COCESNA
ADS-C/CPDLC

Implementation

Sint Maarten
April 2016

INTRODUCTION

COCESNA is implementing ADS-C / CPDLC, with the purpose of increasing situational awareness of the air traffic controller, increasing safety, optimizing the use of OCEANIC airspace of the FIR taking advantage of the on board aircraft avionic, allowing aircrafts operators to fly at optimal enroute flight levels.

ACTIVITIES

To start trials

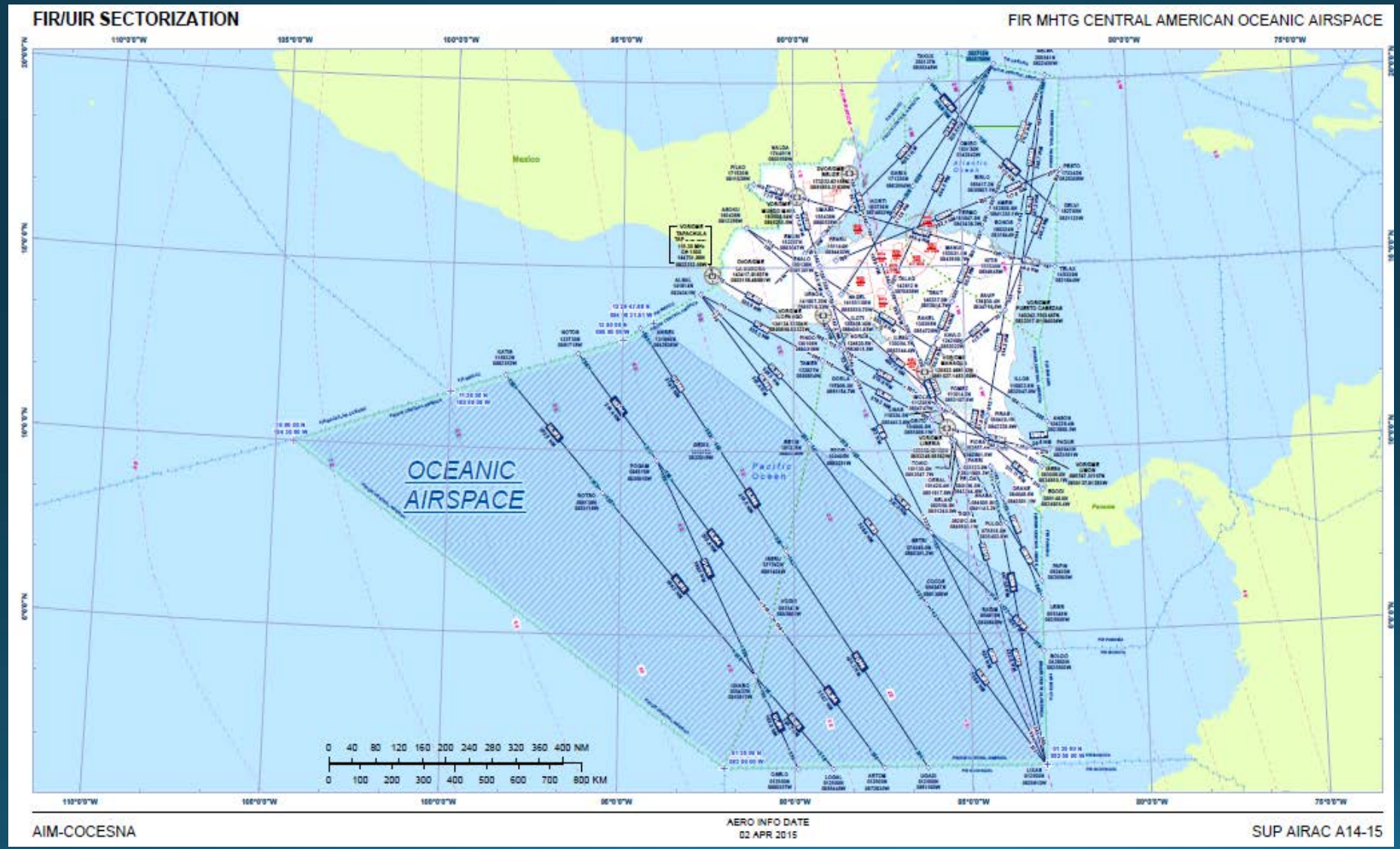
- AIC Publication
- Connection of ATM System (AIRCON 2100) and CSP (SITA)
- Pre-implementation trials to confirm data link
- Trials Protocol
- Agreements IATA and Airlines
- ATC personnel Training on new ATM System (AIRCON 2100R) and ADS C CPDLC functionalities
- ADS C CPDLC Trials and transitioning to new ATM system to the new AIRCON 2100R
- ADS C CPDLC Trials CSP (SITA) and failure to connect TFC with ARINC

