The Global Ocean Observing System

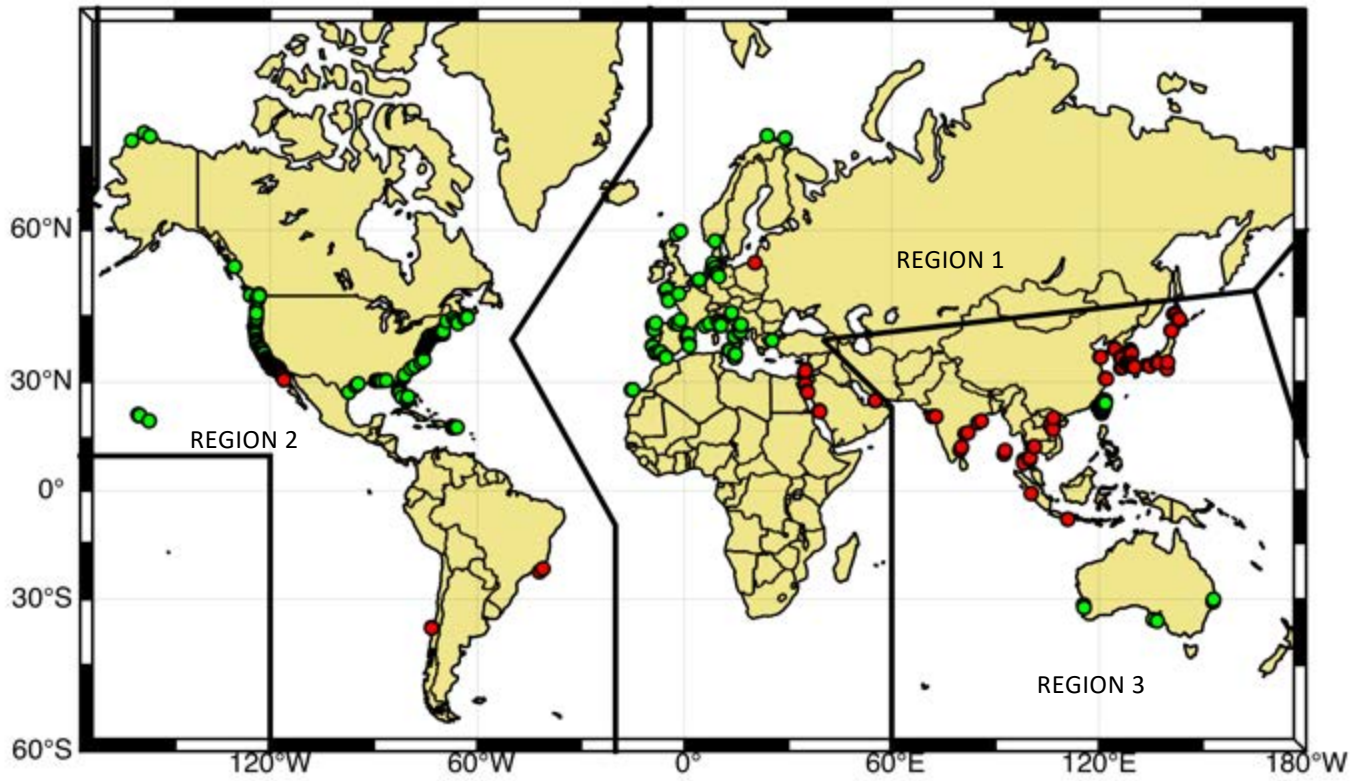
OCG – 11 VIRTUAL MEETING
MAY 2020

Hugh Roarty
Rutgers University

OCG Network – HF Radar

The Global HF Radar Network

Global distribution of HFR stations organized within the three regions of the International Telecommunications Union (ITU). The green dots indicate stations that are sharing their data through the global network and red dots indicate stations that are not currently sharing their data.



