SES	AR		Achieved					E	CAC+
ATC	C16	Implement ACAS II compliant with TCAS II change 7.1							
REG	ASP	MIL							

Subject matter and scope

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.

Applicability Area(s) & Timescale(s)

Applicability Area	All ECAC States exce Plus: Israel, Morocco		occo, Switzerlar	nd.
Timescales:		From:	Ву:	Applicable to:
Initial operational capability		01/03/2012		Applicability Area
Full operational capability			31/12/2015	Applicability Area

References

European ATM Master Plan

OI step -	- No OI Link	<u>-</u>			
	Enablers -	PRO-AC-21			

1	WWW7 004	Covered by SLoA(s) in	WXYZ-002	Covered by SLoA(s) in another objective	WXYZ-	Not covered in the
Legend:	WXYZ-001	this objective	ZZZ	Objective covering the enabler	003	Implementation Plan

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

Essential Operational Changes

- none -

SESAR Solution

ICAO GANP - ASBUs

ACAS-B1/1 ACAS Improvements

Deployment Programme

- none -

European Plan for Aviation Safety

-

Operating Environments

- none -

- none -

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	Ву
ATC16-REG01	Supervise compliance with regulatory provisions	01/03/2012	31/12/2015
ATC16-REG02	Provide airworthiness certification	01/03/2012	31/12/2015
ATC16-REG03	Deliver operational approval for ACAS II version 7.1 equipped aircraft	01/03/2012	31/12/2015
ATC16-ASP01	Train controllers	01/03/2012	01/03/2012
ATC16-ASP02	Establish ACAS II (TCAS II version 7.1) performance monitoring	01/03/2012	01/03/2012
ATC16-MIL01	Equip and put into service transport-type aircraft with ACAS II (TCAS II version 7.1) capability	01/03/2012	31/12/2015
ATC16-MIL02	Train aircrews of tactical aircraft (not ACAS II equipped)		31/03/2012
ATC16-USE01	Obtain airworthiness certification for ACAS II version 7.1 equipped aircraft	01/03/2012	31/12/2015
ATC16-USE02	Obtain operational approval for ACAS II version 7.1 equipped aircraft	01/03/2012	31/12/2015
Description of finalica	and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.ou/work	ring/dopl/occip_c	hioctivos

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip objectives

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

Detailed SLoA Descriptions

	From:					
ATC16-REG01	Supervise compliance with regulatory provisions	01/03/2012	By: 31/12/2015			
Action by:	State Authorities					
Description & purpose:	Supervise compliance with regulatory provisions for ACAS II (TCAS II version 7.1). The tasks to be done are as follows: - Ensure that all concerned aircraft in the State of Registry under its oversight are equipped with certified ACAS II equipment; - Ensure that these ACAS II equipment have received airworthiness certificate, in compliance with applicable EASA certification material; - Ensure that all concerned aircraft operators in the State of Registry under its oversight have received an operational approval in compliance with applicable EASA material.					
Supporting material(s):	EUROCAE - ED-181 - Guidance for the Development of Airborne Collision Avoidance Systems 09/2010					
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports					
	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					
	Url: http://www.easa.europa.eu/system/files/dfu/Annex II - AMC 20-15.p	<u>df</u>				
	EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TC Decision 2009/015/R / 12/2009	AS) Airborne Equipmer	nt, TCAS II - ED			
	Url : http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mest IIETSO.pdf	ures-Agency Decisions	-2009-cs etso 5-Annex-			
	ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manual - Edition 2 / 01/2012					
	Url: https://store.icao.int/					
	ICAO - Annex 10, Volume IV - Aeronautical Telecommunications, Volume Systems - 4th Edition	e IV - Surveillance and 0	Collision Avoidance			
	Url: http://store1.icao.int/					
Finalisation criteria:	1 - Evidence on the status of compliance with regulatory provisions for ACAS II (TCAS 7.1) for aircraft and aircraft operators in the State of Registry under the NSA oversight has been provided.					
ATC16-REG02	Provide airworthiness certification	From:	Ву:			

ATC16	Implement ACAS II compliant with T	Implement ACAS II compliant with TCAS II change 7.1				
		01/02/2012	21/12/2015			

