

GHR SST
GROUP FOR HIGH RESOLUTION
SEA SURFACE TEMPERATURE

GHR SST XXIII INTRODUCTION AND WELCOME

Anne O'Carroll

GHR SST Science Team Chair

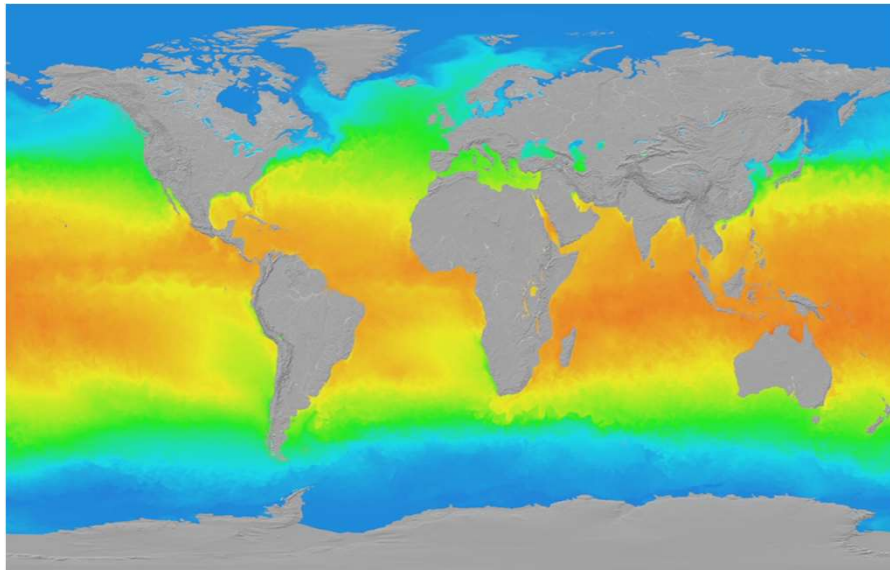
Chiara Bearzotti

GHR SST Project Office Coordinator

INTRODUCTION TO GHRSSST



GHRSSST Mission Statement



- Framework for SST knowledge and data
- Best practices for processing and uncertainties
- Bring SST to operational users and science

GHRSSST mission: To provide operational users and the science community with the SST measured by the satellite constellation

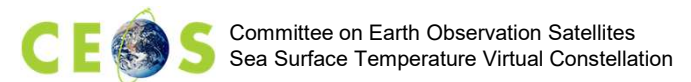
What is GHRST?



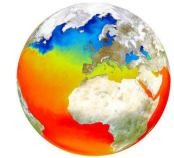
- The Group for High Resolution Sea Surface Temperature grew out of a GODAE Pilot Project, 1997-2008.
- Composed of an international Science Team of researchers and operational practitioners.
- Coordinates research and operational developments in satellite-derived SST.



<http://www.ghrst.org>



What is GHRSSST? (continued)



- Organized into Technical Advisory Groups and Task Teams focused on particular problems or activities.
- Data processing through Regional and Global Data Assembly Centres, combining satellite and NWP fields in common data formats for ease of access and analysis.

