
2. JAXA activities

2.1 Activities involving earth observation satellites

2.1.1 Satellite image utilization in disaster management

JAXA established the Disaster Management Support Systems Office (in the Satellite Applications and Promotion Center) to support disaster countermeasure activities involving the Advanced Land Observing Satellite “Daichi” as well as observation data acquired by overseas satellites. JAXA also plans the utilization of Daichi and related developments based on experience of operating the satellite.

Domestically, JAXA strives to highlight the role of earth observation satellites in disaster prevention in conjunction with related institutions, including national government ministries, agencies and local governments. Internationally, JAXA is a member of the International Charter, Space and Major Disaster (Disaster Charter), which provides satellite data to users in the event of large-scale disasters, play a particular role as the secretariat of Sentinel Asia — an international collaborative project organized to observe natural disasters in the Asia-Pacific region.

The ALOS Analysis Research Team of the Earth Observation Research Center in Tsukuba analyzes satellite data in conjunction with the Disaster Management Support Systems Office in the event of a disaster in addition to implementing earth observation data analyses at operational basis.

When the Great East Japan Earthquake struck, JAXA immediately planned emergency observations using the Daichi, and asked the Disaster Charter and Sentinel Asia to conduct intensive emergency observation of the affected areas occurred. The huge amounts of data collected and the results of related analysis provided a comprehensive overview of the massive disaster area and the damage sustained of the massive disaster area.

The observations conducted by Daichi, the Disaster Charter and Sentinel Asia are summarized in Table 2.1-1.

Table 2.1-1 Observations conducted by Daichi, the Disaster Charter and Sentinel Asia (March 12, 2011, to March 24, 2011)

Observation date	JAXA/ overseas satellites	Miyako	Kamaishi	Minamisanriku	Onagawa, Oshika Peninsula	Ishinomaki, Shiogama, Higashimatsushima	Sendai	Sendai Airport	Watari, Torinoumi	Soma	Fukushima nuclear plant
March 12	Japan (JAXA)					LANDSAT-7	AVNIR-2 PRISM	AVNIR-2 PRISM			
	Overseas	LANDSAT-7 WorldView-2	LANDSAT-7 WorldView-2 RADARSAT IKONOS	LANDSAT-7 SPOT-5 WorldView-1 WorldView-2 FORMOSAT-2	LANDSAT-7 SPOT-5 GeoEye RapidEye WorldView-1 WorldView-2 FORMOSAT-2 TerraSAR-X THEOS	LANDSAT-7 SPOT-5 RapidEye WorldView-2 FORMOSAT-2 TerraSAR-X RADARSAT IKONOS THEOS	AVNIR-2 PRISM	LANDSAT-7 SPOT-5 WorldView-2 IKONOS TerraSAR-X RADARSAT THEOS	LANDSAT-7 SPOT-5 IKONOS WorldView-1 WorldView-2 TerraSAR-X RapidEye TerraSAR-X RADARSAT THEOS	LANDSAT-7 SPOT-5 IKONOS WorldView-1 WorldView-2 TerraSAR-X RapidEye FORMOSAT-2 TerraSAR-X RADARSAT THEOS	LANDSAT-7 SPOT-5 IKONOS WorldView-1 WorldView-2 FORMOSAT-2 TerraSAR-X RapidEye Quickbird
March 13	Japan (JAXA)						PALSAR	PALSAR	PALSAR	PALSAR	PALSAR
	Overseas	SPOT-5 RapidEye LANDSAT-5 THEOS	SPOT-5 RapidEye LANDSAT-5 THEOS	SPOT-5 RapidEye LANDSAT-5 EO-1 FORMOSAT-2 THEOS GeoEye	SPOT-5 TerraSAR-X RapidEye LANDSAT-5 WorldView-2 EO-1 FORMOSAT-2 THEOS	SPOT-5 RapidEye LANDSAT-5 EO-1 FORMOSAT-2 THEOS WorldView-2	SPOT-5 RapidEye LANDSAT-5 EO-1 THEOS WorldView-2	SPOT-5 RapidEye FORMOSAT-2 LANDSAT-5 EO-1 THEOS	SPOT-5 LANDSAT-5 EO-1 FORMOSAT-2 THEOS	SPOT-5 LANDSAT-5 EO-1 FORMOSAT-2 THEOS Quickbird	LANDSAT-5 WorldView-2 FORMOSAT-2 THEOS Quickbird
March 14	Japan (JAXA)	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR
	Overseas	RapidEye SPOT-5 FORMOSAT-2	RapidEye SPOT-5 FORMOSAT-2 WorldView-1	RapidEye SPOT-5 FORMOSAT-2 TerraSAR-X WorldView-1	RapidEye SPOT-5 FORMOSAT-2 HJ	RapidEye SPOT-5 FORMOSAT-2 KOMPSAT-2 CARTSAT-2 WorldView-2	RapidEye SPOT-5 KOMPSAT-2 WorldView-2	RapidEye FORMOSAT-2 WorldView-2	RapidEye FORMOSAT-2 WorldView-2	KOMPSAT-2 FORMOSAT2 WorldView-2	KOMPSAT-2 GeoEye WorldView-1 WorldView-2
March 15	Japan (JAXA)	AVNIR-2	AVNIR-2	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2
	Overseas					FORMOSAT-2	SPOT-4 FORMOSAT-2 DubaiSat-1	SPOT-4 DubaiSat-1	FORMOSAT-2 DubaiSat-1	SPOT-4	DubaiSat-1
March 16	Japan (JAXA)	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR
	Overseas	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2 WorldView-2	FORMOSAT-2 WorldView-2	FORMOSAT-2 WorldView-2	FORMOSAT-2 WorldView-2	FORMOSAT-2 WorldView-2	FORMOSAT-2 QuickBird-1 QuickBird-2 GeoEye WorldView-1 WorldView-2

