

**HONG KONG SPECIAL ADMINISTRATIVE REGION  
PEOPLE'S REPUBLIC OF CHINA  
AERONAUTICAL INFORMATION SERVICE**

|       |                |
|-------|----------------|
| PHONE | +852 2910 6174 |
| FAX   | +852 2910 1180 |
| AFS   | VHHHYOYX       |
| EMAIL | aic@cad.gov.hk |

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| <b>(ISO 9001 CERTIFIED)</b>     |
| AIR TRAFFIC MANAGEMENT DIVISION |
| CIVIL AVIATION DEPARTMENT       |
| HONG KONG INTERNATIONAL AIRPORT |

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| AIRAC          |
| AIP Supplement |
| A11/14         |
| 29 August 2014 |

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**Revision to Automatic Dependent Surveillance Broadcast  
(ADS-B) out Operations within Hong Kong FIR**

**1. Introduction**

- 1.1 Hong Kong Civil Aviation Department issued AIP Supplement A13/13 on 29 October 2013 to notify aircraft operators on the plan to introduce ADS-B Operation on PBN routes L642 and M771 with effect from 12 December 2013(Phase 1), and in the whole Hong Kong FIR with effect from 11 December 2014(Phase 2).
- 1.2 Phase 1 had been implemented in line with the relevant Area Control Centres along the PBN routes L642 and M771, and harmonization of operation on both routes was achieved.
- 1.3 After reviewing the progress of system upgrade and the scope of changes in ATC operations, an adjustment to the phase 2 implementation date is considered necessary.
- 1.4 This AIP Supplement is to notify airspace users of the change in the ADS-B implementation plan for Hong Kong FIR.

**2. Implementation Plan**

- 2.1 The effective date that all aircraft flying within Hong Kong FIR at or above FL290 shall be installed with ADS-B equipage complying with the requirements in paragraph 3.1, 3.2 or 3.3 is now revised from 11 December 2014 to 8 December 2016.
- 2.2 For all aircraft flying within Hong Kong FIR with ADS-B equipage not complying with paragraph 3.1, 3.2 or 3.3, the ADS-B equipage shall be:
  - (a) deactivated; or
  - (b) set to transmit only a value of zero for the Navigation Uncertainty Category (NUC<sub>p</sub>) or Navigation Integrity Category (NIC).

**3. Requirements for ADS-B Out Equipage**

- 3.1 ADS-B equipage comply with 'RTCA DO-260 Minimum Operational Performance Standards', which is equivalent to ES Version 0 as specified in ICAO Annex 10, Volume IV, Chapter 3, Paragraph 3.1.2.8.6 and Chapter 2 of ICAO Doc 9871.

- 3.2 ADS-B equipage comply with ‘RTCA DO-260A Minimum Operational Performance Standards’, which is equivalent to ES Version 1 as specified in ICAO Annex 10, Volume IV, Chapter 3, Paragraph 3.1.2.8.6 and Chapter 3 of ICAO Doc 9871.
- 3.3 ADS-B equipage comply with ‘RTCA DO-260B Minimum Operational Performance Standards’, which is equivalent to ES Version 2 as specified in Chapter 4 of ICAO Doc 9871.

NOTE: To harmonise the ADS-B equipage, APANPIRG suggested to standardize the equipment requirements. The following are the acceptable means of compliance to paragraphs 3.1, 3.2 or 3.3.

- (a) The ADS-B equipage that have been certificated as meeting EASA Acceptable Means of Compliance AMC 20-24 “Certification Considerations for Enhanced ATS in Non-Radar Areas using ADS-B Surveillance (ADS-B-NRA) via 1090 MHz Extended Squitter”, or
- (b) The ADS-B equipage that meet the equipment configuration standards of Australian Civil Aviation Order 20.18 Appendix XI, or
- (c) The ADS-B equipage that have been certified as meeting FAA Advisory Circular (FAA AC) 20-165 or later changes.

#### **4. Aircraft Operator’s Approval**

- 4.1 The aircraft operator must have the relevant ADS-B operational approval from the State of Registry.

#### **5. Operational Limitations**

- 5.1 Aircraft not complying with paragraph 3 or 4.1 will not be accorded priority to operate in the designated airspace and in the assignment of flight levels therein.

#### **6. Flight Planning Requirements**

- 6.1 Aircraft operator complying with the requirement stipulated in paragraph 3 and 4.1 are to indicate the appropriate ADS-B designator in section 10 of the flight plan.

- B1 ADS-B with dedicated 1090 MHz ADS-B “out” capability
- B2 ADS-B with dedicated 1090 MHz ADS-B “out” and “in” capability

- 6.2 The aircraft identification(ACID) must be accurately recorded in item 7 of the ICAO Flight Plan form. The Aircraft Identification, not exceeding 7 characters, is to be entered both in item 7 of the flight plan and replicated exactly when set in the aircraft (for transmission as Flight ID) as follows :

- a) The ICAO three-letter designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, BAW213, JTR25),
- or,

- b) The registration marking of the aircraft (e.g. EIAKO, 4XBCD, OOTEK), when the aircraft is not equipped with radio.

*Note 1: No zeros, hyphens, dashes or spaces are to be added when the Aircraft Identification consists of less than 7 characters.*

*Note 2: Appendix 2 to PANS-ATM refers. ICAO designators and telephony designators for aircraft operating agencies are contained in ICAO Doc 8585.*

**7. Contingencies**

- 7.1 When an aircraft is ADS-B equipped but the equipment has become unserviceable during flight, the pilot in command or aircraft operator must inform ATC as soon as possible.

**8. Cancellation**

- 8.1 AIP Supplement A13/13 is hereby superseded.
- 8.2 This AIP Supplement will be cancelled when the contents are incorporated into the AIP.

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