

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

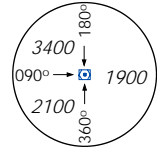
TWR 118.6 / 118.25
APP 120.3 / 124.05
ACC 134.2

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.6

**SINGAPORE/Singapore Changi
RWY 02L/20R
TOMAN DEPARTURES
TOM 1E (R02L), TOM 1F (R20R)
RNAV(GNSS)**

ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 31°E (2005)



MSA 25nm
from **TEKONG DVOR**

DISTANCES IN NM

GENERAL INFORMATION

ALL SIDs INCLUDE NOISE PREFERENTIAL ROUTES.

INITIAL DEPARTURE CLIMB ALTITUDE IS 3000FT OR
AS DIRECTED BY ATC.

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

NOTE: RADAR REQUIRED

- NOTE:** REFER TO BACK PAGE FOR
- A) CONVENTIONAL PROCEDURES
 - B) RADIO COM FAILURE PROCEDURES
 - C) CROSS REFERENCE FROM NAVAID

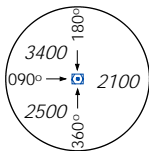
RWY 02L/C

FOR MINIMUM CLIMB GRADIENT CRITERIA :
RWY 02L - SEE ENR 1.5-4
RWY 02C - SEE ENR 1.5-4

RWY 20C/R

DEPARTURES SHALL BE ON A MINIMUM NET CLIMB GRADIENT OF 5%
UNTIL REACHING OR PASSING 400FT, 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 |

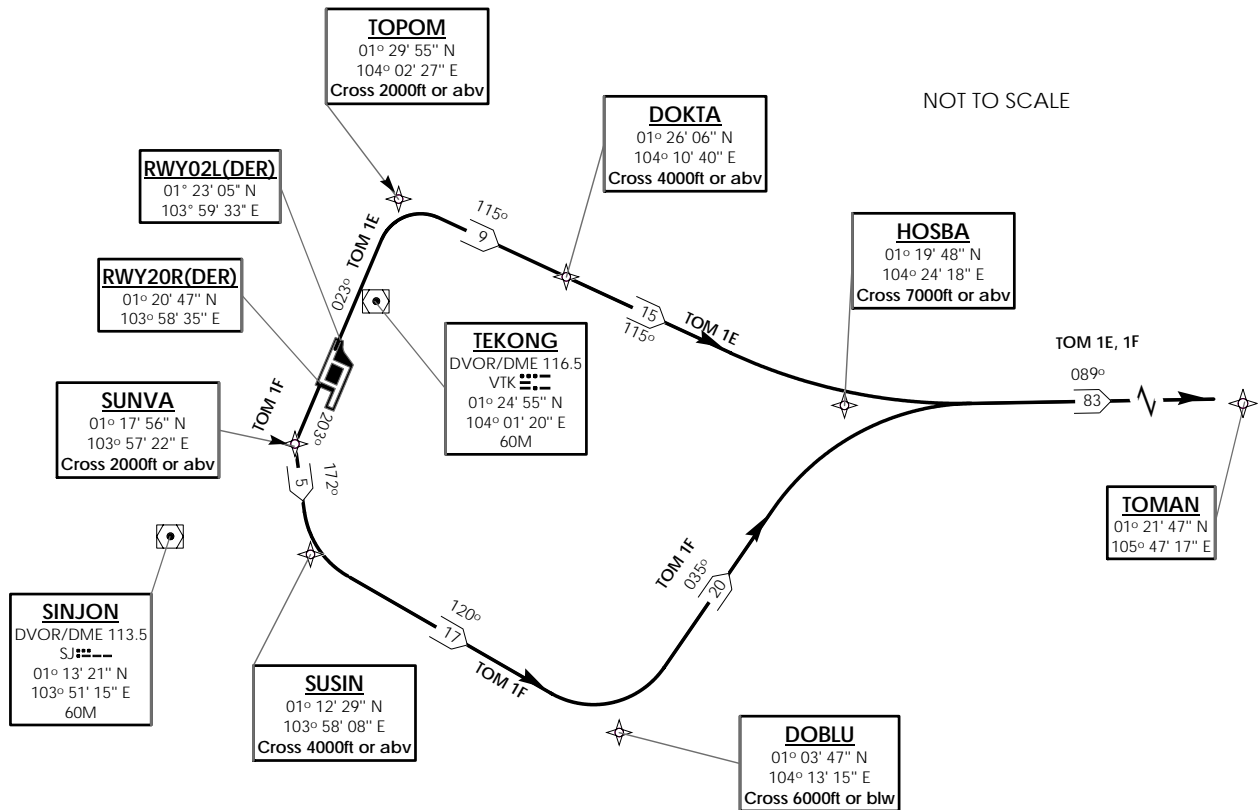


MSA 25nm
from **SINJON DVOR**

THE RESTRICTION TO CROSS SUDPO OR SUNVA AT OR ABOVE
2000FT IS APPLICABLE BETWEEN 2301/1100 UTC.

