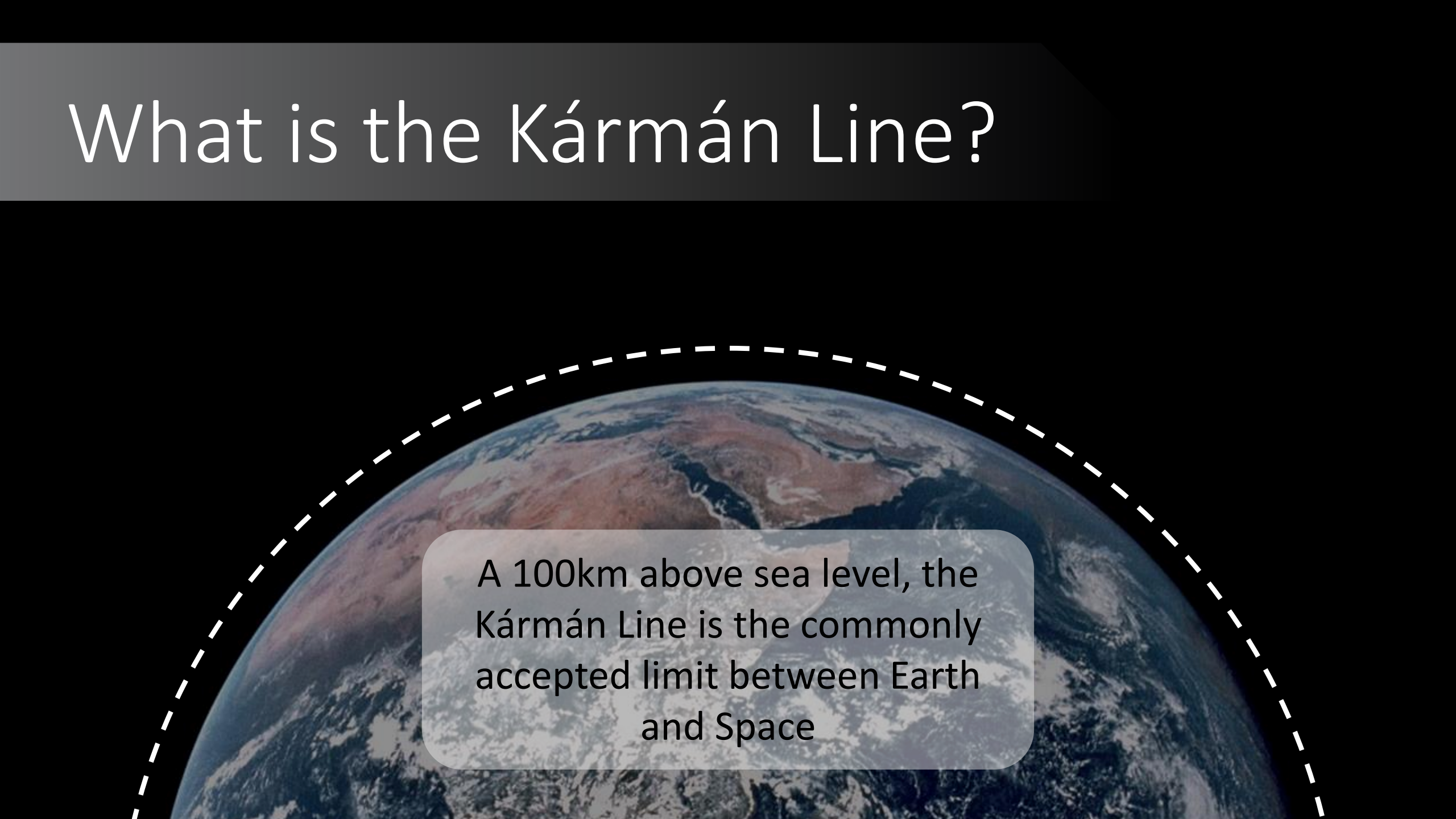


The background of the slide is a high-resolution image of Earth as seen from space, showing swirling cloud patterns and the outlines of continents. A suborbital rocket is depicted in the lower right quadrant, angled upwards towards the top right. The rocket has a long, slender body with a textured, possibly woven or braided, appearance. It features a sharp, conical nose cone and a small, dark, rectangular fin or stabilizer at its base. The overall composition suggests a theme of aerospace engineering and space exploration.

