

# Interagency Aviation Mishap Response Guide UAS Insert

## UAS INCURSION

A UAS incursion is defined as a non-participating UAS operating over or near an incident that intrudes into a TFR or interferes with incident/mission operations. The incursion is documented through the appropriate reporting system such as SAFECOM and dispatch incursion form.

Time	Action	Contact and Phone	Time Log
<b>Immediately upon sight and/or notification of incursion</b>	<ul style="list-style-type: none"> <li>Notify ATGS, aircraft in the area, and ground personnel.</li> <li>Clear the affected airspace and suspend air operations in area.</li> <li>Notify flight following contact, AOBD, IC, and/or dispatch as required.</li> <li>Request Law Enforcement</li> <li>Wait for the non-participating UAS to be identified, located, stopped and/or voluntarily depart area.</li> </ul>		
<b>After non-participating UAS departs</b>	<ul style="list-style-type: none"> <li>Resume air operations.</li> <li>Complete UAS Incursion Form</li> <li>Dispatch centers should report UAS incursions to the nearest Air Traffic Control Center</li> </ul>		
<b>Notifications</b>	<ul style="list-style-type: none"> <li>File a SAFECOM</li> </ul> <p><u>Incident</u></p> <ul style="list-style-type: none"> <li>Notify ATGS, AOBD, LEI, IC</li> </ul> <p><u>Forest/Unit/Region/State</u></p> <ul style="list-style-type: none"> <li>Notify FAO/UAM, Dispatch, GACC, Agency UAS Safety Manager</li> </ul> <p><u>Note:</u> Additional FAA guidance for law enforcement personnel can be found at:  <a href="https://www.faa.gov/uas/resources/policy_library/media/FAA_UAS-PO_LEA_Guidance.pdf">https://www.faa.gov/uas/resources/policy_library/media/FAA_UAS-PO_LEA_Guidance.pdf</a>.</p>		

## UAS FLYAWAY

Approved UAS have built in failsafe systems. The aircraft will return to home to the identified launch and recovery zone in the event of low battery voltage or loss of link with the GCS. However, in a flyaway situation, the pre-set link procedures are not established or are not being executed by the unmanned aircraft, creating an emergency situation.

Time	Action	Contact and Phone	Time Log
<b>Immediately after lost link</b>	<ul style="list-style-type: none"> <li>Notify ATGS, aircraft in the area, and ground personnel (altitude, direction, battery life).</li> <li>Clear the affected airspace and suspend air operations in area.</li> <li>Notify flight following contact, AOBD, IC, and/or dispatch as required.</li> <li>If UAS will enter controlled airspace, notify the controlling agency.</li> <li>Wait for the duration of the fuel/battery load.</li> </ul>		
<b>After fuel and battery load has passed</b>	<ul style="list-style-type: none"> <li>Resume air operations.</li> <li>Search for the missing UAS.</li> <li>Follow established mishap reporting procedures based on damage and/or injury (See notifications below)</li> </ul>		
<b>Notifications</b>	<ul style="list-style-type: none"> <li>File a SAFECOM</li> </ul> <p><u>Minimal damage to UAS and/or payload</u></p> <ul style="list-style-type: none"> <li>Notify AOBD, FAO/UAM, UAS AMS, RASM</li> </ul> <p><u>Total system loss of UAS and/or payloads (Not FAA reportable)</u></p> <ul style="list-style-type: none"> <li>Notify AOBD, FAO/UAM, Dispatch, GACC, Agency UAS Safety Manager</li> </ul> <p><u>Damage to personnel or property in addition to the UAS and payload (FAA reportable)</u></p> <ul style="list-style-type: none"> <li>Notify AOBD, FAO, Dispatch, GACC, Agency UAS Safety Manager, RAO, UAS Coordinator, and National UAS Program Manager</li> </ul>		

## AIRCRAFT CONFLICT INITIAL REPORT (*UAS Intrusion*)

(Complete known information below. Attach additional narrative sheet if necessary.)

