FAJS

Airport information:

Country: South Africa
City: JOHANNESBURG
Coordinates: S 26 08.0, E028 14.6
Elevation: 5558
Customs: Customs: H24
Fuel: 100, Jet A1
RFF: CAT 9
hours: H24

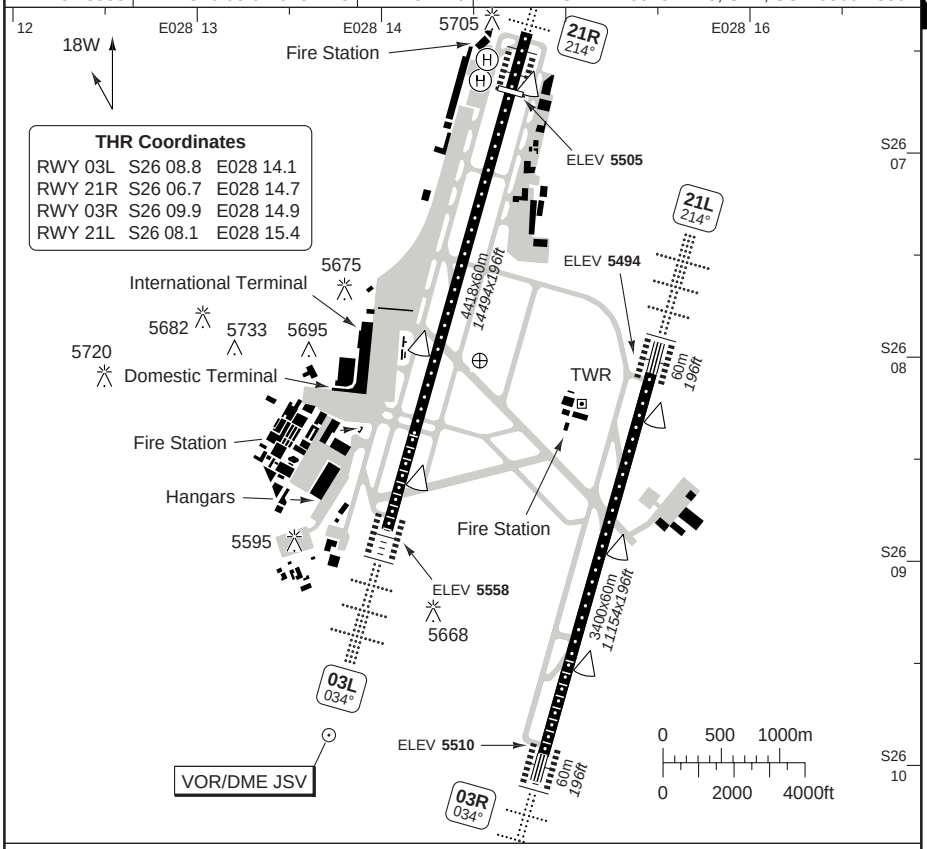
Runways:

AERODROME

O R Tambo INTL JOHANNESBURG

O R Tambo GND	APN DEP	CLR	TWR	ATIS
121.9	**123.05**	**121.7**	**118.1** West **118.6** East	**126.2** **131.725 (D)**
		121.9	**121.9**	**115.2**

AD Elev **5558** | ARP: S26 08.0 E028 14.5 | RFF: CAT 9 | AD HR: MON-FRI 0515-1715, SAT, SUN 0500-1830



RWY	Slope	TORA m/*ft*	LDA m/*ft*	ALS	REDL	RCLL	Additional
03L	- 0.4	4418 / *14494*	4418 / *14494*	H-A	H	30m ❶	P 3° L/R
21R	+0.4	4418 / *14494*	3968 / *13018*	H-A	H	-	P 3° L/R
03R	- 0.1	3400 / *11154*	3400 / *11154*	H-A	H	30m ❶	P 3° L/R
21L	+0.1	3400 / *11154*	3400 / *11154*	H-A	H	30m ❶	P 3° L/R

❶ CLL only avbl on CAT-2 OPS.

EU OPS **TAKE OFF MINIMA**

RWY	Facilities		RVR A B C	RVR D
03L, 03R/21L	RCLL + REDL + Multiple RVR	LVTO	150 m	200 m
	RCLL + REDL	LVTO	200 m	250 m
All	RCL (day only) or RCL + REDL	LVTO	250 m	300 m
	RCL (day only) or RCL + REDL		400 m	400 m
	NIL (day only)		500 m	500 m

Change: ICAO code

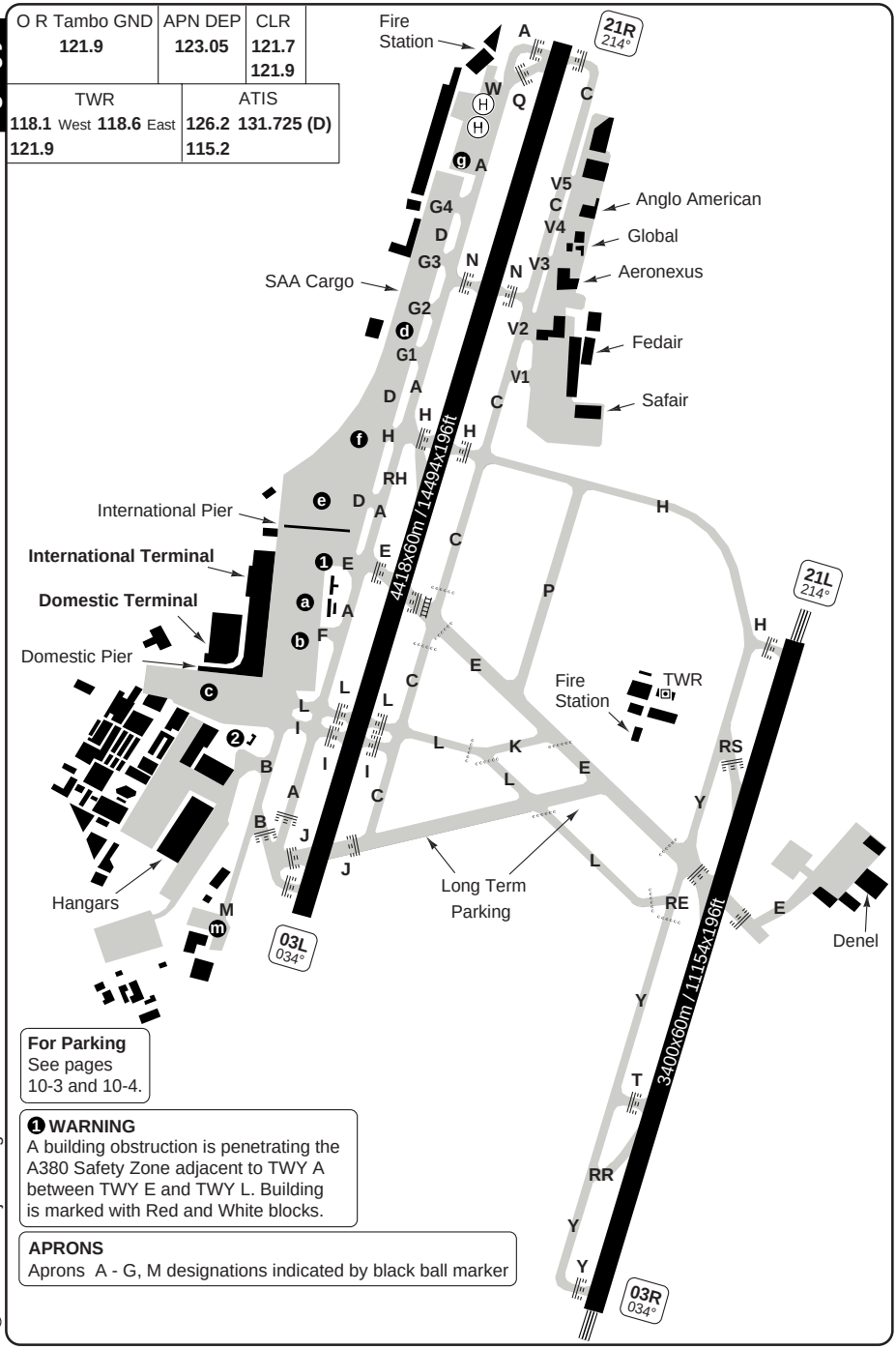
AERODROME Overview

O R Tambo INTL **JOHANNESBURG**

10 - 2

O R Tambo GND	APN DEP	CLR
121.9	123.05	121.7 121.9

TWR	ATIS
118.1 West 118.6 East 121.9	126.2 131.725 (D) 115.2



For Parking
See pages 10-3 and 10-4.

❶ WARNING
A building obstruction is penetrating the A380 Safety Zone adjacent to TWY A between TWY E and TWY L. Building is marked with Red and White blocks.

APRONS
Aprons A - G, M designations indicated by black ball marker

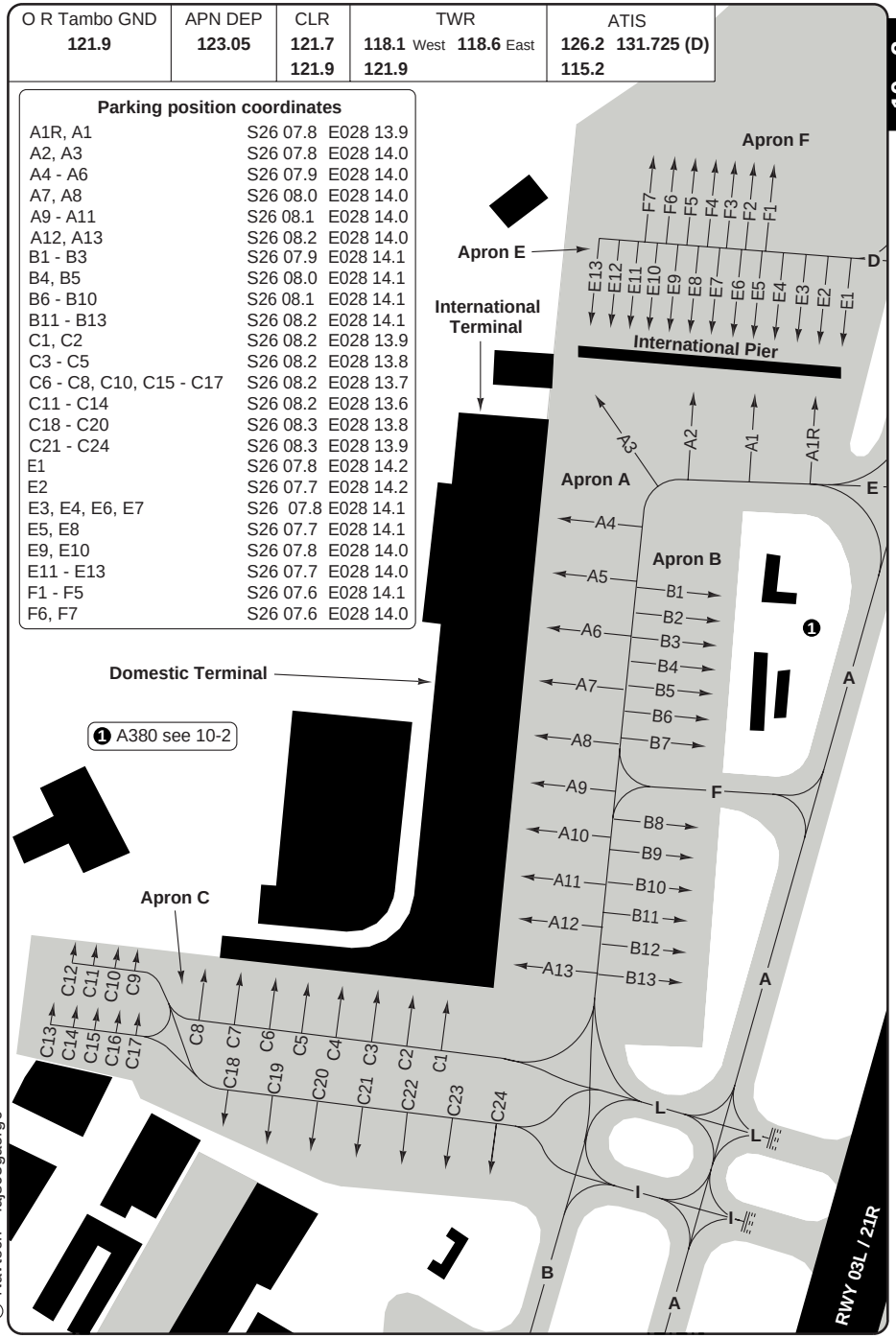
Change: ICAO code

GROUND Passenger Terminal — O R Tambo INTL JOHANNESBURG

O R Tambo GND	APN DEP	CLR	TWR	ATIS
121.9	**123.05**	**121.7**	**118.1** West **118.6** East	**126.2** **131.725 (D)**
		121.9	**121.9**	**115.2**

Parking position coordinates

A1R, A1	S26 07.8	E028 13.9
A2, A3	S26 07.8	E028 14.0
A4 - A6	S26 07.9	E028 14.0
A7, A8	S26 08.0	E028 14.0
A9 - A11	S26 08.1	E028 14.0
A12, A13	S26 08.2	E028 14.0
B1 - B3	S26 07.9	E028 14.1
B4, B5	S26 08.0	E028 14.1
B6 - B10	S26 08.1	E028 14.1
B11 - B13	S26 08.2	E028 14.1
C1, C2	S26 08.2	E028 13.9
C3 - C5	S26 08.2	E028 13.8
C6 - C8, C10, C15 - C17	S26 08.2	E028 13.7
C11 - C14	S26 08.2	E028 13.6
C18 - C20	S26 08.3	E028 13.8
C21 - C24	S26 08.3	E028 13.9
E1	S26 07.8	E028 14.2
E2	S26 07.7	E028 14.2
E3, E4, E6, E7	S26 07.8	E028 14.1
E5, E8	S26 07.7	E028 14.1
E9, E10	S26 07.8	E028 14.0
E11 - E13	S26 07.7	E028 14.0
F1 - F5	S26 07.6	E028 14.1
F6, F7	S26 07.6	E028 14.0



Change: ICAO code

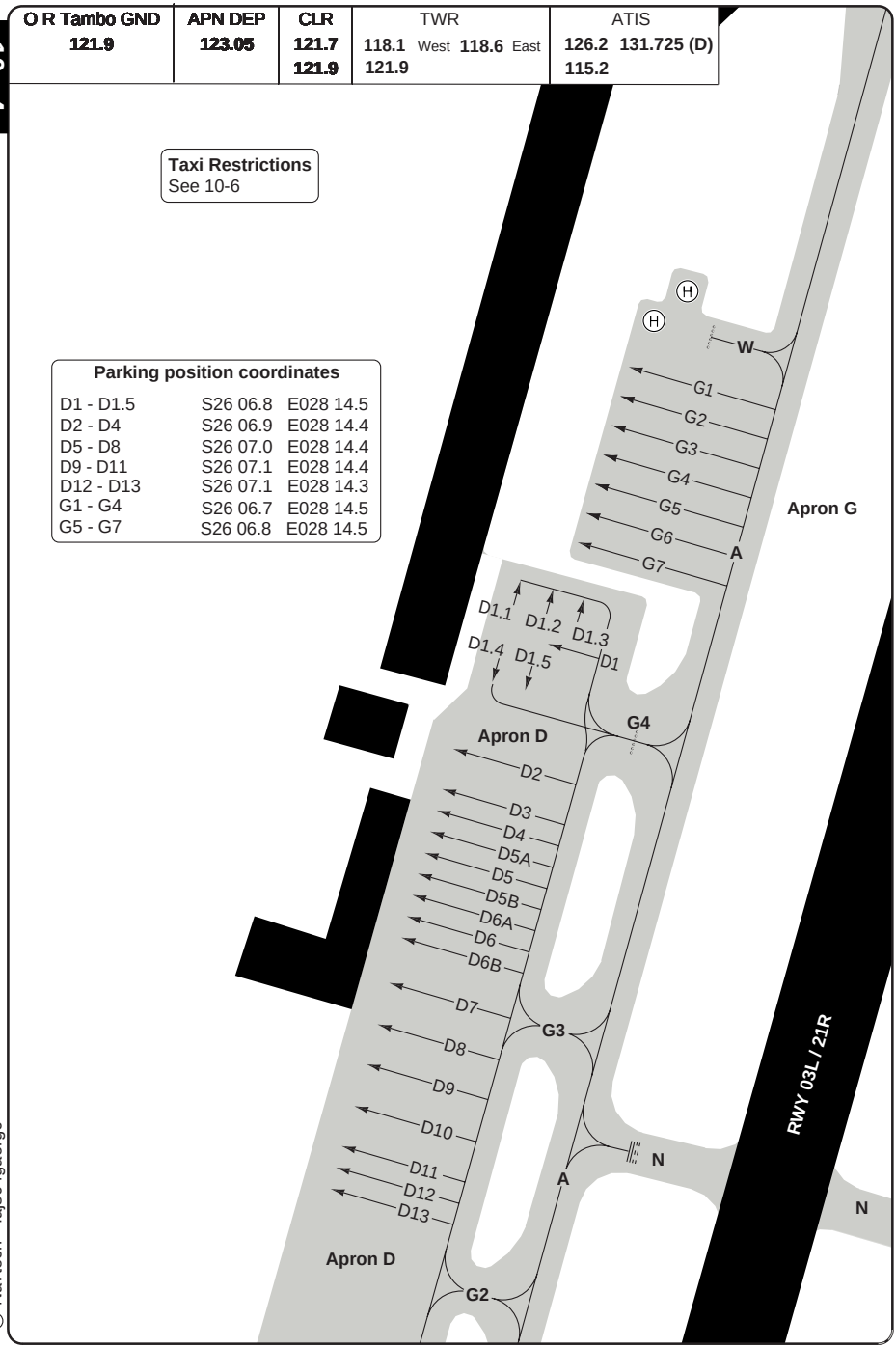
GROUND Parking Apron G/D — O R Tambo INTL JOHANNESBURG

O R Tambo GND	APN DEP	CLR	TWR	ATIS
121.9	123.05	121.7 121.9	118.1 West 118.6 East 121.9	126.2 131.725 (D) 115.2

