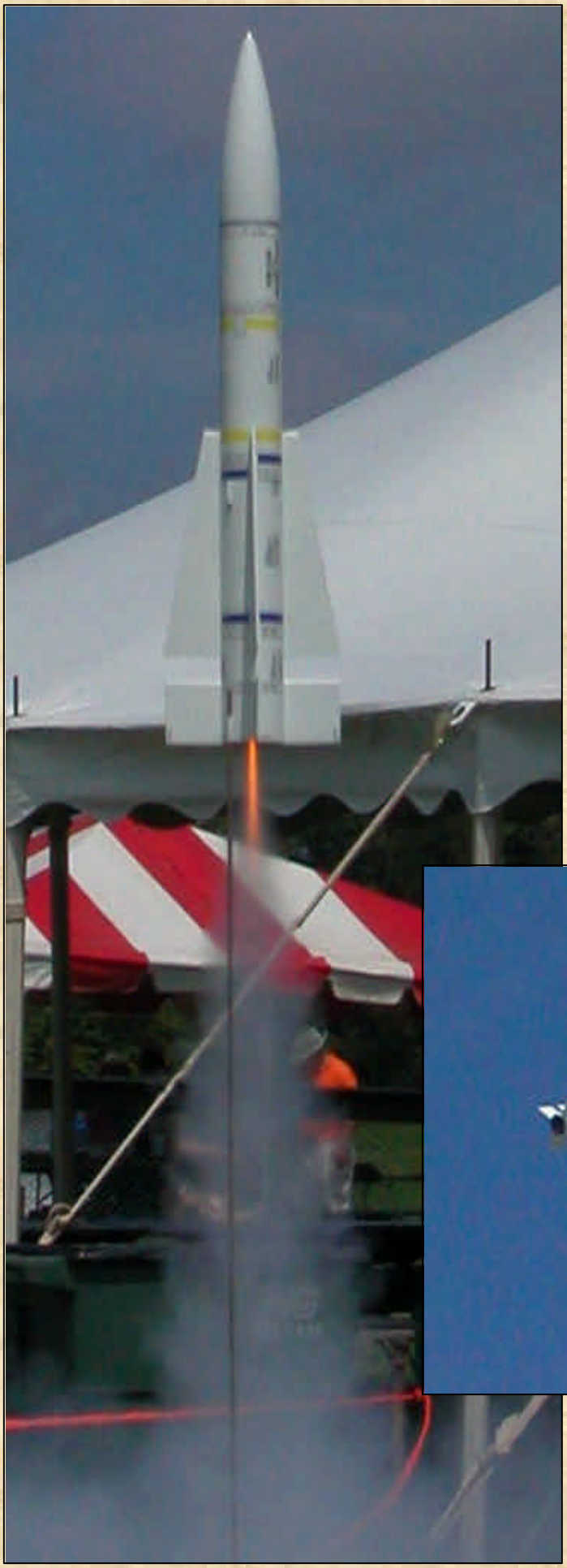
The NovaAR Free Press



Frank Prekel's Phoenix takes to the sky on a D12-5 at NARAM 46.

photo taken from the "NARAM live" website -- www.naramlive.com/

Inside this Issue

NAR

Section 205

NOVAAR *Free Press*

September – October 2004

This is the official newsletter of the *Northern Virginia Association of Rocketry* (NOVAAR), Section 205 of the *National Association of Rocketry* (NAR). This newsletter is a benefit of being a member – ***You are a member, aren't you?***

Section Officers

President:.....John Hochheimer
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Secretary:.....Trip Barber
ahbarber@alum.mit.edu

Treasurer:.....Keith Wancowicz
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Membership and Dues

To maintain the clubs launch equipment, pay for our website, and produce this newsletter we collect dues. Dues are collected annually and are; $5 for members age 13 and younger, $8 for members age 14 to 18 and $10 for everyone else. A membership application can be found at many local hobby shops and on our website.

Meetings

NOVAAR holds meetings on the first and third Tuesday of the month, from 7:00 pm to 8:30 pm, at the King's Park Community Center in Springfield, VA. The most current topics to be discussed and directions to our meeting room can be found on our website.

Build Sessions

Once a month, on the third Sunday of the month from 1:00 pm to 5:00 pm, at the King's Park Community Center, the club gets together to build rockets and share construction techniques. The most current schedule and directions to our meeting room can be found on our website.

Launches

NOVAAR conducts monthly launches at *Great Meadow* which is located in The Plains, VA – approximately 50 minutes south of Washington DC on Route 66. Launches start at 9 am and run until 5 pm (4 pm during the winter). The most current schedule and directions to *Great Meadow* can be found on our website.

There is no charge to fly at club launches (*motor sizes A to F*). However, there is a $5 charge to launch high-powered rockets (motor sizes *G to I -- the field is not large enough for bigger motors*). **AND,** you don't have to be a member to fly with us. Though, after you meet us and, realize that we don't bite – *as long as we take our medication* – **we know you will want to join**.

If weather threatens the launch day, our website will report the status of the launch by 8:00 pm the day before.

Website

www.novaar.org

The club's website is where the most current information about future club activities can be found. The site is maintained by...

Webmaster: .....Dan Winings
dwinings@adelphia.net

Newsletter

The club's newsletter is published 6 times a year or, as close to that schedule that is humanly possible for the editor to achieve. The newsletter reports on the club's activities and features articles written by club members about their endeavors within the Model Rocketry Hobby. The articles include, *but are not limited to*, topics on sport rocketry, competitive rocketry and high-powered rocketry. Send submissions to ...

