

## Activities of WG on DOIs in GGOS and Data DOI WG in GGOS Japan

\*Yusuke Yokota<sup>1</sup>, Basara Miyahara<sup>3</sup>, Toshimichi Otsubo<sup>4</sup>, Yasuhiro Murayama<sup>5</sup>, Hiroshi Munekane<sup>3</sup>, Tadashi Ishikawa<sup>2</sup>

1. Institute of Industrial Science, The University of Tokyo, 2. Hydrographic and Oceanographic Department, Japan Coast Guard, 3. Geospatial Information Authority of Japan, 4. Hitotsubashi University, 5. National Institute of Information and Communications Technology

GGOS is the framework that integrates various geodetic observation information such as GNSS, VLBI, SLR, DORIS, and gravity. The data, operating organizations, and international governing bodies under its umbrella are diverse. The quality and quantity of not only data but also raw data differ in each framework. For example, RINEX files, which are raw data of GNSS, are in MB order in one day even at a sampling rate of 1 Hz or more, but raw data of VLBI reaches the TB order which makes them difficult to save and distribute. How to manage and maintain a huge amount of data from such observation networks with different properties is a common issue in the current geosciences.

GGOS Japan established the Data DOI Working Group in 2019 to discuss the assignment of DOIs to data with the aim of proper distribution of these diverse data, objective evaluation and permanent management of the data. Also in 2019, the Working Group on DOIs was set up at GGOS, a superordinate organization of GGOS Japan. The agenda common to both WGs is to deal with the quality and quantity of different data and to deal with various situations that differ depending on the manager.

These WGs are discussing the future handling of geodetic data by large institutes (NASA GSFC, UNAVCO, GSI, ...). Since not only the quality of data but also the data management system and organizational guidelines are different in each organization, it is difficult to create rules that take all of these into consideration, so we are considering how to respond to each data quality. In the future, we aim to discuss the handling of data acquired by individuals and create a guideline in about two to three years after organizing the current issues.

What is important in both WGs is that data DOI alone is not enough to cover the differences, and a framework of data papers is needed in the future. Data paper publications must be important in the future, as the details, circumstances, and scientific validity will be the responsibility of the data manager / observer who understands the data most.

Keywords: GGOS, data DOI, data paper