

THE LEADING EDGE

NEWSLETTER OF THE NORTHERN ILLINOIS ROCKETRY ASSOCIATION

Volume 10, No. 5



SPECIAL CHAD NARAM PHOTO!!!



NIRA WINS AGAIN !!!

T-MINUS ONE

MONTHLY MEETING - September 4, 1987 at the Glen Ellyn Civic Center, 7:30 PM. The major topic on the agenda, as might be expected, will be NIRA's annual Labor Day Launch. We will also hear all about our third victory at this year's NARAM and make whatever plans are necessary for our victory party and ETR. Also, if Jedi is still around, we can wish him luck in Ruthenia (or wherever the Internats are being flown this year).

And don't forget your Model of the Month!

LABOR DAY LAUNCH - September 7, 1987 at Newton Park in Glen Ellyn. Please arrive by 1:00 at the latest (showtime begins at 2:00) in order to set up. We need all NIRA members and hangers-on to bring many rockets to wow the fans. Remember, there will be crowds and perhaps reporters there (two years ago, Harry Porterfield came and interviewed Bob Kaplow's range box), so bring time-tested, *stable* models.

NIRA'S VICTORY PARTY - The party celebrating NIRA's third triumph as the NAR's National Championship Section (and hopefully Jedi's victory over the Commies) will be held on September 26 at Bob and Judy Kaplow's home, 1628 Waterford Lane in Palatine. For more information call Bob at 934-1160.

EVANSTON-TYROS REGIONAL - On October 17 and 18 NIRA will host

its annual fall regional. This year ETR (a/k/a Evanston-Tyros Regional a/k/a Extremely Terrifying Rockets) will meet at Chanute Air Force Base in Rantoul, Illinois, just outside Champaign-Urbana. The events are:

- 1/2 A Helicopter Duration
- C Eggloft Altitude
- 1/2 A Parachute Duration
- B Streamer Duration
- Predicted Duration
- B Payload
- A Rocket Glide
- Space Systems, and
- F Boost Glide (unofficial)

SPORT LAUNCHES - NIRA sport launches are held at Ackerman Park in Glen Ellyn every second and fourth Sunday of the month from April through November. The upcoming sport launches are:

- September 13, 1987
- September 27, 1987
- October 11, 1987
- October 25, 1987
- November 8, 1987
- November 22, 1987

UPCOMING CLUB MEETINGS -

- October 2, 1987
- November 6, 1987
- December 4, 1987

CONGRATULATIONS DUAL BABY-LOFTERS

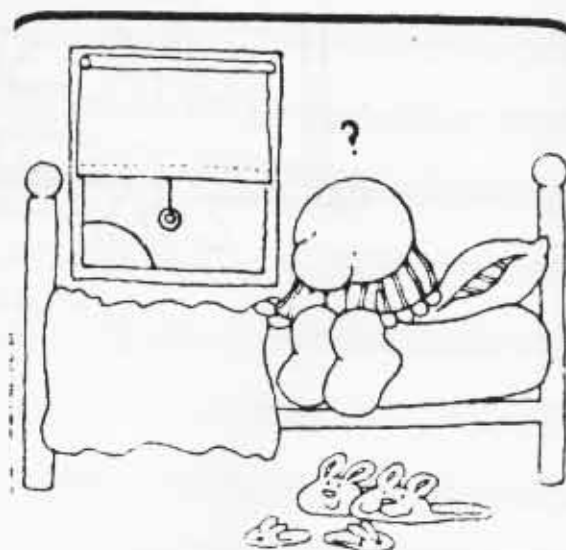
NIRA proudly congratulates Mark (Bunny) and Barb for the successful birth of Elizabeth

Anne and Jennifer Lenore. NIRA's two newest Bundick's were born on July 5, 1987 at 10:13 and 10:14 PM respectively. Elizabeth weighed in at 7 lbs, Jennifer at 6 lbs, 3 oz.

While we're on the subject of babies, NIRA also congratulates Bob and Carolyn Rau of HUVVAARS on the birth of their daughter, also named Elizabeth Anne, in June, and Dan and Chris Wolf on the birth of their daughter, Mary Christine, in August.

