



**FEMA**

POSITION TASK BOOK FOR THE POSITION OF

**ALL-HAZARDS NATIONAL INCIDENT  
MANAGEMENT SYSTEM (NIMS)  
GEOGRAPHIC INFORMATION SYSTEMS  
ANALYST (TYPE 1)**

## GEOGRAPHIC INFORMATION SYSTEMS ANALYST (TYPE 1)

### 1. Competency: Assume position responsibilities

*Description:* Successfully assume the role of Geographic Information Systems (GIS) Analyst and initiate position activities at the appropriate time according to the following behaviors.

#### 1a. Behavior: Gather, update, and apply situational information relevant to the assignment

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
1. Gather logistical information: <ul style="list-style-type: none"> <li>● Incident base facilities</li> <li>● Equipment and supplies available (plotter, computers, ink, paper)</li> <li>● Availability of GIS server and software licenses</li> </ul>	E, F, I		

## 2. Competency: Communicate effectively

*Description:* Use suitable communication techniques to share relevant information with appropriate personnel on a timely basis to accomplish objectives in a potentially rapidly changing environment.

### 2a. Behavior: Produce and distribute information per established guidelines and ensure recipient understands information

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
2. Assist in the production of incident products by completing digital analysis.	E, F, I		
3. Collate data from initial and ongoing assessment of incident-related damage and needs, conduct impact analyses, and inform planning and resource decisions with assessment results.	E, F, I		
4. Define, implement, and maintain a daily archival process: <ul style="list-style-type: none"> <li>● Perform daily backups</li> <li>● Upload data and GIS products to relevant file transfer protocol (FTP) sites</li> <li>● Create backup copies of incident spatial data within the incident data structure</li> </ul>	E, F, I		
5. Develop and update products within established time frames.	E, F, I		
6. Develop key GIS products in at least four of these functional areas: <ul style="list-style-type: none"> <li>● Emergency Services</li> <li>● External Affairs</li> <li>● Hazard Mitigation</li> <li>● Individual Assistance</li> <li>● Logistics</li> <li>● Long-Term Recovery and Planning</li> <li>● Planning</li> <li>● Public Assistance/Infrastructure</li> </ul>	E, F, I		
7. Develop, update, and maintain metadata.	E, F, I		
8. Generate and integrate event-specific model output in coordination with authoritative sources.	E, F, I		
9. Identify and obtain data from internal and external stakeholders to develop and update GIS products: <ul style="list-style-type: none"> <li>● Incident maps</li> <li>● Reference maps: political jurisdiction maps and demographics</li> <li>● Quantitative and qualitative thematic maps</li> <li>● Interactive map products: Keyhole Markup Language (KML), ArcReader, web mapping software</li> </ul>	E, F, I		
10. Meet information requirements to support decisions.	E, F, I		
11. Provide the Documentation Unit or other appropriate personnel with written documentation, digital data, and products developed during the incident, as requested.	E, F, I		
12. Use standard data file structure.	E, F, I		

### 3. Competency: Ensure completion of assigned actions to meet identified objectives

*Description:* Identify, analyze, and apply relevant situational information and evaluate actions to complete assignments safely and meet identified objectives. Complete actions within established time frame.

#### 3a. Behavior: Maintain GIS products and hardware software applications

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
13. Create, maintain, and update GIS databases.	E, F, I		
14. Ensure that data is accurate and from authoritative sources.	E, F, I		
15. Import/export GIS data: <ul style="list-style-type: none"> <li>● Various coordinate systems, Geographic to United States National Grid (USNG)</li> <li>● Data</li> <li>● Projections</li> </ul>	E, F, I		
16. Operate and maintain desktop and wide-format printers.	E, F, I		
17. Operate specialized applications or GIS software for disaster support: <ul style="list-style-type: none"> <li>● Adobe products</li> <li>● ArcGIS Desktop</li> <li>● ArcGIS Spatial Analyst</li> <li>● Google Earth</li> <li>● Microsoft Office Suite</li> <li>● Information Management Systems</li> </ul>	E, F, I		

#### 3b. Behavior: Gather, analyze, and validate information pertinent to the incident or event and make recommendations for setting priorities

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
18. Download data from various GPS units and incorporate the data into the incident GIS.	E, F, I		
19. Identify, obtain, and catalog data (digital and paper): <ul style="list-style-type: none"> <li>● Base</li> <li>● Incident</li> <li>● Local</li> <li>● Metadata</li> </ul>	E, F, I		
20. Review maps and data for accuracy and report inaccuracies to Situation Unit Leader.	E, F, I		
21. Support incident modeling and mapping requests.	E, F, I		

#### 3c. Behavior: Utilize information to produce outputs

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
22. Assist in digitizing and georeferencing data within GIS software: <ul style="list-style-type: none"> <li>● Vector</li> <li>● Raster</li> </ul>	E, F, I		

<p><b>23.</b> Coordinate with GIS Supervisor, Situation Unit Leader, Situational Awareness Unit Leader, or appropriate personnel to prepare incident maps and displays by collecting and interpreting information:</p> <ul style="list-style-type: none"> <li>● Photos</li> <li>● Graphics/images</li> <li>● Other documents</li> <li>● Operations and planning personnel</li> </ul>	<p>E, F, I</p>		
<p><b>24.</b> Help produce and update digital maps within established guidelines and time frames using ICS symbols:</p> <ul style="list-style-type: none"> <li>● Incident Action Plan (IAP) map</li> <li>● Incident briefing map</li> <li>● Situation/planning map</li> <li>● Transportation map</li> <li>● Fire progression map</li> </ul>	<p>E, F, I</p>		
<p><b>25.</b> Perform advanced geoprocessing and analytical tasks:</p> <ul style="list-style-type: none"> <li>● Surface and spatial analysis</li> <li>● Advanced SQL queries</li> <li>● Network analysis and optimization</li> <li>● ModelBuilder, heat maps, and data interpolation</li> </ul>	<p>E, F, I</p>		