

EDGAR COUNTY 4-H ROCKETS
PART B- INSTRUCTOR'S RULES AND REGULATIONS FOR LAUNCHING

SAFETY FIRST! - #1 item stressed in this project. That is why we have the classroom and launch offs to teach all aspects for the 4-H Fair, and any other rocket launches. Edgar County 4-H Rockets follows the rulings in the National Association of Rocketry (NAR) current "PINK" Book Edition, and any other special rulings of Edgar County 4-H.

RULE 7- 14: TO PROVIDE SAFETY IN THIS PROGRAM.

7. OFFICIAL ENGINE RULINGS

A) Classes I and II will be using the B6-4 single stage engine for the Edgar County 4-H Competition, with the exception of **HIGH WIND CONDITION RULE:** With wind speeds of 20 mph or more, Members will use the A8-3 Engine, and proceed with caution. The Launch Judging Crew will determine if safe for launches.

B) Class III (Advanced Rocketry) will use a limit of D engines, and altitudes of less than 1200 feet AGL. **High Winds Rulings** will limit flight accordingly.

Notice: Any rocket flying over 1,200 feet AGL will be the rocket owner's responsibility to pay the FAA (Federal Aviation Administration) any and all Penalties &/or Fines.

8. 4-H Fair Competition will be split phase judging:

A) Construction - Inside and Outside

B) Flight and Safety:

1) Spot Landing / Accuracy Launch

2) Flight Duration Launch

3) Attendance- MUST BE AT CLASSES AND LAUNCH OFF TO QUALIFY! (NOT ADDED TO SCORE.)

9. Scoring will be based on the TOP SCORE OF POINTS GAINED BY SUB-CLASS WINNERS.

BLUE RATING - A GRADE - 100% TO 85%

RED RATING - B GRADE - 84 TO 70 %

WHITE RATING- C GRADE - BELOW 70 %

10. FINAL CHAMPIONSHIP FLIGHT:

The Final Championship will start 15 minutes after the first round competition. **Only FIRST PLACE DIVISION WINNERS WILL COMPETE FOR THE GRAND CHAMPION ROCKETEER!**

Members must participate in the Championship Round to WIN! Final rankings will be posted on Wednesday to qualify for the Next Year's June State Launch in Champaign.

11. Special Notations:

- A. All rockets on Classes I and II, (first to third years), **must** use parachute recovery. **No parachutes** can have **any type of alterations to compete!**
Results: Rocket and member will be disqualified!
- B. Contestants will be disqualified by the order of the judging staff and /or the superintendent(s) at their discretion for "MOB" recovery. Only contestants and two (2) recovery people can recover the Rocket. "Mob Recovery" can deduct thirty (30) points off any score.
- C. Horseplay and violence will not be tolerated!

12.LAUNCH PROCEDURES:

A. GUIDELINES:

ALL CONTESTANTS WILL FOLLOW SET PROCEDURES ON THE LAUNCH PAD AREA. Contestants will follow direction of the **Edgar County 4-H Launch Team:**

Launch Director (**LD**), Launch Control Officer (**LCO**), Range Safety Officer(s) (**RSO**), Superintendent(s) (**FS**), Fair Judge(s) (**FJ**), County Advisor(s) (**CA**), and/or Aerospace Ground Staff (**AGS**).

TIME LIMITS: 10 minutes to set up launch

- each contestant **must** use a 5-second countdown.
- Each contestant will use a 3 second ignition period.

Launch Area: Area determined by Launch Team, and/or the Parking Area west of the Exhibit Hall on 4-H Grounds

B. Pre-Launch Procedures:

- 1) Powder the parachute, pack parachute, and load rocket engine with the igniter in place and taped.
- 2) Set up rocket launcher with Launch rod in proper lug holes, blast plate, and micro clips in the proper placement.
- 3) Set rocket onto the launcher, and connect the micro clips to igniters.
- 4) Go to Safety Zone after completing pre-launch.
- 5) SAFETY CHECK- Flight Director, Flight Superintendent, or Range Safety Officer, or any other qualified assistant **Must** check launcher and rocket(s) for the safety check procedure list.
- 6) Member will proceed to launch area, be given the ignition key by LCO or RSO, place key into the ignition controller, Check for Continuity (Electric Current) and wait for the LCO/RSO command: "Clear for Countdown!"

- 7) CONTESTANT WILL GIVE THE FOLLOWING INFORMATION:
-NAME
 - 4-H CLUB
 - YEARS IN 4-H ROCKETRY
- 8) Launch Control Officer (LCO) or Range Safety Officer (RSO) will give command "GO FOR LAUNCH!"
- 9) Member will start their 5 - second Countdown- in **a LOUD, CLEAR VOICE!**

5 - 4 - 3 - 2 - 1 - BLAST OFF!

On the Words - "Blast OFF!", PRESS THE RED BUTTON ON THE CONTROLLER, AND HOLD FOR 3 SECONDS TO YOURSELF-"ONE THOUSAND ONE, ONE THOUSAND TWO, ONE THOUSAND THREE"

Release the Ignition Button and Follow the Rockets- Launch or Abort procedures.

13. Rockets - Launched or Abort

A) Launched Rockets

- 1) Remove the ignition key; give to the "LCO" or "RSO", before moving out of the "Launch Box".
- 2) Track your rocket with your recovery team.
- 3) After landing, return you and your rocket to the Flight Superintendent for inspection.
- 4) After all flights are done, please return your rocket to the 4-H Exhibit Hall for re-check in.
- 5) If your rocket is missing due to trees or lost, your ID card will be hanging on the Show Rods. However, if you DO NOT RETURN YOUR ROCKET to proper show place, you will be disqualified, and grade or scores given!

B) Aborted launches

- 1) Release the ignition button, and remove the Ignition Key.
- 2) Count to "one thousand four". GIVE KEY TO "LCO" OR "RSO". Stay in Launch Box!
- 3) If given APPROVAL by LCO or RSO, Contestant may enter the Launch Pad Area to Retrieve Rocket with RSO.
- 4) Check Rocket - Inspect Launch Blast Plate for Grounding, or Igniter Burn Out, or Continuity Shorts.
- 5) RESTART LAUNCH PROCESS OVER AGAIN AT STEP 12A. Reload and reset your rocket through all the proper steps!

14) SAFETY RULE:

"WHEN IN DOUBT, ASK QUESTIONS BEFORE YOU GET IN TROUBLE!"

"REMEMBER, SAFETY IS FIRST!!!"