A Publication of the **National Wildfire Coordinating Group** 

#### **NWCG** Task Book for the Position of:



# WILDLAND FIRE INVESTIGATOR (INVF)

PMS 311-66 October 2021

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:

## WILDLAND FIRE INVESTIGATOR (INVF)

# Final Evaluator's Verification To be completed **ONLY** when you are recommending the Trainee for certification. has successfully performed I verify that (Trainee name) 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: \_\_\_\_\_

This document is posted at the NWCG website: https://www.nwcg.gov/publications/position-taskbooks

# 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, <a href="https://www.nwcg.gov/publications/310-1">https://www.nwcg.gov/publications/310-1</a>.

#### 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):  $1 = \text{short grass } (1 \text{ foot}); 2 = \text{timber with grass understory}; <math>3 = \text{tall grass } (1\frac{1}{2} - 2 \text{ feet})$ 

**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 Oualifications 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.

#### **Competency: Assume position responsibilities**

Description: Successfully assume role of Wildland Fire Investigator (INVF) 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 readiness for assignment.			
<ol> <li>Demonstrate knowledge of investigative procedures and pertinent legal case law.</li> <li>NFPA 921</li> <li>Merrill-Dow Pharmaceuticals vs. Daubert</li> <li>Kumho Tire vs. Carmichael</li> </ol>	О		
<ul> <li>2. Obtain and assemble information and materials needed for kit. Suggested items: <ul> <li>Forms and logs</li> <li>Writing materials</li> <li>Clipboard</li> <li>Fire spread markers</li> <li>Sketching/diagramming materials</li> <li>Straight-edge ruler</li> <li>Flagging/barrier tape</li> <li>Strong magnet</li> <li>Magnifying glass or 3x reading glasses</li> <li>100' steel tapes</li> <li>Compass</li> <li>Belt weather kit</li> <li>Camera/film/memory cards</li> <li>Evidence tags/containers</li> <li>Shovel</li> <li>Gridding material</li> <li>Reference point materials</li> </ul> </li> </ul>	O		
<ul> <li>3. Obtain complete information from dispatch upon assignment.</li> <li>• Incident name</li> <li>• Incident order number</li> <li>• Request number</li> <li>• Incident phone number</li> <li>• Reporting time</li> <li>• Reporting location</li> <li>• Transportation arrangements/travel routes</li> <li>• Contact procedures during travel (telephone/radio)</li> <li>• Complete ICS 260, Resource Order with special equipment needs .</li> </ul>	O		

	TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
4.	Obtain safety equipment necessary for assignment.  • Personal protective equipment (PPE)	О		
5.	Arrive at incident and check in.  • Arrive properly equipped at assigned location within acceptable time limits.	I		
Beh	avior: Gather, update, and apply situational in	formatio	n relevant to	the assignment.
•	Obtain briefing from assignment supervisor.  • Organizational structure  • Weather  • Fire behavior  • Communications  • Resources  • Safety	I		
Beh	avior: Establish effective relationships with rele	vant pers	sonnel.	
7.	Conduct self in a professional manner.  • Respectful and courteous.  • Respectful of public and private property.	I		
	Establish and maintain positive interpersonal and interagency working relationships.	I		
Beh	avior: Understand and comply with ICS concep	ts and pr	inciples.	
9.	<ul> <li>Apply the ICS.</li> <li>Follow chain of command.</li> <li>Maintain appropriate span of control.</li> <li>Use appropriate ICS forms.</li> <li>Use appropriate ICS terminology.</li> </ul>	I		

TASK	С	EVAL.	<b>EVALUATOR:</b>
	0	RECORD	Initial & date
	D	#	upon completion
	E		of task

#### 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.

10. Participate in briefings and After Action Reviews (AAR).	I		
Behavior: Ensure documentation is complete and di	sposition is	s appropriate.	
<ol> <li>Record observations and events from time of dispatch to initial arrival at fire scene.</li> <li>Dispatch information.</li> <li>Reporting party.</li> <li>Weather reports.</li> <li>Vehicles and people en route.</li> <li>Status of gates.</li> <li>Preserve tire and shoe impressions.</li> <li>Scene security.</li> <li>Witnesses/victims/potential suspects.</li> <li>First fire unit on scene.</li> <li>Fire behavior, size, and direction of spread.</li> <li>Identify, preserve, and collect physical evidence.</li> <li>Land/property ownership.</li> <li>Unusual occurrences.</li> </ol>	W		
2. Document evidence relating to identified fire cause.	О		
13. Document and describe forensic services required for investigation.	О		
14. Document and display elements of the crime of wildland fire arson for your jurisdiction.	О		
15. Document and present common ignition sources, evidence, and indicators routinely encountered at the scene of an arson fire.	О		

