



U.S. Domestic CPDLC-DCL Users Guide

DATA COMMUNICATIONS INTEGRATED SERVICES (DCIS)
Harris Corporation

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SECTION 1: FLIGHT PLAN REQUIREMENTS

ICAO FLIGHT PLAN

CPDLC-DCL requires the operator to file the relevant equipage codes in the Equipage Field 10a of the International Civil Aviation Organization (ICAO) Flight Plan (FPL). To specify a preference to receive a CPDLC-DCL, the appropriate delivery preference code is filed in the DAT/ sub-field of Field 18 (Other information box).

FLIGHT IDENTIFICATION

Field 7 of the ICAO flight plan is where the *Aircraft Identification* for the flight will be entered. If the flight does not have an FAA approved Flight ID (e.g. AAL2345), the aircraft registration must be entered here. If the flight has an approved FAA Flight ID Field 7 is where this will be entered, and Field 18 under REG is where the aircraft registration will be input.

AIRCRAFT REGISTRATION

As mentioned previously the aircraft registration regardless of a Flight ID will always be input into Field 18 known as *Other Information* on the ICAO Flight Plan. In the Other Information field, enter REG/ followed by the aircraft's registration/tail number.

Note: Absent of an FAA approved Flight ID enter the aircrafts registration/tail number in BOTH Field 7 and Field 18 for DCL operations.

Flight Plan 1: FAA Approved Flight ID

This image shows a sample ICAO Flight Plan 1. The following fields are highlighted with red boxes:

- Field 7 (Aircraft Identification): H R R S 1 2 3
- Field 18 (Other Information): REG/N123HS

Other visible fields include: Field 3 (Message Type) FPL, Field 10 (Equipment) SDGE3J34, Field 13 (Departure Aerodrome) K J F K, and Field 16 (Destination Aerodrome) K M C O.

Flight Plan 2: No approved Flight ID

This image shows a sample ICAO Flight Plan 2. The following fields are highlighted with red boxes:

- Field 7 (Aircraft Identification): N 1 2 3 H S
- Field 18 (Other Information): REG/N123HS

Other visible fields include: Field 3 (Message Type) FPL, Field 10 (Equipment) SDGE3J34, Field 13 (Departure Aerodrome) K J F K, and Field 16 (Destination Aerodrome) K M C O.

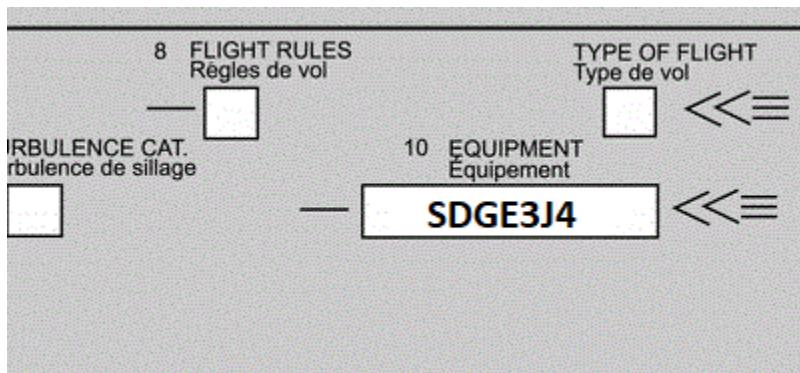
DCL J- CODES

J-Codes are used to indicate what radio communication, navigation, approach aid equipment and capabilities are onboard the aircraft. These are filed in box 10a (equipment box) of the ICAO FPL as seen below.

J3 is FANS 1/A VDL Mode A/0, while J3 is acceptable for DCL clearances, flights looking to participate in the en route environment of CPDLC will need to be equipped and filing J4.

J4 is FANS 1/A VDL Mode 2, this will allow flights to receive DCL clearances on the ground and participate in en route CPDLC when it is deployed.

For more information on equipping aircraft with FANS 1/A VDL Mode 2 please refer to the [AC 90-117 - Data Link Communications](#) that furnishes guidance to pilots and operators desiring to use En Route Services in the Domestic U.S. NAS.



