

༄༅། དཔལ་ལྷན་འབྲུག་གཞུང་གི་བདེ་མཁའ་འགྲུལ་ལས་ཁུངས་།

**Royal Government of Bhutan
Department of Civil Aviation
Aeronautical Information Service**



AIP

Aeronautical Information Publication

First Edition

2009

BHUTAN

GENERAL (GEN)

GEN 0.

GEN 0.1 PREFACE

1. Name of the publishing authority

- 1.1 The AIP Bhutan is published under authority of the Department of Civil Aviation, Ministry of Information & Communications, Royal Government of Bhutan.

2. Applicable ICAO Document

- 2.1 The AIP is prepared in accordance with the Standards and Recommended Practices (SARP) 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 the Annex 4 to the convention on International Civil Aviation and the *Aeronautical Chart Manual* (ICAO Doc. 8697). Difference from ICAO Standard, 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 0.1-3.

The AIP is made up of three Parts, General (GEN), En-route (ENR) and Aerodrome (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; Record of AIP Amendments; Record of AIRAC Amendments; Record of AIP 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 and departure of aircraft; Entry and departure of passengers and crew; Entry and departure of cargo; Aircraft instruments, equipment and flight Documents; Summary of national regulations 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; Chart 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 aerodrome 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 containing 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 service 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 incidents.

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

ENR 3. - *ATS routes* - Detailed description of Lower ATS routes ; Upper ATS routes; Area navigation routes; Other routes; and En-route holding.

ENR 4. - *Radio navigation aids/systems* - Radio navigation aids - en-route; Special navigation systems; Name code designators for significant points; and Aeronautical ground lights - en-route.

ENR 5. - *Navigational warnings* - 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 area 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 three sections containing information as briefly described hereafter.

AD 0. Table of Contents to part 3.

AD 1. *Aerodrome - Introduction* - Aerodrome availability; Rescue and fire fighting services and Snow plan; Index to aerodrome and grouping of aerodromes.

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

3.2 *Regular amendment interval*

Regular amendments to the AIP will be issued once a year. The publication date will be on the Last AIRAC cycle of each year.

4. Service to contact in case of detected AIP error or omission

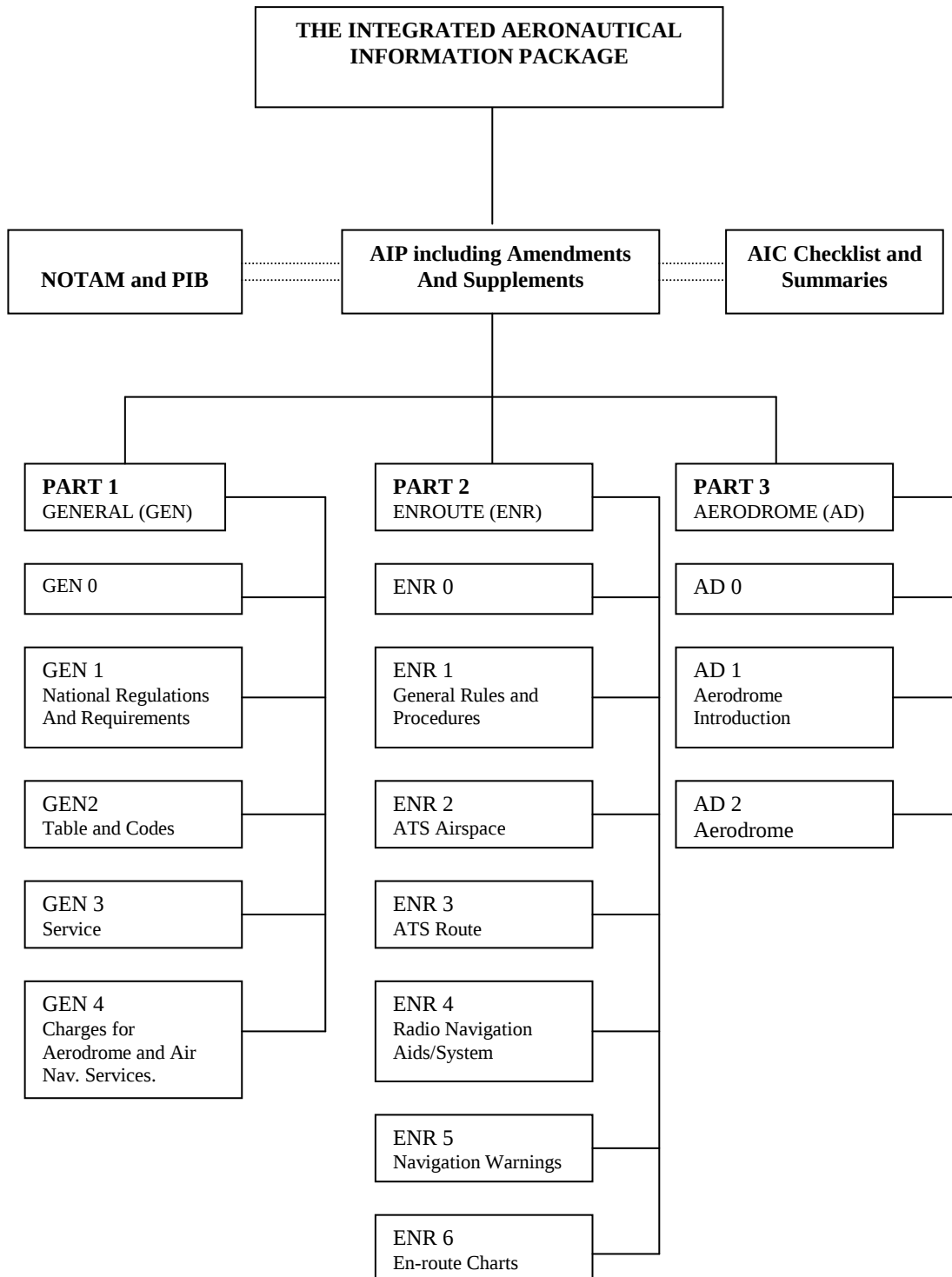
- 4.1 In the compilation of the AIP, care has been taken to ensure that the information contained therein is accurate and complete. Any error and omission which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to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

Aeronautical Information Service,
Department of Civil Aviation,
Paro International Airport
Paro : Bhutan
BHUTAN.
Email aisection@druknet.bt

5. Miscellaneous Information

General

- 5.1 Enquiries, suggestions or complaints regarding any aeronautical services should be referred to the Director ^ of Civil Aviation.



INTENTIONALLY LEFT BLANK

༄༄། དཔལ་ལྷན་འབྲུག་གཞུང་གི་བདེ་མཁའ་འགྲུལ་ལས་ཁུངས་།

**Royal Government of Bhutan
Department of Civil Aviation
Aeronautical Information Service**

PART 1– GENERAL (GEN)



CONSULT NOTAM FOR LATEST INFORMATION

AIP

Aeronautical Information Publication

First Edition

2009

BHUTAN

AIP AMENDMENTS

[illegible]

INTENTIONALLY LEFT BLANK

[illegible]

INTENTIONALLY LEFT BLANK

GEN 0.4 CHECKLIST OF AIP PAGES

<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>
PART 1 - GENERAL (GEN)		GEN 3		1.14-1	12 FEB 09
GEN 0		3.1-1	16 DEC 10	1.14-2	12 FEB 09
0.1-1	12 FEB 09	3.1-2	16 DEC 10	1.14-3	12 FEB 09
0.1-2	12 FEB 09	3.1-3	16 DEC 10	1.14-4	12 FEB 09
0.1-3	12 FEB 09	3.1-4	16 DEC 10	1.14-5	12 FEB 09
0.2-1	12 FEB 09	3.2-1	12 FEB 09	1.14-6	12 FEB 09
0.3-1	12 FEB 09	*3.3-1	12 DEC 13		
* 0.4-1	12 DEC 13	3.4-1	12 FEB 09	ENR 2	
0.4-2	13 DEC 12	3.4-2	12 FEB 09	2.1-1	12 FEB 09
0.5-1	12 FEB 09	3.4-3	16 DEC 10	2.2-1	12 FEB 09
0.6-1	12 FEB 09	3.4-4	12 FEB 09		
0.6-2	12 FEB 09	3.5-1	12 FEB 09	ENR 3	
		3.5-2	12 FEB 09	*3.1-1	12 DEC 13
GEN 1		3.6-1	16 DEC 10	*3.1-2	12 DEC 13
1.1-1	12 FEB 09				
1.2-1	16 DEC 10	GEN 4			
1.2-2	16 DEC 10	4.1-1	12 FEB 09	ENR 4	
1.2-3	16 DEC 10	4.1-2	12 FEB 09	4.1-1	12 FEB 09
1.2-4	16 DEC 10	4.2-1	12 FEB 09	4.2-1	12 FEB 09
1.3-1	12 FEB 09			4.3-1	12 FEB 09
1.3-2	12 FEB 09	PART 2 - ENROUTE(ENR)		4.4-1	12 FEB 09
1.3-3	12 FEB 09	ENR 0			
1.3-4	12 FEB 09	*0.6-1	12 DEC 13	ENR 5	
1.4-1	12 FEB 09			5.1-1	12 FEB 09
1.5-1	16 DEC 10	ENR 1		5.2-1	12 FEB 09
1.5-2	12 FEB 09	1.1-1	12 FEB 09	5.6-1	12 FEB 09
1.6-1	16 DEC 10	1.1-2	12 FEB 09		
1.6-2	16 DEC 10	1.1-3	12 FEB 09	ENR 6	
1.6-3	12 FEB 09	1.1-4	12 FEB 09	*6.1-1	12 DEC 13
1.7-1	16 DEC 10	1.1-5	12 FEB 09		
1.7-2	16 DEC 10	1.1-6	12 FEB 09		
		1.1-7	12 FEB 09	PART 3 - AERODROME (AD)	
GEN 2		1.1-8	12 FEB 09	AD 0	
2.1-1	12 FEB 09	*1.1-9	12 DEC 13	*0.6-1	12 DEC 13
2.1-2	17 DEC 09	1.1-10	12 FEB 09	*0.6-2	12 DEC 13
2.2-1	12 FEB 09	*1.2-1	12 DEC 13		
2.2-2	12 FEB 09	1.3-1	12 FEB 09	AD 1	
2.2-3	12 FEB 09	1.3-2	12 FEB 09	1.1-1	12 FEB 09
2.2-4	12 FEB 09	1.4-1	12 FEB 09	1.1-2	12 FEB 09
2.2-5	12 FEB 09	15-1	12 FEB 09	1.2-1	16 DEC 10
2.2-6	12 FEB 09	1.6-1	12 FEB 09	1.2-2	12 FEB 09
2.2-7	12 FEB 09	1.7-1	12 FEB 09	1.3-1	13 DEC 12
2.2-8	12 FEB 09	1.7-2	12 FEB 09	1.4.1	13 DEC 12
2.2-9	12 FEB 09	1.8-1	12 FEB 09	AD 2	
2.3-1	12 FEB 09	1.9-1	12 FEB 09	2.1-1	12 FEB 09
2.3-2	12 FEB 09	1.10-1	16 DEC 10	2.1-2	16 DEC 10
2.3-3	12 FEB 09	1.10-2	16 DEC 10	2.1-3	12 FEB 09
*2.4-1	12 DEC 13	1.11-1	16 DEC 10	2.1-4	12 FEB 09
*2.5-1	12 DEC 13	1.12-1	12 FEB 09	2.1-5	12 FEB 09
2.6-1	12 FEB 09	1.12-2	12 FEB 09	2.1-6	16 DEC 10
2.6-2	12 FEB 09	1.12-3	12 FEB 09	2.1-7	16 DEC 10
2.7-1	17 DEC 09	1.13-1	12 FEB 09	2.1- VQPR-8	13 DEC 12
				2.1-9	12 FEB 09
				AD2-VQPR-2-1	12 FEB 09
				AD2-VQPR-3-1	12 FEB 09
				AD2-VQPR-3-2	12 FEB 09
				AD2-VQPR-6-1	12 FEB 09

GEN 0.4 CHECKLIST OF AIP PAGES

<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>
AD 2-VQBT					
*2.1-VQBT-1	13 DEC 12				
*2.1-VQBT-2	13 DEC 12				
*2.1-VQBT-3	13 DEC 12				
*2.1-VQBT-4	13 DEC 12				
*2.1-VQBT-5	13 DEC 12				
*2.1-VQBT-6	13 DEC 12				
*2.1-VQBT-7	13 DEC 12				
*AD2-VQBT-2-1	13 DEC 12				
*AD2-VQBT-3-1	13 DEC 12				
*AD2-VQBT-3-2	13 DEC 12				
AD 2-VQTY					
*2.1-VQTY-1	13 DEC 12				
*2.1-VQTY-2	13 DEC 12				
*2.1-VQTY-3	13 DEC 12				
*2.1-VQTY-4	13 DEC 12				
*2.1-VQTY-5	13 DEC 12				
*2.1-VQTY-6	13 DEC 12				
*2.1-VQTY-7	13 DEC 12				
*AD2-VQTY-2-1	13 DEC 12				
*AD2-VQTY-3-1	13 DEC 12				
AD 3					
2.1-1	12 FEB 09				

GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP

<i>AIP page (s) affected</i>	<i>Amendment text</i>	<i>Introduced by AIP Amendment NR</i>
GEN 0.4-1	Column 3 & 4 under ENR1 column line Nr. 19 <i>Delete</i> 1.7-3 12 FEB 09	AIP AIRAC 01/09
GEN 0.1-2	Sub para line 1 <i>to amend as</i> Director General of Civil Aviation <i>in place of</i> Director of Civil Aviation	AIP AIRAC 01/09
GEN 1.6-1	Sub para 1.2.4 line 5 <i>to read as</i> (Sec.2, Chapter 1 sub 2.1.3)	AIP AIRAC 01/09
GEN 1.6-1	Sub para 1.2.7 line 2 <i>to read as</i> (Sec.2, Chapter 1 sub 2.1.7)	AIP AIRAC 01/09
GEN 1.2-2	Para 3.1.2 section 1 <i>Delete repeated words</i> General	AIP AIRAC 01/09
GEN 1.7-1	Under Annex 2 para 3.2.4 line 3 <i>Delete bolded item</i> Parachute Instrument Approval	AIP AIRAC 01/09
GEN 3.2-1	Para 4.1 item d, <i>delete item Nr.</i> (d) Cloud Break Procedure Chart	AIP AIRAC 01/09
ENR 4.4-1	Under 2 nd column "Coordinates", <i>TAKTI Coordinates to read as</i> 270259N	AIP AIRAC 01/09
ENR1.3-1	Para 2.2 last line <i>to read as</i> page 11 <i>instead of</i> page 10	AIP AIRAC 01/10
	para 2.3 line 2 <i>to read as</i> ATS Authority & in accordance with BANRs section 8, page 11 , para 8.2.16 <i>and Delete word</i> 2 c) or d)	
ENR 3.1-1	Column 2 row 4 <i>Change figures</i> VOR RDL <i>as</i> 162°/342° <i>instead of</i> 159°/239°	AIP AIRAC 01/13
AD2.1-VQBT-4	VQBT AD2.19 Radio Navigation & Landing Aid Row 2 Column 5 Amend Coordinates for NDB as 27°33'50.06"N 090°44'49.08"E	

INTENTIONALLY LEFT BLANK

GEN 0.6 TABLE OF CONTENTS TO PART 1**GEN 0.6 TABLE OF CONTENTS TO PART 1**

	<i>Page</i>
GEN 1	NATIONAL REGULATIONS AND REQUIREMENTS
GEN 1.1	Designated authorities..... GEN 1.1-1
GEN 1.2	Entry, Transit and Departure of Aircraft GEN 1.2-1
GEN 1.2.1	General GEN 2.1-1
GEN 1.2.2	Scheduled Flight..... GEN 2.1-1
GEN 1.2.3	Non-Scheduled Flight GEN 2.1-1
GEN 1.2.4	Private Flights GEN 2.1-2
GEN 1.2.5	Public Health Measures Applied to Aircraft GEN 2.1-2
GEN 1.3	Entry, Transit and departure of Passengers and Crew GEN 1.3-1
GEN 1.3.1	Customs Requirements..... GEN 1.3-1
GEN 1.3.2	Immigration Requirement..... GEN 1.3-3
GEN 1.3.3	Public Health Requirements..... GEN 1.3-4
GEN 1.4	Entry, Transit and Departure of Cargo GEN 1.4-1
GEN 1.4.1	Customs Requirement concerning cargo and other articles GEN 1.4-1
GEN 1.4.2	Agriculture Quarantine requirements GEN 1.4.1
GEN 1.5	Aircraft Instruments, Equipment and Flight Documents GEN 1.5-1
GEN 1.6	Summary of National Regulations and International Agreements/Conventions GEN 1.6-1
GEN 1.7	Differences from ICAO Standards, Recommended Practices and Procedures GEN 1.7-1
GEN 2	TABLES AND CODES
GEN 2.1	Measuring system and Aircraft marking, Holidays GEN 2.1-1
GEN 2.1.1	Unit of Measurement..... GEN 2.1-1
GEN 2.1.2	Temporal reference system..... GEN 2.1-1
GEN 2.1.3	Horizontal reference system..... GEN 2.1-1
GEN 2.1.4	Vertical Reference System GEN 2.1-2
GEN 2.1.5	Aircraft Nationality and Registration marks..... GEN 2.1-2
GEN 2.1.6	Public Holidays..... GEN 2.1-2
GEN 2.2	Abbreviations used in AIS publications GEN 2.2-1
GEN 2.3	Chart Symbols GEN 2.3-1
GEN 2.3.1	Aerodrome GEN 2.3-1
GEN 2.3.2	Aerodrome Installations and lights..... GEN 2.3-2
GEN 2.3.3	Miscellaneous GEN 2.3-3
GEN 2.4	Location Indicators GEN 2.4-1
GEN 2.5	List of Radio Navigation Aids GEN 2.5-1
GEN 2.6	Conversion Tables GEN 2.6-1
GEN 2.7	Sunrise/Sunset GEN 2.7-1
GEN 3	SERVICES
GEN 3.1	Aeronautical Information Services..... GEN 3.1-1
GEN 3.1.1	Responsible Service GEN 3.1-1
GEN 3.1.2	Area of Responsibility..... GEN 3.1-1
GEN 3.1.3	Aeronautical publications..... GEN 3.1-1
GEN 3.1.4	AIRAC System..... GEN 3.1-3
GEN 3.1.5	Pre-flight information Service at aerodrome GEN 3.1-3
GEN 3.1.6	Electronic terrain and obstacle data GEN 3.1.3
GEN 3.2	Aeronautical Charts GEN 3.2-1
GEN 3.2.1	Responsible service..... GEN 3.2-1
GEN 3.2.2	Maintenance of chart GEN 3.2-1
GEN 3.2.3	Purchase Arrangement. ... GEN 3.2-1
GEN 3.2.4	Aeronautical Chart series available..... GEN 3.2-1
GEN 3.2.5	Topographical Charts GEN 3.2-1
GEN 3.3	Air Traffic Services GEN 3.3-1
GEN 3.3.1	Responsible service..... GEN 3.3-1
GEN 3.3.2	Area of responsibility GEN 3.3-1
GEN 3.3.3	Type of Services..... GEN 3.3-1
GEN 3.3.4	Co-ordination between the operator and ATS..... GEN 3.3-1

		Page
GEN 3.3.5	Minimum flight altitude	GEN 3.3-1
GEN 3.3.6	ATS unit address list.....	GEN 3.3-1
GEN 3.4	Communication Services	GEN 3.4-1
GEN 3.4.1	Responsible Service	GEN 3.4-1
GEN 3.4.2	Area of responsibility	GEN 3.4-1
GEN 3.4.3	Type of Services.....	GEN 3.4-1
GEN 3.4.4	Requirements and conditions.....	GEN 3.4-2
GEN 3.5	Meteorological Services	GEN 3.5-1
GEN 3.5.1	Responsible Service.....	GEN 3.5-1
GEN 3.5.2	Area of responsibility	GEN 3.5-1
GEN 3.5.3	Meteorological observations and report.....	GEN 3.5-1
GEN 3.5.4	Type of Services.....	GEN 3.5-1
GEN 3.5.5	Notification required from operators.....	GEN 3.5-1
GEN 3.5.6	Aircraft reports.....	GEN 3.5-1
GEN 3.5.7	SEGMET service.....	GEN 3.5-2
GEN 3.6	Search and Rescue	GEN 3.6-1
GEN 4	CHARGES FOR AERODROME AND AIR NAVIGATION SERVICE	
GEN 4.1	Aerodrome Charges.....	GEN 4.1-1
GEN 4.1.1	Landing of Aircraft.....	GEN 4.1-1
GEN 4.1.2	Landing Charges	GEN 4.1-1
GEN 4.1.3	Parking charges.....	GEN 4.1-1
GEN 4.1.4	Hanger charge	GEN 4.1-1
GEN 4.1.5	Chartered Flight	GEN 4.1-1
GEN 4.1.6	Passenger service.....	GEN 4.1-1
GEN 4.1.7	Security.....	GEN 4.1-1
GEN 4.1.8	Aircraft, Passenger and Baggage handling services charges	GEN 4.1-2
GEN 4.1.9	Noise – related items	GEN 4.1-2
GEN 4.1.10	Other.....	GEN 4.1-2
GEN 4.1.11	Exemptions and reduction.....	GEN 4.1-2
GEN 4.1.12	Methods of payment.....	GEN 4.1-2
GEN 4.2	Air Navigation Services Charges.....	GEN 4.2-1
GEN 4.2.1	Air Navigation Services Charges.....	GEN 4.2-1
GEN 4.2.2	Approach Control.....	GEN 4.2-1
GEN 4.2.3	Route air navigation services charges.....	GEN 4.2-1
GEN 4.2.4	Cost basis for Air Navigation Services and exemption/reductions.....	GEN 4.2-1
GEN 4.2.5	Method of payment.....	GEN 4.2-1

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:

- | | |
|--|--|
| <p>1. Civil Aviation
Director General
Department of Civil Aviation
Ministry of Information & Communication
Paro: Bhutan
Tel: 975-8- 271910, 271347
Fax:975-8-271909
Email: aviation@druknet.bt</p> <p>2. Health
Secretary
Department of Health
Ministry of Health
Thimphu : Bhutan
Tel: 975 – 2-326626
Fax:975 – 2-34649</p> <p>3. Foreign Affairs
Director
Ministry of Foreign affair
Thimphu: Bhutan
Tel: 975-2-322781/322118
Fax:975–2-323240</p> <p>4. Customs
Director,
Department of Revenue & Customs
Ministry of Finance
Thimphu : Bhutan
Tel:975-2-323057
Fax:975-2-323608</p> <p>5. Immigration
Director
Department of Immigration
Ministry of Home & Cultural Affair
Thimphu: Bhutan
Tel:975-2-327045/ PABX: 323127
Fax: 975-321078</p> | <p>6. Agricultural quarantine
Executive Director,
Bhutan Food & Agriculture Regulatory Authority,
Ministry of Agriculture,
Royal Government of Bhutan
Post Box No. 1071,
Thimphu : Bhutan
Tel : 975-2-327031/325790
Fax : 975-2-327032/335540
Email:-bafra@druknet.bt</p> <p>7. Clearing Agent
Bhutan Air Services
Managing Director,
Bhutan Air Services
Head Office
Thimphu : Bhutan
Tel:- 975-2-324165/325686
Fax- 975-2-324928
Paro Branch Office
Tel:- 975-2-272063
Fax:- 975-2-272053
Email : bhutanair@yahoo.com</p> |
|--|--|

INTENTIONALLY LEFT BLANK

GEN 1. 2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT**1. General**

- 1.1 International flights into, from or over Bhutan territory shall be subject to the current Bhutan Air Navigation Regulations (BANRs) and **Bhutan Civil Aviation Requirements (BCARs)** relating to Civil Aviation. These regulations in all essentials correspond to the Standards and Recommended Practices contained in Annex 9 to the Convention on International Civil Aviation.
- 1.2 Aircraft flying into or departing from Bhutan territory shall make their first landing at, or final departure from Paro International aerodrome (see AIP BHUTAN, AD1.3 and AD2)

2. Scheduled flights**2.1 General**

- 2.1.1 For regular international scheduled flights operated by foreign airlines into or in transit across Bhutan, the following requirements must be met:
- a) The state of the airline must be party to the International Air Service Transit Agreement and/or the International Air Transport Agreement. Bhutan is a party to both Agreements;
 - b) The airline must be eligible to make the flights under the provision of bilateral or multilateral agreement to which the state of the airline and Bhutan are contracting parties and must have permit to operate into or in transit across Bhutan. **The Schedule of the flights must have a prior approval from the Director General of Civil Aviation(DGCA).**
 - c) **Application for obtaining approval for operating schedule flights shall be filed by the designated airline, at least 30 days prior to commencement of the scheduled flights, with the DGCA, Paro, Bhutan.**
 - d) **it is advisable for the pilot-in-command to carry with him DGCA Approval Reference Number and quote the same if required to do so by the ATC authorities**
 - e) **It will be the responsibility of the operator to ensure that the flight schedule approved by the DGCA is submitted to the respective Flight Information Centre and Aerodrome of intended landing, at least 72 hours before the commencement of the schedule.**
 - f) **The airline shall coordinate allocation of slots with the Airport Manager of respective airports.**

2.2 Documentary requirements for clearance of aircraft

- 2.2.1 It is necessary that the under mentioned aircraft documents be submitted by airline operators for clearance on entry and departure of their aircraft to and from Paro (Bhutan). All documents listed below must follow the ICAO standard format as set forth in relevant appendices to ICAO Annex 9 and are acceptable when furnished in English, and completed in legible handwriting.

2.2.2 Aircraft document required (Arrival/Departure)

Required by	General Declaration	Passenger Manifest	Cargo Manifest
Customs	1	1	1
Immigration	1	2	-
Airport Office	1	1	1
Plants & Quarantine	1	-	-

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 (unladen), no aircraft documents except copies of the General Declaration need to be submitted to the above authorities.*

3. Non-scheduled flights**3.1 Procedures**

- 3.1.1 If an operator intends to carry out a non-scheduled flight(s) or making non-traffic stops in the territory of Bhutan, it is necessary for the operator to obtain permission from the Director General, Department of Civil Aviation, Ministry of Information & Communications, Paro, Bhutan.
- 3.1.2 If an operator intends to perform a (series of) non-scheduled flight(s) into Bhutan for the purpose of taking on or discharging passengers, cargo or mail, it is necessary for the operator to apply to the Director General, Department of Civil Aviation, Ministry of Information & Communications, Paro, Bhutan, for permission to carry out such operations not less than 7(seven) days in advance of the intended landing. **The application form (annexure I) duly filled by the operator must be submitted to DGCA for Approval.**

- 3.1.3 *Since the Entry/Exit to Bhutan is via Indian Airspace, therefore, all aircraft prior operating into, from Bhutan should also hold a valid approval reference number (YA/N.....) issued by the Indian DGCA. The reference number shall be quoted in the field 18 of FPL filed with the Air Traffic Control Centre.*
- 3.1.4 *Flight Clearance shall be valid for a period of 48 hours. If flight gets delayed beyond 48 hours, fresh clearance from DGCA is required.*
- 3.2 **Documentary requirements for clearance of aircraft**
- 3.2.1 Same requirements as for SCHEDULED FLIGHTS

4. Private flights

- 4.1.1 If an operator intends to perform a (series of) private flight(s) into BHUTAN for the purpose of taking on or discharging passengers, cargo or mail, it is necessary for the operator to apply to the Director General, Department of Civil Aviation, Ministry of Information & Communications, Paro, Bhutan, for permission to carry out such operations not less than 7(seven) days in advance of the intended landing. ***The application form (annexure I) duly filled by the operator must be submitted to the concern authorised clearing agent for onward submission to DGCA for Approval. The application form must include the following information as shown under 3.1 to 3.2***
- 4.1.3 To obtain clearances on behalf of Chartered/Private flights and for additional logistics can be arranged by the Authorised Clearing Agent, see GEN 1.1-1 para 7 and AD2.1-6 VQPR AD2.22 in Flight Procedure.
- 4.2 ***Documentary requirements for clearance of aircraft***
- 4.2.1 Same requirements as for SCHEDULED FLIGHTS

5. Public health measures applied to aircraft.

- 5.1 “Disinsectization certificate” in respect of the aircraft from the place of origin would suffice, if the aircraft is coming from or transit through yellow fever infected areas shall be in possession of valid International certificates of vaccination against yellow fever.



འབྲུག་རྒྱལ་ཁབ་རྒྱུ་རྩིས་ལྷན་ཁག་གི་འཕེལ་འགྲུབ་ལས་ཁུངས་།
ROYAL GOVERNMENT OF BHUTAN
DEPARTMENT OF CIVIL AVIATION
BHUTAN



Application for the approval of non-scheduled flights

Annexure I

1	Purpose of Flight	VIP ☐ Tourist ☐ Cargo ☐ Ambulance ☐ Relief ☐ Private ☐ Chartered ☐ Other ☐
2	Whether technical landing or landing in Bhutan	Technical Landing ☐ Landing ☐
3	ATS Route(s) to be flown including entry & exit point	Route Entry:- Route Exit:-
4	Arrival and departure timing at the airport including Date of Flight.(UTC & dd/mm/yy)	ETA DOF ETD DOF
5	Airport of last departure before entering Bhutan airspace and airport of first landing after leaving Bhutan airspace.	Departure Aerodrome:- Destination Aerodrome:-
6	Destination Aerodrome after leaving Bhutan airspace & Alternate Aerodrome	Destination Aerodrome:- Alternate Aerodrome:-
7	Aircraft Details	
	i) Type of Aircraft	
	ii) State of registry/nationality	i) Registry: ii) Nationality:
	iii) Aircraft Registration	
	iv) Telephony designator (flight number /callsign)	
	v) Aircraft Maximum Takeoff weight (tones)	
	vi) Whether aircraft is capable of air dropping	YES ☐ NO ☐
	vii) Whether the maximum certified passenger seating capacity of the aircraft is more than 30 seats	YES ☐ NO ☐
	viii) Whether the maximum payload capacity is more than 3 ton	YES ☐ NO ☐
	ix) Whether the aircraft is fitted with ACAS-II/TCAS –II	YES ☐ NO ☐
8	Pilot-in-command	
	i) Name	
	ii) Nationality	
9	On-board details	
	i) Number of Crew	
	ii) Number of Passenger(s)	
	iii) General description of the goods, if any	
	iv) Any arms, ammunition, explosives, radioactive material, war equipment or dangerous goods? If so, attaché a copy of DGCA permit.	
	vii) Any special equipment like areal photography, remote sensing cameras, night vision cameras on board? If so, attach a copy of DGCA permit.	

10	Number of passengers or tonnage of cargo to be uplifted from and set-down in Bhutan	
Aircraft operator		
11	i) Name	
	ii) Nationality	
	iii) Address	
	iv) Aircraft operator certificate/Permit number, if any	
Charterer details		
12	i) Name	
	i) Address	
Travel/Cargo Agent in Bhutan		
13	i) Name	
	ii) Address	
Document required to enclosed with this application form		
14	i) Certificate of Airworthiness	YES ☐ NO ☐
	ii) Copy of Pilot Licence	YES ☐ NO ☐
	iii) Copy of Pilot Medical Certificate	YES ☐ NO ☐
	iv) Copy of Insurance Certificate	YES ☐ NO ☐
	v) Certificate/Proof of approved simulator session undertaken by the flight crew for the particular aerodrome. If so, attached a copy of certificate.	YES ☐ NO ☐

I hereby certified that the information given above is correct.

