

NWCG Task Book for the Position of:



**Geographic Information System Specialist
(GISS)**

PMS 311-77

MARCH 2022

Task Book Assigned To:

Trainee's Name: _____

Home Unit/Agency: _____

Home Unit Phone Number: _____

Task Book Initiated By:

Official's Name: _____

Home Unit Title: _____

Home Unit/Agency: _____

Home Unit Phone Number: _____

Home Unit Address: _____

Date Initiated: _____

The material contained in this book accurately defines the performance expected of the position for which it was developed. This task book is approved for use as a position qualification document in accordance with the instructions contained herein.

**Verification/Certification of Completed Task Book
for the Position of:**

Geographic Information System Specialist (GISS)

Final Evaluator's Verification

*To be completed **ONLY** when you are recommending the Trainee for certification.*

I verify that (Trainee name) _____ has successfully performed as a Trainee by demonstrating all tasks for the position listed above and should be considered for certification in this position. All tasks are documented with appropriate initials.

Final Evaluator's Signature: _____

Final Evaluator's Printed Name: _____

Home Unit Title: _____

Home Unit/Agency: _____

Home Unit Phone Number: _____ Date: _____

Agency Certification

I certify that (Trainee name) _____ has met all requirements for qualification in the above position and that such qualification has been issued.

Certifying Official's Signature: _____

Certifying Official's Printed Name: _____

Title: _____

Home Unit/Agency: _____

Home Unit Phone Number: _____ Date: _____

NATIONAL WILDFIRE COORDINATING GROUP (NWCG) POSITION TASK BOOK

NWCG Position Task Books (PTBs) have been developed for designated National Interagency Incident Management System (NIIMS) positions. Each PTB lists the competencies, behaviors and tasks required for successful performance in specific positions. Trainees must be observed completing all tasks and show knowledge and competency in their performance during the completion of this PTB.

Trainees are evaluated during this process by qualified Evaluators, and the Trainee's performance is documented in the PTB for each task by the Evaluator's initials and date of completion. An Evaluation Record will be completed by all Evaluators documenting the Trainee's progress after each Evaluation opportunity.

Successful performance of all tasks, as observed and recorded by an Evaluator, will result in a recommendation to the agency that the Trainee be certified in that position. Evaluation and confirmation of the Trainee's performance while completing all tasks may occur on one or more training assignments and may involve more than one Evaluator during any opportunity.

INCIDENT/EVENT CODING

Each task has a code associated with the type of training assignment where the task may be completed. While tasks can be performed in any situation, they must be evaluated on the specific type of incident/event for which they are coded. For example, tasks coded W must be evaluated on a wildfire. Performance of any task on other than the designated assignment is not valid for qualification. The codes are defined as:

O = Other: In any situation (classroom, simulation, daily job, incident, prescribed fire, etc.).

I = Incident: Task must be performed on an incident managed under the Incident Command System (ICS). Examples include wildland fire, structural fire, oil spill, search and rescue, hazardous material, and an emergency or non-emergency (planned or unplanned) event.

W = Wildfire: Task must be performed on a wildfire incident.

RX = Prescribed fire: Task must be performed on a prescribed fire incident.

W/RX = Wildfire OR prescribed fire: Task must be performed on a wildfire OR prescribed fire incident.

R = Rare event: Rare events such as accidents, injuries, vehicle or aircraft crashes occur infrequently and opportunities to evaluate performance in a real setting are limited. The Evaluator should determine, through interview, if the Trainee would be able to perform the task in a real situation.

Tasks within the PTB are numbered sequentially; however, the numbering does NOT indicate the order in which the tasks need to be performed or evaluated. The bullets under each numbered task are examples or indicators of items or actions related to the task. The purpose of the bullets is to assist the Evaluator in evaluating the Trainee; the bullets are not all-inclusive. Evaluate and initial ONLY the numbered tasks. DO NOT evaluate and initial each individual bullet.

A more detailed description of this process and definitions of terms are included in the *NWCG Standards for Wildland Fire Position Qualifications*, PMS 310-1, <https://www.nwcg.gov/publications/310-1>.

