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NWCG Incident Position Standards for Geographic Information System Specialist

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The *NWCG Incident Position Standards for Geographic Information System Specialist* establishes national interagency standards for operating as a Geographic Information System Specialist (GISS) on wildland fires. These standards are meant to ensure safe, efficient, and effective operations in support of interagency goals and objectives and should serve as a guide to promote effective and consistent on-incident training. By definition, NWCG standards encompass guidelines, procedures, processes, best practices, specifications, techniques, and methods.

The Geographic Information System Specialist Position Page, https://www.nwcg.gov/positions/geographic-information-system-specialist, in the NWCG position catalog, includes the Incident Position Description (IPD) and Position Qualification Requirements, as well as links to standards and references needed to perform the duties of a Geographic Information System Specialist.

Tasks that are identified by a (*) are those tasks included for evaluation in the Position Task Book (PTB). Tasks not identified for evaluation in the PTB still represent standards for successful performance in the position and should be included in a comprehensive training assignment.

Where references are identified by a (**), refer to your home unit, agency, or organization for specific guidance and policy documentation. For example:

***Interagency Standards for Fire and Fire Aviation Operations* (Red Book)

The National Wildfire Coordinating Group (NWCG) provides national leadership to enable interoperable wildland fire operations among federal, state, Tribal, territorial, and local partners. NWCG operations standards are interagency by design; they are developed with the intent of universal adoption by the member agencies. However, the decision to adopt and utilize them is made independently by the individual member agencies and communicated through their respective directives systems.

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*Demonstrate critical thinking and decision-making skills. 19
*Communicate and exchange technical information with incident personnel inside and outside the Situation Unit. 20
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Document **21**
*Complete all administrative tasks and documentation in an accurate and timely manner. 21
*Prepare maps and other documents for the incident documentation package as required by the Document Unit Leader (DOCL). 21
*Provide inputs to the GISS section of team transition plan for use by the incoming team. 21
Demobilize **22**
*Transfer online content to incoming team or local unit (e.g., non-National Incident Feature Service [NIFS] data embedded in web maps/applications, incident-specific web maps/applications, hosted feature services, FireNet content, other incident data or products not contained in the incident directory structure). 22
*Prepare for and implement demobilization. 22

General References

- *NWCG Standards for Electronic Documentation (eDoc)*, PMS 277, https://www.nwcg.gov/publications/pms277
- *NWCG Incident Response Pocket Guide (IRPG)*, PMS 461, https://www.nwcg.gov/publications/pms461
- *A Preparedness Guide for Wildland Firefighters and Their Families*, PMS 600, https://www.nwcg.gov/publications/pms600
- *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936
- *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1
- Incident Command System (ICS) Forms, https://www.nwcg.gov/ics-forms
  - General Message (ICS 213)
  - Demobilization Check-Out (ICS 221)
- Standard (SF) and Optional (OF) Forms, https://www.nwcg.gov/publications/pms902
  - Crew Time Report (CTR), SF 261
- Job Aids, https://www.nwcg.gov/training/job-aids
  - J-001, *How to Correctly Fill Out the Crew Time Report (CTR), SF 261 (PSM-001)*
  - J-102, *Packing List for Wildland Fire Support Staff*
- Becoming a GISS, https://www.nwcg.gov/committee/integration-management-committee
- Enterprise Geospatial Portal (EGP) WildfireSA, https://egp.wildfire.gov/egp/
- GISS Links, https://experience.arcgis.com/experience/09bbc6e4c7774e69b7e71f5403035176
- ICS Planning Chart, https://www.nwcg.gov/page/ics-planning-chart
- Risk Management Assistance (RMA) Dashboard, https://experience.arcgis.com/experience/f9d7f7f920494c3db43a23a8dffe4664
- U.S. General Services Administration (GSA) Travel Page, https://www.gsa.gov/travel

Agency-Specific References

- ***National Interagency Standards for Resource Mobilization*, https://www.nifc.gov/nicc/logistics/reference-documents

*Leadership Level 1, Follower (Provide Action)

Followers have several responsibilities: to become competent in basic job skills, take initiative, learn from others, ask questions, and develop communication skills https://www.nwcg.gov/committee/leadership-committee/leadership-levels.

