



International Civil Aviation Organization

**THE TENTH MEETING OF AUTOMATIC
DEPENDENT SURVEILLANCE –
BROADCAST (ADS-B) STUDY AND
IMPLEMENTATION TASK FORCE
(ADS-B SITF/10)**



Singapore, 26 -29 April 2011

**Agenda Item 6: Review States' activities and interregional issues on trials and
 implementation of ADS-B and mulilateration**

BRIEF ON THE ADS-B ACTIVITIES IN CHINA

(Presented by China)

SUMMARY

This information paper provides a brief on the ADS-B activities in China. Development of surveillance systems such as ADS-B, MLAT is described.

1. Introduction

1.1 CAAC and ATMB had installed 8 ADS-B ground stations till the end of 2010 and monitored the aircrafts that are equipped with qualified avionic devices and collected the ADS-B data output from these aircrafts in the past years. The latest development of ADS-B activities in China is described.

2. ADS-B activities

2.1 Policy

2.1.1 CAAC issued "Application policy of civil aviation surveillance technology of China" in November 2010. It confirmed that both radar and ADS-B are means of air traffic management, the transition to the new surveillance system will happen gradually and a certain number of radars will be maintained as a backup surveillance system.

2.2 Trial operation of Chengdu - Lhasa route

2.2.1 In 2009, CAAC gave a written reply to Chengdu - Lhasa route surveillance project and Chengdu - Lhasa route is the first ADS-B route in China, which will construct five ADS-B stations and VHF.

2.2.2 In 2010, Chengdu - Lhasa route surveillance project has been completed. At the end of 2010, flight test has been made to evaluate the performance of the ADS-B, such as refresh rate, coverage, accuracy, stability of the ADS-B signal, the input and show of the flight number and so on.

2.2.3 According to the results of the flight test, the Chengdu - Lhasa route can satisfy the needs of the project and to have better performance, the Chengdu - Lhasa route plans to add a new ADS-B station in short term.

2.2.4 CAAC is going on ADS-B trial operation on May 18th, 2011, with the aim of reducing the departure separation, increasing airspace capacity, and reducing flight delay. Meanwhile, all the preparation work of the ADS-B trial operation will be finished by May 11, 2011.

2.3 Trial operation in the area of South China Sea

2.3.1 In 2008, the ADS-B construction project started in the area of South China Sea. One ADS-B ground stations have been deployed and put into trial in the area of Sanya FIR. The project is mainly to achieve two goals, one is to enhance the surveillance coverage of Sanya FIR with both radar and ADS-B, the other goal is to collect the ADS-B data output from the aircraft and evaluate the data in the South China Sea area.

2.3.2 In July 2009, the air traffic control centre of Sanya brought in the ADS-B signal to their automation systems and updated the software, which can show the ADS-B data alone or show the integrated data of radar and ADS-B. By tests, ADS-B can improve the surveillance ability of route in Sanya. In addition, with the aim of solving the deficiency of airspace surveillance ability, another three new ADS-B stations are planned to be built in the area of South China Sea to achieve dual surveillance coverage in the airspace of Sanya FIR above 8000m, even three or four surveillance coverage in certain area.

2.3.3 In 2010, Sanya FIR started the ADS-B data evaluation about accuracy and integrity, and discuss with the companies of automation systems to solve the technical problem about the integrated information of Multi-sensor, preparing for the application of ADS-B in China.

2.3.4 L642 route and M771 route in Sanya FIR is one of the busiest routes in China and is going on ADS-B trial operation on Jun 16th, 2011. Meanwhile, all the preparation work of the ADS-B trial operation will be finished by Jun 9th, 2011.

3. MLAT

3.1 The first MLAT system in China was installed and commissioned at the Beijing Capital International Airport (BCIA). The system will integrate data from MLAT, surface movement surveillance radar, and ATC automation system to provide moving target information for aerodrome controllers.

4. CONCLUSION

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