member of FABEC

EUROCONTROL

Maastricht Upper Area Control Centre

Don't text while driving. Text while flying!

Why use Controller-Pilot Data Link Communications?

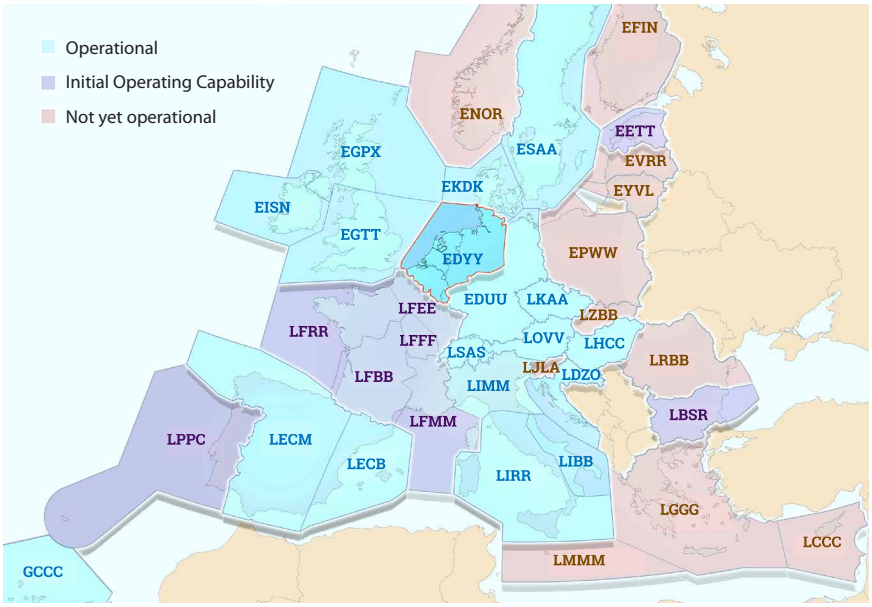
One of the biggest constraints in air traffic control today is the saturation of voice communication channels. 60% of all incidents have (VHF) communication issues as a contributing factor. Controller-Pilot Data Link Communications (CPDLC) helps alleviate this saturation and congestion by providing an additional means of communication for aircrews and air traffic controllers. It enables the fast exchange of text messages between controllers and pilots.

CPDLC is an aeronautical telecommunications network (ATN) air/ground data-link application operated at the Maastricht Upper Area Control Centre (MUAC) and more than a dozen other air navigation service providers in Europe. Data link via ATN is a **secondary communications medium complementing traditional high quality VHF voice communications**, which remains the primary means of communication.

The additional ATC capacity created by logging on to EDYY is especially valuable in the busy summer periods when MUAC controllers handle up to 5,800 flights a day. **Note that in order to maximise service delivery in congested airspace, MUAC will soon apply the "best equipped, best served" principle**.

By using CPDLC for messages that are not time-critical, pilots can still receive continuous climb clearances or directs which would not be available on a busy frequency where primary safety critical separation instructions take priority.

CPDLC Implementation in Europe



What's in it for airlines?

- More ATC capacity and fewer delays
- Better service owing to more ATC capacity: **75% CPDLC equipage rate is estimated to generate +11% ATC capacity**!
- Mitigation of LOST VHF COM incidents and subsequent air defence intercept flights
- The use of data link services will become **mandatory above FL 285 as from 5 February 2020!**

member of FABEC

EUROCONTROL

Examples of data link messages from ATC:

- Check stuck microphone
- Squawk SSR code/ident
- Contact frequency
- Proceed direct flight to a point outside AOI
- Proceed to a point via several route points
- Cleared to a point via several points
- Cleared via a complete route clearance
- Maintain speed or less/greater
- When can you accept FL
- State preferred FL/Top of Descent
- Climb/Descend to FL to reach by time or distance
- Climb/Descend to FL to cross a point at FL or below/above

Aircrew are also able to answer ATC instructions by data link and request routings from ATC.

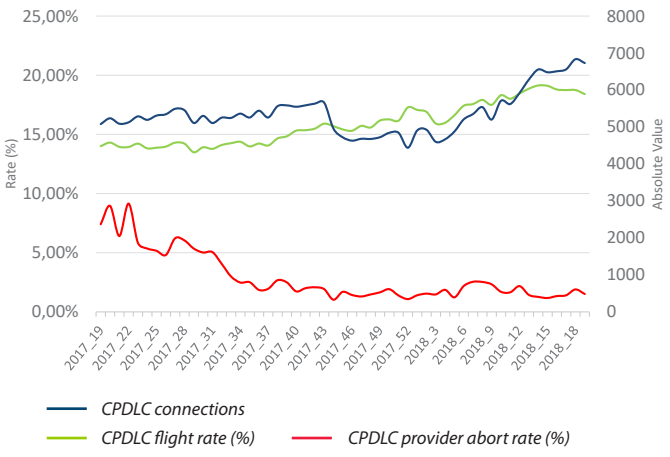
Benefits of CPDLC for pilots

- Reduced VHF communications workload
- Freeing up time to concentrate on other essential tasks
- Clear messages with no risk of misunderstandings
- Stuck microphones, or blocked frequencies can be mitigated
- Simultaneous transmissions are reduced or can be avoided
- Improved safety through reduced risk of incidents attributable to communication issues
- Continuous Climb and DCT might only be available via CPDLC in busy VHF situations
- Improved day-to-day communications between controllers and pilots.

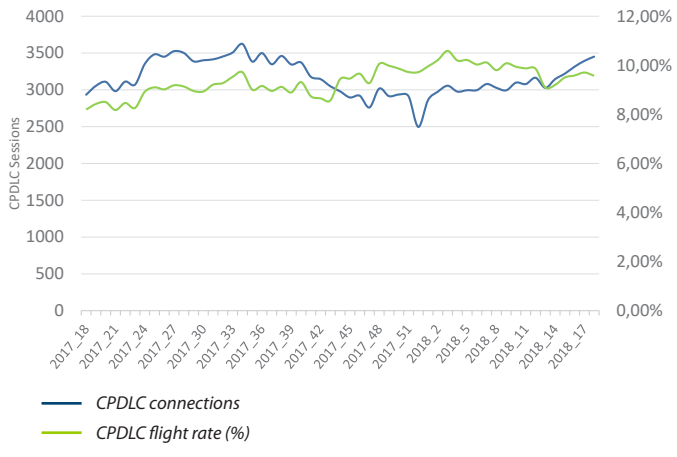
Benefits for air traffic controllers

- Increased ATM capacity
- Allows more time for thinking and resolving other potential conflicts
- Reduced VHF communications workload
- Clear messages with no risk of misunderstandings
- Less saturated VHF voice communication channels, less "say again".

CPDLC usage for MUAC flights in the last 12 months with ATN



CPDLC usage for MUAC flights in the last 12 months with FANS



In line with Commission Implementing Regulation (EU) 310/2015 of 26 February 2015 amending Regulation (EC) No 29/2009 laying down requirements on data link services for the Single European Sky, ***aircraft operators shall ensure that all aircraft operating GAT flights in accordance with IFR above FL 285 are capable to operate the Data Link Services defined in Annex II of Regulation 29/2009 as from 5 February 2020.***

For more information, email muac.datalink@eurocontrol.int or ask your training department.