

Preparing Smart & Safe Communities for the Unknown

NAPSG Foundation Virtual Training

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Instructors



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Objectives for Today

- Learn about success stories in Texas and Florida in building and organizing GIS emergency response capabilities.
- Learn about standardized resource typing and mission ready packaging templates for qualifying and rostering GIS response personnel and teams in your agency.
- Gain access to tools you can use to assess and measure your agency's geospatial maturity, serving as a starting point for prioritizing GIS investments to achieve the greatest outcomes.

TX Emergency Response GIS Team (EGRT)

David Allen, Texas EGRT

FL Emergency Response GIS Team (EGRT)

Richard Butgereit, Florida Division of Emergency Management

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Tools & Resources

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Position Qualification & Resource Typing

RESOURCES

Welcome to NAPSOG's Resource Library. Here you can access all of the key resources that NAPSOG makes available to the community at no cost, to support you and your agency in advancing the use of location-enabled decision support tools.

The Resource Library is organized by resource category. Simply click on the Category of interest and begin exploring available resources. You can also search for resources by entering in a keyword into the search box in the upper right hand side.

SEARCH RESOURCES

All Categories

Best Practices and Standards

Education and Training

Event Proceedings and Materials

Qualifications and Credentialing

Standard Operating Guide Templates

Symbol Library

US National Grid Resources

Safe & Resilient Toolkit

QUALIFICATIONS AND CREDENTIALING

GIS professionals and staff that are dedicated to supporting the public safety mission require a unique combination of knowledge, skills, and abilities in order to effectively support emergency operations. Establishing **minimum criteria and qualifications** for GIS personnel and teams for the Nation is critical to building the Public Safety GIS Workforce. NAPSOG has developed the first version of Position Qualification Sheets and Resource Types/Packages for use by agencies nationwide, and across all disciplines, as guidance in the following:


- Informing the hiring process for GIS personnel in public safety
- Establishing professional development pathways for GIS personnel in public safety
- Achieving consistency in the request and deployment of GIS personnel and teams for mutual aid operations
- Building and sustaining GIS resource packages for use in support of emergency management
- Serving as a foundation for the development of credentialing processes and tools for GIS personnel and teams

Level	Position
Basic 1	Field Data Entry Technician
Basic 2	GIS Technician
Intermediate 1	GIS Analyst
Intermediate 2	GIS Team Leader
Advanced	GIS Supervisor

Resource Type: [GIS Map Support Team](#)

Example Position: GIS Analyst

- Each Position Qualification Covers:
 - Description of duties
 - Education
 - Training
 - Experience
 - Physical / Mental Fitness
 - Currency
 - Professional / Technical Licenses & Certs
 - Ordering Specifications



**Public Safety GIS Position Qualifications
Version 1.0**

GEOGRAPHIC INFORMATION SYSTEMS (GIS) ANALYST

TYPE	TYPE 1	TYPE 2
DESCRIPTION	<p>The Type 1 GIS Analyst holds all the Type 2 responsibilities PLUS</p> <ol style="list-style-type: none"> 1. Producing, maintaining, and managing GIS resources, including supporting data, for an incident and is equipped with one or more of the technical specialties outlined below 2. The Type 1 GIS Analyst qualifications are focused on additional qualification needed for specialization in Hazards United States (Hazus), chemical biological nuclear radiological high yield explosives (CBRNE), and/or wildland fire. The specialty needed is determined by the incident's needs and should be provided by the resource requestor when ordering 3. Performs duties within a GIS Section or Branch and/or manages GIS Analysis 4. Maintains ownership and authority over the appropriate web maps and apps for the GIS Section or Branch. Provides governance and guidance on data management and dissemination. 5. Maintains skills and abilities with basic development tools including model builder, python, and web application configuration. <p>Below are specializations that may be specifically requested depending on the type of event. This list is not exhaustive but it represents three of the primary areas of specialization for Public Safety GIS Analyst that are most commonly requested and deployed.</p> <p>Hazus Specialization A GIS Analyst with expertise in Hazus is responsible for using Hazus to perform in-depth analysis for flood, earthquake, wind, and coastal surge.</p> <p>CBRNE Specialization A GIS Analyst with expertise in CBRNE is responsible for performing in-depth analysis for CBRNE incidents or events.</p> <p>Wildland Fire Specialization A GIS Analyst with expertise in Wildland Fire is responsible for performing in-depth analysis using fire behavior modeling prior to or during a wildland fire incident.</p>	<p>The Type 2 GIS Analyst is responsible for the following:</p> <ol style="list-style-type: none"> 1. Producing and/or maintaining GIS hardware, software, and data resources for an incident 2. Conducting GIS data analyses to enhance situational awareness and aid decision making 3. Building and supporting web maps and applications
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Same as Type 2	Completion of a formal GIS-related educational or certificate program or Recognition of prior learning focusing on demonstrated knowledge and skills
NOTES: GIS-related education is available in a variety of formats including: GIS certificates, GIS degrees, and GIS on the job training		

