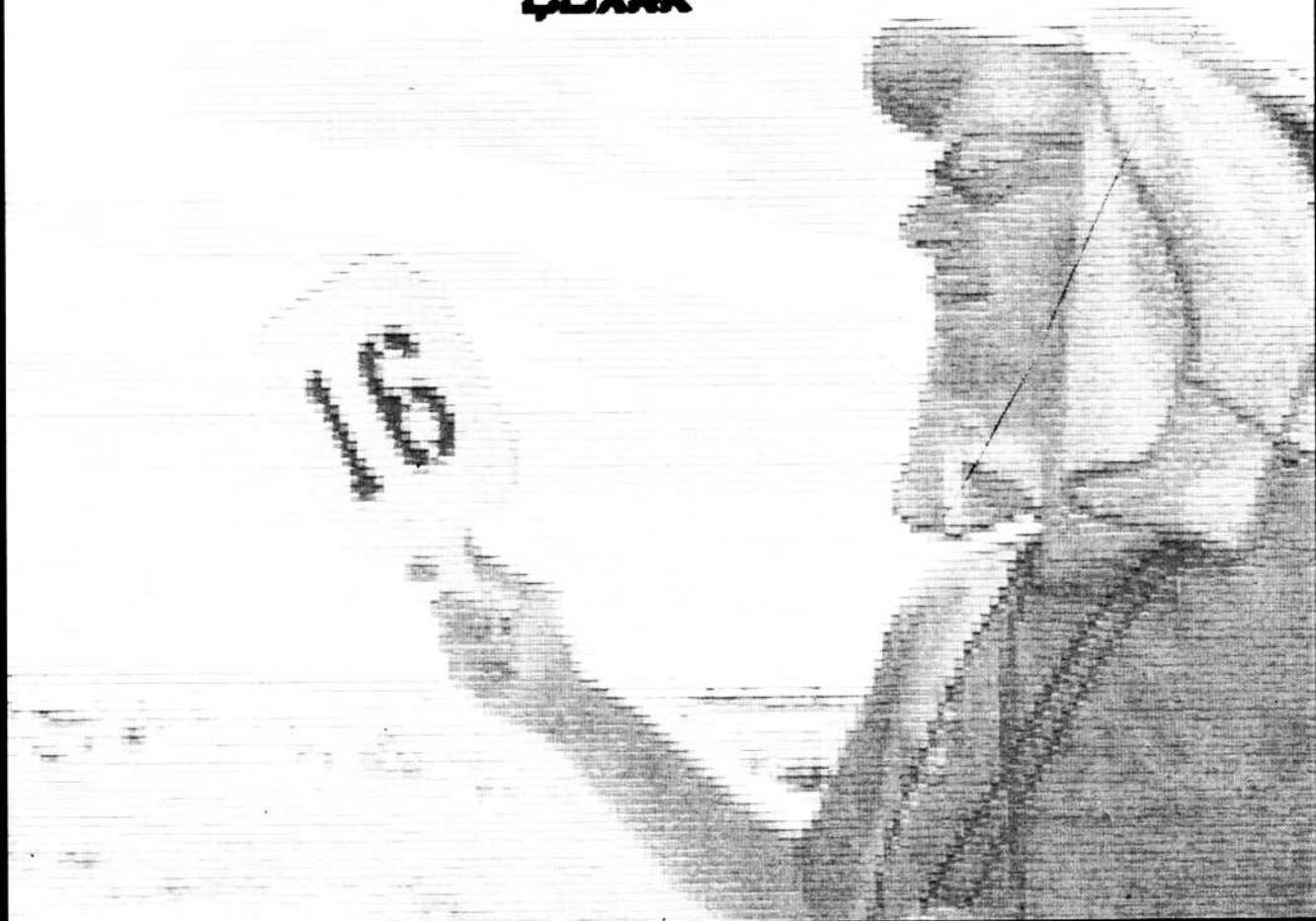


NARAM 53

July 23rd-29th, 2011

-presented by-
Queen City Area Rocket Club

5...4...3...2...1...



Welcome to NARAM 53!

We'd like to thank you for attending NARAM 53, quite possibly the first national launch put forth by a homeless club. The QUEen city Area Rocket Klub (QUARK) wound up losing our field, the site of NARAM 47, in 2008 and have not been able to hold an organized launch in over 3 years. Many of us migrated north to fly with recently chartered TORC, about 40 miles north of Cincinnati, who is also pitching in to help. To marshal up the resources necessary for NARAM, though, we've assembled a team of volunteers from all over the region-as far north as Mantua (near Ohio's north coast), as far east as West Virginia, hopping across the river to snag a few Kentuckians, and of course getting a little help from Ohio's oldest section, CSAR.

Welcome to Cincinnati, home of the flying pigs, which might explain some of our event selection. While some might argue in support of Kitty Hawk, NC, we here in southern Ohio claim the title of birthplace of aviation, since everybody knows the Wright Brothers only travelled from Dayton to Kitty Hawk to find stronger winds and to get away from snoopy reporters. Ohio's also cranked out more astronauts than any other state, including the first American to orbit Earth and the first man to set foot on the moon.

Warren County, Ohio's playground, has generously offered us the use of their sports complex for flying. It's a soccer complex with beautifully maintained grass, ample parking, and even running water and restrooms on site. We're just a couple miles from historic Lebanon OH, where Neil Armstrong settled in to farm after he was done hopping back and forth from the moon. If you're into antiquing, Lebanon has some terrific bargains, though the serious collector might be more interested in trekking about 20 miles further north to Waynesville.

On behalf of the entire NARAM 53 team, we'd like to thank you for making the trip and attending this launch. We hope you'll get a chance to kick back and have some fun this week. Sure, it's the national championships (and tryouts for the internats). Sure, you probably still have to build half your models and will be sleep-deprived for the whole week. Ultimately, though, this week is all about a bunch of like-minded geeks (99.8% harmless nerds, according to the congressional log) getting together to spend a week connecting in person, not through a social network, enjoying a week away from the office in beautiful weather, pursuing our hobby of making kid's toys perform like no one ever thought would be possible. Kick back and have some fun!



Chan Stevens

Contest Director

Table of Contents

Schedule	3
Directions to the Field	4
Field Layout	5
General Flying Range Rules	6
NARAM-53 Sport Flying Range Rules	7
NARAM-53 Contest Flying Range Rules	8
Contest Flying Range Rules continued	9
Contest Flying Range Rules continued	10
The "Best Midwest Qualified Flight" Award	11
NARAM Past Champions	13
NARAM Attendees	15
Staff list.....	17

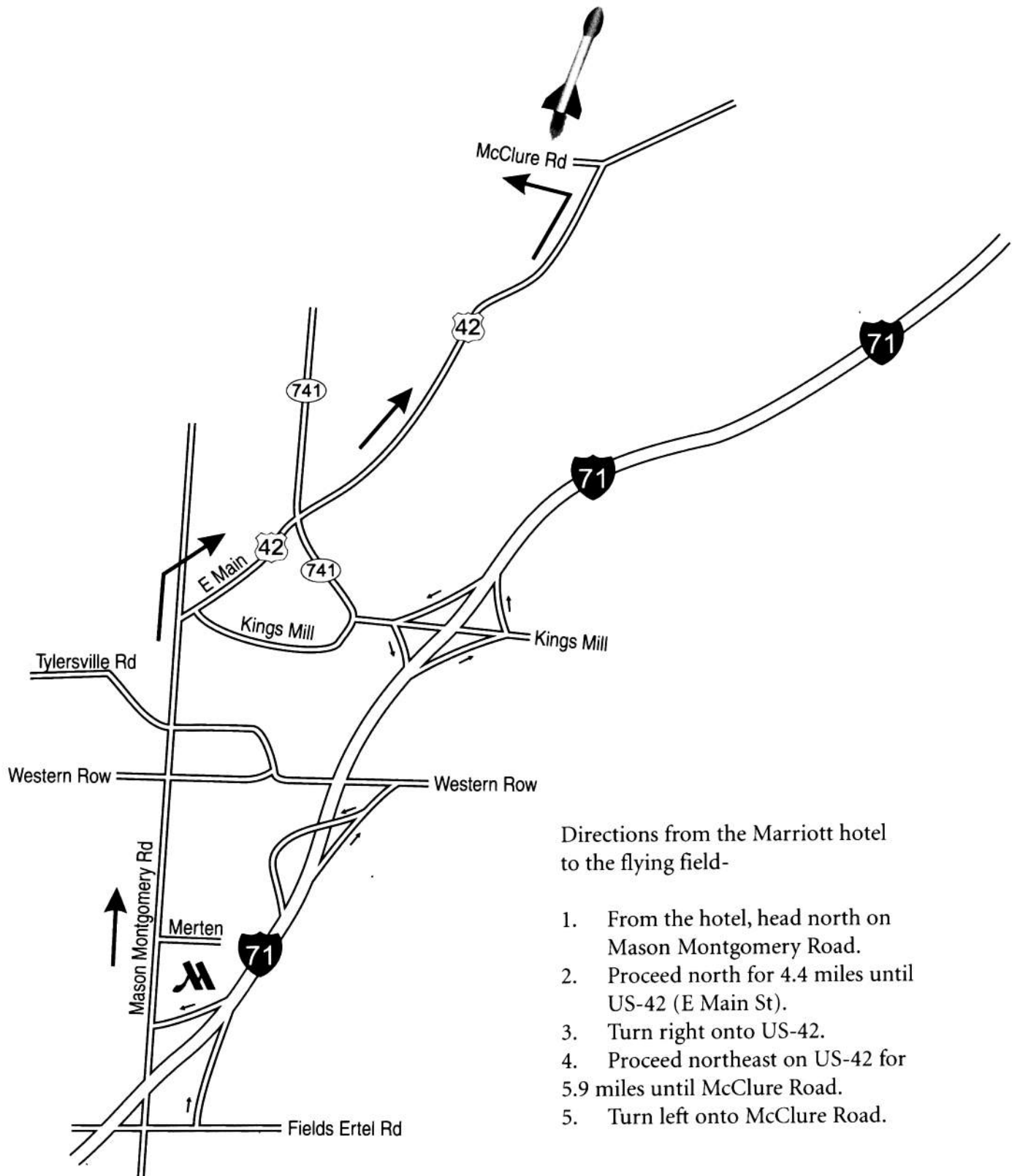


Schedule

Date.	Field Schedule		Hotel Schedule
Friday JULY 22ND	No activities at the field.	7-9 PM 8-9 PM	Registration/check-in at hotel. FAI contestants briefing at hotel.
Saturday JULY 23RD	8AM-5PM FAI Flyoffs. 8AM-4PM Sport range. 10AM-3PM On-field registration and check-in. NOON-4PM RCRG qualifying rounds.	7-9 PM 7-9 PM 9:30-10:30PM	Manufacturer's Forum. Registration/check-in. Beer Lofting (C & T div).
Sunday JULY 24TH	8AM-1PM FAI Flyoffs. 8AM-4PM Sport range. 10AM-3PM On-field registration and check-in. 1PM-4PM RCRG championship rounds.	7PM-9PM 7:30-8:30PM 8:30-9:30PM 9PM-11PM	Registration/check-in. 1 st time attendee briefing. Mandatory contestant briefing. R & D and craftsmanship turn-in.
Monday JULY 25TH	8AM-4PM Sport & contest range. 1/2A superroc duration. A helicopter duration.	8PM-10PM	NAR town hall meeting.
Tuesday JULY 26TH	8AM-4PM Sport & contest range. 1/2A altitude. 1/8A streamer duration (m/r).	8PM-10PM	Cannon fund auction.
Wednesday JULY 27TH	8AM-4PM Sport & contest range. 1/4A flex wing duration. 1PM-3PM Streamer duration flyoffs. 5PM-7PM Midweek social/dinner at the field.	8PM-10PM	R & D presentations (A/B div.)
Thursday JULY 28TH	8AM-4PM Sport & contest range. C egg loft altitude. C rocket glider duration.	8PM-10PM 8PM-9:30PM 9:30-11 pm	R & D presentations (C/T div.) Craftsmanship display/viewing. Craftsmanship pickup.
Friday JULY 29TH	8AM-2PM Sport & contest range. B scale altitude. Plastic model conversion.	5:30-6:30PM 6:30-10PM	Pre-banquet mixer. Awards Banquet.



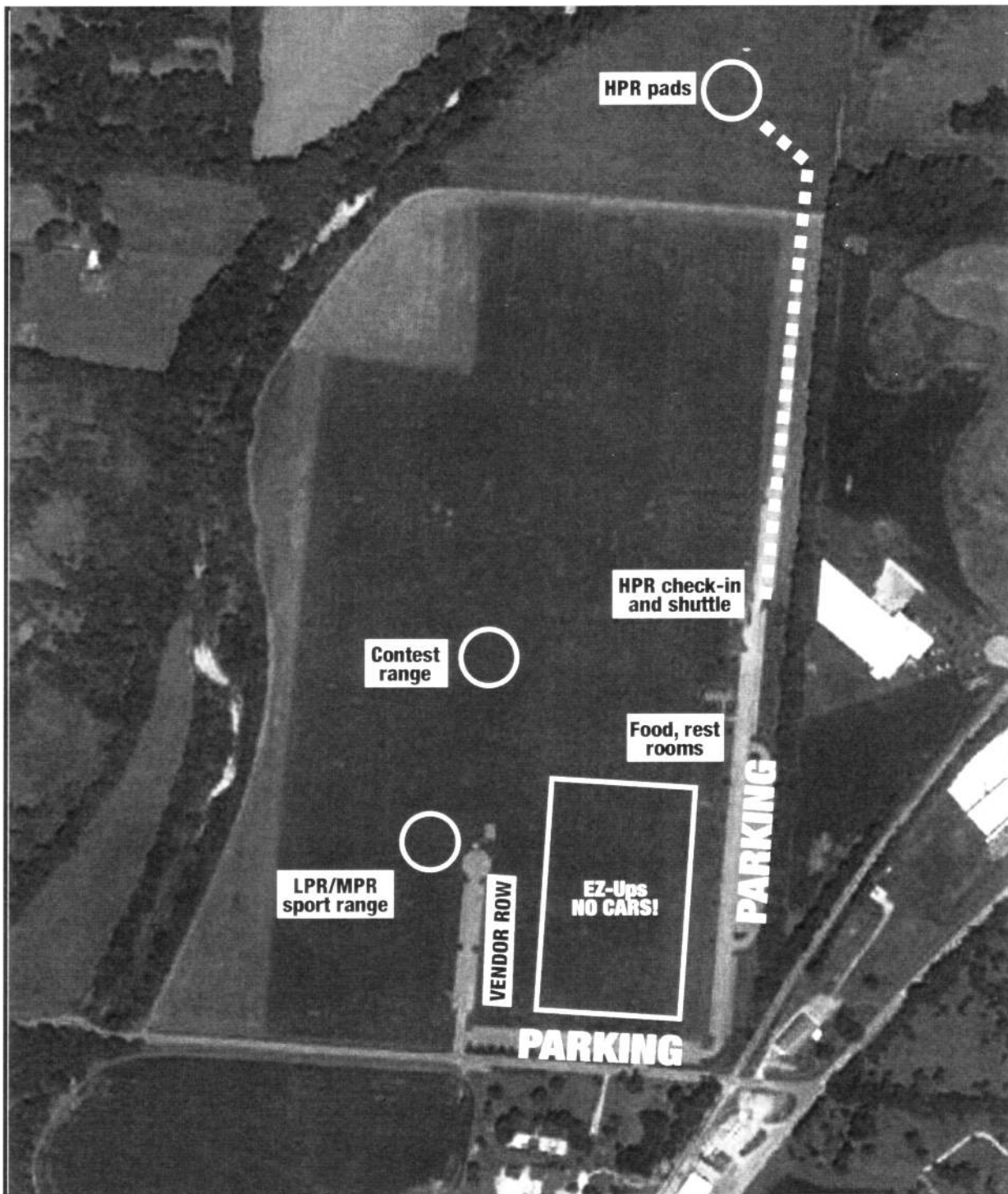
Directions to the Field



Directions from the Marriott hotel
to the flying field-

1. From the hotel, head north on Mason Montgomery Road.
2. Proceed north for 4.4 miles until US-42 (E Main St).
3. Turn right onto US-42.
4. Proceed northeast on US-42 for 5.9 miles until McClure Road.
5. Turn left onto McClure Road.

Field Layout



Parking available in paved areas to south and east of the field. EZ-ups may be set up anywhere in the southeast section of the field, though no vehicles are allowed on the grass at any time.

Note that we will have TWO sport ranges—low and mid power rockets will be launched from the southern end of the field, with check-in at the shelter house just north of vendor row. In order to meet the 1500 foot standoff requirements for HPR safety code, we have had to locate the HPR

pads on the northern end of the park. Check-in will be at the shelter house just north of the food stand and rest rooms, and golf cart shuttle service will be available to transport flyers to and from the HPR pads due to the distances from pads to vehicle parking.

General Flying Range Rules

1. The NAR Safety Codes for model rocketry, high power rocketry, and radio-control gliders will be followed for all activities at the field. The *U.S. Model Rocketry Sporting Code (USMRSC)*, or *Pink Book*, will be followed for competition flying. These codes include the following requirements:
 - No alcoholic beverage consumption by fliers on the range.
 - No smoking around high-power rocket preparation or flying areas.
 - No use of rocket motors that are not listed on the most recent *Combined Motor Certification List* published by NAR Standards and Testing.
2. The following additional local rules will be in effect:
 - No vehicles on the fields at any time (other than the NARAM golf cart shuttle).
 - No camping on the field, though limited RV parking is available on paved lots.
 - Please clean up after any pets.
 - Rocket flying is allowed only on the official range(s).
 - Sport R/C aircraft may not overfly the contest range during range hours of 8:00-4:00.
3. Contest or sport range RSO decisions on disqualification or denial of flight due to safety are final. Contest RSO decisions on other aspects of contest flight qualification may be appealed to the Contest Jury in accordance with the *Pink Book*.
4. There will be three ranges set up for rocket activities: the Contest Range, the Low/Mid Power Range, and the High Power Range. These will be the only areas from which rockets may be launched.
 - Competition flights will be flown only from the competition range.
 - Practice flights for competition models and non-competition flights may be made only from the sport ranges.
 - Gliders may be hand tossed in cleared areas, away from launch activities.
5. All radio control equipment must be operated in accordance with the Radio Control Frequency Rules.
6. Do not transmit on FRS radio channel 7, which is used for NARAM management.

NARAM-53 Sport Flying Range Rules

1. No one under age 18 or not NAR or TRA HPR certified for the motor impulse in question will be allowed past safety check-in in the direction of the high-power pads without an appropriately certified sponsor.
2. You must present your NARAM registration badge to the Sport Range staff to be allowed to fly on the sport range.
3. Igniters for high power rockets will be installed only at the pad immediately before flight. They should be brought to the safety check in desk separately from, but along with, the rocket.
 - Sensitive igniters (such as *electric match* and *flash bulbs*) must be shorted until hooked up to the range launch control systems at the pad.
 - Electronically-triggered ejection charges or upper-stage ignition systems must also be shorted or disconnected until the rocket is at the pad.
 - Continuity checks on igniters that are installed in high power motors may only be made through the range launch control systems, after the rocket is at the pad, pointed upward, and ready to be flown.
4. No high-power rockets may be launched at angles that would cause them to fly over the contest range or spectator area.
5. All high power flyers should be prepared to demonstrate the location and correct orientation of the Center-of-Pressure and Center-of-Gravity for their rocket.
6. All HPR flights of **I** or higher motors will be announced from the Sport Range RSO to the Contest Range RSO before launch, so that all fliers on the field may be alerted to the impending launch.



NARAM-53 Contest Flying Range Rules

1. Model rocketry is FUN. Lives and fortunes are not at stake in the contest events, so do not behave like they were. Good sportsmanship is expected.
2. Range Duty. All contestants are required to perform their fair share of some form of range crew duty each day. Each individual from a team will be expected to perform duty.

