

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ
LAO PEOPLE'S DEMOCRATIC REPUBLIC



AERONAUTICAL INFORMATION PUBLICATION

A I P

ກົມການບິນລາວ
DEPARTMENT OF CIVIL AVIATION

LAO PDR

DEPARTMENT OF CIVIL AVIATION

AIP

AERONAUTICAL INFORMATION PUBLICATION

**PART 1
GENERAL (GEN)**

PART 1 - GENERAL (GEN)
GEN 0
GEN 0.1 - PREFACE

1 Name of the publishing authority

The AIP Lao PDR is published by authority of the Department Civil Aviation of Lao PDR (DCAL).

Address:

Department of Civil Aviation (DCA)
Vientiane/ Wattay International Airport
P.O Box 119 Vientiane,
Vientiane, Lao PDR.
Telephone number: (856 21) 512 164, 513 163
Fax number: (856 21) 520 237
AFS : VLAOYAYX.
E-mail: laodca@laotel.com

2 Applicable ICAO Documents

The AIP Lao PDR is prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Convention on International Civil Aviation and the Aeronautical Information Services Manual (ICAO Doc 8126). Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the Aeronautical Charts Manual (ICAO Doc 8697). Differences from ICAO Standards, Recommended Practices and Procedures are given in subsection GEN 1.7.

3 The AIP structure and Established Regular Amendment Interval

3.1 The AIP structure

The AIP forms part of the Integrated Aeronautical Information Package, details of which are given in subsection GEN 3.1. The principal AIP structure is shown in graphic form on page GEN 0.1-4.

The AIP is made up of three parts, General (GEN), En-route (ENR) and Aerodromes (AD), each divided into sections and subsections as applicable, containing various types of information subjects.

3.1.1 Part 1 - General (GEN)

Part 1 consists of five sections containing information as briefly described hereafter.

GEN 0. Preface; Records of AIP Amendments; Records of Supplements; Checklist of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 1.

GEN 1. National regulations and requirements - Designated authorities; Entry, transit and departure of aircraft; Entry, transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; Summary of national regulations and international agreements/conventions; and Differences from ICAO Standards, Recommended practices and Procedures.

GEN 2. Tables and codes -Measuring system, aircraft markings, holidays; abbreviations used in AIS publications; Charts symbols; Location Indicators; List of radio navigation aids; Conversion tables; and Sunrise / Sunset tables.

GEN 3. Services - Aeronautical information services; Aeronautical charts; Air traffic services; Communication services; Meteorological services; and Search and rescue.

GEN 4. Charges for aerodromes and air navigation services - Aerodrome charges; and Air navigation services charges.

3.1.2 **Part 2 - En-route (ENR)**

Part 2 consists of seven sections concerning information as briefly described hereafter.

ENR 0 - Table of Contents to Part 2.

ENR 1 - General rules and procedures -General rules; Visual flight rules; Instrument flight rules; **ATS airspace classification**; Holding, approach and departure procedures; Radar services and procedures; Altimeter setting procedures; Regional supplementary procedures; Air Traffic Flow Management; Flight planning; Addressing of flight plan messages; Interception of civil aircraft; Unlawful interference; and Air traffic incident.

ENR 2 - Air traffic services airspace - Detailed description of **flight information regions** (FIR); Terminal control areas (TMA); and other regulated airspace.

ENR 3 - ATS routes - Detailed description of ATS routes; Area navigation(RNAV) routes; Helicopter routes; Other routes and En-route holding.

Note: Other types of routes which are specified in connection with procedures for traffic to and from aerodromes are described in Part 3- Aerodrome.

ENR 4 - Radio navigation aids/systems-Radio navigation aid - en-route; Special navigation systems; Name-code designators for significant point; and Aeronautical ground light - en-route.

ENR 5 - Navigation warring - Prohibited, Restricted and Danger areas; Military exercise and training areas; Other activities of a dangerous nature; Air navigation obstacle/en - route; Aerial sporting and recreational activities; and Bird migration and areas with sensitive fauna.

ENR 6 - En - route charts - En - route chart - ICAO and index charts.

3.1.3 **Part 3 - Aerodromes (AD)**

Part 3 consists of four sections containing information as briefly described hereafter.

AD 0 - Table of contents to Part 3

AD 1 - Aerodromes - introduction - Aerodrome availability ; Rescue and fire fighting facilities; Index to aerodromes; and Grouping of aerodromes.

AD 2 - Aerodromes - Detailed information about aerodrome, including helicopter landing area, if located at the aerodromes, listed under 24 subsections.

AD 3 - Heliport - To be developed

3.2 Regular Amendment Interval

Regular amendment to the AIP will be issued once every four months. The publication dates will be published in accordance with the following schedule: March; July and November of each year.

4 Service to contact in case of detected AIP errors or omissions

In the compilation of the AIP, care has been taken to ensure that the information contained therein is accurate and complete. Any errors and omissions which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to:

**Aeronautical Information Service
Air Navigation Division
Department of Civil Aviation
Vientiane/ Wattay International Airport
P.O.Box 119 Vientiane, Lao PDR.**

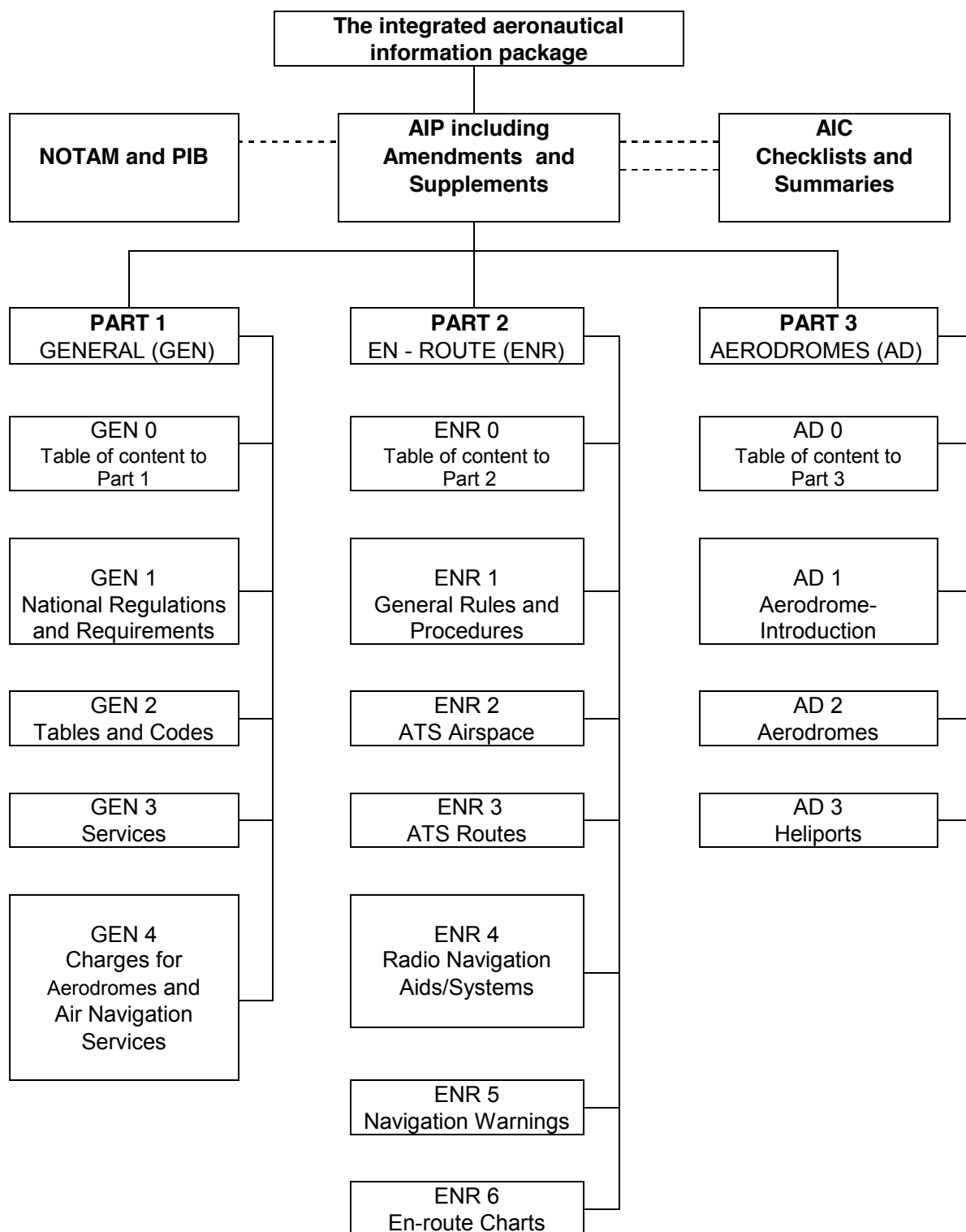
AFS : VLAOYAYX

SITA : VTEXTYA

→ **Tel : (856-21) 512 164, 513 163**

Fax: (856-21) 520 237

E-mail: laodca@laotel.com



[illegible]

GEN 0.3 - RECORD OF AIP SUPPLEMENTS

<i>NR/Year</i>	<i>Subject</i>	<i>AIP section(s) affec</i>	<i>Period of validity</i>	<i>Cancellation record</i>
AIRAC A02/2008	The revised RVSM Policy and Procedures in the Vientiane FIR		From 22 MAY 2008 UFN	
AIRAC A03/2016	Correction to Revision and Establishment of Instrument Flight Procedures to Xiengkhuang Airport.		From 21 JUL 2016 UFN	AIRAC A01/16

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Luang Phabang Int'l Airport		VLPS AD 2-21-1	28 MAY 2015		
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VLLB AD 2-4	15 NOV 2012	VLPS AD 2-23-1	28 MAY 2015		
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VLLB AD 2-6	01 JUL 2010	VLSK AD 2-1	31 MAR 2016		
VLLB AD 2-7	01 JUL 2010	VLSK AD 2-2	12 NOV 2015		
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GEN 1 - NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 - DESIGNATED AUTHORITIES

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

- 1 **Civil aviation**
Ministry of Public Works and Transport
Department of Civil Aviation
Vientiane/ Wattay International Airport
P.O Box 119 Vientiane, Lao PDR.
AFS : VLAOYAYX
SITA : VTEXYA
Tel : (856-21) 513 163
Fax: (856-21) 520 237
E-mail: laodca@laotel.com
- 2 **Meteorology**
Water Resources and Environment Administration
Department of Meteorology and Hydrology
Souphanouvong Road
P.O Box 811 Vientiane, Lao PDR.
Tel: (856-21) 215 010
Fax: (856-21) 223 446
AFS: VLVTYMYX
- 3 **Customs**
Ministry of Finance
Department of Customs
Lane Xang Avenue
P.O Box 46 Vientiane, Lao PDR.
Tel: (856-21) 213 810, 223 520, 223 522 - 25
Fax: (856-21) 223 523
- 4 **Immigration**
Ministry of National Security
Immigration Department
Hatsadee tay Village
Vientiane, Lao PDR
Tel: (856-21) 212 520, 219 607 and 512 012 (Airport)
Fax: (856-21) 217 494
- 5 **Health**
Ministry of Public Health
Simuong Road
Vientiane, Lao PDR
Tel: (856-21) 214 000, 214 005
Fax: (856-21) 214 001

6 **En-route and Navigation Aids Charges**

Lao Air Traffic Management
Ministry of Public Works and Transport
Vientiane/Wattay International Airport
P.O Box 2985 Vientiane, Lao PDR.
Tel: (856-21) 512 006, 512 008
Fax: (856-21) 512 216
AFS: VLVTZRZX, VLVTZIZX

7 **Aerodrome charges**

Lao Airport Authority
Ministry of Public Works and Transport
Vientiane/Wattay International Airport
Souphanouvong Road,
P.O Box 3175, Vientiane, Lao PDR.
Tel: (856-21) 520 542
Fax: (856-21) 520 539
E-mail: laoairport@etlao.com

8 **Agricultural quarantine**

Ministry of Agricultural and Forest
Department of Livestock and Fishery
Lane Xang Avenue
P.O Box 811 Vientiane, Lao PDR.
Tel: (856-21) 416 932
Fax: (856-21) 415 674.

9 **Aircraft accidents investigation**

Contact point
Department of Civil Aviation
Accidents Investigation Secretary
Vientiane/ Wattay International Airport
P.O Box 119 Vientiane, Lao PDR.
AFS: VLAQYAYX
SITA: VTEXYYA
Tel: (856-21) 513 165
Fax: (856-21) 520 237
E-mail: laodca@laotel.com

10 **Ministry of Foreign Affairs**

Consular Department
Nongbone Road
Vientiane, Lao PDR
Tel: (856-21) 414 035
Fax: (856-21) 414 032

11 **Ministry of Information and Culture**

Museum and Antiquities Department
Samsenthai Road
P.O Box 122 Vientiane, Lao PDR
Tel: (856-21) 212 423
Fax: (856-21) 212 408

GEN 1.2 - ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

1 General

- 1.1 International flights into, from or over Lao PDR territory shall be subject to the current Lao PDR regulations No. 2092/MCTPC, dated 22 June 2000, relating to entry, transit and departure of aircraft. These regulations correspond in all essentials to the Standards and Recommended Practices contained in Annex 9 to the Convention on International Civil Aviation.
- 1.2 All flight operations within the territory of the Lao PDR shall be conducted only in accordance with the permission of the appropriate competent authorities of Lao PDR. In case of entering the Lao PDR airspace without such permission, the aircraft is considered to violate the Lao laws and will be settled under the provisions of the laws of Lao PDR.
- 1.3 Civil aircraft operating within the territory of the Lao PDR shall carry the documents indicated in Article 29 of Chicago Convention or article 13 of Civil Aviation Law of Lao PDR, the nationality and registration marks shall be painted on or affixed to it in accordance with the laws of the State in which the aircraft is registered. No aircraft without nationality and registration marks shall fly within the territory of Lao PDR.
- 1.4 No war materials, explosive, weapon, ammunition, radioactive materials, nuclear, toxic chemicals, harmful or latent harmful materials are allowed to be carried on a foreign aircraft operating into or over territory of the Lao PDR. Making film and taking photograph from aircraft over the territory of Lao PDR or using radio apparatus except the registered equipment in aircraft or other activities from aircraft which may be harmful to national security and flight safety, violating the Lao laws and the International Convention contracted by Lao PDR are prohibited, unless it has obtained special authorization from the competent authorities of Lao PDR.
- 1.5 Aircraft flying into or departing from Lao territory shall make their first landing at, or final departure from, an international aerodrome (see AIP Lao PDR page AD 1.3 and AD 2).

2. Scheduled flights

- a) the airlines shall make the flights under the provisions of a bilateral or multilateral air services agreement to which the State of airline and Lao PDR are contracting parties. The application for permits shall be submitted to the Department of Civil aviation in permissible time;
- b) the State of airline that is a member to United Nations and/or International Civil aviation Organization, the application for permits shall be submitted to the Department of Civil Aviation at least 3 official days before the intended date of operation;
- c) the State of airlines which is neither a contracting party to a bilateral or multilateral air services agreement to which Lao PDR is a party nor a member to United Nations and/or International Civil aviation Organization, the application for permits shall be submitted to the Ministry of Foreign Affairs of Lao PDR through Diplomatic channel at least 10 official days before the intended date of operation.

2.1 **Content of application**

The application shall include:

- a) name of the operator or owner of aircraft with postal or electronic or telegraphic addresses (AFS/SITA)
- b) number, type of aircraft and maximum take off weight
- c) nationality and registration marks
- d) flight number (call sign)
- e) flight rules (IFR/VFR)
- f) purpose of flight
- g) radio equipment
- h) itinerary (date and time of operation)
- i) ETD, ETA (origin, destination)
- j) ETO entry/ exit point
- k) ATS route, speed and flight level (FL) or altitude
- l) alternate aerodrome
- m) billing address of aircraft owner or operator

2.2 **Documentary requirements for clearance of aircraft**

2.2.1 **The applicant for flight permission shall be responsible for the legality of the under mentioned documents:**

- a) the air operator certificate;
- b) the certificate of registration;
- c) the certificate of airworthiness;
- d) the license of each crew member;
- e) the certificate of noise;
- f) the aircraft radio station license;

2.2.2 The documents required for clearance of aircraft on entry and departure to and from Lao PDR **must be submitted by authorized agent or pilot-in-command**. All documents listed below must follow the ICAO standard format as set-forth in the relevant Appendices to ICAO annex 9 and are acceptable when published in English only and completed in legible handwriting.

2.2.3 Aircraft documents required (Arrival / Departure)

Required by	General Declaration	Passenger Manifest	Cargo Manifest
Airport Authority	1	1	1
Customs	1	1	1
Immigration	1	1	1
Ground Handling Agency	1	1	1
Total	4	4	4

Notes:

- a) *One copy of the General Declaration is endorsed and returned by customs, signifying clearance.*
- b) *if no passengers are embarking (disembarking) and no articles are laden (unload) no aircraft documents except copies of the general declaration need to be submitted to the above Authorities.*

3 Non - Schedule flights

- 3.1 a) the airlines of States that have obtained Scheduled permits mentioned in 2. a, b, c above and the flights are regularly operated, the application for permits shall be submitted to the Department of Civil Aviation of Lao PDR at least 3 official days before the intended date of operation;
- b) the airlines, operator or aircraft owner of State mentioned in 2.a shall submit the application for permits to the Department of Civil aviation at least 3 official days before the intended date of operation.
- c) the airlines, operator or aircraft owner of State mentioned in 2.b shall submit the application for permits to the Department of Civil Aviation of Lao PDR at least 5 official days before the intended date of operation;
- d) the airlines, operator or aircraft owner of State mentioned in 2.c shall submit the application for permits to the Ministry of Foreign Affairs of Lao PDR through Diplomatic channel at least 10 official days before the intended date of operation.
- 3.2 For the reason of Medical Evacuation, the application for a special permit shall be submitted to the Department of Civil Aviation of Lao PDR at least 3 hours in advance. At the same time the appropriate Air Traffic Services units shall be informed. The flight for this purpose shall be operated at the international airports only.
- 3.3 VIP flight or flight for military purpose, the application for permits shall be submitted to the Ministry of Foreign Affairs of Lao PDR through Diplomatic channel at least 7 official days before the intended date of operation. At the same time, the related information should be provided to the Department of Civil Aviation for the advance facilitation arrangement.

4. Content of application

The application shall include: same as 2.1

4.1 Documentary requirements

Same as scheduled flights 2.2.3

5. Validity of flight permit

All aircraft shall strictly follow the time table specified in the flight permits. In case of weather or technical problems caused the flight 72 hours delay, the Department of Civil Aviation and the Department of Consular (Ministry of Foreign Affairs) shall be informed within 24 hours from the intended time of operation. If not, the new application for flight permit shall be resubmitted.

6. Public health measures applied to aircraft

Public health measures are required to be carried out in respect of aircraft in accordance with Infections Disease Regulations of World Health Organization (WHO) as well as Ministry of Public Health, Lao PDR.

GEN 1.3 - ENTRY, TRANSIT AND DEPARTURE OF PASSENGER AND CREW

1 Customs requirements

All inbound passengers are required to present completed Customs Declaration Form. Passenger who has nothing to declare will be released through the green channel, while other who has goods to declare or those selected by customs authorities must proceed through the red channel for customs inspection. Baggage or articles belonging to disembarking passengers or crew are immediately released except for those selected for inspection by the customs authorities. Such baggage will be cleared on the basis of an oral declaration except in the case of returning citizens.

2 Immigration requirements

- 2.1 No documents or visas are required of passengers arriving and departing on the same through flight or transferring to another flight at the same or a nearby airport (transits).
- 2.2 Passengers entering into or departing from Lao PDR for the purpose of immigration must hold a valid passport and an immigration visa, the latter being issued at Lao PDR Embassies or consulates abroad, with the exception of certain types of aliens stated in the table and items 2.3 below.

Countries Name	Diplomatic Passport	Official Passport	Ordinary Passport
Bangladesh	x	x	
Belarus	x	x	
Brazil	x	x	
Brunei	x	x	x
Cambodia	x	x	x
China	x	x	
Cuba	x	x	
Ecuador	x	x	
Hungary	x	x	
India	x	x	
Indonesia	x	x	x
Japan	x	x	x
DPR. Korea	x	x	
R. Korea	x	x	x
Kyrgyzstan	x	x	
Luxembourg			x
Malaysia	x	x	x
Mexico	x	x	
Mongolia	x	x	x
Myanmar	x	x	x
Peru	x	x	
Philippines	x	x	x
Poland	x	x	
Russia	x	x	x
Singapore	x	x	x
Switzerland			x
Thailand	x	x	x
Timor Lester	x	x	
Ukraine	x	x	
Vietnam	x	x	x

| Note: Except Brunei, Hong Kong, Indonesia (Diplomatic and Official Passport) and Myanmar (Ordinary Passport) are allowed to stay in Lao PDR for 14 (fourteen) days, for the others allow to stay up to 90 (ninety) days.

2.3 A person holding a valid passport of any country may enter into Lao PDR for a period up to 15 (fifteen) days by asking a visa on arrival at all International Airports.

2.4 A flight crew member who are on duty and wishes to enter into Lao PDR, should follow condition prescribed in paragraph 2.1, 2.2 and 2.3.

2.5 Embarking passengers are required to present immigration authorities a filled Departure Form.

3. Public health requirement

Disembarking passengers are not required to present vaccination certificates except when coming directly from an area infected with cholera, yellow fever or smallpox.

On departure, no health formalities are required.

GEN 1.4 - ENTRY, TRANSIT AND DEPARTURE OF CARGO

1 Customs Requirement Concerning Cargo and other Articles

- 1.1 The following documents are required for clearance of goods through Customs for entry into Lao PDR:
- a) import license from the Ministry of Commerce;
 - b) invoice;
 - c) packing list;
 - d) bill of lading/ air waybill;
 - e) customs import entry and copy;
 - f) permission from Ministry of Public Health if the chemicals and drugs articles;
 - g) other forms can be found at Cargo Terminal at the Airport.
- 1.2 The following documents are required for transshipment of goods:
- a) transshipment entry;
 - b) bill of lading (through bill of lading);
 - c) manifest with shown embarking airport, transshipment airport and destination airport.
- 1.3 The following documents are required for clearance of goods to be exported from Lao PDR:
- a) customs export entry and copy;
 - b) invoice;
 - c) packing list (if possible);
 - d) air waybill;
 - e) export permit required by concerned government authorities for some certain goods;
 - f) export permit from cultural authority if goods are pictures or products of cultures.

2 Agricultural and animals quarantine requirements

Import and export plants, animals and their products quarantine requirements are subjected to law regulations of the Ministry of Agricultural and Forest with address in GEN 1.1, paragraph 8. ←

GEN 1.5 - AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

Commercial air transport aircraft operating in Lao PDR must adhere to the provisions of ICAO Annex 6 - Operation of Aircraft, Part I - International Commercial Air Transport - Aeroplanes, Chapter 6 (Aeroplane instruments, equipment and flight documents) and Chapter 7 (Aeroplane Communication and Navigation Equipment).

GEN 1.6 - SUMMARY OF NATIONAL REGULATION AND INTERNATIONAL AGREEMENTS/CONVENTIONS

1 Following is a list of Civil Aviation Legislation, Air navigation regulations etc., in force in Lao PDR. It is essential that anyone engaged in air operations be acquainted with the relevant law regulations.

1.1 Aviation Law:

- 1) Law on Civil Aviation of Lao PDR (Adopted by the National Assembly of Lao PDR on 20 May 2005 and promulgated by Decree of the President of Lao PDR on 25 May 2005).

1.2 Civil Air Navigation Regulations:

- 1) Regulation Governing Air Navigation Service (4th edition).
- 2) Lao Civil Aviation Safety Regulations:
 - Part 01: General Policies Procedures and Definitions. 1st Revision September 2013
 - Part 02: Personnel Licensing. (1st Revision) September 2013.
 - Part 03: Approved Training Organizations (ATO). 1st Revision September 2013.
 - Part 04: Aircraft Registration and Marking. 1st Revision September 2013.
 - Part 05: Airworthiness. (1st Revision) September 2013.
 - Part 06: Approved Maintenance Organizations (AMO). 1st Revision September 2013.
 - Part 07: Instruments and Equipments. 1st Revision September 2013.
 - Part 08: Operations. 1st Revision September 2013.
 - Part 09: Air Operator Certification and Administration (AOC). 1st Revision September 2013.
 - Part 10: Commercial Air Transport by Foreign Air Operators within Lao PDR. 1st Revision September 2013.
 - Part 11: Aerial Work. 1st Revision September 2013.
 - Part 12: Very Light/Ultra Light Aircraft With MTOW Not Exceeding 500Kg. 1st Revision September 2013.
 - Part 13: Accident and Incident Investigation. 1st Revision September 2013.
 - Part 14: Safety Management System (SMS). 1st Revision September 2013.
- 3) Search and Rescue Regulation No 169/PM dated 26/11/2004 (1st edition).
- 4) Safety Management System Regulation (1st edition).
- 5) CNS Requirement (1st edition).
- 6) Regulation Governing Aerodromes (2nd edition).

1.3 International Agreement/Conventions

1. Chicago Convention (1944)
2. Warsaw Convention (1929)
3. Geneva Convention (1948)
4. The Hague Protocol (1955)
5. Tokyo Convention (1963)
6. The Hague Convention (1970)
7. Montreal Convention (1971)
8. Montreal Supplementary Protocol (1988)

GEN 1.7 - DIFFERENCES FROM ICAO STANDARDS, RECOMMEND PRACTICES PROCEDURES

- Annex 1** - Personnel licensing (11st edition, Amendment 172): NIL
- Annex 2** - Rules of the Air (10th edition, Amendment 44): NIL
Procedures for Air Navigation Services
Air Traffic Management (Doc 4444, ATM. 15th edition): NIL
Regional Supplementary Procedures (Doc 7030. 5th edition): NIL
- Annex 3** - Meteorology, (18th edition, Amendment 76): NIL
- Annex 4** - Aeronautical charts, (11st edition, Amendment 58): NIL
- Annex 5** - Units of measurement to be used in air and ground operations (5th edition, Amendment 17): NIL
- Annex 6** - Operation of aircraft
Part I - International Commercial Air Transport – Aeroplanes (9th edition, Amendment 38): NIL
Part II - International General Aviation - Aeroplanes (8th edition, Amendment 33): NIL
Part III - International Operations - Helicopters (7th edition, Amendment 19): NIL
- Annex 7** - Aircraft nationality and registration marks (6th edition, Amendment 6)
see GEN 2.1 item 4.
- Annex 8** - Airworthiness of aircraft, (11st edition, Amendment 104): NIL
- Annex 9** - Facilitation, (13rd edition, Amendment 24): NIL
- Annex 10** - Aeronautical Telecommunications
Volume I - Radio Navigation Aids (6th edition, Amendment 89): NIL
Volume II - Communication Procedures including those with PANS status (6th edition, Amendment 89): NIL
Volume III - Part I - Digital Data Communication Systems; Part II - Voice Communication Systems (2nd edition, Amendment 89): NIL
Volume IV - Surveillance Radar and Collision Avoidance Systems (5th edition, Amendment 89): NIL
Volume V - Aeronautical Radio frequency Spectrum Utilization (3rd edition, Amendment 89): NIL
- Annex 11** - Air Traffic Services, (14th edition, Amendment 50-A): NIL
- Annex 12** - Search and Rescue (8th edition, Amendment 18): NIL
- Annex 13** - Aircraft Accident Investigation (10th edition, 14): NIL
- Annex 14** - Aerodrome
Volume I - Aerodrome Designed and Operations (6th edition, Amendment 11-B): NIL
Volume II - Heliports (4th edition, Amendment 6): NIL
- Annex 15** - Aeronautical Information Services (14th edition, Amendment 38): NIL
- Annex 16** - Environmental Protection
Volume I - Aircraft Noise (7th edition, Amendment 1-11-B): NIL
Volume II - Aircraft Engine Emissions (3rd edition, Amendment 8): NIL
- Annex 17** - Security (9th edition, Amendment 14): NIL
- Annex 18** - The Safe Transport of Dangerous Goods by Air (4th edition, Amendment 11): NIL
- Annex 19** - Safety Management (1st edition): NIL

GEN 2 - TABLES AND CODES

GEN 2-1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS

1 Units of measurement

The table of units of measurement shown below will be used by aeronautical station within Vientiane FIR for air and ground operations.

For measurement of	Units used
Distance used in navigation, position reporting etc., Relatively short distances such as those relating to aerodromes (e.g. Runway lengths) Altitudes, elevations and heights Horizontal speed including wind speed Vertical speed	Nautical miles Meters Meters or feet Knots or Meter per second Feet per Minute or Meter per second
Wind direction for landing and taking-off Wind direction except for landing and taking-off Visibility including runway visual range Altimeter setting Temperature Weight Time	Degrees Magnetic Degrees true Kilometers or meters Hectopascal Degrees Celsius Metric tones or kilograms Hours and minutes, the day of 24 hours beginning at midnight UTC

2 Time system

Co-ordinated Universal Time (UTC) is used by air navigation services and in publications issued by the Aeronautical Information Services. Reporting of time is expressed to the nearest full minute e.g. 12:40:35 is reported as 1241. Local time is 7 hours ahead UTC. Time checks to aircraft are accurate within 30 seconds.

3 Geodetic reference datum

3.1 Name / designation of datum

All published geographical coordinates indicating Latitude and Longitude are expressed in terms of World Geodetic System-1984 (WGS-84) geodetic reference datum.

3.2 Area of application

The area application for the published geographical coordinates coincides with the area of responsibility of the Aeronautical Information Services, e.g. the entire territory of Lao PDR as well as the airspace of Vientiane FIR.

3.3 Use of an asterisk to identify published geographical coordinates.

An asterisk (*) will be used to identify those published geographical coordinates which have been transformed into WGS-84 coordinates but whose accuracy of original field work does not meet the requirements in: ICAO Annex 11, chapter 2 and ICAO Annex 14, volume I and II, chapter 2. Specification for determination and reporting of WGS-84 coordinates are given in ICAO Annex 11, chapter 2 and ICAO Annex 14, volume I and II, chapter 2.

4 **Aircraft nationality and registration marks**

The nationality mark for aircraft registered in Lao PDR consists of the letters RDPL. The nationality mark is followed by a hyphen and a registration mark consisting of five figures, start with "34" e.g. RDPL - 34001.

5 **Public holidays**

Name	Date / Day
International New Year 's Day	01 January
Lao New Year	between 13 to 16 April
International Labour Day	01 May
National Day	02 December

GEN 2.2 - ABBREVIATIONS USED IN AIS PUBLICATIONS

A

A	Amber
AAA	(or AAB, AAC ... etc, in sequence) amended meteorological message (message type designator)
A/A	air - to - air
AAD	Assigned altitude deviation
AAIM	Aircraft autonomous integrity monitoring
AAL	Above aerodrome level
ABI	Advance boundary information
ABM	Abeam
ABN	Aerodrome beacon
ABT	About
ABV	Above
AC	Altocumulus
ACARS	Aircraft communication addressing and reporting system (to be pronounced "AY-CARS")
ACAS	Airborne collision avoidance system
ACC	Area control centre or area control
ACCID	Notification of an aircraft accident
ACFT	Aircraft
ACK	Acknowledge
ACL	Altimeter check location
ACN	Aircraft classification number
ACP	Acceptance (message type designator)
ACPT	Accept or accepted
ACT	Active or activated or activity
AD	Aerodrome
ADA	Advisory area
ADC	Aerodrome chart
ADDN	Addition or additional
ADF	Automatic direction-finding equipment
ADIZ	Air defense identification zone (to be pronounced "AY-DIZ")
ADJ	Adjacent
ADO	Aerodrome office (specify service)
ADR	Advisory route
ADS	The address (when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS) (to be used in AFS as a procedure signal)
ADS-B	Automatic dependent surveillance-broadcast
ADS-C	Automatic dependent surveillance-contract
ADSU	Automatic dependent surveillance unit
ADVS	Advisory service
ADZ	Advise
AES	Aircraft earth station
AFIL	Flight plan filed in the air
AFIS	Aerodrome flight information service
AFM	Yes or affirm or affirmative or that is correct
AFS	Aeronautical fixed service
AFT	After ... (time or place)
AFTN	Aeronautical fixed telecommunication network
A/G	Air - to - ground
AGA	Aerodromes, air routes and ground aids
AGL	Above ground level
AGN	Again
AIC	Aeronautical information circular
AIDC	Air traffic services interfacility data communications



AIP	Aeronautical information publication
AIRAC	Aeronautical information regulation and control
AIREP	Air - report
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
AIS	Aeronautical information service
ALA	Alighting area
ALERFA	Alert phase
ALR	Alerting (message type designator)
ALRS	Alerting service
ALS	Approach lighting system
ALT	Altitude
ALTN	Alternate or alternating (light alternates in color)
ALTN	Alternate (aerodrome)
AMA	Area minimum altitude
AMD	Amend or amended (used to indicate amended meteorological message; message type designator)
AMDT	Amendment (AIP amendment)
AMS	Aeronautical mobile service
AMSL	Above mean sea level
AMSS	Aeronautical mobile satellite service
ANC	Aeronautical chart – 1:500 000 (followed by name/title)
ANCS	Aeronautical navigation chart – small scale (followed by name/title and scale)
ANS	Answer
AOC	Aerodrome obstacle chart
AP	Airport
APAPI	Abbreviated precision approach path indicator (to be pronounced “AY-PAPI”)
APCH	Approach
APDC	Aircraft parking/docking chart (followed by name/title)
APN	Apron
APP	Approach control office or approach control or approach control service
APR	April
APRX	Approximate or approximately
APSG	After passing
APV	Approve or approved or approval
ARC	Area chart
ARFOR	Area forecast (in aeronautical meteorological code)
ARNG	Arrange
ARO	Air traffic services reporting office
ARP	Aerodrome reference point
ARP	Air-report (message type denigrator)
ARQ	Automatic error correction
ARR	Arrive or arrival
ARR	Arrival (message type designator)
ARS	Special air-report
ARST	Arresting [specify (part of) aircraft arresting equipment]
AS	Altostratus
ASC	Ascent or ascending to
ASDA	Accelerate-stop distance available
ASE	Altimetry system error
ASPH	Asphalt
AT ...	At ... (followed by time at which weather change is forecast to occur)
ATA	Actual time of arrival
ATC	Air traffic control (in general)
ATCSMAC	Air traffic control surveillance minimum altitude chart (followed by name/title)
ATD	Actual time of departure
ATFM	Air traffic flow management
→ ATIS	Automatic terminal information service

ATN	Aeronautical telecommunication network
ATP	At ... (time or place)
ATS	Air traffic service
ATTN	Attention
AT-VASIS	Abbreviated T visual approach slope indicator system (to be pronounced "AY-TEE-VASIS")
ATZ	Aerodrome traffic zone
AUG	August
AUTH	Authorized or authorization
AUW	All up weight
AUX	Auxiliary
AVASIS	Abbreviated visual approach slope indicator system
AVBL	Available or availability
AVG	Average
AVGAS	Aviation gasoline
AWTA	Advise at what time able
AWY	Airway
AZM	Azimuth

B

B	Blue
BA	Braking action
BARO-VNAV	Barometric vertical navigation (to be pronounced "BAA-RO-VEE-NAV")
BASE	Cloud base
BCFG	Fog patches
BCN	Beacon (aeronautical ground light)
BCST	Broadcast
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken
BL	Blowing (followed by DU = dust, SA = sand or SN = snow)
BLDG	Building
BLO	Below clouds
BLW	Below
BOMB	Bombing
BR	Mist
BRF	Short (used to indicate the type of approach desired or required)
BRG	Bearing
BRKG	Braking
BS	Commercial broadcasting station
BTL	Between layers
BTN	Between

C

C	Centre (preceded by runway designation number to identify a parallel runway)
C	Degrees Celsius (centigrade)
CA	Course to an altitude
CAT	Category
CAT	Clear air turbulence
CAVOK	To be pronounced "KAV-OH-KAY". Visibility, cloud and present Weather better than prescribed values or conditions
CB	Cumulonimbus (To be pronounced "CEE BEE")
CC	Cirrocumulus
CCA	(or CCB, CCC ...etc, in sequence) Corrected meteorological message (message type of designator)
CD	Candela

CDN	Co-ordination (message type of designator)
CF	Change frequency to ...
CF	Course to a fix
CFM	Confirm or I confirm (to be used in AFS as a procedure signal)
CGL	Circling guidance light (s)
CH	Channel
CH	This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel (to be used in AFS as a procedure signal)
CHG	Modification
CI	Cirrus
CIDIN	Common ICAO data interchange network
CIT	Near or over large towns
CIV	Civil
CK	Check
CL	Centre line
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLG	Calling
CLIMB-OUT	Climb-out area
CLR	Clear(s) or cleared to ... or clearance
CLRD	Runway(s) cleared (used in METAR/SPECI)
CLSD	Closed
CM	Centimeter
CMB	Climb
CMPL	Completion or completed or complete
CNL	Cancel or cancelled
CNL	Flight plan cancellation (message type designator)
CNS	Communication - navigation and surveillance
COM	Communication
CONC	Concrete
COND	Condition
CONS	Continuous
CONST	Construction or constructed
CONT	Continue (s) or continued
COOR	Co-ordinate or Co-ordination
COORD	Coordinates
COP	Change-over-point
COR	Correct or corrected or correction (used to indicate corrected meteorological message; message type designator)
COT	At the coast
COV	Cover or covered or covering
CPDLC	Controller-pilot data link communications
CPL	Current flight plan (message type designator)
CRC	Cyclic redundancy check
CRM	Collision risk model
CRZ	Cruise
CS	Cirrostratus
CS	Cirrostratus
CTA	Control area
CTAM	Climb to and maintain
CTC	Contact ...
CTL	Control
CTN	Caution
CTR	Control zone
CU	Cumulus
CUF	Cumuliform
CUST	Customs
CVR	Cockpit voice recorder

CW Continuous wave
CWY Clearway

D

D ...	Danger area (followed by identification)
D	Downward (tendency in RVR during previous 10 minutes)
DA	Decision altitude
D-ATIS	Data link automatic terminal information service (to be pronounced "DEE-ATIS")
DCD	Double channel duplex
DCKG	Docking
DCP	Datum crossing point
DCPC	Direct controller-pilot communications
DCS	Double channel simplex
DCT	Direct (in relation to flight plan clearances and type of approach)
DE	From (used to precede the call sign of the calling station) (to be used in AFS as a procedure signal)
DEC	December
DEG	Degrees
DENEB	Fog dispersal operations
DEP	Depart or departure
DEP	Departure (message type designator)
DER	Departure end of the runway
DES	Descend to or descending to
DEST	Destination
DETRESFA	Distress phase
DEV	Deviation or deviating
DF	Direction finding
DFDR	Digital flight data recorder
DFTI	Distance from touchdown indicator
DH	Decision height
DIF	Diffuse
DIST	Distance
DIV	Divert or diverting
DLA	Delay or delayed
DLA	Delay (message type designator)
DLIC	Data link initiation capability
DLY	Daily
DME	Distance measuring equipment
DNG	Danger or dangerous
DOC*	Document (s)
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	Dust storm
DSB	Double sideband
DTAM	Descend to and maintain
DTG	Date-time group
DTHR	Displaced runway threshold
DTRT	Deteriorate or deteriorating
DTW	Dual tandem wheels
DU	Dust
DUC	Dense upper cloud
DUPE	This is a duplicate message (to be used in AFS as a procedure signal)
DUR	Duration
D-VOLMET	Data link VOLMET
DVOR	Doppler VOR



DW Dual wheels
DZ Drizzle

E

E East or eastern longitude
EAT Expected approach time
EB Eastbound
EDA Elevation differential area
EEE Error (to be used in AFS as a procedure signal)
EET Estimated elapsed time
EFC Expect further clearance
EFIS Electronic flight instrument system (to be pronounced "EE-FIS")
EGNOS European geostationary navigation overlay service
(to be pronounced "EGG-NOS")
EHF Extremely high frequency (30 000 to 300 000 MHz)
ELBA Emergency location beacon - Aircraft
ELEV Elevation
ELR Extra-long range
ELT Emergency locator transmitter
EM Emission
EMBD Embedded in a layer
(to indicate cumulonimbus embedded in layer of other clouds)
EMERG Emergency
END Stop - end (related to RVR)
ENE East - North East
ENG Engine
ENR En route
ENRC Enroute chart (followed by name/title)
EOBT Estimated off- block time
EQPT Equipment
ER+ Here ... or herewith
ESE East south east
EST Estimate or estimated (as message type designator)
ETA+ Estimated time of arrival or estimating arrival
ETD Estimated time of departure or estimating departure
ETO Estimated time over significant point
EV Every
EXC Except
EXER Exercises or exercising or to exercise
EXP Expect or expected or expecting
EXTD Extend or extending

F

F Fixed
FA Course from a fix to an altitude
FAC Facilities
FAF Final approach fix
FAL Facilitation of international air transport
FAP Final approach point
FAS Final approach segment
FATO Final approach and take - off area
FAX Facsimile transmission
FBL Light (use to quality icing turbulence, interference or static report)
e.g. FBL RA = light rain
FC Funnel cloud
FCST Forecast
FCT Friction coefficient
FDPS Flight data processing system
FEB February

FEW	Few
FG	Fog
FIC	Flight information centre
FIR	Flight information region
FIS	Flight information service
FISA	Automated flight information service
FL	Flight level
FLD	Field
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight check
FLUC	Fluctuating, fluctuation or fluctuated
FLW	Follow (s) or following
FLY	Fly or flying
FM	Course from a fix to manual termination (used in navigation database coding)
FM	From
FM ...	From (Followed by time weather change is forecast to begin)
FMC	Flight management computer
FMS	Flight management system
FMU	Flow management unit
FNA	Final approach
FPAP	Flight path alignment point
FPL	Filed flight plan (message type designator)
FPM	Feet per minute
FPR	Flight plan route
FR	Fuel remaining
FREQ	Frequency
FRI	Friday
FRNG	Firing
FRONT	Front (relating to weather)
FROST	Frost (used in aerodrome warnings)
FRQ	Frequent
FSL	Full stop landing
FSS	Flight service station
FST	First
FT	Feet (dimensional unit)
FTE	Flight technical error
FTP	Fictitious threshold point
FTT	Flight technical tolerance
FU	Smoke
FZ	Freezing
FZDZ	Freezing drizzle
FZFG	Freezing fog
FZRA	Freezing rain

G

G	Green
G...	Variations from the mean wind speed (gusts) (followed by figures in METAR/SPECI and TAF)
GA	Go ahead, resume sending (to be used in AFS as a procedure signal)
G/A	Ground - to - air
G/A/G	Ground-to-air and air-to-ground
GAGAN	GPS and geostationary earth orbit augmented navigation
GAMET	Area forecast for low-level flights
GARP	GBAS azimuth reference point
GBAS	Ground-based augmentation system (to be pronounced "GEE-BAS")
GCA	Ground controlled approach system or ground controlled approach
GEN	General

GEO	Geographic or true
GES	Ground earth station
GLD	Glider
GLONASS	Global orbiting navigation satellite system (to be pronounced "GLO-NAS")
GLS	GBAS landing system
GMC	Ground movement chart (followed by name/title)
GND	Ground
GNDCK	Ground check
GNSS	Global navigation satellite system
GP	Glide path
GPA	Glide path angle
GPIP	Glide path intercept point
GPS	Global positioning system
GPWS	Ground proximity warning system
GR	Hail or soft hail
GRAS	Ground-based regional augmentation system (to be pronounced "GRASS")
GRASS	Grass landing area
GRIB	Processed meteorological data in the form of grid point values expressed in binary form (meteorological code)
GRVL	Gravel
GS	Ground speed
GS	Small hail and / or snow pellets
GUND	Geoid undulation

H

H	High pressure area or the centre of high pressure
H24	Continuous day and night service
HA	Holding/racetrack to an altitude
HAPI	Helicopter approach path indicator
HBN	Hazard beacon
HDF	High frequency direction finding station
HDG	Heading
HEL	Helicopter
HF	High frequency (3000 to 30000 KHz)
HGT	Height or height above
HJ	Sunrise to sunset
HLDG	Holding
HM	Holding/racetrack to a manual termination
HN	Sunset to sunrise
HO	Service available to meet operational requirements.
HOL	Holiday
HOSP	Hospital aircraft
HPA	Hectopascal (hPa)
HR	Hours
HS	Service available during hours of scheduled operations
HURCN	Hurricane
HVDF	High and very high frequency direction - finding stations (at the same location)
HVY	Heavy
HVY	Heavy (used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain)
HX	No specific working hours
HYR	Higher
→ HZ	Haze
HZ	Hertz (cycle per second)

I

IAC	Instrument approach chart
IAF	Initial approach fix
IAO	In and out of clouds
IAP	Instrument approach procedure
IAR	Intersection of air route
IAS	Indicated of air speed
IBN	Identification beacon
IC	Diamond dust (very small ice crystals in suspension)
ICE	Icing
ID	Identifier or identify
IDENT	Identification
IF	Intermediate approach fix
IFF	Identification friend / foe
IFR	Instrument flight rules
IGA	International general aviation
ILS	Instrument landing system
IM	Inner marker
IMC	Instrument meteorological conditions
IMG	Immigration
IMI	Interrogation sign (question mark) (to be used in AFS as a procedure signal)
IMPR	Improve or improving
IMT	Immediate or immediately
INA	Initial approach
INBD	Inbound
INC	In cloud
INCERFA	Uncertainty phase
INFO	Information
INOP	Inoperative
INP	If not possible
INPR	In progress
INS	Inches (dimensional unit)
INSTL	Install or installed or installation
INSTR	Instrument
INT	Intersection
INTL	International
INTRG	Interrogator
INTRP	Interrupt or interruption or interrupted
INTSF	Intensify or intensifying
INTST	Intensity
IR	Ice on runway
IRS	Inertial reference system
ISA	International standard atmosphere
ISB	Independent sideband
ISOL	Isolated

J

JAN	January
JTST	Jet stream
JUL	July
JUN	June

K

KG	Kilograms
KHZ	Kilohertz
KIAS	Knots indicated airspeed

KM	Kilometers
KMH	Kilometers per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts

L

L	Left (preceded by runway designation number to identify a parallel runway)
L	Locator (see LM, LO)
L	Low pressure area or the centre of low pressure
LAM	Logical acknowledgement (message type designator)
LAN	Inland
LAT	Latitude
LCA	Local or locally or location or located
LDA	Landing distance available
LDAH	Landing distance available helicopter
LDG	Landing
LDI	Landing direction indicator
LEN	Length
LF	Low frequency (30 to 300 KHz)
LGT	Light or lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LINE	Line (used in SIGMET)
LLZ	Localizer
LM	Locator middle
LMT	Local mean time
LNAV	Lateral navigation (to be pronounced "EL-NAV")
LNG	Long (used to indicate the type of approach desired or required)
LO	Locator, outer
LOC	Local or locally or location or located
LONG	Longitude
LORAN	Long range air navigation system
LPV	Localizer performance with vertical guidance
LR	The last message received by me was ... (to be used in AFS as a procedure signal)
LRG	Long range
LS	The last message sent by me was ... or Last message was ... (to be used in AFS as a procedure signal)
LSQ	Line squall
LTD	Limited
LTT	Landline teletypewriter
LV	Light and variable (relating to wind)
LVE	Leave or leaving
LVL	Level
LVP	Low visibility procedures
LYR	Layer or layered

M

M	Meters (precede by figures)
M	Mach number (follow by figures)
M	Minimum value of runway visual range (followed by figures in METAR/SPECI)
MAA	Maximum authorized altitude
MAG	Magnetic

MAHF	Missed approach holding fix
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPT	Missed approach point
MAR	At sea
MAR	March
MAS	Manual A1 simplex
MATF	Missed approach turning fix
MAX	Maximum
MAY	May
MBST	Microburst
MCA	Minimum crossing altitude
MCW	Modulated continuous wave
MDA	Minimum descent altitude
MDF	Medium frequency direction finding station
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height over threshold (for visual approach slope indicator system)
MET	Meteorological or Meteorology
METAR	Aviation routine weather report (in aeronautical meteorological code)
MET REPORT	Local routine meteorological report (in abbreviated plain language)
MF	Medium frequency (300 to 3000 KHz)
MHDF	Medium and high frequency direction finding stations (at the same location)
MHVDF	Medium, high and very high frequency direction finding stations (at the same location)
MHZ	Megahertz
MID	Mid point (related to RVR)
MIFG	Shallow fog
MIL	Military
MIN	Minutes
MIS	Missing ... (transmission identification) (to be used in AFS as a procedure signal)
MKR	Marker radio beacon
MLS	Microwave landing system
MM	Middle Marker
MNM	Minimum
MNPS	Minimum navigation performance specifications
MNT	Monitor or monitoring or monitored
MNTN	Maintain
MOA	Military operating area
MOC	Minimum obstacle clearance (required)
MOCA	Minimum obstacle clearance altitude
MOD	Moderate (used to quality icing, turbulence interference or static reports)
MON	Monday
MON	Above mountains
MOTNE	Meteorological operational Telecommunications Network Europe
MOV	Move or moving or movement
MPS	Meters per second
MRA	Minimum reception altitude
MRG	Medium range
MRP	ATS/MET reporting point
MS	Minus
MSA	Minimum sector altitude
MSAS	Multi-functional transport satellite (MTSAT) satellite-based augmentation system (to be pronounced "EM-SAS")
MSAW	Minimum safe altitude warning
MSG	Message
MSL	Mean sea level
MSR	Message... (transmission identification) has been misrouted (to be used in AFS as a pronounced signal)
MSSR	Monopulse secondary surveillance radar

MT	Mountain
MTU	Metric units
MTW	Mountain waves
MVDF	Medium and very high frequency direction - finding station (at the same locations)
MWO	Meteorological watch office
MX	Mixed type of ice formation (White and clear)

N

N	North or northern latitude
N	No distinct tendency (in RVR during previous 10 minutes)
NADP	Noise abatement departure procedure
NASC	National AIS system centre
NAT	North Atlantic
NAV	Navigation
NB	North bound
NBFR	Not before
NC	No change
NCD	No cloud detected (used in automated METAR/SPECI)
NDB	Non-directional radio beacon
NDV	No directional variations available (used in automated METAR/SPECI)
NE	North-East
NEB	North-East bound
NEG	No or negative or permission not granted or that is not correct
NGT	Night
NIL	Non or I have nothing to send to you
NM	Nautical miles
NML	Normal
NNE	North North-East
NNW	North North-West
NO	No (negative) (to be used in AFS as a procedure signal)
NOF	International NOTAM office
NOSIG	No significant change (used trend-type landing forecasts)
NOTAM	A notice distributed by means of telecommuni-cation 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
NOV	November
NOZ	Normal operating zone
NPA	Non-precision approach
NR	Number
NRH	No reply heard
NS	Nimbostratus
NSC	Nil significant cloud
NSE	Navigation system error
NSW	Nil significant weather
NTL	National
NTZ	No transgression zone
NW	North-West
NWB	North-West bound
NXT	Next

O

OAC	Oceanic area control centre
OAS	Obstacle assessment surface
OBS	Observe or observed
OBSC	Obscure or obscured or obscuring

OBST	Obstacle
OCA	Obstacle clearance altitude
OCA	Oceanic control area
OCC	Occulting (light)
OCH	Obstacle clearance height
OCNL	Occasional or occasionally
OCS	Obstacle clearance surface
OCT	October
OFZ	Obstacle free zone
OGN	Originate (to be used in AFS as a procedure signal)
OHD	Overhead
OIS	Obstacle identification surface
OK	We agree or It is correct (to be used in AFS as a procedure signal)
OLDI	On-line data interchange
OM	Outer marker
OPA	Opaque, white type of ice formation
OPC	The control indicated is operational control
OPMET	Operational meteorological (information)
OPN	Open or opening or opened
OPR	Operator or operate or operative or operating or operational
OPS	Operations
O/R	On request
ORD	Indication of an order
OSV	Ocean station vessel
OTLK	Outlook (used in SIGMET messages for tropical cyclones)
OTS	Organized track system
OTP	On top
OUBD	Outbound
OVC	Overcast

P

P	Maximum value of wind speed or runway visual range (followed by figures in METAR/SPECI and TAF)
P...	Prohibited area (followed by identification)
PA	Precision approach
PALS	Precision approach lighting system
PANS	Procedures for air navigation service
PAPI	Precision approach path indicator
PAR	Precision approach radar
PARL	Parallel
PATC	Precision approach terrain chart (followed by name/title)
PAX	Passenger (s)
PBN	Performance-based navigation
PCD	Proceed or proceeding
PCL	Pilot-controlled lighting
PCN	Pavement classification number
PDC	Pre-departure clearance
PDG	Procedure design gradient
PE	Ice pellets
PER	Performance
PERM	Permanent
PIB	Pre-flight information bulletin
PJE	Parachute jumping exercise
PL	Ice pellets
PLA	Practice low approach
PLN	Flight plan
PLVL	Present level
PN	Prior notice required
PNR	Point of no return

PO	Dust devils
POB	Persons on board
POSS	Possible
PPI	Plan position indicator
PPR	Prior permission required
PPSN	Present position
PRFG	Aerodrome partially covered by fog
PRI	Primary
PRKG	Parking
PROB	Probability
PROC	Procedure
PROV	Provisional
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced steel plank
PSR	Primary surveillance radar
PSYS	Pressure system(s)
PTN	Procedure turn
PTS	Polar track structure
PWR	Power

Q

QBI	Compulsory IFR flight
QD	Do you intend to ask me for a series of bearing? Or I intend to ask you for a series of bearings (to be used in radiotelegraphy as a Q Code)
QDM	Magnetic heading (<i>Zero wind</i>)
QDR	Magnetic bearing
QFE	Atmospheric pressure at Aerodrome elevation (<i>or at runway threshold</i>)
QFU	Magnetic orientation of runway
QGE	What is my distance to your station? or Your distance to my station is (distance figures and units) (to be used in radiotelegraphy as a Q Code)
QJH	Shall I run my test tape/a test sentence? Or Run your test tape/a test sentence (to be used in AFS as a Q Code)
QNH	Altimeter sub-scale setting to obtain elevation when on the ground
QSP	Will you relay to ... free of charge? or I will relay to ... free of change (to be used in AFS as a Q Code)
QTA	Shall I cancel telegram number ... ? or Cancel telegram number ... (to be used in AFS as a Q Code)
QTE	True bearing
QTF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D//F stations that I control was ... latitude ... longitude (or other indication of position), class ... at ... hours (to be used in radiotelegraphy as a Q Code)
QUAD	Quadrant
QUJ	Will you indicate the TRUE track to reach you? or The TRUE track to reach me is ... degrees at ... hours (to be used in radiotelegraphy as a Q Code)

R

R	Right (preceded by runway designation number to identify a parallel runway)
R	Rate of turn
R...	Red
R	Restricted area (<i>followed by identification</i>)
R...	Runway (followed by figures in METAR/SPECI)
R	Received (acknowledgement of receipt) (to be used in AFS as a procedure signal)
RA	Rain

RA	Resolution advisory
RAC	Rules of the air and air traffic services
RAFC	Regional area forecast centre
RAG	Ragged
RAG	Runway arresting gear
RAI	Runway alignment indicator
RAIM	Receiver autonomous integrity monitoring
RASC	Regional AIS system centre
RASS	Remote altimeter setting source
RAL	Runway alignment indicator
RB	Rescue board
RCA	Reach cruising altitude
RCC	Rescue co-ordination centre
RCF	Radio communication failure (<i>message type designator</i>)
RCH	Reach or reaching
RCL	Runway centre line
RCLL	Runway centre line lights
RCLR	Recleared
RCP	Required communication performance
RDH	Reference datum height (<i>for ILS</i>)
RDL	Radial
RDO	Radio
RE	Recent (<i>used to qualify weather phenomena such as rain e.g. recent rain: RERA</i>)
REC	Receive or receiver
REDL	Runway edge light (s)
REF	Reference to ... refer to
REG	Registration
RENL	Runway end light (s)
REP	Report or reporting or reporting point
REQ	Request or requested
ERTE	Reroute
RESA	Runway end safety area
RF	Constant radius arc to a fix
RG	Range (<i>lights</i>)
RHC	Right-hand circuit
RIF	Reclearance in flight
RITE	Right (<i>direction of turn</i>)
RIV*	Rapid intervention vehicle
RL	Report leaving
RLA	Relay to
RLCE	Request level change en-route
RLLS	Runway lead-in lighting system
RLNA	Request level not available
RMK	Remark
RNAV	Area navigation (<i>to be pronounced "AR - NAV"</i>)
RNG	Radio range
RNP	Required navigation performance
ROBEX	Regional OPMET bulletin exchange (<i>scheme</i>)
ROC	Rate of climb
ROD	Rate of descent
ROFOR	Route forecast (<i>in aeronautical meteorological code</i>)
ROC	Rate of climb
ROD	Rate of descent
RON	Receiving only
RPDS	Reference path data selector
RPI	Radar position indicator
RPL	Repetitive flight plan
RPLC	Replace or replaced
RPS	Radar position symbol

RPT	Repeat or I repeat (to be used in AFS as a procedure signal)
RQ	Request (to be used in AFS as a procedure signal)
RQMNTS	Requirements
RQP	Request flight plan (<i>message type designator</i>)
RQS	Request supplementary flight plan (message type designator)
RR	Report reaching
RRA	(<i>or RRB, RRC ... etc, in sequence</i>) Delayed meteorological message (<i>message type designator</i>)
RSC	Rescue Sub-centre
RSCD	Runway surface condition
RSP	Responder beacon
RSR	En-route surveillance radar
RSS	Root sum square
RTD	Delayed (<i>used to indicate delayed meteorological message, message type designator</i>)
RTE	Route
RTF	Radio telephone
RTG	Radio telegraph
	Note: (*) Abbreviation is also available for use
RTHL	Runway threshold light (s)
RTN	Return or returned or returning
RTODH	Rejected take - off distance available, helicopter
RTS	Return to service
RTT	Radioteletypewriter
RTZL	Runway touchdown zone light (s)
RUT	Standard regional route transmitting frequencies
RV	Rescue vessel
RVR	Runway visual range
RVSM	Reduced vertical separation minimum
RWY	Runway

S

S	South or southern latitude
S...	State of the sea (followed by figures in METAR/SPECI)
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary
SAP	As soon as possible
SAR	Search and rescue
SARPS	Standards and recommended practices (ICAO)
SAT	Saturday
SATCOM	Satellite communication
SB	Southbound
SBAS	Satellite-based augmentation system (to be pronounced "ESS-BAS")
SC	Stratocumulus
SCT	Scattered
SD	Standard deviation
SDBY	Stand by
SDF	Step down fix
SE	South-East
SEA	Sea (used in connection with sea-surface temperature and state of the sea)
SEB	South-East bound
SEC	Seconds
SECN	Section
SECT	Sector
SELCAL	Selective calling system
SEP	September
SER	Service or servicing or served
SEV	Severe (<i>used e.g. to qualify icing and turbulence reports</i>)

SFC	Surface
SG	Snow grain
SGL	Signal
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
SIF	Selective identification feature
SIG	Significant
SIGMET	Information concerning en-route weather phenomena which may affect the safety of aircraft operations
SIGWX	Significant weather
SIMUL	Simultaneous or simultaneously
SIWL	Single isolated wheel load
SKC	Sky clear
SKED	Schedule or scheduled
SLP	Speed limiting point
SLW	Slow
SMC	Surface movement control
SN	Snow
SNOCLO	Aerodrome closed due to snow (used in METAR/SPECI)
SNOWTAM	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by mean of a specific format
SOC	Start of climb
SPECI	Aviation selected special weather report (<i>in aeronautical meteorological code</i>)
SPECIAL	Special meteorological weather report (<i>in abbreviated plain language</i>)
SPI	Special position indicator
SPL	Supplementary flight plan (<i>message type designator</i>)
SPOC	SAR point of contact
SPOT	Spot wind
SQ	Squall
SQL	Squall line
SR	Sunrise
SRA	Surveillance radar approach
SRE	Surveillance radar element of precision approach radar system
SRG	Short range
SRR	Search and rescue region
SRY	Secondary
SS	Sunset
SS	Sandstorm
SSB	Single sideband
SSE	South - South – East
SSR	Secondary surveillance radar
SST	Supersonic transport
SSW	South - South – West
ST	Status
STA	Straight in approach
STAR	Standard instrument arrival
STD	Standard
STF	Stratiform
STN	Station
STNR	Stationary
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

SVC	Service message
SVCBL	Serviceable
SW	South-West
SWB	South-Westbound
SWY	Stopway

T

T	Temperature
T	True (preceded by a bearing to indicate reference to True North)
TA	Traffic advisory
TA	Transition altitude
TACAN	UHF tactical air navigation aid
TAF	Aerodrome forecast
TA/H	Turn at an altitude/height
TAIL	Tail wind
TAR	Terminal area surveillance radar
TAS	True airspeed
TAX	Taxiing or taxi
TC	Tropical cyclone
TCAC	Tropical cyclone advisory centre
TCASRA	Traffic alert and collision avoidance system resolution advisory (to be pronounced "TEE-CAS-AR-AY")
TCH	Threshold crossing height
TCU	Towering cumulus
TDO	Tornado
TDZ	Touchdown zone
TECR	Technical reason
TEL	Telephone
TEMPO	Temporary or temporarily
TEND	Trend or trending to
TFC	Traffic
TGL	Touch-and-go landing
TGS	Taxiing guidance system
THR	Threshold
THRU	Through
THU	Thursday
TIBA	Traffic information broadcast by aircraft
TIL	Until
TIP	Until past ... (<i>place</i>)
TKOF	Take – off
TL...	Till (followed by time by which weather change is forecast to end)
TLOF	Touchdown and lift-off area
TMA	Terminal control area
TN	Minimum temperature (followed by figures in TAF)
TNA	Turn altitude
TNH	Turn height
TO	To ... (<i>place</i>)
TOC	Top of climb
TODA	Take - off distance available
TODAH	Take-off distance available, helicopter
TOP	Cloud top
TORA	Take - off run available
TP	Turning point
TR	Track
TRA	Temporary reserved airspace
TRANS	Transmits or transmitter
TREND	Trend forecast
TRL	Transition

TROP	Tropopause
TS	Thunderstorm (in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)
TS...	Thunderstorm (followed by RA=rain, SN=snow, PL=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. TSRASN=thunderstorm with rain and snow)
TT	Teletypewriter
TUE	Tuesday
TURB	Turbulence
T-VASIS	T visual approach slope indicator system (to be pronounced "TEE-VASIS")
TVOR	Terminal VOR
TWR	Aerodrome control tower or aerodrome control
TWY	Taxiway
TWYL	Taxiway-link
TX...	Maximum temperature (followed by figures in TAF)
TXT	Text (when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT) (to be used in AFS as a procedure signal)
TYP	Type of aircraft
TYPH	Typhoon

U

U	Upward (<i>10 tendency in RVR during previous minutes</i>)
UAB	Until advised by ...
UAC	Upper area control centre
UAR	Upper air route
UDF	Ultra high frequency direction-finding station
UFN	Until further notice
UHDT	Unable higher due traffic
UHF	Ultra high frequency (300 to 3000 MHz)
UIC	Upper information centre
UIR	Upper flight information region
ULR	Ultra long range
UNA	Unable
UNAP	Unable to approve
UNL	Unlimited
UNREL	Unreliable
UP	Unidentified precipitation (used in automated METAR/SPECI)
U/S	Unserviceable
UTA	Upper control area
UTC	Coordinated universal time

V

V	Variations from the mean wind direction (preceded and followed by figures in METAR/SPECI, e.g. 350V070)
VA	Heading to an altitude
VAAC	Volcanic ash advisory centre
VAC...	Visual approach chart (followed by name/title)
VAL	In valleys
VAN	Runway control area
VAR	Magnetic variation
VAR	Visual-aural radio range
VASIS	Visual approach slope indicator system
VC	Vicinity of the aerodrome (<i>followed by FG = fog, FC = funnel cloud, SH = showers, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand or BLSN = blowing snow, eg VCFG = vicinity fog</i>)
VCY	Vicinity

VDF	Very high frequency direction finding station
VER	Vertical
VFR	Visual flight rules
VHF	Very high frequency (30 to 300 MHz)
VIP	Very important person
VIS	Visibility
VLF	Very low frequency (3 to 30 KHz)
VLR	Very long range
VMC	Visual meteorological conditions
VOLMET	Meteorological information for aircraft in flight
VOR	VHF omnidirectional radio range
VORTAC	VOR and TACAN combination
VOT	VOR airborne equipment test facility
VPA	Vertical path angle
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
VTOL	Vertical take-off and landing
VV...	Vertical visibility (followed by figures in METAR/SPECI and TAF)

W

W	West or western longitude
W	White
W...	Sea-surface temperature (followed by figures in METAR/SPECI)
WAAS	Wide area augmentation system
WAC	World aeronautical chart-ICAO 1:1 000 000 (followed by name/title)
WAFC	World area forecast centre
WB	Westbound
WBAR	Wing bar lights
WDI	Wind direction indicator
WDSRP	Widespread
WED	Wednesday
WEF	With effect from or effective
WGS-84	World Geodetic System – 1984
WI	Within
WID	Width or Wide
WIE	With immediate effect or effective immediately
WILCO	Will comply
WIND	Wind
WITEM	Forecast upper wind and temperature for aviation
WIP	Work in progress
WKN	Weaken or weakening
WNW	West North-West
WO	Without
WPT	Way – point
WRNG	Warning
WS	Wind shear
WSPD	Wind speed
WSW	West-South-West
WT	Weight
WTSPT	Waterspout
WWW	Worldwide web
WX	Weather

X

X	Cross
XBAR	Crossbar (<i>of approach lighting system</i>)

XNG	Crossing
XS	Atmospherics

Y

Y	Yellow
YCZ	Yellow caution zone (runway lighting)
YES	Yes (affirmative) (to be used in AFS as a procedure signal)
YR	Your

Z

Z	Coordinated Universal Time (<i>in meteorological messages</i>)
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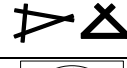
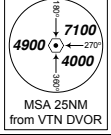
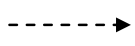
GEN 2.3 - CHART SYMBOLS

The aeronautical symbols used on charts contained in the AIP and other aeronautical charts series listed in GEN 3.2 are shown as follow. They correspond in every respect to the internationally agreed symbols contained in ICAO Annex 4. Aeronautical Charts (Eleventh Edition) and the Aeronautical Chart Manual Doc 8697 - AN/889. A number of symbols, not yet internationally recognized, are also included.

