



The Macon Tribune

Lifeline of Macon, North Carolina

Population: 114



August 12, 2017

Volume 39, Number 4

National Rocketry Festival and Annual Meet a Roaring Success

Unassociated Press

The annual contest and festival was deemed an unqualified success by attendees. Club and Individual Champions were crowned at the end of the week. The weather was spectacular for most of the week, only marred by a soggy Friday morning.

See page 9 for more.

High Drama at International CanAm Cup and US Team Flyoffs

Full Court Press

Spectacular weather welcomed the participants to the rocketry competition in Michigan. Competitors from the US, Canada and Spain vied for rocketry supremacy in nine different events.

Most of the US competitors were trying out for the National team to represent the US in the 2018 World Space Modeling Championships to be held in Poland next summer.

See page 7 for more.

44th East Coast Regional Meet Held in Mt. Airy, MD

Full Coverage see page 3

NARHAMS' Zog-43 Wins NAR Newsletter Award

Honor Awarded to Section#139 for the 10th Time

By Donald Carson
Staff Reporter

The National Association of Rocketry Headquarters Astro Modeling Section of the NAR was given the The North American Rockwell Trophy for the year ending June 30, 2017 by Mr. Thomas Beach, a member of the evaluation committee and editor of Sport Rocketry magazine.

The traveling trophy was won last year by The Launch Rack, newsletter of the Garden State Spacemodeling Society, edited by Dr. Bob Kreutz.

The trophy is accompanied by a box containing mementos left by previous awardees. Originally these items were secretly stashed in hollow spaces in the trophy. Over time, space was no longer available and the "Annex" was constructed.



By Sarah Alexander, Staff Photographer

ZOG-43 is dedicated to model rocketeers of all ages, abilities, and interest. We are committed to providing the most current, up-to-date information on model and real world rocketry, and to provide educational material, as well as, entertaining information.

ZOG-43 is published bi-monthly and is available to all paid up members of NARHAMS. Club membership is open to all, dues are 10 cent per week.

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About NARHAMS

The National Association of Rocketry Headquarters Astro Modeling Section, or NARHAMS, serves Baltimore, the state of Maryland., Washington, DC and the surrounding Metropolitan areas. The club is a section (#139) of the National Association of Rocketry (NAR).

We are the oldest continuously active model rocket club in the United States, first established as a high school club in 1963, changing our name to NARHAMS when chartered as a NAR section in 1965. NARHAMS is the only seven time winner of the NAR "Section of the Year" award (1997, 1998, 1999, 2001, 2004, 2006, and 2007).

NARHAMS members regularly fly their model rockets at NASA's Goddard Space Flight Center in Greenbelt Md, at Old National Regional park near Mt. Airy, Md. and at the Carroll County Agriculture Center, near Westminster, Md.

NARHAMS welcomes all to our monthly meetings and launches.

For details, dates and directions to our club, meetings and launches, go to: <http://narhams.org>

From the Editor - Zog-43 Wins the The North American Rockwell Trophy!

Don Carson, NAR #11069

If you got this far, you realize that this is your Zog-43. There is no Macon Tribune. Macon doesn't have a newspaper or a stop light, not even a flashing yellow caution light. The folks at the August business meeting insisted on the cover picture for this issue, so I decided to have a little fun with it.

I am very happy for the club to have received the LAC Award. It is very much a club recognition. I get such great material covering club and national events, technical articles, history, tips and even a plan now and then. Thank you so much for the tremendous support.

That being said, I am always looking for material from new sources, especially within the club. Consider volunteering for a Shop Visit to check out your build space. Write up an experience at a launch. It doesn't have to be fancy or elaborate. Send me in a photo or two that you really like. It is your newsletter, help fill it up.

Check out the links to more photos in some of the articles. I sometimes get far more pictures than we can include in the Zog. Many good ones get left behind.

One bit of good news coming out of NARAM is that we no longer have to print and mail the Zog in for consideration for the LAC Award. That will save us a few coins that can be put to better use for the club and should open the competition up to more clubs' newsletters.

Fly 'em high, bring 'em back, and be safe.

For questions, answers, opinions, files, photos, and more NARHAMS, join the [NARHAMS Yahoo group](#). It is free, painless, no ads, and may just be the cure for the common cold. Also: [Facebook](#) if you are not paranoid about that sort of thing.

Front Cover: Don Carson hoists the LAC Award for Best Newsletter at the NARAM-59 Award Ceremony
Photo: S. Alexander

Back cover: Team Qualified Flight, Pool, and Beverage shows off their team shirts at ECRM-44, complete with their nicknames.
Photo: D. Carson

ZOG ROYAL COURT (NARHAMS OFFICERS)

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East Coast Regional Meet #44

By Jim Filler, NAR#27862

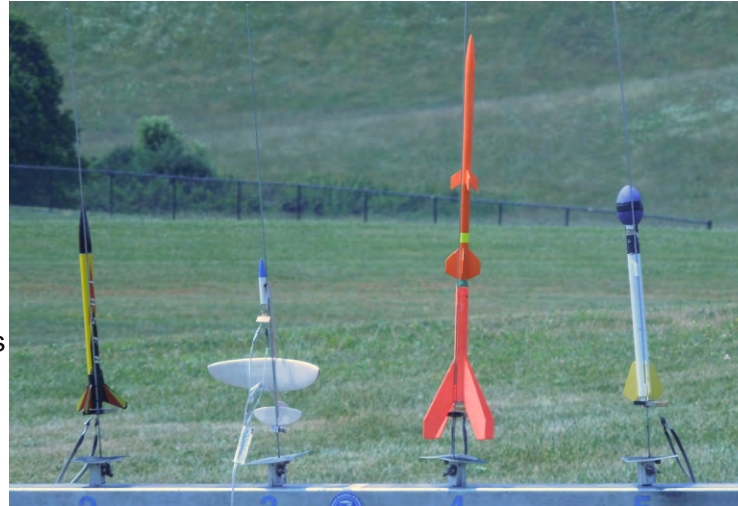
The East Coast Regional Meet was flown for the forty fourth time on June 17th & 18th 2017. We had thirty entrants, three in "A" division, two in "B" division, twenty in "C" division, and five teams in "T" division. ECRM-44 was the only meet flown in the Southland Contest Region for 2017. We had flyers from, MD, DC, VA, NC, PA, NJ, AL, MA.

The acronym for this meet has been changed over the years to coincide with the weather. Years ago we took the hint and moved this annual event to Father's Day weekend in June. Instead of it being the Extremely Cold and Rainy Meet, this year the weather was really humid. I questioned myself about the forecast when I made the call the Thursday prior to fly the meet. It was cloudy and hot on Saturday. Water and a towel to wipe your brow were required, yet the warm weather did not slow down the flurry of launches. We were visited by sport flyers over the entire weekend. In addition to the contest flights there were also 58 sport only flights made on Saturday. Sunday an additional 37 sport only flights were made.

