

#### Zoa-43 Volume 42 Number 5 September/October 2020 Official NARHAMS Newsletter Editor: Don Carson

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 credit goes to you. Modeling Section, or NARHAMS, serves Baltimore, the state of Maryland., Washington, DC and the surrounding As always, fly 'em high, bring 'em back, and be safe... 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 and at Old National Pike Regional park near Mt. Airy, 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 - Making It Work, Success Stories Don Carson, NAR #11069

Model Rocketry has taken great strides towards adapting to the conditions that have arisen as a result of the COVID-19 pandemic. From switching to building when the process required us to stay home to learning how to conduct launches in groups and including the public (as State and local regs allow), we are gradually being able to enjoy much of our hobby.

Meetings are held via videoconferencing which we have found allows participant from far flung reaches to attend. Launches are held with precautions that protect both the volunteers running the event and the participants so we can fly rockets while minimizing health risks. Our monthly Mt Airy Sport Launches are now back on track. Yay!

We completed a very successful Virtual-NARAM event which included 9 of the 10 NARAM contest events, as well as, a virtual NAR Town Hall, Manufacturers Forum, Board of Trustees meeting, Beerlofting, Scale Model Viewing and an Awards Banquet. We actually had about 1/3 more contest flyers than we had at the last year's NARAM and a good 50% more attendees for the "evening events." Lessons learned from these experiences will undoubtedly be folded into future events to increase the access to more rocketeers and perhaps increase the participation in NAR activities.

Our annual model rocketry convention, NARCON, will be an all virtual event which will vastly increase the number of people that can attend. Although we miss the camaraderie of the face to face meetings, that will hopefully return in the future. For now, what we have learned may well enable us to improve our hobby considerably.

My thanks go out to everyone who contributes to make this a such an outstanding newsletter - the

For questions, answers, opinions, files, photos, and more NARHAMS, join the NARHAMS Groups.io group. It is free, painless, no ads, and may just be the cure for the common cold. Also: Facebook if you are not parnoid about that sort of thing.

Front Cover: Maiden flight of Alex Manhevich's Little Joe II lifting off on a D12-3.

Photo: D. Slagle

**Back cover:** We had to cancel the John McCov Night Launch this year. Here is a shot from 2018 Night Launch to bring back memories!

Photo: D.Carson

ZOG ROYAL COURT (NARHAMS OFFICERS) ZOG (President) Alex Mankevich

VICE ZOG (Vice-President) Alan Williams

**COLLECTOR OF THE ROYAL TAXES** (Treasurer) Ed Jackson

KEEPER OF THE HOLY WORDS (Secretary) Sarah Jackson

COURT JESTER (Section Advisor) Jim Miers

SEP/OCT 2020 PAGE 2

## **Doug Frost - An Appreciation**

#### By Ed Pearson

Longtime rocketeer Doug Frost died August 20, after losing a battle with cancer. He was 73 and lived in North Carolina.

Many knew of Doug from his company, Frost Rocketry, his promotion of Rocket Golf (an idea he originated in the 1980s), or by his reputation. However, for the proud old NARHAMS club, Doug reserved his place in the section's history—an instrumental one, including the section's formation and naming.

Maybe more important, he recruited other rocketeers to the NAR who left a lasting impact on the hobby and organization. (There is a lesson here: one's actions can and do affect others in unforeseen, unanticipated ways).

Doug was one of those four-digit NAR guys: #3446. He grew up in North Carolina and helped form two model rocket groups there...the last being the Catawba Valley Rocketeers, a school club.

In one notable activity he launched his pet hamster, Igor, aboard a 9-B engine model. This was years before the NAR proscribed live animal flights or had egg-lofting competition. Still afterwards, Doug said he would never do such a thing again.

His family moved to Hyattsville, Maryland, in February, 1963 (with a still healthy Igor), and Doug set about anew starting another school rocket club. Doug became president of the Northwestern (Senior High) Model Rocket Club (NMRC) his



Doug Frost and his 1/5th Jayhawk (Beechcraft NAVY target drone AQM-37-A) model. Doug placed third in senior scale competition at NARAM-59 (Muskegon, Mi, 2017) with this model (after Chris Flanigan and Chad Ring). Later it became the basis for a Frost Rocketry kit.

Photo: S. Frost



Doug and his NARHAMS Appreciation Plaque at ECRM 2016. Photo: D. Pearson

Continued next page

#### Frost Appreciation, Continued

sophomore year ('63) and later won the Navy's engineering award for a model-rocket science fair project. (His project showed that thrust could be increased using tandem [epoxied together] engines over a standard booster-to-sustainer configuration).

He was later able to parlay word of that award and of his rocket interests to get part-time jobs working with Howard Galloway (of NAR's Galloway Award fame) at the sounding rocket division of NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.

Howard affectionately nicknamed Doug, "Frog Dust" an appellation Doug used eponymously his entire life.

In the summer of '63, Doug attended his first NARAM. NARAM-5 at Hascom AFB. Massachusetts.

The club Doug started (NMRC) grew into NARHAMS. NAR Section 139 chartered in March 1965

Doug proposed the name 'NARHAMS' for the new section when it came time to give the group a handle.

At the time, club members were regularly going over to NAR executive director Jim Kukowski's house and helping Jim get out mailings of the Model Rocketeer. Jim also relied on NMRC for local NAR public demonstrations. So to Doug it seemed natural to put in a reference to NAR Headquarters in the new club name. appended the "Astro-Modeling Section" part to round out the acronym with HAMS referring to being hammy at demos. His suggestion won out over other offerings and the club's name, National Association of Rocketry Headquarters Astro- equipment. The kit to the left is his UFO-Go kit. Modeling Section, was born.



Doug and Bill Hunter (R) setting up Doug's scale entry, Jayhawk, at NARAM-19 (Overland Park, Ks, 1977). Notice Doug's nametag: "Frog Dusty". Doug got second place at NARAM his next Jayhawk flew 40 years later in 2017. Photo: From the Doug Frost Collection

Doug sold rocket kits and Rocket Golf Photo: E. Pearson

Continued next page SEP/OCT 2020 PAGE 4 Doug introduced Jim Barrowman to the section. Jim had recently joined Goddard and worked with Howard and Doug. NARHAMS needed an adult section advisor; and Doug advocated Jim for the slot. NARHAMS voted Jim in, sight unseen, upon Doug's recommendation/vouching! In December, 1965. Jim attended his first NARHAMS meeting...later to develop what would be called the Barrowman method of algebraically approximating a model's center of pressure (key to determining a rocket's stability), and to go on to become the NAR's president—amongst other gems for the hobby, NAR, GSFC, and family/friends.

Doug left the Washington area around 1966 after a year attending the University of Maryland. He ioined the Air Force and settled in California, had a house built, became a decades-long fixture of the BAYNAR Section and made lifelong friends.

Doug married in 1970 and survivors include his wife Sandy, two children, three granddaughters and a sister. His sons, Scott and Glenn, were named after early American astronauts—Scott Carpenter and John Glenn.

Doug retired from the Post Office and moved back east to North Carolina in 2015. He rejoined NARHAMS and was given an appreciation plaque from this section at the 2016 ECRM contest.

