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Report Title: Global High Frequency Radar Network report to OCG-8

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1. SUMMARY

This document summarises the status of the work of the Global High Frequency Radar Network and issues/actions to be noted by OCG

2. REPORT CONTENT

The Network had its 5th meeting in December 2016 that coincided with the American Geophysical Union annual meeting in San Francisco, California, USA. Updates were given on HF radar activity in Europe, China, Saudi Arabia, United States and Australia. We are planning a 6th meeting at the upcoming GEO 2017 Plenary, 23-26 October in Washington, DC USA.

There are approximately 400 stations currently operating and collecting real-time surface current information. The United States and Europe have tracked the growth of this sensor technology versus time. See Figure 1 and Figure 2 for a plot of number of operating stations versus time for the United States and Europe respectively.

The number of organizations displaying surface current information on the Global Network page has also increased from 7 in November 2016 to 13 in May 2017. The organizations currently providing surface current information to the Global Network are shown in Table 1.



Table 1: List of countries and organizations providing surface current information to the Global HF Radar Network.

Number	Country	Organization
1	Australia	Integrated Marine Observing System
2	Canada	Ocean Networks
3	Croatia	Institute of Oceanography and Fisheries
4	Germany	Helmholtz-Zentrum Geesthacht Centre for Materials and Coastal Research
5	Italy	CNR, Consiglio Nazionale delle Ricerche
6		OGS, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale
7	Malta	CALYPSO
8	South Korea	Korea Hydrographic and Oceanic Administration (KHOA)
9	Mexico	
10	Spain	Puertos del Estado
11		SOCIB, Balearic Islands Coastal Observing and Forecasting System
12		Euskalmet
13	United States	Integrated Ocean Observing System (IOOS)

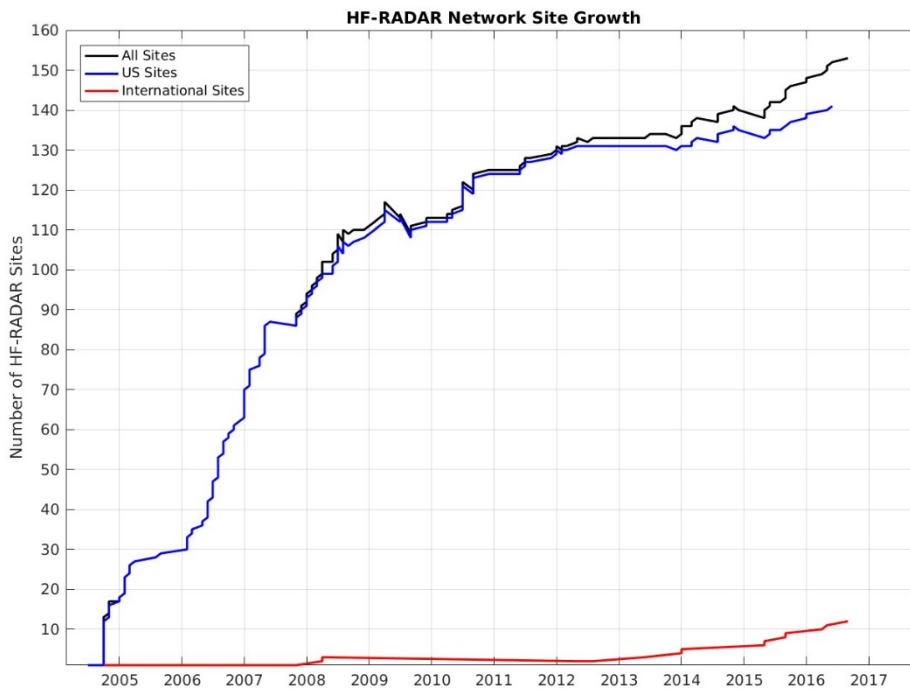


Figure 1: Number of radar stations reporting to the United States National Network (black) from 2005 to 2016.

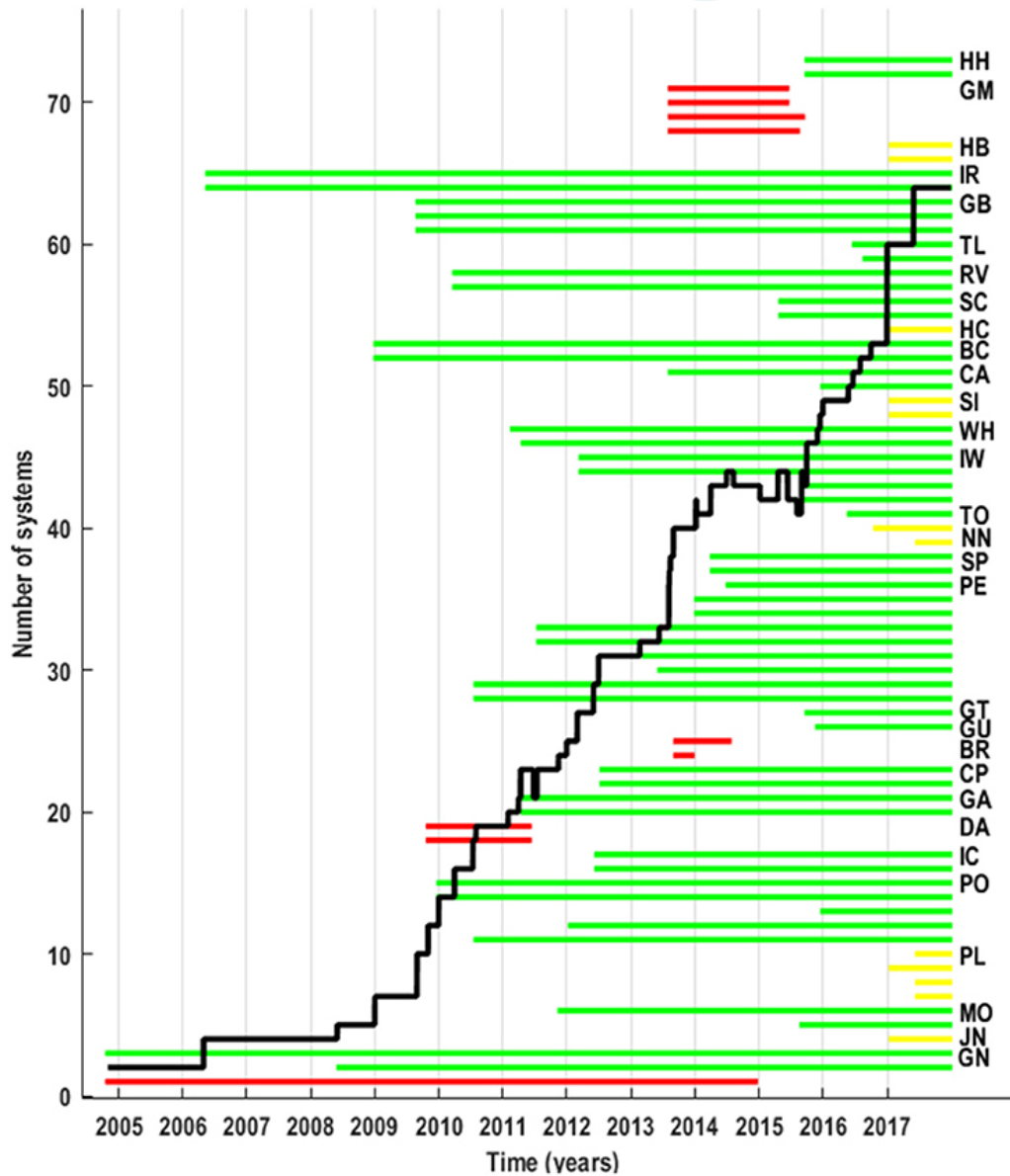


Figure 2: Evolution of HF radar use in Europe. The black line indicates number of stations operational per year. The timeline of each station is shown as the horizontal line, red for stations that are no longer operational, green for currently operational stations and yellow for planned deployments. The two letter code signifies the network name, see Rubio et al. (2017) "HF Radar Activity in European Coastal Seas: Next Steps toward a Pan-European HF Radar Network" *Frontiers in Marine Science*, Vol. 4, Article 8, p. 1-20, <https://doi.org/10.3389/fmars.2017.00008>

3. DECISIONS/ACTIONS/RECOMMENDATIONS:

Within the United States, there has been interest in the HF radar technology for tsunami detection and sea state measurement (wave height, period and direction). There are pilot programs underway for both of these applications.