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**CURRENT ACTIVITIES AND THE FUTURE PLAN  
OF BISEI SPACEGUARD CENTER**

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**ABSTRACT**

Bisei Spaceguard Center (BSGC), located in Okayama Prefecture in Japan, is an astronomical observatory dedicated to spaceguard. The observatory was founded by collaboration between Japan Spaceguard Association (JSGA), Japan Space Forum (JSF), and JAXA in 2000. Observation and research works are made by JSGA, using two optical telescopes (1.0-meter and 0.5-meter). The design of these telescopes was optimized solely for survey and tracking of minor planets especially Near Earth Objects (NEOs) and space debris in orbit about the Earth (satellites, rocket bodies and fragments related to space missions). One of the two, 1.0-meter f/3.0 Cassegrain telescope has a wide field view of 72' x 148' with 4 of highly

sensitive CCDs (2048 x 4096 pixels each). The other 0.5-meter f/2.0 Cassegrain has a field view of 100' x 100' of a 2048 x 2048 pixels CCD.

The asteroid survey and follow-up observations are mainly performed by the 1.0-meter telescope. By 2016, the project team BATTeRS (Bisei Asteroid Tracking Telescope for Rapid Survey) has discovered 1,120 new asteroids given each provisional designation afterward, including two Apollos: 2007 YZ and (20826). As for follow-up observations, targets are chosen from the NEO Confirmation Page at IAU Minor Planet Center (MPC) according to the then sky condition or the moon phase. In a year, about 200 NEOs are observed and astrometric data are reported to MPC to contribute to the determination of their precise movements and orbits.

In 2013, an observation network APAON (Asia-Pacific Asteroid Observation Network) was suggested in order to activate observations in the Asia-Pacific region, and is actually composed of 27 organizations including BSGC (for more information, see the paper by Okumura et al.). Additionally, we have a plan to take part in the Gaia Follow-Up Network for Solar System Objects (Gaia-FUN-SSO). In order to detect and monitor threatening objects, it needs to collaborate with other observatories and organize a network for the ground-based observation.

In this paper, we will mention our current activities and future's view, and discuss how we can contribute to the NEO follow-up network.

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