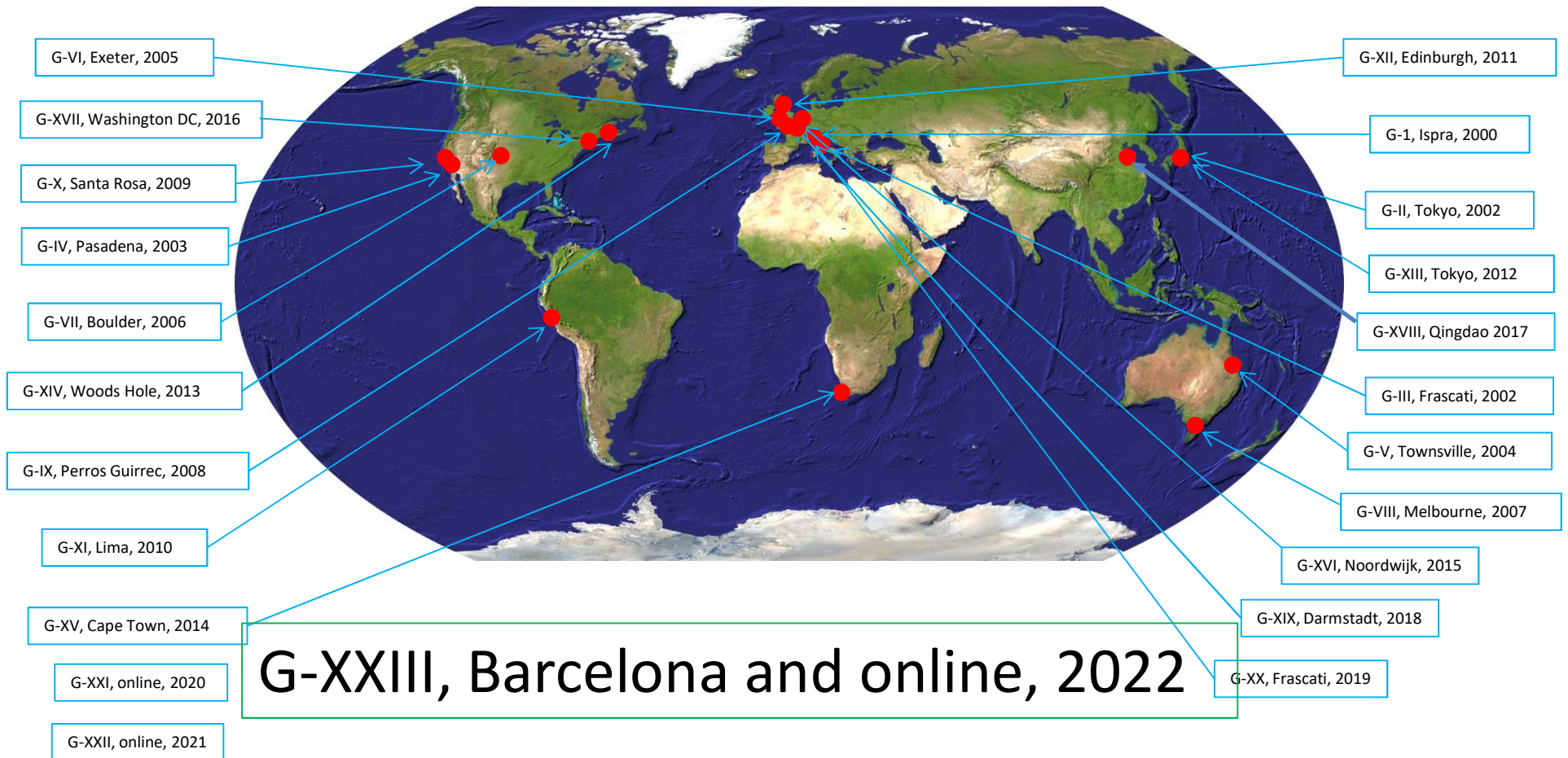
Patrons and Sponsors



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CEOS Committee on Earth Observation Satellites
Sea Surface Temperature Virtual Constellation

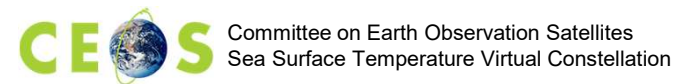
International Science Team Meetings



Science Team Meetings are open to all



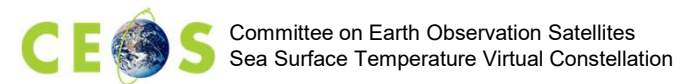
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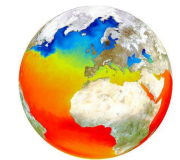
GHRSSST-XX in Frascati (2019)



<http://www.ghrsst.org>



GHRSSST-XXII virtual meeting (2021)



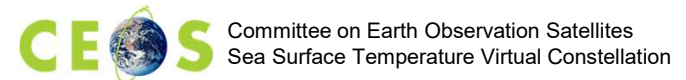
GHRSSST Project Office



- GHRSSST Project Coordinator
 - Chiara Bearzotti (DMI)
- GHRSSST Project Administrator
 - Pia Wind (DMI)
- GHRSSST Project Office team (DMI)
 - Jacob Høyer, Ioanna Karagali, Vivian Henningsen
- GHRSSST web-site: Mathis Bertin (Noveltis)
- Funded by EU Copernicus programme via EUMETSAT



<http://www.ghrsst.org>



Main activities



- Run Project Office
- Provide support to Science Team and ST Chair
- Support Task Team activities
- Organise ST meetings
- Capacity building
- Look after GHRSSST documents
- Maintain GHRSSST website
<http://www.ghrsst.org>



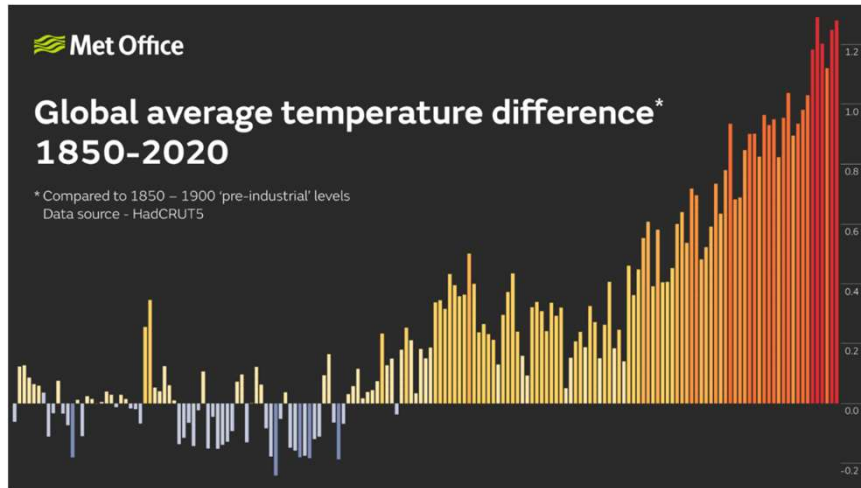
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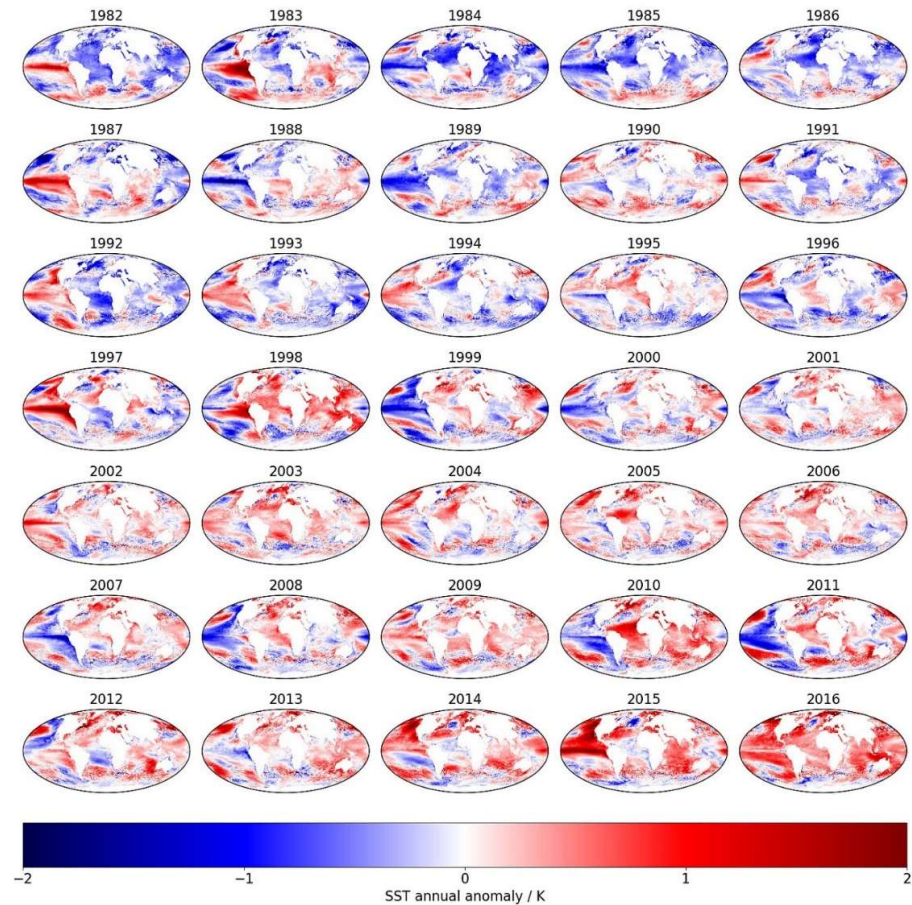
SEA SURFACE TEMPERATURE



