

THE LEADING EDGE

Nov-Dec 83 VOLUME 6 NUMBER 6
Winner of the 1982 LAC Newsletter Award



T MINUS 1

MONTHLY NIRA MEETING Nov. 4, 7:30 PM
Glen Ellyn Civic Center

More discussion of our current insurance situation and new programs with the Glen Ellyn Park District.

MONTHLY NIRA MEETING Dec. 2, 7:30 PM
Glen Ellyn Civic Center

Nominations for officers for 1984. Mail ballots will be distributed prior to the January Meeting. Bunny's keeps saying he won't run for president again.

MONTHLY NIRA MEETING Jan. 6, 7:30 PM
Glen Ellyn Civic Center

Elections for officers for 1984. Planning starts for the 1984 convention season.

CONTEST CALENDAR

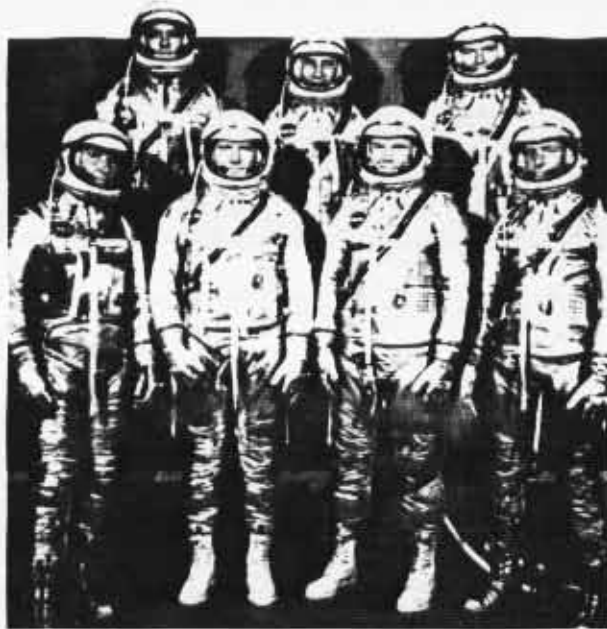
NOMID-84 Regional Contest May 5-6, 1984
Fenton, MI. Sponsored by GLAR

EVENTS:
D HD, D ELD, B SRD, A RG, 1/2A BG, A ISD,
Pred, Dur, Sport Scale

CONTACT:
Carl Luce, 4495 English Oak Ct., Flint, MI 48504

ATTENTION NIRA MEMBERS!

NIRA recently purchased the entire model rocket inventory of the Squadron Shop. At the December NIRA meeting this material will be made available to NIRA members at **HALF PRICE!** That's right! 50% of retail, folks. There's a large selection of Estes and FSJ kits, motors and parts all at **HALF PRICE!** Remember, that's the December NIRA meeting (see calendar above) on a first come, first served basis.



THE RIGHT STUFF

Tom Wolfe's book, "The Right Stuff", chronicled the development of an elite breed of American. From the hazards of test pilot duty to the unknowns of the early American astronauts, he told a riveting story of the men involved in both ventures. It was a story guaranteed to please any aviation or space buff. When first told of the attempts to make a movie out of it, I thought, "That's impossible! They'll make a mess out of it."

I'm happy to report that they didn't make a mess of it. Instead they made a three hour movie destined to take some of the Oscar Awards. The transformation from script to screen is well done, with much of the book's feeling and flavor accurately reflected on the silver screen.

The "right stuff" is a quality possessed of few pilots. When faced with any difficult situation, a pilot with the "right stuff" always makes the correct choice. He can fly faster, farther, and better than any of us mere mortals. (Readers curious about Bunny's possession of any measure of the "right stuff" can ask me about our recent trip to Houston and back. - RG) If, and it's a big if, you buy off on the concept, this story will hold your attention and make you wonder where the three hours went. Sam Shepard, as Chuck Yeager, Possessor of THE "Right Stuff", captures the spirit, determination and quiet confidence of the first test pilots. All the actors portraying the original Mercury astronauts got into their characters equally well, all with appropriate quantities of the "right stuff".

