INSIDE: Flying Jenny Revisited • H Powered Astrobee-D • So Cal Contrails • Saga of Dangerous Dave • Guerrilla Rocketry

WARP 9

"If at first you don't succeed, call North Coast and get the missing parts."

Official Newsletter of DART / NAR Section #317
Volume 8 / Number 2 / Issue 41
March / April 1995

DART

DART is an officially chartered section (#317) of the National Association of Rocketry (NAR) and is operated as a nonprofit organization to promote the hobby of rocketry in the San Diego area. DART membership ($10 per year, individual or family) is required to participate at DART sponsored launches. Although membership in the NAR is not required, it will be necessary for participation in NAR sanctioned competitions. For more information, contact:

John Wright, President
1103 Joshua Street
Escondido, CA 92026
(619) 746-3797

Bob Sanford, Vice-President
11918 Rocoso Rd.
Lakeside, CA 92040

Konrad Hambrick, Secretary/Treasurer
310 Third Avenue, Suite C-21
Chula Vista, CA 91910
(619) 585-8611

Jim Neubauer, Section Advisor
10233 Camero Place
Lakeside, CA 92040
(619) 449-1589

National Association of Rocketry
PO Box 177
Altoona, WI 54720

Tripoli Rocketry Association
PO Box 339
Kenner, LA 70063-0339
(High Power Rocketry)

WARP-9

WARP-9 is published bi-monthly by DART. Opinions expressed herein are those of the authors only. Non-member subscriptions are $8.00 for 6 issues. Extra copies of this issue are $1.50. ***MAKE ALL CHECKS PAYABLE TO Kevin Funk*** (The bank doesn't understand about WARP-9). Material appearing in WARP-9 may be reprinted provided proper credit is given. Address all correspondence to:

Kevin L. Funk, Editor
25944 Kaywood Court
Escondido, CA 92026
(619) 432-9626

Contributors this issue:

Alan Berman
Richard Funk
George Gassaway
Konrad Hambrick
Barbara Kairis
Mathew Lowrie
Jim Neubauer
John Thompson
Dave Wentworth

On the cover: Alex Boyce's 1/40 scale Proton lifts-off on G80 power. (Photo: Matt Lowrie)

The Wright Stuff

By John Wright, Jr.
DART President

The subject for this issue is — Can we help with the project that Jim Neubauer has volunteered to head up, a collection or library of model rocket plans. This will be quite an undertaking and could be of real use to those of us in need of reference material, particularly when it comes to out of production kits.

I'm sure that some of you out there in rocket land have old plans or even kits that could be copied for the library. I'm not asking that collector's donate sealed kits from their collections, but opened kits can be of use for fin patterns, jig designs, etc.

Even completed kits can be measured for fin patterns. All of you BARs (Born Again Rocketeers), what are you hiding in your attic or closet?

Let's see what we can find and put into the library. There has to be some of this stuff out there. A little digging could uncover some interesting data on models!

Throttle up!

J. Wright

TOMSK, Russia (March 5) Engineers walk past rockets. Pilot, a Russian aerospace company, converted the rockets fro ballistic missiles to communication satellite carriers. (Reuter Photo)

Neubauer's News

By James Neubauer (NAR #25586)
DART Section Advisor

In my first column I talked about a librarian to gather and store old plans from the old classics to the new models that will become classics. I would appreciate all the members to look through their old kits (especially if open} and allow me to archive them for later use. Here is a list of my plans.

ESTES

CONDOR	SPACE TWINS
FLYING JENNY	DRAGONFLY
ROBIN	ORBITAL TRANSPORT
SKY SLASH II	RAVEN
SCISSOR WING	MINI MARS LANDER
EAGLE	TWO BITS
NIGHT HAWK	GYROC
SPACE PLANE	SPRITE
SKY DART	VERTEX
CRUSADER	ASP

CENTURI

SWIFT
MACH 10
FALCON
SST SHUTTLE
SPACE SHUTTLE
FLYING SAUCER
X-24 BUG
VULCAN

OTHER

MANTA
BAT
LUNAR PATROL
FLY (THE)
SPACE DART

Looking for:
Hummingbird
Fire Fly
Mini-Dactal

It's time to start getting ready for the next contest on May 6. The contest will include A boost glide, B Helo, B Super R B Streamer and Plastic model conversion.

See you there!

DART

REGIONAL XII

SATURDAY MAY 6, 1995 • 7am – 2pm
FIESTA ISLAND, SAN DIEGO

A Boost Glider Duration
B Helicopter Duration
B Streamer Duration
B SuperRoc Duration
Plastic Model Conversion

This contest will coincide with a previously scheduled sport launch. A separate contest range will be in operation for this event. For more info, call the Contest Director:
John Thompson (619) 430-8358.

SCRA

(Southern California Rocketry Association)

OPEN MEET

SATURDAY, JUNE 12, 1995
MILE SQUARE PARK, FOUNTAIN VALLEY

B Streamer Duration
B Boost Glider Duration
C Helicopter Duration
Precision Duration (35sec)
Sport Scale

For more information, call Contest Director:
Alan Berman (909) 949-0345

LUNAR OPEN MEET

SATURDAY, APRIL 25, 1995
ROBERTSON PARK, LIVERMORE
7 am to 5pm

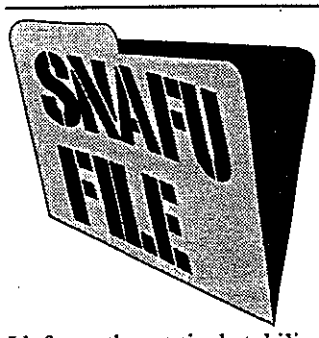
1/2A Parachute Duration
B Boost Glide Duration
C Altitude
D Eggloft Altitude

Special Event: Tomcat Duration
(Tomcat DQ'd if glide slope is more than 45°)
For more info, contact Contest Director:
Jack Hagerty (510) 455-1746

LOCAL NAR TOP COMPETITORS 3/7/95

PLACE	NAME	NAR#	SEC#	PTS	WF
A DIVISION					
1	VICKI BERNATCHEZ	44543	308	4,842	6
23	JOEY MCREYNOLDS	61015	430	102	3
C DIVISION					
1	MARK SKOKAN	61660	308	3,078	6
7	ED LACROIX	11248	IND	1,944	3
19	JAMES NEUBAUER	25586	317	1,284	3
24	STEVE LUBLINER	22152	430	1,053	3
30	WILLIAM ETZEL	50638	506	894	3
38	CHRIS MCDOUGALL	62058	317	600	3
43	ALAN BERMAN	52607	430	546	3
45	ROBERT HAFNER	32480	317	540	3
46	PHILLIP BRAGG	58833	317	534	3
50	JOHN E. THOMPSON	54313	317	516	3
52	JOHN WRIGHT	42323	317	486	3
53	ROBERT PRINZIVALLI	48159	317	486	3
67	MONTAG PLANCK	59667	317	297	3
70	KEVIN FUNK	40770	317	252	3
76	BARRY SATTERTHWAITE	39201	506	228	3
89	MARC MCREYNOLDS	11769	430	120	3
SECTIONS					
1	NARHAMS		139	21,503	6
2	NOVAAR		205	20,029	5
3	DARS		308	18,126	6
4	LAUNCH CRUE		519	16,533	3
5	MARS (NY)		136	8,240	5
6	CSAR		113	6,988	4
7	DART		317	4,743	3
12	SSS		506	3,066	3
20	LARS		430	768	3

ONLY MEETS REVIEWED AND APPROVED BY THE NAR CONTEST BOARD ARE LISTED HERE. MATT STEELE, NAR CONTEST BOARD CHAIRMAN, 3/7/95



CORRECTIONS & ADDENDA TO PREVIOUS WARP-9 FEATURES

Alan Berman's Sneak3 BG plan (Vol. 8, #1) was missing the instructions for one key piece. Here's Alan's fix:

I left out the vertical stabilizer in the plans. People need to use the canard template to make a vertical stab out of 3/32" balsa. The stab should then be glued to the bottom of the fuselage, centered below the wing. The only difference between the vertical stab and the canards is that the vertical stab should not have the tiny wedge cutout for the trim tab: the entire root chord should be flat and glued to the fuselage.

