AERONAUTICAL INFORMATION PUBLICATION TIMOR-LESTE Part 1

Edition 4

CONSULT NOTAM AND AIP SUPPLEMENT
FOR LATEST INFORMATION

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PART 1 - GENERAL (GEN)

GEN 0.1 PREFACE

1 NAME OF PUBLISHING AUTHORITY

1.1 The AIP is published under the authority of the Civil Aviation Authority of Timor-Leste (AACTL), Ministry of Transport and Communications Timor-Leste.

GEN 0

2 APPLICABLE ICAO DOCUMENTS

2.1 The AIP is prepared in accordance with the Standards and Recommended practices (SARPs) from the following ICAO Documents:

- Annex 15 Aeronautical Information Services
- Annex 4 Aeronautical Charts
- Doc 8126 Aeronautical Information Services Manual
- Doc 8697 Aeronautical Chart Manual

3 AIP TIMOR-LESTE STRUCTURE

3.1 The AIP Structure

3.1.1 The AIP is made up of three Parts, being Part 1-General (GEN), Part 2.-Enroute (ENR) and Part 3-Aerodromes (AD). Each Part consists of sections and subsections. The AIP Structure is shown in graphic form at page 1-5.

3.2 Part 1 – General (GEN)

3.2.1 Part 1 consists of five sections. These sections are described below.

3.2.2 GEN 0 Preface

Preface, Record of AIP Amendments, Record of AIP SUPs, Checklist of AIP pages, List of Hand Amendments to the AIP and the table of Contents to Part 1.

3.2.3 GEN 1 National Regulations and Requirements

Designated authorities, Entry, transit and departure of aircraft, Entry transit and departure of cargo, Aircraft instruments, equipment and documents, Summary of national regulation and international agreements/conventions and differences from ICAO SARPs.

3.2.4 GEN 2 Tables and Codes

Measuring system, Aircraft markings, Holidays, Abbreviations, Chart symbols, Location indicators, List of radio navigation aids, Conversion tables, and Sunrise/sunset information.

3.2.5 GEN 3 Services

Aeronautical Information Service, Aeronautical Charts, Air Traffic Services, Communication Service, Meteorological Services and Search and Rescue Services.

3.2.6 GEN 4 Charges for Aerodromes/Heliports and Air Navigation Services

Aerodrome and helicopter charges/and Air Navigation Service charges.

3.3 Part 2 – Enroute (ENR)

3.3.1 Part 2 consists of seven sections. The sections are described below.

3.3.2 ENR 0 Preface

Record of AIP Amendments, Record of AIP SUPs Checklist of AIP pages, List of hand amendments to the AIP and the Table of contents to Part 2.

3.3.3 ENR 1 General Rules and Procedures

General rules, Visual flight rules, instrument flight rules, ATS airspace classification, Holding approach and departure procedures, Radar service and procedures, Altimeter Setting procedures, regional supplementary procedures, Air traffic flow management, Flight plan messages, interception of civil aircraft, and Air traffic incidents.

3.3.4 ENR 2 Air Traffic Service Airspace

Detailed description of Timor-Leste airspace and other regulated airspace.

3.3.5 ENR 3 ATS Routes

Detailed description of lower ATS routes and helicopter routings.

3.3.6 ENR 4 Radio Navigation Aids/Systems

Radio navigation aids-enroute, Special navigation systems, Name-code designators for significant points, and Aeronautical ground lights-en-route.

3.3.7 ENR 5 Navigation Warnings

Prohibited, restricted and danger areas, Military exercise and training areas and Air Defence Identification Zone (ADIZ), other activities of a dangerous nature and other potential hazards, Air navigation obstacles and bird migration areas with sensitive fauna.

3.3.8 ENR 6 En-Route Charts

En-route Charts, ICAO and index charts.

3.4 Part 3- Aerodromes (AD)

3.4.1 Part 3 consists of four sections. The sections are described below.

3.4.2 AD O Preface

Record of AIP Amendments, Record of AIP SUPs, Checklist of AIP pages, List of hand amendments to the AIP and the Table of Contents to Part 3.

3.4.3 AD 1 Aerodromes/Heliports – Introduction

Aerodrome/heliport availability, rescue and fire-fighting services, Index to aerodromes and heliports, Grouping of aerodromes and heliports and Handling services providers.

3.4.4 AD 2 Aerodromes

Detailed information on aerodromes including helicopter-landing areas, if located at the aerodromes.

3.4.5 AD 3 Heliports

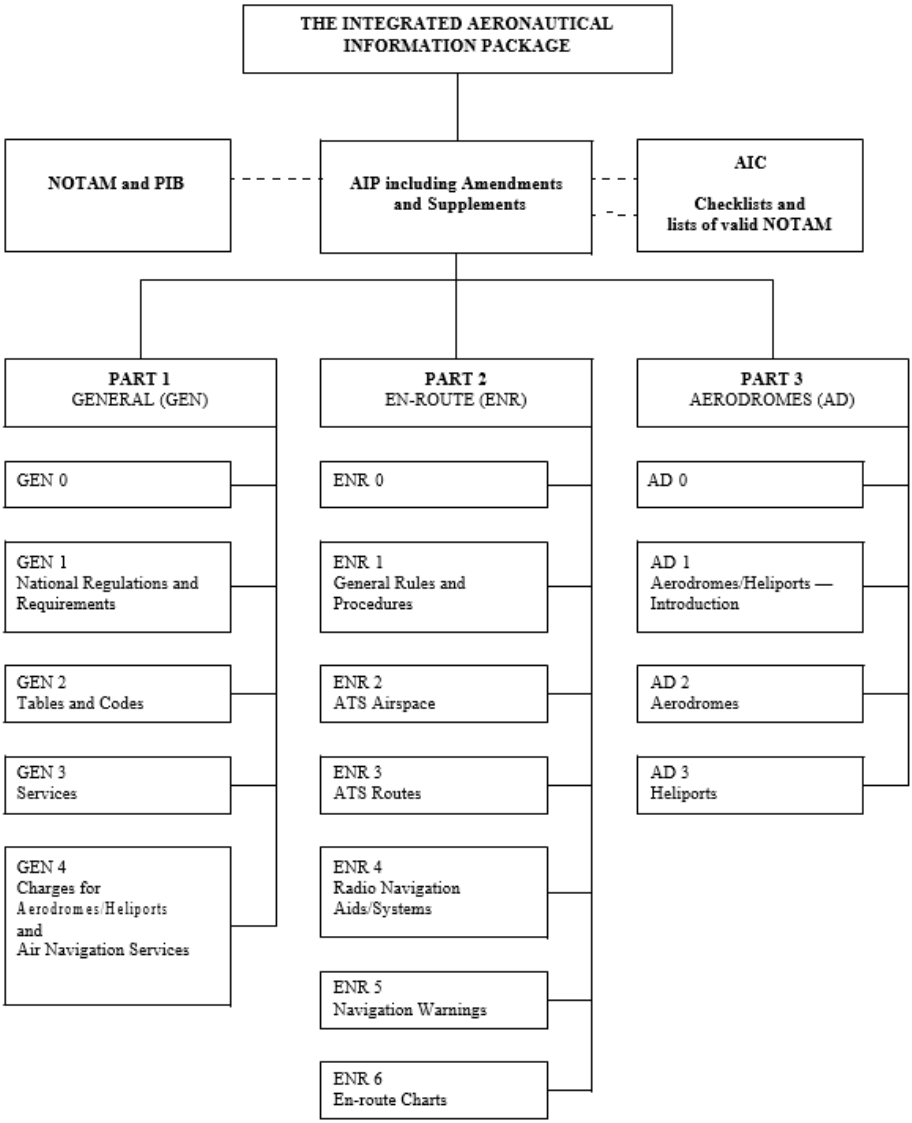
Detailed information on heliports.

4 REGULAR AMENDMENT INTERVAL

4.1 The Timor-Leste AIP will be amended every 12 months and will be replaced in its entirety. Interim amendments will be notified via AIC.

5 CONTACT IN CASE OF DETECTED ERRORS

5.1 All care has been taken to ensure that the information contained within this AIP is accurate and complete. Any errors and omissions which may be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to AACTL, whose address is shown at GEN 1.


THE INTEGRATED AERONAUTICAL INFORMATION PACKAGE
NOTAM and PIB
AIP including Amendments and Supplements
AIC
Checklists and lists of valid NOTAM
PART 1
GENERAL (GEN)
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GEN 0.2 RECORD OF AIP TIMOR-LESTE AMENDMENTS

AIP AMENDMENT			
NR/ Year	**Publication date**	**Date Entered**	**Entered by**
1	2004		
2	25 MAR 2021		
3	02 DEC 2021		
4	16 JUN 2022		
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GEN 0.3 RECORD OF AIP TIMOR-LESTE SUPPLEMENTS

NR/ Year	Subjects	AIP Sections(s) Affected	Period of Validity	Cancellation record
AIC 01/2021	PBN	Pt 1 and 2	UFN	NA

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GEN 0.4 CHECKLIST OF AIP TIMOR-LESTE PAGES

Edition No.	Page	Date
4	Cover 1-2	16 JUN 2022
4	1-1 to 1-134	16 JUN 2022

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GEN 0.5 LIST OF HAND AMENDMENTS TO AIP TIMOR-LESTE

AIP page (s) Affected	Amendment text	Introduced by AIP Amendment NR

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GEN 0.6 TABLE OF CONTENTS TO PART 1 (GEN)

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NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 DESIGNATED AUTHORITIES

1 INTRODUCTION

GEN 1

1.1 República Democrática de Timor-Leste applies to the extent practicable the ICAO Standards and Recommended Practices (SARPs) to ensure the safety and regulation of Air Navigation in Timor-Leste.

1.2 The addresses of the designated authorities concerned with facilitation of international air navigation are as follows:

1	**Autoriade da Aviacao de Timor-Leste (AACTL)** Direção Serviço de Navegação Aérea Ministério dos Transportes e Comunicações Dili, Timor-Leste Tel: +670 78579929 Fax: +670 3317111 Email: cnoronha@aactl.gov.tl Web: www.aactl.gov.tl	4	**Immigration** Direção Nacional da Migracão, Policia Nacional de Timor–Leste, Guartel General, Rua Jacinto Cândido-Caicoli, Dili, Timor-Leste Tel: +670 3310539, +670 7230197/ +670 77195471 Fax: +670 3310 539
2	**Meteorology** Diresaun Nasional Meteorologia e Geofisika (DNMG) Ministério dos Transportes e Comunicações Dili, Timor-Leste Tel: +670 3331092 Fax: NIL	5	**Health** Dr. Lizete Vong Pereira PNLIA Dili,Timor-Leste Tel: +670 77479443 Fax: NIl E-mail: poaisha@gmail.com
3	**Customs** Direção Nacional das Alfândegas de Timor-Leste, Avenida Mártires da Pátria, Colmera, Dili, Timor-Leste Tel: +670 77952689 Email: vamaral@mopf.gov.tl Fax: NIL E-mail: urodrigues@mopf.gov.tl	6	**Quarantine** Director-Nacional Quarantine e Biosegurança Ministério de Agricultura e Pescas Comoro Dili, Timor-Leste Tel: +670 77546391/77088163 Fax: NIL Email: velicy2001@yahoo.com.au

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GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

1 GENERAL

1.1 Procedures for international flights into, from or over the territory of República Democrática de Timor-Leste comply with the provisions of ICAO Annex 9.

1.2 Aeroporto International Presidente Nicolau Lobato (Dili International Airport is the designated entry/exit points into Timor-Leste. Entry to or exit from aerodromes other than Aeroporto Internacional Presidente Nicolau Lobato is subject to specific approval by the AACTL.

1.3 Aircraft operating into and out of Timor-Leste airports shall comply with all restrictions and limitations established at the airports.

1.4 Operators shall comply with Annex 17 on security procedures for their aircraft, passengers, baggage, cargo, and mail.

2 SCHEDULED FLIGHTS

2.1 Scheduled services are permitted to operate into República Democrática De Timor-Leste provided it is appropriately covered by either an Air Services Agreement or by other aeronautical agreement with the AACTL.

2.2 Presently the AACTL authorizes operators of foreign States to operate schedule services into Timor-Leste on regular and charter basis only.

2.3 Foreign State operators wishing to operate services into Timor-Leste under 2.2 above must submit a request for approval to the President of AACTL for consideration with the following minimum documents:

a. Letter of intent for the operation
b. Copy of Certificate of Registration
c. Copy of air operator certificate (AOC) and its operation specification
d. Copy of Certificate of Airworthiness
e. Copy of Insurance Certificate

f. Copies of pilots licence(s), valid medical certificate(s) and IELP level 4 certificate(s).

g. Flight Schedule and slot time (by ANATL, E.P.)

h. Proposed tariffs

i. Company Profile

j. Applicable licenses as required to operate within Timor-Leste as described by government regulations

2.4 Additionally, the operator must satisfy the following conditional:

a. Possess a valid Air Operator's Certificate issued by the country in which they are registered for operations into Timor-Leste.

b. Comply with the aviation legislations and regulations of the country in which they are registered.

c. Has adequate insurance to specifically cover his operations into the territory of Timor-Leste.

2.5 Applications must be submitted to the AACTL at least thirty (30) days prior to the proposed commencement date of services. The decision to approve or not approve the application is at the discretion of the Board members of AACTL. Where approval to operate the services is given, AACTL may specify additional conditions to be complied with.

2.6 The operators of foreign states which are authorized to operate services into Timor-Leste are required to adhere to the National Civil Aviation Safety Regulation (CASR) of Timor-Leste.

2.7 The following documents conforming to the ICAO format as set forth in Annex 9 shall be submitted as necessary for the inbound clearance of aircraft:

a. General Declaration-3 copies

b. Passenger Manifest- 3 copies

c. Cargo Manifest-3 copies

3 NON-SCHEDULED/PRIVATE OR AEROMEDICAL FLIGHTS

3.1 Operators intending to operate flights for taking on or discharging cargo and mail must obtain prior approval from the President of AACTL. Applications must be made at least 72 hours before arrival in Timor-Leste.

3.2 Requests must be faxed or e-mail to the Executive Director President of AACTL giving the following information as appropriate:

a. Aircraft call sign and registration

b. Aircraft type and MTOW

c. Departure point, destination, and ETA (UTC)

d. ETD (UTC) and next destination

e. Name & address of operator including fax number and e-mail address

f. Purpose of flight

g. Any other pertinent information.

3.3 Flight approvals are valid for a period of 24 hours from the date/ETA approved, will extended 72 hours unless requested.

3.4 Documentation required for aircraft clearance are the same as for Scheduled Flights.

4 FOREIGN STATE AIRCRAFT

4.1 Foreign State aircraft means aircraft used in military, police or customs services of that State.

4.2 Unless special arrangements are in force, foreign State aircraft intending to land in Timor-Leste or overfly Timor-Leste airspace shall obtain approval to do so through diplomatic channels from the Ministry of Foreign Affairs Timor-Leste giving the following details:

a. Aircraft operator

b. Aircraft type and registration mark

c. Name of pilot-in–command and number of crew

d. Purpose of flight

e. MTOW

f. Point of departure, route, and destination

g. Next destination and route

h. Proposed schedule

i. Any other relevant information considered necessary.

4.3 The Ministry of Foreign Affairs can be contacted as follows:

- Tel: +670 333 9020
- Fax: +670 322 007/322 008

5 DOCUMENTS FOR INSPECTION

5.1 Documents shall be submitted in paper form. The pilot-in-command, airline operator or the authorized agent shall produce for inspection when requested by authorized personnel before commencement of flight or after termination of flight the following documents as appropriate:

a. Certificate of Airworthiness

b. Certificate of Registration

c. Licenses of operating crew

d. Journey Log Book

e. Passenger Manifest

f. Cargo Manifest

g. General Declaration of Health (Crew medical certificate)

6 TRAFFIC FORM SUBMISSION

6.1 The pilot-in-command or the authorized agent shall complete and submit to the Airport Operations Officer (ANATL, E.P) manually the Traffic Form for each flight prior to departure. The forms are available at ANATL, E.P. from Airport Operations. Traffic submission is required only at Dili International airport.

GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

1 CUSTOMS REQUIREMENTS

1.1 All arriving person are required to declare all dutiable and prohibited goods and items to Customs officers using the Customs declaration form. As a general rule, the following should be declared:

a. Any merchandise not exempt from the payment of duties

b. Merchandise for commercial or industrial activity

c. Merchandise that cannot be brought in or its import is conditional to fulfillment of certain formalities

1.2 Items and their quantity that may be brought in duty-free into Timor-Leste provided the passenger's previous trip overseas took place more than thirty (30) days ago are as follows:

a. Souvenirs with an overall value not exceeding USD 300.00

b. Tobacco of a gross weight not exceeding 400 grams

c. Alcoholic beverages not exceeding 1.5 litres in quantity

d. Special pharmaceuticals meant for self-consumption not exceeding 10 Units and which are not narcotics, pharmaceuticals shall be accompanied by a doctor's medical prescription.

