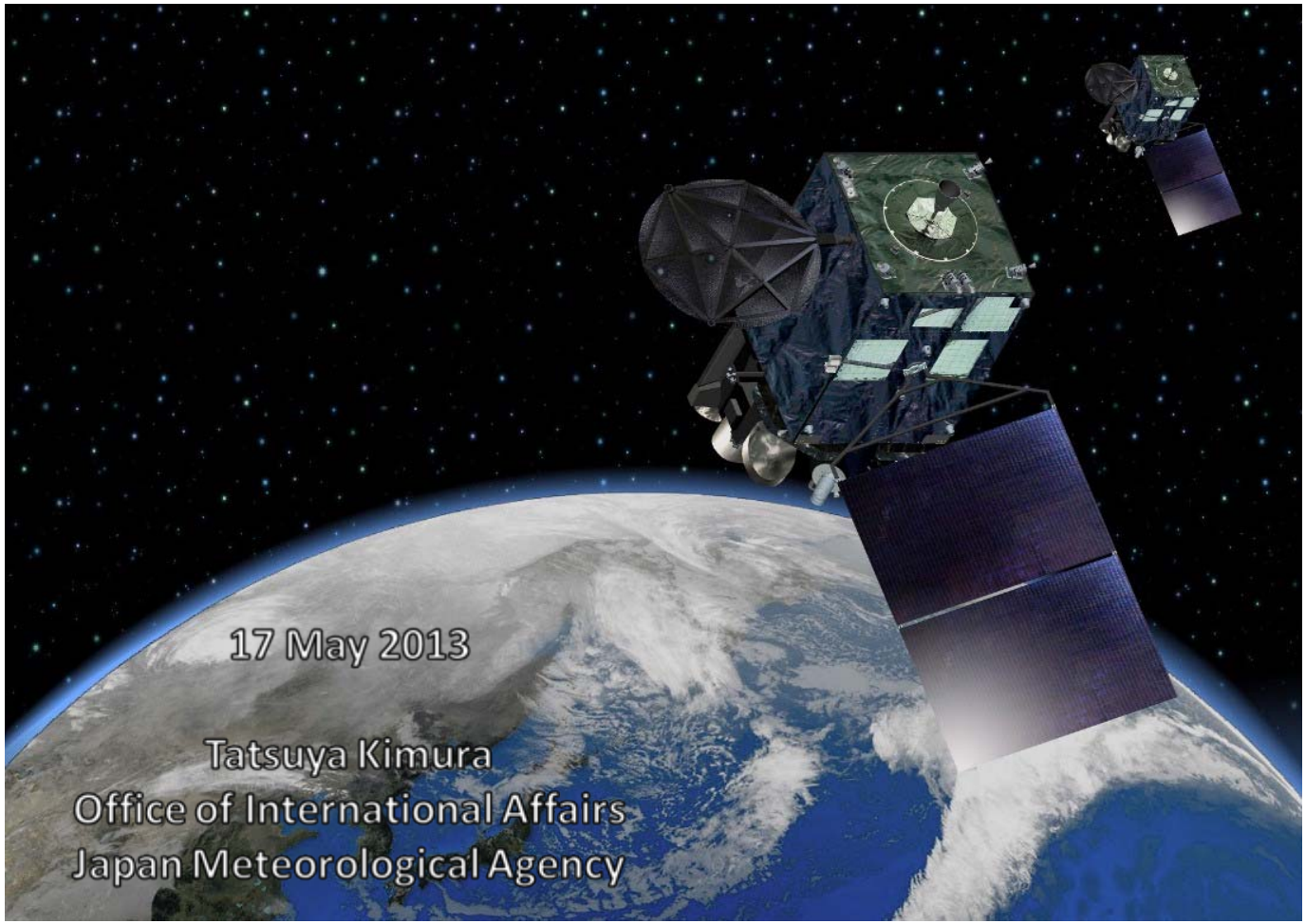
Up-to-date Information on the Japanese Next-Generation Himawari-8/9 Satellites for Users' Preparedness



History of Himawari series

GMS (Geostationary Meteorological Satellite)

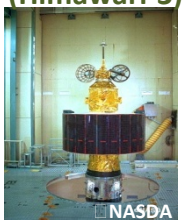
GMS (Himawari)

