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RESEARCH ON THE INFLUENCE OF CHINA'S COMMERCIAL SPACE FLIGHT ON THE
ECONOMIC AND SOCIAL DEVELOPMENT OF THE REGIONS ALONG THE BELT AND ROAD

Abstract

As China's commercial spaceflight industry develops rapidly, an increasing number of innovative commercial satellite plans have emerged. Especially the innovative projects representing by "Tiantong-01" high throughput satellite, "Gaofen-1" high-definition earth observation satellite constellation, "Beidou-3" navigational satellite, Quantum Experiments at Space Scale (QUESS), "Tianghe" gravitational-wave detection minisatellites by Tsinghua University, etc., which are gradually leading the development trend of commercial spaceflight for the regions along the Belt and Road. By conducting research on the development status and the future development plans of the commercial spaceflight technologies of China and countries along the Belt and Road, the paper finds out that there exists a huge discrepancy between the levels of commercial spaceflight of the said regions, with China, Russia and India ranked the top-tiers in commercial spaceflight; when considering the development potentials, China possesses the most powerful commercialization level. Meanwhile, starting from the four major application areas of communication, navigation, remote sensing and scientific experiments, the paper systemically analyses the changes to be brought by the innovative development of China's commercial spaceflight on the countries of the regions along the Belt and Road and their influences on economy, culture, transportation, tourism, science and technology and other social aspects. From the level of the systematic scientific thoughts of Qian Xuesen, this paper puts forward a development strategy for the integration of commercial spaceflight in the regions along the Belt and Road. By establishing different forms of commercial spaceflight cooperation organizations or enterprises, it aims to expand the participation methods and contents of the countries along the Belt and Road, push forward low-cost launches and wide applications of innovative applied satellite technologies, improve the construction level of aerospace infrastructure in the region along the Belt and Road, so as to promote the joint development of the societies and economies of various countries and build a community with shared future for mankind .