

### **User readiness - Himawari-8**

The Himawari-8 geostationary meteorological satellite began operation on 7 July 2015, replacing the previous MTSAT-2 operational satellite. In order to deliver Himawari-8 imagery, JMA established two new services known as HimawariCast (provided via a communication satellite) and HimawariCloud (provided via an Internet cloud service for NMHSs).

MTSAT-2 continued observation after the operational satellite switchover, and data from MTSAT-2 and Himawari-8 were disseminated in tandem for a period to support user preparations for the utilization of Himawari-8 data provided via the HimawariCast and/or HimawariCloud services.

Himawari-8's observation capability is far superior to that of the previous MTSAT-series satellites. To maximize the benefits of this capability, JMA has been running the training activities for NMHSs in the Asia and Pacific regions.

Action/Recommendation proposed: none

## **User readiness - Himawari-8**

### **1 INTRODUCTION**

The Himawari-8 geostationary meteorological satellite managed by the Japan Meteorological Agency (JMA) began operation on 7 July 2015, replacing the previous MTSAT-2 operational satellite. In order to deliver Himawari-8 imagery, JMA established two new services known as HimawariCast (which provides primary sets of imagery via a communication satellite) and HimawariCloud (which provides full sets of imagery to National Meteorological and Hydrological Services (NMHSs) via an Internet cloud service). Most NMHSs in the Asia and Pacific regions currently incorporate Himawari-8 data from these services into their weather monitoring and forecasting activities.

MTSAT-2 continued observation after the operational satellite switchover, and data from MTSAT-2 and Himawari-8 were disseminated in tandem for a period to support user preparations for the utilization of Himawari-8 data provided via the HimawariCast and/or HimawariCloud services.

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### **2 DATA DISSEMINATION FROM MTSAT-2 & HIMAWARI-8**

#### **2.1 Direct dissemination**

Dissemination of MTSAT-2 imagery via the new communication satellite-based HimawariCast service was begun in January 2015 to support user preparations for the service. In tandem with the provision of Himawari-8 imagery and related products via the service after the operational satellite switchover in July 2015, MTSAT-2 continued observation and imagery from the satellite was disseminated directly via MTSAT-1R. JMA continued this arrangement until December 2015, when MTSAT-1R was re-orbited and its data provision was discontinued (Fig. 1).

#### **2.2 Dissemination via the Internet**

JMA provides an FTP service called JDDS (the JMA Data Dissemination Service) for the dissemination of a variety of meteorological data to NHMSs. Satellite imagery and other products derived from satellite observation are also provided via the service. JMA distributed Himawari-8 AMV (Atmospheric Motion Vector) and CSR (Clear Sky Radiance) via JDDS from May to July 2015 before the operational satellite switchover to allow advance product evaluation for NWP (numerical weather prediction) purposes.

Imagery and products from MTSAT-2 data were provided in tandem with those from Himawari-8 data via JDDS until March 2016.

