



JMA's operational DCS status

Status of implementation of best practices

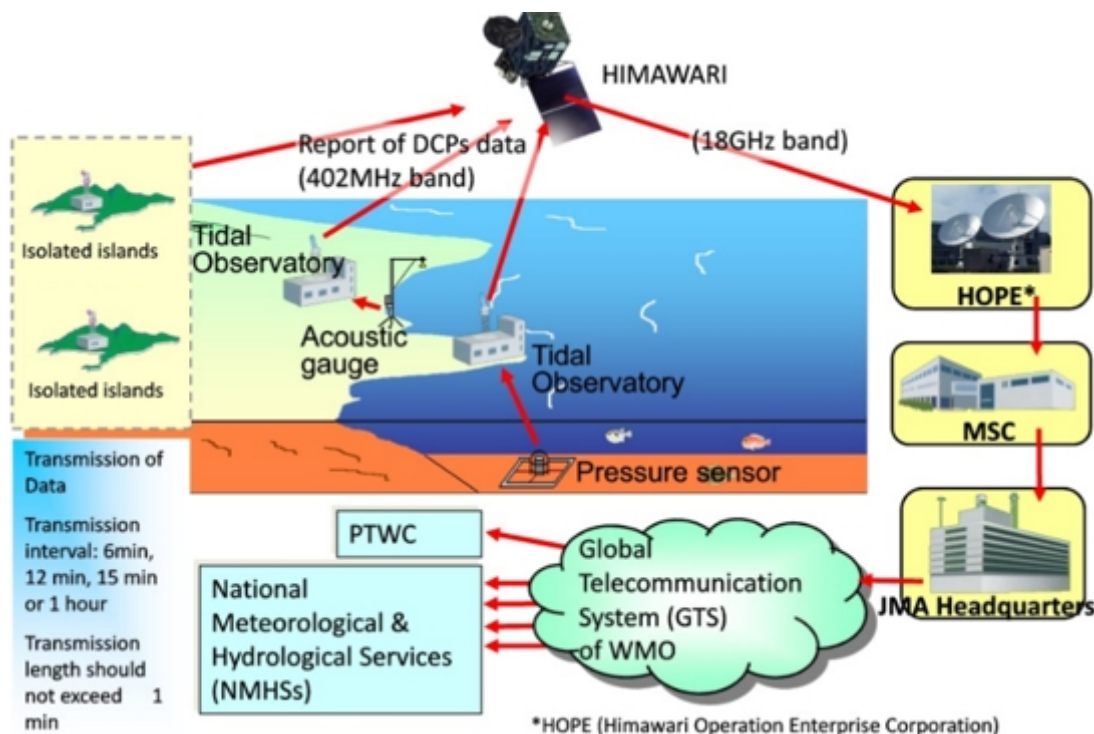
Presented to CGMS-52 WG I, agenda item 7.6 (JMA-WP-02)

Japan Meteorological Agency

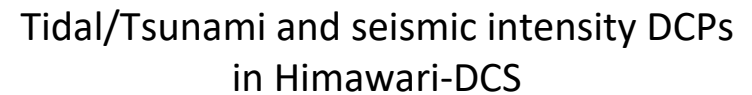
Himawari-8/9 Data Collection System (DCS)

- Himawari-8: back-up of Himawari-9 in orbit
- Himawari-9: operational since December 2022
 - Took over the role of Himawari-8 in 2022

- DCP transmission rate
 - 100 / 300 bps
- Bandwidth
 - 402.0685 – 402.4 MHz (100 bps)
 - 402.1 – 402.4 MHz (300 bps)
- Data downlink
 - Ka band (18 GHz)
- Two ground stations for redundancy



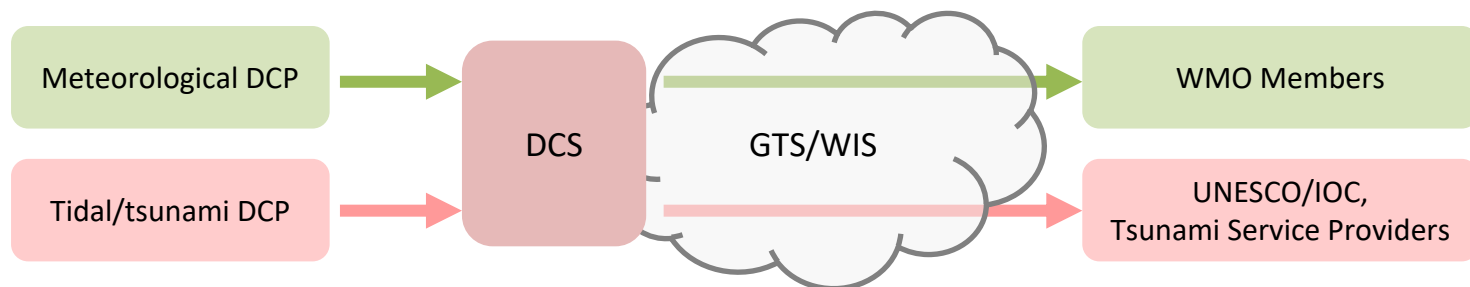
*HOPE (Himawari Operation Enterprise Corporation)



