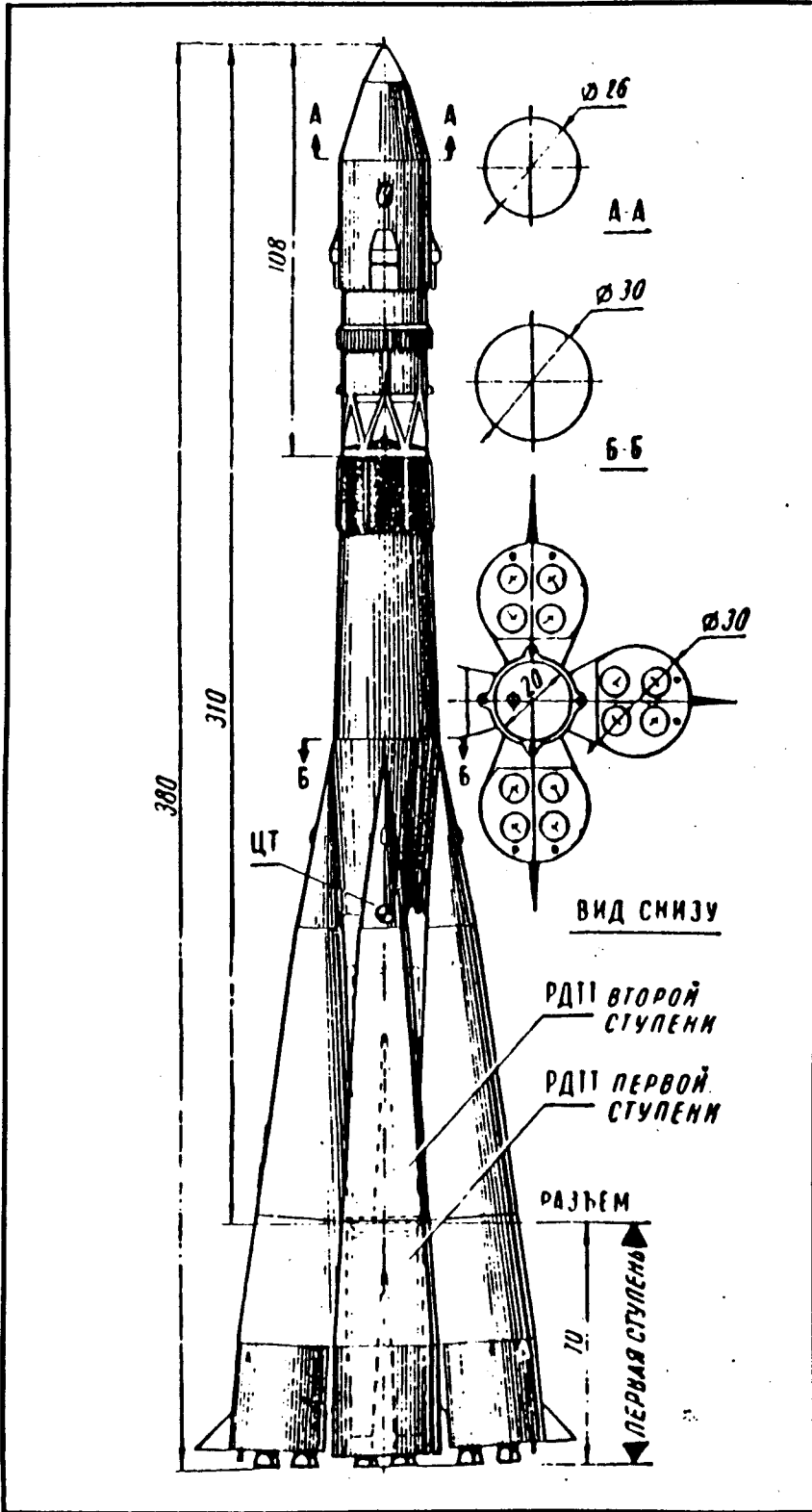


THE SOUTHERN PENNSYLVANIA AREA  
ASSOCIATION OF ROCKETRY

# COUNTDOWN

VOLUME 1

NO.10



This Month:

The Mouth From  
The South!!

COMPETITION  
SCHEDULE

CHEAP ROCKETRY:  
The **PAPER TIGER**  
ODDROC  
PLANS

MARCH 1989

The SPAAR Countdown

Volume 1, Issue 10

March, 1989

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The SPAAR Countdown is the official newsletter of the Southern Pa. Area Assoc. of Rocketry, an official Section of the NAR, #503, and is intended for the enjoyment of it's members.

