



Republic of the Philippines  
**CIVIL AVIATION AUTHORITY OF THE PHILIPPINES**

MEMORANDUM CIRCULAR NO. 01-2022

TO : ALL CONCERNED

FROM : THE DIRECTOR GENERAL

SUBJECT : AMENDMENT TO PHILIPPINE CIVIL AVIATION  
REGULATIONS

RE: CONSOLIDATION AND UPDATING OF ALL  
DEFINITION OF TERMS FOUND IN PCAR TO PCAR PART  
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**REFERENCES:**

1. PCAR PARTS 1 – 10, 13 and 18
2. Regulations Amendment/Revision Procedure
3. Board Resolution No. 2012-054 dated 28 September 2012

Pursuant to the powers vested on the Director General of the Civil Aviation Authority of the Philippines under Republic Act No. 9497, otherwise known as the Civil Aviation Authority Act of 2008 and in accordance with the Regulations Amendment/Revision Procedure with Board Resolution No. 2012-054 dated 28 September 2012, I hereby approve the incorporation of the following amendments to the Philippine Civil Aviation Regulations Part 1.

**AMENDED REGULATIONS**

**PHILIPPINE CIVIL AVIATION REGULATIONS PART 1**

**APPENDIX A: DEFINITIONS**

When the following terms are used in these regulations, they shall have the following meanings:

**Academic training.** Training that places an emphasis on studying and reasoning designed to enhance knowledge levels of a particular subject, rather than to develop specific technical or practical skills.



*Accelerate-stop distance available (ASDA).* The length of the take-off run available plus the length of stopway, if provided.

*Acceptance checklist.* 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.

*Accepting unit.* 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 flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which –

(i) A person is fatally or seriously injured as a result of–

(A) being in the aircraft;

(B) Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or

(C) Direct exposure to jet blast, except where the injuries arise from natural causes, self-inflicted or inflicted by other persons, or where the person injured is a stowaway hiding outside the areas normally available to the passengers and crew;

(ii) The aircraft sustains damage or structural failure which—

(A) Adversely affects the structural strength, performance or flight characteristics of the aircraft, and

(B) 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), for minor damages to main rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

(iii) The aircraft is missing or is completely inaccessible



*Note 1. 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.*

*Note 2. An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.*

*Note 3. The type of unmanned aircraft system to be considered for investigation is only those with a design and/or operational approval.*

*Note 4. The guidance for the determination of aircraft damage as accident is found in Attachment G of Annex 13 to the Convention on International Civil Aviation, Tenth Edition July 2010.*

~~**Accident.** An occurrence associated with the operation of an aircraft which takes place between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, 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 the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or~~

~~(c) the aircraft is missing or is completely inaccessible.~~

**Accident investigation authority.** The authority designated by a State as responsible for aircraft accident and incident investigations within the context of PCAR Part 13.

**Accountable executive.** The individual who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard



required by the civil aviation authority (CAA), and any additional requirements defined by the approved training organization.

**Accountable Manager.** The person acceptable to the Authority who has corporate authority for ensuring that all activities can be financed and carried out to the standard required by the Authority and any additional requirements defined by the operator. The accountable manager may delegate in writing to another person within the organisation the day-to-day management, but not the overall approval management responsibility.

**Accounting management.** An ATN systems management facility to monitor users for use of network resources and to limit the use of those resources.

**Accredited medical conclusion.** 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 Contracting State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State. Where the State has established an accident investigation authority, the designated accredited representative would normally be from that Authority.

**Accuracy.** A degree of conformance between the estimated or measured value and the true value.

**Acrobatic flight.** Maneuvers intentionally performed by an aircraft involving an abrupt change in its altitude, an abnormal altitude, or an abnormal variation in speed.

**ADS agreement.** An ADS reporting plan which establishes the conditions of ADS data reporting (i.e. data required by the air traffic services unit and frequency of ADS reports which have to be agreed to prior to the provision of the ADS services).

**ADS application.** An ATN application that provides ADS data from the aircraft to the ATS unit(s) for surveillance purposes.

**ADS contract.** A means by which the terms of an ADS agreement will be exchanged between the ground system and the aircraft, specifying under what conditions ADS reports would be initiated, and what data would be contained in the reports.

**ADS-C agreement.** 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).

**Adviser/Advisor.** means a person appointed by a Contracting State, on the basis of his or her qualifications, for the purpose of assisting its accredited representative in an investigation conducted by another State.

**Advisory airspace.** An airspace of defined dimensions, or designated route, within which air traffic advisory service is available.

**Advisory route.** A designated route along which air traffic advisory service is available.

**Aerial work.** 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.

**Aerodrome.** The preferred spelling is Airport however the meaning is identical except the spelling. See Airport entries below.

**Aerodynamic stall.** An aerodynamic loss of lift caused by exceeding the critical angle of attack (synonymous with the term 'stall').

**Aeronautical Administrative Communication (AAC).** Communication used by aeronautical operating agencies related to the business aspects of operating their flights and transport services. This communication is used for a variety of purposes, such as flight and ground transportation, bookings, deployment of crew and aircraft or any other logistical purposes that maintain or enhance the efficiency of over-all flight operation.

**Aeronautical broadcasting service.** A broadcasting service intended for the transmission of information relating to air navigation.

**Aeronautical chart.** A representation of a portion of the earth, its culture and relief, specifically designated to meet the requirements of air navigation.

**Aeronautical fixed circuit.** A circuit forming part of the aeronautical fixed service (AFS).

**Aeronautical Fixed Service (AFS).** 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.** A station in the aeronautical fixed service.



***Aeronautical Fixed Telecommunication Network (AFTN).*** 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.*** A circuit forming part of the aeronautical fixed telecommunication network (AFTN).

***Aeronautical Information Publication (AIP).*** A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

***Aeronautical meteorological station.*** A station designated to make observations and meteorological reports for use in international air navigation.

***Aeronautical Information Publication (AIP),*** means the publication issued by the Authority in accordance with ICAO Annex 15.

***Aeronautical mobile (R)\* service (RR S1.33).*** An aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

***Aeronautical mobile service (RR S1.32).*** 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-satellite (R)\* service (RR S1.36).*** An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

***Aeronautical mobile-satellite service (RR S1.35).*** 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 Operational Control (AOC).*** Communication required for the exercise of authority over the initiation, continuation, diversion or termination of flight for safety, regularity and efficiency reasons.

***Aeronautical Passenger Communication (APC).*** Communication relating to the non-safety voice and data services to passengers and crew members for personal communication.



***Aeronautical radio navigation service (RR S1.46).*** A radio navigation service intended for the benefit and for the safe operation of aircraft.

***Aeronautical station (RR S1.81).*** 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.*** An agency responsible for operating a station or stations in the aeronautical telecommunication service.

***Aeronautical telecommunication log.*** A record of the activities of an aeronautical telecommunication station.

***Aeronautical Telecommunication Network (ATN).*** An internetwork architecture that allows ground, air-ground and avionic data sub networks to interoperate by adopting common interface services and protocols based on the International Organization for Standardization (ISO) Open Systems Interconnection (OSI) reference model.

***Aeronautical telecommunication service.*** A telecommunication service provided for any aeronautical purpose

***Aeronautical telecommunication station.*** A station in the aeronautical telecommunication service.

***Aeroplane.*** The preferred spelling is airplane however the meaning is identical except for the spelling. See airplane below

***Aeroplane upset.*** An airplane in flight unintentionally exceeding the parameters normally experienced in line operations or training, normally defined by the existence of at least one of the following parameters:

- a) pitch attitude greater than 25 degrees, nose up; or
- b) pitch attitude greater than 10 degrees, nose down; or
- c) bank angle greater than 45 degrees; or
- d) within the above parameters, but flying at airspeeds inappropriate for the conditions.

***Airborne collision avoidance system (ACAS).*** 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.



**Agricultural aircraft operation.** The operation of an aircraft for the purpose of—

- (a) Dispensing any economic poison,
- (b) Dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control, or
- (c) Engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects.

**AFTN communication centre.** 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.** An AFTN station to which messages and/or digital data are addressed for processing for delivery to the addressee.

**AFTN origin station.** An AFTN station where messages and/or digital data are accepted for transmission over the AFTN.

**AFTN station.** A station forming part of the aeronautical fixed telecommunication network (AFTN) and operating as such under the authority or control of a State.

**AIDC application.** An ATN application dedicated to exchanges between ATS units (ATSUs) of air traffic control (ATC) information in support of flight notification, flight coordination, transfer of control, transfer of communication, transfer of surveillance data and transfer of general data.

**Aircraft.** 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.** 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.** A term designating any electronic device, including its electrical part for use in an aircraft, including radio, automatic flight control and instrument systems.

**Aircraft category.** Classification of aircraft according to specified basic characteristics; e.g. airplane, helicopter, glider, free balloon.

**Aircraft certificated for multi-pilot operation.** A type of aircraft which the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of two pilots.



*Note: During the certification process, the State of Registry may issue a certificate of airworthiness designating an aircraft for single-pilot operation based upon the Type Certificate issued by the State of Design, but might also require that the same aircraft be operated by more than one pilot under certain conditions, such as use in air transportation. (See Part 8 paragraph 8.4.1.1)*

***Aircraft certificated for single-pilot operation.*** 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 Earth Station (AES).*** A mobile earth station in the aeronautical mobile-satellite service located on board an aircraft (see also "GES").

***Aircraft observation.*** The evaluation of one or more meteorological elements made from an aircraft in flight.

***Aircraft operating agency.*** The person, organization or enterprise engaged in, or offering to engage in, an aircraft operation.

***Aircraft operating manual.*** 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.

*Note. - The aircraft operating manual is part of the operations manual.*

***Air defense identification zone.*** 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).

***Aircraft - type of.*** 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 required to be operated with a co-pilot.*** 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.*** A designated area on an apron intended to be used for parking an aircraft.



**Aircraft tracking.** 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.

**Air-ground communication.** Two-way communication between aircraft and stations or locations on the surface of the earth.

**Air-report.** A report from an aircraft in flight prepared in conformity with requirements for position, and operational and/ or meteorological reporting.

**Air-to-ground communication.** One-way communication from aircraft to stations or locations on the surface of the earth.

**Air navigation facility.** Any facility used in, available for use in, or designed for use in aid of air navigation, including airports, landing areas, lights, any apparatus or equipment for disseminating weather information, for signaling, for radio directional finding, or for radio or other electrical communication, and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing and take-off of aircraft.

**Air Operator Certificate (AOC).** A certificate authorizing an operator to carry out specified commercial air transport operations.

**Aircraft (airplane) flight manual.** 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.

**Aircraft station (RR S1.83).** A mobile station in the aeronautical mobile service, other than a survival craft station, located on board an aircraft.

**Aircraft technical log.** A document attached to an aircraft for recording defects and malfunctions discovered during operation and for recording details of all maintenance carried out whilst the aircraft is operating between scheduled visits to the base maintenance facility. It also contains operating information relevant to flight safety and maintenance data that the operating crew need to know.

**Air-ground control radio station.** An aeronautical telecommunication station having primary responsibility for handling communications pertaining to the operation and control of aircraft in a given area.

**Airman.** Any individual who engages, as the person in command or as pilot, mechanic, aeronautical engineer, flight radio operator or member of the crew, in the navigation of aircraft while underway and any individual who is directly in charge of



inspection, maintenance, overhauling, or repair of aircraft, aircraft engine, propellers, or appliances; and individual who serves in the capacity of aircraft dispatcher or air traffic control operator.

*Airmanship.* The consistent use of good judgment and well-developed knowledge, skills and attitudes to accomplish flight objectives.

*AIRMET information.* 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.

*Airplane (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.

*Airplane Upset Prevention and Recovery Training (UPRT).* A combination of theoretical knowledge and flying training with the aim of providing flight crew with the required competencies to prevent or recover from developing or developed airplane upsets.