1 Aerodromes**1.1 Charts other than approach charts**

Civil (land)	
Joint civil and military (land)	
Military (land)	
Heliport	

1.2 Approach charts

The aerodrome on which the procedure is based	
Aerodromes affecting the traffic pattern on the aerodrome on which the procedure is based	
Minimum sector altitude (MSA) MSA provides 300m (984ft) obstacle clearance and rounding the resulting value up to next higher 30m (100ft) increment, within a radius of 46km (25NM) of the homing facility on which the instrument Approach is based.	
Holding pattern	
Missed Approach Track	
Final Approach Fix FAF	
Basic radio navigation aid symbol	
Non-directional radio beacon NDB	
VHF omnidirectional radio range VOR	
Distance measuring equipment DME	
Collocated VOR and DME radio navigation aids VOR/DME	
Instrument Landing system ILS	

DME distance Distance in nautical miles to DME identification of radio navigation aid	
VOR radial Magnetic bearing from VOR	R-350VTN
Radio Marker Beacon Elliptical	

1.3 **Air traffic services and obstacles**

Flight Information Region					
Control Area					
Control Zone					
Restricted airspace (Prohibited, restricted or danger areas)					
ATS route	ATS route designator				
	Two ways airway				
	One way airway				
Scale-break (on ATS route)					
A by-pass where an ATS route crosses the reporting point of another ATS route (not required to report)					
Reporting and fly-by/flyover		On request fly-by	Compulsory fly-by	On request Flyover	Compulsory flyover
	VFR reporting point				
	VOR/DME				
	Waypoint				
Altitudes/Flight level		Altitude/flight level "window"		17 000 10 000	FL220 10 000
		"At or above" altitude/flight level		7000	FL70
		"At or below" altitude/flight level		5000	FL50
		"Mandatory" altitude/flight level		3000	FL30
		"Recommended" procedure altitude/flight level		5000	FL50
		"Expected" altitude/flight level		Expect 5000 Expect FL50	

Obstacle	
Lighted obstacle	
Group obstacles	
Lighted group obstacles	
Elevation of top	

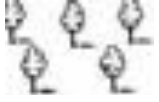
1.4 **Aerodrome charts**

Hard surface runway	
Stopway	
Clearway	

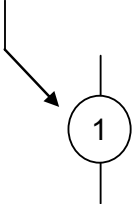
2. **Aerodrome installations and lights**

Aerodrome reference point (ARO)	
Taxiway and parking area	
Control Tower	
Barrette	
Runway visual range (RVR) observation site	
Obstacle light	
Aeronautical ground light	
Wind direction indicator (lighted)	
Landing direction indicator (lighted)	

3. Topography and Hydrography

Contours	
Spot elevation	•1712
Rice field	
Other trees	
Large river (perennial)	
Small river (perennial)	

4. Symbols for aerodrome obstacle charts- Type A, B and C

	Plan	Profile
Tree or shrub		Identification number 
Pole, Tower, spire, antenna, etc		
Building and large structure		
Transmission line or overhead cable		

5. Miscellaneous

Dam	
Fence	

2.4 - LOCATION INDICATORS

1 - ENCODE		2 - DECODE	
Location	Indicator	Indicator	Location
Attapeu	VLAP	VLAO *	Vientiane (AVA)
Houeisay	VLHS	VLAP	Attapeu
Khong	VLKG	VLFL	Phongsaly (Boun Neua)
Luang Namtha	VLLN	VLHS	Houeisay
Luang Phabang	VLLB *	VLKG	Khong
Oudomsay	VLOS	VLLB *	Luang Phabang
Pakse	VLPS *	VLLN	Luang Namtha
Phonesavanh	VLPV	VLOS	Oudomsay
Phongsaly (Boun Neua)	VLFL	VLPS *	Pakse
Samneua	VLSN	VLPV	Phonesavanh
Saravane	VLSV	VLSB	Sayaboury
Savannakhet	VLSK *	VLSK *	Savannakhet
Sayaboury	VLSB	VLSN	Samneua
Vientiane (AVA)	VLAO *	VLSV	Saravane
Vientiane (Wattay)	VLVT *	VLVT *	Vientiane (Wattay)
Xaisomboun	VLXB	VLXB	Xaisomboun
Xiengkhuang (Thong Haihinh)	VLXK	VLXK	Xiengkhuang (Thong Haihinh)

Note: The location indicators marked with an asterisk (*) can be used in the address component AFTN messages.

GEN 2.5 - LIST OF RADIO NAVIGATION AIDS

[illegible]

GEN 2.6 - CONVERSION TABLES

NM to KM 1 NM = 1.852 KM		KM to NM 1 KM = 1/1.852 NM		FT to M 1 FT = 0.3048 M		M to FT 1 M = 1/0.3048 FT	
NM 	KM	KM	NM	FT	M	M	FT
0.1	0.185	0.1	0.05	1	0.305	1	3.28
0.2	0.370	0.2	0.11	2	0.610	2	6.56
0.3	0.556	0.3	0.16	3	0.914	3	9.84
0.4	0.741	0.4	0.22	4	1.219	4	13.12
0.5	0.926	0.5	0.27	5	1.524	5	16.40
0.6	1.111	0.6	0.32	6	1.829	6	19.69
0.7	1.296	0.7	0.38	7	2.134	7	22.97
0.8	1.482	0.8	0.43	8	2.438	8	26.25
0.9	1.667	0.9	0.49	9	2.743	9	29.53
1	1.852	1	0.54	10	3.048	10	32.81
2	3.704	2	1.08	20	6.096	20	65.62
3	5.556	3	1.62	30	9.144	30	98.43
4	7.408	4	2.16	40	12.192	40	131.23
5	9.260	5	2.70	50	15.240	50	164.04
6	11.112	6	3.24	60	18.288	60	196.85
7	12.964	7	3.78	70	21.336	70	229.66
8	14.816	8	4.32	80	24.384	80	262.47
9	16.668	9	4.86	90	27.432	90	295.28
10	18.520	10	5.40	100	30.480	100	328.08
20	37.040	20	10.80	200	60.960	200	656.17
30	55.560	30	16.20	300	91.440	300	984.25
40	74.080	40	21.60	400	121.920	400	1312.34
50	92.600	50	27.00	500	152.400	500	1640.42
60	111.120	60	32.40	600	182.880	600	1968.50
70	129.640	70	37.80	700	213.360	700	2 296.59
80	148.160	80	43.20	800	243.840	800	2 624.67
90	166.680	90	48.60	900	274.320	900	2 952.76
100	185.200	100	54.00	1 000	304.800	1000	3 280.84
200	370.400	200	107.99	2 000	609.600	2000	6 561.68
300	555.600	300	161.99	3 000	914.400	3000	9 842.52
400	740.800	400	215.98	4 000	1 219.200	4000	13 123.36
500	926.000	500	269.98	5 000	1 524.000	5000	16 404.20
				6 000	1 828.800		
				7 000	2 133.600		
				8 000	2 438.400		
				9 000	2 743.200		
				10 000	3 048.000		

FROM DICIMAL MINUTES OF AN ARC TO SECONDS OF AN ARC

MIN	SEC	MIN	SEC	MIN	SEC	MIN	SEC
0.01	0.6	0.26	15.6	0.51	30.6	0.76	45.6
0.02	1.2	0.27	16.2	0.52	31.2	0.77	46.2
0.03	1.8	0.28	16.8	0.53	31.8	0.78	46.8
0.04	2.4	0.29	17.4	0.54	32.4	0.79	47.4
0.05	3.0	0.30	18.0	0.55	33.0	0.80	48.0
0.06	3.6	0.31	18.6	0.56	33.6	0.81	48.6
0.07	4.2	0.32	19.2	0.57	34.2	0.82	49.2
0.08	4.8	0.33	19.8	0.58	34.8	0.83	49.8
0.09	5.4	0.34	20.4	0.59	35.4	0.84	50.4
0.10	6.0	0.35	21.0	0.60	36.0	0.85	51.0
0.11	6.6	0.36	21.6	0.61	36.6	0.86	51.6
0.12	7.2	0.37	22.2	0.62	37.2	0.87	52.2
0.13	7.8	0.38	22.8	0.63	37.8	0.88	52.8
0.14	8.4	0.39	23.4	0.64	38.4	0.89	53.4
0.15	9.0	0.40	24.0	0.65	39.0	0.90	54.0
0.16	9.6	0.41	24.6	0.66	39.6	0.91	54.6
0.17	10.2	0.42	25.2	0.67	40.2	0.92	55.2
0.18	10.8	0.43	25.8	0.68	40.8	0.93	55.8
0.19	11.4	0.44	26.4	0.69	41.4	0.94	56.4
0.20	12.0	0.45	27.0	0.70	42.0	0.95	57.0
0.21	12.6	0.46	27.6	0.71	42.6	0.96	57.6
0.22	13.2	0.47	28.2	0.72	43.2	0.97	58.2
0.23	13.8	0.48	28.8	0.73	43.8	0.98	58.8
0.24	14.4	0.49	29.4	0.74	44.4	0.99	59.4
0.25	15.0	0.50	30.0	0.75	45.0		

FROM SECONDS OF AN ARC TO DECIMAL MINUTE OF AN ARC

SEC	MIN	SEC	MIN	SEC	MIN	SEC	MIN
1	0.02	16	0.27	31	0.52	46	0.77
2	0.03	17	0.28	32	0.53	47	0.78
3	0.05	18	0.30	33	0.55	48	0.80
4	0.07	19	0.32	34	0.57	49	0.82
5	0.08	20	0.33	35	0.58	50	0.83
6	0.10	21	0.35	36	0.60	51	0.85
7	0.12	22	0.37	37	0.62	52	0.87
8	0.13	23	0.38	38	0.63	53	0.88
9	0.15	24	0.40	39	0.65	54	0.90
10	0.17	25	0.42	40	0.67	55	0.92
11	0.18	26	0.43	41	0.68	56	0.93
12	0.20	27	0.45	42	0.70	57	0.95
13	0.22	28	0.47	43	0.72	58	0.97
14	0.23	29	0.48	44	0.73	59	0.98
15	0.25	30	0.50	45	0.75		

GEN 2.7 - SUNRISE / SUNSET TABLES

1 The sunrise / sunset tables have been prepared by the Meteorological and Hydrography Department of Lao PDR and are reproduced here with their permission

1.1 The times in the table are given in UTC for sunrise (SR) and sunset (SS) , which is used as an "average year"

2 - SUNRISE / SUNSET TABLES

Vientiane/Wattay International Airport

Coordinates 17 59 00N 102 34 00E								
Month day	SR	SS	Month day	SR	SS	Month day	SR	SS
JAN 1-2	2341	1045	MAR 1-2	2330	1116	MAY 1-2	2244	1130
3-9	2342	1048	3-9	2326	1117	3-9	2241	1132
10-14	2343	1051	10-14	2322	1118	10-14	2239	1133
15-19	2344	1054	15-19	2319	1119	15-19	2237	1135
20-24	2344	1057	20-24	2315	1121	20-24	2235	1137
25-29	2344	1059	25-29	2311	1122	25-29	2234	1137
30-31	2343	1103	30-31	2306	1123	30-31	2233	1141
FEB 1-2	2343	1104	APR 1-2	2306	1123	JUN 1-2	2233	1141
3-9	2342	1106	3-9	2302	1124	3-9	2233	1143
10-14	2340	1109	10-14	2258	1125	10-14	2233	1145
15-19	2337	1111	15-19	2254	1126	15-19	2234	1147
20-24	2335	1113	20-24	2250	1127	20-24	2235	1148
25-29	2332	1114	25-29	2247	1129	25-29	2236	1149
30-31	2330	1116	30-31	2244	1130	30-31	2237	1149
JUL 1-2	2237	1149	AUG 1-2	2248	1145	SEP 1-2	2255	1126
3-9	2239	1149	3-9	2249	1142	3-9	2256	1121
10-14	2240	1149	10-14	2250	1140	10-14	2257	1117
15-19	2242	1149	15-19	2252	1137	15-19	2257	1113
20-24	2244	1148	20-24	2253	1133	20-24	2258	1108
25-29	2246	1147	25-29	2254	1130	25-29	2258	1104
30-31	2248	1145	30-31	2255	1126	30-31	2300	1100
OCT 1-2	2300	1100	NOV 1-2	2308	1039	DEC 1-2	2324	1033
3-9	2301	1056	3-9	2310	1036	3-9	2327	1033
10-14	2302	1052	10-14	2313	1034	10-14	2330	1035
15-19	2303	1048	15-19	2315	1033	15-19	2333	1036
20-24	2304	1045	20-24	2318	1032	20-24	2336	1039
25-29	2306	1042	25-29	2321	1032	25-29	2338	1035
30-31	2308	1039	30-31	2324	1033	30-31	2340	1041

GEN 3 - SERVICES

GEN 3.1 - AERONAUTICAL INFORMATION SERVICES (AIS)

1 Responsible service

- 1.1 The Aeronautical Information Services headquarter of Lao PDR, which forms part of the Air Navigation Division of the Department of Civil Aviation, ensures the flow of information necessary for the safety, regularity and efficiency of international and national air navigation within the area of its responsibility as indicated under item 1.2 below. It consists of AIS Headquarter, International NOTAM Office (NOF) and AIS units established at certain aerodromes listed below.

1.2 AIS Headquarter

Air Navigation Division
Department of Civil Aviation
Wattay Int'l Airport, Vientiane, Lao PDR.
AFS: VLAOYAYX
Fax: (856 -21) 520 237
Tel: (856 -21) 512 164, 513 163
E-mail: laodca@laotel.com.

1.3 International NOTAM office (NOF)

Aeronautical Information Services Office
Lao Air Traffic Management
Wattay Int'l Airport, Vientiane, Lao PDR.
AFS: VLVTYNYX
Tel: (856-21) 512 006 or 512 006 ext 216, 217
Fax: (856-21) 512 216
E-mail: latm_aislao@etlao.com

1.4 AIS briefing unit at Luang Phabang airport

Air Traffic Service Unit
AIS Unit Luang Phabang Airport
AFS: VLLBYOYX
Tel: (856-71) 212 208
E-mail: vllbais@yahoo.com

1.5 AIS briefing unit at Pakse airport

Air Traffic Service Unit
AIS Unit Pakse Airport
AFTN: VLPSYOYX
Tel: (856-31) 212 843

The service is provided in accordance with the provisions contained in ICAO Annex 15 - Aeronautical Information Services.

Note: The international NOTAM office (NOF) and AIS units at the International airports

3.1.2 **Area of Responsibility**

The Aeronautical Information Service is responsible for the collection and dissemination of information for the airspace over the entire territory of Lao PDR.

3.1.3 **Aeronautical Publications**

3.1.3.1 The aeronautical publication is provided in the form of the Integrated Aeronautical Information Package consisting of the following elements:

- Aeronautical Information Publication (AIP);
- Amendment service to the AIP (AIP AMDT);
- Supplement to the AIP (AIP SUP);
- NOTAM and Pre - flight Information Bulletins (PIB);
- Aeronautical Information Circulars (AIC); and
- Checklists and Summaries.

NOTAM and the related monthly checklists are issued via the Aeronautical fixed service (AFS); while PIB are made available at the International NOTAM Office (NOF). All other elements of the package are distributed by airmail.

3.1.3.2 **Aeronautical Information Publication (AIP)**

The AIP, issued in one volume, is the basic aeronautical information document published for Lao PDR and contains information of a lasting character essential to air navigation. It is available in English only and is maintained up-to-date by an amendment service consisting of reprinted pages and in case of minor amendments, manuscript corrections.

3.1.3.3 **Amendment service to the AIP (AIP AMDT)**

Amendment to the AIP are made by means of replacement sheets. Two types of AIP AMDT are produced:

- Regular AIP AMDT, issued in accordance with the established regular interval (see GEN 0.1-3 item 3.2), incorporates permanent changes into the AIP on the indicated publication date; and
- AIRAC AIP amendment (AIRAC AIP AMDT), issued in accordance with the AIRAC system and clearly identified by the acronym AIRAC on the cover sheet, incorporates operationally significant permanent changes into the AIP on the indicated AIRAC effective date.

A brief description of the subjects affected by the amendment is given on the AIP amendment cover sheet. New information included on the reprinted AIP pages is annotated or identified by a vertical line in the left margin (or immediately to the left) of the change/addition. A check list of AIP containing page number/chart title and the publication or the effective date (*day, month by name and year*) of the information is reissued with each amendment and is an integral part of the AIP.

Each AIP AMDT and each AIRAC AIP AMDT are allocated separate serial numbers which are consecutive and based on the calendar year. The year, indicated by two digits, is a part of the serial number of the amendment, e.g. AIP AMDT 1/05; AIRAC AIP AMDT 1/05.

A checklist of AIP pages containing page number/chart title and the Publication or effective date (*day, month by name and year*) of the information is reissued with each amendment and is an integral part of the AIP.

3.1.3.4 Supplement to the AIP (AIP SUP)

Temporary changes of long duration (three months and longer) and information of short duration which consists of extensive text and/or graphics, supplementing the permanent information contained in the AIP, are published as AIP Supplement. Operationally significant temporary changes to the AIP, are published in accordance with the AIRAC system and its established effective dates and are identified clearly by the acronym AIRAC AIP SUP.

AIP Supplements are separated by information subject (General - GEN, En-route - ENR and Aerodromes - AD) and are placed accordingly at the beginning of each AIP Part. Supplements are published on yellow paper to be conspicuous and to stand out from the rest of the AIP. Each AIP Supplement (regular or AIRAC) is allocated a serial number which is consecutive and based on the calendar year; AIP SUP 01/05; AIRAC AIP SUP A01/05.

An AIP Supplement is kept in the AIP as long as all or some of its contents remain valid. The period of validity of the information contained in the AIP Supplement will normally be given in the supplement itself. Alternatively, NOTAM may be used to indicate changes to period of validity or cancellation of the supplement.

The checklist of AIP Supplements currently in force is issued in the monthly printed plain-language summary of NOTAM in force.

3.1.3.5 NOTAM and Pre - flight Information Bulletin (PIB)

NOTAM contain information concerning the establishment, condition, or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with the flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM format and is composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language. NOTAM are originated and issued for Vientiane FIR and are distributed in two series identified by the letters A and C.

- Series A NOTAM containing information of concern to long or medium range international flights, and given international distribution.
- Series C NOTAM containing information of concern to aircraft other than those engaged international flights, and given national distribution only.

Each NOTAM is assigned a four digits serial number preceded by an appropriate letter indicating series and followed by a stroke and two digits indicating the year of issuance. The serial numbers start with 0001 at 0001 UTC on 1st January every year. A checklist of NOTAM currently in force is issued every month over the AFS, and in addition, a printed plain language summary of their substance is sent by air-mail to those who had originally received the NOTAM over the AFS, as well as to others on request.

NOTAM are exchange between Vientiane International NOTAM Office and other international NOTAM offices as follows:

- a. Integrated Aeronautical Information Package / NOTAM are sent to NOF:

1	Abu Dhabi	12	London
2	Amsterdam	13	Manila
3	Bahrain	14	Moscow
4	Bangkok	15	Phnom Penh
5	Beijing	16	Rome
6	Brisbane	17	Singapore
7	Kolkata (Calcutta)	18	Tokyo
8	Dhaka	19	Wien
9	Frankfurt	20	Yangon
10	Hanoi	21	Zurich
11	Hong Kong		

- b. Integrated Aeronautical Information Package / NOTAM are received from NOF:

1	Abu Dhabi	16	London
2	Amsterdam	17	Macau
3	Bahrain	18	Madrid
4	Bangkok	19	Manila
5	Beijing	20	Moscow
6	Brisbane	21	Mumbai
7	Kolkata (Calcutta)	22	Phnom Penh
8	Colombo	23	Singapore
9	Dhaka	24	Sofia
10	Frankfurt	25	Tokyo
11	Hanoi	26	Wien
12	Hong Kong	27	Yangon
13	Jakarta	28	Zurich
14	Karachi		
15	Kuala Lumpur		

3.1.3.6 Aeronautical Information Circulars (AIC)

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

Each AIC is numbered consecutively on a calendar year basis. The year indicated two digits, is a part of the serial number of the AIC, e.g. AIC 1/05. A checklist of AIC currently in force is issued once a year as an AIC.

3.1.3.7 Checklist and summary of NOTAM

A checklist of valid NOTAM is issued monthly via AFS. The checklist is followed by a printed summary of NOTAM distributed by air-mail to all recipients of the Integrated Aeronautical Information package. It contains a plain language presentation of the valid NOTAM and information about the number of the latest issued AIP AMDT, AIRAC AIP AMDT, AIP SUP and AIC as well as a number of the elements issued under the AIRAC that will become effective or, if none, the NIL AIRAC notification.

3.1.3.8 Sale publications

All publication of Aeronautical Information Services are available from the AIS headquarter. Publications of the Aeronautical Information Services are available as indicated below:

- AIP with cover including airmail postal charges are as follows:
 - a. local - USD 60
 - b. overseas:
 - Neighboring countries - USD 70
 - Asia and Middle East - USD 80
 - Oceania - USD 90
 - Europe and Africa - USD 100
 - America - USD 120
- AIP Amendment, AIP Supplement and AIC including postal charges per year are as follows:
 - a. local - USD 25
 - b. overseas:
 - Neighboring countries - USD 30
 - Asia and Middle East - USD 35
 - Oceania - USD 40
 - Europe and Africa - USD 45
 - America - USD 50

3.1.4 AIRAC system

3.1.4.1 In order to control and regulate the operationally significant changes requiring amendments to charts, route manuals etc., such changes whenever possible, will be issued on predetermined dates according to the AIRAC system. This type of information will be published as an AIRAC AIP SUP or AIRAC AIP AMDT.

If an AIRAC AIP SUP or AIRAC AIP AMDT can not be produced in due time, NOTAM clearly marked AIRAC will be issued. Such NOTAM will immediately be followed by an AIP SUP or AIP AMDT.

3.1.4.2 The table below indicates AIRAC effective dates for the coming year. AIRAC information will be issued so that the information will be received by the user not later than 28 days, and for major changes not later than 56 days, before the effective date. At AIRAC effective date, a trigger NOTAM will be issued giving a brief description of the contents, effective date and reference number of the AIRAC AIP AMDT or AIRAC AIP SUP that will become effective on that date. Trigger NOTAM will remain in force as a reminder in the PIB until the new checklist / summary is issued.

If no information was submitted for publication at the AIRAC date, a NIL notification will be issued by NOTAM not later than one AIRAC cycle before the AIRAC effective date concerned.

Schedule of AIRAC effective dates

2014	2015	2016	2017	2018
9 JAN	8 JAN	7 JAN	5 JAN	4 JAN
6 FEB	5 FEB	4 FEB	2 FEB	1 FEB
6 MAR	5 MAR	3 MAR	2 MAR	1 MAR
3 APR	2 APR	31 MAR	30 MAR	29 MAR
1 MAY	30 APR	28 APR	27 APR	26 APR
29 MAY	28 MAY	26 MAY	25 MAY	24 MAY
26 JUN	25 JUN	23 JUN	22 JUN	21 JUN
24 JUL	23 JUL	21 JUL	20 JUL	19 JUL
21 AUG	20 AUG	18 AUG	17 AUG	16 AUG
18 SEP	17 SEP	15 SEP	14 SEP	13 SEP
16 OCT	15 OCT	13 OCT	12 OCT	11 OCT
13 NOV	12 NOV	10 NOV	9 NOV	8 NOV
11 DEC	10 DEC	8 DEC	7 DEC	6 DEC

3.1.5 **Pre - flight Information Service at aerodromes**

Pre-flight information is available at aerodromes as detailed below:

Aerodrome	Briefing coverage
Vientiane/Wattay International	Vientiane and adjacent FIRs
Luang Phabang International	Vientiane and adjacent FIRs
Pakse International	Vientiane and adjacent FIRs
Savannakhet International	Vientiane and adjacent FIRs

Daily pre-flight information bulletins and Post - flight information forms, for annotation by aircrews of information concerning the state and operation of air navigation are available at Vientiane/Wattay, Luang Phabang and Pakse aerodromes.

GEN 3.2 - AERONAUTICAL CHARTS

3.2.1 Responsible services

3.2.1.1 The Department of Civil Aviation of Lao PDR provides a wide range of aeronautical charts for use by all types of civil aviation. The Aeronautical Information Service produces the Charts which are part of the AIP. Suitable Charts for pre-flight planning and briefing, selected from these listed in the ICAO aeronautical chart catalogue (Doc 7101), are available at aerodromes AIS units. The charts published in the AIP are produced in accordance with the provisions contained in ICAO Annex 4 - *Aeronautical charts*. The differences to these provisions are detailed in subsection GEN 1.7.

3.2.2 Maintenance of charts

3.2.2.1 The aeronautical charts included in the AIP are kept up to date by amendments to the AIP.

3.2.2.2 If incorrect information detected on published chart is of operational significance, it is corrected by NOTAM.

3.2.3 Purchase Arrangement

3.2.3.1 The charts as listed under item 5 of this subsection can be obtained from the:

Air Navigation Division
Department of Civil Aviation
Vientiane/Wattay Int'l Airport,
P.O Box 119 - Vientiane, Lao PDR.
AFS: VLAOYAYX
Tel : (856-21) 513 163
Fax: (856-21) 520 237
E-mail: laodca@laotel.com

3.2.4 Aeronautical chart series available

3.2.4.1 The following Aeronautical charts are produced

- a) Aeronautical Chart 1: 1.000.000 (WGS-84)  
- b) Aerodrome chart - ICAO
- c) Aircraft parking / Docking chart - ICAO
- d) Aerodrome Ground Movement Chart- ICAO
- e) Aerodrome obstacle chart - ICAO Type A
- f) En-route chart - ICAO
- g) Area chart - ICAO
- h) Standard Departure chart - Instrument (SID) - ICAO
- i) Standard Arrival Chart - Instrument (STAR) - ICAO
- j) Instrument approach chart - ICAO
- k) Visual approach chart - ICAO

The charts currently available are listed under item 5 of this subsection.

3.2.4.2 General description of each:

- a) *Aeronautical chart 1/1.000.000 (WGS-84)*
to be developed
- b) *Aerodrome chart-ICAO*
This chart contains detailed aerodrome data to provide flight crews with information that will facilitate the ground movement of aircraft:
 - from the aircraft stand to the runway; and
 - from the runway to the aircraft stand

It also provides essential operational information at Vientiane/Wattay aerodrome.

- c) *Aircraft parking/Docking chart - ICAO*
This chart is produced for those aerodromes where, due to the complexity of the terminal facilities, the information to the complexity of the terminal facilities, the information to the ground movement of aircraft between the taxiways and the aircraft stand and the parking/docking of aircraft can not be shown with sufficient clarity on the aerodrome chart - ICAO or on the aerodrome ground movement chart - ICAO.
- d) Aerodrome Ground Movement Chart- ICAO
to be developed
- e) *Aerodrome obstacle chart - ICAO type A (operating limitations)*
This chart contains detailed information on obstacle in the take-off flight path areas of Vientiane/Wattay, Luang Phabang and Pakse airports. It is shown in plane and profile view. This obstacle information provides the data necessary to enable an operator to comply with the operating limitations of ICAO Annex 6, Parts I and II, Chapter 5.
- f) *En - Route chart - ICAO*
This chart is produced for the entire Vientiane FIR. The aeronautical data include all aerodromes, Prohibited, Restricted and Danger areas and the ATS system in detail. This chart provides the flight crew with information that will facilitate navigation along ATS routes in compliance with air traffic services procedures.
- g) *Area chart - ICAO*
This chart is produced when the ATS routes or position reporting requirements are complex and can not be shown on the En-route chart - ICAO.
It shows, in more detail, those aerodromes that affect terminal routings, Prohibited, Restricted and Danger areas and the ATS system. This chart provides the flight crew with information to facilitate the various phases of instrument flight:
 - the transition between the en-route phase and the approach to an aerodrome;
 - the transition between the take-off / missed approach and the en-route phase of flight;
 - flights through areas of complex ATS routes or airspace structure.
- h) *Standard Departure Chart-Instrument (SID) - ICAO*
This chart is produced whenever a standard departure route instrument has been established and can not be shown with sufficient clarity on the Area chart - ICAO.
The aeronautical data shown include the aerodrome of departure, aerodrome(s) which affect the designated standard departure route-instrument, Prohibited, Restricted and Danger areas and the ATS system. This chart provides the flight crew with information that will enable them to comply with the designated standard departure route- instrument from the take-off phase to the en-route phase.
- i) *Standard Arrival Chart - Instrument (STAR) - ICAO.*
This chart is produced whenever a standard arrival route-instrument has been established and can not be shown with sufficient clarity on the Area chart - ICAO.
The aeronautical data shown include the aerodrome of landing, aerodrome(s) which affect the designated standard arrival route-instrument, Prohibited, Restricted and Danger areas and the ATS system. This chart provides the flight crew with information that will enable them to comply with the designated standard arrival route-instrument from the en-route phase to the approach phase.
- j) *Instrument Approach chart - ICAO*
This chart is produced for all aerodromes used by civil aviation where instrument approach procedures have been established. A separate Instrument approach chart - ICAO has been provided for each approach procedure.
The aeronautical data shown include information on aerodromes, Prohibited, Restricted and Danger areas, radio communication facilities and navigation aids, minimum sector altitude, procedure track portrayed in plane and profile view, Aerodrome operating minima, etc.

This chart provides the flight crew with information that will enable them to perform an approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns.

k) *Visual approach chart - ICAO*

This chart is produced for aerodromes used by civil aviation where:

- only limited navigation facilities are available; or
- radio communication facilities are not available; or
- no adequate aeronautical charts of the aerodrome and its surrounding at 1:500.000 or greater scale are available.

The aeronautical data shown include information on aerodromes obstacles, designated airspace, visual approach information, radio navigation aids and communication facilities, as appropriate.

3.2.5 - List of Aeronautical Charts Available

<i>Type of series</i>	<i>Scale</i>	<i>Name and/or number</i>	<i>Price</i>	<i>Date</i>
Instrument Approach Chart-ICAO (IAC)		Vientiane/Wattay		
	1: 500.000	VLVT AD 2-12 VOR/DME RWY 13		23 AUG 2012
	1: 300.000	VLVT AD 2-13 VOR/DME/ILS No. 1 (Base Turn) RWY 13		23 AUG 2012
	1: 300.000	VLVT AD 2-14 VOR/DME/ILS No. 2 (Arc Turn) RWY 13		23 AUG 2012
	1: 360.000	VLVT AD 2-18 RNAV (GNSS) RWY 13		24 JUL 2014
		Luang Phabang		
	1: 500.000	VLLB AD 2-11 VOR/DME RWY 05		24 JUL 2014
	1: 500.000	VLLB AD 2-12 VOR/DME RWY 23		24 JUL 2014
	1: 500.000	VLLB AD 2-13 ILS/DME RWY 23		24 JUL 2014
	1: 360.000	VLLB AD 2-20 RNAV (GNSS) RWY 05		30 MAR 2017
	1: 360.000	VLLB AD 2-23 RNAV (GNSS) RWY 23		30 MAR 2017
		Pakse		
	1: 500.000	VLPS AD 2-11 VOR/DME RWY 15		31 MAR 2016
	1: 250.000	VLPS AD 2-12 NDB RWY 15		31 MAR 2016
	1: 500.000	VLPS AD 2-17 ILS/DME RWY 15		31 MAR 2016
	1: 250.000	VLPS AD 2-18 RNAV (GNSS) RWY 15		28 MAY 2015
		Savannakhet		
	1:360.000	VLSK AD 2-13 VOR/DME RWY 22		05 DEC 2016

<i>Type of series</i>	<i>Scale</i>	<i>Name and/or number</i>	<i>Price</i>	<i>Date</i>
Visual Approach Chart-ICAO (VAC)	1: 500.000	Pakse VLPS AD 2-15		31 MAR 2016
Aerodrome Chart-ICAO	1: 20.000	Vientiane/Wattay VLVT AD 2-11		30 MAR 2017
	1: 18.000	Luang Phabang VLLB AD 2-10		30 MAR 2017
	1: 15.000	Pakse VLPS AD 2-10		30 MAR 2017
	1: 12.000	Savannakhet VLSK AD 2-10		30 MAR 2017
Aerodrome Obstacle Chart-ICAO Type A		Vientiane/Wattay to be developed		
		Luang Phabang to be developed		
		Pakse to be developed		
		Savannakhet to be developed		
Area Chart-ICAO	1: 1.000.000	Vientiane/Wattay VLVT AD 2-15		23 AUG 2012
		Luang Phabang to be developed		

<i>Type of series</i>	<i>Scale</i>	<i>Name and/or number</i>	<i>Price</i>	<i>Date</i>
Area Chart-ICAO	1:1.000.000	Pakse VLPS AD 2-16		31 MAR 2016
		Savannakhet to be developed		
Aircraft Parking/Docking Chart-ICAO		Vientiane/Wattay to be developed		
		Luang Phabang to be developed		
		Pakse to be developed		
		Savannakhet to be developed		
Standard Departure Chart Instrument ICAO (SID)	1: 250.000 1: 250.000 1: 1.000.000	Vientiane/Wattay VLVT AD 2-16 RWY 13 VLVT AD 2-17 RWY 31 VLVT AD 2-19 RNAV (GNSS) RWY 31		23 AUG 2012 23 AUG 2012 24 JUL 2014
	1: 300.000 1: 300.000 1: 800.000 1: 800.000	Luang Phabang VLLB AD 2-14 RWY 05 VLLB AD 2-15 RWY 23 VLLB AD 2-18 RWY 05 VLLB AD 2-21 RWY 23		28 MAY 2015 28 MAY 2015 30 MAR 2017 30 MAR 2017
	1: 250.000 1: 360.000 1: 360.000 1: 360.000	Pakse VLPS AD 2-14 RWY 33 VLPS AD 2-19 RNAV (GNSS) RWY 33 VLPS AD 2-20 RNAV (GNSS) RWY 15 VLPS AD 2-21 RNAV (GNSS) RWY 33/15		31 MAR 2016 28 MAY 2015 21 JUL 2016 28 MAY 2015

<i>Type of series</i>	<i>Scale</i>	<i>Name and/or number</i>	<i>Price</i>	<i>Date</i>
Standard Departure Chart Instrument ICAO (SID)	1: 300.000	Savannakhet		05 DEC 2016
	1: 300.000	VLSK AD 2-14 RWY 04 VLSK AD 2-15 RWY 04		05 DEC 2016
Standard Arrival Chart Instrument- ICAO (STAR)	1:1.000.000	Vientiane/Wattay VLVT AD 2-20 RNAV (GNSS) RWY 13		24 JUL 2014
	1: 1.200.000 1: 1.200.000 1: 800.000 1: 800.000	Luang Phabang VLLB AD 2-16 RWY 05 VLLB AD 2-17 RWY 23 VLLB AD 2-19 RWY 05 VLLB AD 2-22 RWY 23		21 AUG 2014 21 AUG 2014 30 MAR 2017 30 MAR 2017
	1: 360.000 1: 250.000	Pakse VLPS AD 2-22 RNAV (GNSS) RWY 15 VLPS AD 2-23 RNAV (GNSS) RWY 15		28 MAY 2015 28 MAY 2015
		Savannakhet to be developed		
Enroute - Chart - ICAO (ENR)		ENR 6.1-1 LOWER EN-ROUTE CHART		31 MAR 2016
		ENR 6.2-1 UPPER ATS EN- ROUTE CHART		12 NOV 2015

6 - Topographical Charts

To supplement the aeronautical chart, a wide range of topographical charts is available from:

Department of National Geographic

Nahaidio 01003

P.O. Box 2159 Vientiane, Lao PDR

Tel: (856 21) 214 917

Fax: (856 21) 214 915

7 - Corrections to Charts not contained in the AIP

[illegible]

GEN 3.3 - AIR TRAFFIC SERVICES

1 Responsible service

The Air Navigation Division of the Lao PDR Department of Civil Aviation is the responsible authority for the provision of Air Traffic Services within the area indicated under item 2 below:

Director of Air Navigation Division
Department of Civil Aviation
Vientiane/Wattay Airport
P.O Box 119 Vientiane, Lao PDR
AFS: VLAOYAYX

→ Tel: (856-21) 512 164, 513 163
Fax: (856-21) 520 237
E-mail: laodca@laotel.com

The services are provided in accordance with the provisions contained in the following ICAO documents:

- Annex 2- Rules of the Air
- Annex 11 - Air Traffic Services
- Doc 4444 - Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM)
- Doc 8168 - Procedures for Air Navigation Services - Aircraft Operations (PANS - OPS)
- Doc 7030 - Regional Supplementary Procedures

Differences to these provisions are detailed in subsection GEN 1.7 .

2 Area of responsibility

Air traffic services are provided for the airspace over the entire territory of Lao PDR or the airspace within Vientiane FIR.

3 Types of services

The following types of services are provided:

- Flight Information Service (FIS) and Alerting Service (ALRS);
- Area control, Approach control and Aerodrome control services;
- Radar.

4 Coordination between the operator and ATS

Coordination between the operator and air traffic services unit is effected in accordance with 2.15 of ICAO annex 11.

5 Minimum flight altitude

The minimum flight altitude on the ATS routes, as presented in section ENR 3, have been determined so as to ensure a minimum vertical clearance above the highest obstacle in the area concerned

6 **ATS units address list**

Unit name	Postal address	Telephone Nr	Telefax Nr	Telex Nr	AFS address
1	2	3	4	5	6
Vientiane ACC	Lao Air Traffic Management P.O Box 2985 Vientiane, Lao PDR	(856-21) 512 091 (856-21) 512 237 (856-30) 505 6621	(856-21) 520 748		VLVTZRZX
Vientiane APP	as ACC	(856-21) 513 002	(856-21) 512 216 (856-21) 520 748		VLVTZAZX
Vientiane TWR	as ACC	as APP	as APP		VLVTZTZX
Vientiane ARO	as ACC	(856-21) 512 008 (856-21) 520 157	(856-21) 520 157		VLVTZTZX
Luang Phabang APP	Lao Air Traffic Management P.O Box 2985 Vientiane, Lao PDR	(856-71) 212 208	(856-71) 212 857		VLLBZTZX
Luang Phabang TWR	as ACC	as Luang Phabang APP	(856-71) 212 857		VLLBZTZX
Luang Phabang ARO	as ACC	(856-71) 212 856	(856-71) 212 857		VLLBZTZX
Pakse APP	Lao Air Traffic Management P.O Box 2985 Vientiane, Lao PDR	(856-31) 212 843	(856-31) 214 260		VLPSZTZX
Pakse TWR	as ACC	(856-31) 212 843	(856-31) 214 260		VLPSZTZX
Pakse ARO	as ACC	as Pakse APP	(856-31) 214 260		VLPSZTZX

Unit name	Postal address	Telephone Nr	Telefax Nr	Telex Nr	AFS address
1	2	3	4	5	6
Savannakhet APP	Lao Air Traffic Management P.O Box 2985 Vientiane, Lao PDR	(856-41) 212 230	(856-41) 212 230 (856-41) 300 131		VLSKZTZX
Savannakhet TWR	as ACC	(856-41) 212 230	(856-41) 212 230 (856-41) 300 131		VLSKZTZX
Savannakhet ARO	as ACC	(856-41) 212 230	(856-41) 212 230 (856-41) 300 131		VLSKZTZX

GEN 3.4 - COMMUNICATION SERVICES

1 Responsible service

- 1.1 The responsible service for the provision of telecommunication and navigation facility services in Lao PDR is the Aeronautical Telecommunication Division which forms part of the Department of Civil Aviation.

Director of Aeronautical Telecommunication Division
Department of Civil Aviation
Vientiane/Wattay Int'l Airport
P.O Box 119 Vientiane, Lao PDR
AFS: VLAOYAYX

→ Tel: (856-21) 512 164, 513 163
Fax: (856-21) 520 237
E-mail: laodca@laotel.com

- 1.2 The service is provided in accordance with the provisions contained in the following ICAO documents:

- Annex 10 - Aeronautical telecommunications.
- Doc 8400 - Procedures for Air Navigation Services - ICAO abbreviations and codes (PANS- ABC)
- Doc 8585 - Designators for aircraft operating agencies, aeronautical Authorities and services.
- Doc 7030 - Regional supplementary procedures.
- Doc 7910 - Location Indicators.

Differences to these provisions are detailed in subsection GEN 1.7 .

2 Area of responsibility

Communication services are provided for the entire Vientiane FIR. Enquiries, suggestions or complaints regarding any telecommunication and navigation facility services should be referred to the Director of Aeronautical Telecommunication.

Address:
see in item 1.1 above

3 Types of Service

3.1 Radio Navigation Services:

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

- Non - Directional Beacon (NDB)
- VHF Omni directional Range (VOR)
- Distance Measuring Equipment (DME)
- Instrument Landing System (ILS)
- Secondary Surveillance Radar (SSR)
- Primary Surveillance Radar (PSR)

3.2 Mobile/fixed service:

3.2.1 Mobile service:

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service unless otherwise notified.

An aircraft should normally communicate with the Air-Ground control radio stations that exercises control in the area in which the aircraft is flying. Aircraft should maintain continuous watch on the appropriate frequency of the control radio station and should not abandon watch, except in emergency, without informing the control radio station.

3.2.2 Fixed service:

Messages to be transmitted over the Aeronautical Fixed Services (AFS) are accepted only if:

- a) they satisfy the requirements of ICAO Annex 10 Vol II, chapter 3.3.3;
- b) they are prepared in the form specified in ICAO Annex 10;
- c) the text of an individual message does not exceed 200 groups;

General aircraft operating agency messages are only accepted for transmission to countries that have agreed to accept Class "B" traffic.

3.3 Broadcasting service:

ATIS broadcast, including MET information for aircraft in flight, is available at Vientiane/Wattay Int'l airport on the frequency 127.8 MHz.

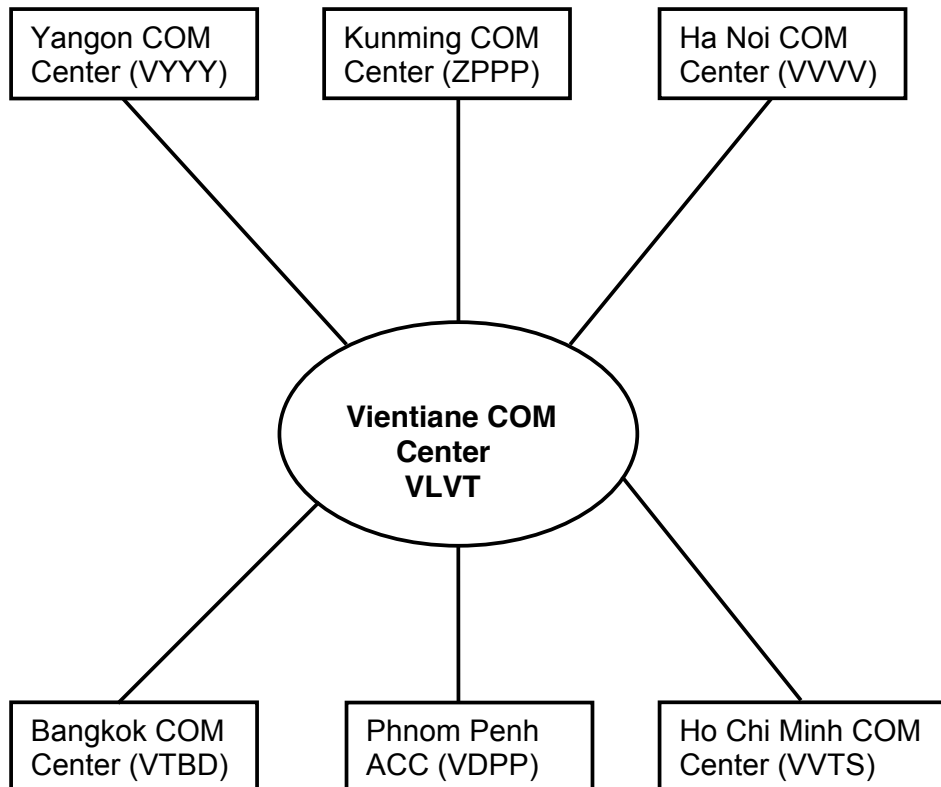
3.4 Language used: English.

3.5 Where detailed information can be obtained:

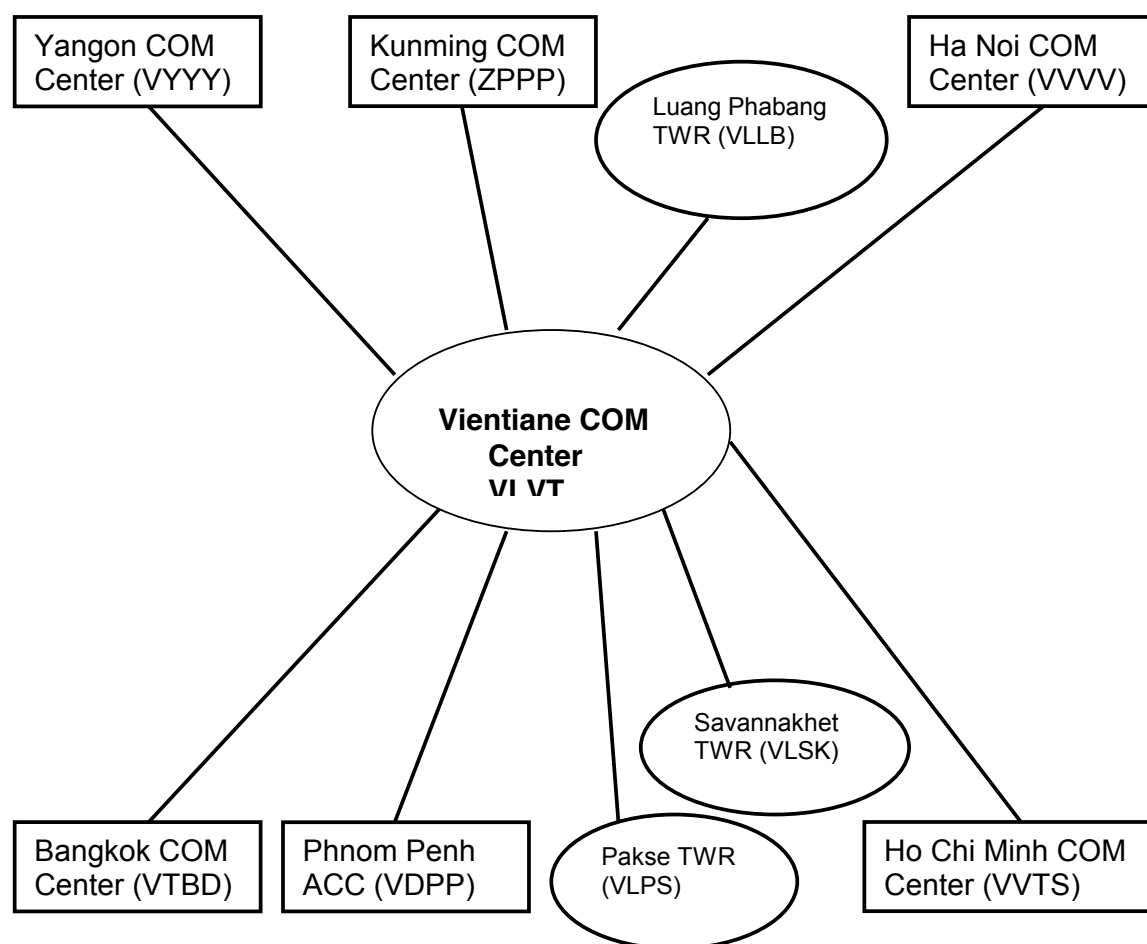
Details of the various facilities available for the en-route traffic can be found in Part 2, ENR-4.

Details of the facilities available at the individual aerodrome can be found in the relevant sections of Part 3, AD. In cases where a facility is serving both the en-route traffic and the aerodromes, details are given in the relevant sections of Part 2, ENR and Part 3, AD.

AERONAUTICAL FIXED SERVICES: AFTN



AERONAUTICAL FIXED SERVICES: TELEPHONE



GEN 3.5 - METEOROLOGICAL SERVICES

1 **Responsible Service**

- 1.1 The meteorological services for civil aviation are provided by the Aeronautical Meteorological Office which forms part of Department of Meteorological and Hydrographic - Ministry of Agriculture and Forestry.

Aeronautical Meteorological Office
Vientiane/Wattay Int'l Airport
P.O Box 2985 Vientiane, Lao PDR
Tel: (856-21) 512 008 Ext 220
Fax: (856-21) 512 216
AFS: VLVTYMYX



- 1.2 The service is provided in accordance with the provisions contained in the following ICAO Documents:

- Annex 3 - Meteorological Service for International Air Navigation
- Doc 7030 - Regional Supplementary Procedures part 3 - Meteorology.

Differences to the provisions are detailed in subsection GEN 1.7.

2 **Area of Responsibility**

Meteorological service is provided within the Vientiane FIR.

3 - Meteorological observations and reports**Table GEN 3.5.3 - Meteorological observations and reports**

<i>Name of station Location indicator</i>	<i>Frequency & Type of observation/ automatic observing equipment</i>	<i>Types of MET report & availability of trend forecasts</i>	<i>Observation system & site (s)</i>	<i>Hours of operation</i>	<i>Climatological information</i>
1	2	3	4	5	6
Vientiane/ Wattay VLT	Hourly routine plus special observations AWOS	METAR SPECI TREND	*SFC wind sensors: - 362m from THR runway 13; 175m from runway centre line. * RVR equipment: - 362m from THR runway 13; 108m from runway centre line. * Ceilometers: - Middle Marker RWY 13 * Air temperature, dew point: * Air pressure sensors(QNH/QFE) - 10 m in front of Control Tower building.	H24	Climatological summaries available
Luang Phabang VLLB	Hourly routine plus special observations AWOS	METAR SPECI TREND	*SFC wind sensors * Air temperature, dew point: * Air pressure sensors(QNH/QFE) - On roof of Control Tower.	H24	Climatological summaries available
Pakse VLPS	Hourly routine plus special observations AWOS	METAR SPECI TREND			

4 Types of services

Personal briefing and consultation for flight crew members are provided only at the international airports listed in the Part 3, AD 1-3.

For international flights, the flight documentation comprises a significant weather chart, an upper wind and upper air temperature chart and the latest available aerodrome forecast for the destination and its alternate aerodromes.

5 Notification required from operators

Notification from operators in respect of briefing, consultation, flight documentation and other meteorological information needed by them (ref ICAO - Annex 3, 2.3) is normally required for intercontinental flights of more than 3500 km. Such notification should be received at least six hours before the expected time of departure.

6 Aircraft report

Special aircraft observations and aircraft observations during climb out and approach shall be made and the reports transmitting as necessary.

7 VOLMET service

NIL

8 SIGMET service

NIL

8.1 Meteorological watch

The meteorological watch is performed by the following MWO which indicated at Department of Meteorological and Hydrography office.



8.2 Aerodrome Warning

Warnings for the protection of parked aircraft or of other equipment at the airport are issued by all aerodrome meteorological offices, if one or several of the following phenomena are expected to occur at the airport:



- strong surface wind and gusts
- thunderstorm
- hail

The warnings are generally issued in English and are distributed in accordance with a distribution list which has to be agreed upon locally.

9 Other automated meteorological services

NIL

GEN 3.6 SEARCH AND RESCUE

3.6.1 Responsible service

The Search and Rescue (SAR) service in Lao PDR is provided by the Department of Civil Aviation, in collaboration with National SAR Committee. The postal and telegraphic addresses of Department of Civil Aviation are given in page GEN 1.1-1.

3.6.1.1 When SAR operations needed, a Rescue Coordination Center (RCC) is established; the address is as follows:

Rescue Coordination Center
Vientiane Area Control Center
P.O Box 2985 Vientiane, Lao PDR
Tel: (856-21) 513 002, 512 091
Fax: (856-21) 512 216
AFS: VLVZTRZX
Chief of Vientiane ACC

3.6.1.2 The service is provided in accordance with the provisions contained in the following ICAO Documents:

- Annex 12 - Search and Rescue
- Annex 13 - Aircraft accident investigation
- Doc 7030 - Regional supplementary procedures for alerting and Search and Rescue service.

3.6.2 Area of Responsibility

Civil Aviation Search and Rescue service is responsible for SAR operation within Vientiane FIR.

3.6.3 Search and rescue signals

The search and rescue signals to be used are those prescribed in ICAO Annex 12, Chapter 5, paragraph 5.10

3.6.4 Search and Rescue point of contact

Search and Rescue point of contact for the receipt of Cospas-Sarsat distress data is designated as follow:

SAR point of contact 1 (SPOC 1)
Rescue Coordination Center
Vientiane Area Control Center
P.O Box 2985 Vientiane, Lao PDR
Tel: (856-21) 512 091
Fax: (856-21) 513 041
AFS: VLVZTRZX

SAR point of contact 2 (SPOC 2)
Air Traffic Services Section
Air Navigation Division
Department of Civil Aviation
P.O Box 119 Vientiane, Lao PDR
Tel: (856-21) 512 164
Fax: (856-21) 520 237
AFS: VLDLALAO

3.6.5 Ground / Air visual signal codes for use by survivors

No	message	code symbol	instruction for use
1	Require assistance	V	1. Make signals not less than 2.5 m (8 ft).
2	Require medical assistance	X	2. Take care to lay out signals exactly as shown.
3	No or negative	N	3. Provide as much colour contrast as possible between signals and background.
4	Yes or affirmative	Y	4. Make every effort to attract attention by other means such as radio, flares, smoke, reflected light.
5	Proceeding in this direction	↑	

GEN 4 - CHARGES FOR AERODROMES AND AIR NAVIGATION SERVICES

GEN 4.1 - Aerodrome charges

1. Landing charges

The charges that set out hereunder are common to all aerodromes administered by the Department of Civil Aviation (DCA).

1.1 Basic charges

The following landing charges are accounted on the basis of the maximum take-off weight of aircraft as specified in the aircraft airworthiness certificate:

Maximum take-off weight of aircraft (metric ton)	International Airport (USD)	Domestic Airport (Kip)
7 or less	28	80,000
More than 7 to 20	80	340,000
More than 20 to 50	200	840,000
More than 50 to 100	400	1,840,000
More than 100 to 200	800	3,840,000
More than 200 to 300	1,200	5,840,000
Above 300	1,800	7,840,000

Note: For domestic flight is charged with landing domestic airport.

1.2 Additional charges (night hour 1101 - 2300 UTC)

- Up to 100 metric tons surcharges USD 50.00 for international airport and Lao Kip 500,000 for domestic airport;
- Above 100 metric tons surcharges 10% of the basic charges.

1.3 Exemption

- State aircraft;
- Test flight within the radius of 20 Km, not more, from the aerodrome.

1.4 Reduction of charges

The following aircraft are reduced from payment of landing charges:

- domestic flight is charged 50% of the basic charges;
- for helicopter is charged 30% of the basic charges.

2 Parking charges

Maximum take-off weight of aircraft (metric ton)	International Airport (USD)	Domestic Airport (Kip)
7 or less	4	12,000
More than 7 to 20	12	51,000
More than 20 to 50	30	126,000
More than 50 to 100	60	186,000
More than 100 to 200	120	576,000
More than 200 to 300	180	876,000
Above 300	270	1,176,000

Note: Spend the night, the parking charges multiply by 2 per night.

- 2.1 Exemption: - State aircraft.

3 Passenger service charges

3.1 Basic charges:

- Domestic passenger charge 20,000 Lao KIP/each passenger/time;
- International passenger charge 15.00 USD/each passenger/time.

3.2 Exemption

The following persons are exempted from payment of passenger service charges:

- a) Lao State and Government leaders and their entourage;
- b) foreign Government, Diplomatic delegations on official visits or participating in the conferences;
- c) crew members and transit passengers who do not leave the transit area;
- d) under two years of age.

