



# **SOUTHWEST OHIO ROCKETRY ASSOCIATION (SORA)**

## **LAUNCH REPORT MAY 11, 2025**

### **11:00AM TO 4:00PM NAR SECTION #624**

**Launch Conditions:** Wispy clouds, temperatures low-mid 60s, wind to 10mph

**Total Number of Launches:** 33      **Rockets Recovered:** 33      **Lost:** 0      **Found Rocket (not launched):** 0

**Number of first time flyers:** 0

**Total Number of 100% Fully Successful Flights:** 21      **Success Rate:** 64%

**Failure modes:** 12, 1 shock cord broke, 1 shock cord ripout from chute, 2 chutes did not unfurl, 1 chute sep from shock cord, 1 Cp/Cg issue, 1 stuck on pad, 2 no eject of chute, 2 low impulse, 1 where 2<sup>nd</sup> stage motor did not ignite

**Number of Individuals Who Launched Their Rockets:** 10      **Number of Family/Friends/Observers:** 4

**Teams and Competitions:** 0      **NARTREK:** 0      **Scouts/Home School/4-H:** 0

**Types and Number of Motors:** 35 total

1/4A: 0    1/2A: 0    A: 5    B: 3    C: 18    D: 6    E: 0    F: 3    G: 0    H: 0    I: 0    Higher: 0

There were two 2-stage rockets launched. A8-0 to A8-3, and C6-0 to C6-5 both scratch built rockets

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

**Donations and drink/food sale, sale of merchandise:**

straight out donations:      \$50.11

mugs:      0 at \$10 =      \$0

food and drinks: 0 at \$1ea =      \$10

t-shirts:    1 at \$20 =      \$0.0

stickers:    0 at \$0.25 =      \$0.0

new memberships 0 @\$5 =      \$10.0

**Total: \$70.11**

**Rocket Topics and Issues:**

1. We had a nice showing of rocketeers with several scratch built rockets being flown as well as two 2-stage rockets.
2. We have our work cut out for us in the next few months as our safety record took a hit this launch. 64% fully successful launches is way below our target of 90%. Parachute/shock cord issues, as usual, took first prize for failure modes. Please take your time to properly inspect and pack the wadding, chute, shroud lines, and shock cord. Test fit it to be sure it can be ejected properly. Improper motor thrust and Cp/Cg issues also showed an uptick.

3. Harold and Bill fired off two 2-stage rockets which were both scratch built. Its great to see people working on higher difficulty rockets.
4. We had a good showing of "F" impulse motor rockets although two of the three rockets had parachute issues.
5. For the most rockets flown by a single person , we had a tie with Bob Maxwell and Greg DeCola each flying five rockets. Well done!
6. Yearly Total Impulse of at 2560 which is below last year's total at this point in the year. Given we lost three launches due to weather, this is not expected. The total was helped by Rick launching a "J" motor which is worth 1280 Newton Seconds at his L2 High Power certification up at Cedarville.
7. Thanks go to Lee Berry of Merlin Missile works for helping supply our rocketeers with needed equipment during the launch.
8. Thanks to Rick for running Range Safety and launch control.

**Next meeting:** Meeting will be at Hisey on June 08.

**Next Launch:** Sunday, June 08, 2025. Meet at Hisey Park. Setup 11:30, launch 1:00PM

**Love to see some cluster rockets going up at the next launch!**

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

**Sorry. We didn't take many pictures during this month's launch!**



Rockets ready to go!



Rick's HyperLOC 300 Level 2 HPR certification launch at Cedarville, apogee altitude of 4295 feet

## **FUN FACTS: Rockets skewering Santa?**

Rockets launch at certain times of the day or night (what's called the "launch window" for a variety of reasons such as orbital mechanics (getting the best boost of the earth's rotation) toward the intended target, projected weather, range availability, technical readiness of the craft, readiness of the downrange equipment, and mission priority. They also have to worry about hitting Santa as nighttime launches are getting more prevalent.

What? Why?

Seriously, the Federal Aviation Administration has to worry about the impact of launches on commercial aircraft carrying out normal traffic around the United States and across the Atlantic Ocean. From the government....

"WASHINGTON — The Federal Aviation Administration has started to reduce the amount of airspace it closes for launches from Cape Canaveral as part of efforts to limit the impact of growing launch activity on commercial aviation.

The FAA recently introduced a revised zone of restricted airspace around and extending offshore for many launches from Cape Canaveral Space Force Station and the Kennedy Space Center. The revised zone keeps open airspace to the north of the spaceports that had previously been closed for all launches.

By doing so, the FAA said in a June 15 statement, it keeps open a key arrival route for commercial flights from northeastern U.S. to airports in central Florida, notably Orlando International Airport and Tampa International Airport. For a typical launch, the original restriction would require up to three dozen flights to be rerouted, causing up to 300 cumulative minutes of delay.

