



Royal Danish Air Force
Flight Information Publication
RDAF FLIP



**High & Low Altitude
Instrument Approach and
Departure Procedures**

**Denmark
and
F-16 Alternate Aerodromes**

Special edition for
FW SKRYDSTRUP



Effective 28 NOV 2024
to 22 JAN 2025

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YT	AH	BI	EB	KA	CH	MB	OD	RK	RN	SN	SV	SP
VJ	SB	TS	VD			MISC	EHLW	ENGM	ENRY		ETMN	ETNL
ETNS	ETNT	ESDF	ESGG	ESMK	ESMS	ESMT	ESTA					

General Information

Errors and omissions

We ask you to kindly report any errors or omissions in the RDAF FLIP or the CENOR FLIP to:

Air Command Denmark

MIL AIM

TLF.: 728 11608

Email: FKO-KTP-F-AIM@MIL.DK

Approach lights

See Miscellaneous page 20-17.

List of symbols

In the RDAF FLIP the same symbology are used as in the CENOR FLIP (kindly see CENOR FLIP preface pages). A few exceptions are listed on page 0-5. All positions are indicated in WGS-84.

NOTAMs:

Civil Danish and some european NOTAMs:

<http://briefing.naviair.dk/>

Civil Greenlandic NOTAMs: <http://www.naviair.gl/>

BGTL: Only via DINS Notam Service.

BGMV og BGNO: NOTAMs are not issued. Operational conditions are checked in accordance with Air Transport Wing procedures.

DINS Notam Service (worldwide):

<https://www.notams.faa.gov/>

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LEGEND

RDAF FLIP uses the same symbology as CENOR FLIP (Please see CENOR FLIP Preface) with the following exceptions:

	Wind turbine - unlit	} Replaces Δ \blacktriangle \triangle \blacktriangle where obstacles are in fact wind turbines.
	Group of wind turbines - unlit	
	Wind turbine - lit	
	Group of wind turbines - lit	
	Line of wind turbines - lit	} Replaces \triangle where an obstacle is 1000 ft AMSL or more)
	Wind farm - lit	
	Exceptionally high obstacle - lit	
	Highest obstacle within the Plan View Area	
	Para drop zone	
	Cities, towns, villages	
	Air traffic services Reporting Office (ARO)	

INTENTIONALLY

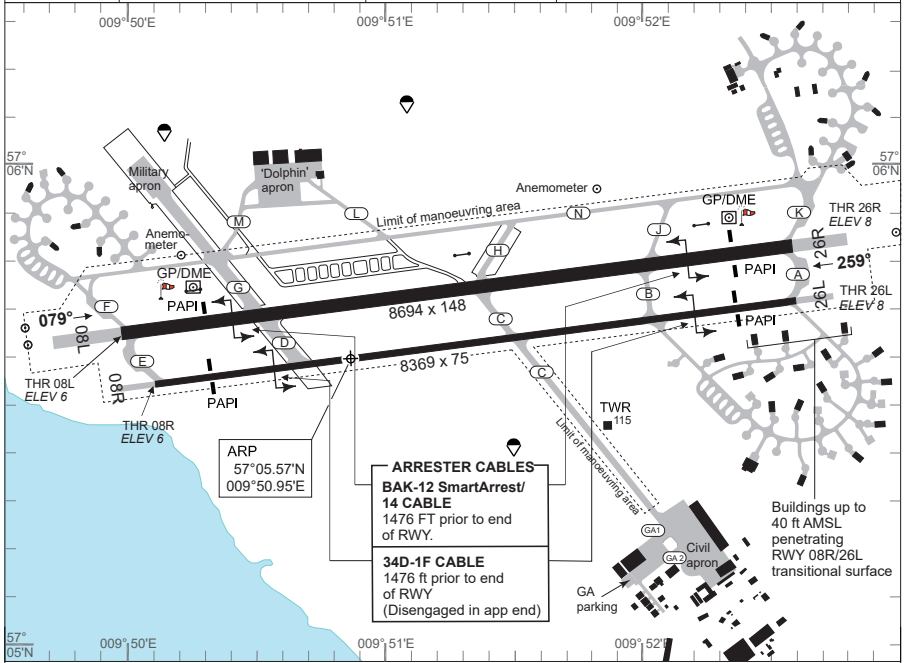
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AERODROME CHART

AALBORG (EKYT)

AALBORG ATIS 120.480	AALBORG TOWER 353.525 118.305	AALBORG APPROACH 362.450 123.980	AD Admin and FPL: Email:	+45 728 46310 woc@atwaal.dk
AD Elev 8	ARP 57°05.57'N 009°50.95'E	VAR 4.0°E (JAN 2023)		

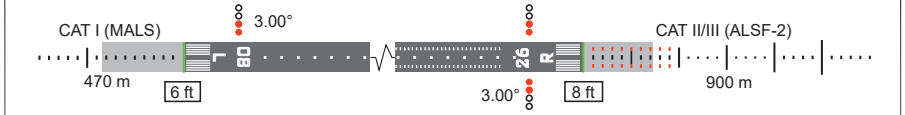


ARP
57°05.57'N
009°50.95'E

ARRESTER CABLES
BAK-12 SmartArrest/ 14 CABLE
1476 FT prior to end of RWY.

34D-1F CABLE
1476 ft prior to end of RWY.
(Disengaged in app end)

Buildings up to 40 ft AMSL penetrating RWY 08R/26L transitional surface



RWY	PCN	DECLARED DISTANCES					THR ELEV	RWY LIGHTING					THR PSN	
		PSN	TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
08L	66	E/F	8694	8694	9422	8694	6	LIH	3.00°		LIH	LIH	LIH	57°05.623'N 009°50.005'E
		D/G	6791	6791	7519									
		C/H	4002	4002	4730									
26R	F/D/W/T	A/K	8694	8694	9589	8694	8	LIH	3.00°	LIH	LIH	LIH	LIH	57°05.790'N 009°52.611'E
		B/J	6791	6791	7686									
		C/H	4691	4691	5586									
08R	52	E	8369	8369	8861	8369	6	LIL	2.75°		LIL	LIL	57°05.515'N 009°50.128'E	
26L	F/D/X/U	A	8369	8369	8861	8369	8	LIL	2.75°		LIL	LIL	57°05.675'N 009°52.634'E	

Start-up clearance required for all aircraft, also for engine ground run.

Use of TWY N is only permitted for aircraft size up to and including C-130. Larger size aircraft will need specific clearance from Current OPS before using TWY N.

Standard Instrument Departures (SID) have not been established.

Omnidirectional departures RWY 08L/R and 26R/L: Climb straight ahead to at least 600 FT MSL before turn is commenced.

MIPS		CIRCLING MINIMA (NORTH of aerodrome only)				
A	B	C	D	E		
510	510	690	750	840		
-1.5 502 (600-1.5)	-1.6 502 (600-1.6)	-2.4 682 (700-2.4)	-3.6 742 (800-3.6)	-3.6 832 (900-3.6)		

AERODROME CHART

AALBORG (EKYT)

CHANGES AD ELEV, THR ELEV and CIRCLING MINIMA OCH and CLG CAT A and B CHG.

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MIPS

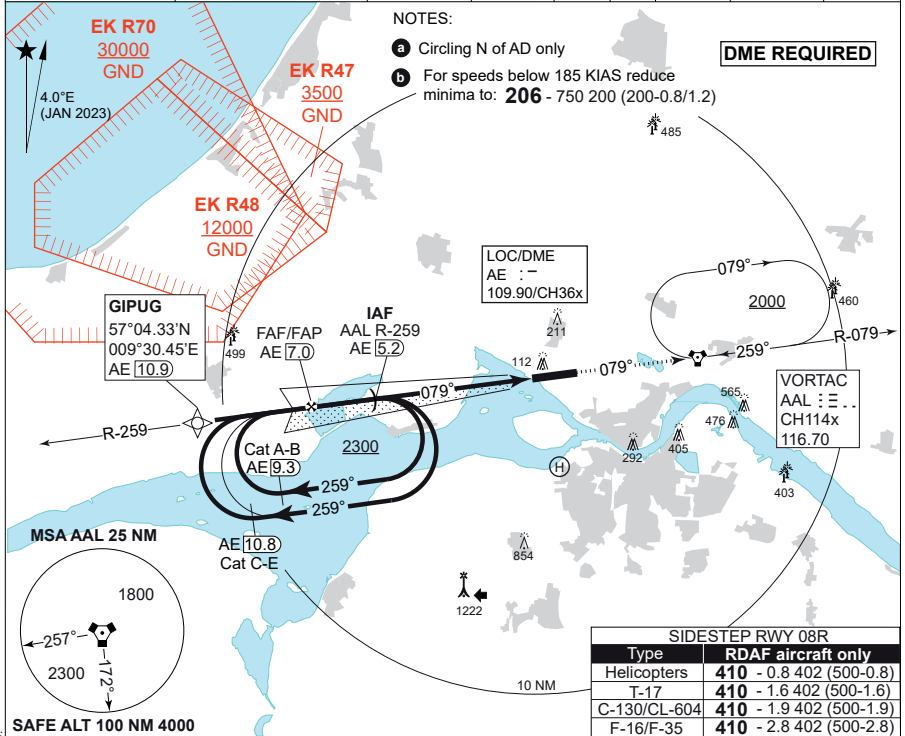
INSTRUMENT APPROACH CHART

ILS or LOC RWY 08L

AALBORG (EKYT)

AD ELEV 8

COPENHAGEN CONTROL 242.650 124.555		AALBORG ATIS 120.480	AALBORG APPROACH 362.450 123.980		AALBORG TOWER 353.525 118.305
LOC/DME AE 109.90/CH 36x	VORTAC AAL CH 114x/116.700	APP COURSE 079°	FAF ALT 2300 FT	GS 3.00°	DA 206
THR ELEV 6	ALS LENGTH 470 M	LDA 8694 FT			



CATEGORY	A	B	C	D	E
S-ILS CAT I 08L	206 - 750 200 (200-0.8/1.2)				281 -900 275 (300-0.9/1.3) b
S-LOC 08L	300 - 900 292 (300-0.9/1.4)				310 -1000 302 (400-1.0/1.4)
CIRCLING a	510 -1.5 502 (600-1.5)	510 -1.6 502 (600-1.6)	690 -2.4 682 (700-2.4)	750 -3.6 742 (800-3.6)	840 -3.6 832 (900-3.6)

ILS or LOC RWY 08L		AALBORG (EKYT)	
57°05.57'N		009°50.95'E	
1-2			

CHANGES AD ELEV, THR ELEV and ALL APPROACH TYPES CAT MINIMA CHG.

AIR COMMAND DENMARK - MIL AIRM 03 OCT 2024

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MIPS

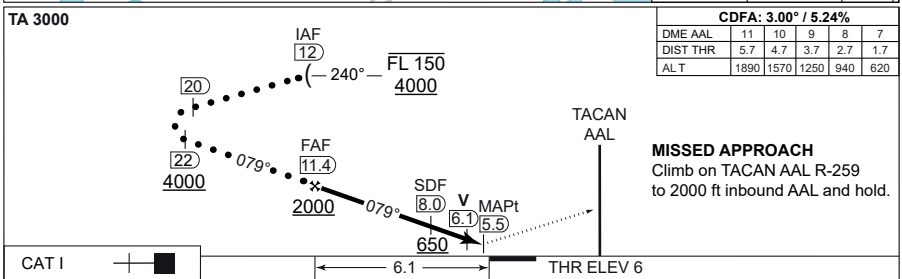
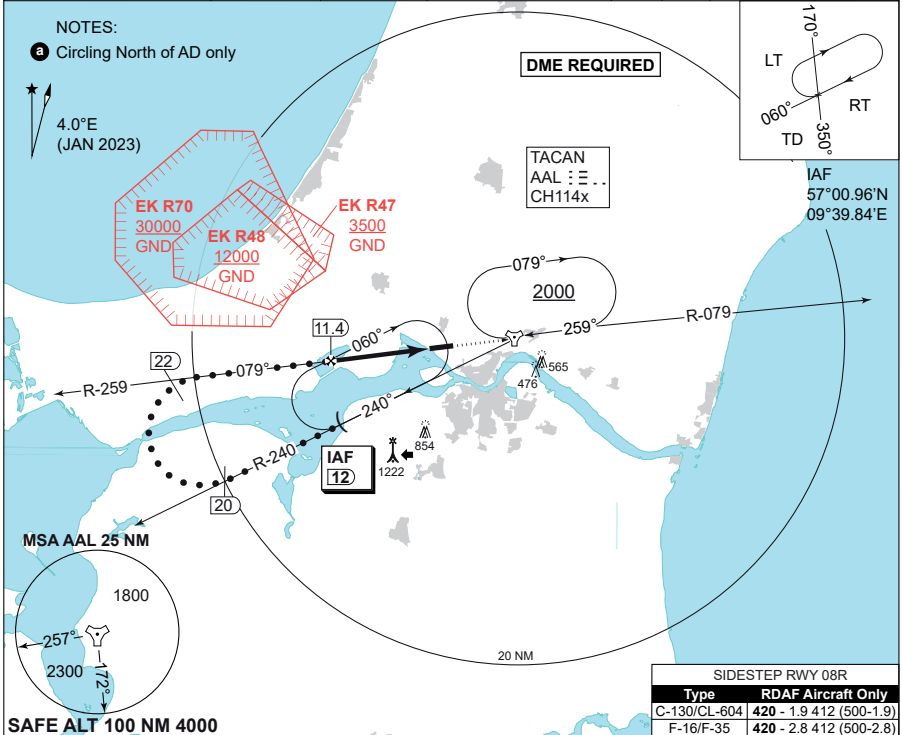
INSTRUMENT APPROACH CHART

AD ELEV 8

HPMA TACAN RWY 08L

AALBORG (EKYT)

COPENHAGEN CONTROL 242.650 124.555		AALBORG ATIS 120.480		AALBORG APPROACH 362.450 123.980		AALBORG TOWER 353.525 118.305	
TACAN AAL CH 114X	APP COURSE 079°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 340	THR 6	ALS LENGTH 470 M	LDA 8694 FT



CATEGORY	HPMA
S-TACAN 08L	340 - 1100 332 (400-1.1/1.5)
CIRCLING a	560 - 3.2 552 (600-3.2)

HPMA TACAN RWY 08L

57°05.57'N
 009°50.95'E

AALBORG (EKYT)

CHANGES: YORTAC CHANGED TO TACAN WITHOUT FREQUENCY.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

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MIPS

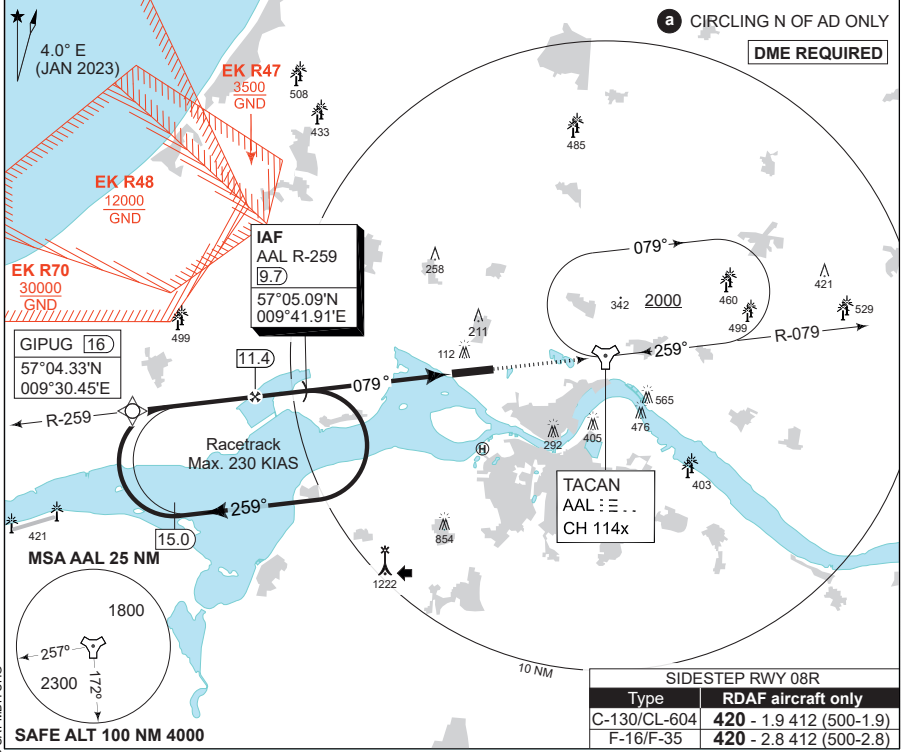
TACAN RWY 08L (CAT C-E)

INSTRUMENT APPROACH CHART

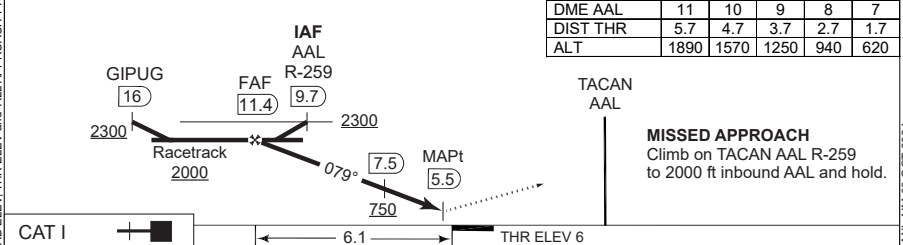
AD ELEV 8

AALBORG (EKYT)

COPENHAGEN CONTROL 242.650 124.555	AALBORG ATIS 120.480	AALBORG APPROACH 362.450 123.980	AALBORG TOWER 353.525 118.305
TACAN AAL CH 114x	APP COURSE 079°	FAF ALT 2000 FT	DESCENT GR 318 FT/NM
	MDA 340	THR 6	ALS Length 470 M
	LDA 8694 FT		



TA 3000



CAT I	6.1	THR ELEV 6
-------	-----	------------

CATEGORY	C	D	E
S-TACAN 08L	340 -1100 332 (400-1.1/1.5)		
CIRCLING a	690 -2.4 682 (700-2.4)	750 -3.6 742 (800-3.6)	840 -3.6 832 (900-3.6)

TACAN RWY 08L (CAT C-E)

57°05.57'N
009°50.95'E

AALBORG (EKYT)

CHANGES: EDITORIAL and AD ELEV, THR ELEV and ALL APPROACH TYPES CAT MDH CHG

AIR COMMAND DENMARK - MIL AIR 03 OCT 2024

MIPS

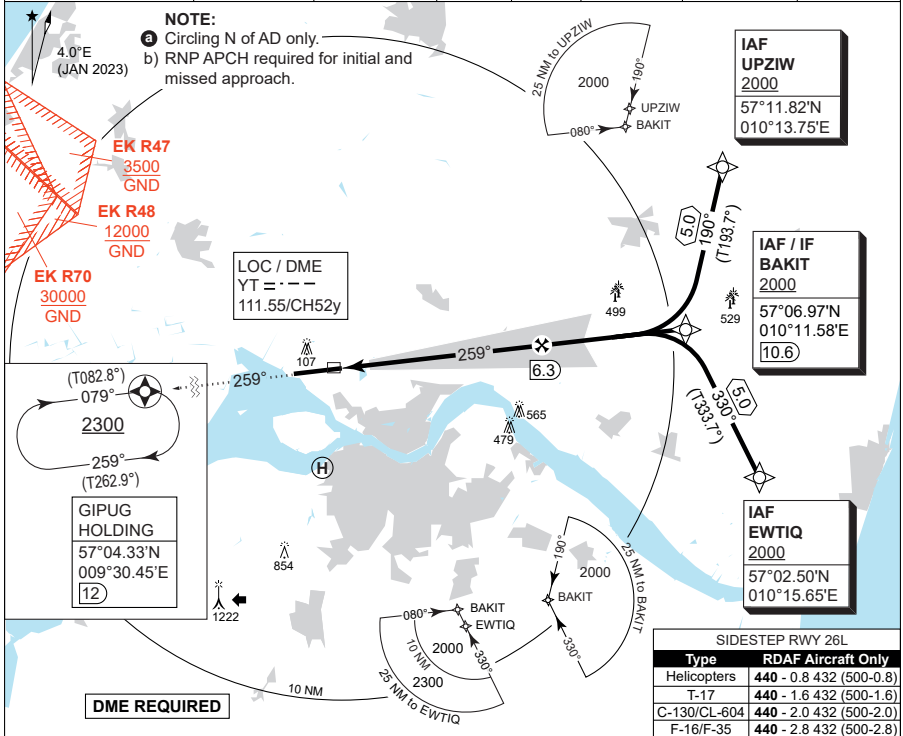
INSTRUMENT APPROACH CHART

AD ELEV 8

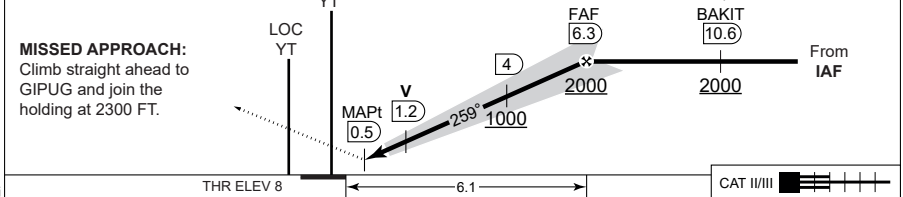
ILS or LOC RWY 26R

AALBORG (EKYT)

COPENHAGEN CONTROL 242.650 124.555		AALBORG ATIS 120.480		AALBORG APPROACH 362.450 123.980		AALBORG TOWER 353.525 118.305	
LOC/DME YT 111.55/CH 52y	APP COURSE 259°	GS INCPT ALT 2000 FT	GS 3.00°	DA 208	THR ELEV 8	ALS LENGTH 900 M	LDA 8694 FT



DME YT		2	3	4	5	6
DIST THR		1.8	2.8	3.8	4.8	5.8
ALT		640	960	1280	1600	1920



CATEGORY	A	B	C	D	E
S-CAT I	208 - 550 200 (200-0.8/1.2)				
S-CAT II	RA 101 (DA 108) - 350 100				N/A
S-LOC 26R	390 - 1100 382 (400-1.1/1.8)				
CIRCLING a	510 -1.5 502 (600-1.5)	510 -1.6 502 (600-1.6)	690 -2.4 682 (700-2.4)	750 -3.6 742 (800-3.6)	840 -3.6 832 (900-3.6)

ILS or LOC RWY 26R

57°05.57'N
 009°50.95'E

AALBORG (EKYT)

