## \*\* July 2024 News from Sentinel Asia Project Office \*\*

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## Topics:

- 1. [News] Emergency Observation of Disasters (as of 23 July)
- 2. [News] JAXA's New Radar Satellite "ALOS-4" that will serve Sentinel Asia successfully launched!
- 3. How to send an Emergency Observation Request
- 4. Using Sentinel Asia Operation System, OPTEMIS

- 1. [News] Emergency Observation of Disasters (as of 23 July)
- (1) Mudflow and Mudslide in Kyrgyz on 24 June, 2024 (GLIDE Number MS-2024-000101-KGZ) According to CGTN, 5 people died as a result of a mudflow triggered by heavy rainfall in Nookat in southern Kyrgyzstan's Osh region, the press service of the country's Ministry of Emergency Situations reported. Two other missing persons are reported to have been swept away by the mudslide.

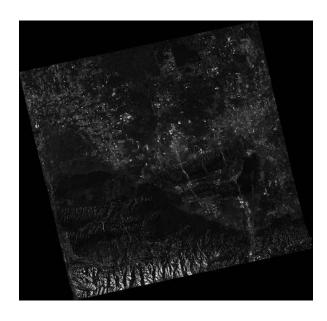
https://news.cgtn.com/news/2024-06-29/news-1uPGGL2hbaM/p.html

The Central Asian Institute of Applied Geosciences (CAIAG) made an Emergency Observation Request (EOR) to Sentinel Asia on 26 June. This EOR was escalated to the International Disasters Charter. AIT assumed the role of Project Manager for this Charter activation. Among Data Provider Nodes (DPNs) JAXA, ISRO and TASA provided data. Among Data Analysis Nodes (DANs), JAXA and MBRSC provided their Value-Added Products (VAPs).

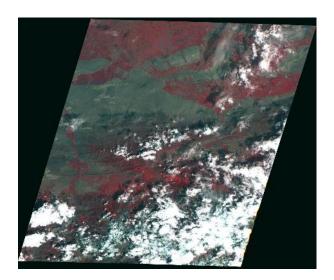
Information on the latest response by Sentinel Asia is available at the link below. <a href="https://sentinel-asia.org/EO/2024/article20240624KG.html">https://sentinel-asia.org/EO/2024/article20240624KG.html</a>



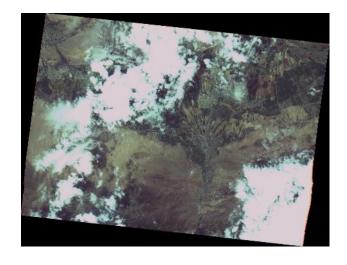
Value-Added Product by MBRSC



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

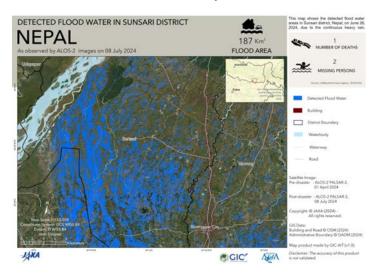
(2) Flood in Nepal on 26 June, 2024 (GLIDE Number FL-2024-000103-NPL)
On 26 June, 2024, heavy rainfall triggered landslides and flash floods in Nepal.
US News reported that this resulted in the loss of at least 11 lives. Additionally, 9 people were killed by lightning strikes during the same period. Landslides swept away 3 houses in the Lamjung district, west of Kathmandu, claiming 4 lives, including 2 children. In the Morang district, southeast of the Nepali capital, flooding caused the deaths of 4 people. Three others lost their lives in landslides in Kaski (western Nepal) and Okhaldhunga (eastern Nepal).

https://www.usnews.com/news/world/articles/2024-06-26/heavy-rains-in-nepal-kill-20-in-two-days-amid-landslides-lightning-strikes