J-Code	Description	Notes
J3	CPDLC FANS 1/A VDL Mode A	Accepted for DCL ONLY
J4	CPDLC FANS 1/A VDL Mode 2	Accepted for DCL & En Route

FIELD 18 (DCL DAT CODE)

The DAT/ codes, which are filed in Field 18 (Other information box) of the ICAO FPL, are the mechanisms which allow Federal Aviation Administration (FAA) automation to generate a CPDLC-DCL, PDC or voice clearance. To be eligible to participate in CPDLC-DCL and receive a clearance on the ground at a participating DCL airport both J4 and a DAT code must be filed. Having both these elements in your flight plan will indicate eligibility.

Establishing a hierarchy on the format in which a clearance is received can be specified in Field 18 under the DAT/ Code entry.

Hierarchy Example: 1FANS2PDC

This indicates that a DCL clearance through FANS would be the default clearance delivery method while a PDC or Pre-Departure Clearance would be the back up method. The delivery method for the clearance will either be through FANS or PDC, clearances can not be received through both services.

User Preference	Data Comm Capability Description	ICAO 2012 Field 10a	Data Comm Field 18 DAT/ Code	Comments
PDC and CPDLC-DCL				
PDC only*	Not ACARS equipped but gets PDC via manual means.	Z	1PDC	Some aircraft are non-ACARS equipped, and 10a is a physical equipage. Still get PDC via other means (e.g. gate printer). Optional if currently getting PDC.
PDC only*	Equipped only for ACARS/PDC	E3 Z	1PDC	Optional if currently getting PDC
PDC only*	Equipped for ACARS/PDC and FANS but wants PDC only.	E3J4x Z	1PDC	Equipped for ACARS/PDC and FANS 1/A or 1/A +, and possible other capabilities (Jx)
FANS 1/A & FANS 1/A+ CPDLC-DCL/PDC	Equipped for ACARS/PDC and FANS but wants FANS 1/A or FANS 1/A+ only for CPDLC-DCL	J4Jx Z	1FANS	Identifies US domestic preference for FANS 1/A or FANS 1/A+ CPDLC-DCL
FANS 1/A & FANS 1/A+ CPDLC-DCL/PDC	Equipped for ACARS/PDC and FANS, with primary/secondary preferences.	E3J4Jx Z	1FANS2PDC	Code number shows priority preference (e.g. CPDLC-DCL is primary preference; PDC is secondary that will be used if primary is unavailable and feasible.)

Note: It makes no difference whether “FANS or FANSP” is filed in a flight plan. Either entry will result in a Data Comm clearance.

For more information on specific filing guidance and procedures please visit: www.harris.com/datacomm and check out the Harris U.S. Domestic CPDLC Flight and Route Planning Guide.

SECTION 2: PARTICIPATING DCL AIRPORTS

Below is a comprehensive list of all the active DCL airports.

