

**CIVIL AVIATION DEPARTMENT
HONG KONG, CHINA**

Airworthiness Notice

**No. 24
Issue 4
31 January 2002**

THIS NOTICE GIVES DETAILS OF A MANDATORY ACTION

**TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)
a.k.a.
AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS)**

1 Introduction

TCAS, provides a collision avoidance capability which operates independently of ground based Air Traffic Control. The system provides advice to the pilots of potential conflicting aircraft. TCAS operates by triggering a coded response from transponders carried by other aircraft. Repeated interrogations establish relative position and trajectory and in so doing determine whether a responding aircraft constitutes a collision hazard. Alerts and/or commands are then generated to alert the crew of potential conflict which, if necessary, are followed by avoidance instructions. TCAS cannot locate any aircraft which does not have an operative transponder operating in Mode C or Mode S.

2 Standards

2.1 International standards for the equipment specifications of the secondary surveillance radar system and the Airborne Collision Avoidance System (ACAS - the international equivalent of the TCAS) are stated in ICAO Annex 10 Volume IV.

2.2 RTCA Document DO-185 Volume I and II, Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System Airborne Equipment shall also be referred to as the standards for TCAS equipment. In addition, the most recent JAR-TSOs should be referred to.

3 Requirement and Applicability

Any TCAS II system fitted in Hong Kong registered aircraft shall be CAD approved and comply with the ICAO requirement or equivalent. The types of aircraft and the installation compliance date are as follows:-

<u><i>Aircraft Applicability</i></u>	<u><i>Equipment</i></u>	<u><i>Compliance Date</i></u>
All fixed wing aircraft registered in Hong Kong greater than 5700 kg MTWA or certificated for more than 9 passenger seats	TCAS II / Mode S Transponder	1 January 1999
All fixed wing aircraft registered in Hong Kong greater than 5700 kg MTWA or certificated for more than 9 passenger seats	TCAS II Version 7.0 equipment	1 January 2000

4 **Cancellation**

This Notice cancels Airworthiness Notice No.24, Issue 3, dated 30 June 1999, which should be destroyed.

Albert K. Y. LAM
Director-General of Civil Aviation