Finally, major life changes seem to be in the cards -- Jay Apt, noted model rocketeer and real life astronaut, got married this summer. Details will, if possible, be made available at the September meeting.

ZIGGY



3-26

Tanaka

MODEL OF THE MONTH



The model of the month winner for July is "Jedi" George Riebesehl and his home-built, commie killing radio control rocket glider. Congratulations, Jedi, and good luck in Yugoslavia!



The model of the month winners for August are Mark and Barbara Bundick with their scale astronauts, Elizabeth and Jennifer Bundick. Congratulations, Bunny and Barb.

THE LEADING EDGE

is published bi-monthly 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 \$3.00 per year and include a six issue subscription to the Leading Edge. Non-member subscriptions are available for \$5.00 per six issues. All membership applications and subscriptions should be sent to Bob Kaplow, 1628 Waterford Lane, Palatine, IL 60074. Articles, plans, other newsletters, and news items of interest should be sent to Barb Bundick, Editor, 1523 Cleveland Street, Evanston, IL 60202. Any material in the Leading Edge may be reprinted if proper credit is given.

STAFF

Editor - Barbara Bundick
Publisher - Ric Gaff
Typist - Bunny

CONTRIBUTORS

Lawrence Bercini
Barbara Bundick
Bunny Bundick
Ric Gaff
Robert Kaplow
Doug Mac Millan

*NEWSLETTER OF THE
NORTHERN ILLINOIS ROCKETRY ASSOCIATION
1985, 1986 AND 1987 NAR
NATIONAL SECTION CHAMPIONS*

NIRA WINS AGAIN!!

by Bunny - based on reports by Scott Doctor, Ric Gaff, Bob Kaplow, Sid Maxwell and Pat Miller.

For the third time in three years, NIRA won the National Section Championship. The contest wasn't even close, as we won by a margin of more than 2A to 1. HARA of Alabama, next year's NARAM host, came in second. (They will be a force to reckon with this contest year.) A Division was won by NIRA's Don "the Taller" Linder with Tim Barklage of Red Stick Rocket Society winning the reserve championship; B Division was won by NIRA's Andy Apel, with Lee Olngiac of HARA winning the reserve championship; C Division was won by Dan Domina (of course), with Fred Williams of CSAR winning the reserve championship; and Team Division was won by HARA's Zunofark with NIRA's Dual Egglofters winning the reserve championship. NIRA's Don "the Elder" put up a strong fight in C, but without a Research & Development entry he just couldn't quite catch Fred.

Sunday brought good weather for the 46 NARAM participants and the LA Rocket Society's demo launch. All models were of the Estes variety except for one Aerotech 625. Marc McReynolds launched a rocket with a home made 35mm camera similar in operation to the Estes *Astrocam*. Since Mile Square Park is used by several other hobby groups, the contestants had to contend with RC airplanes

flying overhead at the demo and throughout the meet.

Monday saw more nice weather for A Streamer Duration and 1/2A Parachute Duration. Unfortunately, there aren't many good stories about rockets with three fins and a nose cone. Good thermals came out early every day, and the best flights were usually the first ones up. Ken Mizoi of the East Meets West team was trying experimental streamer material produced by his chemist dad.

The Association Meeting brought the news that NAR membership is close to 5,000, and is expected to reach an all time high before the end of the year. Renewal rates remain low however. On other fronts, NAR headquarters will move around 9/15 to Minnesota, and be run by Marie Stumpe. (She was informed of the job opening by Tod Schweim, a friend of NIRA.) The NAR's new computer system should be online shortly thereafter. The proposed US/USSR competition is currently being held up by governmental red tape, but most of the necessary funds have been raised. Several projects to increase the number of sections in areas where there are several NAR members are underway. As expected, all of the bylaws proposals passed.

Tuesday brought B Eggloft

Duration and lots of very low flights. This event is difficult because the models are quite underpowered. Big parachutes of 30-60" were the norm. Bullet's 77 second second flight was good for 6th place. Don the Elder's heartbreaking 13 minute flight on a 50" chute thermaled away.

