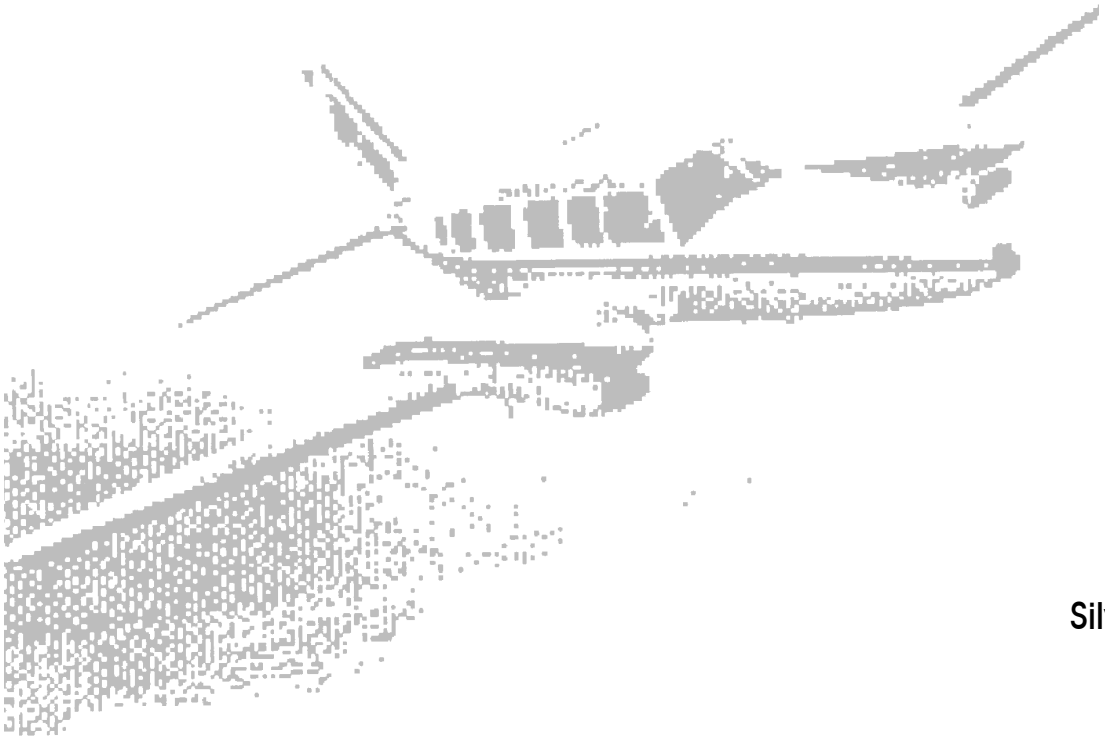
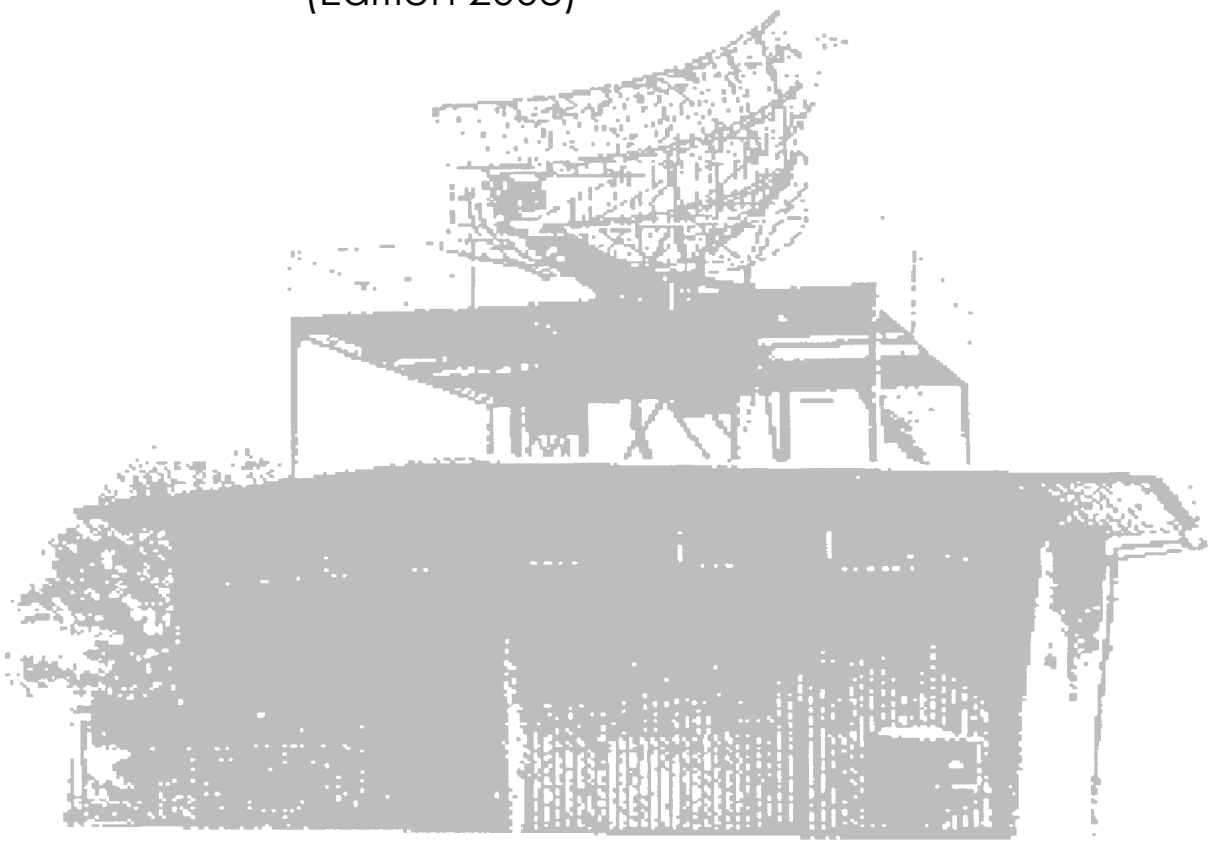


Silvio Giannini

Frozen JEPPESEN Route Manual for calling Radar **Training Exercises**

IFR Communications

(Edition 2008)



3. DEPARTURE

3.1. START-UP AND TAXI PROCEDURES

IFR traffic must contact BASLE Flight Data five minutes prior to estimated start-up time indicating:
- call sign,
- destination,
- parking position,
- ATIS code confirmed.

ACFT with wingspan of less than 118'/36m have to vacate Main Apron via orange taxi routes, other ACFT have to use yellow taxi routes.

3.2. NOISE ABATEMENT PROCEDURES

Pilots shall adopt climb configuration and power rating according to noise abatement techniques and the respective operational conditions. Climb to 5000' as soon as possible.

RWY 16

Authorized ACFT for SID BASUD 5Y (refer to 10-3) and SID HOC 5Y (refer to 10-3C) are:
- prop ACFT with Certificate of Noise Limitation (CLN);
- turbo-jet ACFT licensed according to ICAO Annex 16, Volume I,Part 11, Chapter 3 and with an overflying certification noise level of less than 89 EPNdB.

RWY 26

RWY 26 is the preferential RWY for ELBEG, GTQ, LUMEL, STR SIDs, unless otherwise specified by ATC. RWY 26 is recommended for take-off depending on the operational standards specific to each ACFT and the operational conditions at the moment.
If pilot can not use it, it is required to inform preflight BASLE (120.5) on first contact.

RWY 34

Recommended for certain types of ACFT during day (0600-2200LT) known as noisy by the APT authority and for all departures during night (2200-0600LT) subject to operational conditions.

3.3. OTHER INFORMATION

3.3.1. DATALINK DEPARTURE CLEARANCE (DCL)

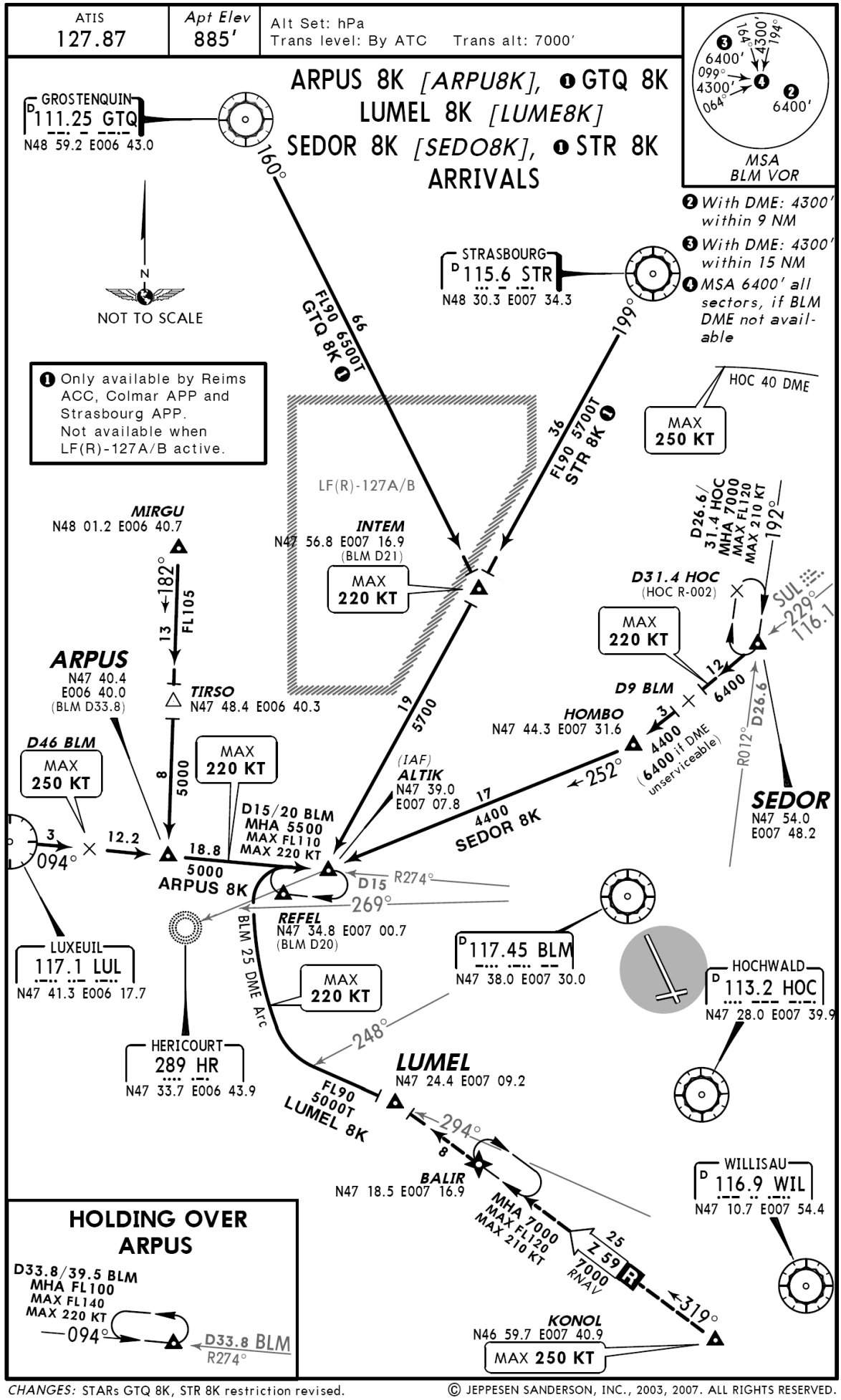
The following time parameters apply:

t_i 15 min before starting up time
t_t 5 min before starting up time
t_l 10 min before starting up time

No DCL service when RWY 34 in use.

ATIS	Apt Elev	Alt Set: hPa
127.87	885′	Trans level: By ATC Trans alt: 7000′

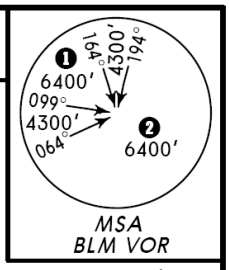
ARPUS 8K *[ARPU8K]*, ❶ GTQ 8K
LUMEL 8K *[LUME8K]*
SEDOR 8K *[SEDO8K]*, ❶ STR 8K
ARRIVALS



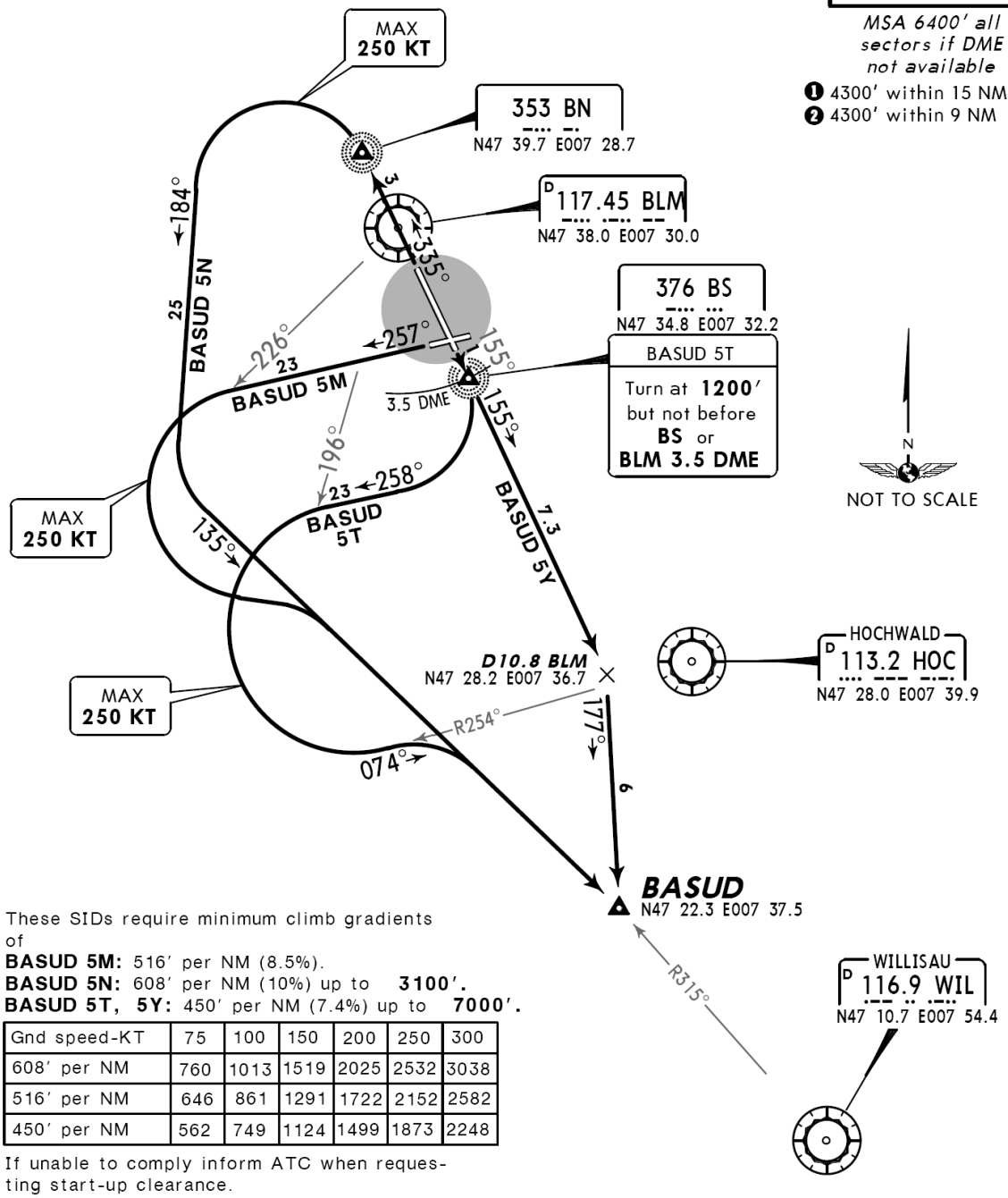
CHANGES: STARs GTQ 8K, STR 8K restriction revised.

Apt Elev	Trans level: By ATC Trans alt: 7000′
885′	These SIDs include minimum noise routings (refer to 10-4).

BASUD 5M *[BASU5M]*, BASUD 5N *[BASU5N]* BASUD 5T *[BASU5T]*, BASUD 5Y *[BASU5Y]* RWYS 26, 34, 16 DEPARTURES



MSA 6400′ all sectors if DME not available
1 4300′ within 15 NM
2 4300′ within 9 NM



These SIDs require minimum climb gradients of
BASUD 5M: 516′ per NM (8.5%).
BASUD 5N: 608′ per NM (10%) up to **3100′.**
BASUD 5T, 5Y: 450′ per NM (7.4%) up to **7000′.**

Gnd speed-KT	75	100	150	200	250	300
608′ per NM	760	1013	1519	2025	2532	3038
516′ per NM	646	861	1291	1722	2152	2582
450′ per NM	562	749	1124	1499	1873	2248

If unable to comply inform ATC when requesting start-up clearance.

Initial climb clearance **7000′**

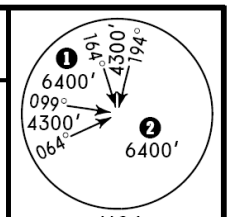
SID	RWY	ROUTING
BASUD 5M	**26**	Climb straight ahead, when passing BLM R-226 turn LEFT, intercept WIL R-315 inbound to BASUD.
BASUD 5N	**34**	Climb to BN, turn LEFT, 184° track, intercept WIL R-315 inbound to BASUD.
BASUD 5T	**16**	Climb straight ahead, at **1200′,** but not before BS or BLM 3.5 DME, turn RIGHT, 258° track, when passing BLM R-196 turn LEFT, 074° track, intercept WIL R-315 inbound to BASUD.
BASUD 5Y❸		Climb on BLM R-155 to D10.8 BLM, turn RIGHT, 177° track to BASUD.

❸ On request between 0700-2200LT for aircraft authorized by airport authority (refer to 10-1P7).

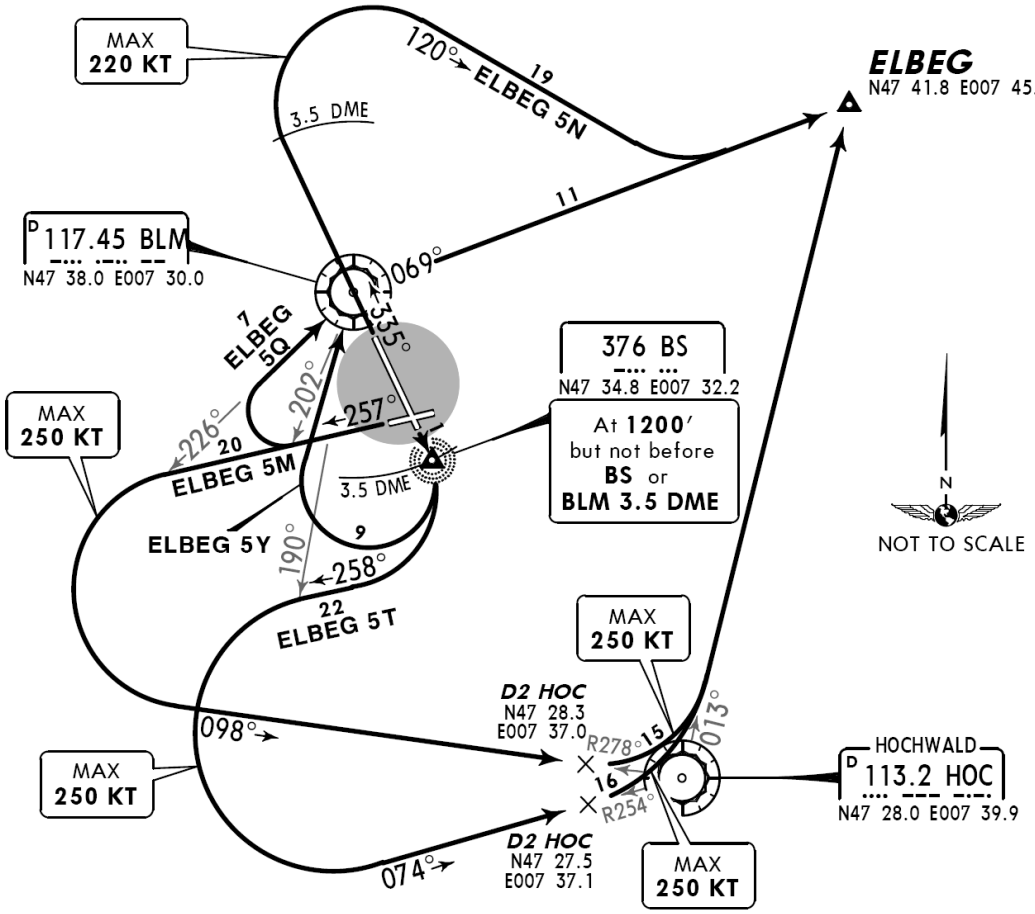
CHANGES: SIDs BASUD 5T, 5Y climb gradient.

Apt Elev	Trans level: By ATC Trans alt: 7000′
885′	These SIDs include minimum noise routings (refer to 10-4).

ELBEG 5M *[ELBE5M]*, ELBEG 5N *[ELBE5N]*
ELBEG 5Q *[ELBE5Q]*, ELBEG 5T *[ELBE5T]*
ELBEG 5Y *[ELBE5Y]*
RWYS 26, 34, 16 DEPARTURES



MSA 6400′ all sectors if DME not available
❶ 4300′ within 15 NM
❷ 4300′ within 9 NM



These SIDs require minimum climb gradients of
ELBEG 5M, 5Q: 516′ per NM (8.5%).
ELBEG 5N: 304′ per NM (5%).
ELBEG 5T, 5Y: 450′ per NM (7.4%) up to **7000′.**
If unable to comply inform ATC when requesting start-up clearance.

Gnd speed-KT	75	100	150	200	250	300
516′ per NM	646	861	1291	1722	2152	2582
450′ per NM	562	749	1124	1499	1873	2248
304′ per NM	380	506	760	1013	1266	1519

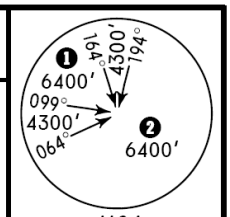
Initial climb clearance **7000′**

SID	RWY	ROUTING
ELBEG 5M	**26**	Climb straight ahead, when passing BLM R-226 turn LEFT, intercept HOC R-278 inbound to D2 HOC, intercept HOC R-013 to ELBEG.
ELBEG 5N	**34**	Climb on 335° track to BLM 3.5 DME, turn RIGHT, 120° track, intercept BLM R-069 to ELBEG.
ELBEG 5Q	**26**	Climb straight ahead, when passing BLM R-202, turn RIGHT to BLM, BLM R-069 to ELBEG.
ELBEG 5T	**16**	Climb straight ahead, at **1200′,** but not before BS or BLM 3.5 DME, turn RIGHT, 258° track, when passing BLM R-190 turn LEFT, intercept HOC R-254 inbound to D2 HOC, intercept HOC R-013 to ELBEG.
ELBEG 5Y		Climb straight ahead, at **1200′,** but not before BS or BLM 3.5 DME, turn RIGHT to BLM, BLM R-069 to ELBEG.

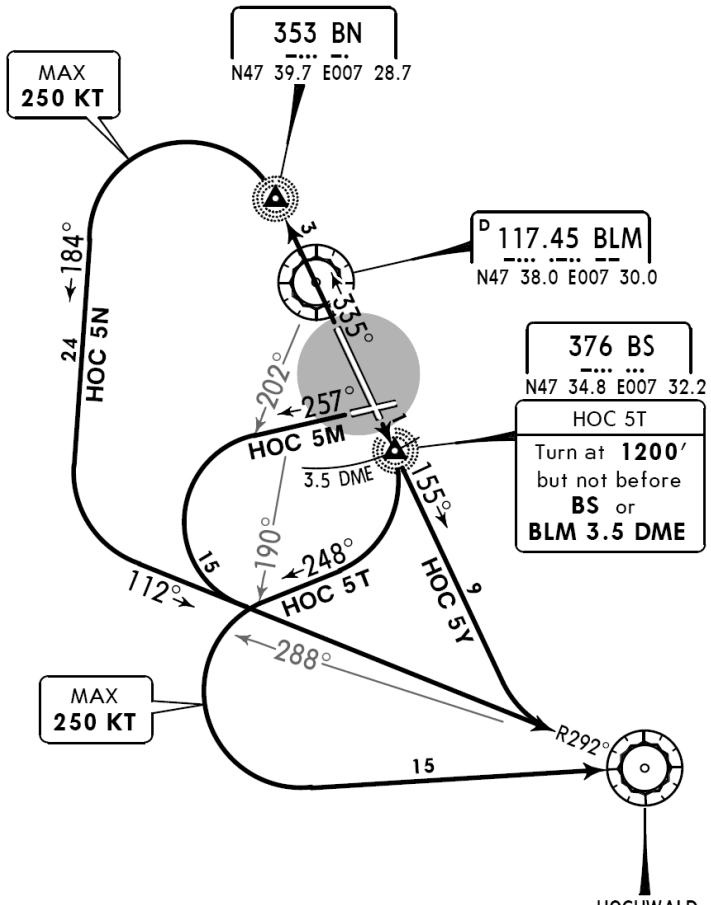
CHANGES: SIDs ELBEG 5T, 5Y climb gradient.

Apt Elev	Trans level: By ATC Trans alt: 7000′
885′	These SIDs include minimum noise routings (refer to 10-4).

HOC 5M, HOC 5N, HOC 5T, HOC 5Y
RWYS 26, 34, 16 DEPARTURES



MSA 6400′ all sectors if DME not available
❶ 4300′ within 15 NM
❷ 4300′ within 9 NM



These SIDs require minimum climb gradients of
HOC 5M: 516′ per NM (8.5%).
HOC 5N: 608′ per NM (10%) up to **3100′.**
HOC 5T, 5Y: 450′ per NM (7.4%) up to **7000′.**

Gnd speed-KT	75	100	150	200	250	300
608′ per NM	760	1013	1519	2025	2532	3038
516′ per NM	646	861	1291	1722	2152	2582
450′ per NM	562	749	1124	1499	1873	2248

If unable to comply inform ATC when requesting start-up clearance.

NOT TO SCALE

Initial climb clearance **7000′**

SID	RWY	ROUTING
HOC 5M	**26**	Climb straight ahead, when passing BLM R-202 turn LEFT, intercept HOC R-292 inbound to HOC.
HOC 5N	**34**	Climb to BN, turn LEFT, 184° track, intercept HOC R-292 inbound to HOC.
HOC 5T	**16**	Climb straight ahead, at **1200′,** but not before BS or BLM 3.5 DME, turn RIGHT, 248° track (remain north of HOC R-288), when passing BLM R-190 turn LEFT to HOC.
HOC 5Y ❸		Climb straight ahead, intercept 155° bearing from BS, intercept HOC R-292 inbound to HOC.

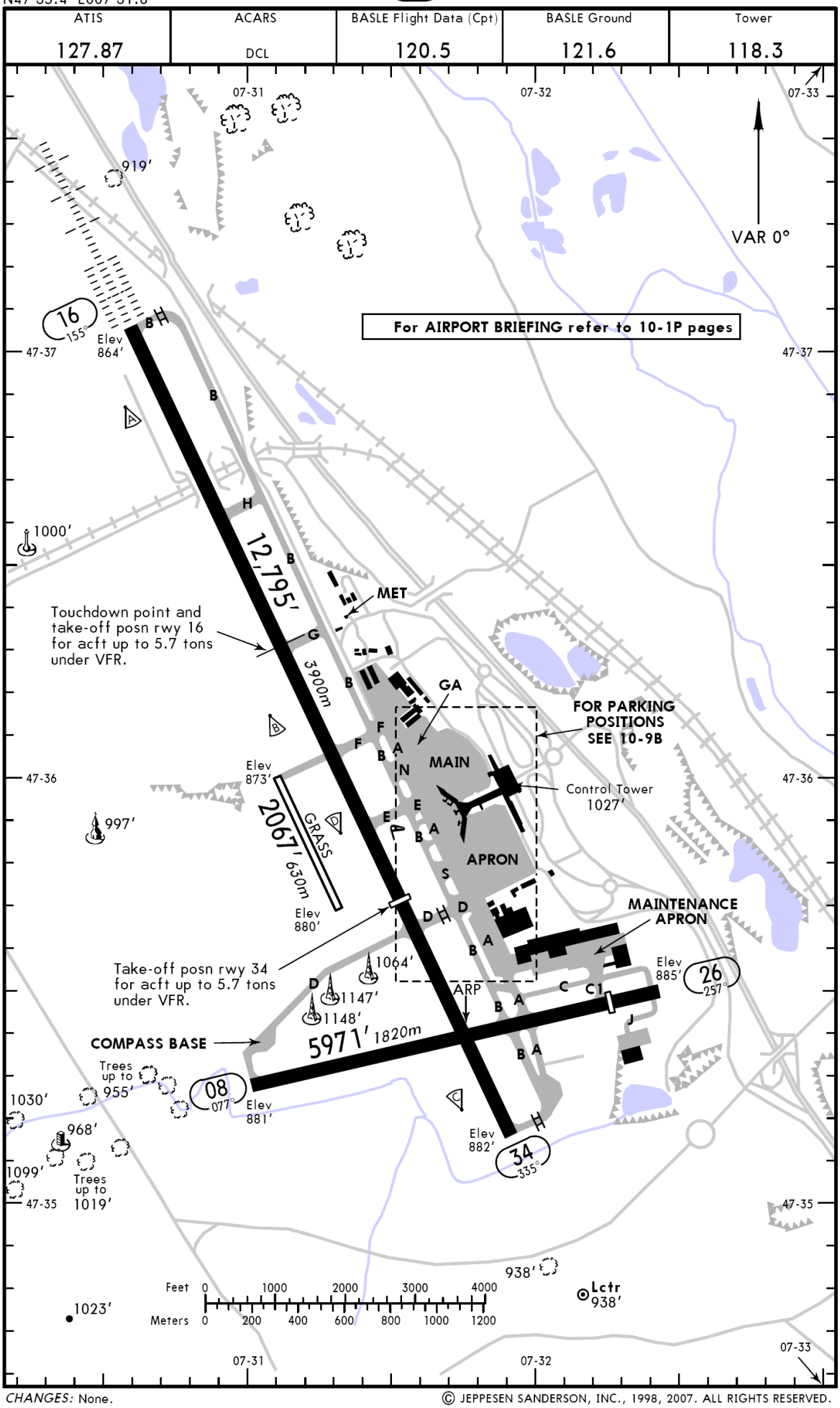
❸ On request between 0700-2200LT for aircraft authorized by airport authority (refer to 10-1P7).

CHANGES: SIDs HOC 5T, 5Y climb gradient.

LFSB/MLH
Apt Elev **885′**
N47 35.4 E007 31.8

JEPPESEN BASLE-MULHOUSE, FRANCE
5 OCT 07 (10-9)
BASLE-MULHOUSE

ATIS	ACARS	BASLE Flight Data (Cpt)	BASLE Ground	Tower
127.87	DCL	120.5	121.6	118.3



CHANGES: None.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

LFSB/MLH
BASLE-MULHOUSE

JEPPESEN 10 JUN 05 (11-1)

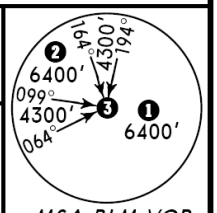
BASLE-MULHOUSE, FRANCE
via ALTIK when S/CTA COLMAR active
ILS Rwy 16

BRIEFING STRIP

ATIS	BASLE Approach	BASLE Tower	Ground
127.87	119.35	118.3	121.6

LOC MH	Final Apch Crs	GS	ILS DA(H)	Apt Elev 885′
111.55	155°	D3.6 MH 2030′ (1166′)	Refer to Minimums	RWY 864′

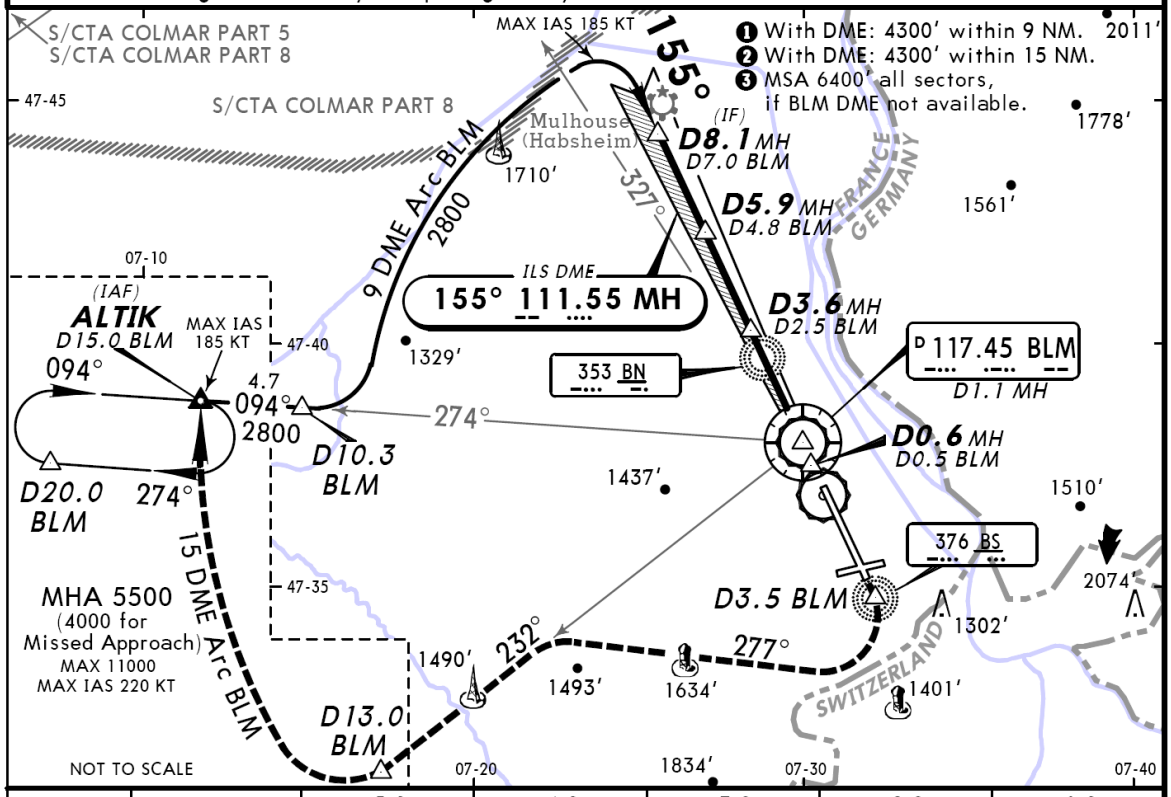
MISSED APCH: Climb STRAIGHT AHEAD to D3.5 BLM, then turn RIGHT onto 277°. Unless otherwise directed intercept R-232. At MAX D13.0 BLM turn RIGHT onto 15 DME Arc BLM climbing to MAX 4000′ to ALTIK. MAX IAS 220 KT. Climb to 3800′ prior to level acceleration.



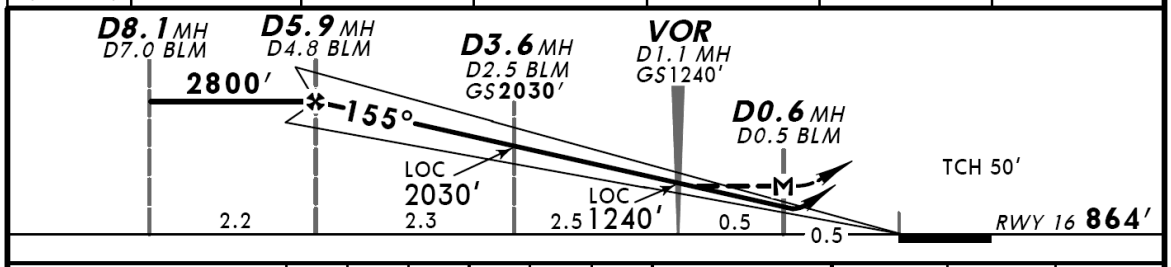
MSA BLM VOR

Alt Set: hPa | Rwy Elev: 31 hPa | Trans level: By ATC | Trans alt: 7000′

Do not mistake lighted motorway for apch lights rwy 16.



LOC (GS out)	BLM DME	5.0	4.0	3.0	2.0	1.0
	ALTITUDE	2830′	2510′	2190′	1870′	1560′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D0.6 MH/D0.5 after BLM						

HIALS-II
REIL

220 KT MAX

D3.5 BLM

JAR-OPS STRAIGHT-IN LANDING RWY 16

ILS with MH DME
Missed apch climb gradient mim 2.5% 1

DA(H) A: 1104′ (240′) C: 1124′ (260′)
B: 1114′ (250′) D: 1134′ (270′)

LOC (GS out) with BLM DME

MDA(H) 1180′ (316′)

	FULL	ALS out		ALS out
A	RVR 600m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C	RVR 650m	RVR 1200m		RVR 1800m
D			RVR 1400m	RVR 2000m

CIRCLE-TO-LAND 2

Circling height based on rwy 16 thresh elev of 864′

Max Kts	MDA(H)	VIS
110	1570′ (706′)	1500m
135	1600′ (736′)	1600m
180	2030′ (1166′)	2400m
205	2230′ (1366′)	3600m

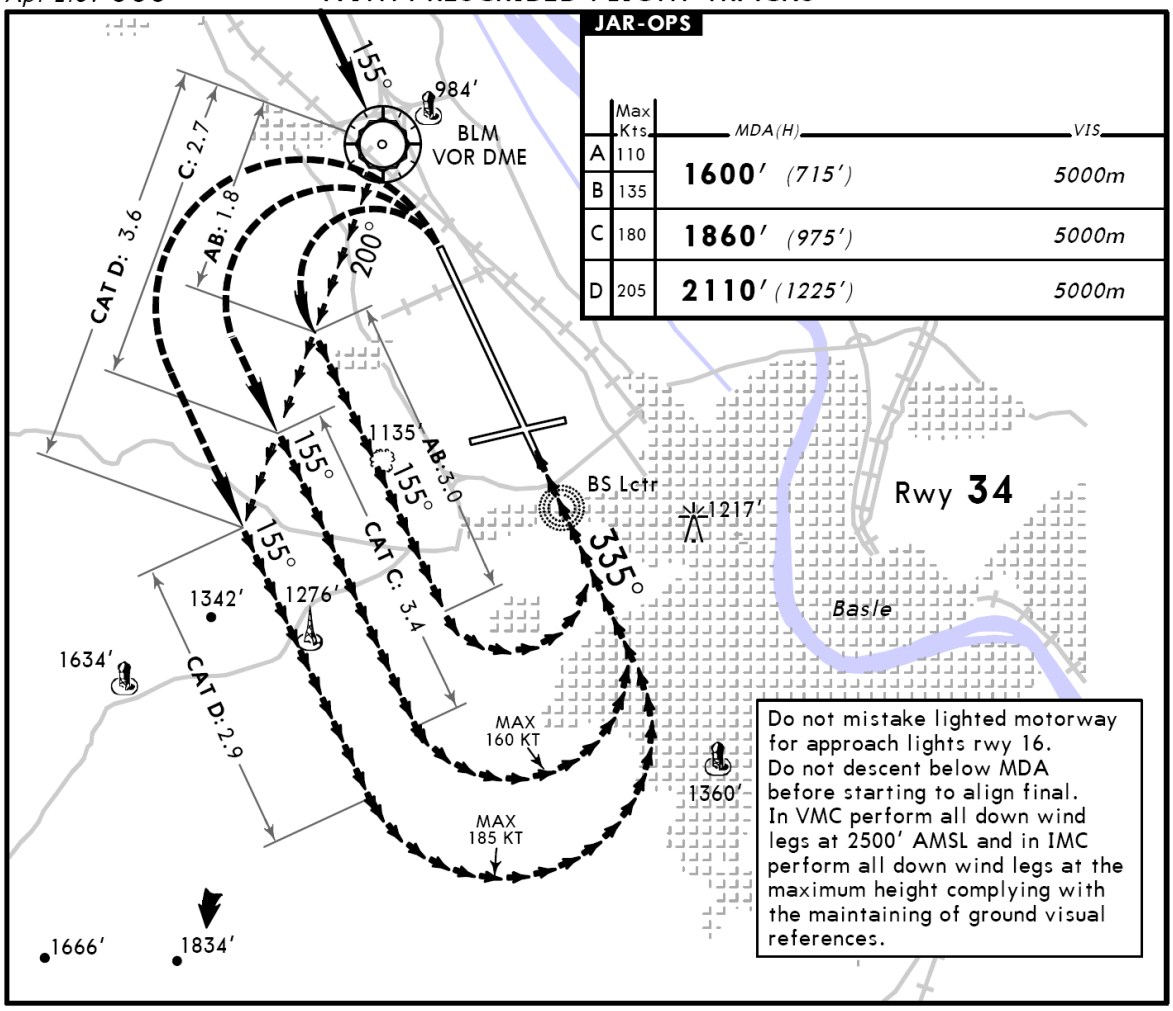
1 Mim 3.0%: DA(H) 1064′ (200′), RVR 550m, ALS out RVR 1000m. 2 Circling to rwy 34: VIS 5000m.

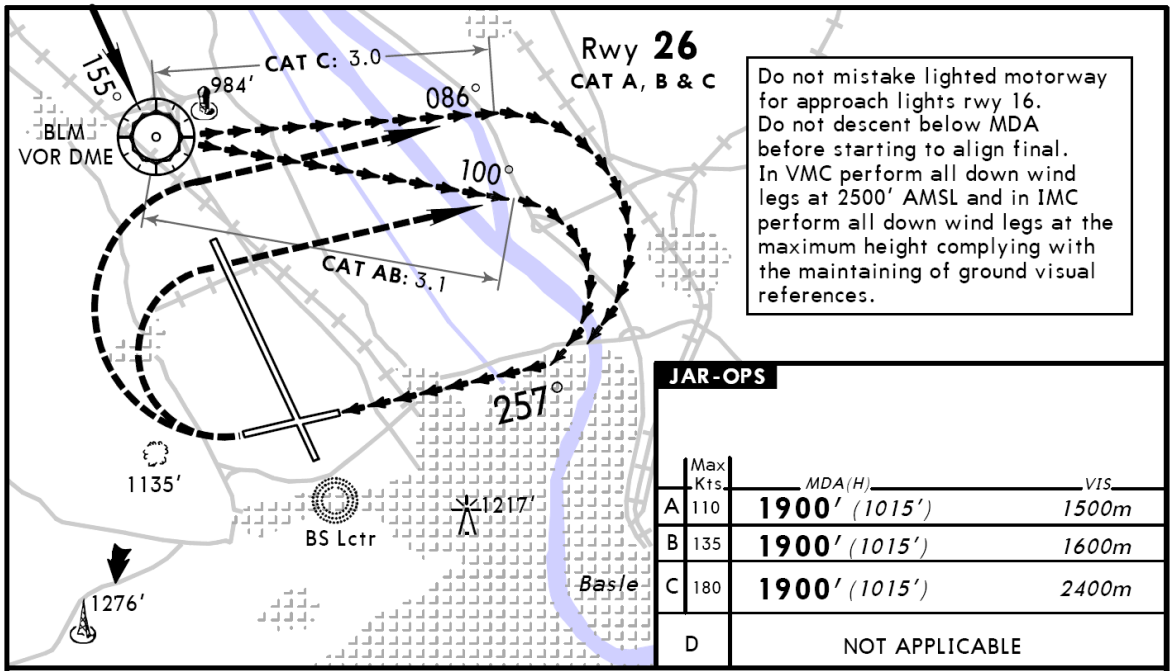
PANS OPS 4

CHANGES: Minimums.

CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS

Apt Elev **885′**



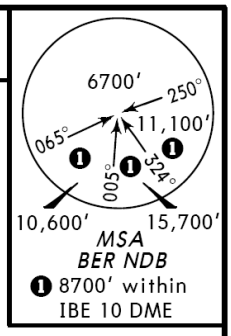


PANS OPS 4

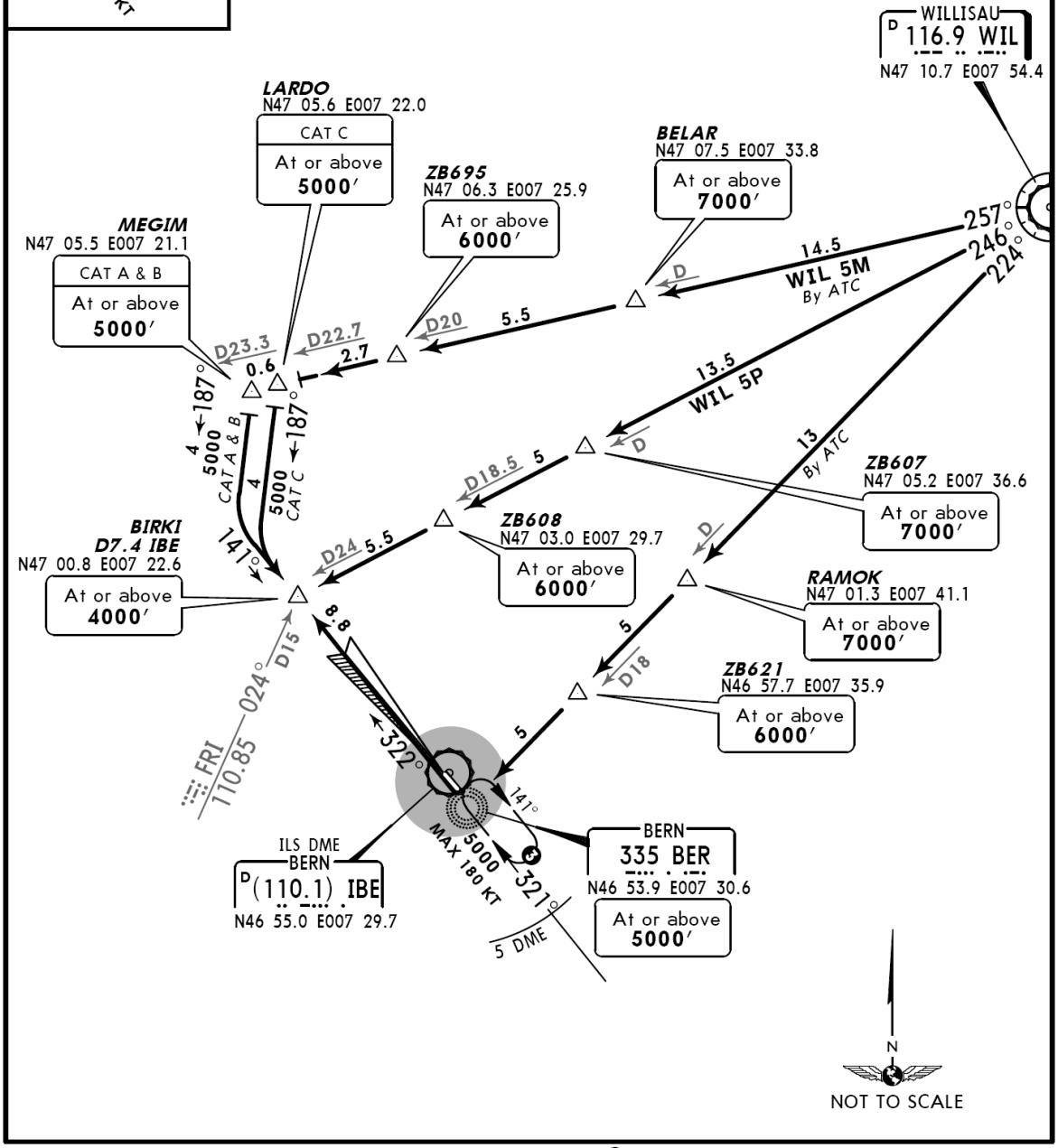
CHANGES: Procedure. Minimums.

*ATIS	Apt Elev	Alt Set: hPa
125.12	1673′	Trans level: By ATC Trans alt: 6000′

WILLISAU FIVE MIKE (WIL 5M)
WILLISAU FIVE PAPA (WIL 5P)
ARRIVALS
TO BIRKI



❷ Do not overshoot IBE 11 DME.
❸ Do not overshoot IBE 5 DME.

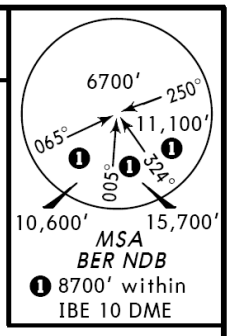


CHANGES: TA raised.

*ATIS	Apt Elev	Alt Set: hPa
125.12	1673′	Trans level: By ATC Trans alt: 6000′

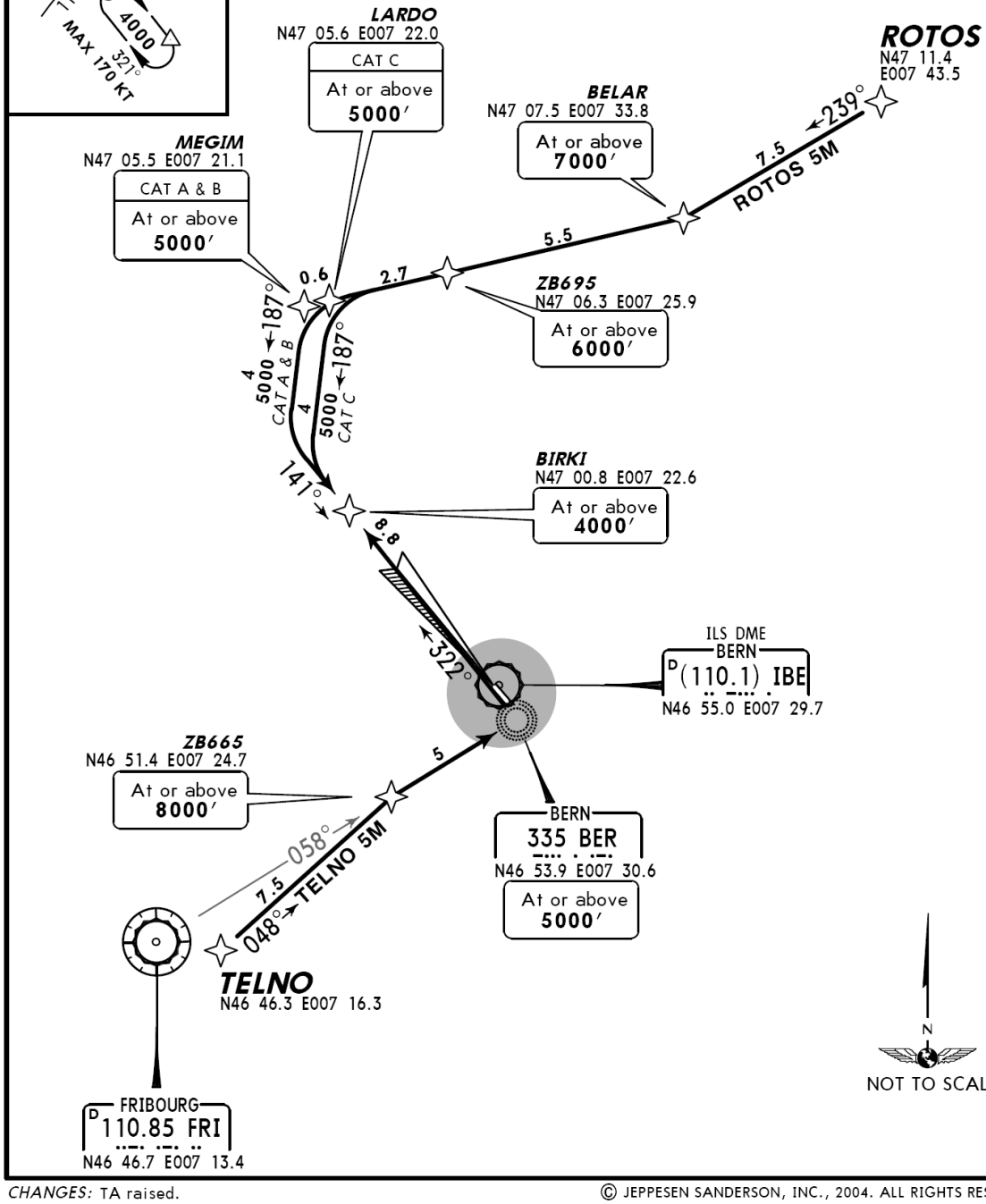
ROTOS FIVE MIKE (ROTOS 5M) *[ROTO5M]*
TELNO FIVE MIKE (TELNO 5M) *[TELN5M]*
RNAV ARRIVALS

TO BIRKI
APPROVED FOR RNP 5 OPERATIONS
WITHOUT SPECIFIC TERMINAL CERTIFICATION



HOLDING OVER BIRKI

❷ Do not overshoot IBE 11 DME.

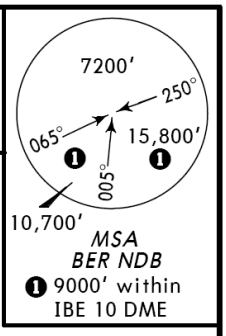


CHANGES: TA raised.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

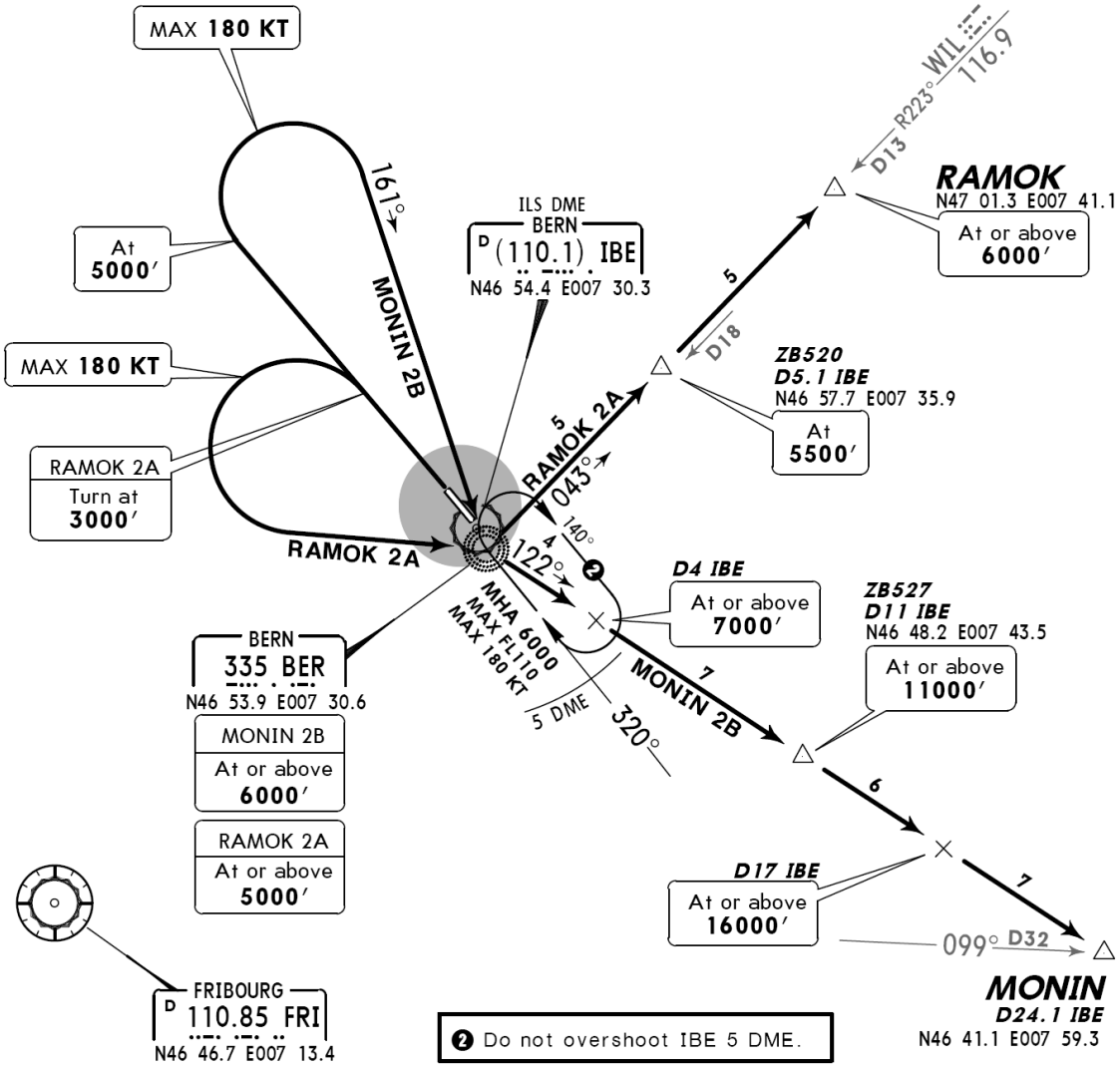
Apt Elev
1673′

Trans level: By ATC Trans alt: 6000′
1. Visual conditions: SIDs are allocated only if the relevant hill tops for the visual part are clearly visible by TWR.
2. Close-in obstacle: Right of track up to 1850′ shortly after end of RWY 32.



MONIN TWO BRAVO (MONIN 2B) *[MONI2B]*
RAMOK TWO ALFA (RAMOK 2A) *[RAMO2A]*
RWY 32 DEPARTURES

FOR ROUTE CONTINUATION AFTER RAMOK
REFER TO CHART 10-3F



MONIN 2B
This SID requires a minimum climb gradient of
450′ per NM (7.4%) up to **3300′.**

Gnd speed-KT	75	100	150	200	250	300
450′ per NM	562	749	1124	1499	1873	2248

Initial climb clearance **5000′**

SID	ROUTING
MONIN 2B	Climb to **5000′,** turn RIGHT, intercept 161° bearing to BER, turn LEFT, intercept 122° bearing from BER to MONIN.
RAMOK 2A	Climb to **3000′,** turn LEFT, maintain visual ground contact up to **3600′,** to BER, intercept WIL R-223 inbound to RAMOK.

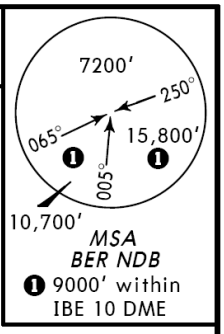
CHANGES: SIDs renumbered & revised.

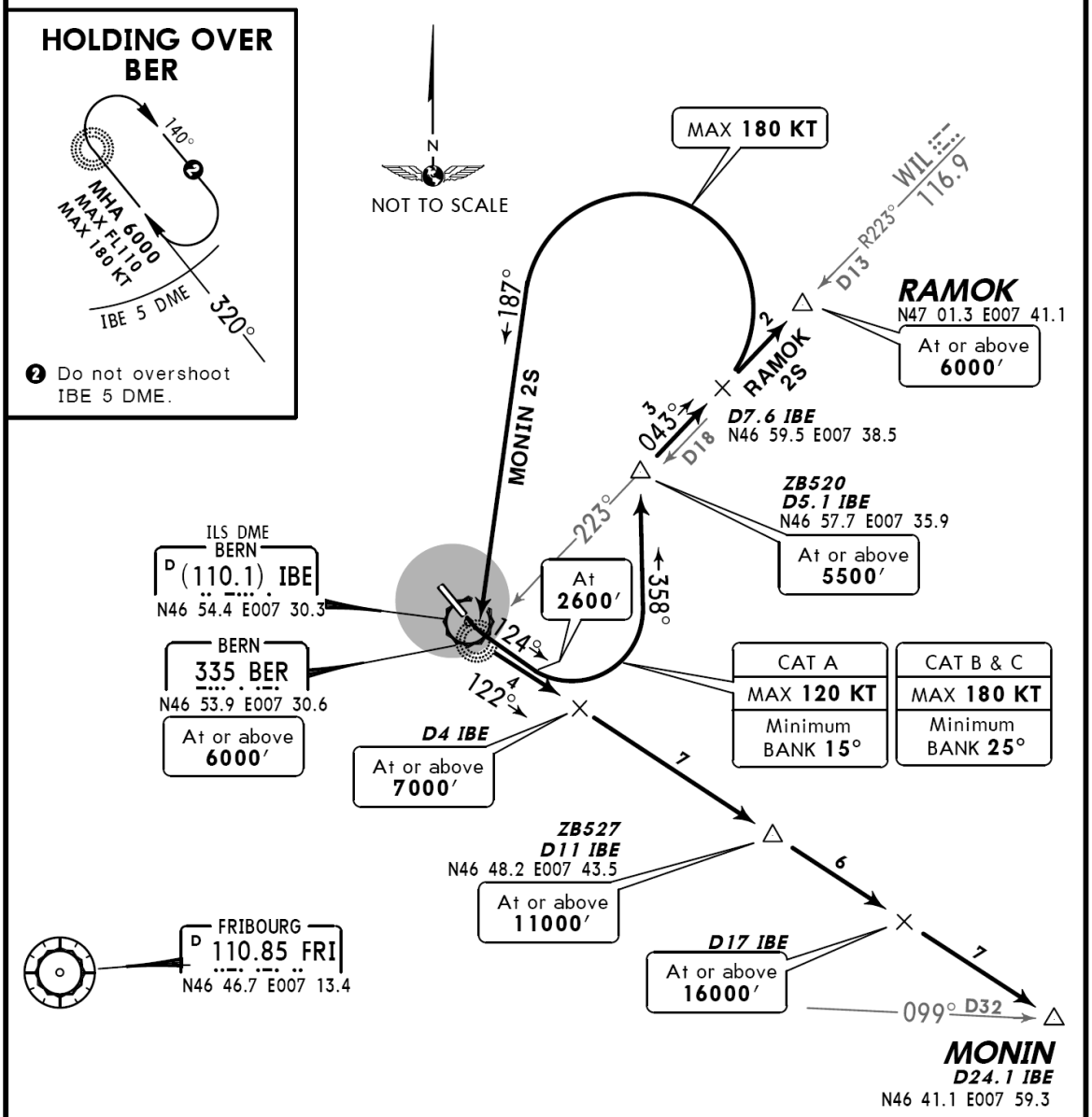
Apt Elev 1673′

Trans level: By ATC Trans alt: 6000′

MONIN TWO SIERRA (MONIN 2S) *[MONI2S]*
RAMOK TWO SIERRA (RAMOK 2S) *[RAMO2S]*
RWY 14 DEPARTURES

FOR ROUTE CONTINUATION AFTER RAMOK
REFER TO CHART 10-3F





These SIDs require a minimum climb gradient of
425′ per NM (7%) up to **3500′.**

Gnd speed-KT	75	100	150	200	250	300
425′ per NM	532	709	1063	1418	1772	2127

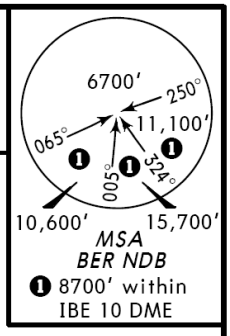
If unable to comply with minimum climb gradient:
Ceiling 1300′ - VIS 1500m, maintain visual contact for take-off and initial turn.

Initial climb clearance **FL80**

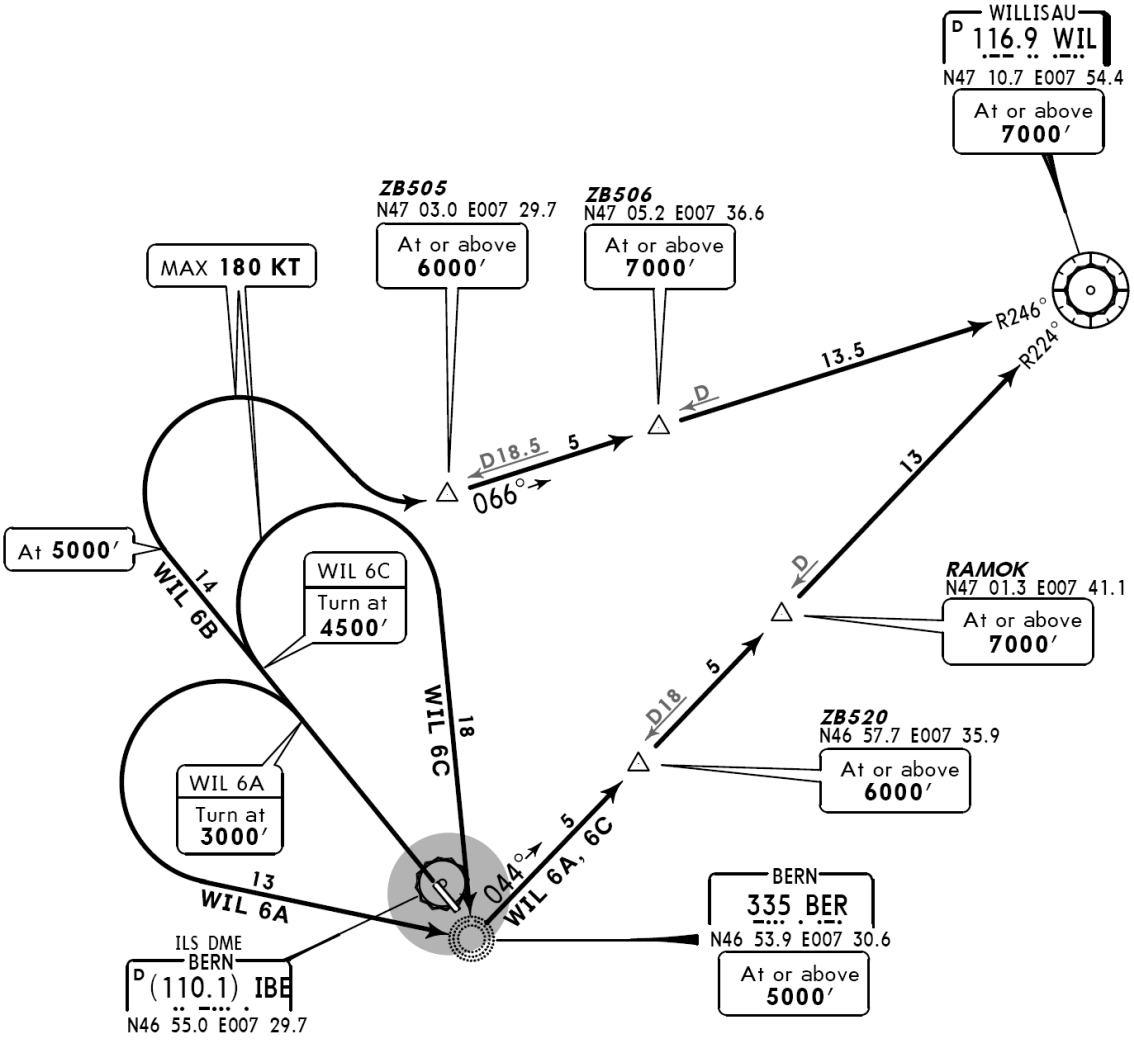
SID	ROUTING
MONIN 2S	After passing DER runway 14 climb on 124° track to **2600′,** turn LEFT, 358° track, intercept WIL R-223 to D7.6 IBE, turn LEFT, intercept 187° bearing to BER, turn LEFT, intercept 122° bearing from BER to MONIN.
RAMOK 2S	After passing DER runway 14 climb on 124° track to **2600′,** turn LEFT, 358° track, intercept WIL R-223 inbound RAMOK.

CHANGES: SIDs renumbered & revised.

Apt Elev	
1673′	Trans level: By ATC Trans alt: 6000′ **1.** SIDs approved for RNP 5 operations, without specific terminal certification at or above 4700′. **2.** Visual conditions: SIDs are allocated only if the relevant hill tops for the visual part are clearly visible by TWR.



WILLISAU SIX ALFA (WIL 6A)
WILLISAU SIX BRAVO (WIL 6B)
WILLISAU SIX CHARLIE (WIL 6C)
RWY 32 DEPARTURES



WIL 6B, 6C

These SIDs require a minimum climb gradient of
365′ per NM (6%) up to **6500′.**

Gnd speed-KT	75	100	150	200	250	300
365′ per NM	456	608	911	1215	1519	1823

NOT TO SCALE

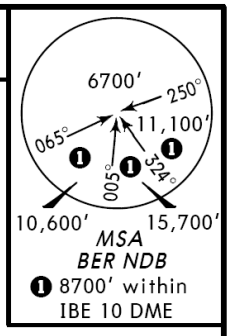
Initial climb clearance **5000′**

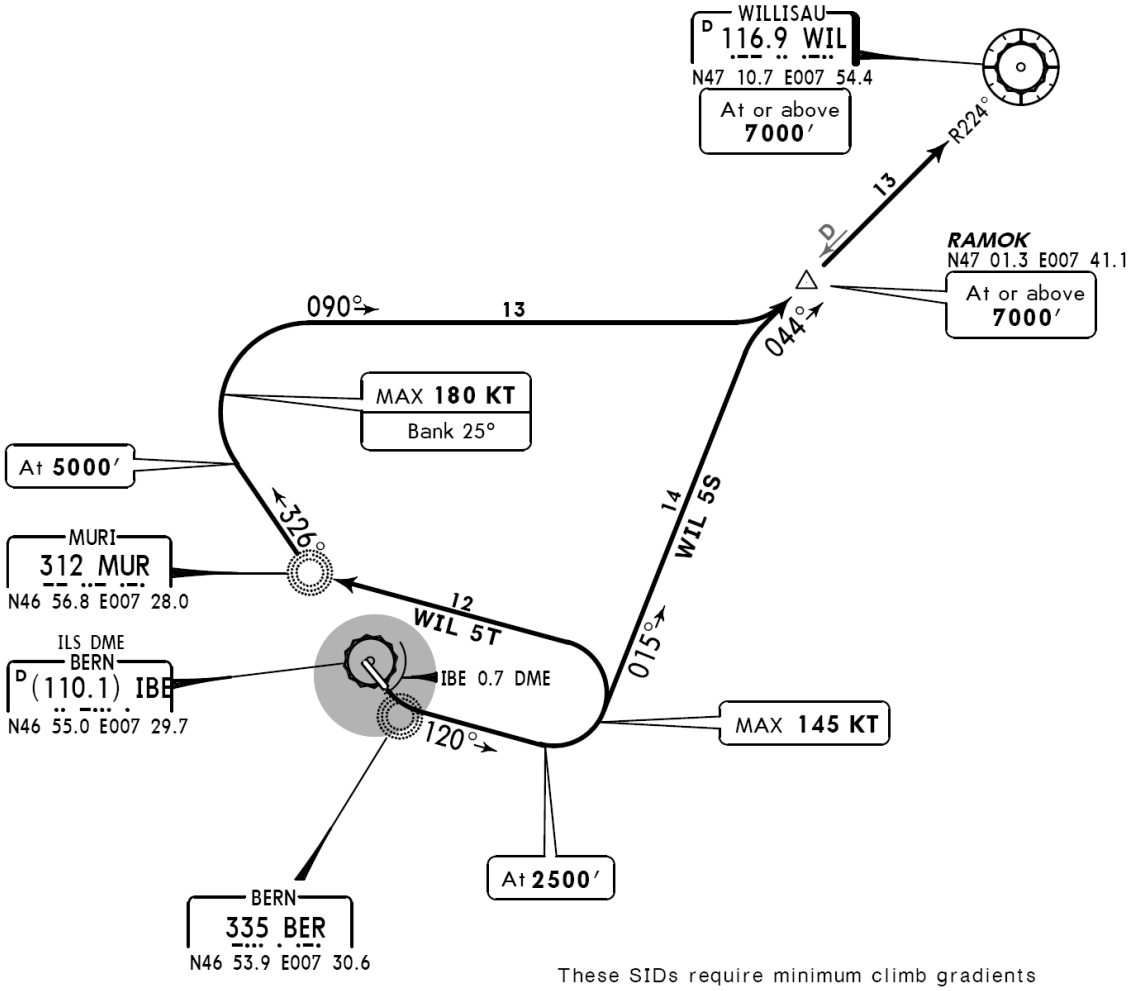
SID	INITIAL CLIMB/ROUTING
WIL 6A	To **3000′,** turn LEFT, maintain visual ground contact up to **3600′,** to BER, WIL R-224 inbound to WIL.
WIL 6B	To **5000′,** turn RIGHT, intercept WIL R-246 inbound to WIL.
WIL 6C	To **4500′,** turn RIGHT to BER, WIL R-224 inbound to WIL.

CHANGES: TA raised; initial climb clearance; SIDs renumbered.

