

# Range Officer Duties

-Positions may be combined depending on type of launch operations anticipated

## Range Safety Officer (RSO)

The RSO will insure the following:

- Insure Safety Check-in officers are assigned for all flying periods. Sign in sheet will be provided
- FAA Waiver or Notice ..... Filed and Activated
  - NOTAM filed as applicable
  - Special provisions of the waiver are observed
- Safety Equipment .....in place
  - High pressure water fire extinguisher
  - Cell Phone,
  - First aid kit
  - PA system for special events and large crowds
  - Bull Horn
  - Means to determine wind direction and speed
- Launch controllers ..... Checked
  - Compatible with low current igniters
  - Include a 'return to off' launch switch,
  - Wiring connectors secured from possible shorts.
- Barriers ..... In place
  - Keep spectators out of launch area
  - Verify proper distance between pads and public areas.  
(see charts in Appendix - NAR Safety Codes)
- Launch pads..... Blast deflectors installed
  - Install Pad Checklists as needed
  - Insure pad numbers match launch controller
- Launch rods/rails.....Check
  - Clean, unbent, and securely fastened to pad
  - 10 foot rail required for Class 2 rockets
- Igniter clips..... clean and leads are secured to pad.
- No flammable materials near launch pads
- Establish wind and cloud base monitoring.  
Set altitude limits for current conditions
  - Consider early 'weather flight' to determine upper winds.
  - Consult pie charts on back for general guideline.
- RSO must maintain active communications with LCO at all times
- Suspend operations if lightening is detected within 3 miles (seconds X 5)
- RSO has the authority to open and close range to any or all personnel

### Critical Event Response

For any injury, fire, close call, or rocket leaving the field boundaries - Insure the problem is corrected before further launches.

## Safety Check-in Officer (SCO)

- Use approved checklist to check each flight.
- Remind flier to install HPR igniters at pad

## Pad Manager (PM)

- Assign pad numbers for flight
- Utilize Pad Checklist before each flight

## Launch Control Officer (LCO)

- Back up RSO and SCO for all safety rules
- Utilize launch Checklist (next page) before each flight

### RSO PA briefing for all fliers / spectators

- Before first flight and repeat as new people show up
- Include, but not limited to:
  - Field setup and parking
  - Safety check in procedures
  - Winds, Altitude limits
  - Suggested launch angles / Boundary considerations
- Incident response and fire fighting should only be done by qualified range personnel
- General:
  - Never try to catch a rocket in flight
  - Leave other's rockets where they land.
  - Use of sun block
  - Drink plenty of water
  - Any dangerous animals or insects
  - Other
- Insure that everyone knows that a "Heads Up" means to look up, spot the rocket, and point at it so others can find it. Also to egress to a safe location.
- Remind parents to keep close track of their children, especially during HPR launches