Taxi Restrictions
See 10-6

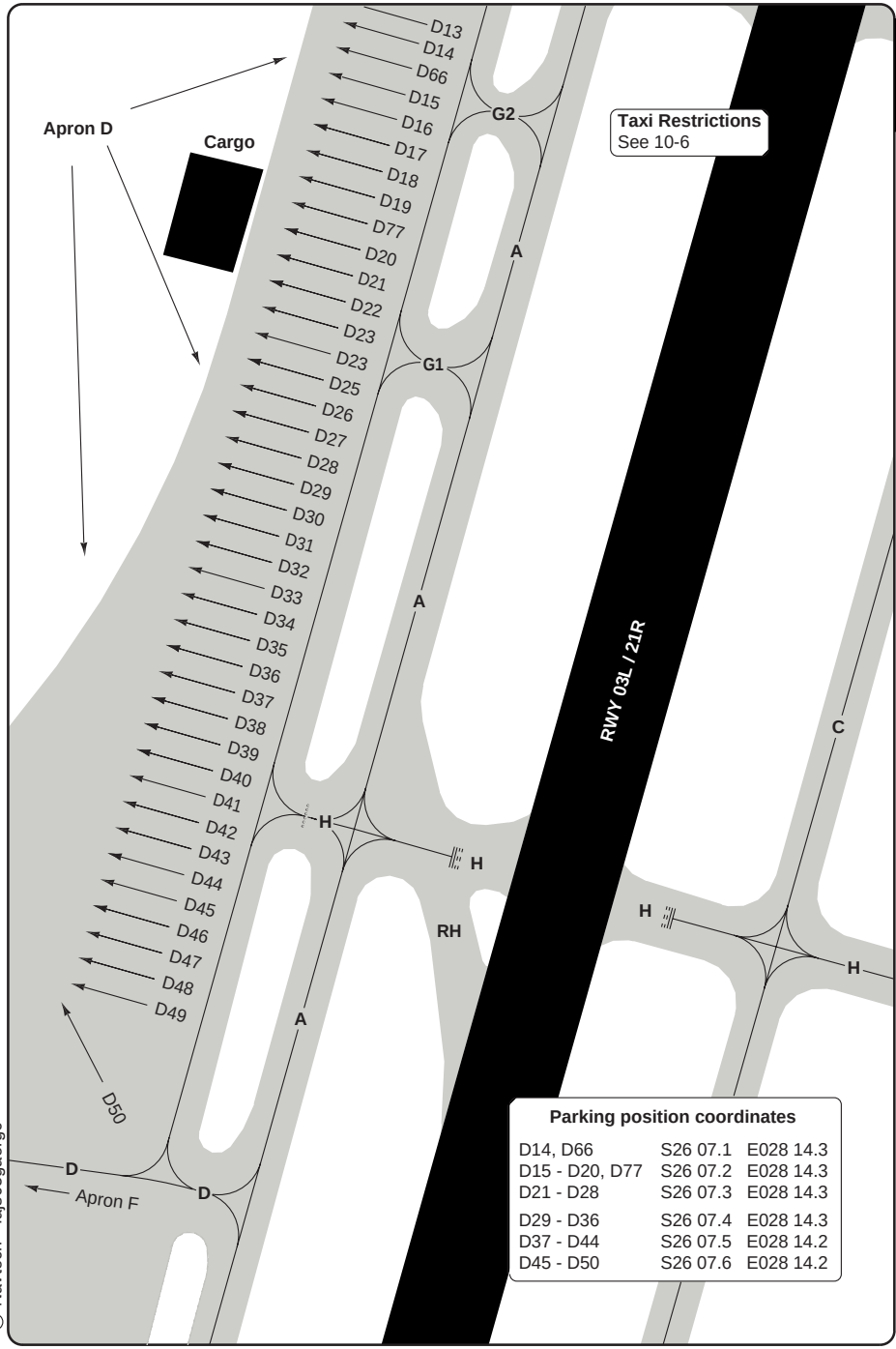
Parking position coordinates

D1 - D1.5	S26 06.8	E028 14.5
D2 - D4	S26 06.9	E028 14.4
D5 - D8	S26 07.0	E028 14.4
D9 - D11	S26 07.1	E028 14.4
D12 - D13	S26 07.1	E028 14.3
G1 - G4	S26 06.7	E028 14.5
G5 - G7	S26 06.8	E028 14.5



Change: ICAO code

GROUND Parking Apron D — O R Tambo INTL JOHANNESBURG



Parking position coordinates

D14, D66	S26 07.1	E028 14.3
D15 - D20, D77	S26 07.2	E028 14.3
D21 - D28	S26 07.3	E028 14.3
D29 - D36	S26 07.4	E028 14.3
D37 - D44	S26 07.5	E028 14.2
D45 - D50	S26 07.6	E028 14.2

Change: ICAO code

GENERAL

1. WARNING

1.1 Bird hazard.

1.2 Dog and trainer will be present on apron for wildlife control.

1.3 Standing water occurs on the RWY after heavy rain.

2. PREFERENTIAL RWY SYSTEM

2.1 RWY 03L/21R is for departures.

2.2 RWY 03R/21L is for arrivals.

3. SIMULTANEOUS USE OF PARALLEL RWY'S

Aircraft will be informed on ATIS when both RWY's are in use.

4. COMMUNICATION

4.1 Pilots landing at OR Tambo airport are to contact Apron Control on 122.65 (callsign "Alpha Charlie") for parking bay allocation prior to top of descent with ACFT reg, ETA, POB and last airport departed.
Parking bay information and ACFT reg is to be transmitted to TWR on 118.6/118.1 on vacation of Rwy,

4.2 Pilots departing OR Tambo Airport are to contact Apron Control on 122.65 (callsign "Alpha Charlie") prior to requesting pushback and pass ACFT, reg, ETD, POB and first destination airport.

4.3 ACFT registration, parking bay and flight level requested needs to be passed to FAJS CLR delivery on 121.7 when requesting ATC clearance.

5. SPEED

MAX 250kt below FL100.

6. CIRCUITS

RWY 03L/21L Left-hand.
RWY 03R/21R Right-hand.
Circuit Altitude 7000.

7. ARRIVALS

7.1 Arriving ACFT to expect clearance for ILS Z unless otherwise directed by ATC.

7.2 Circle to land at the discretion of PIC.

8. NOISE ABATEMENT PROCEDURE

Engine run-ups and Jet aircraft intersection departures are prohibited between 2000-0400.

9. WINDSHEAR

In strong NW wind conditions severe windshear can be expected below 300 GND on approach to RWY 03L/R.

10. TRAFFIC NOTES

Turbulence can be experienced to 500 GND at unspecified times due to steel works 5nm SE of aerodrome.

11. CLOSURE OF RWY'S

RWY 03L/21R closed:
TUE 2130-WED 0330 and
SUN BTN 0400-0545.
RWY 03R/21L closed:
MON 2130-TUE 0330 and
SAT BTN 0400-0545.
RWY's are available in case of emergency or weight restricted aircraft with 20mins prior notice.

12. TAXI

12.1 Max speed 10kt on TWY and apron when low visibility procedures are in force.

12.2 Exercise caution when taxiing on TWY B due to confusion with apron M. Also to exercise caution when taxiing for RWY 21R on TWY A as the centreline for TWY A6 is displaced to the West.

12.3 Rapid exit TWY E on RWY 03R at Echo Intersection. Lead in lights and signage will indicate the beginning of the rapid exit TWY.

12.4 Instructions to cross RWY's shall be issued by Surface Movement Control. It is important to acknowledge runway crossing instructions.

12.5 TWY D can be used by aircraft with a wingspan equal to or less than that of B744.

12.6 Due to wingtip clearance restrictions, no Code 'E' ACFT allowed on Apron D taxilane when A380 taxiing on Northern portion of TWY A, abeam stands D2-D51.

12.7 No ACFT with wingspan of 52m or greater are to taxi on APN D taxilane when ACFT with a wingspan of 65m or greater are taxiing on northern portion of TWY A past APN D from stands D2 to D50.

13. APRON

13.1 Apron C for aircraft class 'C'.

13.2 For apron A, B and D, aircraft heavier than 12T will be parked nose in.

14. SLOT TIME ALLOCATION SYSTEM

14.1 Slot allocation is negotiated on behalf of the airline by an IATA slot coordinator.

14.2 Excluding VFR flights, the slot time allocation system will be in use 24 hours a day, 7 days a week including public holidays for ARR and DEP ACFT.

14.3 The clock hour is divided into six ten minute slots, with a maximum number of ACFT departing and arriving in that period.

14.4 ATC will depart aircraft in the same slot sector in sequence which will ensure minimum overall delay, having regard for the performance of the aircraft and the routing of the departing aircraft. A missed slot is one where the aircraft fails to arrive at or depart from the terminal within the allocated slot time.

14.5 DEP ACFT must be ready for start-up and pushback in accordance with the allocated airport slot.

1. RWY 03L/R

1.1 **APDAK 1B (RNAV)/3A:**
Comply with SID, climbing to FL90 or last cleared level, whichever is higher. At APDAK continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to the last assigned level or MSA, whichever is higher. At APDAK proceed to STV and comply with appropriate STAR communication failure.

1.2 **EGMEN 1C (RNAV)/2A:**
Comply with SID, climbing to FL90 or last cleared level, whichever is higher. At EGMEN continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to the last assigned level or MSA, whichever is higher. At EGMEN proceed to OKPIT and comply with OKPIT 4A STAR communication failure.

1.3 **EXOBI 1A:**
Comply with SID, climbing to FL90 or last cleared level, whichever is higher. At EXOBI continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At EXOBI proceed to WIV and comply with WIV 4A STAR communication failure.

1.4 **GRASMERE 5B:**
Comply with SID, climbing to 8700 or last cleared level, whichever is higher. At GAV continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At GAV proceed to NIBEX and comply with NIBEX 2A STAR communication failure.

1.5 **NESAN 1A:**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At NESAN continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At NESAN proceed to OKPIT and comply with OKPIT 4A STAR communication failure.

1.6 **NORVA 2A:**
Comply with SID, climbing to FL90 or last cleared level, whichever is higher. At MEV continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At MEV proceed to OKPIT and comply with OKPIT 4A STAR communication failure.

1.7 **OVALA 1A:**
Comply with SID, climbing to FL90 or last cleared level, whichever is higher. At OVALA continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At OVALA proceed to STV and comply with STV 6A STAR communication failure.

1.8 **RAGUL 3A:**
Comply with SID, climbing to 8700 or last cleared level, whichever is higher. At RAGUL continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At RAGUL proceed to NIBEX and comply with NIBEX 2A STAR communication failure.

1.9 **VASUR 3A:**
Comply with SID, climbing to 8700 or last cleared level, whichever is higher. At VASUR continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At VASUR proceed to AVAGO and comply with AVAGO 2A STAR communication failure.

2. RWY 21L/R

2.1 **APDAK 2B/1D (RNAV):**
Comply with SID, climbing to 8300 (8400 for 1D) or last cleared level, whichever is higher. At APDAK continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At APDAK proceed to STV and comply with STV 5B STAR communication failure.

2.2 **EGMEN 1D (RNAV)/2B:**
Comply with SID, climbing to 8400 (8300 for 2B) or last assigned level, whichever is highest. At EGMEN continue as per flight plan.

Aircraft wishing to return must continue to the SID termination point and climb to the last assigned level or MSA, whichever is higher. At EGMEN proceed to OKPIT and comply with the OKPIT 4B STAR communication failure.

2.3 **EXOBI 3B:**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At EXOBI continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At EXOBI proceed to WIV and comply with WIV 3C STAR communication failure.

2.4 **GEROX 1C**:
Comply with SID, climbing to 8400 or last cleared level, whichever is higher. At GEROX set course as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At GEROX proceed to STV and enter STV hold descending to FL240, or if below FL240, hold at last assigned level for minimum 5nm. Comply with the STV 5B STAR communication failure.

2.5 **GRASMERE 6C: (21R only)**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At GAV set course for next fix outside D60 JSV and continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At GAV proceed to NIBEX and comply with NIBEX 2C STAR communication failure.

2.6 **HEIDELBERG 5D:**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At HGV continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At HGV proceed to STV and comply with STV 5B STAR communication failure.

2.7 **LANSERIA 1C: (21R only)**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At VASUR continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At VASUR proceed to AVAGO and comply with AVOGO 2B STAR communication failure.

2.8 **OVALA 1B:**
Comply with SID, climbing to 8300 or last cleared level, whichever is higher. At OVALA continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At OVALA proceed to STV and comply with STV 5B STAR communication failure.

2.9 **RAGUL 3B:**
Comply with SID, climbing to FL100 or last cleared level, whichever is higher. Cross D12 JSV at FL90 or above if cleared. Cross D18 JSV at FL100 or above if cleared. At RAGUL continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At RAGUL proceed to NIBEX and comply with NIBEX 2C STAR communication failure.

2.10 **VASUR 3B:**
Comply with SID, climbing to 8700 or last cleared level, whichever is higher. At VASUR continue as per flight plan.

Aircraft wishing to return must continue to SID termination point and climb to last assigned level or MSA, whichever is higher. At VASUR proceed to AVAGO and comply with AVAGO 2B STAR communication failure.

1. NOTE FOR COMMS FAIL STAR RWY03

1.1 Hold patterns below FL110 will be conducted partially outside controlled airspace.

1.2 Aircraft entering TMA at FL110 and below are to hold at last assigned level, and continue on the routeing for the designated STAR.

1.3 In the event of a missed approach with the intention of diverting to an alternate aerodrome proceed as follows:

a. Diverting to the north and northwest: VASUR 3A.
b. Diverting to the east and northeast: EGMEN 2A (Jet) or EXOBI 1A (Prop).
c. Diverting to the Southeast: APDAK 3A.
d. Diverting to the West and Southwest: RAGUL 3A.

1.4 **AVAGO 1C:**
Before AVAGO: Proceed to AVAGO and enter hold. Hold at last assigned level for minimum of 5min, then descend to FL130 in hold, or maintain last assigned level if lower. Leave AVAGO on the 'After AVAGO' communication failure procedure.

After AVAGO: Continue routeing for STAR. At JS035 descend to FL090, at JS037 descend to 8000. At JS037 proceed to VEKOP. Complete an RNAV (GNSS) RWY 03R approach to land.

1.5 **AVAGO 2A**:
Before AVAGO: Proceed via AVAGO and hold at the last assigned level for minimum of 5min, then descend to FL130 in the hold, or maintain last assigned level if lower. Leave AVAGO on the 'After AVAGO' communication failure procedure.

After AVAGO: Continue routeing for STAR. Passing D10 JSV descend to FL090. Passing D35 WKV on R218 turn left 121° and descent to 8000. Crossing R221 JSV turn left 061° to intercept the LOC RWY 03R. Complete a straight-in ILS approach.

1.6 **AVILO 1A:**
Before AVILO: Proceed to STV and enter the STV hold descending to FL240, or if lower, maintain last assigned level and hold for minimum 5min. Leave STV on the 'After STV' communication failure procedure.

After AVILO: Leave AVILO on 350°/R170 JSV and descend to FL130. At R170/ D29 JSV turn left to intercept R310 STV and descend to FL110. On crossing R030 HGV descend to 8000. Crossing R197 JSV turn right 350° to intercept ILS LOC RWY 03R. Complete a straight-in ILS 03R approach.

1.7 **AVILO 1B:**
Before AVILO:
Proceed to STV and enter the STV hold descending to FL240, or if lower, maintain last assigned level and hold for minimum 5min. Leave STV on the "After STV" communication failure procedure.

After AVILO
Continue on the AVILO 1B RNAV (GNSS) STAR. At ETLIG continue on the RNAV (GNSS) RWY 03R approach to JS2F1 and intercept the ILS LOC RWY 03R to land.

1.8 I**BKUS 1A:**
Before IBKUS: Proceed to STV and enter the STV hold descending to FL240, or if lower, maintain last assigned level and hold for minimum 5min. Leave STV on the 'After STV' communication failure procedure.

After IBKUS: Leave IBKUS on 340°/ R160 JSV and descend to FL130. At D37 JSV turn left to intercept R310 STV and descend to FL110. Crossing R030 HGV descend to 8000. Crossing R197 JSV turn right onto 350° to intercept ILS LOC RWY 03R. Complete a straight-in ILS approach.

1.9 **IBKUS 1B:**
Before IBKUS: Proceed to STV and enter the STV hold descending to FL240, or if lower, maintain last assigned level and hold for minimum 5min. Leave STV on the 'After STV' communication failure procedure.

After IBKUS: Continue routeing for STAR to ETLIG. At ETLIG continue on the RNAV (GNSS) STAR RWY 03R approach to JS2F1. Intercept the ILS LOC RWY 03R to land.

1.10 **NIBEX 1B:**
Before NIBEX: Proceed to NIBEX and enter the NIBEX hold. Hold at last assigned level for minimum 5min, then descend to FL130 in the hold, or maintain last assigned level if below. Leave NIBEX on the 'After NIBEX' communication failure procedure.

After NIBEX: Continue routeing for STAR to JS012. At JS012 descend to FL100, at JS013 descend to FL090, at JS014 descend to 9000. At JS015 complete a straight-in ILS RWY 03R approach.

1.11 **NIBEX 2A:**
Before NIBEX: Proceed to NIBEX and hold at last assigned level for minimum 5min. Descend to FL130 in the hold, or maintain last assigned level if below FL130. Leave NIBEX on the 'After NIBEX' communication failure procedure.

After NIBEX: Leave NIBEX on 055°/ R235 JSV. At D30 JSV turn right 121° and descend to FL100. Crossing R221 JSV descend to FL090 and turn left 061° to intercept ILS LOC RWY 03R. Descend to 9000 and complete a straight-in ILS RWY 03R approach.

1.12 **OKPIT 4A:**
Before OKPIT: Proceed to OKPIT and hold at last assigned level for minimum 5min. Then descend to FL130 in hold, or maintain last assigned level if lower. Leave OKPIT on the 'After OKPIT' communication failure procedure.

After OKPIT: Continue routeing for STAR. Crossing R086 JSV on R031 HGV descend to FL100. Passing D15 JSV on R031 HGV turn right 301° and descend to 8300. Crossing R206 JSV turn right 001° to intercept the LOC RWY 03R. Complete a straight-in ILS RWY 03R approach.

1.13 **STANDERTON 1C:**
Before STV: Proceed to STV and hold at last assigned level for minimum 5min. Descend to FL130 in the hold or maintain last assigned level if lower. Leave STV on the 'After STV' communication failure procedure.

After STV: continue routeing for STAR to JS017 and descend to FL130. Passing JS017 descend to 8000. At ETLIG continue on the RNAV (GNSS) RWY 03R approach to JS2F1. Intercept the ILS LOC RWY 30R.

1.14 **STANDERTON 6A:**
Before STV: Proceed to STV and hold at last assigned level for minimum 5min, then descend to FL130 in hold, or maintain last assigned level if lower. Leave STV on the 'After STV' communication failure procedure.

After STV: Leave STV on R310 STV and descend to FL130. Crossing R197 JSV turn right 350° and descend to 8000 to intercept the LOC RWY 03R. Complete a straight-in ILS RWY 03R approach.

1.15 **WITBANK 4A:**
Before WITBANK: Proceed to WIV and hold at last assigned level for minimum 5min. Descend to FL130 in the hold or maintain last assigned level if below FL130. Leave WIV on the 'After WIV' communication failure procedure.

After WITBANK: Continue routeing for STAR. Crossing R141 JSV while established on R031 HGV, descend to FL090. Passing D15 JSV on R031 HGV, turn right 301° and descend to 8300. Crossing R206 JSV turn right 001° to intercept the LOC RWY 03R. Complete a straight-in ILS RWY 03R approach.

2. NOTE FOR COMMS FAIL STAR RWY21L/R

2.1 Hold patterns below FL110 will be conducted partially outside controlled airspace.

2.2 Aircraft entering TMA at FL110 and below are to hold at last assigned level, and continue on the routeing for the designated STAR.

