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Technical and Scientific Cooperation in Space Activities between the Republic of Belarus and the People's Republic of China

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Nowadays the Republic of Belarus and the People's Republic of China are increasingly stepping up efforts to improve their international activities. In recent decades these geopolitical actors have been engaged in productive bilateral cooperation at various levels and in various sectors.

This work will be devoted to the issue of scientific and technical cooperation between Belarus and China in the field of space activities.

The purpose of the study is to describe the main achievements of scientific and technical cooperation between China and Belarus in the previously mentioned field and to identify the prospects for further cooperation between these two countries.

Belarus and China have a long and fruitful history of scientific and technical cooperation in space. And this history began with the cooperation of the People's Republic of China and the Soviet Union, where Belarus was one of the subjects of the USSR. Referring to the influence of the Soviet Union on Chinese space activities, it can be said that the USSR provided significant support during the period of the emergence and initial development of the space sphere in China. That stage was the 1960s, when the USSR supported a young socialist state in all areas. However, in the 1970s, after a cooling of relations between these communist countries, official cooperation in space activities was discontinued. But the

gained experience and technology enabled the People's Republic of China to join the Space Powers Club: in the 1970s, China became the fifth country in the world which launched an artificial satellite into the Earth orbit [1, 2].

Considering the scientific and technical cooperation between China and Belarus as an independent State, we can note three main stages: 1992-2003, 2003-2009, 2010- present day. At the first stage of the development of scientific and technical cooperation, the scientific sphere of the Republic of Belarus was in a difficult situation, and joint projects with China were carried out mainly in the sphere of natural sciences, agriculture and physical and chemical research. At that time, China showed the increase in social and economic development and a rapid increase in patent activity, creating conditions for the expansion of its intellectual property. But in the Republic of Belarus, the system of commercialization of intellectual property was not sufficiently effective at the first stage of the cooperation. Some increase in scientific and technical cooperation between the two countries took place in 2004-2009. At that time the knowledge intensity of China's GDP reached 1.7%, and the Republic of Belarus successfully overcame crisis phenomena in the scientific and technical sphere, and these factors created the ground for deepening cooperation. At that stage, countries established contacts between individual institutions and companies, resulting in an accelerated exchange of scientific and technological developments. However, the most productive development of scientific and technical cooperation between the Republic of Belarus and China took place at the third stage (after 2010). Belarus and China stepped up the establishment of joint scientific and technological centers, established a new bilateral Commission on Science and Technology, which facilitated interaction between the countries. As a result, scientific and

technical cooperation was strengthened in priority areas, including space sphere [3].

In the early 2010s, at the highest level of the State Belarus decided to launch its own communication satellite. And the implementation of China's Space Program allowed the country to create the infrastructure capable of providing all stages of spacecraft creation and launch, so that the Chinese industrial corporation «The Great Wall» was able to win the closed tender for the creation of the Belarusian satellite. As a result, in autumn 2012 a contract with the corporation «Great Wall» for the supply of the National Satellite Communication and Broadcasting System of the Republic of Belarus was signed. A few years later, on January 15, 2016 satellite «BELINTERSAT-1» was launched into space from the Xichang Satellite Launch Center. It currently offers a full range of modern satellite services in Europe, Africa and Asia, and also provides a global coverage in the eastern hemisphere [4].

Another important achievement of scientific and technical cooperation between Belarus and China is the launch of the satellite «Bsusat-1» of the Belarusian State University. The satellite was successfully launched into an orbit on 29 October 2018. The satellite became the first university satellite in the Belarusian education system and the third Belarusian satellite in the earth orbit. «Bsusat-1» was launched in China from the Jiuquan Satellite Launch Center. At present, stable communication with this satellite is established and maintained, and its on-board systems are fully operational [5].

In view of the above, it is safe to say that the Republic of Belarus and the People's Republic of China have already achieved significant results in the joint development of the space sphere. Training, personnel exchange, joint development and launch of satellite are currently being implemented [6]. Scientific and technical cooperation in the field of space activities between Belarus and China has great prospects,

because China's enormous industrial power, the scientific potential of both countries, and Belarusian scientific experience in the field of space make it possible to achieve such level of interaction in the field of satellites that will necessarily improve the interaction between the two countries in all spheres, both quantitatively and qualitatively.

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