

STARDUST

Fall 1998

ASTRE/UNYROC Returns Victorious from NARAM-40

by Jeff Vincent

In early August, a hardy group of four ASTRE/UNYROC members departed the Capital District, bound for rocket glory (or bust!). Chuck Weiss, Wolf von Kiparski, Vince Giovannone, and myself were the brave warriors. For Wolf and Vince it was their first NARAM; for Chuck and I, our first in seven years. Would we have the right stuff? The meet was held at the AMA's Muncie field, a superb



ASTRE Fall Finale - 1

by Chuck Weiss

AFF-1 was flown as planned with the weather cooperating nicely. Wind was almost non-existent until the end of the day and the temperatures were very comfortable.

The meet was attended by Jeff Vincent, Bryan and Marty Metzger, Josh and Larry Rosenmann, Vince Giovannone and Chuck Weiss. Larry and his son Josh were checking out competition rocketry and were quite observant and inquisitive. We hope they come back and fly next time.

Bryan Metzger has joined ASTRE as of today as a new B divisioner. I'd like to congratulate Bryan for making two qualified flights in every event and achieving some impressive scores for his first competition meet. Our thanks to Bryan's father Marty for helping out with timing flights.

Vince Giovannone chose to use the meet for testing some new model designs. Watch out for Vince at the next NARAM. His models are now performing well enough to reach the corn so maybe we won't see him around very much. He will be out in the corn looking for them.

(Continued on page 2)

In This Issue...

ASTRE/UNYROC at NARAM-40	1,3
AFF-1 Coverage & Results	1-2
Editor's Thermal	2
Nocturne B Rocket/Glider Construction	4
Manufacturer's News	10
NAR Contest Points	10
ASTRE Calendar	11

STARDUST

Fall 1998

Volume 12, Number 4

Stardust is published bimonthly by the Albany, Schenectady, Troy Rocket Enthusiasts (ASTRE), Section #471 of the National Association of Rocketry (NAR). You may contact us via:

Jeff Vincent, Box 523,
Slingerlands, NY 12159
jvincent@wizvax.net

Wolf von Kiparski,
46 Tremont Street,
Albany, NY 12205.
wolf@netheaven.com

ASTRE Online

<http://www.netheaven.com/~wolf/astre.html>

Newsletter Drone: Jeff Vincent.

Captain Copy: Wolf von Kiparski.

Contributions by: Tom Lyon, Jeff Vincent, Wolf von Kiparski., and Chuck Weiss.

On the cover: Peter Alway's Black Brant IX takes flight at NARAM-40.

Editor's Thermal

Back On Track...



Well, we survived NARAM! You may have wondered, with the lack of newsletters since the early summer. (Of course, it's not like I've been holding back newsletter material that's been submitted to me - hint hint...) In any case, we're back with a review of some of the summer and fall events and a plan reprint for one of the more challenging events we'll be flying next spring and summer.

And, after taking a bit of a break, we're starting to formulate our plans for the new year. We have come up with a schedule for some events, and expect to refine it at the next meeting. We want to have some meetings where we can show some contest models and how to build and fly them. We'll also be making our contest plans. Right now we expect to fly three more regionals for UNYROC (including NYSPACE) and to have a good attendance at the Nationals in Pittsburgh in August. So start making your plans now.

In the mean time, I've been spending a lot of my time this fall upgrading my computer and playing a truly amazing auto racing simulation, *Grand Prix Legends*. "GPL", as we insiders have tagged it, is a true seat-of-the-pants experience that captures the 1967 Grand Prix racing season. And, in a related diversion, I've also pulled out some of my 25 year old HO slot car gear to play with. I hope I can find some time for rockets...

Jeff Vincent

Jeff Vincent, in addition to flying the meet, demo'ed his clustered/staged sport scale Aeolus boilerplate, a heli copter model and a boost glider.

Chuck was his usual boring self trying to run the meet. I hope everyone enjoyed the last ASTRE meet before spring.

Here are the results. Unfortunately because of only one entry in each division, everyone had to be grouped together, forcing Bryan to fly against the team division national champions for his first meet. I think he did a heck of a job.

Scores	Total	Place	NAR points	Contestant
A Streamer Duration				
81	81	1	80	J. Vincent
24, 24	48	2	48	B. Metzger

Scores	Total*	Place	NAR points	Contestant
B Eggloft Duration				
51	51	1	170	J. Vincent
37	37	2	102	Glove City Fireballs
5, 17	17	3	68	B. Metzger

* total for B ELD is best single flight

Scores	Total	Place	NAR points	Contestant
1/2A Superroc Duration				
4800, 9000	13800	1	130	J. Vincent
5568, 6240	11808	2	78	Glove City Fireballs
4608, 2716	7324	3	52	B. Metzger

Total NAR Points	
Jeff Vincent	380
Glove City Fireballs	180
Bryan Metzger	168

All contestants flew as independents. No points were scored for any section.

flying facility. What the hotel may have lacked in accommodations or service, it made up for in the motor-inn, rocket fraternity ambiance. The weather was good for most of the week (just don't ask Chuck about the one day the wind was into the corn and we were flying HD).

The meet offered a great opportunity to renew old friendships and make new ones. And to see and purchase the latest products in rocketry. And to fly with (and against) some of the best contest rocketeers in the country. And to basically spend a full week doing nothing but rockets!

Due to unforeseen circumstances, our group was the bulk of the UNYROC presence at NARAM. The Flynn family joined us later in the week. In spite of the low turnout, we soldiered on, and put on a strong showing for UNYROC's rookie NARAM.

