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OCEANIC CLEARANCE DELIVERY (OCD) IN THE SANTA MARIA OCEANIC CONTROL AREA (OCA)

1. INTRODUCTION

Operational trials of Oceanic Clearance Delivery (OCD) in the Santa Maria Oceanic Control Area (OCA) are planned to commence on 1st of August, 2007.

The OCD is a data link service that allows pilots and controllers to exchange text messages for oceanic clearance request and oceanic clearance delivery using the ACARS network, according the specifications defined on the AEEC 623 and EUROCAE ED106.

2. PURPOSE

The purpose of this Aeronautical Information Circular (AIC) is to present information about the NAV Portugal operational OCD trial to be implemented in the Santa Maria OCA.

3. AREA OF APPLICATION

Santa Maria Oceanic Control Area (OCA).

4. IMPLEMENTATION

NAV Portugal will implement OCD service in the Santa Maria OCA according the procedures defined on this AIC.

Flight crews will be able to request oceanic clearance (OCL) via the OCD service. Responses to these requests will also be conducted via the OCD service.

Date of implementation: August 1ST, 2007.

Note: Any changes to this schedule will be published by NAV Portugal through a NOTAM

5. PROCEDURES

5.1 General

The implementation of the data link based OCL application consists in the transposition of the oceanic clearance request dialog, from the HF radio channel to the ACARS data link channel as follows:

- Before entering the oceanic boundary, the pilot requests his OCL through the ACARS terminal using the Request Oceanic Clearance (RCL) message. The RCL message shall include the same information elements as a voice request.
- The ATC ground system will acknowledge the reception of the request and verify that it corresponds to an existing flight plan. If negative, a message will be sent, rejecting the RCL.
- If the flight plan exists the ATC ground system issues the oceanic clearance and sends it to the pilot via the ACARS data link network. The pilot can check and print the clearance at his convenience.
- The pilot sends back a clearance data link acknowledgment (full read-back).
- The read-back is checked by the ATC ground system against the issued clearance and sends either a clearance confirmation or cancellation, depending on the result.

The set of messages defined by AEEC 623 and EUROCAE ED106 for OCL data link messages exchange are:

- RCL for OCL request (downlink)
- CLX for OCL clearance (uplink)
- CLA for OCL read-back (downlink)
- FSM for ACCEPTED, RECEIVED or REJECTED messages (uplink)

5.2 Connecting to System

Each operator of flights that can downlink RCL and CLA messages should ensure that flight crews know how to address them to Santa Maria's OACC OCD system.

5.3 Requesting Clearance

Flights so equipped should request the clearance by sending the RCL within the time frames and procedures defined in AIP Portugal, ENR 2.2.2.6, which are summarized below:

- All flights entering the NAT region through Santa Maria OAC must obtain ATC clearance before crossing the Oceanic Control Area boundary.
- If it becomes impossible to obtain Oceanic Clearance prior entering Santa Maria Oceanic Control Area, the pilot should not hold while awaiting clearance unless so directed by ATC.
- DL Oceanic Clearance requests should be made at least 30 minutes before the ETO for the NAT boundary.
- Flights departing from Azores should request clearance at least 20 minutes before ETD.
- Departures from aerodromes located close to the NAT Region boundary shall request Oceanic Clearance as soon as possible.
- Flights from Lisboa FIR shall inform Lisboa ACC of the flight level and entry point in the NAT Region, as contained in the Oceanic Clearance.
- Should any problem or error occur, pilots must revert to voice communications.
- Following a technical problem or error message, any doubts about the Oceanic Clearance must always be confirmed via voice with the radio operator.
- Pilots should be aware that the radio operators will not be able to respond to any questions regarding the data link channel status.

