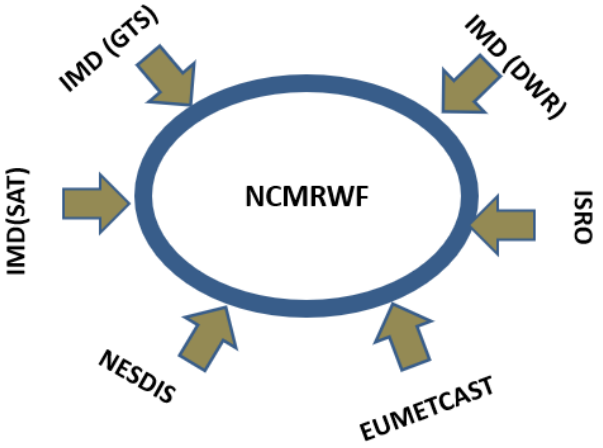
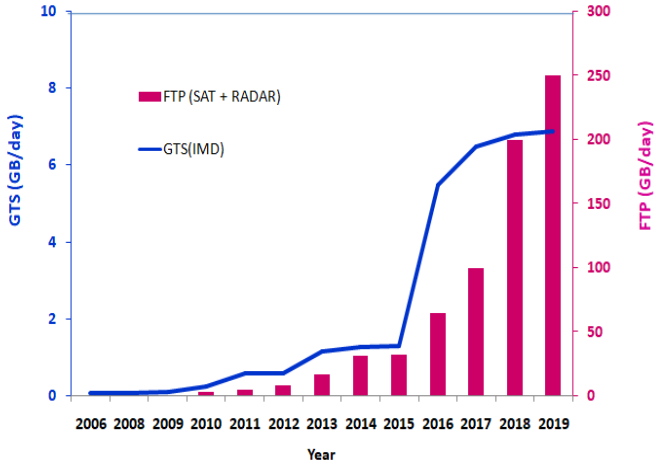
NWP Status: NCMRWF

The 22nd International TOVS Study Conference (ITSC-22), Saint-Sauveur, Canada
31-10-2019 to 06-11-2019