Saturday morning started early picking up then setting up the equipment for the range. Thanks to several helpers including the Jackson's for the pickup truck. My Ford F-150, a veteran of ECRM since 2007, finally died with the transmission going. With all the help,

setup went quick and we were ready to fly early.

The highly scientific method for picking the spot landing location was performed by Esther Johnson throwing the



An array of competition and sport models ready to launch
Photo: D. Carson

stake "that way". Many chose to fly spot landing first and some good flights were made. John McCoy made the best flight for the meet, only being 2 meters away.

Classic Model judging was handled by Kevin Johnson. Static judging was done on Saturday with flights not until Sunday. We had 13 entries and 4 of them were the Orbital Transport. Two more glider models and two multi-stage models were flown trying to grab flight points.

"B" Egg loft altitude with altimeter was a fun and challenging event. The Flying I-Beam

Kids had what was a record flight of 130 meters in "T" division but failed to download the flight data in between attempts erasing that flights data. Altitude flights made with an altimeter must use a recording altimeter and the download of the data must be submitted for the record.



**More and HiRes ECRM
Photos
[Click Here!](#)**

Continued next page

ECRM, continued

"1/2A" Streamer Duration flights saw many models fly over the tree line to the north into the low yet navigable corn field. I managed to total 139 seconds for 2 flights and good enough for a first place trophy at ECRM!

"1/2A" Rocket glider was also flown with many great flights turned in. John McCoy flew only 1 flight on Sunday with an old NCR pop-stab model good for 84 seconds and the best single flight for the meet.

"Random duration" which is one those fun events we always get a lot of contestants flying. Twenty three contestants flew out of thirty entries. Maddie Stokker in "A" division and Natalie Shafer in "C" division (Yes "C" division!) both scored perfect flights right on the target time of 45 seconds.

With all the contest and sport flights getting wrapped up on Sunday, we only had to announce results at the annual ECRM picnic that NARHAMS has been doing for lots of years.

It was great to have so many enthusiasts attending this event. Thanks to all of those that helped by doing range duty, setting up and tearing down the range. Thanks to Maria Ha, proud new grandmother of twins born the night prior, and helpers for putting together the picnic. Thanks to Jennifer Ash and Mike Humphrey for processing the results.

Thanks also to Aerospace Speciality Products <http://www.asp-rocketry.com/> for the great door prize certificates we handed out with the results. If you took one of these certificates home please be sure to go over the website to order something. Thanks Andy!

Continued next page



Kids getting in on the action
Photo: D. Carson



Team QFPB loading up a tower. Um..
Photo: D. Carson



The Shafer's Predicted Duration model
Photo: D. Carson



Classic Model Apogee caught staging
Photo: D. Carson

Rod Shafer shows off
Flying I-Beam Kids'
Farside X Classic
Model with Steve
Foster and Kevin
Johnson
Photo: D. Carson



Alex, "You say the pointy end goes up?"
Photo: D. Carson

ECRM, continued



Variety was the flavor of the day
Photo: D. Carson



Above: Kevin Johnson judging
Classic Model
Photo: E. Pearson



Left: Egglofter flying off a poplug
- old school
Photo: D. Carson

Right: Judge Kevin lets Greg know
just how far he can be pushed
Photo: D. Carson



Glenn Feveryear
Photo: E. Pearson



Another rack ready to go
Photo: D. Carson



Steve Foster
Photo: E. Pearson



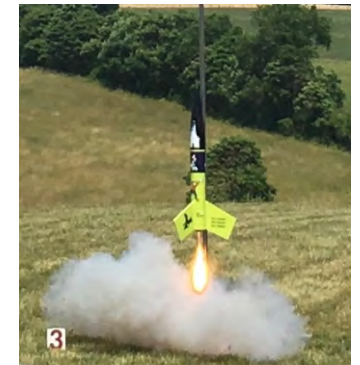
Ed and Sarah Jackson
Photo: E. Pearson



Murphy's Lawyers' scissor
flop wing ready to launch
Photo: D. Carson



Tom Jackson's black and white phase
Photo: D. Carson



Ellen Fineran's sport model
lifts off with a roar
Photo: D. Carson

ECRM, continued



Raul Pena and his Saturn V kitbash, look for an article in an upcoming Zog-43
Photo: D. Carson



An Alpha III is family fun!
Photo: D. Carson



Ed Jackson's Orbital Transport
Photo: D. Carson



Jennifer Ash and Mike Humphery perform data reduction and determine the contest winners. Be nice to them.
Photo: E. Pearson



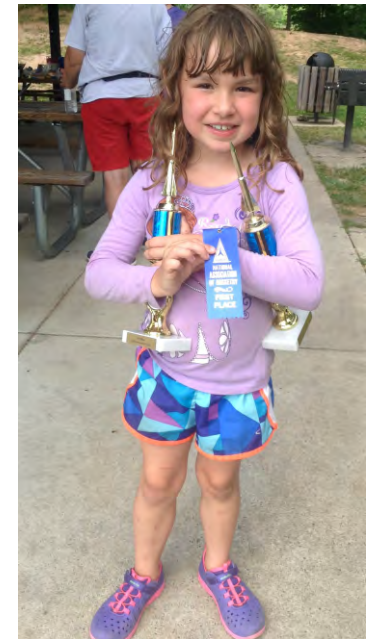
Jim Filler and Charis Houston.
Photo: E. Pearson



Jim Miers loads up his LOC Phantom
Photo: E. Pearson



John McCoy bringing home the hardware
Photo: E. Pearson



Maddie Stokker, not far behind John's haul
Photo: E. Pearson



CanAm Cup and US Team Flyoffs

Muskegon, Michigan

By: Don Carson, NAR#11069

Held the weekend before the NAR annual competition, the CanAm Cup was an international contest with participants from 3 nations. Flying concurrently with the CanAm Cup was the US team flyoffs, used to determine who will qualify for the US team. The next World Space Modeling Championships will take place in Nowy Targ, Poland from August 25 – September 2, 2018.

There were 54 contestants from US, Canada, and Spain, including 10 juniors. NARHAMS was well represented with 11 contestants, plus a couple of our local flyers and a former member who has allowed his membership to expire (Jay).

The events included:

B Altitude (S1B)

Precision Fragile Payload (a TARC-like event) (S2P)

A Parachute Duration (S3A)

A Boost (really Rocket) Glider (S4A)

C Scale Altitude (S5C)

A Streamer Duration (S6A)

Scale (S7)

E (D for Juniors) R/C Rocket Glider (S8E/P)

A Gyrocopter (what we call Helicopter Duration) (S9A)

The Cup and flyoffs follow the FAI rules for the events, which are different in some ways from the similar NAR events. Noticeably, the Parachute, Streamer and Gyrocopter events all have rules specifying minimum sizes for diameter and length.



