OPOS – WG MEETING
22 July 2024

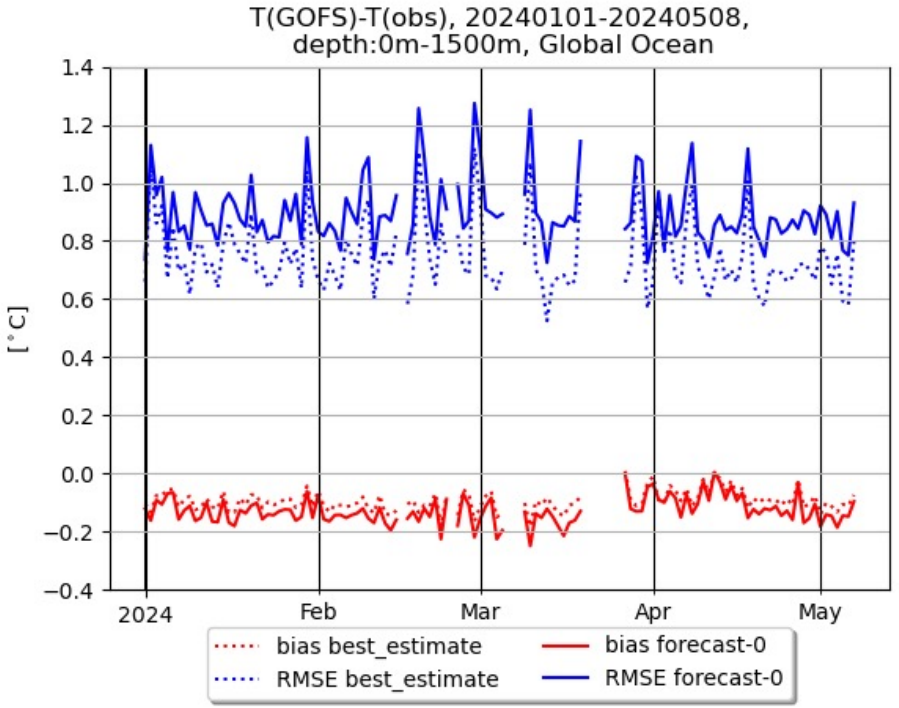
- CMCC CONTRIBUTION

CMCC Operational Forecasting system updates

Global Operational Forecasting System at 1/16°

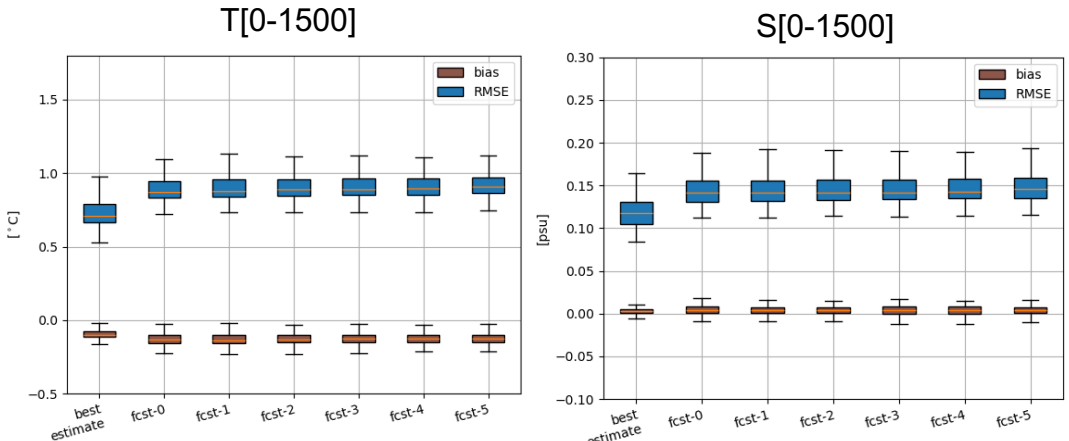
- Updates

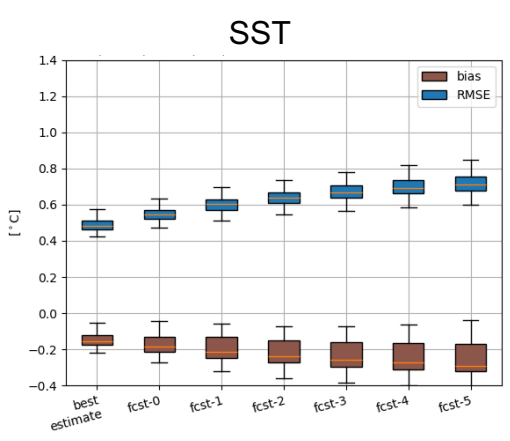
	GOFS16
March 2024	Migration to a new cluster and upgrades in DA assimilation (weekly re-initialiation)
Presently	-) Reprocessing of the timeseries since February (sla data with errors). -) Waiting for the access to ECCC server
Next 6monts	Upgrading model to nemo4.2 / atmospheric forcings

