

Southern New Hampshire R/C Club, Inc.

Bullsheet

<http://www.snhrc.org>

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AMA Charter #408

PRESIDENT'S MESSAGE

March 2008

Vice President's Ramblings

Show & Tell is coming! As I write this column I can look outside and see snow-drifts so high my snow-blower can barely shoot snow over them. Last I knew, we were over 100" of snow and counting. What a drag...But there is always a silver lining in every dark cloud. What am I talking about? Building season, of course! I hope you have all been busy building your latest masterpiece as the snow has accumulated. What better time to show it off than the Club Show 'N tell contest in April? Show 'N Tell is a little over a month away when you read this, so you still have time to finish up something and bring it in. We will have multiple categories, so anything you bring will fit in somewhere. So if you have the latest sailplane, trainer, ARF or scale plane show us what you built! Time is ticking...don't say I didn't warn you!

And now for something **COMPLETELY** different... Last month for Show and Tell I brought in one of my Control Line (C/L) planes. I figured some of you may have never seen a C/L plane up close so I thought I'd talk about it a little bit. For those of you who couldn't make the meeting, this was a .25 powered, profile Boeing F-4B4 biplane I built about a year ago from plans I got out of Flying Models. I have not flown it yet, but plan on giving it a go this spring. I talked about how I started off in C/L basically flying alone, because I didn't know anyone else who flew model planes. What I *didn't* expect was the amount of interest it generated. Multiple people came up to me after the meeting and talked about how they too started out in C/L. There is something special about being connected to the plane that you don't get

from R/C. Now, I am not trying to start a revolution here; just reviving some long ago fun. Anyway, I have decided to organize a Control Line day at the club field. I still have to work out the details. The obvious safety rules will apply, or course, but beyond that it will be purely for fun. Stay tuned for details on this one.

Delta Dart Night. Last month Dave Beach was kind enough to bring in a bunch of Delta Dart kits for us to build and fly at this upcoming meeting. For those of you who took one, I hope you can bring it to the meeting and fly with us. Now for everyone who didn't take one, or who was not at the meeting, that's OK. We'll be having a separate class for the "Build it that night" guys. For the uninitiated, the Delta Dart is a small, stick and tissue plane that is rubber powered. It's about as simple a build as can be. The more ambitious (Maurice?) will have a category where you can kit-bash your Dart for more performance. I think the only stipulation was that the motor stick had to be used as-is. There will be several flight tasks involved, so build 'em straight. Thanks Dave! Hope to see you all at the meeting, Shawn



Next Meeting March 11, 2008, 7:30 PM

Litchfield Middle School, Hudson, NH

This BULLSHEET is published by the Southern New Hampshire R/C Club, Inc., a non-profit club chartered for the promotion of building and flying radio controlled model aircraft. The club operates a flying field in Hudson, NH and offers free instruction in safe model flying to any member. Academy of Model Aeronautics membership is a requirement.

Meetings are held at 7:30pm on the second Tuesday of each month at the Litchfield Middle School in Litchfield.

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FLIGHT INSTRUCTORS				
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Meeting Minutes

Feb 12, 2008

Southern NH RC Club Meeting minutes:

19 Members Present

Officers Present:

Vice President: Shawn McCarthy

Secretary : Eric Scott

Treasurer: David Beach

Meeting was called to order at 7:30 P.M.

Minutes from the last meeting read and accepted

Treasurers report read and accepted

Old business

Bob reported on the Park Flyer program that the AMA has recently announced.

Reasons for the program include an overall decrease in AMA membership. The responsibility for enforcement of what qualifies as a park flyer is left to the club safety officer. Not a whole lot of other details regarding the program were provided beyond the AMA website posting detailing the benefits of the program compared to a standard AMA membership.

A motion was made for the club not to accept Park Flyer memberships for admittance to the club. The motion passed 15 to 4.

Upcoming events are lacking support staff. Darrell volunteered to run the show and tell, the officers will handle awards night, and Maurice volunteered to handle the Yankee Swap. The club fun fly still needs a volunteer to run it.

New Business

WRAM show, Feb 22-24

Voting for a new member, Matt Nourse, was approved John Marien provided some updates on the pattern contest, the paperwork has been submitted to the AMA to make it a chartered event. All 5 classes will be run, and there is a waiver for any plane AMA legal and under 15lbs may compete in the sportsmans class.

At the next meeting there will be a competition with the AMA delta dart. Kits were distributed.

Meeting adjourned at 8:25 P.M.

