



Group for High Resolution Sea Surface Temperature (GHRSSST)

2009 International Users Symposium


Thursday 28th May – Friday 29th May 2009

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Meeting sponsored by:



Remote Sensing Systems 



Welcome note

Hello:

...and welcome to Santa Rosa, California, USA and the International Group for High Resolution Sea Surface Temperature (GHRSSST) User Symposium. On behalf of the GHRSSST Science Team we would like to take this opportunity to thank Craig Donlon and the Remote Sensing Systems team for all of their help and support in preparing the workshop. We would like to specifically thank EUMETSAT's OSI-SAF for partial-sponsorship of the symposium. Thanks also to all the other sponsors and you, the participants, who make these important events possible.

The Global Ocean Data Assimilation Experiment (GODAE) High Resolution Sea Surface Temperature (SST) Pilot Project (GHRSSST-PP) was initiated in 2001 at the European Commission's Joint Research Council near Lake Maggiore, Italy, by a small group of scientists who met to discuss how to take advantage of all the different satellite SSTs available to provide a higher spatial and temporal resolution SST using satellite and in situ data. At the meeting, it was decided to start an international pilot project to promote research required to better produce and use SST information, including how to test and provide observations, how to integrate and assimilate these data at operational agencies, and how to use the data in downstream applications. Now, only 8 years later, the GHRSSST-PP has successfully coordinated the production of most satellite sea surface temperature datasets in a common format which are being used in a new generation of multi-sensor global interpolated SST analyses.

Although GODAE has now ended, GHRSSST-PP has continued as the **Group for High Resolution SST (GHRSSST)**, dedicated to maintaining scientific and technical coordination between the international SST communities. To this end, we decided at the last science team meeting to hold a user symposium. This symposium aims to bring together the GHRSSST data providers with current and future users of satellite derived SST products. Users include, but are not limited to, researchers, climate and coastal applications, and decision makers with a focus on near real time, operational applications. Bringing together the data expertise and the users provides a unique opportunity for setting the future direction of GHRSSST.

The future of GHRSSST is now focused on allowing for greater and more flexible access to all data products, along with reanalysis efforts that will provide the highest quality climate data records (CDRs) for use in climate models and prediction. Improved merged SSTs products from multiple sensors will maximize the temporal and spatial resolutions, while providing increased accuracy. The symposium is intended as an important step in moving GHRSSST forward to meet the needs of the climate, weather forecasting, research and applications communities for the highest quality and resolution SST products.

It is with a warm heart that we thank each of you for your contributions, support and we look forward to meeting you all for a productive and stimulating workshop.

Chelle L. Gentemann & Jorge Vazquez

1 Poster Presentations

There is space for posters in the Vineyard Creek Hyatt and all participants are encouraged to bring poster presentations along to the meeting.

2 Presentations

Please allow 3-minutes time for questions and speaker-change-over. Therefore, if you have a 15-minute presentation, please plan on speaking for only 12-minutes, similarly, if you have a 20-minute presentation, plan on speaking for only 17 minutes. If early presentations run over, the chair of each session may choose to shorten later presentations at their discretion. Speakers will please follow directions of session chair.

All presentations will be given from session chair's laptop. **Please submit presentations by May 25, 2009 at 5 PM. Presentations should be named "SessionX_LastName.ppt"**. To submit your presentation please go to http://www.misst.org/meetings/conference_file_upload.html and login (username=GHRSSST_meet, password=sst4all).

Presenters may pre-view their talks from 8:00 AM – 8:30 AM each morning as time allows. If you are unable to provide your presentation by May 25th, please see the session chair from 8:00 AM – 8:30 AM to upload your presentation.

Each presenter should provide a **2 page summary or extended abstract** of their presentation **by May 1, 2009** for inclusion in the Symposium Proceedings. Copies of the 2-pagers will be distributed at the meeting. This will help get the proceedings published efficiently and quickly. A template for your report is provided as Document 22 <https://www.ghrsst.org/modules/documents/documents/Document-22-Example-paper-for%20proceedings.doc>. To submit your extended abstract please go to http://www.misst.org/meetings/conference_file_upload.html and login (username=GHRSSST_meet, password=sst4all).

