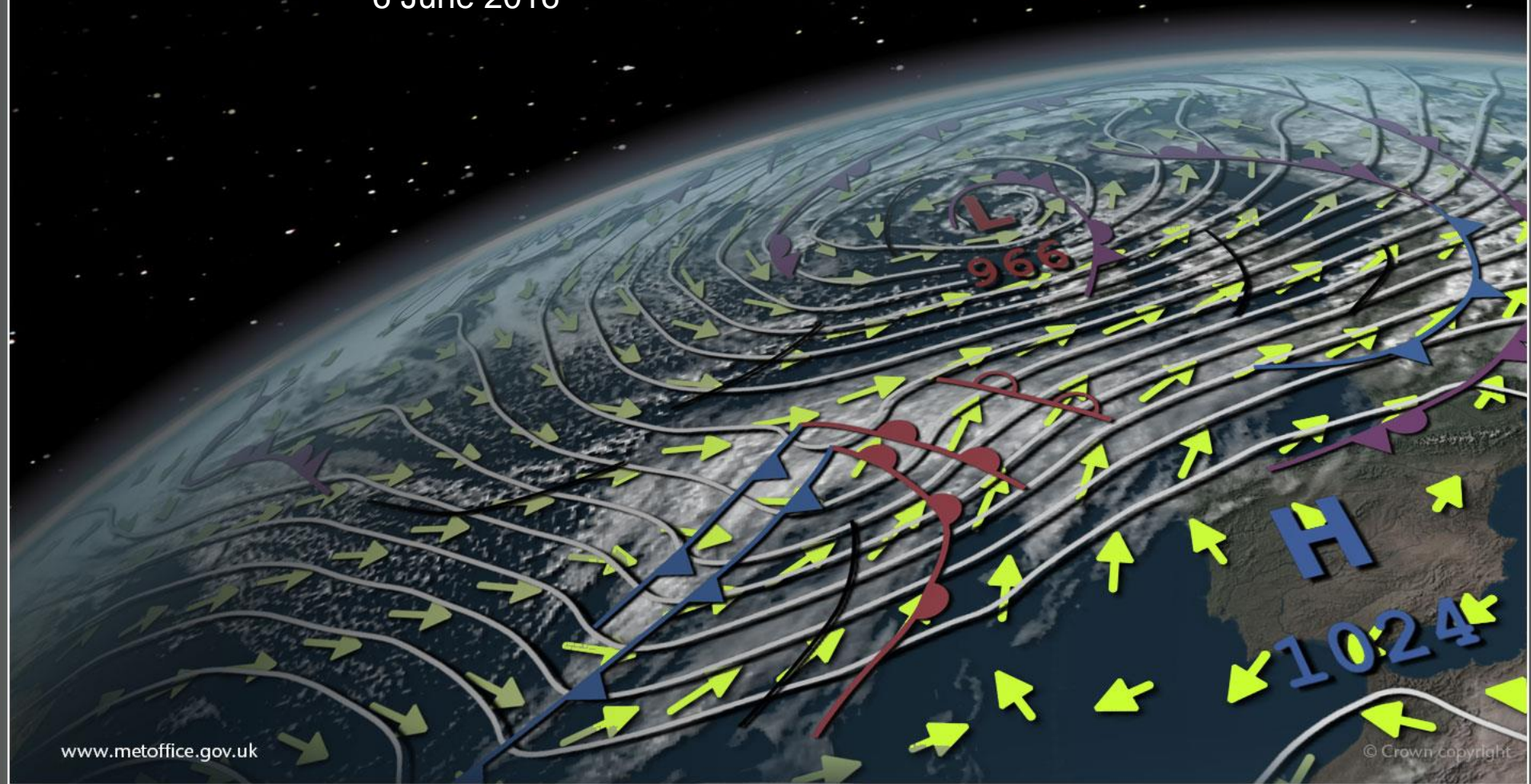




Met Office RDAC

Progress since the last science team meeting

6 June 2016



Near-realtime GHRSSST products at the Met Office

OSTIA (Operational SST and Sea Ice Analysis)

- CMEMS** • L4, global, daily, foundation SST product.
- PODAAC**
- CMEMS** • Estimates of biases in satellite input data.
- CMEMS** • Seasonal and monthly mean products.

GMPE (GHRSSST multi-product ensemble)

- CMEMS** • Daily ensemble of global SST analyses.
- Includes median and standard deviation.

Diurnal skin SST

- CMEMS** • Global, daily, hourly average skin SST.

