

This is a representative sample of an approved waiver application for 14 CFR § 107.51(c)

Description of proposed operation:

Area of operation would include various locations where close proximity aerial data collection is necessary in conditions outside of 107.51(c). This location is in class G airspace, in sparsely populated area, and below 100' AGL (unless flown within a 100' radius of a structure, including 100' above the structures immediate uppermost limit). This location includes, but would not be limited to current buildings and constructions projects.

We are requesting a waiver from Part 107.51(c), minimum visibility, in order to perform routine aerial data collection in conditions outside of 107.51(c).

Prior to conducting operations, the Responsible Person will ensure that the remote pilot and VO are trained in evaluating visibility using methods described in FAA Order JO 7900.5D, Ch.8. This training will be documented and made available upon request. Further details, including reference material, lesson plans, and knowledge verification are included in our Training Program Manual. The policies and procedures in our training programs mitigate the risks of operating in conditions outside of 107.51(c) because they focus on having the RPIC and VO's accumulate operating skills, knowledge, and experience of unmanned aircraft in conditions outside of 107.51(c) prior to conducting commercial operations.

The Responsible Person will also utilize the nearest FAA weather reporting station(s) to aid in determining current weather conditions. Prior to operation, the Responsible Person will conduct a site assessment of the proposed operating area in order to identify obstructions within the operating area. A safety briefing (details located in operations manual) with all participants will take place that outlines the proposed operation, local obstructions, and methods for avoiding non-participating aircraft and people on the ground. At no time will the sUA be operated in an area where the minimum flight visibility is less than 1 statute mile as observed by the remote pilot or VO's location.

1. All operations in conditions outside of 107.51(c) would utilize a visual observer (VO). The sUAs used in these operations will have equipment that will assist the RPIC identify the geographic location, attitude, speed, and heading of the small unmanned aircraft. The sUAs would be equipped with anti-collision lights that can be seen at a distance of 3 statute miles during daylight hours. Additionally the conspicuity of the sUA will be increased with the addition of high visibility exterior features such as reflective material and brightly colored coatings. Prior to operation, the Responsible Person will conduct a site assessment of the proposed operating area in order to identify obstructions within the operating area. A map will be prepared which denotes takeoff and landing points, the area of operations, obstacles that may be difficult to see in conditions outside of

107.51(c) and the emergency descent zones to be used in the event that operations must be immediately terminated. The sUA will be operated in close enough proximity for the PIC and VO to maintain VLOS capability. Ground-based field tests in the operational limitations proposed under this waiver request indicate that in the minimum visibility visual line of sight could be consistently maintained at 400' from the aircraft. All operations of the sUAS will be within 200' of the RPIC when operating in conditions outside of 107.51(c). The sUA would never be operated beyond the actual visual capabilities of the PIC and VO.

2. Not less than 24 hours prior to an operation in conditions outside of 107.51(c), a NOTAM would be filed indicating the specific operating area, operating altitude, and other notes. All operations in conditions outside of 107.51(c) would take place in class G airspace. All operations will take place at a location that will have a defined perimeter set up using cones and caution tape. Our operational safety measures include the use of preprogrammed flight plans, signage concerning the use of UAS in locations where data collection is taking place, and a comprehensive safety plan. The safety plan includes; an identified control station, from which the RPIC will conduct operations, processes to cease operations if unauthorized persons, vehicles, or aircraft enter the area of operation, and visual and auditory signals to be used during operations to communicate that unauthorized persons, vehicles, or aircraft have accessed the area. If other aircraft are seen or heard in the vicinity, the RPIC will cease operations and land the sUA yielding right of way to other aircraft. If people or vehicles are seen or heard in the operational area, the RPIC will move the sUA a safe distance away from the people or vehicle until the area is cleared or land if area cannot be cleared. Further details of our safety plan are included in our Operations Manual.

3. Anti-collision lights that can be seen at a distance of 3 statute miles during daylight will be installed on all aircraft operating in conditions outside of 107.51(c) to make the sUA more conspicuous. Additionally, the proposed operations would be conducted in a manner where the PIC's control station is in close proximity to the sUA collecting data. Staying in the same immediate area as the sUA in conditions outside of 107.51(c) increases avoidance capabilities of all non-participating aircraft. Our situation is a location where operating in conditions outside of 107.51(c) would be necessary. Operations would only be flown in sparsely populated areas and in airspace inaccessible to other aircraft.