



Federal Aviation Administration

Memorandum

Date: April 14, 2011

From:  Dean E. Fulmer, Acting Manager, Unmanned Aircraft Systems Group, AJV-13

To: Manager, Operations Support Group, Eastern/Central/Western Service Areas

Subject: Department of Homeland Security, Customs and Border Protection (CBP) – Certificate of Waiver or Authorization (COA) Visual Observer Criteria and Cloud Clearance/Ceiling/Visibility Change

Effective **April 18, 2011**, Visual Observer criteria listed under the **Safety Provisions** and cloud clearance/ceiling/visibility requirements found in CBP COAs are changed. This change is valid for the duration of each individual COA. Include this change page as part of the Certificate of Waiver or Authorization (COA). This change is issued due to re-assessment of the affected requirements by the ATO Unmanned Aircraft Systems Group and FAA Unmanned Aircraft Program Office (UAPO). Changes are listed below:

For visual observers, the 2.5NM/3000 ft. vertical requirement is modified. Please replace the **Safety Provisions** section in COAs with the following:

Unmanned Aircraft (UA) have no on-board pilot to perform see-and-avoid responsibilities, and therefore, when operating outside of restricted areas, special provisions must be made to ensure an equivalent level of safety exists for operations had a pilot been on board. In accordance with 14 CFR Part 91, General Operating and Flight Rules, Subpart J-Waivers, 91.903, Policy and Procedures, the following provisions provide acceptable mitigation of 14 CFR Part 91.111/113 and must be complied with:

- For the purpose of see-and-avoid, visual observers must be utilized at all times except in Class A airspace, restricted areas, and warning areas. The observers may either be ground based or in a chase plane. If the chase aircraft is operating more than 100ft above/below and or ½ nm laterally, of the UA, the chase aircraft PIC will advise the controlling ATC facility.
- In order to comply with the see and avoid requirements of Title 14 of the Code of Federal Regulations sections 91.113 and 91.111, the pilot-in-command and visual observers must be able to see the aircraft and the surrounding airspace throughout the entire flight; and be able to determine the aircraft's altitude, flight path and proximity to traffic and other hazards (terrain, weather, structures) sufficiently to exercise effective control of the aircraft to give right-of-way to other aircraft, and to prevent the aircraft from creating a collision hazard.
- UAS pilots will ensure there is a safe operating distance between manned and unmanned aircraft at all times in accordance with 14 CFR 91.111, *Operating Near Other Aircraft*, and 14 CFR 91.113, *Right-of-Way Rules*. Cloud clearances and VFR visibilities for Class E airspace

will be used regardless of class of airspace. Additionally, UAS operations are advised to operate well clear of all known manned aircraft operations.

- The dropping or spraying of aircraft stores, or carrying of hazardous materials (included ordnance) outside of active Restricted, Prohibited, or Warning Areas is prohibited unless specifically authorized in the Special Provisions of this COA.

The cloud clearance/ceiling/visibility requirement (most prevalently 3000 ft. ceiling/5SM visibility) found in the Special Provisions section of COAs is modified. Please replace this Special Provision with:

For operations outside of Class A, Warning, Restricted, or SSI airspace, cloud clearance and visibility requirements shall comply with 14 CFR 91.155, *Basic VFR Weather Minimums*, as annotated for Class E airspace. The requirements for Class E airspace shall be used at all times regardless of airspace being flown. Additionally, if a chase aircraft is being utilized, the minimum visibility requirement shall be 5 statute miles at all times.

COAs Effected:

2009-WSA-71
2009-CSA-62
2009-ESA-68
2009-WSA-7
2009-WSA-68
2009-WSA-92
2009-WSA-127
2010-CSA-16
2010-ESA-1
2010-WSA-1
2010-WSA-2

If you have any questions please contact Ardyth Williams at 202-497-7688, email Ardyth.Williams@faa.gov or Jon Semanek at 202-385-4644, email Jon.Semanek@faa.gov