



International Civil Aviation Organization

ADS-B Study and Implementation Task Force Meeting

Brisbane, Australia, 24-26 March 2003

Agenda Item 2: Review of ADS-B Activities

- d) Review activities by Asia/Pacific States in trials and demonstration of ADS-B

ADS-B IN CHINA

Presented by China

1. Introduction

1.1 After ATS route L888, which is the first continental FANS 1/A ATS route using ADS-C, put into operation, ADS-B technology is being considered for use as a complementary surveillance tool in China. Although ADS-B technology has not been used yet, it has aroused prevalent attention and has acquired material programming and evolvement.

2. Discussion

2.1 ADS-B technology is seen having advantages in good accuracy, update rate, coverage and cost effectiveness for ground surveillance role. We also see that many countries and areas have considered it as development direction of next generation of surveillance.

2.2 Air Traffic Management Bureau of CAAC is consulting airlines, manufacturer of ground equipment and avionics and is going to select an ATS route and area for ADS-B trial in the western part of China. Three ground stations will be used to test the performance and parameters of ADS-B equipment, such as accuracy, reliability, update rate and coverage.

2.3 The alternate links for ADS-B transmission are Mode-S ES, VDL Mode 4 and UAT. The most mutual technology and less change to avionic device is identified for using Mode-S ES which is without frequency allocation problems. Therefore Mode-S ES will be used in our ADS-B trial.

2.4 Short term target:

2.4.1 For saving cost for surveillance and reducing collision risk and to confirm if Mode S ES would be primary link in the near future.

2.5 Long term target:

2.5.1 Comparing with three links with cost effective analysis, technology maturity and reliability, etc. and with the development of radio communication technology, it is desirable that ADS-B ground surveillance function shares the link and frequency with other applications which are only different in the content in order to reduce complexity and variety of equipment.

2.6 More and more radars are put into use in busy area along ATS routes in the eastern part of China. ADS-B will be used in western part of China and will be implemented starting from 2006.

3. Action by the meeting

3.1 The meeting is invited to note the information provided in this paper.