

This is the first annual report for year one of a project by The Ohio State University ElectroScience Laboratory to help the Naval Surface Warfare Center/Crane Division develop a ground based antenna near field measurement range. Many of the antennas will be on ground vehicles, and the goal is to be able to characterize the gain and directional patterns of these types of antennas in the presence of a realistic ground surface. We will show contributions to the design of the near field antenna test chamber, including characterization of the reflections from the realistic ground and the probe support arm. Finally, results showing the transformation of the near field data to the far field using a direct computation with consideration for realistic sandy soil will be shown.