Concept for a Suborbital Rocket

Ing. Esteban Jiménez Sánchez

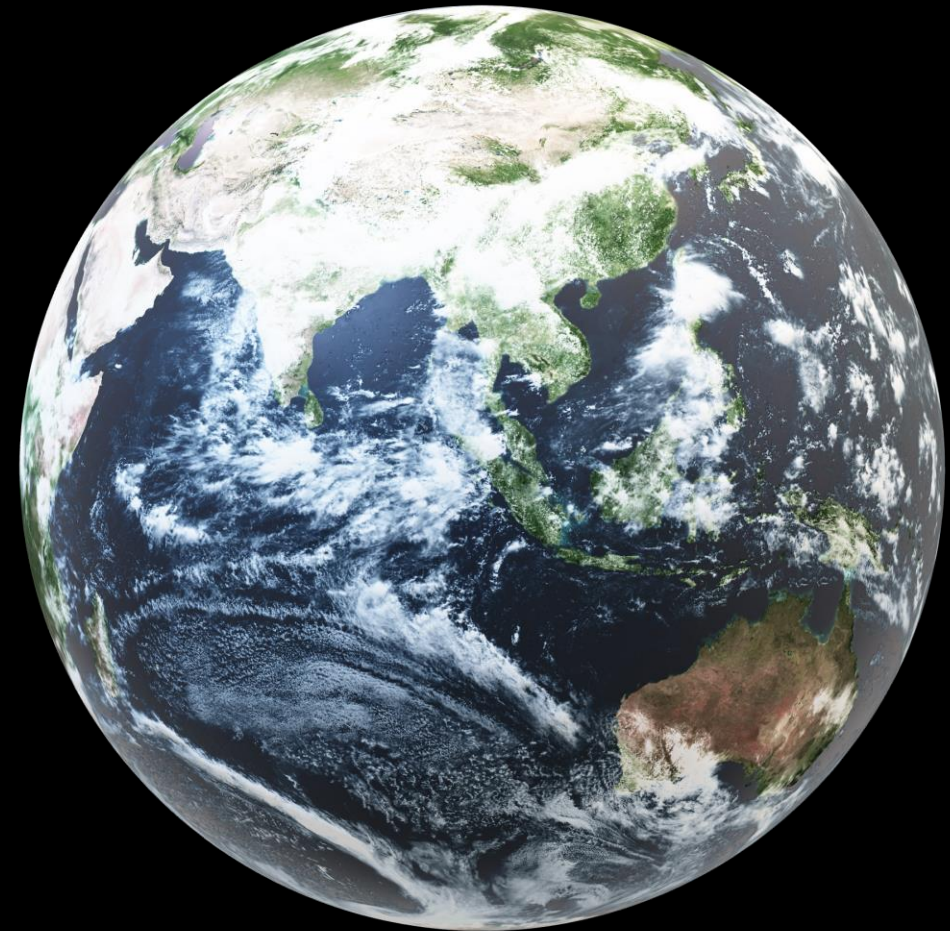
What is the Kármán Line?



A 100km above sea level, the Kármán Line is the commonly accepted limit between Earth and Space

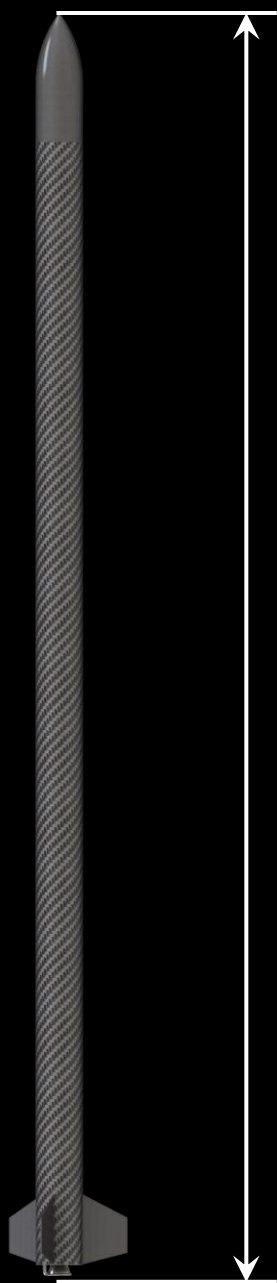
Why sub-orbital?