Note: Customs officers may demand receipts (s) as proof of value.

1.3 Items, which are not permitted to be brought into Timor-Leste, are:

a. Drugs

b. Weapons considered prohibited, their ammunitions and explosive substances

c. Gold in bars or coins

d. Foreign lottery and games of hazard prohibited by law

e. Currency and other means of payment outside certain limits and conditions

f. Other merchandise forbidden by law or whose importation is exclusive to certain entities such as counterfeit books that are

of Timorese property, photographs and other works deemed to have a pornographic content

1.4 The following items may be brought in after completion of necessary of formalities:

a. Guns and ammunitions

b. Live animals – for dogs, cats and other pets the official certificate of origin and vaccination is required

c. Live plants, parts of plants for dissemination, seeds and serials. The certificate of purity and germination or letter of guaranty issued by the supplier at the place of origin

d. Raw food such as meat, fish and seafood in the following states: raw, dry, smoked, salted, dozen or in brine

1.5 Trade samples that are not for sale and no commercial value must be declared and their import justified.

1.6 Passengers having nothing to declare may use the Green Lane while passengers with merchandise to declare must use Red Lane.

1.7 All departing passengers carrying more than USD 5,000.00 Cash (or foreign Equivalent) on their person or in their luggage must declare so in the embarkation form.

1.8 All enquiries concerning customs and currency control procedures or requirements should be addressed to the Director of Customs.

2 IMMIGRATION REQUIREMENTS

2.1 Enforcement of immigration rules and regulations is undertaken by the Timor-Leste National Police.

2.2 All Passengers require a valid passport or other internationally recognized travel Document and visa for entry into Timor–Leste, except members of visiting forces within the meaning of any law for the time being in force regulating visiting forces in Timor-Leste. Flight crews will be accorded temporary admission on production of valid licenses or crewmember certificates issued by the State of Registry of the aircraft.

2.3 Application for visa can be made on arrival at the Dili/Presidente Nicolau Lobato International airport. Visa information can be obtained from the Ministry of Immigration.

2.4 Passengers arriving and departing Timor-Leste are required to fill in the disembarkation and embarkation forms as appropriate. Disembarkation forms shall be distributed in-flight. Required forms shall be submitted to the authorities on arrival or before departure together with passports and visa.

2.5 The Immigration authorities may refuse an arriving passenger not in possession of a valid travel document or visa permission to enter Timor-Leste or, may require the passenger to show evidence of means of support whilst in Timor-Leste and onward passenger to a destination outside Timor-Leste.

2.6 Airlines operators, in their own interests should not permit passengers to board their aircraft unless passengers are in possession of the necessary travel documents, as they will be held responsible for the maintenance and subsequent deportation from Timor-Leste of passengers denied entry

2.7 Presently no direct transit procedures are applicable.

2.8 All queries regarding Immigration procedures should be addressed to the Director of Immigration.

3 HEALTH REQUIREMENTS

3.1 Disembarking passengers are not required to furnish vaccination certificates except those passengers coming directly from Yellow Fever affected areas.

3.2 The pilot-in-command shall ensure that an aircraft on international flight is adequately disinfected 30 minutes prior to arrival and must furnish evidence that this has been done.

3.3 No health formalities are required for departing aircraft and passengers.

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GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

1 CUSTOMS REQUIREMENTS

1.1 Goods may be imported or exported by air in accordance with applicable rules. All goods to be imported or exported whether subject to import/export duties must be declared in writing.

1.2 All declarations must indicate a full and true account of the number and description of goods and packages, value, weight, measurement or quantity and the country of origin or destination as appropriate.

1.3 Where duties are payable on imported goods, such duties must be paid in full before the goods can be released. Where export duties are payable such duties must be paid in full before goods can be exported.

1.4 The duties levied are Import Duty and Sales Tax. The rates for Import Duty vary according to the categories of goods imported. The sales tax applicable is 6%.

1.5 Full information for the import and export of goods and duties applicable may be obtained from the Director of Customs.

2 QUARANTINE REQUIREMENTS

2.1 The Timor-Leste Quarantine Services makes all efforts to prevent the introduction of harmful pests and diseases into Timor-Leste. Passengers and cargo are therefore subject to inspection and treatment if necessary.

2.2 Quarantine risk management includes:

a. Handling of quarantine waste

b. Transportation of exotic insects and pathogens

c. Foodstuffs carried by passengers

d. Cargo carried on board aircraft

2.3 All foodstuffs and food-related waste is subject to quarantine control. Quarantine Control remains in force while the aircraft is in Timor-Leste and quarantinable material is on board. The Quarantine Officer may randomly board aircraft to supervise waste removal and disinfection.

2.4 All food waste and refuse shall be placed into heavy-duty plastic bags and transported as soon as possible for immediate destruction (incineration). Airline operators shall enter into agreement with authorized Timor-Leste contractors for the removal and destruction of quarantine waste. Alternatively, the waste must be securely stowed on board and taken to the point of origin. Quarantine waste shall not be handled other than in the manner stated above.

2.5 Aircraft operators shall conduct cabin and cargo hold disinfection for all arriving flights. Empty disinfection spray containers shall be made available to Quarantine or Customs officers upon request.

2.6 Aircraft operators shall notify the Quarantine Services (Serviço de Quarentena Timor-Leste) of any live animal carried on board.

2.7 Spraying must be completed using an SQTL approved aerosol. Approved propellants are (HFC134a or a mixture of 134a and HCFC 141b). Spray rate must be equivalent to 10 grams per 100 cubic feet (10 grams per 28.3 cubic meters).

2.8 Approved spray types:

a. Pre-Spray: Permethrin 2%.

b. Top of Descent: Phenothrin 2%.

c. Hold Spray: Phenothrin 2% with Permethrin 2%.

2.9 Pre-Spray shall be applied in the last port the aircraft lands prior to arrival into Timor-Leste. Pre-Spray shall be applied through the cabin immediately before passengers aboard the aircraft.

2.10 Top of Descent Spray shall be applied just before the aircraft commences descent into Timor-Leste.

2.11 Hold spray shall be applied to holds at completion of loading in the country of origin just prior to departure. Cargo doors shall be closed as much as possible, the applicable amount of cargo Hold spray discharged and the cargo doors immediately sealed. Empty spray containers should then be handed to the cabin crew for presentation to Quarantine Officers on arrival at Timor-Leste.

2.12 When applying Pre-Spray and Top of Descent disinfection in small aircraft, the procedure should be to walk at the rate of one (1) step per second from the rear of the aircraft to the Front while spraying towards the ceiling to achieve the spray rate stated in 2.7.

2.13 Passengers shall declare quarantinable goods/material on the customs declaration form.

2.14 Quarantine Officers are on duty at Dili International Airport for scheduled flights. Operators of all other flights are required to notify the Quarantine Services in advance giving details of their flight. No quarantine services are available at other airports.

2.15 All enquiries concerning Quarantine procedures shall be sent to Quarantine Services at the address given in GEN 1.1.

3 CARRIAGE OF DANGEROUS GOODS

3.1 Prior permission must be obtained from the Flight Safety Division (FSD) Executive Director of AACTL for the carriage of dangerous goods (restricted articles) in aircraft. Except as otherwise approved by the Flight Safety Division (FSD) Executive Director of AACTL, dangerous goods shall only be carried on board an aircraft in accordance with the CASR-TL part 12 (CARRIAGE OF DANGEROUS GOODS BY AIR) ICAO Dangerous Goods Regulations as contained in Doc 9284-AN/905 Technical Instructions for the Safe Transport of Dangerous Goods and ICAO Annex 18.

3.2 It is the responsibility of the aircraft operator to inform the Pilot in Command (PIC) before any flight begins of the identity of any dangerous goods on board, the danger to which they give rise to and the weight or quantity of the goods. Under no circumstances shall operators carry dangerous goods forbidden for transportation by air.

3.3 No person may take or cause to be taken on board an aircraft, or deliver or cause to be delivered for loading thereon, any goods which he/she knows or has reason to believe or suspect to be goods the carriage of which by reason of their nature, are liable to endanger the safety of the aircraft or persons on board the aircraft.

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EN 1.5 AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

1 GENERAL

1.1 Commercial air transport aircraft must adhere to the provisions of Annex 6 - Operation of Aircraft Part 1, Chapters 6 and 7 with respect to aircraft instruments, equipment, and flight documents.

1.2 The minimum navigation equipment to be carried on board IFR aircraft is a serviceable VOR/DME or GNSS.

1.3 Aircraft GNSS equipment shall meet at least one of the standards specified below:

a. (E)TSO-C145

b. (E)TSO-C146

c. (E)TSO-C196a

1.4 Air Transport Operations shall either be equipped with two independent GNSS systems that allow completion of the flight in the event of the failure of one system. Where an operator has MEL approvals are in place for operations with one GNSS system, this shall also be approved in Timor-Leste airspace.

1.5 Other operations may be equipped with a single GNSS system. Where a VOR/DME is not installed to allow for the MNN to be used to continue a flight, a suitable alternate must be carried.

1.6 Installed GNSS equipment shall meet the specified TSO requirements and able to support ADSB operations.

1.7 At least one ELT shall always be carried on board.

2 SPECIAL EQUIPMENT TO BE CARRIED

2.1 Nil.

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GEN 1.6 SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS AND CONVENTIONS

1 LIST OF APPLICABLE CIVIL AVIATION LEGISLATION, REGULATIONS, DIRECTIVES AND CIRCULAR

1.1 The following are the list of Legislation, Regulations and Directives affecting Civil Aviation within Timor-Leste.

2 CIVIL AVIATION LEGISLATION

2.1 Electronic versions of Civil Aviation Legislation and Decree law can be found at:

http://timor-leste.gov.tl/?cat=36&lang=en and

www.aactl.gov.tl

No	Civil Aviation Legislation	Date of Publication
1	Civil Aviation Basic Law No.1/2003	10 March 2003
2	Decree-law N.º 1/2019 First Amendment on Civil Aviation Basic Law No. 1/2003	23 January 2018
3	Decree-law N.º 8/2005 Creation of Civil Aviation Authority Timor-Leste (AACTL)	16 September 2005
4	Government Decree N.º 8/2005, Creation of National Airport and Air Navigation Services Authority	16 September 2005
5	Decree-law N.º 3/2006, on the licensing for private use of Airport infrastructures;	1 March 2006
6	Decree-law N.º 5/2006,Legal regime for certification of Commercial Air Transportation Operator	1 March 2006
7	Decree-law N.º 6/2006,Regime for Access to Restricted and Reserved Areas At Airports	1 March 2006
9	Decree law N.º 10/2006, Legal regime on Ground Handling operations licensing.	12 April 2006

No	Civil Aviation Legislation	Date of Publication
10	Decree-law n.º 42/2016, first amendment to the Civil Aviation Authority of Timor-Leste by-laws	5 October 2016
11	Decree-law N.º 13/2018, Civil Aviation law on Security	16 May 2018
12	Decree-law n.º 32/2019, Aerodrome certification	18 December 2019
11	Ministerial Decree 29/2018, AACTL internal compentences and organization regulation	17 October2018
12	Ministerial Decree 55/2019, Rules of aircraft leasing	30 October 2019
13	Decree-law n.º 1/2020, Creation of the accidents and incidents investigation committee and amends Decree-law n.º 1/2019 and Decree-law n.º 8/2005;	8 January 2020

3 CIVIL AVIATION REGULATIONS AND DIRECTIVES/CIRCULARS

3.1 Electronic versions of Civil Aviation Regulations, Directives and Circulars can be found at:

www.aactl.gov.tl

No	Civil Aviation Regulations and Directives/Circulars	Date of Publication
1	TL CASR Part 1-General Policies, Procedures and Definitions	June 2016
2	TL CASR Part 2-Personnel Licensing	June 2016
3	TL CASR Part 3-Approved Training Organisations	June 2016
4	TL CASR Part 4-Aircraft Registration and Marking	June 2016
5	TL CASR Part 5-Airworthiness	June 2016

No	Civil Aviation Regulations and Directives/Circulars	Date of Publication
6	TL CASR Part 6-Approved Maintenance Organisations	June 2016
7	TL CASR Part 7-Instruments and Equipment	June 2016
8	TL CASR Part 8-Operations	June 2016
9	TL CASR Part 9-Air Operation Certification and Administration	June 2016
10	TL CASR Part 10-Regulation of Commercial Air Transport by Foreign Aircraft	June 2016
12	Aerodrome use, Certification and Operator obligations	15 June 2015
13	Directive 0107, Issuing Air Operating Certificate (AOC)	01 August 2007
14	AACTL advisory circular (AC)-AGA 01/11, establishing reporting system to record hazard, risk and action taken	February 2011
15	AACTL advisory circular (AC)-AIR 01/11,approval for special flight	February 2011
16	Runway Safety Program	2011
17	CASR Pt 65 ATC Licensing	2021
18	CASR Pt 171 Communication, Navigations and Surveillance	2021
19	CASR Pt 172 Air Traffic Services Providers	2021
20	CASR Pt 173 PANS OPS	2021
21	CASR Pt 174 Meteorology	2021
22	CASR Pt 175 Aeronautical Information Management	2021
23	CASR Pt 176 Search and Rescue	2021

4 INTERNATIONAL CONVENTIONS AND AGREEMENTS

No	International Conventions and Agreements	Date of Publication
1	Chicago Convention Ratification	November 2004
1	Chicago convention amendment for the adoption of article 83-bis	August 2005
2	Bilateral agreement between Australia Transportation Safety Bureau (ATSB) on safety accident investigation	TBC
3	Agreement between Civil Aviation Timor-Leste and COSCAP-SEA on inspection of foreign Air Operators within Timor-Leste	18 November 2011

GEN 1.7 DIFFERENCES FROM ICAO SARPS

1 LISTED DIFFERENCES

1.1 The following are differences from ICAO SARPS:

- Annex 11: FIS not provided in Class G airspace
- Annex 14:
    - RESA not available WPDL
    - GRF not fully implemented

1.2 Further differences in addition from those above from ICAO SARPS do exist within Timor-Leste. These are progressively being identified and will be provided on the AACTL website as identified.

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TABLES AND CODES

GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS AND HOLIDAYS

GEN 2

1 UNITS OF MEASUREMENTS

1.1 The following units of measurement will be used for air and ground operations:

Measurement	Units
Distances used in navigation (generally in excess of 2NM*)	nautical miles and tenths*
Short distances	metres
Altitudes, elevations and heights	feet
Horizontal speed, including wind speed	knots
Vertical speed	feet per minute
Wind direction for runway operations	degrees magnetic
Wind direction except for runway operations	degrees true
Visibility, including runway visual range	kilometres or metres
Altimeter setting	hectopascals
Temperature	degrees celsius
Weight (Mass) Metric	tonnes or kilograms
Time	hours and minutes
**Miles must be read as meaning nautical miles unless otherwise stated. The word "nautical" may be omitted from air-ground communications.*	

2 TIME SYSTEM

2.1 Coordinated Universal Time (UTC) is used for civil aviation.

2.2 Date and time are indicated in a combination of the date and time in a single six figure group. However, a 10 figure group comprising the year, month, date, hours and minutes is used for NOTAM and SUPs. This is reduced to an eight figure group (nil year) for SPFIB.

3 GEODETIC REFERENCE DATUM

3.1 All published geographical coordinates are expressed in term of the World Geodetic System – 1984 (WGS-84). Most geographical coordinates have been surveyed; however, those geographical coordinates that have been mathematically derived are indicated by an asterisk.

3.2 Geographical coordinates published in AIP documents/charts and NOTAM are expressed as degrees, minutes, seconds (if required), and if more precision is required, tenths/hundredths of a second with the cardinal point last; e.g. 3635S 14626E or 050721.2S 0652522.6E.

4 AIRCRAFT NATIONAL AND REGISTRATION MARKS

4.1 The national mark for aircraft registered in Timor-Leste is 4W. This national mark is followed by a hyphen and a registration mark consisting of 3 characters.

5 PUBLIC HOLIDAYS

5.1 Public holidays observed in Timor-Leste are published via government website and AACTL website.

GEN 2.2 DEFINITIONS AND ABBREVIATIONS

1 DEFINITIONS

Airborne Collision Avoidance System (ACAS): An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

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

Aerodrome Beacon: An aeronautical beacon, used to indicate the location of an aerodrome from the air.

Aerodrome Control Service: ATC service for aerodrome traffic.

Aerodrome Control Tower: A unit established to provide ATC serviceto aerodrome traffic.

Aerodrome Elevation: The elevation of the highest point of the landing area.

Aerodrome Meteorological Minima (Ceiling and Visibility Minima): The minimum heights of cloud base (ceiling) and minimum values of visibility which are prescribed for the purpose of determining the useability of an aerodrome either for takeoff or landing.