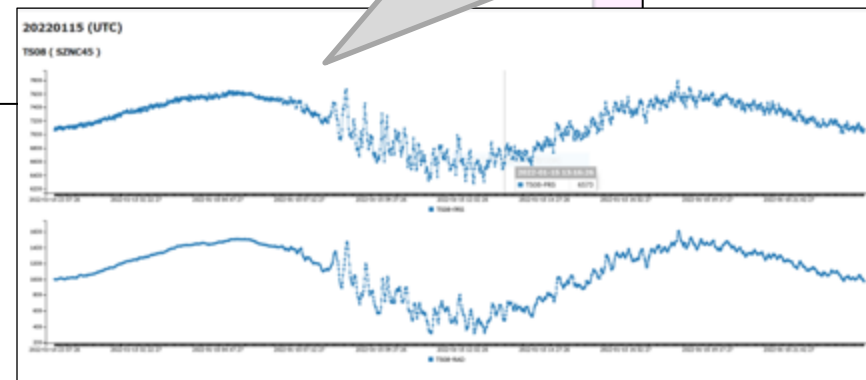
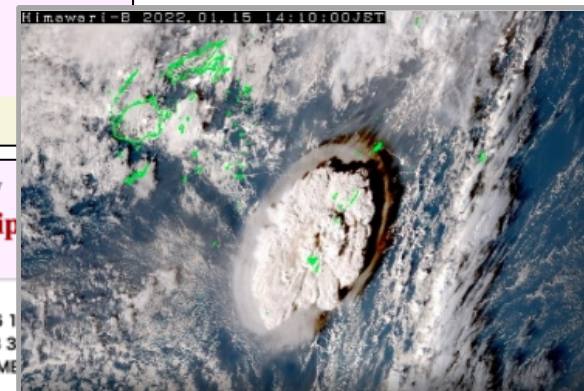
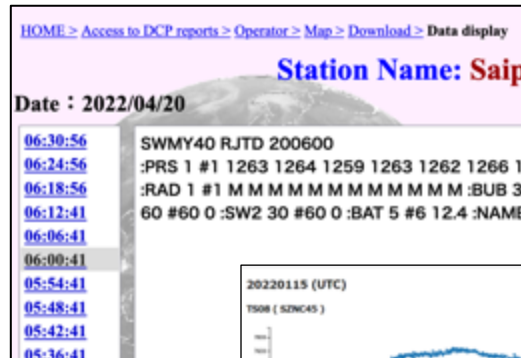
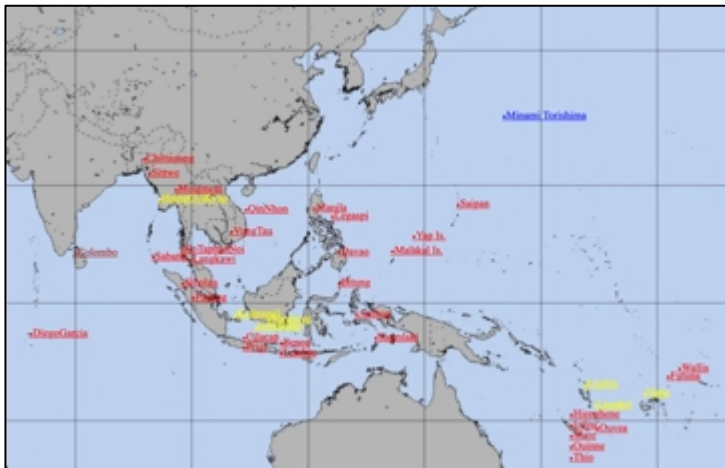
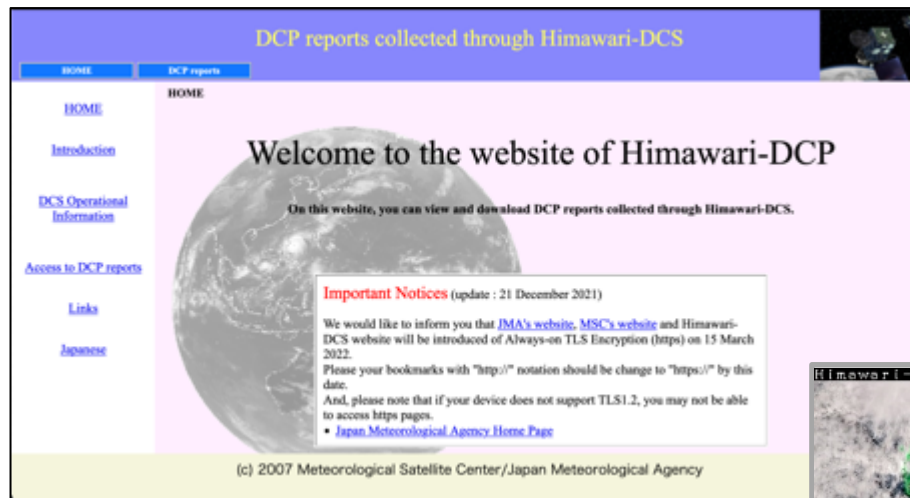
- ## Coordination Group for Meteorological Satellites

