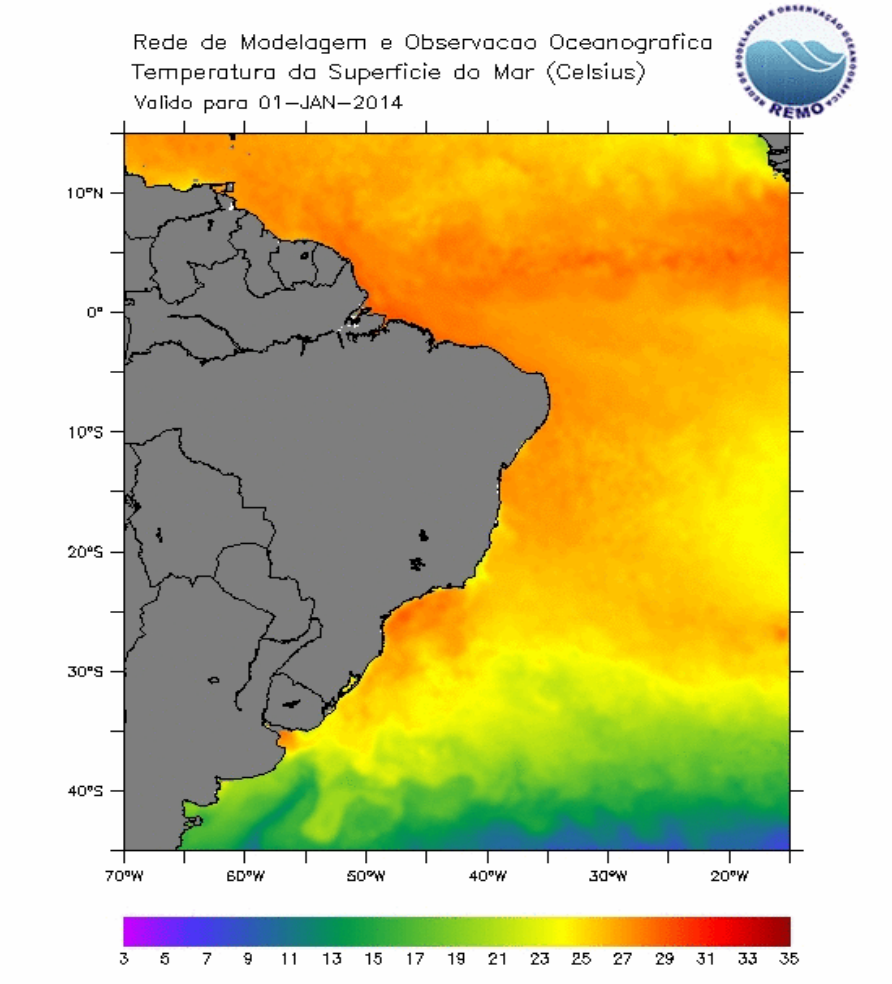
GHRSST XVI

SST actions at REMO

Outline

- REMO´S SST timeseries
- SST, SHA and Argo assimilation
- challenge of SST retrieval during the upwelling in southeast coast region in Brazil

REMO´S SST timeseries



- Daily SSt analysis (NOAA 18-19 & TRMM)