Description

- Leadership development starts the first day of the job.
- Followers function as a team member.
- Part of being a leader is exercising good followership and understanding human dynamics.
- Followership begins the journey of becoming a student of fire.

Behaviors

- Performs entry-level incident management tasks, contributing to team mission accomplishment and performance.
- Takes responsibility for personal actions and decisions, demonstrating the core value of integrity.
- Takes initiative to ensure the mission is accomplished and team performance is improved.
- Practices the five communication responsibilities to develop skill and ensure individual contribution to risk management.
- Interacts with team members, in a positive and constructive manner, to build team cohesion.
- Acts with humility and learns from others to improve technical and leadership skills.
- Asks questions to increase individual knowledge and improve the safety of self and team members.

Knowledge

- Knowledge of the wildland fire leadership values, principles, and traits to inform expectations of their behaviors as a team member.
- Knowledge of leadership concepts including courage, compassion, authenticity, humility, and empathy to inform expectations of their behavior as a team member.
- Knowledge of the risk management process to understand their role in accident prevention and decision-making.
- Knowledge of the decision-making process to inform their role in an effective decision process.
- Knowledge of the impacts of cumulative and traumatic stress to assist in ensuring resilience and mental and emotional health.
- Knowledge of the elements of human factors and barriers to situational awareness to understand how human elements can contribute to team performance and fireline safety.
- Knowledge of the value differences of thought and perspective bring to team performance to ensure respectful interactions with team members and to contribute to a positive team culture/command climate.

Prepare and Mobilize

*Ensure individual readiness.

When to start task: Prior to the assignment.

Resources to complete task: *A Preparedness Guide for Wildland Firefighters and Their Families*, PMS 600; *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1; J-102, *Packing List for Wildland Fire Support Staff*; ***National Interagency Standards for Resource Mobilization*.

How to accomplish task:

- Assemble a GISS kit.
- Verify your data/status is current in resource ordering applications (e.g., Interagency Resource Ordering Capability [IROC]).
- Pack a personal gear bag for 14 to 21 days and adhere to weight limitations in the ***National Interagency Standards for Resource Mobilization*.
- Prepare for all types of lodging possibilities.

*Secure required software (e.g., ArcGIS Pro) and suggested hardware, including laptop, mouse, power strip, mobile device, external monitor, and mobile internet hotspot.

When to start task: Prior to the assignment.

Resources to complete task: GISS Links.

How to accomplish task:

- Identify required software and hardware for the assignment.
- Obtain the necessary hardware and install the necessary software.
- Download and install custom tools and scripts.

*Ensure appropriate account credentials.

When to start task: Prior to the assignment.

Resources to complete task: GISS Links.

How to accomplish task:

- Identify required accounts.
- Request a required account, if needed.
- Log in and confirm access to accounts.

*Gather critical information pertinent to the assignment.

When to start task: Upon receipt of resource order.

Resources to complete task: Resource order; EGP WildfireSA; GISS Links; RMA Dashboard.

How to accomplish task:

- Gain situational awareness about the assignment:
  - Incident Action Plan (IAP), if available
  - Weather information
  - Geographic area intelligence reports
  - Wildfire intelligence sources, including EGP WildfireSA
  - Incident website, if available
- Download available data ahead of time.

*Travel to and check in at assignment.

When to start task: Upon receipt of resource order.

Resources to complete task: J-102, *Packing List for Wildland Fire Support Staff*; Incident Qualifications Card (Red Card); resource order; ***National Interagency Standards for Resource Mobilization*.

How to accomplish task:

- Access and review the resource order. Ensure the resource order contains the following information as a baseline and request updates from the incident supervisor if needed:
  - Incident/project name
  - Incident/project order number
  - Office reference number (cost code)
  - Descriptive location/response area
  - Incident base/phone number
  - Request number
  - Reporting date/time and location (e.g., Incident Command Post [ICP])
  - Special needs (e.g., laptop, phone, lodging and per diem, mode of transportation)
- Obtain a travel itinerary. Review and determine:
  - Mode of travel
  - Estimated time of departure (ETD) and location of departure
  - Estimated time of arrival (ETA) and location of destination
  - Location for remain overnight (RON) if unable to make the end destination within that operational shift
  - Lodging information
- Contact the requesting dispatch center to receive the following:
  - IAP, if available
  - Weather information
  - Geographic area intelligence reports
  - Website, if available
  - Standard operating procedures (SOPs)
- Follow agency-specific air and ground travel guidelines.
  - Air travel considerations
    - Use the agency travel arranger to book flights.
    - Comply with baggage limitations.
    - Refer to Chapter 10 of the ***National Interagency Standards for Resource Mobilization*.
    - Check bags for hazardous materials.

