

En Route CPDLC Quick Reference Guide

Flight Plan Requirements

- ✦ Verify Reg Number or Flight ID in Item 7
- ✦ Include in Item 10a "J4" to indicate VDL Mode 2 capability
- ✦ Verify REG/ and CODE/ in Item 18
- ✦ Include in Item 18 for En Route CPDLC:
 - DCL and En Route:
 - File "DAT/1FANSE", or "DAT/1FANSER"*
 - May substitute "DAT/1FANSE2PDC" or "DAT/1FANSER2PDC"* for PDC as secondary preference
 - En Route only:
 - File "DAT/FANSE", or "DAT/FANSER"*

**FANSER for aircraft with STAR loading issues*

On CPDLC LOGON STATUS PAGE/MENU

- ✦ Verify
 - Registration Number
 - Flight ID
- ✦ LOAD Flight Plan:
 - Departure Airport
 - Destination Airport
 - Route
 - SID/ODP & Dept. Runway
 - STAR

Logon for DCL or CPDLC Services

- ✦ Log on using "KUSA"
 - DCL Airports: EDT - 30 minutes
 - Other Airports: EDT - 5 minutes

Do not enter any input into the latency timer or "Max Uplink Delay" field. If a value remains from CPDLC use in a previous FIR, the pilot should clear the value upon entry to KUSA airspace.

If network coverage available, log on is accepted on the ground. Otherwise, log on is accepted once airborne and within network coverage.

- ✦ Successful log on – CDA/ATC CTR shows "KUSA"
- ✦ Do not re-log on if CDA/ATC CTR shows "KUSA"

Initiation & Management of En Route CPDLC Services

- ✦ Start of in-flight CPDLC services begins with welcome message:

*"CONFIRM CPDLC CONTACT WITH KUSA.
ROGER/ACCEPT THIS MESSAGE"*

Except when departing a DCL airport
- ✦ Respond to the welcome message with ROGER/ACCEPT

*CPDLC services transfer from ARTCC to ARTCC
Suspended while operating in TRACON airspace*

"NO COMM" or "DATALINK LOST"

These indicate a temporary loss of datalink communications with the ground.

- ✦ Verify CDA/ACT CTR is still "KUSA"
- ✦ If CDA/ACT CTR is "KUSA", no immediate action is required. DO NOT RE-LOGON
- ✦ Follow published aircraft procedures, if available. Await re-connection with the ground. Use voice for ATC communications until reconnection is confirmed
- ✦ If the NO COMM state continues for 16 minutes, then the active CPDLC session will terminate and the CDA will clear
- ✦ If CDA/ACT CTR does not show "KUSA", attempt re-log on. If not successful, contact ATC via voice

Avionics resets/reboots may sever the aircrafts ATC link with the ground while still appearing to be active.

Recommended Pilot/Flight Crew CPDLC Procedures

- ✦ Every CPDLC message sent by ATC requires a response
- ✦ Respond as soon as possible to all CPDLC messages
- ✦ Respond appropriately:
 - ACCEPT/WILCO/ROGER
 - REJECT/UNABLE
 - STANDBY
 - If STANDBY selected, follow with a
 - ACCEPT/REJECT or WILCO/UNABLE response
 - Select REPORT
- ✦ When appropriate, for multi-crewed aircraft:
 - Independently & silently review an uplinked CPDLC message sent to the aircraft
 - Agree on content & intent of CPDLC message
 - Confirm change & take the action: FMS or Flight Guidance Mode change, etc.
 - Confirm & agree before sending a CPDLC response, report, or request to ATC

ATC CPDLC Reports

- ✦ ATC can request a REPORT using CPDLC (e.g., CONFIRM ASSIGNED ALTITUDE, CONFIRM SPEED)
- ✦ Respond using the pre-formatted REPORT page

Pilot Requests Using CPDLC

- ✦ Send only these pre-formatted REQUESTS via CPDLC to ATC
 - REQUEST [altitude] – request a single altitude
 - REQUEST VOICE CONTACT
 - REQUEST DIRECT TO [position] – position must be on the current ATC assigned route
 - EMERGENCY MESSAGES
- ✦ DO NOT send any other pre-formatted REQUEST
They are not currently supported
- ✦ Send ONLY ONE REQUEST with each CPDLC message

CPDLC Route Messages

- ✦ Route clearances issue via CPDLC:
 - PROCEED DIRECT TO [position]
Direct-to-fix
 - CLEARED TO [position] VIA [routeclearance]
Re-Route to a fix on your current cleared route
 - CLEARED [routeclearance]
Full Route Clearance – Replaces entire flight plan
 - AT [position] CLEARED [routeclearance]
Replaces everything after the specified AT position
- ✦ Load route clearance sent by ATC into the FMS
 - Select LOAD, APPLY, or INSERT new route into FMS
 - Manually insert Departure Procedures
 - Manually insert Arrival Procedures, when required
- ✦ Review new route clearance
- ✦ If acceptable, activate the new route clearance in the FMS, respond ACCEPT/WILCO
- ✦ If not acceptable, respond REJECT/UNABLE

CPDLC Altitude/Speed Messages

- ✦ Use CPDLC to request a single altitude or block altitude
- ✦ An altimeter setting will be included with any CPDLC altitude uplink containing an altitude below FL180
- ✦ Respond to a CONFIRM ASSIGNED ALTITUDE or CONFIRM ASSIGNED SPEED request:
 - Select & send REPORT

CPDLC Termination, Transfer, & Log Off

- ✦ “CPDLC NOT IN USE UNTIL FURTHER NOTIFICATION”
 - Indicates En Route CPDLC is not in use
 - CDA/ACT CTR remains “KUSA”
 - No CPDLC messages except
 - EMERGENCY REPORTS can be sent
- ✦ CPDLC sessions are automatically transferred between the U.S. domestic airspace and international FIR when CPDLC is used in both airspaces
- ✦ If CPDLC is not in use in the receiving FIR, or the aircraft is not eligible for CPDLC services, CPDLC services are terminated at handoff
- ✦ In the off-nominal case in which two or more messages are not received, it is recommended to terminate the CPDLC session and use voice contact for the remainder of the flight
- ✦ An indication of an undelivered message may be a voice contact from ATC to disregard/unable a clearance that has not been received

CPDLC Emergency Messages

- ✦ VOICE REMAINS PRIMARY FOR EMERGENCY COMMUNICATIONS
- ✦ Pilots may send a CPDLC EMERGENCY REPORT to ATC if voice is not be available
- ✦ ATC will receive the CPDLC report but **will not** acknowledge it using CPDLC. ATC will attempt to contact the aircraft via voice
- ✦ FREE TEXT can be used only with EMERGENCY messages, but only as a one-way aircraft to ground link – e.g., in case of loss of VHF voice radio capability

HELPFUL REMINDERS:

- NEVER USE FREE TEXT EXCEPT FOR AN EMERGENCY
- VOICE REMAINS PRIMARY FOR EMERGENCY COMMUNICATIONS
- ALWAYS REVERT TO VOICE TO CLARIFY IF THERE IS CONFUSION