Cindy Fowler

Marine Protected Area Issues (Best Practices for Marine Boundary Development)

Biography

Cindy Fowler is an Information Technology Specialist with the U.S. Department of Commerce's (DOC) National Oceanic and Atmospheric Administration (NOAA) and part of the senior technical staff located in Charleston, South Carolina. Ms. Fowler has a Bachelor of Science degree in Geography from the University of South Carolina and a Masters of Science in Natural Resource Information Systems from the Ohio State University. She has 24 years of experience working with geographic information systems (GIS), remote sensing, the Global Positioning System (GPS) and other spatial technologies. She has experience in private industry, federal, state and county government, and academia supporting the fields of forestry, natural resources, land records modernization, geodetic science, and coastal resource management. Ms. Fowler is currently co-chairing the Federal Geographic Data Committee's (FGDC) Marine Boundary Working Group and is active in many aspects of the development of the coastal and marine National Spatial Data Infrastructure (NSDI) within the federal government.

Abstract

Technological advances in mapping, such as the Global Positioning System (GPS) and Geographic Information Systems (GIS) have enhanced and complicated the development, implementation, and enforcement of ocean boundaries. Depleted marine resources and increased threats by man-made pollutants are forcing many jurisdictions to increase law enforcement and begin comprehensive planning in the offshore environment. As a result, the need for accurate, useable, and accessible digital marine boundaries that define territorial claims and marine managed areas (MMAs) is unprecedented for business in today's ocean.

Marines share a common element with their land-based counterparts in that, in order to map a boundary, one must adequately interpret the relevant law and its spatial context. Generally, marine boundaries are delimited, not demarcated, and often there is no physical evidence marking the boundaries. As a result, there can be confusion, disagreement, and conflicting versions of marine boundaries. The presentation is designed to assist those in drafting and developing digital marine boundaries.