RESPONSIBILITIES

The responsibilities of the Home Unit/Agency, Trainee, Coach, Training Specialist, Evaluator, Final Evaluator, and Certifying Official are identified in the *NWCG Standards for Wildland Fire Position Qualifications*, PMS 310-1. It is incumbent upon each of these individuals to ensure their responsibilities are met.

INSTRUCTIONS FOR THE POSITION TASK BOOK EVALUATION RECORD

Evaluation Record

Each Evaluator will need to complete an Evaluation Record. Each Evaluation Record should be numbered sequentially. Place this number at the top of the Evaluation Record page and also use it in the column labeled "Evaluation Record #" for each numbered task the Trainee has satisfactorily performed.

Trainee Information

Print the Trainee's name, position on the incident/event, home unit/agency, and the home unit/agency address and phone number.

Evaluator Information

Print the Evaluator's name, position on the incident/event, home unit/agency, and the home unit/agency address and phone number.

Incident/Event Information

Incident/Event Name: Print the incident/event name.

Reference: Enter the incident code and/or fire code.

Duration: Enter inclusive dates during which the Trainee was evaluated.

Incident Kind: Circle the kind of incident and specify if other (e.g., search and rescue, flood, etc.).

Location: Enter the geographic area, agency, and state.

Management Type or Prescribed Fire Complexity Level: Circle the ICS organization level or the prescribed fire complexity level.

Fire Behavior Prediction System (FBPS) Fuel Model Group: Circle the Fuel Model Group letter that corresponds to the predominant fuel type in which the incident/event occurred.

G = Grass Group (includes FBPS Fuel Models 1 – 3): 1 = short grass (1 foot); 2 = timber with grass understory; 3 = tall grass (1½ - 2 feet)

B = Brush Group (includes FBPS Fuel Models 4 – 6): 4 = Chaparral (6 feet); 5 = Brush (2 feet); 6 = dormant brush/hardwood slash; 7 = Southern rough

T = Timber Group (includes FBPS Fuel Models 8 – 10): 8 = closed timber litter; 9 = hardwood litter; 10 = timber (with litter understory)

S = Slash Group (includes FBPS Fuel Models 11 – 13): 11 = light logging slash; 12 = medium logging slash; 13 = heavy logging slash

Evaluator's Recommendation

For 1 – 4, initial only one line as appropriate, this will allow for comparison with your initials in the Qualifications Record.

Comments: Additional information specific to the Evaluator's recommendation. The Evaluator should note any deficiencies, additional assignment needs, or additional focus areas that were identified. Record additional remarks/recommendations on an Individual Performance Evaluation or by attaching an additional sheet to the Evaluation Record.

Evaluator's Signature: Sign here to authenticate the recommendation.

Date: Document the date the Evaluation Record is completed.

Evaluator's Relevant Qualification (or agency certification): List your qualification or certification relevant to the Trainee position you supervised.

Note: Evaluators must be either qualified in the position being evaluated or supervise the Trainee; Final Evaluators must be qualified in the Trainee position they are evaluating.

Geographic Information System Specialist (GISS)

Competency: Prepare and Mobilize.

Description: Successfully assume role of GISS and initiate position activities at the appropriate time according to the following behaviors.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Ensure individual readiness for assignment.			
1. Read and demonstrate understanding of the <i>NWCG Standards for Geospatial Operations PMS 936</i> (GeoOps), https://www.nwcg.gov/publications/pms936 and <i>NWCG GISS Workflow PMS 936-1</i> , https://www.nwcg.gov/publications/pms936-1 .	O		
2. Secure required hardware including laptop, mouse, power strip, mobile device, and suggested hardware including external monitor, mobile internet hot spot.	O		
3. Have required software installed (ArcGIS Pro and FTP client).	O		
4. Pack gear bag with supplies for 14 days for expected weather at camp.	O		
5. Ensure appropriate account credentials. Refer to PMS 936-1.	O		
6. Support a minimum of one Type 1 or Type 2 wildfire incident onsite.	W		
Behavior: Travel to and check in at assignment.			
7. Check in at incident.	I		
8. Obtain initial briefing from Situation Unit Leader (SITL). Cover the following: Schedule and attendance expectations for Planning Section meetings. Priorities, standards, time limits for completion, and methods of communication to accomplish role in assigned tasks. Time frames for inputs into Incident Action Plan (IAP) or other relevant plan and creating and updating incident mapping displays. Needs for personnel and facilities. Location of work area.	I		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
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Behavior: Gather logistical information.