4. Security

Aviation security charges are levied at international airports. The current charges are published in the AIC

GEN 4.2 - Air navigation service charges

1 Aircraft landing in Lao PDR.

Maximum take-off weight of aircraft (metric ton)	International (USD)	Domestic (Kip)
7 or less	50	200,000
More than 7 to 20	100	400,000
More than 20 to 50	250	1,000,000
More than 50 to 100	300	1,500,000
More than 100 to 150	400	2,000,000
More than 150 to 200	500	2,500,000
More than 200 to 250	600	3,000,000
More than 250 to 300	700	3,500,000
Above 300	800	4,000,000

- Test flight and training charges 25% of basic.

2 Over flight charges

The following air navigation service charges for over flights are accounted on the basis of maximum take-off weight of aircraft as specified in the aircraft airworthiness certificate.

Maximum take-off weights of aircraft (metric ton)	Over flight charge (USD)
7 or less	70
More than 7 to 20	110
More than 20 to 50	160
More than 50 to 100	230
More than 100 to 150	260
More than 150 to 200	300
More than 200 to 250	350
More than 250 to 300	375
Above 300	410

3 Exemptions:

The following flights are exempted from payment of air navigation service charges:

- VIP of Lao PDR and foreign States aircraft (see VIP in GEN1-2 item 3);
- search and rescue aircraft;
- aircraft used in international Red Cross services, aircraft serving for humanitarian purposes or loading humanitarian and donation commodities;
- aircraft with special authorization from Lao Government.

GEN 4.3 - Methods of payment

The owner and user of an aircraft are jointly and severally responsible for the payment of the charge.

1. Landing and parking: Where there is no agent or representative, the payment must be made before departure to the Department of Civil Aviation or his delegated body.
2. Over flight: Notification of the charge will be made monthly by the Department of Civil Aviation or his delegated body by forwarding an invoice. The payment conditions have been specified in the invoice.

LAO PDR

DEPARTMENT OF CIVIL AVIATION

AIP

AERONAUTICAL INFORMATION PUBLICATION

PART 2
EN-ROUTE (ENR)

PART 2 - EN-ROUTE (ENR)

ENR 0

ENR 0.1	PREFACE – Not applicable
ENR 0.2	RECORD OF AIP AMENDMENT – Not applicable
ENR 0.3	RECORD OF AIP SUPPLEMENTS – Not applicable
ENR 0.4	CHECKLIST OF AIP PAGES – Not applicable
ENR 0.5	LIST OF HAND AMENDMENTS TO THE AIP – Not applicable
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ENR 1 – GENERAL RULES AND PROCEDURES

ENR 1.1 – GENERAL RULES

The air traffic rules and procedures applicable to air traffic in Lao PDR territory conform to Annexes 2 and 11 to the Convention on International Civil Aviation and to those portions of the Procedures for Air Navigation Services - Air Traffic Management applicable to aircraft and of the Regional Supplementary Procedures applicable to the South-East Asia (SEA) Region, except for the differences listed in GEN 1.7.

1. Minimum safe height

Aircraft shall not be flown below the minimum safe height or flown over the congested areas of cities, towns or settlements or over an open-air assembly of persons, except when necessary for take-off or landing, or except by permission from the appropriate aeronautical authority.

2. Dropping or spraying

The dropping or spraying of objects or other substances out of or from aircraft in flight is prohibited, this does not apply to ballast in form of water or fine sand, fuel, tow ropes, tow banners and similar objects if dropped or discharged at places where no danger to persons or property exists. The Department of Civil Aviation or his designated authority may grant exemptions to the interdiction if no danger to persons or property exists.

3. Towing and advertising flights

Aircraft or other object shall not be towed by an aircraft, except in accordance with requirements prescribed by the appropriate authority and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.

4. Acrobatic flight

Aircraft shall not be flown acrobatically except under conditions prescribed by the appropriate authority and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.

5. Formation flights

Aircraft shall not be flown in formation except by pre-arrangement among the pilot-in-command of the aircraft taking part in the flight and, for formation flight in controlled airspace, in accordance with the conditions prescribed by the appropriate ATS authority. These conditions shall include the following:

- a) the formation operates as a single aircraft with regard to navigation and position reporting;
- b) separation between aircraft in the flight shall be the responsibility of the flight leader and the pilot-in-command of the other aircraft in the flight and shall include periods of transition when aircraft are maneuvering to attain their own separation within the formation and during join-up and break-away.
- c) a distance not exceeding 1 km (0,5 NM) laterally and longitudinally and 30 m (100 ft) vertically from the flight leader shall be maintained by each aircraft.

6. Unmanned free balloons

An unmanned free balloon shall be operated in such a manner as to minimize hazards to persons, property or other aircraft and in accordance with the conditions prescribed by the appropriate ATS authority.

7. Prohibited areas and restricted areas

Aircraft shall not be flown in a Prohibited area, or in a Restricted area, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the appropriate competent authority of Lao PDR.

8. Units of measurement and Times

The Units of measurement and Coordinated Universal Time (UTC) shall be applied to flight operations in accordance with GEN 2.1-1, item 1 and item 2 respectively.

ENR 1.2 VISUAL FLIGHT RULES

- 1 Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Table 1.

Table 1*

Airspace class	B	C D E	F G	
			ABOVE 900m (3000 ft) AMSL or above 300 m (1000 ft) above terrain, Whichever is the higher	AT and below 900 m (3000 ft) AMSL or 300m (1000 ft) above terrain, whichever is the higher
Distance from cloud	Clear of cloud	1500 m horizontally 300 m (1000 ft) vertically	Clear of cloud and in sight of the surface	
Flight visibility	8 km at and above 3050m (10 000 ft) AMSL 5 km below 3050 m (10 000 ft) AMSL			5km**

* When the height of the transition altitude is lower than 3050 m (10 000 ft) AMSL. FL 100 should be used in lieu of 10 000 ft.

** When so prescribed by the appropriate ATS authority:

- a) lower flight visibilities to 1500 m may be permitted for flights operating:
 - 1) at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or
 - 2) in circumstances which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels;
 - b) HELICOPTERS may be permitted to operate in less than 1500 m flight visibility, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.
2. Except when a clearance is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or traffic pattern:
 - a) when the ceiling is less than 450 m (1 500 ft); or
 - b) when the ground visibility is less than 5 km.
 3. VFR flights between sunset and sunrise, or such other period between sunset and sunrise as may be prescribed by the appropriate ATS authority, shall be operated in accordance with the conditions prescribed by such authority.
 4. Unless authorized by the appropriate ATS authority, VFR flights shall not be operated:
 - a) above FL195;
 - b) at transonic and supersonic speeds.
 5. Except when necessary for take-off or landing, or except by permission from the appropriate authority, a VFR flight shall not be flown:
 - a) over the congested areas of cities, towns or settlements, or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;
 - b) elsewhere than as specified in 5 a), at a height less than 150 m (500 ft) above the ground or water.
 6. Except where otherwise indicated in air traffic control clearances or specified by the appropriate ATS authority, VFR flights in level cruising flight when operated above 900 m (3000 ft) from the ground or water, or a higher datum as specified by the appropriate ATS authority, shall be conducted at a flight level appropriate to the track as specified in the tables of cruising levels.

7. VFR flights shall comply with the provisions of 3.6 (Air Traffic Control Services) of ICAO Annex 2:
 - a) when operated within classes B, C and D airspaces;
 - b) when forming part of aerodrome traffic at controlled aerodromes; or
 - c) when operated as special VFR flights.
8. An aircraft operated in accordance with the Visual Flight Rules which wishes to change to compliance with the Instrument Flight Rules shall:
 - a) if flight plan was submitted, communicate the necessary changes to be effected to its current flight plan; or
 - b) when so required by 3.3 (flight plan) of ICAO Annex 2, submit a flight plan to the appropriate ATS unit and obtain a clearance prior to proceeding IFR when in controlled airspace.

ENR 1.3 INSTRUMENT FLIGHT RULES

1 Rules applicable to all IFR flights

1.1 Aircraft equipment

Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

1.2 Minimum levels

Except when necessary for take-off or landing or when specifically authorized by the appropriate authority, an IFR flight shall be flown at a level that is not below the minimum flight altitude established by the State whose territory is overflown, or, where no such minimum flight altitude has been established:

- a) over high terrain or in mountainous areas, at a level which is at least 600m (2000ft) above the highest obstacle located within 8 km of the estimated position of the aircraft;
- b) elsewhere than as specified in a), at a level which is at least 300m (1000ft) above the highest obstacle located within 8 km of the estimated position of the aircraft.

Note: The estimated position of the aircraft will take account of the navigational accuracy which can be achieved on the relevant route segment, having regard to the navigational facilities available on the ground and in the aircraft.

1.3 Change from IFR flight to VFR flight

1.3.1 An aircraft electing to change the conduct of its flight from compliance with the IFR to compliance with the VFR shall, if a flight plan was submitted, notify the appropriate air traffic services unit specifically that the IFR flight is cancelled and communicate thereto changes to be made to its current flight plan.

1.3.2 When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions, it shall not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

2 Rules applicable to IFR flights within controlled airspace

2.1 IFR flights shall comply with the provisions of 3.6 (Air Traffic Control Services) of ICAO Annex 2 when operated in controlled airspace.

2.2 An IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level, or, if authorized to employ cruise climb techniques, between two levels or above a level, selected from:

- a) the tables of cruising levels in Appendix 3 of ICAO Annex 2, or
- b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of ICAO Annex 2 for flight above FL410,

except that the correlation of levels to track prescribed therein shall not apply whenever otherwise indicated in air traffic control clearance or specified by the appropriate ATS authority.

3 Rules applicable to IFR flights outside controlled airspace

3.1 Cruising levels

An IFR flight operating outside controlled airspace shall be flown at a cruising level appropriate to its track as specified in:

- a) the tables of cruising levels in Appendix 3 of ICAO Annex 2, except when otherwise specified by the appropriate ATS authority for flight at or below 900 m (3000 ft) above mean sea level; or
- b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of ICAO Annex 2 for flight above FL410.

3.2 Communications

An IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the appropriate ATS authority in accordance with 3.3.1.2 c) or d) of ICAO Annex 2 shall maintain a listening watch on the appropriate radio frequency and establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

3.3 Position reports

An IFR flight operating outside controlled airspace and required by the appropriate ATS authority to:

- Submit a flight plan, and
- Report position as specified in 3.6.3 of ICAO Annex 2 for controlled flights.

Note: Aircraft electing to use the air traffic advisory service whilst operating IFR within specified advisory airspace are expected to comply with the provisions of 3.6 of ICAO Annex 2, except that the flight plan and changes thereto are not subjected to clearances and that two-way communication will be maintained with the unit providing the air traffic advisory service.

ENR 1.4 ATS AIRSPACE CLASSES – SERVICES PROVIDED AND FLIGHT REQUIREMENTS

1 Classification of airspaces

ATS airspaces are classified and designated in accordance with the following:

- Class A.* IFR flights only are permitted, all flights are subject to air traffic control service and are separated from each other.
- Class B.* IFR and VFR flights are permitted, all flights are subject to air traffic control service and are separated from each other.
- Class C.* IFR and VFR flights are permitted, all flights are subject to air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.
- Class D.* IFR and VFR flights are permitted and all flights are subject to air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.
- Class E.* IFR and VFR flights are permitted, IFR flights are subject to air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as practical.
- Class F.* IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.
- Class G.* IFR and VFR flights are permitted and receive flight information service if requested.

The requirements for the flights within each class of airspace are as shown in the following table.

Class	Type of flight	Separation provided	Service provided	Speed limitation	Radio communication requirement	Subject to an ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
B	IFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance Advice on request)	250 KT IAS below 3050 m (10000 FT) AMSL	Continuous two-way	Yes
D	IFR	IFR from IFR	Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request)	250 KT IAS below 3050 m (10000 FT) AMSL	Continuous two-way	Yes
	VFR	Nil	IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 KT IAS below 3050 m (10000 FT) AMSL	Continuous two-way	Yes
E	IFR	IFR from IFR	Air traffic control service and traffic information about VFR flights as far as practical	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Traffic information as far as practical	250 KT IAS below 3050 m (10000 ft) AMSL	No	No
F	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 KT IAS below 3050 m (10000 ft) AMSL	No	No
G	IFR	Nil	Flight information service	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 KT IAS below 3050 m (10000 ft) AMSL	No	No
* When the height of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL100 should be used in lieu of 10 000 ft.						

E	IFR	IFR from IFR	Air traffic control service and traffic information about VFR flights as far as practical	Not applicable	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic information as far as practical	8 Km at and above 3050m (10000 FT) AMSL. 5 Km below 3050 m (10000 FT) AMSL. 1500 m horizontal; 300 m vertical distance from cloud	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
F	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service	Not applicable	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	8 Km at and above 3050 m (10000 FT) AMSL. 5 Km below 3050 m (10000 FT) AMSL. 1500 m horizontal; 300 m vertical distance from cloud At and below 900 m AMSL or 300 m above terrain whichever is higher - 5km, clear or cloud and in sight of ground or water	250 KT IAS below 3050 m (10000 ft) AMSL	No	No
G	IFR	Nil	Flight information service	Not applicable	250 KT IAS below 3050 m (10000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	8 Km at and above 3050 m (10000 FT) AMSL. 5 Km below 3050 m (10000 FT) AMSL. 1500 m horizontal; 300 m vertical distance from cloud At and below 900 m AMSL or 300 m above terrain whichever is higher - 5km, clear or cloud and in sight of ground or water	250 KT IAS below 3050 m (10000 ft) AMSL	No	No

ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

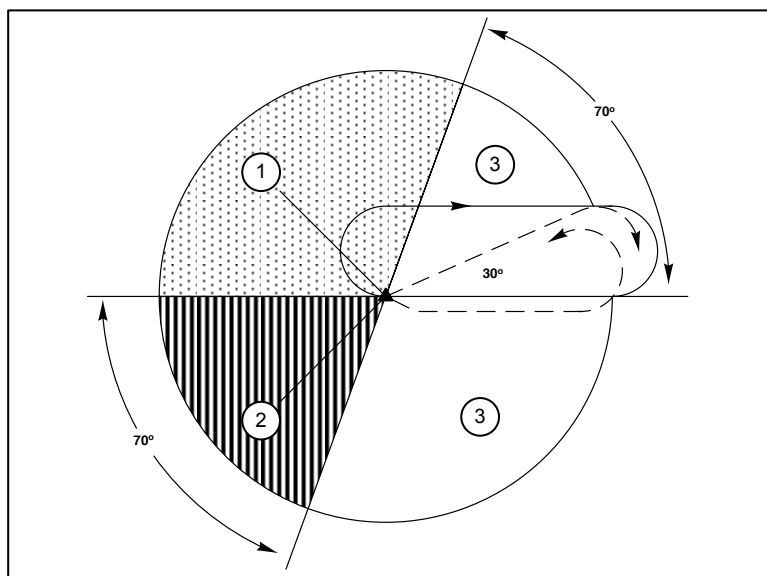
1 General

- 1.1 The holding, approach and departure procedures in use are based on those contained in latest edition of ICAO Doc 8168 - *Procedures for Air Navigation Services – Aircraft Operations* (PAN - OPS).
- 1.2 The holding and approach procedures in use have been based on the values and factors contained in Parts III and IV of Volume 1 of the PAN-OPS (Doc 8168). The holding patterns shall be entered and flown as indicated below.
- 1.3 Holding procedures
- 1.3.1 Holding patterns

Holding fix	Inbound track MAG	Direction of turn at holding fix	Minimum holding altitude	
			Normal conditions (ft)	Turbulence conditions
"VTN" DVOR/DME (IAF)	315°	Right	4000	NIL
D.15 VTN – R016 (IAF 3)	196°	Left	8000	NIL
D.15 VTN – R350 (IAF 4)	170°	Left	5000	NIL
D.17.5 VTN–R296 (IAF 5)	116°	Left	5000	NIL
NASON (IF)	136°	Left	4000	NIL
(18°09'09.9"N 102°23'33.3"E)				
"PAK" DVOR/DME	358°	Left	7000	NIL
D.13 PAK – R001	181°	Left	5000	NIL
D.10 PAK – R274	094°	Right	5000	NIL
"PS" NDB	350°	Left	7000	NIL
DONPA	347°	Left	4000	NIL
(15°08'55"N 105°36'17"E)				
"LPB" DVOR/DME	245°	Right	8900	NIL
"LPB" DVOR/DME	034°	Left	8900	NIL
D.12 SAV – R093	273°	Left	5000	NIL
"THX" DVOR/DME (IAF3)	265°	Right	8000	NIL
D.15 THX – R252 (IF)	072°	Left	7500	NIL

1.3.2 Entry procedure

The entry into the holding patterns shall be in accordance with the three-sector entry procedure as prescribed in ICAO Doc 8168 (Aircraft Operation) Vol II.



- 1.3.3 Rate of turn
All turns are to be made at a bank angle of 25° or at a rate of 3° per second, whichever requires the lesser bank.

- 1.3.4 Holding speeds
Holding patterns shall be entered and flown at or below the following indicated airspeeds.

Flight level (FL)	Normal conditions	Turbulence conditions
Up to FL 140 (4250 m) inclusive	230 kt (425 km/h)	280 kt (520 km/h)
Above FL 140 (4250 m) to FL 200 (6100 m) inclusive	240 kt (445 km/h)	280 kt(520 km/h) or 0.8 Mach, whichever is less and ATC approval is obtained
Above FL 200 (6100 m) to FL 340 (10350 m) inclusive	265 kt (490 km/h)	
Above FL 340 (10350 m)	0.83 Mach	0.83 Mach

- 1.3.5 Outbound timing
Outbound timing shall be one minute up to and including FL 140 and above FL 140 one minute and thirty seconds.

2 Arriving flights

- 2.1 IFR flights entering and landing within a Terminal Control Area (TMA) will be cleared to a specified holding point and instructed to contact approach control office (APP) at a specified time, level or position. The terms of this clearance shall be adhered to until further instructions are received from APP. If the clearance limit is reached before further instructions have been received, holding procedure shall be carried out at the level last authorized.
- 2.2 Due to the limited airspace available, it is important that the approaches to the patterns and the holding procedures be carried out as precisely as possible. Pilots are strongly requested to inform ATC if for any reason the approach and/or holding cannot be performed as required.

3 Departing flights

- 3.1 An ATC clearance will be issued to the departing IFR aircraft whose flight plan has been submitted to the Air Traffic Services Reporting Office (ARO) at least 60 minutes prior to departure.
- 3.2 IFR flights departing from controlled aerodromes will receive initial ATC clearance from the local Aerodrome Control Tower (TWR). The clearance limit will normally be the aerodrome of destination. IFR flights departing from non-controlled aerodromes shall make arrangements with the Area Control Centre (ACC) concerned prior to take-off.
- 3.3 Detailed instructions with regard to routes, turns etc. will be issued prior to take-off.

4 Special procedures for the Vientiane TMA

- 4.1 Transition altitude: 11000 ft (3350 m);
Transition level: FL 130 (3950 m).
- 4.2 Instrument Flight Rules specified in chapter 5 of ICAO Annex 2 and regulations in AIP Part 2 ENR1.3 are mandatory for all aircraft in the TMA.
- 4.3 Altitude and/or flight level assigned by ATC unit are imperative.
- 4.4 Aircraft are required to maintain two-way radio communication with appropriate ATC unit and remain until instructed to change over frequency.

ENR 1.6 RADAR SERVICES AND PROCEDURES

1 General

- 1.1 Radar control service is provided to identify aircraft operating in controlled airspace.
- 1.2 Radar advisory service is provided to aircraft operating outside controlled airspace and to identify aircraft subject to radar coverage.
- 1.3 The radar Units will use the following call signs when providing radar service:
- a) Aircraft under Vientiane Area Control Center (ACC) - Vientiane control
 - b) Aircraft under Vientiane Approach Control Office (APP) - Vientiane approach
- 1.4 Vientiane ACC and APP utilize SSR/PSR stationed at Vientiane/Wattay international airport; SSR stationed at Savannakhet airport; SSR stationed at Phouyuan Mountain, Xiengkhuang province and SSR stationed at Paksong district, Champasak province:
- a) Vientiane Station:
 - Position: 17 59 33.0N – 102 33 14.2E
 - Range: SSR - 250 NM (463 km)
PSR - 60 NM (111 km).
 - b) Savannakhet Station:
 - Position: 16 33 17N – 104 45 36E
 - Range: SSR - 250 NM (463 km)
 - c) Xiengkhuang Station:
 - Position: 19 24 53N – 103 17 34E
 - Range: SSR - 250 NM (463 km)
 - d) Paksong Station:
 - Position: 15 10 00N – 106 15 51E
 - Range: SSR - 250 NM (463 km)
- 1.5 The application of radar control service
- 1.5.1 Radar identification is achieved according to the provisions specified in ICAO Doc 4444 ATM/501, chapter 8 - Radar Services.
- 1.5.2 ATS routes under the provision of radar control service:
- | | |
|----------------------|---------------------------------|
| A1 (BUTRA – PAPRA) | R207 (ANBOK – VTN) |
| A202 (SAV – VILAO) | R215 (TOMIP – LPB) |
| A206 (LPB – NALAO) | R328 (SAV – TORED) |
| A581 (PONUK – SAGAG) | R335 (VTN – IDOTA) |
| B202 (PAK – BOMPA) | R474 (VTN – LAVOS) |
| B214 (AKSAG – LADON) | R575 (LAVAN – PAPRA) |
| B218 (SAGAG – VTN) | W35 (NTH – VTN) |
| B329 (LEKOB – VILAO) | W36 (VTN – SAM) |
| B346 (YAKUA – LPB) | W76 (VTN – PAK) |
| B465 (AKSAG – LAPON) | W77 (LPB – KADIN) |
| B468 (LPB – LADON) | W78 (TANGO – SAV – DELTA – ATP) |
| | W79 (PAK – ATP) |
- Note: All aircraft equipped with transponder operating on domestic direct routes are provided radar advisory services.
- 1.5.3 The minimum horizontal radar separations are:
- a) 5 NM (9,3 km) within Vientiane TMA;
 - b) 10NM (18km) outsides of Vientiane TMA and en-routes along airways within Vientiane FIR.

1.6 Radar and radio failure procedures

1.6.1 Radar failure

In the event of radar failure or loss of radar contact, instructions will be issued to restore non-radar standard separation and the pilot will be instructed to communicate with appropriate ATS unit.

1.6.2 Radio failure

- a) If two-way radio communication is lost with an aircraft, the radar controller should first determine whether or not the aircraft's receiver is functioning by instructing the aircraft on frequency so far used to acknowledge by making a specified manoeuvre and by observing the aircraft's track or by instructing the aircraft to operate the Special Position Identification (SPI) feature or to make the code changes. Where it has been established by the action mentioned above that the aircraft's radio receiver is functioning, the radar controller will continue to provide radar services to aircraft.
- b) If the aircraft's radio is completely unserviceable, the pilot should carry out the procedures for radio failure in accordance with ICAO provisions (Doc 4444 ATM Chapter 15, Item 15.2). If radar identification has already been established, the radar controller will vector other identified aircraft clear of its track until such time as the aircraft leaves radar coverage.

1.7 Graphic portrayal of area of radar coverage

Since the area of radar coverage is identical to that of SSR, see ENR 1.6 – 3 Graphic portrayal of area of coverage of radar/SSR.

2 Secondary Surveillance Radar (SSR)

2.1 Operating procedures

- a) All aircraft flying within Vientiane FIR are required to operate SSR transponder selecting Mode A/3 (4096) and Mode C simultaneously.
- b) Departing aircraft shall operate transponder in accordance with instructions given by Air Traffic Controller as specified in paragraph 2.5 below.
- c) Inbound aircraft shall operate the transponder on the code last assigned to them by the adjacent ACC, or if no such code, shall advise the Air Traffic Control unit concerned who will provide the required code.

2.2 Emergency procedures:

The pilot of an aircraft encountering a state of emergency shall set his transponder to code A/3 7700.

2.3 Radio communication failure procedures

The pilot of an aircraft experiencing two-way radio communication failure shall set his transponder to code A/3 7600.

2.4 Unlawful interference procedures

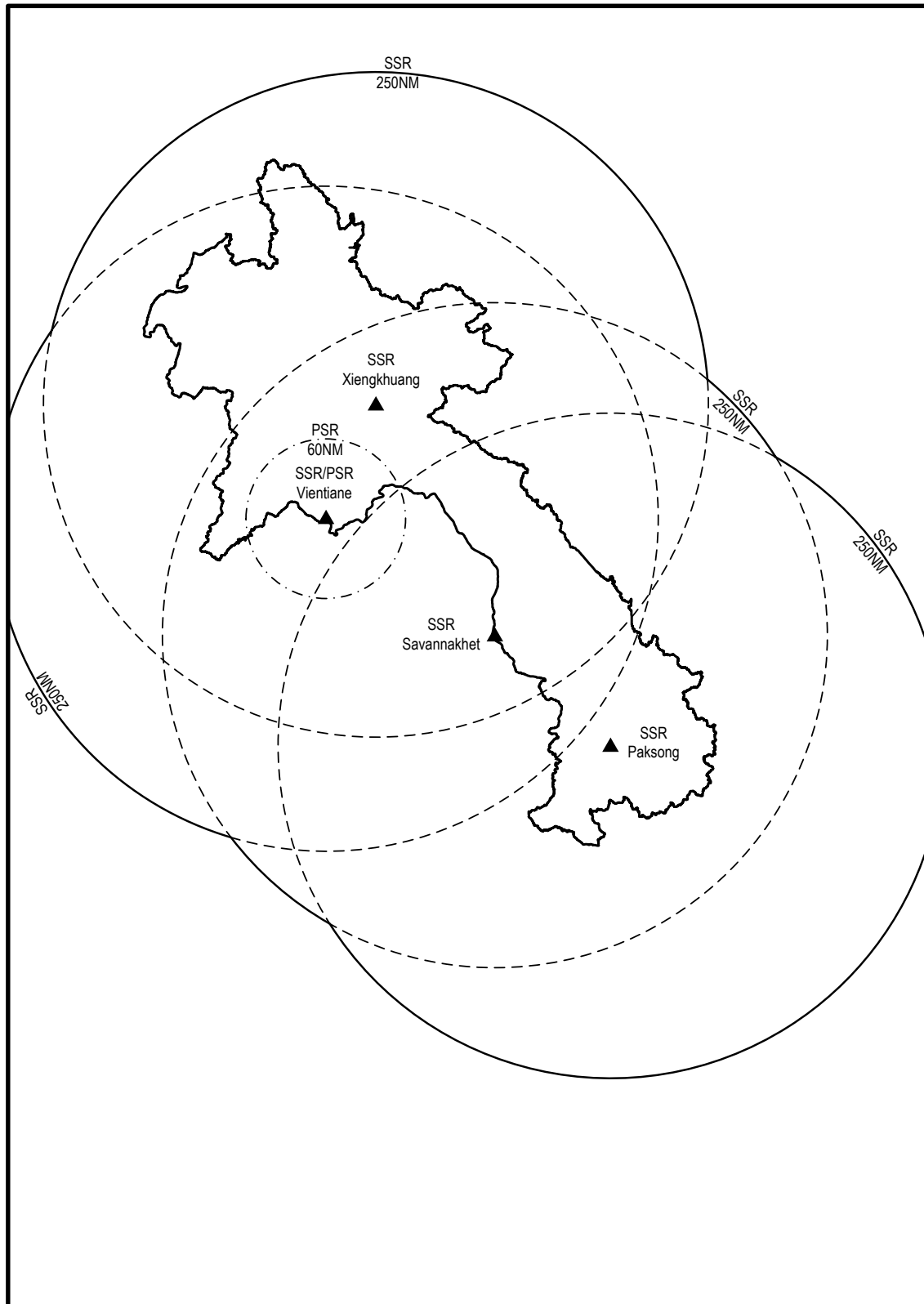
The pilot of an aircraft in flight which is subjected to unlawful interference shall endeavor to set his transponder to code A/3 7500.

2.5 System of SSR code assignment

Aircraft operating in Vientiane FIR can expect to be assigned SSR codes as follows:

- a) VFR flight:
0241 – 0277
- b) Domestic flight:
0201 – 0240
- c) International departure:
1640 – 1670
- d) Others:
1671 – 1677

COVERAGE OF SURVEILLANCE RADAR SYSTEM (PSR/SSR)



ENR 1.7 ALTIMETER SETTING PROCEDURES

1. Introduction

- 1.1 The altimeter setting procedures in use generally conform to those contained in ICAO Doc 8168, Vol. I, Part 6 and are given in full below. Differences are shown in quotation marks.
- 1.2 Transition altitudes are given on the instrument approach charts.
- 1.3 QNH reports and temperature information for use in determining adequate terrain clearance are provided in MET broadcasts and are available on request from the ATS units. QNH are given in hectopascals (hPa).

2. Altimeter setting procedures

2.1 General

- 2.1.1 The change in reference from altitude to flight level, and vice-versa, is made, when climbing or descending through transition layer.
- 2.1.2 Flight level zero is located at atmospheric pressure level of 1013.2 hPa (29.92 in). Consecutive flight levels are separated by a pressure interval corresponding to 500 ft (152.4 m) in the standard atmosphere.

Note: Examples of the relationship between flight levels and altimeter indications are given in the following table, the metric equivalents being approximate:

Flight level Number	Altimeter indication	
	Feet	Meters
10	1000	300
15	1500	450
20	2000	600
50	5000	1500
100	10 000	3050
130	13 000	3950
150	15 000	4550
200	20 000	6100
250	25 000	7600
300	30 000	9150
350	35 000	10 650
400	40 000	12 200
450	45 000	13 700

2.2 Take-off and climb

- 2.2.1 A QNH altimeter setting is made available to aircraft in taxi clearance prior to take-off.
- 2.2.2 Vertical positioning of aircraft during climb is expressed in terms of altitudes until reaching the transition altitude above which vertical positioning is expressed in terms of flight levels.
- 2.3 Vertical separation – en-route
- 2.3.1 Vertical separation during en-route flight is expressed in terms of flight levels at all times “during an IFR flight and at night”.
- 2.3.2 IFR and VFR flights above 3000 ft (900 m), when in level cruising flight, shall be flown at such flight levels, corresponding to the magnetic tracks shown in the following table, so as to provide the required terrain clearance:

000° - 179°		180° - 359°	
IFR	VFR	IFR	VFR
10		20	
30	35	40	45
50	55	60	65
70	75	80	85
90	95	100	105
....	etc		etc
270		280	
290		300	
310		320	
330		340	
350		360	
370		380	
390		400	
410		430	
.....			
450		470	

Note: Vientiane FIR is introduced as RVSM Airspace from FL290 to FL410 inclusive;

** On ATS routes A581, B218 and B346, all odd level would be assigned for Northbound traffic and all even level for Southbound traffic respectively;*

** On ATS routes W76 FL320, FL360 would be assigned for Southbound traffic, and FL310, FL350 for Northbound traffic respectively.*

Other flight levels are subject to prior coordination with related ATC unit (s).

2.4 Approach and landing

2.4.1 A QNH altimeter setting is made available in approach clearance and in clearance to enter the traffic circuit. A QFE altimeter setting is available on request.

2.4.2 Vertical positioning of aircraft during approach is expressed in terms of flight levels until reaching the transition level below which vertical positioning is expressed in terms of altitudes.

2.5 Missed approach

2.5.1 The relevant portions of 2.2, 2.2.2 and 2.4 shall be applied in the event of a missed approach.

3 Description of altimeter setting region

3.1 The altimeter setting regions are Luang Phabang, Pakse and Vientiane TMAs. The areas covered by these regions are shown on the Air Traffic Services Airspace Chart ENR 2.

4. Procedures applicable to operators (including pilots)

4.1 Flight planning

4.1.1 The level at which a flight is to be conducted shall be specified in a flight plan:

- a) in terms of flight level if the flight is to be conducted at or above the transition level or the lowest usable flight level, whichever applicable; and
- b) in terms of altitude if the flight is to be conducted in the vicinity of an aerodrome and at or below the transition altitude.

Note 1: Short flights in the vicinity of an aerodrome may often be conducted only at altitudes below the transition altitude.

Note 2: Flight levels are specified in a plan by number and not in terms of feet or meters as in the case with altitude.

4.1.2 The altitude or flight level selected for flight:

- a) shall ensure adequate terrain clearance at all points along the route to be flown;
- b) shall satisfy air traffic requirement; and
- c) shall be compatible with the application of the table of cruising levels as shown in item 5 below.

5. Table of cruising levels

The cruising levels to be observed when so required are as follows:

TRACK					
From 000 degrees to 179 degrees					
IFR Flights Altitude			VFR Flights Altitude		
FL	Metres	Feet	FL	Metres	Feet
30	900	3000	35	1050	3500
50	1500	5000	55	1700	5500
70	2150	7000	75	2300	7500
90	2750	9000	95	2900	9500
110	3350	11 000	115	3500	11 500
130	3950	13 000	135	4100	13 500
150	4550	15 000	155	4700	15 500
170	5200	17 000	175	5350	17 500
190	5800	19 000	195	5950	19 500
210	6400	21 000			
230	7000	23 000			
250	7600	25 000			
270	8250	27 000			
290	8850	29 000			
330	10 050	33 000			
370	11 300	37 000			
410	12 500	41 000			
450	13 700	45 000			
490	14 950	49 000			

TRACK					
From 180 degrees to 359 degrees					
IFR Flights Altitude			VFR Flights Altitude		
FL	Metres	Feet	FL	Metres	Feet
40	1200	4000	45	1350	4500
60	1850	6000	65	2000	6500
80	2450	8000	85	2600	8500
100	3050	10 000	105	3200	10 500
120	3650	12 000	125	3800	12 500
140	4250	14 000	145	4400	14 500
160	4900	16 000	165	5050	16 500
180	5500	18 000	185	5650	18 500
200	6100	20 000			
220	6700	22 000			
240	7300	24 000			
260	7900	26 000			
280	8550	28 000			
300	9150	30 000			
320	9750	32 000			
340	10 350	34 000			
360	10 950	36 000			
380	11 600	38 000			
400	12 200	40 000			
430	13 100	43 000			
470	14 350	47 000			
510	15 550	51 000			

Note: Vientiane FIR is introduced as RVSM Airspace from FL290 to FL410 inclusive;

→ * *On ATS routes A581, B218 and B346, all odd level would be assigned for Northbound traffic and all even level for Southbound traffic respectively;*

→ * *On ATS routes W76 FL320, FL360 would be assigned for Southbound traffic, and FL310, FL350 for Northbound traffic respectively.*

Other flight levels are subject to prior coordination with related ATC unit (s).

Some of the lower levels in the above table may not be usable due to terrain clearance requirements.

ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030)

1. Visual flight rules (VFR)

VFR flights to be operated within a control zone established at an aerodrome serving international flights and in specified portions of the associated terminal control area shall:

- a) have two-way radio communications;
- b) obtain permission from the appropriate air traffic control unit; and
- c) report positions, as required.

Note: The phrase "specified portions of the associated terminal control area" is intended to signify at least those portions of the TMA used by international IFR flights in association with approach, holding, departure and noise abatement procedures.

2. Special application of instrument flight rules (IFR)

Flight shall be conducted in accordance with the instrument flight rules (even when not operating in instrument meteorological conditions) when operated above FL195.

3. Air traffic advisory service

All IFR flights shall comply with the procedures for air traffic advisory service when operating outside controlled airspace.

ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

To be developed

ENR 1.10 - FLIGHT PLANNING

1. Procedures for the submission of a flight plan

A flight plan shall be submitted prior to operating:

- a) any flight or portion thereof to be provided with air traffic control service;
- b) IFR and VFR flights within advisory airspace;
- c) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services;
- d) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate co-operation with appropriate military units or with air traffic services units in adjacent states in order to avoid the possible need for interception for the purpose of identification;
- e) any flight across international borders.

2. Time of submission

2.1 A flight plan shall be submitted before departure to an Air Traffic Services Reporting Office (ARO) or, during flight, transmitted to the appropriate air traffic services unit.

2.2 A flight plan for a flight to be provided with air traffic control service shall be submitted at least 60 minutes before departure, or, if submitted during flight, at a time which will ensure its receipt by the appropriate air traffic services unit at least 10 minutes before the aircraft is estimated to reach:

- a) the intended point of entry into a control area or advisory area; or
- b) the point of crossing an airway or advisory route.

3. Place of submission

3.1 Flight plans shall be submitted at the ARO at the departure aerodrome.

3.2 In the absence of such an office at the departure aerodrome, a flight plan shall be submitted by telephone or teletype to the nearest AROs as listed below:

- | | | | | |
|-----------------|-----|------|------------------|---------|
| - Luang Phabang | ARO | TEL: | (856-71) 212 208 | |
| - Pakse | ARO | TEL: | (856-31) 212 843 | |
| - Savannakhet | ARO | TEL: | (856-41) 214 461 | |
| - Vientiane | ARO | TEL: | (856-21) 512 008 | |
| | | | (856-21) 512 006 | ext 217 |

4. Contents and form of a flight plan

4.1 ICAO flight plan forms are available at ARO as in 3.2 above.

4.2 A flight plan shall comprise information regarding such of the following items:

- Aircraft identification
- Flight rules and type of flight
- Number and type of aircraft and wake turbulence category
- Equipment
- Departure aerodrome
- Estimated off-block time
- Cruising speed (s)
- Cruising level (s)
- Route to be followed
- Destination aerodrome and total estimated elapsed time
- Alternate aerodrome (s)
- Fuel endurance
- Total number of persons on board
- Emergency and survival equipment
- Other information.

5. Adherence to ATS route structure

No flight plans shall be filed for routes deviating from the published ATS route structure in the Lao AIP unless prior permission has been obtained from the appropriate ATC authorities.

6. Repetitive flight plan system

6.1 General

The procedures concerning the use of Repetitive Flight Plan (RPL) conform to ICAO Doc 7030 and the PANS – ATM/501 Doc 4444.

RPL lists relating to flights in and to flights overflying the Vientiane FIR shall be submitted at least two weeks in advance to the following address:

- a) airmail: Lao Air Traffic Management
Air Traffic Service Center
ATS Reporting Office
P.O Box 2985 Vientiane, Lao PDR.
- b) **AFS:** VLVTPZPX, VLVTZQZX
- c) FAX: (856 21) 512 216

RPL shall be replaced in their entirety by new lists prior to the introduction of the summer and winter schedules. RPL will not be accepted for any flight conducted from 24th December to 2nd January of the following year, between 0000 and 2300 UTC. On these days individual flight plans shall be filed for all flights.

6.2 Incidental changes and cancellations of RPL

- a) Changes of a temporary, non-recurring nature relating to RPLs concerning aircraft type and wake turbulence category, speed and/or cruising level shall be notified for each individual flight as early as possible and not later than 30 minutes before departure to the ATS reporting office responsible for the departure aerodrome. A change of cruising level only may be notified by radiotelephony on initial contact with the ATS unit.
- b) In case of an incidental change in the aircraft identification, the departure aerodrome, the route and/or the destination aerodrome, the RPL shall be cancelled for the day concerned and an individual flight plan shall be submitted.
- c) Whenever it is expected by the operator that a specific flight, for which an RPL has been submitted, is likely to encounter a delay of 30 minutes or more in excess of the off-block time stated in that flight plan, the ATS unit responsible for the departure aerodrome shall be notified immediately.

7. Changes to the submitted flight plan

All changes to a flight plan submitted for IFR flight or controlled VFR flight and significant changes to a flight plan submitted for an uncontrolled VFR flight shall be reported as soon as possible to the appropriate ATS unit. In the event of a delay in departure of 30 minutes for a controlled flight or 60 minutes for an uncontrolled flight, the flight plan shall be amended or a new flight plan shall be submitted after the old plan has been cancelled.

Whenever a flight, for which a flight plan has been submitted, is cancelled, the appropriate ATS unit shall be informed immediately.

ENR 1.11 - ADDRESSING OF FLIGHT PLAN MESSAGES

1 General

Flight movement messages relating to traffic into or via the Vientiane FIR shall be addressed as stated below in order to warrant correct relay and delivery.

Note: Flight movement message in this context comprise flight plan messages, amendment messages, amendment messages relating thereto and flight plan cancellation messages (ICAO PANS - ATM Doc 4444).

Category of flight (IFR, VFR or both)	Route (into or via FIR and/or TMA, CTR)	Message address
All flights	Into or via Vientiane FIR	VLVTZRZX VLVTZQZX
	For flights into:	
	- Vientiane TMA, CTR	VLVTZAZX VLVTZTZX
	- Luang Phabang TMA, CTR	VLLBZAZX VLLBZTZX
	- Pakse TMA, CTR	VLPSZAZX VLPSZTZX
	- Savannakhet TMA, CTR	VLSKZTZX
	- Xiengkhuang TMA, CTR	
	- Attapeu CTR	
	- Bounneua CTR	
	- Houeisay CTR	
	- Luang Namtha CTR	
	- Oudomxay CTR	
	- Samneua CTR	
	- Sayaboury CTR	

ENR 1.12 - INTERCEPTION OF CIVIL AIRCRAFT

1. Interception procedures

1.1 The following procedures and visual signals apply over the territory of Lao P.D.R in the event of interception of an aircraft. An aircraft which is intercepted by another aircraft shall immediately:

- a) follow the instructions given by the intercepting aircraft, intercepting and responding to visual signals in accordance with the specifications in Appendix 2 of ICAO Annex 2;
- b) notify, if possible, the appropriate ATS unit;
- c) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving identity of the intercepted aircraft and the nature of the flight;
- d) if equipped with SSR transponder, select Mode A/3, Code 7700, unless otherwise instructed by the appropriate ATS unit.

1.2 If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgment of instructions and essential information by using the phrases and pronunciations in the following table, transmitting each phrase twice:

Note: The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with the Search and Rescue Manual (Doc 7333).

Phrase	Pronunciation	Meaning
CALL SIGN (call sign) ²	KOL ¹ SA-IN (call sign)	My call sign is (call sign)
WILCO	VILL -KO	Understood. Will comply
CAN NOT	KANN NOTT	Unable to comply
REPEAT	REE-PEET	Repeat your instruction
AM LOST	AM LOSST	Position unknown
MAYDAY	MAYDAY	I am in distress
HIJACK ³	HI-JACK	I have been hijacked
LAND (Place name)	LAAND (Place name)	I request to land at (Place name)
DESCEND	DEE-SEND	I require descent

1. Syllables to be emphasized are printed in bold letter.
2. The call sign required to be given is that used in radiotelephony communications with ATS units and corresponding to the aircraft identification in the flight plan.
3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".

1.3 The phrases shown in the table below shall be used by the intercepting aircraft and transmitted twice in the circumstances described in the preceding paragraph.

1.4 If any instruction received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

1.5 If instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

- 1.6 The visual signals for use in the event of interception are detailed on page ENR 1.12-2 and ENR 1.12-3.

<i>Phrase</i>	<i>Pronunciation</i>	<i>Meaning</i>
CALL SIGN	KOL SA-IN	What is your call sign ?
FOLLOW	FOL -LO	Follow me
DESCEND	DEE- SEND	Descend for landing
YOU LAND	YOU LAAND	Land at this aerodrome
PROCEED	PRO- SEED	You may proceed

1. Syllables to be emphasized are printed in bold letter.

SIGNALS FOR USE IN THE EVENT OF INTERCEPTION

Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	Intercepting Aircraft Signals	Meaning	Intercepted Aircraft Responds	Meaning
1	DAY or NIGHT - Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading. <i>Note 1: Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.</i> <i>Note 2: If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.</i>	You have been intercepted. Follow me.	DAY or NIGHT - Rocking aircraft, flashing navigational lights at irregular intervals and following. <i>Note: Additional action required to be taken by intercepted aircraft is prescribed in Annex 2, Chapter 3, 3.8.</i>	Understood, will comply.
2	DAY or NIGHT - An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT - Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT - Lowering landing gear (if fitted), showing steady landing lights and over- flying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT- Lowering landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to landing.	Understood, will comply.

**Signals initiated by intercepted aircraft
and
responses by intercepting aircraft**

Series	Intercepted Aircraft Signals	Meaning	Intercepting Aircraft Responds	Meaning
4	DAY or NIGHT - Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 1000 ft (300 m) but not exceeding 2000 ft (600 m) (in the case of a helicopter, at a height exceeding 170 ft (50 m) but not exceeding 330ft (100 m) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT – If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood follow me. Understood you may Proceed.
5	DAY or NIGHT - Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT - Irregular flashing of all available lights.	In distress	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.

ENR 1.13 - UNLAWFUL INTERFERENCE

1. General

The following procedures are intended for use by aircraft when unlawful interference occurs and the aircraft is unable to notify an ATS unit of this fact.

2. Procedures

- 2.1 Unless considerations aboard the aircraft dictate otherwise, the pilot-in-command should attempt to continue flying on the assigned track and at the assigned cruising level at least until notification to an ATS unit is possible or the aircraft is within radar coverage.
- 2.2 When an aircraft subjected to an act of unlawful interference must depart from its assigned track or cruising level without being able to make radiotelephony contact with ATS unit, the pilot-in-command should, whenever possible:
 - a) attempt to broadcast warnings on the VHF emergency frequency and other appropriate frequencies, endeavor to set his transponder to code A/3 7500. Other equipment should also be used when it is advantageous to do so and circumstances permit; and
 - b) proceed in accordance with applicable special procedures for in-flight contingencies, where such procedures have been established and promulgated in ICAO Doc 7030 – *Regional Supplementary Procedures*; or
 - c) if no applicable regional procedures have been established, proceed at a level which differs from the cruising levels normally used for IFR flight in the area by 1000ft (300m) if above FL290 or by 500ft (150m) if below FL290.

ENR 1.14 - AIR TRAFFIC INCIDENTS

1 Definition of air traffic incidents

An incident is an occurrence other than an accident associated with the operation of an aircraft which affect or could affect the safety of flight.

1.1 An incident may be caused by any of the following:

- a) Ground organization:
 - i) faulty organization or procedure, abnormal function or operation of radio communication or navigational aids;
 - ii) personal negligence, incompetence, error or misapplication of procedures or instructions;
- b) Aircrew: negligence, incompetence, error of judgment, misapplication of procedures or failure to comply with procedures or instructions;
- c) Aircraft: defects in the aircraft or its equipment;
- d) Severe meteorological conditions.

2 Use of the air traffic incident report form

The Air Traffic Incident Report Form is intended for use:

- a) by a pilot for filing a report on an air traffic incident after arrival or for confirming a report made initially by radio during flight.

Note: The form, if available on board, may also be of use in providing a pattern for making the initial report in flight.

- b) by an ATS unit for recording an traffic incident report received by radio, telephone or teletype.

Note: The form may be used as the format for the text of a message to be transmitted over the AFS network.

-See model of Air Traffic Incident Report Form on pages ENR 1.14-3 to 1.14-6

3 Reporting procedures

(Including in - flight procedures)

3.1 The following are the procedures to be followed by a pilot who is or has been involved in an incident:

- a) during flight, use the appropriate air/ground frequency for reporting an incident of major significant, particularly if it involves other aircraft, so as to permit the facts to be ascertained immediately;
- b) as promptly as possible after landing, submit a completed Air Traffic Incident Report Form
 - i) for confirming a report of an incident made initially in a) above, or for marking the initial report on such an incident if it had not been possible to report it by radio;
 - ii) for reporting an incident which did not require immediate notification at the time of occurrence.

3.2 An initial report made by radio should contain the following information:

- A aircraft Identification;
- B type of Incident, e.g. aircraft proximity;
- C the incident; 1. a) and b); 2. a), b), c), d), n); 3. a), b), c), i); 4. a), b);
- D miscellaneous: 1.e).

- 3.3 The confirmatory report on an incident of major significance initially reported by radio or the initial report on any other incident should be submitted to the Department of Civil Aviation of Lao PDR in less than 3 days from the occurrence by the complete "Air Traffic Incident Report Form" or to the appropriate ATS unit at the aerodrome of first landing for submission to the Department of Civil Aviation.

4 Purpose of reporting and handling of the form

- 4.1 The purpose of the reporting of aircraft proximity incidents and their investigation is to promote the safety of aircraft.
- 4.2 The purpose of the form is to provide investigatory authorities with as complete information on an air traffic incident as possible and to enable them to report back, with the least possible delay, to the pilot or operator concerned, the result of the investigation of the incident and, if appropriate, the remedial action taken.

Air traffic incident report form <i>For use when submitting and receiving reports on air traffic incident. In an initial report by radio, shaded items should be included</i>		
A – AIRCRAFT IDENTIFICATION	B – TYPE OF INCIDENT AIRPROX / PROCEDURE / FACILITY	
C – THE INCIDENT		
1. General		
a) Date / time of incident UTC b) Position		
2. Own aircraft		
a) Heading and route b) True airspeed _____ measured in () kt _____ () km/h _____ c) Level and altimeter setting d) Aircraft climbing or descending () Level flight () Climbing () Descending e) Aircraft bank angle () Wings level () Slight bank () Moderate bank () Steep bank () Inverted () Unknown f) Aircraft direction of bank () Left () Right () Unknown g) Restrictions to visibility (select as many as required) () Sunglare () Windscreen pillar () Dirty windscreen () Other cockpit structure () None h) Use of aircraft lighting (select as many as required) () Navigation lights () Strobe lights () Cabin lights () Red anti-collision lights () Landing / taxi lights () Logo (tail fin) lights () Other () None i) Traffic avoidance advice issued by ATC () Yes, based on radar information () Yes, based on visual sighting () Yes, based on other () No j) Traffic information issued () Yes, based on radar information () Yes, based on visual sighting () Yes, based on other () No k) Airborne collision avoidance system – ACAS () Not carried () Type () Traffic advisory issued () Resolution advisory issued () Traffic advisory or resolution advisory not issued l) Radar identification () No radar available () Radar identification () No radar identification m) Other aircraft sighted () Yes () No () Wrong aircraft sighted n) Avoiding action taken () Yes () No o) Type of flight plan IFR / VFR / none*		
3. Other aircraft		
a) Type and call sign / registration (if known) b) If a) above not known, describe below () High wing () Mid wing () Low wing () Rotorcraft () 1 engine () 2 engines () 3 engines		

☐ 4 engines ☐ More than 4 engines Marking, colour or other available details		
c) Aircraft climbing or descending ☐ Level flight ☐ Unknown	☐ Climbing	☐ Descending
d) Aircraft bank angle ☐ Wing level ☐ Steep bank	☐ Slight bank ☐ Inverted	☐ Moderate bank ☐ Unknown
e) Aircraft direction of bank ☐ Left	☐ Right	☐ Unknown
f) Lights displayed ☐ Navigation lights ☐ Red anti-collision lights ☐ Other	☐ Strobe lights ☐ Landing taxi lights ☐ None	☐ Cabin lights ☐ Logo (tail fin) lights ☐ Unknown
g) Traffic avoidance advice issued by ATS ☐ Yes, based on radar information ☐ Yes, based on visual sighting ☐ Yes, based on other information ☐ No ☐ Unknown		
h) Traffic information issued ☐ Yes, based on radar information ☐ Yes, based on visual sighting ☐ Yes, based on other information ☐ No ☐ Unknown		
i) Avoiding action taken ☐ Yes ☐ No ☐ Unknown		
4. Distance a) Closest horizontal distance b) Closest vertical distance		
5. Flight weather conditions a) IMC / VMC* b) Above / below* clouds / fog / haze or between layers* c) Distance vertical from clouds _____ ft / m* above d) In cloud / rain / snow /sleet / fog /haze* e) Flying into / out of* sun f) Flight visibility _____ m / km*		
6. Any other information considered important by the pilot-in-command 		
D – MISCELLANEOUS 1. Information regarding reporting aircraft a) Aircraft registration b) Aircraft type c) Operator d) Aerodrome of departure e) _____ destination f) Reported by radio or other means to _____ (name of ATS unit) at time UTC g) Date / time / place of completion of form		

2. Function, address and signature of person submitting report

- a) Function
- b) Address
- c) Signature
- d) Telephone number

3. Function and signature of person receiving report

- a) Function _____
- b) Signature _____

E – SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

1. Receipt of report

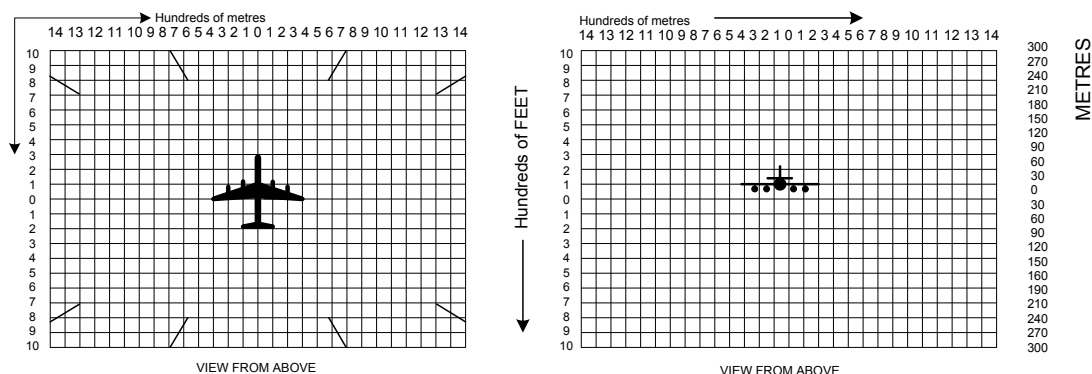
- a) Report receive via AFS / radio / telephone / other (specify) _____
- b) Report receive by _____ (name of ATS unit)

2. Detail of ATS action

Clearance, incident seen (radar/visually, warning given, result of local enquiry, etc.)

DIAGRAMS OF AIRPROX

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right, assuming YOU are at the centre of each diagram. Include first sighting and passing distance.



Instruction for the completion of the Air Traffic Incident Report Form

Item

- A Aircraft identification of the aircraft filing the report.
- B An AIRPROX report should be filed immediately by radio.
- C1 Date/time UTC and position in bearing and distance from a navigation aid or in LAT/LONG.
- C2 Information regarding aircraft filing the report, tick as necessary.
- C2 c) E.g. FL 350/1 013 hPa or 2 500 ft/QNH 1 007 hPa or 1 200 ft/QFE 998 hPa.
- C3 Information regarding the other aircraft involved.
- C4 Passing distance – state units used.
- C6 Attach additional papers as required. The diagram may be used to show aircraft's positions.
- D1 f) State name of ATS unit and date/time in UTC.
- D1 g) Date and time in UTC.
- E2 Include details of ATS unit such as service provided, radiotelephony frequency, SSR Code assigned and altimeter setting. Use diagram to show the aircraft's position and attach additional papers required.