CHANGES, NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIN 03 OCT 2024

INTENTIONALLY

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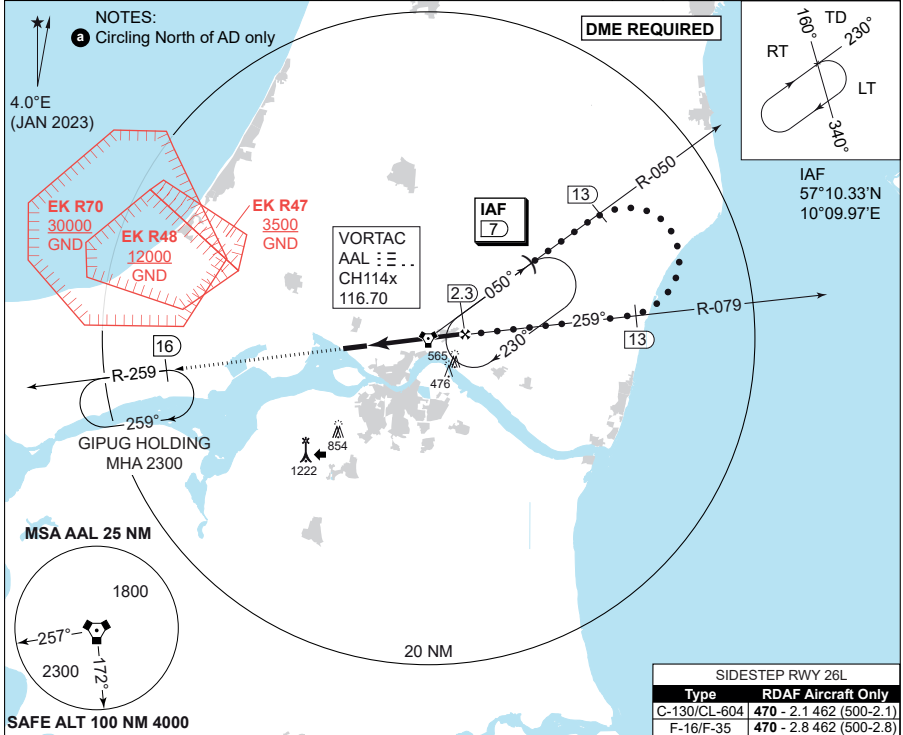
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MIPS
INSTRUMENT APPROACH CHART

HPMA VORTAC RWY 26R
AALBORG (EKYT)

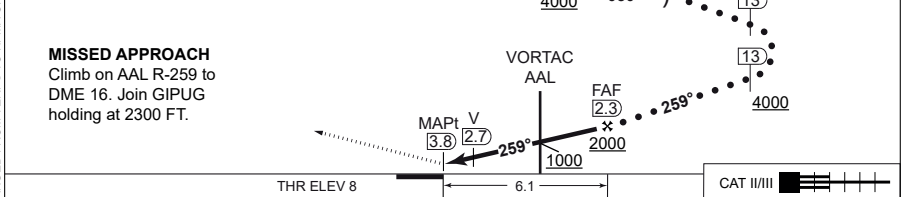
AD ELEV 8

COPENHAGEN CONTROL 242.650 124.555		AALBORG ATIS 120.480		AALBORG APPROACH 362.450 123.980		AALBORG TOWER 353.525 118.305	
VORTAC AAL 116.70/CH 114x	APP COURSE 259°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 420	THR 8	ALS LENGTH 900 M	LDA 8694 FT



CDFA: 3.00° / 5.24%

DME AAL	2	1	0	1	2
DIST THR	1.8	2.8	3.8	4.8	5.8
ALT	640	960	1280	1600	1920



CATEGORY	HPMA
S-VORTAC 26R	420 - 1200 412 (500-1.2/1.9)
CIRCLING a	560 - 3.2 552 (600-3.2)

HPMA VORTAC RWY 26R

57°05.57'N
009°50.95'E
1-11

AALBORG (EKYT)

CHANGES: PROCEDURE CHANGED FROM TERPS TO HPMA CRITERIA

AIR COMMAND DENMARK - MIL AIN 03 OCT 2024

MIPS

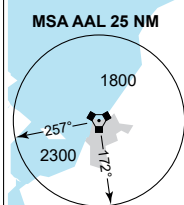
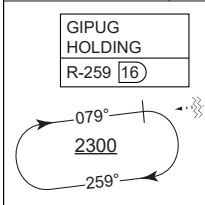
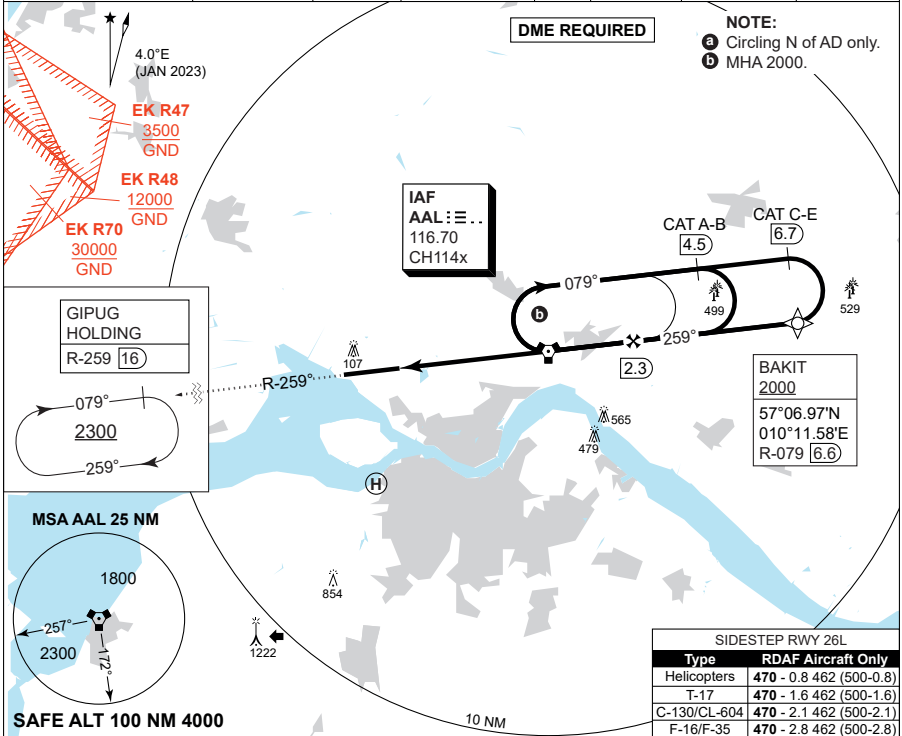
INSTRUMENT APPROACH CHART

AD ELEV 8

VORTAC RWY 26R

AALBORG (EKYT)

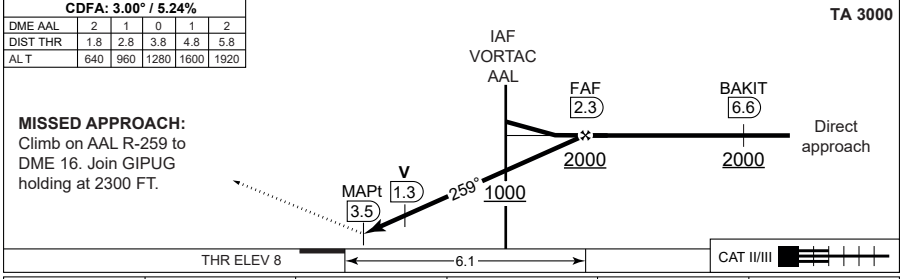
COPENHAGEN CONTROL 242.650 124.555		AALBORG ATIS 120.480	AALBORG APPROACH 362.450 123.980		AALBORG TOWER 353.525 118.305		
VORTAC AAL 116.70/CH 114x	APP COURSE 259°	FAF ALT 2000 FT	DESCENT GR. 3.0° (5.24%)	DA 420	THR ELEV 8	ALS LENGTH 900 M	LDA 8694 FT



SAFE ALT 100 NM 4000

CDFA: 3.00° / 5.24%						
DME AAL	2	1	0	1	2	
DIST THR	1.8	2.8	3.8	4.8	5.8	
ALT	640	960	1280	1600	1920	

MISSED APPROACH:
Climb on AAL R-259 to DME 16. Join GIPUG holding at 2300 FT.



MIPS	CATEGORY	A	B	C	D	E
	VORTAC 26R	420 - 1200 412 (500-1.2/1.9)				
	CIRCLING a	510 -1.5 502 (600-1.5)	510 -1.6 502 (600-1.6)	690 -2.4 682 (700-2.4)	750 -3.6 742 (800-3.6)	840 -3.6 832 (900-3.6)

VORTAC RWY 26R

57°05.57'N
009°50.95'E
1-12

AALBORG (EKYT)

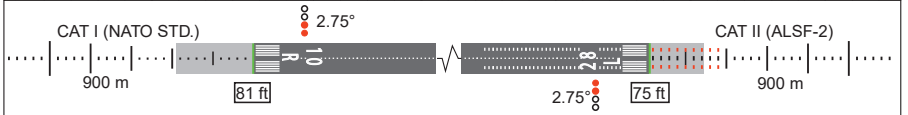
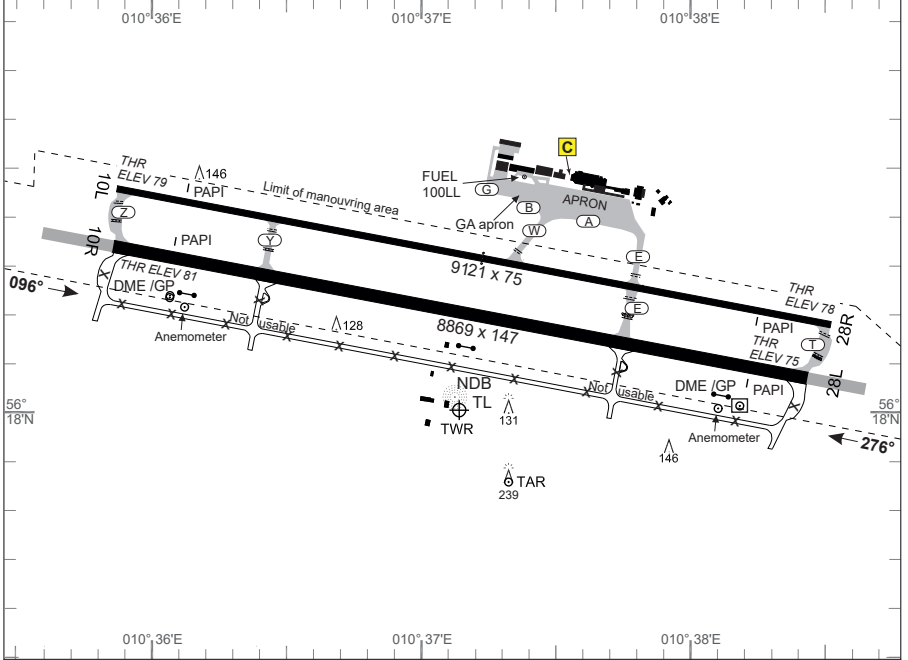
CHANGES: NEW PROCEDURE.

AIR COMMAND DENMARK - MIL AIN 03 OCT 2024

AERODROME CHART

AARHUS (EKAH)

AARHUS ATIS 125.155	AARHUS TOWER 118.530	AARHUS APPROACH 119.280	Airport Office: 131.555 Tel.: +45 87 75 70 50 All departing flights must file a complete or abbreviated flight plan to Aarhus ARO before taxiing.
AD Elev 82 ARP 56°18.00'N 010°37.14'E		VAR 4.0°E (APR 2022)	



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
10R	76/R/B/X/U	8869	9597	9597	8869	81	LIH	2.75°		LIH	LIH	LIH	56°18.33'N 010°35.86'E
28L		8869	9807	9807	8869	75	LIH	2.75°	LIH	LIH	LIH	LIH	56°18.07'N 010°38.43'E
10L	120/F/B/WT	9121	9121	9121	9121	79	LIL	3.00°			LIL	LIL	56°18.45'N 010°35.87'E
28R		9121	9121	9121	9121	78	LIL	3.00°			LIL	LIL	56°18.18'N 010°38.52'E

Standard Instrument Departures (SID) have not been established.
Omnidirectional departures RWY 10R/L and 28L/R: Climb straight ahead to at least 700 FT MSL before turning.

MIPS		CIRCLING MINIMA				
A	B	C	D	E		
570	680	1060	1180	1180		
-1.5 488 (500-1.5)	-1.6 598 (600-1.6)	-2.4 978 (1000-2.4)	-3.6 1098 (1100-3.6)	-3.6 1098 (1100-3.6)		

AERODROME CHART

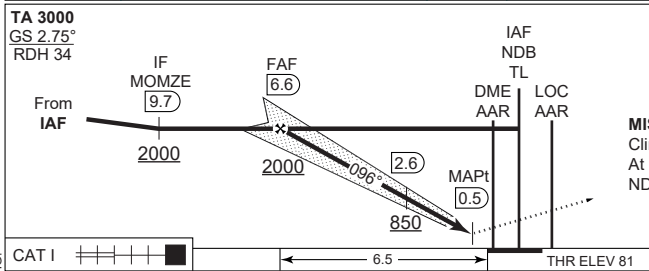
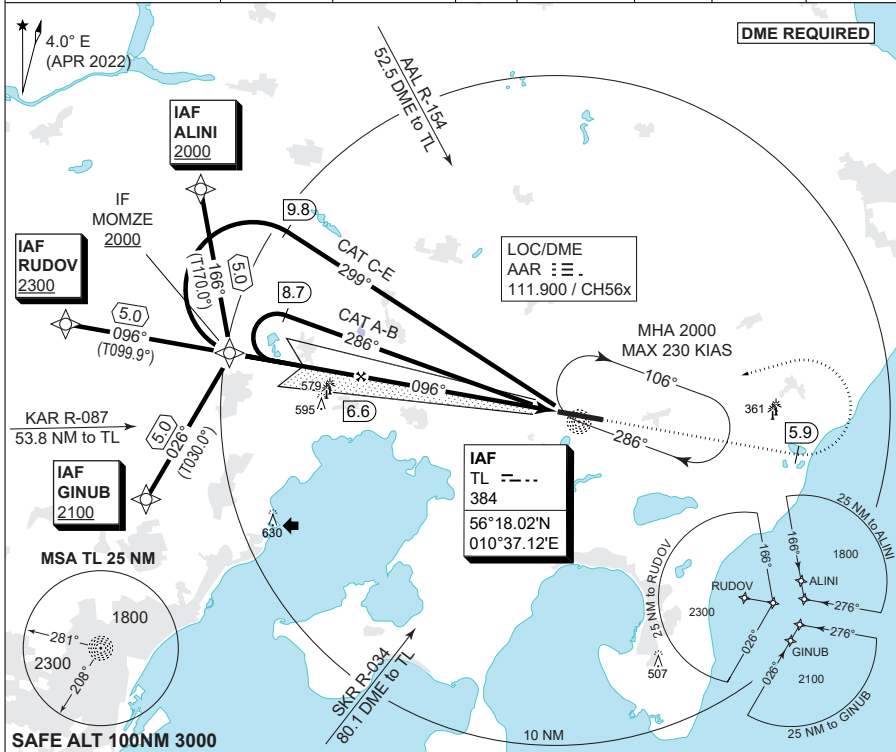
AARHUS (EKAH)

MIPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 10R AARHUS (EKAH)

AD ELEV 82

COPENHAGEN CONTROL 313.425 123.725		AARHUS ATIS 125.155		AARHUS APPROACH 119.280		AARHUS TOWER 118.530	
LOC/DME AAR 111.900/CH 56x	APP COURSE 096°	GS INTCP ALT 2000 FT	GS 2.75°	DA See CAT	THR ELEV 81	ALS 900 M	LDA 8869 FT



CDFA: 2.75° / 4.8%

DME AAR	6	5	4	3	2
DIST THR	5.9	4.9	3.9	2.9	1.9
ALT	1840	1550	1260	960	670

MISSED APPROACH
Climb on track 096° to 2000 FT.
At DME AAR 5.9 turn left inbound NDB TL and hold.

CHANGES: ATIS FREQ. CHG.

CATEGORY	A	B	C	D	E
S-ILS 10R	281 - 550 200 (200-0.8/1.2)				
S-LOC 10R	480 - 1100 398 (400-1.1/1.8)				
CIRCLING	570 - 1.5 488 (500-1.5)	680 - 1.6 598 (600-1.6)	1060 - 2.4 978 (1000-2.4)	1180 - 3.6 1098 (1100-3.6)	1180 - 3.6 1098 (1100-3.6)

ILS or LOC RWY 10R 56°18.00'N 010°37.14'E **AARHUS (EKAH)**

AIR COMMAND DENMARK - MIL_AIM 03 OCT 2024

MIPS

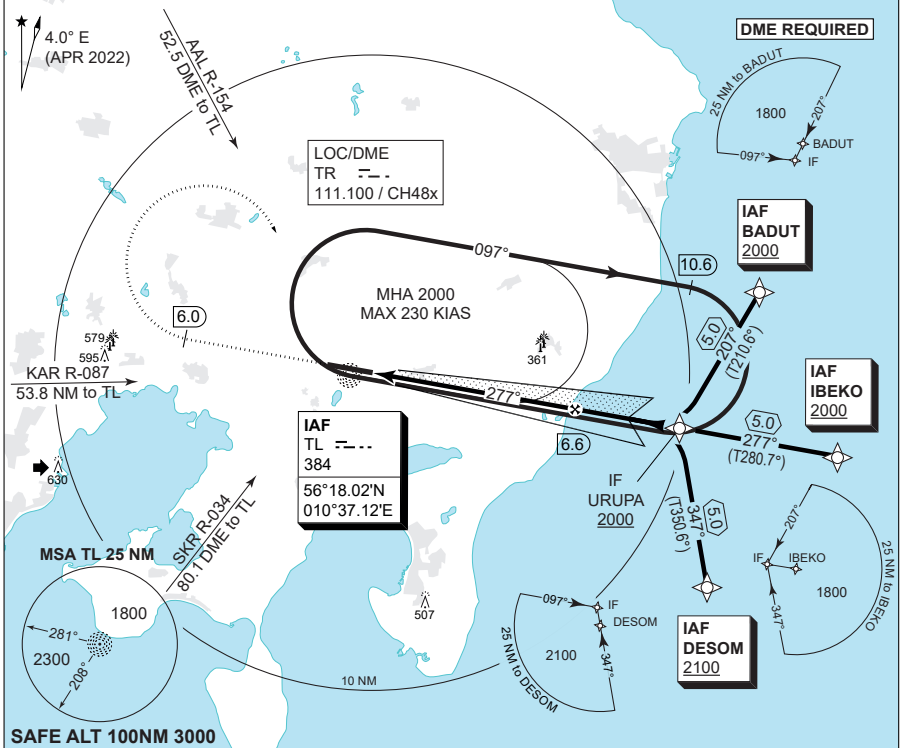
INSTRUMENT APPROACH CHART

AD ELEV 82

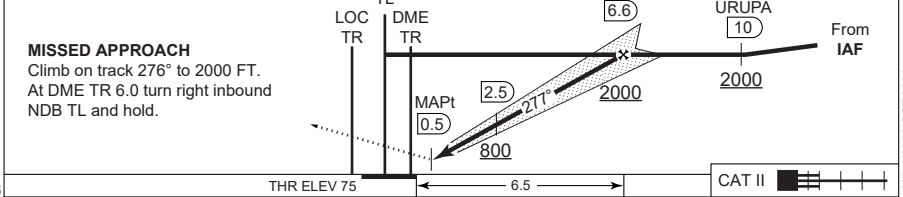
ILS or LOC RWY 28L (CAT C-E)

AARHUS (EKAH)

COPENHAGEN CONTROL 313.425 123.725		AARHUS ATIS 125.155		AARHUS APPROACH 119.280		AARHUS TOWER 118.530	
LOC/DME TR 111.100/CH 48x	APP COURSE 277°	GS INTCP ALT 2000 FT	GS 2.75°	DA 275	THR ELEV 75	ALS 900 M	LDA 8869 FT



CDFA: 2.75° / 4.8%						TA 3000 GS 2.75° RDH 36
DME AAR	2	3	4	5	6	
DIST THR	1.9	2.9	3.9	4.9	5.9	
ALT	670	960	1260	1550	1840	



MIPS	CATEGORY	C	D	E
	S-ILS CAT I	275 - 550 200 (200-0.8/1.2)		
	S-ILS CAT II	RA 99 (DA 175) - 350 100		N/A
	S-LOC 28L	480 - 1100 398 (400-1.1/1.8)		
CIRCLING	1060 - 2.4 978 (1000-2.4)	1180 - 3.6 1098 (1100-3.6)	1180 - 3.6 1098(1100-3.6)	

ILS or LOC RWY 28L (CAT C-E)

56°18.00'N
010°37.14'E

AARHUS (EKAH)

CHANGES: ATIS FREQ. CHG.

AIR COMMAND DENMARK - MIL AIM 03 OCT 2024



INTENTIONALLY

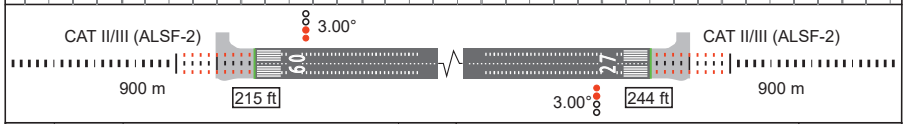
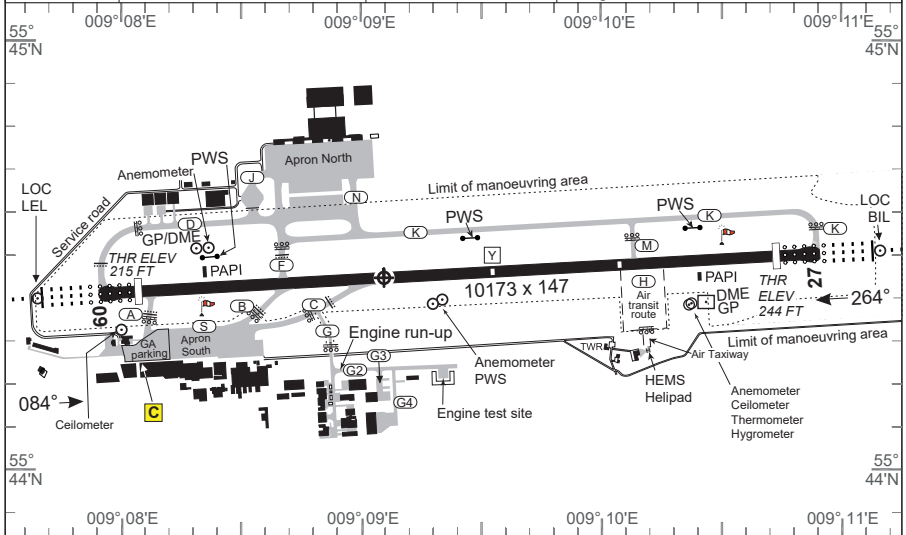
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AERODROME CHART

BILLUND (EKBI)

BILLUND ATIS (ARR/DEP) 118.780 129.105	BILLUND TOWER (ARR/DEP) 119.005 129.505	BILLUND APPROACH 127.580	Billund ARO: 131.500 Tel.: +45 76 50 50 50 All departing flights must file a complete or abbreviated flight plan to Billund ARO before taxiing.
AD Elev 247	ARP 55°44.42'N 009°09.11'E	VAR 3.0°E (JUN 2020)	



RWY	PCN	DECLARED DISTANCES					THR ELEV	RWY LIGHTING						
		PSN	TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE	END	THR PSN
09		D	10173	10173	10173	9681	215	LIH	3°	LIH	LIH	LIH	LIH	55°44.39'N
		A	9471	9471	9471			Green		White		Red	009°08.09'E	
		B	7709	7709	7709									
		F	7621	7621	7621									
		C	6669	6669	6669									
27	110 F/A/X/T	K	9681	9681	10173	9681	244	LIH	3°	LIH	7200 ft White	500 ft Red	LIH	55°44.47'N
		O/R	O/R	O/R				Green		White	2000 ft Red/white	7700 ft White	Red	009°10.76'E
		M	7126	7126	7618									
		Y	5088	5088	5580									
		C	3438	3438	3930									
		B	2273	2273	2765									

Climb out for flights not cleared via an SID (MAX IAS 250 KT FL 60 and below):

- RWY 09:** For jet aeroplanes irrespective of weight and for propeller and turbo-propeller aeroplanes with MTOM above 5700kg: Climb on track 084° MAG to INLIS or 1000 FT MSL whichever is later, then turn according to clearance. Minimum climb gradient 3.7% until passing 1000 FT.
- RWY 09:** For propeller and turbo propeller aeroplanes with MTOM 5700kg or less: Climb on track 084° MAG to 1000 FT MSL, then turn according clearance. Minimum climb gradient 3.7% until passing 1000 FT MSL.
- RWY 27:** All aeroplanes: Climb on track 264° MAG to DME LEL 1.0 NM or 700 FT MSL, whichever is later, then turn according to clearance.