Editor:..... Frank Prekel
fjprekel@aol.com

November 2004

SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2 NOVAAR Meeting	3	4 Will Rodgers Day	5	6 NOVAAR Launch
7	8	9	10	11 Veteran's Day	12	13
14	15	16 NOVAAR Meeting	17	18	19	20
21 NOVAAR Build Ses	22	23	24	25 Thanksgivin Day	26 Acadian Day (LA)	27
28 JF Kennedy Day (MA)	29	30				

December 2004

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7 NOVAAR Meeting	8 Hanukkah Begins	9	10	11 NOVAAR Launch
12	13	14	15 Bill of Rights Day	16	17 Wright Brother's Day	18
19 NOVAAR Party	20	21 NOVAAR Meeting	22	23	24 Federal Holiday	25 Christmas Day
26 Kwanzaa Begins	27	28	29	30	31 Federal Holiday	

January 2005

SUN	MON	TUE	WED	THU	FRI	SAT
						1 New Years Day
2	3	4 NOVAAR Meeting	5	6	7	8 NOVAAR Launch
9	10	11	12	13	14	15
16 NOVAAR Build Ses	17 ML King Holidav.	18 NOVAAR Meeting	19	20	21	22
23	24	25	26	27	28	29
30	31	1 NOVAAR Meeting	2	3	4	5

September 7th Meeting
October and November Build Sessions Planned

At this meeting, Bart Merkley proposed and, the club members in attendance accepted, that the club should select and fund the construction of two high-powered rockets. The construction of these two rockets would be a club construction project and would be accomplished at the club's monthly build sessions at the King's Park Community Center.

The proposal was for the club to acquire a few rockets that would fly dramatically – "*low, slow with lots of noise and smoke*" –and could be used for demonstration flights, specifically the 4th of July at Great Meadow.

Two different rockets were proposed and accepted.

First-up a "*Wocket*" from PoleCat Aerospace (formally Skunk Works Rocketry www.polecataerospace.com). This is a 24" saucer. One of the parameters for rocket selection was the desire to find something slow that the spectators could watch fly. A 2 foot wide saucer fits the bill quite nicely. And, with the addition of an appropriate motor, this rocket would be very loud and smokey.

Polecat Aerospace "Wocket"
image from Polecat Aerospace website

The second rocket will be a "*I-Roc*" from Loc/Precision (www.locprecision.com/). This rocket is 55" long and 5.5" in diameter and is designed to fly on G, H, I or J motors.

Also discussed was a boost/rocket glider. Immediately the image of an "H" powered Edmunds Aerospace Deltie danced through everyone's mind. Championed by Rob Edmunds and supported by the attending members, It was decided that a large boost/rocket glider would be constructed after the Wocket and I-Roc are completed.

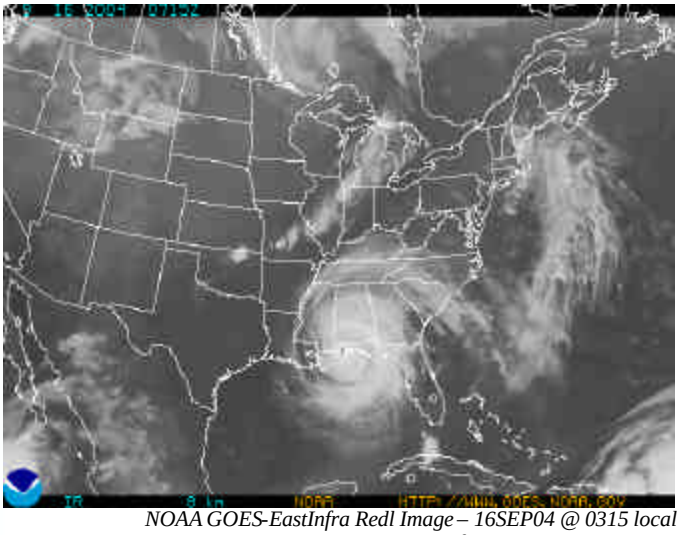
The construction of the Wocket and I-Roc were scheduled for the October and November build sessions. Construction of the glider has been scheduled to begin in January if construction the other two was completed.

LOC/Precision "I-Roc"
image from LOC/Precision website

☆☆☆

September 18th
Ivan Arrives, Launch Cancelled

Hurricane Ivan arrived in Mobile, AL at 04:30 am on September 16, 2004. Once ashore, this category 4 hurricane with sustained winds exceeding 60 miles per hour, began to dominate the nations weather for the next 6 days.



NOAA GOES-EastInfra Redl Image – 16SEP04 @ 0315 local
-- image from www.goes.noaa.gov

With NOVAAR's Sport Launch scheduled for Saturday, September 18th, all eyes turned to the sky. The local forecasts called for heavy rains and high winds for the weekend.

Hurricane Ivan as seen by the International Space Station
-- image from spaceflight.nasa.gov/gallery/images/station/crew-9/html/iss009e22187.html

The word arrived via email Thursday morning; "*Hurricane Ivan is* forecast *to be right on top of us Saturday, September 18, and that is the day our next launch is scheduled. We do not have access to the field on Sunday (there is an equestrian event) and the forecast for that day is windy anyway, so we must cancel the scheduled NOVAAR launch altogether for this weekend.*"

The average total rainfall in the DC Metro area on Saturday was 6". On Sunday, the sky cleared, temperatures and humidity dropped and there was a "gentle" 12 mph wind, with gusts to 20. Because of the scheduled equestrian event at Great Meadow the field would not be available until November.

☆☆☆

September 19th Build Session Cancelled

The building session originally scheduled for September 19th was cancelled because of the sport launch scheduled for the 18th.

☆☆☆

September 21st Meeting
The Journey to Level 3 Certification

After the business portion of the meeting was completed, Bill Schworer discussed his quest to achieve his Level 3 Certification.

