

## LUNAR Rocket Club Rules and Policies:

### **General Rules:**

Everyone attending the LUNAR Club launches (both fliers and spectators) should understand and follow these rules to ensure safety

- Parents please make sure that your children understand these rules.
- Please stay behind the Flight line barrier, and please do not set up your chairs etc. right at the barrier.
- Pay attention! Every flight is potentially dangerous to you and your family. If the Launch Control Officer (LCO) yells “Heads up!” he means it!
- If the LCO announces a flight as a “Heads Up” flight, that means get on your feet and pay attention until the rocket’s recovery device deploys or until the rocket is on the ground.
- Do not attempt to catch any rocket as it lands. Even a small rocket can cause an injury.
- Do not pick-up or move any mid power or high power rocket that is not yours, unless you have the owner’s permission.
  - Please mark the GPS location if you have a GPS unit and let the LCO know the location and description of the rocket.
  - Please bring small lost items to the range head (misc. parts, small rockets, etc).
- Leave NO Trace! You are responsible for taking home everything you bring to the launch.
- Do not throw the igniters from the previous flyer on the ground, put them in the green buckets or take them with you and dispose of them properly in your trash.
- Please use the provided porta-potty. Please do not throw trash into the porta-potty!
- The decisions of the Range Safety Officer is final and may not be appealed on the flying field.
- If you lost a rocket, please fill out the missing rocket form at the registration table. If the rocket is found this will help get the rocket back to the correct owner.

### **Snow Ranch specific Rules:**

- All the General Rules above plus these:
- Ranch rules apply to all gates, If you open the gate, make sure you secure the gate after you go through it.
- Snow Ranch is a very special place, please treat the land and everything at the Ranch with respect.
- Stay on the roads and take it slow, especially if you have a sedan. Don't want you to damage your cars on the rough roads. Those of you with trucks or SUVs, take it easy and let those with sedans take their time.
- Park your car no more than 1 car length away from the road going into the launch area. You may sink up to your axles if don't follow this precaution.

- You will find rocks, squirrel holes, sticks, cow bones, and other assorted items that can twist or break ankles or legs if you are not paying attention. You will also see wildlife. In addition to the bulls and cows, there are squirrels, snakes, coyotes, mountain lions, Golden Eagles, Bald Eagles, buzzards, and other critters. Again, if you pay attention, none of these critters will bother you. If you have kids, keep an eye on them, don't let them wander far without an adult.
- This is rattle snake country the same as the hills around Livermore. As long as you pay attention to where you are walking and where you put your hands and feet, you won't have a problem.
- Stay away from the rock fences, the blackberry bushes, and the brushy rock formations. Those are all snake places.
- If your rocket lands in one of those places, come get a club officer to help you get it out.
- Leave the cows and bulls alone. There are a lot of newborn calves in the field, many born in the last week. If you see one, don't go too close and do not get between the calves and the cows, especially small children.
- If you see a calf that appears to be in trouble, that is, it has fallen in a hole or in the creek and does not seem to be able to get out, come and get Bill Orvis and he will rescue it.
- Leave the wild critters alone. It is OK to look, but don't try to pick them up. The rattle snakes you find out there are real, not toys, and they bite.
- If there are beehives on the hill above where we launch, stay away from them. They are self protecting so you have been warned.
- Don't do anything to mess up the land.
- No Over-night camping is permitted at Snow Ranch.
- If anyone does get hurt, the closest hospital is in Oakdale, about a 15 minute drive from the Ranch (after you get back to the highway). There is a map to the hospital in the LUNAR document box if you should need it.
  - **From Snow Ranch turn right onto HWY 4**
  - **Take Milton Rd and 26 Mile Rd to S Oak Ave in Oakdale 22 min (16.8 mi)**
  - **Turn left onto S Oak Ave**
  - **Destination will be on the right 48 s (0.1 mi)**
  - **Oak Valley Hospital, 350 South Oak Avenue, Oakdale, CA 95361**

## **LUNAR Policies:**

Towing the Trailer: To help offset the cost of towing the trailer, LUNAR will reimburse anyone up to \$60 for towing the trailer from Robertson Park in Livermore to the launch site and back.

You will need a 2" ball on a drop hitch.

## **Unmanned Aerial Vehicle (UAV's):**

This Policy applies to all Drones, Quad, Multicopter, Unmanned Aerial Vehicle (UAV), Radio Controlled Airplanes, Radio Controlled Helicopters.

NO UAV's at Ames. A UAV aircraft is not a rocket or rocket payload and must be flown under the following rules when at LUNAR launches. This applies for ALL UAVs:

1. This is a rocket launch, rockets come first.
2. If drones or their use interfere in any way with flight operation you will be asked to stop. This can include interference from the UAV radio system with rocket electronics, ground systems, the virtual classroom, or other electronics needed to conduct launch operations.
3. General flying is allowed on the far side of the creek away from the launch and people.
4. There is no flying over the flight line area, access aisles, or people under any conditions – period!
5. There is no flying over the flight range, or pads unless approved (see #6 below).
6. If you want to video a rocket launch that can be done with approval of the RSO and LCO. Please coordinate ahead of time.
7. Do not fly out over other rockets, or people on the range. To reach the pads, fly around the outer edges of the launch area as much as possible rather than through it. Be sure to have your own FRS radio so you can communicate with the LCO in advance.
8. No flying UAVs at night.
9. There is no frequency control or coordination at the launch, fly at your own risk!
10. LUNAR communications are on FRS radio channel is 10,10.
11. The flyer assumes all risks when flying and assumes the cost for any damages caused by the UAS against property or possible injury.
12. UAS flying at the LUNAR launches can be denied at the discretion of the RSO, LCO, or Safety check personnel or any board member or officer, and for any reason.

## **HP Certification Policy:**

The Senior members of LUNAR are willing to help anyone get their HP Certifications. However we also want to see the new HP flyer's succeed on subsequent flights. There is a lot to learn before a flyer is really ready for a L2 cert, and this quickly becomes balance between Range Safety and the risk. LUNAR does not allow back-to-back certs between L1 and L2.

LUNAR prefers to see new Level 1 HP flyers fly many times using a variety of motors; learn how to track the rocket with a Radio Directional Finding (RDF) gear and/or with GPS; learn how to use electronics to do electronic deployment (dual deployment) successfully; learn better build techniques so the rockets will withstand the higher forces acting upon them. When the Candidate for L2 can consistently perform dual deployment, they have all this skill for a Level 2 Cert.

People asking for a HP cert should contact the LUNAR President, Vice President and High Power Coordinator in advance of the launch. You should develop a working relationship with the person you will be asking to sign off on your Cert flight in advance.

For Level 1 HP Certs you will need the following:

- Valid picture ID
- Valid NAR card or a NAR membership form filled out.
- When the time comes to purchase the motor, you will also need to provide the valid picture ID, NAR card, and the name of the person you are working with to the motor vendor.
- A rocket that you personally built by yourself
- If the rocket is scratch build, you will need to provide a Rocksim or OpenRocket file in advance so it can be reviewed.

For Level 2 HP Certs you will need the following:

- All of the above plus:
- Proof that you have done electronic deployment (dual deployment) on a prior launch.
  - The person you are ask for the L2 Cert should have witnessed the dual deployment flight.
- A rocket that you personally built by yourself
- If the rocket is scratch build, you will need to provide a Rocksim or OpenRocket file in advance so it can be reviewed.
- Successfully pass the L2 test prior to making the L2 flight.

For Level 3 HP Cert, contact David Raimondi prior to starting the build process. The L3 process is very different from the L1 and L2 certs.