

# **BRASIL**

**MINISTÉRIO DA DEFESA – COMANDO DA AERONÁUTICA**

**DEPARTAMENTO DO CONTROLE DO ESPAÇO AÉREO**

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14/21  
15 JUL21**

## **CPDLC PROOF OF CONCEPT AT RECIFE AND AMAZÔNICA FIR**

*Period of validity: from 15 JUL 2021 to 20 AGO 2022*

### **1 PRELIMINARY ARRANGEMENTS**

#### **1.1 PURPOSE**

The purpose of this Aeronautical Information Circular (AIC) is to explain about the operational procedures to be adopted by the air traffic controllers and pilots during CPDLC proof of concept at Recife and Amazonica FIR.

#### **1.2 SCOPE**

The provisions set forth in this Circular apply to the ATC units and aircraft operators involved.

#### **1.3 REFERENCES**

AIP Brazil, Part ENR 3.5, Chapter 4 “Special requirements and procedures for (ADS-C/CPDLC) aircraft operation in Brazilian FIR.”

MCA 100-23 “Procedimentos Operacionais para o Uso de Comunicação por Enlace de Dados Controlador-Piloto (CPDLC)”, of January 04, 2021.

AIC-A 13-21 “Operationalization of CPDLC to provide ATS in Brazilian continental airspace”

#### **1.4 ABBREVIATIONS AND CONCEPTS**

##### **1.4.1 ABBREVIATIONS**

ACC	Area Control Centre
ATC	Air Traffic Control
CPDLC	Controller-Pilot Data Link Communication
DECEA	Department of Airspace Control
FIR	Flight Information Region

**1.4.2 CONCEPTS****ATC CLEARANCE**

Authorization for an aircraft to proceed in accordance with the conditions specified by an ATC Unit.

**CONTROLLER-PILOT DATA LINK COMMUNICATION**

Method by which air traffic controllers can communicate with pilots over a datalink system.

**DATA LINK COMMUNICATION**

Transmission and reception of information by means of signals with digital modulation.

**FANS 1/A**

Initial Future Air Navigation System, as defined by EUROCAE ED-100A/RTCA DO-258A, or previous standards that defined FANS1/A capacity.

**NOTE:** FANS 1 / A generally means that the aircraft's data link system, the ATS Unit's ground system and the provision of communication service all conform to the standard. In certain cases, a specific reference is made to a particular type of FANS 1/A aircraft as follows:

- a) FANS 1/A + means that the aircraft fully complies with Revision A of the standard and includes the message latency monitor; and
- b) FANS 1/ADS-C means that the aircraft complies with the ADS-C application but does not include the CPDLC application.

**PROOF OF CONCEPT**

Term used to denote a practical model that can prove the (theoretical) concept established by a research or technical article. It can also be considered an implementation, generally summarized or incomplete, of a method or an idea, carried out with the purpose of verifying that the concept or theory in question is likely to be explored in a useful way.

**2 INTRODUCTION**

**2.1** DECEA is working to operationalize the CPDLC for application in air traffic control in continental airspace. The operationalization of the application in the ATC is planned to take place on September 9, 2021 at FIR Recife (sectors 1, 2, 3, 4, 5, 6, 9 and 10) and FIR Amazonica (Belem Region).

**2.2** To demonstrate, in practical, the concepts and technologies involved in the Landell Project, as well as identify unforeseen issues in a timely manner to take mitigating and/or corrective actions in time for the beginning of the ATS provision in the involved airspaces, the project team has planned the carrying out of a Proof of Concept (PoC).

**2.3** The Landell Project PoC was planned to be realized in the sectors cited in item **Erro! Fonte de referência não encontrada.** of this AIC, in the period from August 9<sup>th</sup> to 17<sup>th</sup>, 2021, from 2000z to 2359Z. This time was chosen because of its low demand for air traffic in the sectors involved.

**2.4** The Landell Project Proof of Concept aims to validate, in a real and controlled situation, the processes, procedures and system employed in the Landell Project implementation, by applying specific tests (indicators) in a reduced scale (lower flow times), to analyze the technical and operational readiness and identify possible obstacles with the potential to delay or prevent the start of the CPDLC operation.

**2.5** In summary, the Landell Project Proof of Concept will be an anticipated application of the CPDLC use implementation for ATS provision in continental airspace, which will take place from **September 9<sup>th</sup>, 2021.**

### **3 OPERATIONAL PROCEDURES**

**3.1** During the performance of the PoC, all operational procedures foreseen in the DECEA regulations for the use of the CPDLC in continental airspace will be adopted.

**3.2** In accordance with Landell Project, the primary means of communication between aircraft and ATS in the involved sectors will be VHF. **It is mandatory** the monitoring of the VHF frequency in the sector the aircraft is flying during CPDLC communication.

**3.3** Special attention shall be given to the logon and VHF communication failure procedures, in accordance with the DECEA regulatory framework.

### **4 FINAL ARRANGEMENTS**

**4.1** This AIC enters into force on 15 JUL 2021.

**4.2** The criteria and procedures established on this AIC do not exempt pilots and ATS units involved to comply with the other provisions contained in the legislation in force.

**4.1.1** DECEA provides a communication channel for sending doubts, suggestions, comments, criticisms, compliments and notifications of errors through the Citizen Assistance Service at the electronic address: [http://servicos.decea.gov.br/sac /index.cfm](http://servicos.decea.gov.br/sac/index.cfm) by selecting the CONTACT option from the Area menu.

**4.1.2** Cases not provided for in this Circular will be resolved by the Head of the Operations Subdepartment of DECEA.