One of Bill's motivations was his desire for a new challenge. The project would require him to learn how to build a rocket using fiberglass, carbon fiber and substantial woodwork. And apply them in the construction of the large and heavy rockets that can withstand the 300 to 700 pounds of trust generated by an "M" motor that may burn for 2½ to 5 seconds to altitudes of 1 to 2 miles.

To achieve his certification, 3 flights were required. The first entered a descending ceiling and was DQ'ed after the rocket entered the layer of clouds. The second flight was DQ'ed when the rocket, having completed its flight and was returning on its 17 foot parachute, struck a building. After repairing the damaged fins, the next flight achieved all requirements.

Bill Schworer's scratch built "Orange Rocket" takes to the sky on its way to Level-3 Certification.

Toping the list of lesson's learned are; 1) find a experienced mentor that can answer the questions you are going to have, 2) be prepared to fly more than once because "stuff" happens.

For further information about Level-3 Certification visit either the NAR (nar.org/hpcert/l3certreg.html) or the Tripoli (tripoli.org/cert/howto_level3.html) websites.

☆☆☆

October 5th Meeting

The presentation topic for this meeting was *"Solid Rocket Propulsion"* and was made by Trip Barber. The presentation began with a description of rocket motor manufacturing.

As the presentation progressed, the factors that effect motor performance – nozzle design, combustion chamber structure and propellant grain geometry were described and discussed.

The presentation concluded with a discussion of the ingredients used as propellants and the classification of those materials by the Federal Government.

☆☆☆

October 9th and 10th
Steel City Smoke Trails

A club launch was not scheduled in October because of equestrian commitments at Great Meadow. However, an opportunity to fly and compete was presented by a combined NAR Regional Competition and Tripoli High Power launch at Tripoli Pittsburgh's "Dragon's Fire" launch site.

The event was hosted by the Pittsburgh Space Command (NAR Section 473 and TRA Prefecture 1).

Representing NOVAAR were Trip Barber, Rob Edmonds, Jim and Rachael Brower (forming the team "*Calvin and Hobbs*").

The events flown at this event were; "?A" Parachute Duration, "A" Flex Wing Duration, "C" Payload Altitude, "C" Eggloft Duration, and topper "E" Boost Glider Duration. This event is known for its extremes.

A full listing of event results can be found on the Pittsburgh Space Command website (*psc473nar.org/cs2005/steelcity04.htm*).

Pittsburgh Space Command
www.psc473nar.org/

www.tripoli-pgh.org/ ☆

October 19th Build Session

This building session, was the first to work on the club's new High Powered Demonstration Rockets.

The first order of business was adding weight to the I-ROC's nose cone. The team emptied their pockets and range-boxes of any thing that could be used to add weight to the nose cone.

Mixing the expanding foam and poring it into the nosecone.

To add strength and durability the body tubes of the I-ROC were covered with fiberglass. Two methods were used to fiberglass the tubes. The first tube was covered in traditional resin and fabric. After smoothing, the tube was cured in Bart Merkley's oven. The result was fiberglass reinforced body tube ready for sanding and finishing.

Applying the resin and fabric over the I-ROC body tube

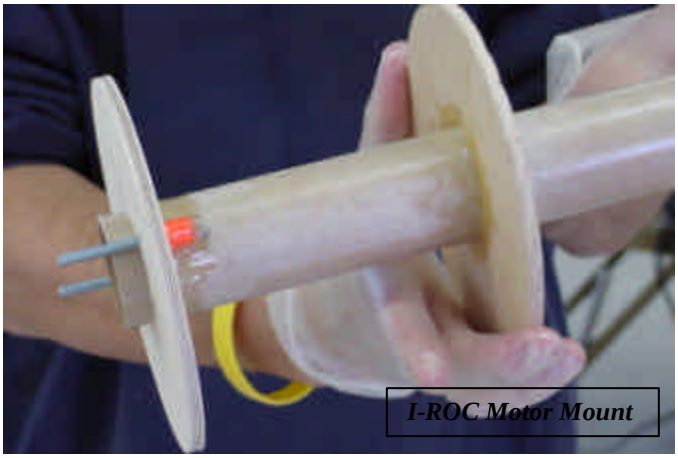
The second tube was covered with resin and cloth as before but, this time, it was wrapped with heat shrink tape that contracts during curing in the oven. The result was a tube that was much smoother than the first that would require less sanding before it could be finished.

Applying the heat-shrink tape

Assembly of the motor mounts

On the other table assembly of the Wocket began. The core and motor mount were assembled and the shell was test fitted.

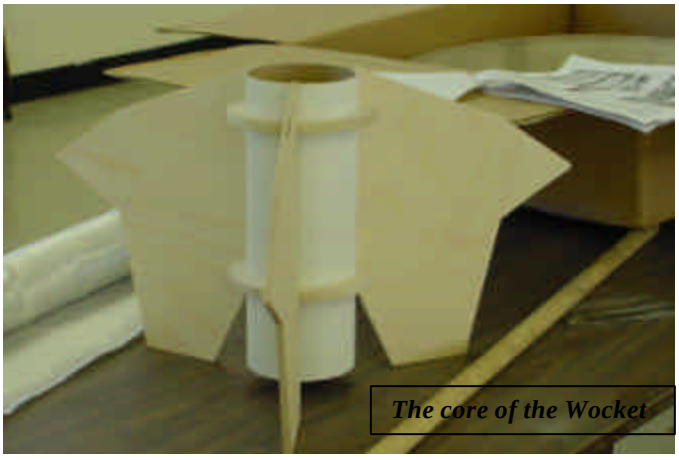
☆☆☆



I-ROC Motor Mount

left: *the curing oven* ***right:*** *Wocket Core assembly*

The Wocket in its box



The core of the Wocket

October 19th Meeting
The eBay Way

During this meeting Carl Curling shared his experiences purchasing rockets and supplies from eBay. Using eBay it is possible to purchase model rocketry items from across the United States and overseas.

