



T.H.O.R.

The Heartland Organization of Rocketry



December 2002

Volume 9 Number 7



Fat Boy drag race at the August 18th sport launch at the La Vista Sports Complex.

Winter Meeting Schedule

Tuesday December 3rd and Tuesday January 7th. Each meeting will start at 7:00 PM at the La Vista Community Center.

December 2002 Calendar

December

Event: Christmas Party.

When: Friday the 6th.

Where: Denis Gilbert's house.

Fee: Free... but make sure to bring food and drinks.

Description: THOR's annual Christmas party!

For More Information: Final details for the party will be determined ahead of time. A map for directions to Denis' house is posted on the THOR web site.

Event: Low Power Launch.

When: Sunday the 8th, Noon to ?

Where: La Vista Sports Complex.

Fee: Free.

Description: Low power sport flying.

For More Information:

Election 2002

Below is the list of candidates for THOR's officer positions. The election will be at the December 3rd meeting at the La Vista Community Center. For Tripoli Nebraska related positions, only THOR members with active memberships within this organization will be allowed to vote. All other positions may be voted by any and all active THOR members.

For THOR members unable to attend the December meeting, please e-mail (rcburney@cox.net) or phone (402-553-5816) in your vote to me before December 3rd.

If anyone else wants to run, please let me know.

THOR President:

Bruce Lee

Vice President:

Arley Davis or Greg Rothman

Secretary (THOR and Tripoli Nebraska):

Richard Burney

Treasurer:

Larry Drake

Tripoli Nebraska Prefect:

Kevin Trojanowski

La Vista Sport Launch – August 18th

Article and pictures by Richard Burney

Here are a few pictures from the August sport launch at the La Vista sports complex off of Harrison Street. It was cloudy, but otherwise a pleasant mid-August day for flying rockets! The Estes Fat Boy drag race on the cover was also from the launch.



An Estes Big Daddy belonging to Kevin Trojanowski in the first split second of flight.



Scott Chaffin and Greg Rothman are ready to do some flying! At least one of the Big Bertha's in Scott's collection is configured like the 3-motor-clustered Ranger of 1960's vintage.

Offutt 2002 Air Show

August 24th - 25th

Article and pictures by Richard Burney

Using Offutt Air Force Base's annual open house/air show as a means of promoting THOR has been talked about throughout the years. Thanks to a coordinator of the show, who Kevin Trojanowski happened to know, this finally became a reality just a few short weeks before this year's open house. Because of THOR's presence at the open house, we were able to expose our group to many thousands of people in attendance and we were able to gain some new members in the process. It's a good possibility that THOR will have a display at future Offutt open houses and may possibly be able to a high power demo. A special thanks goes to Offutt AFB for having THOR as its guest. A special thanks also goes to all THOR members who helped run the display.



THOR had a two-tent display during both days of the open house. Bruce Lee's Bomb Pop drew attention from all over the tarmac!



The Offutt 2002 Air Show turned out to be a great way for THOR to promote itself to the entire Omaha metropolitan area.



Though THOR did not fly any rockets at the show, high power rocketry was present! The Navy Blue Angel's C-130 Hercules ("Fat Albert") did a JATO rocket takeoff both days of the show.



Numerous combat aircraft belonging to all branches of the armed forces (along with some foreign aircraft) were present either on static display or in the air. One such example was this Boeing (McDonnell Douglas) F-15C Eagle.



The Lockheed Martin F-117A Nighthawk. Though the F-117's design and basic stealth technology (the radar absorbent materials are newer) are over 20 years old, it is still a highly classified piece of machinery. Two layers of security rope and several M-16 armed guards stood in the way of anyone trying to get too close.

THOR High Power Launch Pickrell, NE – September 14th

Article and pictures by Richard Burney

Weather wise, the September 14th high power launch at the Pickrell site was not too eventful; a high in the 70's, mostly overcast with some occasional breaks in the clouds, and a 10-15 mile wind from the north (typical early fall weather). But for some odd reason, many flights were plagued with some sort of hang up ranging from early motor ejections to tangled parachutes. The few pictures that I took were of Mark Havel's large rocket's flight.