2.1 Session Chairs

The main tasks of a session chair are to briefly introduce each speaker, keep the presentations to the time allowed, and to **lead/moderate the discussion after each presentation**. The plenary sessions are your domain and please try to use the General discussion questions above as a guide. Finally, **the chair should work closely with the rapporteur to prepare a short summary of the session**. The report should be of a standard suitable for publication in the Workshop proceedings including appropriate figures and text concluding with the breakout session recommendations.

2.2 Rapporteurs

The purpose of the rapporteurs is **to capture important information during the session for the follow-up of the workshop by the GHRSSST-PO and Science Team**. The rapporteur will be expected to present their reports to the plenary session during the science team meeting, as a basis for the general discussion and review of the symposium, and for the preparation of conclusions and recommendations for future actions of GHRSSST.

In preparing your rapporteur reports, you should **avoid making lengthy summaries of the presentations and discussions**. Please try to concentrate on issues which relate directly to the objectives of the symposium, the mandate of GHRSSST and the future development of GHRSSST operational ocean products and services. Your presentation should be short and provide a general overview of the main session outcomes/conclusions rather than a regurgitation of each presentation made. In order to generate a representative report of the meeting, **please can you provide J.Vazquez with a soft copy of your report by the end of the meeting – what you provide will constitute the final proceedings for these sessions so please, capture as much information as you can. Your inputs will be used as the basis for the conclusions of the symposium proceedings.**

2.3 WiFi Access

WiFi access at the Hyatt Vineyard Creek has been arranged for the duration of the meeting. An access code will be available at the meeting registration table.

2.4 Poster Presentations

Rachel Weihs: Resolving the diurnal cycle in satellite derived sea surface temperatures and its significance on latent heat fluxes

Helen Beggs et al.: Enhancing ship of opportunity sea surface temperature observations in the Australian region.

Chelle L. Gentemann et al.: A new model for diurnal warming: Profiles of Ocean Heating (POSH)