The next NARAM is scheduled for next August in Pittsburgh, PA, only a good day's drive away. Time to start thinking about making plans for taking part in the fun.

Below: Jeff Vincent's Sandhawk heads skyward under Apogee C10 composite-power. The model, originally built for NARAM-25 Super Scale and seen at many local meets, was refurbished for this appearance at the Nationals.

Above: Vince Giovannone gives the thumbs up



prior to the launch of his Sport Scale Black Brant. Vince finished 10th of 30 entries in the crowded C Division.

Photos by Wolf von Kiparski.

ASTRE/UNYROC at NARAM-40

1/4A PD	Tm	1st	Wallace & Gromit	350 sec
B Alt*	Tm	1st	Wallace & Gromit	731 m
D DEL Alt	C	3rd	Wolf von Kiparski	259 m
B HD	C	5th	Wolf von Kiparski	180 sec
A B/G	Tm	1st	Wallace & Gromit	241 sec
B SD MR*	Tm	2nd	Wallace & Gromit	521sec
Sport Scale	Tm	2nd	Wallace & Gromit	810 pts
R & D	Tm	1st	Wallace & Gromit	

* - set new U.S. Record

NARAM	C	8th	Wolf von Kiparski	1432 pts
NARAM	Tm	1st	Wallace & Gromit	5232 pts
NARAM	Sect	5th	UNYROC	7563 pts
1997-1998	C	3rd	Wolf von Kiparski	8494 pts
1997-1998	Tm	1st	Wallace & Gromit	14100 pts
1997-1998	Sect	3rd	UNYROC	53367 pts

The Nocturne B Rocket/Glider

by Jeff Vincent

The Nocturne is a large slide-wing B Rocket/Glider which I developed in 1984. The slide-wing method uses a rearward wing position for a vertical boost and slides the wing forward at ejection, transitioning into a stable glide. It's large size provides a stable high-performance glide and high visibility, while achieving a respectable altitude. It should give a dead-air time of about two minutes on a B engine. It is a good choice for modelers looking for a proven model to begin flying rocket/gliders or for experienced flyers looking for a good reliable design. The Nocturne has performed well, capturing second place in B R/G at NARAM-26 in 1984.

The plans included here are 1/3 scale. The original full size plans (two 11x17" sheets) are available from your editor for a nominal fee (we are also looking into making them available as a free download on the ASTRE Online site). This article is written as a step-by-step tutorial for the beginner. It contains a lot of basic detailed information. While more experienced modelers may choose to skip over it, who knows, you just might learn something. So, read the instructions carefully before beginning construction.

Construction Materials

- 1) 3.0" Estes BT-20
- 2) one Estes BNC-20 nose cone or equivalent
- 3) 1" Estes 3/16" launch lug
- 4) 3" 0.032" (1/32") music wire
- 5) 1.25" x 12" 1/32" plywood
- 6) 2" x 15" x 3/16" 8-10 lb balsa (fuselage)
- 7) 4" x 18" x 3/16" 4-6 lb C-grain balsa (wing)
- 8) 3" x 12" x 3/32" 6 lb A/B-grain balsa (tail)
- 9) 18" x 3/32" square spruce or basswood
- 10) 12" x 1/16" square very hard balsa
- 11) several 3" rubber bands (or equivalent)

As with most balsa gliders, there are relatively few rocket supplies required for constructing the Nocturne. The music wire is required for various widgets and is available at better craft and hobby shops. The wood sizes are the minimum required for one model. It is possible to construct the wing from two pieces if 4" wide balsa is not available; more about that later.

