



ZOG-43

OCT 2000



PHOTO: Mike Howie at the Night Launch

Photo By: Jim Berg

IN THIS EDITION

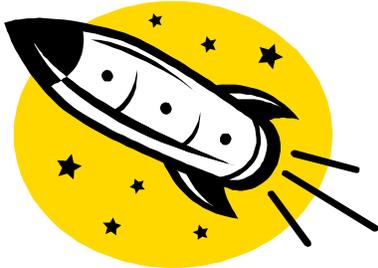
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THE ONLY NAR NEWSLETTER PUBLISHED MONTHLY !!

From the Editor:

October is here and the flying season is starting to dwindle. Some say they look forward to the winter months because it gives them the chance to build all those projects that have been sitting and waiting for time to be found. The winter here in Maryland can get down right cold and nasty, however I still think there is something good to be said for snowy days. Personally I enjoy all of the seasons for their differences, flying rockets in the cold of winter is not as comfortable as a mild day during any other season. I am still sure that many of you would agree with me that a day on the range, sure has a way of washing away the stresses of everyday life.

The annual planning meeting is coming up on October 28th. The reason I mention this event is not for the great time that is



had, but simply this is where we lay out what we as a club want to do over the next year. If you can find some of your time to make it to the planning meeting, it can only benefit everyone to share his or her individual input on the direction we take. You don't have to come for the whole day, just stop by for an hour or two and tell us what you think. We always try to get as many people involved as possible. So look us up on the 28th at the regular business meeting location the College Park Airport Annex building.

ZOG-43 is always in need of our articles, so drop your editor something for the next edition. Product reviews, tips, or even event coverage is always welcomed. Have something that interests you or something you're an expert at, let us all know by sending your articles to your editor.

The 2000-2001 contest year is now underway. The annual section meet we hold in October is coming up on the 14th. So plan on being there. I don't want to hear excuses from anyone about not coming and flying for the club. Bring something fun to fly spot landing, and bring what you got for 1/2A BG or 1/2A HD. Section meets are always fun to attend because we are more worried about having fun than anything else. What did you say, you simply can't make it because your rich Uncle from Idaho is getting married that same day? Not a problem, get your helicopter and boost glider to another club member and we will get them flown by proxy. Spot landing can not be flown proxy so don't worry about that one. Bottom line we need people to help make the section meet a success for the club.

Keep um flyin for NARHAMS,

Jim

LAUNCH WINDOWS

SPORT LAUNCH / SECTION MEET

Middletown Park
October 14th 10AM - 4 PM
Contact: Alan Holmes 301-670-0887
Events: 1/2A BG, 1/2A HD, Open Spot
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

SPORT LAUNCH

Middletown Park Oddroc Theme
November 11th 10AM - 4 PM
Contact: Jim Filler 301-371-3365
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

VACUUM-25

October 21 Open Competition,
C. Hunter Ritchie Elementary, Warrenton, VA 9 am.
1/2A BG MR, 1/2A HD, 1/4 A PD MR, 1/2A SD.
Contact Jonathan Rains 301-589-7562
or e-mail 2jrains@compuserve.com.
NARHAMS is not attending as a club, if you wish
to fly it has to be as an Independent

SPORT LAUNCH

Middletown Park Holiday Theme
December 9th 10AM - 4 PM
Contact: Jim Filler 301-371-3365
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

Ogle an Orionid in October

Paul Miller, NAR 51615

Wow, October is a special month! October is our least cloudy "month" of the year. That means it's the best month to sight a "flying Z cloud!" I remember last October, driving west at sunset, there it was - the elusive flying Z cloud. With a quick U-turn I was racing home for my camera! Merely moments later, I zoomed west, again but when I crested the hill, NARHAMS' favorite cloud was GONE!

October features the Orionid meteor shower and the dazzling return of Jupiter and Saturn. Most of the action will take place in the northeastern sky in the late evenings. Capella rises in the northeast where Orion is "hiding." Shortly after midnight on October 21/22 the meteors will appear to radiate from this area as Earth passes through the orbit of Halley's Comet. A last quarter Moon will hinder our view to only the brightest "shooting stars." These meteors zoom about 35 miles per second and the trails are exceptionally long.

