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Subject: Gander Data Link Oceanic Clearance Delivery Procedures

The purpose of North Atlantic Operations Bulletin 2010-004 is to promulgate Version 19 of the Gander Oceanic Clearance Delivery via data link procedures on behalf of the Gander Oceanic Area Control Centre.

Version 19 is effective on 8 April 2010.

Questions or problem reports may be emailed to NAV CANADA at ATLUPOQX@navcanada.ca.

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GANDER DATA LINK OCEANIC CLEARANCE DELIVERY (OCD) CREW PROCEDURES



Gander Oceanic Area Control Centre Operations Building

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Section 1 Summary of Changes

Version 19 contains amendments to the following section:

Section 2 – 2.1 is amended to advise operators to contact their data link service provider if they wish to receive OCD service.

A new 2.3 is inserted to indicate Gander OACC contact information for flights requesting an unsolicited clearance in a particular format.

The former 2.3 has been renumbered 2.4.

Section 2 Introduction

2.1 Gander Oceanic Area Control Centre (OACC) provides air traffic control services within the Gander 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. Operators intending to participate in the OCD process are required to contact their data link service provider and indicate that they would like to receive the service. If the flight crew is uncertain about any aspect of the data link OCD process, they should contact Gander Clearance Delivery between the hours of 2330Z – 0730Z (DST 2230Z – 0630Z), when within 200NM of a Gander Clearance Delivery frequency. Outside of those hours or when the flight will not pass within 200NM of a Gander Clearance Delivery frequency they should contact the current controller when the flight is no more than 90 minutes from the Oceanic Entry Point (OEP).

Notes

- a) OEPs are listed in Appendix A;
- b) Gander Clearance Delivery frequencies and locations are listed in the Transport Canada Aeronautical Information Manual (AIM), RAC 11.8.3 (a) (i);
- c) The Transport Canada AIM is available at http://www.tc.gc.ca/CivilAviation/publications/tp14371/menu.htm.
- 2.2 Flights intending to receive an unsolicited clearance or that are not capable of sending an RCL via data link OCD should include 'AGCS' in field 18 of the ICAO flight plan.
- 2.3 Flights wishing to discuss technical details related to the OCD process may contact the Gander OACC data system coordinator (DSC) at +1.709.651.5217.
- 2.4 Crews should not attempt to resolve problems associated with automated clearances on a control frequency. Technical problems should be reported in accordance with the Operator's standard procedures. Problem reports may be emailed to NAV CANADA at <a href="https://arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.org/arxiv.or

Section 3 Connecting to System

- 3.1 Each operator of flights that can downlink RCL and CLA messages should ensure that flight crews know how to address them to the Gander OCD system.
- 3.2 Flights equipped to send an RCL should:
 - Not include 'AGCS' in field 18 of the ICAO flight plan; and
 - Follow the procedures in Section 4 Requesting Clearance.
- 3.3 Flights not equipped to send an RCL, but equipped to receive a data link oceanic clearance should:
 - Include 'AGCS' in field 18 of the ICAO flight plan; and
 - Expect to receive their data link oceanic clearances automatically. If the
 data link oceanic clearance is not received by 30 minutes prior to the
 OEP, the oceanic clearance must be requested via voice (see paragraph
 5.4).

Section 4 Requesting Clearance

- 4.1 Flights so equipped should request the clearance by sending the RCL. Flights not equipped to send an RCL must complete the ACARS logon and expect a clearance as per paragraph 3.3.
- 4.2 The RCL should be sent when or soon after the flight is 90 minutes from the estimated time for the OEP. A significant delay or complete failure to send the RCL will result in the flight not receiving a data link clearance. The oceanic clearance will then have to be requested via voice.
- 4.3 Flights departing from airports less than 45 minutes flying time from the OEP should request clearance 10 minutes prior to start up.
- 4.4 Flights departing from airports 45-70 minutes flying time from the OEP should request clearance as soon as practicable after departure.
- 4.5 An accurate time for the OEP must be included in the RCL.
- 4.6 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 10 RCL and CLA Errors)
- 4.7 Under some circumstances, a data link oceanic clearance may be received prior to the RCL being sent.
- The following message indicates that the RCL has been received:

 IF NO CLEARANCE RECEIVED WITHIN 30 MINUTES OF OCEANIC ENTRY POINT REVERT TO VOICE PROCEDURES END OF MESSAGE.

