



Spring Training Course Agenda

April 27 - May 1, 2009

Monday Evening

4/27/2009

17:00 PM Meet at COS Office, 1914 Plymouth St., Mountain View, CA 94043

18:00 - 20:00 PM

Social Gathering at Tied House Restaurant (Hosted by COS)

Questions/Problems:

Bruce Nyden +17074946693 Mobile

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Tuesday

4/28/2009

7:30-9:00 AM Breakfast (on your own)

Travel to COS

9:30-10:00 AM

1.1 Introductions and Course Overview

Brief self-introductions by attendees

Brief introductions of COS staff and Staff Intro presentation

Course Overview and logistics

HF Radar and SeaSonde Terminology

Questions/Problems: How to get answers from Support

10:00-10:30 AM

1.2 SeaSonde Overview - "What We Make and What is Measured"

Overview and Operation of a SeaSonde HF Radar Network

Differences Between SeaSonde Models -

COS Company Overview -

System Hardware Deployments Worldwide -

10:30-11:00 AM

1.3 Site Selection Review

Optimizing Performance and Data Quality With Good Site Choices
Environmental Factors
Interference Issues
Frequency Selection and Permits

11:00-12:00 AM

1.4 Introduction to the SeaSonde Macintosh

Intro to Mac OS X and Apple Macintosh Computers
Standard COS Macintosh Installation
OS Changes with Leopard (Mac OS X 10.5.6)

Lunch

(Provided by COS)

12:00-12:45 PM

12:45-13:30 PM

1.5 SeaSonde10 Release 6 Universal Software Overview

Overview
CODAR Software and File Directory
Documentation - where to Find the Answers
SeaSondeRadialSetup
Property lists
Sentinel
SeaSondeController (Monitor & Standard Controller Menus)
SeaSondeAcquisition
CSPro
Terminal Shell Programs (SpectraAnalysis Suite)
Archivalist

13:30-14:15 PM

1.6 Preview of SeaSonde Release6 Webserver

14:15-14:30 PM

Break

14:30-15:00 PM

1.7 System Setup, Startup and Checks for Proper Operation

Exercise: Startup of a 25MHz SeaSonde
SeaSondeController (Transmit Monitor & Advanced Controller Menu)
Sentinel (Status Window Checks)
Terminal Window (Error Message Checks)
Automated Start-up with Sentinel login

15:00-15:45 PM

1.8 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

15:45-16:15-PM

1.9 Simulated Processing and Radial Site Setup Modifications

16:15 - 17:00 PM

1.10 Using DiagDisplay for Setting Phases and Troubleshooting

Setting Phases From Sea Echo and Re-Processed CSS Files

Setting Phases From Pattern Measurements

Exercises: Estimating phases and Reprocessing Cross Spectra

Barbecue at COS

(Provided by COS)

17:30 - 18:30 PM

18:30 - 20:00 PM

Presentation by Don Barrick, President

The History of HF Radar and CODAR Ocean Sensors, Ltd.

Wednesday

UC Santa Cruz - Long Marine Lab La Feliz Room

Santa Cruz, CA

4/30/2009

7:30-8:00 AM Breakfast (on your own)

08:30-9:30 AM Travel to UCSC Long Marine Lab in Santa Cruz, CA from COS Office
(Transportation Provided by COS)

09:30-11:00 AM

2.1 Field Setups, Startup, Checks for Proper Operation, Troubleshooting

Exercise: Setup and startup of one 5MHz and one 25MHz SeaSonde at Long Marine Lab

SeaSondeController (Transmit Monitor & Advanced Controller Menu)

Sentinel (Status Window Checks)

Terminal Window (Error Message Checks)

Automated Start-up with Sentinel login

11:00-11:30 AM

2.2 Hardware Show and Tell (5MHz) and (25MHz) SeaSondes

Lunch
(Provided by COS)
11:30AM -12:30 PM

12:30-13:30 PM

2.3 Hardware Diagnostics and Voltage Measurement Points

13:30 -15:00 PM

2.4 5MHz and 25MHz APMs - How to Collect APM Data

Walking APM for SR System

15:00-15:30 PM

2.5 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

15:30-16:00PM

2.6 Process APM Data from Morning Session

15:00-16:00PM Pack up equipment

Dinner Out at Las Olitas Restaurant
Santa Cruz Pier - Santa Cruz
(Hosted by COS)

20:00-21:15 PM Return to COS Office from UCSC Long Marine Lab in Santa Cruz, CA
(Transportation Provided by COS)

Thursday

4/30/2009

7:30-8:30 AM Breakfast (on your own)

9:00 AM - 10:00 AM

3.1 Using Timbuktu 8.x and Skype for Remote Control of SeaSondes

Configuring Mac computers to communicate with Timbuktu

Connecting to a Site a Control Session

Initiating an Exchange Session to Transfer files

Favorite Timbuktu Tricks

Common Problems Encountered

Timbuktu Practice (between computers)

10:00 AM - 10:45 AM

3.2 Introduction to First Order Lines

Exercise: Using SpectraPlotterMap to Evaluate/Set First Order Lines

10:45 AM - 11:00 AM

Break

11:00-11:30 AM

3.3 How to Reprocess Radial Data

RadialSiteSetup

Lunch

(Catered by COS)

12:15-13:30 PM

13:30-14:15 PM

3.4 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

14:15 -14:30 PM

Break

14:30-15:30 PM

3.5 Combine Site Software Overview

CombineSite Installation

Sentinel
FileExchange
Terminal Shell
Archivalist
CombineSiteSetup

15:30-16:00 PM

3.6 How to Re-Process Total Vectors Using Alternative Parameters

16:00-16:15 PM

3.7 Data Troubleshooting From Total Vectors Backwards to the Problem Source

15:00-15:45 PM

3.8 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

15:45-16:15 PM

3.9 Troubleshooting Systems with DiagDisplay and STAT files

Friday

5/1/2009

7:30-8:30AM Breakfast (on your own)

9:00-09:30 AM

4.1 Data QAQC and Applications

9:30-10:00 AM

4.2 How to Reprocess Radial Data

RadialSiteSetup

10:00-10:30 AM

4.3 Dome Antenna - Demonstration

CODAR Ocean Sensors, Ltd. Spring Training Course (April 27-May 1, 2009)

10:30-11:00 AM

4.4 Frequency Management -

How SHARES (GPS Timing Works)

Considerations for Setting Up a Synchronized Network

11:00-11:45 AM

4.5 Demonstration of Multi-static -

Identifying and Troubleshooting SHARES Synchronization Problems

Exercise: GPS System Startup and Setup, Setting GPS Timing Offsets With SeaSondeController and Troubleshooting GPS

**Course Wrap-up (NOON)
Graduation Lunch**

Lunch

(Catered by COS)

12:00-12:45 PM

Optional Topics:

Customizing w/ Command Line Tasks and Perl Scripts -

How to build a Combine site grid

Introduction to SeaDrift for Spill Simulation