

William Holton
Senior Analyst/Systems Manager

Research Planning, Inc.

Mr. Holton specializes in the application of Geographic Information Systems (GIS), computer system management, computer networking, database management and design, programming for coastal environmental assessments, as well as oil spill planning and response. He has over twenty-seven years of experience in systems and data management and over a decade of involvement with numerous spill response activities both on-scene and in support roles. As GIS Systems Manager, his responsibilities include system administration of PC, UNIX, and Linux platforms, development and management of databases, and application development for data analysis, map production, and quality assurance of various coastal resource projects.

EDUCATION

B.S., Computer Science, University of South Carolina, Columbia, S.C. (1992)
Minor: Geography
Honors: Dean's List and President's List

PROFESSIONAL EXPERIENCE

2003 to Present: GIS Systems Manager, Research Planning, Inc., Columbia, SC
1994 to 2003: Digital Data QA/QC Manager, Research Planning, Inc., Columbia, SC
1990 to 1994: GIS Technician/Programmer, Research Planning, Inc., Columbia, SC

Mr. Holton's experience is outlined separately on the following pages in four main areas:

- 1) Oil and Hazardous Material Response
- 2) Environmental Assessment
- 3) Coastal Resource Mapping
- 4) Technical Expertise

OIL AND HAZARDOUS MATERIALS RESPONSE

Incident Response: Since 2002 Mr. Holton has been part of the Scientific Support Team to the U.S. Coast Guard (USCG) provided by the National Oceanic and Atmospheric Administration (NOAA) for natural disasters and hazardous material incidents. His duties have included on-scene data management support, database design, and production of maps, reports, and data streams for responders.

He has provided on-scene support for numerous incidents, including:

- 2017 Hurricanes Irma and Maria, Data Analyst. Assisted with classification of marine debris and removal effort for NOAA and Coast Guard using high resolution aerial and satellite imagery.
- 2015 *Refugio Incident:* Shoreline Cleanup Assessment Techniques (SCAT) Data Manager. Provided on-scene data management support to NOAA and USCG. Responsible for all SCAT data management including QA/QC of data, production of maps and tabular summaries, and documentation.

- 2010-2014 *Deepwater Horizon*: Shoreline Cleanup Assessment Techniques (SCAT) Data Manager. Assisted with the development of the NOAA SCAT database and reporting tools utilized during the response and provided on-scene data management support to NOAA and USCG. Responsible for all SCAT data management including QA/QC of data, production of maps and tabular summaries, and documentation.
- 2008 Hurricane Ike Damage Assessment, Data Manager. Provided on-scene data management support, mapping, and data streams to NOAA and USCG for identifying potential hazardous materials concerns post storm.
- 2006-2007 Citgo, Calcasieu Lake, Louisiana - Natural Resource Damage Assessment (NRDA), Data Manager. Provided on-scene data management support, development of reporting tools and data management schemas, map production, and data streams for sediment and biological sampling effort.
- 2005 Hurricane Rita Damage Assessment Support, Data Manager. Provided on-scene data management support to NOAA and USCG for identifying potential hazardous material releases from platforms damaged by the hurricane.
- 2002-2003 Arabian Gulf UNCC Gulf War Shoreline Survey, Data Manager. Provided on-scene data management, design of data structure and collection application, and quality control/quality assurance (QA/QC) of oil-contaminated sediments and coastal geomorphology data.

ENVIRONMENTAL ASSESSMENT

Environmental Assessment: Since 1999 Mr. Holton has worked on various environmental assessment efforts as a project manager, developer, and data analyst. His responsibilities included designing database structures and schemas, development of cartographic products, and assist in the development of data analysis tools and processes.

- 2017 Department of Transportation Unusually Sensitive Areas for Ecological Resources, QA/QC Analyst. Provided guidance on best practices and helped to identify GIS procedures to determine Multi-species Assemblage Areas (MSAAs). Analyzed the Unusually Sensitive Areas for Ecological Resources data to ensure the techniques utilized to identify MSAAs yielded the appropriate results.
- 2007-2009 Gulf of Mexico Marine Debris Project, Project Manager. Designed database structure and cartographic products to provide public dissemination of NOAA Marine Debris Program field data.
- 1999-2002: Department of Transportation Unusually Sensitive Areas Project, Project Manager. Developed a complex GIS model to analyze and identify drinking water resources sensitive to liquid petroleum pipeline spills nationwide. Managed complex biological, geological, surface and sub-surface drinking water source data sets and resulting analysis.

