FLIGHT INFORMATION SERVICES FOR SOMALIA (FISS)
AERONAUTICAL INCORMATION SERVICES
MOGADISHU, SOMALIA

AIP SUPPLEMENT
N0.07/2019
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Operational trials for the Implementation of Data link services in Mogadishu Flight Information Region (FIR).

1. **Controller Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance- Contract (ADS-C) operational trials.**

   Data link services will be available to FANS1/A equipped aircraft operating in the Mogadishu FIR initially on operational trials **Effective 06-DEC-2018.** Controller Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance- Contract (ADS-C) data link applications will be used to provide services to FANS 1/A equipped aircraft, in both continental and oceanic area as a secondary means of communication. Participating CPDLC equipped Aircraft will be requested by Mogadishu FIC in Somalia to log on HCSM-AFN LOGON address for Mogadishu FIR.

2. **CPDLC services to be provided in Mogadishu FIR.**

   CPDLC will be implemented in Mogadishu FIR initially to facilitate provision of flight information services and alerting services, covering;
   a) Controller to Pilot uplink of traffic information.
   b) Pilot to controller downlink of position reports and traffic information requests.
   c) Free text as a supplement to pre-formatted message elements. *Note: The use of free text message elements shall be restricted to non-routine and emergency situations.*
   d) Alerting services and Emergencies

3. ADS-C Services to be provided in Mogadishu FIR.

ADS-C will be used for the following services;

   a) Automatic reporting by the aircraft Flight Management System (FMS) of aircraft position and intent Information.
   b) The FMS will report the required information in accordance with parameters selected by ground system.
   c) Alerting services and Emergencies.

4. **LOGON procedures**

a) The AFN LOGON address for Mogadishu FIR is HCSM. To avoid automatic rejection on the LOGON, the flight identification and aircraft registration used by the pilot in the LOGON process must be identical to the flight identification and registration filed in the flight plan.

b) Standard pre-formatted message elements will be used whenever possible except for Air Traffic Services provision messages. Free text messages SHOULD ONLY be used when an appropriate pre- formatted message element does not exist or to supplement the pre-formatted message element.LOGON request must be received from the aircraft before any data link connections can be initiated by the ground system. This is achieved via the ATS Facility Notification (AFN) LOGON process to be initiated by the pilot in accordance with company procedures.

c) Aircraft requesting data link services inbound to Mogadishu FIR are required to automatically/ manually LOGON onto HCSM 10 minutes prior to estimate time for entering the airspace.

d) Data link equipped aircraft departing from aerodromes within the Mogadishu FIR and operating from FL245 and above shall LOGON to HCSM as soon as possible after departure. Pilots who are unable to establish data link connection are to inform ATC on HF/SATCOM communications.

5. CPDLC APPLICATION PROCEDURES

a) Aircraft having established data link connections will maintain CPDLC as the secondary means of communication. CPDLC will be used for provision of Flight information services only and any message sent from Mogadishu FIC shall not be construed as a clearance.

b) When using CPDLC and ADS-C , VHF or HF voice frequencies will be used as primary communication medium.

c) To ensure correct synchronization of messages, controller/pilot dialogue opened by voice must be closed by voice and dialogue open on CPDLC must be closed by CPDLC except in emergency.

d) Due to inherent integrity checks and a coded reference to any proceeding related messages contained within CPDLC messages, essential traffic information issued by CPDLC requires only the appropriate CPDLC response.

e) To avoid potential ambiguity, the use of multiple message elements should be avoided, except when message elements are dependent on each other.

f) If multiple essential traffic information requests are contained in a single downlink message and the controller cannot approve all requests, the uplink message "UNABLE" will be sent as a response to the entire message. A separate message containing a response to those requests that can be complied with will be sent by the controller.

g) If any ambiguity exists as to the intent of a particular message, clarification should be sought by voice.

h) Standard pre-formatted message elements will be used whenever possible. Free text messages SHOULD ONLY be used when an appropriate pre-formatted message element does not exist or to supplement the pre-formatted message element.

i) The use of free text messages shall be for provision of Flight Information Services especially during the provision of Air Traffic Services. All ATS provision messages like essential traffic information, climb and descend requests, shall be made through free text.When CPDLC connection is established, aircraft will be instructed to transfer from voice to CPDLC. The phraseology used is: "transfer to Mogadishu FIC on datalink monitor…. (Frequency)."

j)   CPDLC connections will be terminated at the FIR Boundary position or as requested by the ATS Unit.

k)   The contact (unit/name) (frequency) message and the END SERVICE message will be sent as separate messages. The END SERVICE message will be sent as soon as possible after receipt of the "WILCO" response message to a contact message.

l)   Pilots shall ensure that all uplink messages have been responded to before termination or transfer of CPDLC to another data authority.

m)   When CPDLC fails and communication reverts to voice, all CPDLC messages outstanding should be considered not delivered and effort made to re-commence dialogue by voice (VHF or HF).

6.ADS-C Application

a)   ADS Periodic and events contracts will be established automatically after a successful LOGON.
b)   The periodic reporting interval is 15 minutes and the event reporting is compulsory reporting points.
c)   The periodic reporting interval may be varied by ATC for a specified period when need arise.
d)   ADS Contract connections will be terminated at the FIR Boundary position or as instructed by ATS Unit.

7. Procedures Data Link Failure

a)   When a Controller or a Pilot recognizes a failure of a CPDLC connection, they shall immediately establish voice communication on the appropriate frequency. Voice communication shall continue to be used as a primary means until a CPDLC connection has been re-established and the controller has authorized the return to data link.

b)   In the event of CPDLC failure, the controller shall immediately advice all data link connected aircraft of the failure by voice. Instructions will continue to be issued by voice until the return of data link system. The return of the system to an operational state will require a new AFN LOGON from the affected aircraft.

c)   Planned shutdown of CPDLC ground system shall be notified by publishing a NOTAM stating the shutdown period and details of voice communication frequencies to be used.

d)   In case of ADS-C failure, the controller shall inform pilots of the failure and CPDLC position reports will be used.

8. Emergency procedures

a)   Pilots should notify ATC of emergency situations by the most appropriate means (voice or CPDLC).

b)   If a CPDLC MAYDAY /PAN message is received, the controller will immediately acknowledge receipt of the emergency by using the free text message "ROGER MAYDAY/PAN".

c)   Normal emergency procedures shall be followed. Controller may also attempt to make voice contact with the pilot.

d)   For ADS-C aircraft, the ATS unit should base the provision of the alerting service on any missed scheduled report.

e)   To indicate that it is in a state of emergency or to transmit other urgent information, an aircraft equipped with ADS-C might operate the emergency and/or urgency mode as follows:
    i. Emergency;
    ii. Communication failure;
    iii. Unlawful interference;
    iv. Minimum fuel and; and/or
    v) Medical.

f)   When an ADS-C emergency and/or urgency report is received, the controller with responsibility for the flight must acknowledge receipt of the information by the most appropriate means of communication.

9. **Flight plan notification**

Aircraft planning to utilize data link communication must annotate their ICAO flight plan as follows:

a)   CPDLC Capability must be notified by inserting the alphanumeric designator J4 in item 10 field 10a;
b)   ADS-C capability must be notified by inserting the alphanumeric designator D1 in item 10 field 10b;
c)   Aircraft registration must be inserted in item 18 as the ground system uses the information during the AFN LOGON

Any changes to information published in this supplement shall be notified by a NOTAM as appropriate.

NOTAM A0015/19 Is here by cancelled.