



THOR.

September/October 2000

VOLUME 7 NUMBER 5

**T.H.O.R. - THE HEARTLAND ORGANIZATION OF ROCKETRY
2000 Events Calendar**

Monthly Meeting Schedule for fall:
Tuesday October 3rd, Tuesday
November 7th, and Tuesday December
5th.

As usual, each meeting will start at 7:00
PM at the La Vista Community Center.

September 10 – Spot Landing Competition

Launch Coordinator ----- Candy Davis (402) 346-7566
Description of event – This contest consist of flying any A-D engine rocket and have it land closest to a pre-determined Spot, the closest rocket to the spot wins.

September 29,30 & Oct. 1 – BALLS 010 Exp. Launch

Description of event -- BALLS 010 yearly high powered event that takes place in the Black Rock Desert, NV. Experimental motor only! For details call (402) 691-8420.

October 7 - Pickrell High/Low Power Launch

Launch Coordinator ----- Larry Drake (402) 895-1583
Description of event -- This is a chance to fly your own low & high powered rockets, and see others fly their rockets.

October 21 - Pickrell High/Low Power Launch

Launch Coordinator ----- Larry Drake (402) 895-1583
Description of event -- This is a chance to fly your own low & high powered rockets, and see others fly their rockets.

October 29 - Helicopter Duration

Launch Coordinator ----- Larry Drake (402) 895-1583
Description of event -- Have your rocket stay aloft the longest using an autorotation rocket as the recovery device.

November 11 – Breda(?) High/Low Power Launch

Launch Coordinator ---- Mark Uhlenkamp (712) 663-4521
Description of event -- This is a chance to fly your own low & high powered rockets, and see others fly their rockets.
Launch site may change in the upcoming weeks.

November 26 - Sport Launch

Launch Coordinator ----- Lyle Woodrum (402) 334-8040
Description of event -- A low powered day of fun and flying.
All rocketeers welcome to come and join in on the fun.

December 1 - Fifth Annual Christmas Party

Description of event – Our Christmas party is open to all THOR members, plenty of food and videos to enjoy, more details will be announced in November.

- *FUN FLYING AT ALL LISTED LAUNCHES!!
- * All contest & sport launches to be held at the LaVista Sports complex.
- * Email: bruce.lee@tripoli.org
- * For Launch time and location call T.H.O.R info line (402) 896-2069, Bruce Lee at (402) 691-8420 or the launch coordinator listed.
- * For information on contest call THOR or the Launch Coordinator.
- * Prizes for events are to be announced before each event, valued at no less than \$10.00.
- * Cost to enter contest is \$1 for members and \$2 for non-members.

TRIPOLI NEBRASKA WEB PAGE

www.tripoli.org/tra_ne/nebraska.htm

THOR WEB PAGE

www.tripoli.org/tra_ne/THOR/thor.html

It is tra_ne, underscore

In Memory of Scott Meinhardt

(Editor's note: this email was sent out by Bruce Lee a week after Scott's death)

I was informed by Scott's dad that Scott has passed away Wednesday August 16, 2000. He told me Scott passed quietly. Scott was a good friend, to me and all of you. He was 34 years old. The victim of a second cancer attack. He beat the first one seven years ago. This time he had multiple brain tumors that did not respond to treatment. I knew he was terminal about a month and a half ago and talked to him just 2 weeks ago. When I talked to him he was very weak but still had a positive attitude and talked about going to LDRS next year when he beat the cancer.

The following was sent out by Bruce Kelly:

Two days ago we lost long time Tripoli supporter and volunteer Scott Meinhardt to cancer. He was just 34 years old. Until a few months ago, Scott was our insurance liaison with the insurance companies. When the cancer became more advanced, he had to let go - apologizing for not being able to continue. He moved from Omaha to Minnesota to allow his parents to care for him during treatment.

Scott was a kind person and a friend. Several years ago we were attending a launch in Tennessee when the weather turned bad. I was poorly prepared. Noticing how much I was shivering in the cold and intermittent rain, Scott pulled off his hooded-sweatshirt and handed it to me. "I'm alright," he said, "and it looks like you can use this more than me."