*Airplane upset.* An undesired airplane state characterized by unintentional divergences from parameters normally experienced during operations. An airplane upset may involve pitch and/or bank angle divergences as well as inappropriate airspeeds for the conditions.

*Note: Airplane upset 'prevention training' means a combination of theoretical knowledge flying training with the aim to provide flight crew with the required competencies to prevent developing airplane upsets.*

*Airplane 'recovery training' means a combination of theoretical knowledge and flying training with the aim to provide flight crew with the required competencies to recover from developed airplane upsets.*

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

*Airport climatological summary.* Concise summary of specified meteorological elements at an aerodrome, based on statistical data.

*Airport climatological table.* Table providing statistical data on the observed occurrence of one or more meteorological elements at an airport.



*Airport control radio station.* A station providing radio-communication between an aerodrome control tower and aircraft or mobile aeronautical stations.

*Airport control service.* Air traffic control service for Airport traffic.

*Airport control tower.* A unit established to provide air traffic control service to Airport traffic.

*Airport elevation.* The elevation of the highest point of the landing area.

*Airport meteorological office.* An office, located at an Airport, designated to provide meteorological service for international air navigation.

*Airport operating minima.* The limits of usability of an airport 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
- (c) *landing in 3D instrument approach* operations expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) appropriate to the type and/or category of the operation.

*Air taxiway.* A defined path on the surface established for the air taxiing of helicopters.

*Air traffic advisory service.* 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.* Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.

*Air Traffic Safety Electronic Personnel.* also known as CNS Systems Officer in the CAAP.

*Air traffic.* All aircraft in flight or operating on the maneuvering area of an Airport.

*Airport reference point.* The designated geographical location of an airport.



**Airport traffic zone.** An airspace of defined dimensions established around an airport for the protection of airport traffic.

**Airport traffic.** All traffic on the maneuvering area of an airport and all aircraft flying in the vicinity of an airport.

**Airship.** A power-driven lighter-than-air aircraft.

**Air-taxiing.** Movement of a helicopter/VTOL above the surface of an Airport, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt).

**Air traffic control service.** A service provided for the purpose of:

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

**Air traffic control unit.** A generic term meaning variously, area control centre, approach control unit or Airport control tower.

**Air Traffic Flow Management (ATFM).** 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 service.** 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 transit route.** A defined path on the surface established for the air transiting of helicopters.

**Air traffic services airspaces.** 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 services reporting office.** A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

**Air traffic services unit.** A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

**Airship.** A power-driven lighter than air aircraft.



**Airway.** A control area or portion thereof established in the form of a corridor.

**Airworthy.** The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

**ALERFA.** The code word used to designate an alert phase.

**Alert phase.** A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

**Alerting service.** A service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

**Alternate airport/aerodrome/heliport.** An airport/heliport to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the airport/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 airports/heliports include the following:

- (a) **Take-off alternate.** An alternate airport/heliport 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 airport/heliport of departure.
- (b) **En-route alternate.** An alternate airport/heliport at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.
- (c) **Destination alternate.** An alternate airport/heliport at which an aircraft would be able to land should it become either impossible or inadvisable to land at the airport/heliport of intended landing.

**Alternative means of communication.** A means of provided with equal status, and in addition to the primary means.

**Altimetry system error (ASE).** 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.** The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

**Anticipated operating conditions.** 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.

**Angle of Attack (AOA).** Angle of attack is the angle between the oncoming air, or relative wind, and a defined reference line on the aeroplane or wing.

**Annex 13.** means Annex 13 to the Chicago Convention on International Civil Aviation as amended from time to time by the Council of the ICAO.

**Application.** Manipulation and processing of data in support of user requirements (ISO 19104\*).

**Application.** The ultimate use of an information system, as distinguished from the system itself.

**Application Entity (AE).** Part of an application process that is concerned with communication within the OSI environment. The aspects of an application process that need to be taken into account for the purposes of OSI are represented by one or more AEs.

**Application information.** Refers to the application names (e.g. AE qualifiers such as ADS and CPC), version numbers, and addresses (the long or short TSAP, as required) of each application.

**Approach-to-stall.** Flight conditions bordered by stall warning and aerodynamic stall.

**Approach control service.** Air traffic control service for arriving or departing controlled flights.

**Approach control unit.** A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more airports.



**Approach and landing phase — helicopters.** 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 balked landing point.

**Approach procedure with vertical guidance (APV).** A performance-based on navigation systems (ILS, MLS, GLS and SBAS Cat I) designed for 3D instrument approach operations Type A or B.

*Note: Refer to Subsection 8.8.1.7 paragraph (f) for instrument approach operation types.*

**Appropriate airworthiness requirements.** The comprehensive and detailed airworthiness codes established, adopted or accepted by Republic of the Philippines for the class of aircraft, engine or propeller under consideration.

**Appropriate ATS authority.** The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.

**Appropriate Authority.**

- (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 over flown.

**Appropriate National Authority.** Any authority designated, or otherwise recognized by a State to perform specific functions related to provisions contained in the ICAO Technical Instructions.

**Approval.** An authorization granted by an appropriate national authority for:

- (a) 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
- (b) other purposes as provided for in the Technical Instructions.

*Note: In the absence of a specific reference in the Technical Instructions allowing the granting of an approval, an exemption may be sought.*

**Approved.** Means approved by or on behalf of the Civil Aviation Authority in accordance with the pertinent requirements of national regulations.



**Approved data.** Technical information approved by the Authority.

**Approved maintenance organization.** An organization approved by the Philippine authority, in accordance with the requirements of Annex 6, Part I, Chapter 8 – Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by the Philippine Republic.

*Note. — Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.*

**Approved training.** Training conducted under special curricula and supervision approved by the Authority.

**Approved training organization.** An organization approved by and operating under the supervision of this Authority in accordance with the requirements of PCAR to perform approved training.

**Apron.** A defined area, on a land airport, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

**Area control centre.** A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.

**Area control service.** Air traffic control service for controlled flights in control areas.

**Area Minimum Altitude (AMA).** 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).** 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.

*Note: Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation.*

**Area navigation route.** An ATS route established for the use of aircraft capable of employing area navigation.

**Arrival routes.** 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.** Any item, including but not limited to, an aircraft; airframe, aircraft engine, propeller, appliance, accessory, assembly, subassembly, system, subsystem, component, unit, product or part.

**Assessment.** The determination as to whether a candidate meets the requirements of the expected performance standard.

**ATIS application.** A FIS application that supports the D-ATIS.

**ATN directory services (DIR).** A service which provides the capability for an application entity or user in the ATN community to query a distributed directory data base and retrieve addressing, security and technical capabilities information relating to other users or entities within the ATN community.

**ATN security services.** 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.

**ATN Systems Management (SM).** A collection of facilities to control, coordinate and monitor the resources which allow communications to take place in the ATN environment. These facilities include fault management, accounting management, configuration management, performance management and security management.

**ATS Communications (ATSC).** Communication related to air traffic services including air traffic control, aeronautical and meteorological information, position reporting and services related to safety and regularity of flight. This communication involves one or more air traffic service administrations. This term is used for purposes of address administration.

**ATS direct speech circuit.** An aeronautical fixed service (AFS) telephone circuit, for direct exchange of information between air traffic services (ATS) units.

**ATS Interfacility Data Communication (AIDC).** Automated data exchange between air traffic services units, particularly in regard to co-ordination and transfer of flights.

**ATS Message Handling Service (ATSMHS).** 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.

**ATS Message Handling System (AMHS).** The set of computing and communication resources implemented by ATS organizations to provide the ATS message handling service.



**ATS route.** A specified route designed for channeling the flow of traffic as necessary for the provision of air traffic services.

**ATS surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.

**ATS Unit (ATSU).** A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

**Authentication.** A process used to ensure the identity of a person/user/network entity.

**Authorized path.** A communication path that the administrator(s) of the routing domain(s) has pre-defined as suitable for a given traffic type and category.

**Autoflight systems.** The autopilot, autothrottle (or autothrust), and all related systems that perform automatic flight management and guidance.

**Automatic Dependent Surveillance (ADS).** A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position and additional data as appropriate.

**Automatic Dependent Surveillance - Broadcast (ADS-B).** 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.** A function on an aircraft or vehicle that periodically broadcasts its state vector (position and velocity) and other information derived from on-board systems in a format suitable for ADS-B IN capable receivers.

**Automatic Dependent Surveillance - Broadcast (ADS-B) IN.** A function that receives surveillance data from ADS-B OUT data sources.

**Automatic Dependent Surveillance - Contract (ADS-C).** 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 deployable flight recorder (ADFR).** A combination flight recorder installed on the aircraft which is capable of automatically deploying from the aircraft.



*Note.* — See ICAO Annex 6 — Operation of Aircraft, Parts I, II and III, for specifications relating to flight recorders.

**ATS surveillance service.** A term used to indicate a service provided directly by means of an ATS surveillance system.

**ATS surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.

*Note* — A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than mono-pulse SSR.

**Automatic relay installation.** A teletypewriter installation where automatic equipment is used to transfer messages from incoming to outgoing circuits.

**Automatic telecommunication log.** A record of the activities of an aeronautical telecommunication station recorded by electrical or mechanical means.

**Automatic Terminal Information Service (ATIS).** 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.

**Authority.** Refers to the Civil Aviation Authority of the Philippines pursuant to the Republic Act 9497 also known as the Civil Aviation Authority of the Philippines Act 2008.

**Baggages.** Means personal property of passengers or crew carried on an aircraft by agreement with the operator.

**Behaviour.** The way a person responds, either overtly or covertly, to a specific set of conditions, which is capable of being measured.

**Behavioural indicator.** An overt action performed or statement made by any flight crew member that indicates how an individual or the crew is handling an event.

**Balloon.** A non-power-driven lighter-than-air aircraft.



**Banner.** An advertising medium supported by a temporary framework attached externally to the aircraft and towed behind the aircraft.

*Note. - For the purposes of this Part, this definition applies to free balloons.*

**Bare Earth.** Surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects.

**Base turn.** 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.

**Beyond Visual Line Of Sight (BVLOS).** an operation in which the remote pilot or RPA observer maintains contact with the RPA other than using VLOS.

**Bit Error Rate (BER).** 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.** 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.

**Bridge training.** Additional training designed to address shortfalls in knowledge and skill levels so that all trainees possess the pre-requisite levels upon which the approved training programme was designed.

**Broadcast.** A transmission of information relating to air navigation that is not addressed to a specific station or stations.

**Briefing.** Oral commentary on existing and/or expected meteorological conditions.

**Cabin crew member.** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member.

**Calendar.** Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108\*).

**Calendar day.** The period of elapsed time, using Coordinated Universal Time or local time that begins at midnight and ends 24 hours later in the next midnight.



**Calendar month.** A period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as January 1 through January 31 in the Gregorian calendar).

**Calendar year.** A period of a year beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as January 1 through December 31 in the Gregorian calendar).

**Canopy.** Bare Earth supplemented by vegetation height.

**Cargo aircraft.** Any aircraft, other than a passenger aircraft, which is carrying goods or property.

**Cargo.** Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

**Carrier-to-multipath ratio (C/M).** 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/N0).** The ratio of the total carrier power to the average noise power in a 1 Hz bandwidth, usually expressed in dBHz.

**Category A.** With respect to helicopters, means a multi-engine helicopter designed with engine and system isolation features specified in ICAO Annex 8, Part IVB and capable of operations using take-off and landing data scheduled under a critical engine failure concept which assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.

**Category B.** With respect to helicopters, means a single-engine or multi-engined 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.

**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.** The height above the ground or water of the base of the lowest layer of cloud below 6,000 meters (20,000 feet) covering more than half the sky.

