

## Recent observational results and future plans in Bisei Spaceguard Center

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<http://www.spaceguard.or.jp/ja/index.html>

The evolution of the Earth has been much affected by asteroid and comet impacts. An impact of such an object turns out to be a threat for the human civilization. In order to avoid such impacts, the discovery and follow-up observations of near-Earth-objects (NEOs) are indispensable. We have been carrying out the observations of NEOs using three (1m, 50cm, and 25cm) optical telescopes in Bisei Spaceguard Center since 2000. From 2000 to 2006, we have discovered more than 300 asteroids, including an Apollo-type asteroid, (20826)=2000UV13.

For the 1m telescope, we have made improvements in the driving system in 2006 and cleaned its mirrors in 2007. After them, we have discovered an Apollo-type asteroid 2007YZ and more than 700 main-belt asteroids in this half year. About 300 among them were given provisional designations by the Minor Planet Center.

In addition to these discoveries, we think that the research activity like observations of physical properties of small bodies is also important. In 2007, the Spaceguard Research Center was organized for the promotion of the space-guard research activity. The light-curve observations of 1999JU3, the target asteroid of Hayabusa-2 mission, were carried out as one of the activities (Kawakami et al., in this meeting). We are also advancing the development of a new camera for the 1m telescope, by collaboration with Japan Space Forum and National Astronomical Observatory of Japan, with the assistance of Japan Aerospace Exploration Agency and Japan Spaceguard Association. It is designed to equip with a multi-band filter system that enables us to study the spectral-type classification and physical properties of NEOs and other small bodies.

In this Japan Geoscience Union Meeting, we introduce our recent observational activities and future plans in Bisei Spaceguard Center, mentioned above.