Twenty Fifth Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/25)

Honolulu, Hawaii, USA, 24-25 March 2011

Agenda Item 4: Review Open Action Items (AI 16-8)

Status of 30 NM Lateral and 30 NM Longitudinal (30/30) Separation in Oakland Oceanic Control Area (CTA)

Presented by the Federal Aviation Administration

SUMMARY

This paper presents a review of the application of 30 nautical miles (NM) lateral and 30 NM longitudinal separation (30/30) in the Oakland Oceanic Control Area (CTA).

1. INTRODUCTION

1.1 In December 2005, the U.S. Federal Aviation Administration (FAA) began an operational trial of 30/30 separation in Oakland Oceanic CTA Sector 3. In March 2007, the trial was expanded, with limitations, to all Oakland oceanic sectors.

1.2 Since June 2007, the Oakland Air Route Traffic Control Center (ARTCC) has applied 30/30 separation and 50 NM longitudinal separation (D50) between appropriately authorized and equipped aircraft throughout the Oakland Oceanic CTA.

1.3 The FAA Oceanic Separation Reduction Working Group (OSRWG) evaluates the operational and technical issues related to 30/30 operations including the performance of the satellite data link system. It includes subject matter experts from air traffic, flight standards, aircraft certification and safety analysis. The OSRWG was responsible for recommending to FAA managers the readiness to start 30/30 operational trials and the policies to be applied. The OSRWG meets at regular intervals to assess the status of operations.

2. DISCUSSION

2.1 At the 29 July 2010 OSRWG meeting, the Group evaluated summaries of the observed data link performance in the Oakland Oceanic CTA. The observed Automatic Dependent Surveillance-Contract (ADS-C) and Controller Pilot Data Link Communications (CPDLC) performance were measured against the appropriate

criteria outlined in the International Civil Aviation Organization (ICAO) Global Operational Data Link Document (GOLD). The performance for satellite and very high frequency (VHF) ADS-C downlink messages were measured against the Required Surveillance Performance (RSP) 180 and the performance for high frequency (HF) ADS-C downlink messages were measured against the RSP Type 400 criteria. The satellite and VHF CPDLC transaction data were measured against the RCP240 criteria and the HF CPDLC transaction data were measured against the RCP 400 criteria.

2.2 The time period reviewed for Oakland ARTCC was August 2009 through July 2010. The results for CPDLC messaging in Oakland showed the satellite and VHF data link performance for the Actual Communication Performance (ACP) and Actual Communication Technical Performance (ACTP) met the 95 percent criteria for RCP240. In addition, the observed ADS-C performance met the 95 percent criteria for the RSP Type 180. The results showed the CPDLC HF data link performance data for the ACP and ACTP met the 95 percent criteria for RCP400 throughout most months in the sample. However, the HF data link performance for ADS-C latency did not meet the 95 percent criteria for RCP400 during most months in the sample.

2.3 The observed application of the reduced longitudinal separation minima (30 NM and 50 NM) examined from ADS-C position reports within Oakland ARTCC were presented to the OSRWG. The number of aircraft pairs with the distance-based longitudinal separation applied were presented by month and traffic flow for the Pacific region. Table 1 contains the number of aircraft within the Oakland Flight Information Region (FIR) observed with the 50 NM distance-based longitudinal separation applied by traffic flow. Table 2 contains the number of aircraft within the Oakland FIR with the 30 NM distance-based longitudinal separation standard applied, all of these aircraft operations occurred within the Central Pacific (CENPAC) traffic flow.

	Jan 2010	**Feb 2010**	**Mar 2010**	**Apr 2010**	**May 2010**	**Jun 2010**	**Jul 2010**
CENPAC	146	160	138	0	44	190	380
CEP	4	4	4	0	0	6	6
Japan – Hawaii	6	2	14	0	4	14	8
North America/Hawaii – Guam	26	0	0	0	0	4	6
ZOA - Number of ADS-C Operations	7891	7031	7870	7831	8454	8208	8985

Table 1. Number of Aircraft Observed with the 50nm Longitudinal Separation Applied in Oakland FIR

	Jan 2010	Feb 2010	Mar 2010	Apr 2010	May 2010	Jun 2010	Jul 2010
CENPAC	12	6	2			10	6
ZOA - Number of ADS-C Operations	7891	7031	7870	7831	8454	8208	8985

Table 2. Number of Aircraft Observed with the 30 NM Longitudinal Separation Applied in Oakland FIR

2.4 Based on the above analysis, the OSRWG concluded the 30/30 operational trials were considered successful and recommended transition to operational implementation within the Oakland Oceanic CTA.

2.5 Accordingly, the application of 30/30 and D50 separation to proximate pairs of aircraft that are both eligible for either 30/30 separation or D50 separation throughout the Oakland Oceanic CTA has been implemented. Published air traffic service routes and other tracks (e.g. Pacific Organized Track System) continue to be laterally separated by a minimum of 50 NM. Expanded application of 30/30 including the operation of a 30 NM route structure within the Oakland Oceanic CTA was not recommended.

3. ACTION BY THE MEETING

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