

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

TWR 118.6 / 118.25  
APP 120.3  
124.05  
ACC 134.4

TRANSITION ALTITUDE  
11 000ft

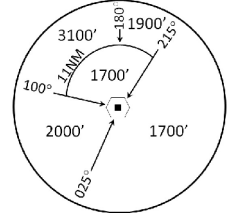
D-ATIS AP ID-WSSS  
128.6

**SINGAPORE/Singapore Changi  
RWY 02R  
KIRDA DEPARTURES (RADAR)  
KIRDA 1C**

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

DISTANCES IN NM

**EXPECT RADAR vectors  
to waypoint HOSBA**



MSA 25 NM  
from TEKONG DVOR

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

**DER(RWY02R)**  
01°21'22"N  
104°00'51"E

**HOSBA**  
01°19'48"N  
104°24'18"E  
**A070**

**VANBU**  
01°06'43"N  
104°27'40"E  
**A090**

**VIRET**  
00°39'40"N  
104°35'11"E  
**FL160**

**GURES**  
00°28'14"N  
104°38'35"E

**IKIRO**  
00°08'49"N  
104°44'20"E

**KIRDA**  
00°00'09"N  
104°59'34"E

**GENERAL INFORMATION**

**INITIAL CLIMB  
3000FT**

- CAUTION: RWY 02R/20L CLOSED 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 VECTORED IF NECESSARY
- NOTE:** WHEN TAKEN OFF THE SID, AS INSTRUCTED BY ATC, REFER TO ENR 1.5, SECTION 3, PARAGRAPH 3.5 - FOR RWY 02R 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

## KIRDA 1C (SID) RNAV GNSS RWY 02R - DESCRIPTIONS

### Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
Climb heading 023°, Gradient 5% to 2500ft, thence 3.3%. Expect radar vectors to waypoint HOSBA.	-	VA	N
To HOSBA at or above 7000ft.	HOSBA [A070+] -	DF	N
To VANBU at or below 9000ft, turn left.	VANBU [A090-; L] -	TF	N
To VIRET at or above FL160, turn left.	VIRET [FL160+; L] -	TF	N
To GURES.	GURES -	TF	N
To IKIRO, turn left.	IKIRO [L] -	TF	N
To KIRDA.	KIRDA	TF	N

### Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Distance (NM)	Turn Direction	Altitude	Speed Limit	Navigation Spec
VA	-	-	023(023.4)	-	-	A030	-	-
DF	HOSBA	-	-	-	-	A070+	-	RNAV1
TF	VANBU	-	165(165.4)	13.0	L	A090-	-	RNAV1
TF	VIRET	-	164(164.4)	28.0	L	FL160+	-	RNAV1
TF	GURES	-	163(163.3)	12.0	-	-	-	RNAV1
TF	IKIRO	-	163(163.3)	20.0	L	-	-	RNAV1
TF	KIRDA	-	119(119.3)	18.0	-	-	-	RNAV1

### Radio Communications Failure Procedure

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