

Year 2023

Philadelphia Area Rocketry Association (PARA) GROUP LIABILITY WAIVER, SAFETY CODE, RISK DISCLOSURE

BY PARTICIPATING IN ANY PARA ROCKET LAUNCH YOU AGREE AS FOLLOWS:

- 1) I affirm by signing this liability waiver or by participating as a flyer, spectator, vendor or guest in any PARA rocket launch that I have read and understand this document, the Rocketry Safety Code, and all laws, regulations and rules that apply to PARA launch activities.
- 2) I understand that rocketry is inherently risky, and that unforeseen risks may occur. **I understand that known risks of participating in rocket launches include, but are not limited to, property damage, bodily injury and death.**
- 3) I agree to report any violations of the Rocketry Safety Code, laws, regulations or rules or any unsafe condition to the launch officials (RSO or LCO).
- 4) **I shall be solely responsible and liable for my actions, in-actions or omissions.** I shall be solely responsible for my compliance with all Federal, State and local laws, codes, rules and regulations. I agree to indemnify and hold harmless the Philadelphia Area Rocketry Association (PARA), its officers, directors and agents and any land owner from and against any loss, expense, damage or injury caused or occasioned directly or indirectly by my participation in any PARA launch.
- 5) I understand that I have been granted permission to enter the launch site property only to participate in PARA launches. The land owner does not assure the premises to be safe for any purpose nor does the land owner assume responsibility for or incur liability as a result of any injury to person or property caused by any act or omission.
- 6) PARA launches are National Association of Rocketry (NAR) and/or Tripoli Rocketry Association (TRA) sponsored. I will show the required high-powered rocket certification from Tripoli Rocketry Association (TRA), NAR or CAR to use and fly rockets using H or higher impulse motors. I agree to obtain and/or use rocket motors in compliance with Federal, State and local laws, codes, rules and regulations
- 7) I represent and warrant that I have the authority to authorize and agree to this waiver on behalf of each and every member of my Group.
- 8) To the extent that my Group includes minors under the age of 18, I affirm that I have been given authority to authorize and agree to this waiver on behalf of each and every minor's parent(s).
- 9) This disclosure/waiver may only be modified in writing, when signed by an officer of PARA.

Authorized
Signature _____

Printed Name _____

Date _____

PARA # _____ Date: _____

NAR#/TRA# verified _____

PARA USE ONLY

Group Membership Request - Please Print Legibly

Group
Name: _____

Leader
Name: _____

Address: _____
Street Address

City, State, Zip code

Home Phone : (_____) _____

Cell/Work Phone : (_____) _____

Email Address: _____

If Group Members are NAR or TRA members, please list names, TRA/NAR membership numbers, expiration dates and Cert Levels on a separate sheet. See box below if you are not a NAR or TRA member

For Group members that are not NAR or TRA members. I understand that neither I nor any Group member will be covered by available NAR and/or TRA insurance. I understand that neither I nor any Group member will be permitted to attempt to launch rockets with installed motors having a total impulse greater than 40 N-sec. ("E" motor). I understand that Group members are solely liable for any damage or injury they may cause. On behalf of myself and each and every Group member, I indemnify and hold harmless PARA, its officers, directors and agents and the land owner from and against any loss, expense, damage or injury caused or occasioned directly or indirectly by my or any Group member's participation in any PARA launch or activity.

Authorized
Signature _____

Printed
Name _____ Date _____

The following is an abbreviated, abridged and summarized version of the ROCKETRY SAFETY CODE maintained by NAR and TRA; it is provided for informational purposes only. The official, complete and current version of the code may be found at the NAR and Tripoli websites or by contacting these organizations.

