**Twenty Seventh Meeting of the
Informal South Pacific ATS Co-ordinating Group
(ISPACG/27)**

**Auckland, New Zealand
27 February – 01 March 2013**

Agenda Item 5.1 Seamless Airspace Chart

New Zealand ADS-B Update

Presented by Airways New Zealand

SUMMARY

This paper provides an update of ADS-B activities in New Zealand

1. INTRODUCTION

1.1 ADS-B has been identified as the preferred future surveillance technology in both the ICAO Regional and the Airways New Zealand surveillance strategies.

2. DISCUSSION

2.1 Currently New Zealand domestic airspace surveillance is provided through 6 MSSR Radars covering most en-route airspace with the exception of the southern portion of the South Island. These are supplemented by 3 PSRs serving the terminal airspace around AA, WN and CH. These radars have an expected design life of 2021.

2.2 In 2010, a project was established to supplement this coverage with MLAT in the QN area, initially for information purposes only. This system has been operational since late 2011 providing surveillance information to QN TWR. A similar system is also operational in AA optimized for surface surveillance (although it can provide cover out to approximately 40nm).

2.3 In 2012 a decision was made to extend the coverage of the existing QN basin system to provide coverage across the southern portion of the SI, currently un-surveilled. The project would also strengthen the current QN architecture ensuring MLAT could be used for ATC separation services in the en-route environment currently un-surveilled. The equipment is currently being installed and it is expected to be operational in Q4 2013.

2.4 The equipment selected from ERA corporation is a Multi Sensor System (MSS) in that it can detect both MLAT and ADS-B targets. At this stage however the ADS-B

component is not activated (except for test purposes) as there is currently no regulatory structure in NZ to support ADS-B type operations.

2.5 In 2012, Airways initiated an industry wide task force to review the National Surveillance replacement requirements focused on ADS-B as the preferred technology. One of the key objectives of the project is to work with NZ CAA in establishing the necessary regulatory framework. The TF is also working with operators with regards to equipage, in particular for General Aviation.

2.6 The first part of this regulatory structure has been requested which is a rule to ensure that any operators broadcasting ADS-B must be in accordance with one of the defined standards:

a. CASA CAO 20.18
b. EASA AMC 20-24
c. FAA AC 20-165

2.7 This rulemaking replicates the APANPIRG conclusion which is now being circulated for adoption in the Regional supplement (Doc 7030).

2.8 With this rule in place, Airways expects to develop a safety case to enable use of ADS-B data for ATC services in the interim period.

2.9 Airways are working with CAA and are hopeful that the rule can be established by the end of 2013.

2.10 Further work will include the establishment of airspace “mandates” although these are not expected to be effective until later this decade. The “roadmap” for necessary rulemaking should be finalised by the end of 2013.

2.11 As part of the National ADS-B program, Airways will also consider working with other states in a wider network capability as required.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the information contained within this paper