Mid-Atlantic Regional Coastal

Ocean Observing System (MARCOOS)

HF Radar Quality Control/Quality Assurance Document

April 2010

Quality assurance procedures are performed on a weekly basis to ensure that the radial files being generated are of high quality. This document builds upon the QA/QC report written in April 2008.

Here are four checks that operators perform weekly:

1. Make sure that spectra files (CSS files) are being created to start generating radial files (Figure 1)

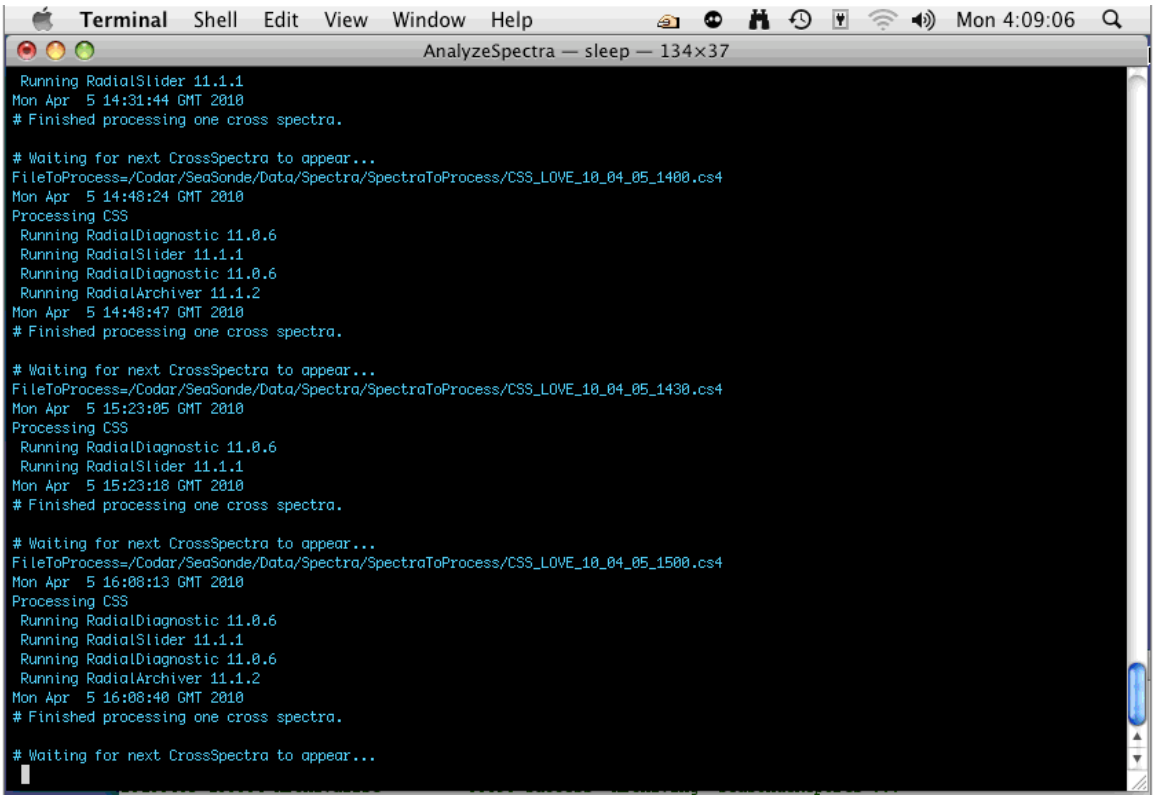

Figure 1. Analyze spectra

2. Making sure SeaSonde Controller, Acquisition and CSPro settings are stored properly.

a. **Standard Radial Setup**

Figure 2 shows an example of Standard Radial Setup. Computers running the seasonde software should also be set to GMT time zone (Figure 3). On a Mac, open system preferences then select date and time as GMT

