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CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)

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(GREPECAS/15)**

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Agenda Item 2: Global and inter-regional activities

REPORT ON PROGRESS TOWARD DATA LINK HARMONIZATION

(Presented by the Secretariat)

SUMMARY

This paper presents a progress report on the work of the Data Link Steering Group (DLSG), established by the NAT SPG and the EANPG to address data link service divergence in the short term and, in the long term, to develop a harmonized data link service. Consequently, the Air Navigation Commission has agreed for reconvening of the Operational Data Link Panel (OPLINKP) to act as a focal point for the consolidation and development of air traffic management (ATM) data link operational requirements.

Action by GREPECAS/15 is in paragraph 4.

1. INTRODUCTION

1.1 On 12 April 2005, the Air Navigation Commission (ANC 169-1) was provided with an informal briefing on the Data Link Harmonization Symposium organized by the ICAO European (EUR) and North Atlantic (NAT) Office in Paris on 30 and 31 March 2005. The key outcomes of the Symposium included:

- a) recognition of the co-existence of FANS-1/A and aeronautical telecommunication network (ATN) data link services;
- b) agreement on the need for convergence and for ICAO to play a leading role in the global coordination process;
- c) identification of a need to further clarify some operational and technical details; and
- d) identification of a number of issues that were seen as key elements in addressing the convergence process, including safety, performance (both in terms of required communication performance (RCP) and required total system performance), operational capability, interoperability, seamlessness, and cost versus benefits.

1.2 In follow-up to the above, the European Air Navigation Planning Group (EANPG) and the North Atlantic Systems Planning Group (NAT SPG) identified the need for convergence of data link applications between the European and North Atlantic (EUR/NAT) Regions and mandated the ICAO

Regional Office in Paris to establish a joint EUR/NAT Data Link Steering Group (DLSG) to develop a harmonized data link service (EANPG Conclusion 46/21 and NAT SPG Conclusion 40/7 refer).

2. DISCUSSION

2.1 Composed of experts from the EUR/NAT Regions, the DLSG was tasked with, in the short term, addressing divergence and in the longer term, supporting data link convergence. It was recognized that data link, particularly controller-pilot data link communications (CPDLC), was being implemented in different areas with only local considerations in mind which had resulted in different aircraft avionics requirements and procedures for pilots and controllers. The DLSG then established the ATN Accommodation Drafting Group (ADG) to further the technical and operational elements to support convergence between the ATN-based CPDLC implementation plans for core Europe and the current efforts in the NAT airspace to provide services to FANS-1/A equipped aircraft. The major obstacles concerned automatic dependent surveillance — contract (ADS-C) not being part of the former, and the CPDLC system of each containing non-interoperable functionalities.

2.2 DLSG reached a number of conclusions that have a bearing on all ICAO Regions. It was therefore considered necessary to bring these matters to the attention of the Commission where global harmonization of present data link procedures and interoperability of the data link services of the future would be addressed.

2.3 The DLSG agreed that a *strategy for data link harmonization* should be developed. This work is in the last stages of completion and can be expected to result in updated guidance which was first prescribed by State letter AN 7/11.13-94/94 dated 13 December 1994, concerning specifications not compliant with the ATN transition. A draft of the proposed strategy was circulated by the Regional Office in Paris, including a request for comments. NAT SPG/43 (June 2007), the thirty-eighth meeting of the EANPG Programme Coordinating Group (COG/38, June 2007) and the eighteenth meeting of the ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG/18, September 2007) also reviewed the strategy and replies are being incorporated. Once the strategy is completed, the Secretariat proposes that it be circulated by C19 memorandum to the Commission and to States via State letter.

2.4 The basis for the establishment of the DLSG was in support of the notion that ICAO should play a lead role in the global coordination of the process of convergence, to further the operational and technical details where necessary and, to advance the key elements of the convergence process as described above. Additionally, in the short term, DLSG was to ensure that a migration path of the data link programmes in the EUR and NAT Regions took account of each other's programme, particularly in terms of any mandatory carriage requirements that might directly affect the other regions. While DLSG was instrumental in providing the forum to debate the merits of "accommodation" in EUR/NAT, it is evident that advancing global activities through one regional office would limit involvement and increase the risk that solutions will not be global.

3. RECONVENING OF OPLINKP

3.1 The Commission (171-9), when reviewing the report of the first meeting of the Operational Data Link Panel (OPLINKP/1, September 2005) agreed that the work of the OPLINKP had been completed and that the panel could be dissolved. The Commission was advised that, as the emerging data link technologies mature, the Secretariat had different means available to develop necessary provisions and guidance material, until such time as a reassessment for the establishment of a suitable body was made. The Secretariat has now made this assessment and is of the view that a panel would be necessary to act as a focal

point for the consolidation and development of ATM data link operational requirements. Provisions for projects such as NextGen and SESAR are currently being developed outside of ICAO. It is imperative that ICAO is well positioned to support the development of applications that have global implications towards the future support of ATM. The most expeditious mechanism available to the Secretariat would be to reconvene the OPLINKP and to prepare a suitable work programme.

4. **ACTION BY GREPECAS/15**

4.1 The Meeting is invited to:

- a) note the progress of the Data Link Steering Group; and
- b) note that the Operational Data Link Panel (OPLINKP) will be reconvened and that a work programme will be developed and presented for approval by the Commission in its 179th Session in September–November 2008.

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