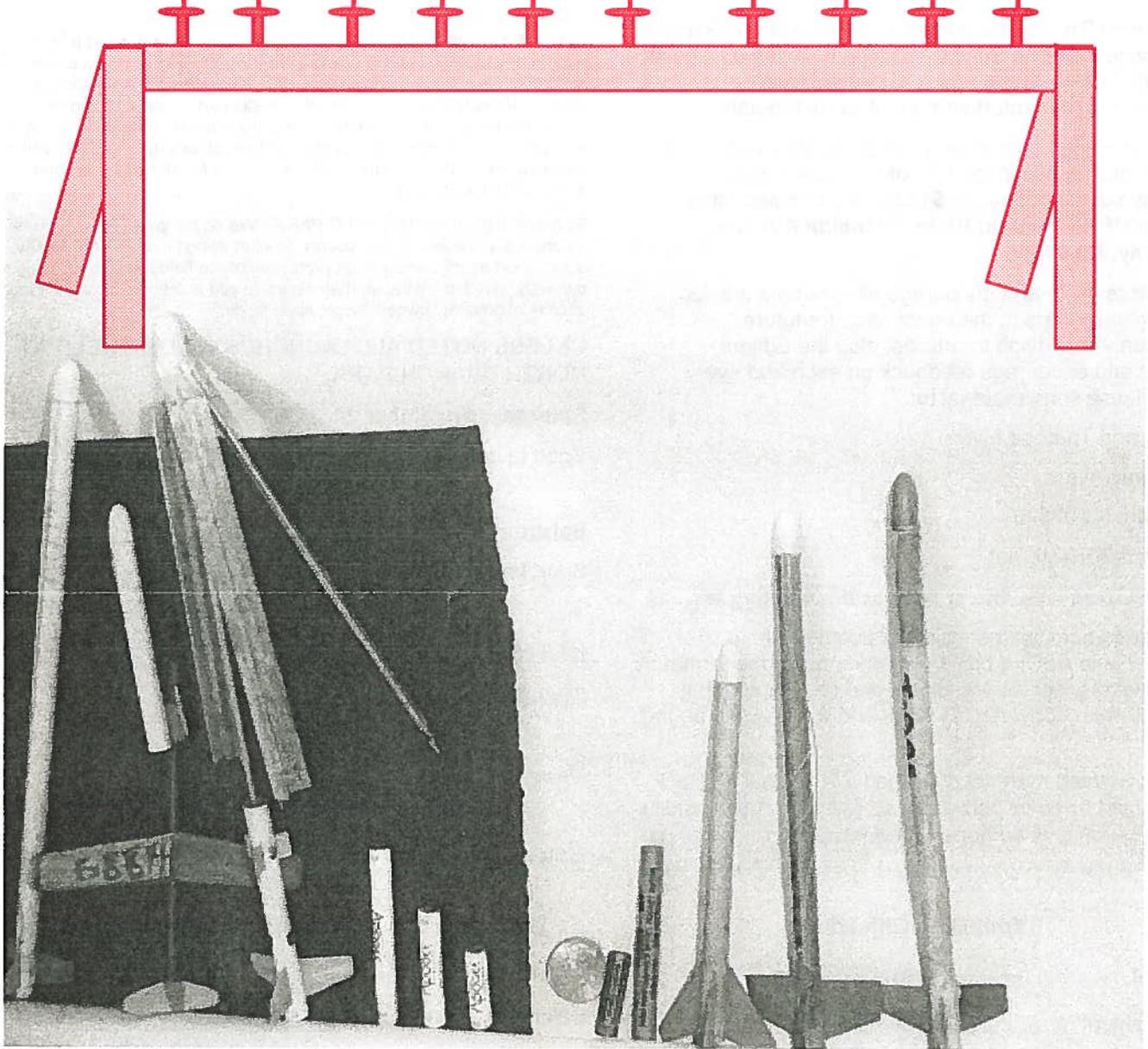


LAUNCH RACK



The Launch Rack

The Official Publication of The

Garden State Spacemodeling Society

SEPT/OCT 2001

The Launch Rack is the official publication of the Garden State Spacemodeling Society (Section 439 of the National Association of Rocketry) and is published for the enlightenment and entertainment of its membership.