(Seal of Company)

(Signature)

Name:

Designation:

Company/Agency:

Mailing Address _____

Tele. No. :- _____

Email :- _____

GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

1. Customs requirements

- 1.1 Baggage or articles belonging to disembarking passengers and crew are immediately released except for those selected for inspection by the customs authorities. Such baggage will be cleared on the basis of a written declaration in the appropriate form.
- 1.2 All baggage must be declared upon arrival and departure.
- 1.3 Arrival
 - 1.3.1 All the disembarking passengers should have duly filled passengers' declaration form to be presented at the Customs Counter.
 - 1.3.2 Passengers with nothing to declare are permitted to pass through Green Channel whereas passengers clearing through Red Channel should declare their dutiable goods in passenger declaration form.
 - 1.3.3 Baggage inspections by Customs Officials are carried out randomly for both green and red Channel. Passengers should note that false declaration shall be liable for fines and penalties.
 - 1.3.4 Import of following goods are prohibited
 - a) Narcotics, Psychotropic drugs and substances
 - b) Pornographic Materials
 - c) Antiques
 - 1.3.5 Imports of following goods are strictly restricted
 - a) Arms, ammunitions, explosives and military stores
 - b) Drugs and pharmaceutical products
 - c) Used and second hand goods, machinery and equipments
 - d) Gold and silver in excess of free baggage allowance
 - e) Live animals and their products or by products
 - f) Plants and plant materials
 - g) Chemicals and fertilizers
 - 1.3.5.1 Imports of restricted items should be accompanied by import permit issued by the concern Authorities.
 - 1.3.6 Bhutanese passengers have the privilege of free allowance of personal effects up to the assessed value of US\$ 1000 or equivalent in Ngultrum subject to the ceiling prescribed below:
 - a) Spirits: 2 bottles, each bottle not large than 2 litres
 - b) Gold: 50 Grams
 - c) Silver: 1 Kilogram
 - d) Perfume: 1 bottle not larger than 2 ounces
 - e) Clothing items: maximum of 10 pieces each type of clothing whether stitched or unstitched.

-
- 1.3.7 A tourist shall be allowed to import free of Customs duty and tax, used articles of personal effects and alcoholic beverage of one bottle not larger than one litre.
- 1.3.8 Import of dutiable goods by tourists for personal use should be declared in the passenger declaration forms. It is reminded that on their departure these goods shall be verified and if any of the items declare in the form is found missing, it shall attract duty and taxes at the prevailing market rate in Bhutan.
- 1.3.9 Sale of Tobacco product in the country is banned however for personal consumption import of 200 pieces of Cigarettes, 3 tins of 50 grams each of pipe Tobacco products is permitted subject to payment of 100% duty.
- 1.3.10 No Indian Rupees shall be exported or imported to and from countries other than India and Nepal. Only Indian Currency of denomination of Rupees 100 and below shall be permitted to be exported or imported to and from India and Nepal.
- 1.4 Departure
- 1.4.1 Tourists on their departure from the country should submit their declaration forms to Customs Counter for Verification.
- a) Exports of following goods are strictly restricted
 - b) Narcotics, Psychotropic drugs and substances
 - c) Pornographic Materials
 - d) Antiques
- 1.4.2 Exports of following goods are strictly restricted
- a) Arms, ammunitions, explosives and military stores
 - b) Drugs and pharmaceutical products
 - c) Used and second hand goods, machinery and equipments
 - d) Gold and silver in excess of free baggage allowance
 - e) Live animals and their products or by products
 - f) Plants and plants materials
 - g) Chemicals and fertilizers
 - h) Telecommunication equipment.
- 1.4.3 Passengers carrying more than US\$ 10,000 or its equivalent should be declared to customs at the entry and exit point.
- 1.4.4 Any imported goods exported out of Bhutan for replacement or repairs shall attract customs duty and taxes on value addition and services charge, provided it was declared to the customs at the time of export.
- 1.5 Re-import of Goods
- Any imported goods exported out of Bhutan shall be allowed to be re-imported free from Customs duty and taxes provided that:-
- 1. At the time of export of such articles, a declaration was made to customs authorities in form as prescribed under export declaration form and the same is presented to the customs for clearance on re-importation.

2. The customs officer is satisfied that the same and have not undergone any alteration and repair.
3. Any alteration and repair of such article however shall be liable to customs duty and taxes on the cost of alteration and material used for repair.

2. Immigration requirements

2.1 Visa

- 2.1.1 All foreigners must hold valid passport and it should be valid for minimum period of six months beyond the date of intended departure from the Kingdom of Bhutan.
- 2.1.2 The Visa clearance alone does not guarantee the right to entry or stay in the Kingdom of Bhutan unless the entry/landing permission is granted by the immigration officer in form of entry/landing seal in the passport.
- 2.1.3 The information/details furnished in the visa clearance must match with the passport details. If any information is found to be with held or incorrect, the visa, if granted, is liable to be cancelled at any time.
- 2.1.4 The foreigner availed with Official Gratis visa, Official vsia, BG visa and FG visa will be endorsed visa and entry seal with validity up to 14 days from the entry point. Except for official gratis visa and tourist visa, foreigners availed with remaining category of visa are required to pay USD 20 at the immigration counter on arrival.

2.2 Extension of visa

- 2.2.1 Extension of visa may be granted only on the ground of illness as an exceptional case for a period not exceeding 14 days at a time.
- 2.2.2 Extension of Official gratis/official/BG/FG visa can be obtained on payment of Nu.510 if their duration of stay exceeds 14 days in their visa clearance, from Department of Immigration, Thimphu.

2.3 VISA Exemption

- 2.3.1 National of India, Bangladesh and Maldives are exempted from visa requirement for the entry in to the Kingdom of Bhutan.

Indian National holding Diplomatic or Official passport shall be endorsed with entry permit and entry seal in their passport. The validity of such permit will be up to 90 days only.

The ordinary passport will also be endorsed with the same but with validity depending on their duration of stay in Bhutan not exceeding 30 days.

Indian national who are not in possession of national passport shall carry either identity documents issued by the Indian embassy, state/Central government of India. Such document holders will be issued with entry permit in lieu of visa at the entry point depending on their duration of stay in Bhutan but not exceeding 30 days. Such permit should be surrender to immigration counter at the exit point. Extension of stay if required will have to be obtained from Department of Immigration, Thimphu.

As for Bangladesh and Maldivian, their passport will be endorsed with entry permit and entry seal with validity maximum up to 14 days from the entry point.

Thai national holding Diplomatic/Official Passport will be issued with entry permit in lieu of Visa for 90 days from the date of entry, provided they shall not take up any employment, be it self or otherwise, in Bhutan. Such period of stay shall, upon the request of Thai consulate office in Thimphu, be extended until the end of their assignment.

All foreign national entering Bhutan on visitors or tourist permit are prohibited for employment in Bhutan.

All foreign nationals working or residing in Bhutan holding Non Bhutanese Identity card, Residence permit etc shall not claim these documents (irrespective of its validity) for proof to enter Bhutan without valid Passport or Visa. Such Identification cards issued to foreigners should be surrendered to immigration counters during exit and reclaimed on the arrival.

2.4 All foreign national flight crew members are required the following:

- i. Valid passport issued by their respective countries;
- ii. Foreigners working as crew / pilot in Bhutan must possess a valid multiple visa and work permit issued by the Department of Immigration after an approval to this effect has been accorded by the Department of Labour, Ministry of Labour & Human Resources, Thimphu; and
- iii. Indian nationals working as crew/ pilot members are required to procure valid work permit subject as above.

2.5 National Flight crew member required the following

National carrier flight crew/ pilot members are required to sign in at the Disembarking airport and sign out at the embarking airport. They should carry valid passports and must be on demand produced, failing to which penalty as per the immigration rule will be imposed.

National carrier flight carrying passenger without valid passport and visa will be responsible for deportation of the same to the port of embarking with immediate effect and also bear the penalty for carrying such passenger as per the immigration rule.

All departing passengers are required to produce the valid passports and Documents to the immigration counters.

3. Public health requirements

- 3.1 Disembarking passengers are not required to present vaccination certificate except when coming directly from the area infected with cholera, Plague, yellow fever, Ebola or smallpox.
- 3.2 On departure, no health formalities are required.

GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

1. Customs requirements concerning cargo and other articles

1.1 *Import Licence*

- 1.1.1 All cargo arriving by air in Bhutan shall be cleared at the designated Customs House. The importer or his agent on receipt of the arrival notices from Airlines, shall submit the import declaration form along with the original import documents such as invoice, packing list, airway bill, certificate of origin and insurance certificate etc. including import licence and import duty exemption certificate, wherever applicable, to the designated Customs office.
- 1.1.2 Customs duty on import of goods shall be levied at the rates prescribed in the Customs Tariff Schedule
- 1.1.3 Except in case of baggage and goods exported by post, no export of any goods shall be permitted unless the exporter has presented an export form along with the commercial and transport documents and export licence, if any, to Customs in the prescribed form mentioning full particulars and value of goods to be exported.
- 1.1.4 No clearance documents are required with respect to goods retained on board an aircraft for on carriage to a destination outside Bhutan.

2. Agricultural quarantine requirements

- 2.1 Imports of plant and plant products; livestock products are subject to plant and livestock quarantine regulations respectively.
- 2.2 Import permits must be obtained from the Bhutan Agriculture & Food Regulatory Authority, Headquarters, Ministry of Agriculture, Royal Government of Bhutan, prior to importing any livestock products, Agro-based product, plant and plant products including seeds. Upon arrival at the entry points, they must be declared to the Quarantine Inspector.

INTENTIONALLY LEFT BLANK

GEN 1.5 AIRCRAFT INSTRUMENTS, EQUIPMENT, AND FLIGHT DOCUMENTS

1. General

- 1.1 Commercial air transport aircraft operating in Bhutan must adhere to the provision 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).
- 1.2 The Joint Aviation Requirements developed by Joint Aviation Authorities of a number of European states has been adopted as a basis for Aviation Regulation in Bhutan and the same are incorporated in Bhutan Air Navigation Regulations **2010** for compliance.

2. Special equipment and documents to be carried

- 2.1 An aircraft shall not fly in Bhutan, unless it is equipped with instruments and equipment required for it to comply with the regulations of the state in which it is registered.
- 2.2 All aircraft registered in Bhutan shall have fitted the instruments and equipment as described in **BCAR-OPS** 1. Subpart K and appendices briefly described below (Ref. BANRs Sec. 2 Chapter 10, Para.2.10.1)
- (a) Flight and Navigation instruments and associated instruments.
 - (b) Additional equipment for single pilot operation under IFR or night
 - (c) Crew member inter phone system
 - (d) Cockpit voice recorders
 - (e) Flight data recorders
 - (f) First Aid kits
 - (g) Emergency Medical kit
 - (h) First Aid oxygen
 - (i) Supplemental oxygen – pressurised aeroplanes
 - (j) Hand fire extinguishers
 - (k) Megaphones
 - (l) Automatic emergency locator transmitter
 - (m) Life jackets
 - (n) Life rafts and ELT for extended over water flights
 - (o) Survival equipment
- 2.3 All aircraft registered in Bhutan shall have Communication and Navigation equipment as described in **BCAR-OPS** subpart L and Appendices briefly described below:-
- (a) Combination of instruments and integrated flight systems.
 - (b) Additional Navigation equipment for operations in MNPS airspace
- 2.4 Flight documents to be carried:
- (a) Certificate of Registration
 - (b) Certificate of Airworthiness
 - (c) Noise certificate (if applicable) if the aircraft is certified in accordance with the noise certificate requirements established by the Director, Department of Civil Aviation.

- Appropriate licences for each member of the crew.
 - Each flight crewmember shall on each flight, carry a valid flight crew licence with appropriate rating for the purpose of the flight.
 - Current parts of the Operations Manual relevant to the duties of the crew.
 - Flight Manual or other document or information concerning any operating limitations.
 - Maps and Charts for the route of the proposed flight and all routes along which it is reasonable to expect that the flight may be diverted.
- (d) Aircraft radio licence.
- (e) Third party liability Insurance certificate(s)
- (f) Aircraft Technical log
- 2.5 In addition the following information and forms to be carried
- 2.5.1 Appropriate NOTAM/AIS briefing
- (a) Appropriate Meteorological information
 - (b) Mass and balance documents
 - (c) Notification of special loads, including dangerous goods and written information to the commander.
 - (d) Notification of special categories of passengers, such as security personnel if not considered as crew, handicapped person, inadmissible passengers and persons in custody
 - (e) Cargo and passenger manifest
 - (f) Forms to comply with the reporting requirements
 - (g) Details of operational flight and ATS flight plan.
- 2.6 Provided that, if a flight is intended to begin and end at the same aerodrome does not include passage over the territory of any country other than Bhutan, the documents may be kept at the aerodrome instead of being carried in the aircraft.

GEN 1.6 SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS/CONVENTIONS.

1. Following is a list of Civil Aviation legislation in force in Bhutan. It is essential that any one engaged in air operations be acquainted with the relevant regulations. Copies of these documents may be obtained from the Department of Civil Aviation, Paro, Bhutan. (The address can be found on a page GEN 1.1)
- 1.1 **Bhutan Civil Aviation Act 2000**
- 1.1.1 ***Bhutan Air Navigation Regulations (BANRs) 2010.***
- 1.1.2 ***Bhutan Civil Aviation Requirements (BCARs) 2010***
- 1.2 **Regulations and Decrees pursuant to Bhutan Air Navigation Regulations 2010 as amended**
- 1.2.1 The Joint Aviation Requirements developed by the Joint Aviation Authorities of a number of European States has been adopted as a basis for Air Navigation Regulations in Bhutan and are incorporated both BANRs 2010 for compliance.
These regulations shall apply to Aircraft fixed wing, helicopter, personnel engaged in commercial aerial work, and general aviation aircraft registered in Bhutan and engaged in flight operations elsewhere. For the purpose of these regulations, an aircraft registered in another state and operated by the holder of an Air operator certificate issued in Bhutan shall be deemed to be registered in Bhutan and regulations relating to maintenance of airworthiness of aircraft and regulation relating to airworthiness licensing and qualifications shall be as applicable in the state of Registry of the aircraft provided there exists a current agreement between Bhutan and the State of Registry of the aircraft.
- 1.2.2 Regulation relating to aircraft Registration and Marking (BANRs Sec.1. chapter 4)
- 1.2.3 No person, other than a patient under qualified medical supervision, shall enter an aircraft while under the influence of intoxicating liquor or drug nor shall any person consume intoxicating liquor or administer drugs during flight so as to become intoxicated (BANRs Sec .2 Chapter 1 sub. 2.1.2)
- 1.2.4 Narcotic Drugs mood changing or hallucinogenic drops, depressant or stimulant drugs shall not be carried in an aircraft except as a medicament prescribed for the individual use of a passenger by a qualified medical practitioner or as part of the approved emergency medical kit or as part of air cargo authorised by Director General, Department of Civil Aviation for medical purposes. Drugs classed as dangerous goods shall satisfy the requirement of Sec.5 of these regulations (BANRs Sec.2. Chapter 1 sub.2.1.3)
- 1.2.5 No person shall smoke when on board an aircraft registered in Bhutan (BANRs Sec 2 Chapter 1 sub 2.1.5)
- 1.2.6 Animals shall not be carried in cabin of any aircraft registered in Bhutan (BANRs Sec 2 chapter 1 sub 2.1.6)
- 1.2.7 An aircraft shall not fly in Bhutan unless it is equipped with the instruments and equipment required for it to comply with the regulations of the state in which it is registered. (BANRs Sec 2. Chapter 1 sub 2.1.7)
- 1.2.8 An aircraft registered in a state other than Bhutan shall not carry out aerial work in Bhutan except with the permission of the Director General, Department of Civil Aviation and in compliance with any conditions imposed (BANRs Sec 1 chapter 1 sub 2.1.8)
- 1.2.9 Regulations for operator certification and Supervision (BANRs Sec 2 Chapter 2)
- 1.2.10 Regulation for operational procedures for commercial flight operations (BANRs Sec 2 chapter 3)
- 1.2.11 Regulation pertaining to all weather operations for commercial flights (BANRs Sec 2 chapter 4)
- 1.2.12 Regulation on aeroplane performance, which shall be operated in compliance with the terms of its certificate of airworthiness, within the operating limitations contained in its flight manual (BANRs Sec 2. Chap 5 sub 2,5,1.1)
- 1.2.13 Single engine aeroplanes shall be operated in accordance with the relevant provisions of BCAR-OPS-1 Subpart H, except that the Director General of Department of Civil Aviation may exempt specific approved aircraft (BANRs Sec .2. Chapter 5. Sub 2.5.2.1)
- 1.2.14 Regulation regarding requirement of aircraft instruments and equipment (BANRs Sec 2 Chapter 10, sub 2.10.1)
- 1.2.15 Regulation regarding requirement of Communications and Navigation equipment (BANRs Sec 2. Chapter 11.1 Sub 2.11.1)
- 1.2.16 Regulation regarding maintenance of Airworthiness (BANRs Sec 2. Chapter 12)

- 1.2.17 Regulation regarding Flight Crew and Flight Operation Officers (**BANRs** Sec 2. Chapter 13. Sub 2.13.1,2,13.2)
- 1.2.18 Regulation regarding cabin crew (**BANRs** Sec 2. Chapter 14. Sub.1.)
- 1.2.19 Regulation regarding Manuals, logs and records (**BANRs** Sec 2. Chapter 15)
- 1.2.20 Regulation regarding Flight and Duty time limitations (**BANRs** Sec 2. Chapter 16)
- 1.2.21 Regulations applicable to Helicopters and general aviation, aircraft are given (**BANRs** Sec 3. And section 4 respectively)
- 1.2.22 Transport of Dangerous goods by air – Responsibilities of a shipper-an operator, loading restrictions provision of information (**BANRs** section 5. Chap 1 to 6)
- 1.2.23 Regulation on security in aircraft and Helicopters – No person on board an aircraft shall carry or have in exchange any weapon which is not ammunition of war may be carried as passengers baggage, provided, it is declared to the operator's staff and is stowed so as to be inaccessible to passengers during flight and, if it is a firearms, is unloaded (**BANRs** Sec 6. Chap 1,2)
- 1.2.24 Regulations regarding documents to be carried in aircraft (**BANRs** Sec 9. Chapter 1) An aircraft shall not fly in Bhutan unless it carries the documents, which it is required to carry under the law of the country in which it is registered.
- 1.2.25 Regulations regarding Control of Aerodromes, Display of dangerous lights and Aviation Fuel installations (**BANRs** Sec 14. para. 14.1.1,14.1.2 & 14.1.3)
- 1.2.26 Regulation regarding Investigation of accident, Notification of accident etc. (**BANRs** Sec 11. Para 11.1.3,11.1.4)
- 1.2.27 Regulation regarding Policies relating to flight crew licensing, Foreign licence holders Ab-initio-flying training and upgrade training (**BANRs** Sec 12. Sub. 12.1.1,12.1.2,12.1.3 and 12.1.4)
- 1.2.28 Regulations regarding Maintenance Engineers licences. (**BANRs** Sec 12. Chapter 5)
- 1.2.29 Charges relating to Aviation Personal Licence. (**BANRs** Sec 12. Chapter 4)
- 1.2.30 Balloons flight operations are not registered in Bhutan, at present, but however allow, the temporary use of foreign balloons for private flying only under certain conditions, by the Director General, Department of Civil Aviation, More details could be seen from BANRS sec .4. Chapter 9.
- 1.2.31 Glider flight operations sail plane, powered sail planes are not registered in Bhutan. However the Director General, Department of Civil Aviation may allow, the temporary use of foreign Sail planes or powered planes for private flying only under certain conditions, More details could be seen from BANRS sec .4. Chapter 10.
- 1.2.32 Hang Glider and Para gliders categorised as special category aircraft do not have to be registered in Bhutan. Director General, Department of Civil Aviation under certain conditions may allow pilots holding valid licence from the state of their origin, details could be seen from BANRS sec .4. Chapter 11.
- 1.3 **Air Traffic Regulations**
Standard and Recommended Practices Contained in the following documents are followed:
Annex - 2
Annex - 11
Annex - 14
Doc. - 4444
Doc. - 7030

1.4 *International agreements/conventions*

Convention on International Civil Aviation (The Chicago Convention)

Convention for the Unification of Certain Rules Relating to International Carriage by Air (The Warsaw Convention)

International Air Service Transit Agreement.

Convention on Offences and Certain Other Acts Committed on Board Aircraft (The Tokyo Convention)

Convention for the Suppression of Unlawful Seizure of Aircraft (The Hague Convention)

International Agreement on the Procedure for the Establishment of Tariffs for the Scheduled Air Services.

Convention for the suppression of unlawful acts against the Safety of Civil Aviation (the Montreal Convention)

Multilateral Agreement relating to Certificate of Airworthiness for Imported aircraft.

INTENTIONALLY LEFT BLANK

GEN 1.7 DIFFERENCES FROM ICAO STANDARDS RECOMMENDED PRACTICES AND PROCEDURES

NO DIFFERENCES EXIST FROM ICAO STANDARDS RECOMMENDED PRACTICES AND PROCEDURES CONTAINED IN THE UNDERMENTIONED DOCUMENTS. EXECPT WHERE SPECIALLY MENTIONED.

- | | | |
|--------------|---|------------|
| 1. ANNEX 1 - | PERSONNEL LICENCING 8th Edition: | Nil |
| 2. ANNEX 2 - | RULES OF THE AIR 9th Edition | |
| | Right Hand Traffic rule | |
| | An aircraft which is flying in sight of the ground and is following a line feature shall keep such line feature on its left (BANR Section 8 Chap. 2. para. 8.2.2.8) | |
| 3.2.3.1 | By day or night an aircraft fitted with an anti –collision light shall display such light from immediately before engine start to immediately after engine shut down. (BANR Section 8 Chap.2 para. 8.2.3.1) | |
| 3.1.8 | Gliders and free balloons are not permitted to fly in Bhutan between Sunset and thirty minutes before Sunrise (BANR Section 8 Chap. 2 para. 8.2.3.7) | |
| 3.2.4 | An aircraft shall not be flown in simulated instrument conditions unless no passengers are carried (BANR Section 8 Chap.2 para. 8.2.4.1 (a) | |
| 3.2.4 | Within Bhutan an aircraft shall not carry out instrument approach practice when flying in Visual Meteorological Conditions (VMC) unless | |
| | a) the appropriate Air Traffic Control Unit has previously been informed that the flight is to be made for the purpose of instrument approach practice, and | |
| | b) if the flight is being carried out in simulated instrument conditions, a safety pilot and if required, a competent observer is carried (BANR Section 8 Chap. 2 para. 8.2.5) | |
| 4.3 | <i>VFR flights are not permitted between Sunset and Sunrise (BANR Section 8 Chap. 2 para. 8.3.3)</i> | |
| 4.4 | <i>VFR flights shall not be operated above Fl 290 (BANR Section 8 Chap. 2 para. 8.3.4)</i> | |
| 4.8 | <i>VFR flights shall comply with provisions of Annex 2 Chapter 3, Para. 6</i> | |
| | <i>a) When operated within classes E and G VFR air space</i> | |
| 3. ANNEX 3 - | METEOROLOGY 16th Edition | Nil |
| 4. ANNEX 4 - | AERONAUTICAL CHARTS 10th edition | Nil |
| 5. ANNEX 5 - | UNIT OF MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS 4th Edition | Nil |
| 6. ANNEX 6 - | OPERATION OF AIRCRAFT 4th edition | Nil |
| Part I | International Commercial Air Transport - Aeroplanes 4th Edition | Nil |
| Part II | International General Aviation - Aeroplane 3rd Edition | Nil |
| Part III | International Operations - Helicopter 1st Edition | Nil |

-
7. ANNEX 7 - AIRCRAFT NATIONALITY AND REGISTRATION MARKS 4th Edition
Nil
8. ANNEX 8 - AIRWORTHINESS OF AIRCRAFT 8th edition
Nil
9. ANNEX 9 - FACILITATION 9th edition
- 2.4 General Declaration is required
 - 2.5 Name of Flight crew members are required and to be provided on General Declaration on entry and departure of aircraft
 - 2.6 Five copies of Embarking Passenger manifest are required
 - 2.12 Crew lists are required
 - 2.18 Documents for entry and departure of aircraft should be in English
- 10 ANNEX 10- AERONAUTICAL TELECOMMUNICATIONS 4th edition
- Volume I Part I - Equipment and System Nil
 - Part II - Radio Frequencies Nil
 - Volume II Communication Procedures Nil
- 11 ANNEX 11 - AIR TRAFFIC SERVICES, 10th edition
Nil
- 12 ANNEX 12 - SEARCH AND RESCUE 6th edition
TO BE DEVELOPED
- 13 ANNEX 13 - AIRCRAFT ACCIDENT INVESTIGATION, 8th edition
Nil
- 14 ANNEX 14 - AERODROMES. 2th edition
Nil
- 15 ANNEX 15 - AERONAUTICAL INFORMATION SERVICE 9th edition
NIL
- 16 ANNEX 16 - ENVIRONMENT PROTECTION 2nd edition
- Volume I Aircraft noise Nil
 - Volume II Aircraft Engine Emissions Nil
- 17 ANNEX 17 - SECURITY-SAFEGUARDING INTERNATIONAL CIVIL AVIATION AGAINST ACT OF UNLAWFUL INTERFERENCE 4th edition Nil
- 18 ANNEX 18 - THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR, 2nd edition
Nil
- Doc. 7030 Regional supplementary procedures
Nil
- Doc. 4444 Procedures for air navigation services- rules of the air and air traffic service
Nil
- Doc. 8400 ABC - ICAO Abbreviation and codes
Nil
- Doc. 8168 OPS- Aircraft Operation
Nil

GEN 2. TABLES AND CODES**GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS.****1. Unit of measurement**

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

<i>For measurement of</i>	<i>Unit used</i>
Distance used in navigation, position reporting, etc.- generally in excess of 2 nautical miles.	Nautical Miles and tenths
Relatively short distance such as those relating to aerodromes (e.g. runway lengths)	Metres
Altitudes, elevations and heights	Feet
Horizontal speed including wind speed	Knots
Vertical Speed	Feet per minute
Wind direction for landing and taking takeoff	Degrees Magnetic
Wind direction except for landing and takeoff	Degrees True
Visibility including runway visual range	Kilometres or metres
Altimeter setting	Hactopascal
Temperature	Degrees Celsius
Weight	Metric tonnes /Kilograms/lbs
Time	Hours and minutes, beginning at midnight UTC

2. Temporal reference System***General***

Co-ordinated Universal Time (UTC) and Gregorian calendar are used by air navigation services and in publications issued by the Aeronautical Information Service. Reporting of time is expressed to the nearest minutes, e.g. 10:25:35 is reported as 1026.

The Local time in Bhutan is UTC plus 6 hours.

3. Horizontal reference system**3.1 *Name/designation of system***

All published geographical co-ordinates indicating latitude and longitude are expressed in World Geodetic System – 1984 (WGS-84) geodetic reference datum.

3.2 *Area of application*

The area of application for the published geographical co-ordinates coincides with the area of responsibility of the Aeronautical Information Service. i.e. the entire territory of Bhutan airspace .

4. Vertical Reference system

4.1 ***Name/designation of system***

The Vertical Reference system corresponds to mean sea level (MSL).

4.2 ***Geoid model***

The geoid model used is the Earth Gravitational Model-1996 (EGM-96).

5. Aircraft nationality and registration marks

The nationality mark for aircraft registered in Bhutan is the letter A5. The nationality mark is followed by a hyphen and a registration mark consisting of 3 letters, e.g. A5- RGD

6. Public Holidays

<i>Name/ Occasion</i>	<i>Date/Month</i>
1. Birth Anniversary of 5 th King of Bhutan.	21 st – 23 rd Feb
2. Birth Anniversary of 3 rd King of Bhutan	2 nd May
3. Coronation day of 5 th King of Bhutan	1 st November
4. Birth Anniversary of 4 th King of Bhutan	11 November
5. National Day of Bhutan	17 December
7. *Lord Buddha's Parinirvana	-
8. *Bhutanese Year (Losar)	-
9. *Birth Anniversary of Guru Rimpoche	-
10. *The 1st Sermon of Lord Buddha	-
11. *Death Anniversary of Zhabdrung (Zhabdrung Kunchoe)	-
12. *Blessed Rainy Day	-
13. *Winter Solstice (Nyinlog)	-
14. *Traditional Day of Offerings	-
15. *Descending Day of Lord Buddha for Heaven	-
16. *Dasain	-
17. * Local Annual Festivals (Tshechu)	-

**Note:- The actual Date/Month are not fixed but observed as per the Bhutanese calendar. it is announced at the beginning of the each year*

GEN 2.2 ABBREVIATIONS USED IN AIS PUBLICATIONS

Abbreviations marked by an asterisk () are different form or not contained in ICAO Doc 8400*

A	A	B	
A/A	Air-to-Air	B	Blue
AAL	Above Aerodrome Level	BA	Braking Area
ABM	Abeam	BASE	Cloude Base
ABN	Aerodrome Beacon	BANRs*	Bhutan Air Navigation Regulations
ACC	Area Control Centre	BCFG	Fog patches
ACFT	Aircraft	BCN	Beacon
ACL	Altimeter check location	BCST	Broadcast
ACN	Aircraft Classification Number	BDRY	Boundary
ACT	Active(Activated, Activity)	BECMG	Becoming
AD	Aerodrome	BL...	Blowing
ADF	Automatic Direction Finding	BLDG	Building
ADIZ	Air Defence Identification Zone	BLW	Below
ADM*	Administration	BOMB	Bombing
AFIS	Aerodrome Flight Information Service	BRF	Short
AFTN	Aeronautical Fixed Telecommunication Network	BRG	Bearing
		BRKG	Braking
A/G	Air - to Ground	BS	Commercial Boardcasting Station
AGA	Aerodrome, en-route and Ground Aids	BTL	Between Layer
AGL	Above Ground Level	BTN	Between
AIC	Aeronautical Information Circular		
AIP	Aeronautical Information Publication	C	C
AIRAC	Aeronautical Information Regulation Control	C	Centre
		C	Degrees Celsius
AIS	Aeronautical Information Service	CAR*	Civil Airworthiness Requirement
ALS	Approach Lighting system	CAT	Category
ALT	Altitude	CAT	Clear Air Turbulence
ALTN	Alternate	CAVOK	Visibility, Cloud and present weather better then prescribed values or conditions
AMD*	Amendment		
ANC*	Aeronautical Charts	CB	Cumulonimbus
AOC	Aerodrome Obstacle Chart	CC	Cirrocumulus
APCH	Approach	CD	Candela
APP	Approach Control	CDN	Co-ordination
APR	April	CF	Change Frequency to...
APRX	Approximately	CGL	Circling guidance light
APU	Auxiliary Power unit	CH	Channel
APV	Approve	CHG	Change
ARO	Air Traffic Service Reporting Office	CI	Cirrus
ARP	Aerodrome reference point	CIT	Near or over large town
ARR	Arrival	CIV	Civil
ASDA	Accelerate-stop distance available	CK	Check
ASPH	Asphalt	CL	Clear line
ATA	Actual Time of Arrival	CLA	Clear type of ice formation
ATC	Air Traffic Control	CLBR	Celebration
ATD	Actual Time of Departure	CLD	Cloud
ATIS	Automatic Terminal Information Service	CLR	Clear(s) or Cleared to or clearance
ATS	Air Traffic Service	CLSD	Closed
ATTN	Attention	CM	Centimetre
ATZ	Aerodrome Traffic Zone	CMB	Climb to or climbing to
AUG	August	CMPL	Completion or Completed
AUW	All up Weight	CNL	Cancel
AVASIS	Abbreviated VASIS	CNL	Flight Plan Cancellation
AVBL	Available	CNS	Communications, Navigation and Surveillance
AVGAS	Aviation gasoline		
AWTA	Advise at what time avble		
AWY	Airways		
AZM	Azimuth		

COM	Communication	DU	Dust
CONC	Concrete	DUC	Dense upper cloud
COND	Condition	DUR	Duration
CONS	Continuos	DVOR	Doppler VOR
CONST	Construction or Constructed	DW	Dual wheel
CONT	Continue or Continued	DZ	Drizzle
COOR	Co-ordination or Co-ordinate		
COP	Change over point		
COR	Correct or Correction	E	E
COT	At the coast	E	East or eastern longitude
COV	Cover or Covered or Covering	EA*	En-route
CPL	Current flight plan	EAT	Estimate Approach Time
CRZ	Cruise	EB	Eastbound
CS	Cirrostratus	EET	Estimate Elapsed Time
CS*	Callsign	EFC	Expected Further Clearance
CTA	Control Area	EHF	Extremely High Frequency
CTAM	Climb to and Maintain	ELBA	Emergency Location beacon
CTC	Contact	ELEV	Elevation
CTL	Control	ELR	Extra long range
CTN	Caution	ELT	Emergency locator transmitter
CTR	Control Zone	EM	Emission
CU	Cumulus	EMBD	Embedded
CUF	Cumuliform	EMERG	Emergency
CUST	Customs	EN*	English
CW	Continuous wave	END	Stop-end
CWY	Clearway	ENE	East north east
		ENG	Engine
		ENRT	En-route
D	D	EOBT	Estimate off block time
D....	Danger Area	EQPT	Equipment
D	Downward	ER	Here...or herewith
DA	Decision Altitude	ESE	East south east
DCD	Double channel Duplex	EST	Estimate or Estimated
DCKG	Docking	ETA	Estimated Time of Arrival
DCS	Double channel simplex	ETD	Estimated Time of Departure
DCT	Direct	ETO	Estimated time over specific point
DEC	December	EV	Every
DEG	Degrees	EXC	Except
DEP	Departure	EXER	Exercise
DES	Descend to	EXP	Expected
DEST	Destination	EXTD	Extended
DEV	Deviation		
DFTI	Distance from touchdown indicator		
DH	Decision height		
DIF	Diffuse	F	F
DIST	Distance	F	Fixed
DIV	Divert or Diverting	FAA	Federal Aviation Administration
DME	Distance Measuring Equipment	FAC	Facilities
DNG	Danger	FAF	Final Approach Fix
DOM	Domestic	FAL	Facilitation of international Transport
DP	Dew point temperature	FAP	Final Approach Point
DOC	Document	FATO	Final approach take-off area
DR	Dead reckoning	FAX	Facsimile transmission
DR...	Low drifting	FBL	Light <i>(to indicate the intensity of weather)</i>
DSB	Double sideband	FC	Funnel cloud
DST	Day light saving time	FCP	Final Control Point
DTG	Date-time group	FCST	Forecast
DTRT	Deteriorate or Deteriorating	FCT	Friction coefficient
DTW	Dual tandem wheel		