REGION 1

REGION 2

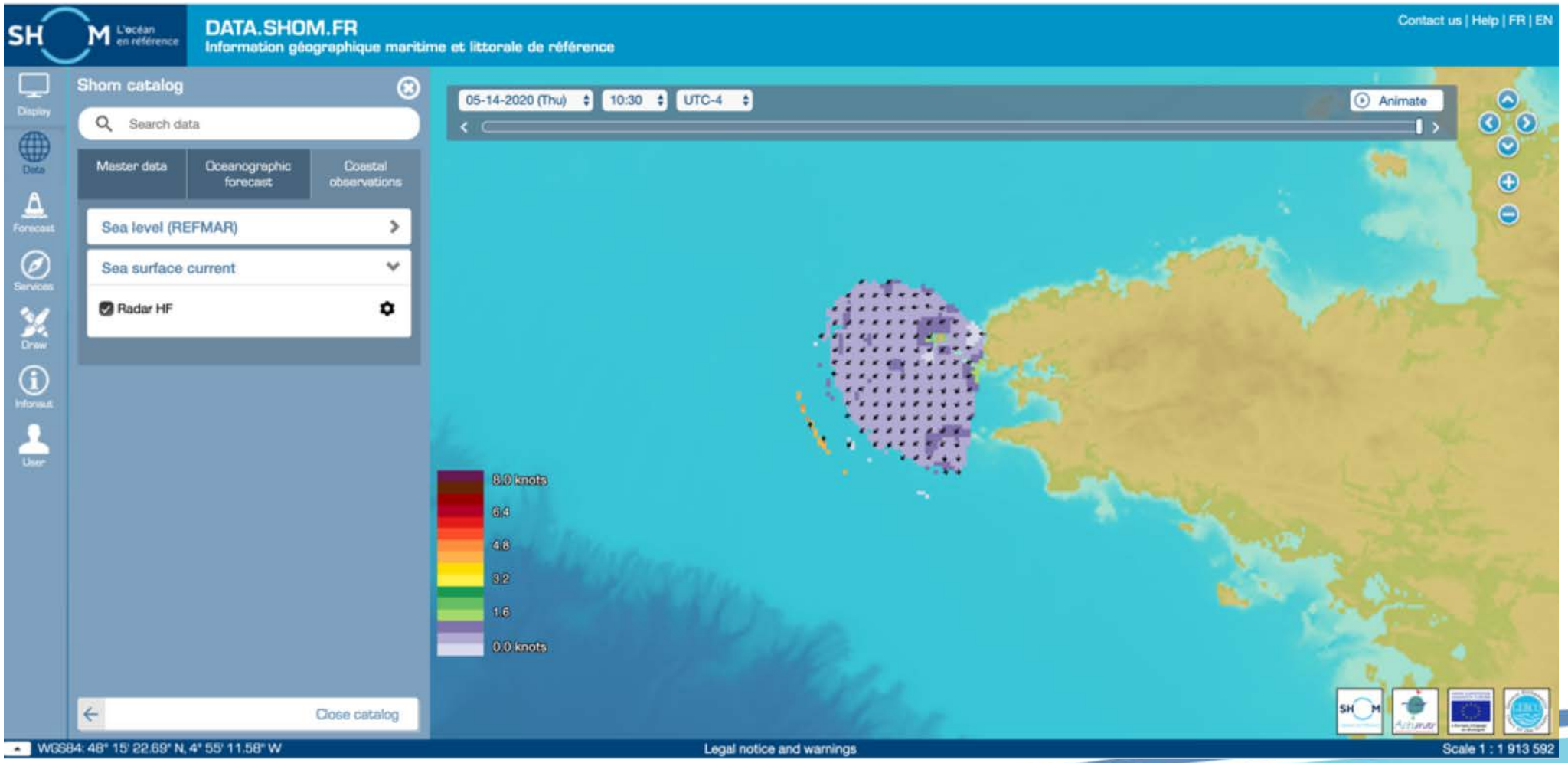
REGION 3

http://global-hfradar.org

NEW MEMBER

data.shom.fr

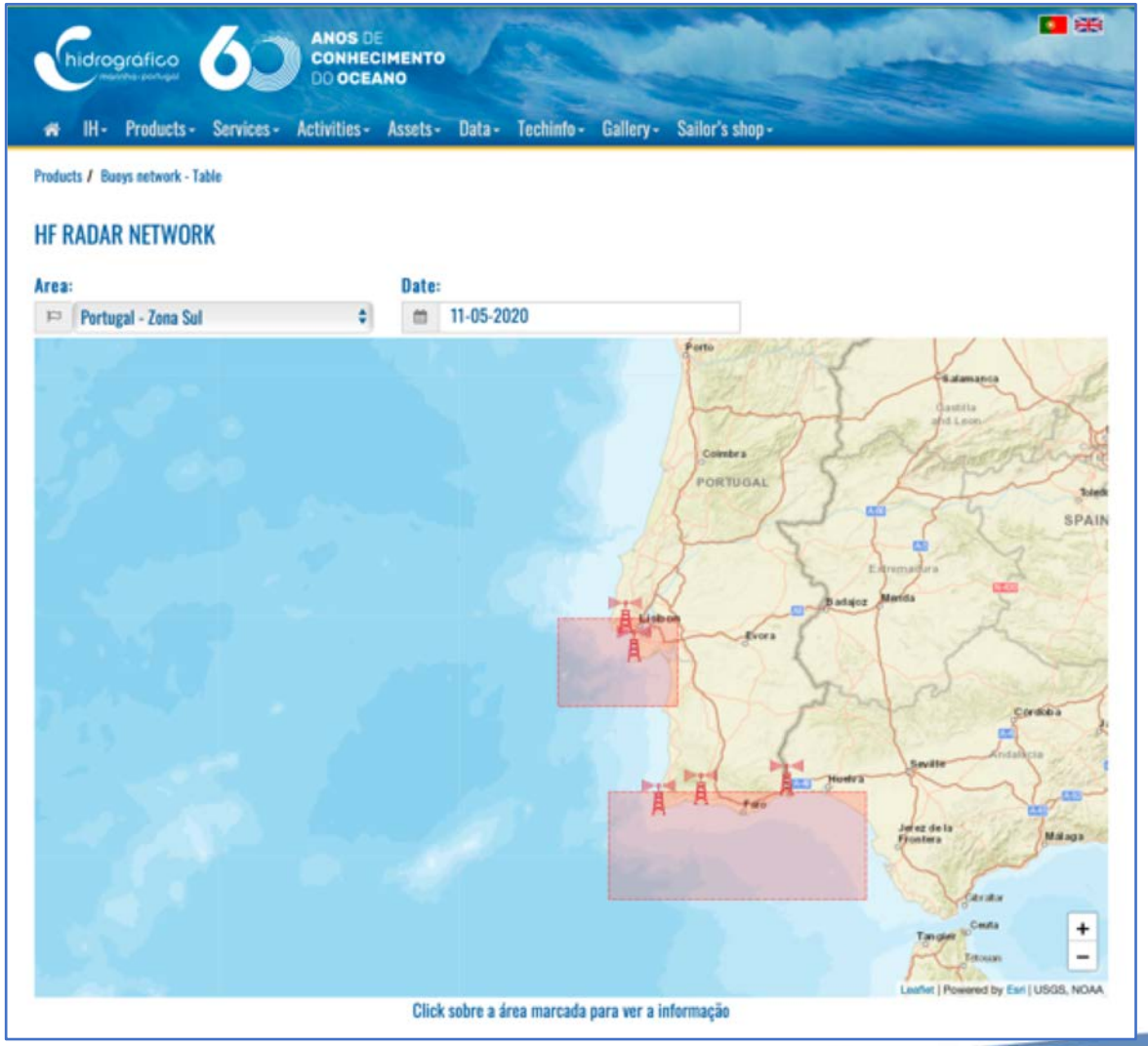
Shom Catalog/Coastal Observations/Sea surface current



New Member

- 6 HFR stations in total

https://www.hidrografico.pt/radar.map



DEVELOPMENTS AND ACHIEVEMENTS

- Dr. Naoto Ebuchi at the 9th Global Ocean Observing System (GOOS) Regional Alliance Forum http://rucool.marine.rutgers.edu/geohfr/meetings2019/2019_GOOS_RA_Presentation_HFR_Ebuchi2019c.pdf
- Ocean Networks Canada hosted the International Summer School on Radio Oceanography and the Radiowave Oceanography Workshop (ROW 2019) in back-to-back sessions on 25-28 August in Victoria, B.C. About 20 students of HF radar technology heard from experts on radar and wave theory, ship tracking, and oceanography. An overlapping session paired those students with the 40 experts assembled for ROW 2019 where results from HF radar-derived surface currents and waves were highlighted. More information is available at: https://row2019.oceannetworks.ca
- Our paper on the Global Network was published in Frontiers in Marine Science https://www.frontiersin.org/articles/10.3389/fmars.2019.00164/full
- The Network was mentioned several times at the recent OceanObs'19 meeting and we presented a poster on the network there https://rucool.marine.rutgers.edu/geohfr/meetings2019/2019_OceanObs_HFR.pdf