The movie's flying sequences are quite good. There were a couple of instances where the color schemes for the test aircraft weren't historically correct, but unless you're an aviation buff, you won't notice. The special effects people did quite a good job integrating historical footages with their models, too. I didn't get the typical "model airplane" feeling I associate with most flying movies. They fell down in quality a bit in the orbital scenes, but the effect of tension and energy is captured OK. Seeing this film will make you want to build a scale Atlas-Mercury.

The music for the film is perfect. I went out the next day and tried to find a soundtrack. The score provided all the necessary feeling, tone, and mood without being overpowering. It is quite loud in spots, so don't sit next to the speakers.

The director put in a few humorous touches. The scenes from medical testing will leave you in the aisles, particularly good ol' Gordo Cooper. There's also a couple of scenes with Lyndon Johnson as Vice-President that are equally funny.

"The Right Stuff" did drag in a couple of points. I wanted to say "OK. You made the point. Now get on with it!" The film could have been cut 15 minutes with no meaning lost.

Overall, however, this one gets a four star rating from me, and few films do that. The whole effect generated by the story, the characters, the special effects and the music will leave you with a strong mental impression of the early days of the space program that you can't get from reading about the flights themselves. You'll also leave the theater humming the music and glad there are still men of daring who possess the "right stuff".

Bunny

THE "RIGHT STUFF" SPACE FILLER

A U.S. space satellite project team had a series of miserable launch failures in 1959-60. Four or five times the rockets had exploded on or very near the launch pad. A few days before the next attempt was to be made, the satellite project manager traveled from Washington to Cape Canaveral for a pre-launch press briefing.

"What's the object of this launch?" a reporter queried. Replied the project chief, "To get it out of sight."

MODEL OF THE MONTH WINNERS



The Model of the Month Winner for September is Bob Kaplow and his Super Scale "Conistoga 1"!!! Congratulations Bob!!!



The Model of the Month Winner for October is Henry Veldenz and his F-104 Plastic Model Conversion!!! Congratulations, Henry!!!



THE LEADING EDGE

is published bimonthly by and for members of the Northern Illinois Rocketry Association, NIRA, NAR Section 117, and is dedicated to the idea that Model Rocketry is FUN! Membership dues are \$3.88 per year and include a one year subscription to the *Leading Edge*. Non-member subscriptions are available for \$2.88 per year. All membership and subscription fees should be sent to Bob Kaplow, 1628 Waterford Lane, Palatine, IL 60067. Articles, plans, other newsletters and news items of interest should be sent to Ric Gaff, Editor, 331 Third Street, Northfield, IL 60093. Any material in the *Leading Edge* may be reprinted if proper credit is given.

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NARAM

25

THE WET STUFF !

NARAM PHOTOS BY TOM PASTRICK, RIC GAFF AND MARK BUNDICK.

NIRA watched yet another member take total control of the Force and become a Jedi at NARAM-25. Mark Schmitt began to dominate A Division on Day One and never looked back. His 3500 point performance at the Nationals, places in 10 of 11 events and five first places, led the club's record 9000 point NARAM. For the first time in two years, PULSAR, the National Section Champion, did not win the NARAM. NIRA bested them by a scant 900 points. It wasn't much, but it felt one heck of a lot better than losing to what is clearly the nation's best competition section.

The field was the same as for NARAM-21 with two exceptions. There was a lot more water and mud on the field after two days of terrific thunderstorms, and the fire ant population, small in '79, was large and hungry in '83. The NAR's launch system from the 1980 World Championships handled all competitors with ease, and the range crew, though small, was dedicated and efficient. They had to be. Houston's monster thunderstorms wiped out anywhere from 1 to 3 hours flying time each day.



NARAM-25, a fantasy in mud.

Predicted Altitude kicked off the contest. All six NIRAites flew and all placed. Tom Pastrick's Monokoted Big Bertha missed the mark by but 1.5%. Our last launch's tracking paid off.