Jul 1977

GMS-2 (Himawari-2)

Aug 1981

GMS-3 (Himawari-3)

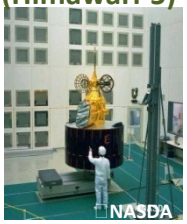


Aug 1984

GMS-4 (Himawari-4)

Sep 1989

GMS-5 (Himawari-5)



Mar 1995

(GOES-9)

Back-up operation of GMS-5 with GOES-9 by NOAA/NESDIS from May 22, 2003 to June 28, 2005

MTSAT (Multi-functional Transport SATellite)

MTSAT-1R (Himawari-6)

Feb 2005

MTSAT-2 (Himawari-7)

Feb 2006

Himawari-8 **Himawari-9**

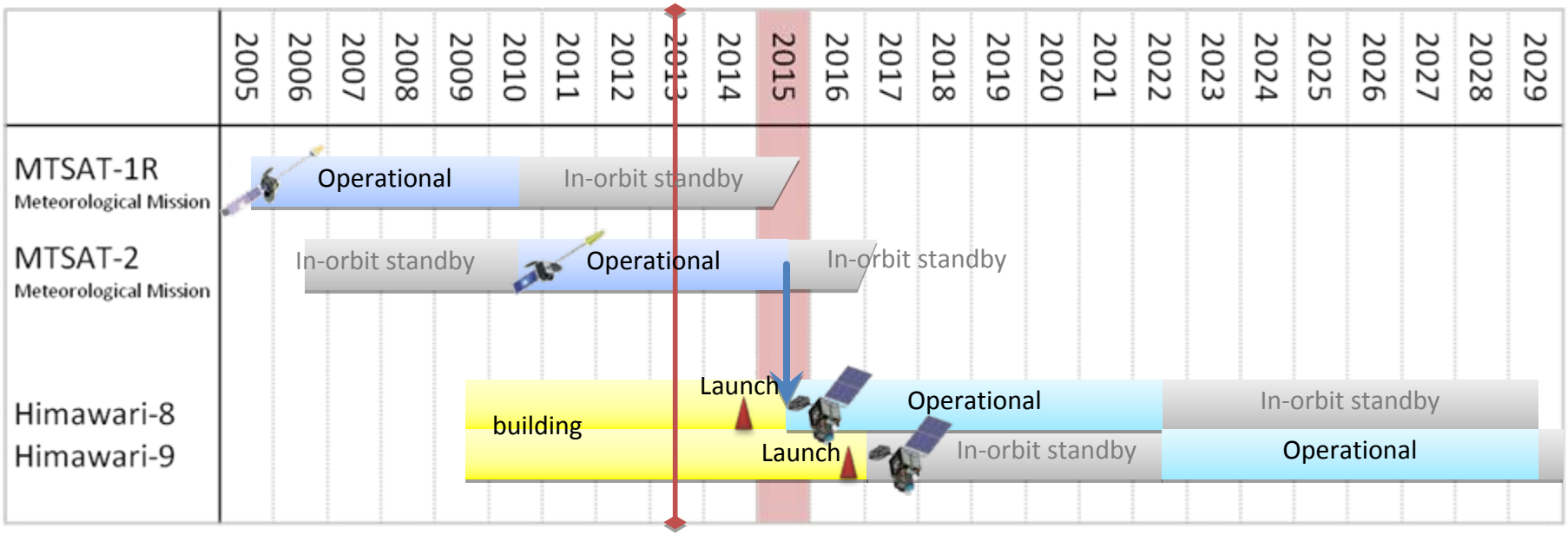
Himawari

2014

2016

Satellite	Observation period
GMS	1978 – 1981
GMS-2	1981 – 1984
GMS-3	1984 – 1989
GMS-4	1989 – 1995
GMS-5	1995 – 2003
GOES-9	2003 – 2005
MTSAT-1R	2005 – 2010
MTSAT-2	2010 – 2015
Himawari-8	2015 – 2022
Himawari-9	2022 – 2029

Schedule of Operation



- JMA plans to launch **Himawari-8** in **2014** and begin its operation in **2015**.
- The launch of **Himawari-9** for in-orbit standby is scheduled in **2016**.
- **Himawari-8/9** will be in operation around **140 degrees East** covering the East Asia and Western Pacific regions for 15 years.

