

ED-302

CONSIDERATIONS FOR AERONAUTICAL DATA ALTERATION

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FOREWORD

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CHAPTER 1

INTRODUCTION AND SCOPE

1.1 INTRODUCTION

This document provides clarifying information regarding data alteration for aeronautical data chain participants. The document provides background, key terminology, general considerations for data alteration, examples of data error scenarios, and ends with guidelines for data alteration.

1.2 SCOPE

This document addresses the alteration of data and guides entities in the processing, disposition, and/or use of altered aeronautical data. These entities may be any of the stakeholders involved in the aeronautical data chain and listed in [TABLE 1.1](#). This document does not establish requirements above what is required in EUROCAE ED-76A/RTCA DO-200B, nor is it prescriptive in how existing aeronautical data chains process data. Alteration is separate from assembling, translating, selecting, or formatting of data. Withholding data found to be in error is not considered alteration. Consequently, this document does not apply to data changes which preserve the meaning of the data.

While this document refers to origination in order to differentiate it from alteration, it does not provide any additional guidance for origination, given that it is deemed sufficiently covered by ED-76A/DO-200B.

1.3 BACKGROUND

Data suppliers have the ability to originate data or make alterations of the data they receive per approved processes. Before this document, industry guidance was not available for data suppliers to use in determining when alteration changes are appropriate. As data supplier processes became more complex, a need for clarity around data alteration was identified.

There are several contributing factors as to why data suppliers may consider altering the data received from Source, such as:

1. Incorrect, inconsistent, or incomplete data.
2. Other sources of information that are more recent and/or more accurate.
3. Information from multiple sources that disagree.

ED-76A/DO-200B, section 2.4.2, states that data may be altered if permission from the Source is granted. However, it does not explicitly address what to do if the Source fails to respond to the report of the perceived error. This document addresses the issues, concerns, and potential confusion among aeronautical data chain participants when considering data alteration. It further clarifies existing requirements, expectations, and processes related to data alteration.

1.4 KEY TERMINOLOGY

The definitions of terms used in this document are provided to clarify or add to those found in the glossary in ED-76A/DO-200B and ICAO Annex 15. They are not intended to amend current requirements or definitions, but to provide further context.

- **Alteration** - The process whereby data is modified, without assuming responsibility for the data element's validity, after:
 1. Obtaining permission from Source to change data, or
 2. In the absence of permission, identifying an obvious error with an obvious solution.

NOTE: *Assembling, translating, selecting, or formatting data, as defined in ED-76A/DO-200B, is not considered alteration because the meaning of the data is preserved across the data modification. Withholding data found to be in error is not considered alteration.*

- **Data Providers** - Data suppliers that process data independent of application integration.

- Data Supplier - Any group or organization or participant within an aeronautical data chain which processes aeronautical data for a user, including distribution.

NOTES:

1. *Contracting States or entities acting on behalf of the Contracting State are excluded from this definition.*
 2. *Data providers, avionics manufacturers and operators may all act as data suppliers in the aeronautical data chain.*
 3. *This term is referred to as Supplier (of data) in ED-76A/DO-200B.*
- Origination - The process of creating a data element or modifying the value of an existing data element, thereby assuming responsibility for the data element's validity as the originator.
 - Source - When capitalized, this term is used to collectively describe data originators and authoritative sources of aeronautical data. This can also include data providers when they originate data.

1.5

STAKEHOLDERS

The following table illustrates how the different aeronautical data stakeholders may use this document. It should be noted that the term data supplier is not specifically used, yet several stakeholders mentioned in the table (e.g., data providers, application integrators) are data suppliers.

TABLE 1-1: STAKEHOLDERS AND THE INTENDED USES OF THIS DOCUMENT

Stakeholder	Intended Use of This Document	Comments
Data Originators* & Aeronautical Information Service	Understand the types of feedback that will be received from data chain participants.	
Data Providers*	Ensure alteration processes are consistent with ED-76A/DO-200B requirements.	This document can be used to inform process designers and harmonize terminology.
Application Integrators / Avionics Manufacturers*	Implement data processing procedures to separate/identify altered data as needed to support operational use.	This document can be used to inform process designers and harmonize terminology.
End-Users* - Air (e.g., airspace users, aircraft manufacturers)	General awareness and a better understanding of the data alteration process and its potential impact on operations.	
End-Users* - Ground (e.g., ATC)	General awareness.	
Regulatory Authority	Generate rules to approve data alteration processes as appropriate.	

* Indicates a role in the data chain (see ED-76A/DO-200B).

NOTE: Stakeholders not included in the above table are not expected to be direct users of this document.

1.6

REFERENCE DOCUMENTS

1. ICAO International Standards and Recommended Practices, Annex 15 – Aeronautical Information Services
2. EUROCAE ED-76A/RTCA DO-200B – Standards for Processing Aeronautical Data
3. EUROCAE ED-77A/DO-201B – User Requirements for Navigation Data