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# France-China space cooperation Cardiospace mission launched

**Thursday 15 September, CNES's Cardiospace mission was launched from China's Jiuquan Satellite Launch Center aboard the new TianGong-2 orbital module. Cardiospace will be studying how the taikonauts' cardiovascular system adapts to microgravity conditions and is deconditioned on their return to Earth.**

Following TianGong-1 in 2011, the new TianGong-2 orbital module was launched Thursday 15 September from China's Jiuquan Satellite Launch Center, this time carrying a broader range of devices including Cardiospace, a joint effort of CNES and CMSEO/ACC (China Manned Space Engineering Office/Astronaut Center of China).

Cardiospace is designed to study how the cardiovascular system adapts during human spaceflight. Its results will of course benefit astronaut health but also public health, as cardiovascular diseases are the number one cause of mortality worldwide. CNES coordinated development of the instruments making up Cardiospace, in particular the Doppler laser and ultrasound scanner that will measure micro-circulation and macro-circulation.

Since mid-June, Cardiospace has been undergoing ground trials as part of a 180-day confinement experiment organized by ACC in Beijing and SISC (Space Institute of South China) in Shenzhen. It will be used on the orbital module for about one month by the two taikonauts assigned to fly on the ShenZhou-11 mission, which will be launching and then docking with TianGong-2 in mid-October.

This first mission for Cardiospace is set to yield a wealth of science data that could serve to determine new joint space missions between France and China, notably for China's future space station.

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