Southern California Contrails

UPLAND ROCKET CLUB BY ALAN BERMAN / LOCAL AFB TOURS

One way to get a local launch site is to form a club. As a teacher at Upland High in Upland, CA, I first approached the local fire chief and received permits for monthly launches two years ago (that saga is recorded in an earlier *WARP-9).* The club had actually formed in 1992, but then we drove to Mile Square Park every couple of months for flying.

The club stages informal duration contests and has infrequent building sessions at the school. We usually have launches at a nearby junior high school which can be seen in the background of some of the photos.

New members in the club are the school's first place Science Fair winners pictured in the photographs. Their research proved that higher temperatures result in higher altitudes; they used a single rocket as a control (the Invincible Alpha) and B6-4s for all flights, logged the ambient temperature and altitude for each one (using a quick-and-dirty protractor theodolite), and prepared their report, which was victorious over dozens of very sophisticated projects.

Other club members include Brent Snyder, Matt Wobser, Kevin Koontz, Daniel Chu, Brian Raichelles (who competed very effectively in B Division during the 1993-94 contest season), and Mike Shinn.

Please e-mail or write if you'd like more information or tips on starting a school club:

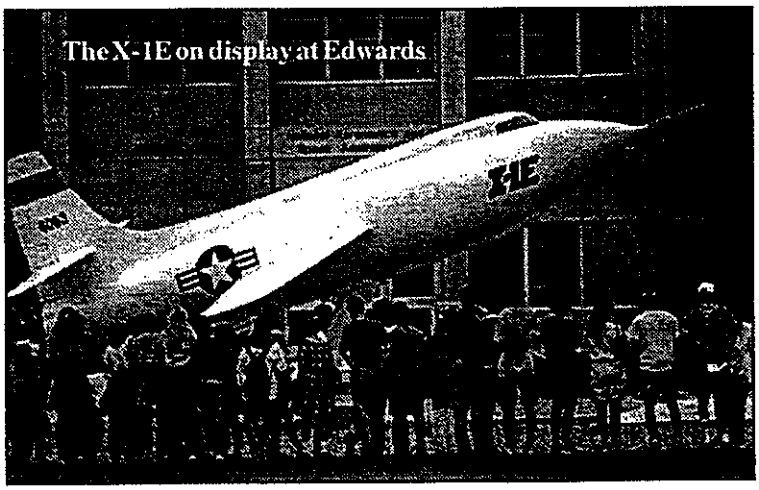
E-mail: 75720,1425 (CompuServe)
Address:
Upland High School
Alan Berman, English Dept.
565 West 11th St.
Upland, CA 91786

Science Fair team members Ben Kou, Jennifer Fukamoto, Ben Hunt check their thermometer and log the reading. Note the high grass that ate the Alpha a few times—Ben H. picked up some poison ivy to retrieve it near the end of the day. (Photo by Adam Feffer)

Club advisor Alan Berman times someone's flight while prepping his Ken Brown Easy- Slide RG. (Photo by F

School Science Fair winners on the day of their victorious research (L to R): Ben Hunt, the invincible Alpha, Adam Feffer, Jennifer Fukamoto (Fuki). (Photo by Ben Kou)

Roger Rodriguez preps his Mini-Patriot. He started flying rockets this year and has already built and flown a half-dozen models. (Photo by Fuki)



The X-1E on display at Edwards

Edwards AFB & Vandenberg AFB Tours

You can take two Edwards tours. One explores NASA's Dryden Flight Research Center and includes a video program and a walk through the hangars. The free 90-minute tour begins at 10:15 and 1:15 Mondays through Fridays; for required reservations, call (805) 258-3446. A free 90 minute tour of base Air Force operations is held at 10 on Fridays; for reservations, call (805) 277-3517. The Air Force Flight Test Center Museum at the base has photo displays and memorabilia. It's open from 9 to 5 Tuesdays through Saturdays. For directions and museum information, call (805) 277-8050.

Cape Canaveral may grab more headlines, but Vandenberg is a major space and missile launch facility in its own right. You can learn about its history by taking one of the new, 4 hour tours. You'll visit old launch s where missiles such as the 1950s-vintage Thor are on display; wor space-launch complexes; and a former space-shuttle launch site.

Tours cost $12.50. For directions and information, call the Western Spaceport Museum and Science Center at (805) 736-6381.

The Flying Jenny

by James Neubauer, NAR 25586

I reviewed my first article I wrote for *WARP-9* about the "Flying Saucer" so for my second installment I've decided to make the "Flying Jenny" rocket boosted bi-wing glider designed by John Belkewitch in 1964. I had good luck flying it and with the addition of a pop pod it's NAR legal (before the motor casing was ejected without a parachute or streamer.) The pod addition makes the glider boost almost straight up which gives you a longer flying time and better score if competition flying.

I have built three different scales of the Flying Jenny: Original scale, 1.8 scale, and 2.0 scale. The original scale flies great and with some wind it will do loops and dives.

The 1.8 scale flew fair, but before I had it adjusted correctly it crashed and splintered. So going back to the drawing board I designed a pop pod with a long tube to extend forward with clay in the nose cone which moves the center of gravity and center of pressure further apart thus allowing a more stable boost. Now the problem was the engine would over power the glider. With the weight used to trim for a good glide, the Flying Jenny would fly in a big loop right back into the ground! Adding more weight to the glider to make it boost correctly the glider did a nose dive. What was needed was to be able to add forward weight during the boost phase and lose the weight for the glide phase. The pop pod did this job nicely.

Now with all my new found knowledge, I decided to build a 2.0 scale. I first had to find something lighter and stronger than balsa wood so I tried fiber board. It worked with the "M_2F_2 Camel" and I had fair to good results with it. The only problem was that the Jenny's wings were so big the glider tended to float and only after it gained enough forward speed it would it start flying. On the plus side, fiber core board can crash and return to normal shape. It survived a few landings that would have destroyed a balsa glider.

The only problem I encountered in up-scaling this model was the inner struts. They do not scale properly so you have to make the two struts longer and trim them to fit the size of the motor tube.

My recommendation is to go no larger than 1.8 scale. Anything larger took too much power for lift-off and balsa wood could not take the strain of high powered motors. The fiber core's only real drawback was it was too thick (thus had too much air drag to get the speed necessary for a good glide.)