Saturn rises in the northeast earlier each night as the month progresses. You can spot the Ringed Planet just south of the Pleiades after 10 PM EST. By October 15 a nearly full Moon joins Saturn at this same time.

Here comes Jupiter! He's in Taurus this fall. Watch him get bright, brighter, brightest as he approaches opposition next month. Jupiter is close to Aldebaran, the red Taurid alpha star, this month. The waning gibbous Moon joins these two companions about 10 PM EST on October 16.

Perhaps you will get lucky this fall while watching these events in the northern sky. The current solar activity can spawn the Northern Lights, which shimmer their awesome beauty at this time.

On October 29, just after sunset, our crescent Moon joins Venus to its left on the southwestern horizon. Early school bus riders may see the eastern "false dawn", the white zodiacal light before the start of morning twilight.

Don't forget our autumn constellations. Check out Cassiopeia (W), Perseus and Andromeda in the northeast. The Great Square of Pegasus, almost overhead, separates the summer and winter constellations. Did you spot M31 yet? Merely 2.4 million light-years away, October 2000 clear skies can allow you to do it! Use a star chart to get your bearings and as your eyes adapt to night vision - VIOLA! - there it is - the Great Nebula in Andromeda!

The October issue of Astronomy magazine has a delightful column on "Astro Blunders" in Bob Berman's Strange Universe. Discover magazine celebrates its twentieth anniversary issue with several intriguing "twenty-something" articles. In "Twenty of the Greatest Blunders in Science in the Last Twenty Year," the Challenger catastrophe heads the list.

Sky Publishing (the Sky & Telescope folks) recently hit the magazine racks with Skywatch 2000. It includes articles on astronomy gear, celebrity stargazing, astronomy lingo & city stargazing. One of the celebrity amateur astronomers is Laura

Danly, who previously worked with the HST on the John Hopkins campus. Our paths crossed a few summers ago. She is now stationed in Denver University and the Denver Museum of Nature and Science. She is an astrophysicist who really knows her science and can grab your attention when explaining it.

The real grabber in Skywatch 2000 is a sixteen-month celestial calendar (September 2000 to December 2001). Each month Fred Schaaf highlights a stellar region, galactic region or constellation. A star map, planet info, and one to three special dusk to dawn sky diagrams are included.

Some Astro Web Sites to check this month are:

<http://www.spaceweather.com>

Sunspots

<http://www.sec.noaa.pmap>

Auroras

<http://sohowww.nascom.nasa.gov/data/realtime-images.html>

Real-time Solar Stuff

*** Typist's note: In last month's article I typed 2 LY as the distance to the Andromeda Galaxy. It's actually 2 MILLION light years way (give or take 100,000). We would be in the Andromeda Galaxy if it were only 2 light years away. Sorry! (Bubbles - Secretary to the stars)*

Oy! Fat Boy

Or, How I Kitbashed 2 Fat Boys into one 2 stage rocket.

By: Kevin Johnson

There have been a lot of mods out there of Fat Boys, everyone cramming everything from 7 motor clusters to 38-mm mounts into these short, stubby birds. I of course wanted to do something a little bit different, so started shopping around for a good price on kits so that I could purchase 2 of them. My thinking was that with the TTW construction, making a booster out of one of the kits wouldn't be all that hard. I found the right price at www.eHobbies.com (they even beat Discount Rocketry) and placed my order.

Basic outline:

The sustainer is a regular Fat Boy built to the plans, minus the engine hook. The booster is the fin can and motor mount from the second kit.

Construction:

After building the sustainer per the instructions, I started the booster by building the motor mount/center rings. Using the completed mount as a guide, I marked the aft end of the second BT and cut it down just in front of the fin slots. I then glued the motor mount in place and attached the fins just like on the sustainer. Not having any BT-80 couplers handy, I made my own coupler using a 1 inch section of the remaining BT, slit and overlapped to fit inside the BT-80. This was glued to the top of the booster, leaving 1/2 inch exposed.

This is a fairly simple mod, just takes some care in making

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 sure your cuts are straight, and the booster's fins are securely glued. You want to make sure that the sustainer's motor sticks out at least 1/2 inch if you use an engine block for good contact with the booster motor for staging.

