SOUTHWEST OHIO ROCKETRY ASSOCIATION DRAFT

FEBRUARY 23, 2020 LAUNCH REPORT NOON TO 4PM

Launch Conditions: Marginal, weather low 40's, windy initially, clouds 1500 feet

Total Number of Launches: 31

Total Number of 100% Fully Successful Flights (excluding simple fin breaks on landing): 20

Causes of Failed Flights:

7 parachutes did not deploy properly (these were all generic E2X low cost bulk rockets)
1 parachute did not deploy (Mercury Redstone)
1 augered in due to motor failure (ejection charge timing did not match motor designation)
1 CATO (Estes E12-3)
2 motors with poor motor thrust (D12-3, A10-3T)

Rockets Recovered: 31

Number of Launch Participants: 11

Number of Family/Friends/Observers/Non-launching rocketeers: 2

Teams and Competitions: 1

Types and Number of Motors:

A: 17 B: 3 C: 5 D: 4 E: 2 F: 0 G: 0 H: 0 I: 0 Higher: 0

Ground Fires: 0

Medical Incidents: 0

Damage to vehicles/facilities: 0

Donations: $25

Rocket Items and Issues:

1. Had multiple members of 4-H try their first hand at model rocketry. All had a good time. This was due to efforts by Robb White for attending a 4-H meeting/symposium and from him scheduling a rocket builds prior to the monthly SORA meeting.
2. Estes bulk pack parachutes showed high level of failure to deploy, plastic chute material stiff
3. Another failure of Estes E 12-3 motor resulted in destruction of Cherokee rocket. Will submit report/photo to Estes for replacement of rocket and motor
4. Began using Flight Cards that rocketeers can take home to document their flights for 4-H, Scouts, or personal use. Also used NAR Waiver Forms.
5. Rick Forrester conducted a test run of the judging procedures for Team America Rocketry Challenge. He prepped a Falcon Nine with proper egg and altimeter with Estes E9-6 (recently purchased engine). Rocket met weight, height, and construction requirements. Bubble wrap used egg protection in nose cone. Launch was excellent but ejection charge did not fire for over 9 seconds resulting in the chute ejecting within 5-10 feet of the ground. Rocket tube augered in (but not nosecone), egg was demolished in nose cone. Apogee was 600 feet (200 feet below 800 foot target for the TARC contest). Total air time was 20.05 seconds significantly below 41-43 second target. Competition score for the launch was 298.75 (target score of zero). Competition flight was technically disqualified due to: Unofficial altimeter (only Perfectflite, APRA, Pnut, or Firefly may be used for TARC), Unsafe Flight and Recovery (damage to the body tube, parachute deployed too low), and Cracked egg. Good learning experience although unfortunate about motor failure.

Additional items:

Need to purchase a new emergency air powered horn.
Need to purchase wind gauge