

**Monday Night**  
30 October 2006  
**Cocktail Hour Gathering**  
**Olitas Cantina & Grill**  
**Santa Cruz Pier (6PM)**

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**Tuesday**  
31 October 2006  
**9:30 AM Long Marine Laboratory - La Feliz Room**

**Introductions**

**HF Radar History and Applications**

**SeaSonde System Overview**

Overview and Operation of a SeaSonde HF Radar Network  
Selecting Sites to Optimizing Performance and Data Quality  
SeaSonde Hardware Overview  
HF Radar and SeaSonde Terminology

**Lunch**

**SeaSonde10 (new! Release4) Software Overview**

Documentation-How to Find the Answers  
Sentinel  
SeaSondeController (Monitor & Standard Controller Menus)  
SeaSondeAcquisition  
CSPRO  
Terminal Shell Programs (SpectraAnalysis Suite)  
Archivalist

**System Setup**

*Exercise: Field Setup of a 12Mhz SeaSonde Transmit and Receive Antennas*

**Configuring a Radial Site**

*Exercise: Using RadialSiteSetup to Configure Currents and Waves*

**System Startup and Checks for Proper Operation**

SeaSondeController (Transmit Monitor & Advanced Controller Menu)  
Sentinel (Status Window Checks)  
Terminal Window (Error Message Checks)

**Creating a Site File for a Radial Site**

*Exercise: Using SDSetup*

## **Evaluating Cross Spectra : The Basic Unit of SeaSonde Data**

- Definition
- Description
- Characteristic features
- Unusual spectra features
- Identifying "problem" features

*Exercises: Using SpectraPlotterMap, SpectraPlotter and SpectraPlotter3D to Evaluate Spectra Data*

*Exercise: Shutdown/Packup a 12Mhz SeaSonde*

## **Barbecue Dinner (Patio of La Feliz Room)**

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**Wednesday**

1 November 2006

### **System Setup**

*Exercises: Field Setup (Team #2) of a 12Mhz SeaSonde, System Startup and Checks for Proper Operation, Problem Solving Exercise*

### **The Importance of Phases in Bearing Determination**

- How Direction Determination From Sea Echo
- Setting Phases From Sea Echo and Re-Processing CSS Files
- Setting Phases From Pattern Measurements

*Exercises: Estimating phases and Re-processing Cross Spectra*

### **Introduction to First Order Lines**

*Exercise: Using SpectraPlotterMap to Evaluate/Set First Order Lines*

### **Measuring an Antenna Pattern**

- SeaSondeController (Transponder Controller Menu)
- Antenna Pattern Measurement Setup (from APM Crib Sheet)

*Exercise: Measuring an antenna Pattern on Land*

## **Lunch**

### **Installing Pattern Files and Re-Processing to Create Measured Pattern**

#### **Radials**

- RadialSiteSetup

### **Using Timbuktu Remote Control Software**

- Remote Control Sessions
- File Exchange Sessions

*Exercise: Retrieving Radial Files With Timbuktu, Evaluating Radial Quality and Making Radial Comparisons with SeaDisplay*

## **Setting Up a Combine Site**

CombineSiteSetup

## **Combine Site Software Overview**

Sentinel

FileExchange

Terminal Shell

Archivalist

## **Creating Grid Files**

SeaDisplay

SDSetup

*Exercise: Creating Grid Files for Total Vectors*

*Exercise: Shutdown/Packup a 12Mhz SeaSonde*

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**Thursday**

2 November 2006

## **System Setup**

*Exercises: Field Setup (Team #3) of a 12Mhz SeaSonde, system startup and checks for proper operation, Problem Solving Exercise*

## **Configuring Wave Software for Wave Processing**

Theory of Operation

Evaluating Site for Appropriateness of Wave Measurements

Configuring the Wave Parameters with RadialSiteSetup

Using Wave Display

## **Combine Site File Transfers**

Communications Hardware

Configuring File Transfers

*Exercise: Configuring file transfers with FileExchange and rsync*

**Lunch**

## **Re-Processing Radials to Totals With Alternative Parameters**

CombineSiteSetup

## **Troubleshooting Total Vectors to the Problem Source**

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

## **Overview of SeaSonde Software Utilities**

## Friday

3 November 2006

### System Setup

*Exercises: Field Setup (Team #4) of a 12Mhz SeaSonde, System Startup and Checks for Proper Operation, Problem Solving Exercise*

### Field Repairs

Tool Kits

Techniques: Tips and Tricks

*Exercises: Cable repairs, Diagnosing Transmitter Power Problems, Diagnosing Receive Antenna Noise Problems, Field Replacement of Transmitter, Receiver and Antenna Components.*

## Lunch

### System Setup

*Exercises: Field Setup of a 5Mhz Long Range SeaSonde*

### SeaSonde Processing Software (Advanced)

How GPS Timing Works

Considerations for Setting Up a Synchronized Network

Demonstration of MultiSync

Troubleshooting GPS and GPS Synchronization Problems

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

### Meta-data and Archiving

The Importance of Desktop Log Files

Configuring Archivalist to Optimize Disk Space

Re-processing Data From Archives

### Course Wrap-up (2:30 PM)

### Departure (3:00 PM)