MIPS		CIRCLING MINIMA (North of AD only)				
A	B	C	D	E		
800 -1.5 553 (600-1.5)	820 -1.6 573 (600-1.6)	1100 -2.4 853 (900-2.4)	1100 -3.6 853 (900-3.6)	1200 -3.6 953 (1000-3.6)		

AERODROME CHART

BILLUND (EKBI)



CHANGES: THR LONGITUDE RWY 27 ADJUSTED

AIR COMMAND DENMARK - MIL/AM 13 JUN 2024

BILLUND OPERATIONS

1. GROUND HANDLING (FIGHTER AIRCRAFT ONLY)

- 1.1. Parking iaw. ATC instructions. F-35 expect to be parked on Apron South. F-35 to be parked on concrete only and with enough room to enable onward taxi out to the runway (no towbar available).
- 1.2. For F-35 JET-A/JET-A1 is characterized as "Restricted Fuel" iaw. FSD. RTB flight to be conducted as direct transit flight back to EKSP. Aircraft to be partially refueled iaw. RTB mission profile.
- 1.3. Billund Marshallers are familiar with "F-35 Ground Ladder" operation, but it is the pilot's responsibility to be familiar with, and be able to instruct civilian ground personnel in its operation, from the cockpit.

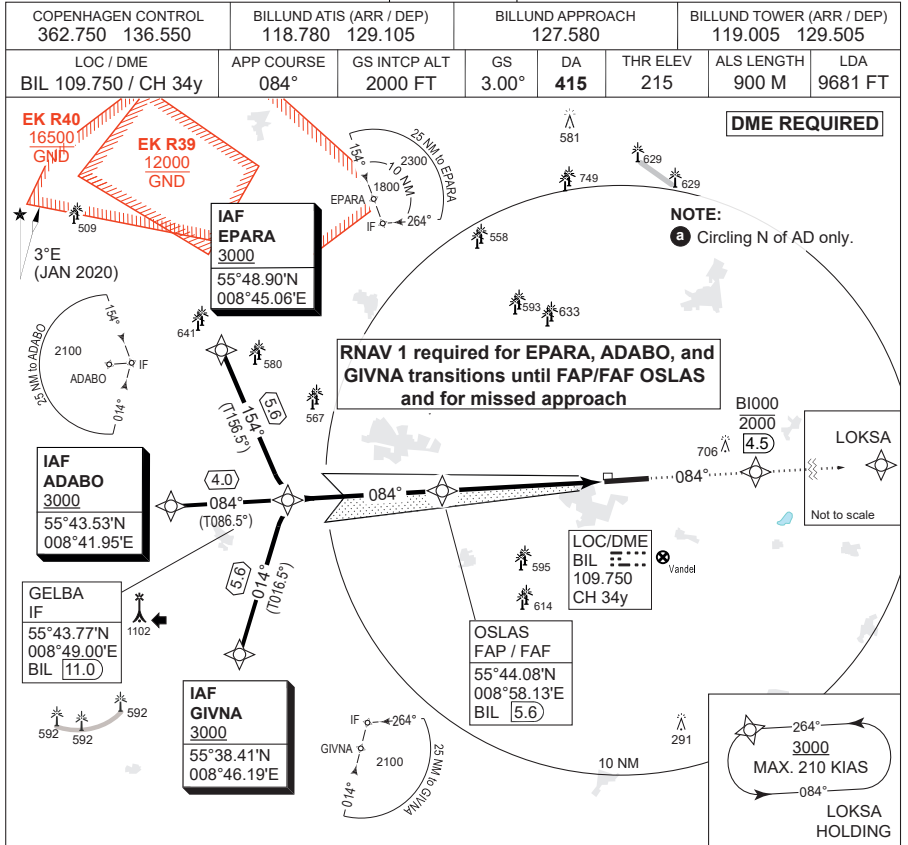
MIPS

INSTRUMENT APPROACH CHART

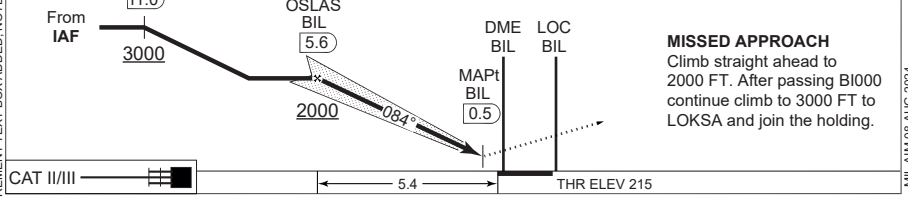
AD ELEV 247

ILS or LOC Z RWY 09

BILLUND (EKBI)



TA 3000	GS 3.00°	RDH 50	GELBA BIL 11.0	OSLAS BIL 5.6	DME BIL 0.5	LOC BIL	MAPt BIL 0.5	THR ELEV 215
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CATEGORY	A	B	C	D	E
ILS CAT I		415 - 550 200 (200-0.8/1.2)			475 - 600 260 (300-0.8/1.3)
ILS CAT II		RA 102 (DA 315) - 350 100			N/A
LOC 09		640 - 1300 425 (500-1.3/2.0)			
CIRCLING a	800 - 1.5 553 (600-1.5)	820 - 1.6 573 (600-1.6)	1100 - 2.4 853 (900-2.4)	1100 - 3.6 853 (900-3.6)	1200 - 3.6 953 (1000-3.6)

ILS or LOC Z RWY 09

55°44.42'N
009°09.11'E

BILLUND (EKBI)

EKBI

CHANGES: RNAV 1 REQUIREMENT TEXT BOX ADDED. NOTE b REMOVED.

AIR COMMAND DENMARK - MIL AIN 08 AUG 2024

MIPS

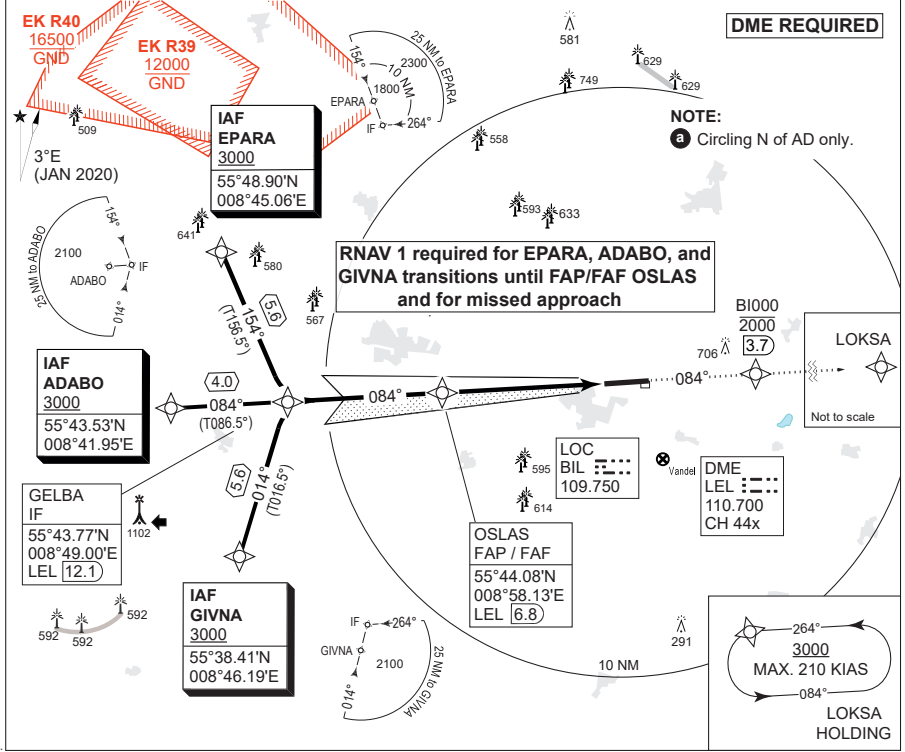
INSTRUMENT APPROACH CHART

AD ELEV 247

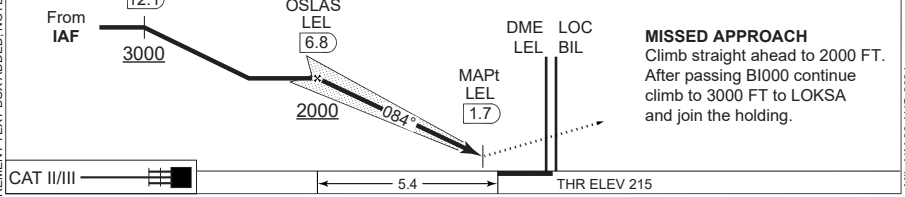
ILS or LOC Y RWY 09

BILLUND (EKBI)

COPENHAGEN CONTROL 362.750 136.550		BILLUND ATIS (ARR / DEP) 118.780 129.105		BILLUND APPROACH 127.580			BILLUND TOWER (ARR / DEP) 119.005 129.505		
LOC BIL 109.750	DME LEL 110.700/CH 44x	APP COURSE 084°	GS INTCP ALT 2000 FT	GS 3.00°	DA 415	THR ELEV 215	ALS LENGTH 900 M	LDA 9681 FT	



TA 3000 GS 3.00° RDH 50	GELBA LEL [12.1]	OSLAS LEL [6.8]	DME BIL 5 4 3 2 1	CDFA: GS 3.00° / 5.2% / 318 ft/NM
			DIST THR 4.85 3.85 2.85 1.85 0.85	
			ALT 1810 1490 1180 860 540	



CAT II/III	A	B	C	D	E
ILS CAT I	415 - 550 200 (200-0.8/1.2)				475 (300-0.8/1.3)
ILS CAT II	RA 102 (DA 315) - 350 100				N/A
LOC 09	640 - 1300 425 (500-1.3/2.0)				
CIRCLING a	800 - 1.5 553 (600-1.5)	820 - 1.6 573 (600-1.6)	1100 - 2.4 853 (900-2.4)	1100 - 3.6 853 (900-3.6)	1200 - 3.6 953 (1000-3.6)

ILS or LOC Y RWY 09

55°44.42'N
009°09.11'E

BILLUND (EKBI)

CHANGES: RNAV 1 REQUIREMENT TEXT BOX ADDED. NOTE b REMOVED.

AIR COMMAND DENMARK - MIL AIN 08 AUG 2024

MIPS

INSTRUMENT APPROACH CHART

AD ELEV 247

ILS or LOC Z RWY 27

BILLUND (EKBI)

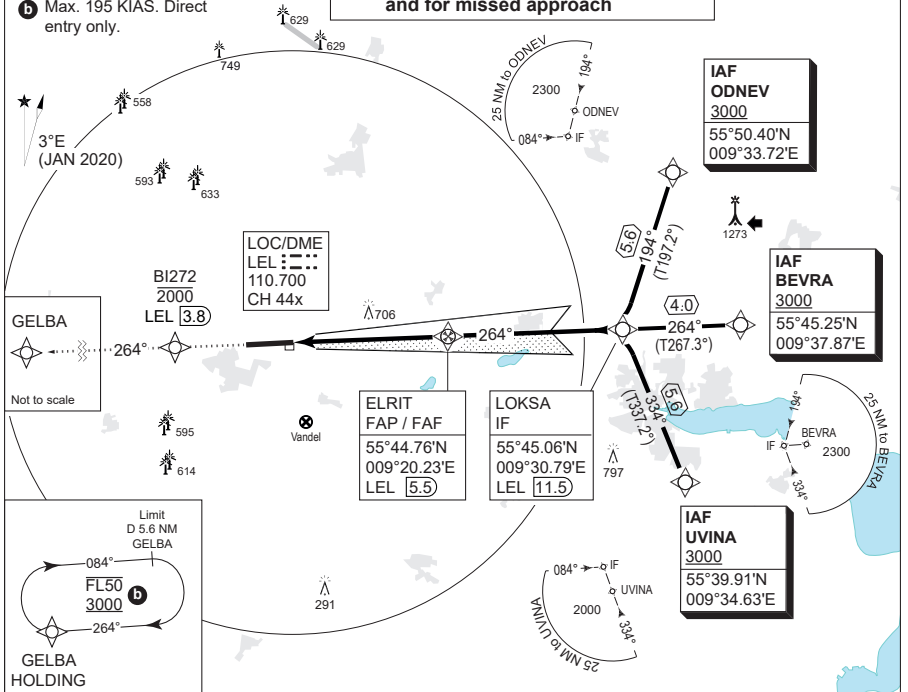
COPENHAGEN CONTROL 362.50 136.550		BILLUND ATIS (ARR / DEP) 118.780 129.105		BILLUND APPROACH 127.580		BILLUND TOWER (ARR / DEP) 119.005 129.505	
LOC / DME LEL 110.700 / CH 44x		APP COURSE 264°	GS INTPC ALT 2000 FT	GS 3.00°	DA SEE CAT	THR ELEV 244	LDA 900 M
							LDA 9681 FT

NOTE:

- a Circling N of AD only.
- b Max. 195 KIAS. Direct entry only.

RNAV 1 required for ODNEV, BEVRA, and UVINA transitions until FAP/FAF ELRIT and for missed approach

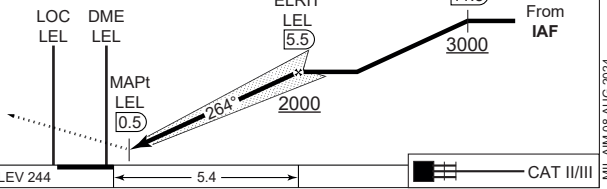
DME REQUIRED



CDFA: GS 3.00° / 5.2%				
DME LEL	2	3	4	5
DIST THR	1.8	2.8	3.8	4.8
ALT	870	1190	1510	1830

MISSED APPROACH

Climb straight ahead to 2000 FT. After passing BI272 continue climb to 3000 FT to GELBA and join the holding.



CATEGORY	A	B	C	D	E
ILS CAT I		444 - 550 200 (200-0.8/1.2)			479 - 550 235 (300-0.8/1.2)
ILS CAT II		RA 93 (DA 344) - 350 100			N/A
LOC 27		750 - 1600 503 (600-1.6/2.4)			
CIRCLING a	800 - 1.5 553 (600-1.5)	820 - 1.6 573 (600-1.6)	1100 - 2.4 853 (900-2.4)	1100 - 3.6 853 (900-3.6)	1200 - 3.6 953 (1000-3.6)

ILS or LOC Z RWY 27

55°44.42'N
009°09.11'E

BILLUND (EKBI)

CHANGES: RNAV 1 REQUIREMENT TEXT BOX ADDED. NOTE REMOVED.

AIR COMMAND DENMARK - MIL_AIM 08 AUG 2024

MIPS

INSTRUMENT APPROACH CHART

AD ELEV 247

ILS or LOC Y RWY 27

BILLUND (EKBI)

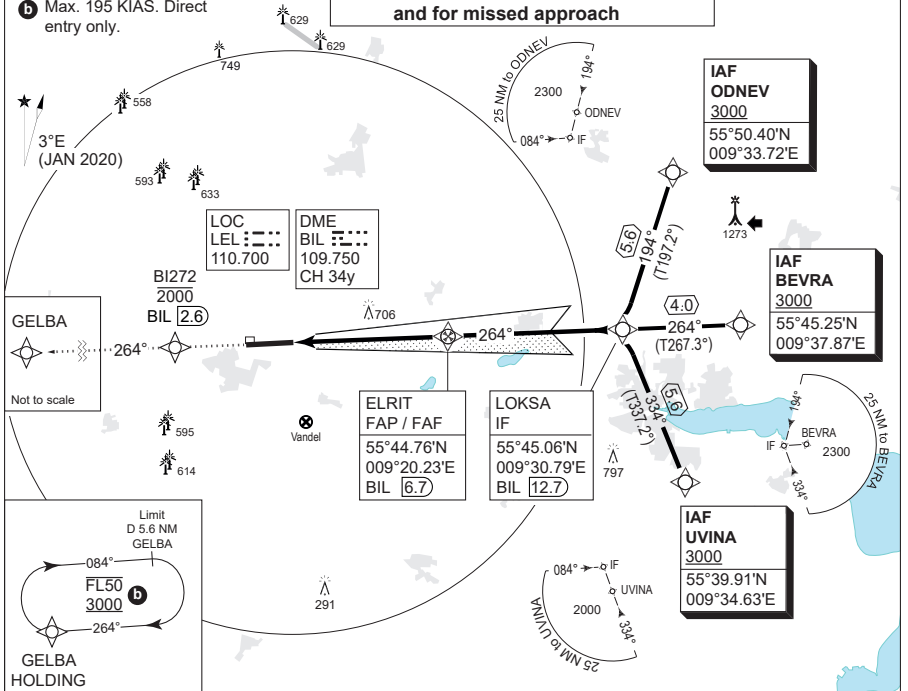
COPENHAGEN CONTROL 362.750 136.550		BILLUND ATIS (ARR / DEP) 118.780 129.105		BILLUND APPROACH 127.580			BILLUND TOWER (ARR / DEP) 119.005 129.505		
LOC LEL 110.700	DME BIL 109.750/CH 34y	APP COURSE 264°	GS INTCP ALT 2000 FT	GS 3.00°	DA SEE CAT	THR ELEV 244	ALS LENGTH 900 M	LDA 9681 FT	

NOTE:

- a** Circling N of AD only.
- b** Max. 195 KIAS. Direct entry only.

RNAV 1 required for ODNEV, BEVRA, and UVINA transitions until FAP/FAF ELRIT and for missed approach

DME REQUIRED



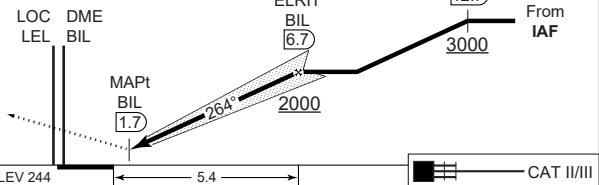
CHANGES: RNAV 1 REQUIREMENT TEXT BOX ADDED; NOTE REMOVED.

CDFA: GS 3.00° / 5.2%

DME BIL	3	4	5	6
DIST THR	1.6	2.6	3.6	4.6
ALT	815	1130	1450	1770

TA 3000
GS 3.00°
RDH 49

MISSED APPROACH
Climb straight ahead to 2000 FT.
After passing BI272 continue climb to 3000 FT to GELBA and join the holding.



CATEGORY	A	B	C	D	E
ILS CAT I		444 - 550 200 (200-0.8/1.2)			479 - 550 235 (300-0.8/1.2)
ILS CAT II		RA 93 (DA 344) - 350 100			N/A
LOC 27		750 - 1600 503 (600-1.6/2.4)			
CIRCLING a	800 - 1.5 553 (600-1.5)	820 - 1.6 573 (600-1.6)	1100 - 2.4 853 (900-2.4)	1100 - 3.6 853 (900-3.6)	1200 - 3.6 953 (1000-3.6)

ILS or LOC Y RWY 27

55°44.42'N
009°09.11'E

BILLUND (EKBI)

BILLUND ARRIVAL

Aircraft will normally be cleared by ACC KØBENHAVN to LOKSA or GELBA.

At first contact with BILLUND APPROACH state type of aircraft.

Speed limit: FL 60 and below: MAX IAS 250KT.

Radio communications failure.

Navigations aids designated for radio communication failure during IMC for arriving aircraft are:

- Fix OSLAS when RWY 09 is expected runway in use, and
- Fix ELRIT when RWY 27 is expected runway in use.

Precision approach. Category II/III operations.

The operations are subject to the following procedures and conditions:

a. ATC procedures.

The minimum distance between an aircraft on final approach on a CAT II / III ILS approach and any other preceding aircraft will for CAT II not be less than 5 NM and for CAT III not less than 8 NM. The separation must be established at the latest when preceding aircraft passes THR. Departing aircraft must have commenced take-off run, before arriving aircraft has left 2000 FT on final approach.

b. Pilot procedures.

Pilots who intend to fly a CAT II / III ILS approach are to use the following phrase: "Request Category II (or III) ILS approach runway XX (mention runway number)" Above mentioned request shall be made to COPENHAGEN CONTROL and confirmed on first contact with BILLUND APPROACH.

c. During final approach ATC will inform the pilot of following:

Change to secondary power supply for electronic and visual aids, if the aircraft has passed OSLAS BIL 5.6 NM for RWY 09 or ELRIT LEL 5.5 NM for RWY 27.

Reverse thrust.

Use of more than idle reverse thrust is allowed only for safety reasons.

Note: With respect to propeller and turboprop aeroplanes idle reverse refers to propeller in beta range and engine at idle power.

DEPARTURE INFORMATION

STANDARD INSTRUMENT DEPARTURE (SID) - RWY 09/27

Squawk: When instructed for line-up, squawk assigned SSR code.

Communication: Unless otherwise instructed remain on TWR FREQ until passing 1500 FT, then contact BILLUND APPROACH on 127.580 MHZ.

