

STANDARD DEPARTURE CHART  
RNAV (GNSS) -  
INSTRUMENT (SID)

TWR 118.6 / 118.25  
APP 120.3  
124.05  
ACC 133.25

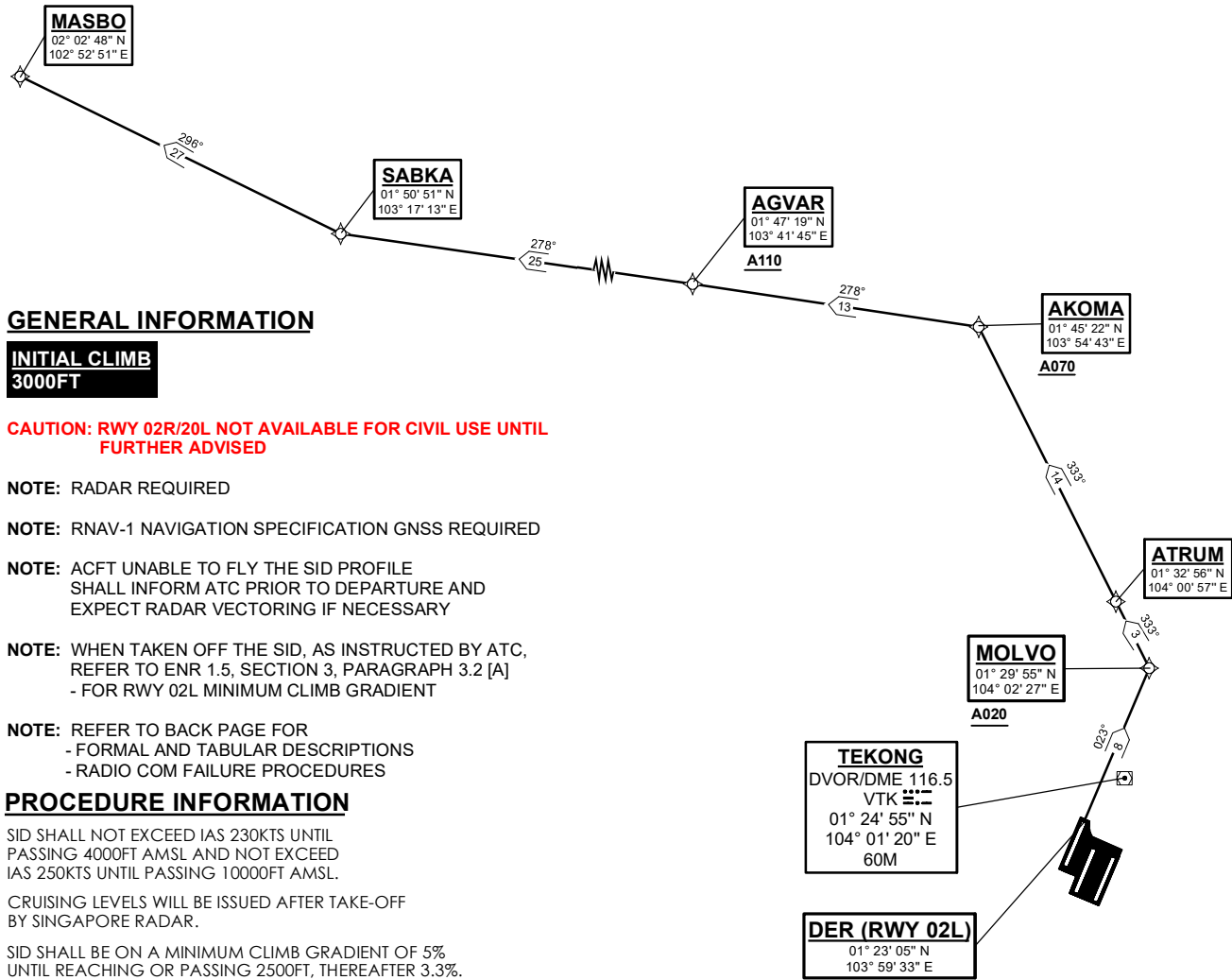
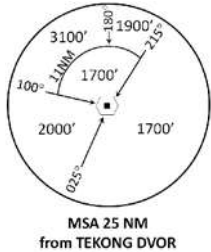
TRANSITION ALTITUDE  
11 000ft

D-ATIS AP ID-WSSS  
128.6

SINGAPORE/Singapore Changi  
RWY 02L  
MASBO DEPARTURES  
MASBO 3E

ELEV, ALT IN FEET  
BEARINGS, TRACKS AND  
RADIALS ARE MAGNETIC  
VAR 0°23'E (2022)

