# AIP SUPPLEMENT MALAYSIA

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# KOTA KINABALU FLIGHT INFORMATION REGION MULU AIRPORT, SARAWAK

RUNWAY, TAXIWAY, PARKING APRON, TERMINAL BUILDING, GROUND FACILITIES, NAVIGATIONAL AIDS AND COMMUNICATIONS AVAILABLE IN MULU AIRPORT.

#### 1. INTRODUCTION

- 1.1 The purpose of this AIP Supplement is to notify the aviation industry of the aeronautical ground facilities, navigational equipment and services that are available at Mulu Airport.
- 1.2 The information provided in this AIP Supplement is presented in similar ICAO format as applicable for the Aeronautical Information Publication, Malaysia.
- 1.3 This AIP Supplement supercedes AIP Supplement 25/2003 and 01/2004 with immediate effect.

#### 2. SERVICES AVAILABLE AT MULU AIRPORT

- 2.1 In support of scheduled commercial operations in Mulu Airport, the following service is available:
  - Aerodrome Flight Information Service
- 2.2 Other ground services implemented at Mulu Airport include the following:
  - Aerodrome Management and Maintenance
  - Airport Security
  - Apron Management and Ground Handling
  - Aerodrome Fire and Rescue Services
  - Meteorological Services

#### 3. PART 1 - GENERAL

- 3.1 Radio Navigation Aids
- 3.1.1 The following radio navigation aids are installed at Mulu Airport:

ID	STATION	FACILITY	PURPOSE
VZU	MULU	DVOR/DME	A/E
MZU	MULU	NDB	А

#### 3.2 Aerodrome Flight Information Services (AFIS)

3.2.1 All communications between AFIS and pilots will be on VHF. Drivers of vehicles intending to operate on the manoeuvring areas will communicate with the control tower on VHF. The VHF frequencies and associated functions are listed in Appendix A - 5, WBMU AD 2.18.

#### 3.3 Meteorological Services

3.3.1 A meteorological observatory station located at the airport provides Meteorological data and services for civil aviation. This service is provided by the Malaysian Meteorological Services.

#### 3.4 Airport Operation and Management

- 3.4.1 The management and operation of the airport ground services are provided by the licensed airport operator, Malaysia Airports Sdn. Bhd. The services are :
  - (i) management of airport facilities and maintenance of airport facilities
  - (ii) airport security services
  - (iii) airport fire and rescue services
  - (iv) regulation of airside activities, movement of vehicles on airside and control of works.

#### 4. PART 2 - AERODROME

#### 4.1 Available Movement Area

- 4.1.1 All data pertaining to the airport areas are listed in Appendix A 1 to Appendix A 6. The movement area and airport facilities that are available for operations is indicated on the Aerodrome Chart shown in Appendix B.
- 4.2 All visual markings pertaining to the runway, taxiway and apron are depicted in Appendix G.
- 4.3 Aerodrome Obstacle Chart (Type A) Operating Limitations, is shown in Appendix D.

#### 5. PART 3 - ENROUTE CHARTS, PROCEDURES AND OPERATIONS

- 5.1 En route charts and minimum levels are depicted in Appendix E and Appendix E-1.
- 5.2 All descent from minimum IFR altitude for approach and landing at Mulu Airport are to be conducted visually at pilot's discretion. All aircraft intending to operate into Mulu shall file Y FPL.
- 5.3 All departures are to be conducted visually. All aircraft intending to operate out from Mulu shall file Z FPL.

#### 6. ATS Routes

6.1 Airways W448, W449 and W452 are established to serve Mulu and are depicted in chart shown in Appendix E and Appendix E -1.

#### 7. CANCELLATION

7.1 This AIP supplement will remain in force until the information is published in AIP Malaysia.

DATO' AZHARUDDIN ABDUL RAHMAN
Director General
Department of Civil Aviation
Malaysia

# WBMU AD 2.1 AERODROME LOCATION INDICATOR AND NAME

# **WBMU - MULU**

# WBMU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	04° 03' 01.7" N 114° 48' 33.6" E		
2	Direction and distance from city	2.4 KM West of Royal Mulu Hotel Resort		
3	Elevation / Reference temperature	29.34M (96 FT) / 31° C		
4	Geoid Undulation	46.356M (152.09 FT)		
5	MAG VAR / Annual change	0°E / 1.9'W (2014)		
6	AD Administration, address, telephone, telefax, telex, AFS	Operator: Malaysia Airports Sdn Bhd Mulu Airport, Mulu, 98050, Sarawak. Tel: 085-792102 Fax: 085-792103  ATC Services: Department of Civil Aviation Malaysia Mulu Airport, Mulu, 98050, Sarawak. Tel: 085-792104 Fax: 085-792105		
7	Types of traffic permitted (IFR/VFR)	VFR		
8	Remarks	Nil.		