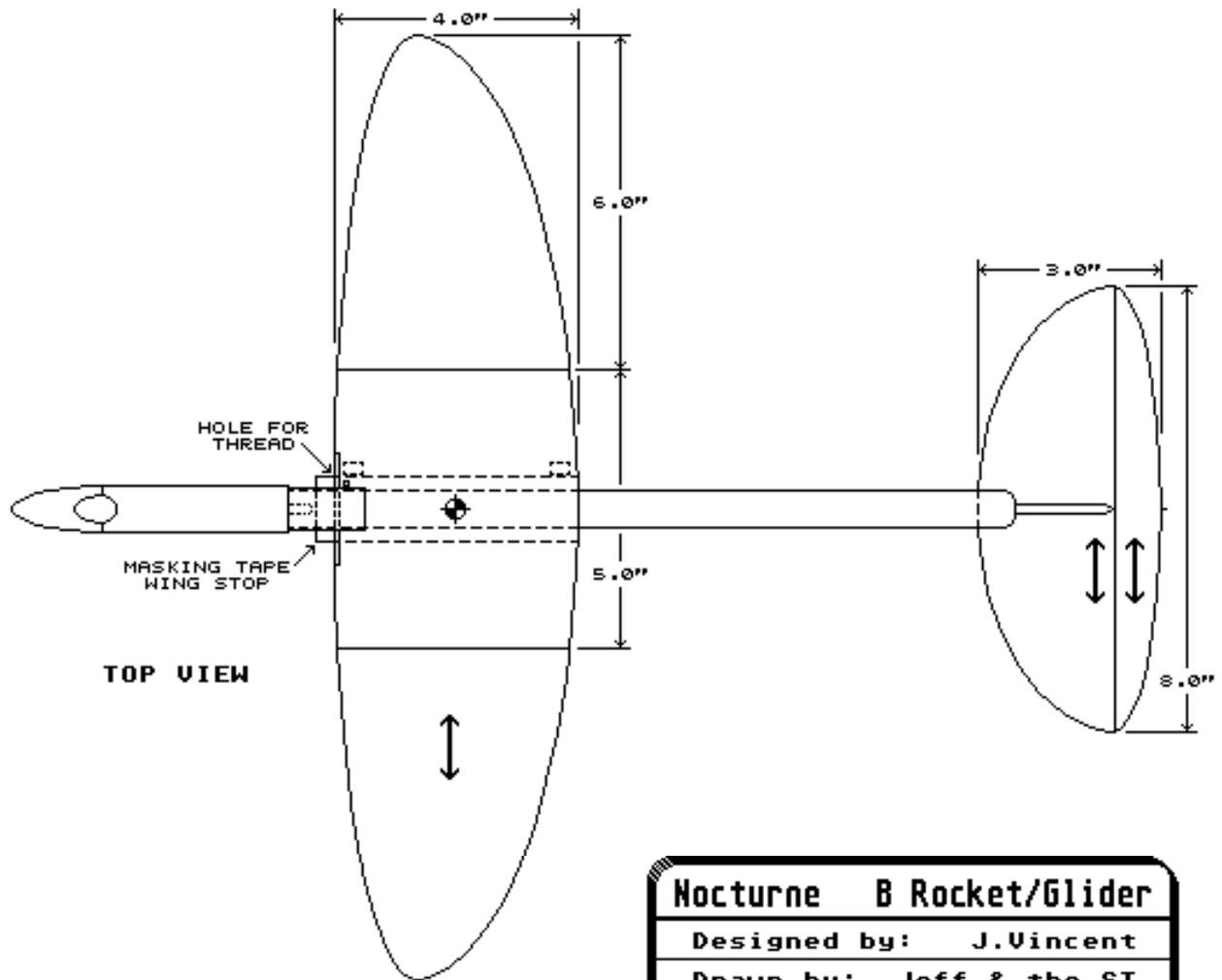
Carefully select the wood for your model, as improper materials may cause the model to shred under power or it may double the weight of your model! Information on balsa wood selection can be found in the 9.86 issue of *STAR-DATE* or in TR-103, "A Guide To Balsa Wood", available from NARTS for thirty cents. Use this information, take your time, and get the right wood. A majority of the construction is done with a slow cyanoacrylate (CA) adhesive, such as Pacer Zap-A-Gap CA+ in the green bottle or Hot Stuff Super-T, although some use may be made of aliphatic glue (yellow carpenter's glue) or 5-minute epoxy. Among the tools and materials you will need are a sanding block (essential!) with 100, 220, and 400 grit sandpaper (a small plane is also helpful), a good knife, needle-nose pliers, a straight-edge, masking tape, and some wax paper. You will also need a work board, a working surface you can cut and sand on (a foot square piece of 1/2" plywood is what I use). For finishing, spray dope is recommended, although the choice is left up to you.

Wing Construction

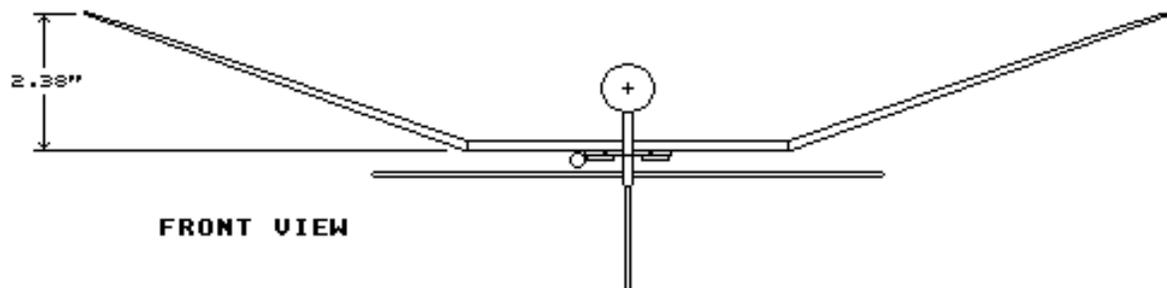
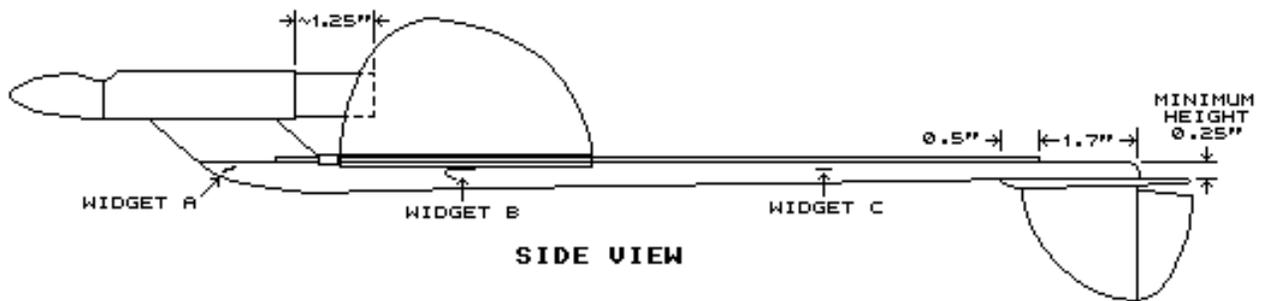
The first item is the construction of the wing. If you cannot find 4" wide balsa for the wing, use 3" wide 3/16" balsa and cut a 1" wide piece of 3/16" or 1/8" wood for the trailing edge. Put the two pieces on a piece of wax paper and glue them together with CA or aliphatic glue. Let this dry.

