



SOUTHWEST OHIO ROCKETRY ASSOCIATION (SORA)

LAUNCH REPORT JULY 10, 2022

1:00PM TO 6:00PM NAR SECTION #624

Launch Conditions: Clear skies, little or no wind, temperature: high 80s

Total Number of Launches: 56 **Rockets Recovered:** 54

Total Number of 100% Fully Successful Flights (excluding simple fin breaks on landing, etc.): 43

Success Rate: 80%

Number of Individuals Who Launched Their Rockets: 15 **Number of Family/Friends/Observers:** 5

Teams and Competitions: 8. NARTREK Bronze (parachute duration, \geq "D" motor), NARTREK Silver (cluster), and NAR Cadet (payload, >24inch rocket length)

Types and Number of Motors: 56 total

A: 11 B: 22 C: 15 D: 6 E: 2 F: 4 G: 0 H: 0 I: 0 Higher: 0

2 launches of 3-motor clusters (3A cluster, 3B cluster)

1 launch of 2-stage

Ground Fires: 0 **Medical Incidents:** 0 **Damage to vehicles/facilities:** 0

Donations and drink/food sale, sale of merchandise:

straight out donations: \$24.00

t-shirts: 2 @\$20 = \$40

mugs: 1 at \$10 = \$10

stickers: 0 @\$0.25 = \$0.0

food and drinks: 17@\$1.00 = \$17.00

Total: \$ 91.00

Rocket Topics and Issues:

1. This launch had the greatest number of launches in the history of SORA (since we started keeping records in 2020) with 58 rockets launched in a single day! There were 15 people launching with one individual launching their first rocket ever. Welcome to aeronautical engineering!
2. Not only was it a great day for the number of rockets launched, but the diversity of launch types was astounding. There were eight NARTREK (National Association of Rocketry Training Rocketeers for Experience and Knowledge) Bronze/Silver/Cadet launches made. Two individuals (Rick and Dani) completed their NARTREK Bronze level certifications. Well Done! There were also multiple 2-stage, 3-stage, cluster, and payload (egg) rockets flown.

3. It must have been the great weather that brought out the geriatric rockets. One rocket flown was over 30 years old! Jon Detroy flew an Alpha III on a A8-3 to yield a perfect flight.
4. We got to test out our new rocket retrieval pole system as a Mean Machine landed on a nearby barn. It was successfully recovered with the pole system.
5. Yet, again, so sad, the trees claimed another rocket containing a Jolly Logic parachute deployment device. This time, it was on the south side of the field. 70 feet in the air was little high even for the most avid tree climbers. We will continue to check to see if the rocket drops out of the tree and the electronics package recovered before the weather takes its toll.
6. Joe Schmalhofer won the "Closest to the Pad" award this month for landing his Silver Streak rocket actually on the pad he launched from! SpaceX would be proud! Joe was given a free rocket kit as his reward.
7. We also handed out several introductory rocket kits to youth bystanders (and even a few adults).
8. The Half Year Metrics on the number of launch days, number of rockets launched, and the total impulse of all rockets launched throughout the year is attached. Given we are only half way through the year, we are right on track to equal or surpass last year.
9. **Failure modes:** Beside the typical parachute shroud lines tangle, we had a several rockets where the engine ejected out of the rocket when the ejection charge went off. Please secure your engines properly with retainer caps (screw them on completely!) metal retainer clips, proper taping, etc. The ejected engine not only fails to deploy the chute (one rocket augured in), it could be a fire safety hazard as well as leaving "trash" around the launch site. Hisey Park has graciously allowed us to launch on the field and we don't want to leave debris scattered around.
10. The club would like to start the NAR Annual Competition. This involved building and launching rockets with specific characteristics and earning points. See Contest Flying attached.
11. **We will be implementing a new change in the launch procedure.** The Range Safety Officer needs to focus on his/her job rather than helping answer general questions about rocketry. We will be cordoning off the RSO area and only those individuals who have prepped and are ready to launch their rockets will be allowed in the area. As we love to answer questions and help new rocketeers in any way we can, we will have a leader available to answer questions, help newbies prep their rocket, and manage the store.