# WBMU AD 2.3 OPERATIONAL HOURS

1	AD Administration	Malaysia Airports Sdn Bhd 0000 - 0800 Mon - Fri, excluding Public Holidays.	
		Department of Civil Aviation Malaysia 0000 - 0900 Mon - Fri, excluding Public Holidays.	
2	Customs and immigration	Immigration : Scheduled flight on request. Custom : Nil	
3	Health and sanitation	Nil	
4	AIS Briefing Office	In Control Tower during AD operating hrs	
5	ATS Reporting Office (ARO)	In Control Tower	
6	MET Briefing Office	2300 - 1030 daily	
7	ATS	0000 - 0800 daily	
8	Fuelling	Nil	
9	Handling	Prior arrangements with handling agents.	
10	Security	MASB Security : 0000 - 0800 daily	
11	De-icing	Nil	
12	Remarks	Nil	

#### WBMU AD 2.4 HANDLING SERVICES AND FACILITIES

1	1 Cargo handling facilities By arrangement with MASwings Sdn Bhd.	
2	Fuel / Oil types	Nil
3	Fuelling facilities / capacity	Nil
4	De-icing facilities	Nil
5	Hanger space available for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

#### WBMU AD 2.5 PASSENGER FACILITIES

1	Hotels	Royal Mulu Resort, Mulu National Park, Homestay	
2	Restaurants	At Airport Terminal, Royal Mulu Resort, Mulu National Park.	
3	Transportation	Prior arrangement with Hotels at hill resorts.	
4	Medical facilities	Nil	
5	Bank and Post Offices	Nil	
6	Tourist Office	At Mulu National Park	
7	Remarks	Nil	

# WBMU AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Required: CAT V Available: CAT V	
		Trained personnel:	4
2	Rescue equipment	Type of vehicles :	1 Ultra Large Foam Tender
3	Capability for removal of disabled aircraft	Nil	
4	Remarks	Nil	

# WBMU AD 2.7 SEASONAL AVAILABILITY - CLEARING

#### **NOT APPLICABLE**

# WBMU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface: Asphalt Strength: PCN - 19 / F / C / X / T	
2	Taxiway width, surface and strength	Width: 15 M with 5 M shoulder Surface: Asphalt Strength: PCN - 19 / F / C / X / T	
3	ACL location and elevation	Location: At Apron Elevation: 27.148 M / 89 FT	
4	VOR / INS checkpoint	VOR: At TWY Holding Point. See AD Chart 040300.03N 1144835.97E Brg 220° Dist. 1.35 NM / 2.49 KM  INS: At aircraft parking bay. See AD Chart Bay 1: 040257.87N 1144837.41E Bay 2: 040259.13N 1144838.28E	
5	Remarks	Nil	

# WBMU 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	Taxiway centreline markings, holding point markings and apron parking guidelines.	
2	RWY and TWY markings and LGT	RWY: Designation, THR, TDZ, Aiming Point, Centreline and End Marking TWY: Centreline, holding positions at TWY/RWY intersections.	
3	Stop bars	Nil	
4	Remarks	Nil	

# WBMU AD 2.10 AERODROME OBSTACLES

	In APCH/TKOF areas	In circling area and at AD		Remarks	
	1		2		3
RWY / Area Affected	Obstacles Type Elevation Markings / LGT	Coordinates	Obstacles Type Elevation Markings / LGT	Coordinates	
а	b	С	а	b	
03 APCH 21 TKOF	DVOR Antenna 67.766M/222.33FT Red-white / lighted NDB Antenna	040158.54N 1144743.26E 040202.68N	WDI - Not lighted 32.988 M / 108.23 FT	040257.56N 1144824.95E	
	40.950 M / 134.35 FT Not lighted	1144752.84E			
03 TKOF 21 APCH			WDI - Not lighted 34 M / 111.5 FT	040333.46N 1144850.78E	

