

David N. Stein

Marine Managed Areas and Submerged Lands: Best Practices for Boundary Making

Biography

David Stein is a native of Charleston, South Carolina. He has a Bachelor's Degree in Political Science from the College of Charleston and a Master's Degree in Geography from East Carolina University, specializing in geographic technology and natural hazards. He started his career in coastal management at the South Carolina Office of Ocean and Coastal Resource Management. For the past nine years, he has been working at the NOAA Coastal Services Center in Charleston, South Carolina as a Geographic Information Systems (GIS) analyst and project manager. His responsibilities include working with the coastal resource management community to build GIS and mapping capacity and working with the Federal Geographic Data Committee to build the coastal and offshore national spatial data infrastructure. He is a specialist in GIS, cartography, metadata, and spatial data standards.

David also serves as the executive secretary of the Federal Geographic Data Committee's (FGDC) Subcommittee on Marine and Coastal Spatial Data and coordinator of the FGDC's Marine Boundary Working Group.

He is an avid surfer, fisherman, and saltwater enthusiast.

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 intended to protect and manage marine areas. 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, marine managed areas, and submerged land is unprecedented for business in today's oceans and near shore waters. Marine or maritime boundaries 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. Federal, state, and local governments must have legally defensible marine boundaries to support the enforcement of national security and environmental regulations. This presentation will provide an overview of a project underway by the U.S. Federal Geographic Data Committees Marine Boundary Working Group to develop a manual entitled *Marine Managed Areas: Best Practices for Boundary Making*. Additional topics will include an overview of the work of the Marine Boundary Working Group, case studies on digital boundary projects, and tips and best practices for developing legal descriptions and digital marine boundaries.