IFR MINIMUM VECTOR ALTITUDE CLEARANCE

(Does not raise Airway MEA)
Aircraft must be multi-sensor equipped.

**BOMAN 1A, OSUPA 1A, OSUPA 1B, ISAKU 1, SIRIL 1 RNAV (GNSS) ARRIVALS**

**(RWYS 03L/R, 21R)**

- From BOMAN track 102° to ARUSO. Execute RNAV (GNSS) RWY 03L or RNAV (GNSS) ILS TRANSITION RWY 03R procedure. If approach clearance is not received prior to ARUSO, MAINTAIN last altitude then turn RIGHT heading 210° and EXPECT RADAR vectors.

- From OSUPA track 157° to PAMUR. Execute RNAV (GNSS) RWY 21R procedure.

- From OSUPA track 157° to IROLO then turn RIGHT track 173° to OVTUL, then turn RIGHT track 210° to BOBUL. MAINTAIN at or above 3000’. Execute RNAV (GNSS) RWY 03L or RNAV (GNSS) ILS TRANSITION RWY 03R procedure. If approach clearance is not received prior to BOBUL, MAINTAIN last altitude and heading 210° and EXPECT RADAR vectors.

- From ISAKU track 318° to BOBUL. Execute RNAV (GNSS) RWY 03L or RNAV (GNSS) ILS TRANSITION RWY 03R procedure. If approach clearance is not received prior to BOBUL, MAINTAIN last altitude and heading 210° and EXPECT RADAR vectors.

- From SIRIL track 002° to NELIX. Execute RNAV (GNSS) RWY 03L or RNAV (GNSS) ILS TRANSITION RWY 03R procedure.
NOT TO SCALE

RNAV (GNSS) / ILS TRANSITION RWY 03R

ROUTE DESIGNATOR

<table>
<thead>
<tr>
<th>ROUTE DESIGNATOR</th>
<th>ROUTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARUSO</td>
<td>Track 103° until ANGUD. Proceed on track 028° direct to LAMBI. Continue ILS 03R approach.</td>
</tr>
<tr>
<td>BOBUL</td>
<td>Track 303° until ANGUD. Proceed on track 028° direct to LAMBI. Continue ILS 03R approach.</td>
</tr>
<tr>
<td>NELIX</td>
<td>Track 042° until ANGUD. Proceed on track 028° direct to LAMBI. Continue ILS 03R approach.</td>
</tr>
</tbody>
</table>
Aircraft must be multi-sensor equipped.

EGETA 1A, FRANCE 1A, OREPI 1A, REMAL 1A RNAV (GNSS) DEPARTURES (RWY 03R)

These SIDs require minimum climb gradients of:
- EGETA 1A, OREPI 1A, REMAL 1A: 4.4% (268'/per NM) to 2100', then 3.3% (200'/per NM).
- FRANCE 1A: 6.3% (383'/per NM) to 3900', then 3.3% (200'/per NM).
- Alternate instructions: MAINTAIN climb in VMC to 4000'.

Sid Initial Climb Altitude

<table>
<thead>
<tr>
<th>Sid</th>
<th>Initial Climb</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGETA 1A</td>
<td>Heading 038° to EGETA.</td>
<td></td>
</tr>
<tr>
<td>FRANCE 1A</td>
<td>Direct to KUDEL, then turn LEFT heading 287° to FRANCE.</td>
<td></td>
</tr>
<tr>
<td>OREPI 1A</td>
<td>Direct to KIMIK, then turn RIGHT to OREPI.</td>
<td></td>
</tr>
<tr>
<td>REMAL 1A</td>
<td>Direct to KIMIK, then turn RIGHT heading 098° to REMAL.</td>
<td></td>
</tr>
</tbody>
</table>

Changes: New procedures at this airport.
These SIDs require minimum climb gradients of:

**EGETA 1B, OREPI 1B, REMAL 1B RNAV (GNSS) DEPARTURES**

**INITIAL CLIMB**

<table>
<thead>
<tr>
<th>SID</th>
<th>INITIAL CLIMB</th>
<th>ALTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGETA 1B</td>
<td>Heading 039° to EGETA.</td>
<td>Climb and MAINTAIN 5000'</td>
</tr>
<tr>
<td>FRANCE 1B</td>
<td>Direct to LOBOK, then turn LEFT heading 287° to FRANCE.</td>
<td>until instructed by ATC</td>
</tr>
<tr>
<td>OREPI 1B</td>
<td>Direct to KOTIM, then turn RIGHT to OREPI.</td>
<td></td>
</tr>
<tr>
<td>REMAL 1B</td>
<td>Direct to KOTIM, then turn RIGHT heading 101° to REMAL.</td>
<td></td>
</tr>
</tbody>
</table>

**RNAV.SID**

**Trans level**: FL180  **Trans alt**: 18000'

Aircraft must be multi-sensor equipped.

