

**Twenty Eighth Meeting of the
Informal South Pacific ATS Co-ordinating Group
(ISPACG/28)**

**Papeete, Tahiti
5-7 March 2014**

Agenda Item 5.1 Seamless Airspace

Benefits of Sharing ADS-B Information Across FIR Boundaries

Presented by Airservices Australia

SUMMARY

This working paper describes the safety benefits of sharing ADS-B information between two ATS Units in the vicinity of the FIR boundary

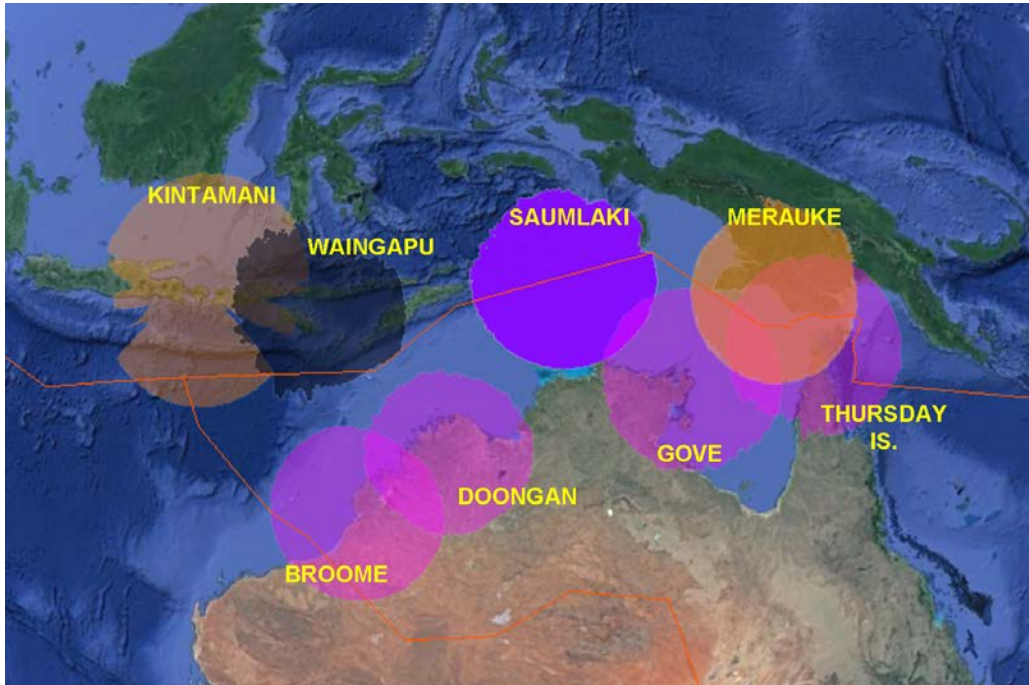
1. INTRODUCTION

- 1.1 A potential benefit in the sharing of ADS-B information across FIR boundaries is the provision of the capability to identify and rectify possible ATC coordination errors for inbound flights prior to the aircraft crossing the FIR boundary.
- 1.2 While this capability has been available to a limited extent in the past using ADS-C information, this relied on variable events such as whether or not a logon has been received from the aircraft, and the way in which software displays the extrapolated ADS-C information to the controller. Conversely, the availability of ADS-B information displays real-time ATS surveillance data without relying on a logon.

2. DISCUSSION

- 2.1 In 2010, an agreement was reached between Australia and Indonesia for the exchange of ADS-B information received by a number of ADS-B sites in the vicinity of the common FIR boundary.
- 2.2 Commencing in February 2011, in exchange for data from Broome, Doongan, Gove and Thursday Island, Indonesia provided data from Kintamani, Kupang, Saumlaki and Merauke. More recently due to problems with the Kupang ADS-B site, data from Waingapu is being received instead.

- 2.3 The receipt (and display) of this ATS surveillance information permits controllers to cross-check the information received in coordination against the actual three dimensional position of the aircraft.



- 2.4 While any coordination discrepancies detected are still being reported as “errors”, this early detection allows ATC to correct a coordination discrepancy prior to it becoming operationally significant.
- 2.5 During the six month period (01/07/2013 to 31/12/2013) the following potential coordination errors were identified and resolved through the use of ADS-B information overlapping the FIR boundary.

Coordination element	Number of occurrences
Estimate error (>3 minutes)	4
Incorrect level	5
Incorrect advice that an aircraft was “on route”	1
Incorrect route information	1
Incorrect weather deviation	2
Weather deviation not coordinated	8

- 2.6 A number of flight crew “non-compliances” associated with weather deviations were also identified and reported.

2.7 While there were none reported in the period of analysis, the availability of this ADS-B information could also prevent or minimise errors associated with non-receipt of any coordination at all.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note one of the advantages of sharing ADS-B information across FIR boundaries