**Certify as airworthy (to).** To certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof.



**Certificated Approved Maintenance Organization.** Means maintenance organization approved by the Authority.

**Change-over point.** 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.

**Chairman.** means the Head of the Aircraft Accident Investigation and Inquiry Board.

**Channel rate.** 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.** This is 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  $10^6$  implies the maximum allowed error in the clock is  $\pm 1.2 \times 10^{-3}$  Hz.

**Check airman (aircraft) [airplane/helicopter].** A person who is qualified, and permitted, to conduct an evaluation in an airplane/helicopter, in a flight simulator, or in a flight training device for a particular type airplane/helicopter, for a particular Operator.

**Check airman (simulator).** A person who is qualified to conduct an evaluation, but only in a flight simulator or in a flight training device for a particular type aircraft, for a particular Operator.

**Circuit mode.** A configuration of the communications network which gives the appearance to the application of a dedicated transmission path.

**Civil aircraft.** Any aircraft other than a State aircraft.

**Clearance limit.** The point to which an aircraft is granted an air traffic control clearance.

**Clearway.** 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.



**Cloud of operational significance.** 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.

**Combined vision system (CVS).** A system to display images from a combination of an enhanced vision system (EVS) and a synthetic vision system (SVS).

**COMAT.** Operator material carried on an operator's aircraft for the operator's own purposes.

**Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

**Common mark.** 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.** The authority maintaining the non-national register or, where appropriate, the part thereof, in which aircraft of an international operating agency are registered.

**Communication centre.** An aeronautical fixed station which relays or retransmits telecommunication traffic from (or to) a number of other aeronautical fixed stations directly connected to it.

**Competency.** A combination of skills, Knowledge and attitudes required to perform a task to the prescribed standard.

**Competency-based training.** 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 element.** An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

**Complex airplane.** An airplane that has retractable landing gear, flaps, and a controllable pitch propeller; or in the case of a seaplane, flaps and a controllable pitch propeller .

**Composite.** Structural materials made of substances; including, but not limited to, wood, metal, ceramic; plastic, fiber-reinforced materials, graphite, boron, or epoxy, with built-in strengthening agents that may be in the form of filaments, foils; powders, or flakes; of a different material.



**Competency unit.** A discrete function consisting of a number of competency elements.

**Computer system.** Any electronic or automated system capable of receiving, storing, and processing external data; and transmitting and presenting such data in a usable form for the accomplishment of a specific function.

**Conference communications.** Communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously.

**Configuration deviation list (CDL).** 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.

**Configuration (as applied to the aeroplane).** 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).** 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.

**Configuration management.** An ATN systems management facility for managers to change the configuration of remote elements.

**Congested area.** A city, town or settlement, or open air assembly of people.

**Consignment.** 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.

**Contracting state.** means any State which is a party to the Chicago Convention.

**Contributing Factors.** Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduces 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.



***Congested Area.*** In relation to a city, town or settlement, any area which is substantially used for residential, commercial or recreational purposes.

***Congested hostile environment.*** A hostile environment within a congested area.

***Consensus standard*** means, for the purpose of certificating light-sport aircraft, an industry-developed consensus standard that applies to aircraft design, production, and airworthiness. It includes, but is not limited to, standards for aircraft design and performance, required equipment, manufacturer quality assurance systems, production acceptance test procedures, operating instructions, maintenance and inspection procedures, identification and recording of major repairs and major alterations, and continued airworthiness.

***Consignment.*** 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.*** 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.

***Context Management (CM) application.*** An ATN application that provides a log-on service allowing initial aircraft introduction into the ATN and a directory of all other data link applications on the aircraft. It also includes functionality to forward addresses between ATS units.

***Continuing Airworthiness.*** 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.

***Continuous descent final approach (CDFA).*** A technique, consistent with stabilized 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 maneuver should begin for the type of aircraft flown.

***Control area.*** A controlled airspace extending upwards from a specified limit above the earth.

***Controlled airport.*** An airport at which air traffic control service is provided to airport traffic.



**Controlled airspace.** An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

**Controlled flight.** Any flight which is subject to an air traffic control clearance.

**Controller of an RPA** means a person who manipulates the flight controls of a Remotely Piloted Aircraft.

**Controller-Pilot Data Link Communications (CPDLC).** A means of communication between controller and pilot, using data link for ATC communications.

**Control zone.** A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

**Conversion.** Conversion is the action taken by the Republic of the Philippines in issuing its own license on the basis of a license issued by another Contracting State for use on aircraft registered in the Republic of the Philippines.

**Core competencies.** A group of related behaviours, based on job requirements, which describe how to effectively perform a job and what proficient performance looks like. They include the name of the competency, a description, and a list of behavioural indicators.

**Core Group UPRT Instructors.** Core team of instructors responsible for proper UPRT implementation and quality assurance.

**Co-pilot.** 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.

**CPDLC application.** An ATN application that provides a means of ATC data communication between controlling, receiving or downstream ATS units and the aircraft, using air-ground and ground-ground subnetworks, and which is consistent with the ICAO phraseology for the current ATC voice communication.

**Credit.** Recognition of alternative means or prior qualifications.

**Crew member.** A person assigned by an operator to duty on an aircraft during a flight duty period.

**Critical angle of attack.** The angle of attack that produces the maximum coefficient of lift beyond which an aerodynamic stall occurs.



**Critical engine(s).** Any engine whose failure gives the most adverse effect on the aircraft characteristics relative to the case under consideration.

**Critical phases of flight.** Those portions of operations involving taxiing, take-off and landing, and all flight operations below 10,000 feet, except cruise flight.

**Critical system malfunctions.** Aeroplane system malfunctions that place significant demand on a proficient crew. These malfunctions should be determined in isolation from any environmental or operational context.

**Cross-country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.

**Cruise climb.** An aeroplane cruising technique resulting in a net increase in altitude as the aeroplane mass decreases.

**Cruise relief pilot.** A flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the PIC or a co-pilot to obtain planned rest.

**Cruising level.** A level maintained during a significant portion of a flight.

**Culture.** All man-made features constructed on the surface of the Earth by man, such as cities, railways, and Culture. All man-made features constructed on the surface of the Earth by man, such as cities, railways, and canals.

**Current data authority.** 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.

**Current flight plan.** The flight plan, including changes, if any, brought about by subsequent clearances.

**Cyclic Redundancy Check (CRC).** A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.

**Danger area.** An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

**Dangerous goods.** Articles or substances which are capable of posing a hazard ~~risk~~ to health, safety, property or the environment and which are shown in the list of dangerous goods in the ICAO Technical Instructions or which are classified according to those Instructions.



***Dangerous goods accident.*** An occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person, major property or environmental damage.

***Dangerous goods incident.*** An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods, not necessarily occurring on board an aircraft, which results in injury to a person, property 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 an aircraft or its occupants is deemed to constitute a dangerous goods incident.

***Dangerous goods transport document.*** A document specified by the ICAO Technical Instructions for the Safe Transportation of Dangerous Goods by Air (See definition, below). It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods. The document bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and UN numbers (if assigned) and that they are correctly classified, packed, marked, labeled and in a proper condition for transport.

*Note: See definition of ICAO Technical Instructions.*

***Data integrity.*** The probability that data has not been altered or destroyed.

***Data link communications.*** A form of communication intended for the exchange of messages via a data link.

***D-METAR.*** The symbol used to designate data link aviation weather report service.

***Data product specification.*** 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.

***Data quality.*** A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution and integrity.

***Data set.*** Identifiable collection of data.

***Data set series.*** Collection of data sets sharing the same product specification.

***Datum.*** Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities.



**Deadhead Transportation.** Time spent in transportation on aircraft to or from a crew member's home station.

**Decision altitude (DA) or decision height (DH).** A specified altitude or height in the precision approach or approach with vertical guidance at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

*Note 1.— Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.*

*Note 2.— The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In Category III operations with a decision height the required visual reference is that specified for the particular procedure and operation.*

*Note 3.— For convenience where both expressions are used they may be written in the form "decision altitude/height" and abbreviated "DA/H".*

**Declared capacity.** 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.

**Defined Point After Take-Off (DPATO).** The point, within the take-off and initial climb phase, before which the helicopter's ability to continue the flight safely, with one engine inoperative, is not assured and a forced landing may be required.

**Defined Point Before Landing (DPBL).** The point, within the approach and landing phase, after which the helicopter's ability to continue the flight safely, with one engine inoperative, is not assured and a forced landing may be required.

**Design landing mass (weight).** The maximum weight of the aircraft at which, for structural design purposes, it is assumed that it will be planned to land.

**Design take-off mass (weight).** The maximum weight 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 (weight).** The maximum weight 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.** the capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.

**DETRESFA.** The code word used to designate a distress phase.

**Developed upset.** A condition meeting the definition of an aeroplane upset.

**Developing upset.** Any time the aeroplane begins to unintentionally diverge from the intended flight path or airspeed.

**Digital Elevation Model (DEM).** The representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum.

**Directly in charge.** A person assigned to a position in which he or she is responsible for the work of a shop or station that performed maintenance, preventive maintenance, or modifications, or other functions affecting aircraft airworthiness.

**Discrete source damage.** 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.

**Displaced threshold.** A threshold not located at the extremity of a runway.

**Distress phase.** A situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.

**Doppler shift.** The frequency shift observed at a receiver due to any relative motion between transmitter and receiver.

**Double channel simplex.** Simplex using two frequency channels, one in each direction.

**Downstream clearance.** A clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft.

**Downstream data authority.** A designated ground system, different from the current data authority, through which the pilot can contact an appropriate ATC unit for the purposes of receiving a downstream clearance.



**Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft.

**Duplex.** A method in which telecommunication between two stations can take place in both directions simultaneously.

**Duty.** Any task that flight or cabin crew members are required by the operator to perform, including for example, flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue.

**Duty period.** A period which starts when flight or cabin crew personnel are required by an operator to report for or to commence a duty and ends when that person is free from all duties.

**Economic poison.** Any substance or mixture of substances intended for—

- (a) Preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, except viruses on or in living human beings or other animals, which the Republic of the Philippines may declare to be a pest, and
- (b) Use as a plant regulator, defoliant or desiccant.

**EDTO critical fuel.** 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.** An airplane 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 airplane during an EDTO diversion.

**Effective acceptance bandwidth.** 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.** The rejection that is obtained at the appropriate adjacent channel frequency when all relevant receiver tolerances have been taken into account.

**Effective length of the runway.** The distance for landing from the point at which the obstruction clearance plane associated with the approach end of the runway intersects the centerline of the runway to the far end.



**Electronic aeronautical chart display.** 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).** An electronic information system, comprised of equipment and applications, for flight crew which allows for storing, updating, displaying and processing of EFB functions to support flight operations or duties.

**Elevated heliport.** A heliport located on a raised structure on land.

**Elevation.** 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).** The height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

**Emergency Locator Transmitter (ELT).** 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.** A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

**End-to-end.** 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.



**End System (ES).** A system that contains the OSI seven layers and contains one or more end user application processes.

**End-user.** An ultimate source and/or consumer of information.

**Energy.** The capacity to do work.

**Energy per symbol to Noise density ratio ( $E_s/N_0$ ).** 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.

**Energy state.** How much of each kind of energy (kinetic, potential or chemical) the aeroplane has available at any given time.

**Engine.** A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for the functioning and control, but excludes the propeller/rotors (if applicable).

**Enhanced Vision System (EVS).** A system to display electronic real-time images of the external scene achieved through the use of image sensors.

*Note. EVS does not include night vision imaging systems (NVIS).*

**En-route phase.** 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.

**Entity.** An active element in any layer which can be either a software entity (such as a process) or a hardware entity (such as an intelligent I/O chip).

