



Public Safety GIS Position Qualifications Version 1.0

GEOGRAPHIC INFORMATION SYSTEMS (GIS) SUPERVISOR

TYPE	TYPE 1	NO TYPE 2
DESCRIPTION	<p>The Type 1 GIS Supervisor is responsible for:</p> <ol style="list-style-type: none"> 1. Providing oversight on GIS activities of multiple GIS Teams during expanding and/or complex incidents. 2. Managing GIS Team Leaders and coordinates staffing and resources to appropriately support mission specific needs and activities. 	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	<p>Completion of a formal GIS-related educational or certificate program. or Recognition of prior learning focusing on demonstrated knowledge and skills.</p>	Not Applicable
NOTES: GIS-related education comes in a variety of formats including GIS certificates, GIS degrees, or GIS on the job training		
TRAINING	<p>All training identified for the Type 1 GIS Analyst and the Type 1 GIS Team Leader, including:</p> <ol style="list-style-type: none"> 1. IS-100: Introduction to Incident Command System (ICS) 2. IS-200: ICS for Single Resources and Initial Action Incidents 3. ICS-300: Intermediate ICS for Expanding Incidents 4. ICS-400: Advanced ICS for Command and General Staff – Complex Incidents 5. IS-700: National Incident Management System (NIMS) An Introduction 6. IS-701: NIMS Multi-Agency Coordination System (MACS) Course 7. IS-703: NIMS Resource Management 8. IS-800: National Response Framework, An Introduction 9. IS-922: Applications of GIS for Emergency Managers 10. E0170: Hazus-Multi-Hazard for Hurricane 11. E0172: Hazus-Multi-Hazard for Flood 12. E0174: Hazus-Multi-Hazard for Earthquake 13. E0176: Hazus-Multi-Hazard for Flood Plain Managers 14. Virtual Course: Introduction to the Hazus-MH 2.0 Storm Surge Model available at www.fema.gov 15. E0179: Application of Hazus Multi-Hazard for Disaster Operations 16. E0190: ArcGIS for Emergency Managers <p>Formal or informal training consistent with GIS industry standard certification or educational programs to include:</p> <ol style="list-style-type: none"> 1. Geospatial database management 2. Editing and managing GIS resources 3. Creating and executing GIS queries 4. Use of scripting applications 5. Acquisition and use of remote sensing products 	Not Applicable



Public Safety GIS Position Qualifications Version 1.0

TYPE	TYPE 1	NO TYPE 2
TRAINING	<p>PLUS</p> <ol style="list-style-type: none"> 1. E0950: ICS All-Hazards Incident Commander 2. E0960: NIMS ICS All-Hazards Division/Group Supervisor Course 3. E0962 : NIMS ICS All-Hazards Planning Section Chief Course 4. E0964: NIMS ICS All-Hazards Situation Unit Leader Course 5. G0191: Emergency Operations Center/Incident Command System Interface 6. G0775: Emergency Operations Center Management and Operations 	Not Applicable
NOTES: Not Specified		
EXPERIENCE	<p>All Knowledge, Skills, and Abilities identified for the NIMS Type GIS Analyst and NIMS Type GIS Team Leader, including:</p> <ol style="list-style-type: none"> 1. Knowledge of and ability to use common location reference systems to include: United States National Grid (USNG), latitude/longitude, and other appropriate location languages in support of disaster operations 2. Ability to create maps with different projections 3. Ability to create a reference map 4. Ability to create a thematic and categorical map 5. Ability to create paper maps to meet incident needs consistent with GIS industry practices 6. Ability to publish maps in multiple forms including bulk printing, map books, and paper files 7. Ability to create a map from GPS point data or list of addresses 8. Ability to digitize a paper map 9. Ability to prepare data for use in GIS software 10. Ability to join GIS data 11. Ability to open and manipulate attribute tables of GIS data 12. Ability to edit and join boundaries 13. Ability to manipulate and analyze raster-based data 14. Ability to query information on the map based on either attribute or the location of the feature(s) 15. Ability to create a report from GIS data 16. Ability to create buffers, clips, intersects, unions, merge, and dissolves of GIS features 17. Ability to evaluate different map types and data sources to understand limitations and present the most useful information 18. Ability to use Hazus-MH models including Earthquake, Flood, Hurricane, and Storm Surge models 19. Ability to apply Hazus-MH models to create maps, conduct analyses, and produce reports for use in situational awareness and decision making 20. Ability to conduct infrastructure analysis 21. Ability to use and perform CBNRE hazard modeling 22. Ability to use plume and blast modeling tools and methods 	Not Applicable



