

STANDARD DEPARTURE CHART
RNAV (GNSS) -
INSTRUMENT (SID)TWR 118.6 / 118.25
APP 120.3
124.05
ACC 133.25TRANSITION ALTITUDE
11 000ftD-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

**MASBO**
02° 02' 48" N
102° 52' 51" E**SABKA**
01° 50' 51" N
103° 17' 13" E**AGVAR**
01° 47' 19" N
103° 41' 45" E
A110**AKOMA**
01° 45' 22" N
103° 54' 43" E
A070**ATRUM**
01° 32' 56" N
104° 00' 57" E**MOLVO**
01° 29' 55" N
104° 02' 27" E
A020**TEKONG**
DVOR/DME 116.5
VTK
01° 24' 55" N
104° 01' 20" E
60M**DER (RWY 02L)**
01° 23' 05" N
103° 59' 33" E**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 VECTURING 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: PROCEED DIRECT TO NYLON HOLDING AREA (NHA) CLIMBING TO THE LAST ASSIGNED ALTITUDE, THEREAFTER REFER TO SINGAPORE AIP ON RADIO COMMUNICATIONS FAILURE PROCEDURE.