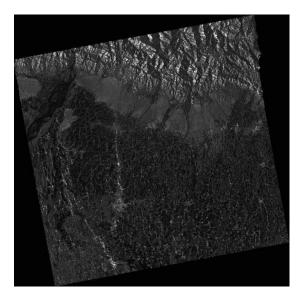
The Department of Hydrology and Meteorology (DHM), Ministry of Energy, Water Resources and Irrigation made an EOR to Sentinel Asia on 28 June. Among DPNs, JAXA, ISRO and MBRSC provided data. Among DANs, JAXA, MBRSC and AIT provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below. https://sentinel-asia.org/EO/2024/article20240626NP.html



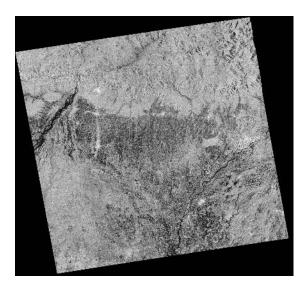
Value-Added Product by MBRSC



Value-Added Product by AIT



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



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



Post-disaster satellite image (KhalifaSat) provided by MBRSC

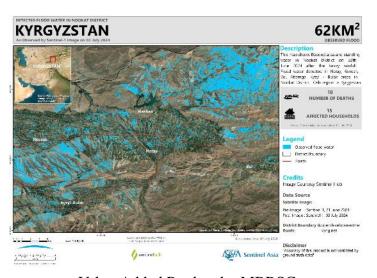
(3) Flood and Mudflow in Nookat district, Kyrgyz on 28 June, 2024 (GLIDE Number MS-2024-000101-KGZ)

According to ReliefWeb, on 28 June, between 16:00 and 16:30, heavy rains in the mountainous area triggered floods in 3 villages of the Nookat district in the Osh region. The floods caused significant damage to village infrastructure and affected 23 households. Tragically, 5 children lost their lives as a result of the mudflows.

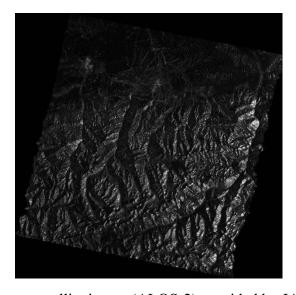
https://reliefweb.int/report/kyrgyzstan/kyrgyzstan-flood-06-2024-floods-osh-4-2024-06-29

CAIAG made an EOR to Sentinel Asia on 1 July. This EOR was escalated to the International Disasters Charter. AIT assumed the role of Project Manager for this Charter activation. Among DPNs, JAXA, GISTDA, MBRSC and TASA provided data. Among DANs, JAXA and MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

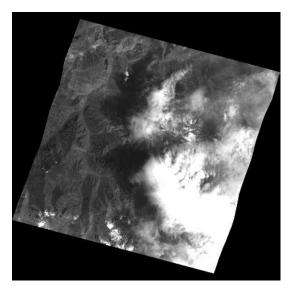
https://sentinel-asia.org/EO/2024/article20240628KG.html



Value-Added Product by MBRSC



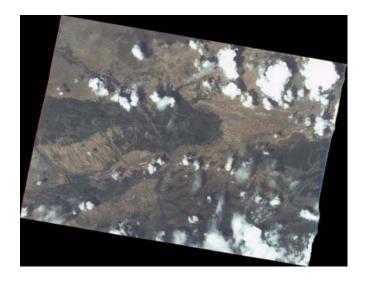
Post-disaster satellite image (ALOS-2) provided by JAXA



Post-disaster satellite image (THEOS1) provided by GISTDA



Post-disaster satellite image (KhalifaSat) provided by MBRSC



Post-disaster satellite image (FORMOSAT-5) provided by TASA

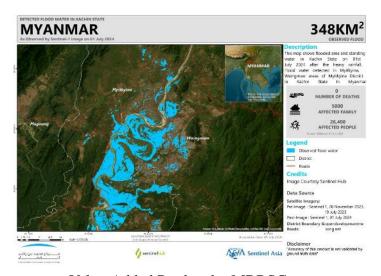
(4) Flood in Kachin State, Myanmar on 1 July, 2024 (GLIDE Number <u>FL-2024-000104-MMR</u>) On 1 July, 2024, severe flooding occurred in Kachin state, Myanmar.