9. Obtain information for ordering or securing equipment and supplies (e.g., plotter, paper, ink, mobile devices).	I		
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Competency: Prepare Data.

Description: Perform the Data Preparation components of the NWCG Standards for Geospatial Operations PMS 936 and NWCG GISS Workflow PMS 936-1, which lays the groundwork for the rest of the incident.

Behavior: Gather Incident Information data elements required to populate the National Incident Feature Service (NIFS), <https://www.nwcg.gov/publications/pms936-1/data-preparation/incident-information>.

10. Fully populate the GeoOps File Namer with required data elements.	O		
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Behavior: Prepare GeoOps incident directory, <https://www.nwcg.gov/publications/pms936>.

11. Copy GeoOps incident directory to hard drive, network attached storage (NAS) or SharePoint for OneDrive. Rename files and folders for incident.	O		
12. Configure the ArcGIS Pro Project Template for incident.	O		

Behavior: Populate Base Data folders, <https://www.nwcg.gov/publications/pms936-1/data-preparation/base-data>.

13. Populate base data folder with data relevant to fire area including (but not limited to) 24K topographic map and aerial imagery.	O		
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Behavior: Create and prepare an Edit Project, <https://www.nwcg.gov/publications/pms936-1/data-preparation/create-project>.

14. Create Edit Project using the Pro Project template, set an appropriate coordinate system, populate the DynamicTextUpdate table, and name per GeoOps.	O		
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Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Create an Offline Copy, https://www.nwcg.gov/publications/pms936-1/data-preparation/create-local-copy			
15. Create Offline copy of NIFS.	O		
Behavior: Apply Layer Files, https://www.nwcg.gov/publications/pms936-1/data-preparation/event-layer-files.			
16. Add template layer and repair feature paths to Offline Copy.	O		
Behavior: Configure Feature Templates, https://www.nwcg.gov/publications/pms936-1/data-preparation/configure-feature-templates.			
17. Configure the Event Point, Line and Polygon feature class Feature Templates and save as a group layer file with appropriate name.	O		
Behavior: Create and Share Web Maps, https://www.nwcg.gov/publications/pms936-1/data-preparation/create-share-web-maps.			
18. Set up the Basic Web Map Workflow using current NIFC web map templates. Share into the appropriate Mobile Editing group.	I		
Competency: Edit Incident Data. <i>Description: Perform the Editing components of the NWCG GISS Workflow, the first step in the cyclical portion of the GISS Workflow and repeated as often as needed during the incident. Complete actions within established timeframes.</i>			
Behavior: Secure incident information, https://www.nwcg.gov/publications/pms936-1/edit-incident-data/securing-incident-information.			
19. Process/convert/import incoming data from sources outside NIFS. Work with SITL to approve new data.	I		
20. Always store incident data per GeoOps file structure and naming conventions.	I		
Behavior: Edit incident data, https://www.nwcg.gov/publications/pms936-1/edit-incident-data/editing-the-event-geodatabase.			
21. Sync Offline Copy before and after each edit session.	I		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
22. Edit Event Polygon, Event Line, and Event Point features and attributes. Calculate polygon acres, line length, and point latitude and longitude.	I		

Behavior: Populate Progression GDB, <https://www.nwcg.gov/publications/pms936-1/edit-incident-data/editing-the-event-geodatabase>.

23. Populate the Progression GDB following the GISS Workflow.	I		
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Behavior: Perform common incident analysis, <https://www.nwcg.gov/publications/pms936-1/edit-incident-data/analysis-products>.

24. Calculate acres burned by ownership.	I		
25. Calculate line lengths by feature category.	I		
26. Calculate percent containment.	I		

Competency: Update Master Incident GDB

Description: Complete the steps of updating the Master Incident GDB, following the NWCG GISS Workflow. Complete actions within established timeframes.

Behavior, Backup Offline Copy and replace Master Incident GDB, <https://www.nwcg.gov/publications/pms936-1/update-master>.

27. Backup Offline Copy and replace the Master Incident GDB following GISS Workflow.	I		
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Competency: Create Incident Maps and Digital Products

Description: Created Incident Maps and Digital Products following the NWCG GISS Workflow and NWCG Standards for Geospatial Operations (GeoOps). Complete products within established timeframes.

