Rocketry Organization of California

Individual Flyer Responsibilities Policy May 31, 2016

ROC Flyer Responsibilities

- When arriving at the launch site, be sure to check in at Registration immediately.
- To fly high power rockets, please have a <u>current</u> membership card in your possession, issued by either Tripoli Rocketry Association (TRA) or the National Association of Rocketry (NAR).
- Each flyer is the responsible to ensure that their actions and that their flights adhere to the applicable Safety Codes.
- Each Flyer is responsible for the safe design, construction, and preparation of their rocket(s).
- Each rocket must be inspected by the Range Safety Officer (RSO) or a Flight Safety Reviewer (FSR) prior to each flight. This does not relieve the flyer of any responsibility, but rather is a "second check" to assist the flyer.

All flyers should realize that TRA and/or NAR insurance will cover them as long as *they* follow applicable Safety Codes. If an accident happens and the flyer is found to have violated the Safety Code (e.g. Safe Launch Distances), it is the *flyer* that is exposed without having insurance coverage.

This is a list of <u>basic</u> things to consider:

(This is not an exhaustive list!)

- -Make sure that the rocket is designed to be stable.
- -Make sure that the total installed power does not exceed the limitations of the field or the flyer's certification level.
- -Make sure the rocket will not fly above the FAA waiver altitude of approximately 14,500 feet above ground level.
- -Make sure that the vehicle is capable of withstanding the forward thrust that will be produced by the motor.
- -Make sure that the initial thrust of the motor chosen will provide at least a 3:1 thrust-toweight ratio (higher is better). The rocket should reach a speed of 40 feet per second before leaving the guide.
- -Make sure that the recovery system components selected are rated for the weight of the vehicle and the expected conditions at deployment. Confirm that recovery system will not allow a descent rate that would represent a safety hazard.
- -Ensure that adequate protection is in place to prevent the hot recovery gases from causing burn damage to retaining cords, parachutes, and other vital components.

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- -If motor delay is used to actuate recovery system, make sure that the delay length was properly selected for the motor/rocket system.
- -If electronics are being used to activate the recovery system, make sure that an externally controllable method is being used to turn electronics on and that a known good battery is in use.
 - -Ensure that the electric recovery system is not armed until the rocket is on the launch pad.
 - -Always arm electronics **before** connecting igniter(s) to the launch system.
- Never point rocket towards flight line while loading
- Launch rocket away from flight line, but within 20 degrees of vertical. Take into account weather cocking so that rocket does not head towards flight line when launched.
- Use a stable platform (e.g. ladder), if needed, to reach electronics or cameras.
- Make sure that non-essential personnel are at a safe distance before you arm electronic recovery systems, connect the igniter, or perform a continuity check.
- In the event a rocket needs to be taken off the launcher for any reason, remove ignitor and disarm any onboard electronics **before** moving the rocket.
- While in the flight range, it is the flyer's responsibility to monitor communications with the range head, especially for safety related announcements (e.g. rocket coming in out on the range!). Flyers must **follow** safety instructions (e.g. heads up!) that come from the range head.
- If a rocket lands in a location whose retrieval would present a safety issue (e.g. power line, building roof, etc.), the flyer should inform the Launch Director and be given guidance on the appropriate assistance required before attempting retrieval.
- The flyer is responsible for knowing the limits of the launch area, and ensuring their rocket will land safely within the launch area, away from spectator and parking areas.
- -Everyone at a ROC launch must follow all directions of launch personnel, <u>and</u> <u>immediately report any unsafe or questionable conditions to the RSO or rangehead</u> personnel.