Joint Statement on Civil Complaint Against ATF, 8/22/2000

(Editor's note: from the Tripoli Rocketry Association web site)

Joint Statement on ATF Litigation
August 22, 2000

Over the past six weeks, we have had extended discussions with our counsel and the Bureau of Alcohol, Tobacco and Firearms, seeking an out of court settlement to the litigation we brought back in February. Those discussions included one face to face meeting in Washington, D.C., and two lengthy joint conference calls. We regret to report that we are unable to reach any settlement agreement at this time. ATF was unwilling to agree to any settlement terms which left any portion of the high power rocket hobby unregulated by the agency, and appears willing to take its chances in court.

We have instructed counsel to let the current litigation stay expire as scheduled on September 1, 2000, and asked them to seek the earliest possible court date to proceed with the litigation. When we have a firm court date scheduled, we'll notify members of that hearing date. We continue to believe that our legal case is solid, both on procedural and substantive grounds. And we appreciate the extraordinary efforts our counsel undertook to attempt settlement, only to be thwarted by unreasonable demands from the defendant's staff and in house attorneys.

We realize that committing to this step means a potentially long, uncertain and expensive journey. But we have exhausted all other avenues to provide sport rocket flyers with an elimination of the illegal and unnecessary regulation sought by ATF. We will continue to seek all avenues of relief, judicial and legislative, to secure that unregulated environment for all sport rocket flyers. Our safe, legal and educational hobby deserves nothing short of our utmost effort in this battle, and we jointly pledge our maximum effort on your behalf.

Mark Bundick, NAR President
Bruce Kelly, TRA President

Nebraska Heat III

By Richard C. Burney, TRA# 6140

Photos by Richard C. Burney

The Nebraska Heat regional launch was first held in October 1998. Named after the *Nebraska Heat* rocket that was flown at LDRS XVI, Nebraska Heat would mark the first regional, multi-day launch held in Nebraska by The Heartland Organization of Rocketry (THOR). The launch was held in memory of member Bruce Furan who had passed away earlier that year (*Furan* was a strong contender for the event name). Nebraska Heat II was held the following October. Both Nebraska Heat I and II were fairly successful events. In both cases, Saturday was the windier of the two days, while Sunday was nice, calm, and sunny.

Just a month after Nebraska Heat II, it was decided that Nebraska Heat III would be moved to the first weekend of June 2000 (the 3rd and 4th). Several months later a third day, Friday the 2nd, was tagged on for people wanting to fly experimental motors. There were two reasons for moving the third Nebraska Heat to the beginning of June. Since October is a transition month between fall and winter weather in this state, this month is plagued by windy days. The other reason was that there are a number of other major high power launches in the Midwest that could potentially draw people away from attending our group's event and vice versa. Having Nebraska Heat III in June turned out to be a great way to make up for the disappointment that was Fire on the Farm III (because of the abysmal conditions, the event was jokingly rechristened Flood on the Farm!).

As with the previous Nebraska Heats, the event would take place on Elmer Harms' farm land... one of our members, Larry Drake, grew up right down the road from where Elmer lives. Four years ago, Larry had approached Elmer about the possibility of using his property for holding high power launches. Elmer agreed and subsequently the field has been used for quite a few THOR/Tripoli Nebraska launches since then.

Day One...

Friday, June 2nd marked the first day of Nebraska Heat III. Since this was a work day and the only high power flying early on would be experimental, only the most hardcore rocketeers showed up. For an early June day it was quite nice. It was sunny with a high in the low 80's. The wind was coming out of the north at about 5 to 15 mph. By the time the afternoon rolled around, the wind was out of the east. Including

the night launch, somewhere over a dozen flights took place.

After setting up the range in the morning and shooting the breeze for a few hours, Bruce Lee, THOR president and Tripoli treasurer, sent up the first rocket of the day. Bruce had taken the Thunder Flame class at Argonia, KS over a year earlier and has successfully flown several Thunder Flame motors ever since. For this flight, Bruce had a green flame motor that would produce about 800 N/S. The rocket was a THOY Falcon with an NCR Patriot payload section (a veteran of many dozens of flights, the bottom section was eaten by a combine last fall). With an Altac altimeter for dual stage deployment, the rocket flew as planned.