“Sub-orbital rockets allows us an accessible vehicle into the space environment, having the advantages of low-cost, while retaining the benefits of actual spaceflight.”

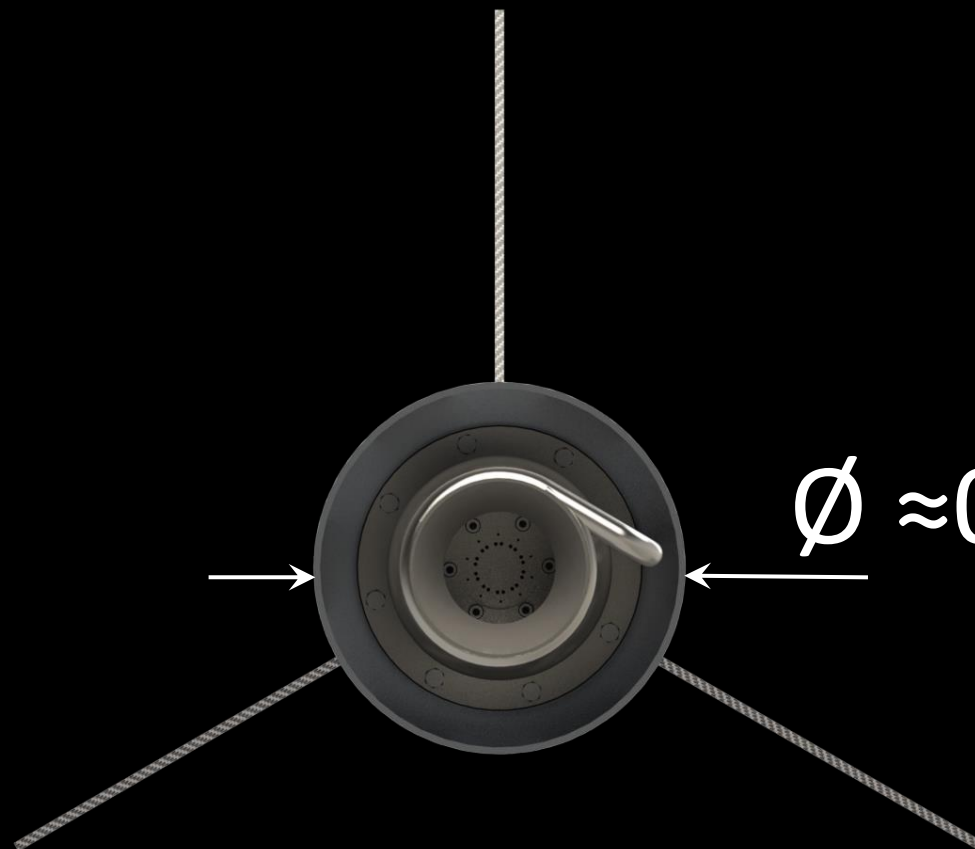


General Concept





11m



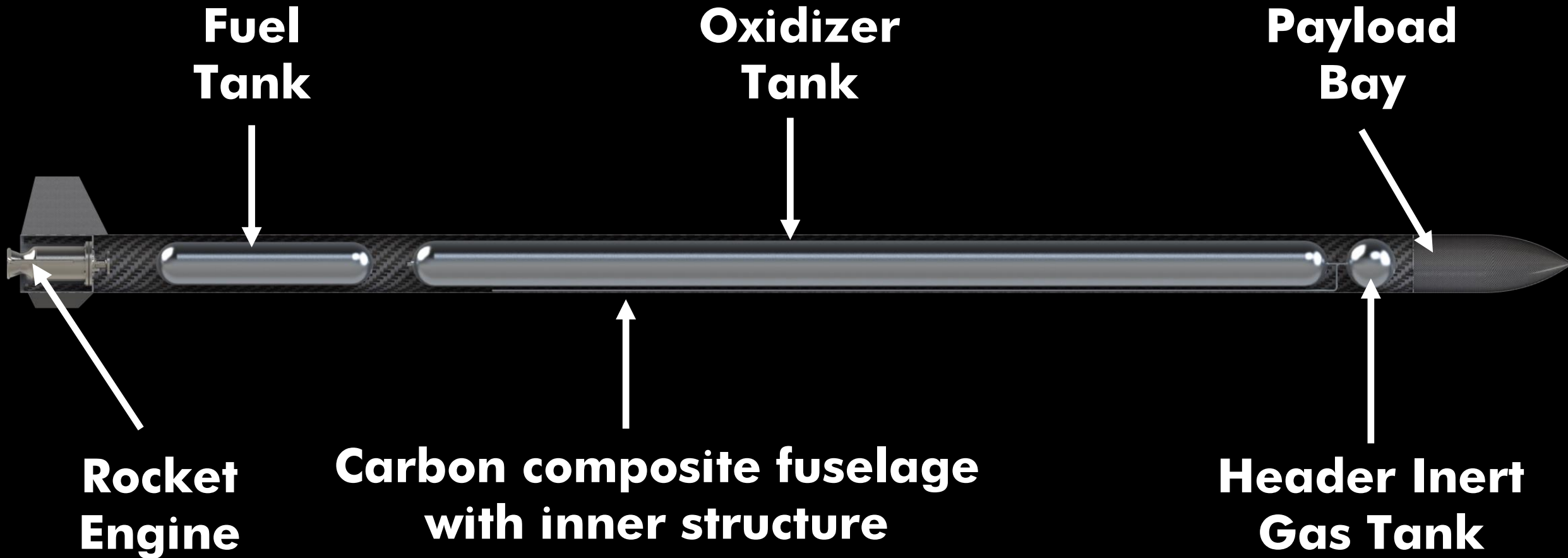
$\varnothing \approx 0.4\text{m}$