SST importance and global mean temperature increase



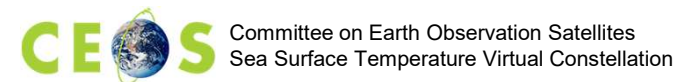
- Atmospheric circulation
- Circulation of oceans
- Ocean biogeochemistry
- Climate Change



<https://scienceblog.eumetsat.int/2019/12/sea-surface-temperature-climate-data-record-generation-with-slstr/>



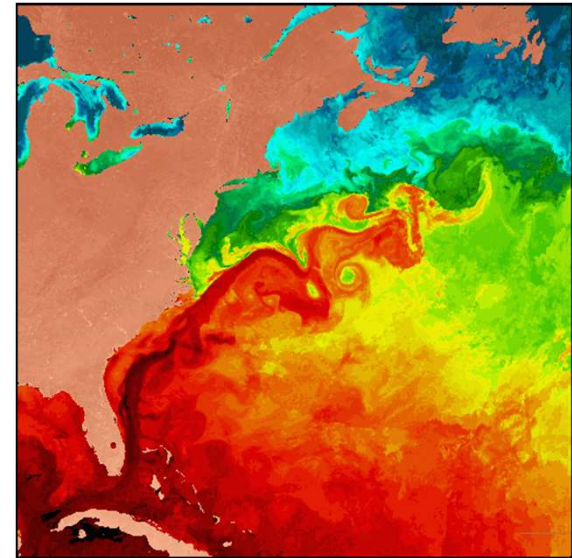
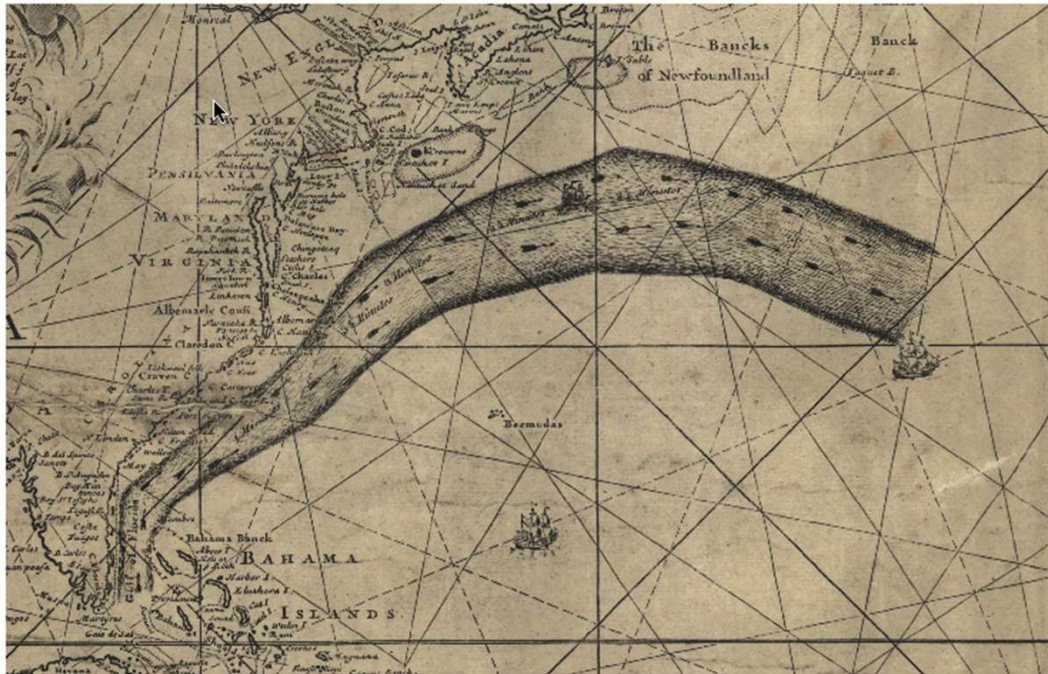
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Early SST measurements