The presentation began with an introduction to eBay and the commonly used terms and practices a user will encounter. The logical organization of the auction site was described and the best ways to search it were discussed.

A list of rocketry items (over 400) was reviewed. The only items not available on eBay are rocket motors – it is an eBay policy not to allow them to be sold.

☆☆☆

October 23rd Scout Launch

Beginning with a morning building session and ending with the launch of 40 new Quest Vipers and Estes Alphas, Trip Barber, Greg Brock, Bart Merkley and Frank Prekel helped the Boy Scouts of the Chain Bridge District of the National Capital Area Council complete one of the requirements of their Space Exploration Merit Badge at their Fall Camporee at .the Bealton Flying Circus' airfield.

☆☆☆

October 30th Build Session at Granddad's Hobby Shop

The last event of the month occurred at Granddads' Hobby Shop when, Craig Beyers, Jim Brower, John Hochheimer and Joe Woodford conducted a build session in Granddad's activity room.

The builders included Boy Scouts, Girl Scouts and their parents. The session gave birth to a 22 new rockets that are intended for flight at the club's launch in November.

☆☆☆

Upcoming Presentations and Events

The last 2 months have been busy and the next 2 are shaping-up to be just as busy.

November 2 .....**Meeting** -- John Langford and members of the Junior U.S. National Team will talk about their recent trip to the World Space Modeling Championship in Poland.

November 6 .....Sport Launch at Great Meadow, back-up date is the 7th.

November 16....Meeting – Bob Parks from Aurora Flight Sciences will talk about their Ares/Mars Flyer vehicle.

November 21....Build Session – The 2nd session working on the Club's High-powered demonstration rockets.

December 7 .....Meeting – Randy Repcheck will present on "*Making Solid Fuel Rocket Motors*".

December 19 ....Sport Launch at Great Meadow, no back-up date.

December 19 ....Annual Holiday Party and Rocketry Auction Pot Luck.

December 21 ....Meeting – The Oakton High School Rocketry Team will present their NASA Student Launch Initiative payload project's "critical design review".

☆☆☆

The 2005 Launch Schedule Announced

Next year's launch schedule has been released. Except for the June launch all primary flight dates are on Saturdays and the back-up, if available, is on Sunday.

Month	Primary Date	Back-up Date
January	8	9
February	12	13
March	12	13
April	2	3
	9	10
May	21	22
June	5 **Sunday!**	*none*
July	9	10
August	20	21
September	11	*none*
October	*none*	*none*
November	19	20
December	3	4

Launches begin at 8am and go until 5pm except for January, February, November and December when the sun set early and the range will close at 4pm. ☆☆☆

TARC 2005 Flyer

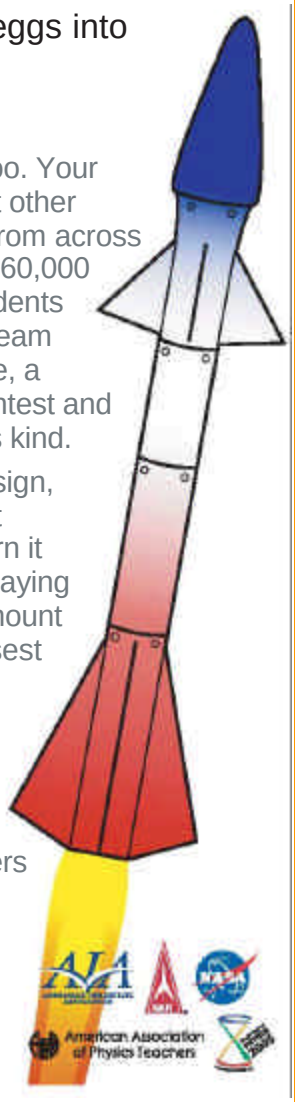
Ever wanted to launch eggs into space?

We'll pay you...

And we'll pay your friends too. Your school can compete against other schools and organizations from across the country for its share of $60,000 in prizes! Thousands of students each year compete in the Team America Rocketry Challenge, a nationwide model rocket contest and the largest competition of its kind.

To win, each team must design, build, and fly a model rocket carrying a raw egg and return it safely to the ground while staying aloft for a predetermined amount of time. Whoever is the closest win!

Join us this year as we Celebrate the World Year in Physics, which marks the 100th year anniversary of Einstein publishing his papers on relativity.



Application Deadline - November 30, 2004

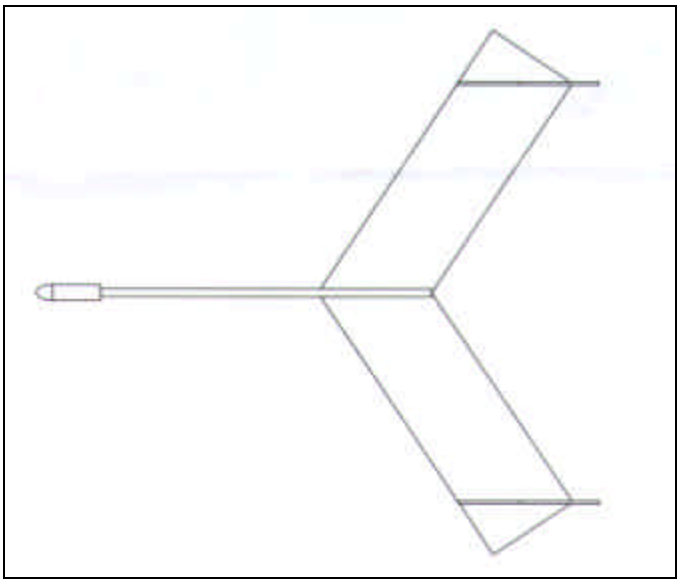
For more information, please visit our website at **www.rocketcontest.org**.