Jeff Barnes, eastern Iowa Prefect and new Tripoli insurance guy, got a few flights in during the afternoon. Though having never flown an RC aircraft, Jeff was eager to fly his recently purchased Hobby Labbs SR-71 Blackbird. Jeff had barely touched the package the kit had come in before that day and the Blackbird required some construction. After completion and a test of the aircraft's control surfaces, The Blackbird was flown on a plugged E15 (also came with the kit). At apogee, Jeff took over the controls and aimed it straight away from himself (coming from my own experience, it is very easy to become disorientated when you start circling an RC aircraft around). After a few dips and stalls, the aircraft stalled about 15 feet above the ground and nosed in, crimping the nose a little bit. Not bad for a first RC flight. Jeff also flew his Wahoo using an APS H90 Spitfire donated by Dale Miller. Soon after takeoff, it was realized that about a half dozen fires had erupted around the high power pads. Most everyone in attendance scrambled to the scene and the small fires were extinguished in about a minute. Because of the severe drought conditions in southeastern Nebraska at that time, several other small fires happened during Friday and Saturday, but the problem was reduced when the weeds were chopped down.

During the afternoon, a reporter from Beatrice came to take pictures and interview people for the Beatrice newspaper. Larry Mills, posing with his 7.5" AMRAAM, made the cover of the newspaper the next day. After everyone went home or to Beatrice for dinner, most everyone came back for the night launch. Most of the half dozen or so flights were F's through H's. Bruce flew an F50 Silver Streak which resulted in his rocket hitting into the ground before ejection. I flew my ever controversial South Park themed Minie Magg, *I Killed Kenny*, on an H242 and used a sonic alarm to help locate it. There were a few H motors flown by Jeff Barnes and Kevin O'Neil (also from Jeff's Prefecture). The first night launch done by our group went quite well.

Day Two...

Just like Friday, Saturday the 3rd was sunny with a high in the low 80's. The wind was now coming out of the south and was more constantly blowing at 10 to 15 mph. There were several rows of trees to the north to

contend with and a small reservoir to the northeast. No rockets got treed, but one did land in the reservoir (more about that later). About 71 flights took place.

Some of the biggest flights of the day were in the morning. Mike Collins, THOR's dealer for Aerotech motors and Dr. Rocket casings, started off by flying his *Capella* on an I435. Mike has flown this scratch-built design at quite a few of our launches. Mike's *Nemesis* marked Mike's first L flight, in this case an L1120. The flight was great, but since he didn't use dual deployment and didn't borrow one of the club's transmitters, he had a very long walk! Both rockets were designed for Blacksky railing. Mike has lent his rail pad for several launches now.

A fair number of people have recently been modifying the classic LOC Minie Magg kit for much bigger motors than was ever intended. Fred Gruis is no exception. Fred had heavily modified his Magg for an Ellis Mountain M1000. (Though not there, Jon Lipovac of Des Moines, IA has a beautifully finished Minie Magg designed for the Aerotech M1315!). At liftoff, the rocket leaped off the pad. The flight appeared to have been uneventful, but upon recovery it was discovered that the nozzle had broken in half while under power. Heat of the uneven flame melted the casing and damaged the rocket. I hate to say it, but of the four or five M1000 flights I have seen since 1998, I don't recall a single one that didn't cato or have something else go wrong with it. Ellis Mountain needs to go back and retest the design.

Lyle Woodrum's first flight of the day was his Level 3 attempt. Lyle had made a six-foot-tall-by-four-inch-in-diameter upscale of the Estes Gemini DC. Lyle used PML Quantum tubing and the pods were bolted with screws and washers through the sides. Liftoff was excellent, but as the rocket reached maximum velocity, the pods ripped right out along with the fins and the rocket disintegrated. Lyle plans another Level 3 attempt at A.I.R.Fest in September. Lyle broke the sound barrier with his *Mach Rocket* on a J570. The rocket reached a top speed of 802 mph. The rocket suffered a broken tube on landing. Lyle also flew a rocket late in the afternoon demonstrating Mark Uhlenkamp's PAR-1 non-pyrotechnic recovery system. The rocket had swept forward fins and was J350 powered. Soon after takeoff, ALL four fins vibrated right out of the rocket, though they were built through the wall and well filleted! If you're familiar with aerodynamics, swept forward wings/fins require a great amount of strength to hold them together. This was Lyle's last launch with THOR before moving to Texas. Lyle, you will be missed.