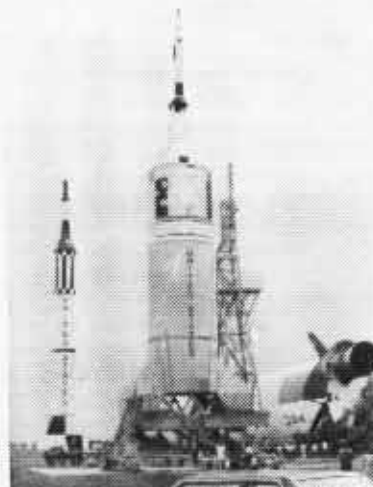
B International BG wasn't expected to be a strong NIRA event, what with Pat Peterson's retirement. Mark Schmitt had one of the most unusual flights. His flexie ejected and stripped off all its covering. The frame tried to glide back, but the RSO wouldn't hear of it. Mark's backup flew OK, and he finished first. The Dual Egglofters were our strongest bet in C, but they experienced trimming problems and finished out of the money. NIRA's walkie-talkies and downrange recovery helped out lots, both for us and for WWAR. "Uncle" Al Neinast was the only one to "max out".

Tuesday brought out C Stupidroc. Tom Pastrick flew straight up with a maximum length model and tied with the Dual Egglofters team. There were the usual number of unstable models, and tipoffs, but few crimps. The first really bad thunderstorm came in about 11 AM, and thoroughly soaked the range crew. By the time they evacuated the range tent of its electrical equipment, they faced the unpleasant task of pushing 3 or 4 cars out of the quagmire. The sun came out later, and flying in 1/2A PD could have proceeded, but the contestants had decided to call it a day.

Wednesday AM got the trackers' blood moving with E Eggloft. Suffice it to say, this event was a disaster for most people. Between the track loss, no closes and DQ's, few outstanding flights were turned in. A Division turned in the big goose egg for places. Mark Schmitt was particularly upset, what with a seemingly good D12/E5 flight lost by Bunny at Tracking West. (Foresame!!! And a fellow Jedi, too! - RG) Tom Pastrick and Larry London salvaged places for the club. Tom's infamous "Pregnant Whale" wasn't the best competition model on the field, but with the low ceilings

and lots of DQ's, he was in first place for most of the event. The ceilings and flying improved and Tom had to eventually settle for fourth. (Look for Tom's plans in an upcoming issue. - RG) Jim Zingler, flying an E30 engine from the same batch as Al's infamous NARAM-21 Dual Eggloft flight, won the event with a mere 932 meters. It's four meters short of Al's flight, but 200+ meters higher than second place!

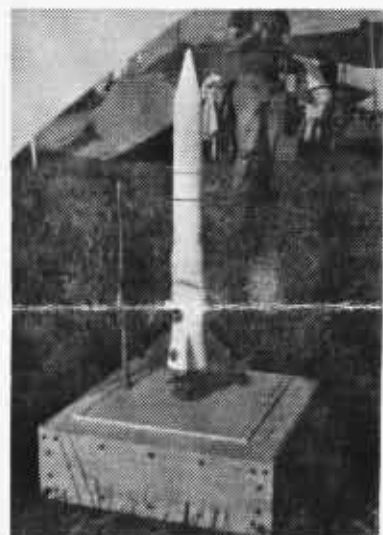
NIRA found itself the recipient of a generous gift of personally manufactured Sykos Streamers in A International SD. Charlie took a lot of abuse from Mark S. and Larry L. about the line attachments, but had the good grace not to kill both of them. Schmitt did OK, but Larry finished out of the money. Bunny maxed for the first time in a coon's age, but lost out to Ric Gaff by 7 seconds. Conditions were tough in this event, with little up air.



Mercury Redstone, Little Joe II and Saturn-V display.



NIRA's marathon tracking team after a day of mud.



Bob Kaplow's Super Scale "Conistoga 1" and launcher.



NAR President J. Pat Miller prefers to toss eggs than fly them! Sickle!

NARAM 25 THE WET STUFF!

Thursday turned out to be the make-up day with three duration events. 1/2A PD saw another first by AI, and lots of good flying by all divisions. The "stickies", a by-product of the Houston humidity, took its toll, but most of the contestants managed a qualified flight. Charlie Sykos had one of the best flights of the day on his classic red polyethylene chutes.

In B BG, the fixed wing kind, Mark Schmitt came within one second of beating the winning time in C Division. His original design boosted well, didn't get that far downrange in the early morning and won by 20 seconds or so. Larry London won in B with Darth's B Beaker design. A triumph for backwards flying!