Specification of Observation (Channel)

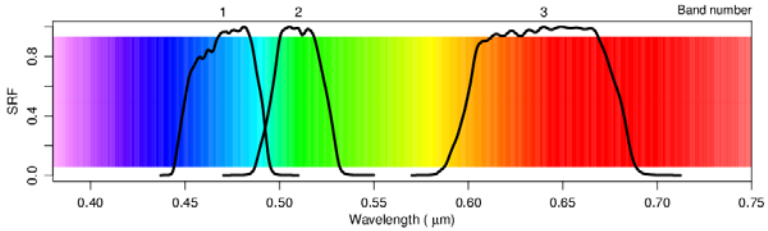
Channels of the Advanced Himawari Imager (AHI) to be carried by Himawari-8/9

	Channel	Central Wavelength [μm]	Spatial Resolution	
X	1	0.43 – 0.48	1 km	RGB Composited True Color Image
	2	0.50 – 0.52	1 km	
X	3	0.63 – 0.66	0.5 km	
X	4	0.85 – 0.87	1 km	ABI: 1.3 μm
X	5	1.60 – 1.62	2 km	
X	6	2.25 – 2.27	2 km	
X	7	3.74 – 3.96	2 km	
X	8	6.06 – 6.43	2 km	Water Vapor
X	9	6.89 – 7.01	2 km	
X	10	7.26 – 7.43	2 km	
X	11	8.44 – 8.76	2 km	SO_2
X	12	9.54 – 9.72	2 km	O_3
X	13	10.3 – 10.6	2 km	Atmospheric Windows
X	14	11.1–11.3	2 km	
X	15	12.2 – 12.5	2 km	
X	16	13.2 – 13.4	2 km	CO_2

