

The SPAAR

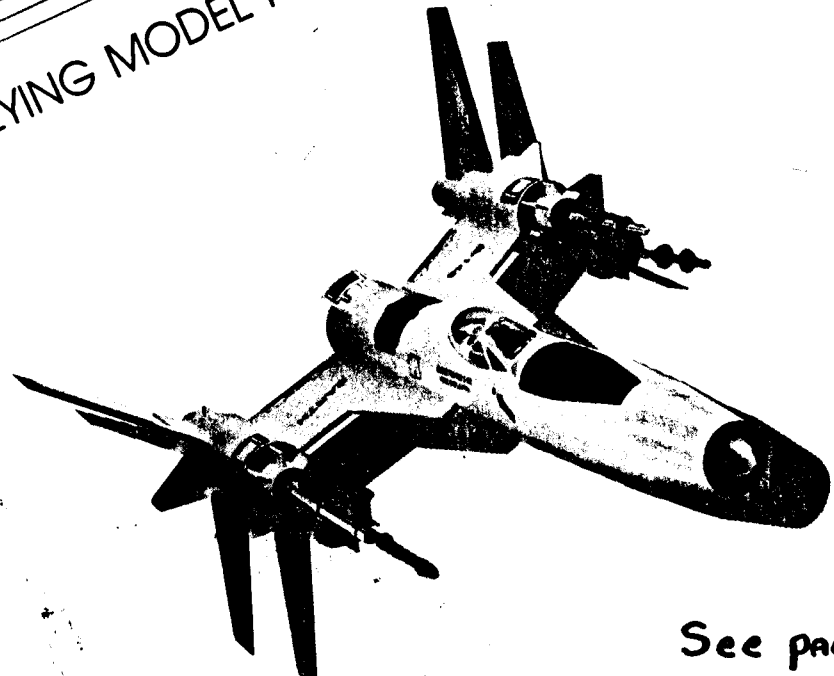
VOL.1 NO.9

COUNTDOWN

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89

THE 8⁹

ESTES



CATALOG

See page 7

UPDATED SPAAR RECORD



BOOK AND MEMBERSHIP ROSTER

THE SPAAR COUNTDOWN

Volume 1, Issue 9

February, 1989

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The SPAAR Countdown is the official journal of the Southern Pennsylvania Area Assoc. of Rocketry, PO Box 127, Reamstown, Pa., 17567, and is published on a monthly basis as a service to the members of SPAAR. The Southern Pa. Area Assoc. of Rocketry is an officially chartered Section of the National Association of Rocketry, #503.

OK, OK, so the editor goofed on the last issue!!

Anyone who wishes a re-print of page #2 of the last issue, please notify me PRIOR to the next meeting, on Feb. 13. This was the page which contained the election ballot that had to be cut out, and with it came the bottom portion of page #1.

Also, there was no key to the photographs that appeared on the cover and the back page. It wasn't really an oversight, we just ran out of time and room. On the cover, the SPAAR members who braved the cold at the Section Launch on December 4, 1988, gather for a group photo. Left to right; Daniel, John, and Derek Yost; Dave Wenrich, Rick Hackman, Bryon Beiler, Jess Wenrich, Dave Bender, Ed Miller. Not shown: George Beever (he took the picture). On the back page: Left to right, John Yost and Dave Wenrich prepare for launch, June 5; The Yost's modified Eggspress, UNCLE-1, Oct. 9; John Yost convincing his flex-wing B/G that it should fly, July 3; Glenn "Art Rose sez my bucket's too big" Feveryear explaining the virtues of flashbulb cluster ignition, Oct. 30; Ed Miller attempting to gain ignition on his old Centuri Honest John by lighting the motor with a cigarette, Dec. 4; and John Yost and Dan Weinhold suntanning their throats while timing duration event models at UNCLE-1, Oct.9.

On this month's cover: Can Spring be too far behind? The new Estes catalog arrives!!!

All back issues of the SPAAR Countdown and it's predessor, known unfortunatly as the "Club Newsletter", June, 1988, and "Club News", July, 1988, are available for 50¢ per copy; all proceeds go into the General Fund.