5.4 Clearance delivery

- Pilots are responsible for checking all items of received oceanic clearance and ensure that they are consistent with the filled Flight Plan and with the oceanic clearance request made by them. If any discrepancy is found, the crew must not send the CLA message and should revert to voice.
- **Attention is called to the possibility of the CLX message containing additional information, prefixed with the text "ATC". This may be advisory information e.g. "LEVEL CHANGE" or additional ATC instructions e.g. "AT <position> CLIMB/DESCEND TO AND MAINTAIN <level>.**
- **NAT Track identifiers e.g. "NAT G" and airway identifiers e.g. "A699" will be used on the CLX messages. If any doubts arise about the coordinates and/or significant points that are part of a track and/or airway, must be clarified using voice procedures.**
- ***Pilots must be aware that the Oceanic Clearance is valid only from the oceanic entry point. Usually if there is any difference between the cleared route and level on the Oceanic Clearance and the flight's actual profile, ATC units will coordinate among them in order to correct the flight's profile before it reaches the oceanic entry point. If there is a concern, crews should contact their current ATC unit for instructions.***

5.5 Clearance negotiation

- After clearance delivery and confirmation, flights may submit new requests, by sending again an RCL.
- All subsequent messages will follow the same pattern as the previous RCL.

5.6 Reclearances

- When a data link oceanic clearance is amended, it will include the ATC/ line and the RECLEAREANCE line.
- The ATC/ line will list which item (or items) of the clearance was changed from the previously issued clearance.
- The RECLEAREANCE line will contain a number from 1 to 9, to identify the first and subsequent re-clearances (i.e., RECLEAREANCE1, RECLEAREANCE2, etc.).
- If more than one RECLEAREANCE is received, the CLA should be sent only for the clearance with the highest RECLEAREANCE number.
- If any doubts arise, pilots should revert to voice communications and confirm their clearance.

5.7 Clearance Acknowledgement

- When a data link oceanic clearance is received, flights must send a Clearance Acknowledgement (CLA).
- After sending the CLA the crew should expect a confirmation message from ATC ground system.
- If no confirmation is received within 5 minutes of sending the CLA, then the data link oceanic clearance must be verified via voice.

5.8 Time revisions

- If the data link oceanic clearance has been received, crews should advise ATC via voice if the ETA for the boundary changes by 3 minutes or more.
- Flights departing Azores only have to advise ATC if they expect changes of 6 minutes or more from the previously given ETD.
- Time revisions may be transmitted on voice or by a new data link RCL, containing the revised ETA/ETD.

- If the time revision is made via data link, the crew should expect to receive a Reclearance showing the revised ETA. This may be a copy of the original CLX (containing the new ETA) or the CLX may contain a change in any clearance parameter (accompanied by appropriate information on the ATC/ field).
- All reclearances must be acknowledged.

5.9 Examples of uplink FSM error messages

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| 1 | 1. Error is detected in a message: <RCL> REJECTED – ERROR IN MESSAGE – REVERT TO VOICE PROCEDURE |
| 2 | 2. RCL is received while another has not been completed: RCL REJECTED – REQUEST BEING PROCESSED – AWAIT TRANSACTION COMPLETION |
| 3 | 3. RCL for non-existent flight: RCL REJECTED – FLIGHT PLAN NOT HELD – REVERT TO VOICE PROCEDURE |
| 4 | 4. RCL for duplicate flight: RCL REJECTED – FLIGHT PLAN NOT HELD – REVERT TO VOICE PROCEDURE - MULTIPLE FLIGHT PLAN |
| 5 | 5. Incorrect entry point in RCL: RCL REJECTED – FLIGHT PLAN NOT HELD – REVERT TO VOICE PROCEDURE |
| 6 | 6. No CLX associated to received CLA, or multiple CLA messages: CLA REJECTED – CLEARANCE CANCELLED – REVERT TO VOICE PROCEDURE |
| 7 | 7. Invalid checking between CLA and the CLX previously sent (includes mismatch of Re-clearance Number): CLA REJECTED – CLEARANCE CANCELLED – REVERT TO VOICE PROCEDURE |
| 8 | 8. Non reception of CLA for a sent CLX within the time T1 (VSP): CLA REJECTED - CLEARANCE CANCELLED - REVERT TO VOICE PROCEDURE - TRANSACTION TIMEOUT |
| 9 | When the controller cancels OCL data link clearance manually (from Working window or strip), the system will disable OCD. If subsequently a CLA is received, the system will send an FSM: CLA REJECTED – CLEARANCE CANCELLED – REVERT TO VOICE PROCEDURE |

6. Additional information and participation requirements

For more information on data link OCD service and participation requirements you may contact the following NAV Portugal staff:

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