Mark Havel's rocket, though standing only about 42 inches tall, has the distinction of being one of the widest (13 inches) ever flown at a THOR launch. The nose cone was from a garbage can lid!



Mark flew his rocket on a Pro38 I285. Since the rocket weighed about 15 pounds, the I285 took the rocket up to only about 200 feet.



Mark's rocket took a hard landing, but will fly again!

Amateur Rocketeers Regroup After Booster Explodes

By Leonard David - Senior Space Writer (posted: 03:30 pm ET 25 September 2002)

A homebuilt rocket designed to be the most powerful and sophisticated amateur rocket to nose its way into space blew apart shortly after liftoff last week.

The Civilian Space eXploration Team (CSXT) rocket was launched from a remote site in the Nevada desert on Sept. 19. The SpaceShot 2002 Primera craft was billed as a high-speed assault on space, using a powerful solid-propellant motor built to push the vehicle to more than five times the speed of sound in just 15 seconds. Instead it flew into pieces, spewing debris across the desert.

The vehicle carried an array of sensors and other gear, such as Global Positioning System (GPS) satellite antennas and receivers, transmitters, color camera, data recorders and event-timing computers. Live color video was to be transmitted from the rocket throughout its flight.

The launch was scrubbed several times early last week due to too much cloud cover, ground winds or high-speed winds above the site.

An early morning clear and calm day on Sept. 19 led to the rocket's countdown and liftoff.

"The launch was spectacular and the rocket was performing as planned," said Eric Knight, CSXT project co-leader and avionics team manager. "However, the rocket experienced motor failure during the flight and the flight was terminated."

Recovery options were initiated after the failure, with some payload items recovered intact, according to a witness at the launch. While the exact cause has yet to be determined, initial speculation centered on a burn through of the rocket motor's casing.

Another SpaceShot rocket was flown in September of 2000. That vehicle also failed to reach space. It was buffeted by wind shear at high altitude, ripping off one fin with the rocket then busting itself up.

"This is just a beginning of a wonderful journey of civilians directly participating in the exploration of space. We're very close to accomplishing what many thought impossible. The challenge and excitement has just begun. Stay tuned," Knight said. "Additional details will be provided as they become available."

La Vista Sport Launch – October 13th

Article and pictures by Richard Burney

One of the last low power launches of the year turned out to be a nice, sunny day with a slight amount of wind. The kites that were being flown on the north side of the field as part of some demonstration were tempting targets (just kidding!). Hopefully, the weather will cooperate for a launch on December 8th.



Cole Skiba with his Vaughn Brothers Stretched Blobo. Motor for this flight was a D12.



(Left to right) Eric and Larry Kopiasz with the B6-4 powered "Magnum Force".



Cole and friend launch his Stretched Blobo.



Eric launches "Magnum" into the clear, fall sky.

THOR Meeting Minutes: September/October 2002

Compiled by Richard Burney, Secretary

THOR Meeting Minutes 9/3/02

Attendance: Richard Burney, Arley Davis, Jeff Moon, Denis Gilbert, Kevin Rich, George Wimmer, Andrew Wimmer, Ann Wimmer, Greg Rothman, Dave Pares, Larry Drake, Bruce Lee, Kevin Trojanowski, and Kathy Davis.

Meeting starts at 19:20.

Bruce talks about the *Bomb Pop's* flight at AIRFest on Sunday (two days earlier). A cluster of two M1315's took it up to 3,500 feet. The 9 foot diameter secondary chute opened, but the main 16 foot diameter chute got caught in its deployment bag. The resulting landing was quite hard and resulted in two busted fins (out of six) and a fair amount of damage to the rest of the airframe. Bruce estimates that it will take about 80 hours or more of labor to fix.

In light of the *Bomb Pop's* hard landing, Bruce shows what caused the hang up. When packing the main chute's deployment bag, Bruce had wrapped the remaining shroud lines around the bag to help keep the chute from popping out. At ejection, the shroud lines tangled preventing the chute from coming out.

Redstone planning meeting is tentatively scheduled for Tuesday, September 10th at Bruce's house (*Editor's note: the meeting has now been postponed to a later date*).

Next CSXT space shot attempt will take place out at Black Rock, NV sometime after September 15th.