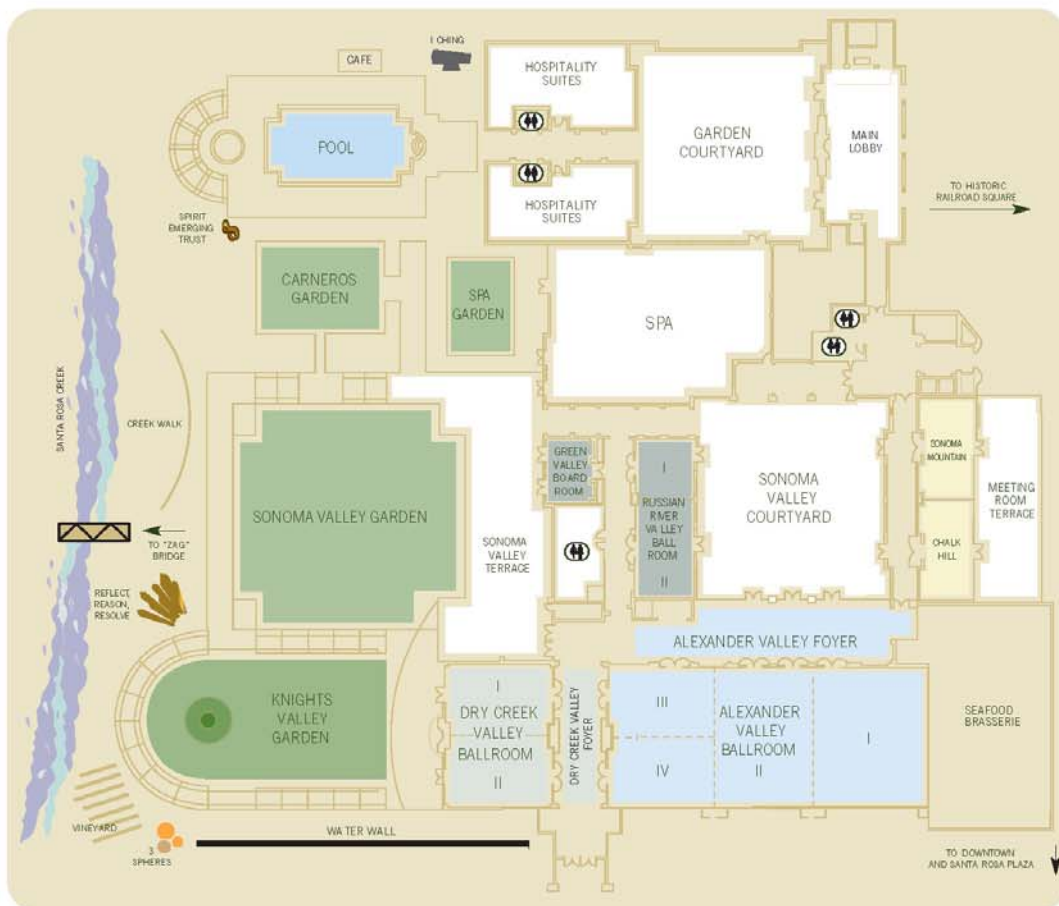
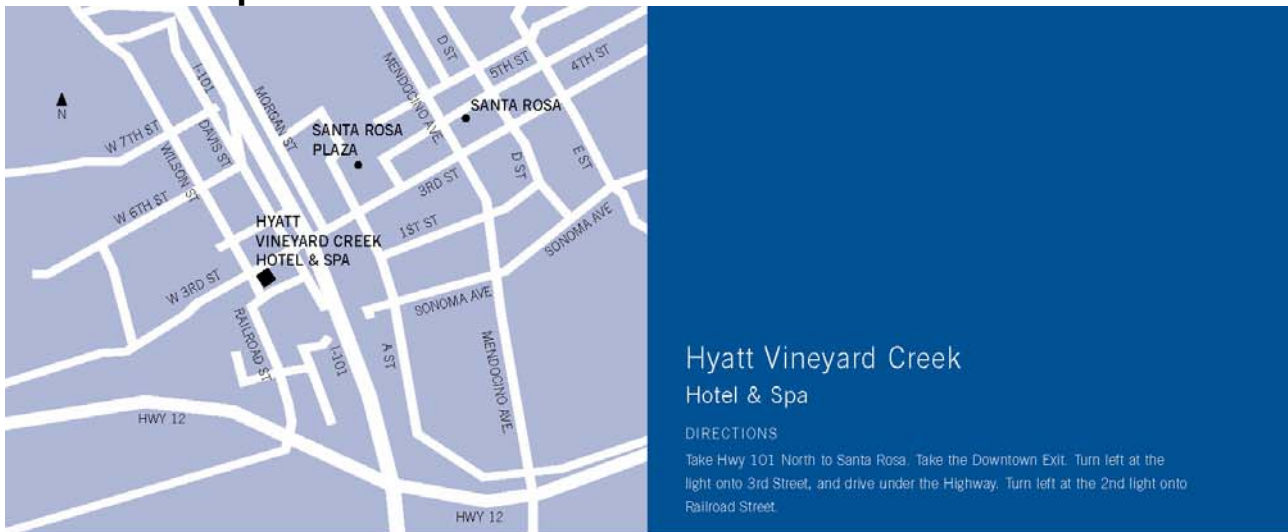
Thursday, 28th May 2009

