

DARS
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Volume 20, Issue 6

#### Dallas Area Rocket Society ("DARS")





A Semroc SLS Laser X lifts off at the Fall Classic in October on an F23 motor.

# NAR ®

Member - National Association of Rocketry ("NAR").

#### Special points of interest:

- "Ignition!"
- Stuart Powley recalls the FSI Nova
- Adam Amick tells us about fun in the mud
- Gary Briggs gives us the scoop on the new high power field
- A collection of photos by Adrienne Bransky
- Do you want to be in print? Page 17 tells you how!

#### Inside this issue:

The Nova- Flight Systems' Masterpiece Revisited

Frisco Launch Report!

A Good Ol' Launch Report from a Brand New Field — The Valley View Launch Site More Pictures From the December Frisco Launch!

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**DARS Officers** 

Welcome to the last issue of Shroudlines for 2011! We been blessed with lots and lots of stuff to share with you, and share we shall! Let's just start ripping open those packages right now, shall we?

First, we have a tale of love and loss. I remember my first FSI Nova. Sigh....

Next, we have a really entertaining launch report from Adam Amick! It seems that braving the mud on the Frisco launch in December was actually a good idea.

Then we have a launch report from Gary Briggs coving the first DARS

launch at our new high power field. I have yet to see the field, but it sounds great!

Then we have pictures a plenty, from both Gary Briggs and Adrienne Bransky. In fact, we decided to expand this edition of Shroudlines just to hold them all!

I'm also happy to say that we have an article already to go in the next edition as well, since Adam Amick sent me a cool build article that we flat didn't have room for, but is great!

So things are looking up for 2012! Happy New Year and keep 'em flying!

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#### The Nova- Flight Systems' Masterpiece Revisited

J. Stuart Powley NAR 29573

At this past DARS meeting we had a swap meet of sorts where people could bring kits they had lying about in order to sell them or trade them or whatever. I was in a huge hurry that day and was about to dash out the door after the meeting when my eye caught a couple of items donated from long time DARS member Robert Turner. He had given Jack Sprague two Flight Systems Inc. kits to sell, and for what I considered to be a really good price, I suddenly owned both of them!

The two kits are the Viking 4 (an early tube fin design) and the Nova. I never owned the Viking 4 "back in the day" but I most decidedly owned a Nova. In fact, although my first impression of the model in the old F.S.I. catalogs was not great, it ended up being one of my favorite models from F.S.I. (with the exception of my Black Brant, which I lost. Hint: if you ever drop a model on the roof of a government contractor in the middle of a cold war, you ain't getting it back. Period.)

Anyway, as I examined my new Nova, memories started flooding back about my original. I suddenly remembered that I had, in fact written a review about it for the club newsletter many moons ago. So, in a fit of year end nostalgia, here is that original article.

# The Flight Systems Nova/ Overlooked Performer

J. Stuart Powley NAR 29573

Originally published in the November 1988 issue of Dallas Rocketry

Having been in model rocketry for quite some time, I find that I often overlook older kits and plans that deserve attention. I think the problem stems from always looking for something new and exciting and, therefore, overlooking something old and exciting. Therefore, in an effort to give credit where credit is definitely due, I am reviewing the F.S.I. Nova this month.

My interest in the Nova started when Wayland Scott ordered one. Soon after, Chris Garrett also ordered one. What did they see in this rocket that just seemed so plain and ordinary? I had glanced over it a hundred times in various F.S.I. catalogs and never given it a second thought.

Wayland finished his bird out in a black and white roll pattern. Chris' rocket was finished in an elaborate yellow and black pattern. O.K., I'll admit it; when the Nova is painted well it looks good- very good. Still, how would this little rocket, that was supposed to take just about any engine in the known universe, actually perform in the field? My question was quickly answered.

At a small "team only" launch, I was able to see the flexibility of

the Nova's design. Chris' bird was equipped to fly with D18's. When the launch button was pushed, the Nova roared almost (if not completely) out of sight. Quite impressive, but also worrisome due to the fact that Wayland's Nova was to fly with an F7. I don't need to tell you what happened. The rocket was still being heard long after it had vanished into the clear blue sky. It was not to be found until three months later. At this point I was sold.

I soon received my own Nova. The first thing I noticed was that the package was different from the older F.S.I. packages. It seems that F.S.I. is going out of its way to package its products more attractively. It did look nice. The next thing I noticed were the decals. Yes, F.S.I. is finally putting decals into kits other than the Black Brant. The Nova decals seemed a bit thick, but that only made them easier to apply.

