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UPDATE ON TAIWAN'S LUNAR PAYLOAD DEVELOPMENT AND ITS OUTSOURCED TRANSPORTATION SERVICES

Abstract

For lunar exploration missions, the Taiwan Space Agency (TASA), Taiwan's only space administration, has been working with domestic universities since mid-2022 to develop four lunar payloads for scientific observations on the lunar surface. Two of the four payloads are designed to be mounted on the rover and the other two on the lunar lander. Both rover payloads have completed environmental testing and the Engineering Qualification Model (EQM) and Flight Model (FM) have been delivered at the end of 2024. By the end of 2025, the EQM and FM of the two lander payloads will also have completed the Qualification Test Level and Acceptance Test Level, respectively, in environmental testing. Two rover payloads are progressing faster than two lander payloads. However, TASA has not yet developed lunar surface platforms, either rovers or lunar landers, for these four payloads. Therefore, lunar transportation services from Earth to the Moon are planned to be outsourced to lunar payload service providers. At the end of 2023, TASA contracted rover payload transportation services through a public bidding process to the company that was awarded the National Aeronautics and Space Administration's (NASA) Commercial Lunar Payload Services (CLPS) program. For both lander payloads, TASA plans to issue a Request for Proposal (RFP) in the second or third quarter of this year (2025), soliciting proposals from agencies or firms interested in and with the experience and capability to provide lunar lander payload transportation services from Earth to the destination lunar surface. This paper updates the development status of Taiwan's four lunar payloads, as well as the execution status of the rover payload transportation services contracted since the end of 2023. In addition, the status of the upcoming tender for lander payload transportation services will be presented.