SHROUDLINES

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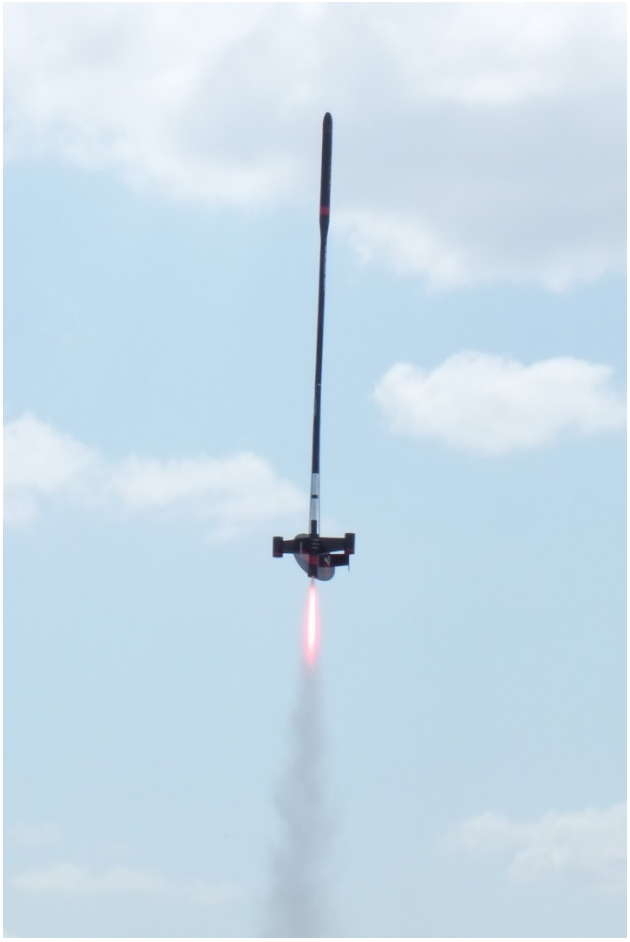
Special points of interest:

- "Ignition!"
- Bill Gee's Fourth "Something"
- George covers high power tips!
- Gary tells us about Screaming Spotted Eggs of Mud….
- Gary also gives us his thoughts on Gunter...
- Contribute to this newsletter!

Ignition!

By J. Stuart Powley



Scott Cook's upscale Andromeda Screams into the sky in Gunter!

Gary Briggs photo

Well, here we go with the long awaited next issue of Shroudlines! Actually, it's a double issue, since I kinda sorta completely missed the last issue. It wasn't because I didn't have enough material; it was because I didn't have enough time! Work had turned into a bear and only the sweet caress of Summer Break could free me from its clutches!

However, I finally got it done, and now we have the March through June issue. Which would be this one. The one you are reading right now. Cool, huh?

Anyway, we have three different writers in this issue, all of whom have my deepest thanks. Bill Gee gives us his "Something" again, and its really good advice. George lets us in on some high power tips, which is particularly important due to our new field in Gunter. Speaking of which, Gary (after telling the sad tale of Screaming Spotted Eggs of Death) lets us in on how the first day on that new high power field went! We don't have any extra pictures, because Gary gave us plenty with his articles, and we simply didn't need any filler!

So once again, sit back, relax, and dig in to a big ol' steaming bowl of Shroudlines. And as always, remember to fly 'em, straight and high!

Inside this issue:

Bill's Something #4

By Bill Gee

A few months ago, there was a surge of spam e-mail supposedly from people I knew: family, friends, fellow rocketeers, software developers and vintage computer enthusiasts alike. The common thread was that they all had accounts @yahoo.com.

Net detectives have since discovered that spammers and scammers were exploiting a flaw in the Yahoo web mail system. By tricking an account holder into clicking on a link in a malware laden e-mail message, a crooked web site stole a session cookie from the victim's browser; information which allowed the scum to send more of his spew to everybody in the address book as well as addresses harvested from e-mail in various folders associated with the compromised account. If that is not enough to creep you out, consider that this intrusion literally allows someone to read your private e-mail. Yahoo claims to have fixed the bug and that particular type of spam appears to have ceased.

Before NASA would send an astronaut into space, they insisted that the launch vehicle be "man-rated." One requirement was for instrumentation to detect a variety of abnormal conditions in the rocket in order to initiate a mission abort should something go critically wrong.