 If this message is not received within 5 minutes of sending the RCL, the crew should request the clearance via voice (see paragraph 5.4).

Section 5 Clearance Delivery

- 5.1 Examples of data link oceanic clearances are provided in Appendix E.
- 5.2 If the call sign in the data link oceanic clearance is not correct, the clearance is not valid and the crew must request the oceanic clearance via voice (see paragraph 5.4).
- If the flight is cleared to operate on a NAT track, the crew must confirm that the route coordinates match those published in the current NAT track message. If there is a discrepancy, the crew should verify that they have the current NAT track message. If there is still a discrepancy, the clearance is not valid and the crew should request the oceanic clearance via voice in accordance with the procedures published in the Transport Canada Aeronautical AIM, RAC 11.8.
- If the data link oceanic clearance is not received by 30 minutes prior to the OEP the crew must request the oceanic clearance via voice in accordance with the procedures published in the Transport Canada AIM, RAC 11.8.
- 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 Transport Canada AIM, RAC 11.20, the Canada Flight Supplement and the North Atlantic Regional Supplementary Procedures (ICAO Doc 7030). ATC is responsible for providing a clearance to enable the flight to reach this flight level before reaching the OEP. If there is a concern, crews should contact their current controller.
- The data link oceanic clearance may include a reroute to an oceanic entry point which is different from the current cleared route and/or may specify an oceanic entry point which is different from the flight plan. In all cases, flights should continue to operate in accordance with the current cleared route until a verbal reclearance is received from ATC.

5.7 If the clearance does not contain the line END OF MESSAGE, it is possible that the clearance was not complete. Crews must verify the clearance via voice (see paragraphs 7.4 and 7.5).

Section 6 Clearance Negotiation

- 6.1 Amendments to the data link oceanic clearance should be requested via voice. Flights equipped to send an RCL should send one before requesting the amendment via voice.
- Amendments to the data link oceanic clearance should be requested by contacting Gander Clearance Delivery between the hours of 2330Z 0730Z (DST 2230Z 0630Z), when within 200NM of a Gander Clearance Delivery frequency. Outside of those hours or when the flight will not pass within 200NM of a Gander Clearance Delivery frequency crews should contact the current controller when the flight is no more than 90 minutes from the OEP.

Section 7 Clearance Acknowledgement

- 7.1 When the data link oceanic clearance is received, flights equipped to send a Clearance Acknowledgement (CLA) should do so. Flights not equipped to send a CLA must verify the data link oceanic clearance via voice in accordance with paragraphs 7.4 and 7.5.
- 7.2 The following 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:

CLA RECEIVED CLEARANCE CONFIRMED END OF MESSAGE.

- 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 7.4 and 7.5.
- 7.3 If a CLA error message is received, the data link oceanic clearance must be verified via voice in accordance with paragraphs 7.4 and 7.5. (see also Section 10 RCL and CLA Errors)
- 7.4 If a data link oceanic clearance must be verified via voice, contact Gander Clearance Delivery between the hours of 2330Z 0730Z (DST 2230Z 0630Z), when within 200NM of a Gander Clearance Delivery frequency. Outside of those hours or when the flight will not pass within 200NM of a Gander Clearance Delivery frequency, crews should contact the current controller when the flight is no more than 90 minutes from the OEP.
- 7.5 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 5.5); and
 - The cleared Mach number.

Section 8 Reclearances

- When a data link oceanic clearance is amended, it will include the ATC/ line and the RECLEARANCE line (see Appendix E for examples of reclearances).
- 8.2 The ATC/ line will list which item (or items) of the clearance was changed from the previously issued clearance. The terms used in the ATC/ line are explained in Appendix B.

- 8.3 The RECLEARANCE line will contain a number from 1 to 9, to identify the first and subsequent reclearances.
- The CLA should be sent for the clearance with the highest RECLEARANCE number.
- 8.5 If unable to send a CLA, the clearance should be verified via voice (see paragraphs 7.4 and 7.5).
- 8.6 If the reclearance does not contain the line END OF MESSAGE, it is possible that the clearance was incomplete. Crews must verify the clearance via voice (see paragraphs 7.4 and 7.5).

Section 9 Time Revisions

- 9.1 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 <u>may</u> result in ATC providing a reclearance.
- 9.2 The OEP estimate used by ATC when producing the oceanic clearance is located next to the OEP in the data link clearance message (see Appendix E). 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.