1. IFR DEPARTURE

1.1 Departing traffic shall contact TWR on 129.505 prior to TOBT (Target Off Block Time) in order to obtain ATC clearance. Clearance is available from EOBT -30 min. At initial contact aircraft type and stand number shall be stated. When RWY 09 is in use state preferred take-off position.

1.2 Standard Instrument Departures (SID):
Departing aircraft certified for P-RNAV operations will be assigned a PRNAV SID. Aircraft not certified for P-RNAV operations will be assigned a detailed departure clearance.
Clearance will be issued only when radar service is available.
Alternate SIDs ASKOV and GOKIM will be issued on ATC discretion.

1.3 If unable to follow P-RNAV SID, state inability at first contact with TWR to obtain alternate clearance.

1.4 Climb out for flights not cleared via an SID:

MAX IAS 250 KT FL60 and below.

RWY 09: For jet aeroplanes irrespective of weight and for propeller and turboprop aeroplanes with MTOM above 5700 kg: Climb on track 084° MAG to INLIS or 1000 FT MSL whichever is later, then turn according to clearance.
Minimum climb gradient 3.7% until passing 1000 FT MSL.

RWY 09: For propeller and turboprop aeroplanes with MTOM 5700 kg or less: Climb on track 084° MAG to 1000 FT MSL, then turn according to clearance.
Minimum climb gradient 3.7% until passing 1000 FT MSL.

RWY 27: All aeroplanes: Climb on track 264° MAG to DME LEL 1.0 NM or 700 FT MSL, whichever is later, then turn according to clearance.

1.5 Aircraft requesting cruising level at or above FL 250 in HANNOVER UIR are advised to arrange the climb to be at or above FL 250 within 45 NM from EKBI. If unable advise BILLUND TOWER upon clearance request.

cont...

STANDARD INSTRUMENT DEPARTURE (SID) - RWY 09/27

1.6 Flight plan for international flights shall be filed via one of the SID termination points (RERPA, INTET, ABINO, RIDSI, ALS, MIKRO or BAMPI).

For BAMPI SID the following compulsory routing after BAMPI shall be included in the flight plan:

- Traffic via P992: BAMPI - P60 - NARBA - P992
- Traffic via P619: BAMPI - P60 - NAVIK - P619
- Traffic via P613: BAMPI - P60 - NUGLO - P613
- Traffic via L983: BAMPI - P60 - AMRAM - L983
- Traffic via N866: BAMPI - P60 - AMRAM - N866

1.7 Flight plan for flights with destination within COPENHAGEN AREA shall be filed via ABINO. Flight plan for other domestic flights may be filed DCT.

STANDARD INSTRUMENT DEPARTURE

Designator	Route (Tracks are magnetic)	After take off		
		Climb gradient	Climb to	Contact
RERPA 2B	On track 084° to 1000 FT - Left turn BI367 - RERPA	MIN due to obstacle: 3.7% (2.1°) to 1000 FT	FL 60 (or requested level if lower).	Remain on TWR FREQ until 1500 FT. Then contact Billund Approach 127.580 MHZ
INTET 2B	On track 084° to 1000FT - Left turn INTET			
ABINO 6B	On track 084° to 1000 FT - Left turn ABINO			
RIDS1 7B	ODFEX - Right turn RIDS1 (No turn below 2000 FT)			
ALS 6B	ODFEX - Right turn ALS (No turn below 2000 FT)			
MIKRO 5B	ODFEX - Right turn MIKRO (No turn below 2000 FT)			
BAMPI 5B	On track 084° to 1000 FT - Left turn BI373 - BI372 - BAMPI			
GOKIM 4B*	ODFEX at 2000 FT or below - GOKIM		FL 80 (or req. level if lower)	

P-RNAV, RNAV 1, RNAV 2 or RNP 1 required

Squawk: When instructed for line-up, squawk assigned SSR-code.

Radar Vectoring: Radar vectoring will normally be provided by BILLUND APPROACH to expedite traffic.

Speed limit: FL 60 and below: MAX IAS 250 KT.

COM failure on BAMPI SID: Maintain FL60 or last assigned level until 10 NM after BAMPI.

Non P-RNAV equipped acft: At first contact with TWR state inability to follow SID.

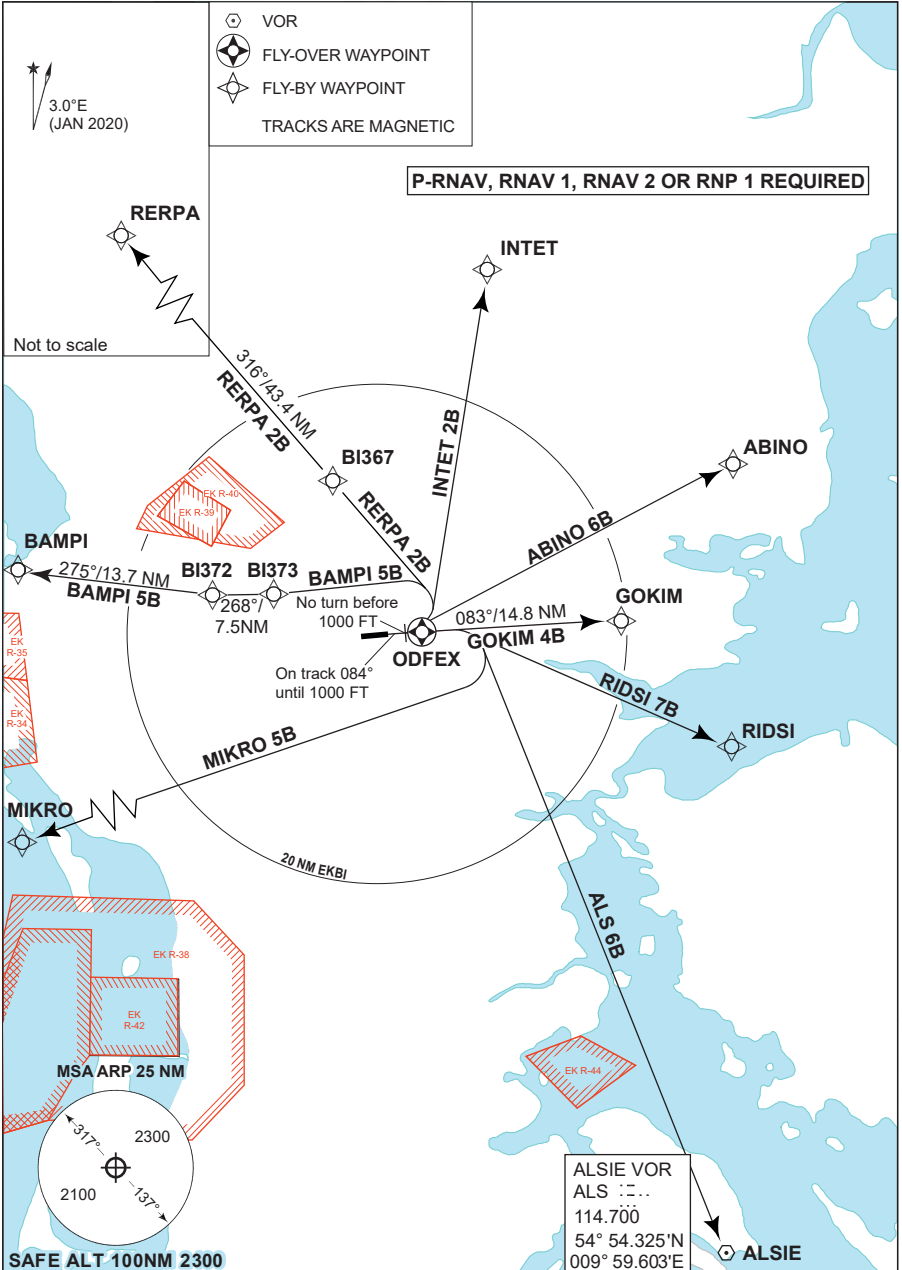
Expect departure instructions by TWR.

Note: Noise limitations listed in AIP Denmark, chapter 21 "Noise Abatement Provisions", paragraph 2.2.

RMK: * GOKIM 4B SID is not flightplannable but only available on ATC discretion.

Waypoint	Latitude	Longitude
ABINO	55° 58.100'N	009° 59.667'E
BAMPI	55° 50.574'N	008° 16.177'E
BI367	55° 56.384'N	009° 02.976'E
BI372	55° 48.638'N	008° 40.192'E
BI373	55° 48.540'N	008° 53.524'E
ODFEX	55° 44.622'N	009° 15.743'E
GOKIM	55° 45.527'N	009° 41.977'E
INTET	56° 13.578'N	009° 24.685'E
MIKRO	55° 24.905'N	008° 09.983'E
RERPA	56° 28.700'N	008° 11.250'E
RIDS1	55° 35.500'N	009° 59.650'E

STANDARD INSTRUMENT DEPARTURE CHART



SID (P-RNAV) RWY 09

BILLUND (EKBI)

STANDARD INSTRUMENT DEPARTURE

Designator	Route (Tracks are magnetic)	After take-off		
		Remark	Climb to	Contact
RERPA 2A	On track 264° to 700 FT - right turn BI367 - RERPA	No turn before DME LEL 1.0 NM	FL 60 (or requested level if lower)	Remain on TWR FREQ until 1500 FT. Then contact Billund Approach, 127.580 MHZ
INTET 2A	On track 264° to 700 FT - right turn BI367 - INTET			
ABINO 6A	On track 264° to 700 FT - right turn BI364 - ABINO			
RIDS1 6A	On track 264° to 700 FT - right turn BI364 - RIDS1			
ALS 6A	On track 264° to 700 FT - right turn BI371 - left turn ALS			
MIKRO 5A	On track 264° to 700 FT - right turn BI371 - left turn MIKRO			
BAMPI 5A	On track 264° to 700 FT - right turn BI371 - left turn BI372 - BAMPI			
ASKOV 4A*	On track 264° to 700 FT - right turn BI371 at 2000 FT or below - left turn ASKOV		FL 80 (or req. level if lower)	

P-RNAV, RNAV 1, RNAV 2 or RNP 1 required

Squawk: When instructed for line-up, squawk assigned SSR-code.

Radar Vectoring: Radar vectoring will normally be provided by BILLUND APPROACH to expedite traffic.

Speed limit: FL 60 and below: MAX IAS 250 KT.

COM failure on BAMPI SID: Maintain FL60 or last assigned level until 10 NM after BAMPI.

Non P-RNAV equipped acft: At first contact with TWR state inability to follow SID.

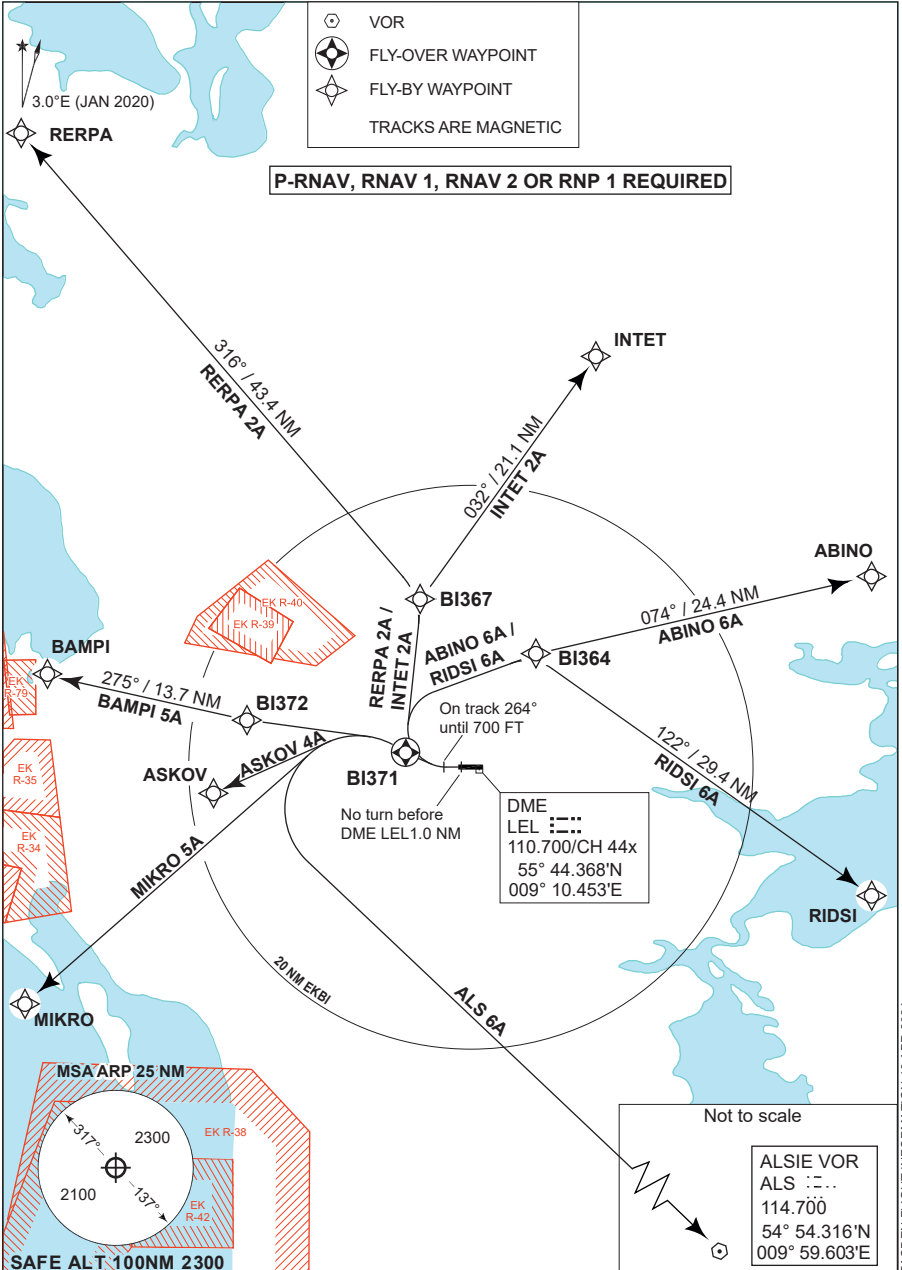
Expect departure instructions by TWR.

Note: Noise limitations listed in AIP Denmark, chapter 21 "Noise Abatement Provisions", paragraph 2.2.

RMK: * ASKOV 4A SID is not flightplanable but only available on ATC discretion.

Waypoint	Latitude	Longitude
ABINO	55° 58.100'N	009° 59.667'E
ASKOV	55° 42.393'N	008° 37.257'E
BAMPI	55° 50.574'N	008° 16.177'E
BI364	55° 52.612'N	009° 17.499'E
BI367	55° 56.385'N	009° 02.977'E
BI371	55° 47.228'N	009° 00.712'E
BI372	55° 48.644'N	008° 40.192'E
INTET	56° 13.578'N	009° 24.685'E
MIKRO	55° 24.905'N	008° 09.983'E
RERPA	56° 28.700'N	008° 11.250'E
RIDS1	55° 35.500'N	009° 59.650'E

STANDARD INSTRUMENT DEPARTURE CHART



SID (P-RNAV) RWY 27

BILLUND (EKBI)



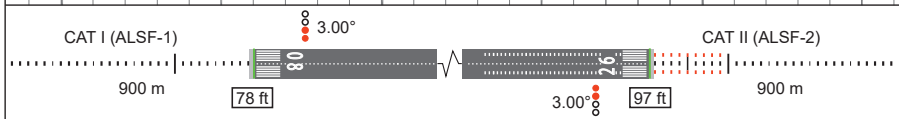
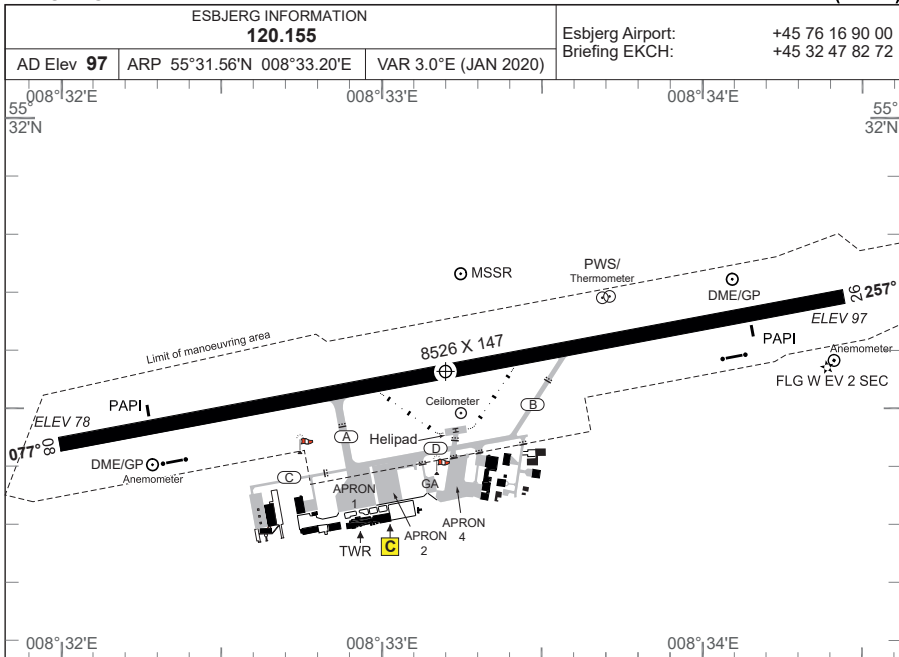
INTENTIONALLY

LEFT

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AERODROME CHART

ESBJERG (EKEB)



RWY	PCN	DECLARED DISTANCES					THR ELEV	RWY LIGHTING					THR PSN	
		PSN	TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE/END		
08	60 F/A/W/T		8526	8526	8526	8526	79	LIH	3.00°		LIH	LIH	LIH	55°31.43'N 008°32.01'E
		A	5479	5479	5479									
		B	3021	3021	3021									
26	60 F/A/W/T		8526	8526	8526	8526	97	LIH	3.00°	LIH	LIH	LIH	LIH	55°31.69'N 008°34.44'E
		B	5410	5410	5410									
		A	2969	2969	2969									

Parachuting may take place.

Flight procedures:
 - Aircraft will normally be cleared by ACC Copenhagen to HP HLDG or EJ HLDG.
 - Navigation aid designated for radio communication failure during IMC is:
 NDB HP when RWY 08 is expected runway in use.
 NDB EJ when RWY 26 is expected runway in use.
 - Omnidirectional departures:
 RWY 08/26: Climb straight ahead to at least 500 FT AMSL before turn is commenced.

MIPS	CIRCLING MINIMA (Cat. C - E north of AD only)								
	A	B	C	D	E				
510	-1.5 413 (500-1.5)	600	-1.6 503 (600-1.6)	710	-2.4 613 (700-2.4)	800	-3.6 703 (800-3.6)	900	-3.6 803 (900-3.6)

AERODROME CHART

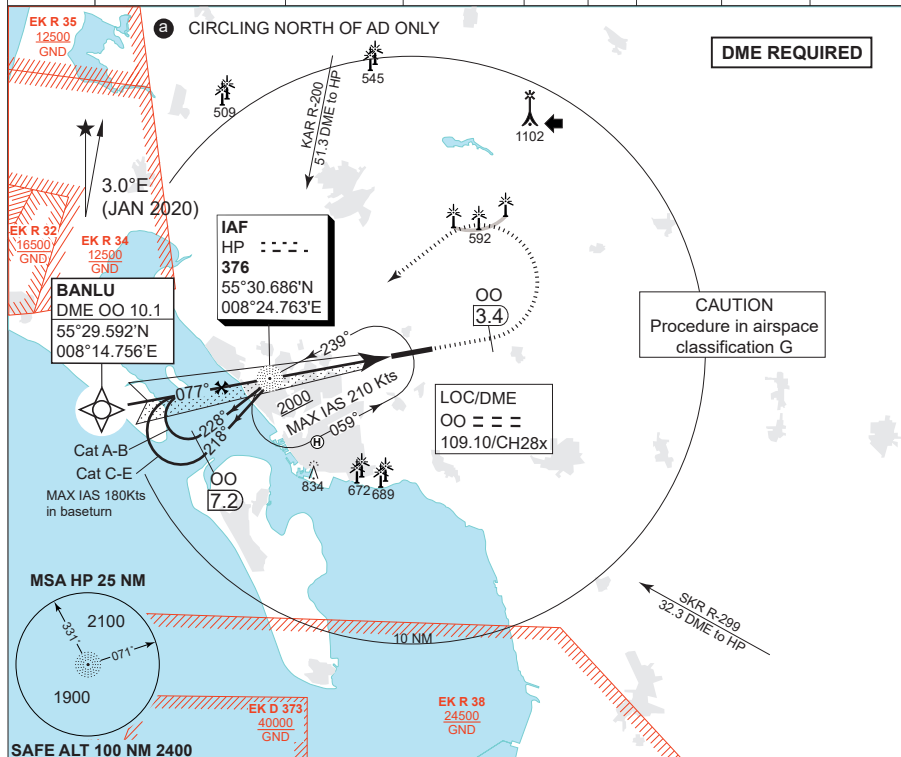
ESBJERG (EKEB)

MIPS INSTRUMENT APPROACH CHART

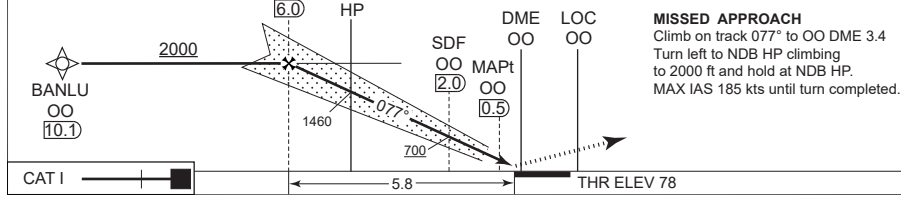
**ILS or LOC Z RWY 08
ESBJERG (EKEB)**

AD ELEV 97

COPENHAGEN CONTROL 362.750 136.555		BILLUND ATIS 118.780		BILLUND APPROACH 127.580			ESBJERG INFORMATION 120.155		
NDB HP 376	LOC/DME OO 109.10/CH28x	APP COURSE 077°	GS INTCP ALT 2000 FT	GS 3.00°	DA 278	THR ELEV 78	ALS length 900 M	LDA 8526 FT	



TA 3000 GS 3.0° RDH 49	LOC ONLY (CDFA 3.0° / 5.24%)				
	DME OO (NM)	5	4	3	2
	DIST TO THR (NM)	4.8	3.8	2.8	1.8
	ALT	1670	1360	1040	720



MISSED APPROACH
Climb on track 077° to OO DME 3.4
Turn left to NDB HP climbing to 2000 ft and hold at NDB HP.
MAX IAS 185 kts until turn completed.

