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Frequently Asked Questions

Upgrading to Change 7.1 software

1. Is there a mandate in effect for Change 7.1?

Yes. The European Aviation Safety Agency (EASA) issued a mandate (EU) 1332/2011 on December 20, 2011 requiring aircraft operating in European airspace to upgrade their Traffic Alert & Collision Avoidance Systems (TCAS) to Change 7.1 software. EASA’s mandate calls for Change 7.1 software to be installed into TCAS on all newly built aircraft by no later than March 1, 2012 and by December 1, 2015 to retrofit existing aircraft.

Ref: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:336:0020:0022:EN:PDF>

2. Has the FAA mandated Change 7.1?

No... not at this time. In FAA AC 120-55C the following is mentioned: “The latest version of software for TCAS II is version 7.1. To ensure compatibility with international standards, the FAA encourages the installation of this software as soon as practical.”

3. Does the mandate pertain just to ACSS TCAS or all manufacturers of TCAS?

The Change 7.1 upgrade applies to all manufacturers of TCAS II products

4. Is the ACSS Change 7.1 upgrade certified?

ACSS received European Technical Standard Order (ETSO) Authorization from EASA and TSO from the FAA for Change 7.1 (per TSO C119c). Software update meets the requirements of RTCA Document DO-178B. To date, ACSS has received ETSOA for the TCAS II, TCAS 2000, and TCAS 3000 units.

5. How can I get the Service Bulletin to upgrade to Change 7.1?

The applicable Service Bulletins (SB) and Technical Newsletters (TNL) for Change 7.1 are available for download from ACSS Customer Services website (<http://www.acsscustomerservices.com>). If you do not have an ACSS Publication Account, you can request one by clicking the following link: <http://www.acsscustomerservices.com/CustomerServices/NewUserRequest.aspx>

| TCAS Model | SB ATA number |
|----------------------------|-----------------|
| TCAS II | 4066010-34-6041 |
| TCAS 2000 | 7517900-34-6048 |
| TCAS 3000 | 9003000-34-6008 |
| TCAS 3000SP | 9003500-34-6017 |
| T2CAS (on airbus aircraft) | |
| T2CAS (all other aircraft) | 9000000-34-6024 |

6. What are the safety benefits of Change 7.1?

Change 7.1 provides enhanced algorithms that provide “Reversal Logic”, “Adjust Vertical Speed” and “Level Off” (AVSA) Resolution Advisories (RAs). Change 7.1 is a wing loadable software upgrade that provides specific, clear and concise RA commands resulting in faster reaction time, increased avoidance performance and maximum escape-ability.

7. How can the upgraded computer be installed on my aircraft?

All major aircraft OEMs have or will be offering their operators an OEM Service Bulletin to install the Change 7.1 computer. ACSS has available various approval mechanisms, including an AML STC (going from 7.0 to 7.1) and an AMOC to help facilitate our customers upgrade.

8. Is it available now?

Yes. Contact your Thales or ACSS Sales Representative for pricing and availability.

9. What's the process for purchasing Change 7.1 from ACSS?

Customers should identify the TCAS Computer part number and quantity before contacting their Thales or ACSS Sales Representative to obtain current pricing. After identifying their needs, the customer can submit a purchase order directly to ACSS Order Administration. The respective ACSS Service Bulletin provides a list of specific information that must be included in each Purchase Order

10. What does the Change 7.1 Data Package consist of?

ACSS provides the necessary product Service Bulletin, which identifies the part number for ordering a set of software disks or Compact Flash Card (depending on model being upgraded), ID label that contains the new dash number, and a Software License Agreement.

11. Does Change 7.1 installation involve any wiring or display updates or changes to the LRU?

Not if upgrading from the previous version 7.0. It's a software-only upgrade for TCAS II (-910) TCAS 2000, T²CAS and TCAS 3000SP. No changes are needed for the TCAS LRU, displays or aircraft wiring. Older TCASII boxes, 4066010 -901 thru -907, are not upgradeable and will require replacement.

12. Is upgrading to Change 7.1 software an alternative means of compliance (AMOC) for addressing the Airworthiness Directive for Interference Limiting?

Yes, but an "Alternate Means of Compliance" (AMOC) with the local authorities will be required to allow you to use the Change 7.1 TCAS software upgrade to comply with the AD.

13. What are the options to modify the software of the affected TCAS units?

The loading of the TCAS software can be accomplished either on-wing or at an ACSS Service Center.

Option 1: "On-Wing" Load

On wing software loading may require an ARINC 615 Portable Data Loader (PDL) on some TCAS product lines. Newer generation TCAS products (TCAS 3000 and TCAS 3000SP) use a CF Card to load the software. See the respective Service Bulletins for software loading method details.

Option 2: Ship the unit to ACSS Service Center for Change 7.1 Software Load

You can send your TCAS units to the ACSS Service Center. Please contact the ACSS Service Center for a quote. The standard turnaround time is 10 days.

When sending units to an ACSS Service Center, send Purchase Orders to acss.phxrepair@L-3com.com

14. What do I need to order if I want to perform the TCAS software load on-wing?

Each Service Bulletin contains all the information and instructions required to complete the unit modification.

15. What do I need to do if I receive a "TCAS Fail" message after loading the software on-wing?

There is a slight possibility that a TCAS unit shows a "TCAS Fail" red LED illuminated after loading the new TCAS software. An enhancement to the unit BITE was implemented in a previous software update that is also part of the new TCAS software in compliance with the AD. This improvement was made to increase the sensitivity of certain BITE test and associated fault recording (see ACSS TNL publication # 8006776-001). If only the "TCAS Fail" red LED is illuminated after loading the new TCAS software, the unit will need to be sent to the ACSS Service Center for repair. If there is any other type of failure, please troubleshoot as normal per the System Description Installation Manual (SDIM).

If you have any concerns or need any assistance, please contact the ACSS Customer Services department at (+1) 623-445-7070 or by email crc.acss@L-3com.com

16. What documentation do I need to send if I am a new ACSS customer?

As a new customer of ACSS, a “Customer Credit Application” and an “Export Compliance Certification” form must be completed and mailed, emailed or faxed to ACSS Order Admin. acss.orderadmin@L-3com.com (see contact information above).