This event also generated the "Best Midwest Qualified Flight" when Robert Sanford from Aerotech carefully but unknowingly prepped his bird with a 1/2A6-2 engine and managed to get past Ric Gaff at check-in. The rocket went pffft, climbed to an outstanding altitude of five feet, reached apogee, and plopped on the ground.

A Boost Glide brought good but not spectacular flights. Don the Elder beat Dan Domina, former model airplane flyer, with a small balsa birdie. Way to go Don!

D Eggloft Altitude generated tracking problems. DB engines *really* boost high and disappear between burnout and ejection. Also several flights flew higher than the Centuri Sky Tracks could follow, and had to be scored as track lost. One did better with a D12 and a closed track.

RA WINS AGAIN -- Continued.

C Helicopter Duration brought out lots of *Rotarocs* and *Rose-A-rocs*. Sid Maxwell won with a *Helix* he had built at the meet. *Don Quixoties* seem to have disappeared from the contest scene for now. I wonder if our friends at WWAR will keep flying them?

Thursday brought out a visitor, the FAA. They came out since the Contest Director had requested clearance to fly a 3.3 lb. model. They nearly shut the range down, but couldn't legally do so under Part 101 of the Federal Air Regs. Thank you Harry Stine for being on the field today!!!!

D Rocket Glide was Dan Domina's event. His models were very well trimmed, and no one's total came close to his worst flight. Bullet was second with his *Quetzalcoatl 26B* and a 2.5 minute flight on a C6-3/A3-4T combo. Tom Pastrick's "\$11 of Terror" bid for the Best Midwest Qualified Flight. Tom tried a no moving parts *Manta* and a D8. It arced over, did some touch and goes, scattered people, then hit pavement -- all under power. Tom Beach's flexie opened early on flight #1, but worked great on #2.

Many questionable Plastic Models were flown from a downrange pad. Many of them surprised the RSO and everyone else by working, or at least by not being violently unstable. (Don the Younger's *SABB Viggen* surprised everyone and flew perfectly.) There were also

many good prangs. Dan Domina flew an old *Lindberg Star Probe* that had blinking LEDs for nose weight. Nearly everyone else flew jets, save for Sid Maxwell's *Saturn V* and the Zunofark's *Pilgrim Observer*.

Lots of junk, and several interesting items were sold at the auction to support NARAM and the Internats team. Tom Beach paid \$160 for a *Cineroc*, Sid "Vicious" Maxwell paid \$77 for a signed/numbered copy of the original Estes catalog, while Tom Pastrick bought a copy of the original *Model Rocket News*. Kaplow bid like crazy on a Czech motor, handmade by world champion Juri Taborski. Judy outbid him. (She always has trouble finding presents for me, so I guess she found one. - RGK)

In Friday's Scale event, two points separated Tom Beach's *Little Joe II* from Fred Craven's *Jayhawk*. Tom got a good flight with only minor landing damage. Fred flew his model with two scale nozzles, and a D12/C6 cluster. Since only the C6 ignited the model was severely under powered and crashed for a DQ. Fred repped the model for a second unofficial flight, lit both engines, and had an absolutely perfect flight.

Research & Development brought the judges seven reports, not a bad number given the low attendance. Reports selected for oral presentations included "Designing a parachute for a stable descent" (C division 1st), "Design of a pin-pod for

reducing Red Barons" (C division 3rd), "Breaking the model rocket speed record" (C division 4th), "Optimum angle of attach for flat helicopter rotors" (A division 1st), "Design of a RC flexy RG" (C division), and "A tool for creating conical transitions" (C division).

The Awards Banquet was a nicely arranged buffet -- the best food of the meet. NIRA's Ric Gaff won the grand prize, an expense paid trip to NARAM-30. Good job, Gaffer! The Galloway award went to the "Permit Busters", including all the Massachusetts NAR members who helped get rid of the permit system. The LAC Newsletter award went to T-5, of the HUVARS section in Michigan. The prize was well-deserved!

All in all, NIRA had another great time at NARAM-29, and another excellent competition season. Thanks to Martin Bowitz, NARAM Contest Director, and his hard working assistants, including Marc McReynolds and John Joseph. See you in Hunstville next August!



"Dearborn Street? Sorry, Pal, this is the Fermilab Accelerator."

