

SATURN: SATellite User Readiness Navigator

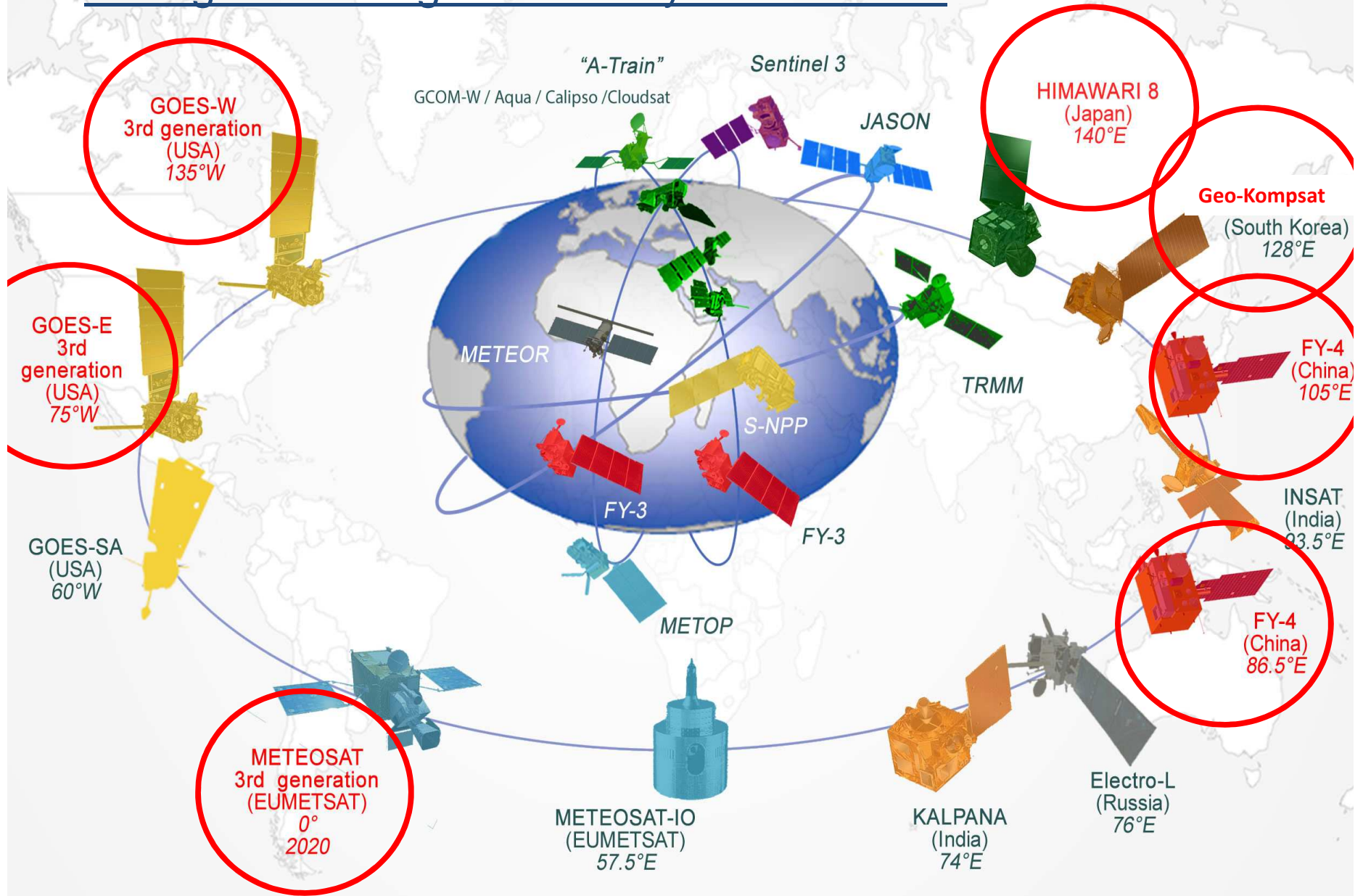
Preparing users
for the next generation of satellites