CATEGORY	A	B	C	D	E
S-ILS/DME	278 -550 200 (200-0.8/1.2)				
S-LOC/DME	460 -1100 382 (400-1.1/1.8)				
CIRCLING	510 -1.5 413 (500-1.5)	600 -1.6 503 (600-1.6)	700 -2.4 603 (700-2.4)	990 -3.6 893 (900-3.6)	1090 -3.6 993 (1000-3.6)

ILS or LOC Z RWY 08

55°31.56'N
008°33.20'E

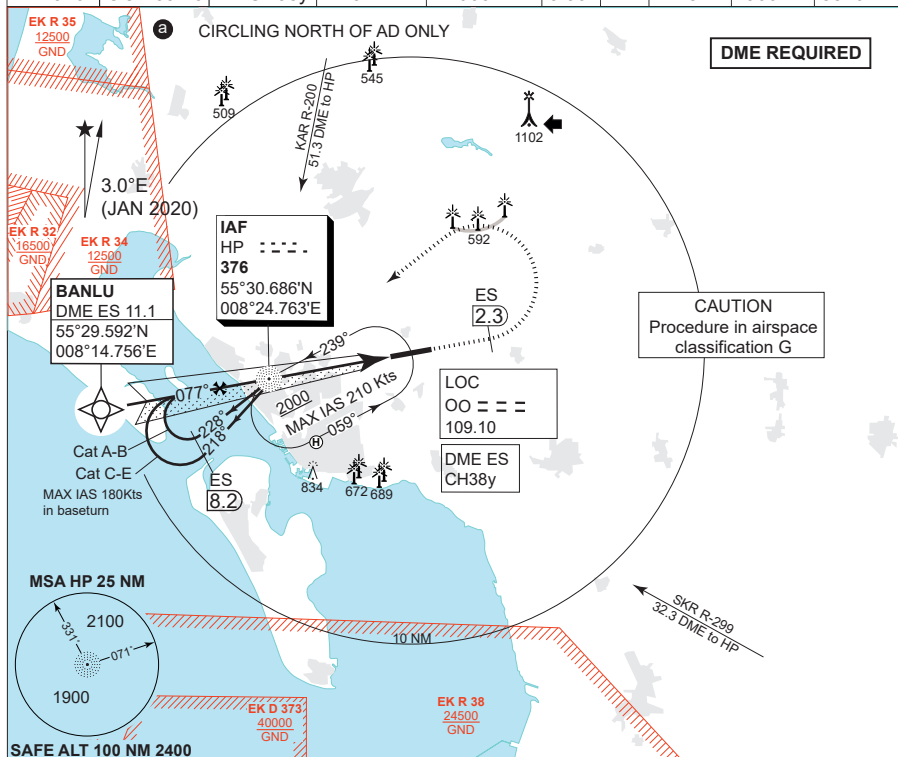
ESBJERG (EKEB)

MIPS
INSTRUMENT APPROACH CHART

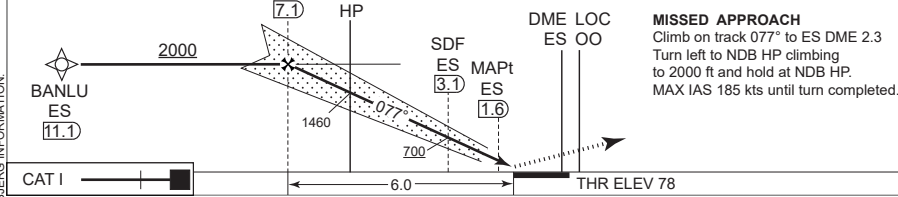
ILS or LOC Y RWY 08
ESBJERG (EKEB)

AD ELEV 97

COPENHAGEN CONTROL 362.750 136.555		BILLUND ATIS 118.780		BILLUND APPROACH 127.580			ESBJERG INFORMATION 120.155		
NDB HP 376	LOC OO 109.10	DME ES CH38y	APP COURSE 077°	GS INTCP ALT 2000 FT	GS 3.00°	DA 278	THR ELEV 78	ALS length 900 M	LDA 8526 FT



TA 3000 GS 3.0° RDH 49	LOC ONLY (CDF 3.0° / 5.24%)				
	DME ES (NM)	6	5	4	3
	DIST TO THR (NM)	4.8	3.8	2.8	1.8
	ALT	1650	1340	1020	700



MIPS	CATEGORY	A	B	C	D	E				
	S-ILS/DME	278 -550 200 (200-0.8/1.2)								
S-LOC/DME	460 -1100 382 (400-1.1/1.8)									
CIRCLING	510	-1.5 413 (500-1.5)	600	-1.6 503 (600-1.6)	700	-2.4 603 (700-2.4)	990	-3.6 893 (900-3.6)	1090	-3.6 993 (1000-3.6)

ILS or LOC Y RWY 08

55°31.56'N
008°33.20'E
4-3

ESBJERG (EKEB)

EKEB

CHANGES: FREQ CHG ESBJERG INFORMATION

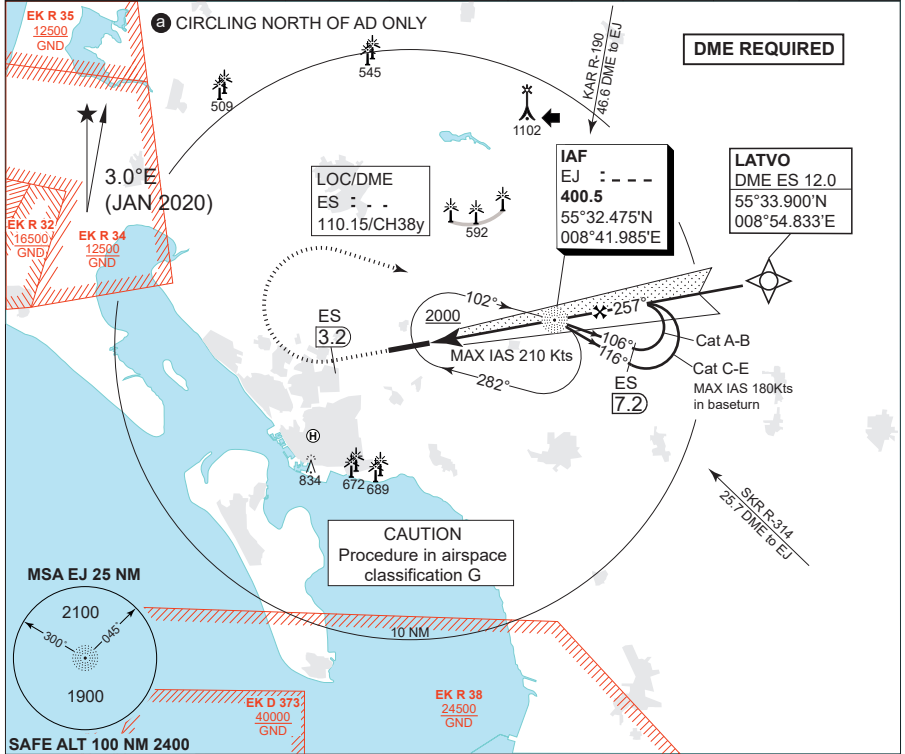
AIR COMMAND DENMARK - MIL-AIM 02 NOV 2023

MIPS

INSTRUMENT APPROACH CHART

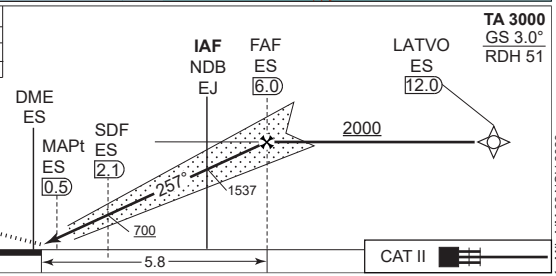
ILS or LOC Z RWY 26
ESBJERG (EKEB)

COPENHAGEN CONTROL 362.750 136.555		BILLUND ATIS 118.780		BILLUND APPROACH 127.580			ESBJERG INFORMATION 120.155	
NDB EJ 400.5	LOC / DME ES 110.150/CH 38y	APP COURSE 257°	GS INTCP ALT 2000 FT	GS 3.00°	DA 297	THR ELEV 97	ALS length 900 M	LDA 8526 FT



LOC ONLY (CDFA 3.0° / 5.24%)				
DME ES (NM)	2	3	4	5
DIST TO THR (NM)	1.8	2.8	3.8	4.8
ALT	730	1040	1360	1680

MISSED APPROACH
Climb on track 257° to ES DME 3.2
Turn right to NDB EJ climbing to 2000 ft and hold at NDB EJ.
MAX IAS 185 kts until turn completed.



MIPS	CATEGORY	A	B	C	D	E
	S-ILS/DME	297 -550 200 (200-0.8/1.2)				
	S-LOC/DME	460 -1000 363 (400-1.0/1.7)				
CIRCLING	510 -1.5 413 (500-1.5)	600 -1.6 503 (600-1.6)	700 -2.4 603 (700-2.4)	990 -3.6 893 (900-3.6)	1090 -3.6 993 (1000-3.6)	

ILS or LOC Z RWY 26

55°31.56'N
008°33.20'E

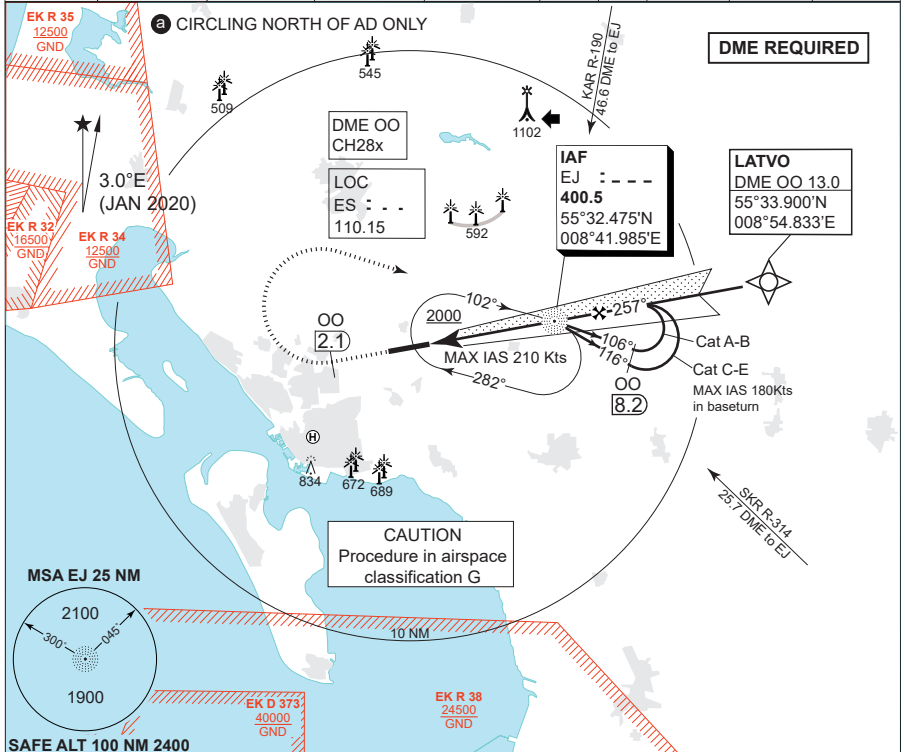
ESBJERG (EKEB)

MIPS
INSTRUMENT APPROACH CHART

ILS or LOC Y RWY 26
ESBJERG (EKEB)

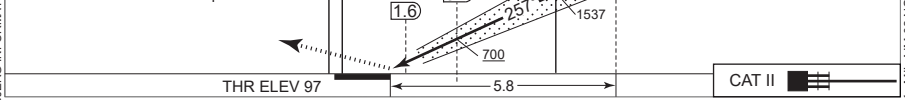
AD ELEV 97

COPENHAGEN CONTROL 362.750 136.555		BILLUND ATIS 118.780		BILLUND APPROACH 127.580			ESBJERG INFORMATION 120.155		
NDB EJ 400.5	LOC ES 110.15	DME OO CH28x	APP COURSE 257°	GS INTCP ALT 2000 FT	GS 3.00°	DA 297	THR ELEV 97	ALS length 900 M	LDA 8526 FT



LOC ONLY (CDFA 3.0° / 5.24%)				TA 3000 GS 3.0° RDH 51	
DME OO (NM)	3	4	5		6
DIST TO THR (NM)	1.8	2.8	3.8		4.8
ALT	710	1030	1350	1660	

MISSED APPROACH
Climb on track 257° to OO DME 2.1
Turn right to NDB EJ climbing to 2000 ft and hold at NDB EJ.
MAX IAS 185 kts until turn completed.



MIPS	CATEGORY	A	B	C	D	E					
	S-ILS/DME			297	-550 200 (200-0.8/1.2)						
	S-LOC/DME			460	-1000 363 (400-1.0/1.7)						
	CIRCLING	510	-1.5 413 (500-1.5)	600	-1.6 503 (600-1.6)	700	-2.4 603 (700-2.4)	990	-3.6 893 (900-3.6)	1090	-3.6 993 (1000-3.6)

ILS or LOC Y RWY 26
55°31.56'N
008°33.20'E
4-9

ESBJERG (EKEB)



CHANGES: FREQ CHG ESBJERG INFORMATION.

AIR COMMAND DENMARK - MIL-AIM 02 NOV 2023

INTENTIONALLY

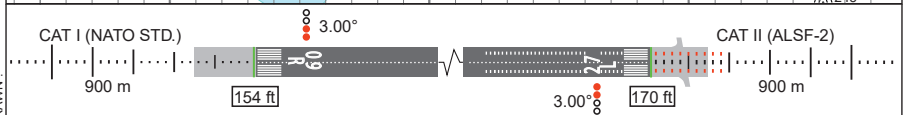
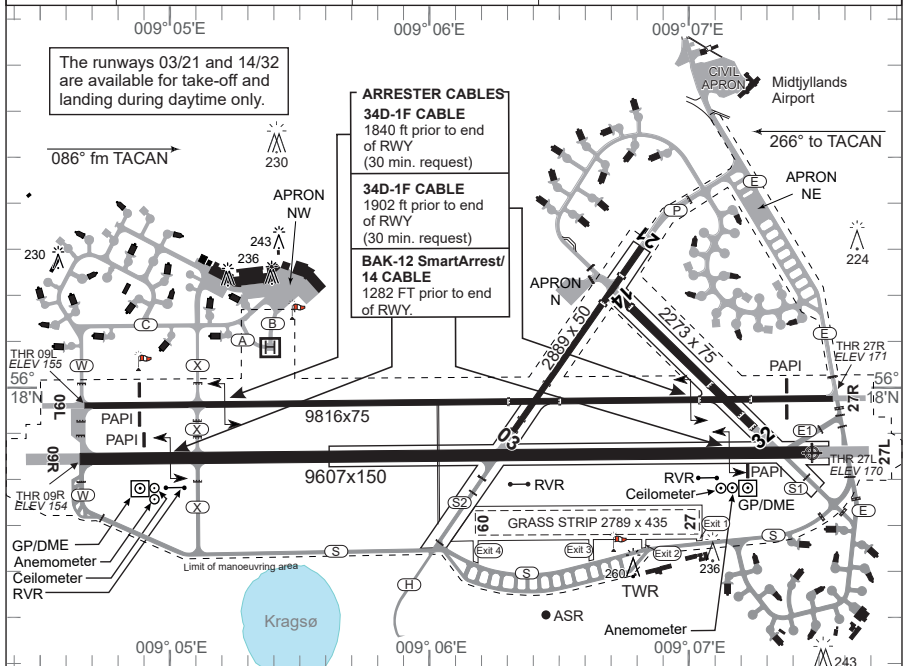
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AERODROME CHART

KARUP AIR BASE (EKKA)

KARUP ATIS 120.580	KARUP TOWER 353.575 / 119.580	KARUP APPROACH 269.275 / 120.430	AD Admin and FPL: Email: +45 72 84 31 11 wkar-wingops@mil.dk
AD Elev 171 ARP 56°17.85'N 009°07.48'E	VAR 4.0°E (JAN 2023)		



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
09R	75	9607	9607	10352	9607	154	LIH	3.00°		LIH	LIH	LIH	56°17.84'N 009°04.64'E
27L	75	9607	9607	10352	9607	170	LIH	3.00°	LIH	LIH	LIH	LIH	56°17.85'N 009°07.48'E
09L	120	9816	9816	10389	9816	154	LIL	2.75°		LIL	LIL	LIL	56°17.95'N 009°04.66'E
27R	120	9816	9816	10282	9816	171	LIL	2.75°		LIL	LIL	LIL	56°17.96'N 009°07.56'E

MIL HELIPAD PSN 56°18.08'N 009°05.38'E

Noise abatement procedures:
 RWY 27LR: None.
 RWY 09R/L: Noise abatement procedure for all jet aircraft and for propeller and turboprop aircraft MTOW above 5700 kg for departure or missed approach RWY 09R/L.
 VMC: Avoid overlying the towns/villages Karup and Kølvrå below 2000 feet MSL.
 IMC: Turn must not be commenced before DME KAR (CH 37x) 6.5 NM (or DME KAP (CH20y) 4.0 NM) or 2000 feet AMSL, whichever comes first.

Afterburner/reheat must be cut off before reaching the NE/SW going main road (Viborg - Herning) just east of the airfield.

Omnidirectional departures all runways:
 Climb straight ahead to at least 850 FT AMSL before turn is commenced.

MIPS		CIRCLING MINIMA				
A	B	C	D	E		
670	680	850	880	1120		
-1.5 499 (500-1.5)	-1.6 509 (600-1.6)	-2.4 679 (700-2.4)	-3.6 709 (800-3.6)	-3.6 949 (1000-3.6)		

AERODROME CHART

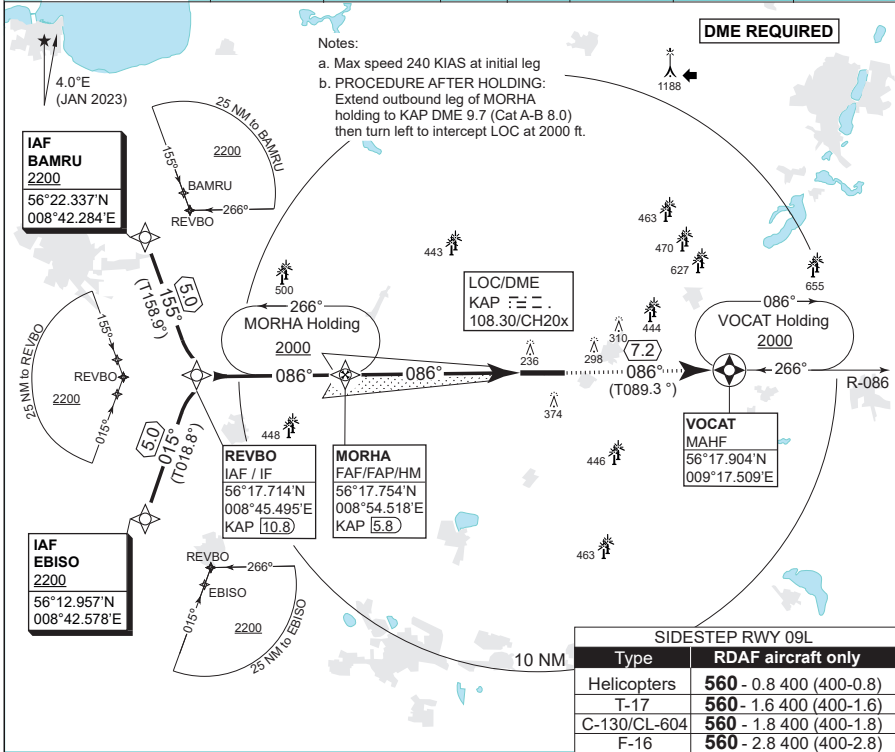
KARUP AIR BASE (EKKA)

MIPS INSTRUMENT APPROACH CHART

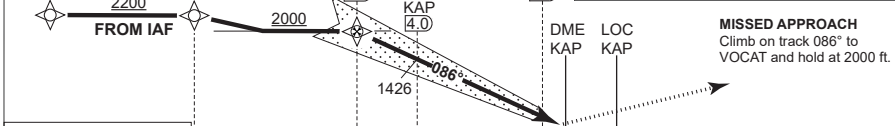
AD ELEV 171

ILS or LOC RWY 09R KARUP AIR BASE (EKKA)

COPENHAGEN CONTROL 242.650 124.555		KARUP ATIS 120.580		KARUP APPROACH 269.275 120.430			KARUP TOWER 353.575 119.580	
LOC/DME KAP 108.300/CH20X	APP COURSE 086°	GS INTCP ALT 2000 FT	GS 3.00°	DA 354	THR ELEV 154	ALS LENGTH 900 M	LDA 9607 FT	



TA 3000 GS 3.0° RDH 50	IAF / IF REVBO KAP 10.8	FAF MORHA KAP 5.8	LOC ONLY	MAPt KAP 0.6	DME KAP 5	4	3	2	1
					DIST THR 4.8	3.8	2.8	1.8	0.8
					ALT 1750	1430	1110	790	470



CAT I	5.0	5.6	THR ELEV 154
-------	-----	-----	--------------

CATEGORY	A	B	C	D	E
S-ILS CAT I	354 - 550 200 (200-0.8/1.2)				
S-LOC 09R	470 - 750 316 (400-0.8/1.4)				
CIRCLING	670 - 1.5 499 (500-1.5)	680 - 1.6 509 (600-1.6)	840 - 2.4 669 (700-2.4)	880 - 3.6 709 (800-3.6)	1120 - 3.6 949 (1000-3.6)

ILS or LOC RWY 09R

56°17.85'N
009°07.48'E
5-2

KARUP AIR BASE (EKKA)

