



ATC16 — Implement ACAS II compliant with TCAS II change 7.1

This implementation objective is aligned to Regulation (EU) No 1332/2011 of 16 December 2011 laying down common airspace usage requirements and operating procedures for airborne collision avoidance.

This objective is applicable to all flights performed by turbine-powered aeroplanes, regardless of State of Registry:

- with MTOW > 5700 kg, or
- authorised to carry more than 19 passengers; or
- any other aeroplane equipped on a voluntary basis with ACAS II.

This objective is not applicable to unmanned aircraft systems

Regulation (EU) No 1332/2011 applies as of 01 March 2012. By way of derogation, for aircraft with individual certificate of airworthiness issued before 1 March 2012, the provisions in Regulation (EU) No 1332/2011 shall apply as of 1st December 2015.

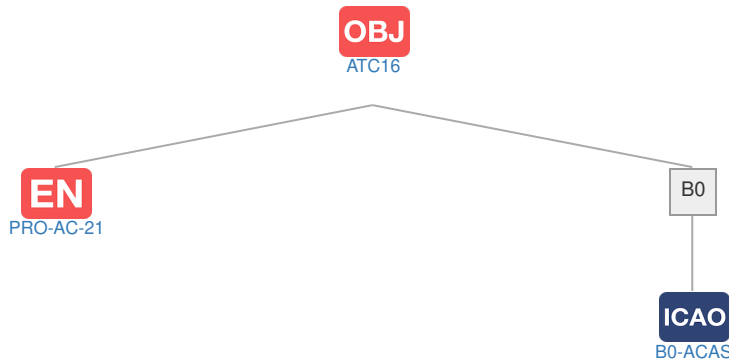
For ACAS II (with 7.0 logic), Military Authorities of ECAC Member States previously agreed on a voluntary installation programme on military transport type aircraft from 01 January 2005. Germany made ACAS II mandatory within its airspace from 01 January 2000 for all aircraft including military transport type aircraft (DE AIC IFR 8 - 23 DEC 04).

NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each Military Authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the Military Authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to MIL Authorities.

Edition	2022
Stakeholders	Regulator / Air Navigation Service Provider / Military / Airspace Users
Type	SESAR
Scope	ECAC+
Status	Achieved

Context

Related Elements



Applicability Area(s) and Timescales

Applicability Area: All ECAC States except: Switzerland. Plus: Israel, Morocco

Timescales	From	By	Applicable to
Initial operational capability	01-03-2012	-	Applicability Area
Full operational capability	-	31-12-2015	Applicability Area

Links to ATM Master Plan Level 2

EN Enablers

Code	Title	IOC	Related Elements
PRO-AC-21	Cockpit procedure for AP/FD TCAS	31-12-2011	STK OI EN OBJ DS

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
No record found			

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

ICAO ICAO Block Modules

Designator	Title	Related Elements
B0		
B0-ACAS	ACAS Improvements	SOL OI OBJ

References

Applicable legislation

Commission Regulation (EU) No 1332/2011 of 16 December 2011 laying down common airspace usage requirements and operating procedures for airborne collision avoidance

Applicable ICAO Annexes and other references

ICAO Annex 10 - Amendment 85 of October 2010

Deployment Programme 2022

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Operating Environments

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Expected Performance Benefits

Safety	Improve ATM safety by reducing incidence of mid-air collisions between aircraft.
Capacity	N/A
Operational efficiency	-
Cost efficiency	N/A
Environment	N/A
Security	N/A

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
REG01	Supervise compliance with regulatory provisions	01-03-2012	31-12-2015	
REG02	Provide airworthiness certification	01-03-2012	31-12-2015	
REG03	Deliver operational approval for ACAS II version 7.1 equipped aircraft	01-03-2012	31-12-2015	
ASP01	Train controllers		01-03-2012	
ASP02	Establish ACAS II (TCAS II version 7.1) performance monitoring		01-03-2012	
MIL01	Equip and put into service transport-type aircraft with ACAS II (TCAS II version 7.1) capability	01-03-2012	31-12-2015	
MIL02	Train aircrews of tactical aircraft (not ACAS II equipped)		31-03-2012	
USE01	Obtain airworthiness certification for ACAS II version 7.1 equipped aircraft	01-03-2012	31-12-2015	
USE02	Obtain operational approval for ACAS II version 7.1 equipped aircraft	01-03-2012	31-12-2015	EN

Supporting Material

Title	Related SLoAs
EASA - AMC 20-15 - Airworthiness Certification Considerations for the Airborne Collision Avoidance System (ACAS II) with optional Hybrid Surveillance - ED Decision 2011/001/R / 03/2011 http://www.easa.europa.eu/system/files/dfu/Annex II - AMC 20-15.pdf	ASP01, REG01, REG02, USE02
EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II - ED Decision 2009/015/R / 12/2009 http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mesures-Agency_Decisions-2009-cs_etso_5-Annex-II--ETSO.pdf	ASP01, ASP02, REG01, REG02, USE01, USE02
EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) Volume II : TCAS II Collision Avoidance System (CAS) Requirements Specification- Attachment A to Volume II 09/2008 https://eshop.eurocae.net/eurocae-documents-and-reports	ASP02, MIL01, REG02, REG03, USE01, USE02
EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards For Traffic Alert and Collision Avoidance 04/2009 https://eshop.eurocae.net/eurocae-documents-and-reports	ASP02, MIL01, REG02, REG03, USE01, USE02
EUROCAE - ED-181 - Guidance for the Development of Airborne Collision Avoidance Systems 09/2010 https://eshop.eurocae.net/eurocae-documents-and-reports	MIL01, REG01, REG02, REG03, USE01, USE02
EUROCONTROL - ACAS Guide https://www.eurocontrol.int/system/airborne-collision-avoidance-system	ASP01
ICAO - Annex 10, Volume IV - Aeronautical Telecommunications, Volume IV - Surveillance and Collision Avoidance Systems - 4th Edition http://store1.icao.int/	ASP01, MIL02, REG01, REG02
ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manual - Edition 2 / 01/2012 https://store.icao.int/	ASP01, ASP02, MIL02, REG01, REG02
RTCA - DO-185A - Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) Airborne Equipment 12/1997 http://www.rtca.org/store_list.asp	REG03
RTCA - DO-185B - Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) 08/2006 http://www.rtca.org/store_list.asp	REG03, USE02
RTCA - DO-185B-Change 1 - Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) - Change 1 01/2007 http://www.rtca.org/store_list.asp	REG03, USE02

Consultation & Approval

Working Arrangement in charge	Unassigned
Outline description approved in	03/2011
Latest objective review at expert level	04/2012
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	08/2011
Latest change to objective approved/endorsed in	07/2012