POP POD CONSTRUCTION

Parts Needed:
1 – BT-20 TUBE (ABOUT 8 INCHES)
1 – PLASTIC NOSE CONE
1 – ENGINE HOOK
1 – PAPER CLIP
1 – STREAMER
1 – SHOCK CORD
2 – SPENT ENGINE CASINGS
1 – 1oz. CLAY NOSE WEIGHT

1. Cut one inch off one of the casings. This will be used as a spacer to allow the rocket engine to protrude out of the end to attach engine pop pod. Insert the other engine into the Flying Jenny. Part of the casing will extend out of the end. Place a piece of BT-20 tube over the end of the engine cut so the tube flush minus 1/8 of an inch with the end of the engine (i.e. the engine will extend 1/8 of an inch past the tube.)

2. Cut the engine hooks in half (cut to fit on the final tube) and glue both to the end 180 degrees apart (so when the engine ejects it will push the pod away from the glider.)

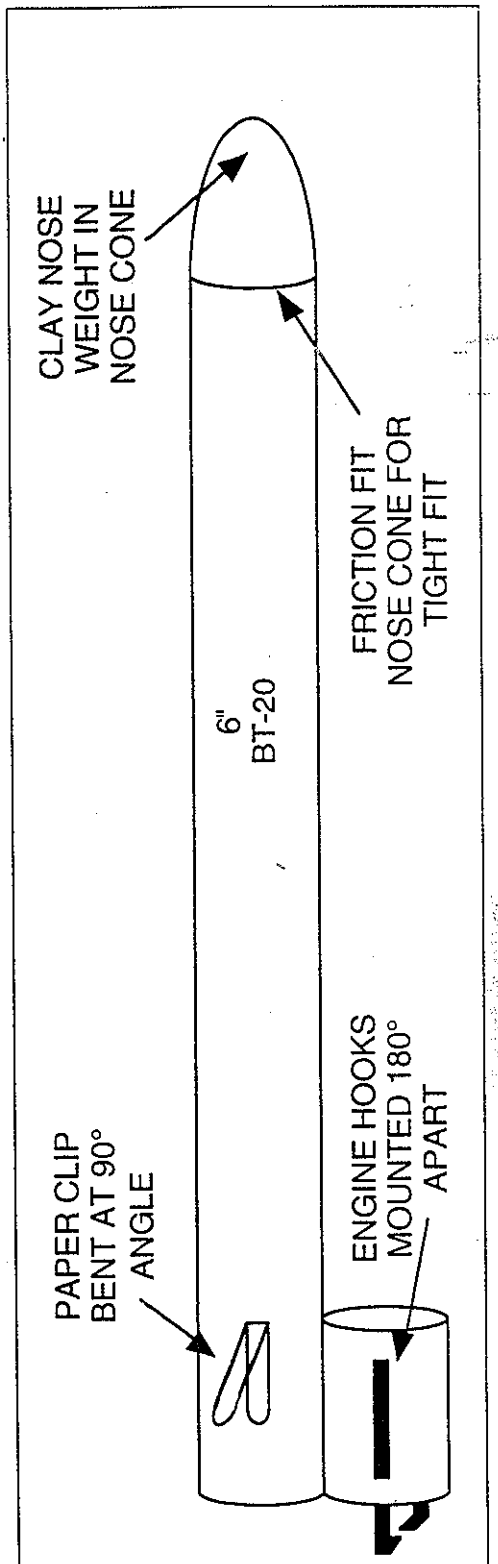
3. Glue 2 inch piece of BT-20 body tube to the Flying Jenny just under the strut. This will hold the streamer.

4. Glue the tube from Step One to a 6 inch tube, the bottom edges are to be even. Insert clay in nose cone (@ 3/4 to 1 oz.) The nose cone does not need to be glued in but a tight fit is required to hold cone to tube.

5. Take the paper clip and bend to a 90 degree angle. Fit the pod and Flying Jenny together. Glue the paper clip behind the streamer tube (this will hold the streamer in during launch and during ejection the paper clip pulls out the streamer for recovery.)

6. Attach streamer to shock cord and tie shock cord to paper clip.

7. Paint and fly.



FLYING JENNY POP POD DESIGN

DRAWING BY
JIM NEUBAUER

the "Flying Jenny"

ROCKET PLAN No. 21

Designed by **John Belkewitch**

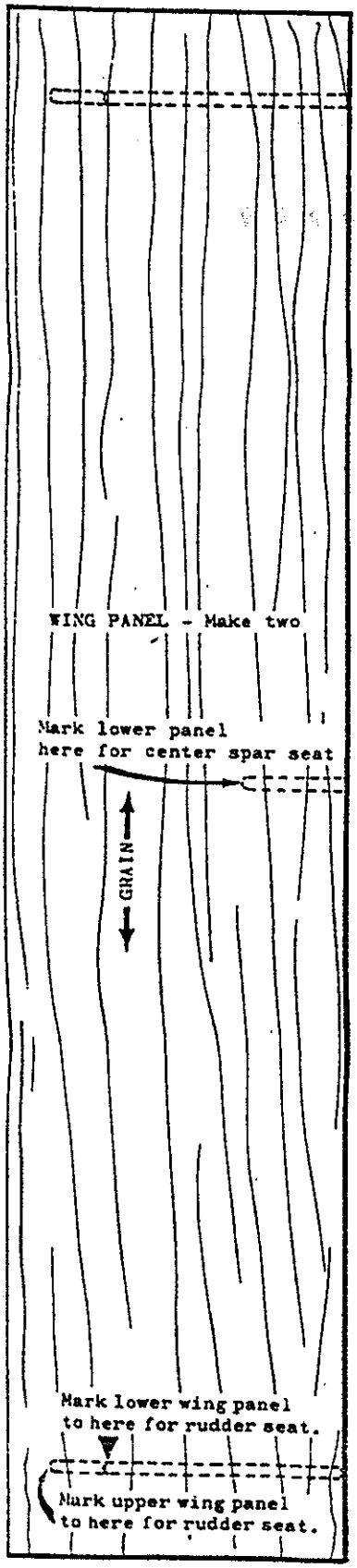
A ROCKET BOOSTED BI-PLANE GLIDER!

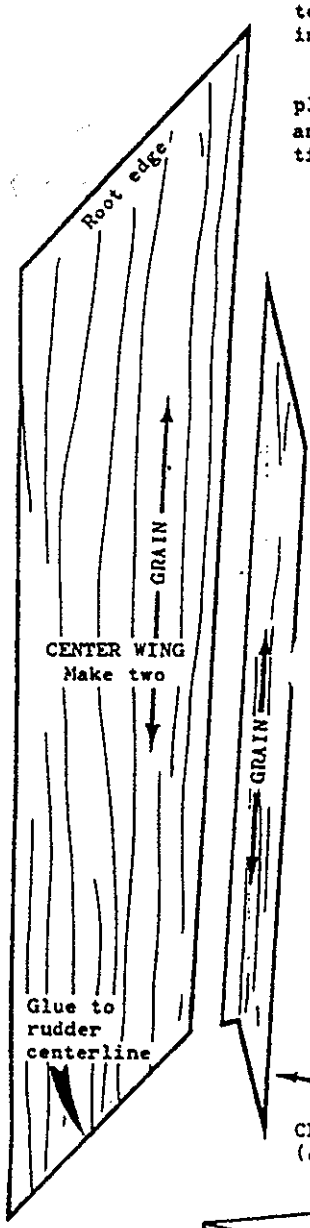
Before starting construction, trace all the pattern pieces onto another sheet of paper. Do not cut the patterns from this page as important instructions for building and trimming this bird are on the other side.