FEB	February	GRIB	Processed meteorological data in the form of grid point values expressed in binary form
FEW	Few		
FG	Fog		
FIC	Flight Information Centre	GRVL	Gravel
FIR	Flight Information Region	GS	Small hail/or snow pellet
FIS	Flight Information Service		
FISA	Automated flight information service		
FL	Flight Level (Altitude)		
FLD	Field	H	H
FLG	Flashing	H24	Continuous day and night service
FLR	Flares	HAPI	Helicopter approach path indicator
FLT	Flight	HBN	Hazard beacon
FLTCK	Flight check	HDF	High frequency direction-finding station
FLUCK	Fluctuating or Fluctuation	HDG	Heading
FLW	Follow or Following	HEL	Helicopter
FM	From	HF	High frequency(3000 to 30 000kHz)
FM..	From(followed by time weather change)	HGT	Height or height above
FMS	Flight Management System	HJ	Sunrise to Sunset
FMU	Flow Management Unit	HLDG	Holding
FNA	Final Approach	HN	Sunset to Sunrise
FPL	Field Flight plan	HO	Service available to meet operational requirement
FPM	Feet per minute		
FPR	Flight plan route	HOL	Holiday
FR	Fuel remaining	HOSP	Hospital
FREQ	Frequency	HPA	Hectopascal
FRI	Friday	HR	Hours
FRNG	Firing	HS	Service available during hours of scheduled operation
FRONT	Front(relating to weather)		
FRQ	Frequent	HURCN	Hurricane
FSL	Full Stop Landing	HVDF	High and very high frequency direction finding station
FSS	Flight Service Station		
FST	First	HVY	Heavy
FT	Feet	HVY	Heavy(<i>use to indicate the intensity of weather phenomena</i>)
FU	Smoke		
FZ	Freezing	HX	No specific working hours
FZDZ	Freezing Drizzle	HYR	Higher
FZFG	Freezing Fog	HZ	Haze
FZFG	Freezing Rain	HZ	Hertz
G	G	I	I
G	Green	IAC	Instrument approach fix
G/A	Ground to air	IAF	Initial approach fix
G/A/G	Ground -to- air and air- to- ground	IAO	In and out of clouds
GAMET	Area forecast for low -level flight	IAR	Intersection of air route
GCA	Ground controlled approach system	IAS	Indicated air speed
GEN	General	IBN	Identification beacon
GEO	Geographic or True	IC	Ice crystals (<i>very small ice crystal in suspension , also known as diamond dust</i>)
GES	Ground earth station		
GLD	Glider	ICE	Ice
GND	Ground	ID	Identifier or identify
GNDCK	Ground check	IF	Intermediate approach fix
GMT	Greenwich Mean Time	IFF	Identification friend/foe
GNSS	Global Navigation Satellite System	IFR	Instrument Flight rules
GP	Glide Path	IGA	International general aviation
GR	Hail	ILS	Instrument Landing System
GRASS	Grass		

IMC	Instrument meteorological conditions	LDA	Landing distance available
IM	Inner Marker	LDAH	Landing distance available, helicopter
IMC	Instrument Meteorological Conditions	LDG	Landing
IMG	Immigration	LDI	Landing direction indicator
IMPR	Improve or Improving	LEN	Length
IMT	Immediate or Immediately	LF	Low frequency
INA	Initial Approach	LGT	Light or Lighting
INBD	Inbound	LGTD	Lighted
INC	In cloud	LIH	Light intensity high
INCERFA	Uncertainty phase	LIL	Light Intensity low
INFO	Information	LIM	Light intensity medium
INOP	Inoperative	LLZ	Localizer
INP	If not possible	LM	Locator, middle
INPR	In progress	LMT	Local mean time
INS	Inertial Navigation System	LNG	Long (used to indicate the type of approach desired or required)
INSTL	Install or Installed or Installation	LO	Locator, outer
INSTR	Instrument	LOC	Local or Locally or location or located
INT	Intersection	LONG	Longitude
INTL	International	LORAN	LORAN (long range air navigation system)
INTRG	Interrogator	LRG	Long range
INTRP	Interrupt or Interruption	LTD	Limited
INTSF	Intensify or Intensifying	LTT	Landline teletypewriter
INTST	Intensity	LV	Light and variable(relating to wind)
IR	Ice on runway	LVE	Leave or Leaving
ISA	International standard atmosphere	LVL	Level
ISB	Independent sideband	LYR	Layer or layered
ISOL	Isolated		
		M	M
J	J	M	Mach number (<i>followed by figures</i>)
JAN	January	M	Metres(preceded by figure)
JTST	Jet Stream	MAA	Maximum authorised altitude
JUL	July	MAG	Magnetic
JUN	June	MAINT	Maintenance
		MAP	Aeronautical maps and charts
		MAPT	Miss approach point
		MAR	At sea
		MAR	March
K	K	MAS	Manual A1 simplex
KG	Kilograms	MAX	Maximum
KHZ	Kilohertz	MAY	May
KM	Kilometres	MBST	Microburst
KMH	Kilometres per hour	MCA	Minimum crossing altitude
KPA	Kilopascal	MCW	Modulated continuous waves
KT	Knots	MDA	Minimum descent altitude
KW	Kilowatts	MDF	Medium descent altitude
		MDH	Medium frequency direction-finding station
		MEA	Minimum en-route altitude
L	L	MEHT	Minimum eye height over threshold
L	Left	MET	Meteorological or Meteorology
L	Locator	METAR	Aviation routine weather report
LAM	Logical acknowledge (<i>message type designator</i>)	MF	Medium frequency
LAN	Inland	MHDF	Medium and high frequency direction finding station
LAT	Latitude	MHVDF	Medium, high and very high frequency direction finding station
		MHZ	Megahertz

MID	Mid-point	NML	Normal
MIFG	Shallow fog	NNE	North north east
MIL	Military	NNW	North north west
MIN	Minutes	NOF	International NOTAM office
MKR	Marker radio beacon	NOSIG	No significant change
MLS	Microwave landing system	NOTAM	A Notice containing information concerning to establishment, condition or change in any aeronautical facility, service procedure, or hazard, the timely knowledge of which is essential to personnel concerned with flight operation.
MM	Middle marker		
MNM	Minimum		
MNPS	Minimum navigation performance specification		
MNT	Monitor or Monitoring		
MNTN	Maintain	NOV	November
MOA	Military operation area	NR	Number
MOC	Minimum obstacle clearance	NRH	No reply heard
MOD	Moderate	NS	Nimbostratus
MON	Above mountain	NSC	Nil significant weather
MON	Monday	NSW	North south west
MOTNE	Meteorological Operation Telcom.	NW	North west
	Network Europe	NWB	North west bound
MOV	Movement or Move or moving	NXT	Next
MPS	Metres per second		
MRA	Minimum reception altitude		
MRG	Medium range	O	O
MRP	ATS/MET reporting point	OAC	Oceanic area control centre
MS	Minus	OAS	Obstacle assessment surface
MSA	Minimum sector altitude	OBS	Observe or Observed or Observation
MSG	Message	OBSC	Obscure or obscured or Obscuring
MSL	Mean sea level	OBST	Obstacle
MT	Mountain	OCA	Obstacle clearance altitude
MTU	Metric unit	OCA	Oceanic control area
MVDF	Medium and very high frequency direction finding station	OCC	Occulting
		OCH	Obstacle clearance height
MWO	Meteorological watch office	OCNL	Occasional
MX	Mixed type of ice formation	OCS	Obstacle clearance surface
		OCT	October
		OHD	Overhead
		OM	Outer marker
		OPA	Opaque, white type of ice formation
N	N	OPC	The control indicated is operational control
N	North or northern latitude	OPMET	Operational Meteorological
N	No distance tendency	OPN	Open or opening
NAT	North Atlantic	OPR	Operative or operating or operational
NAV	Navigation	OPS	Operations
NB	Northbound	O/R	On request
NBFR	Not before	ORD	Indication of an order
NC	No change	OSV	Ocean station vessel
NDB	Non directional radio beacon	OTLK	Outlook
NE	North-east	OTP	On top
NEB	North-eastbound	OTS	Organised track system
NEG	No or negative or permission not granted or that's not correct	OUBD	Out bound
		OVC	Over cast
NGT	Night		
NIL	Non or I have nothing to send to you		
NM	Nautical miles		

P	P	R	R
P...	Prohibited	R	Red
PALS	Precision approach lighting system	R...	Restricted area
PANS	Procedures for air navigation system	R	Right (<i>Runway identification</i>)
PAPI	Precision approach path indicator	RA	Rain
PAR	Precision approach radar	RAC	Rules of the air and air traffic service
PARL	Parallel	RAFC	Regional air forecast centre
PAX	Passenger(s)	RAG	Ragged
PCD	proceed or proceeding	RAG	Runway arresting gear
PCN	Pavement classification number	RAI	Runway alignment indicator
PDG	Procedure design gradient	RB	Rescue boat
PE	Ice pellets	RCA	Reach cursing altitude
PER	Performance	RCC	Rescue co-ordination centre
PERM	Permanent	RCF	Radio communication failure
PJE	Parachute jumping exercise	RCH	Reach or reaching
PLA	Practice low approach	RCL	Runway centre line
PLN	Flight plan	RCLL	Runway centre line light
PLVL	Present level	RCLR	Recleared
PN	Prior notice required	RDH	Reference datum height
PRN*	Point of no return	RDL	Radial
PO	Dust/sand whirls	RDO	Radio
POB	Person on board	RE...	Recent
POSS	Possible	REC	Receiver or receive
PPI	Plan position indicator	REDL	Run edge light
PPR	Prior permission required	REF	Reference to or refer to
PPSN	Present position	REG	Registration
PRFG	Aerodrome partially covered by fog	RENL	Run end light
PRI	Primary	REP	Report or reporting or reporting point
PRKG	Parking	REQ	Request or requested
PROB	Probability	ERTE	Reroute
PROC	Procedure	RG	Range
PROV	Provisional	RIF	Reclearance in flight
PS	Plus	RITE	Right (direction of turn)
PSG	Passing	RL	Report leaving
PSN	Position	RLA	Relay to
PSP	Pierced steel plank	RLCE	Request level change en route
PTN	Procedure turn	RLLS	Runway lead-in lighting system
PTS	Polar track structure	RLNA	Request level not available
PWR	Power	RMK	Remark
		RNAV	(<i>to be pronounced "AR-NAV"</i>) Area navigation.
		RNG	Radio range
		RNP	Required navigation performance
		ROBEX	Regional OPMET bulletin exchange
		ROC	Rate of climb
		ROD	Rate of decent
		ROFOR	Route forecast
		RON	Receiving only
		RPL	Repetitive flight plan
		RPLC	Replace
		RPS	Radar position symbol
		RQP	Request flight plan
Q	Q		
QBI	Compulsory IFR flight		
QDM	Magnetic heading		
QDR	Magnetic bearing		
QFE	Atmospheric pressure at aerodrome elevation		
QFU	Magnetic orientation of runway		
QNH	Altimeter sub-scale setting to obtain elevation when on ground		
QTE	True bearing		
QUAD	Quadrant		

RQS	Request	SIF	Selective identification feature
RR	Report reaching	SIGMET	Information concerning en-route weather phenomena which may effect the safety of aircraft operation
RRA	(or RRB, RRC...etc, in sequence) Delay meteorological message	SIGWX	Significant weather
RSC	Rescue sub-centre	SIMUL	Simultaneous or simultaneously
RSCD	Runway surface condition	SIWL	Single isolated wheel load
RSP	Responder beacon	SKC	Sky clear
RSR	En-route surveillance radar	SKED	Schedule or scheduled
RTD	Delayed (used in met. message)	SLP	Speed limiting point
RTE	Route	SLW	Slow
RTF	Radiotelephone	SMC	Surface movement control
RTG	Radiotelegraph	SMR	Surface movement radar
RTHL	Runway threshold light	SN	Snow
RTN	Return or returned or returning	SPECI	Aviation selected special weather report
RTS	Return to service	SPECIAL	Special meteorological report
RTT	Radiotele typewriter	SPL	Supplementary flight plan
RTZL	Runway touchdown zone light(s)	SPOC	SAR point of contact
RUT	Standard regional route transmitting frequencies	SPOT	Spot wind
RV	Rescue vessel	SQ	Squall
RVR	Runway visual range	SQL	Squall line
RWY	Runway	SR	Sunrise
RX	Receiver	SRA	Surveillance radar approach
		SRE	Surveillance radar element
		SRG	Short range
		SRR	Search and rescue region
		SRY	Secondary
S	S	SS	Sandstorm
S	South or southern latitude	SS	Sunset
SA	Sand	SSB	Single sideband
SALS	Simple approach lighting system	SSE	South south east
SAN	Sanitary	SSR	Secondary surveillance radar
SAP	As soon as possible	SST	Supersonic transport
SAR	Search and rescue	SSW	South south west
SARPS	Standard and Recommended Practices (ICAO)	ST	Stratus
SAT	Saturday	STA	Straight in approach
SB	Southbound	STAR	Standard instrument arrival
SC	Stratocumulus	STD	Standard
SCT	Scattered	STF	Stratiform
SDBY	Stand by	STN	Station
SE	South-east	STNR	Stationary
SEB	South east bound	STOL	Short take-off and landing
SEC	Second	STS	Status
SECT	Sector	STWL	Stopway light
SELCAL	Selective calling system	SUBJ	Subject to
SEP	September	SUN	Sunday
SER	Service	SUP	Supplement
SEV	Severe	SUPPS	Regional Supplementary procedures
SFC	Surface	SVC	Service message
SG	Snow grain	SVCBL	Serviceable
SH...	Shower	SW	South-west
SHF	Super high frequency	SWY	Stopway
SID	Standard Instrument departure		

T	T	U	U
T	Temperature	U	Upward
TA	Transition altitude	UAB	Until advice by
TACAN	UHF tactical air navigation aid	UAC	Upper area control centre
TAF	Aerodrome forecast	UAR	Upper air route
TAIL	Tail wind	UDF	Ultra high frequency direction finding station
TAR	Terminal area surveillance radar	UFN	Until further notice
TAS	True air speed	UHDT	Unable due high traffic
TAX	Taxiing or Taxi	UHF	Ultra high frequency
TC	Tropical cyclone	UIC	Upper information centre
TCU	Towering cumulus	UIR	Upper flight information region
TDO	Tornado	ULR	Ultra long range
TDZ	Touch down zone	UNA	Unable
TECR	Technical reason	UNAP	Unable to approve
TEL	Telephone	UNL	Unlimited
TEMPO	Temporary or temporarily	UNREL	Unreliable
TEND	Trend forecast	U/S	Unserviceable
TFC	Traffic	UTA	Upper control area
TGL	Touch-and-go landing	UTC	Co-ordinated Universal Time
TGS	Taxiing guidance system		
THR	Threshold		
THRU	Through	V	V
THU	Thursday	VA	Volcanic ash
TIL	Until	VAC	Visual approach chart
TIP	Until past.....	VAL	In valleys
TKOF	Take-off	VAN	Runway control van
TL....	Till	VAR	Visual-aural radio range
TLOF	Touchdown and lift-off area	VAR	Magnetic variation
TMA	Terminal control area	VASIS	Visual approach slop indicator system
TNA	Turn altitude	VCV	Vicinity
TNH	Turn height	VDF	Very high frequency direction finding station
TO	To....	VER	Vertical
TOC	Top of climb	VFR	Visual flight rules
TODA	Takeoff distance available	VHF	Very high frequency
TODAH	Take-off distance available, heli.	VIP	Very important person
TOP	Cloud top	VIS	Visibility
TORA	Take-off run available	VLF	Very low frequency
TP	Turning point	VLR	Very long range
TR	Track	VMC	Visual Meteorological condition
TRA	Temporary reserved airspace	VOLMET	Meteorological information for aircraft in flight
TRANS	Transmits or transmitter	VOR	VHF omni-directional radio range
TRL	Transition level	VORTAC	VOR and TACAN combination
TROP	Tropopause	VOT	VOR airborne equipment test facility
TS	Thunderstorm	VRB	Variable
TT	Teletypewriter	VSA	By visual reference to the ground
TUE	Tuesday	VSP	Vertical speed
TURB	Turbulence	VTOL	Vertical take-off and landing
TVOR	Terminal VOP		
TWR	Aerodrome control Tower		
TWY	Taxiway-link		
TX	Transmitter		
TYP	Type of aircraft		
TYPH	Typhoon		

W	W	X	X
W	West or western longitude	X	Cross
W	White	XBAR	Crossbar
WAC	World aeronautical charts	XNG	Crossing
WAFC	World area forecast centre	XS	Atmospherics
WB	Westbound		
WBAR	Wing bar light		
WDI	Wind direction indicator		
WDSPR	Widespread	Y	Y
WED	Wednesday	Y	Yellow
WEF	With effect from or effective from	YCZ	Yellow caution zone
WI	Within	YR	Yours
WID	Width		
WIE	With immediate effect or effective immediately	Z	Z
WILCO	Will comply	Z	Co-ordinated Universal Time (<i>in meteorological messages</i>)
WINTEN	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		
WX	Weather		

INTENTIONALLY LEFT BLANK

GEN 2.3 CHART SYMBOLS

1. Aerodromes

1.1 Charts other than approach charts

Civil (Land)	
Civil (water)	
Joint civil and military (land)	
Joint civil and military (water)	
Military (land)	
Military (water)	
Emergency aerodrome or aerodrome with no facilities	
Sheltered anchorage	
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	

1.3 Aerodrome charts

Hard surface runway	
Unpaved runway	
Stopway	

2. Aerodrome installations and lights

Aerodrome reference point (ARP)	
Taxiways and parking area	
Control Tower	Control Tower 
Point light	
Barrette	
Marine light	
Obstacle light	
Aeronautical ground light	
Wind direction indicator (lighted)	
Wind direction indicator (un-lighted)	
Landing direction indicator (lighted)	
Landing direction indicator (lighted)	

3. Miscellaneous

Highest elevation on chart	.17456
Obstacles	180 (75) Lighted 171 (90) 
Group obstacles <i>Note. – Numerals in italics elevation of top of obstacle above sea level. Upright numerals in parentheses indicated height above specified datum.</i>	125 (40) 163  (45)
Restricted airspace (prohibited, restricted, or danger areas)	
Common boundary of two areas	
Transmission line or overhead cable	
Isogonal	

INTENTIONALLY LEFT BLANK

GEN 2.4 LOCATION INDICATORS

1. ENCODE		2. DECODE	
<i>Location</i>	<i>Indicator</i>	<i>Indicator</i>	<i>Location</i>
BUMTHANG/Bathpalathang Domestic	VQBT	VQBT	BUMTHANG/Bathpalathang Domestic
GELEPHU/Gelephu Domestic	VQGP	VQGP	GELEPHU/Gelephu Domestic
PARO/Paro intl	VQPR	VQPR	PARO/Intl
TRASHIGANG/Yonphula Domestic	VQTY	VQTY	TRASHIGANG/Yonphula Domestic

INTENTIONALLY LEFT BLANK

GEN 2.5 LIST OF RADIO NAVIGATION AIDS

	ID	Station Name	Facility	Purpose	Station name	Facility	ID	Purpose
→	BT	Bumthang	NDB	A E	Bumthang	NDB	BT	A E
	PRO	Paro	DVOR	A E	Paro	VOR	PRO	A E
	PRO	Paro	DME	A E	Paro	DME	PRO	A E
	PR	Paro	NDB	A E	Paro	NDB	PR	A E
→	YP	Yonphula	NDB	A E	Yonphula	NDB	YP	A E

INTENTIONALLY LEFT BLANK

GEN 2.6 CONVERSION TABLES

NM to KM 1 NM = 1.852 KM		KM to NM 1 KM = 0.54 NM		FT to M 1 FT = 0.3048 M		M to FT 1 M = 3.281 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	265.28
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	2296.59
80	148.160	80	43.20	800	243.840	800	2624.67
90	166.680	90	48.60	900	274.320	900	2952.76
100	185.200	100	54.00	1000	304.800	1000	3280.84
200	370.400	200	107.99	2000	609.600	2000	6561.68
300	555.600	300	161.99	3000	914.400	3000	9842.52
400	740.800	400	215.98	4000	1219.200	4000	13123.36
500	926.00	500	269.98	5000	1524.00	5000	16404.20
				6000	1828.800		
				7000	2133.600		
				8000	2438.400		
				9000	2743.200		
				10000	3048.000		

From decimal minute 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 Second of an arc to decimal minutes 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

JAN

Date	Sunrise	Sunset
2	00.53	11.20
5	00.53	11.22
8	00.54	11.24
11	00.54	11.27
14	00.54	11.29
17	00.54	11.32
20	00.53	11.34
23	00.52	11.36
26	00.52	11.39
29	00.50	11.41

FEB

Date	Sunrise	Sunset
1	00.49	11.44
4	00.47	11.46
7	00.46	11.48
10	00.44	11.50
13	00.41	11.52
16	00.39	11.54
19	00.37	11.56
22	00.34	11.58
25	00.31	12.00
28	00.28	12.02

MAR

Date	Sunrise	Sunset
3	00.25	12.04
6	00.22	12.06
9	00.19	12.08
12	00.16	12.09
15	00.12	12.11
18	00.09	12.12
21	00.06	12.14
24	00.02	12.16
27	23.58	12.17
30	23.55	12.19

APR

Date	Sunrise	Sunset
2	23.51	12.20
5	23.48	12.22
8	23.45	12.23
11	23.42	12.25
14	23.39	12.27
17	23.36	12.28
20	23.33	12.30
23	23.30	12.31
26	23.27	12.33
29	23.25	12.35

MAY

Date	Sunrise	Sunset
2	23.22	12.36
5	23.20	12.38
8	23.18	12.40
11	23.16	12.42
14	23.14	12.43
17	23.13	12.45
20	23.11	12.47
23	23.10	12.48
26	23.09	12.50
29	23.08	12.52

JUN

Date	Sunrise	Sunset
1	23.08	12.53
4	23.07	12.54
7	23.07	12.56
10	23.07	12.57
13	23.07	12.58
16	23.07	12.59
19	23.08	13.00
22	23.08	13.00
25	23.09	13.01
28	23.10	13.01

JUL

Date	Sunrise	Sunset
1	23.11	13.01
4	23.12	13.01
7	23.14	13.01
10	23.15	13.01
13	23.16	13.00
16	23.18	12.59
19	23.20	12.58
22	23.21	12.57
25	23.23	12.56
28	23.24	12.54

AUG

Date	Sunrise	Sunset
3	23.28	12.50
6	23.29	12.48
9	23.31	12.46
12	23.32	12.43
15	23.34	12.41
18	23.35	12.38
21	23.37	12.35
24	23.38	12.32
27	23.40	12.29
30	23.41	12.26

SEPT

Date	Sunrise	Sunset
2	23.42	12.22
5	23.44	12.19
8	23.45	12.16
11	23.46	12.12
14	23.48	12.09
17	23.49	12.05
20	23.50	12.02
23	23.52	11.58
26	23.53	11.55
29	23.54	11.51

OCT

Date	Sunrise	Sunset
2	23.56	11.48
5	23.57	11.45
8	23.59	11.42
11	00.00	11.38
14	00.01	11.35
17	00.03	11.31
20	00.05	11.29
23	00.07	11.27
26	00.09	11.24
29	00.11	11.22

NOV

Date	Sunrise	Sunset
1	00.13	11.19
4	00.15	11.17
7	00.17	11.15
10	00.19	11.13
13	00.22	11.13
16	00.24	11.11
19	00.26	11.10
22	00.28	11.09
25	00.30	11.08
28	00.33	11.08

DEC

Date	Sunrise	Sunset
1	00.35	11.08
4	00.37	11.08
7	00.39	11.08
10	00.42	11.09
13	00.43	11.09
16	00.45	11.11
19	00.47	11.12
22	00.49	11.13
25	00.50	11.15
28	00.51	11.17
31	00.52	11.19

Note :- All timings are in UTC

INTENTIONALLY LEFT BLANK

GEN 3 SERVICE

GEN 3.1 AERONAUTICAL INFORMATION SERVICE.

1. Responsible service

- 1.1 The Aeronautical Information Service, which forms part of the Bhutan 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. It consists of AIS office established at Paro aerodrome.
- 1.2 **AIS Office**
Aeronautical Information Service
Department of Civil Aviation,
Paro Airport,
Paro : Bhutan,
Tel: 975-8-272760
Fax: 975-8-272307
AFTN: VQPRYNYX
Email:- aisection@druknet.bt
- 1.3 **International NOTAM office (NOF)**
AIS section
Department of Civil Aviation,
Paro Airport,
Paro : Bhutan,
Tel: 975-8-272760
Fax: 975-8-272307
AFTN: VQPRYNYX
Email:- aisection@druknet.bt

The service is available during operational hours and from 0300 – 1100 UTC during week days.

2. Area of responsibility

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

3. Aeronautical publications

The Aeronautical Information 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 AIRAC AMDT):
- NOTAM and Pre-flight Information Bulletins (PIB):

NOTAM and the related monthly checklist are issued via the Aeronautical Fixed Service (AFS), while PIB are made available at aerodrome AIS unit. All other elements of the package are distributed by air mail.

- 3.2 **Aeronautical Information Publication (AIP)**
- 3.2.1 The AIP is the basic aviation document intended primarily to satisfy international requirements for the exchange of permanent aeronautical information and long duration temporary changes essential for air navigation.
- 3.2.2 AIP Bhutan is published in ONE volume in English only.
- 3.3 **Amendment service to the AIP (AIP AIRAC AMDT)**
- 3.3.1 Amendments to the AIP are made by replacement of a CD. One type of AIP AIRAC AMDT is produced. Regular amendments to the AIP will be issued once a year. The publication date will be on the Last AIRAC cycle of each year.

- 3.3.2 A brief description of the subject affected by the amendment is given on the AIP Amendments cover sheet. New information included on the reprinted AIP pages in annotated or identified by a vertical line in the left margin (or immediately to the left) of the change/addition.
- 3.3.3 Each AIP page and each AIP replacement pages introduced by an amendment are dated. The date consists of the day, month (by name) and year of the publication date. AIP amendment cover sheet includes reference to the serial number of those elements, if any, of the integrated Aeronautical Information Package which have been incorporated in the AIP by the amendment and are consequently cancelled.
- 3.3.4 Each AIP AIRAC AMDT are allocated separate serial number 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 AIRAC AMDT 01/09.
- 3.3.5 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 AIP.

3.4 ***Supplement to the AIP (AIP SUP)***

- 3.4.1 Temporary changes of long duration (three months and longer) and information of short duration which consist of extensive text and or/graphics, supplementing the permanent information contained in the AIP, are published as AIP Supplements (AIP SUP). Operationally significant temporary changes to the AIP, are published in accordance with AIRAC system and its established effective dates and identified clearly by the acronym AIRAC AIP SUP.
- 3.4.2 AIP Supplements are separated by information subject (General - GEN., En-route - ENR and Aerodromes - AD) and are placed accordingly in the beginning of each AIP part. Each AIP supplement (regular or AIRAC) is allocated a serial number which is consecutive and based on the calendar year, i.e. AIP SUP 01/10 AIRAC SUP 01/10
- 3.4.3 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 the period of validity or cancellation of the supplement.
- 3.4.4 The check list of AIP Supplement currently in force is issued in the monthly printed plain-language summary of NOTAM in force.

3.5 ***NOTAM and Pre-flight Information Bulletins (PIB)***

- 3.5.1 NOTAM contains information concerning the establishment, condition or changes in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM Format and is composed of the significant/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifier, designators, callsigns, frequencies, figures and plain language. NOTAM is originated and issued for Bhutan airspace and are distributed in one series identified by the letter A.
- 3.5.2 Each NOTAM is assigned a four digit serial number preceded by an appropriate letter indicating the series and followed by stroke and two digits indicating the year of issuance. The serial number start with 0001 at 0000 UTC on 1st January every year. A checklist of NOTAM currently in force is issued every month over the AFS. Additionally, a printed plain language summary of NOTAM in force is sent by airmail to those who had originally received the NOTAM over the AFS, as well as to other on request.
- 3.5.3 Pre-flight Information Bulletins (PIB), Which contain a recapitulation of current NOTAM and other information of urgent character for the operator/flight crews, are available at the aerodrome AIS unit.

3.6 ***Aeronautical Information Circular (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 within each series on a calendar year basis. The year, indicated by two digits, is a part of the serial number of the AIC, e.g. AIC 01/10. A checklist of AIC currently in force is issued as an AIC once a year.

3.7 Checklist and summary of NOTAM

A checklist of valid NOTAM is issued monthly via AFS.

3.8 Sale of publications

- 3.8.1 The AIP Bhutan is available on Hard and soft copy (CD) from the AIS section, Department of Civil Aviation, Paro Airport.
- 3.8.2 The said publications and amendments thereto, are supplied to ICAO authorities free of charge and to the NOTAM offices of foreign state in exchange for corresponding publications and to any other organisation or person it is available on advance payment of the following prices.

Publication	COUNTRIES	Price in	
		Nu.	US\$
AIP (hard copy) – full Bhutan AIP on paper in ring-binder, including latest AIP AMDT and NOTAM Summary	Within Bhutan	Nu.850	-
	SAARC countries	–	US\$ 35
	Asia Region	–	US\$ 40
	Other Countries	–	US\$ 45
Annual Subscription for AIP (hard copy) – full AIP Amendment to Bhutan AIP and NOTAM Summary	Within Bhutan	Nu. 550	
	SAARC countries	–	US\$ 25
	Asia Region	–	US\$ 30
	Other Countries	–	US\$ 35
eAIP (CD-ROM) – Initial purchase including updated version of Bhutan AIP in HTML and PDF with Latest AIP AMDT	Within Bhutan	650	
	SAARC countries	-	US\$ 30
	Asia Region	-	US\$ 35
	Other Countries	–	US\$ 40
Annual Subscription for eAIP (CD-ROM) – AIP amendment to eAIP Bhutan & NOTAM summery	Within Bhutan	Nu. 500	
	SAARC countries	–	US\$ 20
	Asia Region	–	US\$ 25
	Other Countries	–	US\$ 30

The above prices include postage charges. All Publications are distributed in accordance with Annex 15 by airmail.

4. AIRAC System

- 4.1 In order to control and regulate the operationally significant changes requiring amendments to chart, route manual etc., such changes, whenever possible, will be published as an AIRAC SYSTEM. This type of information will be published as an AIP AIRAC AMDT. If an AIP AIRAC AMDT cannot be produced due to lack of time, NOTAM clearly marked AIRAC will be issued. Such NOTAM will immediately be followed by an AMDT.
- 4.2 The table below indicates AIRAC effective dates for the coming years. 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.
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 AIRAC effective date concerned.