SECTION MEETING MINUTES

The Southern Pa. Area Association of Rocketry held it's monthly meeting on Monday, January 16, 1989, at the Lancaster County Public Library on N. Duke St., Lancaster. The meeting began at 7PM. Present were: Ed Miller, John Yost, Dick Rhoat, Bill Rhoat, Dale Greene, Jeramie Shaffer, Rick Hackman, Bryon Beiler, Dave Wenrich, Glenn Feveryear, Jess Wenrich, David Bender, & George Beever (13).

OLD BUSINESS: The members present were asked to turn in their election ballots to John Yost for tabulation.

Glenn Feveryear was thanked for arranging for the use of the Delta-Cardiff Fire Co. hall for the January 14 Workshop.

NEW BUSINESS: The Section business cards were passed out by John Yost.

The membership drive flyers were passed out and explained to the membership.

Copies of the two proposed Section Activities schedules were passed out for membership consideration. After discussion, Glenn Feveryear made a motion, seconded by Dick Rhoat, to bring the matter to a vote. Schedule #2 was adopted, 12 to 1. (This schedule is printed elsewhere in this issue.)

Glenn Feveryear announced "Goddard V", an Open Meet being held by the Garden State Spacemodeling Society (GSSS) in New Jersey. The date of the meet will be March 19, 1989.

The SPAAR Board of Directors election results were announced by John Yost. The Board for 1989 will be: Section Advisor, John Yost; President, George Beever; Vice President, Glenn Feveryear; Secretary/Treasurer, Ed Miller; Member-at-Large, Dick Rhoat.

New section member Jeramie Shaffer was introduced to those present.

George Beever described and reported on his meeting with Mr. Gary Schlegal, Secretary of the Cocalico School District, concerning the Section's use of Cocalico High School. Mr. Schlegal states that SPAAR is welcome to use any school district property, however, it would be very difficult to reserve any area which might contain a softball or baseball diamond, due to the fact that those areas were made for just that. He did state that in the event that SPAAR might host an NAR sanctioned event, arrangements made well in advance might be feasible.

The Treasurer's Report was given by George Beever, indicating a balance in the General Fund of \$157.30.

The membership was informed that copies of the last issue of the Countdown were sent to Kathleen Harrington, Section Activities editor of American Spacemodeling magazine, and to Ken Brown, President of NOVAAR. Plans are to send copies to PULSAR, GSSS, and the Pittsburgh Space Command, the NAR Section in the western part of the state.

Glenn Feveryear described the upcoming February 11 SPAAR Winter Workshop, concerning competition model rocketry. The kits for the "Perihelion", a duration model, will cost \$4.00, payable to Treasurer Ed Miller.

Membership cards were discussed. The members were asked to submit suggestions and ideas by the next meeting.

The following committees were established: Contest & Records (Glenn Feveryear, chairman), Operations (John Yost), Activities (Dale Greene), & Newsletter (George Beever).

The dues for 1989 were collected.

The meeting adjourned at 9PM.

As described above, the GSSS will host "Goddard V", an NAR sanctioned Open Meet, on March 19, 1989, from 9AM 'til dark. The location will be West Branch Park in Sommerville, NJ. Entry fee is \$1 per event, or \$5 for all events. Events scheduled: $\frac{1}{2}$ A Streamer Duration, B SuperRoc Duration, $\frac{1}{2}$ A Helicopter Duration, $\frac{1}{2}$ A Boost/Glide, B Eggloft Duration, B Rocket/Glide, and Predicted Duration. More information will probably be printed in American Spacemodeling. It would be nice to see a group from SPAAR attend, either as contestants or observers. This will be discussed at the February Section Meeting.

COMPETITION ROCKETRY WORKSHOP

The second SPAAR winter workshop will be held on Saturday, February 11, 1989 at the Delta-Cardiff Vol. Fire Co. in Delta PA, from 10:30 AM until 4:30 PM. This workshop will concern itself with the construction of a basic competition model rocket and two different recovery devices. Also, we will discuss the different types of launching devices that can be used to optimize rocket performance.

We will be building a rocket called THE PERIHELION, a proven 1/2A and A class streamer and parachute duration model. Parts from Apogee components will be used.