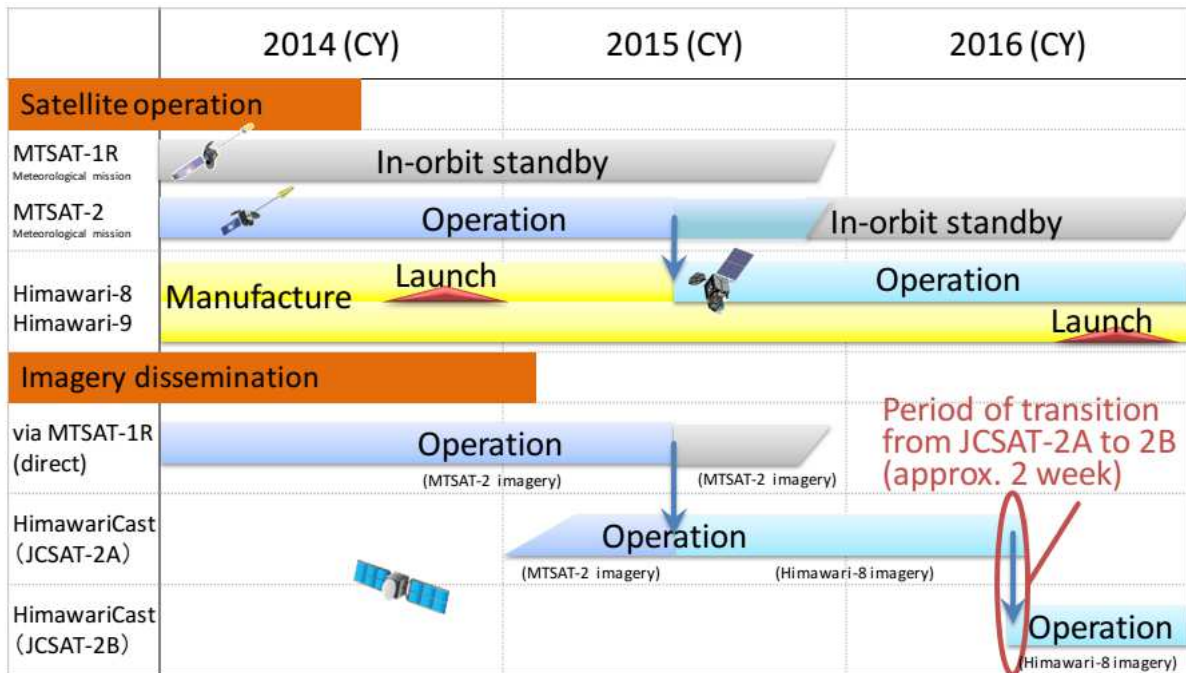


Fig. 1 Schedule for transition to the HimawariCast service

### 3 DOCUMENTATION

To support user preparations for Himawari-8/9 data utilization, JMA provides Himawari-8/9 information online at

<http://www.jma-net.go.jp/msc/en/support/index.html>

The information covers the schedule, spacecraft/imager (AHI) specifications, sample data in various file formats, and data distribution/dissemination methods. JMA also posts Himawari-8/9 information on the WMO-CGMS Satellite User Readiness Navigator (SATURN). In March 2016, several Himawari-8 product algorithm documents were published in MSC Technical Note on the JMA/MSO website at

<http://www.data.jma.go.jp/mscweb/en/product/library/note/index.html>

### 4 TRAINING

Himawari-8's observation capability is far superior to that of the previous MTSAT-series satellites. To maximize the benefits of this capability, JMA has been running the following training activities for NMHSs in the Asia and Pacific regions.

#### **4.1 Training at the 6th Asia/Oceania Meteorological Satellite Users' Conference**

JMA hosted training events in Tokyo on 9 and 13 November 2015 in conjunction with the 6th Asia/Oceania Meteorological Satellite Users' Conference (AOMSUC-6). The objectives of the workshop were a) to provide details of next-generation satellites as a way of supporting user preparedness, b) to give users an appreciation of the various applications of meteorological satellite data and products, and c) to provide attendees with the skills needed to apply meteorological satellite observation data to weather analysis, climate monitoring and environment/disaster management. The training was attended by 78 people from 36 countries on the 9th and by 54 from 32 countries on the 13th.

#### **4.2 Training seminars for individual NMHSs**

JMA has adopted a program of dispatching experts to a number of NMHSs in the Asia and Pacific regions in 2015 and 2016 to conduct training seminars on Himawari-8 utilization. The trainers check on the NMHS's status of Himawari-8 imagery acquisition, provide advice if necessary, and give presentations to support the enhancement of NMHS weather monitoring and forecasting capacity based on the use of Himawari-8 imagery.

JMA believes those training activities contribute to the improvement of meteorological services and support the mitigation of natural disasters in the relevant regions. The Agency remains committed to its ongoing efforts to strengthen partnerships with Himawari-8 users.