Doug was no stranger to controversy and he knew it. He once told this writer, 'people either like me or they don't, but I get a response' (my words but his thoughts). In one famous example he successfully sued the NAR. The case was settled but money flowed from the NAR to Doug—so in that sense he won. (Doug wrote about his case/beef with the NAR and G. Harry Stine in the July/August 2016 Zog-43).

This writer saw a side of Doug that few have commented upon. Doug had a giving heart of gold...he'd go out of his way to help you enjoy the hobby—even and regularly to the point of over

#### **Frost Appreciation, Continued**

committing himself. He had a genuine sanguine nature and undoubtedly was the best advocate/recruiter for model rocketry this writer has met.

Should one say something critical of Doug? (Generally a no-no in an appreciation article). Well here it is anyway: Doug didn't seem to notice red lights. This was true in the 1960s, and at NARAM-60 (Pueblo, Co, 2018—this was Doug's last NARAM) Doug was observed running four in three days too. By his accounting however (according to an email), Doug maintained he was a good driver. He certainly seemed to have an angel watching over him and keeping Doug from accidents.

A few rocket highlights that Doug held dear:

His beloved Jayhawk models. Doug originally did his model long ago with Chris Pocock, and Centuri Engineering made a kit based on their model in 1980. The 2016-17 versions are Doug's reprisals.

Rocket Golf. This was the beginnings of his Frost Rocketry company with the idea of using a golf ball as a nose cone and rocketing the model towards a golf green. Once there, the ball was placed upon the green and putted to the hole. The perfect marriage between two popular advocations, Doug noted. (This modeler teamed with Doug at a not-too-long ago ECRM. Needless to say, Doug was spot on when it came to spot landing. We, or rather Doug, because he did the aiming, took first place in the event).

Doug was proud he set an unbeaten NAR F-engine altitude record...once written up in Sports Rocketry.

His meeting and correspondence with Esther Goddard. Doug got to know Dr. Robert Goddard's widow from his working at GSFC and her visits. At the time of Doug's passing, Doug was working on a kit based on Goddard's New Mexico Test 77...and some documentation he got from Mrs. Goddard.

There are more... as we all hold dear our activities and memories; you wish Doug was here still to correct errors in this accounting and add cherished omissions...or just be still here. He had a amazingly impressive memory.

In my last correspondence with Doug, he counseled to always follow the Golden Rule —treat others as one would wish others to treat yourself. Talk about an oldie but goody, here is a lesson that doesn't age.

Doug cremains are to be interred in an upstate NY veteran's cemetery, not far from where his (younger) son, Glenn, lives.

Personal note: It has been a challenge to write dispassionately about Doug—he introduced me to the NAR and Estes Industries, but also a welcoming catharsis; I can smile at memories and his big heart. One does reflect upon one's own mortality.



Dr. Goddard's crew in Roswell, NM, with Goddard's Test 77 rocket. Doug received this photo and data from Mrs. Esther Goddard and planned to kit a model from the information.

Photo: From the Doug Frost Collection

SEP/OCT 2020 PAGE 5

"Sorry to hear about Frog Dust; I can see and hear him in my head right now. Every day is a blessing; I never expected to live this long, considering my former profession!"

Jay Apt (Shuttle/Station Astronaut and long time model rocketeer) upon learning of Doug's death



Doug and the writer enjoying their company (circa 2016) and reminiscing about the olden days.

Photo: E. Pearson and D. Frost

# Virtual NARAM 2020 A Hobby's Response to the COVID-19 Pandemic By Don Carson

Shortly after NARCON 2020 in March, the COVID-19 pandemic ramped up significantly in the US. The NAR joined national efforts to contain the pandemic by cancelling or postponing launches and club gatherings. In early April, the NAR announced the postponement of NARAM-62 to 2021.

In late April, some states started to relax restrictions on stay-at-home requirements, and some states were allowing or even encouraging outdoor activities. The NAR revised their COVID-19 Policy to allow activities that were in compliance with the guidelines of state and local governments.

In late May, it seemed possible that some rocketeers around the country might be able to launch rockets, either alone, with family, or in small groups. I contacted Chris Flanigan about the feasibility of running a "Postal Contest" during the summer, since the Spring contests had been cancelled or postponed and we had no NARAM to go to. Chris, having run a few smaller postal contests in the past, was the NAR's Guru of Postal Contests. He suggested we co-organize the event, and I agreed.

A few of our goals were that we wanted to make it easy and fun to participate. We did not want to interfere, complicate, or put more work on the regular NAR competition system and people.

With a couple of days discussion, we settled on a Virtual NARAM that would include the six NRC events, and the planned NARAM-62 events of 1/2A Flexwing Duration and C SuperRoc Altitude (downsized from D for smaller fields). Flying could be done solo or just with immediate family or a small





Two new NAR members flying in the Virtual NARAM. Ana Reveles Leon(L) showing off her B Payload rocket and score sheet. Lainey Rivera (R) with her 1/2 A and B Payload Altitude Rockets.

Photo: P. Tlusty



Mike Swanson flew at the El Mirage Dry Lakebed and managed to beat the 100+ deg temps by flying his 13mm ASP Thermal Seeker in the morning.

Photo: M. Swanson



#### Virtual NARAM/2020



A very nice safe flight on his Juno-I sport scale model. First time it has flown since 1994.

Photo: G. Gassaway

Continued next page

SEP/OCT 2020 PAGE 6

#### Virtual-NARAM, Continued

group. It was thought that this might open up more opportunities for flying in addition to typical club launches. Since it was an unofficial contest, we could modify some rules to make it easier for individuals and small groups to participate. For instance:

- Launch window would run about a month
- Time your own flight, read your own altimeter
- No returns required for duration events
- No Max's; time the whole flight
- Multiple flight attempts allowed to improve scores

In addition, we planned to have some of the other typical NARAM activities like the Manufacturer's Forum and the Town Hall via videoconferencing.

Even though this event was to be outside the formal NAR competition system, we thought it a good idea to run it by the NAR – both to make sure they had no serious objections and to make sure they were not already planning something similar already.

Not only did we receive a hearty support for the idea, we found that NAR was already planning to do the NARAM Town Hall meeting virtually. National Events chairperson Ed LaCroix offered to take the Manufacturers Forum off our hands as it shared a lot of commonality with the Town Hall meeting they were already planning. Thanks Ed and Todd Schweim for a great job with the Webinars.

In less than a week, we went from an idea to a "go ahead" and less than a week after that, rolled out the event through social media, forums, and various Groups.io email groups.

Along the way, Chris worked with Marc McReynolds and John Brohm to figure out a clever way to hold the planned NARAM-62 Sport Scale event virtually. Scale data was delivered to Dropbox folders that the judges could also access. Qualified flights received full flight points with defined extra points for complexity.

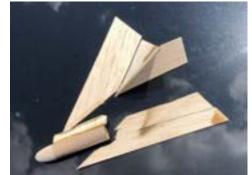




Amanda and Becky Zurek prop models. *Photo: B. Zurek* 

(L) Bob Zurek's "Don't Poke the Bear" PD models. Photo: B. Zurek





(Above) Bill Eichelberger managed to shred a Mini Jet Freak on a 1/2A. Easily a Best Midwest Qualified Flight nomination. *Photo: B. Eichelberger* 

Alan Stokkers best-of-the-contest B Payload. Photo: B. Canino

(L) Jim Filler and Jay Marsh - 6' apart. Jim checks to see if timers are ready for his Flex Wing entry.