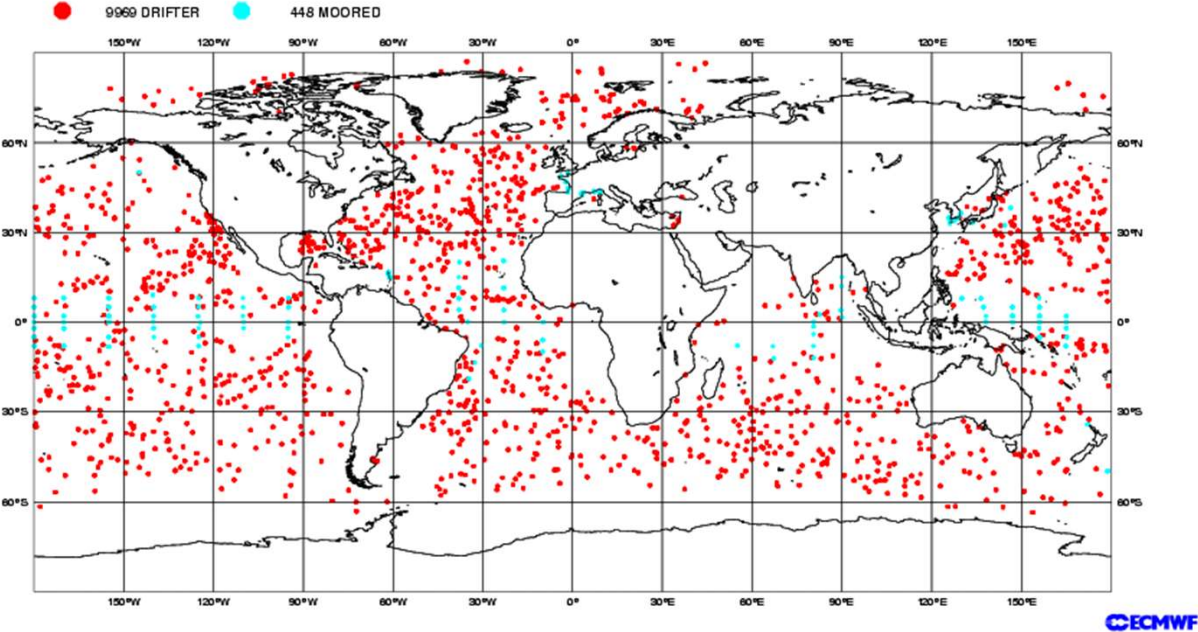
- Benjamin Franklin and Timothy Folger - chart of North Atlantic Currents – 1770s



