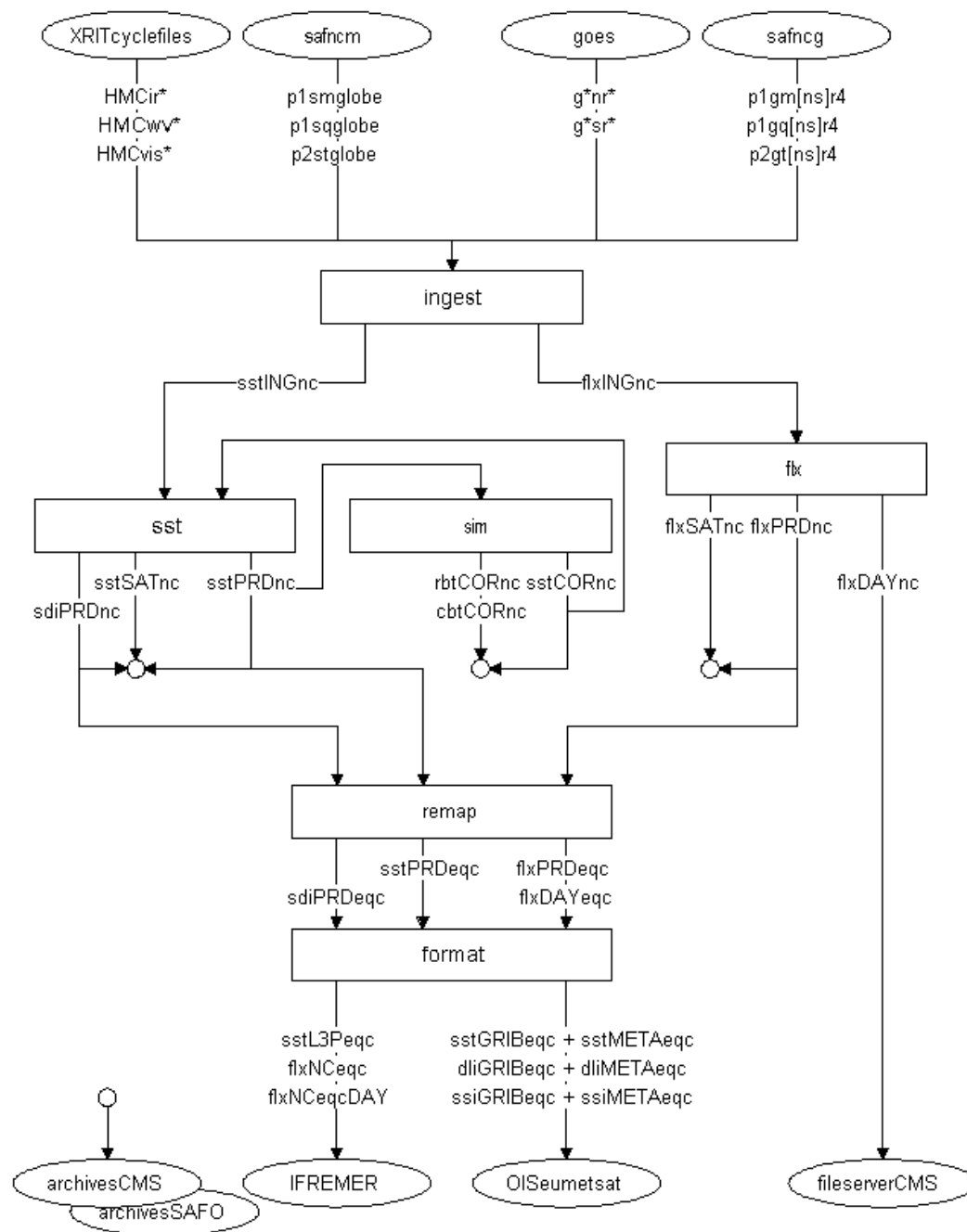


EUMETSAT OSI SAF :