    - Ground travel considerations
        - Use the agency travel arranger to book a rental car, etc.
        - Follow time limitations/driver duty day limitations.
        - Ensure your rental, National Emergency Rental Vehicle (NERV), agency-owned vehicle (AOV), or privately owned vehicle (POV) is on the resource order, if applicable.
        - Reference GSA for per diem and lodging rates. Check with the local Dispatch Center Manager if the rate exceeds per diem allowances.
- Upon arriving at the incident, complete the check-in process as described in the IAP or as provided by the Status/Check-In Recorder (SCKN). Be prepared with the following items:
    - Resource order
    - Red Card (digital or hard copy)
    - Agency-specific agreement sheet
- Notify the incident supervisor and/or dispatch of your arrival.

*Obtain initial briefing from Situation Unit Leader (SITL) or other incident supervisor.

When to start task: Upon arrival at the incident.

Resources to complete task: Briefing Checklist section of the *IRPG*; IAP.

How to accomplish task:

- Obtain an initial briefing from the SITL or other incident supervisor that covers the following:
    - Schedule and attendance
    - Expectations for Planning Section meetings
    - Priorities, standards, and time limits for deliverables
    - Methods of communication to accomplish the role in assigned tasks
    - Time frames for providing inputs to the IAP or other relevant plan and creating and updating incident mapping displays
    - Needs for personnel and facilities (e.g., other GISS personnel, internet)
    - Location of work area
- Ensure expectations and the leader's intent are clear and understood.

*Obtain information for ordering or securing equipment and supplies (e.g., plotter, paper, ink, mobile devices).

When to start task: Upon arrival at the incident.

Resources to complete task: General Message (ICS 213).

How to accomplish task:

- Assess equipment and supply needs (e.g., Incident Management Team [IMT] supplies on-site, copy trailer, copy service).
- Review the process for requesting and ordering equipment and supplies with the SITL or other incident supervisor.

*Obtain briefing from previous shift/assignment position as necessary.

When to start task: Upon arrival at the incident.

Resources to complete task: Briefing Checklist section of the *IRPG*; IAP; transition plan.

How to accomplish task:

- Review and ensure understanding of the transition plan.
- Shadow the prior GISS, if necessary.

*Support a minimum of one Type 1 or Type 2 wildfire incident on-site.

When to start task: Upon receipt of resource order.

Resources to complete task: N/A.

How to accomplish task:

Ensure a full understanding of GISS duties as they relate to being on-site at a more complex fire.

Perform Geographic Information System Specialist-Specific Duties

*Copy the *NWCG Standards for Geospatial Operations*, PMS 936 incident directory to hard drive, network attached storage (NAS), or Microsoft SharePoint/OneDrive, and rename files and folders for incident.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/implement-the-incident-directory-structure; GISS Links.

How to accomplish task:

- Follow the Implement the Incident Directory Structure step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Fully populate the *NWCG Standards for Geospatial Operations*, PMS 936 File Namer with required data elements.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/gather-incident-information; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/implement-the-incident-directory-structure; GISS Links.

How to accomplish task:

- Follow the Gather Incident Information step of *NWCG GISS Workflow*, PMS 936-1.
- Follow the Implement the Incident Directory Structure step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Configure the ArcGIS Pro Project Template for the incident and set an appropriate coordinate system.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/configure-the-arcgis-pro-project-template; GISS Links.

How to accomplish task:

- Follow the Configure the ArcGIS Pro Project Template step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Populate the base_data folder with data relevant to fire area including, but not limited to, 24K topographic map and aerial imagery.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/populate-base-data; GISS Links.

