

**Twenty Third Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/23)**

Santiago, Chile, 26-27 March 2009

Agenda Item 3: Review Relevant Work Conducted Since ISPACG/22

SHARE PERFORMANCE METRICS FOR FUEL AND EMISSIONS

(Presented by Federal Aviation Administration)

SUMMARY

The development of shared performance metrics for ISPACG is an action delegated to the ISPACG Planning Team (ISPACG/PT) and tracked in the ISPACG/PT Integrated Action Plan. This paper outlines a suggested approach to the initial introduction of two shared metrics and the relationship to the Asia and South Pacific Initiative to Reduce Emissions (ASPIRE).

1. INTRODUCTION

- 1.1 At ISPACG/21, the FAA presented the outcomes of the 2006 International Oceanic Airspace Conference (IOAC) Performance Measurement Workshop. The stated goal of that workshop was to “create a shared understanding of stakeholder perspectives, and to promote a unified international approach for tracking and measuring collective success in oceanic airspace through performance metrics.” As a follow-up, at ISPACG/22, the FAA presented information on a shared performance metric under development between the FAA and the Civil Aviation Bureau, Japan (JCAB). The development of shared performance metrics for the South Pacific remains a priority, and is an open work item in the ISPACG Planning Team Integrated Action Plan.

2. DISCUSSION

- 2.1. The FAA/JCAB performance metric is designed to track cumulative fuel burn based on collection of a sample-set of position report and flight plan data for selected city pairs between the US and Japan. The position report data is correlated with flight plan data, extracted from JCAB data tables and converted to a format consistent with the FAA data tables. This integrated data set is then applied to a fuel burn model to calculate an approximation of fuel burn performance for the target city pairs.



- 2.2. As part of the Planning Team action to develop a South Pacific shared performance metric, the FAA reviewed data sharing requirements based on the methodology employed in the North Pacific, and the data formats and availability in the South Pacific for city pairs between North America and Australasia. Due to the number of service providers and the relative differences in data formatting, storage and retrieval, it was concluded that a process for developing fuel burn performance based on flight plan and position data was not feasible for the South Pacific.
- 2.3. The development of a base-line fuel and emissions performance metric has been identified as a key shared goal under the Asia and South Pacific Initiative to Reduce Emissions (ASPIRE). The initial focus for this baseline performance metric is the city-pair routes between Australia, New Zealand and the US West Coast. Once in place, this baseline fuel and emissions metric will be available to measure future gains and trends as services evolve via technology and procedural service enhancements.
- 2.4. Due to the inherent difficulties of South Pacific service providers in developing this baseline shared metric via analysis of flight plan and position data, another method must be employed. Air carrier provided fuel and emissions data is potentially the most straightforward and accurate means to create a gate-to-gate baseline performance measurement. Through efforts associated with the development and execution of the ASPIRE work program, there has been preliminary dialog with a subset of South Pacific air carriers on the development of this baseline fuel and emissions measurement using air carrier provided data.
- 2.5. This item remains open under the ISPACG/PT and is being tracked in the Integrated Action Plan.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a. Support the development of a shared fuel and emissions baseline performance metric between Australia, New Zealand and the US West Coast under the ISPACG Planning Team.
 - b. Support the investigation into the use of air carrier provided fuel and emissions data for the establishment of gate-to-gate performance measurements.