

Topics GSI

GSI is working on new initiatives while respecting tradition. We hope that the following recent topics will make surveys and maps more accessible and useful in your daily life.

Publishing Emperor's Enthronement Commemorative Maps



GSI published a set of 1:10,000 commemorative topographic maps "CENTRAL TOKYO" on October 22, 2019, day of "Sokuirei-Seiden-no-gi," ceremony of the enthronement of His Majesty the Emperor. These commemorative maps were published to record the features of the metropolitan area of Tokyo, the capital of Japan, in the form of map as of the date of enthronement and to make the public more interested in geography and maps in general.

Origin of the Japanese Vertical Control Network was designated as a national important cultural property

The Origin of the Japanese Vertical Control Network was established as a national unified elevation survey reference in 1891. It plays an important role. Its historical and technological value was recognized and became the first national important cultural property in survey-related architecture.



150th anniversary of modern survey - Evolution of survey technologies



In the Meiji Era (1868-1912), surveys for publishing maps were limited to the operation of measuring the angles formed by triangulation points installed on mountains. Since 1965, the distance between two triangulation points has also been measured. At present, signals from GNSS satellites are used to conduct surveys in an accurate, safe and efficient manner. The year 2019 celebrated the 150th anniversary of the Japanese modern survey. Events were held to be known for people more about the history, roles and importance of the surveying and mapping.

近代測量150th

NPA President Award granted to GSI

The National Personnel Authority granted the "2019 NPA President Award" to the Geodetic Reference Division, Geodetic Dept., for having considerably contributed to safeguarding and managing the national land and establishing social safety and security through the installation and maintenance of geodetic control points for accurate positions (latitude and longitude) and elevation despite extreme environmental conditions on mountains and remote islands for 150 years since the start of the modern survey.



NPA President Ichimiya Nahomi handing the award certificate to the GSI representative

Natural Disaster Monument - An example of volcanic disaster on Sakurajima Island

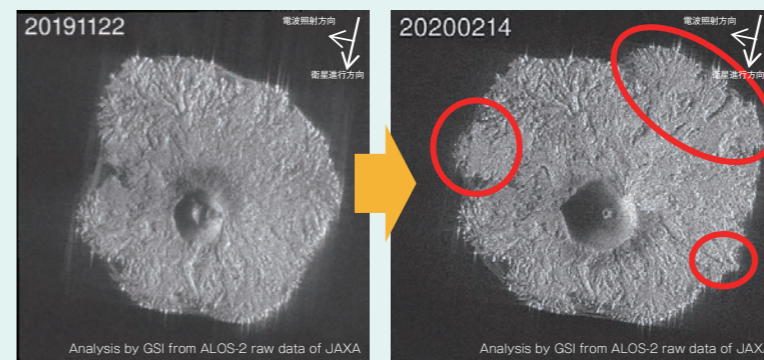


Natural disaster monuments on the Sakurajima Island

A torii gate mostly buried in volcanic products

The 1914 eruption almost buried a 3-meter torii gate within a day. The gate has been preserved up to today as a disaster monument. Our ancestors left these monuments as lessons to us.

Enlarging Nishinoshima Island monitored with satellite data



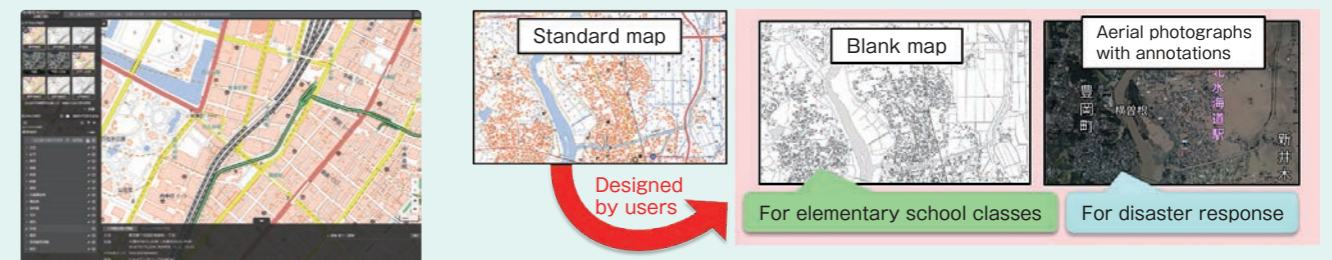
Images of Nishinoshima Island acquired by SAR satellite

SAR images acquired by the Advanced Land Observing Satellite-2 (ALOS-2) have unveiled that the Nishinoshima Island, which restarted erupting in December 2019, has been expanding due to emitting lava. Earth observing satellite data enable to monitor changes of the topography everywhere on earth.



https://www.gsi.go.jp/BOUSA/R1_nishinoshima.html

GSI Maps Vector - Map designing with more freedom



The GSI Maps Vector enables users to design desired maps on their demands with "vector tiles" which represent map data. Maps that are useful for school teachers and officials working for disaster response can be created without difficulty, such as blank maps and aerial photographs with annotations.

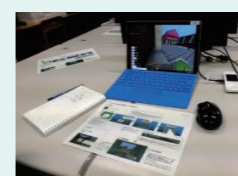
<https://maps.gsi.go.jp/vector/>



Support in geography education using computer games

GSI made an educational program based on an exploration-type computer game and made research on verification of its educational effect in order to encourage children to become more interested in geography and geology. Player has the mission to solve problems while moving in a virtual space in which school buildings and soil with geological layers are seen. In fact, GSI asked some children to play the game as educational support in order to transfer them knowledge in an efficient way.

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Education materials



Player explores the school premises in a virtual space while solving problems.