CHANGES: ATC VHF FREQ. MIPS

AIR COMMAND DENMARK - MIL-AIM 18 APR 2024

INTENTIONALLY

LEFT

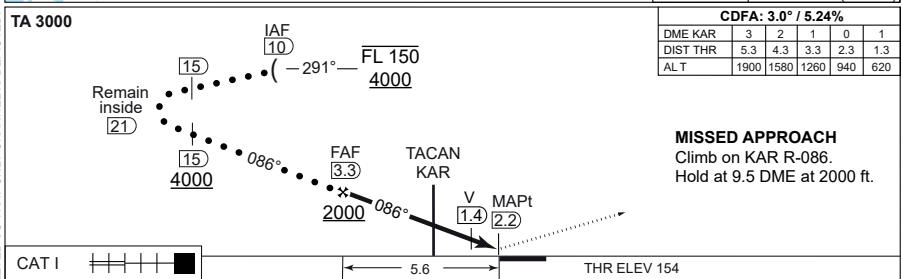
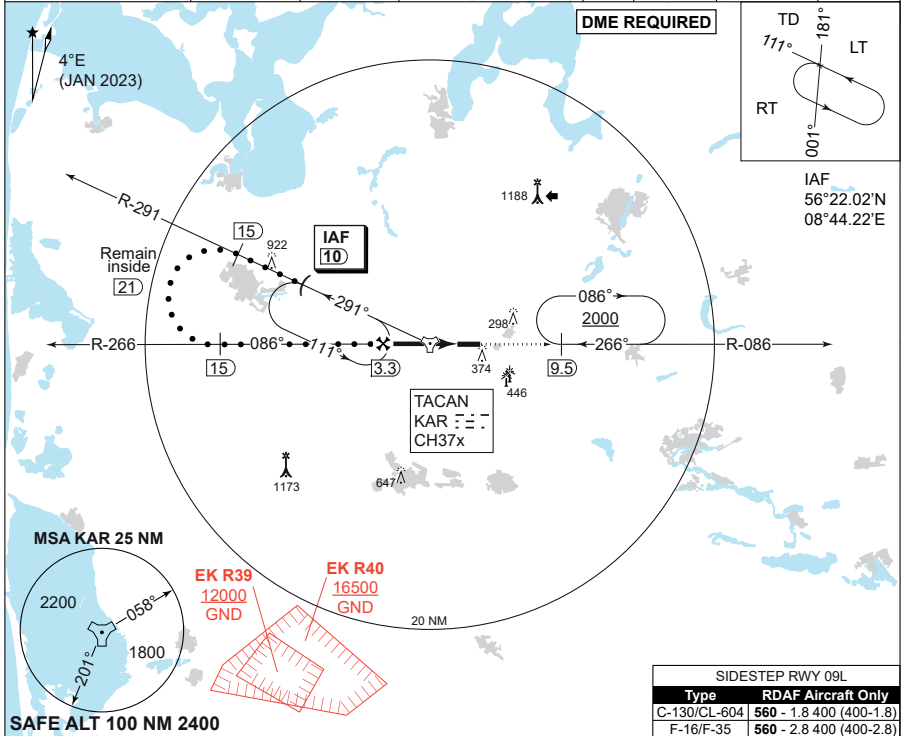
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MIPS INSTRUMENT APPROACH CHART

AD ELEV 171

**HPMA TACAN RWY 09R
KARUP AIR BASE (EKKA)**

COPENHAGEN CONTROL 242.650 124.555		KARUP ATIS 120.580	KARUP APPROACH 269.275 120.430		KARUP TOWER 353.575 119.580			
TACAN KAR CH 37x	APP COURSE 086°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)		MDA 490	THR ELEV 154	ALS LENGTH 900 M	LDA 9607 FT



CATEGORY	HPMA
S-TACAN 09R	490 - 800 336 (400-0.8/1.5)
CIRCLING	750 - 3.2 579 (600-3.2)

HPMA TACAN RWY 09R 56°17.85'N 009°07.48'E **KARUP AIR BASE (EKKA)**

CHANGES: TACAN FREQ DELETED SO THAT ONLY CHANNEL IS DEPICTED.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

INTENTIONALLY

LEFT

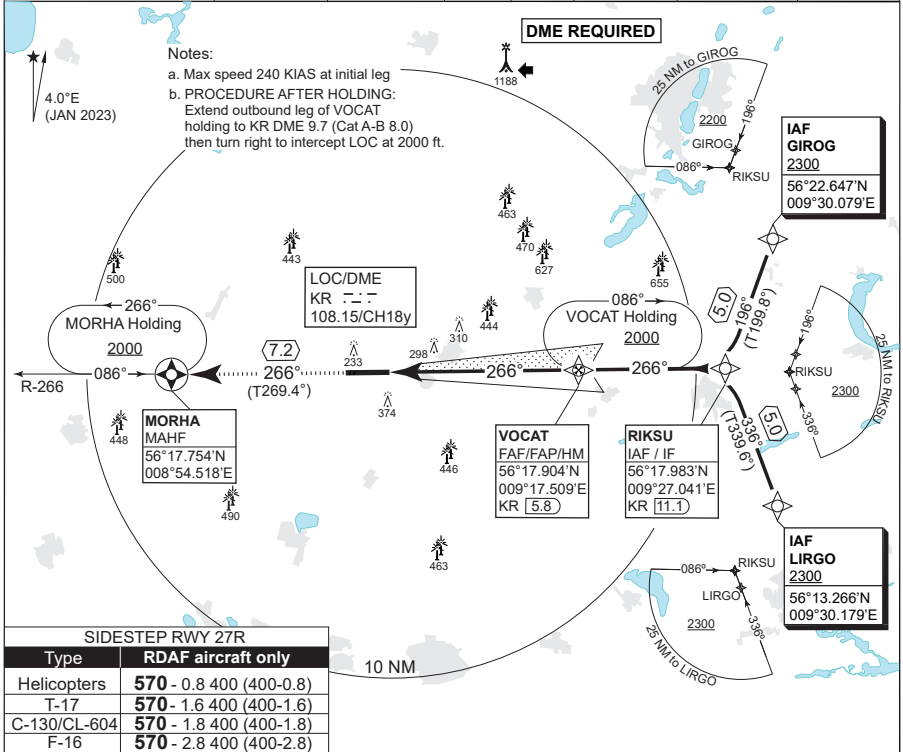
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MIPS
INSTRUMENT APPROACH CHART

ILS or LOC RWY 27L
KARUP AIR BASE (EKKA)

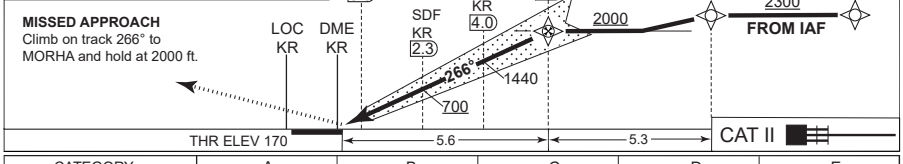
AD ELEV 171

COPENHAGEN CONTROL 242.650 124.555	KARUP ATIS 120.580	KARUP APPROACH 269.275 120.430		KARUP TOWER 353.575 119.580	
LOC/DME KR 108.150/CH18y	APP COURSE 266°	GS INTCP ALT 2000 FT	GS 3.00°	DA 370	THR ELEV 170
				ALS LENGTH 900 M	LDA 9607 FT



SIDESTEP RWY 27R	
Type	RDAF aircraft only
Helicopters	570 - 0.8 400 (400-0.8)
T-17	570 - 1.6 400 (400-1.6)
C-130/CL-604	570 - 1.8 400 (400-1.8)
F-16	570 - 2.8 400 (400-2.8)

LOC ONLY: CDFA 3.00° / 5.24%						TA 3000	
DME KR	1	2	3	4	5	GS 3.0°	RDH 50
DIST THR	0.8	1.8	2.8	3.8	4.8		
ALT	490	810	1120	1440	1760		



CATEGORY	A	B	C	D	E
S-ILS CAT I	370 - 550 200 (200-0.8/1.2)				
S-ILS CAT II	RA 106 (DA 270) - 350 100				N/A
S-LOC 27L	480 - 750 310 (400-0.8/1.4)				
CIRCLING	670 - 1.5 499 (500-1.5)	680 - 1.6 509 (600-1.6)	840 - 2.4 669 (700-2.4)	880 - 3.6 709 (800-3.6)	1120 - 3.6 949 (1000-3.6)

ILS or LOC RWY 27L

56°17.85'N
009°07.48'E
5-8

KARUP AIR BASE (EKKA)

CHANGES: ATC VHF FREQ.

AIR COMMAND DENMARK - MIL-AIM 18-A-PR 2024

INTENTIONALLY

LEFT

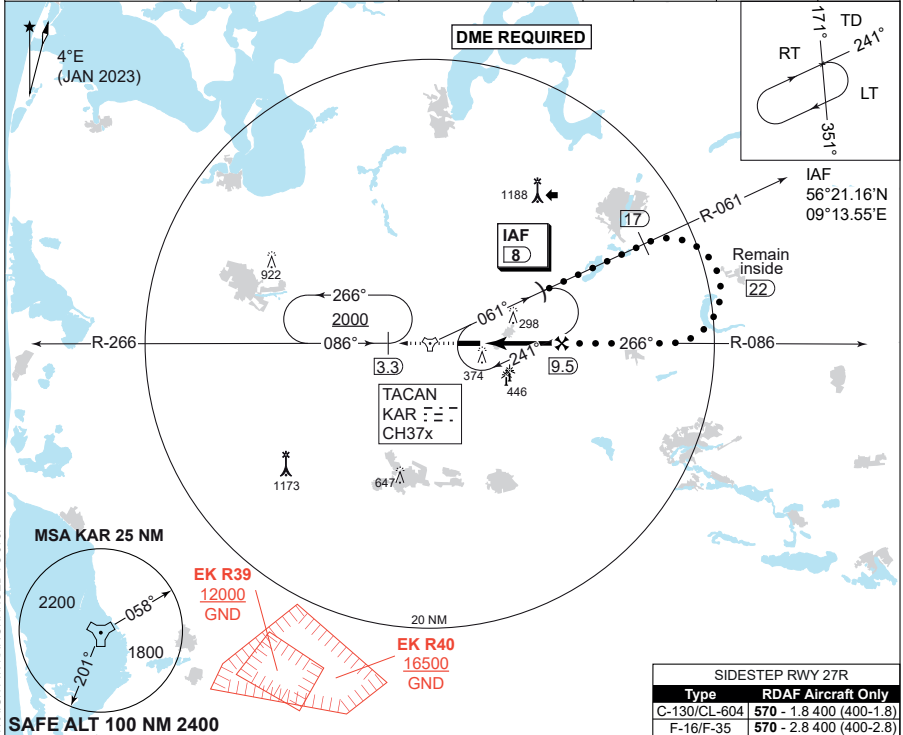
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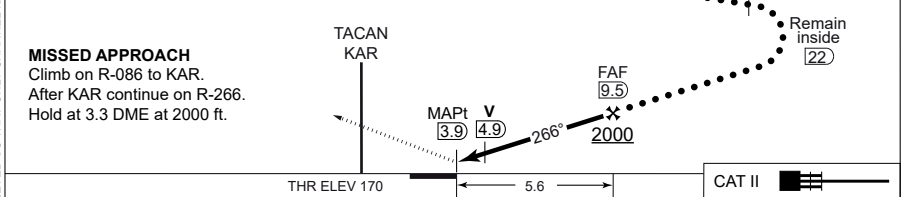
AD ELEV 171

**HPMA TACAN RWY 27L
KARUP AIR BASE (EKKA)**

COPENHAGEN CONTROL 242.650 124.555		KARUP ATIS 120.580	KARUP APPROACH 269.275 120.430		KARUP TOWER 353.575 119.580		
TACAN KAR CH 37x	APP COURSE 266°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 550	THR ELEV 170	ALS LENGTH 900 M	LDA 9607 FT



CDFA: 3.0° / 5.24%	
DME KAR	5 6 7 8 9
DIST THR	1.1 2.1 3.1 4.1 5.1
ALT	580 900 1220 1540 1850



CATEGORY	HPMA
S-TACAN 27L	550 - 1000 379 (400-1.0/1.7)
CIRCLING	750 - 3.2 579 (600-3.2)

HPMA TACAN RWY 27L

56°17.85'N
009°07.48'E
5-10

KARUP AIR BASE (EKKA)

CHANGES: TACAN FREQ DELETED SO THAT ONLY CHANNEL IS DEPICTED. STRAIGHT-IN HAAS CHANGED TO 379.

AIR COMMAND DENMARK - MIL AIR 28 NOV 2024

AERODROME CHART

KASTRUP (EKCH)



ARP 55°37.08'N 102°39.36'E ELEV 17

RWY	PCN	DECLARED DISTANCES				HDG	THR	RWY LIGHTING					APP LGT	THR PSN
		TORA	TODA	ASDA	LDA			MAG	ELEV	THR	PAPI	TDZ		
04L	80 F/C/X/U	9842	9842	11715	9842	037°	13	LIH	3°	LIH	LIH	LIH	CAT II	55°35.54'N 102°36.22'E
22R	80 F/C/X/U	11791	11791	11791	9842	217°	14	LIH	3°	LIH	LIH	LIH	J	55°36.76'N 102°37.10'E
04R	80 F/C/X/U	10833	10833	10833	10833	037°	12	LIH	3°	LIH	LIH	LIH	J	55°36.19'N 102°37.99'E
22L	80 F/C/X/U	10833	10833	10833	10833	217°	8	LIH	3°	LIH	LIH	LIH	CAT II+III	55°37.53'N 102°40.06'E
12	80 F/C/X/U	9186	9186	9186	7759	119°	13	LIH	3°	LIH	LIH	LIH	J	55°37.46'N 102°38.36'E
30	80 F/C/X/U	7759	7759	8743	6873	299°	8	LIH	3°	LIH	LIH	LIH	J	55°36.84'N 102°40.02'E

FREQUENCIES		TAKE-OFF POSITIONS				
COPENHAGEN APP:	119.805	RWY	PSN	TORA	TODA	ASDA
KASTRUP FINAL:	120.205	22R	A2	11446	11446	11446
KASTRUP TWR:	118.105 / 118.580 / 118.705 / 119.355 / 121.830	A3	A3	11026	11026	11026
KASTRUP APRON:	121.630 / 121.905	A4	A4	10610	10610	10610
ATIS (ARR):	122.755	A5	A5	9478	9478	9478
ATIS (DEP):	122.855					
SAS MAINTENANCE:	131.600					
F-16 PARKING POSITIONS						
ARMED OR EPU ACTIVATED:						
TWY G3. Safe direction SOUTH EAST (follow marshaller)						
AIRCRAFT NOT ARMED:						
RI, RII or RIII on Apron W, TWY F3, engine run-up area on Apron C or TWY F2. Follow marshaller.						
See page 6-2 for further details.						
		04R	B2	10508	10508	10508
			B3	9176	9176	9176
			B4/C	6368	6368	6368
		22L	V2	9143	9143	9143
		12	K2	8854	8854	8854
			K3	8136	8136	8136
			D	5908	5908	5908

AERODROME CHART

KASTRUP (EKCH)

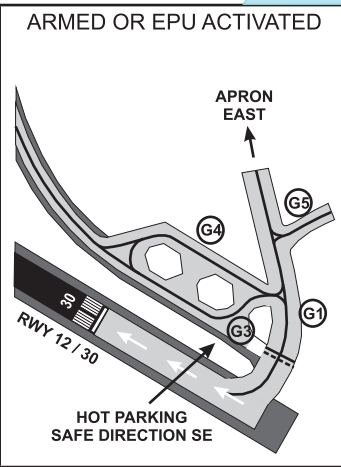
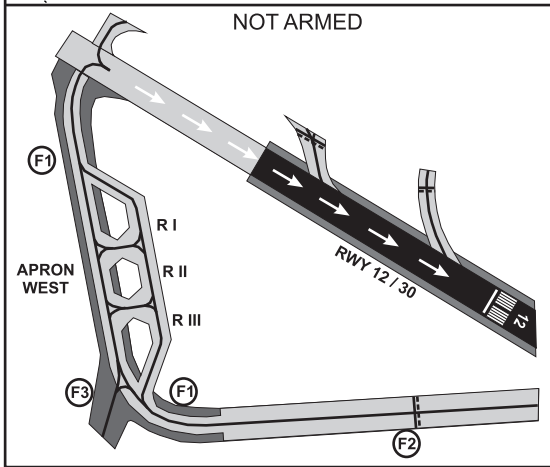
F-16 PARKING POSITIONS

KASTRUP (EKCH)



NOT ARMED

ARMED OR EPU ACTIVATED



CHANGES: EDITORIAL.

F-16 PARKING POSITIONS

KASTRUP (EKCH)

AIR COMMAND DENMARK - MIL AIRM 28 NOV 2024

KASTRUP OPERATIONS

1. GENERAL

- 1.1. Use of afterburner is not permitted
- 1.2. Preferred RWY for landing: 22L/04L.
Preferred RWY for take off: 22R/04R.

2. APPROACH

- 2.1. After KORSA or TRANO expect radar vectoring to final.
- 2.2. On initial contact with APP or ARR: State callsign, aircraft type, and arrival ATS.
- 2.3. On initial contact with Final state callsign only.
- 2.4. Do not overfly the city of Copenhagen below 2500 feet.
- 2.5. RWY 12: Do not fly below GP during instrument or visual approach.
- 2.6. Landing on RWY 22L: Turn on to taxiway B unless otherwise instructed.
Landing on RWY 04L: Turn on to taxiway A unless otherwise instructed.
- 2.7. Remain on tower frequency after landing until otherwise instructed by ATC.

3. START UP AND DEPARTURE

- 3.1. Contact DLV (119.900 MHz) between 30 and 10 minutes prior to engine start and state; Call sign, aircraft type, parking place, departure ATIS and need for de-icing.
If unable to follow the SID, inform DLV ("Unable RNAV").
- 3.2. After read back, DLV will give the frequency for GND or TWR. (Expect 121.900 MHz for GND).
- 3.3. On GND/TWR request start up and taxi (Marshaller compulsory from R1-R3)
- 3.4. Take off position: See AD LAYOUT for INT and distances.
- 3.5. Departure:
 - 3.5.1. When passing 1000 feet contact departure on frequency 124.980 MHz for the following SID's (without designator as e.g. BISTA 1C): BISTA, KEMAX, SIMEG, SALLO, MAXEL and TOBIS – departures in direction 001° to 270° from EKCH ARP.
 - 3.5.2. When passing 1000 feet contact DEP on frequency 120.255 MHz for the following departures (without designator e.g. DOBEL 1C): DOBEL, MIRGO, and NOVPO – departures in direction 271° to 360° from EKCH ARP.

- 3.6. Speed restriction is 250 kt. below FL70.
- 3.7. NOTE: Non RNAV aircraft: At first CTC with TWR state inability to follow SID. Climb straight ahead to FL70 for radar vectors to SID designation point. COM: Remain on TWR FREQ until passing 1000FT. At 1000FT CTC DEP. ALT restriction is FL70.

4. GROUND HANDLING (FIGHTER AIRCRAFT ONLY)

- 4.1. Landing not planned:
Contact ASE Handling on frequency 131.925 MHz as soon as possible.
- 4.2. Planned landing:
Contact ASE Handling on phone +45 2068 5928 before the mission.
- 4.3. For F-35 JET-A/JET-A1 is characterized as "Restricted Fuel" iaw. FSD. RTB flight to be conducted as direct transit flight back to EKSP. Aircraft to be partially refueled iaw. RTB mission profile.
- 4.4. ASE Handling are not familiar with "F-35 Ground Ladder". It is the pilot's responsibility to be familiar with, and be able to instruct civilian ground personnel in its operation, from the cockpit.

5. PLANNED PARKING POSITIONS FOR FIGHTER AIRCRAFT

- 5.1. Armed F-16 or F-16 with activated EPU:
Taxiway G3. Safe direction is SE (Follow Marshaller).
- 5.2. Unarmed F-16:
RI, RII or RIII on Apron W, taxiway F3, engine run up area on Apron C or taxiway F2. (Follow Marshaller).
- 5.3. Unarmed F-35:
CPH Marshaller will handover aircraft to ASE Handling on parking spot G110-G114.
Parking is only allowed on concrete as IPP operation will melt asphalt.

KASTRUP ARRIVAL**IFR approach**

At first contact with APPROACH, state type of aircraft.

At initial contact with FINAL, state only callsign.

Radio Communication failure during IFR approach for a/c WITHOUT VOR, but WITH TACAN, incl. RDAF F-16 / F-35.

In case of radio communication failure the last cleared and acknowledged level shall be maintained until RNAV fix UVALO (55°47.47N 012°05.73E) HIGH HOLDING. (UVALO R-278 / 20 NM). Descend to 6000 FT AMSL in the holding pattern. If already at a lower level, maintain this.

From UVALO HIGH HOLDING proceed via UVALO on radials (UVALO R-160 to RWY 04L/R and R-083 to RWY 22L/R respectively). At 13 NM from UVALO descend to maintain 3000 FT before established on the localizer to the runway concerned.

Radio Communication failure during IFR approach for a/c WITH VOR.

In case of radio communication failure, the last cleared and acknowledged level shall be maintained until the appropriate primary holding pattern (see next page). Descent to FL80 in the holding pattern. If already at a lower level, maintain that level until KASFI (55°35.43N 012 36.82E).

From the primary holding pattern proceed via ERNOV, TIDVU, OLPIB, KOR or TNO VOR direct to KASFI. Maintain FL 80 (FL 100 via ERNOV) or last cleared and acknowledged level or altitude.

If radio communication failure occur during vectoring or after passing over or abeam the primary holding fix, proceed direct to KASFI. Maintain FL 80 (FL 100 via ERNOV) or last cleared and acknowledged level or altitude. When distance to KASFI is 15 NM or less descend to 5000 FT. After KASFI descend to 3000 FT and proceed direct relevant IAF.

Special conditions for flying in Swedish Airspace.

Danish military aircraft may, in connection with approach to EKCH, enter Swedish airspace, within the areas delegated to Copenhagen APP. The flight must be controlled by Copenhagen APP. The areas are:

- Copenhagen Area.
- Area L2, L3, Area SUNDET and Area KASTRUP (see MIL AIP Denmark page ENR 2.1-2 and ENR 2.3-3 (chart))

ARRIVAL INFORMATION

KASTRUP (EKCH)

Military aircraft may, without special permission, enter Swedish territorial waters in Øresund. Minimum distance to the Swedish coast is 1 NM. All kinds of military activities are prohibited during passage. The area is limited as follows:

- To the north by a line between Gilbjergghoved (56° 08.000'N 012° 27.000'E) and Kullen (56° 18.000'N 012° 27.000'E).
- To the south by a line between Stevns Lighthouse (55° 18.000'N 012° 27.000'E) and Falsterbo Odde (55° 23.000'N 012° 49.000'E).