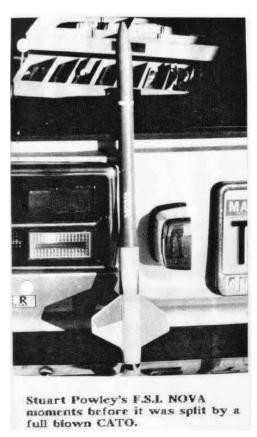
As far as parts go, the Nova is first rate. F.S.I. has always made a fine, strong body tube and the tubes in this kit were no exception. The plywood fins were cut sharp and straight, with no ragged edges. The hardwood nose cone and transition section were both well turned and in round, not to mention smooth.

Assembly of the rocket is about as easy as you can get (it is, after all, a simple rocket). Ease of construction made the model go together quickly, which was nice. I used epoxy on all parts due to the denser materials and the strain they would eventually have to take.

I chose a red and white pattern for my model for two reasons. First, I wanted to be different from Wayland and Chris,

and second, the decals are printed in red and white. The decals do limit the color scheme (if you use them) but there are still quite a few colors that can be used with them. I have flown my Nova once, with a D12 that was built up with tape. The model screamed out of sight. Every so often I start itching to try one of my F7's. However, I keep having this haunting vision of an empty blue sky and the quiet roar of an engine still burning.

Nova Review Summary: Likes: Versatility, high quality materials, ease of construction, and outstanding performance Dislikes: The fact that if you use an F7 you'll never see it again.



#### Postscript

I wish I could say that this story ended happily, but it didn't. You see, I finally got my courage up to fly the Nova on an F7 about a month after I wrote the article. Now, F7's were known for many things. They were famous for their nine second burn, their billowing black smoke trail and their ability to put a lightly built model practically in orbit. Unfortunately, they were also known to explode. This fate awaited my Nova.

Once the launch button was pressed there was a loud bang and debris fluttered around the launch pad. The top section of the model was pretty much saved, but the bottom was completely destroyed. Even the hardwood transition was cracked, and at least one of the plywood fins was splintered. Luckily I got a picture of the model when I flew it on a D12.

I actually built and flew a second Nova. This one was Blue from the transition down and white above the transition. The fins were white as well. I found a picture of it while I was researching this article. I don't remember what ever happened to it, and I suspect that aliens played a part in its disappearance and that they deleted my memory of the event. Try as I might I just can't remember much about it....or how I got this little metallic pellet under my skin...

Now that I have a third one, I am in a quandary. You see, I would really like to build the kit, but I can't bring myself to open it. I know I can get replacement parts from Semroc, but the nose and transition are balsa, not the hefty hardwood of the original. Somehow it just wouldn't be the same. So here I sit turning the package over and over. Should I build it? Should I save it? I know that no matter what I finally decide, it will

always be one of my favorite rock-



My original Nova on a D12.



My newly purchased Nova kit..... tempting me....

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#### **Frisco Launch Report!**

Adam Amick

What a beautiful day to fly! After the nice weather for the December tenth launch it was hard to imagine we'd have another really nice day, but it was even BETTER with calm winds and bright sunshine in Frisco.

The range head was set up about 100 yards off of Honey Grove near the north end of the field. Since driving on the field was banned due to the soft ground that made hauling stuff to and from a LOT easier. The field was muddy in places, but overall in good shape.

DARS President Jack Sprague had one model pad standing by for use, then set up the midpower pad, but later would add a second model pad due to the number of flights. There were quite a number of youngsters out, even though it was chilly and a little messy. Members of the Northwest High School TARC (Team America Rocketry Challenge) were present again selling cookies, chips, and water, as well as offering rocket retrieval services for a dollar to fund-raise for their program. Needless to say retrieval business was non-existent thanks to the calm winds.

Once launch ops commenced there were a number of kids flying. A number of models wiggled their way aloft on white smoke trails, demonstrating how light the winds were even above a thousand feet. Several drag races took place between an Estes Sky Writer and a little blue and black rocket. Those were fun but a bit unnerving as it seemed every time they left the rods their paths would cross almost immediately. We were waiting for a mid-air but none ever occurred.

