

**Twenty Second Meeting of the  
Informal South Pacific ATS Co-ordinating Group (ISPACG/22)**

Papeete, Tahiti, 12-14 March 2008

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**Agenda Item 4: Review Open Action Items  
AI 21-3**

**Operational use of DARP**

**Presented by Air New Zealand Ltd**

**SUMMARY**

This paper provides information regarding the operational use of DARP by Air New Zealand.

**1. INTRODUCTION**

- 1.1 During the early part of 2006, Auckland and Oakland Centers worked hard on implementing DARP and we received approval to DARP 24/7 between North America and New Zealand in August 2006.
- 1.2 For a number of reasons, primarily a shortage of manpower in Flight Despatch, Air New Zealand has never used this capability, other than for trial flights, since this approval was granted.
- 1.3 The advent and adoption of a 6 hourly GRIB wind update to the flight planning system has raised questions regarding the benefits to be gained by utilizing DARP.

**2. DISCUSSION**

- 2.1 Air New Zealand Navigation Services undertook to conduct a paper analysis of DARP in an attempt to confirm if there was still a benefit in DARP with a 6 hourly wind update regime.
- 2.2 This study looked at 59 flights from North America to New Zealand in the period 28 January – 3 March 2008. The DARP was planned to occur in either Oakland or Auckland airspace. A comparison was made between the original fuel burn and the fuel burn using the DARP for the same planned takeoff weight (note that no attempt was made to adjust for actual takeoff weight).
- 2.3 With the assumption that, due to manpower limitations, the DARP would only be used when it offered a reduction in burn this would have resulted in 34 DARPs (58% of the flights) with an average burn saving on each DARP flight of 453kg.

- 2.4 When this is extrapolated to cover a year's flying for Air New Zealand this equates to approximately:
- 750 tonnes of fuel saved.
  - More than 2 million kg reduction in CO<sub>2</sub> emissions.
  - NZD \$900,000 less expenditure on fuel.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) Note the savings that are available and continue to work on the expansion of DARP capability throughout the Pacific.
- b) Note that even with these savings available Air New Zealand has a manpower shortage such that operational use of DARP is currently not possible, however this is now subject to review.