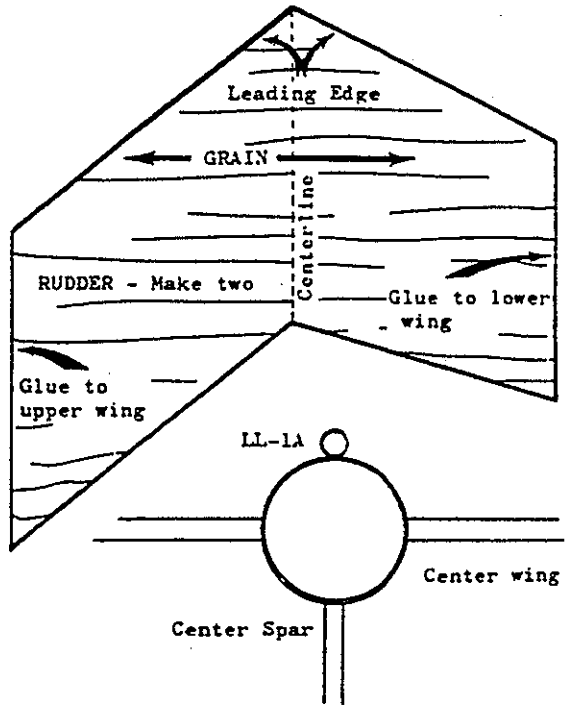
Listed below are the materials you will need to complete this unusual boost-glider. Careful construction and attention to trimming will reward you with many beautiful flights.

Full Size Patterns!

PARTS LIST		
1	Nose Cone	#BNC-20A
1	Body Tube	#BT-20J
3	Sheets Fin Stock	#BFS-30
1	Launching Lug	#LL-1A
1	Nose Cone Weight	#NCW-1

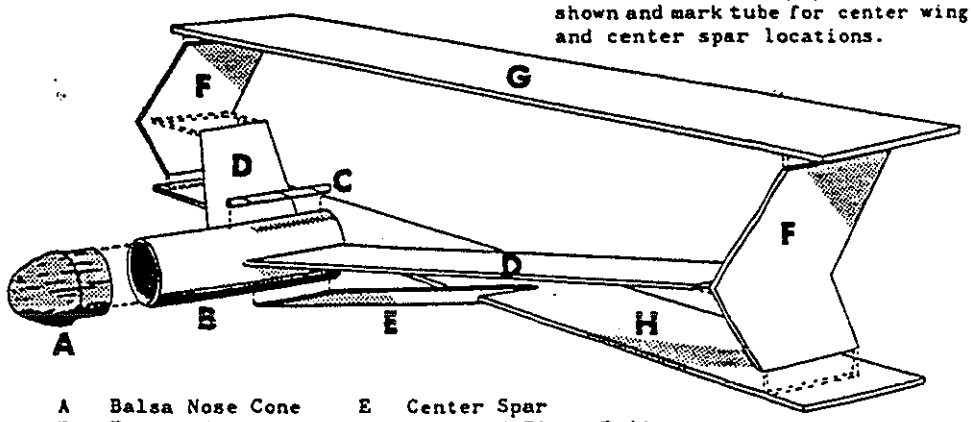






MARKING GUIDE

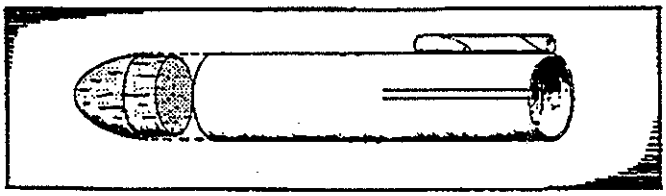
Place rear of engine tube on guide with launching lug positioned as shown and mark tube for center wing and center spar locations.



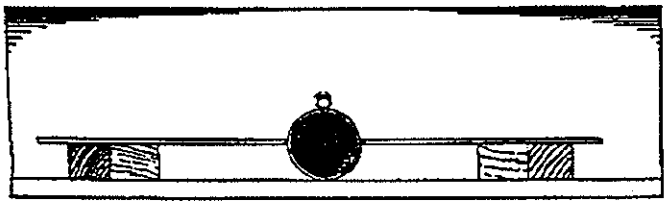
A	Balsa Nose Cone	E	Center Spar
B	Engine Tube	F	Left and Right Rudders
C	Launching Lug	G	Upper Wing Panel
D	Center Wing Panels	H	Lower Wing Panel

the "Flying Jenny" continued...

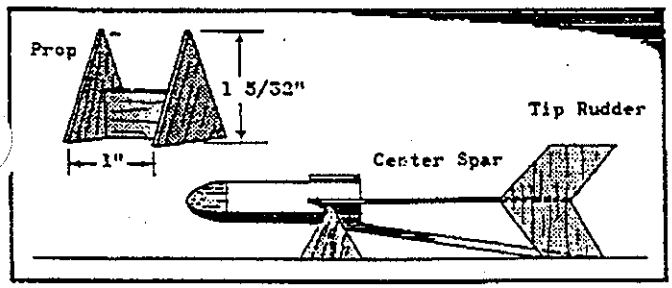
Glue a BNC-20A nose cone to one end of the BT-20J engine tube. Install launching lug so the rear of the lug is flush with the rear of the BT-20J. Place this assembly on the marking guide shown on the foregoing



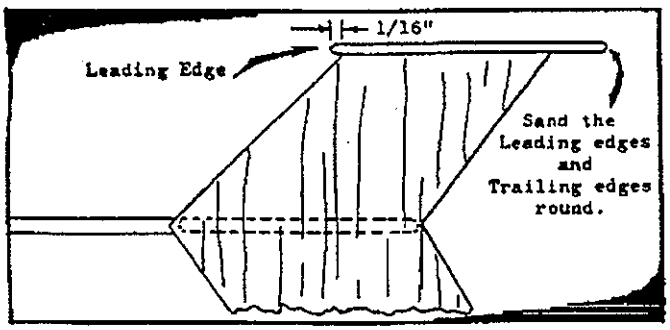
page and mark the positions of the center wing roots and the center spar. Install the center wings and let them dry. Support them horizontally while drying.



Attach the center spar to the engine tube in line with the marks. This spar prevents wing vibration; and is necessary to keep the wings from coming off in flight.