3-D Glider

By Doug Hillson

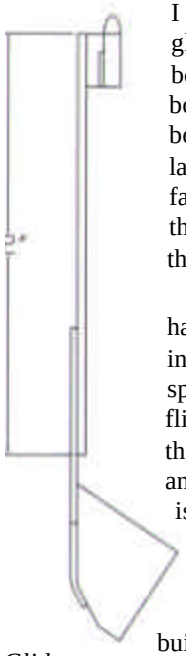
Background

Sometime in the fall or summer of 1995 give or take a year, Robert Edmonds made a comment about making a glider kit for three dollars. I took this as a bit of a challenge and went about designing and building a glider that was as simple as possible, and still cost close three dollars.



3-D Glider Top view

The easiest way to make a boost glider is to make a glider that ejects the motor which will move the CG back and let the glider transition from boost to glide. After thinking about that I came up with the basic concept of the 3-D glider. I chose a flying wing with a long boom extending forward. The front of the boom holds the motor. The length of the boom would give the weight of the motor a large moment arm, positioning the CG farther forward while in flight. I didn't think the design would work if you didn't have this moment arm.



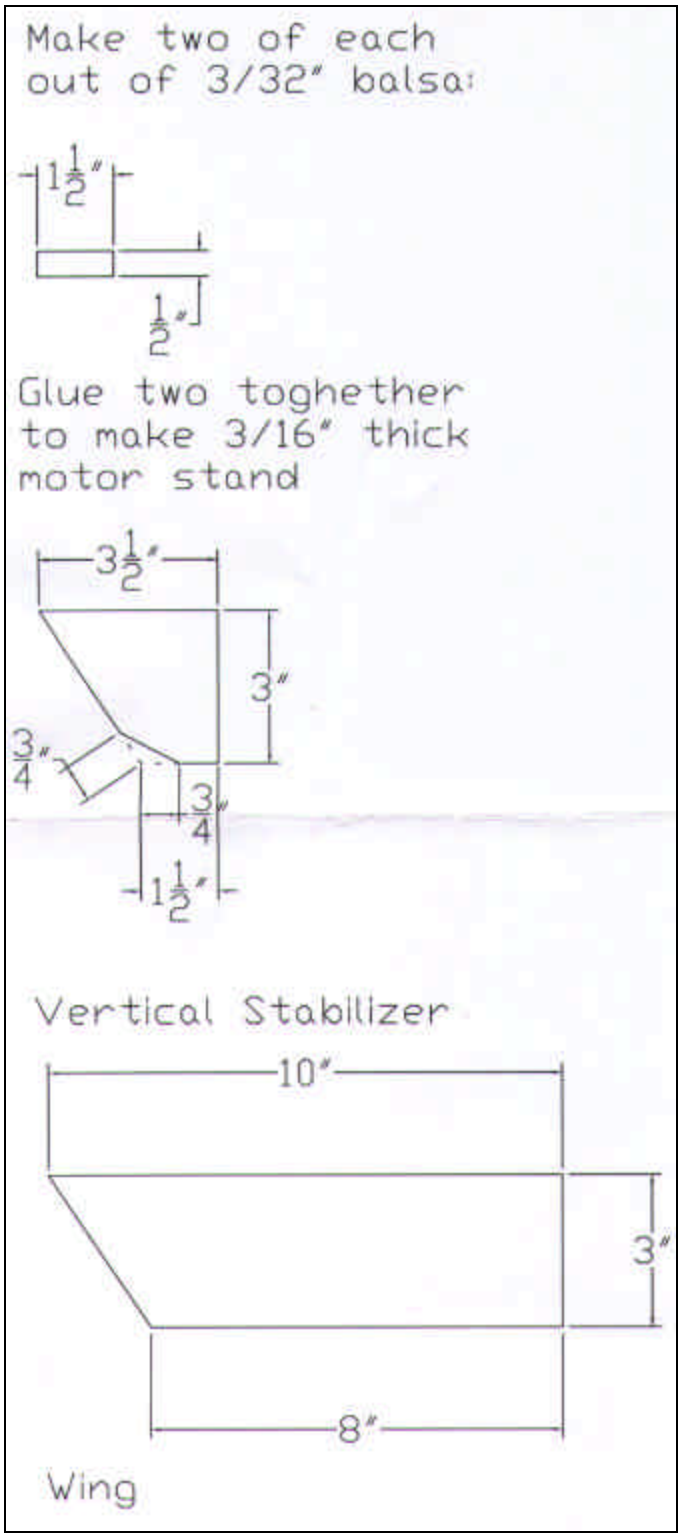
3-D Glider Side View

I built a prototype but the original version had no incidence in it, so it would glide fine in test flights, but the CP wasn't based on speed so it wouldn't necessarily transition to flight correctly. The way I put incidence in the design was to warp the wings by putting an angle in the vertical stabilizers. When it is glued to the wing, the shape of the vertical stabilizer will automatically cause the wing to warp.

Compared to some model rockets I have built, the 3-D glider has been one of my most reliable models. If you purchase the supplies from a hobby shop the cost of the glider can come pretty close to three dollars if you don't count the cost of the nose cone.