- Resolution: 0.05º

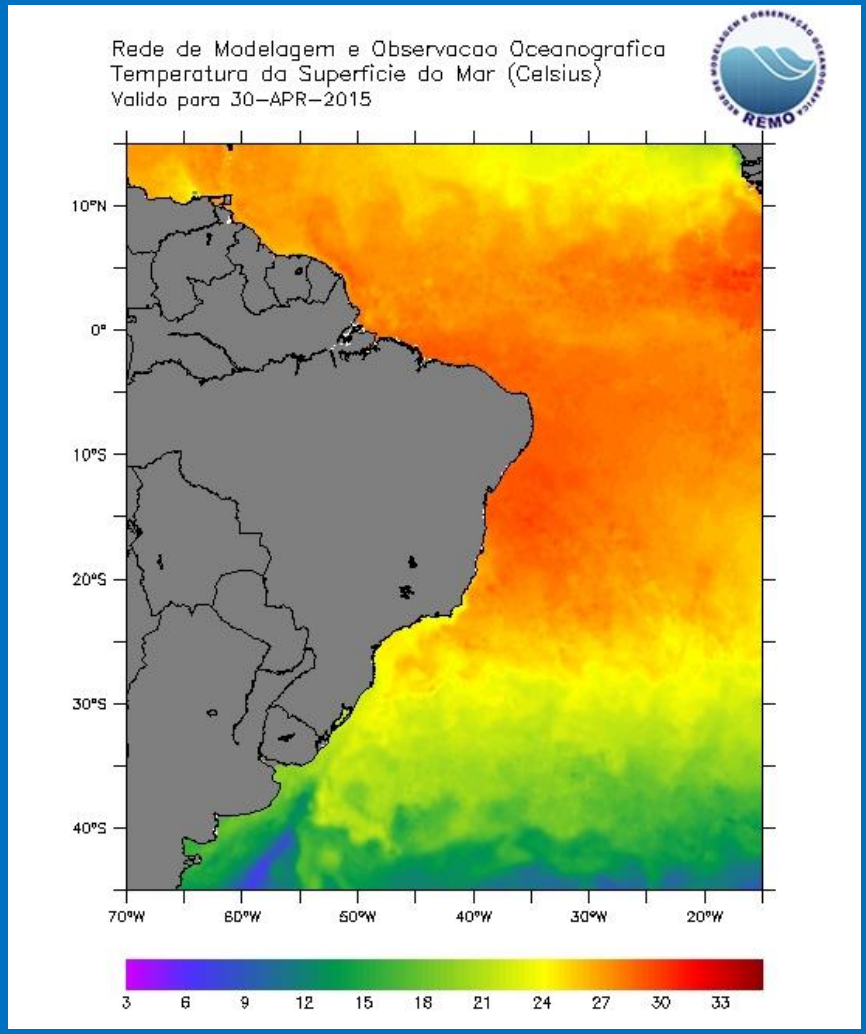
- Period: August 2002 to March, 2015

- Validation is conducted every six months

ftp://podaac.pl.nasa.gov/OceanTemperature/ghrsst/data/GDS2/L4/SAMERICA/UFRJ/REMO OI SST 5km/v1/

New SST

- Data Fusion: NOAA-19, Metop-A, AMSR-2 and Windsat
- Resolution: 0.05º
- Period: March, 2015 up to now
- Bias correction is processing...



