



Vol. 5 No. 7

JULY 1970

CAPITOL AREA REGIONAL HELD

The first Capitol Area Regional was held on 11-12 July 1970 and ran very well. Due to the relatively small number of contestants (60-65), the atmosphere was relaxed and the meet ran smoothly. The only hold-ups were caused by too few people going through the check in line.

The NARHAMS, Rock Creek, Robert H. Goddard, NOVAAR, Rockville Rocketeers, Wheaton Rocket Association, MARS and SMART sections competed in Class 1 P/D, Swift B/G, Sparrow B/G, Design Efficiency, Egg Lifting and Parachute Spot Landing. They compiled 2154 total points broken down as follows:

NARHAMS - 675
NOVAAR - 386
Rockville Rocketeers - 264
RobGod - 249
Wheaton - 216
MARS - 192
Rock Creek - 112
Smart - 60

Aside from a moderately strong wind, the weather was very good, but even with the sun shining, tracking was not exceptional. For once this was not the fault of the scopes or of the trackers. The scopes were set in line with the wind and the birds arced right over Tracking West with painful regularity.

Doug Dotson put up an outstanding flight in Class 1 P/D. His 'chute caught a stationary thermal over some nearby trees for about six minutes, then slowly drifted to earth not far from the flying field after $7\frac{1}{2}$ minutes in the air. That should be good for a record if he decides to file for it. Other

NATIONALS INFORMATION

From Dick Sipes, the contest director, we hear that about 200 people have applied to NARAM-12 and none will be turned down since Dick was planning for closer to 300. Acceptance packets should be out by the time this goes to press (ditto). Dick said that NARAM-12 will have contestants from every state in the continental United States.

See you at Houston.

INTERNATIONALS NEWS

Most of you know that the international model rocket competition will be held this year. It will take place on 21-25 September in Vrsac, Yugoslavia (pronounced vershatz). NARHAMS is lucky enough to have two of its members going (which means that ZOG will carry coverage of this important event).

Jim Kukowski, former Executive Director of the Association, will be competing in the FAI boost/glide event (our Swift class) against the toughest builders there. The Europeans are known for their glider prowess. Casey has been diligently testing out all types of glider designs, ranging from the MANTA to the Thermic, in styrofoam and balsa. He expects to go with more than ten gliders for all kinds of conditions. Remember this is only for one event.

Paul Conner, one of the clubs charter members will fly FAI Parachute Duration for the U.S. team (our Class 1 P/D). Paul seems to be an advocate of the high performance, reduced capacity model for P/D, however he can pack a 64" parachute into twelve inches of the smallest of Howard Kuhn's body tubes. Paul will be ready with seven to ten models for all conditions also.

The latest news is that the team has raised the necessary \$2500 to send them there and back at no personal cost to the team members. It is time to show that the people who developed model rocketry are still the best at it. Best of luck (though they don't need it) to our U.S. team.

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CALENDAR

July 24 - Regular Meeting, Chevy Chase

August 1 - Monthly Launch

August 7 - Regular meeting, C.C.

August 17-21 - NARAM-12

August 21-Regular Meeting at
Kensington Park

September 4 - Regular Meeting, C.C.

September 11-13 - TRI-SEC-2

September 18 - Regular Meeting, K.P.

October 2 - Regular Meeting, C.C.

October 16 - Regular Meeting, K.P.

October 30 - Regular Meeting, C.C.

November 13 - Regular Meeting, C.C.

November 7 - Monthly Launch

November 27 - Workshop (ptba)

Note: Add monthly launches on September
5th and October 3rd.

TRI-SEC 2

TRI-SEC 2 will be held on September 11 to 13, 1970. This contest may be heralded as the Eastern Nationals, as about fifteen sections ranging from Maryland to Connecticut are expected to send contestants. The field will be the Sand Pits Launch Facilities, on Rt. 13 just before the over pass leading to the Delaware Memorial Bridge. This is the standard Gemini Section field. Housing will be at the Skyway Quality Courts Motel on Rt. 40 at the Greater Wilmington Airport. Because of the limited number of rooms available (Delaware is a small state) contestants will four to a room with two double beds at \$4.50/night.

The events will be:

- 1 Class 0 Altitude
- 5 Class 1 P/D
- 4 Eagle B/E
- 2 Open Payload
- 3 Scale

flown in that order. Note that in the new pink book (which will be in effect at that time) Open Payload uses only

two payload weights (still unlimited power). The other events are unchanged. The entry fees are unknown as yet. Entry forms will be distributed at the 24 July meeting. Otherwise call Jim Barrowman for one.

