



## Livermore Unit of the National Association of Rocketry (LUNAR)

LUNAR is Section #534 of the National Association of Rocketry (NAR). We are a non-profit club of over 300 model rocketry enthusiasts organized for the purposes of youth education and community involvement. LUNAR is much more than a group of rocketeers with a broad spectrum of experience; we are also enthusiasts who want to share our experiences and knowledge with others. Rocketry is an excellent medium for teaching the basics of math, physics, chemistry, and electronics. We also enjoy flying model and high-power rockets.

LUNAR was founded in Livermore, California, about fifty miles southeast of San Francisco along Interstate 580. Hobbyists come from all around the Bay Area to fly rockets at Brigantino Park in Hollister, at Snow Ranch 30 miles east of Stockton during the wet season, as well as smaller fields when permission has been granted. Many of these launches include organized events for youth groups such as Boy Scouts, Girl Scouts, 4-H and GATE classes. Mentors are available for middle school, high school and college students participating in competitions, such as The American Rocketry Challenge (TARC) <https://rocketcontest.org> and NASA Student Launch Initiative (SLI) <https://www.nasa.gov/stem/studentlaunch/home>. LUNAR holds bi-monthly meetings in Sunnyvale that usually include special topics relating to rocketry. In addition, we promote and demonstrate rocketry at local community events, schools and parks.

LUNAR follows the National Association of Rocketry (NAR) Safety Codes. These codes have allowed hundreds of millions of model rocket launches by hobbyists since the late 1950's safely. As a section of NAR, LUNAR launches are covered by NAR liability insurance.

### Launches

LUNAR launches are community events with a friendly atmosphere and many helpful participants and spectators. There is a wide range of rocket models from large rockets on exciting high-power motors to complex rockets with cameras and other payloads to simple rockets built and flown for the simple joy of seeing something fly. Generally, we hold sport launches where you are invited to launch any sort of rocket that conforms to the NAR and Tripoli safety codes. (All rockets are subject to a pre-flight safety inspection by the Range Safety Officers and are flown following our established field procedures.)

Our low to mid-power launches are generally held from 9 AM to 1 PM on the fourth Saturday of the month at Brigantino Park in Hollister.

During the wet months, we fly at Snow Ranch, which is 30 miles east of Stockton. Snow Ranch launches are generally held on the first Saturday of the month from 9:00am to 4:00pm. The Snow Ranch launch site is a certified Level III field where we can fly up through M motors with a FAA waiver to 15,000 feet. Snow Ranch is one of the few places in Northern California where this level of power can be legally flown. Flying high-power motors, "H" and above, depends on a number of pre-requisites, including valid certification paperwork. So, if this is what you are interested in, please be sure to check with a LUNAR officer before dropping in to fly.

### Volunteering

The club is run entirely by volunteers and there are many opportunities to participate and learn about rocketry. Helping run the club, launches, or even being an observer is a great way to get more involved in the sport, grow your knowledge and have fun at the same time. LUNAR holds rocket build events and oftentimes has kids give-aways.



## **LUNAR Education and Rocket Science Events**

In keeping with our youth education and community involvement charter, LUNAR supports rocketry activities of community youth groups. We conduct launches and build sessions for the Boy Scouts, Girl Scouts, 4H, Indian Guides, Livermore Science Camp and local schools, and GATE classes.

LUNAR supports the annual The America Rocketry Challenge (TARC) competitions for middle schools and high schools by mentoring teams, providing launch facilities and witnessing official flights.

LUNAR members also promote rocket science at local Air Shows, Model Rocketry meetings and other public gatherings.



Prior to 2017, LUNAR also launched at Moffett Field

## **Resources**

The club provides a number of resources, including LUNAR'Clips, our newsletter that is available online to all LUNAR members. At LUNAR club meetings members make presentations on different aspects of modeling and rocketry. We maintain an archive of these and the LUNAR'clips newsletters on our web site, <http://www.lunar.org>. The web site is a great place to find information about LUNAR activities and rocketry in general. We also maintain links to many member web sites detailing their own rocketry successes and failures. If you can't find what you're looking for on any of the web sites, you can always post a question to one of the several Email lists that club members use to keep up on the hobby and LUNAR news.

## **Membership**

We try to keep membership affordable to encourage participation, especially by families and kids. Despite the high value of the club's equipment and the NAR insurance coverage dues are only \$25/year.

The basic annual dues are: \$25 per year per family. For those wishing to support the club at a higher level, we also have the category of Contributing Member for \$45 annual dues.

Non-members may launch rockets at a LUNAR launch for \$10 per day, per person.



## **LUNAR Contact Information**

Go to our website, <http://www.lunar.org>, to find out pretty much everything about LUNAR.

For last minute updates on launch conditions, be sure to call our hotline at (925) 443-8705.

You can reach Fred Radford, LUNAR President, at 408.707.0640 or via email at [president@lunar.org](mailto:president@lunar.org).