Primary holdings for København/Kastrup

Holding Name	Inbound Track (MAG)	Turn	MAX IAS	MNM/MAX Level Time	Entry Procedure
TIDVU 55° 24.678'N 013° 33.452'E	294	Right	230	5000 FT 1.5 MIN	Omni-directional
OLPIB 55° 00.090'N 012° 22.753'E	030	Right	230	3500FT/FL140 1 MIN	Omni-directional
	030	Right	240	FL150/FL190 1.5 MIN	Omni-directional
LUGAS KOR VOR/DME R-251/23.8 DME 55° 19.783'N 010° 57.783'E	073	Left	230	3500FT/FL140 1 MIN	Direct entry via TUDLO*
	073	Left	240	FL150/FL200 1.5 MIN	Direct entry via TUDLO*
	073	Left	265	FL210/FL300 1.5 MIN	Direct entry via TUDLO*
ROSBI TNO VOR/DME R-282/17.7 DME 55° 50.967'N 010° 55.917'E	103	Left	230	3500FT/FL140 1 MIN	Direct entry via TESPI**
	103	Left	240	FL150/FL200 1.5 MIN	Direct entry via TESPI**
	103	Left	265	FL210/FL300 1.5 MIN	Direct entry via TESPI**
ERNOV 56° 10.132'N 012° 34.427'E	179	Left	230	FL100 / 1.5 MIN	Omni-directional

Notes:

*) TUDLO is on KOR R-251/35.1 DME, PSN 55° 16.550'N 010° 38.867'E

***) TESPI is on TNO R-281/31.6 DME, PSN 55° 53.900'N 010° 31.867'E

MIPS

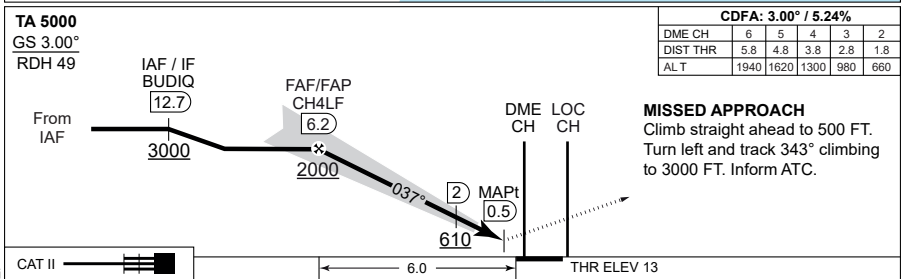
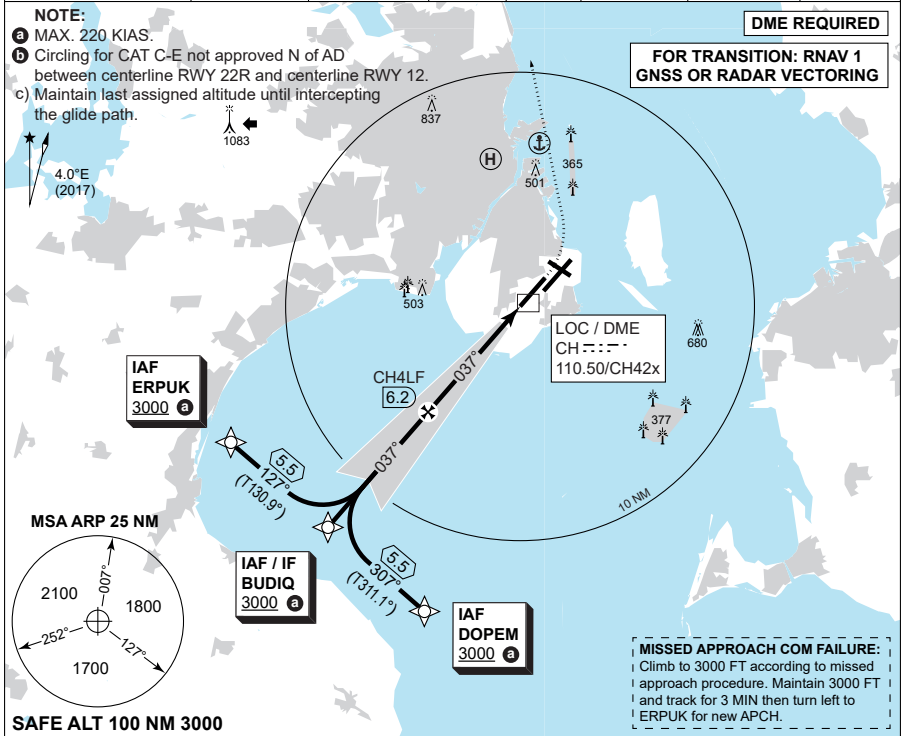
INSTRUMENT APPROACH CHART

AD ELEV 17

ILS or LOC RWY 04L

KASTRUP(EKCH)

COPENHAGEN APPROACH 119.805	KASTRUP ATIS (ARR) 122.755	KASTRUP FINAL 120.205	KASTRUP TWR 118.105	KASTRUP APRON 121.630		
LOC/DME CH 110.50/CH42x	APP COURSE 037°	GS INTCP ALT 2000 FT	GS 3.00° DA 213	THR ELEV 13	ALS LENGTH 900 M	LDA 9842 FT



CATEGORY	A	B	C	D	E
S-ILS CAT I	213 - 550 200 (200-0.8/1.2)				
S-ILS CAT II	RA 102 (DA 113) - 350 100	RA 106 (DA 117) 350 104	RA 120 (DA 131) 350 118	N/A	
S-LOC 04L	420 - 1200 403 (500-1.2/1.9)				
CIRCLING b)	580 -1.5 563 (600-1.5)	590 -1.6 573 (600-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)

ILS or LOC RWY 04L

55°37.08'N
012°39.36'E

KASTRUP (EKCH)

6-7

EKCH

CHANGES, NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

MIPS

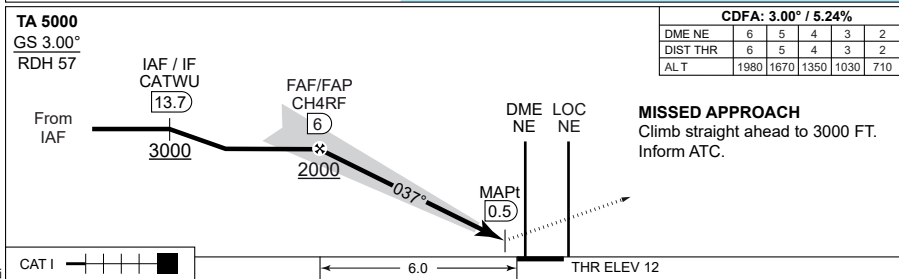
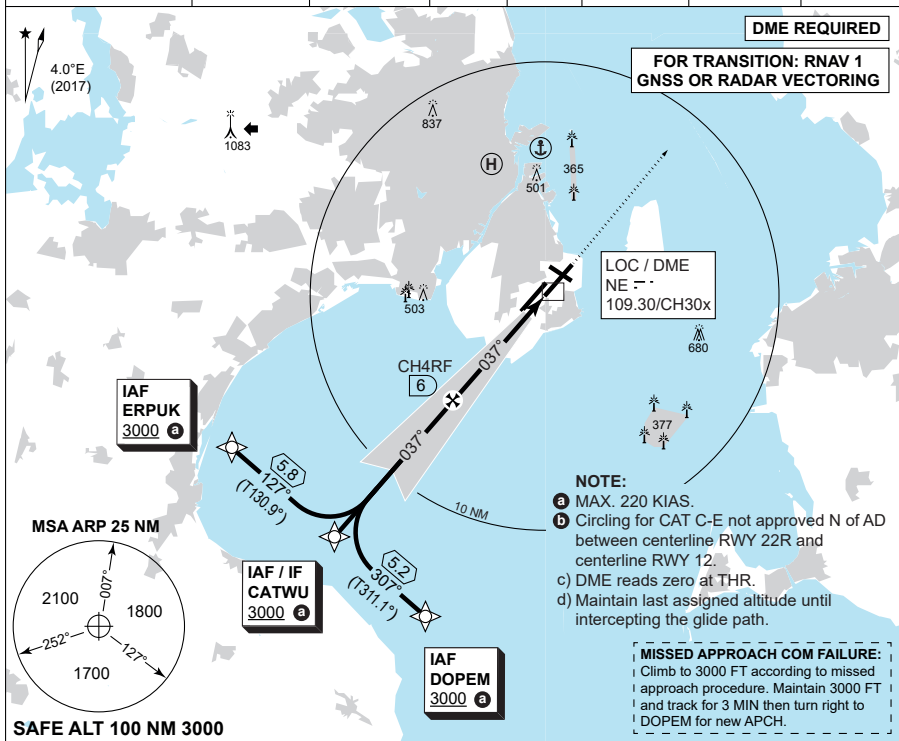
INSTRUMENT APPROACH CHART

AD ELEV 17

ILS or LOC RWY 04R

KASTRUP(EKCH)

COPENHAGEN APPROACH 119.805	KASTRUP ATIS (ARR) 122.755	KASTRUP FINAL 120.205	KASTRUP TWR 118.105	KASTRUP APRON 121.630
LOC/DME NE 109.30/CH30x	APP COURSE 037°	GS INTCP ALT 2000 FT	GS 3.00°	DA 212
		THR ELEV 12	ALS LENGTH 720 M	LDA 10833 FT



CATEGORY	A	B	C	D	E
S-ILS CAT I	212 - 550 200 (200-0.8/1.2)				
S-LOC 04R	580 - 1500 563 (600-1.5/2.6)		580 - 1900 563 (600-1.9/2.6)		
CIRCLING b	580 -1.5 563 (600-1.5)	590 -1.6 573 (600-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)

ILS or LOC RWY 04R

KASTRUP (EKCH)

55°37.08'N
012°39.36'E

6-8

CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

MIPS

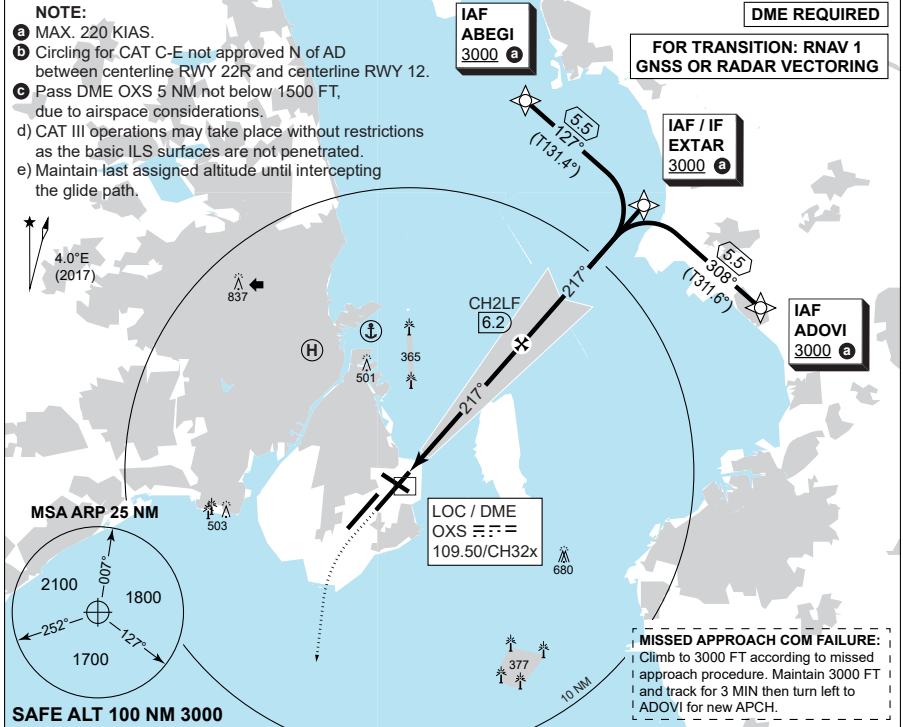
INSTRUMENT APPROACH CHART

AD ELEV 17

ILS or LOC RWY 22L

KASTRUP(EKCH)

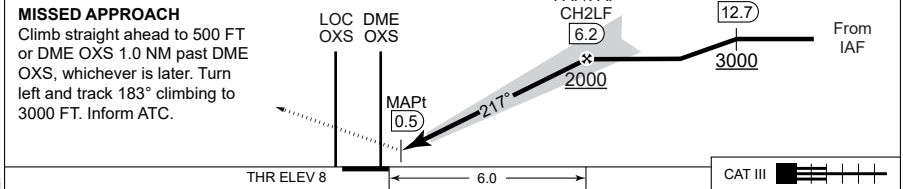
COPENHAGEN APPROACH 119.805		KASTRUP ATIS (ARR) 122.755		KASTRUP FINAL 120.205		KASTRUP TWR 118.105		KASTRUP APRON 121.630	
LOC/DME OX5109.50/CH32x		APP COURSE 217°		GS INTCP ALT 2000 FT		GS 3.00°		DA 208	
						THR ELEV 8		ALS LENGTH 900 M	
								LDA 10833 FT	



CDFA: 3.00° / 5.24%

DME OXS	2	3	4	5	6
DIST THR	1.8	2.8	3.8	4.8	5.8
ALT	650	970	1290	1600	1930

TA 5000
GS 3.00°
RDH 53



MIPS	CATEGORY	A	B	C	D	E
	S-ILS CAT I	208 - 550 200 (200-0.8/1.2)				
	S-ILS CAT II	RA 101 (DA 108) - 350 100				
	S-LOC 22L c	510 - 1500 493 (500-1.5/2.3)				
CIRCLING b	580 -1.5 563 (600-1.5)	590 -1.6 573 (600-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)	

ILS or LOC RWY 22L

55°37.08'N
012°39.36'E
6-9

KASTRUP (EKCH)

EKCH

CHANGES: NEW PROCEDURE.

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

MIPS

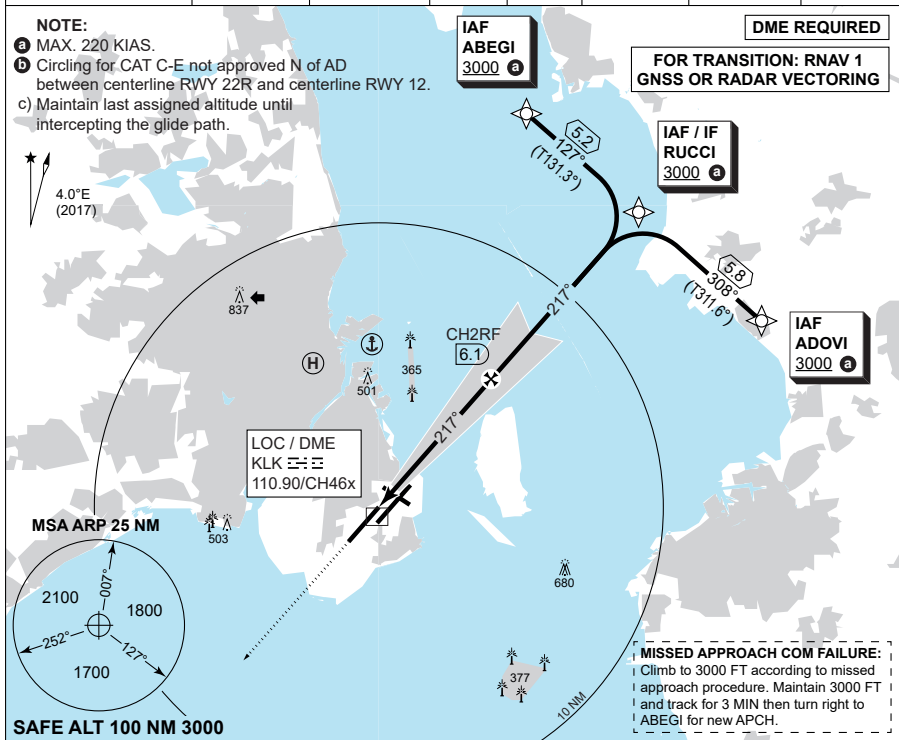
INSTRUMENT APPROACH CHART

AD ELEV 17

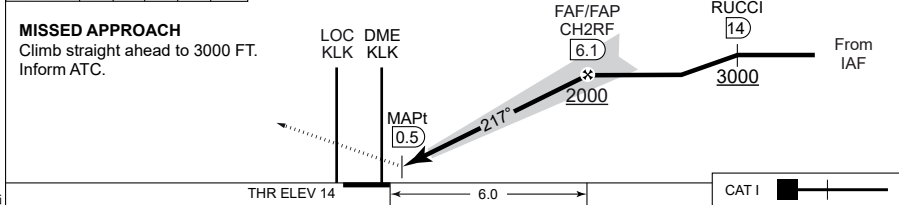
ILS or LOC RWY 22R

KASTRUP(EKCH)

COPENHAGEN APPROACH 119.805	KASTRUP ATIS (ARR) 122.755	KASTRUP FINAL 120.205	KASTRUP TWR 118.105	KASTRUP APRON 121.630
LOC/DME KLK 110.90/CH46x	APP COURSE 217°	GS INTCP ALT 2000 FT	GS 3.00° DA 214	THR ELEV 14
			ALS LENGTH 900 M	LDA 9842 FT



CDFA: 3.00° / 5.24%						TA 5000 GS 3.00° RDH 47
DME OXS	2	3	4	5	6	
DIST THR	1.8	2.8	3.8	4.8	5.8	
ALT	650	970	1290	1610	1930	



CATEGORY	A	B	C	D	E
S-ILS CAT I	214 - 550 200 (200-0.8/1.2)				
S-LOC 22R	450 - 1300 433 (500-1.3/2.0)				
CIRCLING b)	580 -1.5 563 (600-1.5)	590 -1.6 573 (600-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)

ILS or LOC RWY 22R

55°37.08'N
012°39.36'E

KASTRUP (EKCH)

MIPS

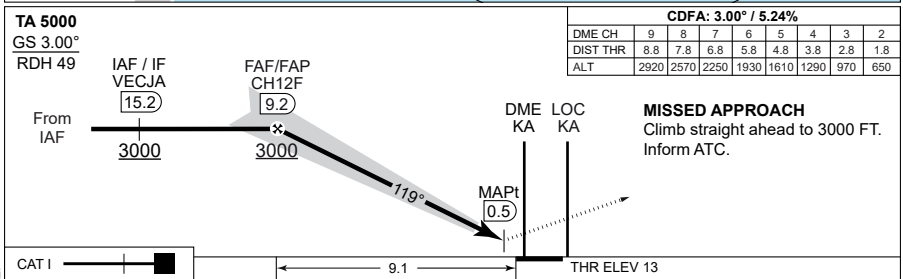
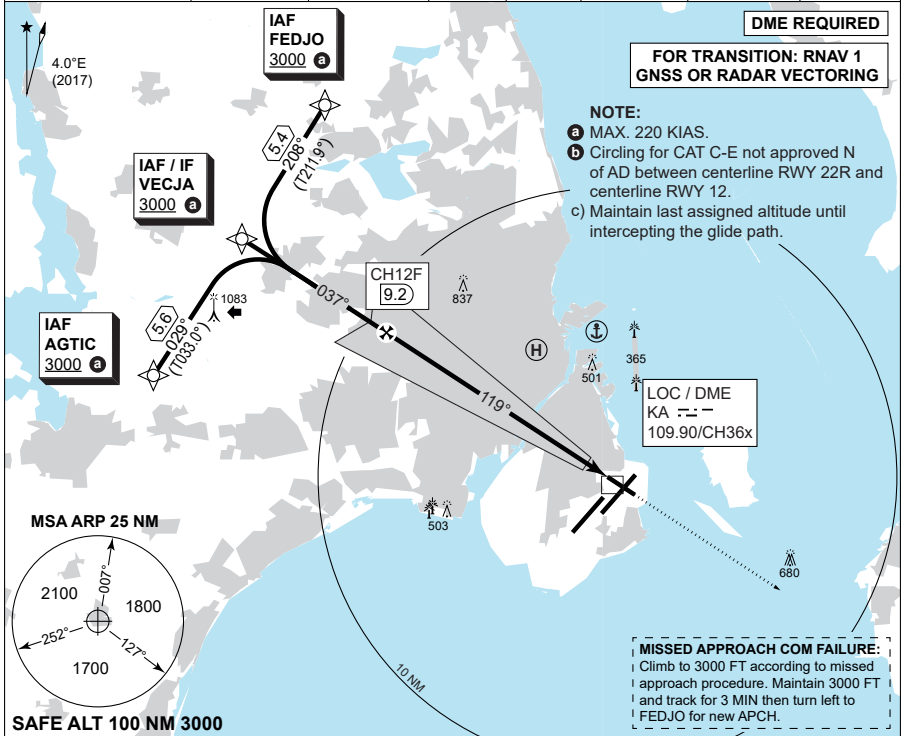
INSTRUMENT APPROACH CHART

AD ELEV 17

ILS or LOC RWY 12

KASTRUP(EKCH)

COPENHAGEN APPROACH 119.805		KASTRUP ATIS (ARR) 122.755		KASTRUP FINAL 120.205		KASTRUP TWR 118.105		KASTRUP APRON 121.630	
LOC/DME CH 109.90/CH36x	APP COURSE 119°	GS INTCP ALT 3000 FT	GS 3.00°	DA 213	THR ELEV 13	ALS LENGTH 900 M	LDA 7759 FT		



CATEGORY	A	B	C	D	E
S-ILS CAT I	213 - 550 200 (200-0.8/1.2)				
S-LOC 12	780 - 1500 763 (800-1.5/3.6)		780 - 2400 763 (800-2.4/3.6)		
CIRCLING b	780 -1.5 763 (800-1.5)	780 -1.6 763 (800-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)

ILS or LOC RWY 12

55°37.08'N
 012°39.36'E

KASTRUP (EKCH)

6-11

EKCH

CHANGES: NEW PROCEDURE.