Photo: D. Carson



Continued next page SEP/OCT 2020 PAGE 7

#### Virtual-NARAM, Continued

We considered running R&D. Although technically feasible, we decided that the relatively short notice would not have allowed everyone sufficient time to develop good projects.

We also looked at the Sport Launch aspect of the traditional NARAM activities. We decided that people were already going to launch sport rockets if and when they could anyway.

Many thanks to Chris, John Hochheimer, Ed LaCroix, Carol Marple, Dan Wolf, Todd Schweim, and all the others who supported the event, as well as, all the contest participants.

In the end, we ended up running nine of the ten NARAM-62 events (one with a lower motor class) over a six week launch window. The NAR held the successful Manufacturers Forum and Town Hall Webinars. We were also able to host a Scale Viewing Night, a Social/Beerlofting Hour (thanks Host with the most, Jim Filler), and an Awards Banquet all via the Zoom videoconference software. All held with individuals able to safely meet or exceed the recommended protections for activities during the COVID-19 pandemic.



Beerlofting drew 30+ participants. Screenshot: D. Carson



Vern Richarson's B Payload way out West. Photo: V. Richardson



Co-CD Chris Flanigan's B Payload even further out West. *Photo: C. Flanigan* 



404 entries composed of 636 flights created a quite a stack of flight cards. Chris processed every one.

one.
Photo: C. Flanigan



Andy Tomasch came out of the woodwork to show us how BG is flown. *Photo: A. Tomasch* 

Continued next page SEP/OCT 2020 PAGE 8



Bunny's Soyuz paper rocket flew successfully. That is, like, a huge 4' long paper Scale rocket! *Photo: M. Bundick* 

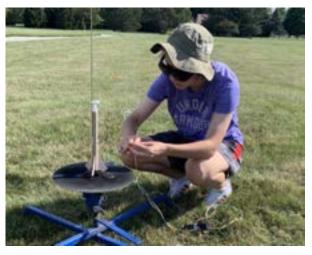
#### Virtual-NARAM, Continued



1/2A BGs: (L) Carson's Scissor/Flop wing and (R) Filler's Spooler Pop Pod glider. *Photo: D. Carson* 



Chad Ring dusted off his trusty Black Brant X. *Photo: R. Woebkenberg* 



Katie Woebkenberg preps her model for launch. *Photo: R. Woebkenberg* 



Maddie Stokkers C SuperRoc. *Photo: B. Canino* 



Tom Disch of WOOSH prepping his SuperRoc. *Photo: J. Cieslak* 



Ryan Woebkenberg and his C SuperRoc and not letting the Sun get the best of him. Photo: R. Woebkenberg

Much More Coverage Coming in the Nov/Dec Issue of Sport Rocketry Mag.

Photo Gallery of Scale Models
Click Here

Complete Virtual NARAM Contest Results Click Here

# September Meeting Highlight/s - Election Results By Ed Pearson

NARHAMS monthly virtual (Cisco Webex) was held September 5, with Sarah Jackson hosting.

Annual club elections were held after quorum confirmation. The results were: Alex Mankevich, president; Alan Williams, vice-president; Sarah Jackson, secretary; Ed Jackson, treasurer; and Jim Miers, senior advisor.

(Note: Officers serve one-year terms and may re-elected, as all were in this case. The choice of September, as the election month, harks back to when the section was a school club and September was then the school-year's start 57-years ago).

The club canceled September's night launch at Mt Airy (due to safety and logistic concerns) and looked back at August's Mt Airy resumption of monthly launches. Overall assessment made by Jim Miers, "It was a good day."

The passing of Doug Frost was noted and highlights given on his legacy and impact on the section and the hobby. (See appreciation article in this issue)..



Alec Laprevotte ()

(Right) Ed Jackson shows his own CAD design utilizing readily available model rocket parts.

Screen Captures: Tech Whiz E. Pearson

(Left) Ed and Alec discuss Alec's current project: a finless, vector thrust, E-power gimbaled rocket that Alec is designing using Fusion 360 software. Screen Captures: Tech Whiz E. Pearson



<sup>\*</sup> As always, the club meeting minutes are posted on the NARHAMS website in the "Minutes" section, imagine that. \*

## September 2020 Mt. Airy Sport Launch Report: Great Fun, But Missing Some Parts!

### By Ed and Sarah (mainly) Jackson

The September Mt Airy launch started out as a bright, slightly windy day. The wind in the morning was fairly gusty, but the wind died down by mid afternoon. The turnout was impressive and we had steady business when the public launch started at noon. At 4:00 PM, we actually had to close the safety check line from accumulating more rocketeers.

We arrived at the storage unit at 9:10 AM, only to find an entire range crew already there, lining up equipment to be loaded into the back of the truck. Jim Filler brought nephew Jake to help with the heavy lifting, and Mike Kelley was present, as always. The truck was duly loaded, and we set off for Old National Pike Park. The park had new signs, instructing visitors to wear masks and social distance. The lock on the gate was being naughty and did not want to open, but Ed Jackson managed to finally coax it into submission, after about five minutes of struggling. Unfortunately, the day had more bad news: the soccer fields were in use. They stayed active all day long, so we were limited in our mid power flights. The good news is that the winds were in the right direction, so we had no issues with rockets approaching the game field.

Shortly after the range was set up, we experienced some more fun. The field to the right was recently mowed, so we were happy that we did not have to hike through tall grass to retrieve rockets. However, a new obstacle presented itself in the form of a hay thresher (or maybe it was a combine, or some other piece of farm equipment that I do not know the name of.



Alan's Tomahawk 1/5 scale model on a D-12.

Photo: A. Williams

Checkin processing was conducted via electronic tablet. One could scan in a form (note the QR sign) or tell Checkin...in this case Sarah Jackson (Ted Cochran did duty earlier)...and get then get their pad assignment. Alex Mankevich (shown beside Sarah) maintained racks/pads and cleaned stations periodically.

Photo: E. Pearson

#### Continued next page

SEP/OCT 2020 PAGE 11



Cumberland Ed assists Ole Ed in prepping Marvin the Martian for a trip home.

Photo: D. Slagle



#### **Sept. Sport Launch, Continued**

Basically, a tractor) with a slightly sour demeanor. I don't think he expected us to be there. It's okay, we didn't expect him to be there either. The rocketeers made a mad scramble to move vehicles and launch prep areas away from the far field while the tractor waited, slightly impatient. The tractor (later joined by another tractor with its own slightly sour farmer) moved around the field the entire day, lining up hay, bundling hay, and stacking hay. Several of our rockets landed in the field while they were working, but we managed to save them from certain destruction by sprinting into the field to retrieve them before the tractor came around again.