DEVELOPMENTS AND ACHIEVEMENTS - EUROPE

Recent Achievements

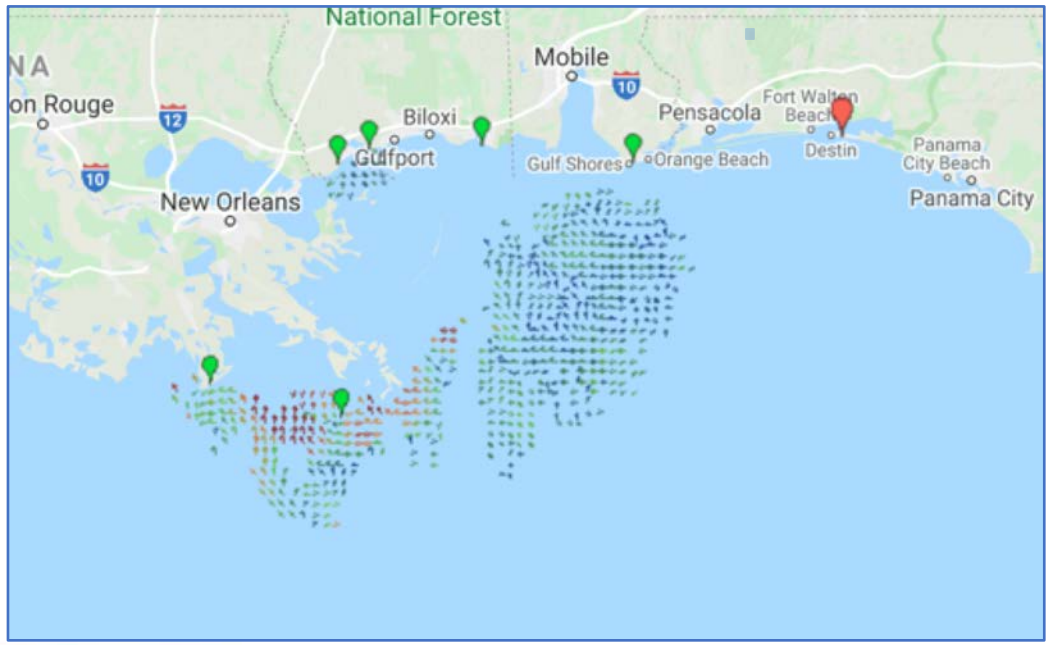
- The EU HF Radar Node, launched by the EuroGOOS HF Radar Task Team, is consolidating a standardized and qualified data management in Europe (EGU2020) for the benefit of the main EU data aggregators (EMODnet, CMEMS-INSTAC and soon SeaDataNet). See network status in http://eurogoos.eu/high-frequency-radar-task-team/
- New Near Real Time (radials) and Historical HF Radar data products on currents are implemented in the European Union's Copernicus Marine Service in 2020. Global links are allowing to incorporate US HFR data since 2020.