ACTIVITIES

- ATC personnel Training AIRCON 2100R/ ADS C CPDLC

- 20th march 2015 CENAMER moved to the new control room.
- October November and December 2014 were dedicated to train all ATC personnel on the several new functionalities of AIRCON 2100R system.
- But also it was the correct time to introduce ADS C CPDLC operations training
- On April 2015 ADS C CPDLC trials commence again and ATC personnel was reviewed with ADS C CPDLC procedures.

OCEANIC AIRSPACE AND RNAV/RNP10 AT CENTRAL AMERICA FIR
SINCE : MAY 28, 2015

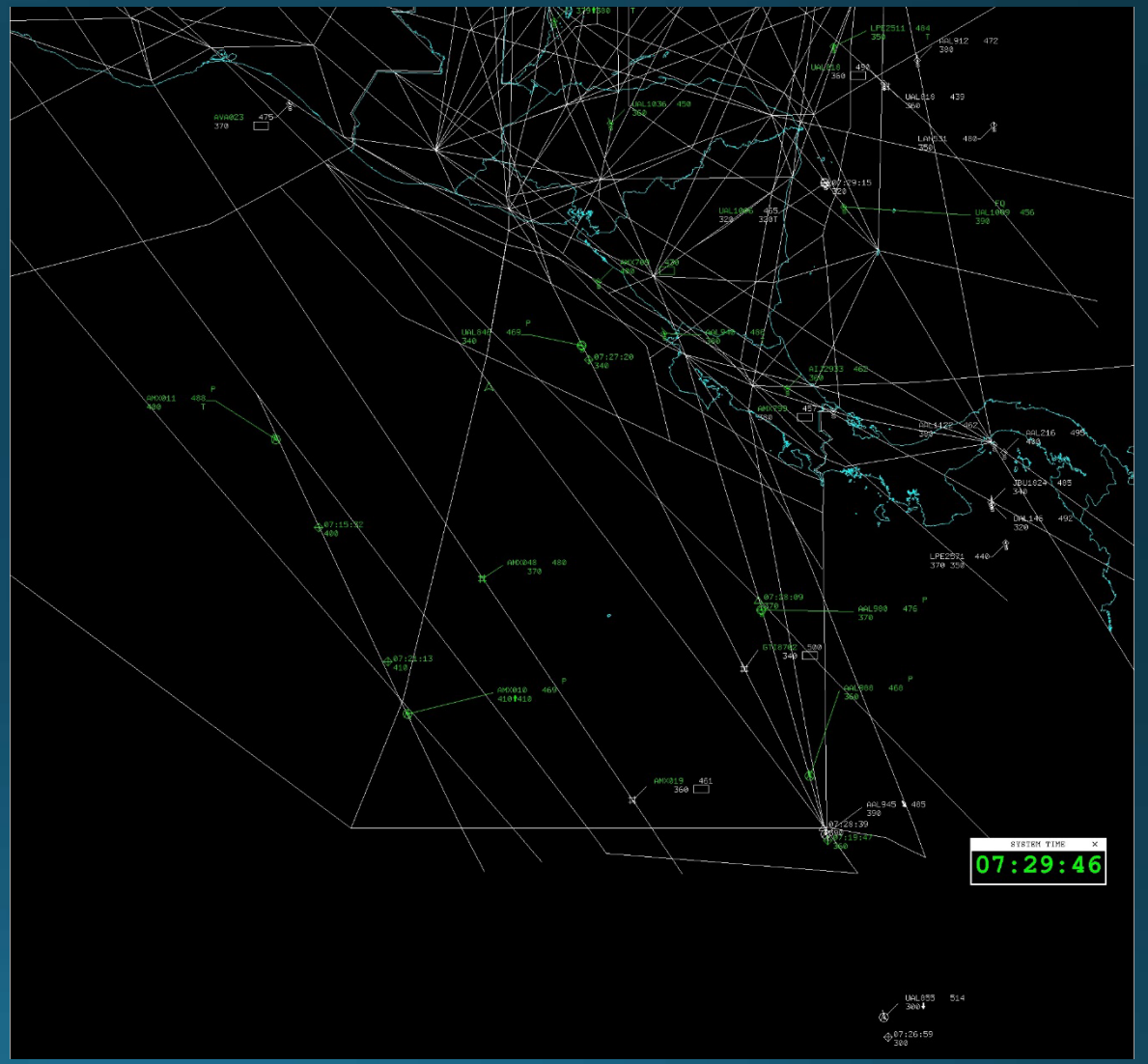


ADS-C/CPDLC is still on a trials stage.

The purpose of these trials is to verify:

1. The performance of functions
2. Check the number of aircraft with the necessary equipment
3. Schedules greater use

The result has been an improvement in communication, which translates into a better quality in air traffic control services.



2015

We published a new AIC, for a better understanding to airspace users.

A trial protocol was distributed though IATA to airlines to let them know our goals in implementing ADS C CPDLC.

PBX: (504) 2275 7090
(504) 2283 4750
AIM: (504) 2283 4770
(504) 2275-7110
FAX: (504) 2234 3360 ext.1363
AFS: MHTGYGYX
E-mail: aic_pub@cocesna.org
WEB site: www.cocesna.org/aic.php

CORPORACION CENTROAMERICANA
DE SERVICIOS DE NAVEGACION AEREA

SERVICIO DE INFORMACION AERONAUTICA
Apartado Postal No.660
Tegucigalpa, Honduras

A I C
Serie A

41/15
4 MAY

ENR