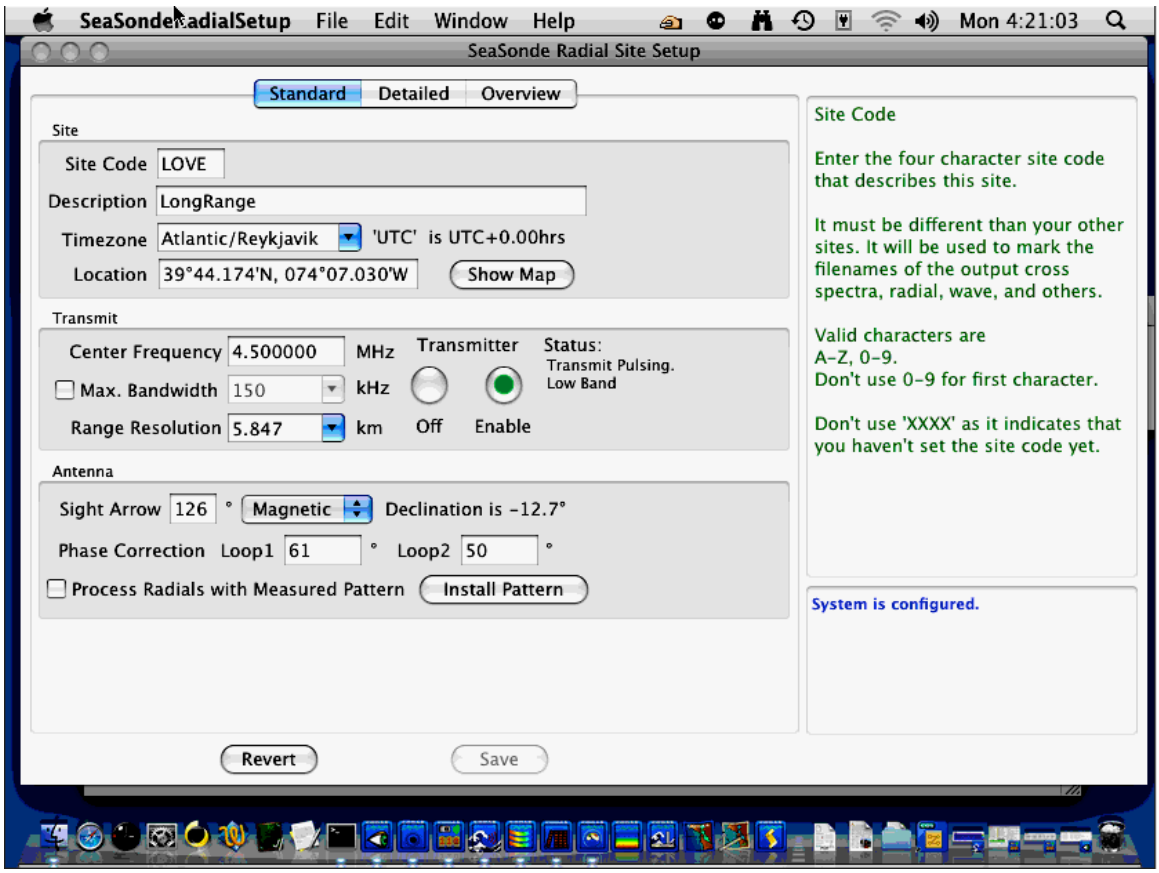

Figure 2. Standard Control Settings on SeaSonde Radial Site Setup

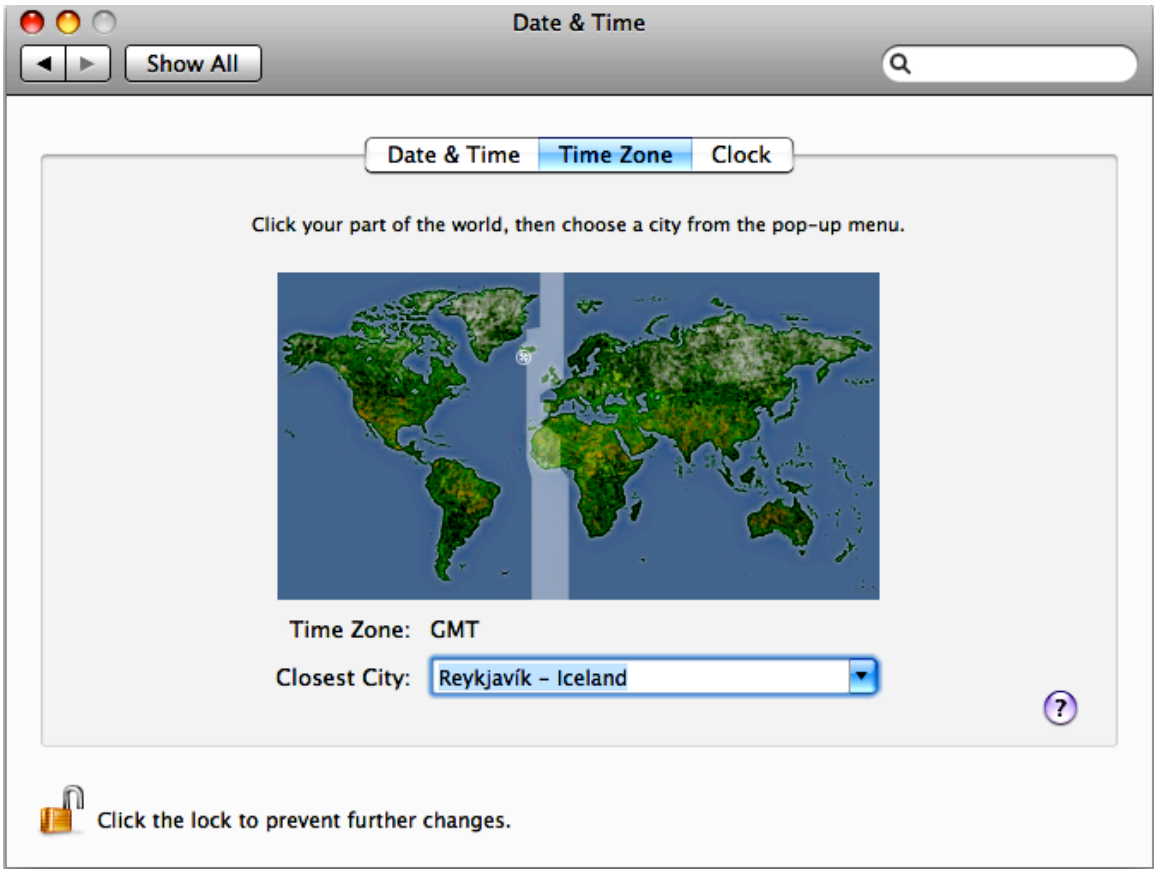

Figure 3. Setting GMT time on Mac computer

b. Detailed radial setup

Figure 4 displays detailed settings for the long-range systems. This section indicates the configuration for processing radials, spectra and waves.