All obstacles aside, we had a decent day of flying. The morning hours were calm, with the Jacksons and Mike Kelley manning the range. At noon, the launch opened to the public, and the next round of volunteers showed up for duty. With COVID, we have a need for more folks to help out than in pre-COVID days. We try to have a team of at least five people, with different roles, in order to keep everyone safe and the launch running smoothly. Obviously, we have the Launch Manager, who narrates and pushes the buttons to launch rockets. The safety check-in officer checks rockets and helps flyers fill in the waiver and flight cards (digital, for now). A greeter is present to play crowd controller and remind visitors to wear masks and social distance. A pad assistant helps flyers at the racks and periodically disinfects the equipment. And finally, we like having a backup helper who can fill in where needed. Thank you to all of September's launch volunteers who gave some of their time and effort to run the launch: Jim Filler, Alan Mankevich, Mike Kelley, Dave Lewis, Jim Miers, Ted Cochran, Bill Boublitz, and the Jacksons.



(Right) Steven Stec's Estes MAV. Photo: D. Slagle







And just who has ticked of Ed Jackson? *Photo: D. Slagle* 

Continued next page SEP/OCT 2020 PAGE 12



Gerry and Evan Stephens and their SpaceX Heavy on a C6-5 and and two B6-4s.

Photo: D. Slagle

#### Sept. Sport Launch, Continued

#### Notable Flights:

George Crombie's had two CATOS with E12s In George's words: "I have some data from the onboard recorder on the big daddy. It seemed to be accelerating quickly and then the final reading looked like it got shot out of a canon. I think the power cable came off due to the shock on that one. I have not tried to power that board up-the perf board was cracked but thank God I had the board fastened to some styrofoam which helped keep it more or less intact. The inside of the board is carbonized from the heat of that flame and shock wave. The olympus must have been a heck of a ride too. I have no data-the micro sd card is not readable. I think the shock must have fractured the circuit board inside the micro sd card. I had to pull it out of the reader with tweezers. The battery cable was torn from the battery. Wires were torn off the wire wrap pins on the sensor board in the explosion. I had the board wedged in there pretty well pre launch, but no foam (custom cut the perf board to fit that clear tube just right). The explosion jammed the perfboard down so hard into the base of the nosecone that one corner of the perfboard penetrated the base and the other end was cracked. The body was seriously crumpled too, I need to get the pix of that taken and prepped. The paint is bubbled from the heat and the inside is charred as well. The nosecone might fly again but the body tube is totally hosed."

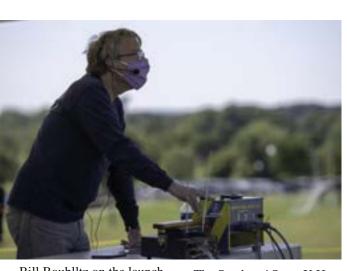
Ole Ed Pearson showed up with four rockets to fly. Two were Semroc Spacemen kits. The first Spaceman rocket was called Gort, and painted silver with a narrow black oval painted on the face. I am assuming this is a reference to The Day the Earth Stood Still, as the rocket looks suspiciously like the 1951 depiction of a robot named Gort. (Yes, I Googled Gort). I am sure Ole Ed will tell me if I am wrong in my assumption. Spaceman number two was much more familiar. Ole Ed had painted it

(Far Right) Mike Kelly shows off his Priority Cinco saucer model by Art Applewhite. Photo: A. Williams

(Right) Mike's Pentaroc show off his Priority Cinco on a E12-4. Photo: D. Slagle







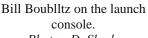


Photo: D. Slagle





#### Sept. Sport Launch, Continued

red, with a black face encased in a green helmet. On top of the helmet, the head of a green broomstick was attached. Of course, anyone could recognize that this was Marvin the Martian. Ole Ed noted that the broomstick was a dollhouse accessory and cost more than the rocket.

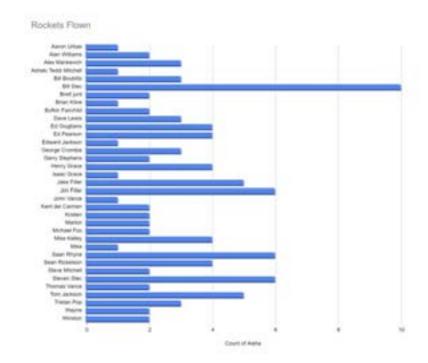
Several flyers launched cluster models, including Jim Filler. One of the models, flown by Gerry Stephens, looked like it was created to pay homage to the SpaceX Falcon Heavy. I believe it was originally a Big Bertha, but Gerry had attached two Apogee side boosters for more fun. The original flight used a B6-4 in the center, with two A8-3s on the sides. It flew well. The second flight was not as pretty, on a C6-5 and two B6-4s. All engines fired, but the flight was not good.

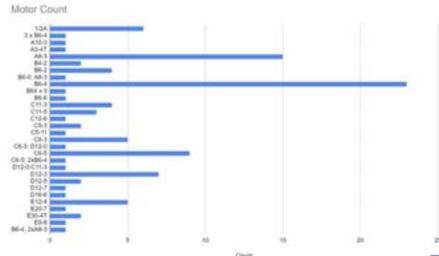
Mike M., builder of the Yellowjacket and Large Yellowjacket (black and yellow rockets with Rhino Lining type coatings) used the larger model to test out a homemade chute release. Unfortunately, the chute failed to release, but the rocket looked like it landed safely. Mike says it's back to the drawing board. I didn't have time to ask him how he made it, but I am quite interested. Hopefully, he'll bring it back out at another launch.

Bill Stec achieved the most flights for the day, with 10, while son, Steven, flew a respectable 6 flights. Jim Filler and Saan Rhyne also flew six rockets. Jake Filler was having fun launching his Show Stopper on ever increasing engine sizes. Ted Cochran attempted to fly his Broadsword, but fate was not on his side. After multiple igniter failures and ...an ominous pop, Ted decided to try another day. He did bring a beautiful steampunk model, though. Tom Jackson brought his Mean Machine family out to play. He has various sizes, and was able to launch two of them. Some of the nose cones and body tubes were prizes received at the last holiday party raffle.

And Cumberland Ed showed up to spend the day with us, launching his own rockets and playing emergency rocket repairer for Ole Ed's Spacemen. We had delayed this year's ECRM until September, but ultimately decided to cancel the event due to COVID. So it was nice to see a familiar out of towner arrive on the scene. Unfortunately, this year's John McCoy Night Launch was cancelled as well. This year has been a wild ride, but we are happy to be able to spend some time (socially distanced) with other rocketeers on a nice, sunny day. Hopefully, we'll see you on the field in October.

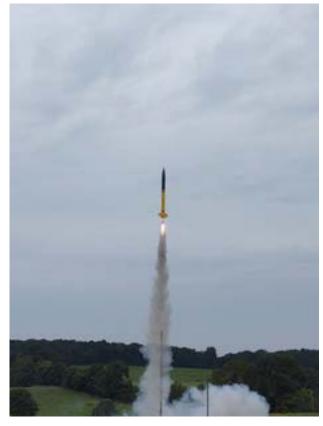
#### September Sport Launch Stats Flight Total - 104





## August 2020 Mt. Airy Sport Launch Report: Rolling the Monthly Sport Launches Again!

## By Sarah Jackson



Jim Miers Killer Bee on its way via an F40. *Photo: S. Jackson* 

(Right) Jim Miers brought the Killer Bee. The joke on the rocket reads: "Where did Noah keep the bees?