Behavior: Create and prepare a Master Map Project, <https://www.nwcg.gov/publications/pms936-1/update-master>.

28. Create a master project following the GISS Workflow and GeoOps.	I		
29. Use Dynamic Text to populate map elements from the DynamicTextTable and Map View Metadata.	I		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
30. Use definition queries to display only the Event features appropriate for the intended map audience.	I		
Behavior: Create Incident Map Products, https://www.nwcg.gov/publications/pms936/map-product-standards			
31. Create a single-page IAP or Operations Map following GeoOps and the GISS Workflow.	W/RX		
32. Create a multi-page IAP or Operations Maps using a Map Series following GeoOps and the GISS Workflow. Include an index page map.	W		
33. Demonstrate the use of Annotation, https://www.nwcg.gov/publications/pms936-1/create-incident/labeling-and-annotation , for Division and Branch labeling in a Map Series.	W		
34. Create a Briefing Map following GeoOps and the GISS Workflow.	W		
35. Create a Situation Map following GeoOps and the GISS Workflow.	W		
36. Create a specialized, non-operations map used during the planning cycle by non-operations positions. Potential examples include Areas of Special Concerns, strategic planning, ownership, evacuation, fire behavior, etc. Follow GeoOps and the GISS Workflow.	W		
37. Create a Transportation Map following GeoOps and the GISS Workflow.	I		
38. Create a Progression Map following GeoOps and the GISS Workflow.	W		
39. Create an Air Operations Map following GeoOps and the GISS Workflow. Include a coordinate point table.	I		
40. Create a Public Information Officer (PIO) Map following GeoOps and the GISS Workflow.	I		
41. Create a Suppression Repair Map or Dashboard following GeoOps and the GISS Workflow.	W		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Export and back up			
42. Demonstrate the creation and production of map products that can be used digitally in the field (Avenza, FieldMaps, etc.)	I		
43. Print maps using large format plotters at a size needed for briefings or other meetings. Demonstrate ability to perform basic troubleshooting and maintenance of plotter.	W		
44. Save and name geospatial PDF in products folder per GeoOps. Optimize PDF as necessary.	I		
45. Back up and name map projects in backup folder per GeoOps.	I		

Competency: Back Up and Share

Description: Complete the steps to back up and share incident data, following the NWCG GISS Workflow. Complete actions within established timeframes.

Behavior: Post digital map products, https://www.nwcg.gov/publications/pms936-1/backup-sharing/nifc-ftp-qr-codes.			
46. Post maps to appropriate FTP and/or web sites. Develop QR codes to link to appropriate folder for incident use.	I		
Behavior: Back Up Incident Directory, https://www.nwcg.gov/publications/pms936-1/backup-sharing/backup-recovery.			
47. Back up incident directory to a secondary physical drive.	I		
Behavior: Back up external data, https://www.nwcg.gov/publications/pms936-1/backup-sharing/backup-recovery.			
48. Download and back up external incident data sources, custom hosted feature services, data collection forms.	I		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
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Competency: Transition.

Description: Successfully completed responsibilities of the GISS for transition with another team, GISS specialist, or local unit.

Behavior: Transfer.

49. Transfer online content to incoming team or local unit. This includes non-NIFS data embedded in web maps/apps, incident specific web maps/apps, services, FireNet content, as well as any other incident data or products not contained in the incident directory structure.	I		
50. Assist GISS lead to write GISS section of team transition plan for use by incoming team.	I		

Competency: Communicate and Coordinate.

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

Behavior: Exchange technical information.

51. Communicate field data collection procedures to Field Observers (FOBS), Resource Advisors (READs), and other incident staff.	I		
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Behavior: Communicate following ICS concepts and principles.

52. Maintain awareness of the changing responsibilities and expectations throughout the assignment. Communicate when expectations exceed capacity, and work with SITL to adjust expectations or augment resources.	I		
53. Communicate to SITL when map and task requests are made outside the ICS chain of command.	I		
54. Participate in functional area (section) meetings.	I		
55. Participate in an After-Action Review (AAR).	I		
56. Demonstrate skills that establish and maintain a positive team climate.	I		

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Geographic Information System Specialist (GISS)

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
57. Demonstrate critical thinking and decision-making skills.	I		
58. Conduct self in a professional manner.	I		

Competency: Document.