Range duties will be assigned via a published duty roster based on the preferences indicated on your registration form, and on the needs of the contest. See the Assistant Director if you need to request a change

- Contestants who fail to show up for their assigned duties may not be allowed to further fly in competition (at the CD's discretion).
3. Check-In. Contestants must check in for each official flight attempt and satisfy the check-in officer that their model complies with the rules, uses an engine certified for NAR contest use, and is ready to be flown. A new flight card will be issued for each flight attempt. The contestant is responsible for ensuring the card contains the proper information for his flight.
 - Engines should be presented for inspection before flight, at check-in. If for any reason the engine must be inspected post-flight and the model will be impounded by the RSO for engine check, and must be returned to be qualified.
 - Check-in for each event will close 10 minutes prior to the end of that event.
 - After the official end time for an event, all flights in the launch queue at that time will be given a single launch attempt. Misfires on the pad after event close may NOT be corrected and retried.
 - Put your NAR number or name on all parts designed to land separately.

NOTE: Thursday evening advance check-in of motors for PMC and SCA will be allowed. This will be covered at the contestant's briefing.

4. Pad Assignments. Pad assignments will be made only to unoccupied pads. If you have a tower (or other device) at a busy pad, you have the option of moving your equipment to an unoccupied pad, or waiting until the pad with your equipment is free. No stacking or pre-allocating flight cards for a particular pad will be allowed. You must re-enter the assignment queue for each flight attempt.

-continued on next page-

Contest Flying Range Rules continued

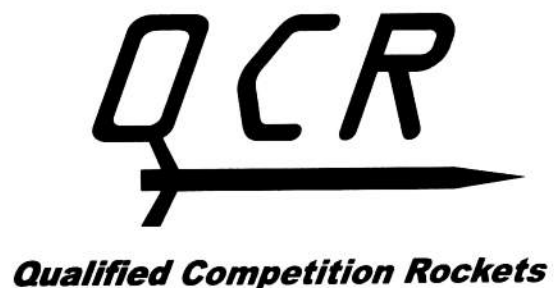
5. Requesting a Flight. When you are at a pad and your model is ready to fly, indicate this to the Launch Control Officer by raising the paddle corresponding to your pad number until he acknowledges you.
 - When acknowledged, your flight card will be entered into the launch queue and you should put the paddle back down on the ground by the pad.
 - The RSO will fly rockets from the launch queue in first-in, first-out sequence. If you are no longer ready to launch when your turn comes up, the RSO will return your flight card to the end of the queue.
 - Do not walk through the high-power pads on the Sport Range while recovering your models.
6. Misfires. Stay away from your model for 60 seconds as required by the Safety Code after any misfired launch attempt.
 - If your misfire can be corrected with a spare igniter at the pad, your flight card will be removed from the ready-to-fly queue and re-entered when you again signal ready-to-fly with your paddle.
 - If you must leave the pad area to correct a misfire, your flight card will be returned to Pad Assignment and you must return through there for a new pad assignment when again ready to fly.
7. Launch Devices. Towers or other personally-provided launch devices must be sufficiently sturdy and long to provide safe initial guidance to the rocket.
 - Free-standing piston launchers will be allowed for BP motors. Any piston-launched composite motor must include additional vertical guidance support such as a tower, guide rail extensions to the piston tube, etc.
 - Contestant-provided launch devices must include an adequate blast deflector that prevents motor exhaust from directly impinging on the ground.
 - Contestant-provided electrical launch systems must comply with NAR Safety Code requirements, and procedures for control of launch with them must be approved by the RSO.
8. Returns. For events requiring a returned model, that return must be made no later than 4 PM. There will be a brief "returns window" at the NARAM motel if the returns desk on the

-continued on next page-

Contest Flying Range Rules continued

field is closed. It is the contestant's responsibility to ensure that the officials have annotated the flight card to correctly mark the model as returned.

- Returns for rockets that land in dangerous or inaccessible spots may be waived under Pink Book Rule 10.4 for all NARAM events except for Eggloft. During range operations, no contest official will leave the boundaries of the park for a 10.4 ruling. At the conclusion of operations, an official will travel no more than 2 miles from the contest range as measured by GPS, with contestant providing transport to the model.
9. Tracking. All tracking will be to the point of ejection. Please use colored tracking powder that contrasts with the prevailing sky conditions, and inform the check-in officer of the color that you used. Flights that are "track lost" or "no close" but otherwise qualified do not count as official flights and may be reflown — or can be accepted as a flight of "0" for flight points.



The “Best Midwest Qualified Flight” Award

by Bob Kaplow NAR #18L

In the mid 70s, Midwest competition standards were considered by outsiders to be somewhat lax: just about any flight that didn't hit someone was considered qualified! If a rocket DID hit someone, we took into account who was the victim. Since then, a marginally qualified flight became known as “Midwest Qualified”.

The Best Midwest Qualified Flight award was first presented by Steve Behrends at NARAM-19 to the most spectacular prang of the week. The winner was Bob (Brandy) Bruce who flew a scale-like 2 stage rocket that crashed, staged, and took off again, dubbed “Phoenix Arise”. Ironically, it was one of the very few sport flights back when 98% of the models flown at NARAM were competition, and most of the 2% were test flights. IIRC, Steve also “retroactively” awarded NARAM-17 and NARAM-18 winners.

Later awards were a joint effort headed by Matt Steele and Chris Pearson of SNOAR fame. Bob Kaplow was a frequent co-conspirator, and inherited the duty when they moved on. The torch was passed to Chad Ring at NARAM-51 to simplify the nomination process, since any flight that threatens injury to him is considered an automatic nominee and defaults to the “pole position”. The panel of judges usually consists of the RSOs and LCOs from the NARAM and sport ranges. Historically, the award is constructed out of the remains of crashed rockets and other NARAM debris collected during the week. Often part of the winners crash is included in the trophy.

Much notoriety is attached in being nominated for the award. The only thing worst is to actually win! I've had the misfortune of having to nominate myself for the award once, at NARAM-39, when my Wylie Coyote rocket crashed into Mark Johnson's van, and left a rubber streak on the side window. Mark has preserved this streak for several years now. Fortunately, I did not win.

It's too easy to just auger in a really big rocket. While that is good enough for a nomination, much of what makes for a winner is “style” points. Style points can be earned for doing spectacular aerobatics. Or for selecting a particularly good target like the RSO, the CDs car, a tank, or phone line to hit. Or for pure stupidity.

While the sport range generates some interesting prangs, competition events seem to particularly attract nominations for this award, including Plastic Model Conversion, Eggloft, Scale, Gliders, particularly Radio “Controlled”, clusters, or a very long burn motor (F7, D3). It's pretty much according to Murphy's law: whatever events have the most opportunity for something to go wrong. REALLY WRONG.

Here's what I've pieced together in the way of the history of the award winners and a few honorable mentions:

NARAM-17: [Jim Hartman; PMC Pan Am Space Clipper that smacked phone line]

NARAM-18: [Bruce Blackistone; Disaster Valkyrie F100 shred]

NARAM-19: Bob Bruce; “Phoenix Arise” sport flight

NARAM-20: Pete Pathos; C superroc prang that just missed Harry Stine

NARAM-21: Jim Hartman; D EL prang (Bernie Biales RCRG 9 seconds of terror)

NARAM-22: Steve Honecker; E Payload

NARAM-23: Chris Cox; trash can lander

NARAM-24: Tom Pastrick; PMC F104 ballistic rekitting

NARAM-25: Jim Wilkerson; F7 predicted altitude VERY unstable...



NARAM-26: Warren Sisco; PMC

NARAM-27: Scott Doctor; flew every event, DQed every flight!

NARAM-28: Ken Mizoi; egglofter found 1' strip of concrete in grass field

NARAM-29: Bob Sanford; 1/2A6-2 egglofter

NARAM-30: Mark Johnson C Egglofter popped off piston and just missed RSO John Pursley

NARAM-31: Dan Winings; RCRG pranged, just missing his own club members

NARAM-32: Dr. Bob's Kreutz; Scale model stages, tips off, lands on road, smashed by truck

NARAM-33: Phil Wing; A RGs

NARAM-34: Tom Spalding's proxy flown PMC that hit Dave Nauer. (HM:Estes R&D Saturn IB prang)

NARAM-35: George Gassaway; RCRG midair with Ken Brown's rocket

NARAM-36: Ric Gaff; F7 SD unstable touch & go

NARAM-37: Chad Ring; Scale model nailed tank. Instant undisputed winner!

NARAM-38: Bruce Markielewski; Unstable D3 SD model did Boosted Arcas impression (Ric Gaff PMC pinwheel) NARAM-39: Bruce Markielewski; 6xC CL Alt model took out V2 on sport range (John Pursley & Bunny scale prangs)

NARAM-40: Lacey (Apogee dog); snatched Tommy Lyon's HD model out of the air!

NARAM-41: Dave Schultz; Egglofter splash

NARAM-42: George Gassaway X-1 crashed and burned, headed for Chad Ring

NARAM-43: Lila Schmaker hit CD John Viggiano's car twice, once with B EL, again with Scale model (Mark Crumkey HD that danced into returns tent)

NARAM-44: Matt Leveron's C RG thru the hat of Kathleen Williams.

NARAM-45: Larry Rice Battlestar Impactica chased RSO Jonathan Rains (Charlie Sykos F16 PMC pranged twice)

NARAM-46: Chan Stevens: F14 Plastic Model nearly hits the RSO (subsequently reflew to place 2nd in the event)

NARAM 47: Chan Stevens: Another F14 Plastic Model attempted a "carrier landing" onto a vendor trailer (also took 2nd in the event)

NARAM-48: Jim Brower: F altitude shread, booster dented CD Matt Steele's car

NARAM-49: Steve Foster: G SR 4 motor cluster

NARAM-50: Carl Johnson, III and Carl Johnson, IV: Assassination attempts on Trip Barber

NARAM-51: Keith Vinyard: SD model that looped and hit NAR Trustee Jennifer Ash-Poole in her "fin can" as it deployed

NARAM 52: Chan Stevens: Little Joe II failed cluster attempt, arc'ed over range to attack rival Jonathan Dunbar's LJ-II

NARAM Past Champions

NARAM-1 1959, Denver, CO

G. Harry Stine, CD
Champion: Norman Mains, Jr.
Section: Mile-Hi, Denver, CO

NARAM-2 1960, Colorado Springs, CO

William S. Roe, CD
Champion: John Bonine
Team: Hitch-Stine Team
Section: Mile-Hi, Denver, CO

NARAM-3 1961, Denver, CO

J. Delano Hitch, CD
Champion: Doug Hylton
Team: Hodgkin-Bochman Team
Section: Peak City, Colorado Springs, CO

NARAM-4 1962, USAF Academy, CO

Capt. Vernon VanVonderen, CD
Junior: Tom Rhue
Senior: Doug Hylton
Team: Hans-Scott Team
Section: Peak City, Colorado Springs, CO