This month's Sport Plan is an Estes parts version of the Flight Systems, Inc. Viking 1, which is out of production. FSI produced, and still produces a series of kits which use tubes for guidance in place of fins.

The OddRoc Plan is the Paper Tiger, which is the ultimate budget minding rocket; it first appeared in the May, 1975 issue of the Model Rocketeer, a forerunner of American Spacemodeling.

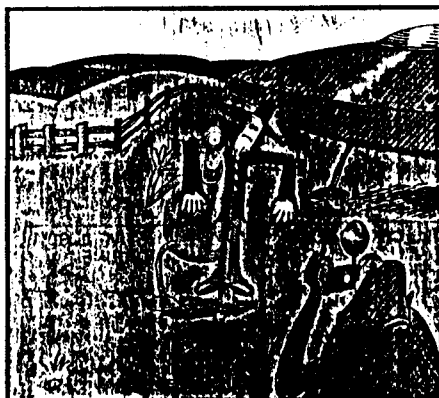
This month's cover: Glenn Feveryear cranked up the infamous Delta-Cardiff Fire Co. computer, and came up with this official-looking letterhead for the Countdown; thanks, Glenn.

The cover itself shows a scale-drawing of the Soviet Vostock launch vehicle, used from 1961 to 1963. This drawing was published in the USSR in the late 60's, and re-printed in the May, 1970 issue of Model Rocketry magazine, another forerunner of AmSpac. So, if you can read Russian, you should have no problem building a scale model of Vostock!

Contributors to this month's madness: John Yost, Glenn Feveryear, & Mark Snyder.

**THE FAR SIDE**

By GARY LARSON



## SECTION MEETING MINUTES

The monthly SPAAR Section Meeting was held on February 20, 1989, at the County Library in Lancaster. Members Present: Ed Miller, Dale Greene, Dick Rhoat, Glenn Feveryear, Dave Wenrich, John Yost, & George Beever (?). The meeting began at 7PM. OLD BUSINESS: John Yost and Glenn Feveryear were thanked for thier efforts in presenting the SPAAR Competition Rocketry Workshop, held on February 11 at the Delta Fire Co.

NEW BUSINESS: Treasurer's Report: Ed Miller reported that the Section has a General Fund balance of \$189.20. He also reported that there were six of the Competition Workshop kits for sale. (These were purchased by various members prior to the end of the meeting).

COMMITTEE REPORTS: Operations: John Yost reports that the club launch system is complete. The system has an eight pad capability, however three pads will be used initially.

Discussion was held on how to "rope off" the pad areas at future launches, as a safety consideration.

Activities: Dale Greene discussed a promotional idea of placing free ads in the WIFF-TV subscriber magazine. The membership urged him to place the ads.

Dale then handed out copies of articles on piston- and zero volumn-piston launchers.

He further advised the membership that his church has a copier which has the capability to copy on card stock. This may be used when membership cards are printed.

Competition: Glenn Feveryear discussed a proposed NAR sanctioned Section Meet, to be held on July 23. Without taking a formal vote, the members present appeared to support the idea, and showed interest. In addition, a name is being sought for the contest. Send your ideas to Glenn. As a prelude to the contest, at least one NAR event will be flown on each Section Sport Launch date. This is to give the members some practice and experience with this type of flying. Participation, of course, is voluntary.

Glenn also stated that he was looking for additional members for this committee. A sign up sheet was passed around to the members present. (Information elsewhere in this issue.)

Glenn also informed those present that he had recently called the NAR offices in Minnesota, with some questions about flight insurance. He was informed that the Section's insurance only covers members during a Section event (ie-a Section Sport Launch), but it does not cover a member flying in another Section's event. For this one must have individual insurance, available thru the NAR.

Newsletter: George Beever reported that the submissions of club members to the newsletter are a great help. He thanked Rick Hackman, Ed Miller, and Glenn Feveryear for thier contributions to the last issue of the Countdown.

OTHER NEW BUSINESS: Mark Snyder, through G. Beever, proposed contacting the NAR for a printout of NAR members in the Northern Maryland/Suburban Baltimore area, to help raise membership.

Dick Rhoat stated that he was contacted by the President of Education & Fun, a retail concern that carries rocketry items, in response to the flyers and cards placed in the Fruitville Pike store.

