IAF SPACE EXPLORATION SYMPOSIUM (A3)
Moon Exploration – Part 2 (2B)

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BLUE MOON LUNAR TRANSPORT SERVICES OVERVIEW

Abstract

Blue Moon is Blue Origin's lunar transport service for delivering a wide variety of small, medium and large payloads to the lunar surface, host payloads and even deploy payloads during its journey to the Moon. In development for several years, Blue Moon's technology builds on our experience with New Shepard with respect to LH2/LOX propulsion, precision guidance, vertical landing and landing gear systems. The top deck and lower bays easily accommodate a wide variety of payloads, including large payloads and ESPA-class payloads with standard ring port interfaces. There are lower mounting locations for payloads, useful for closer access to the lunar surface and off-loading. The Blue Moon lander provides kilowatts of power to payloads using its fuel cells, allowing for long mission durations and the ability to last through the lunar night. Blue Moon's precision guidance and descent sensors utilize machine learning technology to accurately land anywhere on the lunar surface, starting with its first mission. The Blue Moon lander can deliver large infrastructure payloads with high accuracy to pre-position systems for future missions. A version of the cargo lander is used as the Descent Element (DE), part of the National Team's Human Landing System (HLS) Integrated Lander Vehicle (ILV), designed to land crews on the lunar surface. Blue Origin offers this suite of lunar landing systems for cargo and crew delivery to go back to the Moon – this time to stay.