2.3 In the event of a missed approach with the intention of diverting to an alternate aerodrome proceed as follows:

a. Diverting to the north and northwest: VASUR 3B.
b. Diverting to the northeast: EGMEN 2B (Jet) or EXOBI 3B (Prop),
c. Diverting to the southeast: APDAK 1C.
d. Diverting to the south and southwest: RAGUL 3B.

2.4 **AVAGO 1D:**
Before AVAGO: Proceed to AVAGO and hold at last assigned level for a minimum 5min. Descend to FL130 in hold or maintain last assigned level if lower. Leave AVAGO on the 'After AVAGO' communication failure procedure.

After AVAGO: Continue routeing for STAR. At JS034 proceed to UVLOG and continue on the RNAV (GNSS) RWY 21L approach and intercept the ILS LOC RWY 21L.

2.5 **AVAGO 2B:**
Before AVAGO: Proceed to AVAGO and hold at last assigned level for minimum 5min. Descend to FL130 in hold, or maintain last assigned level if lower. Leave AVAGO on the 'After AVAGO' communication failure procedure.

After AVAGO: Continue routeing for STAR. Passing D13 JSV descend to FL090. Passing D15 JSV on 034° turn right 121° and descend to 8000. Crossing R026 JSV turn right 191° to intercept the LOC RWY 21L. Complete a straight-in ILS RWY 21L approach.

2.6 **NIBEX 1D:**
Before NIBEX: Proceed to NIBEX and hold at last assigned level for minimum 5min. Descend to FL130 in the hold, or maintain last assigned level if lower. Leave NIBEX on the 'After NIBEX' communication failure procedure.

After NIBEX: Continue routeing for STAR. At JS023 descend to FL090, at UVLOG descend to 8000 and continue on the RNAV (GNSS) RWY21L approach to JS3F2 and intercept the ILS RWY 21L.

2.7 **NIBEX 2C:**
Before NIBEX and hold at last assigned level for minimum 5min. Descend to FL130 in hold, or maintain last assigned level if lower. Leave NIBEX on the "After NIBEX" communication failure procedure.

After NIBEX: Continue routeing for STAR. Crossing R281 JSV established on 037°/ R217 WKV, descend to FL090. Passing D14.7 JSV on R217 WKV turn right 121° and descend to 8000. Crossing R025 JSV turn right 191° to intercept ILS LOC RWY 21L approach.

2.8 **OKPIT 4B:**
Before OKPIT: Proceed to OKPIT and hold at last assigned level for minimum 5min, then descend to FL130 in hold, or maintain last assigned level if lower. Leave OKPIT on the 'After OKPIT' communication failure procedure.

After OKPIT: Continue routeing for STAR. Passing D18 JSV INBD descend to FL090. Passing D15 JSV (OUBD) on track 034° turn left 301° and descend to 8000. Crossing R041 JSV turn left onto track 241° to intercept the LOC RWY 21L. Complete a straight-in ILS RWY 21L approach.

2.9 **STANDERTON 1D:**
Before STV: Proceed to STV and hold at last assigned level for minimum 5min. Descend to FL130 in the hold, or maintain last assigned level if lower. Leave STV on the 'After STV' communication failure procedure.

After STV: Continue routeing for STAR. At STV descend to FL130. AT JS025 descend to FL090. AT ETGAV descend to 8000 and continue on the RNAV (GNSS) RWY 21L approach to JS3F2. Intercept the ILS RWY 21L.

2.10 **STANDERTON 5B:**
Before STV: Proceed to STV and hold at last assigned level for minimum 5min. Descend to FL130 in the hold, or maintain last assigned level if lower. Leave STV on the 'After STV' communication failure procedure.

After STV: Continue routeing for STAR. Established on 332°/R152 JSV and on passing D18 JSV descend to FL090. Established on R031 HGV and passing D15 JSV turn left 301° and descend to 8000. Crossing R041 JSV turn left 241° to intercept LOC RWY 21L. Complete a straight-in ILS approach and land RWY 21L.

2.11 **WITBANK 3C:**
Before WITBANK: Proceed to WIV and hold at last assigned level for minimum 5min. Descend to FL130 in hold or maintain last assigned level if lower. Leave WIV on the 'After WITBANK' communication failure procedure.

After WITBANK: Continue routeing for STAR. Passing D18 JSV descend to FL090. Passing D15 JSV on R031 HGV turn left 301° and descend to 8000. Crossing R041 JSV turn left 241° to intercept LOC RWY 21L. Complete a straight-in ILS RWY 21L approach .

COMMUNICATION FAILURE MISSED APPROACH PROCEDURE.

1. RWY 03L

1.1 **ILS Y**

Climb on 034° to 9000, at D3.5 JSI turn left (Max 220kt) HDG 300°. Crossing R210 WKV turn left HDG 250° to intercept R220 WKV. At D35 WKV turn left (Max 220kt) HDG 120° and descend to 8300. Crossing R220 JSV turn left HDG 065° to intercept the localiser RWY 03L. At D13 JSI descend to 8000 and complete a straight-in ILS APCH, and land RWY03L.

Note: MISAP Climb gradient of 3.5% required to cross CTR boundary 7600 or above.

2. RWY 03R

2.1 **ILS X / ILS W**

Climb on 034° to 8000, at D7.3 JNI/JSV turn right (Max 240kt) on 130°. Crossing R027 HGV turn right 180° to intercept 210°/R030 HGV (at normal MISAP speed). Passing D15 JSV turn right 300° crossing R200 JSV turn right 360° to intercept localiser RWY 03R. Complete a straight-in ILS APCH and land RWY 03R.

Note: MISAP Climb gradient of 5.8% required to cross CTR boundary 8000 or above.

3. RWY 21L

3.1 **ILS X**

Climb on 214° to 7000, at D3.5 JAI turn left (Max 240kt) HDG 125°. When established on HDG 125° climb to 8000. Crossing R222 MEV turn left HDG 070° to intercept 037°/R217. MEV (at normal MISAP climb gradient). At D7.5 MEV turn left (Max 240kt) HDG 300°. Crossing R048 JSV turn left HDG 255° to intercept the localiser for a straight in ILS APCH and land RWY 21L.

Note: MISAP Climb gradient of 4.6% required to cross CTR boundary at 8000 or above.

4. RWY 21R

4.1 **ILS**

Climb on 214° to 8000, at D6.8 JBI and at MNM 7000 turn right HDG 350° (MAX250 KT). Crossing R255 WKV turn right to intercept 050/R230 WKV (reduce speed to 220kt when established on radial). At D3 WKV turn right HDG 120°, crossing R027 JSV turn right HDG 184° to intercept localiser RWY 21R. Complete a straight-in ILS APCH and land RWY 21R.

Note: MISAP Climb gradient of 3.7% required to 7000.

4.2 **VOR Y**

Climb on 214° to 8000, Overhead JSV turn right (Max 240kt) HDG 320°. Crossing R214 WKV turn right HDG 012° to intercept 042°/R222 WKV to WKV. Overhead WKV turn right (Max 185kt) HDG 125°, crossing R027 JSV turn right HDG 185° to intercept 214°/R034 JSV by D16 JSV, establish on final approach by D11 JSV.

Note: MISAP Climb gradient of 5.1% required to cross CTR boundary 8000 or above.

5. MISSED APPROACH TO ALTERNATE AIRPORT.

In the event of a missed approach with the intention of diverting to an alternate aerodrome proceed as follows:

5.1 To the North/Northwest.
Follow the routeing for the; RWY03L/R VASUR 1A SID, RWY 21L/R VASUR 1B SID.

5.2 To the East/Northwest.
Follow the routeing for the; RWY03L/R NOPIP 2A SID (Jets) or EXOBI 1A SID (Props). RWY21L/R NOPIP 1B SID (Jets) or EXOBI 1B SID (Props).

5.3 To the Southeast.
Follow the routeing for the ; RWY 03L/R APDAK 1A SID, RWY21L/R APDAK 1B SID.

5.4 To the West/Southeast.
Follow the routeing for the; RWY 03L/R RAGUL 1A SID, RWY21L/R RAGUL 1B SID.

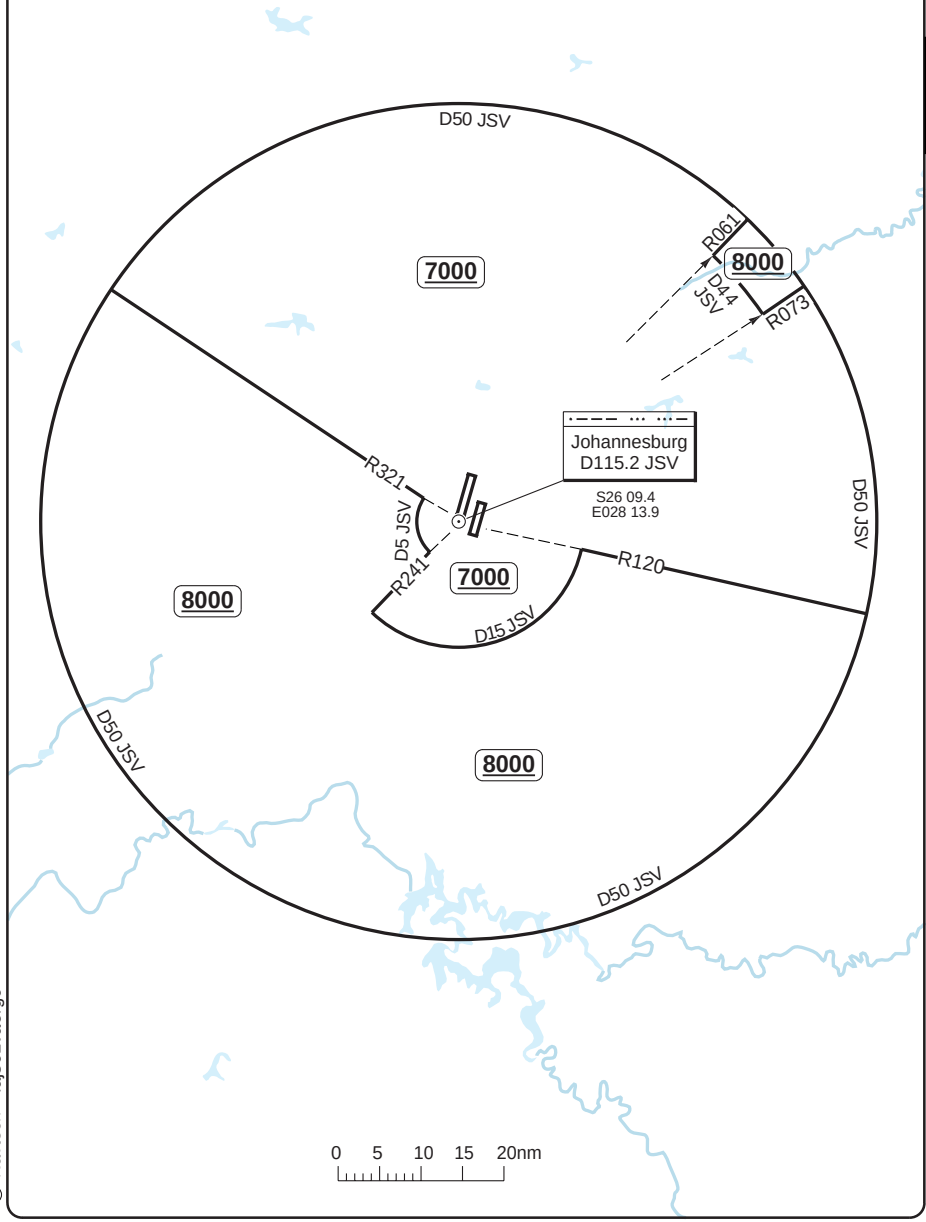
RADAR Minimum Altitudes

O R Tambo INTL JOHANNESBURG

Johannesburg APP	O R Tambo DIR	TWR	GND	APN ARR	CLR	ATIS
123.7 W **124.5** S/E **134.4** N	**121.4**	**118.1** W **118.6** E **121.9**	**121.9**	**122.65**	**121.7** **121.9**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

Radials and distances based on VOR/DME JSV



20 - 1

Reverse side blank

Change: ICAO code

Additional Landing Minima

O R Tambo INTL JOHANNESBURG

ILS Y RWY 03L

ACFT	Circling ⓐ	Circling ⓑ
A	**6280** (715) 1.5km	**6280** (715) 1.5km
B	**6290** (726) 1.6km	**6290** (726) 1.6km
C	**6300** (738) 2.4km	**6410** (852) 2.4km
D	**6320** (759) 3.6km	**6410** (852) 3.6km

EU OPS

ILS+DME 2.5% only.

ⓐ East of AD.

ⓑ West of AD.

ILS X RWY 03R

ACFT	Circling
A	**6830** (1272) 5.0km
B	**6850** (1285) 5.0km
C	**6860** (1295) 5.0km
D	**6870** (1305) 5.0km

EU OPS

ILS+DME 2.5% only.

ILS W RWY 03R

ACFT	Circling
A	**6830** (1272) 5.0km
B	**6850** (1285) 5.0km
C	**6860** (1295) 5.0km
D	**6870** (1305) 5.0km

EU OPS

ILS+DME 2.5% only.

ILS X RWY 21L

ACFT	Circling
A	**6700** (1140) 1.5km
B	**6710** (1151) 1.6km
C	**6720** (1161) 2.4km
D	**6740** (1175) 3.6km

EU OPS

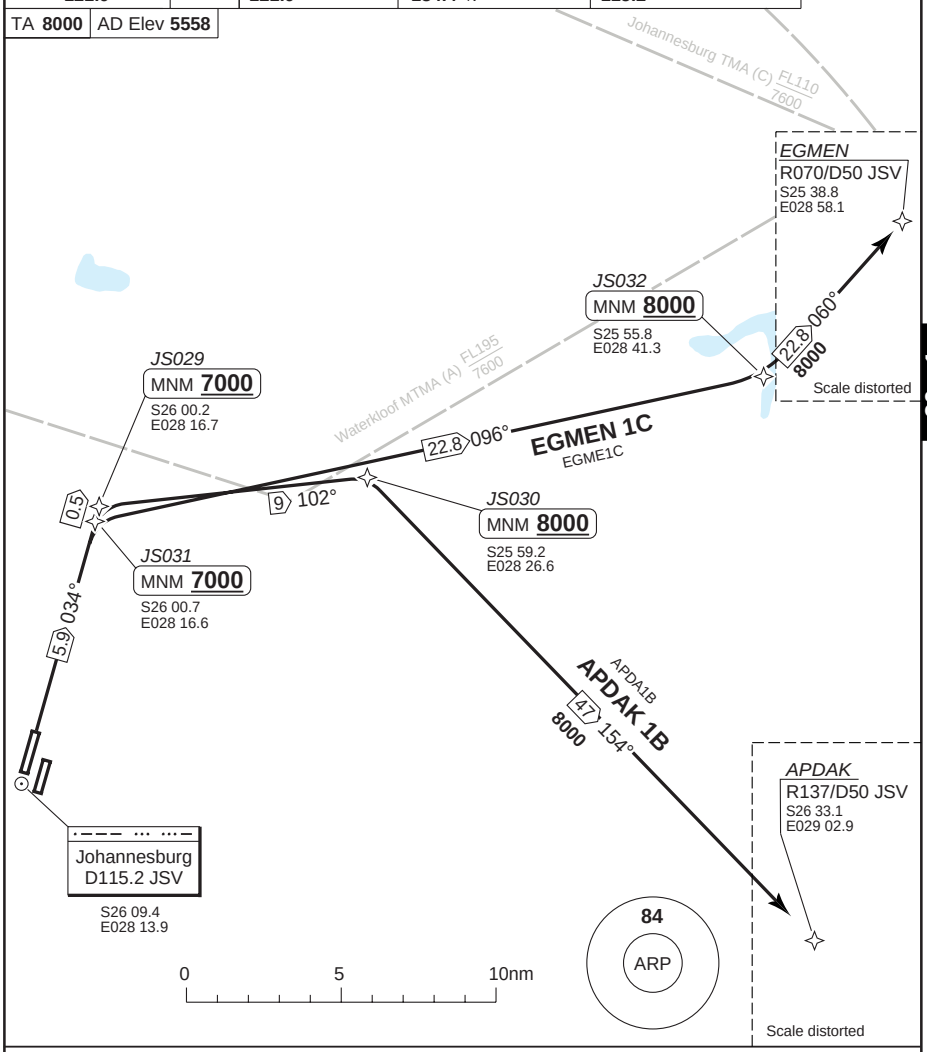
ILS+DME 2.5% only.

Change: ICAO code

SID RWY 03L RNAV GNSS East — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7 121.9	121.9	118.1 W 118.6 E 121.9	123.7 W 124.5 S/E 134.4 N	126.2 131.725 (D) 115.2

TA **8000** | AD Elev **5558**



NOTE: Cross CTR boundary at MNM 8000.
COM: At 6500 contact Johannesburg APP.
ALT RESTRICTION: Climb to **FL90**.

SID	MNM Climb	Routeing	Altitudes
APDAK 1B	4.1% to **FL90**	Climb on 034° - JS029 - JS030 - APDAK.	JS029 MNM **7000** JS030 MNM **8000**
EGMEN 1C	4.1% to CTR bdry	Climb on 034° - JS031 - JS032 - EGMEN.	JS031 MNM **7000** JS032 MNM **8000**

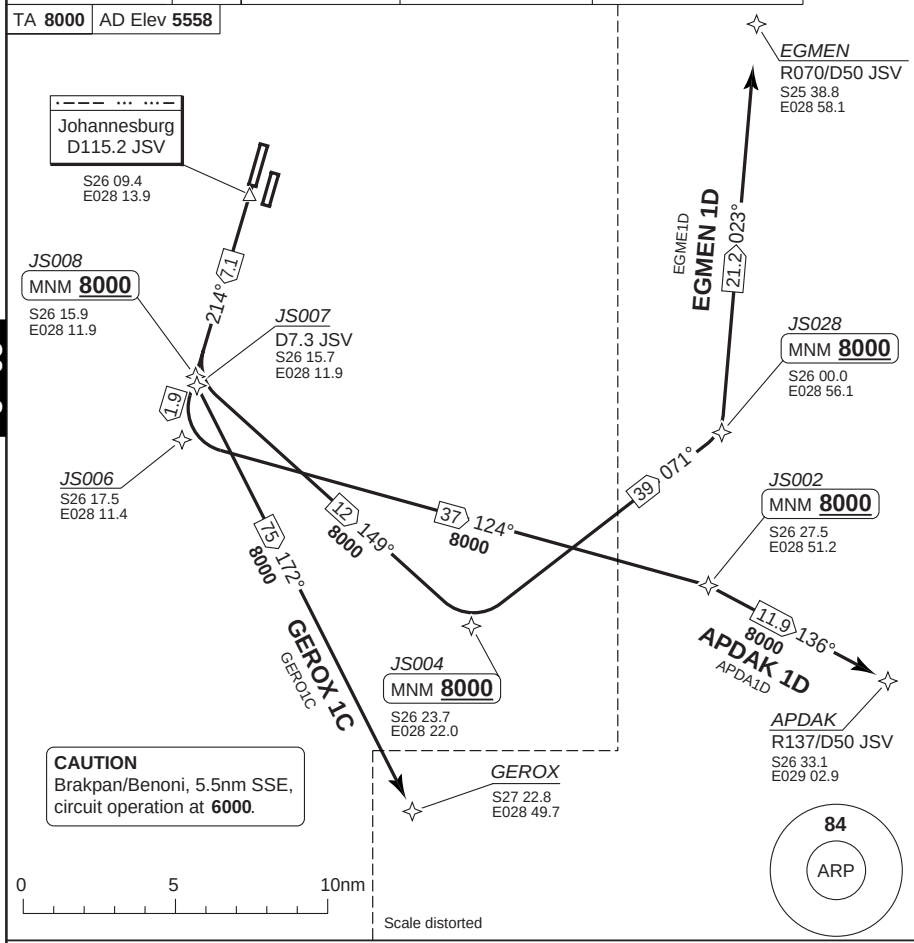
COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

SID RWY 21R RNAV GNSS East — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7	121.9	118.1 W 118.6 E	123.7 W 124.5 S/E	126.2 131.725 (D)
121.9		121.9	134.4 N	115.2

TA **8000** | AD Elev **5558**



NOTE: MNM Climb gradient is to CTR boundary. Cross bdry MNM 8000.
COM: At 6500 contact Johannesburg APP.
ALT RESTRICTION: EGMEN 1D: Climb to **FL90**.
APDAK 1D, GEROX 1C: Climb to **8000**.

