

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

|     |                |
|-----|----------------|
| TWR | 118.6 / 118.25 |
| APP | 120.3          |
|     | 124.05         |
| ACC | 134.2          |

|                     |                     |
|---------------------|---------------------|
| TRANSITION ALTITUDE | 11 000ft            |
| D-ATIS              | AP ID-WSSS<br>128.6 |

SINGAPORE/Singapore Changi  
RWY 20R  
TOMAN DEPARTURES  
TOMAN 5F

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 VECTORED IF NECESSARY

NOTE: WHEN TAKEN OFF THE SID, AS INSTRUCTED BY ATC,  
REFER TO ENR 1.5, SECTION 3, PARAGRAPH 3.4.2  
- FOR RWY 20R MINIMUM CLIMB GRADIENT

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

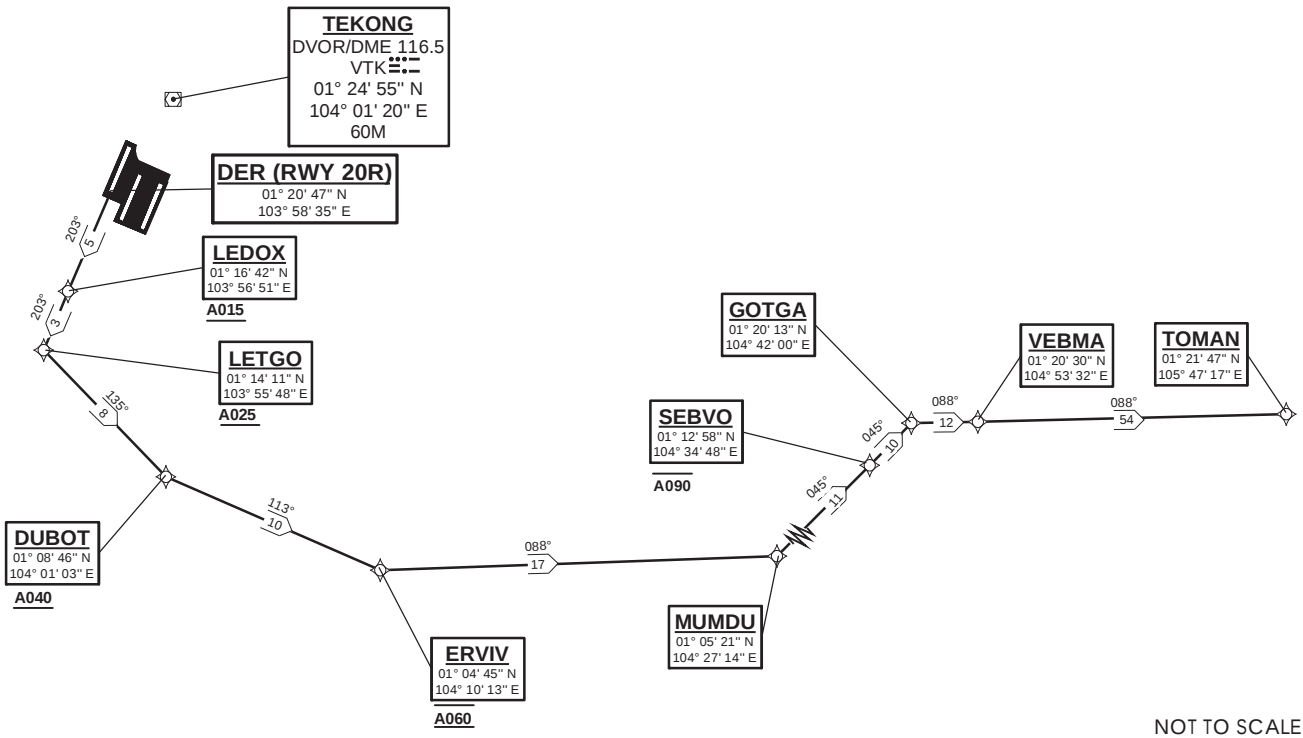
PROCEDURE INFORMATION

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 6%  
UNTIL REACHING OR PASSING 2500FT, THEREAFTER 3.3%.

|                   |     |     |     |      |      |      |
|-------------------|-----|-----|-----|------|------|------|
| GND SPEED - KNOTS | 75  | 100 | 150 | 200  | 250  | 300  |
| 6% V/V (fpm)      | 456 | 608 | 911 | 1215 | 1518 | 1821 |
| 3.3% V/V (fpm)    | 251 | 334 | 501 | 668  | 835  | 1003 |



TOMAN 5F (SID) RNAV GNSS RWY 20R - DESCRIPTIONS

Formal & Abbreviated Descriptions

| Formal Description                          | Abbreviated Description | Path Terminator | Fly-Over required |
|---------------------------------------------|-------------------------|-----------------|-------------------|
| To LEDOX on course 203° at or above 1500ft. | LEDOX [M203; A015+] -   | CF              | N                 |
| To LETGO at or above 2500ft, turn left.     | LETGO [A025+; L] -      | TF              | N                 |
| To DUBOT at or above 4000ft, turn left.     | DUBOT [A040+; L] -      | TF              | N                 |
| To ERVIV at 6000ft, turn left.              | ERVIV [@A060; L] -      | TF              | N                 |
| To MUMDU, turn left.                        | MUMDU [L] -             | TF              | N                 |
| To SEBVO at or below 9000ft.                | SEBVO [A090-] -         | TF              | N                 |
| To GOTGA, turn right.                       | GOTGA [R] -             | TF              | N                 |
| To VEBMA.                                   | VEBMA -                 | TF              | N                 |
| To TOMAN.                                   | TOMAN                   | TF              | N                 |

Tabular Descriptions

| Path Term | Waypoint Name | Fly-Over | Course °M(°T) | Distance (NM) | Turn Direction | Altitude | Speed Limit | Navigation Spec |
|-----------|---------------|----------|---------------|---------------|----------------|----------|-------------|-----------------|
| CF        | LEDOX         | -        | 203(203.4)    | 5.0           | -              | A015+    | -           | RNAV1           |
| TF        | LETGO         | -        | 203(203.4)    | 3.0           | L              | A025+    | -           | RNAV1           |
| TF        | DUBOT         | -        | 135(135.4)    | 8.0           | L              | A040+    | -           | RNAV1           |
| TF        | ERVIV         | -        | 113(113.4)    | 10.0          | L              | @A060    | -           | RNAV1           |
| TF        | MUMDU         | -        | 088(088.4)    | 17.0          | L              | -        | -           | RNAV1           |
| TF        | SEBVO         | -        | 045(045.4)    | 11.0          | -              | A090-    | -           | RNAV1           |
| TF        | GOTGA         | -        | 045(045.4)    | 10.0          | R              | -        | -           | RNAV1           |
| TF        | VEBMA         | -        | 088(088.4)    | 12.0          | -              | -        | -           | RNAV1           |
| TF        | TOMAN         | -        | 088(088.4)    | 54.0          | -              | -        | -           | 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 SAMKO HOLDING AREA (SHA) CLIMBING TO THE LAST ASSIGNED ALTITUDE, THEREAFTER REFER TO SINGAPORE AIP ON RADIO COMMUNICATIONS FAILURE PROCEDURE. |