Plenary Item C.5
CGMS-WMO-WP-20

New generation of geostationary satellites

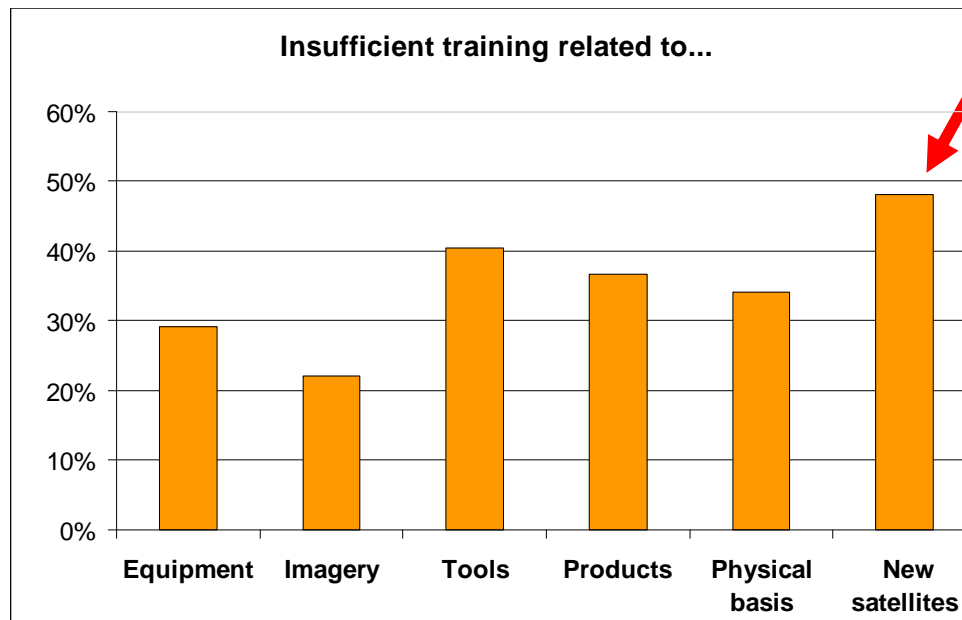
- Satellites widely used by WMO Members in support of weather, climate, water applications
- New generation of geostationary meteorological satellites to enter operations in 2015-2018, including:
 - Himawari-8 (JMA)
 - FY-4 (CMA)
 - GOES-R (NOAA)
 - GEO-KOMPSAT-2 (KMA)
 - MTG (EUMETSAT)
- Capabilities improve (e.g., sampling rate, spatial resolution, spectral channels)
- Leading to more accurate and timely forecasts and development of new application areas
- Data rates increase drastically, by factors of 10-100
- Affecting all WMO Regions

Next-generation geostationary constellation



User readiness is a critical issue

- Many Members report they are insufficiently prepared to the new generation of meteorological satellites



- Source: WMO 2012 Satellite User Survey - 227 responses from 95 countries

CGMS Cross-Cutting Area 5.3

- Prepare operational users for new generation of Geostationary meteorological satellites through user readiness programmes, with coordinated contributions from CGMS members in the areas of:
 - Sensor and signal characteristics;
 - Data dissemination and global data exchange;
 - Test datasets, processing and analysis tools;
 - Products;
 - User training, including testbeds;
 - Information on these topics should be synthesized and maintained by WMO in a multi-lingual online user guide, dynamically linked to resources of CGMS members;
 - Maintaining close cooperation with user organizations, taking into account the “guidelines for ensuring user readiness for new generation satellites” adopted at WMO EC-65.

WMO guideline for ensuring user readiness for new generation systems

All WMO Members and satellite operators should assist users in preparing them for using the new generation of operational satellites, through the following:

- 1) **User/provider dialogue through conferences, workshops and test beds;**
- 2) **Portals on status of new systems, instrument and format specifications...**
- 3) **User training**
- 4) **Learning tools demonstrating added value of new products;**
- 5) **Proxy data sets, tools, and products;**
- 6) **Indication of product maturity status (operational, development, experimental);**

WMO guideline for ensuring user readiness for new generation systems

All WMO Members and satellite operators should assist users in preparing them for using the new generation of operational satellites, through the following:
(cont.)

- 7) Guidance on the transition of receiving hardware;**
- 8) Parallel dissemination in old and new dissemination formats or protocols;**
- 9) Overlap period between current and new satellites**
- 10) Multi-mission dissemination systems such as GEONETCast for flexibility in accommodating new data streams**
- 11) Establishing user readiness project (~5 years before)**
- 12) Collaborative mechanisms, such as online briefings and social media.**

Preparing WMO users for the next generation of satellites

- In response to the CGMS Crosscutting Area and taking into account the WMO Guideline, WMO is establishing an online **Satellite User Readiness Portal (SATURN)** to provide a single point of entry for up-to-date user information for the new generation of Geostationary Satellites
- The content of the portal is provided directly by the satellite operators (Initially JMA, CMA, NOAA, KMA and EUMETSAT) and coordinated by the Space Programme Team
- Initial content will be focused on the GEO satellites to be launched in the coming decade: Himawari-8, FY-4A, GOES-R, GEO-KOMPSAT-2A and MTG, but further satellites, also LEO, will be added
- The continued support from CGMS members is essential to the success of the project.