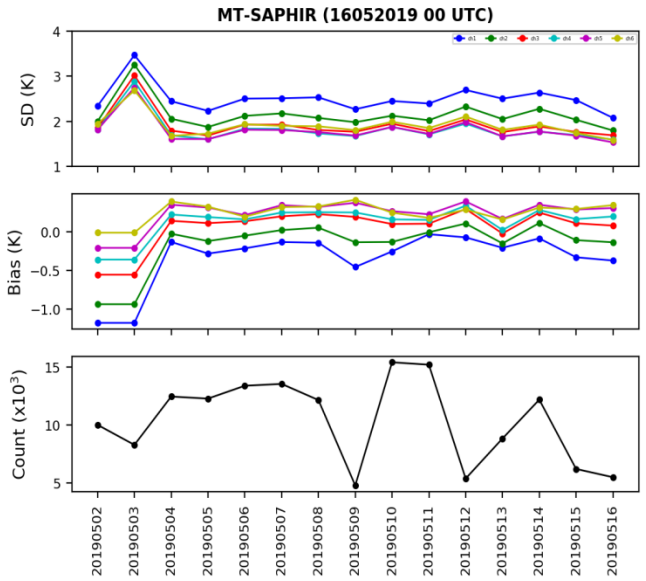
Meteorological Data Reception

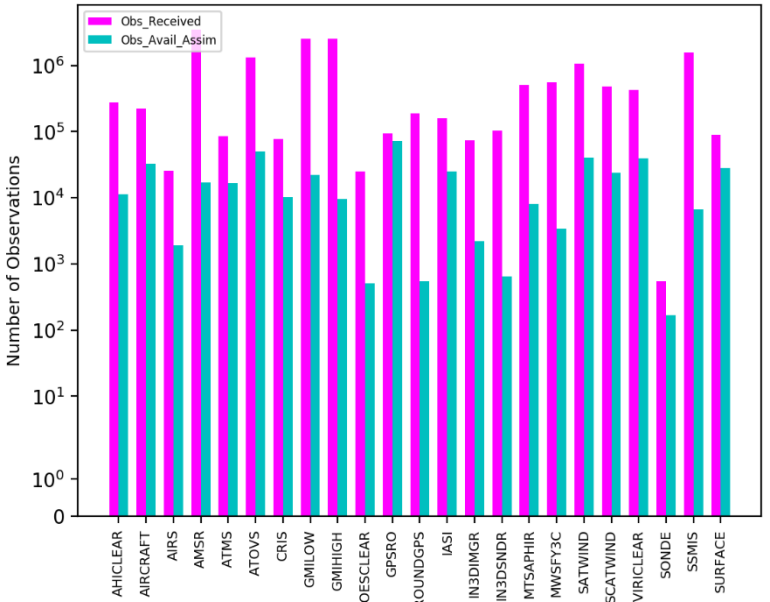


Improvement in Data Reception



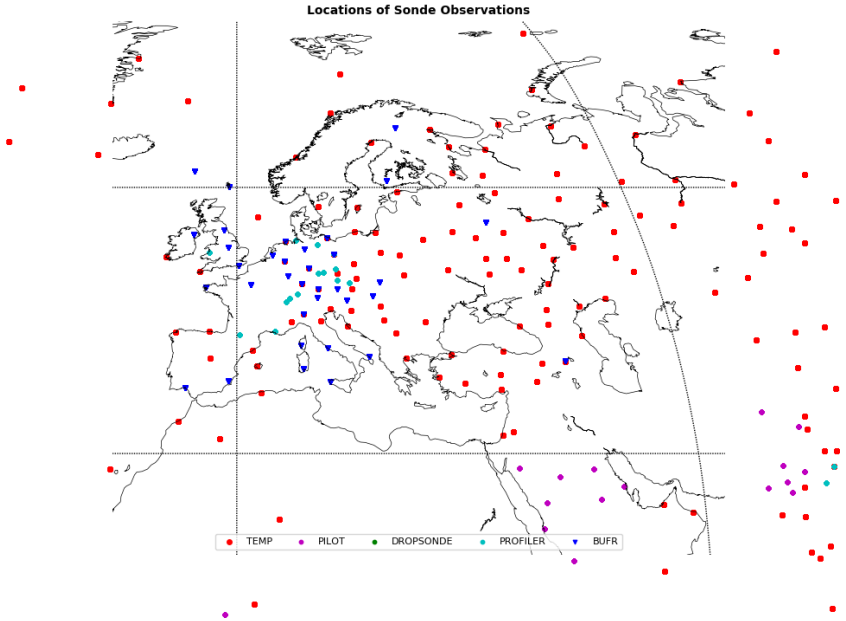
Data Monitoring



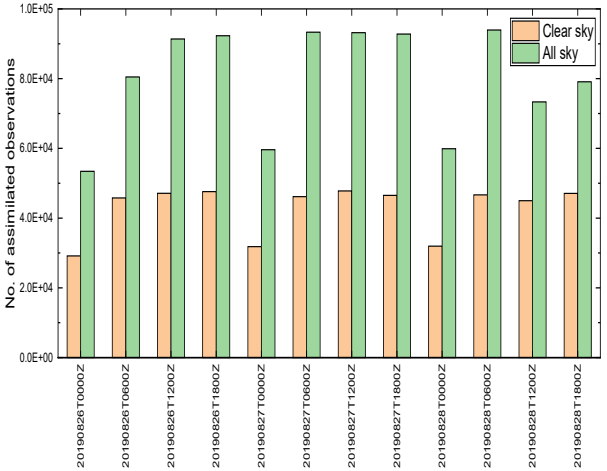


New Observations

Sonde BUFR



AMSU-A all sky radiances



New Observations Assimilated - Operational	New Observations Assimilated - Experiment
AMVs from GOES-16, GOES-17 and NOAA-20; Radiance from NOAA-19 and FY-3C, BUFR surface & sonde observations	*AMVs from GK-2A, FY-2G, FY-2H; Scattrometer winds from HY-2A; NOAA-20 radiance (ATMS & CrIS); All sky radiance from all AMSU-A*

Global Data Assimilation and Forecast System

Model	Assimilation Technique	Model Resolution	Assimilation Cycles	Forecast Frequency	Forecast Length
NCMRWF Unified Model (NCUM)	Hybrid-4DVAR	12 km (horizontal) 70 levels (up to 80 km vertical)	Four (00,06,12,18) with update run for 00	Two 00 12	 10 days 5 days
NCMRWF Global Forecast System (NGFS)	4DEnsVAR Hybrid	T1534L64	Four (00,06,12,18) Update run for 00 and 12	Four 00 06 12 18	10days

