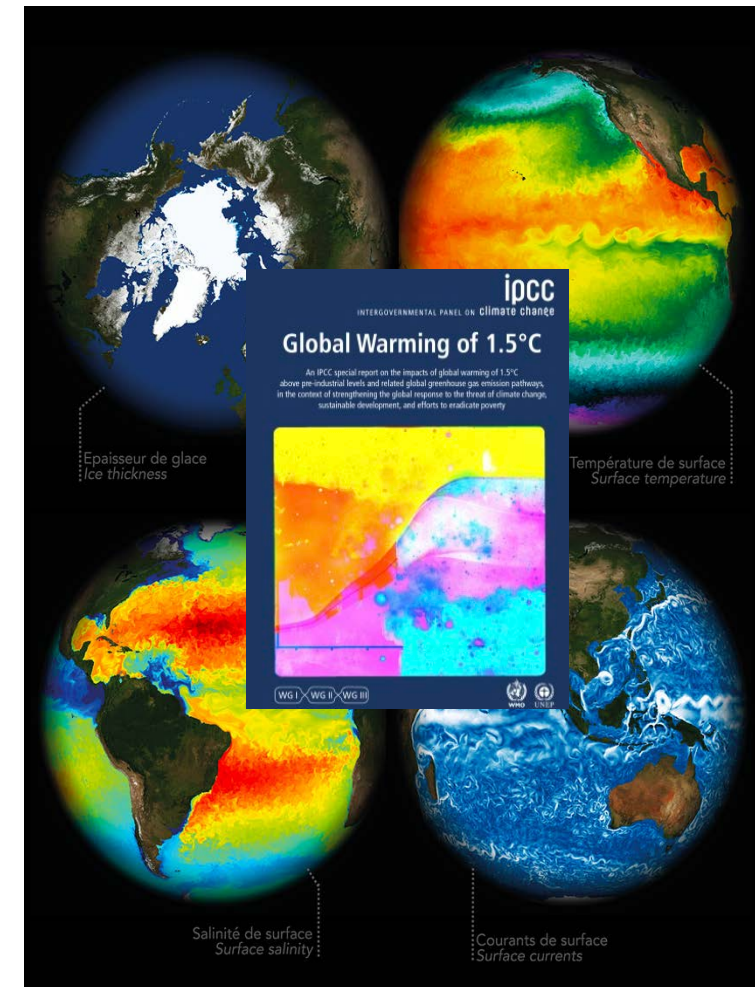


International SST FRM Radiometer Network (ISFRN)

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ESA/ESTEC, Noordwijk, The Netherlands

Overview

1. Welcome
2. ISRFN Ships4SST
3. Future challenges
4. Expectations for output





SHIPBORNE RADIOMETER FOR SEA SURFACE TEMPERATURE

Welcome to the Shipborne Radiometer Network!

Join us for the second ISFRN Workshop on 17 - 18 September 2020. Details are now [online!](#)

The International Sea Surface Temperature (SST) Fiducial Reference Measurement (FRM) Radiometer Network (ISFRN) sets out to develop and promote an international network of ocean and remote sensing scientists who share a particular interest in promoting and improving the use of shipborne infrared radiometers for measuring skin SST at the surface of the ocean, comparable to measurements made by satellite infrared radiometers. This includes operators, designers and builders of such instruments as well as the user of the data.

The scope of the ISFRN activity can cover all aspects of the science and technology of shipborne radiometers used to measure SST. This includes

- exchange of operating advice and information that promote best practice for radiometer deployments,
- establishing protocols for shipborne radiometry including the validation of observations traceable to NMI reference standards,
- agreeing formats for skin SST data retrieved from ship radiometers,
- setting procedures for quality control in order to meet agreed standards of accuracy, and
- provide a single access point of the data collected around the world.