NIRA had such good success in SD by consulting PULSAR, we did likewise in A Helicopter Duration. Larry had a Rose-a-Roc model that was one of the first he'd built, about a month old. Schmitt built a new Rose-a-roc during the week and placed! C division? Except for the Dual Egglofters (They flew in the "Team" division and only had to qualify to earn points. - RG) they held to their trend throughout the year and produced no points!

In A RG, a strong wind was present. Bunny could manage but 58 seconds, flying the same model he flew at NARAM-21. Since time was short, only the best flight counted towards flight score. Schmitt made handy use of that ruling when he threaded his first flight. Flight #2 was better, even if the wings buzzed all the way up, and Mark finished first.

The awards banquet was the best I've ever attended. The food and service were quite good, and the awards were the best in years. NIRA collected more hardware than any other table, and managed, in sporting fashion to shake hands with the PULSAR crowd upon the completion of the section awards.

The NIRA contingent started for home early, with Bunny and Gaff taking on in Rabbit Airlines at 7:25 AM. The rest of the crew took more conventional means, and by 6 PM that evening, all were safe and sound back in Chicago. All in all, NARAM-25 was clearly the best meet ever flown by members of Section 117, and showed clearly the potential of the club on competition field if we work harder. Each NIRA member left with some good memories, some sunburn and some fire ant bites. But nobody would have traded the experience for anything. See you in Center Valley!!!

5



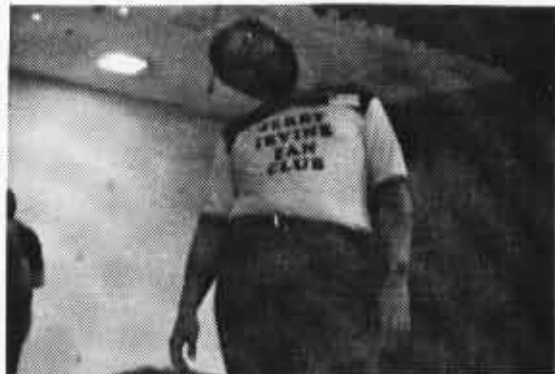
Smile, Art Rose! You're on Candid Camroc!



Lift-off of Bob Kaplow's SS Conistoga.



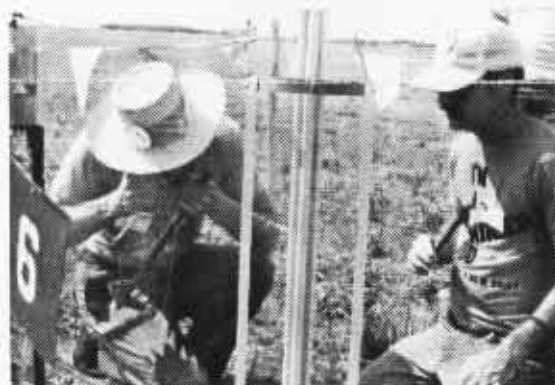
Larry London, as good in egg toss as in eggloft...



One man "fan" club. Says Chris: "I'd like to use it on him too!"



The NAR Board of Trustees running the range. "This modeler wants to fly. Do I have a second? Motion carries."



Al: "Jim, We HAVE to find a decent place to eat!"
Jim: "Anything Al! But please fly it first!"



Al Neinast stuffs his rocket.



Mark Schmitt prepares to fly Streamer Duration.

NARAN

25

THE WET STUFF!



Terence Beaubourgard Cottonmouth Asphalt Cosine Lee.



Troy Stratton flying an Honest John in Scale Altitude.



Jeff Vincent prepares his Super Scale Sandhawk.



Tom Pastrick prepares to fly B B/G.



The Dualegglofters find a riffy model in the mud.



Kevin Kuczak prepares to fly egglo.



The Dual Egglofters team: "Engines? I thought you had the engines!"



Mark Schmitt definitely has the "Wet Stuff!"



Kevin Kuzak with a "groupie".



Harry Rose prepares to fly Scale Altitude.



Scale Judge finds that the BL team's model, "measures up".



Tom finds a merely damp spot to fly.



Troy receives a bit of help from Jedimaster Terry Lee.



Al Keinast caught in the act of swiping a NARAH souvenir.



Larry London and his Beaver.



