

# Civil Aviation Rules



## **Notice of Proposed Rule Making NPRM 16-01 1 December 2016**

### **Part 1 Definitions, Abbreviations and Units of Measurement**

**Docket CAR/16/1/01  
2016-2017 Rules Review**

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## Background to the Civil Aviation Rules

The Civil Aviation Rules establish the minimum regulatory safety boundary for participants to gain entry into, operate within, and exit the Papua New Guinea civil aviation system. The Rules are structured in a manner similar to the Civil Aviation Rules of New Zealand and the Federal Aviation Regulations of the USA. Where practicable the Rules also align with the regulatory code of the Civil Aviation Safety Authority of Australia.

Rules are divided into Parts and each Part contains a series of individual rules which relate to a particular aviation activity. Advisory Circulars accompany many rule Parts and contain information about standards, practices and procedures that the Director has established to be an Acceptable Means of Compliance (AMC) with the associated rule. An Advisory Circular may also contain guidance material (GM) to facilitate compliance with the rule requirements.

The objective of the Civil Aviation Rules system is to strike a balance of responsibility between, on the one hand, the State and regulatory authority, the Civil Aviation Safety Authority of PNG (CASA PNG) and, on the other hand those who provide services and exercise privileges in the civil aviation system. This balance must enable the State and regulatory authority to set standards for, and monitor performance of aviation participants whilst providing the maximum flexibility for the participants to develop their own means of compliance within the safety boundary.

Section 45 of the Civil Aviation Act 2000 prescribes general requirements for participants in the civil aviation system and requires, amongst other things, participants to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices.

Section 69 of the Act allows the Minister to make ordinary rules for any of the following purposes:

- The implementation of Papua New Guinea's obligations under the Convention
- To provide for safe, sustainable, effective and efficient aviation services
- To provision of aviation metrological services, search and rescue services and civil aviation security programs and services
- Assisting aviation safety and security, including but not limited to personal security
- Assisting economic development
- Ensuring environmental sustainability

## 1. Purpose of this NPRM

The purpose of this Notice of Proposed Rulemaking (NPRM) is to put forward for consideration the proposed amendments to Part 1 of the Civil Aviation Rules (CAR).

## 2. Background to the Proposal

The ongoing review of the Civil Aviation Rule parts identified that the definitions contained in Part 1 required revision to incorporate advances in operational practices and ICAO standards.

The proposed amendments will ensure that PNG definitions remain current and reflect the relevant definitions contained in the ICAO annexes.

## 3. Costs associated with this NPRM

There is no cost associated with this amendment.

## 4. Summary of changes

<i>Amendment 03 (01 Apr 2017)</i>	Schedule 1.1	Definitions for the following terms have been added: Aerodrome operating minima, aircraft operating manual, aircraft search, aircraft security check, airside, altimetry system error, background check, behaviour detection, cabin crew member, COMAT, combined crew vision system, commercial air transport operations, configuration deviation list, continuous descent final approach, crew member, cruise relief pilot, dangerous goods accident, EDTO critical fuel, EDTO significant system, electronic flight bag (EFB), exception, exemption, fatigues risk management system (FRMS), flight recorder, flight safety document system, general aviation (GA) operations, ground handling, head up display (HUD), high-risk cargo or mail, human factor principle, human performance, isolated aerodrome, large aeroplanes, maintenance organisation procedures manual, maintenance programme, maintenance release, master minimum equipment list (MMEL), master equipment list (MEL), maximum diversion time, maximum mass, minimum descent altitude (MDA) or minimum descent height (MDH), navigation specification, operations manual, operator, operator's maintenance control manual, performance-based communication (PBC), performance-based navigation (PBN), performance-based surveillance, point of no return, psychoactive substance, required communication performance, required surveillance performance, safety management system (SMS), small aeroplanes, state of aerodrome, state of operator, synthetic vision
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system, total vertical error, unidentified item.

The following definitions have been amended:

Air operator certificate, airworthy, alternate aerodrome, altitude, carry-on baggage, dangerous goods, dangerous goods incident, decision altitude (DA) or decision height (DH), emergency locator transmitter (ELT), flight crew member, operations specifications, pilot-in-command, screening, security control, technical instructions, threshold, unlawful interference.

Minor editorial changes

## 5. Legislative Analysis

The Minister may make ordinary rules under sections 69, 70, 71 and 72 of the Civil Aviation Act 2000, for various purposes including implementing Papua New Guinea's obligations under the Convention on International Civil Aviation, assisting aviation safety and security, and any matter contemplated under the Act.

These proposed rules are made pursuant to:

- (a) Section 69(1)(a) which provides for the Minister to make rules for the implementation of Papua New Guinea's obligations under the Convention;
- (b) Section 72(a) which provides for the Minister to make rule for the designation, classification and certification of-
  - (1) Air services:
  - (2) Aerodrome operators:
  - (3) Aviation security providers:
  - (4) Aviation training organizations"
  - (5) Aircraft design, manufacture, maintenance and supply organizations:
  - (6) Air traffic services;
  - (7) Aviation meteorological services:
  - (8) Aeronautical communication services:
  - (9) Aeronautical procedures.

The proposed amendment of Part 47 complies with the requirements of the Civil Aviation Act and does not contravene the Constitution, the Aerodrome (Business Concession) Act, Civil Aviation (Air Craft Operator Liability) Act, Civil Aviation (Aircraft Charges) Act, Airport Departure Tax Act, the Explosive Act, Firearms Act, Customs Act, Plant and Disease Control Act and the Environmental Act.

The proposed Rule has been checked for language and compliance with the legal conventions of Papua New Guinea.

## 6. Submissions on the NPRM

### 6.1 Submissions are invited

Interested persons are invited to participate in the making of the proposed rule amendment by submitting written data, views, or comments. All submissions will be considered before final action on the proposed rule amendment is taken. If there is a need to make any significant change to the rule requirements in the proposal as a result of the submissions received, then interested persons may be invited to make further submissions.

### 6.2 Examination of submissions

All submissions will be available in the rules docket for examination by interested persons both before and after the closing date for submissions. A consultation summary will be published with final rule.

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Safety Authority between 8:30 am and 3:30 pm, on weekdays, except statutory holidays.

### 6.3 Disclosure

Submitters should note that any information attached to submissions will become part of the docket file and will be available to the public for examination at the Civil Aviation Safety Authority offices.

Submitters should state clearly if there is any information in their submission that is commercially sensitive or for some other reason the submitter does not want the information to be released to other interested parties.

### 6.4 How to make submission

Submissions may be sent by the following methods:

By Mail:                   Docket Clerk (NPRM 16-01)  
Civil Aviation Safety Authority  
PO Box 1941  
**BOROKO**  
National Capital District

Delivered:               Docket Clerk (NPRM 16-01)  
Civil Aviation Safety Authority  
Morea-Tobo Road  
Six Mile, Jacksons Airport  
Port Moresby NCD

By Fax:                   Docket Clerk (NPRM 16-01)  
3251789 / 325 1919

By Email: Docket Clerk (NPRM 16-01)  
[rules@casapng.gov.pg](mailto:rules@casapng.gov.pg)

## **6.5 Final date for submissions**

Comments must be received before **4:00pm, Friday 31<sup>st</sup> of March 2017.**

## **6.6 Further information**

For further information contact:

Manager - Legal Services  
CASA PNG  
[anambau@casapng.gov.pg](mailto:anambau@casapng.gov.pg)

**Ph: 325 7320            Mob: 76980173**

## 1.1 General definitions

In rules made under the Act, unless the context otherwise requires—

**Accelerate-stop distance available** means the length of the take-off run available plus the length of any stop way:

**Accident** means an occurrence that is associated with the operation of an aircraft and takes place between the time any person boards the aircraft with the intention of flight and such time as all such persons have disembarked and the engine or any propellers or rotors come to rest, being an occurrence in which—

- (1) a person is fatally or seriously injured as a result of—
  - (i) being in the aircraft; or
  - (ii) direct contact with any part of the aircraft, including any part that has become detached from the aircraft; or
  - (iii) direct exposure to jet blast—

except when the injuries are self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to passengers and crew; or
- (2) the aircraft sustains damage or structural failure that—
  - (i) adversely affects the structural strength, performance, or flight characteristics of the aircraft; and
  - (ii) would normally require major repair or replacement of the affected component—

except engine failure or damage that is limited to the engine, its cowlings, or accessories, or damage limited to propellers, wing tips, rotors, antennas, tyres, brakes, fairings, small dents, or puncture holes in the aircraft skin; or
- (3) the aircraft is missing or is completely inaccessible:

**Accredited medical conclusion** means the conclusion reached, regarding the medical fitness of an applicant for a medical certificate, by one or more medical experts acceptable to the Director for the purposes of the case concerned:

**Act** means the Civil Aviation Act No. 20 of 2000 as amended from time to time:

**Adequate aerodrome, in relation to ETOPS, means an aerodrome that-**

- (1) is associated with a Part 139 certificate or meets safety requirements equivalent to such an aerodrome; and
- (2) has suitable facilities and services available, for the aeroplane type concerned, that

include-

- (i) ATC or an aerodrome flight information service; and
- (ii) a meteorological reporting service; and
- (iii) at least one instrument approach procedure; and
- (iv) a visual approach slope indicator system for turbojet and turbofan powered aeroplanes; and
- (v) sufficient lighting:

**Aerobatic flight** means—

- (1) an intentional manoeuvre in which the aircraft is in sustained inverted flight or is rolled from upright to inverted or from inverted to upright position; or
- (2) manoeuvres such as rolls, loops, spins, upward vertical flight culminating in a stall turn, hammerhead or whip stall, or a combination of such manoeuvres:

**Aerodrome** means—

- (1) any defined area of land or water intended or designed to be used either wholly or partly for the landing, departure, and surface movement of aircraft; and
- (2) any buildings, installations, and equipment on or adjacent to any such area used in connection with the aerodrome or its administration:

**Aerodrome control service** means an air traffic control service provided for the control of aerodrome traffic:

**Aerodrome control tower** means a unit established to provide ATC service to aerodrome traffic:

**Aerodrome flight information service** means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights in the vicinity of an aerodrome:

**Aerodrome incident** means an incident involving an aircraft operation and –

- (1) an obstruction either on the aerodrome operational area or protruding into the aerodrome obstacle limitation surfaces; or
- (2) a defective visual aid; or
- (3) a defective surface of manoeuvring area; or
- (4) any other defective aerodrome facility

**Aerodrome operational area** means—

- (1) the movement area at an aerodrome and its associated strips and safety areas; and
- (2) any ground installation or facility provided at an aerodrome for the safety of aircraft operations:

**Aerodrome operating minima** means the limits of usability of an aerodrome for:

- (1) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;
- (2) 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
- (3) landing in 3D instrument approach operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the type and/or category of the operation.