Date/Time: \_\_\_\_\_

Submitted By: Name/Position \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**REPORTING PARTY (RP) INFORMATION:** (if different from above)

RP Location was  Airborne  Ground      Estimated Dist. from RP to Observed Aircraft: \_\_\_\_\_

RP Location during observation: (Geographic Landmark, Incident Division, Latitude-Longitude, etc.) \_\_\_\_\_

**TYPE OF CONFLICT or OBSERVATION** (Check one or more as applicable):

Aircraft in general vicinity     Near Mid-Air Collision     In Military SUA or MTR     TFR Intrusion     Other:

Estimated separation distance between aircraft: \_\_\_\_\_

**AIRCRAFT INFORMATION:**    Observed Aircraft was operated by:  Military     Civilian     unknown

Category:  UAS     Airplane     Helicopter     Ultralight     Hang glider/Paraglider     Other \_\_\_\_\_

If a fixed wing/airplane:  High-Wing     Low-Wing     Biplane     Twin-tail booms     V-tail     Other     unknown

Engine Configuration: (Number and type of engines/rotors, Jet vs. Prop, etc.) \_\_\_\_\_

Landing Gear:     Fixed (Tricycle or Tailwheel)     Retractable     Floatplane     Other     unknown

Paint Colors or Distinct Markings: (Include N #, if known) \_\_\_\_\_

Make/Model (if known): \_\_\_\_\_      Approx. Altitude: \_\_\_\_\_ AGL

Observed Activity:  straight/level     circling     erratic maneuvering     hover/slow flight

**NARRATIVE:**

If TFR Intrusion,  
was FAA notified?

Yes     No

Was a SAFECOM submitted?

Yes     No (to be filed)

### SUPPLEMENTAL INFORMATION FOR UAS INTRUSION

Type of UAS if known:

- Fixed-Wing
- Helicopter
- Quad Copter
- Other

Approx. size  
of UAS:

Types of Agency  
Aircraft Flying:

- Rotor-Wing
- Fixed-Wing
- None

Were Agency  
Aircraft  
Grounded?

- Yes
- No

Types of operations impacted:  
(airtanker, bucket, aerial  
ignition, recon. etc.)

Was UAS Operator Located?

- Yes     No

If yes, by whom?

Describe nature of contact:  
(Visual only, conversation, etc.)

UAS Operator description or  
Vehicle description (if known):

Was LE Officer Notified?  Yes  No  
Did LE contact Operator?  Yes  No  Unknown  
Name/Agency of LE Officer:

Phone/Email:

Status of Investigation (if known):

This report was submitted to the UAO/FAO, RASM, SAM, or other Aviation Manager, National Airspace Coordinator, and dispatch (specify names) \_\_\_\_\_ by:

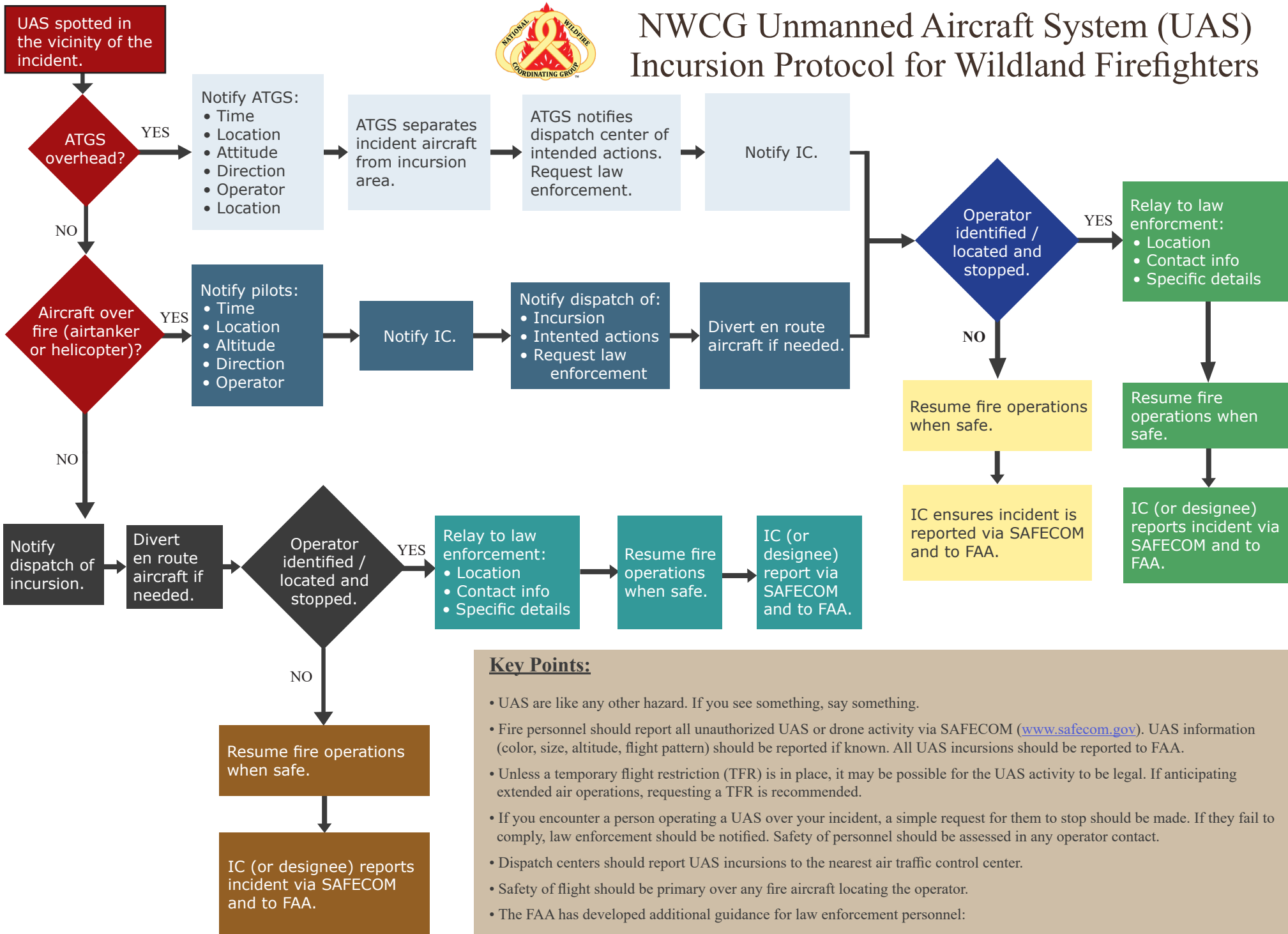
Name: \_\_\_\_\_ Position: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Date and Time: \_\_\_\_\_



# NWCG Unmanned Aircraft System (UAS) Incursion Protocol for Wildland Firefighters

NWCG Standards for Fire Unmanned Aircraft Systems Operations (PMS 515), Appendix A



**Key Points:**

- UAS are like any other hazard. If you see something, say something.
- Fire personnel should report all unauthorized UAS or drone activity via SAFECOM ([www.safecom.gov](http://www.safecom.gov)). UAS information (color, size, altitude, flight pattern) should be reported if known. All UAS incursions should be reported to FAA.
- Unless a temporary flight restriction (TFR) is in place, it may be possible for the UAS activity to be legal. If anticipating extended air operations, requesting a TFR is recommended.
- If you encounter a person operating a UAS over your incident, a simple request for them to stop should be made. If they fail to comply, law enforcement should be notified. Safety of personnel should be assessed in any operator contact.
- Dispatch centers should report UAS incursions to the nearest air traffic control center.
- Safety of flight should be primary over any fire aircraft locating the operator.
- The FAA has developed additional guidance for law enforcement personnel:  
[https://www.faa.gov/uas/regulations\\_policies/media/FAA\\_UAS-PO\\_LEA\\_Guidance.pdf](https://www.faa.gov/uas/regulations_policies/media/FAA_UAS-PO_LEA_Guidance.pdf)

# UAS MISHAPS

**\*NTSB/FAA Reportable**

A UAS accident is defined by the National Transportation Safety Board (NTSB) as an occurrence associated with the operation of any public or civil UAS that takes place between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its mission, in which any person suffers death or serious injury, or the UAS has a maximum gross takeoff weight of 300 pounds or greater and sustains substantial damage. In the case of a midair collision between a manned aircraft and a UAS that weighs less than 300 pounds in which no injuries were sustained, consideration should be given to the damage incurred to the manned aircraft to determine if the criteria for substantial damage to the manned aircraft has been met.