Follow us on Twitter [@ships4sst](#)

TAKE A LOOK AT OUR INSTRUMENTS



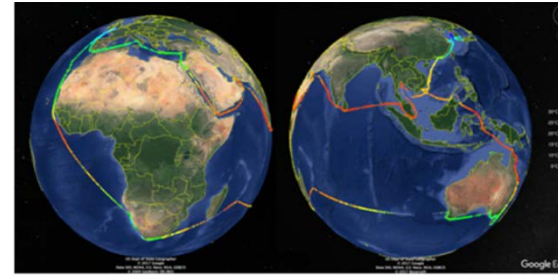
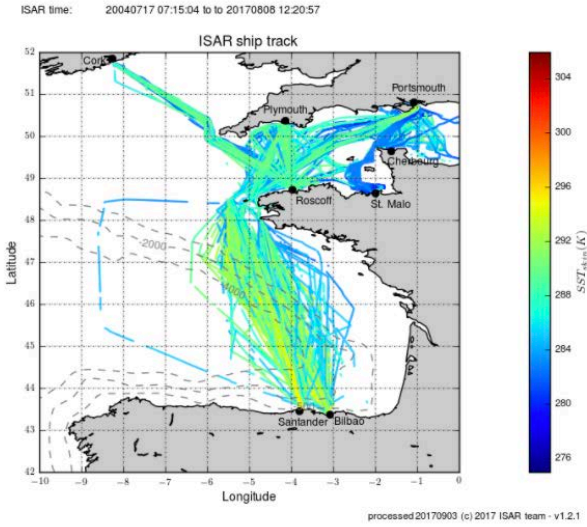
The **aim** of the International SST FRM Radiometer Network (ISFRN) is to develop a community of *in situ* radiometer builders, operators and data users who will:

- Promote good practice in the construction and operation of *in situ* radiometers
- Agree and establish protocols, formats and standards for quality assurance of data
- Provide a single access point for the collection and dissemination of radiometer data
- Support satellite radiometer operators in the long-term validation of satellite products
- Share knowledge and coordinate activities between Network members
- Inform the wider community about the Network's activities

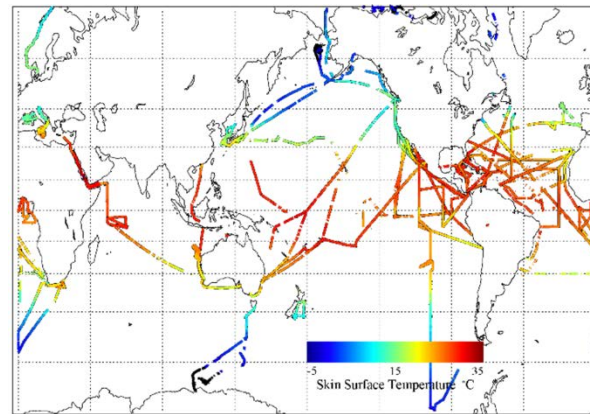
We have come a long way....



(Sometime in 2002/3)



International Workshop, NPL 16-18 October 2017



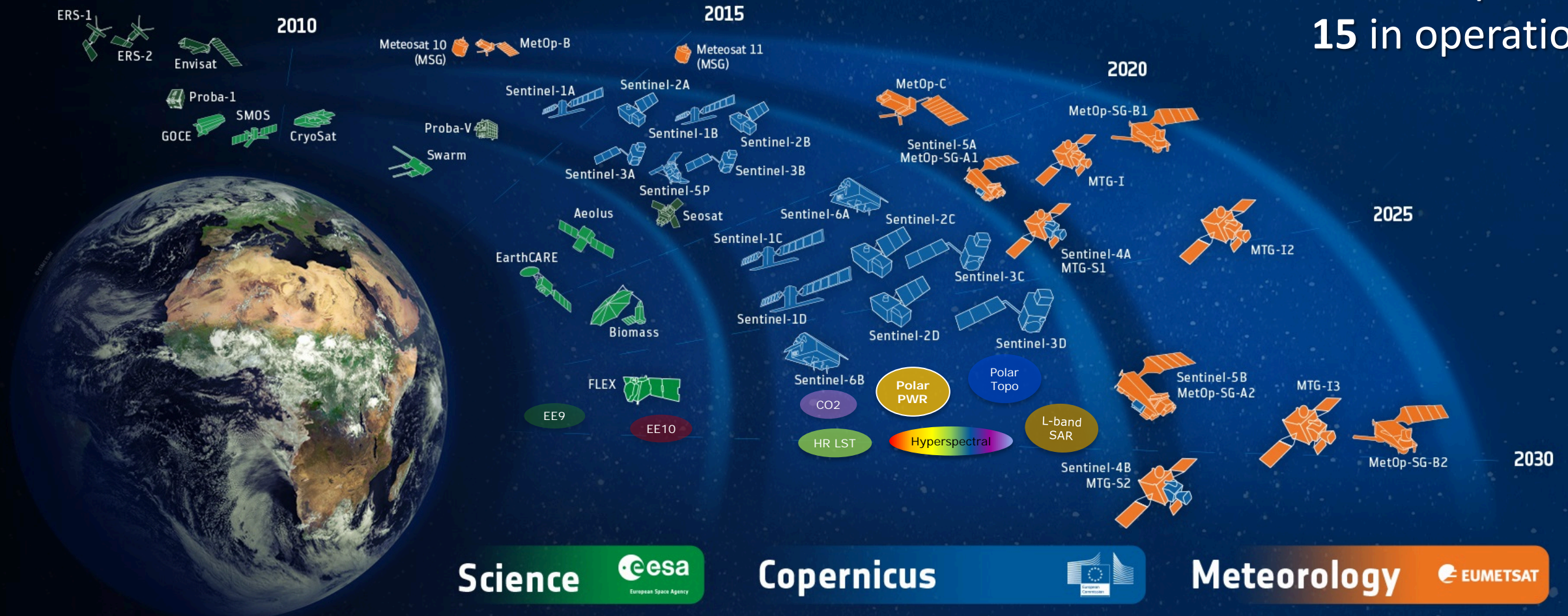
ESA Developed Earth Observation Missions



