





Volume 6

Number 4

GALA ISSUE 1970 CHRISTMAS

#### MEETING DATES AND LOCATIONS

Paul Conner, NARHAMS president, was finally able to locate metting rooms for the next few meetings:

18 Dec 1970 Kensington Park Library

8 Jan 1971 Chevy Chase Library

22 Jan 1971 Chevy Chase Library 5 Feb 1971 Chevy Chase Library

19 Feb 1971 Kensington Park Library

5 Mar 1971 Chevy Chase Library 19 Mar 1971 Kensington Park Library

2 Apr 1971 Chevy Chase Library

16 Apr 1971 Kensington Park Library

30 Apr 1971 Chevy Chase Library

14 May 1971 Chevy Chase Library

28 May 1971 Chevy Chase Library

11 Jun 1971 Chevy Chase Library

25 Jun 1971 CChevy Chase Library

Meetings start at 2000 hours,

## 4GAMST THE FUNNY MEE

In the December 1970 issue of Hodel Rocketry magazine, a "funny Leet" was described. This meet was one where rocketeers flew events in complete opposition to the Pink Book rules. A few typical models were shown in photographs. These models were essentially GARBAGE.

Such contests are completely against the fundamentals of the MAR. The MAR is supposed to help improve the workmanship and design of rockets, by holding competitions. At the "Funny Meet", the participants intentionally build trashy and probably unstable rockets. Thus my main point: the main purpose of the EAR is to stress safety. Here, MAR members gathered to fly models which they had no idea sabout the stability. Also the idea continued on Page 4

5, the annual NARHAMS regional will be held on 16,17,18 April 1971 at Camp A.P. Eill, Virginia. The meet is open to anyone. The events are:

> Scale B/G Swift R/G Hawk B/G Class 1 Parachute Deration Class 2 Streamer Duration

Parachute Spot Landing

Application requests must be postmarked no later than 15 January 1971. Bulk requests must be accompanied by a list of names, addresses, and MAR numbers of those wanting applications.

Contact Doug McMuller 7008-23rd Place Hyattsville, Maryland 20783

or Jim Barrowman 6809-97th Place Seabrook Maryland 20801

RHALS and SSB members stuffed all those renewals that were received by MAR members recently. At the regular meeting on 4 Dec. 1970 the NARHAMS section stuffed and sorted renewals until we ran out of several things. And on 6 Dec. 1970, 15 LARHAMS and

four SSB members gathered at (invaded?) Jim Barrowman's house to stuff and sort the remaining ap lications. We worked from 13:00 to 16:00, when we stopped to have a home cooked chili and hot dog dinner, cooked by Judy Barrowman, and watch the Redskins get creamed (too bad, Paul). We finally got back to work at 17:30 and continued to work antil 20:00, when we finally finished. (It almost finished us!)

THAT NAME

Due to continuing requests, the ZOG ed once again presents an explanation of where the name "ZOG 43" came from:

Would you believe that ZOG-43 actually means something? It all started with ole Ed Peurson, who was the NARHAMS first president. He lives at 43rd Avenue and the last two digits of his phone number are also 43. Ed became suspicious when he saw the number 43 in other places too. Do you remember the TV jingle "You get 43 beens in every cup of .... " (The name of the coffee company has been deleted because they did not pay for advertise. ing). He also noticed 43 in drug stores and many other places. The number 43 was interesting to Ed, but due to research into the origin of ZOG-43 by our research staff, we bring you the latest in ZOG-43 derivations.

"43" is a phenomenal astronimical term. The entire term ZOG-43 was presented as a possible name for the section newspaper and won the vote because of its clever and paradoxical ring of nothingmess! The word or term was a mystery to Ed, who invented the term. He said that it doesn't mean a thing, and that is the beauty of it.

But would you belive that ZOG is a handy abbreviation for a well-known rocket term. This term is known today under a different abbreviation. Well it's true! Doug Frost was only one of many who heard the late Dr. Willy Ley (the vice president of the German rocket society until World War II) explain at NARAM-6 that the problem with the German V-2 was its' "divviculties with its Zenter of Gravity"!

Another explanation of the term "ZOG", the more common one, is shown in the drawing below. Thus:

A ZOG is the third and final step of a prang.

Zog is also the name given to the NARHAMS President, particularly during elections. (And therefore the V.P. is called Vice-ZOG.)

Clear as mud, huh?

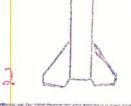


#### SCALE SERVICES

For a very minimal fee, Scale Services will find all sources of data available for your model.

We will also send for your data from the manufacturers which we have found for an extra few pennies.

Doug McMullen
422-7652



## PLASTICS-GOOD OR BAD

As with any question today, the answer to this one is not a simple yes or no. The outright positive or negative to this wide open field is not possible. So lets be a little more specific.

Plastic materials have been used almost since the beginning of the hobby. Model Missile's sold plastic mose cones and fin units. Centuri and Estes later on used plastic to make parts for their scale kits.

hore recently. Competition Model Rockets has marketed some highly sophisticated nose cones, fins (individual) and egg capsules made from plastic. All of the above have been veneficial to the hobby and can be used with some success and without an increase in the hazards in the hobby.

