler return by Tom Williams (Tex.) was judged as the Best Technical Achievement. The best Jr./Sr. team was from the Rocket City RC Club (Ala.), and the best Open age class team was from the San Fernando Valley Silent Flyers (Calif.). The SOAR Nats was at Lewis University, Lockport, Ill., July 21-23. (Photos by Steve Moskal for Richard Ainsworth Photography; for a proof sheet and price list of 1975 SOAR Nats pictures, send \$2 to Richard Ainsworth, 814 Farragut Pl., Joliet, Ill. 60435.) Look for a full report by Dan Pruss next month.

RC SOARING STANDARD CLASS

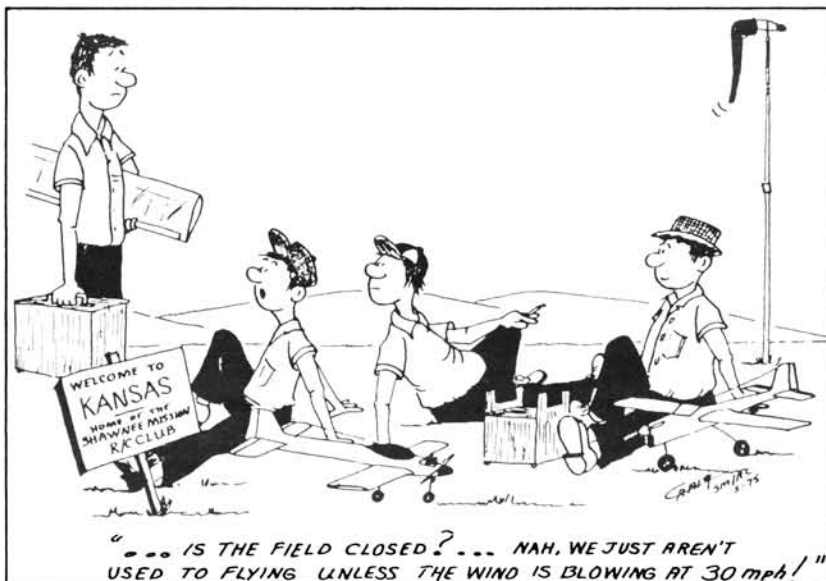
Bob Charron

It's bad enough seeing them [National Soaring Society people] try to reduce the Standard Class to another version of the Unlimited Class [by recommending no restrictions on controls] with articles in *RCM* and *Model Builder*, but to see Dan Pruss doing it in our own new AMA magazine is just too much.

Doesn't he realize that better than 75% of AMA membership has never even entered a contest yet? Doesn't he realize that they need a class of competition that is exciting enough to stand on its own two feet, yet is still simple enough to be suitable for beginners? How come none of the letters protesting this proposed ruination of the Standard Class are ever published? Are they suppressed?

Wake up to the needs for tomorrow's competitors. Keep them flying--quietly, that is.

(Excerpted from the newsletter of the Massachusetts 495th RC Squadron edited by William Washburn.)



By Craig Williams, reprinted from *Feedback*, newsletter of the Shawnee Mission (Kans.) RC Club edited by Aubrey Davis.

Filed with the Federal Communications Commission in the matter of Amendment of Part 97 of the Commission's Rules concerning operator classes, privileges and requirements in the Amateur Radio Service, on behalf of the Academy of Model Aeronautics:

1. On December 16, 1974 the Commission released its Notice of Proposed Rule Making in the above captioned proceeding proposing to institute a comprehensive revision of the Amateur Radio Service license classes. The Academy of Model Aeronautics, Inc., by its attorneys, hereby files its Comment in this proceeding.

2. The Academy of Model Aeronautics, Inc. (hereinafter, the Academy), the Aeromodeling Division of the National Aeronautic Association, is the governing body for aeromodeling activities in the United States. Its current membership stands at 54,000.

3. The Academy has been very gratified over the years that the Commission has consistently recognized that model aircraft flying is a scientific hobby of substantial social value and public significance, and has allocated a number of Citizens Radio Service frequencies for this important activity. These frequencies, in the 27 MHz and 72 MHz bands, are the most suitable for modeler use in view of the relatively low cost of the equipment for these bands, thus making radio controlled aeromodeling activities available to the many young people whose interests in aviation are fueled by model aircraft activities early in life. Unfortunately, the 27 MHz band frequencies are adjacent to those used by the Class D Citizens Radio Service, some of whose members use them as "extra," unauthorized voice channels and a few of whom have actually engaged in the sport of "shooting down" radio controlled model aircraft, resulting in very substantial monetary losses for the modelers and creating a potential danger to spectators when radio control aircraft go out of control. The modelers have, both to spread out frequency occupancy, and to avoid the above problems, turned to the 72 MHz frequencies, but there are inherent limitations in that band because of the use of adjacent frequencies by television stations on channels 4 and 5. These problems have been fully explained in the Academy's Comments in FCC Docket No. 19759 and are incorporated herein by reference.