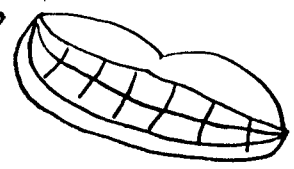
Glenn Feveryear related that he has been getting some response from co-workers, in particular Jim Lytle of Pylesville, Md., who has shown some interest in joining.

John Yost disussed the demonstration request he had recieved from the Cub Scouts. More information on this will be found in this issue.

Ed Miller stated that he has gotten some response from co-workers who may be interested in joing the Section.

George Beever stated that he had sent copies of the Countdown to the Pittsburgh Space Command, NOVAAR, and GSSS. A future copy will be sent to PULSAR in New York. He also discussed having made contact with the owner of Gilbert's Hobby Shop, in Gettysburg, who was receptive to placing business cards in his store.

The meeting adjourned at 9PM.



# The Mouth From The South

-OR-

## FROM SOUTH OF THE MASON-DIXON LINE

by Mark Snyder

(Editor's note - this is the first of what is hoped to be a regular feature of the Countdown; our "farthest South" member, Mark Snyder, hopes to impart some of his vast knowledge in the art of model rocketry on ya'll. And if he can't, oh well, at least we'll have fun.)

If you have found it difficult to get a straight line around a body tube to mask off a section for painting, try this: most kits come with a fin marking guide; if yours doesn't, or you are not building a kit, a 3X5 index card will do. Wrap the guide or the card around the body tube at the point that you desire; tape the card or guide in place, and then draw a line using a pencil around the guide, using it as a straight edge, and then mask with masking tape along this line.

One problem that I've had is how to store my rockets. For awhile, I had stored them in boxes in the back of the basement. The only problem with that is that all of my hard work was hidden away, which in most cases is a good idea if you have seen some of my work. Despite that, I built a stand which turned out to be very easy and very inexpensive. I went down to the local hardware store, and bought a 1" X 6" X 36" board. I measured 3" from the end, and proceeded to glue spent engine casings every 6", until 3" from the other end. Now I can display my hard work for everyone to see, as long as they come into the back of my basement and can get around the empty paint cans and garden tools.

The most important tool that I discovered since I got back into rocketry is a wet rag. Yes, a WET RAG. How many times have you used the Elmer's, gotten glue on your hand, proceeded to look around the room, and then wipe the excess glue on your pants, only to find out when you got up that your pants were glued to your leg? Well, by using a wet rag, you can accomplish several things. First, when working on fillets, you can run your fingertip across the bead of glue several times, wiping your finger on the damp rag to remove any excess glue, and the moisture will create a smoother finish. Second, any excess that has gotten on the fins or body tube can easily be removed with a wipe of the rag. Third, and most important, no longer will your favorite pair of jeans consist of dried glue or several layers of skin when it's time to go to dinner.

From the "Learning the Hard Way" file: **Always** stay with the same brand of spray paint when finishing your rocket, including the final clear coat. You would be amazed at how hideous paints can become if they don't get along well together!

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### COMMITTEE VOLUNTEERS

As of March 1st, our Committee personel looks like this: Competition, Glenn Feveryear and Dave Wenrich; Activities, Dale Greene, Dick Rhoat, and John Yost; Operations, John Yost and David Bender; Newsletter, George Beever, Mark Snyder, Ed Miller, and John Yost. Even if you don't sign up for a committee, your help is needed whenever you can spare the time. Thanks!

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SECTION NEWS NOTES

On Tuesday, February 21, SPAAR members John Yost and George Beever set up a model rocketry display in the front display window at Smitty's Hobby Shop, located in the Manor Shopping Center in Lancaster. The display features assorted models built and flown by SPAAR members, both sport and competition. The object of the display is to help inform the public what model rocketry is all about, and to attract new members to the Section. The set up is the result of the efforts of John Yost, who negotiated with the owner of the hobby shop for permission. Stop by and take a look. Maybe Your local hobby shop would allow the same thing!

\*\*\*\*\*

John Yost has been approached by the head of a local Cub Scout group with the request for SPAAR to put on a model rocketry demonstration to a large group of Scouts on Saturday, May 20. The Scouts will be camping out at Muddy Run State Park on Rt. 372 that weekend. At the time of this writing, John doesn't have all of the details yet, but is asking for all of the help he can get! Keep in mind that this will not take the place of our regularly scheduled Sport Launch, but it would be good experience for club members in putting on a demonstration. Contact John if you can help.

