
AIP SUPPLEMENT MALAYSIA

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21/2015
15 SEP
AIRAC

KOTA KINABALU FLIGHT INFORMATION REGION

MIRI AIRPORT

REVISION OF INSTRUMENT FLIGHT PROCEDURES:

- i. REVISED SIDs RWY 20 AND SIDs RWY 02
- ii. REVISED STARs RWY 20 AND STARs RWY 02
- iii. REVISED INSTRUMENT APPROACH PROCEDURES
RWY 20 AND RWY 02
- iv. REVISED ATC SURVEILLANCE MINIMUM ALTITUDE

(This AIP Supplement replaces AIP Supplement 16/2015 dated 06 August 2015)

1 INTRODUCTION

- 1.1 The purpose of this AIP Supplement is to notify the aviation industry of the introduction of new and revised SID Runway 20 and Runway 02, new and revised STAR Runway 20 and Runway 02 and new and revised Instrument Approach Procedures for Miri Airport.
- 1.2 This AIP Supplement supersedes AIP Supplement 16/2015 dated 06 August 2015 due to some changes.

2 INSTRUMENT FLIGHT PROCEDURES

- 2.1 The new instrument flight procedures are shown as follows:

| | |
|--------------|---|
| APPENDIX A-1 | MIRI CONTROL ZONE AND HOLDING AREAS |
| APPENDIX A-2 | ATC SURVEILLANCE MINIMUM ALTITUDE |
| APPENDIX A-3 | STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RADAR DEPARTURES |
| APPENDIX A-4 | STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 02 |
| APPENDIX A-5 | STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 02 RNAV DEPARTURES |
| APPENDIX A-6 | STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 20 |
| APPENDIX A-7 | STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 20 RNAV DEPARTURES |
| APPENDIX A-8 | STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 02 |

| | |
|---------------|---|
| APPENDIX A-9 | STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 02 RNAV 1 (GNSS) |
| APPENDIX A-10 | STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 20 |
| APPENDIX A-11 | STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 20 RNAV 1 (GNSS) |
| APPENDIX A-12 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 ILS z or LOC z |
| APPENDIX A-13 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 ILS y or LOC y |
| APPENDIX A-14 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 VOR z (12 DME ARC) |
| APPENDIX A-15 | INSTRUMENT APPROACH CHART - ICAO – RWY 02 VOR y |
| APPENDIX A-16 | INSTRUMENT APPROACH CHART - ICAO – RWY 20 VOR z |
| APPENDIX A-17 | INSTRUMENT APPROACH CHART - ICAO – RWY 20 VOR y |
| APPENDIX A-18 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 RNAV GNSS |
| APPENDIX A-19 | INSTRUMENT APPROACH CHART - ICAO - RWY 20 RNAV GNSS |

2.2 The following charts pertaining to Miri Airport are superseded or withdrawn:

| | |
|----------------|---|
| WBGR AD 2 – 47 | MIRI CONTROL ZONE AND HOLDING AREAS |
| WBGR AD 2 – 49 | RADAR VECTORING AREA CHART |
| WBGR AD 2 – 51 | STANDARD RADAR DEPARTURE RWY 02/20 |
| WBGR AD 2 – 52 | STANDARD DEPARTURE CHART - INSTRUMENT - ICAO - RWY 02 DEPARTURE WEST & SOUTH WEST |
| WBGR AD 2 – 53 | STANDARD DEPARTURE CHART - INSTRUMENT - ICAO - RWY 02 DEPARTURE EAST & NORTH EAST |
| WBGR AD 2 – 54 | STANDARD DEPARTURE CHART - INSTRUMENT - ICAO - RWY 20 DEPARTURE WEST & SOUTH WEST |
| WBGR AD 2 – 55 | STANDARD DEPARTURE CHART - INSTRUMENT - ICAO - RWY 20 DEPARTURE EAST & NORTH EAST |
| WBGR AD 2 – 61 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 02 (RNAV TRACKING) WEST & SOUTH WEST |
| WBGR AD 2 – 62 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 02 (RNAV TRACKING) EAST & NORTH EAST |
| WBGR AD 2 – 63 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 02 (VOR/DME) WEST & SOUTH WEST |
| WBGR AD 2 – 64 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 02 (VOR/DME) EAST & NORTH EAST |
| WBGR AD 2 – 65 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 20 (RNAV TRACKING) WEST & SOUTH WEST |
| WBGR AD 2 – 66 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 20 (RNAV TRACKING) EAST & NORTH EAST |
| WBGR AD 2 – 67 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 20 (VOR/DME) WEST & SOUTH WEST |
| WBGR AD 2 – 68 | STANDARD ARRIVAL CHART - ICAO - INSTRUMENT - RWY 20 (VOR/DME) EAST & NORTH EAST |

| | |
|-----------------|---|
| WBGR AD 2 – 81 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 BIKAN ILS / DME |
| WBGR AD 2 – 83 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 VOR / ILS / DME |
| WBGR AD 2 – 85 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 BIKAN VOR / DME |
| WBGR AD 2 – 87 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 VOR / DME |
| WBGR AD 2 – 89 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 NDB / ILS / DME |
| WBGR AD 2 – 91 | INSTRUMENT APPROACH CHART - ICAO - RWY 02 NDB / DME |
| WBGR AD 2 – 101 | INSTRUMENT APPROACH CHART - ICAO - RWY 20 GIVOX VOR / DME |
| WBGR AD 2 – 103 | INSTRUMENT APPROACH CHART - ICAO - RWY 20 VOR / DME |
| WBGR AD 2 – 105 | INSTRUMENT APPROACH CHART - ICAO - RWY 20 NDB / DME |

3 NEW WAYPOINTS AND IFR HOLDINGS

3.1 The following new Waypoints are established

| IDENT | Referred to VMI | Latitude | Longitude | Phase of Flight |
|-------|-----------------|-------------|--------------|-----------------|
| LIBTO | 269°/40D | 041932.85 N | 1131936.97 E | SID / STAR |
| ADNOX | 205°/15D | 040447.04 N | 1135227.72 E | SID / IAF |
| LOTRI | 257°/40D | 041112.49 N | 1132038.60 E | SID / STAR |
| BETNA | 230°/16.5D | 041122.64 N | 1134746.51 E | SID / STAR |
| EGILA | 295°/7D | 042314.34 N | 1135318.02 E | SID / STAR |
| GOTNI | 347°/11.5D | 043130.25 N | 1135703.99 E | IAF |
| MIDUS | 180°/16.5D | 040525.18 N | 1140030.56 E | STAR |
| KETOT | 110°/20D | 041323.34 N | 1141827.76 E | SID / STAR |
| SAFRA | 066°/12.5D | 042523.43 N | 1134811.00 E | SID |
| BOLAN | 250°/15D | 041506.57 N | 1134532.58 E | SID |
| TERAP | 269°/26.3D | 041947.93 N | 1133320.09 E | STAR |
| MAGRU | 283°/15D | 042339.32 N | 1134501.18 E | HOLD |
| PIKIR | 025°/13D | 043208.61 N | 1140510.22 E | IAF |
| RITMA | 059°/11D | 042554.05 N | 1140900.58 E | IAF |
| DOSNA | 129°/7.2D | 041542.80 N | 1140515.15 E | SID |
| BEGVI | 232°/15D | 041059.13 N | 1134749.28 E | IAF |
| LESKI | 178°/15D | 040512.18 N | 1140010.53 E | IAF |
| MATNO | 360°/12D | 043219.53 N | 1135939.10 E | IAF |
| TELOM | 050°/12D | 042801.03 N | 1140851.33 E | IAF |

3.2 The following waypoints associated with MIRI flight procedures are withdrawn:

| IDENT | Referred to VMI | Latitude | Longitude |
|-------|-----------------|----------|-----------|
| GIVOX | 024°/8D | 042735 N | 1140258 E |
| BIKAN | 204°/12D | 040918 N | 1135441 E |
| IBIBI | 216°/14.5D | 040825 N | 1135111 E |
| NIXEL | 174°/16.1D | 040405 N | 1135949 E |
| DONIX | 195°/14.9D | 040550 N | 1135548 E |
| NODOT | 356°/12.5D | 043247 N | 1135846 E |
| POPUN | 031°/11.7D | 043021 N | 1140541 E |
| BODIN | 045°/12.6D | 042913 N | 1140834 E |
| MULAR | 110°/19.2D | 041340 N | 1141743 E |
| OPUKO | 013°/11.2D | 043114 N | 1140216 E |

3.3 New Holding areas for IFR implemented and supersedes chart shown in AIP Malaysia WBGR AD2 - 47

| Holding ID Coordinate | Inbound Track | Direction of turn | Max IAS (kts) | MNM-MAX Holding level | Time (MIN) |
|---|------------------|----------------------|------------------|--------------------------|---------------|
| MAGRU 042339.32 N 1134501.18 E | 103° | R | 230 | 3000-FL140 | 1 |
| GOTNI 043130.25 N 1135703.99 E | 115° | R | 230 | 3000-FL140 | 1 |
| ADNOX 040447.04 N 1135227.72 E | 167° | R | 230 | 3000-FL140 | 1 |
| VMI 042016.02 N 1135939.10 E | 025°/205° | R | 230 | 3000-FL140 | 1 |

4 IMPLEMENTATION

4.1 This AIP Supplement and relevant charts will become effective on 15 October 2015.

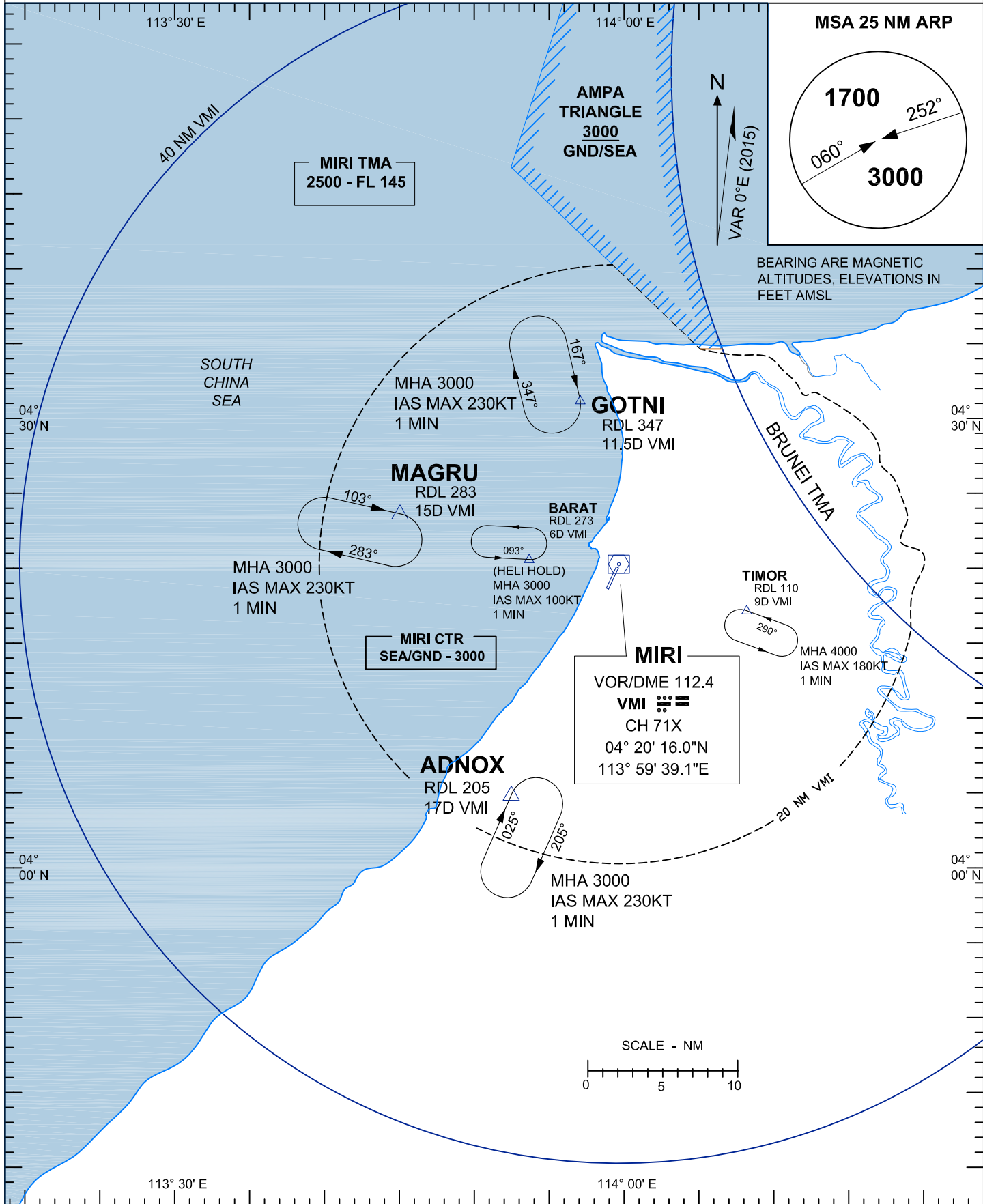
5 CANCELLATION

5.1 This AIP Supplement will remain until the information is published in AIP Malaysia.

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

| RWY/Area effected | Obstacle Type, Elevation Markings / LGT | Coordinates |
|-------------------|---|------------------------|
| a | b | c |
| | Radio mast at Tg. Baram, height 310 FT AMSL. Painted. | 043442.80N 1135826.70E |
| | Telecom TWR at Bt. Lambir, height 1250 FT AMSL. Painted. | 041248.67N 1140247.01E |
| | Telecom TWR at Tg. Lobang, height 384 FT AMSL. Painted. | 042133.40N 1135819.40E |
| | Aerial Mast height 368 FT AMSL. Painted. | 042611.00N 1140110.00E |
| | Telecom TWR at Canada Hill, height 505 FT AMSL. Painted. | 042308.34N 1135939.84E |
| | Telecom TWR at Luak Bay, height 108 FT AMSL. Painted. | 042043.00N 1135816.20E |
| | Telecom TWR at New General Hospital, height 199FT. Painted and lighted. | 042243.60N 1135939.20E |
| | Telecom TWR at Tg. Lobang, height 476 FT AMSL. Marked and lighted. | 042144.71N 1135815.52E |
| | Telecom TWR at Jalan Riam, height 280 FT AMSL. Marked and lighted. | 042243.00N 1135851.00E |
| | Radar antenna, height 130 FT AMSL. Painted and lighted. | 041927.14N 1135927.17E |
| | Telecom TWR at GM NG SIAN HAP, height 202 FT AMSL. Marked and lighted. | 043122.91N 1135924.12E |
| | Buildings at 1.3 NM North East of Miri Airport, height 134 FT AMSL. | 042041.65N 1135937.75E |