Damage Assessment: Since 2004 Mr. Holton has worked on multiple post incident Natural Resource Damage Assessment efforts for NOAA as a data analyst. His responsibilities included development of cartographic products and assist in the development of data analysis tools and processes.

- 2008-2009 *Cosco Busan* Natural Resource Damage Assessment, GIS Analyst. Data analysis for the Natural Resource Damage Assessment of the Cosco Busan oil spill in San Francisco, CA.

2005-2006 *M/T Athos* Spill Natural Resource Damage Assessment, GIS Analyst. Data analysis for the Natural Resource Damage Assessment of shoreline oiling extent and impact.

2004-2005 *Bouchard 120* Spill Natural Resource Damage Assessment, GIS Analyst. Compiled data and methodologies for digital quantitative analysis of shoreline oiling extent and impact.

COASTAL RESOURCE MAPPING FOR OIL SPILL CONTINGENCY PLANNING AND RESPONSE

Environmental Sensitivity Index (ESI) Mapping: Mr. Holton was responsible for developing the applications for ESI atlas production and the current symbology used in the atlases. He co-developed the relational database structure and schema used during the ESI atlas production as well as developed some of the data entry and editing tools. He assisted in the development of the ESI guidelines and requirement and was the Assurance/Quality Control Manager on various ESI Atlases produced by RPI.

TECHNICAL EXPERTISE

Software: Mr. Holton has expertise in UNIX, Windows 10, SQL, ArcGIS®, Python, Visual Basic for Applications, multiple database packages (including Microsoft SQL Server, Microsoft Access), and mobile device operating systems (including, iOS and Android).

Hardware: Mr. Holton has expertise with Windows, UNIX, and Linux platforms. Experienced with various networking components including hubs, routers, and switches. Experienced with global positioning system hardware (including, Trimble, Garmin, and Magellan).

SELECTED PUBLICATIONS

Michel, J., E. Owens, S. Zengel, A. Graham, Z. Nixon, T. Allard, W. Holton, D. Reimer, A. Lamarche, M. White, N. Rutherford, C. Childs, G. Mauseth, G. Challenger, and E. Taylor, 2013, Extent and degree of shoreline oiling: Deepwater Horizon oil spill, Gulf of Mexico, USA. Public Library of Science (PLOS) One 8(6): e65087.

Plank, C., W.T. Holton, M. White, J. Michel, C. Sherman, I. Csato, and C. Sames, 2003. Nation-wide assessment and mapping of drinking water “Unusually Sensitive Areas” (USAs). Proc. 2003 International Oil Spill Conference, American Petroleum Institute Publ. No. 14730 A (CD-ROM).

Zengel, S., J. Halls, W. Holton, and M. White, 1999, Environmental Sensitivity Index (ESI) Mapping and GIS Products: Tools for Coastal Zone Management. 1999 Coastal GeoTools Conference, NOAA Coastal Services Center, Charleston, SC.

Zengel, S., A. Meylan, H. Norris, M. White, L. Diveley, W. Holton, and K. Moody, 1996, Mapping sensitive sea turtle areas in Florida for oil spill response and natural resources management. 16th Annual Symposium on Sea Turtle Biology and Conservation, Hilton Head Island, South Carolina, 26-28 February 1996.

Zengel, S., L. Diveley, M. White, W. Holton, and A. Meylan, 1995, Collection and compilation of biological data during environmental sensitivity mapping. Invited Presentation, Florida Region of the American Society of Photogrammetry and Remote Sensing Annual Meeting, 25-26 September 1995.

Halls, J. and W. Holton, 1995, Implementing Region Topology to Produce Coastal Resource Atlases. Reviewed, published, and presented at the Fourteenth Annual ESRI User Conference, Palm Springs, California, 22-26 May 1995.