

**PDC2017
Tokyo, Japan**

IAA-PDC-17-01-08

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PLANETARY DEFENSE ACTIVITY IN JAPAN

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Keywords: *Planetary Defense, Spaceguard, Japan*

ABSTRACT

The spaceguard or the planetary defense activities in Japan were initiated by the late Prof. Syuzo Isobe. He recognized the importance of the spaceguard around 1990 and established Japan Spaceguard Association (JSGA) in 1996. He also made great effort to construct Bisei Spaceguard Center (BSGC). It was a pity that he passed away in 2006 while he was still working for the spaceguard eagerly. Thus the activity for planetary defense in Japan was mainly done by JSGA and BSGC. There are 1m and 0.5m aperture telescopes in BSGC and asteroids and space debris are observed. These telescopes are operated by the members of JSGA.

Another important activity in Japan is space mission. In 2003 Hayabusa was launched. It was the first asteroid sample return mission in the world. In 2014, Hayabusa2, which is the follow-on mission of Hayabusa, was launched and it is on the way to its target asteroid. The main purposes of these missions are to develop new technologies for space missions and to study the origin and evolution of the solar system. However they are also important from the point of the planetary defense, because the target asteroids of both missions, Itokawa and Ryugu, are near Earth asteroids, which actually approach the Earth closely. We understood the

nature of a small S-type near Earth asteroid by Hayabusa mission and we will understand the nature of a small C-type asteroid by Hayabusa2 mission. Recently, we have started another activity, Asia-Pacific Asteroid Observation Network (APAON). This is a voluntary network to promote the observations of asteroids in Asia-Pacific region. Up to now observatories in about 10 countries are members of APAON. We would like to contribute the issues of planetary defense from both observations and space missions.

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