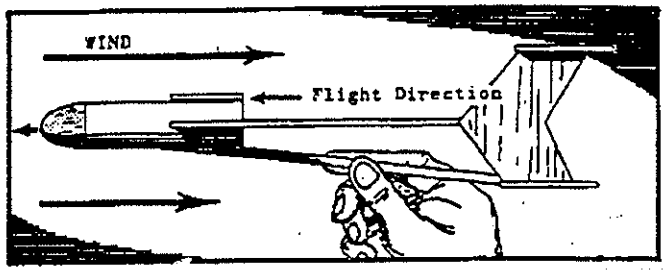
Cut two triangle shaped pieces of wood from scrap measuring 1 3/32" from base to top. Glue these pieces to a 1" piece of scrap to form a prop to align and support the engine tube assembly at the center wing roots while the rudders are being glued into position on the center wing tips. The bottom edges of the rudders must rest squarely on the table top as is shown. Let this assembly dry thoroughly before moving.



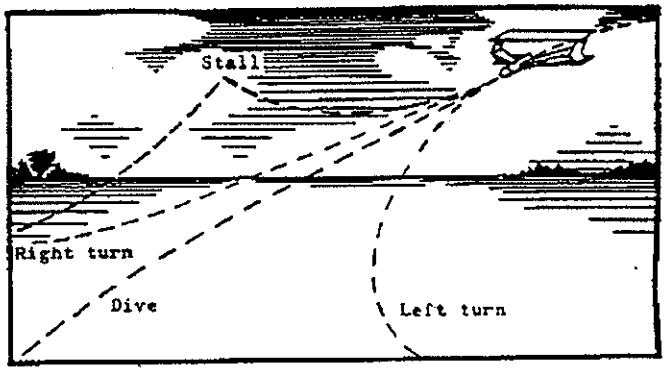
When rudders have set, glue the top wing into place, locating it in the position marked on the pattern. When this has set, turn the model over and glue the bottom wing into place, locating it in the same way. Allow the entire assembly to dry completely. White glue becomes clear when completely cured.

Trimming for Flight

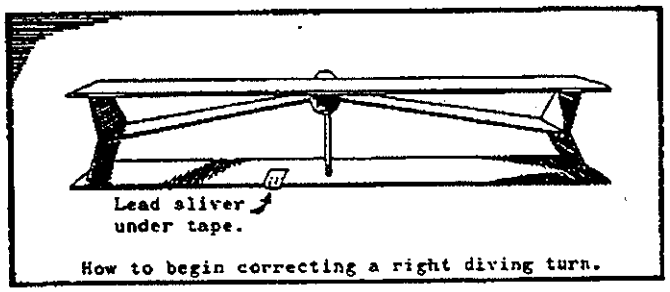
After all glue joints have turned clear, test glide the model by grasping it at the center spar and tossing it into the wind with nose level. If the model stalls, add a sliver of lead nose cone weight (NCW-1) to the nose.



If the model dives, observe whether it also turns to the right or left as it dives. If it does, you may compensate for the turn at the same time you correct the dive.



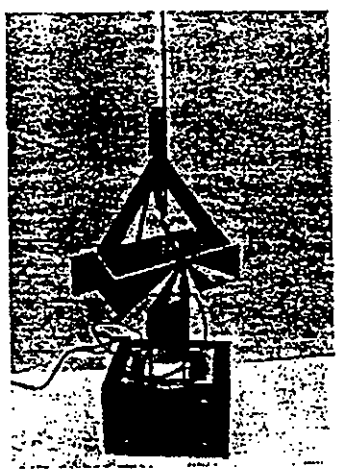
For example: Your model drops quickly and to the right. Cut a sliver of lead from the NCW-1 (only experience can tell you how much) and attach it near the trailing edge of the lower wing perhaps an inch left of the center.



How to begin correcting a right diving turn.

Continue to glide and adjust until a smooth straight ahead glide is obtained. Now you are ready for power.

To Power your "Jenny"...



Your "Flying Jenny" will fly with any Series I or Series III engine. Any single stage engine up to and including the A.8-3 is recommended for sport and exhibition flying. However if you have a large flying field and like the hiking then go ahead. . . put a B.8-4 engine in and watch "Jenny" head into the wild blue yonder. . . perhaps, for keeps!

CAUTION! Tape your lead wires to the launching rod leaving just enough free to attach micro-clips to the igniter. This will keep the wires from tangling in the wings when launching.

ASTROBEE-H

Converting Aerotech's Astrobee-D for H Motor Flights

Text & Drawings by Konrad Hambrick

Konrad Hambrick modified his Aerotech Astrobee-D so it could fly on H motors. Here's how he went about it, as described in a posting on the Internet's rec.model.rockets. - ED.

Q) Konrad, I'm having a hard time finding the time to start my Astrobee, but I'd like to ask you a few more questions in the meantime. I noticed on your Astrobee construction drawing you posted, that you used the original motor tube in conjunction with a 29mm stuffer. Is that the case or did I misread the drawing?

A) I did use the Aerotech motor mount tube. I tried the 'fin-lok' C-rings on LOC & PML 29mm tubing and they did not fit well. I decided it was best not to increase the inner diameter (for the PML tube) or mount them 'sloppy' (on the LOC tube.) I simply filed down the Aerotech forward baffle/shock cord mount (see drawing) so that it fit snugly inside the LOC 29mm tube and then mounted one centering ring to one end of the tube so that I could 'butt join' the LOC centering ring to the Aerotech forward centering ring (see assembly sequence below).

I accomplished the assembly as follows.

Additional Parts Required:

2 - LOC 1.14 / 2.6 in Centering Rings
1 - LOC 1.14" Motor Mount Tube (29 mm)
1 - LOC Tube Coupler
1 - 10' Length of 3/4" Nylon Web Shock with a loop sewn in both ends
1 - 2¼" length of coat hanger wire

1. Cut the payload section from the Upper Body Tube. I simply used an 8½x 11" sheet of bond paper as a guide around the BT and cut it freehand in maybe 15-or-so turns.

2. Cut a 22" section of the LOC motor mount tube so that the stuffer tube extends 1½ - 2" beyond the Main Airframe Coupler. Note that I installed the baffle. I don't think I will do so next time.

I drilled a 1/16" hole through LOC Motor Mount tube to accept a 2¼" length of coat hanger wire. I dry assembled the Aerotech MM and one fin, the inserted the LOC MM tube and the stage coupler in the lower body tube. Finally, I slid the upper C-ring over the LOC MM tube so that it sat on the stage coupler and marked the position of the upper C-ring on the LOC tube and drilled the hole so the coat hanger could be epoxied to the forward side of the upper C-ring (see drawing.) *DO NOT GLUE COAT HANGER TO TUBE YET!*

2. Build the Aerotech MM. Snap off the tab that extends into the MM tube and epoxy the Motor Hook to the outside of the tube after installing the center C-Ring. I used a nylon zip tie to pre-load the spring by placing the zip tie under the spring, forward of the C-ring. I screwed up by cutting the slot in the Aerotech MM tube before I decided to certify for HP with this model and had to clean CA out of the inside of the tube where CA flowed in. I put the thrust ring 9.4" into the tube but I will leave it out on the next model. Leave out the Labyrinth system 'Steel Wool' (see below). Next time I will leave off the plastic baffle / shock cord mount, but this time I filed it down so it fit inside the LOC motor mount tube.

3. Install the Aerotech MM and fins per the Aerotech instructions

4. Lightly coat the aft side of the lower C-ring with epoxy and slide it into place in the lower body tube and firmly down onto the forward Aerotech MM assembly C-ring.

