REYKJAVIK DATA LINK
OCEANIC CLEARANCE DELIVERY (OCD)
CREW PROCEDURES

Reykjavik Oceanic Area Control Centre Operations Building

Contents

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Summary of Changes

Version 1 is the original version of the document and there are therefore no changes.

Abbreviations

ACARS	Aircraft Communications, Addressing and Reporting System
AFIS	Aerodrome Flight Information Service
ARINC *	Aeronautical Radio Incorporated
CLA *	Clearance Acknowledgement downlink message
CLX *	Oceanic Clearance uplink message
CTA	Control Area
ETA	Estimated Time of Arrival
FDPS	Flight Data Processing System
HF	High Frequency
ICAO	International Civil Aviation Organization
NAT	North Atlantic
OAC	Oceanic Area Control Centre
OCA	Oceanic Control Area
OCD *	Oceanic Clearance Delivery
OEP *	Oceanic Entry Point
RCL *	Request Oceanic Clearance downlink mesage
SITA *	Société Internationale de Télécommunications Aéronautiques
TMI *	Track Message Ident number
VHF	Very High Frequency

* designates an abbreviation that is not included in ICAO DOC8400 – ICAO Abbreviations and Codes.

1.   Introduction

1.1   The Reykjavik Oceanic Area Control Centre (OAC) provides an air traffic control service within the Reykjavik Oceanic Control Area (OCA). Data Link Oceanic Clearance Delivery (OCD) service is provided via VHF and satellite to ACARS equipped aircraft via network service providers ARINC and SITA. If the flight crew is uncertain about any aspect of the data link OCD process, they should contact:

- Iceland Radio on HF, VHF or SATCOM voice; or

- Reykjavik Control on VHF.

1.2   The OCD service is implemented in accordance with the standard "Data-Link Application System Document (DLASD) for the Oceanic Clearance Data-Link Service" ED-106A. This standard is also frequently referred to as the ARINC Specification 623 for Oceanic Clearance.

1.3   There are no specific flight planning requirements for the Reykjavik OCD service.

2. Requesting Clearance

2.1 Each operator of flights that can downlink RCL and CLA messages should ensure that flight crews know how to address them to the Reykjavik OCD system.

2.2 The OCD transaction is initiated in all cases by a downlink oceanic clearance request (RCL).

2.3 Any RCL must contain the following information, as a minimum:

- ✓ Reykjavik Entry Point.
- ✓ ETA for Entry Point.
- ✓ Requested Mach Number.
- ✓ Requested Flight Level.

2.4 Crews may add remarks (RMK/) indicating the preferred alternative to the requested clearance and maximum flight level that can be accepted at the Entry Point. Inclusion of this information can assist the Reykjavik Controller and may expedite the clearance delivery process.

2.5 The call sign in the RCL must match the aircraft identification as contained in the ICAO flight plan, or the RCL will be rejected (see Section 8 – RCL and CLA Errors).

2.6 Reykjavik cannot issue oceanic clearances until coordination data has been received from the adjacent air traffic control centre and the flight data has been activated within the Reykjavik Flight Data Processing System (FDPS). This occurs a certain time before the aircraft is estimated to enter the Reykjavik CTA and the time interval varies depending on the control area from which the aircraft enters the Reykjavik CTA. The following can be used as guidelines for the crew to determine when the RCL message can be accepted by the Reykjavik FDPS:

Aircraft entering the Reykjavik CTA from the following CTA	Send the RCL when the aircraft is less than this many minutes from the Reykjavik CTA Entry Point
Stavanger	20 minutes
Scottish	20 minutes
Edmonton	40 minutes
Murmansk	25 minutes
Rule of thumb: **Send RCL when 15-20 minutes from the Entry Point.**	

2.7 If the RCL message is received in the Reykjavik FDPS before the flight data has been activated by a coordination message from the transferring centre the FDPS will automatically reject the RCL and send the following message to the aircraft:

RCL REJECTED
RCL SENT TOO EARLY
REQUEST AGAIN LATER
SEND RCL WHEN 15 MINUTES FROM THE BOUNDARY

2.8 The OCD service is not available for flights departing from airports in Iceland, Greenland and the Faroe Islands. The oceanic clearance to those flights is delivered by the appropriate Control Tower or AFIS before departure.

2.9 The crew shall under normal circumstances send the RCL message and obtain the oceanic clearance before entering the Reykjavik CTA. There is however no technical limitation on

how late the RCL can be received by the Reykjavik FDPS – the system is even capable of processing an RCL message received after the aircraft has entered the CTA.