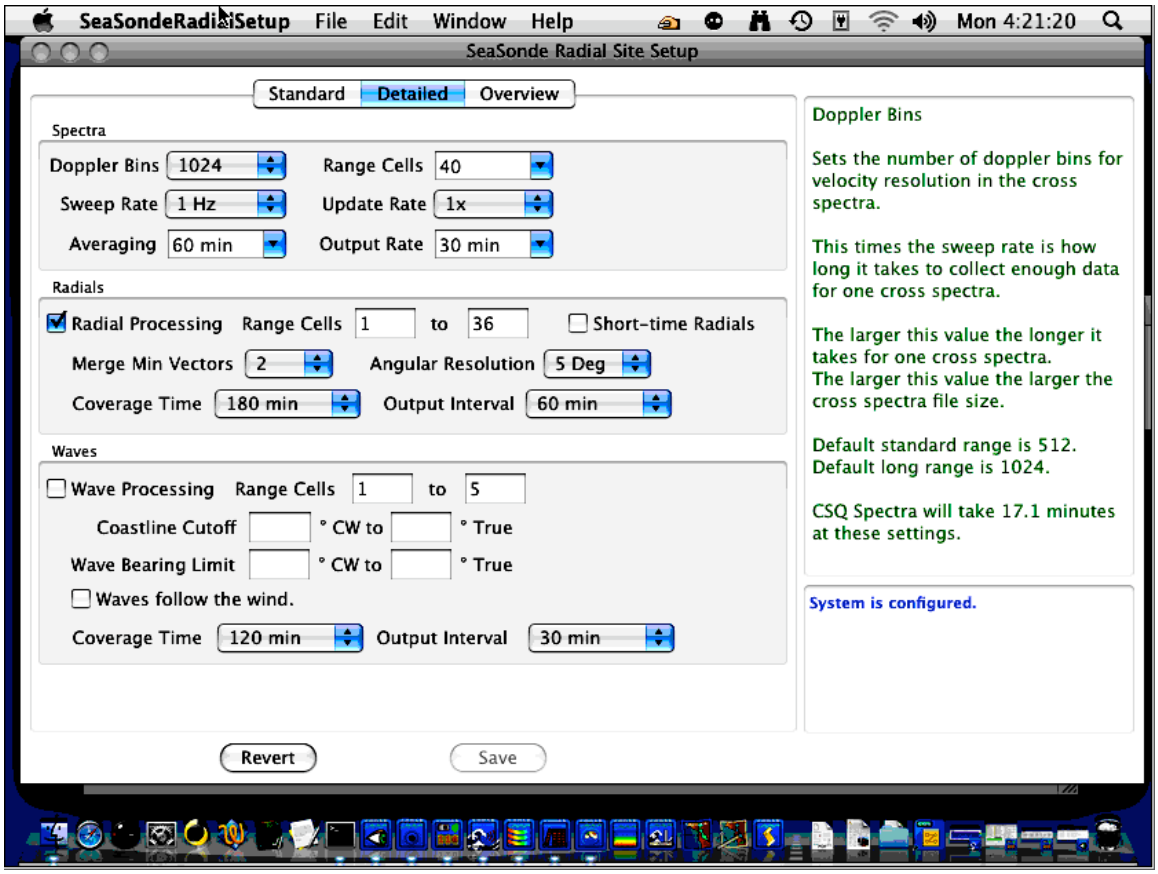

Figure 4. Detailed control settings on SeaSonde Radial Site Setup

c. Overview radial setup

Figure 5 displays the current configuration of the site. Selecting this tab will display an overview of the configuration for the standard and detailed radial site setup. A good exercise would be to take a screenshot of this setup every time there is a change in settings.

