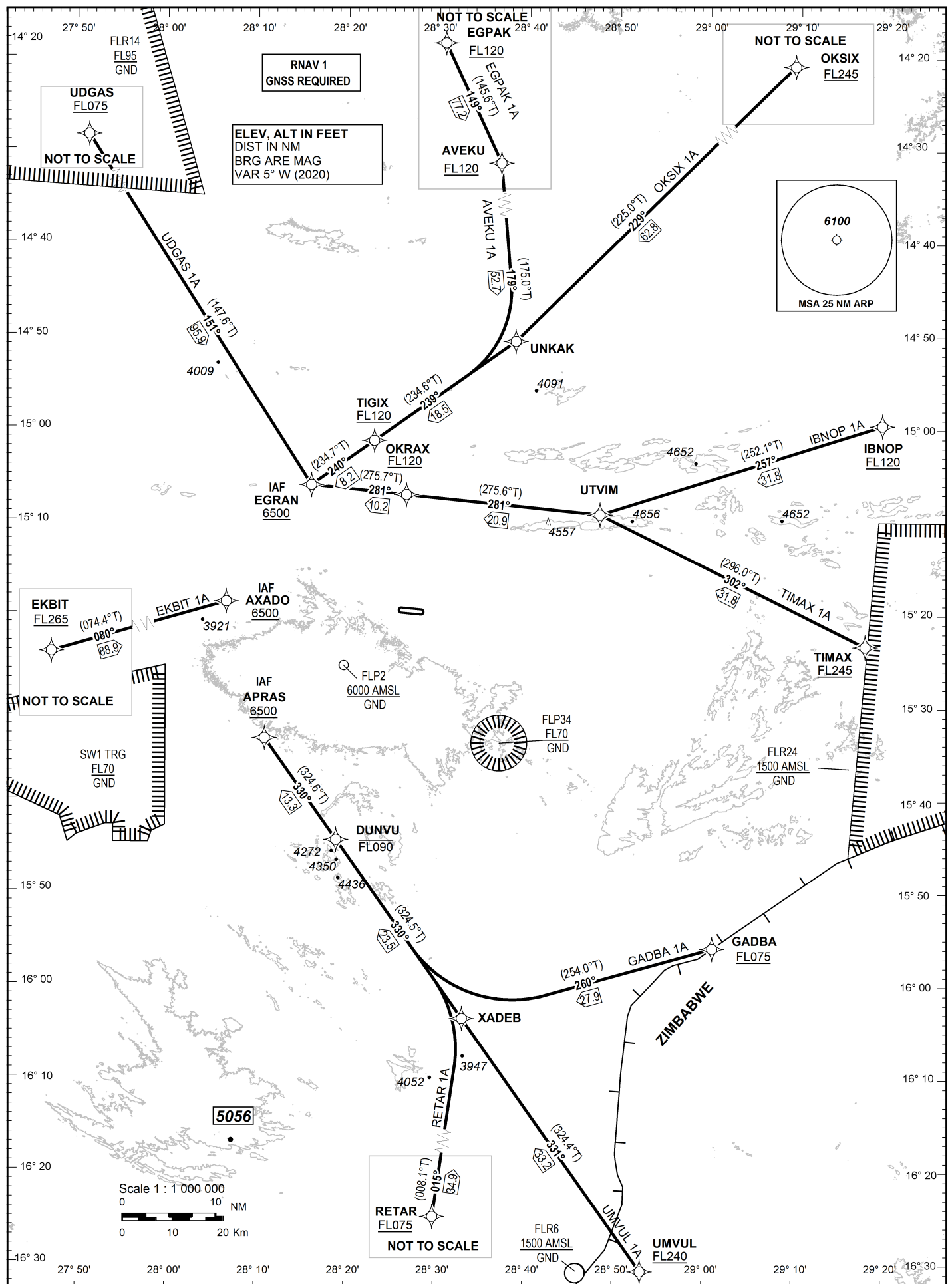


**KENNETH KAUNDA INTL/Lusaka  
(FLKK)  
RNAV STAR RWY 10**

|     |         |
|-----|---------|
| APP | 121.300 |
|     | 120.100 |
| TWR | 118.100 |

AVEKU 1A, EGPAK 1A, EKBIT 1A, GADBA 1A, IBNOP 1A, OKSIX 1A, RETAR 1A, TIMAX 1A, UDGAS 1A, UMVUL 1A



STANDARD ARRIVAL CHART -  
INSTRUMENT (STAR) - ICAO

KENNETH KAUNDA INTL/Lusaka  
(FLKK)  
RNAV STAR RWY 10

AVEKU 1A, EGPAK 1A, EKBIT 1A, GADBA 1A, IBNOP 1A, OKSIX 1A, RETAR 1A, TIMAX 1A, UDGAS 1A, UMVUL 1A

TABULAR DESCRIPTION

RNAV STAR RWY 10  
AVEKU 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | AVEKU               | -        | -             | -                      | -                        | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | UNKAK               | -        | 179 (175.0)   | -                      | 52.7                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | TIGIX               | -        | 239 (234.6)   | -                      | 18.5                     | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | EGRAN               | -        | 240 (234.7)   | -                      | 8.2                      | -              | +6500         | -                | -       | -           | RNAV 1                   |

