



# T.H.O.R.

## The Heartland Organization of Rocketry



March/April 2003

Volume 10 Number 2



In memory of Space Shuttle Columbia's final crew, STS-107. Front row (L-R): Col. Rick Husband (USAF-Mission Commander), Dr. Kalpana Chawla, Comm. William McCool (USN-Pilot). Back row (L-R): Captain David Brown (USN), Commander Laurel Clark (USN), Lt. Col. Michael Anderson (USAF-Payload Commander), Col. Ilan Ramon (IAF – first Israeli in space).

## Spring Meeting Schedule

Tuesday March 4<sup>th</sup>, Tuesday April 1<sup>st</sup>, and Tuesday May 6<sup>th</sup>. Each meeting will start at 7:00 PM at the La Vista Community Center.

## March/April 2003 Calendar

*Full Calendar on Page 3*

## **President Addresses Nation on Space Shuttle Columbia Tragedy**

*George W. Bush addresses the nation, 2:04 PM Est., February 1<sup>st</sup>, 2003*

My fellow Americans, this day has brought terrible news and great sadness to our country. At 9:00 a.m. this morning, Mission Control in Houston lost contact with our Space Shuttle Columbia. A short time later, debris was seen falling from the skies above Texas. The Columbia is lost; there are no survivors.

On board was a crew of seven: Colonel Rick Husband; Lt. Colonel Michael Anderson; Commander Laurel Clark; Captain David Brown; Commander William McCool; Dr. Kalpana Chawla; and Ilan Ramon, a Colonel in the Israeli Air Force. These men and women assumed great risk in the service to all humanity.

In an age when space flight has come to seem almost routine, it is easy to overlook the dangers of travel by rocket, and the difficulties of navigating the fierce outer atmosphere of the Earth. These astronauts knew the dangers, and they faced them willingly, knowing they had a high and noble purpose in life. Because of their courage and daring and idealism, we will miss them all the more.

All Americans today are thinking, as well, of the families of these men and women who have been given this sudden shock and grief. You're not alone. Our entire nation grieves with you. And those you loved will always have the respect and gratitude of this country.

The cause in which they died will continue. Mankind is led into the darkness beyond our world by the inspiration of discovery and the longing to understand. Our journey into space will go on.

In the skies today we saw destruction and tragedy. Yet farther than we can see there is comfort and hope. In the words of the prophet Isaiah, "Lift your eyes and look to the heavens. Who created all these? He who brings out the starry hosts one by one and calls them each by name. Because of His great power and mighty strength, not one of them is missing."

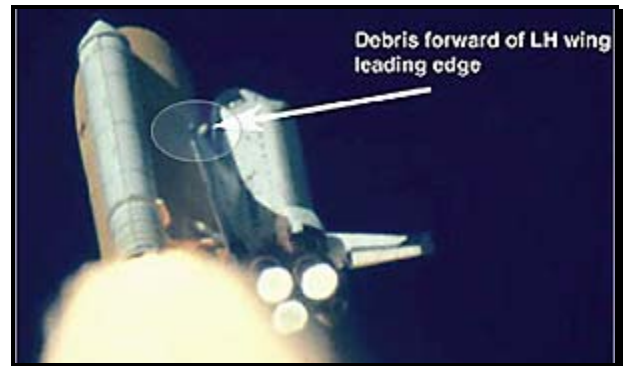
The same Creator who names the stars also knows the names of the seven souls we mourn today.

The crew of the shuttle Columbia did not return safely to Earth; yet we can pray that all are safely home.

May God bless the grieving families, and may God continue to bless America.



**Columbia lifts off for the last time on January 16<sup>th</sup>, 2003. (Associated Press)**



**About 80 seconds into flight, a piece of hard foam insulation broke off from the main fuel tank, striking Columbia's left wing. Damage possibly caused to the wing's leading edge and heat-resistant tiles is a lead suspect among several theories in what caused Columbia's destruction 16 days later. (AP)**



**Columbia disintegrated upon reentry at an altitude of 200,000' and a speed of 12,500 MPH with the majority of debris landing in eastern Texas. (AP)**

## THOR 2003 Events Calendar

Compiled by Richard Burney, Secretary

Below is the calendar for the THOR 2003 flying season. As the year progresses, I will continue to update the calendar to reflect all changes, additions, and/or subtractions. If you have any questions, contact either Bruce or myself.