S4A Boost Glider
Photo: D. Carson



Jim Filler preps his Scale Altitude
Arcas
Photo: D. Carson



Chris Kidwell waiting for good air.
Photo: D. Carson

Right: Wolfram
Kiparski watch his
2nd place S2P
flight.

Photo: D. Carson



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CanAm Cup and Flyoffs,

That is why you see models that look very different from those in NAR competition. Also, all the duration events are multi-round.

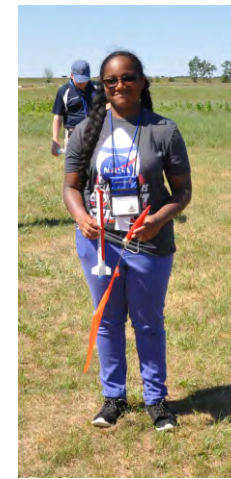
The US Team is selected based on performance in these flyoffs. The top 3 finishers in each event automatically qualify for the team. However, no team member flies in more than 2 events at the World Championships. Anyone who qualifies for more than 2 events has to decide which 2 they will compete in. Also, sometimes contestants will decide not to be a part of the team. In these cases, contestants finishing further down the list will be invited to join the team.

The US Team has not been finalized, as it takes some time to sort out who is going to go and what events they are flying. NARHAMS looks to have a number of member who qualified for the team.



Chari Houston watches her Scale Altitude flight (l) and recovered it to lead the Junior division (r).

Photo: D. Carson



Contestant holds up his paddle indicating he is go for launch.

Photo: D. Carson



Jen checks in her Gyrocopter entry.

Photo: D. Carson



Canadian competitor readies his S8 RC Boost Glider.

Photo: D. Carson



Kevin and Esther Johnson pose by one of their S4 Boost Gliders.

Photo: D. Carson



Marc McReynolds and his S7 (scale) model.

Photo: E. Pearson

**More and Hi Res versions
of these photos
[Click here!](#)**



Dave O'Bryan readies his S4 Boost Glider.

Photo: D. Carson



NAR Annual Meet and Rocketry Festival - *Things are Changing and it is Fun!*

By Don Carson

All photos (except as noted): D. Carson

The face of NARAM has changed, and for the better. Organizers have moved to include more non-NAR competition activities to include sport rocketeers in our annual get together. In the process, NARAM now lasts a full 7 days – Saturday through Friday.

NARAM-59 was held in Muskegon, Michigan on the launch site of both the SMASH and MMAR clubs. It was also the site of NARAM-54. The site itself is in the Muskegon Wastewater Treatment Facility. There was the matter of the “Big Icky,” a large settling pond adjacent to the field and the huge irrigation sprayers spraying who-knows-what right next to us. Most flights avoided the hazards, but some were not so fortunate.

Robert Alway was the Contest Director and he ran a nice meet, everyone seemed happy. Of course it takes a sizable team to run all these activities and those volunteers are much appreciated. Full coverage will appear in the Sport Rocketry magazine, so I won't try to duplicate that. Contest Results can be found here on the NAR website (<http://www.nar.org/contest-flying/naram-the-nationals/naram-history/naram-59-results/>).



ROCKETRY FESTIVAL 2017
JULY 29 – AUGUST 4TH
MUSKEGON, MI



Concept Scale turn in had many creative entries including Wallace and Grommet's Moon Rocket and Wiley Coyote's ever fateful red rocket.

Photo: E. Pearson

**Click for link to high res
versions of these and more
NARAM photos**



A Div. C Altitude entry.



Vern Richardson's C Flexwing Duration lifts off.

Continued next page

NARAM, Continued

Events Overview

The weekend before the traditional contest featured a sport launch (25,000' limit) and an FAI CanAm Cup international contest combined with a US Team selection flyoff – see the separate article on this event.

There were a number of “Fun” contests on the Sport Range. Saturday on the Sport range, they held a H or I Horizontal SuperRoc where you try to maximize both the diameter and altitude of your model! There were also commemorative launches related to Sputnik and Apollo 7 (prizes for Best in Show). Saturday night featured a night launch (awards given to the best glider and rocket night launches) and, back at the hotel, a presentation on the History of Model Rocketry and the ever-popular Manufacturer's Forum.

Sunday featured a High Power Set Altitude Contest (420m) and a low power Carnival Launch, where you land a model in a large grid and win a prize.

Some only only came in for the weekend's activities and left. A busy weekend it was.

The rest of the week had the NARAM contest on one range and Sport flying with Fun events on the adjacent range. Fun events included Odd-Roc, R.I.P. Pink Book launch (anything pink), and Imagination Celebration (impress us with your flight). Awards/prizes were given for the Fun events.



An internal rotor G Helicopter Duration.



Ed LaCroix provided an overview of the new competition rules for the coming year.



Longer pistons and high towers seem to be the trend.



Dr. Kidwell demos his 3 engine cluster G Helicopter model.

News out of NARAM

NAR Pres. John Hochheimer gave an overview of the NAR and all is basically well, we are growing and in a financially strong position. We are currently at 6600+ members and are growing by about 25/month. They don't give out all the section grant money they allocate! John reminds us that Sport Rocketry is still paying \$350 for articles. He also wants to continue to develop the Rocketry Festival format and is actively seeking member input for how to enhance this event.

The big news out of NARAM, however, was that Kevin Johnson was elected to the Board of Trustees. Thanks for stepping up kj! John H. was re-elected as well and Randy Boadway was also elected to the Board.

Contest talk

Detailed coverage will be in Sport Rocketry. Final results can be found here:

<http://www.nar.org/contest-flying/naram-the-nationals/naram-history/naram-59-results/>

Weather through Thursday was generally calm in the morning with nice thermal activity developing as the morning wore on. Winds would pick up in the afternoon making recovery sometimes a problem.

Monday saw many C Flexwings thermal away. There was a good deal of inconsistency on what qualified as a glide in this event. My opinion is that none of them were gliders. C Altitude (tracked) saw many out-of-sight flights. Many of the best were flown out of long pistons (1-2 meters), some with towers, some flying “naked.”

Tuesday brought easy-to-follow B Eggloft

Continued next page

NARAM, Continued

(tracked) and the carnage of G (D for A&B division) Helicopter Duration. Contestants flew scaled-up external blade models and internal blade models. Each type suffered failures, some spectacularly so. External bladed models sometimes shredded blades or had erratic boosts. Internal blade models sometime failed to deploy or rotate. The Team division had a particularly tough go of it. Team Division failure rate of 57% matched the A Division rate exactly! There were a few simple spinners good for 15 second qualified flights or for returned flights.

Wednesday featured C Payload Altitude (altimeter) and B Super-Roc Altitude (altimeter). Longer pistons were in play with both the payload and body tube folding events. Those that waited to fly later in the day suffered from the higher winds. 2 meter Super-Rocs on top of 1-2m pistons in a stiff breeze are not a formula for success. Some teams added impromptu windscreen extensions to their towers in an effort to mitigate the effects of the wind.