Each person should bring the following: White glue, your favorite type of cyanoacrylate or super glue or Epoxy, ruler, hobby knife with a sharp blade, pencil or pen, masking tape, 320 and 600 grit sandpaper, sharp scissors and some sort of table cover.

Again, you may bring your own lunch or purchase lunch at the near-by sub shops.

The cost of the kit is \$4.00 each. The section has advanced the money to purchase the supplies so you will need to be sure to pay for your kits through Ed Miller if you have not already done so.

Come prepared to have fun. This will not be an easy workshop, but those in attendance will learn something and have a good competition model for their arsenals.

UPDATED SPAAR RECORD BOOK - FEBRUARY 1989

<u>EVENT</u>	<u>NAME</u>	<u>ROCKET</u>	<u>MOTOR</u>	<u>DATE</u>	<u>DURATION</u>
1/2A PD	Glenn F.	Perihelion	1/2A3-4	10-9-88	105 sec.
A PD	George B.	Mighty Moe	A6-5	8-14-88	40.8 sec.
B PD	Mark S.	Alpha	B6-4	7-3-88	98.4 sec.
C PD	Tim S.	X-16	C6-7	7-3-88	116.3 sec.
D PD	Ed M.	Gone	D12-7	10-30-88	83.7 sec.
1/2A SD	George B.	Turkeybird	1/2A3-4	12-18-88	36.1 sec.
A SD	Glenn F.	Perihelion	A3-4	10-9-88	85.8 sec.
B SD	Glenn F.	Yellow Pencil	B4-4	8-14-88	44.9 sec.
C SD	Dave Bender	Excalibur	C6-7	12-18-88	39.5 sec.
C Eggloft Duration	Glenn F.	Egg Thing	C6-3	10-9-88	156 sec.
1/2A HD	John Y.	Mini Roto Roc	1/2A3-2	12-4-88	42.7 sec.
1/2A BG	John Y.	Gnat	1/2A3-2	8-14-88	48.5 sec.
B RG	Glenn F.	Gull	B4-2	10-30-88	154 sec.

A Welcome to our newest member, Kevin Reichert, Sr., Jonestown, sponsored by Ed Miller. Kevin isn't really a stranger, as he flew with us at Comet Field in August of 1988. We're glad to see you again!

SPAAR MEMBERSHIP ROSTER, FEBRUARY, 1989

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Daniel Yost, NAR 45997
Derek Yost
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Manhiem, Pa., 17545
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Carl Snyder
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Jonestown, Pa., 17038
717-865-4873

COMMITTEES FOR 1989

As mentioned in the minutes of the Section meeting, SPAAR has set up a number of committees for 1989, to assist in the general operations of the Section. Chairmen volunteered for each committee, and members are needed to man them. ALL members are urged to join a committee, and there is no limit to the number a member can be on. Simply contact the chairman indicated.... as it's been said before, it's YOUR Section!

1. OPERATIONS COMMITTEE: John Yost, Chairman. Shall be in charge of the Sections launch range, shall monitor the experimental technical activities of the Section members, and shall act as safety inspectors. The chairman of this committee shall appoint a Range Safety Officer/Launch Control Officer for each Section launch. (Dave Bender has volunteered for this committee.)
2. CONTEST & RECORDS COMMITTEE: Glenn Feveryear, Chairman. Shall be in charge of all arrangements for contests, and shall monitor all national record attempts by members. In addition, the chairman shall correspond with the appropriate officer of the NAR concerning NAR points, standings, etc.

3. ACTIVITIES COMMITTEE: Dale Greene, Chairman. Shall be in charge of making all arrangements for all Section meetings, for conducting membership campaigns, for carrying on public relations, and such other duties as assigned by the Section Board of Directors.

4. NEWSLETTER COMMITTEE: George Beever, Chairman. Shall be in charge of soliciting material from the membership and outside sources for the Section newsletter, and to ensure the timely publication of same. (Ed Miller and Mark Snyder have "volunteered.")

SPORT PLAN FOR FEBRUARY, 1989
 The XR-15, by Rick Hackman, NAR #47559

PARTS LIST (ESTES IND.)