INICIO DE PERIODO DE PRUEBA SERVICIO DE COMUNICACIÓN ADS-C/CPDLC EN LA FIR CENTROAMERICA

La Corporación Centroamericana de Servicios de Navegación Aérea (COCESNA), informa a todos los Usuarios que ha implementado un enlace de datos, para proporcionar el servicio de comunicación ADS-C/CPDLC en la FIR Centroamérica.

El servicio ADS-C/CPDLC estará en período de prueba por tres (3) meses a partir del 29 de abril al 30 de julio de 2015.

COCESNA, a la vez que invita a participar en estos ensayos agradece la colaboración de los interesados.

La información de intercambio de mensajes es la siguiente:

1. Identificador ICAO de la FIR Centroamérica para el **LOGON**: **MHTG**

2. Equipos y Capacidades
   El siguiente equipo debe de indicarse en la casilla 10 (equipos y capacidades) del FPL:

- *D1 ADS-C with FANS 1/A y*
- *J2 CPDLC FANS 1/A HFDL y/o*
- *J5 CPDLC FANS 1/A SATCOM (INMARSAT) y/o*
- *J7 CPDLC FANS 1/A SATCOM (Iridium).*

Todas aquellas Aerolíneas que deseen participar en las pruebas de comunicación ADS-C/CPDLC con COCESNA/CANAMER ACC, durante el periodo indicado anteriormente, o que requieran mayor información, pueden comunicarse a través de los puntos de contacto siguientes:

Víctor Manuel Andrade
Jefe CENAMER Control, COCESNA-Honduras
victor.andrade@cocesna.org
Tel.: (504) 2275-7090.

Jenny Lee
Supervisora Instructora CENAMER Control
jenny.lee@cocesna.org
Tel.: (504) 2275-7090.

Se reemplaza AIC A40/15 con modificaciones.

