GHRSST RDAC

CANADIAN METEOROLOGICAL CENTRE

Canadian Meteorological Center
report to GHRSST

Dorina Surcel Colan

National Prediction Development Division, Meteorological Service of Canada, Environment and Climate Change Canada

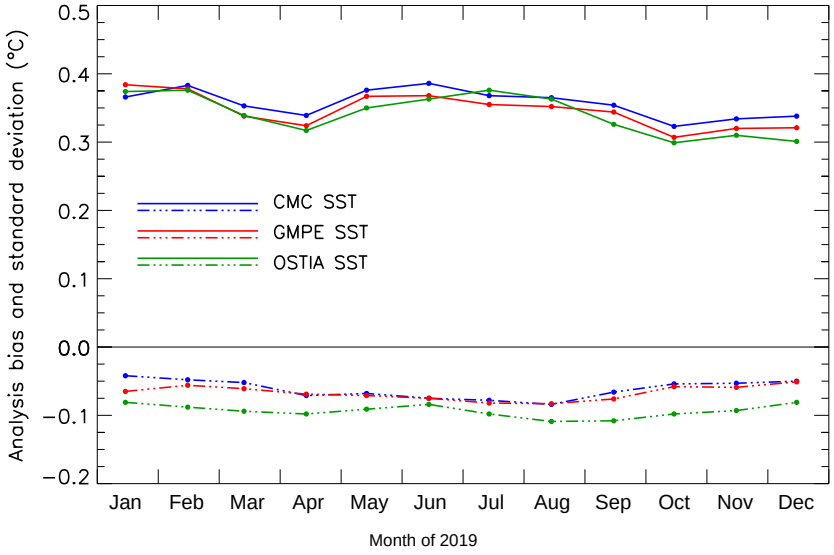
21st International Science Team Meeting (GHRSST XXI)

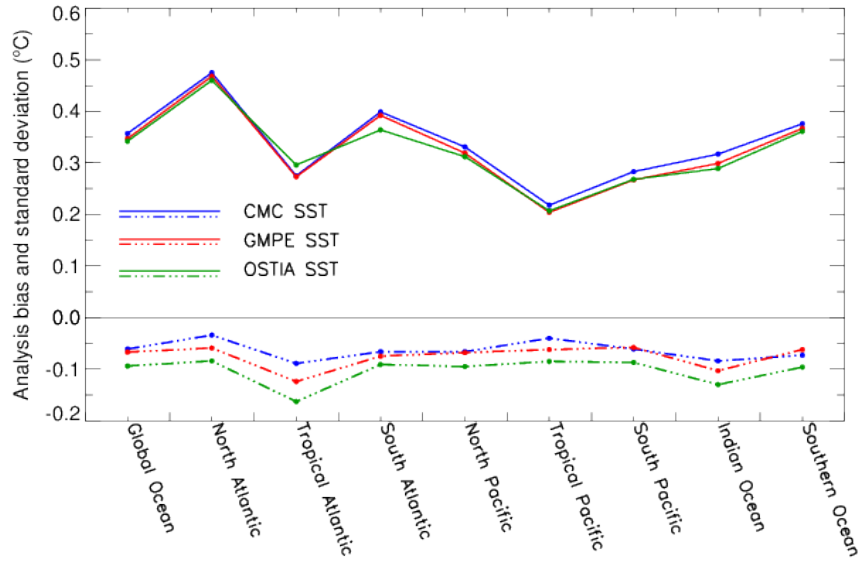
1 - 4 June 2020, on line

L4 0.1º CMC SST v3.0

- Global 0.1º resolution, latitude/longitude grid
- Assimilate AVHRR (NOAA19, Metop-A, Metop-B from NAVOCEANO), AMSR2 (GCOM-W1 from RSS), VIIRS (Suomi NPP from NOAA), in situ data (drifters, buoys, ships from GTS), ice information (CMC ice analysis)
- Method : optimal interpolation
- Operational analysis since July 3, 2019
- Period : since January 1, 2016
- Available from PO.DAAC and NOAA/NCEI in GDS2 format

CMC SST performance over 2019





Consistent performance compared to ARGO floats

On going activities and future plans

- Two operational ocean data assimilation systems are run every day at CMC: a global ORCA025 GIOPS and a regional ORCA12 RIOPS which covers three Canadian oceans
- Work is on the way to assimilate VIIRS data from NOAA20; the results show small improvements in the bias and standard deviation compared to ARGO data, we need to test the impact for the numerical weather systems
- Change the assimilation method for SST (variational data analysis) and migrate SST analysis into MIDAS (Modular and Integrated Data Assimilation System) - development work done by RPN