Public Safety GIS Position Qualifications Version 1.0

TYPE	TYPE 1	NO TYPE 2
EXPERIENCE	<p>23. Ability to serve as lead in conducting spatial analysis and production for all Consequence Management Area Assignment</p> <p>24. Knowledge of wildland fire behavior modeling tools and methods</p> <p>25. Ability to create and edit using modeling tools</p> <p>26. Ability to use wildland fire behavior modeling tools and methods</p> <p>27. Knowledge of wildland fire operations</p> <p>28. Ability to apply wildland fire data to create maps, conduct analyses, and produce reports for use in situational awareness and decision making</p> <p>29. Ability to identify local hazard-specific threat data</p> <p>30. Ability to identify local hazard-specific social vulnerability data</p> <p>31. Ability to identify local hazard-specific consequence data</p> <p>32. Ability to identify and employ best-of-breed models to visualize the efficacy of mitigation measures</p> <p>33. Ability to identify response and recovery map product templates or data collection tools based upon local plans</p> <p>34. Knowledge of the emergency management lifecycle and ability to identify common local workflows in each phase</p> <p>35. Knowledge of common local workflows in each phase of the emergency management lifecycle and ability to identify best of breed analytical models for each map product or data collection tool</p> <p>36. Knowledge of Multiagency Coordination Systems and the Incident Command System</p> <p>37. Ability to perform a stakeholder analysis and provide direction to staff on tailoring map products or collection tools for various audiences within the public, private and non-governmental organizations sectors</p> <p>38. Knowledge of local information protection and security policies and ability to provide direction on tailoring map products according to policies</p> <p>39. Knowledge of local crisis communications guidelines and ability to provide direction on tailoring public-facing map products accordingly</p> <p>40. Ability to manage routine reporting requirements during continuous operations</p> <p>41. Ability to manage information sharing procedures/governance to coordinate activities among project stakeholders</p> <p>42. Ability to manage project timelines for multiple simultaneous projects and incidents</p> <p>43. Ability to apply a repeatable and defensible decision-making process</p> <p>44. Ability to manage quality assurance/quality control procedures</p> <p>45. Ability to manage human resources, including but not limited to performance evaluations and professional development planning</p> <p>46. Ability to conduct project briefings</p> <p>47. Ability to manage business continuity procedures</p> <p>PLUS</p>	Not Applicable



Public Safety GIS Position Qualifications Version 1.0

TYPE	TYPE 1	NO TYPE 2
	Experience: 1. Three years of practical GIS experience. Practical experience can include producing maps for real world projects in any sector or discipline. 2. Five years in a management position in public safety, emergency management or a GIS team, including familiarity with GIS industry standard methods and processes to manage GIS resources and produce GIS products and services. 3. Two previous deployments as a GIS Team Leader, Situation or Advanced Planning Unit Leader. Deployment should include assessment, preparation, analysis and presentation of GIS data in support of the incident. 4. Completion of a GIS Supervisor Position Task Book (PTB) or equivalent documentation that validates and verifies (by AHJ) the successful completion of all skills and demonstrates the ability to perform skills	
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Ability to perform duties under moderate circumstances characterized by working consecutive 12-14 hour days under physical and emotional stress for sustained periods of time. This position may require work outdoors and in the field in disaster environments.	Not Applicable
	NOTES: Moderate fitness or work capacity criteria should be consistent with the physical fitness levels defined in the National Wildfire Coordinating Group's (NWCG) Fitness and Work Capacity, National Fire Protection Association (NFPA) 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, or equivalent physical and medical fitness criteria determined by the AHJ.	
CURRENCY	1. Operational incident experience and/or participation in exercises, drills, or simulations within five years from the time approved by the AHJ to serve as the GIS Supervisor 2. This position maintains currency for the NIMS Type 1 GIS Analyst and the NIMS Type 1 GIS Team Leader positions	Not Applicable
	NOTES: Not Specified	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	1. Completion of GIS industry standards certification program or equivalent 2. Maintain currency in the use and application of the latest GIS technology and certifications used in the industry	Not Applicable
	NOTES: Not Specified	

ORDERING SPECIFICATIONS OR DESIGNATIONS

- Can be ordered as a single resource
- Can be ordered in conjunction with a typed team (GIS Map Support Team)
- Can be ordered in conjunction with a typed unit



Public Safety GIS Position Qualifications Version 1.0

1. Logistics for deploying this position (e.g., security, lodging, transportation, meals) should be discussed prior to deployment of this resource.
2. This position can work up to 12 hours per shift, is self-sustained for 72 hours, and deployable for up to 14 days.

REFERENCES

1. U.S. Department of Homeland Security, Homeland Security Geospatial Concept of Operations (GeoCONOPS), v. 5.0, June 2013
2. National Wildfire Coordinating Group (NWCG), National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, Physical Fitness Levels, October 2013
3. NWCG, Task Book for the Position of Geographic Information System Specialist, PMS 311-77, June 2009
4. NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, latest edition adopted

NOTE

None