In the Ark-hives!"

Photo: S. Jackson



Killer Bee artwork by a friend of Jim Miers. *Photo: J. Miers* 



SEP/OCT 2020 PAGE 15



Ed Jackson and Bill Boublitz tackle the gate. The lock was very fussy after so many months of no use. *Photo: S. Jackson* 



Mike Ratel's V2 landed in a relatively historic manner, minus the explosions. He used a D12-7 engine. It underperformed and did not eject the parachute in time.

Photo: S. Jackson



## **International Spotlight**



## A Lifetime of Model Flying...but one day you gotta stop!

The Intro... Receiving a telephone call from Nick Neve FSMAE, in the Spring of 2005, to tell me that I'd been awarded FAI's Frank Ehling Diploma, came as a bit of a shock. I wasn't to see - still less, lay hands on - that Diploma, until Jennie and I indulged an October '06 trip to Paris to attend the FAI awards ceremony, at l'Hotel de Ville. But all too soon I was 'back in the room', travelling Eurostar back to London, continuing my journey to Stansted Airport, to catch an easyJet out to Slovenia for the 28th Ljubljana Cup! I still get goosebumps thinking about all that...had I really come that far?

Model Flying had always attracted me, getting started in the early 1960s when I saw a contemporary attempting to fly a control line model, in Victoria Park, in my hometown of Bath. That person was Chris Batty, with whom I was to share a form at the City of Bath Boys' School and who went on to represent GB, in

Free Flight, at a World Champs in the 1970s. I joined Bath MAC and SMAE – as it then was – and started flying largely Control Line models with a character called Jim Litster and developed an addiction

to Team Racing in its various forms. Some good results locally and nationally, then we quit, with me returning to link up with one Alan Norman, of South Bristol MAC and did OK briefly, even getting a podium in Goodyear, at 1980's Nats.

5-4-3-2-1... At much the same time, I'd read a piece in Aeromodeller about Model Rockets, by a guy called Paul Clark. Stimulated, I made further researches to discover that nothing was available in the UK, no clubs, no propellants at al. And why it didn't stop there, I've no rational explanation...especially as I'd been recently married to Jennie, with more important things to spend my time/money on. Jennie delivered Alexis on 20th April '82 and daughter Tamsin, on 16th June '84...a date in

1963 when
Valentina
Tereschkova
became the first
female in Space.
Attending meetings

'Obrana', the journal of the Army of Slovakia, featured your scribe on the cover. V-5-V Vertikal about to nail its first World Cup S7-Scale medal. Photo: S. Lodge



2nd Modellraketen
Festival 1989, in SE
Bavaria. Helicopter
Duration podium ~
1st Stuart Lodge: 3rd
Charlie Braham
(both GBR). A truly
fantastic series of
events 1988-89-90,
that brought all of
Europe together.
Photo: S. Lodge



A Journey
By
Stuart Lodge

Continued next page SEP/OCT 2020 PAGE 16

#### Journey, Continued

on the South Coast – Brighton & Petworth mainly – it was apparent that some had 'Stateside contacts and were able to get hold of Estes' model rocketry stuff mainly propellants - so I made some friends and managed to obtain model rocketry building materials and motors...off to a fairly slow start. More rocket flying meetings started appearing - Paul had set up the British Space Modelling Association (BSMA) and we were soon moving in the right direction...UP!! The early 1980s saw me tasked with setting up BSMA flying meetings from Wiltshire to the South Coast and a guy called John Harvey arrived and set up Southern England Rocket Flyers (SERFs); SERFs have run meetings all over the South and West of England – sites at, Yatesbury, Plumpton, Itchen Stoke, Soldridge et al since.

Boogie in Belgrade and onwards... 1987 saw me selected for Team GBR, to participate at the 7th World Space Modelling Championships, near Belgrade...the then-Yugoslavia. An amazing – if very expensive – experience. I had no idea what contest Space Modelling was all about and was astonished how tiny and unimpressive most of the rockets were. Didn't matter, this was going to be my 'one and only' international trip.. That was until two characters, Oliver Missbach and Pavel Milodinovic, came to my room and asked me to attend their 'St Leonhard Modellraketen Festival' (MRF), in June 1988...I said, "I'll think about it". And I linked up with fellow rocketeer, Michael Fox and we flew out to Munich and taken by car to the flying site in southeastern Bavaria. I'd built a range of rockets across the spectrum of classes FAI and NAR - National



The parties in Lviv were G-R-E-A-T too, just had a fabulous time. *Photo: S. Lodge* 

Association of Rocketry (USA). The end result was awesome, a Bronze and Two Gold medals. I attended the 2nd MRF with Charlie Braham, in 1989 and the 3rd in 1990, with Charlie, Ric Swan and Lee Stringer...lots more podiums too. These MRFs were life changing and united West and Eastern Europe. I knew I had to do more FAI events across the continent. I'd started writing rocketry reports for Aeromodeller + others and at much the same time penned my first title, 'The Model Rocketry Handbook' – Nexus Books.

The Real World... So much was happening in Eastern Europe at this time. Romania suffered bloody revolution; Czechoslovakia about to separate; Yugoslavia preparing to indulge a

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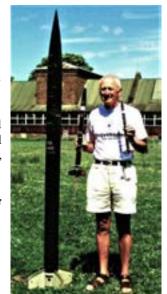
SEP/OCT 2020 PAGE 17



SERFs in the 1980s: Paul Clark sets up his super V2 'vengeance weapon'... flew well.

Photo: S. Lodge

Royal Gunpowder Mills in the late 2000's. Stuart Lodge poses with his 1/3 and 1/5 scale Bristol Aerojet 'Skuas', beside the Real Thing. Photo: S. Lodge



#### **Journey, Continued**

schismatic conflict. Much happening at home too, I'd worked in Agrochemicals during the late 1980s, made redundant, but obtained a job with British Rail Scientific Services, which made domestic and continental rail travel very cheap and easy. I was soon to travel by train, all over Europe...Switzerland, Czech Republic, Slovakia, Slovenia et al — more 'continental rail journeys' than Michael Portillo! By now, I was interacting with 'serious players' in Space Modelling, like Slovenian, Jože Čuden, founder of ARK Komarov, the most significant rocket club in Europe; Bedrich & Vera Pavka, of RMK Krupka, in Bohemia; Alexei Koryapin — Director of Ream Russia et al.

1990s... I soon became an expert in European rail travel, with Switzerland's RAK Cups, under the direction of Turi Hunziker, becoming a regular destination. Czech Republic - for the Sazena Cup - was more challenging, on seriously slow trains. USA hosted the 1992 World Champs, in Florida, with a bonus...we got to see Space Shuttle Endeavour launch from the Cape; but no medals for Team GBR.1993 saw another life-changing moment, I travelled to Slovenia, to take part in the 15th Ljubljana Cup. A super event, spoiled (slightly...) by torrential rain throughout, but came home with Bronze, Silver and Gold Dragons (you don't get medals at Ljubljana..). Another high spot came a year later, in Slovakia, at the Bardejov Cup, in the east of the nation – a seriously long rail trip... pre-Eurostar too; three medals and made lots of new friends. The 1994 World Champs was hosted by Poland, well run, but terrible weather. Went again to the RAK Cup, in Oberkulm, with the family, son Alexis getting a medal, to add to your scribes. About this time I penned, 'Model Rocketry-Space Modelling' – Traplet Publications.