Focus for the Next Year

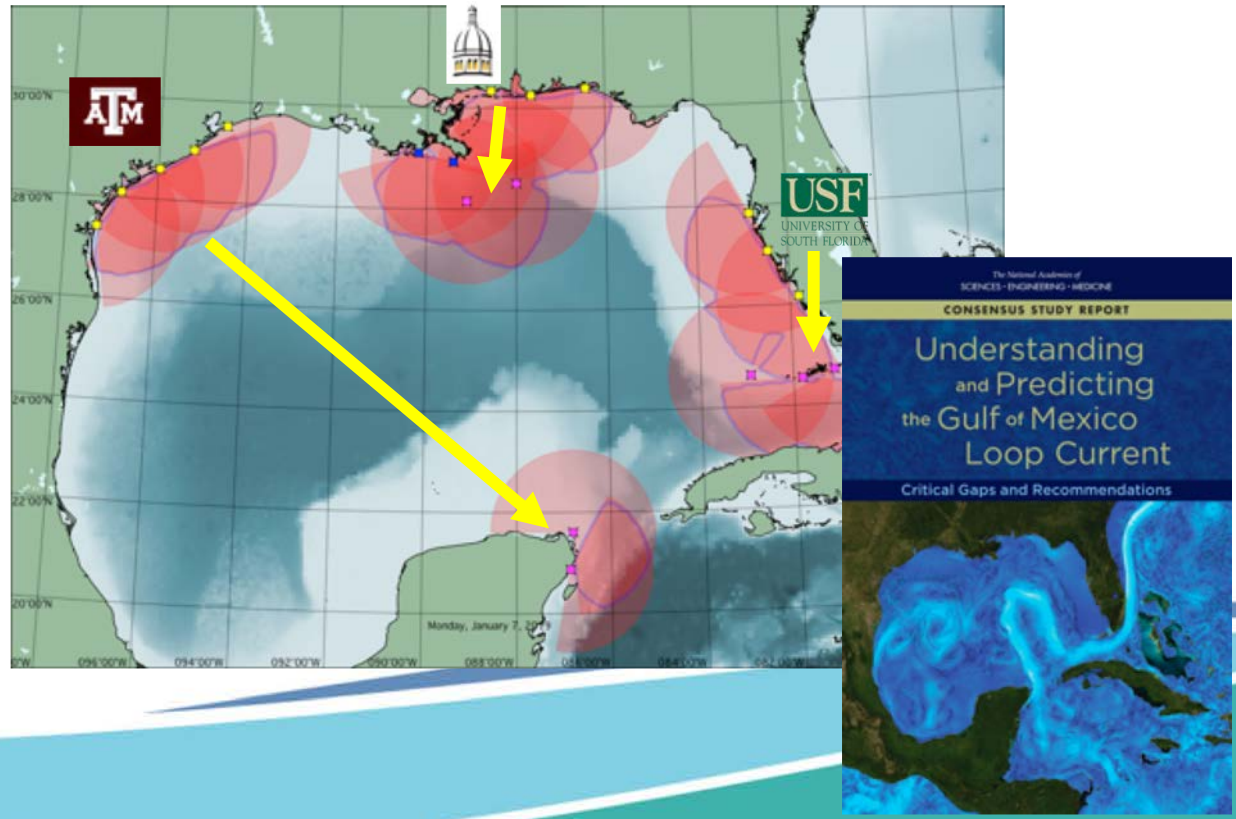
- Encourage more networks to share their data
- An international event organized by the EuroGOOS HF Radar Task Team will be hold in Gothenburg, Sweden, 10-12 Nov 2020. Save the date!
- The European HF Radar community is working with OBPS for improving the implementation of Best Practices (JERICO-S3 project).

