

**SINGAPORE/Singapore Changi**  
**RWY 02L/C/R**  
**MABAL TWO ALPHA ARRIVAL**  
**MABAL 2A**

**NOTE: RADAR REQUIRED**

**NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED**

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

**MSA 25 NM from TEKONG DVOR**

**MABAL**  
03° 28' 26" N  
105° 12' 36" E

**KILOT**  
03° 02' 17" N  
104° 40' 23" E

**PIBAP**  
02° 30' 23" N  
104° 06' 18" E  
Cross FL210 or blw  
IAS 250kts

**PASPU**  
01° 59' 15" N  
104° 06' 18" E  
IAS 220kts

**NYLON**  
01° 36' 57" N  
104° 06' 24" E

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

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

**CAUTION**  
RWY 02R/20L NOT AVAILABLE FOR  
CIVIL USE UNTIL FURTHER ADVISED

**SANAT**  
01° 07' 49" N  
103° 59' 30" E  
Cross 4000ft or abv  
IAS 190kts

**FOR APPROACH RWY 02**  
EXPECT RADAR VECTORS

**A040 - F140**  
Max 220kts (IAS)  
1 min

**A030 - F140**  
Max 220kts (IAS)  
1 min

**F280 - F350**  
Max 300kts (IAS)  
1.5 min

**F220 - F270**  
Max 250kts (IAS)  
1.5 min

**RADAR ROUTE**

**NOT TO SCALE**

31 OCT 2024

**MABAL 2A (STAR) RNAV GNSS RWY 02L/02C/02R - DESCRIPTIONS****Formal & Abbreviated Descriptions**

| Formal Description                                     | Abbreviated Description  | Path Terminator | Fly-Over required |
|--------------------------------------------------------|--------------------------|-----------------|-------------------|
| From MABAL.                                            | MABAL -                  | IF              | N                 |
| To KILOT, turn left.                                   | KILOT [L] -              | TF              | N                 |
| To PIBAP at or below FL210, speed 250kts, turn left.   | MABAL -                  | TF              | N                 |
| To PASPU, speed 220kts.                                | PASPU [K220] -           | TF              | N                 |
| To NYLON, turn left.                                   | NYLON [L] -              | TF              | N                 |
| To POSUB at or above 6000ft, speed 220kts, turn right. | POSUB [A060+; K220; R] - | TF              | N                 |
| To SANAT at or above 4000ft, speed 190kts.             | SANAT [A040+; K190]      | TF              | N                 |

**Tabular Descriptions**

| Path Term | Waypoint Name | Fly-Over | Course °M(°T) | Distance | Turn Direction | Altitude | Speed Limit | Navigation Spec |
|-----------|---------------|----------|---------------|----------|----------------|----------|-------------|-----------------|
| IF        | MABAL         | -        | -             | -        | -              | -        | -           | RNAV1           |
| TF        | KILOT         | -        | 231(231.4)    | 42.0     | L              | -        | -           | RNAV1           |
| TF        | PIBAP         | -        | 227(227.4)    | 47.0     | L              | FL210-   | K250        | RNAV1           |
| TF        | PASPU         | -        | 180(180.4)    | 31.0     | -              | -        | K220        | RNAV1           |
| TF        | NYLON         | -        | 180(180.4)    | 22.0     | L              | -        | -           | RNAV1           |
| TF        | POSUB         | -        | 172(172.4)    | 10.0     | R              | A060+    | K220        | RNAV1           |
| TF        | SANAT         | -        | 203(203.4)    | 21.0     | -              | A040+    | K190        | RNAV1           |

**Radio Communications Failure Procedure**

|          |                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>SET TRANSPONDER TO MODE A/C CODE 7600</b>                                                                                                                                                                                                                                                                                                                                                        |
| <b>2</b> | <b>When cleared via MABAL 2A by Singapore ATC</b> <p>(a) Maintain last assigned flight level or altitude and proceed on MABAL 2A to SANAT, then direct to SAMKO</p> <p>(b) From SAMKO commence descent and carry out appropriate landing procedure for RWY 02 as close as possible to EAT or ETA</p> <p>(c) If unable to effect a landing, refer to Singapore AIP for missed approach procedure</p> |
| <b>3</b> | <b>No clearance or instruction received from Singapore ATC</b> <p>- Refer to Singapore AIP for radio communications failure procedure</p>                                                                                                                                                                                                                                                           |