

Gibraltar Director of Civil Aviation

Direction 03

Glossary of Terms

Contents

Revision History	1
Introduction	2
Direction.....	1
List of Civil Aviation Definitions	2

Revision History

Version	Item	Date
1	Initial Issue	10 February 2023
2	Additional Definitions Added	26 April 2023
3	Additional Definitions	31 October 2024

Direction

As Director of Civil Aviation, in the exercise of my powers under section 17(1) of the Civil Aviation Act 2009, I direct that all persons or organisation:

- exercising the privileges of any licence, approval or certificate issued or validated by the Gibraltar DCA;

- conducting any air or ground operation that is subject to the Gibraltar Civil Aviation Act 2009;

shall, unless a specific Act of Parliament or Regulation defines an aeronautical term, use the list of aviation definitions attached to this Direction.

For the avoidance of doubt, a definition cited in an Act of Parliament or subsidiary legislation takes precedence over the definition contained in the list of definitions published in this Direction.

C C PURKISS

Director of Civil Aviation

Introduction

The following list comprises the definitions of civil aviation terms approved for use by the Director of Civil Aviation in Gibraltar. The list is comprised primarily of definitions in accordance with the annexes of the Chicago Convention although there are some differences where an alternative has been considered to provide a more precise or appropriate interpretation for use in Gibraltar.

Where a reference to an EU Regulation is enclosed in square brackets, this is solely for the purpose of providing the source for the definition used.

List of Civil Aviation Definitions

“2016 Order” means the United Kingdom’s Air Navigation Order 2016 as amended from time to time;

“8,33 kHz Channel Spacing” means a channel spacing where the nominal channel centre frequencies are separated in increments of 8,33 kHz [Regulation (EU) No 1079/2012];

“8,33 kHz Conversion” means the replacement of a frequency assignment registered in the central register and using 25 kHz channel spacing by a frequency assignment using 8,33 kHz channel spacing [Regulation (EU) No 1079/2012];

“AAIB” means the United Kingdom’s Air Accident Investigation Branch;

“abnormal situation” means circumstances, including degraded situations, which are neither routinely nor commonly experienced and for which an air traffic controller has not developed automatic skills [Regulation (EU) No 2015/340];

“ACAS I” means an ACAS which provides information as an aid to “see and avoid” action but does not include the capability for generating resolution advisories (RAs);

“ACAS II” means an ACAS which provides vertical resolution advisories (RAs) in addition to traffic advisories (TAs);

“ACAS III” means an ACAS which provides vertical and horizontal resolution advisories (RAs) in addition to traffic advisories (TAs);

“ACAS broadcast” means a long Mode S air-air surveillance interrogation (UF = 16) with the broadcast address;

“accelerate-stop distance available (ASDA)” means the length of the take-off run available plus the length of stopway, if provided.

“acceptance check list” means a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met;

Glossary of Terms

“acceptable means of compliance (AMC)” means non-binding standards adopted by the Director to illustrate means to establish compliance with Gibraltar Regulations and EU legislation taken into domestic law [Regulation (EU) No 2015/340];

“accepting unit” means air traffic control unit next to take control of an aircraft;

“accident” means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- a) a person is fatally or seriously injured as a result of:
 - being in the aircraft, or
 - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - direct exposure to jet blast,except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
 - adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- c) the aircraft is missing or is completely inaccessible.

For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located;

“accident investigation authority” means the authority designated by a State as responsible for aircraft accident and incident investigations within the context of this Annex;

“accompanying person” means an adult who is travelling with a minor. This person will not necessarily be the parent or legal guardian of the minor;

“accredited medical conclusion” means the conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary;

“accredited representative” means a person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State. The accredited representative would normally be from the State’s accident investigation authority;

“accuracy” means the closeness with which a measurement approaches the true value established independently;

“active surveillance” means the process of tracking an intruder by using the information gained from the replies to own ACAS interrogations;

“Act” means the Civil Aviation Act 2009;

“acts of unlawful interference” means acts or attempted acts such as to jeopardize the safety of civil aviation and air transport, i.e.:

- unlawful seizure of aircraft in flight,
- unlawful seizure of aircraft on the ground,
- hostage-taking on board an aircraft or on aerodromes,
- forcible intrusion on board an aircraft, at an airport or on the premises of an aeronautical facility,
- introduction on board an aircraft or at an airport of a weapon or hazardous device or material intended for criminal purposes,
- communication of false information as to jeopardize the safety of an aircraft in flight or on the ground, of passengers, crew, ground personnel or the general public, at an airport or on the premises of a civil aviation facility;

“acrobatic flight” means manoeuvres intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed;

“active RAC” means an RAC is active if it currently constrains the selection of the RA. RACs that have been received within the last six seconds and have not been explicitly cancelled are active;

“Active surveillance” means the process of tracking an intruder by using the information gained from the replies to own ACAS interrogations;

“adapted competency model” means a group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organization uses to develop competency-based training and assessment for a given role;

“adaptive modulation” means a system’s ability to communicate with another system using multiple burst profiles and a system’s ability to subsequently communicate with multiple systems using different burst profiles.

“adequate aerodrome” means an aerodrome on which the aircraft can be operated, taking account of the applicable performance requirements and runway characteristics [Regulation (EU) No 965/2012];

“admission” means the permission granted to a person to enter a State by the public authorities of that State in accordance with its national laws;

“ADS-C agreement” means a reporting plan which establishes the conditions of ADS-C data

Glossary of Terms

reporting (i.e. data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-C in the provision of air traffic services);

“advanced aircraft” means an aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach or landing operation;

“advance passenger information (API) system” means an electronic communications system whereby required data elements are collected and transmitted to border control agencies prior to flight departure or arrival and made available on the primary line at the airport of entry;

“adviser” means a person appointed by a State, on the basis of his or her qualifications, for the purpose of assisting its accredited representative in a safety investigation [Regulation (EU) No 965/2012];

“advisory airspace” means an airspace of defined dimensions, or designated route, within which air traffic advisory service is available;

“advisory route” means a designated route along which air traffic advisory service is available;

“aerial work” means an aircraft 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 [Regulation (EU) No 923/2012];

“aerial work aircraft” means an aircraft (other than a commercial air transport aeroplane or a public transport aircraft) flying, or intended by the operator to fly, for the purpose of aerial work;

“aerial work undertaking” means an undertaking whose business includes the performance of aerial work;

“aerobatic flight” means manoeuvres intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed, not necessary for normal flight or for instruction for licenses or ratings other than aerobatic rating [Regulation (EU) No 923/2012];

“aerodrome” means a defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed offshore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft [Regulation (EU) No 923/2012];

“aerodrome beacon” means aeronautical beacon used to indicate the location of an aerodrome from the air;

“aerodrome certificate” means a certificate issued by the Director under applicable regulations for the operation of an aerodrome;

“aerodrome certificate” means a certificate issued under the Aerodromes Regulation;

Glossary of Terms

“aerodrome climatological summary” means a concise summary of specified meteorological elements at an aerodrome, based on statistical data;

“aerodrome climatological table” means a table providing statistical data on the observed occurrence of one or more meteorological elements at an aerodrome.

“aerodrome control radio station” means a station providing radio-communication between an aerodrome control tower and aircraft or mobile aeronautical stations;

“aerodrome control service” means an air traffic control service for aerodrome traffic;

“aerodrome control tower” means a unit established to provide air traffic control service to aerodrome traffic;

“aerodrome elevation” means the elevation of the highest point of the landing area;

“aerodrome identification sign” means a sign placed on an aerodrome to aid in identifying the aerodrome from the air;

“aerodrome mapping data” (AMD) means data collected for the purpose of compiling aerodrome mapping information for aeronautical uses;

“aerodrome mapping database” (AMDB) means a collection of aerodrome mapping data organized and arranged as a structured data set;

“aerodrome meteorological office” means an office designated to provide meteorological service for aerodromes serving international air navigation;

“aerodrome operating minima” means the limits of usability of an aerodrome for:

- a) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;
- b) landing in precision approach and landing operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the category of the operation;
- c) landing in approach and landing operations with vertical guidance, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H); and
- d) landing in non-precision approach and landing operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions;

“aerodrome operator” means any legal or natural person operating or proposing to operate one or more aerodromes [Regulation (EU) No 2018/1139];

“aerodrome pair” means a group of two aerodromes composed of a departing aerodrome and an arrival aerodrome;

“aerodrome reference point” means the designated geographical location of an aerodrome;

“aerodromes regulation” means Commission Regulation (EU) No 139/2014 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EU) No 1139/2018 of the European Parliament and of the Council, as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“aerodrome taxi time” means the pre-determined time value from off-block to take-off, expressed in minutes and valid during normal airport operations [Regulation (EU) No 255/2010];

“aerodrome traffic” means all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome and for this purpose an aircraft operating in the vicinity of an aerodrome includes, but is not limited to, aircraft entering or leaving an aerodrome traffic circuit;

“aerodrome traffic circuit” means the specified path to be flown by aircraft operating in the vicinity of an aerodrome [Regulation (EU) No 923/2012];

“aerodrome traffic density” means

- a) Light. Where the number of movements in the mean busy hour is not greater than 15 per runway or typically less than 20 total aerodrome movements.
- b) Medium. Where the number of movements in the mean busy hour is of the order of 16 to 25 per runway or typically between 20 to 35 total aerodrome movements.
- c) Heavy. Where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total aerodrome movements;

“aerodrome traffic zone” means an airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic;

“aerodynamic diameter of a particle” means the diameter of an equivalent sphere of unit density with the same terminal settling velocity as the particle in question, also referred to as “classical aerodynamic diameter”;

“AeroMACS Downlink” (DL) means the transmission direction from the base station (BS) to the mobile station (MS);

“AeroMACS Uplink” (UL) means the transmission direction from the mobile station (MS) to the base station (BS);

“AeroMACS handover” means the process in which a mobile station (MS) migrates from the air-interface provided by one base station (BS) to the air-interface provided by another BS. A break-before-make AeroMACS handover is where service with the target BS starts after a disconnection of service with the previous serving BS;

“aeronautical administrative communications” (AAC) means communications necessary for the exchange of aeronautical administrative messages;

Glossary of Terms

“aeronautical beacon” means an aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth;

“aeronautical broadcasting service” means a broadcasting service intended for the transmission of information relating to air navigation;

“aeronautical chart” means a representation of a portion of the Earth, its culture and relief, specifically designated to meet the requirements of air navigation;

“aeronautical fixed circuit” means a circuit forming part of the aeronautical fixed service (AFS);

“aeronautical fixed service” (AFS) means a telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services;

“aeronautical fixed station” means a station in the aeronautical fixed service;

“aeronautical fixed telecommunication network” (AFTN) means a worldwide system of aeronautical fixed circuits provided, as part of the aeronautical fixed service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics;

“aeronautical fixed telecommunication network circuit” means a circuit forming part of the aeronautical fixed telecommunication network (AFTN);

“aeronautical ground light” means any light specially provided as an aid to air navigation, other than a light displayed on an aircraft;

“aeronautical information” means information resulting from the assembly, analysis and formatting of aeronautical data;

“aeronautical information circular” (AIC) means a notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters;

“aeronautical information management” (AIM) means the dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties;

“aeronautical information product” means aeronautical data and aeronautical information provided either as digital data sets or as a standardized presentation in paper or electronic media. Aeronautical information products include:

- Aeronautical Information Publication (AIP), including Amendments and Supplements;
- Aeronautical Information Circulars (AIC);
- aeronautical charts;
- NOTAM; and

— digital data sets;

“aeronautical information publication” (AIP) means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;

“aeronautical information service” (AIS) means a service established within the defined area of coverage responsible for the provision of aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation;

“aeronautical meteorological station” means a station designated to make observations and meteorological reports for use in international air navigation;

“aeronautical mobile airport communications system” (AeroMACS) means a high-capacity data link supporting mobile and fixed communications on the aerodrome surface;

“aeronautical mobile service” means a mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies;

“aeronautical mobile (R) service” means an aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes;

“aeronautical mobile-satellite service” means a mobile-satellite service in which mobile earth stations are located on board aircraft; survival craft stations and emergency position-indicating radio beacon stations may also participate in this service;

“aeronautical mobile-satellite (R) service” means an aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes;

“aeronautical operational control”(AOC) means communication required for the exercise of authority over the initiation, continuation, diversion or termination of flight for safety, regularity and efficiency reasons;

“aeronautical radio navigation service” means a radio navigation service intended for the benefit and for the safe operation of aircraft;

“Aeronautical Radio Station” means a radio station on the surface, which transmits or receives signals for the purpose of assisting aircraft;

“aeronautical station” means a land station in the aeronautical mobile service. In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea;

“aeronautical telecommunication agency” means an agency responsible for operating a station or stations in the aeronautical telecommunication service;

Glossary of Terms

“aeronautical telecommunication log” means a record of the activities of an aeronautical telecommunication station;

“aeronautical telecommunication network” (ATN) means a global internetwork architecture that allows ground, air-ground and avionic data subnetworks to exchange digital data for the safety of air navigation and for the regular, efficient and economic operation of air traffic services;

“aeronautical telecommunication service” means a telecommunication service provided for any aeronautical purpose;

“aeronautical telecommunication station” means a station in the aeronautical telecommunication service.

“aeroplane” a power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;

“aeroplane owner” means person(s), organization(s) or enterprise(s) identified via Item 4 (Name of owner) and Item 5 (Address of owner) on the certificate of registration of an aeroplane;

“aeroplane reference field length” means the minimum field length required for take-off at maximum certificated take-off mass, sea level, standard atmospheric conditions, still air and zero runway slope, as shown in the appropriate aeroplane flight manual prescribed by the certificating authority or equivalent data from the aeroplane manufacturer. Field length means balanced field length for aeroplanes, if applicable, or take-off distance in other cases;

“afterburning” means a mode of engine operation wherein a combustion system fed (in whole or part) by vitiated air is used;

“AFTN communication centre” means an AFTN station whose primary function is the relay or retransmission of AFTN traffic from (or to) a number of other AFTN stations connected to it;

“AFTN destination station” means an AFTN station to which messages and/or digital data are addressed for processing for delivery to the addressee;

“AFTN origin station” means an AFTN station where messages and/or digital data are accepted for transmission over the AFTN;

“AFTN station” means a station forming part of the aeronautical fixed telecommunication network (AFTN) and operating as such under the authority or control of a State;

“agreement summary” means when an aircraft is operating under an Article 83 bis agreement between the State of Registry and another State, the agreement summary is a document transmitted with the Article 83 bis Agreement registered with the ICAO Council that identifies succinctly and clearly which functions and duties are transferred by the State of Registry to that other State;

Glossary of Terms

“aided night vision imaging system (NVIS) flight’ means, in the case of NVIS operations, that portion of a visual flight rules (VFR) flight performed at night when a crew member is using night vision goggles (NVG) [Regulation(EU) No 965/2012];

“AIP amendment” means permanent changes to the information contained in the AIP;

“AIP supplement” means temporary changes to the information contained in the AIP which are provided by means of special pages;

“AIRAC” means an acronym (aeronautical information regulation and control) signifying a system aimed at advance notification, based on common effective dates, of circumstances that necessitate significant changes in operating practices;

“airborne collision avoidance system” (ACAS) means an aircraft 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 aircraft that are equipped with SSR transponders;

“aircraft” means any 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;

“aircraft address” means a unique combination of twenty-four bits available for assignment to an aircraft for the purpose of air-ground communications, navigation and surveillance;

“aircraft avionics” means a term designating any electronic device — including its electrical part — for use in an aircraft, including radio, automatic flight control and instrument systems;

“aircraft-based augmentation system” (ABAS) means an augmentation system that augments and/or integrates the information obtained from the other GNSS elements with information available on board the aircraft;

“aircraft — category” means classification of aircraft according to specified basic characteristics, e.g. aeroplane, helicopter, glider, free balloon;

“aircraft certificated for single-pilot operation” means a type of aircraft which the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of one pilot;

“aircraft classification number” (ACN) means a number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category; (Until 28 Nov 24)

“aircraft classification rating” (ACR) means a number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category; (From 28 Nov 24)

“aircraft data circuit-terminating equipment” (ADCE) means an aircraft specific data circuit-

Glossary of Terms

terminating equipment that is associated with an airborne data link processor (ADLP). It operates a protocol unique to Mode S data link for data transfer between air and ground;

“aircraft data link processor” (ADLP) means an aircraft-resident processor that is specific to a particular air-ground data link (e.g. Mode S) and which provides channel management, and segments and/or reassembles messages for transfer. It is connected to one side of aircraft elements common to all data link systems and on the other side to the air-ground link itself;

“aircraft documents”, in relation to any aircraft, means any certificate of registration, maintenance or airworthiness of that aircraft, any log book relating to the use of that aircraft or its equipment and any other similar document;

“aircraft earth station” (AES) means a mobile earth station in the aeronautical mobile satellite service located on board an aircraft;

“aircraft equipment” means articles, including first-aid and survival equipment and commissary supplies, but not spare parts or stores, for use on board an aircraft during flight;

“aircraft observation” means the evaluation of one or more meteorological elements made from an aircraft in flight;

“aircraft operating agency” means a person, organization or enterprise engaged in, or offering to engage in, an aircraft operation;

“aircraft operating manual” means a manual, acceptable to the State of the Operator, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft;

“aircraft operator” means a person, organization or enterprise engaged in or offering to engage in an aircraft operation;

“aircraft operators’ documents” means air waybills/consignment notes, passenger tickets and boarding passes, bank and agent settlement plan documents, excess baggage tickets, miscellaneous charges orders (M.C.O.), damage and irregularity reports, baggage and cargo labels, timetables, and weight and balance documents, for use by aircraft operators;

“aircraft radio equipment” means one or more radios located on board an aircraft and used by an authorised flight crew member during flight [Regulation (EU) No 1079/2012];

“aircraft required to be operated with a co-pilot” means a type of aircraft that is required to be operated with a co-pilot, as specified in the flight manual or by the air operator certificate;

“aircraft stand” means a designated area on an apron intended to be used for parking an aircraft;

“aircraft station” means a mobile station in the aeronautical mobile service, other than a survival craft station, located on board an aircraft;

Glossary of Terms

“aircraft tracking” means a process, established by the operator, that maintains and updates, at standardized intervals, a ground-based record of the four dimensional position of individual aircraft in flight;

“aircraft — type of” means all aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics;

“aircraft/vehicle” means may be used to describe either a machine or device capable of atmospheric flight, or a vehicle on the airport surface movement area (i.e. runways and taxiways);

“air defence identification zone” (ADIZ) means special designated airspace of defined dimensions within which aircraft are required to comply with special identification and/or reporting procedures additional to those related to the provision of air traffic services (ATS);

“airfield” means that part of the Gibraltar Airport designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft;

“airfield operator” means the RAF Station Commander at RAF Gibraltar.

“air/fuel ratio” means the mass rate of airflow through the hot section of the engine divided by the mass rate of fuel flow to the engine;

“air-ground communication” means two-way communication between aircraft and stations or locations on the surface of the earth;

“air/ground communications service” means a service provided from an aerodrome to give information to aerodrome traffic by means of radio signals and ‘air/ground communications service unit’ shall be construed accordingly;

“air-ground control radio station” means an aeronautical telecommunication station having primary responsibility for handling communications pertaining to the operation and control of aircraft in a given area;

“air-initiated protocol” means a procedure initiated by a Mode S aircraft installation for delivering a standard length or extended length downlink message to the ground;

“airline” means as provided in Article 96 of the Chicago Convention, any air transport enterprise offering or operating a scheduled international air service;

“airmanship” means the consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives;

“AIRMET information” means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof;

Glossary of Terms

“air navigation services” means air traffic services; communication, navigation and surveillance services; meteorological services for air navigation; and aeronautical information services [Regulation (EU) No 139/2014];

“air navigation service providers” means any public or private entity providing air navigation services for general air traffic [Regulation (EU) No 549/2004];

“Air Operations Regulation” means Commission Regulation (EU) No 965/2012 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EU) No 1139/2018 of the European Parliament and of the Council as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time, as amended from time to time;

“air operator certificate” (AOC) means a certificate authorizing an operator to carry out specified commercial air transport operations;

“airport charges” means charges payable to the Operator for the use of, or for services provided at, the Civil Airport;

“air service” means a flight or a series of flights carrying passengers, cargo or mail for remuneration or hire [Regulation (EU) No 255/2010];

“air-report” means a report from an aircraft in flight prepared in conformity with requirements for position, and operational and/or meteorological reporting;

“airship” means a power-driven lighter-than-air aircraft;

“airspace block” means an airspace of defined dimensions, in space and time, within which air navigation services are provided [Regulation (EU) No 549/2004];

“airspace management” means a planning function with the primary objective of maximising the utilisation of available airspace by dynamic time-sharing and, at times, the segregation of airspace among various categories of airspace users on the basis of short-term needs [Regulation (EU) No 549/2004];

“airspace users” means all aircraft operated as general air traffic [Regulation (EU) No 549/2004];

“air-taxiing” means movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt);

“air-to-ground communication” means one-way communication from aircraft to stations or locations on the surface of the earth;

“air traffic” means all aircraft in flight or operating on the manoeuvring area of an aerodrome;

“air traffic advisory service” means a service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans;

“air traffic control clearance” means authorization for an aircraft to proceed under conditions specified by an air traffic control unit;

“air traffic control instruction” means directives issued by air traffic control for the purpose of requiring a pilot to take a specific action [Regulation (EU) No 923/2012];

“air traffic controllers’ licensing regulation” means Regulation (EU) No 2015/340 of as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time laying down technical requirements and administrative procedures relating to air traffic controllers’ licences and certificates pursuant to Regulation (EU) No 1139/2018 of the European Parliament and of the Council as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“air traffic controller schedule” means a plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as a roster;

“air traffic control service” means a service provided for the purpose of:

- a) preventing collisions:
 - 1) between aircraft, and
 - 2) on the manoeuvring area between aircraft and obstructions, and
- b) expediting and maintaining an orderly flow of air traffic;

“air traffic control unit” means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

“air traffic flow management” (ATFM) means a service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilized to the maximum extent possible and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority;

“air traffic flow management (ATFM) departure slot’ means a calculated take-off time attributed by the central unit for ATFM with a time tolerance managed by the local ATS unit [Regulation (EU) No 255/2010];

“air traffic flow management (ATFM) measure” means the actions taken to perform air traffic flow management and capacity management [Regulation (EU) No 255/2010];

“air traffic management” (ATM) means the dynamic, integrated management of air traffic and airspace (including air traffic services, airspace management 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;

Glossary of Terms

“air traffic service” means a generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service);

“air traffic services airspaces” means airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified;

“air traffic service equipment” means ground based equipment, including an aeronautical radio station, used or intended to be used in connection with the provision of a service to an aircraft in flight or on the ground which equipment is not otherwise approved by or under these Regulations but excluding–

- a) any public electronic communications network; and
- b) any equipment in respect of which the Director has made a direction that it shall be deemed not to be air traffic service equipment for the purposes of regulations 80 and 81 of the Civil Aviation (Air Navigation) Regulations 2009.

“air traffic services reporting office” means a unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure;

“air traffic services (ATS) surveillance service” means a service provided directly by means of an ATS surveillance system;

“air traffic services unit” means a generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office;

“air traffic service (ATS) unit sector configuration” means the four dimensional description of an ATS unit airspace sector, or group of sectors, which may be operated on a permanent or temporary basis [Regulation (EU) No 255/2010];

“air transit route” means a defined route for the air transiting of helicopters;

“airway” means a control area or portion thereof established in the form of a corridor;

“airworthy” means The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation; (until 26 Nov 26)

“airworthy” means the status of an aircraft, remote pilot station, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation; (from 26 Nov 26)

“ALERFA” means the code word used to designate an alert phase;

“alert” means an indication provided to other aircraft systems or annunciation to the pilot to identify that an operating parameter of a navigation system is out of tolerance;

“alert limit” means for a given parameter measurement, the error tolerance not to be exceeded without issuing an alert;

“alerting post” means any facility intended to serve as an intermediary between a person reporting an emergency and a rescue coordination centre or rescue subcentre;

“alerting service” means a service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required;

“alert phase” means a situation wherein apprehension exists as to the safety of an aircraft and its occupants;

“alternate aerodrome” means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate aerodromes include the following:

Take-off alternate

An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure;

‘en-route alternate’ means an aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route [Regulation (EU) No 923/2012];

‘ETOPS en-route alternate’ means a suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shutdown or other abnormal or emergency condition while en-route in an ETOPS operation [Regulation (EU) No 923/2012];

Destination alternate

An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing;

“alternate heliport” means a heliport to which a helicopter may proceed when it becomes either impossible or inadvisable to proceed to or to land at the heliport of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate heliports include the following:

Take-off alternate; An alternate heliport at which a helicopter would be able to land should this become necessary shortly after take-off and it is not possible to use the heliport of departure;

En-route alternate; An alternate heliport at which a helicopter would be able to land in the event that a diversion becomes necessary while en-route;

Destination alternate. An alternate heliport at which a helicopter would be able to land should it become either impossible or inadvisable to land at the heliport of intended landing;

“alternative means of communication” means a means of communication provided with equal status, and in addition to the primary means;

“alternative means of compliance” means those means that propose an alternative to an existing acceptable means of compliance or those that propose new means to establish compliance with a Regulation.

Glossary of Terms

“altimetry system error” (ASE) means the difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure;

“altitude” means the vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL);

“altitude crossing RA” means a resolution advisory is altitude crossing if own ACAS aircraft is currently at least 30 m (100 ft) below or above the threat aircraft for upward or downward sense advisories, respectively;

“altitude layer” means when an encounter is attributed to one of six altitude layers as follows: The altitude layer of an encounter is determined by the average altitude of the two aircraft at closest approach;

“ambient noise” means the acoustical noise from sources other than the test aircraft present at the microphone site during aircraft noise measurement. Ambient noise is one component of background noise;

“angular displacement sensitivity” means the ratio of measured DDM to the corresponding angular displacement from the appropriate reference line;

“Annex 13” means Annex 13 (Aircraft Accident and Incident Investigation) to the Chicago Convention as that Annex has effect from time to time;

“anonymisation” means the removal from occurrence reports of all personal details relating to the reporter and to the persons mentioned in occurrence reports and any details, including the name of the organisation(s) involved in the occurrence, which may reveal the identity of the reporter or of a third party or lead to that information being inferred from the occurrence report [Regulation (EU) No 376/2014];

“antenna port” means a point where the received signal power is specified. For an active antenna, the antenna port is a fictitious point between the antenna elements and the antenna pre-amplifier. For a passive antenna, the antenna port is the output of the antenna itself;

“anticipated operating conditions” means those conditions which are known from experience or which can be reasonably envisaged to occur during the operational life of the aircraft taking into account the operations for which the aircraft is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, to the configuration of terrain, to the functioning of the aircraft, to the efficiency of personnel and to all the factors affecting safety in flight. Anticipated operating conditions do not include:

- a) those extremes which can be effectively avoided by means of operating procedures; and
- b) those extremes which occur so infrequently that to require the Standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical; (until 26 Nov 26)

“anticipated operating conditions” means those conditions which are known from experience or

which can be reasonably envisaged to occur during the operational life of the aircraft and remote pilot station taking into account the operations for which the aircraft or remote pilot station is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, to the configuration of terrain, to the functioning of the aircraft and remote pilot station, to the efficiency of personnel and to all the factors affecting safety in flight. Anticipated operating conditions do not include:

- a) those extremes which can be effectively avoided by means of operating procedures; and
- b) those extremes which occur so infrequently that to require the Standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical; (from 26 Nov 26)

“anti-collision light” means–

- a) in relation to rotorcraft, a flashing red light;
- b) in relation to any other aircraft, a flashing red or flashing white light, in either case showing in all directions;

“anti-icing”, in the case of ground procedures, means a procedure that provides protection against the formation of frost or ice and accumulation of snow on treated surfaces of the aircraft for a limited period of time (hold-over time) [Regulation (EU) No 965/2012];

“appliance” means any instrument, equipment, mechanism, apparatus or accessory used or intended to be used in operating an aircraft in flight, whether installed in, intended to be installed in, or attached to, a civil aircraft, but not forming part of an airframe, engine or propeller [Regulation (EEC) No 3922/91];

“application” means manipulation and processing of data in support of user requirements (ISO 19104);

“application entity” (AE) means an AE represents a set of ISO/OSI communication capabilities of a particular application process

“approach angle” means the difference in the ground headings of the two aircraft at closest approach, with 180 degrees defined as head on and 0 degrees defined as parallel;

“approach and landing phase — helicopters” means that part of the flight from 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or from the commencement of the descent in the other cases, to landing or to the bailed landing point;

“approach control service” means an air traffic control service for arriving or departing controlled flights;

“approach control unit” means a unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes;

“approach phase” means the operating phase defined by the time during which the engine is operated in the approach operating mode;

“approach to landing” means that portion of the flight of the aircraft, when approaching to land, in which it is descending below a height of 1,000 feet above the relevant specified decision height or minimum descent height;

“appropriate aeronautical radio station” means in relation to an aircraft an aeronautical radio station serving the area in which the aircraft is for the time being;

“appropriate air traffic control unit” means in relation to an aircraft either the air traffic control unit serving the area in which the aircraft is for the time being or the air traffic control unit serving the area which the aircraft intends to enter and with which unit the aircraft is required to communicate prior to entering that area, as the context requires;

“appropriate airworthiness requirements” means the comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration; (until 26 Nov 26)

“appropriate airworthiness requirements” means the comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, remote pilot station, engine or propeller under consideration; (from 26 Nov 26)

“appropriate ATS authority” means the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned;

“appropriate authority” means

- a) Regarding flight over the high seas: The relevant authority of the State of Registry.
- b) Regarding flight other than over the high seas: The relevant authority of the State having sovereignty over the territory being overflown;

“approval” means an authorization granted by an appropriate national authority for:
The transport of dangerous goods forbidden on passenger and/or cargo aircraft where the Technical Instructions state that such goods may be carried with an approval; or
other purposes as provided for in the Technical Instructions;

“approved” means accepted by a Contracting State as suitable for a particular purpose;

“approved maintenance organization” means an organization approved by a Contracting State, in accordance with the requirements of ICAO Annex 8, Part II, Chapter 6 — Maintenance Organization Approval, to perform maintenance of aircraft, engine, propeller or parts thereof and operating under supervision approved by that State;

“approved training” means training conducted under special curricula and supervision approved by a Contracting State;

“approved training organization” means an organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of Annex 1 to perform approved training;

Glossary of Terms

“apron” means a defined area of an aerodrome intended to accommodate aircraft for purposes of loading or unloading passengers, baggage, mail or cargo, fuelling, parking or maintenance [Regulation (EU) No 923/2012];

“apron management service” means a service provided to regulate the activities and the movement of aircraft and vehicles on an apron;

“area control centre” means a unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction;

“area control service” means an air traffic control service for controlled flights in control areas;

“area minimum altitude” (AMA) means the minimum altitude to be used under instrument meteorological conditions (IMC), that provides a minimum obstacle clearance within a specified area, normally formed by parallels and meridians;

“area navigation” (RNAV) means a method of navigation which permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these;

“area navigation equipment” means equipment carried on board an aircraft which enables the aircraft to navigate on any desired flight path within the coverage of appropriate ground based navigation aids or within the limits of that on-board equipment or a combination of the two;

“area navigation route” means an ATS route established for the use of aircraft capable of employing area navigation;

“arrangements” means arrangements developed under the auspices of the European Civil Aviation Conference (ECAC) for cooperation in the development and implementation of joint requirements in all fields relating to the safety and safe operation of aircraft. These arrangements are specified in Annex I of Council Regulation (EEC) No 3922/91 [Regulation (EEC) No 3922/91];

“arresting system” means a system designed to decelerate an aeroplane overrunning the runway;

“arrival routes” means routes identified in an instrument approach procedure by which aircraft may proceed from the en-route phase of flight to an initial approach fix;

“article” means any part and appliance to be used on civil aircraft [Regulation (EU) No 748/2012].

