

**Twenty Ninth Meeting of the
Informal South Pacific ATS Co-ordinating Group
(ISPACG/29)**

**Santiago, Chile
4-6 March 2015**

Agenda Item [6.4]

Implement Partial / Half Degree Waypoints in UPR Airspace

Presented by QANTAS

SUMMARY

Implementing the ability for ADSC/CPDLC equipped aircraft to flight plan partial Lat/Long degree waypoints and HF only equipped aircraft, use half degree waypoints, in lieu of whole degree waypoints within UPR airspace. This will produce small but accumulative fuel efficiencies

1. INTRODUCTION

- 1.1 Operators continuously assess improvements in airspace, technology, practices and collaboration which will facilitate improved optimization of sector fuel burn.
- 1.2 Given the extensive ability to UPR in the Pacific Ocean, predominantly, aircraft are equipped with ADS-C/CPDLC.
- 1.3 Most Pacific ANSP's allow HF only equipped aircraft to track on a UPR.
- 1.4 Operating short city pair UPR on the Tasman there is a tracking efficiency when using half degree WPTs. Most of the aircraft operating between these city pairs are single aisle narrow bodied aircraft. Many of these aircraft now have flight plan uplink/FMC load capability but not SatCom

2. DISCUSSION

- 2.1 It is important for operators to seek continuous improvement within their own Flight planning systems including incorporating optimization algorithms to improve fuel efficiency in UPR. This investment is becoming ever more sophisticated to capture small, incremental efficiencies or improved practices. One such enabler will be the use of partial degrees waypoints in UPR planning.
- 2.2 For ADSC/CPDLC equipped aircraft there is no issue flying to or reporting partial Degree (whole minute) waypoints

- 2.3 Currently, HF only equipped aircraft are planned using only whole degrees Lat/long, the main reasons being:
- The human factors aspects to ensure voice position reports are predicable and understood
 - Flight Crew procedures
- 2.4 For many aircraft the Flight Crew procedure of manually entering lat/long points is no longer applicable
- 2.5 The question of passing half degree lat/long position reports on HF voice remains open but from a Flight Crew perspective this should be no less predictable.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to discuss and consider:
- a) Permitting the use of partial and half degree LAT/LONG waypoints for applicable aircraft operating UPR