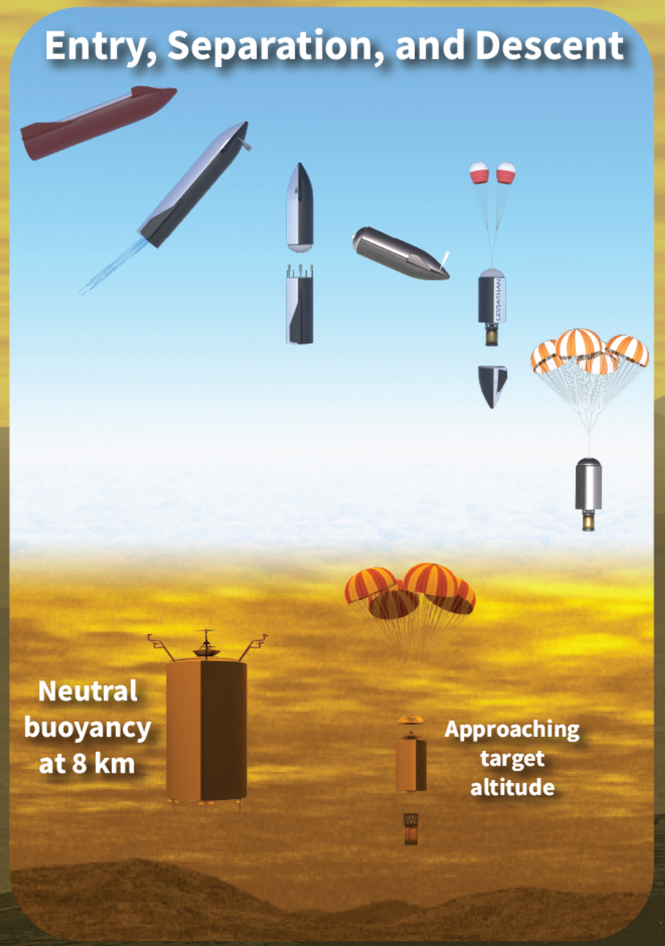
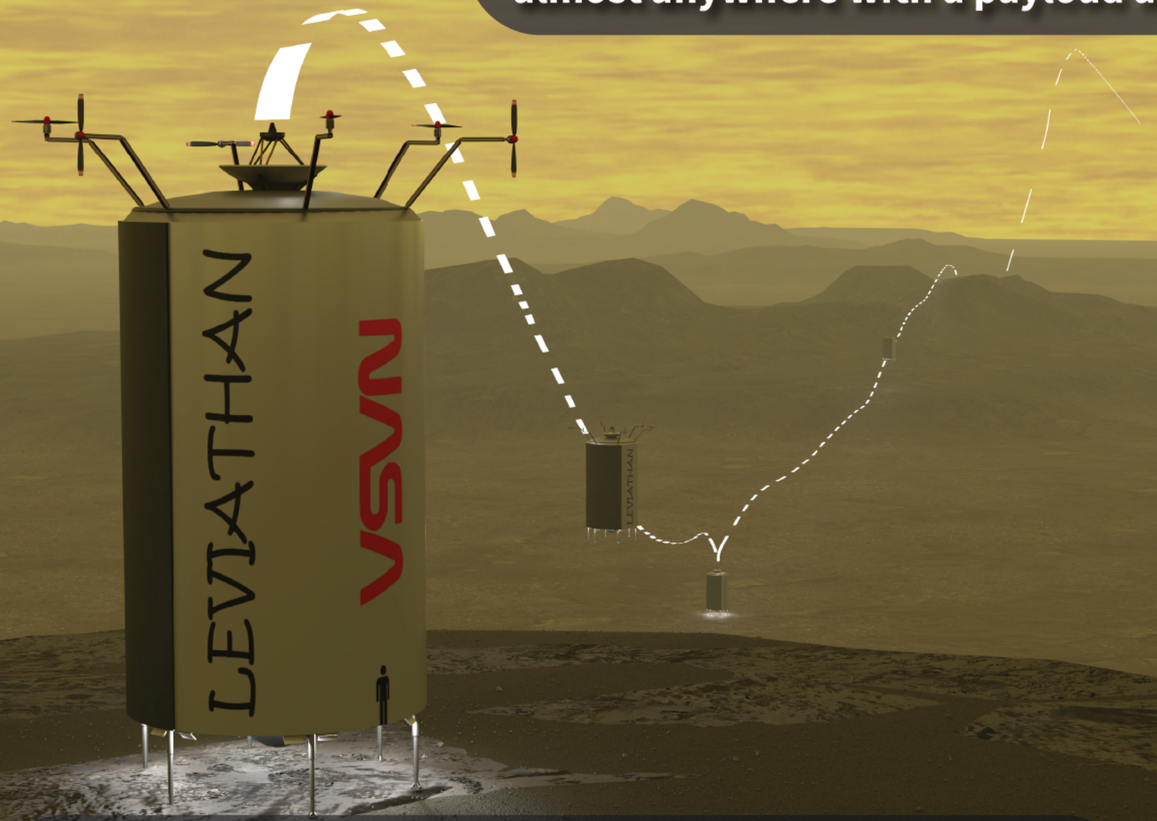
Leviathan: A Starship-based Venus Aerobot for Low-altitude and Surface Explorations