BOOK BEAT

(this feature to be continued whenever the editor finds time to read another book or the like)

Rocket Manual for Amateurs, Capt. Bertrand R. Brinley. 1960 by B.R. Brinley
Ballantine Books - 75¢

This may seem to be, at first look, an invitation to disaster, i.e. describing a book on zinc&sulfur pipe rockets in a model rocketry pulp. It is an effort to be open-minded.

The Manual is a well-written book describing the SAFE practise of amateur rocketry. It is necessary to distinguish amateur rocketry from basement bombing. The amateur Rocketeer takes extreme safety precautions to prevent his own injury and damaged to the property of others. The basement bomber rambles haphazardly through his experiments with little guidance. Amateur rocketeers always work in small groups.

Even if you have absolutely no interest in amateur rocketry, the book is definitely worth reading for its excellent sections on propellants, grains, nozzles and motor design. It is about high school senior level in the technical parts. Many of the "gadgets" described therein are applicable to model rocketry.

It is slightly behind in its non-recognition of Jim Barrowman's work in linearizing the static stability parameters, but more than makes up for it in the discussions of how rockets work (quantitatively). It does, however, have a short how-to-do-it section on making a rocket by stuffing a CO2 cartridge with zinc and sulfur.....

Bruce Blackistone will not be at NARAM-12; he is in Marine boot camp (as ROTC).

CAR cont.

good flights were put up by Bill Leary and Howard Kuhn. Bill had over six minutes on the watches but could not return his rocket. Howard Kuhn chased his bird for longer than he would like to think about, then watched it drift into a restricted area.

In Swift B/G, Bruce Blackistone, now flying as a Leaden team with Pam Smith, flew a Valkyrie to another first place. Though not the prettiest glider around, it has an uncanny number of victories to its credit in the Leader class.

Guppy, now of NARHAMS, launched a well done swing wing with a Jedelsky airfoil. It had an estimated 16" extended span with a $1\frac{1}{2}$ " chord and was very light. (Note: A Jedelsky Airfoil, named after the man who thought it up, comprises two pieces of wood, glued together and braced externally into an undercambered airfoil) Swing wings and flop wings seem to be getting popular. Jeff Forden had a flop-wing thermic-type glider which flew well but didn't flop likewise. These dynamic winged models have the advantages of low drag under power and minimum arcing due to lift.

Howard Kuhn flew a new type MANTA that pops in Airfoil when it pops off the pod. This put in a fair flight, exhibiting a good steady glide in the wind but a high sink rate. Upon recovery, the glider was found to have about 30% of the wing area burned away by the engine. How many other gliders could go through that and still glide at all?

Egg Lofting was held with a 20 n-sec total impulse limit, but altitudes still ran over 400 meters. This is phenomenal performance considering the $2\frac{1}{2}$ ounce egg and large frontal area. Recalling a previous ZOG 43, those are drag coefficients around 0.2!

Final results are:

Junior - Doug Dotson.....126 pts.
Robert Thompson...102 Pts.

Leader - McMullen-
Kennedy.....117 pts.
Blackistone-
Satth.....114 pts.

Senior - Howard Kuhn.....123 pts.
Don Larson.....84 pts.

NEWLY DISCOVERED PRODUCTS

Jim Kukowski was at Hobbies and Arts at Wheaton Plaza, talking to Jerry Trager, the proprietor, when he noticed a package of wood hidden under the counter. Being a confirmed glider-buff (Jim will be competing in B/G at Vrsac remember) he asked to see it and was rewarded.

The package is called 2x4 for Plates and is meant as $3/4"$ - $1"$ scale 2x4 for constructing model homes. It is, in fact, $1/8" \times 1/4" \times 24"$ spruce in a 24 piece package selling for 80¢. It is manufactured by Loma Linda Industries. For those who can't find it in their hobby shop, their address (LLI) is 1021 Rose Lane, Montrose, Colorado 81401.

Of the pack I picked up, 3 or 4 of the pieces were badly hewn and unusable except for special ideas, but this still saves more than 50¢ off of the piece-spruce price. The rest of the wood was well-cut, though one has to pick which pieces to use for each part of the glider as some were stiffer and dryer than others.

