Safe Summer Launch Contest Information and Rules

1. The objective of the contest is to submit “safe” launch tickets for a drawing at the end of the summer.
2. There will be low-power, high-power, and junior classes
3. Participants will be given tickets for each “safe” launch they perform.
4. Three tickets will be given to each participant for their first “safe” launch of the day.
5. After the first successful launch, the participant can collect one additional ticket for each additional “safe” launch.
6. The participant must relinquish one ticket for each “unsuccessful” launch after the initial successful launch.
7. Each participant shall fill-out & turn in their tickets to the club secretary when they are done launching and before they leave the launch site for the day.
8. The drawings and awarding of prizes shall be at or after the September launch.
9. The drawings will be for high-power, low-power, and junior class prizes.
10. A “safe” launch means one where:
    a. The rocket appears to fly straight up (>45 degrees) for more than 100’.
    b. The launch complies with NAR and club safety codes (high or low power.)
    c. The rocket uses a parachute recovery system for all rocket parts.
    d. The launch is NOT “unsuccessful” as described below.
11. An “unsuccessful” launch is one that fails on any one or more of the criteria listed on the contest checklist.
12. An unsuccessful launch is not eligible for a ticket and will require relinquishing one ticket, only if the participant has a ticket to relinquish.
13. Each participant shall sign up for ONLY ONE of the classes defined below.
    a. Low-Power
        i. Uses a “C” engine or larger for 18-24mm; “E”, “F”, or “G” engine for 29mm
        ii. Weighs less than 3 lbs.
        iii. No minis
    b. High-Power
        i. Uses an “H” engine or larger; “G” or larger for a complex rocket.
        ii. Weighs between 1 and 35 lbs.
    c. Junior
        i. Uses an A, B, or C engine (18mm)
        ii. Weighs less than 1lb
        iii. Minis allowed with full “A” engines (14mm) only
        iv. Participants must be 12 years of age or younger

Safe Summer Launch Contest

CHECKLIST

☐ Someone checked for, air traffic, adverse weather (e.g., wind), or individuals on the range immediately prior to launching.

☐ The rocket was placed on the right launch pad.

☐ The rocket appeared to fly straight up (>45 degrees) for more than 100 feet.

☐ The rocket did not catch on fire at any time during or immediately after the launch.

☐ The rocket did not eject or lose one of its engines in flight.

☐ The rocket used a parachute or glider recovery system for all parts of the rocket.

☐ The recovery system fully deployed and, if used, the glider functioned properly.

☐ The rocket did not lose parts in flight that came down in freefall.

☐ The rocket did not hit or come within 3 feet of a vehicle, a structure, equipment, or an individual.

☐ The rocket landed safely on the playa.

☐ The rocket was not significantly damaged and could be immediately flown again.

☐ The launch pad key was turned off immediately after the rocket was launched.

☐ The launch complied with all NAR and club safety codes (high or low power) including the rule for a 60-second wait after an ignition failure.

Name: _____Date: _____

Signature:_____Rocket(s):_____

High Power Rocket Safety Code Effective August 2012

1. **Certification.** I will only fly high power rockets or possess high power rocket motors that are within the scope of my user certification and required licensing.
2. **Materials.** I will use only lightweight materials such as paper, wood, rubber, plastic, fiberglass, or when necessary ductile metal, for the construction of my rocket.
3. **Motors.** I will use only certified, commercially made rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer. I will not allow smoking, open flames, nor heat sources within 25 feet of these motors.
4. **Ignition System.** I will launch my rockets with an electrical launch system, and with electrical motor igniters that are installed in the motor only after my rocket is at the launch pad or in a designated prepping area. My launch system will have a safety interlock that is in series with the launch switch that is not installed until my rocket is ready for launch, and will use a launch switch that returns to the "off" position when released. The function of onboard energetics and firing circuits will be inhibited except when my rocket is in the launching position.
5. **Misfires.** If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.
6. **Launch Safety.** I will use a 5-second countdown before launch. I will ensure that a means is available to warn participants and spectators in the event of a problem. I will ensure that no person is closer to the launch pad than allowed by the accompanying Minimum Distance Table. When arming onboard energetics and firing circuits I will ensure that no person is at the pad except safety personnel and those required for arming and disarming operations. I will check the stability of my rocket before flight and will not fly it if it cannot be determined to be stable. When conducting a simultaneous launch of more than one high power rocket I will observe the additional requirements of NFPA 1127.
7. **Launcher.** I will launch my rocket from a stable device that provides rigid guidance until the rocket has attained a speed that ensures a stable flight, and that is pointed to within 20 degrees of vertical. If the wind speed exceeds 5 miles per hour I will use a launcher length that permits the rocket to attain a safe velocity before separation from the launcher. I will use a blast deflector to prevent the motor's exhaust from hitting the ground. I will ensure that dry grass is cleared around each launch pad in accordance with the accompanying Minimum Distance table, and will increase this distance by a factor of 1.5 and clear that area of all combustible material if the rocket motor being launched uses titanium sponge in the propellant.
8. **Size.** My rocket will not contain any combination of motors that total more than 40,960 N-sec (9208 pound-seconds) of total impulse. My rocket will not weigh more at liftoff than one-third of the certified average thrust of the high power rocket motor(s) intended to be ignited at launch.
9. **Flight Safety.** I will not launch my rocket at targets, into clouds, near airplanes, nor on trajectories that take it directly over the heads of spectators or beyond the boundaries of the launch site, and will not put any flammable or explosive payload in my rocket. I will not launch my rockets if wind speeds exceed 20 miles per hour. I will comply with Federal Aviation Administration airspace regulations when flying, and will ensure that my rocket will not exceed any applicable altitude limit in effect at that launch site.
10. **Launch Site.** I will launch my rocket outdoors, in an open area where trees, power lines, occupied buildings, and persons not involved in the launch do not present a hazard, and that is at least as large on its smallest dimension as one-half of the maximum altitude to which rockets are allowed to be flown at that site or 1500 feet, whichever is greater, or 1000 feet for rockets with a combined total impulse of less than 160 N-sec, a total liftoff weight of less than 1500 grams, and a maximum expected altitude of less than 610 meters (2000 feet).
11. **Launcher Location.** My launcher will be 1500 feet from any occupied building or from any public highway on which traffic flow exceeds 10 vehicles per hour, not including traffic flow related to the launch. It will also be no closer than the appropriate Minimum Personnel Distance from the accompanying table from any boundary of the launch site.
12. **Recovery System.** I will use a recovery system such as a parachute in my rocket so that all parts of my rocket return safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.
13. **Recovery Safety.** I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places, fly it under conditions where it is likely to recover in spectator areas or outside the launch site, nor attempt to catch it as it approaches the ground.

Model Rocket Safety Code
Effective August 2012

1. Materials. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.
2. Motors. I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.
3. Ignition System. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.
4. Misfires. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.
5. Launch Safety. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller, and 30 feet when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance. When conducting a simultaneous launch of more than ten rockets I will observe a safe distance of 1.5 times the maximum expected altitude of any launched rocket.
6. Launcher. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.
7. Size. My model rocket will not weigh more than 1,500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse.
8. Flight Safety. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.
9. Launch Site. I will launch my rocket outdoors, in an open area at least as large as shown in the accompanying table, and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.
10. Recovery System. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.
11. Recovery Safety. I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.