21. Collect fire weather data.

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Gather, produce, and distribute informati guidelines and ensure understanding by recipient.	on as re	quired by es	tablished
<ul> <li>16. Provide statement describing why other ignition factors/causes relating to a wildfire need to be addressed and/or eliminated.</li> <li>Describe general environmental conditions required for ignition for each cause category.</li> <li>Prepare to testify if needed.</li> </ul>	О		
Competency: Ensure completion of assigned objectives.  Description: Identify, analyze, and apply relevant situational complete assignments safely and meet identified objectives. Continue frame.	l informa Complete	tion and evalu actions within	ate actions to established
Behavior: Administer and/or apply agency policy, co	ontracts -	, and agreen	ients.
17. Follow wildland fire investigation administrative and legal procedures.	О		
<ul> <li>18. State the authority for specific agency/jurisdiction.</li> <li>Conduct fire investigations and seize evidence.</li> <li>Enter upon lands.</li> <li>Secure fire scenes.</li> </ul>	О		
19. Apply laws, rules, and regulations applicable to agency/jurisdiction for wildland fire investigation.	О		
20. Apply administrative, civil, and criminal process(es) to wildland fire investigation in agency/jurisdiction.	О		
Behavior: Gather, analyze, and validate information and make recommendations for setting priorities.	ı pertine	ent to the inc	ident or event

O

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
<ul> <li>22. Gather and record fire behavior observations relevant to determining fire origin and cause.</li> <li>Basic fuel components</li> <li>Basic weather components</li> <li>Basic topography components</li> <li>Interrelationship of fire behavior components</li> <li>Fire behavior effects on burn patterns</li> <li>Fire behavior effects relevant to potential ignition sources</li> </ul>	O		
<ul> <li>23. Conduct a systematic wildland fire investigation using the seven steps of scientific methodology.</li> <li>Recognize the need.</li> <li>Define the problem.</li> <li>Collect the data.</li> <li>Analyze the data.</li> <li>Develop a hypothesis.</li> <li>Test the hypothesis.</li> <li>Select final hypothesis.</li> </ul>	0		
<ul> <li>24. Conduct investigative actions.</li> <li>Scene security</li> <li>Witness interviewing</li> <li>Origin search techniques</li> <li>Evidence collection/processing</li> <li>Photographic documentation</li> <li>Sketching and diagramming</li> </ul>	W		
<ul> <li>25. Identify wildland fire arson indicators.</li> <li>Basic arson pattern recognition.</li> <li>Special crime scene processing requirements for suspected arson incidents.</li> <li>Agency's policy for notification and referral of suspected arson incidents.</li> </ul>	O		

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
Behavior: Prepare clear and concise assessments regarding hazards, hazard behavior, weather, and other relevant events.			
<ul> <li>26. Monitor assignment for unsafe situations.</li> <li>Fire incident response</li> <li>Initial arrival at incident</li> <li>Initial arrival at fire origin area</li> <li>Fire Operations and Standard Firefighting Orders</li> <li>Natural hazards</li> <li>Human caused hazards</li> <li>Hazardous materials</li> <li>Clandestine drug labs</li> <li>Other criminal activity/hostile encounters</li> <li>Railroads</li> <li>Highway traffic</li> <li>Power lines</li> <li>Industrial operations</li> </ul>	W		
Behavior: Utilize information to produce outputs.		T	
<ul> <li>27. Document wildfire burn pattern indicators and wildland fire spread.</li> <li>Fire spread sketch/diagram</li> <li>Basic indicator documentation</li> </ul>	W		
28. Prepare investigative report.  • Incident synopsis  • Incident area description  • Notification  • Scene investigation  • Subjects mentioned  • Examination of origin  • Findings  • Address/eliminate other potential causes.  • Exculpatory evidence  • Evidence summary  • Interview summary  • Supporting documentation  • Photographic exhibits  • Sketches/diagrams	W		

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
<ul> <li>29. Identify wildland fire burn pattern macro and micro indicators.</li> <li>"V" or "U" pattern</li> <li>Protection</li> <li>Angle of char</li> <li>Grass stem</li> <li>Staining</li> <li>Sooting</li> <li>Spalling</li> <li>White Ash</li> <li>Foliage freeze</li> <li>Curling</li> </ul>	W		
<ul> <li>30. Demonstrate the ability to present effective testimony.</li> <li>Pre-trial preparation</li> <li>Courtroom demeanor</li> <li>Qualifying as an expert witness</li> </ul>	О		
31. Prepare a professional resume/curriculum vitae (CV).	О		
<ul> <li>32. Track wildfire spread using fire burn pattern indicators.</li> <li>Identify head, backing, and transition zones.</li> <li>Use visible markers to document fire spread.</li> </ul>	W		
Behavior: Take appropriate action based on assessed	l risks.		
<ul> <li>33. Apply the Risk Management Process found in the IRPG and Fireline Handbook.</li> <li>Step 1: Situation Awareness</li> <li>Step 2: Hazard Assessment</li> <li>Step 3: Hazard Control</li> <li>Step 4: Decision Point</li> <li>Step 5: Evaluate</li> </ul>	I		
Behavior: Follow established procedures and/or safe assignment.	ty proce	edures releva	ant to given
34. Follow agency procedures for reporting unsafe situations or accidents.	О		
<ul> <li>35. Use proper origin search techniques to determine fire origin.</li> <li>Witness information</li> <li>Initial attack information</li> <li>Burn pattern indicators</li> </ul>	W		