DEVELOPMENTS AND ACHIEVEMENTS

- 2 new stations in the Gulf of Mexico



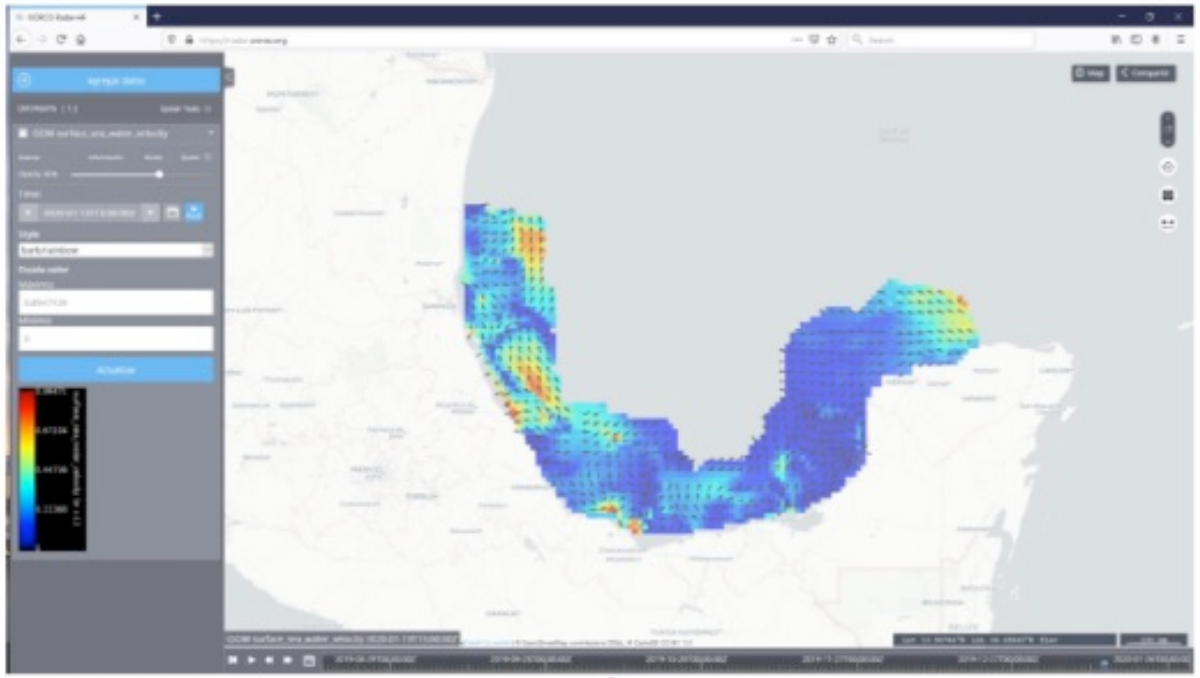
- 7 new stations in the Gulf of Mexico to understand the Loop Current



DEVELOPMENTS AND ACHIEVEMENTS

The Mexican Radar Network, has new servers and web interface for data management (https://oorco.ens.uabc.mx) with the following features:

- Data format for storage is now the NetCDF4 format with metadata and structure adhered to the Climate & Forecast conventions.
- Distribution now is thru, ERDDAP and THREDDS data servers, which provide web interfaces for users, as well as standard protocols, such as OpenDAP, OGC-WMS, among others.
- With the intention of making the information more accessible to users, a web application for interactive visualization was deployed, where geospatial data layers are presented on a map. These graphical representations are dynamically generated on request from THREDDS or ERRDAP servers.



https://radar.oorco.org

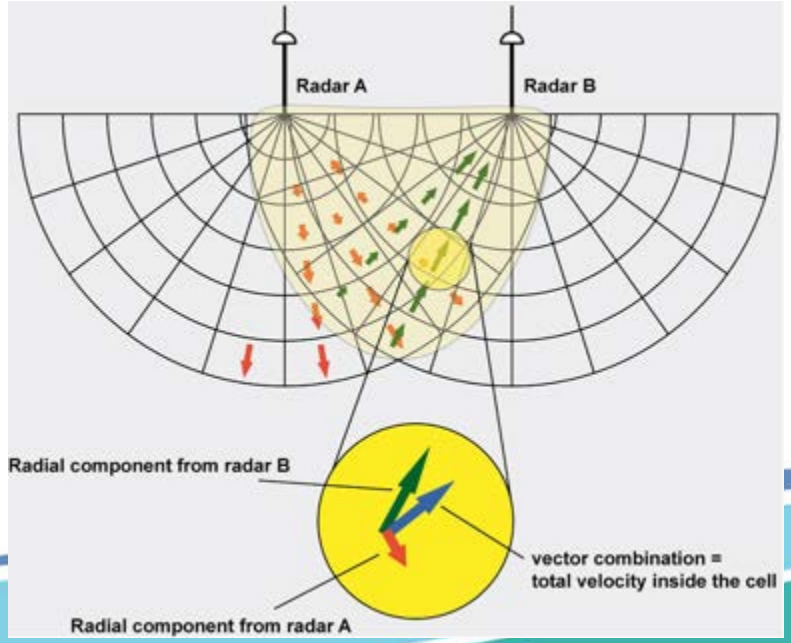
FUTURE PLANS AND OPPORTUNITIES

- Participation in Ocean Best Practice
- The EuroGOOS HF Radar Task Team will be gathering 10-12 November 2020 in Gothenburg, Sweden and considering inviting global actors to make stronger the connection of the European roadmap and the Global community.

