

This is a representative sample of an approved waiver application **§for 14 CFR § 107.25**

§107.25 Operation from a moving vehicle or aircraft.

No person may operate a small-unmanned aircraft system -

- (a) From a moving aircraft; or
- (b) From a moving land or water-borne vehicle unless the small unmanned aircraft is flown over a sparsely populated area and is not transporting another person's property for compensation or hire.

WSEG Question #1.

1. Describe how you will ensure the dynamic (i.e., ever-changing) area-of-operation is properly evaluated for potential hazards and the risks presented to non-participating persons and property. Include a description of how you will mitigate those risks so the hazards are controlled or eliminated.

Many of the same operational requirements described in sUAS Operations Manual (attached) and the automated safety features of sUAS discussed in the manufacturers manual (attached) will allow us to safely operate sUAS from moving platforms such as boats, cars, and golf carts on a closed film set. Additionally, the controlled environment in which the proposed operations will occur significantly mitigate the likelihood of harm to “non-participating persons and property due to changing topography, obstructions, and un-anticipated persons that enter/exit the operational area.” The only people on a controlled-access film set will be authorized personnel associated with the filming operation. Moreover, all personnel associated with the filming operation will be briefed on the potential risks of the sUAS operation and sUAS filming plan prior to operations. If an unanticipated (non-authorized) person or persons enters the operational area, our sUAS Operations Manual includes procedures that will be used to stop activities when unauthorized persons, vehicles, or aircraft enter the operations area, or for any other reason, in the interest of safety. The Remote PIC will also identify any obstructions or hazards in the area of operation during a pre-flight inspection of the area. To ensure the Remote PIC and Visual Observer remain solely focused on the operation of the sUAS, we require that someone other than the Remote PIC and Visual Observer operating the sUAS be tasked with operating the moving vehicle or platform. The operation of a moving cart or vehicle on a closed-set, and by a person who is neither the Remote PIC nor a Visual Observer, will acceptably mitigate the ground vehicle risk of collision with any person not directly involved in the operation.

The following minimum factors will be considered when positioning flight team personnel in the area of operation:

1. Visual coverage of the operating site;
2. Proximity to buildings, structures, and bystanders;

3. Position in relation to the sun to avoid visual impairment;
4. Physical obstacles such as overhanging trees, rocks, buildings, power lines etc.; and
5. Terrain topography (e.g., avoid steep slopes or uneven ground).

WSEG Question #2

2. Describe how the RPIC and VO will be able to maintain visual line of sight (VLOS) with the sUA from the moving vehicle.

One or more visual observers will be used for all operations from a moving vehicle to assist the remote pilot in maintaining VLOS of the sUA. The Remote PIC and Visual Observer are both prohibited from operating the moving vehicle. The UAS may only be operated from a moving vehicle or platform while on a controlled-access closed film set where only authorized persons associated with the filming operation are permitted. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. Prior to operation, the remote pilot will inspect the entire area of operation along the planned route to identify terrain, buildings or other structures that could possibly obstruct the remote pilot's and visual observer's ability to maintain VLOS with the sUA throughout the entire duration of the flight. If any aspect of the planned route would impact the remote pilot's or visual observer's ability to maintain VLOS, a new or modified route will be selected. The sUAS operation will be limited to the confines of the film production set, which will limit the distance that the sUA can travel from the remote pilot and visual observer.

WSEG Question #3

3. Describe how all persons involved in the operation will stay free of distractions that may prevent them from fulfilling their duties.

The following requirements must also be met:

1. One or more visual observers will be used for all operations from a moving vehicle to assist the remote pilot in maintaining VLOS of the sUA.
2. The Remote PIC and Visual Observer are both prohibited from operating the moving vehicle.
3. The UAS may only be operated from a moving vehicle while on a controlled-access closed film set where only authorized persons associated with the filming operation are permitted.

4. Prior to the sUAS operation, the remote pilot will conduct a pre-flight safety review with all persons involved with the operation. The preflight safety review will include briefing on emergency and contingency procedures.
5. To ensure the remote pilot and visual observer remain solely focused on the operation of the sUAS, we will require that someone other than the remote pilot and visual observer operating the sUAS be tasked with operating the moving vehicle or platform.
6. The individual tasked with operating the moving vehicle or platform (i.e., the driver) will participate in the preflight site inspection conducted by the remote pilot and visual observer. This will ensure that the driver is aware of and able to avoid any potential obstacles to the ground or water-based vehicle route.
7. Prior to operation, the remote pilot will inspect the entire area of operation along the planned route to identify terrain, buildings or other structures that could possibly obstruct the remote pilot's and visual observer's ability to maintain VLOS with the sUA throughout the entire duration of the flight. If any aspect of the planned route would impact the remote pilot's or visual observer's ability to maintain VLOS, a new route will be selected.
8. The sUAS operation will be limited to the confines of a film production set, which will limit the distance that the sUA can travel from the remote pilot and visual observer.

WSEG Question #4

What are the procedures the RPIC will follow during a loss of data link with the sUA? How do these procedures account for the dynamic movement and positioning of the RPIC and ground control station (GCS)?

The sUAS will be equipped with GPS-based navigation that will provide a means for the sUA to return to a pre-determined location within the secured confines of the closed-set filming area. This function will allow the sUA to automatically return to the home launch location (RTH). To account for the dynamic location of the remote pilot, the remote pilot will have the capability to update the home point while the sUAS is in operation to reflect where the controller and remote pilot are currently located. Prior to launch, the remote pilot will inspect the sUA to ensure the RTH feature is functioning properly and to ensure there is adequate GPS signal strength.

Prior to the operation, the remote pilot will inspect the entire area of operation along the planned route to identify terrain, buildings or other structures that could possibly interfere with the flight path of the sUA as it returns to the designated home point location. Prior to launch, the remote pilot will ensure that the RTH flight path of the sUA will be free of obstacles that could create a collision hazard.

