

Interagency Unmanned Aircraft Systems

Project Aviation Safety Plan Template



Interagency Project Aviation Safety Plan

Requesting Agency

Unit, Field Office, or District

BLM

USFS

Cooperator

Other

Project Purpose

Comments

Prescribed Fire

Resource Project

Other

Project Name

Start Date

End Date

Project Location - Descriptive

Project Location Center Point - Lat/Lon (DDD MM.MMM)

Project Area Land Status (ownership) - Attach area and aerial hazard maps.

Prepared by

Title

Date

Reviewed by

Title

Date

Reviewed by

Title

Date

Reviewed by

Title

Date

Approved by

Title

Date

Project Objectives

Project Justification

Contact Information

Agency Administrator	Desk Phone	Cell Phone	E-mail
Requesting Unit Project Manager	Desk Phone	Cell Phone	E-mail
UAS Crew Leader	Desk Phone	Cell Phone	E-mail
UAS Remote Pilot	Desk Phone	Cell Phone	E-mail
UAS Remote Pilot	Desk Phone	Cell Phone	E-mail
UAS Data Specialist	Desk Phone	Cell Phone	E-mail
UAS Visual Observer	Desk Phone	Cell Phone	E-mail
Dispatch Center	Desk Phone	Cell Phone	E-mail
State/Region Aviation Manager	Desk Phone	Cell Phone	E-mail
Unit/Forest Aviation Manager	Desk Phone	Cell Phone	E-mail
Other:	Desk Phone	Cell Phone	E-mail

Financial Information Management Code

Additional Coding Information/Stipulations

Procurement

Comments:

Agency Owned and Operated

Contract UAS Flight

Projected Costs

Contract UAS Estimate

Comments:

Agency Cost Estimate

Aircraft/Sensors

Equipment and Supplies

Other:

UAS Crew Travel

UAS Crew Time

Total Estimated Cost

Aircraft Information

UAS Type

UAS Make

UAS Model

Fixed Wing

Rotor Wing (VTOL)

Registration (N) #

Color Scheme

Carded for
Mission

Card Expiration Date

Yes

No

Additional Aircraft/Comments/Special Considerations:

UAS Crew Information

Remote Pilot	Current RP Card	Card Expiration Date
	Yes	
	No	

Remote Pilot	Current RP Card	Card Expiration Date
	Yes	
	No	

Remote Pilot	Current RP Card	Card Expiration Date
	Yes	
	No	

Flight Crewmember	Current RP Card	Card Expiration Date
	Yes	
	No	

Flight Crewmember	Current RP Card	Card Expiration Date
	Yes	
	No	

Additional Crew Information

Flight Following and Radio Frequencies

Flight Following Procedure:

Primary Repeater Name and Location

Receive	Tone	Transmit	Tone
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Secondary Repeater Name and Location

Receive	Tone	Transmit	Tone
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Primary Air to Air Frequency	Secondary Air to Air Frequency	Crew Net/Tactical Frequency
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Airspace Information

TFR Information

MTR Information

SUA Information

Airspace Authorization

Authorization Type	Authorization Comments
Part 107	
107/LAANC	
SGI Waiver	
FAA/DOI MOA	

Protective Equipment and Safety Considerations

UAS crew members will utilize PPE required by their crew position.

First aid kit, hearing protection, fire extinguisher, and other necessary equipment will be available on site.

The UAS flight crew and participants will conduct a Project Aviation Safety briefing and complete a Preflight Briefing Checklist at the beginning of each operational period.

The UAS flight crew will adhere to DOI flight time and duty day policy.

UAS flight crew will maintain a safe operating distance from manned and unmanned aircraft.

Visual observers will be used as required/requested.

Injuries due to aircraft, lost aircraft, damage to aircraft, system anomalies, or flyaway will be reported via the SAFECOM system. Mishaps will be reported by calling 1-888-464-7427.

A post flight debriefing or AAR will be conducted at the end of each day by the UAS Crew Leader.

Additional Safety Considerations

Lost Link and Flyaway Procedure/Protocol

Additional Information/Notes/Comments

UAS Risk Assessment Worksheet				
Assess the risks involved with the proposed operation. Use additional sheets if necessary. Line Officer/Designee Signature Required				
Risk Assessment Matrix				
	Severity			
Likelihood	Negligible IV	Marginal III	Critical II	Catastrophic I
Frequent A				
Probable B				<i>HIGH 4</i>
Occasional C			<i>Serious 3</i>	
Remote D		<i>Medium 2</i>		
Improbable E	<i>LOW 1</i>			

Appropriate Management Level for Risk Decisions		
Risk Level	Fire	Project
High	Incident Commander or Operations Sections Chief/designee	Line Officer/State Aviation Manager
Serious	Incident Commander or Operations Sections Chief/designee	Line Officer/State Aviation Manager
Medium	Air Operations Branch Director/designee	Unit Aviation Manager
Low	UAS Remote Pilot	UAS Remote Pilot

Severity Scale Definitions	
Catastrophic	Mishap results in fatalities
Critical	Severe injury/irreparable UAS damage
Marginal	Minor injury/minor UAS damage
Negligible	No injuries/UAS damage

Likelihood Scale Definitions		
Frequent	Individual Fleet	Likely to occur often. Continuously experienced.
Probable	Individual Fleet	Will occur several times. Will occur often.
Occasional	Individual Fleet	Likely to occur sometime. Will occur several times.
Remote	Individual Fleet	Unlikely to occur, but possible. Unlikely but can reasonably be expected to occur.
Improbable	Individual Fleet	So unlikely, it can be assumed it will not occur. Unlikely to occur, but possible.