MIRI CONTROL ZONE AND HOLDING AREAS

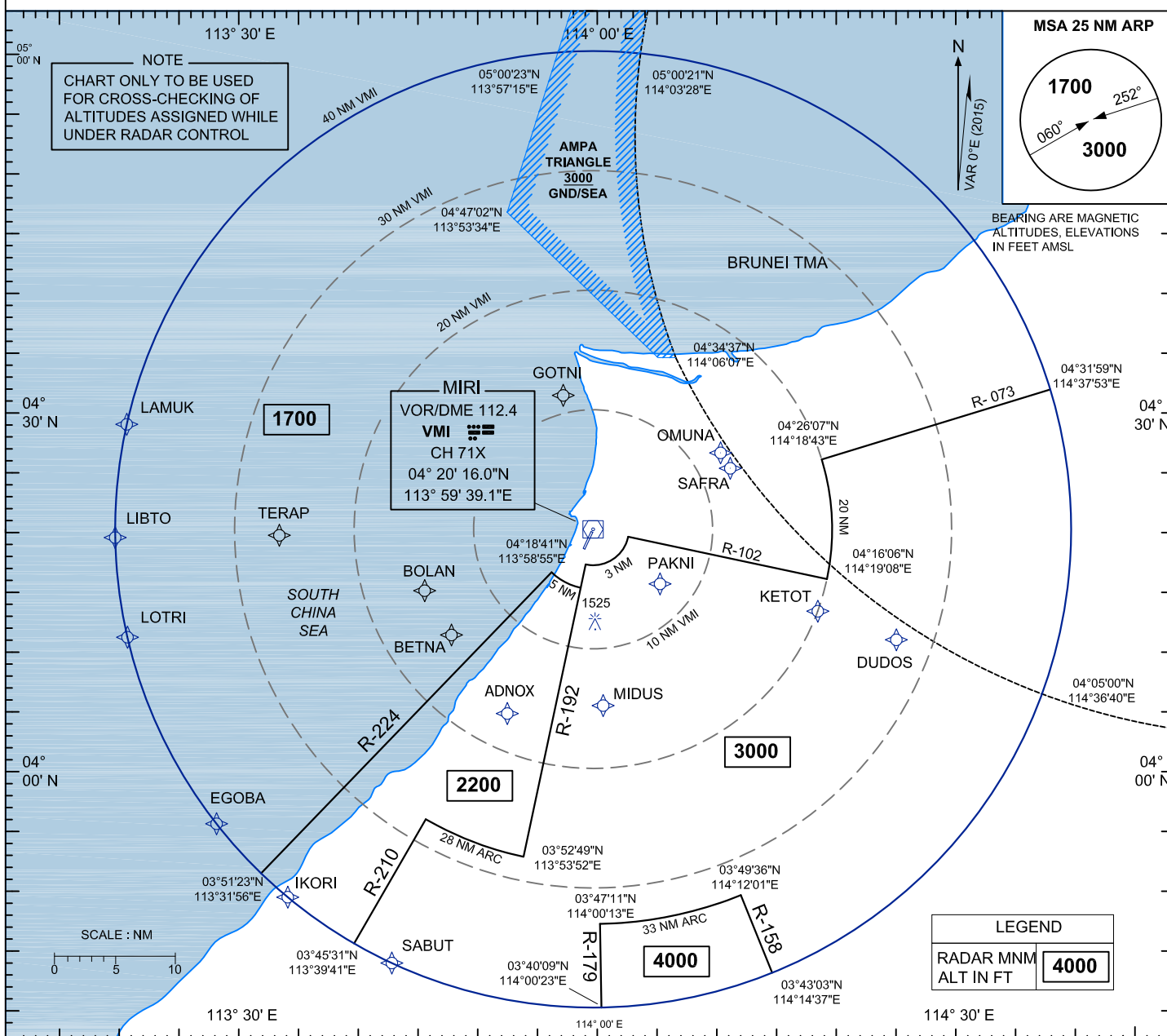


ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

MIRI / MIRI

AERODROME ELEV 59 FT
TRANSITIONAL ALT 11000 FT

MIRI APP - 129.90(P)
- 122.70(S)

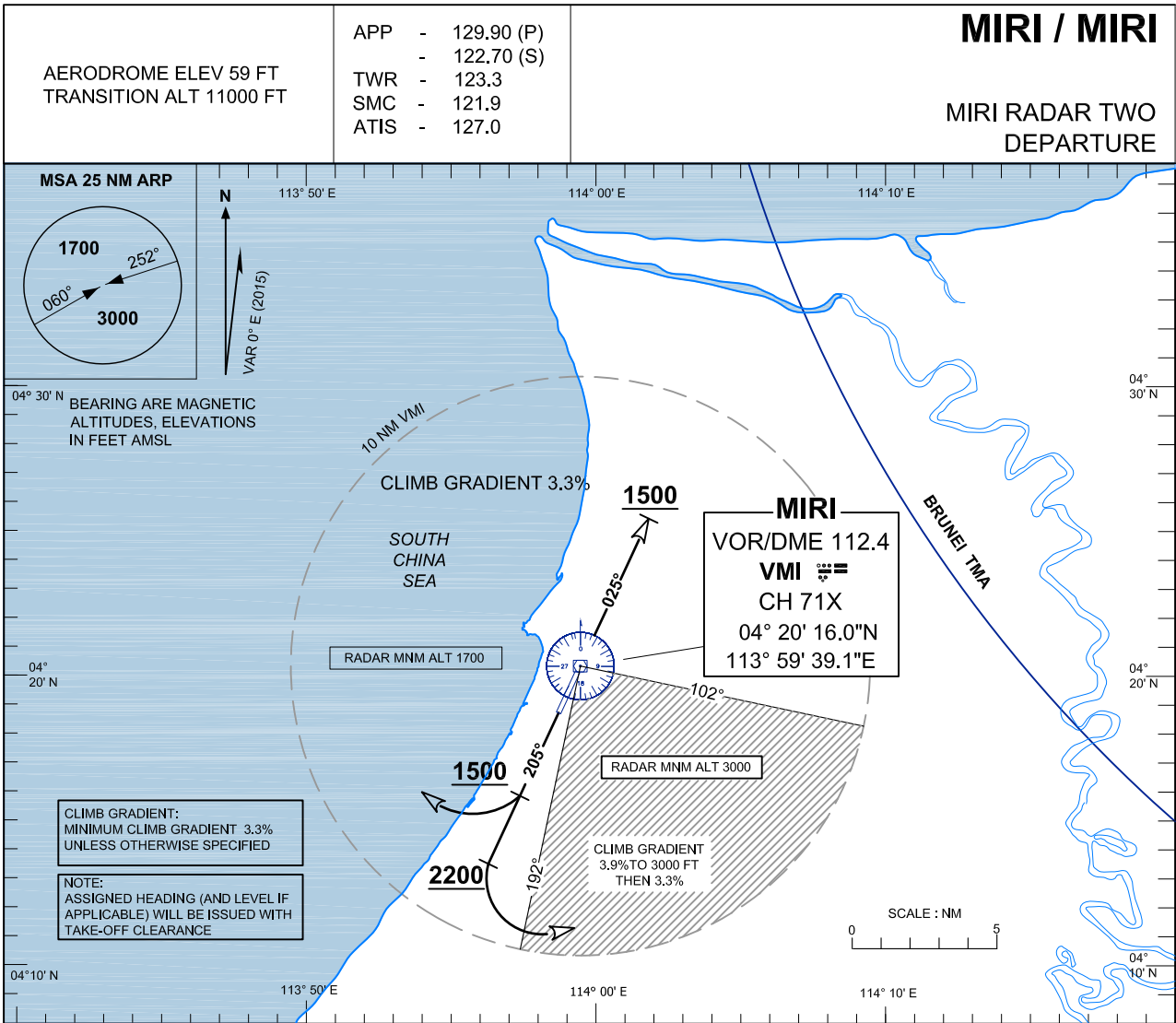


NOTE:

1. BEARINGS AND ARC FROM VMI VOR
2. CHART ONLY TO BE USED FOR CROSS-CHECKING OF ALTITUDES ASSIGNED WHILE UNDER RADAR CONTROL

COM FAILURE:

1. SQUAWK 7600
2. IF IN VMC, CONTINUE VISUALLY AND LAND
3. IF IN IMC; MAINTAIN LAST ASSIGNED LEVEL OR 4000 FT WHICHEVER IS HIGHER, PROCEED DIRECT TO VMI VOR
4. EXECUTE STANDARD COM FAILURE FROM OVERHEAD VMI



**STANDARD RADAR DEPARTURE
MIRI RADAR TWO DEPARTURE**

RWY 20 - WESTERLY DEPARTURE

AFTER TAKE-OFF PROCEED ON TRACK 205° UNTIL PASSING 1500FT, THEN FOLLOW THE ASSIGNED HEADING. CONTACT MIRI APPROACH WHEN AIRBORNE.

RWY 20 - EASTERLY DEPARTURE

AFTER TAKE-OFF PROCEED ON TRACK 205° UNTIL PASSING 2200 FT, THEN FOLLOW THE ASSIGNED HEADING. CONTACT MIRI APPROACH WHEN AIRBORNE.

RWY 02

AFTER TAKE-OFF PROCEED ON TRACK 025° UNTIL PASSING 1500FT, THEN FOLLOW THE ASSIGNED HEADING. CONTACT MIRI APPROACH WHEN AIRBORNE.

| GROUND SPEED (KT) | | | | | | | | | | | | |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| GROUND SPEED (KT) | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 240 | 260 | 280 |
| GRADIENT 3.3% | 434 | 468 | 502 | 535 | 569 | 602 | 635 | 669 | 736 | 803 | 869 | 936 |
| GRADIENT 3.9% | 513 | 552 | 592 | 631 | 671 | 710 | 750 | 789 | 868 | 947 | 1026 | 1105 |

COMMUNICATION FAILURE :

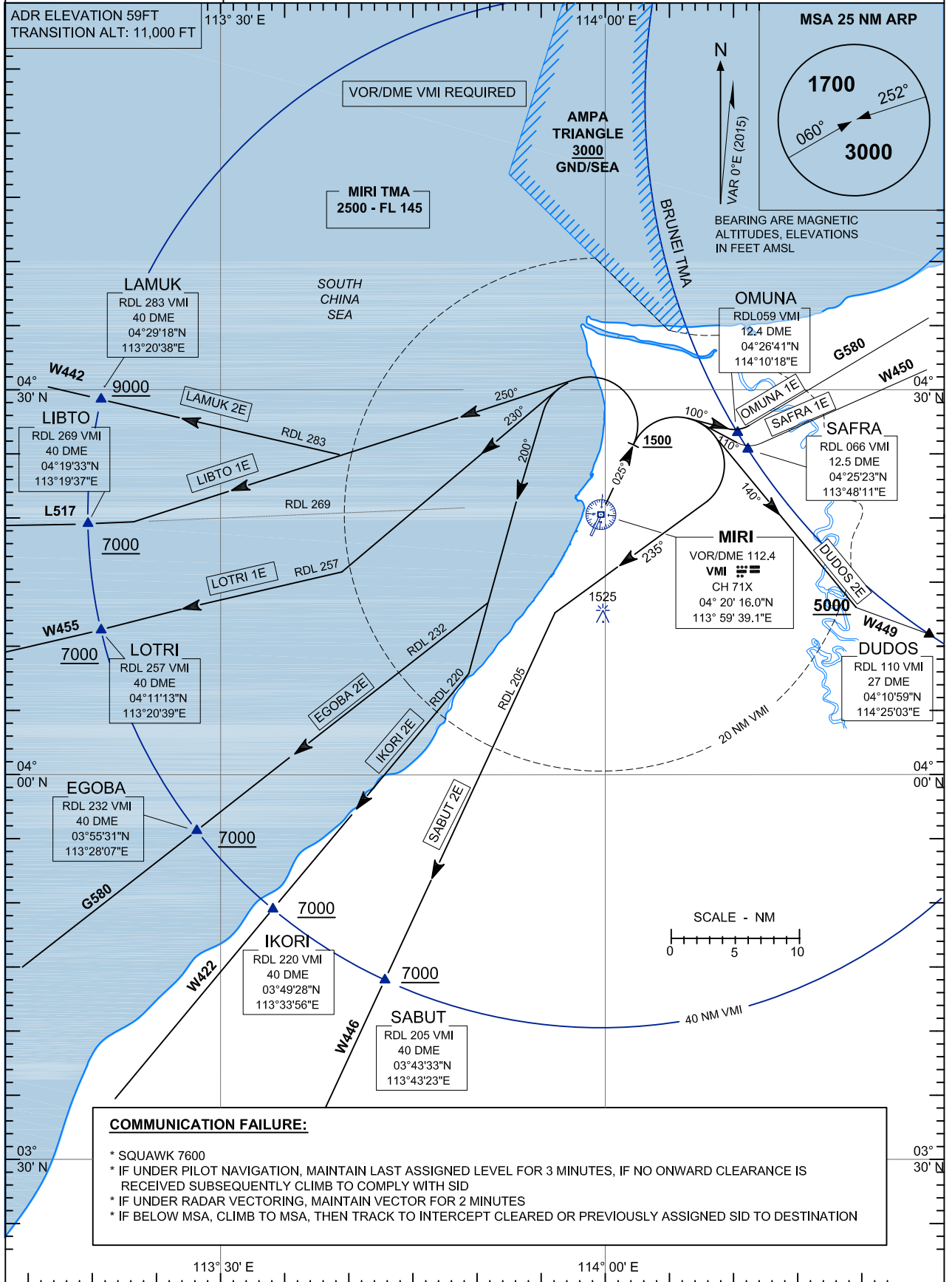
- * SQUAWK 7600
- * MAINTAIN ASSIGNED HEADING - CLIMB TO MSA OR AT LEAST LAST ASSIGNED LEVEL (IF HIGHER)
- * MAINTAIN MSA OR ASSIGNED LEVEL AS APPROPRIATE FOR 2 MINUTES, THEN CLIMB TO FLIGHT PLAN LEVEL AND INTERCEPT FLIGHT PLAN TRACK (AS AMENDED BY ATC IF APPLICABLE)

| | |
|--------|------------|
| APP - | 129.90 (P) |
| | 122.70 (S) |
| TWR - | 123.3 |
| SMC - | 121.9 |
| ATIS - | 127.0 |

MIRI / MIRI

RWY 02

LAMUK 2E LIBTO 1E LOTRI 1E
 EGOBA 2E IKORI 2E SABUT 2E
 DUDOS 2E SAFRA 1E OMUNA 1E



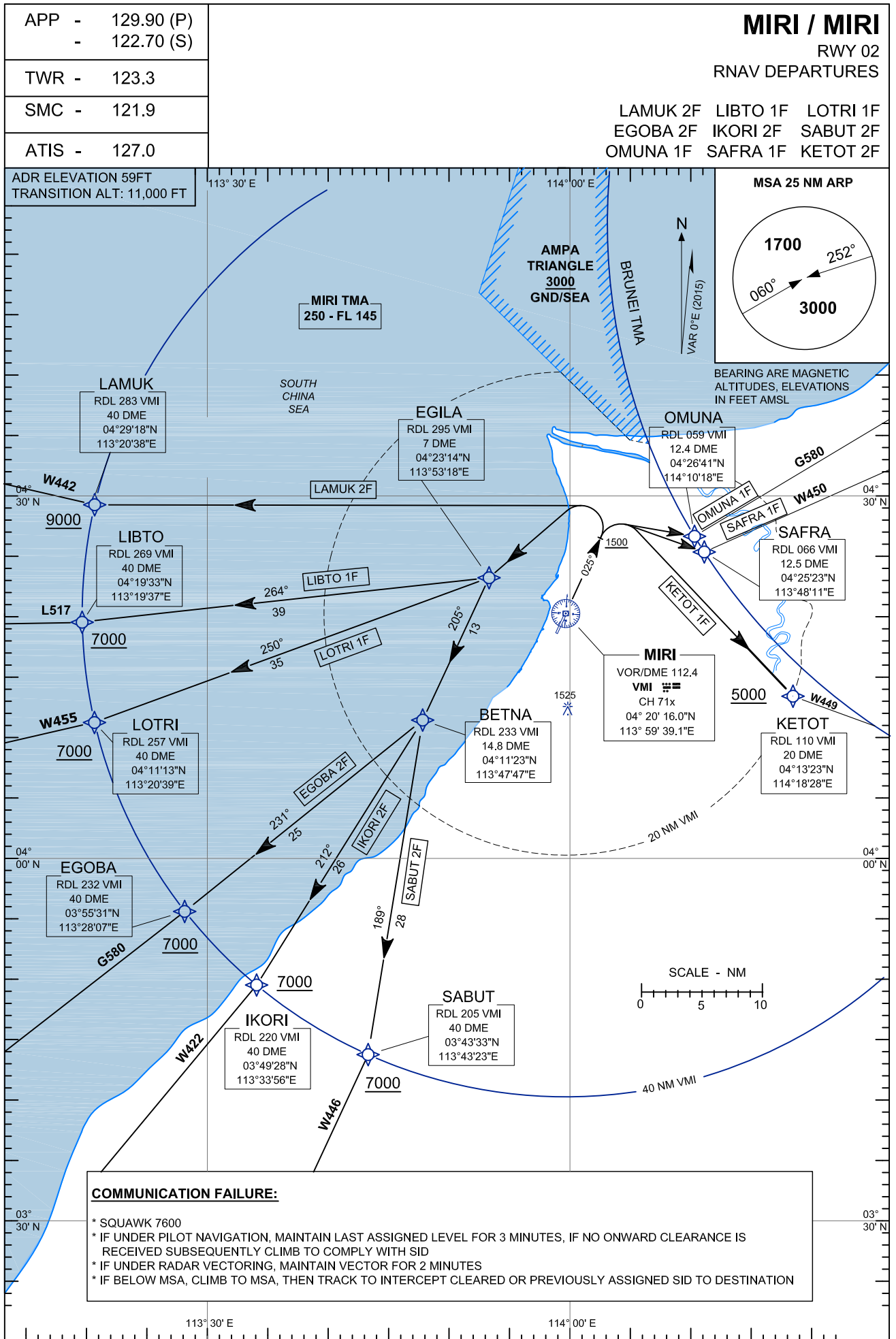
MIRI AIRPORT DEPARTURES RWY 02

LEFT TURN DEPARTURES RWY 02

| INITIAL CLIMB PROCEDURE (ICP) | DESIGNATOR | SID DESCRIPTION (ICP EXECUTED) |
|--|------------|---|
| <p>AFTER TAKE-OFF PROCEED ON RWY HEADING (TRACK 025°), AFTER PASSING 1500 FT TURN LEFT THEN FOLLOW THE ASSIGNED SID</p> <p><u>NOTE:</u> PILOT TO CONTACT MIRI RADAR (OR MIRI APPROACH) NOT LATER THAN PASSING 2000 FT AFTER AIRBORNE</p> | LAMUK 2E | TRACK HEADING 250° TO INTERCEPT RDL 283 VMI TO LAMUK. THEN CONTINUE ON AIRWAY W442. |
| | LIBTO 1E | TRACK HEADING 250° TO INTERCEPT RDL 269 VMI TO LIBTO. THEN COTINUE ON AIRWAY L517. |
| | LOTRI 1E | TRACK HEADING 230° TO INTERCEPT RDL 257 VMI TO LOTRI. THEN CONTINUE ON AIRWAY W455. |
| | EGOBA 2E | TRACK HEADING 200° TO INTERCEPT RDL 232 VMI TO EGOBA. THEN CONTINUE ON AIRWAY G580. |
| | IKORI 2E | TRACK HEADING 200° TO INTERCEPT RDL 220 VMI TO IKORI. THEN CONTINUE ON AIRWAY W422. |