J. Pat Miller and Dan Meyer pose with the NASA display. Dan's the one with the big ears!



Ric Gaff, Bunny and Larry London as they measure the Little Joe II launcher.

NIRA'S 20TH ANNUAL LABOR DAY LAUNCH

LABOR DAY PHOTOS BY MRS. SCHMITT.

NIRA's Twentieth Annual Labor Day Launch was an undeniable success, despite one of Model Rocketry's nemeses, a brisk wind! Club members starting arriving around 12:30 to get set up. We started with the tarps. Despite valiant efforts by most of the members present, they refused to stay put. We had to settle for open tables in the sun. We put soda sales on one side of the grandstand and model displays on the other.

The tarp episode was just a beginning of a wind plaguing the Demo Launch. It still was an improvement over the rain of the past two years. Reefed chutes and streamers were the direct order (and good sense) of safety officer Tom Pastrick. Tom also checked recommended engines in an attempt to cut down on the lost models. We still had a few go bye-bye.

With kits outnumbering home designs by four to one, the launch itself looked a lot like an Estes demo! Estes kits ranged from little "Vipers" and "Mini Mean Machines" up to the "Pershing IA" Maxi-Brute. There was even an old "TIE Fighter"! Bob Kaplow gave his "Happy Meal McRocket" a workout with three flights including a 1/2A "fire and flop". Ric Gaff flew his Pyramid using a streamer to recover the motor. (Competition rules, you know. - RG) Tom Pastrick thrilled the crowd by flying an egg in his Pregnant Whale. The crowd approved of the D12 flight, but were disappointed by its flying away.

While small motors were the order of the day, a number of C and D powered models were also flown. These included Jim Hogue's Pershing, Larry London's Coke Rocket (Which would have won the prang award if we gave those out at demos! - RG), Mark Schmitt's UFO, Jim Elwart's Phoenix, the aforementioned Whale, and Henry Veldenz's Cherokee D. Chuck Copeland's Mean Machine swayed around in the wind so much, he decided to hold it until a calm period. This worked just fine, except a gust hit the model just as it cleared the rod, and the black birdie flew off downrange at a 45 degree angle. Chuck lost the model. I knew those D12's people were nuts! Still the number of lost models was fairly low, and there were only two prangs.

Participation is what demos are all about, and NIRAites turn out in force for Labor Day.

Ric Gaff did an outstanding job fielding numerous questions at the info table. He also passed out flyers with club information on them. The display table of various models, including scale bird and plastic models, was very impressive. Bunny did an excellent job as Master of Ceremonies. He kept the audience informed while the rounds were prepped and named owners of various vehicles before each was fired. The audience turnout was moderate yet enthusiastic. Several non-members showed up, rockets in hand, and had to be turned away. We did invite them to the next club launch.

Bunny's press releases resulted in a couple of newspaper announcements, and WBBM-TV came out. They filmed the beginning of the demo but left early on. We made the news programs that evening, and continued to appear several times on later newscasts.

Overall, considering the wind and the low power flights (Jim's a big fan of high power. - RG), the launch was great. A wide variety of rockets were flown, and NIRA showed the different aspects of Model Rocketry to the public. The entire club showed its class with this well delivered demo.

Jim Hogue



A miniature NASA readies the SRB for a Space Shuttle.



"Jedi" - Schmitt and friend prepare a pad for larger models.



Jim Hogue's "Pershing II" model was a real crowd pleaser!



Ric Gaff caught in the act of running the display stand.



Lift-off of Century UFO. You won't be seeing too many of these anymore!

AUGUST CLUB LAUNCH

The club launch on the 28th was designed to let members get ready for the Labor Day Launch. Weather conditions were nearly perfect, with warm temperatures and OK winds.

Larry London flew his "Coke" rocket for the Nth time. Despite its general "weirdness", it flew OK on flight one. Flight two brought the inevitable prangs all weird rockets deserve.

Larry Mika decided to try Larry London's F105 plastic model conversion. After some consultation with the Plastic Model Prangers Association (That's Bunny, Henry, Larry and Tom. - RG), more noseweight was added. Alas, it wasn't quite enough, and the model stabilized horizontally. It looked just like the real F105 in flight, but even the worst F105 pilot could have managed a better landing than the one members saw here. Ouch!!!