SID	MNM CLIMB	Routeing	Altitudes
APDAK 1D	3.8%	Climb on 214° - JS006 - JS002 - APDAK.	JS002 MNM **8000**
EGMEN 1D	3.8%	Climb on 214° - JS008 - JS004 - JS028 - EGMEN.	JS008 MNM **8000** JS004 MNM **8000** JS028 MNM **8000**
GEROX 1C	4.2%	Climb on 214° - JS007 - GEROX.	

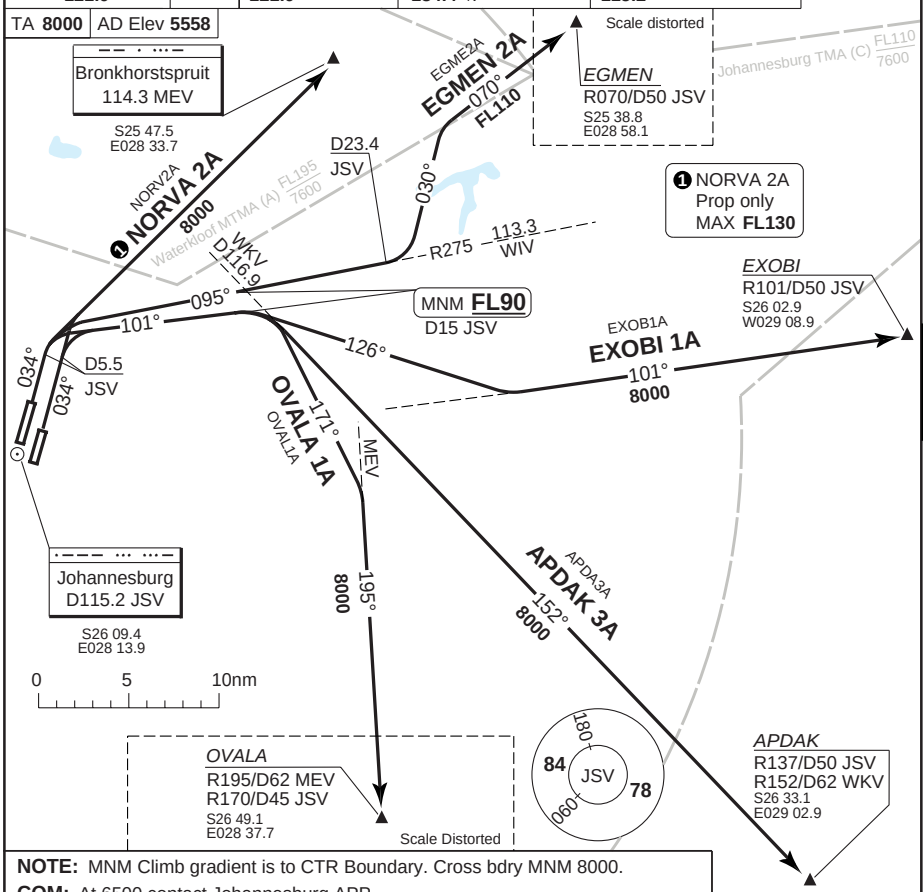
COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

SID RWY 03L/R East — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7 121.9	121.9	118.1 W 118.6 E 121.9	123.7 W 124.5 S/E 134.4 N	126.2 131.725 (D) 115.2

TA **8000** | AD Elev **5558**



NOTE: MNM Climb gradient is to CTR Boundary. Cross bdry MNM 8000.
COM: At 6500 contact Johannesburg APP.
ALT RESTRICTION: Climb to **FL90**.

SID	RWY	MNM Climb	Routeing	Altitudes
INITIAL CLIMB			Climb on 034° - at D5.5 JSV - follow SID.	
APDAK 3A	03L	4.5%	Turn right 101° - intcp R152 WKV - APDAK.	CTR bdry MNM **8000** D15 JSV MNM **FL90**
EGMEN 2A	03L	4.5%	Turn right - intcp R275 WIV - at D23.4 JSV - turn left - 030° - intcp R070 JSV - EGMEN	
EXOBI 1A	03L/R	4.2%	Turn right to 101° - D15 JSV turn right - 126° - intcp R101 JSV - EXOBI.	
NORVA 2A	03L/R	4.2%	Turn right - MEV	CTR bdry MNM **8000**
OVALA 1A	03L/R	4.1%	Turn right - 101° - at D15 JSV turn right - 171° - intcp R195 MEV - OVALA.	CTR bdry MNM **8000** D15 JSV MNM **FL90**

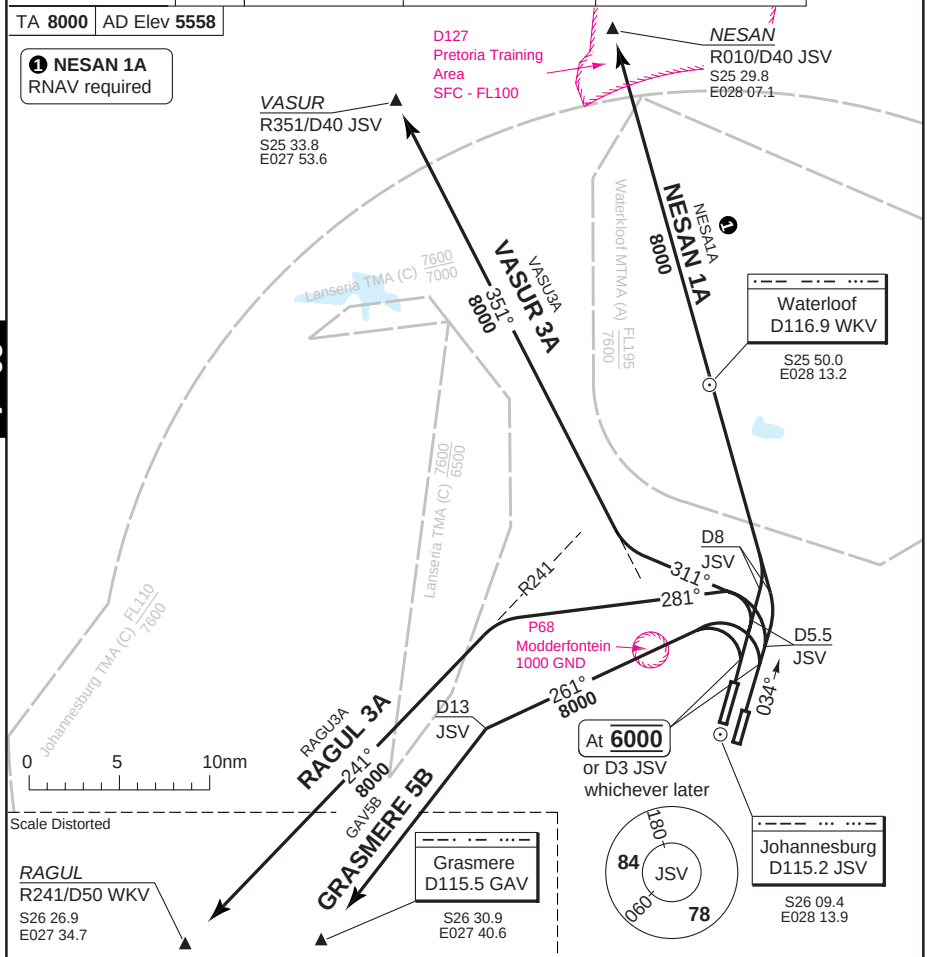
COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

SID RWY 03L/R West — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7	121.9	118.1 W 118.6 E	123.7 W 124.5 S/E	126.2 131.725 (D)
121.9		121.9	134.4 N	115.2

TA **8000** | AD Elev **5558**



NOTE: MNM Climb gradient is to CTR Boundary. Cross bdry MNM **8000**.
COM: At **6500** contact Johannesburg APP.
NOISE ABATEMENT: NESAN 1A available 20-04.
ALT RESTRICTION: Climb to **8000**.

SID	MNM CLIMB	Routeing	Altitudes
INITIAL CLIMB	Climb on 034° - follow SID.		
GRASMERE 5B	5%	At D3 JSV or **6100**, whichever is later, turn left - 261° - at D13 JSV turn left - GAV.	CTR bdry MNM **8000**
NESAN 1A	4.2%	At D8 JSV - turn left - dct NESAN.	
RAGUL 3A	4.4%	At D5.5 JSV - turn left 281° - intcp R241 WKV - RAGUL.	
VASUR 3A	4.2%	At D5.5 JSV - turn left 311° - intcp R351 JSV - VASUR.	

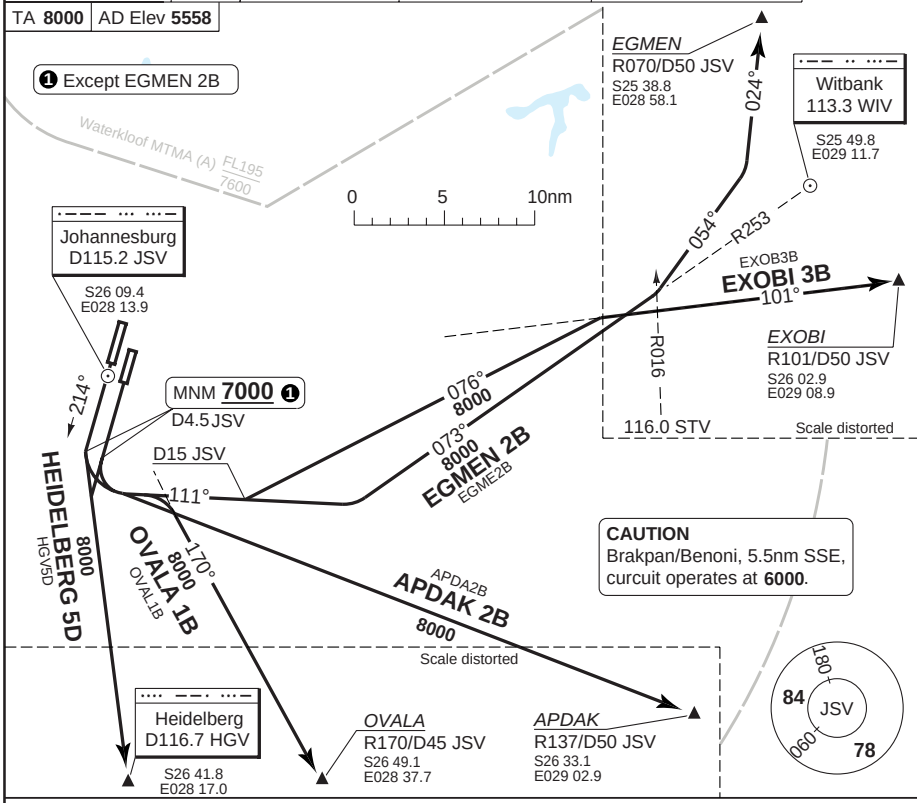
COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

SID RWY 21L/R EAST — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7 121.9	121.9	118.1 W 118.6 E 121.9	123.7 W 124.5 S/E 134.4 N	126.2 131.725 (D) 115.2

TA 8000 | AD Elev 5558



NOTE: MNM Climb gradient is to CLR Boundary. Cross bdry MNM **8000**.

COM: At **6500** contact Johannesburg APP.

ALT RESTRICTION: Climb to **8000**.

SID	RWY	MNM Climb	Routeing	Altitudes
INITIAL CLIMB Except APDAK 1C			Climb on 214° - at D4.5 JSV - follow SID.	
APDAK 2B	21R	4.2%	Climb on 214° - at D4.5 JSV turn left - APDAK.	D4.5 JSV MNM **7000** CTR bdry MNM **8000**
EGMEN 2B	21R	4.3%	Turn left to 111° - intcp R253 WIV - at crossing R016 STV turn left - 054° - intcp R024 STV - EGMEN.	CTR bdry MNM **8000**
EXOBI 3B	21L/R	4.2%	Turn left to 111° - at D15 JSV turn left - 076° - intcp R101 JSV - EXOBI.	D4.5 JSV MNM **7000** CTR bdry MNM **8000**
HEIDELBERG 5D	21L/R	4.2%	Turn left - HGV.	
OVALA 1B	21L/R	4.2%	Turn left 111° - intcp R170 JSV - OVALA.	

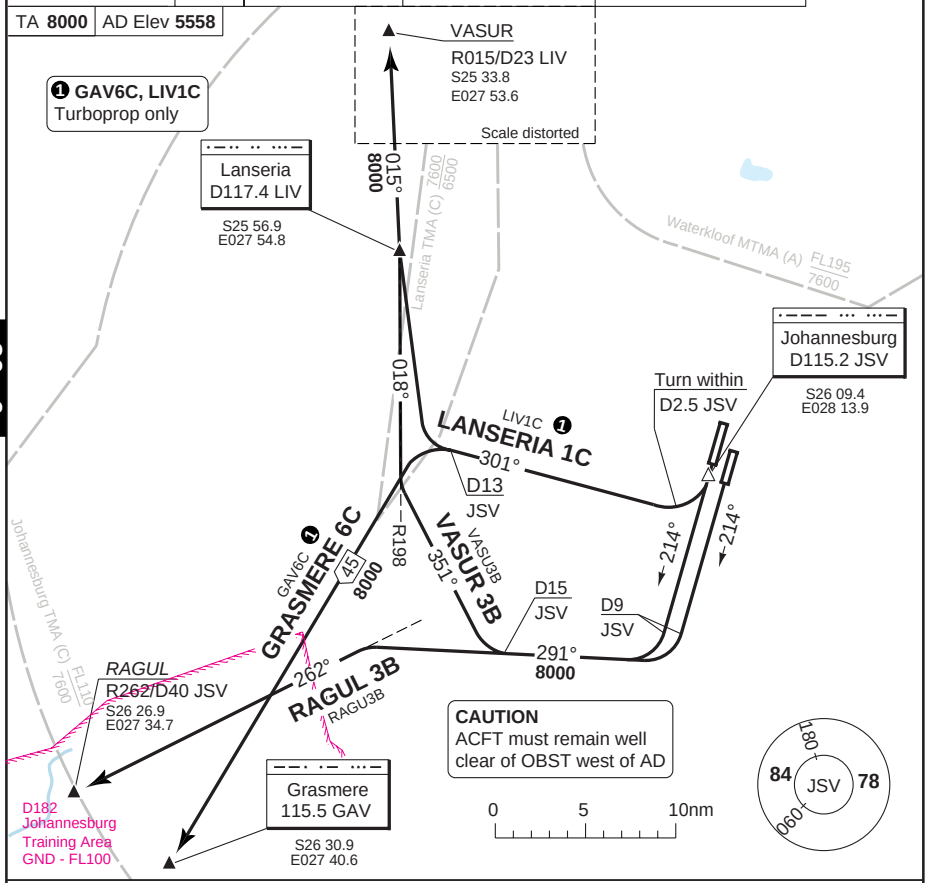
COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

SID RWY 21L/R WEST — O R Tambo INTL JOHANNESBURG

O R Tambo CLR	GND	TWR	Johannesburg APP	O R Tambo ATIS
121.7	121.9	118.1 W 118.6 E	123.7 W 124.5 S/E	126.2 131.725 (D)
121.9		121.9	134.4 N	115.2

TA **8000** | AD Elev **5558**



NOTE: MNM Climb gradient is to CTR Boundary. Cross bndy MNM **8000**.
COM: At **6500** contact Johannesburg APP.
ALT RESTRICTION: Climb to **8000**.

SID	RWY	MNM CLIMB	Routeing	Altitude
INITIAL CLIMB	RWY 21L: Climb on 214° - follow SID. RWY 21R: Ahead to JSV - follow SID			
GRASMERE 6C	21R	5.3%	JSV - turn right 301° (turn within D2.5 JSV) - at D13 JSV turn left - GAV.	CTR bdry MNM **8000**
LANSERIA 1C	21R	5.3%	JSV - turn right 301° (turn within D2.5 JSV) - at D13 JSV turn right direct - LIV - intcp R015 LIV - VASUR.	
RAGUL 3B	21L/R	4.4%	At D9 turn right 291° - turn left - intcp R262 JSV - RAGUL.	
VASUR 3B	21L/R	4.2%	At D9 JSV turn right - 291° - at D15 JSV turn right - 351°- intcp R198 LIV - LIV - R015 LIV - VASUR.	

COM FAIL: See pages 10 - 8 to 10 - 10

Change: ICAO code

South Africa - FAJS / JNB

STAR RWY 03R RNAV GNSS East — O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

Waterkloof MTMA (A) FL195 7600

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

SPEED
On LOC maintain 180kt until D10 JSV.
MAX 150kt while passing OM.

Johannesburg D115.2 JSV
S26 09.4
E028 13.9

COM FAIL
See page 10-11 and 10-12

JS017
MAX 210kt
MNM **8000**
S26 30.9
E028 20.0

JS016
MNM **8000**
S26 36.2
E028 35.4

MAX 250kt
R152/D47 JSV
Standerton 116.0 STV
S26 41.8
E028 52.0

JS018
S26 33.7
E028 28.2

7.9
11.2
212°
6.9
15.9
309°
8000
STANDERTON 1C
STV1C
171°
MAX FL280
FL90
351°
13nm

ETLIG
S26 41.8
E028 17.0

342°
24
8000
IBKU1B
IBKUS 1B

350°
28.5
8000
AVIL1B
AVILO 1B

Johannesburg TMA (C) FL110 7600

84
ARP

0 5 10nm

IBKUS
MAX 250kt
R162/D57 JSV
S26 55.7
E028 51.3

AVILO
MAX 250kt
S26 58.9
E028 43.3

Change: ICAO code

STAR RWY 03R RNAV GNSS West — O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

SPEED
On LOC maintain 180kt until D10 JSV.
MAX 150kt while passing OM.