4.3 Schedule of AIRAC effective dates

#	2010	2011	2012*	2013	2014	2015	2016*	2017	2018	2019
01	14 Jan	13 Jan	12 Jan	10 Jan	09 Jan	08 Jan	07 Jan	05 Jan	04 Jan	03 Jan
02	11 Feb	10 Feb	09 Feb	07 Feb	06 Feb	05 Feb	04 Feb	02 Feb	01 Feb	31 Jan
03	11 Mar	10 Mar	08 Mar	07 Mar	06 Mar	05 Mar	03 Mar	02 Mar	01 Mar	28 Feb
04	08 Apr	07 Apr	05 Apr	04 Apr	03 Apr	02 Apr	31 Mar	30 Mar	29 Mar	28 Mar
05	06 May	05 May	03 May	02 May	01 May	30 Apr	28 Apr	27 Apr	26 Apr	25 Apr
06	03 Jun	02 Jun	31 May	30 May	29 May	28 May	26 May	25 May	24 May	23 May
07	01 Jul	30 Jun	28 Jun	27 Jun	26 Jun	25 Jun	23 Jun	22 Jun	21 Jun	20 Jun
08	29 Jul	28 Jul	26 Jul	25 Jul	24 Jul	23 Jul	21 Jul	20 Jul	19 Jul	18 Jul
09	26 Aug	25 Aug	23 Aug	22 Aug	21 Aug	20 Aug	18 Aug	17 Aug	16 Aug	15 Aug
10	23 Sep	22 Sep	20 Sep	19 Sep	18 Sep	17 Sep	15 Sep	14 Sep	13 Sep	12 Sep
11	21 Oct	20 Oct	18 Oct	17 Oct	16 Oct	15 Oct	13 Oct	12 Oct	11 Oct	10 Oct
12	18 Nov	17 Nov	15 Nov	14 Nov	13 Nov	12 Nov	10 Nov	09 Nov	08 Nov	07 Nov
13	16 Dec	15 Dec	13 Dec	12 Dec	11 Dec	10 Dec	08 Dec	07 Dec	06 Dec	05 Dec

Note: * = leap year containing 29 Feb (2012, 2016, etc.)

5. Pre-flight information service at aerodrome

TO BE DEVELOPED

6. Electronic terrain and obstacle data

TO BE DEVELOPED

GEN 3.2 AERONAUTICAL CHARTS

1. Responsible service

- 1.1 The Department of Civil Aviation of Bhutan provides aeronautical charts for use by all type of civil aviation. The Aeronautical Information Service produces the charts which are part of AIP. The charts are produced in accordance with the provisions contained in ICAO Annex 4.

2. Maintenance of charts

- 2.1 The aeronautical charts included in the AIP are kept up to date by amendments to the AIP.
- 2.2 If incorrect information detected on published charts is of operational significance, it is corrected by NOTAM.

3. Purchase Arrangement

- 3.1 The charts listed under Para 4 may be obtained from Aeronautical Information Service, Department of Civil Aviation, Paro Airport, Paro. Tel : 975-8-272760, Fax : 975-8-271407. email: aisection@druknet.bt

4. Aeronautical Chart series available

- 4.1 The following series of aeronautical charts are produced:
- a) Aerodrome Chart - ICAO
 - b) Aerodrome obstacle chart - ICAO - Type A
 - c) Visual Approach Chart – ICAO
 - d) ~~Cloud Break Procedure Chart~~
- 4.2 **General Description of each series.**
- a) *Aerodrome chart - ICAO.* The 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
 - b) *Aerodrome Obstacle chart - ICAO - Type A (operating limitations)* This chart contains detailed information on obstacle in the take-off flight path areas of aerodrome. It is shown in plan and profile view. This obstacle information, in combination with a obstacle Chart - ICAO - Type C, Provides the data necessary to enable an operator to comply with the operating limitations of ICAO Annex 6, Parts I and II, chapter 5.
 - c) *Visual Approach Chart - ICAO* This chart is produced for Paro aerodrome used by civil aviation where:
 - only limited navigation facilities are available ; or
 - no adequate aeronautical charts of the aerodrome and its surroundings at 1:500 000 scale are available, or
 - Visual approach procedures have been established.

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

5. Topographical Charts

To supplement the aeronautical charts, wide range of Topographical charts are available from Department of Survey , Ministry of Agriculture, Thimphu Bhutan, Tel : 975-2-322798, Fax : 975-2-323565.

INTENTIONALLY LEFT BLANK

GEN 3.3 AIR TRAFFIC SERVICES**1. Responsible service.**

- 1.1 Department of Civil Aviation Bhutan is the responsible authority for the provision of Air traffic service within the area indicated under 2. below.

Director General
Department of Civil Aviation
Ministry of Information & Communications
Paro: Bhutan
Tel:- 975-8-271909/271347
Telefax:- 975-8-271910
Email aviation@druknet.bt

- 1.2 The services are provided in accordance with the provision contained in the following ICAO documents:
Annex 2 - *Rules of the Air*
Annex 11 - *Air Traffic Service*
Doc 4444- *Procedure for Air Navigation Services*
- *Air Traffic Management*
Doc.8168- *Procedures for Air Navigation Services*
- *Aircraft Operations (PANS-OPS)*
Doc 7030 - *Regional Supplementary Procedures*

2. Area of responsibility

- 2.1 Air traffic services are provided in Paro and the entire airspace over Bhutan.

3. Types of services

- 3.1 The following types of services are provided:
- Aerodrome Control (TWR)
- Aerodrome Flight Information Service (AFIS) and Alerting Service

4. Co-ordination between the operators and ATS

- 4.1 Co-ordination between the operator and air traffic services is effected in accordance with 2.16 of ICAO Annex 11

5. Minimum flight altitude

- 5.1 The minimum flight altitude on the ATS routes, as presented in section ENR 3, have been determined so as to ensure at least 300 m (1 000 ft) and 600 m (2 000 ft) in mountain areas vertical clearance above the highest obstacle within 4 km on each side of the centre line of the route.

6. ATS unit address list

<i>Unit name</i>	<i>Telephone NR</i>	<i>Telefax NR</i>	<i>Telex NR</i>	<i>AFS address</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1. Paro Control Tower	975-8-272859 975-8-271406	975-8-271407	-	VQPRZTX
2*. Air Force Element of IMTRAT Paro Radio	975-8-271233	975-8-271259		
3. Bumthang Control Tower	975-3-631718	975-3-631715	-	
4. Gelephu Control tower	975-6-251355			
5 Yonphula Control Tower	975-4-535152	975-4-535135		

***Note:- At Present the Air Traffic Services at the Paro airport is provided by the Indian Air Force Element of IMTRAT.**

INTENTIONALLY LEFT BLANK

GEN 3.4 COMMUNICATION SERVICES

1. Responsible service.

- 1.1 The responsible Service for the provision of communication and navigation facility service in Bhutan is the Department of Civil Aviation.

Communication & Navigation Section,
Department of Civil Aviation,
Paro Airport,
Paro, Bhutan
Tel : 975-8-271407
Fax : 975-8-271407
Email:- aviationcom@druknet.bt

- 1.2 The services are provided in accordance with the provision 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 the aircraft Operating Agencies,
- Aeronautical Authorities and Services
Doc 7030- Regional Supplementary Procedures
Doc 7910 - Location Indicators

2. Area of responsibility

- 2.1 A Communication service is provided for the entire Bhutan airspace. Arrangements for such services on a continuing basis should be made with the Dy. Chief Communication Officer of Communication & Navigation Section, who is also responsible for the application of the regulations concerning the design type and installation of aircraft radio station. Responsibility for the day to day operation of these services is vested in Dy. Chief Communication Officer located at Paro international aerodrome. Inquiries, suggestion or complaints regarding any telecommunication service should be referred to the Dy. Chief Communication Officer, Department of Civil Aviation, Paro Airport, Paro.

3. Type of services

- 3.1 The following types of radio aids to navigation are available:

- LF/MF non-directional beacon (NDB)
- Doppler VHF omni directional radio range (DVOR)
- Distance Measuring Equipment (DME)

- 3.2 ***Mobile/Fixed service***

Mobile Service

The aeronautical station maintains 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 station that exercise control in the area in which the aircraft is flying. Aircraft should maintain a continuous watch on the appropriate frequency of the control station and should not abandon watch, except in an emergency, without informing the control radio station.

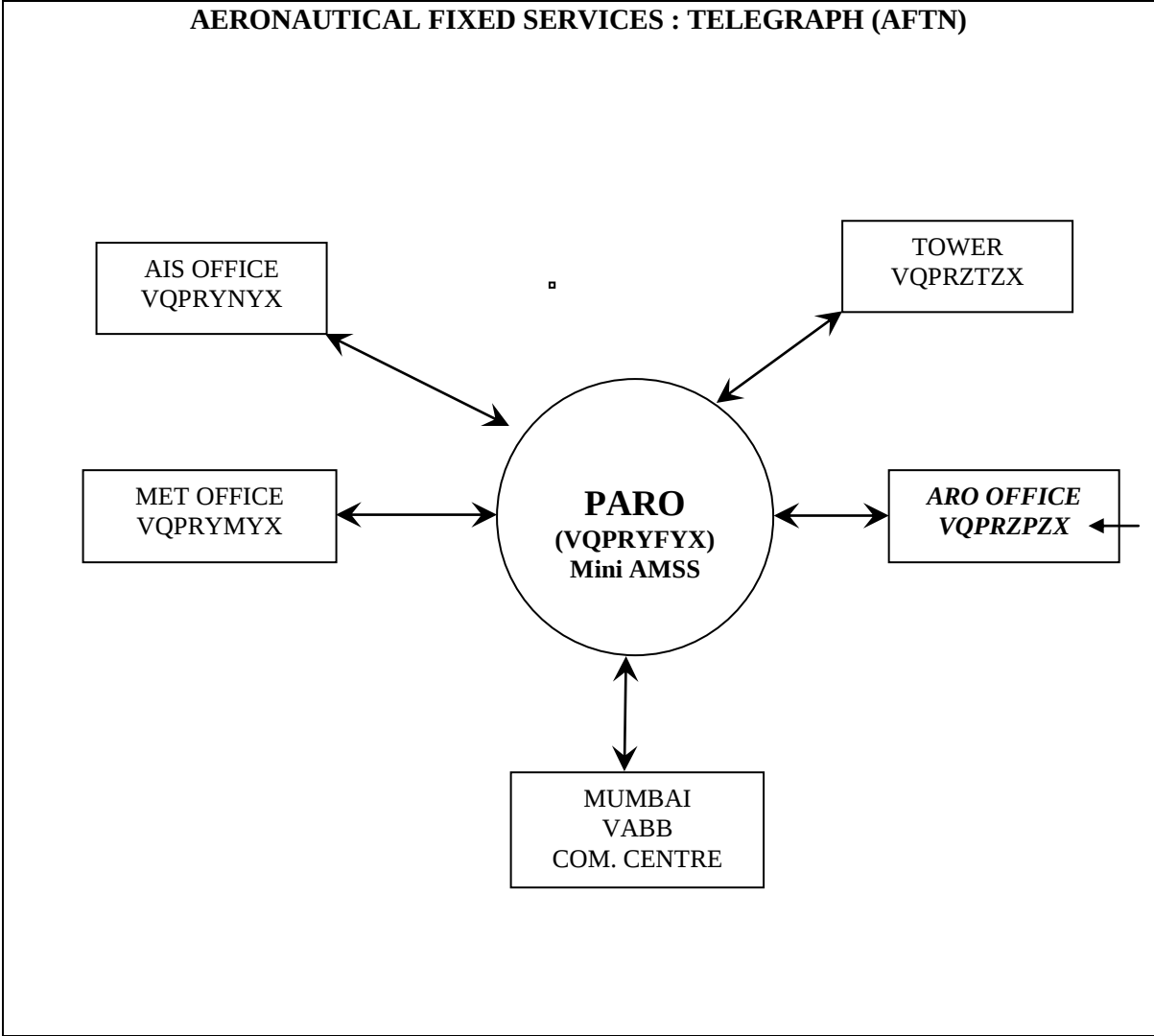
Fixed Service

The message to be transmitted over the Aeronautical Fixed Telecommunication Network (AFTN) are accepted only if:

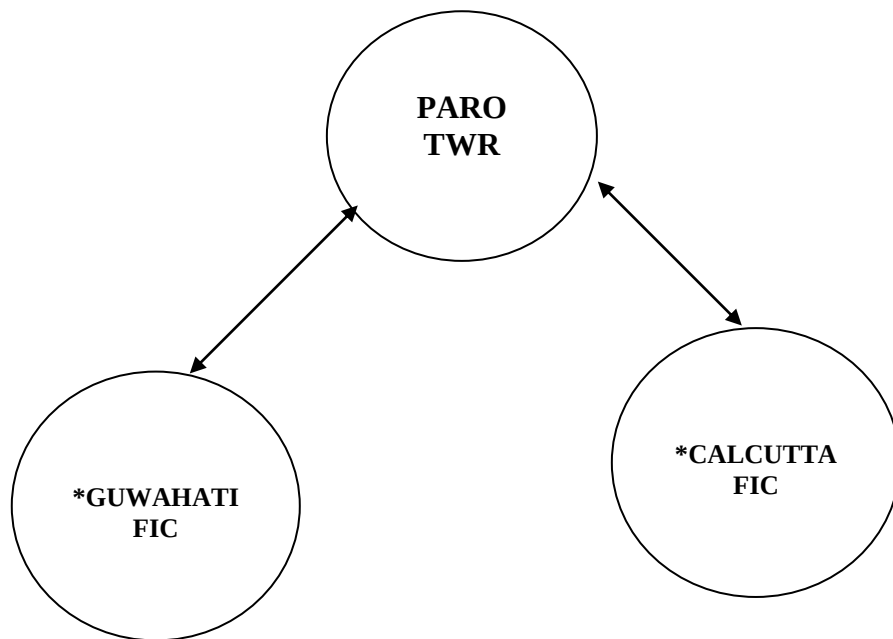
- a) They satisfy the requirement of ICAO Annex 10, Vol. II, Chapter 3,3.3
 - b) they are prepared in the form specified in ICAO Annex 10;
 - c) the text of an individual message does not exceed 200 groups
- 3.3 **Broadcasting Service**
- VOLMET TO BE DEVELOPED
- 3.4 **Language used:** ENGLISH
- 3.5 **Where detailed information can be found.**
- 3.5.1 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 Paro aerodrome can be found in the relevant section of Part 3 (AD). In case where a facility is serving both en-route traffic and the aerodrome, details are given in the relevant sections of Part 2 (ENR) and part 3 (AERODROME)

4. Requirements and conditions.

- 4.1 The requirements of the communication service and the general conditions under which the communication service is available for international use, as well as the requirement for the carriage of radio equipment are contained in the Bhutan Civil Air Navigation Regulations (BANRs).
- 4.1.2 Standards and Recommended Practices as per Annex 10, Part I, II, III, and IV are followed.



AERONAUTICAL FIXED SERVICE : *TELEPHONE



- * 1. Provided with a direct telephone on International Subscriber Dialling System(ISD) to contact any adjoining ACC/FIC
- *2. Dedicated Hotline between adjoining FIC/ACC to be developed

GEN 3.5 METEOROLOGICAL SERVICE**1. Responsible service.**

- 1.1 The Meteorological service for Civil Aviation is provided by the Meteorological Section

Head
Meteorological Section,
Department of Civil Aviation,
Paro Airport,
Paro, Bhutan
Tel : 975-8-271404
Fax : 975-8-271407
AFTN : VQPRYMYX
Email:- aeromet@druknet.bt

- 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

2. Area of responsibility

- 2.1 Meteorological Service is restricted to provision of METAR and SIGMET at Paro Airport.

3. Meteorological observation and reports
Table GEN 3.5.1 Meteorological observation and report

<i>Name of station/ Location indicator</i>	<i>Type & frequency of observation/ automatic observation equipment</i>	<i>Type of MET report & Supplementary Information included</i>	<i>Observation System & Site(s)</i>	<i>Hours of operation</i>	<i>Clamatologic al</i>
1	2	3	4	5	6
PARO(VQPR)	Half hourly plus special observation	Plain Language METAR SPECI	Surface Wind sensor Temp. sensor Pressure sensor	HO	NIL

4. Type of services

- 4.1 Personal briefing and consultation for flight crew members are provided at Paro/International.
- 4.2 Paro:
Current Weather and Terminal METAR are provided. ROFAR and TAFOR services to be developed.

5. Notification required from operators

- 5.1 Notification from operator in respect of briefing, consultation, flight documentation and other meteorological information needed by them (ref. ICAO Annex 3, 2.3)for which notification should be received at least 24 hours before the expected time of departure.

6. Aircraft reports

- 6.1 Pursuant to ICAO Annex 3, 5.3.1 the making and transmission of aircraft reports (AIREP) are required at the following ATS reporting points:
PARO

7. SIGMET service
Table GEN 3.5.2 SIGMET service

<i>Name of MWO/ Location Indicator</i>	<i>Hours</i>	<i>FIR or CTA Served</i>	<i>Type of SIGMET/validity</i>	<i>Specific procedures</i>	<i>ATS unit served</i>	<i>Additional information</i>
1	2	3	4	5	6	7
At Paro Airport	NIL	Bhutan airspace TO BE DEVELOPED			PARO	NIL

7.1 *General*

7.1.2 A small Meteorological Unit presently exist to provide current weather and significant weather observation to arriving and departing aircraft, data are derived from the Automated Weather Observation System (AWOS). Information like surface wind direction and speed, temperature, dew point and pressure are derived from the AWOS..

7.2 *Area meteorological watch service*

TO BE DEVELOPED

7.3 *Warning service*

7.3.1 Generally the warning is issued with the trend valid for two hours along with the issue of METAR

7.3.2 SIGMET information is disseminated by directed transmission to aircraft through ATC.

7.3.4 The information is provided to the ATC from the MET office.

GEN 3.6 SEARCH AND RESCUE

1. **Responsible authority**
The Search and Rescue in Bhutan is organized in accordance with the Standards and Recommended Practices of ICAO Annex 12 by the Department of Civil Aviation in collaboration with the Royal Bhutan Army and with the adjacent Rescue Coordination Centre of India through bilateral agreement.
2. **Area of Responsibility**
The Search & Rescue service is responsible for the entire territory of the Kingdom of Bhutan.
3. **Type of Service**
Since Bhutan does not have a satellite-added Search and Rescue programme participation in the COSPAS/SARSAT system, therefore, the Royal Government of Bhutan has made an arrangement with the Government of India through bilateral agreement to assist in SAR purpose. Bhutan will serve as Rescue Sub- Centre (RSC) to coordinate with the Search and Rescue Region of India.
4. **SAR Agreement**
Bhutan has embarked an SAR Agreement with the Government of India.

For the purpose of SAR, the authority of other State who wishes their SAR unit to enter the territory of Bhutan shall transmit a request, giving full details of the projected missions and the need for it to the Director General of Civil Aviation. Ref. Gen 1.1 for address.

5. **Address for Rescue Sub-Centre (RSC)**

Rescue Sub-Centre - Paro
Department of Civil Aviation,
Paro Airport,
Paro : Bhutan,
Tel : 975-8-2722306/272895
Fax : 975-8-272307
AFTN:- VQPRZPZX
Email:- paro.aro@dca.gov.bt

INTENTIONALLY LEFT BLANK

**GEN 4. CHARGES FOR AERODROMES
AND AIR NAVIGATION SERVICES****GEN 4.1 AERODROME CHARGES****1 Landing of Aircraft**

- 1.1.1 Unless specifically exempted, a landing fee shall be paid in respect of all aircraft landing at Paro International Airport.
- 1.1.2 For the purpose of calculating the fee, the taxi-weight of the aircraft shall be the maximum structural design weight limit of the aircraft as contained in the aircraft model type certificate data sheet or the manufacture's approved flight manual.
- 1.1.3 The owner, commander or the agent is required to submit the original or certified true copy of documentary proof of the taxi-weight (i.e maximum structural designed weight limit of the aircraft) as contained in the aircraft manual.
- 1.1.4 In the event that the documentary proof is not made available, the computation of charges would be based on the maximum taxi-weight of that aircraft model/series/ as shown in Jane's All World's Aircraft book.

2 Landing Charge

Aircraft Weight	Charges per Single Landing	
Tonnes	International Flights	Domestic Flights
Up to 100 tonnes	\$ 4 per tonnes	Nu. 147 per tonnes
Above 100 tonnes	\$ 315 + \$ 5 per tonnes	Nu.10,000 + 180 per tonnes

3 Parking charge

The first 3 hours no charge there after 50% of the Hanger charge

4 Hanger Charge

Aircraft Weight (tonnes)	International (per hour)	Domestic (per hour)
Up to 100 tonnes	\$ 0.17 per tonnes	Nu. 8.00 per tonnes
Above 100 tonnes	\$ 16.00 +0.17 per tonnes	Nu. 784.00+Nu.8.00 per tonnes

5 Chartered Flights**5.1 Landing Fee**

The landing fee for the chartered flight is fixed price of US\$120 plus \$4 per tonnes of any type of fixed wing/rotor wing aircraft.

5.2 Parking Fee

A parking fee, at the rate of US\$ 10 shall be payable for the parking of an Aircraft in any place at the aerodrome below one hour, thereafter US\$ 8 will be charged per hour or part thereof. The parking time shall begin when an aircraft lands at the aerodrome and end when it takes off.

6 Passenger Service

Each passenger departing for a foreign country is charged Nu. 800. This collection is included in air ticket or done by the Clearing Agent on behalf of Department of Civil Aviation.

7 Security

No Aviation security charges are currently levied at Paro International Airport.

8 Aircraft, Passenger and Baggage Handling Service Charges

The following services to airline operators are available at Paro International Airport.

- a) Aircraft service including handling of passenger and crew steps, internal cleaning of aircraft, hauling catering stores to and from the aircraft, loading and unloading crew baggage and transporting.
- b) Passenger Baggage service including loading and unloading passenger' baggage and transporting them between the Terminal Building and the aircraft, and providing porter age service within the Terminal Building.
- c) Other type of services including the provision of transport, service for baggage freight and mail or any combination of the service indicated para a) and b) above may be required.
- d) The authorised clearing agent may be contacted for details of charges in respect of the above services. See AIP BHUTAN GEN1.1-1, para 7.

9 Noise – related items

TO BE DEVELOPED

10 Other

TO BE DEVELOPED

11 Exemptions from payment of Landing and Parking Fees

11.1 The following aircraft are exempted from payment of landing and parking fees:-

- a) Aircraft used for Government ceremonial purpose
- b) Such other aircraft or classes of aircraft as the Director General of Civil Aviation may approve.

12 Method of Payment

- 12.1 Except as approved by the Civil Aviation of Bhutan, all fees except the passenger service charge shall be paid by the commander of the aircraft or agent without demand before the aircraft departs from the aerodrome. All payments of fees to be made in US Dollar or Bhutanese Currency.
- 12.2 Fees shall be paid to the authorised Clearing Agent and if not so paid shall be made to the CAA jointly and severally from the owner or agent and the commander of the aircraft in respect of which the fees are payable.
- 12.3 For the purpose of enforcing payment of fees, DCA may refuse to permit an aircraft to take-off from and aerodrome until all fees have been made.
- 12.4 Where credit agreement is desired in the case of regular users, written application for credit facility has been submitted. A security deposit as stipulated by the DCA shall be lodged to maintain an account for credit arrangement. The credit term is 14 days from the date of the bill.

GEN 4.2 AIR NAVIGATION SERVICES CHARGES**1. Approach control****TO BE DEVELOPED****2. Route Air Navigation Charges**

Aircraft weight (lbs)	Charges per Entry/Exit (US \$)
Not exceeding 20,000	10.00
20,000 but not exceeding 40,000	14.00
40,000 but not exceeding 100,000	20.00
Over 100,000	30.00

3. Cost basis for air navigation service and exemption/reductions**3.1 Cost basis for air navigation service**

The Cost basis for air navigation service is available on request from the, Department of Civil Aviation, Ministry of Information & Communication.

3.2 Exemption/reductions

3.2.1 The following categories of flight shall be exempted from payment of air navigation service charges:

- a) test flight at the request of the Department of Civil Aviation;
- b) technical check flights made by aircraft engaged in commercial aviation, with no remuneration being received for passengers and goods, if such be on board;
- c) Flights made for search and rescue of the Department of Civil Aviation,
- d) technical return flights, i.e. take-off with forced return to the aerodrome of departure due to technical disturbances, adverse weather conditions, and the like;
- e) aircraft owned by the Department of Civil Aviation
- f) foreign military aircraft and aircraft used solely for the transportation of the representatives of foreign State or of United Nation personnel; and
- g) aircraft owned by the foreign State carrying Head of State like VVIP etc.
- h) Flight Inspection service aircraft for calibration of Navigation Equipment regulated by the Department of Civil Aviation.

4. Methods of payment

- 4.1.1 Except as approved by the Civil Aviation of Bhutan, all fees except the passenger service charge shall be paid by the commander of the aircraft or agent without demand before the aircraft departs from the aerodrome. All payments of fees to be made in US Dollar or Bhutanese Currency.
- 4.1.2 Fees shall be paid to the Authorised Clearing Agent and if not so paid shall be made to the CAA jointly and severally from the owner or agent and the commander of the aircraft in respect of which the fees are payable.
- 4.1.3 For the purpose of enforcing payment of fees, DCA may refuse to permit an aircraft to take-off from and aerodrome until all fees have been made.
- 4.1.4 Where credit agreement is desired in the case of regular users, written application for credit facility has be submitted. A security deposit as stipulated by the DCA or the Clearing Agent shall be lodged to maintain an account for credit arrangement. The credit term is 14 days from the date of the bill.

INTENTIONALLY LEFT BLANK

༄༅། དཔལ་ལྷན་འབྲུག་གཞུང་གི་བདེ་མཁའ་འགྲུལ་ལས་ཁུངས་།

**Royal Government of Bhutan
Department of Civil Aviation
Aeronautical Information Service**

PART 2 – ENROUTE (ENR)



CONSULT NOTAM FOR LATEST INFORMATION

AIP

Aeronautical Information Publication

First Edition

2009

BHUTAN

PART 2 - EN-ROUTE (ENR)

ENR 0.6 TABLE OF CONTENTS TO PART 2

	<i>Page</i>
ENR 1. GENERAL RULES AND PROCEDURES	
ENR 1.1 General rules.....	ENR 1.1-1
ENR 1.2 Visual Flight Rules.....	ENR 1.2-1
ENR 1.3 Instrument Flight Rules.....	ENR 1.3-1
ENR 1.4 ATS Airspace Classification.....	ENR 1.4-1
ENR 1.5 Holding, Approach and Departure Procedure.....	ENR 1.5-1
ENR 1.6 Radar Services and Procedure.....(NOT ESTABLISHED)	ENR 1.6-1
ENR 1.7 Altimeter Setting Procedures.....	ENR 1.7-1
ENR 1.8 Regional Supplementary Procedures (Doc. 7030).....	ENR 1.8-1
ENR 1.9 Air Traffic Flow Management(NOT ESTABLISHED)	ENR 1.9-1
ENR 1.10 Flight Planning.....	ENR 1.10-1
ENR 1.11 Addressing of Flight Plan Messages.....	ENR 1.11-1
ENR 1.12 Interception of Civil Aircraft.....	ENR 1.12-1
ENR 1.13 Unlawful Interference.....	ENR 1.13-1
ENR 1.14 Air Traffic Incident.....	ENR 1.14-1
ENR 2 AIR TRAFFIC SERVICES AIRSPACE	
ENR 2.1 FIR, UIR, TMA..... (NOT ESTABLISHED)	ENR 2.1-1
ENR 2.2 Other regulated Airspace.....	ENR 2.2-1
ENR 3 ATS ROUTES	
ENR 3.1 ATS Routes.....	ENR 3.1-1
ENR 3.2 Upper ATS Routes.....(NOT DEVELOPED)	-
ENR 3.3 Area Navigation (RNAV) Routes.....(NOT DEVELOPED)	-
ENR 3.4 Helicopter Routes.....(NOT DEVELOPED)	-
ENR 3.5 Other Routes.....(NOT DEVELOPED)	-
ENR 3.6 En-routes Holding.....(NOT DEVELOPED)	-
ENR 4 RADIO NAVIGATION AIDS/SYSTEMS	
ENR 4.1 Radio Navigation Aids- en-route.....	ENR 4.1-1
ENR 4.2 Special Navigation System..... (NOT ESTABLISHED)	ENR 4.2-1
ENR 4.3 Global Navigation Satellite System (GNSS)(NOT ESTABLISHED)	ENR 4.3.1
ENR 4.4 Name - Code Designator for significant points.....	ENR 4.4-1
ENR 4.5 Aeronautical Ground lights - En-route.....(NOT DEVELOPED)	-
ENR 5. NAVIGATION WARNINGS	
ENR 5.1 Prohibited, Restricted and Danger Areas.....	ENR 5.1-1
ENR 5.2 Military Exercise and Training areas	ENR 5.2-1
ENR 5.3 Other Activities of a Dangerous Natures and other Potential Hazards (NOT DEVELOPED)	-
ENR 5.4 Air Navigation Obstacle – Area 1(NOT DEVELOPED)	-
ENR 5.5 Aerial Sporting and recreational Activities(NOT DEVELOPED)	-
ENR 5.6 Bird Migration and areas with sensitive fauna.....	ENR 5.6-1
ENR 6. En-route Charts	
ENR 6.1 RNAV Route Chart.....	ENR 6.1-1 ←

INTENTIONALLY LEFT BLANK

- 17.5 If in visual meteorological conditions, the aircraft shall:
- continue to fly in visual meteorological conditions;
 - land at the nearest suitable aerodrome; and
 - report its arrival by the most expeditious means to the appropriate air traffic control unit.
- 17.6 If in instrument meteorological conditions or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with 17.5 a), the aircraft shall:
- unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;
 - in airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:
 - the time the last assigned level or minimum flight altitude is reached; or
 - the time the transponder is set to Code 7600; or
 - the aircraft's failure to report its position over a compulsory reporting point;
 whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;
 - when being radar vectored or having been directed by ATC to proceed offset using area navigation (RNAV) without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;
 - proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with e) below, hold over this aid or fix until commencement of descent;
 - commence descent from the navigation aid or fix specified in d) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;
 - complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and
 - land, if possible, within 30 minutes after the estimated time of arrival specified in e) or the last acknowledged expected approach time, whichever is later.

18. Visual Signals used to warn an unauthorised aircraft flying in, or about to enter, a Restricted, Prohibited or Danger Area.

- 18.1 By day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars will indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited or danger area, and that the aircraft is to take such remedial action as may be necessary.

19. Signals for Aerodrome Traffic.

- 19.1 *Light and pyrotechnic signals.* The following light and pyrotechnic signals will be used to aircraft in flight or on the ground:

Light	From Aerodrome Control to:	
	Aircraft in flight	Aircraft on the ground
Steady green	Cleared to land	Cleared for take-off
Steady red	Give way to other aircraft and continue circling.	Stop
Series of green flashes	Return for landing	Cleared to taxi
Series of red flashes	Aerodrome unsafe, do not land.	Taxi clear of landing area in use.
Series of white flashes	Land at this apron and proceed to apron.	Return to starting point on the aerodrome.
Red pyrotechnic	Notwithstanding any previous instructions, do not land for the time being.	

19.2 *Acknowledgement by an aircraft.*

a) When in flight:

- 1) during the hours of daylight:
 - by rocking the aircraft's wings;
- 2) during the hours of darkness:
 - by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

b) When on the ground:

- 1) during the hours of daylight:
 - by moving the aircraft's ailerons or rudder;
- 2) during the hours of darkness;
 - by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

ENR 1.2 VISUAL FLIGHT RULES

1. 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.
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 are not permitted between sunset and sunrise. (Ref. AD2 for Local sunrise and sunset time restriction)
4. 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 a), at a height less than 150 m (500 ft) above the ground or water.
5. VFR flights shall comply with the provisions of 3.6 of ICAO Annex 2:
 - 5.1 when operating within Paro traffic zone forming part of aerodrome traffic and elsewhere within Bhutan Airspace.
6. An aircraft operated in accordance with visual flight rules which wishes to change to compliance with the instrument flight rules shall:
 - a) if a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan, or
 - b) when so required by 3.3 of ICAO Annex 2, submit a flight plan to the Paro Air Traffic Services unit and obtain a clearance prior to departure.

Table 1
(see para. 1 above on page 1.2.1)

Airspace class	Airspace Class	Flight visibility	Distance from cloud
At and above 3 050 m (10 000 ft) AMSL	A***B C D E F G	8km	1 500 m horizontally 300 m (1 000 ft) vertically
Below 3 050 m (10 000 ft) AMSL and above 900 m (3 000 ft) MSL, or above 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E F G	5 km	1 500 m horizontally 300 m (1 000 ft) vertically
At and below 900 m (3 000 ft) AMSL, or 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E	5 km	1 500 m horizontally 300 m (1 000 ft) vertically
	F G	5 km**	Clear of cloud and with the surface in sight
* When the height of the transition altitude is lower than 3 050 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) flight visibilities reduced to not less than 1 500 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 in 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 <i>in less than 1 500 m</i> flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision. ***The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.			

