



Major Announcement:

2021 Spaceport America Cup and Tripoli Rocketry Association

Summary

The Experimental Sounding Rocket Association (ESRA), Spaceport America, and the Tripoli Rocketry Association (TRA) are now formally working together to continue to improve overall flight safety and efficient flight operations at the annual Spaceport America Cup. In addition, student teams flying in the Commercial Off the Shelf (COTS) and Student Research and Design SOLID (SRAD SOLID) categories will begin flying under TRA flight code. Details of how this impacts competing teams are described below.

Background

TRA, Spaceport America, and ESRA all share common goals to create safe and exciting launch opportunities for the next generation of Aerospace engineers as they progress from hobby to industry environments. Our organizations are highly aligned: ESRA provides the educational framework and administration of the world's largest international collegiate rocketry event; TRA provides the safety/flight operations framework, incredible membership expertise and an amazing insurance program; and Spaceport America provides a world-class facility and support. Stated simply, we have assembled outstanding partners to build and safely operate the greatest rocketry competition in history.

The Spaceport America Cup has relied on the TRA safety code and membership expertise/guidance to create a safe launching environment for its event since 2017. The Cup's Range Safety and Launch Operations teams are filled with a significant number of Senior Level 3 high power rocketry experts (>30). A growing number of competing teams utilize TRA prefectures for mentorship, certification flights and test flights of their competition projects.



Benefits:

- **Student Team Liability Insurance** - In previous years, students were either insured by their university or through a 3rd party insurance provider. By becoming a TRA student member and following the TRA Safety code, the student is insured by TRA's insurance program. TRA insurance covers COTS and SRAD solid flights. TRA insurance DOES NOT cover SRAD hybrid and liquid teams or flights.
- **Student teams will have improved access to TRA mentors, certifications, and launch sites** - TRA has a growing list of US and international prefectures with active launch sites. Student teams are highly recommended to engage with their local TRA prefectures for mentoring, certification flights and additional launch experience.

Tripoli Flight Requirements for COTS and SRAD Solid Categories:

1. Certified Level 3 Flyer of Record (3 options)

- a. **HIGHLY Recommended** - each team will secure a Level 3 certified TRA or NAR (COTS Only) Senior mentor who works closely with the team and is present at the launch. Student teams ARE HIGHLY RECOMMENDED to subsidize the travel expenses of their mentor, to and from the event.
- b. **Recommended** - team will have a TRA or NAR (COTS Only) Level 3 certified student member at the launch.
- c. **Last option** (only for international teams who do not have access to TRA prefectures) - ESRA Range Safety team members, who are Level 3 certified TRA or NAR (COTS Only) Senior members, will virtually mentor the team throughout the year and will be present for the final flight safety inspections and launch.

2. TRA (or NAR) Student Membership

- a. TRA Student membership is \$10 per year per student. NAR is \$25.
- b. The HPR Level 3 certified student or mentor shall lead and supervise all launch preparation, pad loading and recovery activities. A maximum of 5 additional team members who are TRA or NAR(COTS only) student members may be on the pad loading team, recovery team, or working with the energetics (motor, ejection charges). These student team members do not have to be HPR certified but must be TRA or NAR(COTS only) student members. All students are highly recommended to secure HPR certification.
- c. Link to the TRA Student Membership application
[TRA Membership](#)



Frequently Asked Questions:

1. Why are we making this change?

One of ESRA's primary goals is to foster a healthy engineering competition by conducting what has become the Spaceport America Cup. Our desire is also to find ways to minimize costs to student teams. Put simply, there has been no widely available and cost effective insurance solution for student teams. Working with TRA and formally adopting the requirements above permits teams to be covered by the TRA insurance policy for COTS and SRAD SOLID rockets. Hybrid and liquid teams must still work with their universities to find suitable insurance policies.

2. Why are hybrids and liquid rockets excluded from this policy change?

TRA brings world-class expertise in the area of COTS and SRAD SOLID rocket motors. The policies and rules for solid motors are well established with a robust system of mentors and specific certification levels. Liquid and hybrid rockets are inherently more complex with dangers and risks that are substantially different from solid motors. No hybrid/liquid rocket organization yet exists that has standardized on safety rules and established formal certifications based on levels of expertise and experience. ESRA is committed to continuing to search for viable means to support the establishment of such an organization.

3. Is it acceptable if an international team (COTS or SRAD solid category) has identified a Level 3 certified Tripoli or NAR (COTS only) mentor who is not an ESRA Range Safety team member?

ABSOLUTELY YES! As long as that the L3 certified mentor participates (virtually) throughout the design, manufacturing, testing of the project and attends (in person) the event with the team.