HP:
MAX **FL280**
FL110
13nm
320°
140°

AVAGO
MAX 250kt
R320/D50 JSV
S25 43.2
E027 26.7

D70W
Magliesberg Training Area (West Sector)
FL100 GND

D70E
Magliesberg Training Area (East Sector)
FL100 GND

R172
Hartbeeshoek Communication Station
1000 GND

Waterkloof MTMA (A) FL195 7600

Lanseria TMA (C) 7600 7000

Lanseria TMA (C) 7600 6500

AVAG1C
AVAGO 1C
41
140°
8000

Johannesburg
D115.2 JSV
S26 09.4
E028 13.9

JS035
MAX 210kt
MNM **8000**
S26 04.8
E028 05.4
3.8
194°

JS036
MNM **8000**
S26 08.6
E028 05.9
15.4
218°

JS037
MNM **8000**
S26 23.0
E028 00.1

JS012
MAX 210kt
MNM **8000**
S26 31.9
E027 55.0

JS015
MNM **8000**
S26 20.0
E028 11.7
9.9
034°

121°
8.6
8000
5.9
061°

JS014
MNM **8000**
S26 29.6
E028 08.8

JS013
MNM **8000**
S26 33.9
E028 04.3

NIBE1B
NIBEX 1B
21.9
056°
FL110

COM FAIL
See page 10-11 and 10-12

Johannesburg TMA (C) FL110 7600

NIBEX
MAX 250kt
R235/D50 JSV
S26 49.4
E027 40.2

055°
235°

HP:
MAX **FL280**
FL110

13nm

0 5 10 15nm

84
ARP

40 - 2

Change: ICAO code

Change: ICAO code

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC**	AD Elev **5558**

STAR RWY 21L RNAV GNSS
O R Tambo INTL JOHANNESBURG

South Africa - FAJS / JNB

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
RADAR required.

SPEED
On LOC maintain 180kt until D10 JSV
MAX 150kt while passing OM.

COM FAIL
See page 10-13 and 10-14

AVAGO ❶
MAX 250kt
R320/D50 JSV
S25 43.2
E027 26.7

D70W
Magliesberg Training Area (West Sector)
FL100 GND

D70E
Magliesberg Training Area (East Sector)
FL100 GND

R172
Hartbeeshoek Communication Station
1000 GND

AVAG1D
AVAGO 1D
40 140° 8000

JS034
MNM **8000**
S25 57.3
E028 06.4

UVLOG
MNM **8000**
S25 53.3
E028 11.3

ETGAV
MNM **8000**
S25 57.4
E028 27.4

JS025
MAX 210kt
MNM **8000**
S26 18.7
E028 24.7

JS033
MAX 210kt
MNM **8000**
S26 04.1
E028 04.3

P68
Modderfontein
1000 GND

034° 17
032° 29.1
025° 21.4

Johannesburg
D115.2 JSV
S26 09.4
E028 13.9

JS023
MAX 210kt
MNM **8000**
S26 21.8
E028 30.6

STV1D
STANDERTON 1D
152° 34 8000

NIBE1D
NIBEX 1D
056° 35 FL110

MAX 250kt
R152/D47 JSV
Standerton
116.0 STV
S26 41.8
E028 52.0

13nm
171° MAX FL280
351° MAX FL90

84
ARP

NIBEX ❷
MAX 250kt
R235/D50 JSV
S26 49.4
E027 40.2

❶ 13nm
320° MAX FL110
140° MAX FL280
AVAGO

❷ *NIBEX*
055° MAX FL280
235° MAX FL110
13nm

Waterkloof MTMA (A) FL195 7600
Lanseria TMA (C) 7600 7000
Lanseria TMA (C) 7600 6500
Johannesburg TMA (C) FL110 7600

0 5 10 15nm

STAR RWY 03R East

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West 124.5 South/East	121.4	118.1 West 118.6 East 121.9	121.9	122.65	126.2 131.725 (D) 115.2

TL ATC | AD Elev 5558

OKPIT
R052/D50 JSV
S25 27.7
E028 44.6

231° MAX FL280 FL110 051°

Waterkloof MTMA (A) FL195 7600

HGV

R031

232° 8000

D128
Pretoria Training Area 2
FL100 GND

D40 JSV
MAX 250kt

Johannesburg TMA (C) FL110 7600

MAX 250kt
Witbank
113.3 WIV
S25 49.8
E029 11.7

261°
081°

HP:
MAX FL280
FL90

R052

211°

OKPIT 4A
OKPI4A

WIV4A
WITBANK 4A
268°
8000

COM FAIL
See page 10-11 and 10-12

Johannesburg
D115.2 JSV
S26 09.4
E028 13.9

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

R088

241°
D13
JSV
MAX 210kt

R120

SPEED
On LOC maintain 180kt until D10 JSV MAX 150kt while passing OM.

211°
D30 JSV
MAX 210kt

310°

MAX 250kt
Standerton
116.0 STV
S26 41.8
E028 52.0

STV6A
STANDERTON 6A
310°
8000

0 5 10 15nm

R031
R045

D29
JSV

D30 JSV
MAX 210kt

D37
JSV

171°
351°

HP:
MAX FL280
FL90

AVIL1A
AVILO 1A
350°
8000

IBKU1A
IBKUS 1A
340°
8000

Heidelberg
116.7 HGV
S26 41.8
E028 17.0

AVILO
MAX 250kt
R170/D56 JSV
S26 58.9
E028 43.3

IBKUS
MAX 250kt
R162/D57 JSV
S26 55.7
E028 51.3

180
84
JSV
060
78

Change: ICAO code

STAR RWY 03R West

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

Lanseria TMA (C) 7600 6500

Johannesburg D115.2 JSV

S26 09.4
E028 13.9

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

SPEED
On LOC maintain 180kt until D10 JSV MAX 150kt while passing OM.

COM FAIL
See page 10 - 12

R235

R221

061°

121°

D30 JSV
MAX 210kt

NIBE2A
NIBEX 2A
055°
FL110

NIBEX
MAX 250kt
R235/D50 JSV
S26 49.4
E027 40.2

055°

235°

HP:
MAX **FL280**
FL110

Johannesburg TMA (C) FL110 7600

180
84
JSV
060
78

0 5 10nm

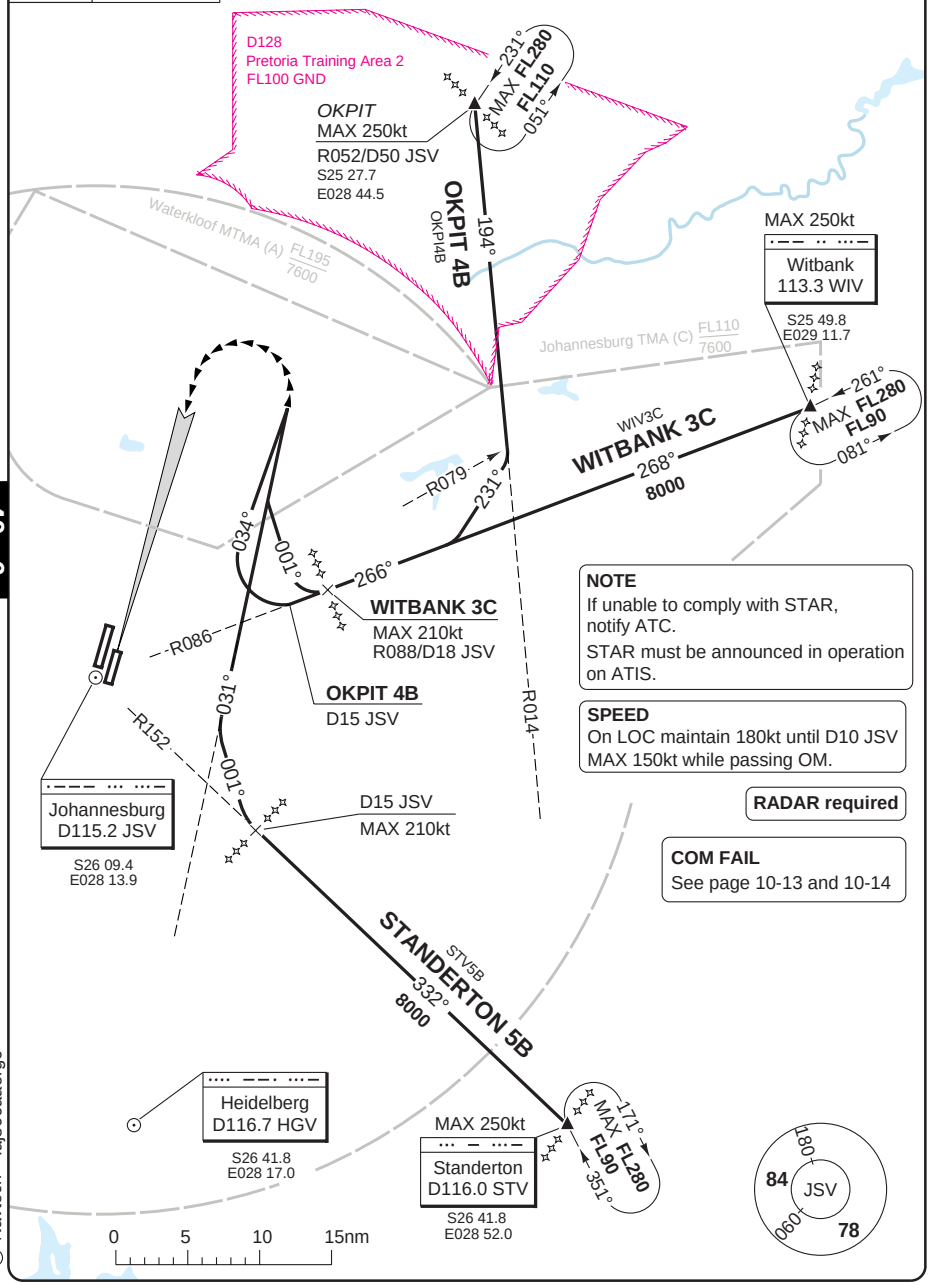
40 - 5

Change: ICAO code

STAR RWY 21L East — O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**



NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.

SPEED
On LOC maintain 180kt until D10 JSV MAX 150kt while passing OM.

RADAR required

COM FAIL
See page 10-13 and 10-14

Change: ICAO code

STAR RWY 21L West

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

Lanseria TMA (C) 7600 7000

Waterloof
D116.9 WKV

S25 50.0
E028 13.2

Waterkloof MTMA (A) FL195 7600

Lanseria TMA (C) 7600 6500

037°

R280

MAX 210kt

Johannesburg
D115.2 JSV

S26 09.4
E028 13.9

R235

COM FAIL
See page 10-13

RADAR required

NOTE
If unable to comply with STAR notify ATC.
STAR must be announced in operation on ATIS.

D22.1 JSV

SPEED
On LOC maintain 180kt until D10 JSV.
MAX 150kt while passing OM.

NIBE2C
NIBEX 2C
055°
FL110

NIBEX
MAX 250kts
FL110
R235/D50 JSV
S26 49.4
E027 40.2

055°
MAX **FL280**
FL90
235°

0 5 10nm

180
84 JSV 78
060

40 - 7

Change: ICAO code

STAR RWY 03 L/R — O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

COM FAIL
See page 10-11 and 10-12

SPEED
On LOC maintain 180kt until D10 JSV.
MAX 150kt while passing OM.

HP:
MAX **FL280**
FL110

320°
140°

AVAGO
MAX 250kt
R320/D50 JSV
S25 43.2
E027 26.7

D70W
Magliesberg Training Area (West Sector)
FL100 GND

D70E
Magliesberg Training Area (East Sector)
FL100 GND

R172
Hartbeeshoek Communication Station
1000 GND

AVAG2A
AVAGO 2A
140°
8000

Waterkloof MTMA (A) FL195 / 7600

Lanseria TMA (C) 7600 / 7000

Waterkloof
D116.9 WKV
S25 50.0
E028 13.2

Lanseria TMA (C) 7600 / 6500

Johannesburg
D115.2 JSV
S26 09.4
E028 13.9

D10 JSV
MAX 210kt

191°
R321
218°

JSV
180
084
090
078

0 5 10 15nm

Johannesburg TMA (C) FL110 / 7600

40 - 8

Change: ICAO code

STAR RWY 21 L/R — O R Tambo INTL JOHANNESBURG

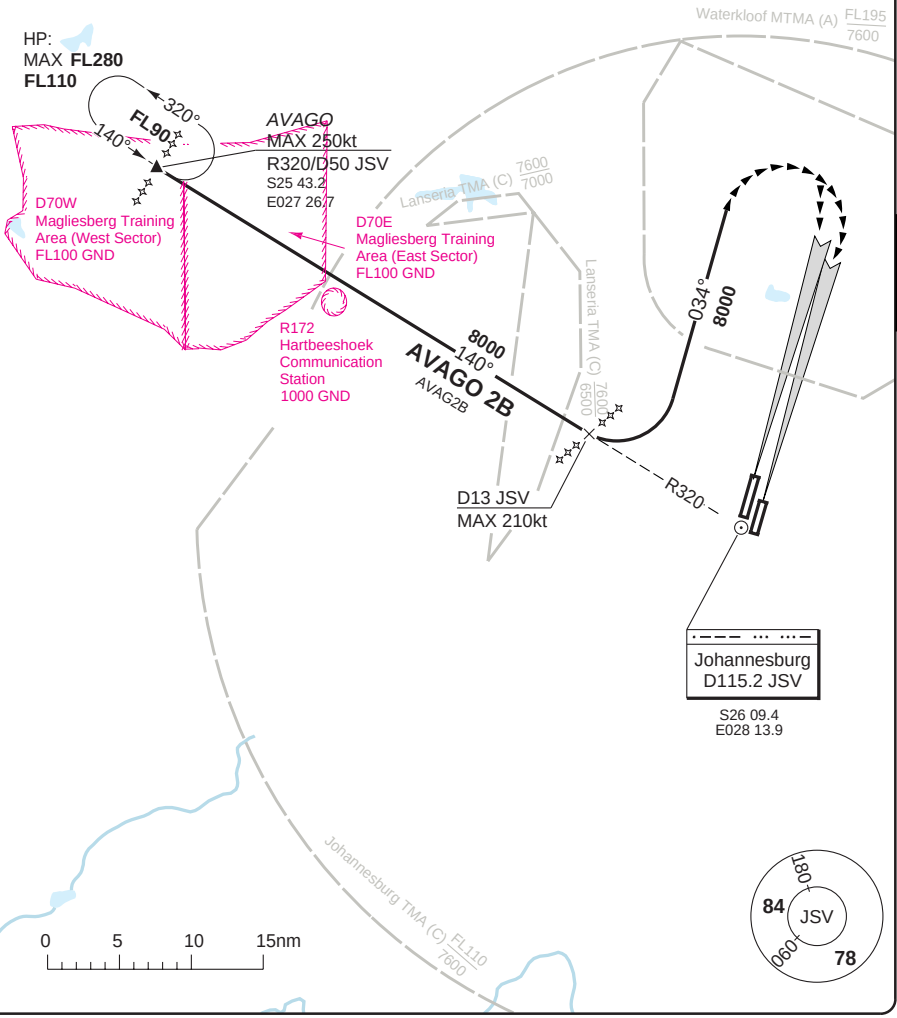
Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

TL **ATC** | AD Elev **5558**

COM FAIL
See page 10 - 13

NOTE
If unable to comply with STAR, notify ATC.
STAR must be announced in operation on ATIS.
Radar required.

SPEED
On LOC maintain 180kt until D10 JSV.
MAX 150kt while passing OM.



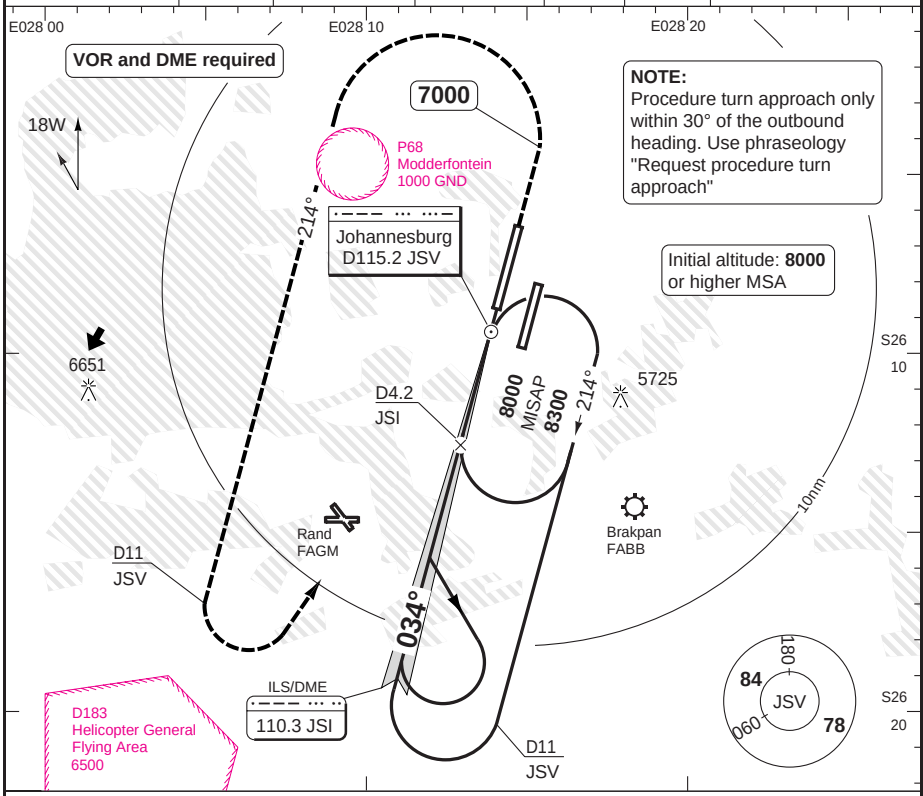
Change: ICAO code

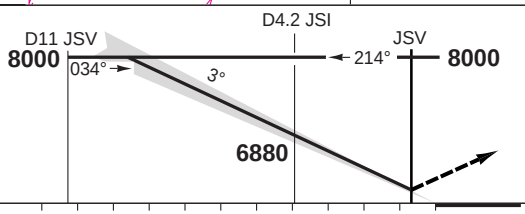
ILS Z RWY 03L

O R Tambo INTL **JOHANNESBURG**

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **110.3 JSI**	FAT **034°**	THR Elev **5558**	AD Elev **5558**	TL **ATC**	TA **8000**





Climb on 034°, passing **7000** turn left to 214° climbing to **8300** . At D11 JSV turn left to JSV .

TCH 54

ACFT	CAT II	ILS+DME	Circling ⓐ	Circling ⓑ
A	*RA* **87** 300m	**5760** (200) 550m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6250** (692) 2.4km	**6410** (852) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km

ⓐ East of AD.
ⓑ West of AD.

