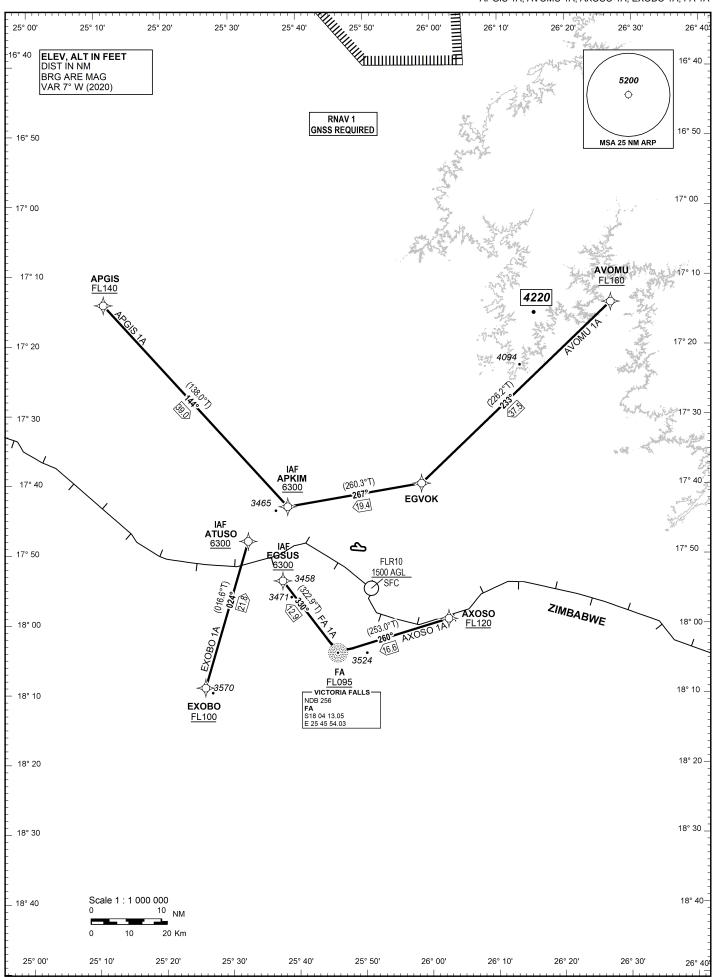
TRANSITION ALTITUDE 5000

# HARRY MWAANGA NKUMBULA INTL/Livingstone APP 124.300 TWR 118.100 (FLHN) RNAV STAR RWY 10

APGIS 1A, AVOMU 1A, AXOSO 1A, EXOBO 1A, FA 1A



### HARRY MWAANGA NKUMBULA INTL/Livingstone (FLHN) RNAV STAR RWY 10

APGIS 1A, AVOMU 1A, AXOSO 1A, EXOBO 1A, FA 1A

### **TABULAR DESCRIPTION**

### **RNAV STAR RWY 10**

APGIS 1A

| Seri<br>Num |    | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|-------------|----|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| 01          | 10 | IF                 | APGIS                  | -            | -             | -                         | -                           | -                 | +FL140           | -                   | -       | -              | RNAV 1                      |
| 02          | 20 | TF                 | APKIM                  | -            | 144 (138.0)   | -                         | 39.0                        | -                 | +6300            | -                   | -       | -              | RNAV 1                      |

### AVOMU 1A

| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| 010              | IF                 | AVOMU                  | -            | -             | -                         | -                           | -                 | +FL180           | -                   | -       | -              | RNAV 1                      |
| 020              | TF                 | EGVOK                  | -            | 233 (226.2)   | -                         | 37.5                        | -                 | -                | -                   | -       | -              | RNAV 1                      |
| 030              | TF                 | APKIM                  | -            | 267 (260.3)   | -                         | 19.4                        | -                 | +6300            | -                   | -       | -              | RNAV 1                      |

### AXOSO 1A

| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit (KT | )VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|-----------------|----------|----------------|-----------------------------|
| 010              | IF                 | AXOSO                  | -            | -             | -                         | =                           | -                 | +FL120           | -               | -        | -              | RNAV 1                      |
| 020              | TF                 | FA                     | -            | 260 (253.0)   | -                         | 16.6                        | -                 | +FL095           | -               | -        | -              | RNAV 1                      |
| 030              | TF                 | EGSUS                  | -            | 330 (322.9)   | -                         | 12.9                        | -                 | +6300            | -               | -        | -              | RNAV 1                      |

### EXOBO 1A

|   | Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|---|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| I | 010              | IF                 | EXOBO                  | -            | -             | -                         | -                           | -                 | +FL100           | -                   | -       |                | RNAV 1                      |
| I | 020              | TF                 | ATUSO                  | -            | 024 (016.6)   | -                         | 21.8                        | -                 | +6300            | -                   | -       |                | RNAV 1                      |