**Ocean products from GEO
satellites**

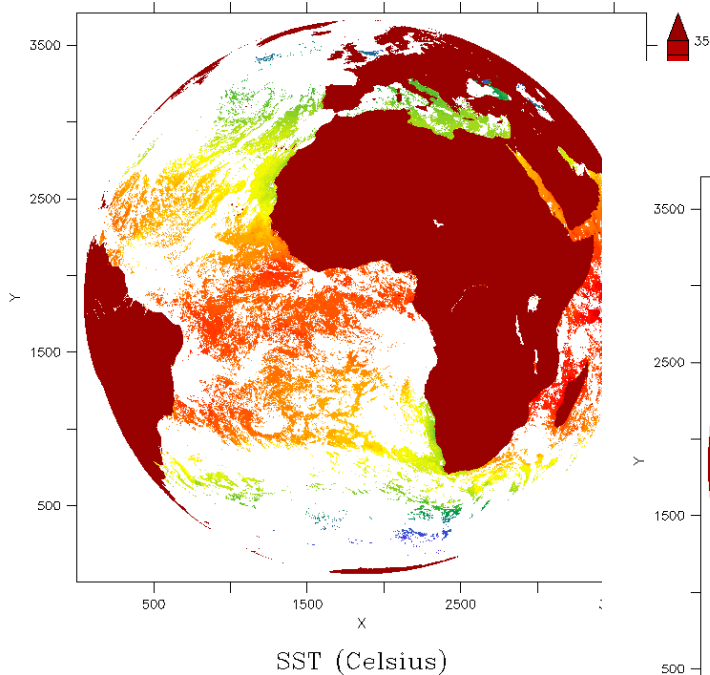
GOES-E + MSG NRT processing : functional overview