2.10   The following message indicates that the RCL message has been received and accepted by the Reykjavik FDPS:

RCL RECEIVED
IF NO CLEARANCE WITHIN 15 MINUTES
REVERT TO VOICE PROCEDURES

If this message is not received within 5 minutes of sending the RCL, the crew should request the clearance via voice in accordance with paragraph 4.4.

2.11   The Reykjavik FDPS automatically responds to the RCL message. All possible responses are detailed in Section 8.

3.   Clearance Delivery

3.1   Examples of data link oceanic clearances are provided in Section 10.

3.2   The crew must confirm that the callsign in the received CLX message matches the Flight Plan callsign. If the call sign is not correct, the clearance is not valid and the crew must request the oceanic clearance via voice in accordance with paragraph 4.4.

3.3   All oceanic clearances contain the full route of flight to landfall. Clearances along one of the NAT tracks will additionally include the track identifier (NAT A, NAT B etc). Crews must check that the route co-ordinates received match the published NAT track message and query any discrepancy using voice procedures.

3.4   The flight level contained in the data link oceanic clearance is the "cleared oceanic flight level" for the purposes of complying with the lost communication procedures detailed in the AIP Iceland ENR section 1.8.6 and the North Atlantic Regional Supplementary Procedures (ICAO Doc 7030). If operating at a different level at the time of receipt of the oceanic clearance, then a climb/descent clearance must be requested from the ATS Unit in whose airspace the aircraft is operating – an oceanic clearance does NOT constitute a level change instruction. If there is a concern, crews should contact their current air traffic controller.

3.5   If an aircraft is cleared via a different Entry Point from that requested, Reykjavik will calculate an ETA and this will be shown in the clearance. If this ETA differs from that calculated by the crew by 3 minutes or more, Reykjavik must be advised (See section 7). ATC in the airspace immediately before the Oceanic Entry Point is responsible for providing a revised route clearance to enable the flight to reach the new Oceanic Entry Point.

3.6   The CLX may contain additional information, prefixed with the text "ATC/". ATC/ messages are detailed in Section 9.

3.7   All Clearance messages terminate with the phrase- *END OF MESSAGE.* If this text is not present, then data has been lost during transmission and the clearance must be ignored. Crews must revert to voice procedures in accordance with paragraph 4.4.

4.   Clearance Acknowledgement

4.1   When a data link oceanic clearance (CLX) is received the crew shall:

     a)   Send a Clearance Acknowledgement message (CLA); or

     b)   Send a new RCL message (refer to Section 5).

4.2   Upon receipt of a valid CLA message, the Reykjavik FDPS will uplink a Clearance Confirmed message. This message indicates that the data link oceanic clearance process is complete and that no further action is required by the crew to acknowledge or verify the

oceanic clearance. **The clearance transaction is not complete until the confirmation message is received**.

CLA RECEIVED
CLEARANCE CONFIRMED

If this message is not received within 5 minutes of sending the CLA, then the data link oceanic clearance must be verified via voice in accordance with paragraphs 4.4 and 4.5.

4.3   If a CLA error message is received, the data link oceanic clearance must be verified via voice in accordance with paragraphs 4.4 and 4.5 (see also Section 8 – RCL and CLA Errors).

4.4   If a data link oceanic clearance must be verified or requested via voice then contact:

- Iceland Radio on HF, VHF or SATCOM voice; or

- Reykjavik Control on VHF.

4.5   When verifying a data link oceanic clearance via voice the following information must be provided:

- ✓ ETA for the OEP;
- ✓ The NAT track identifier (if operating on a NAT track);
- ✓ The cleared oceanic route (if operating on a random route);
- ✓ The cleared oceanic flight level (see paragraph 3.4); and
- ✓ The cleared Mach number.

5.   Clearance Negotiation

5.1   When a data link oceanic clearance (CLX) is received, the crew may elect to send a new RCL message if the clearance is not acceptable.

5.2   If a revised clearance is issued then the new CLXs will be annotated "RECLEARANCE 1", "RECLEARANCE 2" etc.

5.3   The reclearance with the highest reclearance number shall be acknowledged.

6.   Reclearances

6.1   The Reykjavik FDPS does not accept a new RCL once a CLA message has been received. Any subsequent request for a change to the oceanic clearance shall be made on voice to:

- Iceland Radio on HF, VHF or SATCOM voice; or

- Reykjavik Control on VHF.