### FA 1A

|   | Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|---|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| l | 010              | IF                 | FA                     | -            | -             | -                         | -                           | -                 | +FL095           | -                   | -       | -              | RNAV 1                      |
| ı | 020              | TF                 | EGSUS                  | -            | 330 (322.9)   | -                         | 12.9                        | -                 | +6300            | _                   | -       | _              | RNAV 1                      |

### HARRY MWAANGA NKUMBULA INTL/Livingstone (FLHN) RNAV STAR RWY 10

APGIS 1A, AVOMU 1A, AXOSO 1A, EXOBO 1A, FA 1A

### WAYPOINT LIST RNAV STAR RWY 10

| WaypointIdentifier | Coor         | dinates       |
|--------------------|--------------|---------------|
| APGIS              | S 17 14 13.0 | E 025 11 11.6 |
| APKIM              | S 17 43 14.1 | E 025 38 31.5 |
| ATUSO              | S 17 48 09.8 | E 025 32 34.8 |
| AVOMU              | S 17 13 58.0 | E 026 26 53.0 |
| AXOSO              | S 17 59 22.1 | E 026 02 33.8 |
| EGSUS              | S 17 53 51.6 | E 025 37 43.5 |
| EGVOK              | S 17 39 57.9 | E 025 58 34.5 |
| EXOBO              | S 18 09 09.0 | E 025 26 02.7 |
| FA                 | S 18 04 13.1 | E 025 45 54.0 |

### **ROUTING**

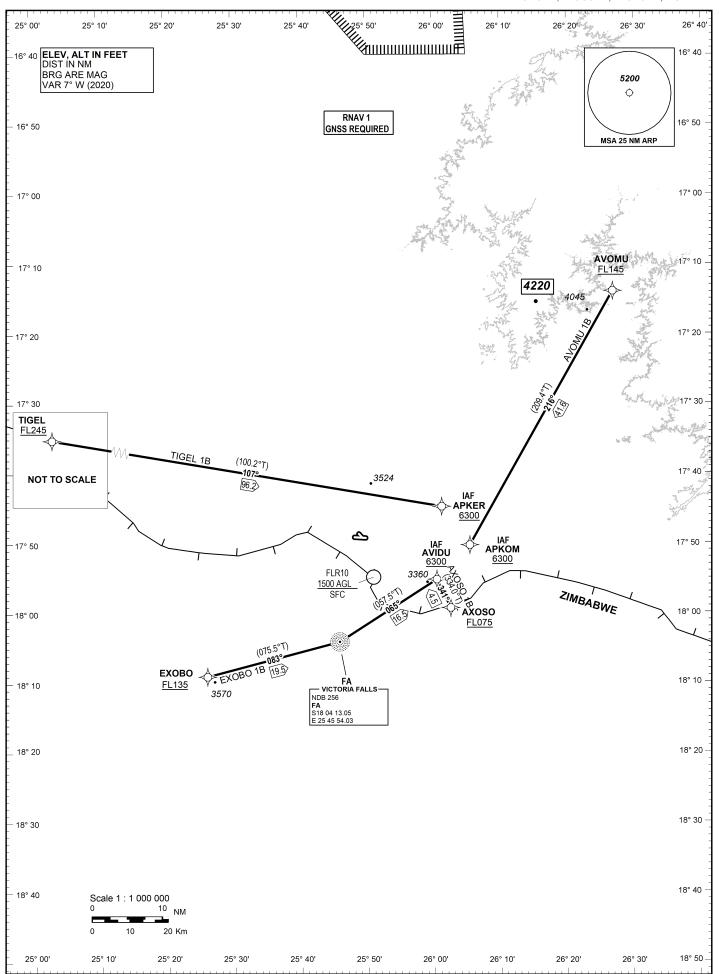
| NAME     | ТЕХТ   |
|----------|--|
| APGIS 1A | From APGIS track 144° to APKIM.  |
|          | MEL/MEA: APGIS AT or ABOVE FL140, APKIM AT or ABOVE 6300'.                       |
| AVOMU 1A | From AVOMU track 233° to EGVOK, track 267° to APKIM.                             |
|          | MEL/MEA: AVOMU AT or ABOVE FL180, APKIM AT or ABOVE 6300'.                       |
| AXOSO 1A | From AXOSO track 260° to FA, track 330° to EGSUS.                                |
|          | MEL/MEA: AXOSO AT or ABOVE FL120, FA AT or ABOVE FL095, EGSUS AT or ABOVE 6300'. |
| EXOBO 1A | From EXOBO track 024° to ATUSO.  |
|          | MEL/MEA: EXOBO AT or ABOVE FL100, ATUSO AT or ABOVE 6300'.                       |
| FA 1A    | From FA track 330° to EGSUS.   |
|          | MEL/MEA: FA AT or ABOVE FL095, EGSUS AT or ABOVE 6300'.                          |