RWY / Area efected	Obstacles Type Elevation Markings / LGT	Coordinates
а	b	С
Within 10 NM	Hill, elev. 865 FT AMSL Brg. 287° 4.7 NM. Not lighted.	040424N 1144403E
radius of ARP	Hill, elev. 800 FT AMSL Brg. 279° 1.7 NM. Not lighted.	040318N 1144652E
	Hill, elev. 800 FT AMSL Brg. 304° 1.6 NM. Not lighted.	040355N 1144713E
	Hill, elev. 1000 FT AMSL Brg. 354° 0.75 NM. Not lighted.	040347N 1144828E
	Hill, elev. 1250 FT AMSL Brg. 018° 1.2 NM. Not lighted.	040410N 1144855E
	Hill, elev. 5550 FT AMSL Brg. 057° 5.9 NM. Not lighted.	040615N 1145330E
	Hill, elev. 1500 FT AMSL Brg. 088° 1.2 NM. Not lighted.	040304N 1144945E
	Hill, elev. 7798 FT AMSL Brg 092° 7.2 NM. Not lighted.	040246N 1145545E
	Hill, elev. 2000 FT AMSL Brg. 108° 1.8 NM. Not lighted.	040228N 1145016E
	Hill, elev. 5000 FT AMSL Brg. 113° 4.4 NM. Not lighted.	040118N 1145236E
	Hill, elev. 4000 FT AMSL Brg. 136° 3.6 NM. Not lighted.	040025N 1145103E
	Hill, elev. 1000 FT AMSL Brg. 148° 1.3 NM. Not lighted.	040155N 1144914E
	Hill, elev. 3120 FT AMSL Brg. 152° 3.8 NM. Not lighted.	035939N 1145020E
	Hill, elev. 1100 FT AMSL Brg. 173° 1.8 NM. Not lighted.	040114N 1144846E
	Hill, elev. 2830 FT AMSL Brg. 178° 5.2 NM. Not lighted.	035748N 1144844E
	Hill, elev. 1220 FT AMSL Brg. 184° 3.7 NM. Not lighted.	035919N 1144818E
	Hill, elev. 1630 FT AMSL Brg. 188° 5 NM. Not lighted.	035803N 1144751E
	Hill, elev. 1490 FT AMSL Brg. 196° 5.6 NM. Not lighted.	035737N 1144700E
	Hill, elev. 720 FT AMSL Brg. 204° 3.8 NM. Not lighted.	033932N 1144700E

#### WBMU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Meteorological office Kuching
2	Hours of service MET Office outside hours	2300 - 1030
3	Office responsible for TAF preparation Periods of validity	Request from Kuching 0012, 0618, 1224, 1806
4	Type of landing forecast Interval of issuance	Request from Kuching
5	Briefing / consultation provided	On request
6	Flight documentation Language(s) used	Request from Kuching English
7	Charts and other information available for briefing or consultation	Forecast chart of significant weather available. Tabular forecast of upper winds and temperature for spot location available.
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	Mulu Tower: Hourly weather report
10	Additional information	Tel : 085 - 792109

# WBMU AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designation RWY NR	TRUE and MAG BRG	Dimension of RWY (M)	Strength (PCN) Surface of RWY and SWY	THR Coordinates	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
03	034.5 ° T 033.5° M	1500 X 30	PCN 19 / F / C / X / T Asphalt	040255.01N 1144828.96E	THR: 27.57 M (90 FT)
21	214.5 ° T 213.5° M	1500 X 30	PCN 19 / F / C / X / T Asphalt	040335.17N 1144856.63E	THR: 29.98 M (98 FT)
Slope of RWY - SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strips Dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0.20 %	Nil	Nil	1620 x 300	Nil	Nil
0.20 %	60 x 30	60 x 150	1620 x 300	Nil	Nil

# WBMU AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
03	1500	1500	1500	1450	Visual departure only and restricted to CAT A aircraft only
21	1500	1560	1560	1500	Visual Landing only and restricted to CAT A aircraft only