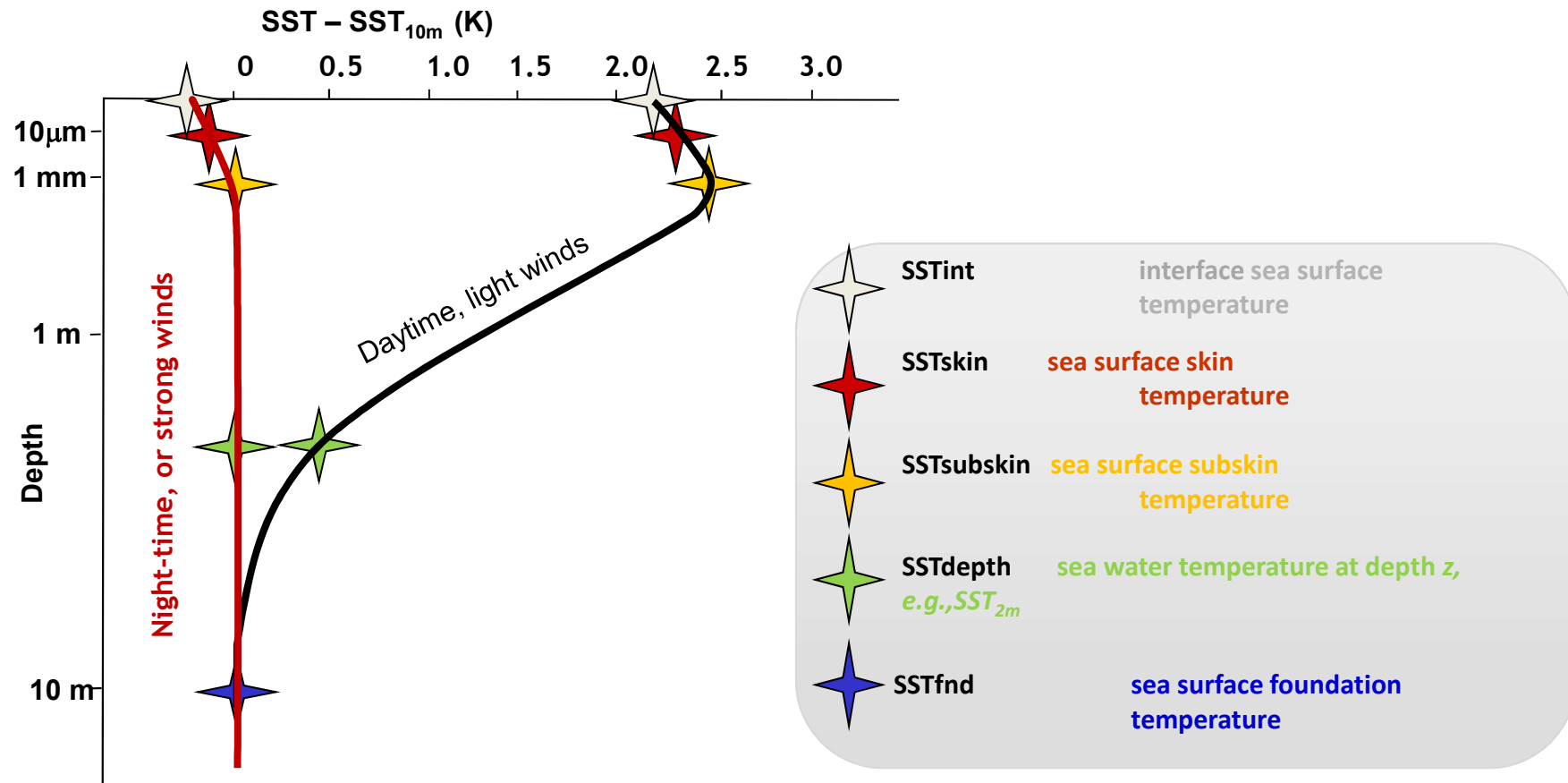
Modern in situ: buoys



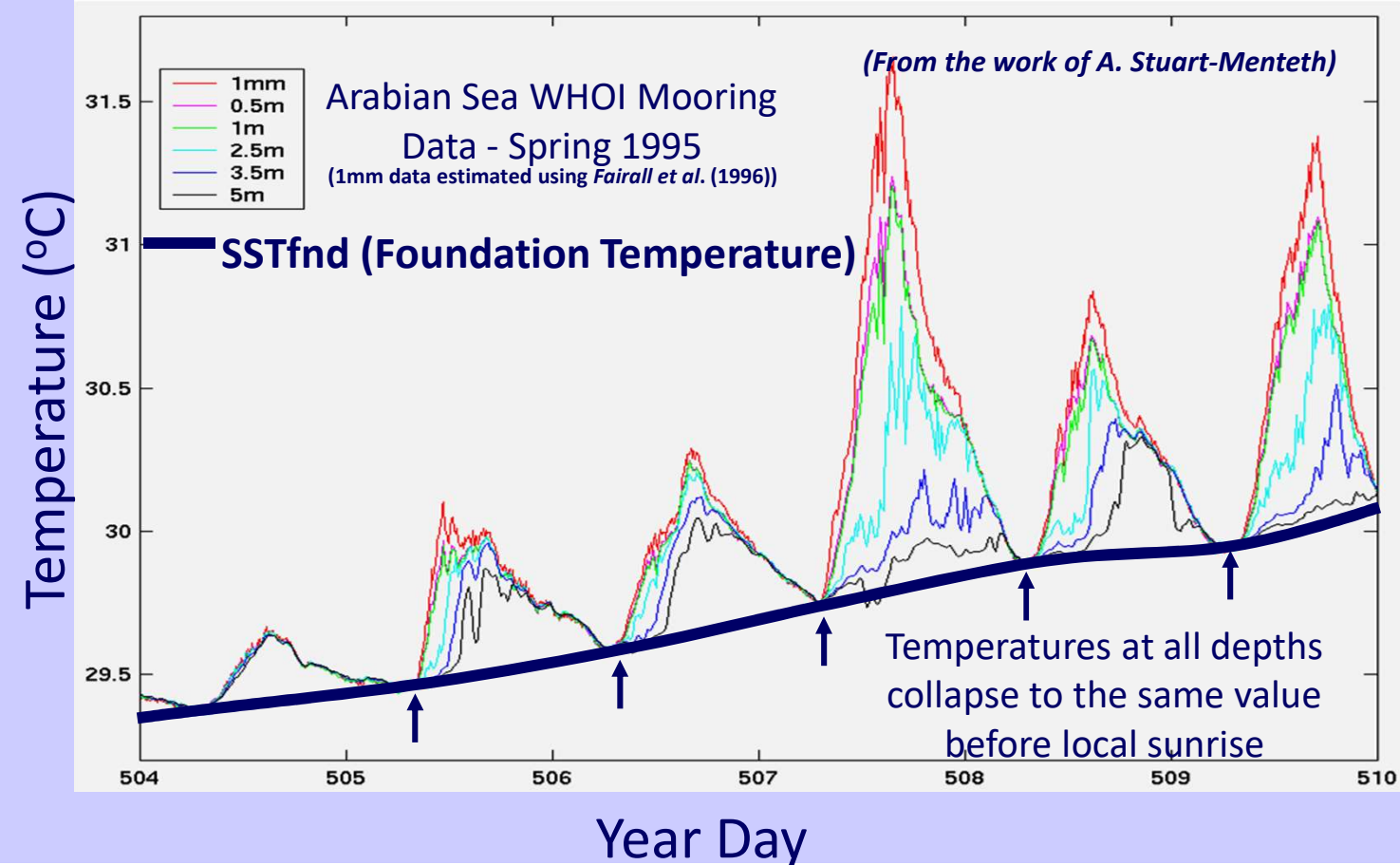
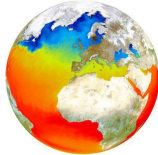
ECMWF Data Coverage (All obs DA) - BUOY
11/SEP/2010; 12 UTC
Total number of obs = 10417



What is SST?