Reprocessed products at the Met Office

OSTIA

- [CMEMS](#) • MyOcean reprocessing, 1985-2007
- [ESA SST CCI](#) • ESA SST CCI reprocessing, (20 cm depth) 1991-2010

Climate datasets (not GDS formatted)

- [Met Office HadObs](#) • HadISST - Hadley Centre Sea Ice and Sea Surface Temperature data set
- HadSST - Hadley Centre SST data set
- [Also see CDR session](#) • HadIOD – Hadley Centre Integrated Ocean Database

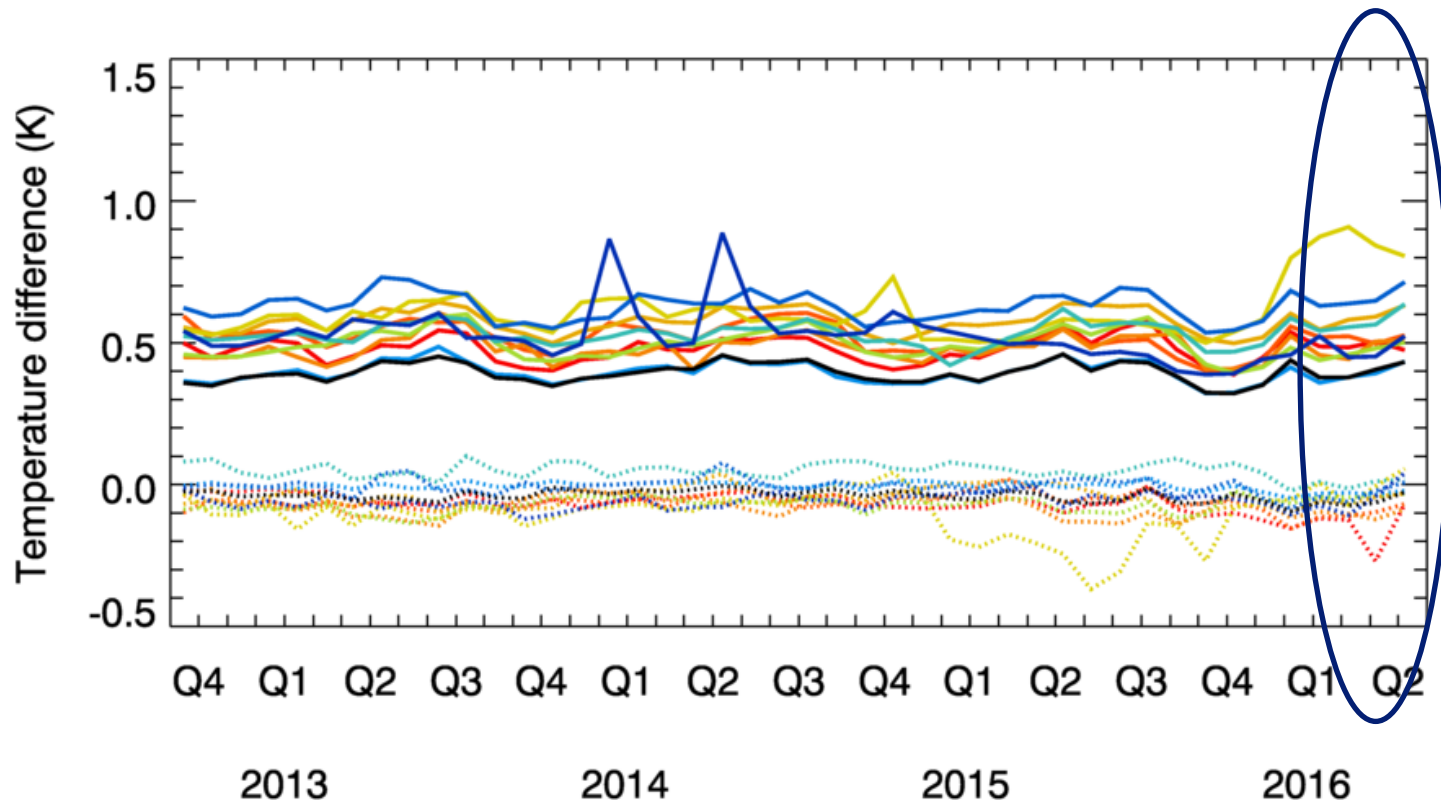
Data access summary

- NRT feeds of satellite data are via ftp from PO.DAAC and from data producers e.g. OSI-SAF.
- These feeds are operationally supported 24/7.
- Feeds of input analyses for GMPE system (which should be in GDS2) are also via ftp.
- PO.DAAC is the preferred route for these analyses.
- For ESA SST CCI Phase II L2/L3 and L4 data production are all carried out on CEMS (Climate and Environmental Monitoring from Space) facility which means no data transfer is necessary.