LDA 4418x60
14494x197ft
P 3°
FALS

EU OPS

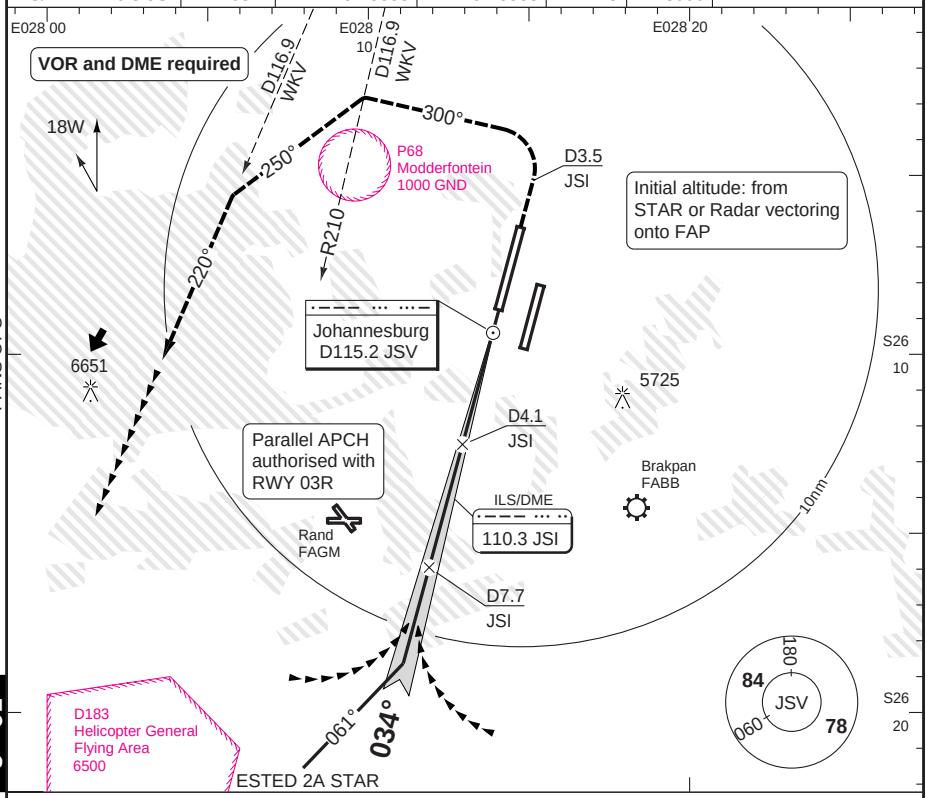
Change: ICAO code, minima

ILS Y RWY 03L

O R Tambo INTL JOHANNESBURG

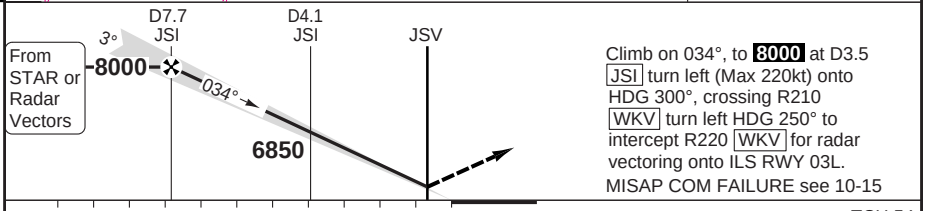
Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **110.3 JSI**	FAT **034°**	THR Elev **5558**	AD Elev **5558**	TL **ATC**	TA **8000**



PANS OPS

50 - 2



Climb on 034°, to **8000** at D3.5 JSI turn left (Max 220kt) onto HDG 300°, crossing R210 WKV turn left HDG 250° to intercept R220 WKV for radar vectoring onto ILS RWY 03L.
MISAP COM FAILURE see 10-15

ACFT	CAT II 3.5%	ILS+DME 3.5%	ILS+DME 2.5%	Circling ⓐⓒ	Circling ⓑⓒ
A	*RA* **87** 300m	**5760** (200) 550m	**6280** (715) 1500m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6290** (726) 1500m	**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6300** (738) 2400m	**6250** (692) 2.4km	**6410** (852) 2.4km
D/D$_L$	*RA* **86** 300m	**5760** (201) 550m	**6320** (759) 2400m	**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

LDA 4418x60
14494x197ft
P 3° L/R

FALS

ⓐ East of AD.
ⓑ West of AD.
ⓒ ILS+DME 2.5% circling see 51-1.

Change: ICAO code, minima

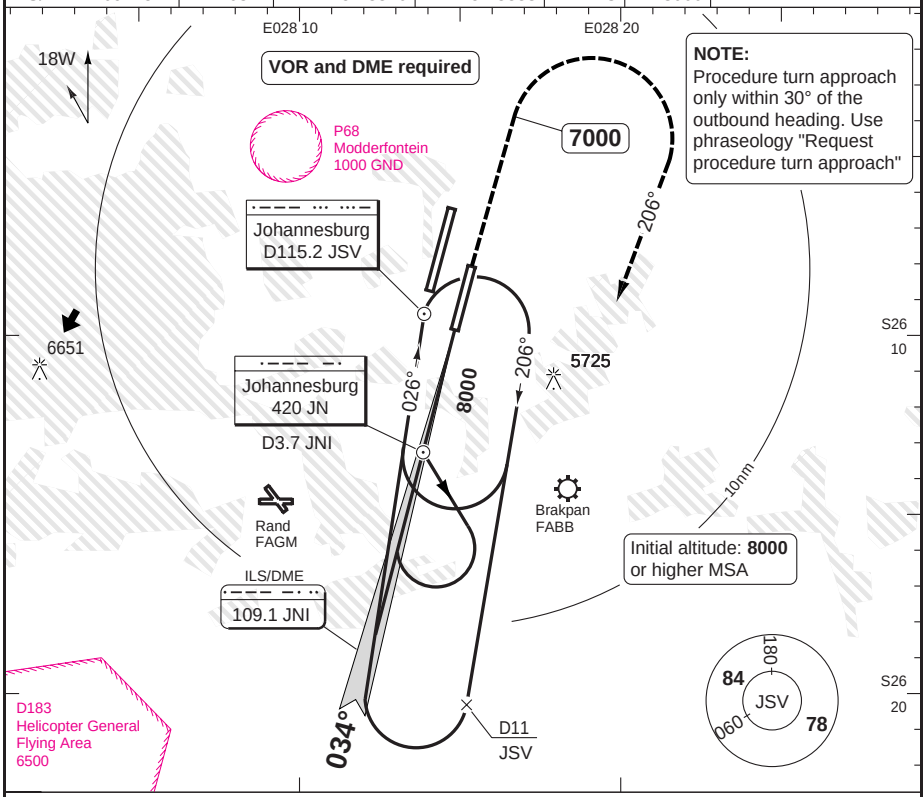
South Africa - FAJS / JNB

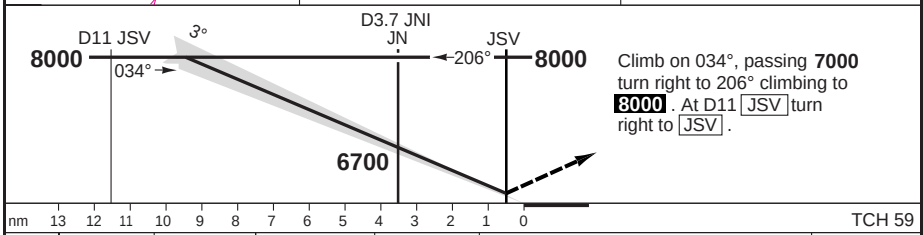
ILS Z RWY 03R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.1 JNI**	FAT **034°**	THR Elev **5510**	AD Elev **5558**	TL **ATC**	TA **8000**





Climb on 034°, passing **7000** turn right to 206° climbing to **8000**. At D11 JSV turn right to JSV.

ACFT	CAT II	ILS+DME	Circling ⓐ	Circling ⓑ
A	*RA* **97** 300m	**5710** (200) 550m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6250** (692) 2.4km	**6410** (852) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.

LDA 3400x60
11154x196ft
P 3° L/R

FALS

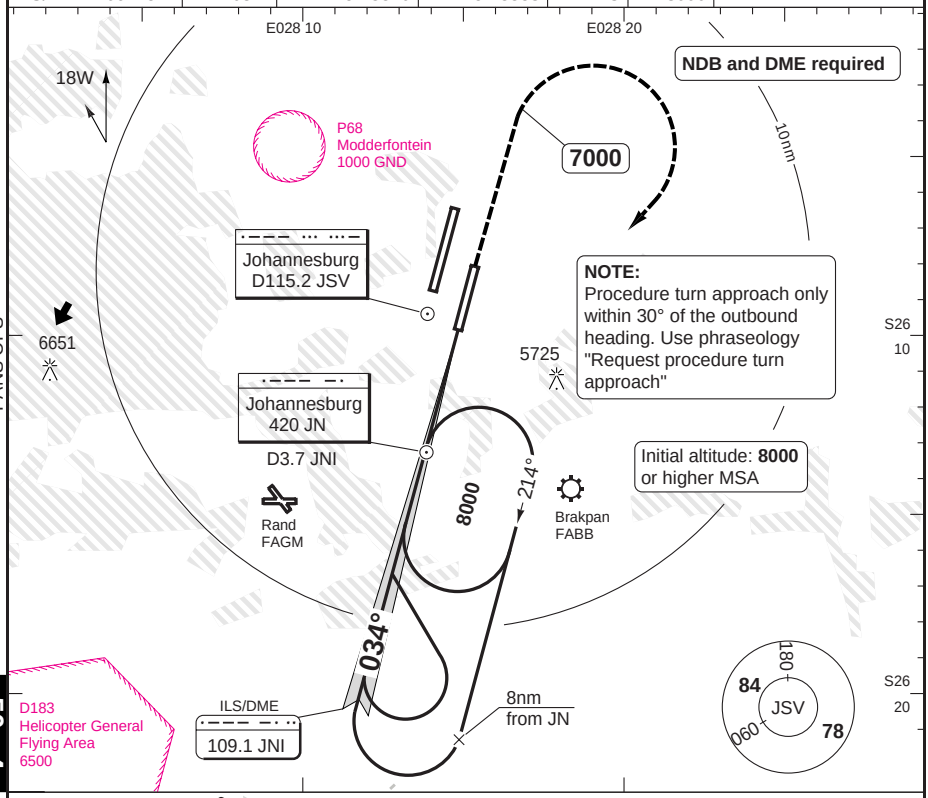
Change: ICAO code, minima

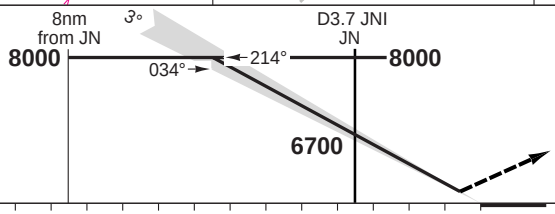
ILS Y RWY 03R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.1 JNI** | FAT **034°** | THR Elev **5510** | AD Elev **5558** | TL **ATC** | TA **8000**





ACFT	CAT II	ILS+DME	Circling ⓐ	Circling ⓑ
A	RA **97** 300m	**5710** (200) 550m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6250** (692) 2.4km	**6410** (852) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.

LDA 3400x60
11154x196ft
P 3° L/R

FALS

PANS OPS

50 - 4

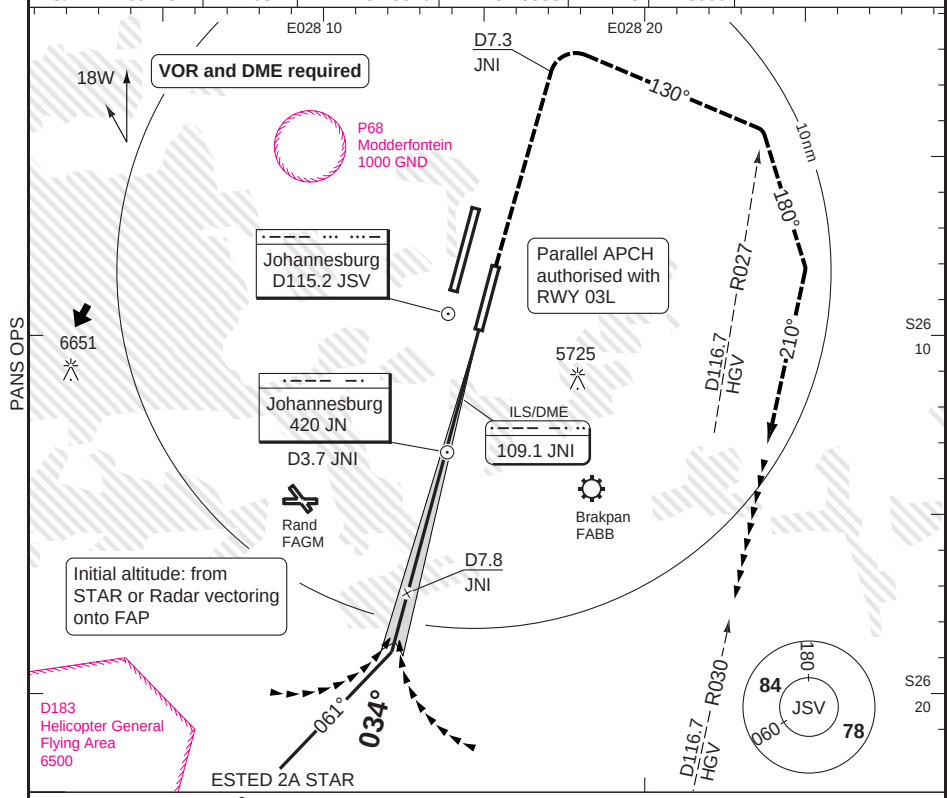
Change: ICAO code, minima

ILS X RWY 03R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.1 JNI**	FAT **034°**	THR Elev **5510**	AD Elev **5558**	TL **ATC**	TA **8000**



ACFT	CAT II 5.8%	ILS+DME 5.8%	ILS+DME 2.5%	Circling ⓐ ⓒ	Circling ⓑ ⓒ
A	*RA* **97** 300m	**5710** (200) 550m	**6790** (1272) 5000m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6800** (1285) 5000m	**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6810** (1295) 5000m	**6250** (692) 2.4km	**6410** (852) 2.4km
D/D$_L$	*RA* **94** 300m	**5720** (201) 550m	**6820** (1305) 5000m	**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD
ⓑ West of AD
ⓒ ILS 2.5% circling see 51-1

LDA 3400x60
11154x197ft
P 3° L/R

FALS

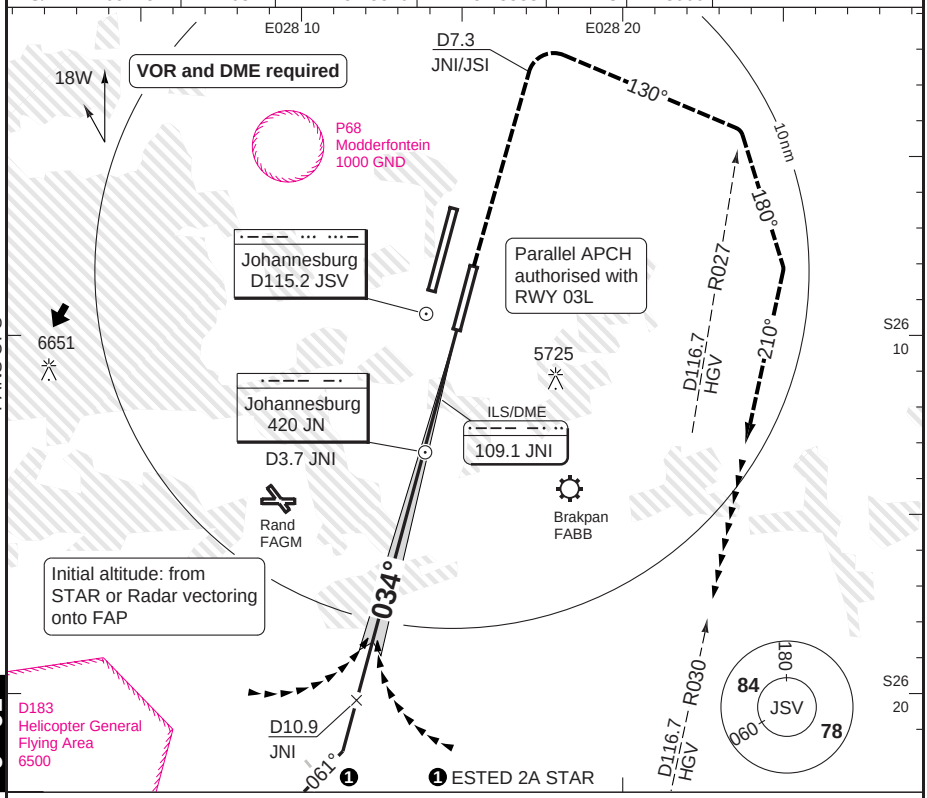
Change: ICAO code, minima

ILS W RWY 03R

O R Tambo INTL JOHANNESBURG

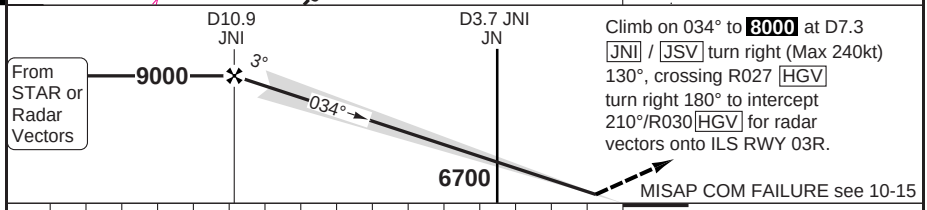
Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.1 JNI** | FAT **034°** | THR Elev **5510** | AD Elev **5558** | TL **ATC** | TA **8000**



PANS OPS

50 - 6



ACFT	CAT II 5.8%	ILS+DME 5.8%	ILS+DME 2.5%	Circling ⓐ ⓒ	Circling ⓑ ⓒ
A	*RA* **97** 300m	**5710** (200) 550m	**6790** (1272) 5000m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6800** (1285) 5000m	**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6810** (1295) 5000m	**6250** (692) 2.4km	**6410** (852) 2.4km
D/D$_L$	*RA* **94** 300m	**5720** (201) 550m	**6820** (1305) 5000m	**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

LDA 3400x60
11154x197ft
P 3° L/R

FALS

ⓐ East of AD
ⓑ West of AD
ⓒ ILS+DME 2.5% circling see 51-1

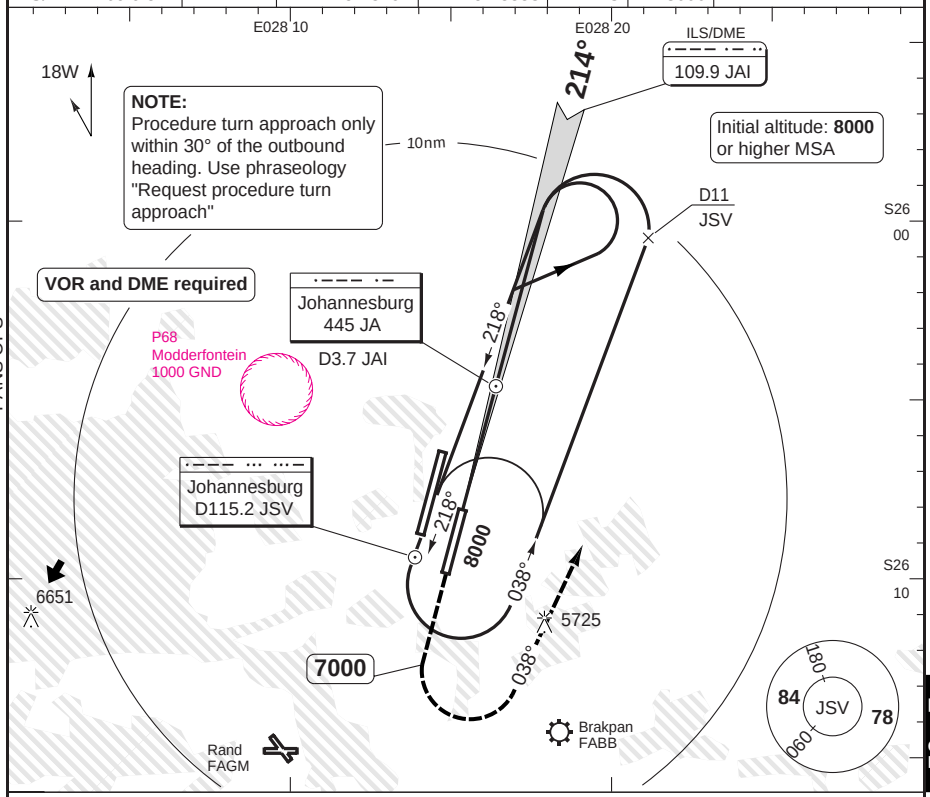
Change: ICAO code, minima

ILS Z RWY 21L

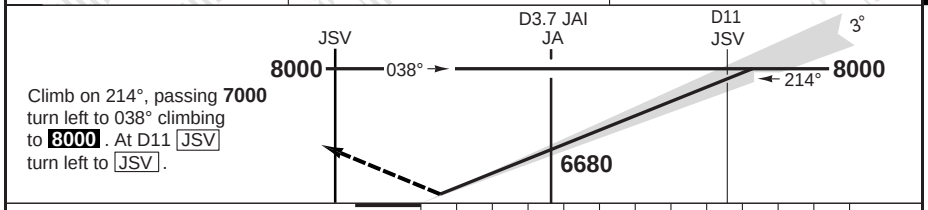
O R Tambo INTL **JOHANNESBURG**

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.9 JAI** | FAT **214°** | THR Elev **5494** | AD Elev **5558** | TL **ATC** | TA **8000**



PANS OPS



Climb on 214°, passing **7000** turn left to 038° climbing to **8000**. At D11 JSV turn left to JSV.