There were some first-time attendees at the launch. A boy named Carson was there with his dad and younger brother, and Adam Amick let him fly his Baby Bertha to get his feet muddy...er, wet. It was a terrific flight on a B6-4 and landed about 50 feet from the mid-power pad. Heather Amick helped a girl named Sarah (sp?) from another family that had brought an Aerotech Initiator launch set and rocket. Sarah flew Heather's "Hot Stuff" pink Baby Bertha and retrieved it successfully.

Action cranked up on the midpower pads with the Initiator flying on a single-use Aerotech F motor. Heather took her first step into the mid-power game with a successful flight and recovery of her LOC Graduator on a Aerotech F22 Blackjack reload. Sarah acted as part of her recovery crew and carried the rocket back from its' landing spot about 100 yards east of the pad.

Stephen Moore and his daughter

Katherine joined us again to fly. Katherine launched her Estes Bandit on A8 motors several times, and dad flew his Estes Super Neon XL "JR5000" (painted like the Japanese 500 model bullet train) and Estes Renegade on D12 motors for good flights. "Santa's Revenge", his repaired (Heli)Cat (Because there's no more "Heli" part to it after the crash back at the Fall Classic - the one where it hit the toolbox in the flight line), finally flew well with a new nose and standard parachute recovery.

John Dyer launched his Red River Rocketry Merlin kit with a camera on board and hopefully the video came out good. Bob Turner had a nice flight on mid-power though the nose cone separated at ejection, but was found back towards Honey Grove and the rocket recovered safely at the right end of the rope line. Johnathon Stewart had several good flights with his white scratch-built F-powered rockets as well.

The excitement occurred when Adam's LOC Sandhawk took to the sky with a roar on a G64W reload. At about 500 feet the nose cone came off and the bird augered into the farm field just across the road to the north. Post-flight analysis revealed that the retainer ring on the 38/29 motor adapter appears to have failed and so the rocket "swallowed" the

motor. Thanks to the soft ground only the upper foot or so of the tube was damaged but otherwise the rocket is repairable.

Adam redeemed himself with several more successful flights including his Estes Sentinel and Photon Disruptor, and a nice first flight of his Aerotech Arreaux "Queen Bee" on a F40W reload.

Turnout was light but flight operations stayed busy until after 4. Aside from the mud it was another stellar launch day for DARS, and a great way to wrap up 2011. If only we had weather this nice every launch. See you in 2012!

#### Adam Amick

Author's note: I think I missed a memo when I thought it was a standard "Fly Day". For some reason flies (as in the kind you swat) decided to have a convention around our table, and only increased in number during the day... As in several DOZEN at times. I thought perhaps someone fed them after midnight... (Or is it got them wet?) Apparently Frisco had a convention scheduled that we weren't aware of!





Adam Amick's LOC Sandhawk Before and After



Adam and his beautiful Photon Disrupter!

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#### A Good Ol' Launch Report from a Brand New Field – The Valley View Launch Site

By Gary Briggs NAR 76909 L2

Well, it seems like it has been a long time since I saw a launch report on these pages, so I thought I would relate my experiences at the Valley View field based on the inaugural launch held on 12/11/2011. This launch was a model rocket launch to get a feel for the field's capabilities while we wait for the paper work to process, allowing for high power flying.

As I left the house around 9:30 am hoping to get to the field in time to help set up, the sky was generally clear, as it had been the day before, but as I headed north, I could see significant clouds building to the west. It was a 50 minute drive, largely on I-35 for me. I exited north of Sanger on Lone Oak Road and headed west. It should be noted that for those needing a bathroom break, the convince store on the corner here is the place to go. I didn't stop in, but the store looks relatively new.

You now head cross country on Lone Oak to CR200. Most of the trip is asphalt, but you do hit gravel for the last mile or 2. I followed Greg Collins to the turn for the field and he put up a new DARS sign on the corner to guide the rest. You drive on grass from here to the parking on the field.

Along the way you pass the corral for a farm house which contained a horse and several goats, along with 2 very energetic dogs. Jack told me they are very friendly when you walk up to them, but they do love to bark at the cars. They are probably just trying to herd them, like they do the goats.

The week before this launch we got 2-3 inches of rain in The Colony and Frisco, and I know they got at least an inch up there. The field was soft, but not enough to slow anyone down or create any issues. Most of what we flew on was covered in short grass. There was a plowed field to the east, and there was mud there, but that also saved a couple of rockets throughout the day.

The field itself is really a collection of fields, some owned by our land owner, and other owned by neighbors. Somewhere to the east we need to ask permission to cross into that adjoining field, but we never crossed that line during the 12/11 launch.