Aerodrome Proprietor: Any Owner, Licensee, Authority, Corporation, or any other body which has a legal responsibility for a particular aerodrome.

Aerodrome Reference Point (ARP): The designated geographical location of an aerodrome.

Aerodrome Traffic: All traffic on the manoeuvring area of an aerodrome and all aircraft flying in, entering, or leaving the traffic circuit.

Aerodrome Traffic Circuit: The specified path to be flown by aircraft flying in, entering, or leaving the traffic circuit.

Note: At a controlled aerodrome, an aircraft is in the traffic circuit when it is within the CTR and established on a leg of the circuit.

Aeronautical Beacon: An aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth.

Aeronautical Information Circular (AIC): A notice containing information that does not qualify for the origination of a NOTAM, or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters.

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

AIP Supplement (SUP): Temporary changes to the information contained in the AIP which are published by means of special pages.

Aircraft Address: A unique combination of 24 bits available for assignment to an aircraft for the purpose of air-ground communications, navigation and surveillance. Expressed as a six character hexadecimal code.

Aircraft Classification Number (ACN): A number expressing the relative effect of an aircraft on a pavement for a specific standard sub-grade category.

Aircraft Identification: An identification of up to seven (7) alpha-numeric characters used to identify the aircraft in flight notifications and in Mode S transponders/ADS-B transmitters.

Note: The Aircraft Identification entered into the Mode S Transponder, or ADS-B Transmitter, must match the Aircraft Identification entered into Item 7 of the Flight Notification or, when no flight notification has been filed, the aircraft registration. Hyphens or symbols may not be used within the identification.

Aircraft Parking Position Taxilane: A portion of an apron designated as a taxiway and intended to provide access to aircraft parking positions only.

Air-Ground Communications: Two way communications between aircraft and stations on the surface of the earth.

Air-Report (AIREP): A report from an aircraft in flight prepared by the pilot during the course of a flight in conformity with the requirements for position, operational or meteorological reporting in the AIREP form.

Airspace Release: A defined volume of airspace normally under the jurisdiction of one controlling authority that is temporarily released, by common agreement, for exclusive use of another.

Airspace Speed Limitation: A speed limit specified for a particular class of airspace.

Air Taxiing: Movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a speed normally less than 20KT.

Air Traffic Control Clearance: Authorisation for aircraft to proceed under conditions specified by an ATC unit.

Note: For convenience, the term "Air Traffic Control Clearance" is normally abbreviated to "Clearance" when used in appropriate context.

Air Traffic Control Instructions: Directives issued by ATC for the purpose of requiring a pilot to take a specific action.

Air Traffic Control Service: A service provided for the purpose of:

a. preventing collisions:
   i. between aircraft; and
   ii. on the manoeuvring area between aircraft and obstructions; and
b. expediting and maintaining an orderly flow of air traffic.

Air Traffic Control Speed Restriction: An ATC traffic management speed or an ATC-issued speed control instruction.

Air Traffic Service (ATS): A generic term meaning variously, flight information service, alerting service, air traffic advisory service, ATC service (area control service, approach control service, or aerodrome control service).

Air Transit: The airborne movement of a helicopter that is:

a. for the expeditious transit from one place within an aerodrome to another place within the aerodrome;
b. at or below 100FT above the surface; and
c. at speeds greater than those used in air taxiing.

Airways Clearance: A clearance, issued by ATC, to operate in controlled airspace along a designated track or route at a specified level to a specified point or flight planned destination.

Alerted See-and-Avoid: A procedure where flight crew, having been alerted to the existence and approximate location of other traffic in their immediate vicinity, seek to sight and avoid colliding with those known aircraft.

Alerting Post: An agency designated to serve as an intermediary between a person reporting an aircraft in distress and a rescue coordination centre.

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

Alternate Aerodrome: An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing.

Altimeter Setting: A pressure datum which when set on the sub-scale of a sensitive altimeter causes the altimeter to indicate vertical displacement from that datum. A pressure-type altimeter calibrated in accordance with Standard Atmosphere may be used to indicate altitude, height or flight levels, as follows:

a. when set to **QNH** or **Area QNH** it will indicate **altitude**;

b. when set to **Standard Pressure** (1013.2 HPA) it may be used to indicate **flight levels**.

Altitude: The vertical distance of a level, a point or an object, considered as a point, measured from mean sea level.

Approach Control Service: ATC service for arriving or departing flights.

Approach Sequence: The order in which two or more aircraft are cleared to approach to land at the aerodrome.

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

Apron Service: A traffic regulatory and information service provided to aircraft using the apron area of an aerodrome.

Apron Taxiway: A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.

Area Control Service: ATC service for controlled flights in control areas.

Area Navigation: A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground or space-based navigation aids, or within the limits of the capability of self-contained aids, or a combination of these.

Area Navigation Route: An ATS route established for the use of aircraft capable of employing area navigation.

Area Navigation Systems: Navigation systems supporting area navigation.

Area VHF: The appropriate FIA VHF channel for a location.

ATS Route: A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

ATS Surveillance Service: Term used to indicate an air traffic service provided directly by means of an ATS surveillance system.

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

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

Automatic Dependent Surveillance Broadcast (ADS-B): A means by which aircraft, aerodrome vehicles and other objects can automatically transmit or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.

Automatic Terminal Information Service (ATIS): The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts during the hours when the unit responsible for the service is in operation.

Base Turn (Instrument Approach): A turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.

Note: Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.

Blanket Clearance: A pre-arranged clearance originated for specific activities or events and specified in a letter of agreement.

Blind Transmission: A transmission from one station to another station in circumstances where two way communication cannot be established, but where it is believed that the called station is able to receive the transmission.

Block Level: A section of airspace with specified upper and lower limits on a specific track, in which cleared aircraft are permitted to manoeuvre.

Briefing: The act of giving in advance, specific pre-flight instructions or information to aircrew.

Broadcast: A transmission of information relating to air navigation for which an acknowledgement is not expected.

Ceiling: The height above the ground or water of the base of the lowest layer of cloud below 20,000FT covering more than one-half of the sky.

Centre: A generic callsign which can include ATC, Advisory, Flight Information and Alerting services, depending on the classification of airspace in which the service is provided.

Certified Aerodrome: A place that is certified as an aerodrome under the Civil Aviation Safety Regulations.

Circling Approach: An extension of an instrument approach procedure which provides for visual circling of the aerodrome prior to landing.

Clearance Limit: The point to which an aircraft is granted an ATC clearance.

Clearance Expiry Time: A time specified by an ATC unit at which a clearance ceases to be valid.

Clearway: A defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height.

Collocated (Navigation) Aids: En route waypoints or navigation aids that are within 600M of each other.

Common Traffic Advisory Frequency (CTAF): A designated frequency on which pilots make positional broadcasts when operating in the vicinity of a non-controlled aerodrome or within a Broadcast Area.

Communicable Diseases: Communicable diseases include cholera, typhus (epidemic), smallpox, yellow fever, plague, and such other diseases as the contracting States shall, from time to time, decide to designate.

Company Operations Representative: The representative of an operating agency who is authorised to act in the capacity of liaison officer between ATC and the operating agency in respect of the control of an aircraft of that agency.

Continuous Descent Final Approach (CDFA): A technique, consistent with stabilised approach procedures, for flying the final approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 50FT above the landing runway threshold or the point where the flare manoeuvre should begin for the type of aircraft flown.

Control Area (CTA): A controlled airspace extending upwards from a specified limit above the earth.

Controlled Aerodrome: An aerodrome at which ATC service is provided to aerodrome traffic.

Controlled Airspace: Airspace of defined dimensions within which ATC service is provided in accordance with the airspace classification.

Controlling Authority: With respect to airspace classifications, this is the Air Traffic Service provider for that area. With respect to PRD, this is the agency nominated to exercise the conditions of entry specified for the area.

Control Zone (CTR): A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Cruise Climb: An aeroplane cruising technique resulting in a nett increase in altitude as the aeroplane weight decreases.

Cruising Level: A level maintained during a significant portion of a flight.

Danger Area: An airspace of defined dimensions within or over which activities of potential danger to aircraft flying over the area may exist.

Day: The period between the beginning of morning civil twilight (first light) and the end of evening civil twilight (last light).

Dead Reckoning (DR) Navigation: The estimating or determining of position by advancing an earlier known position by the application of direction, time and speed data.

Decision Altitude/Height (DA/H): 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.

Note 1: DA is referenced to mean sea level and DH is referenced to the threshold elevation.

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

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

Density Height: An atmospheric density expressed in terms of height which corresponds to that density in the Standard Atmosphere.

Distance Measuring Equipment (DME): Equipment which measures in nautical miles, the slant range of an aircraft from the selected DME ground station.

DME Distance: The slant range from the source of a DME signal to the receiving antenna.

Elevation: The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.

Emergency Fuel: The term used to describe a situation when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the fixed fuel reserve for the flight.

Note: The emergency fuel declaration is a distress message.

Emergency Phases:

a. Uncertainty Phase: A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

b. Alert Phase: A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

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

Equivalent Single Isolated Wheel Load: The equivalent load that would be imposed on a pavement by a single wheel if any wheel group on an aircraft were replaced by a single wheel using the same tyre pressure.

Essential Radio Navigation Service: A radio navigation service whose disruption has a significant impact on operations in the affected airspace or aerodrome.

Estimate: The time at which it is estimated that an aircraft will be over a position reporting point or over the destination.

Estimated Elapsed Time (EET): The estimated time required to proceed from one significant point to another.

Estimated Off Block Time: The estimated time at which the aircraft will commence movement associated with departure.

Estimated Time of Arrival (ETA): For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome.

Expected Approach Time (EAT): The time at which ATC expects that an arriving aircraft, following a delay, will leave the holding fix to complete its approach for a landing.

Note: The holding fix referred to in the EAT is that shown on the instrument approach chart from which the instrument approach is prescribed to commence.

Final Approach: That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified:

a. at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or
b. at the point of interception of the last track specified in the approach procedure; and
c. ends at a point in the vicinity of an aerodrome from which a landing can be made, or a missed approach is initiated.

Final Approach Altitude: The specified altitude at which final approach is commenced.

Final Approach Course: Where the aircraft is established laterally on that part of a GLS approach procedure which commences at the specified initial approach fix and ends at the aerodrome, from which point a landing can be made, or a missed approach is initiated.

Final Approach Fix (FAF): A specified point on a non-precision instrument approach which identifies the commencement of the final segment.

Final Approach Point (FAP): A specified point on the glide path of a precision instrument approach which identifies the commencement of the final segment.

Note: The FAP is co-incident with the FAF of a localiser based non- precision approach.

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

Final Approach and Take off Area (FATO): A defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take off manoeuvre is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take off area available.

Final Leg: The path of an aircraft in a straight line immediately preceding the landing (alighting) of the aircraft.

Fix: A geographical position of an aircraft at a specific time determined by visual reference to the surface, or by navigational aids.

Flight Information: Information useful for the safe and efficient conduct of flight, including information on air traffic, meteorological conditions, aerodrome conditions and airways facilities.

Flight Information Area (FIA): An airspace of defined dimensions, excluding controlled airspace, within which flight information and SAR alerting services are provided by an ATS unit.

Note: FIAs may be sub-divided to permit the specified ATS unit to provide its services on a discrete frequency or family of frequencies within particular areas.

Flight Information Region (FIR): An airspace of defined dimensions within which flight information service and SAR alerting service are provided.

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

Flight Level (FL): A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2HPA, and is separated from other such surfaces by specific pressure intervals.

Flight Visibility: The visibility forward from the cockpit of an aircraft in flight.

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

Formation: Two or more aircraft flown in close proximity to each other and operating as a single aircraft with regard to navigation, position reporting and control.

Free text message element: Part of a message that does not conform to any standard message element in the PANS-ATM (DOC 4444).

Glide Path (GP): A descent profile determined for vertical guidance during a final approach.

Global Navigation Satellite System (GNSS): A satellite-based radio navigation system that uses signals from orbiting satellites to determine precise position and time.

Global Positioning System (GPS): A GNSS constellation operated by the United States Government.

Gross Weight: The weight of the aircraft together with the weight of all persons and goods (including fuel) on board the aircraft at that time.

Ground Based Augmentation System (GBAS): An augmentation system in which the user receives augmentation information directly from a ground-based transmitter.

Ground Based Augmentation System (GBAS) Landing System (GLS): A system for approach and landing operations using a GBAS, as the primary navigational reference.

Ground Based Navigation Aid: Means NDB, VOR, DME.

Ground Taxiing: The movement of a helicopter under its own power and on its undercarriage wheels.

Ground Visibility: The visibility at an aerodrome, as reported by an accredited observer.

Hazardous Conditions: Meteorological conditions which may endanger aircraft or adversely affect their safe operation, particularly those phenomena associated with volcanic ash cloud and thunderstorms - icing, hail and turbulence.

Head of State: Heads of State or of Government, or other selected dignitaries on official visits to Timor-Leste or the personal transport of the President or the Prime Minister.

Heading (HDG): The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid).

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

Helicopter Access Corridor: A corridor wholly within controlled airspace designed for the exclusive use of helicopters in VMC. The extent and alignment of the corridor is related to and delineated by prominent geographical/topographical features.

Helicopter Landing Site (HLS): A place that is used as an aerodrome for the purposes of the landing and taking-off of helicopters.

Helicopter Lane: A lane, outside controlled airspace, designed for use by helicopters to facilitate traffic flow.

Helicopter Movement Area: The movement area for helicopters is that part of an aerodrome that can safely be used for the hovering, taxiing, takeoff and landing of helicopters and consists of the manoeuvring area and aprons, but excluding those areas reserved for unrestricted use by the general public.

Helicopter Reference Point (HRP): The designated location of a heliport or a landing location.

High Capacity Aircraft: An aircraft that is certified as having a maximum seating capacity exceeding 38 seats or a maximum payload exceeding 4,200KG.

Holding Bay: A defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft.

Holding Fix: A specified location identified by visual or other means in the vicinity of which the position of an aircraft in flight is maintained in accordance with ATC Instructions.

Holding Procedure: A predetermined manoeuvre which keeps an aircraft within a specified airspace whilst awaiting further clearance.

Hospital Aircraft: (see Medical Flight).

IFR Pick-up: A pilot procedure whereby a flight operating to the IFR in Class G airspace changes to VFR upon entering Class E airspace whilst awaiting an airways clearance.

Inertial Navigation/Reference System (INS/IRS): A self-contained navigation system that continually measures the accelerations acting upon the vehicle of which it is part. Suitably integrated, these forces provide velocity and thence position information.

Initial Approach Fix (IAF): The fix at the commencement of an instrument approach.

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

Initial Departure Fix (IDF): The terminal fix for the visual segment and the fix where the instrument phase of the PinS departure begins.

Instrument Approach Operations: An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

a. a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and

b. a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.

Note 1: Lateral and vertical navigation guidance refers to the guidance provided either by:

a. ground-based ratio navigation aids; or

b. computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

Instrument Approach Procedure (IAP): A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

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

Note: Non-precision approach procedures may be flown using a Continuous Descent Final Approach technique (CDFA). CDFA with advisory. VNAV guidance calculated by on-board equipment are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations.

b. Approach Procedure with Vertical guidance (APV). A Performance Based Navigation (PBN) instrument approach procedure designed for 3D instrument approach operations Type A.

c. 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 Landing System (ILS): A precision instrument approach system which normally consists of the following electronic components: VHF Localiser, UHF Glideslope, VHF Marker Beacons.

Instrument Runway: One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

a. Non-precision approach runway. An instrument runway served by visual aids and a non-visual aid providing at least directional guidance adequate for a straight-in approach.

b. Precision approach runway, CAT I. An instrument runway served by a precision approach procedure and visual aids intended for operations with a decision height not lower than 60M (200FT) and either a visibility not less than 800M, or a RVR not less than 550M.

c. Precision approach runway, CAT II. An instrument runway served by lLS and visual aids intended for operations with a decision height lower than 60M (200FT), but not lower than 100FT, and a RVR not less than 300M.

d. Precision approach runway, CAT III. An instrument runway served by ILS to and along the surface of the runway and:

   i. for CAT IIIA – intended for operations with a decision height lower than 30M (100FT), or no decision height, and a RVR not less than 175M;

   ii. for CAT IIIB – intended for operations with a decision height lower than 15M (50FT), or no decision height, and a RVR less than 175M, but not less than 50M;

   iii. for CAT IIIC – intended for operations with no decision height and no RVR limitations.

Integrated Aeronautical Information Package: A package which consists of the following elements: AIP, including amendment service; supplements to the AIP; NOTAM and Preflight Information Bulletins (PIBs); AIC; and checklists and summaries.

Integrity: That quality which relates to the trust which can be placed in the correctness of information supplied by a system. It includes the ability of a system to provide timely warnings to users when the system should not be used for navigation.