Satellites

25 under development

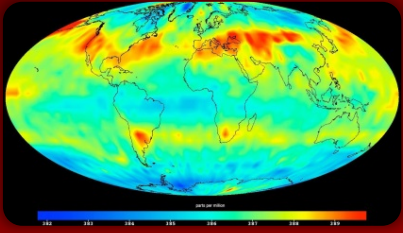
15 in operation



Copernicus – New Monitoring Missions & ISRFN

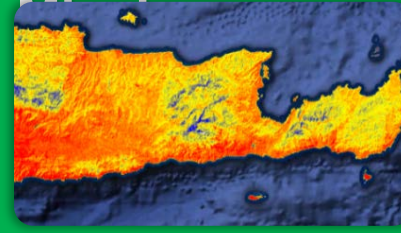


CO2M – Anthropogenic CO₂ Mon. Mission



Causes of
Climate Change

LSTM – Land Surface Temperature Mission



Agriculture & Water
Productivity

CRISTAL – Polar Ice & Snow Topography Altimeter



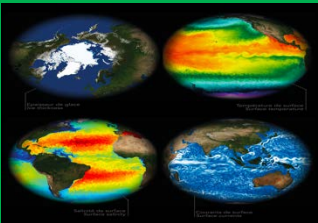
Effects of
Climate Change

CHIME – Hyperspectral Imaging Mission



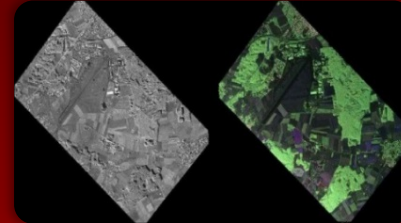
Food Security, Soil,
Biodiversity

CIMR – Passive Microwave Radiometer



Sea Surface Temp.
& Ice Concentration

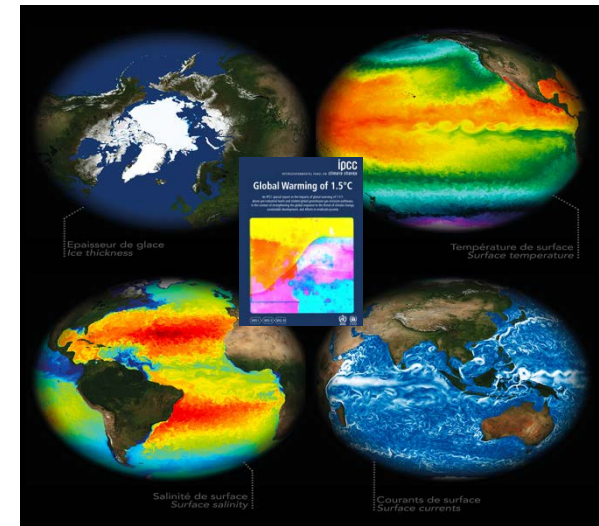
ROSE-L – L-band SAR Mission



Vegetation &
Ground Motion &
Moisture



Copernicus Imaging Microwave Radiometer (CIMR)