ALL DEPARTURE AIRCRAFT ON RWY 20C/R ISSUED WITH HEADING
INSTRUCTIONS BY ATC SHALL ALSO CROSS 8 DME VTK AT OR
ABOVE 2000FT BTN 2301/1100 UTC.

IF THE HEIGHT RESTRICTION CANNOT BE COMPLIED WITH, THE
PILOT-IN-COMMAND OF AN AIRCRAFT DEPARTURE ON RWY 20C/R
SHALL INFORM ATC DURING THE TIME WHEN THE AIRCRAFT
COMMENCES TAXIING TO THE HOLDING POINT FOR DEPARTURE.



(A) BASIC RNAV DEPARTURES

For non-RNP1/P-RNAV approved aircraft or whose RNP1/P-RNAV capability have been degraded

TOMAN DEPARTURES

| STANDARD DEPARTURE INSTRUMENT (SID) | RUNWAY | TAKE OFF INSTRUCTIONS | DEPARTURE INSTRUCTIONS |
|---|--------|--|---|
| TOMAN ONE ECHO DEPARTURE (TOM 1E) | 02L | CLIMB STRAIGHT AHEAD TO TOPOM. CROSS TOPOM AT OR ABOVE 2000FT. AT TOPOM TURN RIGHT AND TRACK 115° TO DOKTA THEN FOLLOW DEPARTURE INSTRUCTIONS. | AT DOKTA TRACK 115° TO HOSBA THEN TURN LEFT AND TRACK 089° TO TOMAN. CROSS DOKTA AT OR ABOVE 4 000FT. CROSS HOSBA AT OR ABOVE 7 000FT. |
| TOMAN ONE FOXTROT DEPARTURE (TOM 1F) | 20R | CLIMB STRAIGHT AHEAD TO SUNVA. AT SUNVA TURN LEFT AND TRACK 172° TO SUSIN. CROSS SUNVA AT OR ABOVE 2 000FT. CROSS SUSIN AT OR ABOVE 4 000FT, THEN FOLLOW DEPARTURE INSTRUCTIONS. | AT SUSIN TURN LEFT AND TRACK 120° TO DOBLU. CROSS DOBLU AT OR BELOW 6 000FT OR AS DIRECTED BY ATC. AT DOBLU TURN LEFT AND TRACK 035° TO HOSBA THEN TURN RIGHT AND TRACK 089° TO TOMAN. CROSS HOSBA AT OR ABOVE 7 000FT. |

(B) RADIO COMMUNICATIONS FAILURE PROCEDURE

| | |
|---|--|
| 1 | SET TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | <p>COMMUNICATIONS FAILURE OCCURS IMMEDIATELY AFTER DEPARTURE ON:</p> <p>(a) RWY 02L- PROCEED STRAIGHT AHEAD TO NYLON HOLDING AREA(NHA) CLIMBING TO THE LAST ASSIGNED ALTITUDE, THEREAFTER REFER TO SINGAPORE AIP ON RADIO COMMUNICATIONS FAILURE PROCEDURE.</p> <p>(b) RWY 20R- PROCEED STRAIGHT AHEAD TO SAMKO HOLDING AREA(SHA) CLIMBING TO THE LAST ASSIGNED ALTITUDE, THEREAFTER REFER TO SINGAPORE AIP ON RADIO COMMUNICATIONS FAILURE PROCEDURE.</p> |

(C) RADIAL AND DME FROM VOR/DME

| WAY POINTS | VTK VOR/DME | SJ VOR/DME |
|------------|--------------------|-------------------|
| DOBLU | VTK R-150.4/D24.2 | SJ R-113.4/D24.0 |
| DOKTA | VTK R-083/D9.4 | SJ R-057/R23.2 |
| HOSBA | VTK R-102.5/D23.6 | SJ R-079.0/D33.7 |
| SUNVA | VTK R-209.7/D8.0 | SJ R-053.3/D7.6 |
| SUSIN | VTK R-194.5/D12.8 | SJ R-097.2/D6.9 |
| TOMAN | VTK R-091.7/D106.2 | SJ R-085.9/D116.5 |
| TOPOM | VTK R-012.8/D5.1 | SJ R-034.2/D20.0 |