TREK NAR'S LAMENT

CHAPTER 3: *Trek Gets His Act Together* by Ric Gaff

As the roar increased, Trek's well-developed survival instincts informed him that the sound was not in his head. Trek instantly fell to the sidewalk as a large black car roared up. Leaning out of the passenger side window was a creature for which the word "humanoid" would be a usable description in only the remotest sense of the word. It held, in what were presumably its hands, an odd-looking device that a human would have mistaken to be a miniature Gatling Gun. As Trek fell to the sidewalk, a blinding bright light show of high intensity red laser beams perforated the Trek Nar shaped vacuum and impacted the brick wall behind him. Each of the dozens of beams left a smooth, perfectly round five inch deep pit. As the car roared off, Trek pulled out his "Dirty Harry" special and fired several shots, but the car turned a corner to disappear down a side street.

Trek's curiosity was understandably piqued, as was his ire. Being shot at while on a job was nothing new for Trek, except that at the moment Trek was between jobs and laser beams were something else. Trek carefully examined the pitted wall, a wall that wasn't in too good condition to begin with. He ran a finger over the glasslike glaze of one of the pits and wondered where a

weapon like that could have come from.

As he stepped back from the wall he realized that something else was wrong. "Damn! The Pad is missing!" he gasped. He had been standing in front of it just minutes ago, just before that strange wave of nausea passed through him. He looked up and down the street. "I'm not even on 48th Street!" he realized with a shock.

Trek walked up to the street corner to read the street sign. It was so burnt and bent out of shape that it was illegible. Trek looked over the street, the dozen or so burned and battered hulks of cars parked along its sides, the building across the street missing its upper floors, the building next to it simply a broken heap of rubble. The wall behind him was all that was left of a once beautiful building. Trek stepped into the middle of the street, into the dim light of night, and stared dumbfounded at the destruction around him. He turned to look up the street, the direction the light was coming from. In the sky hung a large donut-shaped object giving off enough light to brighten the night better than the full moon.

"What the hey!!" Trek staggered back into the shadows cast by building remnants. So shaken

was Trek that he failed to hear the sound of a person quietly coming up behind him. A tall, blonde woman, her hand resting easily on the grip of a handgun in a holster around her hips, came up behind Trek and stopped a few steps behind him.

"Hi Trek. Long time no see." she said quietly in a clear, almost musical voice.

Trek's blood turns cold. He is now certain that he has lost the last of his marbles. He slowly turns and faces her. His eyes would surely have popped out of his head in surprise were he not already completely numb.

"Erica! This is impossible! This can't be real! Erica, is that really you?" he gasped, stepping closer.

"Yes Trek, it's really me," she said quietly. Although she was trying to keep an eye on the shadows she could not help but look at him. It had been such a long time for both of them. Her hand still gently gripped the butt of her weapon.

"Now I know I'm crazy!" Trek cried. "You're dead! I saw you die four years ago!" he exclaimed as the darkness around the edges of his vision closed in on him. He staggered against Erica, almost unconscious. "Erica, real or not

TRIP NAR'S LAMENT -- Cont.

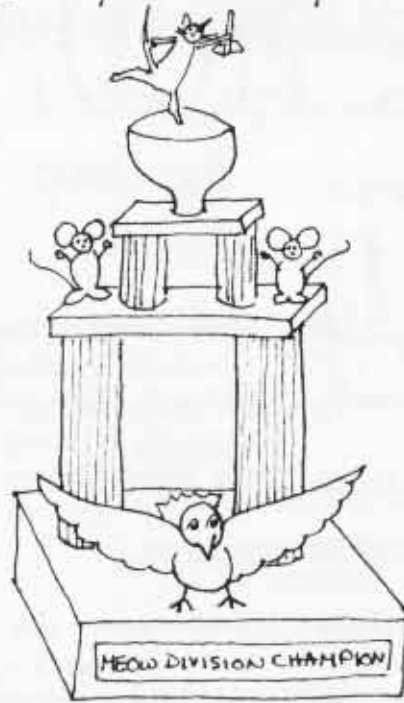
"I love you!" he gasped as he slumped to the ground, totally unconscious.

Unable to hold his weight, Erica fell, dropping them both on the ground. "Trek! this is not a real good time to pass out!"

