



SOUTHWEST OHIO ROCKETRY ASSOCIATION (SORA) LAUNCH REPORT FEBRUARY 12, 2023 1:00PM TO 5:00PM NAR SECTION #624

Launch Conditions: Sunny, gust to 8 mph, temperature: high 40s

Total Number of Launches: 69 **Rockets Recovered:** 67 **Found Rocket (not launched):** 0

Total Number of 100% Fully Successful Flights (excluding simple fin breaks on landing, etc.): 53

Success Rate: 77%

Number of Individuals Who Launched Their Rockets: 55 **Number of Family/Friends/Observers:** 12 approx.

Teams and Competitions: 1, NARTREK Bronze parachute duration, successful

Types and Number of Motors: 71 total

A: 47 B: 7 C: 13 D: 2 E: 1 F: 1 G: 0 H: 0 I: 0 Higher: 0
Two two-stage Estes Mongoose flights

Ground Fires: 1 **Medical Incidents:** 0 **Damage to vehicles/facilities:** 0
One very small ground fire (1' diameter) at pad easily put out with smothering.

Donations and drink/food sale, sale of merchandise:

straight out donations: \$15.00 + \$50 t-shirts: 0 @\$20 = \$0
mugs: 0 at \$10 = \$10 stickers: 0 @\$0.25 = \$0.0
food and drinks: 0@\$.75 = \$0.00

Total: \$ 75.00

Stickers were given out to scouts who had successful launches. (Approx 40, no cost to scouts)

Rocket Topics and Issues:

1. It was a great day of rocket launching with the Boy and Girls Scouts of Troop #3618. The scouts had done a "rocket build" on the previous Tuesday and then came out on Sunday to launch. It was great weather and rockets were launching at an astounding rate with the help of several seasoned SORA members (Dani, Tim, Dave, Rick, and others) helping with rocket prep, safety, launch rod/pad duties, and launch control. Thanks to Carrie Huber of the Scouts for helping to organize the event.
2. We want to also give a big Thank You to the Troop #3618 for a donation to the club of \$50.
3. The Club was honored to have NASA manned-space-flight engineer Emily Forrester running launch control. With the huge number of launches, she had her job cut out for her, and did an absolutely GREAT

job keeping the whole program running smoothly till the last rocket launched at 5PM. 69 rockets were launched which is the highest the club has ever done in a single day since we began keeping records.

4. Given the number of first-time rocketeers (59), We were expecting a higher-than-normal number of non-nominal flights. However, our day's flight success rate actually increased from the previous monthly launch going from 70% up to 77%. Great job building great rockets! As usual, parachute problems were the number one problem with flights. Let's try to achieve an 80% fully successful rate in March!
5. Gary successfully accomplished a NARTREK Bronze parachute duration test with a time of 1one minute and 20 seconds. Minimum time aloft is required to be greater than one minute. Excellent!

Next meeting: Tuesday March 6th, meet at Lebanon Library 6:30PM

Next Launch: Sunday, March 12, Hisey Park

February Launch Photos....



Scout troupe #3618 prepping rockets with Emily requesting prepped rockets to come to Launch Control



Big rocket, big safety zone!



Dave's EBay Special on a F67-4W



3,2,1 Launch!



Love the White Lightning motors!



Anticipation of a perfect launch...



Emily Forrester running Launch Control



Beautiful art job on a Spitfire



A young rocketeer getting some help on the pad

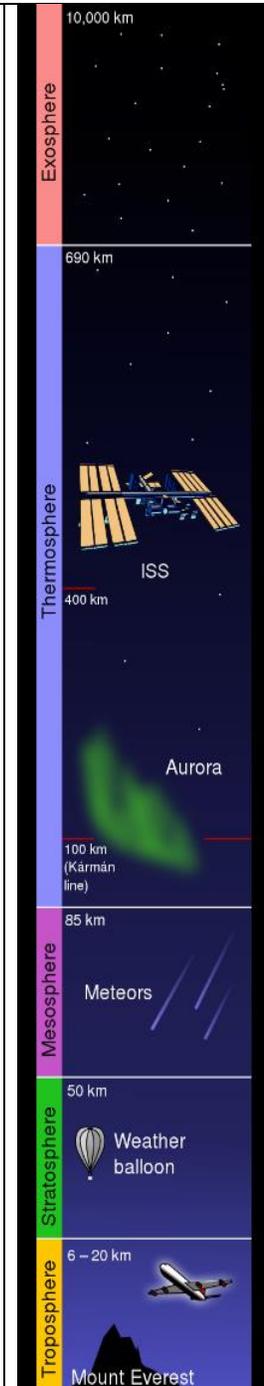
Trivia.... Karman line (from Wikipedia)

The **Kármán line** (or **von Kármán line** /vɒn ˈkɑːrmɑːn/) is an attempt to define a boundary between Earth's atmosphere and outer space, and offers a specific definition set by the Fédération aéronautique internationale (FAI), an international record-keeping body for aeronautics. Defining the edge of space is important for legal and regulatory purposes since aircraft and spacecraft are subject to different jurisdictions and are subject to different treaties. International law does not define the edge of space, or the limit of national airspace.^{[2][3]}

The FAI defines the Kármán line as space beginning 100 kilometres (54 nautical miles; 62 miles; 330,000 feet) above Earth's mean sea level. This number is well above the altitude reachable by a conventional airplane and is approximately where satellites, even on very eccentric trajectories, will decay before completing a single orbit.

While experts disagree on exactly where the atmosphere ends and space begins, most regulatory agencies (including the United Nations) accept the FAI Kármán line definition or something close to it.^[4] As defined by the FAI, the Kármán line was established in the 1960s.^[5] Various countries and entities define space's boundary differently for various purposes.^{[6][2][7]}

The Kármán line is named for Theodore von Kármán (1881–1963), a Hungarian-American engineer and physicist who was active in aeronautics and astronautics. In 1957, he was the first person to attempt to calculate a theoretical limit of altitude for airplane flight.



Coming Soon to a Theater Near You.... Hollywood is producing another space movie. This time it is about the seamstresses from the International Latex Corporation who made intricate bras and girdles who were hired to sew the 21 layers of different kinds of material that went into the space suits for the Apollo moon landing program.

The Club's Motto....."Sapientia ducet ad astra" – Wisdom leads to the stars