**Equivalent isotropically radiated power (e.i.r.p).** 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 system of maintenance.** An AOC holder may conduct maintenance activities through an arrangement with an AMO or may conduct its own maintenance, preventive maintenance, or alterations, so long as the AOC holder's maintenance system is approved by the Authority and is equivalent to that of an AMO, except that the approval for return to service of an aircraft/aeronautical product shall be made by an appropriately licensed aviation maintenance technician or aviation repair specialists in accordance with Part 2, as appropriate.

**Error.** An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.



*Note — See Attachment E of Annex 13 — Aircraft Accident and Incident Investigation for a description of operational personnel.*

**Error management.** The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states.

*Note — See Attachment C to Chapter 3 of the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and Circular 31-1 — Threat and Error Management (TEM) in Air Traffic Control\* for a description of undesired states.*

**Estimated off-block time.** The estimated time at which the aircraft will commence movement associated with departure.

**Estimated time of arrival.** 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 airport, the time at which the aircraft will arrive over the airport. For VFR flights, the time at which it is estimated that the aircraft will arrive over the airport.

**Evidence-based training (EBT).** Training and assessment based on operational data that is characterized by developing and assessing the overall capability of a trainee across a range of core competencies rather than by measuring the performance of individual events or manoeuvres.

*Note.- Guidance on EBT is contained in the Procedures for Air Navigation Services- Training (PANS-TRG, Doc 9868) and the Manual of Evidence-based Training (Doc 9995). EBT is competency-based and is applicable, as an option, to the recurrent training of flight crew members engaged in commercial air transport operations that is conducted in an FSTD.*

**Expected approach time.** 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.

**Extended diversion time operations (EDTO).** Any operation by an airplane 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 Authority.

**EDTO critical fuel.** 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.** An airplane 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 airplane during an EDTO diversion.

**Exception.** A provision in ICAO Annex 18 and Technical Instruction which excludes a specific item of dangerous goods from the requirements normally applicable to that item.

**Exemption.** An authorization, other than an approval, granted by an appropriate national authority providing relief from the provisions of the ICAO Technical Instructions.

**Extended over-water operation.**

- (i) With respect to aircraft having a maximum certificated take-off mass of 5,700 kg (12,000 lbs) or more, other than helicopters, an operation over water at a horizontal distance of more than 400 nm from the nearest shoreline or the distance that can be covered in 120 minutes of flight at the published one power-unit inoperative cruising speed (in still air, in ISA conditions), whichever distance is lesser, from a suitable emergency landing site;
- (ii) With respect to aircraft having a maximum certificated take-off mass equal to or less than 5,700 kg (12,000 lbs), other than helicopters, an operation over water at a horizontal distance of more than 100 nm from the nearest shoreline or the distance that can be covered in 30 minutes of flight at the published one power-unit inoperative cruising speed (in still air, in ISA conditions), whichever distance is lesser, from a suitable emergency landing site; or
- (iii) With respect to helicopters, an operation over water at a horizontal distance of more than 50 nm from the nearest shoreline and more than 50 nm from an offshore heliport structure.

**Extended range operation.** Any flight by an aeroplane with two turbine power-units where the flight time at the one power-unit 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.

**Facility.** A physical plant, including land, buildings, and equipment, which provide the means for the performance of maintenance, preventive maintenance, or modifications of any article.



**Factor of safety.** 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.** A type of radio beacon, the emissions of which radiate in a vertical fan-shaped pattern.

**Fatigue.** A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety-related duties.

**Fatigue Risk Management System (FRMS).** 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.

**Fault management.** An ATN systems management facility to detect, isolate and correct problems.

**Feature.** Abstraction of real world phenomena.

**Feature attribute.** Characteristic of a feature.

**Fidelity level.** The level of realism assigned to each of the defined FSTD features.

**Filed flight plan.** The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes.

**Final approach.** 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).** A defined area over which the final phase of the approach maneuver to hover or landing is completed and from which the take-off maneuver is commenced. Where the FATO is to be used by helicopters



operating in performance Class 1, the defined area includes the rejected take-off area available.

**Final approach fix or point.** That fix or point of an instrument approach procedure where the final approach segment commences.

**Final approach segment.** That segment of an instrument approach procedure in which alignment and descent for landing are accomplished.

**Final Report.** means a report of an accident or incident in the format set out in ICAO Annex 13 and which may be adapted to the circumstances of the accident or incident under investigation.

**Fireproof.** The capability to withstand the application of heat by a flame for a period of 15 minutes.

**Fireproof material.** 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.** The capability to withstand the application of heat by a flame for a period of 5 minutes.

**First Indication of a stall.** The initial aural, tactile or visual sign of an impending stall, which can be either naturally or synthetically induced.

**FIS application.** An ATN application that provides to aircraft information and advice useful for the safe and efficient conduct of flights.

**Flight(s).** The period from take-off to landing.

**Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

**Flight crew resilience.** The ability of a flight crew member to recognize, absorb and adapt to disruptions. Resilience can be increased by raising the level of competence and by achieving the appropriate level of confidence.

**Flight Data Analysis.** A process of analyzing recorded flight data in order to improve the safety of flight operations.

**Flight documentation.** Written or printed documents, including charts or forms, containing meteorological information for a flight.



**Flight duty period.** 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 airplane 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.

**Flight information center.** A unit established to provide flight information service and alerting service.

**Flight information region.** An airspace of defined dimensions within which flight information service and alerting service are provided.

**Flight Information Service. (FIS).** A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

**Flight level.** A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

**Flight management system.** An aeroplane computer system that uses a large database to permit routes to be pre-programmed and fed into the system by means of a data loader. The system is constantly updated with respect to position accuracy by reference to the most appropriate navigation aids available, which are automatically selected during the information update cycle.

**Flight manual.** 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.** 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 CAR Part 2 Annex 1, who supports, briefs and/or assists the PIC in the safe conduct of the flight.

**Flight path.** The trajectory or path of an object (aeroplane) travelling through the air over a given space of time.

**Flight plan.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

**Flight path management.** An active manipulation, using either the airplanes automation or manual handling, to command the airplane flight controls to direct the airplane along a desired trajectory.



*Flight procedures trainer.* See Flight simulation training device.

*Flight recorder.* Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.

*Flight safety documents system.* A set of inter-related 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 operators' maintenance control manual.

*Flight simulation training device.* 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 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;

A *flight procedures trainer*, which provides a realistic flight deck 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 in instrument flight conditions.

*Flight simulator.* See Flight simulation training device.

*Flight time — aeroplanes.* 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.

*Note.* — *Flight time as here defined is synonymous with the term "block to block" time or "chock to chock" time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.*

*Flight time — helicopters.* 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.** 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.

~~**Flight time — airplanes.** The total time from the moment an airplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.~~

~~*Note.* — Flight time as here defined is synonymous with the term "block to block" time or "chock to chock" time in general usage which is measured from time an airplane first moves for the purpose of taking off until it finally stops at the end of the flight.~~

~~**Flight time — helicopters.** 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 visibility.** The visibility forward from the cockpit of an aircraft in flight.

**Flying display.** means a civilian organized event (including any rehearsal for such event) which —

- (i) Consists, wholly or partly, of an exhibition of flying of any civil or military aircraft; and
- (ii) takes place at an aerodrome or premises other than a naval, military or air force aerodrome or premises;

**Forecast.** A statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace.

**Foreign air operator.** Any operator, not being an air operator holding an Air Operator Certificate issued by the Republic of the Philippines under the provisions of ICAO Annex 6, Part I or Part III, which undertakes, whether directly or indirectly or by lease or any other arrangement, to engage in commercial air transport operations within borders or airspace of the Republic of the Philippines, whether on a scheduled or charter basis.

**Foreign Authority.** The civil aviation authority that issues and oversees the Air Operator Certificate of the foreign operator.



**Forward Error Correction (FEC).** 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.

**Freight container.** See unit load device.

**Freight container in the case of radioactive material transport.** An article of transport equipment designed to facilitate the transport of packaged goods, by one or more modes of transport without intermediate reloading. It must be of a permanent enclosed character, rigid and strong enough for repeated use, and must be fitted with devices facilitating its handling, particularly in transfer between aircraft and from one mode of transport to another. A small freight container is that which has either an overall outer dimension less than 1.5 m, or an internal volume of not more than 3m. Any other freight container is considered to be a large freight container.

**Frequency channel.** A continuous portion of the frequency spectrum appropriate for a transmission utilizing a specified class of emission.

**Fully automatic relay installation.** 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.

**Gain-to-noise temperature ratio.** 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.

**GAMET area forecast.** 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.

**General aviation operation.** An aircraft operation other than a commercial air transport operation or an aerial work operation.

**Geodesic distance.** The shortest distance between any two points on a mathematically defined ellipsoidal surface.

**Geodetic datum.** A minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame



**Geoid.** 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.** The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.

**Glide path.** A descent profile determined for vertical guidance during a final approach.

**Glider.** 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.

**Glider flight time.** 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.

**Government.** The Government of the Philippines.

**Gregorian calendar.** 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.** Computer processed meteorological data for a set of regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for automated use.

**Ground Earth Station (GES).** 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 handling.** Services necessary for an aircraft's arrival at, and departure from, an airport, other than air traffic services.

**Ground Instructor (GI).** Rating allows the holder to give the ground instruction required for a Flight Operation Officer/Flight Dispatcher.

**Ground-to-air communication.** One-way communication from stations or locations on the surface of the earth to aircraft.

**Ground visibility.** The visibility at an airport, as reported by an accredited observer or by automatic systems.



**Gyroplane.** 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.

**Handling agent.** An agency which performs on behalf of the operator some or all of the latter's functions including receiving, loading, unloading, transferring or other processing of passengers, or cargo.

**Heading.** 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).** A display system that presents flight information into the pilot's forward external field of view.

**Heavier-than-air.** Any aircraft deriving its lift in flight chiefly from aerodynamic forces.

**Height.** The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

**Helicopter.** 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 stand.** An aircraft stand which provides for parking a helicopter and, where air taxiing operations are contemplated, the helicopter touchdown and lift-off.

**Helideck.** A heliport located on a floating or fixed off-shore structure.

**Heliport.** An airport 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 operating minima.** 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 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.

**Holding procedure.** A predetermined manoeuvre which keeps an aircraft within a specified airspace while awaiting further clearance.

**Holdover time.** The estimated time de-icing/anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft. Holdover time begins when the final application of de-icing or anti-icing fluid commences and expires when the de-icing or anti-icing fluid applied to the aircraft loses its effectiveness.

**Homing.** 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.

**Hostile environment.** An environment in which:

- (a) a safe forced landing cannot be accomplished because the surface and surrounding environment are inadequate; or
- (b) the helicopter occupants cannot be adequately protected from the elements; or
- (c) search and rescue response/capability is not provided consistent with anticipated exposure; or
- (d) there is an unacceptable risk of endangering persons or property on the ground.

**Hot spot.** 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.

**Housing.** Buildings, hangers, and other structures to accommodate the necessary equipment and materials of a maintenance organization that-

- (a) Provide working space for the performance of maintenance, preventive maintenance, or modifications for which the maintenance organization is certificated and rated; and
- (b) Provide structures for the proper protection of aircraft, airframes, aircraft engines, propellers, appliances, components, parts, and subassemblies



thereof during disassembly, cleaning, inspection, repair, modification, assembly, and testing; and

- (c) Provide for the proper storage, segregation, and protection of materials, parts, and supplies.

**Human Factors principles.** 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.** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

**Hypsometric tints.** A succession of shades or colour gradations used to depict ranges of elevation.

**IFR.** The symbol used to designate the instrument flight rules.

**IFR flight.** A flight conducted in accordance with the instrument flight rules.

**IMC.** The symbol used to designate instrument meteorological conditions.

**INCERFA.** The code word used to designate an uncertainty phase.

**Incident.** An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of such operation;  
*Note 1: The Mandatory Reportable Incidents are listed in IS 13.175 1, 2, & 3.*  
*Note 2: The types of incidents which are of main interest to the ICAO for accident prevention studies are listed in IS 13.030. (List of Examples of Serious Incidents)*

~~**Incident.** An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.~~

**Incompatible.** Describing dangerous goods, which if mixed, would be liable to cause a dangerous evolution of heat or gas or produce a corrosive substance.

