

China launches first module for space station

September 29 2011

China took its first step towards building a space station on Thursday when it launched an experimental module ahead of National Day celebrations.

Tiangong-1, or "Heavenly Palace", took off on schedule shortly after 9:15 pm (1315 GMT) from the [Gobi desert](#) in China's northwest, propelled by a Long March 2F rocket, ahead of China's National Day on October 1.

The unmanned 8.5-tonne module will test a number of [space operations](#) as a preliminary step towards building a [space](#) station by 2020.

Chinese Premier Wen Jiabao was at the launch centre for the take-off, while President Hu Jintao watched from a space [flight control](#) centre in Beijing, the state Xinhua news agency said.

Ten minutes after launching, the Tiangong-1 separated successfully from its carrier rocket at a height of around 200 kilometres (125 miles) before opening its two solar panels, Xinhua said.

China sees its ambitious space programme as a symbol of its global stature and state newspapers devoted several pages to the launch, hailing it as a "milestone" for the country.

US experts, quoted by Chinese state media, were more reserved in their reaction to the launch.

"Tiangong-1 is the next step in China's slow-paced but steady effort to achieve human spaceflight capability," John Logsdon, a space policy expert at George Washington University, told Xinhua.

"By itself it is not a major step forward, but is important to China's demonstrating rendezvous and docking technologies," he said.

Tiangong-1, which has a two-year lifespan in space, will receive the unmanned Shenzhou VIII spacecraft later this year in what would be the first Chinese docking in space.

If that succeeds, the module will then dock with two other spacecraft -- [Shenzhou](#) IX and X -- in 2012, both of which will have at least one astronaut on board.

The technology for docking in space is hard to master because the two vessels, placed in the same orbit and revolving around Earth at some 28,000 kilometres per hour, must come together progressively to avoid destroying each other.

French researcher Isabelle Sourbes-Verger said that a correctly functioning docking system would put China "in a potential position to one day access the International [Space Station](#) (ISS)."

But she cautioned that this was not likely to happen in the next five years.

China, which has only been open to the world for some 30 years, is playing catch-up in the space arena.

Just like its first manned spaceflight in 2003, the planned space docking later this year will emulate what the Americans and Russians achieved in the 1960s.

China aims to finish its space station, where astronauts can live autonomously for several months as they do on the ISS or the former Russian Mir, by 2020.

Beijing began its manned spaceflight programme in 1990, after it bought Russian technology that enabled it to become the third country to send humans into space, after the former Soviet Union and the United States.

On its national day last year, China launched its second lunar probe, Chang'e-2, and the first Chinese probe destined for Mars is due to be launched by a Russian rocket this autumn.

It is unclear whether China plans to send humans to the moon, particularly after the United States said it would not return there.

But the official China Daily newspaper quoted Wu Ping, a spokeswoman for China's manned space programme, as saying that the Asian nation was doing "concept research and preliminary feasibility studies on manned moon landings."

She added there was currently no set timetable for such a landing.

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