EGPAK 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 10            | IF              | EGPAK               | -        | -             | -                      | -                        | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 20            | TF              | AVEKU               | -        | 149 (145.6)   | -                      | 77.2                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 30            | TF              | UNKAK               | -        | 179 (175.0)   | -                      | 51.9                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 40            | TF              | TIGIX               | -        | 239 (234.6)   | -                      | 18.0                     | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 50            | TF              | EGRAN               | -        | 240 (234.7)   | -                      | 8.2                      | -              | +6500         | -                | -       | -           | RNAV 1                   |

EKBIT 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | EKBIT               | -        | -             | -                      | -                        | -              | +FL265        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | AXADO               | -        | 080 (074.4)   | -                      | 88.9                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

GADBA 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | GADBA               | -        | -             | -                      | -                        | -              | +FL075        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | XADEB               | -        | 260 (254.0)   | -                      | 27.9                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | DUNVU               | -        | 330 (324.5)   | -                      | 23.5                     | -              | -FL090        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | APRAS               | -        | 330 (324.6)   | -                      | 13.3                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

IBNOP 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | IBNOP               | -        | -             | -                      | -                        | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | UTVIM               | -        | 257 (252.1)   | -                      | 31.8                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | OKRAX               | -        | 281 (275.6)   | -                      | 20.9                     | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | EGRAN               | -        | 281 (275.7)   | -                      | 10.2                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

OKSIX 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | OKSIX               | -        | -             | -                      | -                        | -              | +FL245        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | UNKAK               | -        | 229 (225.0)   | -                      | 62.8                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | TIGIX               | -        | 239 (234.6)   | -                      | 18.5                     | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | EGRAN               | -        | 240 (234.7)   | -                      | 8.2                      | -              | +6500         | -                | -       | -           | RNAV 1                   |

RETAR 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | RETAR               | -        | -             | -                      | -                        | -              | +FL075        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | XADEB               | -        | 015 (008.1)   | -                      | 34.9                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | DUNVU               | -        | 330 (324.5)   | -                      | 23.2                     | -              | -FL090        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | APRAS               | -        | 330 (324.6)   | -                      | 13.3                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

TIMAX 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | TIMAX               | -        | -             | -                      | -                        | -              | +FL245        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | UTVIM               | -        | 302 (296.0)   | -                      | 31.8                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | OKRAX               | -        | 281 (275.6)   | -                      | 20.9                     | -              | +FL120        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | EGRAN               | -        | 281 (275.7)   | -                      | 10.2                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

UDGAS 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | UDGAS               | -        | -             | -                      | -                        | -              | +FL075        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | EGRAN               | -        | 151 (147.6)   | -                      | 95.9                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

UMVUL 1A

| Serial Number | Path Descriptor | Waypoint Identifier | Fly-over | Course M°(T°) | Magnetic Variation (°) | Distance (NM) / Duration | Turn Direction | Altitude (FT) | Speed Limit (KT) | VPA (%) | Rec Navaids | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|------------------------|--------------------------|----------------|---------------|------------------|---------|-------------|--------------------------|
| 010           | IF              | UMVUL               | -        | -             | -                      | -                        | -              | +FL240        | -                | -       | -           | RNAV 1                   |
| 020           | TF              | XADEB               | -        | 331 (324.4)   | -                      | 33.2                     | -              | -             | -                | -       | -           | RNAV 1                   |
| 030           | TF              | DUNVU               | -        | 330 (324.5)   | -                      | 23.5                     | -              | -FL090        | -                | -       | -           | RNAV 1                   |
| 040           | TF              | APRAS               | -        | 330 (324.6)   | -                      | 13.3                     | -              | +6500         | -                | -       | -           | RNAV 1                   |

