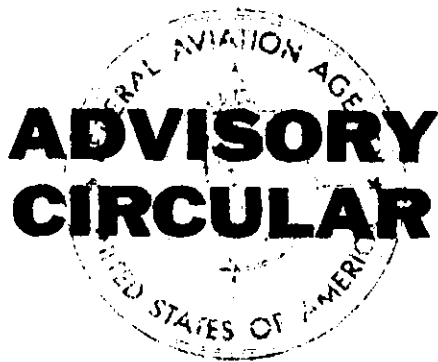


Federal Aviation Agency



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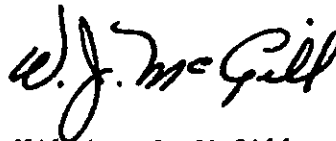
SUBJECT : AIRPORT FIRE DEPARTMENT OPERATING PROCEDURES
DURING PERIODS OF LOW VISIBILITY

1. PURPOSE. This advisory circular suggests training criteria which airport management may use in developing minimum response times for aircraft fire and rescue trucks during periods of low visibility.
2. REFERENCE. AC 120-20, Criteria for Approval of Category II Landing Weather Minima.
3. GENERAL. The importance of the emergency equipment to arrive at an aircraft incident or accident site on the airport or in the immediate vicinity in the shortest possible time cannot be overemphasized. Aircraft firefighting and rescue truck operators should be thoroughly trained in the operation of their trucks under all weather conditions. Periods of low visibility will probably present the greater challenge to the truck operators in holding their response time to a minimum. Electronic guidance equipment suitable for use in guiding emergency vehicles is not at present available. Therefore, the operation of aircraft fire and rescue trucks under adverse weather conditions should be stressed in the training program.
4. PREPLANNING FOR EMERGENCIES. Preplanning for all aircraft emergencies is necessary, particularly when conditions such as adverse weather or poor visibility may restrict the normal movement of aircraft fire and rescue trucks on the airport or its environs.
 - a. An emergency plan should be prepared so the aircraft fire and rescue crews can overcome to a maximum degree the restrictions placed on their movements during adverse weather conditions. The plan should include, but not be limited to, the following:

- (1) A procedure for determining the visibility condition on the airport.
 - (a) Establishment of visibility range markers which fire department crews can use for estimating the approximate airport visibility conditions.
 - (b) Procedures for monitoring the control tower frequency or Automatic Terminal Information Service (ATIS) frequency, or other similar radio monitoring method, to enable fire station personnel to remain informed on current visibility conditions at the airport.
 - (2) The preparation of a grid map of the airport and the surrounding area where fire and rescue service may normally be provided. Maintain copies of the grid map in all fire stations which may respond, airport operations and managers offices, control tower, police stations, on all aircraft fire and rescue vehicles, and such other agency offices which may have a need for this information. Show all the salient features of the area covered such as:
 - (a) Runways, taxiways, and aircraft parking areas.
 - (b) Access roads to all areas on and off the airport.
 - (c) Exits in fencing, either gates or knockdown sections.
 - (d) Terrain conditions which may affect vehicle movement, such as soft spots, ditches, bridges, etc.
 - (e) The weight limitation of bridges which may have to be used.
 - (f) Obstructions, such as buildings, signs, etc., which would damage aircraft fire and rescue trucks if contacted.
- b. Determine the response time of all mutual aid agencies during adverse weather conditions and, where possible, seek to improve it.

5. TRAINING PROGRAM. Encompass in the training program those areas of operation dealing with:
 - a. Thorough familiarization of the airport property so truck operators can demonstrate their ability to:
 - (1) Recognize landmarks which may be indistinctly seen.
 - (2) Operate trucks over all types of terrain during all kinds of weather. The training program may be conducted using trucks other than the aircraft fire and rescue trucks, provided they are radio controlled and have similar operating characteristics.
 - (3) Select the best routes to any point on the airport.
 - (4) Use detailed grid maps as an aid in responding to an aircraft incident or accident.
 - b. The capabilities of tower personnel to be of assistance in providing information on the location of the aircraft in trouble and position of other aircraft or vehicles on the airport which may obstruct or impair vehicle movement.
 - c. The selection of alternate routes to any point on the airport when normal routes are blocked.
 - d. The ready status of the airport fire and rescue crews during periods of low visibility. When the airport visibility has deteriorated below the visual visibility range markers established by the airport fire department or 1,800 feet runway visual range (RVR) as determined by the fire station listening watch on the control tower frequency or ATIS, or other similar radio monitoring watch, place the fire department crew on a standby alert status until visibility conditions improve or aeronautical operations are terminated.
 - e. The use of electronic guidance equipment when it is available.
6. PROCEDURES. Develop standard operating procedures for periods of low visibility to supplement those presently in effect to the extent required to insure minimum response time during periods of low visibility.
7. HAZARD MARKINGS. Give consideration to using temporary or permanent reflection type markers to outline obstruction or impassable terrain as an aid to truck operations.

8. STANDBY POSITIONS. If response time is seriously affected by the location of the fire stations or other physical aspects of the airport, consider the pre-positioning of aircraft fire and rescue truck(s) on the operational area of the airport. Should such a procedure be established, the location of the aircraft fire and rescue trucks should not:
- a. Interfere or disrupt the operations of the electronic navigational equipment.
 - b. Penetrate the obstruction clearance planes outlined in Appendix 3 of AC 120-20 or interfere with normal aircraft taxi routes.
 - c. Increase response time to the active operational areas of the airport.
9. HOW TO OBTAIN THE REFERENCED PUBLICATION AND THIS CIRCULAR. The referenced publication and additional copies of this advisory circular, AC 150/5210-9, Airport Fire Department Operating Procedures During Periods of Low Visibility, may be obtained from the Department of Transportation, Distribution Unit, TAD-434.3, Washington, D.C. 20590.



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