8 June 2016

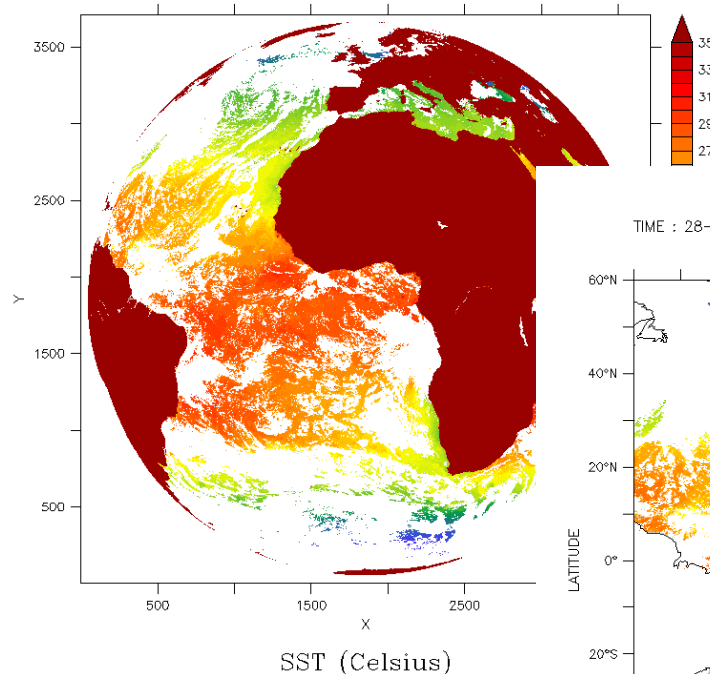
OSI SAF SST processing steps

DATA SET: sstsat_meteosat09_20100328_120000
SAFOS



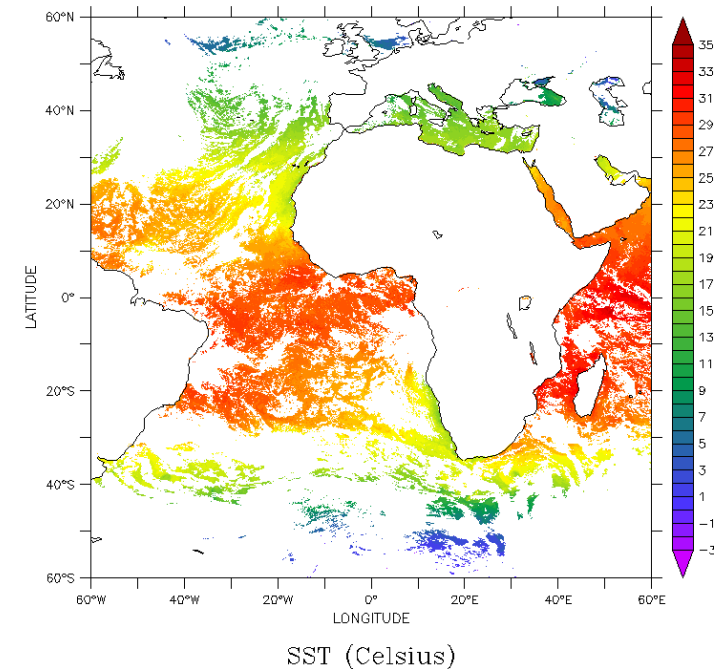
Intermediate (hourly,
spaceview)

DATA SET: sstprd_meteosat09_20100328_120000
SAFOS



Final (hourly,
remapped)

