

CPDLC Gotcha: Clearance Busts

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Key Points

- The FAA has published a new Safety Alert for CPDLC and partial route re-clearances.
- Make sure you load your full SID manually into the FMS after you receive a partial reroute message (UM79).
- Also, don't mistake these partial reroute messages as being cleared to fly directly to the waypoint (a direct clearance would be a UM74 message).

Lessons from Teterboro

In 2022, the FAA recorded **20 aircraft deviations** at KTEB/Teterboro Airport due to **issues with CPDLC and partial reroute messages**.

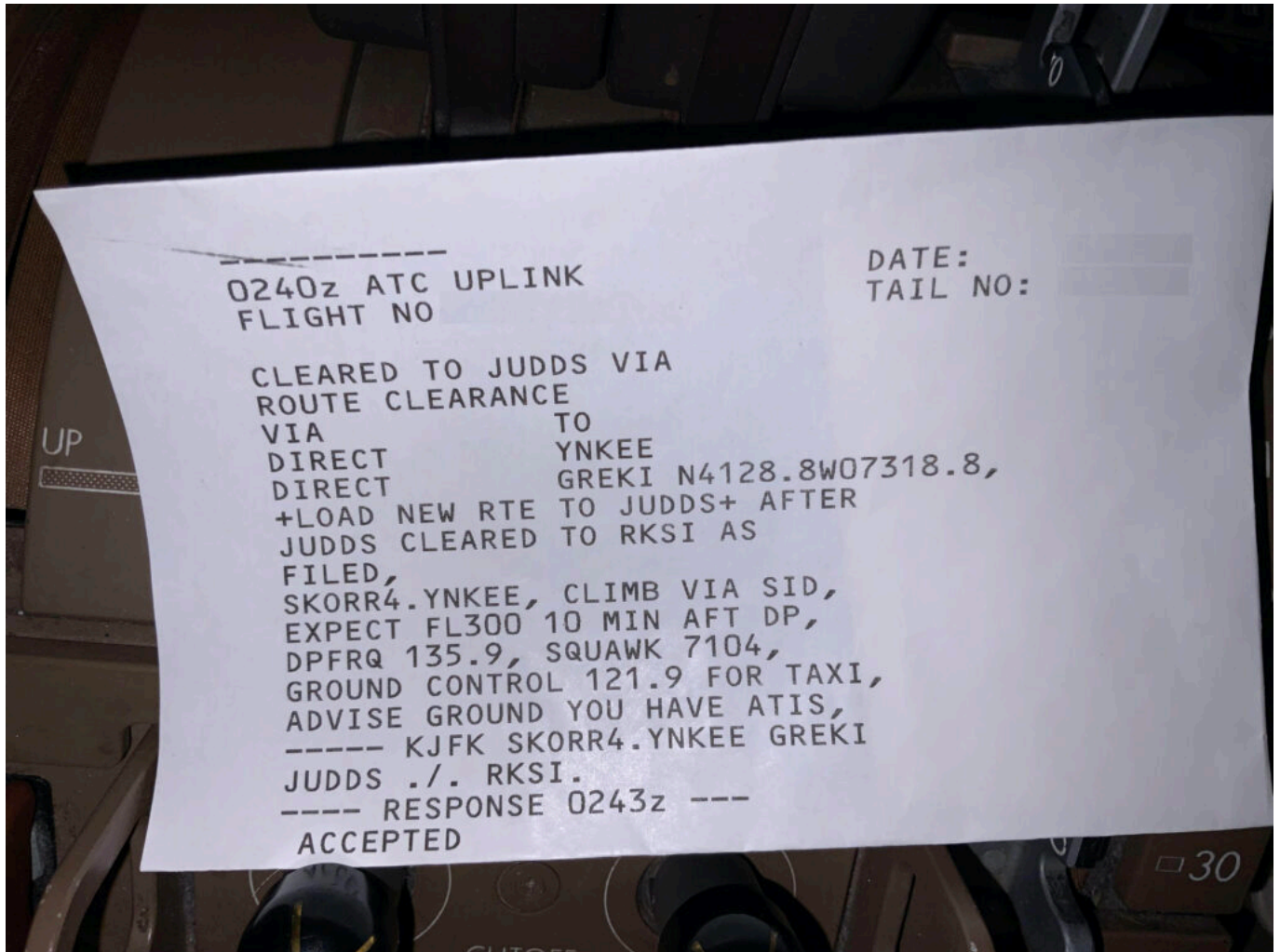
These incidents resulted from failure to reload SIDs after receiving a partial reroute UM79 message (where you are cleared to a particular waypoint via other waypoints en-route), requiring swift coordination with ATC to avoid traffic.

But the issue isn't limited just to Teterboro – it could happen at any US airport, to any aircraft type receiving a clearance in this way.

Another thing to watch out for

Due to limitations in the formatting of CPDLC DCLs, they can be easy to misread or misunderstand. Take the following for example, courtesy of an OPSGROUP member.

A change to a clearance was received by a B777 at **KJFK/New York** during taxi and under considerable pressure to get *underway or out of the way*:



0240z ATC UPLINK
FLIGHT NO

DATE:
TAIL NO:

CLEARED TO JUDDS VIA
ROUTE CLEARANCE
VIA TO
DIRECT YNKEE
DIRECT GREKI N4128.8W07318.8,
+LOAD NEW RTE TO JUDDS+ AFTER
JUDDS CLEARED TO RKSI AS
FILED,
SKORR4.YNKEE, CLIMB VIA SID,
EXPECT FL300 10 MIN AFT DP,
DPFRQ 135.9, SQUAWK 7104,
GROUND CONTROL 121.9 FOR TAXI,
ADVISE GROUND YOU HAVE ATIS,
----- KJFK SKORR4.YNKEE GREKI
JUDDS ./ RKSI.
----- RESPONSE 0243z ----
ACCEPTED

Unfortunately, in this instance the crew **mis-interpreted their clearance as direct to the waypoint YNKEE**. This was further compounded by the issue above - when the new route was loaded, **their SID was dropped from the flight plan**.

When they got airborne, ATC immediately began asking why they weren't following the assigned SID - the result was a **clearance bust**. To their surprise, further down the clearance was indeed an assigned SID - the SKORR4. It was an understandable and easy miss.

The question remained though: *what then is the intention of the top part of this clearance if not to clear the aircraft direct to YNKEE?* We put this to the group, and received some useful feedback.

It maybe comes down to a machine readability issue. The section above the plus signs is required because of the way the clearance is written, and is related to the same issues as above. **It will not contain a SID when you insert it.**

In fact, some newer CPDLC systems don't even show that section to the crew - only the information below the plus signs which contains the assigned SID. The full version is a **confusing**, and seemingly **contradictory** set up.

What about PDCs?

It's probably worth a mention that these issues **don't affect PDC clearances**. PDCs are different and are sent by a service provider via VHF datalink. No log on is needed, and only one can be issued for a flight number at specific airport over a 24 hour period. They also have to be read back via voice. PDC's cannot be used to notify pilots of a change to the filed route. So it's smooth sailing in that regard.

Further reading.

You can read the FAA's new **Safety Alert for CPDLC and partial route re-clearances** [here](#).

The FAA also has a handy guide on **how to use CPDLC in US airspace**. It covers the basics, along with departure clearances (DCLs), en route ops, speed/time restrictions, emergency use and free text.