Northern Illinois ROCKETRY ASSOCIATION

RANGE RULES

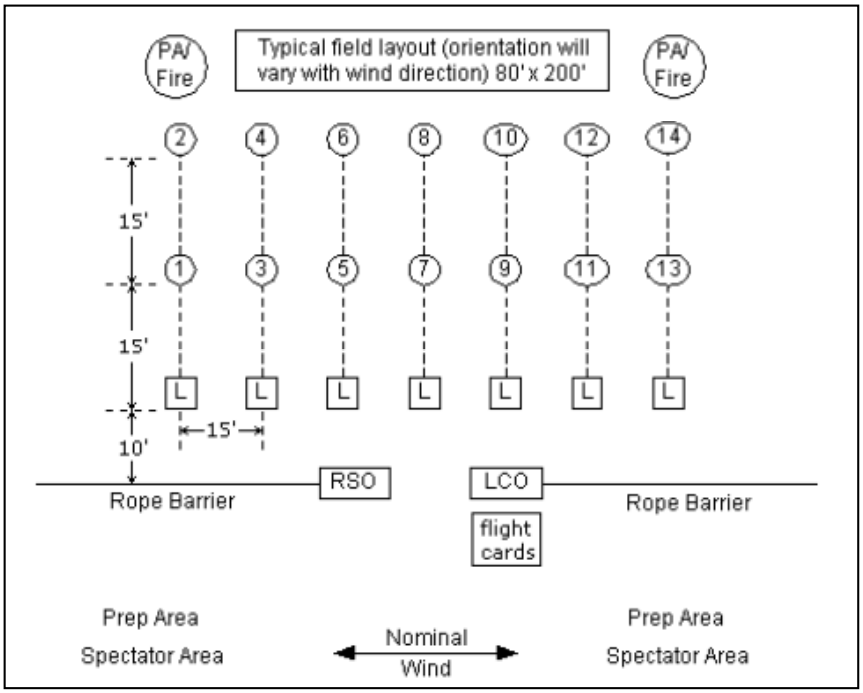
General Conditions

All activities must comply with the National Association of Rocketry (NAR) Model Rocket Safety Code at all times. Only actual tested, NAR approved engines may be used at any NIRA launch (almost all engines available in stores are approved).

Launch Systems

All launch systems must comply with the safety code:

- Adequate length cable (15/30 feet or more)
- Removable safety interlock
- Spring return launch switch
- Sufficient guidance to ensure safe flight path
- Launch rod above eye level or capped
- Adequate blast deflector
- Sufficient pad stability for models launched
- Each pad requires a fire blanket underneath it for additional fire protection.



Motor, Mass, and Altitude Limits

Altitude limit for all flights shall be 3000 feet AGL unless cleared with the RSO at least 48 hours before the launch. FAR 101.22 notification will normally be in effect, allowing up to G impulse class engines (160 N-S) and up to 1500 gram (3.3 pound) models. Subject to the Range Safety Officer (see below) approval, there are no additional limits on engine or model size other than those in the Safety Code(s).

Range Safety

The Range Safety Officer (RSO) may at his/her discretion curtail any flights that have the likelihood of landing outside the field boundaries. This may impact smaller models, depending on the wind direction.

No Complex Flights Without Preflight Safety Check

All models over 453 grams (1 pound), over a D class total impulse (20N-S), using Blackjack propellant or other large low thrust engines, using reloadable engines, multiple engines (staged or clustered), using active electronics (electronic ejection, staging, RC, etc.), Ready to Fly (RTF) plastic, or experimental untried design, require examination by the RSO before going out to the pad for flight. Where required by the safety code, the launch system cable must be at least 30 feet or more as appropriate. The RSO will initial the complex box of the flight card to verify this check. At larger events the RSO will be wearing a red safety vest marked RSO.

Event Coordination

The Launch Coordinator will set up the range layout in advance and assign pad lanes to members as they arrive. No pads are to be set up between the lanes, or beyond either end of the fourteen pad row.

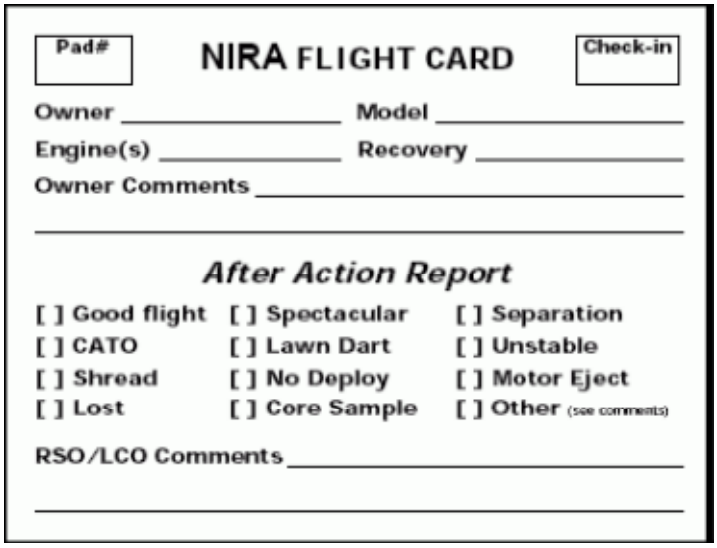
Double up on pad numbers if necessary; odd pads are at the 15 foot mark and even pads are at the 30 foot mark. Model level launchers (D and below) are set up on the odd, near, pads. Medium power launchers (E, F, and G impulse levels) are set up on the even numbered, far, pads. Only one launch controller is to be set up per pad location.