7.   Time Revisions

7.1   If the data link oceanic clearance has been received, crews should advise the current controller via voice if the ETA for the OEP changes by 3 minutes or more. This may result in ATC providing a reclearance.

7.2   The OEP estimate used by ATC when producing the oceanic clearance is located next to the OEP in the data link clearance message (see Section 10). This time should be used when considering whether a time revision notification to ATC is necessary. Crews should be aware that this time may not coincide with the OEP estimate they sent in the RCL.

8.   RCL and CLA Errors

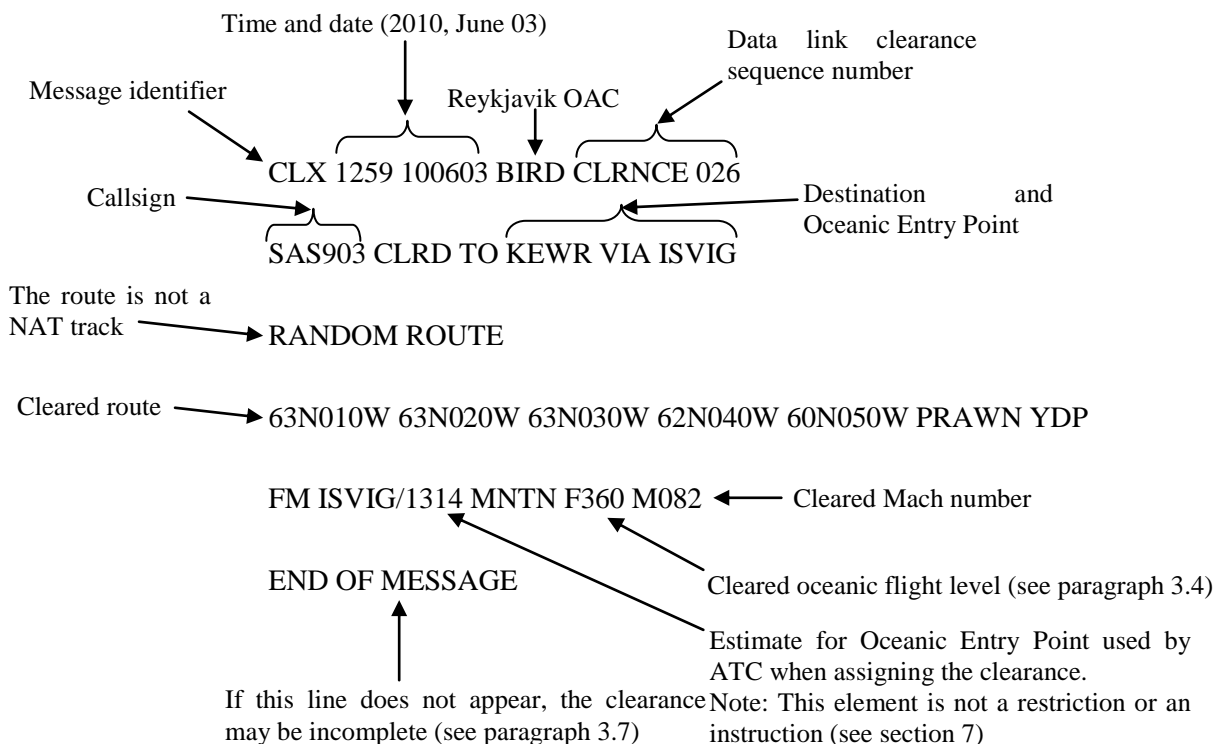| RCL Errors	
Error Message	**Message Meaning and Crew Action**
RCL REJECTED ERROR IN MESSAGE REVERT TO VOICE PROCEDURES	*Meaning:* An error has been detected in the RCL received by the Reykjavik OCD system. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).
RCL REJECTED REGISTRATION DOES NOT MATCH FLIGHT PLAN REVERT TO VOICE PROCEDURES	*Meaning:* The aircraft registration in the RCL does not match the registration in the flight plan in the Reykjavik FDPS. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).
RCL REJECTED FLIGHT PLAN NOT HELD REVERT TO VOICE PROCEDURES	*Meaning:* The Reykjavik FDPS does not have a flight plan for the flight. *Crew action:* Check that the correct callsign was used. Amend and re-request. OR The oceanic clearance must be requested via voice (see paragraph 4.4).
RCL REJECTED MULTIPLE FLIGHT PLAN HELD REVERT TO VOICE PROCEDURES	*Meaning:* The Reykjavik FDPS holds more than one flight plan for flight. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).
RCL REJECTED RCL RECEIVED TOO LATE REVERT TO VOICE PROCEDURES CONTACT ICELAND RADIO ON VOICE FOR CLEARANCE	*Meaning:* The clearance has already been sent to Iceland Radio for delivery on voice. *Crew action:* Contact Iceland Radio on voice for the clearance (see paragraph 4.4).
RCL REJECTED REQUEST BEING PROCESSED AWAIT TRANSACTION COMPLETION	*Meaning:* The crew has sent a new RCL while the previous one is still being processed by the Reykjavik FDPS. *Crew action:* Await clearance issued on the basis of the original RCL, then input new RCL if required.
RCL REJECTED INVALID FLIGHT PLAN STATUS REVERT TO VOICE PROCEDURES	*Meaning:* The status of the flight plan in the Reykjavik FDPS is not appropriate for processing of an RCL message. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).
RCL REJECTED RCL SENT TOO EARLY REQUEST AGAIN LATER SEND RCL WHEN 15 MINUTES FROM THE BOUNDARY	*Meaning:* The flight plan has not yet been activated in the Reykjavik FDPS (see paragraphs 2.6-2.7). *Crew action:* Send the RCL when 15 minutes