ENR 2 AIR TRAFFIC SERVICES AIRSPACE
ENR 2.1 FIR, UIR, TMA and CTR

<i>Name Lateral limits Vertical limits Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign Languages Area and conditions of use Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
VIENTIANE FIR Over entire territory of Lao PDR <u>UNL</u> GND A - Upper ATS routes (FL200 and above) C - All TMAs, CTRs and lower ATS routes F - Operating Domestic Route G- All remaining airspace and AFIS	Vientiane ACC Vientiane FIC	Vientiane Control ENG H24 Vientiane Info ENG H24	124.10 MHz (Sector1) 128.30 MHz (Sector2) 121.50 MHz/Emergency Freq.	
UIR: NIL				
VIENTIANE TMA A circle, 50 NM radius centered on VTN DVOR/DME (N18 0037.3 E102 32 25.7) limited by FIR boundary, extended as corridor of 20 NM width on W35 to KAASI and 10NM width on W76 to ALPHA. <u>FL195</u> 4 000 ft AMSL	Vientiane APP	Vientiane Approach ENG H24	119.70 MHz	



<i>Name</i> <i>Lateral limits</i> <i>Vertical limits</i> <i>Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions of use</i> <i>Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
LUANG PHABANG TMA A circle of 30 NM radius centered on LPB DVOR/DME (19 54 39.5N 102 10 18.9E), extended as a corridor of 20 NM width on W35 to KAASI, and extended as a corridor on B468 of 15 NM width to NOBOK. FL195 7 500 ft AMSL	Luang Phabang Aerodrome Control Tower	Luang Phabang Tower ENG/Lao Class C H24	118.50 MHz	Vientiane APP responsible to control and coordinate on routes W35 and B218 sector LPB-VTN, between Luangphabang TWR and Vientiane APP.
PAKSE TMA A circle, 50 NM radius centered on PAK DVOR/DME (15 11 48.3N 105 44 17.0E) limited by FIR boundary. FL195 7 500 ft AMSL	Pakse APP	Pakse Approach ENG H24	118.50 MHz	



<i>Name</i> <i>Lateral limits</i> <i>Vertical limits</i> <i>Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions of use</i> <i>Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
SAVANNAKHET TMA A circle of 30 NM radius centered on SAV DVOR/DME (16 33 43.7N 104 46 00.0E), extended as a corridor of 10 NM width on W78 to TANGO, extended as a corridor of 20 NM width on A202 to ABM/SAV (Abeam SAV), extended as a corridor of 20NM width on R328 to ISGAK and extended as a corridor of 10 NM width on W78 to DELTA, limited by FIR Boundary. FL195 4 000 ft AMSL	Savannakhet Aerodrome Control Tower	Savannakhet Tower ENG/Lao Class C H24	118.5 MHz	Savannakhet APP control & Savannakhet Control Tower are combined
XIENGKHUANG TMA A circle of 25 NM radius centered on THX DVOR/DME (19 27 19.8N 103 10 51.7E), extended as a corridor on W77 of 10NM width to KALTO, LANID and extended as a corridor on W36 of 10 NM width to JAMPA. FL195 8 000 ft AMSL	Thonghai Aerodrome Control Tower	Thonghai Tower ENG/Lao Class C H12	118.55 MHz	

<i>Name</i> <i>Lateral limits</i> <i>Vertical limits</i> <i>Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions of use</i> <i>Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
ATTAPEU CTR A circle of 10 NM radius centered on ATP DVOR/DME (14 48 01N 107 01 12E) <u>6 000 AMSL</u> GND	Attapeu Aerodrome Control Tower	Attapeu Tower ENG/Lao Class C H12	118.55 MHz	2300-1100UTC Beyond this time on request
BOUNNEUA CTR A circle of 10 NM radius centered on BN NDB (21 38 00N 101 53 00E) <u>6 000 AMSL</u> GND	Bounneua Aerodrome Control Tower	Bounneua Tower ENG/Lao Class C H12	118.5 MHz	2300-1100UTC Beyond this time on request
HOUEISAY CTR A circle of 10 NM radius centered on HOU NDB (20 15 43N 100 26 12E) limited by boundary <u>5 000 AMSL</u> GND	Houeisay Aerodrome Control Tower	Houeisay Tower ENG/Lao Class C H12	118.5 MHz	2300-1100UTC Beyond this time on request

<i>Name</i> <i>Lateral limits</i> <i>Vertical limits</i> <i>Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions of use</i> <i>Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
LUANG NAMTHA CTR A circle of 10 NM radius centered on NTH NDB (20 58 29N 101 24 10E) <u>5 000 AMSL</u> GND	Luang Namtha Aerodrome Control Tower	Luang Namtha Tower ENG/Lao Class C H12	118.5 MHz	2300-1100UTC Beyond this time on request
OUDOMSAY CTR A circle of 10 NM radius centered on OUD NDB (20 41 05N 101 59 37E) <u>5 000 AMSL</u> GND	Oudomsay Aerodrome Control Tower	Oudomsay Tower ENG/Lao Class C H12	118.55 MHz	2300-1100UTC Beyond this time on request
SAMNEUA CTR A circle of 10 NM radius centered on SAM NDB (20 25 10N 104 04 07E) <u>6 000 AMSL</u> GND	Samneua Aerodrome Control Tower	Samneua Tower ENG/Lao Class C H12	118.5 MHz	2300-1100UTC Beyond this time on request



<i>Name</i> <i>Lateral limits</i> <i>Vertical limits</i> <i>Class of airspace</i>	<i>Unit providing Service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions of use</i> <i>Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
SAVANNAKHET CTR A circle of 10 NM radius centered on SAV DVOR/DME (16 33 43.7N 104 46 00.0E) limited by boundary <u>4 000 AMSL</u> GND	Savannakhet Aerodrome Control Tower	Savannakhet Tower ENG/Lao Class C H24	118.5 MHz	
SAYABOULY CTR A circle of 10 NM radius centered on SAY NDB (19 14 30N 101 42 30E) <u>5 000 AMSL</u> GND	Sayabouly Aerodrome Control Tower	Sayabouly Tower ENG/Lao Class C H12	118.5 MHz	2300-1100UTC Beyond this time on request
XIENGKHUANG CTR A circle of 10 NM radius centered on THX DVOR /DME (19 27 19.8N 103 10 51.7E) <u>8 000 AMSL</u> GND	Thonghai Aerodrome Control Tower	Thonghai Tower ENG/Lao Class C H12	118.55 MHz	2300-1100UTC Beyond this time on request

ENR 3 ATS ROUTES

ENR 3.1 LOWER ATS ROUTES

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
A1 ▲ BUTRA 15 25 00N 105 36 00E ▲ PAPRA 15 46 00N 107 11 00E	<u>077</u> 257 94	<u>FL 195</u> FL 130 8 400ft Class C	30	↓	↑	Vientiane ACC 128.30 MHz
A581 ▲ PONUK 20 18 54N 100 23 18E ▲ SAGAG 21 11 30N 101 37 24E	<u>052</u> 232 87	<u>FL 195</u> FL 130 9 200ft Class C	20	↑	↓	Vientiane ACC 124.10 MHz
B202 ▲ UBL (Bangkok FIR) 15 14 43N 104 51 57E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E ▲ BOMPA 14 20 00N 107 24 00E	<u>094</u> 274 50 <u>118</u> 299 110	<u>FL 195</u> FL 130 10 100ft Class C	20	↓	↑	Vientiane ACC 128.30 MHz
B214 ▲ AKSAG 20 49 00N 100 28 00E ▲ LADON 21 06 13N 102 58 01E	<u>083</u> 263 141	<u>FL 195</u> FL 130 9 200ft Class C	20	↓	↑	Vientiane ACC 128.30 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
B218 ▲ SAGAG 21 11 30N 101 37 24E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	159 339 83 170 350 115	FL 195 10 000 9 100ft Class C FL 195 7 500 7 500ft Class C	20	↑		Vientiane ACC 124.10 MHz
B329 ▲ LEKOB 14 07 48N 105 31 12E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E ▲ VILAO 17 22 00N 106 05 00E	012 192 65 009 189 131	FL 195 FL 130 7 000 ft Class C FL 195 FL 130 9 000 ft Class C	20	↓		Vientiane ACC 128.30 MHz
B346 ▲ YAKUA 17 44 15N 101 30 52E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	016 196 135	FL 195 10 000 9 500 ft Class C	20	↓	↑	Vientiane ACC 124.10 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	<u>Upper limits</u> Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
B465 ▲ AKSAG 20 49 00N 100 28 00E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ LAPON 20 45 00N 104 28 30E	<u>120</u> 300 110 <u>069</u> 249 140	<u>FL 195</u> FL 130 9 800 ft Class C	20	↓	↑	Vientiane ACC 124.10 MHz
B468 ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ NOBOK 20 37 20N 102 38 26E ▲ LADON 21 06 13N 102 58 01E	<u>032</u> 212 51 <u>032</u> 212 34	<u>FL 195</u> 9 000 8 600 ft Class C	20	↓	↑	LuangPhabang APP 118.50 MHz or Vientiane ACC 124.10 MHz
R207 ▲ ANBOK 18 37 00N 101 13 00E ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	<u>116</u> 296 84	<u>FL 195</u> 8 000 7 900 ft Class C	20	↓	↑	Vientiane ACC 124.10 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	<u>Upper limits</u> <u>Lower limits</u> Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
R215 ▲ TOMIP 19 11 00N 101 16 00E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	<u>050</u> 231 66	<u>FL 195</u> FL 130 9 200 ft Class C	20	↓	↑	Vientiane ACC 124.10 MHz
R328 ▲ SAV DVOR/DME 16 33 43.7N 104 46 00.0E ▲ ISGAK 16 31 45N 105 26 15E ▲ LEBAL 16 30 11N 105 56 42E ▲ TORED 16 27 49N 106 40 32E	<u>093</u> 273 39 <u>093</u> 273 30 <u>093</u> 273 42	<u>FL 195</u> 10 000 9 000 ft Class C	20	↓	↑	Vientiane ACC 128.30 MHz
R335 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ ALPHA 18 32 36N 103 19 42E ▲ IDOTA 18 41 36N 105 08 22E	<u>055</u> 235 55 <u>085</u> 265 104	<u>FL 195</u> FL 130 11 600 ft Class C	10	↓	↑	Vientiane ACC 128.30 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
R474 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ NOHET 19 25 36N 103 36 41E ▲ LAVOS 20 26 29N 104 23 37E	037 217 105 037 217 75	FL 195 FL 130 11 600 ft Class C	20	↓	↑	Vientiane ACC 124.10 MHz
R575 ▲ LAVAN 14 05 49N 105 41 36E Δ SEKON 14 52 04N 106 22 34E ▲ PAPRA 15 46 00N 107 11 00E	041 221 61 041 221 71	FL 195 FL 130 10 900 ft Class C	20	↓	↑	Vientiane ACC 128.30 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral Limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
W35 ▲ NTH 20 58 35N 101 24 10E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ KAASI 19 05 58N 102 22 44E ▲ TAGON 18 08 17N 102 38 00E ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	147 327 77 166 346 50 166 346 58 214 034 10	FL 195 9 500 9 100 ft Class C FL 195 7 500 7 500 ft Class C	10	↑		Vientiane ACC 124.10 MHz
W36 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ JAMPA 18 46 38.5N 102 53 23.0E ▲ THX DVOR/DME 19 27 19.8N 103 10 51.7E ▲ SAM NDB 20 25 10N 104 04 07E	024 204 50 024 204 44 042 222 76	FL 195 11 000 11 000 ft Class C	10	↓		Vientiane ACC 124.10 MHz
					↑	

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral Limits NM	Direction of Cruising Levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
W76 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ ALPHA 18 32 36N 103 19 42E ▲ KADIN 18 27 00N 104 00 00E ▲ TANGO 17 25 30N 104 54 18E ▲ ABM/SAV (Abeam SAV) 16 51 21N 105 14 38E ▲ DELTA 16 00 00N 105 45 00E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E	055 235 55 099 279 39 140 320 80 150 330 39 150 330 59 181 001 48	FL 195 FL 130 11 600 ft Class C	10	↓		Vientiane ACC 128.30 MHz
					↑	

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
W77 ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ KALTO 19 41 45N 102 39 04E ▲ THX DVOR/DME 19 27 19.8N 103 10 51.7E ▲ LANID 18 43 47N 103 46 25E ▲ KADIN 18 27 20N 104 00 00E	116 296 30 116 296 33 143 323 54 143 323 22	FL 195 9 500 9 400 ft Class C FL 195 FL 130 11 600ft Class C	10	↓		Vientiane ACC 124.10 MHz
W78 ▲ TANGO 17 25 30N 104 54 18E • 16 41 42N 104 51 42E ▲ SAV DVOR/DME 16 33 43.7N 104 46 00.0E ▲ DELTA 16 00 00N 105 45 00E ▲ ATP DVOR/DME 14 48 01.0N 107 01 12.0E	184 004 44 214 034 10 121 301 66 135 315 103	FL 195 10 000 4 000 ft Class C FL 195 FL 130 8 400 ft Class C	10	↓		Vientiane ACC 128.30 MHz Savannakhet TWR 118.50 MHz
				↑		
				↑		

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
W79 ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E ▲ ATP DVOR/DME 14 48 01.0N 107 01 12.0E	108 288 78	FL195 FL130 8 400 ft Class C	10	↓		Vientiane ACC 128.30 MHz
					↑	

ENR 3 - ATS ROUTES ENR 3.2 UPPER ATS ROUTES

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
		Lower limits Minimum Flight Altitude Airspace Classification		Odd	Even	
1	2	3	4	5		6
A1 ▲ BUTRA 15 25 00N 105 36 00E ▲ PAPRA 15 46 00N 107 11 00E	<u>077</u> 257 94	<u>FL 460</u> FL 200 Class A	30	↓	↑	Vientiane ACC 128.30 MHz
A202 ▲ SAV DVOR/DME 16 33 43.7N 104 46 00.0E ▲ VILAO 17 22 00N 106 05 00E	<u>057</u> 237 90	<u>FL 460</u> FL 260 Class A	20	↓	↑	Vientiane ACC 128.30 MHz
A206 ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E Δ NOHET 19 25 36N 103 36 41E ▲ NALAO 19 19 46N 103 54 18E	<u>108</u> 288 87 <u>108</u> 288 17	<u>FL 460</u> FL 260 Class A	20	↓	↑	Vientiane ACC 124.10 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
		Lower limits Minimum Flight Altitude Airspace Classification		Odd	Even	
1	2	3	4	5		6
A581 ▲ PONUK 20 18 54N 100 23 18E ▲ SAGAG 21 11 30N 101 37 24E	<u>052</u> 232 87	<u>FL 460</u> FL 200 Class A	20	↑		Vientiane ACC 124.10 MHz
B202 ▲ UBL (Bangkok FIR) 15 14 43N 104 51 57E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E ▲ BOMPA 14 20 00N 107 24 00E	<u>094</u> 274 50 <u>118</u> 298 110	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 128.30 MHz
B214 ▲ AKSAG 20 49 00N 100 28 00E ▲ LADON 21 06 13N 102 58 01E	<u>083</u> 263 141	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 128.30 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
B218 ▲ SAGAG 21 11 30N 101 37 24E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	<u>159</u> 339 83 <u>170</u> 350 115	<u>FL 460</u> FL 200 Class A	20	↑		Vientiane ACC 124.10 MHz
B329 ▲ LEKOB 14 07 48N 105 31 12E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E ▲ VILAO 17 22 00N 106 05 00E	<u>012</u> 192 65 <u>009</u> 189 131	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 128.30 MHz
B346 ▲ YAKUA 17 44 15N 101 30 52E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	<u>016</u> 196 135	<u>FL 460</u> FL 200 Class A	20	↓	↑	Vientiane ACC 124.10 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
		Lower limits Minimum Flight Altitude Airspace Classification		Odd	Even	
1	2	3	4	5		6
B465 ▲ AKSAG 20 49 00N 100 28 00E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ LAPON 20 45 00N 104 28 30E	<u>120</u> 300 110 <u>069</u> 249 140	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 124.10 MHz
B468 ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ▲ NOBOK 20 37 20N 102 38 26E ▲ LADON 21 06 13N 102 58 01E	<u>032</u> 212 51 <u>032</u> 212 34	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 124.10 MHz
R207 ▲ ANBOK 18 37 00N 101 13 00E ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	<u>116</u> 296 84	<u>FL 460</u> FL 200 Class A	20	↓		Vientiane ACC 124.10 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
R215 ▲ TOMIP 19 11 00N 101 16 00E ▲ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	<u>050</u> 230 66	<u>FL 460</u> FL 200 Class A	20	↓	↑	Vientiane ACC 124.10 MHz
R328 ▲ SAV DVOR/DME 16 33 43.7N 104 46 00.0E ▲ ISGAK 16 31 45N 105 26 15E ▲ LEBAL 16 30 11N 105 56 42E ▲ TORED 16 27 49N 106 40 32E	<u>093</u> 273 39 <u>093</u> 273 30 <u>093</u> 273 42	<u>FL 460</u> FL 200 Class A	20	↓	↑	Vientiane ACC 128.30 MHz



Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
R335 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ ALPHA 18 32 36N 103 19 42E ▲ IDOTA 18 41 36N 105 08 22E	055 235 55 085 265 104	FL 460 FL 200 Class A	10	↓	↑	Vientiane ACC 128.30 MHz
R474 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ NOHET 19 25 36N 103 36 41E ▲ LAVOS 20 26 29N 104 23 37E	037 217 105 037 217 75	FL 460 FL 200 Class A	20	↓	↑	Vientiane ACC 124.10 MHz
R575 ▲ LAVAN 14 05 49N 105 41 36E Δ SEKON 14 52 04N 106 22 34E ▲ PAPRA 15 46 00N 107 11 00E	041 221 61 041 221 71	FL 460 FL 200 Class A	20	↓	↑	Vientiane ACC 128.30 MHz

Route designator Name of significant Coordinates	Track MAG DIST NM	Upper limits Lower limits Minimum Flight Altitude Airspace Classification	Lateral limits NM	Direction of Cruising levels		Remarks Controlling unit Frequency
				Odd	Even	
1	2	3	4	5		6
W76 ▲ VTN DVOR/DME 18 00 37.3N 102 32 25.7E ▲ ALPHA 18 32 36N 103 19 42E ▲ KADIN 18 27 00N 104 00 00E ▲ TANGO 17 25 30N 104 54 18E ▲ ABM/SAV (Abeam SAV) 16 51 21N 105 14 38E ▲ DELTA 16 00 00N 105 45 00E ▲ PAK DVOR/DME 15 11 48.3N 105 44 17.0E	055 235 55 099 279 39 140 320 80 150 330 39 150 330 59 181 001 48	FL 460 FL 200 Class A	10	↓		Vientiane ACC 128.30 MHz Vientiane ACC 128.30 MHz
					↑	

ENR 3.3 OPERATING DOMESTIC ROUTES

Route designator. Name of significant Coordinates.	Track MAG. DIST NM.	<u>Upper limits</u> Lower limits Minimum Flight Altitude. Airspace Classification.	Lateral limits NM	Direction of Cruising levels		Remarks
				Odd	Even	Controlling unit Frequency
1	2	3	4	5		6
HOU-LPB ○ HOU NDB 20 15 43N 100 26 12E ○ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	<u>103</u> 283 100	<u>FL 195</u> 9 500 9 200 ft Class F		↓	↑	Vientiane ACC 124.10 MHz
HOU-NTH ○ HOU NDB 20 15 43N 100 26 12E ○ NTH NDB 20 58 29N 101 24 10E	<u>053</u> 233 70	<u>FL 195</u> 9 500 9 200 ft Class F		↓	↑	Vientiane ACC 124.10 MHz
HOU-ODU ○ HOU NDB 20 15 43N 100 26 12E ○ ODU NDB 20 41 05N 101 59 37E	<u>074</u> 254 92	<u>FL 195</u> 9 500 9 200 ft Class F		↓	↑	Vientiane ACC 124.10 MHz
HOU-SAY ○ HOU NDB 20 15 43N 100 26 12E ○ SAY NDB 19 14 30N 101 42 30E	<u>132</u> 312 94	<u>FL 195</u> 9 500 9 200 ft Class F		↑	↓	Vientiane ACC 124.10 MHz
LPB-SAM ○ LPB DVOR/DME 19 54 39.5N 102 10 18.9E ○ SAM NDB 20 25 10N 104 04 07E	<u>074</u> 255 112	<u>FL 195</u> 10 000 9 800 ft Class F		↓	↑	Vientiane ACC 124.10 MHz

Route designator. Name of significant Coordinates.	Track MAG. DIST NM.	Upper limits Lower limits Minimum Flight Altitude. Airspace Classification.	Lateral limits NM	Direction of Cruising levels		Remarks
				Odd	Even	Controlling unit Frequency
1	2	3	4	5		6
NTH-ODU ○ NTH NDB 20 58 29N 101 24 10E ○ OUD NDB 20 41 05N 101 59 37E	 <u>118</u> 298 38	 <u>FL 195</u> 9 500 9 100 ft Class F		↓	↑	Vientiane ACC 124.10 MHz
ODU-LPB ○ OUD NDB 20 41 05N 101 59 37E ○ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	 <u>169</u> 349 48	 <u>FL 195</u> 9 000 8 600 ft Class F		↑	↓	Vientiane ACC 124.10 MHz
SAY-LPB ○ SAY NDB 19 14 30N 101 42 30E ○ LPB DVOR/DME 19 54 39.5N 102 10 18.9E	 <u>034</u> 214 47	 <u>FL 195</u> 9 500 9 200 ft Class F		↓	↑	Vientiane ACC 124.10 MHz
SAY-VTN ○ SAY NDB 19 14 30N 101 42 30E ○ VTN DVOR/DME 18 00 37.3N 102 32 25.7E	 <u>148</u> 328 88	 <u>FL 195</u> 9 000 9 000 ft Class F		↑	↓	Vientiane ACC 124.10 MHz

ENR 3.4 AREA NAVIGATION (RNAV) ROUTES

NIL

ENR 3.5 HELICOPTER ROUTES

NIL

ENR 3.6 OTHER ROUTES

NIL

ENR 3.7 EN-ROUTE HOLDING

HLDG ID/FIX/WPT Coordinates	INBD TR (MAG)	Direction of PTN	MAX IAS (Kt)	MNM-MAX HLDG LVL FL/FT (MSL)	TIME (min) or DIST OUBG	Controlling unit and frequency
1	2	3	4	5	6	7
LUANG PHABANG holding area Luang Phabang DVOR/DME (LPB) 19 54 39.5N 102 10 18.9E	245°	Right	230 240 265 Much 0.83	FL120 – FL140 FL150 – FL200 FL210 – FL340 FL350 – FL460	1 1 1/2 1 1/2 1 1/2	Luang Phabang APP 118.50 MHz Vientiane ACC 124.10 MHz
PAKSE holding area Pakse DVOR/DME (PAK) 15 11 48.3N 105 44 17.0E	358°	Left	230 240 265 Much 0.83	FL120 – FL140 FL150 – FL200 FL210 – FL340 FL350 – FL460	1 1 1/2 1 1/2 1 1/2	Pakse APP 118.50 MHz Vientiane ACC 128.30 MHz
SAVANNAKHET holding area Savannakhet NDB (SAV) 16 33 11N 104 45 37E	213°	Left	230 240 265 Much 0.83	FL120 – FL140 FL150 – FL200 FL210 – FL340 FL350 – FL460	1 1 1/2 1 1/2 1 1/2	Vientiane ACC 128.30 MHz
VIENTIANE holding area Vientiane DVOR/DME(VTN) 18 00 37.3N 102 32 25.7 E	315°	Right	230 240 265 Much 0.83	FL120 – FL140 FL150 – FL200 FL210 – FL340 FL350 – FL460	1 1 1/2 1 1/2 1 1/2	Vientiane APP 119.70 MHz Vientiane ACC 124.10 MHz

The en-route holding may be used only when indicated as CLEARANCE LIMIT or after permission from ATC. Holding instructions will be provided by ATC.

ENR 4 - RADIO NAVIGATION AIDS / SYSTEMS
ENR 4.1 RADIO NAVIGATION AIDS / EN-ROUTE

Name of station	ID	Frequency (CH)	Hours of operation	Coordinates	ELEV of antenna	Remarks
1	2	3	4	5	6	7
ATTAPU DVOR/DME	ATP	112.80 MHz		14 48 01.0N 107 01 12.0E		
BOUN NEUA NDB	BN	200 KHz	On request	21 38 00N 101 53 00E		
HOUAI SAY NDB	HOU	250 KHz	On request	20 15 43N 100 26 12E		
LUANGNAMTHA NDB	NTH	260 KHz	H24	20 58 29N 101 24 10E	530 m	
LUANGNAMTHA DME	LNT	112.2 MHz	H24	20 58 26.6N 101 24 10.6E	530 m	
LUANG PHABANG NDB	BK	390 KHz	H24	19 51 58N 102 06 32E		
LUANG PHABANG DVOR/DME	LPB	116.60 MHz (CH 113X)	H24	19 54 39.5N 102 10 18.9E	293.5 m	
OUDOMSAY NDB	ODU	305 KHz	On request	20 41 05N 101 59 37E		
PAKSE NDB	PS	220 KHz	H24	15 07 50.2N 105 47 02.0E	103.7 m	
PAKSE DVOR/DME	PAK	115.00 MHz (CH 97X)	H24	15 11 48.3N 105 44 17.0E	110.3 m	



	Name of station	ID	Frequency (CH)	Hours of operation	Coordinates	ELEV of antenna	Remarks
	1	2	3	4	5	6	7
	SAMNEUA NDB	SAM	206 KHz	H24	20 25 10N 104 04 07E		
→	SAVANNAKHET DVOR/DME	SAV	113.50 MHz (CH 82X)	H24	16 33 43.7N 104 46 00.0E		
	SAYABOULY NDB	SAY	365 KHz	On request	19 14 30N 101 42 30E		
	VIENTIANE NDB	VE	205 KHz	H24	18 01 31N 102 31 28E		
→	VIENTIANE DVOR/DME	VTN	117.50 MHz (CH 122X)	H24	18 00 37.3N 102 32 25.7E	182.2 m	
	PHONESAVANH NDB	PHO	230 KHz	H24	19 26 31N 103 08 08E		
→	XIENGKHUANG DVOR/DME	THX	114.00 MHz (CH 87X)	H24	19 27 19.8N 103 10 51.7E		

ENR 4.2 SPECIAL NAVIGATION SYSTEMS

NIL

ENR 4.3 NAME CODE DESIGNATORS FOR SIGNIFICANT POINTS

Name – Code designator	Coordinates	ATS route or Other route	Remark
1	2	3	4
AKSAG	20 49 00N 100 28 00E	B465/B214	
ALPHA	18 32 36N 103 19 42E	W76/R335	
ANBOK	18 37 00N 101 13 00E	R207	
ABM/SAV (Abeam SAV)	16 51 21N 105 14 38E	W76	
BOMPA	14 20 00N 107 24 00E	B202	
BUTRA	15 25 00N 105 36 00E	A1	
DELTA	16 00 00N 105 45 00E	W76 /W78	
IDOTA	18 41 36N 105 08 22E	R335	
ISGAK	16 31 45N 105 26 15E	W76/R328	
JAMPA	18 46 38.5N 102 53 23.0E	W36	
KAASI	19 05 58N 102 22 44E	W35	
KADIN	18 27 00N 104 00 00E	W76/W77	
KALTO	19 41 45N 102 39 04E	W77	
LADON	21 06 13N 102 58 01E	B214/B468	
LANID	18 43 47N 103 46 25E	W77	
LAPON	20 45 00N 104 28 30E	B465	
LAVAN	14 05 49N 105 41 36E	R575	
LAVOS	20 26 29N 104 23 37E	R474	
LEBAL	16 30 11N 105 56 42E	R328	
LEKOB	14 07 48N 105 31 12E	B329	
NALAO	19 19 46N 103 54 18E	A206	
NOBOK	20 37 20N 102 38 26E	B468	
NOHET	19 25 36N 103 36 41E	A206/R474	
PAPRA	15 46 00N 107 11 00E	A1/R575	
PONUUK	20 18 54N 100 23 18E	A581	
SAGAG	21 11 30N 101 37 24E	A581/B218	
SEKON	14 52 04N 106 22 34E	R575	
TAGON	18 08 17N 102 38 00E	W35	
TANGO	17 25 30N 104 54 18E	W76/W78	

Name – Code designator	Coordinates	ATS route or Other route	Remark
1	2	3	4
TOMIP	19 11 00N 101 16 00E	R215	
TORED	16 27 49N 106 40 32E	R328	
VILAO	17 22 00N 106 05 00E	A202/B329	
YAKUA	17 44 15N 101 30 52E	B346	

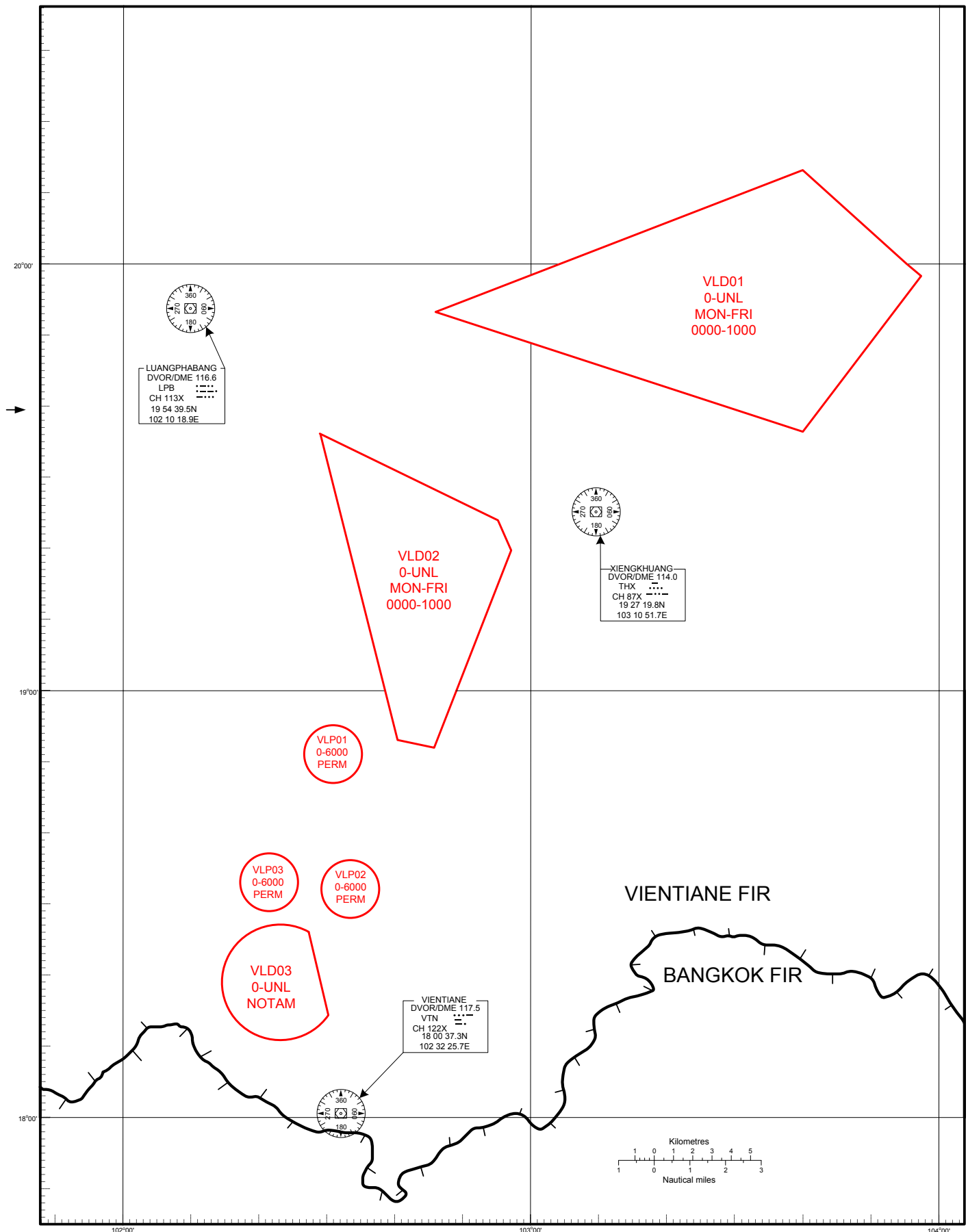
ENR 4.4 AERONAUTICAL GROUND LIGHT – EN-ROUTE

NIL

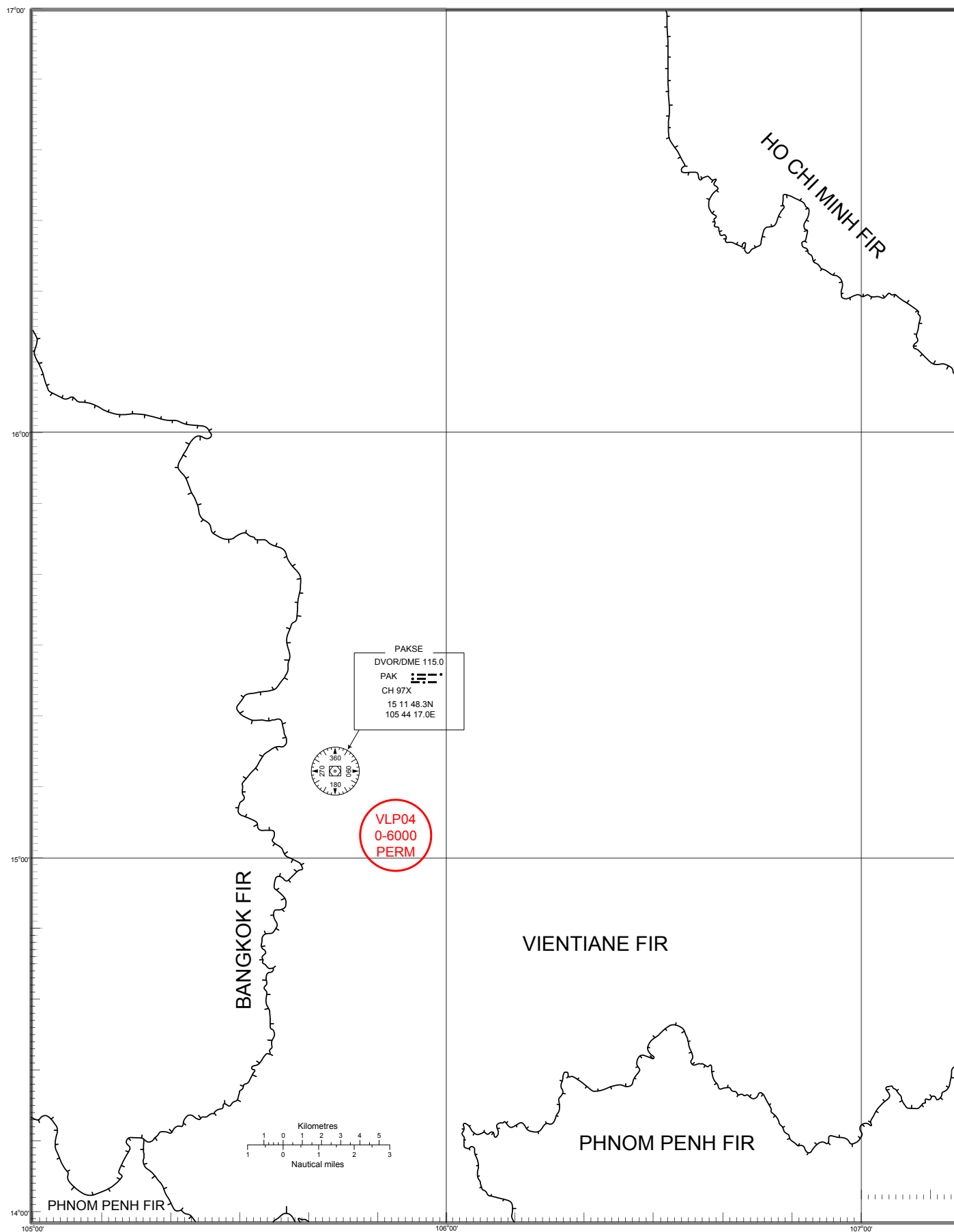
ENR 5 - NAVIGATION WARNING
ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS

Identification Name and lateral limits	Upper limit Lower limit (in feet)	Remarks (time of active, type of hazard risk of interception)
1	2	3
PROHIBITED AREAS		
VLP01 A circle, 5 NM radius centered at 18 51 00N 102 31 00E.	<u>6000</u> GND	H24
VLP02 A circle, 5 NM radius centered at 18 32 00N 102 33 20E.	<u>6000</u> GND	H24
VLP03 A circle, 5 NM radius centered at 18 33 00N 102 21 30E.	<u>6000</u> GND	H24
VLP04 A circle, 5 NM radius centered at 15 03 00N 105 53 00E.	<u>6000</u> GND	H24
RESTRICTED AREA		
DANGER AREAS		
VLD01 19 53 10N 102 46 00E – 19 36 20N 103 40 00E – 19 58 20N 103 57 30E – 20 13 20N 103 40 00E	<u>UNL</u> GND	MON – FRI 0000 – 1000
VLD02 19 36 00N 102 29 00E – 18 53 00N 102 40 10E – 18 52 00N 102 46 00E – 19 19 50N 102 57 20E – 19 24 00N 102 55 20E	<u>UNL</u> GND	MON – FRI 0000 – 1000
VLD03 An area, 10 NM radius centered at 18 19 00N 102 22 30E tracing from 18 26 00N 102 27 20E counter clockwise to 18 14 20N 102 30 20E, then make a straight line from 18 14 20N 102 30 20E to 18 26 00N 102 27 20E.	<u>UNL</u> GND	Time and details of activation will be issued by NOTAM

PROHIBITED, RESTRICTED AND DANGER AREAS



PROHIBITED, RESTRICTED AND DANGER AREAS



ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS

Military exercise and training areas will be notified by NOTAM as and when necessary

ENR 5.3 OTHER ACTIVITIES OF A DANGEROUS NATURE

NIL

ENR 5.4 AIR NAVIGATION OBSTACLES – EN-ROUTE

(Elevation / height 100 m AGL or more)

NIL

ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

Designation and lateral limits	Vertical limit	Operator/User Tel Nr.	Remarks and time of ACT
1	2		3
BAN KHOKSA AIRFIELD A circle of 10 NM radius of centered on coordinate of N180415 E1025435 Limited by buffer of ATS route W76 and FIR boundary.	<u>3000 ft</u> GND	RAVANSITH Flying Club +856 20 55512812	Ultra light flying, daily Between 2300-1100 UTC. Pilots are advised to exercise caution when flying over this Area. Flying might take place at other times.

AERIAL SPORTING AND RECREATIONAL ACTIVITIES CHART

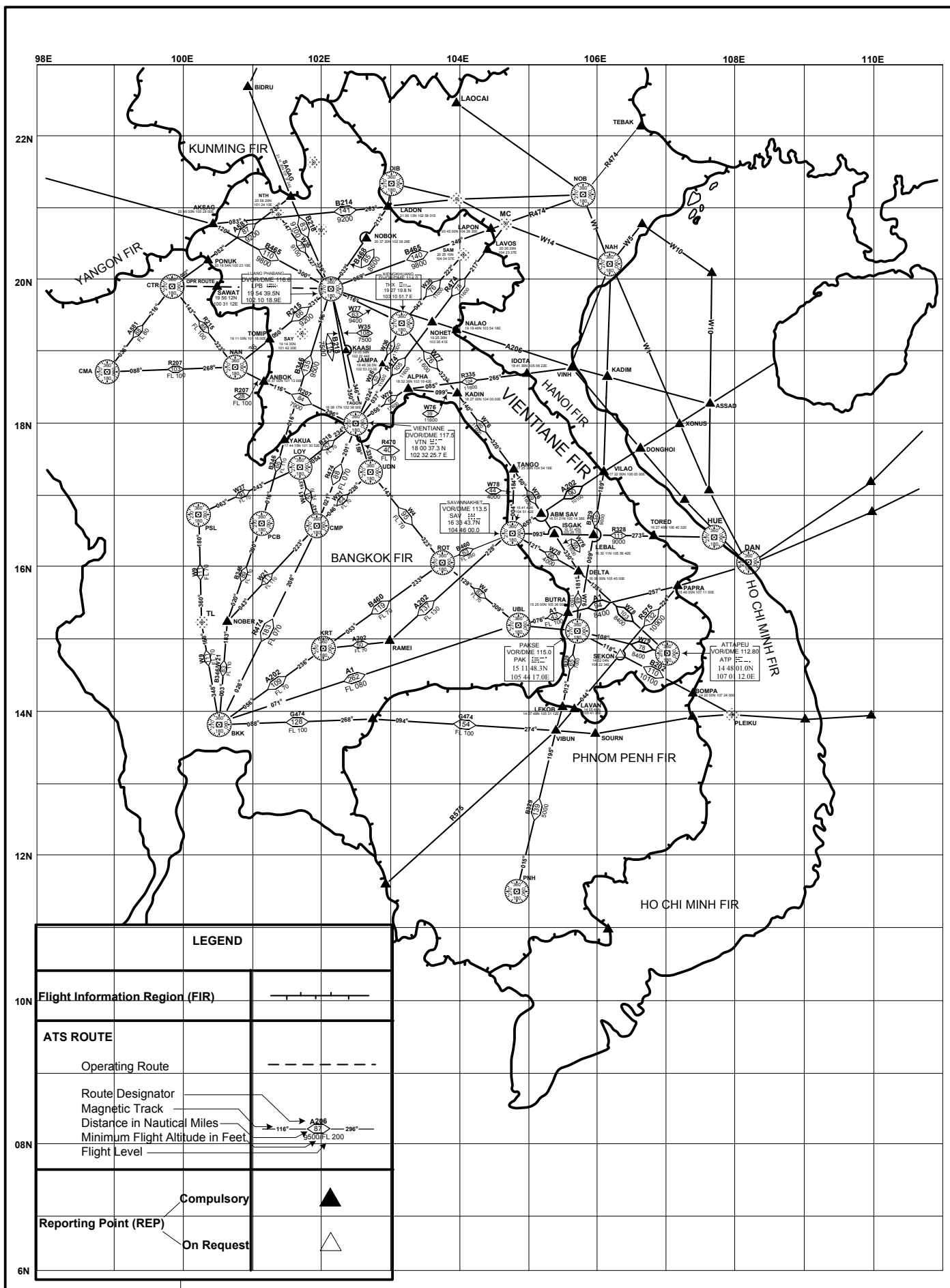


ENR 5.6 BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

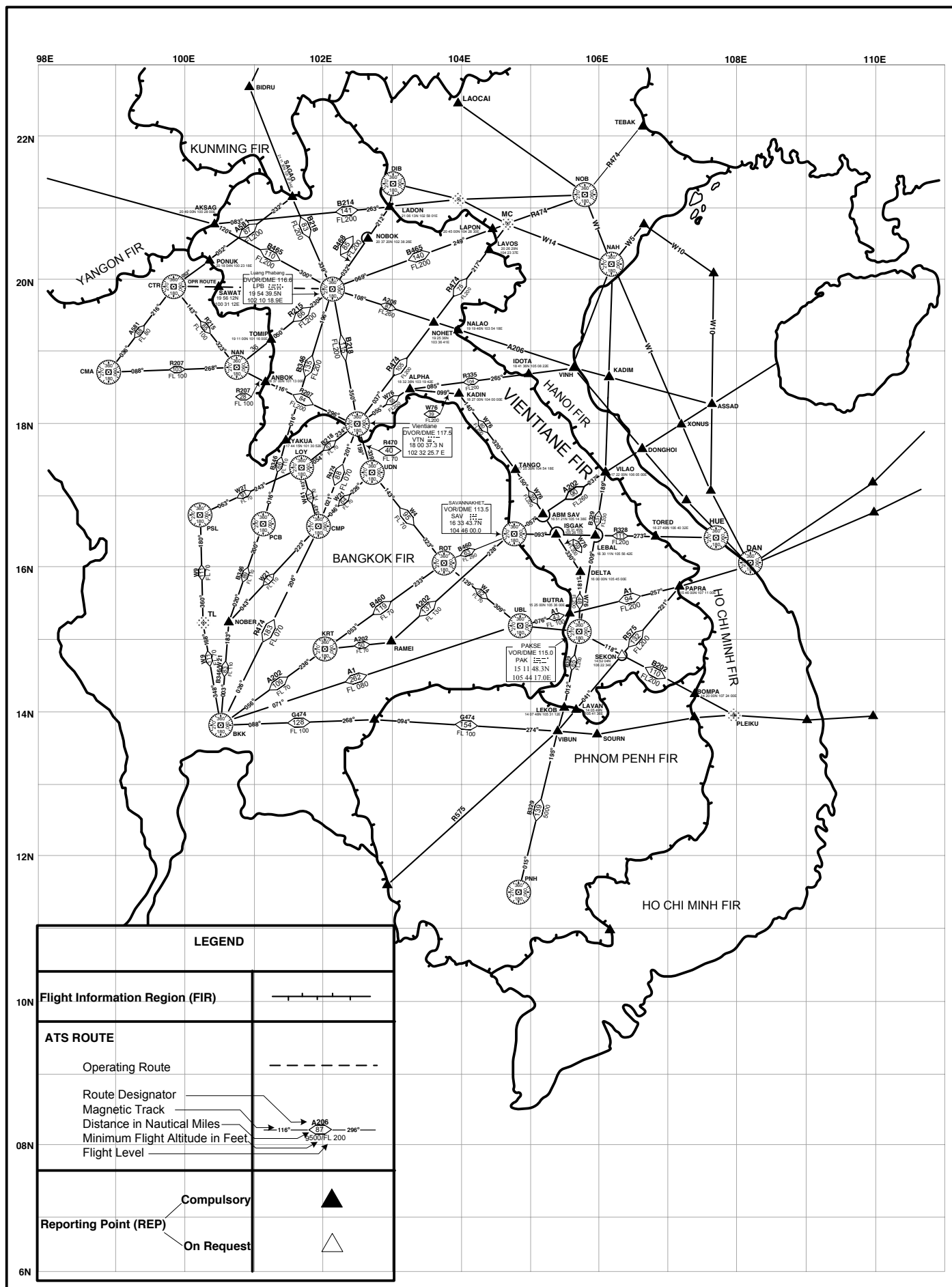
NIL

ENR 6 EN-ROUTE CHARTS

ENR 6.1 - LOWER EN-ROUTE CHART - ICAO



ENR 6.2 - UPPER ATS EN-ROUTE CHART - ICAO



LAO PDR

DEPARTMENT OF CIVIL AVIATION

AIP

**AERONAUTICAL INFORMATION
PUBLICATION**

**PART 3
AERODROME (AD)**

PART 3 - AERODROME (AD)

AD 0

- AD 0.1 PREFACE** – Not applicable
AD 0.2 RECORD OF AIP AMENDMENT – Not applicable
AD 0.3 RECORD OF AIP SUPPLEMENTS – Not applicable
AD 0.4 CHECKLIST OF AIP PAGES – Not applicable
AD 0.5 LIST OF HAND AMENDMENTS TO THE AIP – Not applicable

AD 0.6 TABLE OF CONTENTS TO PART 3

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AD 1 – AERODROMES – INTRODUCTION

AD 1.1 - AERODROME AVAILABILITY

1. **General conditions under which aerodromes and associated facilities are available for use**
Commercial flights are not permitted to take-off from or land at any aerodrome not listed in this AIP except in cases of real emergency or when special permission has been obtained from the appropriate competent authorities.

Landing made other than at an international aerodrome or a designated alternate aerodrome

If the landing is made other than at an international aerodrome or a designated alternate aerodrome, the pilot-in-command shall report the landing as soon as practicable to the customs, immigration and health authorities at the international aerodrome at which the landing was scheduled to take place. This notification may be made through any available communication link.

The pilot-in-command shall be responsible for ensuring that:

- a) if pratique has not been granted to the aircraft at the previous landing, contact between other persons on the one hand and passengers and crew on the other is avoided;
- b) cargo, baggage and mail are not removed from the aircraft except as provided below;
- c) any foodstuff of overseas origin or any plant material is not removed from the aircraft except where local food is unobtainable. All food refuse including peelings, cores, stones of fruit, etc., must be collected and returned to the galley refuse container, the contents of which should not be removed from the aircraft except for hygiene reasons; in that circumstance the contents must be destroyed either by burning or by deep burial.

Traffic of persons and vehicles on aerodromes

Demarcation of zones

The grounds of each aerodrome are divided into two zones:

- a) a public zone comprising the part of the aerodrome open to the public; and
- b) a restricted zone comprising the rest of the aerodrome.

Movement of persons

Access to the restricted zone is authorized only under the conditions prescribed by the special rules governing the aerodrome. The customs, police and health inspection offices and the premises assigned to transit traffic are normally accessible only to passengers, to staff of airlines and to authorized persons in pursuit of their duty. The movement of persons having access to the restricted zone of the aerodrome is subject to the conditions prescribed by the regulations of the Department of Civil Aviation and by the special rules laid down by the Airport Authority.

Movement of vehicles

The movement of vehicles in the restricted zone is strictly limited to the vehicles driven or used by persons carrying a traffic permit or an official card of admittance. Drivers of vehicles, whatever type, operating within the confines of the aerodrome must respect the direction of the traffic, the traffic signs and the posted speed limits and generally comply with the provisions of the highway code and with instructions given by the competent authorities.

Policing

Care and protection of aircraft, vehicles, equipment and goods used at the aerodrome are not the responsibility of the Lao Government or any concessionaire, who can not be held responsible for loss or damage which is not incurred through action by them or their agents.

Landing, parking and storage of aircraft on aerodromes under the control of the Department of Civil Aviation

The conditions under which aircraft may land and be parked, housed or otherwise dealt with at any of the aerodrome under the control of the Department of Civil Aviation (hereinafter referred to as "DCA") are as follows:

- a) the fees and charges for the landing, parking or housing of aircraft shall be those published from time to time by the DCA in the AIP or AIC.

The fees and charges for the any supplies and services which may be furnished to aircraft by or on behalf of the DCA at any aerodrome under the control of DCA shall, unless otherwise agreed before such fees or charges are incurred, be such reasonable fees and charges as may from time be determined by the DCA for that aerodrome. The fees and charges referred to shall accrue from day to day and shall be payable to the DCA on demand.

- b) the DCA shall have a lien on the aircraft, its parts and accessories, for such fees and charges as aforesaid.
- c) if payment of such fees and charges is not made to the DCA within 45 days after a letter demanding payment thereof has been sent by post addressed to the registered owner of the aircraft, the DCA shall be entitled to sell, destroyed or otherwise dispose the aircraft and any of its parts and accessories and to apply the proceeds from so doing to the payment of such fees and charges.
- d) neither the DCA nor any servant or agent of government shall be liable for loss and damage to the aircraft, its parts or accessories or any property contained in the aircraft, how so ever such loss and damage may arise, occurring while the aircraft is on any aerodrome under the control of the DCA or is in the course of landing at or taking off from any such aerodrome.

2. Applicable ICAO documents

The Standards and Recommended Practices of ICAO Annex 14, Volumes I, are applied.

3. Civil use of military air bases

General

Use of military air bases in Lao PDR by other than aircraft of Lao registry may be made solely when prior permission has been obtained. The use of military air bases as alternate aerodromes may likewise be made solely when prior permission thereto has been obtained. Permission may at any time be withdrawn with immediate effect, should circumstances so require.

Submission of application

Application in writing for permission to use the military air bases shall be submitted through diplomatic channel. (see address GEN 1-1 item 9)

4. CAT II/III operation of aerodromes

NIL

5. Dissemination of information on runways affected by standing water

If a runway is affected by standing water at any time during the approach of an aircraft for landing. The depth and location of such standing water will be notified by the aerodrome authority direct to the ATS unit for transmission to the aircraft. If the duration of phenomenon is likely to persist, the information requires a wider distribution, a NOTAM will be issued.

6. Other information

NIL

AD 1.2 - RESCUE AND FIRE FIGHTING FACILITIES

1. Rescue and fire fighting services

At aerodrome approved for scheduled and/or non-scheduled traffic with aircraft carrying passengers, Rescue and Fire Fighting Services are established in accordance with the regulations for civil aviation.

Information about whether there is service and what the extent of that service, is given on the relevant page for each aerodrome.

Scheduled and non-scheduled traffic with aircraft carrying passengers is not allowed to use aerodromes without Rescue and fire Fighting Services.

Each individual service is categorized according to the table shown below. Temporary changes will be published by NOTAM.

Rescue and fire fighting services	
Aerodrome category	Amount of water in liters for production of performance level A foam
3	1 800
4	3 600
5	8 100
6	11 800
7	18 200
8	27 300
9	36 400



AD 1.3 - INDEX TO AERODROMES

Aerodrome name Location Indicator	Type of traffic permitted to use the aerodrome			Reference to AD Section and remarks
	International National (INTL -NTL)	IFR - VFR	S = Scheduled NS=Non scheduled P = Private	
1	2	3	4	5
Wattay (VIENTIANE) VLVT	INTL - NTL	IFR - VFR	S - NS - P	AD 2 VLVT
LUANG PHABANG VLLB	INTL - NTL	IFR - VFR	S - NS - P	AD 2 VLLB
PAKSE VLPS	INTL - NTL	IFR - VFR	S - NS - P	AD 2 VLPS
SAVANNAKHET VLSK	INTL - NTL	IFR - VFR	S - NS - P	AD 2 VLSK

Aerodrome name Location Indicator	Type of traffic permitted to use the aerodrome			Reference to AD section and remarks
	International National (INTL -NTL)	IFR – VFR	S = Scheduled NS=Non scheduled P = Private	
1	2	3	4	5
ATTAPEU VLAP	NTL	IFR - VFR	S - NS - P	To be developed
Bounneua (PHONGSALY) VLFL	NTL	VFR	S - NS - P	To be developed
LUANGNAMTHA VLLN	NTL	VFR	S - NS - P	To be developed
OUDOMSAY VLOS	NTL	VFR	S - NS - P	To be developed
HOUEI SAY VLHS	NTL	VFR	S - NS - P	To be developed
SAMNEUA VLSN	NTL	VFR	S - NS - P	To be developed
XIENGKHUANG VLXK	NTL	IFR - VFR	S - NS - P	To be developed
SAYABOULY VLSB	NTL	VFR	S - NS - P	To be developed

AD 1.4 – GROUPING OF AERODROMES

The criteria applied by Lao PDR in grouping of aerodromes for the provision of information in this AIP are as follows:

Primary / Major international aerodrome

The aerodrome of entry and departure for international air traffic, where all formalities concerning customs, immigration, health, animal and plant quarantine and similar procedures are carried out and where air traffic services are available on a regular basis.

Secondary / other international aerodrome

Another aerodrome available for the entry or departure of international air traffic, where the formalities concerning customs, immigrations, health and similar procedures and air traffic services made available, on a restricted basis, to flights with prior approval only.

National Aerodrome

An aerodrome available only for domestic air traffic, including those military aerodromes where civil air traffic is allowed under certain conditions.

VLLB AD 2.1 - AERODROME LOCATION INDICATOR AND NAME

VLLB – LUANG PHABANG INTERNATIONAL

VLLB AD 2.2 - AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	<i>ARP coordinates and site at AD</i>	19 54 18.36N – 102 10 04.07E
2	<i>Direction and distance from (City)</i>	Northeast 2.4km
3	<i>Elevation / reference temperature</i>	293.6m (964ft) 35°C
4	<i>MAG VAR / annual change</i>	1° W (2016)
5	<i>AD Administration, address, telephone, fax, telex, AFS.</i>	Lao Airports Authority (LAA), Luang Phabang International Airport. Tel & Fax: (856-71) 410 141 or contact directly LAA, Vientiane/Wattay Int'l Airport. Tel (856-21) 520 542, 520 543. Fax: (856-21) 520 539. E-mail: Laoairport@etllao.com
6	<i>Type of traffic permitted (IFR/VFR)</i>	IFR/VFR
7	<i>Remarks</i>	NIL

VLLB AD 2.3 - OPERATIONAL HOURS

1	<i>Aerodrome administration</i>	H24
2	<i>Customs and Immigration</i>	H24
3	<i>Health and Sanitation</i>	H24
4	<i>AIS Briefing office</i>	H24
5	<i>ATS reporting office (ARO)</i>	H24
6	<i>MET Briefing office</i>	H24
7	<i>Air Traffic Services</i>	H24
8	<i>Fuelling</i>	H24
9	<i>Handling</i>	H24
10	<i>Security</i>	H24

VLLB AD 2.4 - HANDLING SERVICES AND FACILITIES

1	<i>Cargo handling facilities</i>	Conveyor, Cargo truck, Towing tug, Lavatory truck, Aircraft tractor, GPU, ASU...
2	<i>Fuel / oil types</i>	JET A1
3	<i>Fuelling facilities / capacity</i>	1 truck 10,000 L, 1 truck 18,000 L
4	<i>Hangar space for visiting ACFT</i>	NIL
5	<i>Repair facilities for visiting ACFT</i>	NIL
6	<i>Remarks</i>	NIL

VLLB AD 2.5 - PASSENGER FACILITIES

1	<i>Hotels</i>	In the city
2	<i>Restaurants</i>	Restaurants and snack bars at Airport
3	<i>Transportation</i>	Tuk tuk and rental car to and from the city
4	<i>Medical facilities</i>	First aid at Airport. Hospitals in the city
5	<i>Bank and Post Offices</i>	Available at airport
6	<i>Tourist Office</i>	Available at airport

VLLB AD 2.6 - RESCUE AND FIRE FIGHTING SERVICES

→ 1	<i>AD category for fire fighting</i>	Cat 7
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	NIL
4	<i>Remarks</i>	All airport emergency service personnel are trained in rescue and fire fighting as well as medical first - aid.

VLLB AD 2.7 - SEASONAL AVAILABILITY – CLEARING

1	<i>Type of clearing equipment</i>	NIL
2	<i>Clearance priorities</i>	NIL
3	<i>Remarks</i>	NIL

VLLB AD 2.8 - APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron surface and strength</i>	Surface: concrete Strength: PCN 60/R/B/W/T
2	<i>Taxiway width, surface and strength</i>	18 m, Concrete PCN 60/R/B/W/T
3	<i>ACL location and elevation</i>	NIL
4	<i>VOR / INS checkpoints</i>	NIL
5	<i>Remarks</i>	NIL

VLLB AD 2.9 - SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKING

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking / parking guidance system of aircraft stands.</i>	Taxiing guidance signs at TWY/RWY intersection and at all holding positions. Guidance lines at apron.
2	<i>RWY and TWY markings and LGT</i>	RWY: Designation, THR, TDZ, center line, edges, runway end as appropriate, marked and lighted. TWY: Center line, holding positions at TWY/RWY intersections, marked.
3	<i>Stop bars</i>	NIL
4	<i>Remarks</i>	NIL

VLLB AD 2.10 - AERODROME OBSTACLES

In approach/TKOF areas			In circling area and at AD			Remarks
1			2			3
RWY/Area affected	Obstacle type	Elevation	Obstacle type	Elevation		To be developed
	Markings/LGT	Coordinates	Markings/LGT	Coordinates		
a	b	c	a	b		

VLLB AD 2.11 - METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET office	Available at Airport
2	Hours of service	AD hours
3	Office Responsible for TAF preparation periods of validity	NIL
4	Type of landing forecast Interval of issuance	Trend 2 HR
5	Briefing / consultation provided	Personal consultation
6	Flight documentation Language (s) used	METAR, SPECI English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	Luang Phabang APP/TWR, ARO
10	Additional information	NIL

VLLB AD 2.12 - RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY (m)	Strength (PCN) & Surface of RWY & SWY	THR Coordinate	THR elevation & highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
05	049/050	2900 x 45	60/R/B/W/T Concrete	19 53 47.69N 102 09 26.48E	294 m (965 ft)
05/1	049/050	2500 x 45	60/R/B/W/T Concrete	19 53 56.18N 102 09 36.89E	295.3 m (969 ft)
23	229/230	2900 x 45	60/R/B/W/T Concrete	19 54 49.04N 102 10 41.66E	297.2 m (975 ft)

Slope of RWY/SWY	SWY Dimensions (m)	CWY Dimensions (m)	Strip Dimensions (m)	OFZ	Remarks
7	8	9	10	11	12
1% / 0.5% 0.3% / 0%	60 x 45 60 x 45	260 x 300 300 x 300	3020 x 300 3020 x 300	NIL NIL	

VLLB AD 2.13 - DECLARED DISTANCES

<i>RWYs Designator</i>	<i>TORA (m)</i>	<i>TODA (m)</i>	<i>ASDA (m)</i>	<i>LDA (m)</i>	<i>Remarks</i>
1	2	3	4	5	6
05	2900	3200	2960	2500	
23	2900	3160	2960	2900	

VLLB AD 2.14 - APPROACH AND RUNWAY LIGHTING

<i>RWY Designator</i>	<i>APP LGT type LEN INTST</i>	<i>THR LGT Colour WBAR</i>	<i>VASIS (MEHT) PAPI</i>	<i>TDZ LGT LEN</i>	<i>RWY centre line LGT LEN, spacing colour, INTST</i>	<i>RWY edge LGT LEN, spacing colour INTST</i>	<i>RWY end LGT colour WBAR</i>	<i>SWY LGT LEN (m) colour</i>	<i>Remarks</i>
1	2	3	4	5	6	7	8	9	10
05	SALS	GREEN	PAPI	NIL	NIL	YELLOW	RED	NIL	NIL
23	CAT 1	GREEN	PAPI	NIL	NIL	YELLOW	RED	NIL	NIL

VLLB AD 2.15 - OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN/IBN location characteristics hours of operation</i>	ABN: green and white 12 RPM on top of TWR cab during night time operation
2	<i>LDI location and LGT anemometer location and LGT</i>	Wind speed and wind direction
3	<i>TWY edge and center line light</i>	All TWY center line and edge lights.
4	<i>Secondary power supply / switch over time</i>	Available, automatic switch-over
5	<i>Remarks</i>	NIL

VLLB AD 2.16 - HELICOPTER LANDING AREA

NIL

VLLB AD 2.17 - ATS AIRSPACE

1	<i>Designation and lateral limits</i>	Luang Phabang TMA A circle of 30NM radius centered on LPB DVOR/DME (19 54 39.5N 102 10 18.9E), extended as corridors of 20NM width on W35 to KAASI, and extended as a corridor on B468 of 15 NM width to NOBOK. Luang Phabang CTR a Circle of 10 NM radius centered on LPB DVOR/DME
2	<i>Vertical limits</i>	TMA <u>FL 195</u> 7500 ft AMSL CTR <u>7500 ft AMSL</u> GND
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign Languages</i>	Luang Phabang Tower and Approach (APP and TWR are combined) English / Lao
5	<i>Transition altitude</i>	11000ft
6	<i>Remarks</i>	NIL

VLLB AD 2.18 - ATS COMMUNICATION FACILITIES

<i>Service Designation</i>	<i>call sign</i>	<i>frequency</i>	<i>hours of operation</i>	<i>Remarks</i>
1	2	3	4	5
APP	Luang Phabang APP	118.50 MHz	H24	
TWR	Luang Phabang TWR	118.50 MHz	H24	

VLLB AD 2.19 – RADIO NAVIGATION AND LANDING AIDS

<i>Type of aid, CAT of ILS (for VOR/ILS) give (VAR)</i>	<i>ID</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Site of transmitting antenna coordinates</i>	<i>Elevation of DME transmitting antenna</i>	<i>Remarks</i>
1	2	3	4	5	6	7
DVOR / DME (1°W/ 1994)	LPB	116.60 MHz CH 113X	H24	19 54 39.5N 102 10 18.9E	293.5 m (963 ft)	
NDB OM	BK	390 KHz	H24	19 51 58N 102 06 32E		
ILS RWY 23 LLZ	ILPB	108.70 MHz	H24	19 53 42.0N 102 09 19.5E		
GP/TDME		330.50 MHz CH 24X	H24	19 54 45.3N 102 10 30.7E	296.7 m (973 ft)	

VLLB AD 2.20 - LOCAL TRAFFIC REGULATIONS

1. Airport Regulations

to be developed

Marshaller assistance can be requested and further information about regulations can be obtained from the TWR or surface movement control (SMC).

2. Taxiing to and from stands

Taxiing and parking instructions will be obtained from Luang Phabang TWR.

Departing IFR flights shall contact the TWR to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at the earliest 10 minutes prior to engine start-up on frequency 118.50 MHz.

3. Parking area for helicopters

No specific parking areas for helicopters. Helicopter shall be guided by marshallers or instructed by TWR.

4. Parking area for small aircraft (General aviation)

General aviation aircraft shall be guided by marshallers or instructed by TWR to the parking area for small aircraft.

5. Apron – taxiing during winter condition

NIL

6. Taxiing – limitations

Insufficient safety distances restrict large aircraft using their own power, further information will be given to each aircraft from the TWR or SMC.

7. School and training flights - technical test flights

School and training flights, technical test flights must only be made after permission has been obtained from appropriate authorities.

8. Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the airport authority at the owner's or user's expense.

VLLB AD 2.21 - NOISE ABATEMENT PROCEDURES

NIL

VLLB AD 2.22 - FLIGHT PROCEDURES

1. General

Unless permission has been obtained from Luang Phabang APP or TWR as appropriate, flight within Luang Phabang TMA and CTR shall be in accordance with the Instrument Flight Rules.

2. Procedures for IFR flights within Luang Phabang TMA

The inbound, transit and outbound routes shown on the charts may be varied at the discretion of ATS units. If necessary, in case of congestion, inbound aircraft may also be instructed to hold over one of a designated Initial Approach Fixes (IAF).

3. Procedures for VFR flights within Luang Phabang TMA

Provided traffic conditions so permit, ATC clearance for VFR flights will be given under the conditions described below:

- a) a flight plan requesting ATC clearance, containing items 7 to 18 and indicating the purpose of flight, shall be submitted;
- b) ATC clearance shall be obtained immediately before the aircraft enters the Luang Phabang TMA;
- c) position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2;
- d) deviation from the ATC clearance may only be made when prior permission has been obtained;
- e) the flight shall be conducted with vertical visual reference to the ground unless the flight can be conducted in accordance with IFR;
- f) two-way radio communication shall be maintained on the frequency 118.50 MHz;
- g) the aircraft shall be equipped with SSR transponder with 4096 Codes in Mode A/3. Flights performed in connection with parachute jumps shall, in addition, be equipped with Mode C with automatic transmission of pressure altitude information (cf. ICAO Annex 10, Volume I). Exemption from this requirement may be granted by Vientiane ACC.

5. Procedures for VFR flights within Luang Phabang CTR

- a) Flight plan shall be filed for the flight concerned;
- b) ATC clearance shall be obtained from the Luang Phabang TWR;
- c) Deviation from ATC clearance may only be made when prior permission has been obtained;
- d) The flight shall be conducted with vertical visual reference to the ground;
- e) Two-way radio communication shall be established on the frequency 118.50 MHz before flight take place in the Luang Phabang CTR.