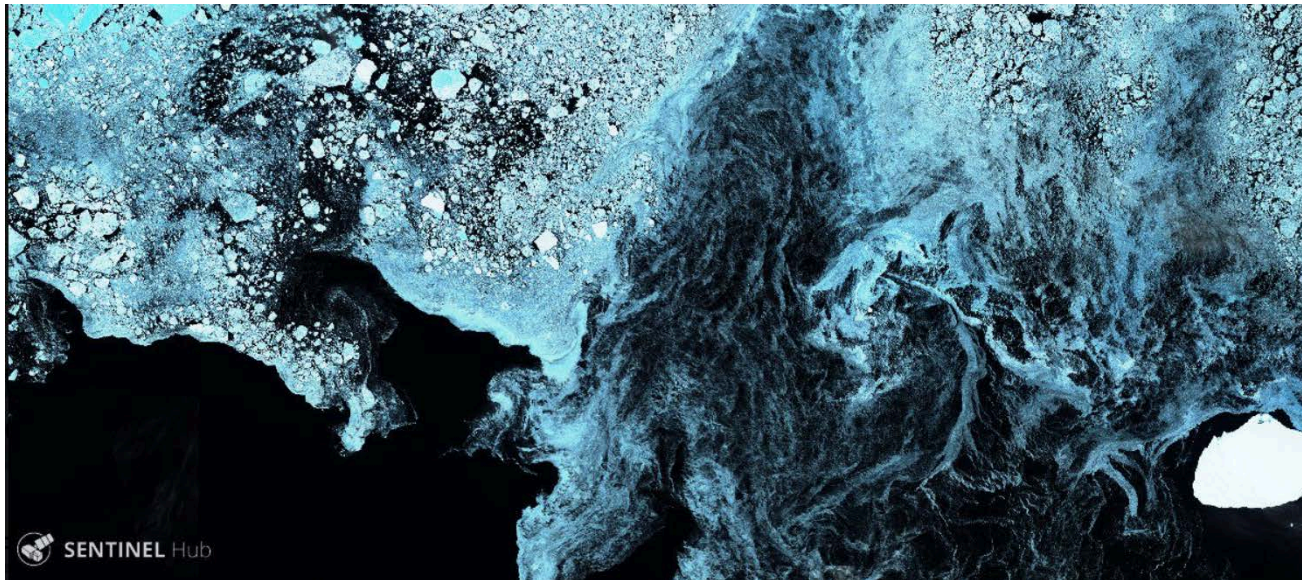
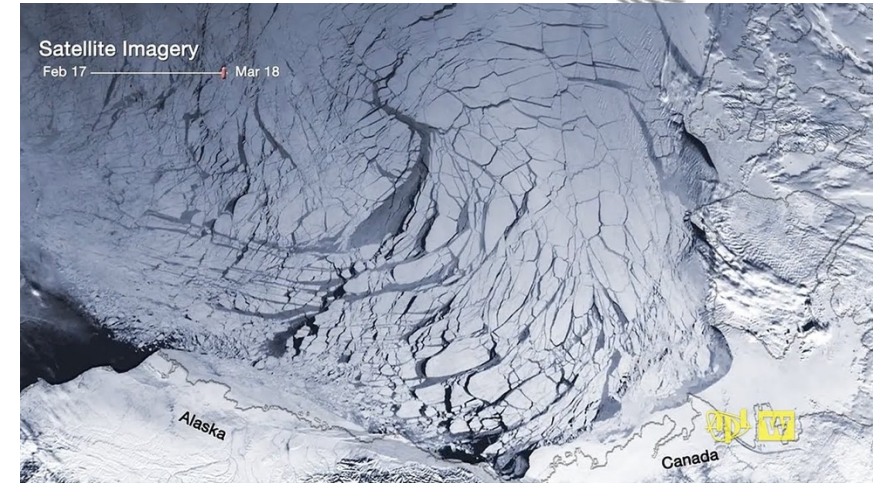
ESA UNCLASSIFIED - For Official Use

C. Donlon | CIMR MAG#10 | Slide 8



European Space Agency

Sea Ice spatial characteristics are complex.



This ISFRN workshop

This is one of the few opportunities we have as an SST radiometer community

- Please use the time to appreciate the activities and results of the community
- Please try to provide clear guidance and recommendations that could be considered for further activities
- Thanks for your time and I'm looking forward to a great meeting!

Copernicus

Europe's eyes on Earth



European Space Agency

