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UAS traffic management (UTM) —

Part 9:

Interface between UTM service providers and users

Gestion du trafic d'UAS (UTM) —

Partie 9: Interface entre les fournisseurs de services UTM et les utilisateurs



Reference number ISO 23629-9:2023(E)



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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 20, Aircraft and space vehicles, Subcommittee SC 16, Unmanned aircraft systems.

A list of all parts in the ISO 23629 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

To manage rapid growth of the unmanned aircraft system (UAS) operations, governments and organizations have made efforts to develop UAS traffic management (UTM), such as UTM concept of operations developed in USA, U-space concept of operations developed in Single European Sky ATM Research (SESAR) and a common framework of UTM proposed by ICAO. According to these concepts and perspectives, UTM service provider (USP) plays a core role in the UTM ecosystem. Hence, it is significant to define the interfaces between USP and the users so that elements of exchanging information between them for the implementation of UTM services can be clarified.

This document aims to help the sharing of information and interoperability between USP and the users of UTM services and build a common cognition across states, regulators, industries and other UTM stakeholders. It is in conformity with the structure of the ISO 23629 series, while making relevant materials as references such as the documents of the American Society of Testing Materials (ASTM) and operational concepts proposed by governments and organizations. This document only defines the information exchanged in the interface under the structure in ISO 23629-5 and the requirement in ISO 23629-12, while the protocol and data model used to realize the interface is not included.

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UAS traffic management (UTM) —

Part 9:

Interface between UTM service providers and users

1 Scope

This document mainly specifies elements of information exchange between unmanned aircraft system (UAS) traffic management (UTM) service providers (USP) and different users to support relevant UTM services between them, while the protocol requirements and the transmission requirements at the operational level are not included.

This document excludes the interface between USP and USP and the interface between USP and providers of operation support services.

2 Normative reference

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 21384-4, Unmanned aircraft systems — Part 4: Vocabulary

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21384-4 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at https://www.electropedia.org/

3.1

UAS traffic management

UTM

set of traffic management and air navigation services aiming at safe, secure and efficient integration of multiple manned and unmanned aircraft flying inside the respective designated operational coverage of each service

[SOURCE: ISO 23629-7:2021, 3.11]

3.2

UTM service

result of at least one activity necessarily performed at the interface between the UTM service provider (USP) (3.3) and the UTM user (3.4), which consists in the provisions of digital data and information, in the context of UTM

[SOURCE: ISO 23629-12:2022, 3.9, modified — "or operation support provider" has been removed; "in the context of UTM" has been added; notes to entry have been removed.]