



NWCG Task Book for the Positions of:

**UNMANNED AIRCRAFT SYSTEMS,
MANAGER (UASM)**

**UNMANNED AIRCRAFT SYSTEMS,
MODULE LEADER (UASL)**

**UNMANNED AIRCRAFT SYSTEMS, DATA
SPECIALIST (UASD)**

PMS 311-79

JANUARY 2024

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: _____

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

(position title)

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.

This task book contains tasks for the following UAS positions: Unmanned Aircraft Systems, Manager (UASM), Unmanned Aircraft Systems, Module Leader (UASL), and Unmanned Aircraft Systems, Data Specialist (UASD).

Once the Trainee is qualified as an Unmanned Aircraft Systems Pilot (UASP), the Trainee can begin to work on the Unmanned Aircraft Systems, Manager (UASM) specific tasks.

Only a qualified Unmanned Aircraft Systems Pilot (UASP) can begin to work on the Unmanned Aircraft Systems, Module Leader (UASL) specific tasks.

The position of UAS Data Specialist does not have a prerequisite qualification.

UASM Specific Tasks

(Pages 6-7, Tasks 1-7)

UASL Specific Tasks

(Pages 8-9, Tasks 1-6)

UASD Specific Tasks

(Pages 10-11, Tasks 1-11)

UASP specific tasks are found in the *NWCG Task Book for the Position of Unmanned Aircraft Systems Pilot (UASP)*, PMS 311-78.

Unmanned Aircraft Systems, Manager (UASM) Specific Tasks

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 timeframe.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
1. Validate Vendor UAS/Sensor capabilities. <ul style="list-style-type: none"> <i>Appropriate UAS platform for the mission.</i> <i>Appropriate Sensors for the mission.</i> <i>Proper carding of UAS and remote pilot(s).</i> <i>Verify UAS has sufficient time remaining before next scheduled maintenance.</i> <i>Determine remote pilot flight and duty limitations as stated in agency policy.</i> 	I		
2. Conduct a mission safety briefing for the vendor UAS flight crew. <ul style="list-style-type: none"> <i>General scope of the mission (data requirement)</i> <i>Incident location: Descriptive location, latitude and longitude, bearing and distance</i> <i>Aerial resources assigned including other aerial supervision</i> <i>Radio frequencies (tactical and flight following)</i> <i>Special information [hazards, military operations, Temporary Flight Restrictions (TFRs)]</i> <i>Radio contacts (operations, aerial supervision, air and ground resources)</i> <i>Expected duration of mission</i> <i>Vertical and horizontal separation of aircraft</i> <i>Emergency procedures</i> 	I		
3. Vendor Contract Documentation. <ul style="list-style-type: none"> <i>Ensure contractor is in compliance with terms of the contract.</i> <i>Complete agency portion flight payment document.</i> <i>Evaluation report on contractor performance.</i> <i>Complete contract daily diary.</i> 	I		
4. Airspace Authorization. <ul style="list-style-type: none"> <i>Request TFR as required.</i> <i>Request Emergency Certificate of Waiver or Authorization (ECO) for beyond visual line of site (BVLOS) operations as required.</i> <i>Coordinate with Air Operations/Aerial Supervision.</i> 	I		

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

Unmanned Aircraft Systems, Manager (UASM) Specific Tasks

Competency: Communicate effectively.

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.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
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Behavior: Communicate and ensure understanding of work expectations within the chain of command and across functional areas.

5. Coordinate with the following personnel and attend briefings prior to vendor UAS operations: <ul style="list-style-type: none"> • <i>AOBD/ASGS</i> <ul style="list-style-type: none"> ○ <i>Chain of Command</i> • <i>PLANS / SITL / RESL</i> <ul style="list-style-type: none"> ○ <i>Requested data</i> ○ <i>Requested data format</i> ○ <i>UAS information for the ICS-220</i> • <i>Operations / DIVS</i> <ul style="list-style-type: none"> ○ <i>Sensor tasking (Situational Awareness)</i> ○ <i>Sensor type</i> • <i>Helibase Manager</i> <ul style="list-style-type: none"> ○ <i>Launch and recovery location</i> ○ <i>Launch and recovery times</i> • <i>Aerial Supervision</i> <ul style="list-style-type: none"> ○ <i>Mission altitude</i> ○ <i>Mission location</i> ○ <i>Sensor Tasking</i> ○ <i>Fuel Cycles</i> ○ <i>Call signs</i> ○ <i>Radio frequencies</i> • <i>Daily aviation, operations, and planning meetings/briefings</i> 	I		
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Behavior: Gather, produce, and distribute information as required by established guidelines and ensure understanding by recipient.