General Concept

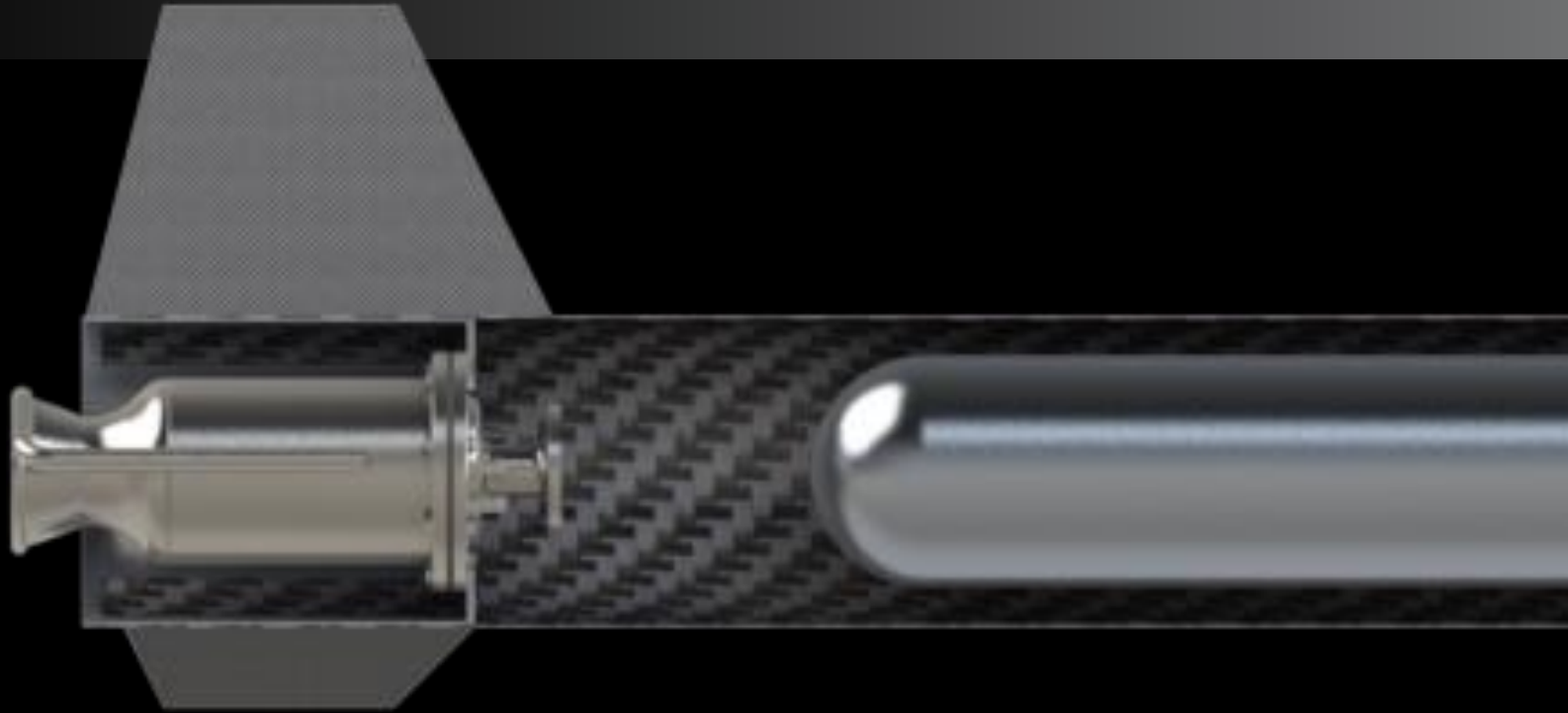
- Liquid Propellant Engine (N_2O / JET A1)
 - 15 kN of Thrust
 - Steady State gas fed engine with a regenerative cooling jacket
- Carbon Composite fuselage
- Physical Characteristics
 - Height: 11m / Diameter: 0.4m
 - Payload: 5kg
 - Apogee: ~120km