Jeff Barnes had flown his first Level 3 attempt at Fire on the Farm II over a year earlier. As a result of a very premature ejection, the rocket was destroyed. This time Jeff was going to use a Dynacom Anaconda powered by an M1315. The rocket streaked off the pad. The timer deployed the drogue chute as intended. Unfortunately, the Altac altimeter failed to deploy the main chute and the rocket ended up with a busted fin. Third time's the charm, Jeff! In the afternoon, Jeff flew his still unpainted *Unpainted Arizona* on a J800. Jeff was unable to find *Arizona* after it drifted away.

On the other end of the power spectrum was Brian Cannon who generated more flights than anyone else on Saturday or the whole weekend for that matter. Brian had a flight with his Estes Mosquito on an A3-4T (don't know if he got it back!). He also flew his Estes Firebird on a B6-4. Brian generated a total of six flights with his Halverson Design Wicked Winnie using a mix of B6-4's and C6-5's. Brian had a total of 8 flights.

Arley Davis had repaired his heavily damaged Rocketman Praying Mantis from last year's Nebraska Heat. This time, the I161 flight was successful. Arley's big PML Pterodactyl took some body tube damage after the pad tilt over. After patching it up, Arley flew his Pterodactyl on a J350 making this its tenth flight since 1998. The rocket screams for a K550, Arley! Arley's daughter, Candy, flew her LOC Graduator (aka 1999 *Graduator*) on a G54. A few weeks later, Candy gave birth to her son and, hopefully, future rocketeer, Jacob. Congratulations, Candy!

Doug Deden has for a while now been bringing his own pre-made flight cards to our high power launches. But instead of using English measurements and weights, he uses metric! Doug flew his minimum diameter *Gene Hackman* on a C6-3 and an E25-7 (wonder if it was *Marooned* in space after that flight?). Doug also flew a Vaughn Brothers Extreme 38 on an H73.

Larry and Nathan Drake flew the upper stage of their PML Quantum Leap on a J350. As luck would have it, it landed in the nearby reservoir! The mud made it impossible to wade out to it. Fortunately, a local farmer helped lasso it in.

Tony Cochran has been involved with high power rocketry in Nebraska since the first half of the 1990's. Though he has moved several times during the last few years, first Maryland then Columbine, CO (yes THAT Columbine), he has managed to return to Nebraska on a fair number of occasions to participate in some of our major launches. On Saturday, Tony flew his veteran LOC EZI-65 on an I357. At first, Tony was not sure if it was an I357 or an I161. He remembered putting it together last summer or fall. Since Tony and myself had both donated I357s for the escape tower on the club's big Mercury Redstone, it's a good chance it was the motor he had donated. Of the two I357's I donated for that flight, I still have one of them yet to burn!

Mike Howard flew one of the few Level 1 flights of the day. Mike's Level 1 bird was a Rocketman Wahoo with an H242 motor. The flight went by the book and Mike Howard got his Level 1. Welcome to high power, Mike! Mike and his sons, Nathan and Steven, also flew a handful of Estes rockets.

My only flight of day would be my *Macross Plus* rocket, which is named after the Japanese anime from five years ago (it has subsequently been decorated with artwork from the series). Using LOC 7.5" tubing, standing at 82" tall, and weighing 17 lbs., it was by far the largest rocket I have built and flown to date. The motor for this flight would be the K550... this would be my first K flight and the biggest leap in power I have ever

taken (J350 was the biggest motor I had been flying for the last two years). After several hours of careful preparation, I took *Macross Plus* out to the pad in the middle of the afternoon. At ignition, the motor roared to life and the rocket sprung off the pad. After cocking into the wind a little bit, the rocket's flight straightened out. A few seconds after reaching an apogee of 2,200 feet, the Transolve P5 altimeter deployed the chutes and the rocket gently lowered itself to the ground. Of all the H through M flights, I believe my rocket landed closer to the pads (and cars!) than any other high power flight of the day. Other than a small one inch zipper on the body tube, the flight was near perfect and was very gratifying. Next stop A.I.R.Fest!!!

