

ICAO Action

For Safety Recommendation SR 17 of 2008 related to the table of altitude and distances for each nautical mile to be used in approach chart used for non-precision approaches, please note that a procedure already exists in paragraph 9.4.1.2 of PANS-OPS, Volume II, as follows:

“9.4.1.2 Where distance information is available, descent profile advisory information for the final approach should be provided to assist the pilot to maintain the calculated descent gradient. This should be a table showing altitudes/heights through which the aircraft should be passing at each 2 km or 1 NM as appropriate.”

AAIU Ireland response

This procedure does not meet the intent of SR 17 of 2008. Whereas 9.4.1.2 requires that distance information is available this has been historically provided by a ground based DME station. However modern FMC and RNAV equipped aircraft can calculate the distance of the aircraft on approach from the runway to an acceptable level of accuracy, especially where the aircraft is equipped with a GPS or MLS. Consequently, a chart of altitude/height versus distance to go on approach plates would serve as a useful cross check for pilots and would assist in avoiding the type of pilot miscalculation that occurred during the flight, which resulted in the altitude deviation that was the subject of this Report.

Therefore, were 9.4.1.2 to meet the requirements of SR 17 of 2008, it would require amending as follows: ~~“Where distance information is available, d~~ Descent profile advisory information for the final approach should be provided to assist the pilot maintain the calculated descent gradient. This should be a table showing altitudes/heights through which the aircraft should be passing each 2 km or 1 NM as appropriate”.

Consequent ICAO Action

The premise on which distance information currently is provided on approach charts is whether the navigation equipment for which the approach procedure is constructed actually can support distance information. Providing the distance information on charts for equipment that do not support distance information (such as NDB) would encourage pilots to use other navigation equipment such as the FMC for which the procedure was not designed. Although using the FMC and providing distance information for that purpose would be beneficial in many cases, it should be noted that not every conventional instrument approach procedure would support an FMC overlay. Therefore, applying distance information on every procedure (as inferred by your proposal) could lead to other safety problems. Nevertheless, as mentioned above, there could be numerous advantages in providing distance information to enable the FMC flying the procedure and an amendment to ICAO provisions to accommodate these type of operations could be beneficial. Therefore, the ICAO Instrument Flight Procedure Panel (IFPP), responsible for the flight procedure design criteria, will be tasked to review this issue under their current work programme and provide a recommendation.