

HF Radar Network



Recent Achievements

- EuroGOOS HF Radar Task Team has launched a EU HF Radar Node for centralizing a standardized and qualified data management in Europe.
- HF Radar products on currents are being implemented in the European Union's Copernicus Marine Service from April 2019. Global links would be used for incorporating US HFR data in the Copernicus global service from 2020.
- Italia-Malta Interreg 3A program partially funded the CALYPSO HF radar system with 3 new radar installations, for a total of 7 sites.

http://oceania.research.um.edu.mt/cms/calypsoweb/index.php?lang=en

- New radar site (Camarinal) has been recently added to the already existing 3-site 26 MHz system
 operated in the Strait of Gibraltar (South of Spain). Now both sides of the Strait are monitored in
 near real time.
- Mexico has grown its network from 6 to 24 HR stations which covers the Gulf of Mexico and the north pacific Mexican coast. The network is funded up to 2021 with the chance of funding up to 2026.
- Taiwan preparing Memorandum of Understanding with Global Network to share data through 2021



Status (March 2019)

- 400 radars making real time measurements of surface currents
- 34 countries making measurements of their coastal waters
- 10 countries sharing data via the global network

http://global-hfradar.org/

Focus for the Next Year

- Develop metrics and targets for the network
- Encourage more networks to share their data
- Radiowave Oceanography Workshop (ROW) 28-30 August 2019 <u>http://radiowaveoceanography.org</u>
- International Summer School on Radio Oceanography (ISSOR) 25-28 August 2019

https://radarschool.sciencesconf.org/



International Radiowave Oceanography Workshop (ROW)

Homepage for radiowaveoceanography.org

Home Registration Abstracts



ISSOR International Summer School On Radio-oceanography

ROW 2019

http://paduan.org/row/

Dear Colleagues:

We are pleased to announce two coordinated scientific meetings based on the use of high frequency (HF) radar for oceanography:

The International Summer School On Radio oceanography (ISSOR; 25-28



August 2019)The Radiowave Oceanography Workshop 2019 (ROW2019; 28-30 August 2019)

These events will take place back-to-back during this period in Victoria, B.C. CANADA. Our hosts will be Ocean Networks Canada at the University of Victoria.



ISSOR International Summer School

On Radio-oceanography

Summer school on HF and X-band radars

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ISSOR'19

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In the framework of ANR <u>HYD2M</u> (P.I: A.-C. Bennis) concerning the impacts of wave-current interactions on tidal stream energy estimation, we plan to install four phased array HF radars (operated by Caen University), one VHF radar (operated by Caen University, CNAM-Intechmer and MIO) and one X-band radar (operated by DCNS) in <u>Cap de la Hague</u> to measure surface currents and sea states in Alderney race where the strongest tidal current in Western Europe occurs (up to 12 knots). It is a challenge to operate HF, VHF and X-band radars in such hydrodynamic conditions.

With this in mind, we have organised a summer school on HF and X-band radars.



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

REGION 1



http://global-hfradar.org





Highlight From Year

Frontiers journals are at the top of citat and impact metrics







TECHNOLOGY REPORT ARTICLE Provisionally accepted The full-text will be published soon. So Notify me

Front. Mar. Sci. | doi: 10.3389/fmars.2019.00164

The Global High Frequency Radar Network

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Growth of HFR in US





Growth of HFR in Europe



Growth of HFR in Korea





Following WMO Radar Metadata Standards



Challenges: Aging Infrastructure

Challenges: Wind Turbine Interference