21st World Space Modelling Championships 2016, in Lviv, Ukraine. Matt Steele (USA) indulged a great 'Champs'. I've lots of friend in the USA and all over Europe too. *Photo: S. Lodge* 



I've set a few British (+1 World..) BMFA Records too across the spectrum of classes!

Photo: S. Lodge

Continued next page SEP/OCT 2020 PAGE 18



Anton Sijanec (SLO), Contest Director of the Ljubljana Cup for decades, takes his place in a Soyuz Space Capsule. *Photo: S. Lodge* 



Your scribe at the end of the flying day.

Photo: S. Lodge

#### Journey, Continued

1997 saw an innovation, I started producing interspace..., a journal intended to bring international Space events home to enthusiasts here in the UK, but soon everyone on earth wanted to be on the distribution list! Another innovation was the World Air Games, held near Ankara, Turkey, with your scribe the lone GB entry. Amazing weather...no cigar, but set a British Record in S1B-Altitude which stands to this day. Things proceeded as usual with the approach of the Millennium; good days, bad days and more shiny stuff.

2000 serious noughties... In 1999 I'd come to the conclusion that we needed a World Cup event in the UK and started tapping a few contacts. Tony Betts of Rockets and Things jumped off the wall and offered to host an event near his place, in Kent...and 2000 saw the Canterbury Cup come to life. Plenty more happening, with me travelling all over Europe, including to the 13th WSMC, in Liptovsky Mikulas, Slovakia. I penned the 2nd edition of 'The Model Rocketry Handbook' around this time. More domestic upheavals, in 2003 I was dumped from my job at the privatised Scientifics, in Derby. But things went on 'as normal': Ljubljana Cups were annual for me now and the Dragon collection becoming a herd! Then came the Frank Ehling Diploma in 2005-6, followed by Ljubljana Cup. Events in Serbia, 28th Macedonia, Slovakia, Slovakia were 'routine' and even managed 2006's S7-Scale FAI World Cup Bronze, I decided to withdraw from international



21st World Space Modelling Championships 2016, in Lviv, Ukraine...the best Space Modelling event I've ever attended. Over 100 scale models to assess, but we cracked it! This is the judges' team, headed by Stuart Lodge. Photo: S. Lodge



World Space Modelling Champs 2000, Slovakia. George Gassaway (USA) launches his Space Shuttle endeavour. Photo: S. Lodge

competing, in 2008 – the year of 4th for me. - and was offered a place on the S7-Scale Judging panel at the European Champs, at Sremska Mitrovica, the following year. Some of the parties were seriously naughty too..

2010 to 'the Outro'.. From here on, I was an 'Official', with my views less important than the 'Establishments'...which went against the grain for me! Helped run the inaugural UKAYRoC schools' finals for two years. 2011 & 2012's Fenix Cups, in eastern Croatia were an innovation...huge entries. Edition 2 of 'Model Rocketry-Space Modelling' came to life at this time. Another nation was added to the travels - Bulgaria, seeing me judging at 2012's Balkan Cup, in Dupnitsa; Kyustendil Cup in 2015; Kaspichan Cup, 2016...interspersed by the 2013 European and 2014 World Championships, hosted at Kaspichan! Super events in Czechia - Cesky Tessin 2015 & 2017, Letovice Cups 2014 & 2018, and Krupka Cups 2013 & 2014. Called to judge at the Noosphere Ventures European Champs and World Champs in Lviv, Ukraine 2015 & 2016 respectively...these were the greatest Space Modelling events I've ever attended. Plenty more World Cups across the continent, before 2019's European Championships, in Buzau, Romania...not my happiest judging appointment. Some years earlier, I'd decided to stand down from my Space Modelling commitments in 2020. But what the hell, Space Modelling is the best thing I've ever done... M-A-G-I-C!

Thanks to all at BMFA and others around the world, too numerous to mention.

## **New Contest Announcement!!!**

CONTEST: Build a Semroc-kit Spaceman model rocket. Customize it as you wish. Then take and send us a photo of your model. We'll judge the rocket for creative thinking, execution and our perception of its flight stability potential. You might win a prize...you need not fly the model (but if you do and attest for its flight stability—you'll get credit).

PRIZES: Did we say prizes? Well this is for your fun, but NARHAMS is awarding: 1st Place-\$25; 2nd-\$10; 3rd-\$5; 4th-\$2 bill; 5th-\$1 American Indians in the Space Program U.S. dollar coin.



Examples - Gort and Marvin. *Photo: E. Pearson* 

**WHAT THIS IS:** This is a subjective judging contest so let your imagination romp and have fun with your project.

**HOW TO ENTER:** Send your rocket's (JPG or GIF digital) photo via email to glennepearson@aol.com. Photos are to be received by December 31, 2020. Winners will be announced in the scheduled JAN/FEB 2021 issue of NARHAMS Zog-43 newsletter and notified by email.

**JUDGES:** We have assembled a group of imaginative rocketeers to judge this thing and they are ineligible to enter theirselves.

**ABOUT THE SPACEMAN:** The Semroc Spaceman kit is advertised online for about \$10 and available from eRockets.biz, Apogeerockets.com, JonRocket.com, and others.

**Note:** The original 18mm motor Astron Spaceman (Kit K-9, woof) sold for \$0.75 in the 1965 Estes catalog...the year when NARHAMS chartered. Semroc's is a downsized 13mm motor oddroc version. Pssst... they are fun, delight and are remembered.

## NARHAMS Club Merchandise

New Online Store for NARHAMS Merchandise:

https://www.cafepress.com/narhams

NARHAMS now has an online store for club mechandise. No more waiting for a group buy. Lots more choices of colors and styles. Plus, a huge variety of items, much more than we have ever had in the past.

Shirts, Hoodies, Hats, Mugs and more!

End your loved ones'
gift shopping dilemma - leave this
page open and circle this
announcement.

Contact your editor before buying. He gets regular discounts or free shipping codes from Cafepress.
Save your dollars for rocket motors.



# Kit Review: The Estes Little Joe 1 Flight 5B Scale Model By Alan Williams embarrassing electronic fail system failures ensued The

We space history enthusiasts are aware that much "below the fold" work happened to support America's first spaceflight successes. Concepts and hardware needed to be proved workable without endangering astronauts lives. One of these efforts tested the emergency escape tower for the Mercury spacecraft.

By varying the ignition timing and launch angles of clustered Sergeant missile solid rocket motors a simple purpose-built vehicle could duplicate dynamic conditions both Redstone and Atlas rockets would encounter in flight. NACA-designed and built by North American Aviation, this solution was cheap and dirty engineering at its finest. The rocket was shaped much like a long beer can with four big swept wedge fins below and a Mercury capsule on top. Pretty, it wasn't.