NARAM-5 1963, Bedford, MA

Marshall P. Wilder, CD
Junior: Gregory McBride
Leader: John Essman
Senior: Capt. William Barnitz
Section: Mile-Hi, Denver, CO

NARAM-6 1964, Wallops Island, VA

Dr. William B. Rich, CD
Junior: J. Talley Guill
Leader: Gordon Mandell
Senior: G. Harry Stine
Team: Isaac-Fehsken Team
Section: Fairchester, CT

NARAM-7 1965, Aberdeen, MD

Howard Galloway, CD
Junior: J. Talley Guill
Leader: Robert Devoluy
Senior: G. Harry Stine
Team: Bayard-Apt Team
Section: Fairchester, CT

NARAM-8 1966, Clinton Co AFB, OH

G. Harry Stine, CD
Junior: Albert G. Kirchner
Leader: J. Talley Guill
Senior: A. W. Guill
Team: Kratzer Team
Section: Fairchester, CT

NARAM-9 1967, Mankato, MN

Dr. Ellsworth Beech, CD
Junior: Charles Duelfer
Leader: J. Talley Guill
Senior: G. Harry Stine
Team: Apt-Davis Team
Section: Fairchester, CT

NARAM-10 1968, Wallops Island, VA

James S. Barrowman, CD
Junior: Constance R. Stine
Leader: Robert Mullane
Senior: G. Harry Stine
Section: YMCA Space Pioneers, CT

NARAM-11 1969, USAF Academy, CO

William S. Roe, CD
Junior: Scott Layne
Leader: Mark Evans
Senior: Col. Howard Kuhn
Section: Apollo-NASA, Houston, TX

NARAM-12 1970, Houston, TX

Richard Sipes, CD
Junior: Gary Lindgren
Leader: Chas Russell
Senior: Shirley Lindgren
Team: Ball-Hagedorn Team
Section: Apollo-NASA, Houston, TX

NARAM-13 1971, Aberdeen, MD

Howard Galloway, CD
A Div: Jeff Gordon
B Div: Charles Krallman
C Div: Gary Lindgren
D Div: Jon Randolph
Team: Stine Team
Section: YMCA Space Pioneers, CT

NARAM-14 1972, Seattle, WA

Jess Medina, CD
A Div: Wayne Gerhart
B Div: Kerry Mechtly
C Div: Randy Thompson
D Div: Jim Pommert
Team: Norm Wood-Titan Team
Section: South Seattle, WA

NARAM-15 1973, Columbus, OH

Dr. Gerald Gregorek, CD
A Div: Wayne Gerhart
B Div: Mark Nagasawa
C Div: Bruce Kimball
D Div: Jim Pommert
Team: Barber Team (Barber, Youngren, Parks, Flanagan)
Section: South Seattle, WA

NARAM-16 1974, Manassas, VA

Col. Howard Kuhn, CD
A Div: Steve Behrends
B Div: David Kusterer
C Div: Terry Lee
Team: Larson-Coffey Team
Section: Vikings, Richmond, VA

NARAM-17 1975, Orlando, FL

Richard Q. Fox, CD
A Div: Michael Kalb
B Div: Steve Behrends
C Div: Terry Lee
Team: Biedron-Langford Team
Section: Vikings, Richmond, VA

NARAM-18 1976, Center Valley, PA

Carl J. Warner, CD
A Div: Hank Simpson
B Div: Steve Behrends
C Div: George Gassaway
Team: Bundick-Justis Team
Section: Vikings, Richmond, VA

NARAM-19 1977, Overland Park, KS

Douglas R. Pratt, CD
A Div: Joel Kenny
B Div: Steve Behrends
C Div: Gary Ottgen
Team: Maddog-Fatcat Team
Section: NOVAAR, McLean, VA

NARAM-20 1978, Anaheim, CA

Larry L. Chaney, CD
A Div: Pete Pathos
B Div: Joel Kenny
C Div: Philip Barnes
Team: Pearson-Steele-Nowak Team
Section: NOVAAR, McLean, VA

NARAM-21 1979, Houston, TX

Robert Justis, CD
A Div: Dave Wolf
B Div: Larry Peters
C Div: Alvin Nienast
Team: Maddog-Fatcat Team
Section: WWAR, Tomah, WI

NARAM-22 1980, East Lansing, MI

Keith Campbell, CD
A Div: Robert Ferrante
B Div: George Riebesehl, Jr.
C Div: Robert Koenn
Team: Zunofark Team
Section: WAR, Wheaton, MD

NARAM-23 1981, Center Valley, PA

Charlie Sykos, CD
A Div: Pat Peterson
B Div: George Riebesehl, Jr.
C Div: Art Rose
Team: Zunofark Team
Section: PULSAR, New City, NY

NARAM-24 1982, Orlando, FL

Richard Q. Fox, CD
A Div: Kevin Kuczek
B Div: Chris King
C Div: Art Rose
Team: Photon Team
Section: PULSAR, New City, NY

NARAM-25 1983, Houston, TX

Ron Goforth, CD
A Div: Mark Schmitt
B Div: Ken Mizoi
C Div: Alvin Nienast
Team: Beedrin-Langfid Team
Section: PULSAR, New City, NY

NARAM-26 1984, Allentown, PA

Charlie Sykos, CD
A Div: Harry Rose
B Div: Larry London
C Div: Jeff Vincent
Team: Zunofark Team

NARAM-27 1985, Houston, TX

Scott Hunsicker, CD
A Div: Brad Morris
B Div: Mark Schmitt
C Div: George Gassaway
Team: East Meets West
Section: NIRA, Chicago, IL

NARAM-28 1986, Chanute AFB, IL

Mark Bundick, CD
 A Div: Don C. Linder
 B Div: Tim Marcy
 C Div: Dan Domina
 Team: Odd Couple Team
 Section: NIRA, Chicago, IL

NARAM-29 1987, Irvine, CA

Martin Bowitz, CD
 A Div: Don C. Linder
 B Div: Andy Apel
 C Div: Dan Domina
 Team: Zunofark Team
 Section: NIRA, Chicago, IL

NARAM-30 1988, Huntsville, AL

Matt Steele, CD
 A Div: Jean-Etienne LaVallee
 B Div: Marty Williams
 C Div: Dan Domina
 Team: Crunch Birds
 Section: HARA, Huntsville, AL

NARAM-31 1989, Manassas, VA

Trip Barber, CD
 A Div: Marshall Gottung
 B Div: Matthew Sias
 C Div: Ken Weaver
 Team: Spaceman Spiff
 Section: ASTRE, Albany, NY

NARAM-32 1990, Dallas, TX

Scott Hunsicker, CD
 A Div: Marshall Gottung
 B Div: Matthew Sias
 C Div: Ken Weaver
 Team: Southern Comfort
 Section: RCA, Huntsville, AL

NARAM-33 1991, Chicago, IL

Mark Bundick, CD
 A Div: Matthew Whymark
 B Div: Bobby Gormley
 C Div: Dan Wolf
 Team: Southern Comfort
 Section: RCA, Huntsville, AL

NARAM-34 1992, Las Vegas, NV

Bob Sanford, CD
 A Div: Andrew Miller
 B Div: Chad Ring
 C Div: Mark Hamilton
 Team: Southern Neutron
 Section: NOVAAR, Manassas, VA

NARAM-35 1993, Frederick, MD

Tom Lyon, CD A Div: Shaun Smith
 B Div: Andrew Miller
 C Div: Glenn Feveryear
 Team: Ren & Stimpy
 Section: Launch Crue, Holland, IN

NARAM-36 1994, Houston, TX

Terry White, CD
 A Div: Tracy Woebkenberg
 B Div: Bobby Gormley
 C Div: Kevin Kuczek
 Team: Los Cohetadores
 Section: Launch Crue, Holland, IN

NARAM-37 1995, Geneseo, NY

Dan Wolf, CD
 A Div: Michael Filler
 B Div: Shaun Smith
 C Div: Chad Ring
 Team: Thrust You Can Trust
 Section: Launch Crue, Holland, IN

NARAM-38 1996, Evansville, IN

Chad Ring, CD
 A Div: Michael Filler
 B Div: Shaun Smith
 C Div: Chad Ring
 Team: Southern Neutron
 Section: NOVAAR, Manassas, VA

NARAM-39 1997, Tucson, AZ

Steve Lubliner, CD
 A Div: Ellis Langford
 B Div: Shaun Smith
 C Div: David Klouser
 Team: Phobos & Deimos
 Section: NOVAAR, Manassas, VA

NARAM-40 1998, Muncie, IN

Glenn Feveryear, CD
 A Div: Ellis Langford
 B Div: Rachel Brower
 C Div: Chad Ring
 Team: Wallace & Gromit
 Section: Launch Crue, Holland, IN

NARAM-41 1999, Pittsburgh, PA

Rod Schafer, CD
 A Div: Ellis Langford
 B Div: Michael Filler
 C Div: David Klouser
 Team: Good, Bad & Ugly
 Section: NOVAAR, Manassas, VA

NARAM-42 2000 Estesland, CO

Ken Mizoi, CD
 A Div: Fritz Langford
 B Div: Ellis Langford
 C Div: Bruce Markielewski
 Team: Why Us?
 Section: NOVAAR, Manassas, VA

NARAM-43 2001, Geneseo, NY

John Viggiano, CD
 A Div: Sarah Wolf
 B Div: Ellis Langford
 C Div: Chad Ring
 Team: CHEDAR-1
 Section: NARHAMS, Meyersville, MD

NARAM-44 2002 McGregor, TX

Scott Hunsicker, CD
 A Div: Mary Wolf
 B Div: Katye Buckley
 C Div: Chad Ring
 Team: CHEDAR 1++
 Section: Launch Crue, Holland, IN

NARAM-45 2003 Evansville, IN

Lila Schmaker, CD
 A Div: Matthew Filler
 B Div: Mary Wolf
 C Div: Bruce Markielewski
 Team: Biohazard
 Section: WOOSH, Milwaukee, WI

NARAM-46 2004 The Plains, VA

Jonathan Rains, CD
 A Div: Sarah Wolf
 B Div: Mary Wolf
 C Div: Bruce Markielewski
 Team: Russian Illuminati
 Section: NARHAMS, Meyersville, MD