TIME : 28-MAR-2010 12:00
DATA SET: sstqc_meteosat09_20100328_120000
SAFOS

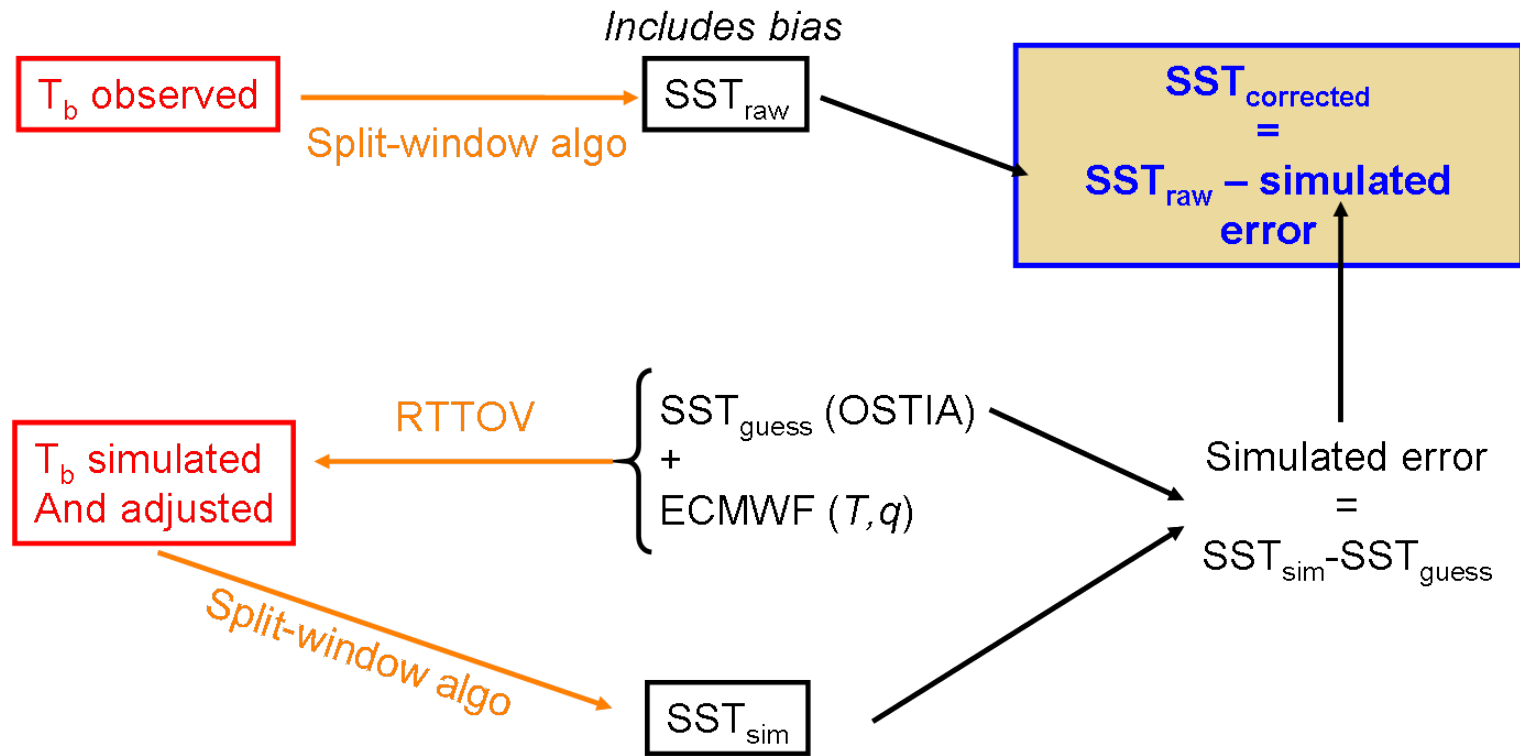


Initial (instantaneous,
spaceview)

8 June 2016

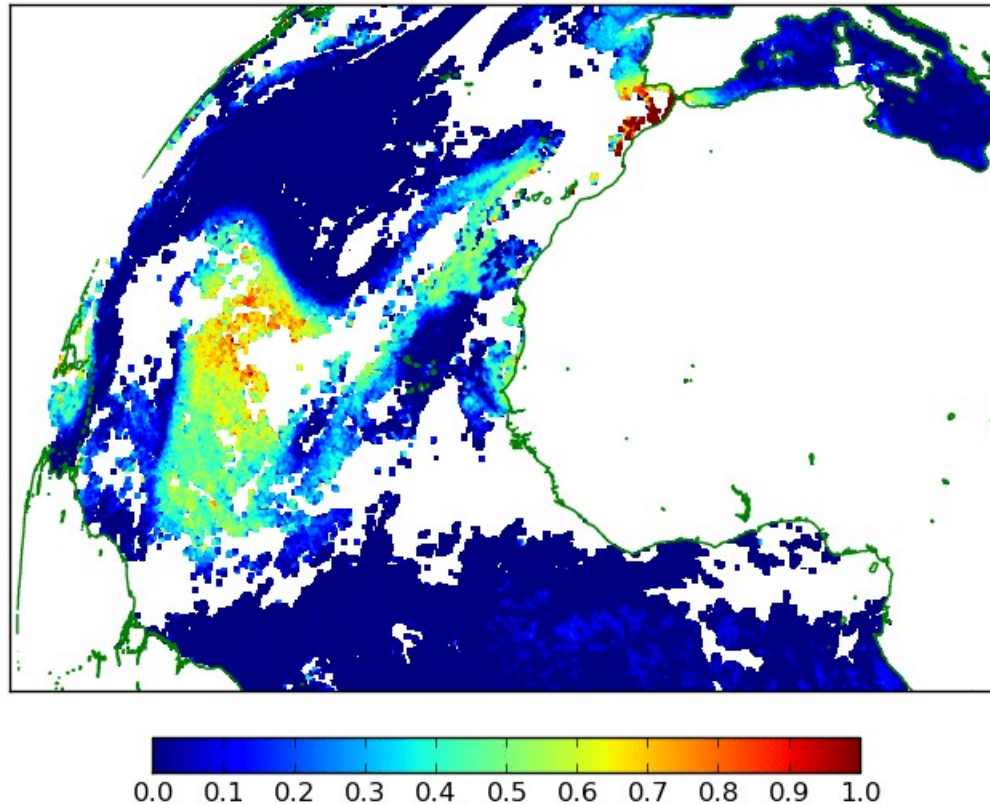
CGMS-44 Side event

SST retrieval methodology



Classical NL algorithm
+
Algorithm correction (Le Borgne et al. 2011) to remove regional and seasonal biases.