The Star reported that the disaster displaced about 31,000 people. The flood victims came from 6,320 households, and the areas affected by the floods included Kachin State and the Sagaing, Magway and Mandalay regions. At least 23,298 people were affected in Kachin, 7,478 in Sagaing, 146 in Magway, and 56 in Mandalay. The disaster management department has established a total of 128 relief shelters in the affected areas, with 73 of them in Kachin, 48 in Sagaing, 3 in Magway, and 4 in Mandalay.

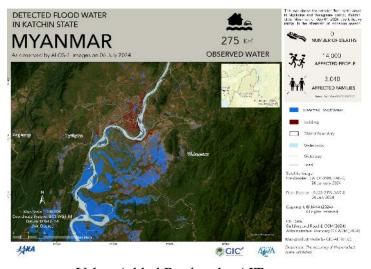
https://www.thestar.com.my/aseanplus/aseanplus-news/2024/07/11/some-31000-evacuated-asmonsoon-floods-devastate-myanmar

The Myanmar Information Management Unit (MIMU) made an EOR to Sentinel Asia on 1 July. Among DPNs, JAXA and CRISP provided data. Among DANs, JAXA, MBRSC, AIT, IWM and EOS provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

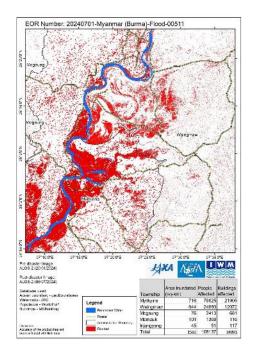
https://sentinel-asia.org/EO/2024/article20240701MM.html



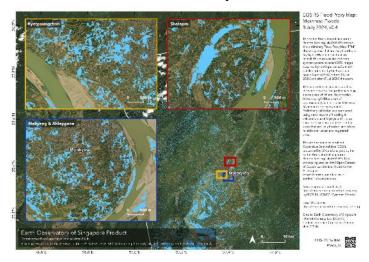
Value-Added Product by MBRSC



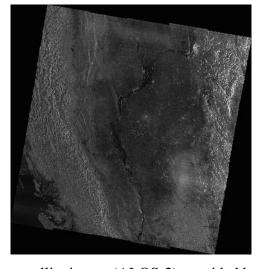
Value-Added Product by AIT



Value-Added Product by IWM



Value-Added Product by EOS



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



Post-disaster satellite image (TelEOS-1) provided by CRISP

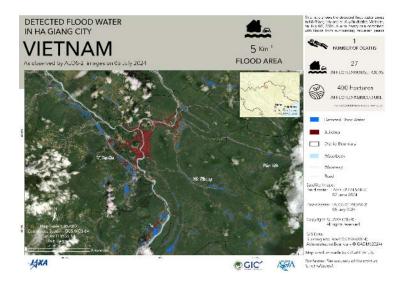
(5) Flood and Landslide in Northern Vietnam on 3 July, 2024 (GLIDE Number <u>FL-2024-000106-VNM</u>)

ReliefWeb reported that on 2 and 3 July, heavy rainfall and strong winds hit the northern and southern regions of Vietnam, causing floods and triggering landslides, resulting in casualties and damage. The worst-hit areas are An Giang, Lào Cai, Lang Son, Thái Nguyên and Tian Giang. According to the ASEAN Disaster Information Network (ADINet), 1 person died due to a severe weather-related incident while 420 people were affected and 105 houses were damaged (1 of them destroyed).

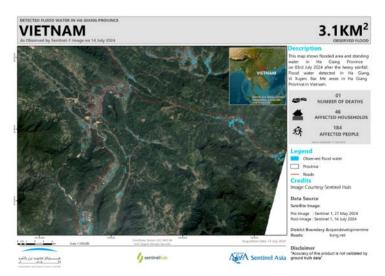
https://reliefweb.int/report/viet-nam/vietnam-severe-weather-floods-and-landslides-adinet-vmd-echo-daily-flash-04-july-2024

The Ministry of Natural Resources and Environment (MONRE) made an EOR to Sentinel Asia on 3 July. Among DPNs, JAXA and ISRO provided data. Among DANs, JAXA, AIT and MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