The government offices of Clark County, NV has released a report against AeroTech in order to smear AeroTech's reputation in light of AeroTech's lawsuit against the Clark County's fire department apparent mishandling of the fire at AeroTech's plant last October and the mishandling of related paper work.

Larry discusses the developments on THOR acquiring part of Elmer Harm's government set aside land for a good chunk of the remaining decade. A "party" may be held sometime in October to lay down a concrete driveway out to where we usually set up our pads.

Dave Pares passes around some pictures of the most recent work he has done on his *Bluebird* Level 3/proof-of-concept vehicle and discusses the project in general. Dave also shows a tape he recorded showing the project where it currently stands.



Bill Richardson and his D12 powered Fat Boy.

Blast from the Past!!!

By Richard Burney

During the last decade, THOR, whether it be in the form of Tripoli Nebraska, the Omaha Rocket Club (ORC), or how it exists today, has built quite a bit of heritage. During my seven plus years within this group, I have taken hundreds of pictures at many of THOR's events and projects. I know that other members have, too.

Just recently, I bought myself a scanner for my computer. In the months ahead, I plan on scanning in many of the pictures that I took in my early years within this group. This way, I hope to present a window to the past for the newer members who have joined within recent years. This will also be a way of preserving THOR's heritage.

If anyone has pictures, regular or digital, of THOR events (launches, shows, etc.) from before 2000, that they are wanting to submit for the newsletter, please let me know. In the case of Bruce Lee, Tony Cochran, and any other THOR member involved with Tripoli Nebraska back during the early 1990's, I would really like to see what you guys got!

George, Andrew, and Ann Wimmer are introduced to the group. The Wimmers saw our display at the Offutt Open House a few weeks earlier.

Kevin Trojanowski talks about the raffle that Tripoli is running to raise money for the legal defense fund against the BATF. Kevin's wife, Debra, is now a contributing editor to *Extreme Rocketry* magazine.

Kevin Rich talks about THOR's display at the Offutt Open House. Thanks to Kevin Trojanowski's contact at Offutt, we were given the okay for the display about two weeks before the show. Besides having a display at future Offutt Open Houses, we are also hoping to have a high power demo.

Jeff Moon had missed out on attending LDRS at the last minute due to his sister being diagnosed with cancer. Our thoughts and prayers go out to the Moon family.

Necia Doreen Davis was born to Candy Davis over a week ago. Congratulations, Candy!

Rich Burney passes around the work he has done on his Ground Zero *Air-Oh!* rocket. Passes around pictures he took at Nebraska Heat V, the Offutt Open House, and other recent events.

Meeting adjourned at 21:50.

THOR Meeting Minutes 10/1/02

Attendance: Bruce Lee, Richard Burney, Jeff Moon, Arley Davis, Candy Davis, Necia Doreen, Davis, Shaun Landgraff, Cornell, Greg Rothman, Kevin Trojanowski, George Bovard (and family), and Jon Damme.

Meeting starts at 19:20.

Bruce shows some flights on tape from the Balls launch in late September (Bruce recorded them for Ky Michaelson for a future Rocketman tape).

Bruce shows pictures from the June CSXT space shot attempt and pictures from LDRS (mainly from Nadine Kinney).

Bruce and Larry recently staked out the area of Elmer Harms' set aside land that THOR wants to develop.

Bruce shows the remains of the P12,500 from our Redstone's flight attempt three years ago. The motor for the July 2003 attempt will be a P10,000 (a smaller per-second average thrust, but an overall more powerful P class motor) made by Rick Loehr. Since four of these motors have been made by Rick to date (first two catoed, but the second two worked perfectly), we will be using a proven design this time when the Redstone is flown.

Jon Damme shows a portable multi-shelf organizer which may be useful at one's work bench or out in the field.

George Bovard and family are introduced to the club. The Bovards found out about THOR as a result of THOR's display at the Offutt air show.

Kevin Trojanowski believes the voltage going through the igniter may have fried his altimeter on *Lusty Corn Maider's* Level 3 flight at LDRS, causing the premature ejection.

The Tripoli board of directors have okayed an official raffle for Tripoli to help raise money for the legal defense fund against the BATF and Tripoli's functions in general.