Take your wood and cut out the complete wing shape (don't cut the dihedral breaks yet). The plans show a 2" piece of 3/32" square spruce (or basswood) inset into the leading edge of the wing. This is to protect the soft balsa from the shock of the wing hitting the wing stop after ejection. You may install this small piece, or you may elect to use a length of spruce to cover the entire leading edge. This offers the added benefit of protecting the soft balsa leading edge from landing damage (running into trees, concrete walls, etc.). If you select the short piece, cut the inset and glue it into place with CA, with the bottoms of the spruce and wing flush. If you select the long piece, mark the center of the spruce and the wing. Place both pieces on a sheet of wax paper (to keep the bottoms flush). Starting at the center marks, glue the spruce to the balsa with CA (and liberal shots of accelerator) a few inches at a time. The spruce will resist curving, so hold it in place until the glue cures (dampening the outside edge of the spruce may make it a bit more flexible). This piece should come within about 1/2" of the wingtips, cut off any excess (taper it to

(Continued on page 6)



Nocturne B Rocket/Glider	
Designed by:	J.Vincent
Drawn by:	Jeff & the ST
May 1988	1/3 Scale



a gradual curve).

Mark the center of the wing on the bottom of the wing at the leading and trailing edges (make it visible and don't sand them off, you'll need these later).

The next step is tapering the wing from the root to the tips. Using coarse sandpaper (100 grit), sand the top surface of the wing so it remains 3/16" at the root and smoothly tapers to 1/8" at the tips. (If you have a small plane, this is good for the preliminary work.) Then taper the last inch of the tips down to 1/16" thickness.

Now we start forming the airfoil. Ideally we want to end up with a shape like the "Finished Airfoil" in the Nocturne Detail Sketch. (Note that virtually no sanding is done on the bottom of the wing, it remains flat.) In the first stage of airfoiling the wing, the airfoil is done in two zones, as shown in the "Airfoil: Stage One" drawing. The first zone is from the leading edge to 1/4 chord (1/4 the distance from the leading to trailing edge). This zone will be sanded to half its current thickness at the leading edge. The second zone is from 1/2 chord to the trailing edge. It will be sanded to 1/32" - 1/16" at the trailing edge. The best way is to put several layers of masking tape from wingtip to wingtip, one behind the 1/4 chord line and one ahead of the 1/2 chord line. These form the boundaries of the areas to be sanded. If you sand the wing with the leading edge 1/4 chord (1") away from the edge of your work board and sand with the trailing edge about 1/2" away from the edge of your work board, you should get just about the right final edge thickness. Sand the wing as described with coarse sandpaper (again, a plane may be helpful). Sanding against the grain is best here, as it will cut into the balsa better.

Now the second stage of airfoiling. Remove the tape. Use the sanding block (still using coarse sandpaper), to smooth the rough airfoil into the final airfoil shape. Sanding from the leading edge to the trailing edge with the sanding block will smooth any irregularities you may have created. Round the top and bottom of the leading edge. As you get the proper airfoil shape, change to medium sandpaper (220 grit or so) and sand with the grain (this won't damage the balsa as much). Make sure the airfoil is symmetrical from wingtip to wingtip, with no irregularities. (The shadow of a straight object such as a pencil held at just above the top of the wing and viewed from above the opposite wingtip gives a good view of the shape of the airfoil.) Continue your final sanding with fine sandpaper (about 400 grit). Lightly sand the bottom of the wing to give it a nice smooth

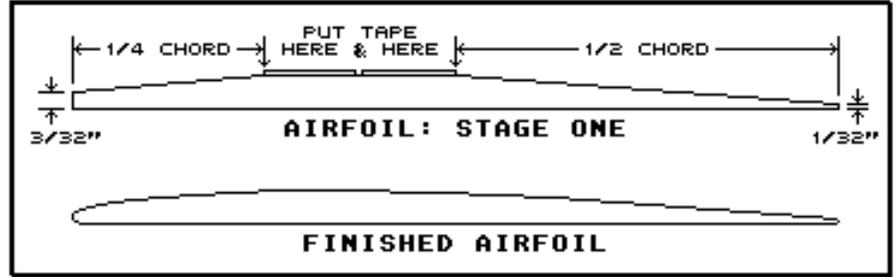
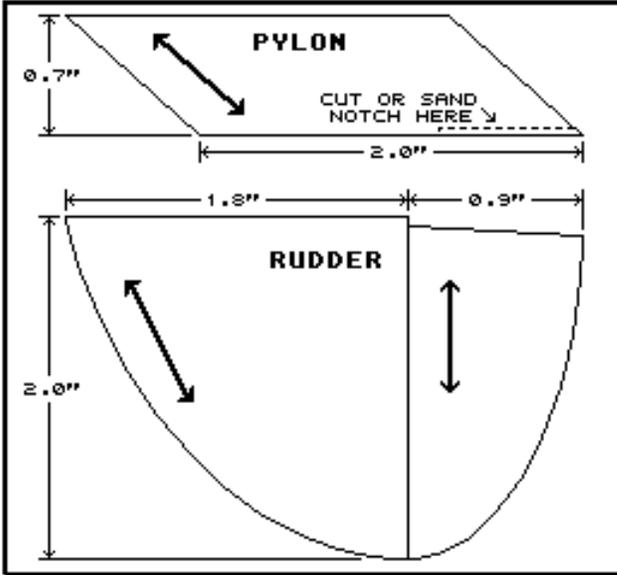
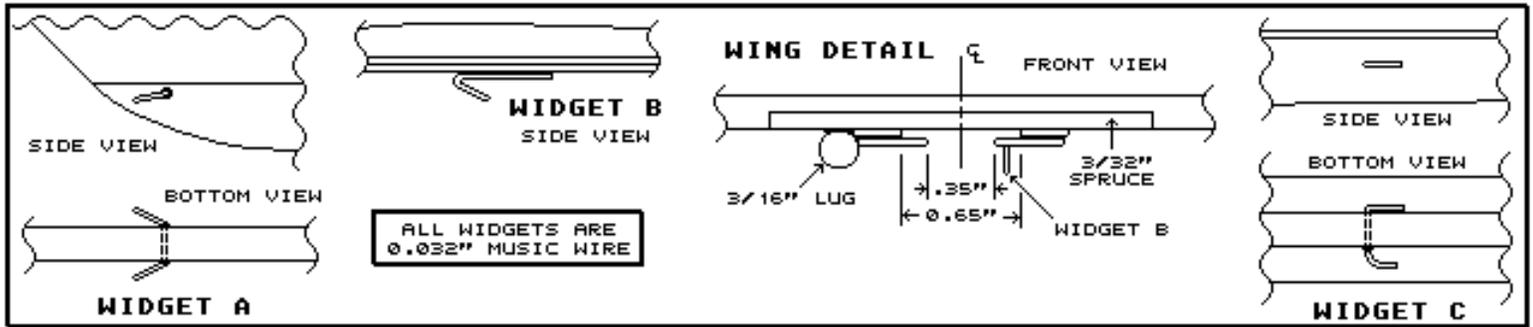
surface. Now you should have a nicely airfoiled chunk o' balsa.