Next meeting: Tuesday August 2nd, meet at Lebanon Library.

Next Launch: Sunday, August 14th (off schedule due to leaders not available), Hisey Park

Next Rocket event: Lebanon Blues Festival August 5 and 6th (needs volunteers), trash cleanup which raises money for the club



Rick's NARTREK Bronze level "≥D" motor, successful



Dani (in white) prepping her certification rocket



Ooops! Luckily, the rocket was retrieved using the poles.



Landen with his SemRoc Scortch and Jon with SpoolFool



Punching a hole in the sky!



Now, where is that rocket?

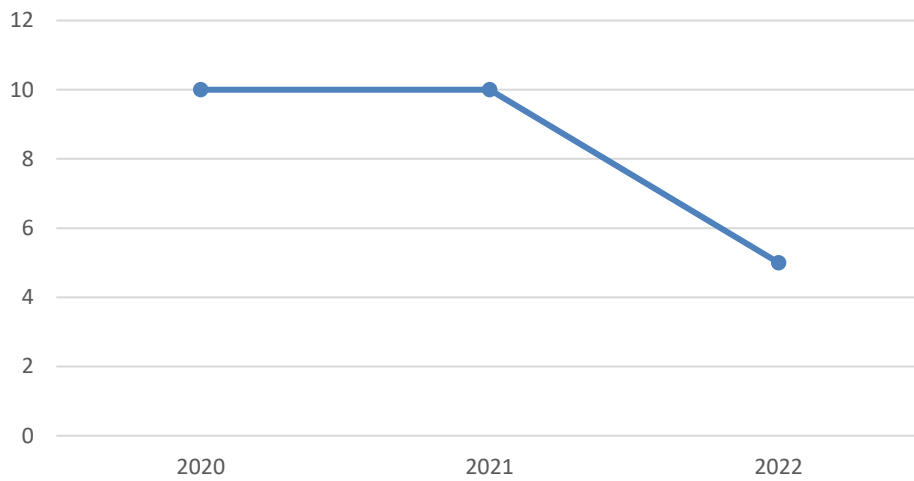


Three rockets ready to go.

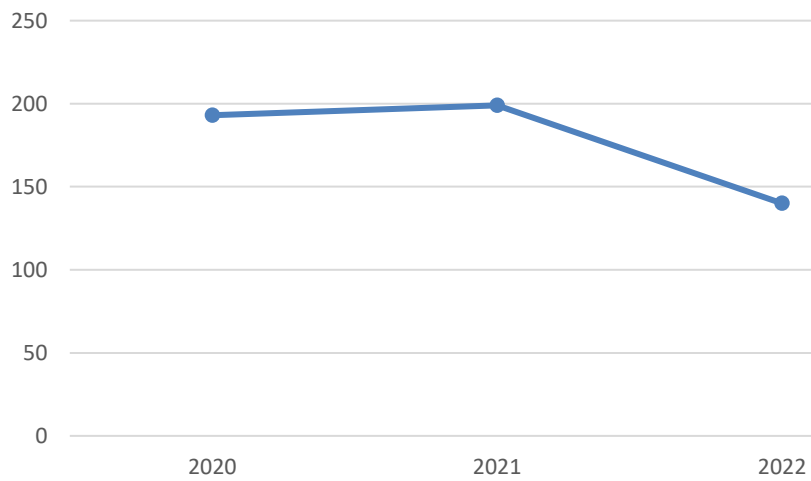
Parting words.....*"Sapientia ducet ad astra"* – Wisdom/Knowledge leads to the stars