INTENTIONALLY LEFT BLANK

PART 2 - EN-ROUTE (ENR)

ENR 0.6 TABLE OF CONTENTS TO PART 2

	<i>Page</i>
ENR 1. GENERAL RULES AND PROCEDURES	
ENR 1.1 General rules.....	ENR 1.1-1
ENR 1.2 Visual Flight Rules.....	ENR 1.2-1
ENR 1.3 Instrument Flight Rules.....	ENR 1.3-1
ENR 1.4 ATS Airspace Classification.....	ENR 1.4-1
ENR 1.5 Holding, Approach and Departure Procedure.....	ENR 1.5-1
ENR 1.6 Radar Services and Procedure.....(NOT ESTABLISHED)	ENR 1.6-1
ENR 1.7 Altimeter Setting Procedures.....	ENR 1.7-1
ENR 1.8 Regional Supplementary Procedures (Doc. 7030).....	ENR 1.8-1
ENR 1.9 Air Traffic Flow Management(NOT ESTABLISHED)	ENR 1.9-1
ENR 1.10 Flight Planning.....	ENR 1.10-1
ENR 1.11 Addressing of Flight Plan Messages.....	ENR 1.11-1
ENR 1.12 Interception of Civil Aircraft.....	ENR 1.12-1
ENR 1.13 Unlawful Interference.....	ENR 1.13-1
ENR 1.14 Air Traffic Incident.....	ENR 1.14-1
ENR 2 AIR TRAFFIC SERVICES AIRSPACE	
ENR 2.1 FIR, UIR, TMA..... (NOT ESTABLISHED)	ENR 2.1-1
ENR 2.2 Other regulated Airspace.....	ENR 2.2-1
ENR 3 ATS ROUTES	
ENR 3.1 ATS Routes.....	ENR 3.1-1
ENR 3.2 Upper ATS Routes.....(NOT DEVELOPED)	-
ENR 3.3 Area Navigation (RNAV) Routes.....(NOT DEVELOPED)	-
ENR 3.4 Helicopter Routes.....(NOT DEVELOPED)	-
ENR 3.5 Other Routes.....(NOT DEVELOPED)	-
ENR 3.6 En-routes Holding.....(NOT DEVELOPED)	-
ENR 4 RADIO NAVIGATION AIDS/SYSTEMS	
ENR 4.1 Radio Navigation Aids- en-route.....	ENR 4.1-1
ENR 4.2 Special Navigation System..... (NOT ESTABLISHED)	ENR 4.2-1
ENR 4.3 Global Navigation Satellite System (GNSS)(NOT ESTABLISHED)	ENR 4.3.1
ENR 4.4 Name - Code Designator for significant points.....	ENR 4.4-1
ENR 4.5 Aeronautical Ground lights - En-route.....(NOT DEVELOPED)	-
ENR 5. NAVIGATION WARNINGS	
ENR 5.1 Prohibited, Restricted and Danger Areas.....	ENR 5.1-1
ENR 5.2 Military Exercise and Training areas	ENR 5.2-1
ENR 5.3 Other Activities of a Dangerous Natures and other Potential Hazards (NOT DEVELOPED)	-
ENR 5.4 Air Navigation Obstacle – Area 1(NOT DEVELOPED)	-
ENR 5.5 Aerial Sporting and recreational Activities(NOT DEVELOPED)	-
ENR 5.6 Bird Migration and areas with sensitive fauna.....	ENR 5.6-1
ENR 6. En-route Charts	
ENR 6.1 RNAV Route Chart.....	ENR 6.1-1 ←

INTENTIONALLY LEFT BLANK

ENR 1.4 ATS AIRSPACE CLASSIFICATION

1. Classification of airspace

ATS airspace 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 subjected to air traffic control service and are separated from other IFR flight 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 practicable.

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 airspace over Bhutan is classified as *D in CTR and F outside CTR.

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	VMC visibility and distance from cloud minima	Speed limitation	Radio communication requirement	Subject to an ATC clearance
*D	IFR	IFR from IFR	Air Traffic Control Service including traffic information about VFR flights (and traffic avoidance advice on request)	Not applicable	250 KT IAS below 3 050 M (10 000 FT) AMSL	Continues two-way	YES
	VFR	NIL	Traffic information between VFR and IFR flights (and traffic avoidance advice on request)	8 KM at and above 3 050 M (10 000 FT) AMSL 5 KM Below 3 050 M (10 000 FT) AMSL 1 500 M horizontal; 300 M vertical distance from cloud	250 KT IAS below 3 050 M (10 000 FT) AMSL	Continues two-way	YES
F	VFR	Nil	Flight Information Service	8 KM at and above 3 050 M (10 000 FT) AMSL 5 KM Below 3 050 M (10 000 FT) AMSL 1 500 M horizontal; 300 M vertical distance from cloud	250 KT IAS below 3 050 M (10 000 FT) AMSL	YES	YES

* Airspace Class D is proposed for Paro CTR

INTENTIONALLY LEFT BLANK

ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

1. General

- 1.1 The holding and approach procedures are based on criteria contained in ICAO Doc 8168- procedures for Air Navigation Services – Aircraft Operations (PANS-OPS).

2. Arriving flights

- 2.1 IFR flights entering and landing within a terminal control area will be cleared to a specified holding point and instructed to contact at a specified time, level or position. The terms of this clearance shall be adhere to until further instructions are received from approach control. 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 It is important that the entry to the patterns and the holding procedures are carried out as prescribed by ICAO. Pilots are requested to inform ATC for any reason the approach and /or holding can not be performed as published.

2.3 Rate of Turn

All turns executed in instrument approaches shall be rate one.

2.4 Rate of Descent

The rate of descent generally used in determining instrument approaches to land is 4.3% to 6.5%

2.5 Minimum Sector Altitude

- 2.5.1 The Minimum sector altitude (MSA) is established within a radius of 25NM from the aerodrome. Quadrants of the compass are used for determining minimum sector altitudes in Instruments Approach procedures.

3 Departing flights

NOT ESTABLISHED

INTENTIONALLY LEFT BLANK

ENR 1.6 RADAR SERVICES AND PROCEDURES

NOT ESTABLISHED

INTENTIONALLY LEFT BLANK

ENR 1.7 ALTIMETER SETTING PROCEDURES**1. Introduction**

- 1.1 The altimeter setting procedures in use generally conform to those contained in ICAO Doc. 8126, Vol. I, Part 6 and are given in full below.
- 1.2 QNH reports and temperature information for use in determining adequate terrain clearance are provided in MET reports available with the air traffic services units. QNH values are given in hectopascals.

2. Basic altimeter setting procedures**2.1 General**

- 2.1.1 The transition altitude is established at 18 000 ft and the transition level is at FL. 200 for Paro Aerodrome.
- 2.1.2 Vertical positioning of aircraft when at or below the transition altitude is expressed in term of altitude, whereas such positioning at or above the transition level is expressed in term of flight levels. While passing through the transition layer, vertical positioning is expressed in term of altitude when descending and in term of flight levels when ascending.
- 2.1.3 Flight level zero is located at the atmospheric pressure level 1013.2 hPa (29.92 in). Consecutive flight level are separated by pressure interval corresponding to 500 ft (152.4 m) in the standard atmosphere.

Note:- Example of the relationship between flight level and altimeter indications are given in the following table, the metric equivalent being approximate:

<i>Flight Level Number</i>	<i>Altimeter Indication</i>	
	<i>Feet</i>	<i>Metres</i>
100	10 000	3 050
150	15 000	4 550
200	20 000	6 100

Due to high terrain flights above 11 000 ft are only used

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 term of altitude until reaching the transition altitude above which vertical positioning is expressed in term of flight levels

2.3 Vertical separation - en-route

Vertical separation during en-route flight shall be above 11 000 ft, when in level cruising flight, shall be flown at such flight level, corresponding to the magnetic tracks shown in the following table, so as to provide required terrain clearance:

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.
- 2.4.2 QFE altimeter setting can be made available on request.
- 2.4.3 Vertical positioning of aircraft during approach is controlled by reference to flight level until reaching the transition level below which vertical positioning is controlled by reference to altitude.

2.5 Missed approach

Climb visually on QNH to 18 000 ft and report over DVOR PRO

Magnetic Track										
From 000 degrees to 179 degrees						From 180 degrees to 359 degrees				
IFR Flights			VFR Flights			IFR Flights			VFR Flights	
FL	Feet		FL	Feet		FL	Feet		FL	Feet
N/A *	N/A *		N/A *	N/A **		N/A *	N/A **		N/A *	N/A **
	11 000			11 500			12 000			12 500
	13 000			13 500			14 000			14 500
	15 000			15 500			16 000			16 500
	17 000			17 500			18 000			-
190	N/A (3)		195	N/A (3)		200	N/A (3)		205	N/A (3)
210			215			220			225	
230			235			240			245	
250			255			260			265	
270			275			280			285	
290			N/A (4)			310			N/A (4)	
330						350				
370						390				
410						430				
etc						etc				
etc						etc				

Notes:

- * Transition Altitude in Bhutan is 18 000 ft. Flight levels not authorised below this height.
- ** Terrain in Bhutan precludes allocation of cruising levels below 11 000 ft.
- (3) Transition Altitude in Bhutan is 18 000 ft. Altitudes not authorised above this height.
- (4) VFR flights in Bhutan not authorised above FL 290.

ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030)

The supplementary procedures in force are given in their entirety.

1. Visual flight rules (VFR) (ICAO Annex 2, 4.8)

VFR flights to be operated within a control zone established at an aerodrome serving international flights and in specified portions of 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.

2. Special application of instrument flight rules

Flights shall be conducted in accordance with the instrument flight rules even when not operating in instrument meteorological conditions.

3. Air traffic advisory service (PANS-ATM, 9. 1.4)

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

4. Adherence to ATC approved route (ICAO Annex 2, 3.6.2.2)

All aircraft when inadvertently deviated from the route specified in its ATC clearance, it shall forthwith take action to regain such route within “one hundred (100)” nautical miles from the position at which the deviation was observed.

INTENTIONALLY LEFT BLANK

ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

NOT ESTABLISHED

INTENTIONALLY LEFT BLANK

ENR 1.10 FLIGHT PLANNING

1. Procedures for the submission of a flight plan

- 1.1 A flight plan shall be submitted in accordance with ICAO Annex 2,3.3.1, prior to operating:
- a) any flight or portion thereof to be provided with air traffic control service; or
 - b) any IFR flight within advisory airspace; or
 - 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; or
 - d) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate co-ordination with appropriate military units or with air traffic service units in adjacent States in order to avoid the possible need for interception for the purpose of identification; or
 - e) any flight across international borders.
- 1.2 A flight plan shall be submitted before departure to an air traffic services reporting office or, during flight, transmitted to the appropriate air traffic services unit or air-ground control radio station, unless arrangements have been made for submission of repetitive flight plans.
- 1.3 Unless otherwise prescribed by the appropriate ATS authority, a flight plan for a flight to be provided with air traffic control service or air traffic advisory service shall be submitted at least sixty 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 ten 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
- 1.2 **Time of submission**
Except for repetitive flight plans, a flight plan shall be submitted at least two hours prior to departure, taking into account the requirements of ATS units in the airspace along the route to be flown for timely information, for obtaining ADC and FIC clearances. If submitted during flight, at a time which will ensure its receipt by the appropriate air traffic services unit at least ten 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.
- 1.3 **Place of submission**
Flight plans shall be submitted at **ATC Reporting Office (ARO)**, at the departure aerodrome.
- 1.4 **VFR flight plan for alerting service only**
An alerting service is, in principle, provided to flights for which a flight plan has been submitted.
- 1.5 **Contents and form of a flight plan**
- a) ICAO flight plan forms are available at Aerodrome Control Tower. The instructions for completing those forms shall be followed.
 - b) Flight plans concerning IFR flights along ATS routes need to include FIR boundary estimates.
- 1.6 **Adherence to ATS route structure**
No flight plans shall be filed for routes deviating from the published ATS route structure.
- 1.7 **Authorisation for special flights**
Flights of a specific character, such as survey flights, scientific research flights, etc. may be exempted from the restriction specified above. A request for exemption shall be mailed so as to be received at least one week before the intended day of operation to the Director of Civil Aviation, Ministry of Information & Communications, Paro Bhutan.

2. ***Repetitive flight plan system***

2.1 ***General***

The Procedures concerning the use of Repetitive Flight Plans (RPL) conform to ICAO Doc 7030 and the PANS-ATM.

RPL lists relating to flights in and to flights overflying the Bhutan airspace shall be submitted at least two weeks in advance, in duplicate, to the following address:

→ Director General of Civil Aviation, Ministry of Information & Communications, Paro : Bhutan and to ***ATC Reporting Office (ARO), Control Tower, Paro Intl. Airport, Paro, Bhutan. Tel:- 975-8-272859/272306, Fax: 975-8-272307, AFS: VQPRZPZX***

RPL lists shall be replaced in their entirety by new lists prior to the introduction of the summer and winter schedules.

2.2 ***Incidental changes and cancellations of RPL***

Incidental changes to and cancellations of RPL relating to departure shall be notified as early as possible and not later than 30 minutes before departure to the ATC.

2.3 ***Delay***

When a specific flight is likely to encounter delay of one hour or more in excess of the departure time stated in the RPL, the ATS unit serving the departure aerodrome shall be notified immediately.

Note. :- Failure to comply with this procedure may result in the automatic cancellation of the RPL for that specific flight at one or more of the ATS units concerned.

2.4 ***ATS messages***

For a flight operated on an RPL, no flight plan message (FPL) will be transmitted. Departure message (DEP) or delay message (DLA) relating to such flights will be transmitted to ATS unit outside Bhutan.

3. Changes to the submitted flight plan

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

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

3.3 Change to a current flight plan for a controlled flight shall be reported or requested, subject to the provisions in ICAO Annex 2, 3.6.2. (Adherence to flight plan). Significant changes to a flight plan include changes in endurance or in the total number of persons on board and changes in time estimates of 30 minutes or more.

3.4 Arriving report (closing a flight plan)

3.5 A report of arrival shall be made at the earliest possible moment after landing to the airport office of the arrival aerodrome by any flight for which a flight plan has been submitted except when the arrival has been acknowledged by the local ATS unit. After landing at an aerodrome which is not the destination aerodrome (diversionary landing), the local ATS unit shall be specifically informed accordingly. In the absence of a local ATS unit at the aerodrome of diversionary landing, the pilot is responsible for passing the arrival report to the destination aerodrome.

3.6 Arrival reports shall contain the following elements of information:

- aircraft identification
- departure aerodrome
- destination aerodrome
- time of arrival.

In the case of diversion, insert the “arrival aerodrome” between “destination aerodrome: and “time of arrival”

ENR 1.11 ADDRESSING OF FLIGHT PLAN MESSAGES

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

Note. :- Flight movement messages in this context comprise flight plan messages relating thereto and flight plan cancellation messages (ICAO PANS-ATM refers)

<i>Category of flight (IFR,VFR or both)</i>	<i>Route (into or via FIR and/or TMA)</i>	<i>Message address</i>	
All flights	PARO aerodrome	VQPRZTZX, VQPRZPZX	←

INTENTIONALLY LEFT BLANK

ENR 1.12 INTERCEPTION OF CIVIL AIRCRAFT**1. Interception procedures**

- 1.1 The following procedures and visual signals apply over the territory of Bhutan 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, interpreting and responding to visual signals in accordance with the specifications in Appendix 1 of ICAO Annex 2;
 - b) notify, if possible, the appropriate air traffic services unit;
 - c) attempt to establish radio communication with the interception aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 Mhz, giving the identity of the intercepted aircraft and the nature of the flight.
 - d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services 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, acknowledgement of instructions and essential information by using the phrases and pronunciations in the following table, transmitting each phrase twice;

Phrase	Pronunciation ¹	Meaning
CALL SIGN ²	KOL SA-IN	My Call Sing 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)	I Request To Land At (Place Name)
DESCEND	DEE -SEND	I require descent

1. Syllable to be emphasised are printed in bold letters.

2. The call sign required to be given is that used in radiotelephony communication with air traffic services unit 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 instructions 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 source 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 1.12-3.

Phrase	Pronunciation ¹	Meaning
CALL SIGN	KOL SA-IN	What is your Call Sing ?
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 Letters

SIGNALS FOR USE IN THE EVENT OF INTERCEPTION

Signals initiated by Intercepting aircraft and responses by Intercepted aircraft

Sl.	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) 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 turns, normally to the left, (or to the right in the case of 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 sl. 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 navigation lights at irregular interval 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 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 overflying 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 land.	Understood. Will comply

Signals initiated intercepted by aircraft and responses by intercepting aircraft

Sl.	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT - Raising landing gear. (If fitted), and flashing light while passing over runway in use or helicopter landing area, at a height exceeding 300 M (1 000 FT) but not exceeding 600 M (2 000 FT) (in the case of helicopter at a height exceeding 50 M (170 FT) but not exceeding 100 M (330 FT) 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 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 Sl. 1. Signal prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft. The intercepting aircraft uses the Sl. 2 signals prescribed for intercepting aircraft.	Understood. Follow me
2	DAY or NIGHT - Regular switching on and off of all available lights but not in such manner as to be distinct from lights.	Cannot comply	DAY or NIGHT - User Sl. 2 signals prescribed for intercepting aircraft.	Understood.
3	DAY or NIGHT- Irregular flashing of all available lights..	In distress	DAY or NIGHT - User Sl. 2 signals prescribed for intercepting aircraft.	Understood.

INTENTIONALLY LEFT BLANK

ENR 1.13 UNLAWFUL INTERFERENCE

1. General

- 1.1 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.
- 2.2 When an aircraft is subjected to an act of unlawful interference must depart from its assigned track or its assigned cruising level without being able to make radiotelephony contact with ATS, the pilot-in-command should, whenever possible:
- a) attempt to broadcast warnings on the VHF emergency frequency and other appropriate frequencies, unless considerations abroad the aircraft dictate otherwise. Other equipment such as on-board transponders, data links, etc. 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 Doc 7030 - *Regional Supplementary Procedures*;
 - c) If no applicable regional procedures have been establish, proceed at a level which differs from the cruising levels normally used for IFR flight in the area by 1,000 ft (300 m) if above FL 290 or by 500 ft (150 m) if below FL 290.

INTENTIONALLY LEFT BLANK

ENR 1.14 AIR TRAFFIC INCIDENT

1. Definition of air traffic incidents

1.1 “Air traffic incident” is used to mean a serious occurrence related to the provision of air traffic services, such as:

- a) aircraft proximity (AIRPROX);
- b) serious difficulty resulting in a hazard to aircraft caused, for example, by:
 - 1) faulty procedures
 - 2) non-compliance with procedures, or
 - 3) failure of ground facilities.

1.1.1 Definitions for aircraft proximity and AIRPROX.

Aircraft proximity. A situation in which, in the opinion of the pilot or the air traffic services personnel, the distance between aircraft, as well as their relative positions and speed, has been such that the safety of the aircraft involved may have been compromised. Aircraft proximity is classified as follows:

Risk of collision. The risk classification of aircraft proximity in which serious risk of collision has existed.

Safety not assured. The risk classification of aircraft proximity in which the safety of the aircraft may have been compromised.

No risk of collision. The risk classification of aircraft proximity in which no risk of collision has existed.

Risk not determined. The risk classification of aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

AIRPROX. The code word used in an air traffic incident report to designate aircraft proximity.

1.2 Air traffic incidents are designated and identified in reports as follows:

Type	Designation
Air traffic incident	Incident
as a) above	AIRPROX (Aircraft proximity)
as b) 1) and 2) above	Procedure
as b) 3) above	Facility

2. Use of the Air Traffic Incident Report Form (see model on pages ENR 1.14-3 to 1.14-6)

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 air traffic incident report received by radio, telephone or teleprinter.

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

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 significance, 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
- 1) for confirming a report of an incident made initially as in a) above, or for making the initial report on such an incident if it had not been possible to report it by radio;
- 2) 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 Investigating officer, Department of Civil Aviation at Paro Airport for submission to the Director General, Department of Civil Aviation, Paro. The pilot should complete the Air Traffic Incident Report Form, supplementing the details of the initial reports as necessary.

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. The degree of risk involved in an aircraft proximity incident should be determined in the incident investigation and classified as “risk of collision”, “safety not assured”, “no risk of collision” or “risk not determined”.
- 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.

**DEPARTMENT OF CIVIL AVIATION
ROYAL GOVERNMENT OF BHUTAN
AIR TRAFFIC INCIDENT REPORT FORM**

For use when submitting and receiving reports on air traffic incidents. In an initial reported by radio, bolded items should be included

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 air speed** _____ **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)**
 ☐ **Singular** ☐ **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 ATS**
 ☐ **Yes, based on radar** ☐ **Yes, based on visual sighting** ☐ **Yes, based on other inf.**
 ☐ **No**
j) **Traffic information issued**
 ☐ **Yes, based on radar** ☐ **Yes, based on visual sighting** ☐ **Yes, based on other inf.**
k) **Airborne collision avoidance system – ACAS**
 ☐ **Not carried** ☐ **Type** ☐ **Traffic advisory issued**
 ☐ **Resolution advisory issued** ☐ **Traffic advisory or resolution not issued**
l) **Radar identification**
 ☐ **No radar available** ☐ **Radar identification** ☐ **No radar identification**
 ☐ **No**
m) **Other aircraft sighted**
 ☐ **Yes** ☐ **No** ☐ **Wrong aircraft sighted**
n) **Avoidance 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 engine | ☐ 3 engine |
| ☐ 4 engine | ☐ More than 4 engine | |
- Marking, colour or other available details
- _____
- _____
- _____
- c) Aircraft climbing or descending
- | | | |
|---------------------------------------|-----------------------------------|-------------------------------------|
| ☐ Level flight | ☐ Climbing | ☐ Descending |
| ☐ Unknown | | |
- d) Aircraft bank angle
- | | | |
|--------------------------------------|--------------------------------------|--|
| ☐ Wings level | ☐ Slight bank | ☐ Moderate bank |
| ☐ Steep bank | ☐ Inverted | ☐ Unknown |
- e) Aircraft direction of bank
- | | | |
|-------------------------------|--------------------------------|----------------------------------|
| ☐ Left | ☐ Right | ☐ Unknown |
|-------------------------------|--------------------------------|----------------------------------|
- f) lighting displayed
- | | | |
|--|--|---|
| ☐ Navigation lights | ☐ Strobe lights | ☐ Cabin Lights |
| ☐ Red anti-collision lights | ☐ Landing / taxi lights | ☐ Logo (tail fin) lights |
| ☐ Other | ☐ None | ☐ Unknown |
- g) Traffic avoidance advice issued by ATS
- | | | |
|--|--|---|
| ☐ Yes, based on radar | ☐ Yes, based on visual sighting | ☐ Yes, based on other inf. |
| ☐ No | ☐ Unknown | |
- h) Traffic information issued
- | | | |
|--|--|---|
| ☐ Yes, based on radar | ☐ Yes, based on visual sighting | ☐ Yes, based on other inf. |
| ☐ No | ☐ Unknown | |
- i) Avoidance action taken
- | | | |
|------------------------------|-----------------------------|----------------------------------|
| ☐ Yes | ☐ No | ☐ Unknown |
|------------------------------|-----------------------------|----------------------------------|

4. Distance

- a) Closest horizontal distance _____
- b) Closest vertical distance _____

5. Flight weather condition

- a) IMC /VMC
- b) Above / below* / cloud / fog / haze or between layers
- c) Distance vertically from cloud _____m / ft* below _____m / ft* 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) Aerodrome of first landing _____ destination _____ f) Reported by radio 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 received via AFTN / radio / telephone / other (specify) _____ b) Report received by _____ (name of ATS unit)
2.	ails 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 centre of each diagram. Include first signing and passing distance.	
VIEW FROM ABOVE VIEW FROM ASTERN	

*Delete as appropriate

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/ 10 13 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 unit used.
- C6 Attach additional papers as required. The diagrams may be used to show aircraft's positions.
- D1 f) State name of ATS unit and distance/time in UTC
- D1 g) Date and time in UTC
- E2 Include details of ATS unit such as service provided, radiotelephony frequency, SSR Codes assigned and altimeter setting. Use diagram to show the aircraft's position and attach additional papers as required.

ENR 2. AIR TRAFFIC SERVICE AIRSPACE

ENR 2.1 FIR, UIR, TMA

<i>Name lateral limits vertical limits class of airspace</i>	<i>Unit providing service</i>	<i>Call sign Languages Area and condition of use Hours of service</i>	<i>Frequency/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
NOT ESTABLISHED				

INTENTIONALLY LEFT BLANK

ENR 2.2 OTHER REGULATED AIRSPACE

TO BE DEVELOPED

INTENTIONALLY LEFT BLANK

ENR 3 ATS ROUTES

ENR 3.1 AREA NAVIGATION (RNAV) ROUTE

Route designator (RNAV 5 ^{1 2}) Name of the significant points Co-ordinates (WGS-84)	Track MAG (GEO) VOR RDL DIST (COP)	<u>Upper limits</u> <u>Lower limits</u> Minimum flight altitude Airspace classification	Lateral limits KM	Direction of Cruising levels		Remarks Controlling Unit Frequency
				odd	Even	
1	2	3	4	5		6
G348 PARO VOR (PRO) 27°18'03"N 089°30'20"E SUBSU 26°58'55.3"N 0885149.8E	<u>241°</u> 061° 37 NM	<u>FL 460</u> 16 000 Class F		↑	↓	For further information see AIP India
R598 PARO VOR (PRO) 27°18'03"N 089°30'20"E BOGOP 26°44'01.5"N 089°44'49.5"E	<u>162°</u> 342° 38 NM	<u>FL 460</u> 16 000 Class F		↑	↓	For further information see AIP India
Y1 ▲ PARO (VQPR) NDB (PR) 27° 23' 58.00" N 089° 25' 29.00" E ▲ SEMKA 27° 25' 46.20" N 089° 39' 31.02" E ▲ ONGDI (Wangdi phodrang) 27° 26' 48.76" N 089° 47' 43.31" E ▲ PHOBG (PhobYikha) 27° 30' 27.75" N 090° 16' 58.88" E ▲ BUMTHANG (VQBT) NDB (BT) 27° 33' 50.06" N 090° 44' 49.08" E	<u>082</u> 263 12.6 NM <u>082</u> 263 7.4 NM <u>082</u> 263 26.3 NM <u>082</u> 263 25.0 NM	<u>FL 290</u> FL 180 Class F	12	↓	↑	MAX IAS 240 KT
Y2 ▲ BUMTHANG (VQBT) NDB (BT) 27° 33' 50.06" N 090° 44' 49.08" E ▲ TMANG (Tsamang) 27° 23' 35.20" N 091° 10' 25.50" E ▲ YONPHULA (VQTY) NDB (YP) 27° 15' 28.31" N 091° 30' 31.076" E	<u>114</u> 295 25.0 NM <u>115</u> 295 19.6 NM	<u>FL 290</u> FL 180 Class F	12	↓	↑	MAX IAS 240 KT.
1. RNAV = Area navigation specification 2. RNAV 5 represents aircraft and operating requirements, including a 9.26 KM (5 NM) lateral performance						

Route designator (RNAV 5 ^{1 2}) Name of the significant points Co-ordinates (WGS-84)	Track MAG (GEO) VOR RDL DIST (COP)	<u>Upper limits</u> Lower limits Minimum flight altitude Airspace classification	Lateral limits KM	Direction of Cruising levels		Remarks Controlling Unit Frequency
				odd	Even	
1	2	3	4	5		6
Y3 ▲ PARO (VQPR) NDB (PR) 27° 23' 58.00" N 089° 25' 29.00" E ▲ GTSHO (Gase Tsho wom) 27° 22' 34.95" N 089° 47' 53.32" E ▲ BAKMO (BLACKMOUNTAIN) 27° 20' 15.58" N 090° 23' 28.91" E ▲ DELTA 27° 19' 13.18" N 090° 38' 42.33" E ▲ VALEY 27° 18' 03.22" N 090° 55' 18.76" E ▲ YONPHULA (VQTY) NDB (YP) 27° 15' 28.31" N 091° 30' 31.076" E	<u>094</u> 275 20.0 NM <u>094</u> 275 31.8 NM <u>094</u> 275 13.6 NM <u>095</u> 275 14.8 NM <u>095</u> 275 31.5 NM	FL 290 FL 180 Class F	12	↓	↑	MAX IAS 240 KT.
Y4 ▲ BUMTHANG (VQBT) NDB (BT) 27° 33' 50.06" N 090° 44' 49.08" E ▲ DELTA 27° 19' 13.18" N 090° 38' 42.33" E ▲ TRONG 27° 04' 20.56" N 090° 32' 31.04" E ▲ GELPU (GELEPHU ARP) 26° 53' 04.30" N 090° 27' 51.10" E	<u>021</u> 201 15.6 NM <u>021</u> 201 15.8 NM <u>021</u> 201 12.0 NM	FL 290 FL 180 Class F	12	↓	↑	1. MAXIAS 240KT. 2. Aircraft shall operate within Bhutan FIR due to close proximity of India FIR.
Y5 ▲ YONPHULA (VQTY) NDB (YP) 27° 15' 28.31" N 091° 30' 31.076" E ▲ BARDO 27° 04' 16.52" N 090° 58' 58.18" E ▲ GELPU (GELEPHU ARP) 26° 53' 04.30" N 090° 27' 51.10" E ▲ DAGNA 27° 02' 05.04" N 090° 07' 14.77" E ▲ TAKTI 27° 02' 59.00" N 089° 30' 56.00" E ▲ PARO (VQPR) VOR (PRO) 27° 18' 03.00" N 089° 30' 20.00" E	<u>069</u> 249 30.3 NM <u>068</u> 249 30.0 NM <u>116</u> 296 20.5 NM <u>092</u> 272 32.4 NM <u>178</u> 358 15.0 NM	FL 290 FL 180 Class F	12	↓	↑	1. MAXIAS 240KT. 2. Aircraft shall operate within Bhutan FIR due to close proximity of India FIR.
Y6 ▲ PARO (VQPR) VOR (PRO) 27° 18' 03.00" N 089° 30' 20.00" E ▲ DAGNA 27° 02' 05.04" N 090° 07' 14.77" E ▲ TRONG 27° 04' 20.56" N 090° 32' 31.04" E	<u>116</u> 296 36.6 NM <u>085</u> 265 22.7 NM	FL 290 FL 180 Class F	12	↓	↑	MAX IAS 240 KT.
1. RNAV = Area navigation specification 2. RNAV 5 represents aircraft and operating requirements, including a 9.26 KM (5 NM) lateral performance						

ENR 4. RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

<i>Name of station (VOR/VAR)</i>	<i>ID</i>	<i>Frequency (CH)</i>	<i>Hour of operation</i>	<i>Coordinates</i>	<i>ELEV DME antenna</i>	<i>Remarks</i>
DVOR/DME	PRO	108.4 Mhz (CH 21X)	HO	271803N 0893020E	11 483 ft	Coverage 38 NM

INTENTIONALLY LEFT BLANK

ENR 4.2 SPECIAL NAVIGATION SYSTEM

<i>Name of station(ID) or chain</i>	<i>Type of SVC</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Coordinates TRANS STN</i>	<i>Remarks</i>
NOT ESTABLISHED					

INTENTIONALLY LEFT BLANK

ENR 4.3 GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

<i>Name of GNSS element</i>	<i>Frequency</i>	<i>Coordinate <u>Nominal SVC area</u> Coverage Area</i>	<i>Remarks</i>
1	2	3	4
NOT ESTABLISHED			

INTENTIONALLY LEFT BLANK

ENR 4.4 NAME- CODE DESIGNATORS FOR SIGNIFICANT POINTS

<i>Name -code designator</i>	<i>Coordinates</i>	<i>ATS route or other route</i>
TAKTI	2702⁵⁹98N 893056E	HOLDING

INTENTIONALLY LEFT BLANK

ENR 5. NAVIGATION WARNINGS**ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS**

<i>Identification, name and lateral limits</i>	<i>Upper limit</i>	<i>Remarks (time of activity, type of restriction, nature of hazard, risk of interception)</i>
	<i>Lower limit</i>	
PROHIBITED AREAS		NOT ESTABLISHED
RESTRICTED AREAS		NOT ESTABLISHED
DANGER AREAS		NOT ESTABLISHED

Note:- Aircraft penetrating into Indian border requires to obtain Air defence Clearance (ADC). Ref. AIP India ENR 1.12 ADIZ East.