		01/03/2012	31/12/2015			
Action by:	State Authorities					
Description & purpose:	Provide airworthiness certification to all concerned aircraft in the State of Registry under its responsibility, which are equipped with ACAS II equipment compliant with applicable airworthiness requirements.					
Supporting material(s):	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					
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collision Avoidance Systems 09/2010					
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports	•				
	EASA - AMC 20-15 - Airworthiness Certification Considerations for the Awith optional Hybrid Surveillance - ED Decision 2011/001/R / 03/2011 Url: http://www.easa.europa.eu/system/files/dfu/Annex II - AMC 20-15.p		ance System (ACAS II)			
	EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TC Decision 2009/015/R / 12/2009		nt, TCAS II - ED			
	Url: http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mes IIETSO.pdf	ures-Agency Decisions	-2009-cs etso 5-Annex-			
	EUROCAE - ED-143 Change 1 - Minimum Operational Performance Sta 04/2009	andards For Traffic Alert	and Collision Avoidance			
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports	al - Edition 2 / 01/2012				
	ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manual - Edition 2 / 01/2012 Url : https://store.icao.int/					
ICAO - Annex 10,Volume IV - Aeronautical Telecommunications, Volume IV - Surveillance and Collision Avo Systems - 4th Edition						
	Url: http://store1.icao.int/					
Finalisation criteria:	1 - Airworthiness certification for ACAS II (TCAS 7.1) aircraft in the State of Registry under its responsibility has been provided.					
ATC16-REG03	Deliver operational approval for ACAS II version 7.1 equipped	From:	By:			
ATOTO-NEGOS	aircraft	01/03/2012	31/12/2015			
Action by:	State Authorities					
Description & purpose:	Deliver operational approval for ACAS II version 7.1 equipped aircraft. T - Instruction of the certification application file delivered by the applicant process; - Approval of pertinent training programs, checklists, operations manuals minimum equipment lists or other pertinent documents or document revi	in accordance with the a s or training manuals, m	appropriate certification aintenance programs,			
	The requirements for certification and operation of ACAS II within the EU Member States, Norway and Switzerl					
	The requirements for certification and operation of ACAS II within the EU covered in EU-OPS 1.	J Member States, Norwa	ay and Switzerland are			
Supporting material(s):						
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand	ards for Traffic Alert and	d Collision Avoidance			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Transport of the standards of t	ards for Traffic Alert and	d Collision Avoidance			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url : http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url : http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II)	ards for Traffic Alert and affic Alert and Collision and and and ards for Traffic Alert	d Collision Avoidance Avoidance System II and Collision Avoidance			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I: Minimum Operational Performance Standards System II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements System (CAS)	ards for Traffic Alert and affic Alert and Collision and and and ards for Traffic Alert	d Collision Avoidance Avoidance System II and Collision Avoidance			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url : http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url : http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II)	ards for Traffic Alert and affic Alert and Collision and ards for Traffic Alert pecification- Attachment	Avoidance System II and Collision Avoidance A to Volume II 09/2008			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I: Minimum Operational Performance Standards II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements Standards III (TCAS II)	ards for Traffic Alert and affic Alert and Collision and ards for Traffic Alert pecification- Attachment	Avoidance System II and Collision Avoidance A to Volume II 09/2008			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements Standards II : https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisi Url: https://eshop.eurocae.net/eurocae-documents-and-reports RTCA - DO-185B - Minimum Operational Performance Standards for Tr. (TCAS II) 08/2006	ards for Traffic Alert and affic Alert and Collision andards for Traffic Alert pecification- Attachment on Avoidance Systems	Avoidance System II and Collision Avoidance A to Volume II 09/2008			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II) Volume II : TCAS II Collision Avoidance System (CAS) Requirements Standards II : https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisi Url: https://eshop.eurocae.net/eurocae-documents-and-reports RTCA - DO-185B - Minimum Operational Performance Standards for Tr.	ards for Traffic Alert and affic Alert and Collision and Collision and Collision Attachment for Avoidance Systems affic Alert and Collision	d Collision Avoidance Avoidance System II and Collision Avoidance A to Volume II 09/2008 09/2010 Avoidance System II			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements Standards II : https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisis Url: https://eshop.eurocae.net/eurocae-documents-and-reports RTCA - DO-185B - Minimum Operational Performance Standards for Tr. (TCAS II) 08/2006 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards Standards II - Minimum Operational Performance Standards II - Minimum	ards for Traffic Alert and affic Alert and Collision and Collision and Collision Attachment for Avoidance Systems affic Alert and Collision	d Collision Avoidance Avoidance System II and Collision Avoidance A to Volume II 09/2008 09/2010 Avoidance System II			
Supporting material(s):	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements Sylurl: https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisi Url: https://eshop.eurocae.net/eurocae-documents-and-reports RTCA - DO-185B - Minimum Operational Performance Standards for Tr. (TCAS II) 08/2006 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards	ards for Traffic Alert and affic Alert and Collision andards for Traffic Alert pecification- Attachment on Avoidance Systems affic Alert and Collision andards For Traffic Alert	Avoidance System II and Collision Avoidance A to Volume II 09/2008 09/2010 Avoidance System II and Collision Avoidance			
	covered in EU-OPS 1. RTCA - DO-185B-Change 1 - Minimum Operational Performance Stand System II (TCAS II) - Change 1 01/2007 Url: http://www.rtca.org/store_list.asp RTCA - DO-185A - Minimum Operational Performance Standards for Tr. (TCAS II) Airborne Equipment 12/1997 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 - Volume I : Minimum Operational Performance Standards II (TCAS II) Volume II : TCAS II Collision Avoidance System (CAS) Requirements Standards II : https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisis Url: https://eshop.eurocae.net/eurocae-documents-and-reports RTCA - DO-185B - Minimum Operational Performance Standards for Tr. (TCAS II) 08/2006 Url: http://www.rtca.org/store_list.asp EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards 04/2009 Url: https://eshop.eurocae.net/eurocae-documents-and-reports	ards for Traffic Alert and affic Alert and Collision andards for Traffic Alert pecification- Attachment on Avoidance Systems affic Alert and Collision andards For Traffic Alert	Avoidance System II and Collision Avoidance A to Volume II 09/2008 09/2010 Avoidance System II and Collision Avoidance			