NARAM-47 2005 West Chester, OH

Mark Fisher, CD
 A Div: Caroline Steele
 B Div: Mary Wolf
 C Div: Chad Ring
 Team: Pod Bay Doors
 Section: SSS, Phoenix, AZ

NARAM-48 2006 Phoenix, AZ

Matt Steele, CD
 A Div: Kaitlyn Steele
 B Div: Cody Steele
 C Div: Chad Ring
 Team: Flying I-Beam Kids
 Section: SSS, Phoenix, AZ

NARAM-49 2007 Kalamazoo, MI

Randy Boadway, CD
 A Div: Cassidy Steele
 B Div: Carrie Steele
 C Div: Chan Stevens
 Team: Southern Neutron
 Section: SSS, Phoenix, AZ

NARAM-50 2008 The Plains, VA

Jim Filler, CD
 A Div: Alyssa Stenberg
 B Div: Katie Steele
 C Div: Chad Ring
 Team: Pod Bay Doors
 Section: SSS, Phoenix, AZ

NARAM-51 2009 Johnstown, PA

Steve Foster, CD
 A Div: Alyssa Stenberg
 B Div: Brian Guzek
 C Div: Chad Ring
 Team: Pod Bay Doors
 Section: SSS, Phoenix, AZ

NARAM-52 2010 Pueblo, CO

Mike Konshak, CD
 A Div: Alyssa Stenberg
 B Div: Katie Steele
 C Div: Patrick Peterson
 Team: Konshak-Anthony-Edmands
 Section: SSS



CUSTOM TURNING---WATERSLIDE DECALS
 SCALE KITS
WWW.EXCELSIORROCKETRY.COM

NARAM Attendees

Name	Home Town	Div.	Email	Name	Home Town	Div.	Email
Gordon Agnello	Lexington, MI	S	gagnello@yahoo.com	Stephen Flynn	Blairstown, NJ	C	stephen23648@hotmail.com
Michala Alexander	Jersey Shore, PA	A	rsalex@rocketmail.com	Steve Foster	Leechburg, PA	T	stevf63@windstream.net
Michele Alexander	Jersey Shore, PA	T	mralexr@comcast.net	Dean Fox	Menomonee Falls, WI	S	deanfox@gmail.com
Sarah Alexander	Jersey Shore, PA	T	rsalex@rocketmail.com	Sean Fox	Menomonee Falls, WI	S	fox.sean94@gmail.com
Scott Alexander	Jersey Shore, PA	C	rsalex@rocketmail.com	Richard Gaff	Streamwood, IL	S	rickgaff@gmail.com
Peter Alway	Ann Arbor, MI	T	robertalway@charter.net	George Gassaway	Birmingham, AL	T	georgegassaway@mac.com
Robert Alway	Otsego, MI	T	robertalway@charter.net	William Gee	Plano, TX	S	deiresearch@earthlink.net
Kevin Anderson	grantsburg, WI	S	ssratanderson@yahoo.com	David Gilmore	Muskegon, MI	C	psgilmore@gmail.com
Jennifer Ash-Poole	Severn, MD	T	bubbles43@gmail.com	Pamela Gilmore	Muskegon, MI	C	psgilmore@gmail.com
Trip Barber	Springfield, VA	C	ahbarber@alum.mit.edu	Geoffrey Green	greensburg, IN	S	geoffrey.a.green@hotmail.com
James Bassham	Yuba City, CA	C	jimbassham@yahoo.com	Roy Green	Alpharetta, GA	C	roygreen@gmail.com
Thomas Beach	Los Alamos, NM	S	thomasbeach@mindspring.com	Dale Greene	Elizabethtown, PA	S	dale@bazookadale.com
Michael Beamer	Butler, PA	B	rbeamer@zoominternet.net	Maria Ha	Mt Holly Springs, PA	S	violinhaz@gmail.com
Richard Beamer	Butler, PA	S	rbeamer@zoominternet.net	Thomas Ha	Mount Holly Spr, PA	S	rocketha@gmail.com
Matthew Berk	MSU, MS	S	matthew.s.berk@gmail.com	Zachary Ha	Mt Holly Springs, PA	B	violinhaz@gmail.com
Lee Berry	Huber Heights, OH	C	kljberry@hotmail.com	Jack Hagerty	Livermore, CA	S	jhagerty@juno.com
Randy Boadway	Comstock Park, MI	T	erockets@rocketmail.com	Chris Halinaty	Chatham, Ont Can	S	halinaty@mnsi.net
Greg Bock	Hernndon, VA	C	gbock@verizon.net	Mark Halinaty	Newmarket, Ont Can	S	mark.halinaty@sympatico.ca
John Boren	Pueblo West, CO	S	borenjohn@comcast.net	Chuck Hall	Raleigh, NC	n/a	chall@ncsu.edu
John Brohm	Pittsburgh, PA	S	jrbrohm@comcast.net	Brock Hampton	Festus, MO	B	Brockhamp@gmail.com
James Brower	fairfax, VA	T	jbrower721@gmail.com	Brittany Hardobey	Cranberry, PA	A	miketin@aol.com
John Buckley	Wentzville, MO	C	jbuckley@mail.win.org	Michael Hardobey	Cranberry Twp, PA	A	miketin@aol.com
Mark Bundick	Woodstock, IL	S	mbundick@earthlink.net	Mike Hardobey	Cranberry Twp, PA	C	rocketmikeh@yahoo.com
John Buscaglia	Hudson, MA	T	jbuscagl@earthlink.net	Tina Hardobey	Cranberry TWp, PA	C	miketin@aol.com
Allison Butler	Montgomery, IL	B	allison@appraisalservices.com	David Hash	Raleigh, NC	B	dchash@gmail.com
Pat Butler	Montgomery, IL	C	pat@appraisalservices.com	John Hochheimer	Alexandria, VA	C	john.hochheimer@tetrattech.com
Jay Calvert	Otsego, MI	C	jaycalvert@sbcglobal.net	Roger Hoffman	Xenia, OH	S	sooline@sbcglobal.net
Bruce Canino	Williamstown, NJ	C	caninobd@voicenet.com	Vince Huegele	Huntsville, AL	S	huegele@bellsouth.net
Steele Carrie	Sandy, UT	T	caroline.m.steele@gmail.com	Katherine Humphrey	Warren, NJ	B	pelinore@gmail.com
Mark Cassata	Irwin, PA	S	Missilemanmark@aol.com	Mike Humphrey	Warren, NJ	T	pelinore@gmail.com
John Cieslak	Waunakee, WI	C	jphoton@tds.net	Steve Humphrey	Warren, NJ	T	pelinore@gmail.com
Ted Cochran	Minneapolis, MN	S	tedcochran55409@earthlink.net	Karen Ingmundson	Waunakee, WI	S	mrsphoton@hotmail.com
Steele Cody	Sandy, UT	T	codydsteele@gmail.com	Le Blanc Jeff	Lima, OH	n/a	jleblanc@woh.rr.com
Ron Coffee	Highlands Ranch, CO	C	ron_coffee@hotmail.com	Stum Jim	Alexandria, IN	C	list@whipwhap.com
Zach Coffee	Highlands Ranch, CO	A	zachcoffee@live.com	Partridge John	Barnesville, OH	S	partridgespam@gmail.com
Stephen Coker	West Berlin, NJ	C	sierracharie1@verizon.net	Kevin Johnson	Ellicott City, MD	T	kevinj73us@yahoo.com
Ryan Coleman	San Francisco, CA	T	ryan.g.coleman@gmail.com	Matt Johnson	Grand Rapids, MI	C	klaatujohnson@att.net
Peter Cook	Burlington, ONT	S	pecook@sympatico.ca	R Michael Jungclas	Naperville, IL	S	mike@jungclas.com
Lawrence Curcio	Pittsburgh, PA	C	lcurcio@verizon.net	Bob Kaplow	Dundee, IL	T	bobkaplow@yahoo.com
Alex DeMarco	East Greenbush, NY	C	alex.demarco@suny.edu	Rachel Kaplow	Dundee, IL	B	bobkaplow@yahoo.com
Campbell Duffy	Georgetown, TX	S	jduffy@mac.com	Glenn Karras	Parma, OH	S	bookdriver@yahoo.com
James Duffy	Georgetown, TX	S	jduffy@mac.com	Daniel Kelton	Liberty Hill, TX	S	spam@keltondeck.com
Jonathan Dunbar	Surprise, AZ	C	jonathandunbar@juno.com	Donald Kennedy	Crest Hill, IL	S	donk327@sbcglobal.net
John Dyer	Dallas, TX	S	jdye@redriverrocketry.com	Christopher Kidwell	Sterling, VA	C	kidwell@narhams.org
Nina Dyer	Dallas, TX	S	jdye@redriverrocketry.com	Joshua Kim	Glenview, IL	S	drscience12@gmail.com
Pat Easter	Lakewood, OH	S	thumper@skybusters.org	Gerald King	Tucson, AZ	S	g_a_king@comcast.net
Bill Eichelberger	Fort Thomas, KY	S	wallyum@gmail.com	Ray King	River Falls, WI	C	rseazk5@earthlink.net
Ben Ericksen	Champlin, MN	S	cjmarple@peoplepc.com	Kevin Knebel	Bel Air, MD	S	kmktexan@comcast.net
Gleda Estes	Canon City, CO	S	GME3@vernetes.com	Robert Kreutz	Brick, NJ	S	orbitboybob@comcast.net
Vernon Estes	Canon City, CO	S	vern@vernetes.com	Emma Kristal	Royal Oak, MI	S	stevekristal@wowway.com
Robert Farrar	Nacogdoches, TX	S	rmf3@netdot.com	Steve Kristal	Royal Oak, MI	S	stevekristal@wowway.com
Don Fent	Bartlett, TN	C	cusdon@yahoo.com	Kevin Kuczek	Morrison, CO	S	kkooch@wispertel.net
Joey Ferrante	Ravenna, OH	A	ferrantes2twins@yahoo.com	Edward LaCroix	Phoenix, AZ	T	elac2@cox.net
Robert Ferrante	Ravenna, OH	T	robert.ferrante@autopkg.com	Merrell lane	Niagara Falls, NY	S	merrelllane@roadrunner.com
Savannah Ferrante	Ravenna, OH	T	ferrantes2twins@yahoo.com	Ellis Langford	Falls Church, VA	S	elangford@aurora.aero
Tony Ferrante	Ravenna, OH	A	ferrantes2twins@yahoo.com	John Langford	Falls Church, VA	S	jlangford@mac.com
James Filler	Hanover, MD	C	zog139@yahoo.com	Jerry Latham	Scottsdale, AZ	T	latham_1@yahoo.com
Chris Flanigan	San Diego, CA	C	cflanigan@alum.mit.edu	Terry Lee	Bedford, VA	S	TWLEE9020@HOTMAIL.COM
James Flis	Merrimack, NH	S	jflis2@fliskits.com				