Event Calendar

March 2008

11th SNHRCC Club Meeting

April 2008

8th SNHRCC Club Meeting - Show-n-Tell

May 2008

13th SNHRCC Club Meeting - Awards Night

June 2008

10th SNHRCC Club Meeting

July 2008

8th SNHRCC Club Meeting

12-13th Granite State Precision Aerobatics pattern contest

20th Gremlin combat contest

August 2008

12th SNHRCC Club Meeting

17th Granite State Glider-Fest sailplane contest

23rd SNHRCC Fun Fly

September 2008

9th SNHRCC Club Meeting

28th SNHRCC Construction Derby

October 2008

14th SNHRCC Club Meeting

26th Gremlin combat contest

November 2008

11th SNHRCC Club Meeting

December 2008

9th SNHRCC Club Meeting - Yankee Swap

SOUTHERN NH RADIO CONTROL CLUB 2008 MEMBERSHIP APPLICATION

Name: _____	AMA# <input style="width: 100%;" type="text"/>
Address: _____	Outer gate key# <input style="width: 100%;" type="text"/>
City: _____ St: _____ Zip: _____	Field key# <input style="width: 100%;" type="text"/>
Home Phone: _____	Newsletter delivery
Cell Phone: _____	Web: <input type="checkbox"/>
Email: _____	Print: <input type="checkbox"/>

FEES (CIRCLE ALL THAT APPLY)

<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Current members:</td> </tr> <tr> <td style="padding-left: 20px;">Adult</td> <td style="text-align: right;">40.00</td> </tr> <tr> <td style="padding-left: 20px;">Junior</td> <td style="text-align: right;">5.00</td> </tr> <tr> <td>Late fee (after Feb mtg)</td> <td style="text-align: right;">5.00</td> </tr> </table>	Current members:		Adult	40.00	Junior	5.00	Late fee (after Feb mtg)	5.00	<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">New Members (sponsorship required):</td> </tr> <tr> <td style="padding-left: 20px;">Adult</td> <td style="text-align: right;">65.00</td> </tr> <tr> <td style="padding-left: 20px;">Junior</td> <td style="text-align: right;">5.00</td> </tr> </table> <hr style="border: 0; border-top: 1px solid black; margin-top: 10px;"/> <p style="text-align: center; margin: 0;">Sponsors Signature</p>	New Members (sponsorship required):		Adult	65.00	Junior	5.00
Current members:															
Adult	40.00														
Junior	5.00														
Late fee (after Feb mtg)	5.00														
New Members (sponsorship required):															
Adult	65.00														
Junior	5.00														

MEMBERSHIP AGREEMENT

I recognize a model airplane is NOT a toy, and must be operated at all times in a safe manner.

I agree not to hold the Southern New Hampshire Radio Control Club, Inc. and my instructor, if I am receiving instruction, responsible or liable in any way for injury, loss, or property damage I may suffer due to any reason, including but not limited to pilot error or mechanical failure.

I agree I will not fly at any SNHRCC field or event without an active instructor until I have been approved for solo flight.

I certify I have read the Academy of Model Aeronautics "National Model Aircraft Safety Code" and agree to abide by its terms and conditions at all times.

I agree to keep the outer gate closed and locked at all times.

I understand that there is no dumping of any kind at the facility.

Signature	Parents signature (if under 18)
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PAYMENT INFORMATION	PROOF OF AMA
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Cash or check # _____ Payment amount: _____
 Payment date: _____

Make check payable to SNHRCC

Include a self-addressed, stamped envelope

Mail to:
 SNHRCC
 25 Simeon Wilson Road
 Amherst, NH 03031

**Attach photocopy
of AMA
membership card**

NO AMA CARD = NO MEMBERSHIP CARD
NO MEMBERSHIP CARD = NO FLYING!

Delta Dart Contest Rules

It is a contest, so there must be rules. We'll try and keep things as simple as possible, so here goes.

1.) **Have Fun!** Relax, and have a good time. No whining, the decision of the CD is final.

2.) Contest classes

A - Prebuilt Stock Delta Dart. Those of you who picked up a kit at the last club meeting are encouraged to bring your flight-ready Darts to the March meeting. Note that **paper clips or bent wire** may be used as rear mount for rubber.

B - Meeting-built Stock Delta Dart. Kits will be available at the March meeting. Bring your own glue, pins, hobby blade, and building board (cardboard box will work well).