**Aerodrome traffic means—**

- (1) all traffic in the manoeuvring area of an aerodrome; and
- (2) all aircraft flying in the vicinity of an aerodrome:

**Aerodrome traffic circuit** means the pattern flown by aircraft operating in the vicinity of an aerodrome:

**Aerodrome traffic zone** means an airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic:

**Aeronautical facility** means-

- (1) the various types of communication systems used for an aeronautical broadcasting service, or an aeronautical fixed service, that supports IFR flight or an air traffic service; or
- (2) the ground elements of the various types of communication systems used for an aeronautical mobile service; or
- (3) the various types of radio navigation aids used for the aeronautical radio navigation service; or
- (4) any other type of ground-based telecommunication system that supports IFR flight or an air traffic service; or
- (5) the various types of ground based telecommunication systems that operate in the aeronautical mobile radio frequency bands and are used to provide basic weather information, local aerodrome information, or flight following services:

**Aeronautical Information Circular** means a notice containing information that does not

qualify for the origination of a NOTAM or for inclusion in the PNGAIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters:

**Aeronautical information publication** means a publication issued by, or with the authority of, a State and containing aeronautical information of a lasting character essential to air navigation:

**Aeronautical information service** means any of the following services that distribute aeronautical information essential for the safety, regularity and efficiency of air navigation—

- (1) AIP service; or
- (2) NOTAM service; or
- (3) Pre-flight information service:

**Aeronautical product** means anything that comprises or is intended to comprise any part of an aircraft, or that is or is intended to be installed in or fitted or supplied to an aircraft; and includes fuel and other similar consumable items necessary for the operation of the aircraft:

**Aeroplane** means a power-driven heavier-than-air aircraft deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight:

**Aeroplane movement** means an aeroplane take-off or landing, including the taxiing associated with take-off or landing:

**Agricultural aircraft operation** means the operation of an aircraft, on a single flight, or on a series of flights, for one or more of the following purposes:

- (1) dispensing an agricultural chemical:
- (2) dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control:
- (3) engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation:

**Agricultural chemical** means any substance or mixture of substances intended for—

- (1) preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds or other forms of plant, animal life or viruses (except viruses on or in living man or other animals) which have been declared by the appropriate authority to be a national or regional pest or noxious plant; or
- (2) use as a plant regulator, defoliant or desiccant:

**AIRAC** means aeronautical information regulation and control, signifying a system aimed at advance notification based on common effective dates, of circumstances that require significant changes in operating practices:

[The AIRAC system is based upon the international series of common effective dates at intervals of 28 days]

**AIP Amendment** means permanent changes to the information contained in the PNGAIP:

**AIP service** means a service for the publication of the PNGAIP, AIP Amendments, AIP Supplements and aeronautical information circulars:

**AIP Supplement** means temporary changes to the information contained in the PNGAIP which are published by means of special pages:

**Aircraft** means any machine that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth:

**Aircraft category and category of aircraft** means any one of the following groups of aircraft: aeroplane, helicopter, glider, and balloon:

**Aircraft component** means any component part of an aircraft up to and including a complete airframe or power plant, and includes any operational or emergency equipment fitted to or provided in an aircraft:

**Aircraft engine** means an engine that is used or intended to be used for propelling aircraft, and includes turbo-superchargers and accessories necessary for its functioning, but does not include propellers:

**Aircraft flight manual** means the aircraft flight manual referenced in the airworthiness certificate issued for that aircraft under Part 21, Subpart F and includes all amendments approved under Part 21. In the case of a foreign registered aircraft, aircraft flight manual means the aircraft flight manual, including all amendments, approved for that aircraft by the State of registry:

**Aircraft incident** means any incident, not otherwise classified, associated with an association of an aircraft:

**Aircraft radio station** means—

- (1) all installed radio equipment including antennae, indicators, controls, interconnecting cabling, and wiring into the aircraft electrical system, which are required in order to perform the intended function; and
- (2) all portable emergency radio equipment required to be carried by Part 91:

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

**Aircraft search** means a thorough inspection of the interior and exterior of the aircraft for the purpose of discovering suspicious objects, weapons, explosives or other dangerous devices, articles or substances.

**Aircraft security check** means an inspection of the interior of an aircraft to which passengers may have had access and an inspection of the hold for the purposes of discovering suspicious objects, weapons, explosives or other dangerous devices, articles and substances.

**Air operation** means the carriage of passengers' mail or cargo by air for hire or reward:

**Air operator certificate** means ~~an air operator~~ a certificate authorizing an operator to carry out specified commercial air transport operations issued under Part 119:

**Air operator security programme** means a programme to safeguard an air operator's passengers, crew, ground personnel, aircraft, and facilities from acts of unlawful interference:

**Air operation type** means an air operation declared to be either international or domestic, fixed wing or rotary, carriage of passengers, or cargo or mail, VFR or IFR, or a combination of any of these for the purpose of operations specifications.

**Airside** means the movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

**Airspace incident** means an incident involving deviation from, or shortcomings of, the procedures or rules for –

- (1) avoiding a collision between aircraft; or
- (2) avoiding a collision between aircraft and other obstacles when an aircraft is being provided with Air Traffic Service:

**Air traffic** means all aircraft in flight or operating on any manoeuvring area of an aerodrome:

**Air traffic advisory service** means a service provided within class F airspace to ensure separation, as far as practical, between aircraft that are operating on IFR flight plans:

**Air traffic control service** means a service provided for the purposes of—

- (1) preventing collisions—
  - (i) between aircraft; and
  - (ii) between aircraft and obstructions on any manoeuvring area; and
- (2) expediting and maintaining a safe and efficient flow of air traffic:

**Air traffic control unit** means a unit for providing any air traffic control service, and includes either an area control centre, an approach control office, or an aerodrome control tower:

**Air traffic service** includes—

- (1) any aerodrome control service;
- (2) any area control service;
- (3) any approach control service;
- (4) any flight information service;

- (5) any aerodrome flight information service;
- (6) any alerting service; or
- (7) any other air traffic service considered by the Director to be necessary or desirable for the safe and efficient operation of the civil aviation system:

**Air traffic services unit** means a unit providing an air traffic service, which may include an air traffic control unit and flight information centre;

**Airworthiness certificate** means—

- (1) for a PNG registered aircraft, an airworthiness certificate issued by the Director under Part 21, Subpart F; and
- (2) for a foreign registered aircraft, an airworthiness certificate issued by the competent authority of the State of registry:

**Airworthiness data** means any information necessary to ensure that an aircraft or aircraft component can be maintained in an airworthy condition:

**Airworthiness directive** means a mandatory airworthiness requirement issued under Part 39 that specifies modifications, inspections, conditions, or limitations to be applied to an aircraft or aeronautical product to ensure continued safe operating conditions:

**Airworthy condition** means ~~the condition of an aircraft, including its components, fuel, and other materials and substances essential to the manufacture and operation of the aircraft, that complies with all the requirements prescribed by the Civil Aviation Rules relating to design, manufacture, maintenance, modification, repair, and safety;~~ the status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

**Alerting service** means an air traffic service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid, and to assist such organisations as required:

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

- (1) Take-off alternate. An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.
- (2) En-route alternate. An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.
- (3) Destination alternate. An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

**Altitude** means the vertical distance of a level, a point, or an object considered as a point,

measured from mean sea level:

**Altimetry system error (ASE)** means the difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure.

**Amateur built aircraft** means an aircraft—

- (1) that is eligible for the issue of a special category airworthiness certificate under Part 21, Subpart F; and
- (2) at least 51% of which is fabricated by the aircraft's amateur constructor:

**Amateur constructor** means a person who constructs an aircraft solely for their own education or recreation:

**Appliance** means any instrument, mechanism, equipment, part, or accessory that is used, or is intended to be used, in operating or controlling an aircraft in flight, or is installed in or attached to the aircraft, that is not part of the airframe, engine, or propeller:

**Approach control office** means a unit established to provide ATC service to controlled flights arriving at, or departing from, one or more aerodromes:

**Approach control service** means an air traffic control service for arriving or departing controlled flights:

**Approved**, unless used with reference to another person, means approved in writing by the Director:

**Apron** means a defined area on a land aerodrome intended to accommodate aircraft for the purpose of loading or unloading passengers or cargo, refuelling, parking, or maintenance:

**Apron management service** means a service provided to regulate the activities and the movement of aircraft and vehicles on an apron:

**Area control centre** means a unit established to provide ATC service to controlled flights in control areas under its jurisdiction:

**Area control service** means an air traffic control service provided for controlled flights in controlled airspace:

**Area minimum altitude** means a minimum altitude prescribed for a defined area that will provide a safe clearance above all obstacles for aircraft operating under IFR:

**Area navigation (RNAV)** means a method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced 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 RNAV operations that do not meet the definition of performance based navigation**

**ATC clearance** means authorisation for an aircraft to proceed under conditions specified by

an air traffic control unit:

**ATC instruction** means a directive issued by ATC for the purpose of requiring a pilot to take a specific action:

**ATS unit** means a unit established to provide one or more air traffic service:

**Augmented crew** means the crew on an aeroplane when it is comprised of more than the minimum crew required by the aeroplane certification:

**Authorised flight examiner** means a person approved by the Director or authorised under these rules to conduct specified flight tests or ZFT simulator tests for flight crew licences or ratings:

**Authorised medical examiner** means a medical professional appointed by the Director as an authorised representative under Part 183.