How to accomplish task:

- Follow the Populate Base Data step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Create Edit Project using the ArcGIS Pro Project Template and populate the DynamicTextUpdate table.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-the-edit-project; GISS Links.

How to accomplish task:

- Follow the Create the Edit Project step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Create Offline Copy of National Incident Feature Service (NIFS).

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-an-offline-copy; GISS Links.

How to accomplish task:

- Confirm access to the GISS Edit Service.
- Follow the Create an Offline Copy step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Repair Event Layers to Offline Copy.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/repair-event-layer-files; GISS Links.

How to accomplish task:

- Follow the Repair Event Layer Files step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Configure Feature Templates for all Event Layers and save as a group layer file.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/configure-feature-templates; GISS Links.

How to accomplish task:

- Follow the Configure Feature Templates step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Set up the Incident Web Map using current National Interagency Fire Center ArcGIS Online Organization (NIFC Org) web map templates and share with the appropriate Mobile Edit group.

When to start task: Upon receipt of resource order.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-and-share-web-maps; GISS Links.

How to accomplish task:

- Follow the Create and Share Web Maps step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for file naming.

*Process, convert, and import incoming data from sources outside National Incident Feature Service (NIFS) and work with the Situation Unit Leader (SITL) or other incident supervisor to approve new data.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/secure-incident-information; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/work-with-incident-data; GISS Links.

How to accomplish task:

- Follow the Secure Incident Information step of *NWCG GISS Workflow*, PMS 936-1.
- Follow the Working with Incident Data step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Store incident data per *NWCG Standards for Geospatial Operations*, PMS 936 file structure and naming conventions.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1; GISS Links.

How to accomplish task:

- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 Directory Structure standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 File Naming standards.

*Sync Offline Copy before and after each edit session.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/edit-event-data; GISS Links.

How to accomplish task:

Follow the Edit Event Data step of *NWCG GISS Workflow*, PMS 936-1.

*Edit Event Polygon, Event Line, and Event Point features and attributes; calculate polygon acres, line length, and point latitude and longitude.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/edit-event-data; GISS Links.

How to accomplish task:

- Follow the Edit Event Data step of *NWCG GISS Workflow*, PMS 936-1.
    - Only edit event data in an offline copy (DO NOT live edit).
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate Event Geodatabase use.

*Calculate acres burned by ownership/jurisdiction/protection.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/run-analysis-update-metadata; GISS Links.

How to accomplish task:

- Follow the Run Analysis and Update Metadata step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate Event Geodatabase use.

*Calculate line lengths by feature category.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/run-analysis-update-metadata; GISS Links.

How to accomplish task:

- Follow the Run Analysis and Update Metadata step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate Event Geodatabase use.

*Calculate percent containment.

When to start task: Throughout the assignment.

Resources to complete task *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/run-analysis-update-metadata; GISS Links.

How to accomplish task:

- Follow the Run Analysis and Update Metadata step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate Event Geodatabase use.

*Populate the Progression Geodatabase (GDB).

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/export-to-the-progression-gdb; GISS Links.

How to accomplish task:

- Follow the Export to the Progression GDB step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Back up the Offline Copy of National Incident Feature Service (NIFS).

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/update-the-master-incident-gdb; GISS Links.

How to accomplish task:

- Follow the Update the Master Incident GDB step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Replace the Master Incident Geodatabase (GDB).

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/update-the-master-incident-gdb; GISS Links.

How to accomplish task:

- Follow the Update the Master Incident GDB step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Create a Master Project.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; GISS Links.

How to accomplish task:

- Follow the Create Master Projects step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Use dynamic text to populate map elements from the DynamicTextTable and Map View metadata.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-layout-and-update-dynamic-text; GISS Links.

How to accomplish task:

- Follow the Create Layout and Update Dynamic Text step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Use definition queries to display only the Event features appropriate for the intended map audience.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/apply-definition-queries-adjust-labeling; GISS Links.

How to accomplish task:

- Follow the Apply Definition Queries and Adjust Labeling step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a single-page Incident Action Plan (IAP) or Operations Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 IAP Map standards or Operations Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a multi-page map using a Map Series that includes an index page or vicinity map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Multipage (Tiled) Maps section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1.
- Follow the Review and Export Layout step the *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the appropriate *NWCG Standards for Geospatial Operations*, PMS 936 map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Demonstrate the use of label lines for Division and Branch labeling in a Map Series.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; GISS Links.