The final step is doing the dihedral breaks. Mark the leading and trailing edges 2.5" on each side of the center marks you made. Using a semi-flexible straight-edge (I use a 6" steel ruler) cut the dihedral breaks at these marks. (I know you don't want to hack up that nice new wing, but rest assured, it won't fly very well with no dihedral. Just think, it gives you a chance to look at a cross-section of the airfoil and see how accurate you were.) Take one wingtip and place its root at the edge of your work board (top-side up!). Prop up the tip about 2 3/8". Carefully sand (coarse grit) against the edge of your work board, so the root of this piece will butt against the edge of the center of the wing at this angle. Make sure you don't sand too much at the leading or trailing edge of the root, you want the root to remain straight and parallel to the direction of flight. (Sanding straight down [and not up!] is the best method: you minimize the chance of changing the direction of the root or "twanging" the balsa.) Do the same with the opposite wingtip.

Get out the wax paper and place the center of the wing on it. Take one wingtip and place it where it belongs with the tip propped up about 2 3/8". The two pieces should butt together nicely for a good joint. If not, sand it a bit until it fits nicely. Glue the two pieces together in this position. Make sure that the bottom of both pieces are flush, so the airfoils will be parallel to each other (i. e.: so each piece of the wing will be flying at the same "angle of attack"). Once this is dry, do the other wingtip. Let this dry and fillet both joints. Congratulations, you are the proud owner of a new bouncing baby wing! (And about halfway to a completed rocket/glider.)

Tail Construction

The tail feathers are next on the agenda. Cut the stabilizer (or stab) and rudder from the 3/32" balsa. Mark the centerline on the top of the stab. Note that the rudder is made from two pieces with the grain running in different directions. Doing it this way gives you a strong rudder with a flexible trailing edge for trimming the model to turn. The stab may also be made from two pieces as shown, although the benefit is negligible (I sometimes use stiff C-grain for the main stab and flexible A-grain for the trailing edge). As with the wing, you may wish to use the 1/16" square balsa as a leading edge protector. It's optional on the stab, but I would recommend it for the leading edge of the rudder.



Nocturne Detail Sketch
 All Drawings Full Scale
 Rendered by: JU & ST

Assemble the rudder and attach the hard balsa pieces (if you desire). With medium grit sandpaper, gently taper the stab and rudder from the root to the tip (it's a lot more delicate working with these tiny pieces). Carefully airfoil the stab and rudder, so they have a nice rounded leading edge and a smoothly tapered trailing edge. The rudder will get a symmetrical airfoil, the same on both sides. Most people use symmetrical airfoils on their stabs as well, but I use an inverted airfoil, for extra stability. Sand it into an airfoil, just do it on the bottom of the stab. Sand the pieces with fine sandpaper to get a nice finish. Draw a second centerline on the bottom of the stab.

Fuselage Construction

Cut the two main parts of the fuselage (the fuselage and pylon) from the heavy 3/16" balsa (actually, this is relatively light for fuselage wood, it's thickness makes up for it). The fuselage has a maximum depth of 0.5" at the leading edge of the wing, a minimum depth of 0.25" at the stab, and a total length of 15". Cut the T-rail from the plywood piece (it's 0.63" x 12"). Make sure the width of the plywood rail is relatively constant, it's

important for the proper operation of the slide mechanism. Sand round the leading and trailing edge of the pylon. Sand the top of the fuselage square. Round the bottom of the fuselage (except for the last 2"+ where the stab goes). Round the edges of the plywood rail. Gently polish all the wood parts with 400 sandpaper.

Carefully glue (CA) the fuselage down the center of the plywood rail. Fillet the joint. Mark a line down the side of the tube and glue the pylon on along this line. Fillet this joint. Cut the exhaust vent in the balsa nose cone and the body tube as shown and glue them together. (Make sure the vent has no rough edges which will catch the burn-string or soft spots that the string could cut into, preventing the wing from sliding properly at ejection. Some people use a small hole punch before installing the nose to make two holes [in addition to the exhaust port] for the string to pass through and reinforce them with CA.) Cut or sand the small notch into the pylon so it will fit atop the plywood rail. Glue the pylon onto the fuselage, matching their leading edges. Place about five layers of 1/4" masking tape on the T-rail just behind the pylon to form the wing stop. Some people also use a masking tape wing stop behind the wing

during boost, this prevents the wing from sliding back during boost. If you use this, apply it before flying and remove it shortly after flight to: a) allow removal of the wing, and b) avoid sticky tape build-up on the wing slide.