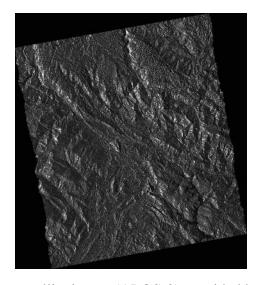
https://sentinel-asia.org/EO/2024/article20240703VN.html



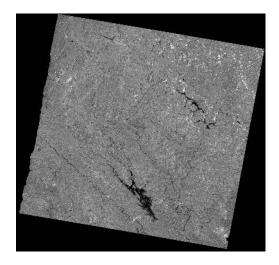
Value-Added Product by AIT



Value-Added Product by MBRSC



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



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

(6) Flood in Gandaki Province, Nepal on 6 July, 2024 (GLIDE Number <u>FL-2024-000107-NPL</u>) Floods in Gandaki Province, Nepal, on 6 July, 2024, caused significant destruction. According to The Kathmandu Post, incessant monsoon rains have wreaked havoc in various places across the country. The floods and landslides triggered by heavy rains over the past 24 hours destroyed several houses while vehicular movement was disrupted on major highways and road sections. Gandaki Province has been the hardest hit by monsoon-induced disasters, with at least 7 people killed.

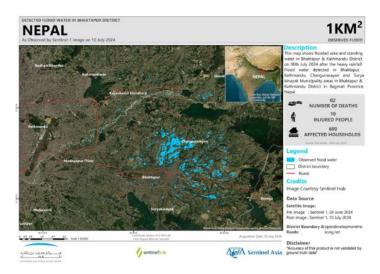
https://kathmandupost.com/national/2024/07/07/floods-landslips-cause-havoc-across-country

DHM made an EOR to Sentinel Asia on 7 July. Among DPNs, JAXA, TASA and GISTDA provided data. Among DANs, JAXA, AIT and MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

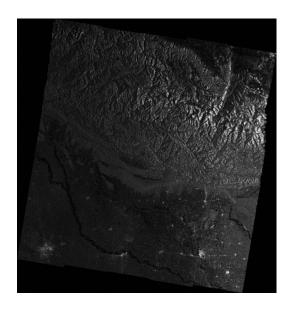
https://sentinel-asia.org/EO/2024/article20240706NP.html



Value-Added Product by AIT



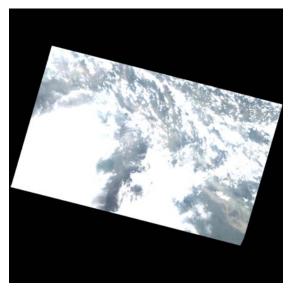
Value-Added Product by MBRSC



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



Post-disaster satellite image (FORMOSAT-5) provided by TASA



Post-disaster satellite image (THEOS1) provided by GISTDA

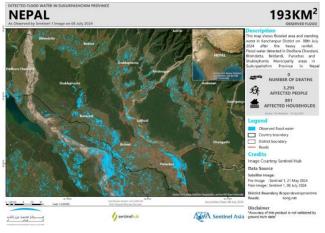
(7) Flood in Western Region, Nepal on 7 July, 2024 (GLIDE Number FL-2024-000108-NPL)

The Himalayan reported that over 1,600 people were affected due to floods in Kanchanpur. Incessant rain-triggered floods submerged some settlements in Kanchanpur. According to the District Police Office, Kanchanpur, most of the areas have been affected by the flood. Three settlements of Dodhara Chandani municipality-10 have been inundated after the Mahakali and Jogbuda rivers overflowed into the settlements. Kutiyakabhar of Jogbuda and Shanti tole and Lisani tole of Wari have been inundated. Similarly, Bhimdutta municipality, Bedkot, Shuklaphanta, Krishnapur municipality and most of the settlements in the southern region of Kanchanpur have been flooded.

