

Bryan M. Thom
GIS Analyst

Research Planning, Inc.

Mr. Thom is a Geographic Information Systems (GIS) Analyst specializing in environmental mapping, data management, and spatial analysis. His responsibilities at RPI include GIS support for several different types of projects and tasks, including a growing list of Environmental Sensitivity Index mapping projects and deploying on-scene to major response efforts such as oil spills and post hurricane pollution response. Mr. Thom is also an expert at deployable, off-the-shelf ESRI mobile applications Survey123, ArcGIS Collector, and ArcGIS Field Maps. Recently, Mr. Thom has also acquired a FAA Part 107 Remote Pilot Certification.

EDUCATION

B.S., Geography (*Earth and Atmospheric Geography; Geographic Information Science*), Salisbury University, Salisbury, MD (2010).

A.A., General Studies (*Math and Science*), Harford Community College, Bel Air, MD (2008)

PROFESSIONAL EXPERIENCE

2010 – Present: GIS Analyst, Research Planning, Inc.

2010: GIS Intern, Caroline County Department of Planning, Codes, and Engineering, Denton, MD

2009: GIS Technician (Student Temporary Employee Program), National Park Service, Berlin, MD

2009-2010: Lab/Teaching Assistant, Salisbury University Dept. of Geography and Geosciences, Salisbury, MD

2008-2010: GIS Intern, Eastern Shore Regional GIS Cooperative (ESRGC), Salisbury, MD

2005-2013: Boatswain's Mate (Petty Officer) 3rd Class, United States Coast Guard, Reserve

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

- 1) ESI/Coastal Resource Mapping
- 2) Oil and Hazardous Material Spill Response/Assessment
- 3) Other Projects

COASTAL RESOURCE MAPPING FOR OIL SPILL CONTINGENCY PLANNING AND RESPONSE

Environmental Sensitivity Index (ESI) Mapping: Mr. Thom served as GIS support on the following ESI Projects used for coastal zone management, contingency planning, and hazardous material/natural disaster responses:

Florida, Western Peninsula	2012
South Florida	2013
Texas, Upper Coast	2013
Louisiana	2013
Delaware Bay	2013
Washington/Oregon	2014
South Carolina	2015
Georgia	2015
Chesapeake Bay	2016
Southwest Florida	2016

His role as data support on multiple ESI projects requires extensive coordination and team work with other RPI employees in various departments. He has extensive knowledge of GIS software, especially with ESRI's ArcGIS software suite.

OIL AND HAZARDOUS MATERIALS SPILL RESPONSE/ASSESSMENT

Emergency Response: Mr. Thom has been deployed to provide on-scene data support during oil spills and other emergency pollution responses. He has been responsible for database management of the NOAA SCAT database, collecting and processing data taken by field teams, as well as various other duties including conducting spatial analysis, making maps and compiling data for reports, Shoreline Treatment Recommendations (STRs) and operations planning. He is an expert in designing and deploying off the shelf mobile applications from ESRI for field data collection.

He has provided on-scene support for the Emergency Response Division of NOAA and other companies at incidents, including:

2020: *Hurricane Zeta – Louisiana:* Refined and deployed ArcGIS Collector for post hurricane pollution response with the US Coast Guard and the State of Louisiana, assisted with Data Manager responsibilities.

Hurricane Sally – Mobile, AL: As Data Manager, designed and deployed ArcGIS Collector for US Coast Guard Vessel Assessment Teams, performed QAQC, and provided other spatial data support.

St. Simon's Sound Incident – Brunswick, GA: Data Manager for the Natural Resource Advisor program under salvage operations. Mr. Thom designed a Survey123 form for Natural Resource Advisors to utilize to make field observations of protected species around the wreck site, as well as performed QAQC on that data, interface with the Environmental Unit Leader, and run weekly reports from collected data.

2019: *St. Simon's Sound Incident – Brunswick, GA:* NOAA Representative for SCAT Teams. Roll On/Roll Off (RORO) Vessel Golden Ray Capsized in the St. Simon's Sound carrying approx. 4200 automobiles, 644 MT of high Sulphur HFO, 179 MT of low Sulphur HFO, 330 MT of