The four motors would fire in a two and two pattern, reminding designers of the craps player's dice throw of a "hard-four", so the nickname of that play, or "Little Joe", christened this new vehicle. Later the design received four smaller Recruit boost motors to help kick it into the air.

There were two phases to the operation. Four flight attempts used Langley Research Center- built "boilerplate" mock-ups to test the general functions of the Little Joe, and escape rocket. (There was one preflight mishap, followed by three largely successful actual launches. Two of these carried rhesus "astro-monkeys.") The later flights were equipped with actual production space hardware from McDonnell Aviation to show what the capsule would do in action. Two

embarrassing electronic fault-caused escape system failures ensued. The last flight worked, though.

The Estes kit released in early 2018 represents the rocket as it appeared for that last launch, flight LJ 5B, on April 28, 1961. Thrown off course by a momentary "hangfire" ignition malfunction of one of its big Sergeant motors, it still successfully proved that the emergency rocket would save the astronaut's life, even under very severe dynamic conditions. Especially interesting for NARHAMS'ters is that all flights were at nearby-ish Wallops Island, and that the present-day Visitor Center there has one of two remaining Little Joe vehicles and the original launcher on display.



Little Joe kit parts displayed.

Photo: A. Williams

SEP/OCT 2020 PAGE 21



Finished Little Joe Flight 5B. *Photo: A. Williams* 

The kit makes use of the plastic Mercury capsule originally developed by Centuri Engineering for their 2.05 inch diameter Mercury Redstone kit. Using a clever set of laser-cut card stock adapter rings, the body tube is sleeved inside what is essentially a segment of about BT-75 serving as the main rocket body. I did something similar in the mid-1980's, but my model was nowhere near as elegant. A neat touch is using a wagon wheel-shaped upper engine mount stiffener to also center and anchor the end of the inner ST-20 tube in place.

Continued next page

#### LJ 1 Kit Review, Continued

One thing I did not enjoy was that the build instructions are almost wordless though they are printed in English, French, and Spanish. Semi-mute lines and arrows take the place of all but the most minimal verbal explanation. This follows the trend that people just don't detailed instructions read anymore. I wish it were otherwise.

The kit has you start by the plastic constructing Mercury spacecraft. You may work very hard to make the parts fit accurately. Test fit about a gazillion times before any glues wander near. Be prepared to widen the track in body shell segments go. (I used a scissors blade to carefully scrape away the

outer track wall.) I also worked the holes where the tower segment legs attach to the small "top hat" atop the capsule upper segment and carefully bent the legs inward for proper placement. Failure to precisely mate all these structures creates alignment and structural issues. (I know; I've screwed up enough of these capsules over the years.) This is probably more about the original Centuri molds than anything else. I also suggest painting the subsections before final assembly; some parts have little access once it's all together.

Marking and cutting of parts must be very accurate on this kit. The short body length leaves very little room for mistakes. I found it interesting that you must cut the through-thewall fin slots yourself. No pressure.



treatments. Photo: A. Williams

When masking the fluorescent orange and black areas on fins and body areas, beware lest you mar the card stock fin surfaces or vour silver finish. Note that the fin on the left-hand beach-side (fin number four, clockwise looking down from the model nose) was

entirely fluorescent orange on the beach-side face, but gloss black on the island (or launch lug)-side face. The kit illustration is wrong.

You might be tempted to cover the The author and his finished model.

The wedge cross section fins are simplified by laser-cut balsa for all structural parts. and thin semi gloss card stock skins. Be careful bending them exactly on their fold lines and sanding the internal fin frame leading edge to the correct shape.

Because the bright silver finish will highlight every flaw. I suggest coating the entire model with at least three full coats of Duplicolor FP 101 High Build Sanding Primer. Polish down each coat with 0000 (very fine) steel wool. This stuff does a nice job of hiding the tube spirals and such. Wipe any dust or steel wool fragments away. Then the capsule base where the Mercury capsules with different paint carefully coat the body, fins, and aft closure with Duplicolor #BGM0304 "Silver Metallic" GM Matching Paint. Later, buff

it very lightly with the same grade steel wool and you will have a fairly convincing metallic look staring

back at vou.

body and fins with that wide self-adhesive aluminum foil tape found at auto supply stores to give it that "real metal" look. I tried it back in the day. Well, it grabs onto your model like a hungry tax collector. Positioning mistakes need to be burnished out to smooth the inevitable wrinkles, whereupon the body tube spirals blossom forth. Then you notice just how heavy your Little Joe has become. Later, when the metal starts tarnishing from sweat acids and stuff, your old smelly friend WD-40 comes into play. On the plus side, it will have a great skin track return on local radars.

A separate set of injection-molded plastic parts nicely represents the Sergeant and Recruit nozzles and support beams. I suggest waiting until all other painting is finished to install these last parts. By the way, photos of this round show black painted nozzles on all motors, not the white or silver seen on other flights. The support beams were bronze-colored.

I think you will find the Mercury capsule to be the tough part of the kit. Sorry; versions of those parts have been annoying modelers for decades. If you master the built-up fins and tube nesting job, you will find that this is mostly a fairly basic and fun model.

Photo: E Pearson

Somebody put a lot of planning into replicating a unique moment in America's history. I recommend the kit on many levels.

A wonderful tool to understand the events surrounding Little Joe is James Duffy's great DVD on the subject: "Little Joe - Mercury's First Steps". Enormous revelations await the patient viewer.

It is available here.



# August Meeting Highlights By Ed Pearson



Meeting was held via Webex videoconferencing, as has become the norm. The meeting featured lots of fellowship. The decision was made to ECRM canceled this year due to the COVID pandemic.

Screen Captures: Tech Whiz E. Pearson

\* As always, the club meeting minutes are posted on the NARHAMS website in the "Minutes" section, imagine that. \*



## Bits and Pieces The Next 3 Months -

Are still subject to change. Check the Club website Calendar for the most current information.

Date	Time	Event	Location
Oct 03	5:30 - 9 pm	Monthly Meeting Topic: TARC Build - Webinar Only	Online
Oct 17	12 - 4 pm	Sport Launch Theme: Boost Gliders / NRC Launch Launch Manager: Don Carson	Mt. Airy, MD
Nov 01	1 - 2 pm	Goddard Public Launch - CANCELLED	Greenbelt, MD
Nov 07	5:30 - 9 pm	Monthly Meeting Topic: Planning for 2021 - Webinar Only	Online
Nov 21	12 - 4 pm	Sport Launch Theme: Open Launch Manager: Bradley Grant	Mt. Airy, MD
Dec 05	5 - 9 pm	Virtual Holiday Pot Luck Dinner - Webinar Only	Online
Dec 06	1 - 2 pm	Goddard Public Launch - CANCELLED	Greenbelt, MD
Dec 19	12 - 4 pm	Sport Launch Theme: Unicopters Launch Manager: Fabrice Derullieux	Mt. Airy, MD

#### Welcome New/ Renewing Members

#### <u>New</u>

Bryan Barbalace, Dave Fisher, Brett Jurd, John Larson, Robert Rukrigl Chuck Schofer, Isaac Schofer

#### Renewals

Sally Cook, Larry Levine, John Stalnaker, Caroline Wenks, Christina Wenks, Kevin Wenks, Tyler Wenks

### NAR Awards Williams Rare Broche du Demi-Siècle

By Ed Pearson

A small package from the NAR arrived at Alan Williams' house this past August. Inside Alan found a note from NAR president John Hochheimer and Alan's 50-year membership pin.

