ST-VAL Breakout Session

15th GHRSST Science Team Meeting,

2nd – 6th June, 2014

Cape Town, SA

Agenda

Overview (Pierre LeBorgne) (5 mins)

Validation

- Monitoring and Validation of HR L2 SSTs in SQUAM (Prasanjit Dash) (10 mins)
- Questions/discussion on validation (5 mins)

SSES Methods

- ABoM SSES (Chris Griffin - via telecon) (10 mins)
- NOAA/STAR SSES (Boris Petrenko) (10 mins)
- NAVOCEANO SSES (Jean-Francois Cayula) (10 mins)
- MODIS/VIIRS SSES Hypercube (Peter Minnett) (10 mins)
- IASI SSES (Anne O'Carroll) (10 mins)
- OSI-SAF SSES (Pierre LeBorgne) (10 mins)
- Discussion on SSES (10 mins)

In Situ Data for Validation

- Fiducial Reference Measurements for Thermal Infrared Satellite Validation (FRM4-CEOS) - Craig Donlon (10 mins)
- Shipborne Radiometer data format and common repository - Tim Nightingale (10 mins)
- Discussion on in situ data (5 mins)
- Election of new ST-VAL Deputy Chair (5 mins)

NESDIS iQuam and L2, L3, L4 SQUAM (Changes over past year)

iQuam

- JTECH manuscript published documenting iQuam (Xu and Ignatov, Jtech, 2014)

L2-SQUAM

- CMC L4 product added as an additional reference field (Dec 2013)
- ACSPOGAC Maps and Dependence (daily, Hovmoeller) plots, against L4 fields, now available with and without outliers
- Added monthly *in situ* validation
- Initial offline analysis of NAVO VIIRS SST underway
- Work underway to include the (A)ATSR Reprocessing for Climate (ARC) SST data set in preparation for the future Sentinel-3 SLSTR products

L4-SQUAM

- Partly re-instated
- Work underway to implement automated backup processing and make L4-SQUAM self-sustaining
- Effort underway to include DMI SST in L4-SQUAM
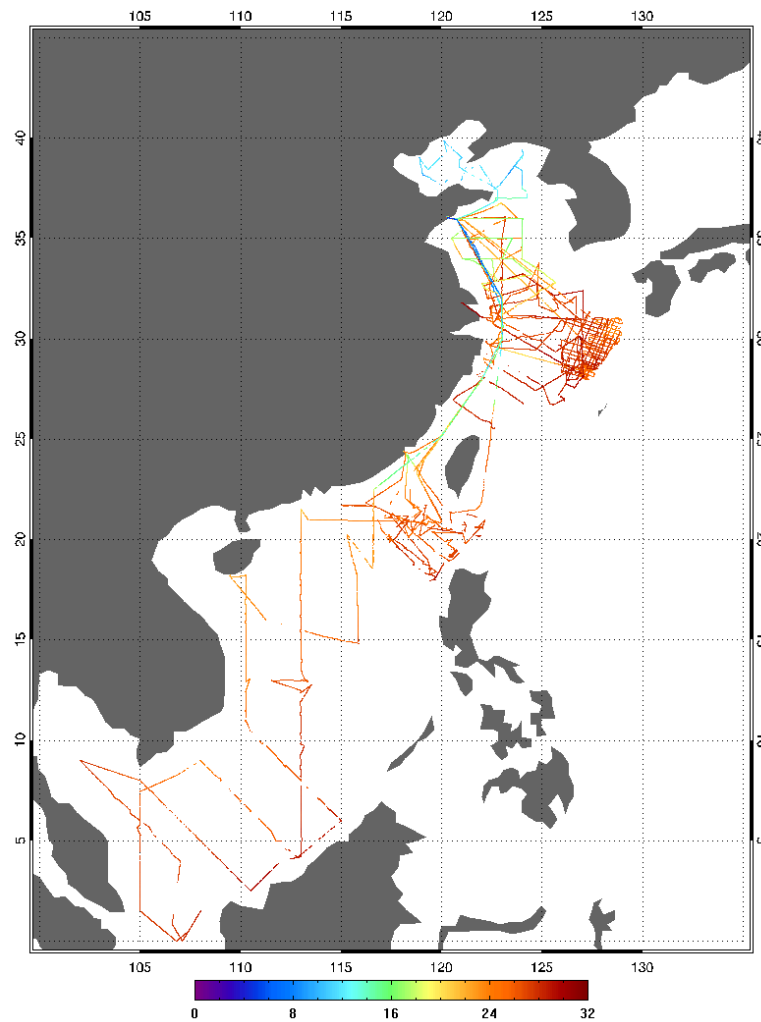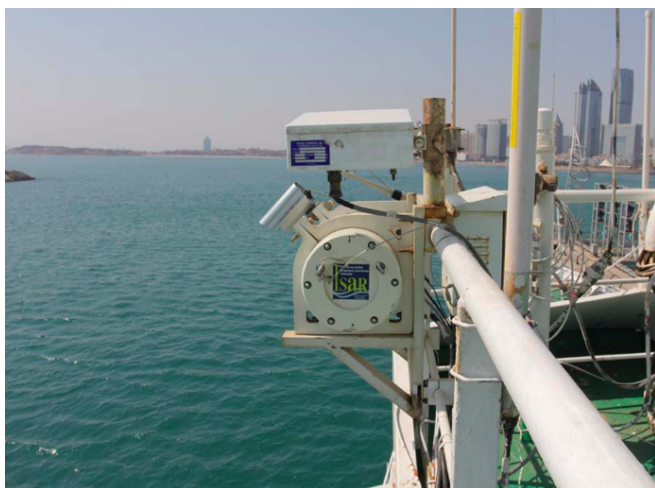
ISAR for RV Investigator

- Vessel currently on sea trials and final fit-out in Singapore
- ISAR in Hobart waiting for vessel to arrive to be installed
- Currently plan for Sydney to Fremantle trial cruise with ISAR for 22 Sep – 7 Oct 2014
- http://www.marine.csiro.au/nationalfacility/Investigator

Measurements of sea surface skin temperature in the China Seas

R/V Dong Fang Hong II, Ocean University of China

Nine cruises in 2013

Evaluation of SST products from HY satellites (Lei Guan, Ocean University of China)

- HY-1: COCTS thermal infrared split window channels for SST
- HY-2: Low-frequency microwave channels for SST
- HY-1B COCTS SST compared with buoy and ISAR SST measurements
- HY-2 SST compared with WindSat, AMSR-2 and buoy SSTs
- Results will be presented during Thursday's Plenary session

IASI SST - 2013/2014

- Progress to version 6 of IASI L2 (including L2Pcore SST)
  - New 1D-VAR SST retrieval (Metop-A and Metop-B)
  - SSES based on uncertainty estimation from 1D-VAR
  - Initial version 6 validation versus data buoys (bias ~-0.1K, sd ~0.4K)
  - Further validation on-going
  - Estimated July 2014 for operational release

- OSI-SAF Metop-A IASI L2P (~summer 2014)
  - Fully GDS2r5 compliant; available EUMETCast
  - Validation of version 5 versus data buoys (bias <-0.26K, sd <0.4K)
  - Uncertainty: IASI 0.24-0.27K, AVHRR ~0.16-0.17K, db 0.16-0.22K