You can help man-rate your e-mail service with a simple technique. Put a bogus address into your address list; one you have tested to ensure that it is indeed invalid. I personally use rebound@bounce.back. If you ever get bounce messages from attempts to send mail to that address, you have a strong indication that your account got broken into or your computer has been infected by mailware. Time to close the visor on your helmet and begin decontaminating the cabin.

So what else can be done to prevent falling victim to these sorts of attacks? In addition to keeping the software updated and using antivirus and security tools, there are a number of things to do and things to avoid.

One, be very careful when clicking on a link contained in e-mail. The safest way is to view e-mail as plain text. Rich text makes it too easy to hide the true destination of a link and it greatly aids a spoofer make the message appear official and important. All of those pretty pictures allow the sender to know that you have opened the message; that your e-mail address is live. If you simply refuse to go back to ugly plain text, at the very least, turn off JavaScript in the e-mail reader. Live scripting has no business in your inbox. In addition to being very annoying by popping up windows containing ads, JavaScript makes it even easier to hide where a link would take you when it is clicked.

Second, be very careful with your passwords. Experts recommend avoiding short passwords and using words like the names of pets or cars which are easily guessed or brute forced. They also suggest including numerals and punctuation characters to make password guessing more difficult. Use a different password for each account so that if one is stolen, the thief does not have the keys to all of your castles.

Third, log out of critical apps and web sites such as banking, stock trading and shopping when not actively using them. If you are not logged in, a problem like the Yahoo bug has less chance to trap you.

Finally, be defensive when reading e-mail. Test your vulnerability to phishing at sites like http://www.sonicwall.com/furl/phishing/

Next time, back to rocketry.

That High Power Thing

By George "The Other" Sprague

22 June 2013, the day of the Gunter Texas Inaugural High Power Launch – those who attended were treated to a day of exciting rocketry action. Many came out to certify in Level 1 and 2 high power rocketry, many were already certified and flew their favorite rockets.

Amongst the crowd of rocketeers one could hear a few wondering out loud: "Hmmm, maybe its time for me to get into this high power thing."

So how does one get involved in high power rocketry? First, immerse yourself in all the information contained here: http://www.nar.org/hpcert/NARhprintro.html Level 1 is your first step. In addition to reading and understanding all the requirements, it is important to select the right rocket for you; quite a few manufacturers offer excellent Level 1 kits. Caution: these are NOT just larger model rockets, they are in a class of their own due to the power of the motors involved and the stress the rocket undergoes during flight and recovery. This means you must build a strong rocket – 30 minute epoxee, wood glue, JB Weld are your best bet.

Launch lugs: ½ inch in diameter, or rail buttons, positively and solidly secured to the rocket. Centering rings made from plywood. If using fiberglass body tubes and fins score and roughen all surfaces to be glued, otherwise the glue joint will not hold. Nose cones should have a metal eye bolt to secure the recovery strap to.

No shock cords here – recovery strap made of Kevlar or nylon, Nomex parachute protector, rip stop nylon parachute – all available from various companies. Quick links are a great way to attach straps etc. to u-bolt anchoring points, parachutes.

Positive motor retention – no room for friction fitting! And what motor should you choose? One that will not send you rocket into orbit – you must return the rocket to the certifying official for inspection after flight. A rocket kept to 1000 to 1500 feet stands a better chance of being recovered than one that goes up 5000 feet.

DARS has quite a few knowledgeable high power fliers, so take advantage of their expertise, ask before you purchase and build your rocket. It is a quite the disappointment when a flier shows up with a rocket that has to be turned down and not allowed to fly, so ask, ask, ask! One good place to ask is at DARS General, the yahoo group: http://groups.yahoo.com/group/DARS-General/

And of course, attend a DARS meeting, and strike up a conversation with the members that fly high power birds. Get yourself ready to certify Level 1 by doing your homework before you purchase your rocket and motor casing, and prepare yourself to experience the excitement and thrill of….that high power thing!