Main activities since G-XVI: OSTIA

- We have been looking at increasing the number of different data types that we use for OSTIA.
- Update on March 15 2016 added VIIRS and AMSR2 (REMSS).
- See talk on Thursday afternoon.
- Switch to MetOp B AVHRR caused unexpected feedback issue.
- Looking at using VIIRS as reference data.

Main activities since G-XVI: OSTIA



- Mean difference (dashed) and RMS diff (solid) from Argo data.
- ghrsst-pp.metoffice.com/pages/latest_analysis/sst_monitor/argo/index.html

Main activities since G-XVI: OSTIA

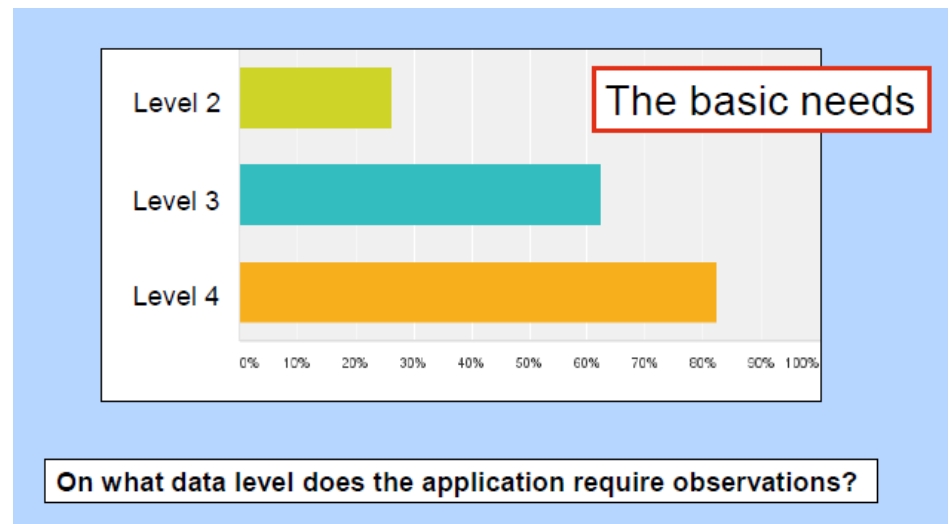
- We have been looking at increasing the number of different data types that we use for OSTIA.
- Update on March 15 2016 added VIIRS and AMSR2 (REMSS).
- See talk on Thursday afternoon.
- Switch to MetOp B AVHRR caused unexpected feedback issue.
- Looking at using VIIRS as reference data.
- Ongoing efforts to use NEMOVAR.
- Expect to switch to happen next Spring.

Main activities since G-XVI: Diurnal skin SST

- An update to netCDF files will add two new data fields:
 - Warm layer component
 - Cool skin component
- Change calculation of diurnal SST change.
- **Updated version will be available September/October.**
- Assessment of analyses – see poster by Chongyuan Mao.
- Paper in preparation – While et al.

Main activities since G-XVI: ESA SST CCI

- Efforts to make use of information about correlated errors in input SST data – see poster by Rebecca Reid.
- User requirements survey – see poster by Nick Rayner.



Issues to be raised at G-XVII

Updating GMPE product

- Format - GDS2.0
- Timeliness – Daily, available by 1300 UTC the following day
- Geographical region – Global
- Spatial resolution – At least 0.25°
- Accessibility – ideally via PO.DAAC, but if not possible then ftp from other organisations would be considered
- Resilience – impact of sensor loss on the analysis system to be qualitatively known (e.g. if loss of sensor would lead to no data being used in analysis in some regions then this needs to be stated)
- Validation – evidence of quantitative validation of product

[Currently included: OSTIA, RTG, NAVO, MGDSST, RSS MW, RSS MW+IR, FNMOC, NOAA AVHRR, NOAA AVHRR AMSRE, CMC, GAMSSA]



Met Office

Accessing data:

CMEMS - marine.copernicus.eu

PO.DAAC - podaac.jpl.nasa.gov

ESA SST CCI - www.ceda.ac.uk

Met Office HadObs:

www.metoffice.gov.uk/hadobs (need to
contact us for some of the data)

