

Network System Testing and Deployment Plan Report

Included in the document titled “Network System Testing and Deployment Plan” are sections that describe each phase of testing – Acceptance, Integration, Network System, Pre-Deployment, Field Integration, after-Deployment, and In Field Performance Testing. Also provided in this Test Plan, is a Description of the High-Resolution Sensor Network Node (HRSN) which includes both a surface and subsurface footprint. The surface ocean/met buoy measures: air temperature, wind speed/direction, humidity, pressure, rain rate, and wave height/period/direction. The subsurface mooring has an upward looking ADCP, a tide sensor, and an ocean hydrophone. The HRSN has eighteen water temperature sensors at two depths along three radials and two CTD/DO nodes located off radials from the underwater node hub. In addition to providing this document to SOSSEC, they have been uploaded on to the Ocean Cube website for an easy read or download.

In addition to the network system testing and deployment plan, the 4-D Ocean Cube software has been updated to with new integrated dashboards to not only display measurement systems Viking Buoy, Waverider Buoy, and HRSN Node but unmanned system – Iver unmanned system. The data from all these systems are displayed as a function of spatial and temporal parameters. The modeling results can now also be accessed and displayed from these dashboards. A dashboard is being developed that will allow the direct comparison of high-resolution model results with measured high-resolution environmental data.

Also, during this period the HRSN has been assembled, tested, and calibrated in tanks at the MRC. The system has been operating at the MRC for several continuous months with no failures. This test data is being transmitted via a cellular connection to USM’s data center where it is updated and displayed on the HRSN dashboard every 15 minutes. As testing is completed the Test Plan document is updated to include the Test Report for those completed sections.