RIGHT TURN DEPARTURE RWY 02

| INITIAL CLIMB PROCEDURE (ICP) | DESIGNATOR | SID DESCRIPTION (ICP EXECUTED) |
|---|------------|---|
| <p>AFTER TAKE-OFF PROCEED ON RWY HEADING (TRACK 025°), AFTER PASSING 1500 FT TURN RIGHT THEN FOLLOW THE ASSIGNED SID</p> <p><u>NOTE:</u> PILOT TO CONTACT MIRI RADAR (OR MIRI APPROACH) NOT LATER THAN PASSING 2000 FT AFTER AIRBORNE</p> | OMUNA 1E | TRACK HEADING 100° TO INTERCEPT RDL 059 VMI TO OMUNA. THEN CONTINUE ON AIRWAY G580. |
| | SAFRA 1E | TRACK HEADING 110° TO INTERCEPT RDL 066 VMI TO SAFRA. THEN CONTINUE ON AIRWAY W450. |
| | DUDOS 2E | TRACK HEADING 140° TO INTERCEPT RDL 110 VMI TO DUDOS. THEN CONTINUE ON AIRWAY W449. |
| | SABUT 2E | TRACK HEADING 235° TO INTERCEPT RDL 205 VMI TO SABUT. THEN CONTINUE ON AIRWAY W446. |



MIRI AIRPORT
LAMUK 2F, LIBTO 1F, LOTRI 1F, EGOBA 2F, IKORI 2F, SABUT 2F, OMUNA 1F, SAFRA 1F & KETOT
1F DEPARTURES
RWY 02 - RNAV 1 GNSS

TABULATED DATA

| WAYPOINT IDENTIFIER | REFERENCED TO VMI | COORDINATES |
|---------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| LAMUK | 283°/40D | 04°29'18.00" N 113°20'38.00" E |
| LIBTO | 269°/40D | 04°19'32.85" N 113°19'36.97" E |
| LOTRI | 257°/40D | 04°11'12.49" N 113°20'38.60" E |
| BETNA | 233°/14.8D | 04°11'22.64" N 113°47'46.51" E |
| EGILA | 295°/7D | 04°23'14.34" N 113°53'18.02" E |
| EGOBA | 232°/40D | 03°55'31.00" N 113°28'07.00" E |
| IKORI | 220°/40D | 03°49'28.00" N 113°33'56.00" E |
| SABUT | 205°/40D | 03°43'33.00" N 113°43'23.00" E |
| KETOT | 110°/20D | 04°13'23.34" N 114°18'27.76" E |
| OMUNA | 059°/12.4D | 04°26'41.62" N 114°10'18.62" E |
| SAFRA | 066°/12.5D | 04°25'23.43" N 114°11'07.20" E |

NOTE:

PILOT TO CONTACT MIRI RADAR (OR MIRI APPROACH)
 NOT LATER THAN PASSING 2000 FT AFTER AIRBORNE

MIRI AIRPORT
LAMUK 2F, LIBTO 1F, LOTRI 1F, EGOBA 2F, IKORI 2F, SABUT 2F, OMUNA 1F, SAFRA 1F & KETOT 1F DEPARTURES
RWY 02 - RNAV 1 GNSS

LAMUK 2F DEPARTURE

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude constraint | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|---------------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI VOR/DME | - | |
| DF | LAMUK | - | - | L | <u>9000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

LIBTO 1F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | EGILA | - | - | L | - | - | - | RNAV1 | |
| TF | LIBTO | - | 264° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

LOTRI 1F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | EGILA | - | - | L | - | - | - | RNAV1 | |
| TF | LOTRI | - | 250° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

EGOBA 2F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | EGILA | - | - | L | - | - | - | RNAV1 | |
| TF | BETNA | - | 205° | L | - | - | - | RNAV1 | |
| TF | EGOBA | - | 235° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

IKORI 2F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | EGILA | - | - | L | - | - | - | RNAV1 | |
| TF | BETNA | - | 205° | L | - | - | - | RNAV1 | |
| TF | IKORI | - | 212° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

MIRI AIRPORT
LAMUK 2F, LIBTO 1F, LOTRI 1F, EGOBA 2F, IKORI 2F, SABUT 2F, OMUNA 1F, SAFRA 1F & KETOT 1F
DEPARTURES
RWY 02 - RNAV 1 GNSS

SABUT 2F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude constraint | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|---------------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | - | VMI | - | |
| DF | EGILA | - | - | L | - | - | - | RNAV1 | |
| TF | BETNA | - | 205° | L | - | - | - | RNAV1 | |
| TF | SABUT | - | 189° | L | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

OMUNA 1F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | OMUNA | - | - | R | - | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%.

SAFRA 1F Departure

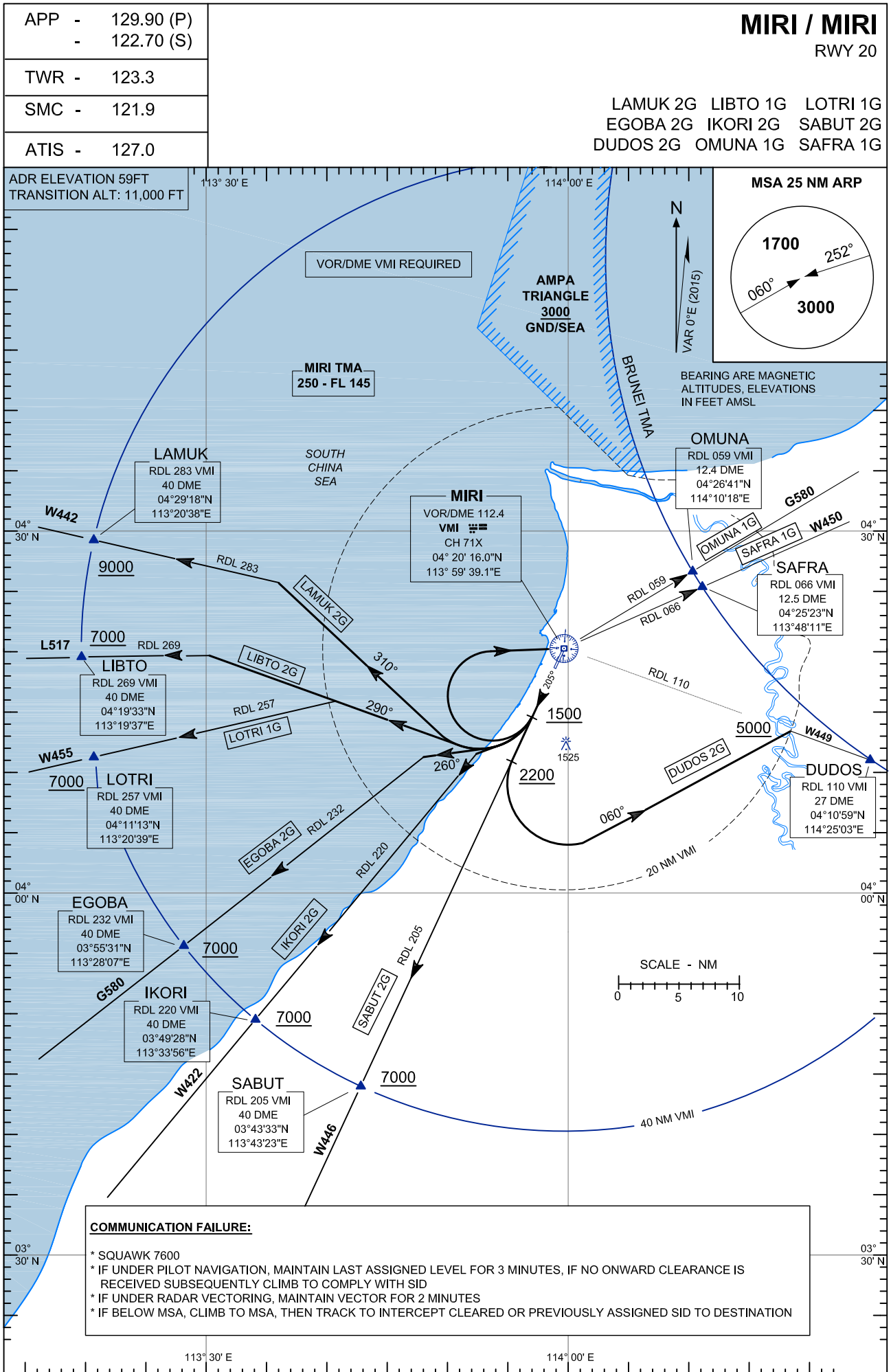
| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | SAFRA | - | - | R | - | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%.

KETOT 1F Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|--|
| CA | RWY 02 | - | 025° | - | <u>1500</u> | 250 | VMI | - | |
| DF | KETOT | - | - | R | <u>5000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%.



MIRI AIRPORT DEPARTURES RWY 20

Right Turn departures RWY 20

| Initial Climb Procedure | Designator | SID description (ICP executed) |
|--|------------|---|
| <p>After take-off proceed on RWY heading (Track 205°), after passing 1500 FT turn right then follow the assigned SID</p> <p>Note: Pilot to contact Miri Radar (or Miri Approach) not later than passing 2000 FT after airborne</p> | LAMUK 2G | Track heading 310° to intercept RDL 283 VMI to LAMUK. Then continue on Airway W442. |
| | LIBTO 1G | Track heading 290° to intercept RDL 269 VMI to LIBTO. Then continue on Airway L517. |
| | LOTRI 1G | Track heading 290° to intercept RDL 257 VMI to LOTRI. Then continue on Airway W455. |
| | EGOBA 2G | Track heading 260° to intercept RDL 232 VMI to EGOBA. Then continue on Airway G580. |
| | IKORI 2G | Track heading 250° to intercept RDL 220 VMI to IKORI. Then continue on Airway W422. |
| | OMUNA 1G | Track direct to VMI VOR then intercept RDL 059 VMI to OMUNA and Airway G580. |
| | SAFRA 1G | Track direct to VMI VOR then intercept RDL 066 VMI to SAFRA and Airway W450 |

Straight departure RWY 20

| Initial Climb Procedure | Designator | SID description (ICP executed) |
|---|------------|---|
| <p>After take-off proceed on RWY heading (Track 205°), then follow the assigned SID</p> <p>Note: Pilot to contact Miri Radar (or Miri Approach) not later than passing 2000 FT after airborne</p> | SABUT 2G | Continue heading 205° to SABUT. Then continue on Airway W446. |

Left Turn departures RWY 20

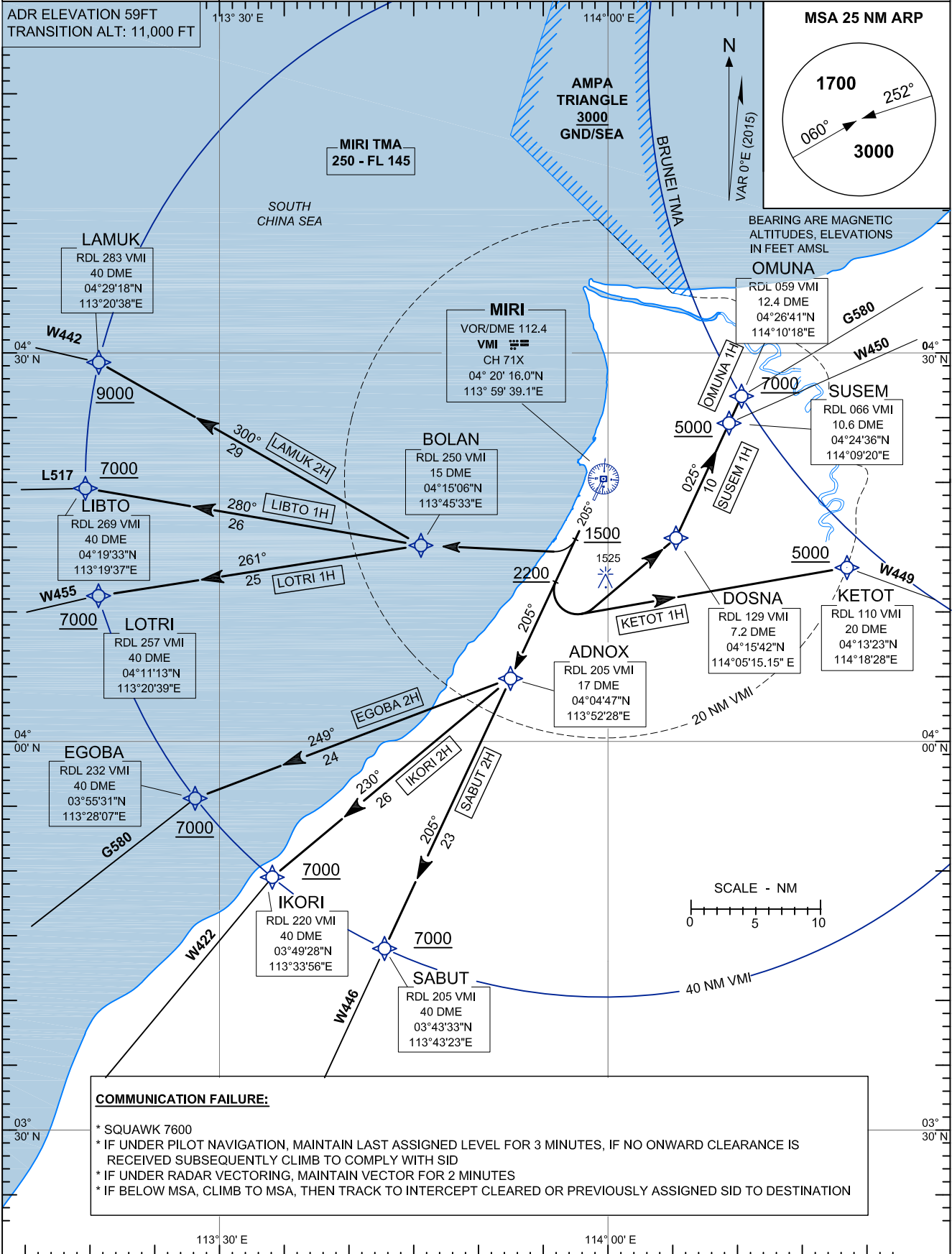
| Initial Climb Procedure | Designator | SID description (ICP executed) |
|--|------------|---|
| <p>After take-off proceed on RWY heading (Track 205°), after passing 2200 FT turn left then follow the assigned SID</p> <p>Minimum climb gradient (PDG) 3.9% due to obstacle</p> | DUDOS 2G | Track heading 060° to intercept RDL 110 VMI to DUDOS. Then continue on Airway W449. |

| | |
|--------|--------------|
| APP - | 129.90 (P) |
| | - 122.70 (S) |
| TWR - | 123.3 |
| SMC - | 121.9 |
| ATIS - | 127.0 |

