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NART-1 Report

On 15-17 May 1970, NART-1 was held in the Indian Gap Military Reservation near Camp Hill, Penna. These record trials were sponsored by the Narcas Section of the NAR. About 10 NARHAMS members attended.

Except for Friday night and Sunday afternoon, the weekend was plagued by light drizzle and rain, which dampened the clothes rockets and spirits of most of those attending. Even the most enthusiastic rocketeer becomes numbed after three or four hours in the rain. But the meet went on.

We arrived about 7:30 Friday night and less than half of the contestants appeared to be present. All of the NARHAMS members bunked upstairs. Soon the other flyers began to arrive and the usual discussion of rockets and methods began. This discussion was highlighted by the Condor boost/glider designs.

Guppy of the AAR had a flew-wing canard powered by two D engines at an angle to the boom of about 30 degrees. A $\frac{1}{2}$ A was used retro fashion on the nose to bring the impulse over the lower limit. The boom was a box of $\frac{1}{8}$ " spruce and proved to be indestructable. Our own Bruce Blackistone came with a twice version of the Valkyrie (the canard which has two first places in NARAM competition). This monster had four feet of $\frac{1}{8}$ " T-beam for a boom and a fast burning F for power. Big George Flynn came down with a five foot long Infinite Loop which really flew and a two-foot long BT-60 flex-wing. The interesting point on this bird was the composition of the wings, $\frac{1}{2}$ mil mylar with a 1/1,000,000th of an inch coating, +5%!

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MAYHAM-2 Held

On Saturday, 23 May 1970, MAYHAM-2 was held at Goddard Space Flight Center. As is usual at the Antenna Range, the meet started late because somebody or something was late. This time it was both, i.e. Bill O'Brien was late with the battery. Finally, near 11:00 in the morning (the meet was scheduled for 10:00) the first rocket was launched. After this initial delay, the meet ran very smoothly. With thirty-five people trying to fly six events in one day, however, it ran a little slowly and a little late, with the last Egg Loft flights being fired after 6:00 as the big, black thunderhead above finally did what it has been threatening to do for two hours.

The events, Class 1 P/D, Sparrow B/G, 'Chute Spot Landing, Egg Loft, Design Efficiency were very standard with the substitution of 'Chute Spot for Open Spot. These events have been held in nearly every contest that the club has attended in the past two years. Due to the Size of the Antenna Range (small) no really outstanding performances could happen there and be returned.

As mentioned before, the day was progressively more overcast and the

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NARAM Reminder

Once again, NARAM-12 will be on the week of 17-21 August 1970. It will be held at the Manned Space Flight Center, about twenty miles out of Houston, Texas. Motel rooms will be \$4.50 per night. Hopefully, the application forms will be mailed out by the middle of this month. Events will be:

- Space Systems
- Scale
- Egg Lofting
- Sparrow Boost/Glide
- Stunt Boost/Glide
- Class 1 'Chute Duration
- Open Spot Landing
- Design Efficiency
- Research and Development

cont. MAYHAM

tracking suffered noticeably because of this. Even with the best trackers, without a magnifying scope (such as an elbow scope or a Singer scope), the haze was too much for the eye. The birds would reach about 75-100 meters then fade into the mist. With the continuance of the smog problem, a set of haze filters such as the cameramen use might not be a bad accessory for the scopes of any club.

The overall leaders in point count for MAYHAM-2 were:

Section: NARHAMS

Senior: Joel Bilbo and Howard Kuhn - tie - 66 pts.

Reserve: Barrowman Team

Leader: Sheila Duck - 86 pts.

Reserve: Bruce the Hun

Junior: Jim Kerley - 84 pts.

Reserve: Tom Burris

very excited until he learned that he couldn't fly the rocket with those engines ("Those were the only ones they had.") and that he needed an electric firing system. Luckily, he could use the editor's, but how many kids will be resorting to fuse and matches? Who is to control them? The first accident will nullify all the efforts of the few devoted people who have been trying to have model rocketry legalized.

It seems from the Pink Book's "builder of the model" rule that both Cox and MPC may be barred from competition, and should be. For the preservation of the hobby to which we all are addicted, do not ~~just~~ fly plastic model rockets.

(NOTE: The opinions expressed in this article are those of the editor only and do not pretend to represent everyone. Letters to the editor may be published. Send to 10203 Leslie St, Silver Spring, Maryland 20902.)

Editorial

Two large model-making companies recently introduced model rocket lines. These two companies, Cox and MPC, are both well known in the plastic model airplane field and have a reputation for quality products.

They have entered the model rocket field with little regard for the one thing that has kept model rocketry alive in the last ten years, safety. Cox and MPC rockets are now being sold in your neighborhood Kresge's and other toy stores. They are on the shelf in their attractive packages for anyone to pick up. Some dealers sell the engines only under the counter, but in others they are right along side the rockets, blister packed for increased visibility.

Tests have been made in our club and an MPC rocket kit (?) was completely built and painted in less than 15 min. The Cox rockets come ready to fly, 'chute already assembled. A seven-year-old neighbor recently returned from the shopping with a Cox Honest John and a blister of Charley C6-0 engines. He was

CAR-1

The first Capitol Area Regional, CAR-1, will be held on the 11th and the 12th of July at Fort Meade, Md. This regional supercedes ODR-1 as published in the last issue of ZOG-43. The change was necessary because it was discovered that over 90 people would be attending, too many for a one day affair. The contest is open to any section member that didn't get invited to ECRM-4, excluding the MARS section.

The events will be:

Class 1 P/D
Sparrow B/G
Swift B/G
Egg Lifting (20 mt-sec)
Design Efficiency
'Chute Spot Landing

The contest fee will be 50¢ plus 25¢ for each event entered. Write to Jim Barrowman, or call 459-5261 for further details on entry.