5. CA the stage coupler into the lower body tube.

6. Slide the upper C-ring over the shock cc center it and CA it to the stage coupler.

7. Fluff up the Labyrinth wool and insert it into the LOC tube. Push the 2¼" piece of coat hanger wire through the LOC tube and epoxy it to the forward side of the upper C-ring. I hung the wool from the coat hanger wire by 'a thread'.

8. Let the epoxy dry on the lower body tube assembly.

9. Align the Upper / Lower Launch Lug slots and mark with pencil.

10. Pull Shock Cord through upper Body Tube. Put a generous 1" ring of epoxy inside upper tube and slide over the Stage Coupler / Lower Assembly — align Launch Lugs and let the unit dry in an upright position.

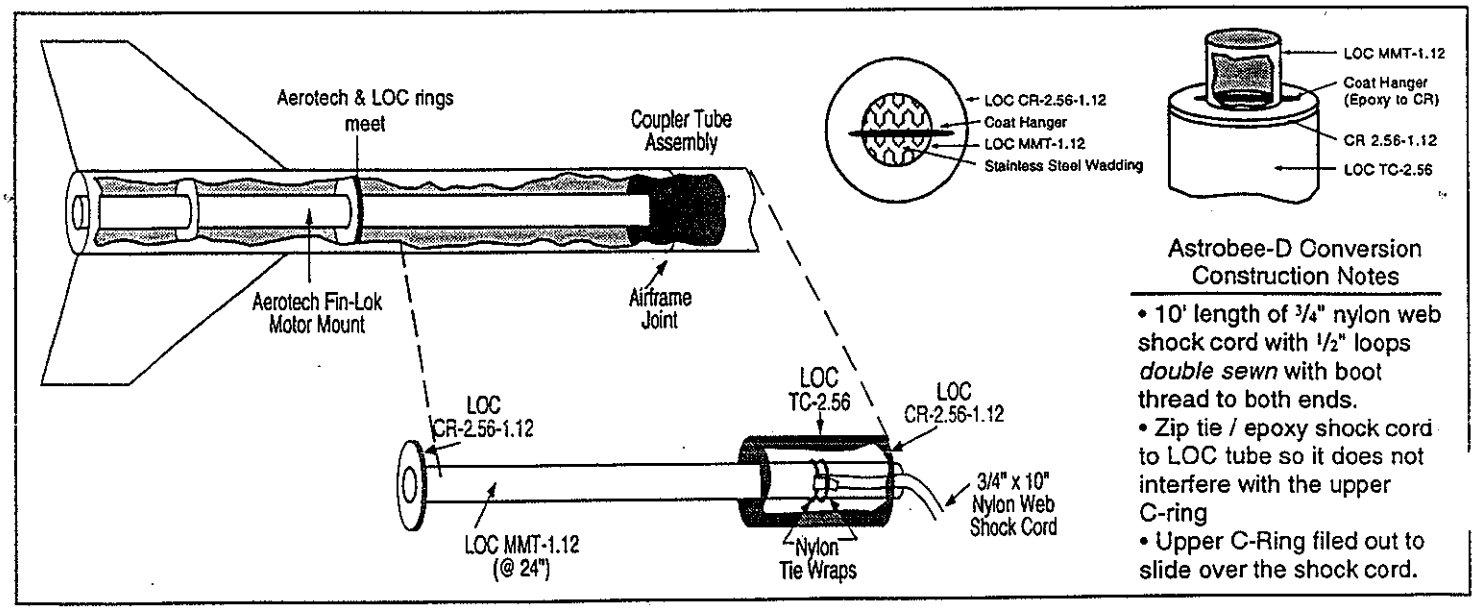
FLYNG THE ASTROBEE-H

Q. I was wondering if the blue thunder short delays would be sufficient for my purposes when combined with a white lightning reload? Or would it be too short?

A. I'm not sure about that . From what Buzz McDermott told me...maybe. What does the label say ? Here is what Buzz said:

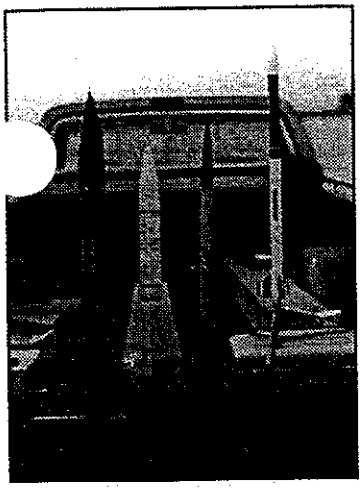
White Lightning - Medium (10 sec)
Black Jack - Short (6 sec)
Blue Thunder - Long (14 sec)

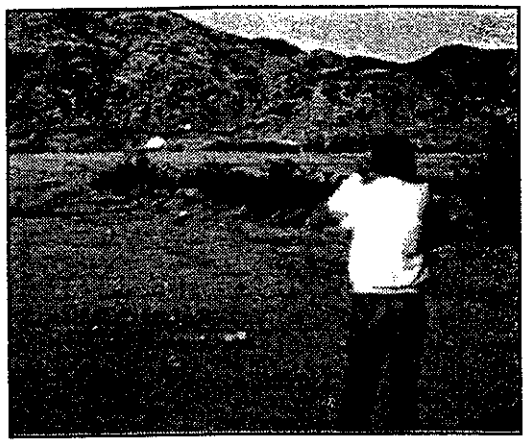
I am going to try the rocket at Fiesta Isl with the G80-4. I decided to CA 3/4" rings of PML tube to the nozzle end of the motor to make a thrust ring ala the RMS system . The other reason I used the (lighter) LOC tube and not the PML is that the PML tube was crooked as a dog's hind leg so at least I have a use for the PML stuff and I don't have to worry about masking tape or spacers.

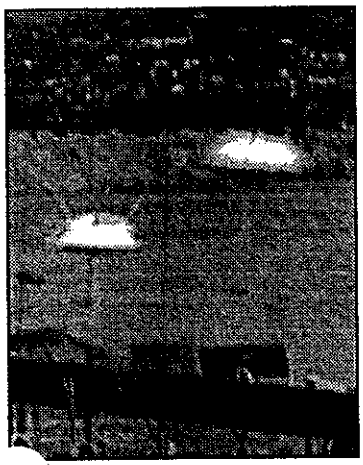


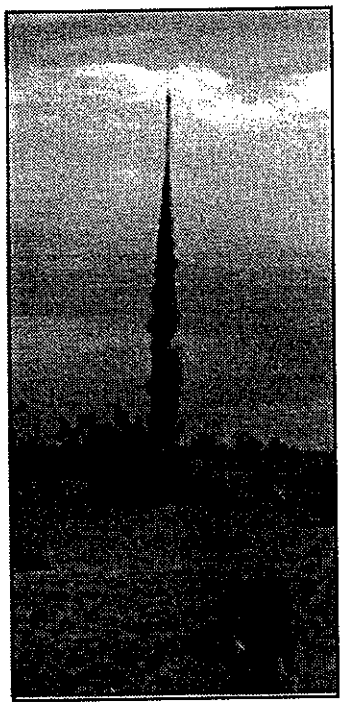
Astrobee-D Conversion Construction Notes

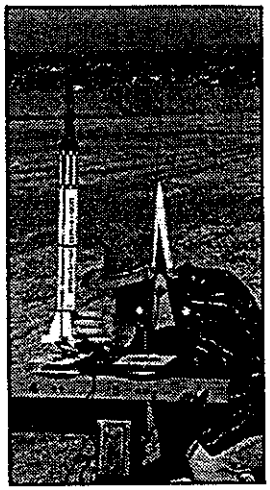
- 10' length of 3/4" nylon web shock cord with 1/2" loops *double sewn* with boot thread to both ends.
- Zip tie / epoxy shock cord to LOC tube so it does not interfere with the upper C-ring
- Upper C-Ring filed out to slide over the shock cord.