STANDARD ARRIVAL CHART -  
INSTRUMENT (STAR) - ICAO

KENNETH KAUNDA INTL/Lusaka  
(FLKK)  
RNAV STAR RWY 10

AVEKU 1A, EGPAK 1A, EKBIT 1A, GADBA 1A, IBNOP 1A, OKSIX 1A, RETAR 1A, TIMAX 1A, UDGAS 1A, UMVUL 1A

WAYPOINT LIST  
RNAV STAR RWY 10

| WaypointIdentifier | Coordinates  |               | WaypointIdentifier | Coordinates  |               |
|--------------------|--------------|---------------|--------------------|--------------|---------------|
| UMVUL              | S 16 30 52.0 | E 028 53 08.0 | UNKAK              | S 14 50 42.0 | E 028 38 35.9 |
| APRAS              | S 15 33 33.8 | E 028 10 55.0 | UTVIM              | S 15 09 20.8 | E 028 48 03.0 |
| AVEKU              | S 13 58 00.0 | E 028 33 54.0 | TIGIX              | S 15 01 28.3 | E 028 22 58.4 |
| AXADO              | S 15 18 50.6 | E 028 06 36.8 | OKSIX              | S 14 06 12.0 | E 029 24 30.0 |
| DUNVU              | S 14 44 29.1 | E 028 18 55.4 | RETAR              | S 16 37 46.8 | E 028 28 18.0 |
| EGPAK              | S 12 54 06.0 | E 027 49 06.0 | TIMAX              | S 15 23 24.0 | E 029 17 36.0 |
| EGRAN              | S 15 06 15.1 | E 028 16 01.4 | UDGAS              | S 13 44 59.6 | E 027 22 58.5 |
| EKBIT              | S 15 43 05.0 | E 026 37 59.0 |                    |              |               |
| GADBA              | S 15 56 03.2 | E 029 00 53.2 |                    |              |               |
| IBNOP              | S 14 59 36.0 | E 029 19 18.0 |                    |              |               |
| XADEB              | S 16 03 42.8 | E 028 33 03.9 |                    |              |               |
| OKRAK              | S 15 07 16.7 | E 028 26 33.9 |                    |              |               |
|                    |              |               |                    |              |               |

ROUTING

| NAME     | TEXT  |
|----------|---|
| AVEKU 1A | From AVEKU track 179° to UNKAK, track 239° to TIGIX, track 240° to EGRAN.<br>MEL/MEA: AVEKU AT or ABOVE FL120, TIGIX AT or ABOVE FL120, EGRAN AT or ABOVE UNKAK 6500'.                |
| EGPAK 1A | From EGPAK track 149° to AVEKU, track 179° to UNKAK, track 239° to TIGIX, track 240° to EGRAN.<br>MEL/MEA: EGPAK AT or ABOVE FL120, TIGIX AT or ABOVE FL120, EGRAN AT or ABOVE 6500'. |
| EKBIT 1A | From EKBIT track 080° to AXADO.<br>MEL/MEA: EKBIT AT or ABOVE FL265, AXADO AT or ABOVE 6500'.   |
| GADBA 1A | From GADBA track 260° to XADEB, track 330° to DUNVU, track 330° to APRAS.<br>MEL/MEA: GADBA AT or ABOVE FL075, DUNVU AT or BELOW FL090, APRAS AT or ABOVE 6500'.                      |
| IBNOP 1A | From IBNOP track 257° to UTVIM, track 281° to OKRAX, track 281° to EGRAN.<br>MEL/MEA: IBNOP AT or ABOVE FL120, OKRAX AT or ABOVE FL120, EGRAN AT or ABOVE 6500'.                      |
| OKSIX 1A | From OKSIX track 229° to UNKAK, track 239° to TIGIX, track 240° to EGRAN.<br>MEL/MEA: OKSIX AT or ABOVE FL245, TIGIX AT or ABOVE FL120, EGRAN AT or ABOVE 6500'.                      |
| RETAR 1A | From RETAR track 015° to XADEB, track 330° to DUNVU, track 330° to APRAS.<br>MEL/MEA: RETAR AT or ABOVE FL075, DUNVU AT or BELOW FL090, APRAS AT or ABOVE 6500'.                      |
| TIMAX 1A | From TIMAX track 302° to UTVIM, track 281° to OKRAX, track 281° to EGRAN.<br>MEL/MEA: TIMAX AT or ABOVE FL245, OKRAX AT or ABOVE FL120, EGRAN AT or ABOVE 6500'.                      |
| UDGAS 1A | From UDGAS track 151° to EGRAN.<br>MEL/MEA: UDGAS AT or ABOVE FL075, EGRAN AT or ABOVE 6500'.   |
| UMVUL 1A | From UMVUL track 331° to XADEB, track 330° to DUNVU, track 330° to APRAS.<br>MEL/MEA: UMVUL AT or ABOVE FL240, DUNVU AT or BELOW FL090, APRAS AT or ABOVE 6500'.                      |