Mark Schmitt decided to try out his new control of the Force and brought out a new RC BG. It was a big red and blue model equipped with D12 power. He flew it twice, and relied on the Force both times. After nearly planting it on boost, he managed to turn in fairly decent flights.

Bunny's new Honda had survived the NIRA flying season undamaged, a condition most NIRA members felt deserved changing. Ric Gaff's R2D12 decided to arc over in an unhealthy manner this time and got some nasty comments from the Wabbit before landing in a cloud of dust about 15 feet from the intended target.

Bill Tuleja and son B.J., regulars at most launches, came out flying their *Estes Patriot. As usual with most of the *Estes kits they build, it looked good and flew better. They used a home-made elevation only tracker to get an altitude reading on the model, too.

Tommy P.'s Space Plane went unstable doing outside loops.

Jim Houge, NIRA up and coming scale model enthusiast, brought out an old *Estes Gemini-Titan kit. The model flies on two 18 mm engines and is stabilized by clear fins. Jim's pride and joy decided to go unstable after losing two fins. Aside from those parts, the model was undamaged and recovered OK. Encouraged by his luck, Jim brought out a pseudo-scale sounding rocket with 3 D12's. After some careful preparation, it took off with a tremendous roar and gently floated downrange. It was clearly the flight of the day.

All in all, it was one of the better club launches of the year. The pace was relaxed and the conditions were good. And the preparation for Labor Day paid off the next week. Aren't you sorry you weren't there?



SEPTEMBER CLUB LAUNCH

September 11, 1983

This launch was for all the folks who graciously came out to Labor Day and got all excited about flying model rockets. We spent a lot of time discussing who does what and how they do it with some of the newcomers. We also got some flying in.

Larry London flew a test egglofter. The model was powered with a "hot" B5. Larry seemed to have consulted with Bullet Bob on the fin size. The model coned badly but worked fine otherwise. Larry also lost his "Supersonic Rocket" on a composite F. It landed in a tree far on the other side of the water treatment plant.

Paul Nikkila decided to resurrect F-105 plastic model pranged by Larry Mika at the previous launch. He didn't have any better luck, and the model finally received a decent burial.

Henry Veldenz had gotten into flying some of the larger FSI motors this season. He had your average looking sport model with plywood fins around and stuck a D20-7 into it. With a streamer recovery system, the model flew great, and Henry managed to recover it intact. Henry also brought out a Mirage 2000 fighter plastic model conversion. It had been test flown successfully and now sported an excellent paint job including panel lines inked in. In flight however, it tried to skewer the Wabbit for dinner before rekitting itself. No one could figure out why the model went haywire.

Bunny raided the range store and flew a season high total of nine flights. His ever-reliable SPEV, a shortened Orbital Transport without the glider part and an ACLM Cruise missile were his weapons of choice. All flew in excellent Wabbit fashion.

Jedi Schmitt decided to give the Rose-a-Roc HD model another chance. Mark put on higher aspect ratio rotors and loaded up the 18" model with a standard A. The model flew great and turned in over a minute with no problem. Looking for some more fun, Mark turned to a twin D12 UFO. These have been seen so much on NIRA ranges that nearly the entire club yawned. Mark moved on the bigger things by bringing out his ancient but honorable Saturn V. Mark's model is powered the "old fashioned way" with 3 motors. Flight #1 went off with no fins and only two motors. It worked great, proving again that Jedi's control the Force. Flight #2, with fins and all three motors roaring, flew well, too.

Another great NIRA club launch went down in the books. With the weather getting colder, you better get those last minute flights in before it's too late!

ATTENTION NIRA MEMBERS!

NIRA recently purchased the entire model rocket inventory of the Squadron Shop. At the December NIRA meeting this material will be made available to NIRA members at HALF PRICE! That's right! 50% of retail, folks. There's a large selection of Estes and FSI kits, motors and parts all at HALF PRICE! Remember, that's the December NIRA meeting (see calendar above) on a first come, first served basis.

NARAM WIT & WISDOM

NARAM, being a week long contest, offers more than ample opportunity for some folks to shed their shyness and come up with some zinger "Quotable Quotes". We offer, for your approval, these pearls of wisdom from Houston.