MSG Saharan Dust Index

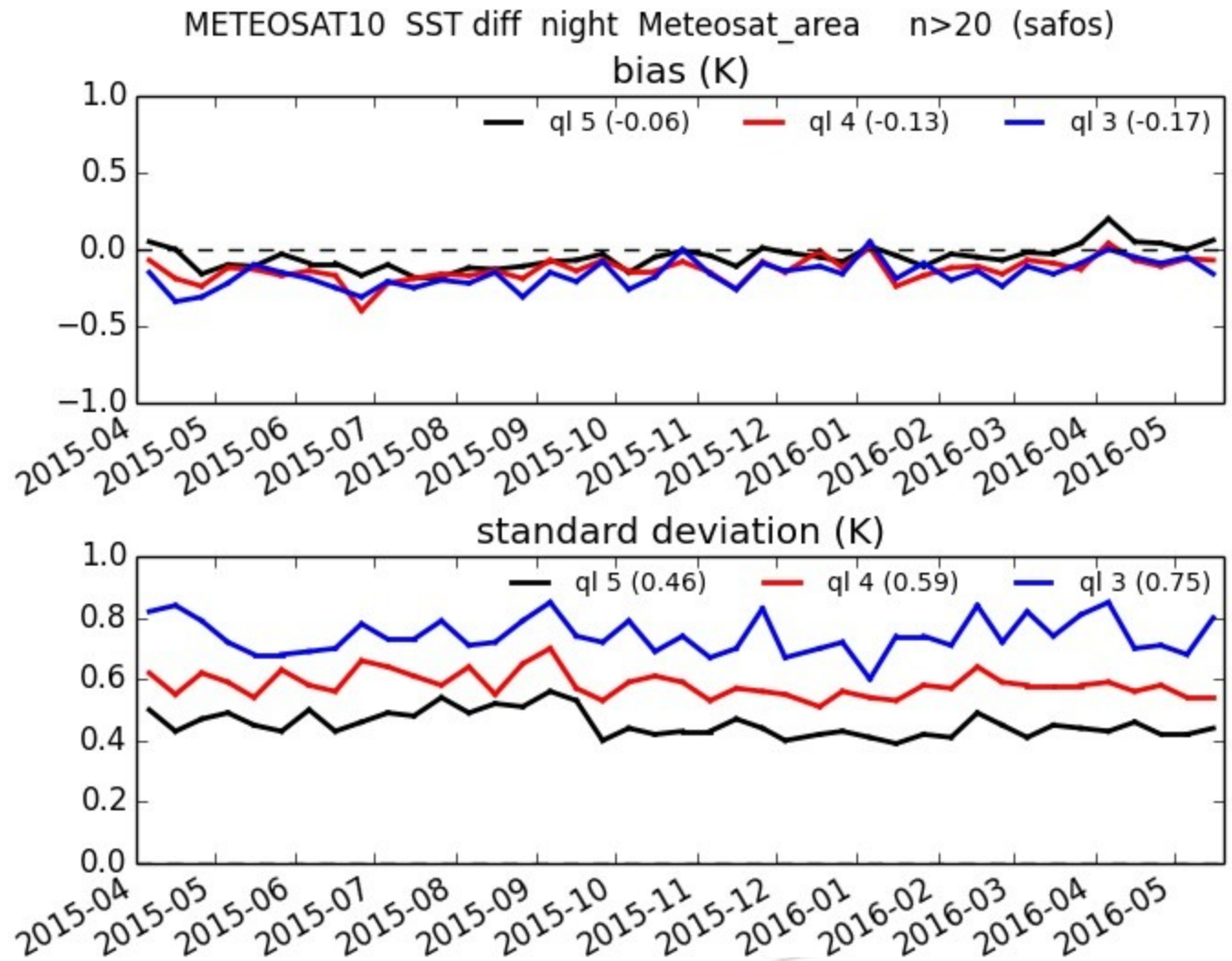


Night-time computation (Merchant et al., 2006) : T3.9, T8.7, T10.8, T12.0

SST validation results (MET-10)

Comparison
against
drifting
buoys

(nighttime)