### March

**Event:** Annual THOR Auction.

**When:** Tuesday the 4<sup>th</sup>, 7:00 to 10:00 PM.

**Where:** La Vista Community Center.

**Description:** THOR's annual auction where members can auction off and bid on rocketry related goods... it's eBay the old fashion way! 10% of the money made from each member's auction, unless arranged differently, will go to the club.

**Event:** Low Power Launch.

**When:** Sunday the 9<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** NARCON.

**When:** Friday the 14<sup>th</sup> through Sunday the 16<sup>th</sup>.

**Where:** San Diego, CA.

**Description:** NAR's annual convention.

**For More Information:** Go to [www.narcon2003.org](http://www.narcon2003.org).

**Event:** High Power Launch.

**When:** Saturday the 22<sup>nd</sup>, 9:00 AM to 5:00 PM.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.

### April

**Event:** Low Power Launch.

**When:** Sunday the 6<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** Fire on the Farm VI.

**When:** Experimental day on Friday the 11<sup>th</sup>. High power commercial flying on Saturday the 12<sup>th</sup> and Sunday the 13<sup>th</sup>, 9:00 AM to 5:00 PM each day.

**Where:** Carroll, IA.

**Ceiling:** Window to 15,000 MSL every day of the week, and a waiver to 15,000 MSL all day Sunday and Monday.

**Fee:** TBA.

**Description:** This is the big annual high power launch that we have conducted in the past with the Iowa Society Of Amateur Rocketeers (I-SOAR).

**For More Information:** Go to THOR's website. More details of the launch will be hammered out in the next two months.



Mike Kirkpatrick and his K1100(!) powered Minie Magg at FOTF V. Nice Magg! (Richard Burney)

### May

**Event:** Low Power Launch.

**When:** Sunday the 4<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** High Power Launch.

**When:** Saturday the 17<sup>th</sup>, 9:00 AM to 5:00 PM.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.

**Event:** National Sport Launch.

**When:** Saturday the 24<sup>th</sup> through Monday the 26<sup>th</sup>.

**Where:** Clarks Summit, Pa.

**Description:** NAR's annual sport launch.

**For more information:** Go to [www.nepra.com/nsl](http://www.nepra.com/nsl)

### June

**Event:** Low Power Launch.

**When:** Sunday the 8<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** Nebraska Heat VI.

**When:** Experimental day on Friday the 13<sup>th</sup>. High power commercial flying on Saturday the 14<sup>th</sup> and Sunday the 15<sup>th</sup>, 9:00 AM to 5:00 PM each day.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** TBA.

**Description:** THOR's big annual high power rocketry get together!

**For More Information:** Go to THOR's website. More details of the launch will be hammered out in the months ahead.



Kevin Rich, a Desert Storm veteran, flew a model of an Iraqi Al-Abbas (a stretched Scud B) twice at Nebraska Heat V. (RB)

### July

**Event:** Independence Day Party.

**When:** Thursday the 4<sup>th</sup>, exact time to be determined.

**Where:** Bruce Lee's house.

**Fee:** Free... but bring your own food such as meat and chips!

**Description:** The club's annual 4<sup>th</sup> of July party.

**For More Information:** Final details will be determined before the party.

**Event:** Low Power Launch.

**When:** Sunday the 6<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** LDRS XXII.

**When:** High power commercial flying from Thursday the 17<sup>th</sup> through Sunday the 20<sup>th</sup>. Experimental flying from Monday the 21<sup>st</sup> through Tuesday the 22<sup>nd</sup>.

**Where:** Argonia, KS.

**Description:** Large and Dangerous Rocket Ships number 22! This is TRA's big national high power launch of the year.

**For More Information:** Go to [www.ldrs22.org](http://www.ldrs22.org).

### August

**Event:** NARAM 45.

**When:** Saturday the 2<sup>nd</sup> through Friday the 8<sup>th</sup>.

**Where:** Evansville, IN.

**Description:** NAR's week of model rocketry competition. Typically there is a lot of sport and some high power flying, too.

**For More Information:** Pending.

**Event:** Low Power Launch.

**When:** Sunday the 10<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** High Power Launch.

**When:** Saturday the 23<sup>rd</sup>, 9:00 AM to 5:00 PM.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.

**Event:** AIRFest IX.

**When:** High power commercial flying from Friday the 29<sup>th</sup> through Sunday August 31<sup>st</sup>. Experimental flying on Monday September 1<sup>st</sup>.

**Where:** Argonia, KS.

**Description:** This is the awesome high power launch held each year by the Tripoli Kansas Prefecture. The Kloudbusters have a very excellent field to fly from and this site has been used for several LDRS's. Many members from THOR have attended the AIRFest launch in the past.