frontiers in Marine Science

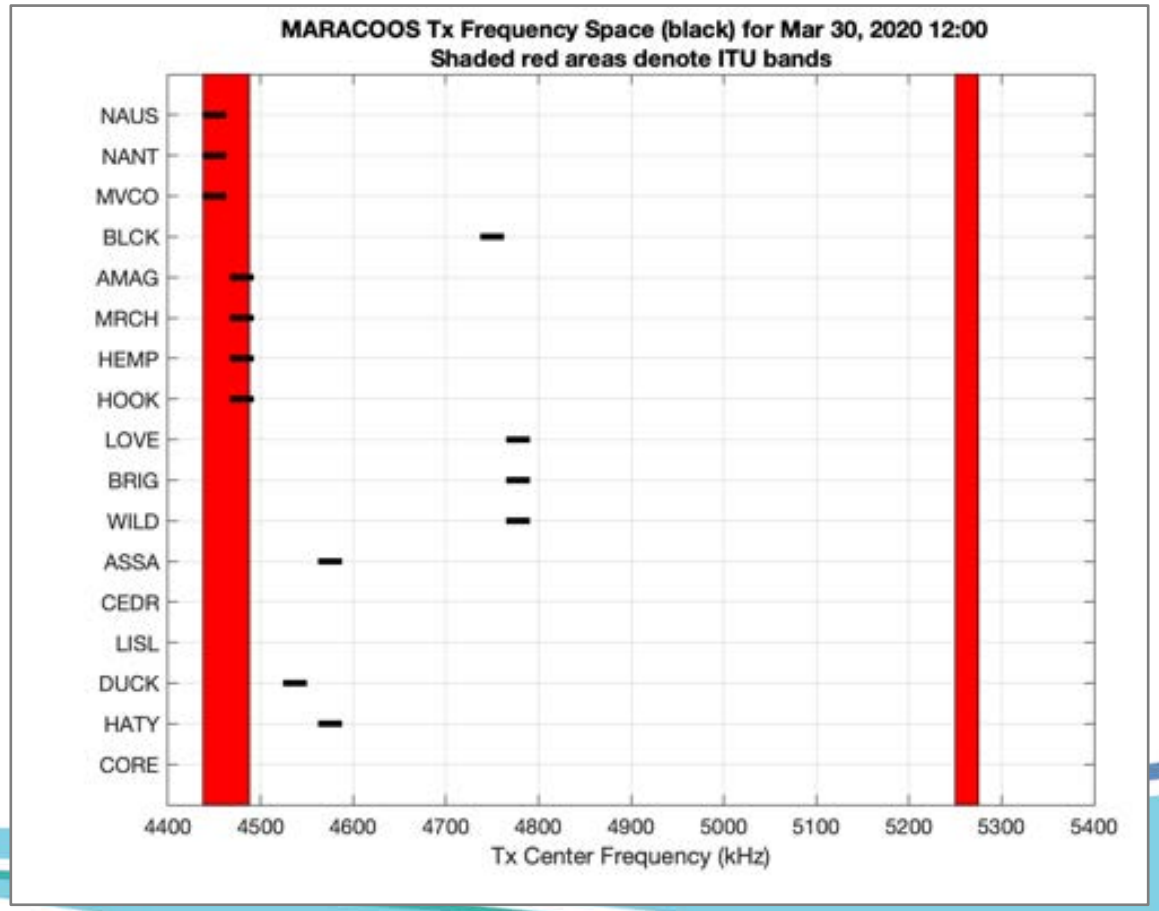
Best Practices on High Frequency Radar Deployment and Operation for Ocean Current Measurement

Carlo Mantovani[1], Lorenzo Corgnati[1], Jochen Horstmann[2], Anna Rubio[3], Emma Reyes[4], Céline Quentin[5], Simone Cosoli[6], Jose Luis Asensio[3], Julien Mader[3] and Annalisa Griffa[1]*



ISSUES AND CONCERNS

- In the United States the Federal Communication Commission is requiring all U.S. oceanographic HF Radar systems to be transitioned to ITU designated bands for the Americas by March 2022



