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Assuring a Safe, Secure, and Sustainable Space Environment for Space Activities (4)

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THE ACADEMIC DEVELOPMENT OF SPACE ACTIVITIES RESEARCH IN CHINA

**Abstract**

The report introduces several typical academic activities on the research of a Safe, Secure, and Sustainable Space Environment during the last year in China. Some new opinions or ideas were presented and may influence the view on Chinese space activities in the future.

Firstly, April 2014, Qian Xuesen Laboratory of Launch Vehicle Technology in China issues China's first integrated academic assessment on international space activities. The report, Space Situational Assessment Report, assessed the current situation and future trends of international space activities and presented some problems on peaceful exploration and utilization of outer space from foundation, strategy and environment. Inspired by traditional Chinese culture, the report presented a unique SSA assessment system. Secondly, November 2014, a conception of Space-based Skill Road was presented by China Aerospace Science Technology Consulting Co., Ltd. in 2nd Aerospace Internationalization Forum. The Space-based Skill Road is designed to support Chinese economic strategy of "Belt and Road", the Silk Road Economic Belt and the 21st Century Maritime Silk Road, by applications of space assets and technology. Next, January 2015, Space Traffic Management became a focus topic and was discussed by about 100 experts in an Aerospace Safe Management and Decision Academic Forum. It is the first academic discussion aimed at Space Traffic Management for space safety in China.

From above and other academic activities, many academic views are clearly presented, some of them are rapidly accepted and some of them are debated still. The paper analyzes the influence of some typical views in the future. For example, it is necessary to balance interests among Military Space, Civil Space and Commercial Space for a sustainable space environment. In China, more and more people have realized that space actors and stakeholders may have different background and identity for current international space activities. It will be a challenge for today's technical, legal and policy to balance different interest demands. At the same time, academic problems of Space Traffic Management have been researched on technical firstly. The opinion has been accepted by many Chinese experts that a growing number of spacecraft and space debris makes space traffic management necessary.

Today, some new academic views of space activities are developing in China. A part of them will change the future probably. And, all of them are trying to keep a safe, secure, and sustainable space environment for Our Common Future.