
**NEW NON-PRECISION INSTRUMENT APPROACH
PROCEDURE CONSTANT ANGLE DESCENT PROFILE
DEPICTION (AUSTRALIA)**

BACKGROUND

Controlled Flight Into Terrain (CFIT) initiatives proposed by the international aviation industry and supported by ICAO are intended to address some of the critical aspects of non-precision instrument approach procedures. A study of worldwide CFIT accidents reveals that a large percentage of CFIT accidents occurred in the final approach phase of flight, with the majority of this percentage occurring on non-precision approach procedures. It is widely accepted that, in addition to other operational benefits, the performance of a constant rate of descent during an approach to landing is helpful in reducing the potential for a CFIT accident.

Some time ago, Australia began publishing a new profile descent presentation for non-precision approaches. This was done to assist pilots in flying a constant rate of descent. Approach path angles and recommended “procedure altitudes” are provided by Australia, as well as altitude/distance reference tables that can be used by both VNAV and non-VNAV equipped operators. “Segment minimum safe altitudes” are also given, representing the minimum obstacle clearance altitudes for each segment of the approach.

ACTION

On Australian non-precision approach charts, beginning with the 12 APR 02 revision, Jeppesen will show the vertical approach path in the profile view as a constant rate of descent flight path. The profile view will include the state-provided altitude/distance reference table, approach path angle (VNAV angle), the associated recommended “procedure altitudes” and the “segment minimum safe altitudes” (see example).

As these approach procedures are revised, the so-called “dive and drive” stair-step portrayal shown as a series of descents to minimum altitudes will be replaced by the constant rate of descent flight path portrayal according to the recommended altitudes given. This change in depiction will be made to Jeppesen charts as Australia provides the revised descent profile presentation and information. At the time being, this new combination of information and associated profile depiction applies to Australia charts only. If and when the concept expands to other countries, Jeppesen will expand the application accordingly.

TERMS

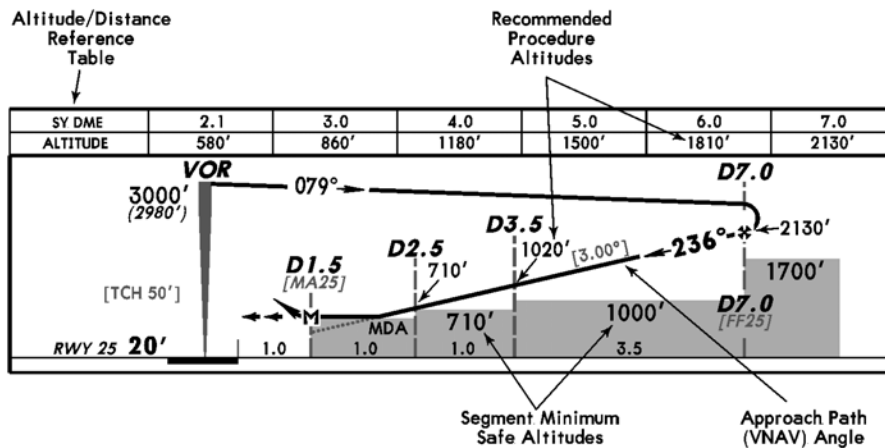
Procedure Altitude (Recommended Altitude): Procedure altitudes are recommended altitudes and have been developed in coordination with Air Traffic Control requirements. The Procedure Altitudes have been established to accommodate a stabilized descent profile on a prescribed descent angle on the final approach course. They may also be applied in the intermediate approach segment. Procedure altitudes will never be less than the segment minimum safe altitude.

Segment Minimum Safe Altitude (Minimum IFR Altitude): Segment minimum safe altitudes provide required obstacle clearance for a given segment of the approach. It is a minimum altitude established by the procedure designer and meant to be a “do not descend below” altitude. Segment minimum safe altitudes shall not be violated. Segment minimum safe altitudes or minimum IFR altitudes, if explicitly specified as such by a country, will be published for the final approach segment(s) as screened blocks.

Procedure altitudes are developed to provide guidance to the pilot for the appropriate altitudes to fly. The intent of the minimum IFR altitudes is to ensure the pilot has the option to be able to utilize these altitudes should the need occur such as in icing conditions.

Altitude/Distance Reference Table: Based on the given approach path (VNAV) angle, the table provides altitude information for the specified DME distances or GPS “To-To” distances. The table allows for a constant angle descent to be flown, with or without VNAV equipment. When provided by the government authority, Australia in this case, Jeppesen will include an altitude/distance reference table at the top of the profile view. The distance/altitude table is aligned to the direction of the approach in the profile view.

EXAMPLE:



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