Intermediate Approach Segment: That segment of an instrument approach procedure between either the intermediate approach fix and the final approach fix or point, or between the end of the reversal, race track or dead reckoning track procedure and the final approach fix or point, as appropriate.

Intermediate Fix (IF): A fix on an RNAV (or RNP) approach that marks the end of an initial segment and the beginning of the intermediate segment.

In the Vicinity: An aircraft is in the vicinity of a non-controlled aerodrome if it is within a horizontal distance of 10 miles; and within a height above the aerodrome reference point that could result in conflict with operations at the aerodrome.

Landing Area: That part of the movement area intended for the landing or takeoff of aircraft.

Land Rescue Unit: A land party equipped to undertake a search for an aircraft within the region of its responsibility.

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

Localiser (LOC): The component of an ILS which provides azimuth guidance to a runway. It may be used as part of an ILS or independently.

Low Jet Route (LJR): A route, or part of a route, at or below 5,000FT AGL used by MLJ aircraft for low level, high speed operations.

Low Visibility Operation: An operation involving:

a. an approach with minima less than precision approach category I; or

b. a takeoff with visibility below 550M.

Low Visibility Procedures: Procedures applied at an aerodrome for protecting aircraft operations during conditions of reduced visibility or low cloud.

Lowest Safe Altitude (LSALT): The lowest altitude which will provide safe terrain clearance at a given place.

Manoeuvring Area: That part of an aerodrome to be used for the takeoff, landing and taxiing of aircraft, excluding aprons.

Marker: An object displayed above ground level in order to indicate an obstacle or delineate a boundary.

Marker Beacon: A type of radio beacon, the emissions of which radiate in a vertical pattern.

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

Maximum Takeoff Weight (MTOW): The maximum takeoff weight of an aircraft as specified in its Certificate of Airworthiness.

Medical Flight: A flight providing transport of medical patients, personnel, and/or equipment, prioritised as follows:

MEDEVAC: a life critical medical emergency evacuation e.g. An aircraft proceeding to pick up, or carrying, a severely ill patient, or one for whom life support measures are being provided.

HOSP: a medical flight declared by medical authorities e.g. An aircraft transporting or proceeding to pick up medical personnel and/or equipment urgently required for the treatment of a severely ill patient, or returning urgently required medical personnel and/or equipment at the termination of a MEDEVAC flight.

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

Meteorological Office (MO): An office designated to provide meteorological service for air navigation.

Meteorological Warning: A statement or meteorological report of the occurrence or expectation of a deterioration or improvement in meteorological conditions or of any meteorological phenomenon which may seriously affect the safe operation of aircraft.

Military Low Jet (MLJ): Military aircraft operating on LJR

Minimum Crossing Altitude (MCA): The minimum IFR altitude that aircraft may cross the IDF.

Minimum Descent Altitude/Height (MDA/H): 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.

Note 1: MDA is referenced to Mean Sea Level (MSL) and MDH is referenced to the aerodrome elevation or to the threshold elevation if that is more than 7FT below the aerodrome elevation. A minimum descent height for a circling approach is referenced to the aerodrome elevation.

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

Minimum Fuel: The term used to describe a situation when an aircraft's fuel supply has reached a state where having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than fixed fuel reserve for the flight.

Note: The minimum fuel state is not an emergency situation but an indication that an emergency situation is possible should any additional delay occur.

Minimum Sector Altitude (MSA): The lowest altitude which may be used which will provide a minimum clearance of 1,000FT above all objects located in an area contained within a sector of a circle of 25NM or 10NM radius centred on a significant point, the ARP, or the HRP.

Missed Approach Holding Fix (MAHF): A fix on an RNAV (or RNP) approach that marks the end of the missed approach segment and the point for the missed approach holding (where applicable).

Missed Approach Point (MAPt): That point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed.

Missed Approach Procedure: The procedure to be followed if the approach cannot be continued.

Missed Approach Turning Fix (MATF): A fix on an RNAV (or RNP) approach that marks a turning point during the missed approach segment.

Movement Area: That part of an aerodrome to be used for the takeoff, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

Navigation Specification: A set of aircraft and flight crew requirements needed to support performance based navigation operations within a defined airspace. There are two kinds of navigation specifications:

RNP Specification: A navigation specification based on area navigation that includes the requirement for on board performance monitoring and alerting, designated by the prefix RNP, e.g. RNP4, RNP APCH.

RNAV Specification: A navigation specification based on area navigation that does not include the requirement for on board performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

Note: The Performance-based Navigation Manual (Doc 9613), Volume II, contains detailed guidance on navigation specifications.

Night: The period between the end of evening civil twilight (last light) and the beginning of the following morning civil twilight (first light).

Night Vision Goggles (NVG): A self-contained binocular night vision enhancement device, usually helmet mounted or otherwise worn by a person, that can detect and amplify light in both the visual and near infra- red bands of the electromagnetic spectrum.

Non-Controlled Aerodrome: An aerodrome at which ATC is not operating.

Non-Directional Beacon (NDB): A special radio station, the emissions of which are intended to enable a mobile station to determine its radio bearing or direction with reference to that special radio station.

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

Operator: A person, organisation or enterprise engaged in or offering to engage in aircraft operation.

Operations Manual: A manual provided by an operator for the use and guidance of its operations staff, containing instructions as to the conduct of flight operations, including the responsibilities of its operations staff.

Overshoot Shear: A wind shear occurrence which produces an INITIAL effect of overshooting the desired approach path and/or increasing airspeed.

Parking Area: A specially prepared or selected part of an aerodrome within which aircraft may be parked.

Pavement Classification Number (PCN): A number expressing the bearing strength of a pavement for unrestricted operations.

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

Note: Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.

Performance Class 1 (PC1): PC1 is the class of helicopter performance such that in the event of failure of the critical power-unit the helicopter is able either to land within the rejected takeoff distance available, or to safely continue the flight to an appropriate landing area, depending on when the failure occurs.

Performance Class 2 (PC2): PC2 is the class of helicopter performance such that in the event of critical power-unit failure performance is available to enable the helicopter to safely continue the flight except when the failure occurs early during the takeoff manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.

Permissible All-Up-Weight: The weight to which an aircraft is limited by virtue of the physical characteristics of an aerodrome.

Pilot in Command: The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Precision Approach Procedure: An instrument approach procedure utilising lateral and vertical guidance provided by an lLS or GLS.

Preferred Runway: A runway nominated by ATC or listed in the AIP as the most suitable for the prevailing wind, surface conditions or noise sensitive areas in the proximity of the aerodrome.

Primary Means Navigation System: A navigation system that, for a given operation or phase of flight, must meet accuracy and integrity requirements, but need not meet full availability and continuity of service requirements. Safety is achieved by either limiting flights to specific time periods, or through appropriate procedural restrictions and operational requirements.

Procedure Altitude/Height: A specified altitude/height flown at or above the minimum altitude/height, and established to accommodate a stabilised descent at a prescribed descent gradient/angle in the intermediate/final approach segment.

Prohibited Area: An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. Designation is appropriate only for reasons of military necessity.

Published Speed: A speed restriction shown on a Standard Instrument Departure (SID), Standard Instrument Arrival (STAR), or other instrument flight procedure.

QNH Altimeter Setting: That pressure setting which, when placed on the pressure setting sub-scale of a sensitive altimeter of an aircraft located at the reference point of an aerodrome, will cause the altimeter to indicate the vertical displacement of the reference point above mean sea level.

Radio Altimeter (RA) Height: An indication of vertical distance between a point on the normal glidepath at DA and the terrain directly beneath this point.

Radio Navigation Service: A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.

Rapid-Exit Taxiway: A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at high relative speeds.

Receiver Autonomous Integrity Monitoring (RAIM): A system whereby an airborne GNSS receiver/processor autonomously monitors the integrity of the navigation signals from GNSS satellites.

Reduced Vertical Separation Minimum (RVSM): The vertical separation minimum of 1,000FT between FL 290 and FL 410 inclusive.

Reference Datum Height (RDH): The height of the measured ILS glide path at the threshold. It will provide a similar value to Threshold Crossing Height.

Registered Aerodrome: A place that is registered as an aerodrome under the Civil Aviation Safety Regulations.

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

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

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

Rescue Coordination Centre (RCC): A unit established for promoting efficient organisation of search and rescue service and for coordinating the conduct of search and rescue operations within a search and rescue region.

Resolution Advisory (RA): An indication given to the flight crew recommending a manoeuvre or a manoeuvre restriction to avoid collision.

Restricted Area: An airspace of defined dimensions above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

Note: This designation is used when necessary in the interests of public safety or the protection of the environment.

Route: A way to be taken in flying from a departure to a destination aerodrome, specified in terms of track and distance for each route segment.

Runway (RWY): A defined rectangular area on a land aerodrome prepared for the landing and takeoff of aircraft.

Runway-Holding Position: A designated position intended to protect a runway, an obstacle limitation surface, or an ILS critical/sensitive area at which taxiing aircraft and vehicles must stop and hold, unless otherwise authorised by the aerodrome control tower.

Note: In radiotelephony phraseologies, the expression "holding point" is used to designate the runway-holding position.

Runway Number: The runway identification associated with the runway direction end.

Runway Strip: The defined area, including the runway (and stopway if provided), intended both to reduce the risk of damage to aircraft inadvertently running off the runway and to protect aircraft flying over it during takeoff, landing or missed approach.

Runway Visibility (RV): The distance along a runway over which a person can see and recognise a visibility marker or runway lights.

Note: The term RUNWAY VISIBILITY is used by ATC or ground personnel to report visibility along a runway as determined by a ground observer.

Runway Visual Range (RVR): The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line. (ICAO)

SARWATCH: A generic term covering SAR alerting based either on full position reporting procedures, scheduled reporting times (SKEDS), or SARTIME.

Search and Rescue (SAR): The act of finding and returning to safety, aircraft and persons involved in an emergency phase.

Search and Rescue Region (SRR): The specified area within which search and rescue is coordinated by a particular Rescue Coordination Centre.

Segment Minimum Safe Altitude: The lowest altitude at which the minimum obstacle clearance is provided.

Self Contained Navigation Systems: Area navigation systems based on INS, IRS or GNSS.

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

Note: There are three categories of significant points: ground-based navigation aid, intersection and waypoint. In the context of this definition, intersection is a significant point expressed as radials, bearings and/or distances from ground-based navigation aids.

Significant Weather: Any weather phenomenon which might affect flight visibility or present a hazard to an aircraft.

Situation Display: An electronic display depicting the position and movement of aircraft and other information as required.

Sole Means Navigation System: A navigation system that, for a given phase of flight, must allow the aircraft to meet all four navigation system performance requirements - accuracy, integrity, availability and continuity of service.

Special Air-Report (AIREP Special): An AIREP containing the report of special meteorological conditions, i.e. SIGMET phenomenon, or any other MET phenomenon which is likely to affect the safety or efficiency of other aircraft.

SSR Code: The number assigned to a particular multiple-pulse reply signal transmitted by a transponder in Mode A or Mode C.

Standard Instrument Arrival (STAR): A designated IFR arrival route linking a significant point, normally on an ATS route, with a point from which a published instrument approach procedure can be commenced.

Standard Instrument Departure (SID): A designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en route phase of a flight commences.

Standard Message Element: Part of a message defined in the PANS- ATM (DOC 4444) in terms of display format, intended use and attributes.

Standard Pressure: The pressure of 1013.2 Hectopascals which, if set upon the pressure sub-scale of a sensitive altimeter, will cause the latter to read zero when at mean sea level in a standard atmosphere.

State Aircraft: An aircraft of any part of the Defence Force (including any aircraft that is commanded by a member of that force in the course of his/ her duties as such a member), and aircraft used in the military, customs, or police services of a foreign country.

Stop-and-Go Landing: A procedure whereby an aircraft lands, comes to a complete stop on the runway and then commences takeoff from that point.

Stopway: A defined rectangular area on the ground at the end of the takeoff run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned takeoff.

Supplemental Means Navigation System: A navigation system that must be used in conjunction with a sole means navigation system.

Tactical Air Navigation (TACAN): An ultra-high frequency navigation aid which provides a continuous indication of bearing and slant range, in nautical miles, to the selected ground station.

Taxiway (TWY): A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.

Terrain Clearance: The vertical displacement of an aircraft's flightpath from the terrain.

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

Threshold Crossing Height (TCH): The calculated height of the procedure nominal approach path at the threshold. For ILS or GLS, the TCH will be similar to the Reference Datum Height.

Total Estimated Elapsed Time: For IFR flights, the estimated time required from takeoff to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights the estimated time required from takeoff to arrive over the destination aerodrome.

Touch-and-Go Landing: A procedure whereby an aircraft lands and takes off without coming to a stop.

Track: The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

Traffic Advisory (TA): An indication given to the flight crew that a certain intruder is a potential threat.

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

Transition Layer: The airspace between the transition altitude and the transition level.

Transition Level: The lowest flight level available for use above the transition altitude.

Transitional Surface: An inclined plane associated with the runway strip and the approach surfaces.

Transponder: A receiver/transmitter which will generate a reply signal upon proper interrogation; the interrogation and reply being on different frequencies.

Unalerted See-and-Avoid: A procedure where flight crew, who have no specific knowledge of other aircraft in their vicinity, rely solely on their ability to physically sight and avoid colliding with aircraft that may be in their vicinity.

Undershoot Shear: A wind shear occurrence which produces an INITIAL effect of undershooting the desired approach path and/or decreasing air speed.

UNICOM (Universal Communications): UNICOM is a non-ATS communications service provided to enhance the value of information normally available about a non-controlled aerodrome.

Unmanned Free Balloon: A non-power-driven, unmanned, lighter-than- air aircraft in free flight.

Unserviceable Area: A portion of the movement area not available for use by aircraft because of the physical condition of the surface, or because of any obstruction on the area.

VHF Omni-directional Radio Range (VOR): A VHF radio navigational aid which provides a continuous indication of bearing from the selected VOR ground station.

Visibility: Visibility for aeronautical purposes is the greater of:

a. the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background; or

b. the greatest distance at which lights in the vicinity of 1,000 candelas can be seen and identified against an unlit background.

Visibility Marker: A dark object of suitable dimensions for use as a reference in evaluating runway visibility.

Visual (ATC usage): Used by ATC to instruct a pilot to see and avoid obstacles while conducting flight below the MVA or MSA/LSALT.

Visual (Pilot usage): Used by a pilot to indicate acceptance of responsibility to see and avoid obstacles while operating below the MVA or MSA/LSALT.

Visual Approach Slope Indicator System (VASIS): A system of lights so arranged as to provide visual information to pilots on approach of their position in relation to the optimum approach slope for a particular runway.

Vs1g means the one-g stall speed at which the aeroplane can develop a lift force (normal to the flight path) equal to its weight.

Waypoint: A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation.

Waypoints are identified as either:

a. **Fly-by Waypoint:** A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or

b. **Flyover Waypoint:** A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.

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2 GENERAL AND METEOROLOGICAL ABBREVIATIONS

This list covers abbreviations which may be found throughout the AIP and on associated charts, or which are used in NOTAM, AIP Supplements (SUP) and in meteorological messages and documentation.