#### WBMU AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH Lgt	THR Lgt	VASIS (MEHT) PAPI	TDZ Lgt	RWY Centre Line Lgt	RWY Edge Lgt	RWY End Lgt WBAR	SWY Lgt	Remarks
1	2	3	4	5	6	7	8	9	10
03	Simple Approach Lights	Nil	PAPI Slope 3°	Nil	Nil	Nil	Nil	Nil	Nil
21	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

# WBMU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN / IBN location, characteristics and hours of operation	Not available
2	LDI location and LGT Anemometer location and LGT	Not available Anemometer: Wind Direction Indicator (WDI) Rwy 03: 140 M from THR on left, not lighted. Rwy 21: 140 M from THR on right, not lighted.
3	TWY edge, centerline lighting	Nil
4	Secondary power supply / switch-over time	Not available
5	Remarks	Nil

# WBMU AD 2.16 HELICOPTER LANDING AREA

**Parking Apron** 

# WBMU AD 2.17 ATS AIRSPACE

NIL

# WBMU AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	ID	Frequency	Hours of operation	Remarks
1	2	3	4	5
AFIS	MULU AFIS	129.200 MHZ (P) 121.700 MHZ (S)	0000 - 0800 daily	P - Primary S - Secondary
EMERGENCY	MULU AFIS	* 121.5 MHZ	0000 - 0800 daily	* Emergency frequency

#### WBMU AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type and aid	ID	Frequency	Hours of operation	Coordinates	DME Elevation	RMK
1	2	3	4	5	6	7
DVOR/DME	VZU	112.8 MHZ CH 75 X	H24	040158.54N 1144743.25E	67.76 M/222.33 FT	100 W / 1 KW
NDB	MZU	505 KHZ		040202.68N 1144752.84E	40.95 M/134.35 FT	125 W

#### WBMU AD 2.20 LOCAL TRAFFIC REGULATIONS

- 1. Circuit patterns are Left Hand Circuit for RWY 03 and Right Hand Circuit for RWY 21. Circuit altitude 1750 FT.
- 2. Procedures for VFR flights within Mulu Aerodrome
  - a) Aflight plan shall be filed for the flight concern.
  - b) ATC clearance shall be obtained from Mulu Tower.
  - c) Any deviation from ATC clearance requires prior permission.
  - d) The flight shall be conducted with vertical visual reference to the ground.
  - e) Two-way radio communication shall be established with Mulu Tower on 129.200 Mhz (P) or 121.700 Mhz (S) prior to entering Mulu circuit.

#### WBMU AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

#### WBMU AD 2.22 FLIGHT PROCEDURES

1 Communication failure procedures as per AIP Malaysia, ENR 1.6 - 3 Para 2.1

# WBMU AD 2.23 ADDITIONAL INFORMATION

NIL

#### WBMU AD 2.24 CHARTS RELATED TO MULU AIRPORT

Chart Name	Appendix
AERODROME CHART - ICAO	APPENDIX B
RUNWAY, TAXIWAY AND APRON MARKINGS	APPENDIX C
AERODROME OBSTACLE CHART - ICAO - TYPE A (OPERATING LIMITATIONS)	APPENDIX D
ATS ROUTES LINKED TO VZU DVOR/DME	APPENDIX E
UPPER LIMITS AND LOWER LIMITS OF AIRWAYS LINKED TO VZU DVOR/DME	APPENDIX E-1
APPROACH LIGHTING	APPENDIX G