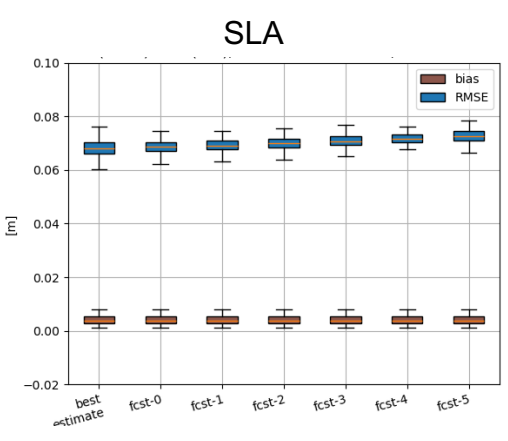


- Validation statistics for Temperature, Salinity and SLA

Period:
1st Jan-
8th May 2024



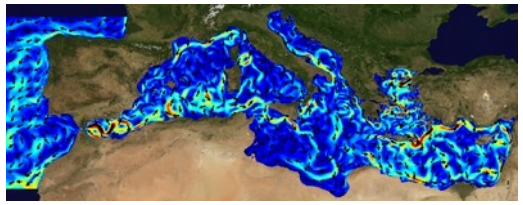




CMCC Operational Forecasting system updates

Mediterranean Operational System for the Copernicus Marine Service: MedFS

➢ 30 November 2024: an upgraded system will become operational

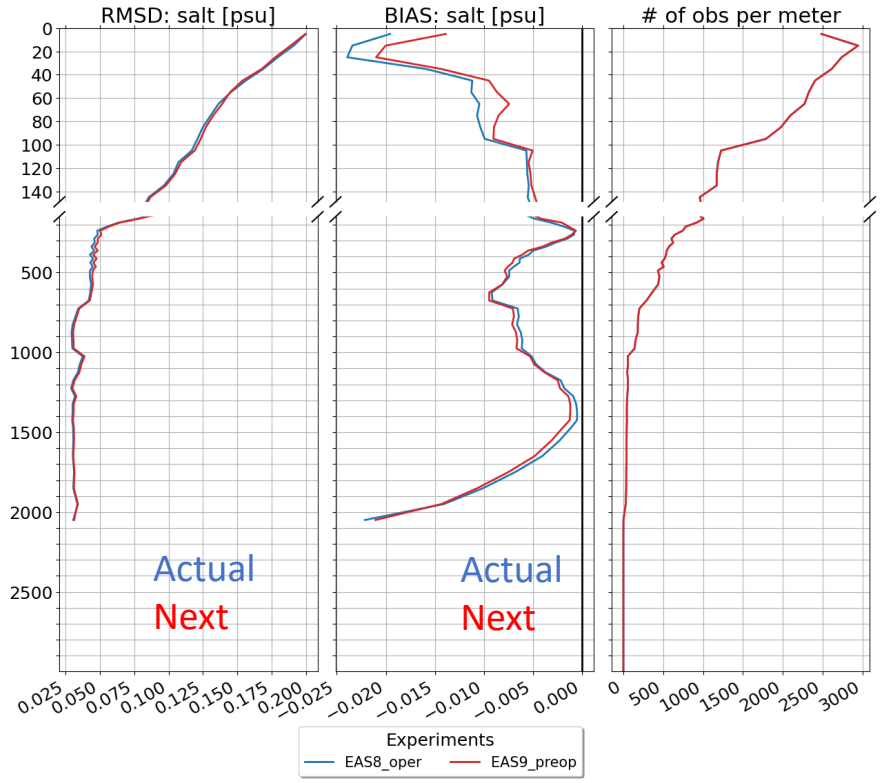


- **NEMO** with tides 2-way coupled **WW3**
- Resolution: ~4km & 141 vert. levels
- ECMWF 1/10 deg
- SST nudging (Sat. L4 Copernicus)
- 39 rivers
- Assimilation: **OceanVar** (3DVAR)
  - T/S vert. profiles (In-situ Copernicus)
  - SLA along trakcs (Sat. L3 Copernicus)

Operational system:

- Weekly analysis
- Daily forecasts (10 days)

	Next Copernicus Marine Mediterranean op. system MedFS
Upgrades in the modelling system	Use of high frequency river runoff from Copernicus Emergency Service: EFAS–v5
Upgrades in Data Assimilation	Assimilation of gliders Assimilation of SLA data at 5Hz



Major improvements:

Reduction of salinity Bias from surface to 100m