Observation date	JAXA/ overseas satellites	Miyako	Kamaishi	Minamisanriku	Onagawa, Oshika Peninsula	Ishinomaki, Shiogama, Higashimatsushima	Sendai	Sendai Airport	Watari, Tornoumi	Soma	Fukushima nuclear plant
March 17	Japan (JAXA)	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2
	Overseas	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2 WorldView-2	SPOT-5 FORMOSAT-2 TerraSAR-X WorldView-2	SPOT-5 FORMOSAT-2 TerraSAR-X WorldView-2	SPOT-5 FORMOSAT-2 WorldView-2	SPOT-5 FORMOSAT-2 WorldView-2	SPOT-5 FORMOSAT-2 WorldView-1 WorldView-2 IKONOS
March 18	Japan (JAXA)						PALSAR	PALSAR	PALSAR	PALSAR	PALSAR
	Overseas	SPOT-5	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2	EO-1 DEIMOS-1 QuickBird	SPOT-5 FORMOSAT-2 EO-1 DEIMOS-1 QuickBird	SPOT-5 FORMOSAT-2 DEIMOS-1 QuickBird	SPOT-5 FORMOSAT-2 DEIMOS-1	SPOT-5 FORMOSAT-2	SPOT-5 FORMOSAT-2
March 19	Japan (JAXA)	AVNIR-2	AVNIR-2	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR
	Overseas	FORMOSAT-2 Worldview-1	Resurs-DK FORMOSAT-2	FORMOSAT-2 GeoEye	FORMOSAT-2 GeoEye	FORMOSAT-2 GeoEye Worldview-2	FORMOSAT-2 GeoEye Worldview-1 Worldview-2 KOMPSAT-2	FORMOSAT-2 GeoEye Worldview-1 Worldview-2 KOMPSAT-2	FORMOSAT-2 GeoEye Worldview-1 Worldview-2	FORMOSAT-2 GeoEye Worldview-1 Worldview-2	FORMOSAT-2 GeoEye Worldview-1 Worldview-2
March 20	Japan (JAXA)	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2
	Overseas	FORMOSAT-2 IKONOS LANDSAT-5 ENVISAT	FORMOSAT-2 LANDSAT-5 ENVISAT	FORMOSAT-2 LANDSAT-5 ENVISAT IKONOS	FORMOSAT-2 LANDSAT-5 Worldview-2 ENVISAT QuickBird	FORMOSAT-2 IKONOS LANDSAT-5 Worldview-2 ENVISAT	Resurs-DK FORMOSAT-2 LANDSAT-5 Worldview-2 ENVISAT	Resurs-DK FORMOSAT-2 LANDSAT-5 Worldview-2 ENVISAT	Resurs-DK FORMOSAT-2 LANDSAT-5 Worldview-2 ENVISAT	FORMOSAT-2 LANDSAT-5 IKONOS Worldview-2 ENVISAT	FORMOSAT-2 LANDSAT-5 IKONOS Worldview-2 ENVISAT
March 21	Japan (JAXA) Overseas	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2	AVNIR-2 PALSAR	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2
March 22	Japan (JAXA)	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR	AVNIR-2 PALSAR
	Overseas	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2
March 23	Japan (JAXA)			PALSAR		PALSAR	PALSAR	PALSAR	PALSAR	PALSAR	PALSAR
	Overseas	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT QuickBird	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT	FORMOSAT-2 ENVISAT	FORMOSAT-2 RADARSAT-2 ENVISAT	FORMOSAT-2 Worldview-2 ENVISAT
March 24	Japan (JAXA) Overseas	AVNIR-2 PRISM	AVNIR-2 PRISM	AVNIR-2 PRISM	AVNIR-2 PRISM						AVNIR-2 PRISM
	Overseas	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2	FORMOSAT-2