TASK	C O D E	EVAL. RECORD #	EVALUATOR: Initial & date upon completion of task
<ul> <li>36. Identify and secure fire origin using standard methods.</li> <li>Macro indicators</li> <li>Micro indicators</li> </ul>	W		
<ul> <li>37. Identify and secure a separate (different than 36) fire origin using standard methods.</li> <li>• Macro indicators</li> <li>• Micro indicators</li> <li>• Ignition area</li> <li>• General origin area</li> <li>• Specific origin area</li> <li>• Basic origin search techniques</li> </ul>			
38. Identify cause of a wildfires.	W		
39. Identify a separate, (different than 38) cause of a wildfire.	W		
Behavior: Plan for demobilization and ensure demok	oilization	ı procedures	are followed.
<ul> <li>40. Demobilize and check out.</li> <li>Receive demobilization instructions from incident supervisor.</li> <li>If required, complete ICS 221, Demobilization Checkout and submit completed form to the appropriate person.</li> </ul>	I		

		Evaluation Record #
		Trainee Information
Printed Nar	ne:	
Trainee Pos	sition on Incident/Ever	nt:
Home Unit	Agency:	
Home Unit	/Agency Address and	Phone Number:
		Evaluator Information
Printed Nar	ne:	
Evaluator P	osition on Incident/Ev	vent:
Home Unit	Agency:	
Home Unit	/Agency Address and	Phone Number:
		Incident/Event Information
Incident/Ev	ent Name:	Reference (Incident Number/Fire Code):
	nd Wildfire Prescribe	ed Fire, All Hazard, Other (specify):
		ea, Agency, and State):
`	<b>C</b> 1	Type 5, Type 4, Type 3, Type 2, Type 1, Area Command
ū	• • • • • • • • • • • • • • • • • • • •	evel (circle one): Low, Moderate, High
	•	ass, B = Brush, T = Timber, S = Slash
		Evaluator's Recommendation
		(Initial only one line as appropriate)
1)	a satisfactory manner	d dated by me on the Qualification Record have been performed under my supervision in The Trainee has successfully performed all tasks in the PTB for the position. I have Evaluator's Verification section and recommend the Trainee be considered for agency
2)	a satisfactory manner	d dated by me on the Qualification Record have been performed under my supervision in the However, opportunities were not available for all tasks (or all uncompleted tasks) to be ated on this assignment. An additional assignment is needed to complete the evaluation.
3)	The Trainee did not of guidance, or experien	complete certain tasks in the PTB in a satisfactory manner and additional training, ace is recommended.
4)		erely deficient in the performance of tasks in the PTB for the position and additional experience is recommended prior to another training assignment.
Comments:		
Evaluator's	Signature:	Date:

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

Evaluator's Relevant Qualification (or agency certification):

		Evaluation Record #
		Trainee Information
Printed Na	me:	
Trainee Po	sition on Incident/Eve	nt:
Home Unit	/Agency:	
Home Unit	/Agency Address and	Phone Number:
		Evaluator Information
Printed Na	me:	
Evaluator I	Position on Incident/E	vent:
Home Unit	/Agency:	
Home Unit	/Agency Address and	Phone Number:
		Incident/Event Information
Incident/Ev	vent Name:	Reference (Incident Number/Fire Code):
	ind: Wildfire Prescrib	ed Fire, All Hazard, Other (specify):
		ea, Agency, and State):
`	<b>C</b> 1	Type 5, Type 4, Type 3, Type 2, Type 1, Area Command
•	**	Level (circle one): Low, Moderate, High
	• •	ass, B = Brush, T = Timber, S = Slash
		Evaluator's Recommendation
		(Initial only one line as appropriate)
1)	a satisfactory manner	nd dated by me on the Qualification Record have been performed under my supervision in r. The Trainee has successfully performed all tasks in the PTB for the position. I have Evaluator's Verification section and recommend the Trainee be considered for agency
2)	a satisfactory manner	nd dated by me on the Qualification Record have been performed under my supervision in r. However, opportunities were not available for all tasks (or all uncompleted tasks) to be ated on this assignment. An additional assignment is needed to complete the evaluation.
3)	The Trainee did not of guidance, or experien	complete certain tasks in the PTB in a satisfactory manner and additional training, ace is recommended.
4)		erely deficient in the performance of tasks in the PTB for the position and additional rexperience is recommended prior to another training assignment.
Comments	:	
Evaluator's	s Signature:	Date:

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Evaluator's Relevant Qualification (or agency certification):