After being on the cover of the Beatrice newspaper, Larry "AMRAAM" Mills was ready for some neck-breaking flights with a few of his PML AMRAAM kits. Larry first flew his AMRAAM 2 on an I200. Larry's next attempt during the middle of the afternoon was to break 6,000 feet using an AMRAAM 3 powered by a J570. I saw Larry break a mile with a J350 in that rocket a month earlier. This was going to be a cool flight! At ignition, instead of his AMRAAM taking off like a bullet, in a split second there was an explosion and all that was left of the AMRAAM was a cloud of smoke and debris falling to the ground. Larry thinks that the nozzle he stuck in there may have been a J350 type. Larry's disaster definitely qualified for the most energetic disassembly of Nebraska Heat III. Lyle Woodrum's failed Level 3 would have been a very close second.

Kevin Trojanowski has been with THOR since earlier this year. Probably the most notable rocket he has in his fleet is his 1.6x upscale of the classic Estes Mars Lander. Kevin successfully flew it a month earlier on an H motor. Kevin was going to try flying it again on an H128. As soon as the motor lit and the rocket moved, one of the Lander's "legs" caught on part of the standoff or blast deflector. The "leg" broke off and the rocket careened right into a nice big set of dried out bushes setting them on fire. For the problems we had with fire Friday and Sunday, maybe this should have been called Fire on the Farm! The fire was quickly extinguished and the Lander was retrieved. Though looking worse for wear, Kevin would get the rocket up to flying condition once again. Kevin also flew his *Big Mamma*, a Big Daddy painted pink, on an E28.

Matt Jones and Ann Dush along with Matt's children, Christopher and Page, drove all the way from northwest Iowa just for a few flights during the last hours of the afternoon. Matt and the kids first had a drag race between two Estes Mini X-Wing fighters powered by A10-3T's. The little X-Wing's and their ejectable motor mounts were tough to find in the long weeds and grass. Ann flew the *Explorer* she had recently built on a G40. Matt's biggest rocket was a J800 powered beast that stood 12 feet and 4 inches tall, 7.5" in diameter, and weighed 29 lbs. Matt had driven from Iowa with the rocket mounted on top of his small compact car. Somehow, Matt avoided being pulled over by the police or state patrol! The rocket is a proof-of-concept vehicle for his Level 3 project. Just like my planned Level 3, his

rocket stands virtually the same height and utilizes the fin set of PML's Pterodactyl! Talk about a coincidence! The large rocket reached an altitude of less than a thousand feet. A shock cord holding the main section and payload section snapped after the main chute deployed, but each section had chutes and both sections recovered just fine.

Bruce Lee's only flight of the day was his *Super Mario*. *Super Mario* stands 14 feet tall, 6 inches in diameter, and weighs 55 lbs. On its first two flights, *Super Mario* flew on an M1419; the first flight was at A.I.R.Fest in 1997 for Bruce's Level 3 and the second flight was at the first Nebraska Heat. This flight would be an M1315. After spending hours prepping the rocket, Bruce took the rocket out to the pad in the late afternoon. After setting the rocket up, Bruce realized that he wasn't sure if one of altimeters/timers were properly set. Bruce took *Super Mario* down and quickly rectified the situation. *Super Mario* was set up once again, this time ready to fly. *Super Mario* majestically rose from its pad and reached an altitude of 5,713 feet. The chutes deployed right after apogee, and the rocket landed about half-a-mile away. With this flight, the total number of M flights this day alone was four. In the entire history of high power rocketry in this state, only two M's have been flown all together before this day.

Tripoli Nebraska Prefect Mark Uhlenkamp's PAR-1 recovery system has been demonstrated at a number of launches this past year. Mark had a rocket called *Proto II* powered by a K550. Besides the PAR-1, a Missile Works altimeter was used for back up. After the apogee charge went off, the rocket began its decent, at low altitude, the PAR-1 deployed the main chute. The chute was deployed, but the force of the ejection was strong enough to heavily damage the payload section. It turns out that the PAR-1 had too much of an ejection charge. The PAR-1 is mostly mechanical and requires minimal black powder. *Proto II* might fly again and PAR-1 testing will continue.

