11. Night Launch Operations

11.1 Complex rockets (multi-staged or multi-motored) are not allowed during night launch operations at any Aeropac launches.

11.2 All night launched rockets must conform to minimum lighting requirements except model rockets. Additional lighting is allowed.

11.3 Rockets are restricted to using motors with total impulse of 1280 N-seconds or less (“J" impulse range maximum) without pre-approval from the Aeropac High Altitude Flight (HAF) committee.

11.4 The HAF Committee may give approval to fly a "Special Night Rocket" with a total installed impulse in excess of 1280 N-seconds, but less than or equal to no more than 5120 N total impulse, if in the view of the Committee the flight planned has a high potential for success. The Committee may choose to limit the number of Special Night Rocket flights approved for any Aeropac event by setting a quota which may be as low as zero.

11.5 To be eligible for consideration, the request must be made no less than 30 days prior to the launch event. It is advisable to submit requests as early as possible. Submissions should be made through the High Altitude Flight email form.

11.6 The Committee will render a decision on the submissions no later than one week (7 days) prior to the launch event.

11.7 The Committee may decide to approve, deny or defer the request. Requests may be deferred pending a request for further detail or because a quota has been reached for special night rocket flights for the event.

11.8 To be considered, the requests to the Committee for approval should include all of the following:

11.8.1 An accurate and detailed design of the rocket must be presented. Unless other arrangements are made, this plan should be in a ".RKT" file (RockSim) format.

11.8.2 An accurate description of the lighting plan, including the lighting that meets minimum lighting requirements must be submitted. The lighting plan MUST include a high reliability light on each major section of the rocket to reduce the possibility that recovery failure, shred, separation, or other in flight failure might result in a large or heavy object free falling without lighting. **Minimum lighting is defined as a a red or white blinking strobe light visible from no less than 5 miles distance in clear air.** A strobe is not required for a model rocket.

11.8.3 A detailed flight plan must be submitted. The flight plan must identify the motor that will be used (total impulse, average thrust, maximum lift off weight, and burn time), as well as the lift-off weight of the rocket, thrust to weight ratio at lift-off, maximum speed, and altitude calculations. The flight plan must also include the recovery plan data. The recovery plan must include the number of separate rocket components (parts not tethered together) that will come down under parachutes. Each separate component must be identified and include recovery mass, parachute size or sizes, and calculated decent rates.

11.8.4 Rocketeer & Ground Crew information. The rocketeer must provide their name, certifying organization, member number, their current certification level and certification date, and the number of flights flown in the previous year at or above the level of the proposed flight.

If certified longer than one year at the level of the flight, you may choose to state a number of years & flights. If this is a team effort similar information on other members is requested but not required.

11.9 Approved Special Night Rockets must be presented for RSO inspection to the Safety Team during daylight hours on the day of the launch. The rocket is subject to standard RSO requirements, plus they must meet the design submitted to and approved by the Committee.