“ASHTAM” means a special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations;

“assemble” means a process of merging data from multiple sources into a database and establishing a baseline for subsequent processing;

Glossary of Terms

“assessment” means an evaluation of the practical skills leading to the issue of the licence, rating and/or endorsement(s) and their revalidation and/or renewal, including behaviour and the practical application of knowledge and understanding being demonstrated by the person being assessed [Regulation (EU) 2015/340];

“Assessor Endorsement” means the authorisation entered on and forming part of the licence, indicating the competence of the holder to assess the practical skills of student air traffic controller and air traffic controller [Regulation (EU) 2015/340];

“associated aircraft systems” means those aircraft systems drawing electrical/pneumatic power from an auxiliary power unit during ground operations;

“ATM/ANS” means air traffic management and air navigation services and covers all of the following: the air traffic management functions and services as defined in point (10) of Article 2 of Regulation (EC) No 549/2004 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time; the air navigation services as defined in point (4) of Article 2 of that Regulation, including the network management functions and services referred to in Article 6 of Regulation (EC) No 551/2004 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time, as well as services which augment signals emitted by satellites of core constellations of GNSS for the purpose of air navigation; flight procedures design; and services consisting in the origination and processing of data and the formatting and delivering of data to general air traffic for the purpose of air navigation [Regulation (EU) No 2018/1139];

“ATM/ANS constituent” means tangible objects such as hardware and intangible objects such as software upon which the interoperability of the EATMN depends [Regulation (EU) No 2018/1139];

“ATM/ANS system” means the aggregation of airborne and ground-based constituents, as well as space-based equipment, that provides support for air navigation services for all phases of flight [Regulation (EU) No 2018/1139];

“ATN security services” means a set of information security provisions allowing the receiving end system or intermediate system to unambiguously identify (i.e. authenticate) the source of the received information and to verify the integrity of that information

“ATS direct speech circuit” means an aeronautical fixed service (AFS) telephone circuit, for direct exchange of information between air traffic services (ATS) units;

“ATS interfacility data communication” (AIDC) means automated data exchange between air traffic services units in support of flight notification, flight coordination, transfer of control and transfer of communication.

“ATS message handling service” (ATSMHS) means an ATN application consisting of procedures used to exchange ATS messages in store-and-forward mode over the ATN such that the conveyance of an ATS message is in general not correlated with the conveyance of another ATS message by the service provider.

Glossary of Terms

“ATS message handling system” (AMHS) means the set of computing and communication resources implemented by ATS organizations to provide the ATS message handling service.

“ATS route” means a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services;

“ATS surveillance service” means a term used to indicate a service provided directly by means of an ATS surveillance system;

“ATS surveillance system” means a generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft;

“audit” means a systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements are complied with [Regulation (EU) No 139/2014];

“authorised agent” means a person who represents an aircraft operator and who is authorized by or on behalf of such operator to act on formalities connected with the entry and clearance of the operator’s aircraft, crew, passengers, cargo, mail, baggage or stores and includes, where national law permits, a third party authorized to handle cargo on the aircraft;

“authorised economic operator” means any party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. AEOs may include manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses, distributors and freight forwarders;

“authorized path” means a communication path suitable for a given message category;

“authorised person” means—

- a) any police officer; and
- b) any person authorised by the Director (whether by name or by class or description) either generally or in relation to a particular case or class of cases;

“automated border control” (ABC) means an automated system which authenticates the electronic machine readable travel document or token, establishes that the passenger is the rightful holder of the document or token, queries border control records, then determines eligibility for border crossing according to pre-defined rules;

“automated reservation system” means, in relation to an operator of an aircraft, the central reservation system of the operator which holds data relating to a flight booked by or on behalf of a passenger;

“automatic dependent surveillance — broadcast”(ADS-B) means a means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link;

“automatic dependent surveillance-broadcast (ADS-B) OUT” means a function on an aircraft or vehicle that periodically broadcasts its state vector (position and velocity) and other information derived from onboard systems in a format suitable for ADS-B IN capable receivers;

“automatic dependent surveillance-broadcast (ADS-B) IN” means a function that receives surveillance data from ADSB OUT data sources;

“automatic dependent surveillance — contract (ADS-C)” means a means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports;

“automatic dependent surveillance — contract (ADS-C) agreement” means a reporting plan which establishes the conditions of ADS-C data reporting (i.e. data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to, prior to using ADS-C in the provision of air traffic services) [Regulation (EU) No 2016/1185];

Automatic deployable flight recorder (ADFR) means a combination flight recorder installed on the aircraft which is capable of automatically deploying from the aircraft;

“automatic relay installation” means a teletypewriter installation where automatic equipment is used to transfer messages from incoming to outgoing circuits;

“automatic telecommunication log” means a record of the activities of an aeronautical telecommunication station recorded by electrical or mechanical means;

“automatic terminal information service” (ATIS) means the automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof. Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link. Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts;

“autonomous runway incursion warning system” (ARIWS) means a system which provides autonomous detection of a potential incursion or of the occupancy of an active runway and a direct warning to a flight crew or a vehicle operator;

“auxiliary power unit” (APU) means a self-contained power unit on an aircraft providing electrical/pneumatic power to aircraft systems during ground operations or in flight, separate from the propulsion engine(s);

“auxiliary data” means data, transmitted in addition to basic data, that provide ground equipment siting information for use in refining airborne position calculations and other supplementary information;

“average radius of rated coverage” means the radius of a circle having the same area as the rated coverage.

“axial ratio” means the ratio, expressed in decibels, between the maximum output power and the minimum output power of an antenna to an incident linearly polarized wave as the polarization orientation is varied over all directions perpendicular to the direction of propagation;

“back course sector” means the course sector which is situated on the opposite side of the localizer from the runway;

“background noise” means the combined noise present in a measurement system from sources other than the test aircraft, which can influence or obscure the aircraft noise levels being measured. Typical elements of background noise include (but are not limited to): ambient noise from sources around the microphone site; thermal electrical noise generated by components in the measurement system; magnetic flux noise (“tape hiss”) from analogue tape recorders; and digitization noise caused by quantization error in digital converters. Some elements of background noise, such as digitization noise, can obscure the aircraft noise signal, while others, such as ambient noise, can also contribute energy to the measured aircraft noise signal;

“baggage” means personal property of passengers or crew carried on an aircraft by agreement with the operator;

“balked landing” means a landing manoeuvre that is unexpectedly discontinued at any point below the obstacle clearance altitude/height (OCA/H);

“balloon” means a non-power-driven lighter-than-air aircraft;

“bare earth” means the surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects;

“barrette” means three or more aeronautical ground lights closely spaced in a transverse line so that from a distance they appear as a short bar of light;

“base station” (BS) means a generalized equipment set providing connectivity, management and control of the mobile station (MS);

“base turn” means a turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal;

“basic aircraft” means an aircraft which has the minimum equipment required to perform the intended take-off, approach or landing operation;

“basic data” means data transmitted by the ground equipment that are associated directly with the operation of the landing guidance system;

“Basic Regulation” means Regulation (EU) No. 1139/2018 of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a European Aviation Safety

Glossary of Terms

Agency as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“BCA officer” means an officer of the Borders and Coastguard Agency established under section 3 of the Borders and Coastguard Agency Act 2011 and includes the officers of any agent or subcontractor appointed by the Borders and Coastguard Agency;

“BDS Comm-B data selector” means the 8-bit BDS code determines the register whose contents are to be transferred in the MB field of a Comm-B reply. It is expressed in two groups of 4 bits each, BDS1 (most significant 4 bits) and BDS2 (least significant 4 bits);

“BDS Open Service” means the specified level of positioning, velocity and timing accuracy that is available to any BDS user on a continuous, worldwide basis;

“beam centre” means the midpoint between the two minus 3-dB points on the leading and trailing edges of the scanning beam main lobe;

“BeiDou Navigation Satellite System” means the satellite navigation system operated by China;

“beam width” means the width of the scanning beam main lobe measured at the minus 3-dB points and defined in angular units on the boresight, in the horizontal plane for the azimuth function and in the vertical plane for the elevation function;

“BGTW” means British Gibraltar Territorial Waters which is the area of sea, the sea bed and subsoil within the seaward limits of the territorial sea adjacent to Gibraltar under British sovereignty and which, in accordance with the United Nations Convention on the Law of the Sea 1982, currently extends to three nautical miles and to the median line in the Bay of Gibraltar;

“bit error rate” (BER) means the number of bit errors in a sample divided by the total number of bits in the sample, generally averaged over many such samples;

“blind transmission” means a transmission from one station to another station in circumstances where two-way communication cannot be established but where it is believed that the called station is able to receive the transmission;

“border security” means the enforcement, by a State, of its laws and/or regulations concerning the movement of goods and/or persons across its borders;

“briefing” means oral commentary on existing and/or expected meteorological conditions;

“broadband noise” means noise for which the frequency spectrum is continuous (i.e. energy is present at all frequencies in a given range) and which lacks any discrete frequency components (i.e. tones);

“broadcast” means a transmission of information relating to air navigation that is not addressed to a specific station or stations;

Glossary of Terms

“broadcast (as applicable to Mode S)” means the protocol within the Mode S system that permits uplink messages to be sent to all aircraft in coverage area, and downlink messages to be made available to all interrogators that have the aircraft wishing to send the message under surveillance;

“Buffadero training area” means the area located on Windmill Hill delineated in red in the plan set out in Schedule 6 of the Civil Aviation (Air Navigation) Regulations 2009;

“bundle of services” means two or more air navigation services [Regulation (EC) No 549/2004];

“burst” means a time defined, contiguous set of one or more related signal units which may convey user information and protocols, signalling, and any necessary preamble;

“burst profile” means a set of parameters that describe the uplink or downlink transmission properties associated with an interval usage code. Each profile contains parameters such as modulation type, forward error correction (FEC) type, preamble length, guard times, etc;

“bypass ratio” means the ratio of the air mass flow through the bypass ducts of a gas turbine engine to the air mass flow through the combustion chambers calculated at maximum thrust when the engine is stationary in an international standard atmosphere at sea level;

“C2 link” means the data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight;

“C2 link communication service provider” (C2CSP) means an entity which provides a portion of, or all of, the C2 Link service for the operation of an RPAS;

“C2 link coverage area” means the area in which the C2 Link service can be received including the area where the QoSD does not meet the QoSR;

“C2 link interruption” means any temporary situation where the C2 Link is unavailable, discontinuous, introduces too much delay, or has inadequate integrity; but where the lost C2 Link decision time has not been exceeded; (from 26 Nov 26)

“C2 link log” means a record of the activities related to the C2 Link;

“C2 link service” means a communication service providing the C2 Link;

“C2 link service area” means the area within the C2 Link coverage area where the C2 Link QoSD meets the QoSR;

“C2 link specification” means the minimum performance to be achieved by the C2 Link equipment in conformity with the applicable airworthiness system design requirements; (from 26 Nov 26)

“CAA” means the Civil Aviation Authority of the United Kingdom;

Glossary of Terms

“cabin crew” in relation to an aircraft means those persons on a flight for the purpose of public transport carried for the purpose of performing in the interests of the safety of passengers duties to be assigned by the operator or the commander of the aircraft but who shall not act as a member of the flight crew;

“cabin crew member” means an appropriately qualified crew member, other than a flight crew or technical crew member, who is assigned by an operator to perform duties related to the safety of passengers and flight during operations [Regulation (EU) No 965/2012];

“calendar” means a discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108);

“calibration check frequency” means in hertz, the nominal frequency of the sinusoidal sound pressure signal produced by the sound calibrator;

“calibration gas” means a high accuracy reference gas to be used for alignment, adjustment and periodic checks of instruments;

“calibration sound pressure level” means in decibels, the sound pressure level produced, under reference environmental conditions, in the cavity of the coupler of the sound calibrator that is used to determine the overall acoustical sensitivity of a measurement system;

“canopy” means Bare Earth supplemented by vegetation height;

“capability report” means information identifying whether the transponder has a data link capability as reported in the capability (CA) field of an all-call reply or squitter transmission (see “data link capability report”);

“captive balloon” means a balloon which when in flight is attached by a restraining device to the surface;

“Captive Flight” means flight by an uncontrollable balloon during which it is attached to the surface by a restraining device.

“Cargo” means any property carried on an aircraft other than mail, stores and accompanied or mishandled baggage.

“Cargo Aircraft” means any aircraft which is carrying goods or property but not passengers and for the purposes of Civil Aviation Regulations the following are not considered to be passengers–

- a. a crew member;
- b. an operator’s employee permitted to be carried by, and carried in accordance with, the instructions contained in the Operations Manual;
- c. an authorised representative of a competent national aviation authority;
- d. a person with duties in respect of a particular shipment on board;

“carrier to multipath ratio” (C/M) means the ratio of the carrier power received directly, i.e. without reflection, to the multipath power, i.e. carrier power received via reflection;

“carrier to noise density ratio” (C/No) means the ratio of the total carrier power to the average noise power in a 1 Hz bandwidth, usually expressed in dBHz;

“catalytic stripper” means a catalytic device that removes volatile species through oxidation;

“category I (CAT I) approach operation” means a precision instrument approach and landing using an instrument landing system (ILS), microwave landing system (MLS), GLS (ground-based augmented global navigation satellite system (GNSS/GBAS) landing system), precision approach radar (PAR) or GNSS using a satellite-based augmentation system (SBAS) with a decision height (DH) not lower than 200 ft and with a runway visual range (RVR) not less than 550 m for aeroplanes and 500 m for helicopters [Regulation (EU) No 965/2012];

“category II (CAT II) operation” means a precision instrument approach and landing operation using ILS or MLS with:

- a) DH below 200 ft but not lower than 100 ft; and
- b) RVR of not less than 300 m [Regulation (EU) No 965/2012];

“category IIIA (CAT IIIA) operation” means a precision instrument approach and landing operation using ILS or MLS with:

- a) DH lower than 100 ft; and
- b) RVR not less than 200 m [Regulation (EU) No 965/2012];

“category IIIB (CAT IIIB) operation’ means a precision instrument approach and landing operation using ILS or MLS with: (a) DH lower than 100 ft, or no DH; and (b) RVR lower than 200 m but not less than 75 m [Regulation (EU) No 965/2012];

“category A” with respect to helicopters means a multi-engined helicopter designed with engine and system isolation features specified in the applicable airworthiness codes and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off in the event of engine failure [Regulation (EU) No 965/2012];

“category B” with respect to helicopters, means a single-engine or multi-engine helicopter which does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed [Regulation (EU) No 965/2012];

“causes” means actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident. The identification of causes does not imply the assignment of fault or the determination of administrative, civil or criminal liability;

“ceiling” means the height above the ground or water of the base of the lowest layer of cloud below 6 000 metres (20 000 feet) covering more than half the sky;

“certificate” means any certificate, approval, licence, authorisation, attestation or other document issued as the result of a certification attesting compliance with the applicable requirements [Regulation (EU) No 2018/1139];

“certificate of airworthiness” includes in the case of a national certificate of airworthiness any flight manual, performance schedule or other document, whatever its title, incorporated by reference in that certificate relating to the certificate of airworthiness;

“certificate of validation” means a certificate issued by the Director rendering valid for the purposes of these Regulations a certificate of airworthiness or a permit to fly issued in respect of an aircraft wherever registered or a licence or approval granted under the law of a country other than Gibraltar;

“certificate of validity” means a certificate issued for the purpose of maintaining the validity of a permit to fly;

“certified aerodrome” means an aerodrome whose operator has been granted an aerodrome certificate;

“certification” (of a product, service, organization or person) means any form of legal recognition that such a product, service, body or person complies with the applicable requirements. Such certification comprises two acts:

- a) the act of checking that technically the product, service, organization or person complies with the applicable requirements; this act is referred to as 'making the technical findings';
- b) the act of formal recognition of such compliance with the applicable requirements by the issue of a certificate, licence, approval or other document in the manner required by national laws and procedures; this act is referred to as 'making the legal findings' [Regulation (EEC) No 3922/91];

“certification specifications” (CS) means technical standards adopted by the Director indicating means to show compliance with Regulation (EU) No 2018/1139 and its Implementing Rules as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time and which can be used by an organisation for the purpose of certification [Regulation (EU) No 965/2012];

“certify as airworthy (to)” means to certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof;

“certifying staff” means personnel responsible for the release of an aircraft or a component after maintenance [Regulation (EU) No 1321/2014];

“changeover point” means the point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft;

“channel” means a numerical designator used in conjunction with voice communication equipment tuning, which allows unique identification of the applicable radio frequency and associated channel spacing [Regulation (EU) No 1079/2012];

Glossary of Terms

“channel rate” means the rate at which bits are transmitted over the RF channel. These bits include those bits used for framing and error correction, as well as the information bits. For burst transmission, the channel rate refers to the instantaneous burst rate over the period of the burst;

“channel rate accuracy” means the relative accuracy of the clock to which the transmitted channel bits are synchronized. For example, at a channel rate of 1.2 kbits/s, maximum error of one part in 10⁶ implies the maximum allowed error in the clock is $\pm 1.2 \times 10^{-3}$ Hz;

“channel of standard accuracy” (CSA) means the specified level of positioning, velocity and timing accuracy that is available to any GLONASS user on a continuous, worldwide basis;

“Chicago Convention” means the Convention on International Civil Aviation and the Annexes thereto, signed in Chicago on 7 December 1944 [Regulation (EU) No 2018/1139];

“chief inspector” means the Chief Inspector of the AAIB;

“circling” means the visual phase of an instrument approach to bring an aircraft into position for landing on a runway/FATO that is not suitably located for a straight-in approach [Regulation (EU) No 965/2012];

“circuit mode” means the configuration of the communications network which gives the appearance to the application of a dedicated transmission path;

“civil airport” has the meaning defined in section 25 of the Civil Aviation Act 2009;

“civil aviation inspector” means an individual, designated by a Contracting State, who is charged with the inspection of the safety, security or related aspects of air transport operations as directed by the appropriate authority;

“class rating” means a rating that entitles the holder of a pilot licence to act as pilot of an aircraft of a specified class that does not require a type rating;

“clearance guidance sector” means the volume of airspace, inside the coverage sector, within which the azimuth guidance information provided is not proportional to the angular displacement of the aircraft, but is a constant left or right indication of which side the aircraft is with respect to the proportional guidance sector;

“clearance limit” means the point to which an aircraft is granted an air traffic control clearance;

“clearance of goods” means the accomplishment of the customs formalities necessary to allow goods to enter home use, to be exported or to be placed under another customs procedure;

“clearway” means a defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height;

Glossary of Terms

“climb phase” means the operating phase defined by the time during which the engine is operated in the climb operating mode;

“climb RA” means a positive RA recommending a climb but not an increased climb;

“closest approach” means the occurrence of minimum range between own ACAS aircraft and the intruder. Thus range at closest approach is the smallest range between the two aircraft and time of closest approach is the time at which this occurs;

“close-out” means a command from a Mode S interrogator that terminates a Mode S link layer communication transaction;

“cloud base” means the height of the base of the lowest observed or forecast cloud element in the vicinity of an aerodrome or operating site or within a specified area of operations, normally measured above aerodrome elevation or, in the case of offshore operations, above mean sea level [Regulation (EU) No 965/2012].

“cloud of operational significance” means a cloud with the height of cloud base below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater, or a cumulonimbus cloud or a towering cumulus cloud at any height;

“cloud ceiling” means the height above the ground or water of the base of the lowest layer of cloud below 6,000 metres which, when visible from the aerodrome, is sufficient to obscure more than half the sky;

“cluster of interrogators” means two or more interrogators with the same interrogator identifier (II) code, operating cooperatively to ensure that there is no interference to the required surveillance and data link performance of each of the interrogators, in areas of common coverage;

“cockpit crew zone” means the part of the cabin that is exclusively designated for flight crew use;

“code (SSR)” means the number assigned to a particular multiple pulse reply signal transmitted by a transponder in Mode A or Mode C [Regulation (EU) No 923/2012];

“code share” means an arrangement under which an operator places its designator code on a flight operated by another operator, and sells and issues tickets for that flight [Regulation (EU) No 965/2012];

“coded chip” means a “1” or “0” output of the rate $\frac{1}{2}$ or $\frac{1}{4}$ convolutional code encoder;

“collision avoidance logic” means the sub-system or part of ACAS that analyses data relating to an intruder and own aircraft, decides whether or not advisories are appropriate and, if so, generates the advisories. It includes the following functions: range and altitude tracking, threat detection and RA generation. It excludes surveillance;

Glossary of Terms

“COMAT” means operator material carried on an operator’s aircraft for the operator’s own purposes;

“combined vision system” (CVS) means a system to display images from a combination of an enhanced vision system (EVS) and a synthetic vision system (SVS);

“Comm-A” means a 112-bit interrogation containing the 56-bit MA message field. This field is used by the uplink standard length message (SLM) and broadcast protocols;

“Comm-B” means a 112-bit reply containing the 56-bit MB message field. This field is used by the downlink SLM, ground-initiated and broadcast protocols;

“Comm-C” means a 112-bit interrogation containing the 80-bit MC message field. This field is used by the uplink extended length message (ELM) protocol;

“Comm-D” means a 112-bit reply containing the 80-bit MD message field. This field is used by the downlink ELM protocol;

“command and control (C2) link” means the data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight;

“commencement of journey” means the point at which the person began his journey, without taking into account any airport at which he stopped in direct transit, either on a through-flight or a connecting flight, if he did not leave the direct transit area of the airport in question;

“commercial air transport” means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration [Regulation (EU) No 2018/1139];

“commercial air transport aircraft” means an aircraft flying, or intended by the operator to fly, for the purpose of commercial air transport;

“commercial air transport (CAT) operation” means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration [Regulation (EU) No 965/2012];

“commissary supplies” means items, either disposable or intended for multiple use, that are used by the aircraft operator for provision of services during flights, in particular for catering, and for the comfort of passengers;

“common mark” means a mark assigned by the International Civil Aviation Organization to the common mark registering authority registering aircraft of an international operating agency on other than a national basis;

“common mark registering authority” means the authority maintaining the non-national register or, where appropriate, the part thereof, in which aircraft of an international operating agency are registered;

“the Commonwealth” means the United Kingdom, the Channel Islands, the Isle of Man, the

Glossary of Terms

countries mentioned in Schedule 3 to the British Nationality Act 1981 in the United Kingdom and all other territories forming part of His Majesty's dominions or in which His Majesty has jurisdiction and 'Commonwealth citizen' shall be construed accordingly;

"communication centre" means an aeronautical fixed station which relays or retransmits telecommunication traffic from (or to) a number of other aeronautical fixed stations directly connected to it;

"communication services" means aeronautical fixed and mobile services to enable ground-to-ground, air-to-ground and air-to-air communications for ATC purposes [Regulation (EC) No 549/2004];

"competency" means dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that mobilize the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions;

"competency-based training and assessment" means training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards;

"competency standard" means a level of performance that is defined as acceptable when assessing whether or not competency has been achieved;

"competent authority" means, in relation to Gibraltar, the Director and in relation to any other country the authority responsible under the law of that country for promoting the safety of civil aviation;

"competent laboratory" means a testing and calibration laboratory which establishes, implements and maintains a quality system appropriate to the scope of its activities, in compliance with ISO/IEC 17025:2005, as amended from time to time, or equivalent standard and for which the programme for calibration of equipment is designed and operated so as to ensure that calibrations and measurements made by the laboratory are traceable to the International System of Units (SI). Formal accreditation of the laboratory to ISO/IEC 17025:2005 is not required;

"component" means any engine, propeller, part or appliance [Regulation (EU) No 1321/2014];

"component" means a material, part or sub-assembly not covered by the definitions in product or appliance for use on civil aircraft, engines, propellers or appliances [Regulation (EEC) No 3922/91];

"concentration" means the volume fraction of the component of interest in the gas mixture — expressed as volume percentage or as parts per million;

"conditions" means anything that may qualify a specific environment in which performance will be demonstrated;

Glossary of Terms

“conference communications” means communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously;

“confidence level” means the probability that the true value of a parameter is within a certain interval around the estimate of its value;

“configuration (as applied to the aeroplane)” means a particular combination of the positions of the moveable elements, such as wing flaps and landing gear, etc., that affect the aerodynamic characteristics of the aeroplane;

“configuration deviation list” (CDL) means a list established by the organization responsible for the type design with the approval of the State of Design which identifies any external parts of an aircraft type which may be missing at the commencement of a flight, and which contains, where necessary, any information on associated operating limitations and performance correction;

“congested area” means any area which is substantially used for residential, industrial, commercial or recreational purposes [Regulation (EU) No 965/2012];

“congested hostile environment” means a hostile environment within a congested area;

“connection” means a logical association between peer-level entities in a communication system;

“connection establishment delay” means the connection establishment delay, as defined in ISO 8348, includes a component, attributable to the called subnetwork (SN) service user, which is the time between the SNCONNECT indication and the SNCONNECT response. This user component is due to actions outside the boundaries of the satellite subnetwork and is therefore excluded from the AMS(R)S specifications;

“consignment” means one or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address;

“consultation” means discussion with a meteorologist or another qualified person of existing and/or expected meteorological conditions relating to flight operations; a discussion includes answers to questions;

“contaminated runway” means a runway of which more than 25 % of the runway surface area within the required length and width being used is covered by the following:

- a) surface water more than 3 mm (0,125 in) deep, or by slush, or loose snow, equivalent to more than 3 mm (0,125 in) of water;
- b) snow which has been compressed into a solid mass which resists further compression and will hold together or break into lumps if picked up (compacted snow); or
- c) ice, including wet ice [Regulation (EU) No 965/2012];

“contingency fuel” means the fuel required to compensate for unforeseen factors that could have an influence on the fuel consumption to the destination aerodrome [Regulation (EU) No 965/2012];

Glossary of Terms

“continuing airworthiness” means the set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life; (until 26 Nov 26)

“continuing airworthiness” means the set of processes by which an aircraft, remote pilot station, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.(from 26 Nov 26).