Jon Damme flew his tubular rocket, *Ringy Dingies*, twice on D12's. *Ringy Dingies* has no fins; it uses tubes for stability. Jon has built at least one or two other tube type rockets in the past.

Final flight of the day went to Tom Henry and his PML Pterodactyl Jr. The motor was an I161. Tom has been flying his Pterodactyl Jr. for two years now with the original coat of primer he sprayed on... he has yet to finish the paint job!

A bunch of us ended up going to a Chinese restaurant in Beatrice. The memorable moment of the evening was when each of us told our names to the young Chinese waitress so that the right dinners would be served. Expecting a reaction, Bruce's face lit up and confidently said, "I'm Bruce Lee!" As it turned out, the waitress had absolutely no idea who Bruce Lee was!

Day Three...

Sunday, June 4th turned out to be the worst day of Nebraska Heat III. The wind was constantly blowing from the north at about 15 mph and was usually gusting

greater than that. It never got above the seventy degree range, so it was comfortable for early June. Only 11 flights occurred on Sunday. Quite a few flights resulted in damage or total lost.

The most powerful flight of the day went to Fred Gruis. Fred had a rocket named *Over Gold and Under Built* powered by a Kodson L1860. It was predicted to break Mach 2. The rocket streaked off the pad and disappeared from sight. Fred had no means of tracking the rocket other than through sight. The rocket was never seen again.

Justin Hayes had been unable to make it to the first few days of the launch so he was anxious to burn some ammonium perchlorate. Justin successfully flew his LOC EZI-65 twice, first on an H123 and then an I357. Justin's final flight was his LOC Bruiser on a J350. The Bruiser drifted and caught on to a branch on the big tree at the bottom of the hill by the road. With help from his friends, Justin was able to get the entire Bruiser back. After having lost the original nose cone and parachute to a certain ostrich farm at the 1998 Sooner Boomer, Justin was not ready to give up the rest of it. Justin had the most flights for Sunday.

Tony Cochran had the most peculiar payload in the form of a protein bar. Kathy McGinnis had shared a "chocolate" protein bar with a number of us. It was in agreement that the bar was retched in taste. Tony stuck what was left of it in his LOC magnum and flew it on a J350. Flying it in the rocket did not help its flavor any!

Bruce Lee's only flight for Sunday was his PML Aurora powered by a J170 hybrid motor. After apogee, the ejection charge deployed a bit late and the chock cord snapped. The payload section and altimeter were carried off by the winds and the motor section plowed into the ground. The motor casing survived and will fly again.

Don Rice has assembled a small air force of the French Exocet anti-ship cruise missile. On Saturday, he had flown his Binder Design Exocet on a J350. On Sunday he flew his scratch built 2.6 inch diameter Exocet on a F62 Darkstar. The flight and recovery were uneventful until the winds carried his rocket right straight into the topper of my truck, chipping off a small piece of fiberglass and leaving some scratches. Thanks a lot, Don! I guess we found out that Exocets like automobiles just as much as they like ships at sea! Now I have some rocket "scars" to show off!

A few minutes after the accident, I took my *Final Fantasy VII* out to the pad for its 5th flight, this being the 4th to utilize dual-stage deployment. Bruce Lee had been the first in our group to name a rocket after the well known video game RPG series. But in my case, my *Final Fantasy* rockets use actual decals of the artwork and characters. Since it was windy enough, I decided to stick with an I211 for this flight. After reaching an altitude of over 2000 feet, the two main halves of the rocket came apart and started to drop. At 800 feet the Transolve altimeter deployed the main chute. I don't know if it happened at apogee or at main deployment, but I now realized that the shock cord holding the motor section and payload section together had snapped.

Without a parachute, the motor section hit the ground hard breaking off one of the fins and breaking the tube in half. To add insult to injury, the payload section landed in a dirt field; the wind proceeded to drag the payload section for several hundred feet, marring the paint job and decals. I guess I wasn't suppose to be out there that day! *Final Fantasy VII* has since been rebuilt and flew to its highest recorded altitude to date (4,580 feet) at A.I.R.Fest 6.