**Authorised release certificate** means a PNG CAA Form One or equivalent document issued by an organisation in accordance with the airworthiness requirements of a Contracting State:

**Authorised representative** means a person appointed under Part 183 as an authorised representative of the Director.

**Authority** means the Civil Aviation Safety Authority of Papua New Guinea established by section 18 of the Act:

**Aviation event** means an event to be conducted below the minimum safe heights prescribed under Part 91 that is—

- (1) an air show or practice for an air show; or
- (2) an air race or practice for an air race; or
- (3) an aerobatic competition.

**Aviation Medical Assessor** means a medical practitioner appointed as an Aviation Medical Assessor under 67.05.

**Aviation Security Service** means the Aviation Security Service established under Section 12(f) of the Civil Aviation Act 2000:

**Background check** means a check of a person's identity and previous experience, including where legally permissible, any criminal history, as part of the assessment of an individual's suitability to implement a security control and/or for unescorted access to a security restricted area.

**Baggage** means personal property of passengers or crew carried on an aircraft by agreement with the operator, or personal property of passengers or crew that is intended by passengers or crew to be carried on an aircraft:

**Balloon** means a non-power-driven lighter-than-air aircraft:

**Basic weather report** means a verbal comment, in support of aviation, describing any of the following current weather conditions observed at a particular place or airspace:

- (1) wind direction and strength:
- (2) mean sea level air pressure:
- (3) air temperature:
- (4) weather conditions and cloud cover:

**Behaviour detection** means the application of techniques, within an aviation security environment, involving the recognition of behavioural characteristics, including but not limited to physiological or gestural signs indicative of anomalous behaviour, to identify persons who may pose a threat to civil aviation.

**Broadcast** means a transmission intended to be received by all stations:

**Bird incident** means an incident where –

- (1) there is an collision between an aircraft and one or more birds; or
- (2) when one or more birds pass sufficiently close to an aircraft in flight to cause alarm to the pilot:

**Cabin crew member** means 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.

**Cargo** means any property carried on an aircraft other than mail, stores and baggage:

**Carry-on baggage means** baggage and any other item that-

- (1) is carried on to an aircraft by a passenger or crew member with the agreement of the operator; and
- (2) remains in the custody of the passenger or crew member:

**Category I precision approach procedure** means a precision instrument approach and landing with a decision height not lower than 200 feet and with either a visibility not less than 800 m or a runway visual range not less than 550 m:

**Category II precision approach procedure** means a precision instrument approach and landing with a decision height lower than 200 feet, but not lower than 100 feet, and a runway visual range not less than 350 m:

**Category III precision approach procedure** means one of the following precision instrument approach and landings:

- (1) **Category IIIA:** A precision instrument approach and landing with—
  - (i) a decision height lower than 100 feet or no decision height; and
  - (ii) a runway visual range not less than 200 m:

- (2) **Category IIIB:** A precision instrument approach and landing with—
  - (i) a decision height lower than 50 feet or no decision height; and
  - (ii) a runway visual range less than 200 m but not less than 50 m:
- (3) **Category IIIC:** A precision instrument approach and landing with no decision height and no runway visual range limitations:

**Ceiling** means the height above ground or water of the base of the lowest layer of cloud below 20 000 feet covering more than half the sky:

**Certificated for single pilot operation**, in relation to an aircraft, means determined by the State of Registry, during the certification process, to be a type of aircraft that can be operated safely with a minimum crew of one pilot:

**Certificated organisation** means an organisation issued with a certificate under rules made under the Act

**Certificated passenger seating capacity** means the maximum passenger seating configuration stated on the aircraft type certificate or any proper modifications thereto including any STC or approved design change.

**Circling approach** means an extension of an instrument approach procedure that provides for visual circling of the aerodrome prior to landing:

**Civil Aviation Rules** means rules made under the Act:

**Class 1 microlight aircraft** means a microlight aircraft other than a Class 2 microlight aircraft:

**Class 2 microlight aircraft** means a microlight aircraft designed and equipped to carry 2 persons:

**Class 3.1A fuel** means a fuel with a flashpoint below 23<sup>o</sup>C and has an initial boiling point (IBP) of a maximum 35<sup>o</sup>C, and includes petrol based products (aviation gasoline):

**Class 3.1C fuel** means a fuel with a flashpoint at or above 23<sup>o</sup>C but at or below 60<sup>o</sup>C and includes kerosene based products (aviation turbine grade fuel):

**Class 3.1D – Flammable liquid** means a liquid that has a flash point of above 60<sup>o</sup>C, but at or below 93<sup>o</sup>C, and include diesel products:

**Class B cargo or baggage compartment** means a cargo or baggage compartment in which-

- (1) there is sufficient access in flight to enable a crew member to effectively reach any part of the compartment with the contents of a hand fire extinguisher; and
- (2) where the access provisions are being used, no hazardous quantity of smoke, flames, or extinguishing agent, will enter any compartment occupied by the crew

or passengers; and

- (3) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station:

**Clearance limit** means the point to which an aircraft is granted an ATC clearance:

**Clearway means** a defined rectangular area on the ground or water, at the departure end of the runway—

- (1) under the control of the aerodrome operator; or
- (2) with the agreement of the authority controlling the clearway—

selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height:

**Command practice** means the performance by a co-pilot of the duties and functions of a pilot-in-command during a flight under the supervision of a pilot-in-command designated for the purpose by the operator and is synonymous with ICUS:

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

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

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

**Component** means any instrument, mechanism, equipment, part, or accessory that is used, or is intended to be used, in operating or controlling an aircraft in flight, or is installed in or attached to the aircraft, that has a part number or a serial number allocated by the product manufacturer, unless the manufacturer has designated such an item as a standard part:

**Compulsory reporting point** means a reporting point, that may be direction or route specific or subject to some other criteria, at which a report to the appropriate controlling authority is mandatory:

**Condition monitored maintenance** means a maintenance process that monitors maintenance trends, and relies upon analysis of the operating experience of the whole population of specified items to indicate nascent failures requiring corrective action:

**Configuration** in relation to an aircraft, means a particular combination of the positions of the movable elements, such as wing flaps or landing gear, which affect the aerodynamic characteristics of the aeroplane:

**Configuration deviation list (CDL)** means a list established by the organization responsible for the type design with the approval of the State of Design which identifies any external parts of an aircraft type which may be missing at the commencement of a flight, and which contains,

where necessary, any information on associated operating limitations and performance correction.

**Congested area** in relation to a city, town, or settlement means any area which is substantially in use for residential, industrial, commercial, or recreational purposes:

**Contaminated**, in relation to a runway, means more than 25% of the runway surface area within the required length and width is covered by surface water, slush, or loose snow more than 3 millimetres in depth or ice on any part of the runway surface area:

**Continuous descent final approach (CDFA)** means 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 manoeuvre should begin for the type of aircraft flown.

**Contracting State** means a country which has ratified the Convention:

**Control area** means a controlled airspace extending upwards from a specified limit above the earth:

**Controlled airspace** means an airspace of defined dimensions within which air traffic control service is provided to IFR flights, and to VFR flights, in accordance with the airspace classification:

**Controlled flight** means any flight that is subject to an ATC clearance:

**Control system** means a system by which the flight path, attitude, or propulsive force of an aircraft is changed, including the flight, engine and propeller controls, the related system controls and the associated operating mechanisms.

**Control zone** means a controlled airspace extending upwards from the surface of the earth to a specified limit:

**Convention—**

- (1) means the Convention on International Civil Aviation signed on behalf of the Government of PNG in Chicago on the 7th day of December 1944; and
- (2) includes—
  - (i) any amendment to the Convention which has entered into force under Article 94(a) of the Convention and has been ratified by PNG; and
  - (ii) any Annex or amendment thereto accepted under Article 90 of the Convention; and
  - (iii) the international standards and recommended practices from time to time accepted and amended by the International Civil Aviation Organisation pursuant to Article 37 of the Convention:

**Conversion instruction** means instruction for the purposes of familiarisation in the operation of aircraft for which a type rating is required; but does not include instruction or supervision of student pilots nor instruction for the purposes of familiarisation in respect of conversion from fixed-wing to rotary-wing aircraft or from rotary-wing to fixed-wing aircraft:

**Co-pilot** means a licensed pilot, serving in any piloting capacity other than as pilot-in-command; but does not include a pilot receiving flight instruction from a pilot on board the aircraft:

**Crew member** ~~means a person carried by an aircraft who is—~~

- ~~(1) employed, engaged, or contracted by the operator of the aircraft; or~~
- ~~(2) carried for the sole purpose of undergoing or giving instruction in the control and navigation of the aircraft; or~~
- ~~(3) a person exercising a function which that person is duly authorised in writing by the Director under the Act or rules made under the Act to exercise; or~~
- ~~(4) carried for the sole purpose of providing security of the flight; or~~
- ~~(5) an authorised flight examiner:~~

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

**Cross-country flight** means a flight which extends more than 25 nautical miles in a straight line distance from the centre of the aerodrome of departure:

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

**Cruising level** means a level maintained during a significant portion of a flight:

**Current**, in respect of a licence, rating, or medical certificate, means the document is valid and the holder of the document has satisfied all recent experience and medical requirements for the exercise of the privileges:

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

**Dangerous goods** means articles or substances which are—~~(1) capable of posing a significant risk to health, safety, or property or the environment when transported by air; and (2) classified in Chapters 1 to 10 of Part 2 of~~ and which are shown in the list of dangerous goods in the Technical Instructions; or which are classified according to those Instructions:

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

**Dangerous goods incident** means an ~~incident~~ occurrence, other than a dangerous goods accident, associated with and related to the carriage transport of dangerous goods by air, after acceptance by the operator, that – not necessarily occurring on board an aircraft, which (1) results in injury to a person, property or environmental damage, fire, breakage, spillage, leakage of fluid or radiation; or other evidence that the integrity of the packaging has not been maintained.; ~~or (2) involves dangerous goods incorrectly declared, packaged, labelled, marked, or documented.~~ Any occurrence relating to the transport of dangerous goods which seriously jeopardizes the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

**Date of manufacture**, in relation to a product, means the date that the product inspection records indicate that the product meets its type design:

**Day** means the hours between the beginning of morning civil twilight and the end of evening civil twilight:

~~**Decision altitude** means a specified altitude, referenced to mean sea level, in the precision approach at which a missed approach must be initiated if the required visual reference to continue the approach has not been established:~~

~~**Decision height** means a specified height, referenced to the runway threshold, in the precision approach at which a missed approach must be initiated if the required visual reference to continue the approach has not been established:~~

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

- (1) Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.
- (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.
- (3) For convenience where both expressions are used they may be written in the form “decision altitude/height” and abbreviated “DA/H”.