MIRI / MIRI

RWY 20
RNAV DEPARTURES

LAMUK 2H LIBTO 1H LOTRI 1H
EGOBA 2H IKORI 2H SABUT 2H
OMUNA 1H SUSEM 1H KETOT 1H



MIRI AIRPORT
LAMUK 2H, LIBTO 1H, LOTRI 1H, EGOBA 2H, IKORI 2H, SABUT 2H, OMUNA 1H, SUSEM 1H & KETOT
1H DEPARTURES
RWY 20 - RNAV 1 GNSS

TABULATED DATA

| WAYPOINT IDENTIFIER | REFERENCED TO VMI | COORDINATES |
|---------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| LAMUK | 283°/40D | 04°29'17.50" N 113°20'37.70" E |
| BOLAN | 250°/15D | 04°15'06.57" N 113°45'32.58" E |
| LIBTO | 269°/40D | 04°19'32.85" N 113°19'36.97" E |
| LOTRI | 257°/40D | 04°11'12.49" N 113°20'38.60" E |
| ADNOX | 205°/17D | 04°04'47.04" N 113°52'27.72" E |
| EGOBA | 232°/40D | 03°55'30.56" N 113°28'06.87" E |
| IKORI | 220°/40D | 03°49'28.09" N 113°33'55.78" E |
| SABUT | 205°/40D | 03°43'32.60" N 113°43'22.60" E |
| DOSNA | 129°/7.2D | 04°15'42.80" N 114°05'15.15" E |
| SUSEM | 066°/10.6D | 04°24'36.00" N 114°09'20.00" E |
| KETOT | 110°/20D | 04°13'23.34" N 114°18'27.76" E |
| OMUNA | 059°/12.4D | 04°26'41.62" N 114°10'18.62" E |
| | | |

Note:

Pilot to contact Miri Radar (or Miri Approach)
not later than passing 2000 FT after airborne

MIRI AIRPORT
LAMUK 2H, LIBTO 1H, LOTRI 1H, EGOBA 2H, IKORI 2H, SABUT 2H, OMUNA 1H, SUSEM 1H & KETOT
1H DEPARTURES
RWY 20 - RNAV 1 GNSS

LAMUK 2H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude constraint | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|---------------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI VOR/DME | - | |
| DF | BOLAN | - | - | R | - | - | - | RNAV1 | |
| TF | LAMUK | - | 300° | R | <u>9000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

LIBTO 1H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI | - | |
| DF | BOLAN | - | - | R | - | - | - | RNAV1 | |
| TF | LIBTO | - | 280° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

LOTRI 1H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI | - | |
| DF | BOLAN | - | - | R | - | - | - | RNAV1 | |
| TF | LOTRI | - | 261° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

EGOBA 2H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI | - | |
| DF | ADNOX | - | - | - | - | - | - | RNAV1 | |
| TF | EGOBA | - | 249° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

IKORI 2H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI | - | |
| DF | ADNOX | - | - | - | - | - | - | RNAV1 | |
| TF | IKORI | - | 230° | R | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

MIRI AIRPORT
LAMUK 2H, LIBTO 1H, LOTRI 1H, EGOBA 2H, IKORI 2H, SABUT 2H, OMUNA 1H, SUSEM 1H & KETOT
1H DEPARTURES
RWY 20 - RNAV 1 GNSS

SABUT 2H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>1500</u> | 250 | VMI | - | |
| DF | ADNOX | - | - | - | - | - | - | RNAV1 | |
| TF | SABUT | - | 205° | - | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 3.3%

OMUNA 1H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>2200</u> | 250 | VMI | - | |
| DF | DOSNA | - | - | L | - | - | - | RNAV1 | |
| TF | SUSEM | - | 025° | L | - | - | - | RNAV1 | |
| TF | OMUNA | - | 025° | - | <u>7000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 5.0% until passing 7000 ft due to CTR and PDG 3.9% due to terrain.

SUSEM 1H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>2200</u> | 250 | VMI | - | |
| DF | DOSNA | - | - | L | - | - | - | RNAV1 | |
| TF | SUSEM | - | 025° | L | <u>5000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 5.0% until passing 7000 ft due to CTR and PDG 3.9% due to terrain.

KETOT 1H Departure

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| CA | RWY 20 | - | 205° | - | <u>2200</u> | 250 | VMI | - | |
| DF | KETOT | - | - | L | <u>5000</u> | - | - | RNAV1 | |

Minimum climb gradient (PDG) 5.0% until passing 7000 ft due to CTR and PDG 3.9% due to terrain.

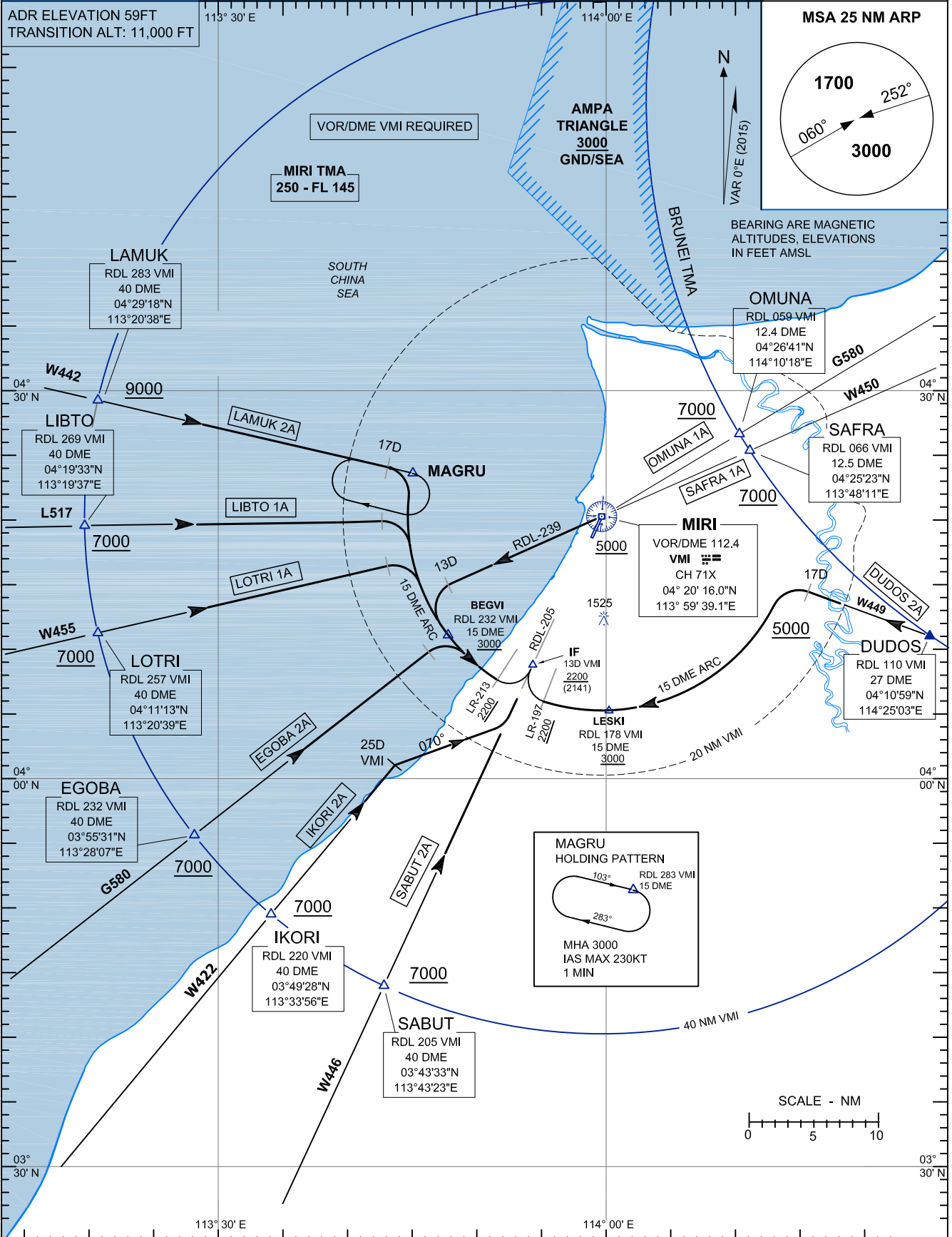
**STANDARD DEPARTURE CHART -
INSTRUMENT (SID) - ICAO**

APPENDIX A-8

| | |
|--------|----------------------------|
| APP - | 129.90 (P) - 122.70 (S) |
| TWR - | 123.3 |
| SMC - | 121.9 |
| ATIS - | 127.0 |

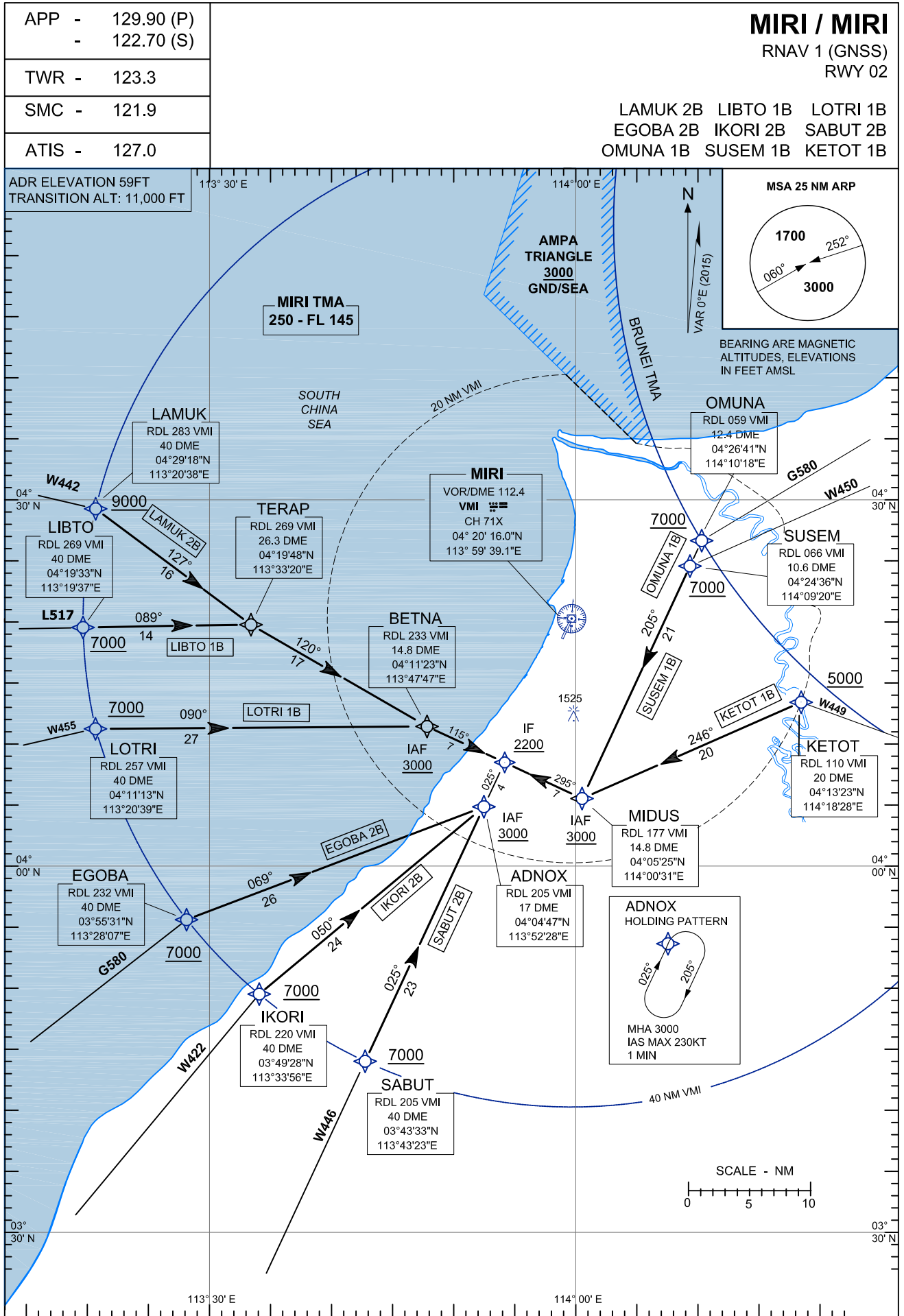
MIRI / MIRI
RWY 02

LAMUK 2A LIBTO 1A LOTRI 1A
EGOBA 2A IKORI 2A SABUT 2A
DUDOS 2A OMUNA 1A SAFRA 1A



MIRI AIRPORT ARRIVAL RWY 02

| STAR Designator | Description |
|-----------------|--|
| LAMUK 2A | From LAMUK to VMI VOR/DME, at 17 DME turn right and follow on 15 DME VMI arc until RDL 213 VMI, then turn left intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| LIBTO 1A | From LIBTO to VMI VOR/DME, at 17 DME turn right and follow on 15 DME VMI arc until RDL 213 VMI, then turn left intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| LOTRI 1A | From LOTRI to VMI VOR/DME, at 17 DME turn right and follow on 15 DME VMI arc until RDL 213 VMI, then turn left intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| EGOBA 2A | From EGOBA to VMI VOR/DME, at 17 DME turn right and follow on 15 DME VMI arc until RDL 213 VMI, then turn left intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| IKORI 2A | From IKORI to VMI VOR/DME, at 25 DME VMI turn right to intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| SABUT 2A | From SABUT continue to VMI VOR/DME. Then established on RDL 205 VMI for straight-in approach RWY 02 |
| DUDOS 2A | From DUDOS to VMI VOR/DME, AT 17 DME turn left and follow on 15 DME VMI arc until RDL 197 VMI, turn right intercept RDL 205 VMI inbound for straight-in approach RWY 02 |
| OMUNA 1A | Continue on Airway to VMI VOR/DME. Then intercept RDL 239 outbound to 13 DME then turn left to intercept and follow 15 DME arc. On crossing RDL 213 VMI turn left to intercept RDL 025 VMI inbound for straight-in approach RWY 02 |
| SAFRA 1A | |



MIRI AIRPORT
LAMUK 2B, LIBTO 1B, LOTRI 1B, EGOBA 2B, IKORI 2B, SABUT 2B, OMUNA 1B, SUSEM 1B & KETOT
1B ARRIVALS
RWY 02 - RNAV 1 GNSS

Tabulated Data

| WAYPOINT IDENTIFIER | REFERENCED TO VMI | COORDINATES |
|---------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| LAMUK | 283°/40D | 04°29'17.50" N 113°20'37.70" E |
| LIBTO | 269°/40D | 04°19'32.85" N 113°19'36.97" E |
| LOTRI | 257°/40D | 04°11'12.49" N 113°20'38.60" E |
| EGOBA | 232°/40D | 03°55'30.56" N 113°28'06.87" E |
| IKORI | 220°/40D | 03°49'28.09" N 113°33'55.78" E |
| SABUT | 205°/40D | 03°43'32.60" N 113°43'22.60" E |
| KETOT | 110°/20D | 04°13'23.34" N 114°18'27.76" E |
| OMUNA | 059°/12.4D | 04°26'41.62" N 114°10'18.62" E |
| TERAP | 269°/26.3D | 04°19'47.93" N 113°33'20.09" E |
| BETNA | 233°/14.8D | 04°11'22.64" N 113°47'46.51" E |
| MIDUS | 177°/14.8D | 04°05'25.18" N 114°00'30.56" E |
| SUSEM | 066°/10.6D | 04°24'36.00" N 114°09'20.00" E |
| ADNOX | 205°/17D | 04°06'36.34" N 113°53'18.46" E |

