(1) Flood in Kazakhstan on 30 March, 2024 (GLIDE Number FL-2024-000039-KAZ)
On March 30, 2024, Kazakhstan experienced devastating flooding due to rising temperatures and torrential rain. According to ReliefWeb, more than 2,000 people were evacuated and more than 300 homes were flooded. This led to the mobilization of the army and military aviation units.

The National Center of Space Research and Technologies (NCSRT) of Kazakhstan made an Emergency Observation Request (EOR) to Sentinel Asia on 2 April. Among Data Provider Nodes (DPNs), JAXA, ISRO, TASA and MBRSC provided data. Among Data Analysis Nodes (DANs), JAXA and TASA provided their Value-Added Products (VAPs). Information on the latest response by Sentinel Asia is available at the link below.
https://sentinel-asia.org/EO/2024/article20240330KZ.html
Post-disaster satellite image (ALOS-2) provided by JAXA

Post-disaster satellite image (Resourcesat-2) provided by ISRO

Post-disaster satellite image (FORMOSAT-5) provided by TASA
A 7.4 magnitude quake struck Taiwan, the strongest in 25 years. CNN reported that the quake has caused landslides and collapsed structures. Thirteen people have died as a result, and more than 1,100 others were injured, with over 100 buildings damaged. The quake was followed by 29 aftershocks greater than a magnitude of 4.0 near the epicenter in east Taiwan until the next day, according to the United States Geological Survey (USGS). Tremors was felt across the island, including in Taipei.


TASA made an EOR to Sentinel Asia on 3 April. Among DPNs, JAXA and ISRO provided data. Among DANs, AIT, Institute of Geology, China Earthquake Administration (IGCEA), EOS and Tokyo Institute of Technology (Tokyo Teck), and MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

https://sentinel-asia.org/EO/2024/article20240403TW.html
Value-Added Product by IGCEA

Value-Added Product by EOS

Estimation of Ground and Building Damage Areas
-The 2024 Hualien Earthquake, Taiwan -

The change area (damage area) due to the earthquake on April 3, 2024, was estimated from the coherence difference values of the VN polarization image among the P-R data of ALOS-2 satellite. The data were obtained after the earthquake on April 4, 2024, and before the earthquake on October 19, 2023, and November 17, 2022. The coherence values of the pre- and post-earthquake pairs were subtracted from the coherence values of the pre-earthquake pairs, and the extent of the change area was expressed in multilevel values. The data for non-urban areas are marked by the DLR Urban Footprint data.

Value-Added Product by Tokyo Teck
Value-Added Product by MBRSC

Post-disaster satellite image (ALOS-2) provided by JAXA

Post-disaster satellite image (Resourcesat-2) provided by ISRO
Volcano eruption in Indonesia on 16 April, 2024 (GLIDE Number VO-2024-000046-IDN)

Mount Ruang volcano in Indonesia’s North Sulawesi Province erupted on 16 April. Reuters reported the eruption caused extensive damage, including falling rocks and volcanic ash. Over 800 people were evacuated and the airport in Manado, the provincial capital, was closed. [https://www.reuters.com/world/asia-pacific/indonesian-volcano-eruption-forces-evacuations-airport-closure-2024-04-18/](https://www.reuters.com/world/asia-pacific/indonesian-volcano-eruption-forces-evacuations-airport-closure-2024-04-18/)

The National Research and Innovation Agency (BRIN) made an EOR to Sentinel Asia on 19 April. This EOR was escalated to the International Disasters Charter. BRIN assumed the role of Project Manager for this Charter activation. Among DPNs, JAXA, CRISP, and ISRO provided data. Information on the latest response by Sentinel Asia is available at the following link: [https://sentinel-asia.org/EO/2024/article20240416ID.html](https://sentinel-asia.org/EO/2024/article20240416ID.html)

Post-disaster satellite image (ALOS-2) provided by JAXA

Post-disaster satellite image (TelEOS-1) provided by CRISP
Torrential rains and flash floods occurred in Pakistan from 12 to 16 April. ReliefWeb reported that the disaster caused damage to the wheat harvest, infrastructure, and homes, and led to a loss of at least 50 lives.

https://reliefweb.int/report/pakistan/pakistan-flash-floods-flash-update-no1-17-april-2024

The Japan International Cooperation Agency (JICA) made an EOR to Sentinel Asia on 19 April. Among DPNs, JAXA, ISRO and TASA provided data. Among DANs, JAXA, AIT MBRSC and TASA provided its VAPs. Information on the latest response by Sentinel Asia is available at the following link:

https://sentinel-asia.org/EO/2024/article20240414PK.html
Value-Added Product by MBRSC

Value-Added Product by TASA

Post-disaster satellite image (ALOS-2) provided by JAXA
(5) GLOF at Birendra Lake in Nepal on 21 April, 2024 (GLIDE Number FL-2024-000052-NPL)
A glacial lake outburst flood (GLOF) occurred in the lower reaches of Birendra Lake on the Manaslu Glacier in Nepal on 21 April. According to Khabarhub, regional authorities have issued a warning to residents in the lower reaches.
https://english.khabarhub.com/2024/21/351756/

The Department of Hydrology and Meteorology (DHM), Ministry of Energy, Water Resources and Irrigation of Nepal made an EOR to Sentinel Asia on 22 April. Among DPNs, ISRO provided data. Information on the latest response by Sentinel Asia is available at the link below.
https://sentinel-asia.org/EO/2024/article20240421NP.html
Post-disaster satellite image (Resourcesat-2) provided by ISRO

(6) Rain, Mudflow, and Mudslide in Kyrgyz on 20 April, 2024 (GLIDE Number FL-2024-000053-KGZ)

Heavy rains have affected a wide area in Kyrgyz since 20 April, with mudflows damaging houses in the Jalal-Abad region, according to news agency 24.kg.

https://24.kg/english/292251_Mudflows_flood_almost_50_courtyards_in_Suzak_district/

The Central Asian Institute of Applied Geosciences (CAIAG) made an EOR to Sentinel Asia on 22 April. Among DPNs, JAXA, ISRO and TASA provided data. Among DANs, JAXA and MBRSC provided its VAPs. Information on the latest response by Sentinel Asia is available at the link below.

https://sentinel-asia.org/EO/2024/article20240420KG.html

Value-Added Product by MBRSC
Post-disaster satellite image (ALOS-2) provided by JAXA

Post-disaster satellite image (EOS-04) provided by ISRO

Post-disaster satellite image (FORMOSAT-5) provided by TASA
2. How to send an Emergency Observation Request

JPT member organizations are entitled to send an Emergency Observation Request (EOR) for disasters in the Asia-Pacific region. Please refer to https://sentinel-asia.org/e-learning/Emergency_Observation_Request.html.

EOR Order Desk:
Asian Disaster Reduction Center (ADRC)
HP: http://www.adrc.asia/
E-mail: sarequest@adrc.asia
FAX: +81-78-262-5546,
TEL: +81-78-262-5540

3. Using Sentinel Asia Operation System, OPTEMIS

Sentinel Asia launched a new operation system, OPTEMIS. Please refer to the website on how to create an account for OPTEMIS.
https://sentinel-asia.org/e-learning/Emergency_Observation_Request.html

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Sentinel Asia Project Office
Satellite Applications and Operations Center (SAOC)
Japan Aerospace Exploration Agency (JAXA)
Ochanomizu Sola City, 4-6 Kandasurugadai, Chiyoda-ku, Tokyo 101-8008 Japan
E-mail: Z-SENTINEL.ASIA@ml.jaxa.jp