**Declared distance** in relation to a runway means any of the following –

Takeoff runway available;

Takeoff distance available;

Accelerate – stop distance available;

Landing distance available:

**Defect incident** means an incident that involves failure or malfunction of an aircraft or aircraft component, whether found in flight or on the ground:

**Design change** means a change to a type design or a change to any other part of a type certificate or type acceptance certificate that if incorporated would require the modification or repair of a product, its components, or an appliance:

**Detailed inspection**, in respect of a progressive inspection, means a thorough examination of an aircraft and its components, systems and equipment with such disassembly as is necessary and includes the overhaul of a component or system:

**Director** means the person who is for the time being the Director of Civil Aviation under section 37 of the Act:

**Direct supervision** means, in the context of maintenance, supervision by a person who is directly responsible for the actions of the person being supervised and who is physically present or in the immediate vicinity of maintenance being conducted:

**Disabled passenger** means any passenger whose physical, medical, or mental condition requires individual attention not normally extended to passengers during an air transport operation:

**Document** means a document in any form, and includes—

- (1) any writing on any material:
- (2) any information recorded or stored by means of any tape recorder, computer, or other device; and any material subsequently derived from information so recorded or stored:
- (3) any book, map, chart, plan, graph, or drawing:
- (4) any photograph, film, negative, tape, or other device in which one or more visual images are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced:

**Domestic aerodrome** means any aerodrome other than an international aerodrome:

**Domestic air operator** means an air operator who conducts regular air operations within Papua New Guinea.

**Dry**, in relation to a runway, means a runway that is neither wet nor contaminated, and includes a paved runway that has been specially prepared with grooves or a porous pavement to retain effectively dry-braking action even when moisture is present:

**Dual flight time** means flight time during which a person is receiving flight instruction from an appropriately licensed and rated pilot on board a dual control aircraft:

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

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

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

**Emergency airworthiness directive** means an airworthiness directive that requires urgent compliance:

**~~Emergency locator transmitter (automatic fixed)~~** means an emergency locator transmitter that is automatically activated and permanently attached to an aircraft:

**~~Emergency locator transmitter (survival)~~** means an emergency locator transmitter that is stowed in an aircraft in a manner which facilitates its ready use in an emergency, is removable from an aircraft, and is manually activated:

**~~Emergency locator transmitter (ELT)~~** means an equipment that broadcasts a distinctive signal on a designated radio frequency to facilitate a search and rescue operation: 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:

- (1) Automatic fixed ELT (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft.
- (2) Automatic portable ELT (ELT(AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.
- (3) 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.
- (4) 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 parachute** means a parachute assembly designed and intended to be used by persons in an emergency:

**Empty weight** means the weight of the airframe, engines, propellers, rotors, and fixed equipment. Empty weight excludes the weight of the crew and payload, but includes the weight of all fixed ballast, unusable fuel supply and full operating fluids other than fuel:

**Enhanced vision system (EVS)** means a system to display electronic real-time images of the external scene achieved through the use of image sensors.

**Escorted passenger** means any passenger requiring the personal attendance of an appointed escort, during an air transport operation:

**Exception** means a provision in the ICAO Technical Instructions which excludes a specific item of dangerous goods from the requirements normally applicable to that item:

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

**Exposition** means the document or suite of documents submitted by an applicant for a certificate to declare the manner in which that applicant intends to comply with the requirements prescribed for the certificate to be held:

**Extended-range twin-engine operations** means an operation of a twin-engine aeroplane over a route that contains a point farther than one hour flying time, in still air at the normal one-engine- inoperative cruising speed, from an adequate aerodrome:

**Facility malfunction incident** means an incident that involves an aeronautical telecommunications facility:

**Fatigue Risk Management System (FRMS)** means a data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

**Final approach segment (FAS)** means the segment of an instrument approach procedure in which alignment and descent for landing is accomplished:

**Final reserve fuel** means the minimum quantity of fuel required to provide a margin to secure the safe completion of a flight in the event of any unplanned manoeuvring in the vicinity of the destination or alternate or a suitable aerodrome, as the case may be, and in ordinary circumstances remains on board until completion of the landing:

**Finite life** means, in relation to a component, the mandatory replacement time specified in the Airworthiness Limitations section of a manufacturer's maintenance manual or instructions for continued airworthiness issued for an aircraft:

**Firearm** has the same meaning as in Section 267(1) of the Act:

**Fit and proper person** means a person who satisfies the fit and proper person test specified in the Act:

**Fix** means a position whose location is defined by two or more navigation aids:

**Flexibility**, in relation to the issue of a medical certificate under Part 67, means the discretion to issue a medical certificate where an applicant fails to meet the medical standards prescribed for the medical certificate but use of the medical certificate does not jeopardise flight safety:

~~**Flight attendant** means a trained crew member, other than a flight crew member, who is responsible to the pilot-in-command for passenger safety on an aeroplane:~~

**Flight crew member** means a licensed crew member assigned by an operator charged with duties essential to the operation of for duty in an aircraft during a flight time as a pilot or flight engineer duty period:

**Flight check**, means, in the context of airworthiness, a flight conducted after assembly or maintenance of an aircraft if there was likelihood that the flight characteristics or handling in flight may have been affected:

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

**Flight examiner** means Authorised flight examiner.

**Flight following flight plan** means a flight plan that establishes a flight watch over the aircraft and initiates emergency action in the event of a missed report or non-arrival within a specific time-frame:

**Flight following service** means a service providing a flight watch over an aircraft, which initiates emergency action in the event of a missed report or non-arrival of the aircraft within a specific time- frame:

**Flight information centre** means a unit established to provide an area flight information service and an alerting service:

**Flight information region** means airspace of defined dimensions within which flight information services and alerting services are provided:

**Flight information service** means an air traffic service provided for the purpose of giving advice and information intended for the safe and efficient conduct of flights:

**Flight instruction** means instruction in the control of aircraft in basic and advanced flight manoeuvres; and includes instruction in respect of conversion from fixed-wing to rotary-wing aircraft or from rotary-wing to fixed-wing aircraft:

**Flight level** means a surface of constant atmospheric pressure that is related to a specific datum, hPa (1013.2 mb), and is separated from other such surfaces by specific pressure intervals:

**Flight manual** means an approved manual, associated with the certificate of airworthiness, containing limitations within which the aircraft may be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft:

**Flight plan** means specified information provided to an ATS unit or flight following service relative to an intended flight, or portion of a flight, of an aircraft:

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

**Flight safety documents system** means a set of interrelated documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the operations manual and the operator's maintenance control manual.

**Flight simulation training device** means any one of the following three types of apparatus in which flight conditions are simulated on the ground:

- (1) 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;
- (2) 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;
- (3) 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 test**, means, in the context of airworthiness, a flight conducted under a special category experimental certificate to establish unknown operating limitations or the flight envelope:

**Flight time** means the total time from the moment the aircraft first moves under its own power for the purpose of taking off until the moment it comes to rest at the end of the flight:

**Foreign air operation** means an operation to or from Papua New Guinea conducted by persons not domiciled in Papua New Guinea:

**Foreign aircraft** means any aircraft other than a Papua New Guinea registered aircraft:

**Formation flight** means more than one aircraft which—

- (1) navigate and report as a single aircraft; and
- (2) are no more than one nautical mile laterally and within 100 feet vertically from the formation leader.

**Fully functioning dual controls** means pitch, roll, yaw, and engine power controls which can be operated from each pilot station:

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

**Geographical co-ordinates** mean latitude and longitude that are expressed relative to the geodetic reference datum of the World Geodetic System 1984:

**Glider** means a non-power-driven heavier-than-air aircraft which derives its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight:

**Goods** means all kinds of moveable property, including animals and mail:

**GPS database** means an electronic memory containing information on aerodromes, navigation aids, reporting points, instrument approach aids, departure procedures, special use airspace:

**GPS sensor** means a single GPS unit used for navigation within a Flight Management System:

**Ground handling** means services necessary for an aircraft's arrival at, and departure from, an airport, other than air traffic services.

**Hang glider** means a glider, including a powered glider with the engine not operating, capable of being launched and landed solely by the use of the pilot's legs, and includes paragliders:

**Head-up display (HUD)** means a display system that presents flight information into the pilot's forward external field of view.