“continuing airworthiness records” means records which are related to the continuing airworthiness status of an aircraft, engine, propeller or associated part;

“continuing airworthiness regulation” means Commission Regulation (EU) No. 1321/ and its Implementing Rules as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, as amended from time to time;

“continuing oversight” means the tasks which are conducted for the implementation of the oversight programme at any time by the Competent Authority to verify that the conditions under which a certificate has been granted continue to be fulfilled during its period of validity [Regulation (EU) No 139/2014];

“continuous descent final approach (CDFA)” means a technique, consistent with stabilised approach procedures, for flying the final-approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre shall begin for the type of aircraft flown [Regulation (EU) No 965/2012];

“contour line” means a line on a map or chart connecting points of equal elevation;

“contracting state” means any State which is party to the Chicago Convention;

“contributing factors” means actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability;

“controllable balloon” means a balloon, not being a small balloon, which is capable of free controlled flight;

“control area” means controlled airspace which has been further notified as a control area and which extends upwards from a notified altitude or flight level;

Glossary of Terms

“Controlled Aerodrome” means an aerodrome at which air traffic control service is provided to aerodrome traffic regardless whether or not a control zone exists [Regulation (EU) No 923/2012];

“controlled airspace” means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification;

“controlled flight” means any flight which is subject to an air traffic control clearance;

“controller-pilot data link communications” (CPDLC) means a means of communication between controller and pilot, using data link for ATC communications;

“control motion noise” (CMN) means that portion of the guidance signal error which causes control surface, wheel and column motion and could affect aircraft attitude angle during coupled flight, but does not cause aircraft displacement from the desired course and/or glide path;

“control zone” means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;

“conversion process” means a type of technology used to convert a feedstock into aviation fuel;

“conversion report” means a report on the basis of which a licence may be converted into a Part-FCL licence [Regulation (EU) No 1178/2011];

“converted meteorological visibility (CMV)” means a value, equivalent to an RVR, which is derived from the reported meteorological visibility [Regulation (EU) No 965/2012];

“convolutional turbo codes”(CTC) means a type of forward error correction (FEC) code;

“coordinate system — conical” means a function is said to use conical coordinates when the decoded guidance angle varies as the minimum angle between the surface of a cone containing the receiver antenna, and a plane perpendicular to the axis of the cone and passing through its apex. The apex of the cone is at the antenna phase centre. For approach azimuth or back azimuth functions, the plane is the vertical plane containing the runway centre line. For elevation functions, the plane is horizontal;

“coordinate system — planar” means a function is said to use planar coordinates when the decoded guidance angle varies as the angle between the plane containing the receiver antenna and a reference plane. For azimuth functions, the reference plane is the vertical plane containing the runway centre line and the plane containing the receiver antenna is a vertical plane passing through the antenna phase centre;

“coordination” means the process by which two ACAS-equipped aircraft select compatible resolution advisories (RAs) by the exchange of resolution advisory complements (RACs);

“coordination interrogation” means a Mode S interrogation (uplink transmission) radiated by ACAS II or III and containing a resolution message;

Glossary of Terms

“coordination reply” means a Mode S reply (downlink transmission) acknowledging the receipt of a coordination interrogation by the Mode S transponder that is part of an ACAS II or III installation;

“co-pilot” means a licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction;

“corrective RA” means a resolution advisory that advises the pilot to deviate from the current flight path;

“core satellite constellation(s)” means the core satellite constellations are GPS and GLONASS;

“corporate aviation operation” means the non-commercial operation or use of aircraft by a company for the carriage of passengers or goods as an aid to the conduct of company business, flown by a professional pilot(s) employed to fly the aircraft;

“CORSA eligible fuel” means a CORSA sustainable aviation fuel or a CORSA lower carbon aviation fuel, which an operator may use to reduce their offsetting requirements;

“CORSA lower carbon aviation fuel” means a fossil-based aviation fuel that meets the CORSA Sustainability Criteria under this Volume;

“CORSA sustainable aviation fuel” means a renewable or waste-derived aviation fuel that meets the CORSA Sustainability Criteria under this Volume;

“country” includes a territory;

“course line” means the locus of points nearest to the runway centre line in any horizontal plane at which the DDM is zero;

“course sector” means a sector in a horizontal plane containing the course line and limited by the loci of points nearest to the course line at which the DDM is 0.155;

“coverage sector” means a volume of airspace within which service is provided by a particular function and in which the signal power density is equal to or greater than the specified minimum;

“credit” means the recognition of prior experience or qualifications [Regulation (EU) No 1178/2011];

“credit report” means a report on the basis of which prior experience or qualifications may be recognised [Regulation (EU) No 1178/2011];

“crew” means a member of the flight crew, a person carried on the flight deck who is appointed by the operator of the aircraft to give or to supervise the training, experience, practice and periodical tests required in respect of the flight crew in accordance with the law of the country in which the aircraft is registered or the State of the operator or a member of the cabin crew;

Glossary of Terms

“crew member” means a person assigned by an operator to duty on an aircraft during a flight duty period;

“critical engine(s)” means any engine whose failure gives the most adverse effect on the aircraft characteristics relative to the case under consideration;

“critical incident stress” means the manifestation of unusual and/or extreme emotional, physical and/or behavioural reactions in an individual following an unexpected event, an accident, an incident or serious incident [Regulation (EU) No 2017/373];

“critical phases of flight” in the case of aeroplanes means the take-off run, the take-off flight path, the final approach, the missed approach, the landing, including the landing roll, and any other phases of flight as determined by the pilot-in-command or commander [Regulation (EU) No 965/2012] ;

“critical phases of flight in the case of helicopters means taxiing, hovering, take-off, final approach, missed approach, the landing and any other phases of flight as determined by the pilot-in-command or commander [Regulation (EU) No 965/2012];

“cross-country” means a flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures;

“crossing encounter” means an encounter in which the altitude separation of the two aircraft exceeds 100 ft at the beginning and at the end of the encounter window, and the relative vertical position of two aircraft at the end of the encounter window is reversed from that at the beginning of the encounter window;

“cruise climb” means an aeroplane cruising technique resulting in a net increase in altitude as the aeroplane mass decreases;

“cruise relief pilot” means a flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the pilot-in-command or a co-pilot to obtain planned rest;

“cruising level” means a level maintained during a significant portion of a flight;

“CPDLC message” means information exchanged between an airborne system and its ground counterpart. A CPDLC message consists of a single message element or a combination of message elements conveyed in a single transmission by the initiator;

“CPDLC message set” means a list of standard message elements and free text message elements;

“culture” means all man-made features constructed on the surface of the Earth, such as cities, railways and canals;

“current data authority” means the designated ground system through which a CPDLC dialogue between a pilot and a controller currently responsible for the flight is permitted to take place;

Glossary of Terms

“current flight plan” means the flight plan that reflects changes to the filed flight plan, if any, by subsequent ATC clearances;

“current slot” means the slot in which a received transmission begins;

“customs officer” means an officer appointed under section 3 of the Imports and Exports Act, 1986 to assist the Collector (as defined therein) in carrying out the provisions of that act, and includes the Collector;

“cycle” means the term “cycle” used in this chapter refers to one complete pass through the sequence of functions executed by ACAS II or ACAS III, nominally once a second;

“cyclic redundancy check” (CRC) means a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data;

“cyclone separator” means separation of particles larger than a prescribed aerodynamic diameter via rotational and gravitational means. The specified cut-point aerodynamic diameter is associated with the percent of particles of a particular size that penetrate through the cyclone separator;

“D (For helicopters)” means the largest overall dimension of the helicopter when rotor(s) are turning measured from the most forward position of the main rotor tip path plane to the most rearward position of the tail rotor tip path plane or helicopter structure;

“damp runway” means a runway where the surface is not dry, but when the moisture on it does not give it a shiny appearance [Regulation (EU) No 965/2012];

“danger area” means airspace which has been notified as such within which activities dangerous to the flight of aircraft may take place or exist at such times as may be notified;

“dangerous goods” means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions;

“dangerous goods accident” means an occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property or environmental damage;

“dangerous goods incident” means an occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property or environmental damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardizes the aircraft or its occupants is also deemed to constitute a dangerous goods incident;

“dangerous goods transport document” means a document which is specified by the Technical Instructions and contains information about those dangerous goods;

Glossary of Terms

“data accuracy” means a degree of conformance between the estimated or measured value and the true value;

“data circuit-terminating equipment” (DCE) means a DCE is a network provider equipment used to facilitate communications between DTEs;

“data completeness” means the degree of confidence that all of the data needed to support the intended use is provided;

“data format” means a structure of data elements, records and files arranged to meet standards, specifications or data quality requirements;

“data integrity (assurance level)” means a degree of assurance that an aeronautical data and its value has not been lost or altered since the origination or authorized amendment;

“data link-automatic terminal information service (D-ATIS)” means the provision of ATIS via data link.

“data link communications” means a form of communication intended for the exchange of messages via a data link.

“Data Link Capability Report” means information in a Comm-B reply identifying the complete Mode S communications capabilities of the aircraft installation;

“data link entity” (DLE) means a protocol state machine capable of setting up and managing a single data link connection;

“data link flight information services” (D-FIS) means the provision of FIS via data link;

“data link initiation capability” (DLIC) means a data link application that provides the ability to exchange addresses, names and version numbers necessary to initiate data link applications (see Doc 4444);

“data link service (DLS) sublayer” means the sublayer that resides above the MAC sublayer. For VDL Mode 4, the DLS sublayer resides above the VSS sublayer. The DLS manages the transmit queue, creates and destroys DLEs for connection-oriented communications, provides facilities for the LME to manage the DLS, and provides facilities for connectionless communications;

“data product” means a data set or data set series that conforms to a data product specification (ISO 19131);

“data product specification” means a detailed description of a data set or data set series together with additional information that will enable it to be created, supplied to and used by another party (ISO 19131);

“data quality” means a degree or level of confidence that the data provided meet the requirements

Glossary of Terms

of the data user in terms of accuracy, resolution and integrity (or equivalent assurance level), traceability, timeliness, completeness and format;

“data resolution” means a number of units or digits to which a measured or calculated value is expressed and used;

“data set” means an identifiable collection of data (ISO 19101);

“data set series” means a collection of data sets sharing the same product specification (ISO 19115);

“data signalling rate” means data signalling rate refers to the passage of information per unit of time, and is expressed in bits/second. Data signalling rate is given by the formula: where m is the number of parallel channels, T_i is the minimum interval for the i th channel expressed in seconds, n_i is the number of significant conditions of the modulation in the i th channel;

“data terminal equipment” (DTE) means an endpoint of a subnetwork connection;

“data timeliness” means the degree of confidence that the data is applicable to the period of its intended use;

“data traceability” means the degree that a system or a data product can provide a record of the changes made to that product and thereby enable an audit trail to be followed from the end-user to the originator;

“data transfer delay (95th percentile)” means the 95th percentile of the statistical distribution of delays for which transit delay is the average;

“data transit delay” means in accordance with ISO 8348, the average value of the statistical distribution of data delays. This delay represents the subnetwork delay and does not include the connection establishment delay;

“date of manufacture” means the date of issue of the document attesting that the individual aircraft or engine as appropriate conforms to the requirements of the type or the date of an analogous document;

“datum” means any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104);

“DDM — difference in depth of modulation” means the percentage modulation depth of the larger signal minus the percentage modulation depth of the smaller signal, divided by 100;

“decision altitude (DA) or decision height (DH)” means a specified altitude or height in a 3D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

“declarant” means any person who makes a goods declaration or in whose name such a declaration is made;

“declaration” means any written statement made in accordance with Regulation (EU) No 2018/1139 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time under the sole responsibility of a legal or natural person subject to this Regulation (EU) No 2018/1139 and which confirms that the applicable requirements of with Regulation (EU) No 2018/1139 and of the regulations made under it relating to a legal or natural person, product, part, non-installed equipment, equipment to control unmanned aircraft remotely, safety-related aerodrome equipment, ATM/ANS system, ATM/ANS constituent or flight simulation training device are complied with [Regulation (EU) No 2018/1139];

“declared capacity” means a measure of the ability of the ATC system or any of its subsystems or operating positions to provide service to aircraft during normal activities. It is expressed as the number of aircraft entering a specified portion of airspace in a given period of time, taking due account of weather, ATC unit configuration, staff and equipment available, and any other factors that may affect the workload of the controller responsible for the airspace;

“declared distances” means

- a) Take-off run available (TORA) means the length of runway that is declared available by the State of the aerodrome and suitable for the ground run of an aeroplane taking off.
- b) Take-off distance available (TODA). The length of the take-off run available plus the length of the clearway, if provided.
- c) Accelerate-Stop Distance Available (ASDA) means the length of the take-off run available plus the length of stopway, if such stopway is declared available by the State of the aerodrome and is capable of bearing the mass of the aeroplane under the prevailing operating conditions.
- d) landing distance available (LDA) means the length of the runway which is declared available by the State of the aerodrome and suitable for the ground run of an aeroplane landing;

“declared distances — heliports” means

- a) ‘Take-off Distance Available (TODAH)’ in the case of helicopters means the length of the final approach and take-off area plus, if provided, the length of helicopter clearway declared available and suitable for helicopters to complete the take-off.
- b) ‘Take-off Distance Required (TODRH)’ in the case of helicopters means the horizontal distance required from the start of the take-off to the point at which take-off safety speed (VTOSS), a selected height and a positive climb gradient are achieved, following failure of the critical engine being recognised at the TDP, the remaining engines operating within approved operating limits;
- c) ‘rejected take-off distance available (RTODAH)’ means the length of the final approach and take-off area declared available and suitable for helicopters operated in performance class 1 to complete a rejected take-off;
- d) “Rejected Take-off Distance Required (RTODRH)” means the horizontal distance required from the start of the take-off to the point where the helicopter comes to a full stop following an engine failure and rejection of the take-off at the take-off decision point.
- e) Landing distance available (LDAH). The length of the FATO plus any additional area declared available and suitable for helicopters to complete the landing manoeuvre from a defined height;

“defined point after take-off (DPATO)” means the point, within the take-off and initial climb phase, before which the helicopter’s ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required [Regulation (EU) No 965/2012];

“defined point before landing (DPBL)” means the point within the approach and landing phase, after which the helicopter’s ability to continue the flight safely, with the critical engine inoperative, is not assured and a forced landing may be required [Regulation (EU) No 965/2012];

“degree of standardized test distortion” means the degree of distortion of the restitution measured during a specific period of time when the modulation is perfect and corresponds to a specific text;

“de-icing”, in the case of ground procedures, means a procedure by which frost, ice, snow or slush is removed from an aircraft in order to provide uncontaminated surfaces [Regulation (EU) No 965/2012];

“de-icing/anti-icing facility” means a facility where frost, ice or snow is removed (de-icing) from the aeroplane to provide clean surfaces, and/or where clean surfaces of the aeroplane receive protection (anti-icing) against the formation of frost or ice and accumulation of snow or slush for a limited period of time;

“departure control system” means, in relation to an operator of an aircraft, the system used by the operator to check passengers onto a flight.

“dependent parallel approaches” means simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway centre lines are prescribed;

“deportation order” means a written order, issued by the competent authorities of a State and served upon a deportee, directing him to leave that State;

“deportee” means a person who had legally been admitted to a State by its authorities or who had entered a State illegally, and who at some later time is formally ordered by the competent authorities to leave that State;

“derivative version” means an aircraft gas turbine engine of the same generic family as an originally type-certificated engine and having features which retain the basic core engine and combustor design of the original model and for which other factors, as judged by the certificating authority, have not changed.

“derived version of a CO₂-certified aeroplane” means an aeroplane which incorporates changes in type design that either increase its maximum take-off mass, or that increase its CO₂ emissions evaluation metric value by more than:

- a) 1.35 per cent at a maximum take-off mass of 5 700 kg, decreasing linearly to;
- b) 0.75 per cent at a maximum take-off mass of 60 000 kg, decreasing linearly to;
- c) 0.70 per cent at a maximum take-off mass of 600 000 kg; and
- d) a constant 0.70 per cent at maximum take-off masses greater than 600 000 kg;

“derived version of an aeroplane” means an aeroplane which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely;

Glossary of Terms

“derived version of a helicopter” means a helicopter which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely;

“derived version of a non-CO₂-certified aeroplane” means an individual aeroplane that conforms to an existing Type Certificate, but which is not certified to Annex 16, Volume III, and to which changes in type design are made prior to the issuance of the aeroplane’s first certificate of airworthiness that increase its CO₂ emissions evaluation metric value by more than 1.5 per cent or are considered to be significant CO₂ changes;

“descend RA” a positive RA recommending a descent but not an increased descent;

“designated operational coverage (DOC) area” means the area in which a particular service is provided and in which the service is afforded frequency protection;

“designated postal operator” means any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfil the related obligations arising from the acts of the UPU Convention on its territory;

“designated required navigation performance airspace” means airspace which has been notified, prescribed or otherwise designated by the competent authority for the airspace as requiring specified navigation performance capabilities to be met by aircraft flying within it;

“design D” means the “D” of the design helicopter;

“design landing mass” means the maximum mass of the aircraft at which, for structural design purposes, it is assumed that it will be planned to land;

“design take-off mass” means the maximum mass at which the aircraft, for structural design purposes, is assumed to be planned to be at the start of the take-off run;

“design taxiing mass” means the maximum mass of the aircraft at which structural provision is made for load liable to occur during use of the aircraft on the ground prior to the start of take-off;

“detect and avoid” means the capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action;

“DETRESFA” means the code word used to designate a distress phase;

“deviation acceptance and action document” (DAAD) means a document established by the Competent Authority to compile evidence provided to justify the acceptance of deviations from the certification specifications issued by the Competent Authority [Regulation (EU) No 139/2014];

“digital elevation model” (DEM) means the representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum;

“direct link service” (DLS) means a data communications service which makes no attempt to

Glossary of Terms

automatically correct errors, detected or undetected, at the link layer of the air-ground communications path. (Error control may be effected by end-user systems;

“Director” means the person appointed to the office of Director of Civil Aviation pursuant to section 6 of the Act or any person appointed to act as Director on a temporary basis pursuant to section 7 of the Act;

“directory service” (DIR) means a service, based on the ITU-T X.500 series of recommendations, providing access to and management of structured information relevant to the operation of the ATN and its users;

“direct transit area” means a special area established in an international airport, approved by the public authorities concerned and under their direct supervision or control, where passengers can stay during transit or transfer without applying for entry to the State;

“direct transit arrangements” means special arrangements approved by the public authorities concerned by which traffic which is pausing briefly in its passage through the Contracting State may remain under their direct control;

“discrete sourced damage” means structural damage of the aeroplane that is likely to result from: impact with a bird, uncontained fan blade failure, uncontained engine failure, uncontained high-energy rotating machinery failure or similar causes;

“disembarkation” means the leaving of an aircraft after a landing, except by crew or passengers continuing on the next stage of the same through flight;

“disidentified information” means information arising from occurrence reports from which all personal data such as names or addresses of natural persons have been removed [Regulation (EU) No 376/2014];

“disinfection” means the procedure whereby health measures are taken to control or kill infectious agents on a human or animal body, in or on affected parts of aircraft, baggage, cargo, goods or containers, as required, by direct exposure to chemical or physical agents;

“disinsection” means the procedure whereby health measures are taken to control or kill insects present in aircraft, baggage, cargo, containers, goods and mail;

“displaced threshold” means a threshold not located at the extremity of a runway;

“displacement sensitivity (localizer)” means the ratio of measured DDM to the corresponding lateral displacement from the appropriate reference line;

“distance constant (or response length)” means the passage of wind (in metres) required for the output of a wind speed sensor to indicate $100 \times (1 - 1/e)$ per cent (about 63 per cent) of a step-function increase of the input speed;

Glossary of Terms

“distance DR” means the horizontal distance that the helicopter has travelled from the end of the take-off distance available [Regulation (EU) No 965/2012];

“distress phase” means a situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance;

“ditching” means the forced landing of an aircraft on water;

“DME dead time” means a period immediately following the decoding of a valid interrogation during which a received interrogation will not cause a reply to be generated;

“DME/N” means distance measuring equipment, primarily serving operational needs of en-route or TMA navigation, where the “N” stands for narrow spectrum characteristics;

“DME/P” means the distance measuring element of the MLS, where the “P” stands for precise distance measurement. The spectrum characteristics are those of DME/N;

“domain” means a set of end systems and intermediate systems that operate according to the same routing procedures and that is wholly contained within a single administrative domain;

“doppler shift” means the frequency shift observed at a receiver due to any relative motion between transmitter and receiver;

“double channel simplex” means simplex using two frequency channels, one in each direction;

“downlink” means term referring to the transmission of data from an aircraft to the ground. Mode S air-to-ground signals are transmitted on the 1 090 MHz reply frequency channel;

“downlink ELM (DELM)” means a term referring to extended length downlink communication by means of 112-bit Mode S Comm-D replies, each containing the 80-bit Comm-D message field (MD);

“downstream clearance” means a clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft;

“dry lease agreement” means an agreement between undertakings pursuant to which the aircraft is operated under the air operator certificate (AOC) of the lessee [Regulation (EU) No 965/2012];

“dry operating mass” means the total mass of the aircraft ready for a specific type of operation, excluding usable fuel and traffic load [Regulation (EU) No 965/2012];

“dry runway” means a runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used;

“dual instruction time” means flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft, or from a properly authorized remote pilot using the remote pilot station during a remotely piloted aircraft flight;

Glossary of Terms

“duplex” means a method in which telecommunication between two stations can take place in both directions simultaneously;

“duty” means any task that flight or cabin crew members are required by the operator to perform, including flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue, and any task that an air traffic controller is required by an air traffic services provider to perform. These tasks include those performed during time-in-position, administrative work and training;

“duty period” means a period which starts when a flight- or cabin-crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties;

“D-value” means a limiting dimension, in terms of “D”, for a heliport, helideck or shipboard heliport, or for a defined area within;

“dynamic load-bearing surface” means a surface capable of supporting the loads generated by a helicopter in motion;

“dynamic side-lobe level” means the level that is exceeded 3 per cent of the time by the scanning antenna far field radiation pattern exclusive of the main beam as measured at the function scan rate using a 26 kHz beam envelope video filter. The 3 per cent level is determined by the ratio of the side-lobe duration which exceeds the specified level to the total scan duration;

“EDTO critical fuel” means the fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure;

“EDTO significant system” means an aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight, or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion.

“effective acceptance bandwidth” means the range of frequencies with respect to the assigned frequency for which reception is assured when all receiver tolerances have been taken into account;

“effective adjacent channel rejection” means the rejection that is obtained at the appropriate adjacent channel frequency when all relevant receiver tolerances have been taken into account;

“effective coverage” means the area surrounding an NDB within which bearings can be obtained with an accuracy sufficient for the nature of the operation concerned;

“effective intensity” means the effective intensity of a flashing light is equal to the intensity of a fixed light of the same colour which will produce the same visual range under identical conditions of observation;

“effective margin” means that margin of an individual apparatus which could be measured under actual operating conditions;

“effective side-lobe level” means that level of scanning beam side lobe which in a specified multipath environment results in a particular guidance angle error;

“eFPL” means the symbol used to designate a filed flight plan exchanged using FF-ICE services;

“ELA1 aircraft” means the following manned European light aircraft:

- a) an aeroplane with a maximum take-off mass (MTOM) of 1 200 kg or less that is not classified as complex motor-powered aircraft;
- b) a sailplane or powered sailplane of 1 200 kg MTOM or less;
- c) a balloon with a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air balloons, 1 050 m³ for gas balloons, 300 m³ for tethered gas balloons;
- d) an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air airships and 1 000 m³ for gas airships [Regulation (EU) No 1321/2014];

“ELA2 aircraft” means the following manned European Light Aircraft:

- a) an aeroplane with a Maximum Take-off Mass (MTOM) of 2 000 kg or less that is not classified as complex motor-powered aircraft;
- b) a sailplane or powered sailplane of 2 000 kg MTOM or less;
- c) a balloon;
- d) a hot air airship;
- e) a gas airship complying with all of the following characteristics:
 - 3 % maximum static heaviness,
 - Non-vector thrust (except reverse thrust),
 - Conventional and simple design of: structure, control system and ballonet system,
 - Non-power assisted controls;
- f) a Very Light Rotorcraft [Regulation (EU) No 748/2012];

“electrical mobility diameter of a particle” means the diameter of a sphere that moves with exactly the same mobility in an electrical field as the particle in question;

“electronic aeronautical chart display” means an electronic device by which flight crews are enabled to execute, in a convenient and timely manner, route planning, route monitoring and navigation by displaying required information;

“electronic flight bag” (EFB) means an electronic information system, comprised of equipment and applications for flight crew, which allows for the storing, updating, displaying and processing of EFB functions to support flight operations or duties;

“electronic travel systems” (ETS) means the automated process for the lodgement, acceptance and verification of a passenger’s authorization to travel to a State, in lieu of the standard counterfoil paper visa;

“elemental carbon” (EC) means light absorbing carbon that is not removed from a filter sample heated to 870°C in an inert atmosphere during thermal optical transmittance (TOT) analysis, excluding char;

“elevated final approach and take-off area (elevated FATO)” means a FATO that is at least 3 m above the surrounding surface [Regulation (EU) No 965/2012];

“elevated heliport” means a heliport located on a raised structure on land;

“elevation” means the vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level;

“ellipsoid height (Geodetic height)” means the height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question;

“elongated” means, when used with TLOF or FATO, an area which has a length more than twice its width;

“embarkation” means the boarding of an aircraft for the purpose of commencing a flight, except by such crew or passengers as have embarked on a previous stage of the same throughflight;

“emergency locator transmitter” (ELT) means

A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:

Automatic fixed ELT (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft.

Automatic portable ELT (ELT(AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

Automatic deployable ELT (ELT(AD)). An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

Survival ELT (ELT(S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors;

“emergency phase” means a generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase;

“emergency situation” means a serious and dangerous situation requiring immediate actions [Regulation (EU) No 2015/340];

“eMRTD” means an MRTD (passport, visa or card) that has a contactless integrated circuit embedded in it and the capability of being used for biometric identification of the MRTD holder in accordance with the standards specified in the relevant Part of Doc 9303 — Machine Readable Travel Documents;

“end-to-end” means pertaining or relating to an entire communication path, typically from (1) the interface between the information source and the communication system at the transmitting end to (2) the interface between the communication system and the information user or processor or application at the receiving end;

Glossary of Terms

“encounter” means for the purposes of defining the performance of the collision avoidance logic, an encounter consists of two simulated aircraft trajectories. The horizontal coordinates of the aircraft represent the actual position of the aircraft but the vertical coordinate represents an altimeter measurement of altitude;

“encounter class” means classification of encounters according to whether or not the aircraft are transitioning at the beginning and end of the encounter window, and whether or not the encounter is crossing;

“encounter window” means the time interval [$tca - 40\text{ s}$, $tca + 10\text{ s}$];

“end user” means an ultimate source and/or consumer of information;

“energy per symbol to noise density ratio (E_s/N_0)” means the ratio of the average energy transmitted per channel symbol to the average noise power in a 1 Hz bandwidth, usually expressed in dB. For A-BPSK and A-QPSK, one channel symbol refers to one channel bit;

“engine” means a unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but excludes the propeller/rotors (if applicable);

“enhanced vision system” (EVS) means a system to display electronic real-time images of the external scene achieved through the use of image sensors;

“en-route phase” means that part of the flight from the end of the take-off and initial climb phase to the commencement of the approach and landing phase;

“EPA” means European Part Approval. European Part Approval of an article means the article has been produced in accordance with approved design data not belonging to the type-certificate holder of the related product, except for ETSO articles [Regulation (EU) No 748/2012];

“equipment to control unmanned aircraft remotely” means any instrument, equipment, mechanism, apparatus, appurtenance, software or accessory that is necessary for the safe operation of an unmanned aircraft, which is not a part, and which is not carried on board of that unmanned aircraft [Regulation (EU) No 2018/1139];

“equivalent isotropically radiated power” (e.i.r.p.) means the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (absolute or isotropic gain);

“equivalent procedure” means a test or analysis procedure which, while differing from the one specified in volume 3 of ICAO Annex 16, in the technical judgement of the certifying authority yields effectively the same CO₂ emissions evaluation metric value as the specified procedure;

“error” means an action or inaction by an operational person that leads to deviations from organizational or the operational person’s intentions or expectations;

Glossary of Terms

“error management” means the process of detecting errors and responding to them with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states;

“escort” means an individual authorized by a Contracting State or an aircraft operator to accompany inadmissible persons or deportees being removed from that Contracting State;

“established track” means a track generated by ACAS air-air surveillance that is treated as the track of an actual aircraft;

“estimated elapsed time” means the estimated time required to proceed from one significant point to another [Regulation (EU) No 923/2012];

“essential radio navigation service” means a radio navigation service whose disruption has a significant impact on operations in the affected airspace or aerodrome;

“estimated off-block time” means the estimated time at which the aircraft will commence movement associated with departure;

“estimated time of arrival” means for IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome;

“ETSO” means European Technical Standard Order. The European Technical Standard Order is a detailed airworthiness specification issued by the European Aviation Safety Agency to ensure compliance with the requirements of Commission Regulation (EU) No 748/2012 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time as a minimum performance standard for specified articles [Regulation (EU) No 748/2012];

“european air traffic management network” (EATMN) means the collection of systems listed in Annex I to Regulation (EC) No 552/2004 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European air traffic management network (the interoperability Regulation) enabling air navigation services in the Community to be provided, including the interfaces at boundaries with third countries [Regulation (EC) No 549/2004];

“eurocontrol” is the European Organisation for the Safety of Air Navigation set up by the International Convention of 13 December 1960 relating to Cooperation for the Safety of Air Navigation [Regulation (EC) No 549/2004];

“European Aviation Safety Agency” means the Agency established under the Basic EASA Regulation;

“examination” means a formalised test evaluating the person's knowledge and understanding [Regulation (EU) No 2015/340];

Glossary of Terms

“exception” for the purposes of ICAO Annex 18 means a provision in that Annex which excludes a specific item of dangerous goods from the requirements normally applicable to that item;

“exemption” means an authorization, other than an approval, granted by an appropriate national authority providing relief from the provisions of the Technical Instructions;

“exhaust nozzle” means in the exhaust emissions sampling of gas turbine engines where the jet effluxes are not mixed (as in some turbofan engines, for example) the nozzle considered is that for the gas generator (core) flow only. Where, however, the jet efflux is mixed the nozzle considered is the total exit nozzle;

“expected approach time” means the time at which ATC expects that an arriving aircraft, following a delay, will leave the holding fix to complete its approach for a landing. The actual time of leaving the holding fix will depend upon the approach clearance [Regulation (EU) No 923/2012];

“extended diversion time operations” (EDTO) means any operation by an aeroplane with two or more turbine engines where the diversion time to an en-route alternate aerodrome is greater than the threshold time established by the State of the Operator.