The Global Ocean Observing System

Спасибо

Thank you

Gracias

Merci

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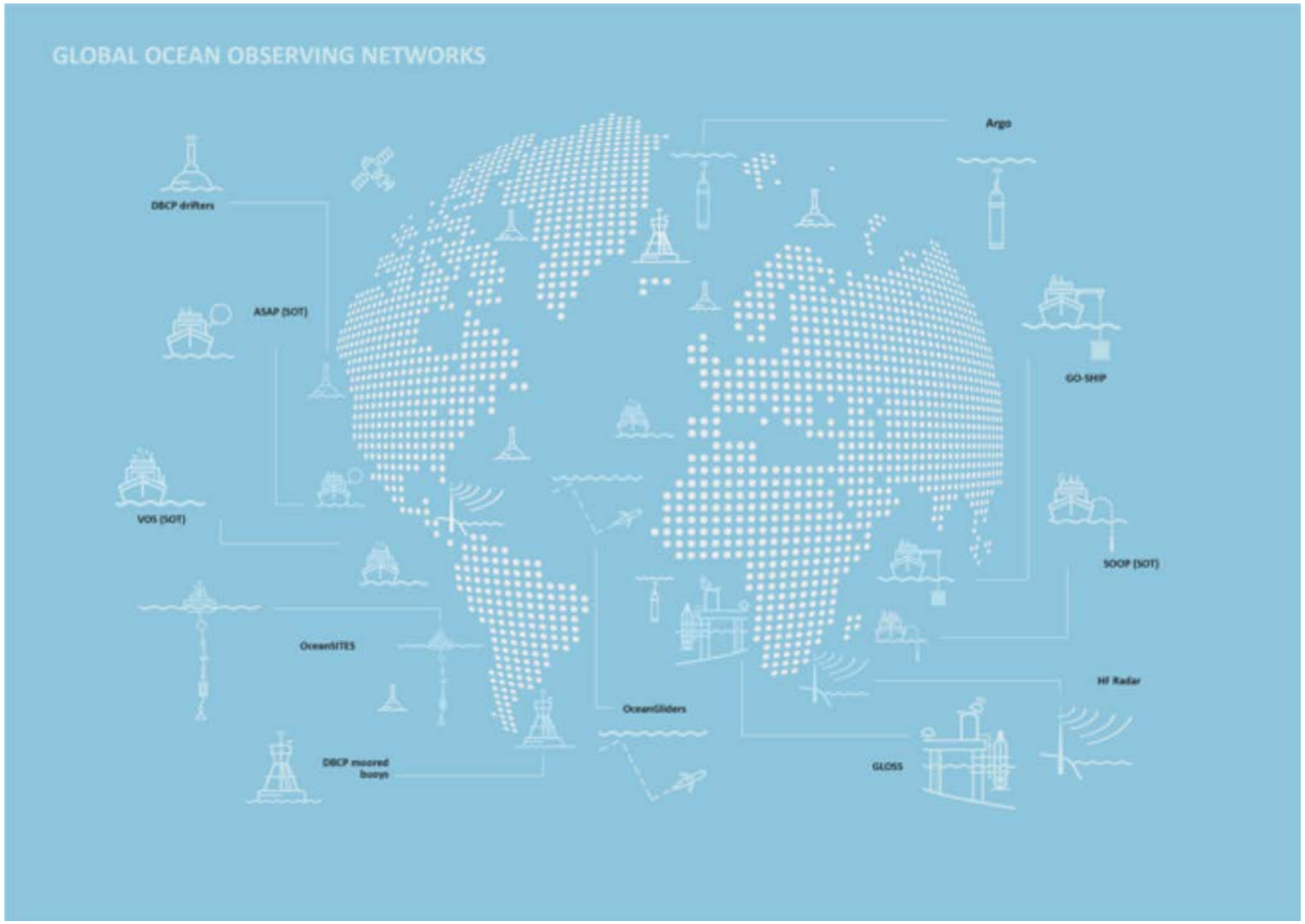
HF operations continue. Working to develop products with ocean modellers and other stakeholders



United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

WORLD METEOROLOGICAL ORGANIZATION

UN environment United Nations Environment Programme

International Science Council