

**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

USER PREFERRED ROUTE (UPR) UPDATE

Presented by the Federal Aviation Administration

SUMMARY

This information paper provides information on the status of UPRs between the United States of America and the South Pacific, Asia and New Zealand/Caledonia, Asia and Hawaii, Japan and Australia, and Asia and California.

1. INTRODUCTION

- 1.1 In December 2000, the use of UPRs began between the United States and the South Pacific, replacing Pacific Organized Track System (PACOTS) generated tracks in that region.
- 1.2 In September 2007, operational use of UPRs began between Asia and New Zealand/Caledonia.
- 1.3 In August 2008, operational trials of UPRs began between Asia and Hawaii. In November 2009, Japan and Oakland Air Route Traffic Control Center (ARTCC) began generating a single PACOTS track between Asia and Hawaii for operator evaluation.
- 1.4 In May 2009, operational trials of UPRs began between Narita, Japan and Australia.
- 1.5 In September 2009, operational trials of UPRs began between Asia and the United States for flights that would normally utilize PACOTS tracks 14/15
- 1.6 On 11 March 2010, operational trials of UPRs are targeted to begin between the United States and Asia for flights that would normally utilize PACOTS tracks H/I.

2. DISCUSSION

- 2.1 The Trial Guidelines for flight planning UPRs have been published in an International Notice to Airmen (NOTAM) or State Publications.
- 2.2 Future UPR paper trials are being discussed for PACOTS tracks 1/2/3/C/D aircraft.

2.3 Impact of air navigation service providers (ANSP) Operational Requirements:

- a) ANSP operational requirements necessary to manage air traffic operations may have a negative impact on the efficiency of UPRs. As ANSPs gain more experience with UPR city-pairs it may be possible to reduce, or eliminate, some of the operational requirements. Over time, operational requirements need to be reviewed to evaluate their need.

2.4 User Preferred Routes Operational Annual Savings:

- a) Russian Trans East UPRs
 - 1) 1.09 Million kilogram (kg) fuel
 - 2) 3.41 Million kg carbon dioxide (CO₂) emissions
- b) California – South Pacific UPRs
 - 1) 9.61 Million kg fuel
 - 2) 30.3 Million kg CO₂ emissions
- c) Asia – New Zealand/Caledonia UPRs
 - 1) 2.09 Million kg fuel
 - 2) 6.54 Million kg CO₂ emissions
- d) Asia – Hawaii UPRs
 - 1) 2.88 Million kg fuel
 - 2) 9.1 Million kg CO₂ emissions
- e) RJAA – YSSY/YBBN/YBCG/YBCS UPRs
 - 1) 1.89 Million kg fuel
 - 2) 5.91 Million kg CO₂ emissions
- f) Asia – California (Track 14/15) UPRs
 - 1) Savings to be determined (TBD)
- g) Total Annual Savings
 - 1) Over 17.56 Million kg fuel
 - 2) Over 55.48 Million kg CO₂ emissions

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the successful implementation of these UPRs, and the significant fuel savings and reduced environmental impact achieved.
- b) Discuss UPRs and ways to improve their efficiency.