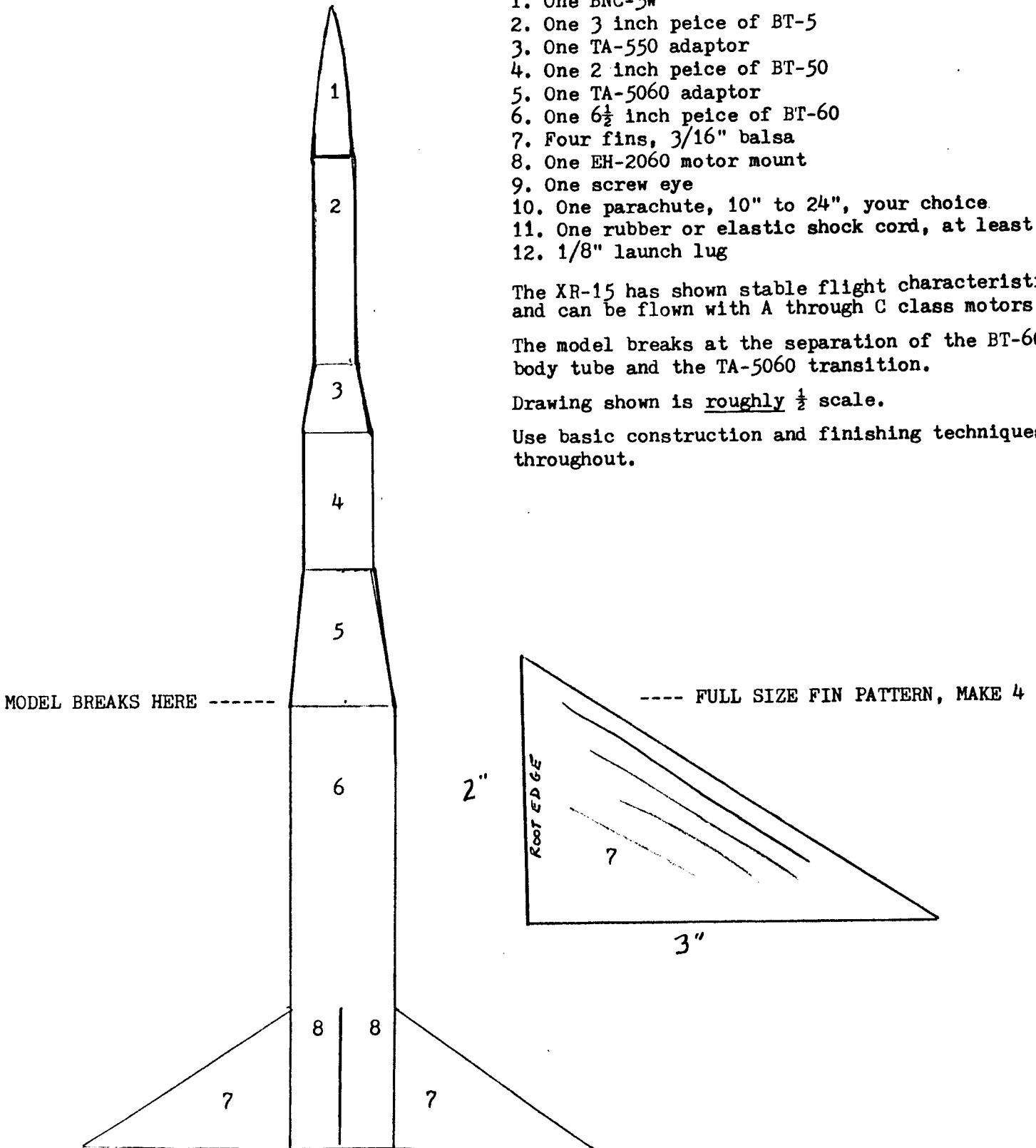
1. One BNC-5W
2. One 3 inch peice of BT-5
3. One TA-550 adaptor
4. One 2 inch peice of BT-50
5. One TA-5060 adaptor
6. One 6½ inch peice of BT-60
7. Four fins, 3/16" balsa
8. One EH-2060 motor mount
9. One screw eye
10. One parachute, 10" to 24", your choice.
11. One rubber or elastic shock cord, at least 16"
12. 1/8" launch lug

The XR-15 has shown stable flight characteristics, and can be flown with A through C class motors.