**Health and usage monitoring system** means a system that acquires data from specialised sensors that measure various parameters related to the airworthy condition of the aircraft and its systems:

**Heavier-than-air aircraft** means any aircraft deriving its lift in flight chiefly from aerodynamic forces:

**Height** means the vertical distance of a level, a point, or an object considered as a point, measured from a specified datum:

**Helicopter** means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes:

**Heliport** means any defined area of land or water, and any defined area on a structure, intended or designed to be used either wholly or partly for the landing, departure, and surface movement of helicopters:

**Helicopter external load operation** means—

- (1) a helicopter sling load operation; or
- (2) a helicopter winching operation; or
- (3) a helicopter rappelling operation:

**Helicopter rappelling operation** means—

- (1) the lowering of a load, cargo or persons from a helicopter by means of a static line attached to the helicopter; or
- (2) a person coming down from, or going up to, a helicopter by a means of a flexible ladder attached to the helicopter:

**Helicopter sling load operation** means the external carriage, lowering, or picking up, of a load, or cargo, by a helicopter by means of a bucket, net, harness or sling suspended beneath the helicopter:

**Helicopter winching operation** means the external carriage, lowering, or picking up, of a load, cargo or persons, by helicopter by means of a winch or hoist fitted to the helicopter:

**Hover** means a helicopter flight at a constant height and position over the surface:

**High-risk cargo or mail** means cargo or mail presented by an unknown entity where:

- a) specific intelligence indicates that the cargo or mail poses a threat to civil aviation; or
- b) the cargo or mail shows anomalies that give rise to suspicion; or
- c) the nature of the cargo or mail is such that baseline security measures alone are unlikely to detect prohibited items that could endanger an aircraft; or
- (d) the cargo or mail shows signs of tampering.

Regardless of whether the cargo or mail comes from a known or unknown entity, specific intelligence about a consignment may render it as high risk.

**Human Factors principles** means principles which apply to design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

**Human performance** means human capabilities and limitations which have an impact on the safety, security and efficiency of aeronautical operations.

**ICAO Annex** means an Annex to the Convention and unless otherwise specified in a rule, includes the amendments in force under section 78 of the Act, but excludes any differences to an Annex as notified by Papua New Guinea:

**ICAO Contracting State** means a State that is a signatory to the Convention; and includes an organisation established by a group of States that are signatories to the Convention to issue an aviation related document or authorisation on behalf of those States:

**IFR flight** means a flight conducted in accordance with the instrument flight rules:

**Incident** means any occurrence, other than an accident, that is associated with the operation of an aircraft and affects or could affect the safety of operation:

**Initial approach segment** means that segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point:

**Instructions for continued airworthiness** means any data relating to a product that gives specific instructions for maintenance, modification or repair contained in a planning manual, maintenance manual, repair manual, overhaul manual, service bulletin or manufacturer's equivalent document that includes airworthiness directives:

**Instrument approach procedure** means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route, to a point from which a landing can be completed and thereafter, if a landing is not completed, to a

position at which holding or en-route obstacle clearance criteria apply: Instrument approach procedures are classified as follows:

- (1) Non-precision approach (NPA) procedure. An instrument approach procedure designed for 2D instrument approach operations Type A.
- (2) Approach procedure with vertical guidance (APV). A performance-based navigation (PBN) instrument approach procedure designed for 3D instrument approach operations Type A.
- (3) Precision approach (PA) procedure. An instrument approach procedure based on navigation systems (ILS, MLS, GLS and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

**Instrument departure procedure** means a prescribed IFR departure route linking the aerodrome, or a specified runway of the aerodrome, with a significant point, normally on a route prescribed under Part 95, at which the en-route phase of the flight commences:

**Instrument flight** means flight during which an aircraft is piloted solely by reference to instruments and without external reference points:

**Instrument flight time** means time during which an aircraft is piloted solely by reference to instruments and without external reference points:

**Instrument meteorological conditions** means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions:

**Instrument Runway** means a runway intended for the operation of aircraft using instrument approach procedures:

**Instrument time** includes instrument flight time and time during which a pilot is practising simulated instrument flight on an approved mechanical device:

**Intermediate approach segment** means the segment between—

- (1) the intermediate approach fix and the final approach fix or point; or
- (2) the end of a reversal, racetrack, or dead reckoning track procedure and the final approach fix or point:

**International aerodrome** means an international airport:

**International air operator** means an air operator who conducts regular air operations to or from Papua New Guinea.

**International airport** means any airport designated as an airport of entry and departure for international air traffic where the formalities incident to customs, immigration, public health, animal and plant quarantine, and similar procedures are carried out:

**International NOTAM office** means an office that is designated for the international exchange of NOTAM:

**Intoxicated** means a person's impaired state as a result of a blood-alcohol content greater than 0.02:

**Isolated aerodrome** means a destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type.

**Justifiable aircraft equipment** means any equipment necessary for the operation of the aircraft. It does not include equipment or ballast specifically installed, permanently or otherwise, for the purpose of altering the empty weight of an aircraft to meet the maximum payload capacity:

**Landing distance available** means the length of the runway that is declared by the aerodrome operator as available and suitable for the ground run of an aeroplane:

**Large aeroplane** mean an aeroplane of a maximum certificated take-off mass of over 5 700 kg.

**Level** in the context of flight is a generic term relating to the vertical position of an aircraft and meaning variously height, altitude, or flight level:

**Lifed**, in relation to an aeronautical product or a product or component, means that the instructions for continued airworthiness for the aeronautical product, product, or component specify-

- (1) a finite life time for the aeronautical product, product, or component; or
- (2) a recommended or mandatory overhaul time for the aeronautical product, product, or component:

**Lighter-than-air aircraft** means any aircraft supported chiefly by its buoyancy in the air:

**Lowest safe altitude** has the same meaning as the term "minimum en-route safety altitude":

**Mach number** means the ratio of true airspeed to the speed of sound:

**Main parachute** means a parachute, other than an emergency parachute, that is designed and intended to be used as a primary parachute:

**Maintenance**, in relation to an aircraft or aircraft component, means all work and inspections performed to ensure the continued airworthiness of the aircraft or aircraft component, and all modifications:

**Maintenance logbook** means any document or storage medium acceptable to the Director that provides a record of the maintenance status of an aircraft, product, or component:

**Maintenance manual** means an approved manual containing limitations within which the aircraft may be considered airworthy, and instructions and information necessary to ensure the aircraft is in an airworthy condition:

**Maintenance organisation's procedures manual** means 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 programme** means a document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.

**Maintenance release** means a document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or under an equivalent system.

**Master minimum equipment list (MMEL)** means a list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.

**Maximum diversion time** means maximum allowable range, expressed in time, from a point on a route to an en-route alternate aerodrome.

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

**Major modification** means a modification, where potentially, incorrect embodiment could affect the safety of an aircraft or its occupants through one or more of the following incidents occurring:

- (1) structural collapse:
- (2) loss of control:
- (3) failure of motive power:
- (4) unintentional operation of, or inability to operate, any systems or equipment essential to the safety or operational function of the aircraft:
- (5) incapacitating injury to any occupant:
- (6) unacceptable unserviceability or maintainability:

**Major repair** means a repair, where potentially, incorrect embodiment could affect the safety of an aircraft or its occupants through one or more of the following incidents occurring:

- (1) structural collapse:
- (2) loss of control:
- (3) failure of motive power:

- (4) unintentional operation of, or inability to operate, any systems or equipment essential to the safety or operational function of the aircraft:
- (5) incapacitating injury to any occupant:
- (6) unacceptable unserviceability or maintainability:

**Manoeuvring area—**

- (1) means that part of an aerodrome to be used for the take-off and landing of aircraft and for the surface movement of aircraft associated with take-off and landing; but
- (2) does not include areas set aside for loading, unloading, or maintenance of aircraft:

**Manufacturer's maintenance programme** means a programme that is contained in a maintenance manual or the instructions for continued airworthiness published by the manufacturer as required by the certificating authority for the aircraft, aircraft engines, propellers, rotors, appliances, emergency equipment, and parts:

**Maximum certificated take-off weight**, in relation to an aircraft, means the weight specified as the maximum take-off weight of the aircraft in a flight manual or airworthiness certificate relating to the aircraft:

**Maximum zero fuel weight** means the maximum permissible weight of an aircraft with no disposable fuel or oil. The zero fuel weight figure may be found in either the aircraft type certificate data sheet, the approved Aircraft Flight Manual, or both:

**Meteorological information** means any meteorological report, analysis, or forecast in support of aviation, and any other statement in support of aviation relating to existing or expected meteorological conditions:

**Meteorological report** means a statement of observed meteorological conditions related to a specific time and location:

**Meteorological service** means any of the following services that provide meteorological information in support of aviation:

- (1) *Climatology service*: a service for the development and supply of climatological information for a specific place or airspace:
- (2) *Forecast service*: a service for the supply of forecast meteorological information for a specific area or portion of airspace:
- (3) *Information dissemination service*: a service for the collection and dissemination of meteorological information:
- (4) *Meteorological briefing service*: a service for the supply of written and oral meteorological information on existing and expected meteorological conditions:
- (5) *Meteorological reporting service*: a service for the supply of routine

meteorological reports:

- (6) *Meteorological watch service*: a service for maintaining a watch over meteorological conditions affecting aircraft operations in a specific area:

**Microlight aircraft** means a basic low performance aircraft designed to carry not more than 2 persons which meets low momentum parameters that are acceptable to the Director:

**Minimum descent altitude** means a specified altitude, referenced to mean sea level, in a non-precision approach or circling approach below which descent may not be made without visual reference:

**Minimum descent height** means a specified height, referenced to the aerodrome reference point or the runway threshold (if that is more than 2m below the aerodrome elevation), in a non-precision approach or circling approach below which descent may not be made without visual reference:

**Minimum descent altitude (MDA) or minimum descent height (MDH)** means 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 as detailed below:

- (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.
- (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.
- (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 safety altitude** means the lowest altitude within the en-route procedural design area that will provide a minimum clearance of—

- (1) 2000 feet above the highest obstacle on an en-route segment over terrain with a height in excess of 10 000 feet; or
- (2) 1500 feet above the highest obstacle on an en-route segment over terrain with a height in excess of 5000 feet; or
- (3) 1000 feet above the highest obstacle on an en-route segment over terrain with a height of 5000 feet or less.