"You've got to remember, most of the Board was on the field today." "Serves them right; they picked this field." - Bunny and Larry

"So sue us. Everybody does." - J. Pat Miller, NAR President, harassing NIRA members.

"It was only the fins." - Troy Stratton, commenting on his B45 shread, predicted by NIRA members prior to the flight.

"With cars like this, armadillos have a chance." - Larry London, assessing the performance of our rental car.

"On every day, in every way, we're getting better and wetter." - unknown, commenting on the general condition of the meet.

"So if the Bible talks about 'Go forth and multiply', who's this guy Multiply?" - Bob Kaplow, clearly confused about who ran NARAM.

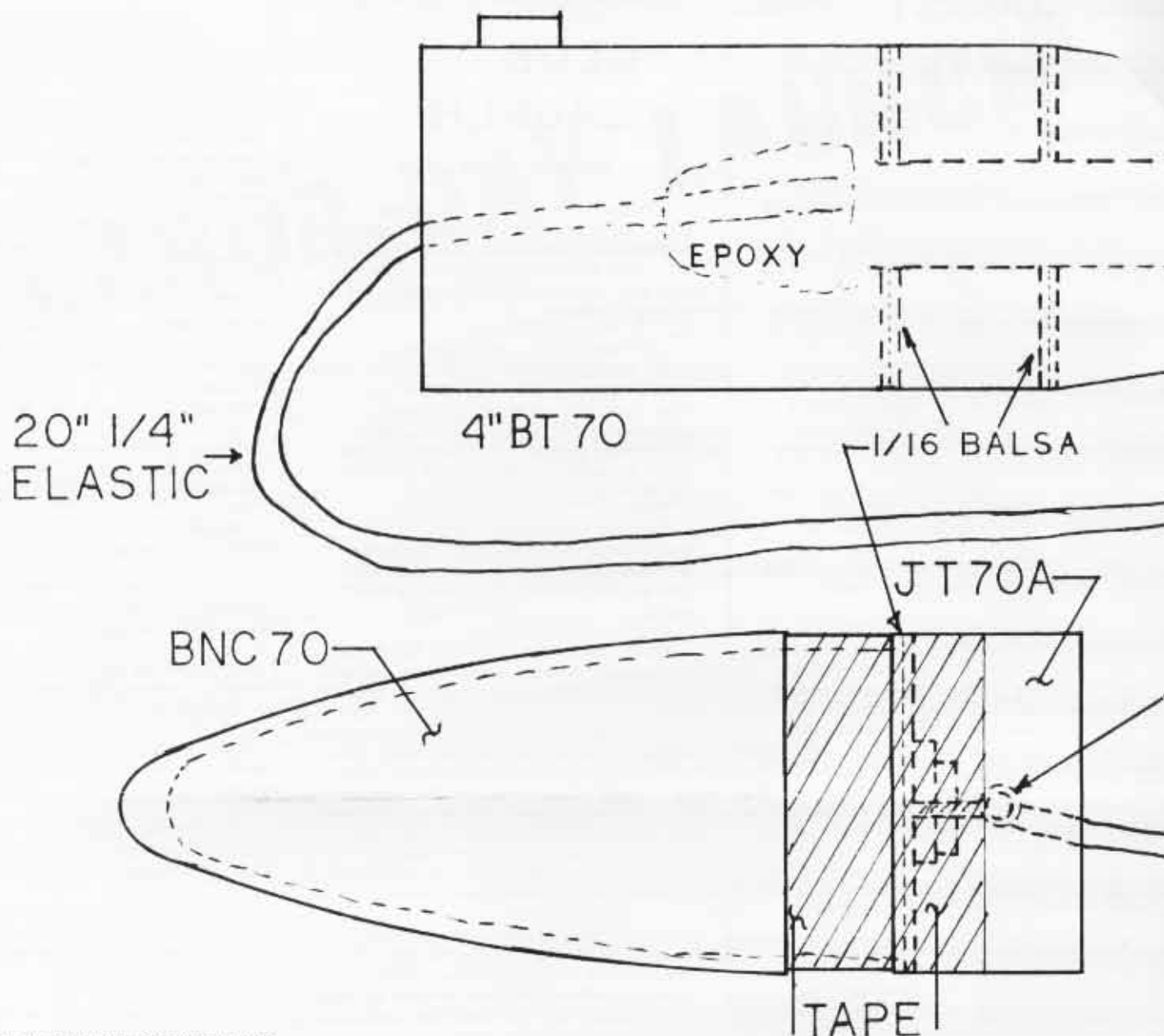
"I just get to take home Bob." "So is that a prang award?" - Judy Kaplow and Larry London, commenting about the quality of NARAM awards.