“extended golay code” means an error correction code capable of correcting multiple bit errors;

“extended hybrid surveillance” means the process of using qualified ADS-B airborne position messages via 1 090 MHz extended squitter without validating 1 090 extended squitter data for the track by ACAS active interrogations;

“extended range operation” means any flight by an aeroplane with two turbine engines where the flight time at the one engine inoperative cruise speed (in ISA and still air conditions), from a point on the route to an adequate alternate aerodrome, is greater than the threshold time approved by the State of the Operator;

“extended flight over water” means a flight operated over water at a distance of more than 93 km (50 NM), or 30 minutes at normal cruising speed, whichever is the lesser, away from land suitable for making an emergency landing;

“extended hybrid surveillance” means the process of using qualified ADS-B airborne position messages via 1 090 MHz extended squitter without validating 1 090 extended squitter data for the track by ACAS active interrogations;

“extended length message” (ELM) means a series of Comm-C interrogations (uplink ELM) transmitted without the requirement for intervening replies, or a series of Comm-D replies (downlink ELM) transmitted without intervening interrogations;

“external equipment (helicopter)” means any instrument, mechanism, part, apparatus, appurtenance, or accessory that is attached to or extends from the helicopter exterior but is not used nor is intended to be used for operating or controlling a helicopter in flight and is not part of an airframe or engine;

“facility availability” means the ratio of actual operating time to specified operating time;

“facility failure” means any unanticipated occurrence which gives rise to an operationally significant period during which a facility does not provide service within the specified tolerances;

“facility performance category I — ILS” means an ILS which provides guidance information from the coverage limit of the ILS to the point at which the localizer course line intersects the ILS glide path at a height of 30 m (100 ft) or less above the horizontal plane containing the threshold;

“facility performance category II — ILS” means an ILS which provides guidance information from the coverage limit of the ILS to the point at which the localizer course line intersects the ILS glide path at a height of 15 m (50 ft) or less above the horizontal plane containing the threshold;

“facility performance category III — ILS” means an ILS which, with the aid of ancillary equipment where necessary, provides guidance information from the coverage limit of the facility to, and along, the surface of the runway;

“facility reliability” means the probability that the ground installation operates within the specified tolerances;

“factor of safety” means a design factor used to provide for the possibility of loads greater than those assumed, and for uncertainties in design and fabrication;

“fan marker beacon” means a type of radio beacon, the emissions of which radiate in a vertical fan-shaped pattern;

“fatal injury” means an injury which is sustained by a person in an accident and which results in his or her death within 30 days of the date of the accident [Regulation (EU) No 996/2010];

“fatigue” means a physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person’s alertness and ability to perform safety-related operational duties;

“fatigue risk management system” (FRMS) means a data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness;

“feature” means an abstraction of real world phenomena (ISO 19101);

“feature attribute” means a characteristic of a feature (ISO 19101);

“feature operation” means an operation that every instance of a feature type may perform (ISO 19110);

“feature relationship” means a relationship that links instances of one feature type with instances of the same or a different feature type (ISO 19101);

“feature type” means a class of real world phenomena with common properties (ISO 19110);

“feedstock” means a type of unprocessed raw material used for the production of aviation fuel;

“filed flight plan” means the latest flight plan as submitted by the pilot, an operator or a designated representative for use by ATS units;

“final approach” means that part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,

a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

b) at the point of interception of the last track specified in the approach procedure; and ends at a point in the vicinity of an aerodrome from which:

1) a landing can be made; or

2) a missed approach procedure is initiated;

“final approach and take-off area (FATO)” means a defined area for helicopter operations, over which the final phase of the approach manoeuvre to hover or land is completed, and from which the take-off manoeuvre is commenced. In the case of helicopters operating in performance class 1, the defined area includes the rejected take-off area available [Regulation (EU) No 965/2012];

“final approach fix or point” means that fix or point of an instrument approach procedure where the final approach segment commences;

“final approach (FA) mode” means the condition of DME/P operation which supports flight operations in the final approach and runway regions;

“final approach segment” (FAS) means that segment of an instrument approach procedure in which alignment and descent for landing are accomplished;

“fireproof” means the capability to withstand the application of heat by a flame for a period of 15 minutes;

“fireproof material” means a material capable of withstanding heat as well as or better than steel when the dimensions in both cases are appropriate for the specific purpose;

“fire resistant” means the capability to withstand the application of heat by a flame for a period of 5 minutes;

“fixed light” means a light having constant luminous intensity when observed from a fixed point;

“flame ionization detector” means a hydrogen-air diffusion flame detector that produces a signal nominally proportional to the mass-flow rate of hydrocarbons entering the flame per unit of time — generally assumed responsive to the number of carbon atoms entering the flame;

“flight” and “to fly” have the meanings below:

Glossary of Terms

- a) in the case of a piloted flying machine, from the moment when, after the embarkation of its crew for the purpose of taking off, it first moves under its own power until the moment when it next comes to rest after landing;
- b) in the case of a pilotless flying machine, or a glider, from the moment when it first moves for the purpose of taking off until the moment when it next comes to rest after landing;
- c) in the case of an airship, from the moment when it first becomes detached from the surface until the moment when it next becomes attached thereto or comes to rest thereon;
- d) in the case of a free balloon, from the moment when the balloon, including the canopy and basket, becomes separated from the surface until the moment it next comes to rest thereon; and
- e) in the case of a captive balloon, from the moment when the balloon, including the canopy and basket, becomes separated from the surface, apart from a restraining device attaching it to the surface, until the moment when it next comes to rest thereon;

and the expressions “a flight” and “to fly” shall be construed accordingly;

“Flight and flow information for a collaborative environment (FF-ICE)” means Information necessary for planning, coordination, and notification of flights, exchanged in a standardized format between members of the ATM community, including those involved in flight operations and aerodrome operations.

“Flight and flow — information for a collaborative environment (FF-ICE) services” means a set of services established for the purposes of facilitating the exchange of FF-ICE, accurate assessment of demands, appropriate resource planning, and optimizing flight planning and execution.

“Flight and flow — information for a collaborative environment (FF-ICE) services unit” means A unit designated by the appropriate ATS authority for the provision of FF-ICE services.

“flight check” means a check carried out by an aircraft in flight of the accuracy and reliability of signals transmitted by an aeronautical radio station;

“flight crew member” means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;

“flight data analysis” means a process of analysing recorded flight data in order to improve the safety of flight operations.

“flight data monitoring (FDM)” means the proactive and non-punitive use of digital flight data from routine operations to improve aviation safety [Regulation (EU) No 965/2010];

“flight documentation” means written or printed documents, including charts or forms, containing meteorological information for a flight;

“flight duty period” means a period which commences when a flight or cabin crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aircraft finally comes to rest and the engines are shut down at the end of the last flight on which he/she is a crew member;

Glossary of Terms

“flight information centre” (FIC) means a unit established to provide flight information service and alerting service;

“flight information region” (FIR) means an airspace of defined dimensions within which flight information service and alerting service are provided;

“flight information service” means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights;

“flight level” means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals;

“flight manual” means a manual, associated with the certificate of airworthiness, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft;

“flight operations officer/flight dispatcher” means a person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, suitably qualified in accordance with Annex 1, who supports, briefs and/or assists the pilot-in-command in the safe conduct of the flight;

“flight plan” means specified information relative to an intended flight or portion of a flight of an aircraft;

“flight plan suspension” means the process initiated by an entity performing ATFM to ensure that a change is made to the flight plan by the operator before the execution of the flight [Regulation (EU) No 255/2010];

“flight procedures trainer” see Flight simulation training device;

“flight recorder” means any type of recorder installed in the aircraft for the purpose of complementing accident/incident safety investigation.

“flight safety documents system” means a set of interrelated documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the operations manual and the operator’s maintenance control manual;

“flight simulation training device” (FSTD) means any one of the following three types of apparatus in which flight conditions are simulated on the ground:

A flight simulator, which provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the remotely piloted aircraft system (RPAS) to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;

Glossary of Terms

A flight procedures trainer, which provides a realistic flight deck environment or realistic RPAS environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

A basic instrument flight trainer, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions;

“flight simulator” see flight simulation training device;

“flight time — aeroplanes” means the total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight;

“flight time — helicopters” means the total time from the moment a helicopter’s rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped;

“flight time — remotely piloted aircraft systems” means the total time from the moment a command and control (C2) link is established between the remote pilot station (RPS) and the remotely piloted aircraft (RPA) for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 link between the RPS and the RPA is terminated at the end of the flight; (until 26 Nov 26)

“flight time — remotely piloted aircraft systems” means the total time from the moment a command and control (C2) link is established between the remote pilot station (RPS) and the remotely piloted aircraft (RPA) for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 link between the RPS and the RPA is terminated at the end of the flight; (As from 26 Nov 26)

“flight visibility” means the visibility forward from the cockpit of an aircraft in flight;

“flying display” means any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at an advertised event open to the public;

“flying machine” means an aeroplane, a powered lift tilt rotor aircraft, a self-launching motor glider, a helicopter, gyroplane or ornithopter;

“forecast” means a statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace;

“foreign object debris” (FOD) means an inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations;

“forward error correction” (FEC) means the process of adding redundant information to the transmitted signal in a manner which allows correction, at the receiver, of errors incurred in the transmission;

“FPL” is the symbol used to designate a filed flight plan exchanged via aeronautical fixed service (AFS).

“frame” means the link layer frame is composed of a sequence of address, control, FCS and information fields. For VDL Mode 2, these fields are bracketed by opening and closing flag sequences, and a frame may or may not include a variable-length information field;

“frame (applicable to Mode S)” means the basic unit of transfer at the link level. In the context of Mode S subnetwork, a frame can include from one to four Comm-A or Comm-B segments, from two to sixteen Comm-C segments, or from one to sixteen Comm-D segments;

“frangible object” means an object of low mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft;

“free balloon” means a balloon which when in flight is not attached by any form of restraining device to the surface;

“free controlled flight” means flight during which a balloon is not attached to the surface by any form of restraining device (other than a tether not exceeding 5 metres in length which may be used as part of the take-off procedure) and during which the height of the balloon is controllable by means of a device attached to the balloon and operated by the commander of the balloon or by remote control;

“free-field sensitivity level of a microphone system” means in decibels, twenty times the logarithm to the base ten of the ratio of the free-field sensitivity of a microphone system and the reference sensitivity of one volt per pascal;

“free-field sensitivity of a microphone system” means in volts per pascal, for a sinusoidal plane progressive sound wave of specified frequency, at a specified sound-incidence angle, the quotient of the root-mean-square voltage at the output of a microphone system and the root-mean-square sound pressure that would exist at the position of the microphone in its absence;

“free text message element” means part of a message that does not conform to any standard message element in the PANS-ATM (Doc 4444);

“free zone” means a part of the territory of a Contracting State where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the customs territory;

“freight container” means an article of transport equipment for radioactive materials, designed to facilitate the carriage of such materials, either packaged or unpackaged, by one or more modes of transport, but does not include a unit load device;

“frequency assignment” means authorisation given by the Competent Authority to use a radio frequency or radio frequency channel under specified conditions for the purpose of operating radio equipment [Regulation (EU) No 1079/2012];

Glossary of Terms

“frequency channel” means a continuous portion of the frequency spectrum appropriate for a transmission utilizing a specified class of emission;

“front course sector” means the course sector which is situated on the same side of the localizer as the runway;

“fuel ERA aerodrome” means an ERA aerodrome selected for the purpose of reducing contingency fuel [Regulation (EU) No 965/2012];

“fuel uplift” means the measurement of fuel provided by the fuel supplier, as documented in the fuel delivery notes or invoices for each flight (in litre);

“fully automatic relay installation” means a teletypewriter installation where interpretation of the relaying responsibility in respect of an incoming message and the resultant setting-up of the connections required to effect the appropriate retransmissions is carried out automatically, as well as all other normal operations of relay, thus obviating the need for operator intervention, except for supervisory purposes;

“function” means a particular service provided by the MLS, e.g. approach azimuth guidance, back azimuth guidance or basic data, etc;

“functional airspace block” means an airspace block based on operational requirements, reflecting the need to ensure more integrated management of the airspace regardless of existing boundaries [Regulation (EC) No 549/2012];

“gain-to-noise temperature ratio” means the ratio, usually expressed in dB/K, of the antenna gain to the noise at the receiver output of the antenna subsystem. The noise is expressed as the temperature that a 1 ohm resistor must be raised to produce the same noise power density;

“Galileo” means the satellite navigation system operated by the European Union;

“Galileo Open Service” means the specified level of positioning, velocity and timing accuracy that is available to any Galileo user on a continuous, worldwide basis;

“GAMET area forecast” means an area forecast in abbreviated plain language for low-level flights for a flight information region or sub-area thereof, prepared by the meteorological office designated by the meteorological authority concerned and exchanged with meteorological offices in adjacent flight information regions, as agreed between the meteorological authorities concerned;

“gas concentration” means the volume fraction of the component of interest in the gas mixture — expressed as volume percentage or as parts per million;

“gaussian filtered frequency shift keying”(GFSK) means a continuous phase, frequency shift keying technique using two tones and a Gaussian pulse shape filter;

“GBAS/E” means a ground-based augmentation system transmitting an elliptically-polarized VHF data broadcast;

“GBAS/H” means a ground-based augmentation system transmitting a horizontally-polarized VHF data broadcast;

“GBAS landing system (GLS)” means an approach landing system using ground based augmented global navigation satellite system (GNSS/GBAS) information to provide guidance to the aircraft based on its lateral and vertical GNSS position. It uses geometric altitude reference for its final approach slope [Regulation (EU) No 965/2012];

“GBAS point “A”” means a point on a GBAS final approach segment measured along the extended runway centre line in the approach direction a distance of 7.5 km (4 NM) from the threshold;

“GBAS point “B”” means a point on the GBAS final approach segment measured along the extended runway centre line in the approach direction a distance of 1 050 m (3 500 ft) from the threshold;

“GBAS point “C”” means a point through which the downward extended straight portion of the nominal GBAS final approach segment passes at a height of 30 m (100 ft) above the horizontal plane containing the threshold;

“GBAS point “D”” means a point 3.7 m (12 ft) above the runway centre line and 900 m (3 000 ft) from the threshold in the direction of the GNSS azimuth reference point (GARP);

“GBAS point “E”” means a point 3.7 m (12 ft) above the runway centre line and 600 m (2 000 ft) from the stop end of the runway in the direction of the threshold;

“GBAS point “S”” means a point 3.7 m (12 ft) above the runway centre line at the stop end of the runway;

“GBAS reference datum (Point “T”)” means a point at a height specified by TCH located above the intersection of the runway centre line and the threshold;

“general air traffic” means all movements of civil aircraft and state aircraft carried out in conformity with the procedures of the International Civil Aviation Organization [Regulation (EC) No 549/2004];

“general aviation operation” means an aircraft operation other than a commercial air transport operation or an aerial work operation;

“geodesic distance” means the shortest distance between any two points on a mathematically defined ellipsoidal surface;

“geodetic datum” means a minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame;

“general formatter/manager” (GFM) means the aircraft function responsible for formatting messages to be inserted in the transponder registers. It is also responsible for detecting and handling error conditions such as the loss of input data;

Glossary of Terms

“geoid” means the equipotential surface in the gravity field of the Earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents;

“geoid undulation” means the distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid;

“glide path” means a descent profile determined for vertical guidance during a final approach;

“glider” means—

- a) a non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;
- b) a self-sustaining glider; and
- c) a self-propelled hang-glider;

“glider flight time” means the total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight;

“Globally unique flight identifier (GUFID)” means An unchangeable data element associated with a flight that allows all eligible members of the ATM community to unambiguously refer to information pertaining to the flight.

“global navigation satellite system (GNSS)” means a worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation;

“global navigation satellite system (GLONASS)” means the satellite navigation system operated by the Russian Federation;

“global positioning system (GPS)” means the satellite navigation system operated by the United States;

“global signalling channel” (GSC) means a channel available on a worldwide basis which provides for communication control;

“GNSS position error” means the difference between the true position and the position determined by the GNSS receiver;

“great circle distance” means the shortest distance, rounded to the nearest kilometre, between the origin and the destination aerodromes, measured over the earth’s surface modelled according to the World Geodetic System 1984 (WGS84);

“Gregorian calendar” means the calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108);

“grid point data in digital form” means computer processed meteorological data for a set of

Glossary of Terms

regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for automated use;

“ground-based augmentation system” (GBAS) means an augmentation system in which the user receives augmentation information directly from a ground-based transmitter;

“ground-based regional augmentation system” (GRAS) means an augmentation system in which the user receives augmentation information directly from one of a group of ground-based transmitters covering a region;

“ground data circuit-terminating equipment” (GDCE) means a ground specific data circuit-terminating equipment associated with a ground data link processor (GDLP). It operates a protocol unique to Mode S data link for data transfer between air and ground;

“ground data link processor” (GDLP) means a ground-resident processor that is specific to a particular air-ground data link (e.g. Mode S), and which provides channel management, and segments and/or reassembles messages for transfer. It is connected on one side (by means of its DCE) to ground elements common to all data link systems, and on the other side to the air-ground link itself;

“ground earth station” (GES) means an earth station in the fixed satellite service, or, in some cases, in the aeronautical mobile satellite service, located at a specified fixed point on land to provide a feeder link for the aeronautical mobile-satellite service;

“ground emergency service personnel” means any ground emergency service personnel (such as policemen, firemen, etc.) involved with helicopter emergency medical services (HEMSs) and whose tasks are to any extent pertinent to helicopter operations;

“ground equipment” means articles of a specialized nature for use in the maintenance, repair and servicing of an aircraft on the ground, including testing equipment and cargo and passenger handling equipment;

“ground handling” means services necessary for an aircraft’s arrival at, and departure from, an airport, other than air traffic services;

“ground handling service” means any service provided at aerodromes comprising safety -related activities in the areas of ground supervision, flight dispatch and load control, passenger handling, baggage handling, freight and mail handling, apron handling of aircraft, aircraft services, fuel and oil handling, and loading of catering; including the case where aircraft operators provide those ground handling services to themselves (self-handling) [Regulation (EU) No 2018/1139];

“grounding” means the formal prohibition of an aircraft to take-off and the taking of such steps as are necessary to detain it [Regulation (EU) No 965/2012];

“ground-initiated Comm-B” (GICB) means the ground-initiated Comm-B protocol allows the interrogator to extract Comm-B replies containing data from a defined source in the MB field;

Glossary of Terms

“ground-initiated protocol” means a procedure initiated by a Mode S interrogator for delivering standard length or extended length messages to a Mode S aircraft installation;

“ground movement control” means that part of an aerodrome control service provided to an aircraft while it is on the manoeuvring area or apron of an aerodrome;

“ground visibility” means the visibility at an aerodrome as reported by an accredited observer or by automatic systems;

“ground-to-air communication” means one-way communication from stations or locations on the surface of the earth to aircraft;

“guidance material (GM)” means non-binding material developed or approved by the Competent Authority that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of a Regulation, its implementing rules and AMC [Regulation (EU) No 2015/340];

“gyroplane” means a heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors which rotate freely on substantially vertical axes;

“half course sector” means the sector, in a horizontal plane containing the course line and limited by the loci of points nearest to the course line at which the DDM is 0.0775;

“half ILS glide path sector” means the sector in the vertical plane containing the ILS glide path and limited by the loci of points nearest to the glide path at which the DDM is 0.0875;

“handover” means the act of passing piloting control from one remote pilot station to another;

“handling agent” means an agent who performs on behalf of the operator some or all of the functions of the latter including receiving, loading, unloading, transferring or other processing of passengers or cargo;

“hazard beacon” means an aeronautical beacon used to designate a danger to air navigation.

“hazard” means a condition or an object with the potential to cause or contribute to an aircraft incident or accident.

“heading” means the direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid);

“head-up display (HUD)” means a display system which presents flight information to the pilot’s forward external field of view and which does not significantly restrict the external view [Regulation (EU) NO 965/2012];

“head-up guidance landing system (HUDLS)” means the total airborne system that provides head-up guidance to the pilot during the approach and landing and/or missed approach procedure. It

includes all sensors, computers, power supplies, indications and controls [Regulation (EU) No 965/2012];

“heavier-than-air aircraft” means any aircraft deriving its lift in flight chiefly from aerodynamic forces;

“height” means the vertical distance of a level, a point or an object considered as a point, measured from a specified datum;

“helicopter” means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes;

“helicopter clearway” means a defined area on the ground or water, selected and/or prepared as a suitable area over which a helicopter operated in performance class 1 may accelerate and achieve a specific height;

“helicopter hoist operation (HHO) crew member” means a technical crew member who performs assigned duties relating to the operation of a hoist [Regulation (EU) No 965/2012];

“helicopter stand” means an aircraft stand which provides for parking a helicopter and where ground taxi operations are completed or where the helicopter touches down and lifts off for air taxi operations;

“helicopter taxiway” means a defined path on a heliport intended for the ground movement of helicopters and that may be combined with an air taxi-route to permit both ground and air taxiing;

“helicopter taxi-route” means a defined path established for the movement of helicopters from one part of a heliport to another.

a) Air taxi-route. A marked taxi-route intended for air taxiing.

b) Ground taxi-route. A taxi-route centred on a taxiway;

“helideck” means a FATO located on a floating or fixed offshore structure [Regulation (EU) No 965/2012];

“heliport” means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters;

“heliport elevation” means the elevation of the highest point of the FATO;

“heliport operating minima” means the limits of usability of a heliport for:

a) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;

b) landing in 2D instrument approach operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions;
and

Glossary of Terms

- c) landing in 3D instrument approach operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the type and/or category of the operation;

“heliport reference point” (HRP) means the designated location of a heliport or a landing location;

“HEMS crew member” means a technical crew member who is assigned to a HEMS flight for the purpose of attending to any person in need of medical assistance carried in the helicopter and assisting the pilot during the mission [Regulation (EU) No 965/2012];

“HEMS flight” means a flight by a helicopter operating under a HEMS approval, the purpose of which is to facilitate emergency medical assistance, where immediate and rapid transportation is essential, by carrying:

- (a) medical personnel;
- (b) medical supplies (equipment, blood, organs, drugs); or
- (c) ill or injured persons and other persons directly involved [Regulation (EU) No 965/2012];

“HEMS operating base” means an aerodrome at which the HEMS crew members and the HEMS helicopter may be on stand-by for HEMS operations [Regulation (EU) No 965/2012];

“HEMS operating site” means a site selected by the commander during a HEMS flight for helicopter hoist operations, landing and take-off [Regulation (EU) No 965/2012];

“HHO flight” means a flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist [Regulation (EU) No 965/2012];

“HHO offshore” means a flight by a helicopter operating under an HHO approval, the purpose of which is to facilitate the transfer of persons and/or cargo by means of a helicopter hoist from or to a vessel or structure in a sea area or to the sea itself [Regulation (EU) No 965/2012];

“HHO passenger” means a person who is to be transferred by means of a helicopter hoist [Regulation (EU) No 965/2012];

“HHO site” means a specified area at which a helicopter performs a hoist transfer [Regulation (EU) No 965/2012];

“high frequency network protocol data unit” (HFNPDU) means a user data packet;

“high performance receiver” means a UAT receiver with enhanced selectivity to further improve the rejection of adjacent frequency DME interference;

“high seas airspace” means airspace beyond land territory and territorial seas, as specified in the United Nations Convention on the Law of the Sea (Montego Bay, 1982) [Regulation (EU) No 923/2012];

Glossary of Terms

“holding” means, in respect of an aircraft approaching an aerodrome to land, a manoeuvre in the air which keeps that aircraft within a specified volume of airspace.

“holding bay” means a defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft;

“holding procedure” means a predetermined manoeuvre which keeps an aircraft within a specified airspace while awaiting further clearance;

“holdover time” means the estimated time the anti-icing fluid (treatment) will prevent the formation of ice and frost and the accumulation of snow on the protected (treated) surfaces of an aeroplane;

“homing” means the procedure of using the direction-finding equipment of one radio station with the emission of another radio station, where at least one of the stations is mobile, and whereby the mobile station proceeds continuously towards the other station;

“horizontal miss distance” (hmd) means the minimum horizontal separation observed in an encounter;

“hostile environment” means:

- a) an environment in which:
 - (i) a safe forced landing cannot be accomplished because the surface is inadequate;
 - (ii) the helicopter occupants cannot be adequately protected from the elements;
 - (iii) search and rescue response/capability is not provided consistent with anticipated exposure;or
 - (iv) there is an unacceptable risk of endangering persons or property on the ground;
- b) in any case, the following areas:
 - (i) for overwater operations, the open sea areas north of 45N and south of 45S designated by the authority of the State concerned;
 - (ii) those parts of a congested area without adequate safe forced landing areas [Regulation (EU) No 965/2012];

“hot spot” means a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary;

“human factors principles” means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

“human performance” means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

“hypsometric tints” means a succession of shades or colour gradations used to depict ranges of elevation;

“hybrid surveillance” means the process of using a combination of active surveillance and passive surveillance with validated data to update an ACAS track in order to preserve ACAS independence;

“ICAO” means the International Civil Aviation Organisation, as established by the 1944 Chicago Convention on International Civil Aviation;

“ICAO competency framework” means competency framework, developed by ICAO, is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours;

“ICAO meteorological information exchange model” (IWXXM) means a data model for representing aeronautical meteorological information;

“ICAO public key directory” (ICAO PKD) means the central database serving as the repository of Document Signer Certificates (CDS) (containing Document Signer Public Keys), CSCA Master List (MLCSCA), Country Signing CA Link Certificates (ICSCA) and Certificate Revocation Lists issued by Participants, together with a system for their distribution worldwide, maintained by ICAO on behalf of Participants in order to facilitate the validation of data in eMRTDs;

“identification beacon” means an aeronautical beacon emitting a coded signal by means of which a particular point of reference can be identified;

“ID number” means an identification number specified in the Technical Instructions for an item of dangerous goods which has not been assigned a UN number;

“IFR” means the symbol used to designate the instrument flight rules;

“IFR flight” means a flight conducted in accordance with the instrument flight rules;

“ILS continuity of service” means that quality which relates to the rarity of radiated signal interruptions. The level of continuity of service of the localizer or the glide path is expressed in terms of the probability of not losing the radiated guidance signals;

“ILS glide path” means that locus of points in the vertical plane containing the runway centre line at which the DDM is zero, which, of all such loci, is the closest to the horizontal plane;

“ILS glide path angle” means the angle between a straight line which represents the mean of the ILS glide path and the horizontal;

“ILS glide path sector” means the sector in the vertical plane containing the ILS glide path and limited by the loci of points nearest to the glide path at which the DDM is 0.175;

“ILS integrity” means that quality which relates to the trust which can be placed in the correctness of the information supplied by the facility. The level of integrity of the localizer or the glide path is expressed in terms of the probability of not radiating false guidance signals;

Glossary of Terms

“ILS point “A”” means a point on the ILS glide path measured along the extended runway centre line in the approach direction a distance of 7.5 km (4 NM) from the threshold;

“ILS point “B”” means a point on the ILS glide path measured along the extended runway centre line in the approach direction a distance of 1 050 m (3 500ft) from the threshold;

“ILS point “C”” means a point through which the downward extended straight portion of the nominal ILS glide path passes at a height of 30 m (100ft) above the horizontal plane containing the threshold;

“ILS point “D”” means a point 4 m (12 ft) above the runway centre line and 900 m (3 000ft) from the threshold in the direction of the localizer;

“ILS point “E”” means a point 4 m (12 ft) above the runway centre line and 600 m (2000 ft) from the stop end of the runway in the direction of the threshold;

“ILS reference datum (Point “T”)” means a point at a specified height located above the intersection of the runway centre line and the threshold and through which the downward extended straight portion of the ILS glide path passes;

“ionosphere-free pseudo-range” means a pseudo-range in which the first order ionosphere effect on signal propagation has been removed by a linear combination of pseudo-range measurements from signals on two distinct frequencies from the same satellite.