Time	Action	Contact and Phone	Time Log
<b>Immediately at time of UAS mishap</b>	<ul style="list-style-type: none"> <li>• Notify ATGS, aircraft in the area, and ground personnel if applicable.</li> <li>• Notify flight following contact, AOBD, and/or dispatch as required.</li> </ul>		
<b>30 minutes</b>	<ul style="list-style-type: none"> <li>• Search and recover missing UAS. Do no delay notifications for search and recovery operations.</li> <li>• Follow established mishap reporting procedures based on damage and/or injury (See below)</li> <li>• Complete Aircraft Accident Checklist Do not delay notification if you do not have all the blocks filled. Provide as much information as you can and follow-up when additional info is available</li> </ul>		
<b>Notifications</b>	<ul style="list-style-type: none"> <li>• File a SAFECOM</li> </ul> <p><u>Minimal damage to UAS and/or payload</u></p> <ul style="list-style-type: none"> <li>• Notify AOBD, FAO/UAM, UAS AMS, RASM</li> </ul> <p><u>Total system loss of UAS and/or payloads (<i>Not FAA reportable</i>)</u></p> <ul style="list-style-type: none"> <li>• Notify AOBD, FAO/UAM, Dispatch, GACC, UAS AMS, RASM</li> </ul> <p><u>Damage to personnel or property in addition to the UAS and payload (<i>FAA reportable</i>)</u></p> <p>Notify AOBD, FAO/UAM, Dispatch, GACC, UAS AMS, RASM, RAO, UAS Coordinator, UAS Program Lead</p>		
<b>NTSB/FAA Reportable UAS Accident</b>	<ul style="list-style-type: none"> <li>• UAS Mishap Investigation Authorization (required)</li> <li>• Aviation Mishap Investigation UAS Notification (Required)</li> <li>• UAS Mishap Investigation Report (required)</li> <li>• SAFECOM (required)</li> <li>• UAS Mishap Investigation Board (optional)</li> </ul> <p><i>Note: Any UAS mishap may be investigated at the discretion of the Branch Chief Aviation Safety with consult from the UAS Program Manager.</i></p>		

# AIRCRAFT ACCIDENT CHECKLIST

## Has 911/Search and Rescue (SAR) been notified?

(Do not delay initial report by trying to fill in all the blanks)

<b>1. Point of Contact Information (the person who will provide information and direct actions)</b>		
a. Operational Control: (agency/region/unit)		
b. Name:		d. Duty Position:
c. Phone Numbers:		e. Address:
Work:	Cell:	
Fax:	Home:	f. E-mail:
<b>2. Accident Information</b>		
a. Aircraft Registration/Tail Number:	Type of Aircraft:	Color:
b. Date and Time of Accident:		
c. Location of Aircraft (Grid, Lat/Log, Reference to Known Point):		
d. Hazardous Materials Involved? (Explosives, Radioactive Materials, etc.):		
e. Accident Site Secured?:		Photos Taken?:
f. <b>NTSB &amp; DOI/USFS ONLY:</b> Flight Data Recorder Secured? (if applicable) Witnesses identified and statements requested? ELT Deactivated?		
g. Total Number of Personnel Involved:		
h. Number of Fatalities:		Number of Injuries:
<b>3. Accident Description</b> (type of mission, what happened, weather, extent of damage, etc.)		
<b>4. Admin Information</b>		
a. Aircraft Owner:		b. Operator:
c. Pilot in Command:		
d. Point of Last Departure:		e. Destination:
f. Route of Flight:		g. Fuel/Battery:
h. Nearest Commercial Airport:		i. Suitable Helicopter Landing Site:
j. Other		