INTENTIONALLY LEFT BLANK

ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS

<i>Name</i> <i>Lateral limits</i>	<i>System/means of activation</i> <i>announcement INFO for CIV FLT</i>	<i>Remarks</i> <i>Time of ACT,</i>
TRAINING AREAS	TO BE DEVELOPED	
EXERCISE AREAS	TO BE DEVELOPED	

INTENTIONALLY LEFT BLANK

ENR 5.6 BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

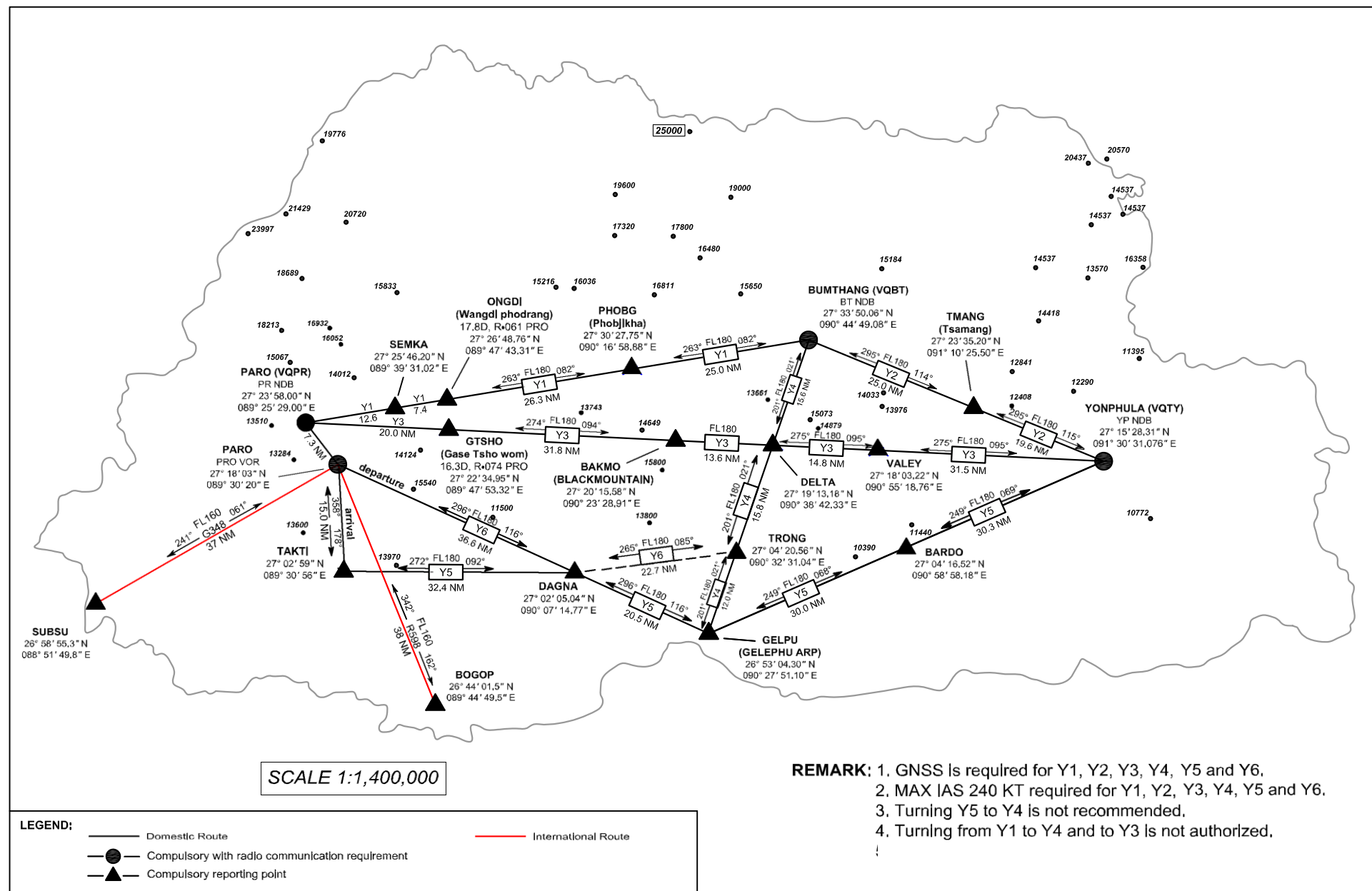
1. Bird migration

- 1.1 Presence of birds in and around Paro Airport will be briefed by the Aerodrome control to the Pilots by R/T as and when the presence of birds noticed.

INTENTIONALLY LEFT BLANK

RNAV ROUTE CHART

BHUTAN / Bhutan FIR



INTENTIONALLY LEFT BLANK

༄༄། དཔལ་ལྷན་འབྲུག་གཞུང་གི་བདེ་མཁའ་འགྲུལ་ལས་ཁུངས་།

**Royal Government of Bhutan
Department of Civil Aviation
Aeronautical Information Service**

PART 3 – AERODROME (AD)



CONSULT NOTAM FOR LATEST INFORMATION

AIP

Aeronautical Information Publication

First Edition

2009

BHUTAN

PART 3 - AERODROMES (AD)**AD 0.****AD 0.6 TABLE OF CONTENTS TO PART 3**

	<i>Page</i>
AD 1. AERODROMES-INTRODUCTION	
AD 1.1 Aerodrome Availability.....	AD 1.1-1
AD 1.1 General conditions under which aerodromes and associated facilities are available for use.....	AD 1.1-1
AD 1.2 Applicable ICAO Documents.....	AD 1.1-2
AD 1.3 Civil use of military by Air.....	AD 1.1-2
AD 1.4 CAT II/III Operations at aerodromes.....	AD 1.1-2
AD 1.5 Other information.....	AD 1.1-2
AD 1.2 Rescue and Fire fighting services and snow plan.....	AD 1.2-1
AD 1.2.1 Rescue and Fire Fighting services.....	AD 1.2-1
AD 1.2.2 Snow plan.....	AD 1.2-1
AD 1.3 Index to Aerodromes and Heliport.....	AD 1.3-1
AD 1.4 Grouping of Aerodromes.....	AD 1.3-2
AD 2. AERODROMES.	
VQPR AD 2.1 Aerodromes location indicator and name.....	AD 2.1-1
VQPR AD 2.2 Aerodromes geographical and administrative	AD 2.1-1
VQPR AD 2.3 Operational hours.....	AD 2.1-1
VQPR AD 2.4 Handling services and facilities.....	AD 2.1-1
VQPR AD 2.5 Passenger facilities.....	AD 2.1-1
VQPR AD 2.6 Rescue and fire fighting service.....	AD 2.1-1
VQPR AD 2.7 Seasonal availability - clearing.....	AD 2.1-2
VQPR AD 2.8 Aprons, taxiways and check locations data.....	AD 2.1-2
VQPR AD 2.9 Surface movement guidance and control system and markings.....	AD 2.1-2
VQPR AD 2.10 Aerodromes obstacles.....	AD 2.1-2
VQPR AD 2.11 Meteorological information provided.....	AD 2.1-2
VQPR AD 2.12 Runway physical characteristics.....	AD 2.1-3
VQPR AD 2.13 Declare distances.....	AD 2.1-3
VQPR AD 2.14 Approach runway lighting.....	AD 2.1-3
VQPR AD 2.15 Other lightning, secondary power supply.....	AD 2.1-3
VQPR AD 2.16 Helicopter landing area.....	AD 2.1-4
VQPR AD 2.17 ATS Airspace.....	AD 2.1-4
VQPR AD 2.18 ATS Communications.....	AD 2.1-4
VQPR AD 2.19 Radio Navigation and landing aids.....	AD 2.1-4
VQPR AD 2.20 Local Traffic Regulation.....	AD 2.1-5
VQPR AD 2.21 Noise abatement procedure.....	AD 2.1-6
VQPR AD 2.22 Flight procedures.....	AD 2.1-6
VQPR AD 2.23 Additional information.....	AD 2.1-9
VQPR AD 2.24 Charts related to an aerodrome.....	AD 2.1-9
VQPR AD 2.24.1 Aerodrome chart.....	AD 2.2-1
VQPR AD 2.24.2 Aerodrome Obstacle chart - ICAO Type A RWY 15.....	AD 2.3-1
VQPR AD 2.24.3 Aerodrome Obstacle chart - ICAO Type A RWY 33.....	AD 2.3-2
VQPR AD 2.24.4 Visual Approach Chart-ICAO.....	AD 2.6-1
VQBT AD 2.1 Aerodromes location indicator and name.....	AD 2.1-VQBT-1
VQBT AD 2.2 Aerodromes geographical and administrative	AD 2.1-VQBT -1
VQBT AD 2.3 Operational hours.....	AD 2.1-VQBT -1
VQBT AD 2.4 Handling services and facilities.....	AD 2.1-VQBT -1
VQBT AD 2.5 Passenger facilities.....	AD 2.1-VQBT -1
VQBT AD 2.6 Rescue and fire fighting service.....	AD 2.1-VQBT -1
VQPR AD 2.7 Seasonal availability - clearing.....	AD 2.1-VQBT -2
VQBT AD 2.8 Aprons, taxiways and check locations data.....	AD 2.1-VQBT -2
VQBT AD 2.9 Surface movement guidance and control system and markings.....	AD 2.1-VQBT -2
VQBT AD 2.10 Aerodromes obstacles.....	AD 2.1-VQBT -2
VQBT AD 2.11 Meteorological information provided.....	AD 2.1-VQBT -2
VQBT AD 2.12 Runway physical characteristics.....	AD 2.1-VQBT -3
VQBT AD 2.13 Declare distances.....	AD 2.1-VQBT -3
VQBT AD 2.14 Approach runway lighting.....	AD 2.1-VQBT -3
VQBT AD 2.15 Other lightning, secondary power supply.....	AD 2.1-VQBT -3
VQ BT AD 2.16 Helicopter landing area.....	AD 2.1-VQBT -3
VQBT AD 2.17 ATS Airspace.....	AD 2.1-VQBT -3

VQBT AD 2.18	ATS Communications.....	AD 2.1-VQBT -4
VQBT AD 2.19	Radio Navigation and landing aids.....	AD 2.1-VQBT -4
VQBT AD 2.20	Local Traffic Regulation.....	AD 2.1-VQBT -4
VQBT AD 2.21	Noise abatement procedure.....	AD 2.1-VQBT -5
VQBT AD 2.22	Flight procedures.....	AD 2.1-VQBT -5
VQBT AD 2.23	Additional information.....	AD 2.1-VQBT -7
VQBT AD 2.24	Charts related to an aerodrome.....	AD 2.1-VQBT -7
VQBT AD 2.24.1	Aerodrome chart.....	AD 2-VQBT-2 -1
VQBT AD 2.24.2	Aerodrome Obstacle chart - ICAO Type A RWY32.....	AD 2-VQBT-3 -1
VQBT AD 2.24.3	Aerodrome Obstacle chart - ICAO Type A RWY 14.....	AD 2-VQBT-3 -2
VQTY AD 2.1	Aerodromes location indicator and name.....	AD 2.1-VQTY-1
VQTY AD 2.2	Aerodromes geographical and administrative	AD 2.1-VQTY -1
VQTY AD 2.3	Operational hours.....	AD 2.1-VQTY -1
VQTY AD 2.4	Handling services and facilities.....	AD 2.1-VQTY -1
VQTY AD 2.5	Passenger facilities.....	AD 2.1-VQTY -1
VQTY AD 2.6	Rescue and fire fighting service.....	AD 2.1-VQTY -1
VQPR AD 2.7	Seasonal availability - clearing.....	AD 2.1-VQTY -2
VQTY AD 2.8	Aprons, taxiways and check locations data.....	AD 2.1-VQTY -2
VQTY AD 2.9	Surface movement guidance and control system and markings.....	AD 2.1-VQTY -2
VQTY AD 2.10	Aerodromes obstacles.....	AD 2.1-VQTY -2
VQTY AD 2.11	Meteorological information provided.....	AD 2.1-VQTY -2
VQTY AD 2.12	Runway physical characteristics.....	AD 2.1-VQTY -3
VQTY AD 2.13	Declare distances.....	AD 2.1-VQTY -3
VQTY AD 2.14	Approach runway lighting.....	AD 2.1-VQTY -3
VQTY AD 2.15	Other lightning, secondary power supply.....	AD 2.1-VQTY -3
VQ BT AD 2.16	Helicopter landing area.....	AD 2.1-VQTY -3
VQTY AD 2.17	ATS Airspace.....	AD 2.1-VQTY -3
VQTY AD 2.18	ATS Communications.....	AD 2.1-VQTY -4
VQTY AD 2.19	Radio Navigation and landing aids.....	AD 2.1-VQTY -4
VQTY AD 2.20	Local Traffic Regulation.....	AD 2.1-VQTY -4
VQTY AD 2.21	Noise abatement procedure.....	AD 2.1-VQTY -5
VQTY AD 2.22	Flight procedures.....	AD 2.1-VQTY -5
VQTY AD 2.23	Additional information.....	AD 2.1-VQTY -7
VQTY AD 2.24	Charts related to an aerodrome.....	AD 2.1-VQTY -7
VQTY AD 2.24.1	Aerodrome chart.....	AD 2-VQTY-2 -1
VQTY AD 2.24.2	Aerodrome Obstacle chart - ICAO Type A RWY12/30.....	AD 2-VQTY-3 -1

AD 3 **Heliports** (TO BE DEVELOPED)

AD 1. AERODROMES - INTRODUCTION

AD 1.1 AERODROME AVAILABILITY

1. General conditions under which aerodrome and associated facilities are available for use

- 1.1 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 Director General, Department of Civil Aviation.
- 1.2 ***Landings made at other than an international aerodrome.***
- If a landing is made at other than an international aerodrome or a designated alternate aerodrome, the pilot-in-command shall report the landing as soon as practicable to the health, customs and immigration authorities at the international aerodrome at which the landing was scheduled to take place. This notification may be made through any available communication link.
- 1.3 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.
- 1.4 ***Traffic of persons and vehicles on aerodromes***
- 1.4.1 ***Demarcation of zones***
- The grounds of Paro 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.
- 1.4.1 ***Movement of persons***
- Access to the restricted zone is authorised only under the conditions prescribed by the special rules governing the aerodrome through colour coded Identity cards. The customs, police, and health inspection offices and the premises assigned to transit traffic are normally accessible only to passengers, to staff of the public authorities and airlines and to authorised persons in pursuit of their duty. The movement of persons having access to the restricted zone of the aerodrome is subject by to the special rules laid down by the aerodrome administration, through colour coded Identification Cards.
- 1.4.3 ***Movement of vehicles***
- The movement of vehicles in the restricted zone is strictly limited to vehicles driven or used by persons carrying a traffic permit or an official card of admittance. Drivers of vehicles, of whatever type, operating within the confines of the aerodrome must respect the direction of the traffic, the traffic signs, the posted speed limits generally comply with the provisions of the Highway Code and with the instructions given by the competent authorities.
- 1.5 ***Policing***
- Care and protection of aircraft, vehicles, equipment and goods used at the aerodrome are not the responsibility of the State or any concessionaire; they cannot be held responsible for loss or damage which is not incurred through action by them or their agents.

1.6 ***Landing, parking and storage of aircraft on aerodromes/heliports 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 aerodromes under the control of the Department of Civil Aviation 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 Department of Civil Aviation.

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

- b) The Department of Civil Aviation 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 are not made to the Department of Civil Aviation within 15 days after a letter demanding payment thereof has been sent by post addressed to the registered owner of the aircraft, the Department of Civil Aviation shall be entitled to sell, destroy or otherwise dispose off 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 Department of Civil Aviation nor any servant or agent of the government shall be liable for loss or damage to the aircraft, its parts or accessories or any property contained in the aircraft, howsoever such loss and damage may arise, occurring while the aircraft is on any aerodrome under the control of the Department of Civil Aviation or is in the course of landing at or taking off from any such aerodrome.

2. Applicable ICAO documents

- 2.1 The Standards and Recommended Practices of ICAO Annex 14, Volumes I and II, are applied without differences.

3. Civil use of military air bases

TO BE DEVELOPED

4. CAT II/III operations at aerodromes

TO BE DEVELOPED

5. Other information

NIL

AD 1.2 RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN**1. Rescue and fire fighting services**

- 1.1 At Paro aerodrome approved for scheduled and/or non-scheduled and Private traffic with aeroplanes carrying passengers, Rescue and Fire Fighting Services are established in accordance with ICAO regulations for civil aviation.

Note. - At Paro Airport the level of protection provided is aerodrome category 6.

<i>Rescue and fire fighting services</i>	
<i>Aerodrome category</i>	<i>Amount of water in litres for production of performance level B foam ←</i>
6	17,800.00 ←

2. Snow plan**2.1 Organisation of winter service**

- 2.1.1 During the winter period from approximately 1st November to approximately 1st April, the Aerodrome Control Tower at the Paro aerodrome will conduct the following duties.
- a) Surveillance of the manoeuvring area and apron with a view to noting the presence of ice, snow or slush.
 - b) Implementation of measures to maintain the usability of the runway, etc.
 - c) Reporting of the conditions mentioned in a) to b) above.

2.2 Surveillance of movement areas

- 2.2.1 The aerodrome Control Tower monitors the condition of the manoeuvring area and the apron within the published aerodrome hours of service.

2.3 Measuring methods and measurements taken

- 2.3.1 The depth of layer of snow or slush is measured by an ordinary measuring rod. Measurements will be taken at large number of places and a representative mean value calculated. On the runway, removal of ice and compacted snow is done by sweeping manually.
- 2.3.2 *Friction coefficients*

TO BE DEVELOPED**2.4 Action taken to maintain the usability of movement areas.**

- 2.4.1 Snow clearance and measures to improve braking action will be maintained as long as conditions at the movement area do not impede the safety and regularity of air traffic,
- 2.4.2 Snow clearance, etc., will normally be carried out in the following order:
- 1. Runway in use and access road from the fire station.
 - 2. Taxiway(s) to runway in use.
 - 3. Apron

2.5 ***System and means of reporting***

The aerodromes Control Tower will use the NOTAM and disseminate to ARO and other stations on AFTN and HF/RT channels

2.6 ***Case of Runway Closures***

When a fall in temperature causes water, slush to become solid ice and snow clearance delayed due to heavy fall. The aerodrome Control Tower may close the affected section of the movement areas.

2.7 ***Distribution of Information about Snow condition***

Information on snow conditions at Paro Airport will be disseminated in NOTAM format 2.

AD 1.3 INDEX TO AERODROMES

Aerodrome name Location indicator	Type of traffic to use the aerodrome			Reference to AD section and remarks
	International National (INTL-NTL)	IFR - VFR	S= Scheduled NS=non schedule P = Private	
Aerodrome				
<u>PARO</u> VQPR	International	IFR – VFR	S NS P	AD-2 VQPR
<u>BUMTHANG</u> VQBT	Domestic	VFR	S NS	AD-2 VQBT
<u>YONPHULA</u> VQTY	Domestic	VFR	S NS	AD-2 VQTY

INTENTIONALLY LEFT BLANK

AD 1.4 GROUPING OF AERODROMES

- 1. The criteria applied by Bhutan in grouping aerodromes for the provision of information in this AIP are as follows:**

1.1 Major international aerodromes

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

- a) Paro International Airport - VQPR

1.2. National aerodromes

- a) Aerodrome with AFIS**

AD2-1 VQBT

AD2-1 VQTY

INTENTIONALLY LEFT BLANK

AD 2.1 AERODROMES**VQPR AD 2.1 AERODROME LOCATION INDICATOR AND NAME****VQPR - PARO/International****VQPR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP co-ordinates and site at AD	272412.47N 0892529.55E Centre of RWY
2	Direction and distance from(city)	51 Km SW from Thimphu
3	Elevation/Reference temperature	2 241M (7 352 ft) MSL/ 28°C
4	MAG VAR/Annual changes	0.12° West 2006
5	AD Administration, address, telephone, telefax, telex. AFS	Department of Civil Aviation, Paro: Bhutan. Tel No.(975)-8- 271403,271383 Email: airport@druknet.bt
6	Type of traffic permitted (IFR/VFR)	IFR in VMC is permitted due to high terrain
7	Remarks	AD PPR

VQPR AD 2.3 OPERATIONAL HOURS

1	AD Administration	Available MON - FRI 0300 – 1100 (UTC)
2	Customs and immigration	Available during sked operations
3	Health and sanitation	Available during sked operation & as and when require
4	AIS Briefing Office	Available during operations and MON - FRI 0300 – 1100 (UTC)
5	ATS Reporting Office	Available during operations and MON - FRI 0300 – 1100 (UTC)
6	MET Briefing Office	Available during operations and MON - FRI 0300 – 1100 (UTC)
7	ATS	During Operational Hrs
8	Fuelling	Available during sked operations
9	Handling	Available during sked operations
10	Security	24 hours
11	De-icing	Not available
12	Remarks	Out side those hours, service available O/R. Request to be submitted to the AD 24hrs before intended operation.

VQPR AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available with airline operator, Druk-air
2	Fuel/oil types	Aviation Turbine Fuel only – Jet A1
3	Fuelling facilities/capacity	1 truck, 9000 litres, 500ltrs/Sec.
4	De-icing facilities	Manual by sweeping
5	Hanger space for visiting aircraft	Limited, by prior arrangement only.
6	Repair facilities for visiting A/C	Available by prior arrangement with operator, Druk-air.
7	Remarks	NIL

VQPR AD 2.5 PASSENGER FACILITIES

1	Hotels	Near AD and in the city.
2	Restaurants	At AD and in city.
3	Transportation	Taxi from the AD to Thimphu
4	Medical facilities	First aid at AD. Hospital in the Paro town 8 Km.
5	Bank and Post Office	Bank & Post office at AD. Open within AD HR
6	Tourist Office	Office in the city :Tel: 975 – 2- 323251,fax: 975-2- 323695
7	Remarks	Nil

VQPR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Within AD HR: CAT 6
2	Rescue equipment	Rescue Tools with CFT
3	Capability for removal of disabled aircraft	Towing facility provided by Druk-air
4	Remarks	NIL

VQPR AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Type of clearing equipment	Manually Sweeping
2	Clearance priorities	1. RWY 33/15 and associated TWY to Apron
3	Remarks	Information on snow clearance published from November - April through NOTAM . See also snow plan in section AD 1.2.2

VQPR AD 2.8 APRON, TAXIWAYS AND CHECK LOCATION DATA

1	Apron surface and strength	1. Apron A Surface : Concrete, Strength: PCN 22/R/C/W/U 2. Apron B Surface : Concrete, Strength: PCN 22/R/C/W/U
2	Taxiway width, surface and strength	1. Taxiway A Width:15 M Surface: Concrete Strength: PCN 13/R/C/W/U 2. Taxiway B Width: 18 M Surface: Concrete Strength: PCN 13/R/C/W/U
3	ACL location and elevation	Location: At Apron Elevation: 2 232M
4	VOR checkpoints	Point A – Taxiway A Holding Points 27°24'20.97N 089°25'20.84E DVOR 324.4° DME 7.7NM Point B – Threshold RWY15 27°24'39N 089°25'11E DVOR 325.1° DME 8.2NM
5	INS check points	-
6	Remarks	NIL

VQPR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Nose-in guidance at aircraft stand
2	RWY and TWY markings and LGT	Markings Available
3	Stop bars	Stop bars where appropriate.
4	Remarks	NIL.

VQPR AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In Circling area ad at AD		Remarks
Obstacle type	Elevation		Obstacle type	Elevation	
RWY/Area affected	Markings/LGT	Coordinates	Markings/LGT	Coordinates	
a	b	c	a	b	
RWY 15	SEE AD 2 – VQPR 3-1		TO BE DEVELOPED		
RWY33	SEE AD 2 – VQPR 3-2				

VQPR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Paro Airport
2	Hours of service MET Office outside hours	During Flight operations only
3	Office responsible for TAF preparation Periods validity	TO BE DEVELOPED
4	Type of landing forecast Interval of issuance	Current Weather half hourly during flight operations (in Plain Language)
5	Briefing/consultation provided	Personal consultation During flight operation(on demand)
6	Flight documentation Language (s) used	TO BE DEVELOPED, English
7	Charts and other information available for briefing or consultation	TO BE DEVELOPED/ satellite images/significant WX chart/upper charts are downloaded and provided prior departure.
8	Supplementary equipment available for providing information	NIL
9	ATS unit provided with information	Paro Control Tower
10	Additional information (limitation of service, etc.)	Presently limited to providing METAR and local current valley WX in plain language only during flight operations.

VQPR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MA BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
15	150.38°	2265 X 30 M	PCN 22 ASPHALT	272439.26N	2 240 M AMSL
33	331.50°	2265 X 30 M		0892511.43E 272343.19N 0892547.14E	2 224 M AMSL
Slope of RYW-SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strip Dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0.81%	160M X 30M 120M X 30M	NIL	2385 M X 150 M	NIL	BGN 15 274243.8N 0892508.6E BGN 33 272339.8N 0892549.3E

VQPR AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
15	2145	2145	2265	1985	NIL
33	2105	2105	2265	1985	

VQPR AD 2.14 APPROACH RUNWAY LIGHTING

RWY Designator	APCH LGT Type LEN INTST	THR LGT Colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, Colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY END LGT colour INTST	RWY END LGT Colour WBAR	Remarks
NIL									

VQPR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	Not established
2	LDI location and LGT Anemometer location and LGT	LDI: 50 M NW and 700 M SW of ARP, unlighted Anemometer : 300 M from THR 15 and THR 33, unlighted
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at AD 500KVA Switch-over time : 60 sec
5	Remarks	NIL

VQPR AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF of THR of FATO	TO BE DEVELOPED
2	TLOF and/or FATO elevation M/FT	TO BE DEVELOPED
3	TLOF and FATO are dimensions, surface, strength, marking	TO BE DEVELOPED
4	True and MAG BRG of FATO	TO BE DEVELOPED
5	Declared distance available	TO BE DEVELOPED
6	APP and FATO lightning	TO BE DEVELOPED
7	Remarks	

VQPR AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	PARO CTR* 273222N 0892730E 271956N 0893516E 270159N 0893515E 270159N 0892606E 271522N 0892606E 272747N 0891819E 273222N 0892730E
2	Vertical limits	17 500 MSL
3	Airspace classification	Class D*
4	ATS unit call signLanguage(s)	PARO Tower English
5	Transition altitude	18 000 ft
6	Remarks	Two ways communication Clearance – ATC & ADC required * Proposed CTR for Paro AD

VQPR AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Callsign	Frequency	Hours of operation	Remarks
TWR	Paro Tower	120.3 Mhz (EXTN) 120.3 Mhz (STBY) 121.5 EMER. Freq.	HO	As per sked flight operations
RADIO	Paro Radio	8921 Khz 13342 Khz	HO	-do-

VQPR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS/MLS (for VOR/ILS/MLS, give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
DVOR/DME	PRO	108.4 MHz	HO	7.7 NM south of aerodrome 271803N 0893020E	3 500M	DME Channel 21X
NDB	PR	410 Khz		500M south west of RWY 272358N 0892529E	2 226.7M	NIL

VQPR 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

- 1.1 At Paro Airport a number of local regulations apply, in accordance with Annex 2,11,14 Doc. 4444. See GEN 1.2.
- 1.2 Marshaller assistance can be requested.
- 1.3 When a local regulation is of importance for the safe operation of aircraft on the apron, the information will be given to each aircraft by the TWR on VHF R/T.

2. Taxiing to and from stands.

- 2.1 Arriving aircraft will be allocated a stand number by the TWR
- 2.2 Assistance from the "FOLLOW ME" vehicle can be requested from the TWR.
- 2.3 Departing flights shall contact the TWR to obtain ATC and ADC clearance before commencing Pushback & Start up. Request for ATC clearance may take place at the earliest 5 minutes prior to Pushback & start-up. Frequency 120.3Mhz is to be used. Departing aircraft shall obtain taxi instruction from Paro TWR on 120.3 Mhz.

3. Parking for small aircraft (General aviation)

General aviation small aircraft shall be guided by marshallers to the parking area.

4. Parking area for helicopters

The parking area for helicopters will always be guided by a marshaller on the stand or on R/T from TWR.

5. Apron Taxiing during winter conditions

"Follow me" vehicle can be provided on request.

6. Taxiing Limitations

No limitations

7. School and Training Technical test flight – use of runways

Subject to permission from tower

8 Helicopter traffic

- 8.1 Request Airport Office during the hours of service and, if possible, not later than 24 hrs before the flight is to be carried out.
- 8.2 Any request for approval of traffic shall contain the following information:
 - a) Owner/Operator
 - b) Type of helicopter, registration/call sign
 - c) Date, arrival time/departure time, destination(s).
- 8.3 Furthermore, other details relevant to the evaluation of the request shall be given as required.

9. Removal of disable aircraft from runways

- 9.1 When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed from the runway as quickly 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 aerodrome authority at owner's or user's expense.

VQPR AD 2.21 NOISE ABATEMENT PROCEDURES

TO BE DEVELOPED

VQPR AD 2.22 FLIGHT PROCEDURES

1 **General**

Flight within Paro air traffic circuit shall be in accordance with the Visual Meteorological Conditions (VMC).

- a) Prior operating into Paro airport the pilot in- command should be briefed and visit the aerodrome as an observer.
 - or should Undertake instruction in a simulator approved by the authority for that purpose.
 - or Request guide pilot(navigator) from the Authorised Clearing Agent.
 - Clearances on behalf of private airlines and for additional logistics can arrange by the Local Clearing Agent. For contact see GEN 1.1 para 7

Note:- Bhutan Air Services (BAS) is the authorized Clearing agent on behalf of Department of Civil Aviation responsible in coordinating and collecting document for onward submission to the DGCA for seeking approval of clearances for private aircraft/helicopter that fly to Bhutan. All fees and charges at Paro Aerodrome are also collected by the Bhutan Air Service on Behalf of DGCA..

- b) In order to avoid unnecessary delay while departing from Paro, relevant clearances (**YANKEE ALPHA NUMBER**) from DGCA India and other relevant clearances from the respective authority must be obtained to over fly/transiting through the respective airspace.
- c) Specific date & time of arrival/ departure or over flying/transiting should be clearly mentioned while obtaining such clearances.
- d) Last minute change in flight plan could lead to **DELAY OF FLIGHT TO OBTAIN NEW ADC/FIC**. Therefore, it is recommended that all flights are to adhere with planned flight plan or inform to ARO regarding the changes in flight plan at least one day prior. **DGCA Bhutan shall not be responsible for the delay of flight.**
- e) Flight wishing to depart early morning from Paro (BTN 0000–0400 UTC), is recommended to file the flight plan at least one day prior to departure from Paro to avoid delay in obtaining ADC/FIC from INDIA FIR/FIC.
- f) Flight plan can be filed during operational hours or during office hours (03:00 – 10:00 UTC) at the following address.

**ARO,
CONTROL TOWER,
1st FLOOR,
PARO AIRPORT.
Tel No. 975-8-272306/272895
Fax No. 975272307
Email:- paro.aro@dca.gov.bt
AFTN:- VQPRZPZX**

2 **Radar Procedures**

No Radar facilities are available at Paro Aerodrome.

3 Communication failure

In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52

4 Procedures for IFR flights with in Paro air traffic circuit

Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.

5 Procedures for flights to/from Paro AD

5.1 ATC clearance for flights will be given under the conditions described below:

- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Paro ATC.
- b) ATC and ADC/FIC clearance number shall be obtained before the aircraft Taxi out.
- 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) Two-ways radio communication shall be maintained on the frequency 120.3 MHz.

5.2 With the high terrain and rapid phenomenon change of weather in and around the Paro aerodrome, all flights are operated in VMC, therefore any aircraft operating in Bhutan territory are required to obtain weather information from Paro aerodrome at least one hour prior to departure.

→ 5.3 Paro weather will available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Paro radio or can be requested on AFTN i.e. On **VQPRYMYX**, **VQPRZTZX**, **VQPRZPZX**.

5.4 Arrival Instruction

5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.

5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Paro. Airborne time & ETA should be informed to Paro radio on HF.**

5.4.3 Entry/Exit from/to Bhutan to Indian airspace is on positive R/T contact with Hasimara (IAF 130.4MHz) Bagdogra (IAF 131.2MHz) and Guwahati (Civil ACC 120.5MHz or Civil APP 123.9MHz) as applicable (See AIP India for latest Frequency).