Section 10 RCL and CLA Errors

RCL errors

SERVICE NOT AVAILABLE REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: The Gander OCD data link was not available when the RCL was sent.

Crew action: The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED ERROR IN MESSAGE REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: There was a formatting error in the RCL received by the Gander OCD system. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED CALLSIGN IN USE REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: The call sign in the RCL matches a call sign associated with another aircraft. *Crew action:* The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED FLIGHT PLAN NOT HELD END OF MESSAGE

Meaning: The Gander OCD system does not have a flight plan for the flight.

Crew action: The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED INVALID REGISTRATION END OF MESSAGE

Meaning: The aircraft registration in the RCL does not match the registration in the flight plan in the Gander OCD system.

Crew action: The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED INVALID OCEAN ENTRY POINT REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: The route requested in the RCL did not contain a valid OEP.

Crew action: The oceanic clearance must be requested via voice (see paragraph 5.4).

RCL REJECTED RCL SENT TOO EARLY REQUEST AGAIN LATER END OF MESSAGE

Meaning: The time for the OEP included in the RCL was more than 90 minutes from the current time.

Crew action: Send another RCL not earlier than 90 minutes but not later than 30 minutes prior to the OEP.

RCL REJECTED RCL RECEIVED TOO LATE REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: The RCL was received by the Gander OCD system less than 30 minutes before the time estimated for the OEP.

Crew action: The oceanic clearance must be requested via voice (see paragraph 5.4).

CLA errors

CLA REJECTED RCL NOT RECEIVED REVERT TO VOICE PROCEDURES

Meaning: The data link oceanic clearance was sent before the RCL was received. The CLA is correct, but some information must be verified via voice.

Crew action: Contact ATC in accordance with paragraph 7.4 and verify <u>only</u> the estimate for the OEP, the data link sequence number and the reclearance number if present (see Appendix E for examples of data link oceanic clearance formats).

CLA REJECTED ERROR IN MESSAGE REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: There was a formatting error in the CLA received by the Gander OCD system. *Crew action:* The data link oceanic clearance must be verified via voice (see paragraphs 7.4 and 7.5).

CLA REJECTED CLEARANCE CANCELLED REVERT TO VOICE PROCEDURES END OF MESSAGE

Meaning: The CLA received by the Gander OCD system did not match the data link oceanic clearance.

Crew action: The data link oceanic clearance received by the crew is not valid. The oceanic clearance must be requested via voice (see paragraph 5.4).

Appendix A – Oceanic Entry Points (OEPs) (north to south)

KENKI	TANTI	KENRI	SCROD	KOBEV	BOBTU
NALDI	GRIBS	LAKES	OYSTR	LOGSU	
MUSVA	VIMLA	MOATT	CARPE	NOVEP	
KAGLY	MIBNO	PRAWN	HECKK	RONPO	
BERUS	TAPLU	PORGY	CRONO	URTAK	
IKMAN	PEPKI	LOACH	DENDU	VODOR	

Appendix B - Terms Used in the ATC/ Line

LEVEL CHANGE	The expected flight level in the reclearance is different from the previously issued clearance.
MACH CHANGE	The speed in the reclearance is different from the previously issued clearance.

ROUTE CHANGE	The route in the reclearance is different from the previously issued
	clearance. Note: If the previously issued clearance was on a NAT track, the
	route description will change to RANDOM ROUTE.

Appendix C - Abbreviations

Abbreviations used in this document

ACARS	Aircraft Communications, Addressing and Reporting System
AGCS	Air Ground Communications System
AIM	Aeronautical Information Publication
ATC	Air Traffic Control
CLA	Clearance Acknowledgement downlink message
DST	Daylight Standard Time
ETA	Estimated time of arrival
NAT	North Atlantic
NM	Nautical Mile(s)
OACC	Oceanic Area Control Centre
OCA	Oceanic Control Area
OCD	Oceanic Clearance Delivery
OCP	Oceanic Clearance Processor
OEP	Oceanic Entry Point
RCL	Request for Clearance downlink 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
М	Mach
NAT	North Atlantic track

Appendix D – Crew Check Lists

Aircraft equipped to send an RCL:

1	Complete ACARS logon (see paragraph 3.1)
2	Send the RCL (see Section 4 – Requesting Clearance)
3	Ensure confirmation message is received (see paragraph 4.8)
4	If error message received, take appropriate action (see Section 10 – RCL and CLA Errors)
5	Receive data link oceanic clearance (see Section 5 – Clearance Delivery)
6	Confirm call sign in clearance matches the call sign in the flight plan (see paragraph 5.2)