Others interested in receiving this publication may do so for the annual subscription rate of \$7.50 for 6 issues. Overseas subscriptions are \$17.50. Please send this money in USD to **Arnold Klein, 2 Oneida Avenue, Rockaway, NJ 07866.**

The Editors invite and encourage all to submit articles, photos, plans letters to the editor, etc., for future publication. In addition to articles, etc., the Editors welcome and encourage feedback on each and every issue. Please send material to:

Stephen and Theresa Flynn

1 Ridgeway Ave.

Blairstown, NJ 07825

e-mail: teri@eclipse.net

Visit the GSSS web site at www.robnee.com/gsss/

As an added note, we especially welcome e-mail attachments in ASCII (.txt), MS Works, or Adobe format as well as digital graphics and digital photos. Photos that work well when converted to black and white would be the best.

Non-copyrighted material published in The Launch Rack may be used by other publications provided proper credit is given to the original author and this newsletter.

Your Club Officers

President Jack Sarhage

Vice President Bob Gill

Vice President Steve Pantuck

Treasurer/Secretary Arnold Klein

Section Advisor Bob Zabriskie

LAUNCH SCHEDULE

Anyone wishing to attend any GSSS activity should call the **GSSS Hotline 908-658-9417** the morning of the event to verify if the event is still on. If the event is canceled, the recording will be updated at 9:00 am.

A NOTE ON NORTH BRANCH PARK. Please keep in mind that the park and weather conditions dictate what we allow to fly. Just because a rocket is under the one pound limit, do not assume it is an automatic launch. If the RSO does not feel the model can be safely flown or recovered within the park's boundaries, it will not be flown regardless of the weight or impulse. If some other activity shows up and starts using adjoining fields, the RSO may reduce impulse for all flights. So bring some small stuff just in case.

REMEMBER, WE SHARE THE PARK. We do not pay a fee and most of us are not a resident of that county. Rocket flying fields in New Jersey are in short supply, and we are protective of the fields we have. If you're unhappy with this limitation, then we invite you to help us in gaining legal access of privately owned, large, open fields.

UNLESS NOTED ALL LAUNCHES WILL BE HELD AT NORTH BRANCH PARK.

Saturday, November 24, 2001

Sport launch 10:00 am to 3:00 PM

Saturday, December 29, 2001

Sport launch 10:00 am to 3:00 PM

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ON THE COVER: An array of Apogee Micro Engine Rockets with the engines

photo by: Theresa Flynn

The Launch Rack

Announcing Open Skies 2001 - NAR Open Meet

SoJars launch field at Gloucester County College, NJ

December 2, 2001, Rain Date December 9, 2001

Events:	WF
Streamer Spot Landing	4
1/2A B/G	17
A Streamer Dur.	8
B Streamer Dur.	9
B Helicopter Dur.	21

Total WF 59 out of a possible 60

The following text with instructions on how to get to the field was borrowed from the SoJars website (without the maps):

<http://cloud.prohosting.com/sojars1/where.shtml>

Our field is at the Gloucester County College. It's good for Low and Mid power(A 1/2 - G). Enter through the main entrance and park in the large lot to the right, near the Baseball field, next to the Gardens.

Instructions on how to get there are as follows:

From Camden(Rt-130): Take Rt-130 South to the Brooklawn circle. Get off, on Broadway St(left of the merit station). Take Broadway to Rt-47, Delsea Dr. Follow Delsea drive down past New Sharon Township, to Wawa Market(you will see the New Sharon Fire Department just before.). Take the right at the light around the back of Wawa, and a left on Tanyard Rd. Follow Tanyard rd, down past Gloucester County Technical school on the left, and further past the Gloucester County College, also on the left.

From I-295: Take I-295 to Rt-42 South. Travel Rt-42 South to Rt-55 South exit and Enter onto Rt-55. Travel 4 miles to the second exit, for 47 North,

towards Woodbury. Go to the first light and turn Left onto Bank Bridge Road. Continue 1 mile to the next light and turn Left onto Tanyard Road. On the left you will pass the Junior High School, then the Tech School, then you'll see Gloucester County College on the Left.

From Philly(76): Take Rt 76 over the Ben Franklin Bridge, and get on Rt 42 south. Take 42 south to Rt 55 west. Follow Rt 55 to Washington township(landfill on Take Rt 76 over the Ben Franklin Bridge, and get on Rt 42 south. Take 42 south to Rt 55 west. Follow Rt 55 to Washington township(landfill on left), and exit Northbound onto Rt 47. Follow Rt 47 to the first light and take the left. Follow down to the next light to Tanyard Rd, and take another left. Follow past Gloucester Technical School, to Gloucester County College.