**Minimum equipment list (MEL)** means 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 sector altitude** means the lowest altitude within a defined sector that will provide a minimum clearance of—

- (1) 2000 feet above the highest obstacle in a sector over terrain with a height in excess of 10 000 feet; or
- (2) 1500 feet above the highest obstacle in a sector over terrain with a height in excess of 5000 feet; or
- (3) 1000 feet above the highest obstacle in a sector over terrain with a height of 5000 feet or less.

**Minister** means the Minister of Transport or Civil Aviation as the context requires:

**Missed approach** means the procedure to be followed if the approach cannot be continued:

**Modification** means a design change that generally results in a change to the configuration of a product, component, or appliance:

**Movement area** means that part of an aerodrome intended to be used for the take-off and landing of aircraft and for the surface movement of aircraft, and includes the manoeuvring area, maintenance areas, and aprons:

**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 specifications:

- (1) Required navigation performance (RNP) specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.
- (2) Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

**Net take-off flight path** has the same meaning as prescribed in the rules under which the aeroplane was certificated:

**Newly overhauled** means a product that has not been operated or placed in service, except for functional testing, since having been overhauled:

**Night** means the hours between the end of evening civil twilight and the beginning of morning civil twilight:

**Non-compulsory reporting point** means a reporting point, that may be direction or route specific, at which a report to the appropriate controlling authority is not mandatory:

**NOTAM** means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations:

**NOTAM service** means a service for the issue and distribution of NOTAM relevant to air navigation in the Port Moresby FIR:

**Occurrence** means an accident or incident:

**Operable**, in relation to equipment and instruments, means fully functional, calibrated, and meeting the applicable airworthiness requirements:

**Operate**, in relation to an aircraft, means to fly or use the aircraft, or to cause or permit the aircraft to fly, be used, or be in any place, whether or not a person is present with the aircraft; and "operator" has a corresponding meaning:

**Operating cycle** means a complete flight segment consisting of a takeoff, climb, en-route portion, descent, and landing:

**Operational flight plan** means the certificate holders plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations, and relevant expected conditions, on the route to be followed and at the aerodromes concerned:

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

**Operations specifications** means ~~the conditions imposed by the Director on the air operator certificate and includes any authorisations, limitations, and procedures that form part of the certificate;~~ authorisations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

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

**Operator's maintenance control manual** means a document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

**Originating aircraft** means any aircraft about to be used on a regular air transport passenger service from any PNG aerodrome, that has been emptied of passengers and goods at the conclusion of a previous flight or flights, but does not include any aircraft transiting PNG or any PNG aerodrome, in circumstances where passengers and goods are added to an existing load:

**Overhaul**, in relation to an aircraft or aircraft component, means to perform a major work operation which involves disassembly, cleaning, inspecting, repairing as necessary, reassembly and complete testing to specification and renewal of operational life:

**Owner**, in relation to any aircraft, includes any person lawfully entitled to the possession of the aircraft for 28 days or longer:

**Papua New Guinea Aeronautical Information Publications** means the AIP for PNG published for the Authority by the holder of the AIS certificate for the AIP service:

**Papua New Guinea registered aircraft** means any aircraft that is for the time being

registered by the Director pursuant to the Act:

**Papua New Guinea Register of Aircraft** means the register established under the Act:

**Papua New Guinea certificate of registration** means an aircraft certificate of registration issued by the Director:

**Parachute** means any device, without a motor in operation, comprising a flexible drag, or lift/drag, surface from which a load is suspended by shroud lines capable of controlled deployment from a packed condition:

**Parachute assembly** means any parachute and its associated harness and container system and other component parts for use by persons:

**Parachute drop zone** means a designated column of airspace with a radius of 3 nautical miles centred on a parachute landing area:

**Parachute landing area** means an area onto which parachute landings are intended to be made:

**Paraglider** means a hang glider with no rigid primary structure:

**Passenger** in relation to an aircraft, means any person carried by the aircraft, other than a crew member:

**Payload capacity** means—

- (1) when a maximum zero fuel weight is not prescribed, the maximum certificated takeoff weight of an aircraft, less the empty weight, less all justifiable aircraft equipment, and less the operating load consisting of—
  - (i) the minimum weight of fuel required under the CAR for a flight between points 174 nm apart, assuming VFR weather conditions; and
  - (ii) the lesser of the maximum oil capacity as specified on the Type Certificate Data Sheet or 160 kg of oil; and
  - (iii) required flight crew members at 91 kg per crew member; and
  - (iv) required catering supplies; or
- (2) when a maximum zero fuel weight is prescribed, the maximum zero fuel weight less the empty weight that, except for disposable fuel and oil, consists of—
  - (i) all justifiable aircraft equipment, and the operating load; and
  - (ii) minimum flight crew at 91 kg per crew member; and
  - (iii) required catering supplies:

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**Performance-based communication (PBC)** means communication based on performance specifications applied to the provision of air traffic services.

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

**Performance-based surveillance (PBS)** means surveillance based on performance specifications applied to the provision of air traffic services.

**Performance-class 1 helicopter** means a helicopter with performance such that, in case of a critical power-unit failure, it is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area, depending on where the failure occurs:

**Performance class 2 helicopter** means a helicopter with performance such that, in case of critical power unit 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 case a forced landing may be required:

**Performance class 3 helicopter** means a helicopter with performance such that, in the case of power-unit failure at any point in the flight profile, a forced landing must be performed:

**Personal locator beacon** means an equipment that broadcasts a distinctive signal on a designated radio frequency to facilitate a search and rescue operation, is designed to be carried on a person, and is manually activated:

**Pilot-in-command**, ~~in relation to any aircraft, means the pilot responsible for the operation and safety of the aircraft:~~ means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

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

**Powered glider** means an aircraft equipped with one or more engines which has, with the engine or engines not operating, the performance characteristics of a glider:

**Precision approach procedure** means an instrument approach procedure utilising azimuth and glide path information:

**Pre-flight information bulletin** means a presentation of current NOTAM information of operational significance, prepared prior to flight:

**Pre-flight information service** means a service for the provision of aeronautical information to a third party for pre-flight planning purposes:

**Pressure altitude** means an atmospheric pressure, expressed in terms of altitude, which corresponds to that pressure in the standard atmosphere:

**Primary-means navigation system** means a navigation system approved for a given operation or phase of flight that must meet accuracy and integrity requirements, but need not meet full availability and continuity of service requirements for a sole-means navigation system:

**Priority part** means each part or assembly in a type-certificated product the failure of which is likely, to cause an unsafe condition in an aircraft, aircraft engine or propeller:

**Product** means an aircraft, aircraft engine, or propeller:

**Production Non-type Certificated** aircraft means an aircraft that has been produced in a series in a controlled design environment and accepted for use by a recognised civil or military operator and which has been shown to have a satisfactory service history:

**Progressive inspection** means an inspection of a complete aircraft that is split into a number of smaller inspections:

**Prohibited area** means an airspace of defined dimensions within which the flight of aircraft is prohibited:

**Promulgated information incident** means an incident that involves significantly incorrect, inadequate, or misleading information promulgated in any aeronautical information publication, map or chart:

**Propeller** means a device, for propelling an aircraft that has blades on an engine-driven shaft and that when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation. It includes control components normally supplied by its manufacturer, but does not include main and auxiliary rotors or rotating airfoils of engines:

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

**Racetrack procedure** means a procedure designed to enable the aircraft to reduce altitude during the initial approach segment and/or establish the aircraft inbound when the entry into a reversal procedure is not practical:

**Radio navigation aid facility** means the following types of radio navigation aids—

- (1) Instrument Landing System (ILS): Microwave Landing System (MLS):
- (2) VHF Omni-directional radio range (VOR):
- (3) Distance Measuring Equipment (DME):
- (4) Non-directional Radio Beacon (NDB):
- (5) Precision Approach Radar (PAR):
- (6) Secondary Surveillance Radar (SSR)
- (7) Primary Surveillance Radar (PSR):

**RAIM not available message** means RAIM warning:

**RAIM warning** means a warning that the integrity of the navigation position solution from GPS satellites may be unreliable:

**Rating** means an authorisation entered on, or associated with, a licence, certificate, or logbook, and forming part of it, stating special conditions, privileges, or limitations relating to the licence or certificate:

**Receiver autonomous integrity monitoring** means a function whereby the airborne GPS receiver/processor detects a position error that exceeds the GPS position integrity performance requirements of the TSO for that phase of flight. It gives a visual and/or aural warning when appropriate:

**Regular air operations passenger service** means a service offered by an operator consisting of four or more air operations for the carriage of passengers between two or more aerodromes within any consecutive 28 day period:

**Regular air operations service** means a service offered by an operator consisting of four or more air operations between two or more aerodromes in any consecutive 28 day period:

**Regulated Air Cargo Agent** means an organisation certificated under Rule Part 109.

**Release note** means a PNG CAA Form Two – Release Note issued by a Part 144 certificated supply organisation certifying conformity of a product, material or item of equipment with acceptable airworthiness standards:

**Repair** means ~~a design change that is intended to return the product, component, or appliance to its original, or properly modified configuration;~~ 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.

**Reporting point** means a specified geographical location in relation to which the position of an aircraft can be reported:

**Required communication performance (RCP) specification** means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication.

**Required inspection** means any inspection required by an airworthiness directive, or by an approved maintenance manual, programme or schedule:

**~~Required navigation performance~~** means ~~a statement of the navigation performance accuracy necessary for operation within a defined area of airspace:~~

**Required surveillance performance (RSP) specification** means a set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.