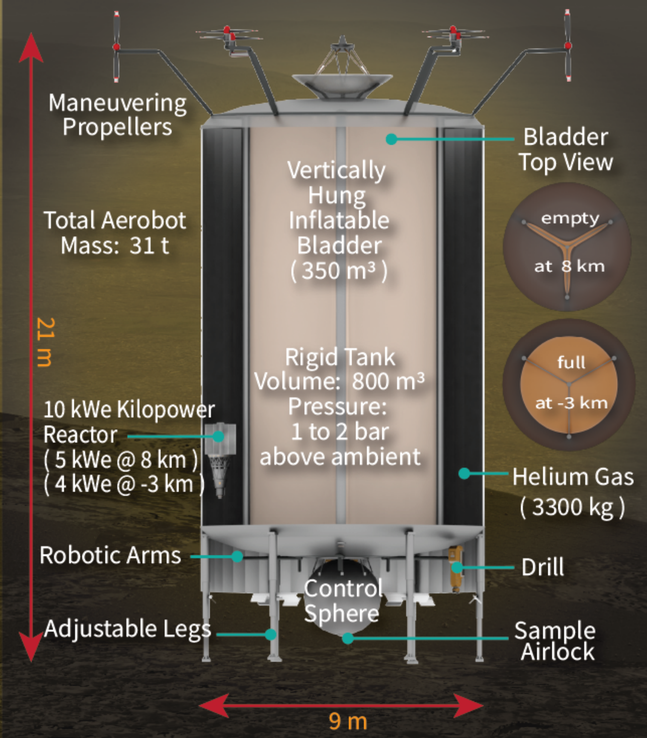
Entry, Separation, and Descent



The Leviathan Aerobot is a 31-ton nuclear-powered stainless-steel helium-filled long-lived semi-autonomous airship with cruising altitudes from -3 to 8 km capable of landing and taking off almost anywhere with a payload and systems capacity of 15 tons



Aerobot Cross Section



- Rigid superpressure balloon
- Total mass: 31 tons
  shell: 16 tons
  systems and payload: 15 tons
- Operational altitudes: -3 to 8 km
- Altitude control: inflatable bladder
- Able to circumnavigate the planet
- Power: 10 kWe Kilopower fission reactor
  4 to 5 kWe actual depending on altitude
- Control sphere: active cooling and insulation maintains temperature for instrumentation and electronics
- Primary transport: wind (0 to 14 kph)
- Secondary transport: maneuvering propellers

To learn more about the Leviathan Aerobot and watch the mission animation, visit
https://LeviathanExplorations.com

John Vistica
jvistica@leviathanexplorations.com