She suddenly heard a rasping sound that sent a chill down her spine. Behind them stood a creature that even H.P. Lovecraft would not have liked. In a voice like sandpaper rubbed against an inflated balloon it hissed, "You humans are in a forbidden area! Get up or die!"

TO BE CONTINUED

KAPLOW'S KITTY BOUTIQUE
(for all your cat's rocketry needs)

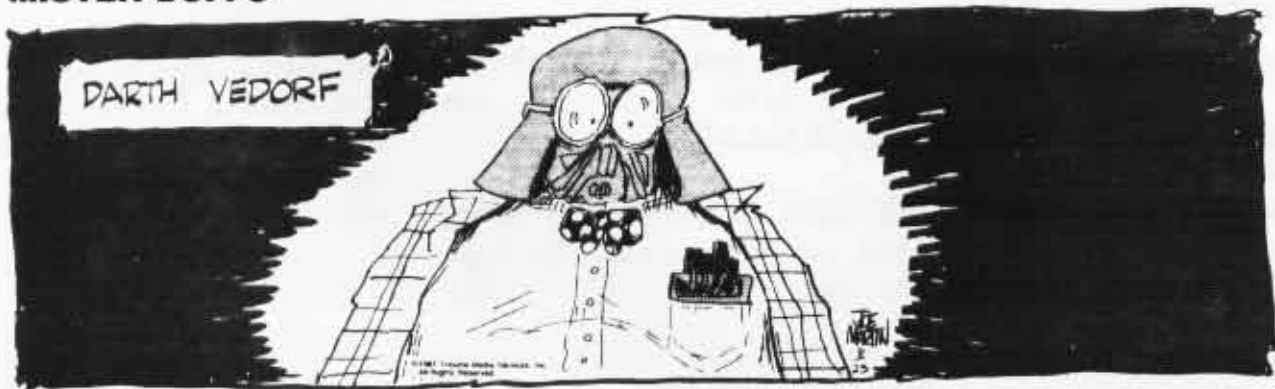


Buy your cat's trophies here!

MISTER BOFFO



MISTER BOFFO



THE NOVA FIGHTER

By Doug MacMillan

The *Nova Fighter* fills the gap in the *Estes Nova* series. The *Starship* and *Scout* are kits that perform well and have a distinct appearance.

The *Nova Fighter* is a small lightweight battle craft, highly maneuverable in deep space or in the heaviest of atmospheres. This ship is a lethal opponent in any battle. Powered by two ion-impulse engines which revert to atom displacement thrusters in atmosphere, it is capable of light/warp speeds in classified levels. Under the rudder are six bi-directional phasor cannons surrounding a bi-directional photon torpedo tube. The guns are locked on target by the three laser tracker/sensors located on the tips of the rudder and the wings.

I have successfully tested this fighter with the following engines: A8-3, A8-5, B4-2, B4-4 (as far as I have tested). It would probably also work with a B6-2, B6-4, B8-5, C6-3 and a C6-5.

Due to its construction, the *Nova Fighter* can be displayed vertically without the need for a stand.

Please note: Read the following directions carefully, and test fit all parts before gluing. Each assembly is always done so that the glued part is flush with the REAR of the part it is being glued to.

First, mark the 9" BT-50 (A) using the marking guide. Note that there are only three guide lines. Extend them 3" from the rear of the BT-50.

Next, construct the gun assembly. Glue the launch lugs (E) in three parallel pairs. When dry, glue the pairs around the remaining launch lug. All seven lugs must be parallel with each other. Then, place a fine line of glue inside the rear of the BT-5 (C). Jam the launch lugs in until they are flush with the rear of the BT-5.

Glue the gun assembly onto the 9" BT-50 along the line marked "gun." Glue the belly fin on the opposite side of the BT-50. Add fillets, of course. Install the engine holder flush with the rear of the BT-50.

To start preparing the wings and the rudder, cut the dowel

(F) into three 2 1/2" lengths and sand one end of each piece round. Now, assemble the wings and the two halves of the rudder as shown on the plan. *Do not glue the rudder halves together at this time.* Glue the two 3" BT-50 tubes (B) to the wings, centering them on the wing root/wing joints.

