



International Civil Aviation Organization

**THE THIRD MEETING OF ADS-B STUDY AND
IMPLEMENTATION TASK FORCE (ADS-B TF/3)**

Bangkok, Thailand, 23 – 25 March 2005.

Agenda Item 6: Progress development of regional implementation plan

- b) States to present WP of any significant progress in ADS-B planning or deployment.**

**ADS-B SYSTEMS IMPLEMENTATION ACTIVITIES
IN THE REPUBLIC OF KOREA**

(Presented by the Republic of Korea)

SUMMARY

This paper provides the information on ADS-B plan of the 2nd Phase construction of Incheon International Airport

1. Introduction

1.1 At the Incheon International Airport, the 2nd phase construction is in progress in order to deal with increasing air traffic volume and to secure sufficient resources in a timely manner by 2008.

1.2 Incheon International Airport, which is currently operating Ku-band ASDE (Airport Surface Detection Equipment) with a MRI (Multi Radar Tracking) function, will be improved by adding X-band ASDE to ensure a perfect ground system for CAT-IIIb operation during the 2nd phase construction.

1.3 Also, ADS-B system is being designed to detect approaching aircrafts to the airport and moving vehicles on the ground for providing efficiently RIMCAS(Runway Incursion Monitoring and Conflict Alert System) function and fostering smooth air traffic flow.

2. Consideration for the Design

2.1 Two aspects should be considered to design ADS-B system during the 2nd phase construction of Incheon International Airport

2.1.1 First, in terms of advanced airport surface surveillance service, ADS-B system will be established for interface with ASDE system in order to supplement the detection function which is easily influenced by blind area or by more than a 16 mm/h rainfall.

2.1.2 Second, when the 2nd phase construction of Incheon International Airport is completed and an independent parallel runway operation is available, the ADS-B system is to be set up for interface with ARTS (Automated Radar Terminal System) in order to enhance precision approach monitoring for simultaneous parallel arrivals and departures.

2.2 The information received from ADS-B is presented on the screen of controller working stations after it is integrated separately into the current ASDE system and ARTS Data Processor.

2.3 Four sets of ground receivers will be established at appropriate positions at the airport to secure sufficient visual range for detecting approaching and moving aircrafts and vehicles.

3. Conclusion

3.1 The ADS-B system plan will be determined after review of expert committee with consideration of international standards and then the final decision will be fixed in the consultation among concerned authority and organizations about timeline and budget etc.

3.2 We expect that ADS-B is to become one of the best ways to improve precise surveillance functions to Incheon International Airport.

4. Action by the meeting

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