How to accomplish task:

- Follow the Multipage (Tiled) Maps section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a Briefing Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Briefing Area Map (BAM) section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1.
- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Briefing Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a Transportation Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Transportation Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create an Ownership Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Ownership Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a Progression Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Progression Map section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1.
- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Progression Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create an Air Operations Map that includes a coordinate point table.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Aviation Maps section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1.
- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Air Operations Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a Public Information Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Public Information Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a Suppression Repair Map.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to the *NWCG Standards for Geospatial Operations*, PMS 936 Suppression Repair Map standards.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Create a specialized map (e.g., areas of special concern, evacuation, Facilities, Strategic Operations, Structure Triage, Accountable Property).

When to start task: Upon request from the SITL or other incident supervisor.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Work with the SITL or other incident supervisor to determine specialized map needs or adhere to established standards (e.g., *NWCG Standards for Geospatial Operations*, PMS 936 Strategic Operations Map standards).
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Export, name, and file geospatial portable document format (PDF) maps in the products folder.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/review-and-export-layout; GISS Links.

How to accomplish task:

- Follow the Review and Export Layout step of *NWCG GISS Workflow*, PMS 936-1.
- Optimize the PDF as necessary.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use, file naming, and symbology.

*Effectively utilize large format plotters (e.g., printing maps and multi-panel maps, maintenance, troubleshooting).

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/create-master-projects; GISS Links.

How to accomplish task:

- Review the Briefing Area Map (BAM) section of the Create Master Projects step in *NWCG GISS Workflow*, PMS 936-1 for multi-panel printing.
- Review plotter documentation/user manual.
- Ensure plotter readiness for printing.

Perform advanced GISS duties as needed.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; GISS Links.

How to accomplish task:

- Manage content in the NIFC Org.
- Publish incident surveys, dashboards, and applications as requested by the SITL or other incident supervisor.
- Assist incident personnel in using mobile mapping applications.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate file naming.

*Back up map projects in the backups folder.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/backup-and-share-incident-data; GISS Links.

How to accomplish task:

- Follow the Back Up and Share Incident Data step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Post maps to the appropriate file sharing locations (e.g., National Interagency Fire Center [NIFC] File Share, FireNet) and create Quick Response (QR) codes to link to the appropriate folder for incident use.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/nifc-files-share-and-qr-codes; GISS Links.

How to accomplish task:

- Follow the NIFC File Share and QR Codes step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Back up the incident directory to a secondary physical drive.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/backup-and-share-incident-data; GISS Links.

How to accomplish task:

- Follow the Back Up and Share Incident Data step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

*Download and back up external incident data sources, hosted feature services, and data collection forms.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1/backup-and-share-incident-data; GISS Links.

How to accomplish task:

- Follow the Back Up and Share Incident Data step of *NWCG GISS Workflow*, PMS 936-1.
- Adhere to *NWCG Standards for Geospatial Operations*, PMS 936 for appropriate directory structure use and file naming.

Communicate and Coordinate

*Maintain awareness of changing responsibilities and expectations.

When to start task: Throughout the assignment.

Resources to complete task: IAP.

How to accomplish task:

- Communicate when expectations exceed capacity.
- Work with the SITL or other incident supervisor to adjust expectations or augment resources.
- Perform assigned GISS duties within the constraints and deadlines of typical incident conditions.
- Communicate with the SITL or other incident supervisor and GISS Lead if deadlines cannot be met.
- Participate in functional area (section) meetings.

*Communicate to the Situation Unit Leader (SITL) or other incident supervisor when map and task requests are made outside the Incident Command System (ICS) chain of command.

When to start task: Throughout the assignment.

Resources to complete task: ICS Planning Chart; IAP.

How to accomplish task:

Refer to the ICS chain of command.

*Establish and maintain positive interpersonal and interagency working relationships.

When to start task: Throughout the assignment.

Resources to complete task: N/A.

How to accomplish task:

- Contribute to a positive team climate.
- Conduct yourself in a professional manner.
- Communicate effectively.

*Demonstrate critical thinking and decision-making skills.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1.

