



First mission launched on 8 January

January 2024

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YOUR SERVICE PROVIDERS



Lunar payload delivery service provider
Addressing European customers
Based in Bordeaux, France
Created in 2021
Privately owned company
First delivery contract signed with ESA

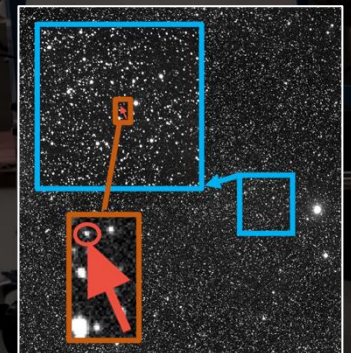


Lunar logistics and space robotics company
NASA CLPS provider, over \$600M in cislunar contracts
Based in Pittsburgh, PA, USA
In operation since 2007, >250 employees
Private, majority-employee-owned company
3 booked lunar lander and 3 rovers



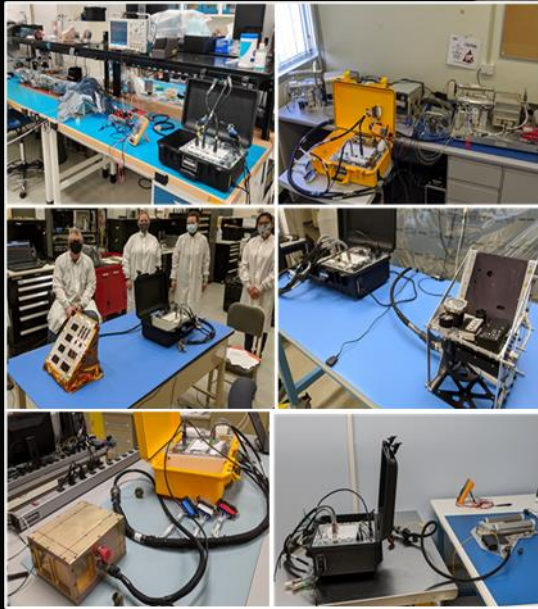
PEREGRINE MISSION 1

- Launched on inaugural ULA Vulcan on January 8th into trans-lunar injection, delayed from Christmas Eve due to routine Vulcan ground issues
- All communications, thermal, avionics, GNC, and power systems fully operational
- Externally provided valve failed, leading to loss of oxidizer which precluded soft landing on Moon
- Spacecraft fully checked out and stabilized, reaching lunar distance and operating all customer payloads and collecting science data
- In conjunction with NASA, safe disposal in Earth's atmosphere, chosen for end of mission to prevent cislunar debris; Peregrine has maneuvered to ensure entry over remote ocean
- Mishap board called to further investigate valve failure – design had already been changed for next Astrobotic flight: the Griffin lander carrying NASA's VIPER rover



WHAT WE DO

END-TO-END DELIVERY TO THE MOON



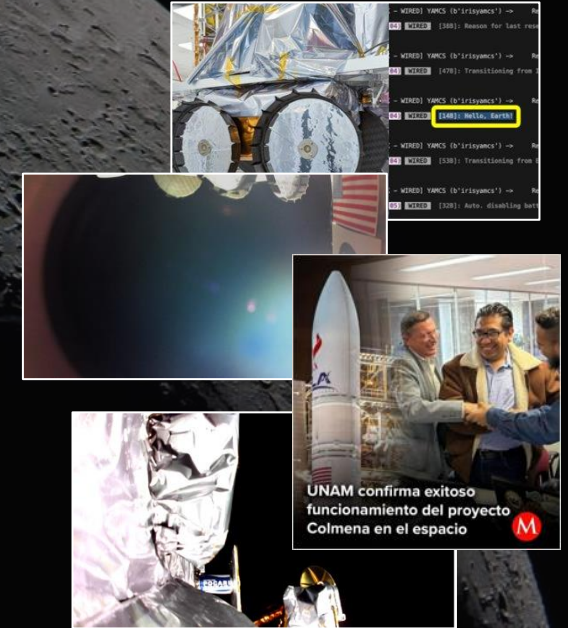
PAYLOAD PICK-UP



PAYLOAD INTEGRATION



LUNAR DELIVERY



PAYLOAD SERVICES



ASTROBOTIC

DELIVERY

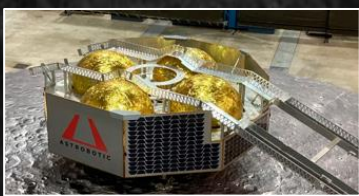
Peregrine Lander

Surface payload: 120 kg



Griffin Lander

Surface payload: 500 kg



MOBILITY

CubeRover®

Surface payload: Up to 24 kg



Polaris Rover

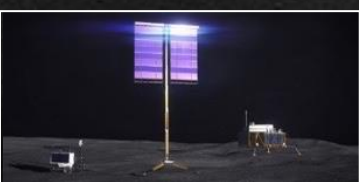
Surface payload: 90 kg



SURFACE OPS

VSAT

Provides up to 10 kW of power



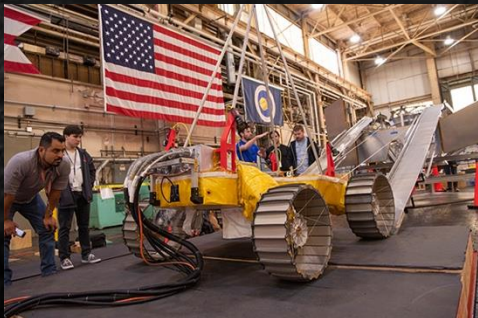
Wireless Chargers

125 W and 400 W units available



Our first contract execution (1/2)

- We have signed our first contract with ESA in July 2022, their first ever services contract.
- We will fly to the Moon LandCam-X, a camera developed by ESA to be part of Visual Based Navigation system of future European landers.
- The LandCam-X will be integrated on Griffin Mission 1 planned for launch in November 2024. GM1 will deliver the NASA Viper rover on the south pole of the Moon.
- LandCam-X will not be part of the Terrain Relative Navigation system of Griffin but is implemented on the lander in the same position as the functional camera.
- LandCam-X will be operated during Moon orbit, powered descent, and landing.
- 6 DoF trajectory data will be delivered also to ESA to allow mission replay and navigation algorithm validation.



Our first contract execution (2/2)

- Contract signature July 2022
- EM shipment to Pittsburgh done in May 2023
- EM integration on flatsat and compatibility tests with video data processor done second half of 2023
- FM shipment to Pittsburgh done this week
- FM integration on the lander, first half of 2024
- Launch campaign preparation, second half of 2024
- Launch: November 2024

Next missions

- Several opportunities exist to offer rideshare on CPLS mission in the coming years
- Time to launch depend on payload maturity but can be as short as for LandCam-X
- So far, the market in Europe does not pop-up
- Is the scientific community happy to wait until a completely European solution exist?
- A full European mission can be planned on Astrobotic lander family, with open choice of the launcher

LET'S MAKE HISTORY TOGETHER

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