Diurnal variability



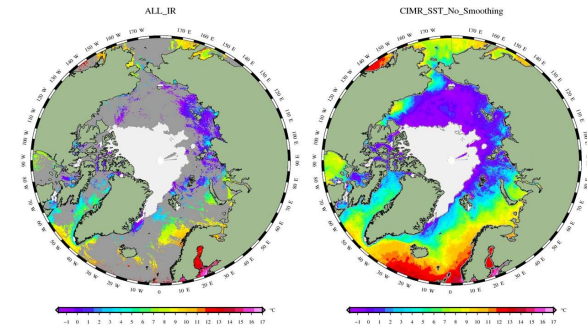
MEETING USER NEEDS



User driven priorities for SST observations in the next decade



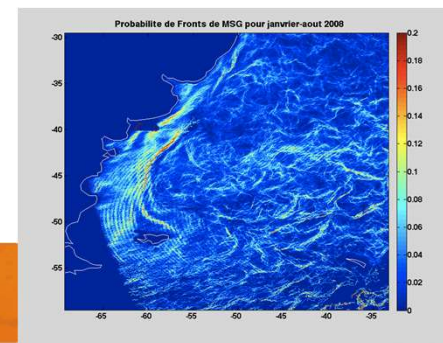
- 1) Improving data quality in the Arctic
- 2) Improving coastal SST data quality
- 3) Improving SST feature resolution



-> Panel discussions on Wednesday 9th June



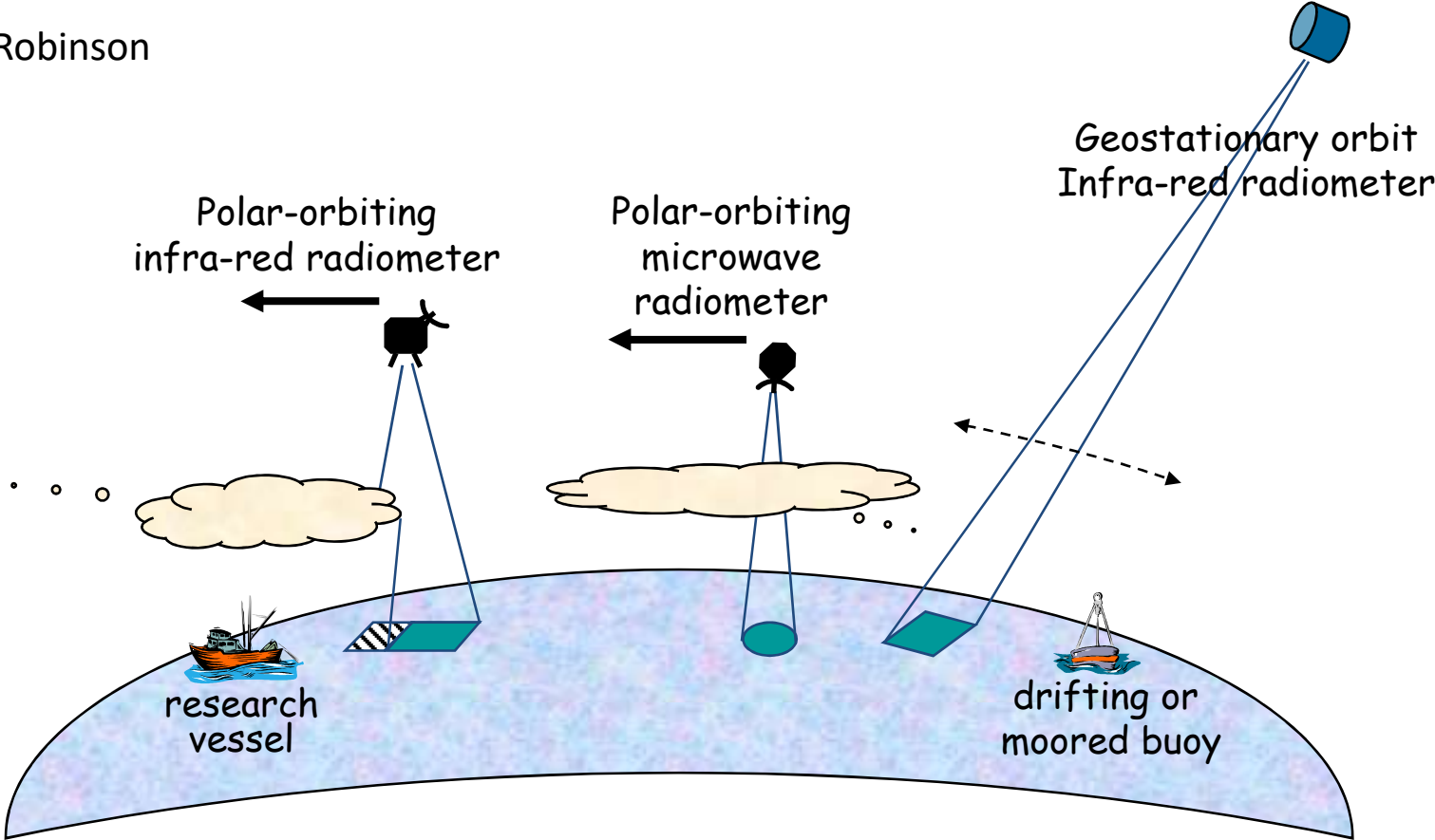
*Front. Mar. Sci. |
doi:10.3389/fmars.2019.00420*



