International Civil Aviation Organization

The 18th Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/18)

Bangkok, Thailand, 01 – 04 April 2013

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

JASMA HORIZONTAL SAFETY REPORT

(Presented by Japan)

SUMMARY

This paper presents the results of the horizontal airspace safety assessment of the oceanic airspace of the Fukuoka Flight Information Region (FIR) by the Japan Airspace Monitoring Agency (JASMA). Those are the calculation results of time-based longitudinal, distance-based longitudinal and lateral collision risk in the NOPAC route. This report also refers to the LLD reports received by the FMC for the year 2012.

This paper relates to –

Strategic Objectives:

*A: **Safety** – Enhance global civil aviation safety*

1. INTRODUCTION

1.1 This paper provides the horizontal risk assessment of the FUKUOKA FIR airspace safety undertaken by the JASMA. The report is detailed in **Attachment 1.**

2. DISCUSSION

2.1 The report shows that for the oceanic airspace of Fukuoka, the target level of safety of lateral and longitudinal (TLS) were met for the reporting period of Dec. 2012. But as for the operational risk it is well above TLS, and this is partly because of the practical difficulties for assessing the risk value.

2.2 The JASMA will continue to assess horizontal risk regularly and try to device the improved method to evaluate the operational error and the accuracy of traffic sample data.

Executive Summary

2.3 **Table 1** provides NOPAC routes time based longitudinal risk estimates.

NOPAC Routes – estimated annual flying hours = 65936.04hours *(note: estimated hours based on Dec 2012 traffic sample data)*			
Risk	**Risk Estimation**	**TLS**	**Remarks**
RASMAG 18 Longitudinal Risk	$1.79x10^{-9}$	2.5×10^{-9}	*Below TLS*
RASMAG 15Longitudinal Risk	$1.78x10^{-11}$	2.5×10^{-9}	*Below TLS*

Table 1: NOPAC time separation Risk Estimates

2.4 **Table 2** provides airway R220 in the NOPAC routes distance based longitudinal risk estimates.

R220 in NOPAC Routes ADS-C aircraft – estimated annual flying hours = 26226hours *(note: estimated hours based on Dec 2012 traffic sample data)*			
Risk	**Risk Estimation**	**TLS**	**Remarks**
RASMAG 18 Longitudinal Risk	$1.73x10^{-12}$	2.5×10^{-9}	*Below TLS*
RASMAG 17Longitudinal Risk	$3.68x10^{-13}$	2.5×10^{-9}	*Below TLS*

Table 2: R220 distance separation Risk Estimates

2.5 **Table 3** provides NOPAC routes lateral risk estimates.

NOPAC Routes – estimated annual flying hours = 65936.04hours *(note: estimated hours based on Dec 2012 traffic sample data)*			
Risk	**Risk Estimation**	**TLS**	**Remarks**
RASMAG 18 Longitudinal Risk	3.90081×10^{-15}	2.5×10^{-9}	*Below TLS*
RASMAG 17Longitudinal Risk	4.13733×10^{-15}	2.5×10^{-9}	*Below TLS*

Table 3: NOPAC lateral separation Risk Estimates

2.6 **Table 4** provides operational risk estimates.

NOPAC Routes – estimated annual flying hours = 65936 hours *(note: estimated hours based on Dec 2012 traffic sample data)*			
Risk	**Risk Estimation**	**TLS**	**Remarks**
Operational Risk	1.78×10^{-3}	2.5×10^{-9}	*Over TLS*
Total Risk	4.37×10^{-7}	5.0×10^{-9}	*Over TLS*

Table 4: Operational Risk Estimates

2.7 **Figure 1** provides the airways within the FUKUOKA FIR.

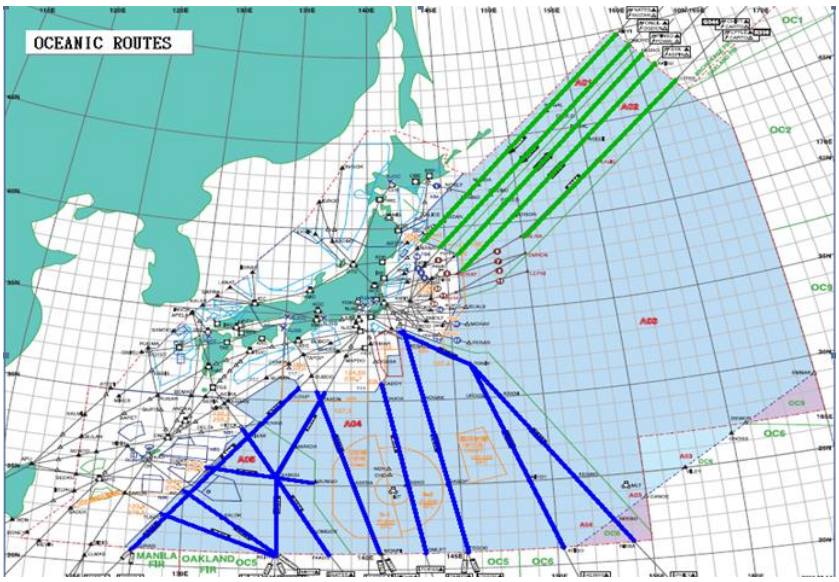

Figure 1: FUKUOKA FIR oceanic routes.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper; and

b) Discuss the results of the airspace safety oversight presented in this working paper and the attached documentation.

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