INTRODUCTION OF AUTOMATIC DEPENDENT SURVEILLANCE
BROADCAST (ADS-B) OUT SERVICE WITHIN TAIPEI FIR

1. Introduction

a. Pursuant to the ICAO Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) Conclusion 19/37 and Conclusion 21/39 (see Attachment A), this AIC informs aircraft operators that the Civil Aeronautics Administration (CAA) plans to implement the use of Automatic Dependent Surveillance Broadcast (ADS-B) after December 2013 within Taipei Flight Information Region (FIR) to support future increase in airspace capacity and allow better flight accessibility.
b. ADS-B is a surveillance system that uses Global Navigation Satellite System (GNSS), aircraft avionics, and ground infrastructures to accurately and quickly transmit flight information between aircraft and Air Traffic Services.
c. CAA has already installed a series of ADS-B ground infrastructures to enhance the surveillance coverage of Taipei FIR and will be operational in the near future.

2. Airspace Implementation Plan and Operational Limitations

a. On and after 12 December 2013, aircraft flying over routes B576 or B591 at or above FL290 within Taipei FIR, shall carry ADS-B Out equipage complying with the requirements in item 3. Aircraft not having the relevant operational approval or not carrying an ADS-B Out equipage that meets requirement specified in item 3 or not carrying a serviceable ADS-B Out equipage will be assigned a flight level at or below FL280.
b. On and after 31 December 2014, aircraft flying at or above FL290 within Taipei FIR, shall carry ADS-B Out equipage complying with the requirements in item 3. Aircraft not having the relevant operational approval or not carrying an ADS-B Out equipage that meets requirement specified in item 3 or not carrying a serviceable ADS-B Out equipage will be assigned a flight level at or below FL280.

3. Aircraft Equipage for ADS-B Out

If an aircraft carries ADS-B Out equipage, the ADS-B Out equipage shall be certificated as meeting EASA AMC 20-24 or meets the equipment configuration standards in Appendix XI of Civil Aviation Order 20.18 of the Civil Aviation Safety Authority of Australia.

4. Aircraft Operator's Approval

If an aircraft carries ADS-B Out equipage, the aircraft operator must have the relevant ADS-B operational approval from the State of Registry.
RELEVANT ICAO ASIA PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG) CONCLUSIONS ON MANDATING OF ADS-B EQUIPAGE

Conclusion 19/37 – Revised Mandate Regional ADS-B Out Implementation
States intending to implement ADS-B based surveillance service, be urged to
a) determine ADS-B OUT equipage mandates based upon the ability to provide ADS-B
OUT separation services;
b) expedite the implementation of ADS-B OUT in accordance with the Regional Air
Navigation Plan and the provision of separation services based on ADS-B OUT;
c) publish their equipage mandates as soon as possible, with a target publication date
of no later than 2010 so that operators can plan ahead their forward purchasing and retrofit;
d) choose a date after mid 2012 on which the ADS-B out equipage mandate will
become effective in airspace served by ADS-B ground stations with sufficient transition period to enable fleet equipage.

Note: The implementation would require aircraft equipped with avionics compliant
with either:

1) Version 0 ES as specified in ICAO Annex 10, Volume IV, Chapter 3,
Paragraph 3.1.2.6.6 (up to and including Amendment 82 to ICAO Annex
10) and Chapter 2 of the Technical Provisions for Mode S Services and
Extended Squitter (ICAO Doc 9871) (Equivalent to DO260) to be used till
at least 2020.

Or

2) Version 1 ES as specified in Chapter 3 of the Technical Provisions for Mode
S Services and Extended Squitter (ICAO Doc 9871) (Equivalent to
DO260A).

Conclusion 21/39 – Template for Promulgation of ADS-B Equipage Requirements
That, based on APANPIRG Conclusion 20/54, States intending to implement ADS-B
based surveillance service for a defined airspace and having not published regulations
be urged to promulgate mandating rule for ADS-B Avionics Equipage Requirements as
soon as possible using the following template:

On and after dd/mm/yyyy, if an aircraft operates on airways (insert routes)............at or
above FLXXX.........(or in defined airspace boundaries ................. at or above
FLXXX):

a) the aircraft must carry serviceable ADS B transmitting equipment that has been
certificated as meeting EASA AMC 20-24, or meets the equipment configuration
standards in Appendix XI of Civil Aviation Order 20.18 of the Civil Aviation Safety
Authority of Australia; and
b) the aircraft operator must have the relevant operational approval from the State of
Registry.