**For More Information:** Go to [www.kloudbusters.org/airfest.html](http://www.kloudbusters.org/airfest.html).

### September

**Event:** Low Power Launch.

**When:** Sunday the 7<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying. This may also be the date for John Carroll's Field of Wing's event which will be held in conjunction.

**For More Information:**

**Event:** High Power Launch.

**When:** Saturday the 14<sup>th</sup>, 9:00 AM to 5:00 PM.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.

**Event:** Balls 2003

**When:** Friday the 21<sup>st</sup> through Sunday the 23<sup>rd</sup>.

**Where:** Blackrock, NV.

**Description:** The big national experimental high power rocket launch of the year!

**For More Information:** Go to [www.ahpra.org/b2k.html](http://www.ahpra.org/b2k.html)

### October

**Event:** Low Power Launch.

**When:** Sunday the 5<sup>th</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** High Power Launch.

**When:** Saturday the 18<sup>th</sup>, 9:00 AM to 5:00 PM.

**Where:** Pickrell, NE.

**Ceiling:** Our standing waiver is 10,000 MSL (8,650 AGL) for the majority of the day, with a window to 15,000 MSL (13,650 AGL) from 1PM - 3PM.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.



Scott Weihe with his PML Callisto at the last launch at the Pickrell site in October last year. (RB)

### November

**Event:** Low Power Launch.

**When:** Sunday the 2<sup>nd</sup>, Noon to ?

**Where:** La Vista Sports Complex.

**Fee:** Free.

**Description:** Low power sport flying.

**For More Information:**

**Event:** High Power Launch.

**When:** Saturday the 15<sup>th</sup>, 9:00 AM to 5:00 PM.

**Where:** Carroll, IA.

**Ceiling:** Window to 15,000 MSL every day of the week, and a waiver to 15,000 MSL all day Sunday and Monday.

**Fee:** \$5.

**Description:** Mainly a high power event, but regular model rockets are flown, too.

**For More Information:** Check the rocketry hotline (1-402-896-2069 or 1-888-546-0396) for any delays or cancellations if weather looks questionable.

### December

**Event:** Christmas Party.

**When:** Friday the 5<sup>th</sup> (tentative).

**Where:** Denis Gilbert's house (tentative).

**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.

## THOR Meeting Minutes: January/February 2003

Compiled by Richard Burney, Secretary

### THOR Meeting Minutes 1/7/03

Attendance: Doug Buhrman, Bruce Lee, Richard Burney, Arley Davis, Jacob Davis, Kevin Trojanowski, Greg Rothman, Rick Bosworth, Kevin Rich, Doug Holverson, and Dave Pares.

Meeting starts at 19:15.

Bruce Lee and the group go over the 2003 calendar (*Editor's note: full calendar is listed in detail elsewhere in the newsletter*).

Bruce passes around the latest issue of the *Tripoli Report*. It is now set up in a mini-magazine format with the cover and inner two pages in a glossy finish.

Dave Pares is recovering from prostate cancer surgery. Prognosis is good. Dave talks about the current status of his *Bluebird* project (plans on flying the scaled down version at LDRS with Rob Skiba controlling the flight). Dave passes around a copy of Jay Miller's book, *The X-Planes: X-1 to X-45* (*Editor's note: awesome book!*)

Doug Holverson shows his *Swinger 2* (which may see production depending on the future of Holverson Design) and a simple boost glider. Doug shows some additional artwork that he has done for John Carroll's book on the German A-9/A-10.

Both Rick Bosworth and Greg Rothman received Estes Saturn V's from their wives for Christmas.

Kevin Trojanowski shows his all-fiberglass (G-10) rocket he is building (the nose cone, body tubes, fins, EVERYTHING are fiberglass). Kevin shows a monocoiler kit (by Alien Enterprises) he recently built. It is designed for 24mm motors.

Arley Davis passes around some printouts of new Estes and other kits. Arley passes around pictures taken by Nadine Kinney of Candy and her *Witch Candy* (which was an upscale of the old Estes Zoom Broom) at LDRS XVIII. Arley is close to finishing the repairs on his Pterodactyl.

Richard Burney shows some large cast-steel eye bolts which he found at a local Lowe's. Unlike regular eye bolts, these would not come apart at higher stress levels.

Contests for the 2003 calendar will be determined at the February meeting.

Tripoli Raffle is held.

The Super Bowl party at Ky Michaelson's home will be on Sunday the 26<sup>th</sup>, but there will be other activities in conjunction with the party all weekend.



