



International Civil Aviation Organization

**The Thirteenth Meeting of the Regional Airspace Safety
Monitoring Advisory Group (RASMAG/13)**

Bangkok, Thailand, 2 - 5 August 2010

Agenda Item 3: Reports from Asia/Pacific RMAs and EMAs

**OBSERVED EFFECT OF THE IMPLEMENTATION OF AIDC BETWEEN
REPUBLIC OF KOREA AND JAPAN ON THE OCCURRENCE OF
CATEGORY E/F LHDS**

[Presented by Presented by Pacific Approvals Registry and Monitoring Organization
(PARMO)]

SUMMARY

This information paper presents the result of an analysis on occurrence of Category E/F Large Height Deviation (LHD) reports, between Japan and Republic of Korea (ROK). ATS Interfacility Data Communications (AIDC) has been implemented among the Area Control Centers (ACCs) of the two countries since 15 June 2009. This is a report on the occurrence of LHDS caused by ATC-to-ATC errors between Japan and ROK before and after the implementation of AIDC.

1. INTRODUCTION

1.1 Japan Civil Aviation Bureau RMA (JCAB RMA) presented WP/21 (reference 1) to the RASMAG/12 Meeting which contained report on occurrence of Large Height Deviations (LHDs) caused by ATC-to-ATC errors between Japan and ROK before and after the implementation of AIDC. The JCAB RMA has reported that the total vertical risk estimate for Japanese airspace (i.e. the airspace of Fukuoka FIR) has not satisfied the agreed Target Level of Safety (TLS) value since 2007 due to the high number of category E LHDs (coordination error in ATC-to-ATC transfer of control responsibility as a result of human factor issues).

1.2 The Pacific Approvals Registry and Monitoring Organization (PARMO), a service provided by the U.S. Federal Aviation Administration's Technical Center, is the responsible RMA for the Incheon FIR.

1.3 The RASMAG/12 Meeting agreed that a RMA, not responsible for a particular State, would forward details of LHDs affecting airspace to the appropriate RMA, and the responsible RMA would then pass the information to the relevant State authority or ANSP (reference 2).

2. DISCUSSION

2.1 AIDC has been implemented among the ACCs of the two countries (three ACCs of Japan and the ACC of ROK) since 15 June 2009. The PARMO conducted this analysis highlighting the occurrence of LHDS caused by ATC-to-ATC transfer errors due to human

factors and technical issues between Japan and ROK before and after the implementation of AIDC.

2.2 A total of 26 LHD events were reported from 01 August 2008 to 31 May 2010. Table 1 summarizes the number of LHD occurrences and durations during the time period.

Month-Year	No. of LHDs	LHD Duration (min)
Aug-08	3	0.6667
Sep-08	1	0
Oct-08	2	0.5
Nov-08		0
Dec-08	1	0
Jan-09	1	0
Feb-09	0	0
Mar-09	4	0.8
Apr-09	1	0
May-09	2	0
Jun-09	1	0
Jul-09	1	1
Aug-09	2	0.1667
Sep-09	1	0
Oct-09	1	0.75
Nov-09	1	0
Dec-09	1	0
Jan-10	2	0
Feb-10	0	0
Mar-10	0	0
Apr-10	0	0
May-10	1	0
Total	26	3.8833

Table 1: Summary of LHD Occurrences and Durations

2.3 Figure 1 illustrates the number of LHDs caused by ATC-to-ATC coordination errors on aircraft crossing the Fukuoka-Incheon FIR boundary between August 2008 and May 2010

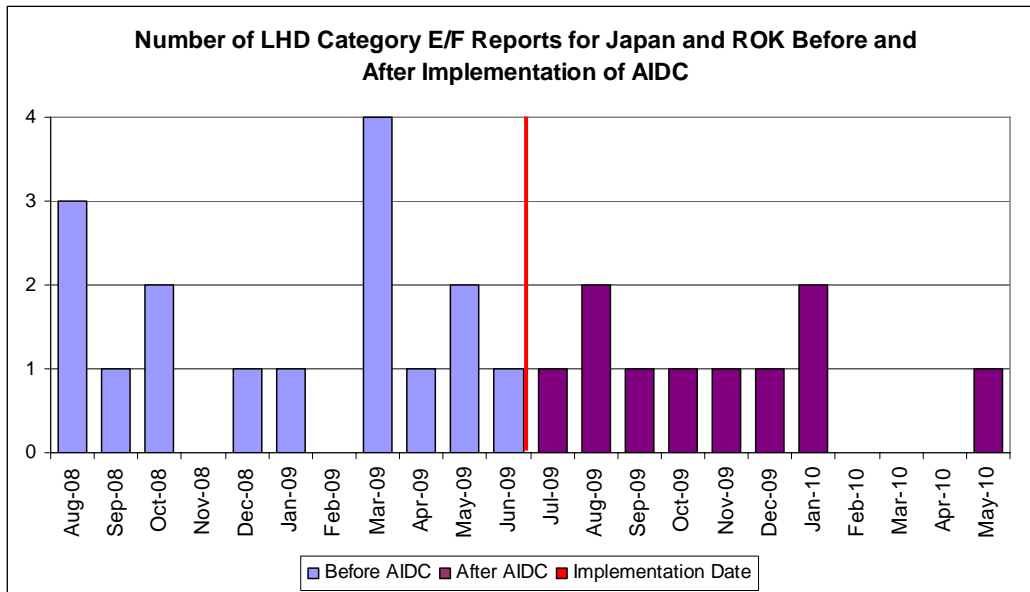


Figure 1 : Number of LHD Category E/F between Japan and ROK

2.4 Table 2 details the 10 LHD reports that occurred after the implementation of AIDC.

Event Date	Source	Location of Deviation	Duration of LHD (min) in Incheon FIR	Code
21-Jul-09	Naha ACC	ATOTI (B576)	0	E
19-Aug-09	Incheon ACC	SADLI (A593)	0.08	E
23-Aug-09	Incheon ACC	ATOTI (B576)	0.08	E
21-Sep-09	Naha ACC	ATOTI (B576)	0	E
1-Oct-09	Naha ACC	ATOTI (B576)	0	E
15-Nov-09	Naha ACC	ATOTI (B576)	Unknown	E
7-Dec-09	Naha ACC	ATOTI (B576)	0	E
21-Jan-10	Naha ACC	ATOTI (B576)	0	E
26-Jan-10	Naha ACC	ATOTI (B576)	0	E
11-May-10	Fukuoka	ATOTI (B576)	Unknown	E

Table 2: LHDs reported after the implementation of AIDC between Japan and ROK

2.5 Comparing the 22-month reports of LHDs before and after the implementation of AIDC, we find the LHD occurrence decreasing. Sixteen category E/F LHDs occurred between 1 August 2008 and 15 June 2009 (AIDC implementation anniversary), whereas ten LHDs occurred between 16 June 2009 and 30 May 2010.

3. **ACTION BY THE MEETING**

- 3.1 The meeting is invited to note and review the contents of this information paper.

References

1. JCAB RMA, “Large Height Deviation (LHD) between Japan and Republic of Korea”, WP/21, RASMAG/12, Bangkok, Thailand, December 2010.
2. “Report of the Twelfth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/12)”, RASMAG/12, Bangkok, Thailand, December 2010.

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