Finishing:

I wanted a cool name for the 2 stager without having to cut up the decals too much. OY! look at that rocket! seemed like the sentiment I was looking for. The only part of the decal I had to fabricate was the exclamation point, and that was pretty easy. I didn't have any light blue paint for the fins, but the fluorescent yellow makes a nice contrast to the stock fin decals. It also makes for a pleasing Swedish feeling to the rocket that makes the viking in me smile.

Flight-testing:

I probably should have thought a little more about the staging and used a 24mm mount for D12-0 grunt off the pad, but I was impatient to get building and the RockSim numbers looked OK with a C6-0. I prepped by inserting the sustainer motor, securing it down with a couple of turns of masking tape. I then taped the booster motor to it with scotch tape. Then I slid the booster section over the motors and taped the overhanging motor to the booster's motor tube.

I have started to use the biodegradable packing peanuts made of cornstarch for recovery wadding (cause ran out of the normal stuff! it worked very well on my test flights). They don't burn, are light and fill BT's from 13mm on up and melt almost instantly when water hits them. I put about 7-8 in the tube, folded the chute on top of them and set the nose cone in place. The shock cord is the standard Estes paper mount and elastic that came with the kit. I cut the spill hole out of the supplied chute. I didn't want too much drift.

The rocket left the pad much like a standard Fat Boy, then arced over up wind slightly. Staging was clean and the sustainer kept on heading up and up wind. Ejection was good and the rocket drifted back down close to the pad. Not too shabby!

Conclusion:

This is a pretty easy mod to pull off, but I did get a nice looking and nice looking rocket for not a lot of extra effort. I guess the only con is that I had to use 2 kits to get 1 rocket, but what the heck.. it was fun. If you build one, you might consider making the booster a 24-mm mount for more thrust on lift off.

Space on Thursday following a picture-perfect launch from Vandenberg Air Force Base, Calif. The National Oceanic and Atmospheric Administration (NOAA)-L spacecraft, lifted off at 3:22 a.m. PDT, on an Air Force-launched Titan II rocket. Approximately 6 minutes later, the spacecraft separated from the Titan II second stage.

At approximately 4 a.m., PDT, controllers successfully verified deployment of the solar array and confirmed the spacecraft is in a power positive condition. NOAA-L is the second in a series of five polar-orbiting satellites with improved imaging and sounding capabilities that will operate over the next 12 years.

"We're off to a good start," said Harry McCain, POES program manager at Goddard. "The spacecraft is now in orbit and all data indicate we have a healthy spacecraft."

For complete details, go to:

First images can be viewed at:

<http://pao.gsfc.nasa.gov/gsf/EARTH/noaaL/noaaL.htm#image>

Sally Ride resigns from Space.com

NEW YORK (AP) - Sally Ride, the first American woman in space, has resigned as president of Space.com, the Web site founded by former CNN business anchor Lou Dobbs, to pursue science education projects.

Ride declined to go into further detail, except to say the new effort would be focused on encouraging girls to learn about math and science. "These are things that I've been passionate about for a long time," Ride said in an interview Wednesday. Ride had been with Space.com since it was founded in June 1999, and had served as president for the past year. She is also a physics professor at the University of California, San Diego and will remain on academic leave through the fall term.

R64: NAR S&T Motor Certification Designation Correction

The following is in correction to NAR S&T News Releases R56 and R59. There has been some miscommunication while recertifying Quest motors due to a change in production facilities. Quest now appears to be shipping the old motors originally manufactured in North America. The following Quest model rocket motors are in production and are certified for general and NAR contest use indefinitely:

Micro Maxx-1, A6-4, B6-4, C6-0,3,5

The following Quest model rocket motors have ceased production and lost their contest certification effective July 1, 2000. They remain certified for general use for three years.

B6-0, 2,6, C6-7

Quest model rocket motors have never been released with the following designations. They will be removed from motor certification lists.

A8-3, B4-4

Space News

NOAA-L Weather Satellite Successfully Launched

Compiled By: Jennifer Ash-Poole

A new satellite that will improve weather forecasting and monitor environmental events around the world soared into

R65: NAR S&T Motor Decertifications

This announcement contains two types of model rocket motor decertifications.