News Briefs

August, Colorado Springs

Tim Van Milligan of Apogee Components announced that he will stop producing his black powder Micro Engines. When asked by e-mail about his decision he wrote "But they weren't making me a reasonable profit. So I had to stop making them." The Apogee Micro Engine series contained some of the most efficient small motors ever made. The engines were only 10.5 mm in diameter and came in power classes as 1/4 A through B with an average thrust of 2 newtons. These included lower stage A2-0 and B2-0 engines. The last lower stage A engine available.

In response to this action as well as associated consumer complaints, the NAR's Standards and Testing group resolved to remove Contest Certification for these engines effective January 1, 2002. The engines may still be used for fun flying until July 1, 2005 but may not be used in NAR competition because contestants can no longer purchase them. The engines affected by the contest decertification are:

1/4A2-2 and 4

1/2A2-2,4 and 6

A2-0,3,5 and,7

B2-0,3,5,7 and 9

The Launch Rack

September 11, FAA Offices

As a result of the World Trade Center Disaster the FAA understandably grounded all aircraft. This grounding included high power rockets needing an FAA waiver. While the cessation of all FAA waivers was later announced in the NAR's newsletter "The Model Rocketeer", the waivers had already been restored in most places in the weeks following the disaster.

October 15, Las Vegas

Fire destroys the Aerotech engine factory. Aerotech was a major manufacturer of high power engines D through N power.

Two workers were hospitalized. A relief fund to help with the workers hospital expenses has been set up by Extreme Rocketry Magazine.

Aerotech officials said that their kit manufacturing building was unharmed. They are also making plans to restore engine manufacturing.

Editorial - To Find a Venue

All the recent events have, to say the least, been very disheartening. One of your editors was an eye-witness to the 9/11 holocaust. Its likely that some of you may have known some of those who perished. Please let us know if any of our rocketry community were caught in the horror.

Even in such a heavy situation we must realize that our lives must go on with some sort of normalcy. This normalcy may even be considered a political point- If we don't carry on most of our activities as we had before 9/11 then we surrender to those who would take away our freedom.

Part of freedom is the pursuit of happiness. In our small world of pursuing happiness we have had our own problems. It certainly was understandable that FAA waivers were temporarily interrupted by 9/11 but now they are, for the most part, available. The fire at the Aerotech plant has seriously hurt employees and has interrupted the main production of engines with F through N power. The decision made in August by Apogee Components to cease making their black powder line of motors has probably had the closest impact to our club's model rocketry activities.

The NAR's decision to remove contest certification from the Apogee micro engines as of January 1 2002 has caused a scramble for engines for international competition as well as a rush to use the engines for national

competition. When your CD first heard about the Apogee decision at the end of October, he sought out the first relatively local event that would be held after the 30 day sanction period. It was too late for the GSSS November 24 launch and the December 29 launch might be too cold. By sending out a plea using the "Reply to All" function on one e-mail item with a large distribution list, some NAR members were contact in the NJ and PA area to see if some were interested in creating a meet. The SoJars members responded very enthusiastically! So, it was decided that on December 2, at 11:00 AM, an NAR open meet would be held that would have events allowing the opportunity for NAR members to fly their Apogee micro-motors one last time in competition.

We now ask GSSS NAR members to come and join us at the Open Skies meet to take on SoJars. They are challenging us and the use of Apogee engines in a rigorous December struggle. Let's pursue our happiness on their field and take them up on their challenge in the open skies!

Other Area Events:

Here is a list of upcoming contests in our area for the Contest Year starting 7/1/01, ending 6/30/02. This was taken from the website of the Northeast Contest Board of the NAR and the NARAM 44 website.

December 02, 2001 — CATO 54 Open Meet
Sterling, CT

G Streamer Duration Multi-Round
E Helicopter Duration Multi-Round
Contact: Jay Calvert

June 2002, Father's Day Weekend

RAMTECH 10

Editor - Events usually correspond to some of the NARAM events below.

August 4-9, 2002 -- NARAM 44

McGregor TX
National Association of Rocketry Annual Meet

9 competition events (and one Demo event)

	Weighting Factor
B Altitude:	11
E Eggloft Altitude:	20
1/2A Parachute Duration:	7
C Helicopter Duration:	22
B EggLoft Duration:	17

The Launch Rack

B Boost Glide Duration: 19
C Rocket Glide Duration: 22
Sport Scale: 20
Research & Development: 36

Pro Sport Scale: DEMO
Contest Director: Scott Hunsicker

For the latest info updates on NARAM go to
<http://www.nar.com>.

And now, finally a plan!