Align the stab on the rear of the fuselage; the top of the stab should be parallel to the plywood rail when viewed from the side (no angle of attack) and from the rear (no tilt). If necessary, sand the fuselage to achieve this. (Note that the model is designed so that when the wing is slid off the rear of the rail [for transport and storage], the launch lugs will just clear the top of the stab. Don't sand the fuselage too much here, or you won't be able to do this!) Glue the stab in place, making sure it is aligned along its centerline. (It's probably easiest to have the stab taped to your work board and glue the fuselage to it.) Test fit the rudder on the bottom of the stab, sanding as necessary to get a good flush fit. Glue the rudder to the bottom of the stab along the centerline, making sure that is perpendicular to the stab. Fillet both joints.

Putting It All Together

First, cut two 1/4" x 4" and two 3/8" x 4" pieces of plywood. These will form the guides on the wing which join it to the T-rail. Make a mark 5/16" on each side of the wing centerline at both the leading and trailing edges. This marks the inside edge of these guide pieces. Glue one of the 1/4" wide pieces on one of these lines (just outside it). Make sure that you don't get any glue in the area where the wing will be sliding. Take the fuselage, and test-fit the T-rail on the bottom of the wing. The second line should lie just beyond the outside edge of the T-rail. If not make a new line. (Ideally, the T-rail will have about 1/32" of total clearance between it and the wing guides. Either too little or too much clearance might cause wing binding.) Remove the fuselage and glue the second 1/4" piece in place. (If you really want to be sure you have the proper clearance, glue the second piece on with the T-rail in place; just don't glue the T-rail to the wing!) Glue the two 3/8" pieces in place atop the 1/4" pieces. As you can see in the "Wing Detail" in the Detail Sketch, the outside edge of these pieces should be just inside the outside edge of the 1/4" pieces. Externally fillet these joints. Test the fit of the T-rail in the slot. It will probably be a bit tight (I prefer loosening a tight fit to a loose fit in the first place). Use a piece of medium grit sandpaper to sand the bottom of the wing inside the slot (this is the most likely area of friction) until you have a smooth-sliding assembly. Otherwise, you may have to sand the T-rail if

it is too wide. (But it's not, since you did everything right. Right?)

Drill a small hole into the right side of the leading edge of the wing, as shown in the Top View (yes, that little square thing). Form the three widgets from the 0.032" music wire with your needle-nose pliers. Refer to the detail and overall drawings for proper shape and placement. Drill or punch a small hole the front of the fuselage and put Widget A in place, securing it with CA. Glue Widget B on the wing guide (left side). Drill/punch a hole in the fuselage and mount and secure Widget C (use the curved end to slide it into the hole). Fillet all these joints. To explain these widgets, a nylon thread is tied to the hole in the wing. This thread goes back and passes around Widget C, the thread comes forward, passes over the right side of Widget A, and finally passes over the exhaust port and is taped securely in place. A rubber band is hooked between Widget B and the left side of Widget A. The thread holds the wing in a rearward position until the ejection charge burns the thread, allowing the rubber band to pull the wing into its forward position. Voilà, a glider! If you are using a different length rubber band than I did (#18: a 1/32" x 1/16" x 3" loop, to be precise), glue Widget B in a position so the rubber will be stretched a bit with the wing in its forward position (See! I told you to read all these instructions before you started building!!!)

Cut the 3/16" launch lug into two pieces and glue them on the right side of the bottom of the wing, next to the wing guide. You might want to do this with the wing in place on the model. Test to see if the wing will slide off the rear of the T-rail without the lugs hitting the stab. If they don't hit, great! If they do, you have two choices: put on 1/8" lugs or resign yourself to a one-piece model. I prefer the larger lugs with a model of this size for better guidance, although it's not critical. The removable wing is nice for transport and storage, but it's not the end of the world if you can't do it. Just be more careful on your next Nocturne! Fillet the lugs once you are done.

Finishing Techniques

Ask ten modelers how to finish a glider, and you will get eleven different answers. It's largely a matter of personal choice and habit. My habit, of late, has been two or three light coats of Pactra spray dope (black is traditional for the Nocturne), with intermittent sanding with 400 and 600 sandpaper. This provides a quick easy method of finishing which adds color, protects the wood, and doesn't add much weight (about 1.5 grams or 1/20 ounce

on this size model). Other methods include no finish at all, magic markers, brushed-on dope, tissueing, or silkspan. All of these have their advantages and disadvantages, I leave it to the modeler to make his own choice. When you are all done, your model should come in around 25-30 grams without an engine.

Trimming The Glider

Attach the rubber band to the wing to insure it remains in it's forward position while trimming. Place a used standard engine casing in the engine mount. The model should balance at the middle of the wing root (mid-chord). Slide the engine in or out of the tube to achieve this, securing it with tape once completed. I prefer using this method to adjust the CG to adding unnecessary weight. If the engine must protrude more than about 1.75", add tail weight to achieve proper CG placement. Write the distance on the pod so you'll remember it.

Test the trim of the model with a gentle forward toss into the wind. It should smoothly glide to a point about 20-30 feet away, with a gradual turn. If it dives, gently warp the trailing edge of the stab up a bit and try again. If it stalls, warp it down slightly. If the model doesn't turn at all, gently warp the trailing edge of the rudder a bit in the direction you wish to turn (i.e.: warp it left for a left turn). If it turns too much, warp it in the opposite direction. Ideally, the model will have a turn radius of about 25-50 feet.