Flying was pretty much done by the middle of the afternoon. The launch equipment was disassembled, the site was cleaned up, and everybody headed for home. The third Nebraska Heat was over.

Conclusion...

During the three days of Nebraska Heat, somewhere over 87 flights occurred. Over 87 motors ranging from A's to M's were used resulting in approximately 57,227 N/S expended. Though there were over a 100 less flights than last year's very successful Fire on the Farm II, nearly the same amount of power was expended! There were two successful Level 1 flights. Congratulations to Mike Howard and Mark Stecker for joining the high power ranks. There were two Level 3 attempts, but as mentioned above, both were not quite successful. Oddly enough, there were no Level 2 attempts.

Special Thanks...

A special thanks goes to Elmer Harms who has allowed us to use his land for the last four years. We have also been fortunate to have the support of the other local farmers who have tolerated us running all over the countryside. And a definite thanks goes to all of our friends from the other Midwest rocketry groups who came to Nebraska Heat III.

A few weeks before I finished this article, one of our fellow THOR/Tripoli members and friend, Scott Meinhardt, died as a result of cancer. Scott will be missed by all who knew him. I would like to dedicate this article in his memory.

THOR Meeting Minutes: July/August

Compiled by Richard Burney, Secretary

THOR Meeting Minutes 7/11/00

Attendance: Kevin Rich, Dennis Gilbert, Kevin Trojanowski, Arley Davis, Candy Davis, Jacob "Jake" Davis, Ken Nafito, Eric Nafito, Bruce Lee, Richard Burney, Devin Rich, Tyson Christianson, Dale Miller, and Larry Drake.

Meeting begins at 19:15.

Bruce talks about the Bomb Pop's flight at LDRS XIX. Tube on top of fin canister was damaged when that section landed and tipped over. Bruce and Ky's space shot to 70 miles up will be flown at Black Rock, NV. The rocket stands 20 feet tall, aluminum construction, \$6,000 aluminum nose cone with titanium nose tip, and a T class motor. Balls 2001 will be on July 16th and 17th while LDRS XX will be July 19th through the 22nd, 2001 at the Lucerne Dry Lake, CA.

LDRS XIX (2002) may be in Texas or possibly Argonia, Kansas (please!!!).

BATF may make a settlement with Tripoli and the NAR in regards to Ammonium Perchlorate's regulation.

Bruce shows the new issues of *High Power Rocketry* which were handed out at LDRS (including the special "Crash and Burn" issue for subscribers only). (*Editor's note: I finally got mine during the first week of August.*)

Bruce talks about the making of the Bomb Pop's decals. Print the image on to a piece of transparent film (meant for sticking to windows), cut out, spray adhesive spray to the back, and then apply. (*Editor's note: Bruce and myself recently created some decals for my big Macross Plus rocket. I took things one step further by applying the decal to white monocote (with the adhesive backing) and then applied... more details at a future meeting!*).

Arley shows the Estes rerelease of the Maxi Alpha 3, a classic MPC Lunar Patrol rocket kit, and the 2 ½ times upscale of the Estes Mars Lander.

Candy introduces everybody to her son Jacob ("Jake") who was born a few weeks ago. Congratulations, Candy!

Kevin Trojanowski is interested in finding a good altimeter. Altimeters such as the Blacksky Altac.

Kevin and Devin Rich and Tyson Christianson show some of the rockets they've built recently.

Rich shows some of the remains of the big Redstone that are currently in his possession (such as the best surviving fin). Passes pictures around that he took at Nebraska Heat III.

Arley does a fibreglassing demonstration.

Annual party and barbeque at Bruce's house on Saturday the 15th at 3:00.

Drag race on Sunday at noon.

Larry Drake presents the treasurer's report: \$4,404.21 have come in. \$4,007.11 went towards expenses. \$397.10 remaining balance.

August 5th experimental launch will now be a high power launch instead. August 19th will remain a high power launch.

A.I.R.Fest at Argonia, KS will be held from Friday September 1st through the 4th... the 4th (my 27th birthday!!!) will be an experimental day. A Thunderflame class will be held in Argonia on Thursday August 31st.