MIRI AIRPORT
LAMUK 2B, LIBTO 1B, LOTRI 1B, EGOBA 2B, IKORI 2B, SABUT 2B, OMUNA 1B, SUSEM 1B & KETOT
1B ARRIVALS
RWY 02 - RNAV 1 GNSS

LAMUK 2B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LAMUK | - | - | - | <u>9000</u> | - | - | RNAV1 | |
| TF | TERAP | - | 127° | R | - | - | - | RNAV1 | |
| TF | BETNA | - | 120° | - | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |
| | | | | | | | | | |

LIBTO 1B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LIBTO | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | TERAP | - | 089° | - | - | - | - | RNAV1 | |
| TF | BETNA | - | 120° | R | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |
| | | | | | | | | | |

LOTRI 1B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LOTRI | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | BETNA | - | 090° | R | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |
| | | | | | | | | | |

EGOBA 2B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | EGOBA | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | ADNOX | - | 069° | R | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

IKORI 2B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | IKORI | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | ADNOX | - | 050° | R | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

MIRI AIRPORT
LAMUK 2B, LIBTO 1B, LOTRI 1B, EGOBA 2B, IKORI 2B, SABUT 2B, OMUNA 1B, SUSEM 1B & KETOT
1B ARRIVALS
RWY 02 - RNAV 1 GNSS

SABUT 2B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | SABUT | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | ADNOX | - | 025° | - | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

OMUNA 1B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | OMUNA | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | SUSEM | - | 205° | - | <u>7000</u> | - | - | RNAV1 | |
| TF | MIDUS | - | 205° | - | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |

SUSEM 1B Arrival

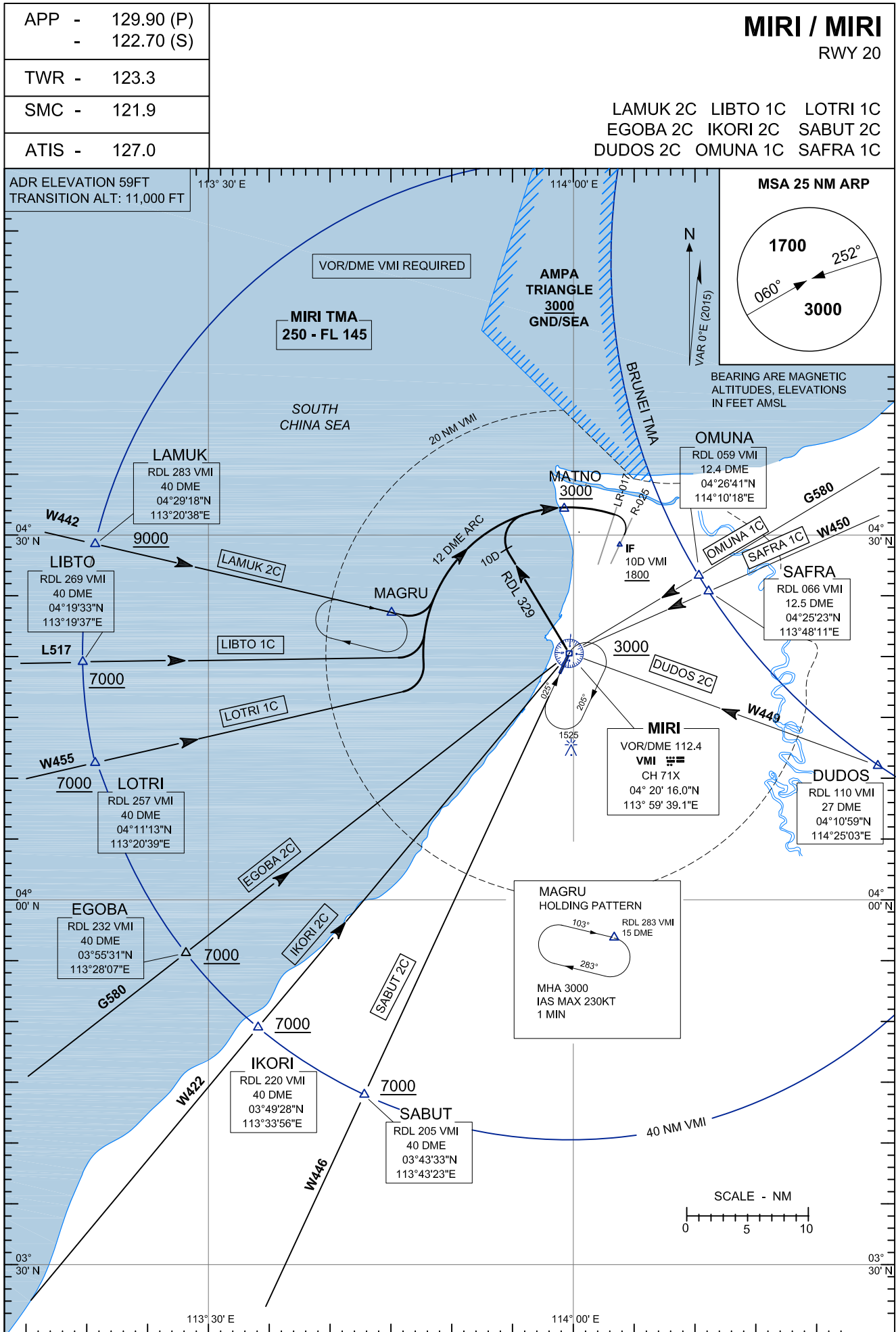
| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| TF | SUSEM | - | | - | <u>7000</u> | - | - | RNAV1 | |
| TF | MIDUS | - | 205° | - | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |

KETOT 1B Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| TF | KETOT | - | - | - | <u>5000</u> | - | - | RNAV1 | |
| TF | MIDUS | - | 246° | - | <u>3000</u> | - | - | RNAV1 | |
| | | | | | | | | | |

HOLDING

| FIX ID | Inbound Track | Turn Direction | Outbound Time | MHA |
|--------|---------------|----------------|---------------|------|
| ADNOX | 025° | R | 1 min | 3000 |



MIRI AIRPORT ARRIVAL RWY 20

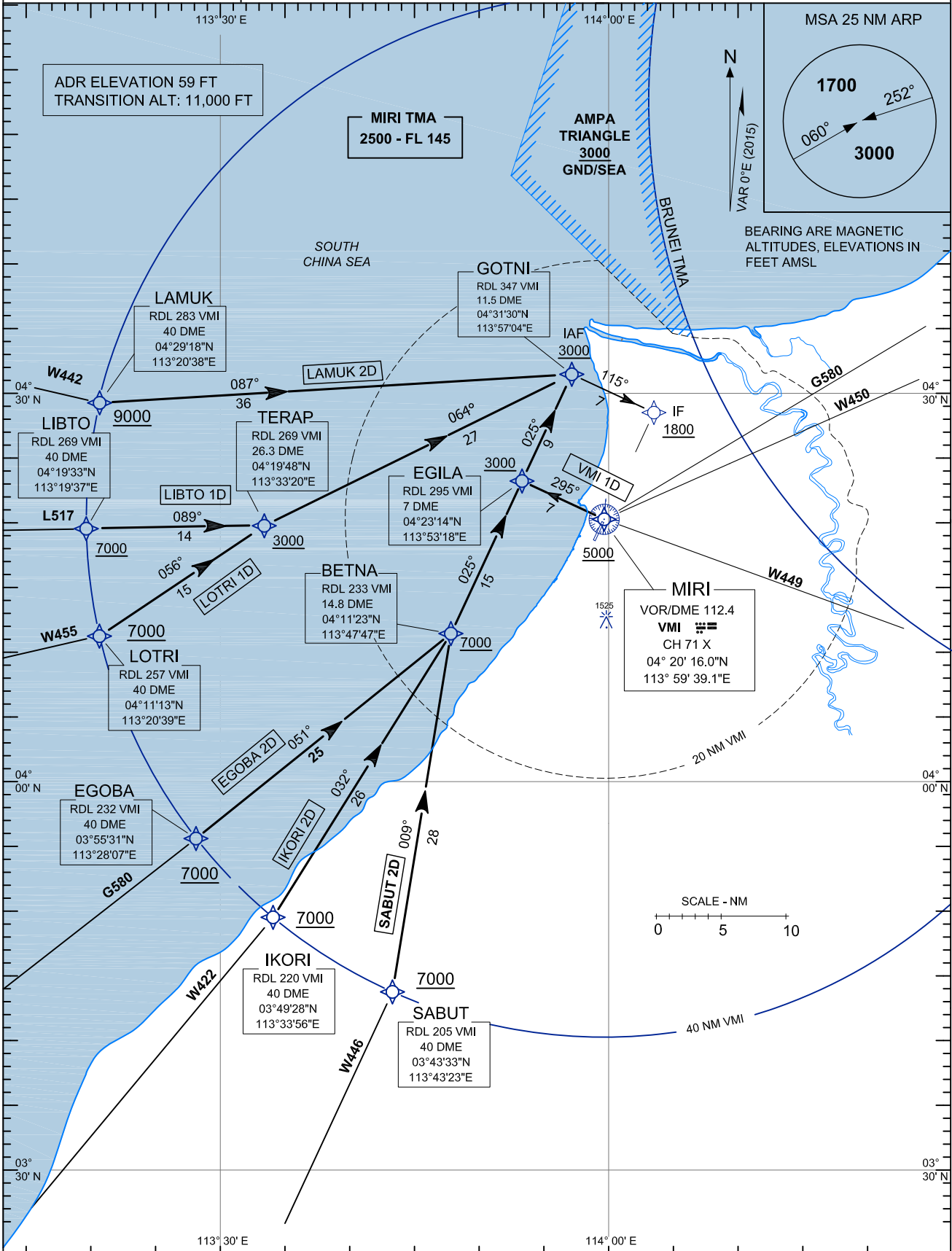
| STAR Designator | Description |
|-----------------|---|
| LAMUK 2C | From LAMUK to VMI VOR/DME, at 14 DME turn left and follow on 12 DME VMI arc until RDL 017 VMI, then turn right intercept RDL 025 VMI for straight-in approach RWY 20 |
| LIBTO 1C | From LIBTO to VMI VOR/DME, at 14 DME turn left and follow on 12 DME VMI arc until RDL 017 VMI, then turn right intercept RDL 025 VMI for straight-in approach RWY 20 |
| LOTRI 1C | From LOTRI to VMI VOR/DME, at 14 DME turn left and follow on 12 DME VMI arc until RDL 017 VMI, then turn right intercept RDL 025 VMI for straight-in approach RWY 20 |
| EGOBA 2C | Continue on Airway to VMI VOR/DME, then intercept and maintain on RDL 329 outbound to 10 DME VMI. Then turn right to join 12 DME Arc until RDL 017 VMI, turn right to intercept RDL 025 VMI for straight-in approach RWY 20 |
| IKORI 2C | |
| SABUT 2C | |
| DUDOS 2C | |
| SAFRA 1C | |
| OMUNA 1C | |

| | |
|--------|--------------|
| APP - | 129.90 (P) |
| | - 122.70 (S) |
| TWR - | 123.3 |
| SMC - | 121.9 |
| ATIS - | 127.0 |

MIRI / MIRI

RNAV 1 (GNSS)
RWY 20

LAMUK 2D LIBTO 1D LOTRI 1D
EGOBA 2D IKORI 2D SABUT 2D
VMI 1D



MIRI AIRPORT
LAMUK 2D, LIBTO 1D, LOTRI 1D, EGOBA 2D, IKORI 2D, SABUT 2D & VMI 1D ARRIVALS
RWY 20 - RNAV 1 GNSS

TABULATED DATA

| Waypoint Identifier | Referenced to VMI | Coordinated |
|---------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| LAMUK | 283°/40D | 04°29'17.50" N 113°20'37.70" E |
| LIBTO | 269°/40D | 04°19'32.85" N 113°19'36.97" E |
| LOTRI | 257°/40D | 04°11'12.49" N 113°20'38.60" E |
| EGOBA | 232°/40D | 03°55'30.56" N 113°28'06.87" E |
| IKORI | 220°/40D | 03°49'28.09" N 113°33'55.78" E |
| SABUT | 205°/40D | 03°43'32.60" N 113°43'22.60" E |
| BETNA | 233°/14.8D | 04°11'22.64" N 113°47'46.51" E |
| EGILA | 295°/7D | 04°23'14.34" N 113°53'18.02" E |
| TERAP | 269°/26.3D | 04°19'47.93" N 113°33'20.09" E |
| GOTNI (IAF) | 347°/11.5D | 04°31'30.25" N 113°57'03.99" E |
| | | |

MIRI AIRPORT
LAMUK 2D, LIBTO 1D, LOTRI 1D, EGOBA 2D, IKORI 2D, SABUT 2D & VMI 1D ARRIVALS
RWY 20 - RNAV 1 GNSS

LAMUK 2D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LAMUK | - | - | - | <u>9000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 087° | L | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

LIBTO 1D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LIBTO | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | TERAP | - | 089° | - | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 064° | L | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

LOTRI 1D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | LOTRI | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | TERAP | - | 056° | L | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 064° | R | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

EGOBA 2D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | EGOBA | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | BETNA | - | 051° | L | <u>7000</u> | - | - | RNAV1 | |
| TF | EGILA | - | 025° | L | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 025° | - | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

MIRI AIRPORT
LAMUK 2D, LIBTO 1D, LOTRI 1D, EGOBA 2D, IKORI 2D, SABUT 2D & VMI 1D ARRIVALS
RWY 20 - RNAV 1 GNSS

IKORI 2D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | IKORI | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | BETNA | - | 032° | L | <u>7000</u> | - | - | RNAV1 | |
| TF | EGILA | - | 025° | L | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 025° | - | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