Corporación Centroamericana de Servicios de Navegación Aérea

Organismo Internacional de Integración Centroamericana

COCESNA

ADS-C/CPDLC Protocol Trials

INTRODUCTION

COCESNA has integrated to CENAMER control center a satellite data link, which will communicate directly with aircraft that also have the capability to transmit its position through ADS-C and establish written communication controller - pilot via CPDLC.

OBJECTIVE

Verify that CENAMER´s data link system is working properly; and check the ADS-C / CPDLC features comply with the requirements.

DOCUMENTATION

The protocol trials is based on the guidelines contained in the following ICAO documents: GOLD, 4444 ATM/501, Annex10 vol.2, Annex11.

ACTIVITIES

COCESNA is taking into consideration the following activities:

1. Request schedule and flight plan of the airlines involved in ADS-C/CPDLC trials.
2. The trials will be controlled through the trial protocol format according to the schedule submitted by the airlines.
3. Trials will last three months or more in which the results will be assessed and analyzed to define a plan of activities to be follow at the Central America FIR prior the implementation of ADS-C/CPDLC.
4. Inform the involved airlines about trials progress and advances.
5. Among further activities to be considered are:

    a. Define the new ATC procedures/contingencies.
    b. ADS-C/CPDLC user manual for Central America FIR.
    c. ATC personnel training for ADS-C/CPDLC functionalities and procedures.
    d. Date of implementation through an aeronautical information circular (AIC)

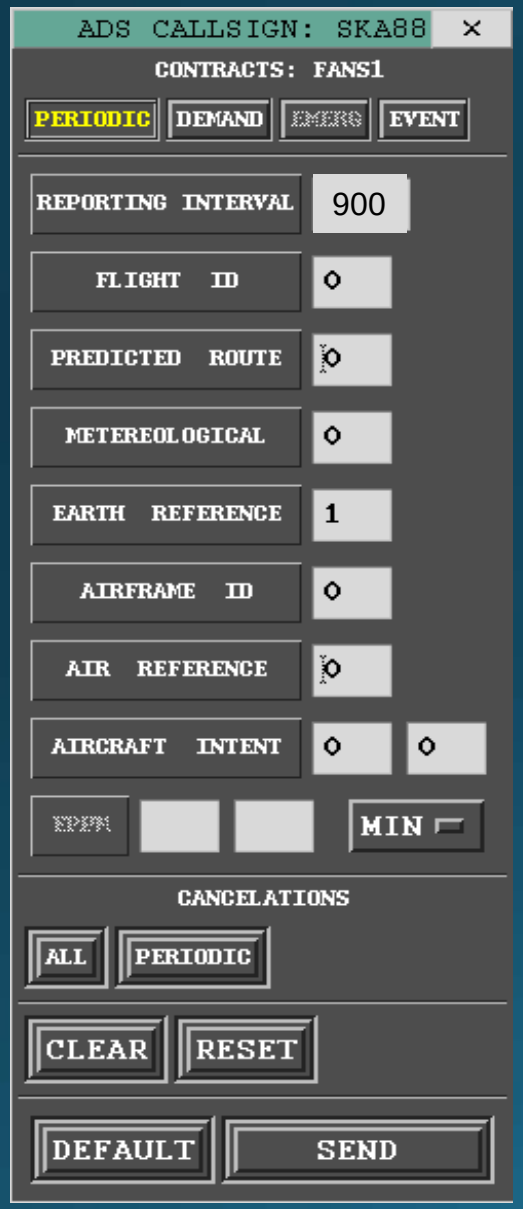
ADS-C CPDLC
LOG ON

Pilot sends a LOG ON request to CENAMER CONTROL using ICAO four (4) letter code: MHTG