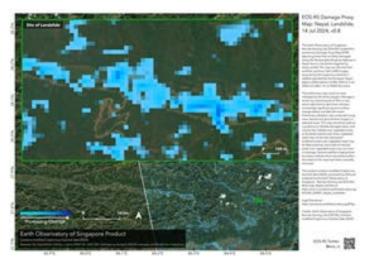
https://thehimalayantimes.com/nepal/over-1600-people-affected-due-to-floods-in-kanchanpur

DHM, Ministry of Energy, Water Resources and Irrigation made an EOR to Sentinel Asia on 8 July. This EOR was escalated to the International Disasters Charter. ICIMOD assumed the role of Project Manager for this Charter activation. Among DPNs, JAXA and ISRO provided data. Among DANs, MBRSC and EOS provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

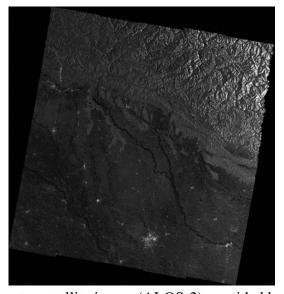
https://sentinel-asia.org/EO/2024/article20240707NP.html



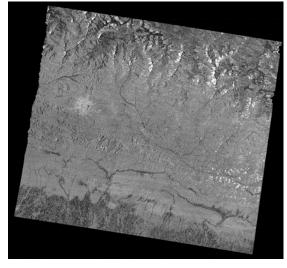
Value-Added Product by MBRSC



Value-Added Product by EOS



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

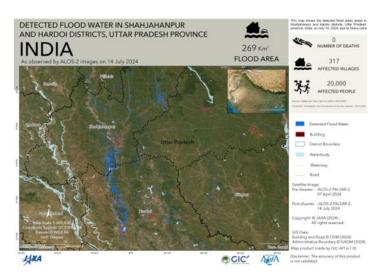


Post-disaster satellite image (EOS-04) provided by ISRO

(8) Flood in Uttar Pradesh of India on 10 July, 2024 (GLIDE Number FL-2024-000109-IND) NDTV reported that the flood situation in Uttar Pradesh, India, on 10 July, 2024, was severe. More than 600 villages across 12 districts were affected by the floods. Nineteen people lost their lives in rain-related incidents within a 24-hour period. The casualties included 16 individuals struck by lightning, 2 who drowned, and 1 who died from a snake bite. <a href="https://www.ndtv.com/india-news/flood-in-over-600-villages-in-up-19-killed-in-rain-related-incident-6077680">https://www.ndtv.com/india-news/flood-in-over-600-villages-in-up-19-killed-in-rain-related-incident-6077680</a>

ISRO made an EOR to Sentinel Asia on 11 July. Among DPNs, JAXA and GISTDA provided data. Among DANs, JAXA, AIT and MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below.

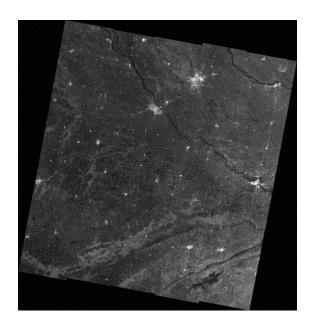
https://sentinel-asia.org/EO/2024/article20240710IN.html



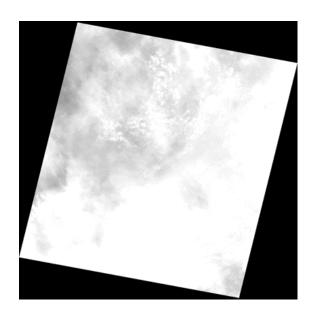
Value-Added Product by AIT



Value-Added Product by MBRSC



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



Post-disaster satellite image (THEOS1) provided by GISTDA

(9) Flood and Landslide in Vietnam on 14 July, 2024 (GLIDE Number <u>FL-2024-000111-VNM</u>) On July 14, 2024, Vietnam experienced severe weather conditions that led to flooding and landslides. VNEXPRESS said that Phu Quoc City was heavily affected by rainfall reaching 100-120 mm, causing significant flooding. The heavy rain started on 14 July and continued until the morning of next day.

https://vnexpress.net/mua-tu-khuya-toi-sang-phu-quoc-ngap-thanh-song-4769814.html

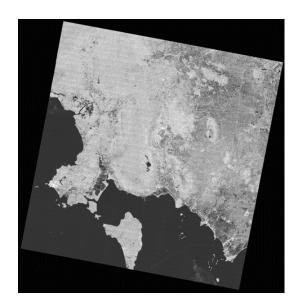
MONRE made an EOR to Sentinel Asia on 15 July. Among DPNs, ISRO and TASA provided data. Among DANs, MBRSC provided their VAPs.