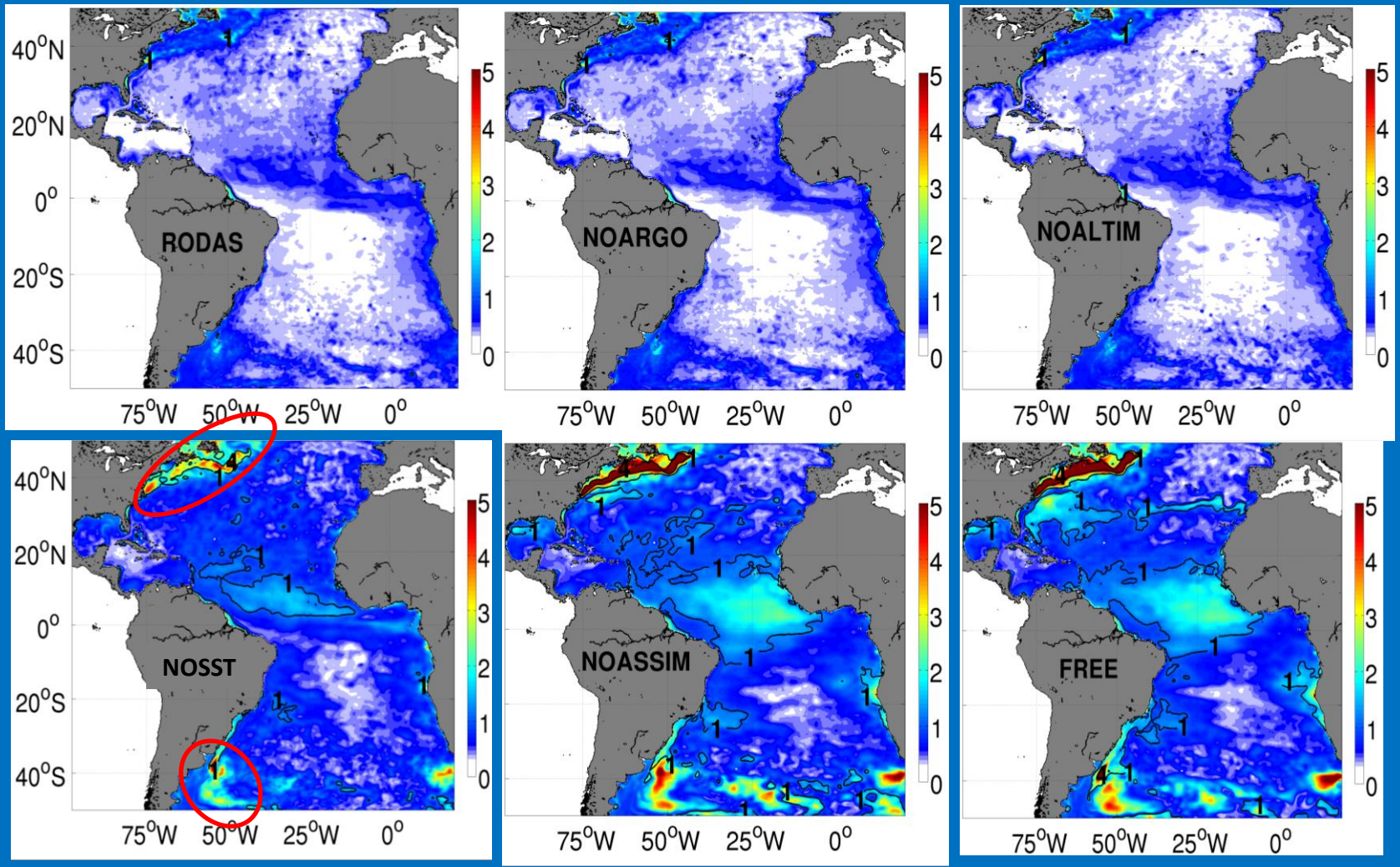
Observing System Experiments

REMO Ocean Data Assimilation System (RODAS) using HYCOM-1/4 :