\*\*\*\*\*

Address change: please send all contributions to the Countdown to: George Beever, 129 Ashley Drive, Ephrata, Pa 17522; my phone number is still the same, 733-4170.

\*\*\*\*\*

At the last Section Meeting, Dick Rhoat came up with the idea of compiling a list of hobby shops that carry model rocketry items, or items that would be beneficial to model rocketeers. This list could then be printed in a future issue of the Countdown. To that end, we are asking all members to do the following: drop by your favorite hobby shop or shops, and pickup one of their business cards. The card should have the following information: Name of the store, location, address, business hours, phone number, and owner's name. Find out what rocketry related items the store stocks, and any other important information, such as availability of discounts, etc. For example: Joe's Hobbies, 123 Do-Dad Pike, Lancaster, Pa., ph# 456-7890, 8 Am - 9 PM Mon thru Sat; owner: Joe Smith; carries a complete line of Estes products, some MRC; also carries a large number of brands of model finishing products; 10% discount available for large group purchases. Then, please forward this information to the Countdown; the list will then appear (hopefully) in the April issue.

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Most of you don't need reminding, but the first SPAAR Sport Launch for 1989 is scheduled for Sunday, March 12, at Cocalico High School in Denver, at 1 PM. After a three month lay-off, it's a sure thing thing that everyone is ready to fly some model rockets, instead of just talking about them, hearing about them, or watching video tapes about them! So grab all of those fancy super-doooper jobs that you've been working on all winter, and come on out and show off! Members are asked to be there around 12:30 to help set up, and become familiar with the new club launch system, built over the winter by John Yost, and to help set up the range. If you can't come out early, come on out anyway! Just don't bring any rain or wind!

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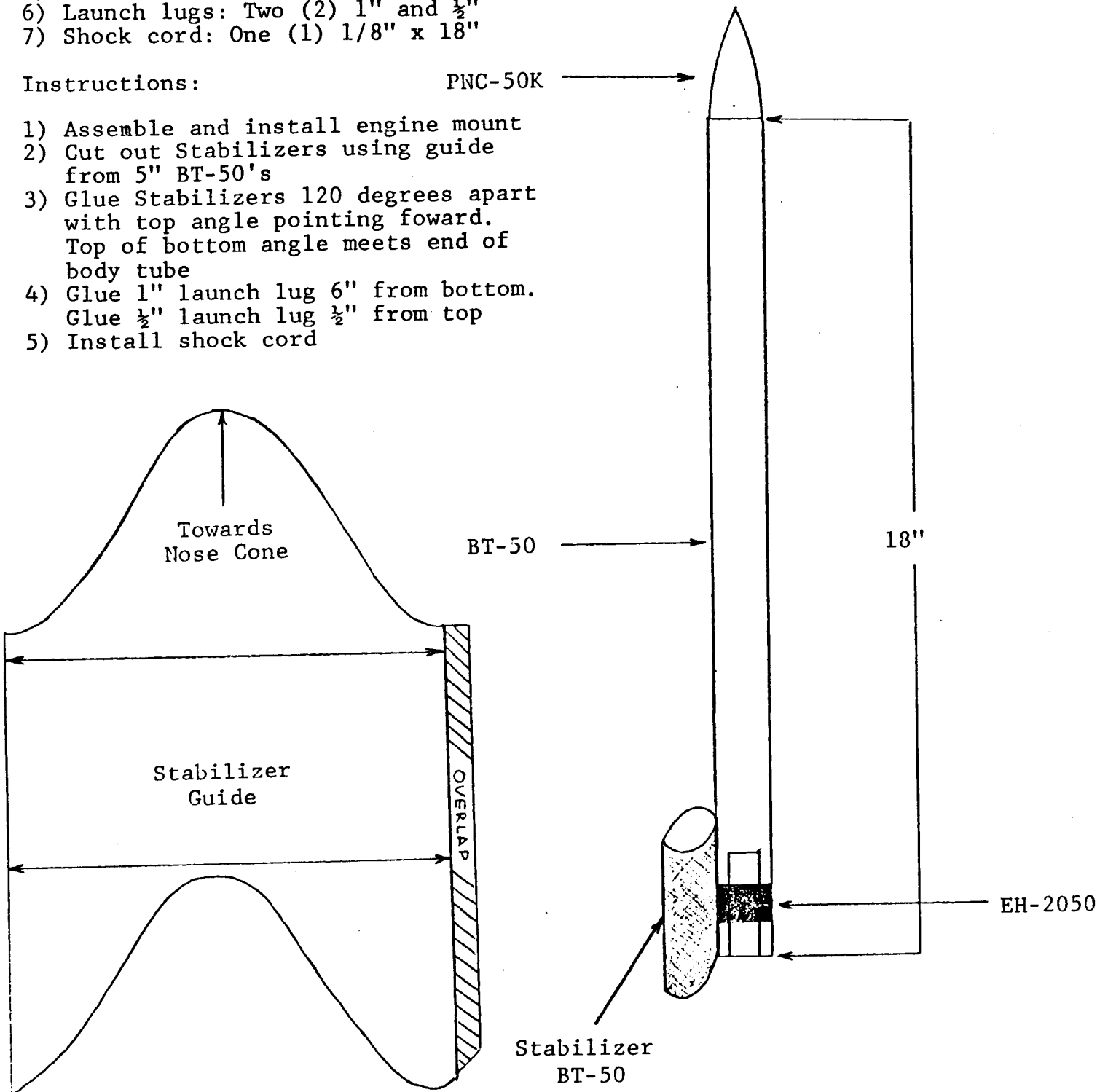
VIKING I BY F.S.I.  
 Out of production model  
 Adapted with Estes parts  
 -Mark Snyder