Rocket Equipment Company, of 10 Mulberry Ave, Garden City, New York 11530 announced a set of six color slides of the USSR "VOSTOK" launch vehicle. The set consists of a good rear view of a Moscow display vehicle and a five slide series of a Vostok taking showing "the green paint color and white frost" and "details of the large hold down arms, launch tower and pad area". The slides are priced at \$1.00 each or all six for \$5.00 (postpaid). A SAE will bring a complete catalog of REC's other slides.

A new, reduced cost (nothing is really low-cost any more) spray gun outfit is available. It's the Miller M-2000 spray painting set. I comes complete with a compressor, three good-sized paint jars, two nozzles, a ten foot hose and a one year guarantee. The amazing thing is its total price of \$29.88 plus tax.

The compressor is about $8 \times 5 \times 8"$ and is $1/8$ horsepower electric motor powered. There are many accessories for this set too many to list. It is versatile and looks like a good buy

EDITOR'S END

No one can be Communications Committee chairman forever. It is now my turn to leave the job as I head off for college, as did my predecessor.

My two years as Communications Committee chairman and, moreover, as editor of ZOG 43, have been challenging and very rewarding. I have seen and helped the club grow. To those for whom it will mean anything, when I begin to write ZOG, we were still a mostly 10000 and under club.

Writing a club paper for two years gives one a unique opportunity to look back and see how you and those around you have changed. Many people once thought of as forever hooked on model rocketry have quit. New friends joined to take their place. Even the writing style is different from Volume IV No. 1.

My editorial policy has been somewhat harsh. This is partly because I got riled very easily and partly because I enjoyed the responses they brought, and they did bring some responses.

Volume 5 Number 7 will be my last ZOG 43, though a roster may still get pushed before September. No one has definitely been chosen for the post, so after NARAM-12, address everything to Jim Barrowman. I will keep in touch and my address at school will be printed as soon as I can get it in. Until then I remain incognito.

My thanks go to Bruce Blackistone, who, through dope and balsa, always managed to somehow get Attila to me.

They were two good years.

See you at NARAM.

Andy Elliott

LETTERS TO THE EDITOR

I would like to use this space to apologize to Harry Stine, who wrote me a very good letter in rebuttal to my editorial on plastics. I lost the letter (I really did.) Sorry, Harry.

NARHAMITE OVERSEAS

As you know (that phrase comes up a lot) Dirty Danny O'Steen, the Taiwan Terror, is in Taiwan. He is still requesting that people send him some correspondence. Get those cards and letters going to:

Danny O'Steen
c/o FABAT Box 192
San Francisco, Calif. 96290

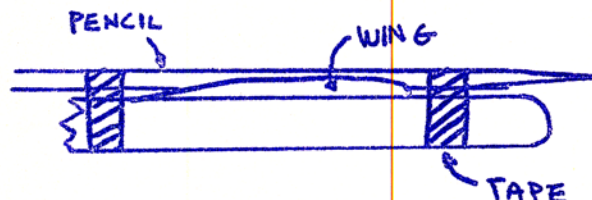
Send them airmail please.

STOLEN COPY

Have you ever read, very carefully, the last sentence in Rule 13.1 of the Pink Book?

To hold a pair of glider wings on a glider boom while gluing, try taping a pencil over the wing to hold it in place. I've used this method on several gliders and it works quite well.

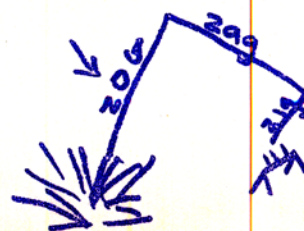
(Missile Epistle, I-3, NARCAS)



(note: Bruce Blackistone decided he would clear up the unclear matter of the meaning of ZOG. Thanks to Bruce, the meaning is as clear as mud, but it works the ground. Editor)

The question of "What the ---- is a ZOG?" has been on everybody's mind for over a year (5 years) now. The answer is so simple it has eveded our superior intellect. It is simply the movement a rocket makes related to a zig or a zag. The ZOG is not the power prang itself, but the motion that throws the rocket into the prang. (See Below).

(ZOG 43 Vol. 2 No. 2)



YOU ARE
NOW LEAVING

CAMP

COME
AGAIN

QUAINTICO

HONESTLY FELLAS,
YOU CAN'T TREAT ME
LIKE THIS! I VOLENTEERED!