Time	Agenda item	Session leaders
08:00	Registration & Coffee: Alexander I Room	
Session 1. Invited Presentations		
08:20	Welcome and logistics: C.Gentemann and J. Vazquez	Chair: C.Gentemann Rapporteur: Ken Casey
08:30	Craig Donlon: The GHRSSST Project	
08:45	Eric Lindstrom: NASA GHRSSST Science	
09:00	Zdenka Willis: IOOS use of GHRSSST	
09:15	Wolfgang Lengert: European SST Satellite data exploitation structure and organization	
09:30	Hans Bonekamp: EUMETSAT	
09:45	Margarita Gregg: Long Term Stewardship of GHRSSST and related data at the National Oceanographic Data Center	
10:00	Olivier Arino: ESA Climate Change Initiative	
10:15	Coffee	
Session 2. GHRSSST Data Products: L2P, L3P, and L4P		
10:30	Peter Minnett: GHRSSST MODIS L2P	Chair: J. Vazquez Rapporteur: E. Armstrong
10:40	Helen Beggs: New Australian High Resolution Satellite SST Products from the Integrated Marine Observing System	
10:50	Emmanuelle Autret: Odyssea SST data	
11:00	Jean Tournadre: Analysis of 2 years of Ultra-high-resolution satellite SST fields	
11:10	Bruce McKenzie: GHRSSST L2P and L4 data at the Naval Oceanographic Office	
11:22	Pierre Le Borgne: L2P and L3 SST data produced by EUETSAT/OSI-SAF and EC/MyOcean	
11:34	Chelle Gentemann: MW SST L2P data and blended 9km global MW+IR SSTs	
11:46	Eileen Maturi: NOAA GHRSSST data: GOES L2P and blended GOES/POES L4P	
12:00	Lunch	
Session 2A. Non-GHRSSST Data Products		
13:00	Akira Shibata: JAXA SST algorithm for AMSR-E	Chair: J. Vazquez Rapporteur: E. Armstrong
13:15	Yi Chao: A blended global 1-km sea surface temperature data set for research and applications	
13:30	Gary Jedlovec: An enhanced MODIS/AMSR-E composite SST product	
13:45	Bruce Brasnett: Recent changes to the CMC global real-time SST analysis	
Session 3. GHRSSST Data Systems		
14:00	J Vazquez: Overview of data access GDAC and LTRSF	Chair: C.Gentemann Rapporteur: G. Wick
14:15	Martin Rutherford: GHRSSST data meets ESRI ArcGIS Desktop and OGC Web Map Services	
14:30	Dave Poulter: New GHRSSST HR-DDS user features	
14:45	Tess Bandon: Working with the GHRSSST Data Format: Experiences of the GCOS SST Intercomparison Working Group	
15:00	Tea	
Session 3a. GHRSSST data validation		
15:15	Richard Reynolds: Intercomparisons among Global Daily SST Analyses	Chair: J.Vazquez Rapporteur: G. Wick
15:30	Alexey Kaplan: Gridded SST Data Sets: How to choose a "right" one?	
15:45	Ed Armstrong: GHRSSST Level 4 product comparisons in coastal regions	
16:00	Jorge Vazquez: A comparison of 1km ultra high resolution composite SST maps	
16:15	Nick Rayner: How does the (A)ATSR Reanalysis for Climate SST compare to the in situ SST record?	
16:30	Karen Veal: A Comparison of AATSR and AMSR-E Sea Surface Temperature Data	
16:45	Alec Bogdanoff: Calculation of Sea Surface Temperature using a Forward Radiative Transfer Model Approach	
17:00	NOPP Excellence in Partnering Award (Lindstrom)	
17:30	Close	
17:30	Icebreaker in the Knights Valley Garden, offered by Remote Sensing Systems. Appetizers and wine.	