C - Modified Delta Dart. Class C entries must use stock Delta Dart motor stick, propeller assembly, and rubber. A stock motor stick can be made from a single

piece of 12" x 3/8" x 1/8" hard balsa. The rear 3 1/4" of the motor stick must taper to a 1/8" square end. Motor sticks can be modified by adding or removing material, but must not be longer than 12 inches overall.

3.) **Supplemental materials.** Builders are encouraged to bring repair materials (glue and kicker), balancing ballast (clay), motor lubricant (for both the swivel and rubber). If you have other ideas on 'handy items', bring them to the meeting and request an OK from the CD before use.

4.) **Events.** Details on the actual events and rules will be available at the club meeting. Expect the competition to focus on the following categories:

Carrier Landing - fly your plane to a specific landing target.

Distance - whose plane can fly the furthest from the designated launch area?

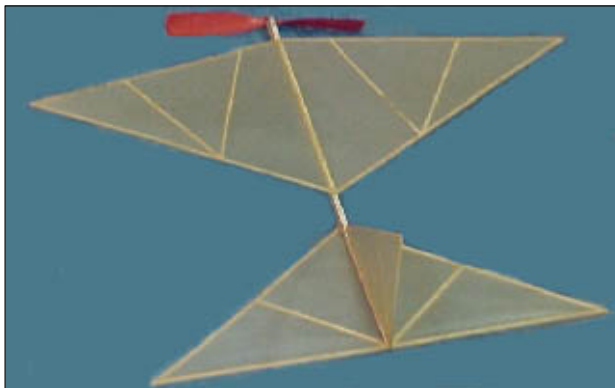
Duration - How long can you fly? The competitive indoor models fly in circles under power and glide.

Class C entry - Lightweight Delta Dart

What is so Bad About a Heavy Airplane

The plane must fly faster to create the same amount of lift as a slower flying lighter plane. With a rubber model, this means larger rubber (again adding to the total weight) and the limited number of turns are used at a faster rate.

The heavy plane will not recovery as quickly when the flight path is altered (it hits something or a gust of wind blows it). Warps will effect the plane more. The Torque effect will be greater because the propeller is turning faster. Tips for Reducing Weight (Of Your Model)



Lighter covering material - covering can be a substantial portion of the total weight. Japanese tissue would probably be the lightest covering material you would want to use on the Delta Dart, especially if it is to be flown outside.

Scraping material from prop - material can be removed from the prop by carefully scraping the prop with a razor blade. This technique is used extensively with Science Olympiad models. Be sure to check the balance of the prop, both blades must

weigh the same.

Selecting lighter wood, balsa wood is grouped by the weight of a cubic foot of balsa. Lightweight balsa would weigh in the range of 4 to 6 pounds per cubic foot.

Rounding the edges of balsa and cutting material from motor stick .

Build model so no extra weight is needed for balance. If you can build your plane so that little extra weight is needed to get the CG in the proper place, that is less total weight. This is can be more difficult than it would seem as material weight varies and two identical planes can balance differently. Center of Gravity would also vary for flying indoors or outdoors.

Do not use anymore glue than necessary. It is important to use adequate glue on all joints, glue dripped outside of the joints, only adds weight.

Working With and Handling Lightweight Structures

As you build lighter planes, these planes will be increasingly fragile and breaking the plane while handling it is a very real possibility. It takes practice handling lightweight planes, and the experience of breaking a few planes. With practice you will learn where to grab the plane, and how much force you can apply without breaking the plane. Common sense, should tell you to pick up your plane where the wood is the heaviest. It is easy to forget and pick up the plane quickly by a wing tip, crunching the wood.

History of the Delta Dart and AMA Cub

History of the Delta Dart and AMA Cub

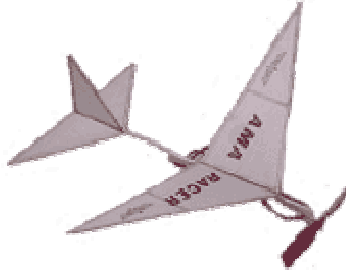
The Delta Dart appeared in the April 1967 issue of American Modeler. Designed by AMA's Technical Director, Frank Ehling but Dick and Ruth Meyer did much of the early promotion of the plane and received a Distinguished Service Award from the AMA. With materials donated by Sig, they made up 300 kits on their kitchen table, some of which were taken by Frank Ehling to the 1966 Nats. Although some people thought the plane too simple and heavy, kids found it easy to build and fly. It was thought with the pointy wing tips, warps would have less effect because most of the wing area was closer to the center of the wing.