Name	Home Town	Div.	Email
Bruce Levison	Highland Hts., OH	S	teflonrocketry1@yahoo.com
David Lewicki	Gilbert, AZ	S	dave.lewicki@yahoo.com
Devin Lorenz	Festus, MO	B	horracemcgulicudy@yahoo.com
Stephen Lubliner	Tucson, AZ	S	stephenlubliner@compuserve.com
John Lyngdal	Beaverton, OR	N/A	john.lyngdal@tek.com
Tom Lyon	Richmond, VA	T	zog43lyon@aol.com
Carol Marple	Champlin, MN	S	cjmarple@peoplepc.com
Jim McGraw	Malvern, PA	C	jemcgraw@verizon.net
Marc McReynolds	Fountain Valley, CA	C	marcmcreynolds@gmail.com
Ann Meisoll	Richmond, VA	T	zog43lyon@aol.com
Hans Michaud	Brooklyn, NY	S	saccade@mindspring.com
David Miller	Neenah, WI	S	siriusrocketry@siriusrocketry.com
Fran Miller	Green Bay, WI	T	rocketmillers@new.rr.com
Gary Miller	Green Bay, WI	T	rocketmillers@new.rr.com
Michael Nowak	Cleveland Hts, OH	T	mikemnowak@gmail.com
Nicholas Nowak	Cleveland Hts, OH	T	mikemnowak@gmail.com
Rachel Nowak	Cleveland Hts, OH	A	mikemnowak@gmail.com
Glen Overby	Apple Valley, MN	S	goverby@charter.net
John Pace	Cranberry Twnshp, PA	T	jpace@versatex.com
Jonah Partridge	Barnesville, OH	S	partridgespam@gmail.com
Tom Pastrick	Rosemont, IL	C	tepastrick2276@juno.com
Patrick Peterson	Versailles, KY	T	msh40503@yahoo.com
Gregory K Poehlein	Evansville, IN	S	profwunder@gmail.com
Tracy Pund	Ferdinand, IN	T	rdwoebke@hotmail.com
Jacob Rains	Silver Spring, MD	A	2jrains@gmail.com
Jonathan Rains	Silver Spring, MD	C	jrains@comcast.net
Luke Randol	Indianapolis, IN	S	luke.randol@att.net
Rick Randol	Indianapolis, IN	S	bluegrassrocket@att.net
Gilbert Randy	Troy, MI	S	randy_gilbert@live.com
Mark Recktenwald	Stow, OH	C	markrecktenwald@yahoo.com
Larry Rice	Columbus, OH	C	Larry33323@yahoo.com
Vern Richardson	Animas, NM	C	vern.rich@gmail.com
Chad Ring	Holland, IN	C	ring@psci.net
Randy Ringner	Pearl River, NY	S	frringner@aol.com
Nicholas Riviuccio	Cocoa Beach, FL	S	s8flyer@aol.com
Mike Rohde	Centerville, OH	S	m509rohde@msn.com
Evan Ross	Needham, MA	S	evan@eross.com
Charles Russell	Fort Worth, TX	T	crussell51@hotmail.com
Ted Schaetzle	CANTON, OH	C	TSCHAETZLE@TORQUEDRIVES.COM
Rod Schafer	Leechburg, PA	T	rschafer@windstream.net
Lila Schmaker	Vincennes, IN	T	lilas@cinergymetro.net
Steve Schowiak	Annandale, VA	C	steve.schowiak@gmail.com
Todd Schweim	Saint Croix Falls, WI	S	winterwood@grantsburgtel.com.net
Tom Secrist	West Liberty, OH	C	tpsecrist@yahoo.com
Carolyn Soukup	Wheaton, IL	S	callysoukup@yahoo.com
Bill Spadafora	Saugus, MA	S	billspad@comcast.net
Cassidy Steele	Sandy, UT	B	c.chey.steele@gmail.com
Katie Steele	Sandy, UT	B	katie.savvy.steele@gmail.com
Matt Steele	Sandy, UT	T	mattmsteele@gmail.com
Robyn Steele	Sandy, UT	T	robypnsteele@gmail.com
Alyssa Stenberg	Croton on Hudson, NY	A	jon@stenbergaa.com
Carolyn Stenberg	Croton on Hudson, NY	n/a	carolyn@stenbergaa.com
Jon Stenberg	Croton on Hudson, NY	n/a	carolyn@stenbergaa.com
Zackary Stenberg	Croton on Hudson, NY	A	jon@stenbergaa.com

Name	Home Town	Div.	Email
Chan Stevens	Cincinnati, OH	T	chanstevens@gmail.com
Bill Stine	Pagosa Springs, CO	S	bill@questaerospace.com
Patrick Sutherland-Alway	Otsego, MI	T	robertalway@charter.net
Taras Tataryn	Mississauga, ONT	S	taras@tataryn.org
Alyssa Taylor	Coon Rapids, MN	S	luckyturtle09@yahoo.com
Jeff Taylor	Coon Rapids, MN	S	jeff.taylor@atk.com
McKenna Taylor	Coon Rapids, MN	S	mckenna55306@yahoo.com
Rick Taylor	Lebanon, OH	C	rstaylor@go-concepts.com
Chris Taylor Jr	Levittown, PA	S	home@nerys.com
Lynn Thomas	Indianapolis, IN	T	lynnntw@aol.com
Timothy Van Milligan	Colorado Springs, CO	C	ts.vm@apogeeroockets.com
Allison Van Milligan	Colorado Springs, CO	A	rocketgirl@apogeeroockets.com
Craig Vinyard	Festus, MO	B	khv26@sbcglobal.net
Keith Vinyard	Festus, MO	C	khv26@sbcglobal.net
Scott Vinyard	Festus, MO	S	khv26@sbcglobal.net
Maverick Vogelgesang	Springfield, OH	S	Dlemmings@aol.com
Wolfram von Kiparski	Chardon, OH	C	astronwolf@windstream.net
Carl Wagner	Tecumseh, MI	S	cwagnermi@comcast.net
Steven Wagner	Tecumseh, MI	S	cwagnermi@comcast.net
Clayton Warren	Crestwood, KY	S	redsockfan@gmail.com
Terry White	Cypress, TX	C	twhite33994@comcast.net
Joseph Whitman	Indianapolis, IN	B	jrwitman@aol.com
Roger Wilfong	Novi, MI	S	aroger@umich.edu
Terrill Willard	Cave Creek, AZ	T	azsvs@yahoo.com
Dale Windsor	Acworth, GA	C	dalewindsor@gmail.com
Mark Wise	Washington, DC	C	n0geh@yahoo.com
Michael Wise	Eden Prairie, MN	A	m-brickster@hotmail.com
David Woebkenberg	Ferdinand, IN	T	rdwoebke@hotmail.com
Katherine Woebkenberg	Ferdinand, IN	S	rdwoebke@hotmail.com
Ryan Woebkenberg	Ferdinand, IN	S	rdwoebke@hotmail.com
Woodrow Woo	Oak Park, MI	n/a	woodyww1@yahoo.com

eRockets
www.eRockets.biz



MERLIN MISSILE SOLUTIONS

STAFF LIST

Contest director	Chan Stevens
Assistant director	Patrick Peterson
Equipment manager	Bill Good
Webmaster	Tim Dicke
Graphics/media	Pat Butler
Contest Manager guru	Mike Nowak
Logo Design	Alyssa Stenberg
Field network/wi-fi	Elliot Bavely
FAI coordinator	Ryan Woebkenberg
Vendor coordinator	Jon Stenberg
Waiver master	Mark Recktenwald
HPR range captain	Carl Tulanko
Egg man	Chip Botti
Manufacturer's forum emcee	Lee Berry
Cookout manager	Rick Taylor
Tourism info	Pete Pemberton
Equipment support	Mark Bundick, Ric Gaff, Bob Kaplow (NIRA) Lee Berry, Steve Temple (TORC) Mark Recktenwald, Mike Nowak, Bob Ferrante (MTMA)
Supporting cast	Roger Hoffman, Andrew Fellure, Karl, Pat & David Perry Brad Cline, Pat Easter, Bruce Levinson, Glenn Karras, Ted Schaetzle, Bill Eichelberger, John Partridge, Bob Ferrante, Geoff Green, Steve Lubliner, & Bill Spadafora

We would especially like to thank the help and support we've received from the rocketry community at large. The number of people across the country who have contributed in large and small ways to this event are too numerous to mention here, but surely the degree to which you've paid forward and earned heaping helpings of positive karma will be a greater reward than seeing your name here in 10 point font.

What's Happening in Our NAR

July 25, 2011

Trip Barber

NAR 4322

NAR President



How Are We Doing?