But recently two major companies
(M.P.C. and Cox) have been selling
ready to fly or almost ready to fly
rockets that do increase the overall
hazard of flight. These vehicles are
almost entirely made of plastic and
by one of the heaviest techniques,
injection molding. These rockets
- continued -



A STUPIDITY OF DEMON

### ASTATISTICAL ANALYSIS OF R+Ds

#### ABSTRACT

To determine just where, how, and when our hobby is going. Furthermore, to establish a feference for cool and scientific looking equations to write on the blackboard and to impress your Math teacher with.

I first reasoned that human behavior, like everything else, can be expressed in a series of mathematical statements. This can be done when a pattern emerges. Getting back to our original purpose, model rocketry is progressing toward simplicity(example, more math). To trace this devlopment, consider my first rockets. Iused what I now call Paul's Probability Pertubations. If I went to great great lengths to make a rocket stable, I would say "Well, its got a mess of fins and the engine is pointing down. What more could you want!" Here the randomness (or entropy) was greatest. Later (much later) stability was assured by saying, "It balances a little in front of the fins, it must be stable." (Beginning to sound familiar?) Don't get the idea that just saying it like a magic incantation would make a rocket built by the P-cubed (Paul's Probability Pertubation) method stable. It had to be true.

Later still, when a few pioneers (like Bob Singer-sorry, for getting you involved in an article like this, Bob) started to design for efficiency, the double elliptical fins were born. (Remember the song "M-I-C-K-E-Y-M-O-U-etc."?)

Now, skipping recent developments like the Barrowman CP Method, the Malewicki performance graphs (secretly called the handy-dandy secret code and mind-mixer-upper book) and other cool stuff like \$-1/0 (thanks, G.Harry, I liked that article and it helped my theories) and on tog the most recent Barrowman Brilliancy (B?), elliptical fin equations! (see ZOG43, vol6 #2)

#### Conclusions

Now I come to the reason for writing this. It's so I can get my first law printed. I logically call it Forden's First Law. And here it is: There is an

equation for everything, and everything there is an equation. And my second law called Forden's second law is:

(continued in next column)

EGG

High quality, low weight balsa egg compartments made to your specifications. Satisfaction guaranteed Minimum cost \$1.00.

Contact Doug McMullen

422-7652

(R&D-continued ....)

Every equation has a parpose, and every purpose has at least five equations All responses, bombs, threats, etc., are welcome. Write to: 7402 Glenside Dr. Takoma Park, Md. 20012

> ---GEOII Forden HAR 6907 JNR

Plastics-continued from page 2 in their ready to fly state are very heavy by todays standards, and are a much harder material, also, they are very fragile. They are in some cases tougher than their paper and wood counterparts, but due to their heavier weight they break very often even on grass. The worst danger is their ability to do damage. I have seen paper and balsa models strike cars and other objects (including people) without any apparent damage, but I have seen two all plastuc models strike cars and do quite a bit of damage. I would not have liked to have been hit by one of these vehicles fpr I would have been severly injured.

In my opinion, plastics have a definite place in our hobby, but completely plastic vehicles present a greater than acceptable danger, at this time, at the Pink Book

revision meetings I was glad to see Plastic Lodel discussed at great length, and put in its proper place. In my opinion, completely plastic models should be banned from competitions of any type. I hope that no accidents occur during this present period of experimentation that will jeopordize the hobby as a whole.

-Paul Conner

The above is an editoial, and the opimise expressed within are those of the sathor, and don't nessicarily

reflect club nolling

# LEAD CONSTHE

#### BY BALLISTIC AERO-MODELING



SUGGESTED COLOR

NEW, FROM B.A.M., A
MULTIPLE PAYLOAD (M.LR.V.)
ROCKET. THIS ALL PLASTIC
COMPETITION ROCKET REGIRES
ONLY 2HANDS AND TO SECONDS
TO BE READY TO FLY AND
HAS THE ABILITY TO CARRY
6 MAR. THYLOAD WELD UTS
SHATTER YOUR FRIENDS BY
BLOCK TO GET ONE.

CANONILY BE SENT BY TO THE PORT FILE

Beware of the BLACK MONOLITH MONSTERS!!

# BITS AMD



According to the BERS MODROC FLYER:

G. H. Stine and his colleagues have put together another model rocket organization in the mad, mad, mad, mad world: the IPRS. Lamely, the International Plastic Rocket Society. Members can be identified by a 3" diameter protest pin on their body. We aren't exactly sure of the purpose of the new organization, but we feel safe to guess that it is on the same line as the now infamous IMARHULS (yeah us!), Royal Order of Buzzards and Ravens.

Actually it's amazing: about 20 EAR members showed up at Jim Barrowman's house to spend most of a Sunday stuffing envelopes just to help the EAR.

Andy Elliott's phone number should be: 617-491-9463

Ha, ha, fooled you there arenst any Bits and Pieces in this column!

ZOG 43 is an offical publication of the NARHAMS section of the MAR.All corresponde shoul be sent to: 3611 Taylor Street
Chevy Chase, Md. 20015

Funny meet - from page 1
of flying such junk gives spectators a bad
impression of model rocketry. (Gee, all you have to do is stick an engine in something and hope it works!)

Although models with many of the same characteristics (3 sec. B/G, 7 sec PD, etc.) are seen at any normal competition, at least they are intended to work, but fail to do so, while at the "funny" meet the model is supposed to fail, making them unsafe and useless.

Atilla of WARHAMS will not be seen this issue, because Bruce was to lazy to do on