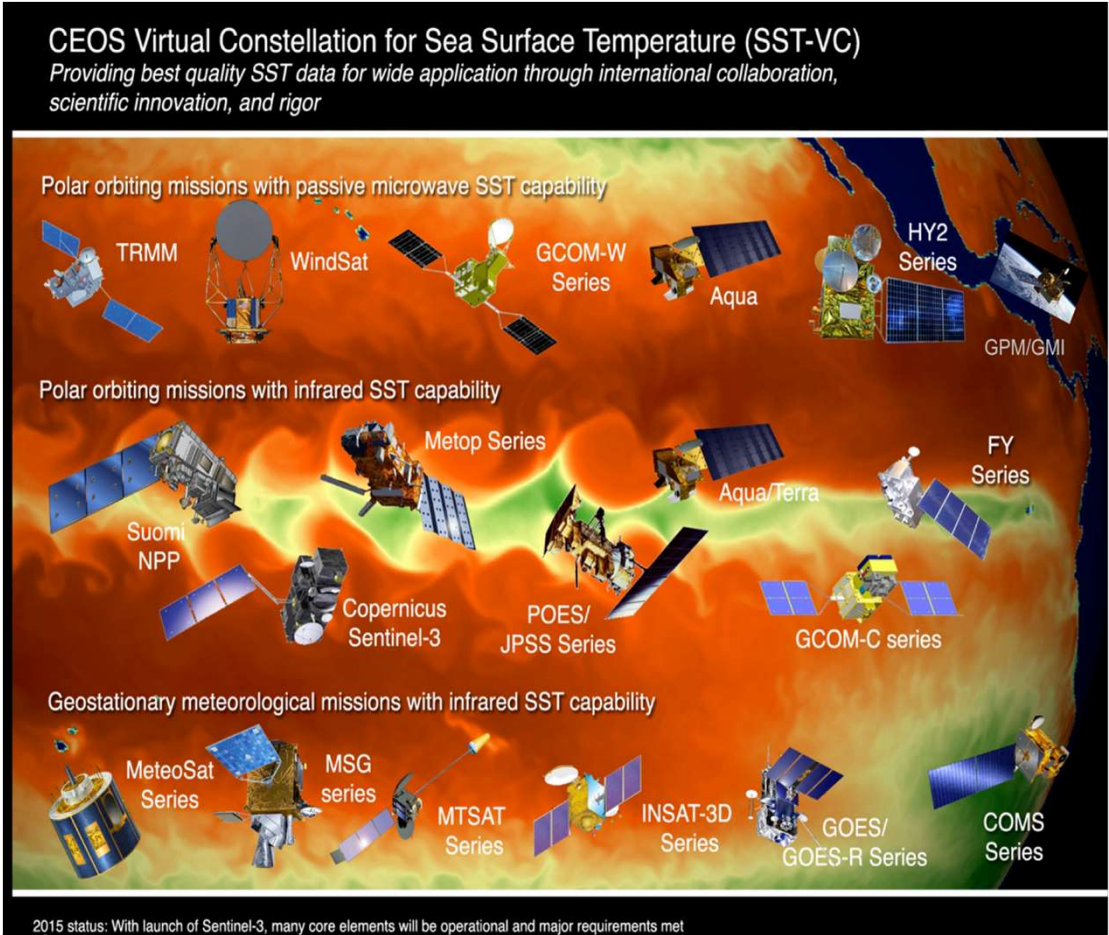
Platforms for measuring SST



Ian Robinson



CEOS SST-VC



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GHR SST ORGANISATION



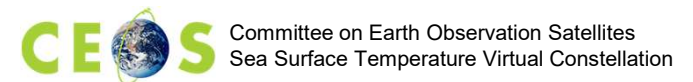
Task Teams



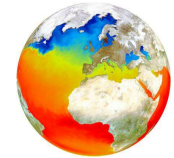
- Climate Data Assessment Framework
- GHR SST MDB
- Feature resolution
- Shipborne radiometry
- Cloud masking
- SSES and L4



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Task Teams (continued)



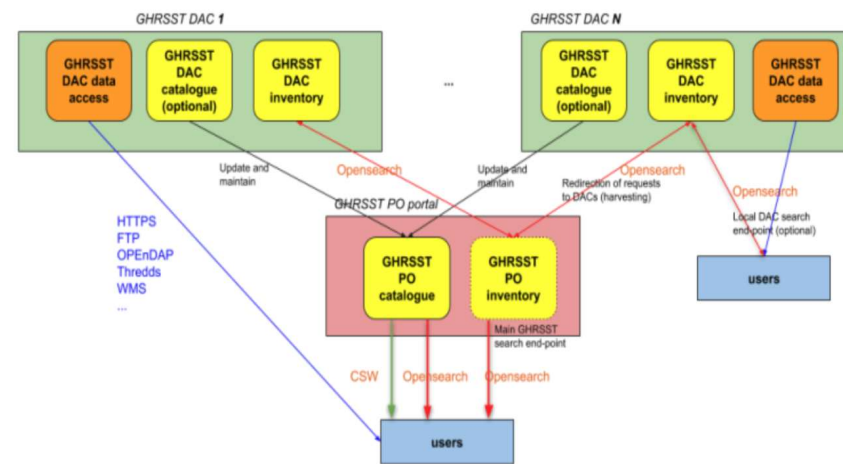
- High Latitude SST
- Climatology and L4 inter-comparisons
- Coral Heat Stress User SST requirements
- HRSST for Satellite SST
- Regional and Global Task Sharing

