

**CASPER MEASUREMENT CAMPAIGN  
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During the Fall of 2015, the Coupled Air-Sea Processes and Electromagnetic Ducting Research (CASPER) East campaign will take place off the coast of Duck, NC. This campaign is a collaborative effort led by the Naval Postgraduate School (NPS), with funding provided as a Multi-University Research Initiative (MURI).

As a government collaborator to the MURI, SPAWAR Systems Center Pacific will contribute to the effort by installing two receiving systems on the Research Vessel Atlantic Explorer. The first receiving system will monitor VHF/UHF terrestrial television broadcast and shipboard AIS emissions. A second receiving system will record emissions from S, C and X-band transmitters mounted on the Duck pier.

The VHF/UHF system utilizes separate port and starboard receiving signal pathways with their own respective omni-directional antennas, cables and software defined radios (programmed to perform spectrum sensing). A common timing source is used between the two signal pathways. The use of the dual signal pathways is expected to mitigate most blockage and re-radiation effects that might otherwise be experienced due to the ships structure. The S, C and X band receiving systems will utilize a forward-facing log-periodic antenna and a spectrum analyzer under computer control.

We will describe the scope of the SSC Pacific data collection under CASPER East and provide some preliminary results.