DISTANCES IN NM



GENERAL INFORMATION

INITIAL CLIMB  
3000FT

CAUTION: RWY 02R/20L NOT AVAILABLE FOR CIVIL USE UNTIL  
FURTHER ADVISED

- NOTE: RADAR REQUIRED
- NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED
- NOTE: ACFT UNABLE TO FLY THE SID PROFILE  
SHALL INFORM ATC PRIOR TO DEPARTURE AND  
EXPECT RADAR VECTORING IF NECESSARY
- NOTE: WHEN TAKEN OFF THE SID, AS INSTRUCTED BY ATC,  
REFER TO ENR 1.5, SECTION 3, PARAGRAPH 3.2 [A]  
- FOR RWY 02L MINIMUM CLIMB GRADIENT
- NOTE: REFER TO BACK PAGE FOR  
- FORMAL AND TABULAR DESCRIPTIONS  
- RADIO COM FAILURE PROCEDURES

PROCEDURE INFORMATION

SID SHALL NOT EXCEED IAS 230KTS UNTIL  
PASSING 4000FT AMSL AND NOT EXCEED  
IAS 250KTS UNTIL PASSING 10000FT AMSL.

CRUISING LEVELS WILL BE ISSUED AFTER TAKE-OFF  
BY SINGAPORE RADAR.

SID SHALL BE ON A MINIMUM CLIMB GRADIENT OF 5%  
UNTIL REACHING OR PASSING 2500FT, THEREAFTER 3.3%.

|                   |     |     |     |      |      |      |
|-------------------|-----|-----|-----|------|------|------|
| GND SPEED - KNOTS | 75  | 100 | 150 | 200  | 250  | 300  |
| 5% V/V (fpm)      | 380 | 506 | 760 | 1013 | 1266 | 1519 |
| 3.3% V/V (fpm)    | 251 | 334 | 501 | 668  | 835  | 1003 |

NOT TO SCALE

MASBO 3E (SID) RNAV GNSS RWY 02L - DESCRIPTIONS

Formal & Abbreviated Descriptions

| Formal Description                                     | Abbreviated Description  | Path Terminator | Fly-Over required |
|--------------------------------------------------------|--------------------------|-----------------|-------------------|
| To MOLVO on course 023° at or above 2000ft, turn left. | MOLVO [M023; A020+; L] - | CF              | N                 |
| To ATRUM.                                              | ATRUM -                  | TF              | N                 |
| To AKOMA at or above 7000ft, turn left.                | AKOMA [A070+; L] -       | TF              | N                 |
| To AGVAR at or above 11000ft.                          | AGVAR [A110+] -          | TF              | N                 |
| To SABKA, turn right.                                  | SABKA [R] -              | TF              | N                 |
| To MASBO.                                              | MASBO                    | TF              | N                 |

Tabular Descriptions

| Path Term | Waypoint Name | Fly-Over | Course °M(°T) | Distance (NM) | Turn Direction | Altitude | Speed Limit | Navigation Spec |
|-----------|---------------|----------|---------------|---------------|----------------|----------|-------------|-----------------|
| CF        | MOLVO         | -        | 023(023.4)    | 8.0           | L              | A020+    | -           | RNAV1           |
| TF        | ATRUM         | -        | 333(333.4)    | 3.0           | -              | -        | -           | RNAV1           |
| TF        | AKOMA         | -        | 333(333.4)    | 14.0          | L              | A070+    | -           | RNAV1           |
| TF        | AGVAR         | -        | 278(278.4)    | 13.0          | -              | A110+    | -           | RNAV1           |
| TF        | SABKA         | -        | 278(278.4)    | 25.0          | R              | -        | -           | RNAV1           |
| TF        | MASBO         | -        | 296(296.4)    | 27.0          | -              | -        | -           | RNAV1           |

Radio Communications Failure Procedure

|   |                                                                                                                                                                                                                                   |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | SET TRANSPONDER TO MODE A/C CODE 7600                                                                                                                                                                                             |
| 2 | COMMUNICATIONS FAILURE OCCURS IMMEDIATELY AFTER DEPARTURE:<br><br>PROCEED DIRECT TO NYLON HOLDING AREA (NHA) CLIMBING TO THE LAST ASSIGNED ALTITUDE, THEREAFTER REFER TO SINGAPORE AIP ON RADIO COMMUNICATIONS FAILURE PROCEDURE. |