



International Civil Aviation Organization

**The 2<sup>nd</sup> Meeting of the Future Air Navigation Systems Interoperability  
Team-Asia (FIT-Asia/2)**

Bangkok, Thailand, 28 – 29 March 2013

---

**Agenda Item 4: Data Link Guidance Material**

**REPORTING BACK ON ROUTE**

(Presented by Airservices Australia)

**SUMMARY**

This paper provides an overview of the procedures associated with reporting back on route by CPDLC following a weather deviation.

This paper relates to –

**Strategic Objectives:**

A: *Safety – Enhance global civil aviation safety*

**Global Plan Initiatives:**

GPI-17 Data link applications

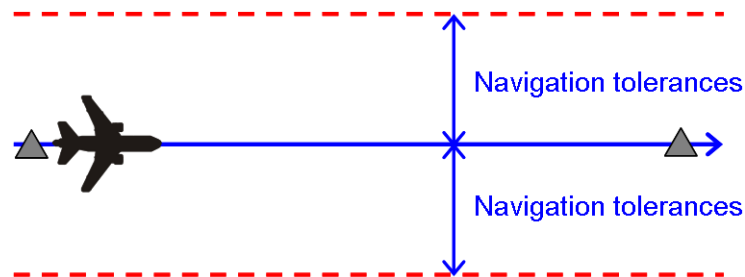
**1. INTRODUCTION**

1.1 CPDLC functionality supports the uplinking of weather deviation clearances, and allows the controller to append an instruction for the flight crew to report when the aircraft is 'back on route'. CPDLC also supports the flight crew downlinking a notification that they are "BACK ON ROUTE"

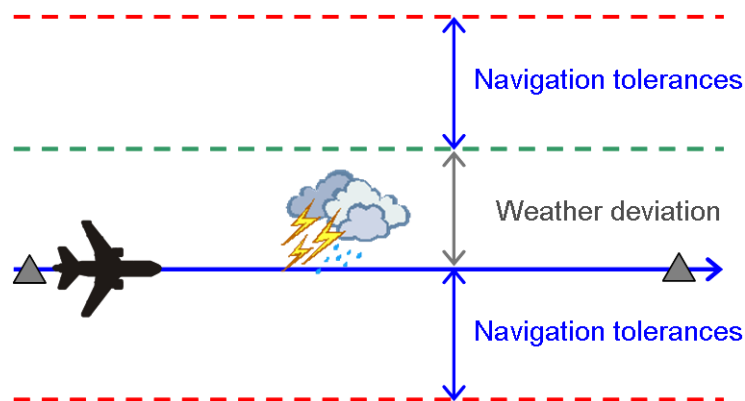
1.2 Observation shows that many flight crews send a CPDLC BACK ON ROUTE downlink when in fact they are still off track. This may result in controllers providing inappropriate separation between the aircraft and other airspace users.

## 2. DISCUSSION

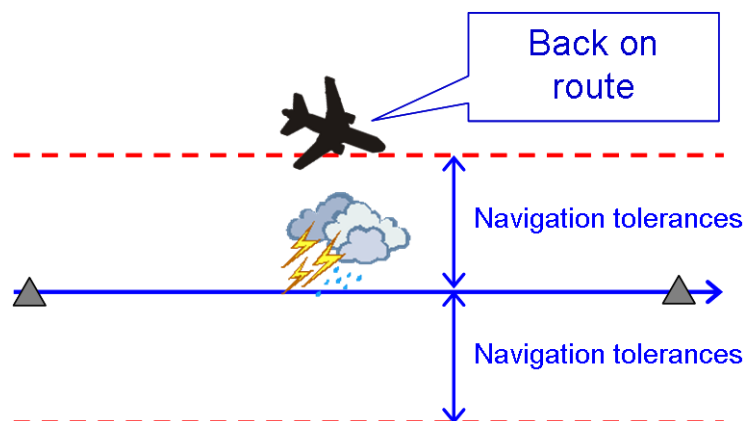
2.1 Outside the range of radar/ADS-B, controllers procedurally separate aircraft by applying navigational tolerances to the route of flight of an aircraft. These tolerances may vary depending on the airspace and the navigation approvals of the aircraft being separated.



2.2 When a weather deviation clearance is issued to an aircraft, the controller must add the size of the requested weather deviation to the appropriate navigational tolerances:



2.3 When the aircraft reports back on route, the controller releases the additional tolerances associated with the weather deviation. If the aircraft is still off track when it reports back on route, this will result in inappropriate tolerances being applied by the controller. In fact it may even result in the aircraft being outside the separation tolerances that are being applied.



2.4 Even if the aircraft is close to rejoining route, the early downlinking of a CPDLC BACK ON ROUTE message may result in route conformance warnings being generated in the ATS Unit.

## 2.5 Investigation

2.5.1 Investigation into a number of incidents revealed that some flight crews reported back on route as soon as they were clear of the weather and tracking directly to the next waypoint. While this may sound a reasonable course of action, unfortunately it results in a discrepancy between the route held by the ATS Unit and the route in the FMS.

## 2.6 Procedures associated with reporting back on route

2.6.1 GOLD contains guidance for flight crews reporting back on route:

### 5.7.4 Reporting back on route

5.7.4.1 When the flight crew no longer needs the deviation clearance and is back on the cleared route, the flight crew should send the report BACK ON ROUTE.

a) If during the weather deviation, the flight crew receives a clearance to proceed direct to a waypoint – and the flight crew accepts (WILCO) this clearance – the aircraft is considered to be on a cleared route. Therefore, the flight crew should send the BACK ON ROUTE report after they execute the “direct to” clearance.

b) If the aircraft is off route on a weather deviation clearance and proceeding direct to a waypoint on the cleared route, the flight crew should not send the BACK ON ROUTE report until they have sequenced the waypoint on the cleared route.

*Note.— If a BACK ON ROUTE report is received while the aircraft is still off-route, the incorrect information provided to ATC may affect the separation standards in use. Alternatively, the flight crew may consider requesting a clearance direct to the waypoint – on receipt of the uplink clearance, the procedure specified in item a) applies.”*

## 2.7 Instructing a flight crew to report back on route

2.7.1 Most aircraft types cannot downlink a BACK ON ROUTE report unless the ATS Unit instructs them to report back on route using UM127 REPORT BACK ON ROUTE

## 2.8 Reporting back on route

2.8.1 On a number of occasions, free text back on route reports are received from aircraft. There is no automation associated with free text messages such as this. Flight crews should ensure that the correct preformatted message DM41 BACK ON ROUTE is used.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) Be aware of the procedure contained in the GOLD concerning reporting back on route by CPDLC;
- b) (For aircraft operators), ensure that flight crews are aware of the correct procedures for reporting back on route;
- c) (For ATS Units), ensure that controllers are aware of the need to instruct aircraft to report back on route if they require a BACK ON ROUTE report.

.....