





There is a large and growing demand for access to space on ISS.

The bottleneck is up to three years.

The closest near-time competitor isn't launching until 2027.

ABOVE has a solution now that can be deployed in as soon as 9 months.



The Challenge - The ISS is a marvel – and a bottleneck

The ISS is costly, low-volume, and slow.

Commercial organizations want access. Pressurized access that can scale and be tailored to their needs.

Clearing regulatory hurdles to get a payload on the ISS costs **>\$100k per kg** (weight of a 1-liter bottle of water).

Wait time of two years or more.







ISS Clones are not the answer. Current solutions have:

- Expensive limited payload capabilities
- Limited access with long wait times
- Limited capacity busses
- Limited power
- Ineffective cadence

These solutions are:

- Not scalable
- Not recoverable or an uncertain return timeframe

The only ISS clone currently available is controlled by **China**



NASA is Science focused, NOT a commercial provider

The only other operating space station is controlled by China.



Space is Infinite. Like Opportunity.



TAM \$110B + USD

Above is moving the trajectory from Science Experiments to Commercial Production

Based on tech *already validated* on ISS, NASA estimates the TAM for pressurized, microgravity commercial services at over \$110B.

ABOVE's solutions offer:

- Multiple platform availability 3+ by 2025
- · Assembly line production for decreased costs / increased profit
- Ready customer base: Bottlenecks on ISS create immediate demand



Industry is ready but has shrinking access.

Thousands of organizations seek a scalable, pressurized, commercial destination on orbit.

Demand for access to space goes unmet.

Launch costs are decreasing but with nowhere to go once in orbit.

Zero gravity is an ongoing impediment that no one is addressing. Except ABOVE.



Over 200 technologies have been validated on ISS with nowhere to scale them for market.



The first step to open up the bottleneck: Prometheus.



Prometheus addresses seven essential requirements.

To be successful, a solution for commercial space applications requires a mix of seven key features:

- 1. Pressurized volumes (Key requirement for ISS payload replacement)
- 2. Rapid delivery (Months, not years, like for ISS)
- 3. Rapid cadence (multiple platforms per year)
- 4. Ability to work jointly in a constellation of platforms
- 5. Low development cost (<\$4 MM)
- 6. Low at scale production cost (<\$2 MM)
- 7. Profitable (\$100 MM projected revenue in <2 years)

Prometheus serves as a welcome replacement for hundreds of frustrated potential ISS customers.



Above Space Prometheus Artist Rendering. <u>Why</u> <u>"Prometheus?"</u>



Next, a modular, iterative, scalable product roadmap.



ABOVE Platform Roadmap

Versatile, scalable platforms on orbit in months, not years.



Increase to 53% volume of ISS

Automated Platforms: **Prometheus** On orbit in <9 mo. <u>Phase 1</u> Pressurized Volume Phase 2 Automated Product

Return Multiple customer letters of commitment for 2024 mission.



Zero-G Stations

Station In a Box (SIB)

Phase 1 Short term habitability

Commitment for Mid 2024

Phase 2 Long duration missions

On orbit in <32 mo.

Customer Letter of

feasibility study.

Increase to 176% volume of ISS



Artificial Gravity Stations **Pioneer**

Expandable from SIB <u>Phase 1</u> Short term habitability <u>Phase 2</u> Long-duration missions NASA SAA to support development.

A single Station In a Box can host over 8x the commercial customers of ISS and provide enough power for commercial manufacturing.



ABOVE is different.

Where old guard aerospace players are slow, costly and burdened by decades of structural calcification, they are existing creating opportunity.

ABOVE is agile and innovative.



Programs and Achievements. In just four short years.

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bearing and committee in the

Developed Unique software

2023

2001Cations to studue

Since 2019, ABOVE Space has achieved continuous strategic validation of its IP and technologies. Developed Energy Datoms to power Current milestones include:

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scaetus bilder

Acquire tested and validated

2022



and MASA, Mashall Space Flight Center

Undella agleeneet between ABOVE

deployment and spacectal operations

Develop and test at MASA 085 thrusters

Customer commitments for upcoming

Copyright 2023, Above: Space Development Corporation

Develop Tuss asserton 1000t

2021

2020

Experienced Team: Engineer, Build, Test, Validate



Inflatable Flight Article

ABOVE's pressure vessels have orbital flight heritage and have been tested and validated for operation in the space environment.

Commissioned by the US Air Force, the Archimedes platform is a rapidly

deployable energy platform with

multiple use cases.



Software Tested at NASA



IOTA Thruster Quad



SAA Signed in 2023

Software developed for control of artificial gravity platforms and controlling precision orbital deployment systems.