- diesel, and 2500 liters of lube oil. In addition to being part of the SCAT Teams, Mr. Thom also acted as Data Manager, and deployed ArcGIS Collector for field use with SCAT, Operations, and others within the response.
- 2018: *Lake Washington Wellhead Blowout – Port Sulphur, LA*: SCAT Data Manager for USCG led response of a wellhead blowout and oil spill in Lake Washington.
- Hurricane Florence ESF-10 – North Carolina*: FEMA Emergency Support Function 10; Office support included identifying and classifying displaced vessels using post storm high resolution imagery, assembling data packets for field teams for vessel assessment and removal, and general data support. On-scene, Mr. Thom was the Environmental Unit Leader at the ICP, with responsibilities including maintaining compliance with federal consultations, identifying vessels in environmentally sensitive areas, working closely with Operations to ensure best management practices were being followed, and working with state and federal agencies within the response effort.
- 2017 *Hurricane Maria ESF-10 – Puerto Rico and USVI*: FEMA Emergency Support Function 10; Office support included identifying and classifying displaced vessels using post storm high resolution imagery, assembling data packets for field teams for vessel assessment and removal, and general data support
- Hurricane Irma ESF-10 – Florida*: FEMA Emergency Support Function 10; Office support included identifying and classifying displaced vessels using post storm high resolution imagery, assembling data packets for field teams for vessel assessment and removal, identifying vessels in environmentally sensitive areas, and general data support. On-scene work in the ICP in Miami, FL, Mr. Thom acted as a liaison between the Environmental Unit and the Operations Unit
- 16Tan Incident – North Battleford, Saskatchewan*: SCAT Data support for follow up shoreline assessment surveys, again working under contract with Owens Coastal Consultants (OCC).
- 2016 *16Tan Incident – Lloydminster, Saskatchewan*: SCAT Data Support. Mr. Thom worked under contract with Owens Coastal Consultants (OCC) to provide data support for the Husky Energy oil spill in the North Saskatchewan River.
- 2015 *Apex 3508 – Paducah, KY*: Sunken Oil Workgroup Data Manager. Mr. Thom participated in a team using side scan sonar to locate sunken clarified slurry oil on the Mississippi River.
- Refugio Incident – Santa Barbara, CA*: SCAT Data Manager. Responsibilities included maintaining SCAT data, producing daily deliverables, offering remote support to SCAT as well as NOAA NRDA representative, working closely with California Oil Spill Prevention and Response (OSPR) personnel, and attending Unified Command briefings.
- 2014 *Texas City Y – Port O’Connor & Galveston TX*: SCAT Data Manager for two Incident Command Posts. Responsibilities included briefing state trustees, collecting and processing field data, maintaining the SCAT data, producing daily deliverables, and remotely supporting SCAT operations.
- 2010 *Deepwater Horizon – Houma, LA (2010-2014)*: Assisted Shoreline Cleanup Assessment Team (SCAT) data team, team leads and representatives of state and federal government and contractors by making maps and conducting spatial analysis, as well as collecting and processing field data. He has assisted other members of the data team with maintaining a geographically referenced photograph database. Mr. Thom also helped SCAT teams conduct field work when extra personnel were needed.

Training and Courses:

FAA Part 107 Remote Pilot Certification

NOAA SCAT Training

Florida Boating Safe Education

HAZWOPER 24 Hour Certification

National Incident Management System (NIMS), Incident Command System (ICS) courses IS-00100.a (ICS 100), IS-00200.a (ICS 200), IS-00300.a (ICS 300) and IS-00700.a (ICS 700).

OTHER PROJECTS

NOAA SCAT Training Instructor: Mr. Thom has been an assistant instructor for NOAA SCAT Training Courses

Florida Department of Environmental Protection – St. Joseph Bay Aquatic Preserve Seagrass Restoration, Port St. Joe, Florida (2020): Under an RPI subcontract to Atkins, Mr. Thom conducted seagrass propeller scar field surveys, assessments, and mapping; provided construction field supervision, monitoring, and tracking of sediment tube installation in propeller scars during restoration implementation; and contributed to environmental compliance monitoring and agency coordination. This work involved small vessel operation and maintenance, shallow water snorkeling, and use of field GIS/GPS technology and underwater cameras. Upcoming work under the same contract will include GIS and photointerpretation support to map seagrass propeller scars for two additional areas, St. Andrews Aquatic Preserve and Alligator Harbor Aquatic Preserve, both also in Florida. This project was funded under the *Deepwater Horizon* NRDA Early Restoration program.

Department of Transportation – Pipeline and Hazardous Materials Safety Administration: Drinking Water Unusually Sensitive Areas (2017-2019): Mr. Thom was responsible for reaching out to state agencies and collecting data related to public water supplies, geology, aquifers, and other relevant data, as well as process those data to get them ready to run in the model that was created to establish unusually sensitive areas.

South Atlantic Information Resources: Data Search and Literature Synthesis for the Bureau of Ocean Energy Management, (BOEM 2013-01157): Mr. Thom supported the BOEM South Atlantic Synthesis as a GIS Analyst by performing literature searches and creating a spatial component using GIS technologies reflecting study areas from each piece of literature (2010 – 2011).

Mr. Thom has aided in various other projects at RPI, including digitizing pipelines for a project with Saudi oil company Aramco, producing field maps for SCAT training courses, assisted in producing a shoreline for Natural Resource Damage Assessment (NRDA) for the Deepwater Horizon oil spill, identifying marine debris washed ashore after Hurricane Sandy, and fulfilling other spatial needs within RPI.