The Rainbow Rocket

A reliable two-stage sport flyer

designed by Daniel and Stephen E. Flynn

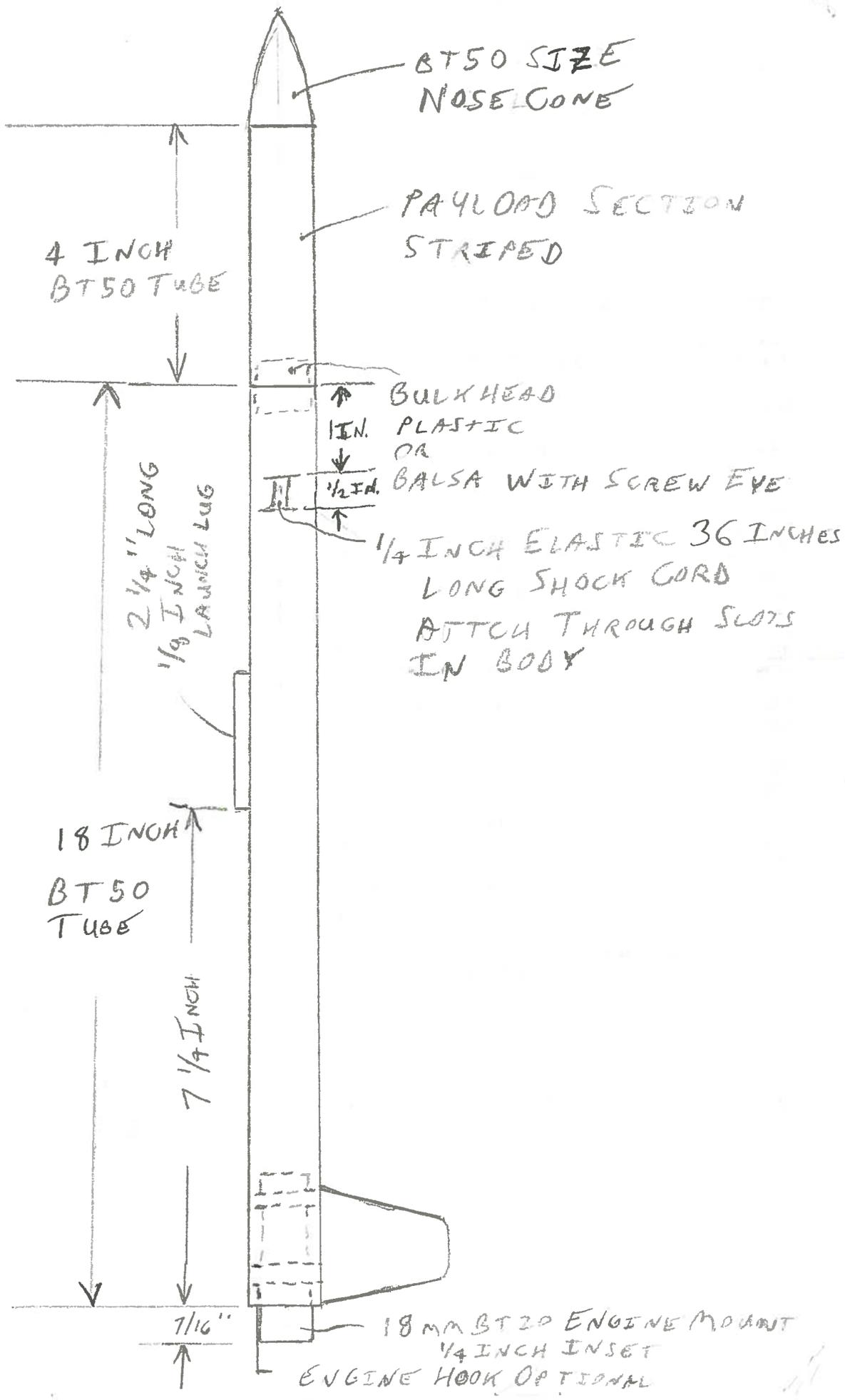
This one rocket has flown about 13 times. Most of those times were two stage flights although the upper stage can fly alone. The upper stage was shown on a prior edition of The Launch Rack with its characteristic rainbow stripes created by Daniel topped with a gold nose cone. The fins are rainbow colored (1 color each side except for indigo).

Estes or Apogee body tubes, ring, bulkheads and nose cone can be used for parts. The 1/8 inch balsa fins appear to be reinforced when filled with fillercoat and painted.