NAR Contest Decertifications

The following motors will lose their certification for NAR contest use effective July 1, 2001 but are certified for use at NARAM 43. They remain certified for general sport flying for a period of three years, until July 1, 2004.

Estes
B6-0, D12-7

North Coast Rocketry
F62-4,6,9

NAR General Use Decertifications

The following motors, having been out of production for more than three years, will lose their NAR certification for general use effective July 1, 2001.

Centuri Engineering Company (all)

1/2A6-2,A8-3,5, B4-2,4,6, B6-0,4,6, B8-5,C5-3S
C6-0,3,5,7, D12-0,3,5,7

Estes

A8-5, B4-6, B8-5

Flight Systems, Inc. (all)

A6-3,5,B6-0,3,5, C6-0,3,5, D18-0,4,6
D20-0,3,5,7, E5-0,4,6, E60-0,4,6,8
F7-4,6, F80-0,4,6,8,10, F100-0,4,6,8,10

College Park Aerofair Report

By: Jennifer Ash-Poole & Jim Berg

The College Park Aerofair was held Sept. 23. It was drizzly (thunder storming in other parts of town) but that didn't stop some NARHAMSters from showing up. We set up a display of a couple of rockets, including Paul Miller's Blues Clues, V-2, Barracuda, and Kevin Johnson's Equinox and Trident. We also had spiffy displays that Jim Berg and Kevin Johnson put together with the posters from Estes. They came in handy when discussing how a model rocket engine worked. Jim also built a kick board on the field, so that kids would kick the board before kicking the rockets. Chris Kidwell and I noted that this was officer material, and he could be elected.

We were slated to fly after the kites, but they didn't show up to the briefing, so the model airplane team flew before us.

You missed a good demo, although it started out wet the rain was out of there by 10am, or maybe earlier and we ended up with a decent crowd at launch time. We had the launch at 2:25pm as scheduled. The launch and recovery team included Kevin Johnson, Paul Miller, Jim Berg, Chris Kidwell, Jim Miers, Josh Russell, Richard Hickok and Ward Poole driving the truck. I stayed behind to (wo)man the booth. We did our usual power rack, with drag racing E-30s. We did lose two of the power demo rockets to the woods, unless someone was able to go in after the show and get them, one was on the ground and another a few feet up in a tree (10' tops). The F in Paul Miller's Barracuda decided not to fire, but the igniter did. It was the only misfire out of two racks.

On the second rack were Edmond's Deltie Airshow, we recovered all of Robert's Deltie Air Show, a first I think. The Broadsword, Jim Berg's big helicopter, and Kevin Johnson's Trident and Lunar escape capsule. Jim Miers' two-stage decided not to, even though it worked perfectly at Middletown. The airport decided that we could not set up early, so the racks were driven out and back all within our allotted time. This actually made tear down easier, since everyone left by 5:30 p.m. (I think a new record).

The club had lots of giveaways for interested people: extra Sport Rocketry magazines courtesy of NAR HQ; Estes production line and model engine flyers; NAR membership flyers; as well as our own club flyer.

The most fun was in finding the tacky things also at the airfare. There was a Titanic slide (which Jim Miers said would be better with ice water at the bottom), airplanes from CHNA (Note misspelling), and eating the not good for you food. The two tents kept us mostly dry, and there was not much squabbling over the too few chairs. Even though the airfare was only one day this year, we did the club proud, as well as the airport people loving what we do.

Where's the NSL gonna be in 2001? Where, oh where?

The NAR National Sport Launch will be May 26, 27 and 28th, 2001 at UROC's Pony Express Test Range, in Tooele County, Utah. The site is about 30 miles west of Lehi, Utah, and about 30 miles south of Tooele, Utah. Yep, it's the middle of no-where, and we love it.

Expect a 10,000' waiver, mild temperatures and lots of wide-open spaces. There isn't a tree within 10 miles, nor a building nor power line. Just wide, flat, desert scrub.