**New procedures at this airport.**

**NOT TO SCALE**

**Apt Elev 135'**

**Notices**

**NOTICE:** PRINTED FROM AN EXPIRED REVISION. Disc 03-2008
This SID requires take-off minimums of:
2 engines-400' ceiling, 1600m visibility.
3 or more engines-400' ceiling, 800m visibility.
The following minimum climb rates are required to MUBAR.

<table>
<thead>
<tr>
<th>Rwy</th>
<th>Grid speed KT</th>
<th>V/V (fpm)</th>
<th>V/V (fpm)</th>
<th>V/V (fpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>03L/R</td>
<td>75</td>
<td>388</td>
<td>388</td>
<td>283</td>
</tr>
<tr>
<td>03L/R</td>
<td>100</td>
<td>517</td>
<td>517</td>
<td>333</td>
</tr>
<tr>
<td>03L/R</td>
<td>150</td>
<td>775</td>
<td>775</td>
<td>500</td>
</tr>
<tr>
<td>03L/R</td>
<td>200</td>
<td>1033</td>
<td>1033</td>
<td>667</td>
</tr>
<tr>
<td>03L/R</td>
<td>250</td>
<td>1282</td>
<td>1282</td>
<td>833</td>
</tr>
<tr>
<td>03L/R</td>
<td>300</td>
<td>1550</td>
<td>1550</td>
<td>1000</td>
</tr>
</tbody>
</table>

Direct distance from Tocumen Intl (Rwys 03L/R) to: TUM R-161/ TBG R-084 15 NM

Take-off to the SOUTH, At 450', turn LEFT climbing to intercept TUM R-161. Intercept Climb on airway UA-553 according to ATC instructions.

Take-off to the NORTH until reaching turning altitude, turn RIGHT, climbing on a 210° heading to intercept TUM R-19. Climb on airway UA-553 according to ATC instructions.

The use of this departure is subject to prior approval by ATC.
The use of this departure is subject to prior approval by ATC.
### GENERAL
Visual circling Northwest of Rwy 03-21 not authorized.
Birds in vicinity of airport.

### ADDITIONAL RUNWAY INFORMATION

<table>
<thead>
<tr>
<th>RWY</th>
<th>USABLE LENGTHS</th>
<th>TAKE-OFF</th>
<th>WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LANDING BEYOND</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>Glide Slope</td>
<td></td>
</tr>
<tr>
<td>03R</td>
<td>HIRL ALSF-I</td>
<td>8855' 2699m</td>
<td>148'</td>
</tr>
<tr>
<td>21L</td>
<td>HIRL PAPI</td>
<td>141'</td>
<td>45m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RWY</th>
<th>USABLE LENGTHS</th>
<th>TAKE-OFF</th>
<th>WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LANDING BEYOND</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>Glide Slope</td>
<td></td>
</tr>
<tr>
<td>03L</td>
<td>MIRL ALSF-I</td>
<td>8855' 2699m</td>
<td>197'</td>
</tr>
<tr>
<td>21R</td>
<td>HIALS PAPI</td>
<td>197'</td>
<td>60m</td>
</tr>
</tbody>
</table>

1 ALSF-I with no flashers.

### TAKE-OFF

<table>
<thead>
<tr>
<th>All Rwys</th>
<th>2 Eng</th>
<th>3 &amp; 4 Eng</th>
</tr>
</thead>
<tbody>
<tr>
<td>400' - 1600m</td>
<td>400' - 800m</td>
<td></td>
</tr>
</tbody>
</table>

Changes: Lighting.
### PARKING SPOT COORDINATES

<table>
<thead>
<tr>
<th>SPOT No.</th>
<th>COORDINATES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PASSENGER TERMINAL</strong></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>N09 04.1 W079 23.2</td>
</tr>
<tr>
<td>12 thru 19</td>
<td>N09 04.1 W079 23.1</td>
</tr>
<tr>
<td>20</td>
<td>N09 04.0 W079 23.1</td>
</tr>
<tr>
<td>21 thru 24</td>
<td>N09 04.0 W079 23.2</td>
</tr>
<tr>
<td>25</td>
<td>N09 03.9 W079 23.2</td>
</tr>
<tr>
<td>25B</td>
<td>N09 04.0 W079 23.2</td>
</tr>
<tr>
<td>26 thru 31</td>
<td>N09 03.9 W079 23.2</td>
</tr>
<tr>
<td>32, 33</td>
<td>N09 03.9 W079 23.3</td>
</tr>
<tr>
<td><strong>REMOTE PARKING</strong></td>
<td></td>
</tr>
<tr>
<td>1 thru 3</td>
<td>N09 04.2 W079 23.1</td>
</tr>
</tbody>
</table>
1. **DME or RADAR required.**
2. **CAUTION:** High terrain to the North and West of airport.
3. **DME co-located with glide slope.**

**MISSP APCH:** Climb direct to 500', turn RIGHT to 130° heading climbing to 3100', then inbound via TBG VOR R-063.

- **Alt Set:** hPa
- **TDZ Elev:** 1 hPa
- **Trans level:** FL 180
- **Trans alt:** 18000'
MISSED APCH: Turn RIGHT direct to BOBUL and hold at 2000' or as directed by ATC.

