



Agenda Item 2: Review of Air Navigation Matters
2.2 Air Navigation specific activities:
2.2.1 Air Traffic Management (ATM)

ATS INTERFACILITY DATA COMMUNICATION

(Presented by the United States of America)

SUMMARY

This paper presents information to promote discussion concerning ATS Interfacility Data Communications as means for the exchange of notification, coordination, transfer and related data between automated ATS systems.

**Strategic
Objectives**

*This working paper is related to Strategic Objectives A and D and ICAO Global Plan Initiatives (GPI)
GPI-3 – Harmonization of level systems
GPI-22 – Communication infrastructure.*

1. Introduction

1.1 A communications and data interchange infrastructure significantly reduces the need for verbal coordination between Air Traffic Service Units (ATSUs). ATS Interfacility Data Communications (AIDC), or similar automation, provide the means by which data interchange between ATSUs providing air traffic service in, and adjacent to, the Caribbean Region is harmonized.

1.2 Caribbean/South American Regional Planning and Implementation Group (GREPECAS)/14 encouraged States and International Organizations to implement a safety management system and as far as possible, as a technological defense, to implement data communication between ATS (AIDC). GREPECAS/14 reported that *“Air Traffic Services providers in several regions have identified the requirement to exchange flight plan and radar data information between adjacent ATC facilities utilizing ATS AIDC. This requirement stems from the increasing traffic levels crossing FIR boundaries and the need to improve efficiency and accuracy for the ATC providers. Developing a harmonized process and protocols for exchanging data between multiple States/Territories/International Organizations within and across regions is critical to satisfying this requirement. As ATS providers develop their automation systems, consideration should be given to meeting the capabilities identified within this Interface Control Document (ICD).”*

2. Discussion

2.1 The AIDC application provides interoperability among automated systems allowing data exchange between ATSUs that are harmonized to a common standard. AIDC supports the notification, coordination and the transfer of communications and control functions between these ATSUs. Full AIDC capability also supports greater flexibility where different separation minima are being used in adjacent airspace. AIDC promotes seamless transfer of aircraft between participating ATSUs.

2.2 AIDC implementation has proven highly successful and has provided significant benefits including:

- a) Reduced workload for controllers;
- b) Reduction of readback/hearback errors during coordination;
- c) Reduction of gross navigation errors and large height deviations which are the result of “controller to controller” coordination errors; and
- d) Facilitation of operational initiatives such as User Preferred Routes and Dynamic Airborne Reroute Programs.

2.3 The ability to meet Target Level of Safety (TLS) in Reduced Vertical Separation Minimum (RVSM) Airspace has been under scrutiny since the implementation of the standard. Recent data collected for the North Atlantic (NAT) indicates that the vertical operational collision risk estimates for 2008 exceeded the established TLS by 10 times and has been on the rise since 2001.

2.4 The major contributors to Large Height Deviations (LHDs) are ATC Coordination errors and pilot deviations (the majority being failure to follow clearance and climb/descent without clearance). These two contributors make up almost 82% of the events and 95% of the time at the wrong flight level.

2.5 As stated above AIDC has proven to be highly successful in the reduction of LHDs and States are encouraged to implement this automation.

2.6 Development of a strategy for the integration of Air Traffic Management automated systems with a safe, gradual, evolutionary and interoperable vision facilitates the information exchange and the collaborative decision-making of all the components of the ATM system. This creates a seamless, flexible, optimal and dynamic management of airspace.

3. Recommendation

3.1 The Meeting is invited to:

- a) Note the information in this working paper;
- b) Support measures to reach the goal of a seamless, global air traffic management system;
- c) Encourage the development of action plans for adding implementation of AIDC to air navigation work plans; and
- d) Support the concept of a globally harmonized AIDC ICD.