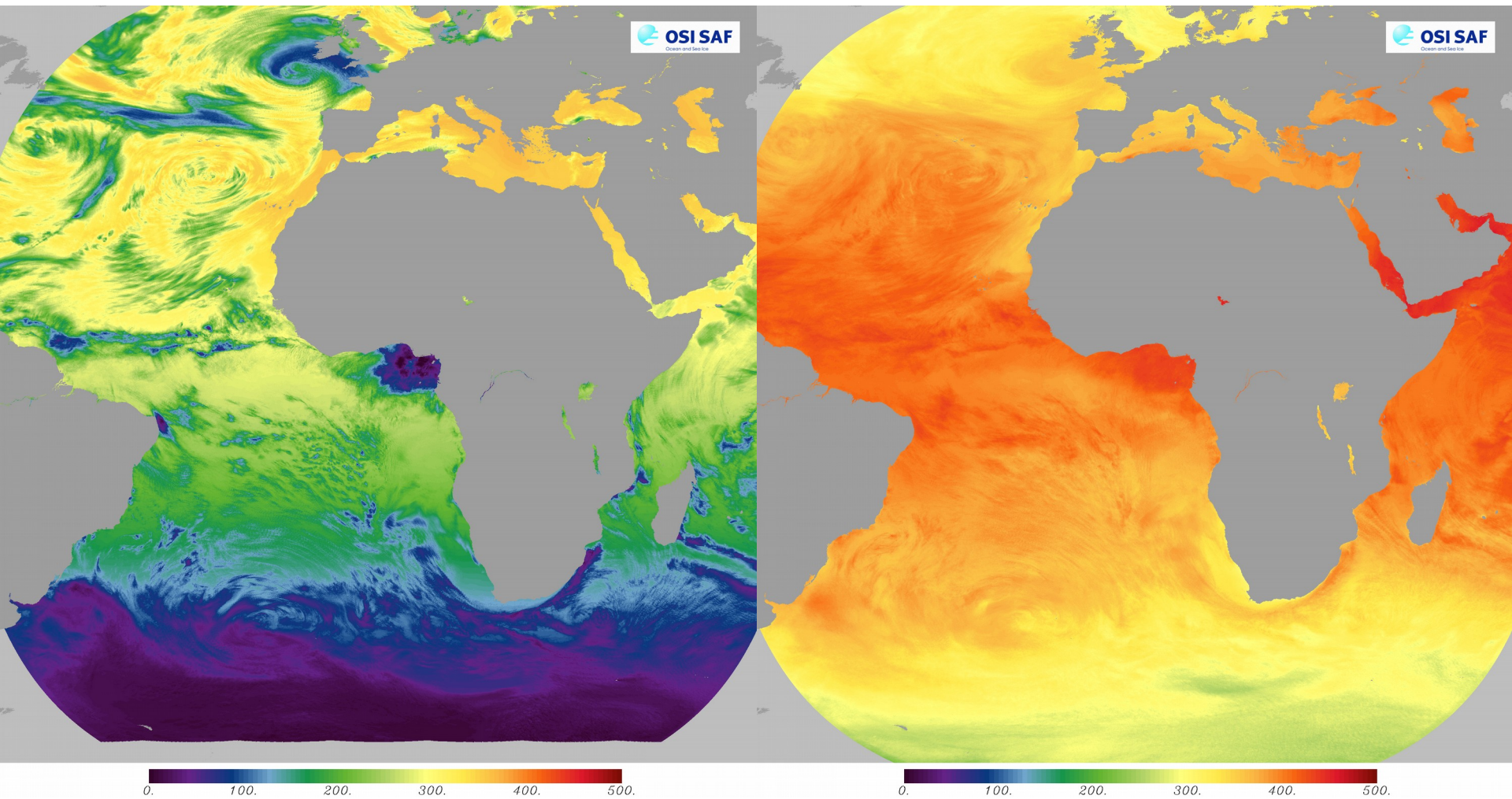
8 June 2016

CGMS-44 Side event



METEO FRANCE
Toujours un temps d'avance

OSI SAF radiative fluxes (SSI, DLI)