“IMC” means the symbol used to designate instrument meteorological conditions;

“immigration control” means measures adopted by States to control the entry into, transit through and departure from their territories of persons travelling by air;

“import duties and taxes” means Customs duties and all other duties, taxes or charges, which are collected on or in connection with the importation of goods. Not included are any charges which are limited in amount to the approximate cost of services rendered or collected by the customs on behalf of another national authority;

“imposter” means a person who impersonates the rightful holder of a genuine travel document.

“improperly documented person” means a person who travels, or attempts to travel: (a) with an expired travel document or an invalid visa; (b) with a counterfeit, forged or altered travel document or visa; (c) with someone else’s travel document or visa; (d) without a travel document; or (e) without a visa, if required;

“inadmissible person” means a person who is or will be refused admission to a State by its authorities;

“INCERFA” means the code word used to designate an uncertainty phase;

“incident” means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation;

“increased rate RA” means a resolution advisory with a strength that recommends increasing the altitude rate to a value exceeding that recommended by a previous climb or descend RA;

“independent parallel approaches” means simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway centre lines are not prescribed;

“independent parallel departures” means simultaneous departures from parallel or near-parallel instrument runways;

“industry codes of practice” means guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organization’s Standards and Recommended Practices, other aviation safety requirements and the best practices deemed appropriate;

“initial approach (IA) mode” means the condition of DME/P operation which supports those flight operations outside the final approach region and which is interoperable with DME/N;

“initial approach segment” means that segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point;

“inspection” means an independent evaluation by observation and judgement accompanied as appropriate by measurement, testing or gauging, in order to verify compliance with applicable requirements [Regulation (EU) No 139/2014];

“inspector” means an Inspector of the AAIB;

“instructor’s rating” means a flight instructor certificate, an flight instructor (restricted) certificate, a flight instructor rating (aeroplane), a flight instructor rating (helicopter), a type rating instructor rating (multi-pilot aeroplane), a type rating instructor rating (helicopter), a class rating instructor rating (single pilot aeroplane), an instrument rating instructor rating (aeroplane) or an instrument rating instructor rating (helicopter) or any instructor certificate issued in accordance with Part-FCL.

“instrument approach operations” means an approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

- a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and
- b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance;

“Instrument Approach Procedure (IAP)” means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

- a) Non-precision approach (NPA) procedure means an instrument approach procedure which utilises lateral guidance but does not utilise vertical guidance.
- b) Approach procedure with vertical guidance (APV) means an instrument procedure which utilises lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations.
- c) Precision approach (PA) procedure means an instrument approach procedure using precision lateral and vertical guidance with minima as determined by the category of operation [Regulation (EU) No 923/2012];

“instrument flight time” means time during which a pilot is piloting an aircraft, or a remote pilot is piloting a remotely piloted aircraft, solely by reference to instruments and without external reference points;

“instrument flight procedure design service” means a service established for the design, documentation, validation, maintenance and periodic review of instrument flight procedures necessary for the safety, regularity and efficiency of air navigation;

“instrument flight rules” means Instrument Flight Rules prescribed by Section 5 of SERA and Section 4 of the Schedule to the Rules of the Air 2014;

“instrument ground time” means time during which a pilot is practising, on the ground, simulated instrument flight in a flight simulation training device approved by the Licensing Authority;

“instrument landing system” means a ground-based radio system designed to transmit radio signals at very high frequency and ultra-high frequency that allow the pilot of an aircraft to accurately determine the aircraft’s position relative to a defined approach path whilst carrying out an approach to land;

“instrument meteorological conditions” (IMC) means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions;

“instrument runway” means one of the following types of runways intended for the operation of aircraft using instrument approach procedures:

- a) Non-precision approach runway. A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type A and a visibility not less than 1000m.
- b) Precision approach runway, category I. A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) not lower than 60 m (200ft) and either a visibility not less than 800 m or a runway visual range not less than 550m.

- c) Precision approach runway, category II. A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) lower than 60m (200ft) but not lower than 30m (100ft) and a runway visual range not less than 300m.
- d) Precision approach runway, category III. A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) lower than 30m (100ft), or no decision height and a runway visual range less than 300m, or no runway visual range limitations;

“instrument time” means instrument flight time or instrument ground time;

“integrated initial flight plan processing system” (‘IFPS’) means a system within the European Air Traffic Management Network through which a centralised flight planning processing and distribution service, dealing with the reception, validation and distribution of flight plans, is provided within the airspace covered by this Regulation [Regulation (EU) No 1079/2012];

“integrated survival suit” means a survival suit which meets the combined requirements of the survival suit and life jacket;

“integrity” means a measure of the trust that can be placed in the correctness of the information supplied by the total system. Integrity includes the ability of a system to provide timely and valid warnings to the user (alerts);

“integrity classification (aeronautical data)” means classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data is classified as:

- a) routine data: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;
- b) essential data: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and
- c) critical data: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

“interactive API (iAPI) system” means an electronic system that transmits, during check-in, API data elements collected by the aircraft operator to public authorities who, within existing business processing times for passenger check-in, return to the operator a response message for each passenger and/or crew member;

“interference” means instrument response due to presence of components other than the gas (or vapour) that is to be measured;

“intermediate approach segment” means that segment of an instrument approach procedure between either the intermediate approach fix and the final approach fix or point, or between the end of a reversal, racetrack or dead reckoning track procedure and the final approach fix or point, as appropriate;

“intermediate holding position” means a designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower;

“international airport” means any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out;

“international airways volcano watch” (IAVW) means international arrangements for monitoring and providing warnings to aircraft of volcanic ash in the atmosphere;

“international headquarters” means an international headquarters designated by Order in Council under section 1 of the United Kingdom’s International Headquarters and Defence Organisations Act 1964;

“international NOTAM office” means an office designated by a State for the exchange of NOTAM internationally;

“international operating agency” means an agency of the kind contemplated in Article 77 of the Chicago Convention;

“international standards and recommended practices” means the international standards and recommended practices adopted by ICAO in accordance with Article 37 of the Chicago Convention [Regulation (EU) No 2018/1139];

“international telecommunication service” means a telecommunication service between offices or stations of different States, or between mobile stations which are not in the same State, or are subject to different States;

“interoperability” means a set of functional, technical and operational properties required of the systems and constituents of the EATMN and of the procedures for its operation, in order to enable its safe, seamless and efficient operation. Interoperability is achieved by making the systems and constituents compliant with the essential requirements [Regulation (EC) No 549/2004];

“interpilot air-to-air communication” means two-way communication on the designated air-to-air channel to enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems;

“intoxication” means physical or mental impairment, whether caused by the consumption of alcohol, drugs or other means, or by a combination of means, and “intoxicated” is to be construed accordingly;

“intruder” means an aircraft for which ACAS has an established track;

Glossary of Terms

“investigation” means a process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and/or contributing factors and, when appropriate, the making of safety recommendations;

“investigating inspector” means the Investigator-in-charge and any other Inspector who is assisting the Investigator-in-charge with a safety investigation;

“investigator-in-charge” means a person charged, on the basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation.

“IP completion day” means midnight on 31 December 2020;

“isogonal” means a line on a map or chart on which all points have the same magnetic variation for a specified epoch;

“isogriv” means a line on a map or chart which joins points of equal angular difference between the North of the navigation grid and Magnetic North;

“isolated aerodrome” means a destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type;

“joint rescue coordination centre” (JRCC) means a rescue coordination centre responsible for both aeronautical and maritime search and rescue operations;

“just culture” means a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated [Regulation (EU) No 376/2014];

“key down time” means the time during which a dot or dash of a Morse character is being transmitted;

“key items of a flight plan” means the following items of a flight plan:

- a) aircraft identification;
- b) departure aerodrome;
- c) estimated off-block date;
- d) estimated off-block time;
- e) destination aerodrome;
- f) route excluding terminal area procedures;
- g) cruising speed(s) and requested flight level(s);
- h) aircraft type and category of wake turbulence;
- i) flight rules and type of flight;
- j) aircraft equipment and its related capabilities [Regulation (EC) No 1033/2006];

“lading” means the placing of cargo, mail, baggage or stores on board an aircraft to be carried on a flight;

Glossary of Terms

“landing area” means that part of a movement area intended for the landing or take-off of aircraft;

“landing decision point (LDP)” means the point used in determining landing performance from which, an engine failure having been recognised at this point, the landing may be safely continued or a balked landing initiated [Regulation (EU) No 965/2012];

“landing direction indicator” means a device to indicate visually the direction currently designated for landing and for take-off;

“landing surface” means that part of the surface of an aerodrome which the aerodrome authority has declared available for the normal ground or water run of aircraft landing in a particular direction;

“landplane” means a fixed wing aircraft which is designed for taking off and landing on land and includes amphibians operated as landplanes [Regulation (EU) No 965/2012];

“language proficiency endorsement” means the statement entered on and forming part of a licence, indicating the language proficiency of the holder [Regulation (EU) No 2015/340];

“large aeroplane” means an aeroplane of a maximum certificated take-off mass of over 5700 kg;

“large aircraft” means an aircraft, classified as an aeroplane with a maximum take-off mass of more than 5700 kg, or a multi-engined helicopter [Regulation (EU) 1321/2014];

“large rocket” means a rocket of which the total impulse of the motor or combination of motors is more than 10,240 Newton-seconds;

“laser-beam critical flight zone” (LCFZ) means airspace in the proximity of an aerodrome but beyond the LFFZ where the irradiance is restricted to a level unlikely to cause glare effects;

“laser-beam free flight zone” (LFFZ) means airspace in the immediate proximity of the aerodrome where the irradiance is restricted to a level unlikely to cause any visual disruption;

“laser-beam sensitive flight zone” (LSFZ) means airspace outside, and not necessarily contiguous with, the LFFZ and LCFZ where the irradiance is restricted to a level unlikely to cause flash-blindness or after-image effects;

“letter of agreement” means an agreement between two adjacent ATS units that specifies how their respective ATS responsibilities are to be coordinated [Regulation (EU) No 1079/2012];

“level” means a generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level;

“level aircraft” means an aircraft that is not transitioning;

Glossary of Terms

“level difference” means in decibels, for any nominal one-third octave midband frequency, the output signal level measured on any level range minus the level of the corresponding electrical input signal;

“level non-linearity” means in decibels, the level difference measured on any level range, at a stated one-third octave nominal midband frequency, minus the corresponding reference level difference, all input and output signals being relative to the same reference quantity;

“level range” means in decibels, an operating range determined by the setting of the controls that are provided in a measurement system for the recording and one-third octave band analysis of a sound pressure signal. The upper boundary associated with any particular level range shall be rounded to the nearest decibel;

“licence” in relation to a flight crew licence includes any certificate of competency or certificate of validity or revalidation issued with the licence or required to be held in connection with the licence by the law of the country in which the licence is granted;

“licence” in relation to an Air Traffic Controller means a document issued, endorsed and recognised in accordance with Regulation 60 of the Civil Aviation (Air Navigation) Regulations 2009 and entitling its lawful holder to exercise the privileges of the ratings and endorsements contained therein [Regulation (EU) No 2015/340];

“licensing authority” means the Authority designated by a Contracting State as responsible for the licensing of personnel;

“lifejacket” includes any device designed to support a person individually in or on the water;

“lighter-than-air aircraft” means any aircraft supported chiefly by its buoyancy in the air;

“lighting system reliability” means the probability that the complete installation operates within the specified tolerances and that the system is operationally usable;

“likely” means in the context of medical provisions, a probability of occurring that is unacceptable to the medical assessor;

“limit loads” means the maximum loads assumed to occur in the anticipated operating conditions;

“linear operating range” means in decibels, for a stated level range and frequency, the range of levels of steady sinusoidal electrical signals applied to the input of the entire measurement system, exclusive of the microphone but including the microphone preamplifier and any other signal-conditioning elements that are considered to be part of the microphone system, extending from a lower to an upper boundary, over which the level non-linearity is within specified tolerance limits;

“link” means a link connects an aircraft DLE and a ground DLE and is uniquely specified by the combination of aircraft DLS address and the ground DLS address. A different subnetwork entity resides above every link endpoint;

“link layer” means the layer that lies immediately above the physical layer in the Open Systems Interconnection protocol model. The link layer provides for the reliable transfer of information across the physical media. It is subdivided into the data link sublayer and the media access control sublayer.

“link management entity” (LME) means a protocol state machine capable of acquiring, establishing and maintaining a connection to a single peer system. An LME establishes data link and subnetwork connections, “hands-off” those connections, and manages the media access control sublayer and physical layer. An aircraft LME tracks how well it can communicate with the ground stations of a single ground system. An aircraft VME instantiates an LME for each ground station that it monitors. Similarly, the ground VME instantiates an LME for each aircraft that it monitors. An LME is deleted when communication with the peer system is no longer viable;

“link protocol data unit” (LPDU) means a data unit which encapsulates a segment of an HFNPDU;

“load factor” means the ratio of a specified load to the weight of the aircraft, the former being expressed in terms of aerodynamic forces, inertia forces, or ground reactions;

“local helicopter operation” means a commercial air transport operation of helicopters with a maximum certified take-off mass (MCTOM) over 3 175 kg and a maximum operational passenger seating configuration (MOPSC) of nine or less, by day, over routes navigated by reference to visual landmarks, conducted within a local and defined geographical area specified in the operations manual [Regulation (EU) No 965/2012];

“Location Indicator” means the four-letter code group formulated in accordance with the rules prescribed by ICAO in its manual 'DOC 7910' in its latest updated version and assigned to the location of an aeronautical fixed station;

“locator” means an LF/MF NDB used as an aid to final approach;

“log book” in the case of an aircraft log book, engine log book or variable pitch propeller log book, or personal flying log book, includes a record kept either in a book, or by any other means approved by the relevant competent authority in the particular case;

“logon address” means a specified code used for data link logon to an ATS unit;

“lost C2 link decision state” means the state of the RPAS in which a C2 Link interruption has occurred, but the duration of which does not exceed the lost C2 Link decision time;

“lost C2 link decision time” means the maximum length of time permitted before declaring a lost C2 Link state during which the C2 Link performance is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner appropriate to the airspace and operational conditions; (26 Nov 26)

Glossary of Terms

“lost C2 link state” means the state of the RPAS in which the C2 Link performance has degraded, as a result of a C2 Link interruption that is longer than the lost C2 Link decision time, to a point where it is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner;

“low modulation rates” means modulation rates up to and including 300 bauds;

“low-visibility operations” (LVO) means approach operations in RVRs less than 550m and/or with a DH less than 60m (200ft) or take-off operations in RVRs less than 400m;

“low visibility procedures (LVP)” means procedures applied at an aerodrome for the purpose of ensuring safe operations during lower than standard category I, other than standard category II, category II and III approaches and low visibility take-offs [Regulation (EU) No 965/2012];

“low visibility take-off (LVTO)” means a take-off with an RVR lower than 400 m but not less than 75m [Regulation (EU) No 965/2012];

“lower than standard category I (LTS CAT I) operation” means a category I instrument approach and landing operation using category I DH, with an RVR lower than would normally be associated with the applicable DH but not lower than 400 m [Regulation (EU) No 965/2012];

“LSA aircraft” means a light sport aeroplane which has all of the following characteristics:

- a) a Maximum Take-off Mass (MTOM) of not more than 600 kg;
- b) a maximum stalling speed in the landing configuration (V_{SO}) of not more than 45 knots Calibrated Airspeed (CAS) at the aircraft's maximum certificated take-off mass and most critical centre of gravity;
- c) a maximum seating capacity of no more than two persons, including the pilot;
- d) a single, non-turbine engine fitted with a propeller;
- e) a non-pressurised cabin [Regulation (EU) No 1321/2014];

“magnetic variation” means the angular difference between True North and Magnetic North;

“mail” means dispatches of correspondence and other items tendered by and intended for delivery to postal services in accordance with the rules of the Universal Postal Union (UPU);

“maintenance” means the performance of tasks on an aircraft, engine, propeller or associated part required to ensure the continuing airworthiness of an aircraft, engine, propeller or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair; (Until 26 Nov 26)

“maintenance” means the performance of tasks on an aircraft, remote pilot station, engine, propeller or associated part required to ensure the continuing airworthiness of an aircraft, remote pilot station, engine, propeller or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair; (26 Nov 26)

“maintenance organization’s procedures manual” means a document endorsed by the head of the maintenance organization which details the maintenance organization’s structure and management

Glossary of Terms

responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems;

“maintenance programme” means a document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies;

“maintenance records” means records that set out the details of the maintenance carried out on an aircraft, engine, propeller or associated part;

“maintenance release” means a document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner in accordance with appropriate airworthiness requirements;

“manoeuvring area” means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

“margin” means the maximum degree of distortion of the circuit at the end of which the apparatus is situated which is compatible with the correct translation of all the signals which it may possibly receive;

“marker” means an object displayed above ground level in order to indicate an obstacle or delineate a boundary;

“marking” means a symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information;

“M-ary phase shift keying (M-PSK) modulation” means a digital phase modulation that causes the phase of the carrier waveform to take on one of a set of M values;

“master minimum equipment list” (MMEL) means a list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures;

“maximum approved passenger seating configuration” means the maximum number of passengers which may be carried in the aircraft under and in accordance with its certificate of airworthiness, its flight manual and these Regulations;

“maximum diversion time” means maximum allowable range, expressed in time, from a point on a route to an en-route alternate aerodrome.

“maximum crosswind component” means the maximum value within the series of individual values of the “cross-track” (v) component of the wind samples recorded every second over a time interval that spans the 10 dB-down period;

“maximum mass” means the maximum certificated take-off mass;

“maximum operational passenger seating configuration (MOPSC)’ means the maximum passenger seating capacity of an individual aircraft, excluding crew seats, established for operational purposes and specified in the operations manual. Taking as a baseline the maximum passenger seating configuration established during the certification process conducted for the type certificate (TC), supplemental type certificate (STC) or change to the TC or STC as relevant to the individual aircraft, the MOPSC may establish an equal or lower number of seats, depending on the operational constraints [Regulation (EU) No 965/2012];

“maximum passenger seating capacity” means the maximum certificated number of passengers for the aeroplane type design;

“maximum take-off mass” means the highest of all take-off masses for the type design configuration;

“maximum wind speed” means the maximum value within the series of individual wind speed samples recorded every second over a time interval that spans the 10 dB-down period;

“M burst” means a management channel data block of bits used in VDL Mode 3. This burst contains signalling information needed for media access and link status monitoring;

“mean course error” means the mean value of the azimuth error along the runway extended centre line;

“mean power (of a radio transmitter)” means the average power supplied to the antenna transmission line by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions;

“mean glide path error” means the mean value of the elevation error along the glide path of an elevation function;

“mean time between failures” (MTBF) means the actual operating time of a facility divided by the total number of failures of the facility during that period of time;

“measurement system” means the combination of instruments used for the measurement of sound pressure levels, including a sound calibrator, windscreen, microphone system, signal recording and conditioning devices, and a one-third octave band analysis system;

“media access control” (MAC) means the sublayer that acquires the data path and controls the movement of bits over the data path;

“media access protocol data unit” (MPDU) means a data unit which encapsulates one or more LPDUs;

“medical assessment” means the evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness;

Glossary of Terms

“medical assessor” means a physician, appointed by the Licensing Authority, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance;

“medical examiner” means a physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed;

“medical passenger” means a medical person carried in a helicopter during a HEMS flight, including but not limited to doctors, nurses and paramedics [Regulation (EU) No 965/2012];

“medium intensity steady red light” means a red light which complies with the characteristics described for a medium intensity Type C light as specified in Volume 1 (Aerodrome Design and Operations) of ICAO Annex 14 (Fourth Edition July 2004) to the Chicago Convention;

“medium modulation rates” means modulation rates above 300 and up to and including 3 000 bauds;

“message field” means an assigned area of a message containing specified elements of data;

“metadata” means Data about data (ISO 19115);

“meteorological authority” means the authority providing or arranging for the provision of meteorological service for international air navigation on behalf of a Contracting State;

“meteorological bulletin” means a text comprising meteorological information preceded by an appropriate heading;

“meteorological information” means a meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions;

“meteorological office” means an office designated to provide meteorological service for international air navigation;

“meteorological operational channel” means a channel of the aeronautical fixed service (AFS), for the exchange of aeronautical meteorological information;

“meteorological operational telecommunication network” means an integrated system of meteorological operational channels, as part of the aeronautical fixed service (AFS), for the exchange of aeronautical meteorological information between the aeronautical fixed stations within the network;

“meteorological report” means a statement of observed meteorological conditions related to a specified time and location;

Glossary of Terms

“meteorological satellite” means an artificial Earth satellite making meteorological observations and transmitting these observations to Earth;

“meteorological services” means those facilities and services that provide aircraft with meteorological forecasts, briefs and observations as well as any other meteorological information and data provided by States for aeronautical use [Regulation (EU) No 139/2014];

“meteorological watch office” (MWO) means an office designated to provide information concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations within its specified area of responsibility;

“microlight aeroplane” means an aeroplane designed to carry not more than two persons which has—

- a) a maximum take-off mass not exceeding—
 - (i) 300kg for a single seat landplane, (or 390kg for a single seat landplane of which at least 51% was built by an amateur, or non-profit making association of amateurs, for their own purposes and without any commercial objective, in respect of which a permit to fly issued by the CAA was in force prior to 1st January 2003);
 - (ii) 450kg for a two-seat landplane; or
 - (iii) 330kg for a single seat amphibian or floatplane; or
 - (iv) 495kg for a two-seat amphibian or floatplane; or
 - (v) 315kg for a single seat landplane equipped with an airframe mounted total recovery parachute system; or
 - (vi) 472.5kg for a two-seat landplane equipped with an airframe mounted total recovery parachute system; and
- b) a stalling speed, or minimum steady flight speed in the landing configuration, at the maximum take-off mass not exceeding 35 knots calibrated airspeed;

“microphone system” means the components of the measurement system which produce an electrical output signal in response to a sound pressure input signal, and which generally include a microphone, a preamplifier, extension cables, and other devices as necessary;

“microwave landing system” means a ground-based radio system designed to transmit radio signals at super high frequency that allow the pilot of an aircraft to accurately determine the aircraft’s position within a defined volume of airspace whilst carrying out an approach to land;

“military aircraft” means the naval, military or air force aircraft of any country and—

- a) any aircraft being constructed for the naval, military or air force of any country under a contract entered into by the Secretary of State; and
- b) any aircraft in respect of which there is in force a certificate issued by the Secretary of State that the aircraft is to be treated for the purposes of the 2009 Order as a military aircraft;

“military rocket” means— 2009/008

- a) any rocket being constructed for the naval, military or air force of any country under a contract entered into by the Secretary of State; and

Glossary of Terms

- b) any rocket in respect of which there is in force a certificate issued by the Secretary of State that the rocket is to be treated for the purposes of the 2009 Order as a military rocket;

“minimum descent altitude (MDA) or minimum descent height (MDH)” means a specified altitude or height in a non-precision instrument approach operation or circling approach operation below which descent must not be made without the required visual reference;

“minimum descent height” in relation to the operation of an aircraft at an aerodrome means the height in a non-precision approach below which descent may not be made without the required visual reference;

“minimum en-route altitude” (MEA) means the altitude for an en-route segment that provides adequate reception of relevant navigation facilities and ATS communications, complies with the airspace structure and provides the required obstacle clearance;

“minimum equipment list” (MEL) means a list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type;

“minimum fuel” means a term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted [Regulation (EU) No 2016/1185];

“minimum glide path” means the lowest angle of descent along the zero degree azimuth that is consistent with published approach procedures and obstacle clearance criteria;

“minimum obstacle clearance altitude” (MOCA) means the minimum altitude for a defined segment of flight that provides the required obstacle clearance;

“minimum sector altitude” means the lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation;

“the Minister” means the Minister with responsibility for Civil Aviation;

“minor” means a person who has not attained the age of majority as determined under the law applicable to the person;

“mishandled baggage” means baggage involuntarily, or inadvertently, separated from passengers or crew;

“missed approach point” (MAPt) means that point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed;

“missed approach procedure” means the procedure to be followed if the approach cannot be continued;

“MLS antenna boresight” means the plane passing through the antenna phase centre perpendicular to the horizontal axis contained in the plane of the antenna array;

“MLS approach reference datum” means a point on the minimum glide path at a specified height above the threshold;

“MLS azimuth” means the locus of points in any horizontal plane where the decoded guidance angle is constant;

“MLS back azimuth reference datum” means a point at a specified height above the runway centre line at the runway midpoint;

“MLS datum point” means the point on the runway centre line closest to the phase centre of the approach elevation antenna;

“MLS elevation” means the locus of points in any vertical plane where the decoded guidance angle is constant;

“MLS point D” means a point 2.5 m (8 ft) above the runway centre line and 900 m (3 000 ft) from the threshold in the direction of the azimuth antenna;

“MLS point E” means a point 2.5 m (8 ft) above the runway centre line and 600 m (2 000 ft) from the stop end of the runway in the direction of the threshold;

“MLS zero degree azimuth” means the MLS azimuth where the decoded guidance angle is zero degrees;

“mobile station” (MS) means a station in the mobile service intended to be used while in motion or during halts at unspecified points. An MS is always a subscriber station (SS);

“mobile surface station” means a station in the aeronautical telecommunication service, other than an aircraft station, intended to be used while in motion or during halts at unspecified points;

“mode (SSR)” means the conventional identifier related to specific functions of the interrogation signals transmitted by an SSR interrogator. There are four modes specified in ICAO Annex 10: A, C, S and intermode [Regulation (EU) No 923/2012];

“mode 2” means a data only VDL mode that uses D8PSK modulation and a carrier sense multiple access (CSMA) control scheme;

“mode 3” means a voice and data VDL mode that uses D8PSK modulation and a TDMA media access control scheme;

“mode 4” means a data only VDL mode using a GFSK modulation scheme and self-organizing time division multiple access (STDMA);

Glossary of Terms

“mode S air-initiated Comm-B (AICB) protocol” means a procedure initiated by a Mode S transponder for transmitting a single Comm-B segment from the aircraft installation;

“mode S broadcast protocols” means procedures allowing standard length uplink or downlink messages to be received by more than one transponder or ground interrogator respectively;

“mode S ground-initiated Comm-B (GICB) protocol” means a procedure initiated by a Mode S interrogator for eliciting a single Comm-B segment from a Mode S aircraft installation, incorporating the contents of one of 255 Comm-B registers within the Mode S transponder;

“mode S multisite-directed protocol” means a procedure to ensure that extraction and close-out of a downlink standard length or extended length message is affected only by the particular Mode S interrogator selected by the aircraft;

“mode S packet” means a packet conforming to the Mode S subnetwork standard, designed to minimize the bandwidth required from the air-ground link. ISO 8208 packets may be transformed into Mode S packets and vice-versa;

“mode S specific protocol” (MSP) means a protocol that provides restricted datagram service within the Mode S subnetwork;

“mode S specific services” means a set of communication services provided by the Mode S system which are not available from other air-ground subnetworks, and therefore not interoperable;

“mode S specific services entity” (SSE) means an entity resident within an XDLP to provide access to the Mode S specific services;

“mode S subnetwork” means a means of performing an interchange of digital data through the use of secondary surveillance radar (SSR) Mode S interrogators and transponders in accordance with defined protocols;

“mode W, X, Y, Z” means a method of coding the DME transmissions by time spacing pulses of a pulse pair, so that each frequency can be used more than once;

“model aircraft” means an unmanned aircraft, other than toy aircraft, having an operating mass not exceeding limits prescribed by the competent authority, that is capable of sustained flight in the atmosphere and that is used exclusively for display or recreational activities [Regulation (EU) No 2016/1185];

“modification” means a change to the type design of an aircraft, engine or propeller;

“modulation rate” means the reciprocal of the unit interval measured in seconds. This rate is expressed in bauds;

“monitoring” means a cognitive process to compare an actual to an expected state;

“mountainous area” means an area of changing terrain profile where the changes of terrain

elevation exceed 900 m (3 000 ft) within a distance of 18,5 km (10,0 NM) [Regulation (EU) No 2016/1185];

“movement” means either a take-off or landing [Regulation (EU) No 139/2014];

“movement area” means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s);

“M-PSK symbol” means one of the M possible phase shifts of the M-PSK modulated carrier representing a group of $\log_2 M$ coded chips;

“multilateration (MLAT) system” means a group of equipment configured to provide position derived from the secondary surveillance radar (SSR) transponder signals (replies or squitters) primarily using time difference of arrival (TDOA) techniques. Additional information, including identification, can be extracted from the received signals;

“multiple flight plan” means more than one flight plan for the same intended flight between two airports [Regulation (EU) No 255/2010];

“narcotics control” means measures to control the illicit movement of narcotics and psychotropic substances by air;

“national accreditation body” means a body authorized by a State which attests that a verification body is competent to provide specific verification services;

“national variant” means a national requirement or regulation imposed by a country in addition to or instead of a JAR [Regulation (EEC) No 3922/91];

“navigation services” means those facilities and services that provide aircraft with positioning and timing information [Regulation (EU) No 139/2014];

“navigation specification” means a set of aircraft and flight crew requirements needed to support performance based navigation operations within a defined airspace. There are two kinds of navigation specifications:

- a) Required navigation performance (RNP) specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.
- b) Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1;

“near-parallel runways” means non-intersecting runways whose extended centre lines have an angle of convergence/divergence of 15 degrees or less;

“necessary precautions” means verifications carried out by adequately trained staff members of the aircraft operator or the company operating on behalf of the aircraft operator, at the point of embarkation, in order to ensure that every person holds a valid travel document and, where

Glossary of Terms

applicable, the visa or residence permit required to enter the State of transit and/or receiving State. These verifications are designed to ensure that irregularities (e.g. obvious document alteration) are detected;

“network” (N) means the word “network” and its abbreviation “N” in ISO 8348 are replaced by the word “subnetwork” and its abbreviation “SN”, respectively, wherever they appear in relation to the subnetwork layer packet data performance;

“network station” means an aeronautical station forming part of a radiotelephony network;

“new entrant” means any aeroplane operator that commences an aviation activity falling within the scope of this Volume on or after its entry into force and whose activity is not in whole or in part a continuation of an aviation activity previously performed by another aeroplane operator;

“next data authority” means the ground system so designated by the current data authority through which an onward transfer of communications and control can take place;

“next intended user” means the entity that receives the aeronautical data or information from the aeronautical information service;

“night” means the time from half an hour after sunset until half an hour before sunrise (both times inclusive), sunset and sunrise being determined at surface level;

“night vision goggles (NVG)” means a head-mounted, binocular, light intensification appliance that enhances the ability to maintain visual surface references at night [Regulation (EU) No 965/2012];

“night vision imaging system (NVIS)” means the integration of all elements required to successfully and safely use NVGs while operating a helicopter. The system includes as a minimum: NVGs, NVIS lighting, helicopter components, training and continuing airworthiness [Regulation (EU) No 965/2012];

“noise” means random variation in instrument output not associated with characteristics of the sample to which the instrument is responding, and distinguishable from its drift characteristics;

“nominal C2 link state” means the state of the RPAS when the C2 Link performance is sufficient to allow the remote pilot to actively manage the flight of the RPA in a safe and timely manner appropriate to the airspace and operational conditions;

“non-congested hostile environment” means a hostile environment outside a congested area;

“non-dispersive infrared analyser” means an instrument that by absorption of infrared energy selectively measures specific components;

“non-duty period” means a continuous and defined period of time, subsequent to and/or prior to duty periods, during which the air traffic controller is free of all duties;

“non-hostile environment” means an environment in which:

- a) a safe forced landing can be accomplished because the surface and surrounding environment are adequate;
- b) the helicopter occupants can be adequately protected from the elements;
- c) search and rescue response/capability is provided consistent with anticipated exposure; and
- d) the assessed risk of endangering persons or property on the ground is acceptable;

“non-installed equipment” means any instrument, equipment, mechanism, apparatus, appurtenance, software or accessory carried on board of an aircraft by the aircraft operator, which is not a part, and which is used or intended to be used in operating or controlling an aircraft, supports the occupants' survivability, or which could impact the safe operation of the aircraft [Regulation (EU) No 2018/1139];

“non-instrument runway” means a runway intended for the operation of aircraft using visual approach procedures or an instrument approach procedure to a point beyond which the approach may continue in visual meteorological conditions;

“non-JAR-compliant licence” means the pilot licence issued or recognised by a Member State in accordance with national legislation and not having been recommended for mutual recognition in relation to the relevant JAR [Regulation (EU) No 1178/2011].