Construction

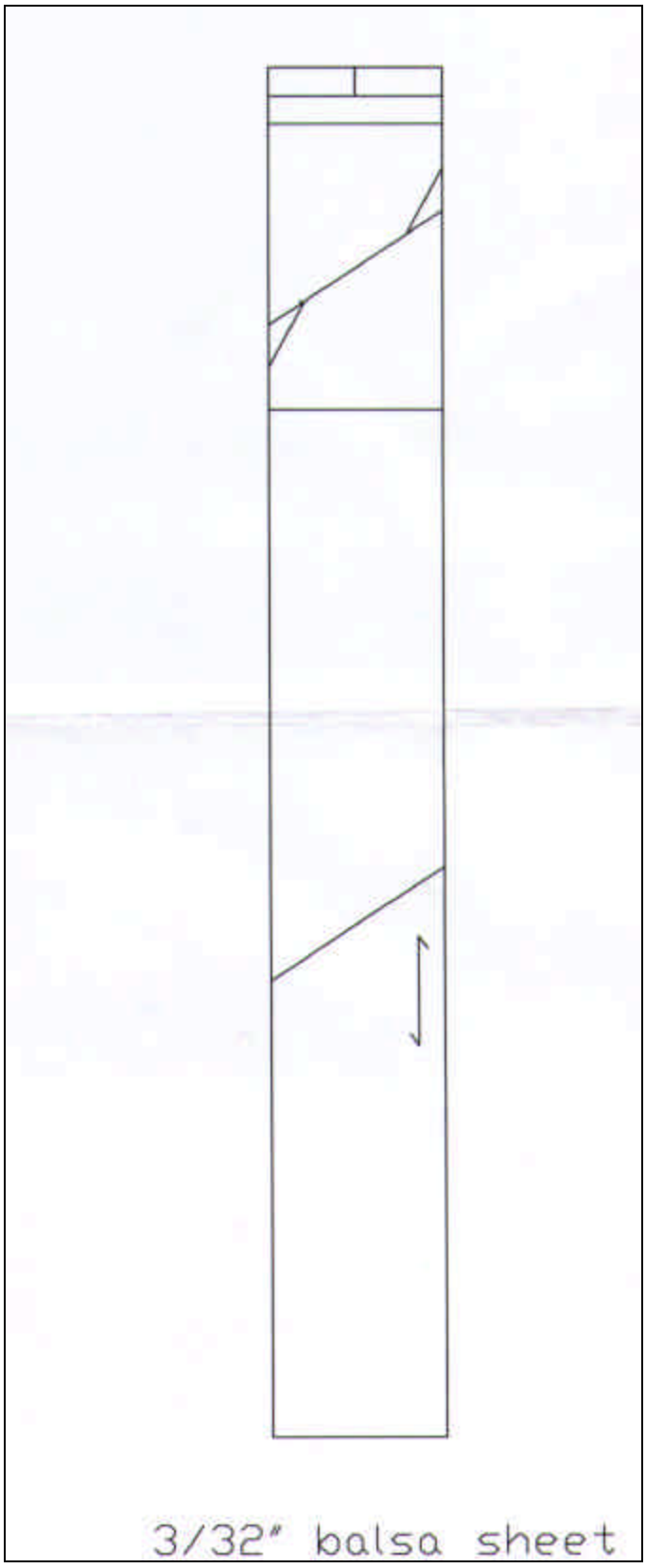
The construction is relatively straight forward. All the balsa parts can be made from one sheet of 3/32" balsa as shown in the plans. Cut the basswood boom to length and glue the parts together with CA (super glue). The hardest part of the construction might be gluing the stabilizers to the wings. Make sure the trailing edge of the wing bends up when the stabilizer is glued. (You may want to use kicker for this step.)



3-D Glider Component Detail

The tailing edge of each vertical stabilizer is prone to breaking, because the wing won't prevent the trailing edge from cracking along the grain. To prevent this I usually put some tape on the stabilizers that crosses the grain so it won't be likely to break. For A class motors, one can get away without the tape, because the model is relatively strong.

Make sure the stabilizers are glued on well to the wing; put a fillet (CA or possibly epoxy) on the stabilizer joints to make them a little stronger. On some 3-D gliders I've put extra balsa on these joints to make the glider a little stronger.



3-D Glider Balsa Layout
All of the Balsa parts can be made from a single 3"x24" sheet of 3/32" balsa.

Trimming

It's a good idea to put a piece of balsa or basswood (leftover from the boom) underneath the wing so that you have something to hold onto when you trim the glider. This isn't necessary and it's not shown in the plans but it does help.

When you first hand toss the glider, it will most likely dive into the ground. Most 3-D gliders need tail weight (a design problem which I haven't fixed yet). In this case add clay evenly to the aft most part of each wing until the glider makes a nice glide when you hand toss it.

If the glider stalls instead of dives, then add nose weight until the glider settles into a nice glide when you hand toss it.

Trimming a glider can be done on the field. If you've never trimmed a glider before enlist the help of a fellow NOVAAR member since we have a lot of competent members who can help you out.

Flying

When flying the 3-D glider make sure the micro clips don't catch the wing as the glider leaves the pad. If you use a regular launch pad (which I pretty much always do) put masking tape on the rod to act as a stand-off on which to rest the launch lug. Then tape the micro clips to the rod so they won't be able to catch the wing as it passes. An umbilical rod or a launch pad that uses a dowel with the rod securely taped to it will also work.

Point the rod straight up. When the glider is launched it should make a decent boost, and at ejection the motor will eject out of the model and the glider will transition to glide.

This model has proven to be pretty impervious to wind. For the first flight I wouldn't recommend flying it in much wind, but I've found that it can fly in stronger wind than most gliders can. I've flown the original model in winds very close to 20 mph and it worked fine.