Now, attach the rudder around the guns on the main body tube. When dry, attach the wing assemblies to the body, with the root edges on the BT-50 and against the root edges of the rudder, and with the BT-5s against the body. Glue the remaining dowel to the rudder.

The model is painted matte black with gloss red "windows." The band is matte red with black markings. Use your imagination for the ship and squadron markings. A thin line of silver is at front of the BT-5 "engines." (To achieve a matte finish, paint the model with gloss paint. Mask over the "windows." Then paint the model with Testor's *Dull-Kote*. Hint -- if you shake the can, most of the flattening material will spray out. Don't shake the can!)

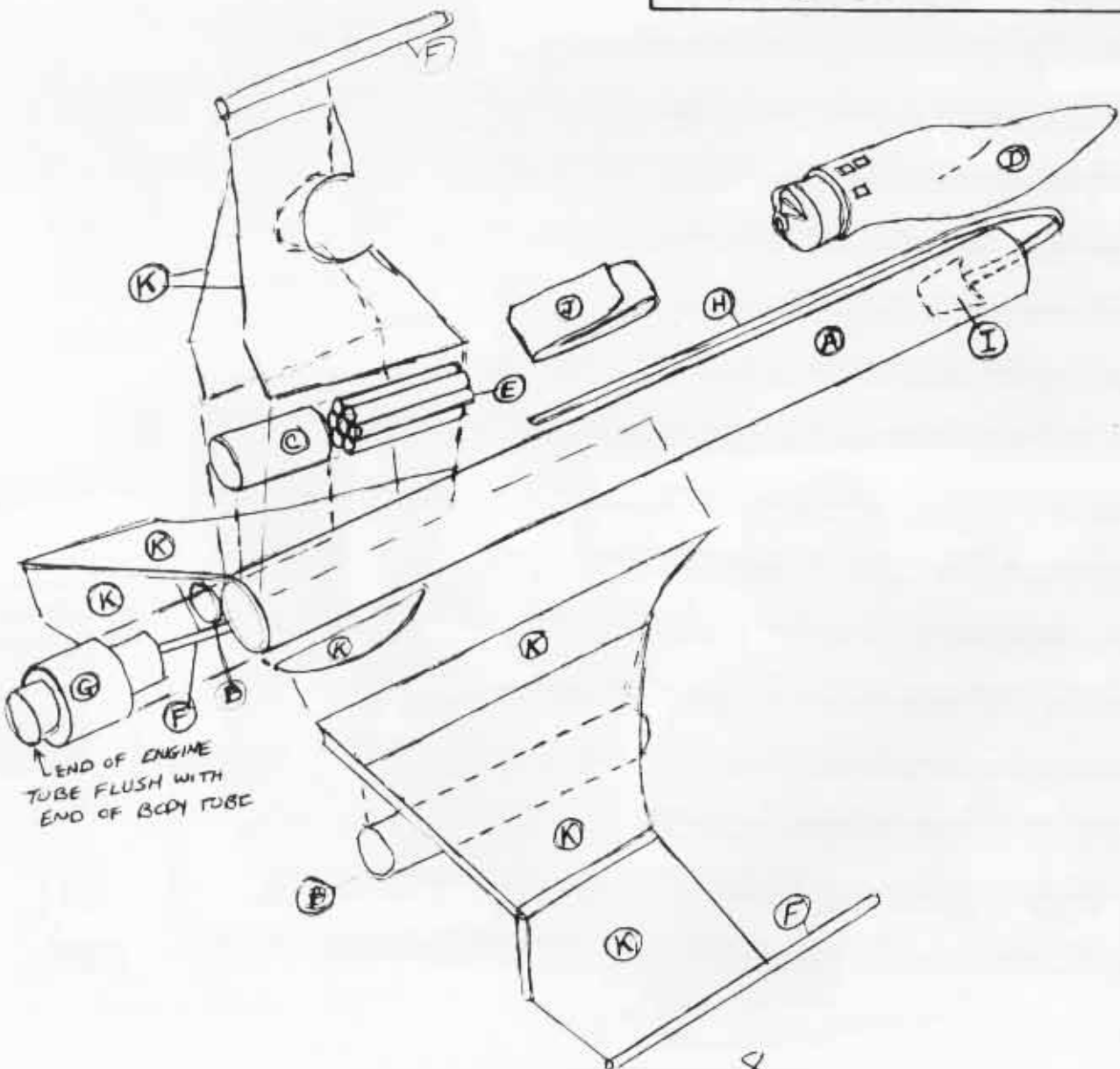
PARTS LIST

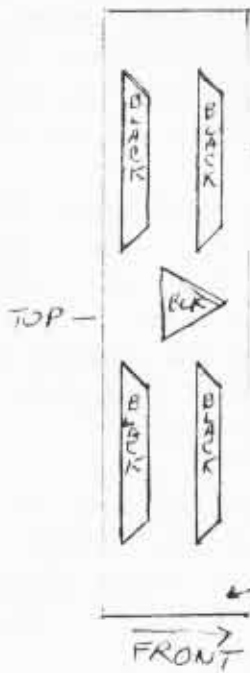
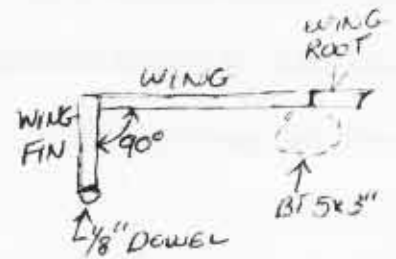
- A: One 9" BT-50 body tube