Information on the latest response by Sentinel Asia is available at the link below.

https://sentinel-asia.org/EO/2024/article20240714VN.html



Value-Added Product by MBRSC



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



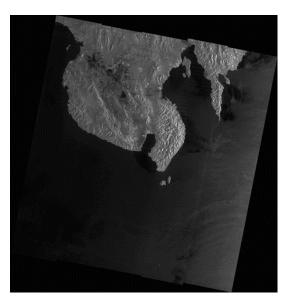
Post-disaster satellite image (FORMOSAT-5) provided by TASA

(10) Flood in Mindanao Island, Philippines on 15 July, 2024 (GLIDE Number <u>FL-2024-000112-PHL</u>)

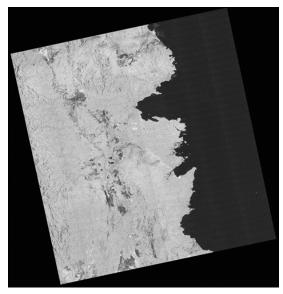
According to CRISIS 24, heavy rainfall associated with the southwest monsoon struck, triggering widespread flooding and landslides across parts of Mindanao. As of July 15, authorities reported 2 weather-related fatalities, 1 in Northern Mindanao and 1 in Davao Region, with 2 others injured and 1 missing. More than 54,000 people were affected by the severe weather across Bangsamoro Autonomous Region in the Muslim Mindanao, Davao, Northern Mindanao, and Soccsksargen regions. About 17,800 people were displaced and at least 73 homes were damaged.

https://crisis24.garda.com/alerts/2024/07/philippines-disruptions-ongoing-due-to-flooding-and-landslides-across-parts-of-mindanao-island-as-of-july-15

The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) made an EOR to Sentinel Asia on 15 July. Among DPNs, JAXA and ISRO provided data. Information on the latest response by Sentinel Asia is available at the link below. <a href="https://sentinel-asia.org/EO/2024/article20240715PH.html">https://sentinel-asia.org/EO/2024/article20240715PH.html</a>



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



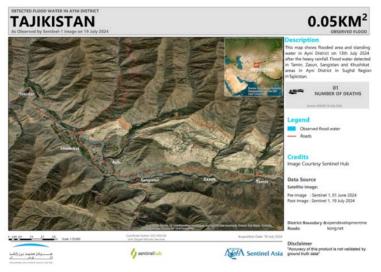
Post-disaster satellite image (EOS-04) provided by ISRO

(11) Flood and Mudflow in Tajikistan on 13 July, 2024 (GLIDE Number MS-2024-000114-TJK) Asia Plus said on the evening of 13 July that heavy rains caused mudflows on the territory of the village of Iskodar, Ayni district, Sughd region in Tajikistan. Mudflows that descended on the territory of the village of Pasrud in the same district blocked the inter-settlement road. Also, on 13 July at 16:00, mudflows descended on the territory of Kosatarosh, Shing, Loik Sherali and Voru in the suburbs of Panjakent.

"The mud mass damaged local roads, as well as agricultural land and power lines. There are no casualties," the Emergency Situations Committee noted.

https://vox.today/57419/jitelnica-aininskogo-raiona-pogibla-v-rezyltate-shoda-selevogo-potoka-v-sele-iskodar/

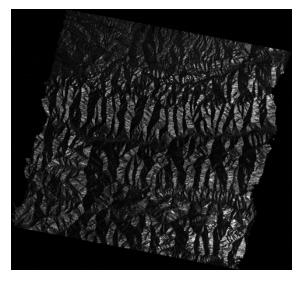
CAIAG made an EOR to Sentinel Asia on 15 July. Among DPNs, JAXA, TASA and ISRO provided data. Among DANs, JAXA, MBRSC and AIT provided their VAPs. Information on the latest response by Sentinel Asia is available at the link below. <a href="https://sentinel-asia.org/EO/2024/article20240713TJ.html">https://sentinel-asia.org/EO/2024/article20240713TJ.html</a>