2D	Two-dimensional
3D	Three-dimensional
A/A	Air to Air
AAR	Actual Arrival Report
AAL	Above Aerodrome Level
ABM	Abeam
ABN	Aerodrome Beacon
ABV	Above...
AC	Altocumulus
ACARS	Aircraft Communication Addressing and Reporting System (pronounced “AY-CARS”)
ACAS	Airborne Collision Avoidance System
ACC	Area Control Centre
ACD	Airways Clearance Delivery
ACFT	Aircraft
ACK	Acknowledge
CAN	Aircraft Classification Number
ACPT	Accept, Accepted
ACT	Active, Activated, Activity
AD	Aerodrome
ADDN	Addition, Additional
ADF	Automatic Direction Finding Equipment
ADIZ	Air Defence Identification Zone
ADJ	Adjacent
ADS-B	Automatic Dependent Surveillance-
ADS-C	Automatic Dependent Surveillance-Contract
ADZ	Advise
AEP	Aerodrome Emergency Plan
AFIL	Flight notification: - filed in the air, or - indicating the position at which ATS services will be first required
AFM	Yes, Affirm, Affirmative, That is correct
AFT	After....
A/G	Air-to-Ground
AGA	Aerodromes, Air Routes and Ground Aids
AGL	Above Ground Level

AGN	Again
AH	After Hours
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIREP	Air-Report
AIRMET	Information concerning weather significant to aircraft operations at or below 10,000FT not contained in a valid GAF
AIS	Aeronautical Information Service
ALA	Aircraft Landing Area
ALERFA	Alert Phase
ALS	Approach Lighting System
ALT	Altitude
ALTN	Alternate, Alternating (light alternates in colour)
ALTN	Alternate (aerodrome)
ALTRV	Altitude Reservation
AMD	Amend, Amended
AMDAR	Aircraft Meteorological Data Relay
AMDT	Amendment (AIP Amendment)
AMSL	Above Mean Sea Level
AOC	Air Operator's Certificate
AP	Airport
APAPI	Abbreviated Precision Approach Path Indicator (pronounced "AY-PAPI")
APCH	Approach
APN	Apron
APP	Approach Control, Approach Control Office, Approach Control Service
APR	April
APRX	Approximate, Approximately
APU	Auxiliary Power Unit
APV	Approach Procedure with Vertical guidance
ARN	Aviation Reference Number
ARNG	Arrange
ARP	Aerodrome Reference Point
ARR	Arrive, Arrival
AS	Altostratus
ASAP	As Soon as Possible
ASDA	Accelerate-Stop Distance Available
ASE	Altimetry System Error

ASPH	Asphalt
ATA	Actual Time of Arrival
ATC	Air Traffic Control (in general)
ATD	Actual Time of Departure
ATFM	Air Traffic Flow Management
ATFMX	Exemption from ATFM measures by ATC
ATM	Air Traffic Management
ATP	At... (time or place)
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Services
ATTN	Attention
AT-VASIS	Abbreviated "T" Visual Approach Slope Indicator System (pronounced "AY-TEE-VASIS")
ATZ	Aerodrome Traffic Zone
AUG	August
AUTH	Authorised, Authorisation
AUTO	Automatic
AUW	All Up Weight
AUX	Auxiliary
AVM	Abrupt Vertical Manoeuvres (by the MIL)
AVBL	Available
AVFAX	Meteorological and NOTAM Facsimile Service
AVG	Average
AVGAS	Aviation Gasoline
AWIS	Aerodrome Weather Information Service
AWK	Aerial Work
AWR	Aerodrome Weather Report
AWS	Automatic Weather Station
AWY	Airway
AZM	Azimuth
B	Blue
BARO-VNAV	(to be pronounced "BAA-RO-VEENAV") Barometric Vertical Navigation
BASE	Cloud Base
BCFG	Fog Patches
BCN	Beacon (aeronautical ground light)
BCST	Broadcast
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken (cloud descriptor)
BL...	Blowing (followed by DU=dust, SA=sand or SN=snow)

BLDG	Building
BLW	Below
BOF	Briefing Office
BOMB	Bombing
BR	Mist
BRG	Bearing
BRKG	Braking
BS	Broadcasting Station (Commercial)
BTN	Between
C	Degrees Celsius (Centigrade)
C	Centre (Runway)
CA/GRS	Certified Air/Ground Radio Service
CAO	Civil Aviation Order
CASA	Civil Aviation Safety Authority
CAT	Category
CAT	Clear Air Turbulence
CAVOK	Visibility, cloud and present weather better than prescribed values or conditions (pronounced "KAV-OH-KAY")
CB	Cumulonimbus
CC	Cirrocumulus
CCTS	Circuits
CDFA	Continuous Descent Final Approach technique
CEN	En Route and Area ATC Unit
CFM	Confirm, I confirm
CH	Channel
CHEM	Chemical
CHTR	Charter
CI	Cirrus
CIV	Civil
CK	Check
CL	Centre Line
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLG	Calling
CLIAS	Climbing Indicated Airspeed
CLR	Clear, Cleared to..., Clearance
CLSD	Closed, Close, Closing
CM	Centimetre
CMB	Climb to or Climbing to
CMPL	Completion, Completed, or Complete
CMSD	Commissioned
CNL	Cancel, Cancelled
CNS	Communications, Navigation and Surveillance
COBT	Calculated Off Blocks Time

COM	Communications
CONC	Concrete
COND	Condition
CONS	Continuous
CONST	Construction, Constructed
CONT	Continue(s), Continued
COOR	Coordinate, Coordinated
COORD	Coordinates
COR	Correct, Corrected, Correction
COS	Conical Surface
COT	At the Coast, Coastal
COV	Cover, Covered, Covering
CPDLC	Controller-Pilot Data Link Communication
CRZ	Cruise
CS	Cirrostratus
CS	Callsign
CTA	Control Area
CTAF	Common Traffic Advisory Frequency
CTC	Contact
CTL	Control
CTN	Caution
CTOT	Calculated Take-off Time
CTR	Control Zone
CU	Cumulus
CUF	Cumuliform
CUST	Customs
CWY	Clearway
D...	Danger Area (followed by identification)
D	Downward (tendency in RVR during previous 10 minutes)
DA	Decision Altitude
DAH	Designated Airspace Handbook
DCKG	Docking
DCMSD	Decommissioned
DCPC	Direct Controller-Pilot Communications
DCT	Direct (in relation to flight plan clearances and type of approach)
DEC	December
DEG	Degrees
DEP	Depart, Departure, Departed, Departing, Departure Message
DER	Departure End of Runway
DEST	Destination
DETRESFA	Distress Phase
DEV	Deviation, Deviating
DF	Direction Finder/Finding
DFDR	Digital Flight Data Recorder
DH	Decision Height

DIF	Diffuse
DISP	Displaced
DIST	Distance
DIV	Diversion, Divert, Diverting
DLE	Delay En route
DLY	Daily
DME	Distance Measuring Equipment
DNG	Danger, Dangerous
DOC	Documents
DOF	Date of Flight
DOM	Domestic
DP	Dew Point Temperature
DPT	Depth
DR	Dead Reckoning
DR...	Low drifting (followed by DU=dust, SA=sand or SN=snow)
DRG	During
DS	Duststorm
DTG	Date-Time Group
DTHR	Displaced Runway Threshold
DTRT	Deteriorate, Deteriorating
DU	Dust
DUC	Dense Upper Cloud
DUR	Duration
DVOR	Doppler VOR
DZ	Drizzle
E	East, East Longitude
EAT	Expected Approach Time
EB	Eastbound
EET	Estimated Elapsed Time
ELEV	Elevation
ELT	Emergency Locator Transmitter
EM	Emission
EMBD	Embedded in a Layer (to indicate cumulonimbus embedded in layers of other clouds)
EMERG	Emergency
ENDCE	Endurance
ENE	East North-East
ENG	Engine
ENR	En Route
EOBT	Estimated off Block Time
EPIRB	Electronic Position Indicating Radio Beacon (marine term)
EQPT	Equipment
ERC	En Route Chart
ESE	East South-East
EST	Estimate or estimated *or* estimate (message type designator)

ETA	Estimated Time of Arrival, Estimating Arrival
ETD	Estimated Time of Departure or Estimating Departure
ETO	Estimate Time Over significant point
EV	Every
EVS	Enhanced Vision System
EXC	Except
EXER	Exercises, Exercising, to exercise
EXP	Expect, Expected, Expecting
EXTD	Extend, Extending, Extended
F	Fixed (chart symbol)
FAC	Facility, Facilities
FAF	Final Approach Fix
FANS 1/A	The term used to describe the initial future air navigations system
FAP	Final Approach Point
FAS	Final Approach Segment
FATO	Final Approach and Take-off Area
FAX	Facsimile Transmission
FBL	Light (used to indicate the intensity of WX phenomena, interference or static reports, e.g. FBL RA = light rain)
FC	Funnel Cloud (tornado or water spout)
FCST	Forecast
FDE	Fault Detection and Exclusion
FDPS	Flight Data Processing System
FEB	February
FEW	Few (cloud descriptor)
FFR	Flood or Fire Relief; Fire Fighting
FG	Fog
FIA	Flight Information Area
FIR	Flight Information Region
FIS	Flight Information Service
FL	Flight Level
FLD	Field
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight Check For Calibration of Navaids
FLUC	Fluctuating, Fluctuation, Fluctuated

FLW	Follow(s), Following
FLY	Fly, Flying
FM	From
FM...	From (followed by time weather change is forecast to begin)
FMC WPR	The term used to describe flight management computer waypoint position reporting
FMS	Flight Management System
FMU	Flow Management Unit
FNA	Final Approach
FPA	Flight Procedure Authorisation
FPL	Filed Flight Plan Message
FPM	Feet per Minute
FR	Fuel Remaining
FREQ	Frequency
FRI	Friday
FRNG	Firing
FRQ	Frequent
FS	Flight Service (in general)
FSP	Fish Spotting
FST	First
FT	Feet
FU	Smoke
FXD	Fixed
FZ	Freezing
FZDZ	Freezing Drizzle
FZFG	Freezing Fog
FZLVL	Freezing Level (in AIRMET products)
FZRA	Freezing Rain
G	Green
G	Variation from mean wind speed (gusts) (MET - used in METAR/SPECI and TAF code forms)
GA	General Aviation
GAF	Graphical Area Forecast
GBAS	Ground Based Augmentation System
GEN	General
GEO	Geographic, true
GES	Ground Earth Station
GFY	Glider Flying
GLD	Glider
GLONASS	Global Orbiting Navigation Satellite System (pronounced “GLO-NAS”)
GLS	GBAS Landing System
GND	Ground
GNDCK	Ground Check
GNSS	Global Navigation Satellite System

GP	Glide Path
GPS	Global Positioning System
GPU	Ground Power Unit
GPWS	Ground Proximity Warning System
GPWT	Grid Point Wind and Temperature
GR	Hail
GRAD	Minimum Required Climb Gradient
GRASS	Grass Landing Area
GRIB	Processed meteorological data in the form of grid point values expressed in binary form (meteorological code)
GRVL	Gravel
GS	Groundspeed
GS	Small Hail and/or Snow Pellets
H	High pressure area or the centre of high pressure (MET)
H24	Continuous day and night service
HH	Time of commencement of a meteorological report validity period
HAZMAT	Hazardous Material
HBN	Hazard Beacon
HDG	Heading
HDS	Hours of Daylight Saving
HEAD	Head of State
HEL	Helicopter
HF	High Frequency (3,000 to 30,000 kHz)
HGT	Height, Height Above
HIAL	High Intensity Approach Lighting
HIOL	High Intensity Obstacle Lights
HIRL	High Intensity Runway Lighting
HJ	Sunrise to Sunset
HLDG	Holding
HLP	Heliport
HLS	Helicopter Landing Site
HN	Sunset to Sunrise
HO	Service available to meet operational requirements
HOSP	Hospital Aircraft
HPA	Hectopascal
HR	Hours
HRP	Heliport Reference Point
HS	Homestead
HS	Service available during hours of scheduled operations
HSL	Hold Short Lights

HUD	Head-up display
HUM	Humanitarian
HVY	Heavy
HVY	Heavy (used to indicate the intensity of WX phenomena, e.g. HVY RA = heavy rain)
HX	No specific working hours
HZ	Haze
HZ	Hertz (cycle per second)
HZS	Horizontal Surface
IAC	Instrument Approach Chart (followed by name/title)
IAF	Initial Approach Fix
IAL	Instrument Approach and Landing
IAP	Instrument Approach Procedure
IAS	Indicated Airspeed
IAWP	Initial Approach Waypoint
ICAO	International Civil Aviation Organization
ICE	Icing
ID	Identifier, identify
IDENT	Identification
IDEP	Instrument Departure (FPA)
IF	Intermediate Fix or Intermediate Approach Fix
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IM	Inner Marker
IMC	Instrument Meteorological Conditions
IMG	Immigration
IMPR	Improve, Improving, Improvement
INBD	Inbound
INCERFA	Uncertainty Phase
INFO	Information
INOP	Inoperative
INS	Inertial Navigation System
INSTL	Install, Installed, Installation
INSTR	Instrument
INT	Intersection
INTER	Intermittent (ie. lasting less than 30 minutes) Fluctuations from forecast prevailing conditions
INTL	International
INTRP	Interrupt, Interruption, Interrupted
INTSF	Intensify, Intensifying
INTST	Intensity

ISA	International Standard Atmosphere
lSOL	Isolated
IVA	Independent Visual Approach
IWI	Illuminated Wind Indicator
JAN	January
JF	Saturday, Sunday and PH
JO	Monday to Friday except PH
JTST	Jet Stream
JUL	July
JUN	June
KG	Kilograms
kHz	Kilohertz
KIAS	Knots Indicated Airspeed
KM	Kilometres
KMH	Kilometres per Hour
kPa	Kilopascals
KT	Knots
KW	Kilowatts
L	Left (runway identification)
L	Litre
L	Low pressure area or the centre of low pressure (MET)
LAHSO	Land and Hold Short Operations
LAT	Latitude
LCA	Locally, Location, Located, Local
LDA	Landing Distance Available
LDG	Landing
LEN	Length
LGT	Light, Lighting
LGTD	Lighted
LIH	Light Intensity High
LIL	Light Intensity Low
LIM	Light Intensity Medium
LIOL	Low Intensity Obstacle Lights
LIRL	Low Intensity Runway Lights
LJR	Low Jet Route
LL	Lower Limits
LLN	Low Level Navigation (by the MIL)
LLO	Low Level Operations (by the MIL)
LMT	Local mean time
LNAV	Lateral Navigation
LOC	Localiser
LOE	Lane of Entry
LONG	Longitude
LSALT	Lowest Safe Altitude
LTD	Limited
LUL	Lowest Usable Level

LV	Light and Variable (relating to wind)
LVL	Level
LVO	Low Visibility Operation(s)
LVP	Low Visibility Procedure(s)
LYR	Layer, Layered
M	Metres (preceded by figures)
M	Mach number (followed by figures)
MAE	Men and Equipment
MAG	Magnetic
MAINT	Maintenance
MAN	Manual
MAP	Aeronautical Maps and Charts
MAPT	Missed Approach Point
MAR	At Sea
MAR	March
MAX	Maximum
MBST	Microburst
MDA	Minimum Descent Altitude
MDH	Minimum Descent Height
MEA	Minimum En Route Altitude
MEDEVAC	Medical Evacuation Flight
MET	Meteorological, Meteorology
METAR	Aviation routine weather report (in aeronautical meteorological code)
MET REPORT	Aviation routine weather report
MF	Medium Frequency (300 to 3,000 kHz)
MHz	Megahertz
MI	Shallow (MET)
MIFG	Shallow Fog
MIL	Military
MIN	Minutes
MIOL	Medium Intensity Obstacle Lights
MIRL	Medium Intensity Runway Lights
MISC	Miscellaneous
MLJ	Military Low Jet
MLS	Microwave Landing System
MM	Middle Marker
MNM	Minimum
MNT	Monitor, Monitoring, Monitored
MNTN	Maintain, Maintained, Maintaining
MO	Meteorological Office

MOD	Moderate (used to indicate the intensity of WX phenomena, interference or static reports, e.g. MOD RA = moderate rain)
MON	Monday
MOPS	Minimum Operational Performance Standards
MOV	Move, Moved, Moving, Movement
MOWP	Method of Working Plan
MS	Minus
MSA	Minimum Sector Altitude
MSG	Message
MSL	Mean Sea Level
MSSR	Monopulse Secondary Surveillance Radar
MT	Mountain
MTOW	Maximum Take-off Weight
MTP	Maximum Tyre Pressure
MTW	Mountain waves
MVA	Minimum Vector Altitude
MWO	Meteorological Watch Office
MX	Mixed type of ice formation (white and clear)
N	No distant tendency (in RVR during previous 10 minutes)
N	North, North Latitude
NAP	Noise Abatement Procedures
NAT	NAVAID Training
NAV	Navigation
NAVAID	Navigation Aid
NB	Northbound
NC	No Change
NCD	No Cloud Detected (by ceilometer) [*used in automated* METAR/SPECI]
NDB	Non-Directional Radio Beacon
NE	North-East
NEG	Negative, No, permission not granted, or, that is not correct
NGT	Night
NIL	None
NM	Nautical Miles
NML	Normal
NN	No name, unnamed
NNE	North North-East
NNW	North North-West
NOF	International NOTAM Office
NONSTD	Non-Standard

NOSIG	No Significant Change
NOZ	Normal Operating Zone
NOTAM	Notice to Airmen (A notice containing information concerning the establishment, condition or change in facility, service, procedure or hazard which is essential to personnel concerned with flight operations)
NOTAMC	Cancelling NOTAM
NOTAMN	New NOTAM
NOTAMR	Replacing NOTAM
NOV	November
NPA	Non-Precision Approach
NR	Number
NS	Nimbostratus
NSC	Nil Significant Cloud
NSW	Nil Significant Weather
NTA	No TAF Amendment
NTL	National
NTZ	No Transgression Zone
NVG	Night Vision Goggles
NW	North-West
NXT	Next
OBS	Observe, Observed, Observation
OBSC	Obscure, Obscured, Obscuring
OBST	Obstacle
OBSTR	Obstruction
OCA	Oceanic Control Area
OCA	Obstacle Clearance Altitude
OCC	Occulting (light)
OCH	Obstacle Clearance Height
OCNL	Occasional, Occasionally
OCT	October
OCTA	Outside Control Area
OCTR	Outside Control Zone
OFZ	Obstacle Free Zone
OHD	Overhead
OK	We agreed, or, It is correct
OLS	Obstacle Limitation Surface
OM	Outer Marker
OPA	Opaque. White type of ice formation
OPMET	Operational Meteorological (information)
OPN	Open, Opening, Opened
OPR	Operator, Operate, Operative, Operating, Operational
OPS	Operations