8 June 2016

CGMS-44 Side event

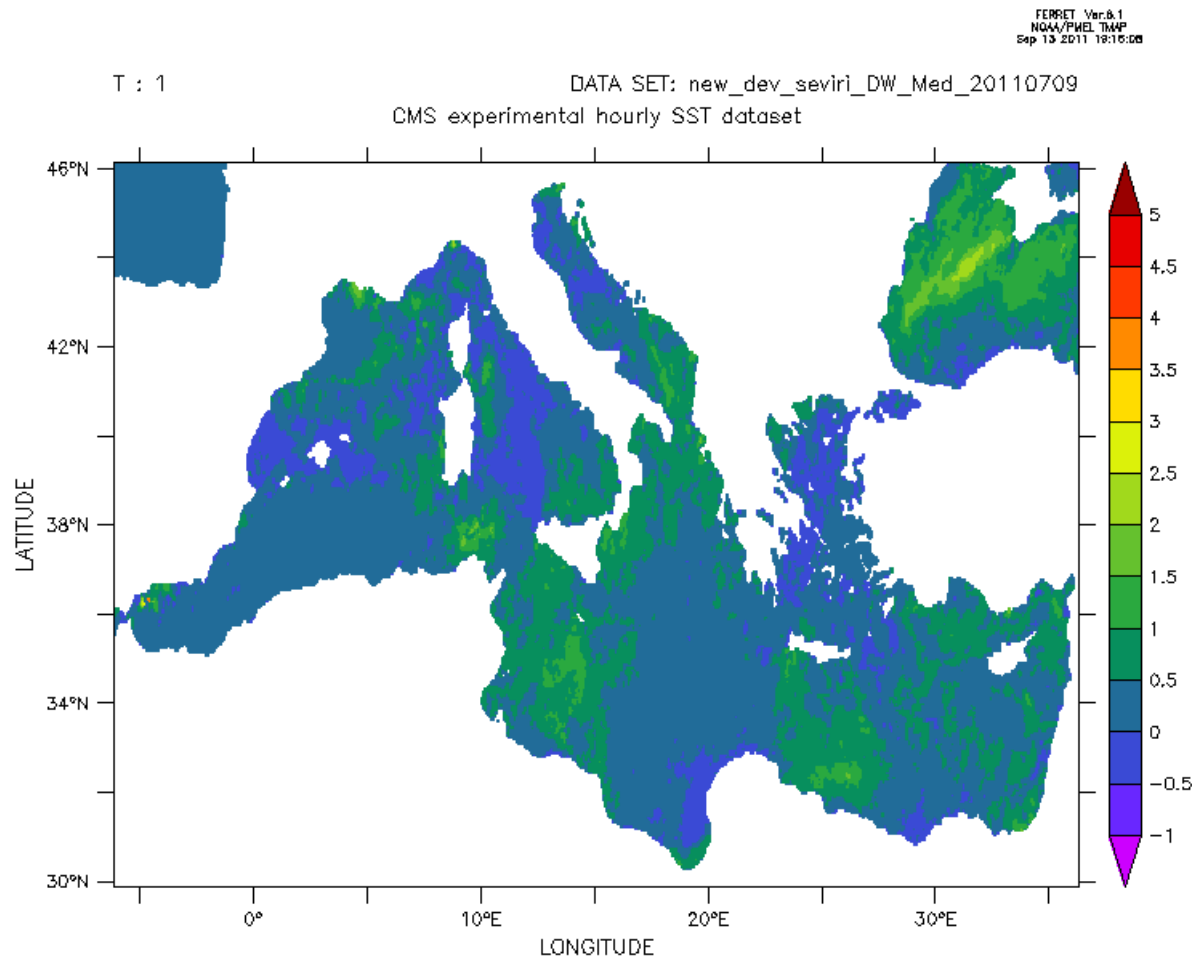


METEO FRANCE
Toujours un temps d'avance

OSI SAF : on-going and future work on GEO

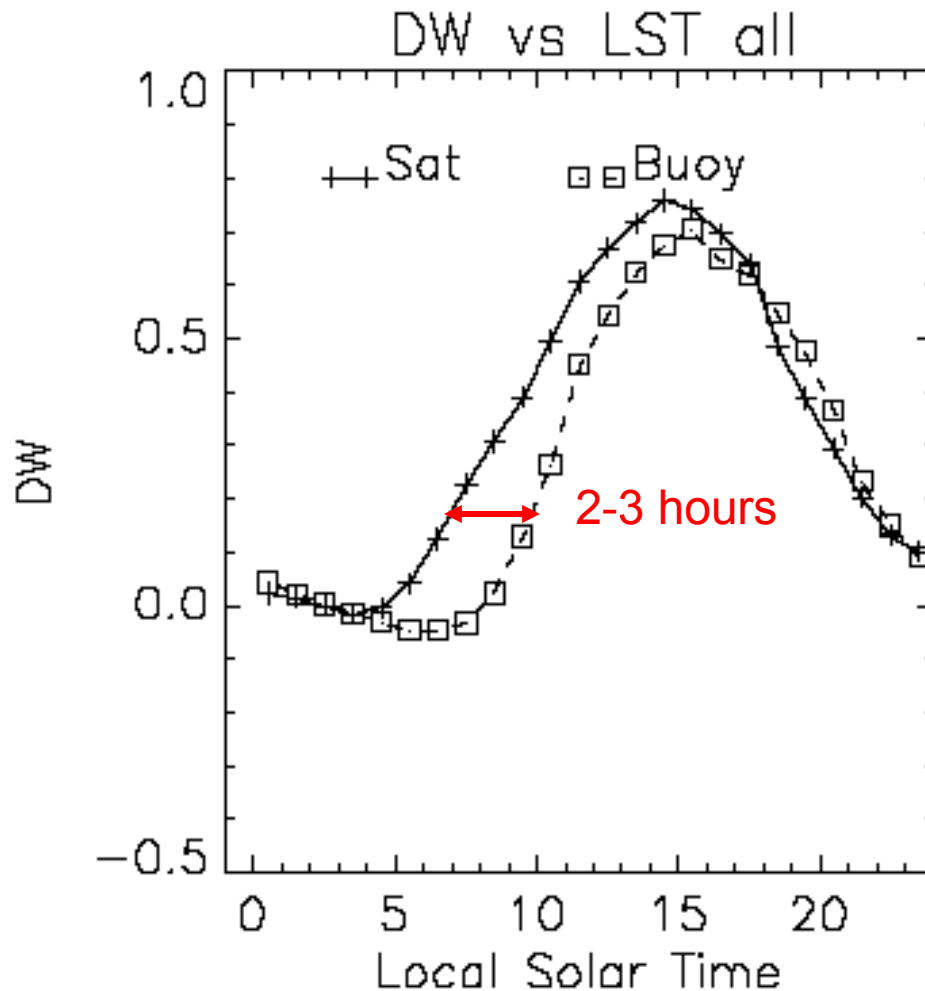
- MSG SST reprocessing (2004 ->)
 - Using CM SAF reprocessed cloud mask (NWC SAF software)
 - Improved / revisited algorithms
 - Test bed for future MTG and GOES-next SST processing (ex : 3-channel Optimal Estimation)
 - Final products available end 2016 / early 2017
- New processing chain for MTG and GOES-next
 - Currently under design
 - Will benefit from improved space/time/radiometric resolution
 - Will exploit new spectral channels : improved cloud detection (NWC SAF), improved aerosol detection/quantification, improved retrieval algorithms

Observing SST Diurnal Cycle from GEO



SEVIRI SST – minimum in time series, no gaps (K)

Understanding Diurnal Warming in ocean surface layers



Comparison between MSG/SEVIRI SSTs (skin SST) and Drifting Buoy measurements (~ 20 cm depth) using operational OSI SAF Match-up Data Base (June – July – August 2011)

Average over all cases where Diurnal Warming > 0.5 K