Parts List:

- 1) Body tube: One (1) 18" BT-50
- 2) Stabilizers: Three (3) 5" BT-50
- 3) Nose cone: One (1) PNC-50K
- 4) Engine mount: One (1) EH-2050
- 5) Parachute: One (1) 12"
- 6) Launch lugs: Two (2) 1" and  $\frac{1}{2}$ "
- 7) Shock cord: One (1)  $\frac{1}{8}$ " x 18"

Instructions:

- 1) Assemble and install engine mount
- 2) Cut out Stabilizers using guide from 5" BT-50's
- 3) Glue Stabilizers 120 degrees apart with top angle pointing forward. Top of bottom angle meets end of body tube
- 4) Glue 1" launch lug 6" from bottom. Glue  $\frac{1}{2}$ " launch lug  $\frac{1}{2}$ " from top
- 5) Install shock cord



March 25, 1975

NAR Plans Editor:

Enclosed are the plans for an ultra-low cost rocket made of paper, cardboard, clay and string that I use with my science students to get them to learn the Metric system.

For fun I entered it at the M.I.T. convention this past week and it took 3rd. prize in original, flying, "design" category.

Sincerely,  
Peter Galindez,  
Science Dept., Suffern High School, N.Y.

The

# PAPER TIGER

A LOW COST TUMBLE RECOVERY BIRD  
FOR FUN FLYING, AND CLASS RESEARCH.

Mom and Dad may have had their paper airplanes, but the space age generation has its own thing, the "Paper Tiger" model rocket.