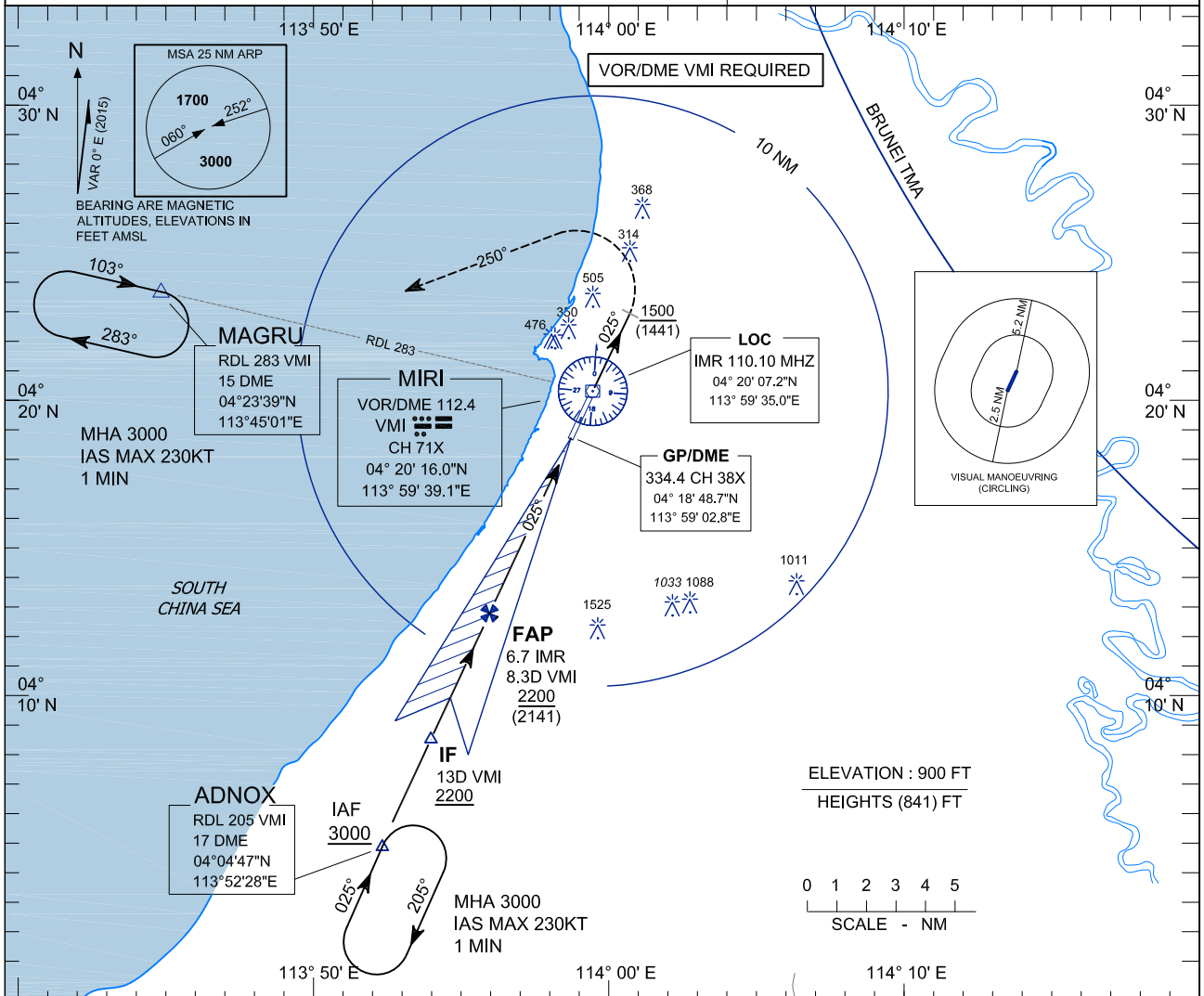
SABUT 2D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | SABUT | - | - | - | <u>7000</u> | - | - | RNAV1 | |
| TF | BETNA | - | 009° | L | <u>7000</u> | - | - | RNAV1 | |
| TF | EGILA | - | 025° | R | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 025° | L | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

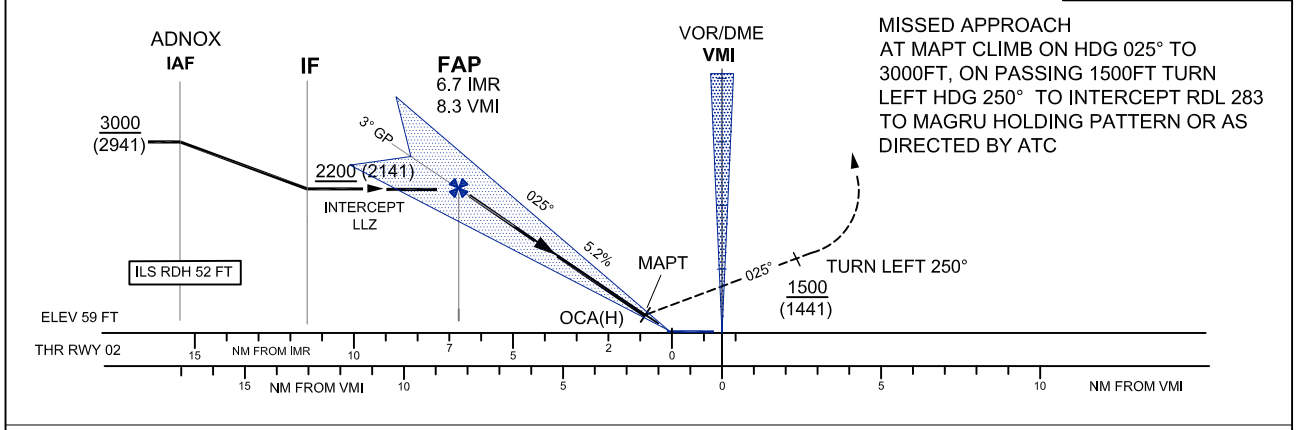
VMI 1D Arrival

| Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Navigation Specification | Remarks |
|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|--------------------------|---------|
| IF | VMI | - | - | - | <u>6000</u> | - | - | RNAV1 | |
| TF | EGILA | - | 295° | - | <u>3000</u> | - | - | RNAV1 | |
| TF | GOTNI | - | 025° | R | <u>3000</u> | 230 | - | RNAV1 | |
| | | | | | | | | | |

| | | | | |
|--|------|---|------------|--|
| AD ELEV 59 FT HEIGHTS RELATED TO THR RWY 02 - ELEV 59 FT ILS RDH - 52 FT | APP | - | 129.90 (P) | MIRI / MIRI RWY 02 ILS z or LOC z |
| | TWR | - | 122.70 (S) | |
| | SMC | - | 123.3 | |
| | ATIS | - | 121.9 | |



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000



| ACFT CATEGORY | OCA (H) FT | | | | | | |
|--------------------|---------------------|-------------|-------------|-------------|-------------|-----------|-----------|
| | A | B | C | D | | | |
| CAT 1 PRESSURE ALT | 330 (271) | | | | | | |
| LLZ DME (GP INOP) | 600 (541) / 1.6 IMR | | | | | | |
| CIRCLING (FT) | 950 (891) | | | 1800 (1741) | | | |
| DME FROM IMR | 6.7 | 6 | 5 | 4 | 3 | 2 | 1.6 |
| ALTITUDE | 2200 (2141) | 2010 (1951) | 1690 (1631) | 1380 (1321) | 1060 (1001) | 740 (681) | 600 (541) |

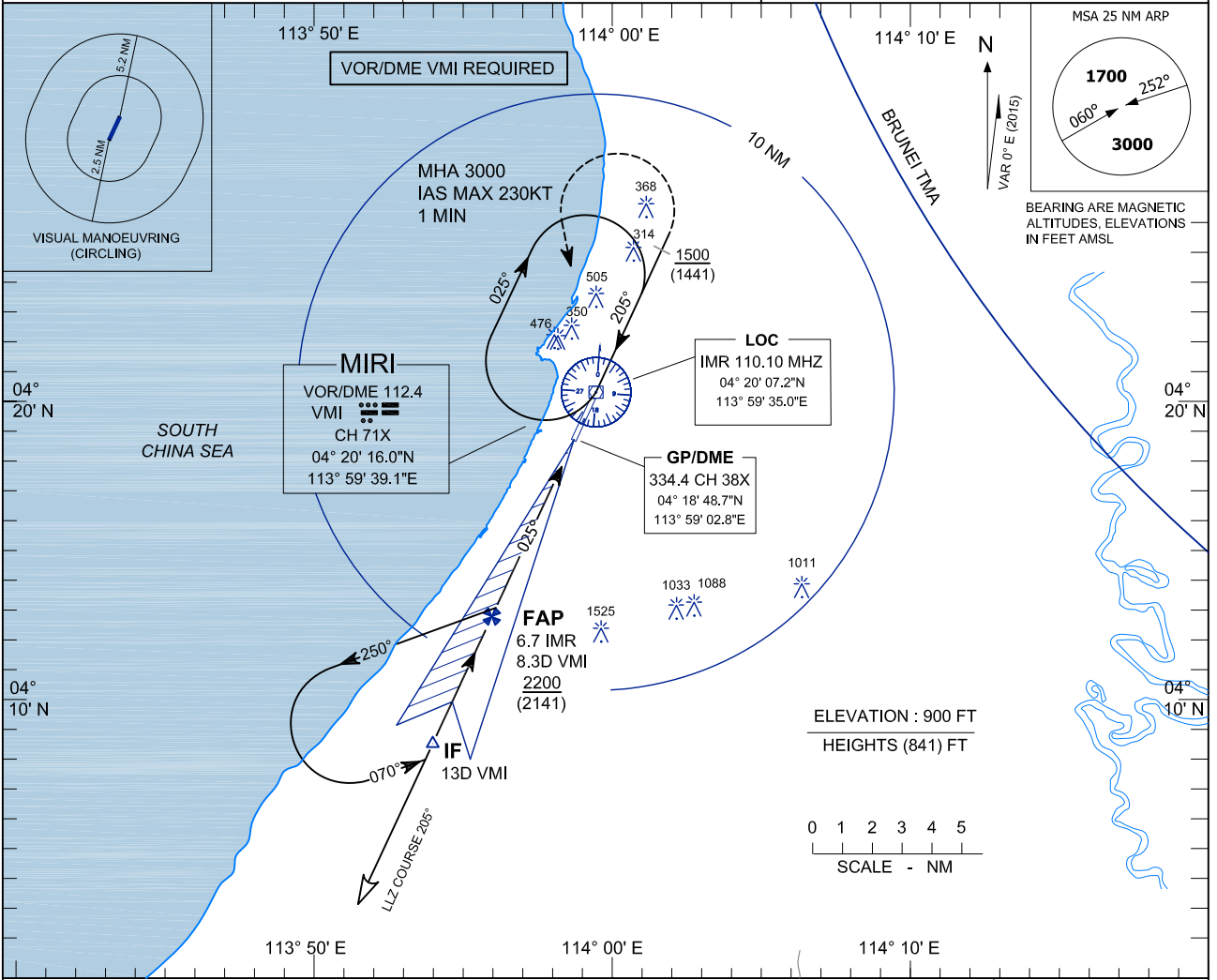
**MIRI / MIRI
SARAWAK**

ILS z or LOC z RWY 02

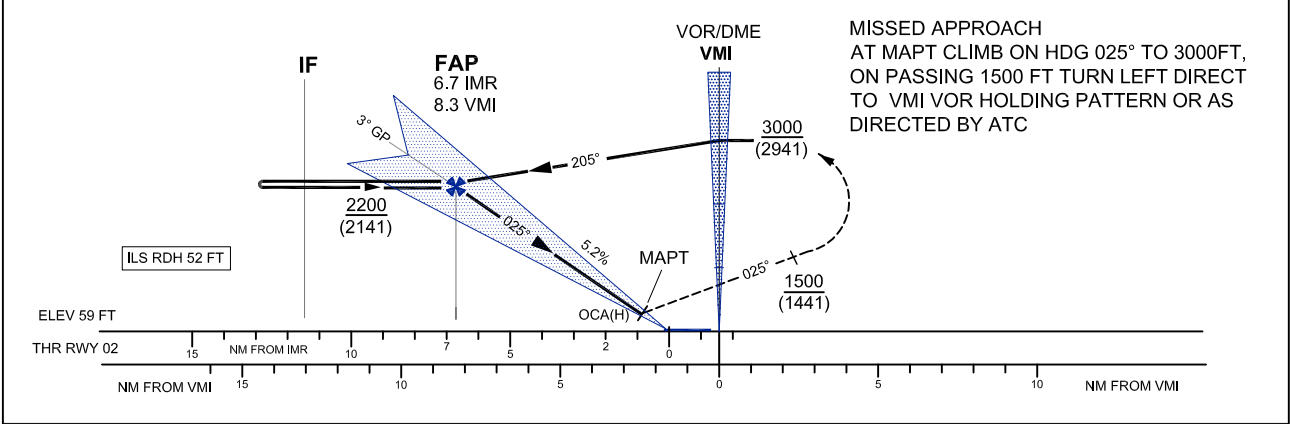
Aeronautical Data Tabulation

| Fix / Point | Referenced to VMI | Coordinates |
|----------------------|----------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| ADNOX | 205°/17D | 04°04'47.04" N 113°52'27.72" E |
| IF | 205°/13D | 04°08'25.63" N 113°54'09.19" E |
| FAP (6.7 IMR) | 205°/8.3D | 04°12'42.47" N 113°56'08.45" E |
| MAPT | 205°/3.3D | 04°17'15.70" N 113°58'15.34" E |
| MAGRU | 283°/15D | 04°23'39.32" N 113°45'01.18" E |

| | | |
|---|---|--|
| <p>AD ELEV 59 FT HEIGHTS RELATED TO THR RWY 02 - ELEV 59 FT ILS RDH - 52 FT</p> | <p>APP - 129.90 (P) - 122.70 (S) TWR - 123.3 SMC - 121.9 ATIS - 127.0</p> | <p>MIRI / MIRI</p> <p>RWY 02 ILS y or LOC y</p> |
|---|---|--|



TRANSITION LEVEL : FL 130
 TRANSITION ALT : 11,000



| ACFT CATEGORY | OCA (H) FT | | | | | | |
|--------------------|---------------------|-------------|-------------|-------------|-------------|-----------|-----------|
| | A | B | C | D | | | |
| CAT 1 PRESSURE ALT | 330 (271) | | | | | | |
| LLZ DME (GP INOP) | 600 (541) / 1.6 IMR | | | | | | |
| CIRCLING (FT) | 950 (891) | | | 1800 (1741) | | | |
| DME FROM IMR | 6.7 | 6 | 5 | 4 | 3 | 2 | 1.6 |
| ALTITUDE | 2200 (2141) | 2010 (1951) | 1690 (1631) | 1380 (1321) | 1060 (1001) | 740 (681) | 600 (541) |

**MIRI / MIRI
SARAWAK**

ILS y or LOC y RWY 02

Aeronautical Data Tabulation

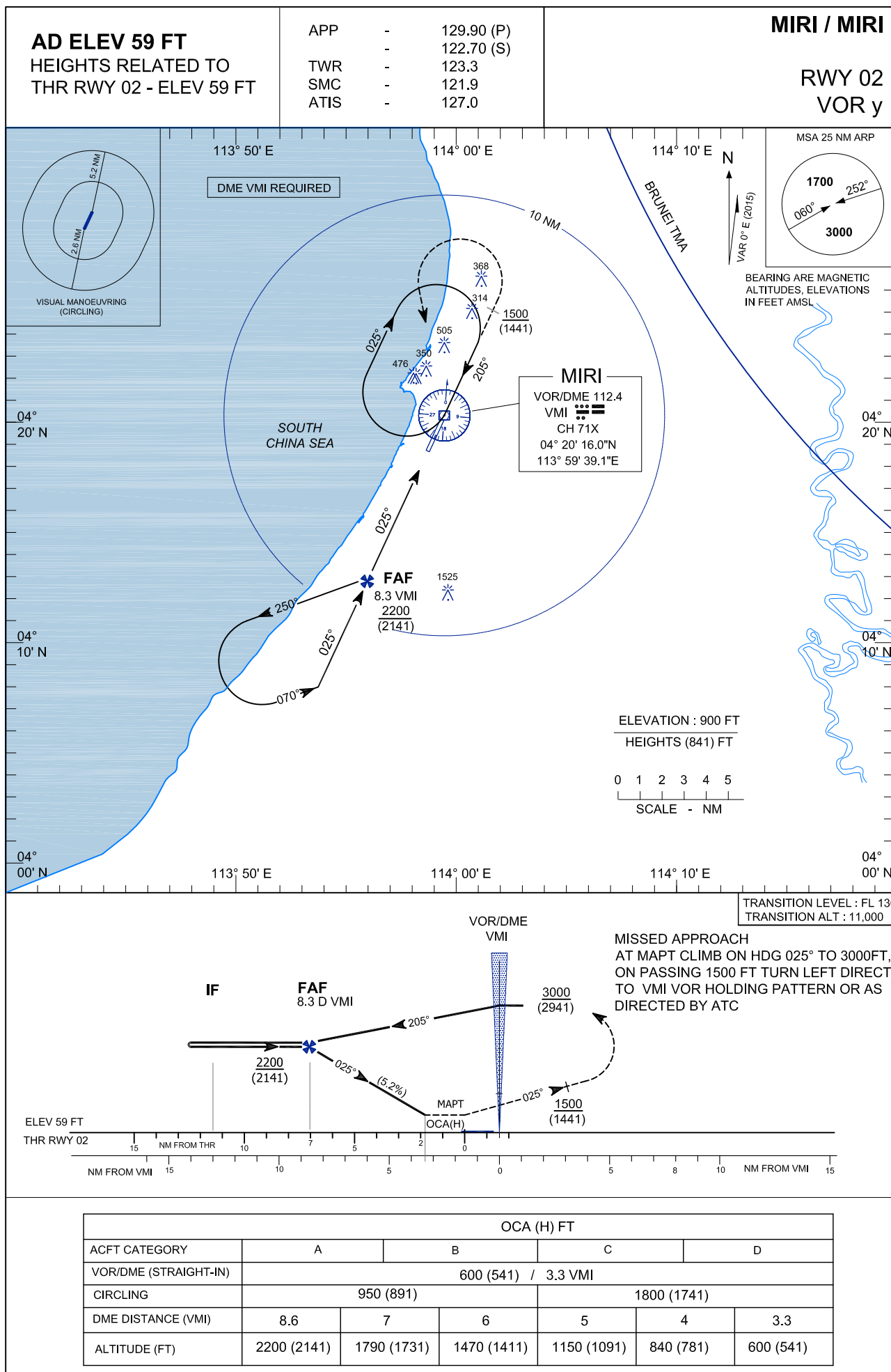
| Fix / Point | Referenced to VMI | Coordinates |
|----------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| IF | 205°/13D | 04°08'25.63" N 113°54'09.19" E |
| FAP (6.7 IMR) | 205°/8.3D | 04°12'42.47" N 113°56'08.45" E |
| MAPT | 205°/3.3D | 04°17'15.70" N 113°58'15.34" E |