TCH 53

ACFT	CAT II	ILS+DME	Circling ⓐ	Circling ⓑ
A	*RA* **102** 300m	**5700** (200) 550m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6250** (692) 2.4km	**6410** (852) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.

LDA 3400x60
11154x196ft
P 3° L/R

FALS

50 - 7

Change: ICAO code, minima

ILS Y RWY 21L

O R Tambo INTL **JOHANNESBURG**

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.9 JAI** | FAT **214°** | THR Elev **5494** | AD Elev **5558** | TL **ATC** | TA **8000**

E028 10 — E028 20

ILS/DME 109.9 JAI

18W

NDB and DME required

Initial altitude: **8000** or higher MSA

8nm From JA

214°

Grand Central FAGC

10nm

Johannesburg 445 JA

D3.7 JAI

P68 Modderfontein 1000 GND

8000

034°

Paradise Beach FARA

S26 00

S26 10

Johannesburg D115.2 JSV

NOTE:
Procedure turn approach only within 30° of the outbound heading. Use phraseology "Request procedure turn approach"

6651

7000

5725

180 84 JSV 78 090

Rand FAGM

Brakpan FABB

PANS OPS

50 - 8

D3.7 JAI JA 8000 — 034° — 214° — 3° — 8nm from JA 8000

6680

Climb on 214°, passing **7000** turn left to JA climbing to **8000**.

TCH 53

0 1 2 3 4 5 6 7 8 9 10 11 12 13 nm

ACFT	CAT II	ILS+DME	Circling ⓐ	Circling ⓑ
A	*RA* **102** 300m	**5700** (200) 550m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6250** (692) 2.4km	**6410** (852) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.

LDA 3400x60
11154x196ft
P 3° L/R

FALS

Change: ICAO code, minima

ILS X RWY 21L

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

ILS/DME **109.9 JAI**	FAT **214°**	THR Elev **5494**	AD Elev **5558**	TL **ATC**	TA **8000**

E028 10 E028 20

18W

VOR and DME required

Grand Central FAGC

ILS/DME 109.9 JAI

214°

Initial altitude: from STAR or Radar vectoring onto FAP

10nm

Johannesburg 445 JA

D3.7 JAI

D7.7 JAI

P68 Modderfontein 1000 GND

D4 JAI

Johannesburg D115.2 JSV

Parallel APCH authorised with RWY 21R

Paradise Beach FARA

R217 D114.3 MEV

D114.3 MEV

S26 00

S26 10

6651

5725

D3.5 JAI MAX 240kt

Brakpan FABB

Rand FAGM

R222

037°

070°

125°

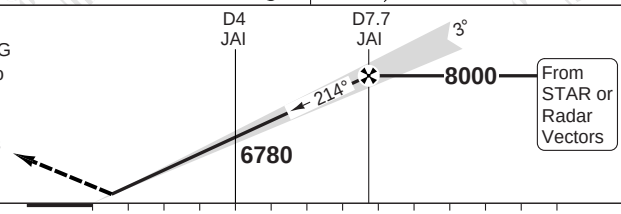
180 84 JSV 78 090

PANS OPS

50 - 9

Climb on 214° to **7000**. At D3.5 JAI turn left (Max 240kt) onto HDG 125° and once established climb to **8000**. Crossing R222 MEV turn left HDG 070 to intercept 037°/R217 MEV for radar vectors onto ILS RWY 21L.

MISAP COM FAILURE see 10-15



TCH 53

0 1 2 3 4 5 6 7 8 9 10 11 12 13 nm

ACFT	CAT II 4.6%	ILS+DME 4.6%	ILS+DME 2.5%	Circling ⓐ ⓒ	Circling ⓑ ⓒ
A	*RA* **102** 300m	**5700** (200) 550m	**6640** (1140) 1500m	**6050** (492) 1.5km	**6070** (512) 1.5km
B			**6650** (1151) 1500m	**6060** (500) 1.6km	**6070** (512) 1.6km
C			**6660** (1161) 2400m	**6250** (692) 2.4km	**6410** (852) 2.4km
D/D$_L$			**6670** (1175) 2400m	**6260** (700) 3.6km	**6410** (852) 3.6km

EU OPS

ⓐ East of AD
ⓑ West of AD
ⓒ ILS+DME 2.5% circling see 51-1

LDA 3400x60
11154x196ft
P 3° L/R

FALS

Change: ICAO code, minima

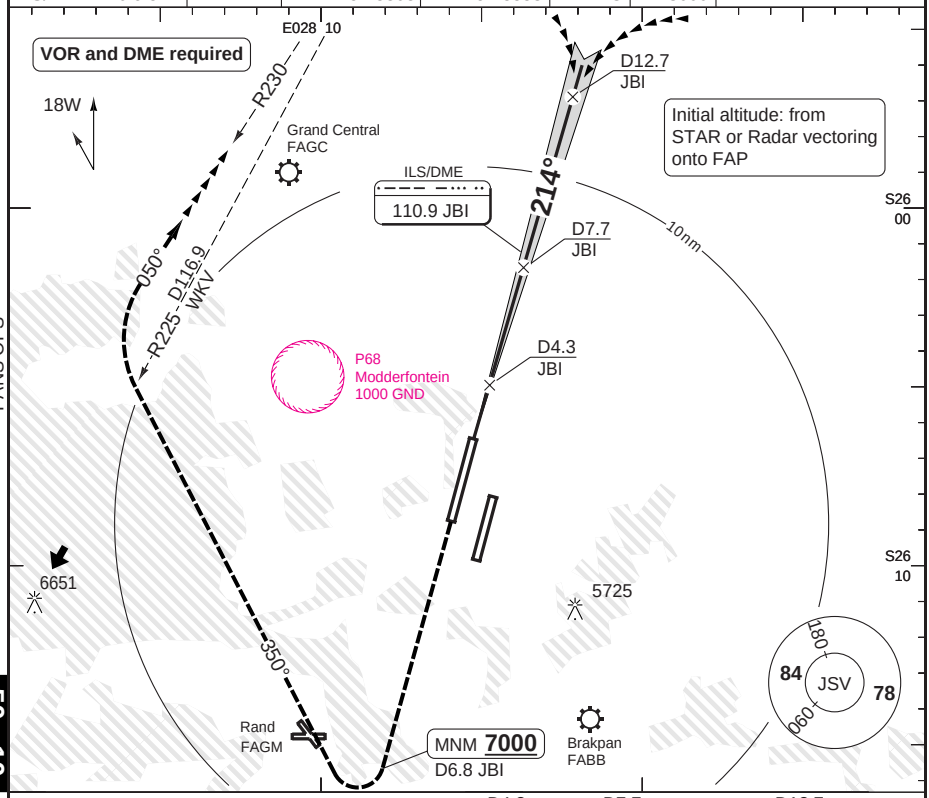
South Africa - FAJS / JNB

ILS RWY 21R

O R Tambo INTL **JOHANNESBURG**

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

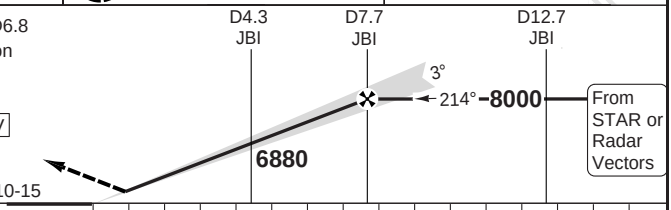
ILS/DME **110.9 JBI**	FAT **214°**	THR Elev **5505**	AD Elev **5558**	TL **ATC**	TA **8000**



PANS OPS

50 - 10

Climb on 214° to **8000** at D6.8 JBI turn right (MAX 250kt) on HDG 350°.
Crossing R225 WKV turn right to intcp R230 WKV for radar vectors onto ILS RWY 21R.
MISAP COM FAILURE see 10-15



RDH 53

ACFT	CAT II 3.7%	ILS+DME 3.7 %	ILS+DME 2.5%	Circling ⓑ	Circling ⓒ
A	*RA* **97** 300m	**5710** (200) 750m	**6090** (579) 1500m	**6110** (545) 1.5km ⓐ	**6130** (565) 1.5km ⓐ
B			**6100** (586) 1500m	**6110** (545) 1.6km ⓐ	**6130** (565) 1.6km ⓐ
C			**6110** (599) 2300m	**6310** (745) 2.4km	**6470** (905) 2.4km
D/D$_L$			**6120** (606) 2400m	**6310** (745) 3.6km	**6470** (905) 3.6km

EU OPS

ⓐ After ILS+DME 2.5%:
Cat A **6140** (579) 1.5km
Cat B **6150** (586) 1.6km

ⓑ East of AD.
ⓒ West of AD.

LDA 3968x60
13018x197ft
P 3° L/R

IALS

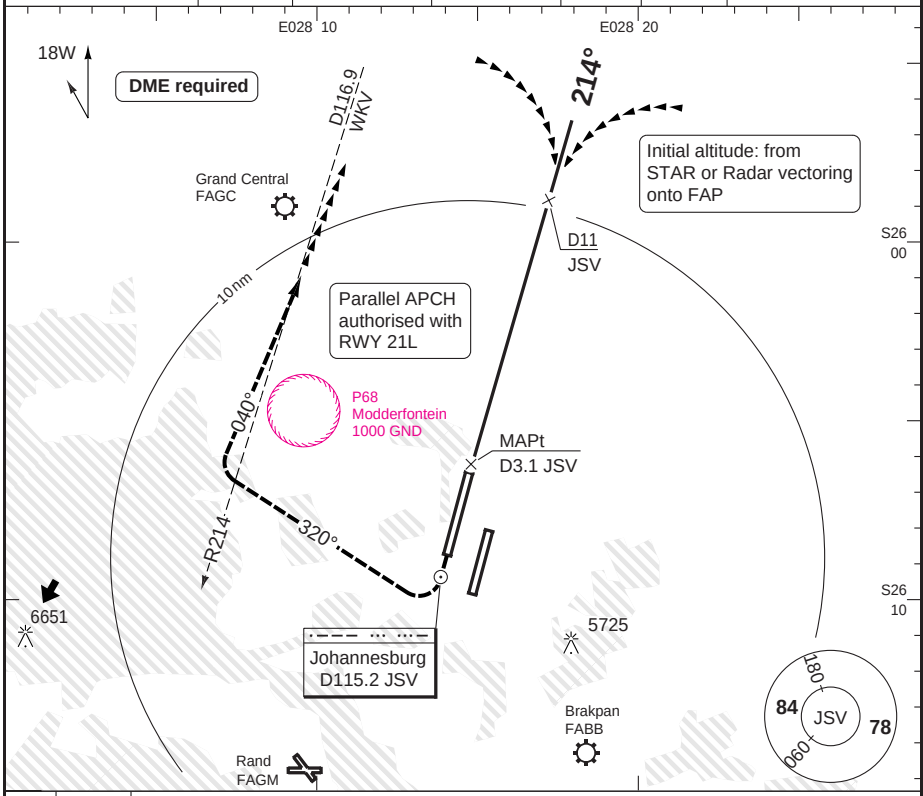
Change: ICAO code, minima

VOR Y RWY 21R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

VOR/DME **115.2 JSV** | FAT **214°** | THR Elev **5505** | AD Elev **5558** | TL **ATC** | TA **8000**

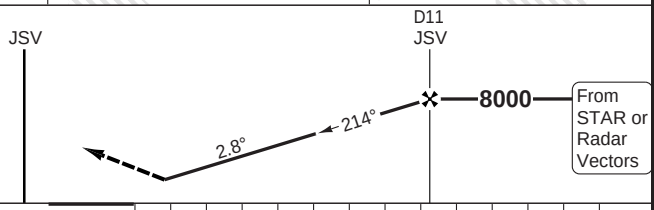


PANS OPS

50 - 11

MAPt | D3.1 JSV

Climb on 214° to **8000** at JSV turn right (Max 240kt) HDG 320° Crossing R214 WKV turn right HDG 040° for radar vectors. MISAP COM FAILURE see 10-15



ACFT	VOR+DME ⓐ	VOR+DME ⓑ	Circling ⓐ ⓒ	Circling ⓐ ⓓ	Circling ⓑ
A	**5980** (475) 1500m	**7030** (1525) 5000m	**6110** (545) 1.5km	**6130** (565) 1.5km	**7090** (1525) 5.0km
B			**6110** (545) 1.6km	**6130** (565) 1.6km	
C	**5980** (475) 1800m		**6310** (745) 2.4km	**6470** (905) 2.4km	
D			**6310** (745) 3.6km	**6470** (905) 3.6km	

EU OPS

GS	80	100	120	140	160
ROD 2.9°	420	520	630	730	830

ⓐ MNM climb of 5.0% ⓒ East of AD
ⓑ MNM climb of 2.5% ⓓ West of AD

DME JSV	2.9° ALT
11	**8000**
10	**7700**
9	**7390**
7.9	**7030**
7	**6770**
6	**6460**
5	**6150**
4.5	**5980**

LDA 3968x60 *13018x197ft* P 3° L/R

IALS

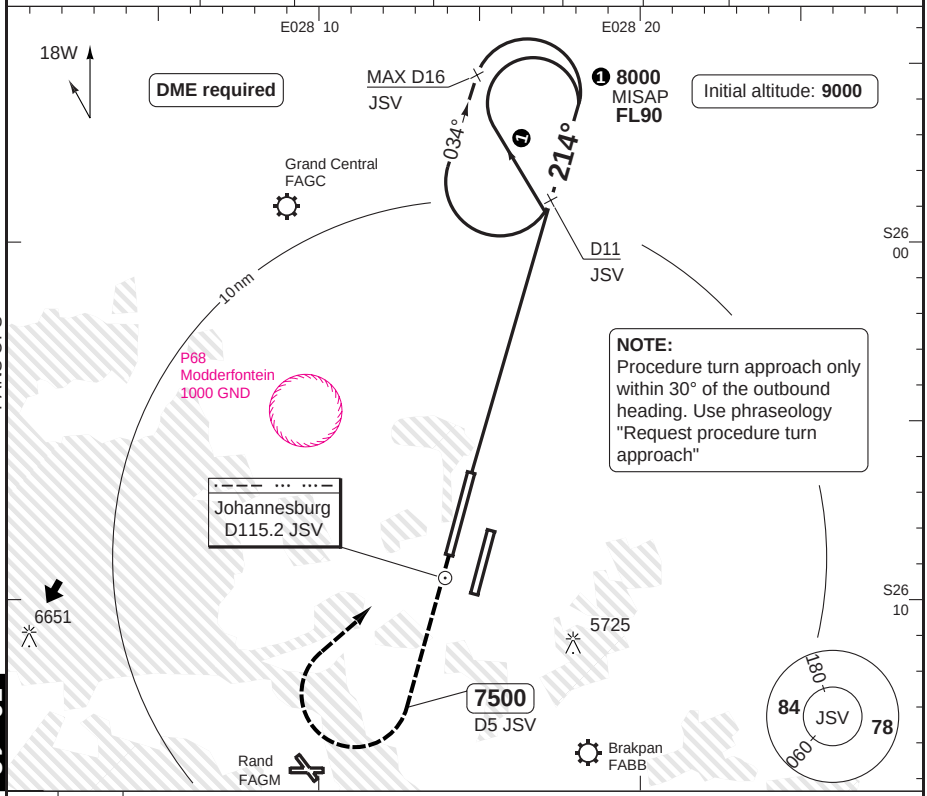
Change: ICAO code

VOR Z RWY 21R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

VOR/DME **115.2 JSV** | FAT **214°** | THR Elev **5505** | AD Elev **5558** | TL **ATC** | TA **8000**

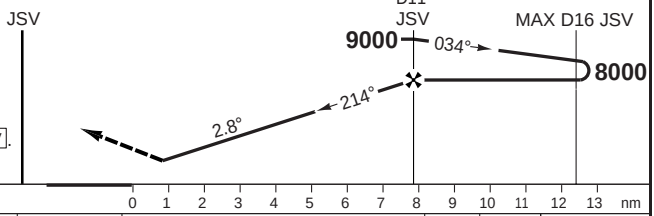


PANS OPS

50 - 12

MAPt D3 JSV

Climb on R214 JSV to **7500** or D5 after JSV, whichever later. Turn right to JSV climbing to **FL90**. Enter holding at D11/R034 JSV.



ACFT	VOR+DME	Circling ⓐ	Circling ⓑ
A	**6120** (615) 1500m	**6180** (615) 1.5km	**6180** (615) 1.5km
B		**6180** (615) 1.6km	**6180** (615) 1.6km
C	**6120** (615) 2400m	**6310** (745) 2.4km	**6470** (905) 2.4km
D		**6310** (745) 3.6km	**6470** (905) 3.6km

ⓐ East of AD.
ⓑ West of AD.

