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Unmanned aircraft systems —

Part 4:
Vocabulary

Aéronefs sans pilote —

Partie 4: Vocabulaire

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Foreword

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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

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
aerial work
aircraft (3.6) 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].

3.2
aerodrome pilot
remote pilot (3.62) 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 taxing and parking

3.3
aeroplane
power-driven heavier-than-air *aircraft* (3.6), 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].

3.4
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].

3.5
airborne collision avoidance system
ACAS
aircraft (3.6) 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].

3.6
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].

3.7
aircraft category
classification of *aircraft* (3.6) according to specified basic characteristics

EXAMPLE *Aeroplane* (3.3), helicopter, glider, free balloon.

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

3.8
airship
power-driven lighter-than-air *aircraft* (3.6)

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

3.9
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

3.10
air traffic management
ATM
dynamic, integrated management of air traffic and airspace including *air traffic services* (3.4), *airspace management* (3.9) 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].

3.11
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].

3.12
ATS communication link
digital or analogue communication link to transfer voice or data between *remote crew members* (3.60), *ATS* (3.4), airspace users and other airspace users

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

3.13
autonomous system
system that, perceiving its environment and determining if this affects its goals, takes action to ensure as far as practicable that its goals will be safely achieved

3.14
beyond visual line-of-sight
BVLOS
operation of a *UAS* (3.79) other than *VLOS* (3.84) or *EVLOS* (3.25)

3.15
collision avoidance threshold
boundary around the *UA* (3.78) at which the collision avoidance function declares that action is necessary to avoid a collision, by preventing the threat from penetrating the collision volume (3.17)

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

3.16
collision boundary
closest point of approach or minimum distance to be achieved between two *aircrafts* (3.6) to ensure that a collision is avoided taking account of any inaccuracies in the system

3.17
collision volume
cylindrical volume of airspace centred on the *UA* (3.78) with a horizontal radius and vertical *height* (3.35) within which a collision is most likely and avoidance of a collision can only be considered a matter of chance

3.18
command and control link
C2 link
data link between the *remotely-piloted aircraft* (3.66) and the *remote pilot station* (3.63) for the purposes of managing the flight

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

3.19
commercial air transport operation
CAT
aircraft (3.6) operation involving the transport of passengers, cargo or mail for remuneration or hire

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

3.20
control station
defined location containing one or more controls

[SOURCE: ISO 12643-1:2009, 3.12]

3.21
detect and avoid
capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action

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

3.22
down-link
direct or indirect data link from the *unmanned aircraft* (3.78) to one or more peers

3.23
droneport
any aerodrome including *vertiports* (3.82) exclusively dedicated to landing, ground-handling and take-off of *unmanned aircrafts* (3.78)

3.24
dual instruction time
time during which a person is receiving instruction from a properly authorized *remote pilot* (3.62) at the controls of the *remote pilot station* (3.63)

3.25
extended visual line-of-sight
EVLOS
operation beyond the unaided visual range of the *remote pilot* (3.62), but where the remote pilot is supported by vision systems or one or more visual observers

3.26
flight duty period
period which commences when the first *remote crew member* (3.60) reports for duty that includes a flight or a series of flights and which finishes when the last remote crew member's duty ends

3.27
flight level
surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013,2 hPa, and is separated from other such surfaces by specific pressure intervals

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

3.28
flight manual
manual, acceptable by the local aviation authority, containing the order of actions in normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the *aircraft* (3.6) systems

3.29
flight recorder
any type of recorder installed in the *aircraft* (3.6) for the purpose of complementing accident/incident investigation

Note 1 to entry: In the case of *unmanned aircraft* (3.78), it also includes any type of recorder installed in a *remote pilot station* (3.63) for the purpose of complementing accident/incident investigation.

Note 2 to entry: The definition is adapted from Reference [12].

3.30
flight termination system
means and/or procedure triggered manually or automatically to initiate a pre-programmed action or a set of actions designed to terminate *UA* (3.78) flight, minimising risks to third parties

3.31
flight time
total time from the moment the on-board systems are activated with the intent to perform a flight, until the moment the on-board systems are de-activated

3.32
general aviation operation
operation of a *manned aircraft* (3.41) other than a *commercial air transport operation* (3.19) or an *aerial work* (3.1) operation

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

3.33
geo-limitation
process of creating boundaries to contain or exclude *UAS* (3.79) operations

3.34
handover
act of passing piloting control from one *remote pilot station* (3.63) to another

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

3.35
height
vertical distance of a level, a point or an object considered as a point, measured from a specified datum

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

3.36
instrument flight time
time during which a pilot is *piloting* (3.56) an *aircraft* (3.6) solely by reference to instruments and without external reference points

3.37
intruder
aircraft (3.6) within the *surveillance volume* (3.73) but outside the self-separation threshold

3.38
launch and recovery system
system from which or by means of which an *unmanned aircraft* (3.78) is launched or by which it is recovered

3.39
lost link
loss of *command and control link* (3.18) contact with the *unmanned aircraft* (3.78) such that the *remote pilot* (3.62) can no longer manage the flight of the *UA* (3.78)

3.40
maintenance programme
document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, necessary for the safe operation of the *UAS* (3.79)

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

3.41
manned aircraft
aircraft (3.6) which is intended or designed to be operated with at least one human pilot on board

3.42
model aircraft
UA (3.78) that is capable of sustained flight in the atmosphere and that is used exclusively for leisure flights, air displays, sport or competition activities

3.43
monitoring
process of observing on a regular basis over a period of time

3.44
night
period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise as may be prescribed by an aviation authority

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