6. Coordinate with operations personnel to provide Situational Awareness information. <ul style="list-style-type: none"> • <i>Live video feed</i> • <i>Direct communication from UAS crew to ground personnel</i> • <i>Priority sensor tasking as required</i> 	I		
7. Coordinate with Planning Section personnel to provide requested data. <ul style="list-style-type: none"> • <i>Aircraft telemetry files</i> • <i>Point, Line or Polygon data (GPX/KML files)</i> • <i>Still images (Electro-Optical / Infrared)</i> • <i>Video (Electro-Optical / Infrared)</i> 	I		

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

Unmanned Aircraft Systems Module Leader (UASL) Specific Tasks

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 timeframe.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Establish effective relationships with relevant personnel.			
1. Report to incident and receive briefing. <ul style="list-style-type: none"> Establish incident chain of command. Determine data product requirements. Verify equipment meets the needs of the mission. Determine UAS module flight and duty limitations as stated in agency policy. 	I		
2. Assemble and brief the module. <ul style="list-style-type: none"> Identify chain of command/roles and responsibilities. Discuss flight/data objectives. Identify logistical needs. 	I		
3. Coordinate UAS missions. <ul style="list-style-type: none"> Ensure UAS flights have been authorized by agency administrator and IC. Attend briefings and participate as requested in the development of UAS assignments (ICS-204). Ensure daily UAS assignments are received and understood. Brief incident overhead regarding UAS capabilities and limitations. Coordinate with Public Information Officer (PIO) as required. Coordinate activities with Air Operations, Helibase, Aerial Supervision, and Operations. Brief Remote Pilots on required data collection. Brief Data Specialist on required data product. Ensure airspace is deconflicted via dispatch, helibase, or clearance from aerial supervision is obtained. Ensure airspace authorization is obtained. Brief overhead/resources on procedures for ordering UAS support on divisions. Oversee Mission UAS flights. Ensure required data product is delivered. 	I		

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

Unmanned Aircraft Systems Module Leader (UASL) Specific Tasks

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
4. Debrief UAS missions. <ul style="list-style-type: none"> • <i>Attend post mission debriefings with Air Operations, Helibase, Aerial Supervision, and Operations.</i> • <i>Facilitate debriefing with UAS module.</i> • <i>Share lessons learned with local aviation personnel and management as required.</i> 	I		
5. Ensure post mission tasks are completed. <ul style="list-style-type: none"> • <i>Aircraft maintenance and inspection</i> • <i>Data packaging and storage</i> • <i>Aircraft Use reporting</i> • <i>SAFECOMs as required</i> • <i>Brief incoming/replacement UAS personnel</i> 	I		
Behavior: Plan for demobilization and ensure demobilization procedures are followed.			
6. Schedule/implement demobilization.	I		

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

Unmanned Aircraft Systems, Data Specialist (UASD) Specific Tasks

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 timeframe.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Ensure readiness for assignment.			
1. Assemble materials for kit/Obtain information for the mission. <ul style="list-style-type: none"> <i>Sensors</i> <i>Hardware and software</i> <i>GIS data</i> 	O		
2. Check in at assigned base of operations and with supervisor. <ul style="list-style-type: none"> <i>Verify chain of command.</i> <i>Discuss communication protocols/procedures.</i> <i>Determine final data product (s), delivery location, and delivery time/method.</i> 	I		
3. Validate Sensor Capabilities. <ul style="list-style-type: none"> <i>Appropriate Sensors for the mission</i> <i>Hardware/software to support sensors</i> 	O		
4. Report to incident and receive briefing. <ul style="list-style-type: none"> <i>Determine data product requirements.</i> <i>Determine data delivery requirements.</i> <i>Verify that sensors, hardware, and software meet the needs of the mission.</i> <i>Review IAP.</i> 	I		
Behavior: Retrieve and pre-process data.			
5. Coordinate with Remote Pilot. <ul style="list-style-type: none"> <i>Establish responsibilities.</i> <i>Confirm payload requirements.</i> <i>Participate in UAS mission flights as requested.</i> 	O		
6. Retrieve data. <ul style="list-style-type: none"> <i>Download UAS telemetry files (tlog/data flash log).</i> <i>Download GPX/KML files from GPS.</i> <i>Transfer video and still images to hard drive.</i> <i>Backup all data.</i> 	O		

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

Unmanned Aircraft Systems, Data Specialist (UASD) Specific Tasks

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
7. Utilize tablet/PC to create rough operational products. <ul style="list-style-type: none"> <i>Estimated fire perimeter</i> <i>Estimated acreage</i> <i>EO photos/videos of points of interest</i> <i>IR photos/videos of points of interest</i> 	O		
8. Package data for precision planning products. <ul style="list-style-type: none"> <i>Convert data flash log to KML/GPX files.</i> <i>Geotag imagery.</i> <i>Perform coarse image alignment.</i> 	O		
9. Deliver requested products. <ul style="list-style-type: none"> <i>Ensure data meets requested specifications.</i> <i>Ensure data is delivered on schedule.</i> 	I		
10. Assist incident planning personnel as requested. <ul style="list-style-type: none"> <i>Develop orthomosaics and digital elevation models (DEM) from image sets.</i> <i>Derive point, line, and polygon files for incident mapping products.</i> <i>Provide analysis of EO/infrared imagery.</i> <i>Import image files into a GIS (TIF, etc.).</i> <i>Produce geo-referenced maps for fireline personnel.</i> 	I		
Behavior: Plan for demobilization and ensure demobilization procedures are followed.			
11. Anticipate demobilization of resources. <ul style="list-style-type: none"> <i>Schedule/implement demobilization.</i> 	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): _____

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): _____