



Interagency Aviation SAFETY ALERT



No. IASA 17-03

Date: September 12, 2017

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Subject: Aircraft Operations in Poor Visibility

Area of Concern: Aviation Operations

Distribution: All Fire and Aviation Operations

Discussion: Areas throughout the west have reported a number of events where aircraft have been dispatched to fires with inadequate visibility to safely operate due to poor visibility (smoke). A leadplane, airtanker, air attack, Helicopter Coordinator (HLCO), or helicopter pilot in the low level environment is unable to see as far horizontally through a smoke layer and becomes more hazardous as airspeed increases. It is critical that all aviation resources possess adequate horizontal and vertical visibility to operate safely.

Key Points:

- When poor visibility is reported or suspected, aircraft should not be dispatched unless adequate enroute, horizontal and vertical visibility in the low-level operating environment is verified.
- Pilots should not attempt to fly if the visibility and surrounding terrain present an unsafe working environment. As an alternative, pilots may work with aerial supervision and/or ground operations personnel on a different part of the fire with better visibility.
- When horizontal or vertical visibility suddenly deteriorates, the initial attack qualified airtanker pilot is authorized to request a leadplane.
- If necessary, an airtanker pilot may need to jettison the load and return to an airtanker base until a leadplane is dispatched or confirmed on scene.
 - o Costly and inefficient actions like this can be avoided if visibility can be assessed and determined to be adequate prior to dispatching the airtanker.
- Visibility may be verified by a leadplane, Aerial Supervision Module (ASM), HLCO, or by an Air Tactical Group Supervisor (ATGS) who can receive input from pilots currently working at low altitude. In all cases, the pilot in command shall retain the final authority regarding flight safety. (See IASA 16-02 for How to Properly Refuse Risk in Aviation)
- Due to smoky conditions, the availability of aircraft (i.e. extraction helicopters) may be delayed or not available. Plan accordingly with operations, plans, safety, and medical units.
- During extended smoky conditions, consider the adverse health impacts to flight crews and consider utilizing a call back and allow them to stay inside out of the smoke.
- Increased particulates from smoke also warrants additional attention to the maintenance of the aircraft.

Helicopter Flight Visibility Requirements:

Federal Aviation Regulations, Part 91.155

Interagency Helicopter Operations Guide *Day Visual Flight Rules (VFR) only*

Except as noted below, or for reasons of life-or-death emergency, **single-engine helicopters must be limited to flight during daylight hours and only under VFR conditions (minimum ½ mile visibility)**. Daylight hours are defined as 30 minutes before official sunrise until 30 minutes after official sunset or, in Alaska, during extended twilight hours when the terrain features are readily distinguishable for a distance of at least one mile.

In mountainous or hilly terrain, compounded by the aspect of the terrain in relationship to the sun's position, one may experience late dawn or early dusk conditions. Flight periods should be adjusted accordingly. Daylight hours may be further limited at the discretion of the Pilot or Helicopter Manager by conditions of visibility caused by smoke, shadows, etc.

Fixed-Wing Flight Visibility Requirements:

Federal Aviation Regulations, Part 91.155

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