A scene from a past Ky Michaelson Super Bowl party weekend: a K550 powered Bruce Lee!



Whooooosshhh!!!

Meeting adjourned at 21:00.

### THOR Meeting Minutes 2/4/03

Attendance: Richard Burney, Rick Bosworth, Rich Hawes, Jeff Moon, Arley Davis, Jacob Davis, Cornell, Rob Skiba, Dave Pares, Allyson Pares, Mike Slater, Kevin Rich, Bruce Lee, Andrew Wimmer, George Wimmer, Greg Rothman, Kevin Trojanowski, Larry Drake, Doug Holverson, and Bill Richardson.

Meeting starts at 19:22.

Fire on the Farm VI is a go for Friday April 11<sup>th</sup> – Sunday the 13<sup>th</sup>. Bruce plans on flying an experimental N motor. Mark Uhlenkamp has arranged for the banquet to once again be at the Knights of Columbus hall in Carroll, IA.

Annual THOR auction is a go for the March meeting.

Last hearing for the BATF lawsuit coming up in a few weeks (both sides will present their points one last time). The judge's decision could come as soon as March.

Dave Pares presents some *Bluebird* related materials and pictures. Dave has built another small scale replica (about 15" long) of it, this time made of hard insulation foam. It is designed to be flown on model rocket motors...the larger *Bluebird* proof-of-concept vehicle will be flown using an M and will glide in via remote control

(not only will this be a test of the full scale *Bluebird's* basic design, but also Dave's Level 3 Cert.). Dave recently acquired a number of books about Robert Goddard, one of which was a compilation assembled by Esther Goddard. Dave also has a copy of the *Spaceship Handbook* which is an awesome book detailing many sci-fi and fantasy rocket ships.

Treasurer's Report: THOR's use of Elmer Harm's land goes through 2009. After paying off I-SOAR and other bills, THOR's bank account is down to \$100.33. Since no dues were collected at the January meeting, that is why we are short.

As previously announced, Larry Drake will attempt to break the cluster record he set back in 1997 (269 A10's successfully lit and flown). This time the cluster will be 303 Estes D12's or D11's! The rocket will have a 24" base and will stand 16' tall. The 303 motors will be in 7 clusters.

Footage shot by First Television (*Battlebots*) at LDRS XXII will be edited into three separated shows that will air on the Discovery Channel in the fall. If a success, 9 additional shows could be shot. Related merchandising is possible.

Bill Richardson shows some Kevlar reinforced tubing he got recently. Bill also talks about how he got the reload case of AeroTech's M845 off of eBay for a little over \$300.

Arley Davis shows a few of the new Estes kits he recently got (the Shuttle Xpress and Screamin' Mimi). Arley has been assembling some photo albums of some of the major launches that he and his family have attended since 1997.

Rich Hawes is introduced to the group.

Rick Bosworth shows a fin jig assembly he has created (designed to mainly work with the BT-60, but other sizes of tubes can be used in it). Rick has modified an Estes Baby Bertha for 29mm motors.

Kevin Trojanowski shows a nitrous hybrid, 38mm motor design that he and another guy have been working on.

Mike Collins is no longer a motor dealer due in large part to government regulation (*Editor's note: I would like to give Mike a special thanks for the services he has provided us rocketeers throughout the years*).

AeroTech is close to being up-and-running again.

Tripoli Raffle is held. Andrew Wimmer is given the responsibility for pulling the raffle tickets.

Membership money is due from **EVERYONE!**

Meeting adjourned at 21:00.

## Blast from the Past! Pickrell, NE - September 28<sup>th</sup>, 1996

Article and pictures by Richard Burney

Here are a few pictures from our first trip down to the Pickrell, NE site almost 7 years ago!



Bruce Lee with his NCR Patriot and Big Red.



I could be mistaken, but I believe this long, skinny rocket is Bruce's Big Red.

## CLUB OFFICERS

### PRESIDENT - Bruce Lee

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### SECRETARY - Richard Burney

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### TRIPOLI NEBRASKA PREFECT - Kevin Trojanowski

Phone Number: (402) 292-4101

E-mail: [troj@cox.net](mailto:troj@cox.net)

### NAR SECTION #562 LEADER - Bruce Lee

### NEWSLETTER EDITOR - Richard Burney

## THOR on the Information Super-Highway!

<http://www.nerocketry.org/>

### 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 84<sup>th</sup> 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 toll free 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 141<sup>st</sup> St.**  
**Omaha, NE 68137**

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