

 <p>PHONE: 263 4 585018 263 4 585073/88 FAX: 263 4 585100 E-mail: ais@caaz.co.zw Website: www.caaz.co.zw</p>	<p>CIVIL AVIATION AUTHORITY OF ZIMBABWE</p> <p>AERONAUTICAL INFORMATION SERVICES P. BAG 7716 CAUSEWAY, HARARE</p>	<p>AIC</p> <p>A009/01</p> <p>14 Dec 2001</p>
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AERONAUTICAL INFORMATION CIRCULAR

IMPLEMENTATION OF AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS 11) WITHIN THE AFI REGION

Transition Period and Exemption Process for Aircraft Unable to Comply with ACAS 11 Carriage and Operation Requirements on 1 January 2000.

Abbreviations:

AFI: Africa and Indian Ocean Region
ACAS: Airborne Collision Avoidance System
TCAS: Traffic Alert Collision Avoidance System

1. INTRODUCTION

- 1.1 This AIC provides information on the AFI ACAS 11 implementation and on the ACAS 11 transition period provisions applicable in the AFT Region.

2. ACAS 11 IMPLEMENTATION SCHEDULE

- 2.1 The AFI Regional Supplementary procedures (Doc 7030) contain the provision for the mandatory carriage and operation of ACAS 11 for flights in the AFI Region as follows:
- a) *Phase 1*
With effect from 1 January 2000, all civil fixed-wing turbine engine aircraft having a maximum take-off mass exceeding 15000 kg, or a maximum approved passenger seating configuration of more than 30, will be required to be equipped with ACAS 11.
 - b) *Phase 2*
With effect from 1 January 2005, all civil fixed-wing turbine-engine aircraft having a maximum take-off mass exceeding 5700kg, or a maximum approved passenger seating configuration of more than 19, will be required to be equipped with ACAS 11.

Note: To meet the ACAS 11 mandate, to comply with full ICAO ACAS 11 Standards and Recommended Practices (SARPs) functionally, TCAS 11 Version 7 (RTCA DO-185A) is required, together with a Mode S transponder compliant with ICAO Annex 10, Mode S SARPs, Amendment 73, Current TCAS 11, Version 6.04.A installations will require to be upgraded to TCAS 11 Version 7.

3. ACAS 11 IMPLEMENTATION TRANSITION PERIOD

- 3.1 The primary aim is to achieve the fitment of ACAS 11 as soon as possible. However, practical implementation issues, involving the supply, installation and certification of ACAS 11 equipment, have been identified.
- 3.2 Taking into account these difficulties, the AFI Planning and Implementation Regional Group (ARPIG) has agreed on an ACAS 11 implementation transition period. The transition is hereby defined as extended to 1 January 2003 except as noted under 4.4 below.
- 3.3 Aircraft subject to the ACAS 11 Phase 1 carriage requirements may be granted exemptions from compliance during the transition period under the conditions specified in paragraph 4 of this AIC.
- 3.4 Operators who have not yet fitted TCAS 11 Version 6.04A or Version 7 of their aircraft are required to apply for an exemption. These aircraft will be required to be fitted with TCAS 11, Version 7 equipment, by an agreement date within the transition period.
- 3.5 For the purpose of meeting the ACAS 11 requirement, the Mode S transponder, which is part of ACAS 11 installation, need not comply with ICAO Mode S/ACAS 11 SARPs until 1 January 2003, provided that a Mode S transponder compatible with ACAS 11 is installed.

4. EXEMPTION CONSIDERATIONS

- 4.1 The cost of ACAS 11 installation is not acceptable criterion for an ACAS 11 exemption.
- 4.2 Despite best reasonable endeavour, operators might encounter ACAS 11 installation or upgrade delays. These might include:
- Late parts delivery (software, hardware, cables, antennas, e.t.c)
 - Late approvals of the service bulletins for TCAS 11 Version 7
 - Unexpected technical or airframe installations problems
 - Delays to the certification process.

These reasons might be ground for an application for exemption.

- 4.3 Operators of aircraft that will be withdrawn from operation before the end of the transition period will not be required to equip these aircraft with ACAS11. However, an exemption from the ACAS11 requirement must be obtained.

Note: Aircraft may be dispatched in accordance with the ACAS11 minimum equipment list (MEL) provisions. Short-term alleviations for unserviceable TCAS 11 equipment, shown in the aircraft MEL, do not require an application for exemption to the AFI airspace requirement.

- 4.4 Aircraft for which full ACAS 11 installation is unfeasible will be granted exemption provided that the latest TCAS version available for the aircraft type concerned is fitted.

5. ACAS 11 TRANSITION PERIOD EXEMPTION APPLICATION PROCEDURES

- 5.1 ICAO has been designated by AFI states to coordinate those elements of the ACAS 11 transition period exemptions process, which are described in this AIC.

Note: Three Regional ICAO Offices for the AFI Region will issue these on behalf of the states they are accredited to.

- 5.2 All aircraft operators in Zimbabwe who require an exemption should route the applications through the Civil Aviation Authority of Zimbabwe, Director of Flight Safety Standards.
- 5.3 A specimen ACAS Transitions Period Exemption application form is attached as *Annex A* to this AIC.
6. **ACAS 11 IMPLEMENTATION INFORMATION**
- 6.1 Further information or guidance on ACAS 11 implementation strategy, the ACAS Transition period, or exemption criteria may be obtained from the Civil Aviation Authority of Zimbabwe (Flight Safety Standards Directorate).



K.Kaseke
General Manager

ACAS 11 TRANSITION PERIOD EXEMPTION APPLICATION FORM

1.	Operator and Aircraft Information		
	Aircraft Operator	Contact Person Name:..... Tel:..... E-mail:.....	
	Address:..... Telephone:..... Tax/E-mail:.....		
	Aircraft Type	National Registration	Manufacturer Aircraft Line or Serial No.
2.	TCAS and Mode S Equipment		
	Current Fitment TCAS Manufacturer	TCAS – Company Mode/No:	TCAS –Software Version
	Planned Fitment TCAS Manufacturer	TCAS – Company Mode/No:	TCAS –Software Version
	Mode S Manufacturer	Mode S Model & Level	Mode S Address
3.	Reasons for Exemption Request		
	Operators should append appropriate supporting documentation		Tick Box
	i)	Late parts delivery for either new TCAS 11, Version 7 installation, or upgrade from TCAS 11, Version 6.04A to Version 7	
	ii)	Late approvals of the service bulletins for TCAS 11 Version 7	
	iii)	Identification of expected technical or airframe installations problems	
	iv)	Unavoidable delays to the certification process	
	v)	Aircraft which will be withdrawn from operation before the end of transition period	
	vi)	Other	
	Comments:		
4.	Expected ACAS 11 date in service		
	TCAS 11 Version 7 certification date:	Projected in-service date for the aircraft:	
	Name:	Signature:	Date: