

Night Launch Rules



- 1) Scheduled on the same evening as our normal club launch (2nd weekend). The alternate date is the next available weekend which varies annually based on the BALLS launch event schedule (several of the prefecture leadership team attend this event).
- 2) Time of night launch: Sunset (approximately 7:30pm) CDT - 11:59PM CDT.
- 3) Absolute maximum altitude: 5,000 AGL (Above Ground Level). Keep in mind, in order to see a rocket at night, at this altitude, will require A LOT of lighting! The “best” altitude for night flights is less than 2,000 AGL. GPS/Rocket Hunters/Sonic Locators are still highly recommended, even at these lower altitudes. It’s going to be dark, and the crops will still likely be up.
- 4) Motor suggestions: Black powder motors are really neat at night, so put some lights on low-power rockets too! Recommended composite motors should produce a colored flame for the best affect. Spark producing motors (Skidmark, Metalstorm, Dark Matter) are really cool at night as well, however, the rockets can be extremely difficult to track after the motor burns out. This is because the motors are so bright it will take time for your eyes to adjust back to night vision mode. Please keep this in mind when flying a spark producing motor. I’d recommend against the following propellant types:
 - i) Black smoke (Black Jack, Black Max, Smokey Sam)
 - ii) High ISP (Imax, Vmax, Warp-9, Propellant X)
- 5) Launch procedure & safety: We will be launching one rocket at a time; there will be no “drag racing”. In addition, the rockets in the launch queue will not be launched until the previous rocket is verified to be on the ground, or well clear of the spectator area. Our launch pad safety distances will be increased substantially compared to our normal daytime launches, for all rockets, regardless of impulse. Plan on taking a good walk to the launch pad.
- 6) Lighting requirements: The FAA has not provided any special provisions that we must follow. That being said, please use some common sense when building your night rockets. The FAA states lighting for a kite or moored balloon must be visible for a MINIMUM of 1 statute mile. The kite/moored balloon guidelines are what we should follow. The RSO (Range Safety Officer) and/or LCO (Launch Control Officer) will have the authority to disallow flight if lighting is insufficient. Search YouTube for videos of night launches to get an idea of how other rocketeers across the country are lighting up their birds.
- 7) Lighting resources: There are tons of ways to light up your rocket, creativity welcome. Some suggestions include:

- a) Badazz rocketry makes some prebuilt LED lights designed specifically for rockets. May also be found under the “Nitebow” brand.
 - b) “Finger lights” - available from Walmart/Fleet Farm/Dollar Stores/online.
 - c) Leading Edge Rocketry - manufacturer of night flight rocket kits and night flight accessories.
 - d) Glow sticks.
 - e) LED strips.
 - f) Bicycle lighting/strobes.
 - g) Lighting products made for kites.
 - h) DIY info can be found online; google is your friend.
 - i) Under cabinet LED lighting strips, found at Home Depot, Menards, etc.
 - j) Search the online rocketry forums for ideas.
- 8) Around the launch site: It’s going to be dark! Bring non-rocket lighting such as a headlight, flashlight, lantern, glow sticks, etc. Bring extra batteries. In addition, consider adding a red filter to your light to help preserve your night vision. Please walk carefully at all times. Also, there is a chance it will be “buggy”, bring along bug spray, citronella, personal bug zappers, etc.
- 9) After the launch: Everyone must leave the launch site. There is no overnight camping allowed at the launch site. There are campgrounds near North Branch if you wish to stay “up north”. There are also hotels/motels in and around North Branch. Don’t hesitate to ask any other questions, or make other suggestions to make our first night launch memorable!