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TRANSITION ALTITUDE 5000

# HARRY MWAANGA NKUMBULA INTL/Livingstone APP 124.300 TWR 118.100 RNAV STAR RWY 28

AVOMU 1B, AXOSO 1B, EXOBO 1B, TIGEL 1B



### HARRY MWAANGA NKUMBULA INTL/Livingstone (FLHN) RNAV STAR RWY 28

AVOMU 1B, AXOSO 1B, EXOBO 1B, TIGEL 1B

### **TABULAR DESCRIPTION**

### **RNAV STAR RWY 28**

AVOMU 1B

| Serial<br>Numbe | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|-----------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| 010             | IF                 | AVOMU                  | -            | -             | -                         | -                           | -                 | +FL145           | -                   | -       | -              | RNAV 1                      |
| 020             | TF                 | APKOM                  | -            | 216 (209.4)   | 1                         | 41.6                        | -                 | +6300            | -                   | -       | 1              | RNAV 1                      |

### AXOSO 1B

|   | Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|---|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| Ш | 010              | IF                 | AXOSO                  | -            | -             | -                         | -                           | -                 | +FL075           | -                   | -       | -              | RNAV 1                      |
| Ш | 020              | TF                 | AVIDU                  | -            | 341 (334.0)   | -                         | 4.5                         | -                 | +6300            | _                   | -       | -              | RNAV 1                      |

### EXOBO 1B

|   | Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|---|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| l | 010              | IF                 | EXOBO                  | -            | -             | -                         | -                           | -                 | +FL135           | -                   | -       | -              | RNAV 1                      |
| l | 020              | TF                 | FA                     | -            | 083 (075.5)   | -                         | 19.5                        | -                 | -                | -                   | -       | -              | RNAV 1                      |
| ı | 030              | TF                 | AVIDU                  | -            | 065 (057.5)   | -                         | 16.5                        | -                 | +6300            | -                   | -       | -              | RNAV 1                      |

### TIGEL 1B

|      | Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly-<br>over | Course M°(T°) | Magnetic<br>Variation (°) | Distance (NM) /<br>Duration | Turn<br>Direction | Altitude<br>(FT) | Speed Limit<br>(KT) | VPA (%) | Rec<br>Navaids | Navigation<br>Specification |
|------|------------------|--------------------|------------------------|--------------|---------------|---------------------------|-----------------------------|-------------------|------------------|---------------------|---------|----------------|-----------------------------|
| lſ   | 010              | IF                 | TIGEL                  | -            | -             | -                         | -                           | -                 | +FL245           | -                   | -       | -              | RNAV 1                      |
| $\ $ | 020              | TF                 | APKER                  | -            | 107 (100.2)   | -                         | 96.2                        | -                 | +6300            | -                   | -       | -              | RNAV 1                      |

### HARRY MWAANGA NKUMBULA INTL/Livingstone (FLHN) RNAV STAR RWY 28

AVOMU 1B, AXOSO 1B, EXOBO 1B, TIGEL 1B

### **WAYPOINT LIST** RNAV STAR RWY 28

| WaypointIdentifier | Coor         | rdinates      |
|--------------------|--------------|---------------|
| APKER              | S 17 44 50.7 | E 026 01 15.2 |
| APKOM              | S 17 50 22.7 | E 026 05 27.1 |
| AVIDU              | S 17 55 18.0 | E 026 00 29.5 |
| AVOMU              | S 17 13 58.0 | E 026 26 53.0 |
| AXOSO              | S 17 59 22.1 | E 026 02 33.8 |
| EXOBO              | S 18 09 09.0 | E 025 26 02.7 |
| FA                 | S 18 04 13.1 | E 025 45 54.0 |
| TIGEL              | S 17 28 12.0 | E 024 22 00.0 |

### **ROUTING**

| NAME     | TEXT   |
|----------|--|
| NAIVIE   | IEXI   |
| AVOMU 1B | From AVOMU track 216° to APKOM.                            |
|          | MEL/MEA: AVOMU AT or ABOVE FL145, APKOM AT or ABOVE 6300'. |
| AXOSO 1B | From AXOSO track 341° to AVIDU.                            |
|          | MEL/MEA: AXOSO AT or ABOVE FL075, AVIDU AT or ABOVE 6300'. |
| EXOBO 1B | From EXOBO track 083° to FA, track 065 to to AVIDU.        |
|          | MEL/MEA: EXOBO AT or ABOVE FL075, AVIDU AT or ABOVE 6300'. |
| TIGEL 1B | From TIGEL track 107° to APKER.                            |
|          | MEL/MEA: TIGEL AT or ABOVE FL245, APKER AT or ABOVE 6300'. |

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