Fifteen (15) minutes prior entering FIR is required to send a LOG ON request

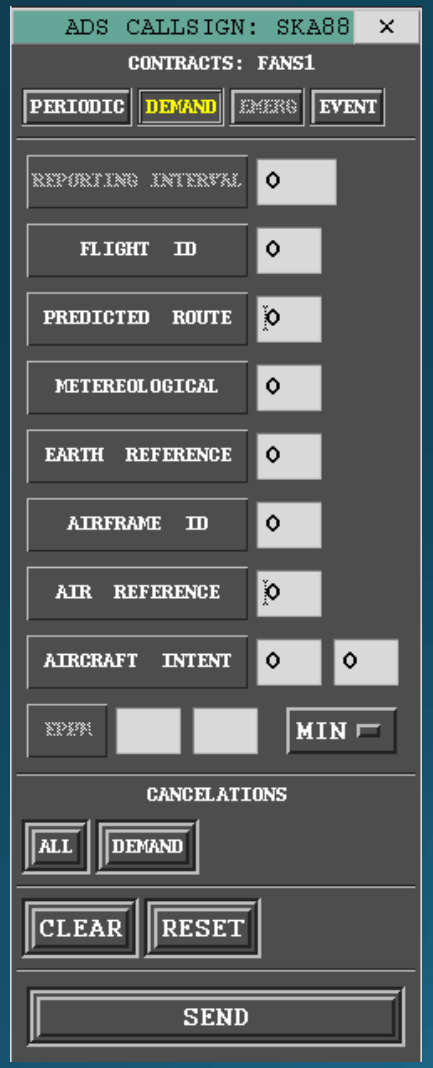
ADS-C

PERIODIC CONTRACT



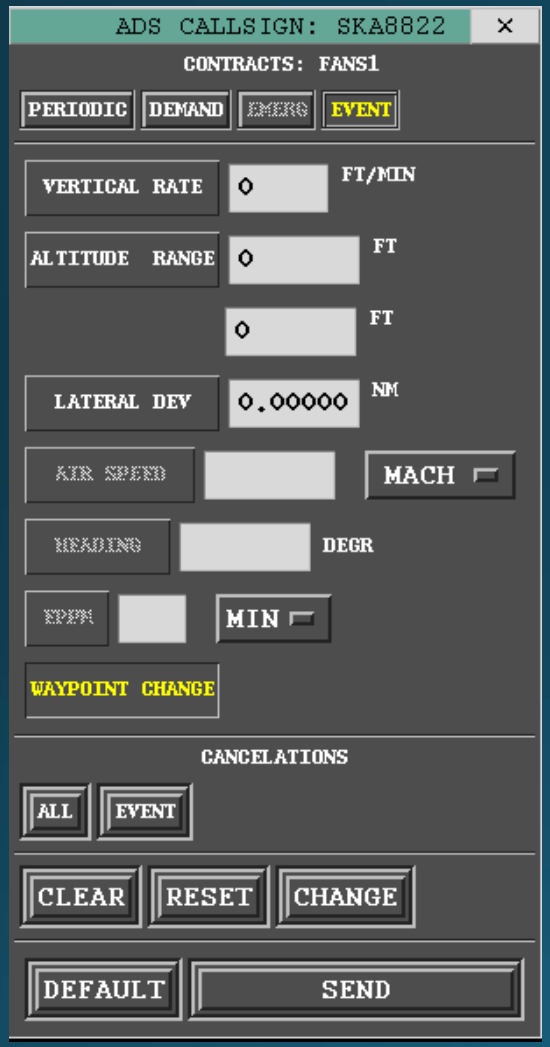
REPORTING INTERVAL : SET TO FIFTEEN (15) MINUTES INTERVAL REPORTS

ADS-C
DEMAND CONTRACT



CAN BE SET ON CONTROLLER REQUEST FOR A REPORT

ADS-C
EVENT CONTRACT



VERTICAL RATE: Set for vertical rate greater than 5000 FT/MIN

ALTITUDE RANGE : Set for altitude deviation +/- 300 FT.

