

DARPA Launch Challenge
Frequently Asked Questions Release 1
July 24, 2018

1. Question: Are unique or nontraditional approaches acceptable as proposed systems? (mobile platform launch, airborne launch, etc.)

Answer: The Launch Challenge is interested in and will consider unique or non-traditional launch options. Participants should specify their specific requirements in their DARPA [pre-qualification registration](#). All submissions will be evaluated on their ability to achieve the goals of the Challenge within the timeframe allotted.

2. Question: How will the Challenge handle non-ground launched approaches?

Answer: The Challenge will have launch zones that enable non-vertical launch vehicles to participate.

3. Question: When will initial payload details, including interfaces and example orbit, be available?

Answer: Initial payload details will be provided in early 2019. Full payload details will be provided in the weeks leading up to the launches.

4. Question: Would competitors be allowed to accommodate additional payloads (rideshare) to maximize revenue?

Answer: Competitors may accommodate additional payloads as long as the Launch Challenge metrics are met. Note: a rideshare is a complex issue involving (potentially) multiple approvals and logistics burdens.

5. Question: When does the “time to orbit” portion of the launch competition start- when we receive the launch site, or when initiate the countdown, or launch? How will weather delays be handled in the scope of the competition? Is it safe to assume that the responsibility of evaluating weather launch commit criteria will not fall on the launch vehicle owners?

Answer: The "time to orbit" metric will be explained in the launch rules to be released in January 2019. It is expected that this time will start on the opening of the launch window, which is approximately 30 days after the announcement of the launch site location.

6. Question: Is there a scoring benefit or other incentive for launch 1 happening earlier in the 2 week window vs later?

Answer: Per the Launch Challenge Guidelines, scoring criteria will be provided in early 2019.

7. Question: If a first launch fails, can the launch be retried?

Answer: Mishap reviews occur after failed launches. If competitors can prove (in an expeditious manner) that the failure was not as a result of an inherent design issue (which may take longer than the entire launch window), then a second launch vehicle may be launched. FAA parts

417.111(h) and 431.45 contain requirements for mishap investigation plans for ELV and RLV launches, respectively. The operator would need to accomplish the tasks in its mishap response plan, including identification and adoption of preventive measures for avoiding recurrence of the event, to enable a second launch attempt.

8. Question: When will additional details be provided on the scoring criteria and requirements?

Answer: Per the Launch Challenge Guidelines, scoring criteria will be provided in early 2019.

9. Question: Are we required to positively deorbit the upper stage?

Answer: FAA Parts 417.107(e) and 431.43(c) contain requirements for collision avoidance. Parts 417.129 and 431.43(c)(3) contain requirements for passivation of upper stages at the end of mission. Operators must demonstrate that debris generation will not result from conversion of kinetic energy into energy that fragments the vehicle. This requirement implies that, while positive deorbit of the upper stage is not required in all cases, it may be required for systems or orbits with elevated risks of collision. Positive deorbit is a risk-based decision in the regulations, not a prescriptive requirement.