O/R	On Request
OT	Other Times
OVC	Overcast
OW	Over Water
P….	Prohibited Area (followed by identification)
PA	Precision Approach
PANS	Procedures for Air Navigation Services
PAPI	Precision Approach Path Indicator
PARL	Parallel
PAX	Passengers
PBN	Performance-based navigation
PCD	Proceed, Proceeding
PCL	Pilot Controlled Lighting
PCN	Pavement Classification Number
PDC	Pre-Departure Clearance
PEC	Pressure Error Correction
PER	Performance
PERM	Permanent
PH	Public Holiday
PFR	Preferred Route
PIB	Pre-flight Information Bulletin
PILS	Practice ILS
PJE	Parachute Jumping Exercise
PL	Ice Pellets
PLN	Flight Plan
PN	Prior Notice Required
PNR	Point of No Return
PO	Dust Devils
POB	Number of Persons on Board
POSS	Possible
PPI	Plan Position Indicator
PPR	Prior Permission Required
PPSN	Present Position
PRD	Prohibited, Restricted and Danger Areas
PRFG	Aerodrome Partially Covered by Fog (MET code)
PRI	Primary
PRKG	Parking
PRM	Precision Runway Monitoring
PROB	Probability
PROC	Procedure
PROV	Provisional
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced Steel Plank
PSR	Primary Surveillance Radar

PTBL	Portable
PTN	Procedure Turn
PTT	Press to Talk
PVT	Private
PWR	Power
QNH	Altimeter subscale setting to obtain elevation or altitude
QUAD	Quadrant
R	Red
R	Right (runway identification)
R	Runway (followed by figures in METAR/SPECI)
R...	Radial from VOR (followed by three figures)
R....	Restricted Area (followed by number)
RA	Radio Altimeter
RA	Rain
RA	Resolution Advisory
RA	Restricted Area
RAD	Radius
RAIM	Receiver Autonomous Integrity Monitoring
RASC	Regional AIS System Centre
RCC	Rescue Coordination Centre
RCGL	Runway Circling Guidance Lights
RCH	Reach, Reaching
RCL	Runway Centre Line
RCLL	Runway Centre Line Lights
RDH	Reference Datum Height
RDL	Radial
RDO	Radio
RE...	Recent (used to qualify weather phenomena, e.g. RERA = recent rain)
REC	Receive, Receiver, Received
REDL	Runway Edge Lights
REF	Reference to..., Refer to...
REG	Registration
RENL	Runway End Lights
REP	Report, Reported, Reporting, Reporting Point
REQ	Request, Requested
RERTE	Re Route
RES	Reserve Fuel
RESA	Runway End Safety Area
RESTR	Restrictions
REV	Review
RF	Constant Radius Arc to Fix
RFFS	Rescue and Fire Fighting Services

RHC	Right Hand Circuit
RIF	Reclearance in Flight
RL	Report Leaving
RLA	Relay to
RLLS	Runway Lead-in Lighting System
RMK	Remark
RNAV	Area Navigation (Navigation Specification prefix)
RNP	Required Navigation Performance (Navigation Specification prefix)
ROC	Rate of Climb
ROD	Rate of Descent
RP	Remote Pilot
RPA	Remotely Piloted Aircraft
RPAS	Remotely Piloted Aircraft System
RPT	Regular Public Transport
RPT	Repeat, I Repeat
RQ	Require(d)
RQMNTS	Requirements
RSCD	Runway Surface Condition
RSP	Responder Beacon
RTE	Route
RTF	Radio Telephone
RTHL	Runway Threshold Light(s)
RTIL	Runway Threshold Identification Lights
RTN	Return, Returned, Returning
RTS	Return to Service
RTZL	Runway Touchdown Zone Light(s)
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minimum
RWS	Runway Strip
RWY	Runway
S	South, South Latitude
SA	Sand
SA	Special Authorisation
SALS	Simple Approach Lighting System
SAR	Search and Rescue
SARPS	Standards and Recommended Practices (ICAO)
SARTIME	Time search action required
SAT	Saturday
SATCOM	Satellite Communication (used only when referring generally to both voice and data satellite communication or only data satellite communication)

SATVOICE	Satellite Voice Communication
SB	Southbound
SBAS	Satellite-Based Augmentation System
SC	Stratocumulus
SCT	Scattered
SDBY	Standby
SE	South East
SEA	Sea (used in connection with sea-surface temperature and state of the sea)
SEC	Seconds
SECT	Sector
SEP	September
SER	Service, Servicing, Served
SEV	Severe (used e.g. to qualify icing and turbulence report)
SFC	Surface
SFL	Sequenced Flashing Lights
SG	Snow Grains
SH...	Showers (followed by RA=rain, SN=snow, PL=ice pellets, GR=hail, GS=small hail and or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow)
SID	Standard Instrument Departure
SIGWX	Significant Weather
SIGMET	Information concerning en route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations
SIMUL	Simultaneous, or Simultaneously
SKED	Schedule, Scheduled
SLP	Speed Limiting Point
SLW	Slow
SMC	Surface Movement Control
SMR	Surface Movement Radar
SN	Snow
SNOWTAM	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area
SOT	Start of TORA (take-off)
SP	Single Pilot
SPA	Sport Aviation

SPECI	Aviation Special Weather (in aeronautical meteorological code)
SPOT	Spotwind
SQ	Squall
SQL	Squall Line
SR	Sunrise
SRR	Search and Rescue Region
SRY	Secondary
SS	Sandstorm
SS	Sunset
SSB	Single Sideband
SSE	South South-East
SSR	Secondary Surveillance Radar
SSW	South South-West
ST	Stratus
STAR	Standard Instrument Arrival
STD	Standard
STF	Stratiform
STN	Station
STNR	Stationary
STODA	Supplementary Take-off Distance
STOL	Short Take-off and Landing
STS	Status
STWL	Stopway Light(s)
SUBJ	Subject to
SUN	Sunday
SUP	Supplement (AIP Supplement)
SUPPS	Regional Supplementary Procedures
SVCBL	Serviceable
SVY	Survey Operations
SW	South-West
SWS	Soft Wet Surface
SWY	Stopway
T	Bearing (true)
T	Temperature
TA	Traffic Advisory
TA	Transition Altitude
TAC	Terminal Area Chart
TACAN	UHF Tactical Air Navigation Aid
TAF	Aerodrome Forecast
TAS	True Airspeed
TAX	Taxiing, Taxi
TBA	To be advised
TC	Tropical Cyclone
TCAS	(tee-kas) Traffic Alert and Collision Avoidance System
TCH	Threshold Crossing Height
TCU	Towering Cumulus
TDA	Temporary Danger Area
TDO	Tornado

TDZ	Touchdown Zone
TECR	Technical Reason
TEL	Telephone
TEMPO	Temporary, Temporarily
TFC	Traffic
TGL	Touch & Go Landing
THR	Threshold
THRU	Through
THU	Thursday
TIBA	Traffic Information Broadcasts by Aircraft
TIL	Until
TKOF	Take-off
TL...	Till (followed by time by which weather change is forecast to end)
TLW	Time Limited WIP (work in progress)
TMA	Terminal Control Area
TN	Indicator for Minimum Temperature (MET - used in TAF code form)
TNS	Transitional Surface
TODA	Take-off Distance Available
TOP	Cloud Top
TORA	Take-off Run Available
TOX	Toxic
TP	Turning Point
TR	Track
TRA	Temporary Restricted Area
TRANS	Transmits, Transmitter
TROP	Tropopause
TS...	Thunderstorm (followed by RA=rain, SN=snow, PE=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow)
TSO	Technical Standard Order
TSUNAMI	Tsunami (used in aerodrome warnings)
TTF	Trend Forecast
TUE	Tuesday
TURB	Turbulence
T-VASIS	"T" Visual Approach Slope Indicator System (pronounced "TEE-VASIS")
TW	Tailwind
TWR	Aerodrome Control Tower or Aerodrome Control
TWY	Taxiway
TX	Indicator for Maximum Temperature (MET - used in TAF code form)
TXL	Taxilane

TYP	Type of Aircraft
TYPH	Typhoon
U	Upward (tendency in RVR during previous 10 minutes)
UA	Unmanned aircraft
UAS	Unmanned aircraft system
UFN	Until Further Notice
UHF	Ultra High Frequency (300 to 3,000 MHz)
UL	Upper Limits
UNA	Unable
UNL	Unlimited
UNREL	Unreliable
UP	Unknown Precipitation
U/S	Unserviceable
UTC	Coordinated Universal Time
V	Variation from mean wind speed (MET - used in METAR/ SPECI code forms)
VA	Volcanic Ash
VAAC	Volcanic Ash Advisory Centre
VAR	Magnetic Variation
VASIS	Visual Approach Slope Indicator System
VC	Vicinity of the aerodrome (followed by FG=fog, FC=funnel cloud, PO=dust/sand whirls, BLDU=blowing dust, BLSA=blowing sand or BLSN=blowing snow; e.g. VCFG=vicinity fog
VCY	Vicinity
VFR	Visual Flight Rules
VHF	Very High Frequency (30 to 300 MHz)
VIA	By way of...
VIP	Very Important Person
VIS	Visibility
VMC	Visual Meteorological Conditions
VNAV	Vertical Navigation
VNC	Visual Navigation Chart
VOLMET	Meteorological Information for Aircraft in Flight
VOR	VHF Omnidirectional Radio Range
VRB	Variable
VSA	by Visual reference to the ground
VTC	Visual Terminal Chart
VTOL	Vertical Take-off and Landing
W	West, West Longitude
W	White

WAC	World Aeronautical Chart - ICAO 1:1,000,000 (followed by name/title)
WAFS	World Area Forecast System
WATIR	Weather and Terminal Information Reciter
WB	Westbound
WDI	Wind Direction Indicator
WDSPR	Widespread
WED	Wednesday
WEF	With Effect From, Effective From
WGS-84	World Geodetic System - 1984
WI	Within
WID	Width
WIE	With Immediate Effect, Effective Immediately
WILCO	Will Comply
WIP	Work in Progress
WKN	Weaken, Weakening
WNW	West North-West
WO	Without
WPT	Waypoint
WRNG	Warning
WS	Wind Shear
WSW	West South-West
WT	Weight
WTSPT	Water Spout
WWW	World Wide Web
WX	Weather
WXR	Weather Radar
X	Cross
XW	Crosswind
Y	Yellow
YCZ	Yellow Caution Zone
YR	Your/s
Z	Coordinated Universal Time (in meteorological messages)

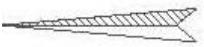
GEN 2.3 CHARTS AND SYMBOLS

1 AERODROMES

1.1 Charts other than Approach Charts

Civil (land)	
Civil (Unattended)	
Heliport	
Abandoned or closed aerodrome	
Military (land)	

1.2 Approach Charts

The aerodrome on which the procedure is based	
Instrument Landing System (ILS)	
Radio marker beacon	
Final approach fix (FAF)	
Magnetic course	**090°**
True course	**090°T**

1.3 Aerodrome Charts

Hard surface runway	
Unpaved runway	
Taxiway	
Roads	
Ocean, Sea	
Rivers and Streams (non perennial)	

Lakes	
Cities, Towns	
Wooded Areas	

1.4 Obstacles

Tree or shrub	
Pole, tower, spire, antenna etc	
Fence	
Obstacles (lighted/unlighted)	
Group obstacles (lighted/unlighted	
Elevation of top (italics). Height above specified datum (upright type in parentheses).	

1.5 Aerodrome Installations and Lights

Aerodrome reference point	
Taxiway and parking areas	
Control tower	
Aeronautical ground light	
Wind direction indicator (unlighted)	
Non-directional radio beacon - NDB	
VHF omnidirectional radio range - VOR	
Distance measuring equipment - DME	
Collocated VOR and DME radio navigation aids	
VOR/DME check point	

GEN 2.4 LOCATION INDICATORS

Location	Indicator
Atauro Island*	WPAT
Baucau*	WPEC
Dili/ Presidente Nicolau Lobatu International airport	WPDL
Lospalos Fuiloro*	WPFL
Maliana*	WPMN
Oecusse*	WPOC
Same*	WPSM
Suai*	WPDB
Viqueque*	WPVQ
*Unattended aerodrome	

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GEN 2.5 LIST OF RADIONAVIGATION AIDS

ID	Station name	Aid	Purpose
DIL	Dili	VOR/DME	AE
SUI	Suai	VOR/DME	AE
OEC	Oecussi	VOR/DME	AE

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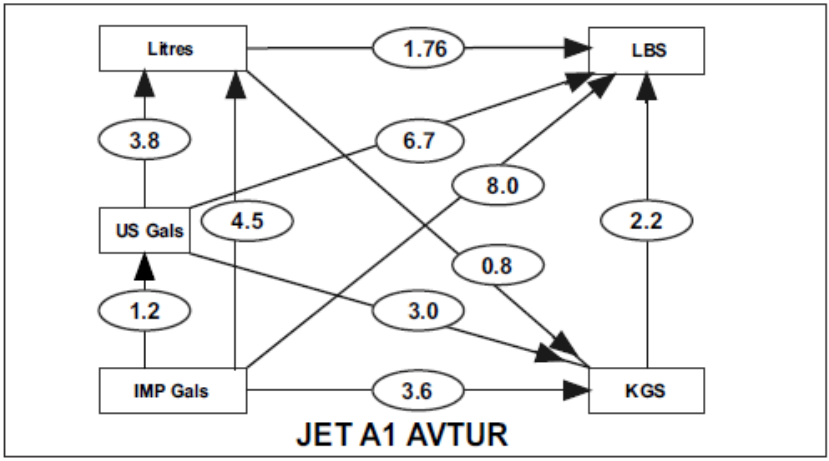
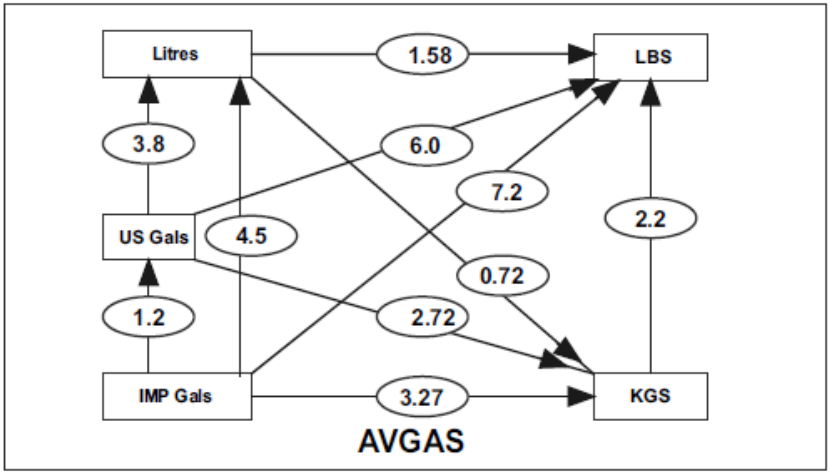
GEN 2.6 CONVERSION TABLES

1 FUEL WEIGHT





1. To convert:
   multiply by the factor in the "balloon" when moving in the direction of the arrow, or
   divide by that factor if converting in the opposite direction.

2. Fuel SG (0.8 AVTUR and 0.72 AVGAS) is based on ISA temperature at MSL.
   Therefore, fuel weights will be approximate for other than 15DEG Celsius.