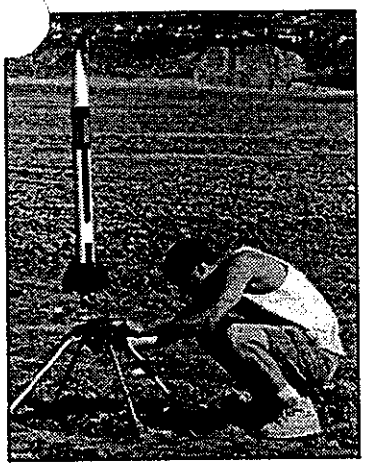


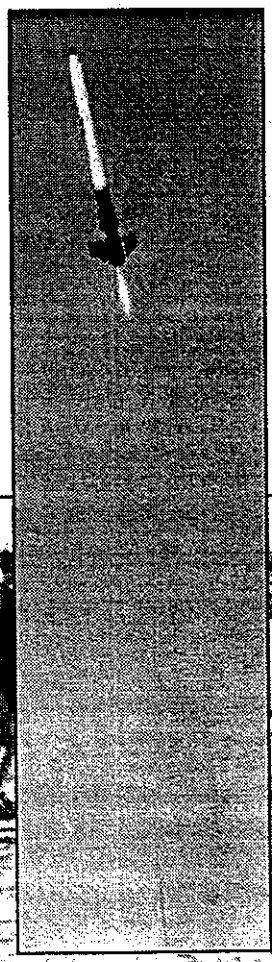






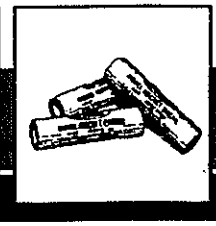
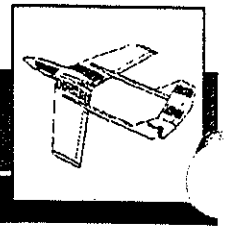
CLOCKWISE FROM TOP LEFT:
A few of Konrad Hambrick's rockets at rest; Ray Kelly and Tracy Jones with their aresnal; 30 degress from vertical? Yeah, if you tilt your head a little (Barbara Kairis photos); Jim Neubauer readies Mathew Lowrie's nice Mercury Redstone; Someone's Estes Shadow/Optima with a nice tail of flame (Matt Lowrie photos); A Boy Scout troop gets their first taste of fire and smoke courtesy of DART; Phil Bragg preps his Estes Patriot for another successful cluster flight (Richard Funk photos); Jim Neubauer and John Wright drag race their Flying Saucer clones (Matt Lowrie photo); Dave Wentworth's Tripoli confirmation flight at Ocotillo with a Hi-Tech 45 powered by a H-97 motor (Dave Wentworth photo.)





9000 WORDS

All The News That Fits

MANUFACTURER / HOBBY NEWS

AeroTech has just received the good news from the DOT that shipment of our 54mm J135W and K185W "long-burn" high-power reload kits can now take place without pre-installing them in customer hardware. The J135W and K185W were Tripoli certified late last year.

As with the other AeroTech "class 1.3C" reload kits, these long-burn reloads can only be sold to those National Association of Rocketry (NAR) or Tripoli Rocketry Association (TRA) certified sport rocket enthusiasts possessing a valid Bureau of Alcohol, Tobacco and Firearms (BATF) low explosive user permit, unless they are purchased in the state of his or her residence. However, AeroTech is continuing to work with Tripoli and the High-Power Manufacturers' Association to secure a ruling which would exempt these and other high power motor products from the BATF permit/ licensing requirements.

AeroTech high-power customers and dealers should note that these reloads are in stock and available for immediate shipment.

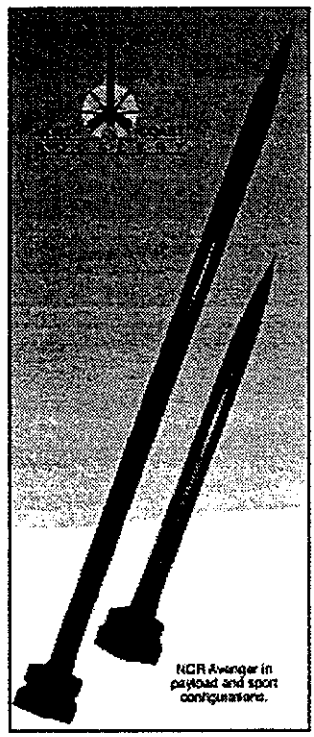
(Aerotech press release)

Aerotech 24mm x 70mm E15-PW (40.0 N-Sec total impulse, 17.8 grams propellant mass) has received NAR Standards & Testing certification for general use as a model rocket motor effective immediately. It is certified for contest use effective immediately. Two notes are appropriate:
1. This motor was actually certified back on August 2, 1994.
2. The announcement that it was a "single-use disposable motor" meant that you throw it away after use. Though it is appropriate for use in Radio Control (R/C) rocket gliders when an ejection charge is not appropriate, it is *not* a reload for the AeroTech RMS R/C 24-20/40 hardware.

MRC update from NAR Standards & Testing: Several people on computer networks have questioned the continued participation of MRC in the model rocketry market. Based on this, NAR S&T has investigated, contacting the manufacturer directly. We can report the following: MRC intends to stay in the model rocket business. Even if they ceased production today, they have enough motors in stock to supply rocketeers at current usage rates through the end of the calendar year, which is halfway into the next contest year. Therefore, MRC motors remain certified for contest and general use. Those individuals having difficulty obtaining MRC products from their usual sources may contact MRC's subsidiary, Alltech Marketing in Edison, NJ at: (908) 248-8738 (Consumers) and (800) 333-3692 (Dealers, only)

(Jim Cook, NAR S&T)

North Coast Rocketry F30-6 and F30-P have been certified by NAR Standards & Testing for general use as a model rocket motor effective February 26, 1995. It is certified for contest use effective May 27, 1995.NCR's F motors measure 29mm x 152mm. F30-6,P (73.0 N-Sec total impulse, 44.0 grams propellant mass.)


NCR Avenger in payload and sport configurations.

North Coast Rocketry announced two new kits are now shipping: the 1/12 scale Bomarc and the sport model Avenger. The largest version of the Bomarc ever released retails for $59.95 and stands 47" tall with a wingspan of 18". Details for both the CIM-10-A (black) and CIM-10-C (white) versions are included. The Avenger stands either 81 or 47 inches tall, depending on how you choose to fly this unique 2-in-1 kit. The $44.95 kit may be flown as a super-long payloader or as a sporty high flyer under F or G power. For more info, contact NCR at (801) 261-9535.

