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

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TAIWANESE FIRST MOON EXPLORATION MISSION

Abstract

Taiwan's phase III space program, so called "The third phase national space technology development long-term plan", has been approved by the Executive Yuan in early 2019. The entire time period of phase three space program covers ten years, starting from year 2019 and ended in 2028. One of the main goal for this ten-year space program is to carry out deep space exploration. The development of deep space exploration will be based on the space science and technology foundation established by Taiwan's previous two long-term plans (phase I and II), whose duration are 1991-2006 and 2004-2018, respectively. The academic and research communities will be requested to propose scientific ideas and proposals for the coming deep space exploration mission. As the major executive agency for the space program in Taiwan, National Space Organization (NSPO) is planning to observe the moon within this phase, and the Mars is scheduled to be explored in the next phase (phase IV). To achieve the mission of moon exploration smoothly, a micro-satellite to orbit the moon (lunar orbiter) will be developed first. With the lunar orbiter as a stepping-stone, a lunar lander will be followed next. The exploration of the Mars is the third steps of the deep space mission. Since the approval of phase III space program, NSPO is engaged in the detailed plan for the first step of moon exploration. Currently the pre-study on the lunar orbiter development is still going on. Conceptual design will be proceeded in the near future. Scientific payloads and research topics will be collected after the announcement of opportunity (AO) has been issued and then a scientific committee will be formed to select 2-3 suitable payloads to put on lunar orbiter for moon exploration. In this paper, the author would present the planning of the deep space exploration of NSPO and the current status of the Taiwanese first moon exploration mission.