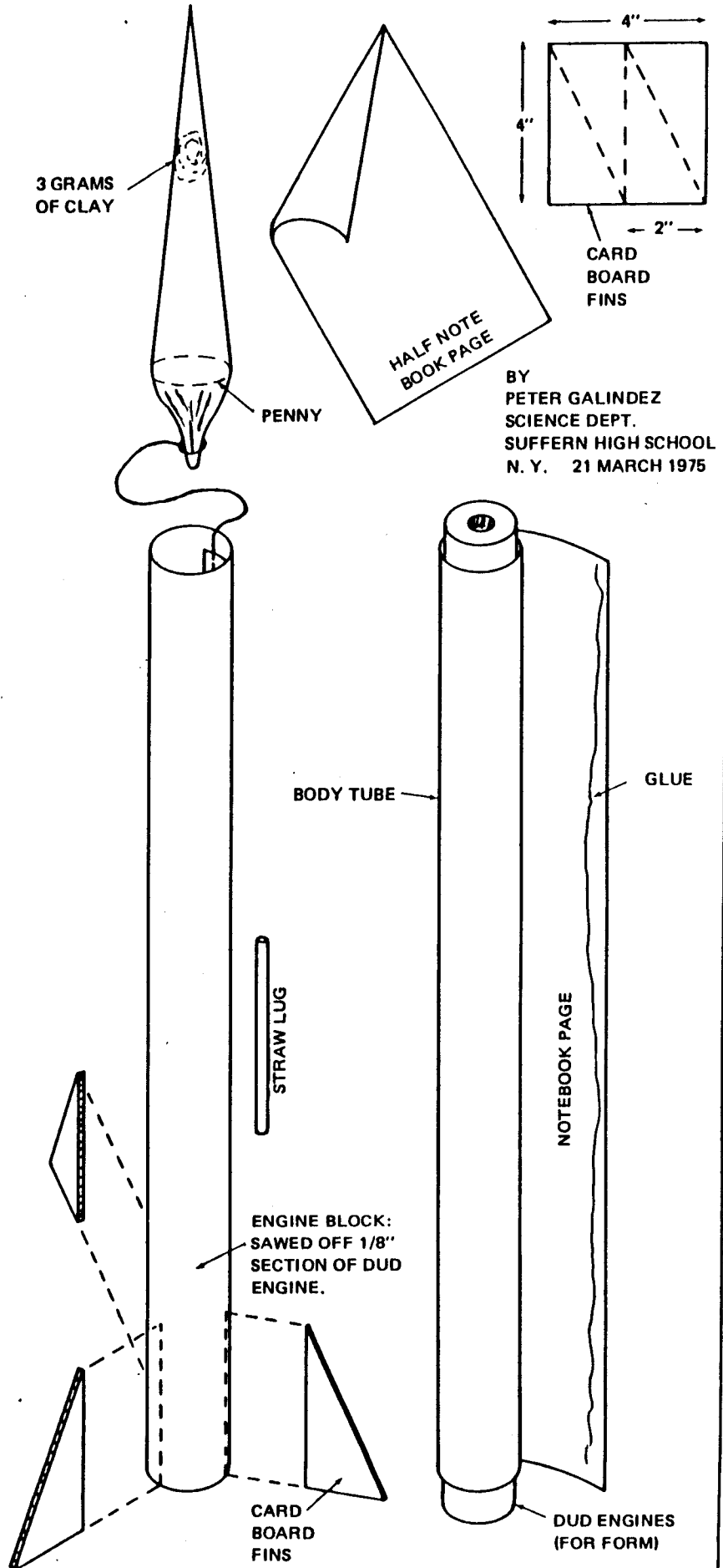
It's an easy-to-build, low cost (or no cost) bird that can be a swell hobby or science class project. She's matchless in the durability and versatility department. After a 200 foot swan dive into the pavement, she will fly again and again and again, even though her appearance would make the "R & D" boys at Penrose, Colorado shudder in disbelief. And she grabs altitude with any engine from 1/2A6-2 on up.

Aerodynamically (though not aesthetically) she is designed to fly. Her center of gravity is well ahead of her center of pressure, with her streamlining left to the "Model T" school of design.

Construction is simplicity in itself, and may be accomplished within 2 hours.

So, grab your cardboard, notebook paper, string, tape, scissors, Elmers glue and penny (don't forget the penny—it puts your CG where it needs to be for stability), and get going!

With reasonable care in construction, you may be surprised by the startling performance of that sky streak known as the "Paper Tiger".



BY  
PETER GALINDEZ  
SCIENCE DEPT.  
SUFFERN HIGH SCHOOL  
N. Y. 21 MARCH 1975

## SPAAR TO HOLD A SECTION MEET

At the Section meeting that was held on February 20, the members present approved of an idea put forth by Competition Committee chairman Glenn Feveryear to hold an NAR sanctioned Section Meet. The date selected for the Meet is Sunday, July 23.

The events selected for the Meet are:  $\frac{1}{2}$ A Parachute Duration,  $\frac{1}{2}$ A Boost Glide Duration, A Streamer Duration Multi-Round, C Eggloft Duration, B Streamer Duration, B SuperHoc Duration, and Predicted Duration.

As a prelude to the Section Meet, one or two NAR contest events will be "featured" at every SPAAR Sport Launch, beginning with the launch scheduled for Sunday, April 16. These featured events, as well as information on other area model rocketry meets are listed on the Competition Schedule found elsewhere in this issue. The "featured" events are intended as "practice" for the Section Meet, and to give the members some idea of how competition rocketry works. These featured events, as well as the Section Meet, are of course completely voluntary. In addition, sport flying is encouraged at all times, even during the Section Meet on July 23.