Screaming Spotted Eggs of Death – March 2013 Rocket Contest

By Gary Briggs – NAR 76909 L2

The Screaming Spotted Eggs of Death contest was one that almost wasn't. Originally scheduled for March 9, it was postponed due to high winds. It looked somewhat promising on the back up date of March 16, but was once again cancelled due to predicted winds, although the sport launch took place with fewer wind issues than expected. March 23 seemed like it might be the last shot for this this one in the month due to the following weekend being Easter. That Saturday we awoke to a rumble of thunder and light rain – we were not off to a good start. It was decided to hold the launch start time one hour since the forecast was for it to dry out for the majority of the day before another chance of storms in the late afternoon. The contest was finally on and we headed for the field.

Jack had noted that we probably wouldn't be able to get on the field with vehicles, and if we had the usual south wind this certainly would have been true. With winds out of the north, there was a chance to get on the field via the road if it wasn't too muddy. Jack unloaded his vehicle into David's pick up since he had pretty low ground clearance with his Civic. Sam Barone decided to give it a try with his Odyssey and successfully got to a launch site on the north east end of the field. Seeing Sam's, and David's success emboldened the rest of us including myself, John Dyer, Chuck Crabbe, Chas Russell, and Stuart Powley to try a vehicle landing on the field. The contest director Stuart took to the field in his Mini which has very little ground clearance and not much room in the wheel wells for anything but the tires. Everyone's tires grew somewhat larger as our north Texas clay added another inch or two to the tire circumference, but we had arrived and set up the range for a good day of contest flying.

It would be a day of high shoes (mud build up) and low clouds with a ceiling of less than 1000 feet (often lower) most of the day. This was not a significant challenge since the events didn't require much altitude. The best part is that the winds were less than 10 mph all day, and were often as low 5 mph or less.

There was a brief contest flyers meeting held by Stuart and John which asked everyone to fly spot landing as their first contest flight, and then move on to A streamer or C dual egg loft duration throughout the day. This helped the contest directors by getting all of the measurement tasks out of the way early in the day.

Spot landing was contested with motors from ¼ A to G! The event consists of the selection of a landing spot by the contest director, and the object is to get your rocket as close to that as possible. For this event the "spot" was a stake with a streamer, which was 25 yards downwind from the launch pads. Robert Vanover gets the recognition for flying the largest impulse for the event with a G79 in his Mad Cow Pike AGM-33, but although the flight was less than 800 feet, it arced out too far to the north for the parachute to bring it back to the stake. His son William also flew the event with his Angry Birds rocket (a Mad Cow Piranha) on an F motor. Chuck Crabbe put up the first competitive launch with a small streamer rocket on an A motor, landing only 7 meters from the stake. Chas Russell did the same with his rocket landing only 3 meters from the stake. Since it was his stake, I think the fix was already in on this one. John Dyer and I tried a different approach with somewhat larger rockets (a Baby Bertha and a Der Red Max),

attempting a ballistic trajectory and a late flight save by a parachute, hopefully landing close to the stake. Both of us were overly optimistic with the delays, and both rockets found the ground before they ejected their recovery devices, earning us the first DQ'd flights of the day. Jack Sprague made a late run at the stake, but his attempt was only good enough for 3rd place. Although there were a few more flights throughout the day, this one was largely over by noon.

The remaining timed events kept everyone very busy with contestants juggling between prepping, recovering, and timing. Additionally, there were a few sport flyers taking advantage of the field time and seeing what the contest craziness was all about.

With 3 Team America Rocketry Challenge (TARC) teams running out the clock on their qualifying flights, Suzy and Jack stayed very busy, instructing the preparation of those teams' last attempts to get to Virginia to compete at Nationals. R. L. Turner from Carrolton was there, but was only flying sport models, having already banked a respectable score of 14 points, which earned them a spot in the top 100. Good luck at Nationals guys! Northwest High School teams #3 and #4 put up flights of 90 and 49 points respectively and the Fort Worth Leadership Academy also flew with 112 point total. This year's TARC challenge was to fly an egg mounted horizontally to a target altitude of 750 feet on nothing larger than an 80 N/s motor. The egg must recover unbroken on a parachute with a diameter of no larger than 15 inches with a target flight time between 48 and 50 seconds. Points are earned for every second outside of the requirement window – less is better.