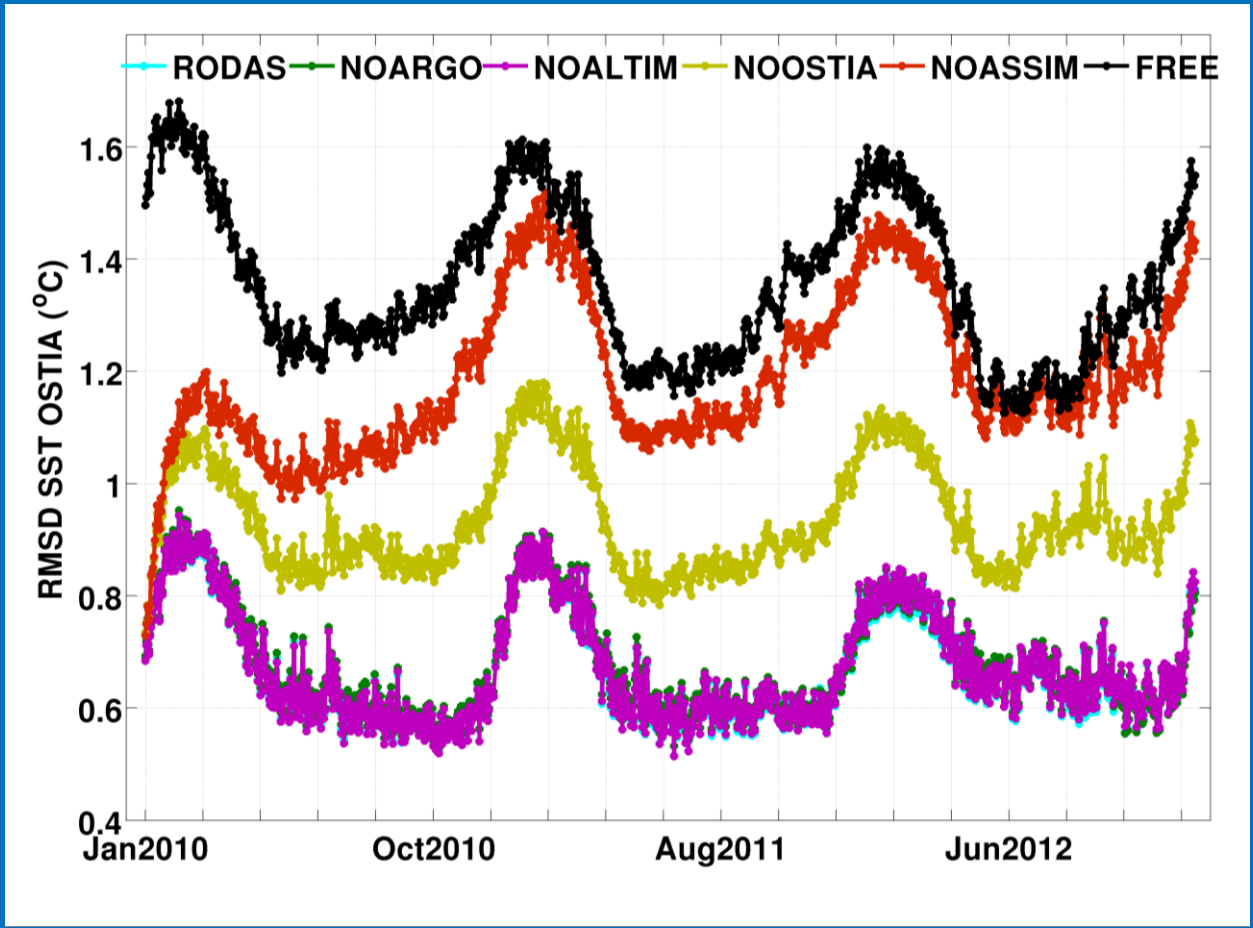
- Argo Temperature (T) and Salinity (S) profiles;
- SST;
- Sea-Level Anomalies (SLA)
- Period: (03 years) – January , 2010 to December, 2012

1. RODAS	Assimilation of SLA, SST and Argo
2. NOARGO	Withholding only Argo
3. NOALTIM	Withholding only SLA
4. NOSST	Withholding only SST
5. NOASSIM	Withholding all observation types and turning off DA
6. FREE	Free run without assimilation since the model initialization (different initial condition compared to the other experiments above)

RESULTS – RMSD OSTIA (º C) (2010-2012)

