



*International Civil Aviation Organization*  
**Twenty Second Meeting on the improvement of Air Traffic Services over the South Atlantic**  
**(SAT/22)**  
**Paris, France (5-9 June 2017)**

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**Agenda Item 3: Communications, Navigation and Surveillance (CNS) (by the CNS Working Group)**

**3. Improvement of CNS system in the SAT Region (AMHS, AIDC, ADS-B)**

(Presented by *International Air Transport Association*)

**SUMMARY**

*This paper highlights implementation concerns with the SAT Air Traffic Services Interfacility Data Communication (AIDC) links for notification, coordination and transfer of aircraft and Aeronautical Message Handling System (AMHS) links between SAT Flight Information Regions (FIRs) having an impact on safety, airspace efficiency and aircraft operating in the EUR/SAM corridor.*

**1. Introduction**

- 1.1. AIDC and AMHS implementation will improve safety and efficiency enabling greater support to PBN and PBCS through automation. AMHS implementation will solve the long outstanding issue of loss of flight plans. AIDC will reduce the need for voice coordination between ATSUs, ease controller workload, decrease coordination errors and controller confusion, and mitigate LHDs.
- 1.2. Go-Teams were established in order to coordinate the harmonization and operations of ATM Systems to increase interoperability, efficiency and capacity through ground-ground integration. The teams were tasked to develop checklists of implementation actions and to submit a draft implementation plan and roadmap for the SAT region during the SAT/FIT/12 meeting.
- 1.3. The project team approach proposed by IATA during the SAT meeting held in Lisbon was not approved, even whilst the SAT Region still faces efficiency and infrastructure challenges, such as: missing flight plans, low pace of AIDC implementation, non-interconnection of AMHS systems, and unreliability of CPDLC/ADS-C service provision, interconnection and interoperability of neighboring VSAT Networks.

**2. Discussion**

- 2.1. CPDLC automatic transfer process is not implemented in some boundary SAT FIRs and pilots have to manually disconnect and logon to next Air Traffic Service Unit (ATSU). This effect of many logon and logoff events causes significant workload to pilots and controllers.



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- 2.2. Aircraft equipped with DLIC<sup>1</sup> function have the capability to indicate to ground ATS systems its availability for data communication, and provide information to allow the ground ATS systems to compare the aircraft information against filed flight plans to validate that communication is being established with the correct information. Functionality also includes mechanism, whereby the aircraft can be requested to declare its readiness for data communication service with the next ATSU.
- 2.3. AIDC implementation facilitates CPDLC transfer process of aircraft operations. While the implementation of AIDC messages is intended to automate the ATC coordination process and minimize the requirement for voice coordination, it is not a complete replacement for voice, especially when a flight is in close proximity to the boundary with an adjacent ATSU. ATS/DS links between adjacent centres have to be maintained in order to be served as a backup. AIDC messages and associated procedures should be established on the basis of regional air navigation agreements in order to facilitate the harmonization of ATS between adjacent airspaces.
- 2.4. With regards to the effective implementation of AMHS and AIDC between adjacent SAT ATSUs, States/ANSPs are encouraged:
  - a. to develop and sign a Memorandum of Understanding (MoU)
  - b. to develop guidance document addressing the checklist, in order to provide instructions to specific agreements needed when implementing AIDC or AMHS. The document should specify the facilities and messages to be used for the exchange of notification, coordination, confirmation, transfer of control, and transfer of Data link communication related data between automated ATS systems, connectivity between FPL ATC systems, AMHS or AFTN channels to be used, a test protocol, pre-operational/operational tests, operating stage (LoA).

### **3. Action by the Meeting**

The meeting is invited to:

- a) note the information provided;
- b) consider the IATA recommendations mentioned in paragraph 2.4 of this WP; and
- c) agree to a pragmatic timeline and implementation date by which all the AMHS and AIDC links should operational.

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<sup>1</sup> DLIC is a necessary precursor for any data link service that used the CDPCL application