

International Cooperation for Space Exploration (1)
International Cooperation for Space Exploration (2) (2)

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CHINA LUNAR&ASTROID EXPLORATION MISSION

Abstract

In order to promote peaceful exploration and utilization of outer space, scientific and technical innovation, social participation and international cooperation, China National Space Administration (CNSA) was leading Chinese space institutes for following Chinese Lunar and deep space exploration plans. These activities are of great significance for exploring the mystery of space and expanding human living space. Under this circumstance, China Lunar Exploration Program (CLEP) and Asteroid Exploration Mission (AEM) are two upcoming missions led by CNSA and are also opened for international cooperation.

The Chang'e 6 mission is a follow-up CLEP mission. As previous missions had achieved lunar orbiting and landing, Chang'e 6 is aiming at implementing sampling return from the south pole. Chang'E-6 probe consists of four modules: orbiter, return capsule, lander and ascender. The orbiter will travel through the Earth-to-Moon transfer, moon orbiting, and Moon-to-Earth transfer. The lander and the ascender will descend from the lunar orbit to the lunar surface to collect samples. The ascender will carry the collected samples from the lunar surface to the lunar orbit and transfer them to the return capsule. The return capsule is responsible for bringing the collected lunar samples back to the Earth with the orbiter.

The Chinese Asteroid Exploration Mission will target the object of near-earth asteroid 2016HO3, with orbiting, landing, sample collection and return activities within time frame of 3 years. After the sample return of 2016HO3, the probe will continue flying to asteroid belt, start scientific activities for main-belt comet 133P with multiple scientific payloads for remote sensing, in-situ prospection, and sample return.

China National Space Administration publicly solicits for international proposals from home and abroad for payloads on both missions. Head Aerospace Technology Ltd., a Chinese commercial aerospace company with global presence, hereby is willing to help those international institutes whom is interested in the payload piggyback opportunities or cooperation with Chinese institutions with their unique technologies on these exciting deep space exploration missions