



International Civil Aviation Organization

AIDC Review Task Force Meeting

Brisbane, Australia, 27-28 March 2003

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**Agenda Item 3: Develop an updated version of the Asia/Pacific ICD for AIDC**

**COORDINATING THE DISTANCE BETWEEN AIRCRAFT**

**SUMMARY**

This paper proposes amendments to the AIDC ICD to facilitate the notification and coordination of distances between aircraft.

(Presented by Australia)

**1. Background**

1.1 Currently, the specifications for ground to ground messaging do not cater for the transmission of separation distances between aircraft in coordination (EST, PAC, CPL) or negotiation (CDN) messages.

1.2 Working Paper 6 presented at the OPLINKP meeting in Brussels in February 2003 proposed a method of coordinating the distances between two or more aircraft between two Air Traffic Services Units. The methodology behind the paper was to add a new field to the boundary estimate variable. It was also acknowledged that in the event that *one* aircraft was being separated from *two* preceding aircraft by an RNAV distance standard that voice coordination would be required. A copy of this working paper is available if required.

1.3 The purpose of this amendment was to facilitate the coordination of the distance between aircraft when RNAV separation was being applied. With the increasing implementation of RNP type airspace and the associated reduced (distance) separation standards, the requirement for ATC to be able to coordinate this will increase. If this amendment was not implemented, coordination for aircraft that were separated by (say) 55nm would be rejected by the receiving ATSU because the time separation indicated by the messaging is only 7 minutes (say).

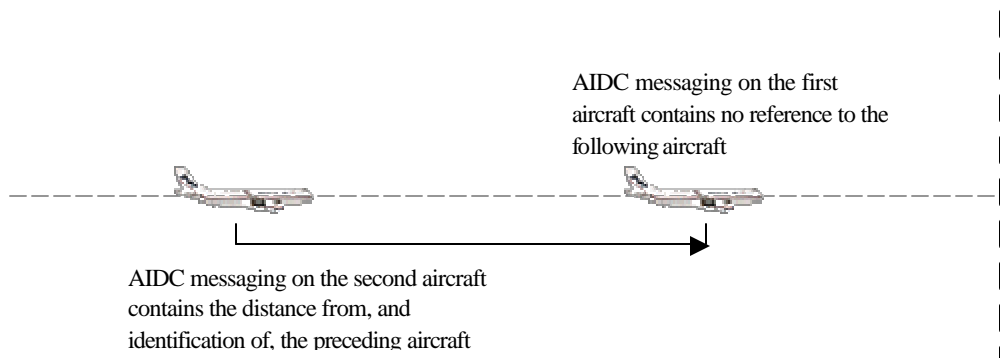
1.4 This paper was accepted by the OPLINK Panel with no amendments. The amended information is in the process of being incorporated into an amendment for PANS-ATM Doc4444 and the Manual of Air Traffic Services Data Link Applications (Doc 9694).

## 2. Methodology

2.1 To assist in the visualisation of this proposal, the following paragraph has been added to describe the concept in greater depth.

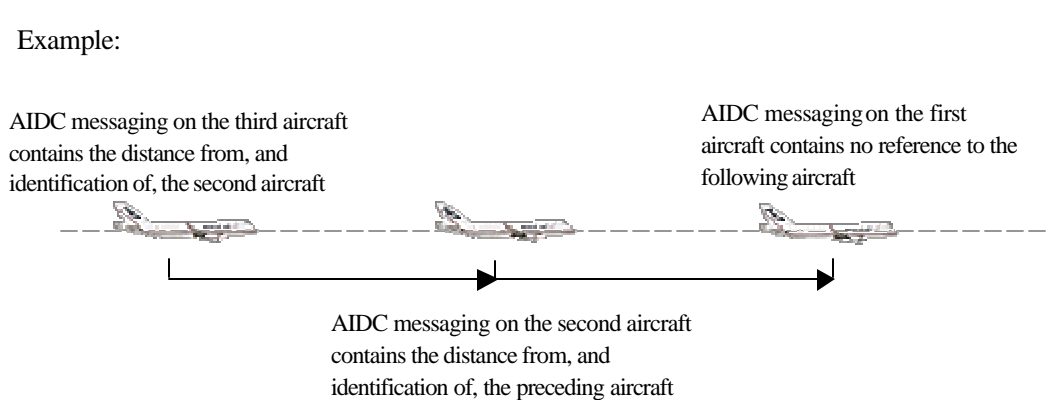
2.2 The intention of this proposal is that a distance from, and the identification of, a preceding aircraft is transmitted in AIDC messages. The intent is that this distance information would only be sent when an RNAV distance standard is being applied between two aircraft.

Example:



2.3 If a number of separation standards are being employed (ie between Aircraft 1 and Aircraft 2, as well as between Aircraft 2 and Aircraft 3), the messaging for Aircraft 2 would contain the distance from Aircraft 1, and the messaging for Aircraft 3 would contain the distance from Aircraft 2.

Example:



## 3. Proposed amendment to AIDC ICD

3.1 Add new paragraph 4.6 (page 6) as follows:

### “Separation distance between aircraft

4.6.1 The boundary estimate variable may contain additional information advising the receiving ATSU of the distance between aircraft pairs. This information shall contain:

- the current longitudinal distance between aircraft (see Note 1); and
- the identification of the preceding aircraft

Example(s)

Ex1. DONLD/0349F370LM085059WALABY1 The aircraft is maintaining M0.85 or less, and is 59 nm behind WALABY1

Ex2. DAISY/0215F310F330055KANGA45 The aircraft is operating in a block of levels between F310 and F330 (inclusive), 55nm behind KANGA45

Ex3. DEWEY/0756F290O10REM08357BISON12 The aircraft is offsetting 10nm right of track, maintaining M083 and is 57nm behind BISON12

4.6.2 The absence of distance information in the boundary estimate data of an AIDC message indicates that an RNAV distance standard is no longer being applied.

Example

Ex4. HEWEY/1945F310063KIW123 The aircraft is 63nm behind KIW123;

subsequently followed by:

Ex5. HEWEY/1945F310 The RNAV distance standard is no longer being applied with KIW123 (implying that another form of separation is now in effect)

Note1. The distance to be transmitted is the longitudinal distance between the aircraft (measured from a common waypoint), which may not necessarily be the measured distance between the aircraft. This distance shall be expressed as a three figure distance, measured in nautical miles.

Note2. The coordination of the distance between aircraft by AIDC should only be made following regional air navigation agreement”

#### 4. Recommendation

4.1 AIDC Review Task Force members are requested to consider the proposed amendment for the coordination of aircraft separation distances for incorporation into the AIDC ICD.

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