6. VFR routes within Luang Phabang CTR

NIL

VLLB AD 2.23 - ADDITIONAL INFORMATION

Intentionally blank

VLLB AD 2.24 - CHARTS RELATED TO LUANG PHABANG AIRPORT

	<i>Page</i>
Aerodrome Chart – ICAO	VLLB AD 2 - 10
Instrument Approach Chart - ICAO-VOR/DME RWY 05	VLLB AD 2 - 11
Instrument Approach Chart - ICAO-VOR/DME RWY 23	VLLB AD 2 - 12
Instrument Approach Chart - ICAO-ILS/DME RWY 23	VLLB AD 2 - 13
Standard Departure Chart - Instrument (SID) – ICAO – RWY 05	VLLB AD 2 - 14
Standard Departure Chart - Instrument (SID) – ICAO – RWY 23	VLLB AD 2 - 15
Standard Arrival Chart – Instrument (STAR) – ICAO – RWY 05	VLLB AD 2 - 16
Standard Arrival Chart – Instrument (STAR) – ICAO – RWY 23	VLLB AD 2 – 17
Standard Departure Chart - Instrument (SID) – ICAO – RWY 05	VLLB AD 2 – 18
Standard Arrival Chart – Instrument (STAR) – ICAO – RWY 05	VLLB AD 2 – 19
Instrument Approach Chart - ICAO-VOR/DME RWY 05	VLLB AD 2 – 20
Standard Departure Chart - Instrument (SID) – ICAO – RWY 23	VLLB AD 2 – 21
Standard Arrival Chart – Instrument (STAR) – ICAO – RWY 23	VLLB AD 2 – 22
Instrument Approach Chart - ICAO-VOR/DME RWY 23	VLLB AD 2 – 23

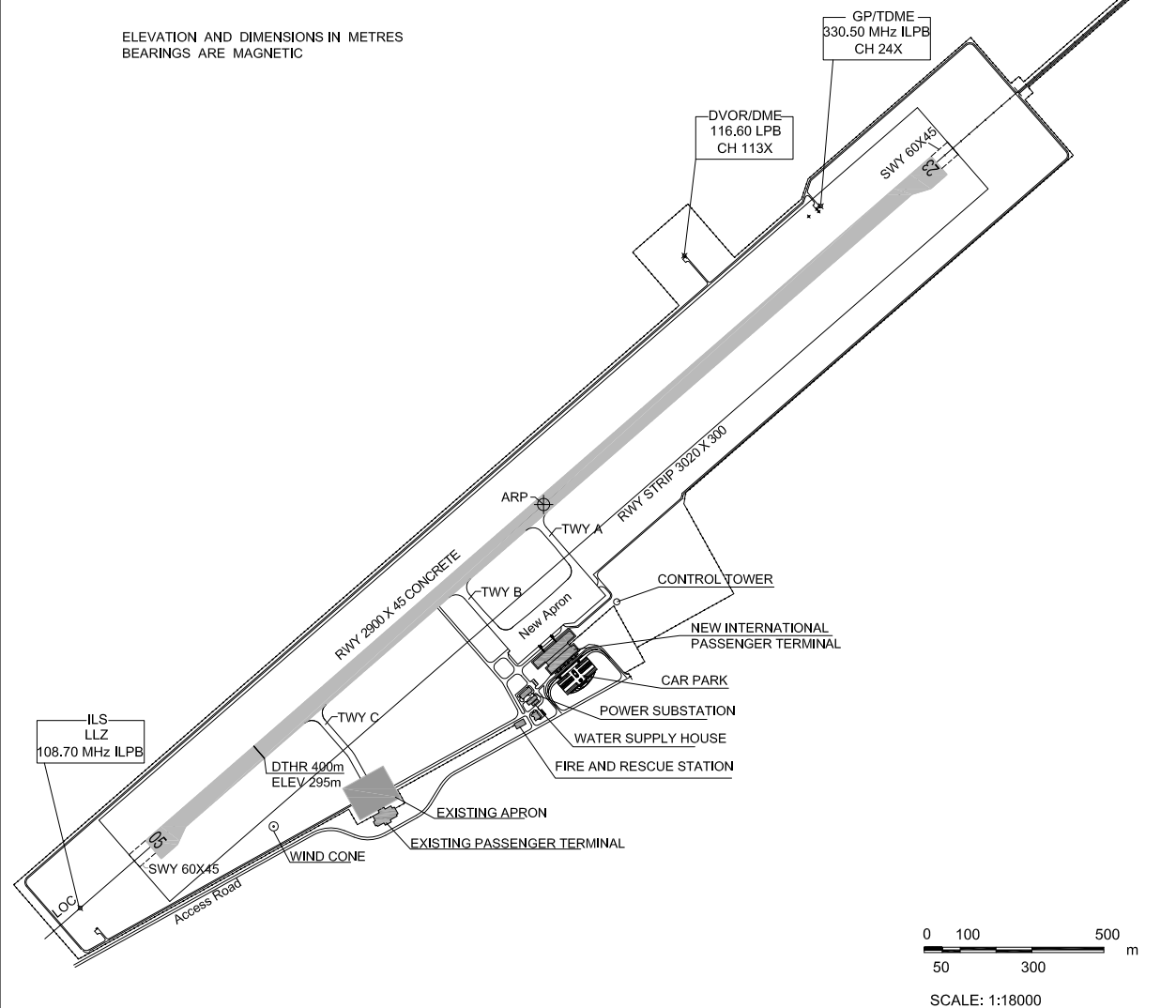
AERODROME CHART-ICAO 19° 54' 18.36" N
102° 10' 04.07" E ELEV 293.6 m (964 ft)

APP 118.5 MHz
TWP 118.5 MHz

LUANGPHABANG/Luangphabang Intl AP

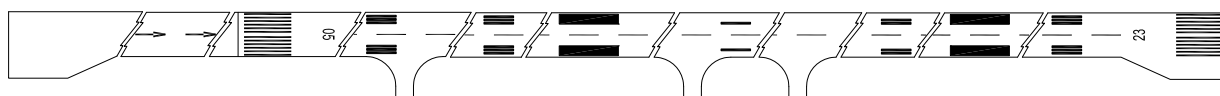
RWY	DIRECTION	THR WGS-84	RUNWAY END	BEARING STRENGTH
05	049°	19 53 56.18 N 102 09 36.89 E	19 53 47.69 N 102 09 26.48 E	PCN 60/R/B/W/T
23	229°	19 54 49.04 N 102 10 41.66 E	19 54 49.04 N 102 10 41.66 E	
TAXIWAY A,B,C				PCN 60/R/B/W/T
APRON				PCN 60/R/B/W/T

ELEVATION AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

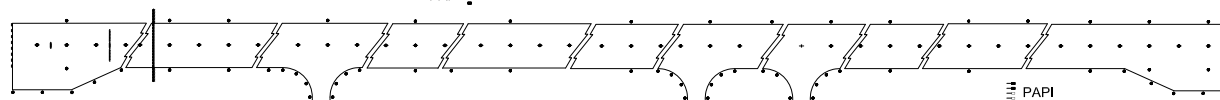


SCALE: 1:7000

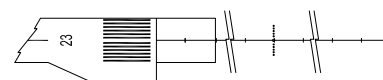
LIGHTING AIDS RWY 05/23 AND EXIT TWY



MARKING AIDS RWY 05/23 AND EXIT TWY



○ APPROACH CATEGORY I LIGHTING RWY 23

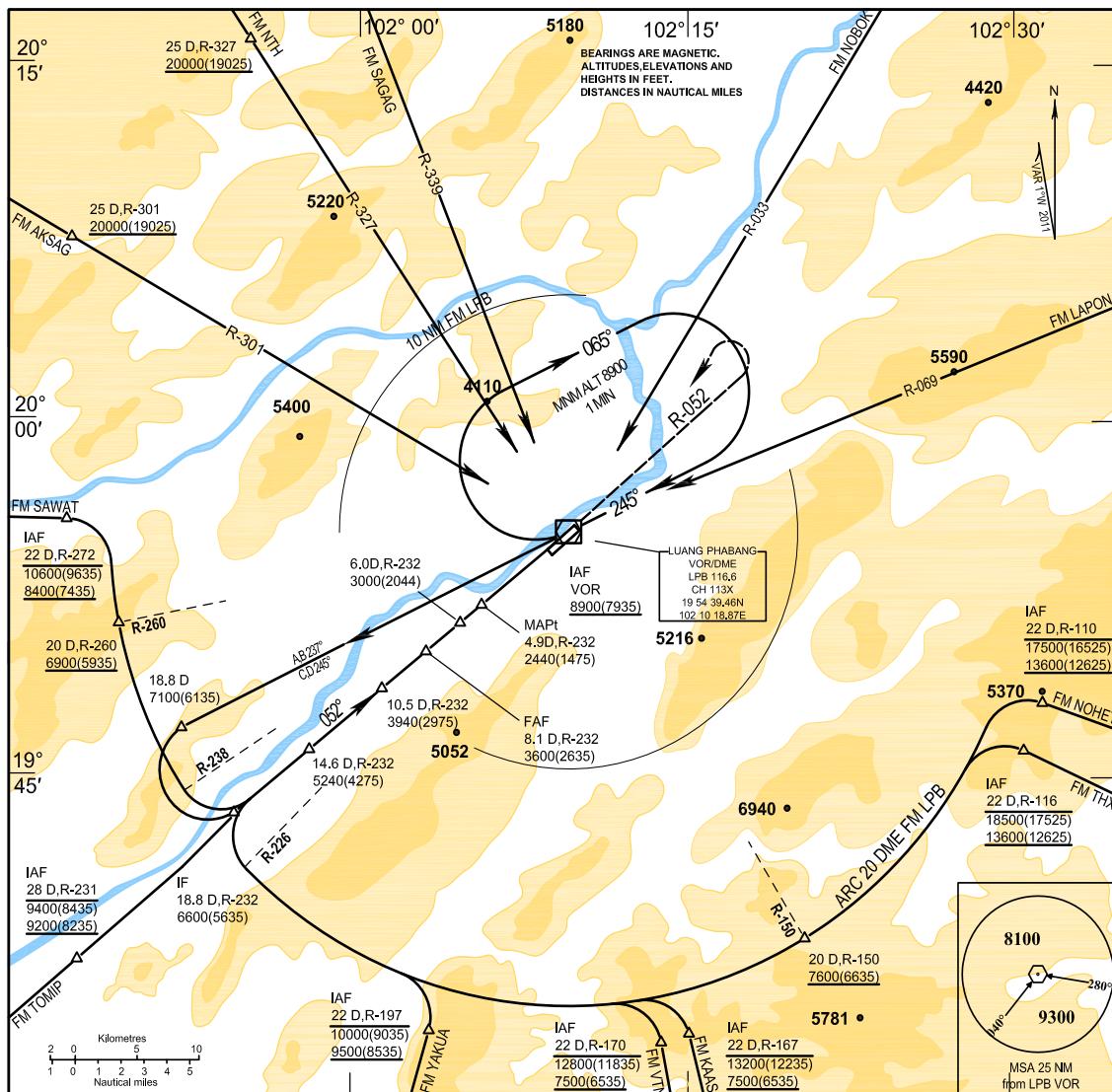


**INSTRUMENT
APPROACH
CHART-ICAO**

AERODROME ELEV. 297 M/975 ft
HEIGHTS RELATED TO
THE RWY 05 ELEV. 294 M/965 ft

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
VOR/DME
RWY 05**



MISSED APPROACH: Climb on track
R-052 LPB to 5700(4735),
turn left to LPB and follow ATC instruction.

Remark: No circling to the SE of aerodrome.

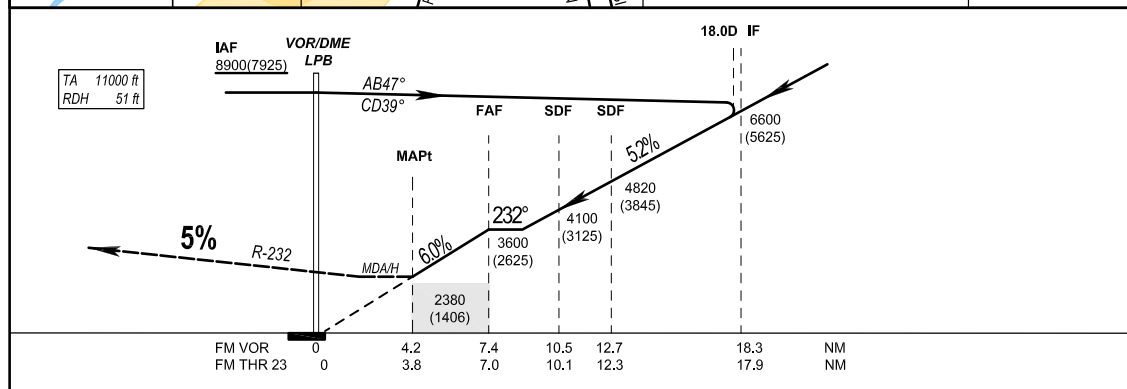
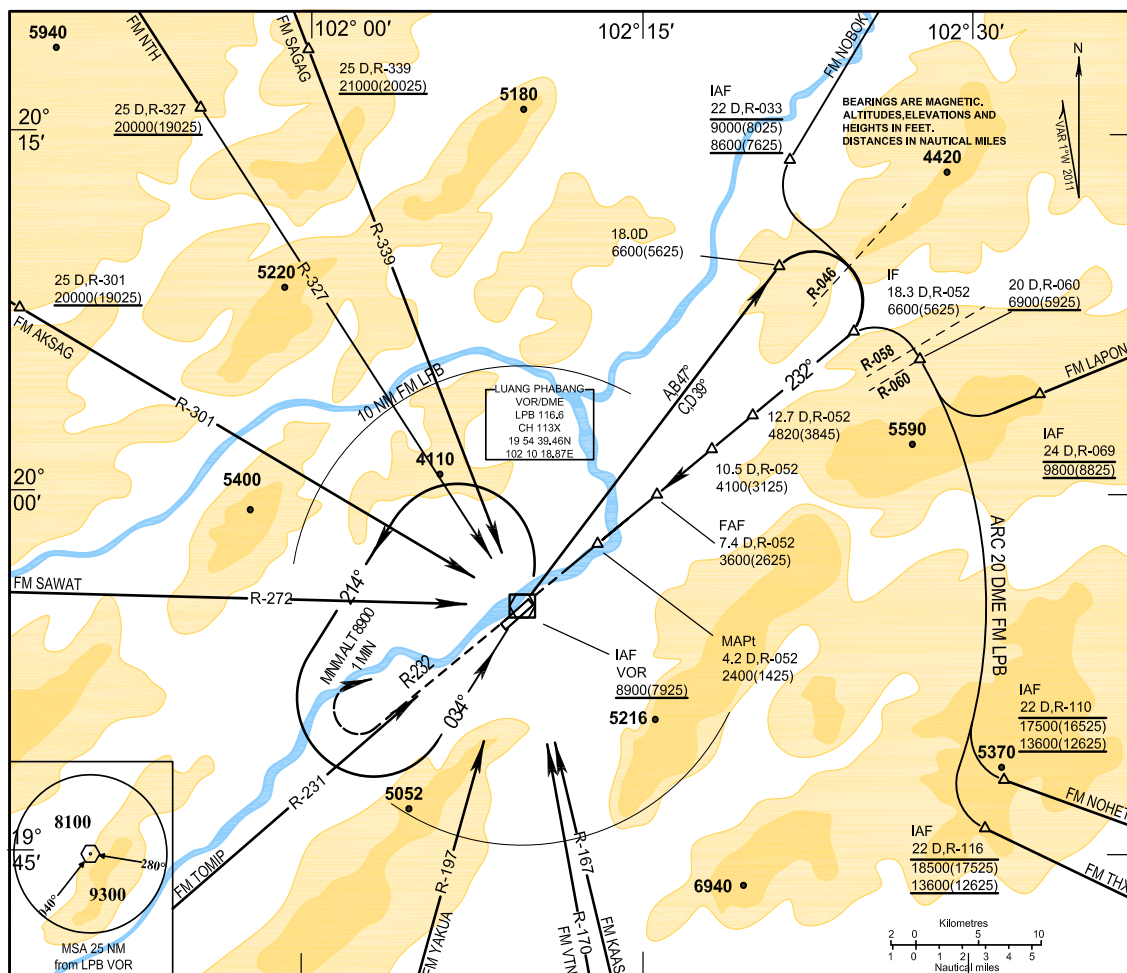
				DISTANCE FAF to MAPt=3.2NM						
MDA/H	A	B	C	Distance(FM LPB)	5D	6D	7D	8D		
Straight-in approach VIS	2440(1475) 7400			Altitude(Height) (ft)	2507 (2213)	2877 (2583)	3248 (2954)	3619 (3325)		
				IAS(kt)	90	100	120	140	160	180
Circling VIS	2500(1525) 8000			Time(min:s)	2:08	1:55	1:36	1:22	1:12	1:04
				Rate of decent (ft/min)	560	620	740	870	990	1110

**INSTRUMENT
APPROACH
CHART-ICAO**

AERODROME ELEV. 297 M/975 ft
HEIGHTS RELATED TO
THE RWY 23 ELEV. 297 M/975 ft

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
VOR/DME
RWY 23**



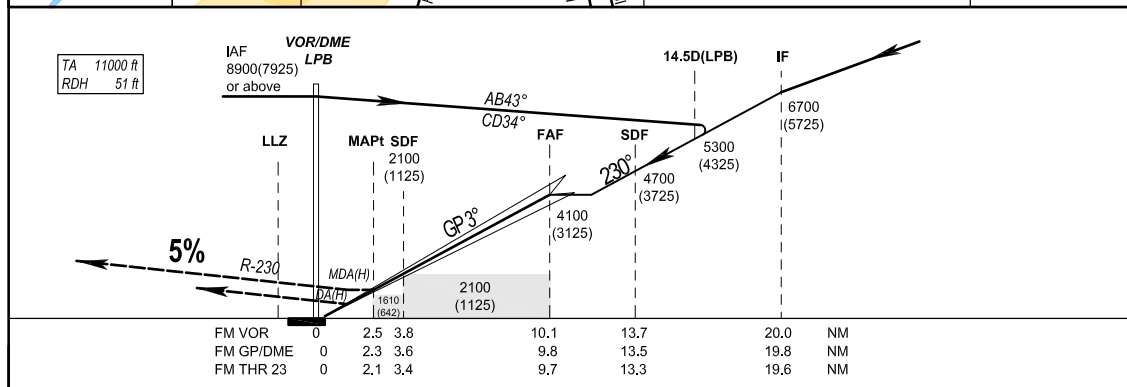
MISSED APPROACH: Climb on track R-232 LPB to 4800(3825), turn right to LPB and follow ATC instruction.
Remark: No circling to the SE of aerodrome.

DISTANCE FAF to MAPt=3.2NM

MDA/H	A	B	C	Distance(FM LPB)	2D	3D	4D	5D	6D	7D
Straight-in approach VIS	2400(1425) 6400			Altitude(Height) (ft)	1615 (1318)	1980 (1683)	2344 (2047)	2709 (2412)	3073 (2776)	3438 (3141)
Circling VIS	2500(1525) 8000			IAS(kt)	90	100	120	140	160	160
	2800(1825) 8000			Time(min:s)	2:08	1:55	1:36	1:22	1:12	1:04
				Rate of decent (ft/min)	550	610	730	850	980	1100

VLLB AD 2-13
24 JUL 2014

LUANG PHABANG/Luang Phabang
ILS/DME
RWY 23



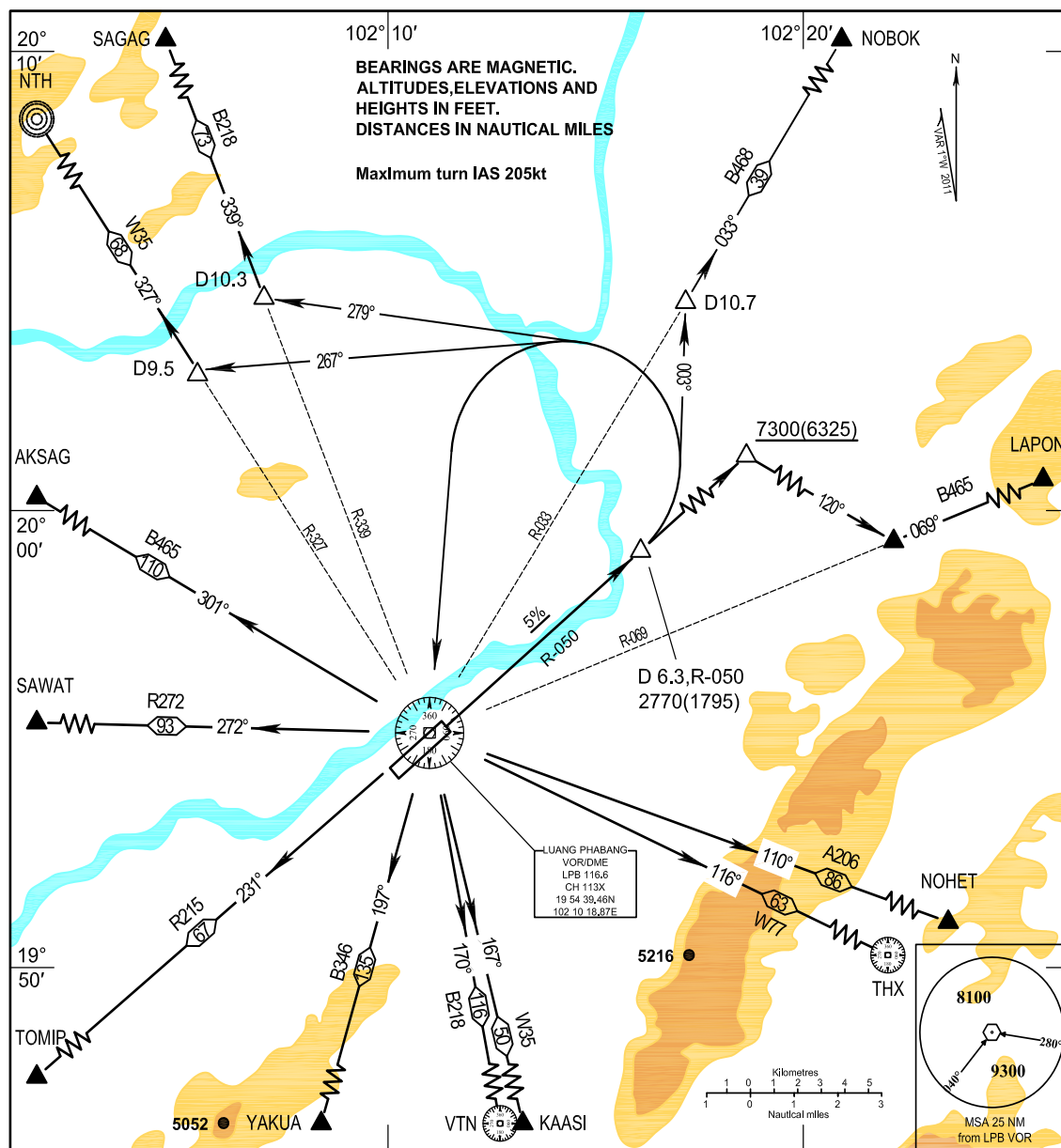
DA/H		MDA/H	A	B	C								
Straight-in approach	CAT I VIS	CG 2.5% 1850(875) 4200	CG 5% 1180(205) 800			DISTANCE (FM GP)	3D	4D	5D	6D	7D	8D	9D
	LLZ only VIS	CG 2.5% 2350(1375) 7000	CG 5% 1690(715) 3300			Altitude(Height) (ft)	1930 (955)	2250 (1275)	2570 (1595)	2890 (1915)	3200 (2225)	3520 (2545)	3840 (2865)
							Gs(kt)	90	100	120	140	160	180
Circling		2500(1525) 8000		2800(1825) 8000		Rate of decent (ft/min)	480	530	640	740	850	960	

**STANDARD INSTRUMENT
DEPARTURE CHART(SID)-ICAO**

TRANSITION ALTITUDE
11000 FT

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
SID
RWY 05**



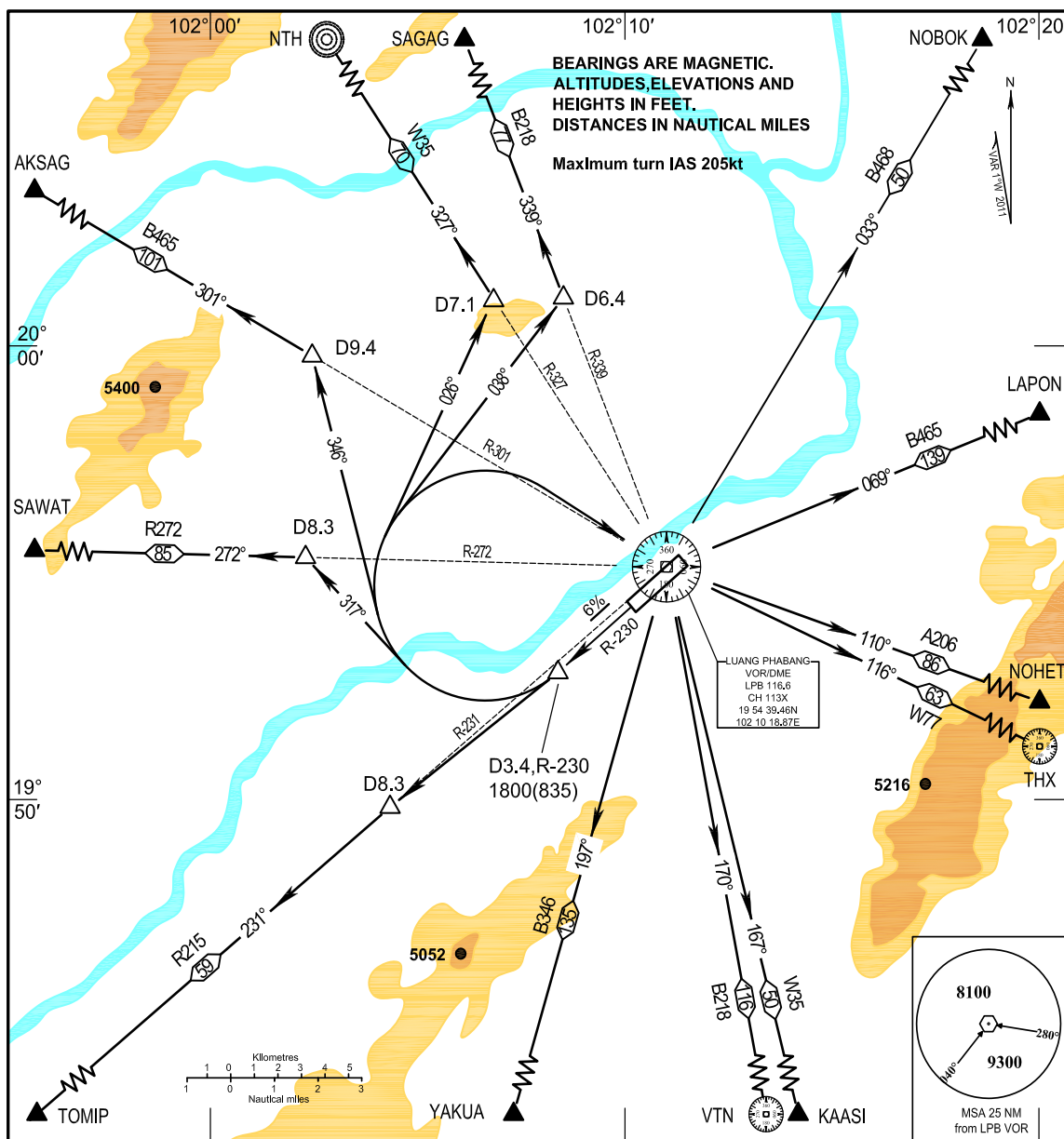
1. **NOBOK DEPARTURE (NBK1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to intercept B468 (R-033) at D10.7 to NOBOK. (PDG is not less than 5% until 2770ft)
2. **LAPON DEPARTURE (LAP1A):** After departure, climb on runway heading to 7300ft or above then turn right to intercept B465 (R-069) to LAPON. (PDG is not less than 5% until 7300ft)
3. **NOHET DEPARTURE (NET1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept A206 (R-110) to NOHET. (PDG is not less than 5% until 2770ft)
4. **THX DEPARTURE (THX1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept W77 (R-116) to THX. (PDG is not less than 5% until 2770ft)
5. **KAASI DEPARTURE (KAS1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept W35 (R-167) to KAASI. (PDG is not less than 5% until 2770ft)
6. **VTN DEPARTURE (VTN1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept B218 (R-170) to VTN. (PDG is not less than 5% until 2770ft)
7. **YAKUA DEPARTURE (YAK1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept B346 (R-197) to YAKUA. (PDG is not less than 5% until 2770ft)
8. **TOMIP DEPARTURE (TOM1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept R215 (R-231) to TOMIP. (PDG is not less than 5% until 2770ft)
9. **SAWAT DEPARTURE (SAW1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept R272 (R-272) to SAWAT. (PDG is not less than 5% until 2770ft)
10. **AKSAG DEPARTURE (AKS1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to LPB VOR/DME and intercept B465 (R-301) to AKSAG. (PDG is not less than 5% until 2770ft)
11. **NTH DEPARTURE (NTH1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to intercept W35 (R-327) at D9.5 to NTH. (PDG is not less than 5% until 2770ft)
12. **SAGAG DEPARTURE (SAG1A):** After departure, climb on runway heading to 2770ft or above (D6.3) then turn left to intercept B218 (R-339) at D10.3 to SAGAG. (PDG is not less than 5% until 2770ft)

**STANDARD INSTRUMENT
DEPARTURE CHART(SID)-ICAO**

TRANSITION ALTITUDE
11000 FT

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
SID
RWY 23**



RWY 23

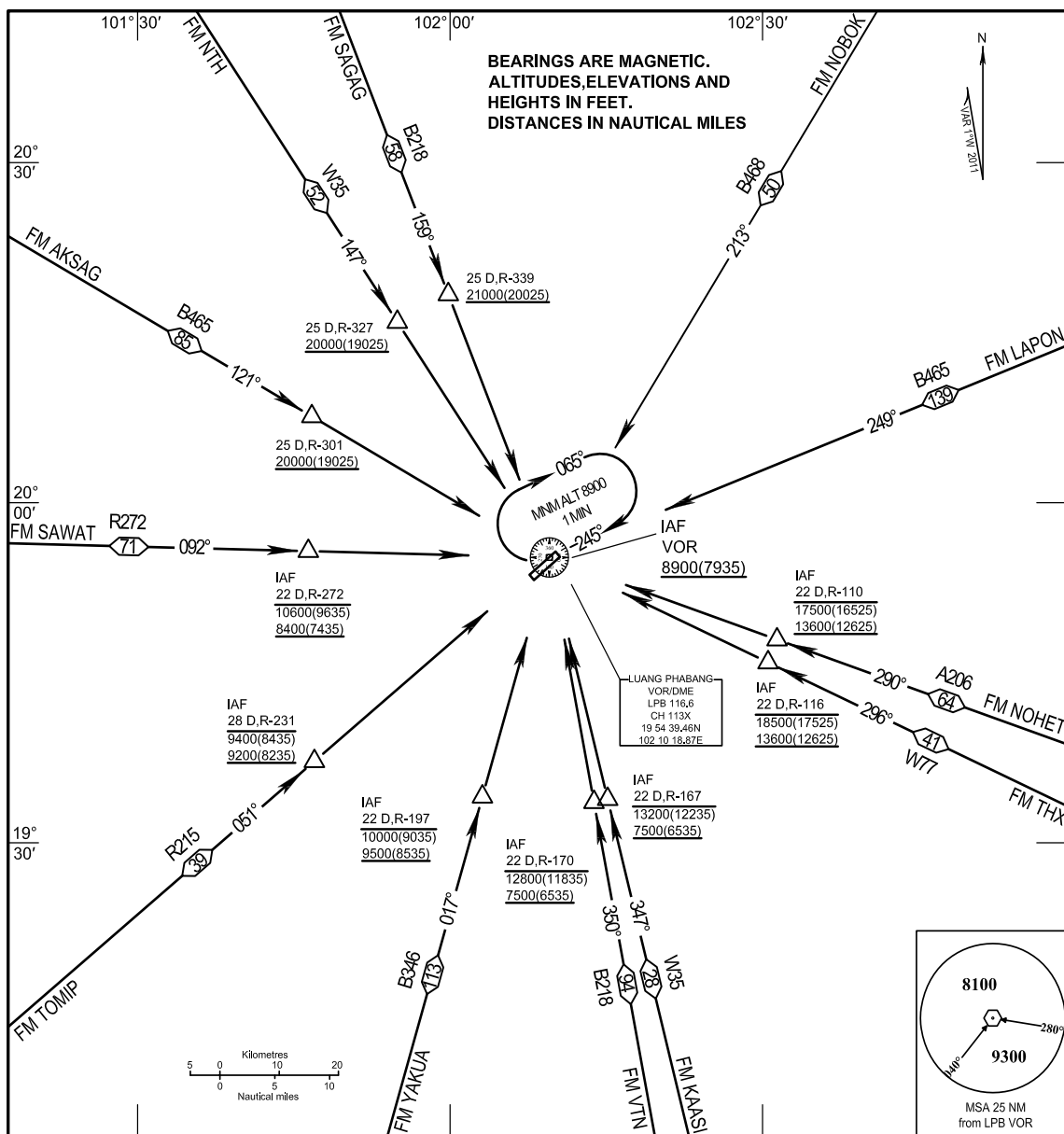
1. **NOBOK DEPARTURE (NBK2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept B468 (R-033) to NOBOK. (PDG is not less than 6% until 1800ft)
2. **LAPON DEPARTURE (LAP2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept B465 (R-069) to LAPON. (PDG is not less than 6% until 1800ft)
3. **NOHET DEPARTURE (NET2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept A206 (R-110) to NOHET. (PDG is not less than 6% until 1800ft)
4. **THX DEPARTURE (THX2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept W77 (R-116) to THX. (PDG is not less than 6% until 1800ft)
5. **KAASI DEPARTURE (KAS2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept W35 (R-167) to KAASI. (PDG is not less than 6% until 1800ft)
6. **VTN DEPARTURE (VTN2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept B218 (R-170) to VTN. (PDG is not less than 6% until 1800ft)
7. **YAKUA DEPARTURE (YAK2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept B346 (R-197) to YAKUA. (PDG is not less than 6% until 1800ft)
8. **TOMIP DEPARTURE (TOM2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to LPB VOR/DME and intercept R215 (R-231) to TOMIP. (PDG is not less than 6% until 1800ft)
9. **SAWAT DEPARTURE (SAW2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to intercept R272 (R-272) at D8.3 to SAWAT. (PDG is not less than 6% until 1800ft)
10. **AKSAG DEPARTURE (AKS2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to intercept B465 (R-301) at D9.4 to AKSAG. (PDG is not less than 6% until 1800ft)
11. **NTH DEPARTURE (NTH2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to intercept W35 (R-327) at D7.1 to NTH. (PDG is not less than 6% until 1800ft)
12. **SAGAG DEPARTURE (SAG2A):** After departure, climb on runway heading to 1800ft or above (D3.4) then turn right to intercept B218 (R-339) at D6.4 to SAGAG. (PDG is not less than 6% until 1800ft)

**STANDARD INSTRUMENT
ARRIVAL CHART(STAR)-ICAO**

TRANSITION ALTITUDE
11000 FT

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
STAR
RWY 05**



RWY 05

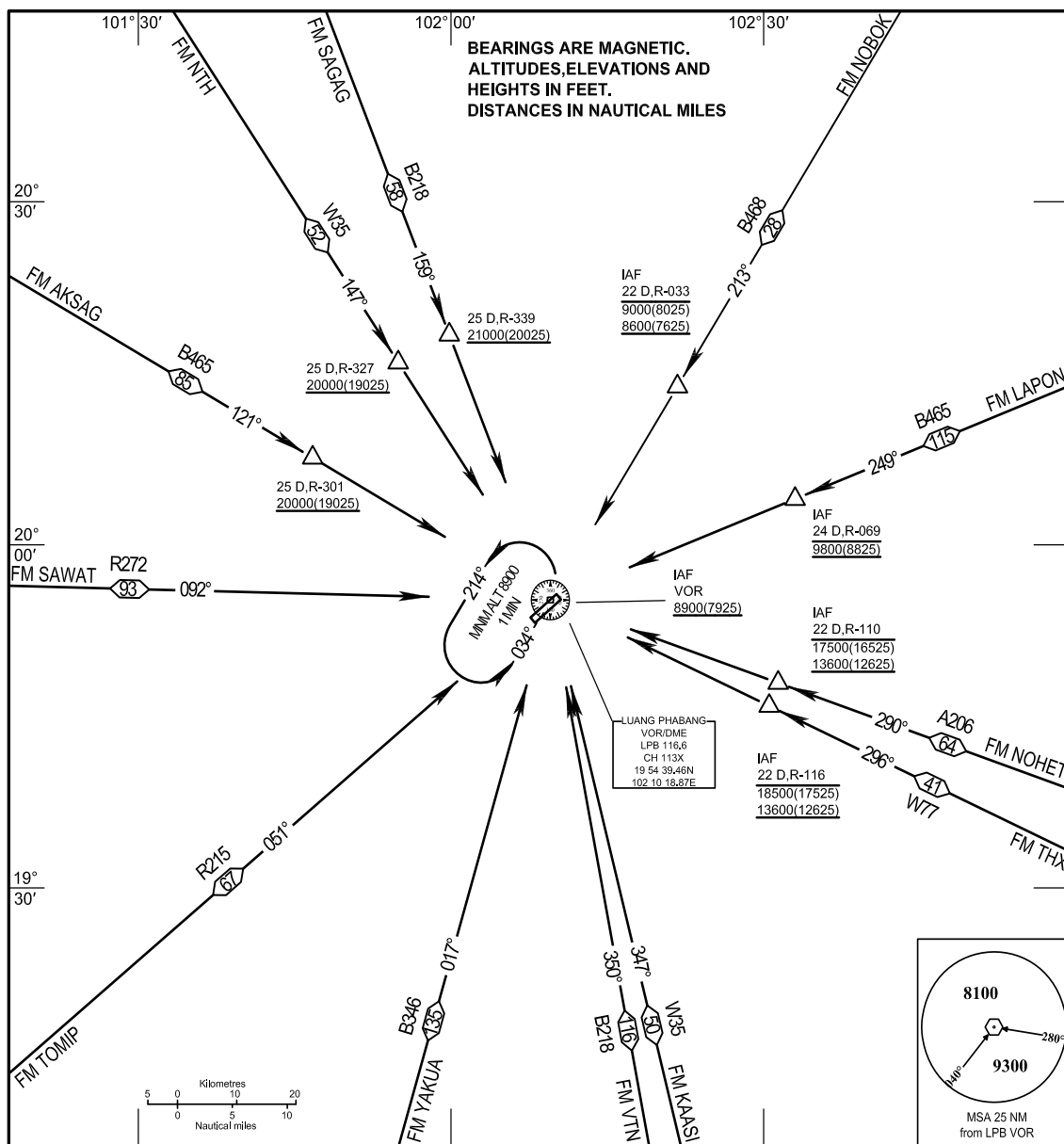
- 1. NOBOK ARRIVAL (NBK1B):** Depart NOBOK proceed via B468 (213°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- 2. LAPON ARRIVAL (LAP1B):** Depart LAPON proceed via B465 (249°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- 3. NOHET ARRIVAL (NET1B):** Depart NOHET proceed via A206 (290°) to IAF (D 22.0, between 17500 and 13600ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 4. THX ARRIVAL (THX1B):** Depart THX proceed via W77 (296°) to IAF (D 22.0, between 18500 and 13600ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 5. KASASI ARRIVAL (KAS1B):** Depart KASASI proceed via W35 (347°) to IAF (D 22.0, between 13200 and 7500ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 6. VTN ARRIVAL (VTN1B):** Depart VTN proceed via B218 (350°) to IAF (D 22.0, between 12800 and 7500ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 7. YAKUA ARRIVAL (YAK1B):** Depart YAKUA proceed via B346 (017°) to IAF (D 22.0, between 10000 and 9500ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 8. TOMIP ARRIVAL (TOM1B):** Depart TOMIP proceed via R215 (051°) to IAF (D 28, between 9400 and 9200ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 9. SAWAT ARRIVAL (SAW1B):** Depart SAWAT proceed via R272 (092°) to IAF (D 22.0, between 10600 and 8400ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- 10. AKSAG ARRIVAL (AKS1B):** Depart AKSAG proceed via B465 (121°) to D 25.0 (at least 20000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.
- 11. NTH ARRIVAL (NTH1B):** Depart NTH proceed via W35 (147°) to D 25.0 (at least 20000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.
- 12. SAGAG ARRIVAL (SAG1B):** Depart SAGAG proceed via B218 (159°) to D 25.0 (at least 21000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.

**STANDARD INSTRUMENT
ARRIVAL CHART(STAR)-ICAO**

TRANSITION ALTITUDE
11000 FT

APP: 118.5 MHz
TWR: 118.5 MHz

**LUANG PHABANG/Luang Phabang
STAR
RWY 23**



RWY 23

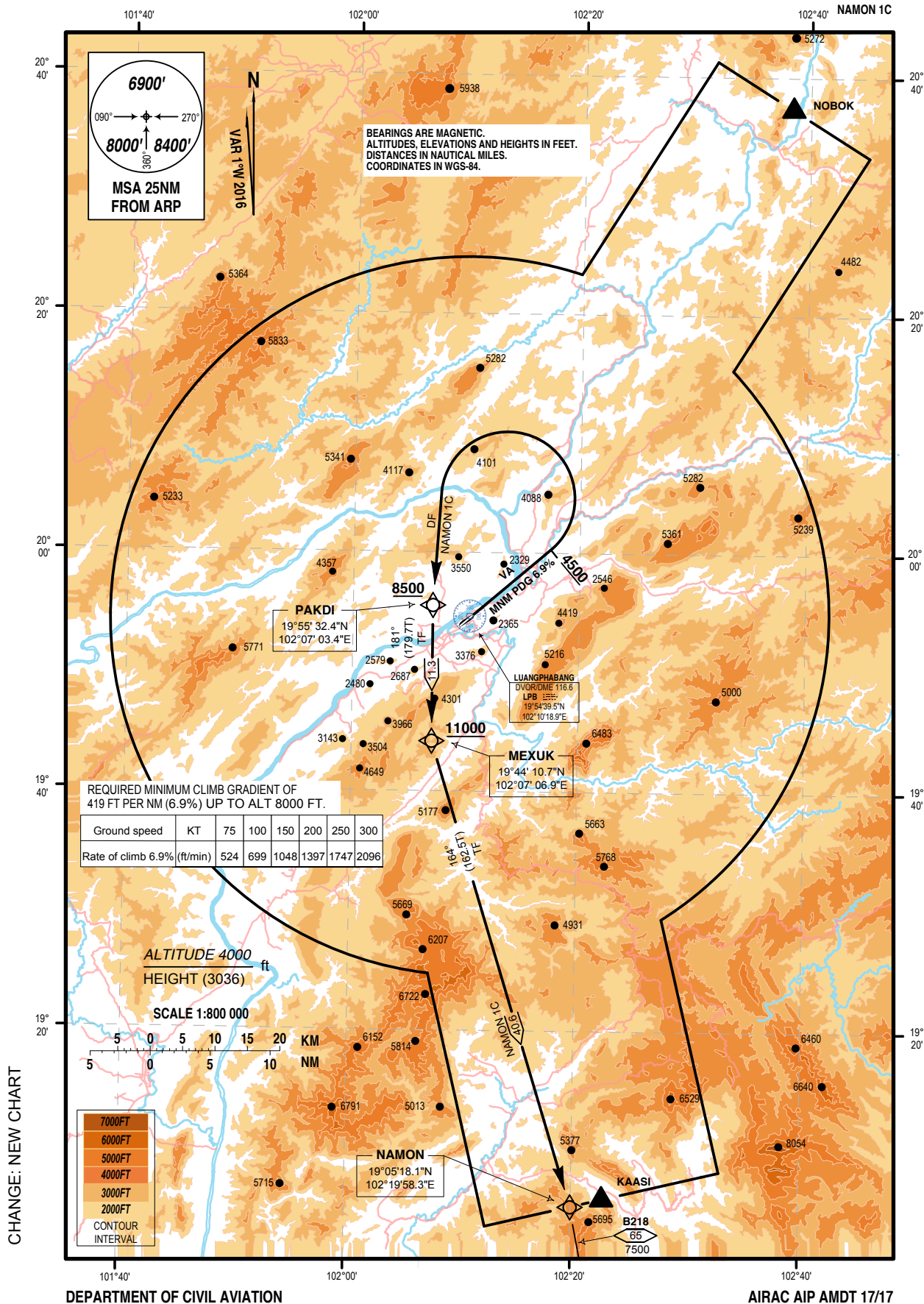
- NOBOK ARRIVAL (NBK2B):** Depart NOBOK proceed via B468 (213°) to IAF (D 22.0, between 9000 and 8600ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- LAPON ARRIVAL (LAP2B):** Depart LAPON proceed via B465 (249°) to IAF (D 24.0, 9800ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- NOHET ARRIVAL (NET2B):** Depart NOHET proceed via A206 (290°) to IAF (D 22.0, between 17500 and 13600ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- THX ARRIVAL (THX2B):** Depart THX proceed via W77 (296°) to IAF (D 22.0, between 18500 and 13600ft), then join instrument approach procedure by utilizing DME arcs or fly to LPB VOR/DME to join holding procedure.
- KAS2B ARRIVAL (KAS2B):** Depart KAS2B proceed via W35 (347°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- VTN ARRIVAL (VTN2B):** Depart VTN proceed via B218 (350°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- YAKUA ARRIVAL (YAK2B):** Depart YAKUA proceed via B346 (017°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- TOMIP ARRIVAL (TOM2B):** Depart TOMIP proceed via R215 (051°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- SAWAT ARRIVAL (SAW2B):** Depart SAWAT proceed via R272 (092°) to LPB VOR/DME (IAF, at least 8900ft), then join instrument approach procedure by utilizing base turn or join holding procedure.
- AKSAG ARRIVAL (AKS2B):** Depart AKSAG proceed via B465 (121°) to D 25.0 (at least 20000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.
- NTH ARRIVAL (NTH2B):** Depart NTH proceed via W35 (147°) to D 25.0 (at least 20000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.
- SAGAG ARRIVAL (SAG2B):** Depart SAGAG proceed via B218 (159°) to D 25.0 (at least 21000ft), then fly to LPB VOR/DME (IAF, at least 8900ft) to join instrument approach procedure by utilizing base turn or join holding procedure.

STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11 000 FT

APP/TWR 118.5

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS)
RWY 05
NAMON 1C



LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) SID
RWY 05

AERONAUTICAL DATA TABULATION

1. NAMON ONE CHARLIE DEPARTURE (NAM 1C): CLIMB ON RWY HDG, AT OR ABOVE 4500FT, TURN LEFT DIRECT TO PAKDI, TO MEXUK, TO NAMON. MNM PDG 6.9% UPTO 8000FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
NAMON	WPT	19°05' 18.10" N 102°19' 58.30" E
MEXUK	WPT	19°44' 10.68" N 102°07' 06.90" E
PAKDI	WPT	19°55' 32.39" N 102°07' 03.40" E

NAMON 1C DEPARTURE									
Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specification
VA	-	-	050° (049.2°)	-	-	+4500	-	6.9%	RNP 1
DF	PAKDI	-	-	-	L	+8500	-	-	RNP 1
TF	MEXUK	-	181° (179.7°)	11.3	-	+11000	-	-	RNP 1
TF	NAMON	-	164° (162.5°)	40.6	-	-	-	-	RNP 1

AIP
LAO PDR

VLLB AD 2-19
30 MAR 2017

STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11 000 FT

APP/TWR 118.5

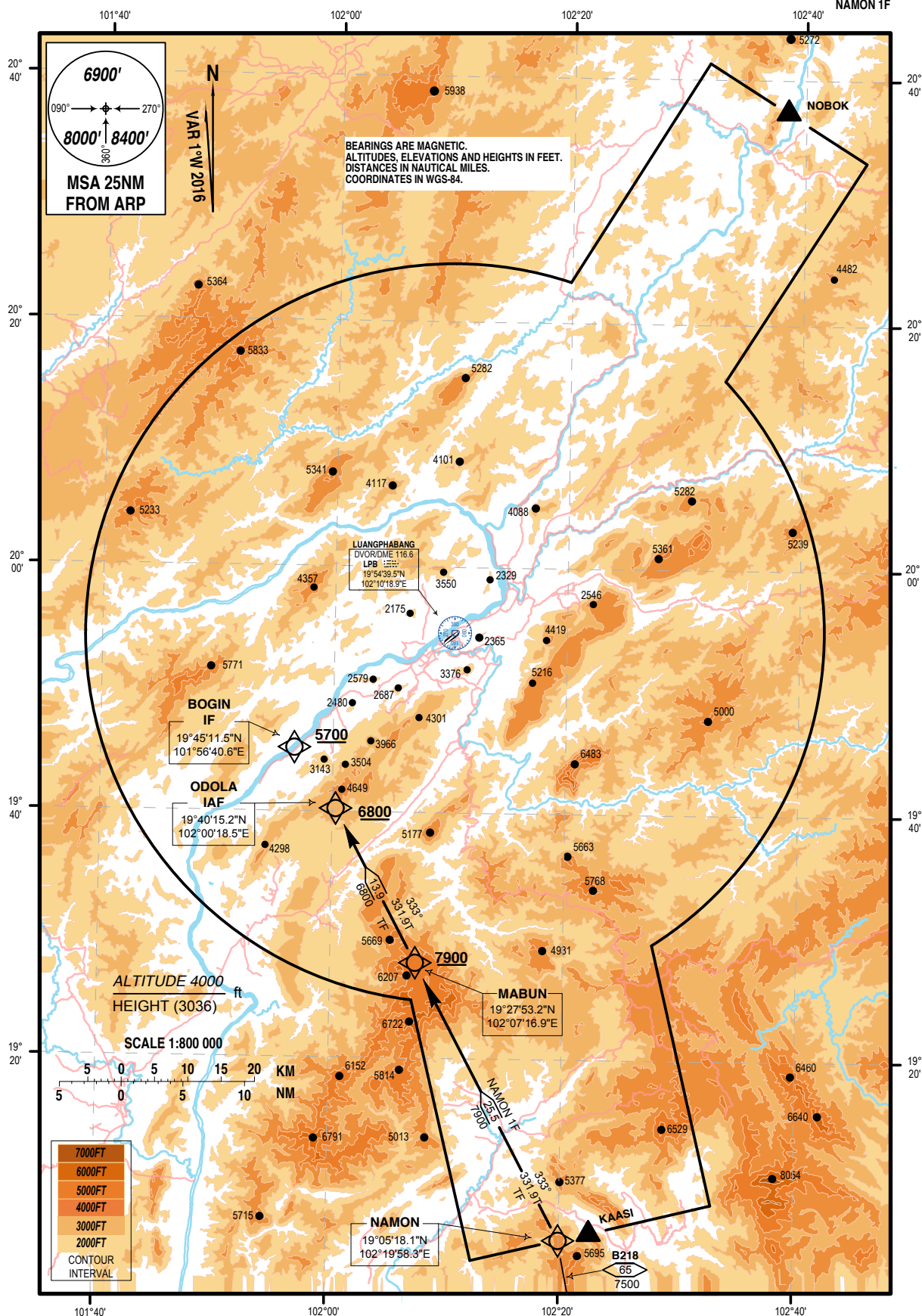
LUANGPHABANG/LuangPhabang INT'L (VLLB)

RNAV (GNSS)

RWY 05

NAMON 1F

CHANGE: NEW CHART



DEPARTMENT OF CIVIL AVIATION

AIRAC AIP AMDT 17/17

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) STAR
RWY 05

AERONAUTICAL DATA TABULATION

1. NAMON ONE FOXTROT ARRIVAL (NAM 1F): FM NAMON DESCENT TO MABUN AT OR ABOVE 7900FT, TO ODOLA AT OR ABOVE 6800FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
NAMON	WPT	19°05' 18.10" N 102°19' 58.30" E
MABUN	WPT	19°27' 53.22" N 102°07' 16.93" E
ODOLA	IAF	19°40' 15.19" N 102°00' 18.47" E

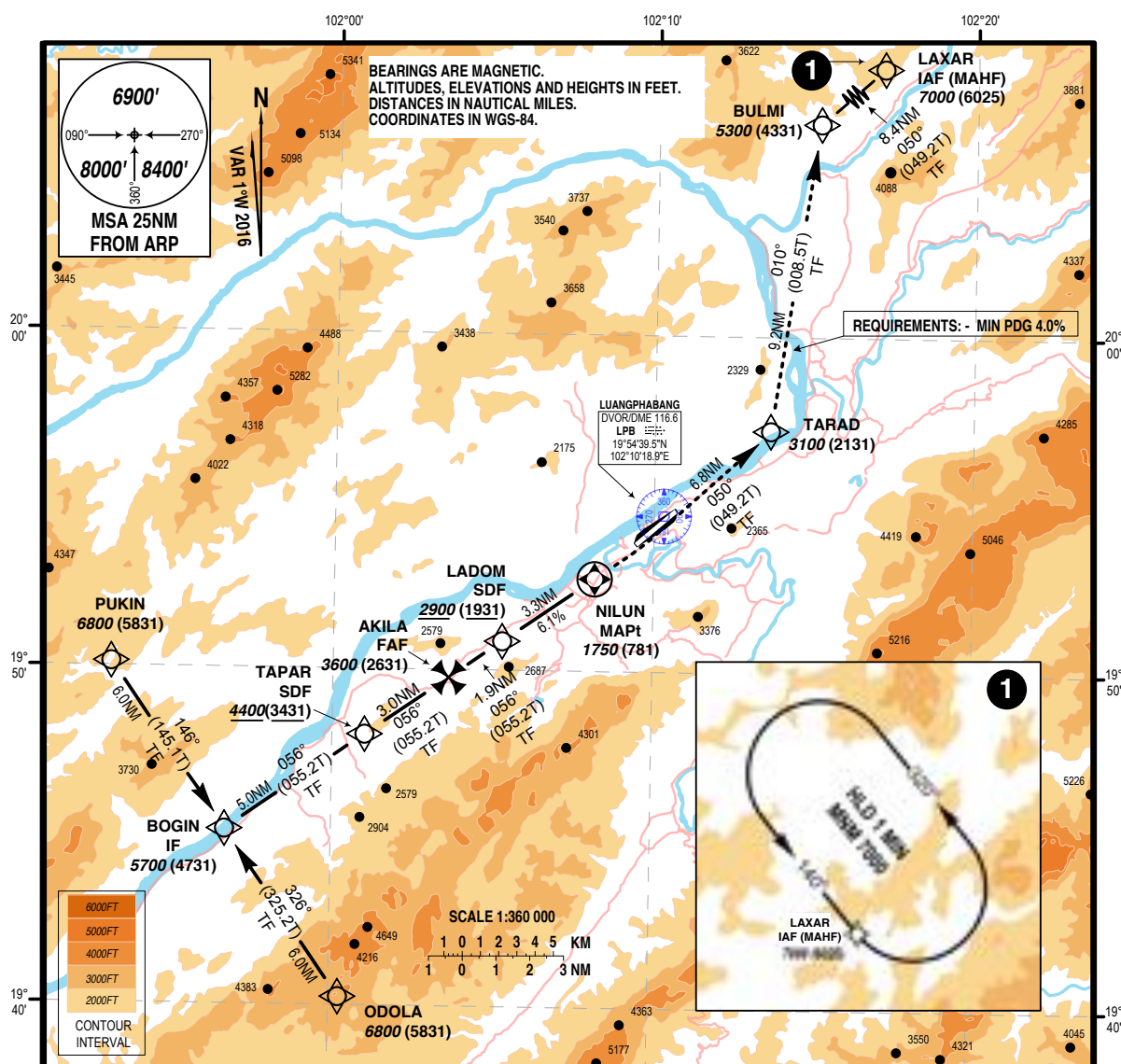
NAMON 1F ARRIVAL									
Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specification
IF	NAMON	-	-	-	-	-	-	-	RNP 1
TF	MABUN	-	333° (331.9°)	25.5	-	+7900	-	-	RNP 1
TF	ODOLA	-	333° (331.9°)	13.9	-	+6800	-	-	RNP 1

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 964 FT
HEIGHTS RELATED TO
DTHR RWY 05 - ELEV 969 FT

APP/TWR 118.5

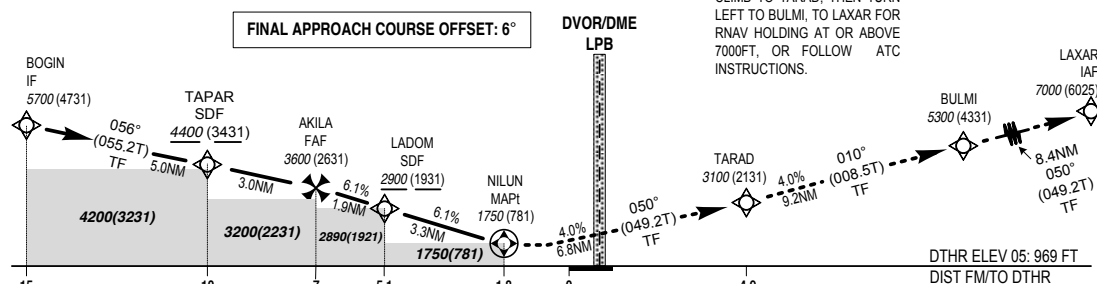
LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) RWY 05



TRANSITION LEVEL: FL130

FINAL APPROACH COURSE OFFSET: 6°

MISSED APPROACH:
CLIMB TO TARAD, THEN TURN
LEFT TO BULMI, TO LAXAR FOR
RNAV HOLDING AT OR ABOVE
7000FT, OR FOLLOW ATC
INSTRUCTIONS.