“non-precision approach” means an instrument approach using non-visual aids for guidance in azimuth or elevation but which is not a precision approach;

“non-precision approach (NPA) operation” means an instrument approach with a minimum descent height (MDH), or DH when flying a CDFFA technique, not lower than 250 ft and an RVR/CMV of not less than 750 m for aeroplanes and 600 m for helicopters [Regulation (EU) No 965/2012];

“non-network communications” means radiotelephony communications conducted by a station of the aeronautical mobile service, other than those conducted as part of a radiotelephony network.

“non-volatile particulate matter” (nvPM) means emitted particles that exist at a gas turbine engine exhaust nozzle exit plane that do not volatilize when heated to a temperature of 350°C;

“normal flight zone” (NFZ) means airspace not defined as LFFZ, LCFZ or LSFZ but which must be protected from laser radiation capable of causing biological damage to the eye;

“NOTAM” means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations;

“notified” means in such manner as may be prescribed by the Minister and different manners of notification may be prescribed for different purposes;

“notifying state” means the State that has submitted to ICAO the request for the registration of or change in the three-letter designator of an aeroplane operator over which it has jurisdiction;

“NVIS crew member” means a technical crew member assigned to an NVIS flight [Regulation (EU) No 965/2012];

“NVIS flight” means a flight under night visual meteorological conditions (VMC) with the flight crew using NVGs in a helicopter operating under an NVIS approval [Regulation (EU) No 965/2012];

“observable behaviour” (OB) means a single role-related behaviour that can be observed and may or may not be measurable;

“observation (meteorological)” means the evaluation of one or more meteorological elements;

“obstacle” means all fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

- a) are located on an area intended for the surface movement of aircraft; or
- b) extend above a defined surface intended to protect aircraft in flight; or
- c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation;

“obstacle clearance altitude (OCA) or Obstacle Clearance Height (OCH)” means the lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria;

“obstacle free zone” (OFZ) means the airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes;

“obstacle limitation surface” means a surface that defines the limits to which objects may project into the airspace [Regulation (EU) No 139/2014];

“obstacle protection surface” means a surface established for visual approach slope indicator system above which objects or extensions of existing objects shall not be permitted except when, in the opinion of the appropriate authority, the new object or extension would be shielded by an existing immovable object [Regulation (EU) No 139/2014];

“obstacle/terrain data collection surface” means a defined surface intended for the purpose of collecting obstacle/terrain data;

“occurrence” means any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person and includes in particular an accident or serious incident [Regulation (EU) No 376/2014];

“occurrence reporting regulation” means Regulation (EU) No 376/2014 of the European Parliament as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time on the reporting, analysis and follow-up of occurrences in civil aviation;

Glossary of Terms

“offset carrier operation” means a case where the designated operational coverage cannot be ensured by a single ground transmitter and where, in order to minimise the interference problems, the signals from two or more ground transmitters are offset from the nominal channel centre frequency [Regulation (EU) No 1079/2012];

“offset frequency simplex” means a variation of single channel simplex wherein telecommunication between two stations is effected by using in each direction frequencies that are intentionally slightly different but contained within a portion of the spectrum allotted for the operation;

“offshore”, in relation to oil or gas installations, means within BGTW;

“offshore operations” means operations which routinely have a substantial proportion of the flight conducted over sea areas to or from offshore locations. Such operations include, but are not limited to, support of offshore oil, gas and mineral exploitation and sea-pilot transfer;

“offshore service” means an air traffic control service for any aircraft flying to or from offshore oil and gas installations and for other aircraft operating in the vicinity of these aircraft in airspace specified for this purpose in the manual of air traffic services;

“on-the-job training instruction” means the phase of unit training during which previously acquired job-related routines and skills are integrated in practice under the supervision of a qualified on-the-job training instructor in a live traffic situation [Regulation (EU) No 2015/340];

“on-the-job training instructor (OJTI) Endorsement’ means the authorisation entered on and forming part of a licence, indicating the competence of the holder to give on-the-job training instruction and instruction on synthetic training devices [Regulation (EU) No 2015/340];

“operating base” means the location from which operational control is exercised;

“operating site” means a site, other than an aerodrome, selected by the operator or pilot-in-command or commander for landing, take-off and/or external load operations [Regulation (EU) No 965/2012];

“operation” means an activity or group of activities which are subject to the same or similar hazards and which require a set of equipment to be specified, or the achievement and maintenance of a set of pilot competencies, to eliminate or mitigate the risk of such hazards;

“operational control” means the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight;

“operational control communications” means communications required for the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of a flight;

Glossary of Terms

“operational credit” means a credit authorized for operations with an advanced aircraft enabling a lower aerodrome operating minimum than would normally be authorized for a basic aircraft, based upon the performance of advanced aircraft systems utilizing the available external infrastructure;

“operational data” means information concerning all phases of flight that are required to take operational decisions by air navigation service providers, airspace users, airport operators and other actors involved [Regulation (EC) No 549/2004];

“operational flight plan” means the operator’s plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned;

“operational log” means a log of the ATFM system, converted into a database to allow quick search of ATFM data [Regulation (EU) No 255/2010];

“operational personnel” means personnel involved in aviation activities who are in a position to report safety information;

“operational planning” means the planning of flight operations by an operator;

“operational position” means a position provided and equipped for the purpose of providing a particular type of air traffic control service;

“operations in performance class 1” means operations with performance such that, in the event of a critical engine failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, unless the failure occurs prior to reaching the take-off decision point (TDP) or after passing the landing decision point (LDP), in which cases the helicopter must be able to land within the rejected take-off or landing area;

“operation in performance class 2” means an operation that, in the event of failure of the critical engine, performance is available to enable the helicopter to safely continue the flight, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required [Regulation (EU) No 965/2012];

“operation in performance class 3” means an operation that, in the event of an engine failure at any time during the flight, a forced landing may be required in a multi-engined helicopter and will be required in a single-engined helicopter [Regulation (EU) No 965/2012];

“operations manual” means a manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties;

“operations specifications” means the authorizations including specific approvals, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

“operator” means a person, organization or enterprise engaged in or offering to engage in an aircraft operation.

“operator’s maintenance control manual” means a document which describes the operator’s procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator’s aircraft on time and in a controlled and satisfactory manner;

“optimum conditions” means the combinations of altitude and airspeed within the approved operating envelope defined in the aeroplane flight manual that provides the highest specific air range value at each reference aeroplane mass;

“optimum sampling point” means the optimum sampling point of a received UAT bit stream is at the nominal centre of each bit period, when the frequency offset is either plus or minus 312.5 kHz;

“organic carbon” (OC) means Carbon volatilized in Helium while heating a quartz fibre filter sample to 870°C during thermal optical transmittance (TOT) analysis. Includes char formed during pyrolysis of some materials;

“organisation” means any organisation providing aviation products and/or which employs, contracts or uses the services of persons required to report occurrences in accordance with Article 4(6) of Regulation (EU) No 376/2014;

“organization responsible for the type design” means the organization that holds the type certificate, or equivalent document, for an aircraft, engine or propeller type, issued by a Contracting State;

“organization responsible for the type design” means the organization that holds the type certificate, or equivalent document, for an aircraft, remote pilot station, engine or propeller type, issued by a Contracting State; (26 Nov 26)

“original trajectory” means the original trajectory of an ACAS-equipped aircraft is that followed by the aircraft in the same encounter when it was not ACAS equipped;

“origination (aeronautical data or aeronautical information)” means the creation of the value associated with new data or information or the modification of the value of existing data or information;

“original rate” means the original rate of an ACAS-equipped aircraft at any time is its altitude rate at the same time when it followed the original trajectory;

“originator (aeronautical data or aeronautical information)” means an entity that is accountable for data or information origination and/or from which the AIS organization receives aeronautical data and aeronautical information;

“orphan aircraft type” means an aircraft which has its Type Certificate revoked by the State of Design, and no longer has a designated State of Design in accordance with ICAO Annex 8. These aircraft do not meet the Standards of ICAO Annex 8;

Glossary of Terms

“ornithopter” means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on planes to which a flapping motion is imparted;

“orthometric height” means the height of a point related to the geoid, generally presented as an MSL elevation;

“other than standard category II (OTS CAT II) operation” means a precision instrument approach and landing operation using ILS or MLS where some or all of the elements of the precision approach category II light system are not available, and with:

- a) DH below 200 ft but not lower than 100 ft; and
- b) RVR of not less than 350 m [Regulation (EU) No 965/2012];

“outer main gear wheel span” (OMGWS) means the distance between the outside edges of the main gear wheels;

“out-of-coverage indication signal” means a signal radiated into areas outside the intended coverage sector where required to specifically prevent invalid removal of an airborne warning indication in the presence of misleading guidance information;

“overpack” means an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage, but does not include a unit load device;

“oversight” means the verification, by or on behalf of the Director, on a continuous basis that the requirements of any Civil Aviation Regulations, on the basis of which a certificate has been issued or in respect of which a declaration has been made, continue to be complied with;

“own aircraft” means the aircraft fitted with the ACAS that is the subject of the discourse, which ACAS is to protect against possible collisions, and which may enter a manoeuvre in response to an ACAS indication;

“oxides of nitrogen” means the sum of the amounts of the nitric oxide and nitrogen dioxide contained in a gas sample calculated as if the nitric oxide were in the form of nitrogen dioxide;

“package” means the complete product of the packing operation consisting of the packaging and its contents prepared for transport;

“packaging” means receptacles and any other components or materials necessary for the receptacle to perform its containment function;

“packet” means the basic unit of data transfer among communication devices within the network layer (e.g. an ISO 8208 packet or a Mode S packet);

“parascending parachute” means a parachute which is towed by cable in such a manner as to cause it to ascend;

Glossary of Terms

“part” means any element of a product, as defined by that product's type design [Regulation (EU) No 2018/1139];

“part 21” means the requirements and procedures for the certification of aircraft and related products, parts and appliances, and of design and production organisations laid down in Annex I to Commission Regulation (EU) No 748/2012 as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“part-21 aircraft” means an aircraft which is required by virtue of the Basic Regulation and any implementing rules in accordance with that Regulation to hold a Part-21 certificate of airworthiness, a Part-21 restricted certificate of airworthiness or a Part-21 permit to fly;

“part-21 certificate of airworthiness” means a certificate of airworthiness issued in respect of a Part-21 aircraft under and in accordance with subpart P of Part 21;

“part-21 permit to fly” means a permit to fly issued in respect of a Part-21 aircraft under and in accordance with subpart P of Part 21;

“part-21 restricted certificate of airworthiness” means a restricted certificate of airworthiness issued in respect of a Part-21 aircraft under and in accordance with subpart H of Part 21;

“part 145” means Annex II so entitled to the Continuing Airworthiness Regulation;

“part-FCL licence” means a flight crew licence granted under Part-FCL by an EU Member State or a country that has an agreement with EASA or the EU to grant and administer licences in accordance with the EASA Aircrew Regulation and to be subject to standardisation by EASA in respect of that Regulation;

“part M” means Annex I so entitled to the EASA Continuing Airworthiness Regulation as amended;

“partial rise time” means the time as measured between the 5 and 30 per cent amplitude points on the leading edge of the pulse envelope;

“partial usage sub-channelization” (PUSC) means a technique in which the orthogonal frequency division multiplexing (OFDM) symbol subcarriers are divided and permuted among a subset of sub-channels for transmission, providing partial frequency diversity;

“particle loss” means the loss of particles during transport through a sampling system. This loss is due to various deposition mechanisms, some of which are size dependent;

“particle mass concentration” means the mass of particles per unit volume of sample;

“particle mass emission index” means the mass of particles emitted per unit of fuel mass used;

“particle number concentration” means the number of particles per unit volume of sample;

“particle number emission index” means the number of particles emitted per unit of fuel mass used;

“particle size distribution” means a list of values or a mathematical function that represents particle number concentration according to size;

“parts per million” (ppm) means the unit volume gas concentration of a gas per million unit volume of the gas mixture of which it is a part;

“parts per million carbon” (ppmC) means the mole fraction of hydrocarbon multiplied by 106 measured on a methane-equivalence basis. Thus, 1 ppm of methane is indicated as 1 ppmC. To convert ppm concentration of any hydrocarbon to an equivalent ppmC value, multiply ppm gas concentration by the number of carbon atoms per molecule of the gas. For example, 1 ppm propane translates as 3 ppmC hydrocarbon; 1 ppm hexane as 6 ppmC hydrocarbon;

“part-task trainer (PTT)” means a synthetic training device to provide training for specific and selected operational tasks without requiring the learner to practise all of the tasks which are normally associated with a fully operational environment [Regulation (EU) No 2015/340];

“Passenger” means a person other than a member of the crew.

For the purpose of passenger classification:

- a) ‘adult’ means a person of an age of 12 years and above;
- b) ‘child/children’ means persons who are of an age of two years and above but who are less than 12 years of age;
- c) ‘infant’ means a person under the age of two years [Regulation (EU) No 965/2012];

“passenger aircraft” means an aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorized representative of an appropriate national authority or a person accompanying a consignment or other cargo;

“passenger amenities” means facilities provided for passengers which are not essential for passenger processing;

“passenger data single window” means a facility that allows parties involved in passenger transport by air to lodge standardized passenger information (i.e. API, iAPI and/or PNR) through a single data entry point to fulfil all regulatory requirements relating to the entry and/or exit of passengers that may be imposed by various agencies of the Contracting State;

“passive surveillance” means the process of tracking another aircraft without interrogating it, by using the other aircraft’s extended squitters. ACAS uses the information obtained via 1 090 MHz extended squitter to monitor the need for active surveillance, but not for any other purpose. Passive surveillance applies to both hybrid and extended hybrid surveillance;

“path following error” (PFE) means that portion of the guidance signal error which could cause aircraft displacement from the desired course and/or glide path;

“path following noise” (PFN) means that portion of the guidance signal error which could cause aircraft displacement from the mean course line or mean glide path as appropriate;

Glossary of Terms

“pathway” means a specific combination of feedstock and conversion process used for the production of aviation fuel;

“pavement classification number” (PCN) means a number expressing the bearing strength of a pavement for unrestricted operations; (Until 27 Nov 24)

“pavement classification rating” (PCR) means a number expressing the bearing strength of a pavement; (From 28 Nov 24)

“peak envelope power” (PEP) means the peak power of the modulated signal supplied by the transmitter to the antenna transmission line;

“penetration fraction” means the ratio of particle concentration downstream and upstream of a sampling system element;

“performance-based aerodrome operating minimum” (PBAOM) means a lower aerodrome operating minimum, for a given take-off, approach or landing operation, than is available when using a basic aircraft;

“performance-based communication” (PBC) means communication based on performance specifications applied to the provision of air traffic services;

“performance-based navigation” (PBN) means area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace;

“performance-based surveillance” (PBS) means surveillance based on performance specifications applied to the provision of air traffic services;

“performance class 1 helicopter” means a helicopter with performance such that, in case of engine failure, it is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area;

“performance class 2 helicopter” means a helicopter with performance such that, in case of engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which cases a forced landing may be required;

“performance class 3 helicopter” means a helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed;

“performance class A aeroplanes” means multi-engined aeroplanes powered by turbo-propeller engines with a maximum operational passenger seating configuration of more than nine or a maximum take-off mass exceeding 5 700 kg, and all multi-engined turbo-jet powered aeroplanes [Regulation (EU) No 965/2012];

“performance class B aeroplanes’ means aeroplanes powered by propeller engines with a maximum operational passenger seating configuration of nine or less and a maximum take-off mass of 5 700 kg or less [Regulation (EU) No 965/2012];

“performance class C aeroplanes” means aeroplanes powered by reciprocating engines with a maximum operational passenger seating configuration of more than nine or a maximum take-off mass exceeding 5 700 kg [Regulation (EU) No 965/2012];

“performance criteria” means statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard;

“performance model” means an analytical tool or method validated from corrected flight test data that can be used to determine the SAR values for calculating the CO₂ emissions evaluation metric value at the reference conditions;

“performance objective” means a clear and unambiguous statement of the performance expected of the person undertaking the training, the conditions under which the performance takes place and the standards that the person undertaking training should meet [Regulation (EU) No 2015/340];

“period of duty” means the period between the commencement and end of a shift during which an air traffic controller performs, or could be called upon to perform, any of the functions specified in respect of a rating included in his licence;

“person with disabilities” means any person whose mobility is reduced due to a physical incapacity (sensory or locomotor), an intellectual deficiency, age, illness or any other cause of disability when using transport and whose situation needs special attention and the adaptation to the person’s needs of the services made available to all passengers;

“person involved” means the owner, a member of the crew, the operator of the aircraft involved in an accident or serious incident; any person involved in the maintenance, design, manufacture of that aircraft or in the training of its crew; any person involved in the provision of air traffic control, flight information or aerodrome services, who have provided services for the aircraft; staff of the national civil aviation authority; or the Director’s staff [Regulation (EU) No 996/2012];

“physical layer” means the lowest level layer in the Open Systems Interconnection protocol model. The physical layer is concerned with the transmission of binary information over the physical medium (e.g. VHF radio);

“physical layer protocol data unit” (PPDU) means data unit passed to the physical layer for transmission, or decoded by the physical layer after reception;

“pilot (to)” means to manipulate the flight controls of an aircraft during flight time;

“pilot flying (PF)” means the pilot whose primary task is to control and manage the flight path. The secondary tasks of the PF are to perform non-flight path related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members;

Glossary of Terms

“pilot-in-command” means the pilot designated by the operator, or in the case of general aviation, the owner as being in command and charged with the safe conduct of the flight. For the purpose of commercial air transport operations, the ‘pilot-in-command’ shall be termed the ‘commander’ [Regulation (EU) No 965/2012];

“pilot-in-command under supervision” means the Co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, in accordance with a method of supervision acceptable to the Licensing Authority;

“pilot monitoring” (PM) means the pilot whose primary task is to monitor the flight path and its management by the PF. The secondary tasks of the PM are to perform non-flight path related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members;

“plume” means total external engine exhaust flow, including any ambient air with which the exhaust mixes;

“point-in-space (PinS) approach” means the point-in-space approach is based on GNSS and is an approach procedure designed for helicopter only. It is aligned with a reference point located to permit subsequent flight manoeuvring or approach and landing using visual manoeuvring in adequate visual conditions to see and avoid obstacles;

“point-in-space (PinS) visual segment” means the segment of a helicopter PinS approach procedure from the MAPt to the landing location for a PinS “proceed visually” procedure. This visual segment connects the PinS to the landing location;

“point light” means a luminous signal appearing without perceptible length;

“point of no return” means the last possible geographic point at which an aircraft can proceed to the destination aerodrome as well as to an available en-route alternate aerodrome for a given flight;

“point-to-point” means pertaining or relating to the interconnection of two devices, particularly end-user instruments. A communication path of service intended to connect two discrete end-users; as distinguished from broadcast or multipoint service;

“portrayal” means the presentation of information to humans (ISO 19117);

“position (geographical)” means the set of coordinates (latitude and longitude) referenced to the mathematical reference ellipsoid which define the position of a point on the surface of the Earth;

“positive RA” means a resolution advisory that advises the pilot either to climb or to descend (applies to ACAS II);

“post spacing” means angular or linear distance between two adjacent elevation points;

“potential threat” means an intruder deserving special attention either because of its close

Glossary of Terms

proximity to own aircraft or because successive range and altitude measurements indicate that it could be on a collision or near-collision course with own aircraft. The warning time provided against a potential threat is sufficiently small that a traffic advisory (TA) is justified but not so small that a resolution advisory (RA) would be justified;

“powered-lift” a heavier-than-air aircraft capable of vertical take-off, vertical landing, and low-speed flight, which depends principally on engine-driven lift devices or engine thrust for the lift during these flight regimes and on non-rotating aerofoil(s) for lift during horizontal flight;

“power measurement point” (PMP) means the cable connecting the antenna to the UAT equipment. The PMP is the end of that cable that attaches to the antenna. All power measurements are considered as being made at the PMP unless otherwise specified. The cable connecting the UAT equipment to the antenna is assumed to have 3 dB of loss;

“powerplant” means the system consisting of all the engines, drive system components (if applicable), and propellers (if installed), their accessories, ancillary parts, and fuel and oil systems installed on an aircraft but excluding the rotors for a helicopter;

“precision” means the smallest difference that can be reliably distinguished by a measurement process;

“precision approach procedure” means an instrument approach procedure utilizing azimuth and glide path information provided by ILS or PAR;

“precision approach” means an instrument approach using precision lateral and vertical guidance with minima as determined by the category of operation;

“precision approach runway” see Instrument runway;

“preliminary flight plan” means the information related to a flight submitted by an operator or a designated representative to conduct collaborative planning of a flight, prior to filing a flight plan;

“preliminary report” means the communication used for the prompt dissemination of data obtained during the early stages of the investigation;

“pre-flight information bulletin” (PIB) means a presentation of current NOTAM information of operational significance, prepared prior to flight;

“pre-flight inspection” means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight;

“pre-flight phase” means the period from the first submission of a flight plan until the first delivery of an air traffic control clearance;

“pressure-altitude” means an atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere, as defined in Annex 8, Part 1 to the Chicago Convention [Regulation (EU) No 923/2012];

Glossary of Terms

“prevailing visibility” means the greatest visibility value, observed in accordance with the definition of “visibility”, which is reached within at least half the horizon circle or within at least half of the surface of the aerodrome. These areas could comprise contiguous or non-contiguous sectors;

“preventive RA” means a resolution advisory that advises the pilot to avoid certain deviations from the current flight path but does not require any change in the current flight path;

“primary frequency” means the radiotelephony frequency assigned to an aircraft as a first choice for air-ground communication in a radiotelephony network;

“primary means of communication” means the means of communication to be adopted normally by aircraft and ground stations as a first choice where alternative means of communication exist;

“primary runway(s)” means runway(s) used in preference to others whenever conditions permit;

“principal place of business” means the head office or registered office of the organisation within which the principal financial functions and operational control of the activities of the business are exercised [Regulation (EU) No 965/2012];

“printed communications” means communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit;

“prioritisation of ramp inspections” means the dedication of an appropriate portion of the total number of ramp inspections conducted by or on behalf of the Director on an annual basis as provided in Part-ARO [Regulation (EU) No 965/2012];

“private aircraft” means an aircraft which is not an aerial work aircraft, a public transport aircraft or a commercial air transport aeroplane;

“private flight” means a flight which is neither for the purpose of aerial work, public transport or commercial air transport flight;

“problematic use of substances” means the use of one or more psychoactive substances by aviation personnel in a way that:

- a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
- b) causes or worsens an occupational, social, mental or physical problem or disorder;

“procedure altitude/height” means a published altitude/height used in defining the vertical profile of a flight procedure, at or above the minimum obstacle clearance altitude/height where established;

“procedure turn” means a manoeuvre in which a turn is made away from a designated track followed by a turn in the opposite direction to permit the aircraft to intercept and proceed along the reciprocal of the designated track;

“product” means a civil aircraft, engine, propeller or appliance [Regulation (EU) No 2018/1139];

Glossary of Terms

“prognostic chart” means a forecast of a specified meteorological element(s) for a specified time or period and a specified surface or portion of airspace, depicted graphically on a chart;

“prohibited area” means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited;

“proper shipping name” means the name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packagings;

“proportional guidance sector” means the volume of airspace within which the angular guidance information provided by a function is directly proportional to the angular displacement of the airborne antenna with respect to the zero angle reference;

“protected flight zones” means airspace specifically designated to mitigate the hazardous effects of laser radiation;

“protected service volume” means a part of the facility coverage where the facility provides a particular service in accordance with relevant SARPs and within which the facility is afforded frequency protection;

“protection area” means a defined area surrounding a stand intended to reduce the risk of damage from helicopters accidentally diverging from the stand;

“provisional inability” means a temporary state in which the Air Traffic Control licence holder is prevented from exercising the privileges of the licence when ratings, endorsements and his/her medical certificate are valid [Regulation (EU) No 2015/340];

“pseudorandom message data block” means that several UAT requirements state that performance will be tested using pseudorandom message data blocks. Pseudorandom message data blocks should have statistical properties that are nearly indistinguishable from those of a true random selection of bits. For instance, each bit should have (nearly) equal probability of being a ONE or a ZERO, independent of its neighbouring bits. There should be a large number of such pseudorandom message data blocks for each message type (Basic ADS-B, Long ADS-B or Ground Uplink) to provide sufficient independent data for statistical performance measurements;

“pseudo-range” means the difference between the time of transmission by a satellite and reception by a GNSS receiver multiplied by the speed of light in a vacuum, including bias due to the difference between a GNSS receiver and satellite time reference;

“psychoactive substances” means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

“public authorities” means the agencies or officials of a Contracting State responsible for the application and enforcement of the particular laws and regulations of that State which relate to any aspect of these Standards and Recommended Practices;

Glossary of Terms

“public electronic communications network” has the same meaning as in section 2(1) of the Communications Act 2006;

“public health emergency of international concern” means an extraordinary event which is determined, as provided in the International Health Regulations (2005) of the World Health Organization: (i) to constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response;

“public health risk” means a likelihood of an event that may affect adversely the health of human populations, with an emphasis on one which may spread internationally or may present a serious and direct danger;

“public interest site (PIS) [Regulation (EU) No 965/2012]” means a site used exclusively for operations in the public interest;

“public transport” has the meaning assigned to it by regulation 2A of the Civil Aviation (Air Navigation) Regulations;

“public transport aircraft” means an aircraft flying, or intended by the operator of the aircraft to fly, for the purpose of public transport;

“pulse amplitude” means the maximum voltage of the pulse envelope;

“pulse decay time” means the time as measured between the 90 and 10 per cent amplitude points on the trailing edge of the pulse envelope;

“pulse code” means the method of differentiating between W, X, Y and Z modes and between FA and IA modes;

“pulse duration” means the time interval between the 50 per cent amplitude point on leading and trailing edges of the pulse envelope;

“pulse rise time” means the time as measured between the 10 and 90 per cent amplitude points on the leading edge of the pulse envelope;

“putting into service” means the first operational use after the initial installation or an upgrade of a system [Regulation (EC) No 549/2004];

“qualified entity” means an accredited legal or natural person which may be charged with certain certification or oversight tasks under this Regulation by and under the control and the responsibility of the Director [Regulation (EU) No 2018/1139];

“quality” means the degree to which a set of inherent characteristics fulfils requirements (ISO 9000);

“quality assurance” means part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000);

Glossary of Terms

“quality control” means part of quality management focused on fulfilling quality requirements (ISO 9000);

“quality of service” (QoS) means the totality of the characteristics of an entity that bear on its ability to satisfy stated and implied needs;

“quality of service (applicable to aeronautical telecommunications)” means the information relating to data transfer characteristics used by various communication protocols to achieve various levels of performance for network users;

“quality of service delivered” (QoS_D) means a statement of the QoS achieved or delivered to the RPAS operator by the C2CSP;

“quality of service experienced” (QoS_E) means a statement expressing the QoS that the remote pilot believes they have experienced;

“quality of service required” (QoS_R) means a statement of the QoS requirements of the RPAS operator to the C2CSP;

“quality management” means coordinated activities to direct and control an organization with regard to quality (ISO 9000);

“quality system” means documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement;

“radar” means a radio detection device which provides information on range, azimuth and/or elevation of objects;

“radio” means any installed, portable or handheld device designed to transmit and/or receive transmissions in the VHF band;

“radio bearing” means the angle between the apparent direction of a definite source of emission of electro-magnetic waves and a reference direction, as determined at a radio direction-finding station. A true radio bearing is one for which the reference direction is that of true North. A magnetic radio bearing is one for which the reference direction is that of magnetic North;

“radio direction finding” means radio determination using the reception of radio waves for the purpose of determining the direction of a station or object;

“radio direction-finding station” means a radio determination station using radio direction finding;

“radio mandatory zone (RMZ)’ means an airspace of defined dimensions wherein the carriage and operation of radio equipment is mandatory [Regulation (EU) 923/2012];

“radio navigation service” means a service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids;

“radiotelephony” means a form of radio-communication primarily intended for the exchange of information in the form of speech;

“radiotelephony network” means a group of radiotelephony aeronautical stations which operate on and guard frequencies from the same family and which support each other in a defined manner to ensure maximum dependability of air-ground communications and dissemination of air-ground traffic;

“radio upgrade” means the replacement of a radio by a radio of a different model or part number.

