
Subject: Controller Pilot Data Link Communications - Departure Clearance (CPDLC-DCL)

Introduction

Pending Ops Specs approval, the 757/767 fleet will commence participation in the Controller Pilot Data Link Communications - Departure Clearance (CPDLC-DCL) procedure.

Note: Ships 5635-5657 and 5801-5816 are not currently CPDLC capable and will not be able to participate. Use normal PDC procedures for these aircraft.

The specific “turn on” date will be implemented via an Electronic Fleet Bulletin. This bulletin summarizes the process and preflight duties required to successfully accomplish Departure Clearances via CPDLC.

When a station offers the CPDLC-DCL procedure to participating aircraft, crews will no longer have access to domestic ACARS PDC clearances. Thus, the backup for CPDLC-DCL will be to revert to voice. The following ACARS message will be uplinked after initialization.

ACARS BEGIN 10:01:27 14SEP16

THIS STATION UTILIZES CPDLC
CLRN PROCEDURES. PDC CLRN IS
NOT AVAILABLE. REVERT TO VOICE
IF UNABLE CPDLC-DCL.

ACARS END

Flight crews will log on to CPDLC using the ICAO station code, e.g., KSLC, versus requesting an ACARS PDC. Note that CPDLC-DCL is not the ACARS DEPARTURE CLX utilized at many foreign airports. Basic clearance information like Transponder, Departure frequency, and Runway/SID/transition changes will be displayed as text while route changes beyond the SID/transition will be provided as a LOADable route. All CPDLC-DCLs will have an ACCEPT prompt on the last page of the clearance. Only clearances which contain a LOADable route (estimate of less than 10%) will display a LOAD prompt just above the ACCEPT prompt. Once the clearance is accepted, the ACCEPT prompt will disappear. The LOAD prompt is always available to load or reload the route as desired.

Normal Preflight Duties

- ROUTE Uplink
 The route must be loaded prior to requesting a DCL.
- PERF INIT Uplink
- Winds Uplink

Establishing a CPDLC Connection

The flight crew must establish a CPDLC connection with the station, e.g., KSLC. Logon should be completed no later than 30 minutes prior to departure. Crews may receive an immediate clearance if logon is accomplished less than 30 minutes prior to pushback.

ATC key Select
LOGON/STATUS page 1 Displayed
DATA LINK status (6R) READY
LOGON TO (1L) Enter
 Enter Airport ICAO Code (e.g., KSLC)
FLT NO (e.g., DAL217) (2L) Verify/Enter
 Use format DALxxxx where xxxx is the flight number. Do not enter
 any leading zeros or spaces.
TAIL NO (e.g., N663DN) (3L) Verify/Enter
LOGON SEND (1R) Select

The ATC COMM ESTABLISHED scratchpad message will display when the clearance is ready for uplink. **No action is required; the clearance will uplink automatically.** If the ATC COMM ESTABLISHED scratchpad message is not displayed by 30 minutes prior to scheduled departure time, revert to voice and contact Clearance Delivery.

When the DCL is Received

Receipt of an uplinked CPDLC message is indicated by an •ATC message on the Upper EICAS screen and an audible chime.

Unlike a PDC or ACARS DEPARTURE CLX, which can only be sent once, ATC can send revised DCLs during taxi out to help expedite departures. Additionally, LOADable routes reduce key strokes to eliminate typing errors.

A DCL is uplinked directly to the FMS by ATC and therefore a paper copy is not required. However, a printable copy of the ATC Clearance, a CPDLC-DCL Verification Message, will be sent to the ACARS to enhance crew confidence in the process. The transponder code will be displayed on the FMS DCL. ATC deliberately will not provide the transponder code to the ACARS copy as the FMS DCL remains the source document clearance. This practice is to ensure that crews review, LOAD (if applicable), and ACCEPT the FMS DCL.

With DCL, ATC has the ability to directly uplink a clearance change to the FMS by the LOAD prompt. If there is a LOAD prompt, pilots must use this option to update the FMS with the latest clearance. Like the ACCEPT prompt, the LOAD prompt will always be on the last page of the DCL. A best practice is to select “top to bottom” - LOAD, ACCEPT, EXECUTE. A DCL LOADable clearance deletes the current departure and requires that the SID/transition be reentered and discontinuities closed.

Operational Procedures

PF/PM should be present to accept the clearance.

ATC key Select
 Navigate to the last page.

LOAD prompt (4R) (if displayed) Select

Note: If ATC has approved the filed flight plan without changes there will not be a LOAD prompt on the last page of the ATC Uplink.