ACFT CAT		A	B	C	D
RNAV	CG	OCA/H	2250(1281)		
	2.5%	VIS	6400 m		
	CG	OCA/H	1750(781)		
	4.0%	VIS	3900 m		
Circling*	OCA/H	2500(1536)	2800(1836)		
	VIS	6700 m	8700 m		

Distance FAF to MAPt = 5.2NM

Distance to DTHR	NM	FAF	6	5	4	3	MAPt
Altitude (height)	FT	(2631)	3229 (2260)	2859 (1890)	2488 (1519)	2117 (1148)	1750 (781)
IAS	KT	70	85	100	130	160	185
Time	Min:s	4:27	3:40	3:07	2:24	1:57	1:41
Rate of descent	FT/min	415	504	593	771	949	1097

*FOR CIRCLING RESTRICTIONS SEE VERSO

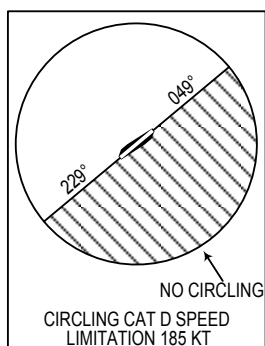
FOR DATA TABULATION SEE VERSO

CHANGE: NEW CHART

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) RWY 05
AERONAUTICAL DATA TABULATION

WPT DATA		
DESIGNATION	FIX	COORDINATES
ODOLA	IAF	19°40' 15.19" N 102°00' 18.47" E
PUKIN	IAF	19°50' 07.76" N 101°53' 02.63" E
BOGIN	IF	19°45' 11.52" N 101°56' 40.66" E
TAPAR	SDF	19°48' 03.46" N 102°01' 01.60" E
AKILA	FAF	19°49' 46.55" N 102°03' 38.21" E
LADOM	SDF	19°50' 52.08" N 102°05' 17.80" E
NILUN	MAPT	19°52' 45.42" N 102°08' 10.17" E
TARAD	WPT	19°57' 12.72" N 102°13' 37.84" E
BULMI	WPT	20°06' 20.14" N 102°15' 04.47" E
LAXAR	IAF (MAHF)	20°11' 49.20" N 102°21' 48.85" E

RNAV (GNSS) RWY 05									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly-Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specification
IF	ODOLA	-	-	-	-	6800	-	-	RNP APCH
TF	BOGIN	-	6.0	326° (325.2°)	R	5700	-	-	RNP APCH
IF	PUKIN	-	-	-	-	6800	-	-	RNP APCH
TF	BOGIN	-	6.0	146° (145.1°)	L	5700	-	-	RNP APCH
TF	TAPAR	-	5.0	056° (055.2°)	-	+4400	-	-	RNP APCH
TF	AKILA	-	3.0	056° (055.2°)	-	3600	-	-	RNP APCH
TF	LADOM	-	1.9	056° (055.2°)	-	+2900	-	6.1%	RNP APCH
TF	NILUN	Y	3.3	056° (055.2°)	-	1750	-	6.1%	RNP APCH
TF	TARAD	-	6.8	050° (049.2°)	-	3100	-	4.0%	RNP APCH
TF	BULMI	-	9.2	010° (008.5°)	L	5300	-	4.0%	RNP APCH
TF	LAXAR	-	8.4	050° (049.2°)	R	@7000	-	4.0%	RNP APCH

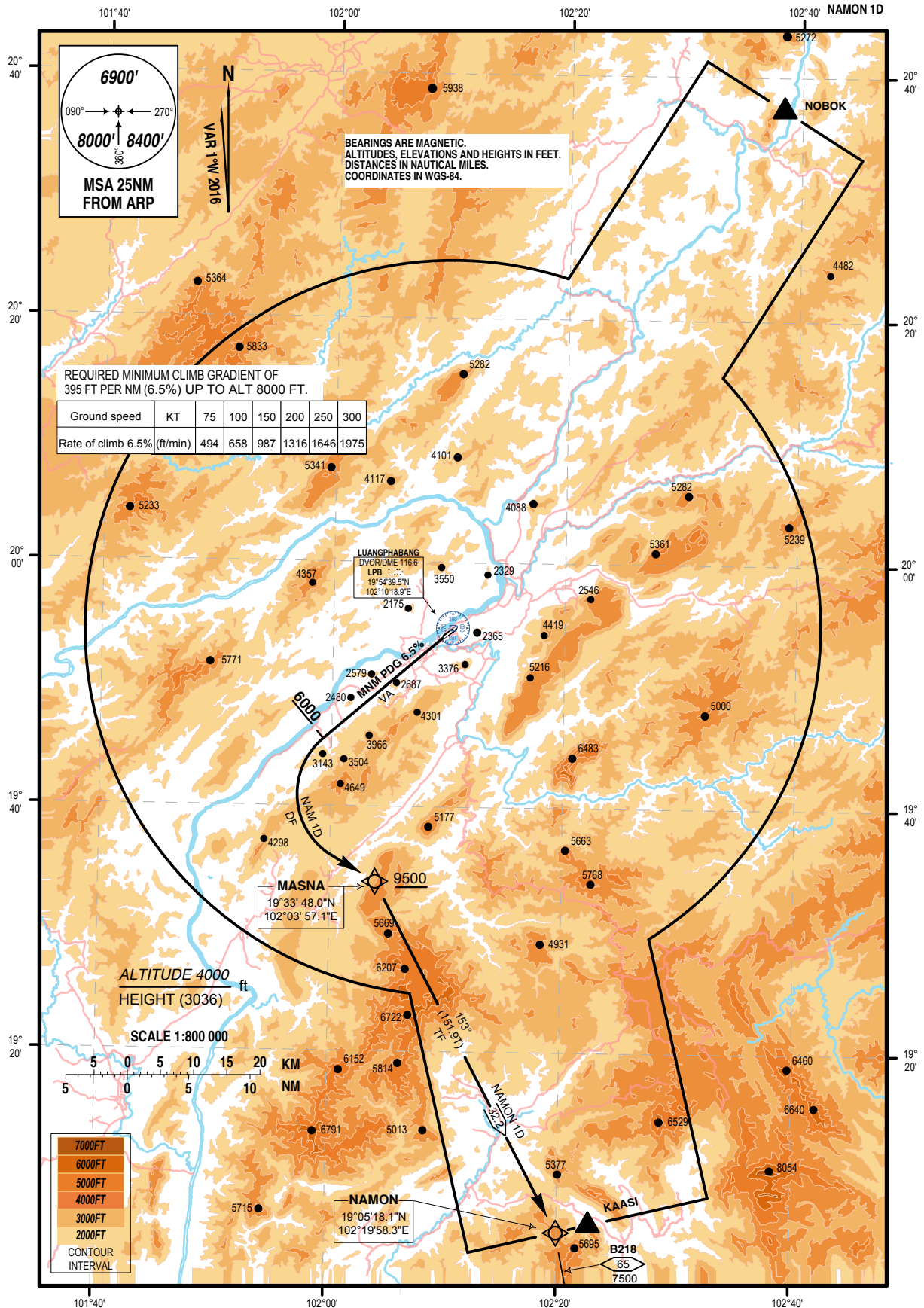


STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11 000 FT

APP/TWR 118.5

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS)
RWY 23
NAMON 1D



LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) SID
RWY 23

AERONAUTICAL DATA TABULATION

1. **NAMON ONE DELTA DEPARTURE (NAM 1D):** CLIMB ON RWY HDG, AT OR ABOVE 6000FT, TURN LEFT DIRECT TO MASNA, TO NAMON. MNM PDG 6.5% UPTO 8000FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
NAMON	WPT	19°05' 18.10" N 102°19' 58.30" E
MASNA	WPT	19°33' 48.04" N 102°03' 57.11" E

NAMON 1D DEPARTURE									
Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
VA	-	-	230° (229.2°)	-	-	+6000	-	6.5 %	RNP 1
DF	MASNA	-	-	-	L	+9500	-	-	RNP 1
TF	NAMON	-	153° (151.9°)	32.2	-	-	-	-	RNP 1

STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11 000 FT

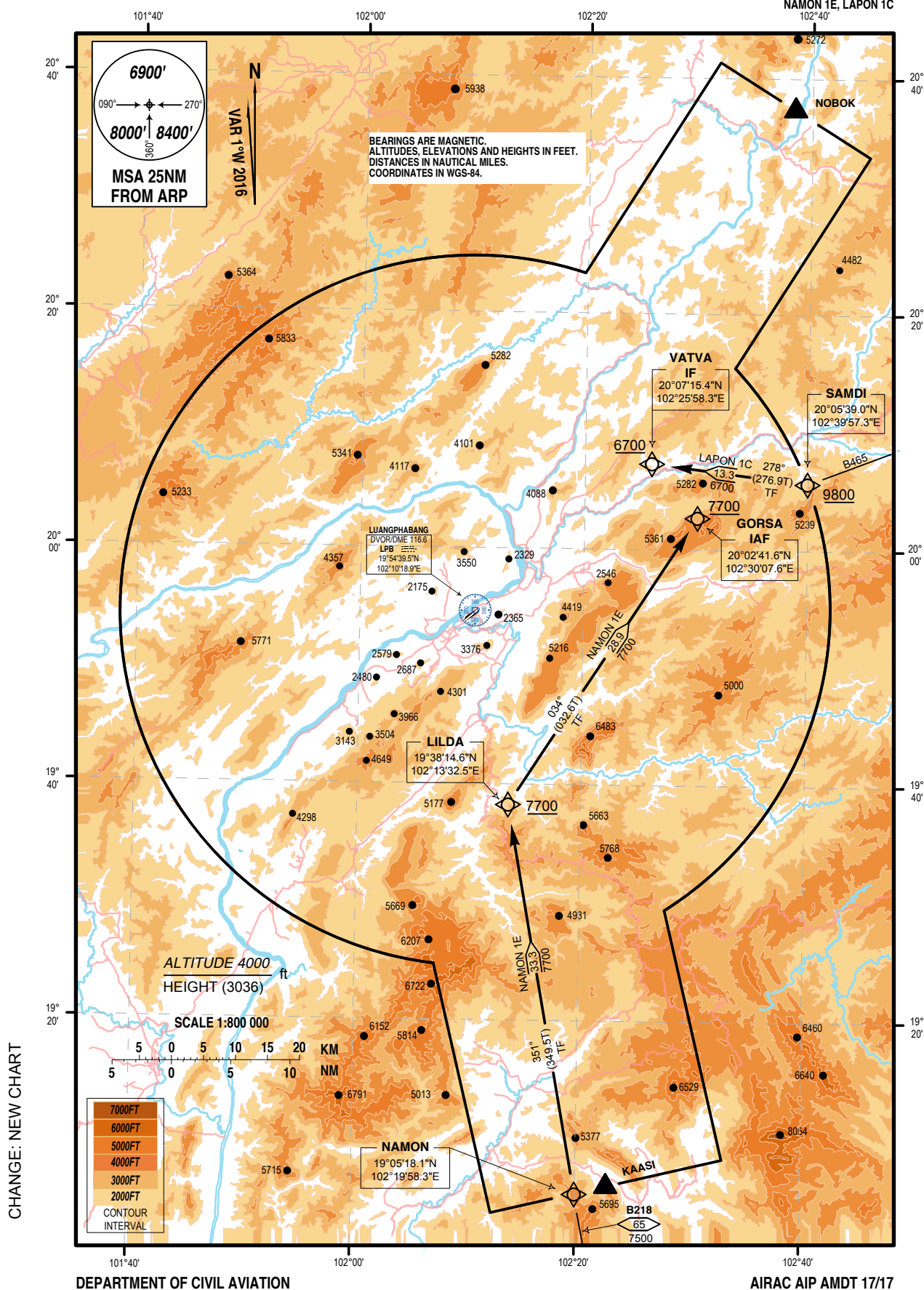
APP/TWR 118.5

LUANGPHABANG/LuangPhabang INT'L (VLLB)

RNAV (GNSS)

RWY 23

NAMON 1E, LAPON 1C



LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) STAR
RWY 23

AERONAUTICAL DATA TABULATION

1.NAMON ONE ECHO ARRIVAL (NAM 1E): FM NAMON DESCENT TO LILDA AT OR ABOVE 7700FT, TO GORSA AT OR ABOVE 7700FT.

2.LAPON ONE CHARLIE ARRIVAL (LAP 1C): FM SAMDI DESCENT TO VATVA AT OR ABOVE 6700FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
NAMON	WPT	19°05' 18.10" N 102°19' 58.30" E
LILDA	WPT	19°38' 14.64" N 102°13' 32.48" E
SAMDI	WPT	20°05' 38.98" N 102°39' 57.32" E
GORSA	IAF	20°02' 41.60" N 102°30' 07.58" E
VATVA	IF	20°07' 15.47" N 102°25' 58.33" E

NAMON 1E ARRIVAL									
Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specifications
IF	NAMON	-	-	-	-	-	-	-	RNP 1
TF	LILDA	-	351° (349.5°)	33.3	-	+7700	-	-	RNP 1
TF	GORSA	-	034° (032.6°)	28.9	-	+7700	-	-	RNP 1

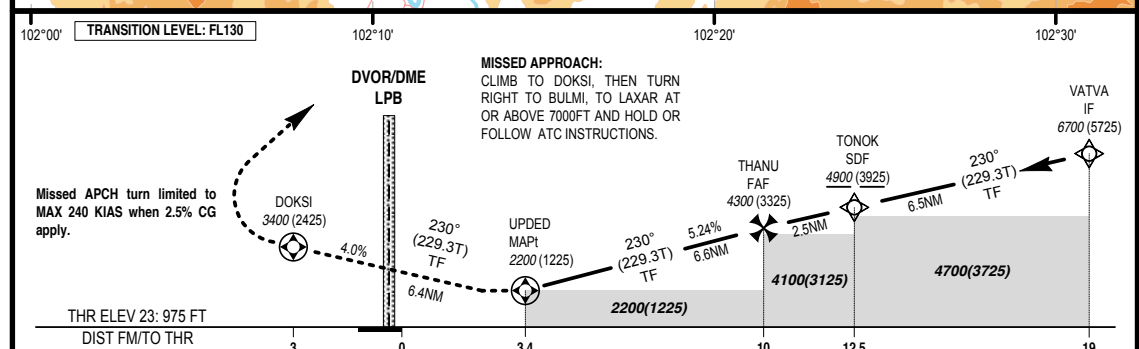
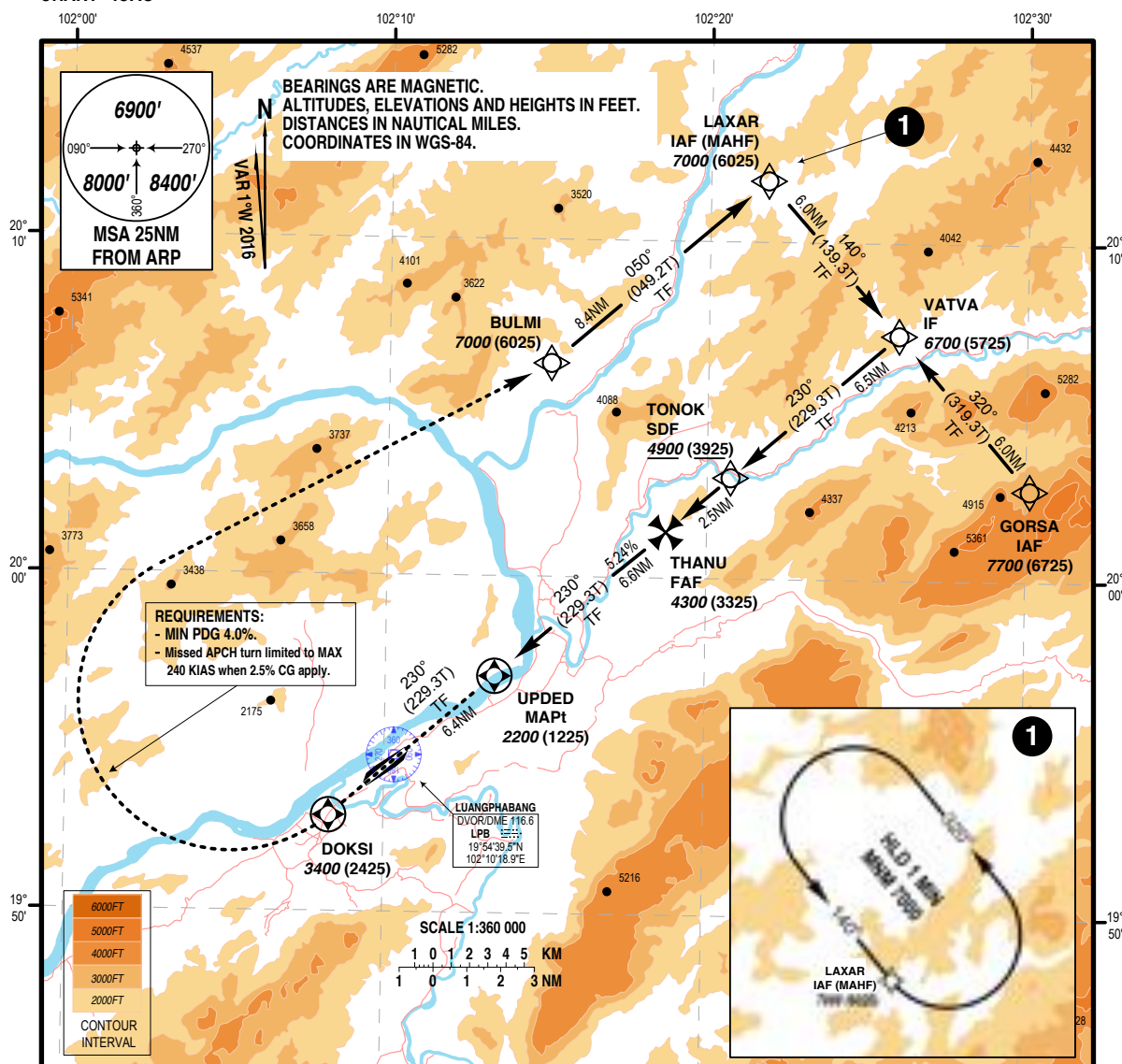
LAPON 1C ARRIVAL									
Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specifications
IF	SAMDI	-	-	-	-	+9800	-	-	RNP 1
TF	VATVA	-	278° (276.9°)	13.3	-	+6700	-	-	RNP 1

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 964 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 975 FT

APP/TWR 118.5

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) RWY 23



ACFT CAT		A	B	C	D
LNAV	CG 2.5%	OCA/H	2800(1825)		
		VIS	9500 m		
	CG 4.0%	OCA/H	2200(1225)		
		VIS	6000 m		
Circling*	OCA/H	2500(1536)	2800(1863)		
	VIS	6800 m	9000 m		

Distance FAF to MAPt = 6.6NM									
Distance to THR	NM	FAF	9	8	7	6	5	MAPt	
Altitude (Height)	FT	4300	3982	3663	3345	3026	2708	2200	
IAS	KT	70	85	100	115	130	160	185	
Time	Min:s	5:39	4:39	3:57	3:26	3:02	2:28	2:08	
Rate of descent	FT/min	371	451	530	610	689	848	981	

*FOR CIRCLING RESTRICTIONS SEE VERSO

FOR DATA TABULATION SEE VERSO

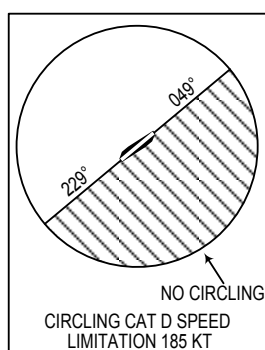
CHANGE: NEW CHART

LUANGPHABANG/LuangPhabang INT'L (VLLB)
RNAV (GNSS) RWY 23

AERONAUTICAL DATA TABULATION

WPT DATA		
DESIGNATION	FIX	COORDINATES
GORSA	IAF	20°02'41.60"N 102°30'07.56"E
LAXAR	IAF (MAHF)	20°11'49.20"N 102°21'48.85"E
VATVA	IF	20°07'15.47"N 102°25'58.33"E
TONOK	SDF	20°03'00.24"N 102°20'44.45"E
THANU	FAF	20°01'22.04"N 102°18'43.80"E
UPDED	MAPT	19°57'02.70"N 102°13'25.51"E
DOKSI	WPT	19°52'51.09"N 102°08'17.14"E
BULMI	WPT	20°06'20.14"N 102°15'04.47"E

RNAV (GNSS) RWY 23									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly-Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Specification
IF	GORSA	-	-	-	-	7700	-	-	RNP APCH
TF	VATVA	-	6.0	320° (319.3°)	L	6700	-	-	RNP APCH
IF	LAXAR	-	-	-	-	7000	-	-	RNP APCH
TF	VATVA	-	6.0	140° (139.3°)	R	6700	-	-	RNP APCH
TF	TONOK	-	6.5	230° (229.3°)	-	+4900	-	-	RNP APCH
TF	THANU	-	2.5	230° (229.3°)	-	4300	-	-	RNP APCH
TF	UPDED	Y	6.6	230° (229.3°)	-	2200	-	-	RNP APCH
DF	DOKSI	Y	6.4	230° (229.3°)	-	3400	-	4.0%	RNP APCH
DF	BULMI	-	-	-	R	7000	-	4.0%	RNP APCH
TF	LAXAR	-	8.4	050° (049.2°)	-	@7000	-	-	RNP APCH



VLPS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

VLPS - CHAMPASAK / PAKSE INTERNATIONAL

VLPS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	<i>ARP coordinates and site at AD</i>	15 08 07.18N – 105 46 45.21E	←
2	<i>Direction and distance from (City)</i>	Northwest 2.8 km	
3	<i>Elevation / reference temperature</i>	103.9 (341ft) / 37°C	
4	<i>MAG VAR / annual change</i>	1°W (2016)	←
5	<i>AD Administration, address, telephone, fax, telex, AFS.</i>	Lao Airports Authority (LAA), Pakse International Airport. Tel: (856 31) 214 261, Fax: (856 31) 213 214 or contact directly LAA, Vientiane/Wattay Int'l Airport. Tel (856-21) 520 542, 520 543. Fax: (856-21) 520 539. E-mail: Laoairport@etlao.com	
6	<i>Type of traffic permitted (IFR/VFR)</i>	IFR/VFR	
7	<i>Remarks</i>	NIL	

VLPS AD 2.3 OPERATIONAL HOURS

1	<i>Aerodrome administration</i>	H24
2	<i>Customs and Immigration</i>	H24
3	<i>Health and Sanitation</i>	H24
4	<i>AIS Briefing office</i>	H24
5	<i>ATS reporting office (ARO)</i>	H24
6	<i>MET Briefing office</i>	H24
7	<i>Air Traffic Services</i>	H24
8	<i>Fuelling</i>	H24
9	<i>Handling</i>	H24
10	<i>Security</i>	H24

VLPS AD 2.4 HANDLING SERVICES AND FACILITIES

1	<i>Cargo handling facilities</i>	Cargo truck, Lavatory truck, Aircraft tractor, GPU,
2	<i>Fuel / oil types</i>	JET A1
3	<i>Fuelling facilities / capacity</i>	1 truck 10,000 L
4	<i>Hangar space for visiting ACFT</i>	NIL
5	<i>Repair facilities for visiting ACFT</i>	NIL
6	<i>Remarks</i>	NIL

VLPS AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	In the city
2	<i>Restaurants</i>	Restaurants and snack bars at airport
3	<i>Transportation</i>	Tuk tuk and rental car to and from the city
4	<i>Medical facilities</i>	Hospitals in the city
5	<i>Bank and Post Offices</i>	Available at airport
6	<i>Tourist Office</i>	Available at airport

VLPS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

→ 1	<i>AD category for fire fighting</i>	Cat 7
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	NIL
4	<i>Remarks</i>	All airport emergency service personnel are trained in rescue and fire fighting as well as medical first - aid.

VLPS AD 2.7 SEASONAL AVAILABILITY – CLEARING

1	<i>Type of clearing equipment</i>	NIL
2	<i>Clearance priorities</i>	NIL
3	<i>Remarks</i>	NIL

VLPS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron surface and strength</i>	Surface: Concrete Strength: PCN 50/R/B/W/T
2	<i>Taxiway width, surface and strength</i>	19 m, Concrete
3	<i>ACL location and elevation</i>	NIL
4	<i>VOR / INS checkpoints</i>	NIL
5	<i>Remarks</i>	NIL

VLPS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKING

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking / parking guidance system of aircraft stands.</i>	Taxiing guidance signs at all TWY/RWY intersections and at all holding positions. Guidance lines at apron.
2	<i>RWY and TWY markings and LGT</i>	RWY: Designation, THR, TDZ, center line, edge runway end as appropriate, marked. TWY: Center line, edges, holding positions at all TWY / RWY intersections, marked.
3	<i>Stop bars</i>	NIL
4	<i>Remarks</i>	NIL

VLPS AD 2.10 AERODROME OBSTACLES

<i>In approach/TKOF areas</i>			<i>In circling area and at AD</i>		<i>Remarks</i>
1			2		3
RWY/Area Coordinates	Obstacle type Elevation affected	Markings/LGT	Obstacle type Elevation Markings/LGT	Coordinates	NIL
	a	b	a	b	
15/APCH 33/TKOF					

VLPS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	<i>Associated MET office</i>	Pakse MET Office
2	<i>Hours of service</i>	AD hours
3	<i>Office Responsible for TAF preparation periods of validity</i>	NIL
4	<i>Type of landing forecast Interval of issuance</i>	Trend 2 HR
5	<i>Briefing / consultation provided</i>	Personal consultation
6	<i>Flight documentation Language (s) used</i>	METAR, SPECI English
7	<i>Charts and other information available for briefing or consultation</i>	NIL
8	<i>Supplementary equipment available for providing information</i>	NIL
9	<i>ATS units provided with information</i>	Pakse TWR, ARO
10	<i>Additional information</i>	NIL

VLPS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

<i>Designations RWY NR</i>	<i>TRUE & MAG BRG</i>	<i>Dimensions of RWY (m)</i>	<i>Strength (PCN) & Surface of RWY & SWY</i>	<i>THR Coordinate</i>	<i>THR elevation & highest elevation of TDZ of precision APP RWY</i>
1	2	3	4	5	6
15	146/147	2400 x 45	PCN 49/F/C/X/T Asphalt	15 08 37.86N 105 46 24.67E	105.7m/ (347ft)
33	326/327	2400 x 45	PCN 49/F/C/X/T Asphalt	15 07 32.41N 105 47 08.50E	102.6m/ (337ft)
33/1	326/327	2250 x 45	PCN 49/F/C/X/T Asphalt	15 07 36.50N 105 47 05.76E	103.9m/ (341ft)

<i>Slope of RWY/SWY (%)</i>	<i>SWY Dimensions (m)</i>	<i>CWY Dimensions (m)</i>	<i>Strip Dimensions (m)</i>	<i>OFZ</i>	<i>Remarks</i>
7	8	9	10	11	12
0.394% / 0.5% 0.22% / 0.16%	100 x 45 100 x 45	190 x 150 190 x 150	2520 x 150 2520 x 150	NIL NIL	

VLPS AD 2.13 DECLARED DISTANCES

RWYs Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
15	2400	2590	2500	2400	NIL
33	2400	2590	2500	2250	NIL

VLPS AD 2.14 APPROACH AND RUNWAY LIGHTING

<i>RWY Designator</i>	<i>APP LGT type LEN INTST</i>	<i>THR LGT Colour WBAR</i>	<i>VASIS (MEHT) PAPI</i>	<i>TDZ LGT LEN</i>	<i>RWY centre line LGT LEN, spacing colour, INTST</i>	<i>RWY edge LGT LEN, spacing colour INTST</i>	<i>RWY end LGT colour WBAR</i>	<i>SWY LGT LEN (m) colour</i>	<i>Remarks</i>
1	2	3	4	5	6	7	8	9	10
15	CAT I	GREEN	PAPI	NIL	NIL	WHITE/ YELLOW	RED	NIL	NIL
33		NIL	PAPI	NIL	NIL	WHITE/ WHITE/ YELLOW	RED	NIL	NIL

VLPS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN/IBN location characteristics hours of operation</i>	ABN: green and while 12 RPM on top of TWR cab during night time operation
2	<i>LDI location and LGT anemometer location and LGT</i>	NIL
3	<i>TWY edge and center line light</i>	All TWY edges lighted. TWY center line NIL
4	<i>Secondary power supply / switch over time</i>	Available, automatic switch-over
5	<i>Remarks</i>	NIL

VLPS AD 2.16 HELICOPTER LANDING AREA

NIL

VLPS AD 2.17 ATS AIRSPACE

1	<i>Designation and lateral limits</i>	Pakse TMA a circle, 50 NM radius centered on PAK DVOR/DME (15 11 48.3N 105 44 17.0E) Limited by FIR boundary. Pakse CTR Circle of 10 NM radius centered on PAK DVOR/DME
2	<i>Vertical limits</i>	TMA <u>FL 195</u> 7500 ft AMSL CTR <u>7500 ft AMSL</u> GND
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign</i> <i>Languages</i>	Pakse Approach (APP and TWR are combined) Pakse Tower English / Lao
5	<i>Transition altitude</i>	11000ft
6	<i>Remarks</i>	NIL

VLPS AD 2.18 ATS COMMUNICATION FACILITIES

<i>Service Designation</i>	<i>Call sign</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Remarks</i>
1	2	3	4	5
APP	Pakse Approach	118.50 MHz	H24	
TWR	Pakse TWR	118.50 MHz	H24	

VLPS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

<i>Type of aid, CAT of ILS (for VOR/ILS) give (VAR)</i>	<i>ID</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Site of transmitting antenna coordinates</i>	<i>Elevation of DME transmitting antenna</i>	<i>Remarks</i>
1	2	3	4	5	6	7
DVOR / DME (1°W/ 1994)	PAK	115.0 MHZ CH 97X	H24	15 11 48.3N 105 44 17.0E	110.3m/ (362ft)	
NDB	PS	220 KHz	H24	15 07 50.2N 105 47 02.0E	103.7m/ (340ft)	
ILS at RWY 15 LLZ	IPKS	108.90 MHz	H24	15 07 27.3N 105 47 11.9E		
GP/TDME		329.30 MHz CH 26X	H24	15 08 28.3N 105 46 28.6E		

VLPS AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport Regulations

to be developed

Marshaller assistance can be requested and further information about regulations can be obtained from the TWR or surface movement control (SMC).

2. Taxiing to and from stands

Taxiing and parking instructions will be obtained from Pakse TWR.

Departing IFR flights shall contact the TWR to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at the earliest 10 minutes prior to engine start-up on frequency 118.50 MHz.

3. Parking area for helicopters

No specific parking areas for helicopters. Helicopter shall be guided by marshalls or instructed by TWR.

4. Parking area for small aircraft (General aviation)

General aviation aircraft shall be guided by marshalls or instructed by TWR to the parking area for small aircraft.

5. Apron – taxiing during winter condition

NIL

6. Taxiing – limitations

Insufficient safety distances restrict large aircraft using their own power, further information will be given to each aircraft from the TWR or SMC.

7. School and training flights - technical test flights

School and training flights, technical test flights must only be made after permission has been obtained from appropriate authorities.

8. Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the airport authority at the owner's or user's expense.

VLPS AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VLPS AD 2.22 FLIGHT PROCEDURES

1. General

Unless permission has been obtained from Pakse APP or TWR as appropriate, flight within Pakse TMA and CTR shall be in accordance with the Instrument Flight Rules.

2. Procedures for IFR flights within Pakse TMA

The inbound, transit and outbound routes shown on the charts may be varied at the discretion of ATS units. If necessary, in case of congestion, inbound aircraft may also be instructed to hold over one of a designated Initial Approach Fixes (IAF).

3. Procedures for VFR flights within Pakse TMA

Provided traffic conditions so permit, ATC clearance for VFR flights will be given under the conditions described below:

- a) a flight plan requesting ATC clearance, containing items 7 to 18 and indicating the purpose of flight, shall be submitted;
- b) ATC clearance shall be obtained immediately before the aircraft enters the Pakse TMA;
- c) position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2;
- d) deviation from the ATC clearance may only be made when prior permission has been obtained;
- e) the flight shall be conducted with vertical visual reference to the ground unless the flight can be conducted in accordance with IFR;
- f) two-way radio communication shall be maintained on the frequency 118.50 MHz;
- g) the aircraft shall be equipped with SSR transponder with 4096 Codes in Mode A/3. Flights performed in connection with parachute jumps shall, in addition, be equipped with Mode C with automatic transmission of pressure altitude information (cf. ICAO Annex 10, Volume I). Exemption from this requirement may be granted by Vientiane ACC.

5. Procedures for VFR flights within Pakse CTR

- a) Flight plan shall be filed for the flight concerned;
- b) ATC clearance shall be obtained from the Pakse TWR;
- c) Deviation from ATC clearance may only be made when prior permission has been obtained;
- d) The flight shall be conducted with vertical visual reference to the ground;
- e) Two-way radio communication shall be established on the frequency 118.50 MHz before flight take place in the Pakse CTR.

6. VFR routes within Pakse CTR

NIL

VLPS AD 2.23 ADDITIONAL INFORMATION

Intentionally blank

VLPS AD 2.24 CHARTS RELATED TO PAKSE AIRPORT

	<i>Page</i>	
Aerodrome Chart – ICAO	VLPS AD 2-10	←
Instrument Approach Chart - ICAO - RWY 15 DVOR/DME	VLPS AD 2-11	
Instrument Approach Chart - ICAO - RWY 15 NDB	VLPS AD 2-12	
Non standard Departure Chart - ICAO - RWY 15	VLPS AD 2-13	
Standard Instrument Departure (SID) - ICAO - RWY 33	VLPS AD 2-14	
Visual Chart - ICAO	VLPS AD 2-15	
Terminal Control Area (TMA) Chart - ICAO	VLPS AD 2-16	
Instrument Approach Chart - ICAO - RWY 15 ILS/DME	VLPS AD 2-17	
Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 15	VLPS AD 2-18	
Standard Departure Chart - Instrument (SID) - ICAO - RNAV (GNSS) RWY 33 DOKPI 1A, LAPET 1A	VLPS AD 2-19	
Standard Departure Chart - Instrument (SID) - ICAO - RNAV (GNSS) RWY 15 DOKPI 1B, LAPET 1B	VLPS AD 2-20	
Standard Departure Chart - Instrument (SID) - ICAO - RNAV (GNSS) RWY 33/15 SAMSI 1A, SAMSI 1B	VLPS AD 2-21	
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV (GNSS) RWY 15 SAMSI 1C	VLVT AD 2-22	
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV (GNSS) RWY 15 DOKPI 1C, LAPET 1C	VLVT AD 2-23	

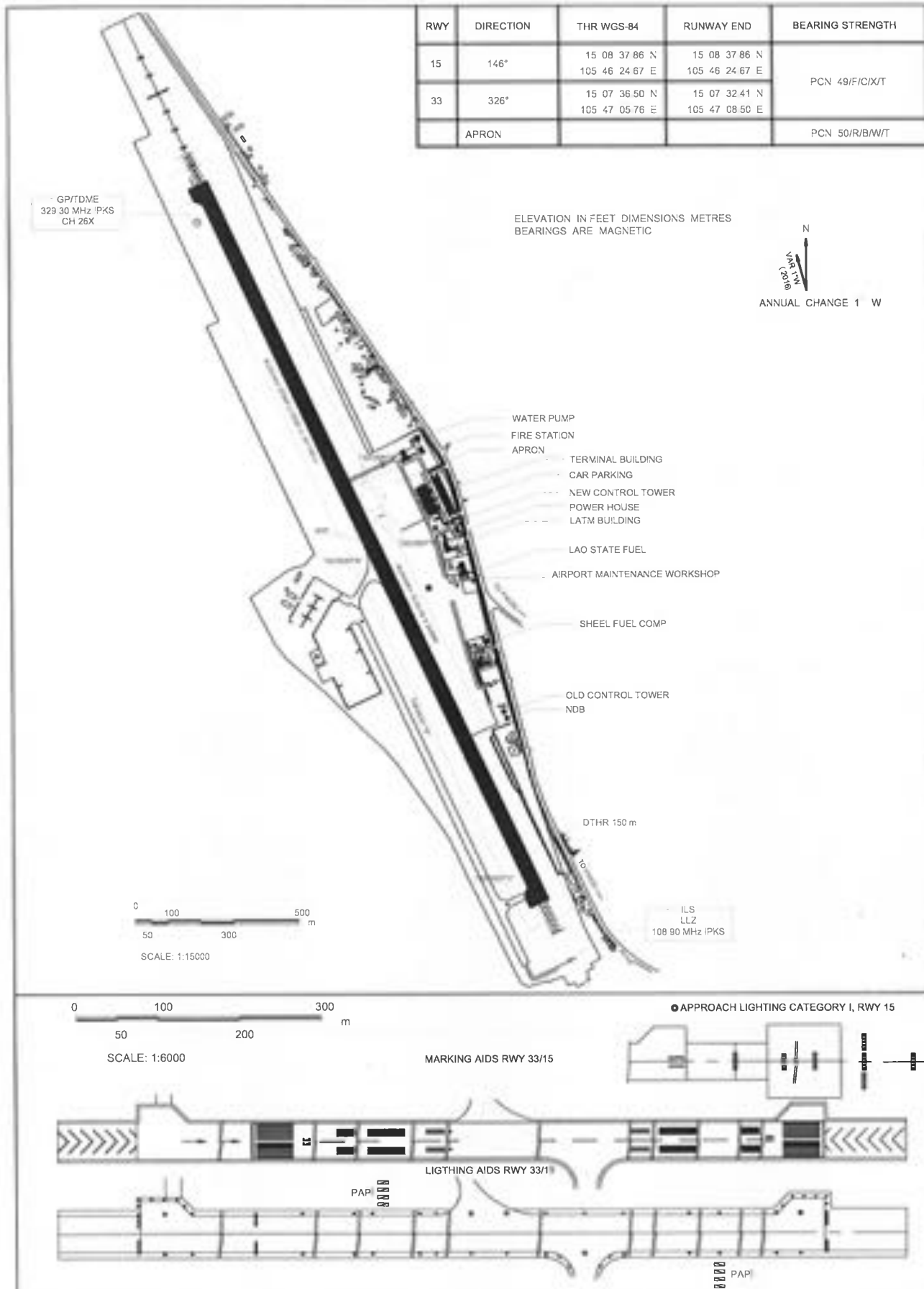
AERODROME CHART-ICAO

15° 08' 07.18" N
105° 46' 45.21" E

ELEV 103 9 m (341 ft)

APP 118.5 MHz
TWP 118.5 MHz

PAKSE/Pakse Intl AP

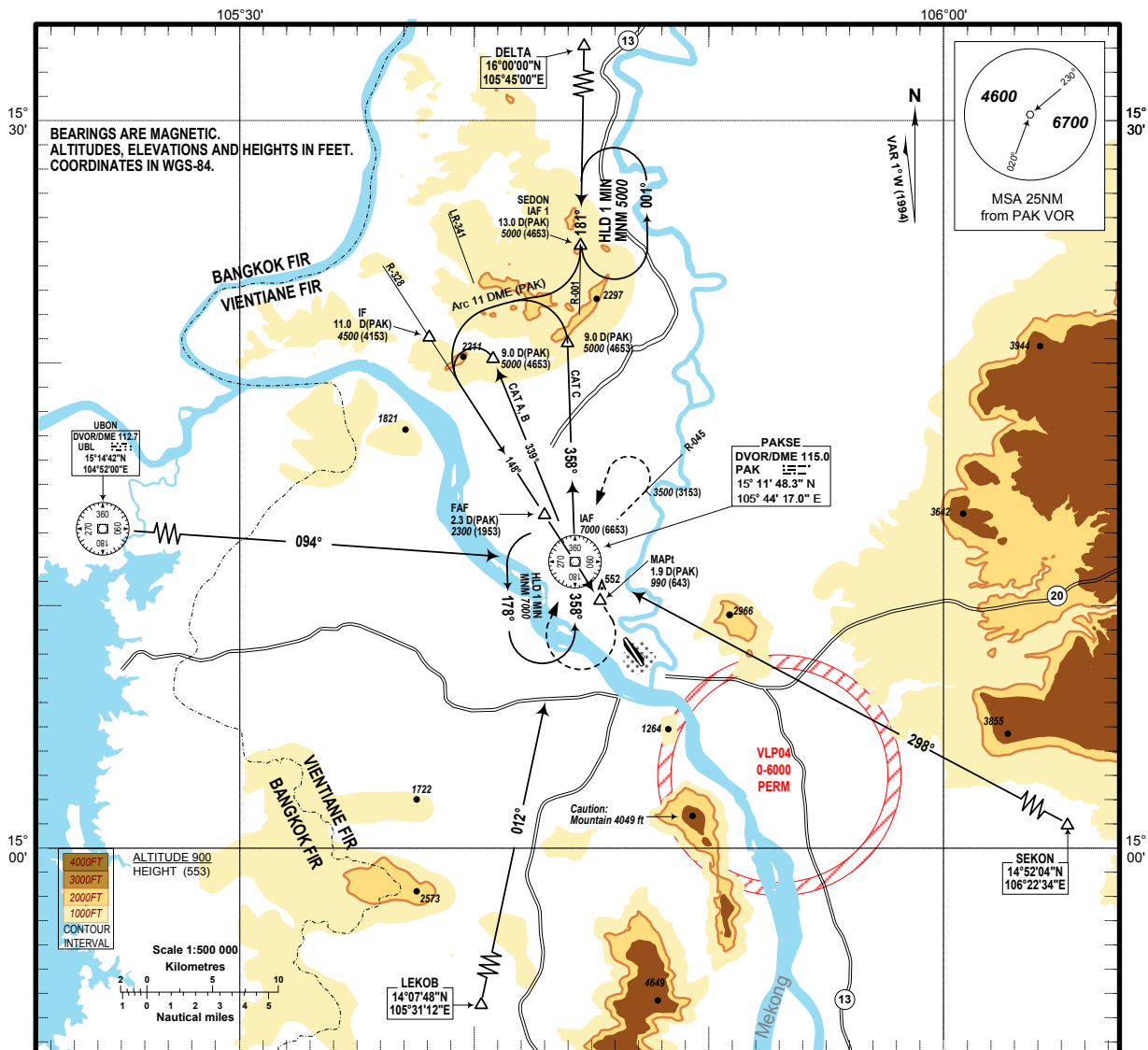


INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV: 103.9 M/341FT
HEIGHTS RELATED TO
THR RWY15 ELEV: 105.7 M/347 FT

TWR: 118.5
APP: 118.5

CHAMPASAK/Pakse
VOR/DME
RWY 15



TRANSITION LEVEL: FL130
TRANSITION ALTITUDE: 11000 FT

MISSED APPROACH:
Immediately turn right to PAK at 1500ft (1153ft)
or above then climbing on R-045(PAK) until
passing 3500ft (3153ft), turn left to PAK to join
the holding pattern or follow ATC instructions.

Procedure Design Gradient is not less than 4.0%

THR RWY 15 ELEV: 347 FT

20 NM 15 10 5 0 5 10 15 NM

CHANGE: MODIFICATION

OCA(H)			
Aircraft Category	A	B	C
Straight-in approach	990(643)		
CIRCLING	1300(953)	2000(1653)	3500(3153)

Distance FAF to MAPt = 4.2 NM

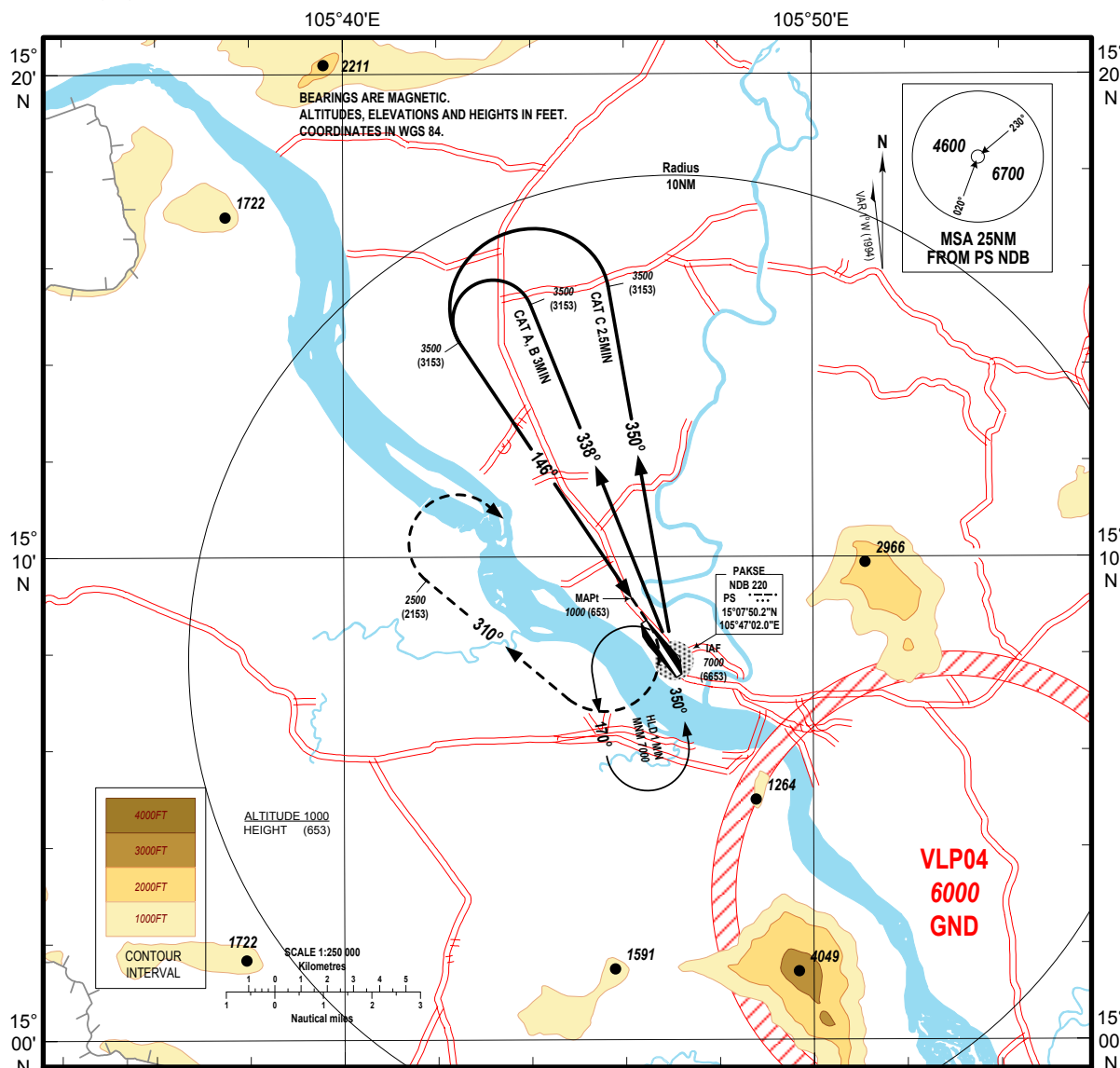
Distance to PAK	DME	2.3	1.0	0.0	1.0	1.9
Altitude (Height)	FT	2300 (1953)	1890 (1543)	1590 (1243)	1274 (927)	990 (643)
Speed (IAS)	KT	70	90	110	130	150
Time	M:S	3:36	2:48	2:17	1:56	1:40
Rate of descent	FT/min	363	467	571	675	779

INSTRUMENT
APPROACH
CHART (IAP) - ICAO

HIEGHTS RELATED TO
THR WRY 15 ELEV: 347FT

TWR: 118.5

CHAMPASAK/Pakse
NDB
RWY 15



TRANSITION LEVEL: FL130
TRANSITION ALTITUDE: 11000 FT

MISSED APPROACH:
Immediately turn right climbing on heading 310°
to 2500ft (2153ft), then turn right to PS to join the
holding pattern or follow ATC instructions.

Procedure Design Gradient is not less than 4.0%

Caution:
Mountain 4049ft

THR RWY 15 ELEV: 347 FT

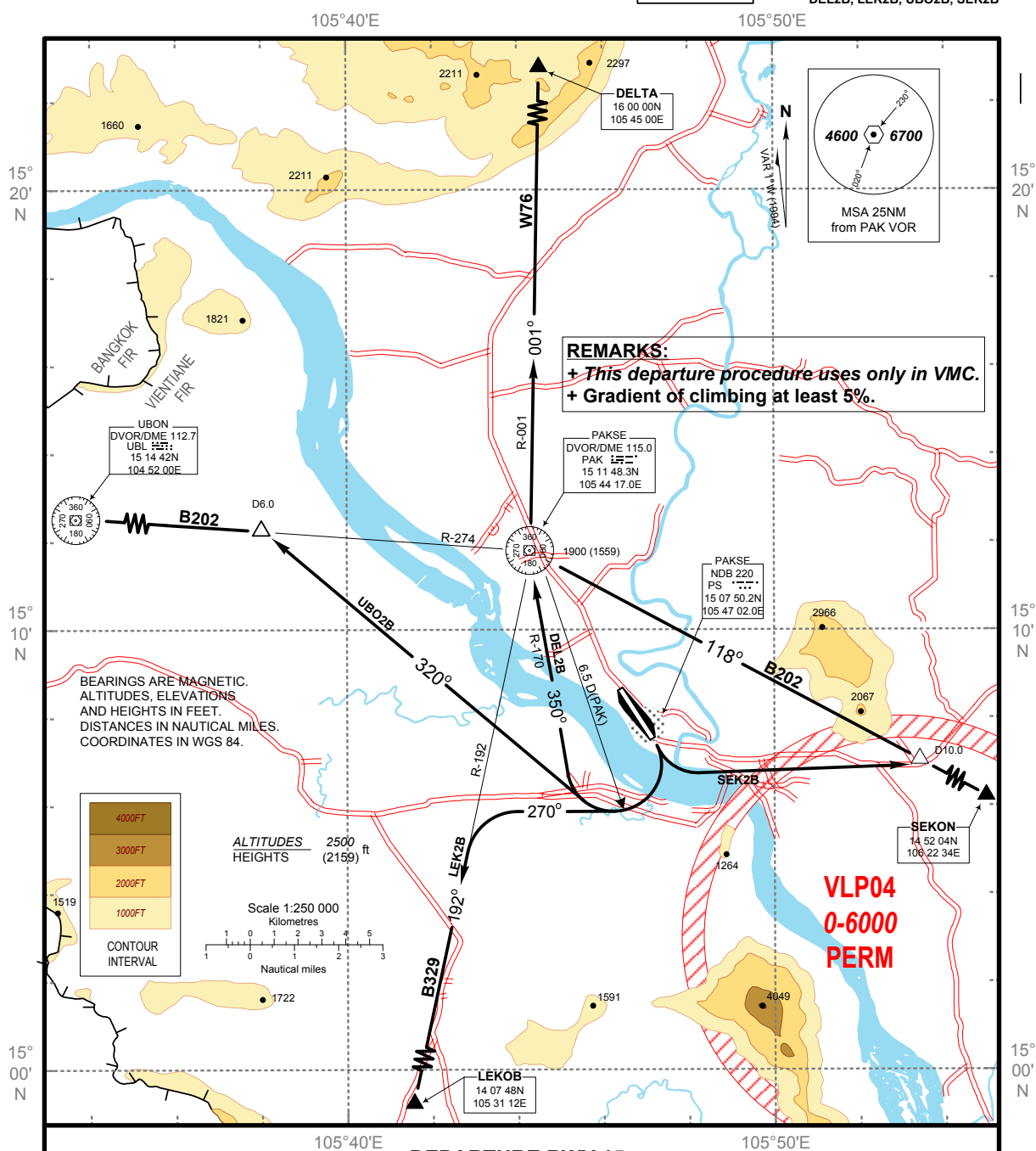
OCA/H			
Aircraft category	A	B	C
Straight-in approach	1000 (653)		
Circling	1300 (953)	2000 (1653)	3500 (3153)

**NON STANDARD
DEPARTURE CHART**

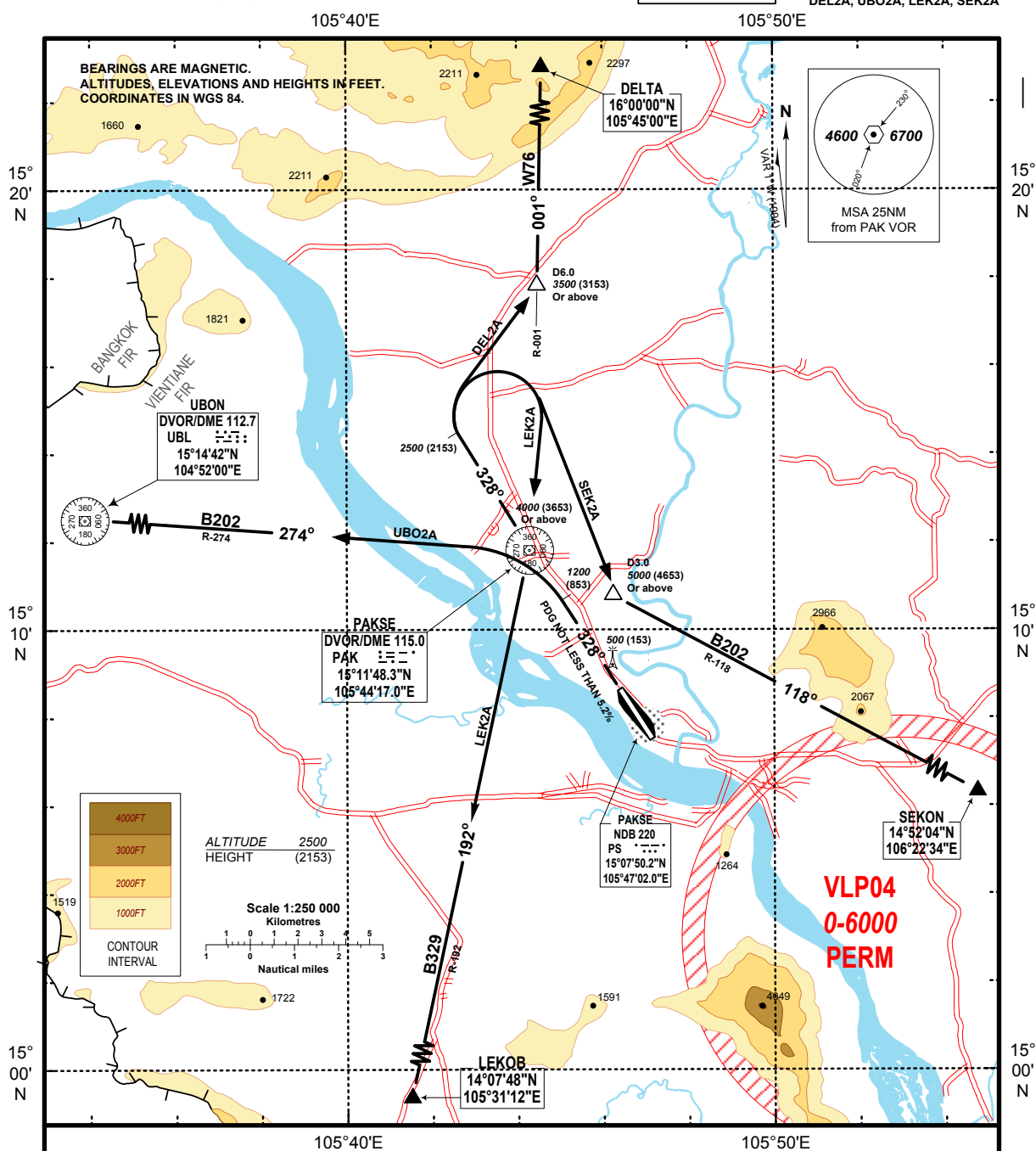
TRANSITION ALTITUDE: 11000 FT

TWR: 118.5
APP: 118.5

CHAMPASAK/Pakse
RWY 15
DEL2B, LEK2B, UBO2B, SEK2B



CHAMPASAK/Pakse Intl
RWY 33
DEL2A, UBO2A, LEK2A, SEK2A



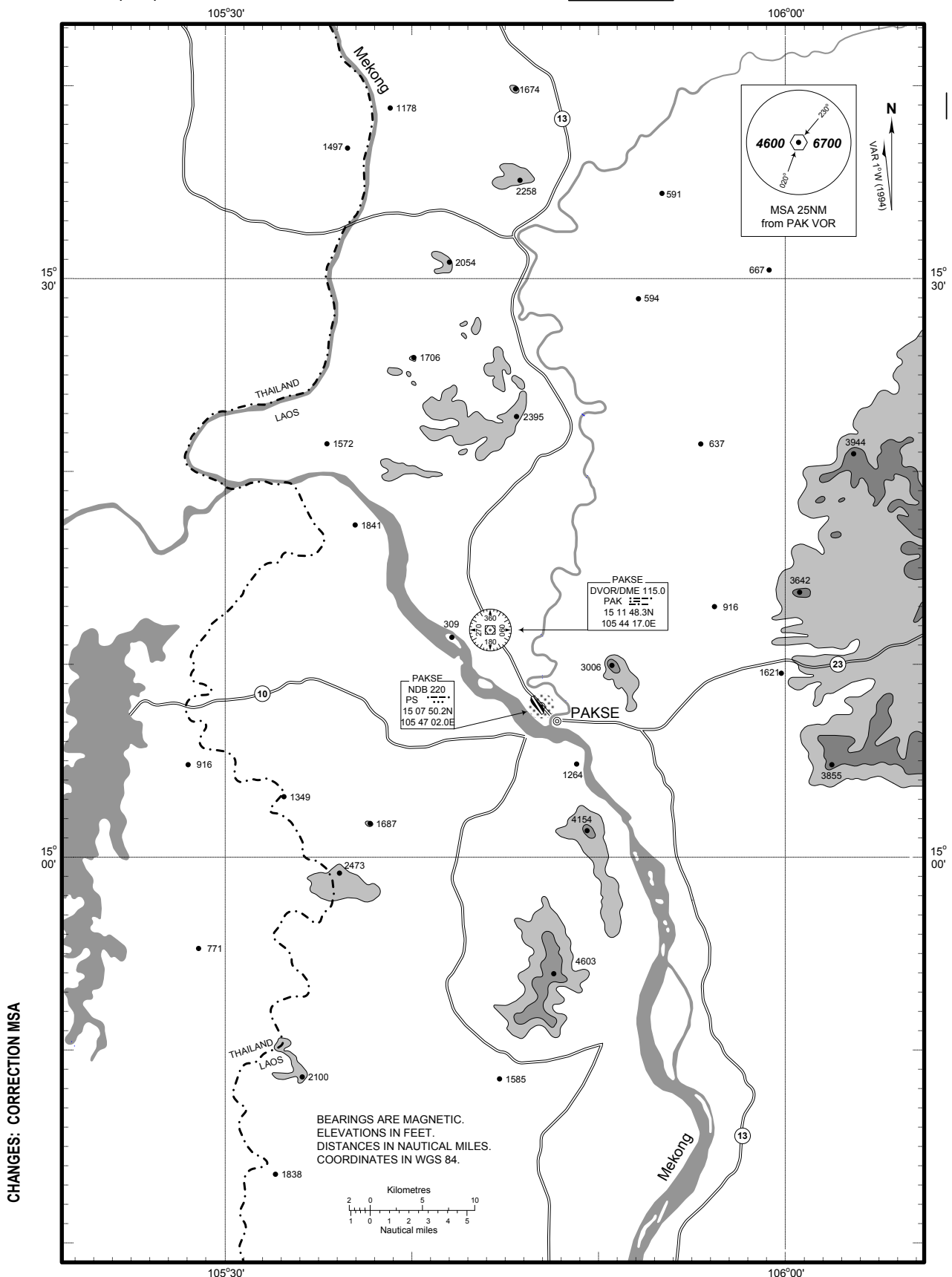
- 1. DELTA TWO ALPHA DEPARTURE (DEL2A):** After departure, climb on runway heading to *2500ft* (2153ft). Then turn right climbing to intercept W76 at D6.0, *3500ft* (3153ft) or above to DELTA. **(PDG is not less than 5.2% until 4000ft).**
- 2. UBON TWO ALPHA DEPARTURE (UBO2A):** After departure, climb on runway heading to *1200ft* (853ft). Then turn left climbing to intercept B202 to UBON. **(PDG is not less than 5.2% until 4000ft).**
- 3. LEKOB TWO ALPHA DEPARTURE (LEK2A):** After departure, climb on runway heading to *2500ft* (2153ft). Then turn right to PAK at *4000ft* (3653ft) or above and intercept B329 to LEKOB. **(PDG is not less than 5.2% until 4000ft).**
- 4. SEKON TWO ALPHA DEPARTURE (SEK2A):** After departure, climb on runway heading to *2500ft* (2153ft). Then turn right climbing to intercept B202 at D3.0, *5000ft* (4653ft) or above to SEKON. **(PDG is not less than 5.2% until 5000ft).**

VISUAL APPROACH
CHART (VAC) - ICAO

AERODROME ELEVATION: **351 ft**

TWR: 118.5
APP : 118.5

CHAMPASAK/Pakse ←

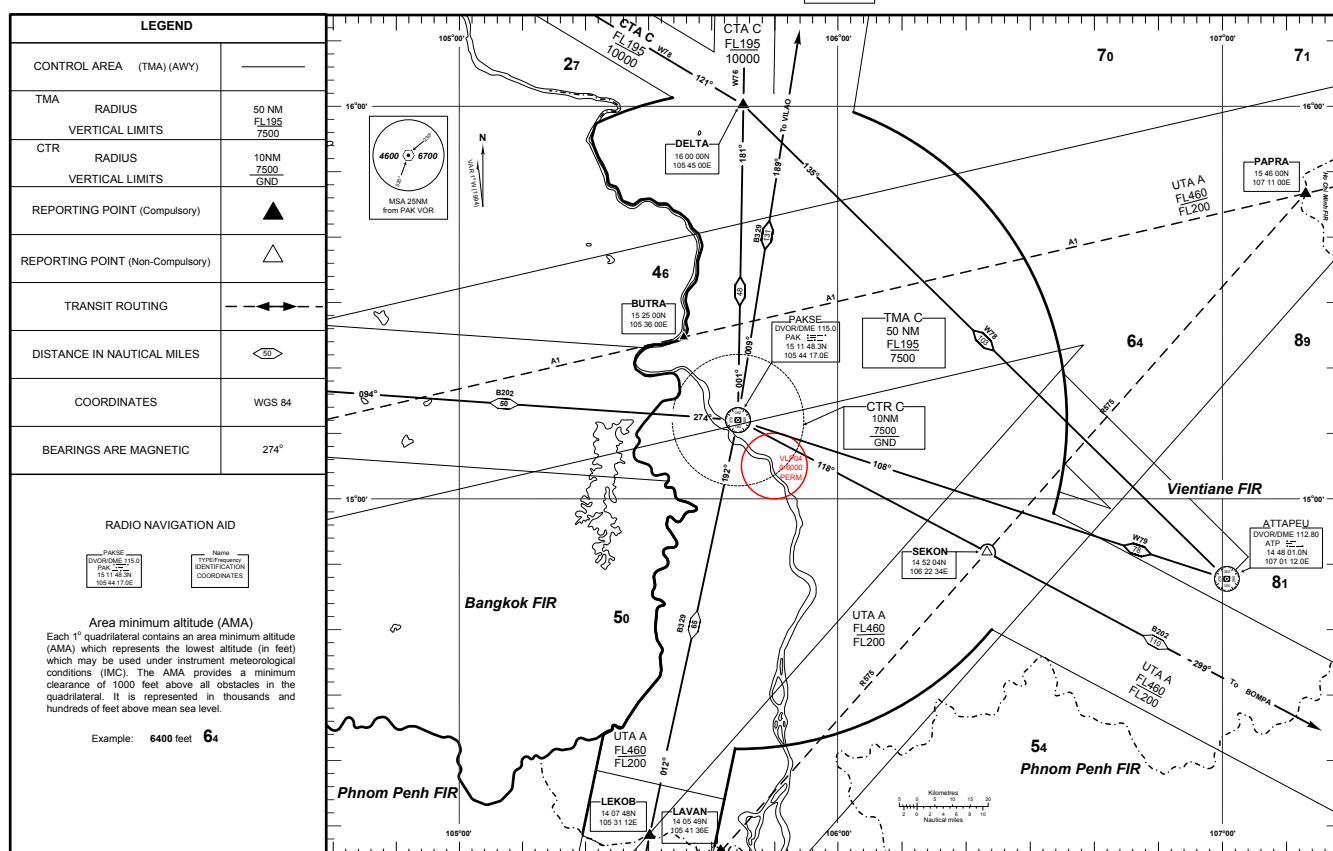


TMA CHART - ICAO

TRANSITION ALTITUDE: 11000 FT

TWR: 118.5
APP: 118.5

CHAMPASAK/Pakse ←

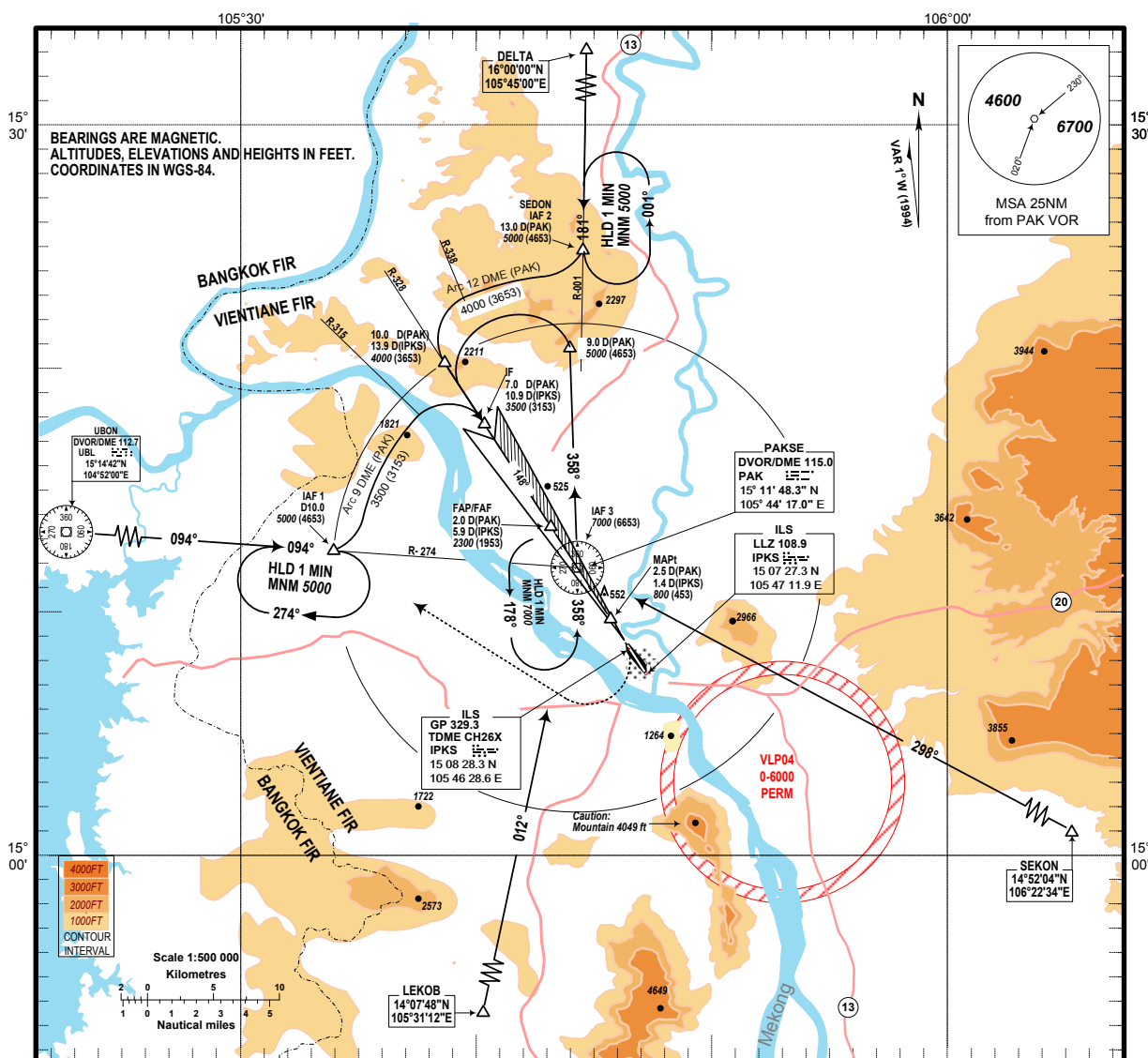


INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV: 103.9 M/341FT
HEIGHTS RELATED TO
THR RWY15 ELEV: 105.7 M/347 FT

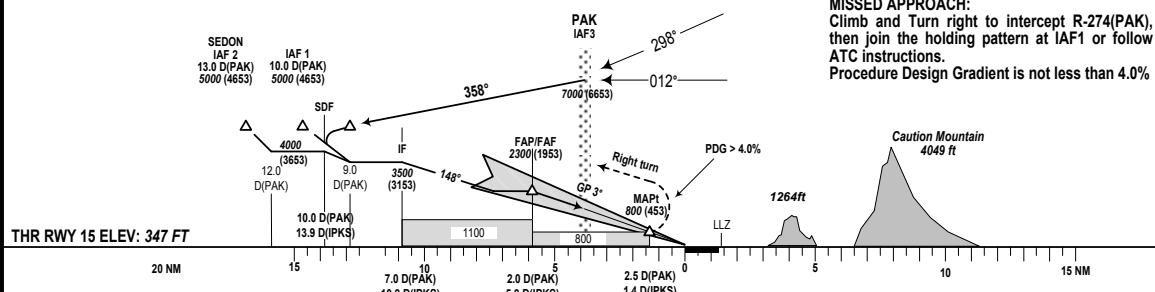
TWR: 118.5
APP: 118.5

CHAMPASAK/Pakse
ILS/DME
RWY 15



ILS RDH:50'

TRANSITION ALTITUDE: 11000 FT



THR RWY 15 ELEV: 347 FT

CHANGE: UPDATED TERRAIN DATA

ACFT CAT	A	B	C
ILS CAT I	DA(H)	547(200)	
	VIS	1200 m	
GP-INOP	OCA(H)	800(453)	
	VIS	2800 m	
CIRCLING	OCA(H)	1510(1163)	1775(1428)
	VIS	3600 m	

Distance (IPKS)	DME	5.9	5.0	4.0	3.0	1.4
Altitude (Height)	FT	2300 (1953)	2013 (1666)	1695 (1348)	1376 (1029)	800 (453)
Speed (IAS)	KT	70	100	115	130	160
Time	M:S	5:03	3:32	3:04	2:43	2:12
Rate of descent	Ft/min	380	540	620	700	860

Remark:
No Circling to the North
East of Runway.

CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 15



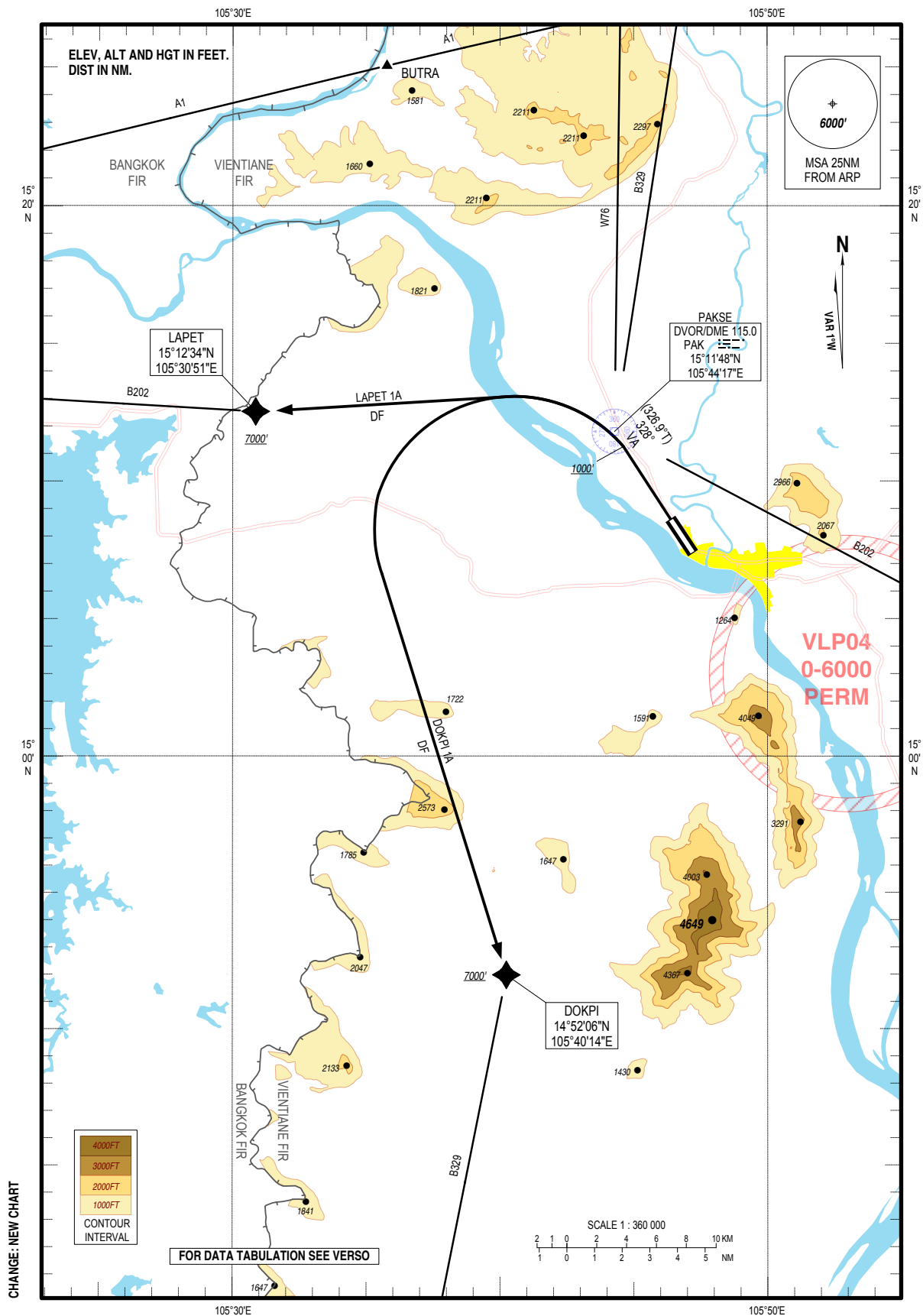
CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 15

AERONAUTICAL DATA TABULATION

WPT DATA		
DESIGNATION	FIX	COORDINATES
VIMAN	IF	15°17'45.8"N 105°40'17.4"E
VATPU	FAF	15°13'33.3"N 105°43'06.7"E
THR15	MAPT	15°08'37.86"N 105°46'24.67"E
DONPA	FIX	15°08'55.13"N 105°36'16.62"E

RNAV (GNSS) RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	IF	VIMAN	-	-	+0.9	-	-	@3500	-	-	RNP APCH
002	TF	VATPU	-	148° (146.9°)	+0.9	5.0	-	@2300	-	5.2%	RNP APCH
003	TF	MAPT	Y	148° (146.9°)	+0.9	5.9	-	@800	-	5.2%	RNP APCH
004	DF	DONPA	-	-	+0.9	-	R	+4000	-	4.5%	RNP APCH

CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 33
DOKPI 1A
LAPET 1A



CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) SID RWY 33**AERONAUTICAL DATA TABULATION****RWY 33.**

- 1. DOKPI ONE ALPHA DEPARTURE (DOK1A):** CLIMB ON RWY HDG AT OR ABOVE 1000FT , TURN LEFT TO DOKPI AT OR ABOVE 7000FT.
- 2. LAPET ONE ALPHA DEPARTURE (LAP1A):** CLIMB ON RWY HDG AT OR ABOVE 1000FT , TURN LEFT TO LAPET AT OR ABOVE 7000FT.

WPT DATA			WPT DATA		
DESIGNATION	FIX	COORDINATES	DESIGNATION	FIX	COORDINATES
-	THR RWY 33	15°07'36.50"N - 105°47'05.76"E	DOKPI	WPT	14°52'06.1"N - 105°40'14.4"E
-	THR RWY 15	15°08'37.86"N - 105°46'24.67"E	LAPET	WPT	15°12'34.2"N - 105°30'51.4"E

RNAV (GNSS) DOKPI ONE ALPHA DEPARTURE – RWY 33											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	328 (326.9)	+0.9	-	-	+1000	-	-	RNAV 1
002	DF	DOKPI	-	-	+0.9	-	L	+7000	-	-	RNAV 1

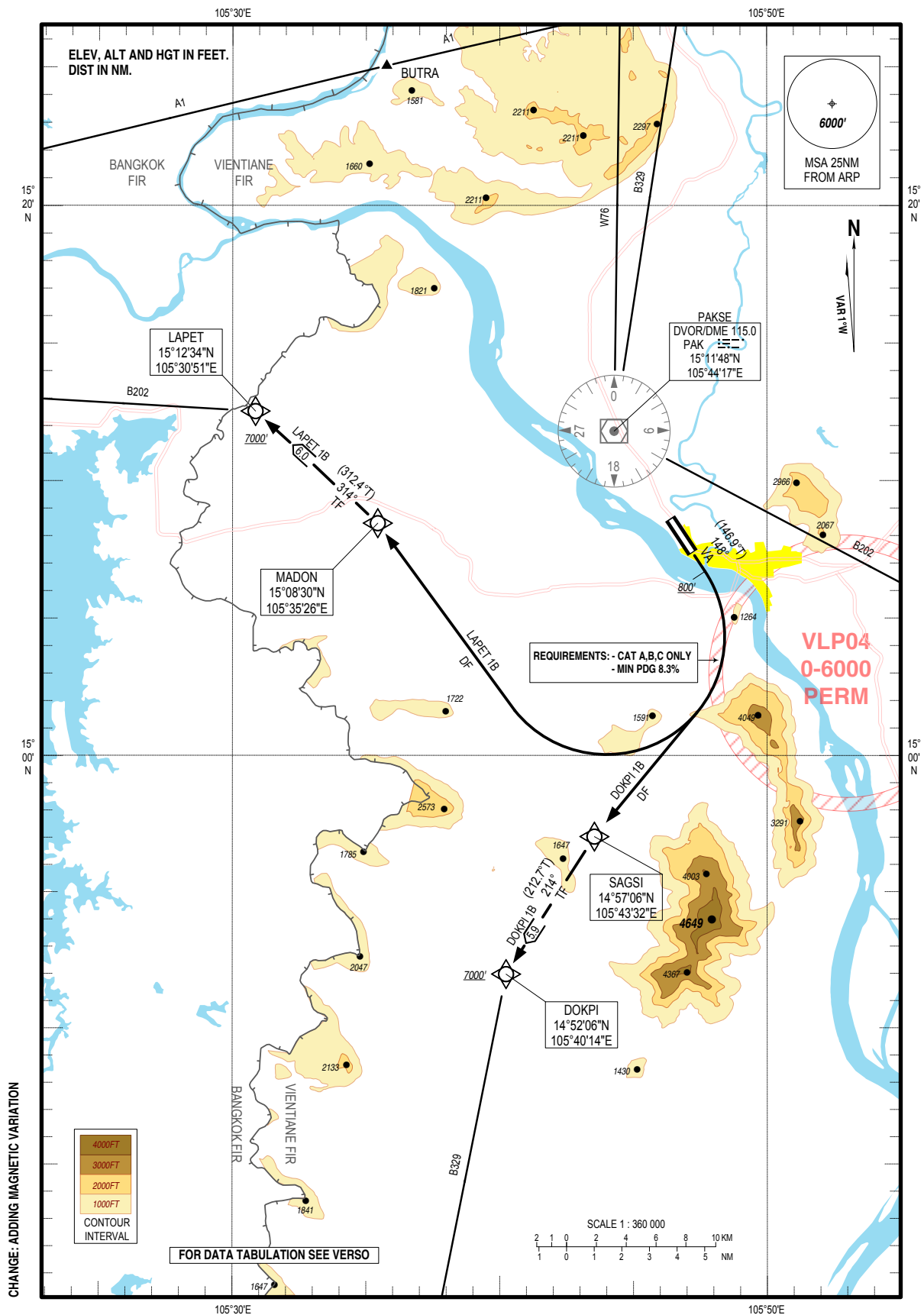
RNAV (GNSS) LAPET ONE ALPHA DEPARTURE – RWY 33											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	328 (326.9)	+0.9	-	-	+1000	-	-	RNAV 1
002	DF	LAPET	-	-	+0.9	-	L	+7000	-	-	RNAV 1

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11 000FT

APP/TWR:118.5

**CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 15
DOKPI 1B
LAPET 1B**



CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) SID RWY 33/15

AERONAUTICAL DATA TABULATION

RWY 15.

1. DOKPI ONE BRAVO DEPARTURE (DOK1B): CLIMB ON RWY HDG AT OR ABOVE 800FT , TURN RIGHT TO SAGSI , TO DOKPI AT OR ABOVE 7000FT .

REQUIREMENTS: - MIN PDG 8.3% UPTO 2000FT
- CAT A,B,C ONLY.
- TODA 2400 APPLY

2. LAPET ONE BRAVO DEPARTURE (LAP1B): CLIMB ON RWY HDG AT OR ABOVE 800FT , TURN RIGHT TO MADON, TO LAPET AT OR ABOVE 7000FT.

REQUIREMENTS: - MIN PDG 8.3% UPTO 2000FT
- CAT A,B,C ONLY.
- TODA 2400 APPLY

WPT DATA			WPT DATA		
DESIGNATION	FIX	COORDINATES	DESIGNATION	FIX	COORDINATES
-	THR RWY 33	15°07'36.50"N - 105°47'05.76"E	DOKPI	WPT	14°52'06.1"N - 105°40'14.4"E
-	THR RWY 15	15°08'37.86"N - 105°46'24.67"E	MADON	WPT	15°08'30.0"N - 105°35'26.1"E
SAGSI	WPT	14°57'06.0"N - 105°43'32.5"E	LAPET	WPT	15°12'34.2"N - 105°30'51.4"E

RNAV (GNSS) DOKPI ONE BRAVO DEPARTURE – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	148 (146.9)	+0.9	-	-	+800	-	8.3%	RNAV 1
002	DF	SAGSI	-	-	+0.9	-	R	-	-	8.3%	RNAV 1
003	TF	DOKPI	-	214 (212.7)	+0.9	5.9	-	+7000	-	-	RNAV 1

RNAV (GNSS) LAPET ONE BRAVO DEPARTURE – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	148 (146.9)	+0.9	-	-	+800	-	8.3%	RNAV 1
002	DF	MADON	-	-	+0.9	-	R	-	-	8.3%	RNAV 1
003	TF	LAPET	-	313 (312.5)	+0.9	6.0	-	+7000	-	-	RNAV 1

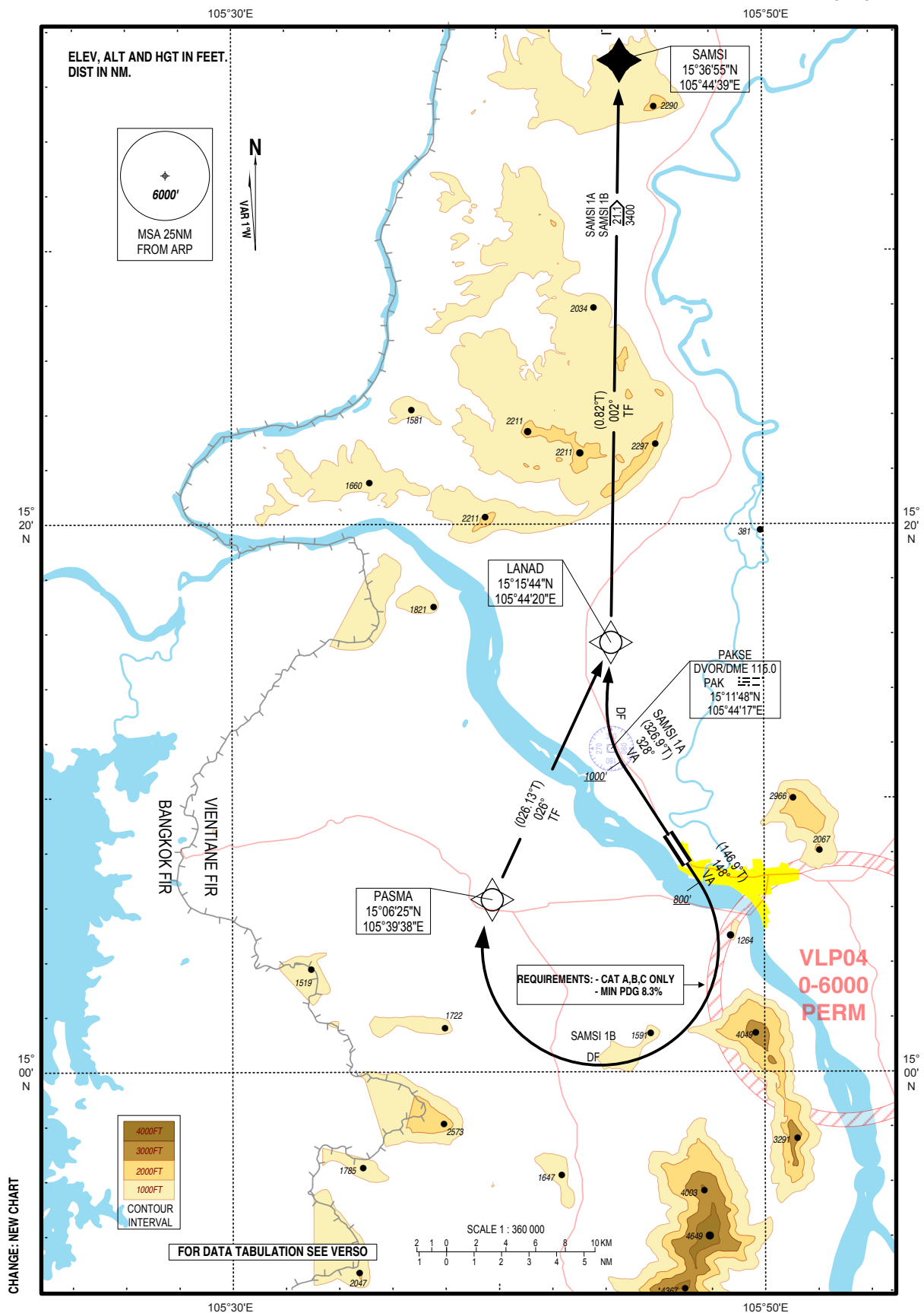
**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11 000FT

APP/TWR:118.5

**CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 33/15**

**SAMSI 1A
SAMSI 1B**



CHAMPASAK/PAKSE INTL (VLPS)**RNAV (GNSS) SID RWY 33/15****AERONAUTICAL DATA TABULATION****RWY 33.**

- 1. SAMSI ONE ALPHA DEPARTURE (SAM1A):** CLIMB ON RWY HDG AT OR ABOVE 1000FT , TURN RIGHT TO LANAD, TO SAMSI.

RWY 15.

- 1. SAMSI ONE BRAVO DEPARTURE (SAM1B):** CLIMB ON RWY HDG AT OR ABOVE 800FT , TURN RIGHT TO PASMA, TO LANAD, TO SAMSI .

REQUIREMENTS: - MIN PDG 8.3% UP TO 2000FT
- CAT A,B,C ONLY.
- TODA 2400 APPLY

WPT DATA		
DESIGNATION	FIX	COORDINATES
-	THR RWY 33	15°07'36.50"N - 105°47'05.76"E
-	THR RWY 15	15°08'37.86"N - 105°46'24.67"E

WPT DATA		
DESIGNATION	FIX	COORDINATES
SAMSI	WPT	15°36'54.8"N - 105°44'39.3"E
PASMA	WPT	15°06'24.8"N - 105°39'37.9"E
LANAD	WPT	15°15'43.8"N - 105°44'20.5"E

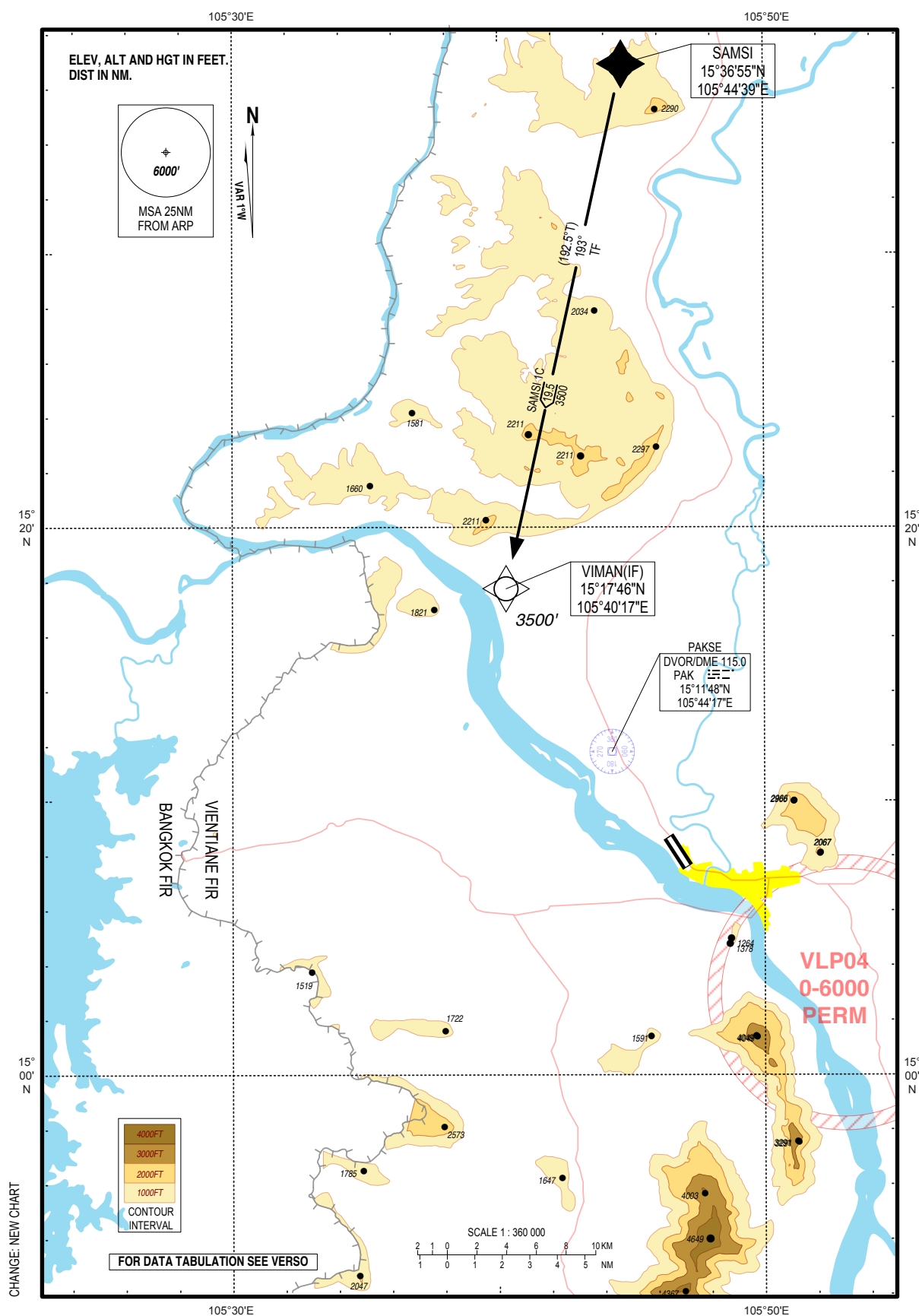
RNAV (GNSS) SAMSI ONE ALPHA DEPARTURE – RWY 33											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	328 (326.9)	+0.9	-	-	+1000	-	-	RNAV 1
002	DF	LANAD	-	-	+0.9	-	R	-	-	-	RNAV 1
003	TF	SAMSI	-	002 (0.82)	+0.9	10.0	-	-	-	-	RNAV 1

RNAV (GNSS) SAMSI ONE BRAVO DEPARTURE – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	VA	-	-	148 (146.9)	+0.9	-	-	+800	-	8.3%	RNAV 1
002	DF	PASMA	-	-	+0.9	-	R	-	-	8.3%	RNAV 1
003	TF	LANAD	-	026 (026.13)	+0.9	10.0	-	-	-	-	RNAV 1
004	TF	SAMSI	-	002 (0.82)	+0.9	21.1	-	-	-	-	RNAV 1

TRANSITION ALTITUDE
11 000FT

APP/TWR:118.5

**CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) RWY 15**

SAMSI 1C

CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS) STAR RWY 15

AERONAUTICAL DATA TABULATION

RWY 15.

1. SAMSI ONE CHARLIE ARRIVAL (SAM1C): FROM SAMSI, DESCEND TO VIMAN(IF) AT 3500FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
-	THR RWY 33	15°07'36.50"N - 105°47'05.76"E
-	THR RWY 15	15°08'37.86"N - 105°46'24.67"E
SAMSI	WPT	15°36'54.7"N - 105°44'39.3"E
VIMAN(IF)	WPT	15°17'45.8"N - 105°40'17.4"E

RNAV (GNSS) SAMSI ONE CHARLIE ARRIVAL – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	IF	SAMSI	-	-	+0.9	-	-	-	-	-	RNAV 1
002	TF	VIMAN(IF)	-	193 (192.5)	+0.9	19.5	-	3500	-	-	RNAV 1

CHAMPASAK/PAKSE INT'L (VLPS)
RNAV (GNSS)
RWY 15
DOKPI 1C
LAPET 1C



CHAMPASAK/PAKSE INTL (VLPS)
RNAV (GNSS)
RWY 15

AERONAUTICAL DATA TABULATION

RWY 15.

- 1. DOKPI ONE CHARLIE ARRIVAL (DOK1C):** FROM DOKPI DESCEND TO DONPA, TO KALTI, TO VIMAN(IF) AT 3500FT.
- 2. LAPET ONE CHARLIE ARRIVAL (LAP1C):** FROM LAPET DESCEND TO KALTI, TO VIMAN(IF) AT 3500FT.

WPT DATA		
DESIGNATION	FIX	COORDINATES
-	THR RWY 33	15°07'36.50"N - 105°47'05.76"E
-	THR RWY 15	15°08'37.86"N - 105°46'24.67"E
DOKPI	WPT	14°52'06.1"N - 105°40'14.4"E
DONPA	WPT	15°08'55.1"N - 105°36'16.6"E
KALTI	WPT	15°14'47.5"N - 105°34'53.4"E
LAPET	WPT	15°12'34.2"N - 105°30'51.4"E
VIMAN(IF)	WPT	15°17'45.8"N - 105°40'17.4"E

RNAV (GNSS) DOKPI ONE CHARLIE ARRIVAL – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	IF	DOKPI	-	-	+0.9	-	-	+7000	-	-	RNAV 1
002	TF	DONPA	-	348 (347.1)	+0.9	17.2	-	-	-	-	RNAV 1
003	TF	KALTI	-	348 (347.1)	+0.9	6.0	-	-	-	-	RNAV 1
004	TF	VIMAN	-	061 (060.4)	+0.9	6.0	-	3500	-	-	RNAV 1

RNAV (GNSS) LAPET ONE CHARLIE ARRIVAL – RWY 15											
Serial Number	Path Terminator	Fix ID (Waypoint Name)	Fly-Over	MAG Track (True Track)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
001	IF	LAPET	-	-	+0.9	-	-	+6000	-	-	RNAV 1
002	TF	KALTI	-	061 (060.4)	+0.9	4.5	-	-	-	-	RNAV 1
003	TF	VIMAN	-	061 (060.4)	+0.9	6.0	-	3500	-	-	RNAV 1

VLSK AD 2.1 AERODROME LOCATION INDICATOR AND NAME
VLSK - SAVANNAKHET INTERNATIONAL

VLSK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	16 33 23.77N 104 45 34.43E	←
2	Direction and distance from (City)	West 1km	
3	Elevation / reference temperature	155 m (509 ft) 37.9°C	
4	MAG VAR / Annual change	1°W (2016)	←
5	AD Administration, address, telephone, fax, telex, AFS.	Lao Airports Authority (LAA), Savannakhet International Airport. Tel: (856 41) 212 113, Fax: (856 41) 214 461 or contact directly LAA, Vientiane/Wattay Int'l Airport. Tel (856-21) 520 542, 520 543. Fax: (856-21) 520 539. E-mail: Laoairport@etllao.com	
6	Type of traffic permitted (IFR/VFR)	IFR/VFR	
7	Remarks	NIL	

VLSK AD 2.3 OPERATIONAL HOURS

1	Aerodrome administration	H24
2	Customs and Immigration	H24
3	Health and Sanitation	H24
4	AIS Briefing office	H24
5	ATS reporting office (ARO)	H24
6	MET Briefing office	H24
7	Air Traffic Services	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24

VLSK AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Cargo truck, Lavatory truck, Aircraft tractor, GPU
2	Fuel / oil types	JET A1
3	Fuelling facilities / capacity	1 truck 10,000L
4	Hangar space for visiting ACFT	NIL
5	Repair facilities for visiting ACFT	NIL
6	Remarks	NIL

VLSK AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	Near the AD and in the city
2	<i>Restaurants</i>	Restaurants and snack bars at Airport
3	<i>Transportation</i>	Tuk Tuk and rental car, van to and from the city
4	<i>Medical facilities</i>	First aid at Airport. Hospitals in the city
5	<i>Bank and Post Offices</i>	In the City
6	<i>Tourist Office</i>	In the City

VLSK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

→ 1	<i>AD category for fire fighting</i>	Cat 5
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	NIL
4	<i>Remarks</i>	All airport emergency service personnel are trained in rescue and fire fighting as well as medical first - aid.

VLSK AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	<i>Type of clearing equipment</i>	NIL
2	<i>Clearance priorities</i>	NIL
3	<i>Remarks</i>	NIL

VLSK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron surface and strength</i>	concrete PCN 45R/B/W/T
2	<i>Taxiway width, surface and strength</i>	23 m, concrete PCN 31R/B/W/T
3	<i>ACL location and elevation</i>	NIL
4	<i>VOR / INS checkpoints</i>	NIL
5	<i>Remarks</i>	NIL

VLSK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKING

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking / parking guidance system of aircraft stands.</i>	Taxiing guidance signs at TWY/RWY intersections · NO Guidance lines at apron. Aircraft stand by Marshaler or ATC instruction
2	<i>RWY and TWY markings and LGT</i>	RWY: Designation, THR, TDZ, center line, edge runway end as appropriate, marked and lighted. TWY: Center line at TWY/RWY intersections, marked.
3	<i>Stop bars</i>	NIL
4	<i>Remarks</i>	NIL

VLSK AD 2.10 AERODROME OBSTACLES

<i>In approach/TKOF areas</i>			<i>In circling area and at AD</i>		Remarks
1			2		3
<i>RWY/Area affected</i>	<i>Obstacle type</i>	<i>Elevation</i>	<i>Obstacle type</i>	<i>Elevation</i>	
	<i>Markings/LGT</i>	<i>Coordinates</i>	<i>Markings/LGT</i>	<i>Coordinates</i>	
<i>a</i>	<i>b</i>	<i>c</i>	<i>a</i>	<i>b</i>	
04/TKOF	Antenna 75m LGTD	163240N 1044447E	Electric tower 80m, LGTD	1640N10445E 1640N10446E 1653N10452E	
22/APCH					

VLSK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	<i>Associated MET office</i>	Provincial Met Office/ by Request
2	<i>Hours of service</i>	AD hours
3	<i>Office Responsible for TAF preparation periods of validity</i>	Provincial Met Office 12 HR
4	<i>Type of landing forecast Interval of issuance</i>	Trend 2 HR
5	<i>Briefing / consultation provided</i>	Personal consultation
6	<i>Flight documentation Language (s) used</i>	METAR, TAF, SPECI English
7	<i>Charts and other information available for briefing or consultation</i>	NIL
8	<i>Supplementary equipment available for providing information</i>	Tel, fax
9	<i>ATS units provided with information</i>	Savannakhet TWR
10	<i>Additional information</i>	NIL

VLSK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

<i>Designations RWY NR</i>	<i>TRUE & MAG BRG</i>	<i>Dimensions of RWY (m)</i>	<i>Strength (PCN) & Surface of RWY & SWY</i>	<i>THR Coordinate</i>	<i>THR elevation & highest elevation of TDZ of precision APP RWY</i>
1	2	3	4	5	6
04	039/040	1633 x 38	PCN31/R/B/W/T Concrete	16 33 03.21N 104 45 16.99E	155m (509ft)
22	219/220	1633 x 38	PCN31/R/B/W/T Concrete	16 33 44.34N 104 45 51.86E	153.5m (504ft)

<i>Slope of RWY/SWY</i>	<i>SWY Dimensions (m)</i>	<i>CWY Dimensions (m)</i>	<i>Strip Dimensions(m)</i>	<i>OFZ</i>	<i>Remarks</i>
7	8	9	10	11	12

VLSK AD 2.13 DECLARED DISTANCES

<i>RWY Designator</i>	<i>TORA (m)</i>	<i>TODA (m)</i>	<i>ASDA (m)</i>	<i>LDA (m)</i>	<i>Remarks</i>
1	2	3	4	5	6
04	1633	1633	1808	1633	Usually for take off
22	1633	1633	1883	1633	Usually for Landing

VLSK AD 2.14 APPROACH AND RUNWAY LIGHTING

<i>RWY Designator</i>	<i>APP LGT type LEN INTST</i>	<i>THR LGT Colour WBAR</i>	<i>VASIS (MEHT) PAPI</i>	<i>TDZ LGT LEN</i>	<i>RWY centre line LGT length, spacing colour, INTST</i>	<i>RWY edge LGT LEN, spacing colour INTST</i>	<i>RWY end LGT colour WBAR</i>	<i>SWY LGT LEN (m) colour</i>	<i>Remarks</i>
1	2	3	4	5	6	7	8	9	10
04		GREEN	PAPI	NIL	NIL	WHITE/YELLOW	RED	NIL	NIL
22	SALS	GREEN	PAPI	NIL	NIL	WHITE/YELLOW	RED	NIL	NIL

VLSK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN/IBN location characteristics hours of operation</i>	ABN: green and white 12 RPM on top of TWR cab during night time operation
2	<i>LDI location and LGT anemometer location and LGT</i>	Wind direction and wind speed indication
3	<i>TWY edge and center line light</i>	All TWY edges lighted. TWY center line NIL
4	<i>Secondary power supply / switch over time</i>	Available, automatic switch-over
5	<i>Remarks</i>	NIL

VLSK AD 2.16 HELICOPTER LANDING AREA

NIL

VLSK AD 2.17 ATS AIRSPACE

1	<i>Designation and lateral limits</i>	Savannakhet TMA A circle 30 NM radius centered on SAV DVOR/DME (16 33 43.7N 104 46 00.0E) extended as corridors of 10 NM width on W78 to TANGO, extended as a corridor of 20 NM width on A202 to ABM Savannakhet, extended as a corridor of 20NM width on R328 to ISGAK and extended as a corridor of 10 NM width on W78 to DELTA, limited by FIR Boundary. Savannakhet CTR A circle of 10 NM radius centered on SAV DVOR/DME (16 33 43.7N 104 46 00.0E) limited by boundary
2	<i>Vertical limits</i>	TMA <u>FL195</u> 4000ft AMSL CTR <u>4000 ft AMSL</u> GND
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign Languages</i>	Savannakhet Tower English / Lao
5	<i>Transition altitude</i>	11000 ft
6	<i>Remarks</i>	NIL

VLSK AD 2.18 ATS COMMUNICATION FACILITIES

<i>Service Designation</i>	<i>Call sign</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Remarks</i>
1	2	3	4	5
APP	Savannakhet APP	118.50 MHz	H24	
TWR	Savannakhet TWR	118.50 MHz	H24	

VLSK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

<i>Type of aid, MAG VAR CAT of ILS (for VOR/ILS, give declination)</i>	<i>ID</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Site of Transmitting Antenna coordinates</i>	<i>Elevation of DME transmitting antenna</i>	<i>Remarks</i>
1	2	3	4	5	6	7
DVOR/DME (1°W/ 1994)	SAV	113.50 MHZ CH 82X	H24	16 33 43.7 N 104 46 00.0E		

VLSK AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport Regulations

to be developed

Marshaled assistance can be requested and further information about regulations can be obtained from the TWR or surface movement control (SMC).

2. Taxiing to and from stands

Taxiing and parking instructions will be obtained from Savannakhet TWR.

Departing IFR flights shall contact the TWR to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at the earliest 10 minutes prior to engine start-up on frequency 118.50 MHz.

3. Parking area for helicopters

No specific parking areas for helicopters. Helicopter shall be guided by marshallers or instructed by TWR.

4. Parking area for small aircraft (General aviation)

General aviation aircraft shall be guided by marshallers or instructed by TWR to the parking area for small aircraft.

5. Apron – taxiing during winter condition

NIL

6. Taxiing – limitations

Insufficient safety distances restrict large aircraft using their own power. Further information will be given to each aircraft from the TWR or SMC.

7. School and training flights - technical test flights

School and training flights, technical test flights must only be made after permission has been obtained from appropriate authorities.

8. Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the airport authority at the owner's or user's expense.

VLSK AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VLSK AD 2.22 FLIGHT PROCEDURES

1. General

Unless permission has been obtained from Savannakhet APP or TWR as appropriate, flight within Savannakhet TMA and CTR shall be in accordance with the Instrument Flight Rules.

2. Procedures for IFR flights within Savannakhet TMA

to be developed

3. Radar procedures within Savannakhet TMA

to be developed

4. Procedures for VFR flights within Savannakhet TMA

Provided traffic conditions so permit, ATC clearance for VFR flights will be given under the conditions described below:

- a) a flight plan requesting ATC clearance, containing items 7 to 18 and indicating the purpose of flight, shall be submitted;
- b) ATC clearance shall be obtained immediately before the aircraft enters the Savannakhet TMA;
- c) position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2;
- d) deviation from the ATC clearance may only be made when prior permission has been obtained;
- e) the flight shall be conducted with vertical visual reference to the ground unless the flight can be conducted in accordance with IFR;
- f) two-way radio communication shall be maintained on the frequency 118.50 MHz;
- g) the aircraft shall be equipped with SSR transponder with 4096 Codes in Mode A/3 or Mode S. Flights performed in connection with parachute jumps shall, in addition, be equipped with Mode C with automatic transmission of pressure altitude information (cf. ICAO Annex 10, Volume I). Exemption from this requirement may be granted by Vientiane ACC.

5. Procedures for VFR flights within Savannakhet CTR

- a) Flight plan shall be filed for the flight concerned;
- b) ATC clearance shall be obtained from the Savannakhet TWR;
- c) Deviation from ATC clearance may only be made when prior permission has been obtained;
- d) The flight shall be conducted with vertical visual reference to the ground;
- e) Two-way radio communication shall be established on the frequency 118.50 MHz before flight take place in the Savannakhet CTR.

6. VFR routes within Savannakhet CTR

NIL

VLSK AD 2.23 ADDITIONAL INFORMATION

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VLSK AD 2.24 CHARTS RELATED TO Savannakhet AIRPORT

Page

Aerodrome Chart – ICAO	VLSK AD 2-10
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Intentionally blank	VLSK AD 2-12
Instrument Approach Chart - ICAO - RWY 22 VOR/DME	VLSK AD 2-13
Standard Instrument Departure Chart (SID) - ICAO - RWY 04	VLSK AD 2-14
Standard Instrument Departure Chart (SID) - ICAO - RWY 04	VLSK AD 2-15

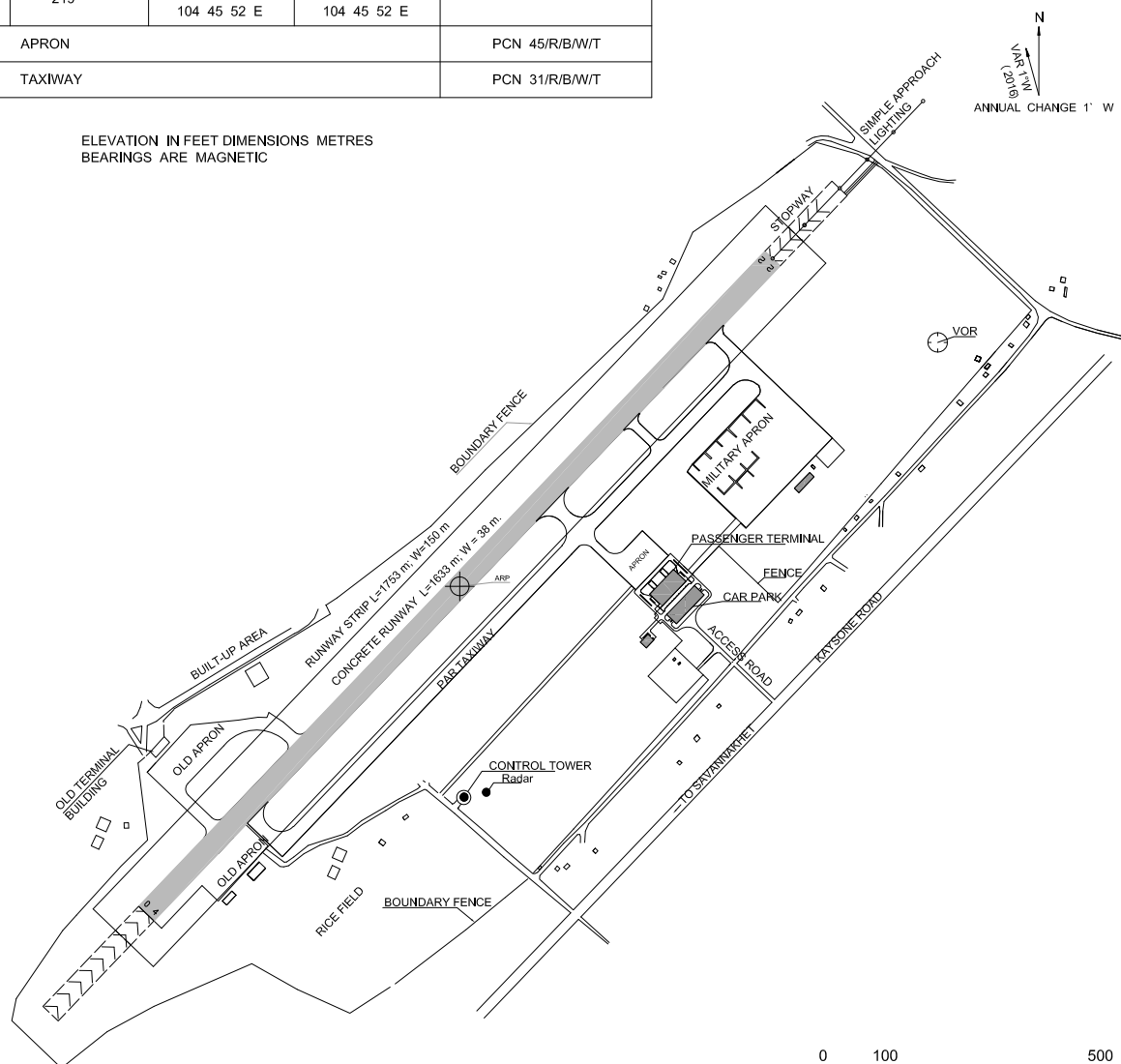
AERODROME CHART-ICAO 16° 33' 23.77" N
104° 45' 34.43" E ELEV 155 m (509 ft)

APP 118.5 MHz
TWP 118.5 MHz

SAVANNAKHET/Savannakhet Intl AP

RWY	DIRECTION	THR WGS-84	RUNWAY END	BEARING STRENGTH
04	039°	16 33 03 N 104 45 17 E	16 33 03 N 104 45 17 E	PCN 31/R/B/W/T
22	219°	16 33 44 N 104 45 52 E	16 33 44 N 104 45 52 E	
APRON				PCN 45/R/B/W/T
TAXIWAY				PCN 31/R/B/W/T

ELEVATION IN FEET DIMENSIONS METRES
BEARINGS ARE MAGNETIC



0 100 500
50 300 m

SCALE: 1:12000

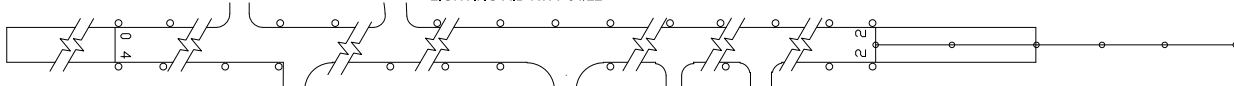
0 100 300
50 200 m

SCALE: 1:7500

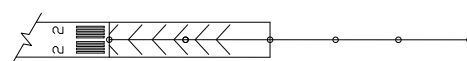
MARKING AID RWY 04/22



LIGHTING AID RWY 04/22



○ SIMPLE APPROACH LIGHTING RWY 22



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AIP
Lao PDR

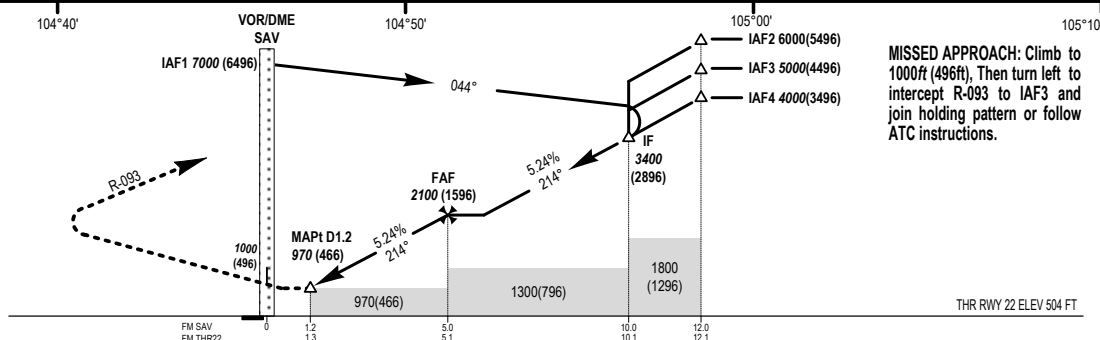
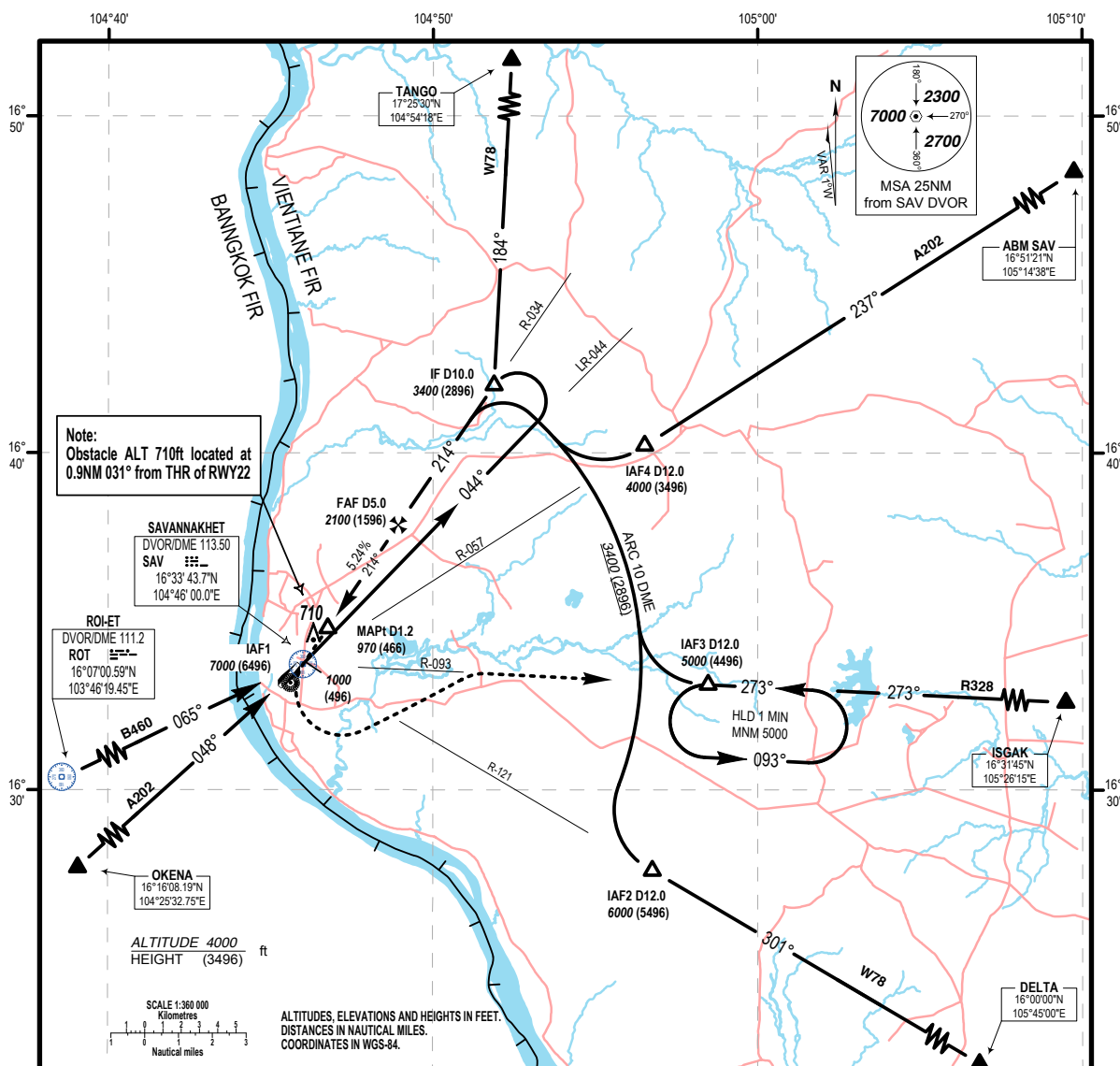
VLSK AD 2-13
05 DEC 2016

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 509 FT
HEIGHTS RELATED TO
THR RWY 22 - ELEV 504 FT

TWR: 118.5

SAVANNAKHET/Savannakhet (VLSK)
VOR/DME
RWY 22



CHANGE: NEW CHART

ACFT CAT	A	B
Straight-in approach	OCA/H	970(466)
	VIS	2800 m
Circling	OCA/H	1300(796)
	VIS	4600 m

NO CIRCLING TO THE NORTH WEST OF RUNWAY

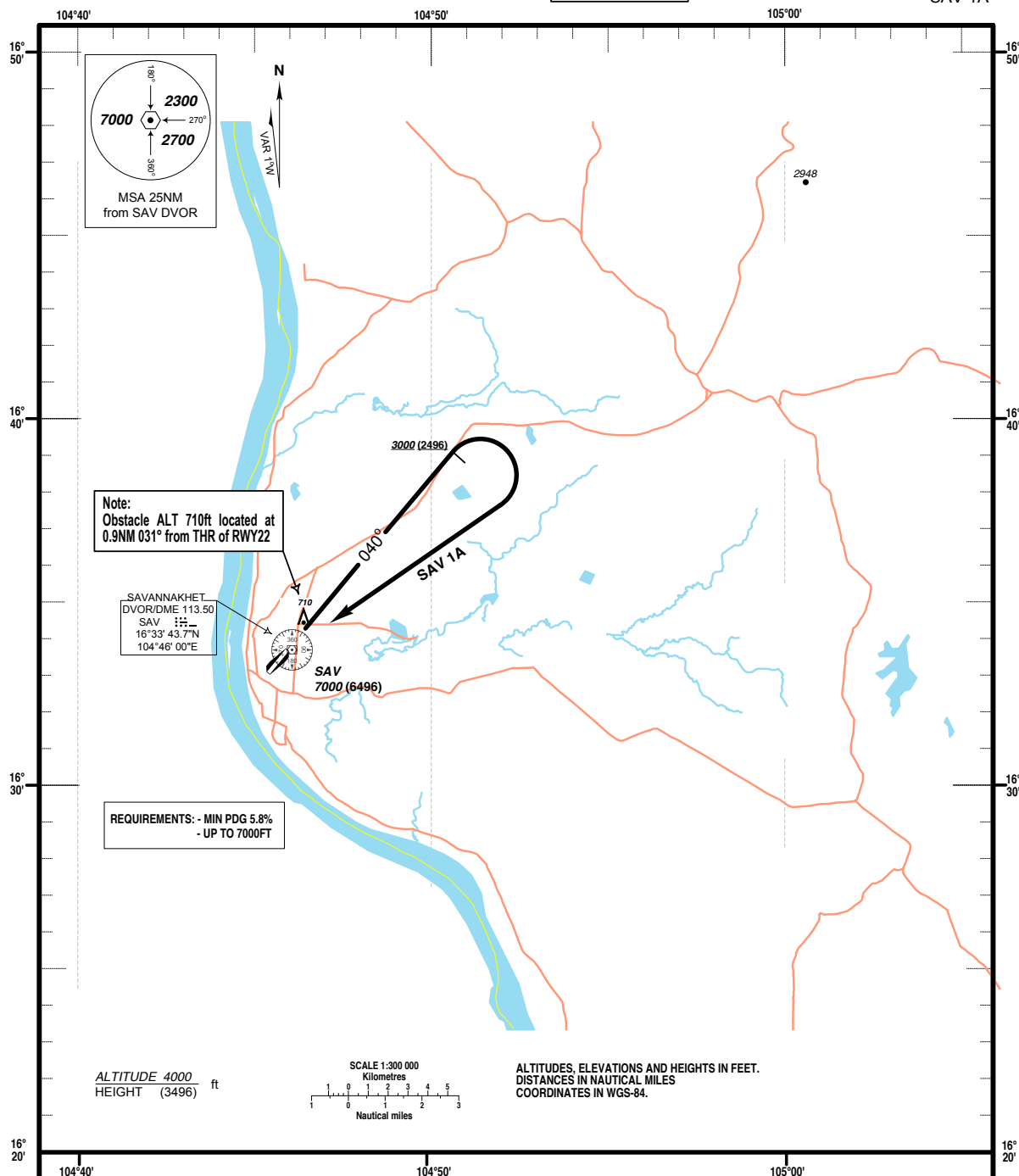
Distance FAF to MAPt = 3.8NM						
Distance to SAV	NM	FAF	4	3	2	MAPt
Altitude (height)	Ft	2100 (1596)	1782 (1278)	1463 (959)	1145 (641)	970 (466)
IAS	KT	70	85	100	130	150
Time(min:s)	Min:s	3:15	2:40	2:16	1:45	1:31
Rate of descent	Ft/min	338	410	482	627	724

**STANDARD INSTRUMENT
DEPARTURE CHART (SID) - ICAO**

TRANSITION LEVEL: FL130
TRANSITION ALTITUDE: 11000FT

TWR: 118.5MHz

SAVANNAKHET/Savannakhet (VLSK)
RWY 04
SAV 1A



STANDARD INSTRUMENT DEPARTURE RUNWAY 04:

- SAV ONE ALPHA DEPARTURE (SAV 1A):** After departure, climb on runway heading to altitude 3000ft (2496ft) or above, then turn right to SAV at altitude 7000ft or above. (PDG is not less than 5.8% until altitude 7000ft).

CHANGE: NEW CHART

**STANDARD INSTRUMENT
DEPARTURE CHART (SID) - ICAO**

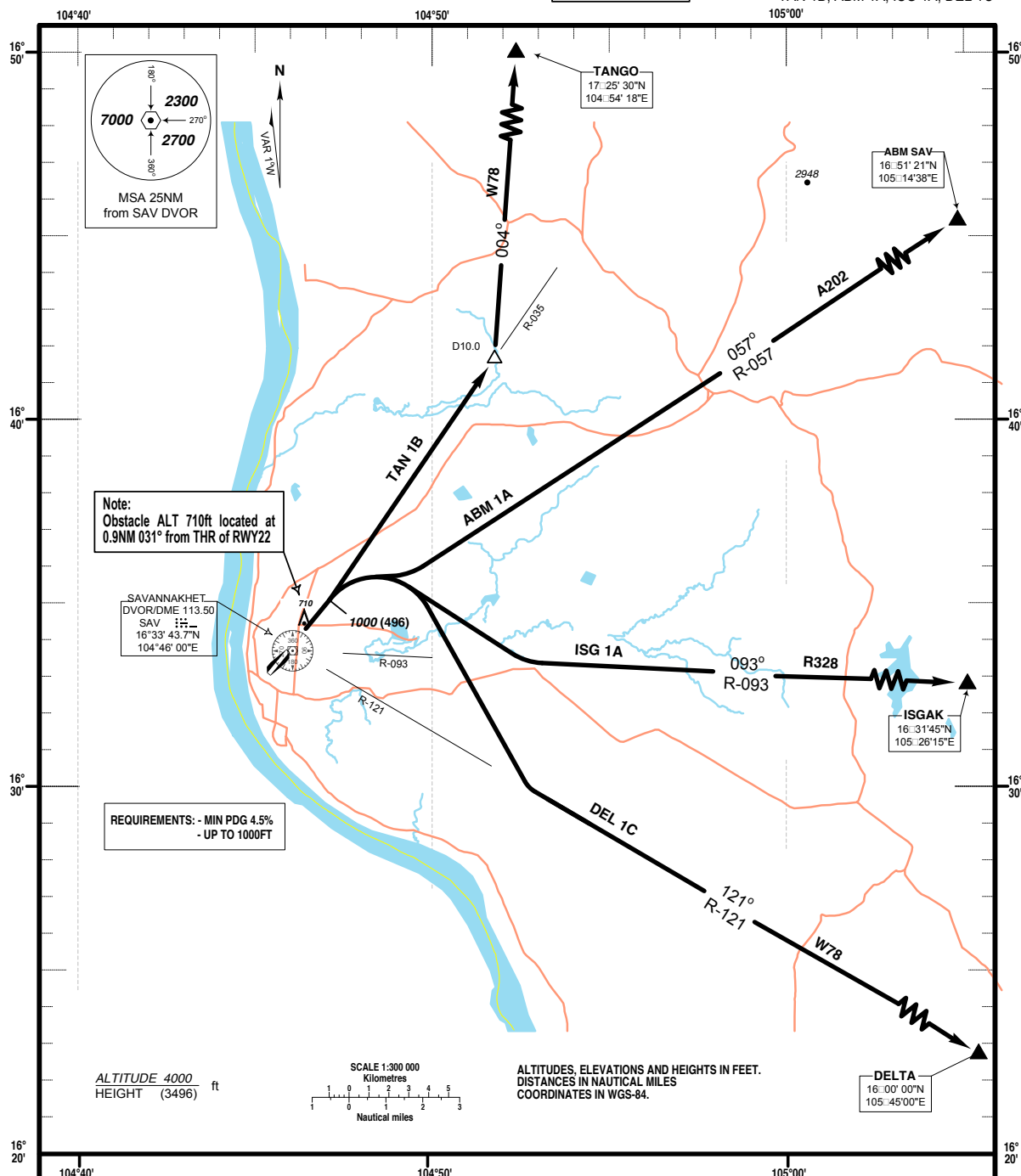
TRANSITION LEVEL: FL130
TRANSITION ALTITUDE: 11000FT

SAVANNAKHET/Savannakhet (VLSK)

RWY 04

TAN 1B, ABM 1A, ISG 1A, DEL 1C

TWR: 118.5MHz



STANDARD INSTRUMENT DEPARTURE RUNWAY 04:

1. TANGO ONE BRAVO DEPARTURE (TAN 1B): After departure, climb on runway heading to altitude 1000ft (496ft) or above, then turn left to intercept W78 (R-035 SAV) at D10.0 to TANGO. (PDG is not less than 4.5% until altitude 1000ft).
2. ABEAM SAV ONE ALPHA DEPARTURE (ABM 1A): After departure, climb on runway heading to altitude 1000ft (496ft) or above, then turn right to intercept A202 (R-057 SAV) to ABM SAV. (PDG is not less than 4.5% until altitude 1000ft).
3. ISGAK ONE ALPHA DEPARTURE (ISG 1A): After departure, climb on runway heading to altitude 1000ft (496ft) or above, then turn right to intercept R328 (R-093 SAV) to ISGAK. (PDG is not less than 4.5% until altitude 1000ft).
4. DELTA ONE CHARLIE DEPARTURE (DEL 1C): After departure, climb on runway heading to altitude 1000ft (496ft) or above, then turn right to intercept W78 (R-121 SAV) to DELTA. (PDG is not less than 4.5% until altitude 1000ft).