Assess the risks involved with the proposed operation. Use additional sheets if necessary.

Describe the Hazard:	Pre-Mitigation hazards rate out as:		
	Likelihood A-E	Severity I-IV	Risk Level
1. Collision with another aircraft	D	I	3
2. Collision with personnel or vehicles	C	II	3
3. Collision with a fixed aerial hazard	D	I	3
4. Aircraft flyaway (loss of control)	B	II	3
5. Aircraft loss of link with ground control station	B	II	3
6. Injury caused by spinning propellers	D	II	2
7. Adverse Weather (wind, thunderstorms, etc.)	C	II	3
8. Night operations	C	II	3
9. Battery fire	C	II	3
10. Operating aircraft outside of published parameters	C	III	2

Pre-Mitigation Overall Rating:

Mitigations:	Post Mitigation hazards rate out as:		
	Likelihood A-E	Severity I-IV	Risk Level
1. The remote pilot will utilize a visual observer (VO) who will scan the area for air traffic and other hazards to aviation. The remote pilot will file a NOTAM as per DOI/FAA policy. Flights within TFRs will be coordinated with the controlling authority and participating aircraft. The remote pilot will give way to manned aircraft.	E	I	2
2. The remote pilot will conduct a pre-flight briefing which will include flight patterns and safe observation/parking areas. The remote pilot will not fly the UAS over personnel or vehicles.	D	II	2
3. The remote pilot will conduct a survey of the operations area prior to flight operations.	E	IV	1

4. Aircraft, personnel and ATC having jurisdiction over the airspace will be notified with the last location, heading, speed and approximate battery/time remaining of the UAS. The crew actions to recover the UAS will be relayed as well.	D	IV	1
5. UAS will be programmed to return to home and land	C	IV	1
6. Preflight briefing will include safety precautions when working around UAS with motors running.	E	II	1
7. Remote pilot will obtain a current forecast and ensure the aircraft is flown within approved parameters. The crew will monitor weather conditions periodically during flights. 8. The UAS will have DOI approved lighting. The launch and recovery area will be well lit.	C	IV	1
9. Batteries will be stored in approved containers. A fire extinguisher will be available on site.	D	II	2
10. The remote pilot will ensure the aircraft is operated within policy and the provisions of the aircraft operations manual.	D	III	1

Post-Mitigation Overall Rating:

Daily UAS Safety Briefing

Briefing Leader: _____

Briefing Date: _____ Time: _____ Location: _____

Discussion Items:

- ___A. Hazard Analysis (as outlined in plan)
- ___B. Safety Air Ops (Ground)
- ___C. Safety Air Ops (Flight)
- ___D. Military Training Routes/Restricted Airspace Deconflicted
- ___E. Flight Following
- ___F. Frequencies
- ___G. Lost Link Procedures
- ___H. Emergency Evacuation Plan
- ___I. Authorities
- ___J. Weather Considerations
- ___K. Review applicable JHAs/Risk Assessments
- ___L. NOTAM on file
- ___M. Other

Daily UAS Mission Checklist

A. Chain of command, individual roles and responsibilities are identified to all participants?	Yes	No	NA
B. Project Aviation Safety Plan is approved and signed at the appropriate levels?	Yes	No	NA
C. Is the emergency evacuation plan reviewed?	Yes	No	NA
D. Are all elements in place to track the UAV at all times?	Yes	No	NA
E. Can terrain, altitude, temperature or weather that could have an adverse effect be mitigated?	Yes	No	NA
F. Are all aerial hazards identified and known to all participants?	Yes	No	NA
G. Have ground operations hazards and safety been identified to all participants?	Yes	No	NA
H. Have mitigating measures been taken to avoid conflicts with military or civilian aircraft?	Yes	No	NA
I. Have adequate landing areas been identified and or improved to minimum	Yes	No	NA
J. Are all agency personnel qualified for the mission?	Yes	No	NA
K. Are there enough (qualified) agency personnel to accomplish the mission safely?	Yes	No	NA
L. Is the pilot carded and experienced for the mission to be conducted?	Yes	No	NA
M. Will adequate briefings be conducted prior to flight with all participants?	Yes	No	NA
N. Is the aircraft capable of performing the mission with a margin of safety?	Yes	No	NA
O. Does the aircraft have the capability to perform the mission based on predicted weather conditions?	Yes	No	NA
P. Is the aircraft properly carded?	Yes	No	NA
Q. Do all personnel have the required PPE?	Yes	No	NA
R. Remember; maps of areas/sites, handheld radios, cell phones.	Yes	No	NA
S. Are pilot flight and duty times compromised?	Yes	No	NA
T. Is there an alternative method that would accomplish the mission more safely?	Yes	No	NA
U. Have the proper approvals been given by FAA?	Yes	No	NA
V. If flying in Restricted Airspace, has notification been made with controlling authority prior to launching sUAS?	Yes	No	NA
W. Other? (identify) NOTAM on File	Yes	No	NA
X. Other? (identify) Aerial Hazard Map reviewed	Yes	No	NA
Y. Other? (identify) Dispatch notified of flights	Yes	No	NA
Identify Corrections (if any):			
UAS Crew Leader Signature:		Date:	

Project Maps (Land Status/FAA Sectional/Flight Hazard)

UAS Operations Map