

Press Release

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State visit of President Macron to China In 2023, Chang'e 6 will deploy the French DORN instrument on the Moon to study the lunar exosphere CNES and CNSA also to investigate Earth's water cycle to gain new insights into climate change

Wednesday 6 November, on the occasion of President Emmanuel Macron's state visit to the People's Republic of China, CNES President Jean-Yves Le Gall and Zhang Kejian, Administrator of the China National Space Administration (CNSA), signed in the presence of Presidents Macron and Xi Jinping a joint statement covering two fields of investigation.

First, in 2023 China's Chang'e 6 lunar mission will fly the French DORN instrument proposed by the IRAP astrophysics and planetology research institute. DORN's science goals are to study the transport of volatiles through the lunar regolith and in the lunar exosphere and lunar dust. Earlier this year on 25 March at the Elysee Palace in Paris, CNES and CNSA had previously expressed their intention to work together on Chang'e 6. Chang'e is the lunar exploration programme being conducted by CNSA, which in particular landed the Chang'e 4 probe in January this year on the dark side of the Moon and set down the Yutu 2 lunar rover on its surface.

Second, in the field of Earth observation, the two agencies will pursue water cycle research together and jointly develop a satellite for this purpose. The satellite could include an advanced L-band interferometry radiometer developed by CNES for soil moisture and ocean salinity observations, and a high-resolution dual-frequency X-/ K_a -band interferometry radiometer from CNSA to measure snow water equivalent and surface freeze-thaw status. All of these data will be critical to better understanding climate change.

After today's signature, Jean-Yves Le Gall commented: "We are continuing to step up our partnership with China in space, as this new joint statement shows. Firstly, through scientific study of the Moon, the exploration of which is set to be the mantra for space missions in the coming decade; and secondly, through the study of Earth's water cycle to better understand climate change, one of the main challenges facing our planet. I thank President Macron and his Chinese counterpart for attending this signing ceremony, which confirms the importance of space cooperation in France and China's relationship."

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