Status of Himawari-DCS

- DCPs as of Apr. 2024
 - 154 for surface meteorological observation
 - 63 for tidal/tsunami (UNESCO/IOC)
 - 370 for seismic intensity in Japan
 - 8 for mobile surface meteorological observation in Japan
- Data flow of meteorological DCP data and tidal/tsunami DCP data



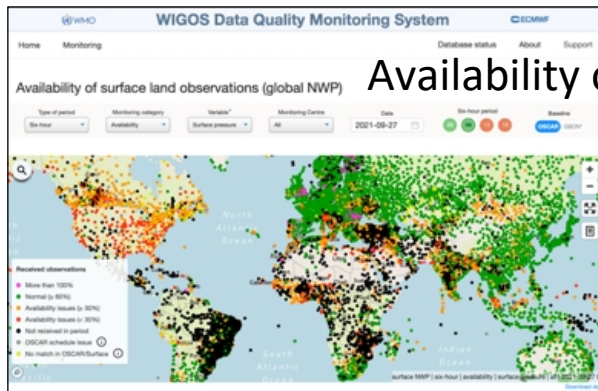
DCP data monitoring website for DCP operators



Useful websites for DCP data

WIGOS Data Quality Monitoring System

<https://wdqms.wmo.int/>



Availability of observations



OSCAR/Surface

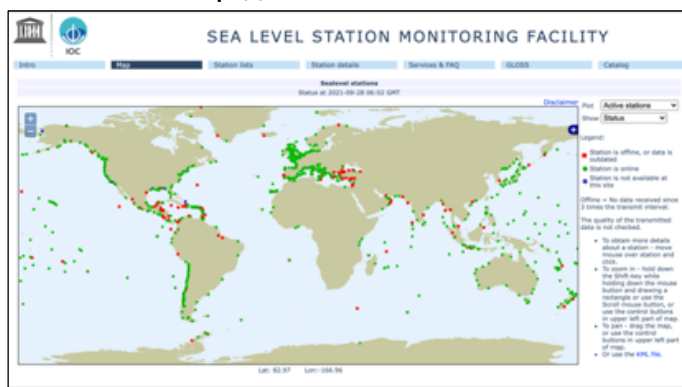
<https://oscar.wmo.int/surface/>



Observation stations DB

Sea Level Station Monitoring Facility by UNESCO-IOC

<http://www.ioc-sealevelmonitoring.org>



Stations monitored by Geospatial Agency of Indonesia (Indonesian)