MIRI / MIRI SARAWAK

VOR z RWY 02

Aeronautical Data Tabulation

| Fix / Point | Referenced to VMI | Coordinates |
|-------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| ADNOX (IAF) | 205°/17D | 04°04'47.04" N 113°52'27.72" E |
| IF | 205°/13D | 04°08'25.63" N 113°54'09.19" E |
| FAF | 205°/8.3D | 04°12'42.47" N 113°56'08.45" E |
| MAPT | 205°/3.3D | 04°17'15.70" N 113°58'15.34" E |
| MAGRU | 283°/15D | 04°23'39.32" N 113°45'01.18" E |
| BEGVI (IAF) | 232°/15D | 04°10'59.13" N 113°47'49.28" E |
| LESKI (IAF) | 178°/15D | 04°05'12.18" N 114°00'10.53" E |



**MIRI / MIRI
SARAWAK**

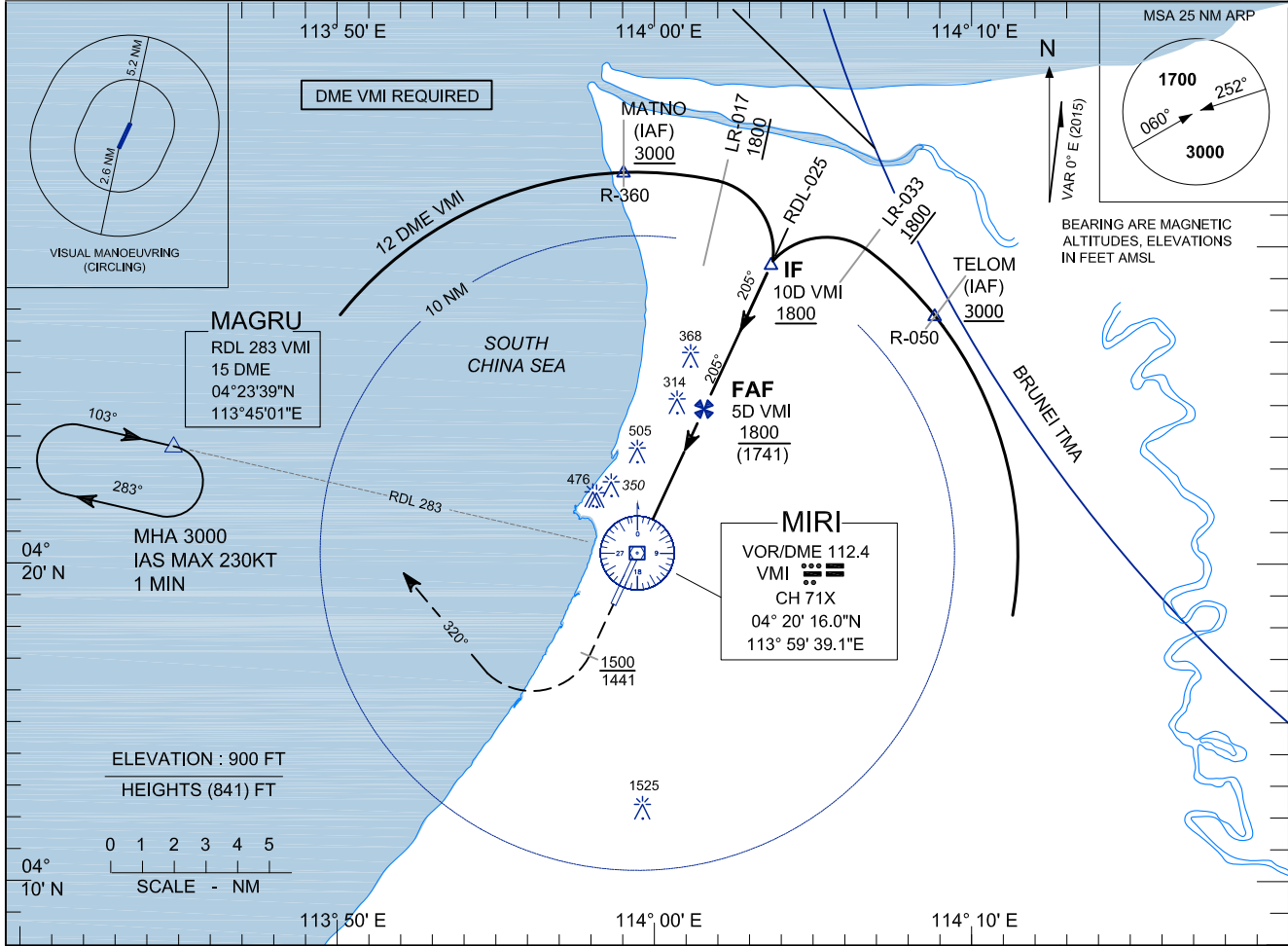
VOR y RWY 02

Aeronautical Data Tabulation

| Fix / Point | Referenced to VMI | Coordinates |
|-------------|----------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| IF | - | - |
| FAF | 205°/8.3D | 04°12'42.47" N 113°56'08.45" E |
| MAPT | 205°/3.3D | 04°17'15.70" N 113°58'15.34" E |
| MAGRU | 283°/15D | 04°23'39.32" N 113°45'01.18" E |

| | | | |
|---|------|---|------------|
| AD ELEV 59 FT HEIGHTS RELATED TO THR RWY 02 - ELEV 59 FT | APP | - | 129.90 (P) |
| | | - | 122.70 (S) |
| | TWR | - | 123.3 |
| | SMC | - | 121.9 |
| | ATIS | - | 127.0 |

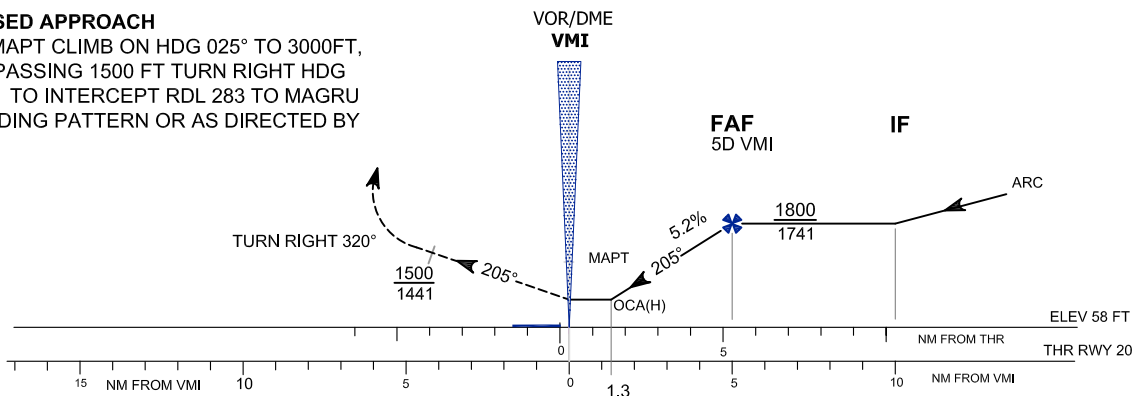
MIRI / MIRI
RWY 20
VOR z



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000

MISSED APPROACH

AT MAPT CLIMB ON HDG 025° TO 3000FT,
ON PASSING 1500 FT TURN RIGHT HDG
320° TO INTERCEPT RDL 283 TO MAGRU
HOLDING PATTERN OR AS DIRECTED BY
ATC



| OCA (H) FT | | | | |
|-----------------------|---------------------|-------------|-------------|-----------|
| ACFT CATEGORY | A | B | C | D |
| VOR/DME (STRAIGHT-IN) | 570 (511) / 1.3 VMI | | | |
| CIRCLING | 950 (891) | | 1800 (1741) | |
| DME DISTANCE (VMI) | 5 | 4 | 3 | 2 |
| ALTITUDE (FT) | 1800 (1741) | 1470 (1411) | 1150 (1091) | 830 (771) |

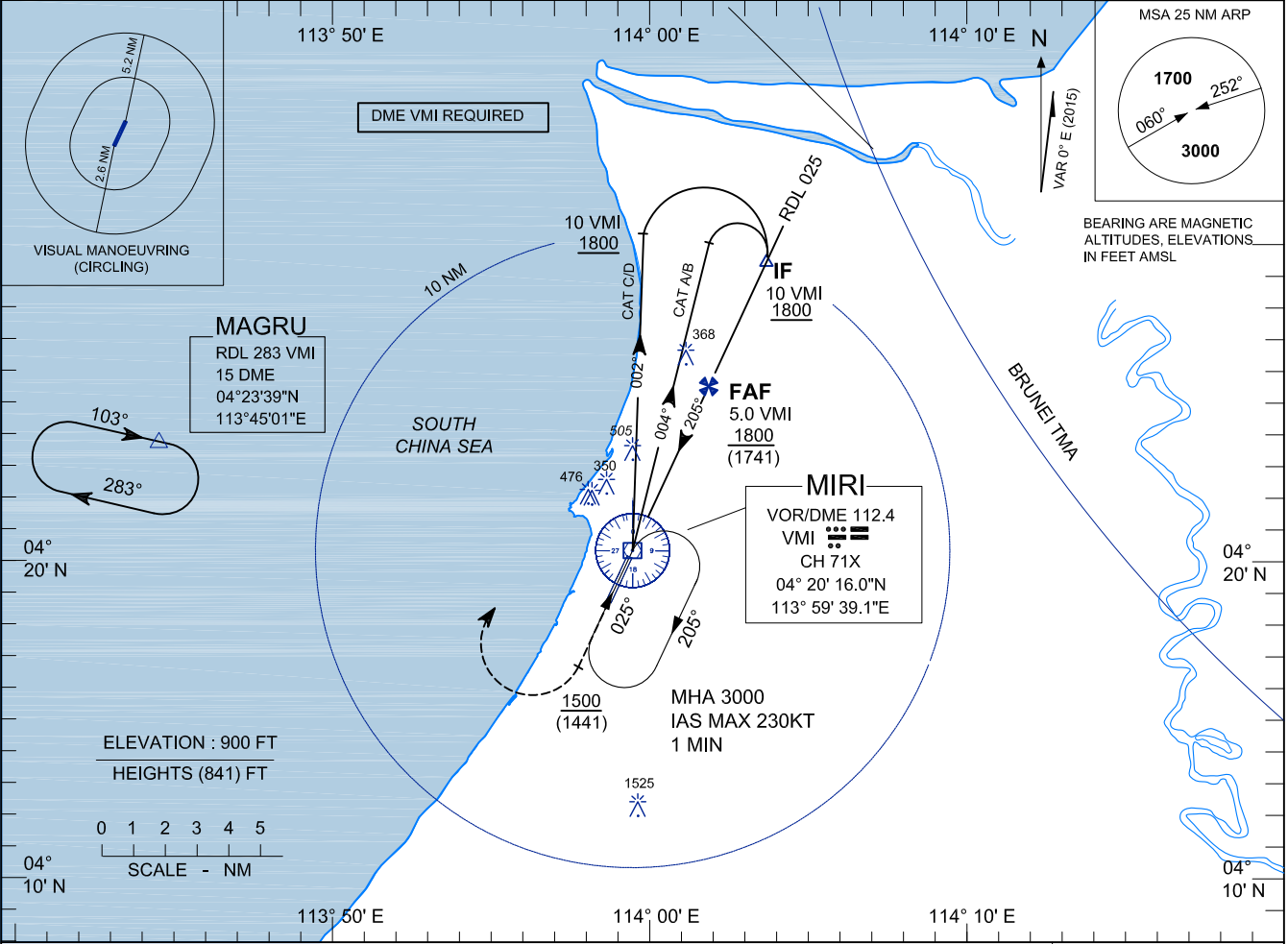
MIRI / MIRI SARAWAK

VOR z RWY 20

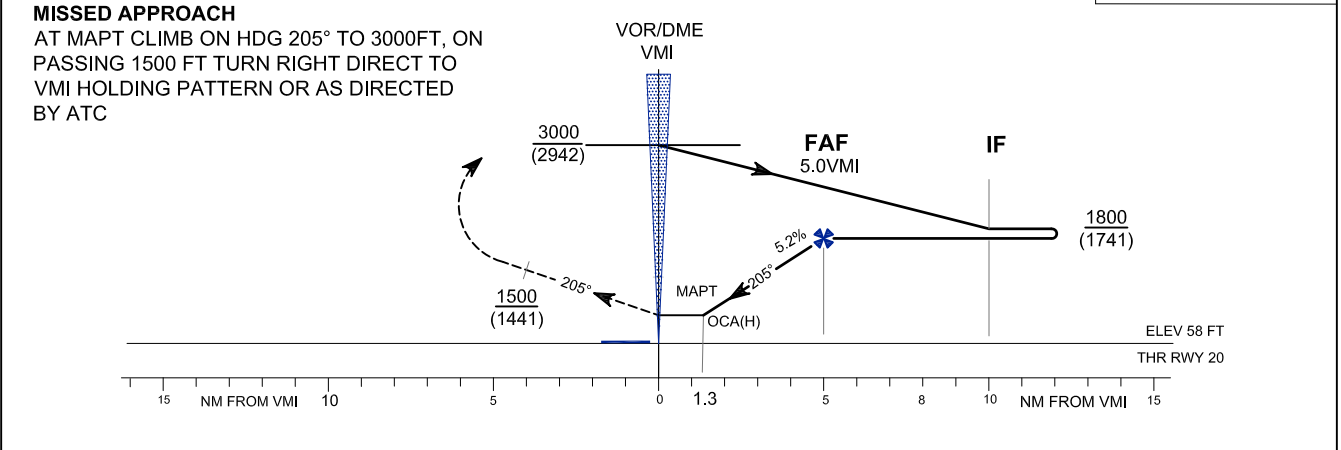
Aeronautical Data Tabulation

| Fix / Point | Referenced to VMI | Coordinates |
|----------------------|-------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| IF | 025°/10D | 04°29'22.45" N 114°03'52.99" E |
| FAF | 025°/5D | 04°24'49.24" N 114°01'46.03" E |
| MAPT (VMI) | - | 04°20'16.02" N 113°59'39.10" E |
| MAGRU | 283°/15D | 04°23'39.32" N 113°45'01.18" E |
| MATNO (IAF) | R-360°/12 | 04°32'19.53" N 113°59'39.10" E |
| TELOM (IAF) | R-050°/12 | 04°28'01.03" N 114°08'51.33" E |

| | | | | |
|---|-----|-------|------------|-------------------------------|
| AD ELEV 59 FT HEIGHTS RELATED TO THR RWY 02 - ELEV 59 FT | APP | - | 129.90 (P) | MIRI / MIRI |
| | | - | 122.70 (S) | |
| | TWR | - | 123.3 | RWY 20 VOR y |
| | SMC | - | 121.9 | |
| ATIS | - | 127.0 | | |