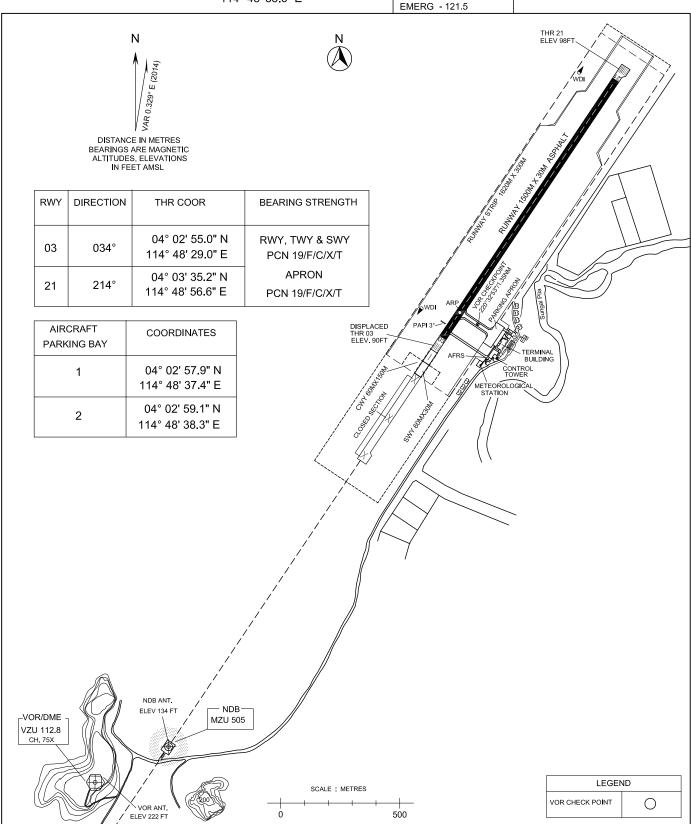
AIP MALAYSIA APPENDIX B

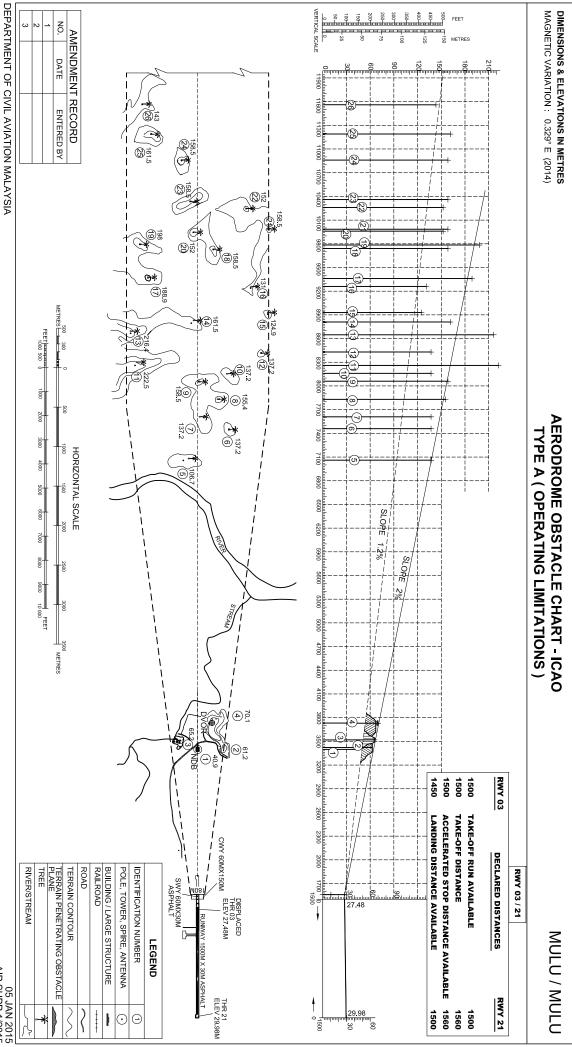
# AERODROME CHART - ARP 04° 03' 01.7" N ELEV 96FT **ICAO**

114° 48' 33.6" E

TWR - 129.200 (P) - 121.700 (S)