Apt Elev 1673′	Trans level: By ATC Trans alt: 6000′

WILLISAU FIVE SIERRA (WIL 5S)
WILLISAU FIVE TANGO (WIL 5T)
RWY 14 DEPARTURES





These SIDs require minimum climb gradients of
383′ per NM (6.3%) up to **5000′.**
CAT C: 547′ per NM (9%).

Gnd speed-KT	75	100	150	200	250	300
383′ per NM	479	638	957	1276	1595	1914
547′ per NM	684	911	1367	1823	2279	2734

If unable to comply with minimum climb gradient: Ceiling 1300′ - VIS 1500m, maintain visual contact for take-off and initial turn (**CAT C:** during turn MAX 176 KT).

NOT TO SCALE

Initial climb clearance **FL80**

SID	INITIAL CLIMB/ROUTING
WIL 5S	To IBE 0.7 DME, turn LEFT, 120° track, at **2500′** turn LEFT, 015° track, intercept WIL R-224 inbound to WIL.
WIL 5T	To IBE 0.7 DME, turn LEFT, 120° track, at **2500′** turn LEFT to MUR, 326° bearing, at **5000′** turn RIGHT, 090° track, intercept WIL R-224 inbound to WIL.

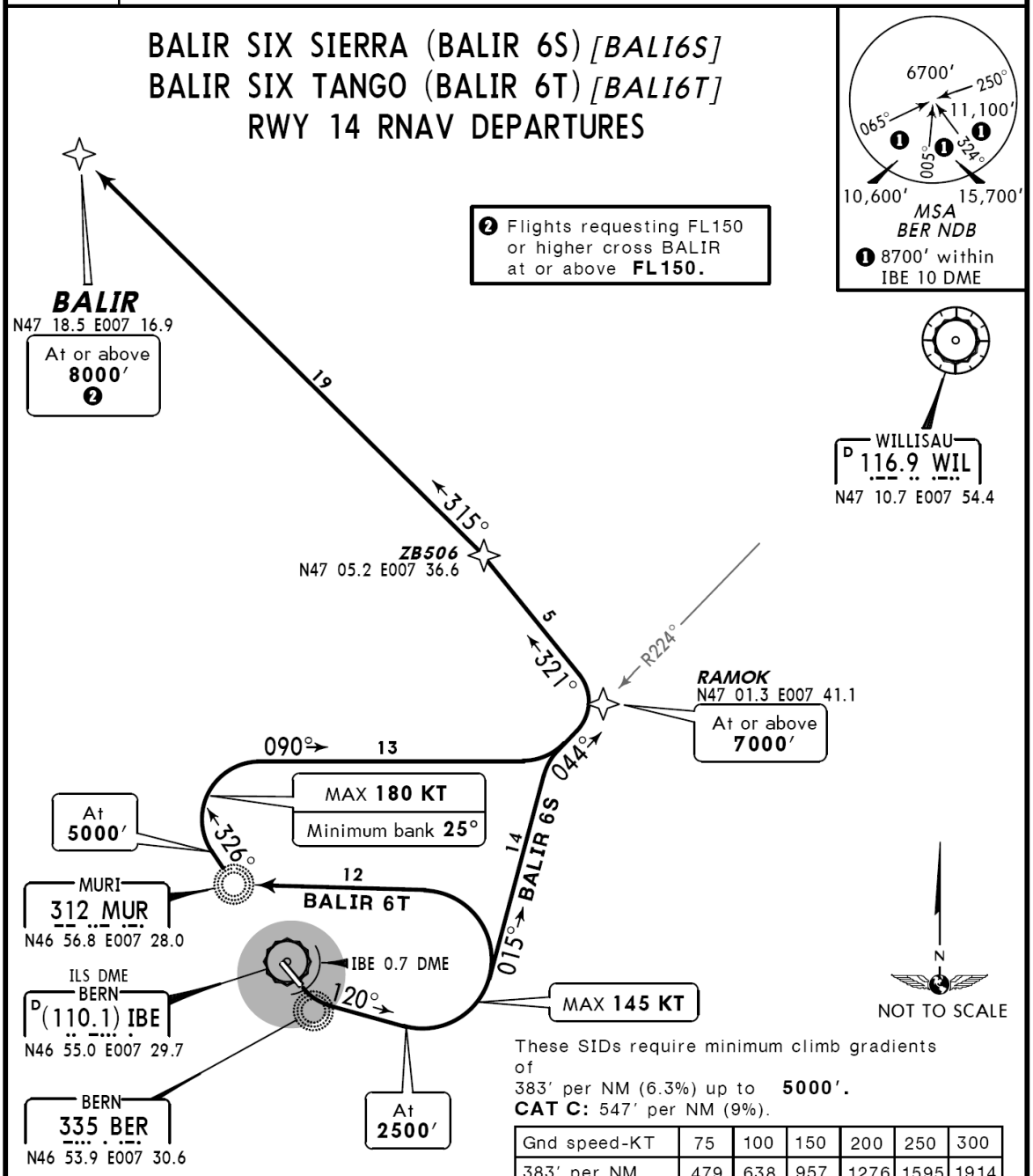
CHANGES: TA raised.

Apt Elev
1673′

Trans level: By ATC Trans alt: 6000′

1. RNAV SIDs approved for RNP 5 operations, without specific terminal certification at or above 4700′.
2. If needed, the initial part of the RNAV SID shall be based on the relevant NON-RNAV SID. PIC is responsible for joining the RNAV structure as early as possible, but at the latest at the waypoint indicated below:
   - BALIR 6S: Overlay of NON-RNAV SID based on IBE and WIL up to RAMOK
   - BALIR 6T: Overlay of NON-RNAV SID based on IBE, MUR and WIL up to RAMOK.

BALIR SIX SIERRA (BALIR 6S) *[BALI6S]*
BALIR SIX TANGO (BALIR 6T) *[BALI6T]*
RWY 14 RNAV DEPARTURES



These SIDs require minimum climb gradients of
383′ per NM (6.3%) up to **5000′.**
CAT C: 547′ per NM (9%).

Gnd speed-KT	75	100	150	200	250	300
383′ per NM	479	638	957	1276	1595	1914
547′ per NM	684	911	1367	1823	2279	2734

If unable to comply with minimum climb gradient: Ceiling 1300′ - VIS 1500m, maintain visual contact for take-off and initial turn (**CAT C:** during turn MAX 176 KT).

Initial climb clearance **FL80**

SID	INITIAL CLIMB/ROUTING
BALIR 6S	Climb straight ahead to IBE 0.7 DME, turn LEFT, 120° track, at **2500′** turn LEFT, 015° track, intercept WIL R-224 inbound to RAMOK, then to ZB506, then to BALIR.
BALIR 6T	Climb straight ahead to IBE 0.7 DME, turn LEFT, 120° track, at **2500′** turn LEFT to MUR, 326° bearing, at **5000′** turn RIGHT, 090° track, intercept WIL R-224 inbound to RAMOK, then to ZB506, then to BALIR.

CHANGES: RNAV SIDs renumbered; crossing at BALIR.

LSZB/BRN

Apt Elev **1673′**

N46 54.7 E007 30.0

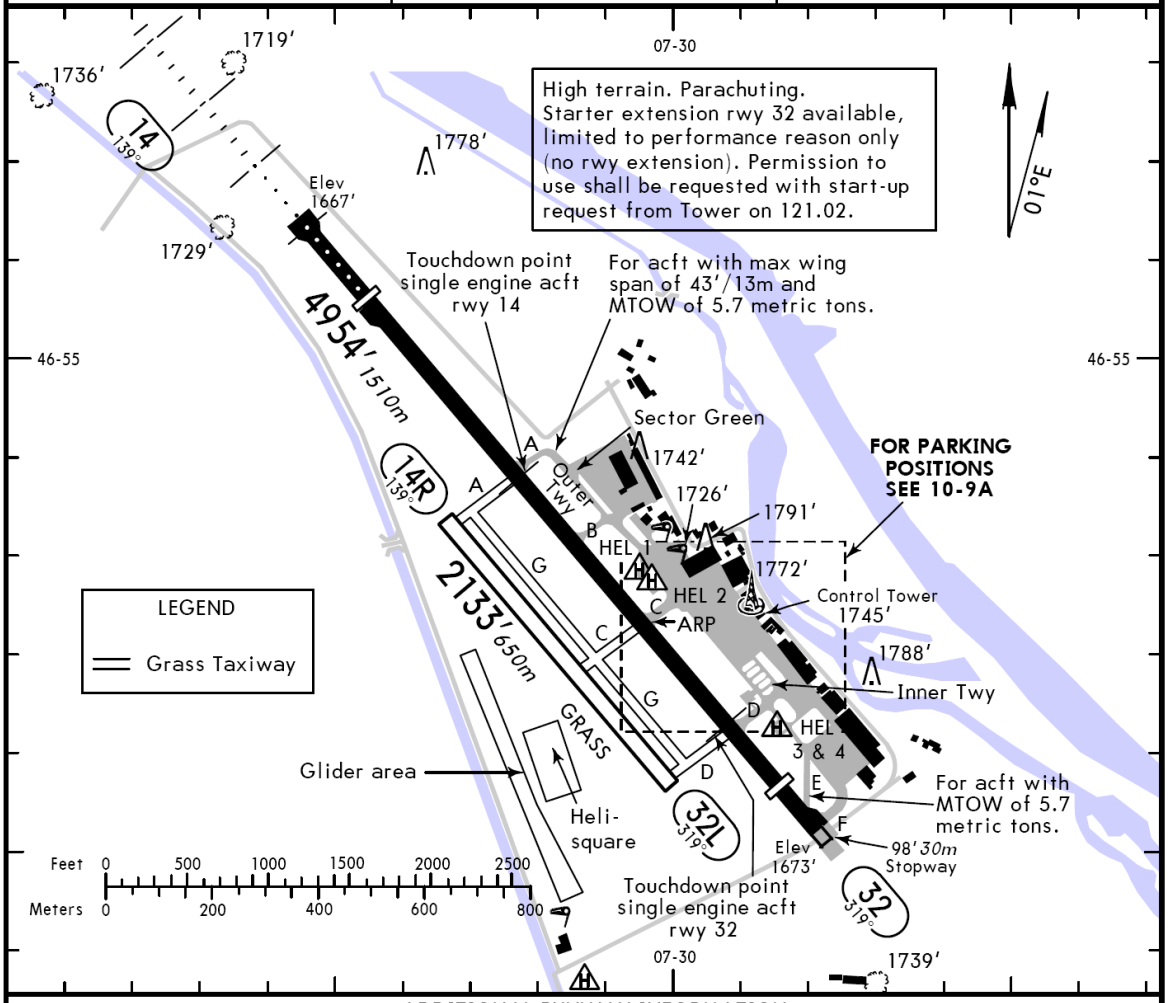
JEPPESEN

17 AUG 07 (10-9)

BERN, SWITZERLAND

BELP

ATIS	*BERN Tower	*BERN Departure
125.12	121.02 119.7	127.32



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
14 ❶ 32	HIRL *(60m)* HIALS REIL PAPI-L(angle 4.0°)	❷	3829′ *1167m*	❸	98′ *30m*
	HIRL *(60m)* REIL PAPI-L(angle 3.0°, MEHT 13′)	❹		❺	

❶ Inner 3609′(1100m) grooved.
❷ LDA rwy 14 - Single engine acft: 2854′(870m), multi engine acft: 4298′(1310m).
❸ TORA rwy 14 - From A int & for single engine acft: 2493′(760m), from rwy head 4954′(1510m).
❹ LDA rwy 32 - Single engine acft: 3478′(1060m), multi engine acft: 4593′(1400m).
❺ TORA rwy 32 - Single engine acft: 4298′(1310m), or multi engine acft: 4954′(1510m). From D int 3478′(1060m).

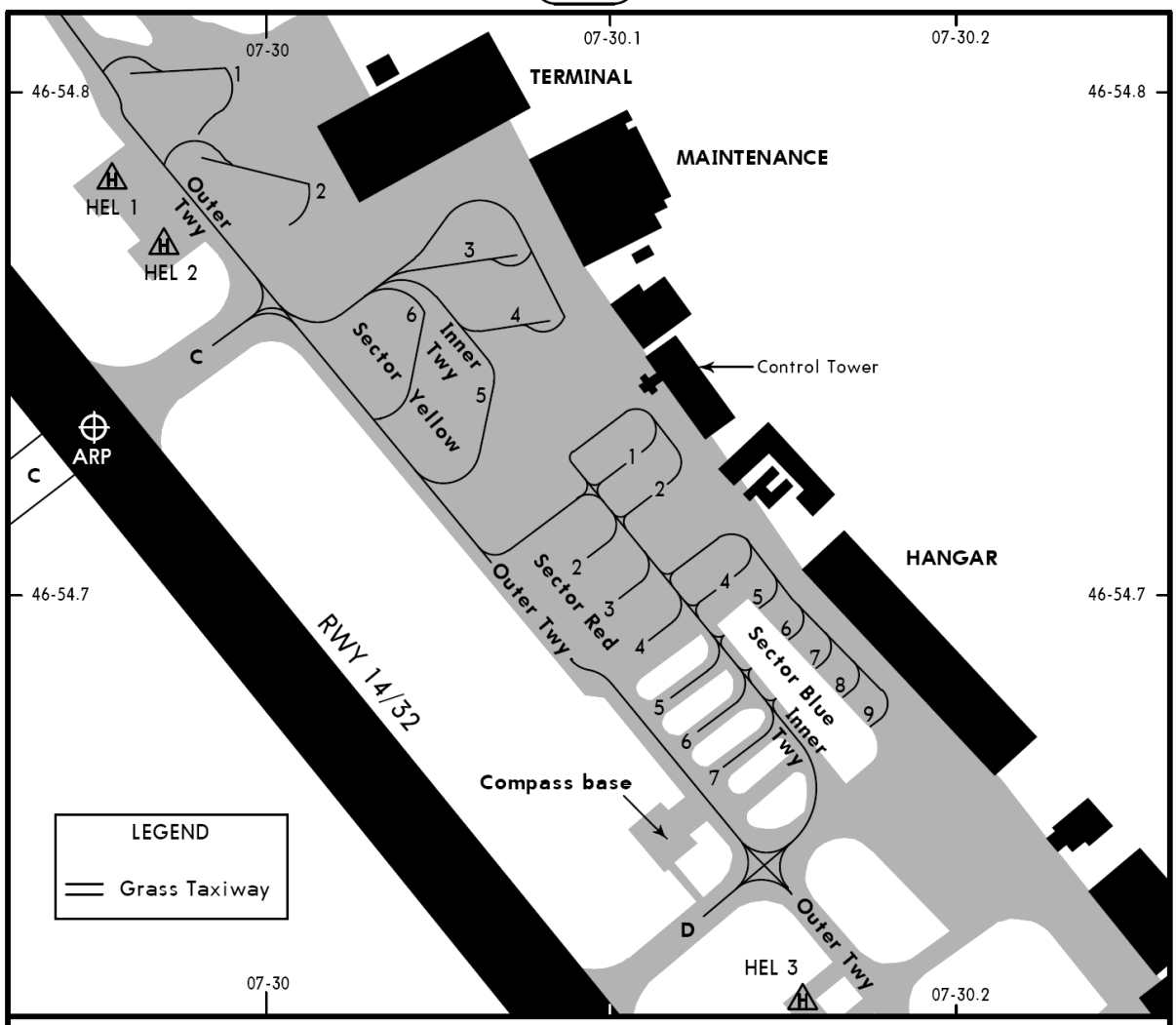
14R 32L	Grass runway				98′ *30m*

JAR-OPS TAKE-OFF ❶ ❷

	Rwy 14 LVP must be in Force	Rwy 14/32	
	RCLM (Day only) or RL	RCLM (Day only) or RL	NIL (Day only)
A	*250m*	*400m*	*500m*
B	*300m*		
C			*600m*
D	NOT APPLICABLE		

❶ Operators applying U.S. Ops Specs: CL required below 300m.
❷ For climb gradients and restrictions rwy 14 refer also to SIDs.

CHANGES: Variation. Runway bearings. AD layout.



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
	Sector Yellow		**Sector Red**
1, 2	N46 54.8 E007 30.0	2 thru 7	N46 54.7 E007 30.1
3, 4	N46 54.8 E007 30.1		
5	N46 54.7 E007 30.1		**Sector Blue**
6	N46 54.8 E007 30.0	1 thru 5	N46 54.7 E007 30.1
		6 thru 9	N46 54.7 E007 30.2

PROCEDURE FOR ARRIVING/DEPARTING ACFT

Arriving acft shall taxi independently to the parking position or as instructed by Tower. In certain cases the final guidances will be assured by marshaller.
Departing acft shall taxi from the parking position as instructed by Tower.

START-UP PROCEDURE

The request of a start-up clearance from BERN Tower 121.02 with indication of ATIS designator is compulsory.

CHANGES: Parking stands.

LSZB/BRN
BELP

JEPPESEN
17 AUG 07 (11-1) CAT A, B & C

BERN, SWITZERLAND
ILS DME Rwy 14

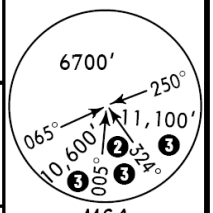
ATIS	*BERN Arrival	*BERN Tower	
125.12	127.32	121.02	119.7

BRIEFING STRIP

LOC	Final	GS	ILS	Apt Elev 1673′
IBE	Apch Crs	D3.0 IBE	DA(H)	
110.1	139°	2950′ (1282′)	Refer to Minimums	RWY 1668′

MISSED APCH: Climb on track 141°. At D1.2 after IBE (ABEAM BER NDB) turn LEFT (MAX 160 KT) and intercept R-224 inbound WIL VOR. Proceed to RAMOK, then turn left onto track 321° to intercept R-246 WIL and enter BIRKI holding climbing to 6000′.

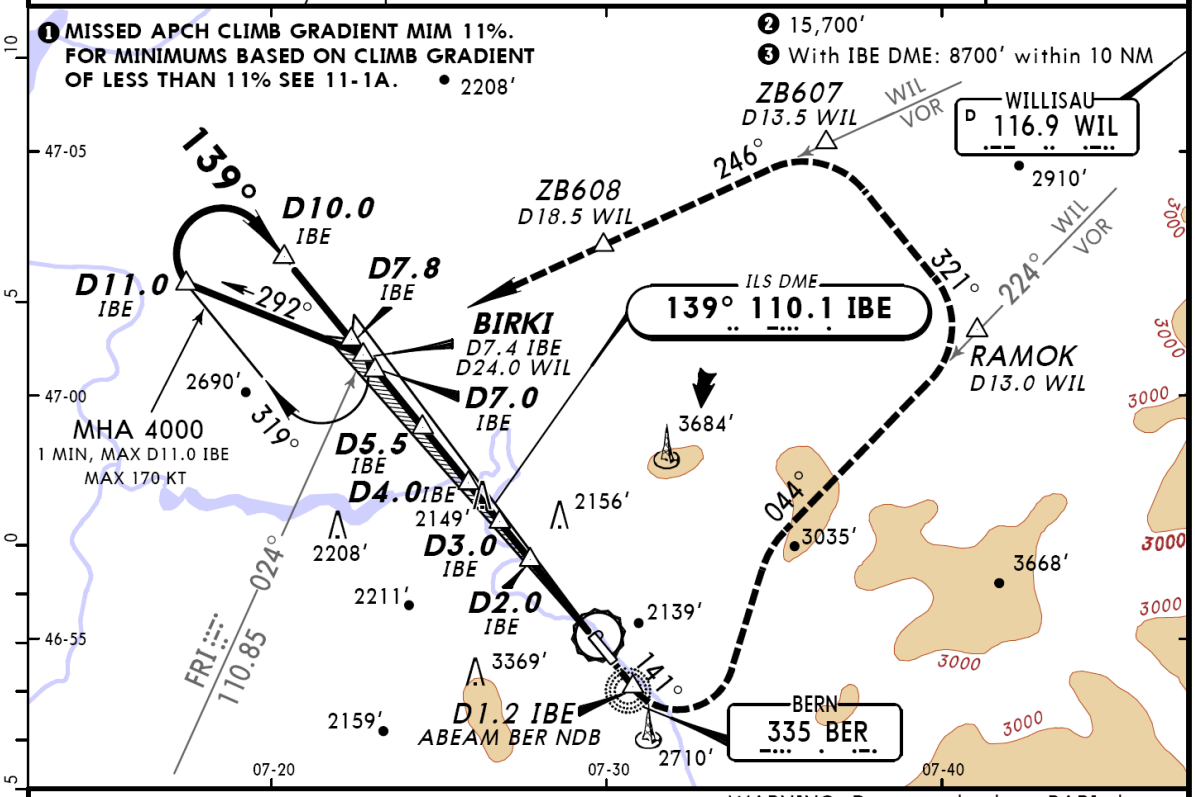
Alt Set: hPa Rwy Elev: 60 hPa Trans level: By ATC Trans alt: 6000′
ILS DME reads zero at rwy 14 displaced threshold.

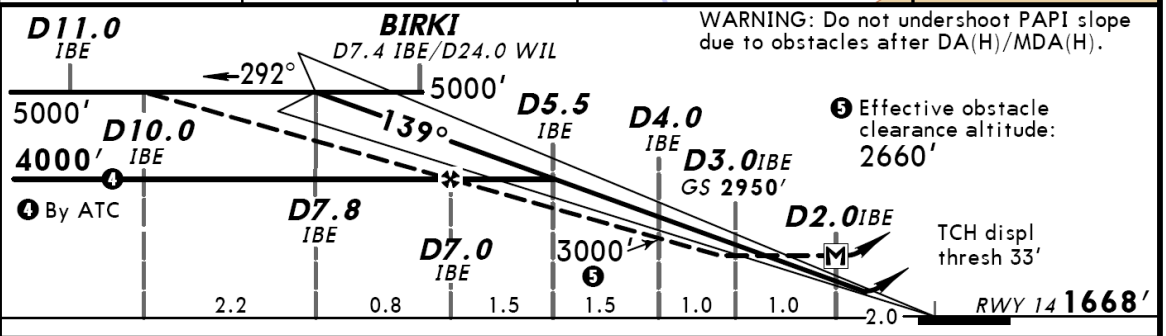


❶ MISSED APCH CLIMB GRADIENT MIM 11%. FOR MINIMUMS BASED ON CLIMB GRADIENT OF LESS THAN 11% SEE 11-1A.

❷ 15,700′

❸ With IBE DME: 8700′ within 10 NM





WARNING: Do not undershoot PAPI slope due to obstacles after DA(H)/MDA(H).

❺ Effective obstacle clearance altitude: 2660′

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	4.00°	502	645	716	860	1003	1146
LOC Descent Gradient	5.5%	390	501	557	668	780	891
MAP at D2.0 IBE							

HIALS
REIL
PAPI

D1.2 after IBE on 141°

PANS OPS 3

JAR-OPS — STRAIGHT-IN LANDING RWY 14 ❶ — CIRCLE-TO-LAND

Missed apch climb gradient mim 11% ❷

	ILS	LOC (GS out) With IBE DME	CIRCLE-TO-LAND
DA(H)	A:1970′ (302′) B:1980′ (312′) C:1990′ (322′)		Refer to charts 19-10, 19-11
	FULL / ALS out		
A	RVR 900m / RVR 1200m	Refer to chart 11-1A	
B			
C			
D	NOT APPLICABLE		

❶ Straight-in training apch DA(H)/MDA(H) 3000′(1332′). ❷ Missed Apch climb gradient up to 3600′.

CHANGES: LOC course.

LSZB/BRN
BELP

JEPPESEN
17 MAR 06 (16-1)

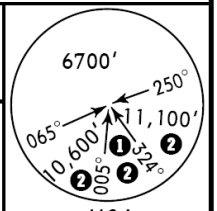
BERN, SWITZERLAND
CAT A, B & C (GPS) NDB Rwy 14

BRIEFING STRIP

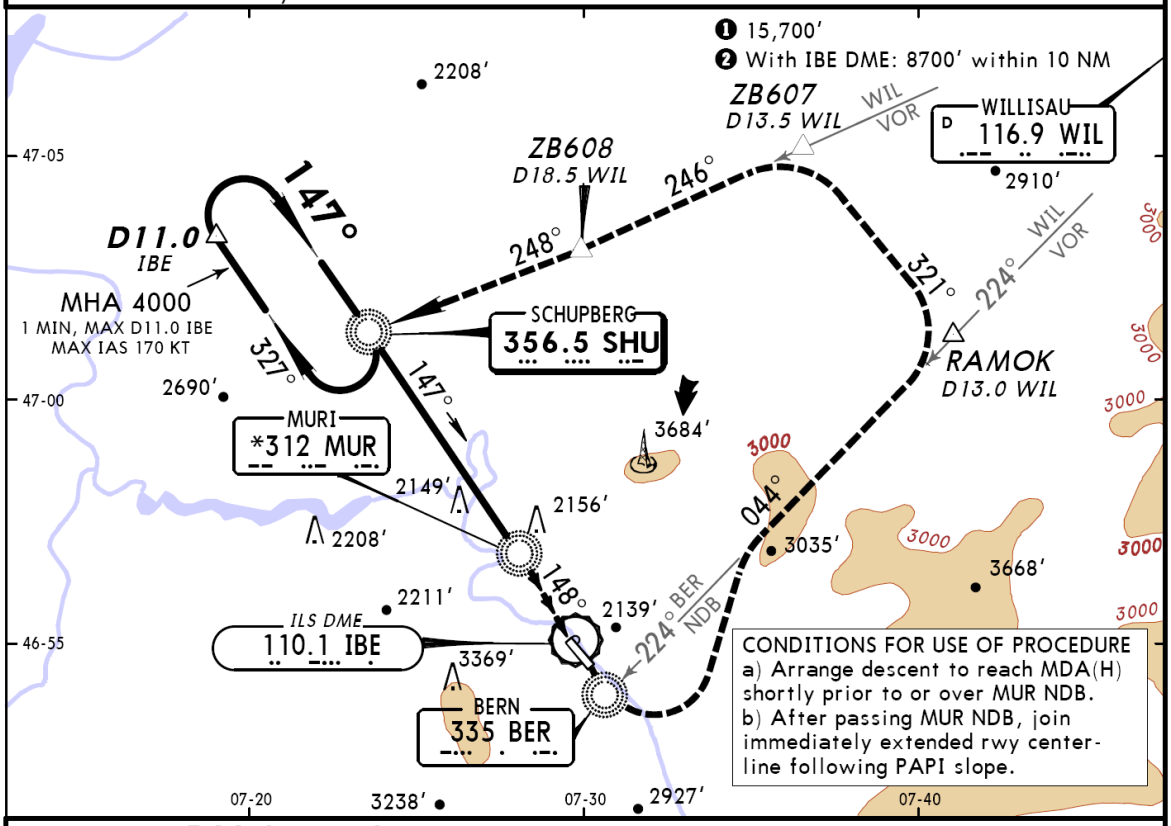
*ATIS	*BERN Arrival	*BERN Tower
125.12	127.32	121.02 119.7

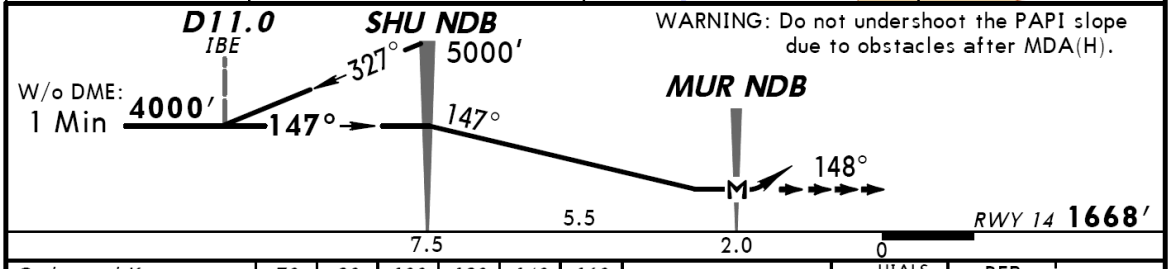
NDB	Final	Minimum Alt	MDA(H)	Apt Elev 1673′
SHU	Apch Crs	SHU NDB	Refer to	RWY 1668′
356.5	147°	4000′ (2332′)	Minimums	

MISSED APCH: Climb on track 147° to BER NDB, then turn LEFT (MAX IAS 160 KT) and intercept R-224 inbound VOR. Proceed to RAMOK, then turn left onto track 321° to intercept R-246 and proceed to ZB608. Intercept 248° to SHU NDB and enter SHU NDB holding climbing to 6000′.



Alt Set: hPa | Rwy Elev: 60 hPa | Trans level: By ATC | Trans alt: 6000′
ILS DME reads zero at rwy 14 threshold.





WARNING: Do not undershoot the PAPI slope due to obstacles after MDA(H).

Gnd speed-Kts	70	90	100	120	140	160
Descent Gradient 3.9%	276	355	395	474	553	632
MAP at MUR NDB						

HIALS
REIL
PAPI
BER 335 on 147°

JAR-OPS

STRAIGHT-IN LANDING RWY 14

	mim 5.0% 1 2	Missed apch climb gradient mim 2.5% 1 3	mim 2.5%
	MDA(H) 2690′ (1022′)	MDA(H) AB: 2690′ (1022′) C: 2700′ (1032′)	MDA(H) 3000′ (1332′)
	ALS out	ALS out	ALS out
A	RVR 1500m	RVR 1500m	3000m
B			
C	RVR 1800m / RVR 2000m	RVR 1800m / RVR 2000m	
D	NOT APPLICABLE		

CIRCLE-TO-LAND
Refer to charts 19-10, 19-11

PANS OPS 3

1 For Straight-in training apch MDA(H) 3000′ (1332′). RVR as in table above. 2 a) ALS & PAPI-L must be operative. b) Missed Apch climb gradient up to 3600′. 3 Climb gradient of 4.5% required up to 5200′ to remain outside airspace G.

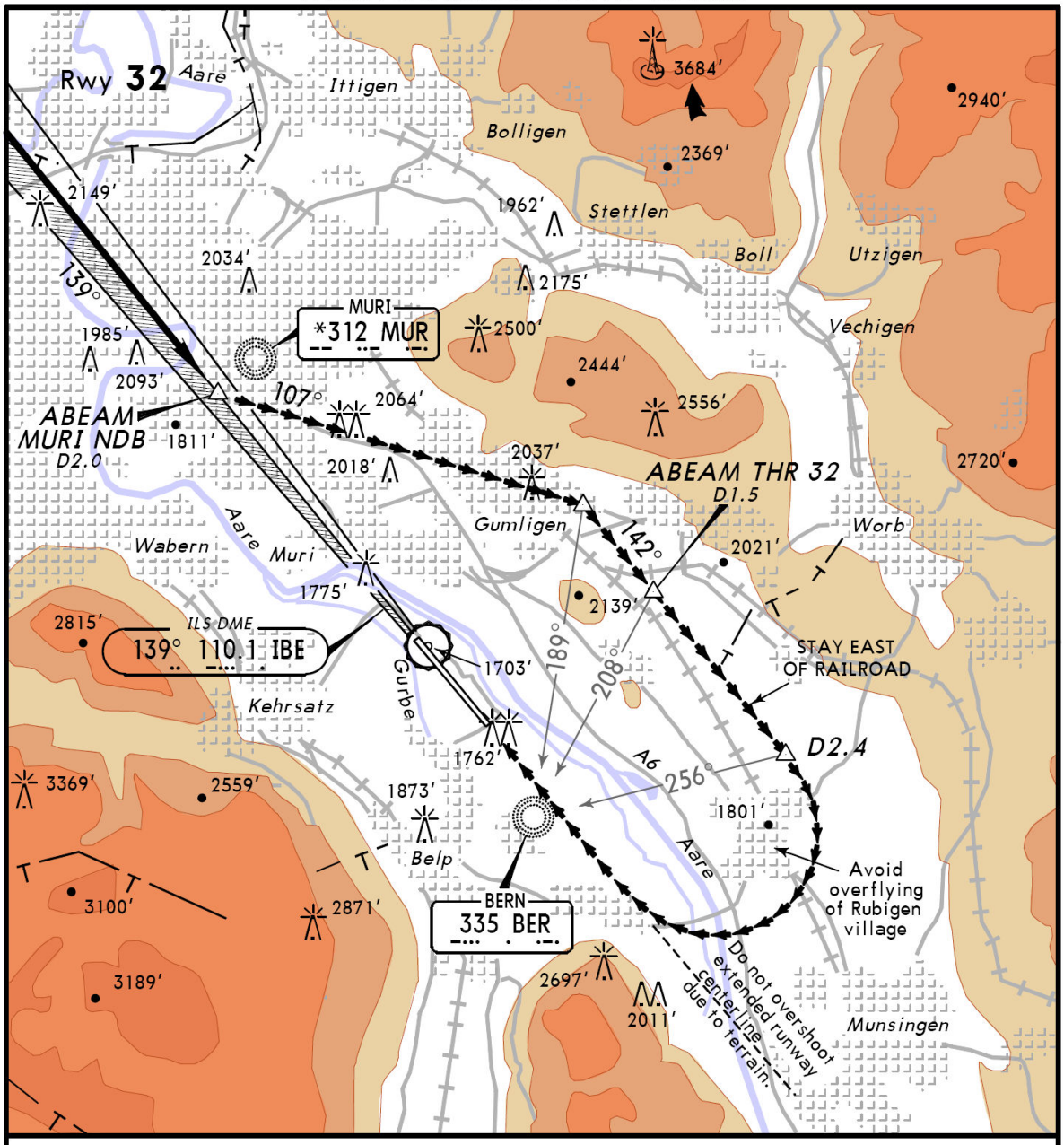
CHANGES: Circling note.

LSZB/BRN
Apt Elev 1673′

JEPPESEN
5 OCT 07 19-10

BERN, SWITZERLAND
BELP

ROMEO CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS



ILS DME reads zero at rwy 14 displaced threshold.

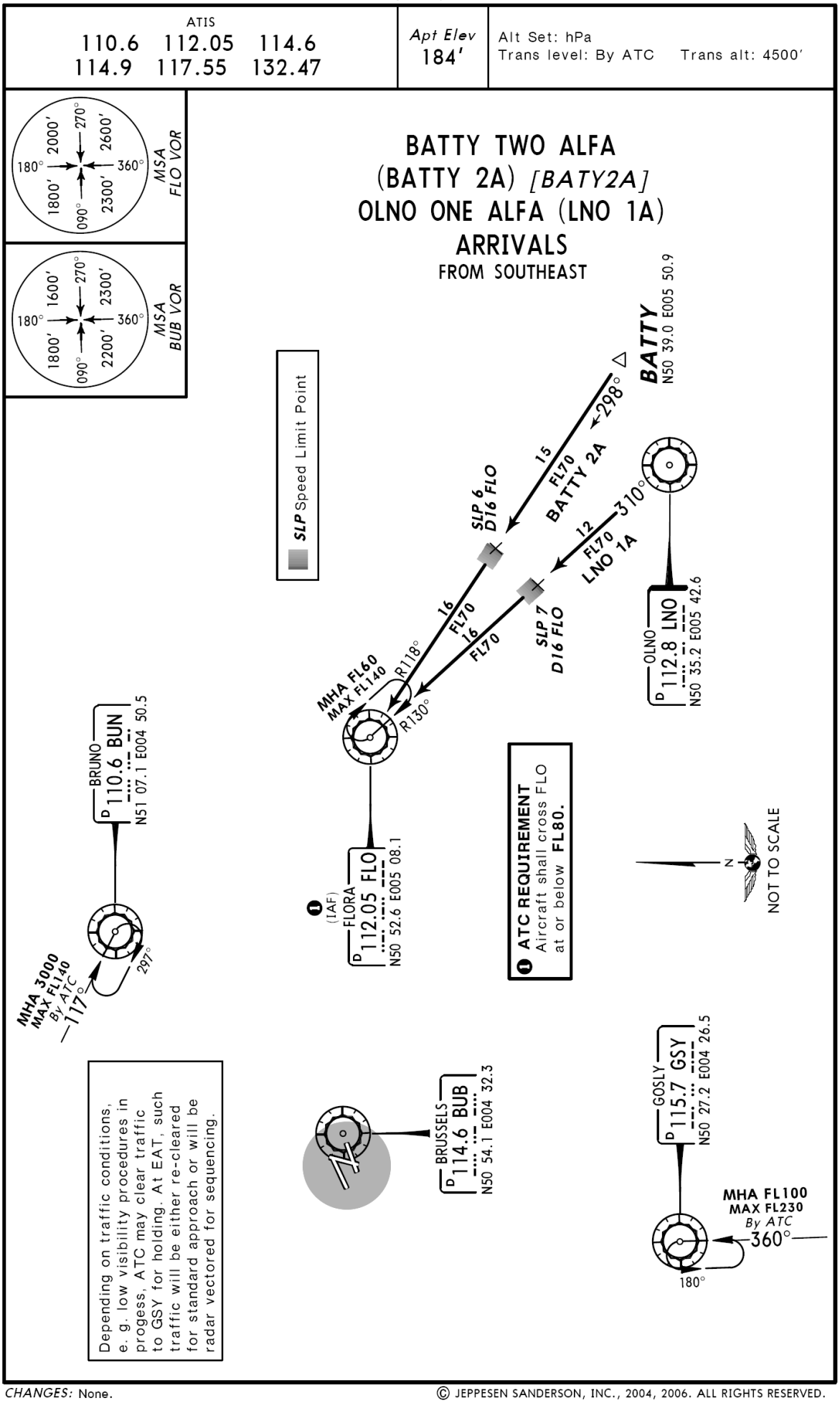
JAR-OPS

If MET conditions allow, ROMEO circling Rwy 32 shall be executed at MDA(H) of 3000′(1327′).

	Max Kts	MDA(H)	VIS
A	100	1 2 **2540′** (867′)	1500m
B	135	**2860′** (1187′)	2800m
C	180	**2950′** (1277′)	3700m
D		NOT APPLICABLE	

1 After ILS apch Rwy 14 (missed apch climb gradient 2.5%) MDA(H) 2620′(947′).
2 After NDB apch Rwy 14 MDA(H) 2690′(1017′).

CHANGES: None.



CHANGES: None.

EBBR/BRU

Apt Elev **184′**

N50 54.1 E004 29.1

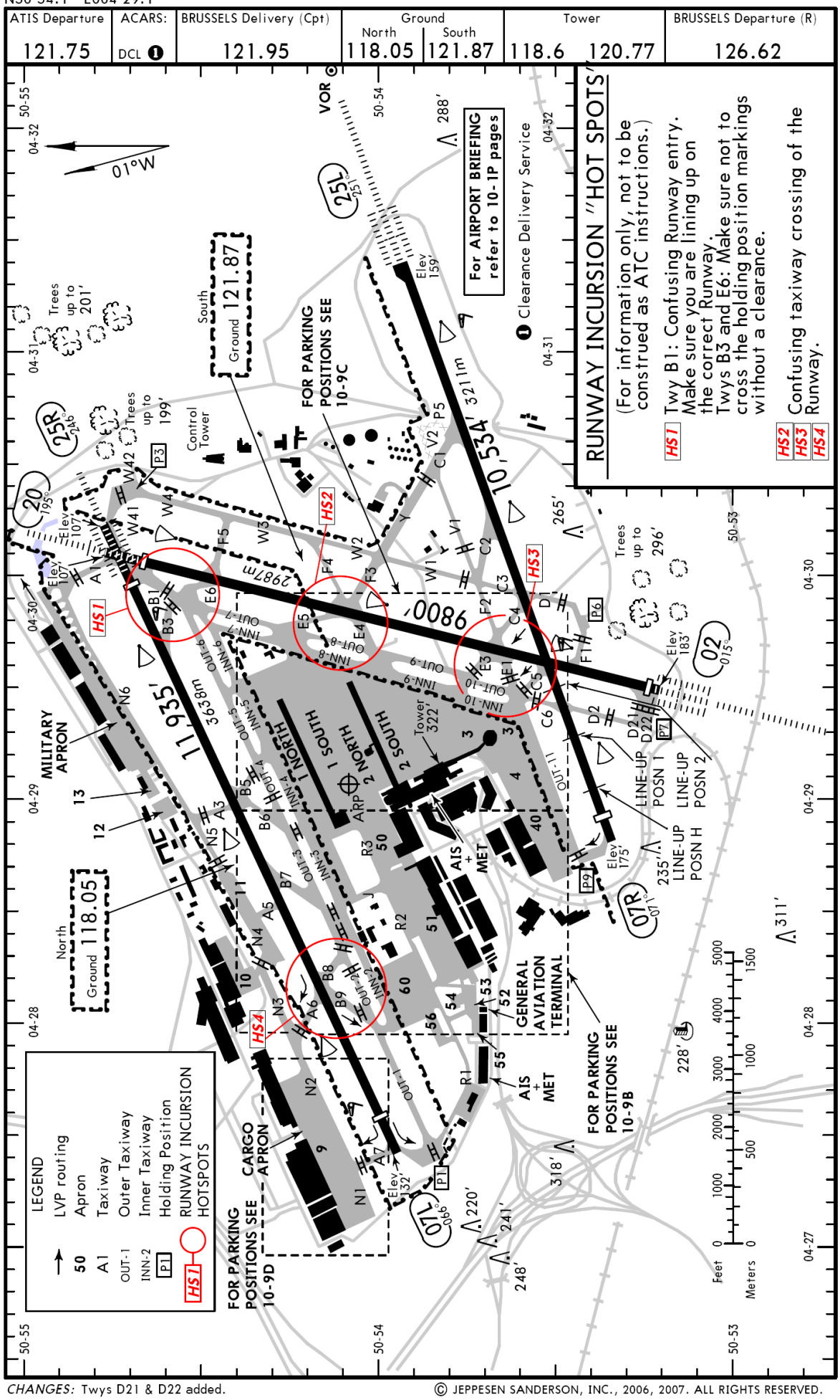
JEPPESEN

13 APR 07 (10-9)

BRUSSELS, BELGIUM

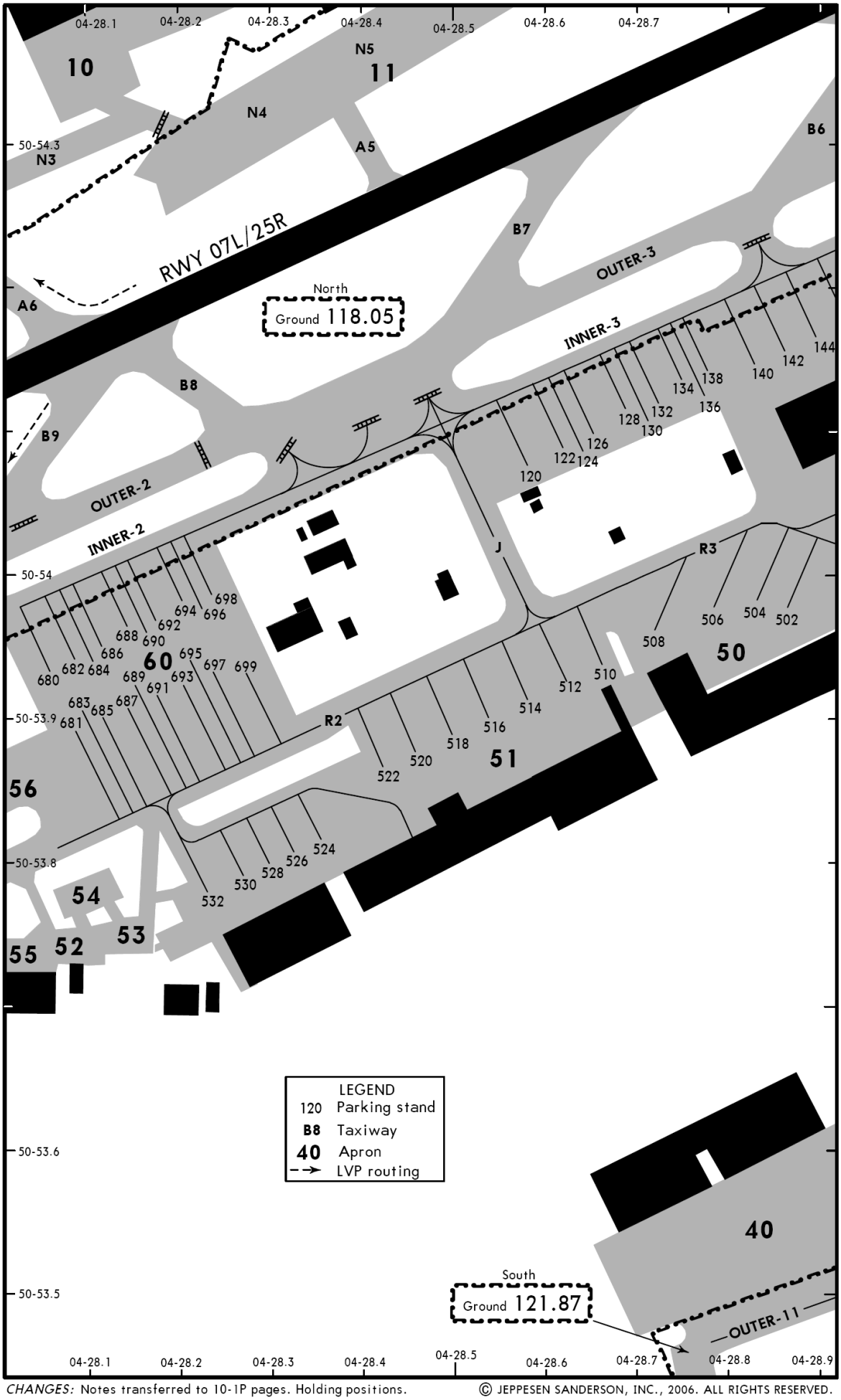
BRUSSELS NATIONAL

ATIS Departure	ACARS:	BRUSSELS Delivery (Cpt)	Ground North	Ground South	Tower		BRUSSELS Departure (R)
121.75	DCL	121.95	118.05	121.87	118.6	120.77	126.62



CHANGES: Twys D21 & D22 added.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY



CHANGES: Notes transferred to 10-1P pages. Holding positions.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EBBR/BRU
BRUSSELS NATIONAL

JEPPESEN
22 SEP 06 (11-3) Eff 28 Sep

BRUSSELS, BELGIUM
ILS or LOC Rwy 25L

BRIEFING STRIP

ATIS	BRUSSELS Arrival (R)	BRUSSELS Tower
110.6 112.05 114.6 114.9 117.55 132.47	118.25	118.6 120.77

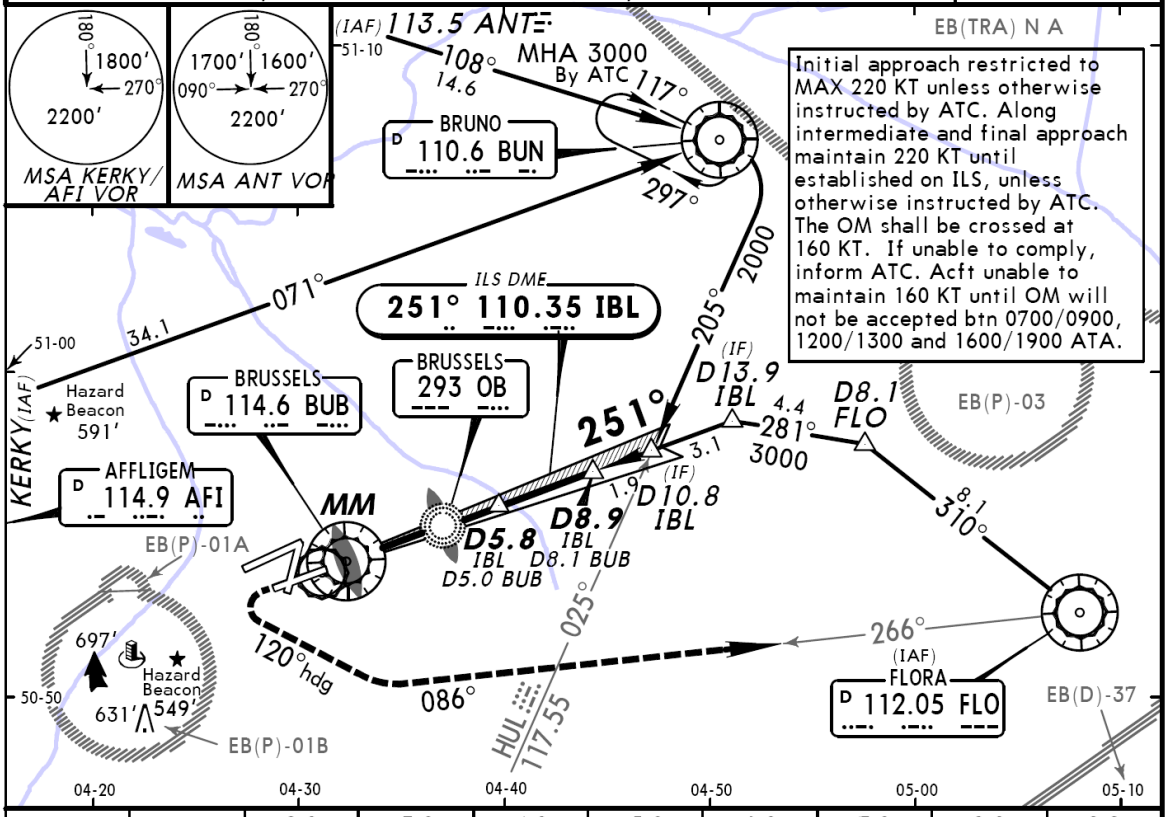
Ground
118.05 for apron 2 North and North of it
121.87 for apron 2 South and South of it

LOC IBL	Final Apch Crs	GS LOM	ILS DA(H)	Apt Elev 184′
110.35	251°	1410′ (1251′)	359′ (200′)	RWY 159′

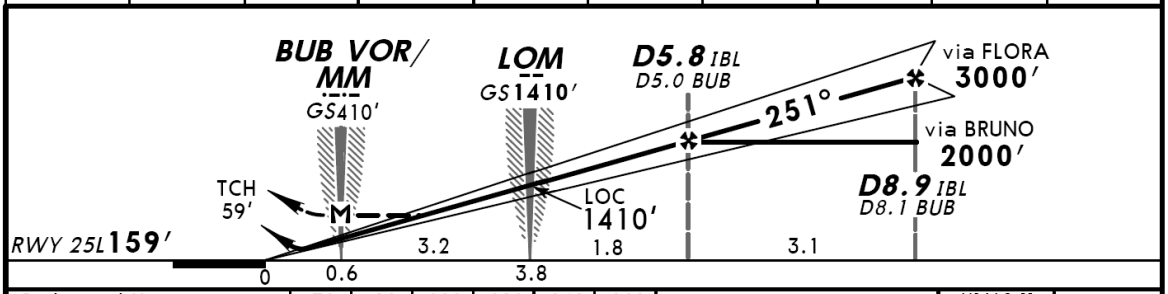
MISSED APCH: Climb STRAIGHT AHEAD. When passing 700′ turn LEFT onto hdg 120° climbing to 2500′. Intercept R-266 inbound FLO VOR and climb to 4500′. Report to ATC as soon as practicable.
No LEFT turn before BUB VOR/MM.

MSA FLO VOR: 180°–360° 1800′; 360°–090° 2000′; 090°–180° 2300′; 180°–270° 2600′

Alt Set: hPa | Rwy Elev: 6 hPa | Trans level: By ATC | Trans alt: 4500′



LOC (GS out)	IBL DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	8.9
	ALTITUDE	800′	1120′	1440′	1750′	2070′	2390′	2700′	3000′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM/BUB VOR						

HIALS-II
PAPI
700′

JAR-OPS STRAIGHT-IN LANDING RWY 25L

	ILS DA(H) 359′ (200′) FULL	ILS DA(H) 359′ (200′) ALS out	LOC (GS out) MDA(H) 560′ (401′)	LOC (GS out) MDA(H) 560′ (401′) ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C				RVR 1800m
D			RVR 1400m	RVR 2000m

CIRCLE-TO-LAND

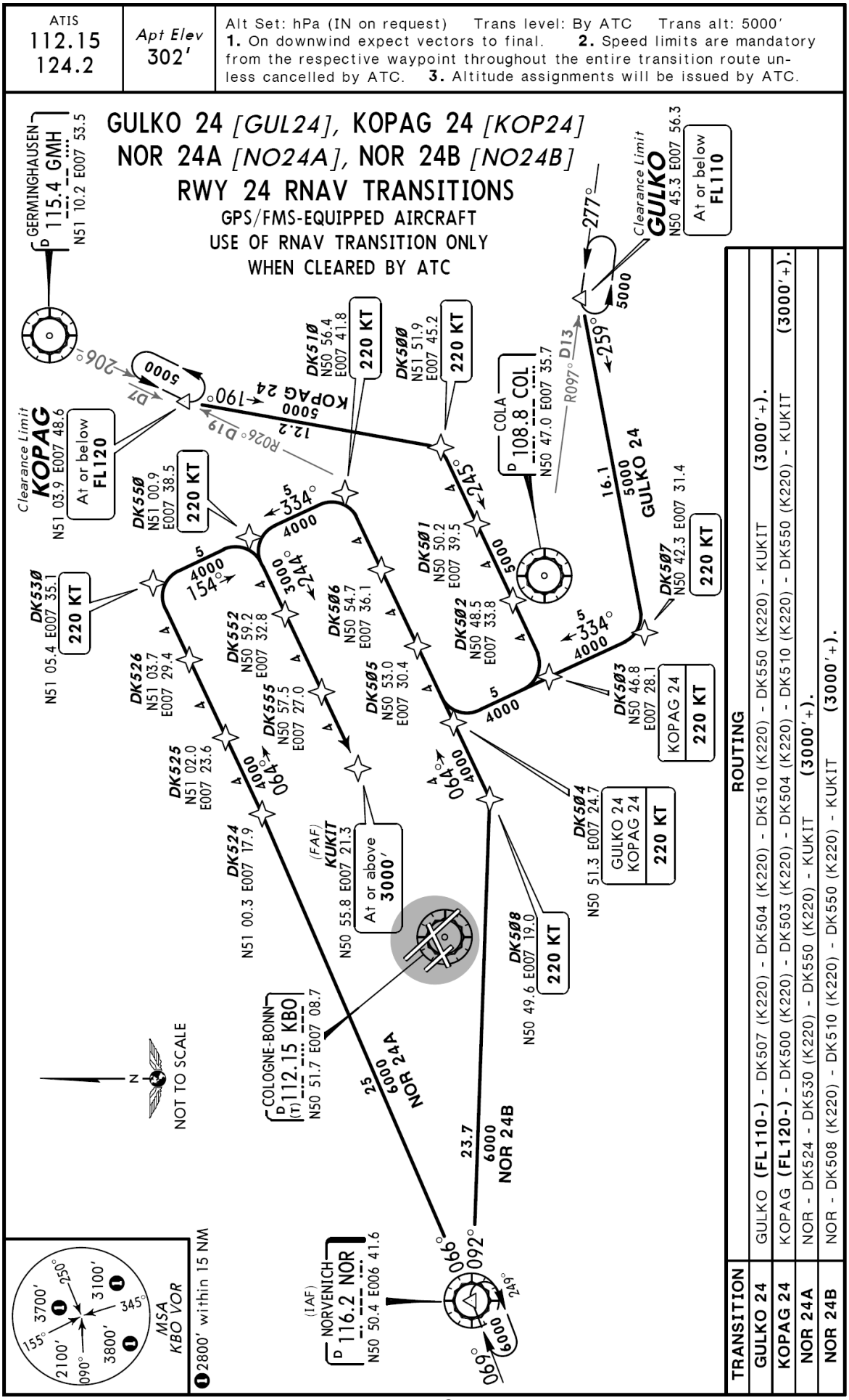
A	NOT AUTH
B	
C	
D	

PANS OPS 3

CHANGES: LOC frequency. Procedure.

ATIS 112.15 124.2 | Apt Elev 302′

Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′
1. On downwind expect vectors to final. **2.** Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC. **3.** Altitude assignments will be issued by ATC.



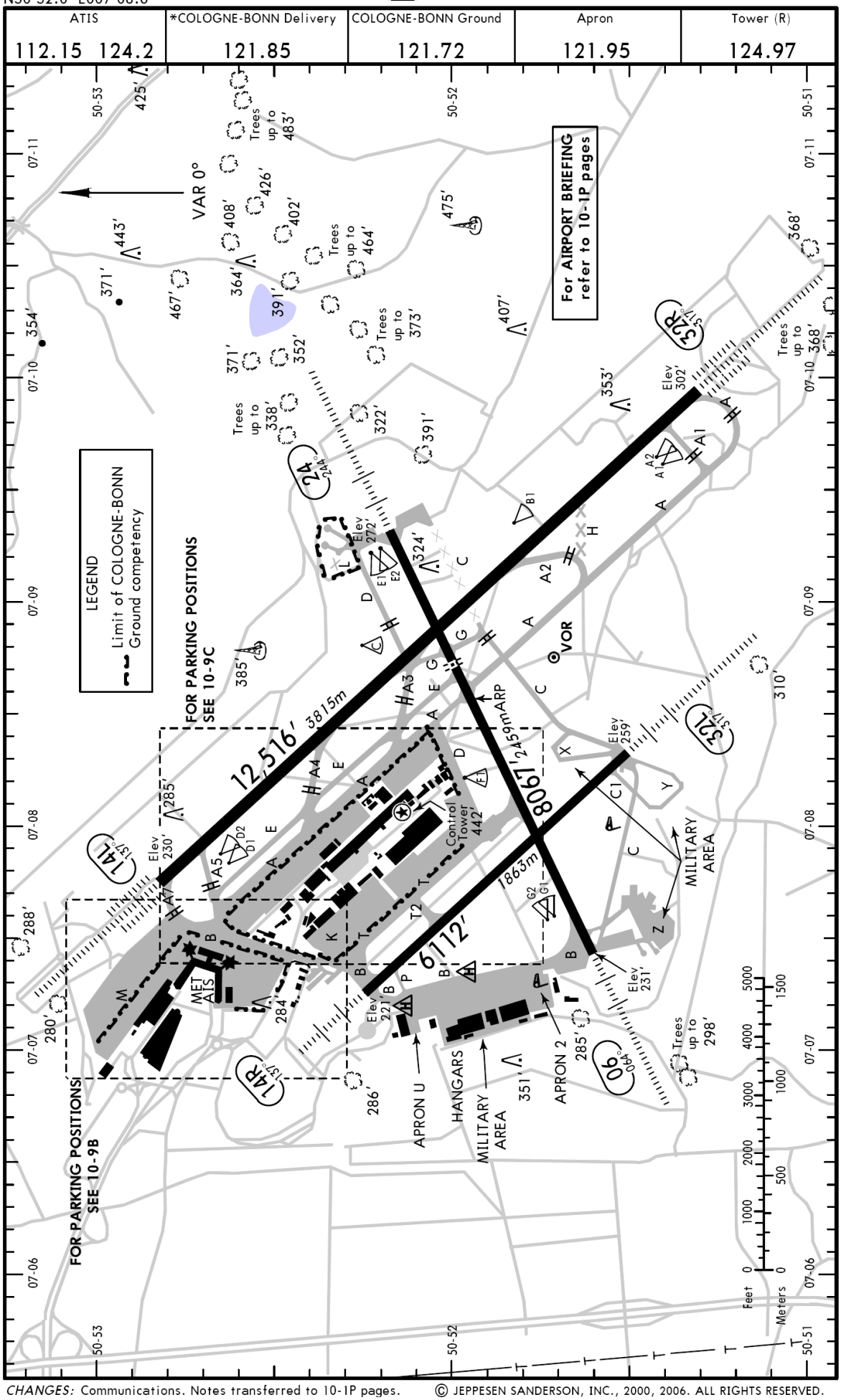
TRANSITION	ROUTING
GULKO 24	GULKO **(FL110-)** - DK507 (K220) - DK504 (K220) - DK510 (K220) - DK550 (K220) - KUKIT **(3000′+).**
KOPAG 24	KOPAG **(FL120-)** - DK500 (K220) - DK503 (K220) - DK504 (K220) - DK510 (K220) - DK550 (K220) - KUKIT **(3000′+).**
NOR 24A	NOR - DK524 - DK530 (K220) - DK550 (K220) - KUKIT **(3000′+).**
NOR 24B	NOR - DK508 (K220) - DK510 (K220) - DK550 (K220) - KUKIT **(3000′+).**

CHANGES: Crossings established & revised.

EDDK/CGN
Apt Elev **302′**
N50 52.0 E007 08.6

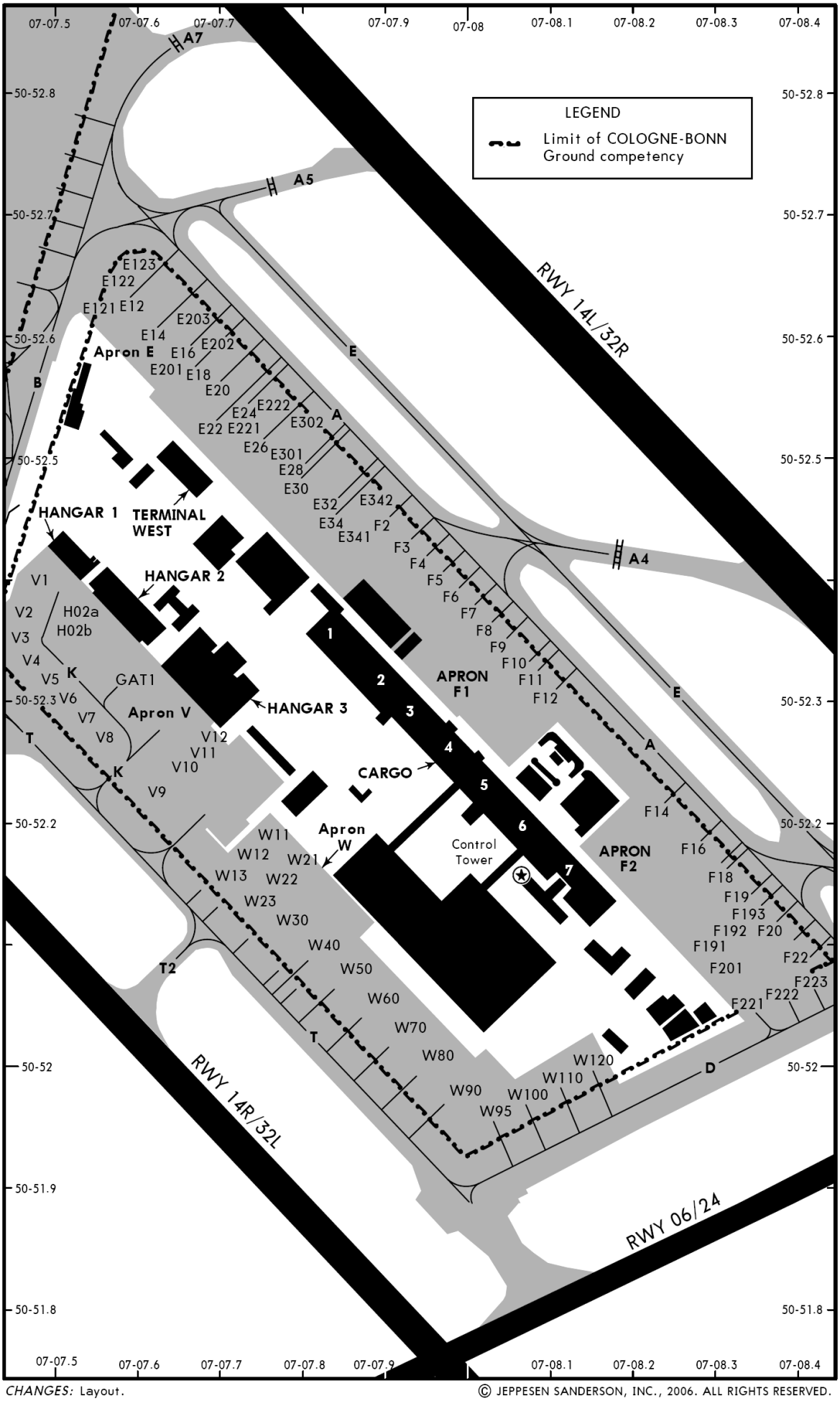
JEPPESEN **COLOGNE-BONN, GERMANY**
8 DEC 06 (10-9) **Eff 21 Dec**
COLOGNE-BONN

ATIS	*COLOGNE-BONN Delivery	COLOGNE-BONN Ground	Apron	Tower (R)
112.15 124.2	121.85	121.72	121.95	124.97



CHANGES: Communications. Notes transferred to 10-1P pages.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY



CHANGES: Layout.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EDDK/CGN COLOGNE-BONN

JEPPESEN 8 DEC 06 (11-2) Eff 21 Dec

COLOGNE-BONN, GERMANY ILS or LOC Rwy 24

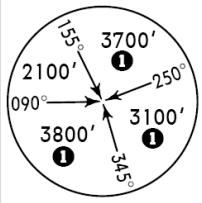
ATIS		COLOGNE-BONN Director (APP)	COLOGNE-BONN Tower (R)	Ground
112.15	124.2	121.05	124.97	121.72

BRIEFING STRIP ™

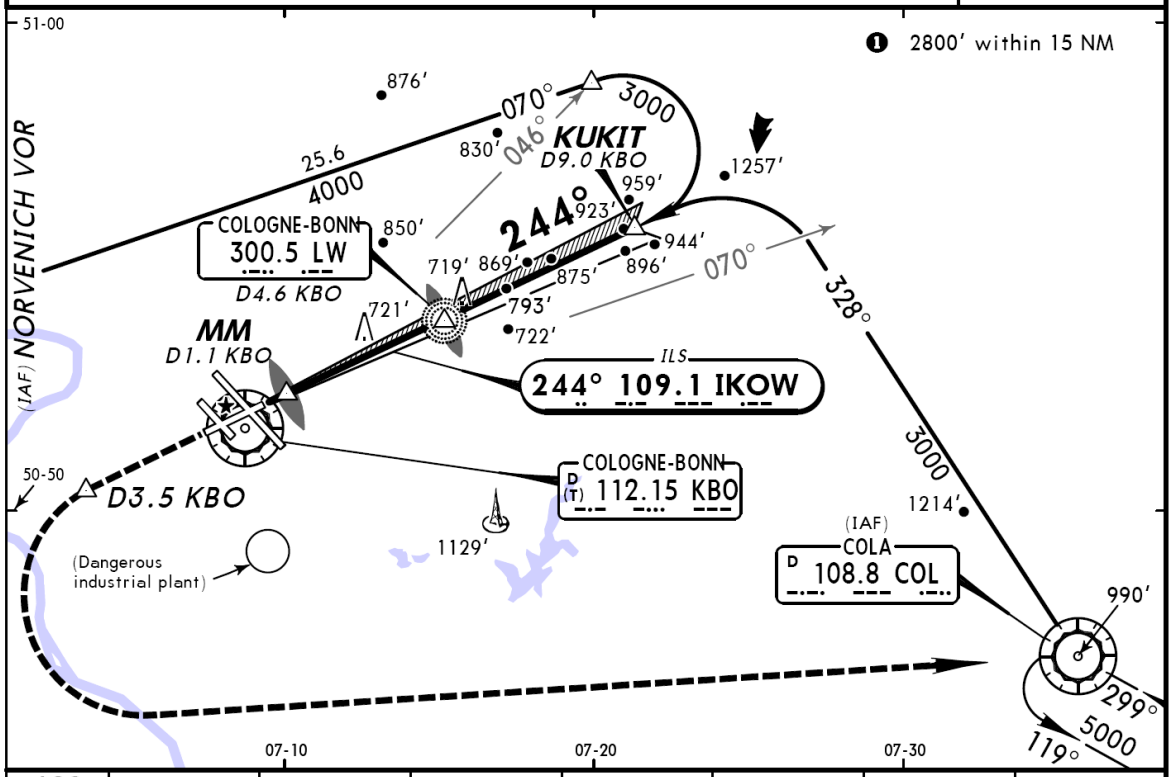
LOC IKOW	Final Apch Crs	GS LOM	ILS DA(H)	Apt Elev 302′
109.1	244°	1630′ (1358′)	472′ (200′)	RWY 272′

MISSED APCH: Climb STRAIGHT AHEAD to 5000′. When passing D3.5 KBO or 2000′, whichever is later, turn LEFT to COL VOR.

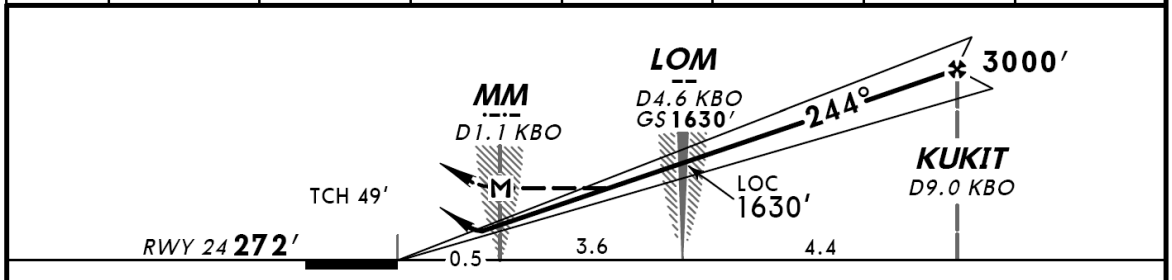
Alt Set: hPa (IN on req) Rwy Elev: 10 hPa Trans level: By ATC Trans alt: 5000′
LOC: **DME REQUIRED.**



51-00



LOC (GS out)	KBO DME	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	1090′	1410′	1730′	2050′	2360′	2680′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM/D1.1 KBO						

HIALS
REIL
PAPI

D3.5 KBO 2000′ whichever later

PANS OPS 4

JAR-OPS STRAIGHT-IN LANDING RWY 24

	ILS DA(H) 472′ (200′) FULL	ILS DA(H) 472′ (200′) ALS out	LOC (GS out) MDA(H) 950′ (678′)	LOC (GS out) MDA(H) 950′ (678′) ALS out
A	RVR 550m	RVR 1000m	1500m 1	
B				
C			1500m 1	2000m
D			1800m	

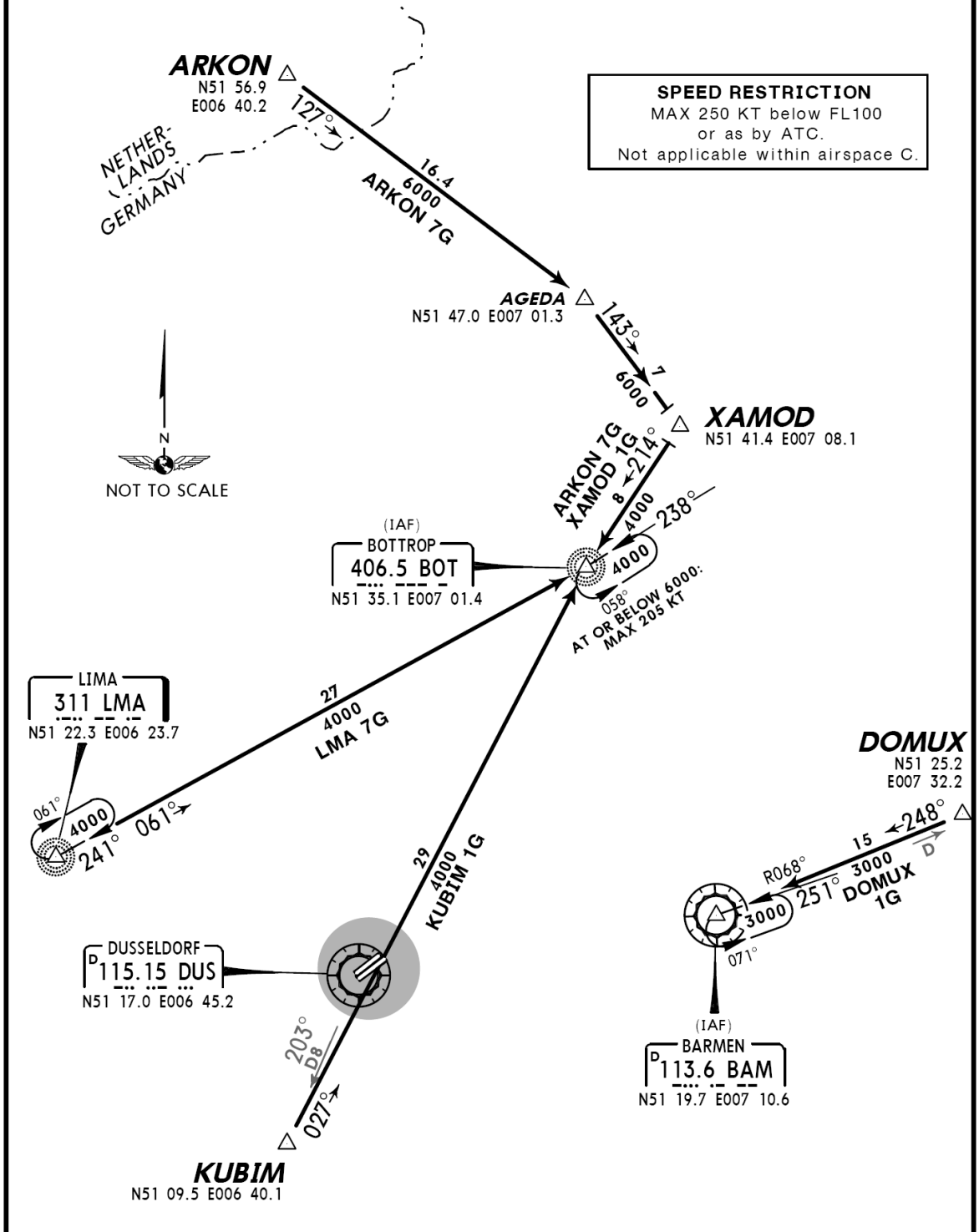
1 Due to the obstacle situation in the approach-sector, flight visibility and ground visibility are required.

CHANGES: Communications.

*ATIS	Apt Elev	Alt Set: hPa (IN on request)
115.15 123.77	147′	Trans level: By ATC Trans alt: 5000′

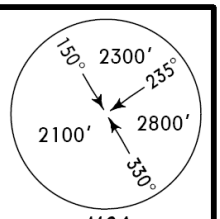
ARKON SEVEN GOLF (ARKON 7G) *[ARKO7G]*
B-RNAV EQUIPMENT NECESSARY

DOMUX ONE GOLF (DOMUX 1G) *[DOMU1G]*
KUBIM ONE GOLF (KUBIM 1G) *[KUBI1G]*
LIMA SEVEN GOLF (LMA 7G)
XAMOD ONE GOLF (XAMOD 1G) *[XAMO1G]*
RWYS 23L/R ARRIVALS



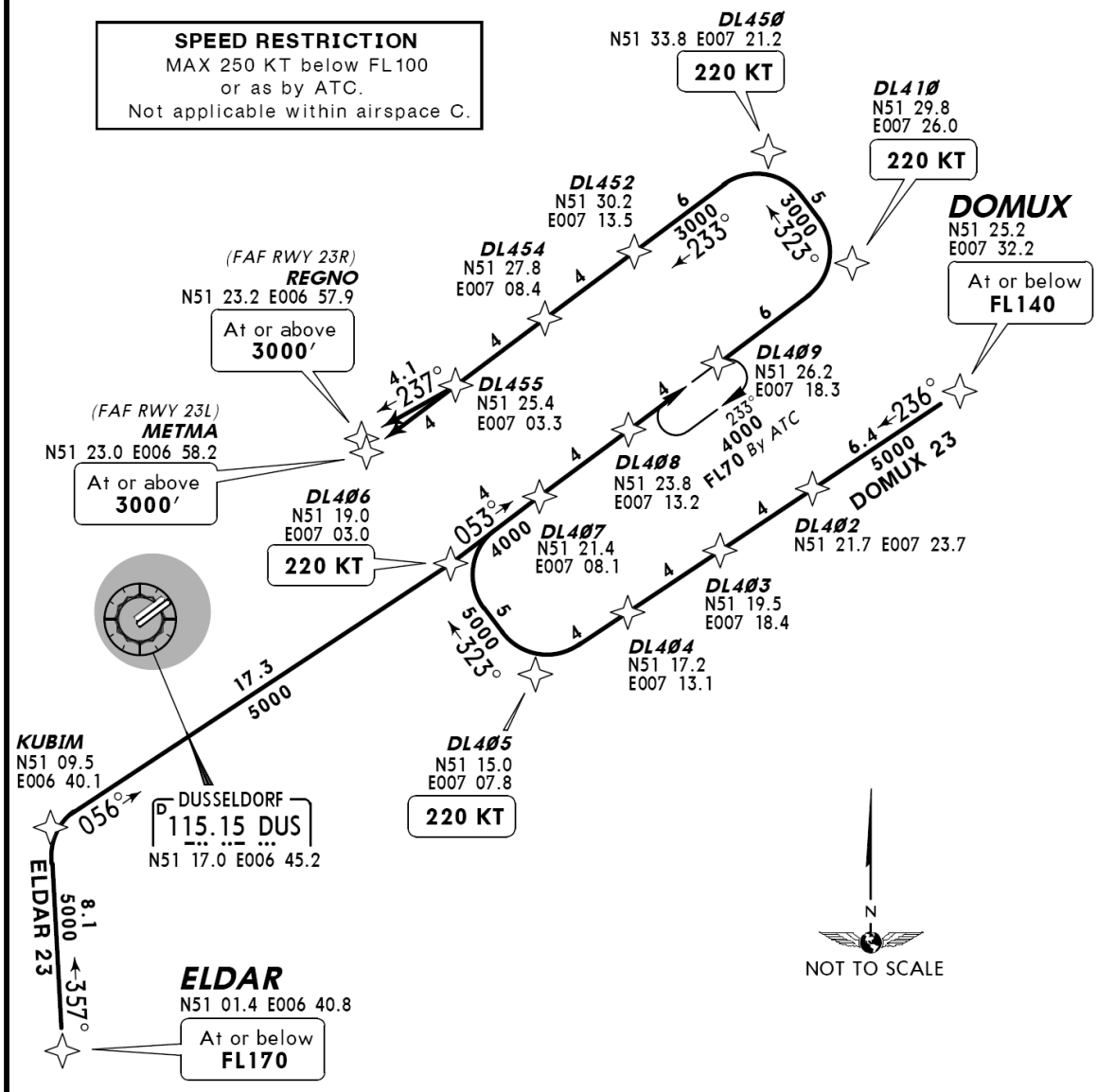
CHANGES: STARs completely revised.

*ATIS	Apt Elev	
115.15 123.77	147′	Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′ **1.** On downwind expect vectors to final. **2.** Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC. **3.** Altitude assignments will be issued by ATC.



MSA
DUS VOR
applicable over
German territory only

DOMUX 23 *[DOM23]*
ELDAR 23 *[ELD23]*
RWYS 23L/R RNAV TRANSITIONS
FROM EAST
GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

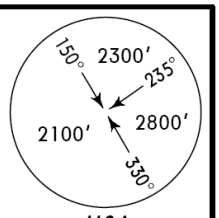


TRANSITION	ROUTING
DOMUX 23	DOMUX **(FL140-)** - DL405 (K220) - DL406 (K220) - DL410 (K220) - DL450 (K220) - METMA (23L ❶; **3000′+**)/ REGNO (23R; **3000′+**).
ELDAR 23	ELDAR **(FL170-)** - KUBIM - DL406 (K220) - DL410 (K220) - DL450 (K220) - METMA (23L ❶; **3000′+**)/ REGNO (23R; **3000′+**).

❶ Valid for LOST COMM situation.

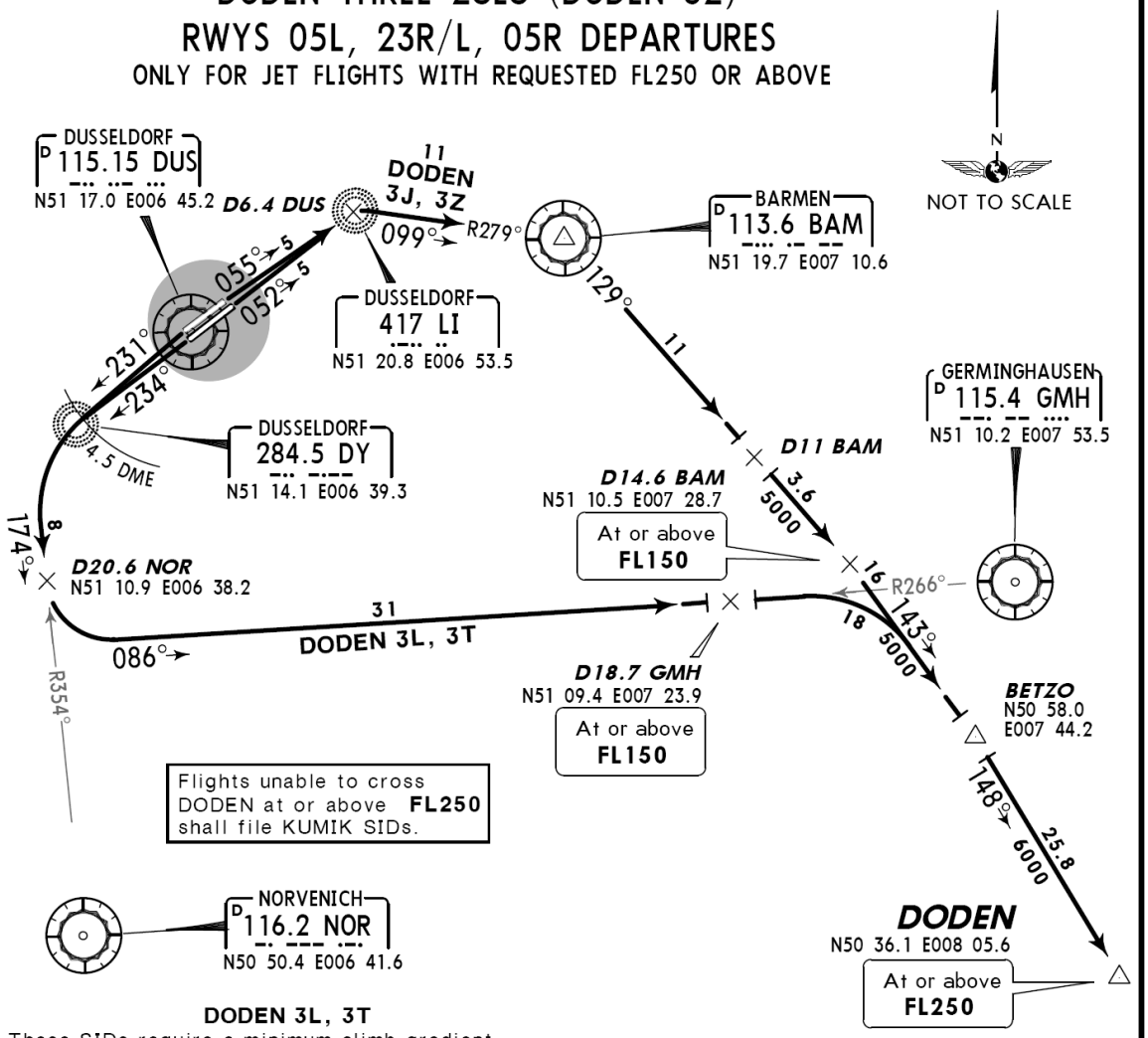
CHANGES: Crossings at DOMUX & ELDAR established.

*LANGEN Radar 133.77	Apt Elev 147′	Trans level: By ATC Trans alt: 5000′ **1.** Remain on Tower frequency until passing 2000′, then contact LANGEN Radar. **2.** SIDs are also noise abatement procedures (refer to 10-4B). Strict adherence within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

DODEN THREE JULIETT (DODEN 3J)
DODEN THREE LIMA (DODEN 3L)
DODEN THREE TANGO (DODEN 3T)
DODEN THREE ZULU (DODEN 3Z)
RWYS 05L, 23R/L, 05R DEPARTURES
ONLY FOR JET FLIGHTS WITH REQUESTED FL250 OR ABOVE



DODEN 3L, 3T

These SIDs require a minimum climb gradient of
425′ per NM (7%) until passing **3000′** due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425′ per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance **5000′**

SID	RWY	ROUTING
DODEN 3J	**05L**	Intercept 055° bearing (Rwy 05L)/052° bearing (Rwy 05R) towards LI, at D6.4 DUS turn RIGHT, intercept BAM R-279 inbound to BAM, BAM R-129 to D14.6 BAM ❶, turn RIGHT, 143° track to BETZO, turn RIGHT, 148° track to DODEN.
DODEN 3Z	**05R**	
DODEN 3L	**23R**	Intercept 231° bearing (Rwy 23R)/234° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to D18.7 GMH ❷, turn RIGHT, 143° track to BETZO, turn RIGHT, 148° track to DODEN.
DODEN 3T	**23L**	

After D14.6 BAM ❶ /D18.7 GMH ❷ BRNAV equipment necessary.

CHANGES: SIDs DODEN 3J, 3Z initial climb.

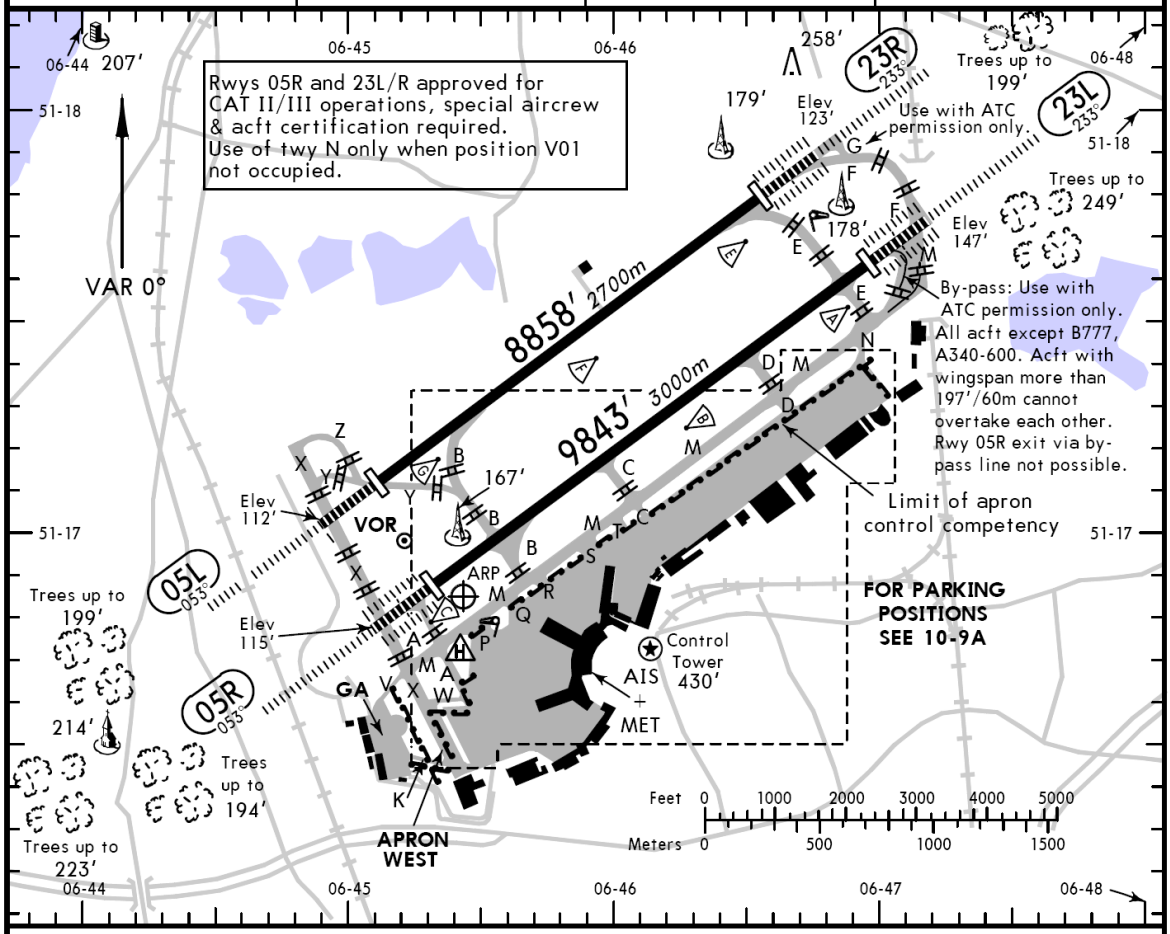
EDDL/DUS

Apt Elev **147′**
N51 16.9 E006 45.4

JEPPESEN
20 OCT 06 (10-9)

DUSSELDORF, GERMANY
DUSSELDORF

*ATIS	*DUSSELDORF Delivery	*Ground	Tower
115.15 123.77	121.77	121.9	118.3



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
05L	HIRL❶ CL❷ HIALS SFL PAPI-L(3.0°) REIL RVR	7874′ *2400m*	6923′ *2110m*	❸	148′ *45m*
23R	HIRL❶ CL❷ ALSF-II TDZ PAPI-L(3.0°) REIL RVR		6796′ *2071m*		

❶ HIRL spacing (60m) ❷ CL spacing (15m)
❸ TAKE-OFF RUN AVAILABLE

RWY 05L: From rwy head 7874′ (2400m)
twy Y int 6775′ (2065m)
twy B int 5643′ (1720m)

RWY 23R: From rwy head 7874′ (2400m)
twy E int 6765′ (2062m)
(PPR only) 8817′ (2687m) with paved strip in front of rwy

RWY						
05R 23L	HIRL CL*(15m)* ALSF-II TDZ PAPI-L(3.0°) REIL RVR	8858′ *2700m*	7844′ *2391m*	❹	148′ *45m*
			7632′ *2326m*		

❹ TAKE-OFF RUN AVAILABLE

RWY 05R: From rwy head 8858′ (2700m)
twy A int 8120′ (2475m)
twy B int 6663′ (2031m)

RWY 23L: From rwy head 8858′ (2700m)
by-pass int 8202′ (2500m)
twy E int 7333′ (2235m)

JAR-OPS TAKE-OFF ❶

All Rwys
LVP must be in Force

	Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*
B						
C						
D	*150m*	*200m*	*250m*	*300m*		

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

CHANGES: Twy designations. Usable lengths.

EDDL/DUS
DUSSELDORF

JEPPESEN
11 MAY 07 (11-3)

DUSSELDORF, GERMANY
ILS or LOC Rwy 23L

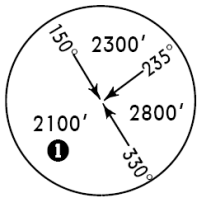
*ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.55	128.65	118.3	121.9

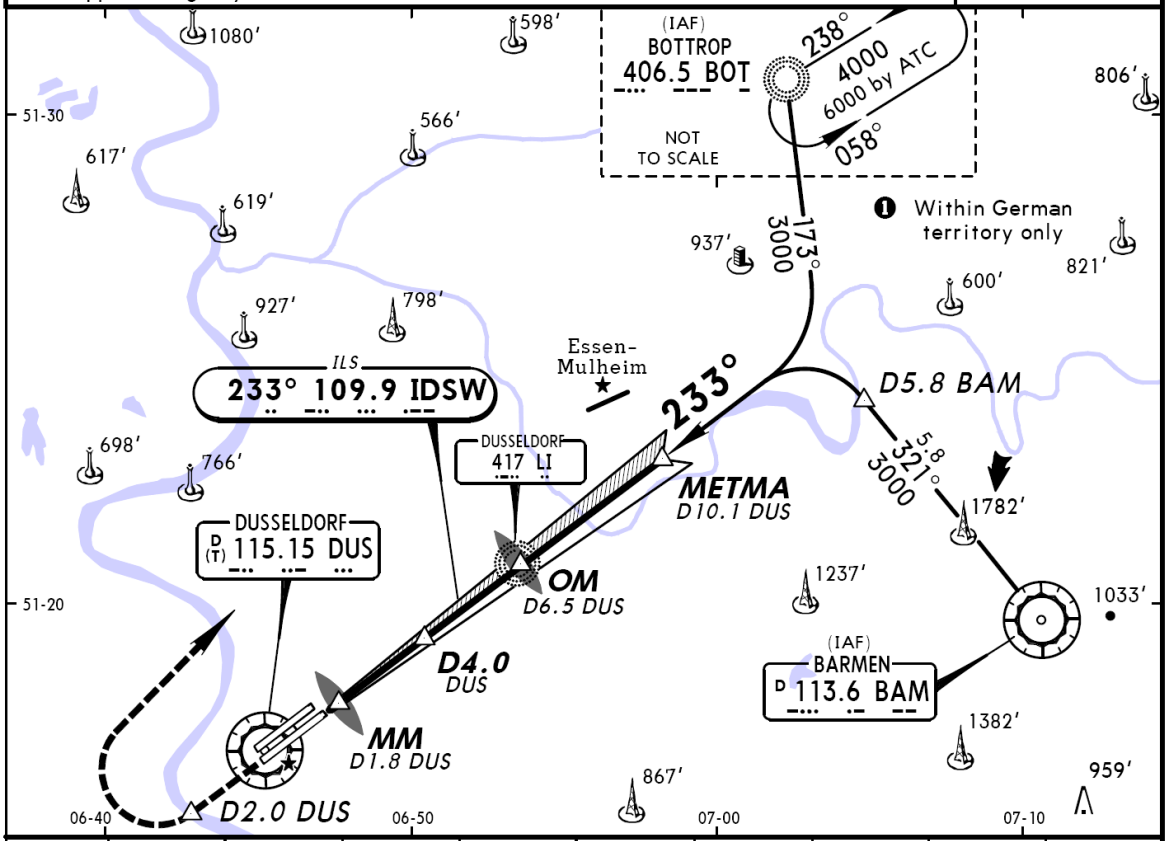
BRIEFING STRIP ™

LOC IDSW	Final Apch Crs	GS OM	ILS DA(H)	Apt Elev 147′
109.9	233°	1850′ (1712′)	338′ (200′)	RWY 138′

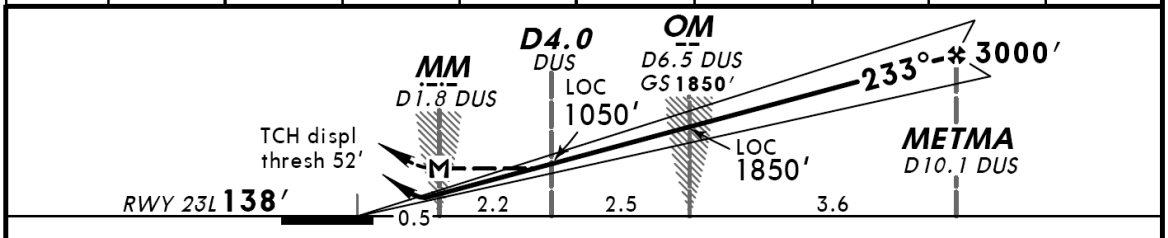
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT to BOT NDB climbing to 4000′.

Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000′
1. LOC: **DME REQUIRED.** 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23L.





LOC (GS out)	DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	740′	1050′	1370′	1690′	2010′	2330′	2650′	2960′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM/D1.8 DUS						

ALSF-II
REIL
PAPI

D2.0
DUS

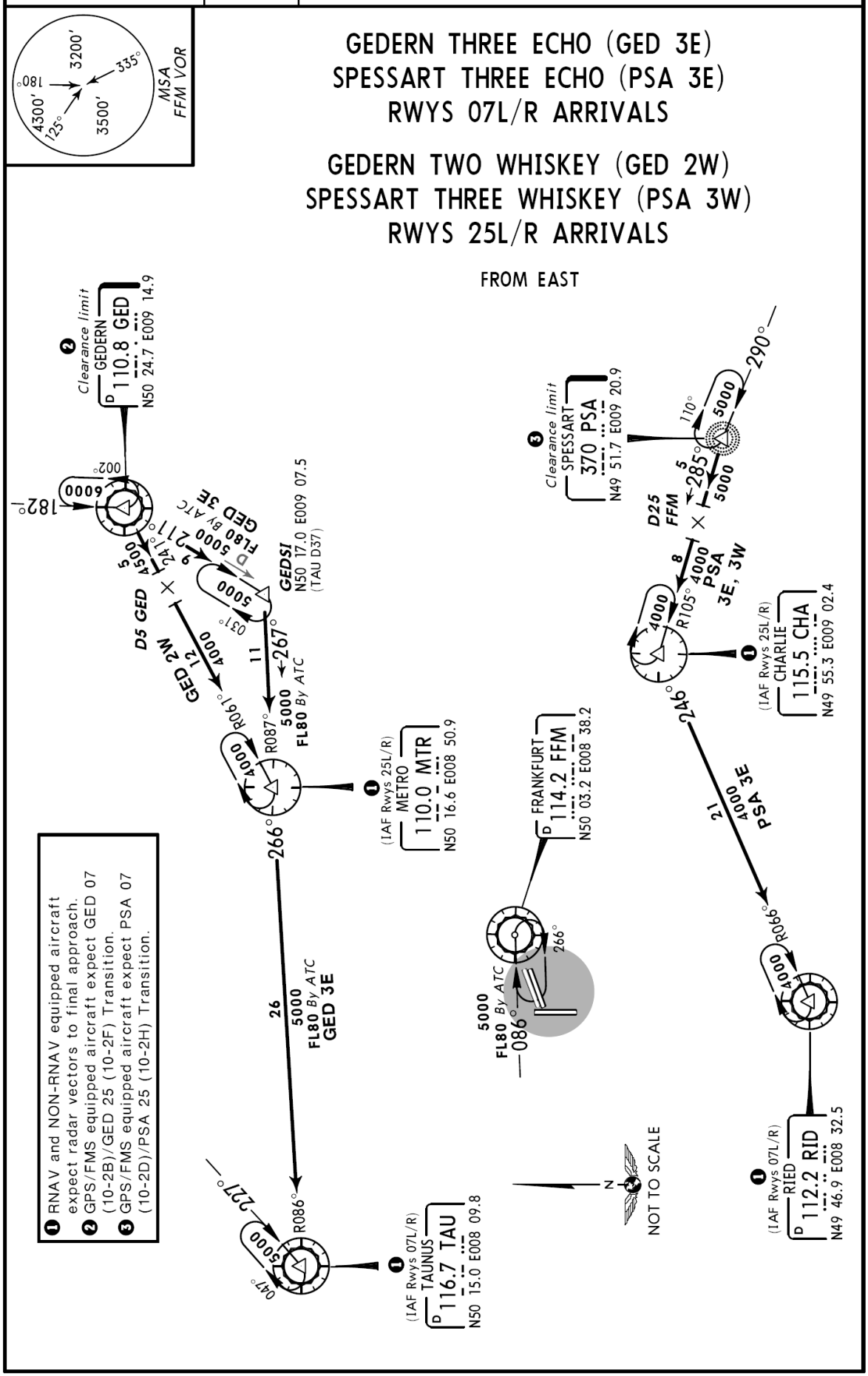
JAR-OPS STRAIGHT-IN LANDING RWY **23L**

	ILS DA(H) 338′ (200′)		LOC (GS out) MDA(H) 530′ (392′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C				RVR 1800m
D			RVR 1400m	RVR 2000m

PANS OPS 4

CHANGES: Director frequency.

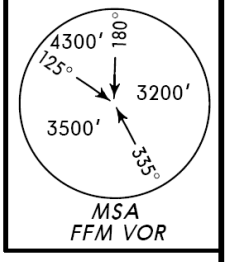
ATIS	Apt Elev	
*118.02 114.2	364′	Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′

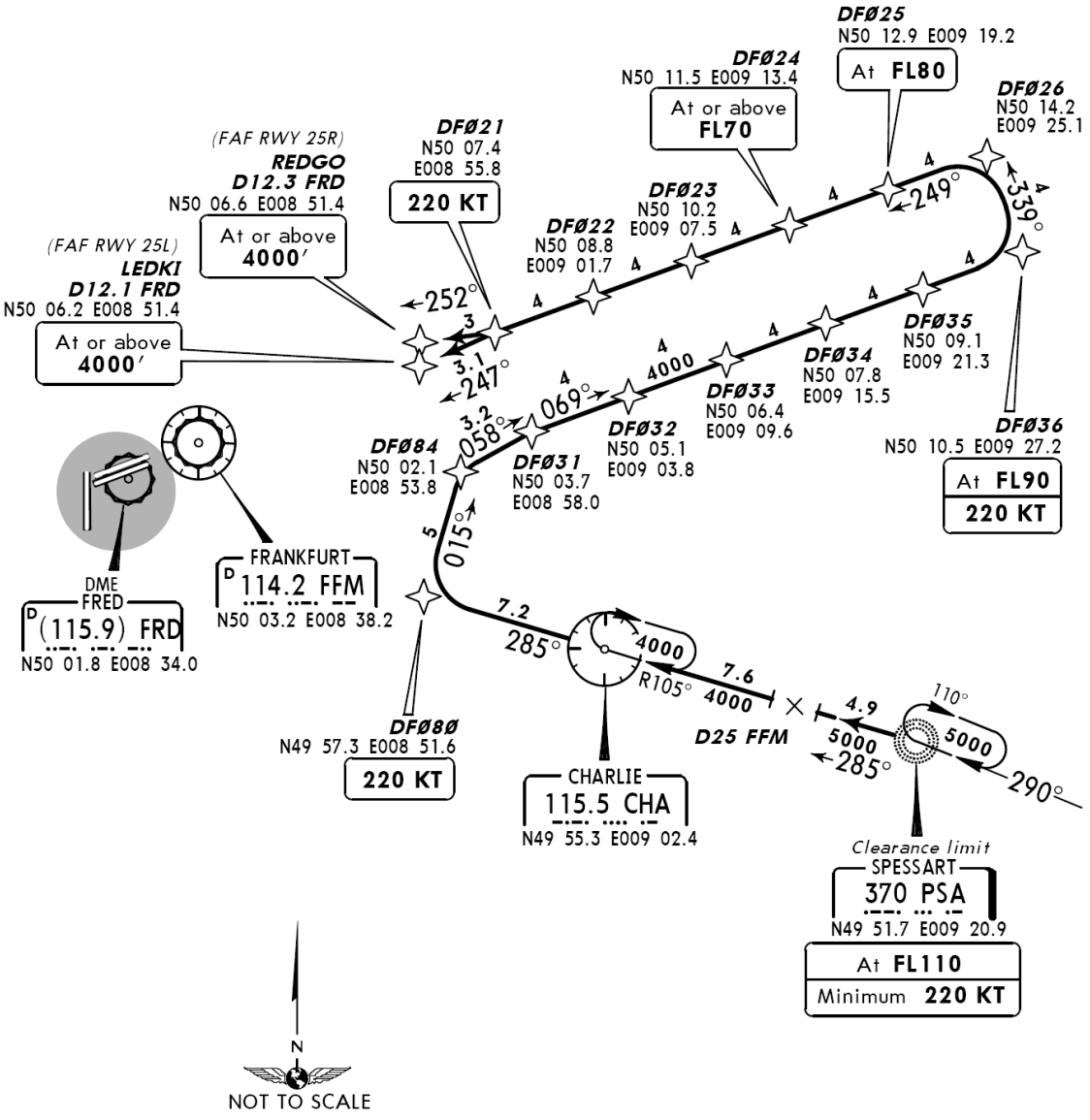


CHANGES: STARs renumbered & revised.

*ATIS	Apt Elev	
118.02 114.2	364′	Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′ **1.** On downwind transition expect vectors to final. **2.** Speed restrictions on Transition (even without profile) are always mandatory, unless cancelled by ATC.

PSA 25
RWYS 25L/R RNAV TRANSITION
GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC





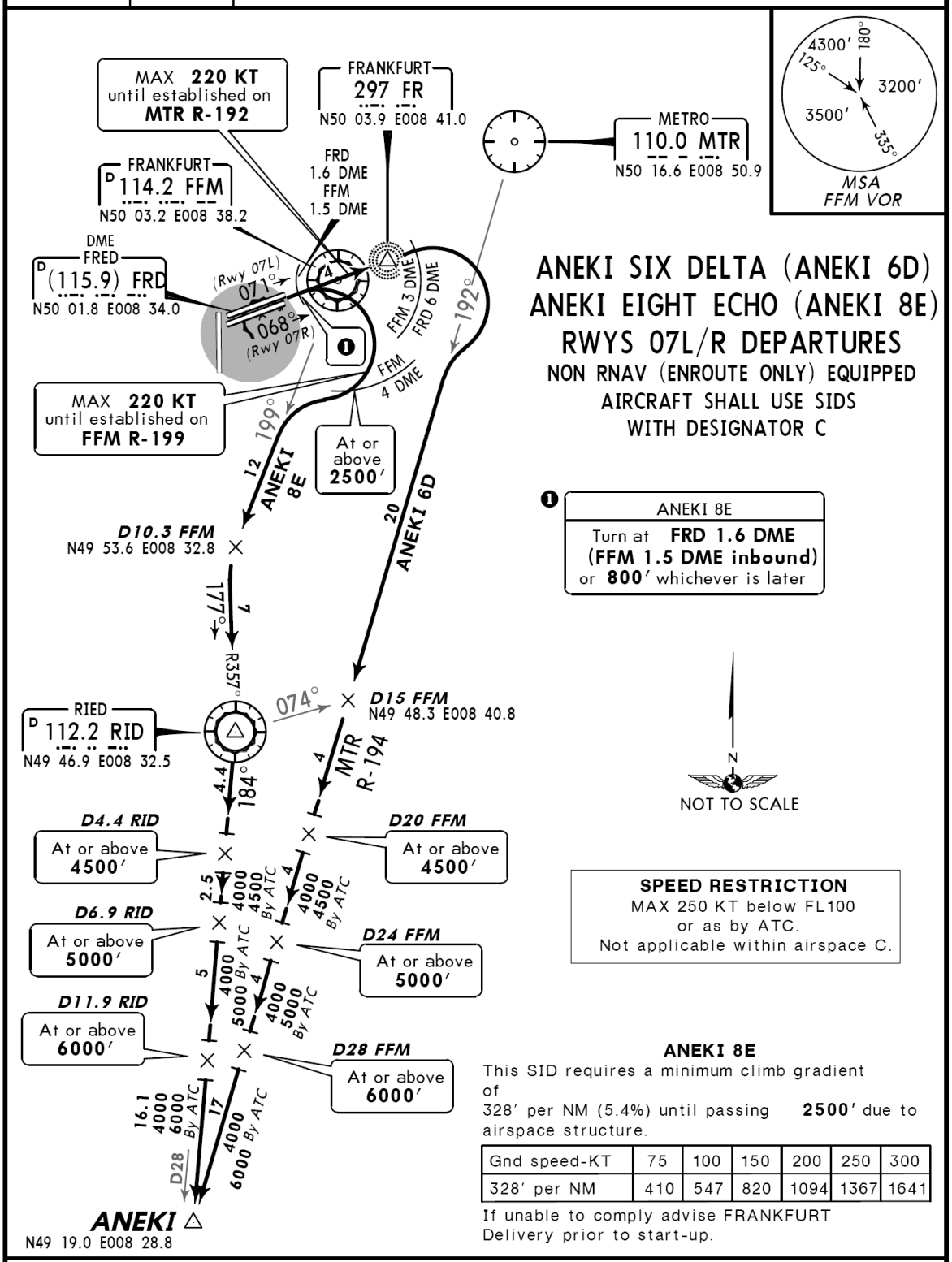
ROUTING

PSA **(FL110;** K220+) - CHA - DF080 (K220) - DF084 - DF031 - DF036 **(FL90;** K220) - DF026 - DF025 **(FL80) -** DF024 **(FL70+) -** DF021 (K220) - LEDKI (25L ❶**; 4000′+)**/ REDGO (25R; **4000′+).**

❶ Valid for LOST COMM situation.

CHANGES: RNAV transition revised.

LANGEN Radar 136.12	Apt Elev 364′	Trans level: By ATC Trans alt: 5000′ **1.** Contact LANGEN Radar immediately after take-off. **2.** SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. **3.** For departure designation refer to 10-1P pages.



ANEKI 8E

This SID requires a minimum climb gradient of 328′ per NM (5.4%) until passing **2500′** due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
328′ per NM	410	547	820	1094	1367	1641

If unable to comply advise FRANKFURT Delivery prior to start-up.

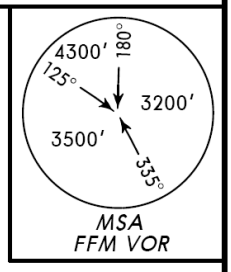
Initial climb clearance **4000′**

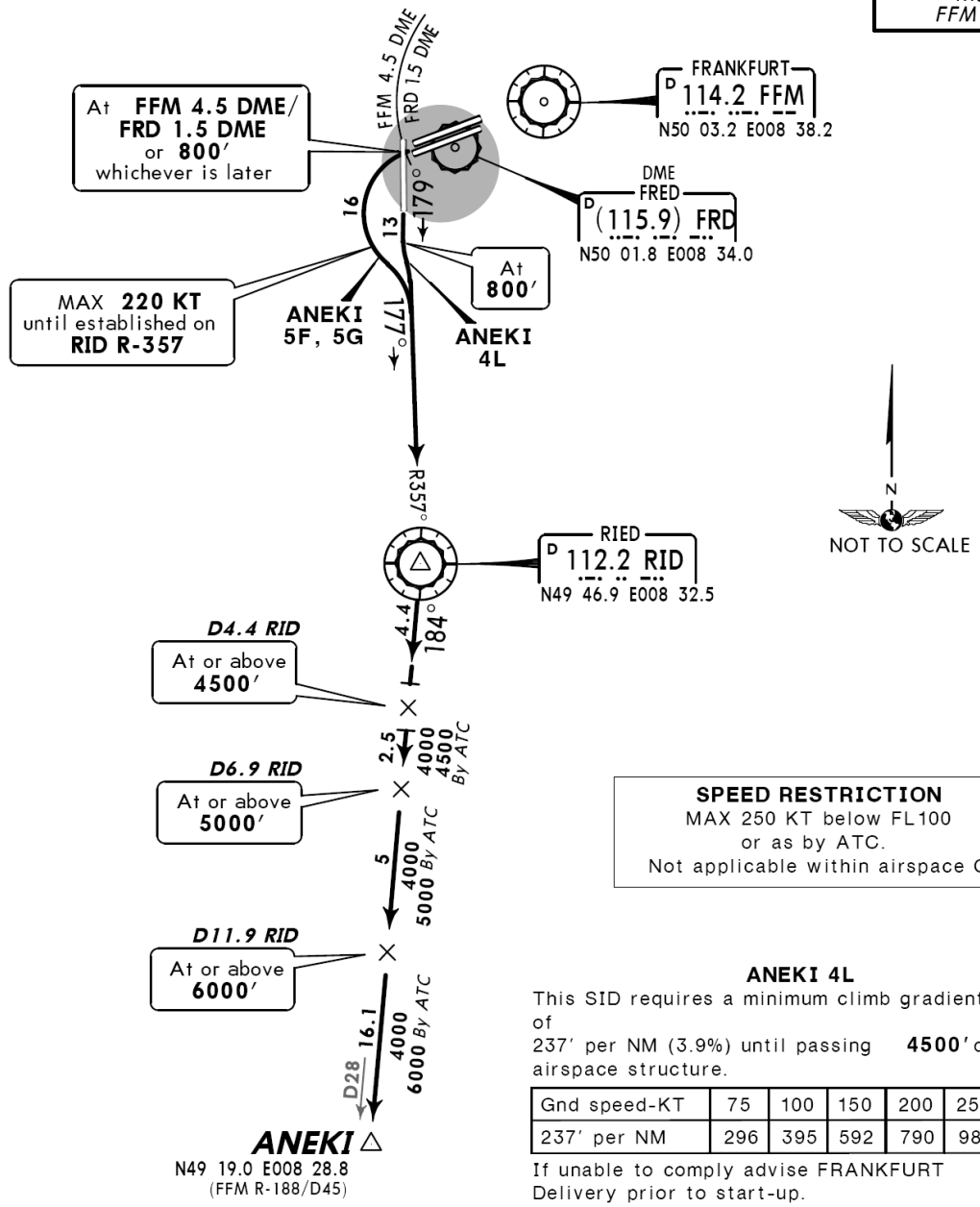
SID	ROUTING
ANEKI 6D	Climb on runway track to **800′,** via FR to FRD 6 DME (FFM 3 DME outbound), turn RIGHT, intercept MTR R-192 to D15 FFM/RID R-074, turn RIGHT, intercept MTR R-194 to ANEKI.
ANEKI 8E	Climb on runway track to FRD 1.6 DME (FFM 1.5 DME inbound) or **800′,** whichever is later, turn RIGHT, intercept FFM R-199, at D10.3 FFM turn LEFT, intercept RID R-357 inbound to RID, turn RIGHT, RID R-184 to ANEKI.

CHANGES: SIDs renumbered & revised; chart reindexed.

*LANGEN Radar 136.12	Apt Elev 364′	Trans level: By ATC Trans alt: 5000′ **1.** Contact LANGEN Radar immediately after take-off. **2.** SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. **3.** RWY 18: EXPECT close-in obstacles. **4.** RWY 18: Wind shears and increased turbulences must be expected when winds heavy. **5.** For departure designation refer to 10-1P pages.

ANEKI FIVE FOXTROT (ANEKI 5F)
ANEKI FIVE GOLF (ANEKI 5G)
ANEKI FOUR LIMA (ANEKI 4L)
RWYS 25L/R, 18 DEPARTURES





ANEKI 5F, 5G: Initial climb clearance **5000′**
ANEKI 4L: Initial climb clearance **4000′**

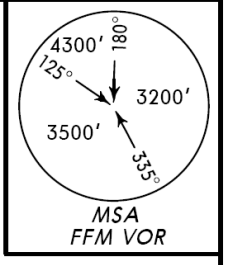
SID	RWY	ROUTING
ANEKI 5F, 5G	**25L/R**	Climb on runway track to FFM 4.5 DME/FRD 1.5 DME or **800′,** whichever is later, turn LEFT, intercept RID R-357 inbound to RID, RID R-184 to ANEKI.
ANEKI 4L	**18**	Climb on runway track to **800′,** intercept RID R-357 inbound to RID, turn RIGHT, RID R-184 to ANEKI.

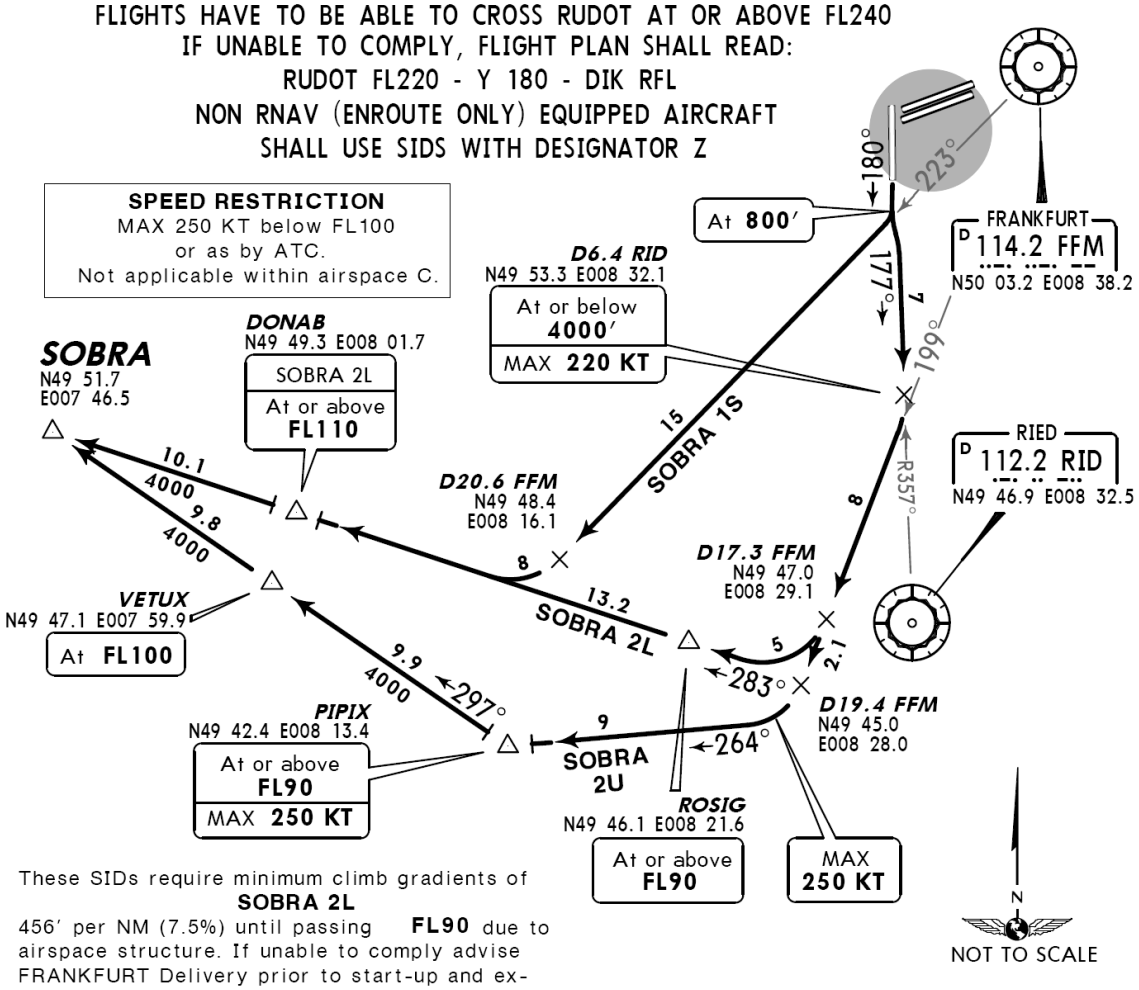
CHANGES: None.

LANGEN Radar 136.12	Apt Elev 364′	Trans level: By ATC Trans alt: 5000′ **1.** Contact LANGEN Radar immediately after take-off. **2.** SIDs are also noise abatement procedures (refer to 10-4C). Strict adherence within the limits of aircraft performance is mandatory. **3.** EXPECT close-in obstacles. **4.** Wind shears and increased turbulences must be expected when winds heavy. **5.** For departure designation refer to page 10-4.

SOBRA TWO LIMA (SOBRA 2L)
SOBRA ONE SIERRA (SOBRA 1S)
SOBRA TWO UNIFORM (SOBRA 2U)
RWY 18 DEPARTURES

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250
VIA AIRWAYS Y 180/Y 181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y 180 - DIK RFL
NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT
SHALL USE SIDS WITH DESIGNATOR Z





These SIDs require minimum climb gradients of

SOBRA 2L

456′ per NM (7.5%) until passing **FL90** due to airspace structure. If unable to comply advise FRANKFURT Delivery prior to start-up and expect routing via SOBRA 2U.

SOBRA 2U

328′ per NM (5.4%) until passing **FL90** due to airspace structure. If unable to comply advise FRANKFURT Delivery prior to start-up and expect routing via ULKIG 3U.

Gnd speed-KT	75	100	150	200	250	300
456′ per NM	570	760	1139	1519	1899	2279
328′ per NM	410	547	820	1094	1367	1641

Initial climb clearance **4000′**

SID	ROUTING
SOBRA 2L Will be assigned when landing direction is 07	Climb on runway track to **800′,** intercept RID R-357 inbound to D6.4 RID, turn RIGHT, intercept FFM R-199, at D17.3 FFM ❶ turn RIGHT, 283° track via ROSIG and DONAB to SOBRA.
SOBRA 1S Only to be used when landing direction is 25	Climb on runway track to **800′,** turn RIGHT, intercept FFM R-223, at D20.6 FFM ❷ turn RIGHT, 283° track via DONAB to SOBRA.
SOBRA 2U	Climb on runway track to **800′,** intercept RID R-357 inbound to D6.4 RID, turn RIGHT, intercept FFM R-199, at D19.4 FFM ❸ turn RIGHT, 264° track to PIPIX, turn RIGHT, 297° track via VETUX to SOBRA.

After D17.3 FFM ❶/D20.6 FFM ❷/D19.4 FFM ❸ BRNAV equipment necessary.

CHANGES: None.

EDDF/FRA

Apt Elev **364′**

N50 02.0 E008 34.2

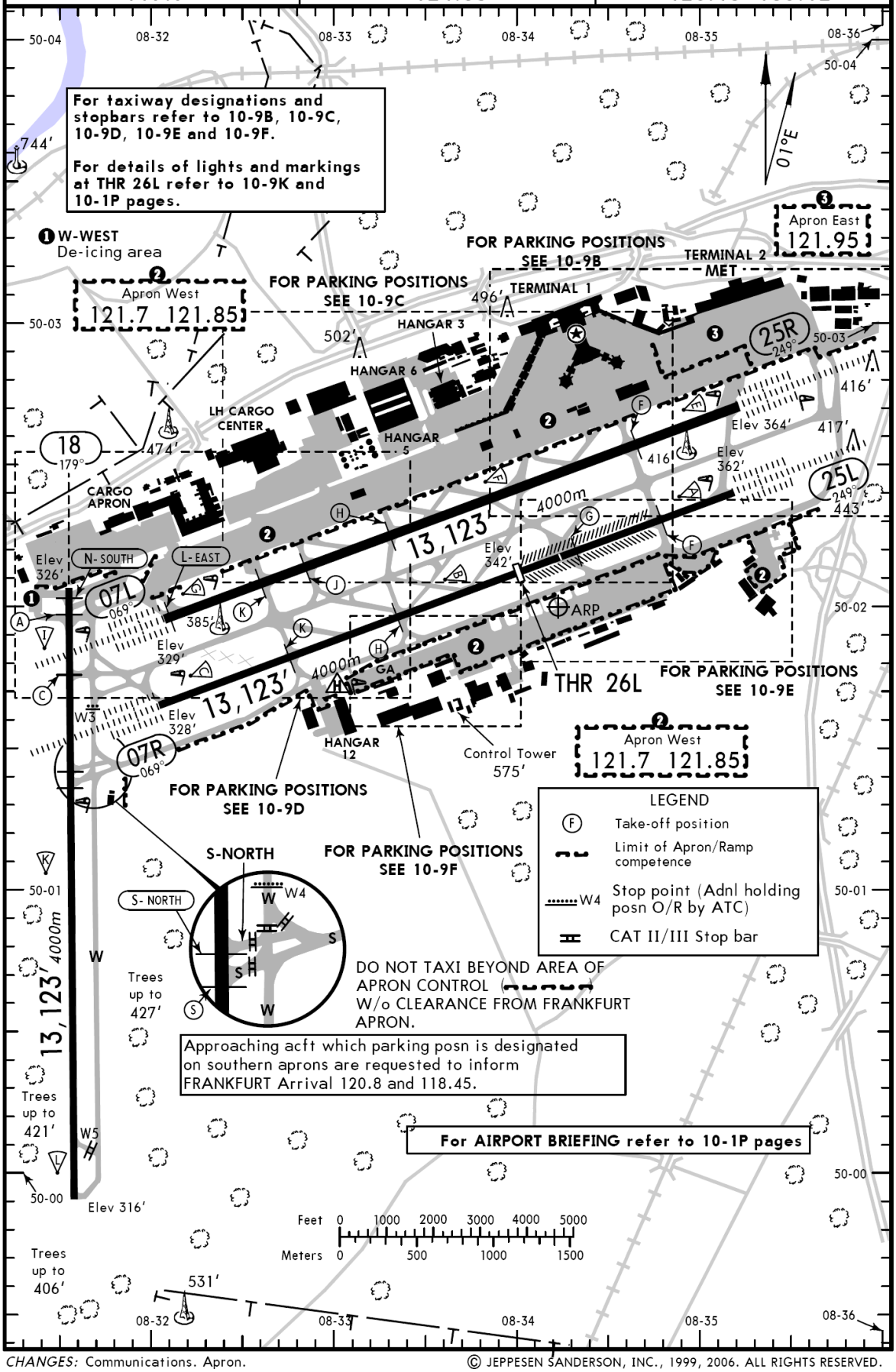
JEPPESEN **FRANKFURT/MAIN, GERMANY**

27 OCT 06 (10-9)

FRANKFURT/MAIN

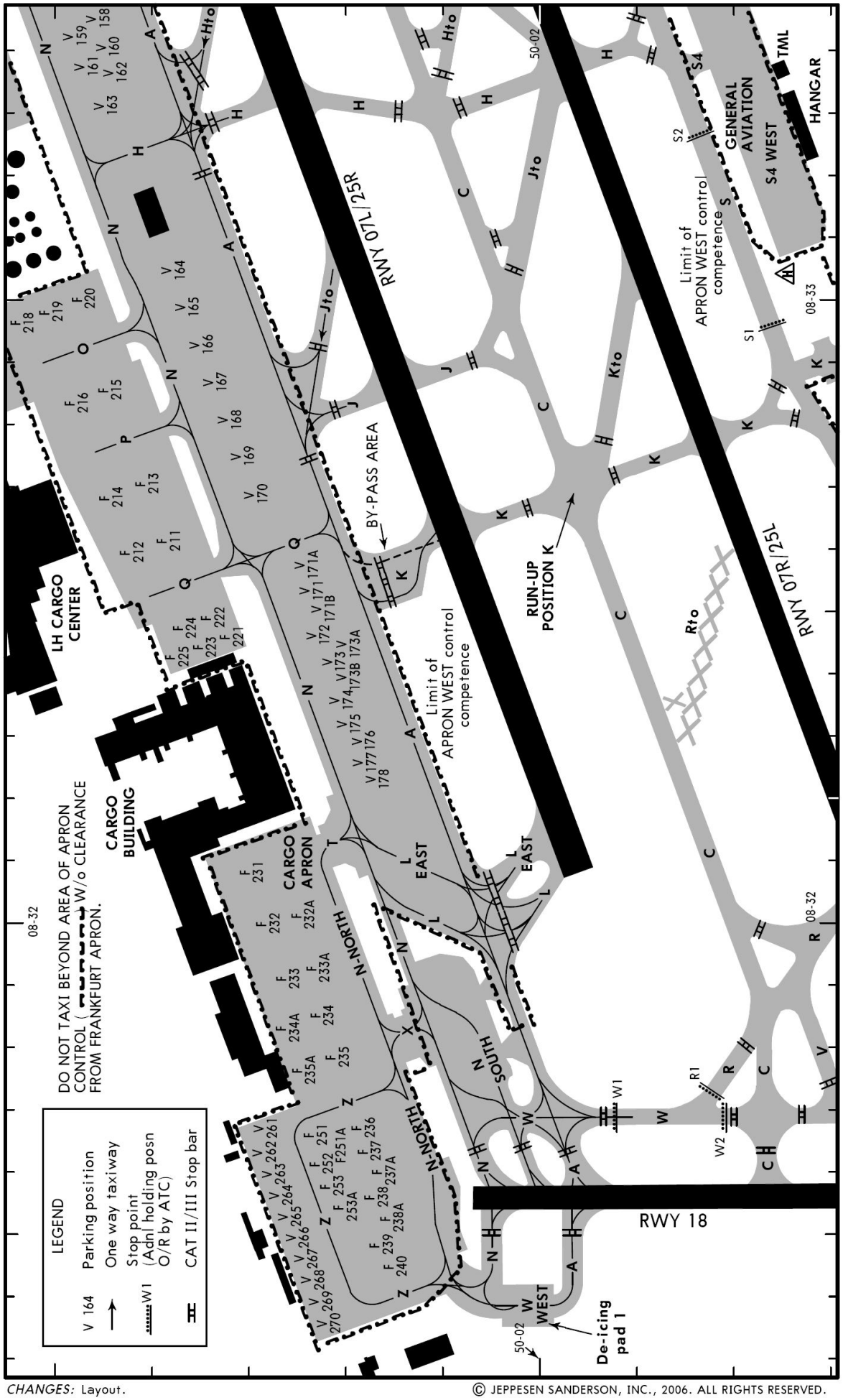
*ATIS Departure	ACARS:	FRANKFURT Delivery (Initial call and Start-up clearance)	*Ground	Apron	
				West	East
118.72	DCL	121.9	121.8	121.7 121.85	121.95

Tower	*Tower DEP via RWY 18	FRANKFURT Departure
119.9	124.85	120.15 136.12



CHANGES: Communications. Apron.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY



CHANGES: Layout.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 12 OCT 07 (11-2) Eff 25 Oct

FRANKFURT/MAIN, GERMANY
ILS or LOC Rwy 07R

*ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Arrival (APP)	FRANKFURT Tower	*Ground
118.02 114.2	120.8	125.35	127.27	118.5	119.9	121.8

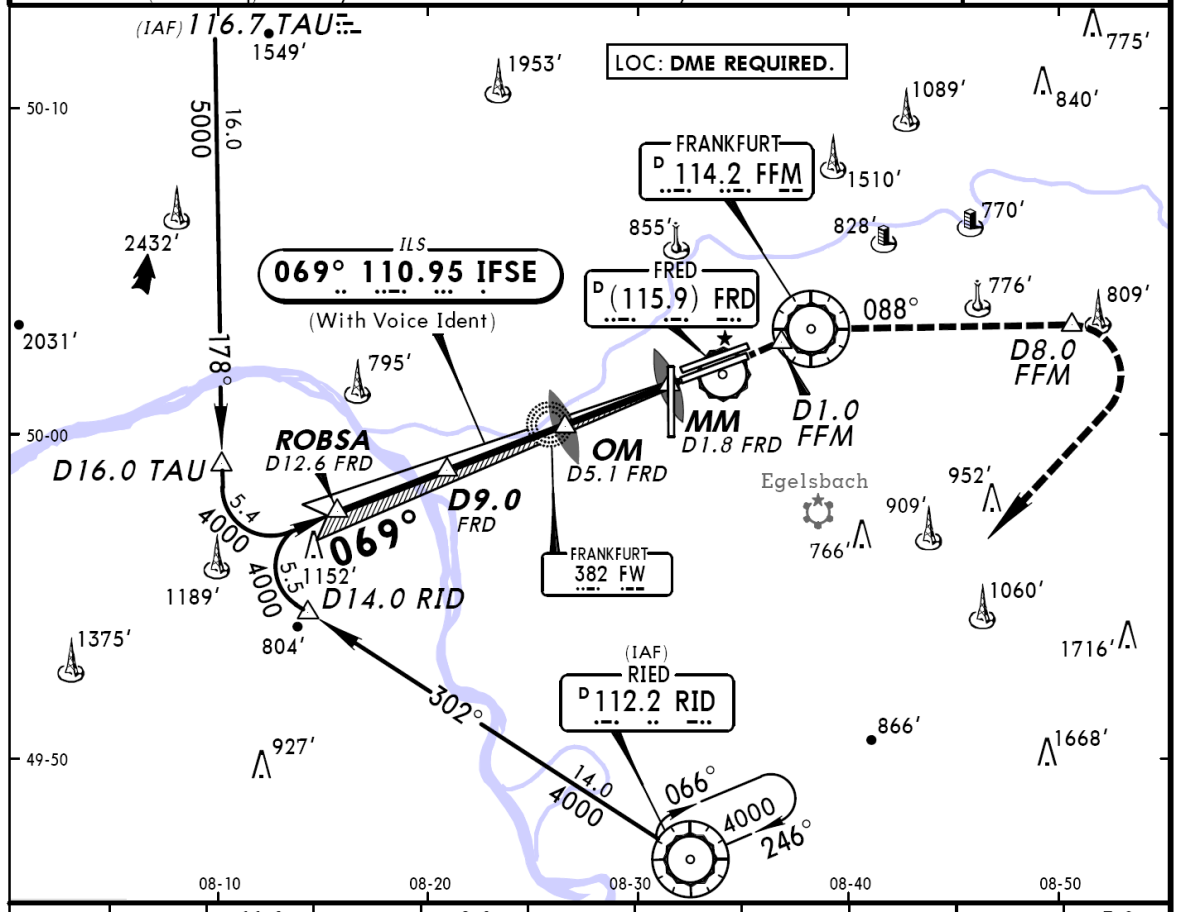
BRIEFING STRIP

LOC IFSE	Final Apch Crs	GS OM	ILS DA(H)	Apt Elev 364′
110.95	069°	1590′ (1262′)	528′ (200′)	RWY 328′

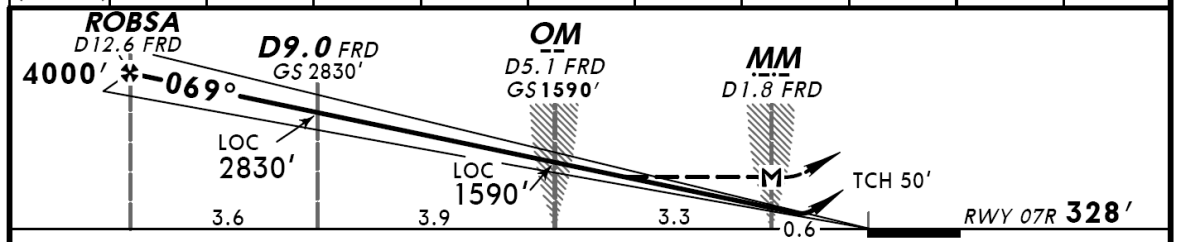
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 inbound FFM, then turn RIGHT to intercept R-088 FFM outbound to D8.0 FFM or 5000′, whichever is later, then turn RIGHT to RID VOR and maintain 5000′.

MSA FFM VOR: 4300′ (180°–125°), 3200′, 3500′, (335°–180°)

Alt Set: hPa(IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000′



LOC (GS out)	FRD DME	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE	3470′	3150′	2830′	2520′	2200′	1880′	1560′	1240′	920′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM/D1.8 FRD						

ALSF-II
REIL
PAPI

D1.0 inbound FFM

PANS OPS 4

JAR-OPS STRAIGHT-IN LANDING RWY 07R

	ILS DA(H) 528′ (200′) FULL	ILS DA(H) 528′ (200′) ALS out	LOC (GS out) MDA(H) 790′ (462′)	LOC (GS out) MDA(H) 790′ (462′) ALS out
A	RVR 550m	RVR 1000m	RVR 1000m	RVR 1500m
B			RVR 1200m	
C				RVR 2000m
D			RVR 1600m	

CHANGES: Communications. Missed approach.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 12 OCT 07 (11-3) Eff 25 Oct

FRANKFURT/MAIN, GERMANY ILS or LOC Rwy 25L

*ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Arrival (APP)	FRANKFURT Tower	*Ground
118.02 114.2	120.8	125.35	127.27	118.5	119.9	121.8

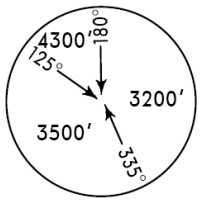
BRIEFING STRIP

LOC IFSW 110.7	Final Apch Crs 249°	GS LOM 1720′ (1358′)	ILS DA(H) Refer to Minimums	Apt Elev 364′ RWY 362′

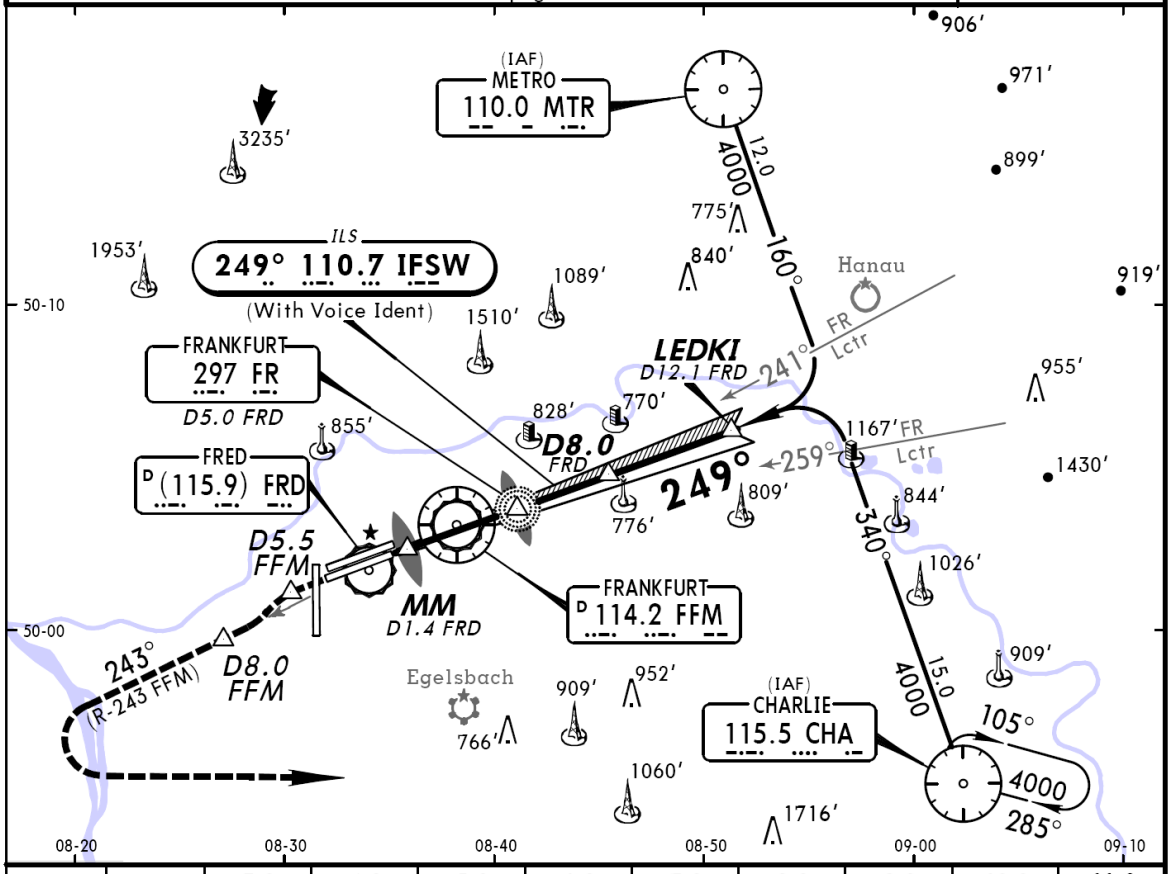
MISSED APCH: Climb STRAIGHT AHEAD to D5.5 FFM, then turn LEFT to intercept R-243 FFM. Then on R-243 FFM to D8.0 FFM or 5000′, which-ever is later, then turn LEFT to CHA VOR and maintain 5000′.

Alt Set: hPa(IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000′

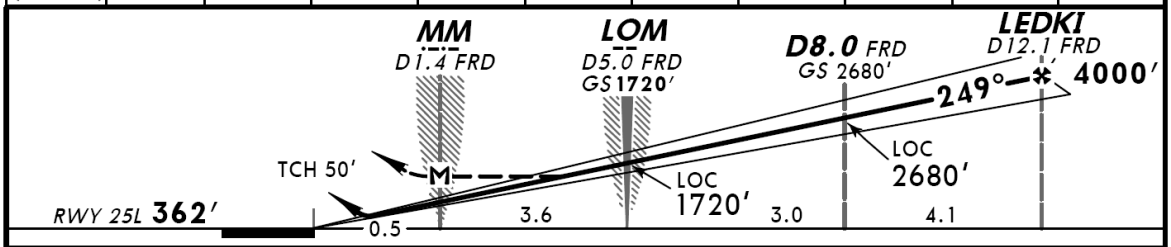
1. LOC: **DME REQUIRED.** 2. CAUTION: Independent taxiing acft on Twy B-EAST underneath short final. 3. LACFT: See ATC State pages.



MSA FFM VOR



LOC (GS out)	FRD DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	ALTITUDE	1080′	1400′	1720′	2040′	2360′	2680′	3000′	3310′	3630′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM/D1.4 FRD						

ALSF-II REIL PAPI

D5.5 FFM

JAR-OPS STRAIGHT-IN LANDING RWY 25L

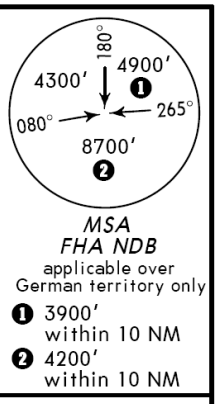
	ILS 1		LOC (GS out)	
	DA(H)		MDA(H)	
	AB: 562′ (200′)	C: 568′ (206′) D: 578′ (216′)	810′ (448′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C	RVR 600m			RVR 1800m
D			RVR 1400m	RVR 2000m

PANS OPS 4

1 LACFT: DA(H) 580′(218′), FULL: RVR 600m, ALS out: RVR 1000m.

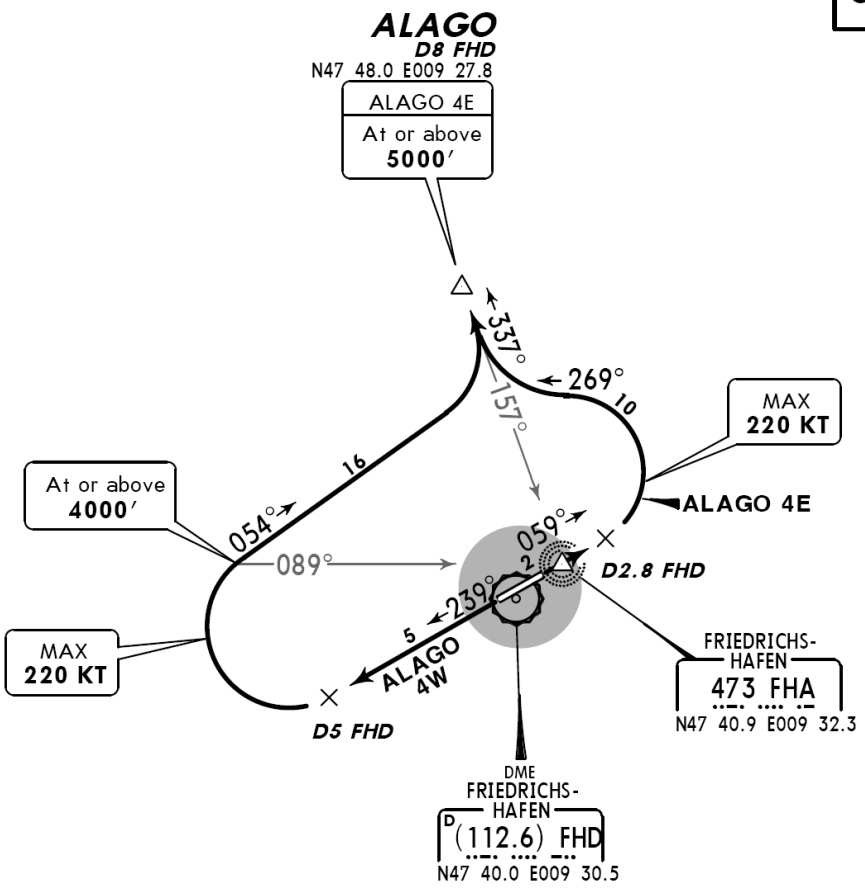
CHANGES: Communications. Missed approach. Procedure.

ZURICH Arrival 119.92	*Apt Elev* 1367′	Trans level: By ATC Trans alt: 5000′ **1.** Contact ZURICH Arrival immediately after take-off. **2.** SIDs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory. **3.** EXPECT close-in obstacles.



MSA
FHA NDB
applicable over German territory only
❶ 3900′ within 10 NM
❷ 4200′ within 10 NM

ALAGO FOUR ECHO (ALAGO 4E)
ALAGO FOUR WHISKEY (ALAGO 4W)
RWYS 06, 24 DEPARTURES



These SIDs require minimum climb gradients of

ALAGO 4E
328′ per NM (5.4%) until passing **5000′** due to airspace.

ALAGO 4W
261′ per NM (4.3%) until passing **4000′** due to airspace.

Gnd speed-KT	75	100	150	200	250	300
328′ per NM	410	547	820	1094	1367	1641
261′ per NM	327	435	653	871	1089	1306

SPEED RESTRICTION
Speed limit below FL100:
MAX 250 KT or as by ATC.
Not applicable within airspace C.

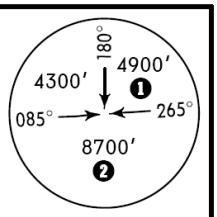
Initial climb clearance **5000′**

SID	RWY	ROUTING
ALAGO 4E	**06**	On 059° bearing from FHA to D2.8 FHD, turn LEFT, 269° track, intercept 337° bearing from FHA to ALAGO. ❸
ALAGO 4W	**24**	On 239° bearing from FHA to D5 FHD, turn RIGHT, 054° track, intercept 337° bearing from FHA to ALAGO. ❸

❸ After ALAGO BRNAV equipment necessary.

CHANGES: None.

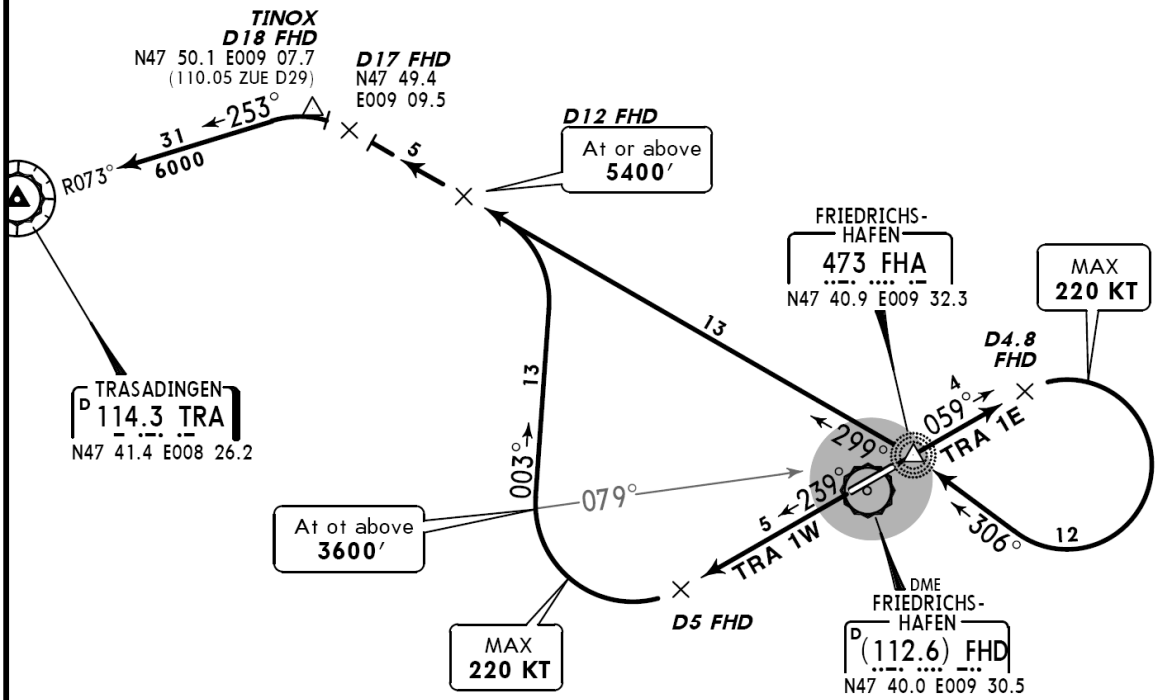
ZURICH Arrival 119.92	*Apt Elev* 1367′	Trans level: By ATC Trans alt: 5000′ **1.** Contact ZURICH Arrival immediately after take-off. **2.** SIDs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory. **3.** EXPECT close-in obstacles.



MSA
FHA NDB
applicable over German territory only
❶ 3900′ within 10 NM
❷ 4200′ within 10 NM

TRASADINGEN ONE ECHO (TRA 1E)
TRASADINGEN ONE WHISKEY (TRA W)
RWYS 06, 24 DEPARTURES

SPEED RESTRICTION
Speed limit below FL100:
MAX 250 KT or as by ATC.
Not applicable within airspace C.



TRA 1W
This SID requires a minimum climb gradient of
261′ per NM (4.3%) until passing **5400′**
due to airspace.

Gnd speed-KT	75	100	150	200	250	300
261′ per NM	327	435	653	871	1089	1306

NOT TO SCALE

Initial climb clearance **5000′**

SID	RWY	ROUTING
TRA 1E	**06**	On 059° bearing from FHA to D4.8 FHD, turn RIGHT, intercept 306° bearing to FHA, turn LEFT, 299° bearing to D17 FHD, turn LEFT, intercept TRA R-073 inbound to TRA.
TRA 1W	**24**	On 239° bearing from FHA to D5 FHD, turn RIGHT, 003° track, turn LEFT, intercept 299° bearing from FHA to D17 FHD, turn LEFT, intercept TRA R-073 inbound to TRA.

CHANGES: ROMIR SIDs withdrawn; TRA SIDs established.

EDNY/FDH

Apt Elev **1367′**

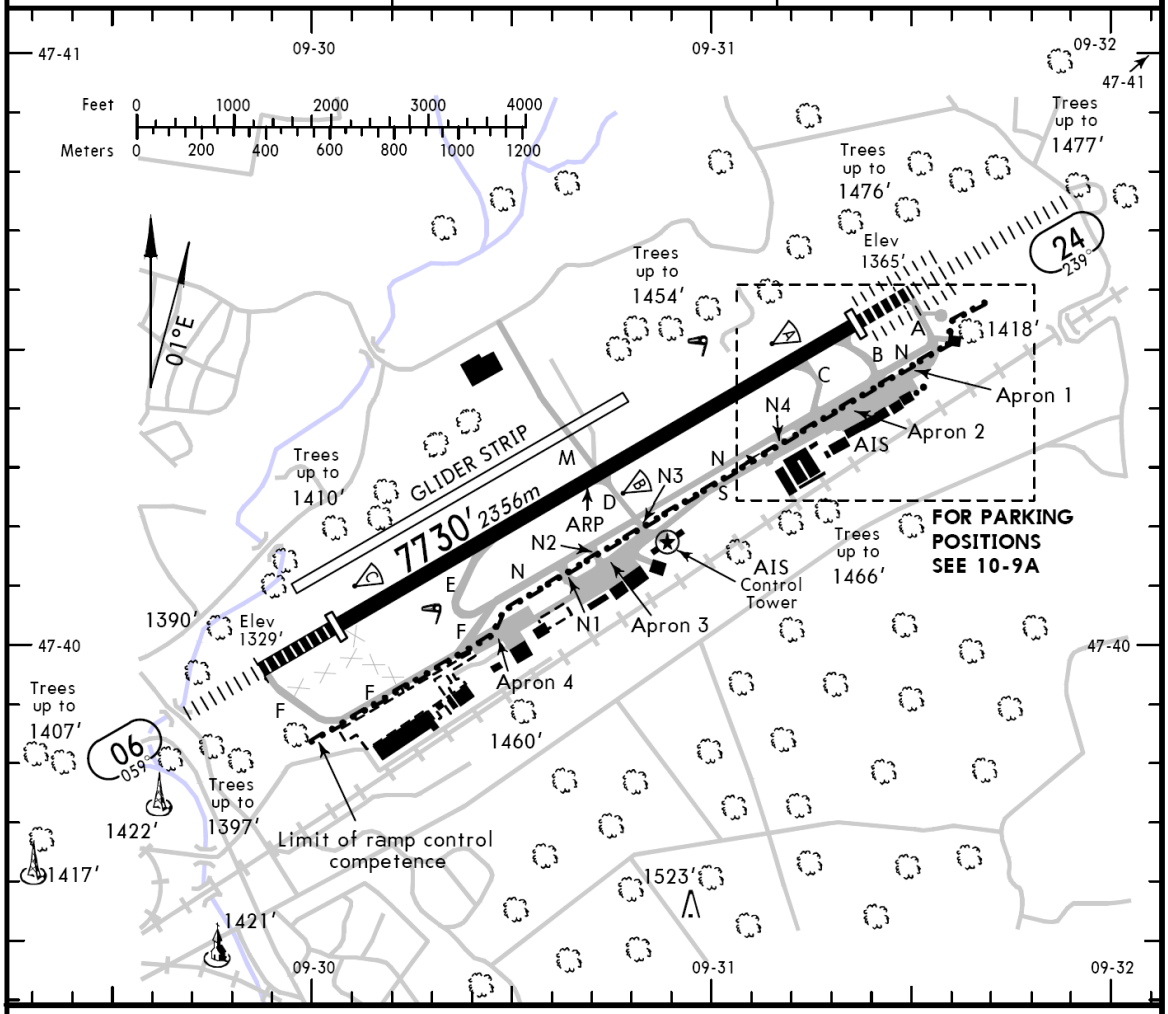
N47 40.3 E009 30.7

JEPPESEN 2 NOV 07 (10-9)

FRIEDRICHSHAFEN, GERMANY

FRIEDRICHSHAFEN

*ATIS	*FRIEDRICHSHAFEN Tower		ZURICH Arrival (APP/DEP)
129.6	120.07	134.3	119.92



GENERAL

Rwy 24 approved for CAT II/III operations, special aircrew and acft certification required.
Visual approaches shall be conducted on or above the glide path angle which is defined by the ILS.

CAUTION: Birds in vicinity of airport.
Possible wake turbulence.
Glider activity on weekends and holidays.

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
06 ❶ 24	HIRL CL *(15m)* HIALS SFL REIL PAPI-L(3.1°)	RVR	6844′ *2086m*	5963′ *1818m*	7053′ *2150m*	148′ *45m*
	HIRL CL *(15m)* ALSF-II TDZ REIL ❷	RVR	7053′ *2150m*	5873′ *1790m*	6844′ *2086m*	

❶ Rwy with anti-skid layer.
❷ PAPI-L(3.0°)

JAR-OPS TAKE-OFF ❶

All Rwys
LVP must be in Force

	Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*
B						
C						
D	*150m*	*200m*	*250m*	*300m*		

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

CHANGES: Tower frequency.

EDNY/FDH
FRIEDRICHSHAFEN

JEPPESEN FRIEDRICHSHAFEN, GERMANY
2 NOV 07 (11-1)
ILS or LOC Rwy 06

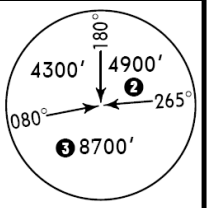
*ATIS	ZURICH Arrival (APP)	*FRIEDRICHSHAFEN Tower	
129.6	119.92	120.07	134.3

BRIEFING STRIP™

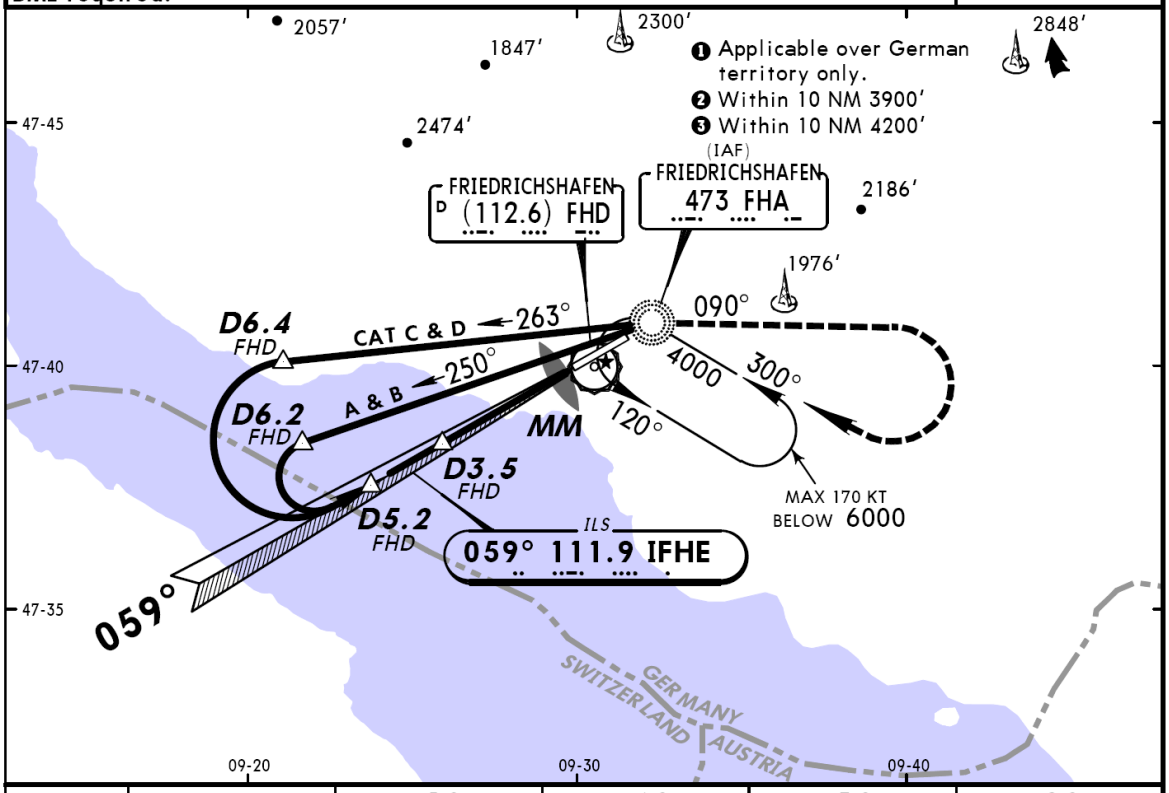
LOC	Final	GS	ILS	Apt Elev 1367′
IFHE	Apch Crs	No GS	DA(H)	RWY 1334′
111.9	059°	Alt published	Refer to Minimums	

MISSED APCH: Climb STRAIGHT AHEAD to NDB. Turn RIGHT on track 090° from NDB climbing to 3000′, then turn RIGHT to NDB climbing to 4000′.

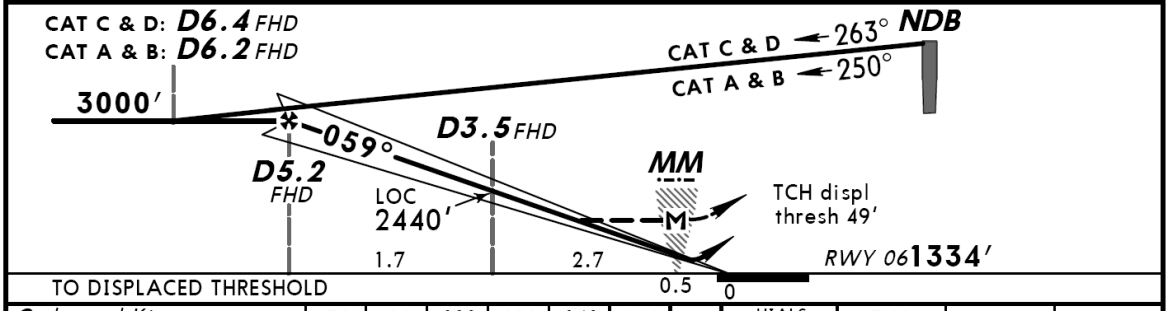
Alt Set: hPa (IN on req) Rwy Elev: 48 hPa Trans level: By ATC Trans alt: 5000′
DME required.



MSA FHA NDB❶



LOC (GS out)	FHD DME	5.0	4.0	3.0	2.0
	ALTITUDE	2930′	2600′	2270′	1950′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS 3.10° or LOC Descent Gradient	5.4%	390	501	557	668	779	891
MAP at MM							

HIALS
REIL
PAPI

FHA 473

3000′ RT on 090° from FHA 473

JAR-OPS

STRAIGHT-IN LANDING RWY 06

ILS
DA(H)
AB: 1534′ (200′)
C: 1543′ (209′)
D: 1553′ (219′)

LOC (GS out)
MDA(H) 1760′ (426′)

	FULL	ALS out		MM out	ALS out
A	RVR 700m	RVR 1000m	RVR 1200m	NOT AUTH	RVR 1500m
B			RVR 1300m		
C			RVR 1400m		RVR 1800m
D			RVR 1600m		RVR 2000m

PANS OPS 4

CHANGES: Tower frequency. MSA.

2. ARRIVAL

2.3. CAT II/III OPERATIONS

RWY 23 approved for CAT II/III operations, special aircrew and ACFT certification required.

2.4. TAXI PROCEDURES

After landing RWY 23, ACFT with destination South Apron shall clear RWY via TWYs D or E unless otherwise instructed by Tower.
Upon request from Tower or Ground change over to GENEVA Apron. ACFT shall taxi independently to the parking stands as instructed by GENEVA Apron.
In certain cases, Follow-me cars will be available.

2.5. OTHER INFORMATION

2.5.1. IFR APPROACH

ACFT type must be reported at first contact with GENEVA Arrival; indication of wake turbulence category is not necessary.

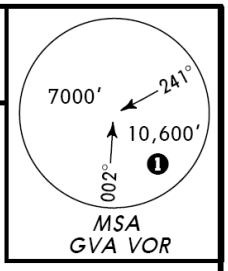
3. DEPARTURE

3.1. START-UP & PUSH-BACK PROCEDURES

If an ATC departure slot has been allocated to a pilot, he is allowed to start engines not before 15 minutes prior to the slot. Exceptions can only be granted by ATC.
ACFT type must be reported with start-up clearance; indication of wake turbulence category is not necessarry.
North Apron:
When fully ready for start-up, pilot shall indicate the parking position and request ATC clearance, start-up and taxi clearance from GENEVA Ground.
South Apron:
When fully ready for start-up, pilot shall indicate the parking position and request ATC clearance from GENEVA Ground.
Once ATC clearance received from GENEVA Ground, request start-up (push-back if needed) and taxi clearance from GENEVA Apron.

All ACFT operator must ensure that push-back equipment is available for their ACFT.
Request push-back clearance from GENEVA Apron.
For the towing or push-back of an operating ACFT a general authorization only will be given to the cockpit crew. Detailed instructions will be transmitted directly to the driver.
In any case, engine start-up shall be completed, when push-back procedure is ended.
In any case, the ACFT rotating beacon shall be operated during the push-back procedure.
If security required, Follow-me cars will be escort ACFT during the push-back procedure.

ATIS	Apt Elev	
135.57	1411′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ Expect radar vectors to final approach.

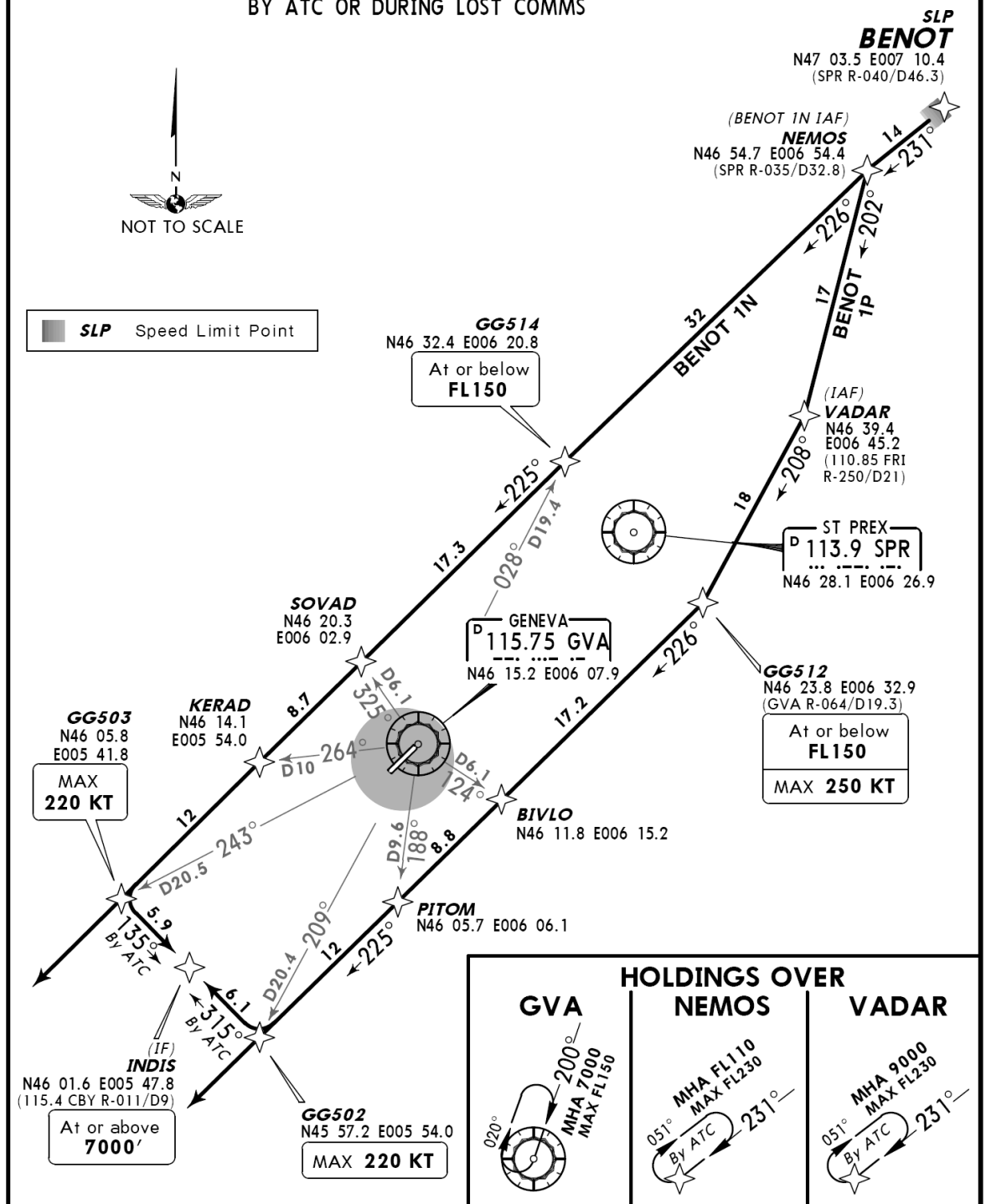


1 7000′ within 10 NM

BENOT ONE NOVEMBER (BENOT 1N) *[BENO1N]*
BENOT ONE PAPA (BENOT 1P) *[BENO1P]*
RWY 05 RNAV ARRIVALS

RNAV (GNSS)

NO TURN ONTO BASE UNLESS CLEARED
BY ATC OR DURING LOST COMMS

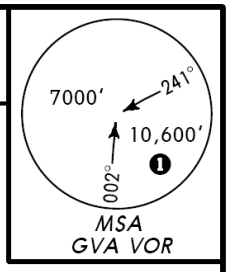


STAR	ROUTING
BENOT 1N	From BENOT to NEMOS, then to GG514, then via SOVAD and KERAD to GG503, continue on track. By ATC to INDIS to intercept final approach.
BENOT 1P	From BENOT to NEMOS, then to VADAR, then to GG512, then via BIVLO and PITOM to GG502, continue on track. By ATC to INDIS to intercept final approach.

CHANGES: Chart reindexed.

ATIS	Apt Elev	
135.57	1411′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ Expect radar vectors to final approach.

ULMES ONE NOVEMBER (ULMES 1N) *[ULME1N]*
ULMES ONE PAPA (ULMES 1P) *[ULME1P]*
ULMES ONE ROMEO (ULMES 1R) *[ULME1R]*
RWYS 05, 23 RNAV ARRIVALS
RNAV (GNSS)

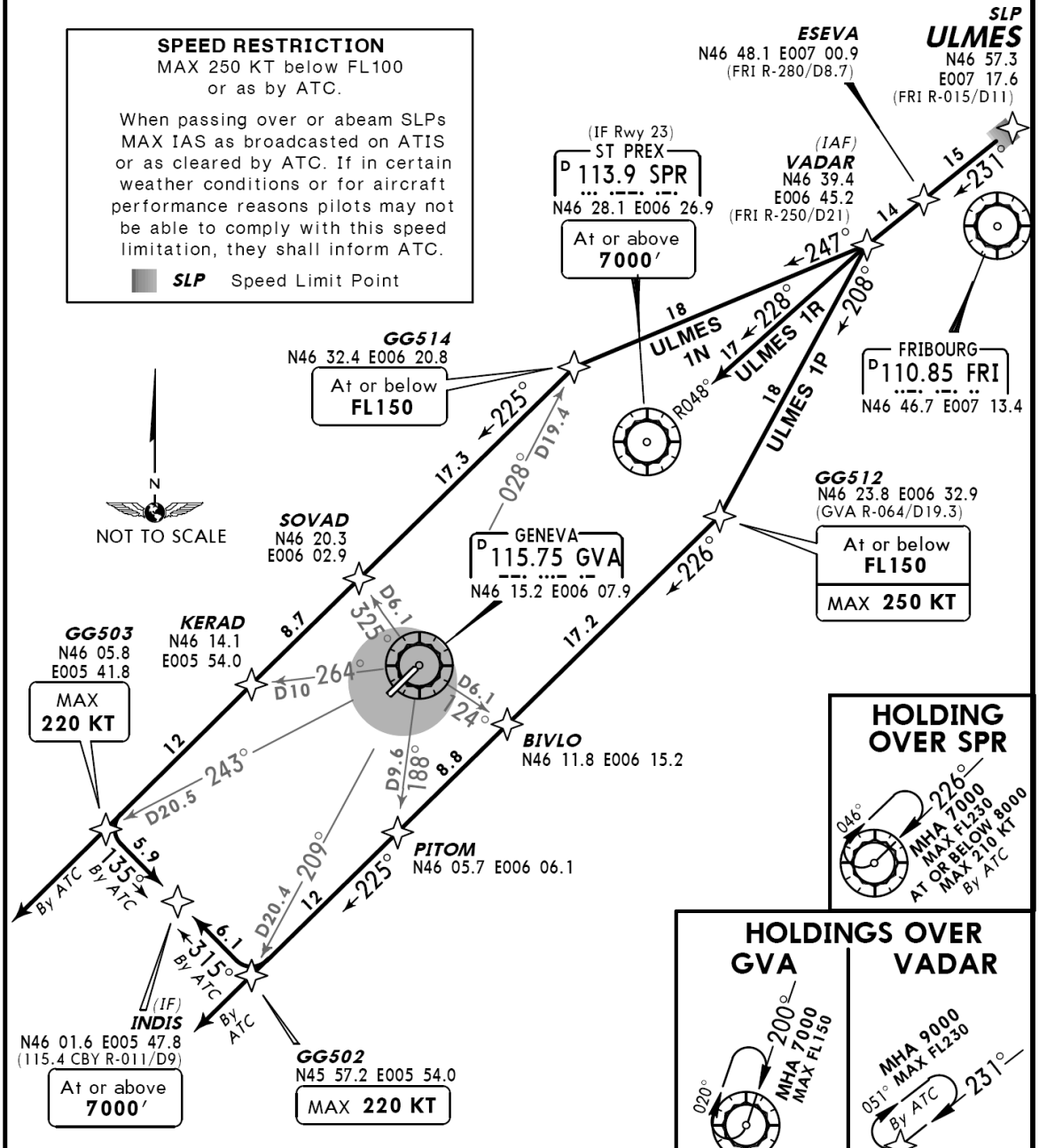


❶ 7000′ within 10 NM

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.

When passing over or abeam SLPs MAX IAS as broadcasted on ATIS or as cleared by ATC. If in certain weather conditions or for aircraft performance reasons pilots may not be able to comply with this speed limitation, they shall inform ATC.

SLP Speed Limit Point



STAR	RWY	ROUTING
ULMES 1N ❷	05	From ULMES via ESEVA to VADAR, then to GG514, then via SOVAD and KERAD to GG503, continue on track. By ATC to INDIS to intercept final approach.
ULMES 1P ❷		From ULMES via ESEVA to VADAR, then to GG512, then via BIVLO and PITOM to GG502, continue on track. By ATC to INDIS to intercept final approach.
ULMES 1R	23	From ULMES via ESEVA to VADAR, then to SPR to intercept final approach.

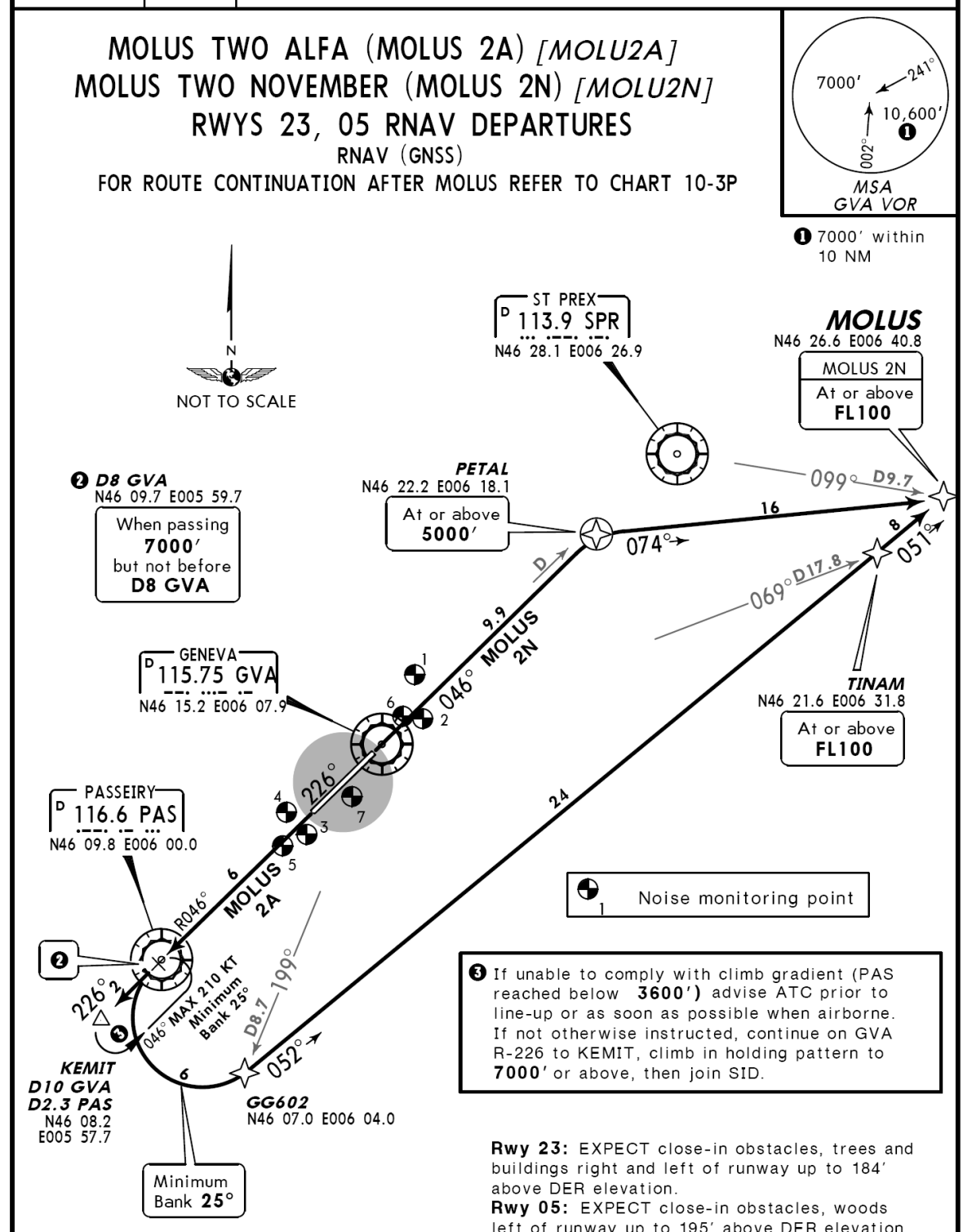
❷ No turn onto base unless cleared by ATC or during lost comms.

CHANGES: Routing to final; chart reindexed.

GENEVA Departure (R) 119.52	*Apt Elev* 1411′	Trans level: By ATC Trans alt: 7000′ **1.** Contact GENEVA Departure when instructed. **2.** SIDs are also minimum noise routings. Strict adherence within the limits of aircraft performance is mandatory. **3.** To expedite traffic, expect line-up clearances at intersections unless operations require full runway length.

MOLUS TWO ALFA (MOLUS 2A) *[MOLU2A]*
MOLUS TWO NOVEMBER (MOLUS 2N) *[MOLU2N]*
RWYS 23, 05 RNAV DEPARTURES
RNAV (GNSS)

FOR ROUTE CONTINUATION AFTER MOLUS REFER TO CHART 10-3P



Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

Rwy 23: EXPECT close-in obstacles, trees and buildings right and left of runway up to 184′ above DER elevation.
Rwy 05: EXPECT close-in obstacles, woods left of runway up to 195′ above DER elevation.

MOLUS 2A

This SID requires a minimum climb gradient of 401′ per NM (6.6%) up to **5500′.** 3

Initial climb clearance **FL90**

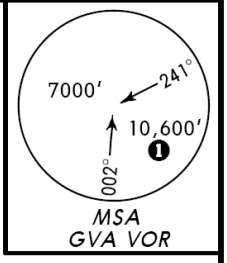
SID	RWY	ROUTING
MOLUS 2A	**23**	Climb on GVA R-226, when passing **7000′,** but not before D8 GVA (PAS) turn LEFT, proceed via GG602 and TINAM to MOLUS.
MOLUS 2N	**05**	Climb on GVA R-046, proceed via PETAL to MOLUS.

CHANGES: None.

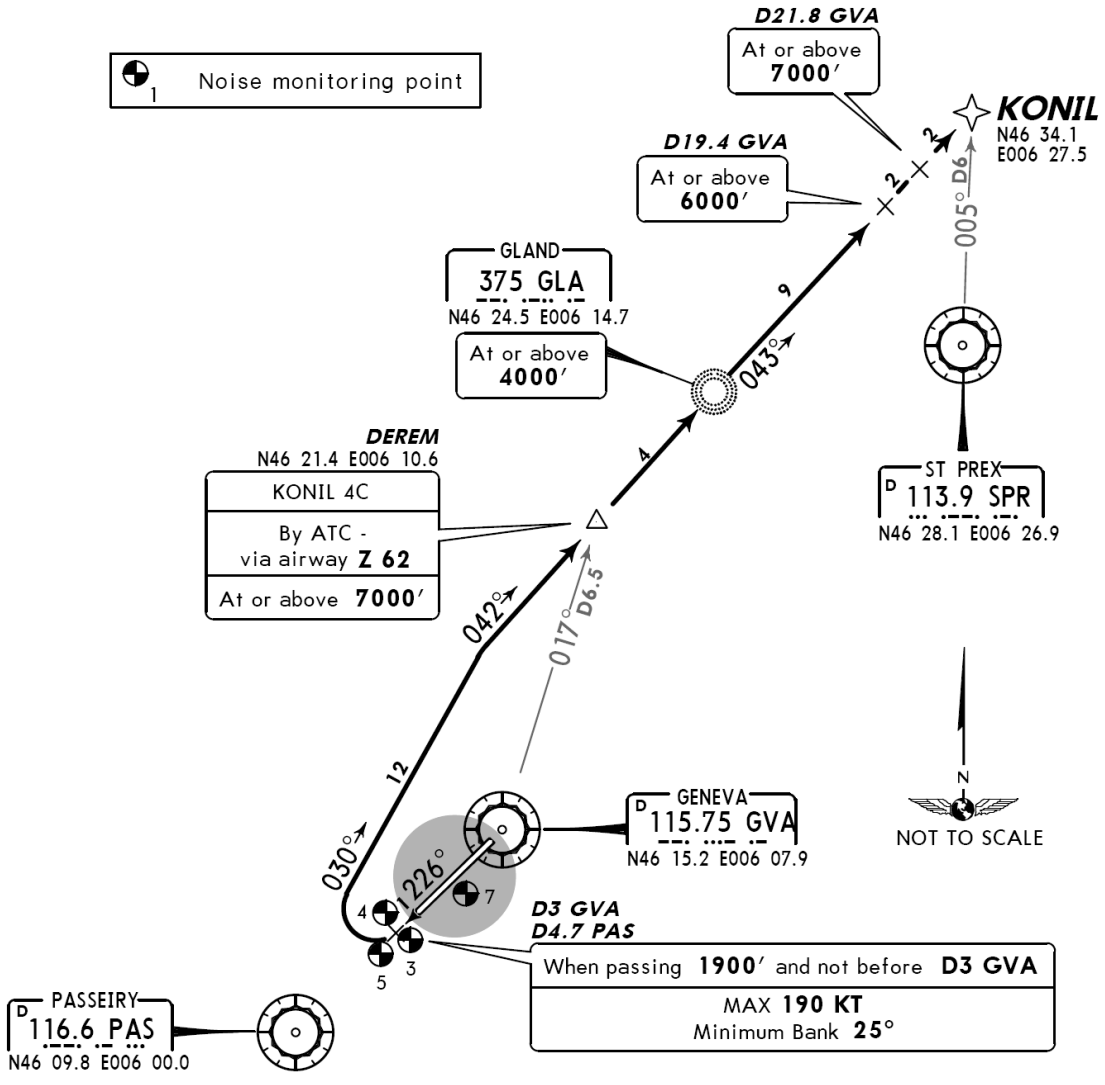
GENEVA Departure (R) 119.52	*Apt Elev* 1411′	Trans level: By ATC Trans alt: 7000′ **1.** Contact GENEVA Departure when instructed. **2.** SIDs are also minimum noise routings. Strict adherence within the limits of aircraft performance is mandatory. **3.** To expedite traffic, expect line-up clearances at intersections unless operations require full runway length.

KONIL FOUR CHARLIE (KONIL 4C) *[KONI4C]*
KONIL TWO DELTA (KONIL 2D) *[KONI2D]*
RWY 23 DEPARTURES

NOT AVAILABLE FOR JET AIRCRAFT WITH NOISE CLASSIFICATION I, II & III
FOR CLASSIFICATION REFER TO 10-1P PAGES
FOR ROUTE CONTINUATION AFTER KONIL REFER TO CHART 10-3N



1 7000′ within 10 NM



These SIDs require a minimum climb gradient of 431′ per NM (7.1%) up to **4600′.**
If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
431′ per NM	539	719	1079	1438	1798	2157

EXPECT close-in obstacles, trees and buildings right and left of runway up to 184′ above DER elevation.

KONIL 4C: Initial climb clearance **FL90**
KONIL 2D: Initial climb clearance **7000′**

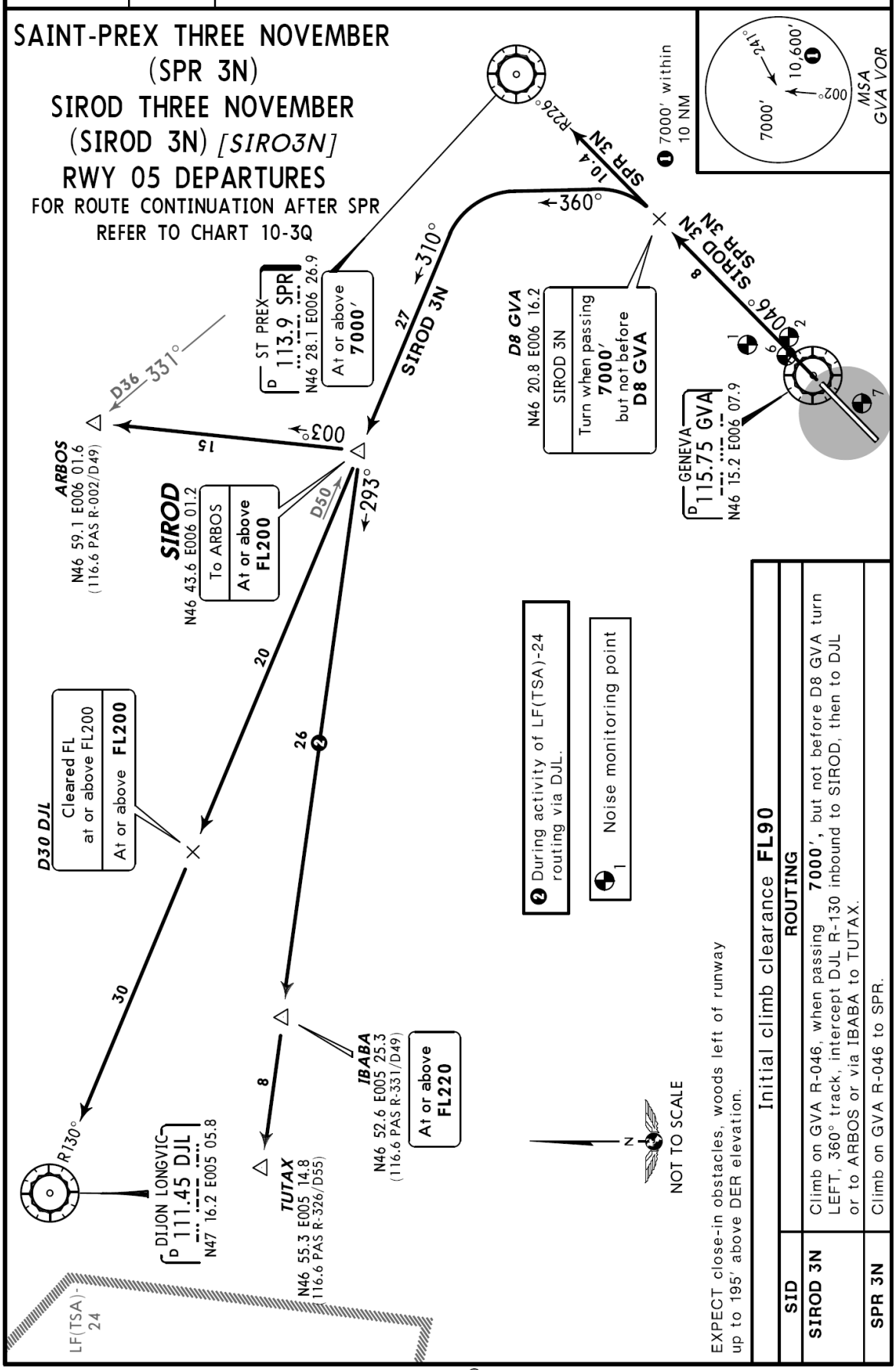
ROUTING

Climb on GVA R-226, when passing **1900′** and not before D3 GVA (D4.7 PAS) turn RIGHT, (MAX 190 KT, minimum bank 25°), 030° track, intercept 042° bearing via DEREM to GLA, 043° bearing to KONIL.

CHANGES: New chart.

GENEVA Departure (R) 119.52	Apt Elev 1411′	Trans level: By ATC Trans alt: 7000′ **1.** Contact GENEVA Departure when instructed. **2.** SIDs are also minimum noise routings. Strict adherence within the limits of aircraft performance is mandatory. **3.** To expedite traffic, expect line-up clearances at intersections unless operations require full runway length.

SAINT-PREX THREE NOVEMBER (SPR 3N)
SIROD THREE NOVEMBER (SIROD 3N) *[SIRO3N]*
RWY 05 DEPARTURES
FOR ROUTE CONTINUATION AFTER SPR REFER TO CHART 10-3Q



Initial climb clearance **FL90**

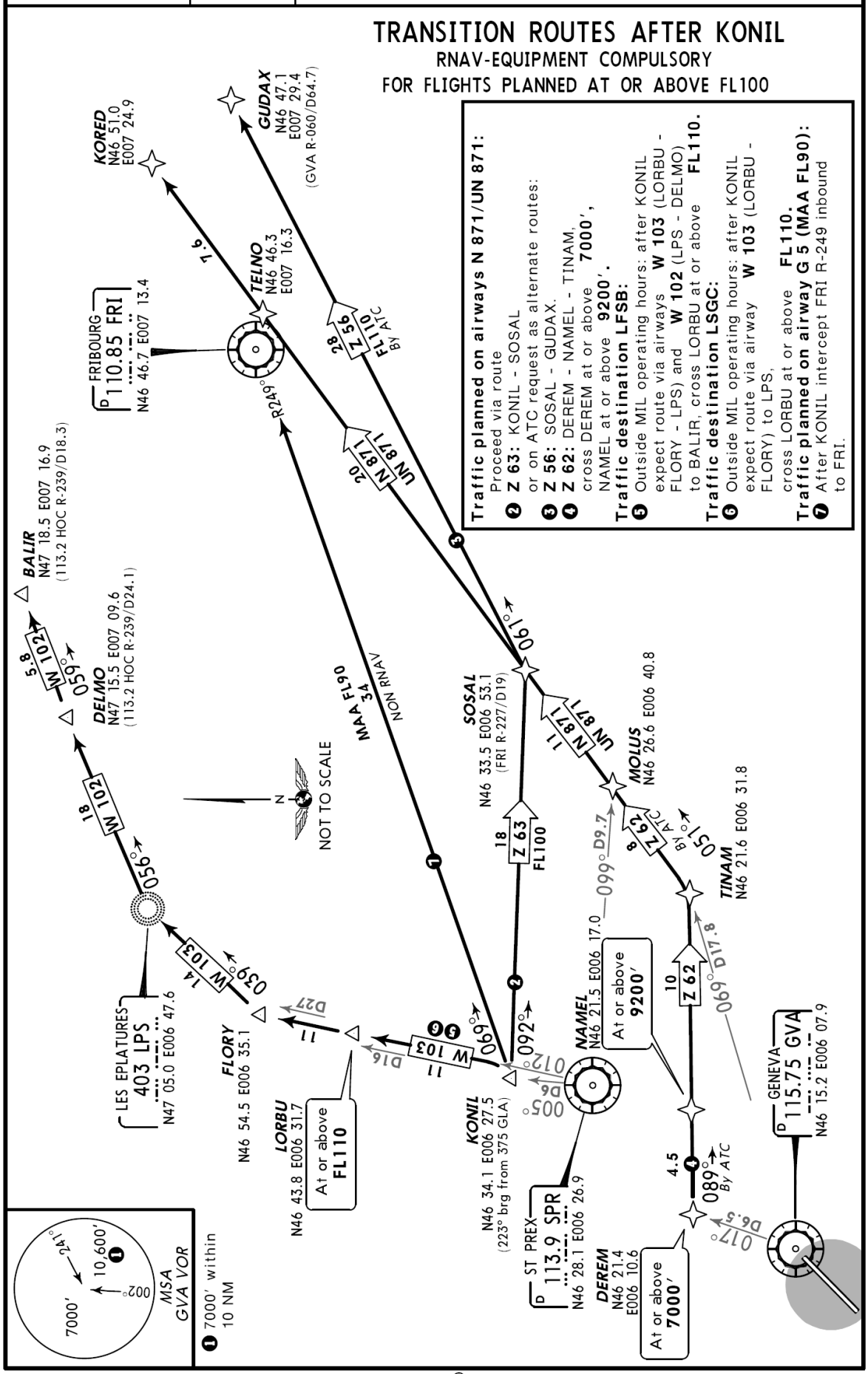
SID	ROUTING
SIROD 3N	Climb on GVA R-046, when passing **7000′**, but not before D8 GVA turn LEFT, 360° track, intercept DJL R-130 inbound to SIROD, then to DJL or to ARBOS or via IBABA to TUTAX.
SPR 3N	Climb on GVA R-046 to SPR.

CHANGES: SID SIROD 3N climb gradient withdrawn.

GENEVA Departure (R)	Apt Elev	Trans level: By ATC Trans alt: 7000′
119.52	1411′	

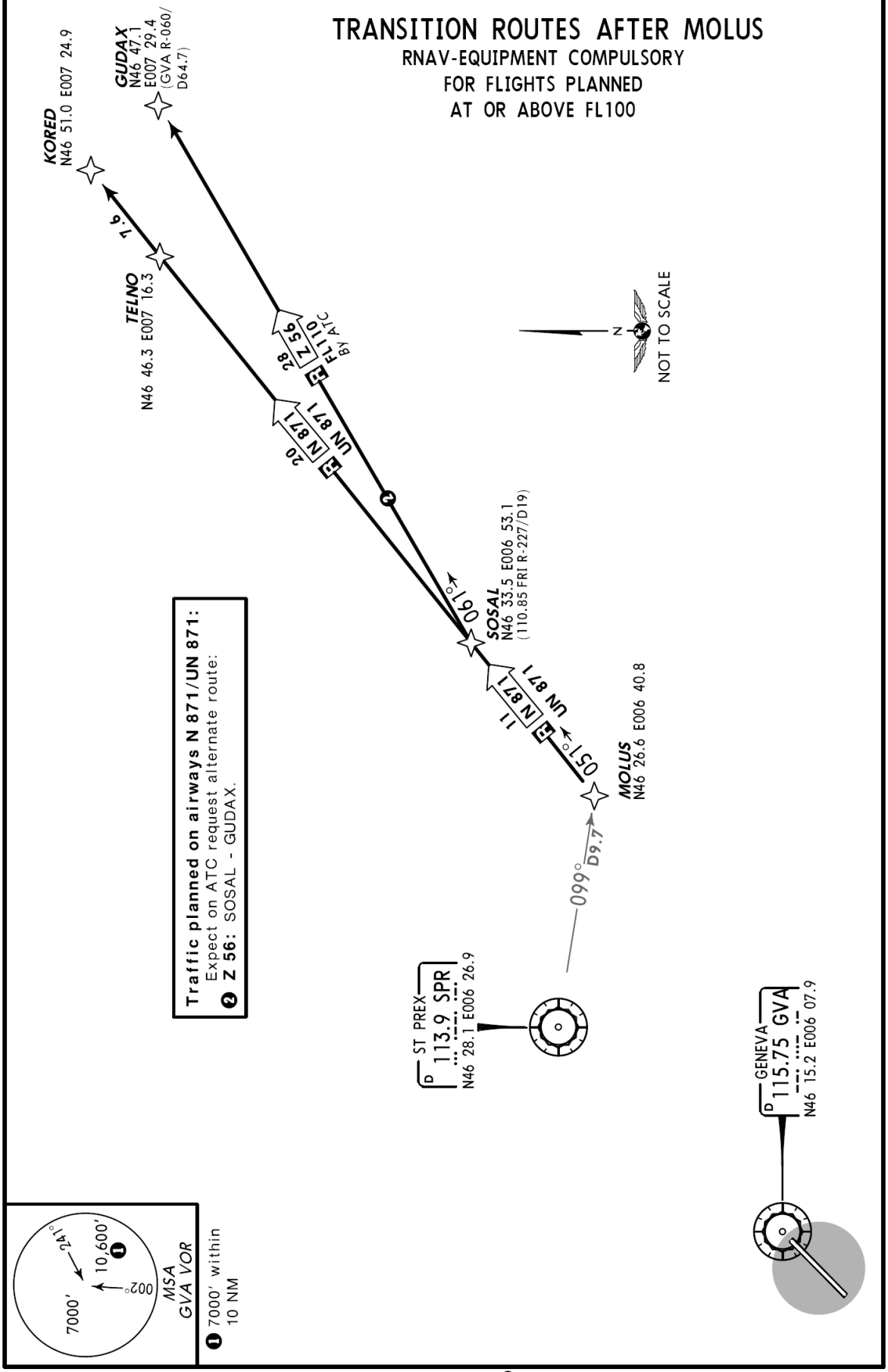
TRANSITION ROUTES AFTER KONIL

RNAV-EQUIPMENT COMPULSORY
FOR FLIGHTS PLANNED AT OR ABOVE FL100



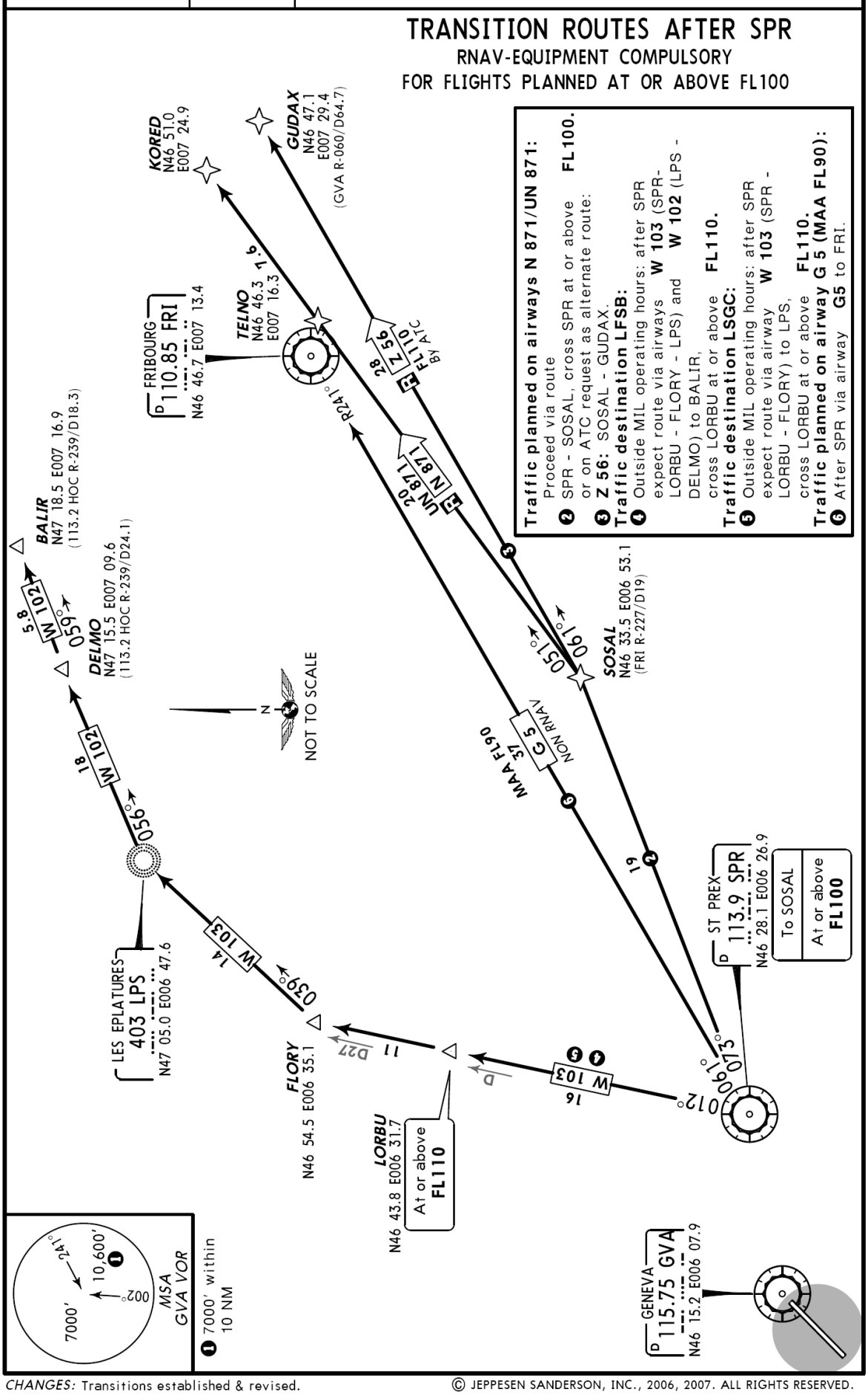
CHANGES: None.

GENEVA Departure (R) 119.52	*Apt Elev* 1411′	Trans level: By ATC Trans alt: 7000′



CHANGES: None.

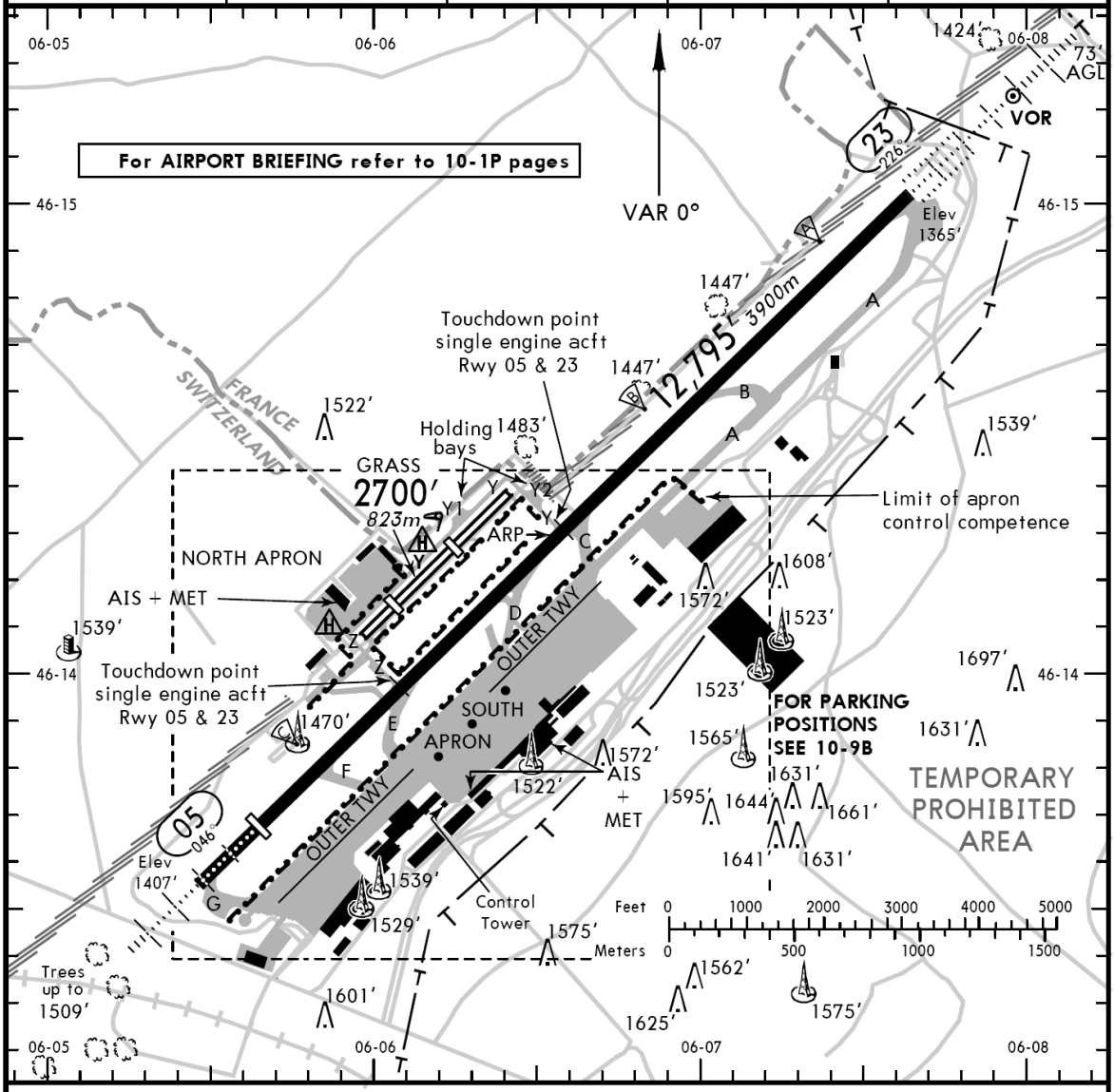
GENEVA Departure (R) 119.52	Apt Elev 1411′	Trans level: By ATC Trans alt: 7000′



CHANGES: Transitions established & revised.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

ATIS	GENEVA Ground (Cpt)	Apron	Tower	GENEVA Departure
135.57	121.67	121.75	118.7	119.52

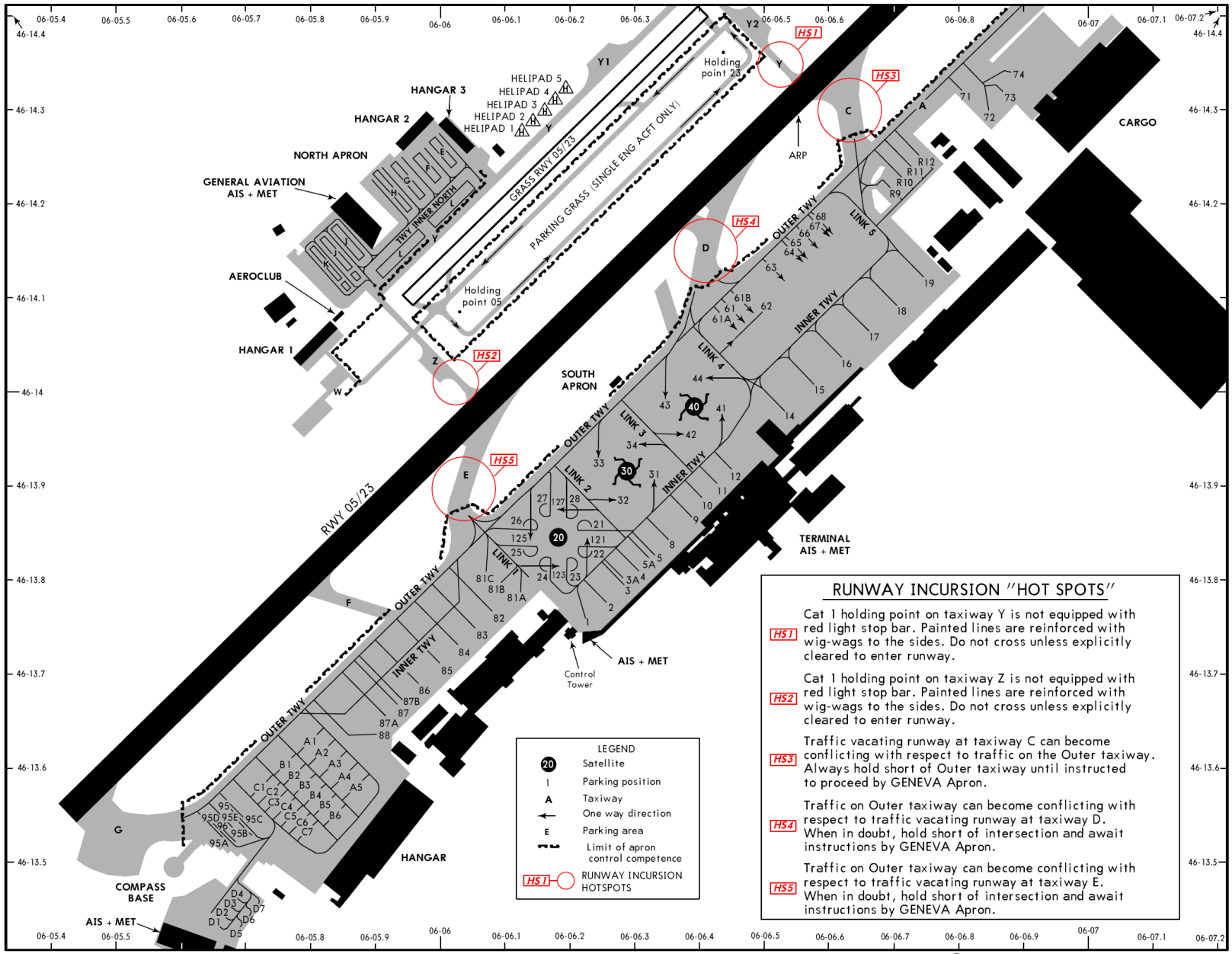


CHANGES: Notes transferred to 10-1P pages.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

GENEVA, SWITZERLAND

GENEVA



RUNWAY INCURSION "HOT SPOTS"

HS1 Cat 1 holding point on taxiway Y is not equipped with red light stop bar. Painted lines are reinforced with wig-wags to the sides. Do not cross unless explicitly cleared to enter runway.

HS2 Cat 1 holding point on taxiway Z is not equipped with red light stop bar. Painted lines are reinforced with wig-wags to the sides. Do not cross unless explicitly cleared to enter runway.

HS3 Traffic vacating runway at taxiway C can become conflicting with respect to traffic on the Outer taxiway. Always hold short of Outer taxiway until instructed to proceed by GENEVA Apron.

HS4 Traffic on Outer taxiway can become conflicting with respect to traffic vacating runway at taxiway D. When in doubt, hold short of intersection and await instructions by GENEVA Apron.

HS5 Traffic on Outer taxiway can become conflicting with respect to traffic vacating runway at taxiway E. When in doubt, hold short of intersection and await instructions by GENEVA Apron.

CHANGES: Notes transferred to 10-1P pages. Gate Y and Z withdrawn.

LSGG/GVA
GENEVA

JEPPESEN 17 NOV 06 (11-1) Eff 23 Nov

GENEVA, SWITZERLAND
ILS DME Rwy 05

ATIS	GENEVA Arrival (APP)	GENEVA Final (APP)	GENEVA Tower	Ground
135.57	136.25	120.3	118.7	121.67

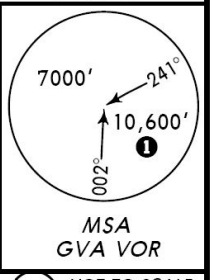
BRIEFING STRIP

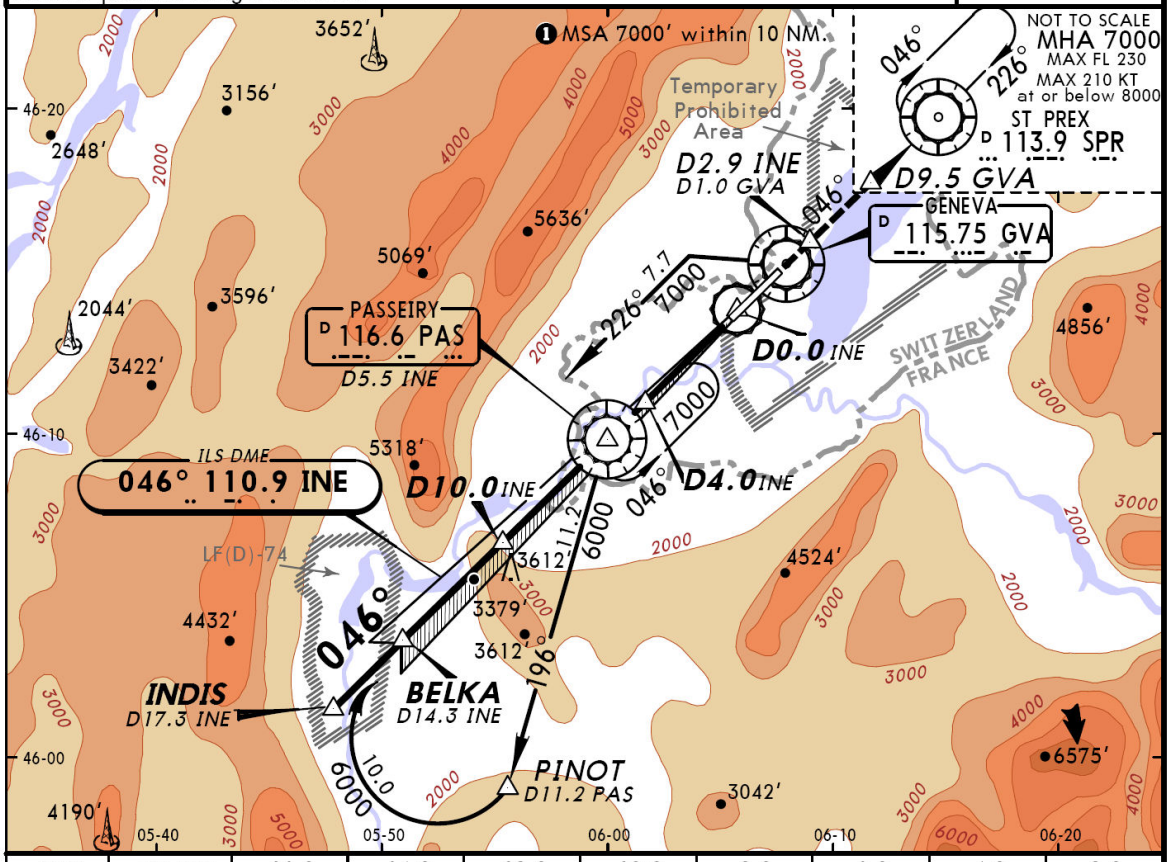
LOC	Final Apch Crs	GS	ILS DA(H)	Apt Elev / RWY
INE 110.9	046°	PAS VOR 3180′ (1769′)	Refer to Minimums	1411′ / 1411′

MISSED APCH: Climb STRAIGHT AHEAD on R-046 GVA to 4000′. At D2.9 INE past the station continue climb to SPR VOR to 7000′. Cross D9.5 GVA at 4000′ or above.

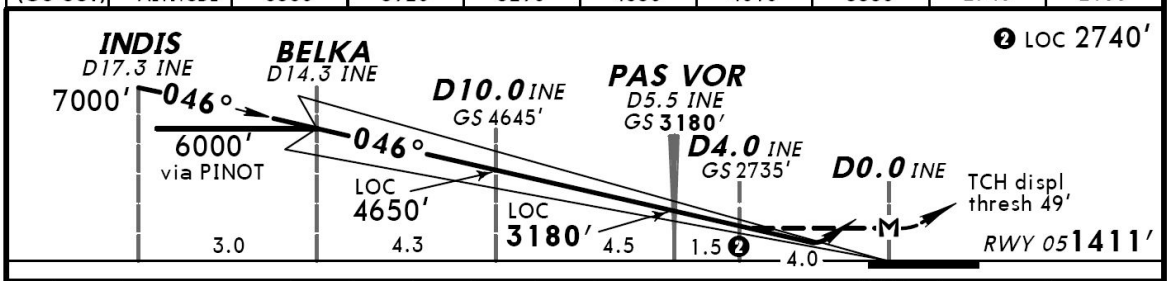
Alt Set: hPa Rwy Elev: 51 hPa Trans level: By ATC Trans alt: 7000′

1. CAUTION: Expect turbulence on base and final apch. 2. Radar vectoring to INDIS may be expected. 3. ILS DME reads zero at rwy 05 displ thresh. 4. ILS front course width 3°. 5. GS azimuth coverage limited to 6° NW. 6. False capture of LOC possible on left base. Monitor position using R-226 GVA.





LOC (GS out)	INE DME	16.0	14.0	12.0	10.0	8.0	6.0	4.0	2.0
	ALTITUDE	6560′	5920′	5290′	4650′	4010′	3380′	2740′	2100′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D0.0 INE						

HIALS

4000′ GVA on 115.75 R-046

PANS OPS 3

JAR-OPS STRAIGHT-IN LANDING RWY 05

ILS DA(H) AB:1611′(200′) C:1615′(204′) D:1624′(213′)

LOC (GS out) MDA(H) 1810′(399′)

	ILS FULL	ILS ALS out	LOC (GS out)	LOC (GS out) ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C	RVR 600m			RVR 1800m
D			RVR 1400m	RVR 2000m

CIRCLE-TO-LAND

Not authorized South of airport

Max Kts	MDA(H)	VIS
100	2100′(689′)	1500m
135	2100′(689′)	1600m
180	2400′(989′)	2400m
180	2400′(989′)	3600m

CHANGES: Missed approach. Notes. Minimums.

LSGG/GVA
GENEVA

JEPPESEN 17 NOV 06 (11-2) Eff 23 Nov

GENEVA, SWITZERLAND
ILS DME Rwy 23

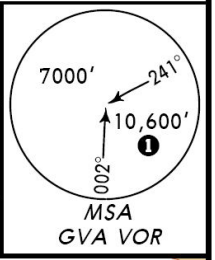
BRIEFING STRIP ™

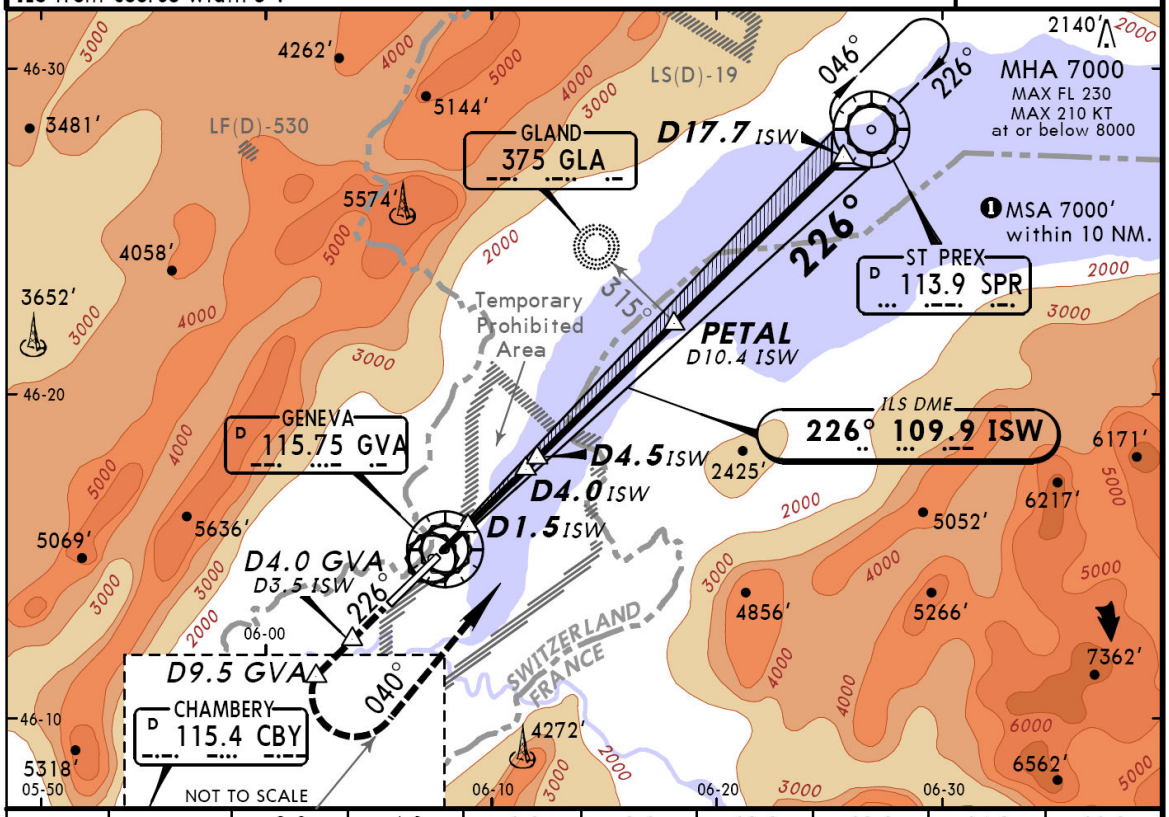
ATIS	GENEVA Arrival (APP)	GENEVA Final (APP)	GENEVA Tower	Ground
135.57	136.25	120.3	118.7	121.67

LOC ISW	Final Apch Crs	GS	ILS RA 216′ DA(H)	Apt Elev 1411′
109.9	226°	D4.0 ISW 2650′ (1285′)	1565′ (200′)	RWY 1365′

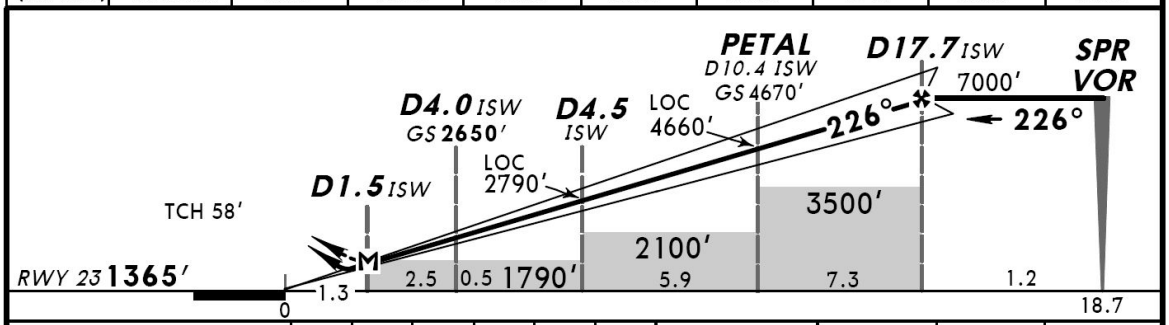
MISSED APCH: Climb on R-226 GVA to 4000′. At D4.0 GVA continue climb to 7000′. At D9.5 GVA turn LEFT (MAX 185 KT) to intercept and follow R-040 CBY to SPR VOR. For turns below 5000′ MIM bank angle 25°.

Alt Set: hPa Rwy Elev: 49 hPa Trans level: By ATC Trans alt: 7000′
ILS front course width 3°.





LOC (GS out)	ISW DME	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
	ALTITUDE	2010′	2650′	3280′	3920′	4560′	5190′	5830′	6470′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D1.5 ISW						

HIALS-II
REIL PAPI PAPI

4000′ GVA on 115.75 R-226

JAR-OPS STRAIGHT-IN LANDING RWY 23

	ILS RA 216′ DA(H) 1565′ (200′) FULL	ILS RA 216′ DA(H) 1565′ (200′) ALS out	LOC (GS out) MDA(H) 1810′ (445′)	LOC (GS out) MDA(H) 1810′ (445′) ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C				RVR 1800m
D			RVR 1400m	RVR 2000m

CIRCLE-TO-LAND
Not authorized South of airport

Max Kts	MDA(H)	VIS
100	2100′ (689′)	1500m
135	2100′ (689′)	1600m
180	2400′ (989′)	2400m
180	2400′ (989′)	3600m

PANS OPS 3

CHANGES: Procedure.

ATIS	Apt Elev	
135.55	1234′	Alt Set: hPa Trans level: By ATC Trans alt: 4500′

3700′
090° 270°
3400′
MSA
WLU NDB

AKELU TWO MIKE (AKELU 2M) *[AKEL2M]*
DISKI TWO MIKE (DISKI 2M) *[DISK2M]*
MONTMEDY THREE MIKE (MMD 3M)
OLNO THREE MIKE (LNO 3M)
VETIL TWO MIKE (VETIL 2M) *[VETI2M]*
ARRIVALS
TO WLU HOLDING

Within LUX 25 DME aircraft are likely to be radar vectored.
SPEED RESTRICTION
MAX 250 KT within LUX 25 DME or below FL100.
If unable to comply inform ATC.

N
NOT TO SCALE

OLNO
D 112.8 LNO
N50 35.2 E005 42.6

160° 27.5 FL50 LNO 3M

TMA
19 4000 R340°

DIEKIRCH
D 114.4 DIK
N49 51.7 E006 07.8
307 DIK
N49 51.7 E006 07.8

190°

LUXEMBOURG
D (T) 112.25 LUX
N49 38.4 E006 14.8

VETIL
N49 45.9
E006 32.0

236° 13 3000 VETIL 2M

18 3000 DISKI 2M VETIL 2M

R056°

D12 LUX 257° 266°

MHA 3000
MAX FL70
MAX 220 KT

240°

R115° 10 295° 3000 DISKI 2M

DISKI
N49 34.3
E006 28.2

9 3000

11 3000 276°

MOSET
N49 32.8
E006 20.7

6 3000

TMA
D20.2 LUX
216° 5 3000

7 3000 077° 082°

TMA
4 FL60
D27 GTQ

2 FL80 336° AKELU 2M

AKELU
N49 22.0 E006 27.8

072° 26 FL60 MMD 3M

PETAN
N49 33.2
E005 52.6

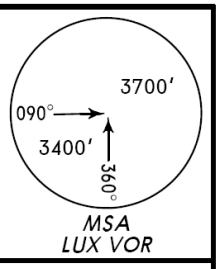
LUXEMBOURG
346 WLU
N49 34.1 E006 03.3

MONTMEDY
109.4 MMD
N49 23.5 E005 07.5

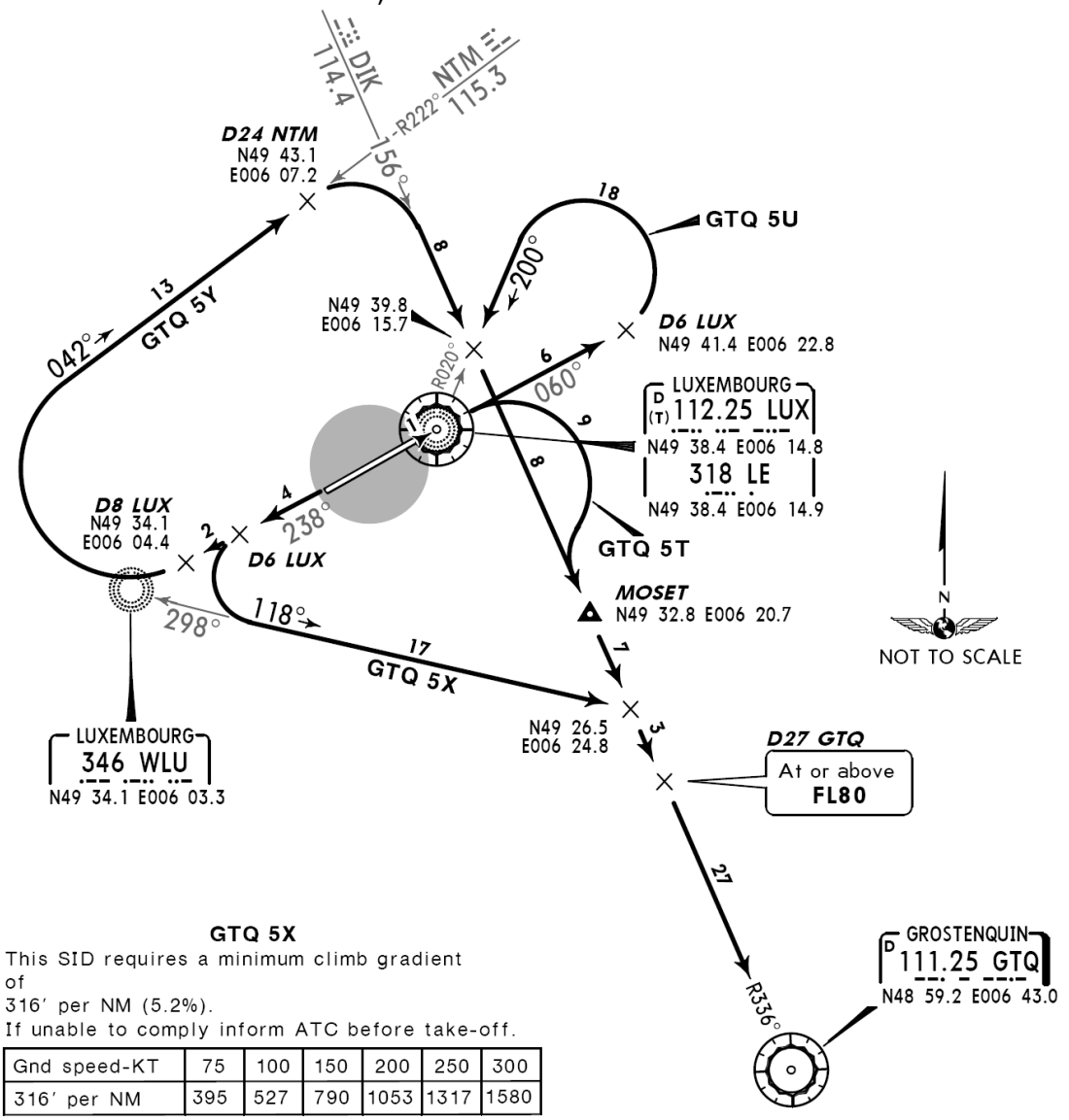
GROSTENQUIN
D 111.25 GTQ
N48 59.2 E006 43.0

CHANGES: STARs renumbered; ATIS.

LUXEMBOURG Approach 118.9	Apt Elev 1234′	Trans level: By ATC Trans alt: 4500′ **1.** Contact LUXEMBOURG Approach immediately after take-off. **2.** SIDs are also minimum noise routings. Strict adherence within the limits of aircraft performance is mandatory, except when being radar vectored. If unable to comply advise ATC immediately. **3.** Initial and leading turns are calculated upon 250 KT, bank angle 25°.



GROSTENQUIN FIVE TANGO (GTQ 5T)
GROSTENQUIN FIVE UNIFORM (GTQ 5U)
GROSTENQUIN FIVE X-RAY (GTQ 5X)
GROSTENQUIN FIVE YANKEE (GTQ 5Y)
RWYS 06, 24 DEPARTURES



GTQ 5X

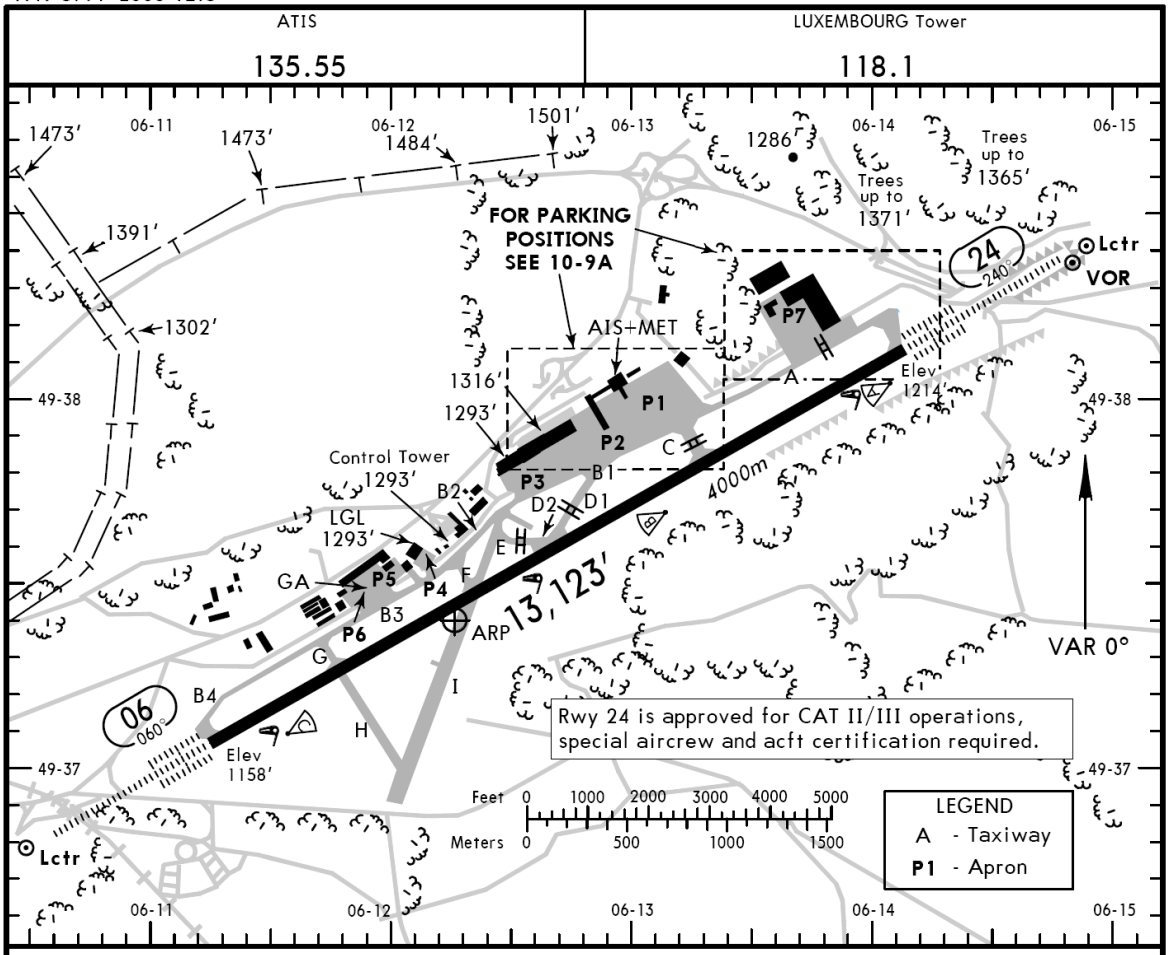
This SID requires a minimum climb gradient of
316′ per NM (5.2%).
If unable to comply inform ATC before take-off.

Gnd speed-KT	75	100	150	200	250	300
316′ per NM	395	527	790	1053	1317	1580

Initial climb clearance **4000′**

SID	RWY	ROUTING
GTQ 5T	**06**	Intercept LUX R-060 to LE, turn RIGHT, intercept GTQ R-336 inbound to GTQ.
GTQ 5U		Intercept LUX R-060 to D6 LUX, turn LEFT, intercept LUX R-020 inbound, intercept GTQ R-336 inbound to GTQ.
GTQ 5X	**24**	Intercept LUX R-238 to D6 LUX, turn LEFT, intercept 118° bearing from WLU, turn RIGHT, intercept GTQ R-336 inbound to GTQ.
GTQ 5Y		Intercept LUX R-238 to D8 LUX, turn RIGHT, intercept NTM R-222 inbound to D24 NTM, turn RIGHT, intercept GTQ R-336 inbound to GTQ.

CHANGES: SIDs GTQ 4T, 4U, 4X, 4Y renumbered 5T, 5U, 5X, 5Y.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
06	HIRL ❶ CL ❷ ALSF-II PAPI (3.0°) RVR		12,351′ *3765m*	❸	197′ *60m*
24	HIRL ❶ CL ❷ ALSF-II TDZ PAPI (3.0°) HST-D2 RVR		12,110′ *3691m*		

❶ spacing 30m ❷ spacing 15m

❸ TAKE-OFF RUN AVAILABLE

RWY 06:

From rwy head	13,123′(4000m)
twy G int ❹	10,663′(3250m)
twy E/F int ❺	8202′(2500m)
twy D2 int ❺	6562′(2000m)

RWY 24:

from rwy head	13,123′(4000m)
twy C int ❹	9186′(2800m)
twy D1 int ❺	6234′(1900m)
twy E/F int ❺	4921′(1500m)

❹ For acft with MTOW up to 25t.

❺ For single-engine acft.

JAR-OPS TAKE-OFF ❶

All Rwys
LVP must be in Force

	Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*
B						
C						
D	*150m*	*200m*	*250m*	*300m*		

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

CHANGES: ATIS. Var. Rwy bearings. Usable lengths.

ELLX/LUX
LUXEMBOURG

JEPPESEN LUXEMBOURG, LUXEMBOURG
5 MAY 06 (11-1) Eff 11 May
ILS DME Rwy 06

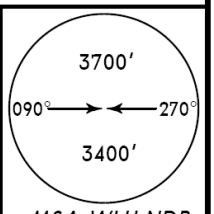
ATIS	LUXEMBOURG Approach	LUXEMBOURG Tower
135.55	118.9	118.1

BRIEFING STRIP ™

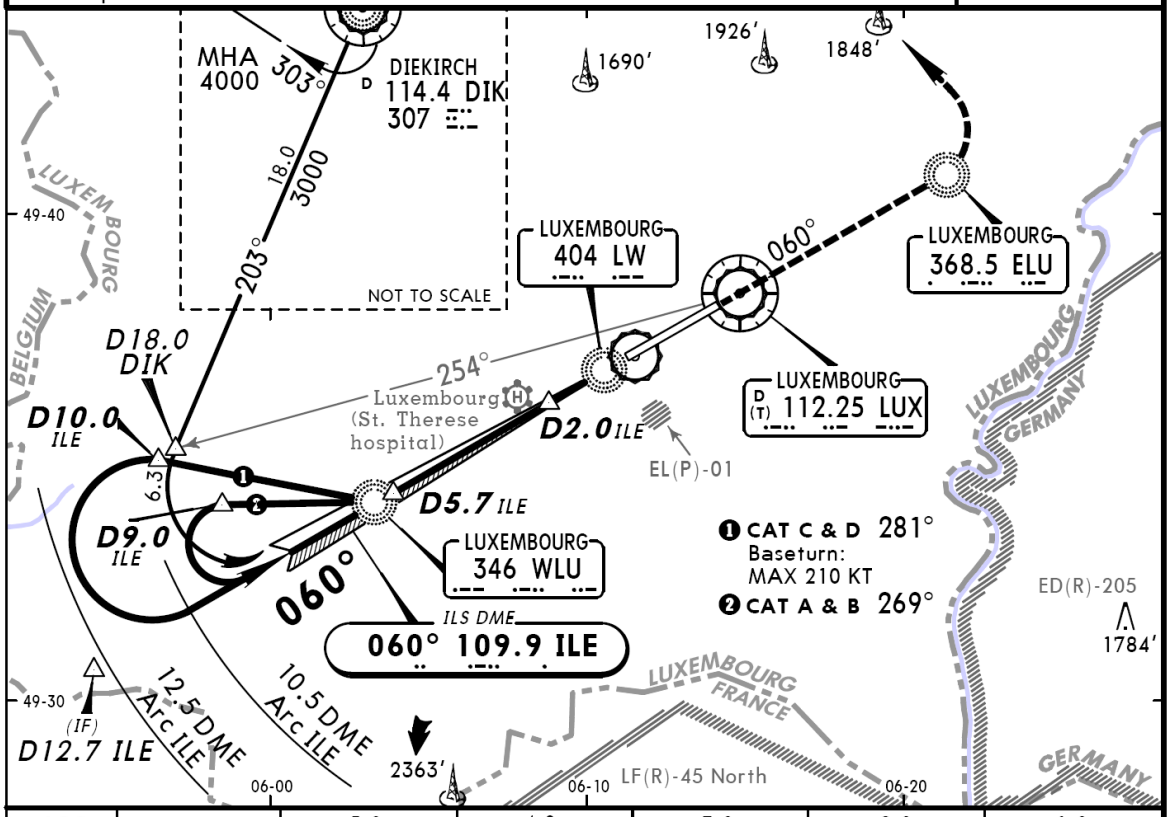
LOC	Final	GS	ILS	
ILE	Apch Crs	D5.7 ILE	DA(H)	Apt Elev 1234′
109.9	060°	3000′ (1842′)	1358′ (200′)	RWY 1158′

MISSED APCH: Climb to 3000′ to ELU NDB, then turn LEFT to DIK VOR/NDB climbing to 4000′. MAX 250 KT.

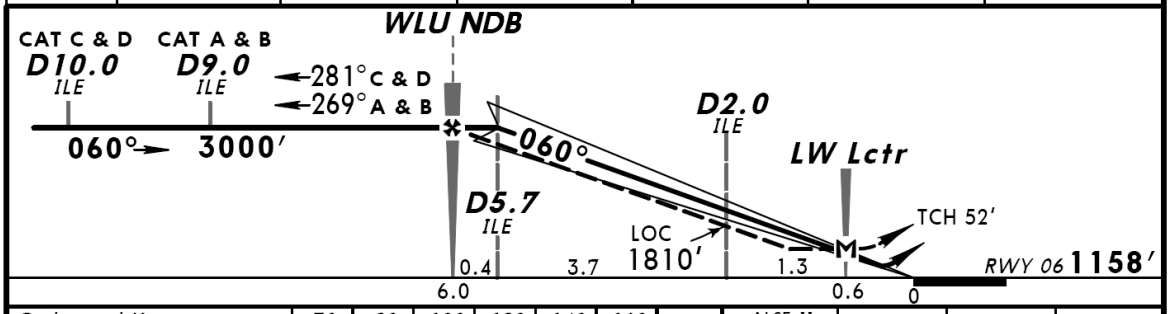
Alt Set: hPa Rwy Elev: 42 hPa Trans level: By ATC Trans alt: 4500′
Initial apch restricted to MAX 210 KT.



MSA WLU NDB



LOC (GS out)	ILE DME	5.0	4.0	3.0	2.0	1.0
	ALTITUDE	2700′	2400′	2100′	1810′	1500′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	485	539	647	755	862
LOC Descent Gradient	4.9%	347	447	496	595	695	794
MAP at LW Lctr							

ALSF-II
PAPI PAPI

250 KT MAX

3000′

ELU 368.5

JAR-OPS

STRAIGHT-IN LANDING RWY 06

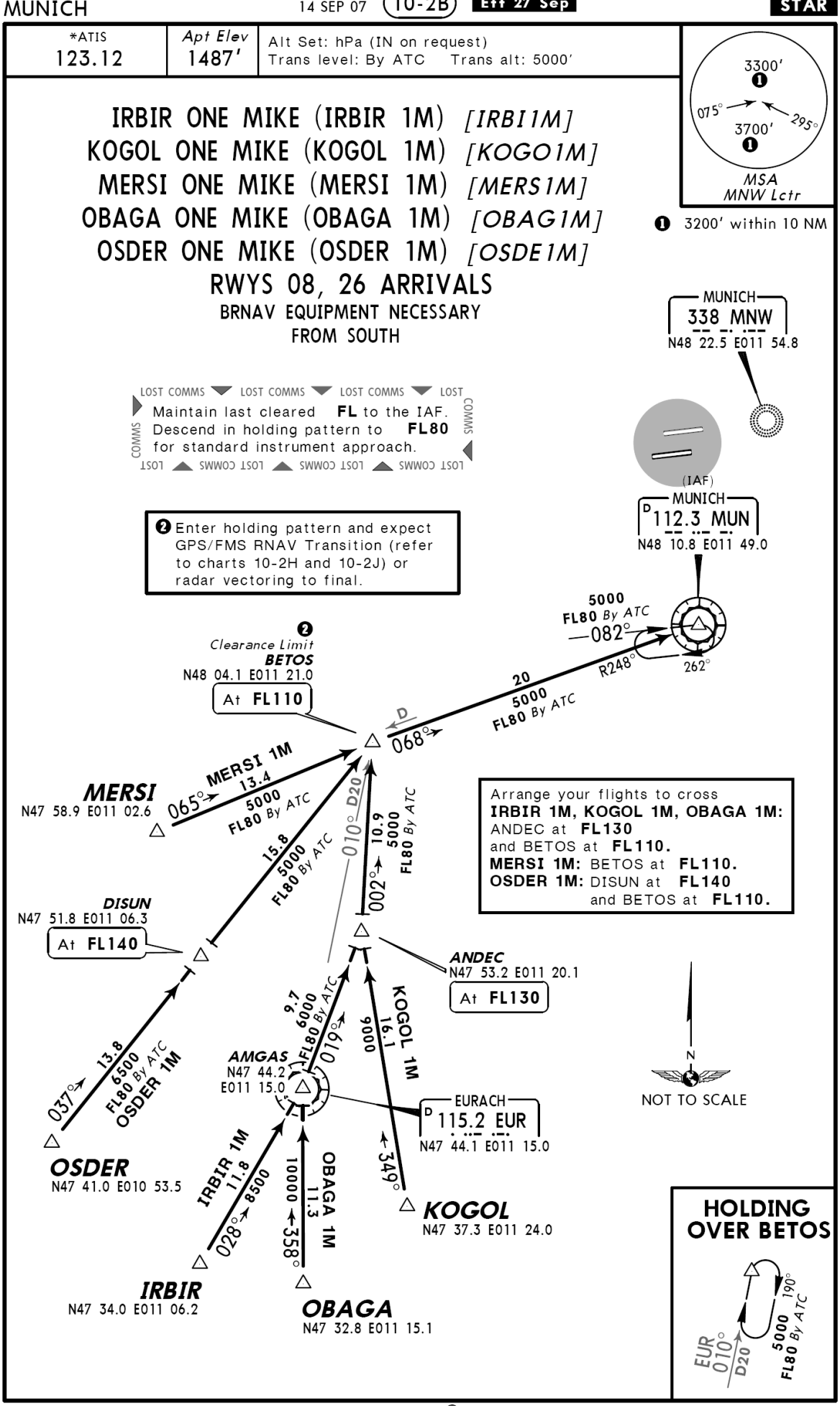
ILS		LOC (GS out)			CIRCLE-TO-LAND
DA(H) 1358′ (200′)		MDA(H) 1430′ (272′)			
FULL	ALS out		LW Lctr out	ALS out	
A				RVR 1500m	A
B	RVR 600m VIS 800m	RVR 1000m	800m	NOT AUTH	RVR 1600m	B	NOT AUTH
C						C	
D			1200m		RVR 1800m	D	

PANS OPS 3

CHANGES: ATIS. Bearings.

*ATIS	Apt Elev	Alt Set: hPa (IN on request)
123.12	1487′	Trans level: By ATC Trans alt: 5000′

IRBIR ONE MIKE (IRBIR 1M) *[IRBI1M]*
KOGOL ONE MIKE (KOGOL 1M) *[KOGO1M]*
MERSI ONE MIKE (MERSI 1M) *[MERS1M]*
OBAGA ONE MIKE (OBAGA 1M) *[OBAG1M]*
OSDER ONE MIKE (OSDER 1M) *[OSDE1M]*
RWYS 08, 26 ARRIVALS
BRNAV EQUIPMENT NECESSARY
FROM SOUTH

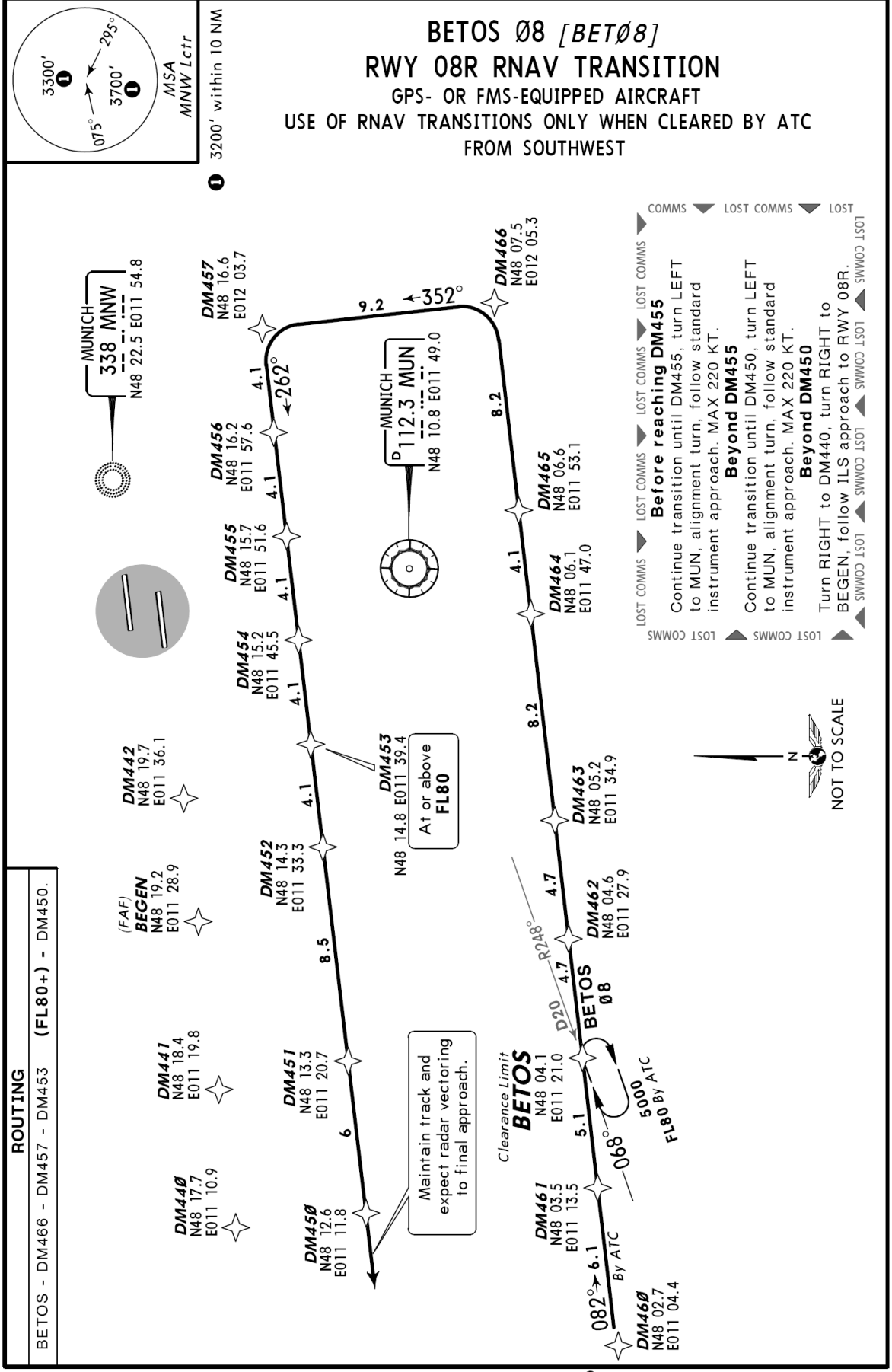


CHANGES: MSA; crossings established.

*D-ATIS	Apt Elev
123.12	1487′

Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′
1. After receiving a "direct to waypoint" clearance without transition maintain the last flown track beyond this waypoint. **2.** Maintain transition track beyond end point if no succeeding instruction (radar vector) is received.

BETOS Ø8 *[BETØ8]*
RWY 08R RNAV TRANSITION
GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITIONS ONLY WHEN CLEARED BY ATC FROM SOUTHWEST

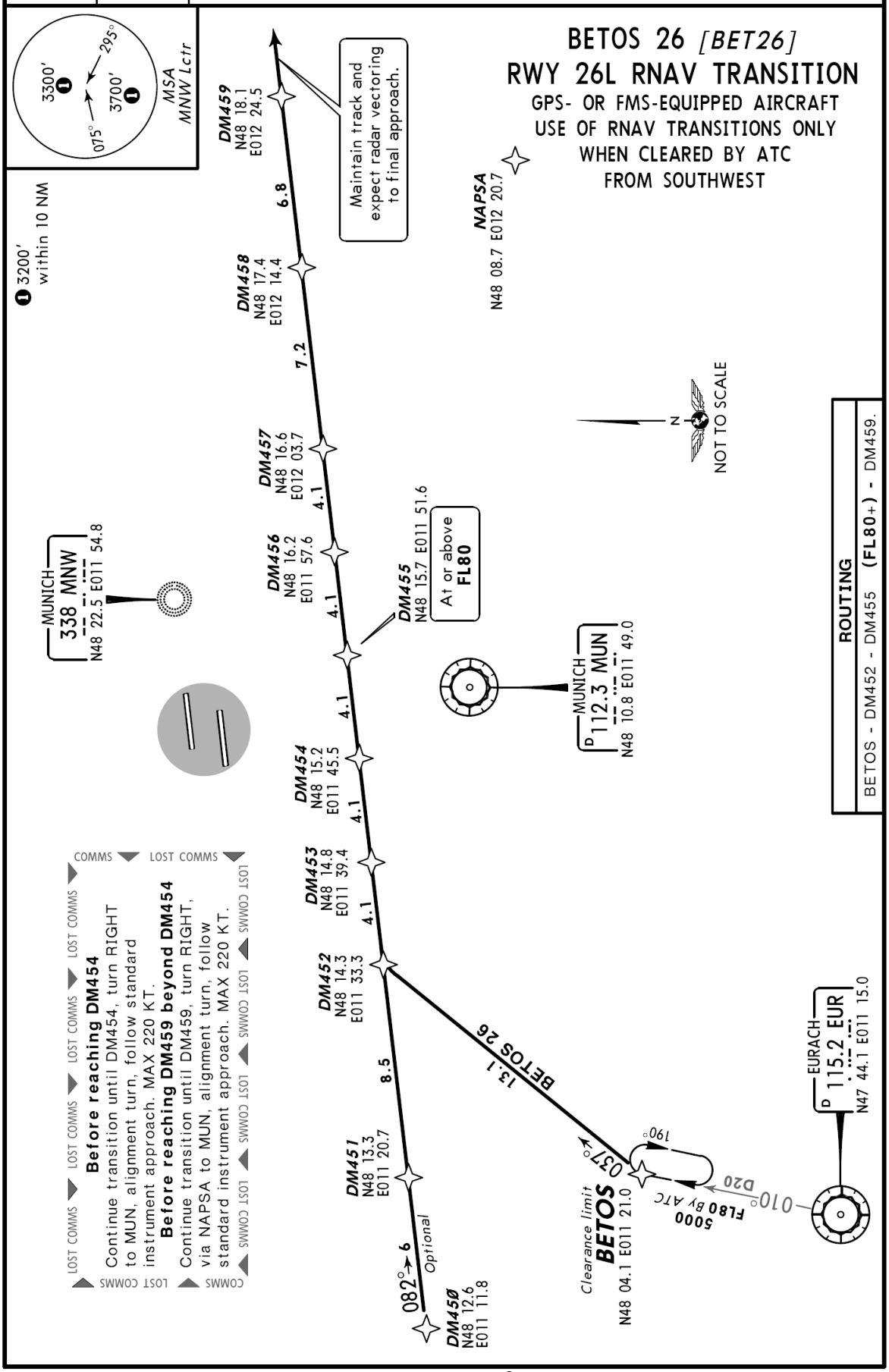


ROUTING
BETOS - DM466 - DM457 - DM453 **(FL80+)** - DM450.

CHANGES: Holding over BETOS; DM441 established.

*ATIS	Apt Elev
123.12	1487′

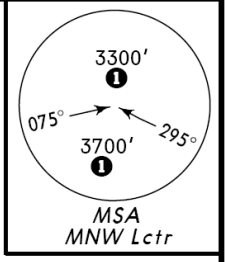
Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′
1. After receiving a "direct to waypoint" clearance without transition maintain the last flown track beyond this waypoint. **2.** Maintain transition track beyond end point if no succeeding instruction (radar vector) is received.



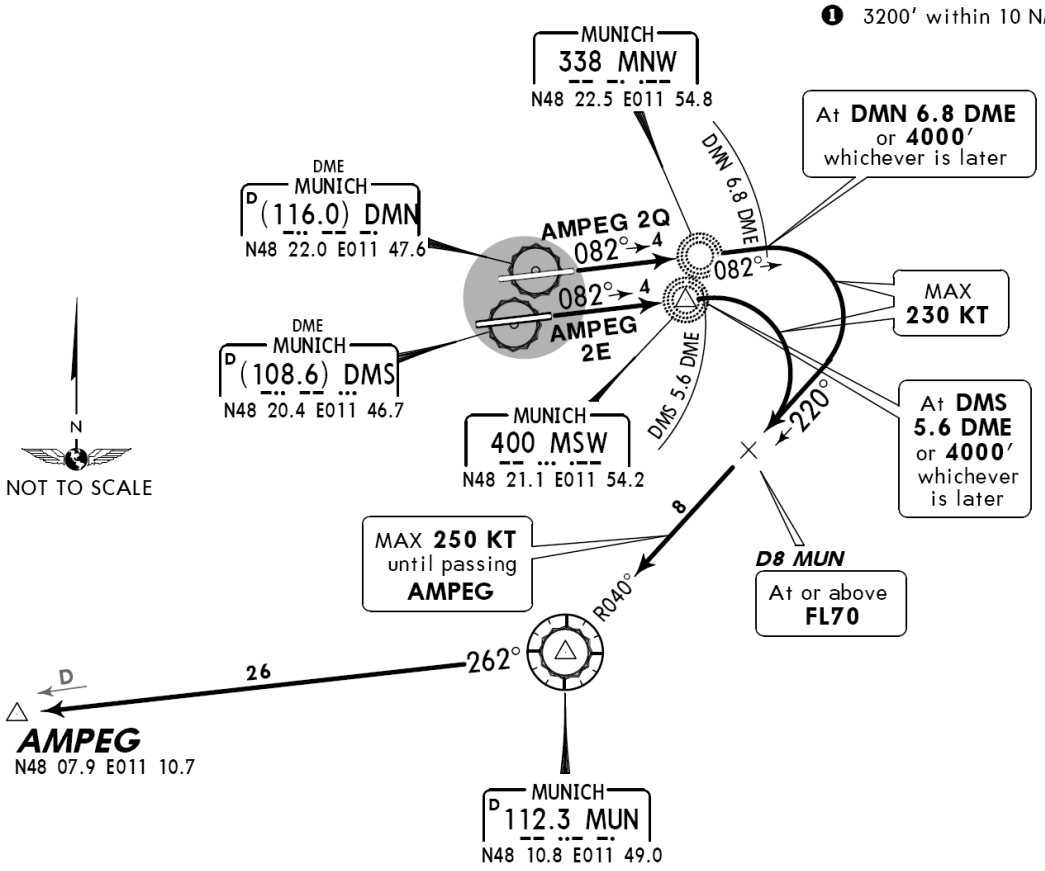
CHANGES: MSA.

MUNICH Radar	*Apt Elev*	
127.95	1487′	Trans level: By ATC Trans alt: 5000′ **1.** Remain on Tower frequency, when advised by ATC contact MUNICH Radar. **2.** SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. **3.** Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

AMPEG TWO ECHO (AMPEG 2E)
AMPEG TWO QUEBEC (AMPEG 2Q)
RWYS 08R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS VIA
KPT - AIRWAYS (U)M 738 - GIMOS - AIRWAY UY 740
EXCEPT FOR FLIGHTS DEST LIM*



❶ 3200′ within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

These SIDs require minimum climb gradients of

AMPEG 2E
504′ per NM (8.3%) due to airspace structure.

AMPEG 2Q
395′ per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504′ per NM	630	841	1261	1681	2101	2522
395′ per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
AMPEG 2E	**08R**	Climb on runway track to **1900′,** then via MSW to DMS 5.6 DME or **4000′,** whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn RIGHT, MUN R-262 to AMPEG.
AMPEG 2Q	**08L**	Climb on runway track to **1900′,** then via MNW to DMN 6.8 DME or **4000′,** whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn RIGHT, MUN R-262 to AMPEG.

CHANGES: None.

EDDM/MUC

Apt Elev **1487′**

N48 21.2 E011 47.2

JEPPESEN

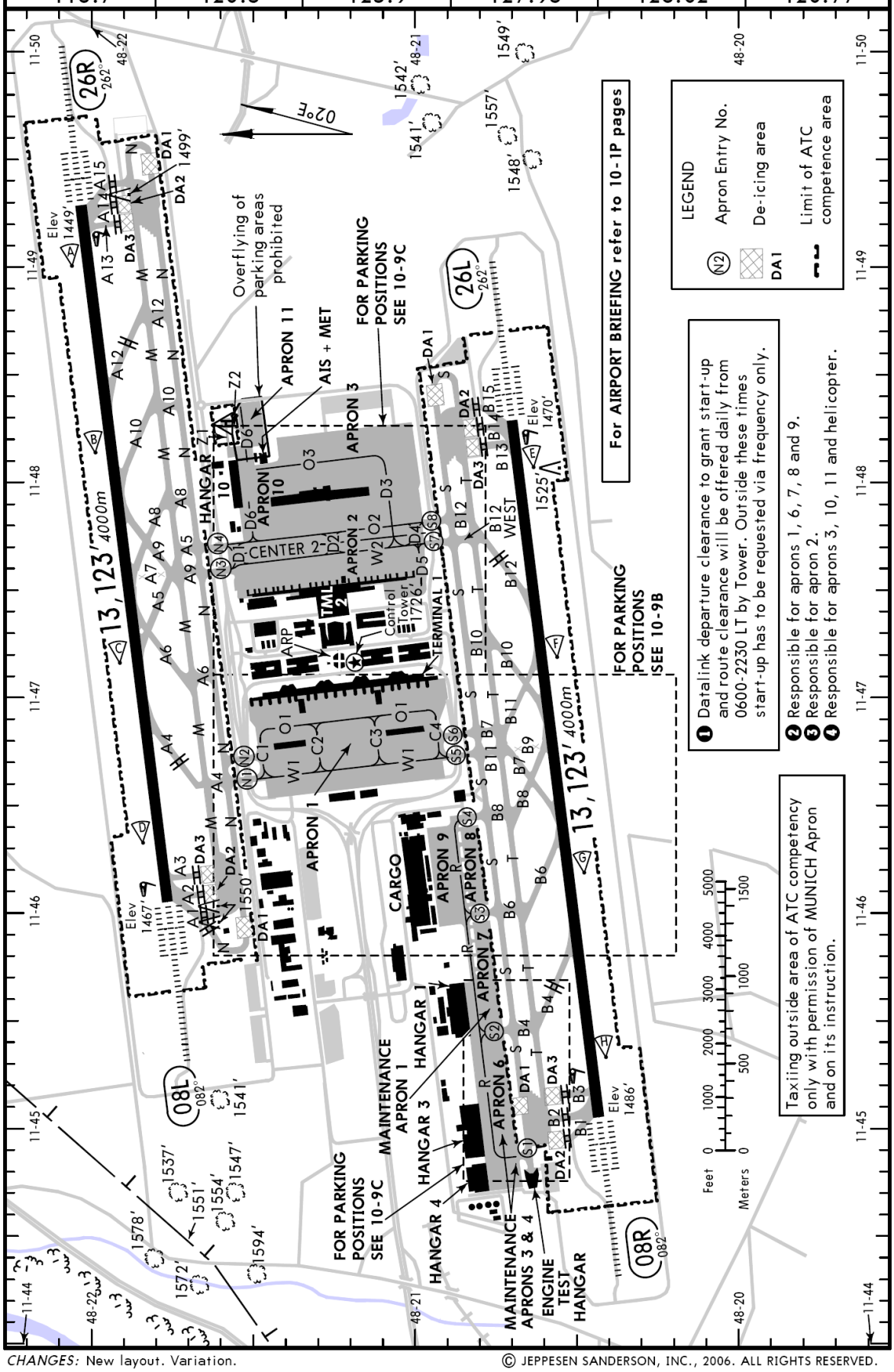
6 OCT 06 (10-9)

MUNICH, GERMANY

MUNICH

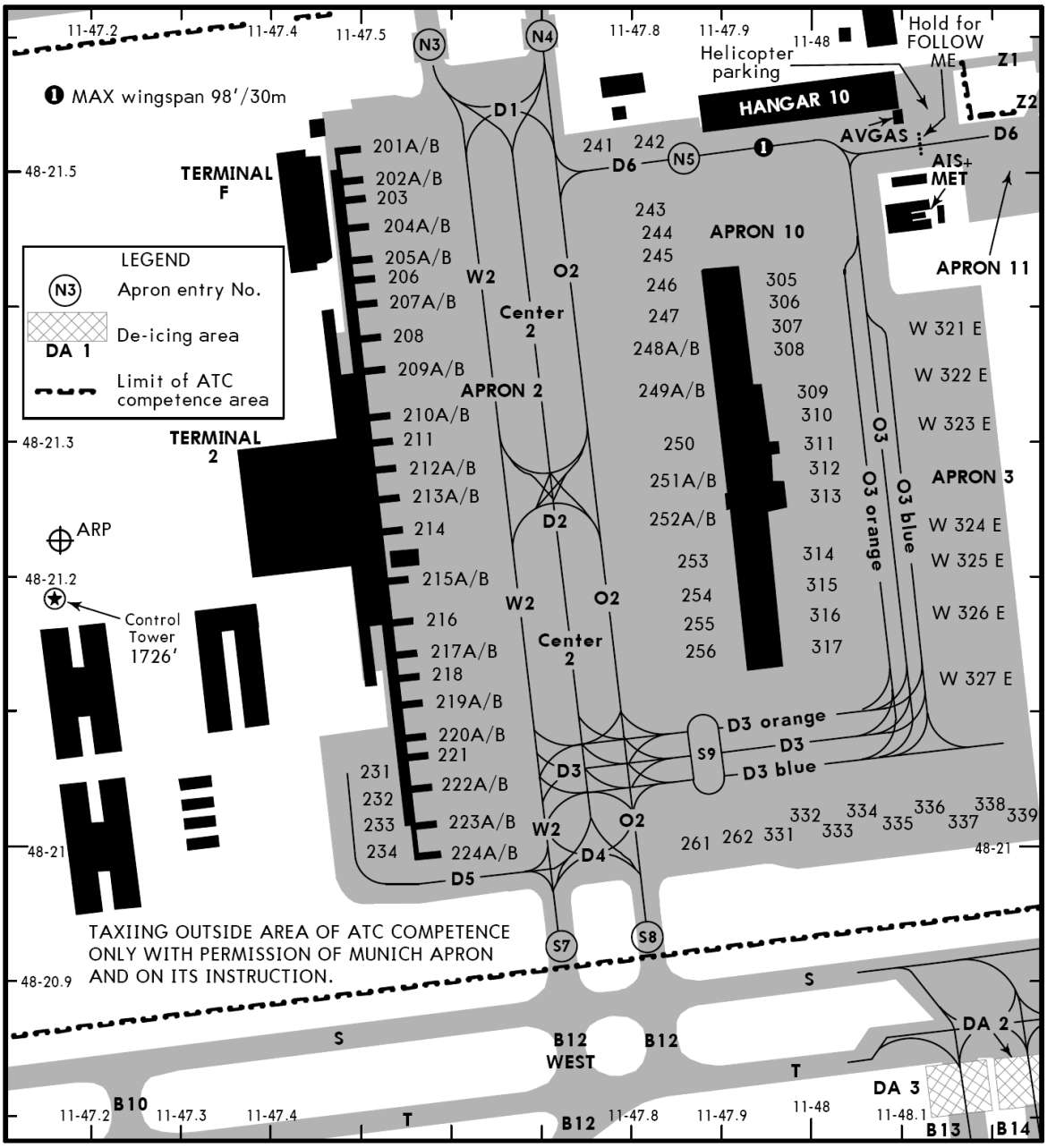
*ATIS	ACARS:	MUNICH Delivery (Start-up clearance)	MUNICH Ground Rwy 08L/26R	MUNICH Ground Rwy 08R/26L	Apron 1	Apron 2	Apron 3
123.12	DCL ❶	121.72	121.97	121.82	121.77 ❷	121.7 ❸	121.92 ❹

Tower Rwy 08L/26R	Tower Rwy 08R/26L	MUNICH Radar (DEP) North	MUNICH Radar (DEP) South	MUNICH Arrival (DEP) North	MUNICH Arrival (DEP) South
118.7	120.5	123.9	127.95	128.02	120.77



CHANGES: New layout. Variation.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY



CHANGES: New layout.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EDDM/MUC
MUNICH

JEPPESEN
14 SEP 07 (11-2) Eff 27 Sep

MUNICH, GERMANY
ILS or LOC Rwy 08R

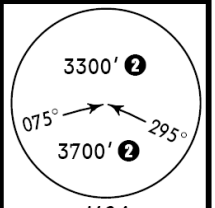
*ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	120.77	127.95	118.82	120.5	121.82

BRIEFING STRIP ™

LOC	Final	GS	ILS	Apt Elev 1487′
IMSE	Apch Crs	LOM	DA(H)	RWY 1486′
110.9	082°	2780′ (1294′)	1686′ (200′)	

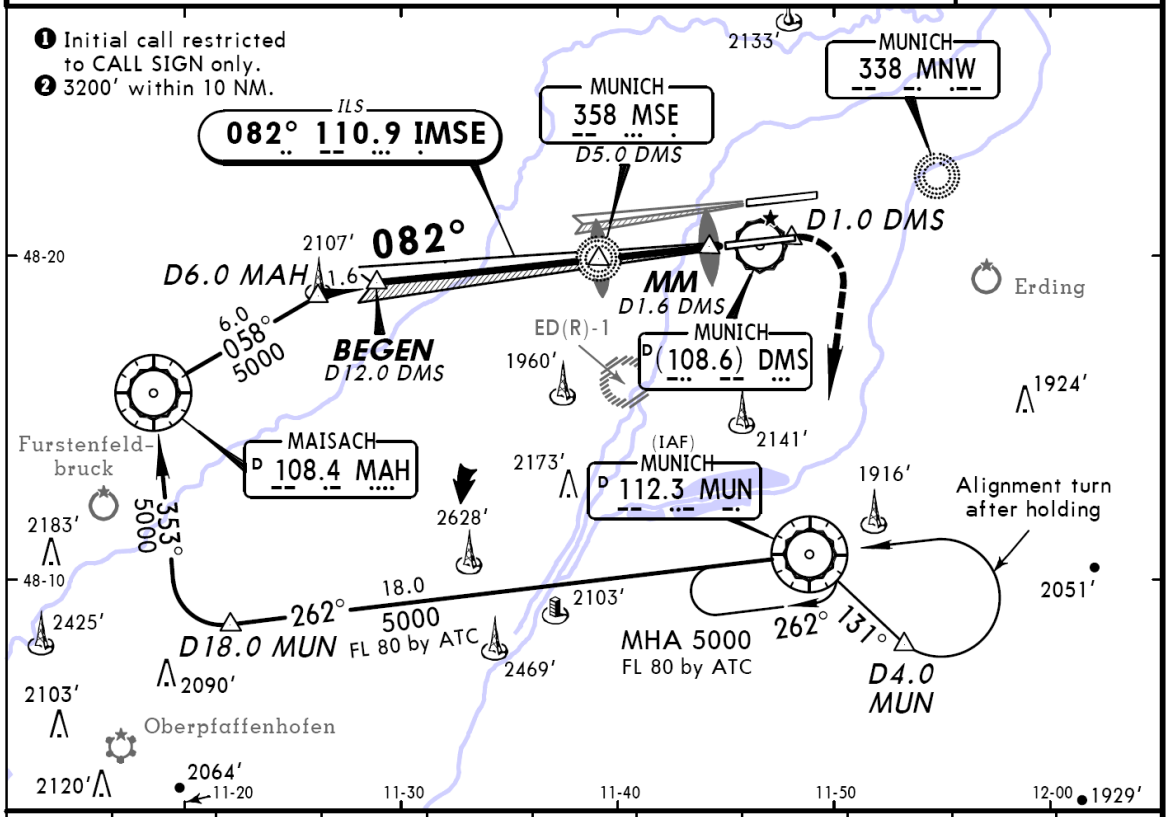
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMS or 1900′, whichever is later, then turn RIGHT to MUN VOR climbing to 5000′.

Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000′
LOC: **DME REQUIRED.**

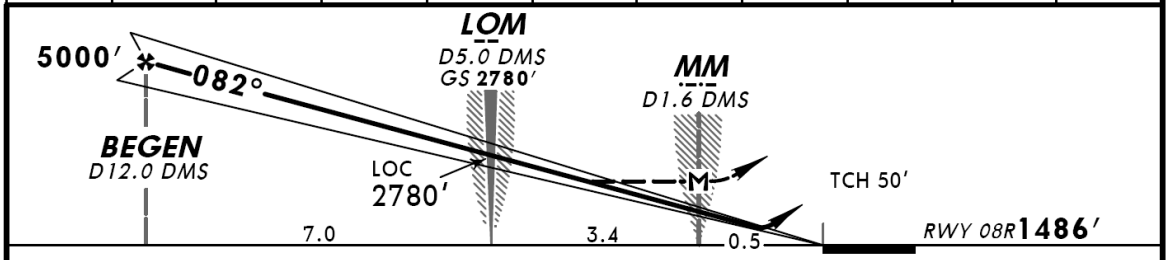


MSA
MNW Lctr

❶ Initial call restricted to CALL SIGN only.
❷ 3200′ within 10 NM.



LOC (GS out)	DMS DME	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE	4690′	4370′	4060′	3740′	3420′	3100′	2780′	2460′	2150′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	485	539	647	755	862
MAP at MM/D1.6 DMS						

ALSF-II
PAPI

D1.0 East of DMS whichever is later **1900′**

JAR-OPS STRAIGHT-IN LANDING RWY **08R**

	ILS		LOC (GS out)	
	DA(H) 1686′ (200′)		MDA(H) ABC: 1880′ (394′) D: 1910′ (424′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B				
C			RVR 1000m	RVR 1800m
D			RVR 1400m	RVR 2000m

PANS OPS 4

CHANGES: MSA.

EDDM/MUC
MUNICH

JEPPESEN
14 SEP 07
Eff 27 Sep
11-3
NON-STANDARD

MUNICH, GERMANY
ILS or LOC Rwy 26L

*ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	120.77	127.95	118.82	120.5	121.82

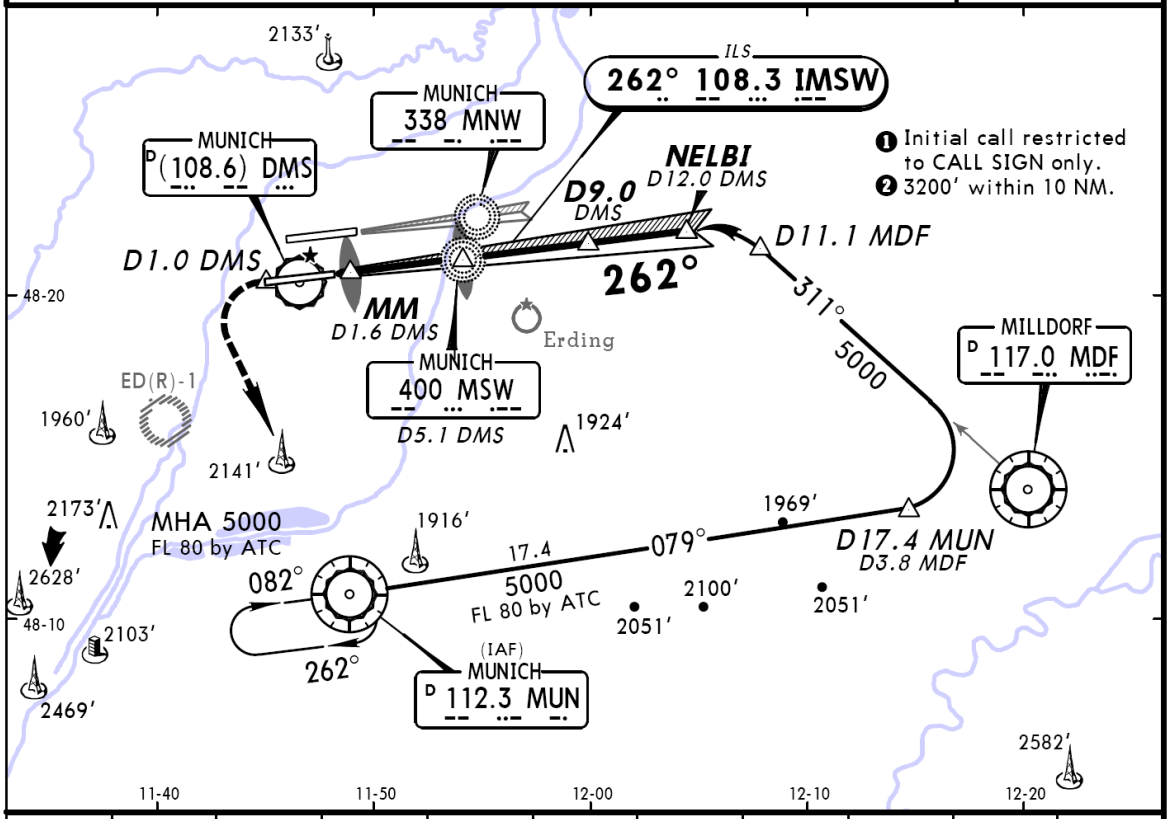
BRIEFING STRIP ™

LOC IMSW	Final Apch Crs	GS LOM	ILS DA(H)	Apt Elev 1487′ RWY 1470′
108.3	262°	2790′ (1320′)	1670′ (200′)	

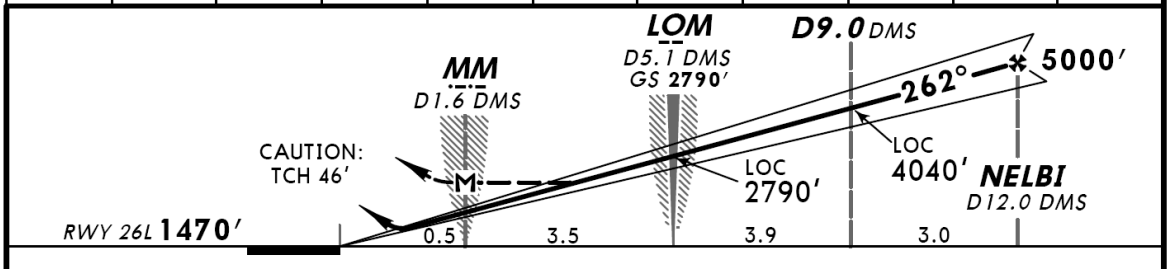
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMS or 1900′, whichever is later, then turn LEFT to MUN VOR climbing to 5000′.

Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000′
LOC: **DME REQUIRED.**

3300′ ❷
075° 295°
3700′ ❷
MSA
MNW Lctr



LOC (GS out)	DMS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	ALTITUDE	2130′	2440′	2760′	3080′	3400′	3720′	4040′	4350′	4670′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	485	539	647	755	862
MAP at MM/D1.6 DMS						

ALSF-II
PAPI

D1.0 West of DMS whichever is later 1900′

JAR-OPS STRAIGHT-IN LANDING RWY **26L**

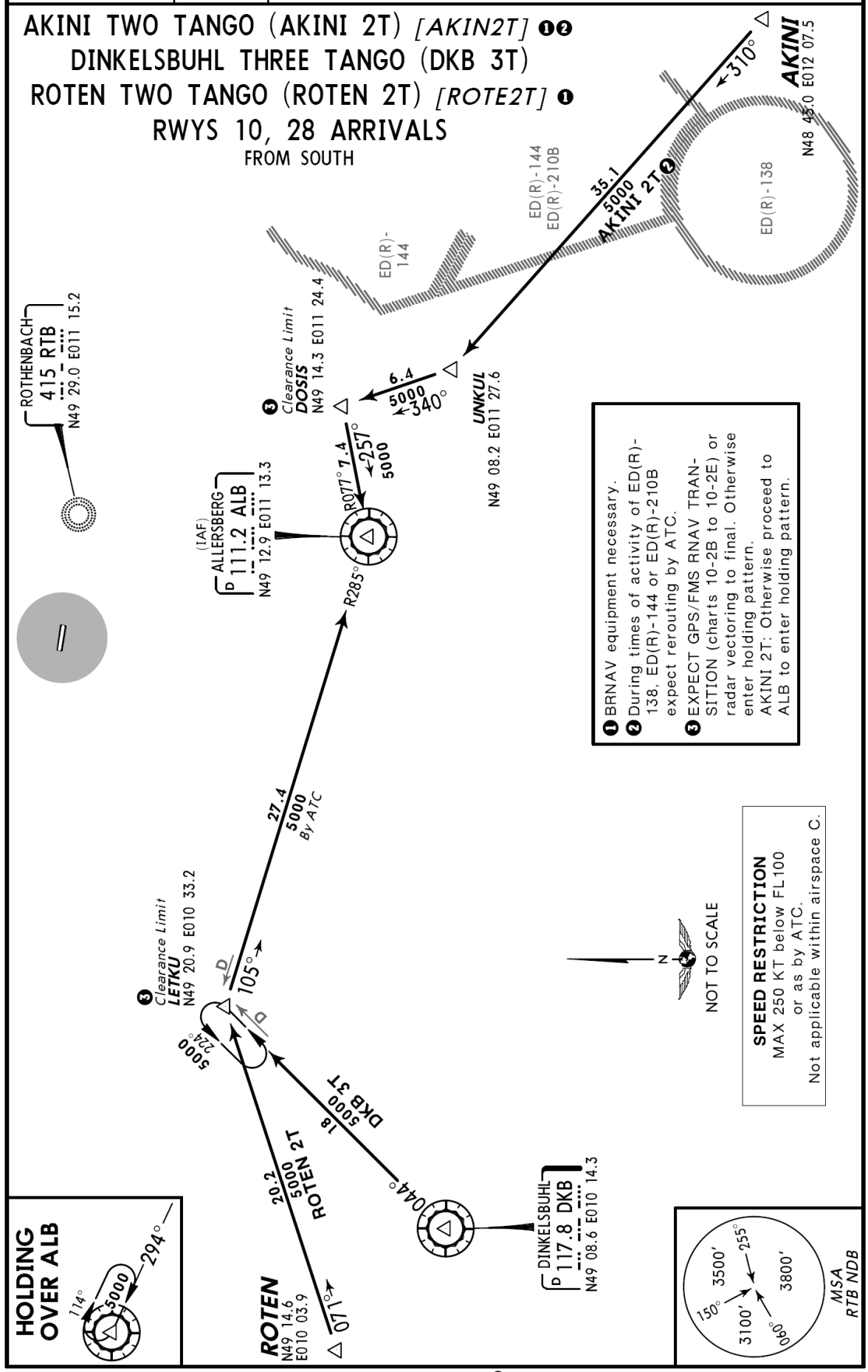
	ILS DA(H) 1670′ (200′)		LOC (GS out) MDA(H) 1870′ (400′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B				
C			RVR 1000m	RVR 1800m
D			RVR 1400m	RVR 2000m

PANS OPS 4

CHANGES: MSA.

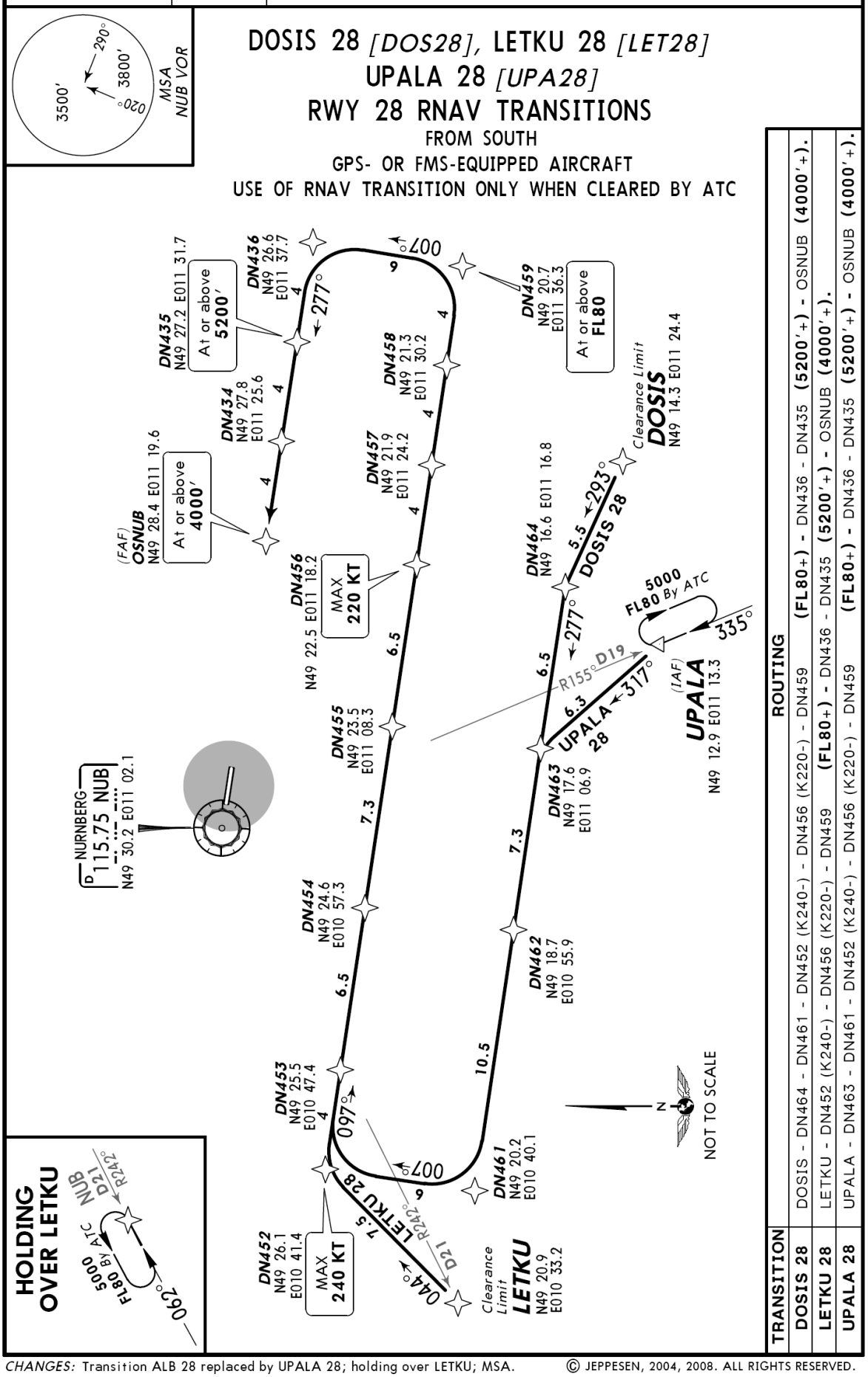
*D-ATIS	Apt Elev	Alt Set: hPa (IN on request)
123.07	1046′	Trans level: By ATC Trans alt: 5000′

AKINI TWO TANGO (AKINI 2T) *[AKIN2T]* ❶❷
DINKELSBUHL THREE TANGO (DKB 3T)
ROTEN TWO TANGO (ROTEN 2T) *[ROTE2T]* ❶
RWYS 10, 28 ARRIVALS
FROM SOUTH



CHANGES: MSA raised.

*D-ATIS	Apt Elev	
123.07	1046′	Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′ On downwind transition expect vectors to final.



TRANSITION	ROUTING
DOSIS 28	DOSIS - DN464 - DN461 - DN452 (K240-) - DN456 (K220-) - DN459 **(FL80+)** - DN436 - DN435 **(5200′+)** - OSNUB **(4000′+).**
LETKU 28	LETKU - DN452 (K240-) - DN456 (K220-) - DN459 **(FL80+)** - DN436 - DN435 **(5200′+)** - OSNUB **(4000′+).**
UPALA 28	UPALA - DN463 - DN461 - DN452 (K240-) - DN456 (K220-) - DN459 **(FL80+)** - DN436 - DN435 **(5200′+)** - OSNUB **(4000′+).**

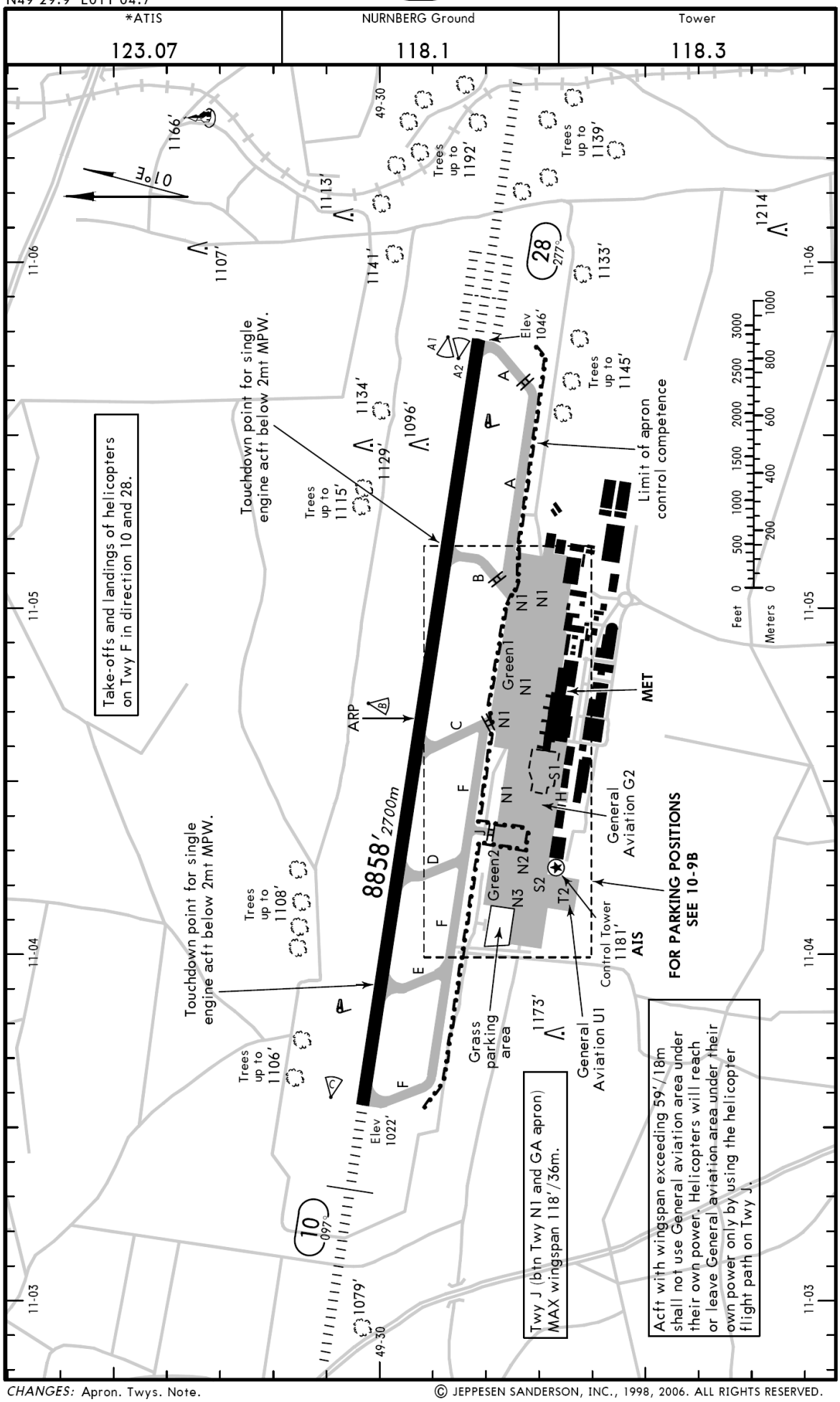
CHANGES: Transition ALB 28 replaced by UPALA 28; holding over LETKU; MSA.

EDDN/NUE
Apt Elev **1046′**
N49 29.9 E011 04.7

JEPPESEN
7 JUL 06 (10-9)

NURNBERG, GERMANY
NURNBERG

*ATIS	NURNBERG Ground	Tower
123.07	118.1	118.3



CHANGES: Apron. Twys. Note.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EDDN/NUE
NURNBERG

JEPPESEN
6 JUL 07 (11-2)

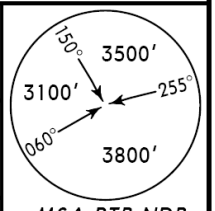
NURNBERG, GERMANY
ILS or LOC Rwy 28

*ATIS	MUNICH Radar (APP)	NURNBERG Director	NURNBERG Tower	Ground
123.07	129.52	119.47	118.3	118.1

BRIEFING STRIP™

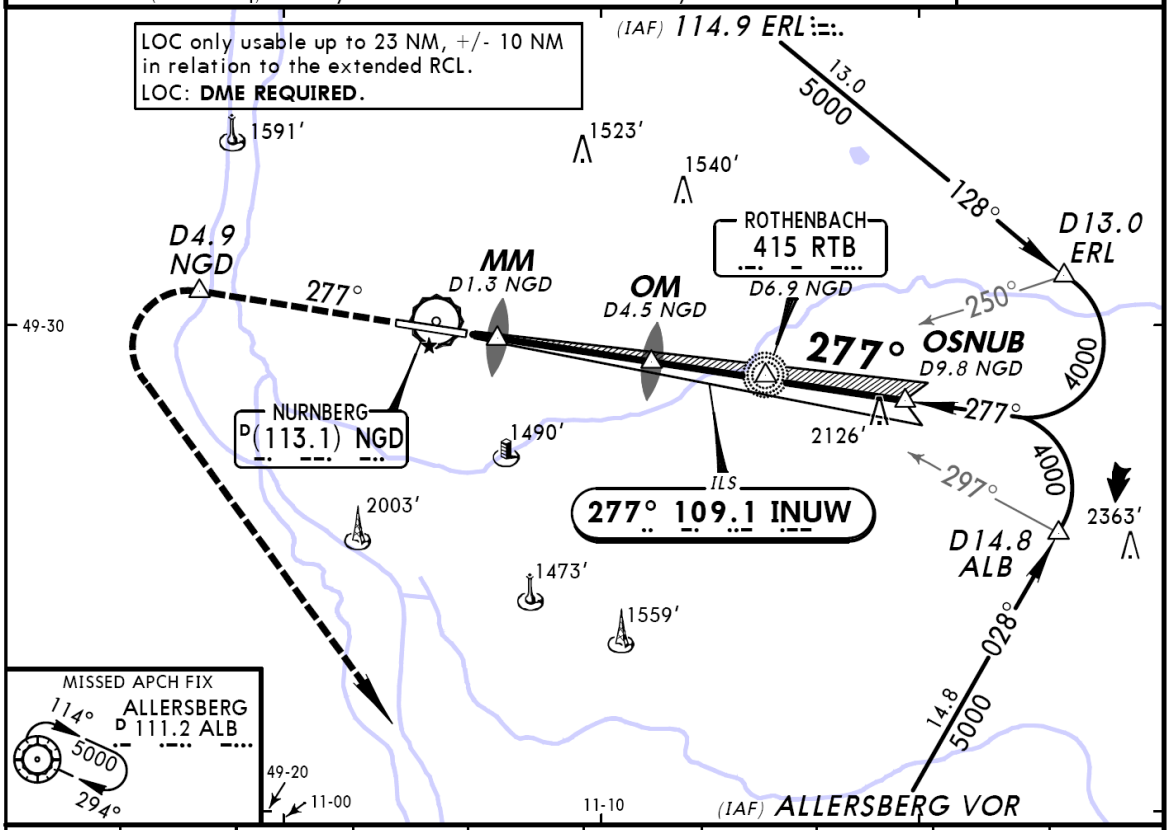
LOC	Final	GS	ILS	Apt Elev 1046′
INUW	Apch Crs	OM	DA(H)	RWY 1046′
109.1	277°	2300′ (1254′)	Refer to Minimums	

MISSED APCH: Climb on 277° to D4.9 NGD or 5000′, whichever is later, then turn LEFT to ALB VOR.

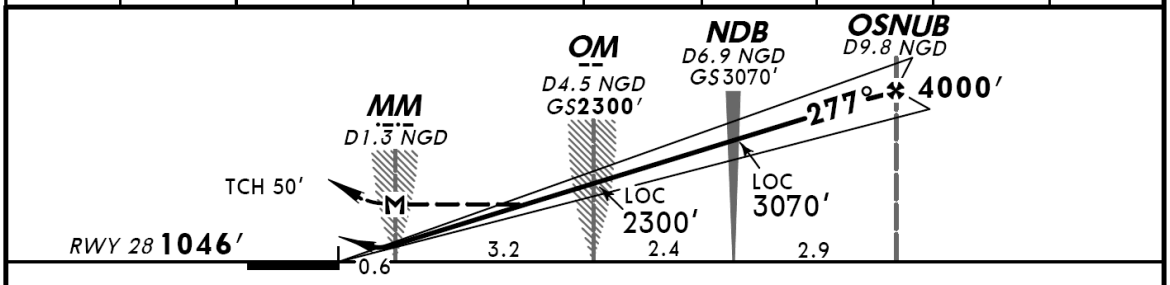


MSA RTB NDB

Alt Set: hPa (IN on req) Rwy Elev: 38 hPa Trans level: By ATC Trans alt: 5000′



LOC (GS out)	NGD DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	1510′	1830′	2150′	2470′	2790′	3110′	3430′	3740′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	485	539	647	755	862
MAP at MM/D1.3 NGD						

ALSF-II
REIL
PAPI

277°

D4.9 NGD — 5000′ whichever later

JAR-OPS STRAIGHT-IN LANDING RWY 28

ILS		LOC (GS out)
DA(H) A: 1272′ (226′) C: 1292′ (246′)		MDA(H) 1460′ (414′)
B: 1282′ (236′) D: 1302′ (256′)		

	FULL	ALS out		ALS out
A	RVR 600m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C				RVR 1800m
D	RVR 650m	RVR 1200m	RVR 1400m	RVR 2000m

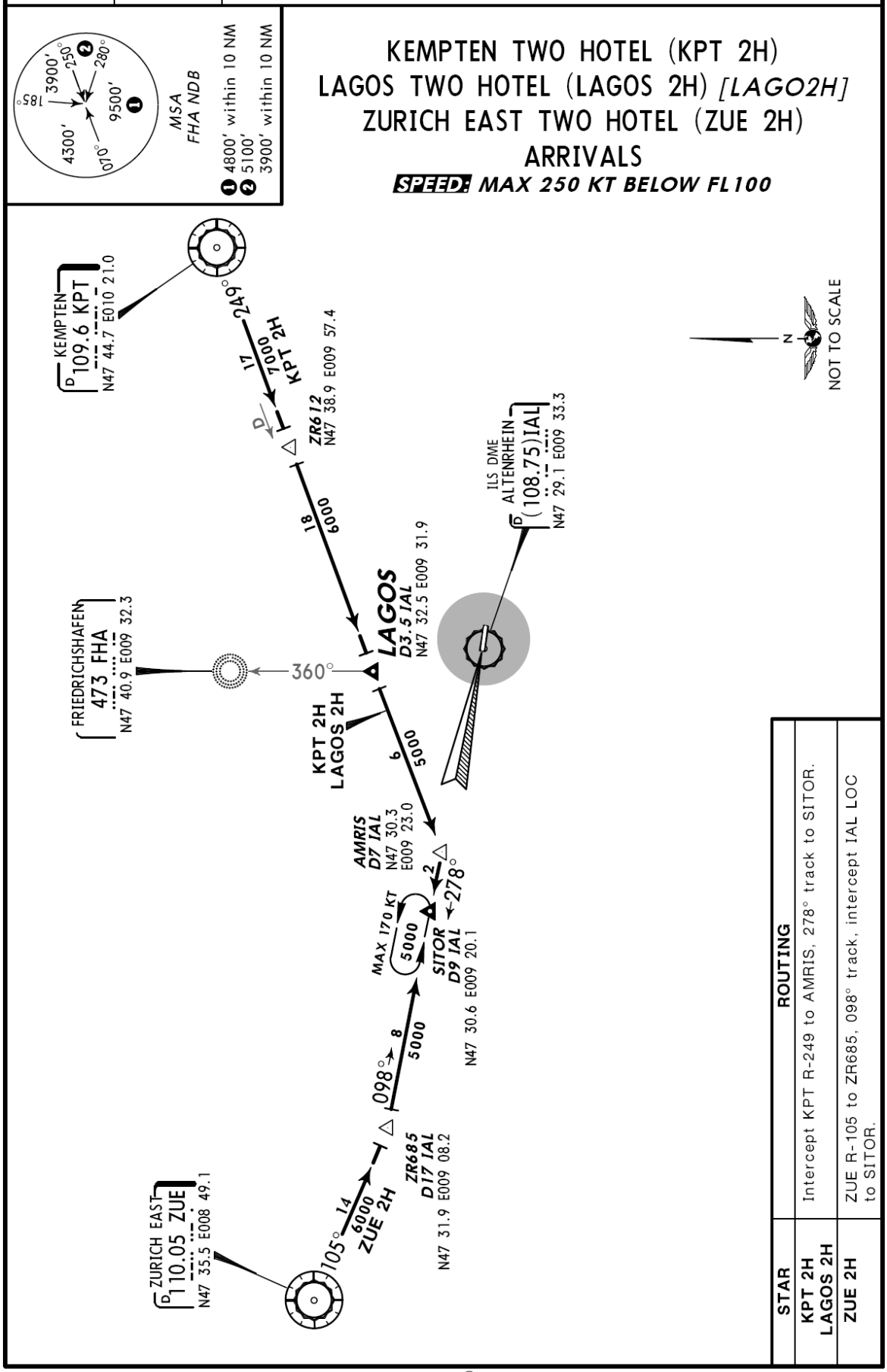
CIRCLE-TO-LAND
Not authorized South of airport

Max Kts	MDA(H)	VIS
100	1720′ (674′)	1500m
135	1720′ (674′)	1600m
180	1920′ (874′)	2400m
205	1940′ (894′)	3600m

PANS OPS 4

CHANGES: MSA.

*ATIS	Apt Elev	
123.77	1306′	Alt Set: hPa Trans level: By ATC Trans alt: 5000′ Procedures above MSA, therefore approved for B-RNAV operations, except SITOR holding pattern to be flown conventionally.



KEMPTEN TWO HOTEL (KPT 2H)
LAGOS TWO HOTEL (LAGOS 2H) *[LAGO2H]*
ZURICH EAST TWO HOTEL (ZUE 2H)
ARRIVALS

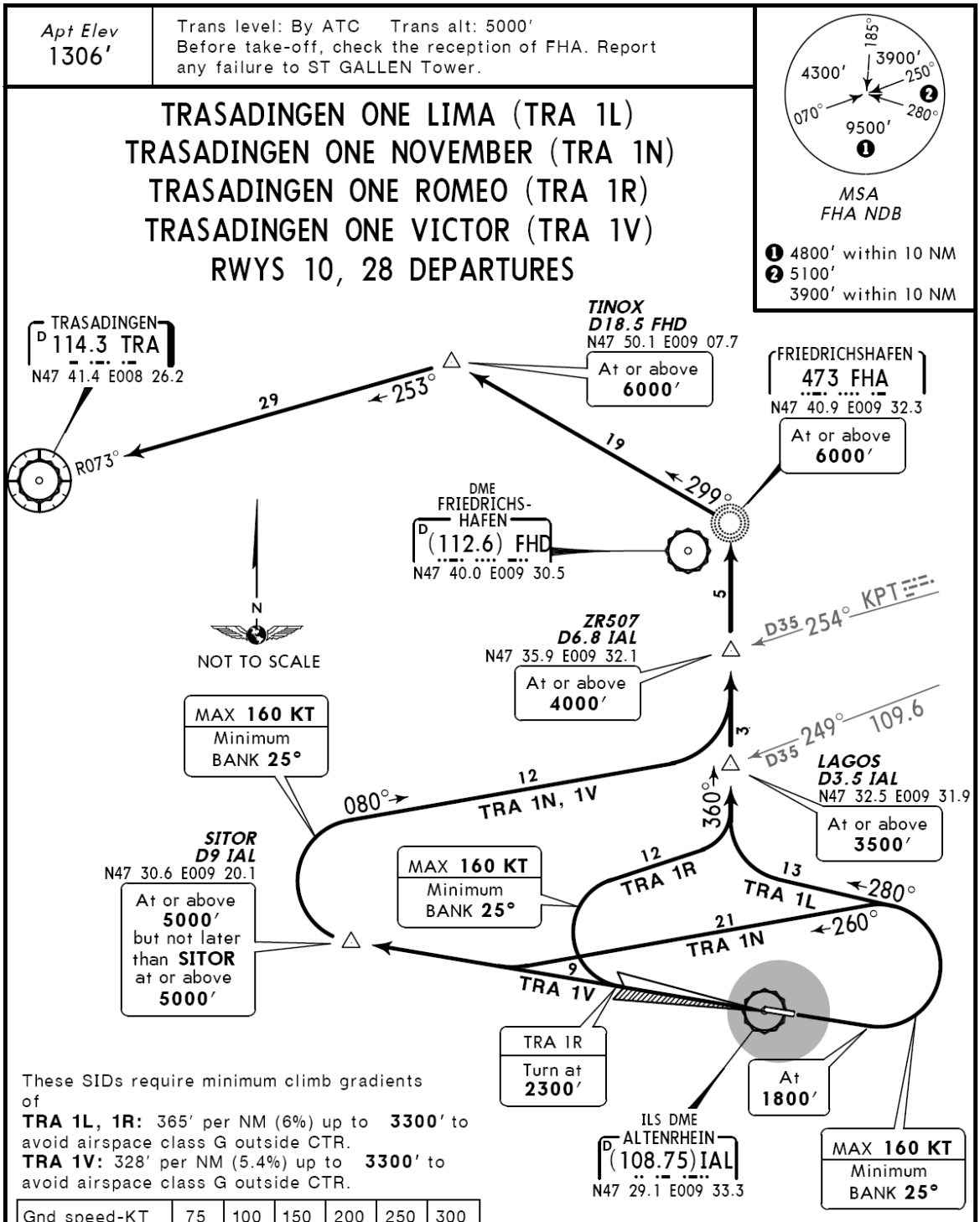
SPEED: MAX 250 KT BELOW FL100

STAR	ROUTING
KPT 2H LAGOS 2H	Intercept KPT R-249 to AMRIS, 278° track to SITOR.
ZUE 2H	ZUE R-105 to ZR685, 098° track, intercept IAL LOC to SITOR.

CHANGES: Restrictions.

Apt Elev	Trans level: By ATC Trans alt: 5000′
1306′	Before take-off, check the reception of FHA. Report any failure to ST GALLEN Tower.

TRASADINGEN ONE LIMA (TRA 1L)
TRASADINGEN ONE NOVEMBER (TRA 1N)
TRASADINGEN ONE ROMEO (TRA 1R)
TRASADINGEN ONE VICTOR (TRA 1V)
RWYS 10, 28 DEPARTURES



These SIDs require minimum climb gradients of
TRA 1L, 1R: 365′ per NM (6%) up to **3300′** to avoid airspace class G outside CTR.
TRA 1V: 328′ per NM (5.4%) up to **3300′** to avoid airspace class G outside CTR.

Gnd speed-KT	75	100	150	200	250	300
365′ per NM	456	608	911	1215	1519	1823
328′ per NM	410	547	820	1094	1367	1641

Initial climb clearance **5000′**

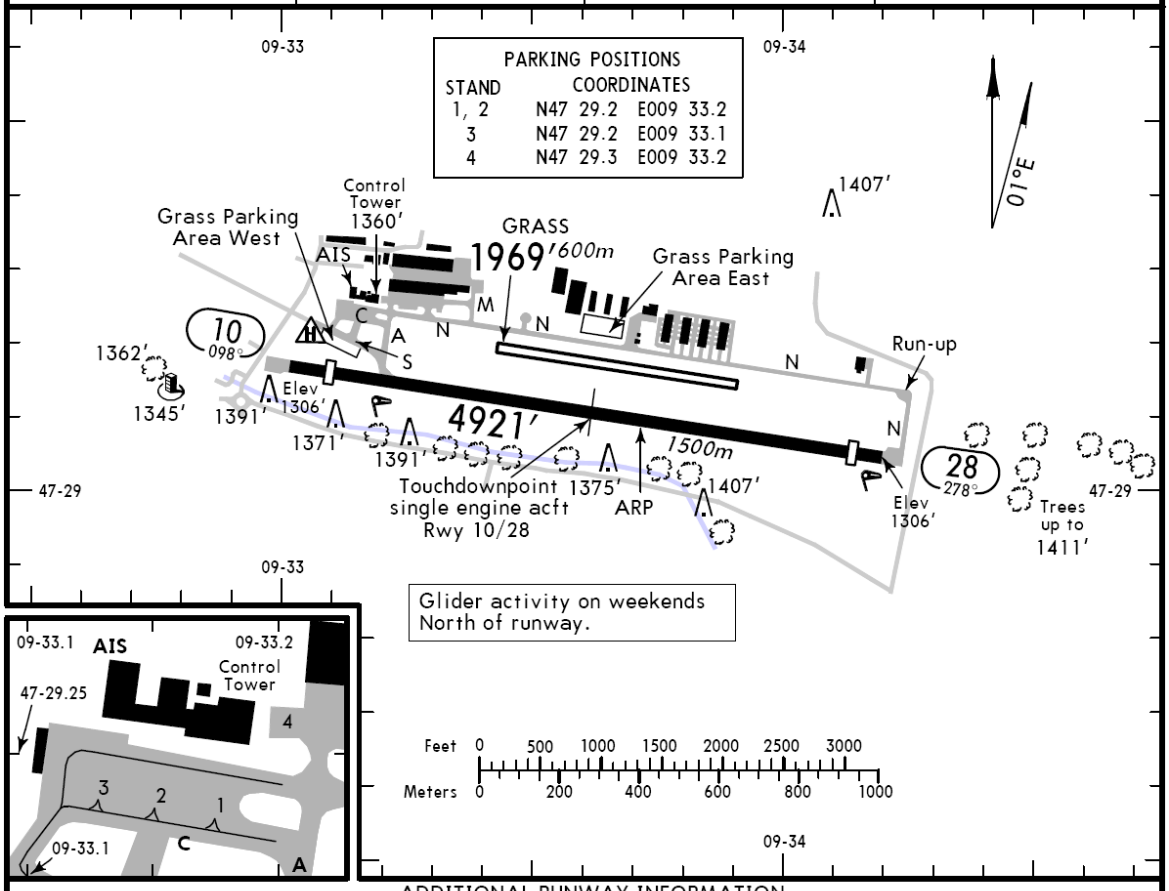
SID	RWY	ROUTING
TRA 1L	**10**	Climb to **1800′**, turn LEFT, 280° track, intercept 360° bearing to FHA, 299° bearing to TINOX, intercept TRA R-073 inbound to TRA.
TRA 1N		Climb to **1800′**, turn LEFT, 260° track, follow IAL LOC outbound, at or above **5000′**, but not later than SITOR turn RIGHT, 080° track, intercept 360° bearing to FHA, 299° bearing to TINOX, intercept TRA R-073 inbound to TRA.
TRA 1R	**28**	Climb straight ahead (use IAL LOC outbound for track guidance), at **2300′** turn RIGHT, intercept 360° bearing to FHA, 299° bearing to TINOX, intercept TRA R-073 inbound to TRA.
TRA 1V		Climb straight ahead (use IAL LOC outbound for track guidance), at or above **5000′**, but not later than SITOR turn RIGHT, 080° track, intercept 360° bearing to FHA, 299° bearing to TINOX, intercept TRA R-073 inbound to TRA.

CHANGES: TRA SIDs established; SITOR SIDs transferred.

LSZR/ACH
Apt Elev **1306′**
N47 29.1 E009 33.7

JEPPESEN **ST GALLEN, SWITZERLAND**
22 JUN 07 (10-9)
ALTENRHEIN

*ATIS	*ST GALLEN Ground	*Tower		ZURICH Arrival (DEP)
123.77	121.8	118.65	119.7	119.92



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
10 ❶ 28	HIRL *(50m)* LDIN ❷ REIL PAPI ❸	4593′ ❹ *1400m*	3871′ *1180m*		98′ *30m*
	HIRL *(50m)* PAPI-L (angle 4.0°)	4675′ ❺ *1425m*			
10 28	Grass runway				75′ *23m*

❶ Rwy grooved. ❷ 984′/300m rwy lead-in lighting system beginning 1919′/585m before displ thresh.
❸ Angle 4.0°, MEHT 22′. ❹ Single engine aircraft: 2421′ (738m). ❺ Single engine aircraft: 2500′ (762m).

NOISE ABATEMENT PROCEDURES

Reverse thrust

For deceleration it is recommended to use entire rwy length available. Reverse thrust shall be used for safety or operational reasons only.

Taxi and holding

Acft shall be operated so as to reduce noise to a minimum during taxi and holding operations.
Recommendations for turbo-prop acft:
- Taxi: one engine idle power/low RPM;
- Holding: both engines idle power/low RPM.

Auxiliary Power Units (APU)

The following regulations are applicable to the use of APU:
- at maximum 20 min prior to the acft departure;
- at maximum 10 min after the acft arrival;
- longer duration only with special permission by AD authority.

The use of APU for maintenance shall be restricted to a minimum duration.

JAR-OPS TAKE-OFF

	Main Rwy		
	LVP must be in Force		
	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*300m*	*400m*	*500m*
B			
C			*600m*
D	NOT APPLICABLE		

CHANGES: Lights. Auxiliary Power Units.

LSZR/ACH
ALTENRHEIN

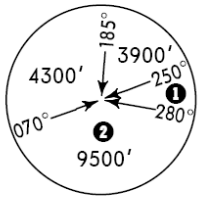
JEPPESEN ST GALLEN, SWITZERLAND
22 JUN 07 (11-1) CAT A, B & C
ILS DME Rwy 10

*ATIS	ZURICH Arrival	*ST GALLEN Tower		*Ground
123.77	119.92	118.65	119.7	121.8

BRIEFING STRIP

LOC IAL	Final Apch Crs	GS	ILS DA(H)	Apt Elev 1306′
108.75	098°	D3.0 IAL 2630′ (1324′)	Refer to Minimums	RWY 1306′

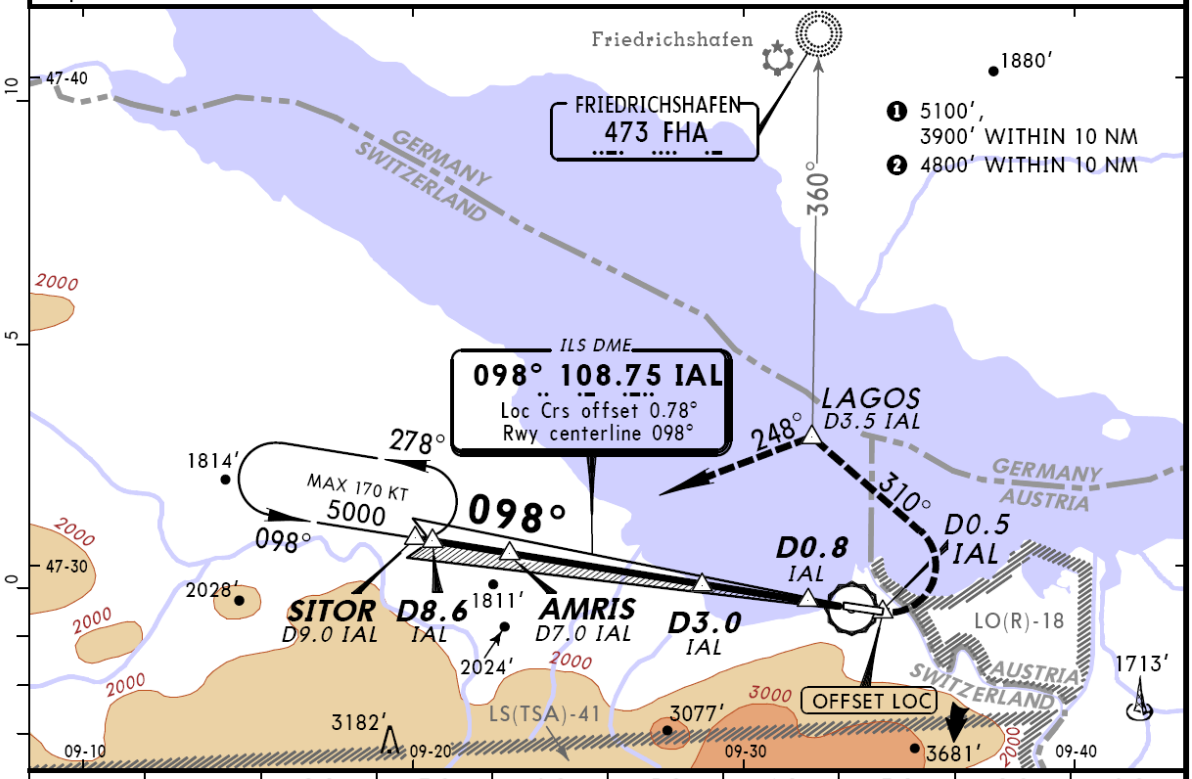
MISSED APCH: Climb STRAIGHT AHEAD. At D0.5 IAL passed the station, but not below 1600′ turn LEFT (MAX 160 KT, bank angle 25°) onto track 310° to LAGOS to 3400′, then turn LEFT (MAX 160 KT) and proceed to AMRIS to intercept IAL LOC outbound and join the SITOR holding. Climb to 5000′.



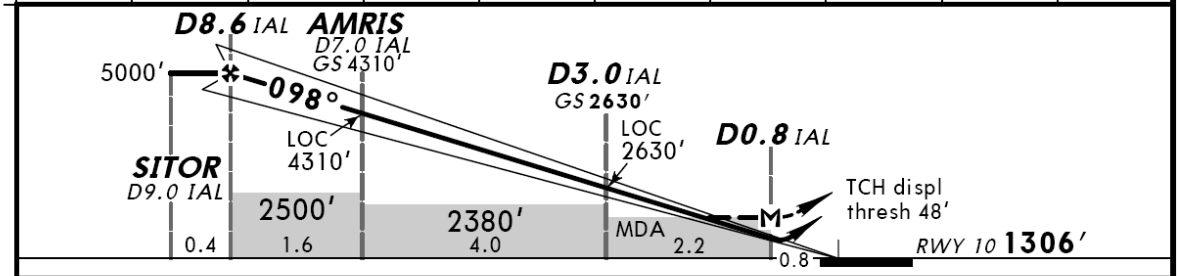
MSA FHA NDB

Alt Set: hPa | Rwy Elev: 47 hPa | Trans level: By ATC | Trans alt: 5000′

1. WARNING: Do not undershoot PAPI GS due to obstacle after DA(H). 2. ILS DME reads zero at rwy 10 displaced threshold.



LOC (GS out)	IAL DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
	ALTITUDE	4760′	4310′	3910′	3480′	3060′	2630′	2210′	1790′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 4.00° or LOC Descent Gradient 7.0%	502	645	716	860	1003	1146
MAP at D0.8 IAL						

REIL
PAPI

Refer to Missed Apch above

PANS OPS 3

JAR-OPS STRAIGHT-IN LANDING RWY 10

	ILS 1	LOC (GS out)
	DA(H) A:1582′ (276′) B:1598′ (292′) C:1615′ (309′)	MDA(H) 1710′ (404′)
A	RVR 1200m	RVR 1500m
B		
C		RVR 1800m
D	NOT APPLICABLE	

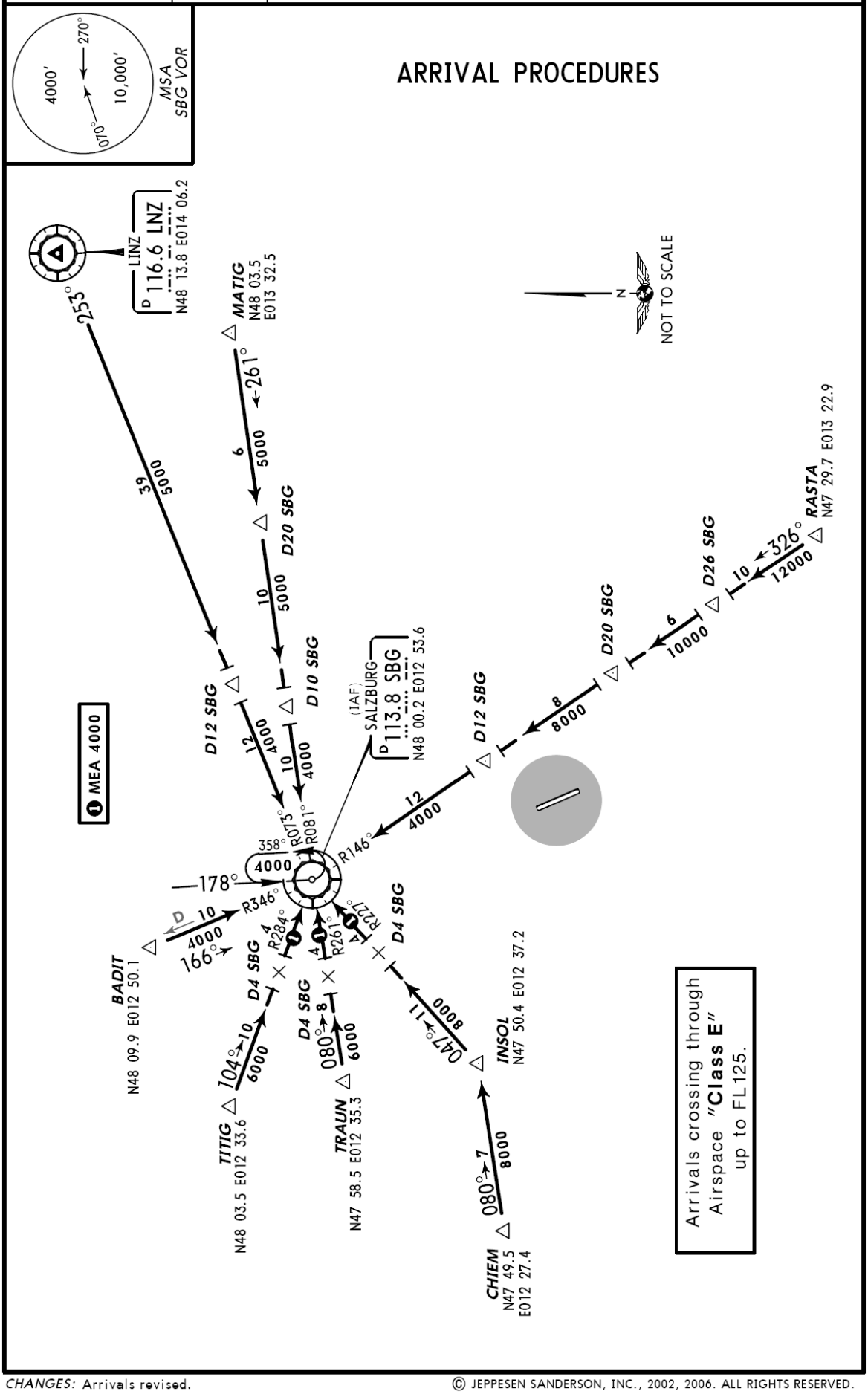
CIRCLE-TO-LAND
TO RWY 28
Not authorized South of airport

Max Kts	MDA(H)	VIS
100	2300′ (994′)	1900m
135	2300′ (994′)	2800m
180	2300′ (994′)	3700m
D	NOT APPLICABLE	

1 Information on minimum based on radio altimeter available at airport authority.

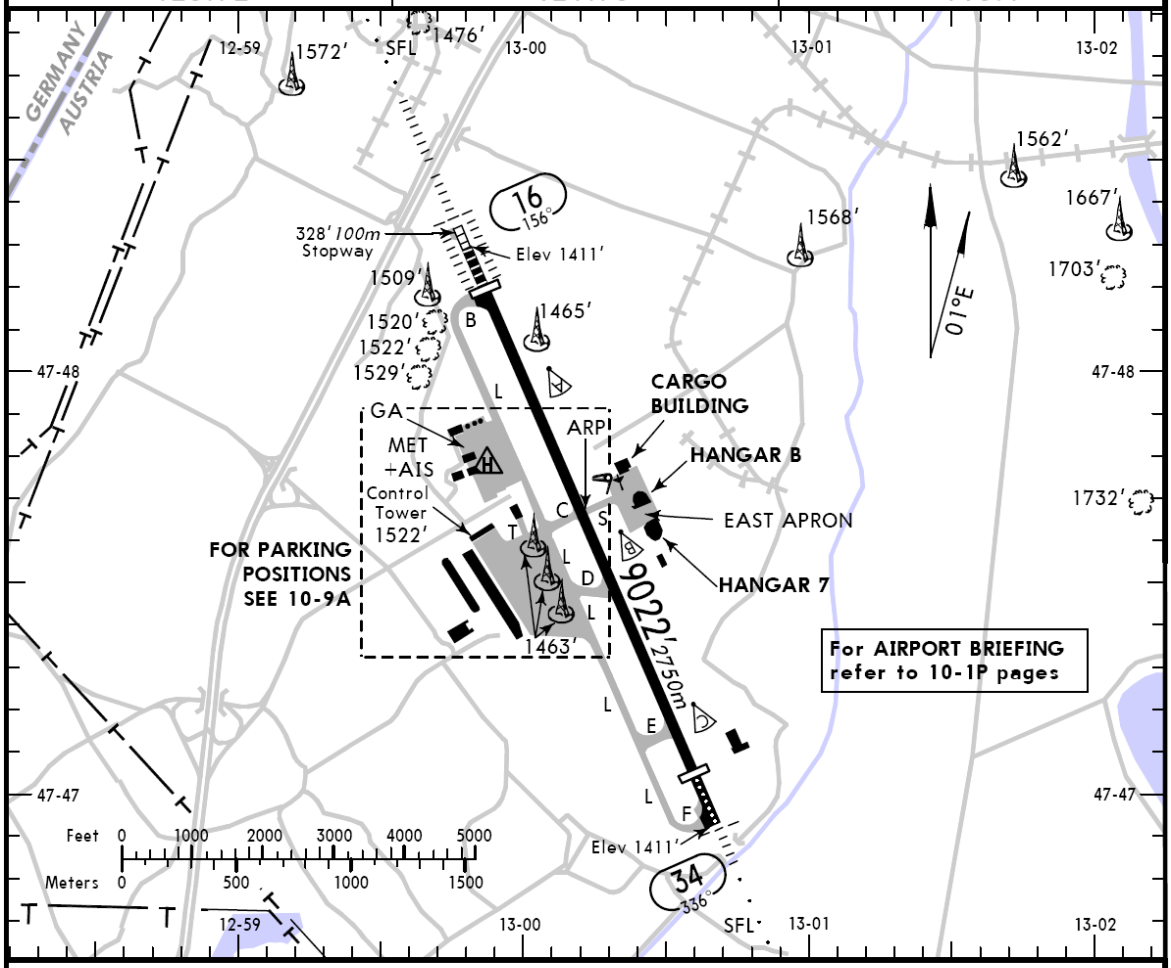
CHANGES: None.

*ATIS	Apt Elev	Alt Set: hPa
125.72	1411′	Trans level: By ATC Trans alt: 4000′



CHANGES: Arrivals revised.

*D-ATIS	*SALZBURG Delivery active by NOTAM	*Tower
125.72	121.75	118.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
16	HIRL CL *(15m)* HIALS-II SFL ❶TDZ REIL PAPI (3.0°) RVR	8366′ *2550m*	7208′ *2197m*	❸	148′ *45m*
34	HIRL CL *(15m)* HIALS SFL ❷REIL PAPI (3.0°) RVR	8235′ *2510m*			

❶ Additional SFL between 9078′/2767m from displ thresh rwy 16 and approach lights.
❷ Additional SFL between 3445′/1050m from displ thresh rwy 34 and approach lights.

❸ TAKE OFF RUN AVAILABLE

Rwy 16: from rwy head 9022′ (2750m)
Twy int B 8202′ (2500m)
Twy int C/S 4747′ (1447m)

Rwy 34: from rwy head 9022′ (2750m)
Twy int E 7448′ (2270m)
Twy int D 5249′ (1600m)
Twy int C/S 4035′ (1230m)

JAR-OPS TAKE-OFF ❶

	Rwy 34 LVP must be in Force						Rwy 16 ❷
	Approved Operators HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)	
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*	*2800m*
B							
C							*3700m*
D	*150m*	*200m*	*250m*	*300m*			

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.
❷ Take-off and initial LEFT turn shall be executed VISUALLY until over or ABEAM SI Lctr respectively and remain within the area for visual maneuvering (see 19-10).

CHANGES: Communications. Notes transferred to 10-1P pages.

LOWS/SZG
SALZBURG

JEPPESEN
17 MAR 06 (11-1)

SALZBURG, AUSTRIA
ILS Rwy 16

*ATIS	*SALZBURG Radar (APP)	*SALZBURG Tower	*Delivery active by NOTAM
125.72	123.72 134.97	118.1	121.75

BRIEFING STRIP ™

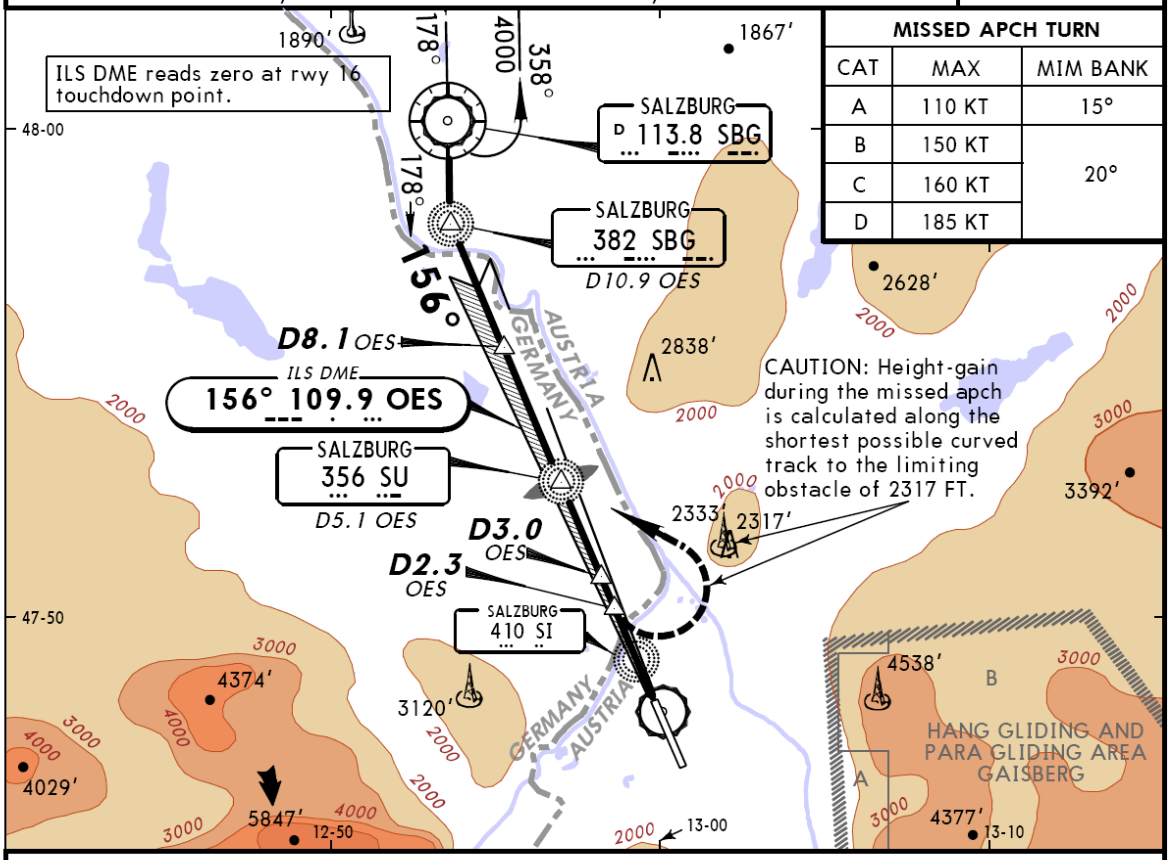
LOC OES	Final Apch Crs	GS LOM	ILS DA(H) Refer to Minimums	Apt Elev 1411′ RWY 1411′
109.9	156°	3000′ (1589′)		

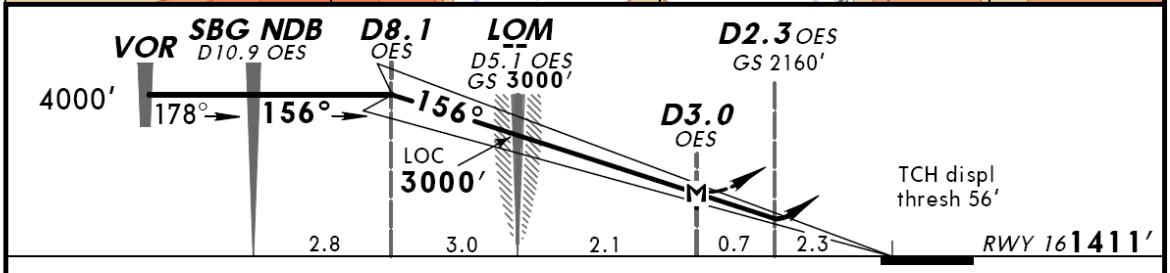
MISSED APCH: Turn LEFT to SU Lctr climbing to FL 60 and proceed via SBG NDB to VOR. For missed approach if landing after passing DA(H)/MDA(H) becomes impossible: see 19-10.

4000′ 070° 270° 10,000′
MSA
SBG VOR

Alt Set: hPa	Rwy Elev: 50 hPa	Trans level: By ATC	Trans alt: 4000′

MISSED APCH TURN		
CAT	MAX	MIM BANK
A	110 KT	15°
B	150 KT	20°
C	160 KT	
D	185 KT	





Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	484	538	646	753	861
MAP at D3.0 OES						

HIALS-II
REIL PAPI PAPI
FL 60
LT
SU 356

JAR-OPS

STRAIGHT-IN LANDING RWY 16

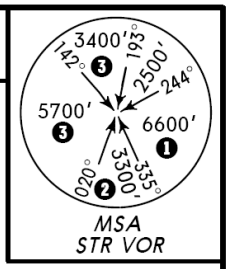
	ILS 1	ILS 2	LOC (GS out)	CIRCLE-TO-LAND
DA(H)	A:2070′(659′) C:2090′(679′) B:2080′(669′) D:2180′(769′)	A:2160′(749′) C:2180′(769′) B:2170′(759′) D:2270′(859′)	MDA(H) 2370′(959′)	
	FULL / ALS out	FULL / ALS out	ALS out	
A	FLIGHT VISIBILITY 1500m	FLIGHT VISIBILITY 1500m	FLIGHT VIS 1500m	Refer to SALZBURG 19-10
B				
C			1500m	
D			1800m	2000m

PANS OPS

1 Missed approach climb gradient mim 3.0%. 2 Missed approach climb gradient mim 2.5%.

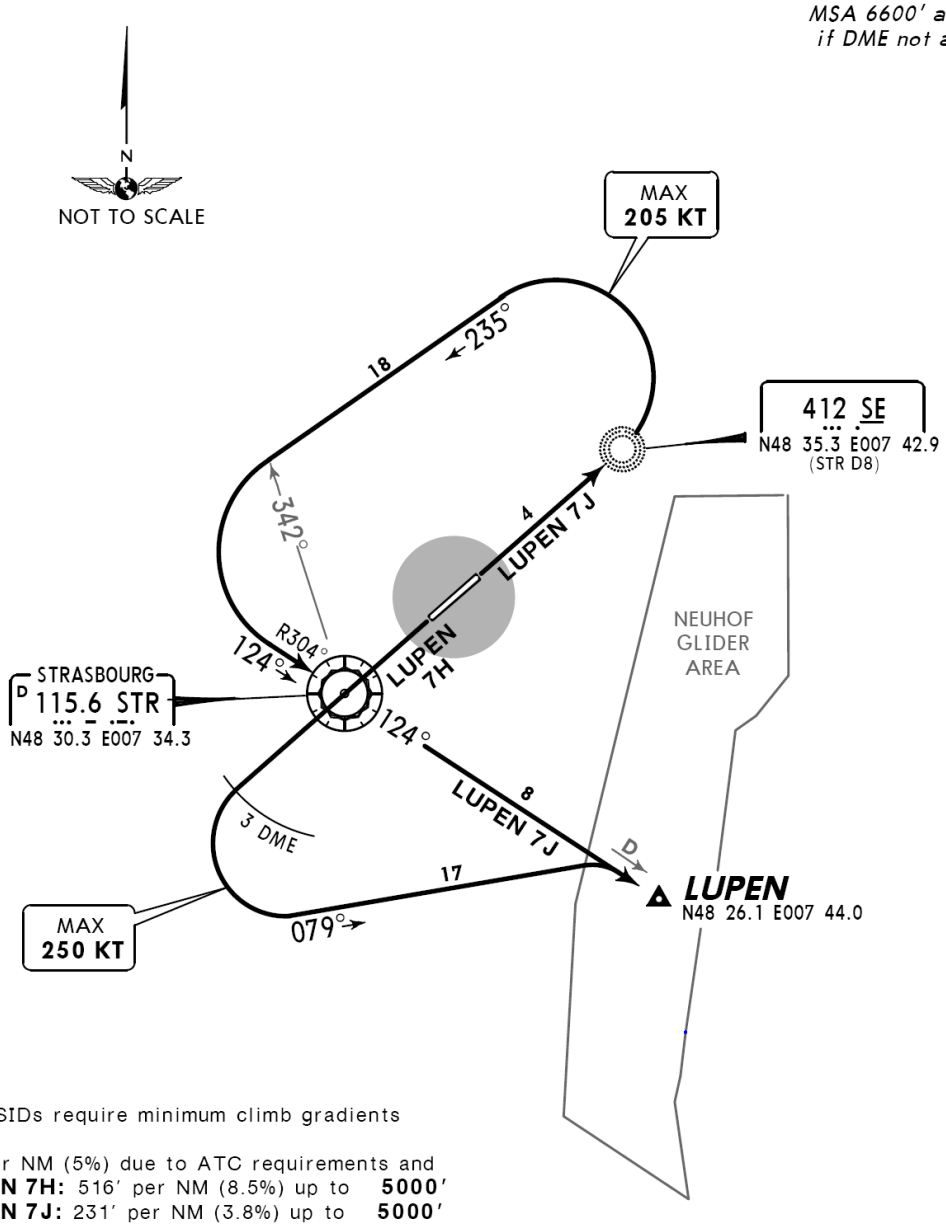
CHANGES: Chart references.

Apt Elev	Trans level: By ATC Trans alt: 7000′
505′	



❶ 2500′ within 15 NM
❷ 2500′ within 17 NM
❸ 2500′ within 7 NM
MSA 6600′ all sectors if DME not available

LUPEN 7H *[LUPE7H]*, LUPEN 7J *[LUPE7J]*
RWYS 23, 05 DEPARTURES



These SIDs require minimum climb gradients of
304′ per NM (5%) due to ATC requirements and
LUPEN 7H: 516′ per NM (8.5%) up to **5000′**
LUPEN 7J: 231′ per NM (3.8%) up to **5000′**
when glider area NEUHOF active.

Gnd speed-KT	75	100	150	200	250	300
516′ per NM	646	861	1291	1722	2152	2552
304′ per NM	380	506	760	1013	1266	1519
231′ per NM	289	385	577	770	962	1155

If unable to comply advise Tower on first contact.

SID	RWY	ROUTING
LUPEN 7H	**23**	To STR 3 DME, turn LEFT, 079° track, intercept STR R-124 to LUPEN.
LUPEN 7J	**05**	To SE, turn LEFT, 235° track, when passing STR R-342 turn LEFT, intercept STR R-304 inbound to STR, then to LUPEN.

CHANGES: MSA.

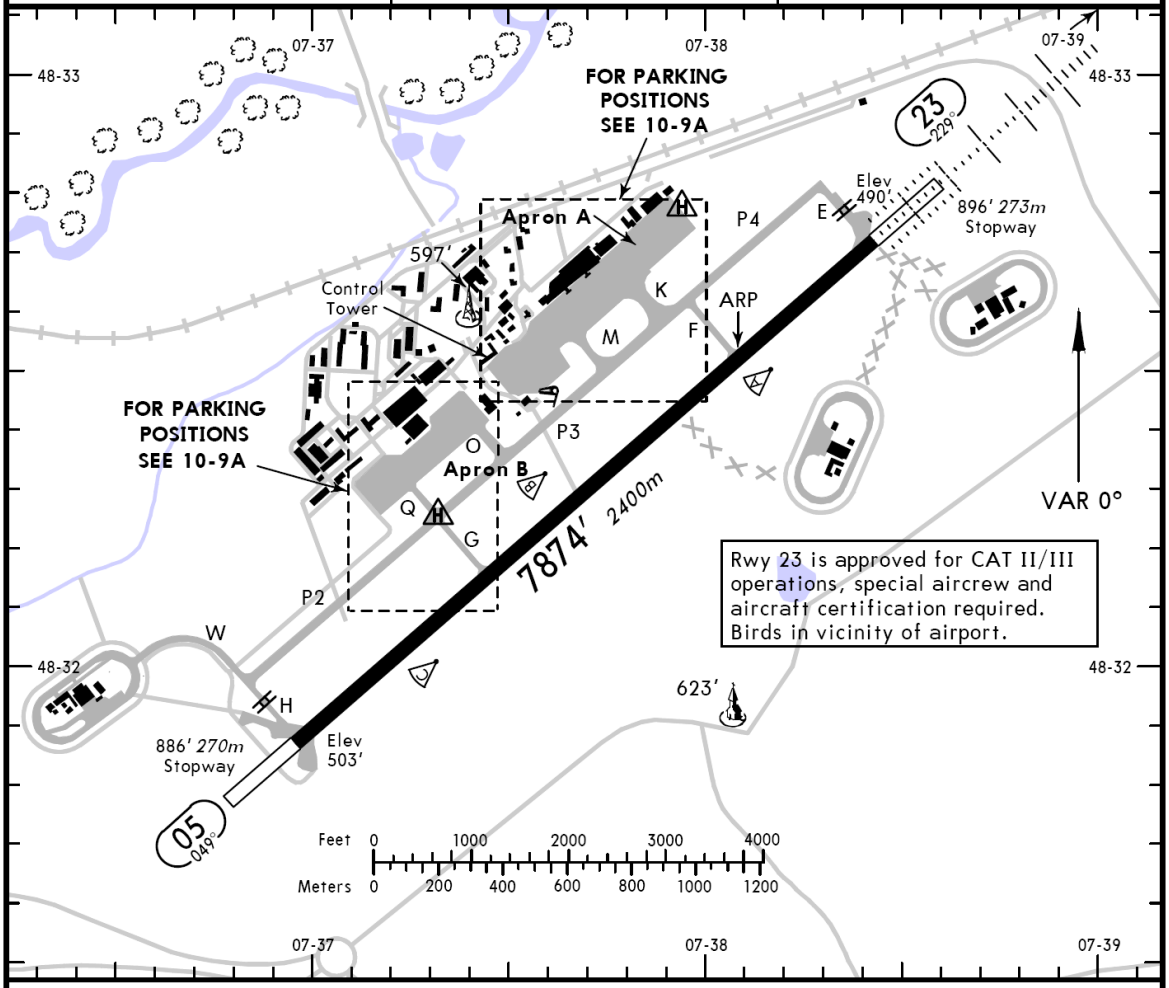
LFST/SXB

Apt Elev **505′**
N48 32.5 E007 38.1

JEPPESEN
26 JAN 07 (10-9)

STRASBOURG, FRANCE
ENTZHEIM

ATIS	STRASBOURG Ground	Tower
126.92	121.8	126.87



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
05 ❶ 23	HIRL *(60m)* CL *(15m)* REIL PAPI-L(3.5°) RVR		7021′ *2140m*		148′ *45m*
	HIRL *(60m)* CL *(15m)* HIALS-II TDZ REIL ❷ RVR		6901′ *2103m*		

❶ Rwy grooved. ❷ PAPI-L (3.0°)

PREFERENTIAL RUNWAY SYSTEM:
If not directed otherwise and wind speed is less than 2 m/sec, use rwy 23.

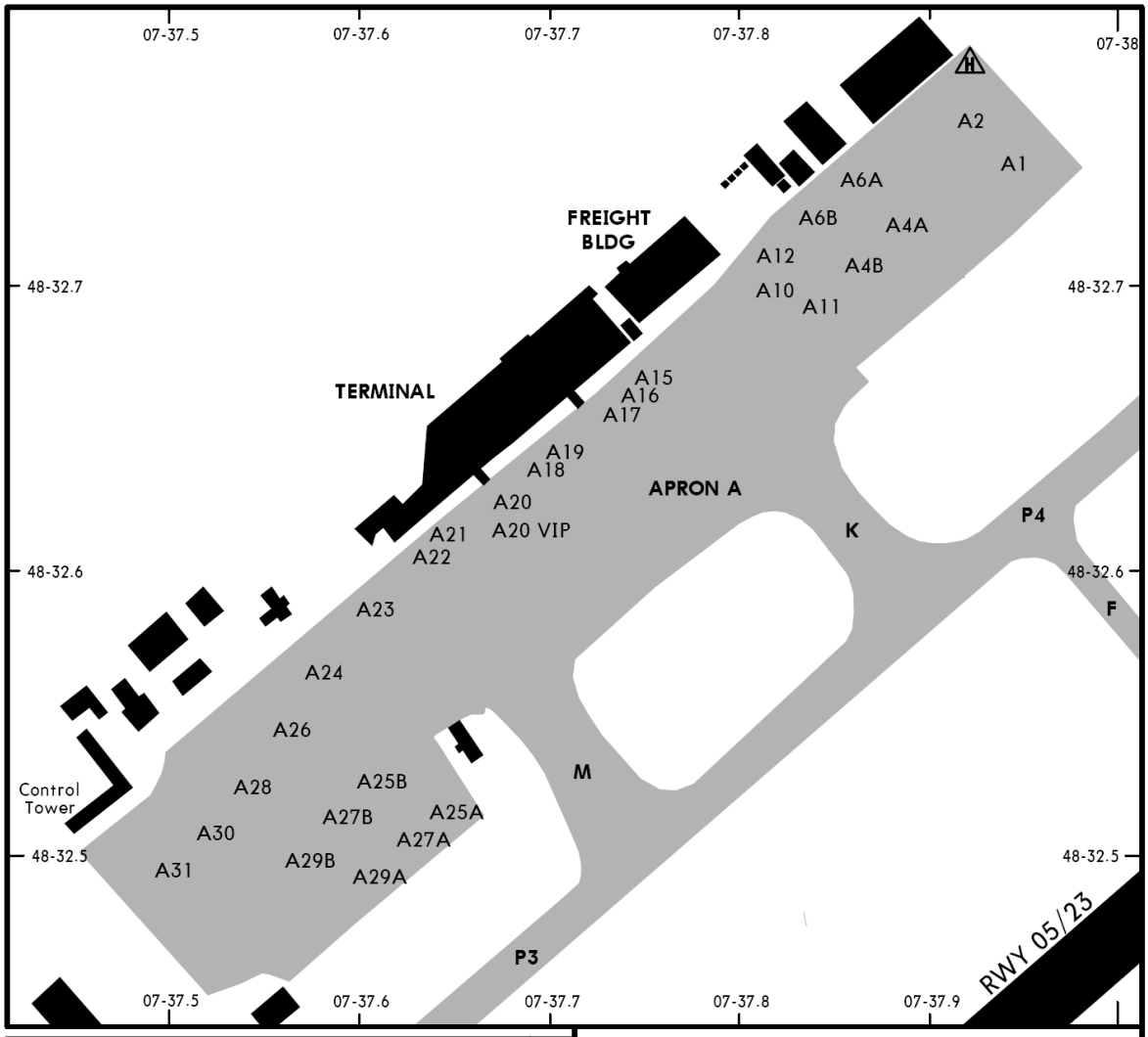
LOW VISIBILITY PROCEDURE:
Twy F and G closed.

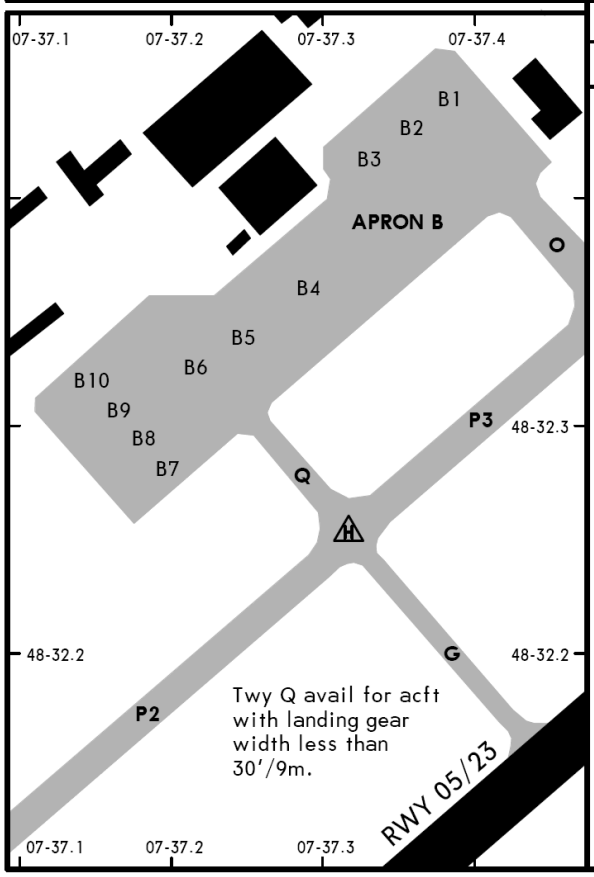
JAR-OPS TAKE-OFF ❶

	Rwy 23 LVP must be in Force Approved Operators HIRL, CL & mult. RVR req	All Rwys LVP must be in Force RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*
B						
C						
D	*150m*	*200m*	*250m*	*300m*		

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

CHANGES: LVP.



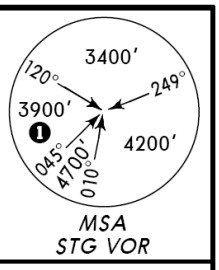


INS COORDINATES

STAND No.	COORDINATES
A1	N48 32.7 E007 37.9
A2	N48 32.8 E007 37.9
A4A thru A6A	N48 32.7 E007 37.9
A6B thru A15	N48 32.7 E007 37.8
A16, A17	N48 32.7 E007 37.7
A18 thru A20 VIP	N48 32.6 E007 37.7
A21 thru A24	N48 32.6 E007 37.6
A25A	N48 32.5 E007 37.7
A25B thru A27B	N48 32.5 E007 37.6
A28	N48 32.5 E007 37.5
A29A, A29B	N48 32.5 E007 37.6
A30, A31	N48 32.5 E007 37.5
B1, B2	N48 32.4 E007 37.4
B3, B4	N48 32.4 E007 37.3
B5 thru B9	N48 32.3 E007 37.2
B10	N48 32.3 E007 37.1

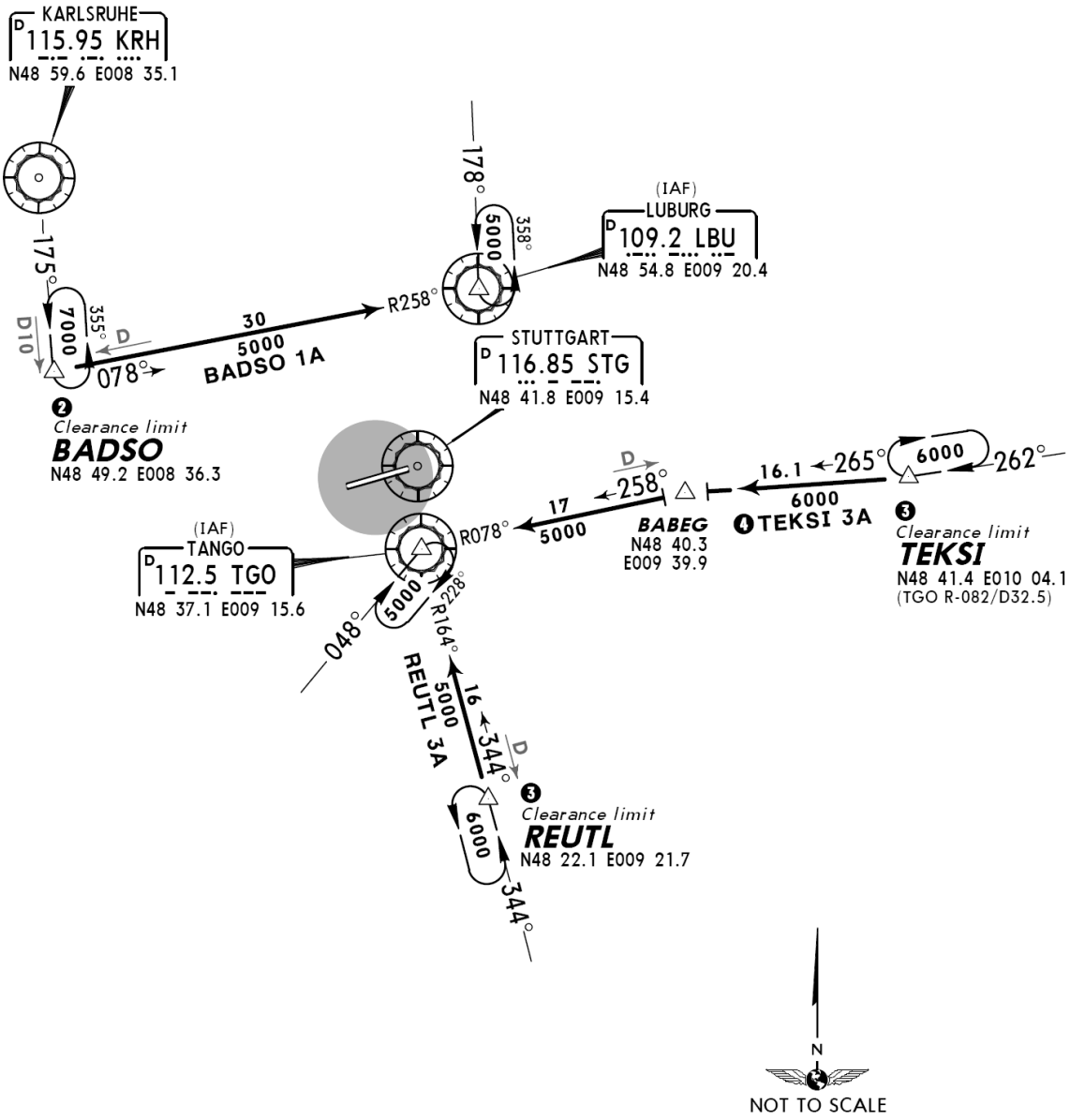
CHANGES: Note. Stands.

*D-ATIS	Apt Elev	Alt Set: hPa (IN on request)
126.12	1276′	Trans level: By ATC Trans alt: 5000′



❶ 3300′ within 10 NM

BADSO ONE ALFA (BADSO 1A) *[BADS1A]*
REUTL THREE ALFA (REUTL 3A) *[REUT3A]*
TEKSI THREE ALFA (TEKSI 3A) *[TEKS3A]*
RWYS 07, 25 ARRIVALS



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

❷ BADSO 1A
In case of radio communication failure proceed to LBU for standard approach.

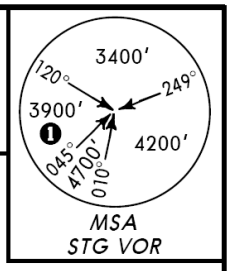
❸ REUTL 3A, TEKSI 3A
In case of radio communication failure proceed to TGO for standard approach.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

❹ Between TEKSI & BABEG BRNAV equipment necessary.

CHANGES: DKB STAR withdrawn.

*D-ATIS 126.12	Apt Elev 1276′	Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000′ **1.** On downwind expect vectors to final. **2.** Speed restrictions on Transition (even without profile) are always mandatory, unless cancelled by ATC.



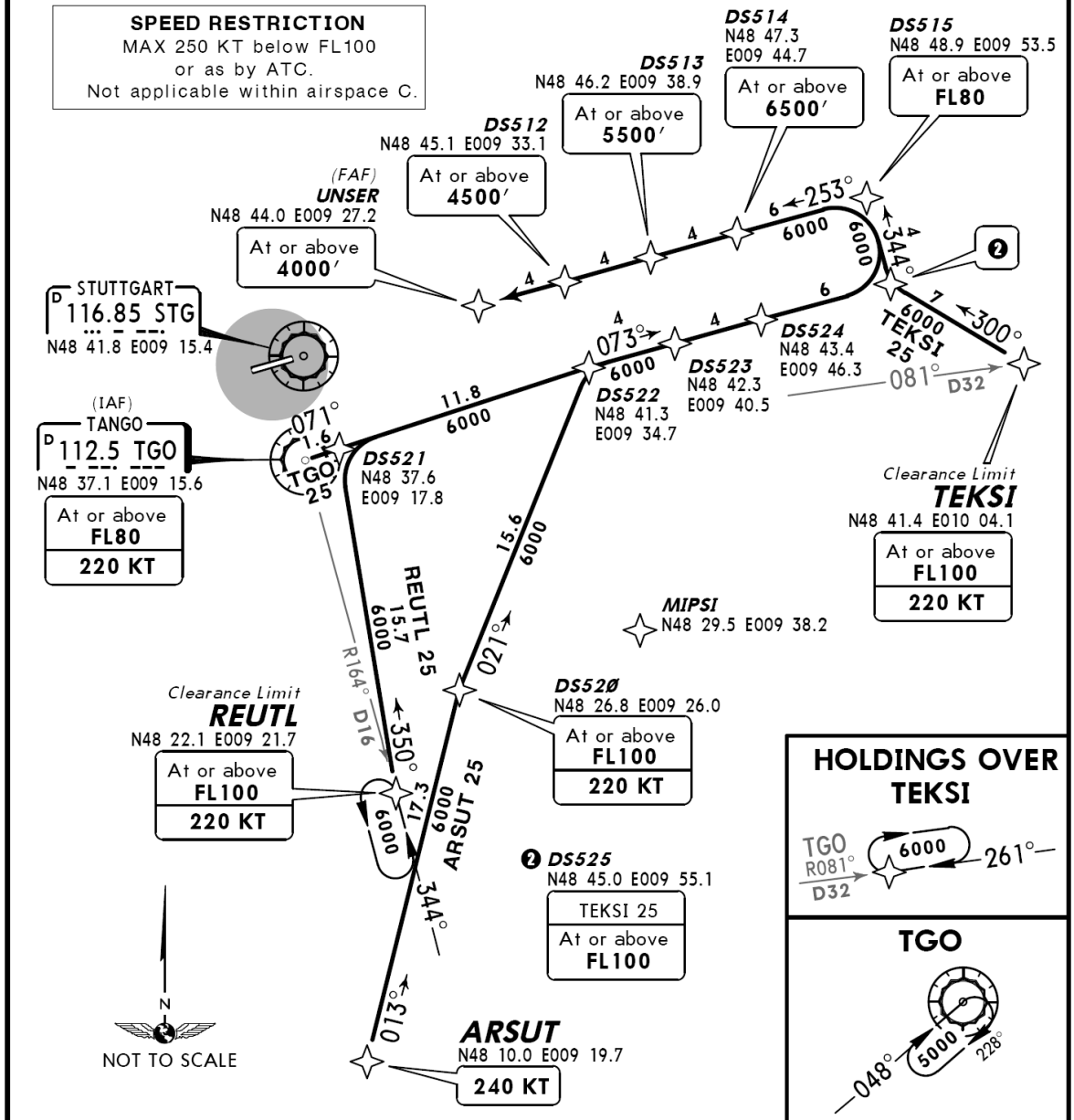
❶ 3300′ within 10 NM

ARSUT 25 *[ARS25]*, REUTL 25 *[REU25]* TEKSI 25 *[TEK25]*, TGO 25 RWY 25 RNAV TRANSITIONS

FROM SOUTH

GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC



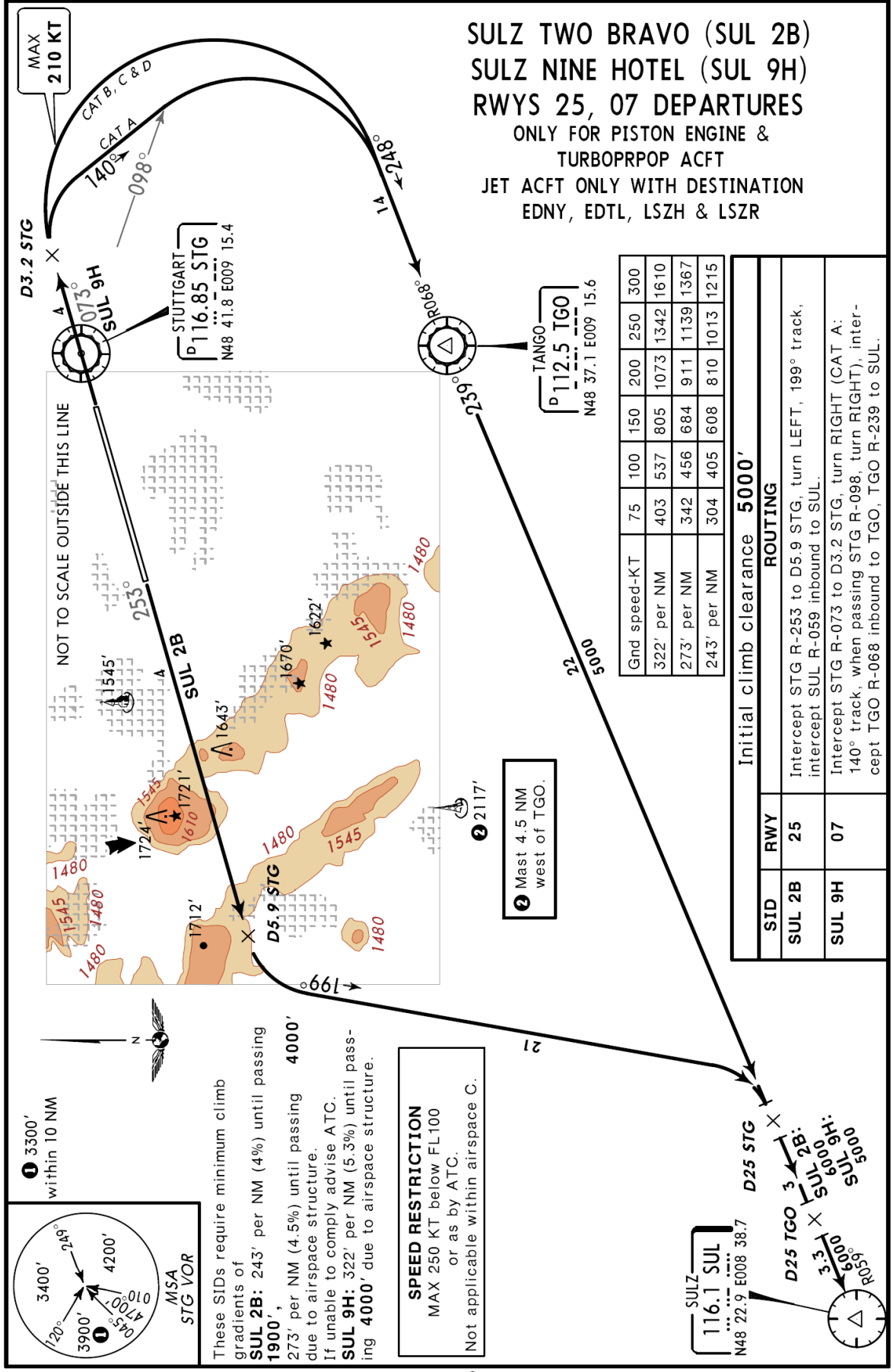
TRANSITION	ROUTING
ARSUT 25	ARSUT (K240) - DS520 **(FL100+;** K220) - DS522 - DS525 - DS515 **(FL80+) -** DS514 **(6500′+) -** DS513 **(5500′+) -** DS512 **(4500′+) -** UNSER **(4000′+).**
REUTL 25	REUTL **(FL100+;** K220) - DS521 - DS522 - DS525 - DS515 **(FL80+) -** DS514 **(6500′+) -** DS513 **(5500′+) -** DS512 **(4500′+) -** UNSER **(4000′+).**
TEKSI 25	TEKSI **(FL100+;** K220) - DS525 **(FL100+) -** DS515 **(FL80+) -** DS514 **(6500′+) -** DS513 **(5500′+) -** DS512 **(4500′+) -** UNSER **(4000′+).**
TGO 25	TGO **(FL80+;** K220) - DS522 - DS525 - DS515 **(FL80+) -** DS514 **(6500′+) -** DS513 **(5500′+) -** DS512 **(4500′+) -** UNSER **(4000′+).**

CHANGES: RNAV transitions completely revised.

LANGEN Radar (APP) 125.05	Apt Elev 1276′	Trans level: By ATC Trans alt: 5000′ **1.** Contact LANGEN Radar immediately after take-off. **2.** SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

SULZ TWO BRAVO (SUL 2B)
SULZ NINE HOTEL (SUL 9H)
RWYS 25, 07 DEPARTURES

ONLY FOR PISTON ENGINE & TURBOPRPOP ACFT
JET ACFT ONLY WITH DESTINATION EDNY, EDTL, LSZH & LSZR



Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610
273′ per NM	342	456	684	911	1139	1367
243′ per NM	304	405	608	810	1013	1215

Initial climb clearance 5000′

SID	RWY	ROUTING
SUL 2B	25	Intercept STG R-253 to D5.9 STG, turn LEFT, 199° track, intercept SUL R-059 inbound to SUL.
SUL 9H	07	Intercept STG R-073 to D3.2 STG, turn RIGHT (CAT A: 140° track, when passing STG R-098, turn RIGHT), intercept TGO R-068 inbound to TGO, TGO R-239 to SUL.

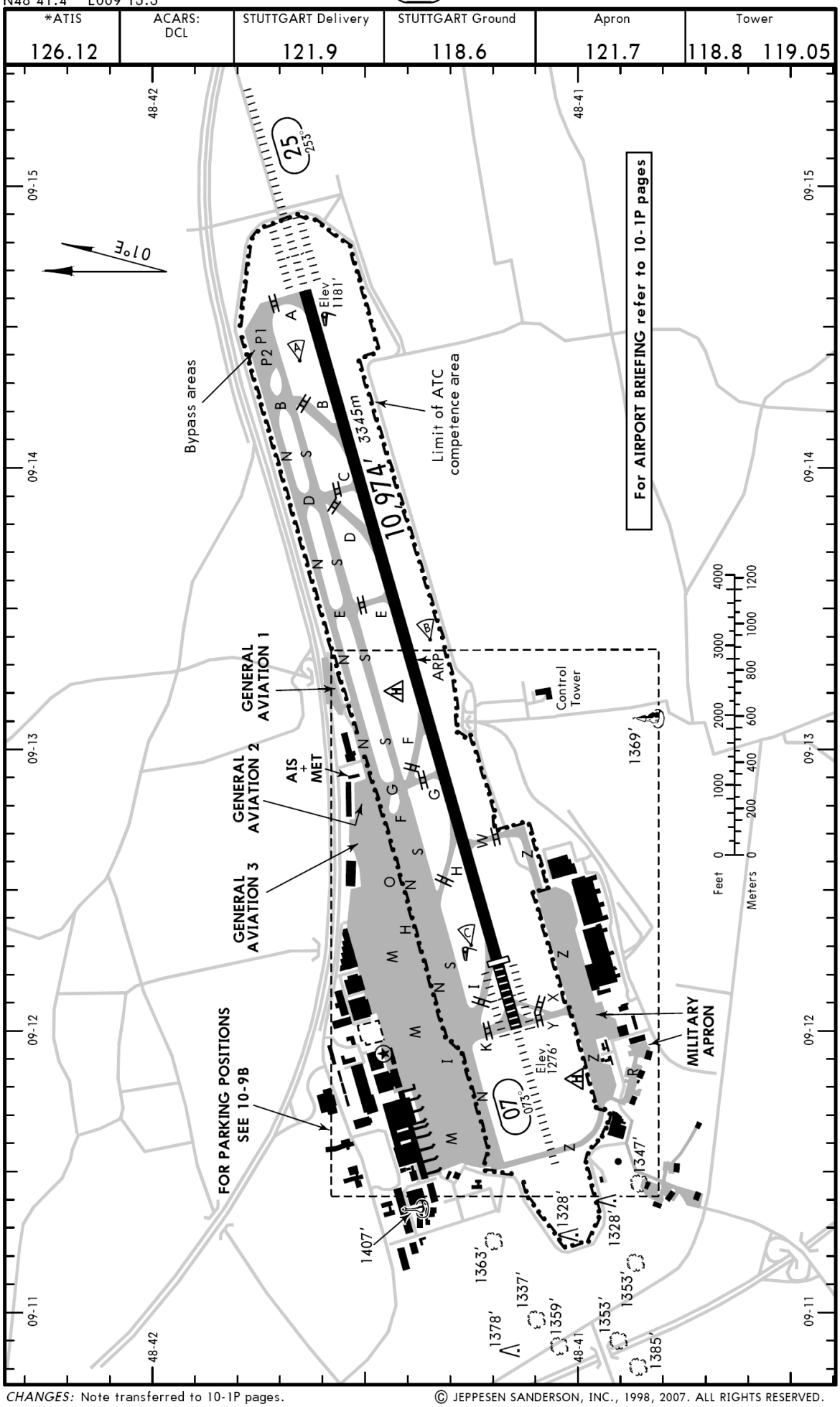
CHANGES: SID SUL 8H renumbered 9H.

EDDS/STR
Apt Elev 1276′
N48 41.4 E009 13.3

JEPPESEN
20 JUL 07 (10-9)

STUTTGART, GERMANY
STUTTGART

*ATIS	ACARS: DCL	STUTTGART Delivery	STUTTGART Ground	Apron	Tower
126.12		121.9	118.6	121.7	118.8 119.05



CHANGES: Note transferred to 10-1P pages.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

EDDS/STR
STUTTGART

JEPPESEN
20 OCT 06 (11-1) Eff 26 Oct

STUTTGART, GERMANY
ILS or LOC Rwy 07

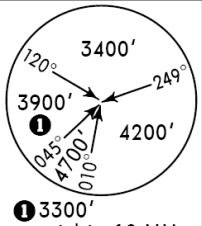
*ATIS	LANGEN Radar (APP)		STUTTGART Director (APP)	STUTTGART Tower		Ground
126.12	125.05	119.2	119.85	118.8	119.05	118.6

LOC ISTE 110.9	Final Apch Crs 073°	GS LOM 2500′ (1233′)	ILS DA(H) 1467′ (200′)	Apt Elev 1276′ RWY 1267′

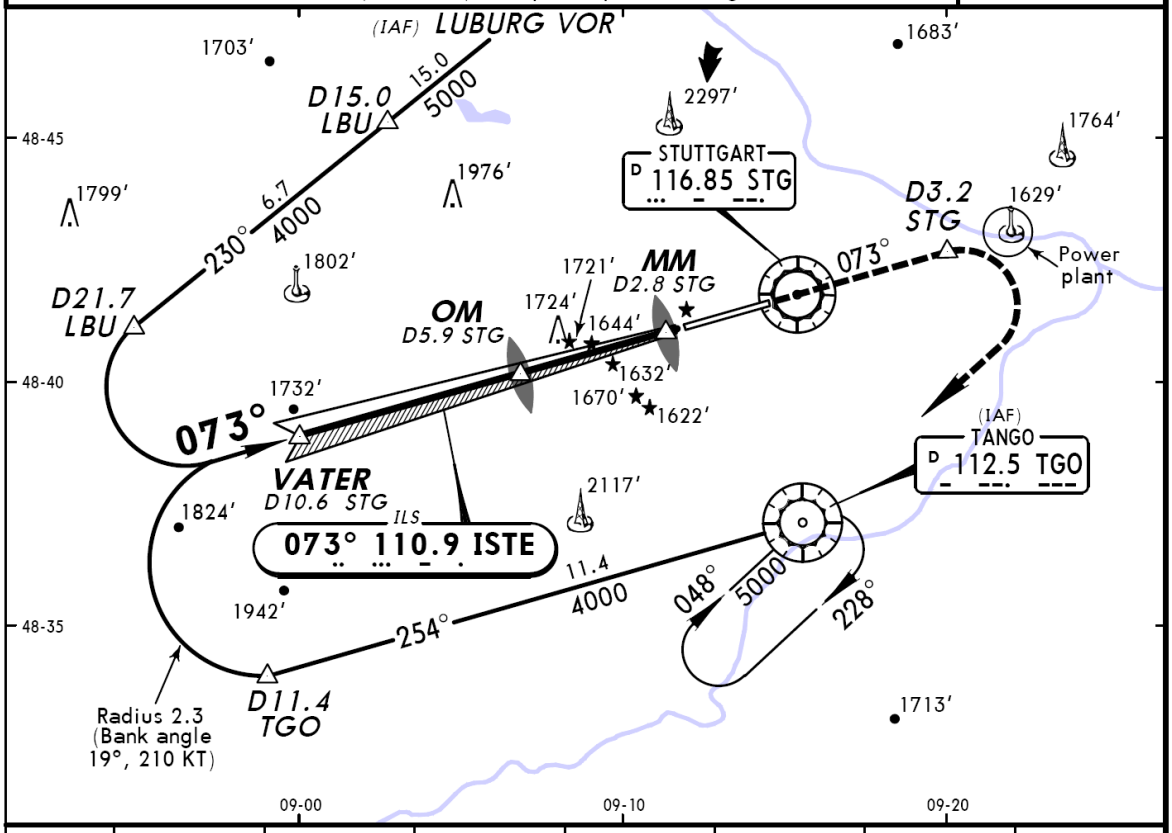
MISSED APCH: Climb on R-073 STG to D3.2 STG or 5000′, whichever is later, then turn RIGHT to TGO VOR.

Alt Set: hPa (IN on req) Rwy Elev: 46 hPa Trans level: By ATC Trans alt: 5000′

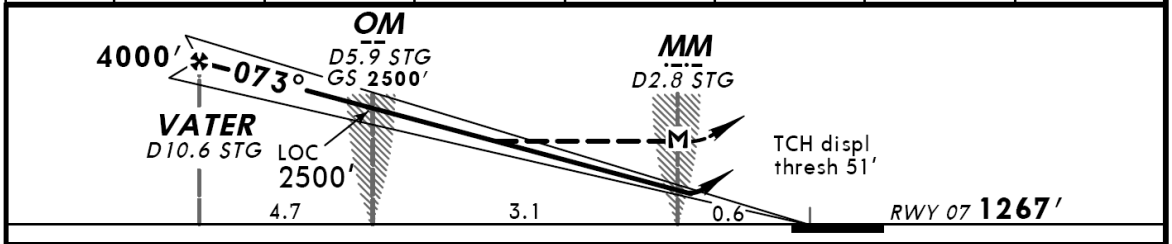
1. LOC: **DME REQUIRED.**
2. CAUTION: Turbulence must be expected during moderate weather condition, wind 6 KT or less, on extended RCL (D4.6 STG) over power plant cooling tower.



1 3300′ within 10 NM.
MSA STG VOR



LOC (GS out)	STG DME	10.0	9.0	8.0	7.0	6.0	5.0
	ALTITUDE	3810′	3490′	3170′	2850′	2530′	2210′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM/D2.8 STG						

ALSF-II
REIL
PAPI

STG 116.85 R-073

D3.2 STG 5000′ whichever is later

JAR-OPS STRAIGHT-IN LANDING RWY **07**

	ILS DA(H) 1467′ (200′) FULL	ILS ALS out	LOC (GS out) 1 MDA(H) 1980′ (713′) ALS out
A	RVR 550m	RVR 1000m	RVR 1200m
B			RVR 1400m
C			NOT APPLICABLE
D			

RVR 1500m

1 Only for acft up to 5.7 mt MTOW.

PANS OPS 4

CHANGES: Procedure. MSA.

EDDS/STR
STUTTGART

JEPPESEN
20 OCT 06
Eff 26 Oct
11-2

STUTTGART, GERMANY
NON-STANDARD
ILS or LOC Rwy 25

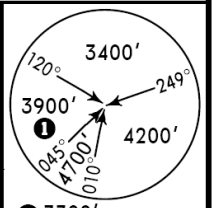
*ATIS	LANGEN Radar (APP)		STUTTGART Director (APP)	STUTTGART Tower		Ground
126.12	125.05	119.2	119.85	118.8	119.05	118.6

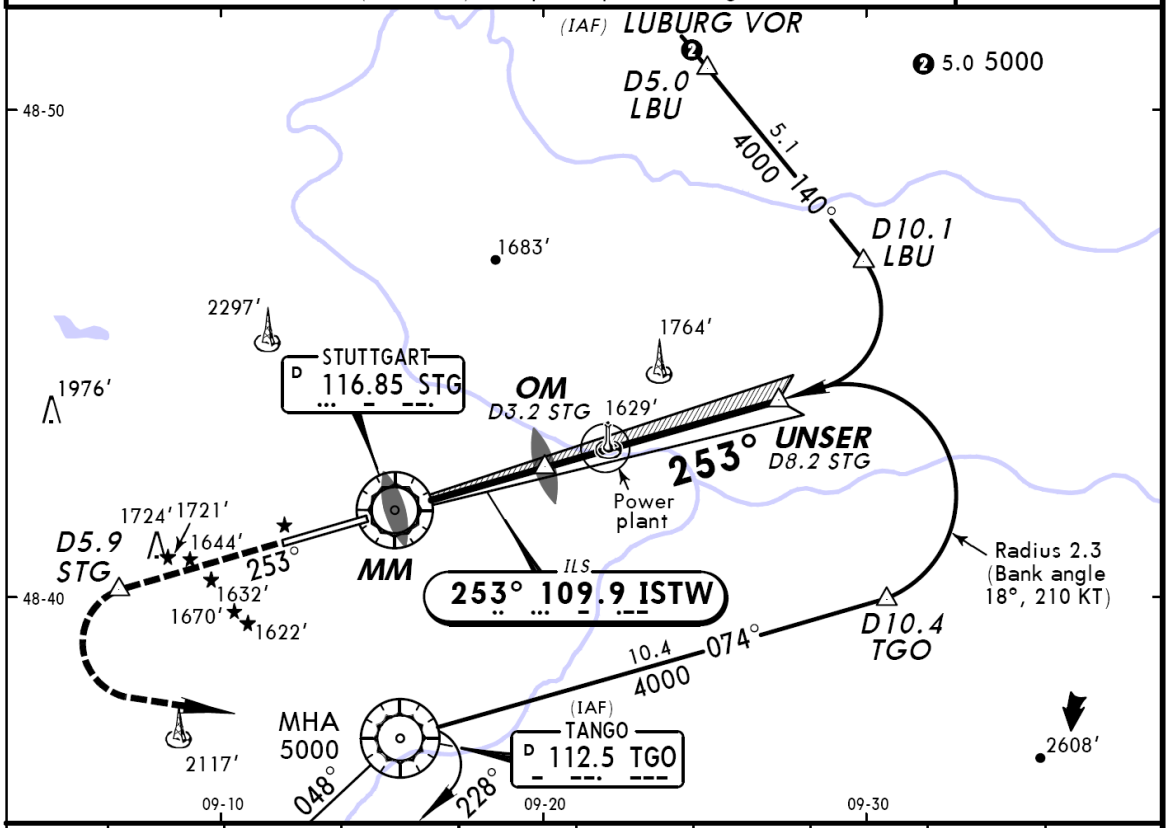
LOC ISTW 109.9	Final Apch Crs 253°	GS LOM 2430′ (1249′)	ILS DA(H) 1381′ (200′)	Apt Elev 1276′ RWY 1181′

MISSED APCH: Climb on R-253 STG to D5.9 STG or 5000′, whichever is later, then turn LEFT to TGO VOR.

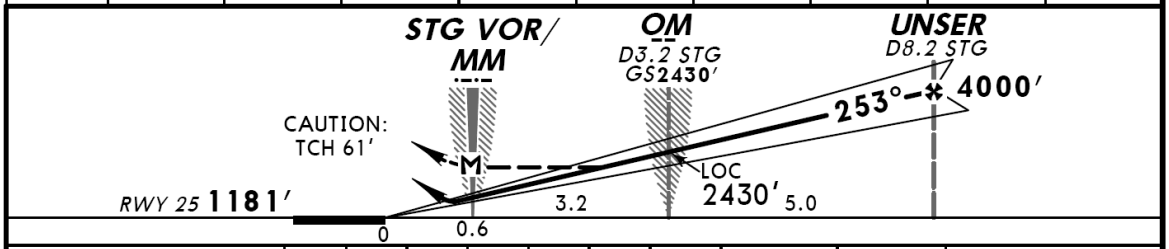
Alt Set: hPa (IN on req) Rwy Elev: 43 hPa Trans level: By ATC Trans alt: 5000′

1. LOC: **DME REQUIRED.**
2. CAUTION: Turbulence must be expected during moderate weather condition, wind 6 KT or less, on extended RCL (D4.6 STG) over power plant cooling tower.





LOC (GS out)	STG DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	1720′	2040′	2360′	2680′	3000′	3320′	3630′	3950′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at STG VOR/MM						

ALSF-II
REIL
PAPI

STG
116.85
R-253

D5.9
STG
5000′
whichever is later

JAR-OPS STRAIGHT-IN LANDING RWY 25

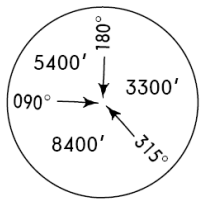
	ILS DA(H) 1381′ (200′)		LOC (GS out) MDA(H) 1590′ (409′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 900m	RVR 1500m
B			RVR 1000m	
C				RVR 1800m
D			RVR 1400m	RVR 2000m

PANS OPS 4

CHANGES: Procedure. MSA.

D-ATIS	Apt Elev	
122.95 112.2 113.0 115.5	600′	Alt Set: hPa Trans level: By ATC Trans alt: 5000′

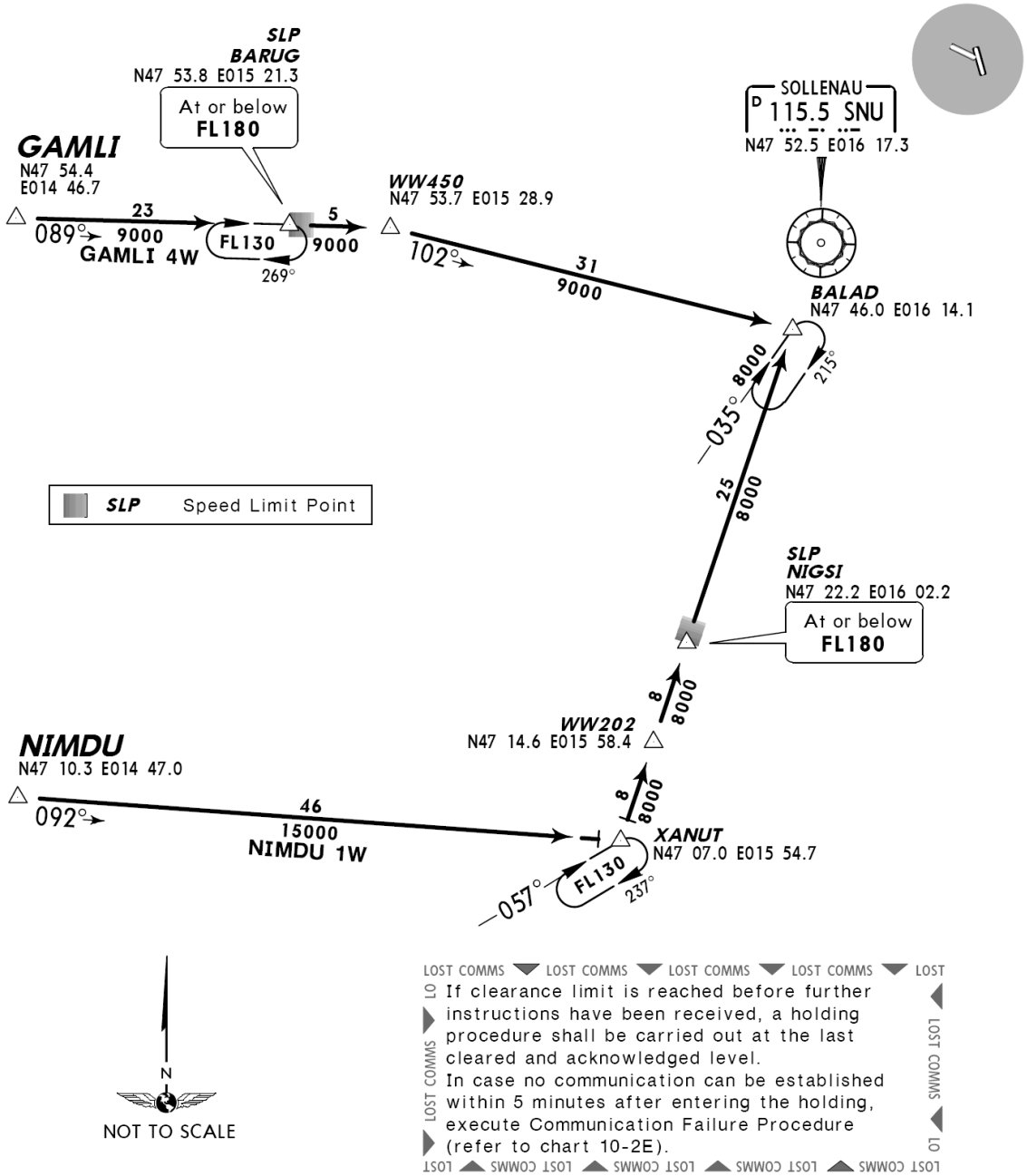
1. Non-RNAV aircraft expect radar vectors to final approach. **2.** GPS/FMS aircraft expect GPS/FMS RNAV-Transition to final approach (refer to charts 10-2K to 10-2N). **3.** For noise abatement reasons the approach shall be conducted in "clean configuration" as long as possible.



MSA
SNU VOR

GAMLI FOUR WHISKEY (GAMLI 4W) *[GAML4W]*
NIMDU ONE WHISKEY (NIMDU 1W) *[NIMD1W]*
RWYS 11, 16, 29, 34 ARRIVALS
FROM WEST

STARs crossing through Airspace **"Class E"** up to FL125



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST

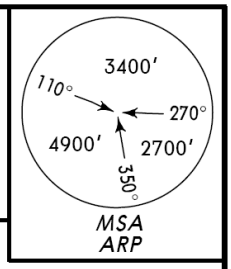
LOST COMMS If clearance limit is reached before further instructions have been received, a holding procedure shall be carried out at the last cleared and acknowledged level.
In case no communication can be established within 5 minutes after entering the holding, execute Communication Failure Procedure (refer to chart 10-2E).

LOST COMMS

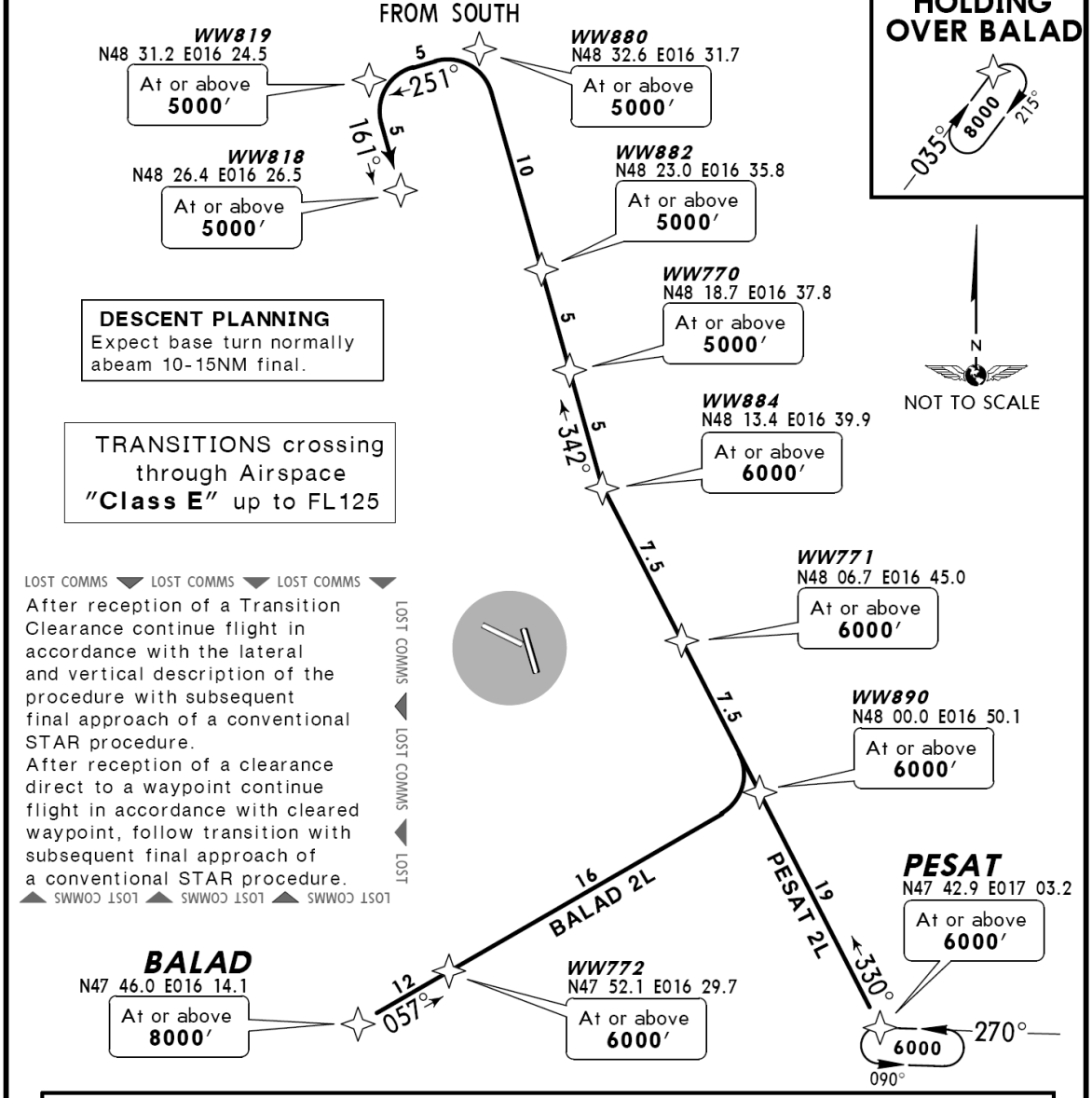
LOST ▲ COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

CHANGES: Crossings at BARUG & NIGSI.

D-ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 5000′
122.95 112.2 113.0 115.5	600′	**1.** Expect vectors for base/final when on downwind transition. **2.** Expect direct routings/shortcuts by ATC whenever possible (especially during off-peak hours). **3.** Expect clearance for the IAP (normally ILS-APP) well before reaching WW818. In case no clearance was received perform an IAP. **4.** If unable to follow transition advise ATC immediately.



BALAD 2L *[BAL2L]*, PESAT 2L *[PES2L]*
RWY 16 RNAV TRANSITIONS



HOLDING OVER BALAD

DESCENT PLANNING
Expect base turn normally abeam 10-15NM final.

TRANSITIONS crossing through Airspace **"Class E"** up to FL125

N

NOT TO SCALE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

After reception of a Transition Clearance continue flight in accordance with the lateral and vertical description of the procedure with subsequent final approach of a conventional STAR procedure.
After reception of a clearance direct to a waypoint continue flight in accordance with cleared waypoint, follow transition with subsequent final approach of a conventional STAR procedure.

LOST COMMS ◀ LOST COMMS ◀ LOST

▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

CLEARANCE PHRASEOLOGY

1. **"Cleared xxx Transition":** Authorization to fly the lateral GPS/FMS-route. Altitude assignments will be issued by ATC. (TERRAIN CLEARANCE ASSURED BY ATC)
2. **"Cleared xxx Transition and Profile":** Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. **"Cleared direct Waypoint xxx":** Authorization to fly from the present position direct to a waypoint and to continue thereafter on the GPS/FMS-route to the runway in use. Altitude assignments will be issued by ATC. (TERRAIN CLEARANCE ASSURED BY ATC)

TRANSITION	ROUTING
BALAD 2L	BALAD **(8000′+)** - WW772 **(6000′+)** - WW890 **(6000′+)** - WW771 **(6000′+)** - WW884 **(6000′+)** - WW770 **(5000′+)** - WW882 **(5000′+)** - WW880 **(5000′+)** - WW819 **(5000′+)** - WW818 **(5000′+)** .
PESAT 2L	PESAT **(6000′+)** - WW890 **(6000′+)** - WW771 **(6000′+)** - WW884 **(6000′+)** - WW770 **(5000′+)** - WW882 **(5000′+)** - WW880 **(5000′+)** - WW819 **(5000′+)** - WW818 **(5000′+).**

CHANGES: Clearance phraseology.

VIENNA Radar (APP)	Apt Elev	
128.2	600′	Trans level: By ATC Trans alt: 5000′ When instructed by Tower contact VIENNA Radar.

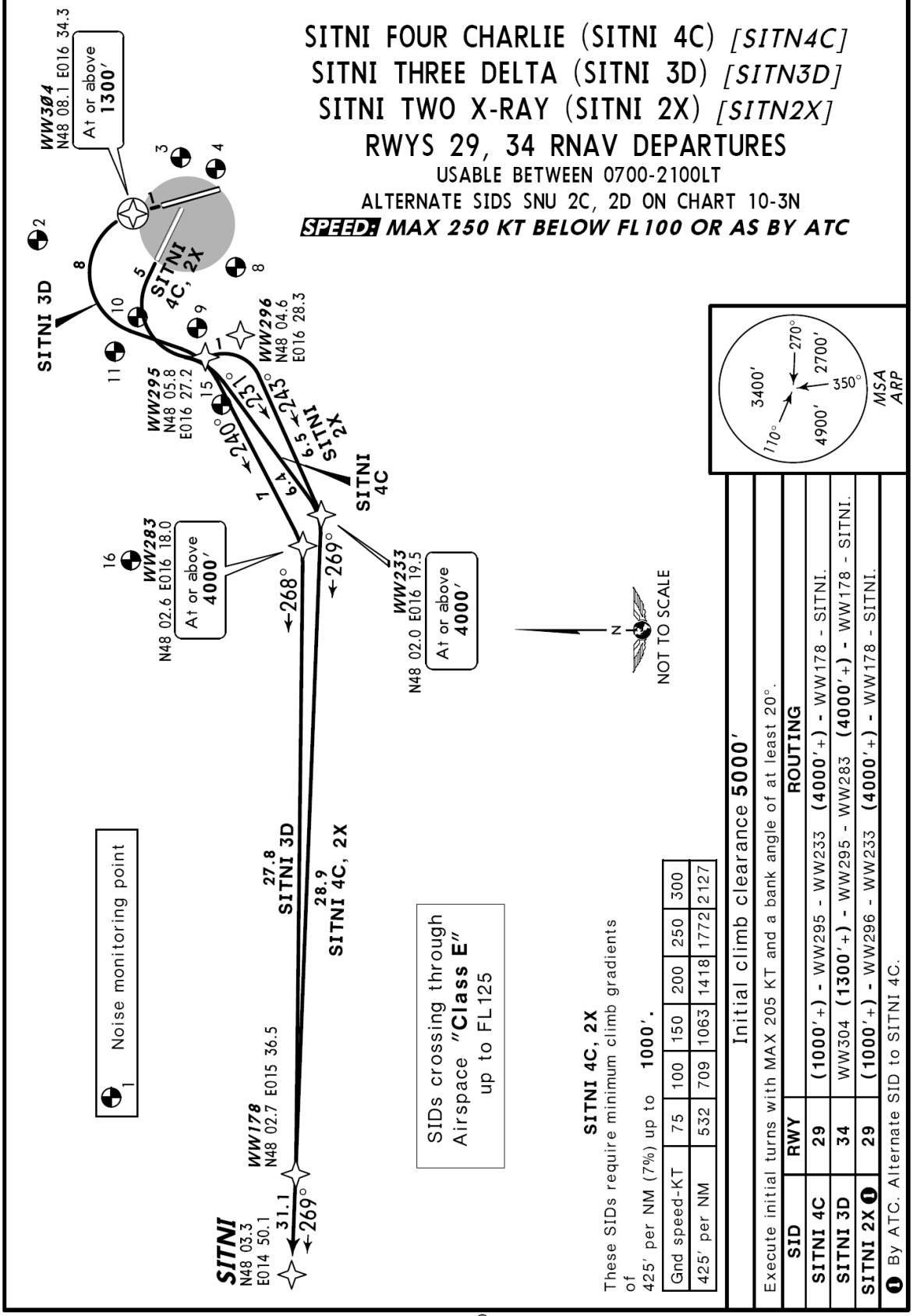
1. Flight tracks are recorded at Vienna airport and aircraft noise is monitored in all relevant populated areas around the airport. Climb with the optimum noise abatement take-off profile appropriate for the particular type of aircraft. Adhere to noise abatement procedure as strictly as possible. **2.** To expedite traffic ATC may request aircraft to start the initial turn VISUALLY as soon as practicable. In this case terrain clearance has to be assured by the pilot up to 2400′.

SITNI FOUR CHARLIE (SITNI 4C) *[SITN4C]*
SITNI THREE DELTA (SITNI 3D) *[SITN3D]*
SITNI TWO X-RAY (SITNI 2X) *[SITN2X]*
RWYS 29, 34 RNAV DEPARTURES

USABLE BETWEEN 0700-2100LT

ALTERNATE SIDS SNU 2C, 2D ON CHART 10-3N

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC



SITNI 4C, 2X

These SIDs require minimum climb gradients of 425′ per NM (7%) up to **1000′.**

Gnd speed-KT	75	100	150	200	250	300
425′ per NM	532	709	1063	1418	1772	2127

Initial climb clearance 5000′

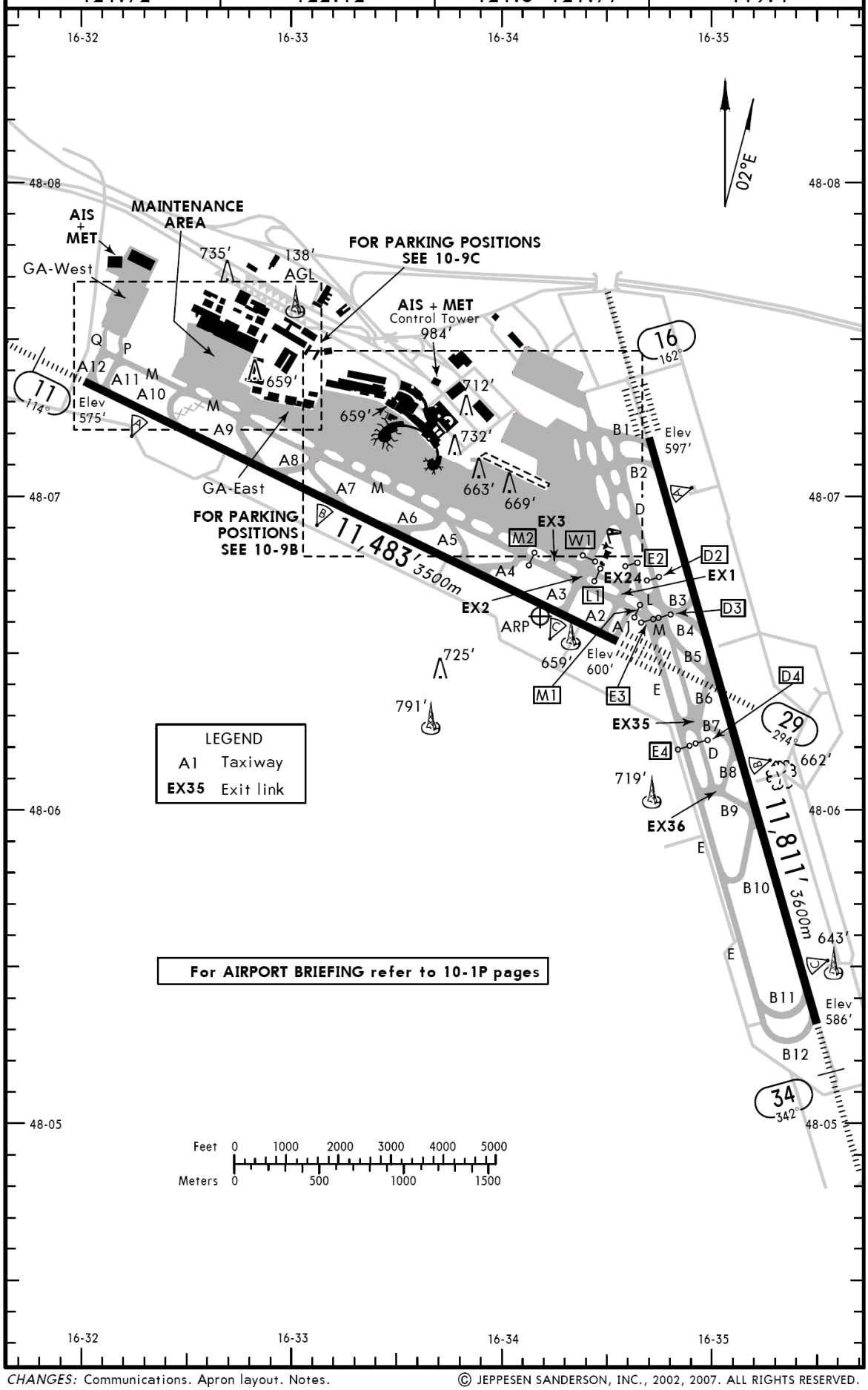
Execute initial turns with MAX 205 KT and a bank angle of at least 20°.

SID	RWY	ROUTING
SITNI 4C	29	**(1000′+)** - WW295 - WW233 **(4000′+)** - WW178 - SITNI.
SITNI 3D	34	WW304 **(1300′+)** - WW295 - WW283 **(4000′+)** - WW178 - SITNI.
SITNI 2X ❶	29	**(1000′+)** - WW296 - WW233 **(4000′+)** - WW178 - SITNI.

❶ By ATC. Alternate SID to SITNI 4C.

CHANGES: SIDs transferred; noise monitoring points established.

D-ATIS Departure	WIEN Delivery	*VIENNA Ground	Tower
121.72	122.12	121.6 121.77	119.4



CHANGES: Communications. Apron layout. Notes.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY

LOWW/VIE
SCHWECHAT

JEPPESEN
20 JUL 07 (11-4) Eff 2 Aug

VIENNA, AUSTRIA
ILS Rwy 16

ATIS Arrival	WIEN Radar (APP)	WIEN Director	WIEN Tower	*Ground
122.95 112.2 113.0 115.5	118.77 128.2 124.55 129.05	119.8 126.55	119.4	121.6 121.77

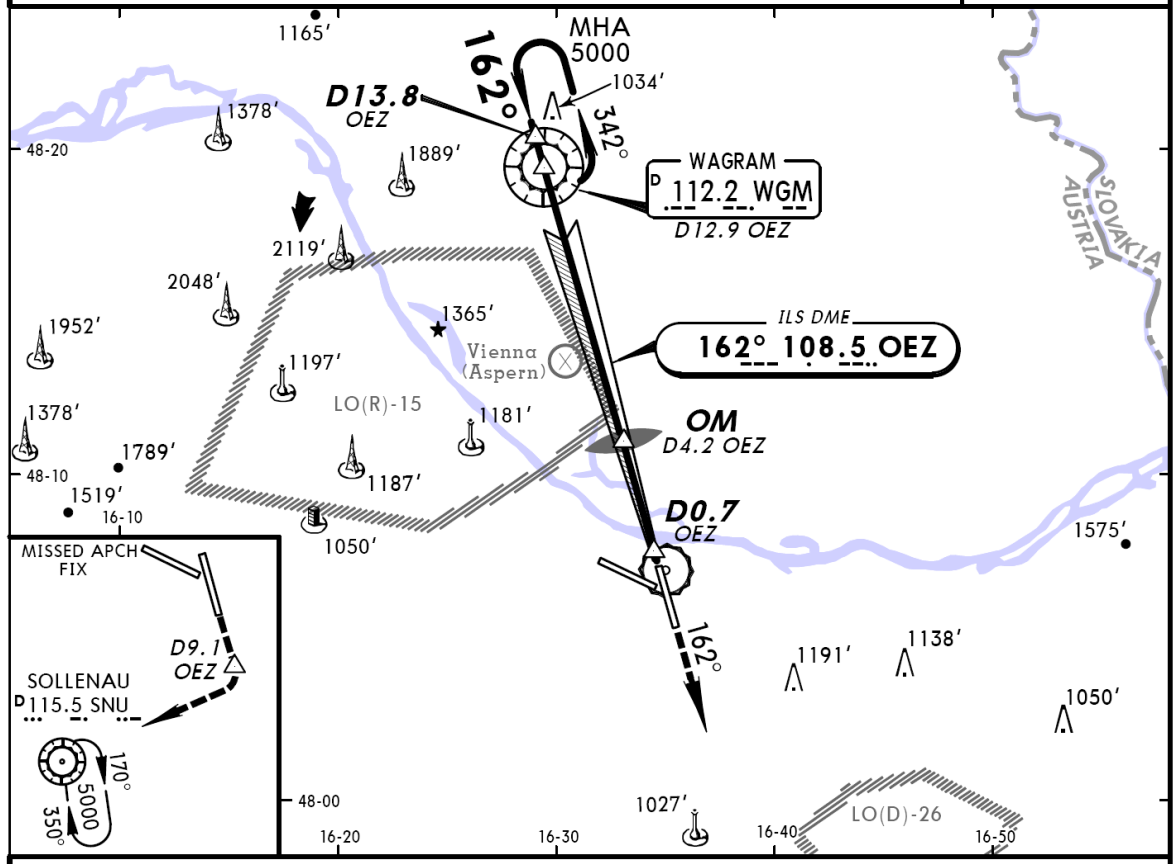
BRIEFING STRIP

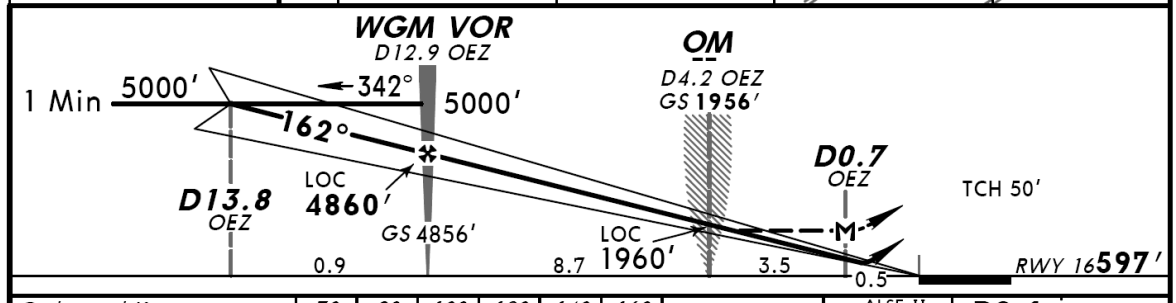
LOC OEZ	Final Apch Crs	GS OM	ILS DA(H)	Apt Elev 600′
108.5	162°	1956′ (1359′)	797′ (200′)	RWY 597′

MISSED APCH: Climb STRAIGHT AHEAD on R-162 WGM to D9.1 OEZ, then turn RIGHT to SNU VOR climbing to 5000′ and hold.

MSA WGM VOR: 180°–3200′, 090°–2900′, 360°–3800′

Alt Set: hPa | Rwy Elev: 22 hPa | Trans level: By ATC | Trans alt: 5000′





Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D0.7 OEZ						

ALSF-II
REIL
PAPI

D9.1 OEZ — WGM on 112.2 R-162

JAR-OPS STRAIGHT-IN LANDING RWY 16

	ILS DA(H) 797′ (200′)		LOC (GS out) MDA(H) 1320′ (723′)	
	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 1200m	RVR 1500m
B				
C			RVR 1400m	RVR 2000m
D			RVR 1800m	

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	1250′ (650′) 1	1500m
135	1250′ (650′) 1	1600m
180	1350′ (750′)	2400m
205	1350′ (750′)	3600m

1 After LOC (GS out): MDA(H) 1320′ (720′).

PANS OPS

CHANGES: Chart reindexed. Communications.

3. DEPARTURE

3.2. START-UP & PUSH-BACK PROCEDURES

3.2.1. CLEARANCE DELIVERY & START-UP PROCEDURES

When a flight is subject to an ATC slot, the pilot shall keep listening watch on ZURICH Delivery 20 minutes prior to beginning of the slot.

ACFT type must be reported with start-up clearance; indication of wake turbulence category is not necessary.
Pilots receive start-up/ATC clearance upon request from ZURICH Delivery if ACFT is ready to push-back/start-up at the latest 10 min prior CTOT.

During winter operation, special DEP regulation active in case of moderate to heavy snowfall. Info on ATIS.
When ready request start-up clearance irrespective of ATC slot.

3.2.2. PUSH-BACK PROCEDURES

3.2.2.1. GENERAL

For the towing or push-back a general authorization only will be given to the cockpit crew. Detailed instructions will be transmitted directly by Zurich Apron on the tow vehicle's frequency to the driver after the clearance has been issued to the cockpit crew.

3.2.2.2. ACFT WITH AUXILIARY POWER UNIT

- Request ATC clearance with ZURICH Delivery.
- Stand-by for push-back/tow clearance with ZURICH Apron.
- Push-back/tow manoeuvre.
- Request engine start-up with ZURICH Apron.
- Request taxi clearance with ZURICH Apron.

3.2.2.3 ACFT WITHOUT AUXILIARY POWER UNIT

- Request ATC clearance with ZURICH Delivery.
- Stand-by for engine start-up with ZURICH Apron.
- Request push-back/tow clearance with ZURICH Apron.
- Push-back/tow manoeuvre.
- Request taxi clearance with ZURICH Apron.

3.3. SPEED RESTRICTIONS

MAX 250 KT below FL 100.

3.4. NOISE ABATEMENT

3.4.1. GENERAL

The following procedures are designed to avoid excessive ACFT noise over populated areas in the vicinity of ZURICH APT. Deviations from published routes and procedures are only permitted for safety reasons. ACFT operators provable unable to comply shall submit alternative procedures for approval to the APT Authority.
Jet ACFT not licensed in accordance with ICAO Annex 16, Vol I, chapter 3 are not permitted.

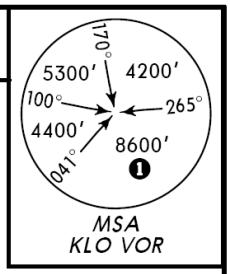
Deviation from SIDs as depicted on Zurich SID charts is only possible at altitudes at or above 5000'. Between 2201-0600LT deviation from SIDs leading into airway A9 is only possible at or above FL80 with permission of ATC.
As far as possible a rolling take-off is to be executed. Engine power shall be increased only after entering take-off RWY.
After lift-off climb with maximum climb gradient considering flight safety.

Fan jet engined ACFT

Take-off to 2900'	Take-off-power Take-off flaps Climb at V_2 + 10 KT (or as limited by body angle)
At 2900'	Reduce thrust to not less than climb power
2900'-4500'	Climb at V_2 + 10 KT (or as limited by body angle)
At 4500'	Normal speed and en-route climb configuration.

CHANGES: None.

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 7000′
128.52	1416′	



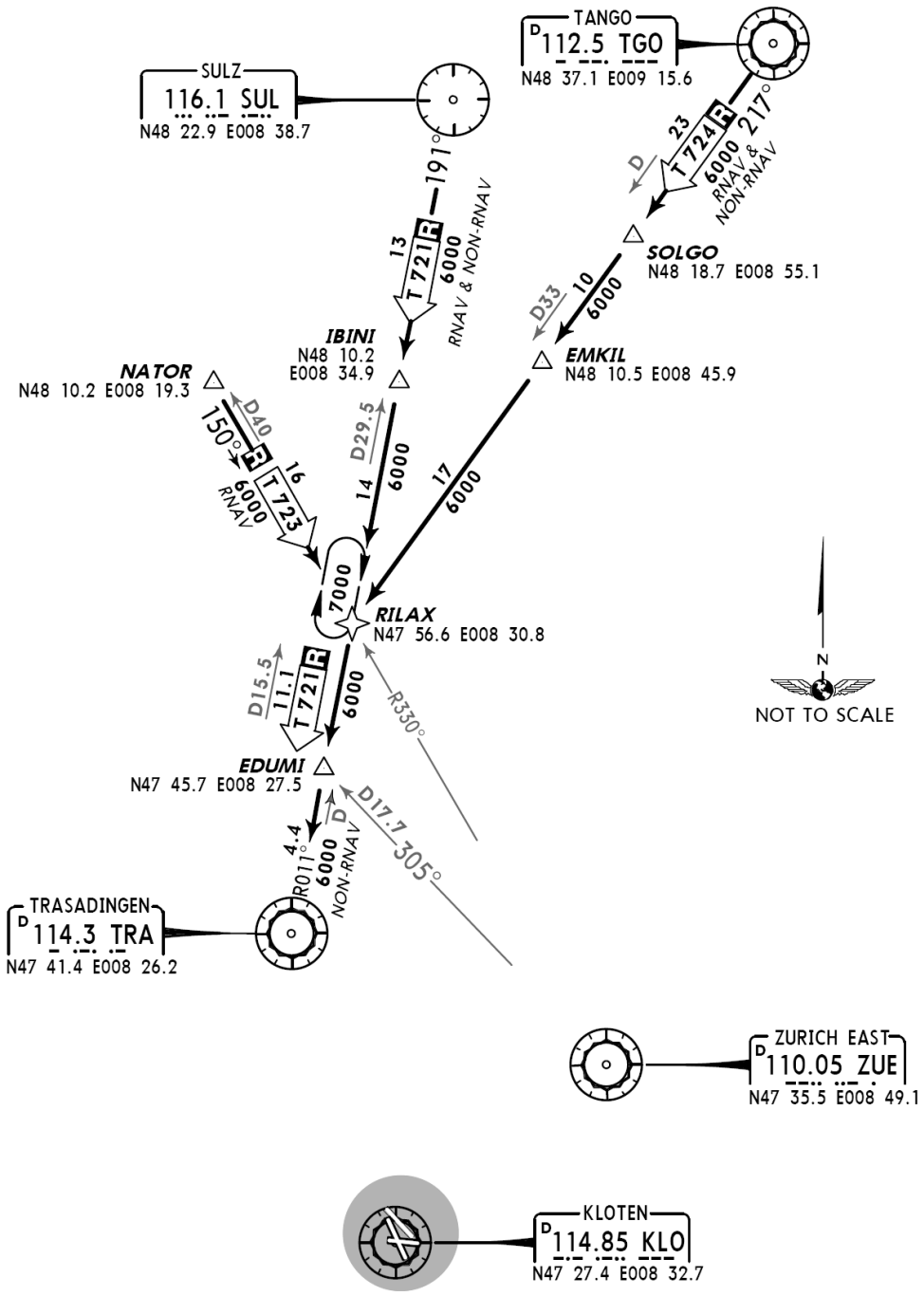
1 5900′ within 17 DME

RNAV TRANSITIONS

RNAV (DME/DME OR GNSS)

TRANSITIONS

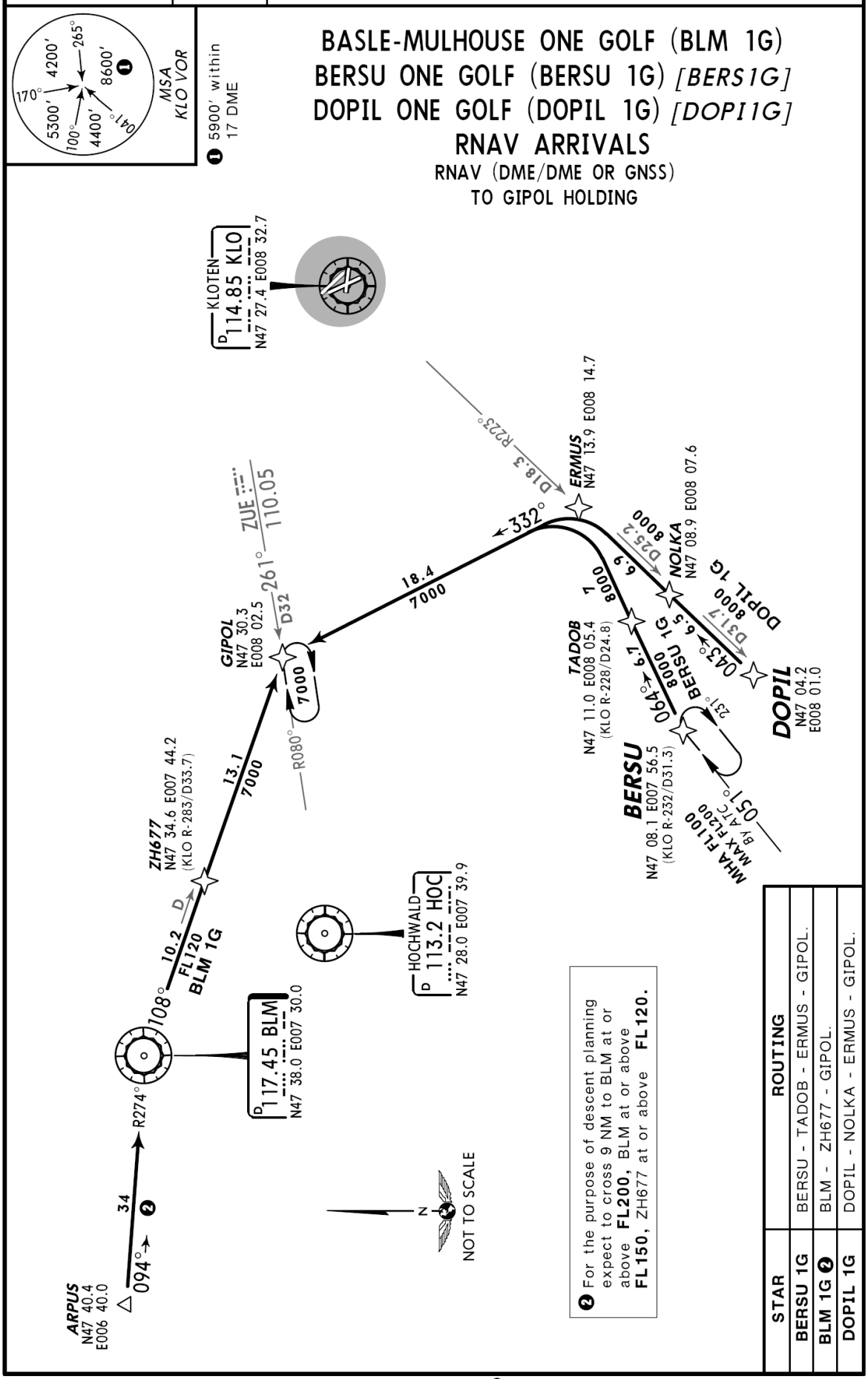
TO RILAX HOLDING & TRA
FOR ROUTE CONTINUATION AFTER RILAX REFER TO CHART 10-2C
FOR ROUTE CONTINUATION AFTER TRA REFER TO CHART 10-2E



CHANGES: Transition availability.

ATIS	Apt Elev	Alt Set: hPa
128.52	1416′	Trans level: By ATC Trans alt: 7000′

BASLE-MULHOUSE ONE GOLF (BLM 1G)
BERSU ONE GOLF (BERSU 1G) *[BERS1G]*
DOPIL ONE GOLF (DOPIL 1G) *[DOPI1G]*
RNAV ARRIVALS
RNAV (DME/DME OR GNSS)
TO GIPOL HOLDING



2 For the purpose of descent planning expect to cross 9 NM to BLM at or above **FL200**, BLM at or above **FL150**, ZH677 at or above **FL120**.

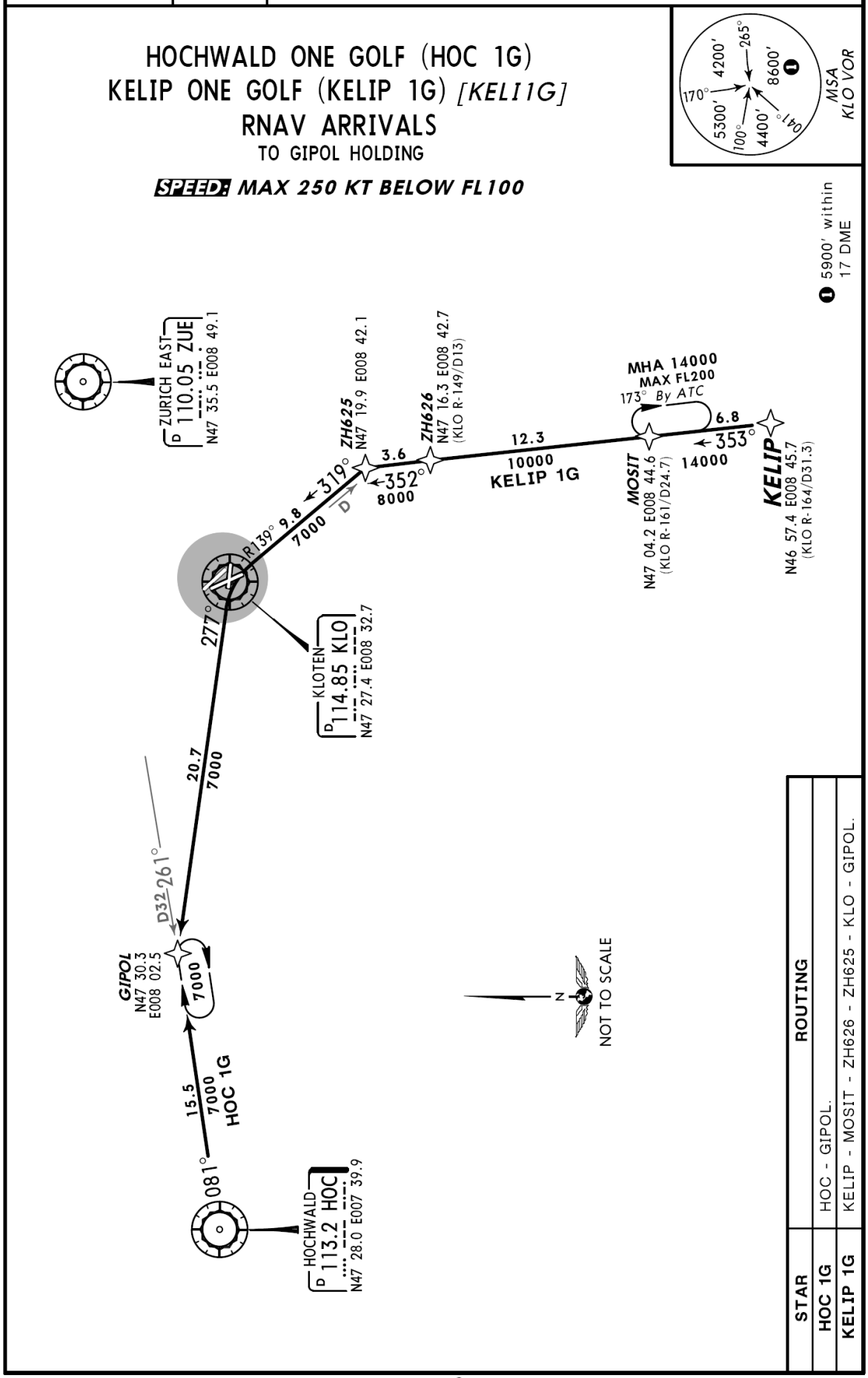
STAR	ROUTING
BERSU 1G	BERSU - TADOB - ERMUS - GIPOL.
BLM 1G 2	BLM - ZH677 - GIPOL.
DOPIL 1G	DOPIL - NOLKA - ERMUS - GIPOL.

CHANGES: New chart.

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 7000′
128.52	1416′	

HOCHWALD ONE GOLF (HOC 1G)
KELIP ONE GOLF (KELIP 1G) *[KELI1G]*
RNAV ARRIVALS
TO GIPOL HOLDING

SPEED: MAX 250 KT BELOW FL100



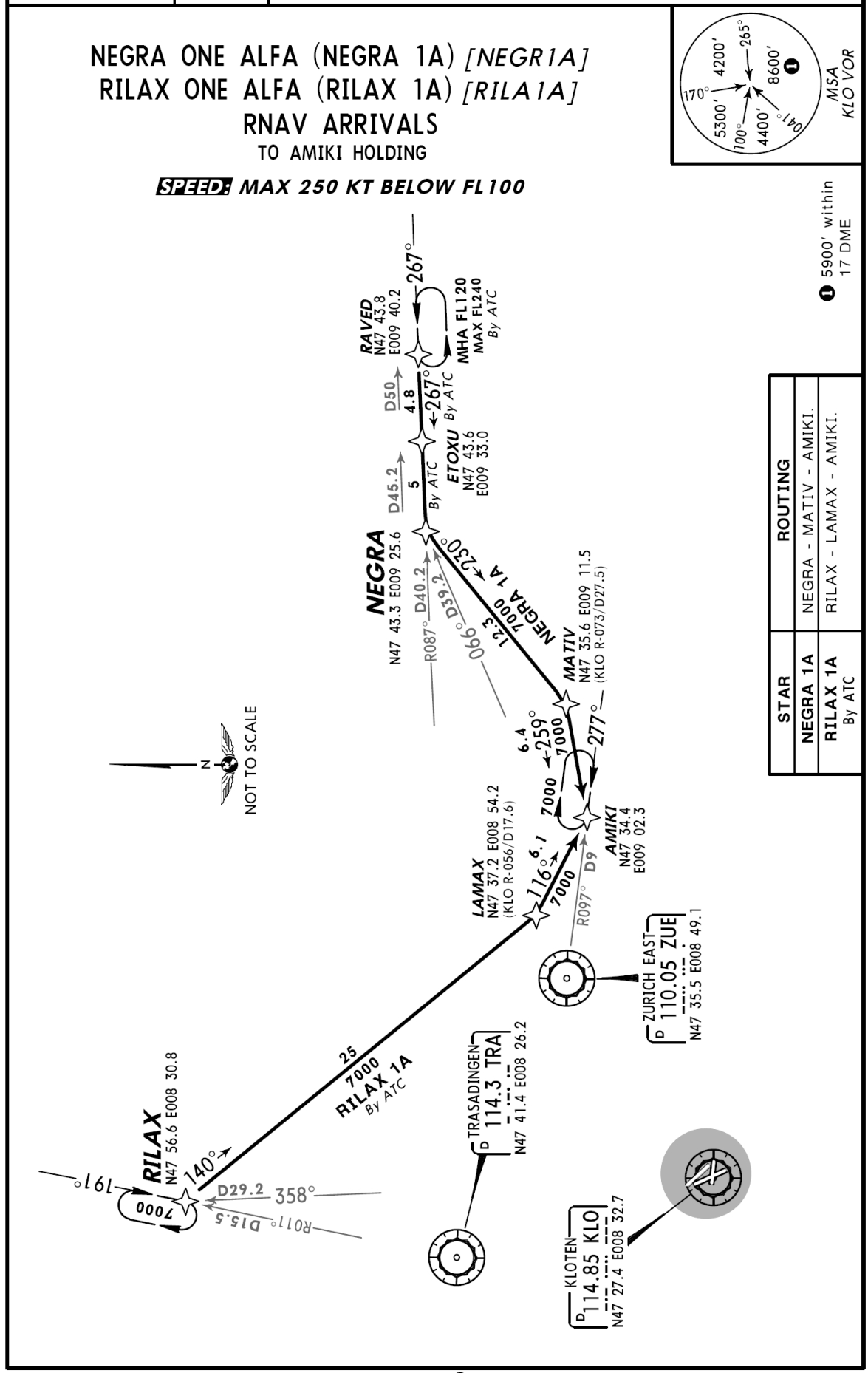
STAR	ROUTING
HOC 1G	HOC - GIPOL.
KELIP 1G	KELIP - MOSIT - ZH626 - ZH625 - KLO - GIPOL.

CHANGES: RNAV STARs completely revised; chart reindexed.

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 7000′
128.52	1416′	

NEGRA ONE ALFA (NEGRA 1A) *[NEGR1A]*
RILAX ONE ALFA (RILAX 1A) *[RILA1A]*
RNAV ARRIVALS
TO AMIKI HOLDING

SPEED: MAX 250 KT BELOW FL100



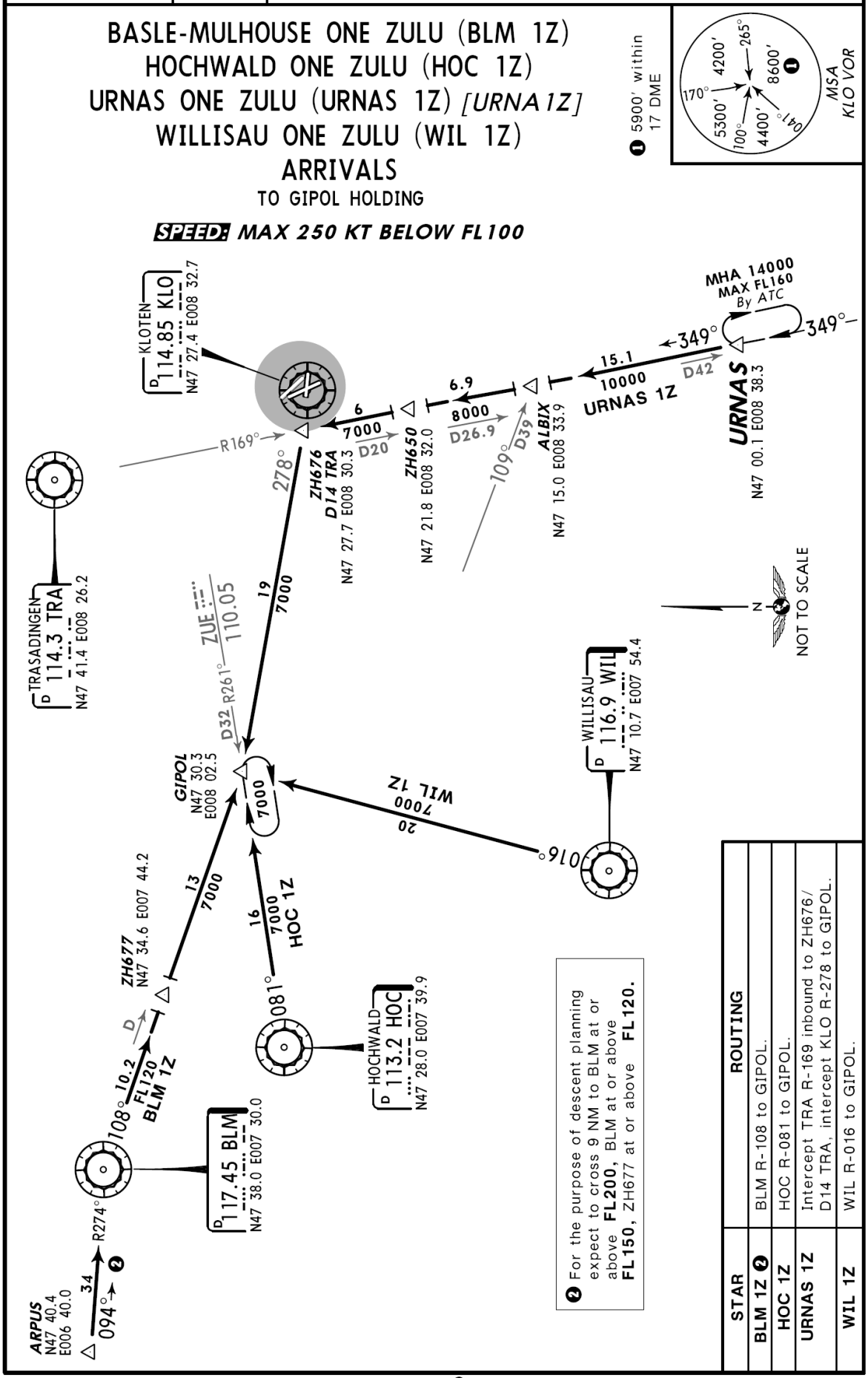
STAR	ROUTING
NEGRA 1A	NEGRA - MATIV - AMIKI.
RILAX 1A By ATC	RILAX - LAMAX - AMIKI.

CHANGES: RNAV STARs completely revised; chart reindexed.

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 7000′
128.52	1416′	

BASLE-MULHOUSE ONE ZULU (BLM 1Z)
HOCHWALD ONE ZULU (HOC 1Z)
URNAS ONE ZULU (URNAS 1Z) *[URNA 1Z]*
WILLISAU ONE ZULU (WIL 1Z)
ARRIVALS
TO GIPOL HOLDING

SPEED: MAX 250 KT BELOW FL100

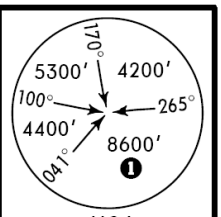


STAR	ROUTING
BLM 1Z ❷	BLM R-108 to GIPOL.
HOC 1Z	HOC R-081 to GIPOL.
URNAS 1Z	Intercept TRA R-169 inbound to ZH676/ D14 TRA, intercept KLO R-278 to GIPOL.
WIL 1Z	WIL R-016 to GIPOL.

❷ For the purpose of descent planning expect to cross 9 NM to BLM at or above **FL200**, BLM at or above **FL150**, ZH677 at or above **FL120.**

CHANGES: STARs completely revised; chart reindexed.

ZURICH Departure 125.95	Apt Elev 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** RWY 16 - VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500′ - VIS 5000m. **3.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory. **4.** EXPECT close-in obstacles.

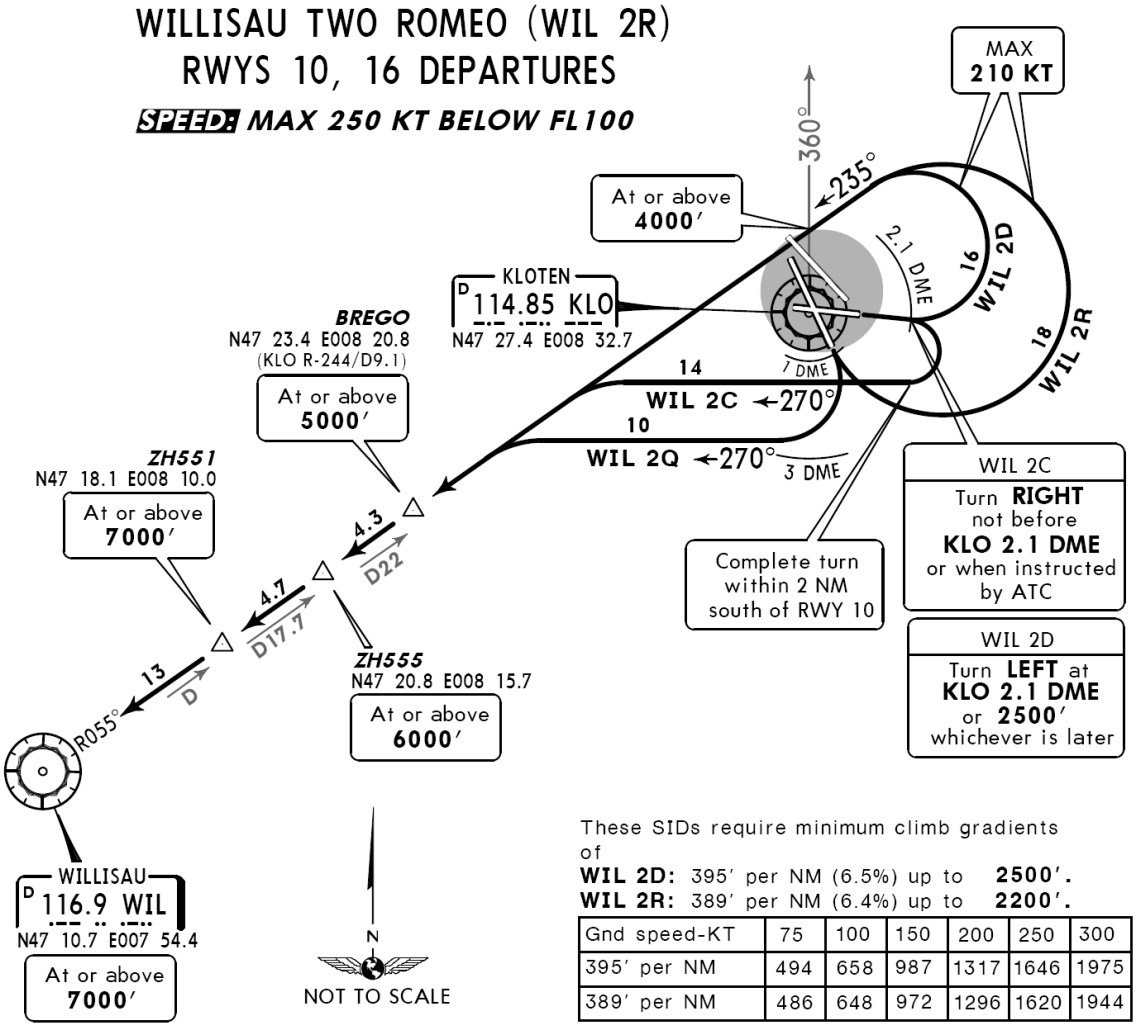


MSA
KLO VOR

❶ 5900′ within 17 DME

WILLISAU TWO CHARLIE (WIL 2C)
WILLISAU TWO DELTA (WIL 2D)
WILLISAU TWO QUEBEC (WIL 2Q)
WILLISAU TWO ROMEO (WIL 2R)
RWYS 10, 16 DEPARTURES

SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of
WIL 2D: 395′ per NM (6.5%) up to **2500′.**
WIL 2R: 389′ per NM (6.4%) up to **2200′.**

Gnd speed-KT	75	100	150	200	250	300
395′ per NM	494	658	987	1317	1646	1975
389′ per NM	486	648	972	1296	1620	1944

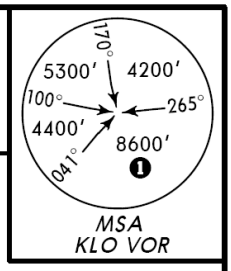
Initial climb clearance **5000′**

SID	RWY	ROUTING
WIL 2C FOR PROPELLER AIRCRAFT IN VISUAL CONDITIONS ONLY❷	**10**	Climb straight ahead, short VISUAL RIGHT turn not before KLO 2.1 DME or when instructed by ATC, complete turn within 2 NM south of runway 10 and maintain visual ground contact up to **4400′,** 270° track, intercept WIL R-055 inbound to WIL.
WIL 2D		Climb straight ahead to KLO 2.1 DME or **2500′,** whichever is later, turn LEFT, intercept WIL R-055 inbound to WIL.
WIL 2Q FOR PROPELLER AIRCRAFT IN VISUAL CONDITIONS ONLY❷	**16**	Climb straight ahead, short VISUAL RIGHT turn not before KLO 1 DME or when instructed by ATC, complete turn within KLO 3 DME and maintain visual ground contact up to **4400′,** 270° track, intercept WIL R-055 inbound to WIL.
WIL 2R		Climb straight ahead, - if in VMC turn LEFT as soon as possible, but not before KLO 1 DME, maintain visual ground contact up to **2800′,** or - if in IMC turn LEFT (MAX 210 KT) at **2400′** or KLO 2.4 DME, whichever is earlier. Earliest turning point KLO 1 DME, intercept WIL R-055 inbound to WIL.

❷ Allocated only if the relevant hill tops for visual part are clearly visible by TWR.

CHANGES: None.

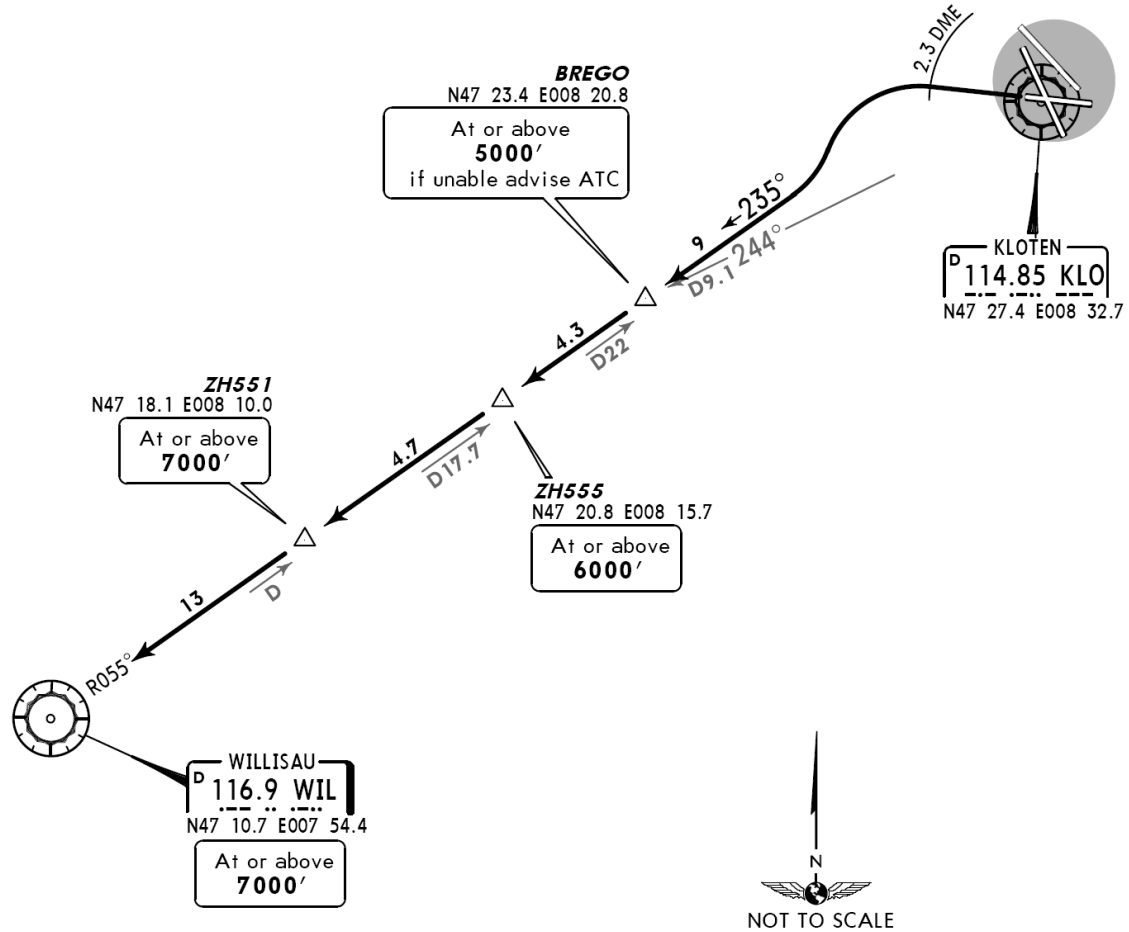
ZURICH Departure 125.95	*Apt Elev* 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.



1 5900′ within 17 DME

WILLISAU TWO VICTOR (WIL 2V)
RWY 28 DEPARTURE

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of
413′ per NM (6.8%) up to **2500′.**

Gnd speed-KT	75	100	150	200	250	300
413′ per NM	516	689	1033	1377	1722	2066

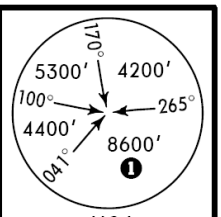
Initial climb clearance **5000′**

ROUTING

Climb straight ahead to KLO 2.3 DME, turn LEFT, intercept WIL R-055 inbound to WIL.

CHANGES: None.

ZURICH Departure 125.95	*Apt Elev* 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** RWY 16 - VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500′ - VIS 5000m. **3.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory. **4.** EXPECT close-in obstacles.

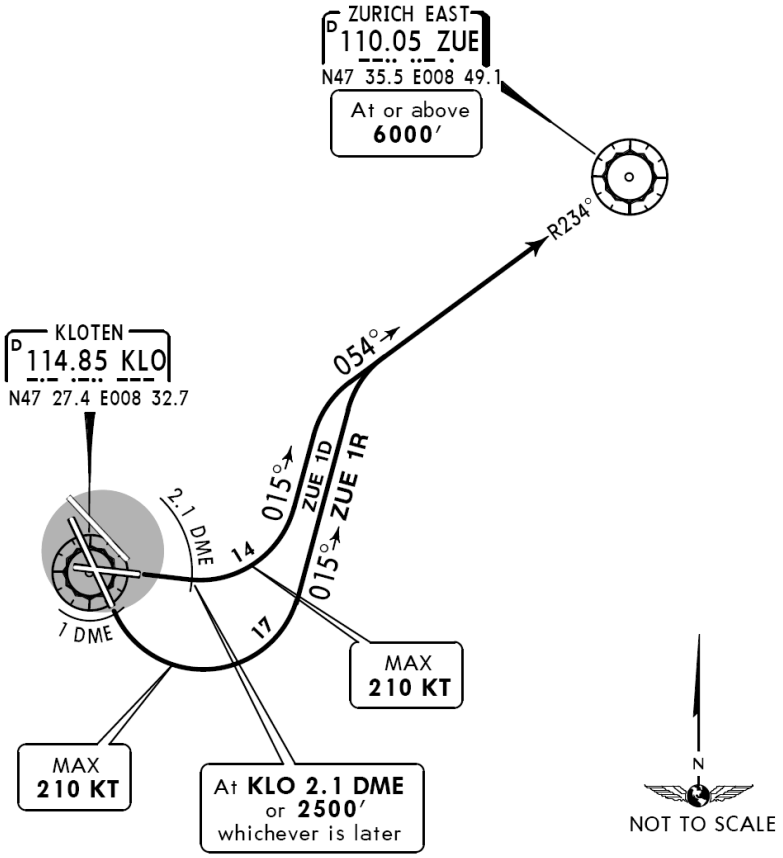


❶ 5900′ within 17 DME

ZURICH EAST ONE DELTA (ZUE 1D)
ZURICH EAST ONE ROMEO (ZUE 1R)
RWYS 10, 16 DEPARTURES

FOR ROUTE CONTINUATION AFTER ZUE REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of
ZUE 1D: 395′ per NM (6.5%) up to **2500′.**
ZUE 1R: 389′ per NM (6.4%) up to **2200′.**

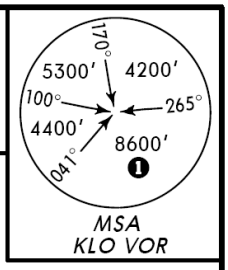
Gnd speed-KT	75	100	150	200	250	300
395′ per NM	494	658	987	1317	1646	1975
389′ per NM	486	648	972	1296	1620	1944

Initial climb clearance **5000′**

SID	RWY	ROUTING
ZUE 1D	**10**	Straight ahead to KLO 2.1 DME or **2500′,** whichever is later, turn LEFT, 015° track, intercept ZUE R-234 inbound to ZUE.
ZUE 1R	**16**	Straight ahead, - if in VMC turn LEFT as soon as possible, but not before KLO 1 DME, maintain visual ground contact up to **2800′,** or - if in IMC turn LEFT (MAX 210 KT) at **2400′** or KLO 2.4 DME, whichever is earlier. Earliest turning point KLO 1 DME, 015° track, intercept ZUE R-234 inbound to ZUE.

CHANGES: SID ZUE 1R text description.

ZURICH Departure 125.95	*Apt Elev* 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.

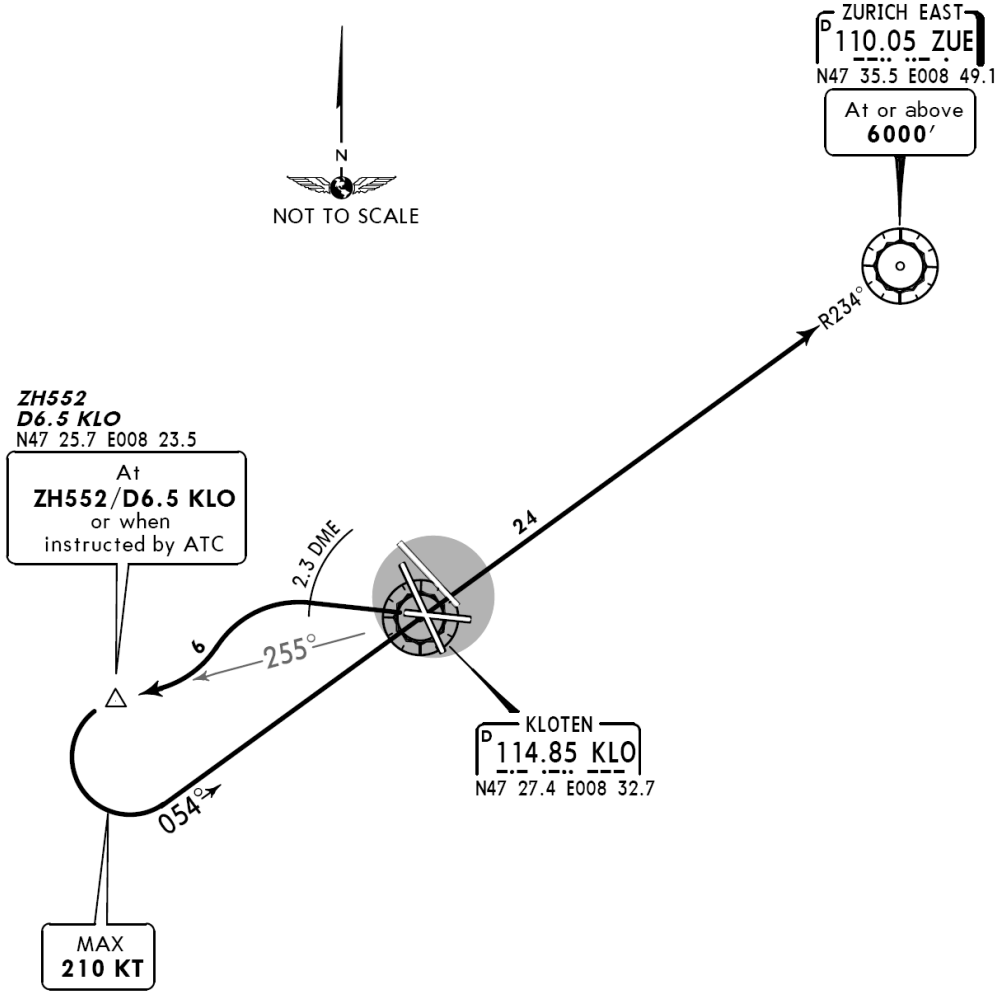


1 5900′ within 17 DME

ZURICH EAST ONE VICTOR (ZUE 1V)
RWY 28 DEPARTURE

FOR ROUTE CONTINUATION AFTER ZUE
REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of
413′ per NM (6.8%) up to **2500′.**

Gnd speed-KT	75	100	150	200	250	300
413′ per NM	516	689	1033	1377	1722	2066

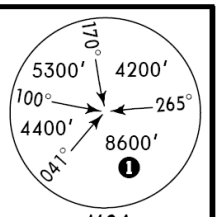
Initial climb clearance **5000′**

ROUTING

Straight ahead to KLO 2.3 DME, turn LEFT, intercept KLO R-255, at ZH552/D6.5 KLO or when instructed by ATC turn LEFT, intercept ZUE R-234 inbound to ZUE.

CHANGES: None.

ZURICH Departure 125.95	Apt Elev 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory. **3.** EXPECT close-in obstacles. **4.** WIL DME required.



1 5900′ within 17 DME

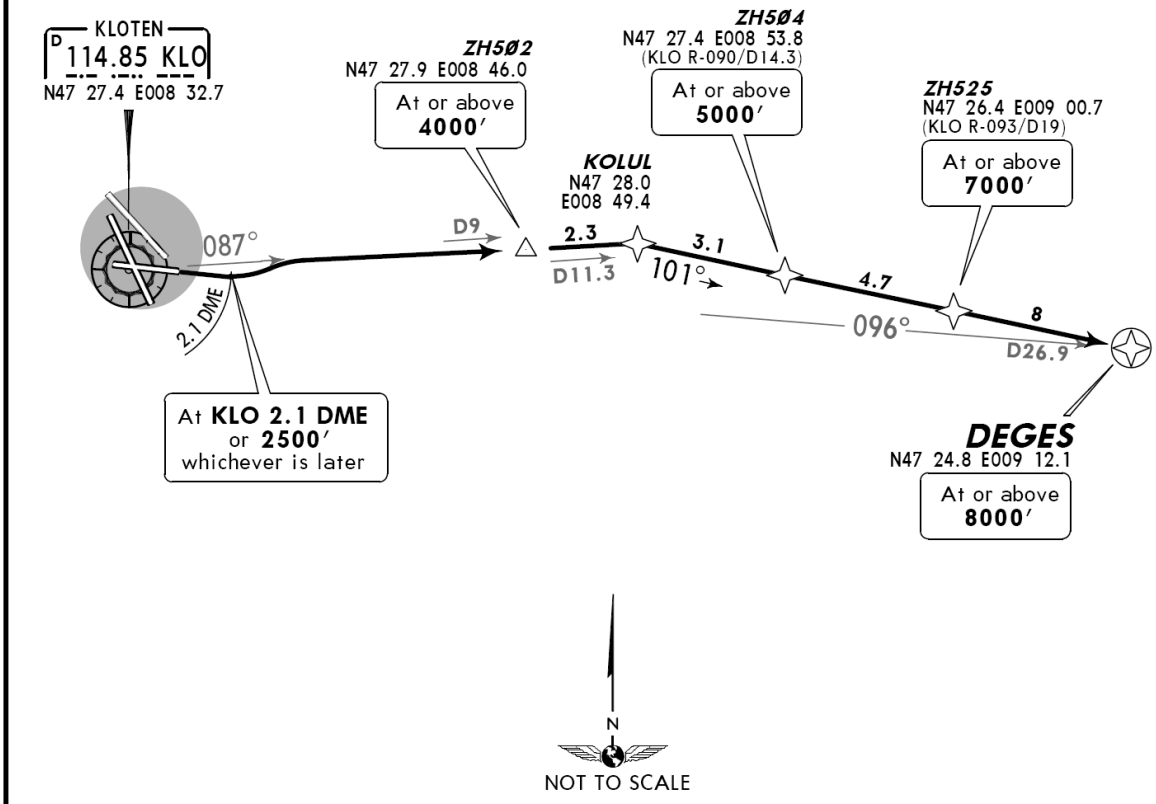
DEGES ONE ECHO (DEGES 1E) *[DEGE1E]*
RWY 10 P-RNAV DEPARTURE

RNAV (DME/DME OR GNSS)

RNAV APPLICABLE WHEN PASSING KOLUL

FOR ROUTE CONTINUATION AFTER DEGES REFER TO CHARTS 10-3W & 10-3X1

SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of
395′ per NM (6.5%) up to **2500′.**

Gnd speed-KT	75	100	150	200	250	300
395′ per NM	494	658	987	1317	1646	1975

Initial climb clearance **5000′**

ROUTING

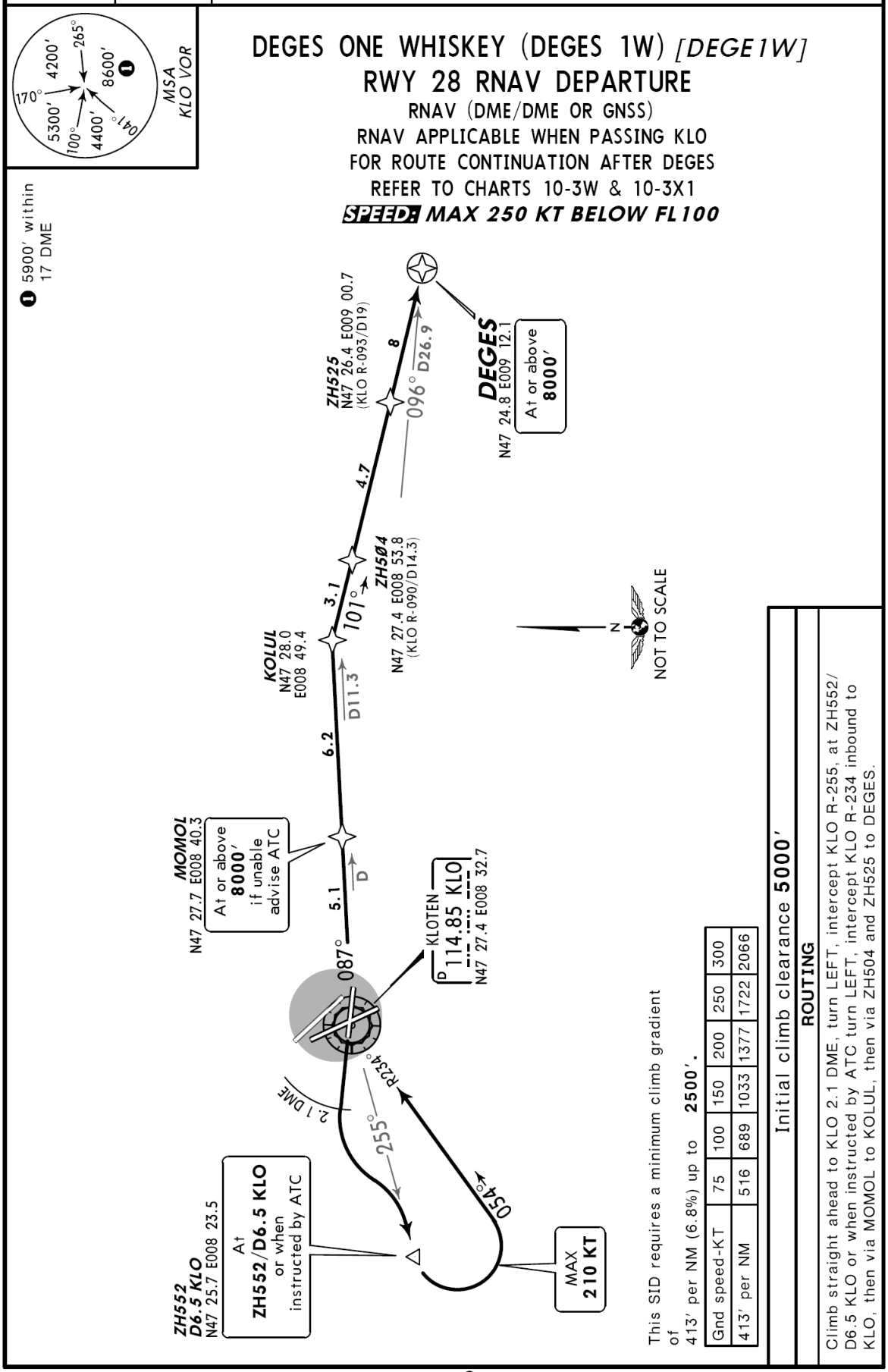
Climb straight ahead to KLO 2.1 DME or **2500′,** whichever is later, turn LEFT, intercept KLO R-087 via ZH502 to KOLUL - ZH504 **(5000′+)** - ZH525 **(7000′+)** - DEGES **(8000′+).**

CHANGES: DEGES 1E estbld; DEGES 2F, 1H, 2L & 1N transferred.

ZURICH Departure 125.95	Apt Elev 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.

DEGES ONE WHISKEY (DEGES 1W) *[DEGE1W]*
RWY 28 RNAV DEPARTURE

RNAV (DME/DME OR GNSS)
RNAV APPLICABLE WHEN PASSING KLO
FOR ROUTE CONTINUATION AFTER DEGES
REFER TO CHARTS 10-3W & 10-3X1
SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of 413′ per NM (6.8%) up to **2500′.**

Gnd speed-KT	75	100	150	200	250	300
413′ per NM	516	689	1033	1377	1722	2066

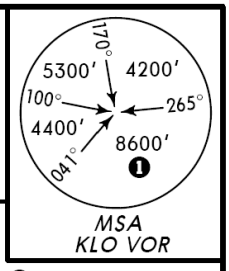
Initial climb clearance 5000′

ROUTING

Climb straight ahead to KLO 2.1 DME, turn LEFT, intercept KLO R-255, at ZH552/D6.5 KLO or when instructed by ATC turn LEFT, intercept KLO R-234 inbound to KLO, then via MOMOL to KOLUL, then via ZH504 and ZH525 to DEGES.

CHANGES: Chart reindexed.

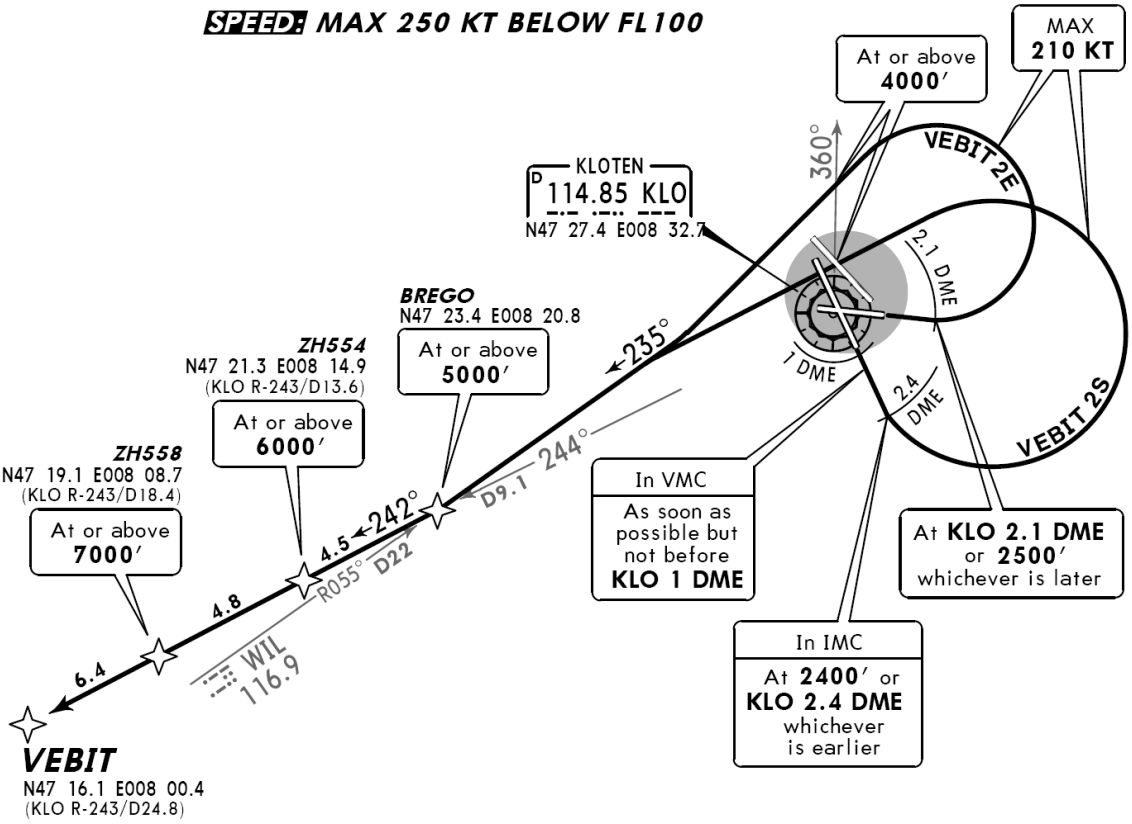
ZURICH Departure 125.95	Apt Elev 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** RWY 16 - VISUAL CONDITIONS FOR TAKE-OFF: Ceiling 1500′ - VIS 5000m. **3.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory. **4.** EXPECT close-in obstacles.



1 5900′ within 17 DME

VEBIT TWO ECHO (VEBIT 2E) *[VEBI2E]*
VEBIT TWO SIERRA (VEBIT 2S) *[VEBI2S]*
RWYS 10, 16 RNAV DEPARTURES

RNAV (DME/DME OR GNSS)
RNAV APPLICABLE WHEN PASSING BREGO
FOR ROUTE CONTINUATION AFTER VEBIT REFER TO CHART 10-3X2
SPEED: MAX 250 KT BELOW FL100



These SIDs require minimum climb gradients of
VEBIT 2E: 395′ per NM (6.5%) up to **2500′.**
VEBIT 2S: 389′ per NM (6.4%) up to **2200′.**

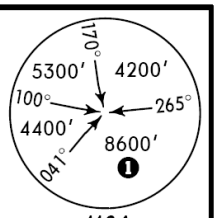
Gnd speed-KT	75	100	150	200	250	300
395′ per NM	494	658	987	1317	1646	1975
389′ per NM	486	648	972	1296	1620	1944

Initial climb clearance **5000′**

SID	RWY	ROUTING
VEBIT 2E	**10**	Climb straight ahead to KLO 2.1 DME or **2500′,** whichever is later, turn LEFT, intercept WIL R-055 inbound to BREGO, then via ZH554 and ZH558 to VEBIT.
VEBIT 2S	**16**	Climb straight ahead, - if in VMC turn LEFT as soon as possible, but not before KLO 1 DME, maintain visual ground contact up to **2800′,** or - if in IMC turn LEFT (MAX 210 KT) at **2400′** or KLO 2.4 DME, whichever is earlier. Earliest turning point KLO 1 DME, intercept WIL R-055 inbound to BREGO, then via ZH554 and ZH558 to VEBIT.

CHANGES: New chart.

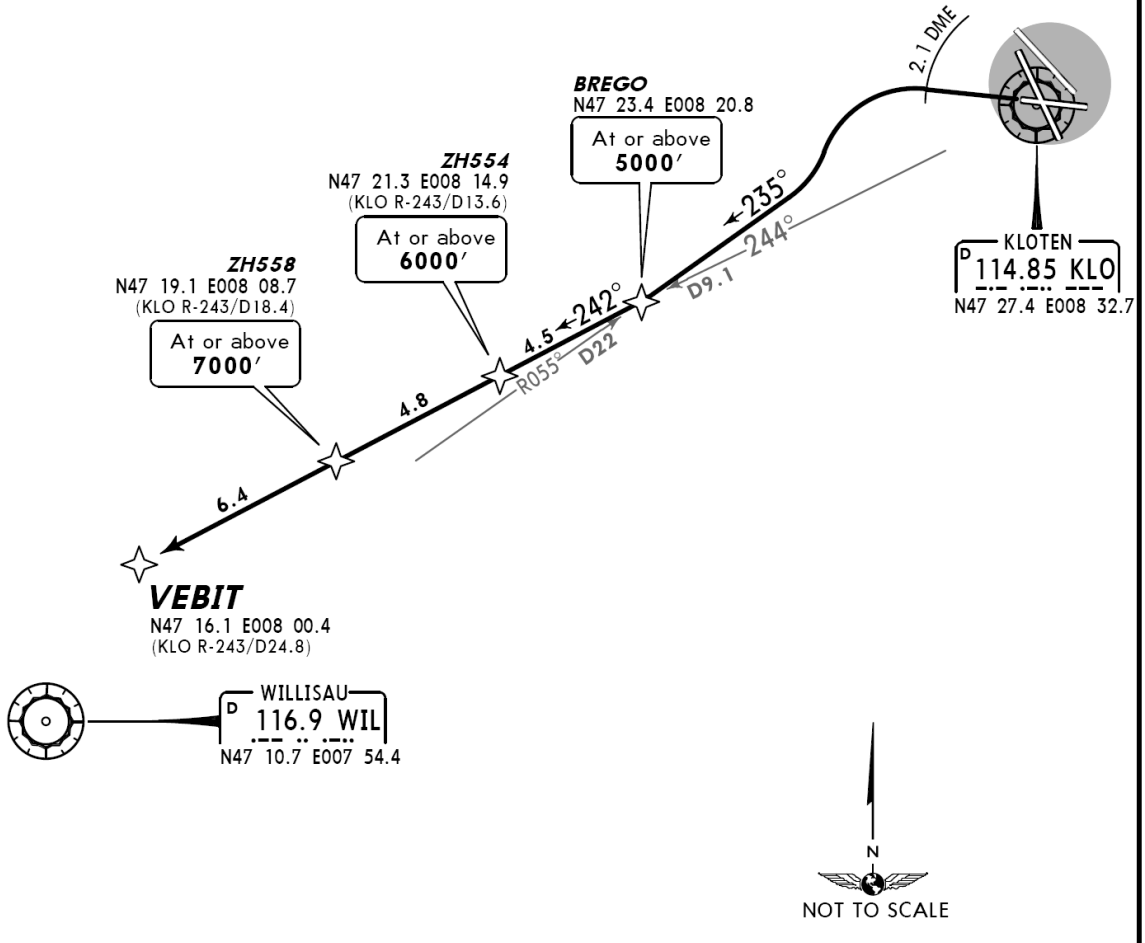
ZURICH Departure 125.95	Apt Elev 1416′	Trans level: By ATC Trans alt: 7000′ **1.** When instructed contact ZURICH Departure. **2.** SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.



1 5900′ within 17 DME

VEBIT TWO WHISKEY (VEBIT 2W) *[VEBI2W]*
RWY 28 RNAV DEPARTURE

RNAV (DME/DME OR GNSS)
RNAV APPLICABLE WHEN PASSING BREGO
FOR ROUTE CONTINUATION AFTER VEBIT REFER TO CHART 10-3X2
SPEED: MAX 250 KT BELOW FL100



This SID requires a minimum climb gradient of
413′ per NM (6.8%) up to **2500′.**

Gnd speed-KT	75	100	150	200	250	300
413′ per NM	516	689	1033	1377	1722	2066

Initial climb clearance **5000′**

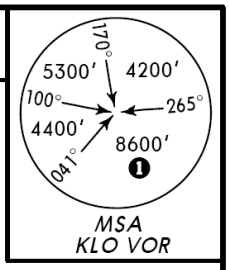
ROUTING

Climb straight ahead to KLO 2.1 DME, turn LEFT, intercept WIL R-055 inbound to BREGO, then via ZH554 and ZH558 to VEBIT.

CHANGES: New chart.

Apt Elev 1416′

Trans level: By ATC Trans alt: 7000′



1 5900′ within 17 DME

NORTHBOUND TRANSITION ROUTES AFTER DEGES & ZUE

RNAV-EQUIPMENT COMPULSORY FOR FLIGHTS AT OR ABOVE FL100

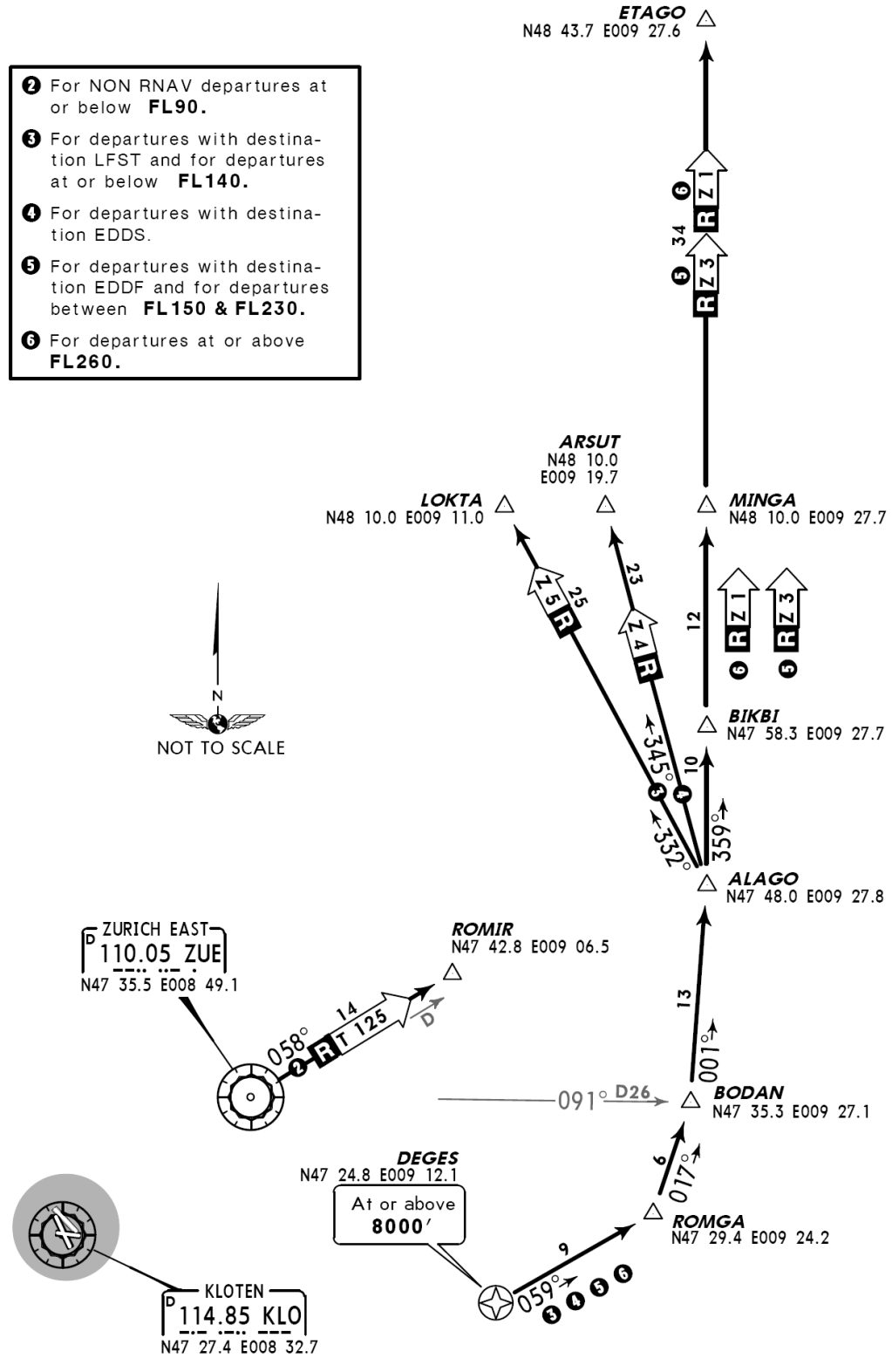
2 For NON RNAV departures at or below **FL90.**

3 For departures with destination LFST and for departures at or below **FL140.**

4 For departures with destination EDDS.

5 For departures with destination EDDF and for departures between **FL150 & FL230.**

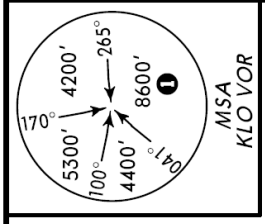
6 For departures at or above **FL260.**



CHANGES: Airway Z 3 revised.

Apt Elev 1416′

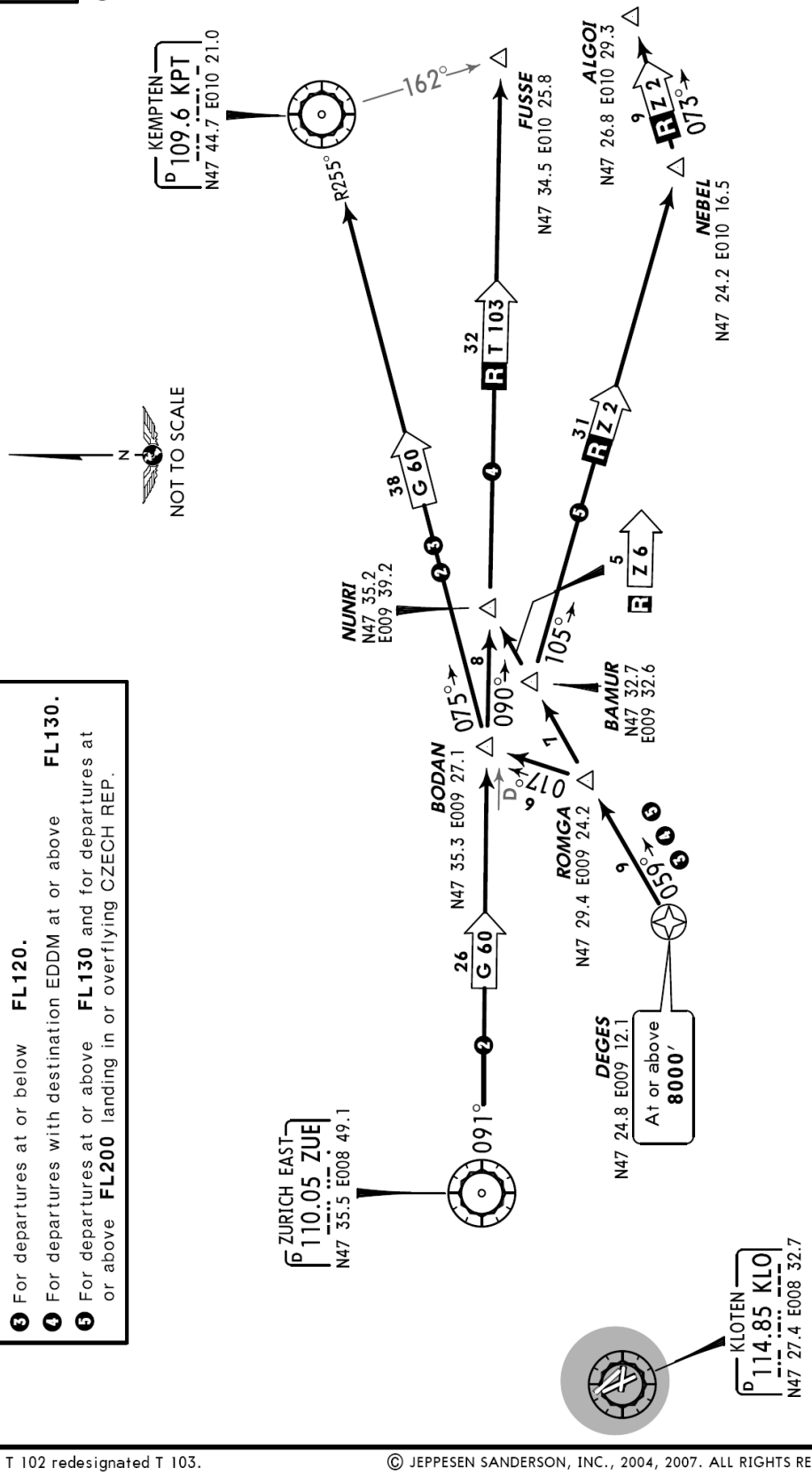
Trans level: By ATC Trans alt: 7000′



❶ 5900′ within 17 DME

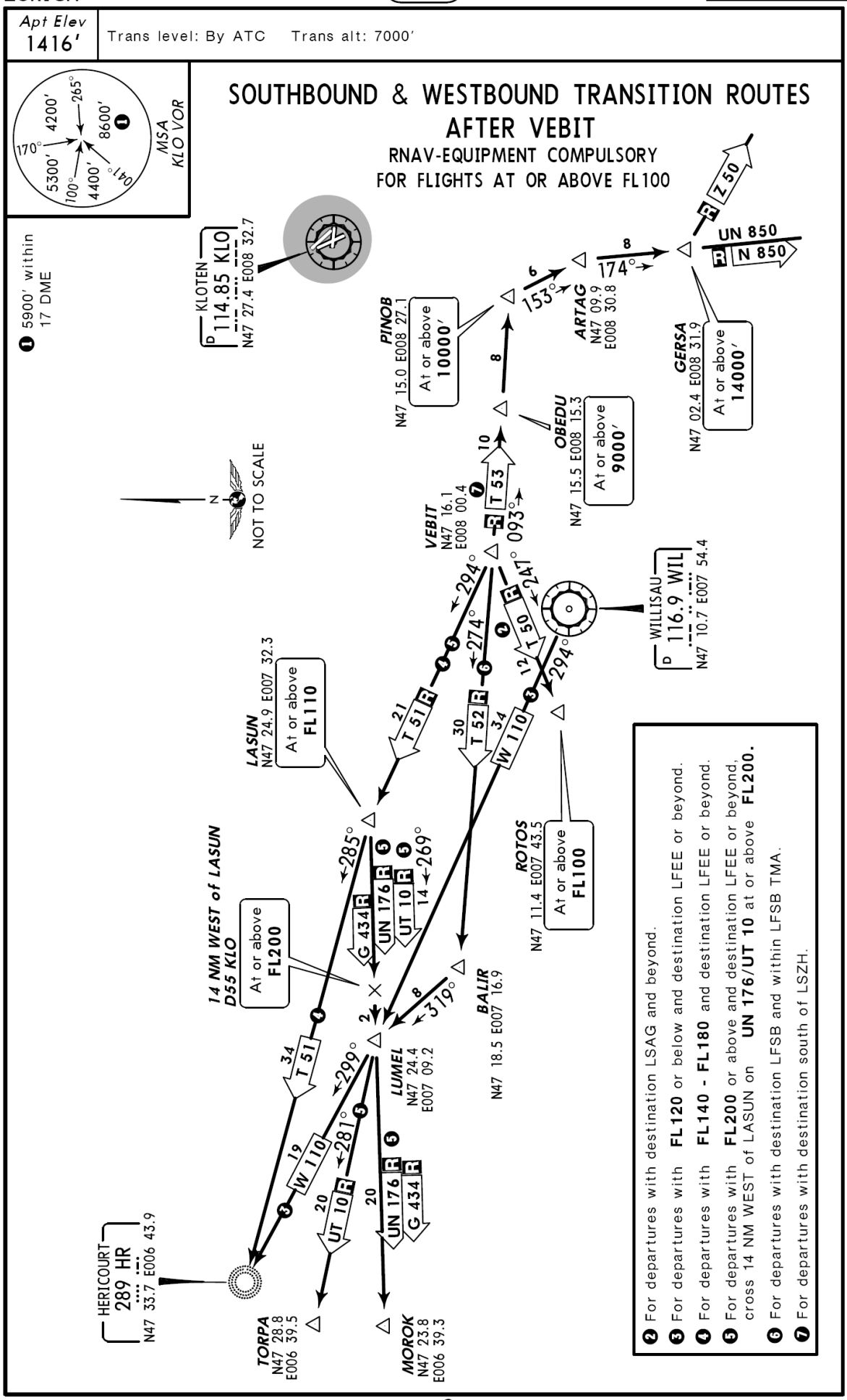
EASTBOUND TRANSITION ROUTES AFTER DEGES & ZUE

RNAV-EQUIPMENT COMPULSORY
FOR FLIGHTS AT OR ABOVE FL100



❷ For NON RNAV departures at or below **FL90.**
❸ For departures at or below **FL120.**
❹ For departures with destination EDDM at or above **FL130.**
❺ For departures at or above **FL130** and for departures at or above **FL200** landing in or overflying CZECH REP.

CHANGES: Airway T 102 redesignated T 103.



CHANGES: None.

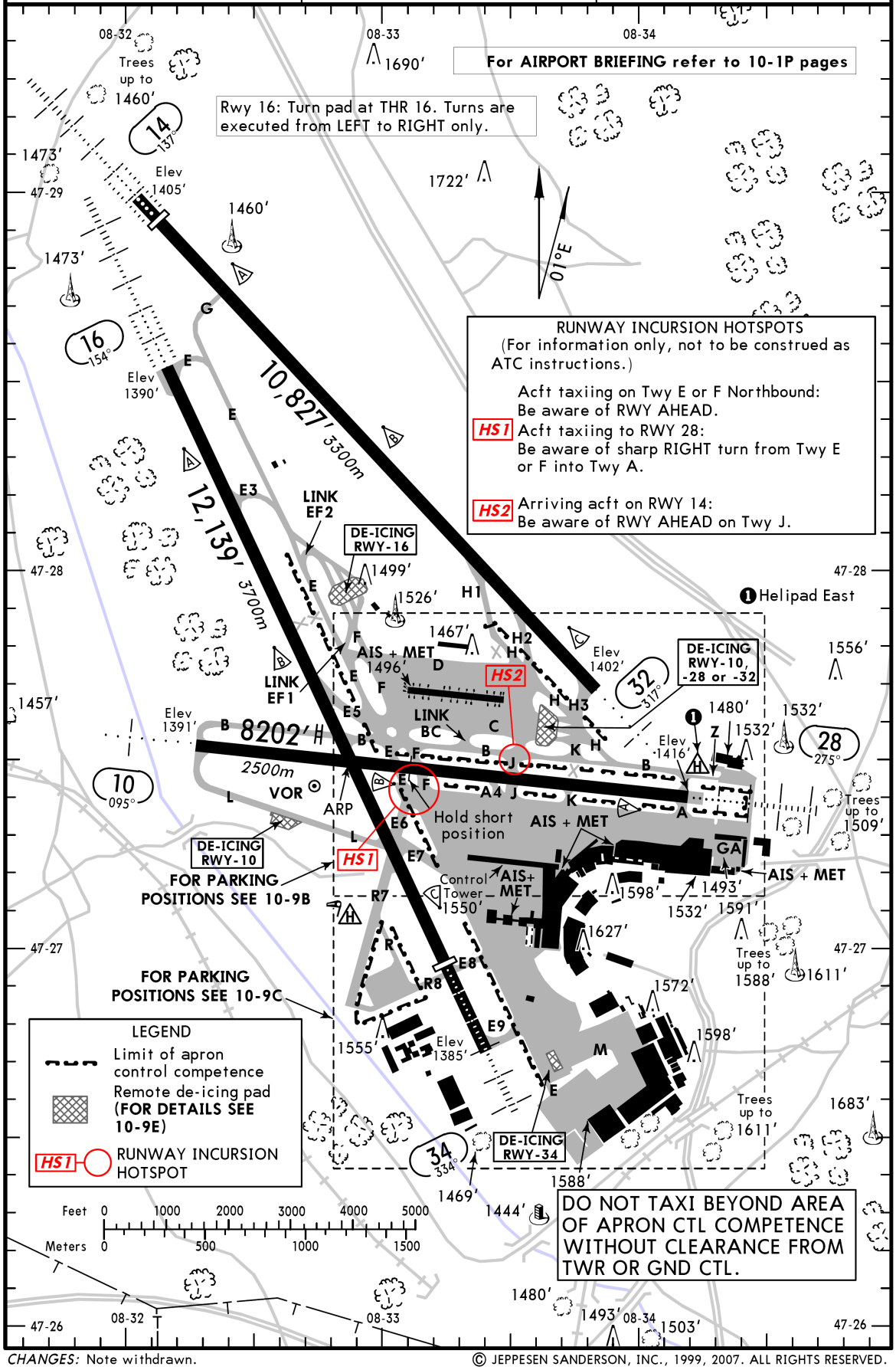
LSZH/ZRH
Apt Elev **1416′**
N47 27.5 E008 32.9

JEPPESEN
27 JUL 07 (10-9)

ZURICH, SWITZERLAND
ZURICH

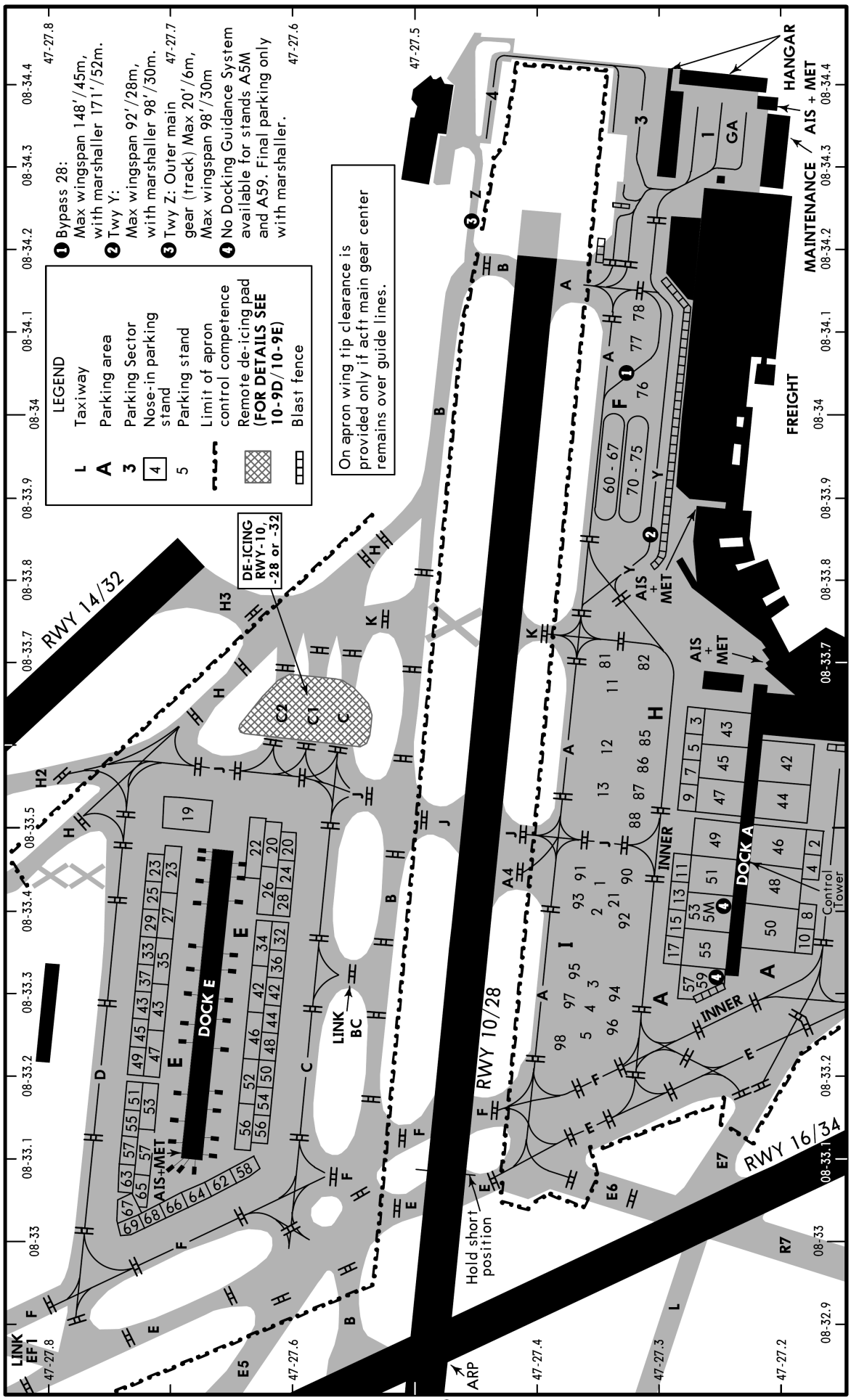
ATIS	ZURICH Delivery (Cpt)	*ZURICH Apron	
		South of rwy 10/28	North of rwy 10/28
128.52	121.8	121.75	121.85

Ground	Tower	ZURICH Departure (R)
121.9	118.1	125.95



CHANGES: Note withdrawn.

NOT FOR NAVIGATIONAL PURPOSES
INFORMATION ONLY



CHANGES: Holding positions.

LSZH/ZRH
ZURICH

JEPPESEN 20 OCT 06 (11-1) Eff 26 Oct

ZURICH, SWITZERLAND
ILS Rwy 14

ATIS	ZURICH Arrival (APP/R) ❶			ZURICH Tower			Ground
128.52	118.0	120.75	119.7	120.22	118.1	119.7	121.9

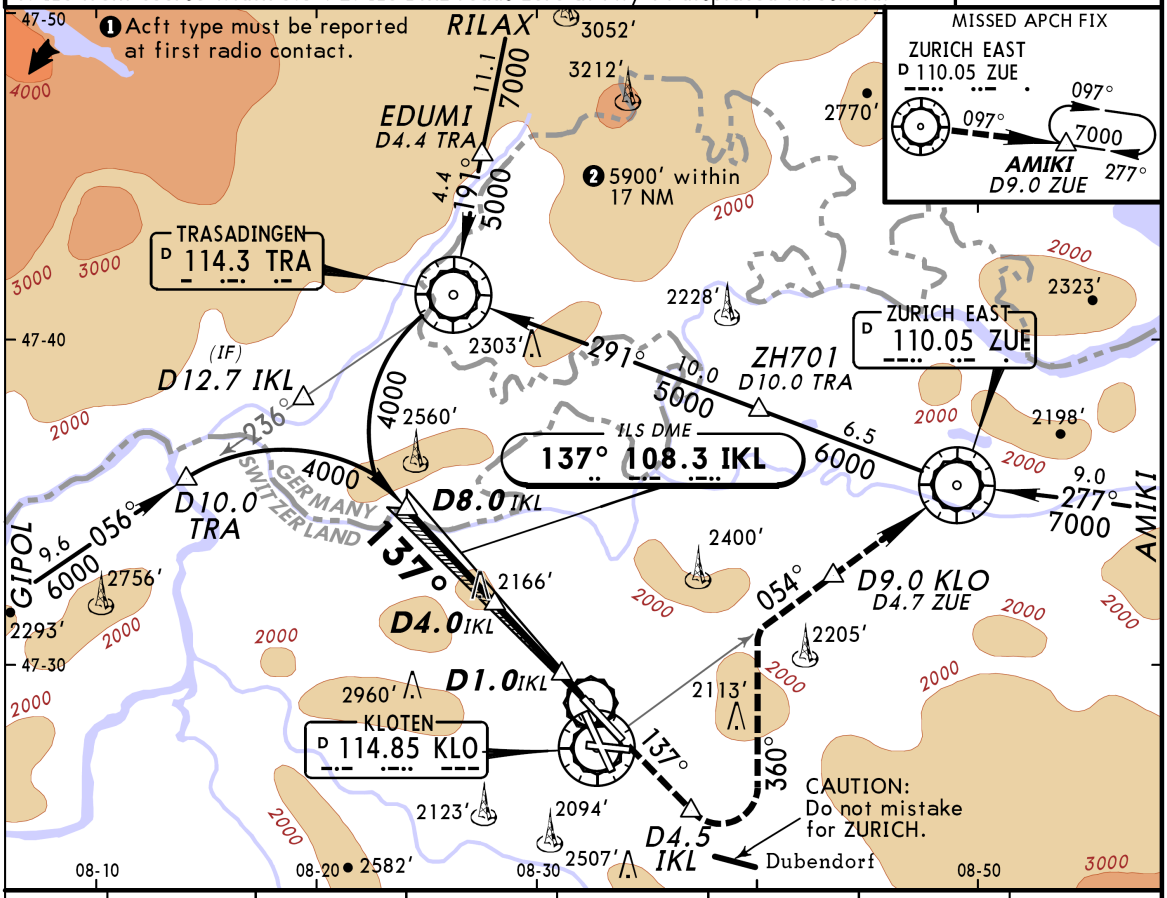
BRIEFING STRIP™

LOC	Final	GS	ILS	Apt Elev 1416′
IKL	Apch Crs	D4.0 IKL	RA 187′ DA(H)	RWY 1402′
108.3	137°	2730′ (1328′)	1602′ (200′)	

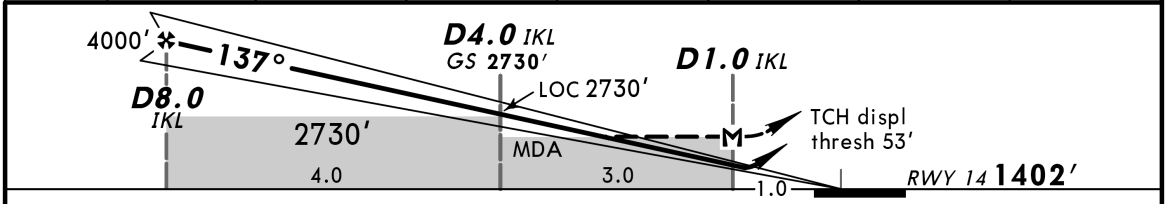
MISSED APCH: Climb on track 137°. Initial climb to 5000′. At D4.5 IKL past the station, turn LEFT (MAX 210 KT) onto track 360° to intercept R-054 KLO. At D9.0 KLO past the station continue climb to 7000′. Cross ZUE VOR at 6000′ or above and intercept R-097 ZUE to AMIKI.

MSA
KLO VOR
170° 5300′ 4200′ 100° 265° 4400′ 041° 8600′ ❷

Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000′
1. ILS front course width 3.5°. 2. ILS DME reads zero at rwy 14 displaced threshold.



LOC (GS out)	IKL DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3690′	3370′	3050′	2730′	2410′	2090′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D1.0 IKL						

HIALS-II

137°

JAR-OPS STRAIGHT-IN LANDING RWY 14

ILS		LOC (GS out)	
RA 187′ DA(H) 1602′ (200′)		with IKL DME MDA(H) 1900′ (498′)	
FULL	ALS out		ALS out

PANS OPS 3

A	RVR 550m	RVR 1000m	RVR 1000m	RVR 1500m
B			RVR 1200m	
C				RVR 2000m
D			RVR 1600m	

CHANGES: Procedure title. Note. Profile. Minimums.

LSZH/ZRH
ZURICH

JEPPESEN 27 JUL 07 (11-2) **Eff 2 Aug**

ZURICH, SWITZERLAND
ILS Rwy 16

ATIS	ZURICH Arrival (APP/R) 1			ZURICH Tower		Ground
128.52	118.0	120.75	119.7	118.1	119.7	121.9

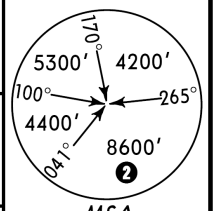
LOC	Final	GS	ILS	Apt Elev 1416′
IZH	Apch Crs	D3.0 IZH	DA(H)	
110.5	154°	2340′ (950′)	Refer to Minimums	RWY 1390′

BRIEFING STRIP

MISSED APCH: Climb STRAIGHT AHEAD. Initial climb to 5000′. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-215 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000′. Cross ZUE VOR at 6000′ or above and intercept R-097 ZUE to AMIKI.

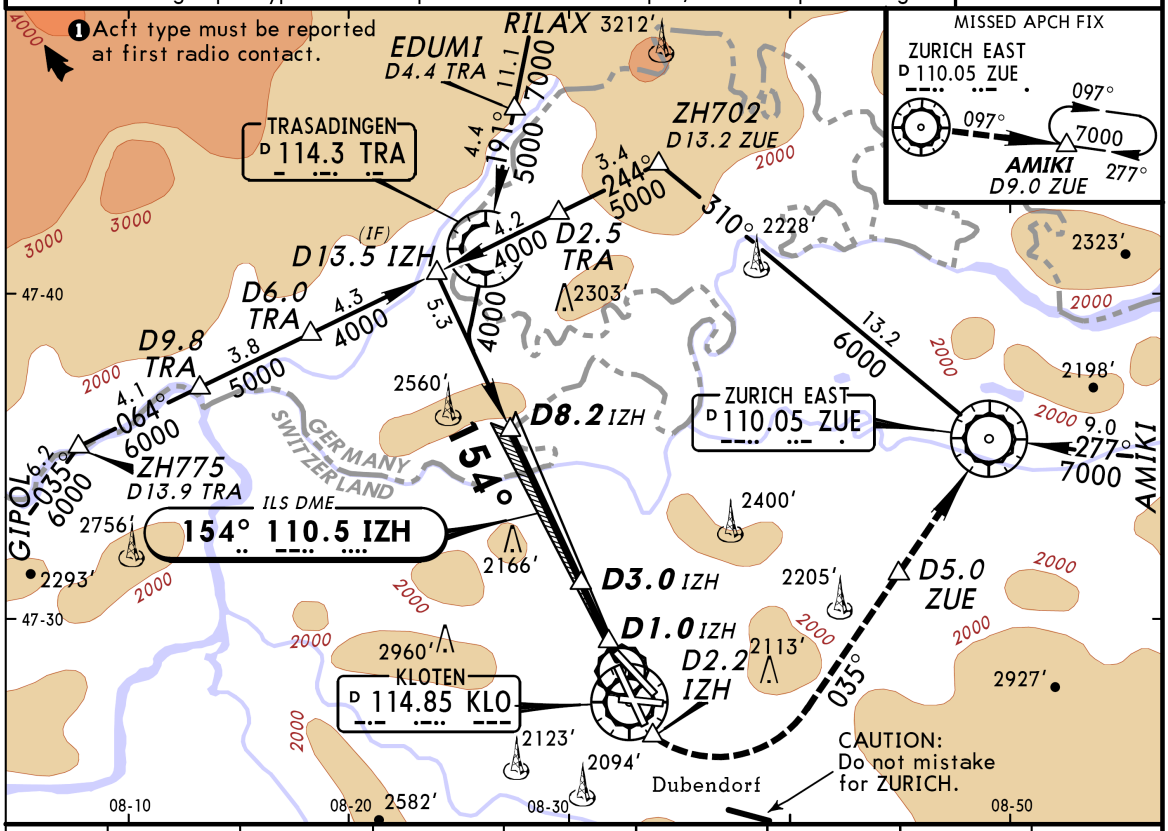
Alt Set: hPa Rwy Elev: 50 hPa Trans level: By ATC Trans alt: 7000′

1. ILS front course width 3.1°.
2. LOC coverage area reduced to 5° L/R of centerline.
3. Due to disturbance of GS signal of rwy 16 pilots might be requested by ZURICH Arrival to change apch type from ILS apch to LOC or visual apch, met cond permitting.

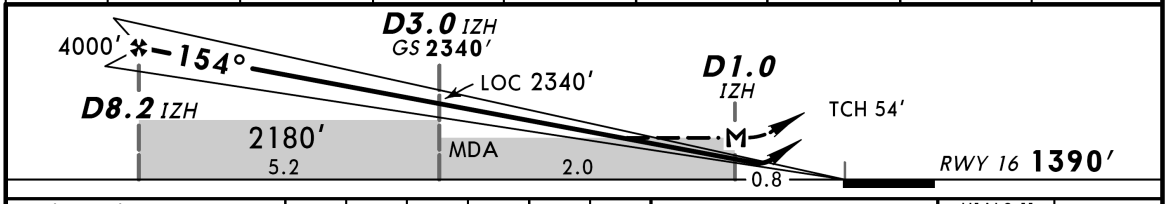


MSA
KLO VOR

2 5900′ within 17 NM



LOC (GS out)	IZH DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3940′	3620′	3300′	2980′	2660′	2340′	2020′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.3%	377	485	539	647	755	862
MAP at D1.0 IZH						

HIALS-II
REIL
PAPI

D2.2 IZH

PANS OPS 3

JAR-OPS STRAIGHT-IN LANDING RWY 16

	ILS Missed apch climb gradient mim 5.0% 1		ILS Missed apch climb gradient mim 2.5% 2		LOC (GS out)	
	RA 187′ DA(H) 1590′ (200′)		DA(H) C: 1825′ (435′) D: 1835′ (445′)		MDA(H) 1840′ (450′)	
	FULL	ALS out	FULL	ALS out		ALS out
A	RVR 550m	RVR 1000m	RVR 1500m	2400m	RVR 1700m	2600m
B			RVR 1600m	2500m		
C			RVR 1700m	2600m		
D						

1 Climb gradient up to 2400′. 2 CAT A: DA(H) 1805′(415′), CAT B: DA(H) 1815′(425′).

CHANGES: Procedure. Minimums.

LSZH/ZRH
ZURICH

27 JUL 07
Eff 2 Aug

JEPPESEN

(18-1)

ZURICH, SWITZERLAND
TMN 2.0 NM **SRA Rwy 14, 16**

BRIEFING STRIP™

ATIS	ZURICH Arrival (APP/R)❶			ZURICH Tower (Rwy 14)	ZURICH Tower		Ground
128.52	118.0	120.75	119.7	120.22	118.1	119.7	121.9

RADAR	Final Apch Crs By ATC	Minimum Alt No FAF	MDA(H) Refer to Minimums	Apt Elev 1416′ RWY 14 1402′ RWY 16 1390′

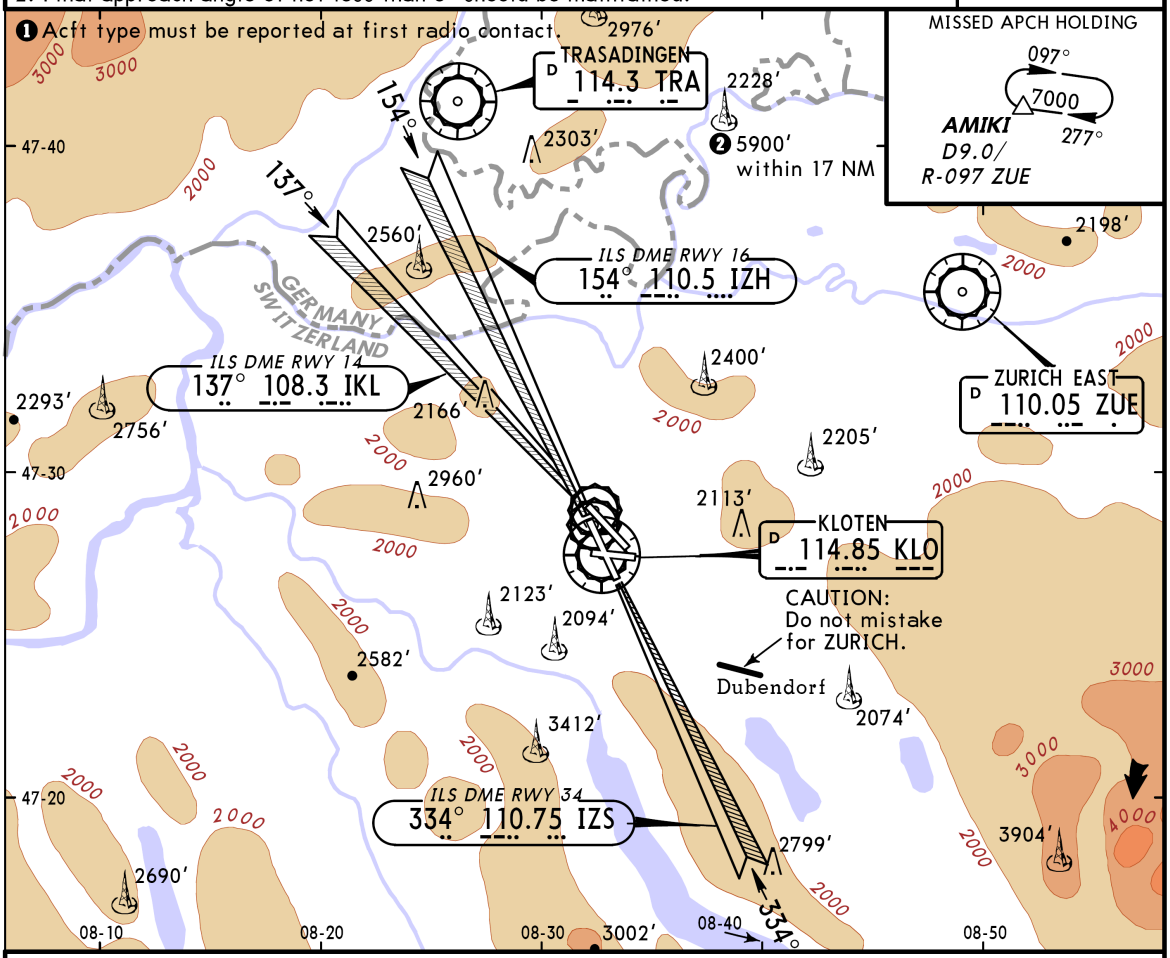
MSA KLO VOR
170° 5300′ 4200′ 100° 265° 4400′ 041° 8600′ ❷

MISSED APPROACH - SEE BELOW

Alt Set: hPa Apt Elev: 51 hPa Trans level: By ATC Trans alt: 7000′

1. CAUTION: Do not confuse Mil apt 5.5 NM SE with ZURICH.
2. Final approach angle of not less than 3° should be maintained.

❶ Acft type must be reported at first radio contact.



MISSED APCH:
RWY 14: Climb on track 137°. Initial climb to 5000′. At D4.5 IKL past the station, turn LEFT (MAX 210 KT) onto track 360° to intercept R-054 KLO. At D9.0 KLO past the station continue climb to 7000′. Cross ZUE VOR at 6000′ or above and intercept R-097 ZUE to AMIKI.
RWY 16: Climb STRAIGHT AHEAD. Initial climb to 5000′. At D2.2 IZH past the station turn LEFT (MAX 210 KT/MIM BANK 20°) to intercept R-215 inbound ZUE VOR. At D5.0 ZUE to the station continue climb to 7000′. Cross ZUE VOR at 6000′ or above and intercept R-097 ZUE to AMIKI.

								Lighting-Refer to Airport Chart	Refer to Missed Apch above
MAP at 2NM from touchdown									

JAR-OPS STRAIGHT-IN LANDING

PANS OPS 3

	SRA 14 MDA(H) 2040′ (638′)		SRA 16 MDA(H) 2040′ (650′)	
		ALS out		ALS out
A	RVR 1000m	RVR 1500m	2800m	3700m
B	RVR 1200m			
C		RVR 2000m		
D	RVR 1600m			

CHANGES: Missed approach. Minimums.