1. Aircraft must be multi sensor equipped.
As soon as possible, turn RIGHT track 259° to EKUMO and hold at 4000' or as directed by ATC.

1. Aircraft must be multi sensor equipped.

NOT TO SCALE

Gnd speed-Kts 60 80 100 120 140 160
MAX 230 KIAS

Descent angle 3.0° 319 425 531 637 743 849

MAP at OSAVI

STRAIGHT-IN LANDING RWY 21R

CIRCLE-TO-LAND

CHANGES: Missed approach
BRIEFING STRIP

MISSED APCH: Turn RIGHT climbing to 3100' outbound on TUM VOR R-090, turn RIGHT inbound on TUM VOR R-112, return to TUM VOR and hold.

R-090, turn RIGHT inbound on TUM VOR R-112, return to TUM VOR and hold.

1. CAUTION: High terrain to the North and West of airport.

TRIM STRIP

STRAIGHT-IN LANDING RWY03L

CIRCUIT-TO-LAND

Not Authorized
Northwest of Rwy 03L-21R

CHANGES: ATIS frequency added, charted obstructions.
MISSED APCH: Turn RIGHT climbing to 3100’ outbound on TUM VOR R-090, turn RIGHT inbound on TUM VOR R-112, return to TUM VOR and hold.
MISSED APCH: Direct to TUM VOR climbing to 800', then outbound via TUM VOR R-161 to DIEGO climbing to 3000' and hold.

Alt Set: hPa
TDZ Elev: 1 hPa
Trans level: FL 180
Trans alt: 18000'
1. Max holding IAS - 210 kts.

Not Authorized Northwest of Rwy 03L-21R
Missed Apch: Climbing RIGHT turn to 3100' on 087° bearing from AT LMM, turn RIGHT and return to AT LMM on a 290° bearing and hold.

1. CAUTION: High terrain to the North and West of airport.

Misa at LMM

STRAIGHT-IN LANDING RWY 03R

CEILING REQUIRED

CIRCLE-TO-LAND

Not Authorized
Northwest of Rwy 03L-21R

Gnd speed-Kts  60  80  100  120  140  160
Rate of descent on final (feet/min)  600  750

MAP at LMM
MPTO/PTY
TOCUMEN INTL
23 FEB 07 (18-1)

<table>
<thead>
<tr>
<th>ATIS</th>
<th>PANAMA Approach (R)</th>
<th>TOCUMEN Tower</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>127.7</td>
<td>119.7</td>
<td>121.2</td>
<td>121.9</td>
</tr>
</tbody>
</table>

**Radar**

- **Final Apch Crs**: 030°
- **Minimum Alt**: 5.0 RADAR FIX 1600’ (1572’)
- **MDA(H)**: 460’ (432’)
- **Apt Elev**: 135’
- **TDZE**: 28’

**Missed Apch**: Right turn heading 055° climbing to 6000’ direct PANIL INT and hold.

Alt Set: hPa = 1 hPa
TDZ Elev: FL 180
Trans alt: 18000’

1. **Communications Failure**: If no communications are received during 1 minute on the pattern or 15 seconds on final approach, call TWR 118.1 and proceed VMC. If not possible make a regular approach (non-radar) as assigned by ATC. 2. **Holding PANIL INT**: Maximum IAS 210 kts.

**Straight-in landing**

- **MDA(H)**: 600’ (536’)
- **CEIL-VIS**: 600’ - 3200’

**Circuit-to-land**

Not Authorized Northwest of Rwy 03L-21R

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**NOTICE**: PRINTED FROM AN EXPIRED REVISION. Disc 03-2008

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CHANGES: ATIS frequency added, charted obstructions.

MPTO/PTY
TOCUMEN INTL
RADAR ASR Rwy 03L

PANAMA CITY, PANAMA

JeppView 3.5.2.0
JEPPESEN

BRIEFING STRIP

MISSED APCH: RIGHT turn heading 057° climbing to 6000’ direct PANIL INT and hold.

Alt Set: hPa
TDZ Elev: 3 hPa
Trans level: FL 180
Trans alt: 18000’

1. COMMUNICATIONS FAILURE: If no communications are received during 1 minute on the pattern or 15 seconds on final approach, call TWR 118.1 and proceed VMC. If not possible make a regular approach (non-radar) as assigned by ATC. 2. Holding PANIL INT: Maximum IAS 210 kts.

MINIMUM VISIBILITY:...

1.0 RADAR FIX
2.0 RADAR FIX
3.0 RADAR FIX
4.0 RADAR FIX
5.0 RADAR FIX

MISSED APCH FIX

PANIL

TOCUMEN

032° 1600’

Gnd speed-Kts
Rate of descent on final (feet/min)

Not Authorized Northwest of Rwy 03L-21R

CHANGES: ATIS frequency added, charted obstructions.