



Public Safety GIS Position Qualifications Version 1.0

GEOGRAPHIC INFORMATION SYSTEMS (GIS) TECHNICIAN

TYPE	TYPE 1	NO TYPE 2
DESCRIPTION	The Type 1 GIS Technician is responsible for working with related software and programs to create and maintain geospatial data and/or maps. Works with GIS software having the capacity to relate different types of geospatial and non-geospatial data such as socioeconomic, demographic, administrative or political boundaries, land use, land cover, environmental, infrastructure, and transportation networks. Has the knowledge and ability to apply data mining techniques and the skills to convert data into GIS ready formats in support of operations.	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Completion of formal GIS-related educational or certificate program OR Recognition of prior learning focusing on demonstrated knowledge and skills	Not Applicable
NOTES: GIS-related education is available in a variety of formats including: GIS certificates, GIS degrees, and on-the-job GIS training.		
TRAINING	<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. IS-700: National Incident Management System (NIMS) An Introduction 	Not Applicable
NOTES: Additional incident-specific training may be needed based on the characterization of the threat or hazard.		



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TYPE	TYPE 1	NO TYPE 2
EXPERIENCE	<p>Knowledge, Skills, and Abilities:</p> <ol style="list-style-type: none"> 1. Create maps and graphs, using GIS software and related equipment 2. Conduct research to locate and obtain existing data and databases 3. Gather and integrate spatial data from staff and determine how best the information can be displayed using GIS 4. Compile geographic data from a variety of sources including censuses, field observations, satellite imagery, aerial photographs, and existing maps 5. Design and update databases, applying additional knowledge of spatial feature representations 6. Enter new map data through use of direct input of coordinate information using the principals of cartography including coordinate systems, longitude, latitude, elevation, topography, and map scales 7. Prepare metadata and other documentation 8. Operate and maintain GIS system hardware, software, plotter, digitizer, color printer 9. Practice good data and file management, adhering to best practices and file naming conventions where applicable 10. Present information to users and answer questions 11. 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. 12. Ability to locate and navigate to features using a paper map and compass 13. Ability to use and maintain mobile data collection devices such as mobile smart phones, tablet-based hardware, laptops, GPS enabled devices, GPS field data collectors, and GPS enabled cameras. 14. Ability to edit geometry of a point, line, and polygon data 15. Ability to edit attributes of geospatial (GIS) data 16. Ability to add data including multiple file formats from different physical sources into field data collection applications <p>Experience: Two years of practical experience with GIS. Practical experience can include, but is not limited to, producing maps for real world projects in any sector or discipline.</p>	Not Applicable
NOTES: Not Specified		
PHYSICAL/ MEDICAL FITNESS	<p>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.</p>	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	Not Specified	Not Applicable



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TYPE	TYPE 1	NO TYPE 2
	NOTES: Not Specified	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Specified	Not Applicable
	NOTES: Not Specified	



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ORDERING SPECIFICATIONS OR DESIGNATIONS

- Can be ordered as a single resource
- Can be ordered in conjunction with a typed team (GIS Field Data Collection Team)
- Can be ordered in conjunction with a typed unit
 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. National Wildfire Coordinating Group (NWCG), National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, Physical Fitness Levels, October 2013
2. NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, latest edition adopted

NOTE

NONE