How to accomplish task:

- Identify key causes of common issues and apply practical, effective solutions.
- Anticipate needs.
- Prioritize tasks proactively and manage time efficiently.

*Communicate and exchange technical information with incident personnel inside and outside the Situation Unit.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1.

How to accomplish task:

- Communicate field data collection procedures to Field Observer (FOBS) personnel, Resource Advisor (READ) personnel, and other incident staff.
- Collect, produce, and distribute information following established processes and chain of command.
- Answer incident situation questions such as number of acres burned, acres by ownership, or other questions requiring basic geographic information system (GIS) analysis and geoprocessing.
- Explain technical issues or concerns to the GISS Lead, SITL (or other incident supervisor), or Incident Technology Support Specialist (ITSS).

*Conduct and/or participate in After Action Reviews (AARs).

When to start task: At the end of the assignment.

Resources to complete task: *IRPG*.

How to accomplish task:

- Assess strategies and tactics used to meet the assigned goals and objectives. Identify successes and opportunities to improve.
- Ensure clear dialogue and open communication.
    - Engage in active listening.
    - Facilitate an open discussion.
    - Avoid interrupting.
    - Allow all voices to be heard.
    - Provide and receive constructive criticism.
- Provide context and insight based on your individual experience/perspective.
- Apply lessons learned in the AAR to future work.

Document

*Complete all administrative tasks and documentation in an accurate and timely manner.

When to start task: Throughout the assignment.

Resources to complete task: *NWCG Standards for Geospatial Operations*, PMS 936, https://www.nwcg.gov/publications/pms936; *NWCG GISS Workflow*, PMS 936-1, https://www.nwcg.gov/publications/pms936-1; General Message (ICS 213); Crew Time Report (CTR), SF 261; J-001, *How to Correctly Fill Out the Crew Time Report (CTR), SF 261 (PSM-001)*.

How to accomplish task:

- Obtain, complete, and submit required documentation based on agency, form, and/or incident-specific instructions.
- Properly use General Message (ICS 213).

*Prepare maps and other documents for the incident documentation package as required by the Document Unit Leader (DOCL).

When to start task: At the end of the assignment.

Resources to complete task: *NWCG Standards for Electronic Documentation (eDoc)*, PMS 277.

How to accomplish task:

Refer to the Situation Unit section of the Master Electronic Documentation Index in *NWCG Standards for Electronic Documentation (eDoc)*, PMS 277 for required products.

*Provide inputs to the GISS section of team transition plan for use by the incoming team.

When to start task: At the end of the assignment.

Resources to complete task: N/A.

How to accomplish task:

Get guidance from the SITL or other incident supervisor on format and content of inputs to the transition plan.

Demobilize

*Transfer online content to incoming team or local unit (e.g., non-National Incident Feature Service [NIFS] data embedded in web maps/applications, incident-specific web maps/applications, hosted feature services, FireNet content, other incident data or products not contained in the incident directory structure).

When to start task: At the end of the assignment.

Resources to complete task: Transition plan.

How to accomplish task:

Coordinate with incoming resources to transfer applicable content.

*Prepare for and implement demobilization.

When to start task: At the end of the assignment.

Resources to complete task: Demobilization Check-Out (ICS 221); IAP.

How to accomplish task:

- Communicate with the SITL, GISS Lead, or other incident supervisor to confirm your last shift and to understand the check-out process for the incident.
- Verify incident and agency demobilization procedures.
- Return checked-out equipment and supplies to the appropriate unit.
- Notify relevant contacts of your departure and the incoming replacement.
- Complete the demobilization check-out process before being released from the incident.
    - Follow the steps in the incident-specific demobilization process/checklist.
    - Arrange and document travel to your home unit or reassignment.
    - Ensure incident and agency demobilization procedures and work/rest driving standards are followed.
- Request an Incident Personnel Performance Rating (ICS 225 or ICS 225 WF) from the incident supervisor, as applicable.
- Upon demobilization, report your status to your home unit, including reassignment or ETA to the home unit.

An entity of the National Wildfire Coordinating Group (NWCG), the Integration Management Committee (IMC) oversees the development and maintenance of the *NWCG Incident Position Standards for Geographic Information System Specialist.*

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