Another 3 engine cluster G Helicopter model.



Jon Stenberg had an RC deployed G Helicopter model.



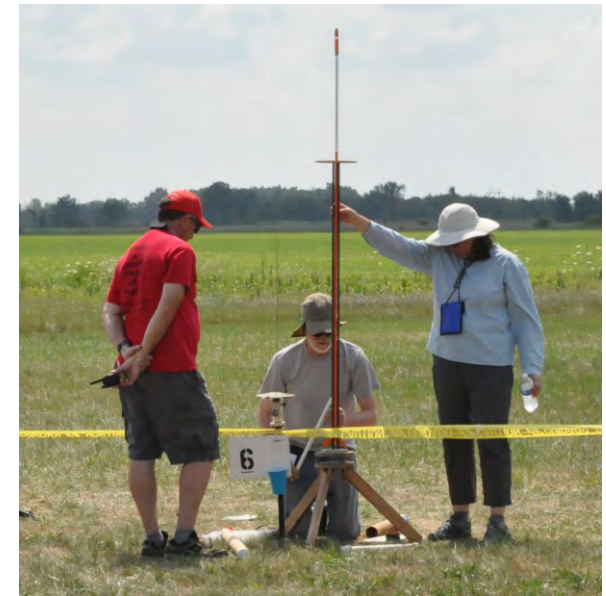
These two are actually tracking the same model!



Chad Ring's winning B Super-Roc.



Pres. Hochheimer appears to be "writing up" a young modeler who's Super-Roc landed near him. After a bit of sweating and a good laugh, the youngster retrieved his model.



Betty Dall supports her Super-Roc against the steady breeze.

Continued next page

NARAM, Continued



Another ridiculously tall skinny rocket.



A C Payload model goes awry.



Chris Kidwell waits for the perfect moment.



NAR Pres. and new Trustee Randy Boadway get a chance to chat.



Jennifer Ash and Peter Alway compare bunny models. They are rabbit fans of Spot landing.



A unique mini Mars Lander used for Spot Landing.

Thursday was an easy day with just Open Spot Landing. The spot was about 70 meters cross/up wind. I flew an old Sprite model early and got lucky with a respectably close landing (5.6m) that stayed in 1st place until shortly before the range closed. Niklas Almstedt, a young C Divisioner, flying his only event of NARAM, dropped his model 1.5m from the spot for a win. Good on him, won every event he entered.

NARAM Friday is the day of Craftsmanship events, this year Scale and Concept Scale. Unfortunately, the day dawned miserably wet and windy and stayed that way. Some of the

Continued next page

NARAM, Continued

Concept Scale entries looked like they had no chance of a stable flight and they did not disappoint – think of a flying Nerf football with no fins. At least the ground was nice and wet so there was no fire hazard. The best strategy was to get a qualified flight and get out of the weather.

Awards Ceremony

Friday evening was the banquet and awards ceremony. Rockstars Vern and Gleda Estes, who drove up from Colorado, were happily meeting, greeting and autographing. Very nice people, they are. At one point Gleda did not have a line waiting for her and I was looking for the custodian of the LAC trophy shipping case. We both turned, almost bumped into each other, and she asked, “Do you do hugs?” She doesn't know me from Adam but there is only one answer to that question. Sweet lady.

NARHAMSters picked up a few awards, but aside of Murphy's Lawyers picking up 1st in B Eggloft Altitude, we weren't a competition force this year.

NARHAMS' Zog-43 did receive the LAC Award for best newsletter (in case you hadn't picked up on that).

NARAM-59 was a great event, I wish I had built for more of the events, both “Fun” and competition. The field is huge, depending on the wind direction, and the people are great. I would go back for another NARAM there.

Next year, NARAM-60 and Rocketry Festival will be held at the Hudson Ranch near Pueblo, CO. That is a fantastic field to fly contest or low-to-high power rocketry. Club member Scott Alexander will be the Contest Director. See the listing in the Competition Corner for the specifics. Start planning now, you don't want to miss it.



At Scale pick up, this array of beauties had yet to meet the rain.



Chris Flanigan's magnificent 1st place Saturn 1B.



Neutron Fusion's Little Joe II.



Flying I-Beam Kids' Concept Scale First Men to the Moon Ship had a rough time. Not quite all 9 motors lit, giving a spectacular, yet unsafe, boost.



Vern and Gleda Estes invite us to attend NARAM-60 in Colorado.



July 2017 Mt Airy Sport Launch Report

Photos and Story by: Sarah Jackson

Launch morning started out rainy and cloudy, but as we arrived at the Mt. Airy storage unit, the weather improved. After a brief inventory and reorganization of the storage unit, we made our way to the launch range. At first, we thought we were the only ones, but luckily Brad Lowekamp and the Shafers arrived to lend a hand setting up the range. We were ready to fly! The day was nice, the grass was mowed, and the soccer fields were empty. The wind was a bit iffy, gusting up to 13-15 mph every now and again, but mostly staying steady. Pretty decent flying conditions.

Except, no one had anything to fly. All our regulars were over at Goddard getting ready for the Apollo launch. Dick Stafford was up to the challenge, however. I believe he flew the first five or so flights of the day, including this nifty Mini Higg Farms Square rocket. While we were waiting for more rockets to arrive, John Shafer entertained us with a remote control airplane flight.

As the launch opened to the public, the crowd size increased, but the pace remained steady. Several flyers were excited to attend the Apollo launch at Goddard the next day. Brad Lowekamp made an exciting find as he trudged through the field retrieving a rocket. He found an actual arrow, which we compared to Ed

Jackson's Fletcher. I think the Fletcher wins for beauty. The arrow remained an object of curiosity all day long for the younger members of the crowd.

The RSO launched his Patriot again, only for the Patriot to land with the exact same crunch as the previous month. Another repair to make. Tamyra Shafer also had an unfortunate landing with her red Big Momma making a shovel recovery. This very nice copper Mammoth made its last flight. It landed somewhere over the tree line and its owner spent an hour or so looking for it, but to no avail. Otherwise, most flights flew safely and were returned.



Continued next page

GSFC Visitors Center Launch, Continued

Tom Jackson brought a newly built Phoenix that was very good looking. Brad Lowekamp's twins had two matching Mini Maxes. Chris Greco flew a two stage Harpoon with 2 Cs and a D on the boost and a D on the upper. It landed in a tree, but was recovered missing the nosecone.

The day wound down fairly early, and we had plenty of help with tearing down the range, thanks to Tom Jackson, Bill Baublitz, Alex Mankevich, and Bruce Mitchell. The launch was a relaxing day. All in all, everyone was able to fly multiple times with no waiting in line. The best part of the day, however, was Brad Lowekamp employing his tiny minions for rocket recovery.