2 GENERAL CONVERSIONS

TO CONVERT	INTO	MULTIPLY BY
CELSIUS	Fahrenheit	1.8 and add 32
Centimetres	Inches	0.394
Feet	Metres	0.3048
Fahrenheit	Celsius	Subtract 32 & multiply by 0.555
IMP Gallons	US Gallons	1.200
IMP Gallons	Litres	4.546
Inches	Centimetres	2.540
Kilograms	Pounds	2.2046
Kilometres	Nautical Miles	0.540
Kilometres	Statute Miles	0.621
Kilopascals	Pound/Square Inch	0.145
Litres	IMP Gallons	0.220
Litres	US Gallons	0.264
Metres	Feet	3.281
Metres	Yards	1.094
Pounds	Kilograms	0.4536
Pounds/Square Inch	Kilopascals	6.895
Nautical Miles	Kilometres	1.852
Nautical Miles	Metres	1852
Nautical Miles	Statute Miles	1.151
Statute Miles	Kilometres	1.609
Statute Miles	Nautical Miles	0.868
US Gallons	IMP Gallons	0.833
US Gallons	Litres	3.79
Yards	Metres	0.914

3 FEET TO METRES

FEET TO METRES					
FT	0	100	200	300	400
0	-	30.5	61.0	91.4	121.9
1000	304.8	335.3	365.8	396.2	426.7
2000	609.6	640.1	670.6	701.0	731.5
3000	914.4	944.9	975.4	1006.0	1036.0
4000	1219.0	1250.0	1280.0	1311.0	1341.0
5000	1524.0	1555.0	1585.0	1615.0	1646.0
6000	1829.0	1859.0	1890.0	1920.0	1951.0
7000	2134.0	2164.0	2195.0	2225.0	2256.0
8000	2438.0	2469.0	2499.0	2530.0	2560.0
9000	2743.0	2774.0	2804.0	2835.0	2865.0
FT	500	600	700	800	900
0	152.4	182.9	213.4	243.8	274.3
1000	457.2	487.7	518.2	548.6	579.1
2000	762.0	792.5	823.5	853.4	883.9
3000	1067.0	1097.0	1128.0	1158.0	1189.0
4000	1372.0	1402.0	1433.0	1463.0	1494.0
5000	1676.0	1707.0	1737.0	1768.0	1798.0
6000	1981.0	2012.0	2042.0	2073.0	2103.0
7000	2286.0	2317.0	2347.0	2377.0	2408.0
8000	2591.0	2621.0	2651.0	2682.0	2713.0
9000	2896.0	2926.0	2957.0	2987.0	3018.0

4 METRES TO FEET

METRES TO FEET					
M	0	100	200	300	400
1000	3280.8	3608.9	3937.0	4265.0	4593.1
2000	6561.6	6889.7	7217.8	7545/8	7873.9
3000	9842.4	10170	10499	10827	11155
4000	13123	13451	13779	14107	14436
5000	16404	16732	17060	17388	17716
6000	19685	20013	20341	20669	20997
7000	22966	23294	23622	23950	24278
8000	26246	26574	26903	27231	27559
9000	29527	29855	30183	30511	30840
M	500	600	700	800	900
1000	4921.2	5249.3	5577.4	5905.4	6233.5
2000	8202.0	8530.1	8858.2	9186.2	9514.3
3000	11483	11811	12139	12467	12795
4000	14764	15092	15420	15748	16076
5000	18044	18372	18701	19092	19357
6000	21325	21653	21981	22309	22638
7000	24606	24934	25262	25590	25918
8000	27887	28215	28543	28871	29199
9000	31168	31496	31824	32152	32480

5 NM TO KILOMETRES AND KILOMETRES TO NM

NM	KM
0.1	0.185
0.2	0.370
0.3	0.556
0.4	0.741
0.5	0.926
0.6	1.111
0.7	1.296
0.8	1.482
0.9	1.667
1	1.852
2	3.704
3	5.556
4	7.408
5	9.260
6	11.112
7	12.964
8	14.816
9	16.668
10	18.520
15	27.780
20	37.040
25	46.300
30	55.560

KM	NM
0.1	0.054
0.2	0.108
0.3	0.162
0.4	0.216
0.5	0.270
0.6	0.324
0.7	0.378
0.8	0.432
0.9	0.486
1	0.540
2	1.080
3	1.620
4	2.160
5	2.700
6	3.240
7	3.780
8	4.320
9	4.860
10	5.400
15	8.099
20	10.799
25	13.499
30	16.199

6 WIND COMPONENT

WIND COMPONENT TABLE										
		For crosswind component Angle Between Wind Direction and Runway Heading								
		10	20	30	40	50	60	70	80	90
W	5	1	2	2	3	4	4	4	5	5
i	10	2	3	5	6	7	8	9	9	10
n	15	3	5	7	9	11	13	14	14	15
d	20	3	7	10	13	15	17	18	19	20
	25	4	8	12	16	19	22	23	24	25
s	30	5	10	15	19	23	26	28	29	30
p	35	6	12	17	22	26	30	32	34	35
e	40	7	14	20	25	30	35	37	39	40
e	45	8	15	22	29	34	39	42	44	45
d	50	9	17	25	32	38	43	47	49	50
	55	10	19	27	35	42	48	52	54	55
k	60	10	20	30	38	46	52	56	59	60
n	65	11	22	32	42	50	56	61	64	65
o	70	12	24	35	45	54	60	66	69	70
t	75	13	26	37	48	57	64	70	73	75
s	80	14	27	40	51	60	69	75	78	80
		80	70	60	50	40	30	20	10	0
For Headwind Component Angle Between Wind Direction and Runway Heading										

7 USG AND LITRES TO LBS

US GALLONS			LITRES				
GALS	TO LB AVGAS	TO LB TURBINE FUEL	LITRES	TO KG AVGAS	TO LB AVGAS	TO KG TURBINE FUEL	TO LB TURBINE FUEL
1	6	6.7	1	0.72	1.59	0.8	1.76
10	60	67	10	7.20	15.9	8	17.6
20	120	134	20	14.4	31.7	16	35.3
30	180	201	30	21.6	47.6	24	52.9
40	241	267	40	28.8	63.5	32	70.5
50	301	334	50	36.0	79.4	40	88.2
60	361	401	60	43.2	95.2	48	106
70	421	468	70	50.4	111	56	123
80	481	535	80	57.6	127	64	141
90	541	602	90	64.8	143	72	159
100	602	668	100	72.0	159	80	176
200	1203	1337	200	144	317	160	353
300	1805	2005	300	216	476	240	529
400	2406	2674	400	288	635	320	705
500	3008	3342	500	360	794	400	882
600	3610	4011	600	432	952	480	1058
700	4211	4679	700	504	1111	560	1235
800	4813	5347	800	576	1270	640	1411
900	5414	6016	900	648	1429	720	1587
Note: These figures are approximate only, as temperature and fuel grade will change volume/weight ratio.							

8 FAHRENHEIT TO CELSIUS

DEGREES FAHRENHEIT to DEGREES CELSIUS					
DEG F	0	1	2	3	4
-40	-40.0	-40.5	-41.1	-41.7	-42.3
-30	-34.2	-35.0	-35.5	-36.1	-36.7
-20	-28.9	-29.4	-30.0	-30.6	-31.1
-10	-23.3	-23.9	-24.4	-25.0	-25.5
-0	-17.8	-18.3	-18.9	-19.5	-20.0
0	-17.8	-17.2	-16.7	-16.1	-15.6
10	-12.2	-11.7	-11.1	-10.6	-10.0
20	-6.7	-6.1	-5.6	-5.0	-4.4
30	-1.1	-0.6	0.0	0.6	1.1
40	4.4	5.0	5.6	6.1	6.7
50	10.0	10.6	11.1	11.7	12.2
60	15.6	16.1	16.7	17.2	17.8
70	21.1	21.7	22.2	22.8	23.3
80	26.7	27.2	27.8	28.3	28.9
90	32.2	32.8	33.3	33.9	34.3
100	37.8	38.3	38.9	39.4	40.0
110	43.3	43.9	44.4	45.0	45.6
120	48.9	49.4	50.0	50.6	51.1

DEG F	5	6	7	8	9
-40	-42.8	-43.4	-43.9	-44.4	-45.0
-30	-37.2	-37.8	-38.3	-38.8	-39.4
-20	-31.6	-32.2	-32.8	-33.3	-33.9
-10	-26.1	-26.6	-27.2	-27.8	-28.3
-0	-20.6	-21.1	-21.6	-22.2	-22.8
0	-15.0	-14.4	-13.9	-13.3	-12.8
10	-9.4	-8.9	-8.3	-7.8	-7.2
20	-3.9	-3.3	-2.8	-2-2	-1.7
30	1.7	2.2	2.8	3.3	3.9
-	7.2	7.8	8.3	8.9	9.4
50	12.8	13.3	13.9	14.4	15.0
60	18.3	18.9	19.4	20.0	20.6
70	23.9	24.4	25.0	25.6	26.1
80	29.4	30.0	30.6	31.1	31.7
90	35.0	35.6	36.1	36.7	37.2
100	40.6	41.1	41.7	42.2	42.8
110	46.1	46.7	47.2	47.8	48.3
120	51.7	52.2	52.8	53.3	53.9

Figures (F) above t"0 DEG F" are increasing negative values, figures (F) below line are increasing positive values.

9 HPA TO INCHES OF MERCURY

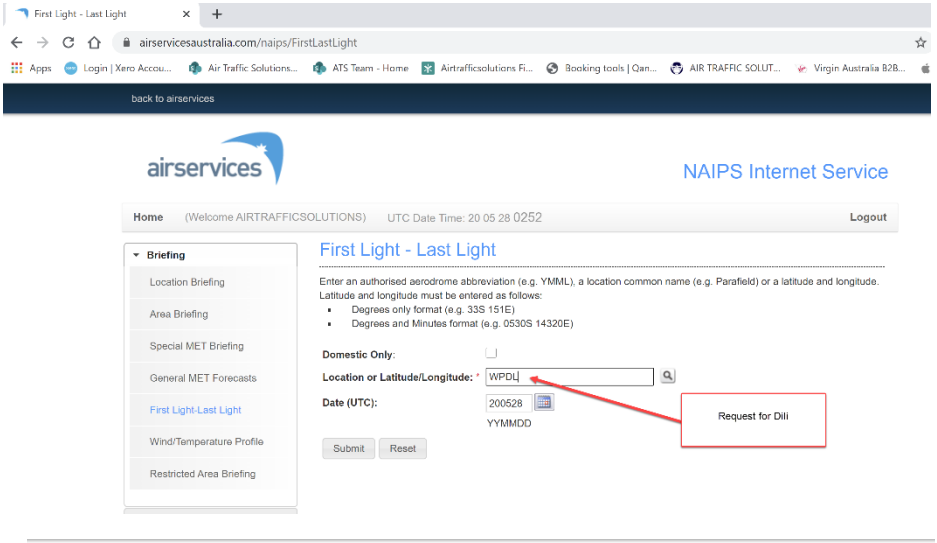
HECTOPASCALS (HPA) TO INCHES OF MERCURY					
HPA	0	1	2	3	4
940	27.76	27.79	27.82	27.85	27.88
950	28.05	28.08	28.11	28.14	28.17
960	28.35	28.38	28.41	28.44	28.47
970	28.64	28.67	28.70	28.73	28.76
980	28.94	28.97	29.00	29.03	29.06
990	29.23	29.26	29.29	29.32	29.35
1000	29.53	29.56	29.59	29.62	29.65
1010	29.83	29.85	29.88	29.91	29.94
1020	30.12	30.15	30.18	30.21	30.24
1030	30.42	30.45	30.47	30.50	30.53
1040	30.71	30.74	30.77	30.80	30.83
1050	31.01	31.04	31.07	31.09	31.12
HPA	5	6	7	8	9
940	27.91	27.94	27.96	27.99	28.02
950	28.20	28.23	28.26	28.29	28.32
960	28.50	28.53	28.56	28.58	28.61
970	28.79	28.82	28.85	28.88	28.91
980	29.09	29.12	29.15	29.18	29.20
990	29.38	29.41	29.44	29.47	29.50
1000	29.68	29.71	29.74	29.77	29.80
1010	29.97	30.00	30.03	30.06	30.09
1020	30.27	30.30	30.33	30.36	30.39
1030	30.56	30.59	30.62	30.65	30.68
1040	30.86	30.89	30.92	30.95	30.98
1050	31.15	31.18	31.21	31.24	31.27

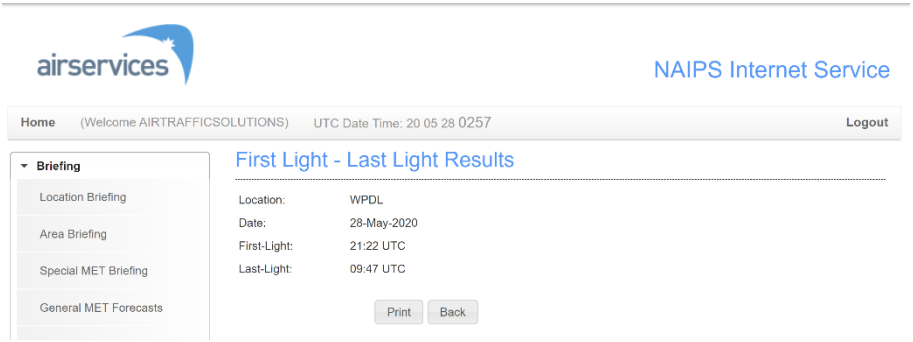
10 INCHES OF MERCURY TO HPA

INCHES OF MERCURY TO HECTOPASCALS (HPA)					
IN	.00	.02	.04	.06	.08
28.00	948	949	949	950	951
28.10	952	952	953	954	954
28.20	955	956	956	957	958
28.30	958	959	960	960	961
28.40	962	962	963	964	964
28.50	965	966	966	967	968
28.60	968	969	970	970	971
28.70	972	973	973	974	975
28.80	975	976	977	977	978
28.90	979	979	980	981	981
29.00	982	983	983	984	985
29.10	985	986	987	987	988
29.20	989	989	990	991	991
29.30	992	993	994	994	995
29.40	996	996	997	998	998
29.50	999	1000	1000	1001	1002
29.60	1002	1003	1004	1004	1005
29.70	1006	1006	1007	1008	1008
29.80	1009	1010	1010	1011	1012
29.90	1012	1013	1014	1015	1015
30.00	1016	1017	1017	1018	1019
30.10	1019	1020	1021	1021	1022
30.20	1023	1023	1024	1025	1025
30.30	1026	1027	1027	1028	1029
30.40	1029	1030	1031	1031	1032
30.50	1033	1033	1034	1035	1035
30.60	1036	1037	1038	1038	1039
30.70	1040	1040	1041	1042	1042
30.80	1043	1044	1044	1045	1046
30.90	1046	1047	1048	1048	1049

GEN 2.7 FIRST AND LAST LIGHT

1. First and last light can be obtained from the Airservices Australia NAIPS Internet Service: https://www.airservicesaustralia.com/naips/FirstLastLight (log in required)





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SERVICES

GEN 3.1 AERONAUTICAL INFORMATION SERVICES

1 RESPONSIBLE SERVICES

1.1 ANATL is responsible for compiling and disseminating Aeronautical information. ANATL handles the functions of the AIS including NOTAM functions. Services provision is however limited. Enquires should be made to the AACTL at the contact address given in GEN 1-1.

2 AREA OF RESPONSIBILITY

2.1 Aeronautical information Services provided covers to the territory of Timor-Leste including the Oecusse enclave.

3 AERONAUTICAL PUBLICATIONS

3.1 Aeronautical Information

3.1.1 The integrated Aeronautical information Package consists of the following.

- Aeronautical Information Publication (AIP).
- Amendment Services to the AIP (AIP AMDT).
- Supplements to the AIP (AIP SUP).
- NOTAM and pre-flight Information Bulletins (PIBs).
- Aeronautical Information Circulars (AIC).
- Checklist and lists of valid NOTAMs.

3.1.2 NOTAM and monthly Checklist are issued via the Aeronautical Fixed Services (AFS). No PIB is available. Other elements will be distributed by mail.

3.2 Aeronautical Information Publications

3.2.1 The Timor-Leste AIP is published as three volumes, in English in loose-leaf and online form. It contains permanent aeronautical information and long duration temporary changes essential for air navigation.

3.3 Amendment Services to the AIP

3.3.1 Amendments to the AIP will be in a complete replacement of the document:

- Regular AIP Amendment (AIP) at established intervals (to be notified by NOTAM); and
- AIRAC AIP Amendment (AIRAC AIP AMDT) issued in accordance with the AIRAC system incorporating operationally significant permanent Changes on the indicated AIRAC effective date.

3.3.2 Amendment cover sheets will briefly describe the subjects of the Amendment. Vertical line in the left margins will identify new information in the reprinted document.

3.3.3 Each AIP page is dated. The date consists of the day, month (by name) and year of the publication date (AIP Edition) or of the AIRAC effective date (AIRAC AIP AMDT) of the information. Each AIP cover sheet includes references to the serial number of those elements, if any, of the integrated Aeronautical Information Package, which have been incorporated into the AIP by the new edition and subsequently cancelled.

3.3.4 Each AIRAC AIP AMDT is allocated separate serial numbers, which are consecutive and based on the calendar year. AIP is amended by sequential edition numbers. The year indicated by two digits is part of the serial number of the amendment, e.g. AIRAC AIP AMDT 1/2004.

3.3.5 A Checklist of AIP pages containing page number/chart title and the publication or Effective date of the information is reissued with each edition and is an integral part of the AIP.

3.4 Supplement to the AIP (AIP SUP)

3.4.1 Temporary Changes of long duration (three months or more) and information of short duration, which consist of extensive text and/or graphics, supplementing the permanent information in the AIP, are published as AIP Supplements (AIP SUP). Operationally significant temporary changes to the AIP are published in accordance With the AIRAC system and are identified by the acronyms AIRAC AIP SUP.