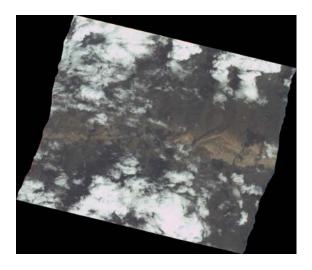
Value-Added Product by MBRSC



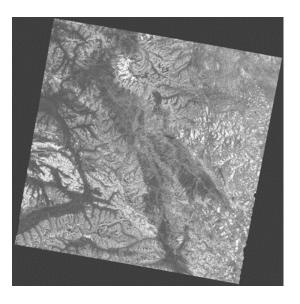
Value-Added Product by AIT



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



Post-disaster satellite image (FORMOSAT-5) provided by TASA



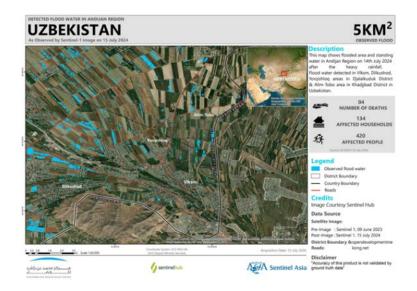
Post-disaster satellite image (EOS-04) provided by ISRO

(12) Flood and Mudflow in Uzbekistan on 14 July, 2024 (GLIDE Number MS-2024-000113-UZB) According to KPACHAR BECHA, the bridge collapsed due to the erosion of the bridge base as a result of mudflows in the village of Yorkishlok in the Andijan region of Uzbekistan, the press service of the administration of the Khojaabad district of the region reported on 14 July. The bridge connected the Khojaabad and Jalakuduk districts of the Andijan region. It was specified that there were no casualties.

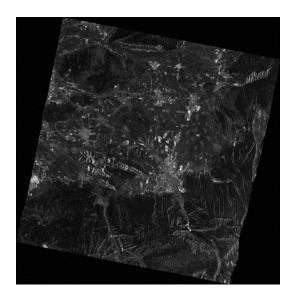
https://rossaprimavera.ru/news/c4a313c3

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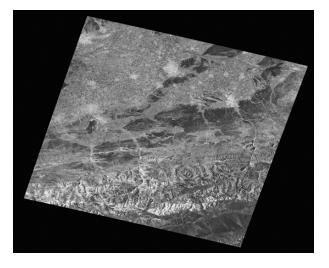
https://sentinel-asia.org/EO/2024/article20240714UZ.html



Value-Added Product by MBRSC



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



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

(13) Flood and Mudflow in Kyrgyz on 14 July, 2024 (GLIDE Number MS-2024-000115-KGZ) According to ASTANA TIMES, a mudflow, which occurred on 14 July, claimed the lives of 5 people and caused extensive damage in Osh city and the Osh region. The settlements of Mady, Datka and Bash-Bulak were affected, with 642 residential buildings, 4 schools, a kindergarten, 2 hospitals, a museum, and a first aid station being flooded. In Osh city, 146 residential buildings and a kindergarten suffered damage.

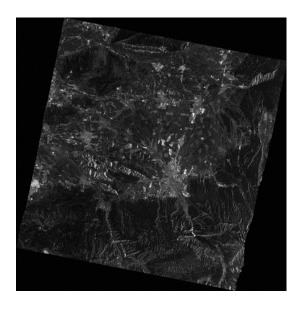
 $\underline{https://astanatimes.com/2024/07/kazakhstan-sends-40-tons-of-humanitarian-aid-to-kyrgyz-republic-after-mudflows/}$ 

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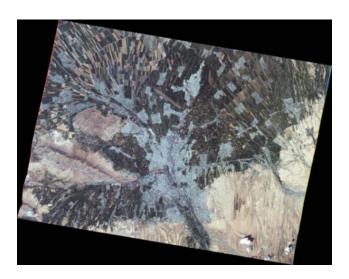
Information on the latest response by Sentinel Asia is available at the link below. <a href="https://sentinel-asia.org/EO/2024/article20240714KG.html">https://sentinel-asia.org/EO/2024/article20240714KG.html</a>



