ENABLING INFRASTRUCTURE 1.1

Building the lunar storable propellant supply chain

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LUXEMBOURG SPACE RESOURCES WEEK







ORBITFAB Gas Stations in Space[™]

Company Overview



Orbit Fab was founded in 2018 to build the in-space propellant supply chain

- Headquartered in Lafayette, CO, USA; UK office opened 2022
- 60+ employees & growing globally
- Received investment from Lockheed Martin & Northrop Grumman
- Two successful space flight missions
- First private commercial company to resupply the ISS with water
- RAFTI baselined on 4 DoD & 100+ commercial satellites
- First commercial in-space fuel sale deal signed with Astroscale in early 2022
- First DoD GEO refueling mission under contract for 2025



Sell RAFTI Service Valves Sell Fuel In Space



Refueling Architecture





Transitioning to Lunar Propellants

- Short term focus: propellant launched from Earth
- Long term goal: propellant produced in-situ on other celestial bodies
 - Enables a bustling in-space Earth-Moon-Mars+ economy
 - Economically-preferable to use Moon-derived propellant even as far as GEO/GTO
- First step towards in-situ sourcing is producing water-based storable propellants that will enable cislunar+ refueling
 - Propellant options: high-test peroxide (HTP), water
 - Build resource ecosystem with ISRU stakeholders for upstream architecture components (mining, water processing, etc)

Orbit Fab building SUITE, a tool which enables design of space resource production architectures

Orbit Fab in Europe



- Orbit Fab office in the United Kingdom opened in 2022 in Harwell
- Orbit Fab is part of UK Active Debris Removal (ADR) programme to provide a refueling element
- Continuing to hire in the UK for both technical and nontechnical roles

Special thank you to the

UK SPACE AGENCY



Managing

Manny Shar

10+ years of experience in analytics, space business, and management



Head of Engineering

Sebastian Hill

5+ years of experience in spacecraft propulsion and refuelling systems