

IMD [Main developments since CGMS-48 and an outlook for the future]

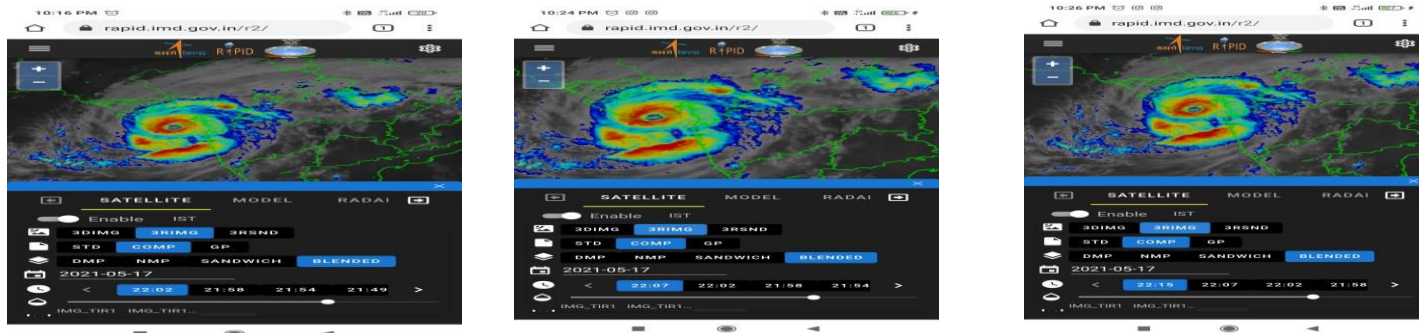
Presented to CGMS-49 Plenary Session
Dr. M. Mohapatra, DG & PR of India with WMO (Head of Delegation, IMD)
India Meteorological Department
Ministry of Earth Sciences, Government of India

High lights Since CGMS-48

- Operationalization of MMDRPS system for INSAT-3DR with latest state of art system
- Many new set of Imager /Sounder products are generated operationally (Net radiation, Improved INSAT Multispectral Rainfall, Land Surface Albedo, Short Wave Radiation over Ocean, Total Precipitable Water over Ocean, Potential Evapo-transpiration over land, Actual Evapotranspiration and from sounder Cloud Top Pressure, Effective Emissivity, Cloud Top Temperature)
- Implementation of new algorithm : 1D-Var for generation of SST products with better accuracy (RMSE reduced from ~0.9K to ~0.6K)
- Snow variation map for mountain region along with LST map to identify fresh snow, melting snow area and potential vulnerability area of landslide/flash flood in mountain regions
- RAPID Scan (~ 5 minute) conducted successfully for monitoring the cyclonic activities.
- Implementation of Data Supply Portal is in final stage..
- Declarations of INSAT-3D sounder end of life (September-2020) and INSAT-3DR sounder scan modified and being operationalized on hourly basis (coverage over Indian land /Ocean region).
- Advanced Dvorak Techniques (ADT-8.2) is implemented in MMDPRS and used operationally.
- INSAT-3D & 3DR wind products are being disseminated in Bufr format through Global Telecommunication system (GTS) network for international agencies in real time basis.

Continued-

- GNSS network of IMD (25 locations) for monitoring the real time Integrated Precipitable Water Vapour (IPWV).
- RAPID- beta version is in final stage of implementation which will have the provision to visualize the NWP, radar, in-situ observational data on a real time basis overlaid on satellite data with geo-referencing information & compatible to mobile users.
- Recent cyclone (Tauktae) land fall monitoring by recently developed new RAPID tool (10:30 pm to 10:40 pm)



- Future missions led by ISRO GISAT-1 (likely to be launch in 3rd quarter Of 2021) and INSAT-3DS Geostationary satellite ((likely to be launch in 3rd quarter Of 2022.
- Thanks to EUMETSAT for providing Meteosat-8 services over the Indian Ocean (IODC) through terrestrial link and enhancing the cooperation with EU in future development of GEO+LEO blended products, Nowcasting tool in collaboration with Nowcasting Satellite Application Facility (NWC-SAF) and CAL/VAL activities.

Thank You