| from the Reykjavik CTA boundary. |
| RCL REJECTED
CLEARANCE CANCELLED
REVERT TO VOICE PROCEDURES
TRANSACTION TIMED OUT | *Meaning:* The transaction has timed out in the Reykjavik FDPS.

Crew action: The oceanic clearance must be requested via voice (see paragraph 4.4). |

CLA Errors	
Error Message	**Message Meaning and Crew Action**
CLA REJECTED CLEARANCE CANCELLED REVERT TO VOICE PROCEDURES	*Meaning:* The CLA received by the Reykjavik OCD system did not match the data link oceanic clearance or an error has been detected in the CLA. *Crew action:* The data link oceanic clearance received by the crew is not valid. The oceanic clearance must be requested via voice (see paragraph 4.4).
CLA REJECTED REGISTRATION DOES NOT MATCH FLIGHT PLAN REVERT TO VOICE PROCEDURES	*Meaning:* The aircraft registration in the CLA does not match the registration in the flight plan in the Reykjavik FDPS. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).
CLA REJECTED CLEARANCE CANCELLED REVERT TO VOICE PROCEDURES TRANSACTION TIMED OUT	*Meaning:* The transaction has timed out in the Reykjavik FDPS before the CLA was received. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 4.4).

9. Terms Used in the ATC/ Line

LEVEL CHANGE	The flight level in the clearance is different from the flight level requested in the RCL message.
MACH CHANGE	The speed in the clearance is different from the speed requested in the RCL message.
ENTRY POINT CHANGE <position>	The entry point in the clearance is different from the entry point requested in the RCL message.
ROUTE AMENDMENT	The route in the clearance is different from the route in the flight plan.
CLEARANCE LIMIT	The clearance limit in the clearance is different from the destination in the flight plan.

10. Explanation of Data Link Clearance Elements

Time and date (2010, June 03)

Data link clearance sequence number

Message identifier

Reykjavik OAC

CLX 1259 100603 BIRD CLRNCE 026

Callsign

Destination and Oceanic Entry Point

SAS903 CLRD TO KEWR VIA ISVIG

The route is not a NAT track → RANDOM ROUTE

Cleared route → 63N010W 63N020W 63N030W 62N040W 60N050W PRAWN YDP

FM ISVIG/1314 MNTN F360 M082 ← Cleared Mach number

END OF MESSAGE

Cleared oceanic flight level (see paragraph 3.4)

Estimate for Oceanic Entry Point used by ATC when assigning the clearance.
Note: This element is not a restriction or an instruction (see section 7)

If this line does not appear, the clearance may be incomplete (see paragraph 3.7)

CLX 1259 100603 BIRD CLRNCE 026

UAL941 CLRD TO KORD VIA BARKU

NAT Track identifier → NAT A

BARKU RATSU 62N020W 63N030W 62N040W 60N050W PRAWN YDP

FM BARKU/1314 MNTN F340 M082

ATC/LEVEL CHANGE ← An "ATC" comment indicates that the clearance is different from what was requested in the RCL or FPL.

END OF MESSAGE

Abbreviations used in data link oceanic clearance messages	
ATC	Air Traffic Control
CLRD	Cleared
CLRNCE	Clearance
CLX	Clearance uplink message
F	Flight level
FM	From
M	Mach
MNTN	Maintain
NAT	North Atlantic Track

- END -