In A streamer a variety of designs and approaches were used to compete. The motor of choice tended to be the A3-4 powering a BT-5 to BT-20 sized airframe. Models flew off launch rods, out of towers, and off of pistons to try and reach a good altitude to deploy as large a streamer as possible. Streamer competition is typically multi round, meaning your 1st and 2nd flights are combined for your final score. With these small models and the fact that mini motor ejection charges can be pretty fierce, there were a number of DQs throughout the day for separations. I earned one myself on my first flight, when my Kevlar shock cord pulled free of its mount sending the streamer and nose cone all the way to the other end of the field. I recovered it and the body, and added some super glue to the fin/body joint to anchor the shock cord to the body. My second attempt flew out of John Dyer's tower for a 67 second flight, which was good enough for 3rd place. Chas Russell flew a proxy flight for wife Cindy, with what looked like a very similar rocket to mine (minimum diameter BT-5, 3 fins and a balsa nose cone), with the main difference being it flew off a launch rod, but managed a 70 second flight for 2nd place. Chas also flew his primary rocket twice off his excellent competition piston launcher for a combined time of 142 seconds earning him 1st place for that event. Chas' rocket used ST-6 tubing with a 6"X36" streamer.

Egg lofting is always entertaining event to watch, as everyone seems to enjoy the threat of broken eggs. Dual egg loft made for twice the fun, as the added weight of the extra egg made flying this event with a C motor pretty challenging. There was really only 1 motor capable of putting up a decent flight with the weight of 2 eggs, and that was a C11-3. The C egg loft event is based on your best time from 2 attempts.

There were a variety of models with purpose built designs to modified commercial kits. Motti

Marom flew a modified Quest Courier for a short and exciting flight, but his eggs were unbroken, and it was good enough for 4th place. William Vanover flew a nicely painted Quest Magnum to 3rd place. I am not sure if he flew on 2 B6's or if the rocket had a 24mm mount. He tied with John Shakelford for the 3rd spot who I think may have flown a Courier as well. I went with a couple of approaches for this event. The one that took 2nd place was a BT50 to BT-60 rocket, built with Estes tubes, 1/16 inch plywood fins, a paper transition, and a Pratt dual egg capsule. It recovered on a Dynastar 32 inch plastic parachute. I have traditionally used these parachutes for egg lofting since they are free when you order from Apogee and they are quite durable when compared to their Mylar counterparts. Chuck Crabb's winning rocket was a 24mm mount with balsa fins and a paper shroud body, capped with a Pratt dual egg capsule. He flew with a 36" Mylar parachute which did get toasted at ejection, but kept enough shape to hold it in the air 4 seconds longer (32 second flight) than mine.

Late in the day I tried a dual B6 egg launch with a rocket very similar to my first one, but with two 18mm mounts instead of the 24mm. I flew it with 2 Quest B6s since these are supposed to have more thrust than the Estes B6 motors. Both motors lit, but the thrust from the Chinese motors seemed erratic as the rocket squirmed its way skyward. It did not get the needed altitude to be competitive but did recover the eggs unbroken. Chas Russell had 2 DQ's for the event, both of which seemed to evaporate the Mylar parachute at ejection. Stuart Powley had by far the most exciting flight of the day, with a strong ejection at apogee that ripped off the parachute to drift away. I was timing the flight and at that point things seemed to go into slow motion since it was coming down into the prep area, specifically very close to where the TARC teams were prepping rockets with Jack and Suzy. I know that HEADS UP was yelled (maybe screamed) at least twice before folks realized, "this means me". People moved in time to avoid anything serious, but not fast enough to avoid the splat of albumin and yolks. That flight seemed to verify that the event was named correctly in the first place, and thankfully, the only death involved was of the chicken embryos.

The biggest drama of the day was yet to come as rumbles of thunder could be heard off to the north as we approached 3:00 pm. We started with a selective tear down of a model pad and began to take out the PA system. Chas launched his final streamer duration flight about this time, which drifted off toward the tree line to the east. Shortly thereafter we called for final flights and upon discovering none, we went into full on tear down mode. With the usual crew, plus additional volunteers we made pretty short work of the range and then started working our way down the individual easy ups. We had completed all but one of those when we realized that it was Chas' and he still wasn't back from his recovery walk. About then, he called John and noted that his rocket was in a tree and he needed a pole to recover it. John went to help, and about that same time it began to rain. Those remaining put even more team work in action to tear down Chas' stuff and store it in his vehicle. It was raining pretty good at this point, soaking all of us. Chas and John returned about the time the rain stopped, but the damage was already done—the mud was as slippery and sticky as ever.