TRANSITION LEVEL : FL 130
 TRANSITION ALT : 11,000



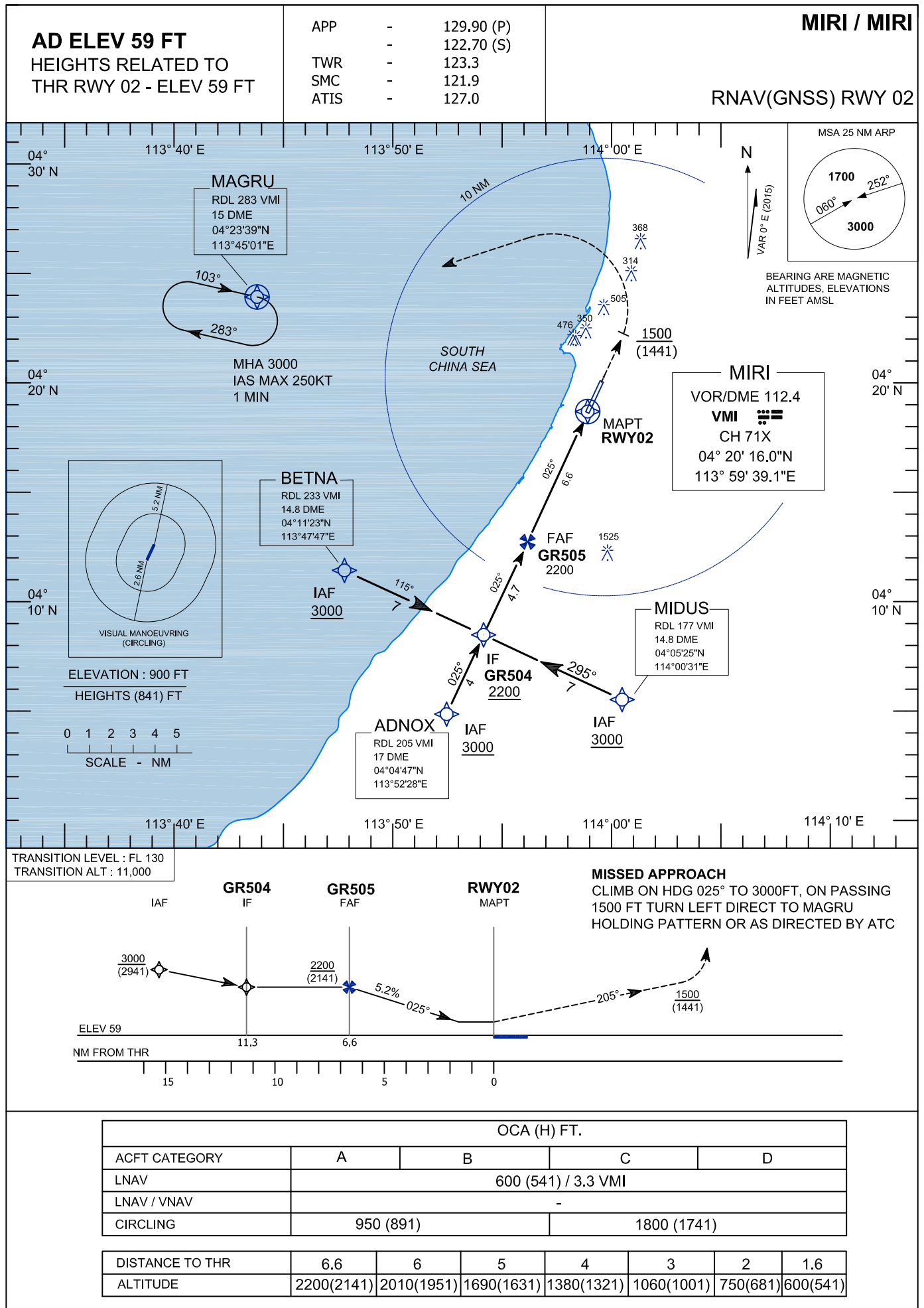
| OCA (H) FT | | | | |
|-----------------------|---------------------|-------------|-------------|-----------|
| ACFT CATEGORY | A | B | C | D |
| VOR/DME (STRAIGHT-IN) | 570 (511) / 1.3 VMI | | | |
| CIRCLING | 950 (891) | | 1800 (1741) | |
| DME DISTANCE (VMI) | 5 | 4 | 3 | 2 |
| ALTITUDE (FT) | 1800 (1741) | 1470 (1411) | 1150 (1091) | 840 (781) |

**MIRI / MIRI
SARAWAK**

VOR y RWY 20

Aeronautical Data Tabulation

| Fix / Point | Referenced to VMI | Coordinates |
|----------------------|----------------------|-----------------------------------|
| VMI | - | 04°20'16.02" N 113°59'39.10" E |
| IF | 025°/10D | 04°29'22.45" N 114°03'52.99" E |
| FAF | 025°/5D | 04°24'49.24" N 114°01'46.03" E |
| MAPT (VMI) | - | 04°20'16.02" N 113°59'39.10" E |
| MAGRU | 283°/15D | 04°23'39.32" N 113°45'01.18" E |



MIRI / MIRI SARAWAK

RNAV(GNSS) RWY 02 - Instrument Approach Procedure

IAF at ADNOX

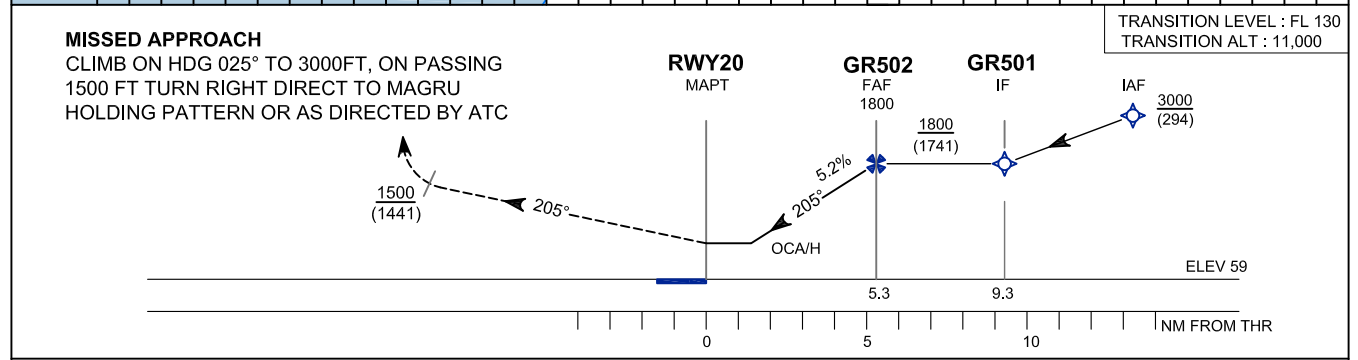
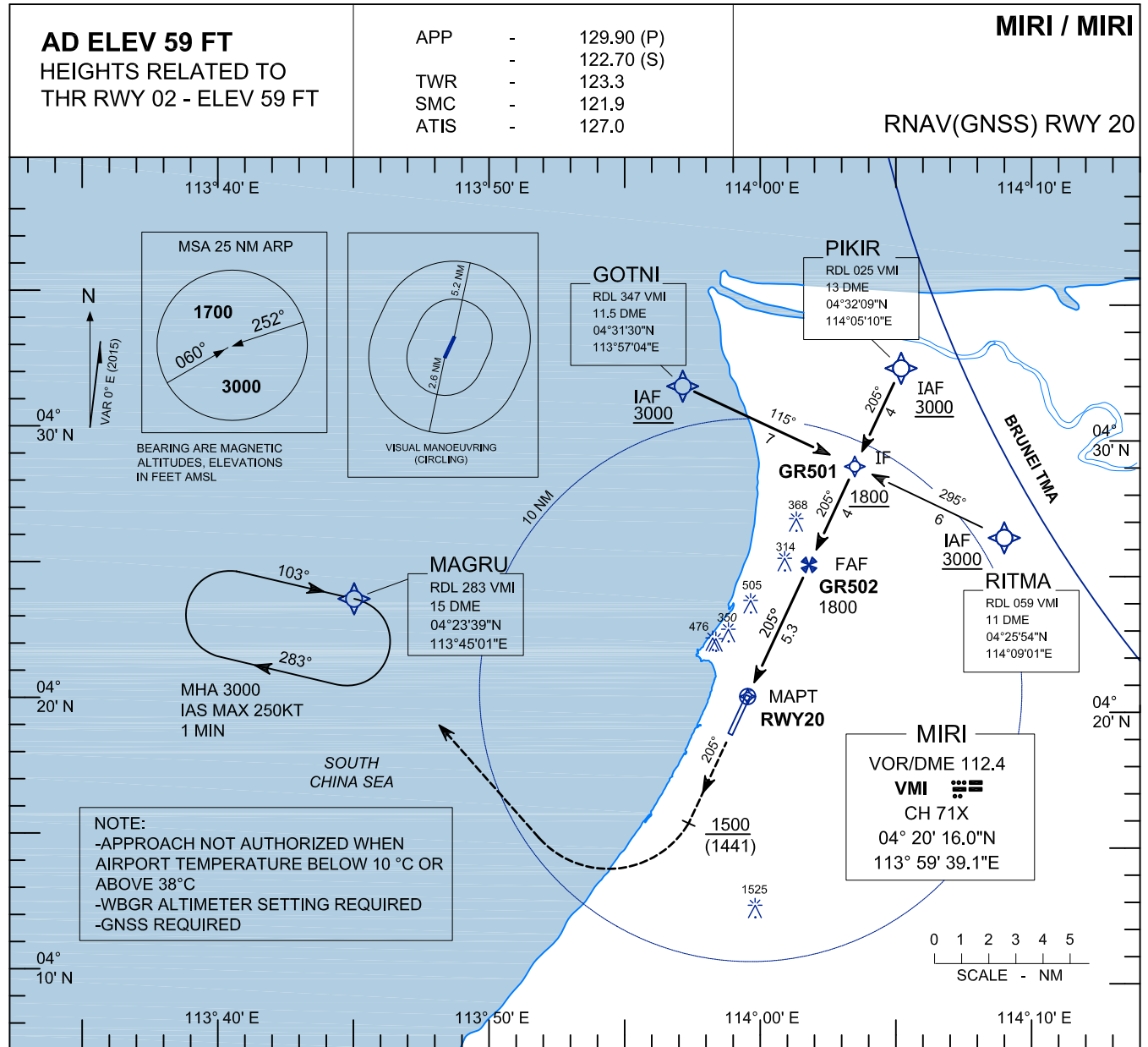
| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|-----------------------------------|
| 1 | IF | ADNOX | - | - | - | <u>3000</u> | - | - | 04°04'47.04" N 113°52'27.72" E |
| 2 | TF | GR504 (IF) | - | 025° | - | <u>2200</u> | - | - | 04°08'25.63" N 113°54'09.19" E |
| 3 | TF | GR505 (FAF) | - | 025° | - | <u>2200</u> | - | - | 04°12'40.22" N 113°56'07.40" E |
| 4 | TF | RWY02 (MAPT) | Y | 025° | - | <u>600</u> | - | - | 04°18'40.87" N 113°58'54.91" E |
| 5 | CA | - | - | 025° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | L | <u>3000</u> | - | - | 04°23'39.30" N 113°45'01.18" E |

IAF at BETNA

| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|-----------------------------------|
| 1 | IF | BETNA | - | - | - | <u>3000</u> | - | - | 04°11'22.64" N 113°47'46.51" E |
| 2 | TF | GR504 (IF) | - | 115° | L | <u>2200</u> | - | - | 04°08'25.63" N 113°54'09.19" E |
| 3 | TF | GR505 (FAF) | - | 025° | - | <u>2200</u> | - | - | 04°12'40.22" N 113°56'07.40" E |
| 4 | TF | RWY02 (MAPT) | Y | 025° | - | <u>600</u> | - | - | 04°18'40.87" N 113°58'54.91" E |
| 5 | CA | - | - | 025° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | L | <u>3000</u> | - | - | 04°23'39.30" N 113°45'01.18" E |

IAF at MIDUS

| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|-----------------------------------|
| 1 | IF | MIDUS | - | - | - | <u>3000</u> | - | - | 04°05'25.18" N 114°00'30.56" E |
| 2 | TF | GR504 (IF) | - | 025° | R | <u>2200</u> | - | - | 04°08'25.63" N 113°54'09.19" E |
| 3 | TF | GR505 (FAF) | - | 025° | - | <u>2200</u> | - | - | 04°12'40.22" N 113°56'07.40" E |
| 4 | TF | RWY02 (MAPT) | Y | 025° | - | <u>600</u> | - | - | 04°18'40.87" N 113°58'54.91" E |
| 5 | CA | - | - | 025° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | L | <u>3000</u> | - | - | 04°23'39.30" N 113°45'01.18" E |



| OCA (H) FT. | | | | | | | |
|-----------------|------------|------------|------------|-------------|----------|----------|--|
| ACFT CATEGORY | A | B | C | D | | | |
| LNAV | 570 (511) | | | | | | |
| LNAV / VNAV | 410 (351) | | | | | | |
| CIRCLING | 950 (891) | | | 1800 (1741) | | | |
| DISTANCE TO THR | 5.3 | 5 | 4 | 3 | 2 | 1.3 | |
| ALTITUDE | 1800(1741) | 1690(1631) | 1380(1321) | 1060(1001) | 750(691) | 570(511) | |

MIRI / MIRI SARAWAK

RNAV(GNSS) RWY 20 - Instrument Approach Procedure

IAF at GOTNI

| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|---------------------------------|
| 1 | IF | GOTNI | - | - | - | <u>3000</u> | - | - | 04:31:30.25 N 113:57:03.99 E |
| 2 | TF | GR501 (IF) | - | 115° | R | <u>1800</u> | - | - | 04:28:30.05 N 114:03:28.64 E |
| 3 | TF | GR502 (FAF) | - | 205° | - | <u>1800</u> | - | - | 04:24:51.48 N 114:01:47.08 E |
| 4 | TF | RWY20 (MAPT) | Y | 205° | - | <u>570</u> | - | - | 04:20:01.87 N 113:59:32.53 E |
| 5 | CA | - | - | 205° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | R | <u>3000</u> | - | - | 04:23:39.30 N 113:45:01.18 E |

IAF at PIKIR

| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|---------------------------------|
| 1 | IF | PIKIR | - | - | - | <u>3000</u> | - | - | 04:32:08.61 N 114:05:10.22 E |
| 2 | TF | GR501 (IF) | - | 205° | - | <u>1800</u> | - | - | 04:28:30.05 N 114:03:28.64 E |
| 3 | TF | GR502 (FAF) | - | 205° | - | <u>1800</u> | - | - | 04:24:51.48 N 114:01:47.08 E |
| 4 | TF | RWY20 (MAPT) | Y | 205° | - | <u>570</u> | - | - | 04:20:01.87 N 113:59:32.53 E |
| 5 | CA | - | - | 205° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | R | <u>3000</u> | - | - | 04:23:39.30 N 113:45:01.18 E |

IAF at RITMA

| Sequel No. | Path Terminator | Waypoint Identifier | Fly Over | Course/Track °M | Turn Direction | Altitude | Speed Limit (kt) | Recommended Nav aids | Coordinates |
|------------|-----------------|---------------------|----------|-----------------|----------------|-------------|------------------|----------------------|---------------------------------|
| 1 | IF | RITMA | - | - | - | <u>3000</u> | - | - | 04:25:54.05 N 114:09:00.58 E |
| 2 | TF | GR501 (IF) | - | 205° | L | <u>1800</u> | - | - | 04:28:30.05 N 114:03:28.64 E |
| 3 | TF | GR502 (FAF) | - | 205° | - | <u>1800</u> | - | - | 04:24:51.48 N 114:01:47.08 E |
| 4 | TF | RWY20 (MAPT) | Y | 205° | - | <u>570</u> | - | - | 04:20:01.87 N 113:59:32.53 E |
| 5 | CA | - | - | 205° | - | <u>1500</u> | - | - | - |
| 6 | DF | MAGRU | - | - | R | <u>3000</u> | - | - | 04:23:39.30 N 113:45:01.18 E |