Once the model glides properly in light tosses, you can try to heave it in the standard hand launch style. **WARNING!**--This is a good way to break a model if you toss it into the ground, so ease into it gently. For a proper hand launch, the model should be trimmed to turn in a direction opposite your "handedness" (i.e.: right-handers should fly models with left turns). Point the model upward at a 45 degree angle and bank it into a 30 degree turn opposite it's normal turn. Throw it hard into the wind in this manner. Like I said, if you're just starting this, take it easy. If all works well, your model will do several turns in the direction you banked it, climbing to about 20-30 feet, and roll-out into a gentle gliding turn in the opposite direction. This will give you some time to analyze the trim of the model and any adjustments you want to make. If the model doesn't "boost" properly, adjust your throwing style to compensate.

Flying The Model

Prepping a rocket/glider is actually quite easy. Select an engine: an A8-3 is good for test-flying, for competition use a B4-2 or B6-2. (This model can be flown with a C6-3, although if you tried to build it super-light, you may find yourself in Shred City [as I did at NARAM-28]. Use heavier wood or thicker wood or tissue or silkspan to reinforce the model if you plan to use it with C engines.) Put the engine the proper distance into the tube and securely tape it in place. Install an ignitor, with the leads pointing away from the model. Tie a length of nylon thread (about 18") to the hole in the wing. Slide the wing back to it's boost position; I normally put it back about 4-5". Pass the thread around the widgets and exhaust port as described above and securely tape it in place. Put on your rubber band.

When you get to the pad, put a flag of masking tape on the rod, about 8" above the blast deflector. Slide the model down the rod with the flag on the wing-top side of the model. Use a dowel or old launch rod as a gantry for the launcher leads. Place the dowel in the ground so it passes within an inch or so of the ignitor and tape the launcher leads to the dowel. This prevents the weight of the leads from pulling out the ignitor before it lights the engine and keeps the leads away from the stab as the model moves up the rod. Look at the model to make sure the rubber band is hooked up (ALWAYS check the rubber band just before you fly!) and that there is nothing to obstruct the path of the model. You're on your own now!



JP'S
TRAINS & HOBBIES
277 Troy Schenectady Rd.
Latham, NY 12110

(518) 782-0981

Estes Quest Aerotech North Coast
"You Need It, We'll Get It"

Manufacturer's News

New Estes Products - In October, Estes announced its new releases for 1999. A lot of them are more of the RTF stuff they're selling now which, frankly, holds very little interest for me. But there were two new products worthy of discussion.

First, they are reissuing a 1/100 Saturn V. (Is that a cheer I hear?) Supposedly the kit will combine features of both their own kit and the old Centuri kit (vacuum corrugation details for instance) to make it the best mass-market Saturn V ever. The kit will be released in limited numbers (2500?) and should be available any time now.

Lost in the hoopla over the Saturn V was the announcement of the re-release of 13mm 1/4A engines. A single type, the 1/4A3-3T, will be offered. It is intended for backyard flying with Estes' small RTF models, but it will be a welcome choice for contest modelers.

New Quest Products - Quest also made a "big" impression at the October RCHTA show with their new Micro Maxx line. The Micro Maxx line, as the name implies, are miniature rockets, smaller than anything seen before on these shores.

They are based on small engines, approximately 0.25" diameter by 1.0" long and 0.20 Newton-seconds (a 1/12th A). They have a modular "silo" launcher which doubles as a carrying case. They are offered in a number of packages as RTF models: a Space Shuttle Orbiter, a Saturn V, a Tomahawk cruise missile, a SR-71 Blackbird, a UFO, and others, all only three to five inches long!

The starter kits should retail for about \$20. Engines should be under eight dollars for an eight pack. Availability is projected for February. As you may imagine, these little gems are raising interest in the competition and scratchbuilding community.

For more details see:
<http://www.nira.chicago.il.us> and
<http://www.dnaco.net/~kingrat/newquest.htm>

1997 Pink Book Available - The latest edition of the NAR contest rules are now available (it has been out of print for some time). Contact NAR Headquarters for your free copy.

NAR Contest Points - 21 Aug 1998

by Tom Lyon

Here's the Top Fives listed in age division, name, NAR number, section number, points, and contest factors. These the the final points for the 1997-1998 season.

A Div.

Contestant	NAR#	Sec#	Points	CF
1. Ellis Langford	58002	205	9999	17
2. Mike Filler	57690	139	8945	17
3. Brandon Cook	65537	473	8639	17
4. Matthew Filler	71947	139	7302	16
5. Laura DeMar	52096	560	6102	12

B Div.

Contestant	NAR#	Sec#	Points	CF
1. Rachel Brower	63976	205	10721	17
2. Matt Leveron	65486	519	10041	17
3. Troy Leveron	56973	519	8854	17
4. Ryan Coleman	59361	113	6900	15
5. Lisa DeMar	52095	560	6894	12

C Div.

Contestant	NAR#	Sec#	Points	CF
1. Chad Ring	50652	519	9911	17
2. David Klouser	16235	520	8684	17
3. Wolf von Kiparski	28643	560	8494	17
4. Rod Schafer	36564	473	8278	17
5. Richard Freed	24586	473	6067	17

Team Div.