Flight Count:

¼ As – 1

½ As – 6

As-15

Bs-26

Cs-21

Ds-10

Es-5

Fs-6

Gs-1

Staged-3

Cluster Staged-1

Total - 95



Meeting Highlights

Text and Photos: E. Pearson
July



Beauty and The Beast
Ellen and Jef Fineran.



Mark Wise and Donna Edwards did
cooking honors.

Maria Ha confirmed this was her last NARHAMS meeting; she moves to Indiana July 25. Alex Mankevich and Alan Williams told of their early morning watch of a sounding rocket launch from Wallops from their Baltimore and Bowie vantage points. Jim Miers showed his model that used air baffles to defuse ejection gas. John McCoy told of his models at ECRM and gave credit to his recovery crew. He also told of rack and pole repairs he effected. Jim Filler discussed the NRC structure and showed off his 1/45th scale Estes Little Joe II with added custom parts and launch tower.



Jim and his Little Joe II.

August



Seventeen NARHAMSters showed up at August's meeting. Mark Wise summarized events at NARAM for us, Dave Clark told of his outreach for HS students at Blossom Point, Md, Alex Mankevich told of the July SISTER launch for middle school girls at NASA Goddard, and John McCoy displayed an appreciation plaque awarded club members by the BSA.

We agreed to purchase button rail launchers for our rack at Mt Airy, discussed lessons learned at July's NASA Apollo contest, and enjoyed each other's company. The club meets monthly at the College Park, Md general aviation airport.





2017 Apollo 11 Anniversary Goddard Contest

By: Jennifer Ash

This year, the Goddard Contest was held July 16, 48 years to the day that a Saturn V was launched from Pad A, Launch Complex 39, Kennedy Space Center. We were fortunate that the weather was "nice" and humidity was "normal". The following weekend, there was a heat index of over 100, and a code orange for air quality, so we lucked out!

The Thursday before the contest, I heard the Maryland tourism minute on a radio station in Baltimore mention the Apollo 11 contest at Goddard. Good job on advertising the launch! I know the club tries various means every year, but to hear it mentioned on the radio was good news! And bad, if you were working it.

We started off with a few words from Anoop Mehta, from the Maryland Space Business Roundtable. They give us some money every other year to help hold this event and support the Goddard launches. He was telling me tha they have supported several robotics groups as well, and have reached several thousand children a year for STEM.

Jim, Goddard contest director, started off the launch with a demo launch of America's various rockets that got us into space. A Little Joe, several Saturns (1B, V) and a Mercury Redstone were all launched. Then the flood gates opened. We had a line waiting at checkin until we closed it at 2:45pm. Then we allowed the NARHAMS members who were volunteering a chance at the spot.

Dan Bramos from PAX Air Museum helped hand out the trophies, and donated some



A model lifts off, chute floats just over the flag, and lands near Ed Jackson.
Photo: E. Pearson



Junior winners, future leaders.
Photo: M. Ha



Senior winners, except maybe that little one.
Photo: M. Ha

Continued next page

Apollo 11, Cont.

great gifts for the winners. We had trophies, kits donated by Estes, passes for the PAX museum (where Jim Lovell trained as a test pilot), magnets and lots of other goodies from the museum. Thanks to all of our sponsors and to the NARHAMS members who help make this a great event every year.

Here are the stats:

83 contestants from 4 states and Pakistan

81 flights

27 first time fliers in juniors, 4 first time fliers in seniors

33 total senior flights (one team), 11 landed in the circle - 33% success rate

48 junior flights (one team), 32 landed in the circle - 66% success rate!

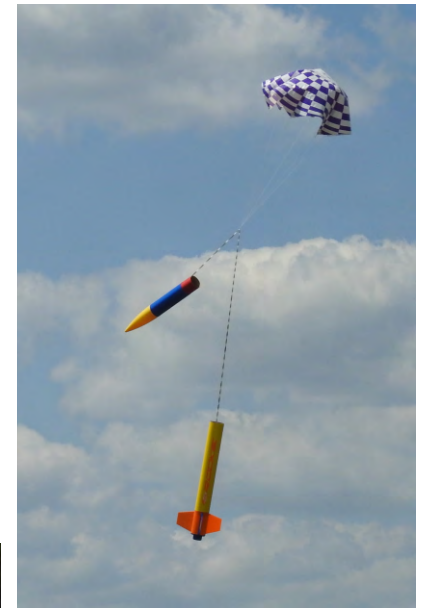
Last year, we had 67 contestants, so as you can see, the advertising this year really helped, as did the good weather. See everyone next year!



Co-Sponsor Dan Bramos with 1st Place Junior.
Photo: M. Ha



Anoop Mehta made welcoming remarks during the opening ceremony.
Photo: A. Mankevich



Gently heading for the Spot.
Photo: D. Emmanuel

Right: Measuring up with Ed Jackson.
Photo: D. Emmanuel



A Saturn 1B takes off during the opening ceremony.
Photo: A. Mankevich



Mike's getting the picture without the Caution tape.
Photo: D. Emmanuel



Esther Johnson's winning model heads for the Spot.
Photo: A. Mankevich



Looks like they all know what they are doing.
Photo: D. Emmanuel

Outreach: The Discover Space Build Session, C. Burr Artz Library – Frederick, MD

By: Alex Manchvich

NARHAMS was contacted by the library in February 2017 as part of their upcoming 'Discover Space: A Cosmic Journey' program. This is a traveling exhibit for libraries as part of the STAR Library Education Network (STAR_Net) which is led by the National Center for Interactive Learning at the Space Science Institute. The Frederick County Library System is honored to be one of only eight locations around the country to be selected to host this traveling, Smithsonian-quality exhibition.



Alex narrated and guided the build session while the NARHAMSters assisted at the tables.

Photo: S. Jackson

Other invitees to this program include Adam Steltzner of NASA JPL who lead the team to land the Curiosity rover on Mars and Frank Culbertson of Space Shuttle missions and of Orbital ATK fame. NARHAMS sent its standard Goddard Launch range crew and used the Rockville Science Day build session supplies to lead the assembly of 24 Alpha III kits provided by the library. Georgie Van Brocklin was our contact person for the June 10th build session at the C. Burr Artz Library in downtown Frederick.

Alex Mankevich was joined by Bill Boublitz and Sarah and Ed Jackson and their niece Yorkie one hour before the build session began. We arranged the tables and chairs into a "U" shape so that we could freely move about to provide construction assistance. For safety purposes we ourselves had cut the hole for the engine hook in the engine mount tube and place the small, easy-to-loose screw eye into the nose cone. We started off the session with a Powerpoint presentation by Alex on the fundamentals of model rocketry and an overview of how the Goddard Launches are conducted.



Sally Ride was portrayed by actress Mary Ann Jung.