The next issue of *High Power Rocketry* will be arriving in the hands of most members within a week with another issue following soon afterwards.

Candy introduces her daughter Necia Doreen to the group.

Arley shows the Estes re-release of the classic Orbital Transport which he recently got.

Jeff Moon picked up a Launch Pad AGM-65 Maverick for 25% off at HobbyTown recently. Jeff had just picked up today the new Estes kit, the MaxTrax. The MaxTrax is a starter set rocket which has a crude altimeter! The "altimeter" is basically a timer which is set off by a simple motion switch which cuts out when the altimeter nose section separates from the rocket at ejection. But for what one gets for about \$24, it appears to be a good deal and a rough, yet simple way of estimating a rocket's altitude. Jeff also shows the insides of a cat light-up toy which has its lights activated by a similar motion switch.

Rich Burney shows off the November newsletter. Due to the recent amount of materials and to get caught up, Rich (me!) decided to make a separate November and December newsletter. Rich also shows the BATF's latest newsletter in which an article appears showing that the BATF is trying to jerk around the rocketry community by saying that Easy Access motors require an LEUP for buying, storage, and usage.

The LDRS schedule for the next three years is as follows:

LDRS XXII will be in Argonia, KS July 17th-22nd next year.

LDRS XXIII will probably be in a southwestern state.

LDRS XXIV (2005) will be the first one in Canada.

Meeting ends 21:00.

CLUB OFFICERS

PRESIDENT - Bruce Lee

Phone Number: (402) 691-8420

E-mail: bruce.lee@tripoli.org

VICE PRESIDENT - Arley Davis

Phone Number: (402) 346-7566

E-mail: arleydavis@uswest.net

TREASURER - Larry Drake

Phone Number: (402) 895-1583

E-mail: LarryDrake@tconl.com

SECRETARY - Richard Burney

Phone Number: (402) 553-5816

E-mail: rcburney@cox.net

TRIPOLI NEBRASKA PREFECT - Kevin Trojanowski

Phone Number: (402) 292-4101

E-mail: troj@cox.net

NAR SECTION #562 LEADER - Bruce Lee

NEWSLETTER EDITOR - Richard Burney

THOR on the Super Information Highway!

TRIPOLI NEBRASKA WEB PAGE
www.tripoli.org/tra_ne/nebraska.htm

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

What is THOR?

The Heartland Organization of Rocketry (THOR) is both an officially sanctioned prefecture of the Tripoli Rocketry Association (Tripoli Nebraska #46) and is an officially sanctioned Section (#562) of the National Association of Rocketry. THOR conducts low through high power model rocket activities through out the year. THOR strictly adheres to the safety guidelines that have been established by the NAR and Tripoli.

When and where does THOR meet?

Meetings are usually held the first Tuesday of the month at 7:00 PM (different days or times will be announced in advance) at the **La Vista Community Center at 8116 Parkview St., La Vista, NE** (turn east at the Sinclair Gas Station on 84th St. and go a block east). Visitors are welcome to attend.

For additional information...

For club launch times, launch locations, or for those with additional questions call THOR at (402) 896-2069 or 1-888-546-0396 (there is a voice mail option at the end of the message). Interested parties may also write their inquiries to the address to the right and are also welcome to contact any of THOR's officers.

THOR Membership Application

Personal Information

Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Phone Number: _____

E-mail: _____

Hobby Information

How long have you been in model rocketry: _____

Do you belong to a national rocketry organization (enter your number to the applicable organization):

NAR# _____ TRA# _____ NERO# _____

Are you certified for high power rocketry (check mark your applicable TRA or NAR Certification Level):

Level 1 _____ Level 2 _____ Level 3 _____

Membership Rates

½ year memberships will divide by 2 and add \$1. Write your check payable to "The Heartland Organization of Rocketry" or "THOR". Mail it to the below address or pay at the next meeting.

Family Membership - \$36

Senior Membership- 18 and over - \$24

Junior Membership - Under 18 - \$12

Correspondence Membership - \$10

(Members over 50 miles from Omaha)

Newsletter Only (6 issues a year) - \$6

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

Signature: _____

Dated: _____

The Heartland Organization of Rocketry
6211 South 141st St.
Omaha, NE 68137

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