Preparing WMO users for the next generation of satellites

- To guide the population of the SATURN portal, WMO is preparing a Reference User Readiness Project.
- It provides a generic timeline of user preparations activities, and the associated timeline of deliverables from the satellite system development in support of these activities.
- The initial scope of SATURN is the new generation of GEO satellites, but the reference project definition is established in a generic manner, and therefore also includes activities that are specific to LEO satellites.
- The initial draft of the Reference User Readiness Project has been prepared with the support of ET-SUP and the SATURN points-of-contact from JMA, CMA, NOAA, KMA and EUMETSAT.
- CGMS members are invited to provide detailed comments to the Reference User Readiness Project, included in CGMS-WMO-WP-20

Sample SATURN screenshot

The screenshot shows the SATURN website header with the WMO logo and the title "Satellite User Readiness Navigator (SATURN)". Below the header is a navigation menu with options: Home, Satellites, Data Access and Use, FAQ, Planning for readiness, and Contacts. A search bar is located on the right. A dropdown menu is open under "Satellites", listing: Himawari-8, FY-4A, GOES-R, GEO-KOMPSAT-2A, and MTG. The main content area includes a welcome message, a paragraph about secondary meteorological satellites, the aim of the SATURN portal, and a list of entry points: Search by Satellite, Search by individual question under FAQ, and Search by topics under Data Access and Use. A diagram of a globe with various satellite orbits and labels is shown. On the right, there are sections for "Select language" (English, Español, Français) and "Newest entries" (Himawari-8 User Readiness Planning, Himawari-8 Basics, Himawari-8 Instrument Performance, Himawari-8 Areas of Coverage and Observations Schedule, Himawari-8 Long-Term).

Sample SATURN screenshot

The screenshot shows the SATURN website interface. At the top left is the WMO logo and the title "Satellite User Readiness Navigator (SATURN)" with the subtitle "Preparing for the next generation of meteorological satellites". A navigation bar includes "Home", "Satellites", "Data Access and Use", "FAQ", "Planning for readiness", and "Contacts", along with a search box. A dropdown menu for "Data Access and Use" is open, listing: "Products and Applications", "Data formats and volumes", "Data access mechanisms and User Registration", "Test data and tools", and "Training and Resources". The main content area has a "Home" section with a welcome message and a list of entry points: "Search by Satellite", "Search by individual question under FAQ", and "Search by topics under Data Access and Use". To the right, there is a "Select language" section with options for English, Español, and Français, and a "Newest entries" section listing various Himawari-8 related topics. A central diagram shows a globe with various satellite icons and labels like "GOES-16", "METEOSAT-3", "INSAT-3D", etc.

Sample SATURN screenshot

Satellite User Readiness Navigator (SATURN)
Preparing for the next generation of meteorological satellites

Home Satellites Data Access and Use **FAQ** Planning for readiness Contacts Search

Home

Welcome to the WMO-CGMS Satellite User Readiness Navigator (SATURN). The new generation of Geostationary Meteorological Satellites (GMS) offers unprecedented opportunities and challenges. The aim of the SATURN portal is to provide a single point of access for all informations needed for user community preparations. The content is provided by the satellite operators and the WMO Space Programme. To start, use one of the following entry points.

- Search by Satellite
- Search by individual question under FAQ
- Search by topics under Data Access and Use

Bienvenidos a SATURN !

Disponible en WMO-CGMS Satellite User Readiness Navigator (SATURN) [readiness/topic/faq/](#)

FAQ

- Can I use my old receiving equipment ?
- How can I get access to the data and products?
- How can I get hold of synthetic/proxy/heritage data?
- How can I use the data and products for my own application?
- what do I need to change and how much will it cost me?
- When will the different data and products become available after launch?
- Where can I find a community that shares my interests?
- Where can I find technical and scientific training material?
- Which data and products will be available from the operators?
- Which formats will the data and products be in?

Language

Entries

- User Readiness

Planning

- Himawari-8 Basics
- Himawari-8 Instrument Performance
- Himawari-8 Areas of Coverage and Observations
- Schedule
- Himawari-8 Long-Term

The portal will go live in June 2014

To be considered by CGMS:

- To note that the continued support from CGMS members, in particular the designated points-of-contact, is essential to the success of the project.
- CGMS members should provide detailed comments to the Reference User Readiness Project, included in CGMS-WMO-WP-20