Site Name	Site ID	ARTCC ID	Site Name	Site ID	ARTCC ID
New Orleans	KMSY	ZHU	Nashville	KBNA	ZME
Austin	KAUS	ZHU	Denver	KDEN	ZDV
San Antonio	KSAT	ZLA	Atlanta	KATL	ZTL
Los Angeles	KLAX	ZLA	Charlotte	KCLT	ZTL
Las Vegas	KLAS	ZLA	Orlando	KMCO	ZJX
San Diego	KSAN	ZLA	Miami	KMIA	ZMA
John Wayne	KSNA	ZLA	Fort Lauderdale	KFLL	ZMA
Burbank	KBUR	ZLA	Tampa	KTPA	ZMA
Ontario	KONT	ZLA	St. Louis	KSTL	ZKC
San Francisco	KSFO	ZOA	Kansas City	KMCI	ZKC
Oakland	KOAK	ZOA	Minn-St Paul	KMSP	ZMP
San Jose	KSJC	ZOA	San Juan	TJSJ	ZMA
Sacramento	KSMF	ZOA	Columbus	KCMH	ZID
Phoenix	KPHX	ZAB	Fort Myers	KRSW	ZMA
Portland	KPDX	ZSE	Charleston	KCHS	ZJX
Seattle	KSEA	ZSE	Newark	KEWR	ZNY
Albuquerque	KABQ	ZAB	John F Kennedy	KJFK	ZNY
Dallas Love	KDAL	ZFW	La Guardia	KLGA	ZNY
Dallas Fort Worth	KDFW	ZFW	Teterboro	KTEB	ZNY
Reno	KRNO	ZOA	Westchester	KHPN	ZNY
Van Nuys	KVNY	ZLA	Philadelphia	KPHL	ZNY
Louisville	KSDF	ZID	Boston Logan	KBOS	ZOB
Indianapolis	KIND	ZID	Bradley	KBDL	ZBW
Memphis	KMEM	ZME	Detriot	KDTW	ZOB
Baltimore	KBWI	ZDC	Cleveland	KCLE	ZOB
Dulles	KIAD	ZDC	Pittsburgh	KPIT	ZOB
Regan	KDCA	ZDC	Raliegh/Durham	KRDU	ZDC
Midway	KMDW	ZAU	Milwaukee	KMKE	ZAU
O'hare	KORD	ZAU	Buffalo	KBUF	ZOB

Flights can only participate in CPDLC-DCL at the airports listed above, DCL clearances will not be available on the ground at Non-DCL airports underlying an active DCL airport.

SECTION 3: VERIFICATION & LOG ON

VERIFICATION

When logging on to receive CPDLC-DCL services verify that the Aircraft Registration number or Flight ID, departure airport and destination airport are confirmed to be entered correctly on the flight plan. This information should also be confirmed to match the flight plan when entering it into the FMS when logging on to "KUSA".

LOG ON

The National Data Authority at ALL domestic DCL airports will use the logon "KUSA". A flight will be able to log on while on the ground at a DCL airport at least 30 minutes prior to filed departure time to obtain a DCL clearance.

A successful session is indicated on the Logon/Status Page by the Current Data Authority (CDA) (e.g. "ACT CTR, "ACTIVE ATC" or similar) showing "KUSA" (see OEM Guidance Material). The logon will remain accepted until the session is established. At a DCL airport this time frame is about 30 minutes before proposed departure time.

SUCCESSFUL SESSION

Once a successful session has been established with ATC and the CPDLC-DCL has been approved by the controller the DCL clearance will be automatically sent to the aircraft, pilots do not have to request a clearance. Once the clearance is received it should be reviewed and verified by the flight crew.

1. Review the clearance and verify that no clarification from ATC is required.
2. Confirm the appropriate, departure procedure and transition with no discontinuities.
3. Accept or Reject the clearance (ROGER, WILCO, UNABLE)

For CPDLC-DCL operations, pilots can expect an automated ATC initiated logoff/ disconnect 5 to 10 minutes after takeoff.

USING CPDLC-DCL

Each CPDLC Clearance or message sent by ATC to the aircraft requires a response. Respond as soon as possible to all CPDLC messages.

Always revert to voice for clarification if there is uncertainty about a DCL clearance or CPDLC message. All CPDLC messages require a response (WILCO, ROGER, UNABLE). If it becomes necessary to revert to voice, ensure that a response of either Reject or Unable is sent to ATC via CPDLC.

In the case of an emergency, pilots should revert to voice as this remains the primary method of communication.

Do not respond to a CDPLC message or clearance with free text unless it is part of an emergency message.

For further information on Flight Plan Filing Guidance for CPDLC please visit www.harris.com/datacomm and reference the *U.S. Domestic CPDLC Flight and Route Planning Guide*. This document goes into detail on how to file routes, SIDs and STAR's to ensure that pilots receive a CAF as often as possible.

For more information on En Route CPDLC operations you can reference the *Pilot Handbook: U.S. Domestic En Route Controller Pilot Datalink Communication (CPDLC)* on the Harris website as well.