



A-Cam Limited BVLOS Aviation Safety Plan Template

Update Record

Date of Review

Signature

---

---

---

---

---

**Project Safety Plan**

Project Name: \_\_\_\_\_

Client: \_\_\_\_\_

Project start date: \_\_\_\_\_ Project end date: \_\_\_\_\_

Project locations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RPIC: \_\_\_\_\_

Camera Operator: \_\_\_\_\_

Battery Tech: \_\_\_\_\_

Visual Observer: \_\_\_\_\_

ATC Phone Number (if applicable): \_\_\_\_\_

CTAF/UNICOM/ATC Freq: \_\_\_\_\_

FSDO Contact information: \_\_\_\_\_

Aircraft: \_\_\_\_\_ Registration Number: \_\_\_\_\_

Payload: \_\_\_\_\_

**Airspace Information:**

Airspace class(es): \_\_\_\_\_

Maximum operating altitude (AGL): \_\_\_\_\_

IFR/VFR conditions: \_\_\_\_\_

TFR Information: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

MTR/SUA Information: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Airspace Authorization:**

LAANC services required and available?: \_\_\_\_\_

Manual airspace authorization required and obtained? \_\_\_\_\_

Night Operations required? \_\_\_\_\_

**Safety Considerations:**

Fire extinguisher will be on site.

The RPIC will conduct a safety briefing for flight crew and others involved in the production.

RPIC will adhere to operations manual.

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

Visual Observers will be used at all times.

Injuries due to aircraft, lost aircraft, damage to aircraft, system anomalies, or sustained loss of link will be reported to the responsible party.

**Additional Safety Considerations:**

---

---

---

---

**Additional Information/Notes/Comments:**

---

---

---

---

**Attach Operational Map**

<b>UAS Risk Assessment Worksheet</b>				
Assess the risks involved with the proposed operations. Use additional sheets if necessary.				
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>			

Severity Scale Definitions	
<b>Catastrophic</b>	Results in fatalities and/or loss of system
<b>Critical</b>	Severe injury and/or major system damage
<b>Marginal</b>	Minor injury and/or minor system damage
<b>Negligible</b>	Less than minor injury and/or less than minor system damage.

Likelihood Scale Definition	
<b>Frequent</b>	Likely to occur often
<b>Probable</b>	Will occur several times
<b>Occasional</b>	Likely to occur sometime
<b>Remote</b>	Unlikely to occur, but possible
<b>Improbable</b>	So unlikely, it can be assumed it will not occur

<b>Assess the risks involved with the proposed operation. Use additional sheets if necessary.</b>			
<b>Describe the Hazard:</b>	<b>Pre-Mitigation hazards rate out as:</b>		
	<b>Likelihood A-E</b>	<b>Severity I-IV</b>	<b>Risk Level</b>
1. Mid-air collision with another aircraft	D	I	3
2. Collision with personnel	C	III	3
3. Collision with vehicles	C	II	4
4. UAS operating outside of approved area	D	II	3
5. UAS operating outside of performance envelope	C	IV	3
6. Fire	C	III	2
7. Loss of link	C	IV	3
8. Laceration from spinning blades	C	III	3
9. Wildlife such as eagles or seagulls	D	III	2
10. Collision with obstruction	A	II	3
11. Air intrusion	E	II	1
12. Ground intrusion	D	II	1
13. Adverse Weather	C	II	3

**Pre-mitigation Overall Rating:**

<b>Mitigations:</b>	<b>Post-Mitigation hazards rate out as:</b>		
	<b>Likelihood A-E</b>	<b>Severity I-IV</b>	<b>Risk Level</b>
1. Flights will occur underneath the canopy of trees with a buffer of 250 feet in all directions of operational area that must be under canopy. Flights underneath canopy provide shielding from traditional aircraft and a buffer in case of uncontrolled vertical ascent by the sUA. Impact with trees, branches, and leaves will result in the sUA ceasing flight.	E	I	2
2. Flight patterns will be planned to avoid people on the ground. Takeoff/landing areas will be established to minimize risk.	D	II	2
3. Vehicles will be parked clear of flight areas. Buffer of 250 feet beyond operational area will minimize risk to non-participating vehicles. A buffer of 250 feet that is interspersed with a high concentration of trees decreases the likelihood that a fly away will result in an aircraft going beyond the buffer. Impact with trees or branches will result in a crash of the sUA.	E	IV	1
4. Boundaries will be briefed and maps will be reviewed. Operating area will be marked with tape and RPIC will conduct walkthrough of operating area prior to operations. Knowledge of the operating area as well as visual cues will reduce risk of operations exceeding boundaries of operational area.	D	IV	1
5. RPIC will verify that all control surfaces are within operational limitations immediately after take-off and before beginning operation. Verification ensures that the sUA is behaving as expected before conducting operations thereby reducing risk of unexpected behavior during operations.	C	IV	1
6. RPIC will be immediately notified of fire. Fire extinguisher on site, and ERP plan reviewed. Having a fire extinguisher is a standard operating practice to put out fires.	E	II	1
7. In case of loss link and the UAS does not return to launch and leaves the operating area, the UAS will be considered a fly-away. The appropriate	C	IV	1