NAR members can buy 10, 20, 30, and even 40-year pins from NAR Tech Services—but not the 50th. It is only earned and then awarded. A recipient must have 50-years of membership, i.e., you cannot join, then go away, become a BAR (born again rocketeer), and then count your absent years towards pin credit. Trip Barber, former NAR prez, originated the program and calls it, "fifty years of continuous membership."

Alan joined NARHAMS in the mid-1970s after being a member of BAMR (Belair Association of Model Rocketry). But he first joined NAR in 1970 and stuck with it.

Few NARHAMSters have achieved the pin. The previous was in 2018 when our newsletter editor, Don Carson, was awarded his pin in Poland! (He was attending the World Spacemodeling Championships, representing the U.S. at the time).

Congratulations to Alan for truly a milestone achievement in sticking true to our Association.







Not Reading Your Own Copy of the Zog-43? Join NARHAMS and have your own copy emailed to you hot off the press. Only \$5/ year! Click here.



# Competition Corner: Running a Virtual NARAM

## What Was It Like to CD a Virtual NARAM?

### By Don Carson

Being the Contest Director(s) for the 2020 Virtual NARAM was part invention and part adaptation of prior postal contests. Postal Contests have a long history in many model aviation sports. Chris Flanigan had run a couple of smaller postal contests for FAI-type events and one for a trial of a proposed F Giant Altitude contest.

#### <u>Planning</u>

After establishing the scope of the Virtual NARAM – which events to fly, launch window for the contest, what kind of awards, etc – we set up a schedule (GanttProject) and a spreadsheet of things to do, who was responsible, comments (shared Google Sheets), and got to work. Each of us kept a personal things-to-do list or worry items.

We wanted to honor the usual NARAM week event. Some activities were scheduled during that time like the Board of Trustees Meeting, the NAR Town Hall, Manufacturers Forum and Scale Turn-in (in this case it was Scale Data turn-in, and we extended the deadline to encourage participation).

#### <u>Infrastructure</u>

We wanted to use as existing tools a much as possible. To that end we relied primarily on cloud-based documents and spreadsheets, Contest Manager (CM), the "microsite" capability of the NAR website, and the Zoom videoconferencing service. We also set up shared documents to capture lessons learned as we went along.

For event registration, all that was required was an email with the



Co-CD Carson, able to get his flying and run the contest. *Photo: D. Carson* 

### **Rocketry Festival 2021**

NARAM-62 Events:

1/2A Parachute Duration\*
1/2A Streamer Duration\*
1/2A Helicopter Duration\*
1/2A Altitude w. altimeter\*
1/2A Boost Glider\*
B Payload Altitude w. altimeter\*
1/2A Flexwing
D SuperRoc Altitude w. altimeter
Sport Scale
Research & Development

Postponed to July 2021
National Warplane Museum
Geneseo. NY

For current info, go to www.nar.org

contestant's name and NAR number sent to either Chris or Don. Since Virtual NARAM was free, we had no need for collecting and tracking money from contestants. We ended up also asking for any club/section affiliation as several people expressed interest in encouraging some section competition. We kept a shared spreadsheet and updated it as emails came in. We also added new registrants to the Participant page of the website.

For results tracking, Chris performed the data entry task for the contest results. The contest rules specified what information needed to be submitted for each event. Contestants emailed their results to Chris, in text form or sometimes a CM file. Chris created a flight card for each entry, checked to see if it was an improvement over a contestant's prior entry (if there was one), and then entered the data into Contest Manager. Contest Manager exports an HTML file that is readily uploaded to the website on the Results page.

Initially the results were updated shortly after they were received. As the number of participants and flight activity grew, it was switched to updating about every day or so.

Continued next page

#### CD'ing a V-NARAM, Continued

#### Communication

The NAR Website has a very useful and versatile capability to create a microsite that has been used for events like NARAMs. NARCONs. and World Cups. We were allowed to create one for the Virtual NARAM. This is where all the public documentation for the event resided - rules, results, list of participants, FAQs, and more. A mention of the event and link to

the website was put on the NAR's home webpage.

We decided to put out weekly updates as soon at the event was announced to promote the event and to keep folks on track and up to date. The announcements began about a month before the opening of the launch window. The contents of the announcements varied each week to focus on different aspects of the event.

Initially, the weekly updates went out as posts on several social media sites including the NAR Facebook Announcements page, Ye Old Rocketry Forum(YORF), The Rocketry Forum (TRF), and the NAR Section and Competition Rocketry (CROC) email lists on Groups.io. Later, the weekly updates were also put on the regular Facebook NAR page and, towards the end, emailed directly to registered participants.

We created a Facebook Photo Album on the NAR page for people to post related photos. We also got a nice mention in the July E- Rocketeer promoting the contest.



Jav Marsh and his 1/2A Streamer model. Photo: D. Carson

#### Continuous Improvement

After the initial announcement of the Virtual NARAM, we continued to see if we could expand and emulate more of the NARAM experience.

We worked with John Brohm and Marc McReynolds to figure out how to add Sport Scale as a virtual event. We ended up using Dropbox as a convenient way to upload and store the data. We could accept data by email, or the contestant could upload the data directly to a Dropbox folder.

Using photos provided for Sport Scale, Marc created a photo gallery of all the Sport Scale entries. It was set up as Photo Gallery on the website.

Chad Ring volunteered to take on judging the Best Midwest Qualified Flight award. based on inputs from folks around the country.

A popular NARAM evening activity is the opportunity to check out all the

Craftsmanship events entries after static judging is complete. Using videoconferencing the Zoom capability, we were able to set up a Scale Viewing Night. A nice feature of this was each contestant could show their model and point out special or unique features.

In-person NARAMs offer many opportunities to socialize with old friends and make new ones. In that vein, we also had a Zoombased Beerlofting/Social, hosted by Jim Filler.

Finally, three days after the launch window closed, we held an Awards Banquet via Zoom. A unique aspect of this format was we could have someone who turned in a particularly good performance speak as to how that came about. The two of us held a weekly tag up by phone

#### Running the Contest

or Zoom where we reviewed the planning documents and worry lists and to discuss any ideas for additional activities, or issues that should be addressed.

#### **Final Observations**

Making this a completely unofficial event certainly allow us to make many simplifications that allowed the Virtual NARAM to be held quickly and rather easily.

Holding this as a virtual event removed a whole host of things to do including hotels, buying trophies, t-shirts, patches, setting up/ breaking down, fretting about weather, even down to staffing range crews.

> The NAR Board of Trustees having already planned to conduct the Town Hall virtually and volunteering to take Manufacturers Forum off our hands probably saved more headaches than we imagine. Thank vou to Ed LaCroix. Todd Schweim. John Hochheimer, and the NAR board.

> One positive note about this approach is that your CDs had as much time as they desired to fly and recover their contest entries. That rarely happens at a regular NARAM!.



Jim Filler, staying hydrated and ready to fly his Flex Wing Duration. Photo: D Carson