Sig decided to sell the same basic plane as a kit called the "AMA Racer". The biggest change in the AMA Racer from the original Delta Dart, is that the wing is moveable, so Center of Gravity adjustments are easy. Another change is that the tail boom is made from spruce instead of balsa. Frank Ehling designed another plane known as the "AMA Cub", but is sold by Midwest as the Delta Dart. According to the Sig Catalog, this is the plane that has been used in beginner's promotions since 1968 and is the most produced model airplane of all time.

Not a rubber-powered free flight, but another Frank Ehling designed beginner's promotion plane, was the Delta Dart II AMAzer. Featured in the July 1981 Model Aviation magazine, the Delta Dart II AMAzer could be flown first as a whip-powered plane, and later converted to a .049 glow engine powered control line plane. Midwest Products Company

produced the Delta Dart II AMAzer kits for a time.

Neil Dennis informed me that Model Builder magazine featured a "Baby Dart" by Fred Reese. Also there was a Russian version known as the "Delta Dartnik", no joke, I saw the plans!



Ending on a sad note, Frank Ehling died on August 21, 2001 at 86. He had been the technical director for the Academy of Model Aeronautics from 1960 to 1982. He was inducted into the AMA's Model Aviation Hall of Fame in 1977.

What Makes the AMA Cub Such a Great Beginner's Plane

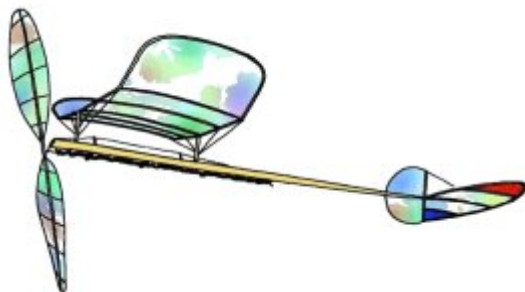
Although the original Delta Dart or present day AMA Racer might possibly be a slightly better flyer, the AMA Cub design has design features that make it a better beginner's plane. The one-piece motor stick comes with the correct stabilizer incidence built in, contrasted to the two-piece motor stick with tail boom on the AMA Racer. Besides being fragile, it is easy to not have the proper incidence in the tail, resulting in a plane that either dives or stalls. The joints used at the tips of the wing, stab, and vertical fin can be less than perfect and still be adequately strong because the covering material reinforces the joint.

With the exception of the motor stick, the AMA Cub is made entirely out of 1/16 x 1/8" balsa strip. Some beginner's models such as the Peck ROG utilize 1/16" square balsa, which although lighter, is difficult for the beginner to handle without breaking, and the structure will more easily warp.

Delta Dart, Indoor Duration, and the Internet

In preparing this month's newsletter, I was frankly amazed about the wealth of material on the internet about the Delta Dart and it's cousins. Most of what appears here came from Bill Kuhl's Delta Dart pages at <http://www.hbci.com/~bkuhl>.

For the absolute best step-by-step how to build the Delta Dart, see <http://eliwhitney.org/wilbur/AMACub.html>. Hosted by the Eli Whitney museum in Hamden, CT, the presentation requires the free Adobe Flash plug-in for your browser, but many systems already have the software installed. Beginning with step #25 there are some tips on flight trimming your Dart.



The internet also has a variety of free plans for planes that would compete well in our Class C. Check out

the following links:

<http://www.hbci.com/~bkuhl/contestplans.htm> - Here you will find the Denny Dart, Denny Dart II, Skinny Cat and others.

<http://phys-advlab.physics.lsa.umich.edu/Tips%20for%20Delta%20Dart.htm> offers advice on how to improve Dart performance.

The Delta Dart is a simple version of a class of airplanes known as "Indoor Duration". For serious modelers, competition can be found regionally, nationally, and internationally. Check out <http://www.indoorduration.com> for a glimpse into this fascinating aspect of aero modeling.

Lastly, and frankly, my favorite Internet find on the topic is an NBC News clip hosted on YouTube. Point your browser to http://www.youtube.com/watch?v=leUrfP_nZQ to get a taste of how the competitive models can really fly. Imagine an airplane weighing less than a dollar bill whose propeller is turning slow enough to count, flying for 30+ minutes on a single rubber band! Wow!

Pending Memberships

No pending
memberships
this month



Join the group email list on Yahoo! Groups
go to <http://groups.yahoo.com/group/snhrc>

Next Meeting:

Tuesday, March 11th
Litchfield Middle School
7:30 PM