Stuart attempted the first escape, but his rear wheel wells quickly filled with mud, turning the back end of the Mini into no better than skids – luckily the Mini was front wheel drive. Five or six of us ended up pushing the Mini almost

all the way to the pavement on Panther Creek. Once he hit that, the rear wheels began to turn again and things were fine. I had already pulled about half way out at this point, and took the CRV the rest of the way down to the road and hiked back to push out whomever else needed it. The other 2 cars, Jack and Chas, escaped with minimal issues, as did John in his aptly name Escape, and Sam in the Odyssey. It was Chuck with his pickup that ended up immobile, due to lack of any weight over the rear wheels and trying to go forward. I told him to try backwards, and with Stuart and I pushing on the front, he easily made it to the road and the rest of the way out. Even after running my vehicle through the car wash, there was still mud coming out of it for days after the event.

Overall results for the event gave 1st place to Chuck Crabb, with qualified flights in all 3 events, and competitive flights in 2, I managed 2nd with competitive flights in 2 events and Chas Russell came in 3rd with competitive flights in 2 events. Thanks go to everyone that came out and gave it a shot. It was certainly fun, although a little rushed, and much more challenging than anyone expected, but most certainly memorable overall. A big thank you also goes out to everyone who helped out with set up and tear down, as these were really critical events for this launch especially. We can always use the help here and there isn't really anything too difficult about it. Finally there was the mud crew of Jack and Suzy, Chuck, Chas, John, Stuart and Sam, who made sure that everyone made it out of the field of Mudagedon.

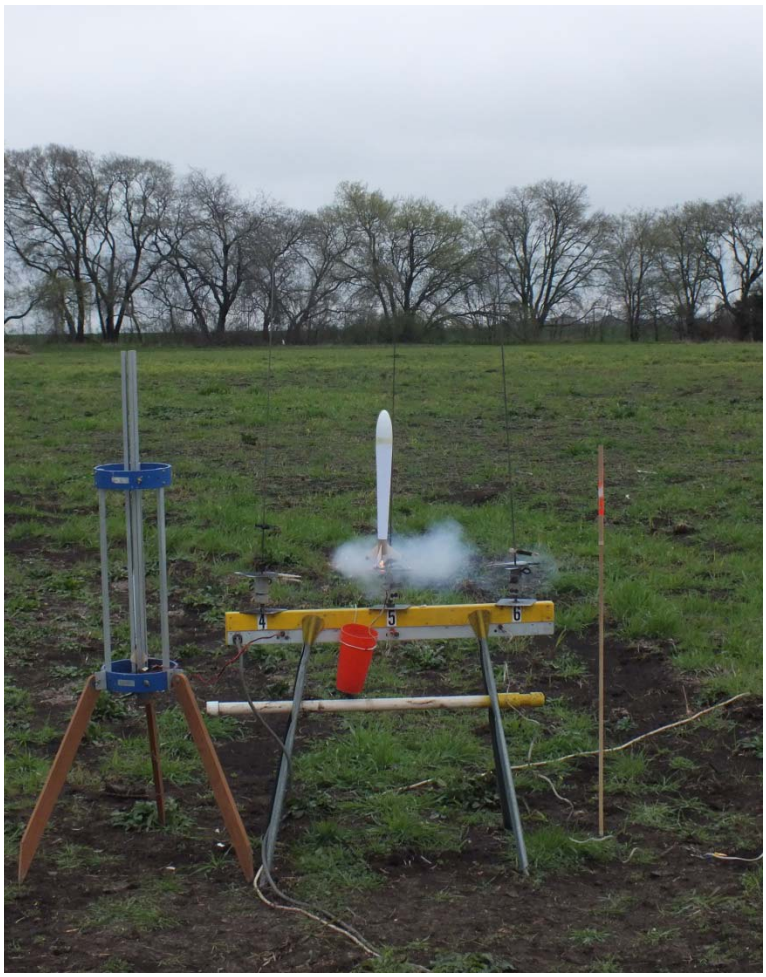
The next and final NAR contest event for DARS this year is DARSTAR IX, our annual regional launch. To be an official regional launch there are requirements on the number of contestants, so please register and fly the event if you can. The events are C Dual Egg Loft Altitude measured via altimeter, Sport Scale, C Streamer Duration, and A Helicopter Duration. If you flew Dual Egg Loft Duration, you likely have a model that can compete in the altitude event by adding a Jolly Logic altimeter, which can be incorporated into most rockets without modification. The contest directors generally make these available to contestants that don't have them, with the understanding that you break it (or lose it) you bought it. These can also be acquired at HobbyTownUSA in Plano or online at ApogeeRockets.com. C Streamer is another event that is pretty simple to get into and anyone can fly. Sport Scale is the easiest scale event, with simpler judging criteria than some scale events. A Helicopter is challenging and fun, and can be flown with any rocket that auto rotates for recovery. Come on out and give it a try. The worst thing that can happen is that you might have fun. *(Editor: We flew it and it was fun, but don't worry; more contests are on the way!)*

