

Radiowave Operators Working Group (ROWG)

3rd Annual Workshop

Scripps Institution of Oceanography

San Diego, CA, USA

September 10-12, 2007



ROWG Charter:

- 1) To foster collaboration between new and experienced HF radar operators.
- 2) To develop procedures governing HF radar operations including:
 - Site logistics.
 - Processing to component vectors.
 - Total vector products and data management.
- 3) To provide recommendations to users, developers, manufacturers, and program managers.

Tentative Agenda

Monday September 10th, 2007

5:00pm – 8:00pm: Ice breaker, Come out and meet the participants!

**Please bring a poster introducing you and your group to the other participants.

They are intended to start conversations so more pictures, less text!

Poster Session:

Please bring topic posters to be displayed in the Meeting room throughout the workshop. The topics can cover any aspect of HF Radar hardware, software or interesting applications.

Tuesday September 11th, 2007

8:30am – 9:00am: Registration

9:00am: Welcome

9:00am – 9:30am: Introductions

9:30am – 9:45am: Overview of ROWG-2 (Brian Emery)

9:45am-10:15am: HF Radar and IOOS (Jack Harlan)

10:15am – 10:45am: HF Radar National Network (Mark Otero)

10:45am – 11:00am: Break

11:00am – 11:30am: Summary of software group priorities (Session Chairs)

11:30am – 12:00pm: Summary of hardware group priorities (Session Chairs)

12:00pm – 1:30pm: Lunch

1:30pm – 5:00pm: Breakout Groups

SOFTWARE

HFR Setup

- Long, Medium, and Short-range Configuration

- Antenna Tuning

- Antenna Pattern Measurement

- Interference Issues

HFR Software

- SeaSonde software configuration

- SeaSonde Data Files

- On site archiving

- Near Real-Time Data Transfer

- Remote Settings for ingestion into National Network

- Diagnostic reporting

- Wave measurements

HFR Quality Assurance (QA)/Quality Control (QC)

- Quality Performance Metrics

- QC Algorithms

- QA

- Metadata

HARDWARE

Locating an HFR: Site Requirements

- Power

- Internet Connectivity (wireless, cellular modems, satellite)

- Security

- Spectrum Analyzer

Support Equipment

- Climate-controlled Enclosure Specifications

- Antenna Mount

Site Maintenance

- Required Maintenance

- Schedule for Site Visit

HFR Data Management

- Radial File Requirements & Recommendations

- Data Telemetry

- Local Data Management/Backups

Wednesday, September 12th, 2007

9:00am-10:00am : Long-Range Site Visit (Scripps Campus)

10:30am-12:00pm: Breakout Groups Cont.

- Hardware

- Software

12:00pm – 1:30pm: Lunch

1:30pm – 3:30pm: Summary/Discussion with the entire group

3:30pm – 4:00 pm: Break

4:00pm – 5:00pm Meeting Debrief

- Breakout group review
- Plans for ROWG 4

Thursday, September 13th, 2007

Antenna calibration tutorial – conducted by CODAR Ocean Sensors

- *- Overview of good vs. bad patterns (lots of examples!) and at what point should you move site?
- How much do patterns affect the radial data (e.g. using ideal vs. measured)?
- Measuring patterns (affect of boat speed, distance, signal power, blanking, sampling rate)
- Processing patterns from time series (how to)
- Smoothing patterns (how much is too much?)
- extrapolating to land
- measuring patterns 360 degrees (water -> land)
- Long range vs. Mid/High Resolution measurements
- Local affects on Patterns (research area?)