Status at 2021-08-02 03:36 GMT : 14 stations listed ordered by d

Code	Station ID	Country	Location	Geospatial Agency of Indonesia (Indonesian)	Station ID	Last observation	Status	Transmit	Notes
0001	0001	Indonesia	Sulawesi	0001	0001	2021-08-02 03:36 GMT	Active	1	1
0002	0002	Indonesia	Sulawesi	0002	0002	2021-08-02 03:36 GMT	Active	1	1
0003	0003	Indonesia	Sulawesi	0003	0003	2021-08-02 03:36 GMT	Active	1	1
0004	0004	Indonesia	Sulawesi	0004	0004	2021-08-02 03:36 GMT	Active	1	1
0005	0005	Indonesia	Sulawesi	0005	0005	2021-08-02 03:36 GMT	Active	1	1
0006	0006	Indonesia	Sulawesi	0006	0006	2021-08-02 03:36 GMT	Active	1	1
0007	0007	Indonesia	Sulawesi	0007	0007	2021-08-02 03:36 GMT	Active	1	1
0008	0008	Indonesia	Sulawesi	0008	0008	2021-08-02 03:36 GMT	Active	1	1
0009	0009	Indonesia	Sulawesi	0009	0009	2021-08-02 03:36 GMT	Active	1	1
0010	0010	Indonesia	Sulawesi	0010	0010	2021-08-02 03:36 GMT	Active	1	1
0011	0011	Indonesia	Sulawesi	0011	0011	2021-08-02 03:36 GMT	Active	1	1
0012	0012	Indonesia	Sulawesi	0012	0012	2021-08-02 03:36 GMT	Active	1	1
0013	0013	Indonesia	Sulawesi	0013	0013	2021-08-02 03:36 GMT	Active	1	1
0014	0014	Indonesia	Sulawesi	0014	0014	2021-08-02 03:36 GMT	Active	1	1
0015	0015	Indonesia	Sulawesi	0015	0015	2021-08-02 03:36 GMT	Active	1	1
0016	0016	Indonesia	Sulawesi	0016	0016	2021-08-02 03:36 GMT	Active	1	1
0017	0017	Indonesia	Sulawesi	0017	0017	2021-08-02 03:36 GMT	Active	1	1
0018	0018	Indonesia	Sulawesi	0018	0018	2021-08-02 03:36 GMT	Active	1	1
0019	0019	Indonesia	Sulawesi	0019	0019	2021-08-02 03:36 GMT	Active	1	1
0020	0020	Indonesia	Sulawesi	0020	0020	2021-08-02 03:36 GMT	Active	1	1

- Status (Active/Offline)
- Location
- Supervising organization
- Contacts
- Connection (GTS, BGAN, e-mail,...)
- Data (show on graph, content of message)

Future Himawari-DCS

- JMA has decided that the planned Himawari-10 program set to replace Himawari-8/9 will assume the same DCS.
- Related discussions at CGMS WG-I are expected to be helpful for future Himawari-DCS.

Status of implementation of best practices in support to DCP data access

BP.01: Satellite Operators offering DCS should make all the DCS data *available via the Internet on a DCS Web Service*.

BP.02: Satellite Operators offering DCS should make all the DCS data *globally available on the WMO GTS*.

BP.03: Satellite Operators offering DCS should ensure their DCS Web Service makes all DCS data within their system available to a valid *registered user*.

BP.04: Satellite Operators offering DCS should ensure high DCS data availability and put in place mechanisms to be able to detect and recover problems with the service with minimum delays

BP.05: The Satellite Operators offering DCS should ensure DCS data are made available on the DCS Web Service as soon as possible.

BP.06: The Satellite Operators offering DCS should provide an on-line DCS data *archive*, which is sized according to user's applications requirements and expandable to cope with evolving user needs.

Compliant with all best practices except BP.09.

JMA makes all meteorological and tidal DCP data *globally available via the WMO GTS*.

JMA also makes the DCP data *available online* for *registered users*. The website for registered users stores *7-day archives* and provides a *downloading feature* and the *documentation on DCP data access*.

JMA *notifies users of any service changes and issues* on its website.

Regarding BP.09, the WIGOS OSCAR/Surface website displays *metadata* including contact information for meteorological data, which observation station operators maintain.

Status of implementation of best practices in support to DCP data access

BP.07: The Satellite Operators offering DCS should ensure their DCS Web Services offer the possibility for **tailoring DCS data retrieval**.

BP.08: The Satellite Operators offering DCS should put in place mechanisms to **notify the DCS Data Users of any service changes and issues**, which impact the access to DCS data (e.g. delays, outages).
The information provided in the notification should be as detailed as possible, including the extent of the impact, expected duration of the impact, etc. Updates to the notifications should be issued regularly and a final notification should be sent to confirm return to nominal service.

BP.09: The Satellite Operators offering DCS should ensure their DCS Web Services allows easy maintenance of up-to-date record of the DCP Operator's **contact information** by the users.

BP.10: The Satellite Operators offering DCS should provide the DCS Users with a full set of **DCS Data Access documentation**, accessible through the DCS Web Service.

Compliant with all best practices except BP.09.

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Regarding BP.09, the WIGOS OSCAR/Surface website displays **metadata including contact information** for meteorological data, which observation station operators maintain.

Status of implementation of best practices in support to DCP TX certification process

JMA does not require certification for DCP transmitter manufacturers.

Thank you

Himawari-DCS website : <https://www.jma.go.jp/jma/jma-eng/satellite/nmhs/dcs89.html>