INSTRUMENT APPROACH
PROCEDURE CHARTS

The only regulatory requirement that must be met for landing on an instrument approach procedure is visibility. This section outlines the minimum altitude and visibility requirements for that approach.

If the minimum published visibility for an ILS runway equipped with MALSR is no lower than 3/4 SM, the pilot should be aware that there may be the horizontal minimum visibility that the threshold and cars should be taken in the visual segment to avoid obstacles.

AIRPORT SKETCH

This section, sometimes called the aerodrome view, indicates the runway layout and lighting aids available. Refer to the approach chart legend to determine the type of approach lighting system (ALS) available for a particular runway. It also shows the location and height of obstacles near the runways as well as field elevation and touchdown zone elevation (TDZE).

Below the sketch is a missed approach table, which provides distance from the final approach fix (FAF) to the missed approach point (MAP) on non-precision approaches. A groundspeed/time table also provides a reference for determining your arrival at the MAP.

VISIBILITY

The visibility minimum for landing is expressed in statute miles or hundreds of feet, called runway visual range (RVR). The RVR represents the horizontal distance a pilot should see when looking down the runway from a moving aircraft. A dash separates visibility in statute miles from the DH or MDA, while a slash separates RVR values from the DH or MDA. If the RVR is unavailable, the RVR minimums specified in the IAP should be converted to statute miles and applied as ground visibility according to the conversion chart found in the approach chart legend.

MINIMUM ALTITUDES

The lowest altitude you may descend to depends upon the type of approach, the airplane approach category, and the landing runway. A speed of 1.3 times VSO at maximum landing weight determines the airplane's approach category for straight-in landing. For a circle-to-land maneuver, the category is based on the actual approach speed used.

There is a corresponding height above touchdown (HAT): this is the height above the touchdown zone if the DH or MDA were maintained to that point for landing straight-in. However, as discussed in the profile view, the on-glide slope threshold crossing height—the altitude over the threshold—may differ. When circling minimums are used, the MDA is compared to the airport elevation and referred to as height above airport (HAA).

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Step-down fixes on non-precision procedures are provided between the FAF and the airport for authoring a lower minimum descent altitude (MDA) after passing an obstruction. Step-down fixes can be identified by navaid, navaid fix, DME, waypoint or radar, and are depicted by a hash-marked line. Normally, there is only one step-down fix between the FAF and the missed approach point, but there can be several.

If a step-down fix cannot be identified for any reason, the minimum altitude at the step-down fix becomes the MDA for the approach. In addition, if a circling to land approach is required, circling minimums apply if they are higher than the step-down fix minimum altitude.