

China's space programme

Ni hao, Moon

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It is not a race, so long as China makes sure China gets there first

HU JINTAO, China's Communist Party leader, could hardly have asked for such perfect timing. Or maybe he did. Scarcely had the party finished its ritual "election" of him for another five years, than a Chinese rocket on October 24th propelled a satellite on China's—and the developing world's—first foray to the moon.

Mr Hu must have watched the launch from Xichang in south-western China with bated breath. Only last month, Japan became the first Asian nation to send a satellite to orbit the moon. China had wanted to send its satellite, *Chang'e 1*, up in April but unspecified technical difficulties prevented that. The delay provided a chance for the launch to coincide with Mr Hu's political triumph (never in any doubt). Failure this time might even have put China behind India, which is hoping to launch a similar orbiter next year (as is America). Not since the 1970s has the moon received so much exploratory attention.

Chang'e 1 still has tricky manoeuvres to perform before China can relax. After orbiting earth for a few days, its thrusters will be fired to send it to the moon. The challenge will be getting it into orbit around the moon without it shooting off into space or crashing. Some of the early Soviet and American attempts to achieve the same feat in the 1950s and 1960s ended in disaster. *Chang'e 1* is due to enter lunar orbit on November 5th and thereafter begin its year-long task of mapping the moon in 3D, surveying its surface minerals and beaming back patriotic songs.

Back on earth, the party maintained its usual secrecy about the process involved in an extensive shuffle of the 25-strong Politburo. The changes were announced on October 22nd at the end of its five-yearly congress. Mr Hu briefly paraded the Politburo's new nine-man Standing Committee, the apex of power, before journalists. Two of its four new members, Xi Jinping (party chief of Shanghai) and Li Keqiang (party chief of Liaoning province), are seen as rival heirs-apparent to Mr Hu, who is likely to step down in 2012. They stood stiffly, took no questions and walked out in single file. Mr Hu said nothing about those they replaced, including his powerful vice-president, Zeng Qinghong.

China was somewhat more open over the launch of *Chang'e 1*. Unlike some of its earlier space endeavours, the event on October 24th was broadcast live. China wants to show that it has emerged as an independent space power. *Chang'e 1* is intended to be the first in a series of missions that will eventually take a Chinese astronaut to the moon. These include sending an unmanned rover to the lunar surface as well as sending a probe to collect surface samples and return them to earth.

The big question is when China will send a man there. Scientists involved have cited various years, usually between 2020 and 2024. In September Michael Griffin, the head of America's space agency, NASA, said he thought the Chinese would get to the moon before America returns. They have set their own target of 2020 for a manned landing. "I think when that happens, Americans will not like it. But they will just have to not like it," he said.

Any immediate prospects for space co-operation between America and China have dimmed since China's successful test in January of an anti-satellite missile. In America, this was widely seen as a threat to the country's dominance of space. Meanwhile China is forging closer space ties with Russia, which in 2009 is due to send a Chinese satellite



AFP

The sky's no longer the limit

to Mars.

But Vincent Sabathier of the Center for Strategic and International Studies in Washington, DC, says China is being careful not to rile America by talking of a space race. Despite Mr Griffin's remarks, he says NASA still thinks it has a 20-year lead in space technology. Jiao Weixin of Peking University says China would not have the technical ability to put a man on the moon for another 20 years, well beyond America's target return date. And it would be very expensive. "You can't just say that because America landed on the moon in the 1960s, we ought to do it too," says Mr Jiao. That, however, is the general idea.

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