The Saga of Dangerous Dave

In September of 1993, John Thompson ordered a "Der Really Big V-2" rocket kit from Dangerous Dave's Handmade Composite Stuff (or just Dangerous Dave's) out of Georgia. It turns out that the term "Dangerous" was all too true when describing the owner, Dave Gawlik. Almost two years later, John has yet to receive the kit for which he paid the "presale" price of $350 (full retail was to be $525) and word has it that Gawlik has split to Merced, California to count his cash and hide from creditors.

The plot thickens when in early 1994 Dangerous Dave's became part of a new company called M.R.E.D. (or Mr. ED). The new liaison was announced on CompuServe's Modelnet BBS and advertising in *High Power Rocketry* touted the new partnership and the V-2. Seeing this, John called MRED to determine the status of the V-2 kit. A MRED representative said the kits were taking longer than planned to produce. A refund was offered, but John—heading to Korea for a month wit his Marine unit—told the MRED rep he wo hold off on the refund offer until he returne

In the interim, John received a letter dated July 26, 1994, from Gawlik saying that he was resigning from MRED due to "medical reasons concerning the chemical environment I was living and working in." Gawlik adds, "It is not my intention to leave as a partner, only as an employee."

John also received a letter dated August 10, 1994, from Mike Platt, President of MRED, stating that Dangerous Dave and MRED were "never legally consolidated" because Gawlik misrepresented his "assets, liabilities, and capabilities."

Platt also disavowed MRED's responsibility for the content and placement of the V-2 ad in *HPR*.

Platt wrote that MRED was entering into litigation with Gawlik and that as a "goodwill gesture" any monies collected "in excess of the balance of damages to MRED" will be distributed to the V-2 customers.

When John returned from Korea and read this mail, he called MRED and asked for the refund. Too late. The same MRED rep was singing a different tune now, citing instructions from MRED attorneys not to refund any money until MRED's own problems with Gawlik were settled.

In September of '94 John filed a mail fra complaint against Gawlik. John has yet to see any "goodwill" money from MRED.

EXCLUSIVE WARP-9 BULL SHEET

Guerrilla Rocketry

SHE ROLLED UP HER SLEEVES (SO TO SPEAK))

MISS NAR STEMS TIDE TO SAVE DART!

Heavier than normal winter rains not only forced DART to lose out on most of their winter launch dates, it almost forced them to lose out on future use of their launch site as well!

As flood waters rose around Fiesta Island, home of DART's sandy launch site, city crews were brought in to strengthen the berms and levees that circle the island. Tons of sand, rock, and spent engine casings were dumped on the already soaked earth.

Officials deemed the situation under control and allowed DART to hold a scheduled sport launch. Midway through the festivities, a rocky levee began to collapse. Miss NAR, enjoying the launch with her ~~pimp~~ agent, Kevin Funk, wasted no time in bracing herself against the crumbling boulders so that the launch could proceed uninterrupted. "We're lucky," said an anonymous DART officer, "all they got in Holland to keep the dikes from busting is some little pantywaist Dutch boy!"

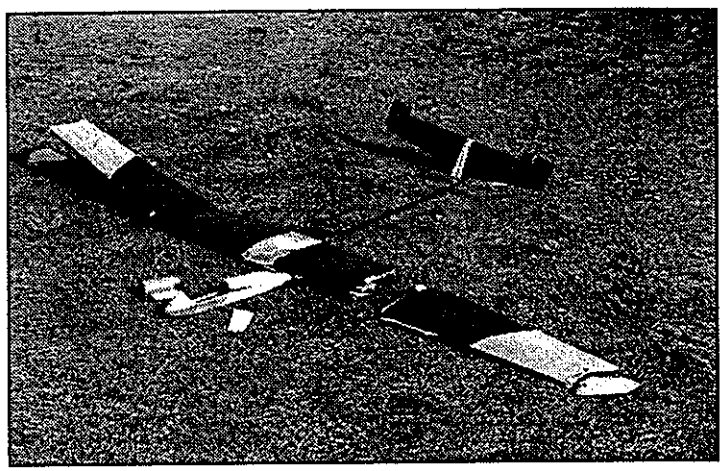
GRATUITOUS GILLIAN ANDERSON PHOTO

"X" Marks the Dork

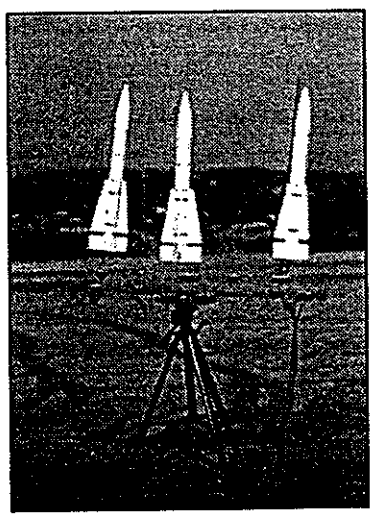
X-Files creator, Chris Carter, announced plans to write and film an upcoming episode centered around NARAM, the NAR's premiere competition event. Carter intends to film some scenes at NARAM 37 in New York this July. "Scully and Mulder, on the run from a secret assassin, will be forced to seek sanctuary amongst the NAR competitors," Carter said. "They befriend the NAR elite who, in the end, save their lives by aiming a salvo of egglofters at the windshield of the assassin's car causing it to careen off a cliff."

In honor of NAR Trustees, the X-Files' classic phrase, "The Truth Is Out There" will be changed—for this episode only—to, "The Truth Is Out There, But On the Advice Of Counsel We Can't Comment On It At This Time."

Guerrilla Rocketry Classifieds



FOR SALE—R/C Rocket Glider. Low mileage, only flown *once*.



FOR SALE—Estes Phoenix kit, already built. Doesn't fly straight. Contact Ray Kelly.

FOR SALE—Estes Phoenix kit, already built. Flys straight if little or no wind. Contact Konrad Hambrick.

WANTED—FSI motors or Estes E15s to put in my Phoenix kit for one last "flight". Contact Kevin Funk.

WANTED—Air tight alibi for future trip to Merced. Contact John Thompson.

FIRST CLASS MAIL

If Your Mailing Label Says "EXP 3/95" This Is Your Last WARP-9!

c/o Kevin Funk
25944 Kaywood Court
Escondido, CA 92026-8408

Southern California Launches

DART

Launch hours: 7am– Noon

APRIL 9 – SUNDAY
MAY 6 – SATURDAY
MAY 14 – SUNDAY
JUNE 17 – SATURDAY
JULY 1 – SATURDAY
JULY 29 – SATURDAY

SCRA

Mile Square Park
Fountain Valley
Launch hours:
9:30am–12:30pm
For more info, call
Martin Bowitz at
(714) 529-1598

April 2, 8, 30
May 7, 13, 21
June 4, 10, 25
July 8, 16, 30

TRIPOLI San Diego

Tripoli San Diego launches the 3rd. Sunday of every month.
For more info, call:
Brian Tripp (619) 427-6074.

April 16
May 21
June 18
August 20
September 1
October 14 & 15
November 18 & 19
December 17