5.4.4 Entry/Exit into circuit area is via **Chhuzom** (*confluence of rivers Paro Thimphu*) at safety altitude. Descend below safety altitude only in VMC. All arriving aircraft to contact Paro tower atleast 38 NM before reaching confluence.

5.4.5 TA18,000, TL will be passed by ATC

- (a) Circuit area/pattern is generally to the west of airfield. Aircraft on circuit may not be visible to ATC, due to hills, descending circuit.
- (b) Towards North/North East of the airfield the *Dupshare* valley is **unsafe and not Permitted for** circuit.

5.4.6 Final approach track for both runway is curved due to hilly terrain, “**EXERCISE CAUTION**”. Approach on final is above 3°GP. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final.

- 5.4.7 Surface winds conditions at different positions of runway can be requested. Surface winds increase in intensity usually in the afternoon hours.
- 5.4.8 Severe turbulence may experience when entering the valley.
- 5.4.9 Strong anabatic wind in the afternoon (Feb – May) may give raise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.
- 5.4.10 Only one aircraft at a time is permitted to Descend in a valley.
- 5.4.11 Holding point is over TAKTI 180°/15 NM from VOR/DME at altitude cleared by Paro ATC. Minimum **altitude** 16 000ft.
- 5.4.12 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Paro tower on fixed line/mobile for Paro weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board

5.5 Departure Instruction

- 5.5.1 **No SIDS** (Standard Instrument Departure) is established for Paro airport. Therefore, all aircraft shall strictly follow in visual meteorological conditions (VMC).
- 5.5.2 After departure climb initially 18 000ft on QNH maintaining visual to terrain/obstacle and report over Confluence/VOR"PRO". An estimates time over designated compulsory reporting points and destination shall be passed to TWR.
- 5.5.3 When reaching altitude 18 000 ft and/or before crossing Bhutan airspace, aircraft shall contact the following adjacent ACC/APP for higher level and position report.
- a) **BOGOP (R598)**
Contact Hashimara on freq 130.4mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- b) **SUBSU (G348)**
Contact Baghdora on freq 131.2Mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- c) For further Information and other Frequency see India AIP.
- 5.5.4 After establishing contact with the adjacent ACC, aircraft shall report back to Paro tower with their assigned level and position before leaving Bhutan airspace/crossing transfer point i.e. Over **BOGOP/SUBSU**

6 RESTRICTION-

- a) Only Day operations in visual meteorological conditions (VMC) is permitted
- b) No night landing/bad weather facilities
- c) Altitudes to be maintained as per ICAO Rules of the Air.
- d) Avoid flying over yellow rooftop i.e., (*dzongs, monastery, temples*)
- e) Flight shall be permitted **to take-off & land between sunrise & sunset for all types of flight operations.**

VQPR AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations in the vicinity of the airport

As far as practicable, Aerodrome Control will inform pilots of the bird activity and the estimated heights AGL, when situation warrants.

VQPR AD 2.24 CHARTS RELATED TO AN AERODROME

	<i>page</i>
Aerodrome chart.....	AD 2-VQPR-1-1
Aerodrome Obstacle Chart - ICAO Type- A runway 15.....	AD 2-VQPR-3-1
Aerodrome Obstacle Chart - ICAO Type -A runway 33.....	AD 2-VQPR-3-2
Visual Approach Chart - ICAO	AD 2-VQPR-6-1

INTENTIONALLY LEFT BLANK

3 Communication failure

In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52

4 Procedures for IFR flights with in Paro air traffic circuit

Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.

5 Procedures for flights to/from Paro AD

5.1 ATC clearance for flights will be given under the conditions described below:

- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Paro ATC.
- b) ATC and ADC/FIC clearance number shall be obtained before the aircraft Taxi out.
- 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) Two-ways radio communication shall be maintained on the frequency 120.3 MHz.

5.2 With the high terrain and rapid phenomenon change of weather in and around the Paro aerodrome, all flights are operated in VMC, therefore any aircraft operating in Bhutan territory are required to obtain weather information from Paro aerodrome at least one hour prior to departure.

→ 5.3 Paro weather will available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Paro radio or can be requested on AFTN i.e. On **VQPRYMYX**, **VQPRZTZX**, **VQPRZPZX**.

5.4 Arrival Instruction

5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.

5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Paro. Airborne time & ETA should be informed to Paro radio on HF.**

5.4.3 Entry/Exit from/to Bhutan to Indian airspace is on positive R/T contact with Hasimara (IAF 130.4MHz) Bagdogra (IAF 131.2MHz) and Guwahati (Civil ACC 120.5MHz or Civil APP 123.9MHz) as applicable (See AIP India for latest Frequency).

5.4.4 Entry/Exit into circuit area is via **Chhuzom** (*confluence of rivers Paro Thimphu*) at safety altitude. Descend below safety altitude only in VMC. All arriving aircraft to contact Paro tower atleast 38 NM before reaching confluence.

5.4.5 TA18,000, TL will be passed by ATC

- (a) Circuit area/pattern is generally to the west of airfield. Aircraft on circuit may not be visible to ATC, due to hills, descending circuit.
- (b) Towards North/North East of the airfield the *Dupshare* valley is **unsafe and not Permitted for** circuit.

5.4.6 Final approach track for both runway is curved due to hilly terrain, “**EXERCISE CAUTION**”. Approach on final is above 3°GP. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final.

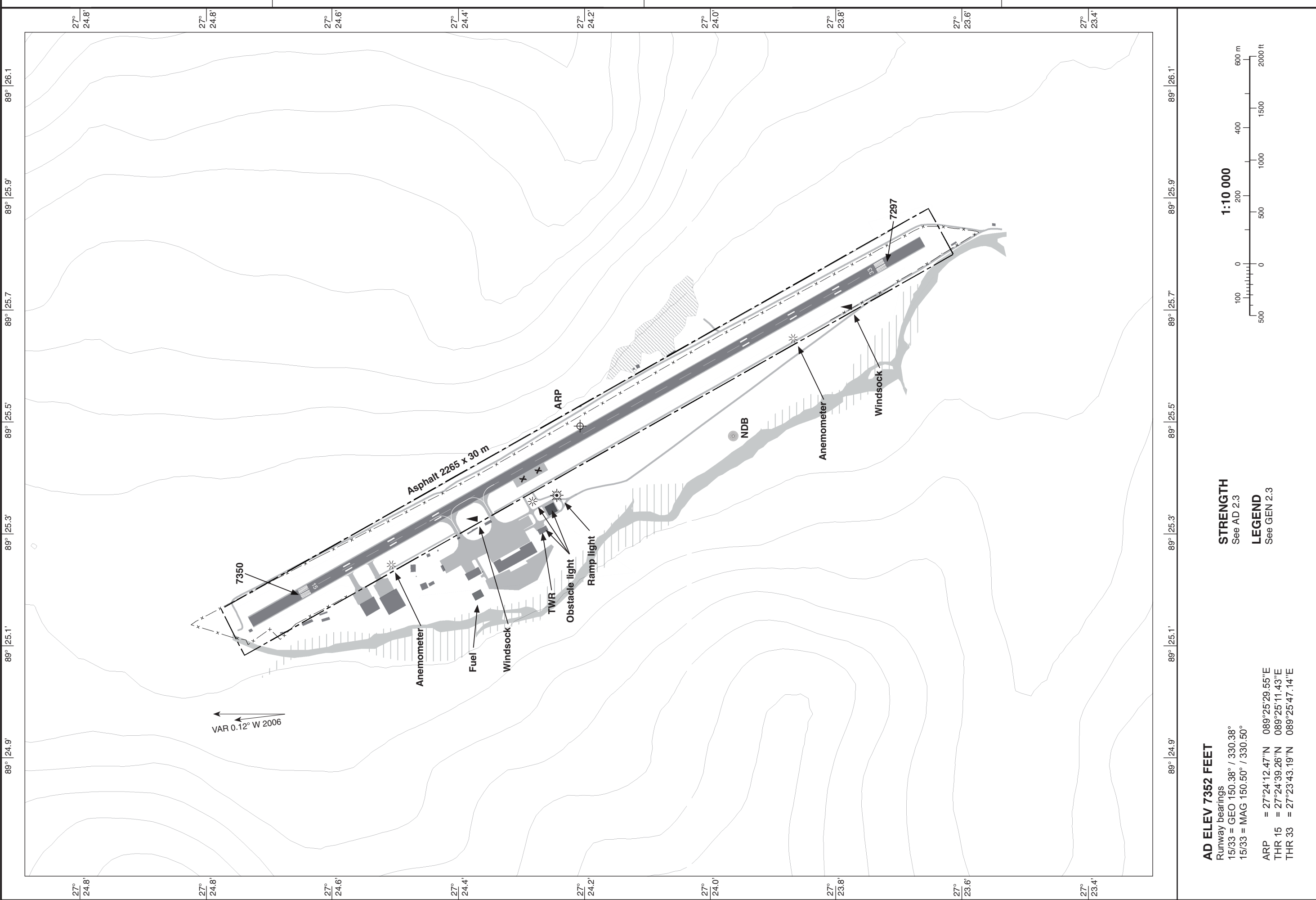
- 5.4.7 Surface winds conditions at different positions of runway can be requested. Surface winds increase in intensity usually in the afternoon hours.
- 5.4.8 Severe turbulence may experience when entering the valley.
- 5.4.9 Strong anabatic wind in the afternoon (Feb – May) may give raise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.
- 5.4.10 Only one aircraft at a time is permitted to Descend in a valley.
- 5.4.11 Holding point is over TAKTI 180°/15 NM from VOR/DME at altitude cleared by Paro ATC. Minimum **altitude** 16 000ft.
- 5.4.12 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Paro tower on fixed line/mobile for Paro weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board

5.5 Departure Instruction

- 5.5.1 **No SIDS** (Standard Instrument Departure) is established for Paro airport. Therefore, all aircraft shall strictly follow in visual meteorological conditions (VMC).
- 5.5.2 After departure climb initially 18 000ft on QNH maintaining visual to terrain/obstacle and report over Confluence/VOR”PRO”. An estimates time over designated compulsory reporting points and destination shall be passed to TWR.
- 5.5.3 When reaching altitude 18 000 ft and/or before crossing Bhutan airspace, aircraft shall contact the following adjacent ACC/APP for higher level and position report.
- a) **BOGOP (R598)**
Contact Hashimara on freq 130.4mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- b) **SUBSU (G348)**
Contact Baghdora on freq 131.2Mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- c) For further Information and other Frequency see India AIP.
- 5.5.4 After establishing contact with the adjacent ACC, aircraft shall report back to Paro tower with their assigned level and position before leaving Bhutan airspace/crossing transfer point i.e. Over **BOGOP/SUBSU**

6 RESTRICTION-

- a) Only Day operations in visual meteorological conditions (VMC) is permitted
- b) No night landing/bad weather facilities
- c) Altitudes to be maintained as per ICAO Rules of the Air.
- d) Avoid flying over yellow rooftop i.e., (*dzongs, monastery, temples*)
- e) Flight shall be permitted **to take-off & land between sunrise & sunset for all types of flight operations.**



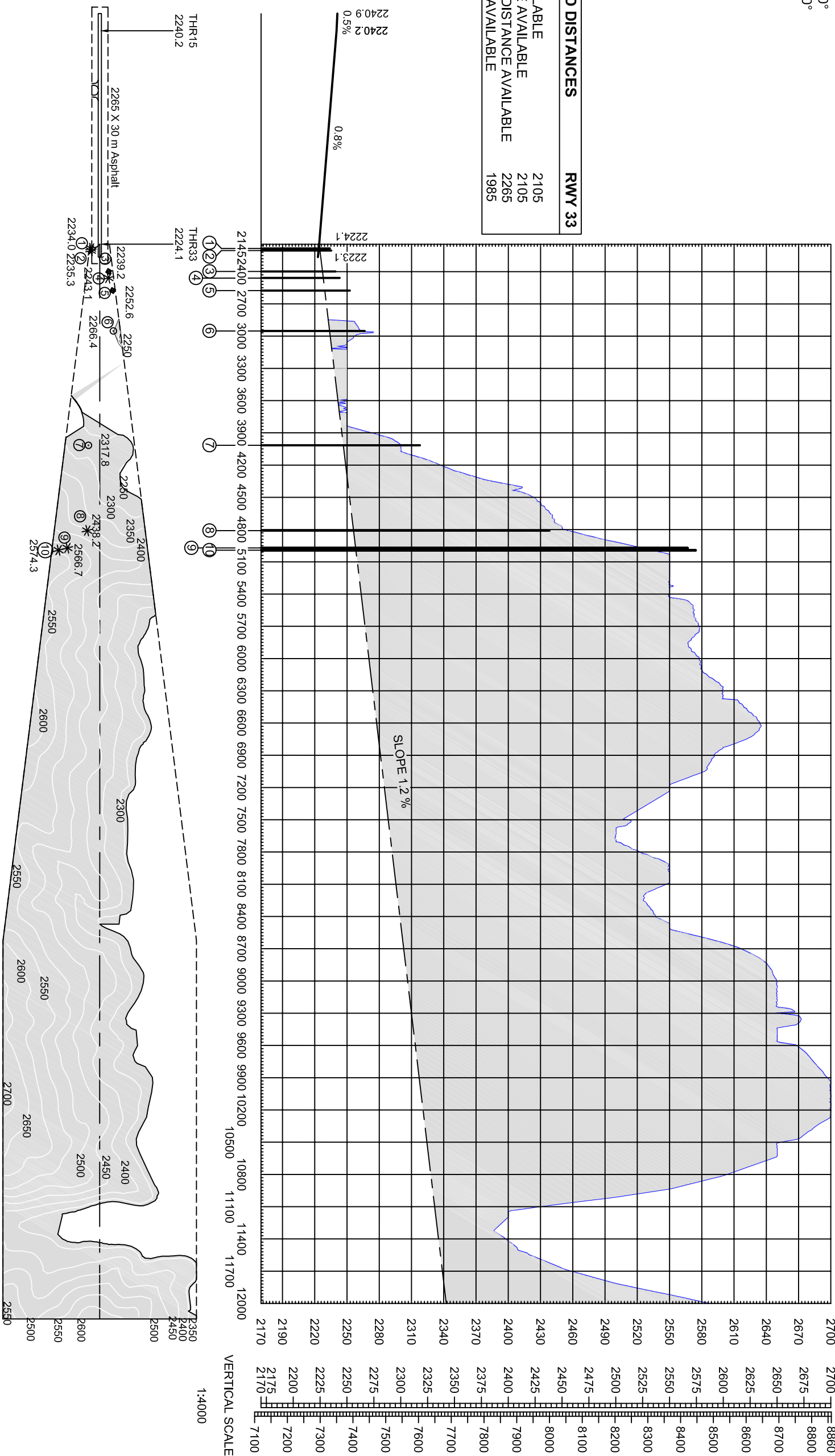
AERODROME ELEVATION 2240.9 METRES

MAGNETIC VARIATION 0.12°W 2006

RUNWAY BEARINGS

15 = GEO 150.38°; MAG 150.50°
33 = GEO 330.38°; MAG 330.50°

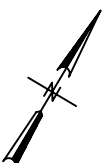
RWY 15	DECLARED DISTANCES	RWY 33
2145	TAKE-OFF RUN AVAILABLE	2105
2145	TAKE-OFF DISTANCE AVAILABLE	2105
2265	ACCELERATE STOP DISTANCE AVAILABLE	2265
1985	LANDING DISTANCE AVAILABLE	1985



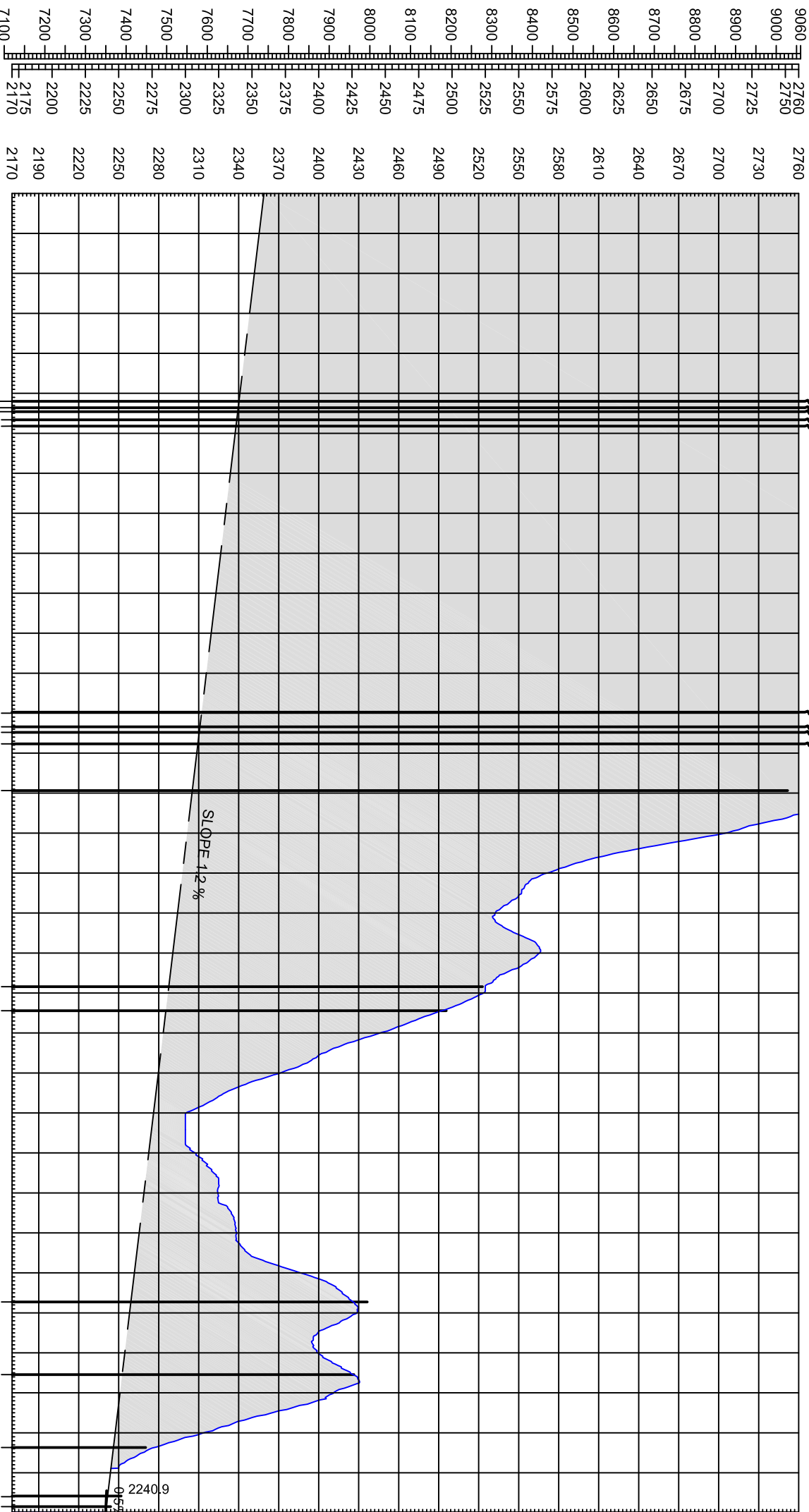
LEGEND

IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, ETC.	○
BUILDING OR LARGE STRUCTURE	◆
CONTOUR LINE	
TERRAIN PENETRATING OBSTACLE PLANE	
TREE OR SHRUB	*

HORIZONTAL SCALE 1:40 000



FEET METRES



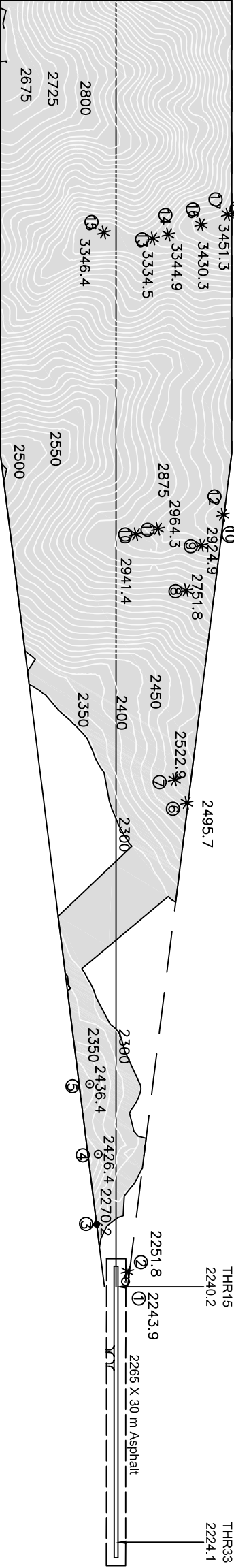
AERODROME ELEVATION 2240.9 METRES
MAGNETIC VARIATION 0.12°W 2006

RUNWAY BEARINGS
15 = GEO 150.38° ; MAG 150.50°
33 = GEO 330.38° ; MAG 330.50°

RWY 15	DECLARED DISTANCES	RWY 33
2145	TAKE-OFF RUN AVAILABLE	2105
2145	TAKE-OFF DISTANCE AVAILABLE	2105
2265	ACCELERATE STOP DISTANCE AVAILABLE	2265
1985	LANDING DISTANCE AVAILABLE	1985

VERTICAL SCALE

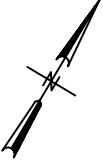
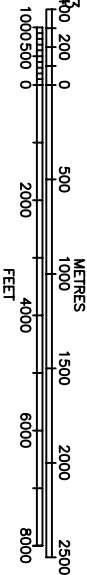
1:4000

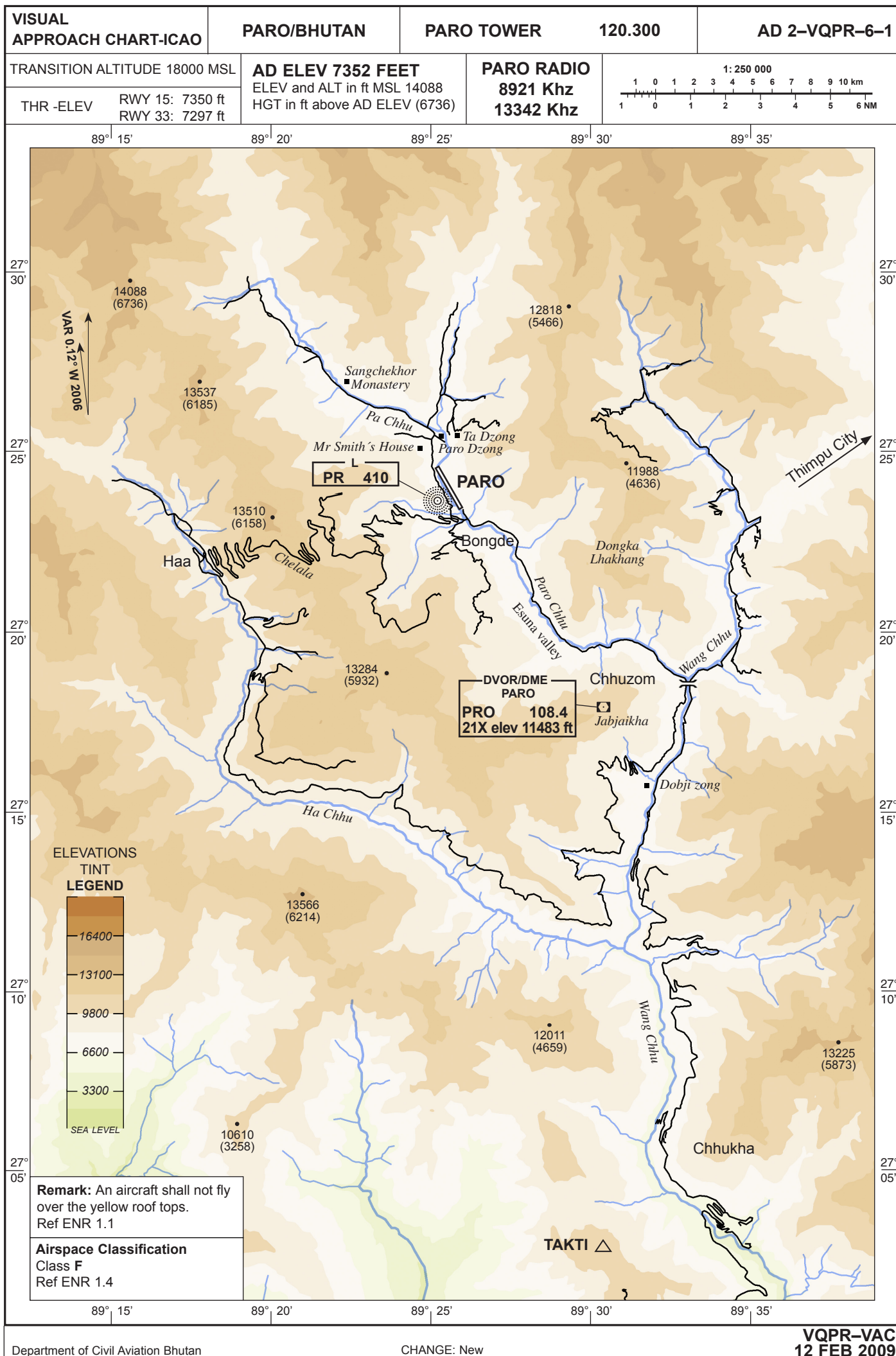


LEGEND

IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, ETC.	○
BUILDING OR LARGE STRUCTURE	◆
CONTOUR LINE	—
TERRAIN PENETRATING OBSTACLE PLANE	—
TREE OR SHRUB	*

HORIZONTAL SCALE 1:40 000





AD 2.1 AERODROMES**VQBT AD 2.1 AERODROME LOCATION INDICATOR AND NAME****VQBT – Bumthang, Bathbalathang/Domestic****VQBT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP co-ordinates and site at AD	273352.38N 904442.49E Centre of RWY
2	Direction and distance from(city)	2 Km NE from Chamkhar Town
3	Elevation/Reference temperature	2580.190M (8 466 ft) MSL/ 28°C
4	MAG VAR/Annual changes	0.13° West 2010
5	AD Administration, address, telephone, telefax, telex. AFS	Department of Civil Aviation, Bumthang Airport: Bhutan. Tel No.(975)-6- 31323/31718 Email: apm.vqbt@dca.gov.bt
6	Type of traffic permitted (IFR/VFR)	Only VFR is permitted due to high terrain
7	Remarks	AD PPR

VQBT AD 2.3 OPERATIONAL HOURS

1	AD Administration	Available MON - FRI 0300 – 1100 (UTC)
2	Customs and immigration	Not Available
3	Health and sanitation	Not Available
4	AIS Briefing Office	Not Available
5	ATS Reporting Office	Not Available
6	MET Briefing Office	Available during operations
7	ATS	During Operational Hrs
8	Fuelling	Not Available
9	Handling	Available during sked operations
10	Security	As and when required
11	De-icing	Not available
12	Remarks	Out side those hours, service available O/R. Request to be submitted to the AD 24hrs before intended operation.

VQBT AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available with airline operator, Druk-air
2	Fuel/oil types	Not Available
3	Fuelling facilities/capacity	Not Available
4	De-icing facilities	Manual by sweeping
5	Hanger space for visiting aircraft	Not Available
6	Repair facilities for visiting A/C	Not Available
7	Remarks	NIL

VQBT AD 2.5 PASSENGER FACILITIES

1	Hotels	Near AD and in the city.
2	Restaurants	in city.
3	Transportation	On request
4	Medical facilities	First aid at Hospital, 5Km from Airport.
5	Bank and Post Office	Bank & Post office in city
6	Tourist Office	Not Available
7	Remarks	Nil

VQBT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Within AD HR: CAT
2	Rescue equipment	Rescue Tools with CFT
3	Capability for removal of disabled aircraft	Not Available
4	Remarks	NIL

VQBT AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Type of clearing equipment	Manually Sweeping
2	Clearance priorities	1. RWY 14/32
3	Remarks	

VQBT AD 2.8 APRON, TAXIWAYS AND CHECK LOCATION DATA

1	Apron surface and strength	Not Available
2	Taxiway width, surface and strength	Not Available
3	ACL location and elevation	Not Available
4	VOR checkpoints	NOT ESTABLISHED
5	INS check points	-
6	Remarks	NIL

VQBT AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Not Available
2	RWY and TWY markings and LGT	RWY Markings Available
3	Stop bars	Not Available
4	Remarks	NIL.

VQBT AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In Circling area ad at AD		Remarks
Obstacle type Elevation			Obstacle type Elevation		
RWY/Area affected	Markings/LGT	Coordinates	Markings/LGT	Coordinates	
a	b	c	a	b	
RWY 14	SEE AD 2 – VQBT 3-1		TO BE DEVELOPED		
RWY32	SEE AD 2 – VQBT 3-2				

VQBT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Bumthang Airport
2	Hours of service MET Office outside hours	During Flight operations only
3	Office responsible for TAF preparation Periods validity	TO BE DEVELOPED
4	Type of landing forecast Interval of issuance	Current Weather half hourly during flight operations (in Plain Language)
5	Briefing/consultation provided	Personal consultation During flight operation(on demand)
6	Flight documentation Language (s) used	TO BE DEVELOPED, English
7	Charts and other information available for briefing or consultation	TO BE DEVELOPED
8	Supplementary equipment available for providing information	NIL
9	ATS unit provided with information	Control Tower
10	Additional information (limitation of service, etc.)	Presently limited to providing METAR and local current valley WX in plain language only during flight operations.

VQBT AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MA BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
14	142.78°	1200 X 30 M	(14-16)F/C/Y/T	273359.27N	2 580 M AMSL
32	322.78°	1200 X 30 M		0904436.64E 273328.23N 0904503.09E	2 270 M AMSL
Slope of RYW-SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strip Dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0.83%	NIL	NIL	1 200 M X 30 M	NIL	

VQBT AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	1 200	1 200	1 200	1 200	NIL
32	1 200	1 200	1 200	1 200	

VQBT AD 2.14 APPROACH RUNWAY LIGHTING

RWY Designator	APCH LGT Type LEN INTST	THR LGT Colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, Colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY END LGT colour INTST	RWY END LGT Colour WBAR	Remarks
NIL									

VQBT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	Not established
2	LDI location and LGT Anemometer location and LGT	Anemometer : 150 M from THR 14
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

VQBT AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF of THR of FATO	TO BE DEVELOPED
2	TLOF and/or FATO elevation M/FT	TO BE DEVELOPED
3	TLOF and FATO are dimensions, surface, strength, marking	TO BE DEVELOPED
4	True and MAG BRG of FATO	TO BE DEVELOPED
5	Declared distance available	TO BE DEVELOPED
6	APP and FATO lightning	TO BE DEVELOPED
7	Remarks	

VQBT AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	NOT ESTABLISHED
2	Vertical limits	NOT ESTABLISHED
3	Airspace classification	NOT ESTABLISHED

4	ATS unit call signLanguage(s)	BUMTHANG Tower, English
5	Transition altitude	
6	Remarks	Two ways communication

VQBT AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Callsign	Frequency	Hours of operation	Remarks
TWR	Bumthang Tower	122.55 Mhz (EXTN) 122.55 Mhz (STBY) 121.5 EMER. Freq.	HO	As per sked flight operations
RADIO	Bumthang	8921 Khz 13342 Khz	HO	-do-

VQBT AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS/MLS (forVOR/ILS/MLS, give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
NDB	BT	355 Khz		700 M East of RWY 273350.06N 0904449.08E 903031.08E	2 586.254M	NIL

VQBT 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

- 1.1 At Bumthang Airport a number of local regulations apply, in accordance with Annex 2,11,14 Doc. 4444. See GEN 1.2.
- 1.2 Marshaller assistance can be requested.
- 1.3 When a local regulation is of importance for the safe operation of aircraft on the apron, the information will be given to each aircraft by the TWR on VHF R/T.

2. Taxiing to and from stands.

TO BE DEVELOPED

3. Parking for small aircraft (General aviation)

TO BE DEVELOPED

4. Parking area for helicopters

No designated parking area for helicopter is available at the Bumthang airport, it will be guided on R/T from TWR .

5. Apron Taxiing during winter conditions

Apron not available

6. Taxiing Limitations

Taxiway not available

7. School and Training Technical test flight – use of runways

Subject to permission from DGCA & tower

8 Helicopter traffic

- 8.1 Request prior approval from DGCA and inform to Airport Office during the hours of service and, if possible, not later than 24 hrs before the flight is to be carried out.
- 8.2 Any request for approval of traffic shall contain the following information:
- a) Owner/Operator
 - b) Type of helicopter, registration/call sign
 - c) Date, arrival time/departure time, destination(s)
 - d) Purpose of operation.
- 8.3 Furthermore, other details relevant to the evaluation of the request shall be given as required.