Pictures start on the next page!

Mudding in

John ready to prang...er launch his spot landing rocket

G motor spot landing attempt. The camo is so good, it disappears in the trees...



Top: Chas' proxy rocket under streamer

Bottom: TARC rocket

Top: Chuck's egg lofter Bottom: Under a slightly melted chute

Dual B6 dual egg loft

Mini mud tires

The New Field in Gunter – A High Power Certification Frenzy

By Gary Briggs, NAR 76909 L2

By late June, things are getting pretty warm in Texas. This year the heat up has been a bit slower, but some late spring rain has raised the humidity quite a bit higher than we have been accustomed to in recent years. The good news is that it has kept everything green, and the rocket fields free of burn bans, so all and all, we can't complain. It was a hot, breezy, and humid day that greeted us for our first launch at the Gunter field on June 22.

Early this year, Jack Sprague, DARS President, offered a bounty to anyone that could help us find some new flying fields. DARS' field in Windom has been very unreliable due to its dirt roads (more trails for farm machinery) and the change in ownership of some key sections of the land. Our brief run at Valley View, sadly ended earlier this year, with the passing of the land owner. It was that back drop that forced the issue and the need for more fields. Model fields were bid out at $300 and high power fields could go as high as $1,000. Each has stipulations on the success of getting a waiver and insurance for the field as well as support requirements that the finder needs to provide for the first few launches. Ted Macklin took up the challenge and found an interested land owner in Gunter.

The field is southwest of the town, just on the southern edge of Grayson County. It is about a 2 mile square area of active pasture, meaning that cows are on the field doing what cows do. There is a 40 acre conservation pond on the south end of where we set up and some other stock tanks within the property. It is fairly flat but there is some roll to the land. There are a few trees, but comparatively speaking, this site makes Valley View and McGregor look like forests. Our real challenge this time out were rocket eating sunflowers. Although relatively short, (generally under 2 feet) the thicker patches of these green and yellow hazards could obscure a rocket pretty well, if the parachute didn't end up on top of the flowers.

Bill Gee's announcement email for the launch said set up was at 9:30am, and lots of folks started showing up shortly after that time. Chuck Crabb pulled the trailer for the club and I caught up with him and Jack on Old Scaggs School Road, putting up signs to help other folks find the field. Once we got to the gate, we found Sam Barone, David McElroy, and David Schultz waiting for us. After we got positioned on the field, a long line of folks started coming in, setting up their own stuff, and helping to set up the club equipment.

The amount of equipment we need to set up for a Frisco launch is doubled or tripled for a high power launch. Yes, there were only 4 more pads, but each of those have their own controllers, cords, fire suppression, and spare parts. All of that equipment also needs to be set up over a much larger area as well, so the more hands we can get there early and working, the better. Don't worry if you don't know where things go, just be willing to take direction and learn. To be successful with these types of launches in the future, we are going to need more folks who can help set up, and hang around to tear down. Range duty at High Power launch is another area difference you will notice from our model launches.

Three or four positions are needed to run the HP field, not just the one or two we normally use for Modrocs in Frisco. The more help we have the shorter the shifts and the more people that get to fly.

Once set up was complete, everyone seemed to be milling around waiting for someone to test the wind. Not to be the shy type, or miss the opportunity to fly the first rocket on a new field, I pulled out my pre-prepped "Frisco Rocket" (scratch built), loaded with an F24. I set it up on the mid power pad and aimed the camera for the count down. It took off well and arced into the wind, but then I got an extra special bonus delay that went well beyond the 7 seconds planned, to the point that I was already thinking about where the pieces were going to land. Fortunately, at the last minute, the very long delay decided to fire the ejection charge, saving the rocket, but scaring the cows standing down by the conservation pond. The long delay caused about a 1 inch zipper, which I didn't thing was too bad considering. After landing, my rocket showed the aforementioned issue with the sunflowers that would challenge flyers throughout the day.

