



SOUTHWEST OHIO ROCKETRY ASSOCIATION (SORA)

LAUNCH REPORT NOVEMBER 17, 2024

1:00PM TO 4:00PM NAR SECTION #624

Launch Conditions: high cirrus clouds with blue skies, temperatures mid-60s, wind to 15mph

Total Number of Launches: 31 **Rockets Recovered:** 31 **Lost:** 0 **Found Rocket (not launched):** 0

Total Number of 100% Fully Successful Flights : 25 **Success Rate:** 81%

Failure modes: CATO (1), low impulse, chute not ejected (2), nosecone sep, wrong delay time, chute

Number of Individuals Who Launched Their Rockets: 7 **Number of Family/Friends/Observers:** 2

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

Types and Number of Motors: 31 total

1/4A: 0 1/2A: 0 A:8 B:7 C:11 D: 2 E:1 F:1 G: 2 H: 0 I: 0 Higher: 0

Ground Fires: 0 **Medical Incidents:** 0 **Damage to vehicles/facilities:** 1 Two small scratches on hood of car when Estes Crossfire landed on it. No insurance claim filed.

Donations and drink/food sale, sale of merchandise:

straight out donations:	\$20.50	t-shirts: 1 at \$20 =	\$0.0
mugs: 0 at \$10 =	\$0	stickers: 0 at \$0.25 =	\$0.0
food and drinks: 0 at \$1ea =	\$0	new memberships 0 @\$5 =	\$0.0

Total: \$20.50

Rocket Topics and Issues:

1. Beautiful day out on the range. It was so good in fact, there was an after-school STEM group also launching today at Hisey. They were finishing up just as we got started so there weren't many issues with multiple rockets in the sky at the same time.

2. Harold launched a Odd'l Break_Away rocket that purposely came apart into six sections linked with shock cord. Exciting to see! Here's the marketing photo of the rocket as we didn't get a photo of the actual rocket launched.



3. I'm not sure what is going on with Estes motors but we had, yet again, another CATO. Not good for Estes as they are paying out a lot of money for replacement rockets and engine packs.
4. Bob, our newest Level 1 rocketeer, was top dog for highest number of launches with eleven. Well done!
5. Rick's AIM-54A was underpowered and augured in just prior to chute eject. Luckily, the Jolly Logic chute release unit and Altimeter 2 were undamaged. The D12 motor did not provide enough thrust to gain sufficient altitude. Rick will rebuild the rocket and be ready for the December launch.
6. Thanks to Robb and Rick for running Range Safety and launch control!

Next meeting: Tuesday December 3rd, meet at Lebanon Library 6:30PM
Next Launch: Sunday, December 8th, Hisey Park

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



Beautiful skies for November!



Sundog rainbow around the left side of the sun



Rick's AIM-54A on the MPR pad



I can fix this!



Dave's Arreaux



Full pads are nice.



Dave looking cool in his shades!



Composite motor chuffing on the pad prior to fully igniting

FUN FACTS:

It was a gorgeous day out on the pad on Sunday. Wispy clouds, sun shining through lightweight clouds and beautiful rainbows around the sun. Rainbows?

What the crowd was seeing with rainbows on opposite sides of the sun are what are called "sundogs". Sundogs are an atmospheric optical illusion caused by sunlight refracting through ice crystals high up in the atmosphere. They appear, often as opposite pair or pairs, at a 22 degree angle usually to the left and right of the sun. They have the spectrum of colors with red closest to the sun and blue farthest away. The term sundog refers back to Greek mythology where Zeus walked his two dogs across the sky and the two bright spots on either side of the rainbows symbolized his dogs.

They are indicative of rain and a cold front moving into the area due to the ice crystals contained in the high cirrus or cirrostratus clouds. Here comes the snow!

Another Fun Fact, they can also occur at night and I've actually seen them on full moons down at Cumberland Falls in Kentucky. They are called moondogs.

You can barely see it in the photo above but I couldn't get a good picture of the sundogs with my phone camera, so here are a few shots off the internet to show what they look like.