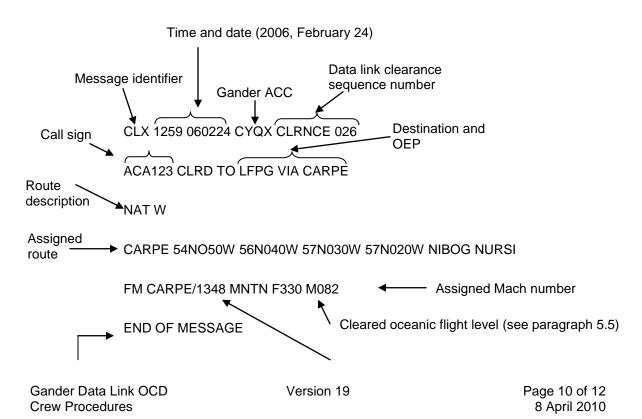
7	Confirm that route coordinates are correct (see paragraph 5.3)
8	Send CLA (see paragraph 7.1)
9	Ensure confirmation message is received (see paragraph 7.2)
10	If error message received, take appropriate action (see Section 10 – RCL and CLA Errors)
11	Advise ATC via voice if the ETA for the OEP changes by 3 minutes or more (see Section 9 – Time Revisions).

Aircraft not equipped to send an RCL:

1	Complete ACARS logon (see paragraph 3.1)
2	Receive data link oceanic clearance (see Section 5 – Clearance Delivery)
3	Confirm call sign in clearance matches the call sign in the flight plan (see paragraph 5.2)
4	Confirm that route coordinates are correct (see paragraph 5.3)
5	If able, send CLA (see paragraph 7.1)
	Ensure confirmation message is received (see paragraph 7.2)
	If error message received, take appropriate action (see Section 10 – RCL and CLA Errors)
6	Verify clearance via voice (see paragraphs 7.4 and 7.5)
7	Advise ATC via voice if the ETA for the OEP changes by 3 minutes or more (see Section 9 – Time Revisions).

Appendix E – Examples of Data Link Oceanic Clearances

Explanation of data link clearance elements



If this line does not appear, the clearance may be incomplete (see paragraph 5.7)

OEP estimate used by ATC when assigning the clearance. Note: This additional element is not a restriction or an instruction (see Section 9).

Example 1 - clearance on a NAT track

CLX 1259 060224 CYQX CLRNCE 026

ABC123 CLRD TO LFPG VIA CARPE

NAT W

CARPE 54N050W 56N040W 57N030W 57N020W NIBOG NURSI

FM CARPE/1348 MNTN F330 M082

END OF MESSAGE

Example 2 - clearance on a random route

CLX 1523 060530 CYQX CLRNCE 118

ABC456 CLRD TO EGLL VIA CRONO

RANDOM ROUTE

CRONO 52N050W 53N040W 53N030W 52N020W LIMRI DOLIP

FM CRONO/1632 MNTN F350 M080

END OF MESSAGE

Example 3 - reclearance from the clearance in Example 1

CLX 1325 060224 CYQX CLRNCE 097

ABC123 CLRD TO LFPG VIA CARPE

RANDOM ROUTE

CARPE 54N050W 55N040W 56N030W 57N020W NIBOG NURSI

FM CARPE/1430 MNTN F340 M082

ATC/ ROUTE CHANGE LEVEL CHANGE

RECLEARANCE 1

END OF MESSAGE

Example 4 – reclearance from the clearance in Example 2

CLX 1558 060530 CYQX CLRNCE 135

ABC456 CLRD TO EGLL VIA CRONO

RANDOM ROUTE

CRONO 52N050W 53N040W 53N030W 52N020W LIMRI DOLIP FM CRONO/1702 MNTN F350 M082 ATC/ MACH CHANGE RECLEARANCE 1 END OF MESSAGE

Example 5 - reclearance from the clearance in Example 4

CLX 1605 060530 CYQX CLRNCE 149

ABC456 CLRD TO EGLL VIA CRONO

RANDOM ROUTE

CRONO 52N050W 52N040W 53N030W 52N020W LIMRI DOLIP

FM CRONO/1711 MNTN F350 M082

ATC/ ROUTE CHANGE

RECLEARANCE 2

END OF MESSAGE