



Repl. by 25A
AC NO: 91-25

DATE: 9/22/69

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: LOSS OF VISUAL CUES DURING LOW VISIBILITY LANDINGS

1. **PURPOSE.** This advisory circular provides information regarding the importance to the pilot of maintaining unbroken visual cues during the final stages of an instrument approach when reaching the DH or MDA and continuing further descent.
2. **INFORMATION.** Decision Height (DH), with respect to the operation of aircraft, means the height at which a decision must be made, during an ILS or PAR instrument approach, to either continue the approach or to execute a missed approach. Minimum Descent Altitude (MDA), means the lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure, where no electronic glide slope is provided. Aircraft are not authorized descent below MDA until the runway environment is clearly visible to the pilot, and the aircraft is in a position for a normal approach to landing.
3. **BACKGROUND.** During the past year there were several aircraft accidents involving striking the ground short of the runway during instrument approaches. In one case it was determined that the pilot continued the descent after entering a thin layer of fog and lost sight of the runway lights, struck the runway threshold causing extensive structural damage to the aircraft. There are several fatal accidents presently under investigation which appear to have occurred under similar conditions.
4. **DISCUSSION.** Pilots conducting instrument approaches utilize visual cues as they become available during the approach. At the DH or MDA the pilot should, however, be aware that due to shallow fog, snow flurries, or heavy precipitation, these cues may be lost after descent below the DH or MDA. If visual cues are lost after DH or MDA, the pilot should execute the appropriate missed approach procedure as required by section 91.117(b) of the Federal Aviation Regulations. Missed approaches, when properly executed, involve little loss of altitude below the altitude at which the missed approach is "started".

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5. RECOMMENDATION. A pilot should be alert to any deterioration in the total pattern of available visual cues after leaving DH or MDA, and should execute a missed approach whenever:

- a. There is a deterioration or loss of essential cues, or
- b. The aircraft is not positioned for safe landing.

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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: LOSS OF VISUAL CUES DURING LOW VISIBILITY LANDINGS

1. PURPOSE. This advisory circular provides information concerning the importance of maintaining adequate visual cues during the descent below MDA or DH.
2. CANCELLATION. Advisory Circular 91-25 dated 22 September 1969.
3. INFORMATION. Decision Height (DH), with respect to the operation of aircraft, means the height at which a decision must be made, during an ILS or PAR instrument approach, to either continue the approach or to execute a missed approach. Minimum Descent Altitude (MDA), means the lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure, where no electronic glide slope is provided. Aircraft are not authorized descent below MDA until the runway environment is clearly visible to the pilot, and the aircraft is in a position for a normal approach to landing.
4. BACKGROUND. There have been several accidents in which aircraft struck the ground short of the runway during instrument approaches. In one case, it was determined that the pilot continued the descent after entering a thin layer of fog and losing sight of the runway lights. The aircraft struck the runway threshold receiving extensive structural damage. Several fatal accidents have occurred under similar conditions where required visual reference was apparently lost after descending through DH/MDA.
5. DISCUSSION. Pilots conducting instrument approaches utilize visual cues as they become available during the approach. At the DH or MDA the pilot should, however, be aware that due to shallow fog, snow flurries, or heavy precipitation, these cues may be lost after descent below the DH or MDA. If visual cues are lost after DH or MDA, the

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pilot should execute the appropriate missed approach procedure as required by the Federal Aviation Regulations. Missed approaches, when properly executed, involve little loss of altitude below the altitude at which the missed approach is "started."

6. RECOMMENDATION. A pilot should be alert to any deterioration in the total pattern of available visual cues after leaving DH or MDA, and should execute a missed approach whenever:
- a. There is a deterioration or loss of essential cues, or
 - b. The aircraft is not positioned for safe landing, or
 - c. The runway threshold or threshold lights are not visible from a height of 100 feet above the elevation of the touchdown zone during all precision approaches except Category III and from a height of 150 feet above touchdown zone on all non-precision approaches. (If the threshold or threshold lights are not visible from these altitudes, it is highly probable that an obstruction to visibility such as shallow fog, scud, and other conditions categorized as obscurations may be encountered which could cause the loss of all visual cues during the most critical part of the approach.)

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