

**Notes from GEO Inaugural HF Radar Global Task Meeting,
13 March 2012 at the
Oceanology International conference in London**

Attendees were from Belgium, Brazil, France, Germany, Japan, Malta, Norway, Spain, Sweden, United Kingdom, USA, approximately 30 total.

There was discussion of forming working groups within this GEO task. Several groups were identified:

1. Information Management

a. Data Management

File formats

Archiving

Quality Control

Web Services

Reprocessing

b. Data Products and Modeling

Visualization and display

Gap-filling techniques

Model assimilation (e.g. hindcast, nowcast, forecast, etc...)

Value-added products (trajectories, eddies, electronic charting overlays, divergence/convergence zones, etc...)

Data sharing: if deployment is private sector, can be good publicity

MyOcean was mentioned as potential for modeling and assimilation efforts
<http://www.myocean.eu.org/>

2. Capacity building: New HF radar networks

Deployment topics – best practices

Continued operations and maintenance – best practices

Training a technical workforce

Sharing data if deployment is private sector can be good publicity

ROWG mentioned as useful

Student exchange

Centers of excellence that provide training opportunities i.e student and technical staff exchange): list & describe

Centers of excellence that provide technical expertise: list and describe

3. Radio Frequency Management in light of WRC-12 outcomes

Simultaneous sharing (synchronization) of frequency use

Call sign during transmission

This working group is likely not needed until after ITU handles these issues under their working party structure. The HF radar community in each country is encouraged to work closely with its frequency regulatory agency so that the techniques for meeting each of the two items above can be mutually accepted by the agency and the community. Industry manufacturers are encouraged to allow for simultaneous HF radar operation on the same frequency.

Some Potential Next Steps:

Action Item: Create template for each country to fill in with details of their radars e.g. latitude, longitude, transmit frequency, bandwidth, affiliation, geographic name, radar type (direction-finding or phased array), boresight (if phased array), radar owner, radar operator, land owner.

-Will be created and distributed by Jack Harlan

This compiled information will be distributed to all interested parties via emails and web pages.

Action Item: Create template for each country to fill in with details of successful applications of HF radar data

-Will be created by Australian and US team and distributed by Jack Harlan

The result of this action item can aid in educating potential users.

Partnerships between private sector and government agencies have a great deal of potential.

Potential venues for the 2nd meeting of this GEO task were mentioned:

- Ocean Radar Conference of Asia (ORCA) Meeting in Seoul and MTS/IEEE in Yeosu, Korea May 2012
- Norway (venue?) 2013
- European Geophysical Union April 2012
- IOC ?

General Notes:

Colin Grant (British Petroleum) mentioned OGP coming agreement on HF radar with at least 3 Joint Industry Projects to be commenced.

Attendees:

Australia:

Lucy Wyatt – IMOS/ACORN

Brazil:

Uggo Ferreira de Pinho - Petrobras

Andrei Cavalcante - Petrobras

Andre Mendes - Petrobras

Carlos Leandro da Silva - AmbiPetro

Beatriz Mattos - AmbiPetro

Belgium:

Stephanie Van de vreken – Government of Flanders

France:

Valerie Quiniou-Ramus – Total Oil

Germany:

Emil Stanev – University of Oldenburg

Thomas Helzel – Helzel Messtechnik GmbH

Japan:

Naoto Ebuchi – Hokkaido University

Malta:

Adam Gauci - University of Malta

Norway:

Anton Kjelaas – Special Advisor to The Research Council of Norway and President of CodarNor A/S

Russia:

Gennady Kantakov - Far-Eastern Ecological Center Ltd.; General Director, MBA HR

Spain:

Andres Alonso-Martirena – Qualitas Remos

Jorge Sanchez – Qualitas Remos

Sweden:

Philip Axe - Swedish Meteorological and Hydrological Institute

Pia Andersson - Swedish Meteorological and Hydrological Institute

United Kingdom:

Colin Grant – BP

Ralph Rayner – London School of Economics

Mike Moorehead – Neptune Radar

Nick Kellerman – Fugro

Mackenzie – Operational Oceanography publication

USA:

Jack Harlan – US IOOS

Zdenka Willis – US IOOS

Scott Glenn – Rutgers University

Hugh Roarty – Rutgers University

Lisa Hazard – Scripps Institution of Oceanography

Don Barrick – Codar Ocean Sensors, Ltd.

Laura Pedersen - Codar Ocean Sensors, Ltd.

Chad Whelan - Codar Ocean Sensors, Ltd.

Eoin Howlett – Applied Science Associates (ASA)