Description: Successfully document incident information using ICS forms and following incident command team processes.

Behavior: Complete, authorize, ensure timeliness of, and route as required,

<https://www.nwccg.gov/publications/pms936/documentation>.

59. Perform assigned GISS duties within the constraints and deadlines of typical incident conditions. Communicate with GISS lead or SITL if deadlines cannot be met.	I		
60. Properly uses General Message form, ICS 213.	I		
61. Prepare maps and other documents for the incident documentation package as required by the DOCL.	I		

Competency: Demobilize.

Description: Prepare for demobilization and completed required actions.

Behavior: Demobilize.

62. Communicate with SITL and/or GISS lead to confirm your last shift and to understand the check-out process for the incident.	I		
63. Complete demobilization checkout process before being released from the incident.	I		

Evaluate the numbered tasks ONLY. DO NOT evaluate bullets; they are provided as examples/additional clarification.

Trainee Information

Printed Name:
 Trainee Position on Incident/Event:
 Home Unit/Agency:
 Home Unit /Agency Address and Phone Number:

Evaluator Information

Printed Name:
 Evaluator Position on Incident/Event:
 Home Unit/Agency:
 Home Unit /Agency Address and Phone Number:

Incident/Event Information

Incident/Event Name: _____ Reference (Incident Number/Fire Code): _____
 Duration: _____
 Incident Kind: Wildfire, Prescribed Fire, All Hazard, Other (specify): _____
 Location (include Geographic Area, Agency, and State): _____
 Management Type (circle one): Type 5, Type 4, Type 3, Type 2, Type 1, Area Command
OR Prescribed Fire Complexity Level (circle one): Low, Moderate, High
 FBPS Fuel Model Letter: G = Grass, B = Brush, T = Timber, S = Slash

Evaluator's Recommendation
 (Initial only one line as appropriate)

- _____ 1) The tasks initialed and dated by me on the Qualification Record have been performed under my supervision in a satisfactory manner. The Trainee has successfully performed all tasks in the PTB for the position. I have completed the Final Evaluator's Verification section and recommend the Trainee be considered for agency certification.
- _____ 2) The tasks initialed and dated by me on the Qualification Record have been performed under my supervision in a satisfactory manner. However, opportunities were not available for all tasks (or all uncompleted tasks) to be performed and evaluated on this assignment. An additional assignment is needed to complete the evaluation.
- _____ 3) The Trainee did not complete certain tasks in the PTB in a satisfactory manner and additional training, guidance, or experience is recommended.
- _____ 4) The individual is severely deficient in the performance of tasks in the PTB for the position and additional training, guidance, or experience is recommended prior to another training assignment.

Comments: _____

Evaluator's Signature: _____ Date: _____

Evaluator's Relevant Qualification (or agency certification): _____

Additional Evaluation Record Sheets can be downloaded at <https://www.nwcg.gov/publications/position-taskbooks>.

Trainee Information

Printed Name:
 Trainee Position on Incident/Event:
 Home Unit/Agency:
 Home Unit /Agency Address and Phone Number:

Evaluator Information

Printed Name:
 Evaluator Position on Incident/Event:
 Home Unit/Agency:
 Home Unit /Agency Address and Phone Number:

Incident/Event Information

Incident/Event Name: _____ Reference (Incident Number/Fire Code): _____
 Duration: _____
 Incident Kind: Wildfire, Prescribed Fire, All Hazard, Other (specify): _____
 Location (include Geographic Area, Agency, and State): _____
 Management Type (circle one): Type 5, Type 4, Type 3, Type 2, Type 1, Area Command
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- _____ 3) The Trainee did not complete certain tasks in the PTB in a satisfactory manner and additional training, guidance, or experience is recommended.
- _____ 4) The individual is severely deficient in the performance of tasks in the PTB for the position and additional training, guidance, or experience is recommended prior to another training assignment.

Comments: _____

Evaluator's Signature: _____ Date: _____

Evaluator's Relevant Qualification (or agency certification): _____

Additional Evaluation Record Sheets can be downloaded at <https://www.nwcg.gov/publications/position-taskbooks>.