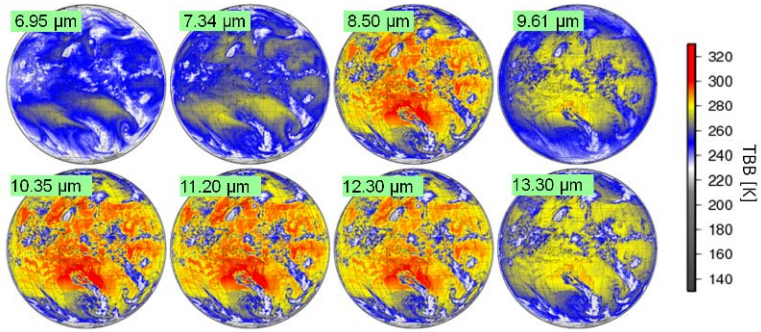
X: Channels of ABI

To support research and development of products based on Himawari-8/9,

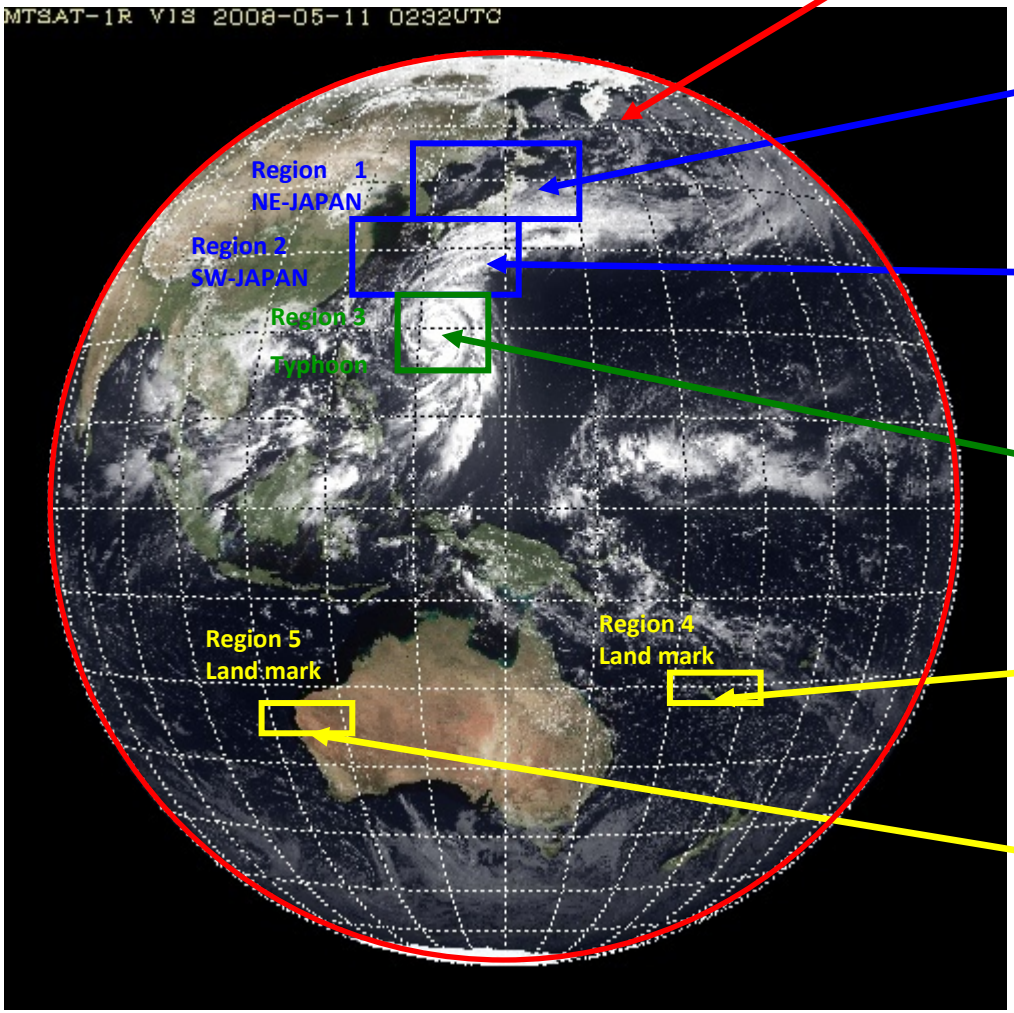
- Estimated Spectral Response Functions (**SRF**s) of AHI are **available** on JMA website.



- **Simulation data** generated using a radiative transfer model are also **available** on JMA website.



Specification of Observation (Region, Interval)



Full disk
Interval: **10 minutes** (6 times per hour)
23 swathes

Region 1: Japan (North-East)
Interval: **2.5 minutes** (4 times in 10 minutes)
Dimension: EW x NS: 2000 x 1000 km
2 swathes

Region 2: Japan (South-West)
Interval: **2.5 minutes** (4 times in 10 minutes)
Dimension: EW x NS: 2000 x 1000 km
2 swathes

Region 3: Typhoon
Interval: **2.5 minutes** (4 times in 10 minutes)
Dimension: EW x NS: 1000 x 1000 km
2 swathes

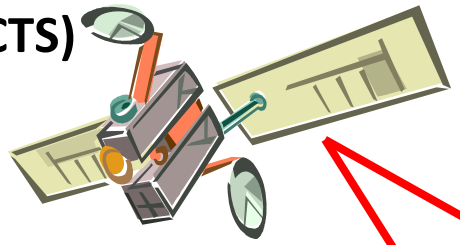
Region 4: Land mark
Interval: **0.5 minutes** (20 times in 10 minutes)
Dimension: EW x NS: 1000 x 500 km
1 swath

Region 5: Land mark
Interval: **0.5 minutes** (20 times in 10 minutes)
Dimension: EW x NS: 1000 x 500 km
1 swath

Imagery Distribution/Dissemination

Himawari-8/9

Commercial Telecommunication Satellite (CTS)



C-band (3 GHz)
HRIT/LRIT imagery
(TBD)