Engineered and manufactured custom rocket thrusters, tested and validated at NASA Marshall. successfully demonstrated creation of Artificial Gravity.

In 2023 signed a key five year Umbrella Space Act Agreement with NASA providing support for ABOVE's development of space platforms.





Archimedes test article



Customer Commitments

ABOVE has received multiple customer commitments, including service contracts from AFRL, and letters of commitments for a 2024 Prometheus launch.

Our Intellectual Property

ABOVE's talented and experienced team has developed over 6 years of proprietary technology with 40+ patents in the pipeline including:

- Large zero gravity truss building methods
- On orbit assembly and connection devices
- Space platform geometry control methodologies
- Devices and methodologies to control rotating structures
- Cold gas thrusters
- Methods for circulation within large space stations
- Emergency and safety devices for crew platforms
- Stowage infrastructure
- Mooring adaptors
- Hybrid gravity systems
- And more...



ABOVE's DSTAR truss building platform resulted in many innovative designs and processes. The platform is shown here prior to its 2021 demonstration in California.



NASA Space Act Umbrella Agreement (SAA)

ABOVE signed an Umbrella Space Act Agreement with NASA Marshall Space Flight Center. This prestigious agreement includes:

- High level access to all NASA MSFC state-of-the-art ecosystem, facilities, staff, technology and tools, for testing and de-risking ABOVE's platforms
- Collaborative resources for analysis, development, software and hardware testing
- · New hybrid and microgravity applications alliance
- Cooperative innovative pressure vessels program





Above Space Management

Team members have over 30 successful space missions. Over 150 years of combined space heritage, business development, and entrepreneurship.



Rhonda Stevenson CEO President



Tim Alatorre, NCARB COO Board Chairman Co-founder

Thomas Spilker, Ph.D. CTO Board Vice Chair Co-founder



Rob Miyake Sr. Thermal Engineer Board Member Co-founder



Team Highlights: Dr. Thomas R. Spilker

Partial Mission Mission Significance Key Contributions

List

| Voyager | Decades long, historic, scientific mission | Radio Science Team support: science operations planning, implementing, execution. Saved planetary mass/gravity experiment at Neptune from failure. |
|------------|---|--|
| Cassini | Exploring Saturn and its moons, revealing celestial wonders. | 2 yrs Mission Planning Chief, coordinating science operations and operations-related analyses, e.g. limits of spacecraft flyby proximity to Titan. |
| Genesis | Collecting solar wind to study the origins of the Sun and solar system. | Multiple roles from proposal to operations, diagnosing parafoil issues, modeling thermal anomaly behavior to EOM, and verifying complex software calculations. |
| Rosetta | Orbited comet, deployed lander, revealed solar system origin secrets. | Science Co-Investigator for MIRO instrument, involved in design, testing, calibration, and flight operations, collaborating with ESA and scientists. |
| JPL Team X | Advanced Project Development Team | Science Representative and later Principal Space Flight Mission Architect due to success in various multi-disciplinary tasks across space mission disciplines. |





Thomas Spilker, Ph.D.



Team Highlights: Robert Miyake

Partial Mission Mission Significance List

SeaSat

Air Force Spacecraft Supported multiple classified Thermal system lead, providing input to the spacecraft system orbital flight systems to LEO, design to support test and flight for flight systems and earth entry MEO, and GSO systems. Demonstrated microwave Head thermal subsystem lead for the thermal design and provided

Key Contributions

| | oceanographic remote sensing | inputs to the total flight system. Served as thermal lead for mission flight. |
|-------------------------|---|--|
| Mars Global Surveyor | Mapped, provided vital data about the Martian surface, atmosphere, climate. | Thermal system lead, input for spacecraft system designs, input to support test and flight operations. |
| JPL | Multiple missions | Advanced technology and flight system development, including Antimatter Rocket, and thermal systems for 4 solar radai proximity operations to the Sun. |
| JPL Team X | Advanced Product Development Team | Thermal subsystem lead for design concepts for advanced missions. |



Rob Miyake





Traction: DOD Contracts - Technology Innovation

Ascent SOLAR

On-orbit Thin-Film PV Manufacturing



Critical support for unique energy products

Beamed energy platform, E-Sky





On demand energy and communications



ABOVE has the key people, novel technology, a unique path to Space, and is revenue-positive, today.



Investment opportunity







Thank you.





[appendix]

Why Prometheus?

We chose the name Prometheus because he is a mythic figure who stole fire from the gods and brought technology and new civilization to humanity.

He represents human striving and the quest for knowledge.

The statue of Prometheus in NYC's Rockefeller Plaza is encircled by the constellations of the heavens depicted by the signs of the zodiac — literally surrounded by stars.

And like the famous statue, our Prometheus is also covered in "gold".



Artist's rendering

