Twenty Fourth Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/24)

FANS Interoperability Team Meeting (FIT/17)
Brisbane, Australia, 9-10 March 2010

Agenda Item 8: SATCOM System Performance

SATCOM DATA 2/3 ISSUES

Presented by Airbus

SUMMARY

This Working Paper is an Airbus contribution to the SATCOM Data 2/3 issues as reported through CRA PRs.

1. INTRODUCTION

1.1 Performance monitoring as reported by Airways New Zealand has demonstrated very poor SATCOM performance on some A340 and A380 fleet.

1.2 In addition, several airlines reported losses and / or delays of ACARS messages.

2. DISCUSSION

2.1 After analysis, it occurred that the concerned a/c were using both SATCOM Data 2 and a STC cabin installation using Data 3. Such data3-based application is more demanding in terms of traffic volume, compared to the previous generations of data 3 applications.

2.2 Technical facts may be summarized as follows:

- Data 2 and 3 share the same resources.
- The SATCOM Data Unit decides the Air To Ground priorities between Cockpit and Cabin applications.
- It is the GES which on ground, inversely ensure the Ground to Air priorities.

2.3 The root cause of the problem has been considered as being part of the ground segment part (GES) as the GES request acknowledgement for the transmission with a fixed priority regardless of the original message priority.

2.4 The GES limitation had not been identified before because data 3 traffic volumes were lower in the past, hence the wrong GES implementation had not been a dimensioning factor for the overall performance.

2.5 This problem is common to both SITA and ARINC DSPs.

2.6 A fix, so-called R15 has been defined by the various stakeholders and is currently under deployment.

3. RECOMMENDATION

3.1 It is recommended to monitor the performance of the incriminated fleet once the R15 fix has been fully implemented, and to check performance has recovered the level required by the Oceanic SPR to allow for reduced distance based separation.