

Title

\$10M Suborbital Spaceflight X PRIZE

1a. Problem Statement: What are the root causes of the problems in the space your competition is addressing?

- No one believed that private spaceflight was a viable business, no private passenger-carrying spaceships were in existence
- There were no regulations for private spaceflight in existence
- No one was investing capital in private rocket companies
- The perception is that spaceflight is only for governments

1b. Problem Statement: What's already being done in this space

There were a few failed attempts at building private rocket companies, but they failed for many of the root-cause problems above.

1c. Problem Statement: Why aren't current efforts working?

- 100% of the launch business was either government or commercial satellites, and there was no incentive for construction of passenger-carrying vehicles
- 100% of astronaut-flights were on government vehicles
- There were not successful commercial examples that inspired confidence in investors

2. Winning Team Will Statement:

"The winning team will build and fly a privately funded spaceship capable of carrying 3 adults to 100km altitude, land safely, and make that flight again within two weeks."

3a. Rule Summary:

- i. Teams must be privately financed (must demonstrate 90% or more private financing)
- ii. The Spaceship must be able to carry 3 adults
- iii. Spaceship must reach a minimum altitude of 100 kilometers
- iv. Must land safely and fly again within 14 days
- v. Passengers must land in good health after each flight
- vi. No more than 10% of the dry mass can be replaced between flights

3b. Rule Summary Justification:

- I. This XPRIZE seeks to incentivize the creation of a private industry, and therefore the winning teams(s) need to be funded by private capital. We don't want a government entity winning this competition.
- II. Carrying 3 adults allows for 1 pilot and a paying couple or two friends. Requiring only a single passenger be carried might be viewed as a stunt.
- III. 100 km was selected as it passes the definition of space by both US and European standards. Originally, we considered 100 miles, but found that re-entry speeds from this altitude would be problematic. Also, most American's wouldn't know the difference between 100 miles and 100 km (62.5 miles).
- IV. Requiring that the winning ship make two(2) flights within two (2) weeks means that cost for each re-flight is the cost of the fuel and the touch-labor.

4. Goals & Objectives of the Competition:

- To kick-start the personal spaceflight revolution.
- Change the paradigm that only governments can fly people into space
- Create a viable and profitable industry
- Get the public re-excited about spaceflight
- Clarify and drive the regulatory environment that will govern personal spaceflight

5. Paradigm Shift Intended by the Prize:

- Raise the visibility of this area, with the goal of changing the paradigm that spaceflight is not only for governments
- Support the governments to change the laws
- Encourage rocket entrepreneurs to dream again

6. Radical Breakthrough that is Intended:

- A new generation of privately developed spaceships
- Spark a Darwinian evolution of the types of approaches that can carry people to sub-orbital altitudes
- Modification in the regulatory structure to allow commercial space travel to happen in the United States
- Increased flow of private capital into the private spaceflight marketplace
- Creation of a new industry

7a. Prize Amount:

\$10 million

7b. Why have you selected this prize amount?

This is the estimated amount of money that we expect a team to spend in order to build a ship to win the prize.

8. Post-Competition Impact:

It is expected that teams competing for the Ansari Suborbital X PRIZE will be able to provide flights to wealthy individuals (personal spaceflight) researchers/scientists and governments. A market of \$1Billion - \$3 Billion per year has been projected for this market sector.

9. Potential Sponsor(s) and/or Funding Strategy:

- Wealthy individuals such as: Paul Allen, Richard Branson
- Large Aerospace companies such as: Boeing, Lockheed, Northrup Grumman
- Dot-Com/High visibility companies: FedEx; UPS; major Car Brands; Airlines such as Virgin Atlantic; Telecom companies (AT&T)