General Concept



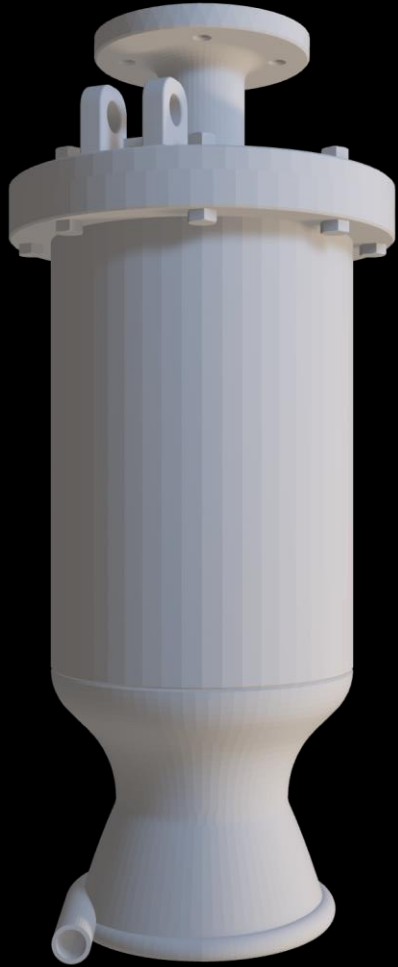
The Engine

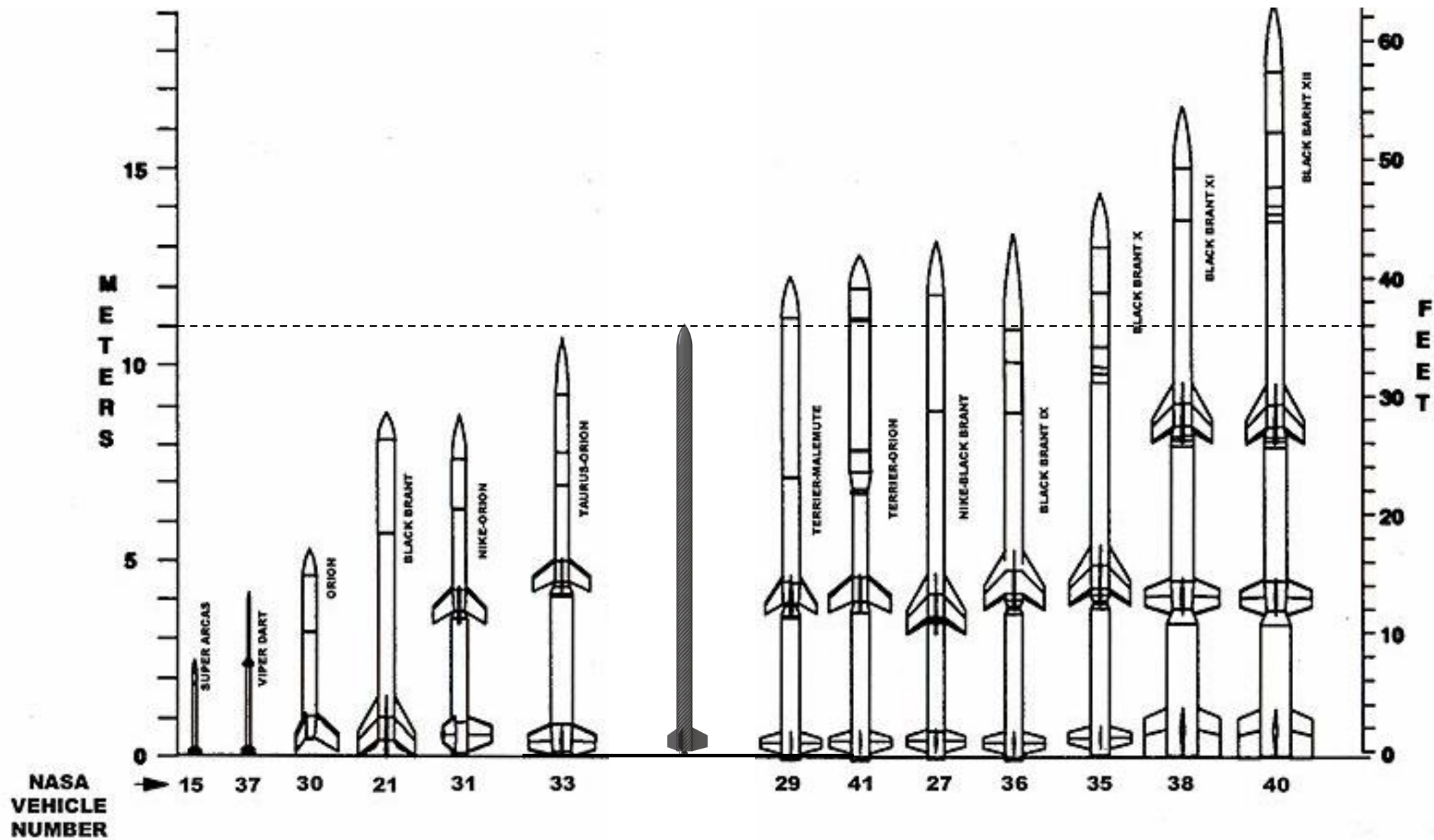


The Engine



The Engine





Roadmap

- Development of Propulsion Systems
 - Development and testing of smaller prototypes
- Launch Site Development
 - Identification of site
 - Construction of launch platform
- Preliminary launches of prototype rockets



Roadmap

- Rocket Construction
- Rocket Testing
 - Static Fire
 - Electrical and Control Systems
- Rocket Launch!



Thanks for your attention!

Ing. Esteban Jiménez
ejimenezs93@gmail.com
+506 8713 3979