4. In short, in many areas of the country aircraft modelers are having increasing difficulty in pursuing their activities in a safe manner on the frequencies now available for their use and the only practical solution appears to be access to other frequencies which are not subject to the difficulties now encountered. The Academy was therefore most interested in the Commission's proposal to create a Communicator Class operator license, having no telegraphy examination requirement, which would allow access to the Amateur Radio frequencies above 144 MHz.

5. The Academy believes that this new class of license offers an opportunity for radio control modelers to qualify for such Communicator Class Amateur licenses and to alleviate the problems heretofore mentioned by their using frequencies above 144 MHz for model control purposes. The Academy also believes that such qualification and use will lead many modelers to upgrade their skills to qualify for the Technician Class license in order to be able to use the 50-54 MHz Amateur Band. Use of this latter band by Technician Class Amateur licensees is now a widespread practice. The Academy estimates that about ten to fifteen percent of its membership, or about 5000 modelers hold Amateur licenses and use the

AMA-FCC Frequency Efforts Continue



John Strong, AMA's Frequency Committee chairman, has considerable experience in monitoring RC frequencies at major events. Shown here at Transpo '72, he performed similar services at the 1971 RC World Championships and the 1974 AerOlympics.

Under the current leadership of John Strong, Wheaton, Md., the AMA Frequency Committee is continuing its efforts of many years (since 1950s) to obtain additional frequencies for radio control operation and to protect those already in use. The committee's latest effort is in conjunction with a current major exploration by the Federal Communications Commission, involving expansion into new areas and revision of present amateur licensing requirements.

AMA's officially filed position on these matters is published here. It represents considerable committee correspondence on the subject and extensive consultation with AMA's legal counsel. It also follows the pattern of AMA's previously very successful efforts with the FCC.

50-54 MHz band for their flying activities. Most of these licensees are of the Technician Class.

6. The Academy respectfully submits that making Communicator Class licensees eligible for model radio control activities is clearly in the spirit of this proceeding in that it is in consonance with the "logical relationship between the qualification requirements and the operator privileges authorized at each license level." However, as written, the Docket and the proposed revisions to Part 97 of the Commission's regulations, appearing in the Appendix, do not provide specifically for such activity on the part of Communicator Class licensees. Therefore, the Academy respectfully requests that the Commission:

a. Expand existing Rule Section 97.99 (Stations Used Only for Radio Control of Remote Model Crafts and Vehicles) by adding a new subparagraph:

"(e). Amateurs holding Communicator Class licenses may operate equipment under the provisions of this Section on all amateur frequencies above 144 MHz."

b. Expand the proposed Rule Section 97.7(g) by including a fourth subsection:

"(4) Emission A-1 or A-2 solely under the provisions of Section 97.99"

7. The Academy also respectfully requests that consideration be given to continuation of mail examinations for the Technician Class license and, once obtained by such examination, that the license be renewable. Further, the Academy requests that the Communicator Class license be available on a mail examination basis and be renewable. The Academy's reasons for such requests stem from the following considerations:

a. The bulk of the nation's radio control modeling activities are carried on by Academy chartered clubs, most of whom have at least a few members with higher level Amateur licenses. These clubs

provide classes to instruct members in the appropriate written and code requirements. With the Commission's proposed tightening of the conduct of mail examinations, it is believed that the Commission can be assured of adequate competency on the part of the successful candidates for these two license classes.

b. In the case of the several thousand model radio control flyers who have already successfully qualified for the Technician Class license, the Academy submits that these licenses were earned in good faith and that to require these individuals to travel to an FCC examining location to renew this class of license is an unwarranted hardship on the existing licensees.

8. In summary, the Academy recommends that, if the proposed rule making is adopted by the Commission, it be modified to include the following provisions:

a. Permit radio control activities by Communicator Class licensees of frequencies above 144 MHz.

b. Permit Communicator and Technician Class licenses to be obtained by mail examination, and be renewable.

Respectfully submitted, The Academy of Model Aeronautics, Inc. By Jeremiah Courtney, Its Attorney, Washington, D.C. July 16, 1975.

The AMA Frequency Committee currently consists of the following: John Strong, chairman; Dr. Walter A. Good, Bethesda, Md.; Richard Jansson, Wellesley Hills, Ma.; Lt. Col. C. T. Williams, APO New York. Note: Bob Aberle, Hauppauge, NY, joined the committee in July—his recent individual efforts were recognized by the committee and he was invited to join the group to broaden its representation; similarly, Jack Albrecht, San Francisco, replacing former California member Hugh Stock.