Two really novel designs were constructed by Jim Sparks and Bob Parks. Sparks, an independent from Landstown, Penna, made a four-foot span swing-wing, F-111 style. The engineering on this bird was admirable. The boom was a fiberglass arrow shaft. The pod was designed to take any engine from a "G" to an "F" and had space for radio equipment which, sadly, was not ~~sent~~ sent. The wings were held by a set of rings around the end of the engine and were actuated by a large coil spring through the bodytube.

The Parks glider, for unknown engine, was a flop-wing, i.e. the wings folded in half, spanwise to a symmetrical section for boost and flopped out into a six-foot undercambered span for glide. This glider also used a fiberglass arrowshaft for its boom and had radio control (rudder only pulse proportional). The wing and stabilizer of this glider were built up and covered with Monokote. These gliders, though neither flew successfully, represented some of the most imaginative engineering yet seen in our hobby.

On Saturday, after breakfast in the mess hall, the flying began on a very damp field. The flying and tracking conditions were, to say the least, not good and it seemed that there were few flights tracked and no performances worthy of record filing. The field at IGMR is very large, however, and on a clear, warm, dry day it would have been perfect for the record attempts.

It should be noted, to the credit of the rocketeers who attended, that the design time and workmanship going into the rockets flown at NART was, on the whole, greater than average for a racket meet. At a record trials, one is not compromising to get your bird tracked or to get it back as you would at a contest, but is instead going for all out best performance. If clubs held more record trials, the standard of workmanship in model rocketry might be raised.

By the end of the trials, all of the Condor gliders had been flown, except for Parks', which was flown a lot off of a towline. The failures were

most spectacular. Bruce's twice size Valkyrie literally disintegrated under power and sent pieces all over the launch area. On the first attempt of Guppy's glider, only the 1/4A retrofire engine worked and the monster stayed on the ground. The gantry for this rocket was quite intricate; there were wires, booms and elastic everywhere. On the second attempt, the rocket actually flew, i.e. took off. However, the elastic which actuated the flex-wings jammed and after the pair of D's kicked out, the glider kicked in. No damage was done. On the third try (on Sunday), the thing pranged before the engines could eject. Finally, a very disgusted rocketeer added two more D engines, Retrofire! The scheme was to allow the glider to streamline most of the way in, then fire the last two D's and watch the effects (ho-ho). The idea almost worked (shudder).

George Flynn went one for two. His first flight, with the flex-wing, used a ten-second (they've been changed to nine, I'm told) F of which about two were used to push it along the ground. The five-foot Infinite Loop was the first successful flight of the day and for a while it looked like George would have a record. The Loop flew up very well and glided down in a steep bank, but it did glide. There was some speculation on whether the Loop needed nose weight or tail weight, but this subsided when no one could decide which end was the nose.

Jim Barrowman and Paul Conner, and a few others, went the Rogallo wing route (complete glider enclosed in the body tube and released at ejection. Paul proved the idea to be very good, for from the altitude he reached, a ~~XX~~ cannonball would have taken enough time to fall to break the record (near 27 seconds). Jim's boost phase was not so lucky.

Finally the long awaited flight of Jim Sparks' glider took place. Jim had a special bunch of four second delay F's from our friends at Flight Systems, Inc. They worked very nicely, but even four seconds was too long and the shock of impact reliably opened the wings. I apologize for knowing none of the details of the glider that did work beyond it was pop-pod and had 2 D's

CALENDAR

- 12 June - Regular Meeting at Kensington
26 June - Workshop At Barrowman's
10 July - Regular Meeting (place to be announced)
12,11 July - CAR-1
24 July - Regular Meeting (p.t.b.a.)
1 August- Monthly Launch
7 August - Regular Meeting (P.T.B.A.)
17-21 August - NARAM-12!!!!

Meetings start at 8:00 p.m. Launches start at 1:00 p.m. See article on the workshop at Jim Barrowman's

Workshop

On 26 June, in place of the regular Meeting, NARHAMS will hold a range equipment workshop. This will be to clean up the racks for CAR-1. It will start at 7:30 p.m. and end Attila-knows-when.

SSB Lecture

On Friday, 19 June, the Star Spangled Banner Section will sponsor a get-together with a speech by Major General James W. Humphreys. The lecture will take place at the St. Martin's in the Field church on Severna Park, Md. The General has quite a list of distinctions to his credit in the aerospace field and the speech should be quite interesting. Call Jim or Judy Barrowman for the details: 459-5261.

FLASH!!

A last minute bulletin on NARAM-12: Information packets will finally be sent out to the rocketeers who asked for them (all 365 of you) this weekend (13-14 June).

Sing a Song of Songs

Once again, ZOG 43 presents one of the all time greats (composed over the winter) in the underground song world of the NAR (NARHAMS). This one was devised by none other than the head songwriter of the Marines, Warlord in charge of Vice in the Middle Provinces, Bruce Blackistone. The tune is ~~My Cup Runneth Over~~.
My Cup Runneth Over.

Sometimes

Sometimes when we're flying
And shadows are deep,
Our rockets go drifting
Out into the street.
Along comes a trash truck
That's shifting in third.
It just runneth over my bird.

Sometimes our boost/gliders
Are gliding around.
They land on the street
And not on soft ground.
Along comes a Mack truck;
We sit there and gulp.
It grindeth my glider to pulp.

An unstable rocket
Goes flipping around.
It heads for the street
Quite close to the ground.
Along comes a VW
That's going too fast.
We've plastered an auto at last.

Plastics have their place, so leave them on the shelf.

ZOG 43 is the official publication of the NARHAMS section of the NAR. It is published at 10203 Leslie St Silver Spring, Md. 20902. Send any contributions to that address.

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