Photo: G. Brocklin



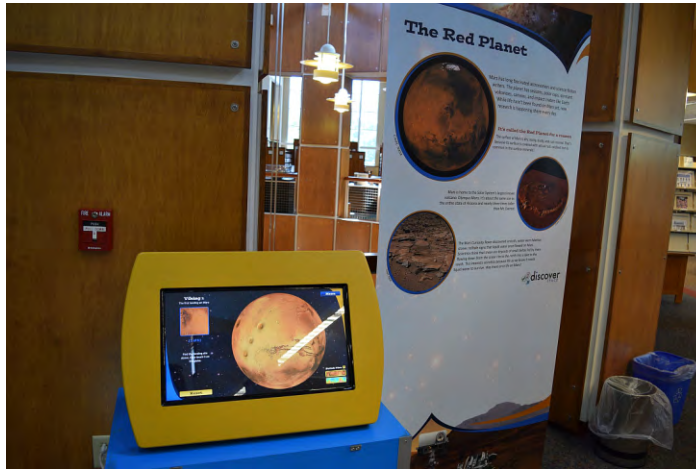
Here's an idea for a future outreach - a build and selfie session.

Photo: S. Jackson

Continued next page

Outreach, Continued

Alex took on the role of 'uber-build-meister' Raul Pena in leading the session using spare Alpha III parts as a demo aid. Participants were required to pre-register for the build session. Twenty-two youths and their families turned up on build day. The library staff was responsible to be certain that only the registered participants were given access to the build session room.



The C. Burr Artz library was resplendent with several kiosks of various space themes.
Photo: A. Mankevich

The team worked smooth as silk and we easily completed the build session in our two hour time frame. This outcome isn't surprising since most of the crew had recently done this same guided build session using the same Alpha III model back in April 2017.

Later that afternoon, Alex stayed on to see the "Sally Ride – Who Wants to be an Astronaut" presentation. Actress Mary Ann Jung portrayed Dr. Ride. Ms. Jung's performance was spot-on right down to Dr. Ride's dark 1980's hair style. Ms. Jung had obviously researched her character thoroughly and included anecdotal stories of the ups and downs experienced by NASA's first group of female astronauts.



The library assembled and displayed several racks of books dedicated to the space theme.
Photo: A. Mankevich



Alex tries to make an important point about rocket assembly, but Bill just laughs.
Photo: S. Jackson



Yorkie disagrees - Ed, Bill, and Alex discuss matters of grave concern while Yorkie fends off the paparazzi.
Photo: S. Jackson

From the Zog, Alex Mankevich: **Innovation and Continuity: Hand-in-Hand**

I've just returned from attending a long-running festival at which I look forward to enjoying the entertainment. This year's schedule was different. It was out with the old and in with the new. This was presumably to achieve undeclared goals for undefined purposes to be judged by unmentioned measures. Ample warning of the pending change was given earlier in the year, however the details of what was to be unveiled remained unannounced. Alas, the outcome was predictable. Each evening people started leaving early while the festival still had hours to run.

NARHAMS has several long-running functions including ECRM, the Night Launch and the Apollo Contest. We've left the basic format for these events unchanged for some time. By so doing, we've kept what works (for safety and organizational purposes) and we've incrementally introduced some new measures so that they can be tried out and judged for their effectiveness.

We'll always treasure the flyers that regularly support our launches and competitions. New flyers can 'learn the ropes' by observing our regular flyers and by asking the veterans questions about procedures. We also want to maintain continuity to allow our veterans to plan their launch activities for their enjoyment at NARHAMS events that are both predictable and familiar. There is nothing wrong with people becoming 'bored' with our safety measures and determined compliance with the Model Rocket Safety Code.

An example of introducing innovation will be on display at the upcoming September launch at Old National Pike Park. NARHAMS will be hosting its first National Rocketry Competition (NRC) launch during the daylight hours to be followed by the night launch after sunset. The National Rocketry Competition

(NRC) is designed to be a competition in which individuals and teams qualify to compete at the National Association of Rocketry Annual Meet (NARAM) for Event Specialist Award (ESA) and National and Reserve Champion awards. NARHAMS is attempting to include the NRC portion of the September launch with minimal invasion upon the sport launch portion and with minimal inconvenience upon the launch manager.



King ZOG manipulates a king-sized table with ease
in preparation for the 2017 Apollo Contest
Photo: E. Pearson

This year we've developed a couple of new partners for the recently held Apollo Contest. We kept the contest itself basically unchanged and we are rich with volunteers willing to spend their day performing duties at which they've become proficient. At the same time, we reached out to organizations that are involved with presenting the aviation and aerospace sectors to their museum visitors. Both the College Park Aviation Museum and the Patuxent River Naval Air Museum offered free admission to their facilities (and other goodies) as part of the plethora of prizes awarded to our Apollo Contest winners.

I suppose the lesson here is that wholesale changes adopted in the hopes of 'stirring up' more participation can be a double-edged sword. Going 'all in', or 'going for broke', in the hopes of achieving spectacular results can backfire and leave you with less.

Planning for incremental success while maintaining what works may be less exciting, but we'd not be forced to rebuild continuity should our innovations turn out less than stellar.



June 2017 Goddard Launch Report

By: Alex Mankevich

The Goddard launches finally moved into its late Spring/Summer mode during the June 2017 launch. Nearly all of this year's previous launches have been on the chilly side. Finally, we had a Goddard launch in our T-Shirts and shorts.

Two launch participants were kind enough to email their plans in advance of the Sunday launch date. Richie Balkissoon alerted us that his daughter would be having a birthday celebration at this Goddard launch along with a number of her Girl Scout friends. The Girl Scouts did double duty, not only to celebrate a birthday, but to earn their badges as well. A separate heads-up was given by Nelson Gibson whose construction of a Saturn V model was complete. Nelson and his son Oscar were keen to record a launch of this behemoth at Goddard using a D12-3. Nelson even posted a launch of his model on YouTube for us to preview <https://youtu.be/ZQ4WOqvZe5Y>.

As Alex was wrapping up his phone calls to the FAA and TSA, a gentleman approach as asked if he could volunteer with the day's launch. Alex was glad to have Antonio serve as pad assistant so he could help out Ed Jackson and Mike Cochran at the launch rack.



A cool blue rocket gets launched by Ed Jackson.
Photo: A. Mankevich



Range Crew & Helpers - Top L-R--Antonio Guest-Helper, William Boublitz, Michael Cochran, Jef Fineran. Bottom L-R--Ed Jackson, Sarah Jackson, Alex Mankevich, Mike Ratel.
Photo: E. Pearson



Girl Scouts' rockets aligned on the launch pad.
Photo: A. Mankevich



First time rocketeers Asa (L) and Yejide w/family after building their models in the VC auditorium.
Photo: E. Pearson



Oscar Gibson's Saturn V launch.
Photo: A. Mankevich

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Goddard Launch, Continued

Sarah Jackson and Bill Boublitz had a busy day with on-field repairs. Bill said that several models needed 'tweaking' to render them into launch condition. Ole Ed Pearson once again found himself spending an extended time inside the Visitor Center to assist people with their freshly-bought "Nearly Ready to Fly" models. We were well into the day's launch before Ole Ed could make it outside to join the launch activities.