Friday, 29th May 2009

Time	Agenda item	Session leaders
Session 4. GHRSSST Applications		
08:00	Coffee: : Alexander I Room	
08:30	Hans Hersbach: The usage of sea-surface temperature and sea ice products at ECMWF	Chair: J.Vazquez Rapporteur: C. Merchant
08:45	Jacob Hoeyer: The Use of GHRSSST data at DMI for high latitude level 4 analysis	
09:00	Peter Cornillon: Validating Ocean Circulation Models with Satellite-Derived SST Frontal Distributions	
09:15	Alexander Ignatov: The near real-time web-based SST Quality Monitor (SQUAM)	
09:30	Arthur Mariano: Motion-compensated spatio-temporal interpolation of SST fields	
09:45	Coffee	
10:00	Invited: David Foley: Applications of GHRSSST data sets towards the stewardship of living marine resources: putting SST back in the saddle	Chair: J.Vazquez Rapporteur: C. Merchant
10:15	Dudley Chelton: The Importance of SST in Weather Forecast Models, and Coupled Ocean-Atmosphere Models	
10:30	Mark Bourassa: Impacts of High Resolution SST Fields on Objective Analyses of Wind Fields, and Practical Constraints Related to Sampling	
10:45	Suzanne Dickinson: Use of New SST Products in the CLIVar MOde water Experiment (CLIMODE)	
11:00	Françoise Orain: Impact of using Merged regional operational L3P in the operational MF Aladin model to forecast Mediterranean convective events	
11:15	Joseph Sienkiewicz: Application of GHRSSST L4P analyses product at the NOAA Ocean Prediction Center	
11:30	Gang Liu: NOAA Coral Reef Watch's Current Application of Satellite Sea Surface Temperature Data in Operational Near Real-Time Global Monitoring and Experimental Outlook of Coral Health and Potential Application of GHRSSST	
11:45	Lewis Gramer and Jim Hendee: Integration of SST and other Data for Ecological Forecasting on Coral Reefs	
12:00	Lunch	
13:00	Matt Martin: Use of SST and sea-ice data in operational analysis and assimilation systems at the UK Met Office	
13:15	Dimitris Menemenlis: Towards the utilization of GHRSSST data for improving estimates of the global ocean circulation	
Session 5. GHRSSST Science		
13:30	Ajoy Kumar: Application of satellited derived SSTs along the Delmarva region	Chair: C.Gentemann Rapporteur: C. Donlon
13:45	Chris Halle: Investigating the Coastal Ocean using HF Radar and Remotely Senses Sea Surface Temperature	
14:00	Dale Kiefer: Satellite Monitoring of Links between ENSO and Tropical Tuna	
14:15	Luis Herrera: Relation between anchovy and SST in the Peru Sea	
14:30	Steinar Eastwood: SST warm spots in the Arctic Ocean	
14:45	Sara Purca: Seasonal to decadal variability of the SST front off the Peruvian coast: connection with the intraseasonal equatorial Kelvin wave activity	
15:00	Tea	
15:15	Changming Dong: Mesoscale and Submesoscale Eddy Detection Using GHRSSST Data	Chair: C.Gentemann Rapporteur: C. Donlon
15:30	Peter Cornillon: An Atlas of SST Fronts in the North and South Atlantic	
15:45	Subrahmanya Bulusu: Detection of Rossby Waves in SST and salinity	
16:00	Holger Brix: GHRSSST and ECCO2: SST Variability and Mixed Layer Heat Budgets from Satellite Observations and a High Resolution Ocean Model	
16:15	Christopher Jeffery: Using GHRSSST L4 products to calculate bulk estimates of air-sea heat fluxes	
16:30	Chris Merchant: Diurnal warming analysis for GHRSSST products	
16:45	Chelle Gentemann: Multi-satellite measurements of large diurnal warming events	
17:00	Closing summary: C.Gentemann & J. Vazquez	
17:00	Dinner in Santa Rosa, meet in lobby at 18:00	

2.4 Hotel Map and Conference Rooms



Appendix-I Provisional attendance list
(Please pass corrections to the GHRSSST-PO for update)

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How to find out more about the GHRSSST:

A complete description of the GHRSSST together with all project documentation can be found at the following web spaces:

GHRSSST	http://www.ghrsst-pp.org
Medspiration	http://www.medspiration.org
BLUElink>	http://www.bluelink.au
MISST	http://www.misst.org
NGSST	http://www.ocean.caos.tohoku.jp
GHRSSST GDAC	http://ghrsst.jpl.nasa.gov
GHRSSST LTSRF	http://ghrsst.nodc.noaa.gov
ESA	http://www.esa.int
Met Office	http://www.metoffice.gov.uk

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