TCAS 7.1
Update now!

Already mandated in many parts of the world the Traffic alert and Collision Avoidance System TCAS II with software version 7.1 is rapidly becoming the standard.

Fokker Services offers you the ability to update your present TCAS 7.0 system with software version 7.1 in a cost-effective way.

The updates are available for multiple aircraft types (Airbus, Boeing, Bombardier and Fokker) and vendors (ACSS, Honeywell and Collins).

Your needs

The Traffic alert and Collision Avoidance System (TCAS) has been introduced in order to reduce the risk of mid-air collisions or near mid-air collisions between aircraft. Studies conducted for Eurocontrol, using recorded operational data, indicated that with TCAS 7.0 the probability of a mid-air collision in European airspace equates to one in every 3 years. With TCAS II version 7.1 implemented that probability will be reduced by a factor of 4.

EASA issued Safety Information Bulletin EASA SIB No: 2009-16, in which they indicated that there have been a number of instances of incorrect pilot response to TCAS Resolution Advisories (RA) due to misinterpretation of the RA aural annunciations and RA displays, which have resulted in serious incidents.

The “Adjust Vertical Speed, Adjust” resolution advisory requires the reduction of vertical speed to 2000, 1000, 500, or 0 feet/min. In the cases of incorrect responses, the pilots increased their vertical speed instead of reducing it, consequently, causing the situation to deteriorate. Enhancements in training alone can improve the behavior of flight crews but this is not sufficient to avoid all the opposite reactions.

A second reason to update the current TCAS software is a series of mid-air encounters in which safety margins have been lost (including 2 accidents), due to the failure of the TCAS system to reverse some RA when a reversal is more efficient to resolve the threat of a collision.
Check your Mandate!

Your benefits

TCAS software change 7.1 improves safety by implementing the following improvements:
The multiple “Adjust Vertical Speed, Adjust” (AVSA) RA (Resolution Advisories) versions of TCAS software change 7.0. have been replaced by a single “Level-off” RA. The aural message is straightforward and the manoeuvre corresponds to the one already performed in critical situations.

The reversal logic of TCAS software change 7.0 by detecting geometries by easing the triggering thresholds of reversal RAs in encounters in which the aircraft remain within 100 feet vertical separation to each other. Also it adds detection of RA compliance by the own aircraft and prediction of vertical separation at the closed point of approach to detect the need of reversal RA.

Product description

The TCAS software change 7.1 will be incorporated by means of a software or hardware update of the unit (depending on the specific vendor). Upgrade of the unit will be performed either on wing or in the shop.

Solutions are available for the:
› ACSS RT-910 , RT-950, RT-951, TT-950
› Collins TTR-920, TTR-921
› Honeywell TPA-81A, TPA-100A.

Aircraft applicability

The TCAS software change 7.1 modification is available for a wide range of aircraft, such as:
› Airbus A320 Family
› Boeing B737 Classic & NG, B757, B767
› Bombardier Dash 8, CRJ
› Fokker 50, 70, 100.