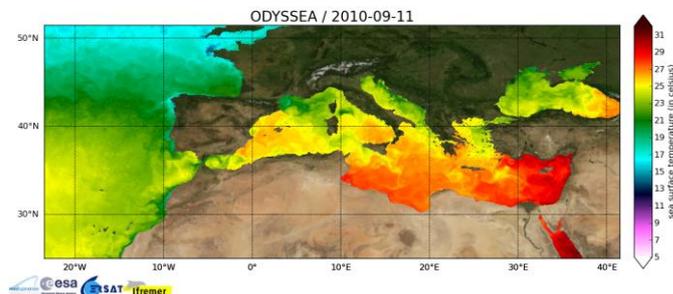


# LETTER No 3

**April 2011**

**Medspiration continuation +++ IASI SST from EUMETSAT +++ Australian L2P, L3U, L3C +++ Global Lake Surface Water Temperatures from ATSR +++ Registration for GHRSSST XII +++ GHRSSST XI Lima proceedings +++ DVWG, HL & STVAL Boulder workshop summary +++ Webpage edits**

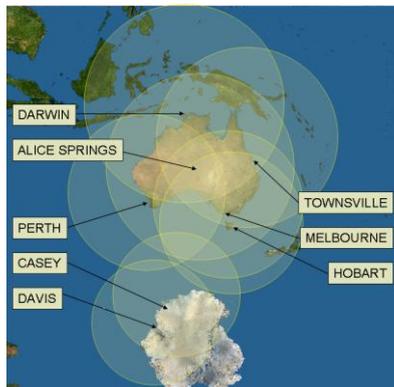
**Medspiration:** A seamless continuation of the European Medspiration project has been funded by ESA in the frame of the DUE program. In the past, Medspiration had been pioneering implementation of operational services for SST following GHRSSST project recommendation and standards. Medspiration is now releasing a new line of high resolution regional SST maps over several predefined areas, namely the Mediterranean sea, Brazil, South-Africa and Great Barrier Reef in Australia. This products are now available at <http://www.medspiration.org> and updated on a daily basis, and a full reprocessing over Medspiration era (2005 to today) will occur for the Mediterranean sea product in the coming months.



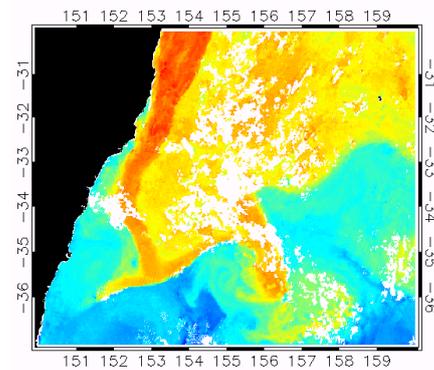
**Figure 1:** Regional daily maps for the Mediterranean sea as released by Medspiration (<http://www.medspiration.org>).

**New SST product from IASI:** EUMETSAT announced the launch of the new Infrared Atmospheric Sounding Interferometer (IASI) Sea Surface Temperature (SST) product. IASI-SST-L2PCore is GDS2 compliant, containing skin SSTs, Single Sensor Error Statistics (SSES), quality levels, flags and collocated model surface winds. Quality levels for this product have been defined by stratifying against integrated IASI water vapour profiles. SSES for each quality level have been derived using a matchup database of IASI SSTs collocated with in situ buoy SST observations (built up following GHRSSST guidelines) spanning from 1 April to 28 September 2010. EUMETSAT plans to recalculate the SSES every 6 months. The IASI SST L2PCore product is available via the EUMETSAT Data Centre and FTP server. Users can register for the product at the EUMETSAT EO Portal [eoportal.eumetsat.int](http://eoportal.eumetsat.int). To further register for IASI SST L2PCore select "Service Subscriptions", "Add a new disseminated service" and "FTP over Internet". Documentation and validation reports can be found at <http://www.eumetsat.int/Home/Main/DataProducts/Resources/index.htm>. Test data are currently available at [ftp://ftp.eumetsat.int/pub/EUM/out/OPS/User/IASI\\_SST\\_L2PCORE/](ftp://ftp.eumetsat.int/pub/EUM/out/OPS/User/IASI_SST_L2PCORE/).

**IMOS provides GHRSSST products over the Australian region:** The highest spatial resolution (1 km x 1 km) data from AVHRR sensors on NOAA satellites can only be obtained through receiving direct broadcast “HRPT” data from the satellite (see Fig. 2). As part of the Australian Integrated Marine Observing System (IMOS) project, the Bureau of Meteorology, in collaboration with CSIRO Marine and Atmospheric Research, is producing real-time HRPT AVHRR skin SST data files in the new GHRSSST GDS v2.0 L2P (single swath, geolocated), L3U (single swath, gridded) and single day/single night L3C (single sensor, multiple swath, gridded) formats. Users now have the ability to access L2P, L3U and L3C SST products through IMOS FTP and OPeNDAP servers at <ftp://aodaac2-cbr.act.csiro.au/imos/> and <http://aodaac2-cbr.act.csiro.au:8080/opensdap/imos/> (see Fig. 3 for an example).