9. Removal of disable aircraft from runways

- 9.1 When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed from the runway as quickly 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 aerodrome authority at owner's or user's expense.

VQBT AD 2.21 NOISE ABATEMENT PROCEDURES

TO BE DEVELOPED

VQBT AD 2.22 FLIGHT PROCEDURES

1 General

Flight within Bumthang air traffic circuit shall be in accordance with the Visual Meteorological Conditions (VMC).

- a) Prior operating into Bumthang airport the pilot in- command should be briefed and visit the aerodrome as an observer.
- or Request guide pilot(navigator) from the Authorised Clearing Agent.
 - Clearances on behalf of private airlines and for additional logistics can arrange by the Local Clearing Agent. For contact see GEN 1.1 para 7

Note:- Bhutan Air Services (BAS) is the authorized Clearing agent on behalf of Department of Civil Aviation responsible in coordinating and collecting document for onward submission to the DGCA for seeking approval of clearances for private aircraft/helicopter that fly to Bhutan. All fees and charges at Bumthang Aerodrome are also collected by the Bhutan Air Service on Behalf of DGCA..

- b) relevant clearances from DGCA and other relevant clearances from the respective authority must be obtained .

- c) Specific date & time of arrival/ departure should be clearly mentioned while obtaining such clearances.
- d) Flight plan can be filed during operational hours or during office hours (03:00 – 10:00 UTC) at the following address.

2 **Radar Procedures**

No Radar facilities are available at Bumthang Aerodrome.

3 **Communication failure**

In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52

4 **Procedures for IFR flights with in Bumthang air traffic circuit**

Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.

5 **Procedures for flights to/from Bumthang AD**

5.1 ATC clearance for flights will be given under the conditions described below:

- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Bumthang ATC.
- b) Position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2.
- c) Deviation from the ATC clearance may only be made when prior permission has been obtained.
- d) Two-ways radio communication shall be maintained on the frequency 122.55 MHz.

5.2 With the high terrain and rapid phenomenon change of weather in and around the Bumthang aerodrome, all flights are operated in VMC, therefore any aircraft operating in Bhutan territory are required to obtain weather information from Bumthang aerodrome at least one hour prior to departure.

5.3 Bumthang weather will available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Bumthang or can be requested on Land line 975631718.

5.4 **Arrival Instruction**

5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.

5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Bumthang. Airborne time & ETA should be informed to Bumthang radio on HF.**

5.4.3 Final approach track for both runway is curved due to hilly terrain, “**EXERCISE CAUTION**”. Approach on final is above 3°GP. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final.

5.4.4 Surface winds increase in intensity usually in the afternoon hours.

5.4.5 Severe turbulence may experience when entering the valley.

5.4.6 Strong anabatic wind in the afternoon may give raise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.

5.4.7 Only one aircraft at a time is permitted to Descend in a valley.

5.4.8 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Bumthang tower on fixed line/mobile for Bumthang weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board

5.5 Departure Instruction

5.5.1 **No SIDS** (Standard Instrument Departure) is established for Bumthang airport. Therefore, all aircraft shall strictly follow in visual meteorological conditions (VMC).

5.5.2 After departure climb initially 18 000ft on QNH maintaining visual to terrain/obstacle and report over r designated compulsory reporting points.

5.5.3 departing aircraft may be contact with the destination aerodrome for their position report after establishing contact, aircraft shall report back to Bumthang tower with their assigned level and position.

6 RESTRICTION-

- a) Only Day operations in visual meteorological conditions (VMC) is permitted
- b) No night landing/bad weather facilities
- c) Altitudes to be maintained as per ICAO Rules of the Air.
- d) Avoid flying over yellow rooftop i.e., (*dzongs, monastery, temples*)
- e) Flight shall be permitted ***to take-off and land between sunrise and sunset for all types of flight operations.***

VQBT AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations in the vicinity of the airport

As far as practicable, Aerodrome Control will inform pilots of the bird activity and the estimated heights AGL, when situation warrants.

VQBT AD 2.24 CHARTS RELATED TO AN AERODROME

	<i>page</i>
Aerodrome chart.....	AD 2-VQBT-1-1
Aerodrome Obstacle Chart - ICAO Type- A runway 14.....	AD 2-VQBT-3-1
Aerodrome Obstacle Chart - ICAO Type -A runway 32.....	AD 2-VQBT-3-2

INTENTIONALLY LEFT BLANK

AERODROME ELEVATION 8466 ft.

ARP 27° 39' 52.38" N
000° 44' 42.49" E

TWR 122.55

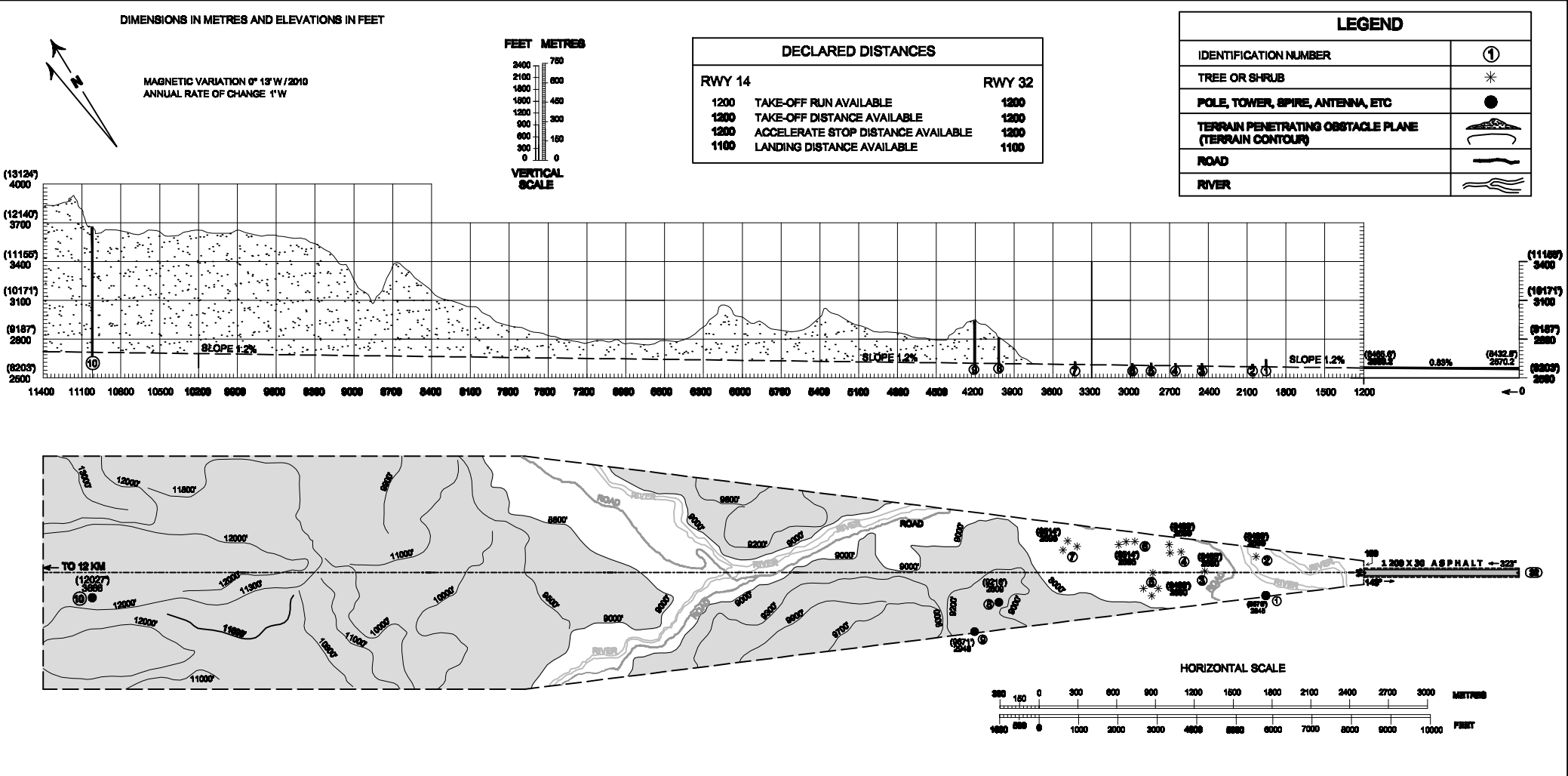
BUMTHANG / Batbalathang Airport



INTENTIONALLY LEFT BLANK

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

BUMTHANG / Batbalathang Airport
AOC-A 32



INTENTIONALLY LEFT BLANK

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

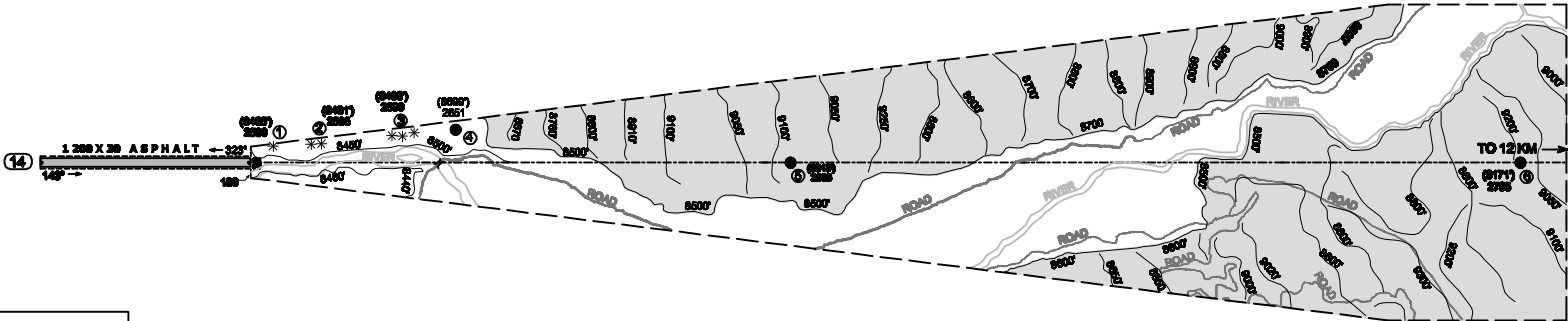
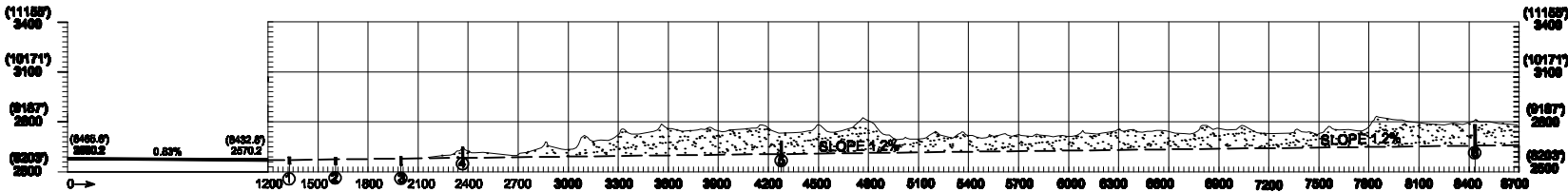
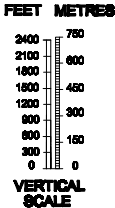
BUMTHANG / Batbalathang Airport
AOC-A 14

DIMENSIONS IN METRES AND ELEVATIONS IN FEET

MAGNETIC VARIATION 0° 13' W / 2010
ANNUAL RATE OF CHANGE 1' W

DECLARED DISTANCES

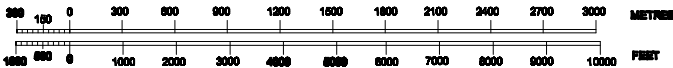
RWY 14		RWY 32	
1200	TAKE-OFF RUN AVAILABLE	1200	
1200	TAKE-OFF DISTANCE AVAILABLE	1200	
1200	ACCELERATE STOP DISTANCE AVAILABLE	1200	
1100	LANDING DISTANCE AVAILABLE	1100	



LEGEND

IDENTIFICATION NUMBER	①
TREE OR SHRUB	*
POLE, TOWER, SPIRE, ANTENNA, ETC	●
TERRAIN PENETRATING OBSTACLE PLANE (TERRAIN CONTOUR)	
ROAD	
RIVER	

HORIZONTAL SCALE



INTENTIONALLY LEFT BLANK

AD 2.1 AERODROMES**VQTY AD 2.1 AERODROME LOCATION INDICATOR AND NAME**
VQTY – Trashigang, Yonphula/Domestic**VQTY AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP co-ordinates and site at AD	271521.465N 0913055.273E Centre of RWY
2	Direction and distance from(city)	33 Km SE from Trashigang town
3	Elevation/Reference temperature	2 572.997M (8 442 ft) MSL/ 28°C
4	MAG VAR/Annual changes	0.18° West 2010
5	AD Administration, address, telephone, telefax, telex. AFS	Department of Civil Aviation, Yonphula Airport: Trashigang Bhutan. Tel No.(975)-4- 535152/53135 Email: apm.vqty@dca.gov.bt
6	Type of traffic permitted (IFR/VFR)	Only VFR is permitted due to high terrain
7	Remarks	AD PPR

VQTY AD 2.3 OPERATIONAL HOURS

1	AD Administration	Available MON - FRI 0300 – 1100 (UTC)
2	Customs and immigration	Not Available
3	Health and sanitation	Not Available
4	AIS Briefing Office	Not Available
5	ATS Reporting Office	Not Available
6	MET Briefing Office	Available during operations and MON - FRI 0300 – 1100 (UTC)
7	ATS	During Operational Hrs
8	Fuelling	Not Available
9	Handling	Available during sked operations
10	Security	As and when required
11	De-icing	Not available
12	Remarks	Out side those hours, service available O/R. Request to be submitted to the AD 24hrs before intended operation.

VQTY AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available with airline operator, Druk-air
2	Fuel/oil types	Not Available
3	Fuelling facilities/capacity	Not Available
4	De-icing facilities	Manual by sweeping
5	Hanger space for visiting aircraft	Not Available
6	Repair facilities for visiting A/C	Not Available
7	Remarks	NIL

VQTY AD 2.5 PASSENGER FACILITIES

1	Hotels	Near AD and in the city.
2	Restaurants	in city.
3	Transportation	On request
4	Medical facilities	First aid at Basic Hospital Unit, 9 Km from Airport.
5	Bank and Post Office	Bank & Post office in satellite Town
6	Tourist Office	Not Available
7	Remarks	Nil

VQTY AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Within AD HR: CAT
2	Rescue equipment	Rescue Tools with CFT
3	Capability for removal of disabled aircraft	Not Available
4	Remarks	NIL

VQTY AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Type of clearing equipment	Manually Sweeping
2	Clearance priorities	1. RWY 30/12
3	Remarks	Information on snow clearance published from December- March Bard cast through HF Radio

VQTY AD 2.8 APRON, TAXIWAYS AND CHECK LOCATION DATA

1	Apron surface and strength	Not Available
2	Taxiway width, surface and strength	Not Available
3	ACL location and elevation	Not Available
4	VOR checkpoints	NOT ESTABLISHED
5	INS check points	-
6	Remarks	NIL

VQTY AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Not Available
2	RWY and TWY markings and LGT	Markings Available
3	Stop bars	Not Available
4	Remarks	NIL.

VQTY AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas				In Circling area ad at AD		Remarks
Obstacle type		Obstacle type		Obstacle type		
Elevation		Elevation		Elevation		
RWY/Area affected	Markings/LGT	Coordinates		Markings/LGT	Coordinates	
a	b	c		a	b	
RWY 12 /30	SEE AD 2 – VQTY 3-1			TO BE DEVELOPED		

VQTY AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Yonphula Airport
2	Hours of service MET Office outside hours	During Flight operations only
3	Office responsible for TAF preparation Periods validity	TO BE DEVELOPED
4	Type of landing forecast Interval of issuance	Current Weather half hourly during flight operations (in Plain Language)
5	Briefing/consultation provided	Personal consultation During flight operation(on demand)
6	Flight documentation Language (s) used	TO BE DEVELOPED, English
7	Charts and other information available for briefing or consultation	TO BE DEVELOPED
8	Supplementary equipment available for providing information	NIL
9	ATS unit provided with information	Control Tower
10	Additional information (limitation of service, etc.)	Presently limited to providing METAR and local current valley WX in plain language only during flight operations.

VQTY AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MA BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
12	123.74°	1 355 X 50 M	(10-12)F/C/Y/T	271532.466N	2 534 M AMSL
30	303.75°	1 355 X 50 M		0913036.860E 271511.940N 0913111.237E	2 573 M AMSL
Slope of RWY-SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strip Dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
4.7% - 5.3%	NIL	NIL	1 355 M X 50 M	NIL	RWY 12 slope 4.7% RWY30 slope 5.3%

VQTY AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
12	NU	NU	NU	1 145	One direction Landing
30	1 145	1 295	1 244	NU	One direction takeoff

VQTY AD 2.14 APPROACH RUNWAY LIGHTING

RWY Designator	APCH LGT Type LEN INTST	THR LGT Colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, Colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY END LGT colour INTST	RWY END LGT Colour WBAR	Remarks
NIL									

VQTY AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	Not established
2	LDI location and LGT Anemometer location and LGT	Anemometer : THR 12
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

VQTY AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF of THR of FATO	TO BE DEVELOPED
2	TLOF and/or FATO elevation M/FT	TO BE DEVELOPED
3	TLOF and FATO are dimensions, surface, strength, marking	TO BE DEVELOPED
4	True and MAG BRG of FATO	TO BE DEVELOPED
5	Declared distance available	TO BE DEVELOPED
6	APP and FATO lightning	TO BE DEVELOPED
7	Remarks	

VQTY AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	NOT ESTABLISHED
2	Vertical limits	NOT ESTABLISHED
3	Airspace classification	NOT ESTABLISHED

4	ATS unit call signLanguage(s)	Yonphula Tower English
5	Transition altitude	
6	Remarks	Two ways communication

VQTY AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Callsign	Frequency	Hours of operation	Remarks
TWR	Yonphula Tower	118.20 Mhz (EXTN) 118.20 Mhz (STBY) 121.5 EMER. Freq.	HO	As per sked flight operations
RADIO	Yonphula	8921 Khz 13342 Khz	HO	-do-

VQTY AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS/MLS (forVOR/ILS/MLS, give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
NDB	YP	367 Khz		200 M SW of THR12 271528.31N 0913031.076E	8 248.71 M	NIL

VQBT 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

- 1.1 At Yonphula Airport a number of local regulations apply, in accordance with Annex 2,11,14 Doc. 4444. See GEN 1.2.
- 1.2 One direction of landing and takeoff is permitted. All aircraft shall land from RWY12 and takeoff from RWY30 due high obstacle toward RWY30.
- 1.3 Marshaller assistance can be requested.
- 1.4 When a local regulation is of importance for the safe operation of aircraft on the apron, the information will be given to each aircraft by the TWR on VHF R/T.

2. Taxiing to and from stands.

- 2.1 Assistance from the "FOLLOW ME" vehicle can be requested from the TWR.
- 2.3 Departing flights shall contact the TWR to obtain ATC clearance before commencing Pushback & Start up. Request for ATC clearance may take place at the earliest 5 minutes prior to start-up. Frequency 118.20 Mhz is to be used. Departing aircraft shall obtain taxi instruction from Paro TWR on 118.20 Mhz.

3. Parking for small aircraft (General aviation)

General aviation small aircraft shall be guided by marshallers to the parking area.

4. Parking area for helicopters

The parking area for helicopters will always be guided by a marshaller on the stand or on R/T from TWR.

5. Apron Taxiing during winter conditions

“Follow me” vehicle can be provided on request.

6. Taxiing Limitations

One at a time

7. School and Training Technical test flight – use of runways

Subject to permission from DGCA & tower

8 Helicopter traffic

- 8.1 Request prior approval from DGCA and inform to Airport Office during the hours of service and, if possible, not later than 24 hrs before the flight is to be carried out.
- 8.2 Any request for approval of traffic shall contain the following information:
- a) Owner/Operator
 - b) Type of helicopter, registration/call sign
 - c) Date, arrival time/departure time, destination(s)
 - d) Purpose of operation.
- 8.3 Furthermore, other details relevant to the evaluation of the request shall be given as required.

9. Removal of disable aircraft from runways

- 9.1 When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed from the runway as quickly 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 aerodrome authority at owner's or user's expense.

VQTY AD 2.21 NOISE ABATEMENT PROCEDURES

TO BE DEVELOPED

VQTY AD 2.22 FLIGHT PROCEDURES

- 1 **General**
Flight within Yonphula air traffic circuit shall be in accordance with the Visual Meteorological Conditions (VMC).
- a) Prior operating into Yonphula airport the pilot in- command should be briefed and visit the aerodrome as an observer.
 - or Request guide pilot(navigator) from the Authorised Clearing Agent.
 - Clearances on behalf of private airlines and for additional logistics can arrange by the Local Clearing Agent. For contact see GEN 1.1 para 7

Note:- Bhutan Air Services (BAS) is the authorized Clearing agent on behalf of Department of Civil Aviation responsible in coordinating and collecting document for onward submission to the DGCA for seeking approval of clearances for private aircraft/helicopter that fly to Bhutan. All fees and charges at Yonphula Aerodrome are also collected by the Bhutan Air Service on Behalf of DGCA..

- b) Relevant clearances from DGCA and other relevant clearances from the respective authority must be obtained .
- c) Specific date & time of arrival/ departure or over flying/transiting should be clearly mentioned while obtaining such clearances.
- d) Flight plan can be filed during operational hours or during office hours (03:00 – 10:00 UTC) at the following address.

2 **Radar Procedures**

No Radar facilities are available at Yonphula Aerodrome.

3 **Communication failure**

In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52

4 **Procedures for IFR flights within Yonphula air traffic circuit**

Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.

5 **Procedures for flights to/from Yonphula AD**

5.1 ATC clearance for flights will be given under the conditions described below:

- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Yonphula ATC.
- 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) Two-ways radio communication shall be maintained on the frequency 118.20 MHz.

5.2 With the high terrain and rapid phenomenon change of weather in and around the Yonphula aerodrome, all flights are operated in VMC, therefore any aircraft operating in to Yonphula are required to obtain weather information from Yonphula aerodrome at least one hour prior to departure.

5.3 Yonphula weather will be available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Yonphula or can be requested on Land line 9754535152.

5.4 **Arrival Instruction**

5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.

5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Yonphula . Airborne time & ETA should be informed to Yonphula on HF.**

5.4.3 Strictly one direction of landing i.e. landing from RWY12 only, due to hilly terrain on opposite side of RWY. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final. Runway slope ranges from 4.7% to 5.3%

5.4.4 Pilots to “**EXERCISE CAUTION**”as the Surface winds conditions on final and while landing are expected to mostly cross wind. Surface winds increase in intensity usually in the afternoon hours.

5.4.5 Severe turbulence may experience when entering the valley.

- 5.4.6 Strong anabatic wind in the afternoon may give rise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.
- 5.4.7 Only one aircraft at a time is permitted to Descend in a valley.
- 5.4.8 After landing, aircraft shall make right hand turn out on turn pad RWY30
- 5.4.9 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Yonphula tower on fixed line/mobile for Yonphula weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board
- 5.5 Departure Instruction**
- 5.5.1 Strictly one direction of takeoff i.e. takeoff from RWY30 only due high obstacles towards departure RWY12.
- 5.5.2 Aircraft shall make right hand turn on turn pad RWY30 while lining up for departure.
- 5.5.3 **No SIDS** (Standard Instrument Departure) is established for Yonphula airport. Therefore, all aircraft shall strictly follow in visual meteorological conditions (VMC).
- 5.5.4 After departure climb initially 18 000ft on QNH maintaining visual to terrain/obstacle and report over designated compulsory reporting points.
- 5.5.5 departing aircraft may be contact with the destination aerodrome for their position report after establishing contact, aircraft shall report back to Yonphula tower with their assigned level and position.

6 RESTRICTION-

- a) Only Day operations in visual meteorological conditions (VMC) is permitted
- b) No night landing/bad weather facilities
- c) Altitudes to be maintained as per ICAO Rules of the Air.
- d) Avoid flying over yellow rooftop i.e., (*dzongs, monastery, temples*)
- e) Flight shall be permitted ***to take-off and land between sunrise and sunset for all types of flight operations.***

VQTY AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations in the vicinity of the airport

As far as practicable, Aerodrome Control will inform pilots of the bird activity and the estimated heights AGL, when situation warrants.

VQTY AD 2.24 CHARTS RELATED TO AN AERODROME

page

Aerodrome chart.....AD 2-VQTY-2-1
Aerodrome Obstacle Chart - ICAO Type- A runway 12/30..... AD 2-VQTY-3-1

INTENTIONALLY LEFT BLANK

AERODROME CHART - ICAO

ARP 27° 15' 21.47" N
91° 30' 55.27" E

AERODROME ELEVATION 8 442.5 ft.

TWR 118.20

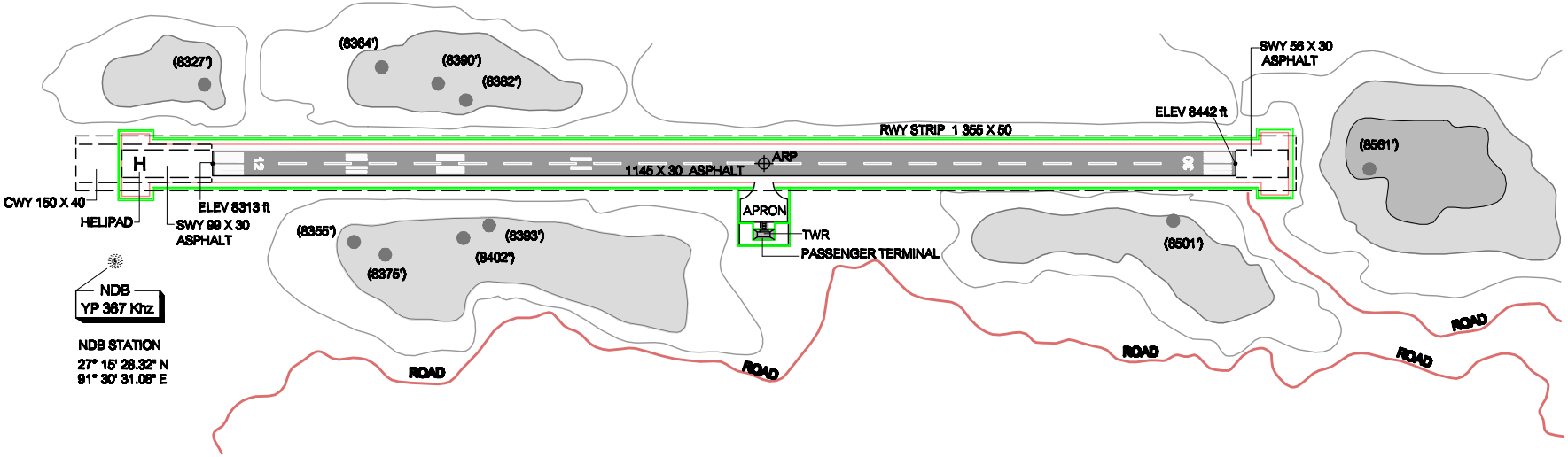
TRASHIGANG / Yonphula Airport

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



MAG VAR 0° 18' W 2010
ANNUAL CHANGE 0° 1' W

RWY	DIRECTION	THR	BEARING STRENGTH
12	124°	27° 15' 32.47" N 91° 30' 36.86" E	PCN 10-12 F/C/Y/T
30	304°	27° 15' 11.84" N 91° 31' 11.24" E	
APRON			PCN 10-12 F/C/Y/T



LEGEND	
AERODROME REFERENCE POINT (ARP)	⊕
BUILDING OR LARGE STRUCTURE	■
ROAD	—
POLE, TOWER, SPIRE, ANTENNA, ETC	●
DITCH	—
TERRAIN PENETRATING OBSTACLE PLANE	●
TERRAIN CONTOUR	—

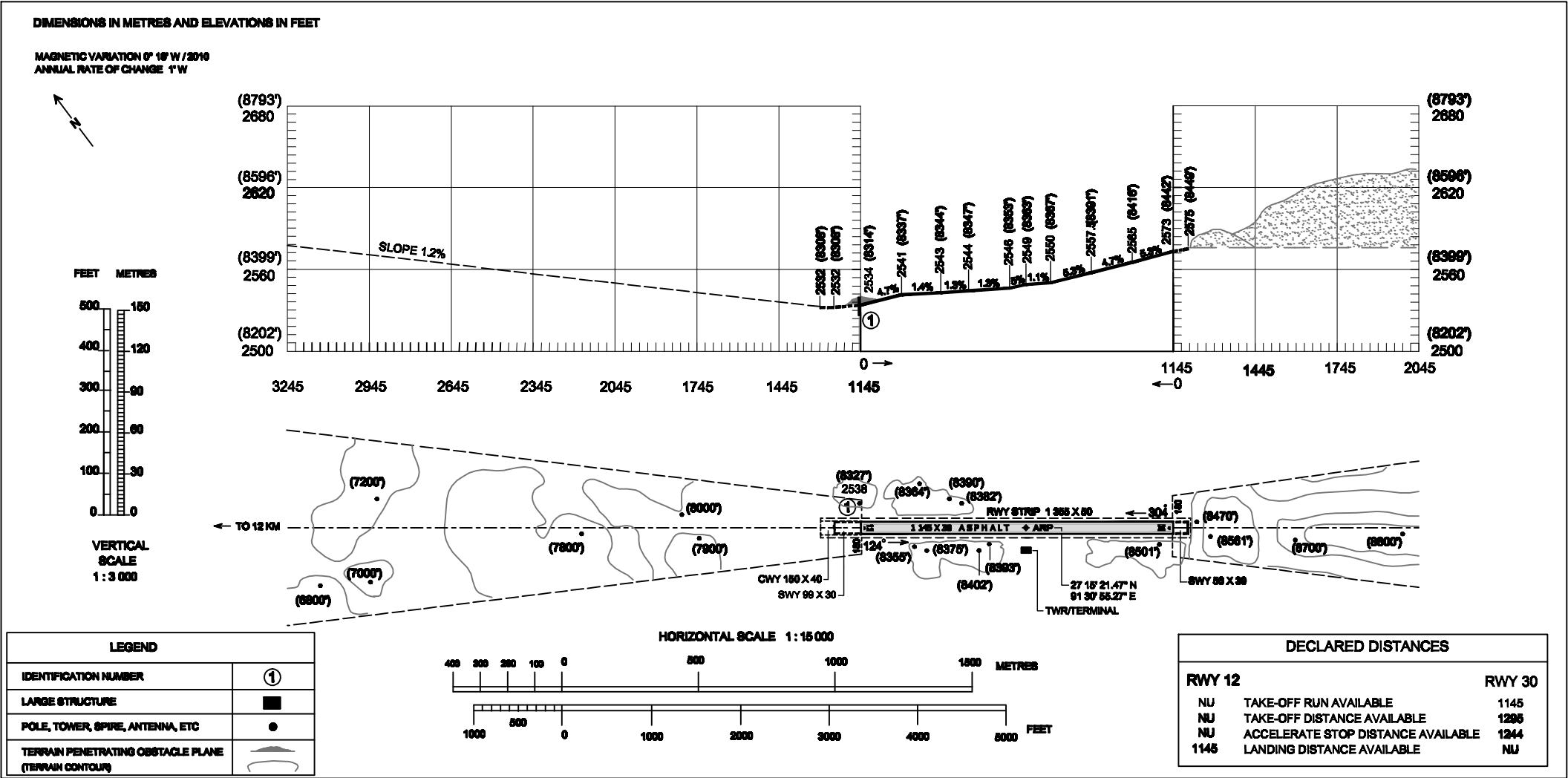
100 50 0 100 200 300 400 500 METRES

HORIZONTAL SCALE 1 : 5 000

INTENTIONALLY LEFT BLANK

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

TRASHIGANG / Yonphula Airport



INTENTIONALLY LEFT BLANK

AD 3.1 HELIPORTS

VQPR AD 3.1 HELIPORTS LOCATION INDICATOR AND NAME

VQPR - PARO/ Heliports

VQPR AD 3.2 HELIPORTS GEOGRAPHICAL AND ADMINISTRATIVE DATA

(TO BE DEVELOPED)

INTENTIONALLY LEFT BLANK