

**Twenty Fourth Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/24)**

Brisbane, Australia, 11-12 March 2010

Agenda Item 4: Review Open Action Items

DYNAMIC AIRBORNE REROUTE PROCEDURE (DARP) EXPANSION UPDATE

Presented by the Federal Aviation Administration

SUMMARY

This information paper provides information on the expansion of the use of DARP in the Asia-Pacific Region.

1. INTRODUCTION

- 1.1 Currently, aircraft operators can DARP in both directions between Oakland and Auckland Control Centers.
- 1.2 Aircraft operators may DARP within the Oakland Flight Information Region (FIR) en route to, or from, the Nadi FIR and Brisbane-Nauru UTA as long as the procedure is initiated in Oakland Air Route Traffic Control Center (ARTCC) airspace.
- 1.3 There is no set date for allowing DARP for aircraft transiting between Oakland ARTCC and Tahiti Area Control Center (ACC). However, Tahiti has recently implemented TIARE, a new Air Traffic Control system. Testing needs to be conducted to determine what the capability to DARP within the Tahiti FIR is.
- 1.4 DARP is not yet possible between Oakland and Port Moresby Control Centers.

2. DISCUSSION

- 2.1 Despite the increasing availability of DARP, the actual utilization of DARP procedures remains infrequent. Air carrier representatives indicated that dispatcher workload is one of the most limiting factors with respect to DARP usage. Recognizing the benefits of DARPs, some operators have hired extra dispatchers. Other limiting DARP factors include airline flight planning computer capabilities and crew training.
- 2.2 The potential for fuel and emissions savings from full implementation of DARP is well understood. The development and proliferation of dynamic rerouting is a key element in the Asia and Pacific Initiative to Reduce Emissions (ASPIRE) South

Pacific Work Program and is included in ASPIRE Best Practices. In order to fully realize the potential for efficiency based on the DARP procedure, service providers must continue to identify, and where possible, remove constraints to DARP procedures. To reach its full potential, availability of dynamic reroutes must be consistently available throughout the Asia Pacific Region.

- 2.3 Currently, DARP is solely an aircraft operator initiated process. The dispatcher evaluates the most current wind estimates and weather updates, along with current aircraft fuel and weight data, to determine whether an alternate route would be advantageous. This information is then relayed to the pilot who makes the request to the ANSP. If the request can be accommodated, a revised route clearance is delivered to the aircraft. The FAA is currently investigating an option where, through the use of Trajectory Based Operations (TBO) technologies, a suggested fuel efficient route could be constructed by the controller and delivered to the pilot for review and acceptance or rejection.
- 2.4 At the FAA Headquarters level, a study is underway to analyze the potential of TBO. Airborne demonstrations of the concept indicate a potential for increased efficiencies through use of the TBO concept.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) Note the successful use of DARPs and the ongoing attempts to increase the availability.
 - b) Discuss DARPs and ways to improve their efficiency.