- 1) Only a person who is a certified flyer shall operate or fly a high power rocket.
- 2) Must comply with United States Code 1348, "Airspace Control and Facilities," Federal Aviation Act of 1958 and other applicable federal, state and local laws, rules, regulations, statutes, and ordinances.
- 3) A person shall fly a rocket only if it has been inspected and approved for flight by a Range Safety Officer (RSO) for compliance with the applicable provisions of this code.
- 4) Do not dismantle, reload, or alter a disposable or expendable rocket motor, do not alter the components of a reloadable rocket motor or use the contents of a reloadable rocket motor reloading kit for a purpose other than that specified by the manufacturer in the rocket motor or reloading kit instructions.
- 5) A rocket shall be constructed to withstand the operating stresses and retain structural integrity under conditions expected or known to be encountered in flight.
- 6) A rocket vehicle is intended to be propelled by one or more high power solid propellant rocket motor(s) and shall be constructed using lightweight materials such as paper, wood, plastic, fiberglass, or, when necessary, ductile metal so that the rocket conforms to the other requirements of this code.
- 7) A person intending to operate a rocket shall determine its stability before flight, providing documentation of the location of the center of pressure and the center of gravity of the rocket to the RSO, if requested.
- 8) Launch Site
 - a) Launch a rocket only in an outdoor area where tall trees, power lines, and buildings will not present a hazard to the safe flight operation of a high power rocket in the opinion of the LCO and RSO.
 - b) Do not locate a launcher closer to the edge of the flying field (launch site) than one half the radius of the expected altitude of the rocket.
- 9) Launcher Location
 - a) Locate the launcher a reasonable and safe distance away from any occupied building(s).
 - b) Ensure that the ground for a radius of 10 feet around the launcher is clear of brown grass, dry weeds, or any other easy-to-burn materials that could be ignited during launch by the exhaust of the rocket motor.
- 10) Safe Distance
 - c) No person shall be closer to the launch of a high power rocket than the person actually launching the rocket and those authorized by the RSO and LCO.
 - d) All spectators shall remain within an area determined by the RSO and LCO, behind the person launching the rocket.
- 11) Launch Operations
 - a) Do not ignite and launch a rocket horizontally, at a target, or so the rocket's flight path goes into clouds or beyond the boundaries of the flying field (launch site).
 - b) It is not recommended that a rocket be launched if the surface wind is more than twenty (20) miles per hour.
 - c) Do not operate a rocket in a manner that is hazardous to aircraft.
- 12) Launch Control
 - a) A rocket will only be launched by and with immediate knowledge, permission, and attention of the Launch Control Officer, (LCO).
 - b) All persons in the launching, spectator, and parking areas during a countdown and launch shall be standing and facing the launcher if requested to do so by the Safety Monitor.
 - c) Precede the launch with a five (5) second countdown audible throughout the launching, spectator, and parking areas. This countdown shall be given by the person launching the rocket, the RSO, Launch Control Officer (LCO), or other flying site operating personnel.

- d) Do not approach a rocket that has misfired until the safety interlock has been removed or the battery has been disconnected from the ignition system, one minute has passed, and the LCO or the RSO has given permission for only a single person to approach the misfired rocket to inspect it.

13) Weight and Power Limits

- a) Ensure that the rocket weighs less than the rocket motor manufacturer's recommended maximum liftoff weight for the rocket motor(s) used for the flight. During pre-flight inspection, the RSO may request documentary proof of compliance.
- b) Do not install a rocket motor or combination of rocket motors that will exceed the structural and performance limitations of the rocket.

14) Recovery

- a) Fly a rocket only if it contains a recovery system that will return all parts of it safely to the ground so that it may be flown again.
- b) Install only flame resistant recovery wadding if wadding is required by the design of the rocket.
- c) Do not attempt to catch a rocket as it approaches the ground.
- d) Do not attempt to retrieve a rocket from a place that is hazardous to people.

15) Payloads

- a) Do not install or incorporate in a rocket a payload that is intended to be flammable, explosive, or cause harm.
- b) Do not fly any animal in a rocket.

16) Launching Devices

- a) Launch from a stable device that provides rigid guidance until the rocket has reached a speed adequate to ensure a safe flight path.
- b) Incorporate a jet deflector device if necessary to prevent the rocket motor exhaust from impinging directly on flammable materials.
- c) A launching device shall not be capable of launching a rocket at an angle more than 20 degrees from vertical.
- d) Place the end of the launch rod or rail above eye level or cap it to prevent accidental eye injury. Store the launch rod or rail so it is capped, cased, or left in a condition where it cannot cause injury.

17) Ignition Systems

- a) Use an ignition system that is remotely controlled, electrically operated, and contains a launching switch that will return to "off" when released.
- b) The ignition system shall contain a removable safety interlock device in series with the launch switch.
- c) The launch system and igniter combination shall be designed, installed and operated so the liftoff of the rocket shall occur within three (3) seconds of actuation of the launch system. If the rocket is propelled by a cluster of rocket motors designed to be ignited simultaneously, install an ignition scheme that has either been previously tested or has a demonstrated capability of igniting all rocket motors intended for launch ignition with one (1) second following ignition system activation.
- d) Install an ignition device in a rocket motor only at the launch site and at the last practical moment before the rocket is placed on the launcher.