Data

CTS Operator

JMA

Internet

All imagery

Users with developed Internet environment

PNG/JPEG imagery

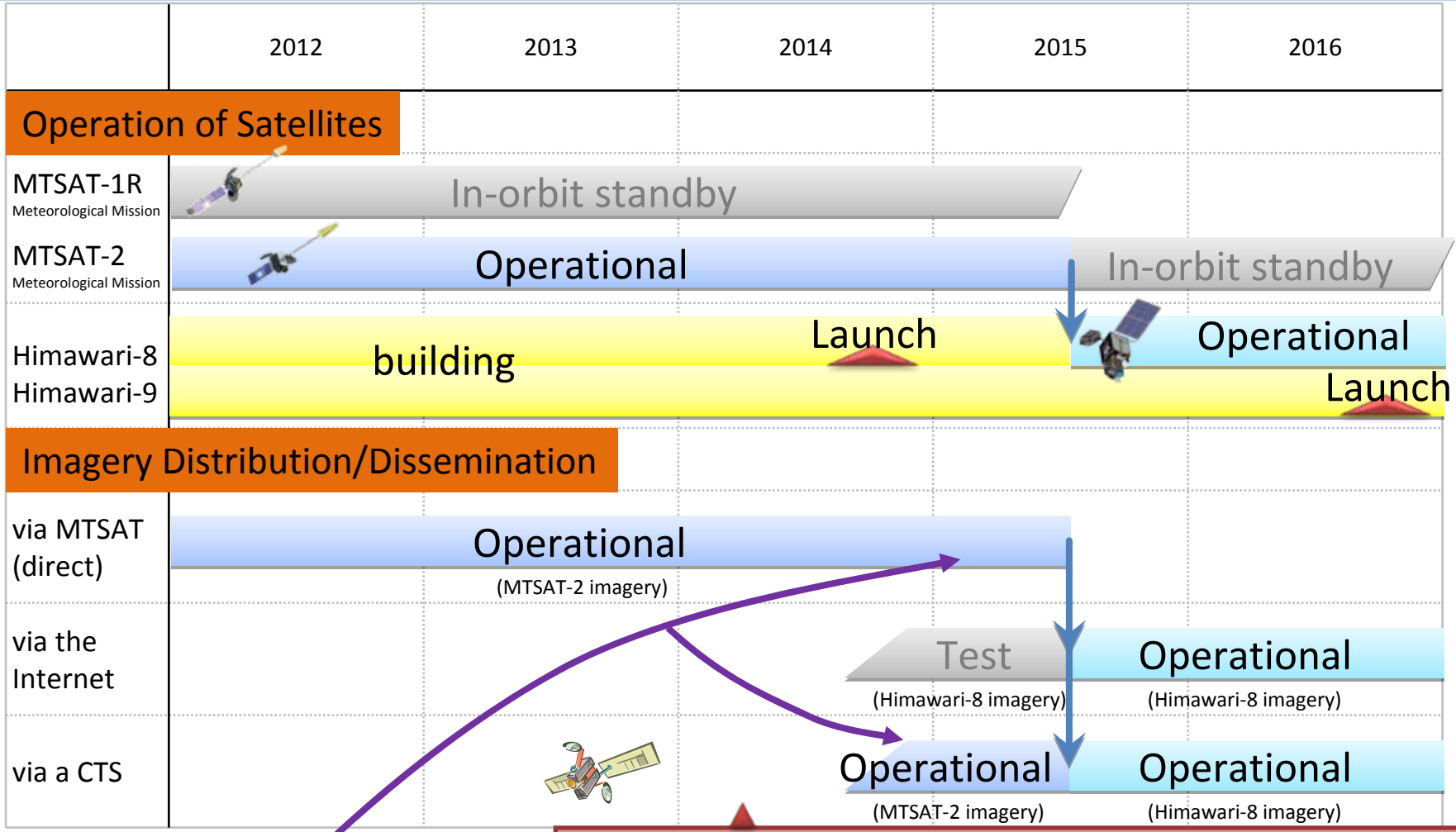
Users with limited Internet access

- Regions where landlines are not reliable

USERS

New equipment needs to be installed.

Imagery Distribution/Dissemination (Schedule)



JMA will announce the details of CTS (to be fixed in April 2014) and its receiving equipment in the spring of 2014.

- **Parallel dissemination** is planned for **users' smooth transitions** to the receipt of imagery via a CTS.

Thank you

- JMA will regularly update, and inform relevant NMHSs of, the progress on Himawari-8/9 imagery distribution/dissemination by letters and emails as well as in its website.
- For the latest Information, please see

  http://www.jma.go.jp/jma/jma-eng/satellite/ .

- For the technical Information, please see

  http://mscweb.kishou.go.jp/himawari89/ .