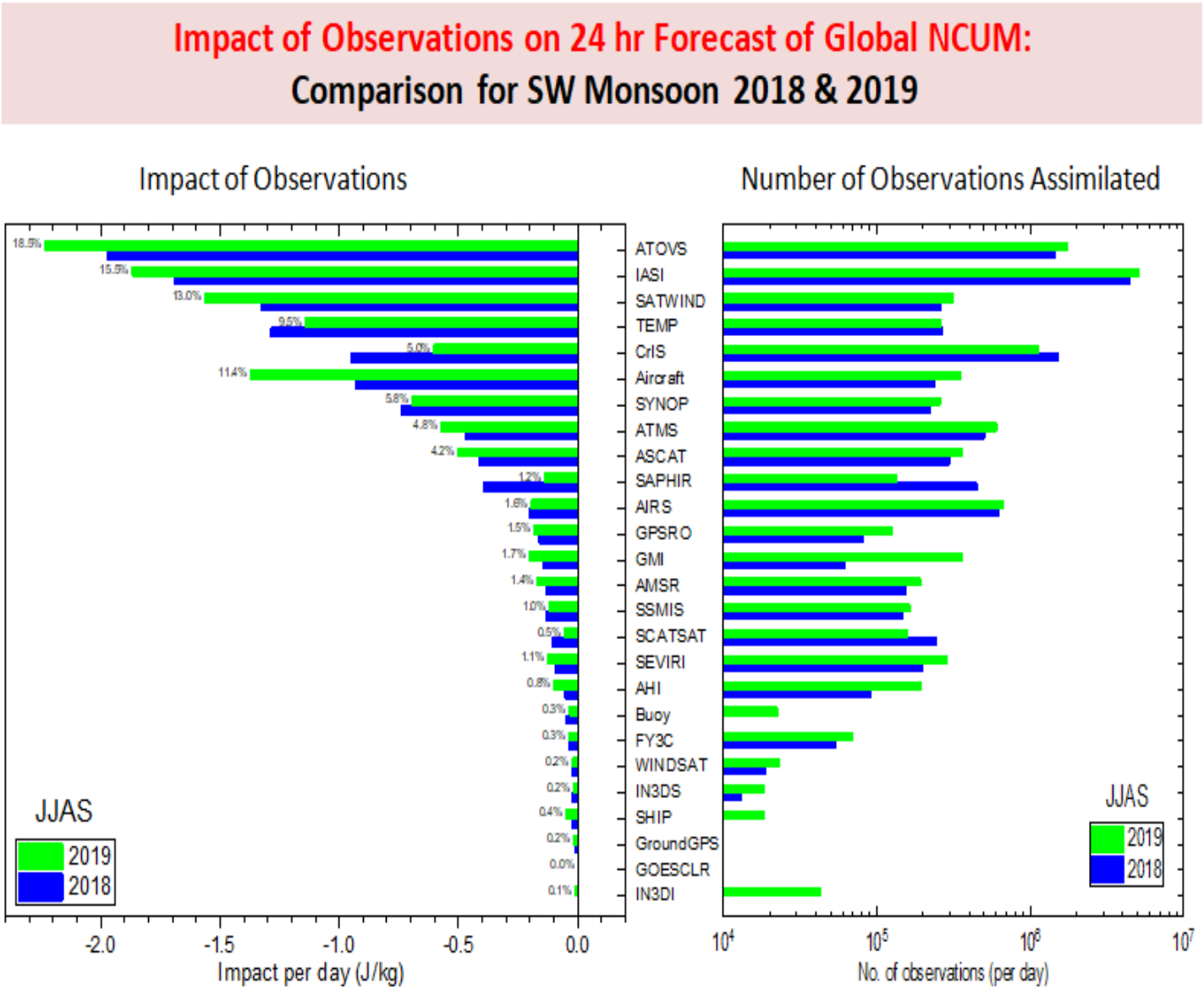
Global Ensemble Prediction System

Model	Ensemble members	Model Resolution	Perturbation Generation method	Assimilation Cycles	Forecast Frequency	Forecast Length
NCMRWF Ensemble Predictio n System (NEPS)	22 + control	12 km (0horizontal) 70 levels (up to 80 km vertical)	Ensemble Transform Kalman Filter	Four (00,06,12,18)	One Based on 00 (predictions based on 11 perturbed members from previous day 12UTC run and 11 members from current day 00UTC run)	10 days

Regional Data Assimilation and Forecast System

Model	Assimilation Technique	Model Resolution	Domain	Assimilation Cycles	Forecast Frequency	Forecast Length
NCMRWF Unified Model Regional System (NCUMR)	4D VAR	4 km (horizontal) 70 levels (up to 80 km vertical)	India and the surrounding oceanic region	Four (00,06,12,18)	One Based on 00	3 days

Forecast Sensitivity to Observations (FSO)



EMMDA (Ensemble Methods in Modelling and Data Assimilation)

NCMRWF is organizing an International Conference on "Ensemble Methods in Modelling & Data Assimilation (EMMDA-2020)" during 24-26 Feb 2020.

We have received confirmation from many international experts


National Centre for Medium Range Weather Forecasting (NCMRWF) Noida, India
NCMRWF

THANKS