- B: Two 3" BT-50 body tubes
- C: One 1/4" BT-5 body tube
- D: One PNC-50 nose cone
- E: Seven LL-2B launch lugs (2 3/8")
- F: One WD-1 1/8" dowel, 7 1/2" long
- G: One EH-2050 engine holder
- H: One 18" SC-1 shock cord
- I: One SCM-30 shock cord mount
- J: One RS-20 1" x 20" streamer
- K: Two BFS-30L fin stock

AND THEN THERE
WAS YET ANOTHER
DELAY



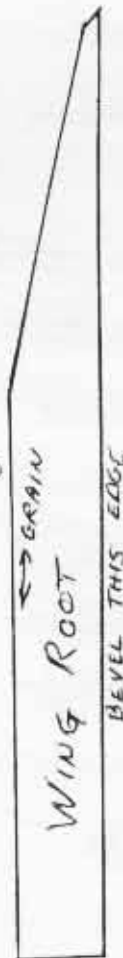
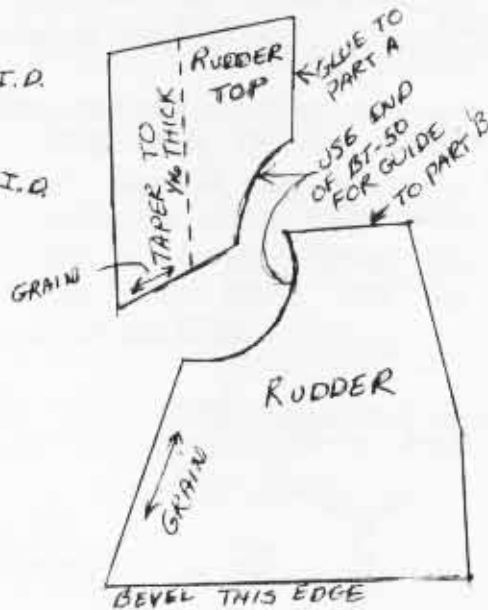
"HEY.. WOULDN'T IT BE SOMETHING IF THAT WATER TOWER
SHOT OFF INTO SPACE INSTEAD OF THE ROCKET?"





SQUADRON I.D.

SHIP I.D.



LATE MWRC PHOTOS!



BULLET BOY & DAVID PRICE



ANDY APEL



PAT PETERSON



ALAN JONES AND BOB FAPLOW



MARK BONDICK AND JEDI GEORGE

PHOTOS BY LAURENCE BERGMAN

So buy your rocket
supplies at the Glen
Ellyn Toy and Card
Shop -- OR ELSE
YOU DIE!!!



THE LEADING EDGE
c/o Bob Kaplan
1628 Waterford Lane
Palatine, IL 60074