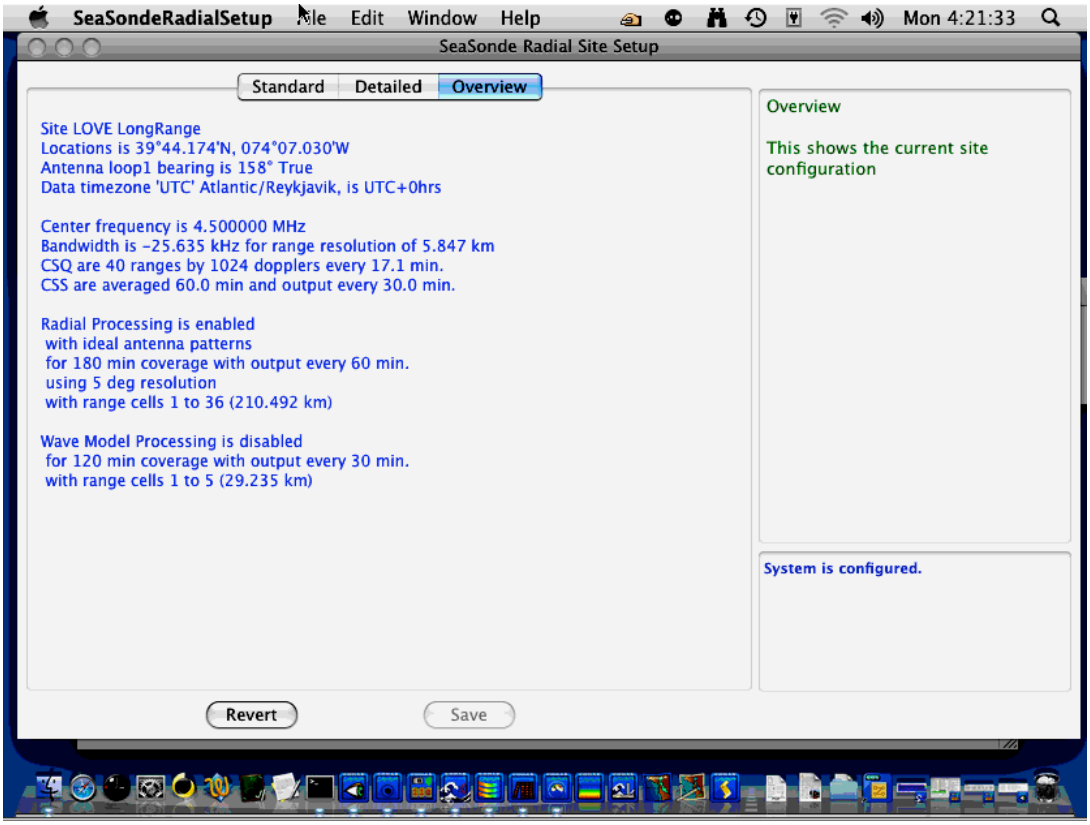

Figure 5. Overview control settings on SeaSonde Radial Site Setup

3. Checking the alignment on the receiver

The alignment is set individually for each of the sites. This reduces noise levels and overlapping measurements between sites. In the Receiver Controller window there is a setting to change the alignment. For our long-range system there is a set alignment so that each site has it's own configuration.

The GPS monitor allows the computer to synchronize it's internal time with the GPS time allowing each to have it's own.

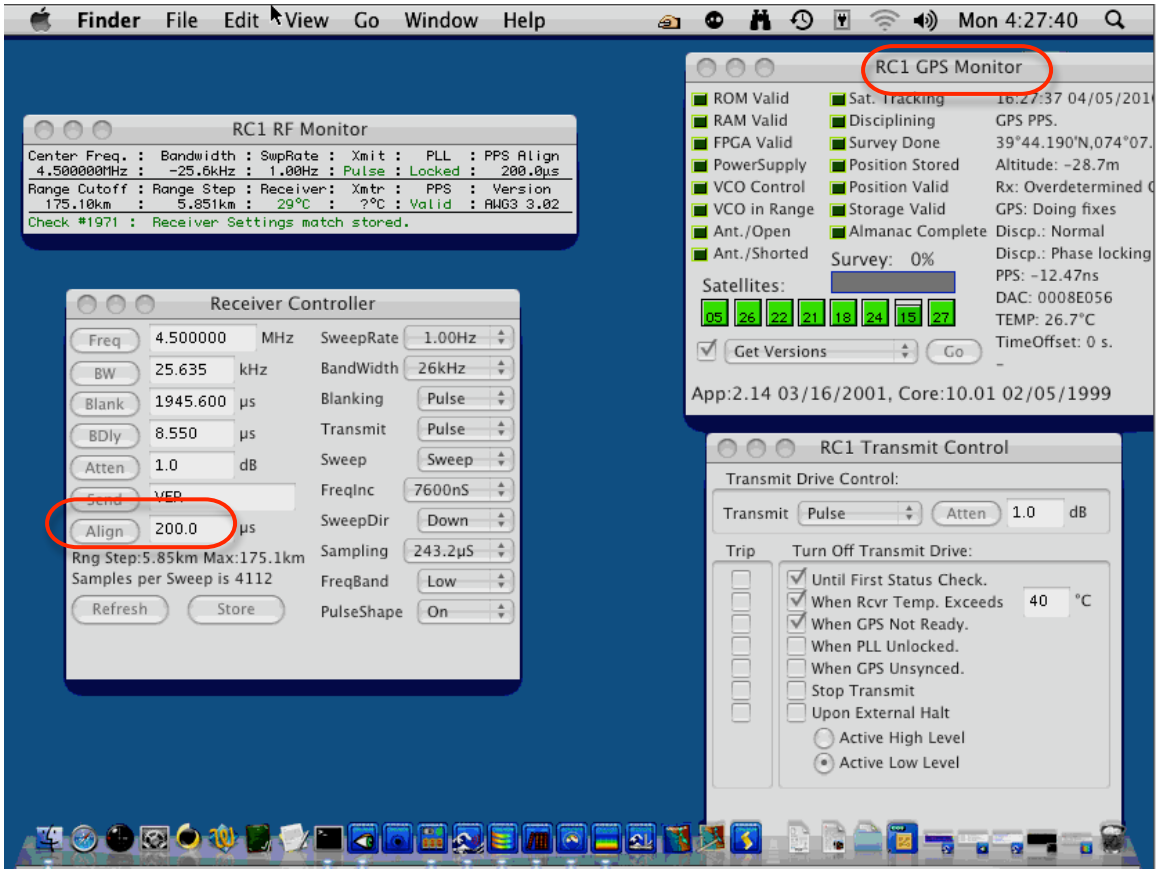

Figure 6. SeaSonde controller. Receiver controller, transmit control, GPS monitor.