Ed Jackson skillfully narrated the day's launch activity. Ed graciously introduced the birthday girl to the crowd and even let her push the launch button for her rocket. Ed expertly introduced the Saturn V rocket and let Oscar push its launch button. Alex found himself on the rocket recovery duty. At least four rockets were successfully fished out of the trees. Other rockets flew over the perimeter fence. Luckily, Ole Ed had met some NASA employees who were participating in this launch. They were NASA-badged and Ole Ed was able to persuade them drive onto the Goddard campus to retrieve the wind-assisted rockets.

Jef Fineran, a long-term Goddard range crew member, came by for this launch. Jef was primarily at the launch to secure some Apollo Contest supplies in preparation for setting up its launch range in July. But, if you're going to be at Goddard anyway, why not launch a few rockets as well? Mike Ratel also registered an appearance. Mike was thrilled to take photos of the much-anticipated Saturn V launch.

It has been reported by an undisclosed source that Mike Cochran made a rocket flight. The same source reports that Mike's rocket suffered a separation and that the model's black streamer came down separately from the rocket and landed near the Visitor Center's entrance door. A photo of Mike's black-colored streamer on the concrete walkway is included with this article.

The range crew was kept busy after the launch as well. We were instructed by Visitor Center Program Manager Kristin Metropoulos to consolidate all the NARHAMS rockets and launch-related stuff into the closet located in the Science on a Sphere room. Ole Ed guided the selection and removal of the goodies. The group took on the task of determining which of the several model rockets were in flyable condition and which ones needed to be trashed. The gain from this effort is that Tom and Maria Ha now have an additional box of flight-worthy rockets to be used at this year's NARAM for their Fly-It and Take-It program.



Left: After the launch, crew retired to the VC to consolidate storage space, and repair models. Three dozen previous flown, unclaimed models were donated to the NARAM fly-it & take-it program.
Photo: E. Pearson



Oscar Gibson and his Saturn V model.

Photo: A. Mankevich



John and his niece Kristen with their first time rocket. Kristen was visiting from SC.

Photo: E. Pearson



Excitement builds for the Saturn V launch. Mike Ratel takes photos of the monster on the pad.

Photo: A. Mankevich



Mike Cochran's black colored streamer on the ground.

Photo: A. Mankevich



Ole Ed Pearson performs delicate surgery on a parachute.

Photo: A. Mankevich



July 2017 Goddard Launch Report



NARHAMS Brings the Heat. No, Wait! That Was Mother Nature!

By: Alex Mankevich

Your weather-beaten and weather-weary Goddard Range Crew conducted a “nearly Independence Day launch” at the Goddard Visitor Center on Sunday July 2, 2017. The crowd count for any “holiday weekend” launch can be unpredictable. However, the arrival of the high heat and oppressive humidity was right on cue. Just in time to warm things up for the upcoming Apollo Contest on July 16th.

NARHAMS did some station keeping before the launch. Sarah Jackson inventoried the supplies in the field repair kit before the launch started. Alex Mankevich and Mike Cochran finalized the design of the Apollo Contest “Awards Ceremony Poster” using Mike’s laptop. Terminal caps for the 12 volt batteries were offered by Mike.

There were a few patriotically-themed red, white and blue rockets that launched. Firing Officer and Launch Narrator Ed Jackson was sure to mention when an “All American” flight was next in queue. Bill Boublitz and Sarah Jackson were at the Safety Check-In Station. Mike Cochran did the essential pad assistance and misfire corrections. Ole Ed Pearson assisted with the visitors’ model rocket assembly and dutifully recorded the day’s activities. What about Alex? Well, he went rocket fishing using the newly repaired telescoping recovery pole. John McCoy had completed this much-anticipated repair project to Tom Bagg’s pole. Pole operator Alex gives the repair two thumb up.



Bill Boublitz and Sarah Jackson did safety checks, minor model repairs/adjustments and rail assignments.

Photo: E. Pearson

Are you kidding, again? Last flight of a Centuri (1979 catalog) Marauder from Buck Rogers. Alan Schmid’s model landed atop a tree too high up to retrieve.

Photo: E. Pearson



Alan Schmid shows his decades-old X30 before its last flight--it weather cocked after launch and landed atop a tree too high to retrieve.

Photo: E. Pearson



Continued next page

Goddard Launch, Continued



Larry Levine's silver Crayola rocket captures an aerial view of the Goddard Visitor Center. Note the reflection of the Nike Tomahawk in the rocket's left side fin.

Photo: L. Levine



Rocketeers spot their model; their enthusiasm was evident.

Photo: E. Pearson

The launch activity started off on a less-than-nominal note. Long-time Goddard Launch participant Alan Schmid brought along his decades-old (red, white and blue) X30. Its flight was destined to be its last - the rocket weather-cocked after launch and landed atop a tree too high to retrieve. Moments later, Alan's gold-colored Marauder (Centuri 1979 catalog vintage) flew unstable and into the high trees towards Greenbelt Road. Sorry, Alan, but we're running photos of your rockets in this article as a consolation.

The early launch activity also included launches by Girl Scout Troop #354 of Columbia, Maryland. Their leader was thoughtful enough to prepare "flash cards" of the girls' names for Ed Jackson to announce before their rockets launched.

Sandy and club member Larry Levine prepared yellow and silver Estes Crayola models onto which they piggybacked mini DV recorders. The launch of the first rocket amazingly captured the launch and descent of the second from its landed position. Larry was able to pull some still images from his video which he shared with NARHAMS.

A smaller, but enthusiastic crowd ended up with 71 flights with ten misfires. We ended the day with a flight dedication to Herb Desind and Richard Crisco. Twenty-two First Time Flyer certificates were awarded using Jennifer Ash's newly revised certificates.



Larry Levine prepares and launches his video-equipped Crayola.

Photo: E. Pearson



Michael Cochran helped at the rack and corrected misfires with new igniters.

Photo: E. Pearson



Bits and Pieces

Upcoming Meeting Presentation Topics:

September 2	Open
October 7	Classic German Rockets
November 4	Planning for the coming year

Upcoming Launch Themes:

August 19	Open
September 16	Night Launch and National Rocketry Championship event
October 21	Octoberfest

Welcome New/Renewing Members

New Members

Jared Haworth, Seth Kaufman, Kevin Knebel, James Massey III, James Massey IV, Thomas Slabach, Kevin Wenks, Christina York

Renewals

Michala Alexander, Michele Alexander, Sarah Alexander, Scott Alexander, Thorsten Bruenjes, Bill Boublitz, Michael Cochran, Don Carson, Stephen Darnell, Chris Greco, DJ Emmanuel, John Hochheimer, Edward Jackson, Tom Jackson, Esther Johnson, Kevin Johnson, Jason Mertz, David O'Bryan

Announcements



NATIONAL ASSOCIATION OF ROCKETRY

Board of Trustees Election

- Kevin Johnson was elected to the NAR Board of Trustees. Way to go Kevin!
- NAR President John Hochheimer was also re-elected.
- Randy Boadway (of eRockets fame) won the third slot.

