

# Lunar Probe Program Facing Three Major Difficulties

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China is expected to launch its first ever lunar probe satellite in 2007, but the program is still experiencing three major difficulties, said Luan Enjie, chief commander of the lunar satellite project here on Wednesday.

At the opening ceremony of the postgraduate research institute of the Chinese Academy of Sciences, Luan said the three technological difficulties involve orbiting, observation and control of the satellite, and its capacity to endure the lunar environment.

"The moon is 380,000 kilometers away from the earth. Sending the satellite there is a test of China's deep space exploration capability," said Luan.

The lunar environment is quite different from earth's. The difference in temperature on the moon is 300 Celsius degrees. The satellite will orbit the moon at a speed of 120 minutes per cycle. The components of the satellite will be severely tested, said Luan.

"Although China has achieved great progress in aerospace development, more hard work is needed to accomplish the lunar probe program," said Luan.

He encouraged post-graduate students in China's top research organ to study hard to contribute their part to the lunar probe project and other scientific researches.

The State Council, China's central government, approved the country's first lunar probe program in 2004. A lunar probe engineering center was set up in Beijing in August this year by the Commission of Science, Technology and Industry for National Defense.

The satellite program, which has a budget of 1.4 billion yuan (about 170 million US dollars), is part of the country's three-stage lunar project.

China's first lunar satellite was designed to obtain three-dimensional images of the lunar surface, analyze the content of useful elements and materials, and probe the depth of the lunar soil and the space environment between the earth and the moon.

According to the design, the satellite system consists of a satellite platform and payload, which will be based on China's Dongfanghong 3 satellite systems and other mature satellite technology.

The satellite will be 2,350 kg in weight with 130 kg of payload, and will orbit the moon for one year. A Chinese Long March III A carrier rocket will be used to launch the satellite.

The satellite launch will be followed by the landing of an unmanned vehicle on the moon in 2010 and collecting samples of lunar soil with an unmanned vehicle in 2020.

China is the third nation in the world to send a man into space. Chinese space experts have said that two Chinese astronauts are expected to enter space in 2006 on a several-day mission

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