Details

Materials

1/4 x 1/4 basswood boom
24" X 3" x 3/32" balsa
1 ½" BT-5 body tube
BT-5 nose cone
1/8 launch lug
moldable clay (to trim)

Trimming:

Most 3-D Gliders need tail weight. Evenly add clay to both wings at the aft most part of the wing.

Recommended motors:

A3-4T
A10-3T
(Untested on 1/2A3-2T)

Future Designs and Modifications

The basic design is pretty straight forward I haven't had time to really get the CG and CP relationship correct yet. Most 3-D gliders so far need a lot of clay in the back, and I'm trying to modify the design so they don't need so much. Making the boom out of balsa would probably help. I've made one using balsa, but the original is basswood and I'm partial to basswood for glider booms.

☆☆☆

A Visit to the Titan Missile Museum

By Will Marchant

During August I visited the Titan Missile Museum, and had a spectacular tour that went through the entire development and deployment history of the vehicle. The museum is located in Sahuarita, Arizona, about 25 miles south of Tucson.

Launch of a Titan II ICBM from underground silo. (USAF) (en.wikipedia.org/wiki/Titan_II)

The missile museum itself is set on a small parcel of land well outside the city. Most of the facility is underground. The guided tour consists of a walkthrough of the entire above and below ground missile facilities, a discussion of the vehicle's propellants and propulsion systems, tours of the security facilities, the launch control room, the reentry vehicle (RV), and participation in a simulated missile launch.

The Titan II was the largest missile in the US nuclear arsenal. It carried a single thermonuclear warhead. The missile was stored in, and launched from, an underground vertical silo. All walkways, plumbing, electrical services, and structures are shock isolated on springs to ameliorate the affects of a nearby explosion from an enemy's missile sent to destroy the Titan complex. .

The grounds were protected by wire fencing and a Doppler radar movement sensor. The museum grounds contain a display of service trucks used in fueling operations and a helicopter used in support operations. The grounds contain numerous communications antenna. Many are in "pop ups" that are designed to survive a nuclear strike. The antennae are deployed after the strike to regain communications.

One of the many "pop up" antennas designed to survive a nuclear strike. (Photo by Will Marchant)

The RV on top of the missile. (Photo by Will Marchant)

Windows have been cut into the side of the silo to allow viewing. This particular missile was used for training and had never been fueled. This silo and missile were used in the filming of "Star Trek: First Contact". (Photo by Will Marchant)

One can also get a look down into the missile silo through a glass canopy. An operational missile was covered by a thick concrete door for blast protection. Treaties mandated that the door be disabled in a partially open configuration. The glass canopy was added as weather protection for the silo. (Photo by Will Marchant)

This is a photo of the reentry vehicle (RV) the Titan II missile carried. (Photo by Will Marchant)

Websites of Interest

The Titan Missile Museum's web page is
www.pimaair.org/TitanMM/titanhome.shtml

The link below shows a nice aerial view of the museum, and provides info about the history of the Titan
www.pimaair.org/TitanMM/titanhistory.htm

If you happen to be passing through Arizona, seriously consider visiting this great museum. The museum is open from 9AM – 5 PM every day except for Thanksgiving and Christmas, and the guided tour lasts about an hour. (But I'll guarantee you'll spend more than an hour at the museum.)

For more information about the Titan, I recommend David K. Stumpf's book "Titan II: A History of a Cold War Missile Program". This book is an excellent resource about this weapon system.

☆☆☆

SpaceShipOne Captures X-Prize

source:
www.scaled.com/projects/tierone/041004_spaceshipone_x-prize_flight_2

On October 4, 2004, SpaceShipOne rocketed into history, becoming the first private manned spacecraft to exceed an altitude of 328,000 feet twice within the span of a 14 day period, thus claiming the ten million dollar Ansari X-Prize.

A second record shattered

In addition to meeting the altitude requirement to win the X-Prize, pilot Brian Binnie also broke the August 22, 1963 record by Joseph A. Walker, who flew the X-15 to an unofficial world altitude record of 354,200 feet. Brian Binnie's SpaceShipOne flight carried him all the way to **367,442 feet** or **69.6 miles** above the Earth's surface.

Ansari X-Prize

The Ansari X-Prize was founded in 1996, modeled after the Orteg Prize that Charles Lindbergh won in 1927 by flying solo across the Atlantic Ocean. The October 4, 2004 SpaceShipOne flight was timed partially to coincide with the 47th anniversary of the Soviet launch of Sputnik. ☆☆☆

With SpaceShipOne hung from the underside, White Knight takes to the air

What is the ANSARI X PRIZE?

Source: www.xprize.com/about/what_is_the_xprize.php

The ANSARI X PRIZE is a $10,000,000 prize to jumpstart the space tourism industry through competition among the most talented entrepreneurs and rocket experts in the world.

The $10 Million cash prize will be awarded to the first team that; Privately finances, builds and launches a spaceship, able to carry three people to 100 kilometers (62.5 miles), returns safely to Earth and repeats the launch with the same ship within 2 weeks.

The Ansari-X Prize was inspired by the early aviation prizes of the 20th Century, primarily the spectacular trans-Atlantic flight of Charles Lindbergh in The Spirit of St. Louis which captured the US $25,000 (US$) Orteig prize in 1927. Through

a smaller, faster, better approach to aviation, Lindbergh and his financial supporters, The Spirit of St. Louis Organization, demonstrated that a small professional team could outperform a large, government-style effort.