**Initial approach segment.** That segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approaches fix or point.



**Instrument approach operations.** An approach and landing using instrument 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.

*Note: Lateral and vertical navigation guidance refers to the guidance provided either by:*

- i. *a ground-based radio navigation aid; or*
- ii. *computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.*

**Instrument approach procedure.** A series of predetermined maneuvers 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:

**Non-precision approach (NPA) procedure.** An instrument approach procedure designed for 2D instrument approach operations Type A.

*Note: Non-precision procedures may be flown using a continuous descent final approach technique (CDFA). CDFA with advisory VNAV guidance calculated by on-board equipment (see PANS-OPS (Doc 8168), Volume I, part I, Section 4, Chapter I, paragraph 1.8.1) are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFA refer to PANS-OPS (Doc 8168), Volume I, Section 1.7 and 1.8.*

**Approach procedure with vertical guidance (APV).** A performance-based on navigation systems (ILS, MLS, GLS and SBAS Cat I) designed for 3D instrument approach operations Type A or B.

*Note: Refer to Subsection 8.8.1.7 paragraph (f) for instrument approach operation types.*

**Minimum Descent Altitude (MDA) or minimum descent height (MDH).** A specified altitude or height in a 2D instrument approach operation or circling



approach operation below which descent must not be made without the required visual reference.

**Obstacle Clearance Altitude (OCA)** or obstacle clearance height (OCH). 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.

*Note: Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approach procedures to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach procedure is referenced to the aerodrome elevation.*

**Inter-Centre Communications (ICC).** ICC is data communication between ATS units to support ATS, such as notification, coordination, transfer of control, flight planning, airspace management and air traffic flow management.

**Intermediate approach segment.** 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.** 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.

**Intermediate System (IS).** A system which performs relaying and routing functions and comprises the lowest three layers of the OSI reference model.

**International operating agency.** An agency of the kind contemplated in Article 77 of the Convention.

**International telecommunication service.** 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.

**Internet communications service.** The internet communications service is an internetwork architecture which allows ground, air-to-ground and avionics data subnetworks to interoperate by adopting common interface services and protocols based on the ISO/OSI reference model.



**Interpilot air-to-air communication.** 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.

**Isogonal.** A line on a map or chart on which all points have the same magnetic variation for a specified epoch.

**Isogriv.** 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.** A destination aerodrome for which there is no destination alternate aerodrome suitable for a given airplane type.

**Instructional Systems Design (ISD).** A formal process for designing training which includes analysis, design and production, and evaluation phases.

**Instructor.** A person authorized to provide academic or practical training to a trainee or trainee for an aviation license, rating or endorsement.

**Instrument flight time.** Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

**Instrument Meteorological Conditions (IMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

**Instrument ground time.** Time during which a pilot is practicing, on the ground, simulated instrument flight in a flight simulation training device approved by the Licensing Authority.

**Instrument time.** Instrument flight time or instrument ground time.

**Integrated survival suit.** A survival suit which meets the combined requirements of the survival suit and life jacket.

**Integrity (aeronautical data).** A degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorized amendment.

**Interchange agreement.** A leasing agreement which permits an air carrier to dry lease and take or relinquish operational control of an aircraft at an airport.



**International airways volcano watch (IAVW).** International arrangements for monitoring and providing warnings to aircraft of volcanic ash in the atmosphere.

**International NOTAM office.** An office designated by a State for the exchange of NOTAM internationally.

**International operating agency.** An agency of the kind contemplated in Article 77 of the Convention.

**Investigation.** 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.

**Investigator.** means an Investigator of Accidents appointed under paragraph 13.100(b).

**Investigator-in-charge.** means a person designated by the Chairman on the basis of his or her qualifications as such under paragraph 13.100(d) and charged with the responsibility for the organization, conduct and control of an investigation;

*Note. Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.*

**Isolated aerodrome.** A destination aerodrome for which there is no destination alternate aerodrome suitable for a given airplane type.

**Journey log.** A form signed by the PIC of each flight that records the airplane's registration, crew member names and duty assignments, the type of flight, and the date, place, and time of arrival and departure.

**Land distance available (LDA).** The length of runway which is declared available and suitable for the ground run of an airplane landing.

**Landing area.** That part of a movement area intended for the landing or take-off of aircraft.

**Landing Decision Point (LDP).** The point used in determining landing performance from which, a power-unit failure occurring at this point, the landing may be safely continued or a balked landing initiated.

**Landing direction indicator.** A device to indicate visually the direction currently designated for landing and for take-off.



**Landing surface.** 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.

**Large airplane.** An airplane of a maximum certificated take-off mass of over 5,700 kg.

**Large RPA.** means RPA with a gross weight of 7kgs and above.

**Lease.** A lease can be understood to be a contractual arrangement whereby a properly licensed air operator gains commercial control of an entire aircraft without transfer of ownership.

**Lease (Wet).** A lease where the aircraft is provided with crew.

**Lease (Damp or Moist).** A wet lease aircraft that includes the cockpit crew but not the cabin crew.

**Lease (Dry).** A lease where the aircraft is provided without crew.

**Level.** A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

**Licensing Authority.** The Authority designated by a Contracting State as responsible for the licensing of personnel, in the case of Philippines, the Civil Aviation Authority of the Philippines, hereinafter referred to as "the Authority".

*Note. — In the provisions of these Regulations, the Authority is deemed to have been given the following responsibilities by the State:*

- (a) *assessment of an applicant's qualifications to hold a license or rating;*
- (b) *issue and endorsement of licenses and ratings;*
- (c) *designation and authorization of approved persons;*
- (d) *approval of training courses;*
- (e) *approval of the use of flight simulation training devices and authorization for their use in gaining the experience or in demonstrating the skill required for the issue of a license or rating, and*
- (f) *validation of licenses issued by other Contracting States.*

**Light-sport aircraft** means an aircraft, other than a helicopter or powered-lift that, since its original certification, has continued to meet the following:

- (1) A maximum takeoff weight of not more than—



- (i) 660 pounds (300 kilograms) for lighter-than-air aircraft;
  - (ii) 1,320 pounds (600 kilograms) for aircraft not intended for operation on water; or
  - (iii) 1,430 pounds (650 kilograms) for an aircraft intended for operation on water.
- (2) A maximum airspeed in level flight with maximum continuous power (VH) of not more than 120 knots CAS under standard atmospheric conditions at sea level.
  - (3) A maximum never-exceed speed (VNE) of not more than 120 knots CAS for a glider.
  - (4) A maximum stalling speed or minimum steady flight speed without the use of lift-enhancing devices (VS1) of not more than 45 knots CAS at the aircraft's maximum certificated takeoff weight and most critical center of gravity.
  - (5) A maximum seating capacity of no more than two persons, including the pilot.
  - (6) A single, reciprocating engine, if powered.
  - (7) A fixed or ground-adjustable propeller if a powered aircraft other than a powered glider.
  - (8) A fixed or autofeathering propeller system if a powered glider.
  - (9) A fixed-pitch, semi-rigid, teetering, two-blade rotor system, if a gyroplane.
  - (10) A nonpressurized cabin, if equipped with a cabin.
  - (11) Fixed landing gear, except for an aircraft intended for operation on water or a glider.
  - (12) Fixed or repositionable landing gear, or a hull, for an aircraft intended for operation on water.
  - (13) Fixed or retractable landing gear for a glider.

**Likely.** In the context of the medical provisions in Chapter 6, *likely* means with a probability of occurring that is unacceptable to the medical assessor.



**Lighter-than-air aircraft.** Any aircraft supported chiefly by its buoyancy in the air.

**Limit loads.** The maximum loads assumed to occur in the anticipated operating conditions.

**Line operating flight time.** Flight time recorded by the PIC or co-pilot while in revenue service for an Operator.

**Line-orientated flight training.** Training and assessment involving a realistic, 'real time', full mission simulation of scenarios that are representative of line operations.

**Load factor.** 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.

**Location indicator.** A four-letter code group formulated in accordance with rules prescribed by ICAO and assigned to the location of an aeronautical fixed station.

**Logon address.** A specified code used for data link logon to an ATS unit.

**Loss of control in flight (LOC).** A categorization of an accident or incident resulting from a deviation from the intended flight path.

**Magnetic variation.** The angular difference between True North and Magnetic North.

**Maintenance.** The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

**Maintenance control Manual.** A document that 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.

**Maintenance organization's procedures manual.** A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems.

**Maintenance procedures manual.** A document endorsed by the head of the maintenance organization which details the maintenance organization's structure



and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems.

**Maintenance program.** 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 release.** A certification confirming that the maintenance work to which it relates has been complied with in accordance with the applicable standards of airworthiness, using approved data.

**Major modification.** Major modification means an alteration not listed in the aircraft, aircraft engine, or propeller specifications – (1) that might appreciably affect weight, balance, structural strength, performance, power-plant, operations, flight characteristics, or other qualities affecting airworthiness; or (2) that is not done according to accepted practices or cannot be done by elementary operations. Described in IS: 5.1.1.2(a)(1).

**Major repair.** Major repair means a repair: (1) that if improperly done might appreciably affect weight, balance, structural strength, performance, power-plant, operations, flight characteristics, or other qualities affecting airworthiness; or (2) that is not done according to accepted practices or cannot be done by elementary operations. Described in IS: 5.1.1.2(a)(3).

**Maneuvering area.** That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

**Manoeuvre-based training.** Training that focuses on a single event or manoeuvre in isolation.

**Manoeuvres.** A sequence of deliberate actions to achieve a desired flight path. Flight path control may be accomplished by a variety of means including manual aeroplane control and the use of autoflight systems.

**Marking.** A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

**Master Minimum Equipment List (MMEL).** 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 diversion time.** Maximum allowable range, expressed in time, from a point on a route to an en-route alternate aerodrome.

**Maximum mass.** Maximum certificated take-off mass.

**Maximum weight.** Maximum certificated take-off weight.

**Mean power (of a radio transmitter).** 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.

**Medical Assessment.** The evidence issued by a Contracting State that the license holder meets specific requirements of medical fitness.

**Medical assessor.** 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.

*Note 1: Medical assessors evaluate reports submitted to the Licensing Authority by medical examiners.*

*Note 2: Medical assessors are expected to maintain the currency of their professional knowledge.*

**Medical certificate.** The evidence issued by the Authority that the license holder meets specific requirements of medical fitness. It is issued following an evaluation by the Licensing Authority of the report submitted by the designated medical examiner who conducted the examination of the applicant for the license.

**Medical examiner.** 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 licenses or ratings for which medical requirements are prescribed.

**Message field.** An assigned area of a message containing specified elements of data.

**Metadata.** Data about data.

**METAR application.** A FIS application that supports the D-METAR. Open systems interconnection (OSI) reference model. A model providing a standard approach to network design introducing modularity by dividing the complex set of functions into



seven more manageable, self-contained, functional layers. By convention these are usually depicted as a vertical stack.

**Meteorological authority.** The authority providing or arranging for the provision of meteorological service for international air navigation on behalf of a Contracting State.

**Meteorological information.** Meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.

**Meteorological office.** An office designated to provide meteorological service for international air navigation.

**Meteorological operational channel.** A channel of the aeronautical fixed service (AFS), for the exchange of aeronautical meteorological information.

**Meteorological operational telecommunication network.** 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.** A statement of observed meteorological conditions related to a specified time and location.

**Military aircraft.** means an aircraft —

- (i) belonging to the Republic of the Philippines Armed forces; or
- (ii) belonging to any of the naval, military or air forces of any State;

**Minimum Descent Altitude (MDA) or minimum descent height (MDH).** A specified altitude or height in a non-precision approach or circling approach below which descent must not be made without the required visual reference.

