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Part 4: Vocabulary

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

DRAFT INTERNATIONAL STANDARD

ISO/DIS 21384-4

ISO/TC 20/SC 16

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Voting begins on:
2023-04-17

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Unmanned aircraft systems —

Part 4: Vocabulary

Aéronefs sans pilote —

Partie 4: Vocabulaire

ICS: 01.040.49; 49.020

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 documents 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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

This second edition cancels and replaces the first edition (ISO 21384-4:2020), which has been technically revised.

The main changes are as follows:

- Several new terms, related to UAS, introduced.

A list of all parts in the ISO 21384 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.

Unmanned aircraft systems —

Part 4: Vocabulary

1 Scope

This document defines terms and definitions relating to unmanned aircraft systems that are widely used in science and technology.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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

aerial work

aircraft (3.7) operation in which an aircraft is used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.

Note 1 to entry: The definition is adapted from Reference [7].

Note 2 to entry: In some States, search and rescue are considered State activities and hence out of civil aviation. In these States the equivalent term 'specialised operations', which in fact excludes search and rescue, is used.

3.2

aerodrome

defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft

[SOURCE: ISO 23629-7, 3.1]

3.3

aerodrome pilot

remote pilot (3.93) familiar with a defined aerodrome or landing site, which transfers responsibility to another pilot a few minutes after take-off or accepts responsibility for approach, landing and possibly taxiing and parking

3.4

aeroplane

power-driven heavier-than-air *aircraft* (3.7), deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight

Note 1 to entry: The definition is adapted from Reference [6].

3.5
air traffic service
ATS

generic term that can refer to flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service)

Note 1 to entry: The definition is adapted from Reference [6].

3.6
airborne collision avoidance system
ACAS

aircraft (3.7) system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircrafts that are equipped with SSR transponders

Note 1 to entry: The definition is adapted from Reference [6].

3.7
aircraft

machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth's surface

Note 1 to entry: The definition is adapted from Reference [10].

3.8
aircraft category
classification of *aircraft* (3.7) according to specified basic characteristics

EXAMPLE *Aeroplane* (3.4), helicopter, glider, free balloon.

Note 1 to entry: The definition is adapted from Reference [12].

Note 2 to entry: Categorization and classification of civil unmanned aircraft systems is standardised in ISO 21895:2020.

3.9
airship
power-driven lighter-than-air *aircraft* (3.7)

Note 1 to entry: The definition is adapted from Reference [9].

3.10
airspace management
ASM

planning function with the primary objective of maximizing the utilization of available airspace by dynamic time-sharing and, at times, the segregation of airspace among various categories of users based on short-term needs, while securing aviation safety

3.11
air traffic management
ATM

dynamic, integrated management of air traffic and airspace including *air traffic services* (3.5), *airspace management* (3.10) and air traffic flow management, safely, economically and efficiently, through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions

Note 1 to entry: The definition is adapted from Reference [13].

3.12**altitude**

vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL)

Note 1 to entry: The definition is adapted from Reference [6].

3.13**ATS communication link**

digital or analogue communication link to transfer voice or data between *remote crew members* (3.91), *ATS* (3.5), airspace users and other airspace users

Note 1 to entry: It includes air-ground, air-to-air and ground-ground links.

3.14**beyond visual line-of-sight****BVLOS**

operation of a *UAS* (3.125) other than *VLOS* (3.138) or *EVLOS* (3.35) in which neither the remote pilot nor any observer use visual reference to the unmanned aircraft in the conduct of flight

3.15**C2 link****command and control link**

data link between the *remotely-piloted aircraft* (3.97) and the *remote pilot station* (3.94) for the purposes of managing the flight

Note 1 to entry: The definition is adapted from Reference [6].

3.16**C2 link service**

telecommunication service provided for the purpose of supporting the C2 link

Note 1 to entry: The definition is adapted from Reference [18].

3.17**C2 link Communications Service Provider****C2CSP**

entity or entities which provide a portion of or all of the C2 link service for operation of an UAS

Note 1 to entry: The definition is adapted from Reference [18].

3.18**C2 link Designated Operational Coverage****DOC**

volume where the C2 link QoS meets the C2 link specified performances and supports the corresponding intended UAS operations

Note 1 to entry: The definition is adapted from Reference [18].

3.19**CNS**

communications, navigation, and surveillance systems, employing digital technologies, including satellite systems together with various levels of automation

[SOURCE: ISO 23629-7:2021, 3.2; ICAO Doc. 9750]

3.20**collision avoidance threshold**

boundary around the *UA* (3.122) at which the collision avoidance function declares that action is necessary to avoid a collision, by preventing the threat from penetrating the *collision volume* (3.22)

Note 1 to entry: The definition is adapted from Reference [14].