ATC having jurisdiction over the airspace will be notified with the last location, heading, speed, and approximate battery/time remaining of the UAV. Further, the restrictions on the operational area with buffers will provide additional risk mitigation.			
8. Checklist procedures will be followed to ensure that personnel stay clear of rotating blades. "SOPs are universally recognized as fundamental to safe aviation operations." AC-120-71B.	D	II	2
9. RPIC will look for hazardous wildlife during the walkthrough. Hazardous wildlife includes and is not limited to seagulls and man-eating bears. Conducting a walkthrough will show whether the area is inhabited by wildlife that could interfere with operations including interference of the drone as well as RPIC.	C	III	2
10. Prior to operating, the RPIC will conduct a walkthrough to check for obstructions. As operations are FPV with very small sUAS, collisions with obstructions are expected.	A	IV	2
11. Operational area underneath canopy of trees. If there are air intrusions by traditional aircraft at that operating altitude, then there are bigger issues. See e.g. validation: <a href="https://www.youtube.com/watch?v=tS9weeji0hw">https://www.youtube.com/watch?v=tS9weeji0hw</a>	E	I	2
12. Operations will occur on fenced private property. If operations are conducted on fenced private property then anyone on the property who is not an invitee is a trespasser to whom a duty of care is not legally owed. See e.g. Duty of Conduct Owed by Property Owner to Trespasser, David Kaiser, Marquette Law Review. <a href="https://scholarship.law.marquette.edu/cgi/viewcontent.cgi?article=3097&amp;context=mulr">https://scholarship.law.marquette.edu/cgi/viewcontent.cgi?article=3097&amp;context=mulr</a>	D	III	2
13. Flight crew will monitor weather and ensure UAS is flown within Part 107 requirements. Checking weather prior to operations and continuously monitoring weather will ensure that flights do not occur during adverse weather conditions.	C	IV	2
<b>Post-Mitigation Overall Rating:</b>			2

## UAS Safety Briefing (Flight Crew)

Briefing Leader: \_\_\_\_\_

Briefing Date: \_\_\_\_\_ Time: \_\_\_\_\_

Job: \_\_\_\_\_ Location: \_\_\_\_\_

Discussions Items:

\_\_\_\_\_ Review roles and responsibilities

\_\_\_\_\_ Hazard analysis including hazards report

\_\_\_\_\_ Flight departure and landing procedures

\_\_\_\_\_ What to look for in the air, local issues to watch for (air intrusions, hazards)

\_\_\_\_\_ What to look for on the ground, local issues to watch for (ground intrusions, hazards)

\_\_\_\_\_ Communication protocols

\_\_\_\_\_ Lost link/abort procedures

\_\_\_\_\_ Emergency response plan

\_\_\_\_\_ Weather considerations

\_\_\_\_\_ Crew concerns

\_\_\_\_\_ Other

## UAS Safety Briefing (Production)

Briefing Leader: \_\_\_\_\_

Briefing Date: \_\_\_\_\_ Time: \_\_\_\_\_

Job: \_\_\_\_\_ Location: \_\_\_\_\_

Discussions Items:

\_\_\_\_\_ Describe UAS and flight characteristics (size, sound)

\_\_\_\_\_ Describe safety protocols (avoid walking underneath, do not approach launching, landing sites)

\_\_\_\_\_ Describe laceration hazards

\_\_\_\_\_ Describe procedures in case of emergency (loss of control)

\_\_\_\_\_ Describe procedures in case of crash (do not approach UA)

\_\_\_\_\_ Describe protocols for engaging with RPIC while in flight

\_\_\_\_\_ Discuss any concerns

\_\_\_\_\_ Other

## Post Operation Briefing

Briefing Leader: \_\_\_\_\_

Briefing Date: \_\_\_\_\_ Time: \_\_\_\_\_

Job: \_\_\_\_\_ Location: \_\_\_\_\_

Debrief should be performed immediately after operation, when possible, by the personnel involved. The leader's role is to ensure skilled facilitation of debrief. Reinforce that disagreement is ok. Keep focused on "what, not who". Make sure everyone participates. End debrief on a positive note.

\_\_\_\_\_ What was planned?

\_\_\_\_\_ What actually happened?

\_\_\_\_\_ Why did it happen?

\_\_\_\_\_ What can we do next time?

Leader notes: \_\_\_\_\_

---

---

---

---

---

---

---

---

## UAS Incident Report/Accident Report

Name of reporter: \_\_\_\_\_

Date of report: \_\_\_\_\_

Date of incident: \_\_\_\_\_

Time of incident: \_\_\_\_\_

Location of incident: \_\_\_\_\_

Client: \_\_\_\_\_

Job: \_\_\_\_\_

Producer name: \_\_\_\_\_

Producer contact information: \_\_\_\_\_

Assistant Director name: \_\_\_\_\_

Assistant Director contact information: \_\_\_\_\_

Witness(es) name(s) and contact information:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Flight crew information:

RPIC: \_\_\_\_\_ FAA Certificate # \_\_\_\_\_

Camera Operator: \_\_\_\_\_

Battery Tech: \_\_\_\_\_

VO: \_\_\_\_\_