*Note 1.— Minimum descent altitude (MDA) is referenced to mean sea level and minimum descent height (MDH) is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. A minimum descent height for a circling approach is referenced to the aerodrome elevation.*

*Note 2.— The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach the required visual reference is the runway environment.*



*Note 3. — For convenience when both expressions are used they may be written in the form “minimum descent altitude/height” and abbreviated “MDA/H”.*

**Minimum En-route Altitude (MEA).** 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).** 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 Obstacle Clearance Altitude (MOCA).** The minimum altitude for a defined segment of flight that provides the required obstacle clearance.

**Minimum sector altitude.** The lowest altitude which may be used which will provide a minimum clearance of 300 m (1 000 ft) above all objects located in the area contained within a sector of a circle of 46 km (25 NM) radius centered on a radio aid to navigation.

**Missed Approach Point (MAPt).** 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.

**Mobile surface station.** 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 S subnetwork.** 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.

**Modification.** The alteration of an aircraft/aeronautical product in conformity with an approved standard.

**Motion turnaround bumps.** A phenomenon associated with FSTD motion actuators when their direction of travel reverses, which results in acceleration spikes that can be felt by the pilot thus giving a false motion cue.

**Movement area.** 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).



**Navigation specification.** 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 specification:

*Required navigation performance (RNP) specification.* A navigation specification based on an area navigation that includes that requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.

*Area navigation (RNAV) specification.* A navigation specification based on area navigation that does not include the requirements for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

*Note 1: The Performance based Navigation Manual (ICAO Doc 9613) Volume 2 contains detailed guidance on navigation specifications.*

*Note 2: The term RNP as previously defined as "a statement of the navigation performance, necessary for operation within a defined airspace", has been removed from ICAO Annex 6 PART 1 as the concept of RNP has been overtaken by the concept of PBN. The term RNP in of Annex 6 is now solely used in context of navigation specifications that require performance monitoring and alerting. E.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting that are detailed in ICAO Doc 9613.*

**Negative training.** Training which unintentionally introduces incorrect information or invalid concepts, which could actually decrease rather than increase safety.

**Negative transfer of training.** The application (and 'transfer') of what was learned in a training environment (i.e., a classroom, an FSTD) to normal practice, i.e. it describes the degree to which what was learned in training is applied to actual normal practices. In this context, negative transfer of training refers to the inappropriate generalization of knowledge and skill to a situation or setting in normal practice that does not equal the training situation or setting.

**Network station.** An aeronautical station forming part of a radiotelephony network.

**Next data authority.** The ground system so designated by the current data authority through which an onward transfer of communications and control can take place.

**Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.



*Note.* — Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.

~~Night.~~ The hours between sunset and sunrise.

**Non-congested hostile environment.** A hostile environment outside a congested area.

**Non-contracting state.** means any State which is not a party to the Chicago Convention.

**Non-hostile environment.** 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-network communications.** Radiotelephony communications conducted by a station of the aeronautical mobile service, other than those conducted as part of a radiotelephony network.

**Non-precision approach (NPA) procedure.** An instrument approach procedure designed for 2D instrument approach operations Type A. *Note: Non-precision procedures may be flown using a continuous descent final approach technique (CDFA). CDFA with advisory VNAV guidance calculated by on-board equipment (see PANS-OPS (Doc 8168), Volume I, part I, Section 4, Chapter I, paragraph 1.8.1) are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFA refer to PANSOPS (Doc 8168), Volume I, Section 1.7 and 1.8.*

**NOTAM.** 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.



**Observation (meteorological).** The evaluation of one or more meteorological elements.

**Obstacle.** All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight.

**Obstacle clearance altitude (OCA) or obstacle clearance height (OCH).** The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the airport elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

*Note: Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approach procedures to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach procedure is referenced to the aerodrome elevation.*

*Note 2. — For convenience when both expressions are used they may be written in the form “obstacle clearance altitude/height” and abbreviated “OCA/H”.*

~~**Obstacle Clearance Altitude (OCA) or obstacle clearance height (OCH).** 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).** 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.

**Obstruction clearance plane.** A plane sloping upward from the runway at a slope of 1:20 to the horizontal, and tangent to or clearing all obstructions within a specified area surrounding the runway as shown in a profile view of that area. In the plane view, the centerline of the specified area coincides with the centerline of the runway, beginning at the point where the obstruction clearance plane intersects the centerline of the runway and proceeding to a point at least 1500 feet from the beginning point. Thereafter, the centerline coincides with the takeoff path over the ground for the runway (in the case of take-offs) or with the instrument approach counterpart (for landings), or where the applicable one of these paths has not been established, it proceeds consistent with turns of at least 4,000 foot radius until a point is reached beyond which the obstruction clearance plane clears all obstructions. This area extends laterally 200 feet on each side of



the centerline at the point where the obstruction clearance plane intersects the runway and continues at this width to the end of the runway; then it increases uniformly to 500 feet on each side of the centerline at a point 1500 feet from the intersection of the obstruction clearance plane with the runway; thereafter, it extends laterally 500 feet on each side of the centerline.

**Offset frequency simplex.** 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 operations.** 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.

**On-aeroplane training.** A component of a UPRT programme designed to develop skill sets in employing effective upset prevention and recovery strategies utilizing only suitably-capable light aeroplanes.

**Operation.** 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 communications.** 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.

**Operational control.** 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 flight plan.** The operator's plan for the safe conduct of the flight based on considerations of helicopter performance, other operating limitations and relevant expected conditions on the route to be followed and at the heliports concerned.

**Operational planning.** The planning of flight operations by an operator.

**Operations manual.** A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

**Operations specifications.** The authorizations, conditions and limitations associated with the air operator certificate (AOC) and subject to the conditions in the operations manual.



**Operator.** A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

**Operator's maintenance control manual.** 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.

**Operations in performance Class 1.** Operations with performance such that, in the event of a critical power- unit 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.

**Operations in performance Class 2.** Operations with performance such that, in the event of critical power-unit failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, except when the failure occurs early during the take-off maneuvers or late in the landing maneuver, in which cases a forced landing may be required.

**Operations in performance Class 3.** Operations with performance such that, in the event of a power-unit failure at any time during the flight, a forced landing will be required.

**Organization responsible for the type design.** The organization that holds the type certificate, or equivalent document, for an aircraft, engine or propeller type, issued by a Contracting State.

**Overpack.** 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.

**Owner.** in relation to an aircraft which is registered, means the registered owner of the aircraft.

**Ornithopter.** 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.** Height of a point related to the geoid, generally presented as an MSL elevation.

**Overhaul.** The restoration of an aircraft/aeronautical product using methods, techniques, and practices acceptable to the Authority, including disassembly, cleaning, and inspection as permitted, repair as necessary, and reassembly; and



tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the State of Design, holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance approval under Parts Manufacturing Authorization (PMA) or Technical Standard Order (TSO).

**Over-pack.** 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.

**Package.** The complete product of the packing operation consisting of the packaging and its contents prepared for transport.

**Packaging.** Receptacles and any other components or materials necessary for the receptacle to perform its containment function and to ensure compliance with the packing requirements.

**Packet.** The basic unit of data transfer among communications devices within the network layer.

**Packet Layer Protocol (PLP).** A protocol to establish and maintain a connection between peer level entities at the network layer, and to transfer data packets between them. In the context of this standard, the term refers to the protocol defined by the ISO 8208 standard used in this document.

**Passenger aircraft.** 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 exit seats.** Those seats having direct access to an exit, and those seats in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit. A passenger seat having "direct access" means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

**Performance-based navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

*Note: Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity,*



*continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.*

**Performance Class 1 helicopter.** 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.** 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.** 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 criteria.** Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.

**Performance management.** An ATN systems management facility to monitor and evaluate the performance of the systems.

**Phase of flight.** A defined period within a flight.

*Note.- E.g. take-off, climb, cruise, descent, approach and landing.*

**Pilot (to).** To manipulate the flight controls of an aircraft during flight time.

**Pilot-in-command.** 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 a flight.

**Pilot-in-command under supervision.** 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.

**Point light.** A luminous signal appearing without perceptible length.

**Point of no return.** The last possible geographic point at which an airplane can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight.

**Point-to-point.** 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.** Presentation of information to humans (ISO 19117\*).

**Position (geographical).** 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.

**Post-stall regime.** Flight conditions at an angle of attack greater than the critical angle of attack.

**Power-unit.** A system of one or more engines and ancillary parts which are together necessary to provide thrust, independently of the continued operation of any other power-unit(s), but not including short period thrust-producing devices.

**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.

**Powered parachute** means a powered aircraft comprised of a flexible or semi-rigid wing connected to a fuselage so that the wing is not in position for flight until the aircraft is in motion. The fuselage of a powered parachute contains the aircraft engine, a seat for each occupant and is attached to the aircraft's landing gear.

**Powerplant.** The system consisting of all the engines, drive system components (if applicable), and propellers (if installed), their accessories, ancillary part, and fuel and oil systems installed on an aircraft but excluding the rotors for a helicopter.

**Practical training.** Describes training that places an emphasis on the development of specific technical or practical skills, which is normally preceded by academic training.

**Precision approach procedure.** An instrument approach procedure utilizing azimuth and glide path information provided by ILS or PAR.

**Preliminary Report.** means the communication used for the prompt dissemination of data obtained during the early stages of the investigation.

**Pressure-altitude.** An atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere.



**Prevailing visibility.** 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.

**Preventative maintenance.** Simple or minor preservation operations and the replacement of small standard parts, not involving complex assembly operations, described in IS: 5.1.1.2(a)(5).

**Primary frequency.** The radiotelephony frequency assigned to an aircraft as a first choice for air-ground communication in a radiotelephony network.

**Primary means of communication.** The means of communication to be adopted normally by aircraft and ground stations as a first choice where alternative means of communication exist.

**Printed communications.** Communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit.

**Problematic use of substances.** 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.** A specified altitude/height flown operationally at or above the minimum altitude/height and established to accommodate a stabilized descent at a prescribed descent gradient/angle in the intermediate/final approach segment.

**Procedure turn.** A maneuver 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.

**Procedures manual.** A manual containing procedures, instructions and guidance for use by personnel of the Aviation Training Organization in the execution of their duties in meeting the requirements of the certificate.

**Prognostic chart.** 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 Airspace.** an airspace of defined dimensions identified by an area on the surface of the earth in which flight of aircraft is prohibited. Such areas are established for security or other reasons associated with the national welfare.

**Prohibited area.** 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.** The name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging.

**Protected service volume.** 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

**Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

**Quality assurance.** Quality assurance, as distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions which are required to provide adequate confidence that a product or service satisfies quality requirements.

~~**Quality assurance.** All the planned and systematic activities implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfill requirements for quality.~~

**Quality control.** The regulatory inspection process through which actual performance is compared with standards, such as the maintenance of standards of manufactured aeronautical products, and any difference is acted upon.

~~**Quality control.** The operational techniques and activities that are used to fulfill requirements for quality.~~

**Quality management.** A management approach focused on the means to achieve product or service quality objectives through the use of its four key components: quality planning; quality control; quality assurance; and quality improvement.

~~**Quality management.** All activities of the overall management function that determine the quality policy, objectives and responsibilities, and implementing them by means such as quality planning, quality control, quality assurance and quality improvement within the quality system.~~



**Quality manager.** The manager, acceptable to the Authority, responsible for the management of the Quality system, monitoring function and requesting corrective actions.

**Quality system.** Documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement.

**Radio bearing.** 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 (RR S1.12).** Radiodetermination using the reception of radio waves for the purpose of determining the direction of a station or object.

**Radio direction-finding station (RR S1.91).** A radiodetermination station using radio direction finding.

**Radiotelephony network.** 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.

**Radiotelephony.** A form of radio communication primarily intended for the exchange of information in the form of speech.