CHANGE: NEW CHART

AD 2 – AERODROME

VLVT AD 2.1 - AERODROME LOCATION INDICATOR AND NAME

VLVT - VIENTIANE / WATTAY INTERNATIONAL

VLVT AD 2.2 - AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	17 59 17.95N – 102 33 47.73 E	←
2	Direction and distance from (City)	Northwest 4 km	
3	Elevation / reference temperature	560ft (170.7m) / 36.8°C	
4	MAG VAR / Annual change	1° W (2016)	←
5	AD Administration, address, telephone, fax, telex, AFS.	Lao Airports Authority, Vientiane/Wattay Int'l Airport. Tel (856-21) 520 540, 520 542. Fax: (856-21) 520 539. E-mail: Laoairport@etlao.com	
6	Type of traffic permitted (IFR/VFR)	IFR/VFR	
7	Remarks	NIL	

VLVT AD 2.3 - OPERATIONAL HOURS

1	Aerodrome administration	H24
2	Customs and Immigration	H24
3	Health and Sanitation	H24
4	AIS Briefing office	H24
5	ATS reporting office (ARO)	H24
6	MET Briefing office	H24
7	Air Traffic Services	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24

VLVT AD 2.4 - HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Conveyor, Cargo truck, Forklift, Lift loader, Towing tug, Lavatory truck, Aircraft tractor, Passenger boarding vehicle, GPU, ASU, ACU...
2	Fuel / oil types	JET A1
3	Fuelling facilities / capacity	1 truck 15,000L, 1 truck 10,000L, 2 trucks 18500 L, 1 trailer 19,500L.
4	Hangar space for visiting ACFT	NIL
5	Repair facilities for visiting ACFT	NIL
6	Remarks	NIL

VLVT AD 2.5 - PASSENGER FACILITIES

1	<i>Hotels</i>	Near the AD and in the city
2	<i>Restaurants</i>	Restaurants and snack bars at Airport
3	<i>Transportation</i>	Buses, taxies and rental car to and from the city
4	<i>Medical facilities</i>	First aid at Airport. Hospitals in the city
5	<i>Bank and Post Offices</i>	Available at airport
6	<i>Tourist Office</i>	Available at airport

VLVT AD 2.6 - RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	Cat 9
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	NIL
4	<i>Remarks</i>	All airport emergency service personnel are trained in rescue and fire fighting as well as medical first - aid.

VLVT AD 2.7 – SEASONAL AVAILABILITY - CLEARING

1	<i>Type of clearing equipment</i>	NIL
2	<i>Clearance priorities</i>	NIL
3	<i>Remarks</i>	NIL

VLVT AD 2.8 - APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron surface and strength</i>	- Apron No. 1A Dimension: 517.70m x 123m Surface: concrete Strength: PCN 50/R/B/W/T - Apron No. 1B: Dimension: 600m x 130m Surface: concrete Strength: PCN 55/R/C/W/T - Apron No. 2A: Dimension: 211m x 150.35m Surface: concrete Strength: PCN 58/R/B/W/T	
2	<i>Taxiway width, surface and strength</i>	- Taxiway "A,B": Code E Surface: Asphalt Concrete overlay Strength: PCN 62/F/B/W/T Width: 23 m - Taxiway "C": Code E Surface: Asphalt Concrete Strength: PCN 62/F/B/W/T Width: 23 m; Length: 1700m - Taxiway "F": Code E Surface: Asphalt Concrete Strength: PCN 90/F/D/W/U Width: 37 m - Taxiway "G": Code D Surface: Concrete	Strength: PCN 90/F/D/W/U Width: 23 m - Taxiway "H": Code E Surface: Asphalt Concrete Strength: PCN 90/F/D/W/U Width: 23 m - Taxiway "I": Code C Surface: Concrete Strength: PCN 58/R/B/W/T Width: 18 m - Taxiway "T": Code E Surface: Asphalt Concrete Strength: PCN 62/F/B/W/T Width: 23 m
3	<i>ACL location and elevation</i>	NIL	
4	<i>VOR / INS checkpoints</i>	VOR: Check point sign board 138°/2.7NM 117.5 MHz INS: NIL	
5	<i>Remarks</i>	NIL	

**VLVT AD 2.9 - SURFACE MOVEMENT GUIDANCE AND
CONTROL SYSTEM AND MARKING**

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands.</i>	Taxiing guidance signs at all TWY/RWY intersections and at all holding positions. Guidance lines at apron. Nose-in guidance at aircraft stands.
2	<i>RWY and TWY markings and LGT</i>	RWY: Designation, THR, TDZ, center line, edge runway end as appropriate, marked and lighted. TWY: Center line, holding positions at all TWY/RWY intersections, marked.
3	<i>Stop bars</i>	NIL
4	<i>Remarks</i>	NIL

VLVT AD 2.10 - AERODROME OBSTACLES

<i>In approach/TKOF areas</i>			<i>In circling area and at AD</i>		<i>Remarks</i>
1			2		3
<i>RWY/Area affected</i>	<i>Obstacle type Elevation Markings/LGT</i>	<i>Coordinates</i>	<i>Obstacle type Elevation Markings/LGT</i>	<i>Coordinates</i>	Nil
a	b	c	a	b	
13/APCH 31/TKOF			Meteorology Tower 45M/AGL LGT	17 58 11.3N 102 34 12.3E	

VLVT AD 2.11 - METEOROLOGICAL INFORMATION PROVIDED

1	<i>Associated MET office</i>	Aeronautical Met Office
2	<i>Hours of service</i>	AD hours
3	<i>Office Responsible for TAF preparation periods of validity</i>	Aeronautical Met Office 12 HR
4	<i>Type of landing forecast Interval of issuance</i>	Trend 2 HR
5	<i>Briefing / consultation provided</i>	Personal consultation
6	<i>Flight documentation Language (s) used</i>	METAR, SPECI, Charts, TAF English
7	<i>Charts and other information available for briefing or consultation</i>	S, U85, U70, U50, U30
8	<i>Supplementary equipment available for providing information</i>	Telefax, weather radar
9	<i>ATS units provided with information</i>	Vientiane APP, TWR, ACC and ARO
10	<i>Additional information</i>	NIL

VLVT AD 2.12 - RUNWAY PHYSICAL CHARACTERISTICS

<i>Designations RWY NR</i>	<i>TRUE & MAG BRG</i>	<i>Dimensions of RWY (m)</i>	<i>Strength (PCN) & Surface of RWY & SWY</i>	<i>THR Coordinate</i>	<i>THR elevation & highest elevation of TDZ of precision APP RWY</i>
1	2	3	4	5	6
13	134/135	3000 x 45	PCN62/F/B/W/T Asphalt	17 59 52.59N 102 33 11.83E	172.5m (566ft)
31	314/315	3000 x 45	PCN62/F/B/W/T Asphalt	17 58 43.30N 102 34 23.63E	171.1m (561ft)

<i>Slope of RWY/SWY</i>	<i>SWY Dimensions (m)</i>	<i>CWY Dimensions (m)</i>	<i>Strip Dimensions(m)</i>	<i>OFZ</i>	<i>Remarks</i>
7	8	9	10	11	12
Max.0,19% / 0% 0,038% / 0%	60 x 60 60 x 60	150m 150m	3120 x 300 3120 x 300	NIL NIL	RWY 13 for Landing RWY 31 for Take-off

VLVT AD 2.13 - DECLARED DISTANCES

<i>RWY Designator</i>	<i>TORA (m)</i>	<i>TODA (m)</i>	<i>ASDA (m)</i>	<i>LDA (m)</i>	<i>Remarks</i>
1	2	3	4	5	6
13	3000	3150	3060	3000	Usually for Landing
31	3000	3150	3060	3000	Usually for Take-off

VLVT AD 2.14 - APPROACH AND RUNWAY LIGHTING

<i>RWY Designator</i>	<i>APCH LGT type LEN INTST</i>	<i>THR LGT Colour WBAR</i>	<i>VASIS (MEHT) PAPI</i>	<i>TDZ,LGT LEN</i>	<i>RWY centre line LGT length, spacing colour, INTST</i>	<i>RWY edge LGT LEN, spacing Colour INTST</i>	<i>RWY end LGT colour WBAR</i>	<i>SWY LGT LEN (m) colour</i>	<i>Remarks</i>
1	2	3	4	5	6	7	8	9	10
13	CAT I	GREEN	PAPI	NIL	NIL	YELLOW	RED	NIL	NIL
31	SALS	GREEN	PAPI	NIL	NIL	YELLOW	RED	NIL	NIL

VLVT AD 2.15 - OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN/IBN location characteristics hours of operation</i>	ABN: green and white 12 RPM on top of TWR cab during night time operation
2	<i>LDI location and LGT anemometer location and LGT</i>	Anemometer on top of TWR cab
3	<i>TWY edge and center line light</i>	All TWY edges lighted. TWY center line NIL
4	<i>Secondary power supply / switch over time</i>	Available, automatic switch-over
5	<i>Remarks</i>	NIL

VLVT AD 2.16 - HELICOPTER LANDING AREA

NIL

VLVT AD 2.17 - ATS AIRSPACE

1	<i>Designation and lateral limits</i>	Vientiane TMA A circle, 50 NM radius centered on VTN DVOR/DME (18 00 37.3N 102 32 25.7E) limited by FIR boundary, extended as a corridor of 20 NM width on W35 to KAASI and 10 NM width on W76 to ALPHA. Vientiane CTR Circle of 10 NM radius centered on VTN DVOR/DME (18 00 37.3N 102 32 25.7E) limited by FIR boundary.
2	<i>Vertical limits</i>	TMA $\frac{\text{FL195}}{4\,000\text{ ft AMSL}}$ CTR $\frac{4\,000\text{ ft AMSL}}{\text{GND}}$
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign Languages</i>	Vientiane Approach, Vientiane Tower English / Lao
5	<i>Transition altitude</i>	11 000 ft
6	<i>Remarks</i>	NIL

VLVT AD 2.18 - ATS COMMUNICATION FACILITIES

<i>Service Designation</i>	<i>Call sign</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Remarks</i>
1	2	3	4	5
APP	Vientiane Approach	119.70 MHz	H24	
TWR	Vientiane Tower	118.10 MHz	H24	

VLVT AD 2.19 – RADIO NAVIGATION AND LANDING AIDS

<i>Type of aid, MAG VAR CAT of ILS (for VOR/ILS, give declination)</i>	<i>ID</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Site of Transmitting Antenna coordinates</i>	<i>Elevation of DME transmitting antenna</i>	<i>Remarks</i>
1	2	3	4	5	6	7
DVOR / DME (1°W/ 1994)	VTN	117.50 MHZ CH 122X	H24	18 00 37.3 N 102 32 25.7E	182.2m (598ft)	
NDB MM	WY	389 KHz	H24	18 00 16N 102 32 45E		
NDB	VE	205 KHz	H24	18 01 31N		
ILS at RWY 13 LLZ	IVTN	109.90 MHZ	H24	17 58 36.7N 102 34 30.4E	173.6m (570ft)	
GP		333.80 MHZ CH 36X	H24	17 59 42.3N 102 33 16.7E	(561ft) 171m	
TDME				17 59 42.1N 102 33 16.6E	176.8m (580ft)	

VLVT AD 2.20 - LOCAL TRAFFIC REGULATIONS

1. Airport Regulations

At Vientiane/Wattay International Airport a number of local regulations apply. The regulations are collected in a manual which is available at the AIS Briefing Office and at Terminal Building. This manual includes, among other subjects, the following:

- the meaning of markings and signs;
- information about aircraft stands including visual docking guidance systems;
- information about taxiing from aircraft stands including taxi clearance;
- limitations in the operation of large aircraft including limitations in the use of the aircraft's own power for taxiing;
- marshaller assistance and towing assistance;
- use of engine power exceeding idle power;
- engine start-up and use of APU;
- fuel spillage; and
- precautions during extreme weather conditions.

Marshaller assistance can be requested and further information about regulations can be obtained from the TWR or surface movement control (SMC).

2. Taxiing to and from stands

Arriving aircraft will be allocated a stand number by TWR or SMC. General aviation aircraft will have to use the general aviation parking area.

Assistance from the "FOLLOW ME" vehicle can be requested via the TWR or SMC.

Departing IFR flights shall contact the TWR to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at the earliest 10 minutes prior to engine start-up on frequency 118.10 Mhz. Departing aircraft shall obtain-push back clearance and taxi instruction from Vientiane TWR.

3. Parking area for helicopters

No specific parking areas for helicopters. Helicopter shall be guided by marshallers or instructed by TWR.

4. Parking area for small aircraft (General aviation)

General aviation aircraft shall be guided by marshallers or instructed by TWR to the parking area for small aircraft.

5. Apron – taxiing during winter condition

NIL

6. Taxiing – limitations

Insufficient safety distances restrict large aircraft's use of certain taxiways when using their own power. Further information will be given to each aircraft from the TWR or SMC.

7. School and training flights - technical test flights

School and training flights, technical test flights must only be made after permission has been obtained from appropriate authorities.

For the technical test flights necessary for the purpose of ascertaining the airworthiness of an aircraft during flight, use the runway system at the aerodrome is restricted as follows:

RWY 31 will be used for take-off only;

RWY 13 will be used for landing only.

8. Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the airport authority at the owner's or user's expense.

VLVT AD 2.21 - NOISE ABATEMENT PROCEDURES

NIL

VLVT AD 2.22 - FLIGHT PROCEDURES

1. General

Unless permission has been obtained from Vientiane APP or Vientiane TWR as appropriate, flight within Vientiane TMA and Vientiane CTR shall be in accordance with the Instrument Flight Rules.

2. Procedures for IFR flights within Vientiane TMA

The inbound, transit and outbound routes shown on the charts may be varied at the discretion of ATS units. If necessary, in case of congestion, inbound aircraft may also be instructed to hold over one of a designated Initial Approach Fixes (IAF).

3. Radar procedures within Vientiane TMA

to be developed

4. Procedures for VFR flights within Vientiane TMA

Provided traffic conditions so permit, ATC clearance for VFR flights will be given under the conditions described below:

- a) a flight plan requesting ATC clearance, containing items 7 to 18 and indicating the purpose of flight, shall be submitted;
- b) ATC clearance shall be obtained immediately before the aircraft enters the Vientiane TMA;
- c) position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2;
- d) deviation from the ATC clearance may only be made when prior permission has been obtained;
- e) the flight shall be conducted with vertical visual reference to the ground unless the flight can be conducted in accordance with IFR;
- f) two-way radio communication shall be maintained on the frequency 119.70 MHz;
- g) the aircraft shall be equipped with SSR transponder with 4096 Codes in Mode A/3. Flights performed in connection with parachute jumps shall, in addition, be equipped with Mode C with automatic transmission of pressure altitude information (cf. ICAO Annex 10, Volume I). Exemption from this requirement may be granted by Vientiane ACC.

5. Procedures for VFR flights within Vientiane CTR

- a) Flight plan shall be filed for the flight concerned;
- b) ATC clearance shall be obtained from the Vientiane TWR;
- c) Deviation from ATC clearance may only be made when prior permission has been obtained;
- d) The flight shall be conducted with vertical visual reference to the ground;
- e) Two-way radio communication shall be established on the frequency 118.10 MHz before flight take place in the Vientiane CTR.

6. VFR routes within Vientiane CTR

NIL

VLVT AD 2.23 - ADDITIONAL INFORMATION

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VLVT AD 2.24 - CHARTS RELATED TO VIENTIANE AIRPORT

	<i>Page</i>	
Aerodrome Chart – ICAO	VLVT AD 2-11	←
Instrument Approach Chart - ICAO - RWY 13 DVOR/DME	VLVT AD 2-12	
Instrument Approach Chart - ICAO - RWY 13 VOR/DME/ILS No1(base turn)	VLVT AD 2-13	
Instrument Approach Chart - ICAO - RWY 13 VOR/DME/ILS No2(Arc turn)	VLVT AD 2-14	
Terminal Control Area Chart - TMA	VLVT AD 2-15	
Standard Instrument Departure (SID) - ICAO - RWY 13	VLVT AD 2-16	
Standard Instrument Departure (SID) - ICAO - RWY 31	VLVT AD 2-17	
Instrument Approach Chart - ICAO – RNAV (GNSS) RWY 13	VLVT AD 2-18	
Standard Departure Chart - Instrument (SID) - ICAO - RNAV (GNSS) RWY 31	VLVT AD 2-19	
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV (GNSS) RWY 13	VLVT AD 2-20	

AERODROME CHART-ICAO

17° 59' 17.95" N
102° 33' 47.73" E

ELEV 170.7 M (560 ft)

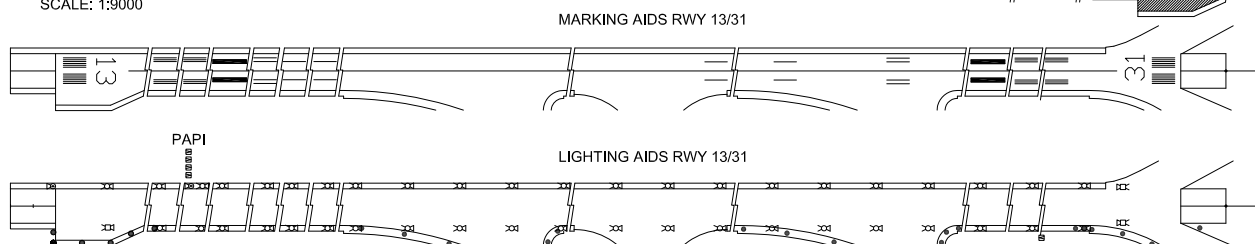
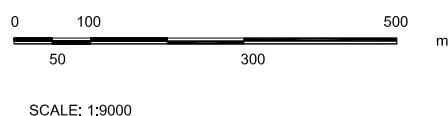
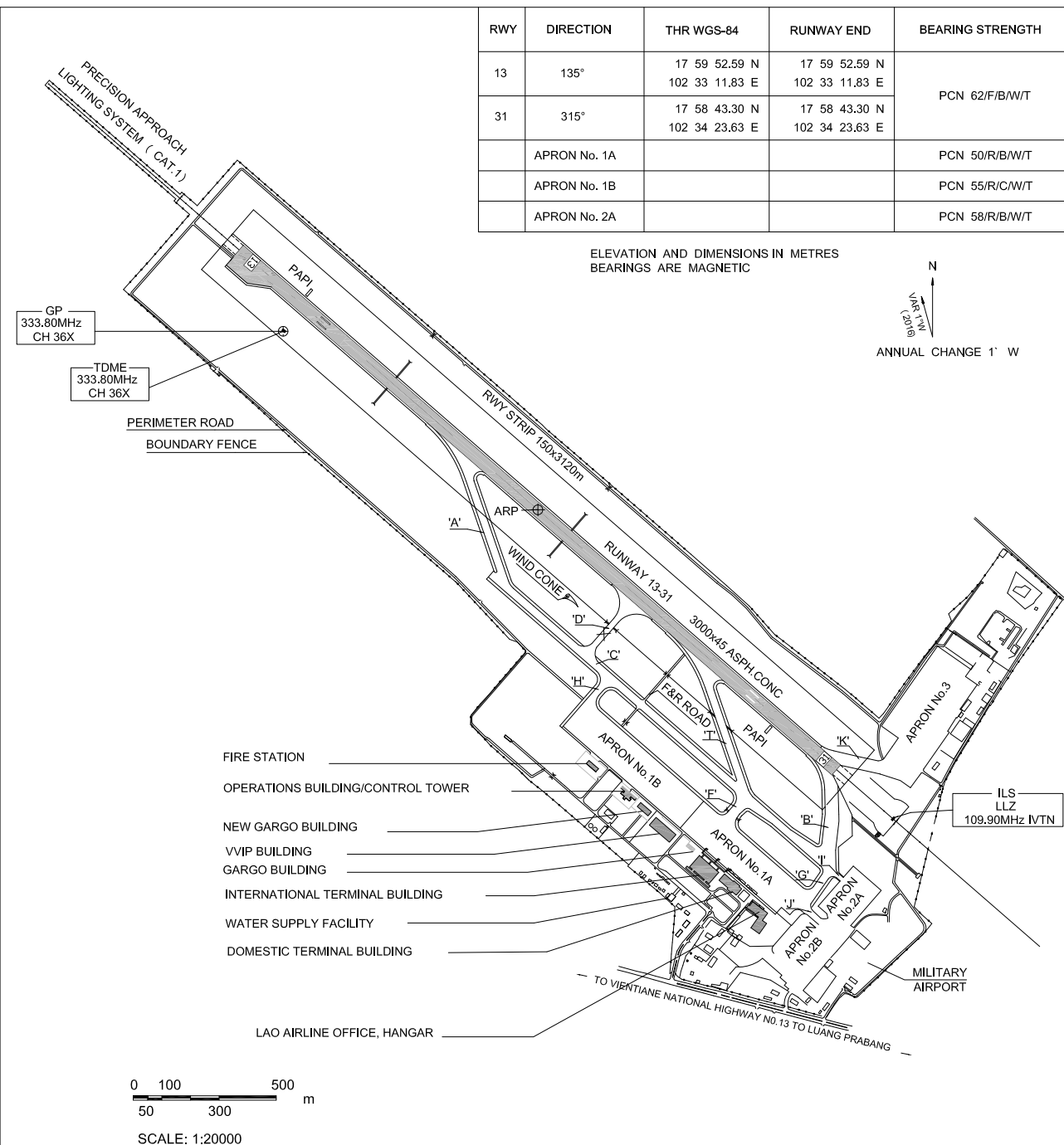
APP 119.7 MHz
TWP 118.1 MHz

VIENTIANE/Wattay Intl AP

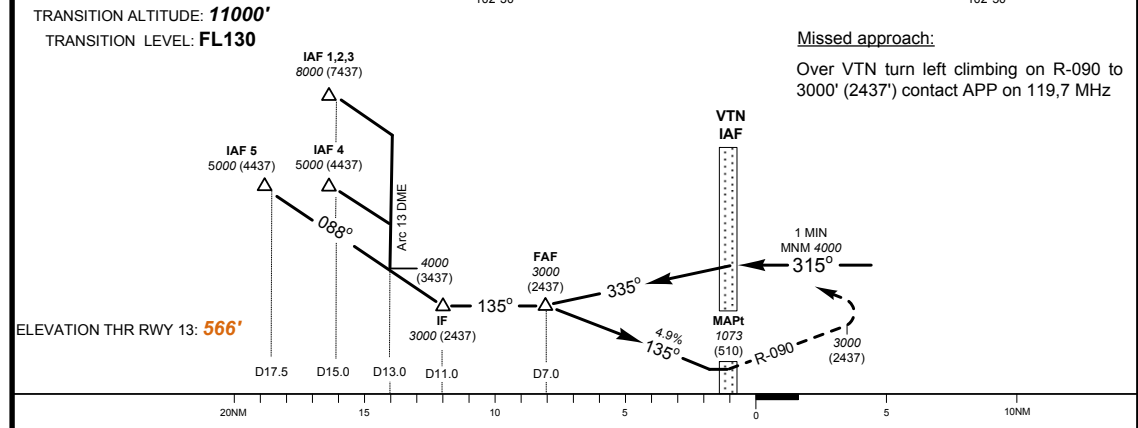
RWY	DIRECTION	THR WGS-84	RUNWAY END	BEARING STRENGTH
13	135°	17 59 52.59 N 102 33 11.83 E	17 59 52.59 N 102 33 11.83 E	PCN 62/F/B/W/T
31	315°	17 58 43.30 N 102 34 23.63 E	17 58 43.30 N 102 34 23.63 E	
	APRON No. 1A			PCN 50/R/B/W/T
	APRON No. 1B			PCN 55/R/C/W/T
	APRON No. 2A			PCN 58/R/B/W/T

ELEVATION AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

N
MAG. VAR. (2015)
ANNUAL CHANGE 1° W

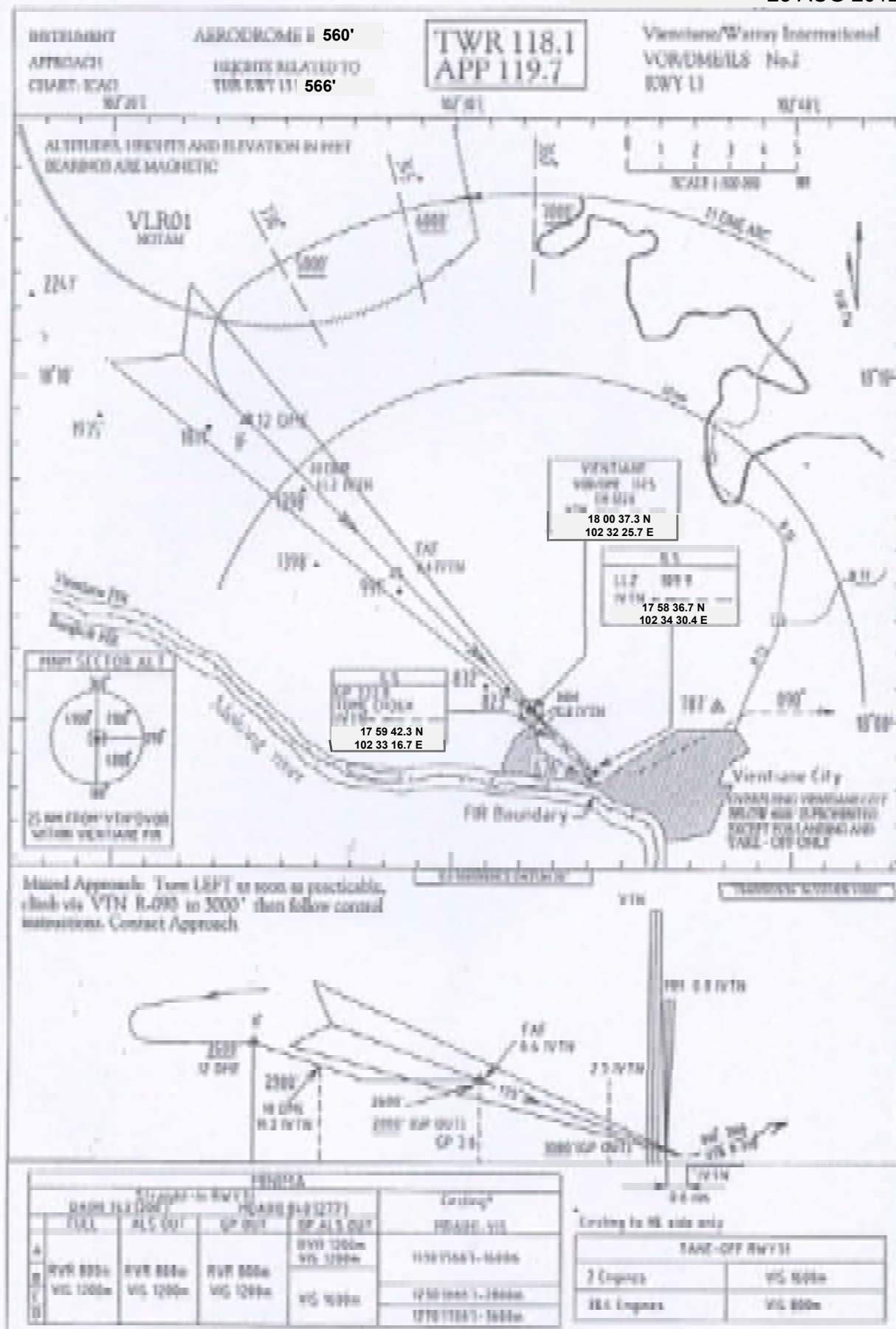


VIENTIANE/Wattay
VOR/DME
RWY 13



OCA/H					Distance FAF to MAPt = 7.0NM										
Cat of aircraft	A	B	C	D	Distance to VTN (height)	DME Ft	7.0 (2437)	6.0 (2097)	5.0 (1799)	4.0 (1501)	3.0 (1204)	2.0 (906)	1.0 (608)	0.0 (510)	
Straight-in approach	1073 (510)				Speed	KT	70	100	130	160	190	220	250		
Circling	1123 (560)		1223 (660)		Rate of descent	Ft/min	340	486	632	778	924	1069	1215		



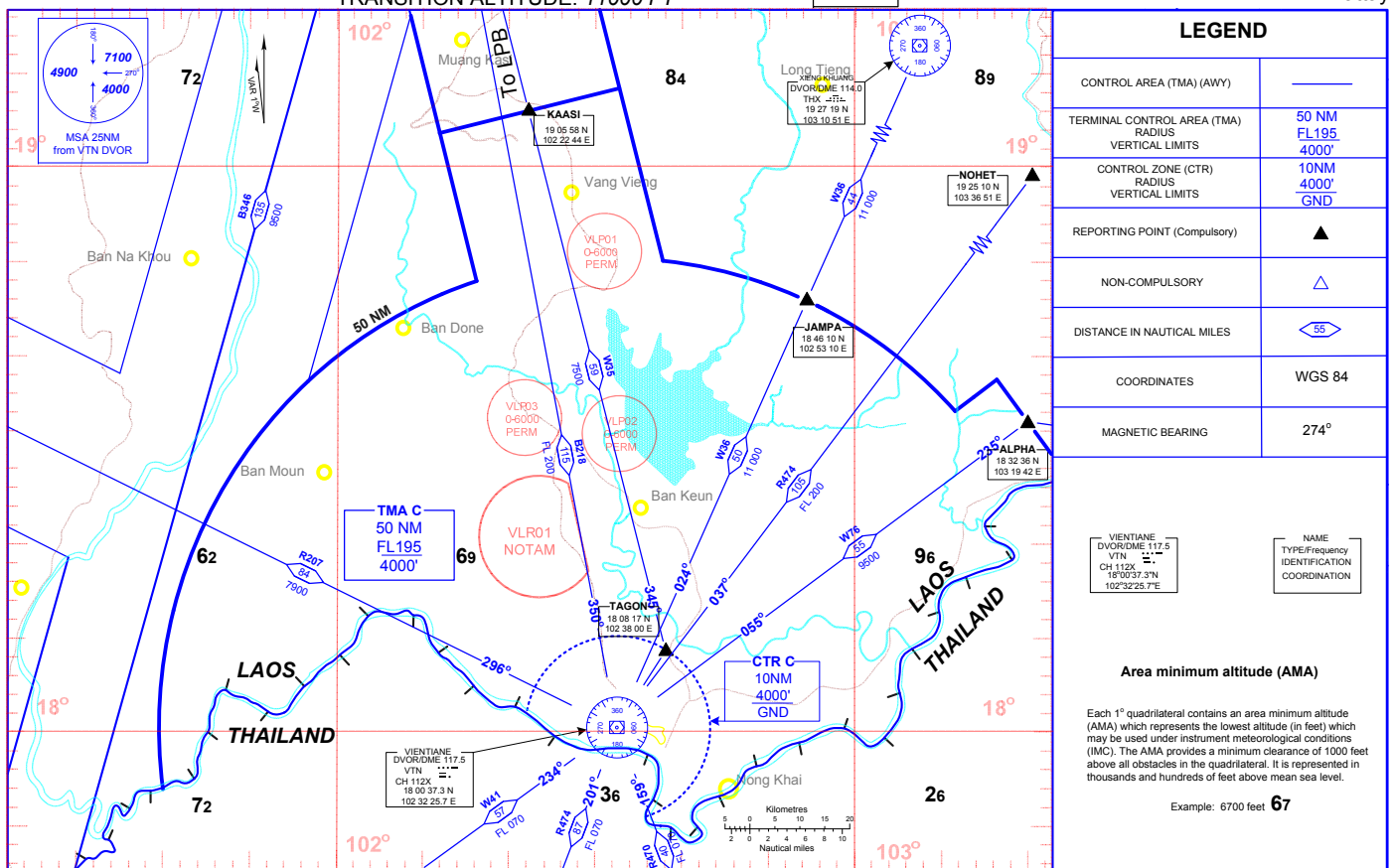


TMA CHART - ICAO

TRANSITION ALTITUDE: 11000 FT

TWR: 118.1 Mhz
APP: 119.7 Mhz

VIENTIANE/Wattay



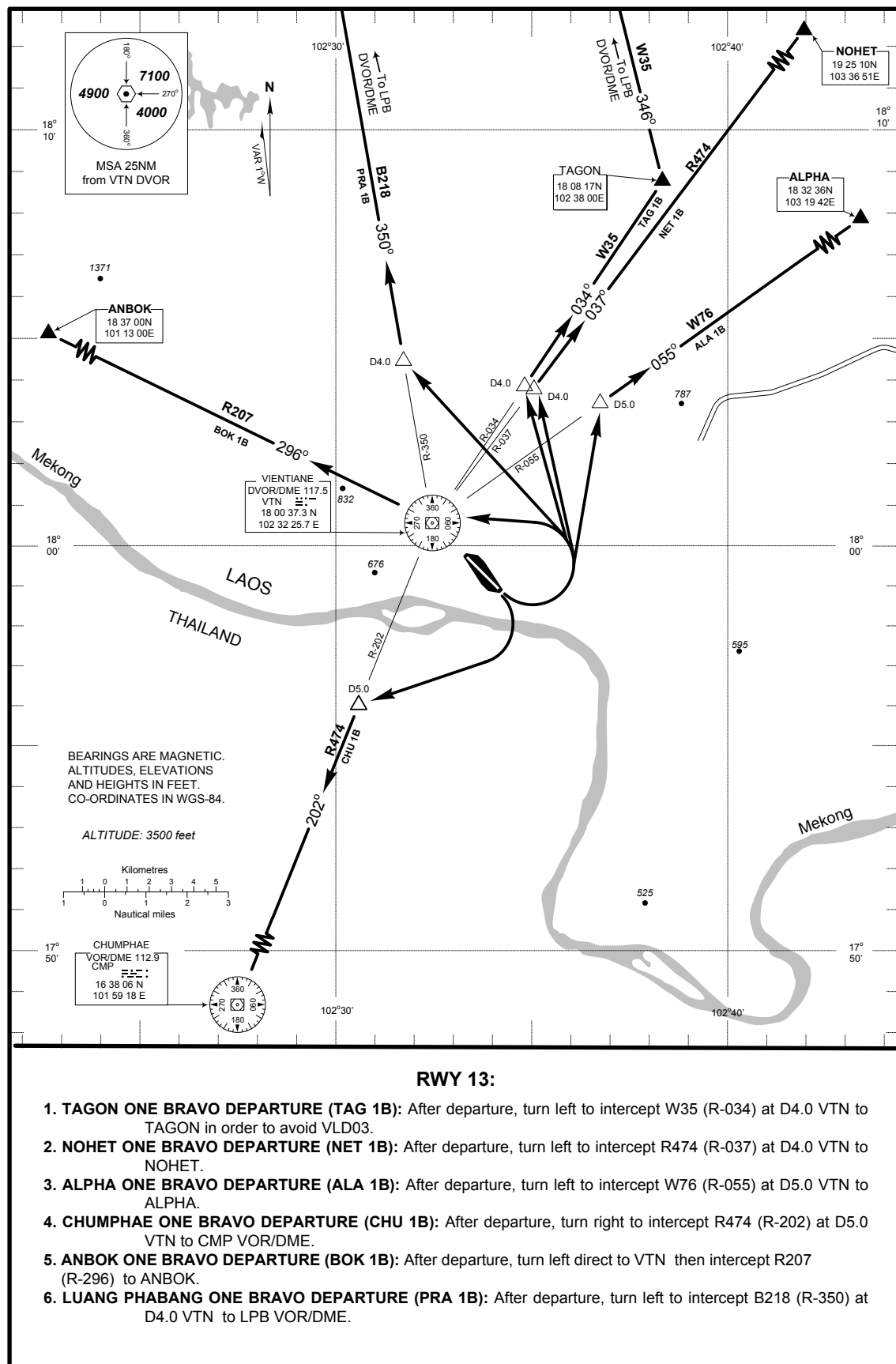
**STANDARD INSTRUMENT
DEPARTURE CHART (SID) - ICAO**

TRANSITION ALTITUDE:
11000 FT

TWR: 118.1MHz
APP: 119.7MHz

**VIENTIANE / Wattay
RWY 13**

TAG 1B, NET 1B, ALA 1B, CHU 1B, BOK 1B, PRA 1B



VIENTIANE / Wattay
RWY 31

VIENTIANE
DVOR/DME 117.5
VTN 34°
18 00 37.3 N
102 32 25.7 E

TAGON
180017N
1023800E

ANBOK
18 36 10N
101 13 00E

NOHET
19 25 10N
103 36 51E

ALPHA
18 32 36N
103 19 42E

CHUMPHAE
VOR/DME 112.9
CMP 16 38 06 N
101 59 18 E

**BEARINGS ARE MAGNETIC.
ALTITUDES, ELEVATIONS AND HEIGHTS IN FEET.
DISTANCE IN NAUTICAL MILES
CO-ORDINATES IN WGS-84.**

ALTITUDES 1413 ft
HEIGHTS (850)

Kilometres
Nautical miles

Mekong
LAOS
THAILAND

R207
R474
W35
W76
D2.0
D3.0
D4.0
D5.0
FRA 1A
PRA 1A
TAG 1A
NET 1A
ALA 1A
CHU 1A
BOK 1A

To LPB
DVOR/DME
To LPB
DVOR/DME

MSA 25NM from VTN DVOR

VAR 1°W

1371
632
676
787
595
525

18° 10'
18° 00'
17° 50'

102° 30'
102° 40'

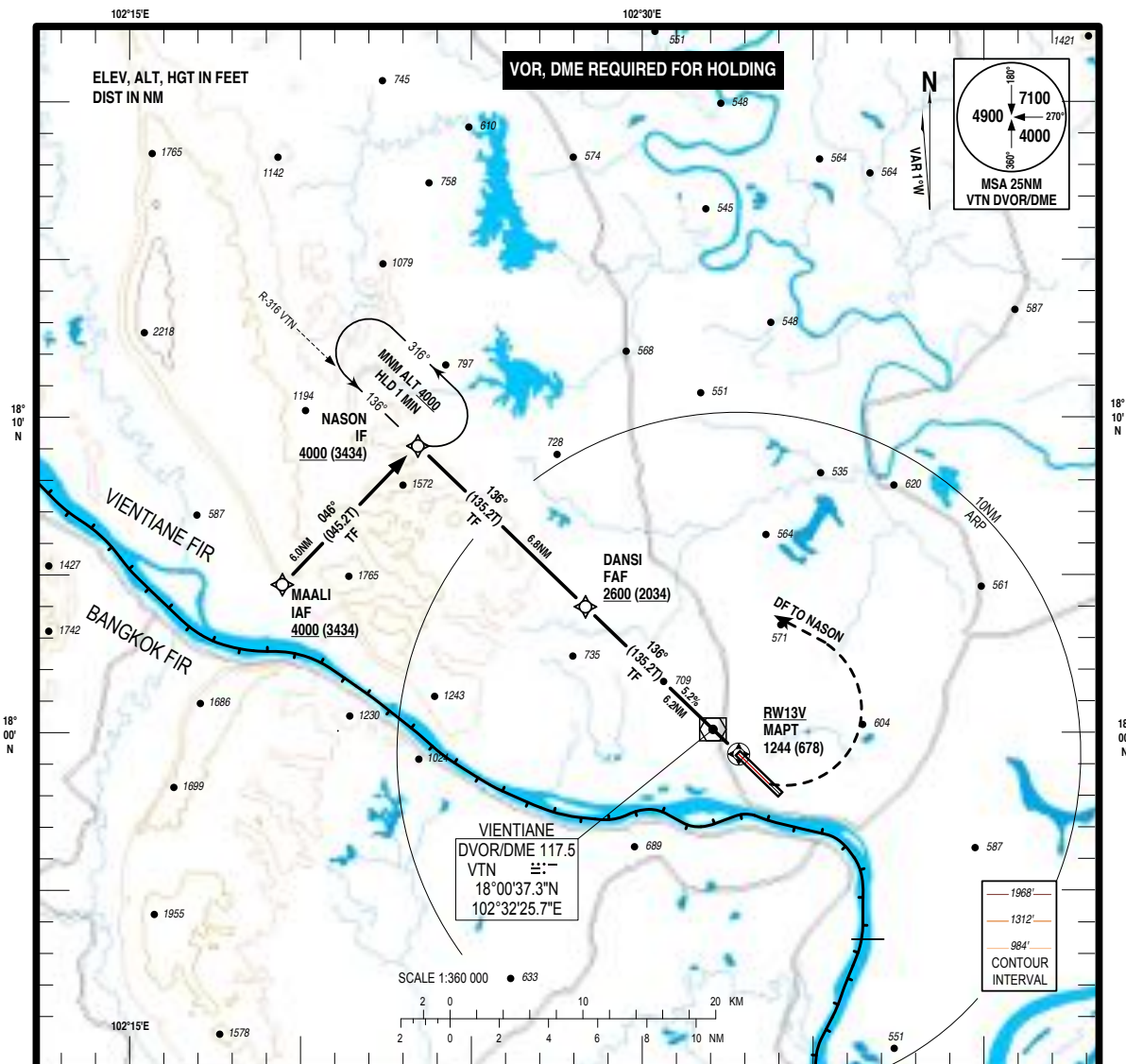
1. **TAGON ONE ALPHA DEPARTURE (TAG 1A):** After departure, climb on runway heading to 1413' (850') then turn right to intercept W35 (R-034) at D4.0 VTN to TAGON in order to avoid the active VLD03
2. **NOHET ONE ALPHA DEPARTURE (NET 1A):** After departure, climb on runway heading to 1413' (850') then turn right to intercept R474 (R-037) at D4.0 VTN to NOHET.
3. **ALPHA ONE ALPHA DEPARTURE (ALA 1A):** After departure, climb on runway heading to 1413' (850') then turn right to intercept W76 (R-055) at D5.0 VTN to ALPHA.
4. **CHUMPHAE ONE ALPHA DEPARTURE (CHU 1A):** After departure, climb on runway heading to 1413' (850') then turn left to intercept R474 (R-202) at D3.0 VTN to CMP VOR/DME.
5. **ANBOK ONE ALPHA DEPARTURE (BOK 1A):** After departure, climb on runway heading to 1413' (850') then turn left to intercept R207 (R-296) at D5.0 VTN to ANBOK.
6. **LUANG PHABANG ONE ALPHA DEPARTURE (PRA 1A):** After departure, climb on runway heading to 1413' (850') then turn right to intercept B218 (R-350) at D4.0 VTN to LPB DVOR/DME.

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 560FT
HEIGHTS RELATED TO
THR RWY 13 - ELEV 566FT

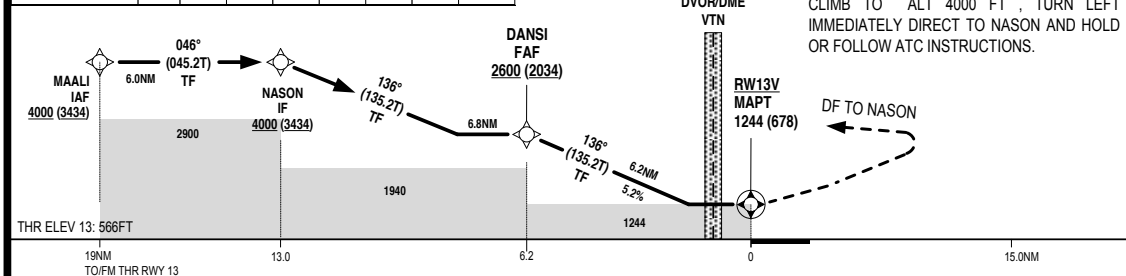
TWR 118.1
APP 119.7

VIENTIANE/WATTAY INTL (VLVT)
RNAV (GNSS)
RWY 13



DIST TO MAPT	NM	FAF	5.0	4.0	3.0	2.0	1.0	MAPT
HGT	FT	2034	1652	1334	1016	697	678	678

TRANSITION LEVEL: FL130



OCA (H)				
ACFT CAT	A	B	C	D
LNAV	1244 (678)			
CIRCLING	1500 (934)			

CIRCLING IS ONLY IN THE NORTH EAST OF RWY

SPEED (GS)	KT	80	108	135	162
FAF-MAPT 6.2NM	MIN:S	4:39	3:26	2:45	2:17
RATE OF DESCENT	FT/S	4.8	6.5	8.2	9.8

FOR DATA TABULATION SEE VERSO

CHANGE: NEW CHART

VIENTIANE/WATTAY INTL (VLVT)

RNAV (GNSS)

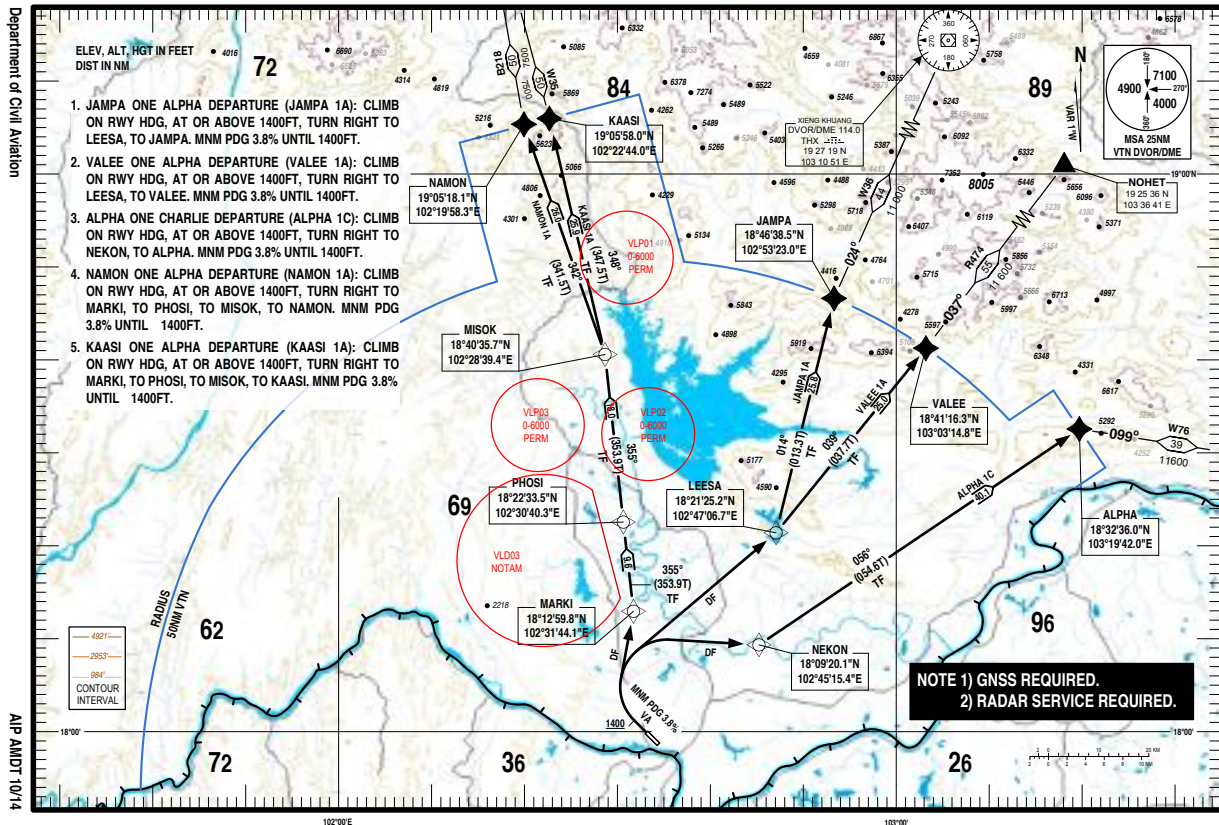
RWY 13

AERONAUTICAL DATA TABULATION

WPT DATA		
DESIGNATION	FIX	COORDINATES
MAALI	IAF	18°04'55.2"N 102°19'05.4"E
NASON	IF	18°09'09.9"N 102°23'33.3"E
DANSI	FAF	18°04'19.0"N 102°28'35.4"E
RW13V	MAPT	17°59'52.6"N 102°33'11.8"E

RNAV (GNSS) RWY 13									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	MAALI	-	-	-	-	+4000	-	-	RNAV1
TF	NASON	-	6.0	046° (045.2°)	-	+4000	-	-	RNAV1
TF	DANSI	-	6.8	136° (135°.2)	R	+2600	-	-	RNAV1
TF	RW13V	Y	6.2	136° (135°.2)	-	@1244	-	-5.2%	RNAV1
DF	NASON	Y	-	-	L	@4000	-	-	RNAV1

CHANGE: NEW CHART



STANDARD DEPARTURE CHART -
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11 000FT

TWR 118.1
APP 119.7

VIENTIANE/MATTAY INTL (VLT)
RNAV (GNSS)
RWY 31
JAMPA 1A, VALEE 1A, ALPHA 1C, NAMON 1A, KAASI 1A

AIP
Lao PDR

VLAT AD 2-19
24 JUL 2014

VIENTIANE/WATTAY INTL (VLVT)
RNAV (GNSS) SID
RWY 31

AERONAUTICAL DATA TABULATION

WPT DATA			WPT DATA		
DESIGNATION	FIX	COORDINATES	DESIGNATION	FIX	COORDINATES
ALPHA	WPT	18°32'36.0"N 103°19'42.0"E	NEKON	WPT	18°09'20.1"N 102°45'15.4"E
VALEE	WPT	18°41'16.3"N 103°03'14.8"E	LEESA	WPT	18°21'25.2"N 102°47'06.7"E
JAMPA	WPT	18°46'38.5"N 102°53'23.0"E	MARKI	WPT	18°12'59.8"N 102°31'44.1"E
KAASI	WPT	19°05'58.0"N 102°22'44.0"E	PHOSI	WPT	18°22'33.5"N 102°30'40.3"E
NAMON	WPT	19°05'18.1"N 102°19'58.3"E	MISOK	WPT	18°40'35.7"N 102°28'39.4"E

ALPHA 1C DEPARTURE									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	316° (315.2°)	—	+1 400	—	—	RNAV1
DF	NEKON	—	—	—	R	—	—	—	RNAV1
TF	ALPHA	—	40.1	056° (054.6°)	—	—	—	—	RNAV1

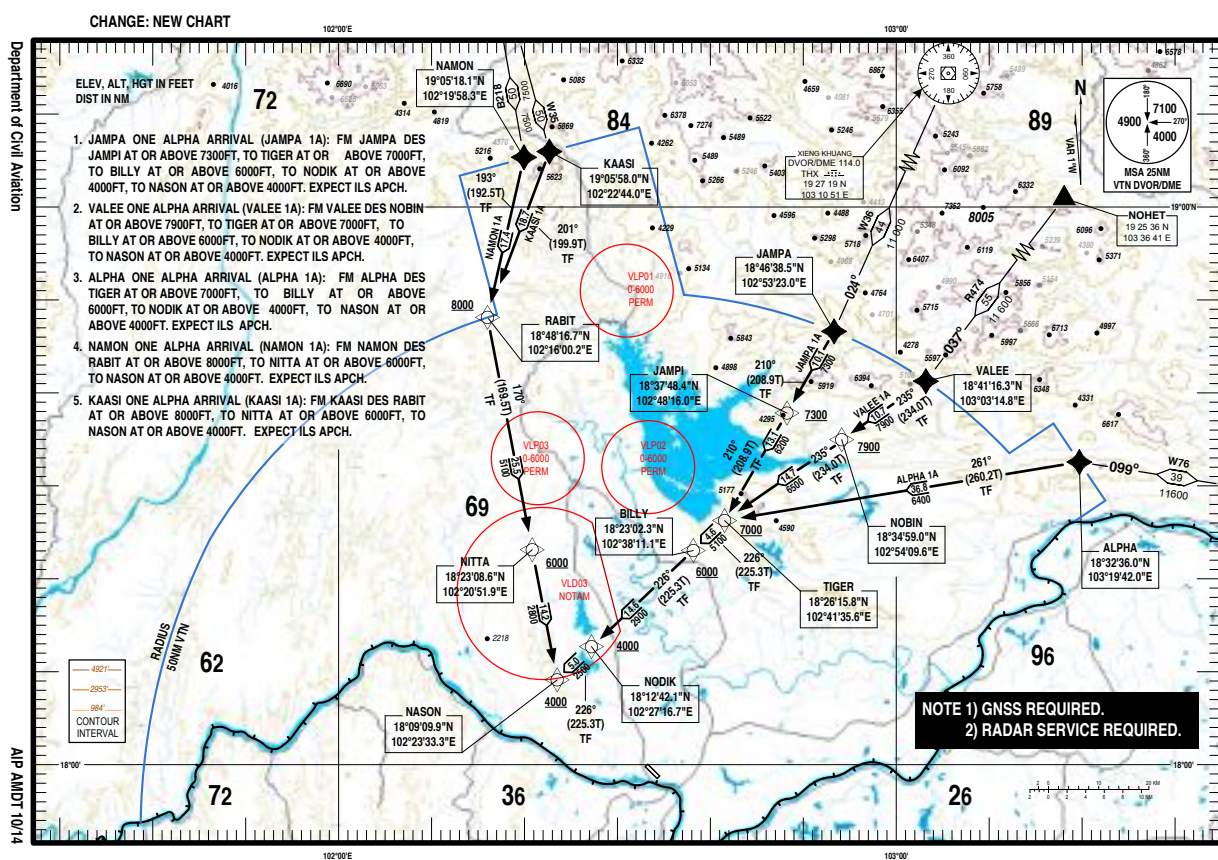
VALEE 1A DEPARTURE									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	316° (315.2°)	—	+1 400	—	—	RNAV1
DF	LEESA	—	—	—	R	—	—	—	RNAV1
TF	VALEE	—	25.0	039° (037.7°)	—	—	—	—	RNAV1

JAMPA 1A DEPARTURE									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	316° (315.2°)	—	+1 400	—	—	RNAV1
DF	LEESA	—	—	—	R	—	—	—	RNAV1
TF	JAMPA	—	25.8	014° (013.3°)	—	—	—	—	RNAV1

NAMON 1A DEPARTURE									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	316° (315.2°)	—	+1 400	—	—	RNAV1
DF	MARKI	—	—	—	R	—	—	—	RNAV1
TF	PHOSI	—	9.6	355° (353.9°)	—	—	—	—	RNAV1
TF	MISOK	—	18.0	355° (353.9°)	—	—	—	—	RNAV1
TF	NAMON	—	26.0	342° (341.5°)	—	—	—	—	RNAV1

KAASI 1A DEPARTURE									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	NAVAID REQUIRED	Vertical Angle	Navigation Performance
VA	—	—	—	316° (315.2°)	—	+1 400	—	—	RNAV1
DF	MARKI	—	—	—	R	—	—	—	RNAV1
TF	PHOSI	—	9.6	355° (353.9°)	—	—	—	—	RNAV1
TF	MISOK	—	18.0	355° (353.9°)	—	—	—	—	RNAV1
TF	KAASI	—	25.9	348° (347.5°)	—	—	—	—	RNAV1

VIENTIANEWATTAY INTL (VLT)
RNAV (GNSS)
RWY 13
JAMPA 1A, VALEE 1A, ALPHA 1A, NAMON 1A, KAASI 1A



VIENTIANE/WATTAY INTL (VLVT)
RNAV (GNSS) STAR
RWY 13

AERONAUTICAL DATA TABULATION

WPT DATA			WPT DATA		
DESIGNATION	FIX	COORDINATES	DESIGNATION	FIX	COORDINATES
			JAMPI	WPT	18°37'48.4"N 102°48'16.0"E
NAMON	WPT	19°05'18.1"N 102°19'58.3"E	TIGER	WPT	18°26'15.8"N 102°41'35.6"E
RABIT	WPT	18°48'16.7"N 102°16'00.2"E	BILLY	WPT	18°23'02.3"N 102°38'11.1"E
NITTA	WPT	18°23'08.6"N 102°20'51.9"E	NODIK	WPT	18°12'42.1"N 102°27'16.7"E
KAASI	WPT	19°05'58.0"N 102°22'44.0"E	NOBIN	WPT	18°34'59.0"N 102°54'09.6"E
JAMPA	WPT	18°46'38.5"N 102°53'23.0"E	VALEE	WPT	18°41'16.3"N 103°03'14.8"E
NASON	IF	18°09'09.9"N 102°23'33.3"E	ALPHA	WPT	18°32'36.0"N 103°19'42.0"E

JAMPA 1A ARRIVAL									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	JAMPA	—	—	—	—	—	—	—	RNAV1
TF	JAMPI	—	10.1	210° (208.9°)	—	+7300	—	—	RNAV1
TF	TIGER	—	13.1	210° (208.8°)	—	+7000	—	—	RNAV1
TF	BILLY	—	4.6	226° (225.2°)	—	+6000	—	—	RNAV1
TF	NODIK	—	14.6	226° (225.2°)	—	+4000	—	—	RNAV1
TF	NASON	—	5	226° (225.2°)	—	+4000	—	—	RNAV1

VALEE 1A ARRIVAL									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	VALEE	—	—	—	—	—	—	—	RNAV1
TF	NOBIN	—	10.7	235° (234.0°)	—	+7 900	—	—	RNAV1
TF	TIGER	—	14.7	235° (234.0°)	—	+7 000	—	—	RNAV1
TF	BILLY	—	4.6	226° (225.3°)	—	+6000	—	—	RNAV1
TF	NODIK	—	14.6	226° (225.2°)	—	+4000	—	—	RNAV1
TF	NASON	—	5	226° (225.2°)	—	+4000	—	—	RNAV1

ALPHA 1A ARRIVAL									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	ALPHA	—	—	—	—	—	—	—	RNAV1
TF	TIGER	—	36.8	261° (260.2°)	—	+7000	—	—	RNAV1
TF	BILLY	—	4.6	226° (225.3°)	—	+6000	—	—	RNAV1
TF	NODIK	—	14.6	226° (225.2°)	—	+4000	—	—	RNAV1
TF	NASON	—	5	226° (225.2°)	—	+4000	—	—	RNAV1

VIENTIANE/WATTAY INTL (VLVT)
RNAV (GNSS) STAR
RWY 13

AERONAUTICAL DATA TABULATION

WPT DATA			WPT DATA		
DESIGNATION	FIX	COORDINATES	DESIGNATION	FIX	COORDINATES
NAMON	WPT	19°05'18.1"N 102°19'58.3"E	JAMPI	WPT	18°37'48.4"N 102°48'16.0"E
RABIT	WPT	18°48'16.7"N 102°16'00.2"E	TIGER	WPT	18°26'15.8"N 102°41'35.6"E
NITTA	WPT	18°23'08.6"N 102°20'51.9"E	BILLY	WPT	18°23'02.3"N 102°38'11.1"E
KAASI	WPT	19°05'58.0"N 102°22'44.0"E	NODIK	WPT	18°12'42.1"N 102°27'16.7"E
JAMPA	WPT	18°46'38.5"N 102°53'23.0"E	NOBIN	WPT	18°34'59.0"N 102°54'09.6"E
NASON	IF	18°09'09.9"N 102°23'33.3"E	VALEE	WPT	18°41'16.3"N 103°03'14.8"E
			ALPHA	WPT	18°32'36.0"N 103°19'42.0"E

NAMON 1A ARRIVAL									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	NAMON	—	—	—	—	—	—	—	RNAV1
TF	RABIT	—	17.4	193° (192.5°)	—	+8000	—	—	RNAV1
TF	NITTA	—	25.5	170° (169.5°)	—	+6000	—	—	RNAV1
TF	NASON	—	14.2	170° (169.5°)	—	+4000	—	—	RNAV1

KAASI 1A ARRIVAL									
Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (True Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	KAASI	—	—	—	—	—	—	—	RNAV1
TF	RABIT	—	18.7	201° (199.9°)	—	+8000	—	—	RNAV1
TF	NITTA	—	25.5	170° (169.5°)	—	+6000	—	—	RNAV1
TF	NASON	—	14.2	170° (169.5°)	—	+4000	—	—	RNAV1

