

Current Status and Prospect of GEONET, Japanese dense GNSS network

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GSI of Japan has operated domestic dense GNSS network (GNSS Earth Observation NETwork system: GEONET), which consisted of over 1,300 observation stations covering most region of Japan and control center at GSI of Japan, Ibaraki prefecture. Observation data and daily coordinates of each GEONET station are provided for surveyors or earth scientists and so on. GEONET data and products are used as infrastructure regarding precise positioning.

For keeping GEONET being infrastructure of precise positioning, it is indispensable to devote considerable efforts to maintenance work. In 2019, two huge typhoons (typhoon 15 category 4 and typhoon 19 category 5) impacted Kanto and Tohoku region and these typhoons damaged many GEONET stations. In this presentation, we will introduce maintenance work of GEONET through response to these typhoons.

Introducing new techniques regarding GNSS observation to GEONET is also important. GSI conducts investigation for implementation of multi-GNSS and 5th generation mobile communication system. We will mention these topics.