ATC16	Implement ACAS II compliant with T	CAS II change 7.1	<u> </u>				
Description & purpose:	Train air traffic control staff in ACAS II (TCAS II version 7.1) procedures The tasks to be done are as follows:	for the provision of air t	traffic control services.				
	- Update existing training package (material) to ACAS II - TCAS II version 7.1;						
	Develop training plan;Determine staff population to be trained;						
Supporting material(s):	- Apply the training plan. EUROCONTROL - ACAS Guide						
apporting material(e).	Url : https://www.eurocontrol.int/system/airborne-collision-avoidance-sys	<u>stem</u>					
	EASA - AMC 20-15 - Airworthiness Certification Considerations for the Awith optional Hybrid Surveillance - ED Decision 2011/001/R / 03/2011		ance System (ACAS II)				
	Url: http://www.easa.europa.eu/system/files/dfu/Annex II - AMC 20-15.p EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TC Decision 2009/015/R / 12/2009		nt, TCAS II - ED				
	Url: http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mes_ IIETSO.pdf	ures-Agency Decisions	s-2009-cs etso 5-Annex-				
	ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manua Url : https://store.icao.int/	Il - Edition 2 / 01/2012					
	ICAO - Annex 10, Volume IV - Aeronautical Telecommunications, Volum Systems - 4th Edition Url: http://store1.icao.int/	e IV - Surveillance and	Collision Avoidance				
Finalisation criteria:	1 - The training plan and package has been developed by the ANSP.						
	2 - All concerned personnel have been trained.						
	From: By:						
ATC16-ASP02	Establish ACAS II (TCAS II version 7.1) performance monitoring _ 01/03/2012						
ction by:	ANS Providers						
Description & purpose:	Establish a monitoring of the performance of ACAS in the ATC environment, as described in PANS-ATM (Procedures for Air Navigation Services - ICAO Doc. 4444 Fifteenth Edition 2007-ATM/501)						
Supporting material(s):	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						
	Url : https://eshop.eurocae.net/eurocae-documents-and-reports						
	EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II - ED Decision 2009/015/R / 12/2009						
	Url: http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mesures-Agency_Decisions-2009-cs_etso_5-Annex-IIETSO.pdf						
	EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards For Traffic Alert and Collision Avoidance 04/2009						
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports						
	ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manual - Edition 2 / 01/2012 Url : https://store.icao.int/						
Finalisation criteria:	1 - A monitoring system of the performance of ACAS in the ATC environ reporting, investigation and analysis, has been put in place.	ment, by means of reg	ular incident occurrence				
ATC16-MIL01	Equip and put into service transport-type aircraft with ACAS II (TCAS II version 7.1) capability	From: 01/03/2012	By: 31/12/2015				
Action by:	Military Authorities	ı					
Description & purpose:	Equip and put into service ACAS II (TCAS II version 7.1) in military fixed specified in EASA ETSO C-119c.	-wing turbine engine tra	ansport-type aircraft as				
	Note: Where TCAS has been mandated or States have been agreed on a voluntary installation for transport type military aircraft, as well as for any future fitment to military airframes, TCAS implementation should be carried out with due regard to the TCAS version 7.1.						
Supporting material(s):	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						
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Collisi	on Avoidance Systems	09/2010				
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-143 Change 1 - Minimum Operational Performance Sta	andards For Traffic Aler	t and Collision Avoidance				
	04/2009 Url: https://eshop.eurocae.net/eurocae-documents-and-reports						
Finalisation criteria:	1 - Transport-type aircraft have been equipped with ACAS II (TCAS II Vo	ersion 7.1) compliant ed	quipment.				

