

30th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Assuring a Safe, Secure and Sustainable Space Environment for Space Activities (4)

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JAPANESE APPROACH TO ASSUME SUSTAINABILITY IN SPACE

Abstract

Japan has been a long supporter of the effort to promote International Code of Conduct. Ever since the European Union proposed the idea, Japan provided initiative to hold meeting at ASEAN Regional Forum to take up the issue of space sustainability and encouraged the dialogue to make sure that Asian countries increase the awareness of the importance of space sustainability.

However, the discussion on the International Code of Conduct is somewhat stalled, and there is no expectation that there will be an international consensus emerging from the discussion. So, each country, including Japan, should start thinking the alternative approaches to make sure that space sustainability can be achieved.

As a member of the Space Security Working Group in the National Space Policy Committee, I would like to discuss the proposed approach of Japan for space sustainability for increasing the resiliency of space system. This approach focusing on the concept of “Mission Assurance”. This concept is defined as “in the situation where the threats and risks for space assets are increasing, Japan shall develop a capability to provide continuous and stable services for the users by replacing alternative methods and recovering the functions of those space assets as soon as possible”.

The concept of Mission Assurance involves three major methods: 1) protective measures including developing international norms and rules; 2) increasing resilience of space systems; 3) reconstruction of the capability for mission continuity. For assuring implementation of these methods, Japanese government will focus on the five aspects: a) evaluation of the cost effectiveness of the resilience; b) forecasting future risks and threats; c) combined approach by using not only space-based means but also all other possible alternatives; d) cross-domain cooperation including public-private partnership; e) strengthening international cooperation.

Under the situation of the lack of international rules and norms, Japan will develop its resilience to make sure that it would guarantee the continuity of the services through space assets, which eventually increase the cost of attacks and reduce the incentives of attacks by other countries with malign intents.