**Rated air traffic controller.** An air traffic controller holding a license and valid ratings appropriate to the privileges to be exercised.

**Rating.** An authorization entered on or associated with a license and forming part thereof, stating special conditions, privileges or limitations pertaining to such license.

**RCP type.** A label (e.g. RCP 240) that represents the values assigned to RCP parameters for communication transaction time, continuity, availability and integrity.

**Readback.** 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.

**Rebuild.** The restoration of an aircraft/aeronautical product by using methods, techniques, and practices acceptable to the Authority, when it has been



disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits. This work will be performed by only the manufacturer or an organization approved by the manufacturer, and Authorized by the State of Registry.

**Regular station.** 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.

**Regional air navigation agreement.** Agreement approved by the Council of ICAO normally on the advice of a regional air navigation meeting.

**Re-issue of a license, rating, Authorization or certificate.** The administrative action taken after a license, rating, Authorization or certificate has lapsed that reissues the privileges of the license, rating, Authorization or certificate for a further specified period consequent upon the fulfillment of specified requirements.

**Relief.** The inequalities in elevation of the surface of the Earth represented on the aeronautical charts by contours, hypsometric tints, shading or spot elevations.

**Remotely Piloted Aircraft (RPA).** an unmanned aircraft which is piloted from a remote pilot station.

**Remotely Piloted Aircraft System (RPAS).** a remotely piloted aircraft, its associated remote pilot stations, the required command and control links and any other components as specified in the type design.

**Rendering (a Certificate of Airworthiness) valid.** 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 license) valid** The action taken by a Contracting State, as an alternative to issuing its own license, in accepting a license issued by any other Contracting State as the equivalent of its own license.

**Repair.** The restoration of an aeronautical product to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate airworthiness requirements used for the issuance of the type certificate for the respective aircraft type, after it has been damaged or subjected to wear.



***Repetitive Flight Plan (RPL).*** 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.

***Reporting point.*** A specified geographical location in relation to which the position of an aircraft can be reported.

***Republic of the Philippines aircraft.*** means an aircraft that is registered in the Republic of the Philippines.

***Republic of the Philippines operator.*** means an operator whose principal place of business is located in or permanent residence is in Republic of the Philippines.

***Restricted area.*** 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.

***Required Communication Performance (RCP).*** A statement of the performance requirements for operational communication in support of specific ATM functions.

***Required Communication Performance type (RCP type).*** A label (e.g. RCP 240) that represents the values assigned to RCP parameters for communication transaction time, continuity, availability and integrity.

***Required Navigation Performance (RNP).*** A statement of the navigation performance necessary for operation within a defined airspace.

***Rescue.*** 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.*** 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.

***Resolution.*** A number of units or digits to which a measured or calculated value is expressed and used.

***Rest Period.*** 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.*** 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.



**Return to Service (RTS).** A document signed by an authorized representative of an approved maintenance organization (AMO) in respect of an inspection, repair or modification on a complete aircraft, engine or propeller after it has received a Maintenance Release for the maintenance performed at an AMO.

*Note: An air operator's aircraft are returned to service following maintenance by a person specifically authorized by an AMO rather than by an individual on their own behalf. A return to service can only be signed when all maintenance has been completed, accounted for and a maintenance release signed as described in Parts 5 and 6. The person signing the RTS acts in the capacity of an authorized agent for the AMO and is certifying that the maintenance covered by the RTS was accomplished according to the air operator's continuous maintenance program. Responsibility for each step of the accomplished maintenance is borne by the person signing for that step and the RTS certifies the entire maintenance work package. This arrangement in no way reduces the responsibility of licensed aircraft maintenance technicians (AMT) or maintenance organizations for maintenance functions or tasks they perform or supervise. The RTS is required for all commercially operated aircraft including flight training aircraft having undergone maintenance at an AMO; however this may also be used for Non-Commercial aircraft.*

**Reversal Procedure.** 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.

**RNP Type.** A containment value expressed as a distance in nautical miles from the intended position within which flights would be for at least 95 per cent of the total flying time.

Example. - RNP 4 represents a navigation accuracy of plus or minus 7.4 km (4 NM) on a 95 per cent containment basis.

**Rotorcraft.** A power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

**Rotorcraft flight manual.** A manual, associated with the certificate of airworthiness, containing limitations within which the rotorcraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the rotorcraft.

**Rotorcraft load combinations.** Configurations for external loads carried by rotorcraft—



- (a) Class A – external load fixed to the rotorcraft, cannot be jettisoned, and does not extend below the landing gear, used to transport cargo.
- (b) Class B – external load suspended from the rotorcraft, which can be jettisoned, and is transported free of land or water during rotorcraft operations.
- (c) Class C – external load suspended from the rotorcraft, which can be jettisoned, but remains in contact with land or water during rotorcraft operation.
- (d) Class D - external load suspended from the rotorcraft for the carriage of persons.

**Route sector.** A flight comprising take off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.

**Routing Directory.** A list in a communication centre indicating for each addressee the outgoing circuit to be used.

**Runway.** A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

**Runway-Holding Position.** 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.** 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 visual range (RVR).** 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.** Unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.

**Safety management program.** A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.



**Safety management system.** A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

**Safety recommendation.** 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-sensitive personnel.** Persons who might endanger aviation safety if they perform their duties and functions improperly including, but not limited to, crew members, aircraft maintenance personnel and air traffic controllers.

**Scenario.** Part of a training module plan that consists of predetermined manoeuvres and training events.

**Scenario-based training.** Training that incorporates manoeuvres into real-world experiences to cultivate practical flying skills in an operational environment.

**Satisfactory evidence.** A set of documents or activities that a Contracting State accepts as sufficient to show compliance with an airworthiness requirement.

**Scenario-based training.** Training that incorporates manoeuvres into real-world experiences to cultivate practical flying skills in an operational environment.

**Search.** An operation normally coordinated by a rescue coordination centre or rescue subcentre using available personnel and facilities to locate persons in distress.

**Search and rescue services unit.** A generic term meaning, as the case may be, rescue coordination center, rescue subcenter or alerting post.

**Secondary frequency.** The radiotelephony frequency assigned to an aircraft as a second choice for air-ground communication in a radiotelephony network.

**Secondary surveillance radar (SSR).** A surveillance radar system which uses transmitters/receivers (interrogators) and transponders.

**Security management.** An ATN systems management facility for access control, authentication and data integrity.



**Semi-automatic relay installation.** 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.

**Series of flights.** Series of flights are 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.** An incident involving circumstances indicating that there was a high probability of an accident and is 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.

*Note 1: The difference between an accident and a serious incident lies only in the result.*

*Note 2: The types of incidents which are of main interest to the ICAO for accident prevention studies are listed in ICAO Appendix 4. (List of Examples of Serious Incidents).*

**Serious injury.** 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 hemorrhage, 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% of the body surface; or
- (f) Involves verified exposure to infectious substances or injurious radiation.



**Shoulder.** An area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.

**Sign a maintenance release (to).** To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in CAR.

**Signature.** An individual's unique identification used as a means of authenticating a maintenance record entry or maintenance record. A signature may be hand-written, electronic, or any other form acceptable to the Authority.

**Significant point.** A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes.

**SIGMET information.** 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 aircraft operations.

**Signal area.** An area on an aerodrome used for the display of ground signals.

**Sign a maintenance release (to).** To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in Annex 6.

**Significant.** In the context of the medical provisions in Chapter 6, *significant* means to a degree or of a nature that is likely to jeopardize flight safety.

**Simplex.** A method in which telecommunication between two stations takes place in one direction at a time.

**Single channel simplex.** Simplex using the same frequency channel in each direction.

**Slotted aloha.** 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.

**Small airplane.** An aeroplane of a maximum certificated take-off mass of 5,700 kg or less.

**Small RPA** means RPA with a gross weight of below 7kgs.



**SNOWTAM.** A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format.

**Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.

**Special VFR flight.** A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.

**Spin.** 'Incipient spin' means a transient flight condition in the post-stall regime where an initial, uncommanded roll in excess of 45° has resulted from yaw asymmetry during a stall and which, if recovery action is not taken, will lead rapidly to a developing spin. Prompt recovery during this incipient spin stage will normally result in an overall heading change, from pre-stall conditions, of not more than 180°.

'Developing spin' means a flight condition in the post-stall regime where the airplane exhibits abnormal, but varying, rates of yaw and roll, together with changing pitch attitude, following an incipient spin but before the establishment of a developed spin. A developing spin follows an unrecovered incipient spin and will usually persist, in the absence of any recovery action, until a developed spin ensues.

'Developing spin' means a flight condition in the post-stall regime where the airplane has achieved approximately constant pitch attitude, yaw rate and roll rate on a descending flight path. In transition from a stall with significant, persistent yaw, with no recovery action, to attaining a developed spin, the airplane is likely to have rolled through at least 540°.

*Note: To summarize, the circumstances that must prevail before an airplane spins are: The airplane must be in a stalled condition and the airplane must yaw and/or roll.*

**Specialized maintenance.** Any maintenance not normally performed by an AMO (e.g. tire retreating, plating, etc.).

**Specific operating provisions.** The Specific Operating Provisions describe the ratings (Class and/or Limited) in detail and will contain or reference material and process specifications used in performing repair work, along with any limitations applied to the maintenance organization. The Accountable Manager and the Authority sign this document.

**Stall.** An aerodynamic loss of lift caused by exceeding the critical angle of attack.



*Note.* – A stalled condition can exist at any attitude and airspeed, and may be recognized by continuous stall warning activation accompanied by at least one of the following:

- (a) buffeting, which could be heavy at times;
- (b) lack of pitch authority and/or roll control; and
- (c) inability to arrest the descent rate.

**Stall Event.** An occurrence whereby the aeroplane experiences conditions associated with an approach-to-stall or an aerodynamic stall.

**Stall (event) recovery procedure.** The manufacturer-approved airplane-specific stall recovery procedure. If an OEM-approved recovery procedure does not exist, the airplane-specific stall recovery procedure developed by the operator, based on the stall recovery template contained in IS 2.3.3.3 APPENDIX C, may be used.

**Stall warning.** A natural or synthetic indication provided when approaching a stall that may include one or more of the following indications:

- (a) aerodynamic buffeting (some airplanes will buffet more than others);
- (b) reduced roll stability and aileron effectiveness;
- (c) visual or aural cues and warnings;
- (d) reduced elevator (pitch) authority;
- (e) inability to maintain altitude or arrest rate of descent; and
- (f) stick shaker activation (if installed).

*Note.* – A stall warning indicates an immediate need to reduce the angle of attack.

**Standard atmosphere.** An atmosphere defined as follows:

- (a) the air is a perfect dry gas;
- (b) the physical constants are:
  - Sea level mean molar mass:  
 $M_0 = 28.964420 \times 10^{-3} \text{ kg mol}^{-1}$
  - Sea level atmospheric pressure:  
 $P_0 = 1013.250 \text{ hPa}$
  - Sea level temperature:  
 $t_0 = 15^\circ\text{C}$   
 $T_0 = 288.15 \text{ K}$
  - Sea level atmospheric density:



$$\rho = 1.225 \text{ kg m}^{-3}$$

— Temperature of the ice point:

$$T_i = 273.15 \text{ K}$$

— Universal gas constant:

$$R^* = 8.31432 \text{ JK}^{-1} \text{ mol}^{-1}$$

(c) the temperature gradients are:

Geopotential altitude (km)	Temperature gradient (Kelvin per standard geopotential kilometre)
From To	
-5.0 11.0	-6.5
11.0 20.0	0.0
20.0 32.0	+1.0
32.0 47.0	+2.8
47.0 51.0	0.0
51.0 71.0	-2.8
71.0 80.0	-2.0

**Standard isobaric surface.** An isobaric surface used on a worldwide basis for representing and analyzing the conditions in the atmosphere.