Other News

- The NAR has decided that newsletters can now be submitted for the LAC Newsletter Award consideration electronically or by mailing hard copies. Sections, like NARHAMS, who produce electronic newsletters will no longer have to bear the cost of printing and mailing to be considered for the award.

August 2017 Goddard Launch Report by Ed Pearson



Sandy and Larry Levine check out their video recorded on key-fob cameras attached to Crayola rockets.

Photo: E. Pearson



NASA's communication engineer Scott Brown works prepping his Gnome in the Visitor Center.

Photo: E. Pearson



Range Crew--top left-right- Bill Boubnitz safety checking an Alpha; Michael Cochran helping at the launch rack. Bottom left-right- Zog Alex filled in where needed; Ed Jackson did launches and narrations.

Photo: E. Pearson



Joaquin (L) and Ole Ed. Joaquin, a first time flyer, is starting Rockville's Parkland Magnet Middle School for Aerospace Technology.

Photo: E. Pearson



Top L-R- Aiden and Amelia, first time rocketeers; Aiden's model lifts off; drifts to Earth. Bottom L-R- Amelia's flight was the last of the day; in the air; touchdown.

Photo: E. Pearson



What's Up?
Photo: E. Pearson





Competition Corner: NRC and 3 Contest Announcements

The New "National Rocketry Competition" is Upon Us

Don Carson

Ed LaCroix rolled out the new National Rocketry Competition (NRC) after the Monday Town Hall meeting at NARAM. This is the version that the Board of Trustees approved. This is what we will fly under for the coming year. The time for complaining and suggesting alternates has come to a close for now (there will be opportunities to propose improvements later).

Now is the time to wrap our heads around this new system and see if we can make competition appealing to more people - that's why we went through this change, remember? I can't explain it in detail, you need to read the new Sporting Code. There will be more coming to help explain.

AS I UNDERSTAND IT, what Ed's committee was trying to do, by reducing barriers to competition was the following sort of things:

They got rid of weight factors - you don't collect points through the year - stay with me here.

- Make it easier and simpler to host a "contest." - Two people can have a contest or "NRC event."
- Make it easier to get to contests, reduce travel time and costs. - Host your contest at your local field, as often as you want.
- Reduce the number and kind of models you have to build for each year. - Same events all year, some events can use the same model.
- Still have a way to crown a Champion in each age division each year. - We'll get to that in a minute.
- Probably more that I don't realize.

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RAMTEC-20

Labor Day Weekend, September 2 & 3
Ft. Indiantown Gap, PA.

RAMTEC-20 Competition Events:

A Payload Altitude w/altimeter

1/2A Boost Glider Duration

A Helicopter Duration

Classic Model

This will be a sanctioned NRC launch. All 6 of the NRC events may be flown during the weekend.

Note: Payloads, constructed to the new NAR standard payload dimensions (17mm min dia x 60mm min long x 28g min)will be available to borrow. In English, my payloads use BT-20 coupler material that is 2 7/8" long and weigh as close to 28 grams as my triple beam balance accuracy allows. You will need to supply your own eggs if you will be attempting the C Eggloft Altitude NRC event. The contestant must also provide their own altimeters.

This is the 20th year for RAMTEC, information at www.spaar.org/ramtec

**Download your copy of the
new Sporting Code
Click here!**

Competition Corner, Continued

So what does it look like? If we REALLY SIMPLIFY things, it goes this way. The way to becoming the National Champion (Overall or in specific events) is through this NRC business. BUT we can still run contests with all your favorite events - they are still in the Sporting Code - they just don't determine the National Champions. Hang in there.

Each year, the NAR picks 6 events that are popular, but simpler, lower power events - some duration events, some altitude events. The events they pick from are listed in the Sporting Code, look there. The events are meant to be small field friendly, easy to host (no tracking or craftsmanship events), No returns on duration events (except eggloft, of course). Note the return rules go back into effect at NARAM.

Check over at the NARAM-60 announcement, this year's 6 events are listed there. All throughout the year, you can fly these events. They post your best scores on a list with all the other competitors in you age division. Each time you fly and improve your score for that event it updates to that better score.

When you go to NARAM, they will fly all 6 of those events you have been practicing PLUS more events like Scale and R&D and probably some crazy G Parachute Duration event. NARAM will kind of be like it always was. The top 10 (or 10%) performers in each of those 6 events can compete head to head at NARAM to determine who is the best of the best. How they do at NARAM will determine our National Champs and Event Specialist Champs.

The rest of us will still compete in those events too and we will be going for NARAM meet champs or reserve champs. Also, all of us will be able to compete in those extra events - Scale, R&D, etc.

They have tweaked the age divisions some. There is no Section Championship.

At NARAM, you do collect points. The point scale is much different with 25 points for 1st, sliding down to 2 pts for 10th place and 1 pt for anything lower. Also, there are no event weight factors - all events count the same - scale=open spot landing, as far as points go. That's going to be fun.

So there you have it. We can still host any contest events we want, as often as we want. Area clubs are still hosting RAMTEC and the Carl McLawhorn Memorial Flyoff. We will still host ECRM next Spring.

There are details and complexities to handle the "what if" situations, so you need to read the book and talk to people who know.

Life goes on, and it may get better.

Carl McLawhorn Memorial Flyoff V

NRC Sanctioned Launch, PSC Competition and
Sport Launch
October 21-22, 2017

Hosted by: PSC #473 Pittsburgh Space Command
Location: Weber Farm - 595 Tie Line Road, Grove
City, PA

Events:

SEMROC Predicted Duration*

B SuperRoc Duration

B Egg Loft Duration

C Cluster Altitude (Altimeter)

E Streamer Duration

* All competitors are asked to fly a SEMROC kit for
the Predicted Duration event in memory of the late
Carl McLawhorn.

NARAM-60 Competition and Rocketry Festival

Events:

1/2A Parachute Duration*

1/2A Boost Glide Duration*

A Streamer Duration*

A Helicopter Duration*

A Payload Altitude*

C Eggloft Altitude*

B Cluster Altitude

C SuperRoc Altitude

Classic Model

Sport Scale

Research & Development

August 4-10, 2018

Hudson Ranch

Pueblo, CO

Old Rocketeer Reunion on August 4
Keep tabs, new activities to be announced

For current info, go to

www.nar.org





SPARKLES

REDNECK

BUBBLES