ACCEPT SEND prompt (5R) Select

Note: Use the REJECT prompt only when a scratchpad message
UNABLE TO LOAD or PARTIAL CLEARANCE displays.
Revert to voice if clearance is rejected.

PF

DEP ARR key Select

Runway, SID, transition Verify/Select

CAUTION: SID/transitions are not part of a loadable DCL clearance. Reinsert the cleared SID/transition every time a route is loaded.

FMS route discontinuities Close

MCDU EXEC key (if a new SID/route loaded) Select

Note: ATC reroutes of SID/transitions, or other close in fixes, are not uncommon and should be accepted. For significant route changes, contact the dispatcher for route/fuel legality as well as to obtain a new wind package.

Clearance Verification Procedures

PF/PM should verify ATC clearance. Refer to Volume 1, NP.12, Clearance Verification Procedure.

If the ATC clearance/or Route is not acceptable, revert to voice and erase any Routes which were loaded.

Since DCL Departure clearance uplinks cannot be printed, a printable copy of this information will be uplinked automatically from the company via ACARS. This message is called the CPDLC-DCL Verification Message.

Pilots should compare the FMS routing with the MCDU-DCL Departure Clearance and the CPDLC-DCL Verification Message (if available).

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ACARS BEGIN 10:12:35 14SEP16

DCL 217 SLC 0207Z
CPDLC DCL VERIFICATION-NOT TO BE USED AS A CLEARANCE
H/B757/L P0235
CLEARED TO KLAX AIRPORT EDETH2.BERYL
THEN AS FILED
CLB VIA SID EXC MAINT 10000FT
DEP FREQ 128.1

KSLC.EDETH2.BERYL.J107.HED.RIIVR3.KLAX

ACARS END
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CLEARED AS FILED

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ACARS BEGIN 10:12:35 14SEP16

DCL 217 SLC 0207Z MODIFIED RTE
CPDLC DCL VERIFICATION-NOT TO BE USED AS A CLEARANCE
H/B757/L P0235
CLEARED TO BLD VIA FFU8.BCE,
AFTER BLD CLEARED TO KLAX ARPT AS FILED
CLB VIA SID EXC MAINT 10000FT
DEP FREQ 128.1

KSLC.FFU8.BCE.BLD.HEC.RIIVR3.KLAX

ACARS END
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REVISION TO THE FLIGHT PLAN

- Note:** The CPDLC-DCL Verification Message is not a clearance. It is an ACARS message that should be used during Clearance Verification Procedures (if available).
- Note:** The transponder code is not included in the CPDLC-DCL Verification Message to ensure the flight crew views the DCL clearance on the MCDU.
- Note:** The CPDLC-DCL Verification Message is not required for departure and is only for convenience; the actual DCL clearance on the MCDU is required. ATC is aware of the clearance delivered to the MCDU, but not the CPDLC-DCL Verification Message.

CPDLC Termination

Domestic enroute CPDLC is not supported at this time. Ten minutes after takeoff, expect an MCDU scratchpad message ATC COMM TERMINATED indicating termination of the CPDLC connection.

Summary

CPDLC-DCL clearances will replace PDCs at domestic airports.

- LOAD and ACCEPT a DCL clearance.
- ACCEPT prompt goes away when the clearance is accepted.
- LOAD prompt, if displayed, always remains available and can be selected to reload a route.
- Verify/load the SID/transition.
- Close route discontinuities.
- Execute changes (Load, Accept, Evaluate, Execute).
- Verify departure instructions (heading, altitude, airspeed, frequencies, squawk).
- Any clearance MAY include a revised SID/transition.
- A LOADable DCL WILL always require selection of a SID/transition.
- When a clearance is loaded but not executed, the revised route can be viewed on the HSI.
- Once a LOADED clearance is executed, new winds may be required.
- Dispatcher approval and wind updates for fixes prior to the Top of Climb are generally not required.
- Winds for new fixes will be available after the dispatcher uplinks a revised flight plan in the ACARS 22 format.
- All pilots should view and confirm DCL clearances on the MCDU.
- ACARS printing of a CPDLC-DCL Verification Message does not always produce an exact copy of the clearance.
- The transponder code will not be on the paper copy.
- A paper copy of the DCL is not required (similar to receiving a PDC with the printer inop).
- Check FMS mileage and destination fuel against the flight plan for reasonableness. Contact the dispatcher if fuel or routing is a concern.

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