**Reserve parachute** means a parachute assembly designed and intended to be used as a secondary parachute in the event of the failure of the main parachute:

**Restricted area** means an airspace of defined dimensions within which the flight of aircraft is restricted in accordance with certain specified conditions:

**Reversal procedure** means a procedure designed to enable aircraft to reverse direction, during the initial approach segment of an instrument approach procedure, that may include procedure turns, base turns or racetrack procedures:

**Rotorcraft** means any heavier-than-air aircraft which derives its lift in flight from the reaction of the air on one or more rotors on substantially vertical axes:

**Routine inspection** in relation to a progressive inspection, means a visual inspection of an aircraft and its components, systems and equipment as far as practicable without disassembly:

**RNP performance** means a containment value, expressed as a distance in nautical miles from the intended position, within which flights would be for at least 95% of the total flying time:

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

**Runway end safety area** means an area symmetrical about the extended centre line of the runway and adjacent to the end of the runway strip primarily intended to reduce the risk of damage to an aeroplane undershooting or over-running the runway:

**Runway strip** means a defined area including the runway, and stopway (if a stopway is provided), that is intended-

- (1) to reduce the risk of damage to an aircraft running off the runway; and
- (2) to provide obstacle protection for aircraft flying over the runway strip during take off or landing operations:

**Runway visual range** means the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centreline:

**Safety management system (SMS)** means a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures.

**Screening** means the application of technical or other means which are intended to identify or detect weapons, explosives or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference:

**Security** means a combination of measures and human and material resources intended to safeguard civil aviation against acts of unlawful interference:

**Security area** means an area that the Director has declared to be a security area under Section 155 of the Act:

**Security control** means measures by which the introduction of weapons, explosives or other dangerous devices, articles or substances ~~or articles likely to~~ which may be utilised to commit an act of unlawful interference can be prevented:

**Security designated aerodrome** means an aerodrome for the time being designated by the Minister as a security aerodrome under Section 153(1) of the Act:

**Security incident** means an incident that involves unlawful interference:

**Serious incident** means an incident involving circumstances indicating that an accident nearly occurred:

**Shore** means that area of the land adjacent to the water that is above the high-water mark and excludes land areas that are intermittently under water:

**SIGMET information** means information issued by a meteorological office concerning the occurrence or expected occurrence of specified enroute weather phenomena that may affect the safety of aircraft operations:

**Significant point** means a specified geographical location used in defining an ATS route, or the flight path of an aircraft, and for other navigation and ATS purposes:

**Single pilot aircraft** means an aircraft that is authorised in its flight manual to be operated with a minimum flight crew of 1 pilot for the type of flight:

**Small aeroplane** means an aeroplane of a maximum certificated take-off mass of 5 700 kg or less.

**Sole-means navigation system** means a navigation system approved for a given operation or phase of flight that shall allow the aircraft to meet, for that operation or phase of flight, all four navigation system performance requirements: namely: accuracy, integrity, availability, and continuity of service:

**Special VFR flight** means a VFR flight cleared by an ATC unit to operate within controlled airspace in meteorological conditions below visual meteorological conditions:

**Specification** is the minimum performance standard specific to an article used on an aircraft:

**Standard part** means an aeronautical product that conforms to an aeronautical specification published by a standard-setting organisation, including design, material, manufacture, and identification requirements detailed in one of the following series—

- (1) Air Force – Navy Aeronautical Standard (AN)
- (2) American National Standards Institute (ANSI)
- (3) Australian Standards (AS)
- (4) British Standards, Aircraft Series (BS)
- (5) Military Standards (MS)

- (6) Military Specifications (MIL – SPEC)
- (7) National Aerospace Standards (NAS)
- (8) New Zealand Standards (NZS)
- (9) SAE Aerospace Standard (AS)
- (10) Society of Automotive Engineers (SAE):

**State of Design** means the State, or an organisation established by a group of States, having jurisdiction over the organisation responsible for the type design:

**State of Registry** means the state on whose register the aircraft is entered:

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

**State of the Operator** means the state in which the operator's principal place of business is located or, the operator's permanent residence.

**Statement of compliance** means, in relation to the approval of technical data, a statement by an aircraft design organisation or airworthiness authority that a particular design meets a set of specified airworthiness design requirements:

**Sterile area** means that area at an aerodrome between the passenger inspection and screening station and the aircraft into which access is strictly controlled:

**Stopway** means a defined rectangular area on the ground at the end of the take-off run available prepared as a suitable area on which an aircraft can be stopped in the case of an abandoned take-off:

**Straight-in approach** means a designated instrument approach procedure designed to enable the aircraft to land on a runway without having to conduct a circling approach for that runway:

**Supplemental means navigation system** means a navigation system that shall be used in conjunction with a sole means navigation system:

~~**Synthetic flight trainer** means equipment in which flight conditions are simulated on the ground; and includes—~~

- ~~(1) a flight simulator, being an apparatus which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the normal environment of flight crew members, the systems, and the performance and flight characteristics of that type are realistically simulated;~~
- ~~(2) a flight procedure trainer, being an apparatus that provides a representation of aircraft to the extent that realistic flight deck environment, instrument responses, simple systems, and the performance and flight characteristics of aircraft of a particular class or type are simulated;~~
- ~~(3) a basic instrument flight trainer, being an apparatus equipped with appropriate~~

~~instruments, simulating the flight deck environment of an aircraft in flight in instrument flight conditions, in which a pilot may be instructed or tested in basic instrument flight manoeuvres and procedures:~~

**Synthetic Vision System (SVS)** means a computer-generated image of the external scene topography from the perspective of the flight deck, derived from aircraft attitude, high-precision navigation solution, and database of terrain, obstacles, and relevant cultural features.

**Take-off distance** has the same meaning as prescribed in the rules under which the aeroplane was certificated:

**Take-off distance available** means the length of the take-off run available plus the length of any clearway:

**Take-off flight path** has the same meaning as prescribed in the rules under which the aeroplane was certificated:

**Take-off run** has the same meaning as prescribed in the rules under which the aeroplane was certificated:

**Take-off run available** means the length of the runway declared by the aerodrome operator as available and suitable for the ground run of an aeroplane taking-off:

**Take-off weight** means the weight of the aeroplane at the commencement of the take-off run and includes everything and everyone carried in or on the aeroplane at the commencement of the take-off run:

**Target level of safety (TLS)** means generic term representing the level of risk which is considered acceptable in particular circumstances.

**Taxi** means movement of an aircraft on the surface of an aerodrome or on water, excluding take-off and landing, but including, in the case of helicopters, operation over the surface of an aerodrome within a height band associated with ground effect and at speeds associated with air taxiing:

**Technical arrangement** means an arrangement between Papua New Guinea and another State to mutually recognise each State's aircraft maintenance organisation certification, maintenance standards and documentation, and personnel licences and certificates to allow maintenance performed on aircraft and components in one State to be recognised by the other State in accordance with the terms of the arrangement.

**Technical data** are drawings, instructions or other data required to be used for product certification, approvals, and authorisations under Part 21 or for the maintenance, modification, and repair of products, their components, and appliances under Part 43:

**Technical Instructions** means ~~the ICAO Document 9284~~ Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284), approved and ~~published~~ issued periodically in accordance with the procedure established by the ICAO by decision of the Council: of the International Civil Aviation Organisation under Annex 18 of the Convention:

**Threshold** means ~~that point where a 1:20 obstacle-free approach surface intersects the runway surface;~~ the range, expressed in time, established by the State of the Operator, to an en-route alternate aerodrome, whereby any time beyond requires an EDTO approval from the State of the Operator.

**Technical log** means the technical log that is required for every applicable aircraft under rule 91.619:

**Three view** means the accurate depiction of an aircraft from a collection of views that includes a plan, a front elevation and a side elevation

**Time in service** means, for maintenance time records, aircraft log records, and similar purposes, the elapsed time from the aircraft leaving the surface until touching it again on landing:

**Total vertical error (TVE)** means the vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

**Traffic information** means information issued by an ATS 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 load** means the total weight of passengers, baggage, and cargo:

**Transfer baggage** means baggage that is ~~transferred directly from one aircraft to another aircraft~~ departing on an aircraft other than that on which it arrived;

**Transfer cargo or mail** means cargo or mail departing on an aircraft other than that on which it arrived:

**Transit baggage** means baggage that-

- (1) is on board an aircraft that arrives at an aerodrome; and
- (2) is still on board that aircraft when that aircraft leaves the aerodrome:

**Translation circuit** means a circuit in a helicopter that includes translation to forward flight:

**Trip fuel** means the fuel required for the planned flight from the commencement of the take off run to the completion of landing run prior to runway turn off:

**Turbine powered** means powered by turbojet, or turbofan, or turboprop:

**Turbofan** means a turbojet core engine that uses a proportion of the residual gas flow energy to drive a compressor ducting gas flow around the core engine as additional propulsion:

**Turbojet** means a gas turbine engine that uses the residual gas flow energy directly as propulsion:

**Turboprop** means a gas turbine engine that uses the residual gas flow energy to drive a propeller:

**Type—**

- (1) in relation to the licensing of aviation personnel means all aircraft of the same basic design, including all modifications thereto except those modifications which result in a significant change in handling or flight characteristics; or
- (2) in relation to the certification of aircraft, aircraft engines, or propellers, means those aircraft, aircraft engines or propellers which are similar in design:

**Type certificate** includes-

- (1) the type design; and
- (2) the operating limitations; and
- (3) the type certificate data sheet; and
- (4) the applicable airworthiness design standards specified in Part 21 Appendix B; and
- (5) for an aircraft type, the flight manual; and
- (6) any other conditions or limitations prescribed for the product type under Part 21:

**Unidentified item** means an item at an aerodrome or aeronautical facility, with or without identifying information, that is not in the control of a person who is present at the aerodrome or facility.