Nonetheless, the field was open and ready for business, and that opened the flood gates on a plethora of certification flights. First up was Jeff Webb with a BSD Horizon and a CTI H90. George Sprague was his certification guide and I helped them with a few things at the pad. The rocket flew great, and drifted a long ways out on a conservatively large parachute.

At that point there were simultaneous certs going on. George and I worked with Chris Mlinarich on his Rocketry Warehouse G3 rocket for his Level 2 certification. It was a very nice 3" all fiberglass kit that Chris had outfitted with an altimeter for redundant single deployment capability (electronics and motor). George and I oversaw the build of the J350, and then got Chris out to the pads. After the obligatory pictures and count down, the rocket leapt off the pad on a huge white lightning flame. It had a small issue with some parachute damage, but recovered safely to grant Chris admittance into the L2 club.

Jack Sprague was the real super star on cert flights for the day, participating and signing off on about 7. Two particular ones of interest were a pair of the R L Turner TARC members, who made it into the top 100 and went to the fly offs in Virginia earlier this year. First up was Tripp Illingworth, who flew a scratch built rocket named Cletus in A&M colors (his college in the fall) on a very smoky CTI I212. His teammate Jawaad Gadhia, followed him later in the day with his nicely camouflaged scratch build named Athena, on a CTI H225. George Sprague, Sam Barone, Dave Schultz, Chuck Crabb, and I also helped out with the various certifications throughout the day.

The iron man of the certification day had to be Leslie Walden. He flew a LOC Bullet rocket on a Cesaroni H143 in the morning for his level 1 certification, and followed it up in the afternoon with a LOC Warlock, named "Little Em", on a J330 in the afternoon for his Level 2! Although not really recommended as the path to certification, Leslie showed that it can be done. Other L1 certifications for the day included David McElroy, Steve Taylor, and Frank DiCosimo.

The largest rockets of the day are a bit of a toss-up, depending on your definition here. Robert Vanover had the only other J flight of the day with his

Rocketry Warehouse 1/3 scale Nike Smoke. It weighed in at 17 lbs. and flew beautifully on an Aerotech J460 54mm motor. The aforementioned Warlock was probably the largest diameter rocket of the day. The tallest, was most certainly Scott Cooks upscale Estes Andromeda, which closed out the high power day with a nice dual deployment on an H165.

I flew one other rocket during the day, and it was one that I started back in 2007. In 2006 we had a contest called Extreme BP that Doug Sams organized. That contest was all about flying rockets with large BP clusters, with the flyers getting points for all the motors they could light within the flight. I put together the basics of this rocket to compete in that contest, that I was hopeful would occur the following year. It did not, and the rocket was shelved for a period of time. With the idea that new high power fields were coming on line I started working on the rocket again, and decided to bring it out to Gunter. It flew on a 5 motor cluster of one E12-6 and four D11-Ps. I did my usual cluster treatment, which generally involves cleaning all the nozzles with drill bit to ensure there is no clay blocking ignition, and then using dipped Quest Q2G2s to ensure there is enough spark to get things started simultaneously. For this launch, I used the short Q2G2s and clip whip rather than the more expensive route of using the longer igniters. That rocket lit all 5 motors at the pad and flew beautifully on a tower of white smoke.

I walked out to where it landed and found Tom Knapp. He had been looking for his Initiator that had been eaten by the field in spite of a shiny gold body and a red parachute. I helped Tom look around for another 30 minutes before heading back to the range head. Tom went back out later, but was unsuccessful in finding his Initiator, but he did find Robert Vanover's Aerobee 150a with the electronics still beeping. I am sure that Robert will be very happy to get that rocket back.

There were numerous mid and low power flights throughout the day (50 to be exact) keeping flyers of all power ratings happy. All in all, it was a spectacular start with a new field. The really good news is that there is also another (larger) field in the works, so the future looks pretty bright for DARS and high power. Thanks to everyone who made this happen and to everyone who came out to make it a great flying day in North Texas. We look forward to more great days in Gunter.