GHRSSST Regional/Global Task Sharing

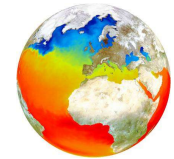


- Reference architecture document completed in 2020 (available via ghrsst.org)
- Entering implementation phase of R/GTS, involving all GHRSSST data producers and distributors

R/G TS data discovery, search and access system



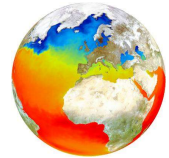
Welcome to the 23rd International GHRST Science Team meeting



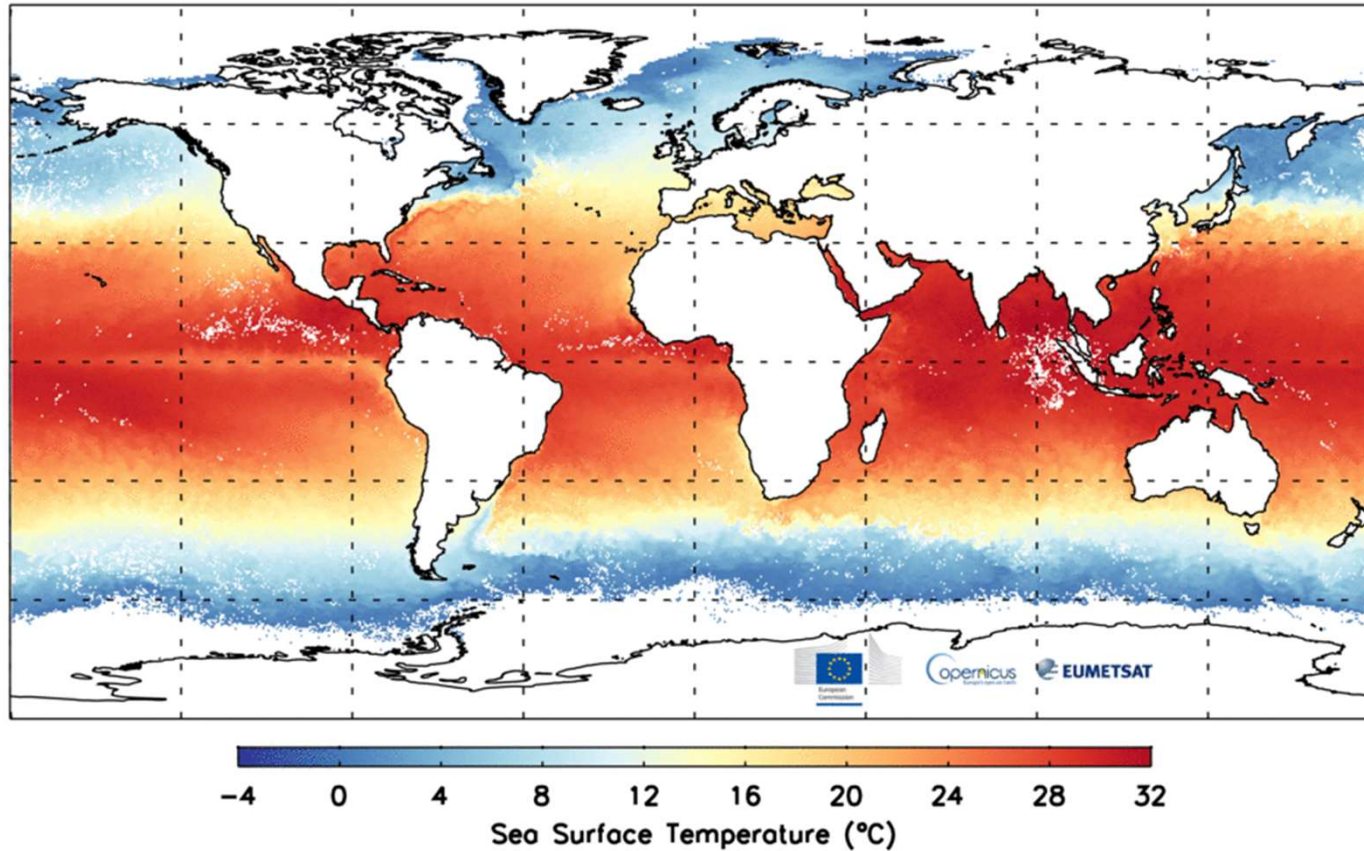
- First in-person meeting since GHRST XX, 2019
- Thank you to CSIC/ICM/BEC for hosting the meeting in Barcelona, particularly Jordi Isern-Fontanet and Cristina Gonzalez Haro
- We also have a fully virtual meeting
- Thank you to Chiara Bearzotti, Pia Wind, Jacob Høyer, Ioanna Karagali and Madalina Ungur, Rosa Ullucci and the EUMETSAT team for the online meeting organisation



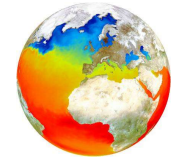
Enjoy the meeting!



Copernicus Sentinel-3 SLSTR SST 20160501



Thank you



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Web

<https://www.ghrsst.org/>



<https://www.ghrsst.org/outreach/newsletter/>

zenodo

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