“Ramp Inspection” means the inspection of aircraft, of flight and cabin crew qualifications and of flight documentation in order to verify the compliance with the applicable requirements [Regulation (EU) No 1079/2012];

“RA sense” means the sense of an ACAS II RA is “upward” if it requires climb or limitation of descent rate and “downward” if it requires descent or limitation of climb rate. It can be both upward and downward simultaneously if it requires limitation of the vertical rate to a specified range;

“rated air traffic controller” means an air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised;

“rated coverage” means the area surrounding an NDB within which the strength of the vertical field of the ground wave exceeds the minimum value specified for the geographical area in which the radio beacon is situated;

“rated thrust” means for engine emissions purposes, the maximum take-off thrust approved by the certificating authority for use under normal operating conditions at ISA sea level static conditions, and without the use of water injection. Thrust is expressed in kilonewtons;

“rating” means an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence;

“rating endorsement” means the authorisation entered on and forming part of a licence, indicating the specific conditions, privileges or limitations pertaining to the relevant rating [Regulation (EU) 2015/340];

“readback” means a procedure whereby the receiving station repeats a received message or an appropriate part thereof back to the transmitting station so as to obtain confirmation of correct reception;

“receiver” means a subsystem that receives GNSS signals and includes one or more sensors;

“recertification” means certification of an aircraft with or without a revision to its certification noise levels, to a Standard different to that to which it was originally certificated;

“record” means (in addition to a record in writing)–

Glossary of Terms

- a) a disc, tape, sound-track or other device in which sounds or signals are embodied so as to be capable of being reproduced from it (with or without the aid of some other instrument);
- b) a film, tape or other device in which visual images are embodied so as to be capable of being reproduced from it (with or without the aid of some other instrument);
- c) a photograph;

“rectification interval” means a limitation on the duration of operations with inoperative equipment [Regulation (EU) No 965/2012];

“reduced vertical separation minimum airspace” means any airspace between flight level 290 and flight level 410 inclusive which has been notified by the Director as being airspace within which a vertical separation minimum of 1000 feet or 300 meters must be applied;

“ReedSolomon code” means an error correction code capable of correcting symbol errors. Since symbol errors are collections of bits, these codes provide good burst error correction capabilities;

“reference direction” means in degrees, the direction of sound incidence specified by the manufacturer of the microphone, relative to a sound incidence angle of 0°, for which the free-field sensitivity level of the microphone system is within specified tolerance limits;

“reference gas” means a mixture of gases of specified and known composition used as the basis for interpreting instrument response in terms of the gas concentration of the gas to which the instrument is responding;

“reference geometric factor” means an adjustment factor based on a measurement of aeroplane fuselage size derived from a two-dimensional projection of the fuselage;

“reference level difference” means in decibels, for a stated frequency, the level difference measured on a level range for an electrical input signal corresponding to the calibration sound pressure level, adjusted as appropriate, for the level range;

“reference level range” means in decibels, the level range for determining the acoustical sensitivity of the measurement system and containing the calibration sound pressure level;

“reference pressure ratio” means the ratio of the mean total pressure at the last compressor discharge plane of the compressor to the mean total pressure at the compressor entry plane when the engine is developing take-off thrust rating in ISA sea level static conditions;

“regional air navigation agreement” means an agreement approved by the Council of ICAO normally on the advice of a regional air navigation meeting,

“regulations” means the Civil Aviation (Air Navigation) Regulations 2009;

“regular station” means a station selected from those forming an en-route air-ground radiotelephony network to communicate with or to intercept communications from aircraft in normal conditions;

Glossary of Terms

“rejected take-off area” means a defined area on a heliport suitable for helicopters operating in performance class 1 to complete a rejected take-off.

“relatives” means the immediate family and/or next of kin and/or other person closely connected with the victim of an accident, as defined under the national law of the victim [Regulation (EU) No 996/2010];

“released flight” means flight by an uncontrollable balloon during which it is not attached to the surface by any form of restraining device;

“release of goods” means the action by the customs authorities to permit goods undergoing clearance to be placed at the disposal of the persons concerned;

“reliable link service” (RLS) means a data communications service provided by the subnetwork which automatically provides for error control over its link through error detection and requested retransmission of signal units found to be in error;

“relief” means the inequalities in elevation of the surface of the Earth represented on aeronautical charts by contours, hypsometric tints, shading or spot elevations;

“relief flights” means flights operated for humanitarian purposes which carry relief personnel and relief supplies such as food, clothing, shelter, medical and other items during or after an emergency and/or disaster and/or are used to evacuate persons from a place where their life or health is threatened by such emergency and/or disaster to a safe haven in the same State or another State willing to receive such persons;

“remote co-pilot” means a licensed remote pilot serving in any piloting capacity other than as remote pilot-in-command but excluding a remote pilot who is in the remote pilot station for the sole purpose of receiving flight instruction;

“remote flight crew member” means a licensed flight crew member charged with duties essential to the operation of a remotely piloted aircraft system during a flight duty period;

“remote pilot” means a natural person responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and remaining able to intervene and change the course at any time [Regulation (EU) No 2018/1139];

“remote pilot-in-command” means the remote pilot designated by the operator as being in command and charged with the safe conduct of a flight;

“remote pilot station” (RPS) means the component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft;

“remotely piloted aircraft” (RPA) means an unmanned aircraft which is piloted from a remote pilot station;

“remotely piloted aircraft system” (RPAS) means a remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design;

“remotely piloted aircraft system” (RPAS) means a remotely piloted aircraft, its associated remote pilot station(s), the required C2 Link(s) and any other components as specified in the type design;
(26 Nov 26)

“removal of a person” means action by the public authorities of a State, in accordance with its laws, to direct a person to leave that State;

“removal order” means a written order served by a State on the operator on whose flight an inadmissible person travelled into that State, directing the operator to remove that person from its territory;

“rendering (a Certificate of Airworthiness) valid” means the action taken by a Contracting State, as an alternative to issuing its own Certificate of Airworthiness, in accepting a Certificate of Airworthiness issued by any other Contracting State as the equivalent of its own Certificate of Airworthiness;

“rendering (a licence) valid” means the action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence;

“renewal” means the administrative act taken after a rating, endorsement or certificate has expired that renew the privileges of the rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements [Regulation (EU) 2015/340];

“repair” means the restoration of an aircraft, engine, propeller or associated part to an airworthy condition in accordance with the appropriate airworthiness requirements after it has been damaged or subjected to wear;

“repeatability” means the closeness with which a measurement upon a given invariant sample can be reproduced in short-term repetitions of the measurement with no intervening instrument adjustment;

“repetitive flight plan” (RPL) means a flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATS units;

“replacement” in relation to any part of an aircraft or its equipment includes the removal and replacement of that part whether or not by the same part, and whether or not any work is done on it, but does not include the removal and replacement of a part which is designed to be removable solely for the purpose of enabling another part to be inspected, repaired, removed or replaced or cargo to be loaded;

“reply efficiency” means the ratio of replies transmitted by the transponder to the total of received valid interrogations;

“reported visibility” means the horizontal visibility at the Gibraltar Airport as reported by the Gibraltar Meteorological Office.

“reporter” means a natural person who reports an occurrence or other safety-related information pursuant to Regulation (EU) No 376/2014;

“reporting period” means a period which commences on 1 January and finishes on 31 December in a given year for which an aeroplane operator or State reports required information. The flight departure time (UTC) determines which reporting period a flight belongs to;

“reporting point” means a specified (named) geographical location in relation to which the position of an aircraft can be reported;

“required communication performance (RCP) specification” means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication;

“required rate” means for the standard pilot model, the required rate is that closest to the original rate consistent with the RA;

“required surveillance performance (RSP) specification” means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance;

“requirement” means the need or expectation that is stated, generally implied or obligatory (ISO 9000);

“rescue” means an operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety;

“rescue coordination centre” means a unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region;

“rescue subcentre” (RSC) means a unit subordinate to a rescue coordination centre, established to complement the latter according to particular provisions of the responsible authorities;

“reserved (bits/words/fields)” means bits/words/fields that are not allocated, but which are reserved for a particular GNSS application;

“residual error rate” means the ratio of incorrect, lost and duplicate subnetwork service data units (SNSDUs) to the total number of SNSDUs that were sent;

“resolution” means the smallest change in a measurement which can be detected;

“resolution advisory” (RA) means an indication given to the flight crew recommending:

- a) a manoeuvre intended to provide separation from all threats; or
- b) a manoeuvre restriction intended to maintain existing separation;

“resolution advisory complement” (RAC) means information provided by one ACAS to another via a Mode S interrogation in order to ensure complementary manoeuvres by restricting the choice of manoeuvres available to the ACAS receiving the RAC;

“resolution advisory complements record” (RAC record) means a composite of all currently active vertical RACs (VRCs) and horizontal RACs (HRCs) that have been received by ACAS. This information is provided by one ACAS to another ACAS or to a Mode S ground station via a Mode S reply;

“resolution advisory strength” means the magnitude of the manoeuvre indicated by the RA. An RA may take on several successive strengths before being cancelled. Once a new RA strength is issued, the previous one automatically becomes void;

“resolution message” means the message containing the resolution advisory complement (RAC);

“response” means the change in instrument output signal that occurs with change in sample gas concentration;

“rest period” means a continuous and defined period of time, subsequent to and/or prior to duty, during which flight or cabin crew members are free of all duties;

“restricted area” means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions;

“restricted area” in the Civil Aviation (Air Terminal) Regulations 2016 means any part of the airport where access is only available to specific persons who, having satisfied pre-conditions set by the airport operator, are permitted to have such access.

“revalidation” means the administrative act taken within the period of validity of a rating, endorsement or certificate that allows the holder to continue to exercise the privileges of a rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements [Regulation (EU) No 2015/340];

“reversal procedure” means a procedure designed to enable aircraft to reverse direction during the initial approach segment of an instrument approach procedure. The sequence may include procedure turns or base turns;

“reversed sense RA” means a resolution advisory that has had its sense reversed;

“rise time” means the time required for the output signal to pass from 10 per cent to 90 per cent of the final change in the output signal when a reference material is abruptly applied to the automatic measuring system initially in the basic state; (This term is only applicable for an online analyser.)

Glossary of Terms

“risk assessment (ICAO Annex 9)” means an assessment by a departing State of a deportee’s suitability for escorted or unescorted removal via commercial air services. The assessment should take into account all pertinent factors, including medical, mental and physical fitness for carriage on a commercial flight, willingness or unwillingness to travel, behavioural patterns and any history of violence;

“risk management (ICAO Annex 9)” means the systematic application of management procedures and practices which provide border inspection agencies with the necessary information to address movements or consignments which represent a risk;

“road” means an established surface route on the movement area meant for the exclusive use of vehicles;

“road-holding position” means a designated position at which vehicles may be required to hold;

“rocket” means a device which is propelled by ejecting expanding gasses generated in its motor from self-contained propellant and which is not dependent on the intake of outside substances and includes any part of the device intended to become separated during operation;

“rotorcraft” means a power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors;

“route and traffic orientation” means policies and procedures for the use of routes by aircraft [Regulation (EU) No 255/2010];

“route network” means a network of specified routes for channelling the flow of general air traffic as necessary for the provision of ATC services [Regulation (EC) No 549/2004];

“route segment” means a route or portion of route usually flown without an intermediate stop;

“route stage” means a route or portion of a route flown without an intermediate landing;

“routing” means the chosen itinerary to be followed by an aircraft during its operation [Regulation (EC) No 549/2004];

“routing directory” means a list in a communication centre indicating for each addressee the outgoing circuit to be used;

“RPA observer” means a trained and competent person designated by the operator who, by visual observation of the remotely piloted aircraft, assists the remote pilot in the safe conduct of the flight;

“runway” means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

“runway condition assessment matrix” (RCAM) means a matrix allowing the assessment of the runway condition code, using associated procedures, from a set of observed runway surface condition(s) and pilot report of braking action;

“runway condition code” (RWYCC) means a number describing the runway surface condition to be used in the runway condition report;

“runway condition report” (RCR) means a comprehensive standardized report relating to runway surface condition(s) and its effect on the aeroplane landing and take-off performance;

“runway end safety area” (RESA) means an area symmetrical about the extended runway centre line and adjacent to the end of the strip primarily intended to reduce the risk of damage to an aeroplane undershooting or overrunning the runway;

“runway guard lights” means a light system intended to caution pilots or vehicle drivers that they are about to enter an active runway;

“runway-holding position” means a designated position intended to protect a runway, an obstacle limitation surface, or an ILS/ MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorized by the aerodrome control tower;

“runway strip” means a defined area including the runway and stopway, if provided, intended:

- a) to reduce the risk of damage to aircraft running off a runway; and
- b) to protect aircraft flying over it during take-off or landing operations;

“runway surface condition(s)” means a description of the condition(s) of the runway surface used in the runway condition report which establishes the basis for the determination of the runway condition code for aeroplane performance purposes;

“runway turn pad” means a defined area on a land aerodrome adjacent to a runway for the purpose of completing a 180-degree turn on a runway;

“runway-type FATO” means a FATO having characteristics similar in shape to a runway;

“runway visual range” (RVR) means the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line;

“safe forced landing” means the unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface;

“safety” means the state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level;

“safety area” means a defined area on a heliport surrounding the FATO which is free of obstacles, other than those required for air navigation purposes, and intended to reduce the risk of damage to helicopters accidentally diverging from the FATO;

“safety data” means a defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety;

“safety information” means safety data processed, organized or analysed in a given context so as to make it useful for safety management purposes;

“safety investigation” means a process conducted by the AAIB for the purposes of accident and incident prevention, which includes the gathering and analysis of information, the drawing of conclusions (including the determination of causes and contributing factors) and, when appropriate, the making of safety recommendations;

“safety investigation authority” means the permanent national civil aviation safety investigation authority conducting or supervising safety investigations as referred to in Article 4 of Regulation (EU) (Retained) No 996/2010;

“safety management system” means a systematic approach to managing aviation safety including the necessary organisational structures, accountabilities, policies and procedures, and includes any management system that, independently or integrated with other management systems of the organisation, addresses the management of safety [Regulation (EU) No 376/2014];

“safety oversight” means a function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations;

“safety performance” means Gibraltar’s or an organisation’s safety achievement, as defined by its safety performance targets and safety performance indicator [Regulation (EU) No 2018/1139];

“safety performance indicator” means a data-based parameter used for monitoring and assessing safety performance;

“safety performance target” means the State or service provider’s planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives;

“safety recommendation” means a proposal of an accident investigation authority based on information derived from an investigation, made with the intention of preventing accidents or incidents and which in no case has the purpose of creating a presumption of blame or liability for an accident or incident. In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies;

“safety recommendation of global concern” (SRGC) means a safety recommendation regarding a systemic deficiency having a probability of recurrence, with significant consequences at a global level, and requiring timely action to improve safety;

“safety regulation” means the Basic Regulation and any implementing rule made under that Regulation;

“safety-related aerodrome equipment” means any instrument, equipment, mechanism, apparatus, appurtenance, software or accessory that is used or intended to be used to contribute to the safe operation of aircraft at an aerodrome [Regulation (EU) No 2018/1139];

Glossary of Terms

“safety-sensitive personnel” means persons who might endanger aviation safety if they perform their duties and functions improperly, including crew members, aircraft maintenance personnel, aerodrome operations personnel, rescue, fire-fighting and maintenance personnel, personnel allowed unescorted access to the movement area and air traffic controllers [Regulation (EU) No 2016/1135];

“sailplane” means a heavier-than-air aircraft which is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine, including also hang gliders, paragliders and other comparable craft [Regulation (EU) No 1178/2011];

“sample reference size” means the sample mass, 16.2 kg/m² of stained filter area, which if passed through the filter material results in a change of reflectance which gives a value of the SN parameter;

“sample size” means a chosen exhaust sample, the magnitude of whose mass (expressed in kilograms per square metre of stained filter surface area) lies in the range prescribed in 2.5.3 h) of ICAO Annex 16 volume 2 which, when passed through the filter material, causes a change in reflectance yielding a value for the SN parameter;

“sample volume” means the chosen sample volume (expressed in cubic metres) whose equivalent mass, calculated as indicated in ICAO Annex 16 volume 2 and conforms to the above definition of sample size;

“satellite-based augmentation system” (SBAS) means a wide coverage augmentation system in which the user receives augmentation information from a satellite-based transmitter;

“satisfactory evidence” means a set of documents or activities that a Contracting State accepts as sufficient to show compliance with an airworthiness requirement;

“scheduled journey” means one of a series of journeys which are undertaken between the same two places and which together amount to a systematic service;

“seaplane” means a fixed wing aircraft which is designed for taking off and landing on water and includes amphibians operated as seaplanes [Regulation (EU) No 965/2012];

“search” means an operation normally coordinated by a rescue coordination centre or rescue sub-centre using available personnel and facilities to locate persons in distress;

“search (Applicable to DME)” means the condition which exists when the DME interrogator is attempting to acquire and lock onto the response to its own interrogations from the selected transponder;

“search and rescue aircraft” means an aircraft provided with specialized equipment suitable for the efficient conduct of search and rescue missions;

“search and rescue facility” means any mobile resource, including designated search and rescue units, used to conduct search and rescue operations;

“search and rescue region” (SRR) means an area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided.

“Search and Rescue Service” means the performance of distress monitoring, communication, coordination and search and rescue functions, initial medical assistance or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations.

“search and rescue services unit” means a generic term meaning, as the case may be, rescue coordination centre, rescue sub-centre or alerting post;

“search and rescue unit” means a mobile resource composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations;

“secondary frequency” means the radiotelephony frequency assigned to an aircraft as a second choice for air-ground communication in a radiotelephony network;

“secondary surveillance radar” (SSR) means a surveillance radar system which uses transmitters/receivers (interrogators) and transponders;

“sector” means a part of a control area and/or part of a flight information region or upper region [Regulation (EC) No 549/2004];

“security equipment” means devices of a specialized nature for use, individually or as part of a system, in the prevention or detection of acts of unlawful interference with civil aviation and its facilities;

“segment” means a portion of a message that can be accommodated within a single MA/MB field in the case of a standard length message, or MC/MD field in the case of an extended length message. This term is also applied to the Mode S transmissions containing these fields;

“segregated parallel operations” means simultaneous operations on parallel or near-parallel instrument runways in which one runway is used exclusively for approaches and the other runway is used exclusively for departures;

“self-launching motor glider” means an aircraft with the characteristics of a non-power driven glider, which is fitted with one or more power units and which is designed or intended to take off under its own power;

“self organizing time division multiple access” (STDMA) means a multiple access scheme based on timeshared use of a radio frequency (RF) channel employing: (1) discrete contiguous time slots as the fundamental shared resource; and (2) a set of operating protocols that allows users to mediate access to these time slots without reliance on a master control station;

“self-propelled hang-glider” means an aircraft comprising an aerofoil 2009/008 wing and a mechanical propulsion device which—

- (a) is foot launched;
- (b) has a stall speed or minimum steady flight speed in the landing configuration not exceeding 35 knots calibrated airspeed; and,
- (c) has a maximum unladen mass, including full fuel, of 70kg;”.

“self-sustaining glider” means an aircraft with the characteristics of a non-power-driven glider which is fitted with one or more power units capable of sustaining the aircraft in flight but which is not designed or intended to take off under its own power;

“self-sustaining powered sailplane” means a powered aeroplane with available engine power which allows it to maintain level flight but not to take off under its own power;

“semi-automatic relay installation” means a teletypewriter installation where interpretation of the relaying responsibility in respect of an incoming message and the resultant setting-up of the connections required to effect the appropriate retransmissions require the intervention of an operator but where all other normal operations of relay are carried out automatically;

“sensitivity level” (S) means an integer defining a set of parameters used by the traffic advisory (TA) and collision avoidance algorithms to control the warning time provided by the potential threat and threat detection logic, as well as the values of parameters relevant to the RA selection logic;

“separate runways” means runways at the same aerodrome that are separate landing surfaces. These runways may overlay or cross in such a way that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway. Each runway shall have a separate approach procedure based on a separate navigation aid [Regulation (EU) No 965/2012];

“series of flights” means consecutive flights that:

- a) begin and end within a period of 24 hours; and
- b) are all conducted by the same pilot-in-command;

“serious incident” means an incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down;

“serious injury” means an injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation;

Glossary of Terms

“service data unit” (SDU) means a unit of data transferred between adjacent layer entities, which is encapsulated within a protocol data unit (PDU) for transfer to a peer layer;

“service flow” means a unidirectional flow of media access control layer (MAC) service data units (SDUs) on a connection that is providing a particular quality of service (QoS);

“service level agreement” (SLA) means the agreement between the C2CSP and the RPAS operator covering the safety, performance, service area and security of the C2 Link provision as required for the RPAS operator’s intended operations;

“service volume” means a part of the facility coverage where the facility provides a particular service in accordance with relevant SARPs and within which the facility is afforded frequency protection;

“shipboard heliport” means a heliport located on a ship that may be purpose or non-purpose-built. A purpose-built shipboard heliport is one designed specifically for helicopter operations. A non-purpose-built shipboard heliport is one that utilizes an area of the ship that is capable of supporting a helicopter but not designed specifically for that task;

“shoulder” means an area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface;

“SIGMET information” means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations;

“sign” means

- a) Fixed message sign. A sign presenting only one message.
- b) Variable message sign. A sign capable of presenting several predetermined messages or no message, as applicable;

“sign” in the Civil Aviation (Air Terminal) Regulations 2016 means any object or device (whether fixed or portable) for conveying warnings, information, requirements, restrictions or prohibitions of any description;

“signal area” means an area on an aerodrome used for the display of ground signals;

“signal reliability” means the probability that a signal-in-space of specified characteristics is available to the aircraft;

“sign a maintenance release (to)” means to certify that maintenance work has been completed satisfactorily in accordance with appropriate airworthiness requirements, by issuing the maintenance release referred to in ICAO Annex 6 (in the case of a release not issued by an approved maintenance organization) or ICAO Annex 8 (in the case of a release issued by an approved maintenance organization);

“significant” means in the context of medical provisions, significant means to a degree or of a nature that is likely to jeopardize flight safety;

Glossary of Terms

“significant point” means a specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes;

“simplex” means a method in which telecommunication between two stations takes place in one direction at a time;

“simulator” means a synthetic training device that presents the important features of the real operational environment and reproduces the operational conditions under which the person undertaking training can practice real-time tasks directly [Regulation (EU) No 2015/340];

“single channel simplex” means a Simplex using the same frequency channel in each direction;

“single window” means a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic then individual data elements should only be submitted once;

“slot” means one of a series of consecutive time intervals of equal duration. Each burst transmission starts at the beginning of a slot;

“slotted aloha” means a random access strategy whereby multiple users access the same communications channel independently, but each communication must be confined to a fixed time slot. The same timing slot structure is known to all users, but there is no other coordination between the users;

“slush” means a water-saturated snow which with a heel-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8;

“small balloon” means a balloon not exceeding 2 metres in any linear dimension at any stage of its flight, including any basket or other equipment attached to the balloon;

“small rocket” means a rocket of which the total impulse of the motor or combination of motors does not exceed 10,240 Newton-seconds;

“small unmanned aircraft” means any unmanned aircraft, other than a balloon or kite, having a mass of not more than 25kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of the flight;

“smoke” means the carbonaceous materials in exhaust emissions which obscure the transmission of light;

“smoke number” means the dimensionless term quantifying smoke emissions;

“SNOWTAM” means a special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area;

Glossary of Terms

“solo flight time” means the flight time during which a student pilot is the sole occupant of an aircraft;

“solo flight time — remotely piloted aircraft systems” means the flight time during which a student remote pilot is controlling the remotely piloted aircraft system, acting solo;

“sound attenuation coefficient” means the reduction in level of sound within a one-third octave band, in dB per 100 metres, due to the effects of atmospheric absorption of sound;

“sound incidence angle” means in degrees, an angle between the principal axis of the microphone and a line from the sound source to the centre of the diaphragm of the microphone;

“space weather centre” (SWXC) means a centre designated to monitor and provide advisory information on space weather phenomena expected to affect high-frequency radio communications, communications via satellite, GNSS-based navigation and surveillance systems and/or pose a radiation risk to aircraft occupants;

“spare (bits/words/fields)” means bits/words/fields that are not allocated or reserved, and which are available for future allocation;

“spare parts” means articles, including engines and propellers, of a repair or replacement nature for incorporation in an aircraft;

“special tasks service” means an air traffic control service—

- a) for any aircraft flying for the purposes of research and development of aircraft, aircraft equipment or aircraft systems which is not flying in accordance with normal aviation practice; and
- b) for other aircraft in the vicinity of any such aircraft;

“special VFR flight” means a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC;

“specific approval” means an approval which is documented in the operations specifications for commercial air transport operations or in the list of specific approvals for general aviation operations;

“specific air range” means the distance an aeroplane travels in the cruise flight phase per unit of fuel consumed;

“specified area” means any area of airspace that is notified by the Director;

“spot beam” means satellite antenna directivity whose main lobe encompasses significantly less than the earth’s surface that is within line-of-sight view of the satellite. May be designed so as to improve system resource efficiency with respect to geographical distribution of user earth stations;

“squitter protocol data unit” (SPDU) means a data packet which is broadcast every 32 seconds by

Glossary of Terms

an HFDL ground station on each of its operating frequencies, and which contains link management information;

“stabilised approach (SAp)” means an approach that is flown in a controlled and appropriate manner in terms of configuration, energy and control of the flight path from a pre-determined point or altitude/height down to a point 50 ft above the threshold or the point where the flare manoeuvre is initiated if higher [Regulation (EU) No 965/2012];

“stability” means the closeness with which repeated measurements upon a given invariant sample can be maintained over a given period of time;

“Standardised European Rules of the Air (SERA) Regulation” means Regulation (EU) No 923/2012 of the European Parliament as it had effect in domestic legislation on IP completion date and as amended by the European Union (Withdrawal) Act 2019, as the same may be amended from time to time;

“standard isobaric surface” means an isobaric surface used on a worldwide basis for representing and analysing the conditions in the atmosphere;

“standard length message” (SLM) means an exchange of digital data using selectively addressed Comm-A interrogations and/or Comm-B replies (see “Comm-A” and “Comm-B”);

“standard message element” means part of a message defined in the PANS-ATM (Doc 4444) in terms of display format, intended use and attributes;