The day ended up cool with temperatures unable to make it to 50 degrees, and with cloud cover and a 5-10 mph wind, it felt pretty cold at times. There were lulls throughout the day with the winds dropping down below 5 mph, but the upper level winds kept moving along. At one point we actually got a bit of drizzle, but nothing that caused us to slow down. In fact, John Dyer launched a rocket right in the middle of it.

Jack gets credit for putting up the first launch of the day with his pyramid. I followed that up with the first 2 stage launch on the field, flying a Solar Flare on a B6 to A10 combo to check out the winds. Things seemed to be clearing out a bit so after a couple of other launches, I grabbed my LOC Viper III loaded with 3 E30s

and some sweetened Q2G2 igniters. It leapt off the Greg's extended rail pad on its way to a bit over 2,000 feet, claiming the first cluster launch at Valley View. I think John Dyer easily flew the most impulse for the day, flying multiple F and G flights with his Red River Rocketry Merlin, Diamond Ring Extreme and P-Chuter Extreme. He also flew a very nice Semroc Hustler that decided to snap a fin on landing.

Greg Collins had a couple of G altimeter flights. Unfortunately neither guite had nominal results. The first one was the same rocket he had at the December meeting and also flew at the Fall Classic in October. The "goes up" part was very nice, but instead of ejecting the drogue at the top it arced over and headed down, landing 100 yards down range. The results were a very bent airframe and shovel recovery of the nose cone. Fortunately the parachutes and electronics appear to have survived the fall.

Flight number 2 was a slightly smaller red rocket, that also got the up part right, and this one ejected the drogue at the top, but didn't manage to deploy a main at the specified attitude. Due to the soft ground and the drag provided by the drogue the rocket suffered very little if any damage.

Chas Russell had a number of great flights as well. He and Dave Shultz even tried a drag race, but some delays on the pad made it look more like a ripple fire than a race. Colossus the launch con-

troller made a return appearance at this launch, handling the duties quite nicely since Jack rebuilt it. It has a recorded voice and automated launch feature that was fun, since you push the button and sit back and let it do the count down and launch for you.

I flew my old Cirrus Dart on a G80 that I got from the James Gartrell motor cache. I had flown this motor in this rocket back in the Windom days so I knew what we were in for here. Rocksim said we would top out somewhere over 3000 feet. The launch did not disappoint, but as the rocket was topping out, it zipped into cloud. Although several of us looked for it to come back through nobody spotted it. We also didn't hear a splat, so I walked over to where rockets had been landing in route to the tree line, and laid out nicely was the Dart.

Later I flew my Snarky in the dual D12 configuration for a very nice boost. It ejected on top just fine, but the black nylon chute would not catch air. Fortunately, the surface area of the fins and the afore mentioned soft ground created no issues on landing. I won't be flying that parachute with that rocket again.

As the day wore on, a few other flyers came out and tried the field. Bill Gee also made it out to take some pictures. A new flyer name John made it out to the launch that had previously flown with clubs in Wisconsin. He brought along a few rockets and several Pro-29 motors. He ended the day with an Aerotech

G80 in a Yank 2" Iris for a very quick flight.

My final flight of the day was my Q-Modeling WAC Corporal on a very old F24. This motor appears to have been made back in the 90's so it required some sanding of the motor slot to open it up large enough to get an igniter in. This older style use 2 O rings at the top of the delay grain which I found interesting. The part that probably gave me trouble is that the motor slug protruded about 1/32<sup>nd</sup> of an inch past the tube that encases the slug. That made getting the rear closure on a bit difficult.

At ignition, the rocket started up the rod just fine, but that popped dumping the entire reload contents on the ground. The rocket went high enough to invert and plant itself in the ground, but once again, soft landing, no issue. The bad part on this one was that while I and others found the contents of the motor, we could not locate the aft closure after several searches.

All in all, the Valley View field looks to be a great addition to the DARS family. It offers a new home for High Power in North Texas that has easy access and is centrally located. We think the field will support J-K level rockets, although we expect the altitude to be limited to 6-8.000 feet. The altitude will not be what we had in Windom, but I can probably count on 1 hand the number of times anyone pushed past those altitudes in a year up there. The good news on this field is it appears to be far more usable since we had

had fairly recent rain, but we were still able to fly. That would not have occurred in Fannin County. Hopefully we will have the field insured soon, so plan to check it out at the next launch.