The model breaks at the separation of the BT-60 body tube and the TA-5060 transition.

Drawing shown is roughly ½ scale.

Use basic construction and finishing techniques throughout.



Build the MINI ROTAROC

Drawn By Tam Pho

For best results keep model as light as possible avoid over finishing.

Recommended engines
A 3-4 T & A 3-2 T
or
1/2 A3-2T

NC-52
Plastic Nose
Cone

3 1/4 in Exhaust ports

3 in. **BT-5**

JT-5C

coupler
inside

12" **BT-5**

MINI-ROTAROC

hinges are attached
to upper RB-52

3 Klett
RK-3 Hinges

120
Top-View
Rotors Folded

3 Rotors
2 holes for elastic
thread which is passed
through body and around rotors

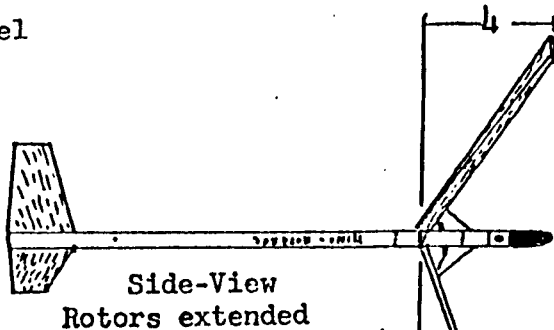
2 1/2

3/4

RB-52
coupler

3 1/8

Side-View Without Rotors



Side-View
Rotors extended

Split RB-52 ring
holds rubber band
in place.

1/8 3/16

cut at 30°
ANGLE
& flip

Top-View
Rotors Extended

12"

1/8 1 3/16

all wood
parts from 1/16
balsa

elastic thread
holds rotors in
position until
ejection.

3 rubber bands
open rotor at
ejection

3 rotor supports
glued to top of
rotors
3/16

3 launch lugs
split in half
and glued to
rotor support

Side-View
Rotors folded

airfoil and sea
fins.

SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY
NATIONAL ASSOCIATION OF ROCKETRY, SECTION 503
SCHEDULE OF EVENTS
JANUARY 16, 1989

JANUARY:

SAT 14 WORKSHOP: BASIC BUILDING AND FINISHING TECHNIQUES
MON 16 SECTION MEETING

FEBRUARY:

SAT 11 WORKSHOP: COMPETITION ROCKETRY
MON 19 SECTION MEETING

MARCH:

SUN 12 SECTION LAUNCH
SUN 19 **GODDARD V, NORTH BRANCH PARK, NEW JERSEY**
MON 20 SECTION MEETING

APRIL:

SUN 16 SECTION LAUNCH
MON 17 SECTION MEETING
SAT 22 **NICE-9, MANNASSAS, VIRGINIA**

MAY:

SUN 7 SECTION LAUNCH
MON 15 SECTION MEETING
SAT 20 & SUN 21 **ECRM-16, MANNASSAS, VIRGINIA**
SUN 28 SECTION LAUNCH

JUNE:

SUN 11 SECTION LAUNCH
SAT 17 & SUN 18 **WUBBA-12, ALLENTOWN, PENNSYLVANIA**
MON 19 SECTION MEETING

JULY:

SUN 2 SECTION LAUNCH
MON 17 SECTION MEETING
SUN 23 SECTION LAUNCH

AUGUST:

MON 7 THRU SAT 12 **NARAM-31, MANNASSAS, VIRGINIA**
SUN 13 SECTION LAUNCH
MON 21 SECTION MEETING

SEPTEMBER:

SUN 3 SECTION LAUNCH
MON 18 SECTION MEETING
SAT 23 & SUN 24 **JOISEE-V, NORTH BRANCH PARK, NEW JERSEY**
SUN 24 SECTION LAUNCH

OCTOBER:

SUN 15 SECTION LAUNCH
MON 16 SECTION MEETING

NOVEMBER:

SUN 5 SECTION LAUNCH
MON 20 SECTION MEETING

DECEMBER:

MON 18 SECTION MEETING

SECTION NEWS NOTES

On January 14, SPAAR's first Winter Workshop was held at the Delta-Cardiff Fire Co., in Delta, Pa. The topic was basic construction and finishing techniques, and in attendance were Dick and Bill Rhoat, Jeramie Shaffer, Dan Weinhold, John, Daniel and Derek Yost, Rick Hackman, and Glenn Feveryear. They heard a presentation by George Beever and Mark Snyder, and then constructed Estes "Wizard" kits. It wasn't the same as a Section launch, but those in attendance seemed to enjoy the talk, conversation, and trading of ideas, and hopefully everyone came away having learned something. The oral presentation was video-taped by John Yost, and is available to SPAAR members who wish to copy it.

Admittedly, a better turnout is hoped for on February 11, when Glenn Feveryear and John Yost will present a Workshop on competition model rocketry. Incidentally, those who indicated that they want one or more of the competition workshop kits, should pay their \$4 to Sec./Tres. Ed Miller, even if you cannot attend the workshop (you'll still get your kit!). Even though it's still winter, it's not too early to start thinking about topics that you'd like to see covered in next winter's workshops. Contact Activities Committee Chairman Dale Greene with your ideas.

Ed Miller advises against using anything more powerful than a $\frac{1}{2}$ A motor in the "Birdie" rockets that he gave out at the last meeting. He says that he recently flew one with an A3-4, and at about 50' altitude it went unstable. Ed believes that the higher speed generated by the A motor collapsed the "skirt" around the bottom of the shuttlecock, causing the problem.

This month's Competition Plan, the Mini Rotaroc, was designed by Tam Pho, and originally published in the NOVAAR Free Press some time ago. It is a scaled down version of the old "Rotaroc" design, for use with mini engines. John Yost has used this model to set the only SPAAR helicopter duration records in existence. The Klett hinges used in the design are available from Sig Manufacturing by mail order, and locally from Smitty's Hobby Shop.

The 1989 Estes catalog was received here on January 31, the earliest it's arrived in recent memory. As with most things, there is good news, and there is bad news. The bad news is that once again, prices have gone up, practically across the board. Some increases are to be expected, but I wish someone would tell me why a Fin Alignment Guide costs \$13.99; or why The Rocket Book, Estes' version of The Handbook of Model Rocketry, even though informative, costs \$16.30? On the bright side, the already limited selection of parts and accessories has not been further reduced; and this year, Estes has managed to introduce some really interesting kits to their line. For the scale or sport/scale fans there is the Titan IIIIE, a 28" tall "D" powered model of the NASA and Air Force satellite launcher, which sells for "only" \$25.99; the IRIS sounding rocket of the 60's, which is based around the BT-50 body tube, and is priced at a reasonable \$5.49. It is smaller than the old Centuri kit also from the 60's, but the streamer provided with the kit should probably be replaced by a parachute. A model with competition possibilities is the Calypso, also centered on a BT-50 tube, and features a boat tail, swept fins, and an ogive nose cone. Remember the "Maxi" series that Estes put out in the seventies? Maxi-Streak, Maxi-Alpha, etc? Well folks, just when you thought it was safe to go out to the launch range again, comes the SUPER BIG BERTHA!!!! This is a scaled UP version of the good old Big Bertha, standing 36.5" tall and weighing 6 oz., and powered by a D12-5. The price, unfortunately, is super big, too...\$21.99. Another interesting new kit is the Tornado, whose recovery system appears to be like that of one of John Yosts' demonstration models, called the Bumblebee or something. The ejection charge separates the rocket into two parts, which spin down independantly. I wonder why Estes doesn't just make a real helicopter recovery model? On the cover of the catalog is the new Strike Fighter, which really looks like the old Star Wars X-Wing Fighter kit, but updated. Estes is trying to appeal to the over 30 first time model rocket beginner, with the "Magnum" Starter set, "especially for mature modelers"; it's about time! One oddity is the Blue Star kit; last year the exact same kit was called the Zipper, and the S.W.A.T. (I'm not kidding) looks strangely familier, too. All in all, there are 18 new kits, and there should be something for everyone!

