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## Real-time Data Dissemination of Himawari-8/9 Imagery to the Private Sector and Other Communities

## [Himawari-8/9]

Himawari-8, the world-leading first third-generation geostationary meteorological satellite, started its operation on 7 July 2015 and significantly enhanced monitoring and forecasting capabilities of the Japan Meteorological Agency (JMA) and the National Meteorological and Hydrological Services (NMHSs) in the Asia-Pacific region. Himawari-9 was successfully launched on 2 November 2016, and is scheduled to start operation in March 2017 as a backup and successor satellite.

Himawari-8(/9) is positioned at around 140 degrees east above the equator, and will observe East Asia and the Western Pacific with a lifetime of 15 years. Compared to previous satellites, it enables monitoring of the dynamic movement of clouds with much higher resolution (e.g., 500 m in space and 10 or 2.5 minutes in time for visible imagery).

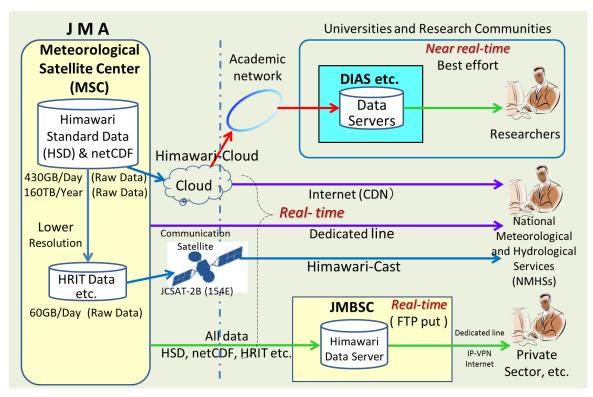
The details of Himawari-series satellite services are given on the Meteorological Satellite Center (MSC)/JMA website: <u>http://www.jma-net.go.jp/msc/en/index.html</u>.

## [Data distribution services by JMA and JMBSC]

All the imagery data are distributed to national and international user communities through various systems operated by JMA and the Japanese Science Group (JSG), as well as the Japan Meteorological Business Support Center (JMBSC) (*See attached diagram*). JMA distributes all the imagery data via an Internet cloud service (called "*Himawari-Cloud*", and the primary sets of imagery via a satellite communication (called "*HimawariCast*") service to NMHSs in the Asia-Pacific regions. JSG distributes all imagery to universities and research communities in Japan via their academic networks and archive servers.

In addition to the national weather services by JMA, the private sector in Japan, e.g., weather forecast service companies authorized by JMA and the mass media, provides a wide variety of weather services to the public and socio-economic activities using Himawari-8 imagery. JMBSC has a responsibility to distribute all the data provided by JMA including the imagery data to the private sector under the marginal cost to operate the dissemination systems (<u>http://www.jmbsc.or.jp/en/meteo-data.html</u>).

A newly developed JMBSC Himawari-8(/9) dissemination system at the MSC/JMA is operated on a 24/7 basis to distribute all the imagery to national and international users through a dedicated line, the Virtual Private Network (VPN) and the Internet. Current users are around 20 in number and cover the mass media, weather forecast service companies, and other national and international corporates.



Schematic Diagram for the data distribution services of Himawari-8/9 imagery to the National Meteorological and Hydrological Services (NMHSs) by the Japan Meteorological Agency (JMA) and to the private sector and other communities by the Japan Meteorological Business Support Center (JMBSC), as well as to research communities in Japan by the academic networks.