“standard positioning service” (SPS) means the specified level of positioning, velocity and timing accuracy that is available to any global positioning system (GPS) user on a continuous, worldwide basis;

“standard UAT receiver” means a general purpose UAT receiver satisfying the minimum rejection requirements of interference from adjacent frequency distance measuring equipment (DME);

“state aircraft” means an aircraft carrying out military, customs, police, search and rescue, firefighting, coastguard or similar activities or services;

“state of design” means the State having jurisdiction over the organization responsible for the type design;

“state of destination” means the State in the territory of which the consignment is finally to be unloaded from an aircraft;

“state of manufacture” means the State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller;

“state of manufacture” means the State having jurisdiction over the organization responsible for the final assembly of the aircraft, remote pilot station, engine or propeller; (26 Nov 26)

“state of occurrence” means the State in the territory of which an accident or incident occurs;

“state of origin” means the State in the territory of which the consignment is first to be loaded on an aircraft;

“state of registry” means the State on whose register the aircraft is entered;

“state of the aerodrome” means the State in whose territory the aerodrome is located;

“state of the operator” means the State in which the operator’s principal place of business is located or, if there is no such place of business, the operator’s permanent residence;

“state of the principal location of a general aviation operator” means the State in which the operator of a general aviation aircraft has its principal place of business or, if there is no such place of business, its permanent residence;

“state pair” means a group of two States composed of a departing State or its territories and an arrival State or its territories;

“state safety programme” means an integrated set of legal acts and activities aimed at managing civil aviation safety [Regulation (EU) No 376/2014];

“state volcano observatory” means a volcano observatory, designated by regional air navigation agreement, to monitor active or potentially active volcanoes within a State and to provide information on volcanic activity to its associated area control centre/flight information centre, meteorological watch office and volcanic ash advisory centre;

“static load-bearing surface” means a surface capable of supporting the mass of a helicopter situated upon it;

“station declination” means an alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated;

“stopway” means a defined rectangular area on the ground at the end of take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off;

“stores (Supplies)” means stores (supplies) for consumption; and b) Stores (supplies) to be taken away;

“stores (Supplies) for consumption” means goods, whether or not sold, intended for consumption by the passengers and the crew on board aircraft, and goods necessary for the operation and maintenance of aircraft, including fuel and lubricants;

“stores (Supplies) to be taken away” means goods for sale to the passengers and the crew of aircraft with a view to being landed;

“strayed aircraft” means an aircraft which has deviated significantly from its intended track or which reports that it is lost [Regulation (EU) No 923/2012];

“SUA operator”, in relation to a small unmanned aircraft, is the person who has the management of the small unmanned aircraft;

“subnetwork” means an actual implementation of a data network that employs a homogeneous protocol and addressing plan, and is under the control of a single authority;

“subnetwork connection” means a long-term association between an aircraft DTE and a ground DTE using successive virtual calls to maintain context across link handoff;

“subnetwork dependent convergence function” (SNDCF) means a function that matches the characteristics and services of a particular subnetwork to those characteristics and services required by the internetwork facility;

“subnetwork entity” means in this document, the phrase “ground DCE” will be used for the subnetwork entity in a ground station communicating with an aircraft; the phrase “ground DTE” will be used for the subnetwork entity in a ground router communicating with an aircraft station; and, the phrase “aircraft DTE” will be used for the subnetwork entity in an aircraft communicating with the station. A subnetwork entity is a packet layer entity as defined in ISO 8208;

“subnetwork entry time” means the time from when the mobile station starts the scanning for BS transmission, until the network link establishes the connection, and the first network user “protocol data unit” can be sent;

“subnetwork layer” means the layer that establishes, manages and terminates connections across a subnetwork;

“subnetwork management entity” (SNME) means an entity resident within a GDLP that performs subnetwork management and communicates with peer entities in intermediate or end-systems;

“subnetwork service data unit” (SNSDU) means an amount of subnetwork user data, the identity of which is preserved from one end of a subnetwork connection to the other;

“subscriber station” (SS) means a generalized equipment set providing connectivity between subscriber equipment and a base station (BS);

“subsonic aeroplane” means an aeroplane incapable of sustaining level flight at speeds exceeding flight Mach number of 1;

“successful message reception” (SMR) means the function within the UAT receiver for declaring a received message as valid for passing to an application that uses received UAT messages;

“surface-level heliport” means a heliport located on the ground or on a structure on the surface of the water;

“surveillance” means the State activities through which the State proactively verifies through inspections and audits that aviation licence, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State;

“surveillance radar” means radar equipment used to determine the position of an aircraft in range and azimuth;

“surveillance services” means those facilities and services used to determine the respective positions of aircraft to allow safe separation [Regulation (EC) No 549/2004];

“switchover” means the act of transferring the active datalink path between the RPS and the RPA from one of the links or networks that constitutes the C2 Link to another link or network that constitutes the C2 Link;

“switch-over time (light)” means the time required for the actual intensity of a light measured in a given direction to fall from 50 per cent and recover to 50 per cent during a power supply changeover, when the light is being operated at intensities of 25 per cent or above;

“synchronous operation” means an operation in which the time interval between code units is a constant;

“synthetic vision system (SVS)” means a system to display data-derived synthetic images of the external scene from the perspective of the flight deck;

“synthetic training device” means any type of device by which operational conditions are simulated, including simulators and part-task trainers [Regulation (EU) No 2015/340];

“synthetic training device instructor (STDI) endorsement” means the authorisation entered on and forming part of a licence, indicating the competence of the holder to give instruction on synthetic training devices [Regulation (EU) No 2015/340];

“system” means a VDL-capable entity. A system comprises one or more stations and the associated VDL management entity. A system may either be an aircraft system or a ground system;

“system” means, for the purposes of Regulation (EC) No 549/2004, the aggregation of airborne and ground-based constituents, as well as space-based equipment, that provides support for air navigation services for all phases of flight;

“system efficiency” means the ratio of valid replies processed by the interrogator to the total of its own interrogations;

“System-wide information management (SWIM)”, Publi SWIM consists of standards, infrastructure and governance enabling the management of ATM related information and its exchange between qualified parties via interoperable information services;

“take-off and initial climb phase” means that part of the flight from the start of take-off to 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or to the end of the climb in the other cases;

“take-off decision point” (TDP) means the point used in determining take-off performance from which, an engine failure occurring at this point, either a rejected take-off may be made or a take-off safely continued;

“take-off flight path” means the vertical and horizontal path, with the critical engine inoperative, from a specified point in the take-off for aeroplanes to 1 500 ft above the surface and for helicopters to 1 000 ft above the surface [Regulation (EU) No 965/2012];

“take-off mass” means the mass including everything and everyone carried at the commencement of the take-off for helicopters and take-off run for aeroplanes [Regulation (EU) No 965/2012];

“take-off phase” means the operating phase defined by the time during which the engine is operated at the rated thrust;

“take-off runway” means a runway intended for take-off only;

“take-off surface” means that part of the surface of an aerodrome which the aerodrome authority has declared available for the normal ground or water run of aircraft taking off in a particular direction;

“target level of safety” (TLS) means a generic term representing the level of risk which is considered acceptable in particular circumstances;

“taxi/ground idle” means the operating phases involving taxi and idle between the initial starting of the propulsion engine(s) and the initiation of the take-off roll and between the time of runway turn-off and final shutdown of all propulsion engine(s);

“taxiing” means the movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing;

“taxi-route” means a defined path established for the movement of helicopters from one part of a heliport to another. A taxi-route includes a helicopter air or ground taxiway which is centred on the taxi-route;

“taxiway” means a defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

- a) Aircraft stand taxilane. A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
- b) Apron taxiway. A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.

c) Rapid exit taxiway. A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times;

“taxiway intersection” means a junction of two or more taxiways;

“taxiway strip” means an area including a taxiway intended to protect an aircraft operating on the taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway;

“tca” nominally means, the time of closest approach. For encounters in the standard encounter model (4.4.2.6), a reference time for the construction of the encounter at which various parameters, including the vertical and horizontal separation (vmd and hmd), are specified

“technical crew member” means a crew member in commercial air transport HEMS, HHO or NVIS operations other than a flight or cabin crew member, assigned by the operator to duties in the aircraft or on the ground for the purpose of assisting the pilot during HEMS, HHO or NVIS operations, which may require the operation of specialised on-board equipment [Regulation (EU) No 965/2012];

“technical harmonisation regulation” means Council Regulation (EEC) No. 3922/91 on the harmonisation of technical requirements and administrative procedures in the field of civil aviation, as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“technical instructions” means the Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council;

“telecommunication” means any transmission, emission, or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems;

“teletypewriter tape” means a tape on which signals are recorded in the 5-unit Start-Stop code by completely severed perforations (Chad Type) or by partially severed perforations (Chadless Type) for transmission over teletypewriter circuits;

“temporary admission” means the customs procedure under which certain goods can be brought into a customs territory conditionally relieved totally or partially from payment of import duties and taxes; such goods must be imported for a specific purpose and must be intended for re-exportation within a specified period and without having undergone any change except normal depreciation due to the use made of them;

“terminal arrival altitude” (TAA) means the lowest altitude that will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an arc of a circle defined by a 46 km (25 NM) radius centred on the initial approach fix (IAF), or where there is no IAF on the intermediate approach fix (IF), delimited by straight lines joining the extremity of the arc to the IF. The combined TAAs associated with an approach procedure shall account for an area of 360 degrees around the IF;

Glossary of Terms

“terminal control area” means a control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes;

“terrain” means the surface of the Earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles;

“tethered flight” means flight by a controllable balloon throughout which it is flown within limits imposed by a restraining device which attaches the balloon to the surface;

“third country” means any country or territory other than Gibraltar, except that the United Kingdom, the British Overseas Territories, the Channel Islands and the Isle of Man, are not within the meaning of third country for the purposes of Commission Regulation (EU) No 452/2014 laying down technical requirements and administrative procedures related to air operations of third country operators as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council as it had effect in domestic legislation on IP completion date and as the same may be amended from time to time;

“third-country aircraft” means any aircraft, other than a State aircraft, which is not used or operated under the control of the competent authority of a Member State;

“third country operator” means any operator holding an air operator certificate issued by another country, excluding the United Kingdom, the Crown Dependencies and the Overseas Territories;

“threat” means an intruder deserving special attention either because of its close proximity to own aircraft or because successive range and altitude measurements indicate that it could be on a collision or near-collision course with own aircraft. The warning time provided against a threat is sufficiently small that an RA is justified;

“threat management” means the process of detecting threats and responding to them with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states;

“threshold” means the beginning of that portion of the runway usable for landing;

“through flight” means a particular operation of aircraft, identified by the operator by the use throughout of the same symbol, from point of origin via any intermediate points to point of destination;

“tilt-rotor” means a powered-lift capable of vertical take-off, vertical landing, and sustained low-speed flight, which depends principally on engine-driven rotors mounted on tiltable nacelles for the lift during these flight regimes and on non-rotating aerofoil(s) for lift during high-speed flight;

“time constant (of a first order system)” means the time required for a device to detect and indicate $100 \times (1 - 1/e)$ per cent (about 63 per cent) of a step function change. (The mathematical constant, e , is the base number of the natural logarithm, approximately 2.7183 — also known as Euler’s number, or Napier’s constant);

“time difference of arrival” (TDOA) means the difference in relative time that a transponder signal from the same aircraft (or ground vehicle) is received at different receivers;

“time division duplex” (TDD) means a duplex scheme where uplink and downlink transmissions occur at different times but may share the same frequency;

“time division multiple access” (TDMA) means a multiple access scheme based on time-shared use of an RF channel employing: (1) discrete contiguous time slots as the fundamental shared resource; and (2) a set of operating protocols that allows users to interact with a master control station to mediate access to the channel;

“time division multiplex” (TDM) means a channel sharing strategy in which packets of information from the same source but with different destinations are sequenced in time on the same channel.
Threat;

“time-in-position” means the period of time when an air traffic controller is exercising the privileges of the air traffic controller’s licence at an operational position.
Events or errors that occur beyond the influence of an operational person, increase operational complexity and must be managed to maintain the margin of safety;

“time-average band sound pressure level” means in decibels, ten times the logarithm to the base ten, of the ratio of the time mean-square of the instantaneous sound pressure during a stated time interval and in a specified one-third octave band, to the square of the reference sound pressure of 20 μ Pa;

“timeout” means the cancellation of a transaction after one of the participating entities has failed to provide a required response within a pre-defined period of time;

“time-to-alert” means the maximum allowable time elapsed from the onset of the navigation system being out of tolerance until the equipment enunciates the alert;

“to land” in relation to aircraft includes alighting on the water;

““torn-tape” relay installation” means a teletypewriter installation where messages are received and relayed in teletypewriter tape form and where all operations of relay are performed as the result of operator intervention;

“total estimated elapsed time” means for IFR flights, the estimated time required from take-off to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights, the estimated time required from take-off to arrive over the destination aerodrome;

“total vertical error” (TVE) means the vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level);

Glossary of Terms

“total voice transfer delay” means the elapsed time commencing at the instant that speech is presented to the AES or GES and concluding at the instant that the speech enters the interconnecting network of the counterpart GES or AES. This delay includes vocoder processing time, physical layer delay, RF propagation delay and any other delays within an AMS(R)S subnetwork;

“touchdown” means the point where the nominal glide path intercepts the runway;

“touchdown and lift-off area” (TLOF) means a load bearing area on which a helicopter may touch down or lift off;

“touchdown/positioning circle” (TDPC) means a touchdown positioning marking (TDPM) in the form of a circle used for omnidirectional positioning in a TLOF;

“touchdown/positioning marking” (TDPM) means a marking or set of markings providing visual cues for the positioning of helicopters;

“touchdown zone” means the portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway;

“toy aircraft” means an unmanned aircraft designed or intended for use, whether or not exclusively, in play by children under 14 years of age [Regulation (EU) No 2016/1185];

“traceability” means ability to trace the history, application or location of that which is under consideration (ISO 9000);

“track” means the projection on the earth’s surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid);

“track (applicable to DME)” means the condition which exists when the DME interrogator has locked onto replies in response to its own interrogations, and is continuously providing a distance measurement;

“traffic advisory” (TA) means an indication given to the flight crew that a certain intruder is a potential threat;

“traffic avoidance advice” means advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision;

“traffic information” means information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision;

“traffic information service – broadcast (TIS-B) IN” means a surveillance function that receives and processes surveillance data from TIS-B OUT data sources;

“traffic information service – broadcast (TIS-B) OUT” means a function on the ground that periodically broadcasts the surveillance information made available by ground sensors in a format suitable for TISB IN capable receivers;

“traffic load” means the total mass of passengers, baggage, cargo and carry-on specialist equipment, including any ballast [Regulation (EU) No 965/2012];

“training course” means theoretical and/or practical instruction developed within a structured framework and delivered within a defined duration [Regulation (EU) No 2015/340];

“training organisation” means an organisation which has been certified by the competent authority to provide one or more types of training [Regulation (EU) No 2015/340];

“transfer of control point” means a defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next [Regulation (EU) No 923/2012];

“transit delay” means, in packet data systems, the elapsed time between a request to transmit an assembled data packet and an indication at the receiving end that the corresponding packet has been received and is ready to be used or forwarded;

“transition altitude” means the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes;

“transition level” means the lowest flight level available for use above the transition altitude [Regulation (EU) No 923/2012];

“transitioning aircraft” means an aircraft having an average vertical rate with a magnitude exceeding 400 feet per minute (ft/min), measured over some period of interest;

“transmission rate” means the average number of pulse pairs transmitted from the transponder per second;

“transponder mandatory zone (TMZ)” means an airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory [Regulation (EU) No 923/2012];

“transponder occupancy” means a state of unavailability of the transponder from the time it detects an incoming signal that appears to cause some action or from the time of a self-initiated transmission, to the time that it is capable of replying to another interrogation;

“transport-type state aircraft” means fixed wing State aircraft that are designed for the purpose of transporting persons and/or cargo [Regulation (EU) No 1079/2012];

“travel document” means a passport or other official document of identity issued by a State or organization, which may be used by the rightful holder for international travel;

“tributary station” means an aeronautical fixed station that may receive or transmit messages and/or digital data but which does not relay except for the purpose of serving similar stations connected through it to a communication centre;

“tropical cyclone” means a generic term for a non-frontal synoptic-scale cyclone originating over tropical or subtropical waters with organized convection and definite cyclonic surface wind circulation;

“tropical cyclone advisory centre” (TCAC) means a meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, world area forecast centres and international OPMET databanks regarding the position, forecast direction and speed of movement, central pressure and maximum surface wind of tropical cyclones;

“turn extent” means a heading difference defined as an aircraft’s ground heading at the end of a turn minus its ground heading at the beginning of the turn;

“two-frequency glide path system” means an ILS glide path in which coverage is achieved by the use of two independent radiation field patterns spaced on separate carrier frequencies within the particular glide path channel;

“two-frequency localizer system” means a localizer system in which coverage is achieved by the use of two independent radiation field patterns spaced on separate carrier frequencies within the particular localizer VHF channel.

“type certificate” means a document issued by a Contracting State to define the design of an aircraft, engine or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State;

“type certificate” means a document issued by a Contracting State to define the design of an aircraft, remote pilot station, engine or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State; (26 Nov 26)

“type design” means the set of data and information necessary to define an aircraft, engine or propeller type for the purpose of airworthiness determination.

“type design” means the set of data and information necessary to define an aircraft, remote pilot station, engine or propeller type for the purpose of airworthiness determination; (26 Nov 26)

“type rating” means a rating that entitles the holder of a pilot licence to act as pilot of an aircraft of the type specified in the rating and the holder of a flight engineer’s licence to act as flight engineer in an aircraft of the type specified in the rating;

“UAT ADS-B message” means a message broadcasted once per second by each aircraft to convey state vector and other information. UAT ADS-B messages can be in one of two forms depending on the amount of information to be transmitted in a given second: the Basic UAT ADS-B Message or the Long UAT ADS-B Message. UAT ground stations can support traffic information service-

Glossary of Terms

broadcast (TIS-B) through transmission of individual ADSB messages in the ADS-B segment of the UAT frame;

“UAT ground uplink message” means a message broadcasted by ground stations, within the ground segment of the UAT frame, to convey flight information such as text and graphical weather data, advisories, and other aeronautical information, to aircraft that are in the service volume of the ground station;

“uncontrollable balloon” means a balloon, not being a small balloon, which is not capable of free controlled flight;

“ultimate load” means the limit load multiplied by the appropriate factor of safety;

“unaccompanied baggage” means baggage that is transported as cargo and may or may not be carried on the same aircraft with the person to whom it belongs;

“unaccompanied minor” means a minor travelling alone or travelling only in the company of another minor;

“unaided NVIS flight” means, in the case of NVIS operations, that portion of a VFR flight performed at night when a crew member is not using NVG [Regulation (EU) No 965/2012];

“unburned hydrocarbons” means the total of hydrocarbon compounds of all classes and molecular weights contained in a gas sample, calculated as if they were in the form of methane;

“uncertainty phase” means a situation wherein uncertainty exists as to the safety of an aircraft and its occupants;

“unclaimed baggage” means baggage that arrives at an airport and is not picked up or claimed by a passenger;

“undertaking” means any natural or legal person, whether profit-making or not, or any official body whether having its own personality or not [Regulation (EU) No 965/2012];

“unidentified aircraft” means an aircraft which has been observed or reported to be operating in a given area but whose identity has not been established;

“unit load device” means any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo, but does not include an overpack;

“universal access transceiver” (UAT) means a broadcast data link operating on 978 MHz, with a modulation rate of 1.041667 Mbps;

“unmanned free balloon” means a non-power-driven, unmanned, lighter-than-air aircraft in free flight;

“unidentified baggage” means baggage at an airport, with or without a baggage tag, which is not picked up by or identified with a passenger;

“unit endorsement” means the authorisation entered on and forming part of a licence, indicating the ICAO location indicator and the sector, group of sectors or working positions where the licence holder is competent to work [Regulation (EU) No 2015/340];

“unlading” means the removal of cargo, mail, baggage or stores from an aircraft after a landing;

“UN number” means the four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances;

“unit load device” means any type of container or pallet designed for loading onto an aircraft but does not include a freight container for radioactive materials or an overpack;

“unmanned aircraft” means any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board [Regulation (EU) No 2018/1139];

“updated flight position” means aircraft position, updated by surveillance data, flight plan data or position reports [Regulation (EU) No 255/2010];

“upgrade” means any modification that changes the operational characteristics of a system [Regulation (EC) No 549/2004];

“uplink” means a term referring to the transmission of data from the ground to an aircraft. Mode S ground-to-air signals are transmitted on the 1 030 MHz interrogation frequency channel;

“uplink ELM (UELM)” means a term referring to extended length uplink communication by means of 112-bit Mode S CommC interrogations, each containing the 80-bit Comm-C message field (MC);

“upper-air chart” means a meteorological chart relating to a specified upper-air surface or layer of the atmosphere;

“usability factor” means the percentage of time during which the use of a runway or system of runways is not restricted because of the crosswind component;

“user group” means a group of ground and/or aircraft stations which share voice and/or data connectivity. For voice communications, all members of a user group can access all communications. For data, communications include point-to-point connectivity for air-to-ground messages, and point-to-point and broadcast connectivity for ground-to-air messages;

“V1” means the maximum speed in the take-off at which the pilot must take the first action to stop the aeroplane within the accelerate-stop distance. V1 also means the minimum speed in the take-off, following a failure of the critical engine at VEF, at which the pilot can continue the take-off and

achieve the required height above the take-off surface within the take-off distance [Regulation (EU) NO 965/2012];

“ V_{EF} ” means the speed at which the critical engine is assumed to fail during take-off [Regulation (EU) NO 965/2012];

“validation” means a process by which, through the successful completion of a unit endorsement course associated to a rating or a rating endorsement, the holder may start exercising the privileges of that rating or rating endorsement [Regulation (EU) No 2015/340];

“validation (applicable to telecommunications)” means the process of verifying the relative position of an intruder using passive information via 1 090 MHz extended squitter by comparing it to the relative position obtained by ACAS active interrogation;

“valuable consideration” means any right, interest, profit or benefit, forbearance, detriment, loss or responsibility accruing, given, suffered or undertaken under an agreement, which is of more than a nominal nature;

“VDL management entity” (VME) means a VDL-specific entity that provides the quality of service requested by the ATN-defined SN_SME. A VME uses the LMEs (that it creates and destroys) to enquire the quality of service available from peer systems;

“VDL mode 4 burst” means a VHF digital link (VDL) Mode 4 burst is composed of a sequence of source address, burst ID, information, slot reservation and frame check sequence (FCS) fields, bracketed by opening and closing flag sequences;

“VDL mode 4 DLS system” means a VDL system that implements the VDL Mode 4 DLS and subnetwork protocols to carry ATN packets or other packets;

“VDL mode 4 specific services (VSS) Sublayer” means the sublayer that resides above the MAC sublayer and provides VDL Mode 4 specific access protocols including reserved, random and fixed protocols;

“VDL station” means an aircraft based or ground based physical entity, capable of VDL Mode 2, 3 or 4;

“vectoring” means the provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system;

“verification” means the confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000);

“verification body” means a legal entity that performs the verification of an Emissions Report and, when required, an Emissions Unit Cancellation Report, as an accredited independent third party;

“verification of report” means an independent, systematic and sufficiently documented evaluation process of an emissions report and, when required, a cancellation of eligible emissions units report;

Glossary of Terms

“verification report” means a document, drafted by the verification body, containing the verification statement and required supporting information;

“verification team” means a group of verifiers, or a single verifier that also qualifies as a team leader, belonging to a verification body conducting the verification of an Emissions Report and, when required, an Emissions Unit Cancellation Report. The team can be supported by technical experts;

“vertical miss distance (vmd)” notionally means, the vertical separation at closest approach. For encounters in the standard encounter model (4.4.2.6), by construction the vertical separation at the time tca;

“vertical speed limit (VSL) RA” means a resolution advisory advising the pilot to avoid a given range of altitude rates. A VSL RA can be either corrective or preventive;

“VFR” means the symbol used to designate the visual flight rules;

“VFR flight” means a flight conducted in accordance with the visual flight rules;

“VHF digital link” (VDL) means a constituent mobile subnetwork of the aeronautical telecommunication network (ATN), operating in the aeronautical mobile VHF frequency band. In addition, the VDL may provide non-ATN functions such as, for instance, digitized voice;

“victim”, for the purposes of Article 15(4) and (5) of Regulation 996/2010, means any person who suffers a fatal injury or a serious injury in any of the circumstances described in Article 2(1)(a) of that Regulation and for the purposes of this definition “fatal injury” and “serious injury” have the same meanings given by Article 2 of that Regulation;

“virtual origin” means the point at which the straight line through the 30 per cent and 5 per cent amplitude points on the pulse leading edge intersects the 0 per cent amplitude axis;

“visibility” means the visibility for aeronautical purposes is the greater of:

- a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;
- b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background;

“visiting force” means any such body, contingent or detachment of the forces of any country as is a visiting force for the purpose of the provisions of the United Kingdom’s Visiting Forces Act 1952—

- a) which apply to that country by virtue of paragraph (a) of section 1(1) of that Act; or
- b) which from time to time apply to that country by virtue of paragraph (b) of the said section 1(1) and of any Order in Council made or hereafter to be made under the said section 1 designating that country for the purposes of all the provisions of that Act following section 1(2) of that Act;

“visitor” means any person who disembarks and enters the territory of a Contracting State other than that in which that person normally resides; remains there lawfully as prescribed by that Contracting State for legitimate non-immigrant purposes, such as touring, recreation, sports, health,

family reasons, religious pilgrimages, or business; and does not take up any gainful occupation during his stay in the territory visited;

“visual approach” means an approach when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain [Regulation (EU) No 965/2012];

“visual approach procedure” means a series of predetermined manoeuvres by visual reference, from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, a go-around procedure can be carried out;

“visual flight rules” means Visual Flight Rules prescribed by Section 5 of SERA and Section 4 of the Rules of the Air 2014;

“visual line-of-sight (VLOS) operation” means an operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the remotely piloted aircraft;

“visual meteorological conditions” means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima;

“VMC” means the symbol used to designate visual meteorological conditions;

“vocoder” means a low bit rate voice encoder/decoder;

“voice-automatic terminal information service (Voice-ATIS)” means the provision of ATIS by means of continuous and repetitive voice broadcasts

“voice unit” means a device that provides a simplex audio and signalling interface between the user and VDL;

“volcanic ash advisory centre” (VAAC) means a meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, area control centres, flight information centres, world area forecast centres and international OPMET databanks regarding the lateral and vertical extent and forecast movement of volcanic ash in the atmosphere;

“VOLMET” means meteorological information for aircraft in flight.

Data link-VOLMET (D-VOLMET). Provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link. VOLMET broadcast. Provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts;

“VSS user” means a user of the VDL Mode 4 specific services. The VSS user could be higher layers in the VDL Mode 4 SARPs or an external application using VDL Mode 4;

Glossary of Terms

“VTOSS” means the minimum speed at which climb shall be achieved with the critical engine inoperative, the remaining engines operating within approved operating limits;

“warning time” means the time interval between potential threat or threat detection and closest approach when neither aircraft accelerates;

“waypoint” means a specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either:

Fly-by waypoint. A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure; or

Flyover waypoint. A waypoint at which a turn is initiated in order to join the next segment of a route or procedure;

“wet lease agreement” means an agreement between air carriers pursuant to which the aircraft is operated under the AOC of the lessor [Regulation (EU) No 965/2012];

“wet runway” means a runway of which the surface is covered with water, or equivalent, less than specified by the ‘contaminated runway’ definition or when there is sufficient moisture on the runway surface to cause it to appear reflective, but without significant areas of standing water [Regulation (EU) No 965/2012];

“wide area multilateration (WAM) System” means a multilateration system deployed to support en-route surveillance, terminal area surveillance and other applications such as height monitoring and precision runway monitoring (PRM);

“winching area” means an area provided for the transfer by helicopter of personnel or stores to or from a ship;

“windscreen insertion loss” means, in decibels, at a stated nominal one-third octave midband frequency, and for a stated sound incidence angle on the inserted microphone, the indicated sound pressure level without the windscreen installed around the microphone minus the sound pressure level with the windscreen installed;

“world area forecast centre” (WAFC) means a meteorological centre designated to prepare and issue significant weather forecasts and upper-air forecasts in digital form on a global basis direct to States using the aeronautical fixed service Internet-based services;

“world area forecast system” (WAFS) means a worldwide system by which world area forecast centres provide aeronautical meteorological en-route forecasts in uniform standardized formats.

“working position” means the furniture and technical equipment at which a member of the air traffic services (‘ATS’) staff undertakes the tasks associated with his operational responsibilities [Regulation (EU) No 1079/2012];

“XDCE” means a general term referring to both the ADCE and the GDCE;

“XDLP” means a general term referring to both the ADLP and the GDLP;

Glossary of Terms

“Z marker beacon” means a type of radio beacon, the emissions of which radiate in a vertical cone-shaped pattern;

“zero drift” means the time-related deviation of instrument output from zero set point when it is operating on gas free of the component to be measured.

“zero gas” means a gas to be used in establishing the zero, or no-response, adjustment of an instrument;