

# **TCAS 7.1 UPGRADE**

# FOR SAAB 340 & 2000



## The sky is no place for confusion.

The European Aviation Safety Agency (EASA) issued a retrofit mandate requiring aircraft operating in European airspace to upgrade their Traffic Alert & Collision Avoidance Systems (TCAS) to Change 7.1 by December 1, 2015.

Depending on your aircrafts existing TCAS system, Saab now offers a software or combined software/hardware upgrade to comply with the EASA mandate and will provide a service bulletin.



### Software or hardware upgrade?

Aircraft equipped with Collins TTR-921 or Honeywell TCAS-2000 will only require a software update although upgrading the hardware as well will give you additional benefits listed below.

Aircraft equipped with Collins TTR-920 must replace their hardware, installing the TCAS 3000SP.

### Software upgrade

The software upgrade will update TCAS 7.0 software to 7.1 and include a Saab service bulletin.

### Hardware upgrade - TCAS 3000SP

The TCAS 3000SP (Surveillance Processor) is based on ACSS's very successful TCAS II/2000 product line with more than 15,000 units delivered and proven reliability. The new system delivers industry-leading TCAS II capability.

The TCAS 3000SP delivers enhancements in reliability and computing power to handle the most demanding applications, including the mandated Change 7.1 enhancement and Airborne Separation Assurance System (ASAS) upgrades. It also delivers industry-leading TCAS II capability including provisions for ADS-B In.

The TCAS 3000SP provides appreciable operating cost savings through reduced weight and power dissipation. Other features include an internal data recorder with external PC-based data analysis tool, maintenance aurals and the ability to perform easy on-board software uploads using a built-in compact flash port.

### Saab service bulletin

Using Saab Service Bulletins for the installation is not only preserving the value of your aircraft, it also ensures you full support in the future and full updating of relevant aircraft manuals, including flight operational manuals. Modified aircraft are also fully transferrable between countries.

### Changes in TCAS 7.1

The Change 7.1 software upgrade (RTCA DO-185B) implements two important changes to the existing TCAS II CAS algorithms. Specifically, the changes from the existing Change 7.0 software consist of two major items:

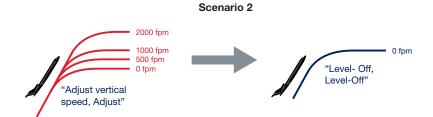
### Scenario 1

Improves the TCAS CAS logic in a sense reversal resolution advisory, specifically to cope with changing situations where the original sense has clearly become the wrong thing to do in particular during a coordinated resolution advisory, when one of the pilots decides not to follow RAs.

### Scenario 2

Changes the various "Adjust Vertical Speed Advisory" RAs with a single "Level-Off" RA. This is desired due to unintentional opposite reactions to initial Adjust Vertical Speed Advisory RAs that have been identified in the airspace.

# Descend RA Version 7.1: Intruders non-compliance established Version 7.1: RA reversal to Climb Version 7.0: No reversal



### Key features of the TCAS 3000SP:

- Extended range-greater than 100nm
- Patented amplitude monopulse antenna with high bearing accuracy
- Superior intruder tracking performance to track up to 400 aircraft
- Time and Space partitioned operating system
- Easy operational software upgrades via Compact Flash
- Maintenance aurals for easy installation and troubleshooting

Specifications subject to change without notice