

IAF BUSINESS INNOVATION SYMPOSIUM (E6)  
Entrepreneurship and Innovation: The Practitioners' Perspectives (1)

Author: Mr. Charles Lauer  
Rocketplane Global, Inc., United States, clauer@rocketplane.com

Mr. Pavlo Tanasyuk  
Spacebit Global Ltd, United Kingdom, pavlo@spacebit.com

NO BUCKS, NO BUCK ROGERS - INVESTMENT AND MONETIZATION OF EARLY STAGE  
LUNAR SURFACE EXPLORATION MISSIONS

**Abstract**

NASA and its international space partners are moving ahead on plans to return to the Moon, and the goal of accomplishing a new human landing in the South Polar region by 2024 or shortly thereafter. Eight international agency partners have now signed the Artemis Accords to contribute to the overall mission architecture and contribute elements and logistics support to the Lunar Gateway, which will provide an operations and transit base for lunar surface missions. To begin, NASA has initiated the Commercial Lunar Payload Services (CLPS) program for robotic landing and surface exploration missions beginning in Q4 of 2021 and continuing with several missions per year over the next seven year. The CLPS program is being implemented through innovative commercial partnerships with multiple companies buying the lunar landings as a service, similar to how NASA procures ISS cargo and crew flight services. The CLPS program has created a commercial marketplace worth almost \$3 billion over the next 7 years, and has dramatically lowered the cost of getting to the lunar surface for commercial missions due to rideshare opportunities with the NASA CLPS contractors. Spacebit is planning a series of commercial lunar surface exploration missions using CLPS lander rideshare opportunities, beginning with the Astrobotic Peregrine first mission in Q4 2021. A second 2021 mission has also been booked with Intuitive Machines. These missions will be a technology demonstration of the Cubesat sized rovers. Future missions in 2022 and 2023 will increase the range of the rover's surface exploration through the use of a wheeled Mother rover, with the ultimate goal of sending a swarm of Asagumo rovers into a lunar lava tube to map the cave interior with HD video and 3D LIDAR scanners to assess the suitability for future permanent human habitation. The investment in Spacebit Mission One is fully funded through direct investment from the Founder and family office investments. Future missions will be funded through sponsorships, strategic partnerships, national flag hosted payload agreements and outside VC funding. Monetization of the early missions will be accomplished primarily through sponsorship contracts, while later missions which map and provide assay grade lunar resource ground truth data will attract VC funding in part through the establishment of lunar property rights claims. This paper will describe the Spacebit business model of commercial lunar surface exploration as part of a long term roadmap to commercial lunar resource development.