Flight- we must cover simple staging. Simple! You just butt the top of the first stage engine against the nozzle of the second stage and tape with masking tape wrapped only once around the joint where the two engines meet. Regular 3/4 inch wide tape will work nicely.

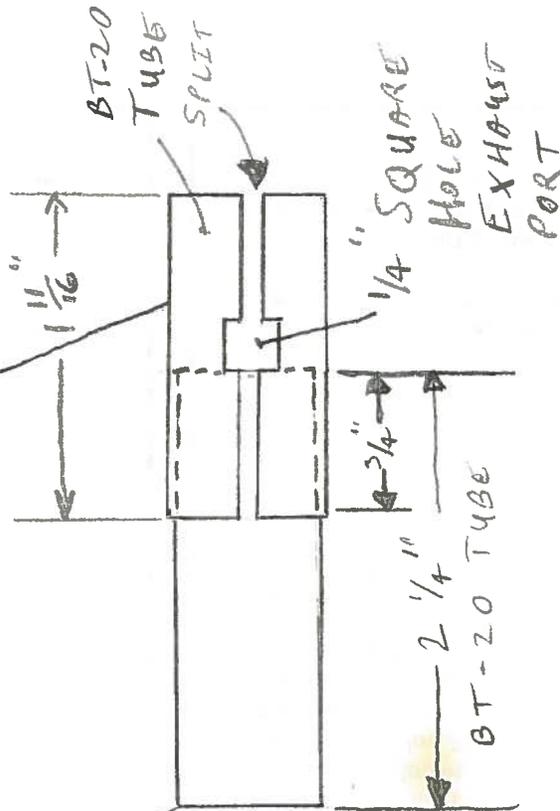
Now let's start at the beginning on how to prepare the rocket. This rocket has an engine clip to hold the upper stage engine so you must start prepping the upper stage first by sliding a B6-6 or a C6-7 engine in so that the clip just fits over the end of the engine. Then proceed to tape on the bottom engine as told above. A B6-0 or C6-0 will do fine for the bottom stage. The little gap left by the engine clip will not be significant because there is an outer ring that also helps hold the stages together. Then the bottom stage engine gets a little tape placed on the middle of the casing so that the bottom stage fin unit can be firmly pushed over the engine with a friction fit. Once this has been completed, add wadding and a long streamer or small parachute and the igniter and you're ready for flight.





FIN OMITTED

1ST
STAGE
FULL
SIZE



TUMBLE
RECOVERY

FIN OMITTED

2ND STAGE
FIN
MAKE 3
1/8 INCH BALSA

FULL-SIZE
FIN TEMPLATES

1ST STAGE
FIN
MAKE 3
1/8 INCH BALSAs

**DIRECTIONS TO NORTH BRANCH
PARK LAUNCH SITE**

North Branch Park is very near the traffic circle junction of NJ Routes 22, 28, 202, and 206, near Somerville. Follow 202 South from the circle for 2 miles, past Ortho Pharmaceutical and Harris Corp, under railroad trestle marked "4H is Tops", to right turn onto Milltown Road. Make first left after firehouse and 4H Center on right; follow path to open field. Monthly launches from 10-4.

FROM NORTH
NJ Turnpike South to Exit 10, 287 North to Exit 13, 202/206 South to Circle

FROM SOUTH
202 North to Milltown Rd.; or 206 North to Circle

FROM EAST
287 North to Exit 13, 202/206 South to Circle

FROM WEST
Rt. 78 or Rt. 80 East to 287 South to Exit 13, 202/206 South to Circle

GSSS MEMBERSHIP APPLICATION

Name _____

Address _____

City _____ State _____

Zip _____ Birthdate _____

Phone Number _____

NAR number _____ GSSS number _____

Membership Category (Check One)

- Junior (Under 16) \$5.00
- Leader (16 through 20) \$7.00
- Senior (21 or over) \$10.00
- Family Plan (Deduct \$2.00 for each additional family member, only one Launch Rack will be sent.)

I pledge to abide by the NAR/HIA Safety Code and GSSS Constitution and Bylaws in all my non-professional rocketry activities.

Signed _____ Date _____

Send this application along with check for dues payable to: Arnold Klein,
2 Oneida ave Rockaway N.J. 07866

GARDEN STATE SPACEMODELING SOCIETY -- NAR SECTION #439

Robert Zabriskie
3 Peachtree Road
Basking Ridge, NJ 07920



TO:

Robert Nee
222 Willow Avenue - #2A
Hoboken NJ 07030

THE LAUNCH RACK

NEWSLETTER OF NEW JERSEY'S SPACEMODELING SOCIETY