Tripoli Research Launches – FAQ

The purpose of this document is to summarize and highlight the special rules that govern the operation and participation of Tripoli members at a Tripoli Research Launch (TRL). This document does not replace the actual Tripoli Research Safety Code, it is only provided as a guide.

1. What is a Tripoli Research Launch (TRL)?

The Tripoli Research Program's purpose is to foster the research and development of payloads, electronics, recovery devices, air frame design, construction materials and to provide members of TRA with a venue in which they can static test and use their own composite or hybrid motors.

It is the purpose of this code to provide a means to introduce new technology or to include currently prohibited technology into Tripoli Research activities as the ability and expertise of TRA to include these technologies becomes available.

Tripoli members in good standing and 18 years or older may fly rockets with commercial motors at a TRL.

Non Tripoli member under 18 years of age may fly model rockets from the Model Rocket Launch Area under the direction of an adult Tripoli member.

2. How is a TRL approved/authorized?

No extra approval is needed to hold a Research launch.

3. What are the constraints for scheduling a TRL?

All Tripoli Research launches shall take place at a time which is to be separated from any other Tripoli Regular or Certified launch at that same site by no less than 8 hours and a date change.

Operating separate range heads at separate locations on the same or adjacent property shall not meet this requirement unless launch/firing times for Tripoli Regular or Certified and Tripoli Research flights are separated by at least 8 hour and a date change.

The separation shall be from any other launch of an organized club or group, including, but not limited to TRA and NAR.

4. What is a Tripoli Research flight?

Simply put, <u>all</u> flights that occur at a sanctioned/insured TRL are research flights.

5. Who may participate in a Tripoli Research Launch?

All ***High Power*** flyers at a Tripoli Research Launch shall be members of Tripoli in good standing and 18 years or older. For children less than 18 years old see FAQ #7

6. Can non-members fly rockets at a TRL?

No, only Tripoli members may fly at a TRL. For children under 18 years old see FAQ #7

7. Can children fly rockets at a TRL?

YES, non-members under 18 years of age may fly model rockets from the Model Rocket Launch area under the direction of an adult Tripoli member.

Tripoli Junior members that have successfully passed the Tripoli Mentor Program (TMP) Training Exam may participate in High Power and Research activities when under the supervision of a Tripoli Senior member.

8. Are Research motors required in order to fly at a TRL?

No, commercial motors can be flown at TRLs.

9. Can all fliers fly rockets with research motor at a TRL?

No, all flights and static tests that use research motors shall be conducted by Tripoli members who are Tripoli certified level 2 or 3.

10. Are there any limits on flying motors at a TRL?

Yes, all flights and static tests conducted by the member shall be within the member's certification level.

11. Are there restrictions on spectators and/or invited guests?

Non-Tripoli members are either invited guests or spectators.

An invited guest may be permitted in the motor/rocket preparation areas upon approval of the RSO but may not be present at the launch site (pad area).

Spectators, who are neither TRA members nor invited guests, are confined to the spectator areas as designated by the RSO and shall not be present in the motor/rocket preparation areas nor at the pad areas or flying range site.

Invited guests or spectators who meet all the other requirements of this code may have

access to these restricted areas if they join TRA and have the permission of the RSO and the person or group personnel involved in a project.

12. What is the 90% rule and how can it be waived?

The 90% rule limits flights that use research motors to 90% of the FAA waiver in force at the time of the flight. This is done to be conservative with flights that may over-perform their expected flight profile.

The maximum launch altitude of a research flight shall be 90% of the waiver altitude established for the launch.

The BOD may waive this requirement when it can be demonstrated (by past performance, actual thrust curves, etc.) that the performance of the motor(s) to be used shall not exceed the limits of the waiver.

Computer simulations without actual thrust data derived from one or more actual test stand firings shall not be considered for waiver.

You can apply for a waiver of this rule if you have consistent history of making motors that performed as predicted. A commercial manufacturer also has a consistent history of motors performing as predicted, and is therefore granted the waiver.

13. I want to 'kit-bash' some commercial motor parts to create a 'custom' motor is this allowed at a TRL?

Yes, this is considered a Research motor. However, this is not allowed at non- TRLs since the motor is not certified.

14. My buddy is not a member of Tripoli but wants to fly his rocket at a TRL. Can I 'sponsor' his flight so his rocket can fly?

No, a flier has to be a Tripoli member, in good standing 18 years of age or older.

15. Is a motor with a PVC casing allowed at a TRL?

No. PVC is frangible and thus not allowed.

16. Can I fly a motor with a steel nozzle or steel case or closures?

No steel cases or nozzles or closures are allowed. Steel snap rings, screws, and washers are minor parts and are permitted.

17. Can I buy or sell a research motor at a TRL?

No, a TRL is not a venue for sales of research motors. Research motors cannot be sold for profit at a TRL.