HALF YEAR METRICS

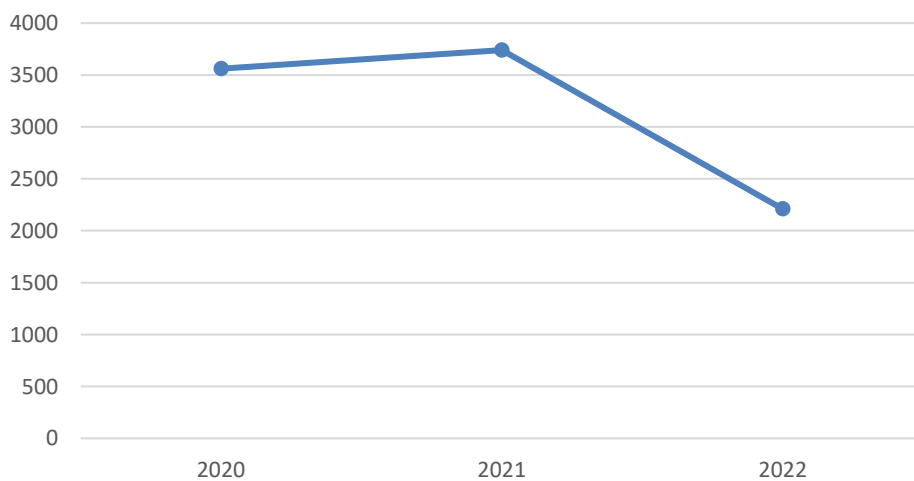
Launch Days



Rockets



Total Impulse



CONTEST FLYING



***How can I make it fly higher?
How can I make it fly better?
How good am I
compared to other rocketeers?***

If you are asking yourself questions like these, then you are ready for NAR competition rocketry!

Since 1959, sanctioned NAR model rocket competition has evolved into a proven method for challenging the individual rocketeer to improve their craftsmanship and flying skills. It is an activity that emphasizes modeling and flying skill, and sportsmanship. Any NAR member can participate in NAR competition, and you do not have to go to a big organized launch to do it.

The [U.S. Model Rocket Sporting Code](#) is the official rulebook for conducting and participating in NAR sanctioned competition. NAR members can design and build model rockets for over 25 different [competition events](#). Official [US Records](#) can be set in many of these events.



In 2017 the NAR completely revised the competition process to eliminate the annual accumulation of competition points and shift emphasis to individuals flying competitively against other individuals from throughout the U.S., each at their own local launch, in a half-dozen events that are standardized for each contest year but change between years. This new process is called the “National Rocketry Competition (NRC)”. Any two NAR members (at least one of them an adult) can get together and fly any or all of the NRC events anytime, anywhere as long as you register the launch event 48 hours or more in advance through “[Launch Windows](#)”. Anybody can do this, it does not have to be done through an NAR section. When you’re done flying one of the NRC events, you just report your flight scores and they get posted to a national “[Scoreboard](#)” where you can see how you are doing in that compared to everyone else in the US that year. If you want to move up in the rankings, just fly again the next weekend; you can fly as often as you want. At the end of the contest year (June 30), the NAR recognizes the top 10 fliers in each event, and if you are one of these you can go to the National Championships (NARAM) and compete head-to-head in the event for the title of “National Champion”. If you want to know more about how the NRC process works, read the basic explanation briefing attached below.



The NAR Contest Board is pleased to announce the NRC events for the 2022-2023 Contest Year:

- A Altitude
- A Payload
- A Boost/Glide Duration
- A Streamer Duration
- B Eggloft Duration
- 1/4A Parachute Duration

These events have been selected by the NAR Contest Board and the NARAM Contest Director per Sporting Code rule 13.1.3. The 2022-2023 Contest Year starts on July 23, 2022 and ends on the last day of NARAM. NRC flying ends June 30, 2023.

If you prefer the comraderie of flying with a larger group, NAR Sections across the country host NAR launches that provide members the opportunity to participate in competition rocketry, either by flying their own NRC flights or by participating in a locally-organized competition in any of the other events in the Model Rocket Sporting Code. No “points” are accumulated in these competitions that count for any national award, but there is a real personal challenge involved in being the best that you can be at one of the many diverse types of events found in the Code.