4. Check if the sites are displaying brag. An example of what will indicate good brag is shown on figure 7.

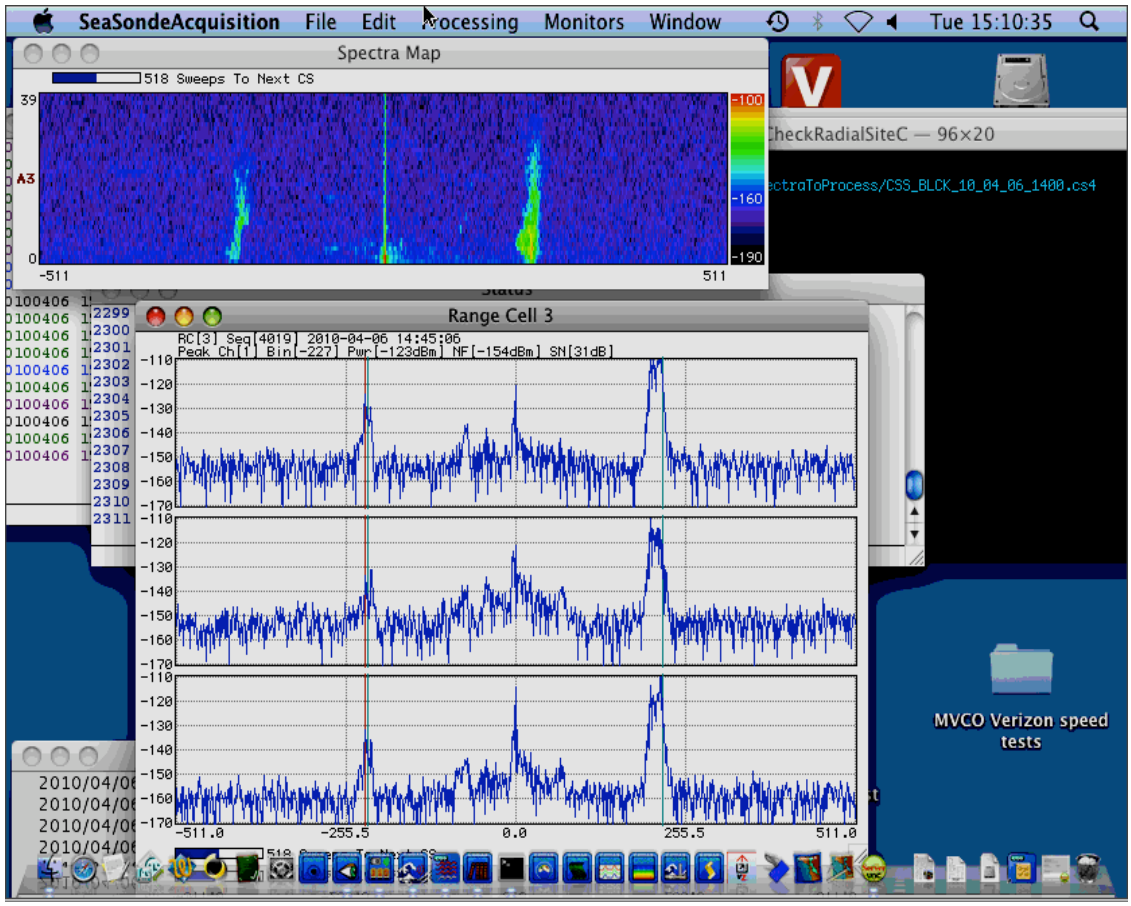

Figure 7. Spectra Map displaying brag. Range Cell 3 displaying loop 1, loop 2 and monopole.