For more information on the launch site, see the UROC web site at:

<http://www.uroc.org>

AeroTech releases FirstFire™ and FirstFire Jr.™ two-lead igniters

Las Vegas, NV (ROL Newswire) -- AeroTech, Inc. is pleased to announce that it has begun shipment of a new two-lead igniter. All AeroTech Easy Access™ high power reload kits will now be shipped with the FirstFire™ or FirstFire Jr.™ igniter.

Design and extensive testing at AeroTech's facilities has resulted in a long-burning robust and reliable igniter. In addition, 130 Beta firings conducted at this year's LDRS and NARAM launches resulted in one hundred thirty successful ignitions = 100% reliability.

The FirstFire™ igniter is suitable for use with AeroTech high power motors; the FirstFire Jr.™ is designed for compatibility with smaller throat E, F and G model rocket motors. The new igniters, recognizable by their yellow jacketing, will also be offered separately through dealers as supply becomes available. They are approved for use in both the United States and Canada. If you have any questions regarding this information release or would like more information about AeroTech Consumer Aerospace products, please visit our website at www.aerotech-rocketry.com or call AeroTech directly at 702-641-2301 weekdays from 8 AM - 5 PM Pacific time. AeroTech Consumer Aerospace is a manufacturer of single-use and reloadable solid and hybrid propellant rocket motors, rocket kits, parts and ground support equipment for the consumer, educational and motion picture special effects markets. AeroTech is a subsidiary of Industrial Solid Propulsion (ISP), Inc.

Launch Coverage

Night Launch
By: Jim Filler

The September sport launch was a dual launch this year. On September 9th a normal day launch was held and we flew 123 flights from 2 p.m. to 6 p.m. burning 137 motors with C being the most popular. The weather cooperated and provided a near perfect day with temps in the low 70's. With a notam in place, a lot of members took advantage of it by flying large model rockets. The breeze was almost non-existent which allowed even the high flyers to land right on the launch field.

I arrived at about 2:15 to the question of weren't we going to start at 2? My simple reply was that I wanted to make sure I had help setting up the range. Everybody helped out and we were up and running in 15 minutes. I would estimate that we had at least 40 people on the field during the day launch.

At about 6p.m., we shut the range down for a dinner break. At about 7p.m., I gathered all of the participants at the rangehead for a briefing of the night activities. With the special FAA waiver for night operations, it was important that everyone knew and understood the correct procedures and practices. All models to be flown had to have successfully flown prior, or in other words, the night launch could not be

the models first flight. Kevin Johnson had found out earlier in the afternoon why this is. His model flying on a long Aerotech delay had a bonus delay and did not eject before re-kitting itself. The other stipulation was to require external lighting that was visible during the models boost phase of flight. Those who flew models with a "B" engine or lower, could use light sticks for illumination. Those flying "C" engines or above had to have some sort of electronics on board for illumination.

According to my flight cards, we had 23 flights after the range was restricted to only models with illumination. We had 1 flight on micro-max power, 12 flights using "B" motors, 6 using "C" motors, and 3 using "D" motors.

Tom Anderson flew his Tri-Fo with mini light sticks on the edges, the model performed as designed spinning under boost causing the light sticks to spin. Kevin Johnson used the same idea and attached the mini lights to a helicopter model that rotated very well under descent looking as if it was a ring of light coming down. John McCoy brought out his veteran Up-Scale Nova Payloader with a spectacular flight on a cluster of 4 D12's. I have a similar model that also fly's on 4 D12's but only got 2 motors to ignite causing a poor altitude but still safe recovery. I think if you took a poll of the spectators, I think they would agree with me and vote for Robert Edmonds with best of show flying his Ivey Thunder with light sticks on the wing tips like a real airplane. This model flew very well and glided even better. It was a real sight to be seen.

I would like to thank all of those that volunteered time as RSO and especially Jennifer-Ash-Poole, who ran the range for almost the entire night launch. Also I would like to thank Mike Howie, who flew a boatload of models during the day, but had nothing for the night launch. Mike volunteered for and did a good job at checking in and pad assignment for the night launch. Thanks to everyone who helped clean and pack up the range equipment in the dark. I look forward to the night launch next year. It is always one of my favorite events.