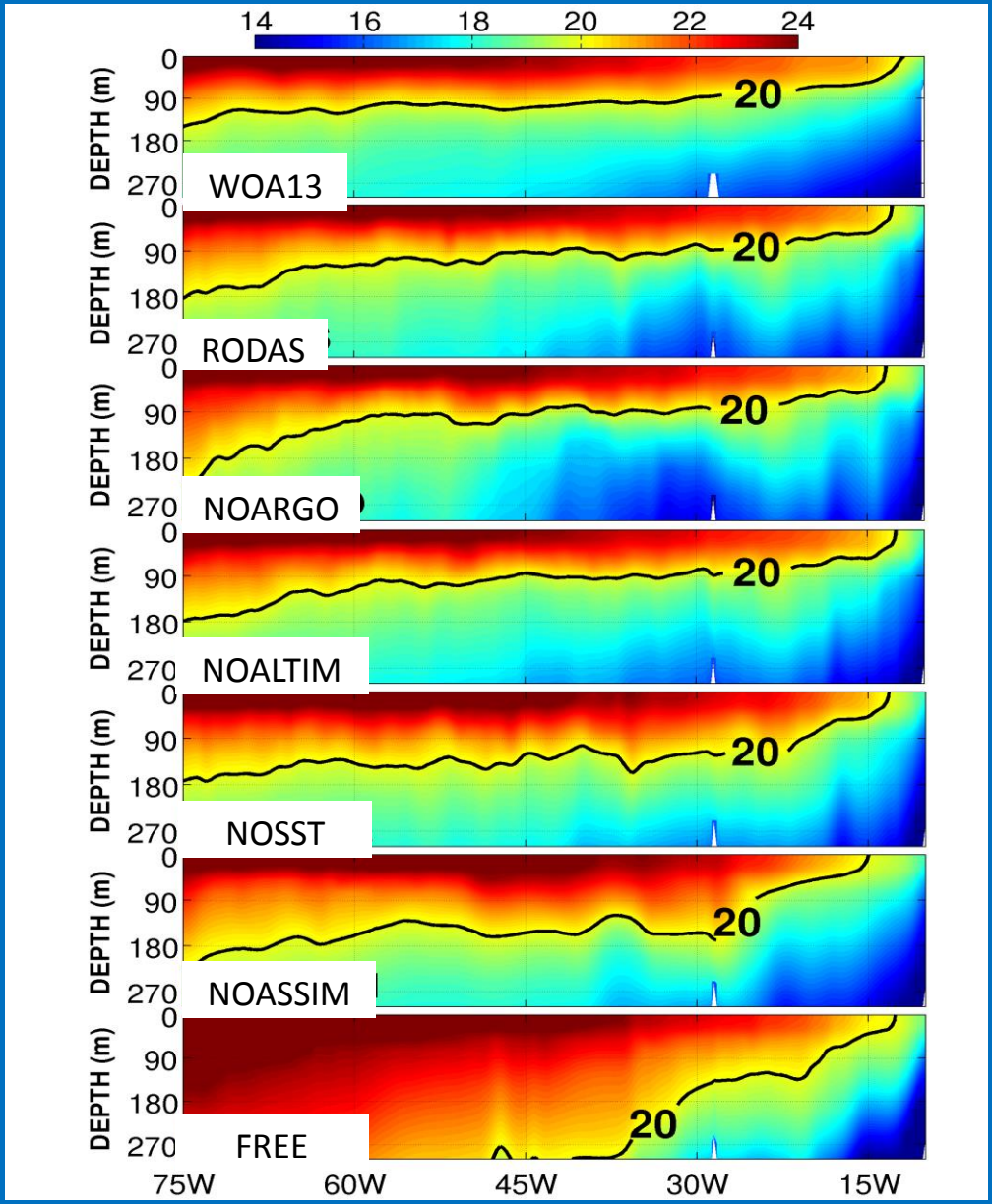


Results – RMSD OSTIA (º C)



EXPTS	RMSD SST (◦C)
RODAS	0.6720
NOARGO	0.6800
NOALTIM	0.6743
NOSST	0.9361
NOASSIM	1.1909
FREE	1.3562

Section in temperature 30º N (2010-2012)



Our challenge to retrieve the SST during upwelling events

- preliminary results will be presented and discussed during the coastal water section

Thanks!