An FAA graphic illustrating the original airspace closure and the new one used for launches on eastern and southern trajectories. Credit: FAA

The revised airspace restriction will be used for launches on eastern or southern trajectories, the FAA said, based on risk analyses conducted for every launch. Launches that go on more northerly trajectories, such as missions to the International Space Station, will continue to use the larger zone.

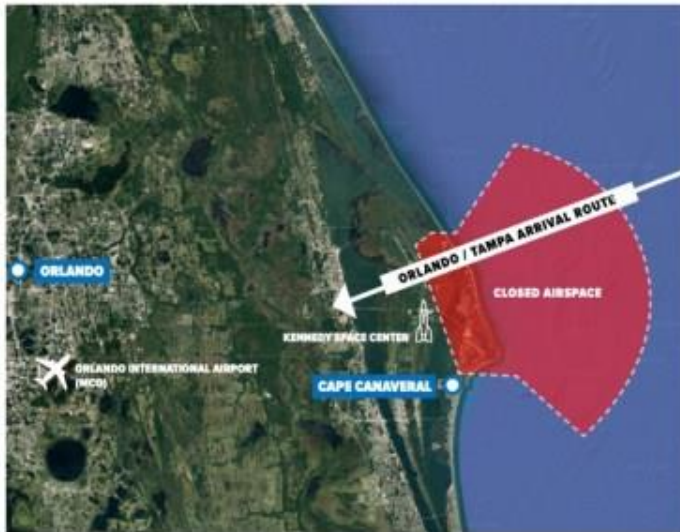
## BEFORE

**Busy route from the northeast U.S. to central Florida closes during all space launches.**

Flights rerouted to other busy routes resulting in arrival delays.

**FOR A TYPICAL LAUNCH:**

- Up to **36 flights** re-routed
- Up to **300 minutes** of delay
- Up to **4,300 passengers** affected
- Up to **1,500 extra miles** flown



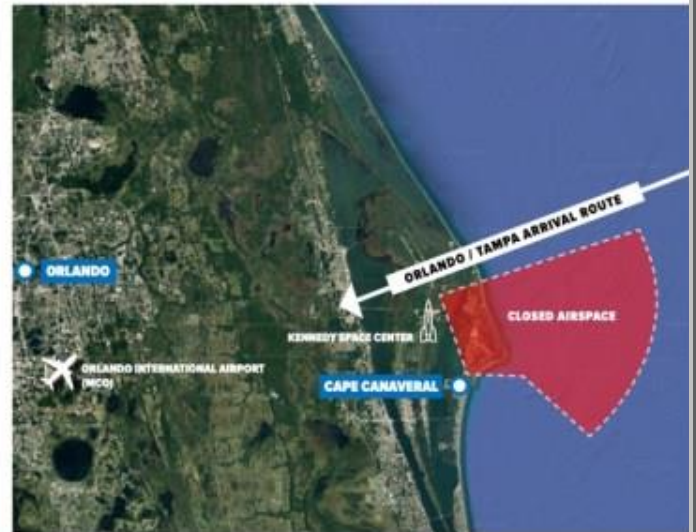
## AFTER

**Busy route from the northeast U.S. to central Florida remains open during most space launches.**

Flights remain on efficient routes, avoiding additional delays.

**FOR A TYPICAL LAUNCH:**

- **NO** flights re-routed
- **NO** delays
- **NO** impact to passengers
- **NO** extra miles flown



The move is part of broader efforts to address the conflicts between launches and commercial aviation, particularly in Florida's congested airspace. In April, the FAA released [a set of factors](#) when considering whether to allow a launch to proceed or ask the launch company to identify alternative windows for the launch.

Among those factors are the timing of the launch, particularly relative to holidays or other special events that cause increases in air traffic, and the duration of the launch window. "The FAA encourages commercial space operations to take place during nighttime hours (to the extent practicable) when other flight operations tend to be reduced," the guidelines state.

The document added that the FAA will prioritize missions for national security or otherwise in the national interest, as well as commercial launches carrying payloads.

"The focus really is on Florida as we move forward," said Duane Freer, manager of space operations for the FAA's air traffic organization, during a May 15 meeting of the FAA's Commercial Space Transportation Advisory Committee (COMSTAC). He noted 92% of launches that affect the national airspace system are from the Cape.

One ongoing area of concern is launch scrubs. Freer said the FAA has been encouraging launch operators to inform air traffic control of scrubs as soon as possible, including before airspace closures go into effect.

A separate effort is the Space Data Integrator (SDI), a tool to automate the distribution of data from launches and reentries to air traffic controllers, enabling more dynamic management of airspace and reducing the size and duration of airspace closures.

Freer said at the COMSTAC meeting that full integration of launch and reentry data into air traffic management systems won't be completed until 2028, citing "budgetary constraints." He said he did not know how much additional funding would be needed to accelerate that schedule.

The FAA works with commercial space operators and [NASA](#) to avoid scheduling launch operations during holiday travel to minimize any impacts on commercial air travel. With launch traffic increasing, the FAA said it has adapted to reduce the time of airspace closures by up to 50%.

That's not to say holiday-time launches haven't happened before or can't."