9/17/15
GEOGRAPHIC INFORMATION SYSTEMS (GIS) ANALYST
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Capability and Readiness Assessment Tool (CARAT)

Online Self-Assessment

- Help organizations build a **solid foundation**
- Provide **examples at each level of maturity**
 - Expand current Crawl, Walk and Run
- Be more **discipline specific**
 - Emergency Management
 - Fire/Hazardous Materials
 - Emergency Medical Services
 - Intelligence & Fusion Centers
- Assess **overall maturity**
 - Geospatial Continuum
- **Guide the user** through the process



CARAT: Discipline Specific

Capability  Resource

EMERGENCY MANAGEMENT

- [Threat and Hazard Identification and Risk Assessment \(THIRA\)](#)
- [Mitigation Project Planning, Monitoring & Evaluation](#)
- [Response Planning](#)
- [Recovery Planning](#)
- [Special Event Planning](#)
- [Evacuation Planning and Management](#)
- [Operational Coordination](#)
- [Logistics Planning and Management](#)
- [Damage Assessment](#)
- [Public Information and Communications](#)
- [Volunteer Engagement \(Crowdsourcing\)](#)
- [Field Operations & Information Collection](#)
- [Agency Accreditation or Evaluating Performance \(AAR\)](#)
- [Search & Rescue Operations](#)

Damage Assessment

[« BACK TO CARAT HOME](#)

CRAWL Map damage locations using GIS tools. This may be done manually, or automatically using mobile devices. Include the use of a common reference grid (USNG) for coordination.	WALK Connect with citizens to allow additional reporting, and use analytics to determine estimates more quickly in the initial phases.	RUN Use dashboards to monitor damage assessment progress and thresholds for valuation.
DAMAGE ASSESSMENT	CITIZEN REPORTING	OPERATIONS DASHBOARD
USNG MAP	IMPACT SUMMARY MAP	
	PHOTO SURVEY	

CARAT Online Self-Assessment

- Online Now!
- Disciplines In Development

Current Phase

- Emergency Management
- Fire/Hazardous Materials
- Emergency Medical Services

Coming Soon!

- Law Enforcement
- Intelligence and Fusion Centers
- Search and Rescue

Capability and Readiness Assessment Tool



Watch how GIS is being used in the public safety industry.

« BACK TO CARAT HOME

What is CARAT? The Capability and Readiness Assessment Tool (CARAT) is a self-assessment of your organization's geospatial capabilities. It is designed to help you measure and track your progress over time, as well as provide guidance on how to increase your geospatial maturity.

Where should I start? Our online self-assessment will guide you through the steps to determine your maturity in 6 common areas. This self-assessment tool is designed for use at the agency level, not for use by an individual to assess their knowledge, skills, and abilities. If you represent multiple agencies, complete an individual assessment for each agency you represent. We have designed this self-assessment to be used primarily by public safety officials first. If you are a GIS or IT professional, we recommend you coordinate with your leadership to complete the self-assessment.

[TAKE THE CARAT ONLINE SELF-ASSESSMENT](#)

How should I approach a specific task? Simply look through the topics under each discipline below. When you see the function that you are interested in, click on it. You will then see a continuum – CRAWL, WALK, and RUN. Select the level you want to review and a short description will help you identify your current capability and what is next for you.

GIS BASICS

TRAINING TUTORIALS

CASE STUDIES

Upcoming Events

Register Online:
npsgfoundation.org/events

- Upcoming Virtual Training
 - July: Leveraging New National Open Data for Public Safety Preparedness, Planning, and Operations
 - September: Approaches and Tools for Data-driven Risk Assessment
 - October: Discover and Access a Consistent Toolset for Improving Geospatial Preparedness
- National Geospatial Preparedness Summit (NGPS)
 - August 7-9, 2017 at the University of Alabama
 - FREE for public-sector participants from Federal, local, state, and tribal government
 - Travel Scholarships Available



The Nation's only preparedness summit dedicated to advancing the use of location-enabled decision support technology and data.

When: August 7-9th

*Where: University of Alabama,
Tuscaloosa*

Registration is now Open!

Questions?

Please use the WebEx chat window...