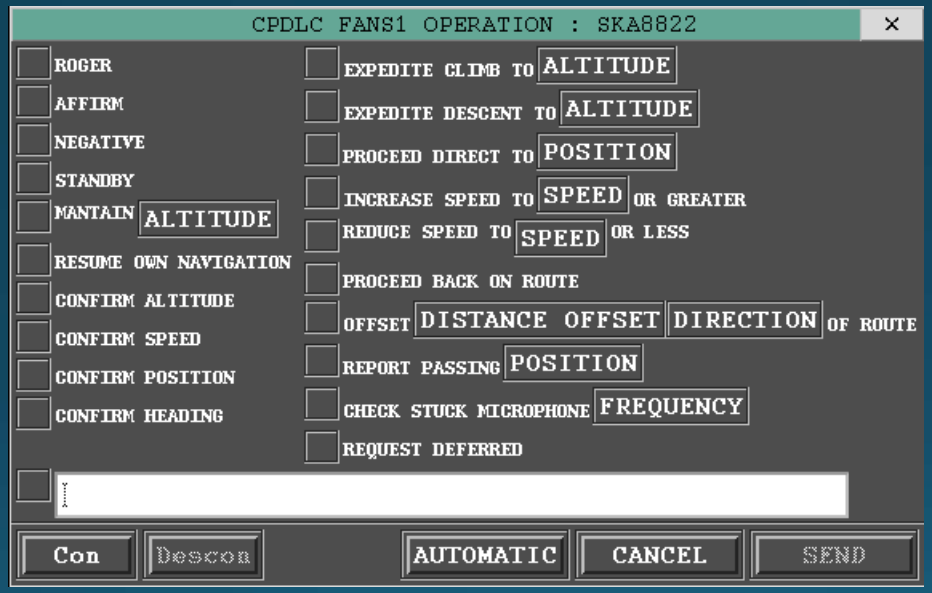
LATERAL DEV: Set for five (5) miles lateral deviation left or right.

WAYPOINT CHANGE: Set for position reports on FPL route filed.

ADS-C
EMERGENCY CONTRACT

CPDLC

CPDLC PREDEFINED FRASEOLOGY



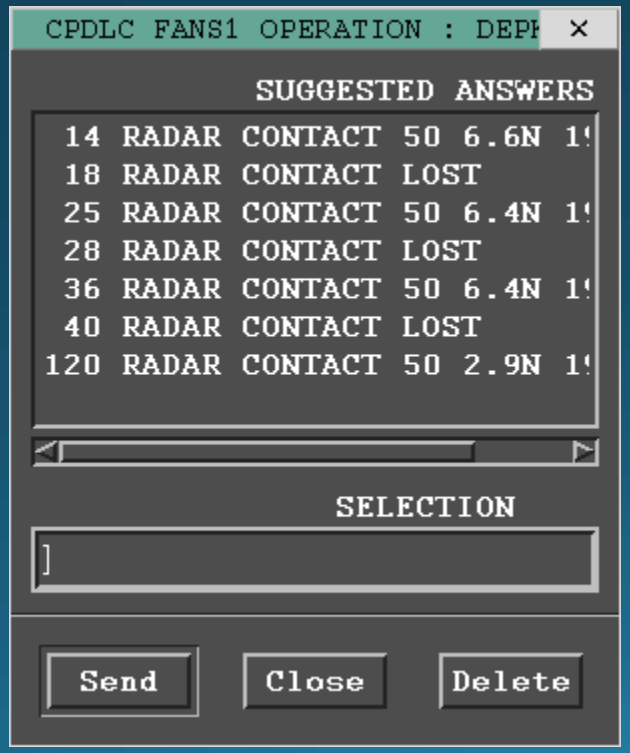
This window has to be updated with the common phraseology.

CPDLC

When the AUTOMATIC option is on, and ADS plot dissapear a window appear with several suggested phases.

Send: Envía el mensaje seleccionado.

.



WHAT IS NEXT

- Expecting to have complete data link capability, trials will continue and complete functionalities from the AIRCON 2100R system will be tested to confirm the work as they should.
- ATC Procedures to be reviewed and corrected if apply, according to trials.
- Redefinition of Oceanic airspace implementing the use of ADS C CPDLC
- Evaluation of trials and preparation for operational use
- Performance Monitoring.
- COCESNA Technology Department is preparing a tool for statistics and analysis on ADS C CPDLC traffic
- Check functions