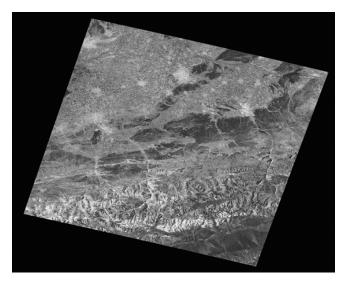
Value-Added Product by MBRSC



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



Post-disaster satellite image (FORMOSAT-5) provided by TASA



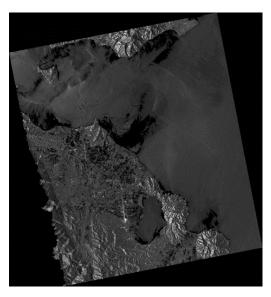
Post-disaster satellite image (EOS-04) provided by ISRO

(14) Flood and Landslide in Philippines on 18 July, 2024 (GLIDE Number FL-2024-000112-PHL) ReliefWeb reported the Southwest Monsoon has affected 573,000 people (118,000 families) across 7 regions, 17 provinces, and 53 cities/municipalities. There have been 349,000 displacements, and 53 evacuation centers were activated. The disaster resulted in 7 fatalities, 2 injuries, and 1 missing person. Additionally, 133 houses were damaged, and 71 road sections, 5 bridge sections, and 1 seaport were affected. Power and water supplies were disrupted in several areas, and agricultural damage is estimated at \$364,000.

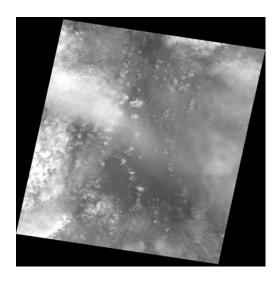
https://reliefweb.int/report/philippines/philippines-flood-crisis-situation-report-update-23rd-july-2024

The Philippine Space Agency (PhilSA) made an EOR to Sentinel Asia on 23 July. Among DPNs, JAXA and GISTDA provided data.

Information on the latest response by Sentinel Asia is available at the link below. <a href="https://sentinel-asia.org/EO/2024/article20240718PH.html">https://sentinel-asia.org/EO/2024/article20240718PH.html</a>



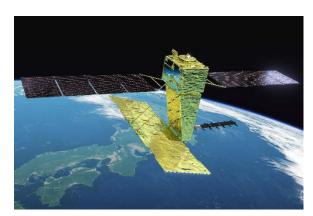
Post-disaster satellite image (ALOS-2) provided by JAXA



Post-disaster satellite image (THEOS1) provided by GISTDA

2. [News] JAXA's New Radar Satellite "ALOS-4" that will serve Sentinel Asia successfully launched!

JAXA launched its new satellite, "Advanced Land Observing Satellite-4 (ALOS-4)," or "DAICHI-4," onboard the third H3 Launch Vehicle from the Tanegashima Space Center on July 1, 2024 (JST). This new satellite carries L-band Synthetic Aperture Radar (SAR), like its predecessor "ALOS-2" but with enhanced capability. Although the resolution is the same as that of ALOS-2, the swath of ALOS-4 is much wider, allowing it to observe a much larger area of the surface of the Earth in a single acquisition. Its swath is 200 km with 3 m, 6 m, and 10 m resolution in Stripmap mode, and 700 km with 25 m resolution in ScanSAR mode. The satellite entered the initial functional verification operations phase of about 3 months to confirm the functionality of its onboard equipment. From 2025, ALOS-4 will move into the nominal phase and start providing data to Sentinel Asia. ALOS-4 will contribute to Sentinel Asia by taking advantage of these merits to observe and monitor disasters worldwide including in the Asia-Pacific region.



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3. 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 <a href="https://sentinel-asia.org/e-learning/Emergency\_Observation\_Request.html">https://sentinel-asia.org/e-learning/Emergency\_Observation\_Request.html</a>

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 

## 4. 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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