Details of the meet will be forwarded as soon as they become available. If you are not familiar with these events, it is suggested that you read your NAR "Pink Book", and become familiar with the rules of each event. If you are not an NAR member and do not have a "Pink Book", contact a member who has one, and go over the rules. Or, you could join the NAR and get your own copy of the Pink Book; you could start asking questions of other SPAAR members, as the only stupid question is the question not asked. In short, the whole idea behind this is to foster good natured competition, have fun, and create a learning experience for all members.

One of the things that is needed before the NAR will sanction the Meet is a name. Remember "UNCLE - 1", for Un-Named Club Launches Eggs? Pee-Yew! We have to do better this time around. Use your brains, come up with some ideas, and send them to Glenn Feveryear, RD#1, Box 1-C, Delta, Pa., 17314. Sorry, there won't be a prize for the winning entry this time around, just Glenn's undieing gratitude for getting him off the hook.

Look for a more complete explanation of each event in future issues of the Countdown, including some suggestions on strategy and models to fly.

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### THIS 'N THAT

In mid-February, we recieved a letter from Art Nestor, Treasurer and former President of the NAR Section in the western part of the state, called the Pittsburgh Space Command. Art states that they have about 25 active members, and things are going fine out in their part of Pennsylvania. He congratulates us on getting an NAR Section going here in this area, and it is hoped that sometime soon, both Sections can get together for some flying.

Art enjoys flying his AstroCam-110, and if you look in the 1989 Estes catalog you will see some of his work; those are Art's photos on the page that features the AstroCam-110. Congratulations, Art!

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In early March, Section Advisor John Yost received a letter from Ken Brown, President of NOVAAR, the Northern Virginia Association of Rocketry. Ken also congratulated us on getting off the ground. In his letter, he also mentions that he has a quantity of old CMR RB-50 and RB-52 body tubes for sale, 25¢ for a 24" tube, maximum of 150 tubes, plus \$5 for shipping. CMR, Competition Model Rockets, was a Virginia-based concern that went out of business in 1987, and specialized in parts and accesories in the competition feild. RB-50 was a BT-5 size tube, and the RB-52 was just a little bit larger, allowing it is slip over the RB-50. John states that he is not sure if these tubes are available to individuals at this price, or to the Section; John will provide more information as he gets it.

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SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY  
NATIONAL ASSOCIATION OF ROCKETRY, SECTION 503  
COMPETITION SCHEDULE  
FEBRUARY 17, 1989

APRIL:

SUN 16 SECTION LAUNCH  
A STREAMER DURATION, MULTI-ROUND  
SAT 22 \*\*NICE-9, MANNASSAS, VIRGINIA\*\*

MAY:

SUN 7 SECTION LAUNCH  
C EGGLOFT DURATION  
SAT 20 & SUN 21 \*\*ECRM-16, MANNASSAS, VIRGINIA\*\*  
SUN 28 SECTION LAUNCH  
1/2 A BOOST GLIDE DURATION  
B SUPERROC DURATION

JUNE:

SUN 11 SECTION LAUNCH  
1/2 A PARACHUTE DURATION  
B STREAMER DURATION  
SAT 17 & SUN 18 \*\*WUBBA-12, ALLENTOWN, PENNSYLVANIA\*\*

JULY:

SUN 2 SECTION LAUNCH  
PRECISION DURATION  
SUN 23 SECTION MEET  
1/2 A PARACHUTE DURATION, 1/2 A BOOST GLIDE DURATION  
A STREAMER DURATION, MULTI-ROUND, C EGGLOFT DURATION  
B STREAMER DURATION, B SUPERROC DURATION  
PRECISION DURATION (Predicted Duration)

AUGUST:

MON 7 THRU SAT 12 \*\*NARAM-31, MANNASSAS, VIRGINIA\*\*  
SUN 13 SECTION LAUNCH  
C SUPERROC DURATION

SEPTEMBER:

SUN 3 SECTION LAUNCH  
B EGGLOFT DURATION  
SAT 23 & SUN 24 \*\*JOISEE-V, NORTH BRANCH PARK, NEW JERSEY\*\*  
SUN 24 SECTION LAUNCH

OCTOBER:

SUN 15 SECTION MEET

NOTES:

ALL EVENTS PRIOR TO THE DATE OF SCHEDULED NAR  
SANCTIONED SECTION MEETS WILL BE FOR PRACTICE, OPEN TO ANYONE  
WHO WISHES TO PARTICIPATE. HOWEVER, THEY WILL BE CONDUCTED  
UNDER THE RULES FOR THAT EVENT AS DESCRIBED IN THE SPORTING  
CODE.