**Unlawful interference** means ~~any of the following~~ acts or attempted act such as to jeopardise the safety of civil aviation, including but not limited to:

- (1) violence against a person on board an aircraft in flight ~~if that act is likely to endanger the safety of that aircraft:~~
- (2) destroying an aircraft in service or causing damage to such an aircraft which renders it incapable of flight or which is likely to endanger its safety in flight:
- (3) placing or causing to be placed on board an aircraft ~~in service~~, by any means whatsoever, a hazardous device, material, ~~or~~ substance or weapon which is ~~likely~~ may:
  - (i) destroy that aircraft, or
  - (ii) cause damage to ~~it~~ the aircraft which renders it incapable of flight, or
  - (iii) cause damage to the aircraft which is likely to endanger its safety in flight, or
  - (iv) for criminal purposes:
- (4) destroying or damaging air navigation facilities or interfering with their operation, ~~if any such act is likely to endanger the safety of aircraft in flight:~~

- (5) communicating information which is known to be false, thereby endangering the safety of:
- (i) an aircraft in flight or on the ground, or
  - (ii) passengers, crew, ground personnel or the general public at an airport or aeronautical facility:
- (6) unlawfully and intentionally using any device, material, substance, or weapon to—
- (i) perform an act of violence against a person at an aerodrome or aeronautical facility ~~servicing international civil aviation~~ which causes or is likely to cause serious injury or death; or
  - (ii) destroy or seriously damage the facilities of an aerodrome, aeronautical facility ~~servicing international civil aviation~~ or aircraft not in service, ~~disrupting the services of the aerodrome—~~
- ~~if any such act endangers or is likely to endanger safety at that aerodrome.~~
- (7) unlawful seizure of aircraft,
- (8) hostage-taking on board aircraft at aerodromes or aeronautical facilities;
- (9) forcible intrusion on board an aircraft, at an airport or on the premises of an aeronautical facility;
- (10) use of an aircraft in service for the purpose of causing death, serious bodily injury, or serious damage to property or the environment.

For the purposes of this definition, an aircraft is in service in the circumstances described, and for the period prescribed, in Section 262 of the Act:

**Valid**, in respect of a licence, rating, or medical certificate, means the document has been issued in accordance with the Civil Aviation Rules, and is not expired, suspended, or revoked:

**Variante** means a specifically configured aeroplane for which the Authority has identified training and qualification requirements that are significantly different from those applicable to an aeroplane of the same make, model, and series:

**VFR flight** means a flight conducted in accordance with the visual flight rules:

**Visibility** means the ability, as determined by atmospheric conditions and expressed in units of measurement, to see and identify prominent unlighted objects by day and prominent lighted objects by night:

**Visual manoeuvring (circling) area** means a defined area within which obstacle clearance is provided during the visual phase of flight after completing an instrument approach, to bring the aircraft into position for landing on a runway:

**Visual meteorological conditions** means meteorological conditions expressed in terms of

visibility, distance from cloud, and ceiling equal to or better than specified minima:

**Waypoint** means a specified geographical location used to define a point on an area navigation route, or a position on the flight path of an aircraft using area navigation:

**Wet**, in relation to a runway, means a runway with sufficient moisture on its surface to cause it to appear reflective but without significant areas of standing water:

**ZFT simulator** means a synthetic flight trainer which—

- (1) meets the standard of level 5 as described in New Zealand Civil Aviation Publication CAP 37 dated 1 March 1986; or
- (2) meets the standard of level 5 as described in the relevant current Civil Aviation Authority of Australia (CASA) publication; or
- (3) meets the standard of level D/phase III as described in Appendix H (dated 30 July 1980) to Part 121 of the United States Federal Aviation Regulations; or
- (4) meets an equivalent standard acceptable to the Director.

## 1.2 Abbreviations

In rules made under the Act—

**ACAS** means airborne collision avoidance system

**ACC** means area control centre:

**AD** means airworthiness directive:

**ADF** means automatic direction-finder:

**AFS** means aeronautical fixed service:

**AFTN** means aeronautical fixed telecommunication network:

**AGL** means above ground level:

**AIC** means Aeronautical Information Circular:

**AIP** means Aeronautical Information Publication:

**AIS** means aeronautical information service:

**AMC** means an accredited medical conclusion, as defined in Part 67: **AMOC** means alternate means of compliance

**AMSL** means above mean sea level:

**AQP** means advanced qualification programme:

**ARC** means aerodrome reference code:

**ARFL** means aeroplane reference field length:

**ASDA** means accelerate-stop distance available:

**ATC** means air traffic control service:

**ATCRBS** means air traffic control radio beacon system:

**ATIS** means automatic terminal information service:

**ATS** means air traffic services:

**ATZ** means aerodrome traffic zone:

**BRNAV** means basic area navigation:

**BTPD** means body temperature and pressure dry:

**BTPS** means body temperature and pressure standard:

**CAR** means Civil Aviation Rules:

**CRM** means crew resource management:

**DA** means decision altitude:

**dbm** means a power expressed in decibels with a reference level of 1 milliwatt:

**dbw** means a power expressed in decibels with a reference level expressed in watts:

**DF** means direction finding:

**DH** means decision height:

**DME** means distance measuring equipment:

**EET** means estimated elapsed time:

**ELT** means emergency locator transmitter:

**ELT(AF)** means emergency locator transmitter (automatic fixed):

**ELT(AP)** means emergency locator transmitter (automatic portable):

**ELT(S)** means emergency locator transmitter (survival):

**EPIRB** means emergency position indicating radio beacon:

**ETA** means estimated time of arrival:

**ETOPS** means extended-range twin-engine operations:

**FAF** means final approach fix:

**FAP** means final approach point:

**FAR** means Federal Aviation Regulations issued by the Federal Government of the United States of America:

**FDPS** means flight data processing system:

**FIC** means flight information centre:

**FIR** means flight information region:

**FL** means flight level:

**GNSS** means a global navigation satellite system:

**GPS** means global positioning system:

**GPWS** means ground proximity warning system:

**HF** means high frequency:

**HUMS** means health and usage monitoring system:

**IAF** means initial approach fix:

**IAS** means indicated airspeed:

**ICAO** means the International Civil Aviation Organisation established under the Convention; and includes any successor to the Organisation:

**ICUS** means in command under supervision:

**IF** means intermediate approach fix:

**IFR** means instrument flight rules:

**IFSD** means in-flight shut down:

**ILS** means instrument landing system:

**IMC** means instrument meteorological conditions:

**LDA** means landing distance available

**LLZ** means localiser:

**LRNS** means long range navigation system:

**LSALT** means lowest safe altitude:

**MAPt** means missed approach point:

**CTOW** means maximum certificated take-off weight:

**MDA** means minimum descent altitude:

**MDH** means minimum descent height:

**ME1** means a medical examiner who holds a Medical Examiner 1 Certificate issued under the Act:

**ME2** means a medical examiner who holds a Medical Examiner 2 Certificate issued under the Act:

**MEL** means minimum equipment list:

**MESA** means minimum en route safety altitude:

**MMEL** means master minimum equipment list:

**MLS** means microwave landing system:

**MNPS** means minimum navigation performance specifications:

**MSA** means minimum sector altitude:

**MTOPP** means mean tracheal oxygen partial pressure:

**NDB** means non-directional radio beacon:

**NDT** means non-destructive testing:

**NOF** means international NOTAM office:

**OGE** means out of ground effect:

**PAR** means precision approach radar:

**PDZ** means parachute drop zone:

**PIB** means Pre-flight Information Bulletin:

**PLA** means parachute landing area:

**PLB** means personal locator beacon:

**PNC** means a production non-type certificated aircraft:

**PNGAIP** means Papua New Guinea Aeronautical Information Publications:

**PNG** means Papua New Guinea:

**PRA** means precision radar approach

**PSR** means primary surveillance radar:

**QFE** means atmospheric pressure at aerodrome level or at runway threshold:

**QNH** means an altimeter sub-scale setting to obtain elevation when on the ground:

**RAIM** means receiver autonomous integrity monitoring:

**RDPS** means radar data processing system:

**RESA** means a runway end safety area:

**RF** means radio frequency:

**RFDPS** radar and flight data processing system:

**RNAV** means area navigation:

**RNP** means required navigation performance:

**RPM** means revolutions per minute:

**RVR** means runway visual range:

**RVSM** means reduced vertical separation minimum:

**SEIFR** means single-engine IFR:

**SELCAL** means selective calling system:

**SFAR** means Special Federal Aviation Regulations issued by the Federal Government of the United States of America:

**SSR** means secondary surveillance radar:

**STA** means supplemental type approval:

**STC** means supplemental type certificate:

**STPD** means standard temperature and pressure dry:

**TAWS** means terrain avoidance warning system:

**TBO** means time before overhaul:

**TCAD** means traffic alert and collision avoidance device:

**TCAS** means traffic alert and collision avoidance system:

**TODA** means takeoff distance available:

**TORA** means takeoff run available

**TSO** means a technical standard order that is issued by the Federal Aviation Administration of the United States of America:

**UF** means uplink formats:

**UHF** means ultra high frequency:

**UTC** means co-ordinated universal time:

**V1** means take-off decision speed:

**V2** means the initial climb out speed:

**Vat** means the speed across the threshold

**VEF** means the calibrated speed at which the critical engine is assumed to fail:

**VS** means the stalling speed:

**VFR** means visual flight rules:

**VHF** means very high frequency:

**VMA** means visual manoeuvring area:

**VMC** means visual meteorological conditions:

**VOLMET** means meteorological information for aircraft in flight:

**VOR** means VHF omnidirectional radio range:

**VSM** means vertical separation minimum:

**VSWR** means voltage standing wave ratio:

**ZFT** means zero flighttime.

## **Subpart C – Units of Measure**

### **1.3 Units of Measure**

#### **C.1 Source reference**

Subject to paragraph C.2, the units of measure used for aeronautical purposes in Papua New Guinea are those specified in the International System of Units as adopted in Annex 5 to the Convention.

#### **C.2 Variations from source**

Non International System Units adopted by Annex 5 are used in accordance with the following table in Papua New Guinea:

Distance	Nautical miles
Altitude, elevations, and heights	Feet
Visibility	Kilometres or metres

Speed, including wind speed  
Vertical speed

Knots  
Feet per minute