Meeting adjourned at 21:30.

THOR Meeting Minutes 8/1/00

Attendance: Richard Burney, Derek Davis, Kathern Davis, Rebecca Davis, William Davis, Bruce Lee, Candy Davis, Jacob Davis, Arley Davis, Devin Rich, Tyson Christianson, Kevin Rich, Dennis Gilbert, Kathy McGinnis, Jon Damme, and Kevin Trojanowski.

Meeting starts at 19:20.

John Damme shows the Estes rereleases of the V-2 (BT-80 size) and the Honest John.

Kevin Rich shows the quadruple launcher he made from PVC tubing. \$0.75 pie tins were used for blast deflectors.

Rich talks about a three inch type plastic tubing that is used to store tinted window material (a recent *Sport Rocketry* article covered somebody's rocket using that exact same type of tube).

10:00 starting time for Pickrell launch on the 5th.
Another launch on the 19th.

BATF interested in settling with Tripoli/NAR.

Arley shows how he stores and displays his rockets using wooden dowels and spent motor cases mounted to a board.

www.pioneer???.com – picture of the space shot rocket that Bruce is involved with. (*Editor's note: go to [ww.the-rocketman.com](http://www.the-rocketman.com) for pictures and more information*).

Arley shows how North Coast Rocketry tubing is too small for Aerotech 29mm motors. Replace with LOC tubing. At this time, it appears that all NCR stuff has been discontinued. Arley shows that it is important to scrape the gloss off of Estes tubing if you want good adhesion.

Derek Davis is part of the Mars Society which is supportive of space exploration, but in particular the planet Mars (www.marssociety.org). Conveys the possibility of going to Mars for as little as \$20 billion compared to NASA's \$400 billion plus proposals. Key is gathering fuel and resources from Mars itself.
Recommended reading: *Case for Mars* and *Entering Space*.

Kevin Trojanowski got himself a Blacksky Altac altimeter. Purchased Dale Miller's Warlock and is fiberglassing it (had to sand down a lot of paint, though).

Meeting adjourned at 21:08.

Nebraska Heat Photo Gallery Part 2

Doh! I ran out of room for Part 2 of the photo gallery. I'll try to get some more in next issue. Here's Bruce with *Super Mario* and it's M1315 powered flight:



Bruce Lee with his *Super Mario*. This would be this rocket's third M flight in three years.



As *Super Mario* himself would say, "Here we goooooooooo!!!"

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The Heartland Organization of Rocketry ("THOR") is an officially sanctioned section, #562, of the National Association of Rocketry (NAR).

Tripoli Nebraska #46 is an official Prefecture of the Tripoli Rocketry Association, Inc.

If you are interested in joining The Heartland Organization of Rocketry (T.H.O.R.) simply fill out an application and mail it to:

T.H.O.R.
6211 South 141 St.
Omaha, NE 68137

Meetings are held the first Tuesday of each month, 7:00PM at the LaVista Community Center at 8116 Parkview St, La Vista NE (turn east at the Sinclair Gas Station on 84th St.). Visitors are welcome to attend. For club launch time, launch location or general information call The Heartland Organization of Rocketry at 402-896-2069. THOR strictly follows the safety guidelines set forth by the National Association of Rocketry and Tripoli Rocketry Association, Inc.

For more information call The Heartland Organization of Rocketry at 402-896-2069 and leave a voice mail that will be returned in a few days.

T.H.O.R Membership Application

Personal information

Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Phone Number: _____

Email Address: _____

Hobby information

How long have you been involved in Rocketry? _____

Are you a member of a national Rocketry Organization:
NAR# _____ TRA# _____ NERO# _____

Rates (1/2 year memberships divide by 2 and add \$1)

Family membership - \$36

Senior (18 and up) - \$24

Junior (under 18) - \$12

Correspondence - \$10

(people over 50 miles from Omaha)

Newsletter only - \$6

(6 issues per year)

**Membership in The Heartland
Organization of Rocketry is open to
all interested parties.**

I agree to comply with the THOR policies as pertains to the safety guidelines set forth by the NAR and Tripoli. Failure to do so is grounds for expulsion.

Signature _____

Dated: _____