**Startle.** The initial short-term, involuntary physiological and cognitive reactions to an unexpected event that commence the normal human stress response.

**State aircraft.** An aircraft used only on behalf of the Government (except for commercial purposes) or exclusively leased for at least 90 continuous days.

**State of Design.** The State having jurisdiction over the organization responsible for the type design.

**State of Destination.** The State in the territory of which the consignment is finally to be unloaded from an aircraft.

**State of Manufacture.** The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.

**State of occurrence.** means the State in whose territory an accident or incident occurs.

**State of Origin.** The State in which dangerous goods were first loaded on an aircraft.

**State of Registry.** The State on whose register the aircraft is entered.



*Note: In the case of the registration of aircraft of an international operating agency or other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. Refer to the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587).*

**State of the Aerodrome.** The State in whose territory the aerodrome is located.

**State of the Operator.** 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 Safety program.** An integrated set of regulations and activities aimed at improving safety.

**Station declination.** An alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

**Stick pusher.** A device that, automatically applies a nose down movement and pitch force to an aeroplane's control columns, to attempt to decrease the aeroplane's angle of attack. Device activation may occur before or after aerodynamic stall, depending on the aeroplane type.

*Note. – A stick pusher is not installed on all aeroplane types.*

**Stick shaker.** A device that automatically vibrates the control column to warn the pilot of an approaching stall.

*Note. – A stick shaker is not installed on all aeroplane types*

**Stopway.** 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.

**Stress (response).** The response to a threatening event that includes physiological, psychological and cognitive effects. These effects may range from positive to negative and can either enhance or degrade performance.

**Subnetwork.** An actual implementation of a data network that employs a homogeneous protocol and addressing plan and is under control of a single authority.



**Substantial damage.** Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. *Note: Engine failure or damage limited to an engine if only one engine fails or is damaged, bent failings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this Part.*

**Surprise.** The emotionally-based recognition of a difference in what was expected and what is actual.

**Switched Virtual Circuit (SVC).** The primary circuit management technique provided within the ISO 8208 protocol. The network resources are dynamically allocated when needed and released when no longer required.

**Synthetic flight trainer.** See flight simulation training device.

**Synthetic vision system (SVS).** A system to display data-derived synthetic images of the external scene from the perspective of the flight deck.

**System level requirement.** The system level requirement is a high-level technical requirement that has been derived from operational requirements, technological constraints and regulatory constraints (administrative basis for the functional requirements and lower-level requirements).

**Take-off and initial climb phase.** 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).** The point used in determining take-off performance from which, a power-unit failure occurring at this point, either a rejected take-off may be made or a take-off safely continued.

**Take-off surface.** 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).** A generic term representing the level of risk which is considered acceptable in particular circumstances.

**Taxiing.** Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.



**Taxiway.** 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 airplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times.

**Technical instructions.** The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc. 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

~~**Technical instructions.** The latest effective edition of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284 AN/905), including the supplement and any addendum, approved and published by decision of the Council of the ICAO. The term "Technical Instructions" is used in this Part.~~

**Telecommunication (RR S1.3).** 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.** 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.

**Terminal control area.** A control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes.

**Terminal Arrival Altitude (TAA).** 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 centered 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.

**Terrain.** 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.



**Threat.** 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.

*Note.* — See Attachment E of Annex 13 — Aircraft Accident and Incident Investigation for a description of operational personnel.

**Threat management.** The process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

*Note.* — See Attachment C to Chapter 1 of Part II of the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and Circular 314 — Threat and Error Management (TEM) in Air Traffic Control for a description of undesired states.

**Threshold.** The beginning of that portion of the runway usable for landing.

**Threshold time.** The range, expressed in time, established by the Authority, to an en-route alternate aerodrome, whereby any time beyond requires an EDTO approval from the Authority.

**Time Division Multiplex (TDM).** 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.

**Time Division Multiple Access (TDMA).** 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.

**“Torn-tape” relay installation.** 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 Vertical Error (TVE).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

**Touchdown.** The point where the nominal glide path intercepts the runway.

**Touchdown and Lift-Off Area (TLOF).** A load bearing area on which a helicopter may touch down or lift off.



**Touchdown zone.** The portion of a runway, beyond the threshold, where it is intended landing airplanes first contact the runway.

**Track.** 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).

**Training to proficiency.** The process of the check airman administering each prescribed maneuver and procedure to a pilot as necessary until it is performed successfully during the training period.

**Train-to-proficiency.** Approved training designed to achieve end-state performance objectives, providing sufficient assurances that the trained individual is capable to consistently carry out specific tasks safely and effectively.

*Note. – In the context of this definition, the words train-to-proficiency can be replaced by training-to-proficiency.*

**Traffic avoidance advice.** Advice provided by an air traffic services unit specifying maneuvers to assist a pilot to avoid a collision.

**Traffic information.** 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.** A surveillance function that receives and processes surveillance data from TIS-B OUT data sources.

**Traffic Information Service-Broadcast (TIS-B) OUT.** A function on the ground that periodically broadcasts the surveillance information made available by ground sensors in a format suitable for TIS-B IN capable receivers.

**Training event.** Part of a training scenario that enables a set of competencies to be exercised.

**Training manual.** A manual containing the training goals, objectives, standards syllabi, and curriculum for each phase of the approved training course. ICAO Doc 7192, Part D-1.

**Training objective.** A clear statement that is compromised of three parts, i.e.:

- (a) the desired performance or what the trainee is expected to be able to do at the end of training (or at the end of particular stages of training);



- (b) the conditions under which the trainee will demonstrate competence; and
- (c) the performance standard to be attained to confirm the trainee's level of competence.

**Training specifications.** A document issued to an Aviation Training Organization certificate holder by the Republic of the Philippines that specifies training program requirements and authorizes the conduct of training, checking, and testing with any limitations thereof.

**Transfer of control point.** 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.

**Transferring unit.** Air traffic control unit in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit along the route of flight.

**Transit delay.** 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.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

**Transport category aeroplane.** A category of airworthiness applicable to large civil aeroplanes, which are either:

- (a) Turbojets with 10 or more seats or having a maximum take-off mass (MTOM) of greater than 5 700 kg (12 566 lb); or
- (b) Propeller-driven aeroplanes with greater than 19 seats or a MTOM greater than 8618 kg (19 000 lb).

**Tributary station.** 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.** Generic term for a non-frontal synoptic-scale cyclone originating over tropical or sub-tropical waters with organized convection and definite cyclonic surface wind circulation.



**Tropical Cyclone Advisory Centre (TCAC).** A meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, world area forecast centers and international OPMET data banks regarding the position, forecast direction and speed of movement, central pressure and maximum surface wind of tropical cyclones.

**Total estimated elapsed time.** 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).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

~~**Track.** 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).~~

**Traffic avoidance advice.** Advice provided by an air traffic services unit specifying maneuvers to assist a pilot to avoid a collision.

**Traffic information.** 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.

**Transition altitude.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

**Type Certificate.** 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.

*Note. – In some Contracting States a document equivalent to a type certificate may be issued for an engine or propeller type.*

**Type design.** The set of data and information necessary to define an aircraft, engine or propeller type for the purpose of airworthiness determination.

**Uncertainty phase.** A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.



**Undesired aircraft state.** Occurs when the flight crew places the aircraft in a situation of unnecessary risk.

**Ultimate load.** The limit load multiplied by the appropriate factor of safety.

**UN number.** The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to identify a substance or a particular group of substances.

**Unit load device.** Any type of aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

**Unmanned free balloon.** A non-power-driven, unmanned, lighter-than-air aircraft in free flight.

**Upper-air chart.** A meteorological chart relating to a specified upper-air surface or layer of the atmosphere.

**Upper Layers (UL) communications service.** A term pertaining to the session, presentation and application layers of the OSI reference model.

**Unsafe situation.** A situation, which has led to an unacceptable reduction in safety margin.

**Validation.** The action taken by the Republic of the Philippines as an alternative to issuing its own license, in accepting a license issued by another Contracting State as the equivalent of its own for use on aircraft registered in the Republic of the Philippines.

**Vectoring.** Provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system.

**VFR.** The symbol used to designate the visual flight rules.

**VFR flight.** A flight conducted in accordance with the visual flight rules.

**VHF Digital Link (VDL).** 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.

**Visual meteorological conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.



**Visibility.** 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.

**Visual approach procedure.** 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 Line Of Sight (VLOS).** an operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the remotely piloted aircraft.

**Visual Meteorological Conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling\*, equal to or better than specified minima.

**VMC.** The symbol used to designate visual meteorological conditions.

**Volcanic Ash Advisory Centre (VAAC).** A meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, area control centers, flight information centers, world area forecast centers and international OPMET data banks regarding the lateral and vertical extent and forecast movement of volcanic ash in the atmosphere following volcanic eruptions.

**VOLMET.** 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.



$V_{Toss}$ . The minimum speed at which climb shall be achieved with the critical power-unit inoperative, the remaining power-units operating within approved operating limits.

**Wake encounter.** An event characterized by the aeroplane experiencing the effects of wake turbulence brought about by wingtip vortices or engine exhaust.

**Waypoint.** 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.

**Weight-shift-control aircraft** means a powered aircraft with a framed pivoting wing and a fuselage controllable only in pitch and roll by the pilot's ability to change the aircraft's center of gravity with respect to the wing. Flight control of the aircraft depends on the wing's ability to flexibly deform rather than the use of control surfaces.

**World Area Forecast Centre (WAFC).** 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 by appropriate means as part of the aeronautical fixed service.

**World Area Forecast System (WAFS).** A worldwide system by which world area forecast centers provide aeronautical meteorological en-route forecasts in uniform standardized formats.

**Z marker beacon.** A type of radio beacon, the emissions of which radiate in a vertical cone-shaped pattern.

***Terms used with a limited meaning:***

For the purpose of these Regulations, the following terms are used with a limited meaning as indicated below:

- (a) to avoid confusion in respect of the term "service" between the meteorological service considered as an administrative entity and the service which is provided, "meteorological authority" is used for the former and "service" for the latter;



- (b) "provide" is used solely in connection with the provision of service;
- (c) "issue" is used solely in connection with cases where the obligation specifically extends to sending out the information to a user;
- (d) "make available" is used solely in connection with cases where the obligation ends with making the information accessible to a user; and
- (e) "supply" is used solely in connection with cases where either (c) or (d) applies.

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Editorial Note - Remove all definition of Terms found in  
PCAR Parts 2, 3, 4, 5, 6, 7, 8, 9 10, 11, 13 and 18.

*"End of Text"*

**Separability Clause** - If, for any reason, any provision of this Memorandum Circular is declared invalid or unconstitutional, the other part or parts thereof which are not affected thereby shall continue to be in full force and effect.

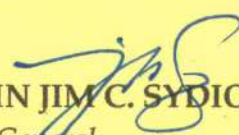
**Repealing Clause** - All orders, rules, regulations and issuances, or parts thereof which are inconsistent with this Memorandum Circular are hereby repealed, superseded or modified accordingly.

**Determination of Changes** - To highlight the amendments and/or revisions in the Memorandum Circular, the deleted text shall be shown with strikethrough and the new inserted text shall be highlighted with grey shading, as illustrated below:

1. Text deleted: ~~Text to be deleted is shown with a line through it.~~
2. New text inserted: New text is highlighted with grey shading.
3. New text replacing existing text: ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading.

**Effectivity** - Fifteen (15) days after compliance with the requisite publication in a single newspaper of general circulation and a copy filed with the U.P. Law Center – Office of the National Administrative Register, these amendments shall be incorporated to the Philippine CAR, series of 2021.

Signed this 04 day of January, 2022 CAAP, Pasay City

  
CAPTAIN JIM C. SYDIONGCO  
Director General