THE "RIGHT STUFF" SPACE FILLER

One of the favorite anecdotes at Cape Kennedy involves Alan Shepard or John Glenn, depending on who is telling the story. The astronaut had spent hours in his spacecraft on the rocket launch pad before liftoff finally came. He later was asked what he had thought about during the long wait and replied:

"I just kept looking around at all those dozens of instruments in front of me and remembering that every single one of them was supplied by the lowest bidder."

At a press conference before the scheduled Apollo 1 space flight in 1967, the late Gus Grissom was asked what he thought the most critical part of the mission would be. The astronaut answered, "The part between liftoff and splashdown."



TOM PASTRICK'S PREGNANT WHALE
An Easy-to-Build Egglofter

For several years, Tom Pastrick has been flying what most competitors believe is a clunky egglofter, The Pregnant Whale. The Pregnant Whale is a rather large model as competition models go. Clearly, it was designed for reliability. I have seen this model take the darndest prangs without cracking the egg! Try that with your Kuhn or Easter Egg capsules!

Construction is fairly straight forward but you will have to make the centering rings. For extra strength, Tom makes all the rings from a double ply of 1/16" balsa. The rings are cut out separately and carefully. Any excessive misalignment could make the model fly badly. The rings are glued together with the grain at 90 degree angles. The boattail is made of thin paper; Tom uses graph paper. Carefully adjust the boattail to fit. I've included an outline of the taper. You can trace it or cut it out (You don't REALLY want to do THAT to a great newsletter!) You can also calculate and draw up your own boattail. (See January/February issue of the "Leading Edge" for information.)

The real secret to the Pregnant Whale's success is the egg capsule. As the drawing shows, the capsule is a hollowed out BNC-70 nose cone. A Dremel tool helps this job go faster, though you can split the cone, hollow it out, and glue the halves back together. For flight, it is packed with foam rubber, wadding or similar material with the egg right in the middle (of course!). The capsule is taped to the stage coupler. The tape is built up to act as a shoulder against the BT-70.

That's the Pregnant Whale, not the world's greatest performer but when the competition has played Humpty Dumpty, the Pregnant Whale steps in and takes home the bacon! (Sorry about that! - RG)



Tom Pastrick with one of his "Pregnant Whale" variations.

3/16 LUGS (2)



9"BT20

TOM PASTRICK'S

PREGNANT WHALE

FOR EGGLOFT
DURATION

DESIGNED BY TOM PASTRICK

PLAN AND ARTICLE BY RIC GAFF

SCREW
EYE

(4)
1/16"
BALSA

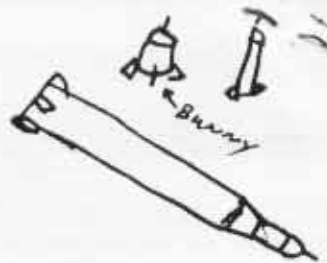
Hi THERE! (BUT PLEASE DON'T LOOK!)
I'm JEDI-Schmitt's FLEXWING
AND I'VE JUST LOST MY (BLUSH)COVERING.
I FEEL SO (BLUSH)NAKED! BUT AT LEAST
I FEEL A LOT COOLER! UNFORTUNATELY
I DON'T
GLIDE TOO
WE'LL THIS WAY,
SO BEFORE I GO
"SKINNY-DIPPING" IN THE
NARAM MUD I WANT
TO TELL YOU ABOUT THE

MODEL ROCKET AIRBASS
STILL AVAILABLE!

GLENELLYN
TOY + CARD SHOP
476 MAIN ST.

MERRY CHRISTMAS AND A HAPPY NEW YEAR

RIC GAFF
331 THIRD ST.
NORTHFIELD IL
60093



How much is
a glider pet
worth?