

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 20L  
VOVOS DEPARTURES  
VOVOS 1D

ELEV, ALT IN FEET

BEARINGS, TRACKS AND  
RADIALS ARE MAGNETIC  
VAR 0°23'E (2020)

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 VECTORIZING IF NECESSARY

NOTE: WHEN TAKEN OFF THE SID, AS INSTRUCTED BY ATC,  
REFER TO ENR 1.5, SECTION 3, PARAGRAPH 3.4.3  
- FOR RWY 20L MINIMUM CLIMB GRADIENT

NOTE: REFER TO BACK PAGE FOR  
- FORMAL AND TABULAR DESCRIPTIONS  
- RADIO COM FAILURE PROCEDURES

NOTE: VOVOS SID WILL NOT BE AVAILABLE FOR  
FLIGHT PLANNING UNTIL FURTHER ADVISED

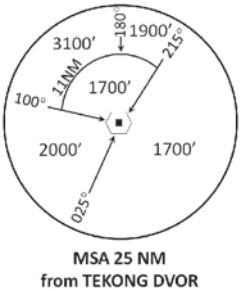
PROCEDURE INFORMATION

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 9%  
UNTIL REACHING OR PASSING 2500FT, THEREAFTER 3.3%.

GND SPEED - KNOTS	75	100	150	200	250	300
9% V/V (fpm)	684	911	1367	1823	2279	2734
3.3% V/V (fpm)	251	334	501	668	835	1003



TEKONG  
DVOR/DME 116.5  
VTK  
01° 24' 55"N  
104° 01' 20" E  
60m

DER (RWY 20L)  
01° 19' 19"N  
103° 59' 59" E

UKIBO  
01° 17' 58" N  
103° 59' 24" E

VIGUD  
01° 13' 28" N  
103° 57' 30" E  
A025

BOKIP  
01° 04' 21" N  
103° 43' 53" E

SAMKO  
01° 05' 30" N  
103° 52' 55" E  
A040

ATLEX  
01° 03' 02" N  
103° 33' 31" E

VOVOS  
01° 11' 23" N  
103° 26' 51" E

NOT TO SCALE

VOVOS 1D (SID) RNAV GNSS RWY 20L - DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
To UKIBO on course 203°.	UKIBO [M203] -	CF	N
To VIGUD at or above 2500ft, turn right.	VIGUD [A025+; R] -	TF	N
To SAMKO at or above 4000ft, turn right.	SAMKO [A040+; R] -	TF	N
To BOKIP.	BOKIP -	TF	N
To ATLEX, turn right.	ATLEX [R] -	TF	N
To VOVOS.	VOVOS	TF	N

Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Distance (NM)	Turn Direction	Altitude	Speed Limit	Navigation Spec
CF	UKIBO	Y	203(203.4)	1.5	-	-	-	RNAV1
TF	VIGUD	-	203(203.4)	5.0	R	A025+	-	RNAV1
TF	SAMKO	-	210(210.4)	9.0	R	A040+	-	RNAV1
TF	BOKIP	-	262(262.4)	9.0	-	-	-	RNAV1
TF	ATLEX	-	262(262.4)	10.0	R	-	-	RNAV1
TF	VOVOS	-	321(321.4)	11.0	-	-	-	RNAV1

Radio Communications Failure Procedure

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