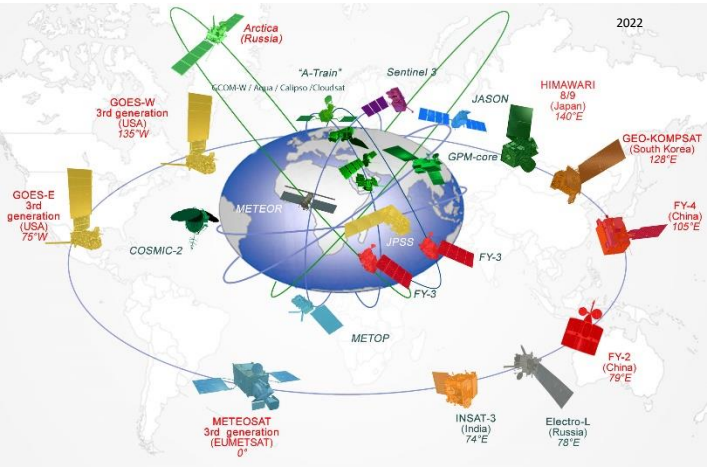

Report from SWCG

Presented to CGMS-49 Plenary session, agenda item 4

Coordination Group for Meteorological Satellites

CGMS

Overview of SWCG Sessions

SWCG/2: 3rd CGMS risk assessment and baseline update- 2 WP
SWCG/3: Updates on space-based observational capabilities - 5 WPs
- ISRO , ESA, EUMETSAT, KMA , NOAA
SWCG/4: Updates on space weather activities - 5 WPs
- CMA, ESA, NASA, NICT, NOAA
SWCG/5: International space weather activities - 3 WPs
- ISES, ROSHYDROMET*, WMO
SWCG/6: OSCAR review for space weather - - Completeness and suitability of space weather related content - 1 WP
SWCG/7: Task Group on space weather calibration - 1 WP
SWCG/9: Review and updating of the HLPP - 2 WPs

2 Sessions, 25 WPs
Participants:
~27 @ SWCG
~ 61 @ Joint
13 Agencies participated

WGI-WGIV-SWCG/3: Benefits of space weather data usage for satellite operators and role of anomaly report database- 2 WPs
WGI-WGIV-SWCG/4: Requirements and feasibility of low latency RO data dissemination for space weather data users through direct broadcast- 2 WPs
WGI-WGIV-SWCG/5: Space Weather Data Access (outcome of User Survey) - 2 WPs

* *Not presented in meeting due to illness*

Coordination Group for Meteorological Satellites

CGMS

SWCG - Key Outcomes (1 of 2)

- Agreed to update CGMS Baseline definition of energetic particle monitoring to reflect the committed coverage. A further update is planned to split the baseline commitment into different energy ranges. Additional precision was also provided for the magnetometer commitment and definition of sun-earth line.

- NOAA are making good progress on the SWFO L1 mission, with launch planned for 2025 and the ESA Lagrange (L5) mission is on track for launch in 2027 (will also embark a NASA payload).
- Contingency measures to mitigate a potential gap due to the current reliance on ageing spacecraft at L1 are limited.
- The ISRO Aditya L1 mission (due for launch in 2022) has good potential for coordination of data with the NOAA L1 SWFO and ESA L5 Lagrange missions, but is not planned to support operational data latency requirements at the current time.

- A white paper for the inter-calibration of energetic particle sensors in GEO is ready for presentation to GSICS, having benefited from good cooperation and data sharing between members.

SWCG - Key Outcomes (2 of 2)

- Various members reported progress in deploying energetic particle sensors in GEO and LEO. ESA are also deploying sensors as hosted payloads on commercial satellites (first is Hotbird F1, launch 2022). Preparations for deploying radiation sensors for the Lunar Gateway are ongoing.

- NASA and NOAA are working under a new directive to facilitate the exchange of new observations, models and applications between research and operations activities.

- Progress is made on ensuring the correct structuring of space weather data within the WMO OSCAR database. Further work on handling data latency commitments is ongoing.
- WMO also reported that a new expert team shall start to continue activities previously performed by IPS SWeISS.

- The HLPP was updated following review of SWCG related matters. The revised HLPP will be presented to plenary for endorsement.

Joint WGI-WG-IV-SWCG - Key Outcomes (1 of 2)

- Spacecraft anomaly reporting for the Space Weather Anomaly Database from all members is compiled into a dedicated document.
  - Data so far supplied by EUMETSAT and CMA.
  - The Task Group is making progress on defining use cases and getting historical data for analysis.
  - Polls will be made of members to address reasons for difficulties in supplying data to ensure the process overcomes these points.
  - Commercial operators to be polled to check their ability and willingness to contribute to give statistically significant amounts of data.

- Low latency RO provision is improving through the COSMIC-2 mission.
  - Measures are in place at NOAA to ensure a 30-minute median latency is achieved.
  - A Task Group is also being established to address how to meet low latency requirements through adaptions to other existing and planned LEO missions.

Joint WGI-WG-IV-SWCG - Key Outcomes (2 of 2)

- Potential improvements in data access are being identified as a result of interactions with the ISES community of operational space weather prediction centres
  - A dedicated Task Group will now identify pilot projects for priority implementation, with candidates including:
    - Improving access to high energy particle sensor data;
    - Selection of standard ionospheric RO product formats;
    - Provision of metadata;
    - Provision of data on GTS/WIS