



The Twenty-First Meeting of the Informal South Pacific ATS Coordinating Group (ISPACG/21)

Auckland, New Zealand, 5-8 March 2007

Agenda Item 4: Review progress on Open Action Items
AI 18-1

ATS DATA LINK GATEWAYS

(Presented by the Federal Aviation Administration)

SUMMARY

This information paper provides an update to ISPACG Action Item 18-1, ATS-Data Link Gateways.

1 Introduction

1.1 “ATS Data Link Gateways” are intended to resolve issues with implementing data link systems employing different technologies. Aircraft equipped with controller-pilot data link communications (CPDLC) and automatic dependent surveillance-contract (ADS-C) based on the future air navigation system 1/A (FANS 1/A) technology are not compatible with ground systems that are based on the ICAO aeronautical telecommunication network (ATN) technology and vice versa.

1.2 To exploit multiple technologies and at the same time take full advantage of operational capability of data link equipped aircraft, either the ATS providers will need to accommodate the aircraft data link capabilities based on different technologies, or the aircraft will need to be equipped based on the technologies used by the ATS provider’s ground systems. Both cost and safety are considerations in any approach taken by the aviation community, given the current situation and plans for the future.

1.3 Work has progressed within RTCA SC-189/EUROCAE WG-53 and the ICAO ATN Accommodation Drafting Group (ADG). The ADG works under the auspices of the Data Link Steering Group (DLSG).

2 Discussion

2.1 SC-189/WG-53 has completed its final review of the FANS 1/A – ATN Interoperability Standard. The initial release of this standard is planned for approval and publication by RTCA/EUROCAE, in April/May 2007. The standard includes an interoperability solution for an ATN-based ground system to provide continental data link services to FANS 1/A aircraft.

2.2 The scope of the FANS/ATN Interoperability Standard has been determined based on the more immediate need of ATS providers, currently designing ground systems to the technical provisions of the ATN, that intend to provide continental data link services to ATN aircraft and FANS 1/A aircraft. This standard may be revised at a later time as experience is gained, and to expand the scope as the need arises to include, for example, the work of the ATN Accommodation Drafting Group (ADG), which is discussed further in this information paper.

2.3 For more information on the publication and availability of the FANS 1/A-ATN Interoperability Standard, contact RTCA (www.rtca.org) or EUROCAE (www.eurocae.org).

2.4 The DLSG/ADG is developing an interoperability solution for the FANS 1/A ground system to provide oceanic data link services to ATN aircraft. They are also, reviewing the ADS application for backwards compatibility, and to enhance ADS functionality that will provide a common ADS-C application that will meet the requirements for continental and oceanic data link services.

2.5 The DLSG/ADG recognizes the importance of a globally harmonized ATN accommodation solution, which will be coordinated via ICAO mechanisms to ensure a viable solution for providing data link services throughout the world.

2.6 The DLSG/ADG is coordinating with the ISPACG Data Link Working Group, which was formed at the planning meeting, held in August 2006, in Auckland, New Zealand.

3 Recommendation

3.1 The meeting is invited to note the information provided in the paper.

3.2 This paper recommends closure of action item 18-1, and future updates on this activity be provided through reports to the ISPACG via the Data Link Working Group.

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