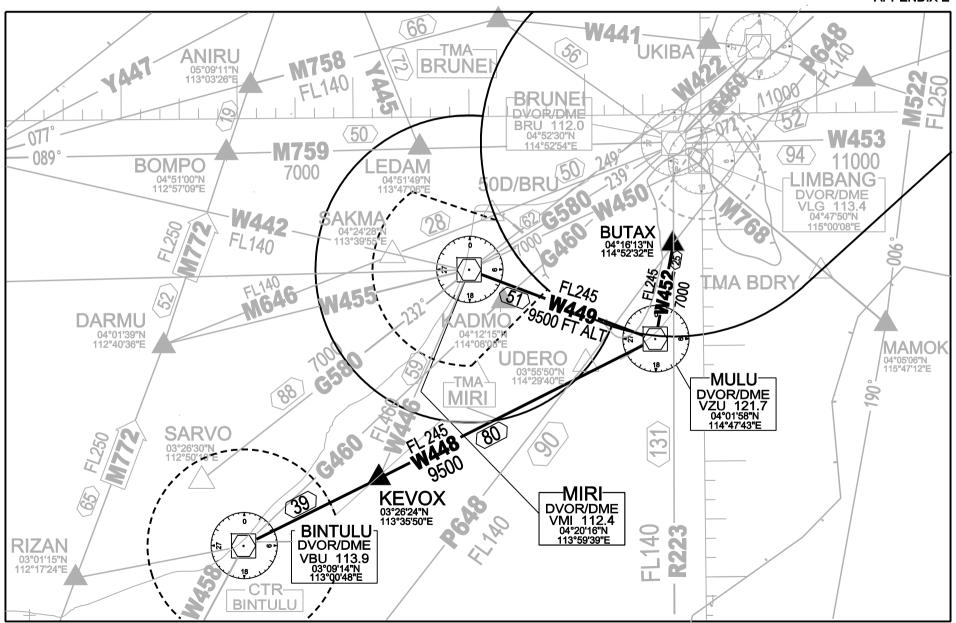
MULU / MULU





# MULU AIRPORT ESTABLISHMENT OF NEW AIR ROUTES W448, W449 & W452

APPENDIX E



Route Designator Significant Points Coordinates	Track (Mag) DIST (NM)	Upper limits Lower limits Min Flight Altitude Airspace Class Refer ENR 1.4-1	Lateral Limits (NM)	Direction of Cruising Levels  Odd Even	Remarks Controlling Unit
1	2	3	4	5	6
W448	1				
▲ BINTULU					Controlling Authority :
DVOR/DME (VBU) 030914N 1130047E	064° 244° 39 NM	<u>FL 245</u> 4 500 FT ALT			Kinabalu ACC - 128.3 MHz except within Miri TMA Miri APP : 129.9 MHz (P) 122.7 MHz (S)
032624N 1133550E	064° 244°	MNM 5 000 FT	20	<b>*</b>	Mulu AFIS: 129.2 MHz (P) 121.7 MHz (S) Caution Acft intending to hold over
▲ 8 DME VZU 035826N 1144032E	72 NM <u>064°</u> 244°	<u>FL 245</u> 9 500 FT ALT		<b>†</b>	VZU DVOR/DME or DVOR must cross 8 DME VZU at 10000 FT or enter minimum holding pattern at 9500 FT
DVOR/DME (VZU) 040158N 1144743E	8 NM	MNM 10 000 FT			due to high terrain east of VZU DVOR.
W452					
▲ MULU DVOR/DME (VZU)	012°	FL 245			Controlling Authority: Kinabalu ACC - 128.3 MHz
040158N 1144743E	192°	9 500 FT ALT	20		except within Miri TMA Miri APP: 129.9 Mhz (P) 122.7 Mhz (S)
▲ 16 DME VZU DVOR/DME (VZU)	16 NM	MNM 10 000 FT	-		Within Brunei TMA
041740N 1145104E	<u>012°</u> 192°	<u>FL 245</u> 7 000 FT ALT		↓	Brunei APP: 127.1 MHz Mulu AFIS: 129.2 MHz (P)
▲ BUTAX	9 NM	MNM 7 000 FT			121.7 MHz (S) Caution
042613N 1145232E					Acft intending to hold over VZU DVOR/DME or DVOR must cross 16 DME VZU at 10000 FT or enter minimum holding pattern at 10000 FT due to high terrain east of VZU DVOR.
W449	ı		ı		1
▲ MIRI					Controlling Authority : Kinabalu ACC - 128.3 MHz
DVOR/DME (VMI) 042016N 1135939E	110° 290°	<u>FL 245</u> 4 500 FT ALT			except within Miri TMA Miri APP : 129.9 MHz (P)
▲ 8 DME VZU	43 NM	MNM 5 000 FT			122.7 MHz (S) Within Brunei TMA
040449N 1144014E	<u>110°</u> 290°	<u>FL 245</u> 9 500 FT ALT	20	<b>*</b>	Brunei APP : 127.1 MHz Mulu AFIS : 129.2 MHz (P) 121.7 MHz (S)
▲ MULU DVOR/DME (VZU) 040158N 1144743E	8 NM	MNM 10 000 FT			Caution Acft intending to hold over VZU DVOR/DME or DVOR must cross 8 DME VZU at 10000 FT or enter minimum holding pattern at 10000 FT due to high terrain east of VZU DVOR.