The Ansari-X Prize competition follows in the footsteps of more than 100 aviation incentive prizes offered between 1905 and 1935 which created today's multibillion dollar air transportation industry. ✯✯✯

AeroTech and RCS Played a Role in Winning X Prize

Source: www.aerotech-rocketry.com/customersite/home.html

RCS Rocket Motor Components Inc. and its AeroTech Consumer Aerospace Division are proud to announce that they played a role in the success of each of the recent flights of SpaceShipOne and the winning of the $10 million Ansari-X Prize by Scaled Composites of Mojave, CA, the designer and builder of SpaceShipOne.

Since 2000, AeroTech and RCS have provided solid propellant and phenolic nozzles to SpaceDev of Poway, CA, the hybrid rocket motor contractor to Scaled Composites. SpaceDev used AeroTech's Blue Thunder propellant and RCS phenolic nozzles in the construction of the igniters used to initiate SpaceShipOne's hybrid rocket motor during each flight.

According to Michael Veno, engineering analyst for SpaceDev, "The selection of AeroTech and RCS products was important to SpaceDev's winning the propulsion contract for Scaled Composite's SpaceShipOne over the Environmental Aerosciences (EAC) competing design. During development, AeroTech and RCS products became the obvious choice for use in SpaceShipOne's ignition system based on past experience on smaller hybrid rocket motors designed for changing the orbits of small spacecraft. The SpaceDev rocket motor demonstrated more reliable starting characteristics than the EAC motor, which used a gaseous oxygen ignition scheme."

RCS and its AeroTech division join with SpaceDev in congratulating Burt Rutan and his Scaled Composites team in the successful development and historic flights of SpaceShipOne, and their winning of the Ansari X Prize.

✯✯✯

A head-on view of White Knight

A New Company is Born

source:
www.scaled.com/projects/tierone/092704_scaled_paul_allen_virgin_galactic

London, September 27th 2004: Today, Sir Richard Branson announced that Virgin Group has entered into an agreement to license the technology to develop the world's first privately funded spaceships dedicated to carrying commercial passengers on space flights. The technology is currently owned by a Paul Allen company called Mojave Aerospace Ventures ('M.A.V.') and was originally developed to fulfill Paul Allen's vision of building the world's first privately funded, reusable space vehicle ('SpaceShipOne'). The licensing deal with M.A.V. could be worth up to £14 million ($21.5 million) over the next fifteen years depending on the number of spaceships built by Virgin.

Virgin has formed Virgin Galactic, a new company, which will become the world's first commercial space tourism operator. It is envisaged that Virgin Galactic will open for business by the beginning of 2005 and subject to the necessary safety and regulatory approvals begin operating flights from 2007. ✯✯✯

From the Editor of the NOVAAR Free Press

Greetings, My name is Frank Prekel. On the same day the club elected new officers, I was appointed as the editor of the clubs newsletter. On behalf of the club I want to thank Greg Brock for the last five years he has edited and produced the *NOVAAR Free Press.* On the surface a newsletter seems like an easy thing to create. But, the work that goes into creating any publication; the design, the writing, getting people to write and then submit their articles (with pictures) is a job that can bury a person in minutia.

Greg has done the club proud. For the last 25 issues Greg has set a standard that is going to be very hard to beat or even meet. SO, I am not even going to try. Instead, I am simply going to try to continue what has come before. I will make a few visual changes but I intend to keep the core of this newsletter what has always been – a report on the club's activities and articles written by club members about their endeavors within the Model Rocketry Hobby. Which includes *but is not limited to*, sport rocketry, competitive rocketry and high-powered rocketry.

Publishing Cycle

It is my plan to issue 6 newsletters per year and each issue will cover club activities from the previous 2 months. For example, the March issue will report on activities occurring in the months of January and February. The full schedule should work like this ...

Activity occurring during:	will be reported in the issue dated:
January and February	March
March and April	May
May and June	July
July and August	September
September and October	November
November and December	January

If everything works out the Newsletter will be available on the website by the 15th of the issuing month.

New Layout

I have tweaked the layout of the newsletter so that the pages can be printed in duplex – that is, front to back. In addition, I have adjusted the margins so that the left and center margins are large enough to allows holes to be punched for storage in a binder.

Printer doesn't do Duplex?

Before you run out and buy a printer that has an auto-duplexer, there a few things to try – *I not saying not to buy a new printer, if that's what you want to do*.

Your printer may know how to print duplex, with a bit of assistance. Take a look at the properties settings available for your printer. Change the settings and send the document to the printer and follow the on-screen instructions.

If the Printer's Driver does not have a duplex feature, Adobe Acrobat Reader has the ability to print the odd and even pages separately. Simply print the even pages and then place the paper back into the printer to print the other side.

A Picture is worth a Million Words

I plan to include as many pictures as I can in the newsletter. Pictures of rockets launching, flying landing are a natural. But, I am also interested in getting pictures of the club member flying the rocket. To this end, I want all you shutter-bugs out there to turn your cameras on the flyer as well as what is being flown.

Sometimes you need a Million Words

Well, maybe not a million, however one thousand are needed to fill a column of the newsletter. Yep, this my plea for articles. Taking inspiration from John Hochheimer's comments when he was elected President of the club, It is my desire to run at least one article from each of the areas he wants to emphasize; Sport Flying, Competitive Flying and High Power Flying.

Articles can include; a review of the kit you just built, a launch report of your favorite/latest/least liked rocket; a design/build story about latest scratch built, an exploitation of how you fit the 24 inch parachute into the ? th-A rockets for the last completion. The field is wide open

Submissions

If you have any pictures you want to share, or maybe an article, please pass them to me at either the meeting or to my email address (fprekel@aol.com).

The electrons are preferred. However, if you take pictures with film or, write using a typewriter, I have the ability to scan them. I ask that you get them to me as-soon-as-possible, the more time I have the easier it will be get them scanned for the next newsletter.

☆☆☆

November Launch at Great Meadow