NORTH ATLANTIC TECHNOLOGY AND INTEROPERABILITY GROUP

(NAT TIG)

TENTH MEETING

(Teleconference, 21-25 September 2020)

Agenda Item 2:   Data Link performance monitoring and analysis, including trials and operations. Reports by States, industry and DLMA

e)   Other issues

USE OF LATITUDE/LONGITUDE INFORMATION CPDLC ROUTE CLEARANCES

(Presented by AIRBUS)

SUMMARY

This paper aims at reminding stakeholders of the recommendation to use the optional Lat/Long parameter when sending Route Clearances over CPDLC, and how this can be achieved even beyond their FIR airspace volume.

1.   Introduction

1.1   As the use of CPDLC route clearances throughout the world keeps expanding, lessons continue to be learned. This paper addresses the topic of the optional Lat/Long field for "publishedidentifier" contained within the "Routeinformation" sequence of a CPDLC Route Clearance (e.g. UM79, UM80, UM83)

2.   Discussion

2.1   Historically, the FANS 1/A+ standard (ED-100A/DO-236A) defined the Latitude/Longitude field associated to a "publishedidentifier" (a Waypoint or Navaid part of a Route Clearance) as optional. This was also the case of the ATN B1 standard (ED-110B/DO-280B).

2.2   However, it is quite common to find the same published identifier (e.g. "ABA" or "SHARK") being used to designate different WPTs or navaids published within various regions of the globe.

2.3   It was thus agreed, during the redaction of the ATN B2 standard (ED-228A/DO-350A), that the Lat/Long field should in fact become mandatory in order to avoid cases of FMS loading incorrect routes (with WPTs not corresponding to ATC clearance) or resulting in Partial Load with Discontinuities requiring manual resolution by flight crews (and possibly leading to an UNABLE answer through CPDLC depending on airlines' policy/training).

2.4   Recalling the content of NAT TIG 05 – IP12, AIRBUS wishes to once again strongly encourage all ANSPs looking to develop their use of FANS 1/A+ or ATN B1 CPDLC Route Clearances to consider the systematic use of the optional Latitude/Longitude parameter associated to each "publishedidentifier".

2.5 During the redaction of the ATN B2 standard, some ANSPs expressed concerns over their incapacity to provide route clearances with Waypoints/Navaids outside of their FIR as they would not know the Lat/Long associated to such points. In particular, contracting a Navigation DataBase providing these information with a world-wide coverage was often rapidly disregarded as not economically realistic.

2.6 It should actually be mentioned that ANSPs could get very attractive pricing for a Navigation DataBase fitting their limited needs.

    a) Compared to an airline, an ANSP would not require as much information and specific/custom coding of data: only the Waypoints and Navaids/NDBs (possibly the Airways as well) records of a Navigation DataBase would actually be of interest to an ANSP (Airlines require a lot more data in their NavDB).

    b) Contracts between a Database Provider and an Airline are usually based on the number and types of aircraft to be equipped (and their FMS supplier), whereas for an ANSP only one database would be needed. Furthermore data could be delivered under non-proprietary ARINC424 format (as opposed to an FMS-loadable NavDB).

    c) As one of the Database Providers, Navblue (an AIRBUS company) confirmed they already have small contracts in place with some ANSPs throughout the world.

2.7 AIRBUS encourages any ANSP willing to provide Route Clearances that may extend beyond their controlled airspace volume to get in touch with the Database Provider of their choice to get a quotation for such a service.

3. Action by the Meeting

3.1 The NAT TIG is invited to:

    a) Note the information provided;

    b) Consider further action as to the recommendation to append Lat/Long to "publishedidentifier" variables for CPDLC Route Clearances.

— **END** —