Contestant	Team#	Sec#	Points	CF
1. Wallace & Gromit...	T-471	560	14100	17
2. Why Us?	T-109	519	9168	17
3. Snowball's Chance	T-700	205	9156	17
4. Good, Bad, & Ugly	T-111	558	7909	17
5. Red Baron	T-911	519	6857	17

Sections

Section	Sec#	Points	CF
1. Launch Crue	519	61459	17
2. NOVAAR	205	59669	17
3. UNYROC	560	53367	17
4. NARHAMS	139	46565	17
5. PSC	473	33914	17

Top Tens - <http://www.nar.org/NARtopten.shtml>

Full List - <http://www.wizvax.net/jvincent/nercb.html>

CALENDAR						
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

ASTRE Calendar

CALENDAR						
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

ASTRE Contacts :

Wolf von Kiparski 437-9747 wolf@netheaven.com
 Jeff Vincent 439-2055 jvincent@wizvax.net
 Chuck Weiss 883-8312 cbweiss@telenet.net

How to get to Jeff's house...

Your destination is 39 Cherry Avenue in Delmar. Take Rt. 85 south/west (accessible from I-90, State Offices, Rt. 20, or Krumkill Rd.). After Rt. 85 changes from divided highway to two-way, you'll see the following landmarks (note, this is a complete list of the traffic lights you'll see):

- traffic light at Blessing Road, continue straight
- traffic light at New Scotland Road, take right to stay on Rt. 85
- traffic light at Rt. 140, take a left, follow to the end (1 mile)
- traffic light at Kenwood Avenue, go straight on to Cherry Ave.
- my house is 0.2 miles in from Kenwood Ave. It is the third house in a set of three similar houses on the right side of the street. There should be parking for 2-3 cars in the driveway, or, directly opposite my house (left side of Cherry Ave.) is Oak Street, and I believe there should be no trouble parking along the road there.

Note: ASTRE events appear in **bold type**.

For the past couple years, we have held meetings in member's

homes. The meetings are usually informal bull sessions where club business is discussed first, followed by either general "what's new," or a predetermined topic or activity. This schedule can change, and it is advisable to contact Jeff Vincent, or Wolf von Kiparski to find out about any last-minute changes.

January 10 - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 1:30 pm. Officer elections, rechartering, insurance decisions, plus fun stuff!

February 21 - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar (site tentative), 1:30 pm. Introduction to competition and/or building session, details TBA.

March 14 - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 1:30 pm. Details TBA.

April 3 - **ASTRE Sport Launch - Winter is Over!** - Johnstown, NY. Contact: Wolf von Kiparski.

April 14 - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 1:30 pm. Details TBA.

May 1-2 - **NYSPACE 99 Regional Meet** - Johnstown, NY. Events: B R/G, B ELDur, A SD, 1/2A SRAIt, Sport Scale. Contact: Wolf von Kiparski.

June 19-20 - **RAMTEC-7 Regional meet** - Center Valley, PA.

July 17 - **Apollo 11 Commemorative Launch** - Johnstown, NY. Bring your Apollo-era scale models and celebrate the 30th anniversary of the Apollo 11 moon mission. Details TBA. Contact: Wolf von Kiparski.

August 7-13 - **NARAM-41 NAR Annual Meet** - Northmoreland Park, Pittsburgh, PA.

For more NAR Northeast Region meet info, see:
<http://www.wizvax.net/jvincent/nercb.html>

ASTRE Membership Application

Name _____
 Address _____
 City _____
 State _____ Zip Code _____
 Phone _____ Date of birth _____
 NAR number _____ Tripoli number _____

Membership Dues (check one):

Junior member - \$5.00
(under 18)

Senior member - \$10.00
(over 18)

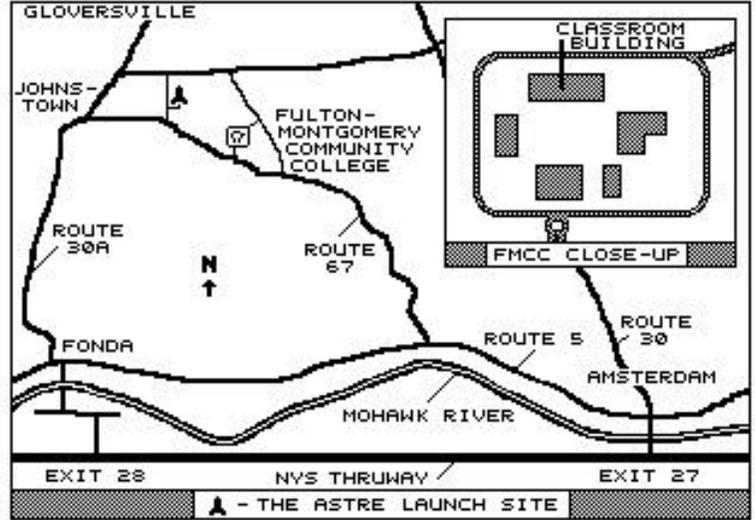
Family membership - \$15.00
Number of newsletters: _____

Send to: ASTRE
 c/o: Wolf von Kiparski
 46 Tremont Street
 Albany, NY 12205

Please make checks payable to "ASTRE".

How To Get To The Flying Field

- From the east, take the Amsterdam exit (#27) off the Thruway
- Take a right and follow Route 30 North for one mile.
- Take a left at the second light after the bridge onto Route 5 West.
- Follow Route 5 for three miles. Take a right onto Route 67.
- Follow Route 67 for 5.5 miles. Shortly after passing FMCC, take a right onto the small road by Ed's RC shop. After one half mile you will see **JBJ Equine** on your right. Follow the driveway and park in the parking lot and walk to the range.



ASTRE's Next Meeting - January 10 - at Jeff Vincent's house
ASTRE's Next Launch - April 3 - Winter is Over! sport launch at Bruce's
In This Issue - Nocturne B Rocket/Glider construction plans and Fall Review