**Figure 2:** Approximate coverage of the Australian and Antarctic AVHRR receiving stations.

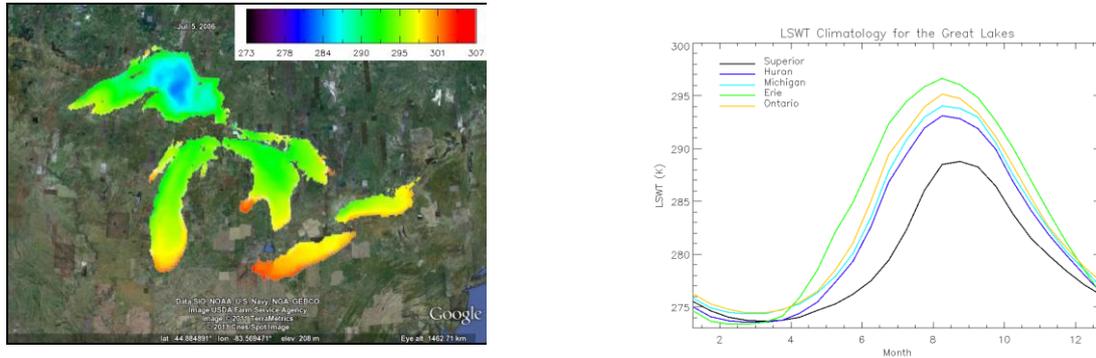


**Figure 3:** Bureau of Meteorology /IMOS AVHRR L2P SST from NOAA-17, 18 and 19 for quality level > 3.

The new IMOS AVHRR L2P SSTs exhibit approximately 75% the error of the Bureau’s pre-existing HRPT AVHRR level 2 SST data, with standard deviations compared with drifting buoys during night-time of around 0.25°C and during daytime of around 0.35°C for quality level 5 (highest). This significant improvement in accuracy has been achieved by improving cloud clearing and calibration, using regional rather than global drifting buoy SST observations and incorporating a dependence on latitude.

For further details on the new AVHRR GHRSSST products see Paltoglou et al. (2010) (<http://imos.org.au/srsdoc.html>).

**Global Lake Surface Water Temperatures from ATSR.** The ATSR Reprocessing for Climate: Lake Surface Temperature & Ice Cover (ARC-Lake) project is an ESA funded project that aims to: derive observations of Lake Surface Water Temperature (LSWT) and Lake Ice Cover (LIC) from ATSR observations, and to demonstrate usefulness of these observations to climate science. On 22<sup>nd</sup> March 2011, the ARC-Lake project released the latest version (v.1.1) of its LSWT and LIC data products. These products use ATSR-2 and AATSR observations, covering the period June 1995 to December 2009, and cover over 250 lakes globally. The v1.1 release sees improvements through consideration of salinity and modified ice-detection. In addition to basic algorithm improvements, the v1.1 data release also adds a range of new derived data products. These include climatologies and time-series, over a number of averaging time intervals, at 0.05 x 0.05 degree resolution and as lake-mean values (Fig. 4). Equivalent products derived from spatially and temporally complete EOF-based reconstructions of the original LSWT observations are also now available. ARC-Lake v1.1 data are available as either global or per-lake products, and can be downloaded from <http://www.geos.ed.ac.uk/arclake/>.



**Figure 4:** Examples of ARC-Lake LSWT climatology for the Great Lakes: (left) spatially resolved time-series snap-shot for the period 1<sup>st</sup> July to 15<sup>th</sup> July 2006, (right) twice-monthly lake-mean climatology over the period June 1995 to December 2009.

**Registration for GHRSSST XII Edinburgh closes 15<sup>th</sup> May:**

<https://www.ghrsst.org/ghrsst-science/science-team-groups/meetings/ghrsst-xii/>

**Proceedings from GHRSSST XI Lima can be downloaded:**

<https://www.ghrsst.org/files/download.php?m=documents&f=110330103637-Proceedings100311.pdf>

**Summary of the Joint DVWG, HL-TAG and ST-VAL workshop:**

[https://www.ghrsst.org/files/download.php?m=documents&f=110324132351\\_Boulder2011\\_summary\\_pdf.pdf](https://www.ghrsst.org/files/download.php?m=documents&f=110324132351_Boulder2011_summary_pdf.pdf)

The GHRSSST web-site has a new structure. All are invited to link to and improve the page (login required). Do not hesitate to contact [ghrsst-po@nceo.ac.uk](mailto:ghrsst-po@nceo.ac.uk) in case any problems do occur.

Matlab code for reading L2P and L4 was added by Mike Chin (JPL):

<https://www.ghrsst.org/data/ghrsst-data-tools/> and  
[ftp://mariana.jpl.nasa.gov/mur\\_sst/tmchin/software/matlab/](ftp://mariana.jpl.nasa.gov/mur_sst/tmchin/software/matlab/).

MUR SST (new L4 product) is available from GDAC/PODAAC web page:

<http://podaac-www.jpl.nasa.gov/dataset/JPL-L4UHfnd-GLOB-MUR>  
as well as the MUR SST home page: <http://sst.rsmas.miami.edu>.