ATC16	Implement ACAS II compliant with TCAS II change 7.1
,	p.cgo

	Train aircrews of tactical aircraft (not ACAS II equipped)	From:	Ву:			
ATC16-MIL02		-	31/03/2012			
Action by:	Military Authorities	'	'			
Description & purpose:	Train aircrews of tactical aircraft (not ACAS II equipped) on the implications of ACAS operations, when operating in the airspace environment.					
Supporting material(s):	ICAO - Doc 9863 - Airborne Collision Avoidance System (ACAS) Manual - Edition 2 / 01/2012 Url : https://store.icao.int/ ICAO - Annex 10,Volume IV - Aeronautical Telecommunications, Volume IV - Surveillance and Collision Avoidance Systems - 4th Edition Url : http://store1.icao.int/					
Finalisation criteria:	1 - The training plan and package has been developed by the Military Authority.					
	2 - All concerned personnel have been trained. Obtain airworthings contification for ACAS II version 7.1 From: By:					
ATC16-USE01	Obtain airworthiness certification for ACAS II version 7.1 equipped aircraft O1/03/2012 By: 01/03/2012 31/12/2015					
Action by:	Airspace Users		'			
Description & purpose:	Provide a certification application case to the competent authority for the state of registry of the aircraft to obtain airworthiness certification for their airframes equipped with ACAS II equipment.					
Supporting material(s):	System II (TCAS II) Volume II: TCAS II Collision Avoidance System (CAS) Requirements Url: https://eshop.eurocae.net/eurocae-documents-and-reports EUROCAE - ED-181 - Guidance for the Development of Airborne Colli Url: https://eshop.eurocae.net/eurocae-documents-and-reports EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TDecision 2009/015/R / 12/2009 Url: http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_MelIETSO.pdf	JROCAE - ED-143 - Volume I : Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance (stem II (TCAS II) blume II : TCAS II Collision Avoidance System (CAS) Requirements Specification- Attachment A to Volume II 09/2008 1 : https://eshop.eurocae.net/eurocae-documents-and-reports JROCAE - ED-181 - Guidance for the Development of Airborne Collision Avoidance Systems 09/2010 1 : https://eshop.eurocae.net/eurocae-documents-and-reports ASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II - ED ecision 2009/015/R / 12/2009 1 : http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mesures-Agency_Decisions-2009-cs_etso_5-Anne				
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports					
Finalisation criteria:	Aircraft operators have received airworthiness certificate by the Co equipped aircraft.	mpetent Authorities	, for ACAS II version 7.1			
ATC16-USE02	Obtain operational approval for ACAS II version 7.1 equipped aircraft From: By: 01/03/2012 31/12/2015					
Action by:	Airspace Users					
Description & purpose:	In order to obtain operational approval by the Competent authority of t Certificate, operators must provide evidence which pertains to: - Changes to training and maintenance programmes; - Changes to manuals, operational procedures, minimum equipment li: - Other areas necessary for safe and effective TCAS use and the qual programmes.	sts; and	,			

ATC16	Implement ACAS II compliant with TCAS II change 7.1
Supporting material(s):	RTCA - DO-185B-Change 1 - Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) - Change 1 01/2007
	Url: http://www.rtca.org/store_list.asp
	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
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports
	EUROCAE - ED-181 - Guidance for the Development of Airborne Collision Avoidance Systems 09/2010
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports
	RTCA - DO-185B - Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) 08/2006
	Url: http://www.rtca.org/store_list.asp
	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
	Url: http://www.easa.europa.eu/system/files/dfu/Annex II - AMC 20-15.pdf
	EASA - ETSO-C119c - Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II - ED Decision 2009/015/R / 12/2009
	Url: http://easa.europa.eu/system/files/dfu/ws_prod-g-doc-Agency_Mesures-Agency_Decisions-2009-cs_etso_5-Annex-IIETSO.pdf
	EUROCAE - ED-143 Change 1 - Minimum Operational Performance Standards For Traffic Alert and Collision Avoidance 04/2009
	Url: https://eshop.eurocae.net/eurocae-documents-and-reports
ATM Master Plan relationship:	[PRO-AC-21]-Cockpit procedure for AP/FD TCAS
Finalisation criteria:	Aircraft operators have received operational approval by the Competent Authorities, for ACAS II version 7.1 equipped aircraft.