#### Editors note:

I actually didn't make it to any launches at all in December due to an over abundance of "life" but these two launch reports really make me wish I had! All in all we had three December launches, if you count the AAA Local contest (that I also didn't get to attend...sigh....) so you can see that things are really looking up for flying around here! Gary also attached pictures of the historic first Valley View launch they are on the following pages....

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## The First Official DARS Valley View Launch All photos by Gary Briggs



The early turn out



Wide open spaces— Trees to west and north



Left: Greg Collins; rocket lifts off

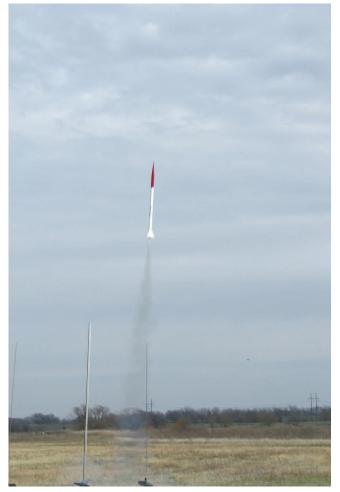
Bottom: The landing was a little rough



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Dave and Chas Drag Race



Left: The Cirrus Dart Takes Off



Jack hooks a couple more recruits into the excitement



John, John, and Jack set up on the mid power pads

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#### **More Pictures From the December Frisco Launch!**

All photos by Adrienne Bransky





Top: Jack supervises a drag race!

Left: I think this is Adam's Baby Bertha....I think...





Top: Adam Amick and Scott Cook watch another great launch.

Left: Jack assists a young rocketeer.

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Top and left: Launches at the ready!



Left: Jack assists with an Aerotech Initiator

Bottom: John Dyer helps a young flyer.



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Parting Shot J. Stuart Powley Nar29573



#### **Abducted By Aliens!!!**

This rocket has been missing since the late 1980's. Other than his picture, and a few alien-altered memories, nothing can be found. If seen, please notify this publication or the Men in Black.

#### **How to Contribute to Shroudlines**

And now for the "last page begging part" of our publication. As I have made clear in the past, without you, we have no newsletter. We all have differing interests and areas of expertise, and that is exactly what this newsletter needs!

Once again, I'd like to thank all of those who have contributed material so far. You are very much appreciated! Still, we need more! Therefore, if you have any kind of article, picture, cartoon, rambling, etc., just send it to stu29573@yahoo.com. I usually work best with Word documents, and JPEG files, but I can make just about anything work if I have to. I can also handle stuff that is written down, but that means I have to type and that can be a bit touch and go... But I'll take it anyway!

You can also give me things at the meetings (which I almost never miss...almost), and I promise to try my best not to lose them. I can return stuff at the next meeting if need be.

As I have said many times in the past, I really want this newsletter to be by the club and for the club. You guys can think up much better stuff than I can (as is evidenced by the articles we've been getting lately). So, stop just thinking about maybe writing something and actually do it! You'll be glad you did! (as will everyone who reads it!)



#### **DARS Officers**

President Jack Sprague
Vice President Dave Shultz
Treasurer Suzie Sprague
Secretary Bill Gee

NAR Senior Advisor Sam Barone



The Dallas Area Rocket Society is a non-profit chartered section of the National Association of Rocketry ("NAR"). Its purpose is to promote the hobby of consumer rocketry in the Dallas/Ft. Worth metropolitan area.

Membership in DARS is open to all interested persons. Membership in NAR is encouraged, but not required. Annual dues are \$10.00 for individuals and \$15.00 for families. The entire family, including children, are welcomed to the meetings. Go to the website and fill out and send an application to join or renew your membership.

The club normally meets on the first Saturday of each month at 1:00 p.m.

Visit the DARS website for the meeting location: www.dars.org



Stay connected! All of us will reach greater heights with your attendance at the club meetings.

#### Vendor Links (\* DARS member discount—confirm before ordering)

Aerospace Specialty Products Aerotech Consumer Aerospace

Apogee Components Art Applewhite Rockets (\* 20%)

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JonRocket MadCow Rocketry

Mercury Engineering Co. Pemberton Technologies

Public Missiles LtdQmodelingQuest Aerospace, Inc.QuickBurst

Red Arrow Hobbies Red River Rocketry (\* 8.25% on field)

Roadrunner Rocketry Rocket.Aero

Semroc Astronautics Corporation Sirius Rocketry

Sunward Aerospace Group Limited The Squirrel Works Model Rocketry

**RC Zone** (\*10%)

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