3.4.2 AIP Supplements are organized under each AIP Part. Each Supplement will contain consecutive serial number based on the Calendar year e.g. AIP SUP 1/2004 AIRAC AIP SUP 1/2004.

3.4.3 AIP SUPs are to be retained in the AIP as long as all or some its contents remain valid. NOTAMs may be issued to indicate changes to the validity period or cancellation. Checklists of Current AIP SUPs will be included in NOTAM checklists.

3.5 NOTAM and Pre-flight Information Bulletins (PIBs)

3.5.1 The NOTAM services is operated by Airservices Australia on behalf of AACTL. Timor-Leste NOTAMs and RAIM information can be accessed via the Airservices Pilot Briefing Centre Website addresses given below:

Airservices Australia.

3.5.2 The AACTL NOTAM office is located at Dili Airport and can be contacted within operation hours as follows.

Tel: +670 3317 110 Ext 124

Fax: +670 3317 111

3.5.3 No Pre-flight Information Bulletins are published.

3.6 Aeronautical Information Circulars (AIC)

3.6.1 Aeronautical Information Circulars (AIC) will contain information on the long-term forecast of any major changes in legislation, regulations, procedures or facilities; information of a purely explanatory or advisory nature liable to affect flight safety; and information of notification of an explanatory or advisory nature concerning technical, legislative or administrative matters.

3.6.2 AICs will be issued under series A and B. Series A will contain information affecting international aviation and will be distributed internationally. Series B will contain information affecting national aviation only and will be distributed domestically only.

3.6.3 Each AIC Series is numbered consecutively on a yearly basis, e.g. AIC A 1/2004 or AIC B 1/2004. A Checklist of current AICs is issued once a year.

3.7 Checklists and List of Valid NOTAMs

3.7.1 Monthly NOTAM Checklists are available from Airservices Australia.

3.8 Sale of Publications

3.8.1 The AIP is obtainable from the AACTL NOTAM office.

4 AIRAC SYSTEM

4.1 Notice concerning operationally significant changes such as amendments to routes, charts, etc. Will be issued in accordance with the Aeronautical Information Regulation and Control (AIRAC) system predetermined dates shown at the web address given below:

https://www.icao.int/safety/information-management/pages/airacadherence.aspx

4.2 Notices under the AIRAC system will be given to users at least 28 days before the effective date. In case of major changes a notice of 56 days be given.

5 PRE-FIGHT INFORMATION SERVICE AT AERODROMES/HELIPORT

5.1 NOTAM checklist and bulletins or NAIP can be accessed at Airservices Australia Pilot briefing website http://www.airservicesaustralia.com/flight-briefing/

GEN 3.2 AERONAUTICAL CHARTS

1 RESPONSIBLE SERVICES

1.1 AACTL produces only limited aeronautical charts for aviation use. These are available in the AIP. The charts are produced generally in accordance with DOC 7101.

2 MAINTENANCE OF CHARTS

2.1 New Charts and amendments to existing charts will be issued as amendments to the AIP.

2.2 Incorrect information of operational significance will be corrected by NOTAM.

3 PURCHASE ARRANGEMENTS

3.1 Charts in the AIP may be obtained separately from the AACTL NOTAM office.

4 AERONAUTICAL CHART SERIES AVAILABLE

4.1 The following series of aeronautical charts are produced:

a. Aerodrome Chart-ICAO
b. Aerodrome Obstacle Chart-ICAO Type A
c. En-route Chart- ICAO
d. Instrument Approach Chart-ICAO
e. Planning Chart-IFR
f. Planning Chart-VFR

4.1.1 General Description of Each Series

4.1.2 Aerodrome Chart - ICAO contains detailed aerodrome data to assist flight crews in the ground movement of aircraft from the apron to the runway and from the runway to the apron.

4.1.3 Aerodrome Obstacle Chart-ICAO –Type A contains detailed information in plan and profile view on obstacles in the take-off flight path of aerodromes.

4.1.4 En-route Chart-ICAO contains aeronautical data on the Timor-Leste airspace to enable flight crew to navigate along ATS routes in compliance with air traffic services Procedures. Currently the chart

does not contain data on Timor-Leste PRD areas.

4.1.5 Area Chart-ICAO show in more detail aerodrome and terminal routings and the air traffic services system. It provides flight crew with information to facilitate the following phase of instrument flight:

- The transition between the en-route phase and the approach to an aerodrome;
- The transition between the take-off / missed approach path and the en-route phase of flight; and
- Flights through areas of complex ATS routes or airspace structure.

4.1.6 Instrument approach Chart-ICAO provide information to flight crew to enable them to conduct and approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable associated holding patterns.

4.1.7 Planning Chart-IFR is published on the AACTL website and provides information relevant to IFR flights.

4.1.8 Planning Chart-VFR is published on the AACTL website and provides information relevant to VFR flights.

5 LIST OF AERONAUTICAL CHARTS AVAILABLE

Type	Location	Date
Aerodrome Charts-ICAO	Atauro Island	25MAR21
	Baucau	25MAR21
	Dili	16JUN22
	Lospalos Fuiloro	25MAR21
	Maliana	25MAR21
	Oecussi	16JUN22
	Same	25MAR21
	Suai	16JUN22
	Viqueque	25MAR21

Aerodrome Obstacle Chart-ICAO Type A	Dili	--MAY12
Aerodrome Obstacle Chart-ICAO Type A	Suai	--MAR17
Aerodrome Obstacle Chart-ICAO Type A and B	Oecussi	NIL
Enroute Chart ICAO	Timor-Leste	Airservices
Planning Chart-IFR	Timor-Leste	16 JUN 22
Planning Chart-VFR	Timor-Leste	16 JUN 22
PRD Areas-Index Chart		25 MAR21
Area Chart-Dili CTR	Dili	16JUN22
Instrument Approach Chart-ICAO	Dili	
	VOR	15JAN04
	VOR/DME B, C & D	15JAN04
	RNAV (GNSS) RWY 08 CAT H	12NOV15
	RNAV (GNSS) RWY 26 CAT H	12NOV15
	RNP-Z RWY 08	16JUN22
	RNP-Z RWY 26	16JUN22
	STAR JEMZE ONE VICTOR	16JUN22
	STAR JEMZE ONE QUEBEC	16 JUN22
	SID ATSUL ONE DEP	16 JUN 22
	SID FILOM ONE DEP	16 JUN 22
		16 JUN 22
Instrument Approach Chart-ICAO	Suai	
	RWY35 VOR/DME	01NOV17
	RWY 35 RNAV (GNSS)	--JUL20
	RNP346 CAT H	--JAN18

	RNP249 CAT H	--JAN18
	RWY 17 DEP	--JAN18

6 INDEX TO THE WORLD AERONAUTICAL CHARTS

6.1 Nil

7 TOPOGRAPHICAL CHARTS

7.1 Nil produced. Maybe obtained from other appropriate mapping agencies.

GEN 3.3 AIR TRAFFIC SERVICES

1 RESPONSIBLE SERVICES

1.1 The AACTL is the responsible authority for the provision of air traffic services (ATS). ATS is provided in accordance with ICAO Annex 2, Annex 11 and PANS-RAC Doc 4444 and Timor-Leste MATS.

1.2 ATS are provided only during notified hours of operation.

1.3 NOTAM Office and ARO (ATS Reporting Office) are provided ats Dili Airport.

1.4 Differences are detailed in GEN 1.7.

2 AREA OF RESPONSIBILITY

2.1 ATS within Timor-Leste airspace are provided only in Class C airspace and in the lower ATS Routes (Class G airspace-uncontrolled) subject to communication limitation. No services are currently provided outside of the airspace mentioned above.

2.2 ANATL provides ATS in the Dili CTR.

3 TYPES OF SERVICES

3.1 The following types or air traffic services are provided:

- Aerodrome Control Services (AD)
- Approach Control Services (APP)
- Flight Information Services (FIS)
- Alerting Services
- ATS Reporting Office

4 COORDINATION BETWEEN OPERATORS AND ATS

4.1 Coordination between ATS and operators is undertaken on an as needs basis.

5 MINIMUM FLIGHT ALTITUDE

5.1 LSALT for published tracks are shown in Part 2. Where no LSALT is published pilots shall comply with the provisions Of Annex 2 with respect to minimum flight altitudes. Minimum Sector Altitudes (MSA) are established within 25NM radius of Dili and Suai radio

navigational aids.

6 ATS UNITS ADDRESS LIST

Unit name	**Dili Approach/Tower** **NOTAM/ARO**
Postal address	See GEN 1.1
Tel. NO	+ 670 7317 3679
AFS address	TWR: WPDLZTZX NOTAM/ARO:WPDLYNYX
Telex No.	NIL

GEN 3.4 COMMUNICATION SERVICES

1 RESPONSIBLE SERVICE

1.1 The ANATL provides communications and radio navigation facilities. ATC communications services are available only during notified hours of operation. Radio navigation services are available H24.

2 AREA OF RESPONSIBILITY

2.1 ANATL presently provides communications and navigation services within the Dili CTR, CTA, and along lower ATS routes. Limited FIS is provided in Class G airspace.

2.2 High terrain limits the operational coverage of the communications and the radio navigation facilities.

3 TYPE OF SERVICES

3.1 Communication Service

3.1.1 The following communication services are provided:

a. VHF Radio communications

b. AFTN

3.2 Radio Navigation Service

3.2.1 The following types of radio aids to navigation are available:

a. VHF- Omni-Directional Radio Range (VOR)

b. Distance Measuring Equipment (DME

3.2.2 Radio navigation aids operate in accordance with ICAO Annex 10.

3.3 Mobile / Fixed Service

3.3.1 ATS units maintain a continuous watch on the stated frequencies during published hours of service unless otherwise notified. Aircraft should maintain continuous watch and Communicate with the unit that exercises control in the area the aircraft is flying.

3.3.2 AACTL and ANATL,E.P has access to the ICAO AFTN system via the Airservices Australia AFTN Gateway System. ATS messages, flight plans and other messages as appropriate may be sent to the following ANATL, E.P. addresses:

- WPDLZTZX-Dili Tower
- WPDLYDYX-Presidente Nicolau Lobato Internacional Aeroporto Managment
- WPDLYAYA-AACTL headquarters

3.4 Broadcasting Services

3.4.1 Not available

4 REQUIREMENTS AND CONDITIONS

4.1 Air-ground communications and air-to-air communications including TIBA shall be conducted by VHF radiotelephony in English using standard ICAO phraseologies.

4.2 Aircraft shall establish communications on VHF with ATS units at least 10 minutes before entering the respective ATS unit's area of responsibility to enable the ATS units to ensure separation with other aircraft under its control.

5 RADIO COMMUNICATIONS FAILURE PROCEDURES

5.1 Pilots shall comply with the following general procedures in the event of Communications failure.

5.2 In VMC, continue to fly to destination airport, or land at the nearest suitable aerodrome and report arrival to the nearest ATS unit by the most expeditious means.

5.3 In IMC:

a. proceed according to the current flight plan route to the navigation aid serving the destination aerodrome maintaining the last assigned level or minimum flight altitude of higher;

b. commence descent over the facility upon arrival of no expected approach time (EAT) was received and acknowledged, or if an EAT was received and acknowledge commence descent at or as dose as possible to the (EAT);

c. complete the normal instrument approach procedure specified for the navigation aid; and

d. land within 30 minutes of the estimated time of arrival or of the EAT, whichever is later.

GEN 3.5 METEOROLOGICAL SERVICES

1 RESPONSIBLE SERVICE

1.1 No local Meteorological forecast services are available.

1.2 Automated MET sensors have been installed at Dili/Presidente Nicolau Lobato International airport. Information on wind direction and speed, cloud base, QNH and temperature as derived from these sensors is provided by air traffic control units during published hours of operation.

2 AREA OF RESPONSIBILITY

2.1 WPDL

3 METEOROLOGICAL OBSERVATIONS AND REPORTS

3.1 METAR/SPECI/TAF are provided by Bureau of Meteorology (BoM Australia).

4 TYPES OF SERVICES

4.1 METAR/SPECI/TAF available for WPDL

4.2 NOTAM service available for:

- WPEC
- WPDL
- WPOC
- WPDB

4.3 MET and NOTAM information available from the Airservices Australia Pilot briefing website.

5 NOTIFICATION REQUIRED FROM OPERATORS

5.1 Reserved.

6 AIRCRAFT REPORTS

6.1 Reserved.

7 VOLMET SERVICE

7.1 Not available.

8 SIGMET AND AIRMET SERVICES

8.1 Not Available.

9 OTHER AUTOMATED MET SERVICES

Nil.

GEN 3.6 SEARCH AND RESCUE

1 RESPONSIBLE SERVICE

1.1 Notification on aviation SAR matters and request for assistance should be made to ANATL, E.P. using the contact details/telephone numbers. Given under GEN 1.1 or telephone numbers stated below:

+670 73635516 (Dili ATSU Opr. Hrs.)

+670 3313 821 (Dili TWR Opr. Hrs)

+670 7737 2707 (Mobile Phone)

Or through AFTN address:

WPDLZTZX – TWR

WPDLYNYX – ARO/NOTAM

2 AREA OF RESPONSIBILITY

2.1 The area of responsibility for SAR generally covers the Timor-Leste airspace limits.

3 TYPES OF SERVICES

3.1 Reserved.

4 SAR AGREEMENTS

4.1 A SAR agreement exists between Timor-Leste and Indonesia.

5 PROCEDURES AND SIGNALS USED BY AIRCRAFT

5.1 Procedures for pilots observing an accident or intercepting a distress call /message and signals and transmission of distress messages are outlined in Annex 12 and Annex 10 Volume 2 Respectively.

5.2 The Emergency frequency 121.5MHz is guarded at the control towers during notified hours of Service.

6 GROUND/AIR VISUAL SIGNAL CODES FOR USE BY SURVIVORS

6.1 Ground/Air visual signal codes for use by survivors are given below:

	Message	Code Symbol
1.	Required assistance	**V**
2.	Required Medical assistance	**X**
3.	No or Negative	**N**
4.	Yes or Affirmative	**Y**
5.	Proceeding in this direction	↑
If in doubt use International symbol		**SOS**

Instructions for use:

1. Make signals not less than 8ft (2.5M)
2. Lay signals exactly as shown
3. Provide as much colour contrast as possible between signals and background
4. Make every effort to attract attention by other means such as radio, flares, smoke and reflected light.

CHARGES FOR AERODROMES, HELIPORTS AND AIR NAVIGATION

GEN 4.1 AERODROME/HELIPORT CHARGES

1 LANDING OF AIRCRAFT

1.1 The fee payable is based on aircraft manufacturer's certified maximum Take-off weight (MTOW) specified in the flight Activity Report (See further below). If the Maximum Take-off Weight is not known, the weight of the heaviest known aircraft of the same type will be Applied to calculate the fee.

1.2 The applicable fee rates are given in the table below. The charges are applicable only at Dili/Presidente Nicolau Lobato International airport for the time being.

1.3 Helicopters and fixed wing are charged at the applicable weight.

Maximum Take-off Weight in Kg	International flight (USD)	Domestic flight (USD)
<5,000	60.00	20.00
5,001-10,000	200.00 + 5.00 per ton or part thereof	100.00 + 3.00 per ton or part thereof
10,001-30,000	250.00 + 5.00 per ton or part thereof	125.00 + 3.00 per ton or part thereof
30,001-50,000	355.00 + 5.00 per ton or part thereof	185.00 + 3.00 per ton or part thereof
50,001-80,000	455.00 + 5.00 per ton or part thereof	245.00 + 3.00 per ton or part thereof
>80,000	615.00 + 5.00 per ton or part thereof	345.00 + 3.00 per ton or part thereof

2 PARKING, HANGARAGE AND LONG-TERM STORAGE OF AIRCRAFT

2.1 Parking of Aircraft

2.1.1 Operators must obtain prior approval for parking arrangements from the aerodrome Authority due to limited apron space. Parking fee may be charged at the discretion of the ANATL, E.P.

2.2 Hangar Charges

2.2.1 Nil.

2.3 Long-term Storage

2.3.1 Not Available.

3 PASSENGERS SERVICES

3.1 Departure tax fees are integrated into the air ticket.

4 SECURITY

4.1 Security tax fees are integrated into the air ticket. All aircraft are parked at owners' risk.

5 NOISE-RELATED ITEMS

5.1 Not Applicable.

6 OTHERS

6.1 Nil.

7 EXEMPTIONS AND REDUCTIONS

7.1 Nil.

8 METHOD OF PAYMENT

8.1 Fees are payable by the person nominated at the time the approval is given for a flight and must be paid before departing Dili airport unless other arrangements have been agreed to. In the case of regular users, payment shall be made on demand at the end of each calendar Month of fees accrued during the month. All payment shall be in USD.

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GEN 4.2 AIR NAVIGATION SERVICES CHARGES

Presently no separate air navigation service charge is imposed.

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