When there are more launch systems than spaces, we will use the best equipment available. Those unwilling to share their equipment with visitors will mark their pad sign with a red slash and be assigned to a far end of the range. Always ask the pad owner's permission before use, especially before adjusting someone else's pad.

Flight Cards

Each flier must fill in a flight card for each flight with their name, model, engine, and pad number. For complex rockets the RSO must initial the "complex" box after inspecting the rocket. Space is available for any additional comments.

Flight Cards are available from the RSO, Launch Control Officer (LCO), Launch Coordinator, or Check-in/Inspection Officer. When your rocket is on the launcher, attached to the launch controller, and ready to launch, deliver the filled out flight card to the LCO. The LCO will enter your card into the launch queue.


Pad#

NIRA FLIGHT CARD

Check-in

Owner _____ Model _____

Engine(s) _____ Recovery _____

Owner Comments _____

_____

After Action Report

[ ] Good flight [ ] Spectacular [ ] Separation

[ ] CATO [ ] Lawn Dart [ ] Unstable

[ ] Shread [ ] No Deploy [ ] Motor Eject

[ ] Lost [ ] Core Sample [ ] Other (see comments)

RSO/LCO Comments _____

_____

Please do not bring your flight card to the LCO until your model is ready to be flown. In the event of a misfire, get your card back from the LCO before fixing the problem. The LCO should only have cards of models ready to launch!

Flight Operations

Duty roster changes voted in Jul 09

Duty Roster and Assignment of Duties

All club launches held at East Branch must have the RSO, LCO, and Gatekeeper positions filled before flight operations can commence. The duty roster will have one hour slots for RSO and LCO positions listed from range open to range closing. The Duty Roster will have one half hour slots listed for the Gatekeeper from 2:00 PM to range closing.

If any duty slot opens up flight operations will cease until a volunteer fills that role. Should a role be vacant for lack of a volunteer then any club officer (President, Vice President, Secretary/Treasurer, or Safety Officer) can "draft" any qualified member present to fill the vacant role(s). Members drafted for these positions shall come from the pool of members not already signed up on the duty roster. Once drafted the member shall not be drafted again until all other eligible members have participated. NOTE: Guests may only fly between 2:00 PM and range closing. Guests may, at the discretion of NIRA authorities, serve as the Gatekeeper.

Flight Announcement/Coordination

The LCO will take the flight card from the launch queue. (Complex models must already have RSO approval.) The LCO will announce the name of the flier, the name of the rocket, the engine type, and the pad number the flier is using. The LCO will then give a countdown. At the end of the countdown the LCO will give the command to launch. After flight, the LCO will mark the flight card with the flight number (or a check mark to indicate flown). The LCO will call heads up and warn spectators (and be sure they respond) in the case of any flight failure. If there is a misfire, the LCO will keep the modeler at the controller until the rocket is deemed safe; usually a one minute "hang-fire" safety buffer. At larger events the LCO will be wearing a red safety vest marked LCO.

Flight Line to Separate Spectators and Prep Area From Launchers

A physical barrier will be set up to separate the flight line from the prep and spectator area and the field entrance. The only things past the flight line are to be launch controllers (10 feet past the flight line, wires stretched out to their limits) and launch pads.

PLEASE GO AROUND THE ROPE BARRIERS. DO NOT CLIMB OVER NOR CRAWL UNDER THE ROPE BARRIERS. THE ROPE BARRIERS ARE THERE FOR SAFETY REASONS. IGNORING THE ROPE BARRIERS THREATENS OUR CLUB'S INSURANCE COVERAGE.

The only people out on the flight line are the RSO and/or LCO and those people actively setting models on the pads, preparing for flight, or recovering flown models. No one is to run through the prep area or across the pad wires. Use the 10 foot aisle as a path to the RSO/LCO. Please do not step over wires or rockets and equipment and avoid clustering in one place.

Recovery of Flown Models

No one is to chase after models without the permission of the model's owner. Common courtesy says that it is okay to return someone else's model if you find it while chasing yours. Please look around before picking up someone else's model, in case there are broken pieces in the area.

If you lose a rocket you can check the lost and found segment of our photo gallery to see if anybody recovered it. If you find somebody else's rocket while searching for your own please let somebody at the rangehead know or send us a message detailing what you've found.

Reminder to Parents: Please be responsible for your kids. Running around in the spectator area or out onto the range is strongly discouraged. There have been a couple of models stepped on recently, and many near misses. All unclaimed children shall be put to work cleaning the field or launching rockets.

General Field Operations

Protect the Field

You must not fly until the range is set up and open. Our permit for East Branch requires that we have fire suppression equipment on the range before flying. Fire extinguishers and/or fire smothering blankets will be placed under the PA speakers or near the LCO station. If you see a fire, notify the RSO immediately.

Police the area after the launch. Take home whatever you bring. This includes empty engine casings, igniter remains, plugs, rocket parts, food packages and other debris. We need to leave the field better than we found it or we won't be invited back.

Paddock Area Setup

Tents and popups must be staked down. The wind varies greatly over the course of a day of flying and will sometimes rise to the level required to make tents and popups move around. A moving tent causes damage to nearby rockets and equipment.

Anyone violating any of these rules or the RSO/LCO's instructions may be asked by the RSO/LCO to leave the field.