Level 1 Certifications

Steve Taylor - McKinney

Jawaad Gadhia - Carrollton - RL Turner TARC team member

Tripp Illingworth - Carrollton - RL Turner TARC team member

Dave McElroy - Murphy

Frank DiCosimo - Plano

Jeff Webb - Frisco

Leslie Walden - Fort Worth

Level 2 Certifications

Chris Mlinarich - Richardson

Leslie Walden - Fort Worth

Figure 1 High power pads and big open spaces. What could be better?

Figure 2 Looking back at the launch pads and the large turn out.

Figure 3 The first rocket launched at the new field.

Figure 4 The rocket eating sunflower effect.

Figure 5 George Sprague and Jeff Webb set up his L1 rocket at the pad.

Figure 6 Scott Cook's Starship Vega

Figure 7 Robert Vanover's 1/3 scale Nike Smoke on a J motor.

Figure 8 Trip Illingworth's L1 certification in A&M colors.

Figure 9 Chris Mlinarich's L2 certification on an Aerotech J350.

Figure 10 Leslie Walden and his wife pose for a picture before his L2 flight.

Figure 11 The author's rocket flying on 1 E and 4 Ds.

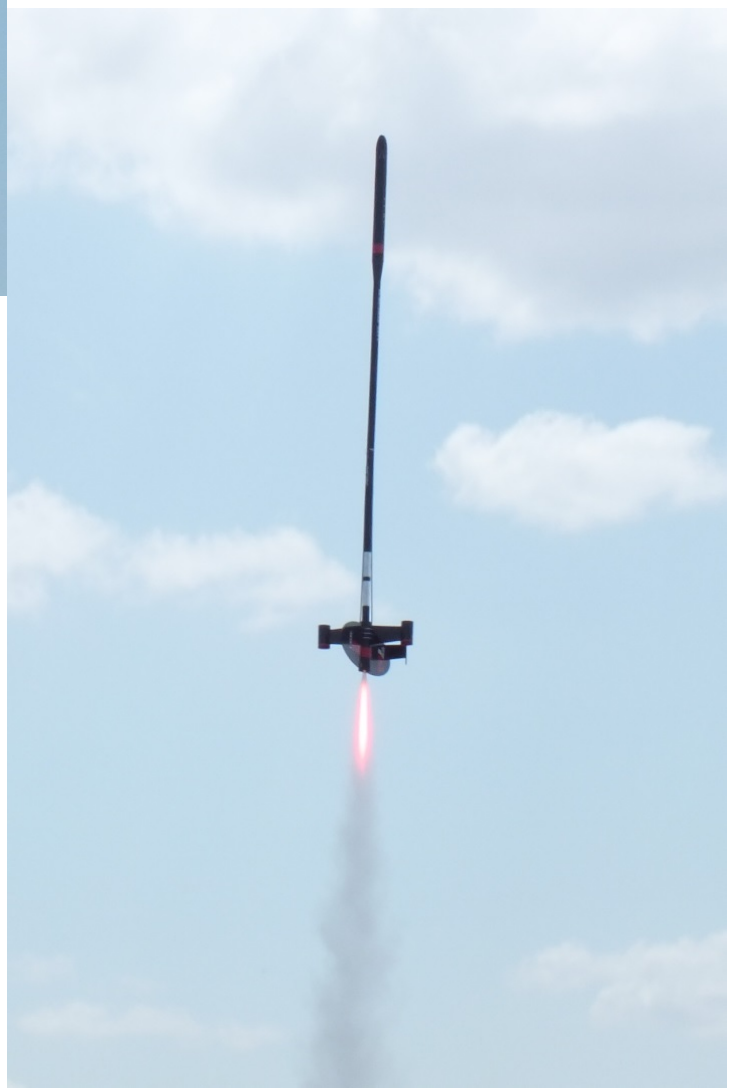


Figure 12 Scott Cook closed out the day with a nice flight of his upscale Andromeda with dual deployment.

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**

DARS

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%)
BMI Hobbies (* 10%)	BRS Hobbies
CLE Enterprises	Dr. Zooch Rockets
Excelsior Rocketry	FlisKits, Inc.
Hawks Hobby	HobbyTown USA— Dallas, Walnut Store (* 10%)
JonRocket	MadCow Rocketry
Mercury Engineering Co.	Pemberton Technologies
Public Missiles Ltd	Qmodeling
Quest 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%)	

Dallas Area Rocket Society ("DARS")

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