GS	80	100	120	140	160
ROD 2.9°	420	520	630	730	830

DME JSV	2.9° ALT
11	**8000**
10	**7700**
9	**7390**
8	**7080**
7	**6770**
6	**6460**
4.7	**6060**

LDA 3968x60
13018x197ft
P 3° L/R
IALS

EU OPS

Change: ICAO code

NDB RWY 21R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

NDB **360 JB**	FAT **214°**	THR Elev **5505**	AD Elev **5558**	TL **ATC**	TA **8000**

E028 10 E028 20

18W

Grand Central
FAGC

Johannesburg
360 JB

10nm

214°

5nm
From JB

Initial altitude: **8000**
or higher MSA

8000
MISAP
8300

034°

P68
Modderfontein
1000 GND

NOTE:
Procedure turn approach only within 30° of the outbound heading. Use phraseology "Request procedure turn approach"

Johannesburg
D115.2 JSV

6651

At **8300**

5725

Brakpan
FABB

Rand
FAGM

180
84
JSV
78
060

S26 00

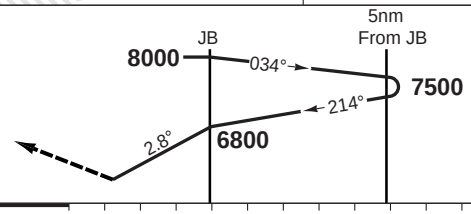
S26 10

PANS OPS

50 - 13

MAPt | THR

Climb on 214° to **8300**.
Turn right to JB.



ACFT	NDB	Circling ⓐ	Circling ⓑ
A	**5910** (405) 1500m	**6110** (545) 1.5km	**6130** (565) 1.5km
B		**6110** (545) 1.6km	**6130** (565) 1.6km
C		**6310** (745) 2.4km	**6470** (905) 2.4km
D		**6310** (745) 3.6km	**6470** (905) 3.6km

EU OPS

GS	80	100	120	140	160
ROD 3.0°	430	540	650	750	860
JB +20s	**6670**	**6630**	**6590**	**6560**	**6520**
+40s	**6520**	**6450**	**6380**	**6310**	**6240**
+60s	**6380**	**6270**	**6170**	**6060**	**5950**
JB- **5910**	2:05	1:40	1:23	1:11	1:02

LDA 3400x60
11154x197ft
P 3° L/R

IALS

ⓐ East of AD.
ⓑ West of AD.

Change: ICAO code

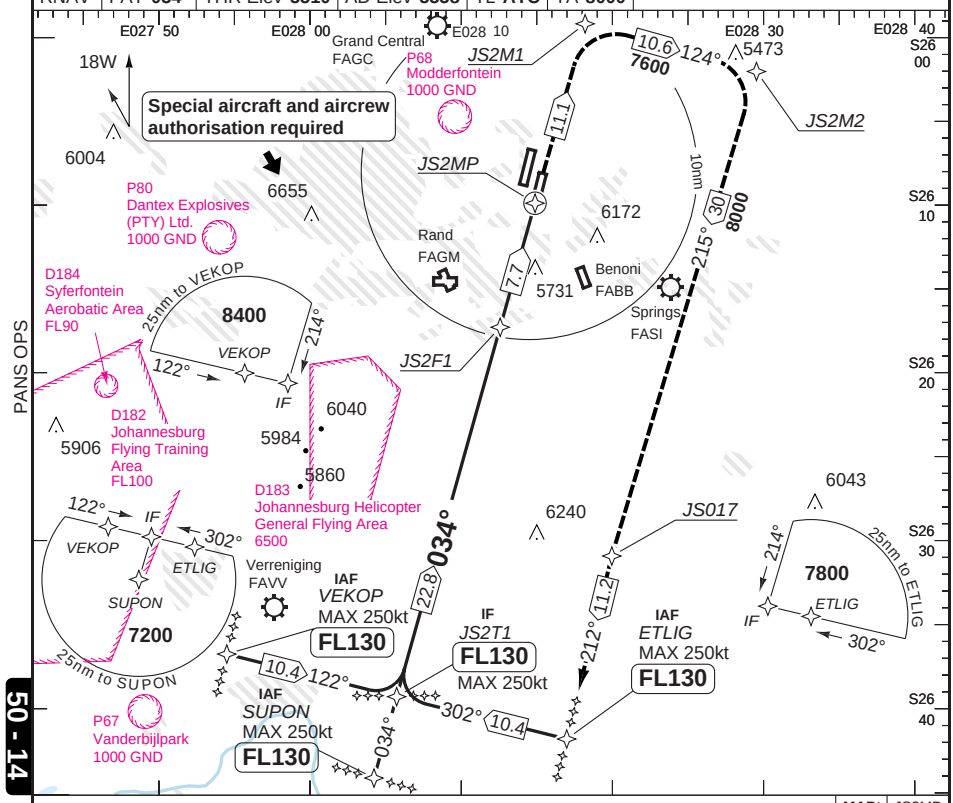
South Africa - FAJS / JNB

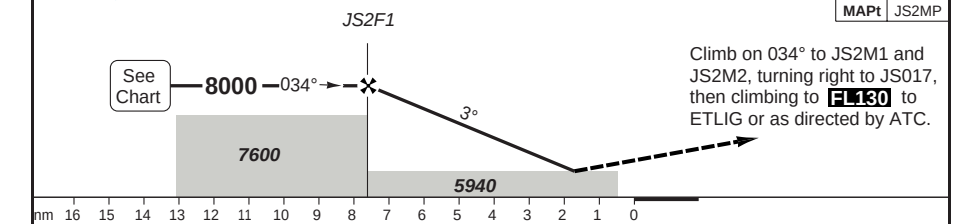
RNAV (GNSS) RWY 03R

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

RNAV	FAT **034°**	THR Elev **5510**	AD Elev **5558**	TL **ATC**	TA **8000**





Climb on 034° to JS2M1 and JS2M2, turning right to JS017, then climbing to **FL130** to ETLIG or as directed by ATC.

ACFT	LNAV 3.8%	LNAV 2.5%	Circling ⓐ	Circling ⓑ	Circling ⓒ
A	**5940** (430) 1300m	**6510** (1000) 1500m	**6050** (492) 1.5km	**6070** (512) 1.5km	**6560** (1000) 1.5km
B			**6060** (500) 1.6km	**6070** (512) 1.6km	**6560** (1000) 1.6km
C		**6510** (1000) 2400m	**6250** (692) 2.4km	**6410** (852) 2.4km	**6560** (1000) 2.4km
D	**5940** (430) 1400m		**6260** (700) 3.6km	**6410** (852) 3.6km	**6560** (1000) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.
ⓒ After LNAV 2.5% procedure.

LDA 3400x60
11154x196ft
P3° L/R

FALS

PANS OPS

50 - 14

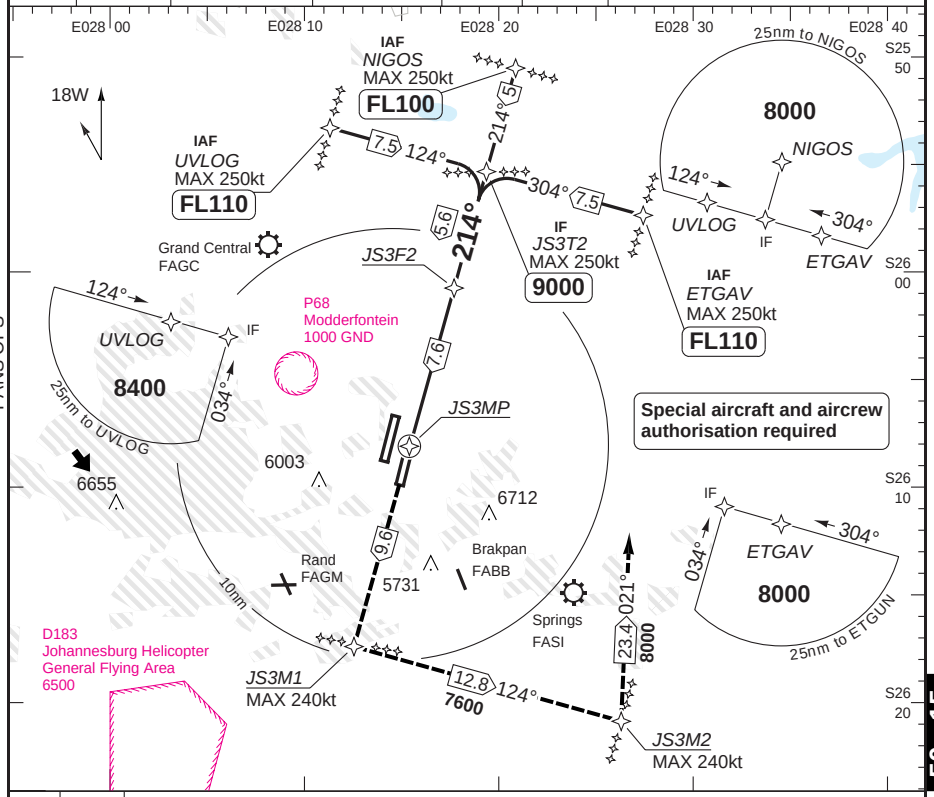
Change: ICAO code

RNAV (GNSS) RWY 21L

O R Tambo INTL JOHANNESBURG

Johannesburg APP	DIR	TWR	GND	APN ARR	ATIS
123.7 West **124.5** South/East	**121.4**	**118.1** West **118.6** East **121.9**	**121.9**	**122.65**	**126.2** **131.725** (D) **115.2**

RNAV	FAT **214°**	THR Elev **5494**	AD Elev **5558**	TL **ATC**	TA **8000**

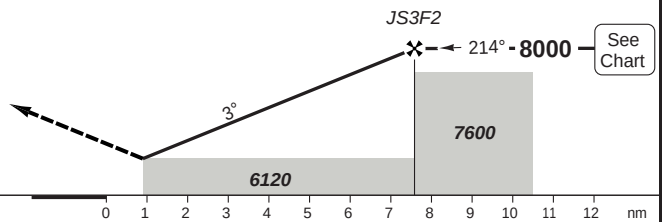


PANS OPS

50 - 15

MAPt JS3MP

Climb on 214° to JS3M1 to JS3M2 (MAX 240kt), climbing to **8000** to ETGAV or as directed by ATC.



ACFT	LNAV 3.5%	LNAV 2.5%	Circling ⓐ	Circling ⓑ	Circling ⓒ
A	**6120** (626) 1500m	**6530** (1036) 1500m	**6190** (626) 1.5km	**6190** (626) 1.5km	**6600** (1036) 1.5km
B			**6190** (626) 1.6km	**6190** (626) 1.6km	**6600** (1036) 1.6km
C	**6120** (626) 2200m	**6530** (1036) 2400m	**6250** (692) 2.4km	**6410** (852) 2.4km	**6600** (1036) 2.4km
D			**6260** (700) 3.6km	**6410** (852) 3.6km	**6600** (1036) 3.6km

EU OPS

ⓐ East of AD.
ⓑ West of AD.
ⓒ After LNAV 2.5% procedure.

LDA 3400x60
11154x196ft
P 3° L/R

FALS

Reverse side blank

Change: ICAO code

JAR-OPS Landing Minima O.R Tambo INTL JOHANNESBURG

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		C				D			
R/W	Procedure	**DA/ MDA QNH** ft	DH/ MDH QFE ft	**RVR** m	RVR No ALS m	**DA/ MDA QNH** ft	DH/ MDH QFE ft	**RVR** m	RVR No ALS m
03L	ILS/DME Y (M/App 2.5%)(1)	**6300**	740	800	1200	**6320**	760	800	1200
03L	ILS/DME Y (M/App 3.5%)(1)	**5760**	200	550	1000	**5760**	210	600	1000
03L	ILS/DME Z	**5760**	200	550	1000	**5760**	200	550	1000
03R	ILS/DME W, X (M/App 2.5%)(1)	**6810**	1300	800	1200	**6820**	1310	800	1200
03R	ILS/DME W, X (M/App 5.8%)(1)	**5710**	200	550	1000	**5720**	210	600	1000
03R	ILS/DME Y, Z	**5710**	200	550	1000	**5710**	200	550	1000
21L	ILS/DME X (M/App 2.5%)(1)	**6660**	1170	800	1200	**6670**	1180	800	1200
21L	ILS/DME X (M/App 4.6%)(1)	**5700**	200	550	1000	**5700**	200	550	1000
21L	ILS/DME Y, Z	**5700**	200	550	1000	**5700**	200	550	1000
21R	ILS/DME (M/App 2.5%)(1)	**6110**	600	800	1200	**6120**	610	800	1200
21R	ILS/DME (M/App 3.7%)(1)	**5710**	200	550	1000	**5710**	200	550	1000
21R	VOR/DME Y (M/App 2.5%)(1)	**7030**	1530	1400	2000	**7030**	1530	1800	2000
21R	VOR/DME Y (M/App 5.0%)(1)	**5980**	480	1200	2000	**5980**	480	1600	2000
21R	VOR/DME Z	**6120**	620	1200	2000	**6120**	620	1600	2000
21R	NDB	**5910**	410	1000	1800	**5910**	410	1400	2000

Notes:
(1) Includes Cat DL aeroplanes.

CIRCLING		C			D		
R/W	Procedure	**MDA QNH ft**	MDH QFE ft	Vis m	**MDA QNH ft**	MDH QFE ft	Vis m
21R All Procs (1)		**6470**	910	2400	**6470**	910	3600
21R All Procs (2)		**6310**	750	2400	**6310**	750	3600
All Other Procs (1)		**6410**	860	2400	**6410**	860	3600
All Other Procs (2)		**6250**	700	2400	**6260**	700	3600

Notes:
(1) West of Rwy 03/21.
(2) East of Rwy 03/21.

TAKE-OFF		C	D
Runway	**Facilities**	m	m
	RCLL(H)+REDL(H)+Multi RVR (1)	-	-
03L, 03R, 21L	RCLL+REDL+Multi RVR	150	200
03L, 03R, 21L	RCLL+REDL	200	250
03L, 03R, 21L, 21R	RCL and/or REDL (2)	250	300
All	Nil (Day only)	500	500

Notes:
(1) Subject to Approval.
(2) For night operations, at least runway edge and end lights required.

JAR-OPS Landing Minima O.R Tambo INTL JOHANNESBURG

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		A				B			
R/W	Procedure	**DA/ MDA QNH** ft	DH/ MDH QFE ft	**RVR** m	RVR No ALS m	**DA/ MDA QNH** ft	DH/ MDH QFE ft	**RVR** m	RVR No ALS m
03L	ILS/DME Y (M/App 2.5%)(1)	**6280**	720	800	1200	**6290**	730	800	1200
03L	ILS/DME Y (M/App 3.5%)(1)	**5760**	200	550	1000	**5760**	200	550	1000
03L	ILS/DME Z	**5760**	200	550	1000	**5760**	200	550	1000
03R	ILS/DME W, X (M/App 2.5%)(1)	**6790**	1280	800	1200	**6800**	1290	800	1200
03R	ILS/DME W, X (M/App 5.8%)(1)	**5710**	200	550	1000	**5710**	200	550	1000
03R	ILS/DME Y, Z	**5710**	200	550	1000	**5710**	200	550	1000
21L	ILS/DME X (M/App 2.5%)(1)	**6640**	1140	800	1200	**6650**	1160	800	1200
21L	ILS/DME X (M/App 4.6%)(1)	**5700**	200	550	1000	**5700**	200	550	1000
21L	ILS/DME Y, Z	**5700**	200	550	1000	**5700**	200	550	1000
21R	ILS/DME (M/App 2.5%)(1)	**6090**	580	800	1200	**6100**	590	800	1200
21R	ILS/DME (M/App 3.7%)(1)	**5710**	200	550	1000	**5710**	200	550	1000
21R	VOR/DME Y (M/App 2.5%)(1)	**7030**	1530	1200	1500	**7030**	1530	1400	1500
21R	VOR/DME Y (M/App 5.0%)(1)	**5980**	480	1000	1500	**5980**	480	1200	1500
21R	VOR/DME Z	**6120**	620	1000	1500	**6120**	620	1200	1500
21R	NDB	**5910**	410	900	1500	**5910**	410	1000	1500

Notes:
(1) Includes Cat DL aeroplanes.

CIRCLING		A			B		
R/W	Procedure	**MDA QNH ft**	MDH QFE ft	Vis m	**MDA QNH ft**	MDH QFE ft	Vis m
21R All Procs (1)		**6130**	570	1500	**6130**	570	1600
21R All Procs (2)		**6110**	550	1500	**6110**	550	1600
All Other Procs (1)		**6070**	520	1500	**6070**	520	1600
All Other Procs (2)		**6050**	500	1500	**6060**	500	1600

Notes:
(1) West of Rwy 03/21.
(2) East of Rwy 03/21.

TAKE-OFF		A	B
Runway	**Facilities**	m	m
	RCLL(H)+REDL(H)+Multi RVR (1)	-	-
03L, 03R, 21L	RCLL+REDL+Multi RVR	150	150
03L, 03R, 21L	RCLL+REDL	200	200
03L, 03R, 21L, 21R	RCL and/or REDL (2)	250	250
All	Nil (Day only)	500	500

Notes:
(1) Subject to Approval.
(2) For night operations, at least runway edge and end lights required.

JAR-OPS Landing Minima O.R Tambo INTL JOHANNESBURG

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

CAT II

Special aircrew and aircraft certification required.

	C				D			
Runways	**DA QNH ft**	DH QFE ft	**RA ft**	RVR m	**DA QNH ft**	DH QFE ft	**RA ft**	RVR m
03L Y (M/app 3.5%)(**1**)(2)	**5658**	100	88	300	**5662**	104	92	350
03L Z (**1**)	**5658**	100	88	300	**5658**	100	88	350
03R W, X (M/App 5.8%)(**1**)(2)	**5610**	100	95	300	**5619**	109	102	350
03R Y, Z (**1**)	**5610**	100	95	300	**5610**	100	95	350
21L X (M/App 4.6%)(**1**)(2)	**5594**	100	102	300	**5595**	101	103	350
21L Y, Z (**1**)	**5594**	100	102	300	**5594**	100	102	350

Notes:

1) Cat D RVR may be reduced to 300m when conducting autoland.

2) Includes Cat DL aeroplanes.

	A				B			
Runways	**DA QNH ft**	DH QFE ft	**RA ft**	RVR m	**DA QNH ft**	DH QFE ft	**RA ft**	RVR m
03L Y (M/app 3.5%)	**5658**	100	88	300	**5658**	100	88	300
03L Z	**5658**	100	88	300	**5658**	100	88	300
03R W, X (M/App 5.8%)	**5610**	100	95	300	**5610**	100	95	300
03R Y, Z	**5610**	100	95	300	**5610**	100	95	300
21L X (M/App 4.6%)	**5594**	100	102	300	**5594**	100	102	300
21L Y, Z	**5594**	100	102	300	**5594**	100	102	300

Notes: