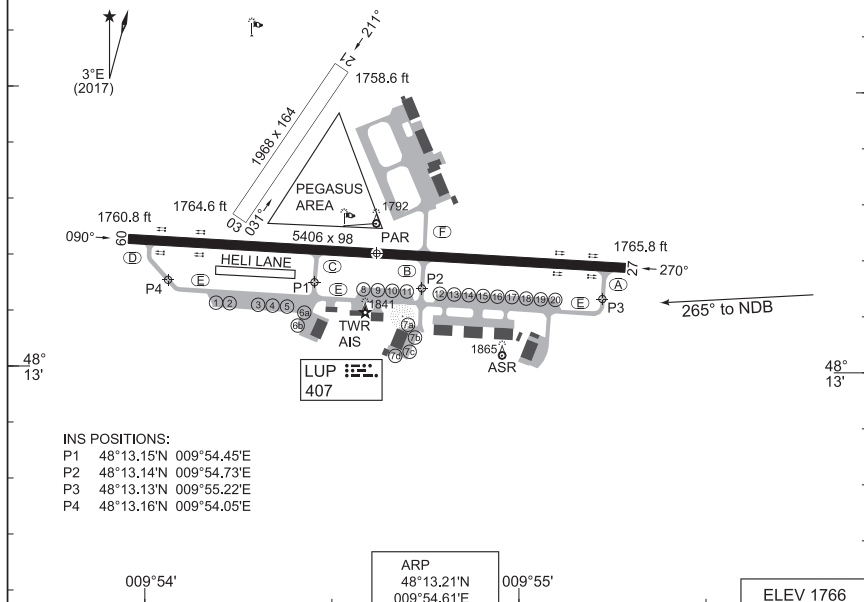


AERODROME CHART

LAUPHEIM (ETHL)

NOTE:

APPROACH LIGHTING SYSTEM:
MODIFIED NATO STANDARD,
LENGTH: 600 M



INS POSITIONS:

P1 48°13.15'N 009°54.45'E
P2 48°13.14'N 009°54.73'E
P3 48°13.13'N 009°55.22'E
P4 48°13.16'N 009°54.05'E

RWY	LCN	TORA	ASDA	TODA	LDA	VASIS	TDZE	THR PSN
09	30	5406	5406	5406	5406	3.0°	1763	48°13.23'N 009°53.95'E
27	30	5406	5406	5406	5406	3.0°	1766	48°13.18'N 009°55.28'E
03								48°13.27'N 009°54.24'E
21								48°13.54'N 009°54.51'E

LIMA TOWER 376.100 138.750x
LIMA RADAR 281.350 120.450 371.800 138.450x SSR 4250 - 4257

	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
PAR	TERPS	09	3.0°	36		651	ABC	TERPS	1966 - 1.2 200 (200-1.2)
	TERPS	27	3.0°	34		653	AB	TERPS	1966 - 0.8 200 (200-0.8/1.2)
							C		1966 - 1.2 200 (200-1.2)
	TERPS	275	3.0°			653	COPTER	TERPS	1866 - 0.4 100 (100-0.4/0.8)
	TERPS	095	3.0°			651	COPTER	TERPS	1866 - 0.8 100 (100-0.8)
SRA	TERPS	09					ABC	TERPS	2160 - 1.6 394 (400-1.6)
	TERPS	27					AB C	TERPS	2220 - 0.8 454 (500-0.8/1.6) 2220 - 1.2 454 (500-1.2/2.0)

AERODROME CHART

LAUPHEIM (ETHL)

HL 11 - 31
LAUPHEIM (ETHL)

CAUTION:
CLOSE IN OBSTACLE
TWR 198 M S OF RWY 1841 FT
NOTE:
NOT USABLE FOR ACFT CAT D AND E



48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

PANS-OPS INSTRUMENT DEPARTURE CHART

AD ELEV 1766

HL 12 - 32
LAUPHEIM (ETHL)

LIMA TOWER
376.100 138.750x

LIMA RADAR
371.800 120.450

MUENCHEN RADAR
259.000 129.450

CAUTION:

CLOSE IN OBSTACLE:

TWR 198 M S OF RWY 1841 FT

NOTE:

- NOT USABLE FOR ACFT CAT D AND E
- DEPARTURE TURN LIMITED TO MAX KIAS 180
- NO TURN BEFORE DER

STG 
CH115Y
116.850

LBU 
CH29X
109.200

DKB 
CH125X
117.800

2°E
(2009)

LBU R-140/38 DME

STG R-120/32 DME

DKB R-195/45 DME

LANOK
48°25.38'N
009°55.57'E

5000

3000

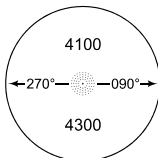
LUP 
407

3000

HL 12

15 NM

MSA LUP 25 NM



EMERG SAFE ALT 100 NM 14400

TA 5000

HL 12
(RWY 27)

- Climb on track 271°
- When passing 3000 ft or above turn left inbound LUP NDB and continue climb to 5000 ft
- When crossing LUP NDB intercept track 001° to cross LANOK (STG R-120) at 5000 ft or above

HL 32
(RWY 09)

- Climb on track 091°
- When passing 3000 ft or above turn right inbound LUP NDB and continue climb to 5000 ft
- When crossing LUP NDB intercept track 001° to cross LANOK (STG R-120) at 5000 ft or above

HL 12 - 32

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

PANS-OPS INSTRUMENT DEPARTURE CHART

AD ELEV 1766

HL 13 - 33
LAUPHEIM (ETHL)

LIMA TOWER		LIMA RADAR				MUENCHEN RADAR				
376.100 138.750x		371.800 120.450				259.000 129.450				
		RWY	from - to	60	120	180	240	300	360	Reason
		09	5000 ft	260	520	1040	1300	1560	1820	ATC

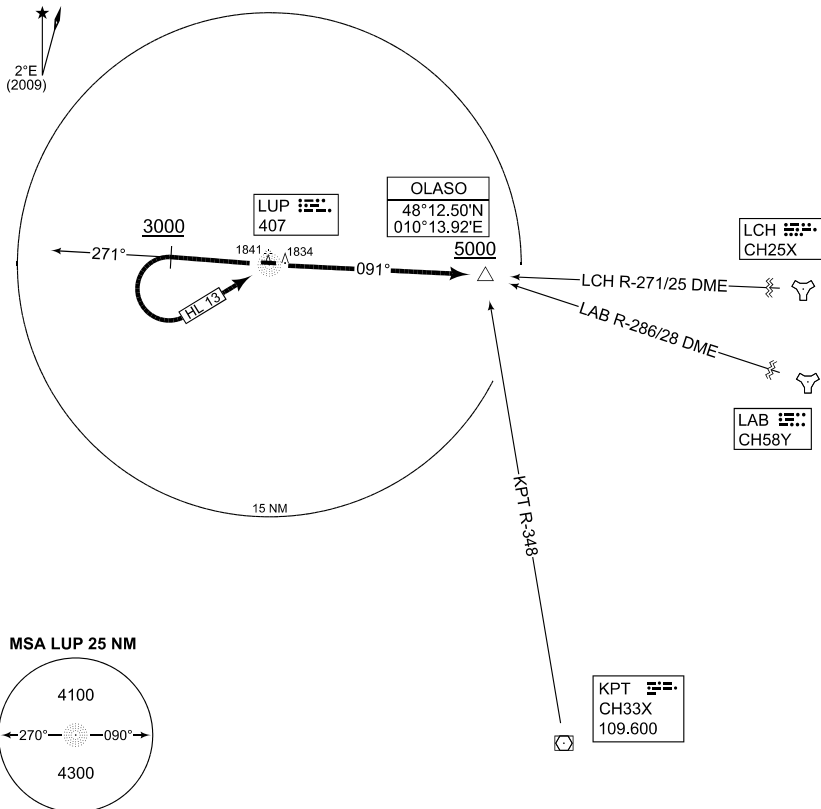
CAUTION:

CLOSE IN OBSTACLE:

TWR 198 M S OF RWY 1841 FT

NOTE:

NOT USABLE FOR ACFT CAT D AND E



EMERG SAFE ALT 100 NM 14400

TA 5000

HL 13
(RWY 27)

- Climb on track 271°
- When passing 3000 ft or above turn left inbound LUP NDB and continue climb to 5000 ft
- When crossing LUP NDB intercept track 091° to cross OLASO at 5000 ft or above

NOTE:

- Departure turn limited to MAX KIAS 180
- No turn before DER

HL 33
(RWY 09)

- Climb on LUP NDB track 091° to reach OLASO at 5000 ft or above

HL 13 - 33

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

PANS-OPS INSTRUMENT DEPARTURE CHART

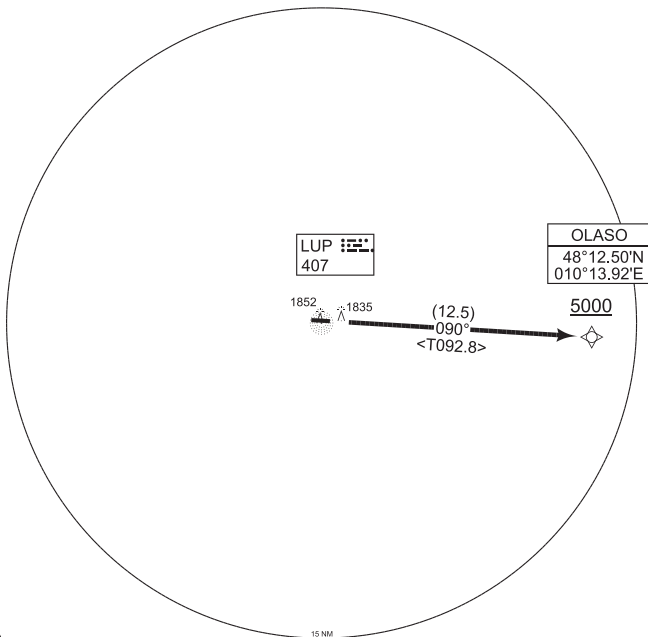
AD ELEV 1766

OLASO 1A
LAUPHEIM (ETHL)

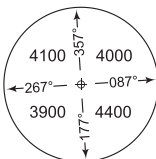
LIMA TOWER 376.100 122.100		LIMA RADAR 371.800 120.450				MUENCHEN RADAR 259.000 129.450			
	RWY	from - to	60	90	120	180	240	300	Reason
	09	DER-5000 ft	258	387	516	774	1031	1289	ATC

NOTE:

- GNSS REQUIRED
- NAVIGATION SPECIFICATION B-RNP 1



MSA ARP 25 NM



EMERG SAFE ALT 100 NM 14400

TA 5000

OLASO 1A
(RWY 09)

- Climb on track 090° to OLASO
- Pass OLASO at or above A5000 ft MSL
- Continue as cleared by ATC
OLASO [M090; A5000+]

OLASO 1A

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

CHANGE: NEW PROCEDURE (292/18)

ZentitLufOp 16 AUG 2018

INSTRUMENT DEPARTURE CHART

AD ELEV 1766

LAUPHEIM (ETHL)

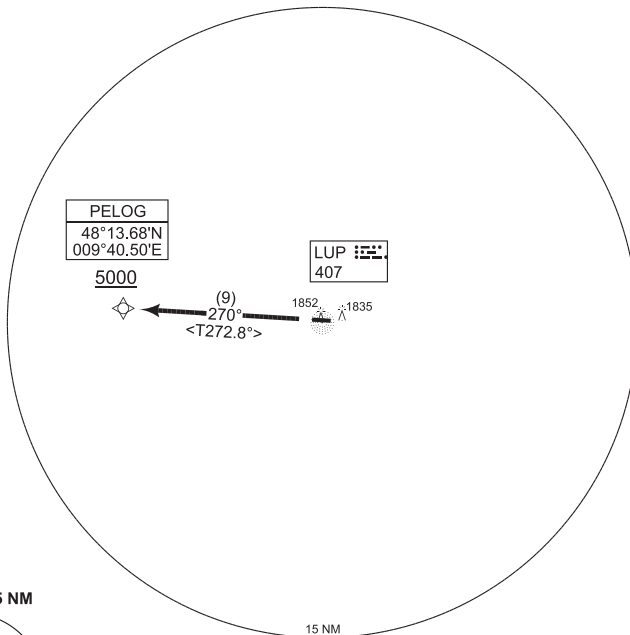
LIMA TOWER		LIMA RADAR					MUENCHEN RADAR				
376.100	122.100	371.800 120.450					259.000 129.450				
		RWY	from - to	60	90	120	180	240	300	Reason	
		27	DER-5000 ft	358	537	716	1074	1432	1790	ATC	

CAUTION:

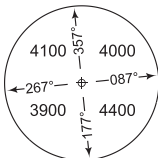
CLOSE IN OBSTACLE TRAFFIC LIGHT
143 M SOUTH OF DER ALTITUDE 1779 FT

NOTE:

- a) GNSS REQUIRED
b) NAVIGATION SPECIFICATION B-RNP 1



MSA ARP 25 NM



EMERG SAFE ALT 100 NM 14400

TA 5000

PELOG 1 A
(RWY 27)

- Climb on Track 270° to PELOG.
 - Pass PELOG at or above A5000 ft MSL.
 - Continue as cleared by ATC
- PELOG [M270; A5000+]

PELOG 1 A

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

**TERPS
INSTRUMENT APPROACH CHART**

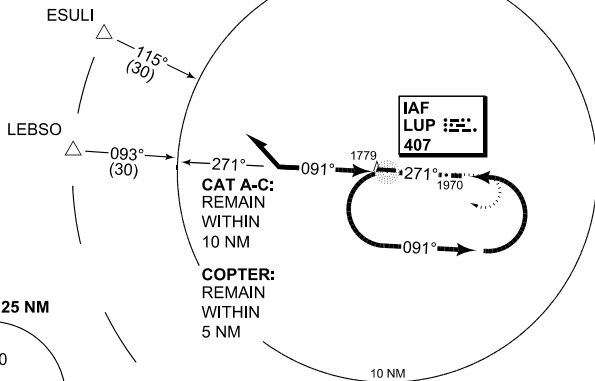
AD ELEV 1766

**NDB RWY 09/COPTER NDB 091
LAUPHEIM (ETHL)**

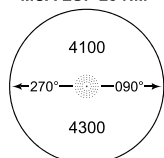
MUNICHEN RADAR 259.000 129.450		LIMA RADAR 371.800 120.450		LIMA TOWER 376.100 138.750x			
NDB LUP 407	APP COURSE 091°			MDA 2280	TDZE 1763	ALS-LENGTH —	LDA 5406

IAF
48°13.09'N
009°54.68'E

2°E
(2009)



MSA LUP 25 NM

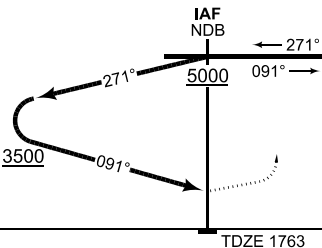


EMERG SAFE ALT 100 NM 14400

TA 5000

CAT A-C:
REMAIN
WITHIN
10 NM

COPTER:
REMAIN
WITHIN
5 NM



MISSSED APPROACH

Climb on track 091° to 3500 ft.
RT and continue climb to 5000 ft
inbound LUP and hold.

NO LIGHTS

TDZE 1763

CATEGORY	A	B	C	D	E
S-NDB 09	2280 - 1.6 517 (600-1.6)	2280 - 1.6 517 (600-1.6)	2280 - 2.4 517 (600-2.4)		
CATEGORY	COPTER				
H-091°	2200 - 0.8 437 (500-0.8)	2200 - 0.8 437 (500-0.8)	2200 - 0.8 437 (500-0.8)		

NDB RWY 09/COPTER NDB 091

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

PANS-OPS INSTRUMENT APPROACH CHART

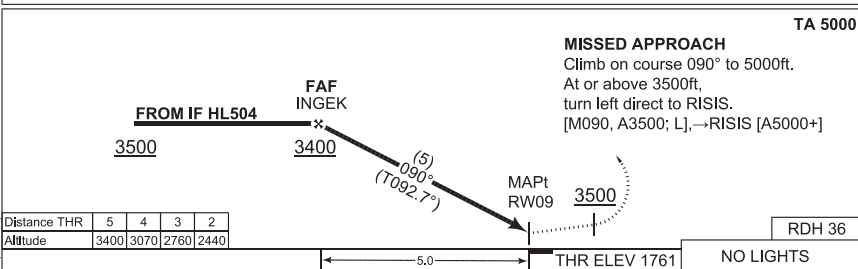
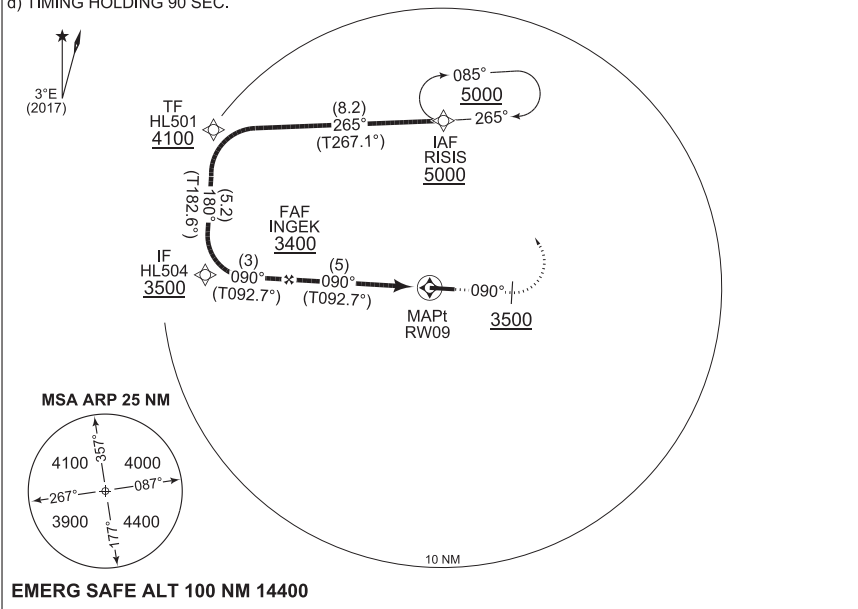
AD ELEV 1766

COPTER RNP RWY 09
LAUPHEIM (ETHL)

MUENCHEN RADAR 259.000 129.450		LIMA RADAR 371.800 120.450		LIMA TOWER 122.100 376.100			
	APP COURSE 090°	FAF ALT 3400	DESCENT GR 5.2%	MDA 2130	THR ELEV 1761	ALS-LENGTH -	LDA 5406

NOTE:

- GNSS REQUIRED
- TIMING NOT AUTHORIZED FOR DEFINING THE MAPt.
- NAVIGATION SPECIFICATION RNP APPROACH.
- TIMING HOLDING 90 SEC.



Distance THR	5	4	3	2
Altitude	3400	3070	2760	2440

CATEGORY	H
LNAV	2130 - 0.8 369 (400-0.8)

MIPS	
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COPTER RNP RWY 09

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

CHANGE: NEW PROCEDURE (142/18)

ZenitLufOp: 26 APR 2018

RWY 09 from RISIS APPROACH RNAV (GNSS)

	CODING	DISPLAY
RISIS (IAF)	48 19 12.14 N 009 54 36.75 E	48 19.202 N 009 54.613 E
HL501 (TF)	48 18 48.04 N 009 42 17.77 E	48°18.801'N 009 42. 296E
HL504 (IF)	48 13 37.04 N 009 41 56.26 E	48 13.617 N 009 41.938 E
INGEK (FAF)	48 13 28.66 N 009 46 25.17 E	48 13.478 N 009 46.420 E
RW09 (MAPt)	48 13 13.72 N 009 53 56.88 E	48 13.229 N 009 53.948 E
RISIS (MAHF)	48 19 12.14 N 009 54 36.75 E	48 19.202 N 009 54.613 E

Threshold Coordinates

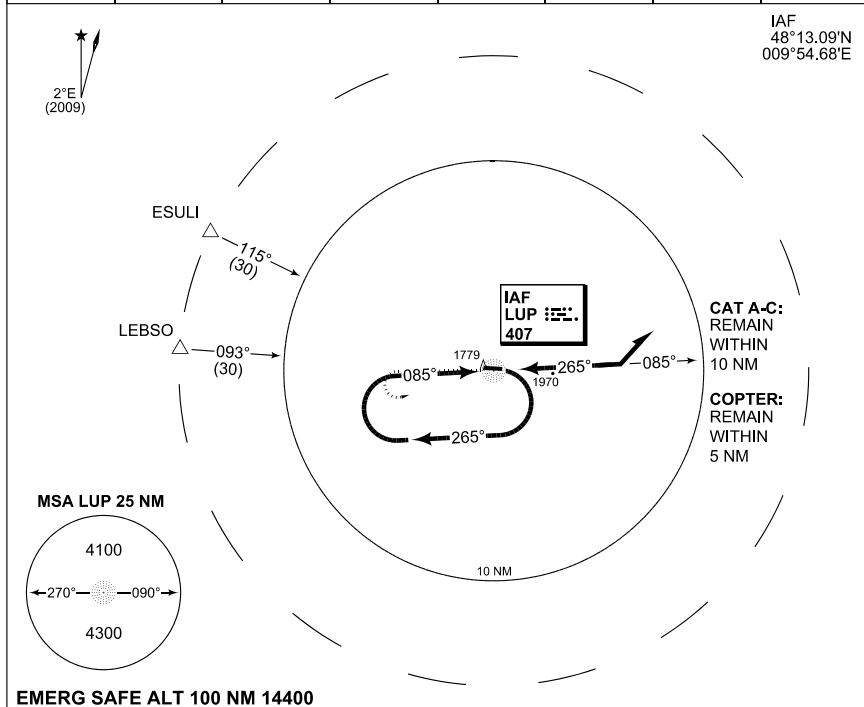
RW09	48 13 13.72 N 009 53 56.88 E	48 13.229 N 009 53.948 E
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**TERPS
INSTRUMENT APPROACH CHART**

AD ELEV 1766

**NDB RWY 27/COPTER NDB 265
LAUPHEIM (ETHL)**

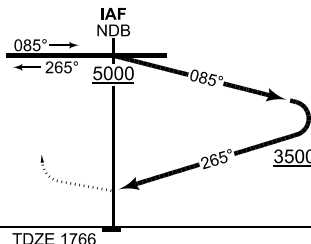
MUNICHEN RADAR 259.000 129.450		LIMA RADAR 371.800 120.450		LIMA TOWER 376.100 138.750x			
NDB LUP 407	APP COURSE 265°			MDA 2280	TDZE 1766	ALS-LENGTH 600 M	LDA 5406



MISSED APPROACH

Climb on track 265° to 3500 ft.
LT and continue climb to 5000 ft
inbound LUP and hold.

TA 5000



CAT A-C: REMAIN WITHIN 10 NM

COPTER: REMAIN WITHIN 5 NM

||||| S-ALS

CATEGORY	A	B	C	D	E
S-NDB 27	2280 - 0.8 514 (600-0.8/1.6)	2280 - 0.8 514 (600-0.8/1.6)	2280 - 1.6 514 (600-1.6/2.4)		
CATEGORY	COPTER				
H-265°	2280 - 0.4 514 (600-0.4/0.8)	2280 - 0.4 514 (600-0.4/0.8)	2280 - 0.4 514 (600-0.4/0.8)		

NDB RWY 27/COPTER NDB 265

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

PANS-OPS INSTRUMENT APPROACH CHART

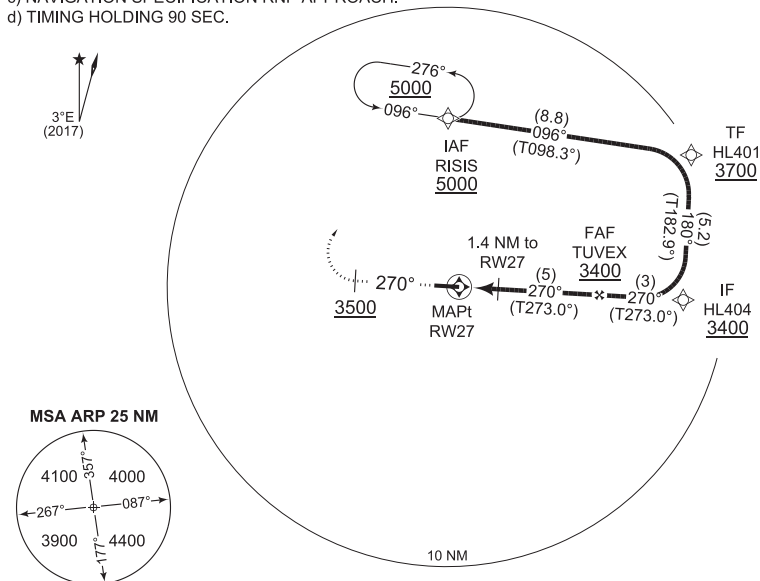
AD ELEV 1766

COPTER RNP RWY 27
LAUPHEIM (ETHL)

MUENCHEN RADAR 259.000 129.450		LIMA RADAR 371.800 120.450		LIMA TOWER 122.100 376.100			
	APP COURSE 270°	FAF ALT 3400	DESCENT GR 5.2%	MDA 2170	THR ELEV 1766	ALS-LENGTH 600 M	LDA 5406

NOTE:

- GNSS REQUIRED.
- TIMING NOT AUTHORIZED FOR DEFINING THE MAPT.
- NAVIGATION SPECIFICATION RNP APPROACH.
- TIMING HOLDING 90 SEC.



EMERG SAFE ALT 100 NM 14400

MISSSED APPROACH

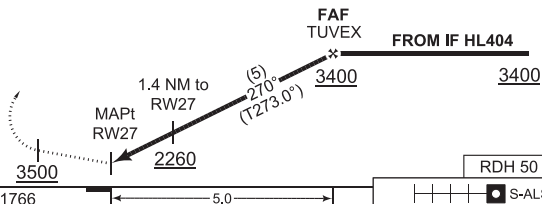
Climb on course 270° to 5000ft.

At or above 3500ft,

turn right direct to RISIS.

[M270, A3500; R], →RISIS [A5000+]

TA 5000



Distance THR	2	3	4	5
Altitude	2450	2770	3090	3400

RDH 50

THR ELEV 1766

5.0

||||| S-ALS

CATEGORY	H
LNAV	2170 - 0.4 404 (500-0.4/0.8)

MIPS

COPTER RNP RWY 27

48°13.21'N
009°54.61'E

LAUPHEIM (ETHL)

RWY 27 from RISIS APPROACH RNAV (GNSS)

	CODING	DISPLAY
RISIS (IAF)	48 19 12.14 N 009 54 36.75 E	48 19.202 N 009 54.613 E
HL401 (TF)	48 17 57.02 N 010 07 39.07 E	48 17.950 N 010 07.651 E
HL404 (IF)	48 12 46.24 N 010 07 15.63 E	48 12.771 N 010 07.261 E
TUVEX (FAF)	48 12 55.72 N 010 02 46.87 E	48 12.929 N 010 02.781 E
RW27 (MAPt)	48 13 11.05 N 009 55 16.61 E	48 13.184 N 009 55.277 E
RISIS (MAHF)	48 19 12.14 N 009 54 36.75 E	48 19.202 N 009 54.613 E

Threshold Coordinates

RW27	48 13 11.05 N 009 55 16.61 E	48 13.184 N 009 55.277 E
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