- Our membership levels are going back down
 - Reached 5150 in March 2011 thanks to a NAR-wide team effort in the membership drive
 - But losing ground since then despite continuing the \$5 per new member recruiting bonus; now at ~5000 members
- Our finances are very good
 - About \$300K unrestricted fund balance
 - Can afford increased services
- Our magazine is excellent
 - Advertising revenue is steady at \$6K/issue (25% of cost)
 - But ... Tom Beach needs more "how to" article submissions
- Our outreach programs are doing very well
 - TARC, 4-H partnership, NASA SLI



My Priorities

- Make flight safety our organization's first priority
- Increase our organization's size: members and sections; then increase member services as our size goes up
- Expand our high-power programs and launches
- Provide full and open communication to our members about everything going on in their NAR and take their NAR in the direction they want it to go
- Provide better national support to our local sections

Be safe, have fun, pay forward

3



Areas of Concern

- Rockets that should not be flown still too often do get flown
- We are still not attracting and retaining enough young NAR members to sustain our future -- or enough members overall to be as effective as we want to be
 - Our junior membership is only ~600, used to be over 1000
 - Not enough age 25 – 40 adults to move into key positions in future
 - New-member retention is not high enough, need personal contact
- Development encroachment and landowner fear of "safety" or litigation continue to reduce access to launch sites
- Need more NAR volunteers (including Trustees) to improve our services and programs, both locally and nationally

4



Membership Survey

- 843 NAR members took the 2011 online survey
 - Almost all adults: demographics typical of our Senior members
 - 65 pages of text comments in addition to answers to 30 questions
- Overall, no program is “broken” but all could do better
- Three areas for improvement stood out as priorities
 - Increase national support to sections, particularly for launch site access
 - Completely redo the NAR website
 - Enhance the “how to” article content in Sport Rocketry
- Number one impediment to members’ enjoyment of the hobby is access to launch sites
- Lots of divergence of opinion on the direction or need for changes to the competition and HPR programs
- Significant support for fundraising for education programs

5



NAR Board Actions

- Increase national support for section launch site access
 - Accumulate and distribute “lessons learned” from sections
 - Develop briefing to use when seeking access from landowners
 - Put all the relevant support material on one website page
- Restructure NAR website
 - Develop specs and solicit bids for new website development
- Enhance “how to” content in Sport Rocketry
 - Begin offering \$250 payment for 1-2 substantial “feature” articles per issue on “how to” and/or technical topics
- Offer free NAR banner to each section
- Shift to credit-card style NAR membership cards
- Enable online section renewal

6



Volunteer Needs

- The programs and services that your dues make possible need more volunteers so we can deliver them
- Here is what we need now, but if you have something to contribute elsewhere let the NAR President know:
 - Candidates for election to the Board of Trustees
 - Section Activities needs someone to develop materials for sections to use getting/keeping launch sites
 - Education Committee needs educators to help develop new products to support other educators using rocketry
 - Every committee is just 1-2 deep and needs more people to share the work and improve their services

7



Other Developments

- Igniter issue with BATFE is not an immediate threat
 - We met with them on March 8 to open a dialogue – it went well
 - Detailed regulation is not part of their near-term plans
- Will begin recognizing section websites for excellence this year, in addition to the newsletter recognition
 - Revised section recognition program will begin in 2012
- Will award 10 Cannon teacher grants (\$500 each), 10 NAR scholarships (\$1000), \$10K in section safety grants
 - Plus \$2200 in R&D prizes, \$3200 in NARAM travel grants for B Div
 - And Sport Rocketry now has multiple 56-page issues each year
- Our insurance coverage has been increased as of April
 - \$2M limit vs \$1M, covers Canada as well as US
 - \$300K for fire damage to launch site vs \$100K
 - Teams participating in TARC & SLI covered at section launches

8



NFPA 1125 Changes

- Code covers manufacturing and certification of motors
- Latest edition in effect as of June 20, 2011
- Changes in this edition made that reflect NAR/TRA and industry consensus:
 - Raised propellant mass limit for “model rocket motor” to 125gm: 160 N-sec and 80N average thrust limits remain
 - Added major labeling requirements to “sparky” motors and other G and below motors that are considered “HPR”
 - Clarified that only solid propellant motors can be “model rocket motors”; all hybrids and sparky motors are HPR
 - Adjusted some requirements for certification testing

9



NFPA 1122/1127 Changes

- Codes cover flight safety
- Changes are still in draft form, one more review to go (October 1-3) before final update takes effect mid-2012
- All changes made reflect NAR/TRA/industry consensus:
 - Greater standoff range required for “mass” launches
 - For HPR with onboard pyro systems: must only be armed when in launch position; then minimum people allowed at pad
 - All references to court-canceled BATFE requirements removed

10



Our NAR's Value Proposition

- At \$62/year (senior) dues we are the best value in the hobby and should say it proudly:
 - Includes a great magazine
 - Includes insurance that is valid anywhere in the US & Canada, anytime, not just at sanctioned launches
 - Includes HPR certification through Level 3
 - Includes US & international competition programs
 - Includes family member discount of \$12
 - Includes a 60-page Member Guidebook with discount coupons

We all need to recruit personally to keep our NAR going and growing!



What Can You Do?

- Fly safely and ensure that others around you do the same
- Recruit new NAR members, HPR certifications, competitors
- Volunteer to help with your section or a national committee
- Do community outreach to community leaders, young people, parents, and to those who work with young people

ChrisTaylor Jr

NAR# 73586

cert Level 2

Competition division Sport (Full Week)

Levittown, PA



FlisKits, Inc. **EVERY CARD A WINNER!**

Raffle Coupon!

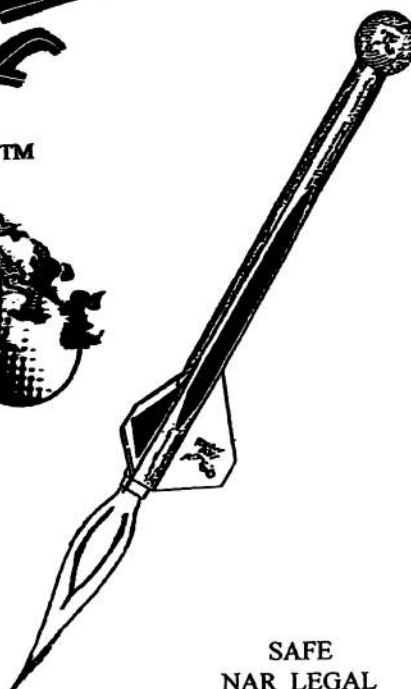
See back for details on how to discover your prize!

YOU MAY HAVE WON YOUR VERY OWN TRIFECTA!

©2011 FlisKits, Inc., All rights reserved

532

ROCKETRY GOLF™



THE MERGER of TWO
WORLD-WIDE SPORTS

CHECK OUT
THE NEW BOOK
and the NEW DVD

600 YARD DRIVES
MADE EASY!

YOU HAVE TO SEE IT
TO BELIEVE IT!

2011 CATALOG \$1.00

SAFE
NAR LEGAL
INSURED

Get Ready For
Rocketry Golf
Tournaments

You Can Be A
Rocketry Golf Pro!

An Extremely Fun
and Challenging Sport!

BY DOUG FROST

(Alias, Frog Dust) NAR # 3446

www.

ROCKETRY GOLF .COM

12366 POPLAR RD., Auburn, Ca. 95602

e-mail: doug.frost@rocketmail.com

phone: (530)870-5555 leave a message

Retail/Grocery/Pharmacy

Walmart Supercenter 24/7 5303 Bowen Drive, Mason (513) 583-9330

Kroger Marketplace 24/7 5100 Terra Firma Drive, Mason (513) 229-5900 (en route from hotel to field)

Walgreens Pharmacy 8060 South Mason Montgomery Road, Mason (513) 770-5587

CVS Pharmacy 8872 Columbia Road, Landen (513) 677-1222

Office Supplies/Post Office/Shipping

US Post Office 9370 Fields Ertel Road, Mason

The UPS Store 5224 Kings Mills Road, Mason (513) 398-6500

Office Max 9151 Fields-Ertel Road, Mason (513) 677-1689

Staples 9550 Mason Montgomery Road, Mason (513) 754-0235 (same plaza as hotel)

Building Materials/Hobby Stores

Ace Hardware (nearest to field) 729 East Main Street, Lebanon (513) 932-4870

The Home Depot – (Mason) 5203 Bardes Road, Mason (513) 398-0937 (across street from hotel)

Hobbytown USA Governor's Square **10% off purchases with NARAM badge**
9120 Union Cemetery Road, Mason (513) 697-8224 (5 minutes from hotel)

HobbyTown USA
Toys for All Ages!

Hobby Lobby **30% off purchases with NARAM badge**
4100 Montgomery Road, Loveland (513) 677-5256 (10 minutes from hotel)

**HOBBY
LOBBY**

Medical

Hometown Urgent Care - Lebanon Center (nearest to field)
1000 Columbus Avenue, Lebanon, OH 45036 (513) 932-5600

Restaurant Discounts Available To NARAM-53 Attendees

Quatman Deli Cafe quatmancafe.com Cincy's Best Cheeseburgers!
224 West Main Street, Mason, OH 45040 (513) 229-0222
Buy one special get one half off with NARAM badge



Toot's Restaurant www.toots.com
12191 Montgomery Road, Loveland, OH 45140-9355 (513) 697-9100
\$5 60oz pitcher beer, 49 cent wings, \$9.99 full rack rib platter
Must show NARAM badge for discount



Hotdoggin'it - Chicago Specialties hotdoggin'it.com
12082 Montgomery Road # B, Cincinnati, OH 45249 (513) 831-3644
Free drink with purchase with NARAM badge



Tony's Steaks Seafood - Fine Dining tonysofcincinnati.com
12110 Montgomery Road, Cincinnati, OH 45249 (513) 677-1993
10% off bill (no alcohol) with NARAM badge

Tony's
STEAKS SEAFOOD

Hotel Information

Hotel Facilities:

Pool Hours: Sunday-Saturday

Indoor- 6:00am to 11:00pm

Outdoor- 9:00am to 9:00pm

*Children under the age of 18
must be accompanied by an adult

Exercise Facility: open 24 Hours

Business Center: open 24 Hours

*Reserved for adults 18 and older

Laundry Facility: open 24 Hours

located on the 2nd Floor
*Coin operated washer and dryer

ENJOY YOUR STAY!



Welcome to the
Marriott®
CINCINNATI NORTHEAST

**NARAM - National
Association of
Rocketry**



Hotel Address
9664 Mason Montgomery Rd
Mason | OH | 45040
Phone: 513-459-9800

Field Locations

Lebanon Sports Complex

McClure Rd
Lebanon, OH 45036

1. Turn left onto Merten Dr toward Mason Montgomery Rd
2. Turn left onto Mason Montgomery Rd
3. Turn left onto Fields Ertel Rd
4. Turn left onto the Interstate 71 N ramp
5. Merge onto I-71 N
6. Take Exit 25 Kings Mills
7. Turn left from 71 North onto westbound Kings Mills Road
8. Turn right onto State Route 741
9. At the first stoplight turn right onto U.S. 42 North.
10. Go approximately 4.6 miles on U.S. 42 North to McClure Road
11. Turn left onto McClure Road
12. Go across the railroad tracks
13. Lebanon SoccerComplex is directly on the right.



Local Attractions

Regal Deerfield Movie Theater

5500 Deerfield Blvd | Mason, OH 45040
(513) 770-0964

Rave Motion Pictures Kings Island

5937 Kings Island Drive | Mason, OH 45040
(513) 699-1500

Kings Island

6300 Kings Island Drive | Mason OH 45040
(513) 754-5700

Lazer Krazee

3187 Western Row | Maineville, 45040
(513) 339-1030

The Beach Water Park

2590 Water Park Dr | Mason, OH 45040
(513) 398-7946

Dave and Busters

11775 Commons Dr | Springdale, 45246
(513) 671-5501

Newport on the Levee & Aquarium

1 Levee Way | Newport, KY 41071
(859) 291-0550

Wake Nation

201 Joe Nuxhall Way | Fairfield, Ohio 45014
(513) 887-9253

Cincinnati Zoo

3400 Vine Street | Cincinnati, OH
(800) 944-4776

Museum Center

1301 Western Ave | Cincinnati, 45203
(513) 287-7000

River City Grille Specials

Pizza Specials

16" Specialty Pizza for \$14

BBQ Chicken | Sweet BBQ Sauce, Caramelized Onions, Cheddar Cheese

Mediterranean | Artichoke Hearts, Sun Dried Tomatoes, Olives, Spinach, on a Garlic Sauce

Margherita Pizza | Fresh Mozzarella, Tomatoes, Basil

All the Meats Pizza | Pepperoni, Ham, Bacon, Sausage

Veggie Lovers | Bell Peppers, Caramelized Onions, Tomatoes, Portobello Mushrooms, Olives

16" Build Your Own Pizza

One Topping Pizza for \$12

Additional Toppings Just \$1 Each
Pepperoni, Chicken, Sausage, Ham, Bacon,
Caramelized Onions, Red Onion, Bell Peppers,
Olives, Pineapple, Spinach

*Add a House Salad with any pizza for \$3

Buffalo Wings

12 Jumbo Wings with Bleu Cheese and Celery \$7

Drink Specials

\$3.00 Miller Lite on Draft

Join us Pool Side at Kokomo's Café!

Served from 11:00am to 9:00pm

Starters

Chilled Shrimp \$10 | Hummus \$11 | Wings \$10 |

Quesadillas \$10

Sandwiches served with choice of fries, chips, or fruit

Marriott Burger \$13 | Turkey BLT \$12 | Chicken Melt \$12

Salads

Chicken Caesar \$11 | Sesame Salad \$13 |

Cobb Salad \$13

Dessert

Whit's Frozen Custard \$7 | Sliced Fruit \$8

Non-Alcoholic Beverages

Virgin Strawberry Daiquiri \$4 | Cincinnati Cooler \$4

Alcoholic Beverages

River City Ice Tea \$7 | Lynchburg Lemonade \$7 |
Bay Breeze \$7 | Frozen Margaritas \$8



Model Rocket Kits

<http://fliskits.com/>
6 Jennifer Drive, Merrimack, NH 03054
Sales@fliskits.com

**For all your
rocketry needs!**

Proxima
Centauri

Aim for the sky, and try not to miss!

**See back for
more details!**

Copyright © 2011, Fliskits, Inc., All rights reserved.

Visitor's Guide



For more Information, call 513-228-2322 or
www.HistoricDowntownLebanon.com

From simple



To complex



**And everything in between!
Model rocket kits you BUILD!**



Visit our web site for complete kit details!

Write to Fliskits for a copy of our latest catalog!

Fliskits can help you get the most out of rocketry!
Learn new construction techniques, fly some of
the most unique kits ever designed and show your
friends that you really ARE a rocket scientist!

Hobby Rocket Kits

Future Launch Vehicle
Prod. # 3013

Magnum Sport Loader
Prod. # 3012

MLAS Sport Scale
Prod. # 3014

Novia
Prod. # 1006

Zenith II
Prod. # 3005

NEW
SHX Stiletto
Prod. # 2019

Astra I
Prod. # 1004

Terrier-Orion
Prod. # 2015

Big Betty
Prod. # 1014

America
Prod. # 1020

Force 5
Prod. # 3010

Harpoon
Prod. # 3008

NEW
Cobalt
Prod. # 1021

NEW

Planet Probe
Prod. # 1022

Viper
Prod. # 1008

Starhawk
Prod. # 1005

Full Betty
Prod. # 2018

NEW

Gamma Ray
Prod. # 2004

Raptor
Prod. # 3011

NEW

Aerospace One Fighter Escort
Prod. # 2017

NEW

Bright Hawk
Prod. # 1017

Super Bird
Prod. # 2010

Aerospace One
Prod. # 3015

NEW

Payload One
Prod. # 1018

Tomahawk SLCM Missile
Prod. # 3007

Striker AGM
Prod. # 2020

Courier
Prod. # 2011

Navaho AGM
Prod. # 3003

Space Shuttle Intrepid
Prod. # 4002



0 145856 199506 3

Catalog No. 9506

QUEST 
Start your adventure with Quest!

QUEST QUICK KIT



Triton-X
Prod. # 1617

Penetrator
Prod. # 1618

Seeker
Prod. # 1611

Quick-Q
Prod. # 1623

Astra III
Prod. # 1610

NEW

Rocket Motor Single Packs

A6-4 #5765
B6-4 #5766
C6-5 #5767

Rocket Motor 3 Packs

A6-4 #5740
B6-4 #5741
C6-0 #5742
C6-3 #5743
C6-5 #5744

Rocket Motor 12 Packs

A6-4 #5697
B6-4 #5698
C6-3 #5693
C6-5 #5699

Rocket Motor 25 Packs

A6-4 #5597
B6-4 #5598
C6-3 #5593
C6-5 #5599

Q2^{G2} Igniters

3 inch: #7024
8 inch: #7025

Easiest to ignite

Launch Pad

Part #7610

Complete Launch System

Part #7510

Launch Controller

Part #7510

Motors packaged in re-sealable foil packs

ADVANCED ROCKETRY

FLYING MODEL ROCKET

Uses powerful D, E and F motors!

NEW



High-Q
Prod. # 5012

Mean Green
Prod. # 5013

Lil' Grunt
Prod. # 5014

Big Dog
Prod. # 5010

Minotaur
Prod. # 5015

Quad Runner
Prod. # 5016



Launch Set
Motors available separately
T-Minus 5 RTF #1409

NEW

Starter Sets

Includes motors
Astra III #1406
Penetrator #1412
Vortex #5738
2 Rocket Set # 5736

12 Piece Bulk Packs

Novia #5482
Starhawk #5483
Astra #5484
Viper #5494
Astra III #5495

25 Piece Bulk Packs

Novia #5582
Starhawk #5583
Astra #5584
Payload One #5585
Viper #5594
Astra III #5595
Egglofter Courier #5596

Sets come in re-usable range box with carry handle

QUEST

Quest Aerospace, Inc.

PO Box 2409, Pagosa Springs, CO 81147

Phone (970) 264-4050 • Fax (970) 264-9330

Toll Free 1-800-858-7302

For specifications and engine recommendations, visit www.questaerospace.com!

11QSS023

QUEST™ *fly*

ready to
micro rocs

MICRO LAUNCH SITE
75 FOOT
MAX ALTITUDE



4 SETS TO CHOOSE FROM

**Alien
Invasion
Dual Set
No. 5622**

**Space
Pioneers
Dual Set
No. 5623**

**Critical
Mass
No Mercy
Dual Set
No. 5621**

**Critical
Mass
Single Set
No. 5620**
This set includes
3 motors and igniters

12 Piece Replacement
**Motor &
Igniter
Pack**
Product No. 5631

6 MMX-62
Igniters

6 Micro Maxx
Motors

Launch Pad

Safety Key

Q2 Launch Controller
with Arming Light & Sound

NOT A TOY - Recommended for ages 14 and up. Direct Adult Supervision when flying is recommended for anyone age 8 to 14.
Must be 14 years of age to purchase Micro Maxx rocket motors in CA and NJ.

Requires One "9 volt" Alkaline Battery (not included).

QUEST™ *fly*

ready to
micro rocs

**Real Model Rocket
Flight Performance
and Thrills right
in your backyard!**

Critical Mass Single Set

- One Ready-to-Fly Critical Mass Micro Roc.
- Three high performance Micro Maxx Rocket Motors & MMX-G2 Igniters.
- Complete Launch System with Launch Pad & Q2 Launch Controller.
- Re-usable Range Box with Carry Handle.
- Streamer Recovery System.

Product No. 5620

Suggested Retail:
\$24.99

UPC: 045856956200

Critical Mass No Mercy Dual Set

- Ready-to-Fly Critical Mass & No Mercy Micro Rocs.
- Six high performance Micro Maxx Rocket Motors & MMX-G2 Igniters.
- Complete Launch System with Launch Pad & Q2 Launch Controller.
- Re-usable Range Box with Carry Handle.
- Streamer Recovery System.

Product No. 5621

Suggested Retail:
\$29.99

UPC: 045856956217



Alien Invasion Dual Set

- One Ready-to-Fly Space Fighter & Flying Saucer Micro Rocs.
- Six high performance Micro Maxx Rocket Motors & MMX-G2 Igniters.
- Complete Launch System with Launch Pad & Q2 Launch Controller.
- Re-usable Range Box with Carry Handle.
- Streamer Recovery System.

Product No. 5622

Suggested Retail:
\$29.99

UPC: 045856956224

Space Pioneers Dual Set

- Ready-to-Fly Saturn V and Space Shuttle Micro Rocs.
- Six high performance Micro Maxx Rocket Motors & MMX-G2 Igniters.
- Complete Launch System with Launch Pad & Q2 Launch Controller.
- Re-usable Range Box with Carry Handle.
- Streamer Recovery System.

Product No. 5623

Suggested Retail:
\$29.99

UPC: 045856956231



QUEST™

PO Box 2409, Pagosa Springs, CO 81147
(970) 264-4050



Catalog No. 9510

The background of the cover is a photograph of a railroad track. In the foreground, the wooden ties and gravel of the track are in focus, with some fallen leaves scattered on them. In the background, a red train engine is visible, slightly out of focus. To the right of the train, there is a white signal post with a red and white striped band. The overall scene is set in a wooded area with green trees in the background.

Ohio

LEBANON

AREA CHAMBER BUSINESS GUIDE