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PRELIMINARY PLANNING AND POLICY PROPOSALS OF SCIENCE AND APPLICATION FOR THE CHINA'S SPACE STATION OPERATION

Abstract

After the successful completion of the Tiangong-1&2 laboratory missions, all the work in the construction stage of China's manned space station is in full swing. At present, the first batch of science programs have passed the selection and entered the engineering phase, it is planned to launch the core module around 2020, the experimental module I&II will be launched in the next two years, the entire construction work is expected to be completed around 2022, after that, the state of space station will be completely transferred into the operational stage. Space science and application research is the one of the core missions in the China's space station, it is planned to make full use of payloads inside and outside of the module to carry out comprehensive space science and application research. In the future, key fields of science and application in space station will focus on space life science and biotechnology, microgravity fluid physics and combustion science, space material science, fundamental physics, astronomy and new technology et al. In addition, this paper also puts forward some new proposals in the model of commercialization and international cooperation to improve the efficiency on-orbit operation of space station. China's space station will fully exploit the potential of science and technology transfer, and will efficiently use the scientific data to achieve greater comprehensive benefits in science, technology, economy and society.