

Tuesday

10/23/2007

**10:00 AM UC Davis' Bodega Marine Lab
Bodega Bay, CA**

10:00-10:30 AM

1.1 Introductions and Course Overview

Brief self-introductions by attendees

Brief introductions of COS staff

Course Overview and logistics

Questions/Problems: How to get answers from Support

10:30-11:00 AM

1.2 SeaSonde Hardware Overview- "What We Make"

HF Radar and SeaSonde Terminology

Differences Between Systems (Hardware and Software)

System Hardware Show and Tell

1.3 SeaSonde System Overview - "What is Measured"

Overview and Operation of a SeaSonde HF Radar Network

11:00-11:45 AM

1.4 Introduction to the SeaSonde Macintosh

Standard COS Macintosh Installation

CODAR Software and File Directory - Setting Up Shortcuts

11:45-12:00 AM

1.5 Creating a Site File for a Radial Site

Lunch (Hosted by COS)

13:30-14:00 PM

13:30-14:00 PM

1.6 Site Selection: How to Optimize Performance and Data Quality

14:00-14:30 PM

1.7 SeaSonde10 Release 5 Universal Software Overview

Overview

Documentation - where to Find the Answers

Sentinel

SeaSondeController (Monitor & Standard Controller Menus)

SeaSondeAcquisition

CSPRO

Terminal Shell Programs (SpectraAnalysis Suite)

Archivalis

14:30-14:45 PM

Break

14:45 -15:30 PM

1.8 System Setup, Startup and Checks for Proper Operation

Exercise: Setup and startup of a 12MHz SeaSonde

guy wires for receive antenna in front yard

SeaSondeController (Transmit Monitor & Advanced Controller Menu)

Sentinel (Status Window Checks)

Terminal Window (Error Message Checks)

Automated Start-up with Sentinel login

15:30-16:00 PM

1.9 Evaluating Cross Spectra : The Basic Unit of SeaSonde Data

Definition

Description

Characteristic features and differences between systems

Unusual spectra features

Identifying "problem" features

Exercises: Using SpectraPlotterMap, SpectraPlotter, SpectraPlotter3D, SpectraSlicer, SpectraShortener and DiagDisplay to Evaluate Spectra Data

16:00-16:30 PM

1.10 Simulated Processing and Radial Site Setup Modifications

16:30-17:30 PM

1.11 The Importance of Phases in Bearing Determination

Setting Phases From Sea Echo and Re-Processed CSS Files

Setting Phases From Pattern Measurements

Exercises: Estimating phases and Re-processing Cross Spectra

Wednesday

10/24/2007

09:00-9:30 AM Hardware Show and Tell

9:30-10:30 AM

System Setup, Startup and Checks for Proper Operation

Exercise: Setup and startup of a 25MHz Combine-type SeaSonde

SeaSondeController (Transmit Monitor & Advanced Controller Menu)

Sentinel (Status Window Checks)

Terminal Window (Error Message Checks)

Automated Start-up with Sentinel login

10:30-11:00 AM

2.1 Introduction to First Order Lines

Exercise: Using SpectraPlotterMap to Evaluate/Set First Order Lines

2.2 How to Re-Process Radial Data

RadialSiteSetup

11:00-11:30 AM

2.3 Antenna Pattern Measurement Techniques

SeaSondeController (Transponder Controller Menu)

Antenna Pattern Measurement Setup

11:30-12:15PM

2.4 Processing Pattern Files

Lunch (Hosted by COS)

12:15-14:00PM

14:00-14:45 PM

2.5 Communications and File Transfers

Combine Site File Transfers

Communications Hardware

Configuring File Transfers

Using rsync for command-line transfers

Exercise: Configuring file transfers with FileExchange and rsync

14:45-15:15 PM

2.6 Overview of SeaSonde Software Utilities

Combine Site Software Installation

CombineSiteSetup

15:15 -15:30 PM

Break

15:30-16:00 PM

2.7 Combine Site Software Overview

Sentinel

FileExchange

Terminal Shell

Archivalist

16:00-17:00 PM

2.8 Creating Grid Files

SeaDisplay

SDSetup

16:30-17:00 PM

2.9 How to Re-Process Radial Data Using Alternative Parameters

CombineSiteSetup

Exercise: Creating Grid Files for Total Vectors

17:00-17:30 PM

2.10 Data Troubleshooting From Total Vectors Backwards to the Problem Source

Exercise: Troubleshooting "Bogus" Totals to the Problem Radial(s) and Troubleshooting Problem Radials to problem Cross Spectra (CSS)

**Cocktail Hour Gathering
Picnic Hosted by COS
(17:30 PM)**

18:30-19:30 PM

2.11 History of HF Radar

Thursday

10/25/2007

09:00-09:45 AM

Cable Repairs-

5MHz Setup and troubleshooting

25MHz Setup and troubleshooting

09:45-10:15AM

3.1 Configuring Wave Software for Wave Processing

System limitations

Evaluating Site for Appropriateness of Wave Measurements

Configuring the Wave Parameters with RadialSiteSetup

Theory of Operation

Using Wave Display

Lunch (Hosted by COS)

10:30 AM - 17:30 PM

Field Site Visits

Exercises: Field Setup and 12Mhz SeaSondes, system startup and checks for proper operation, Problem Solving Exercise, walking Antenna Pattern Measurement

Dinner in Bodega Bay (Hosted by COS)

Friday
10/26/2007

09:00-09:45 AM

Cable Repairs-
5MHz Setup and troubleshooting
12MHz Setup and troubleshooting

09:45-10:30 AM

4.1 Frequency Management

How SHARES (GPS Timing Works)
Considerations for Setting Up a Synchronized Network

Demonstration of Bistatic

Identifying and Troubleshooting SHARES Synchronization Problems
Exercise: GPS System Startup and Setup, Setting GPS Timing Offsets With SeaSondeController and Troubleshooting GPS

10:30-10:45 AM

Break

10:45-11:30 AM

4.2 Customizing your SeaSonde with Command Line Tasks and Perl Scripts

4.3 File Management and Archiving

How to contact "Support" and what's required

- Screen shots
- Diagnostic files
- Sample data files (compressed)

The Importance of Desktop Log Files
Configuring Archivalist to Optimize Disk Space
Re-processing Data From Archives

11:30- 12:00 AM

4.4 Data QAQC

Course Wrap-up (NOON)

Wine Country Tour (Optional)

12:30 PM Vans leave

6:00 PM Van returns to Mountain View via San Francisco Airport