MIPS

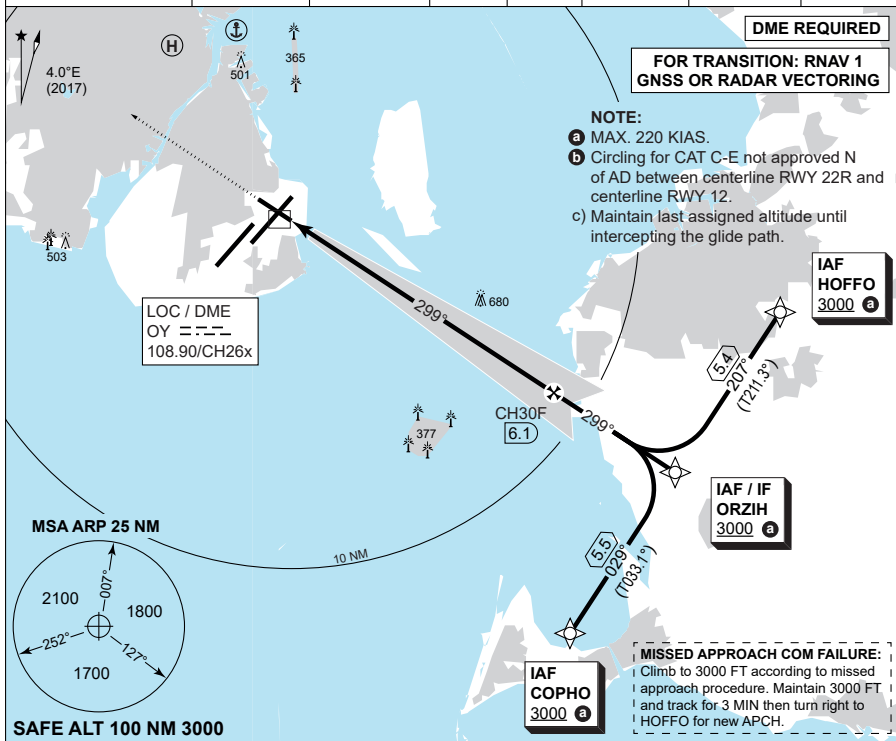
AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

MIPS INSTRUMENT APPROACH CHART

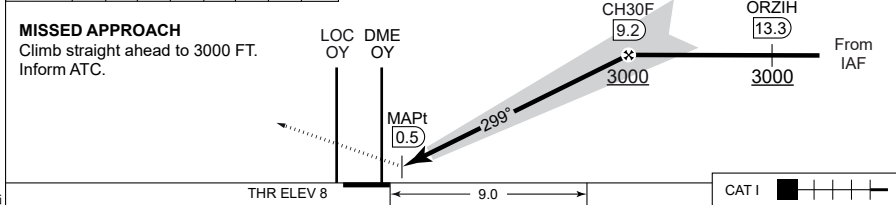
AD ELEV 17

ILS or LOC RWY 30 KASTRUP(EKCH)

COPENHAGEN APPROACH 119.805	KASTRUP ATIS (ARR) 122.755	KASTRUP FINAL 120.205	KASTRUP TWR 118.105	KASTRUP APRON 121.630
LOC/DME OY 108.90/CH26x	APP COURSE 299°	GS INTCP ALT 3000 FT	GS 3.00°	DA 208
			THR ELEV 8	ALS LENGTH 900 M
				LDA 6873 FT



CDFA: 3.00° / 5.24%									
DME OY	2	3	4	5	6	7	8	9	
DIST THR	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	
ALT	640	960	1280	1600	1920	2240	2560	2870	



CATEGORY	A	B	C	D	E
S-ILS CAT I	208 - 550 200 (200-0.8/1.2)				
S-LOC 30	510 - 1500 493 (500-1.5/2.3)				
CIRCLING a	580 -1.5 563 (600-1.5)	590 -1.6 573 (600-1.6)	1010 -2.4 993 (1000-2.4)	1010 -3.6 993 (1000-3.6)	1180 -3.6 1163 (1200-3.6)

ILS or LOC RWY 30 KASTRUP (EKCH)

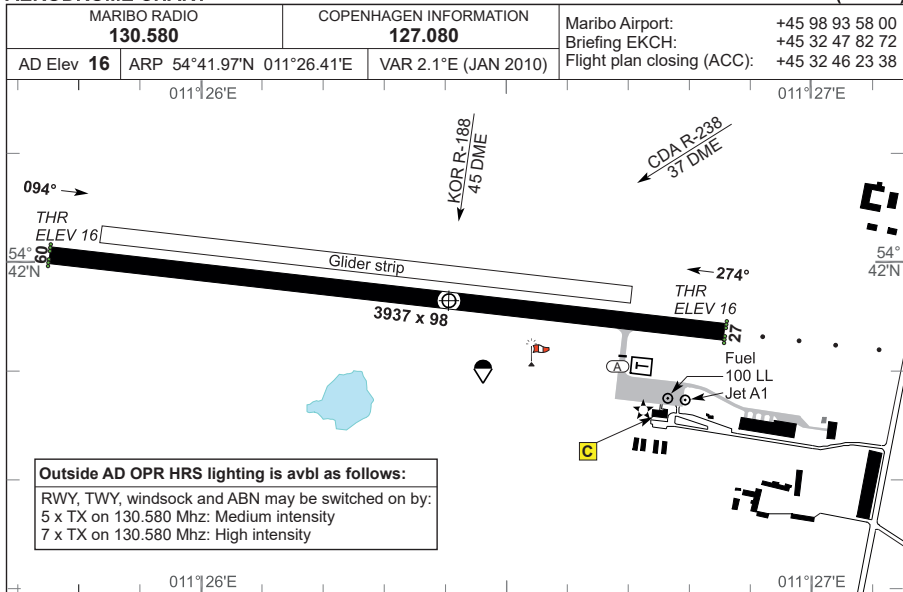
55°37.08'N
012°39.36'E
6-12

CHANGES, NEW PROCEDURE.

AIP COMMAND DENMARK - MIL AIN 28 NOV 2024

AERODROME CHART

LOLLAND FALSTER / MARIBO (EKMB)



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
09	13 F/D/Y/T	3937	3937	3937	3937	16	LIH	N/A			LIH	LIH	54°42.01'N 011°25.75'E
27	13 F/D/Y/T	3937	3937	3937	3937	16	LIH	N/A			LIH	LIH	54°41.93'N 011°26.86'E

Approved for VMC day and VFR night operations. Self-service when ADO is closed. See VFR Flight Guide Denmark for opening hours.
 Fuel available only after prior arrangement. Payment: DKK or EURO.
 Customs available inside ADO hours. 1 hour PN.
 Rescue and Fire Fighting Service not available.
 Gliding and parachuting may take place.

- Local Regulations/Remarks**
- After TKOF VFR from RWY 27 turn towards NW as early as safety permits, but not later than 500 FT. Turn towards S must at the earliest be commenced after passing through 1000 FT or when the road W of Rødby has been passed. The built-up areas Nebbelunde, Rødby and Sædinge shall be passed at the greatest distance possible. After TKOF from RWY 09 the built-up areas Holeby and Torslunde shall be passed at the greatest distance possible.
 - School and training flights are not permitted after 1900 Danish time.
 - All turns in connection with VFR landing exercises shall take place S of RWY 09/27. After TKOF turns towards S shall take place as early as safety permits, but not later than 500 FT.
 - Parachuting may take place.
 - Launching of gliders by cable may take place. When gliding is taking place, overflying the aerodrome should be avoided below 2000 FT MSL.
 - Gliders shall use frequency 130.580 during take off / landing and traffic circuit.

CHANGES: MARIBO RADIO FREQ CHG.

AIR COMMAND DENMARK - MIL-AIM 08 AUG 2024

AERODROME CHART

MARIBO (EKMB)



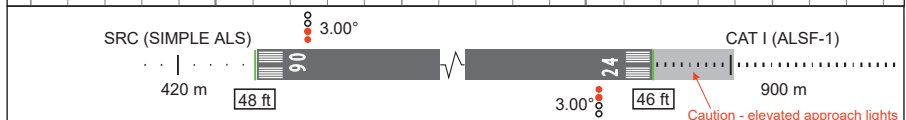
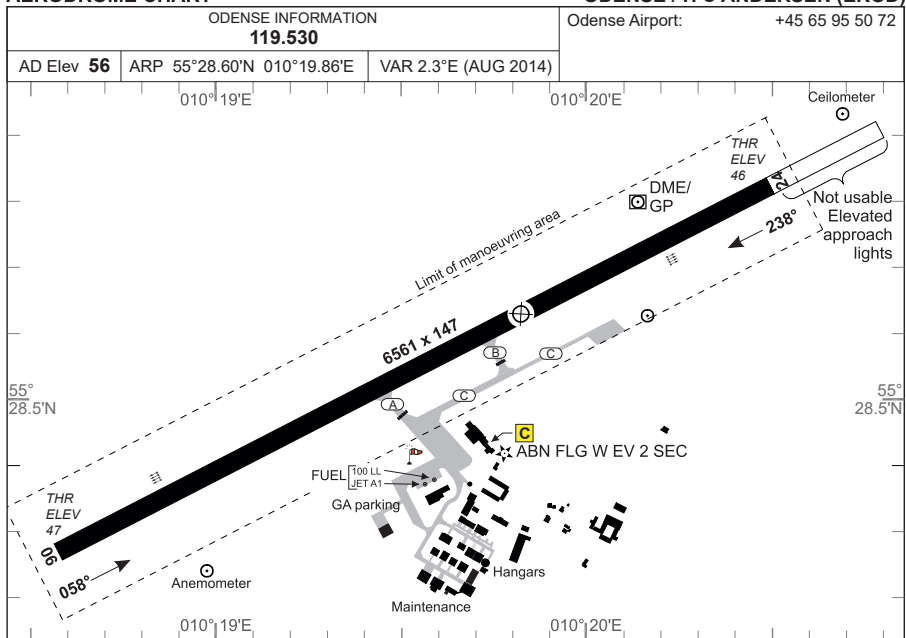
INTENTIONALLY

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AERODROME CHART

ODENSE / H C ANDERSEN (EKOD)



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
06		6561	6561	6561	6561	47	LIH	3°			LIH		55°28.25'N 10°18.79'E
A	50 R/D/X/U	3628	3628	3628									
B		2650	2650	2650									
24		6561	6561	6561	6561	46	LIH	3°			LIH	LIH	55°28.79'N 10°20.43'E
B	50 R/D/X/U	3959	3959	3959									
A		2998	2998	2998									

AD PPR outside OPS hours. Request to be submitted not later than 1 hour before termination of service. Self-service AVBL for aircraft MTOW blw 2000 kg. VFR outside opening hours. Contact to EKOD outside Service Hours phone manned from 0600-2200 local time on TEL +45 65 95 50 72. NOTE: Opening charge will be collected outside regular Service Hours.

Parachuting may take place. Drone operation may take place. Check NOTAM for EK R25 and EK R26.

FLIGHT PROCEDURES

1. IFR Arrival
 - 1.1 Aircraft will normally be cleared by ACC KØBENHAVN to OD24F HOLDING.
 - 1.2 Navigation aid designated for radio communication failure during IMC for arriving aircraft is NDB FE.
2. IFR Departure
 - 2.1 Standard Instrument Departures (SID) have not been established.
 - 2.2 Omnidirectional departures:
 - RWY 06/24: Climb straight ahead to at least 700 FT MSL before turn is commenced.

MIPS	CIRCLING MINIMA (North of AD only)				
	A	B	C	D	E
500	-1.5 444 (500-1.5)	550 (500-1.6)	790 (800-2.4)	790 (800-3.6)	890 (900-3.6)

AERODROME CHART

ODENSE / H C ANDERSEN (EKOD)



CHANGES: ODENSE INFORMATION FREQ. CHANGED.

AIR COMMAND DENMARK - MIL AIM 13 JUN 2024

NOISE ABATEMENT PROCEDURES

Noise abatement provision

1. Flights in the periods 2200-2300 (2100-2200) and 0500-0600 (0400-0500):
In the periods 2200-2300 (2100-2200) and 0500-0600 (0400-0500) the airport may be used by the following aircraft:

- Aeroplanes and helicopters with MTOM not exceeding 5700 KG.
- Propeller aeroplanes with MTOM below 9000 KG and noise certified according to ICAO annex 16, chapter 6 or chapter 10.
- Jet and turboprop aeroplanes (irrespective of MTOM) certified according to ICAO Annex 16, chapter 3 and which fulfil the lower limits of the requirements (flyover 89 EPNdB, lateral 94 EPNdB and Approach 98 EPNdB).

The number of those operations is limited to 100 per month.

2. Noise abatement provisions for ACFT with MTOM above 5700 KG.

3.1 Take-off RWY06:

- Departure towards ALSIE VOR: Turn right – VOR ODN R-229 – VOR ALS R-010 to ALSIE VOR.

3.2 Take-off RWY24:

- Right turn must not be commenced until after VOR/DME ODN R-239/15NM.
- Departure towards ALSIE VOR: Left turn must not be commenced until after VOR/DME ODN R-239/16NM.
- Departure towards TRANO VOR and KORSA VOR: Left turn must not be commenced until after VOR/DME ODN R-239/14NM if the aeroplane in question is a jet aeroplane noise certified according to ICAO Annex 16, chapter 2.

3. School and training flights:

School and training flights are permitted in the period 0600-2200 (0500-2100). For big jet aeroplanes (MTOM above 34000 KG or with more than 19 seats) school and training flights are permitted only MON-FRI EXC HOL in the period 0600-2100 (0500-2000). Due to environmental reasons traffic circuits in connection with landing exercises RWY 06/24 shall take place alternately north and south of the runway. PPR to be submitted within operational hours.

MIPS

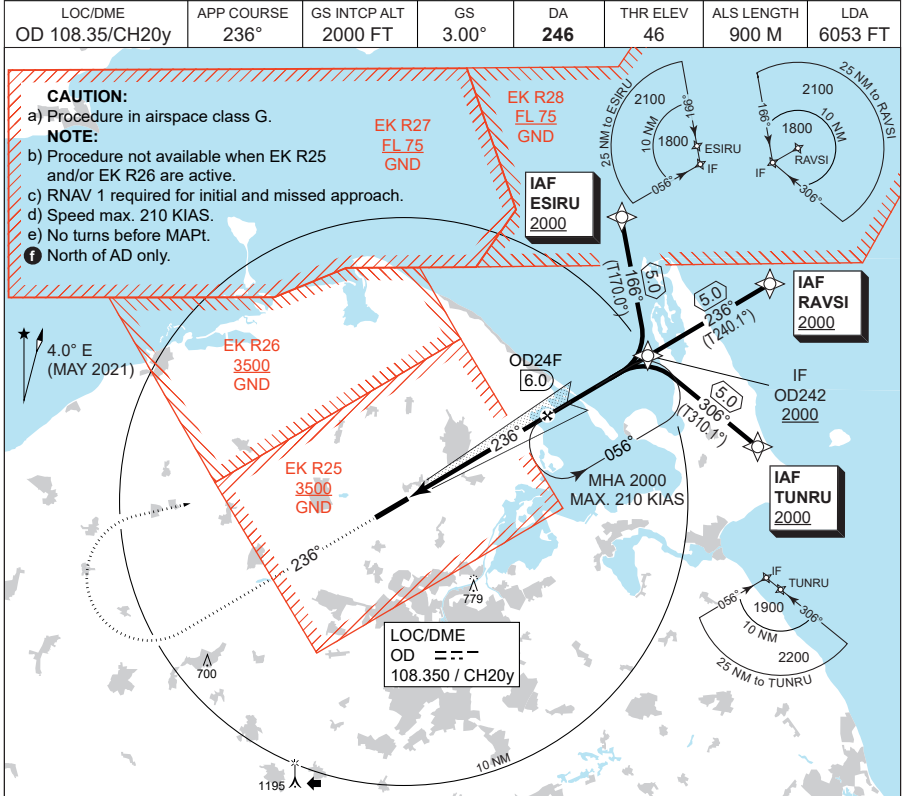
INSTRUMENT APPROACH CHART

AD ELEV 56

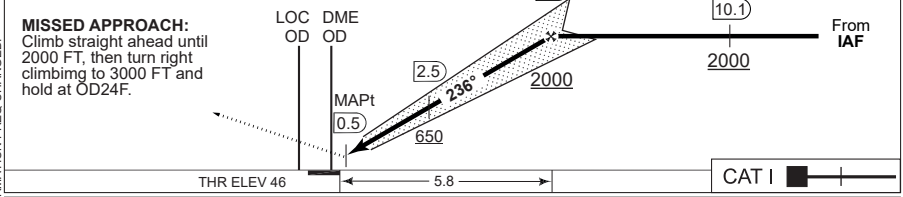
ILS or LOC RWY 24

ODENSE / H C ANDERSEN (EKOD)

COPENHAGEN CONTROL 360.100 133.150				ODENSE INFORMATION 119.530			
LOC/DME OD 108.35/CH20y	APP COURSE 236°	GS INTCP ALT 2000 FT	GS 3.00°	DA 246	THR ELEV 46	ALS LENGTH 900 M	LDA 6053 FT



CDFA: 3.00° / 5.24%						TA 3000
DME OD	2	3	4	5	6	GS 3.00°
DIST THR	1.8	2.8	3.8	4.8	5.8	RDH 57
ALT	690	1010	1320	1640	1960	



CATEGORY	A	B	C	D	E	
S-ILS 24		246 - 550 200 (200-0.8/1.2)				
S-LOC 24		380 - 800 334 (400-0.8/1.5)				
CIRCLING f	500 - 1.5 444 (500-1.5)	550 - 1.6 494 (500-1.6)	790 - 2.4 734 (800-2.4)	790 - 3.6 734 (800-3.6)	890 - 3.6 834 (900-3.6)	

ILS or LOC RWY 24 55°28.60'N **ODENSE / H C ANDERSEN (EKOD)**
010°19.86'E
8-5

CHANGES: ODENSE INFORMATION FREQ CHANGED.

AIR COMMAND DENMARK - MIL AIM 13 JUN 2024

EKOD

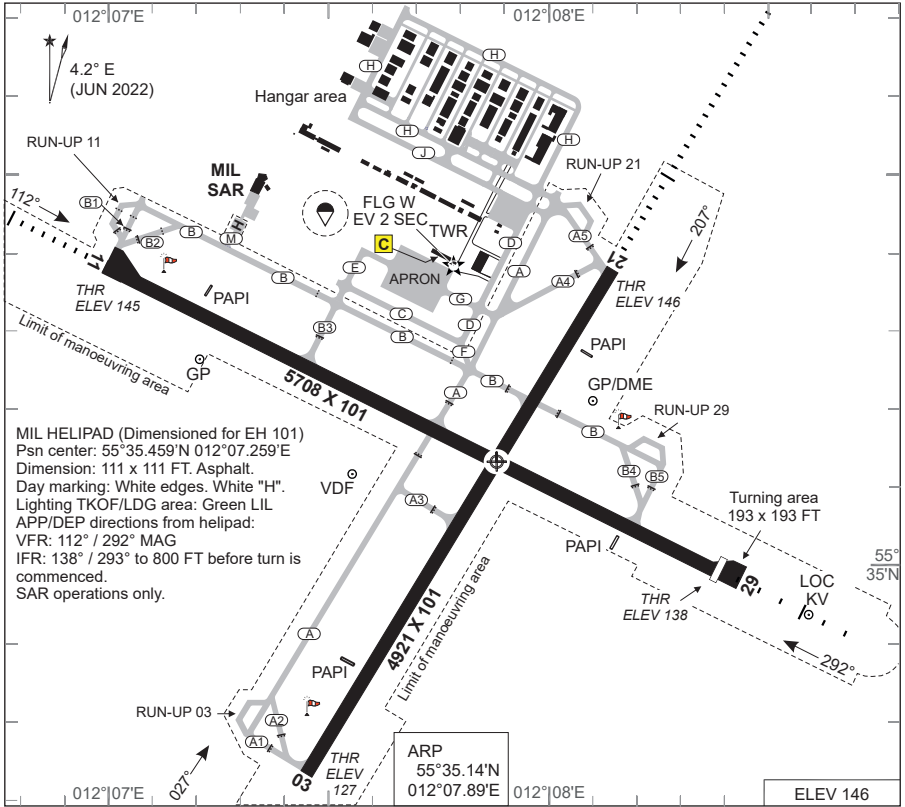
INTENTIONALLY

LEFT

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AERODROME CHART

ROSKILDE (EKRK)



MIL HELIPAD (Dimensioned for EH 101)
 Psn center: 55°35.459'N 012°07.259'E
 Dimension: 111 x 111 FT. Asphalt.
 Day marking: White edges. White "H".
 Lighting TKOF/LDG area: Green LIL
 APP/DEP directions from helipad:
 VFR: 112° / 292° MAG
 IFR: 138° / 293° to 800 FT before turn is
 commenced.
 SAR operations only.

CHANGES: DECLARED DISTANCES ADJUSTED.

RWY	PCN	DECLARED DISTANCES					THR ELEV	RWY LIGHTING					THRPSN	
		PSN	TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
03	30F/C/X/T	A1/2	4921	4921	4921	4921	127	LIH	3°			LIH	LIH	55°34.70'N 012°07.43'E
		A3	2486	2486	2486									
21		A4/5	4921	4921	4921	4921	146	LIH	3°			LIH	LIH	55°35.40'N 012°08.16'E
		B	3664	3664	3664									
11	36F/C/X/T	B1/2	5708	5708	5902	5708	145	LIH	3°			LIH	LIH	55°35.40'N 012°06.94'E
		B3	3864	3864	4058									
		A	2673	2673	2867									
			5902	5902	5902	5708	138	LIH	3°			LIH	LIH	55°34.98'N 012°08.42'E
29		B4/5	4921	4921	4921									
		A	3083	3083	3083									

ROSILDE ATIS 123.805
 ROSILDE TWR 118.905 (119.655)
 ROSILDE APP 125.530
 ROSILDE HANDLING 131.555 (Handling, FPL etc.)
 COPENHAGEN INFORMATION 127.080 (Civil)

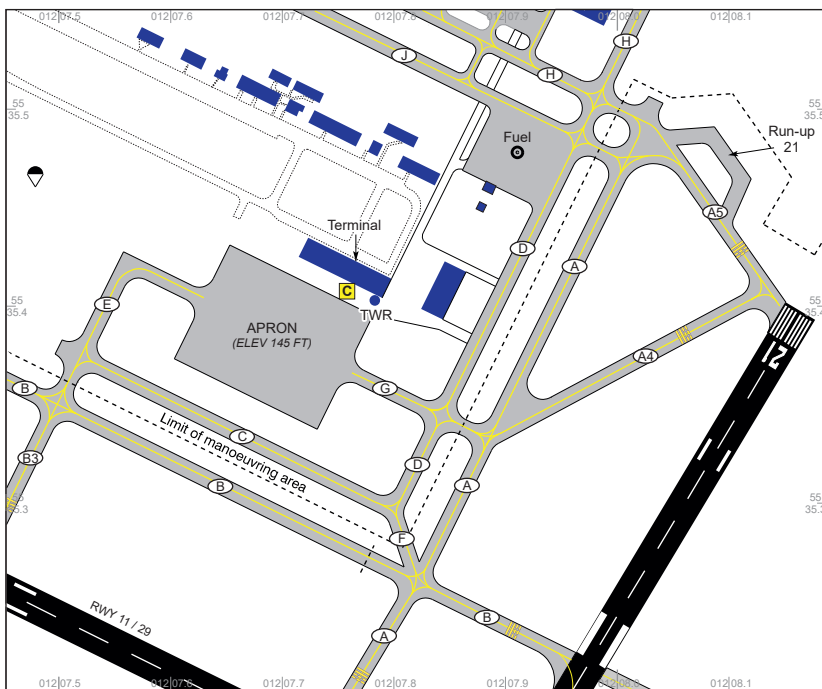
TAXI REGULATIONS
 Incoming traffic shall taxi via TWY C and
 TWY D, and outgoing traffic via TWY A and
 TWY B unless otherwise instructed by ATC.

AIR COMMAND DENMARK - MIL AIM 18 APR 2024

AERODROME CHART

ROSILDE (EKRK)

ROSkilde OPERATIONS

**1. GENERAL**

Noise Abatement Provisions at EKRK are strict and comprehensive. Consult page 9-4 through 9-6 Noise Abatement Provisions before flight.

2. TAXI REGULATIONS

Incoming traffic shall taxi via TWY C and TWY D, and outgoing traffic via TWY A and TWY B unless otherwise instructed by ATC. ("IN via INNER" and "OUT via OUTER").

3. REDUCTION OF LANDING DISTANCE AVAILABLE

In order to increase the runway capacity, the Landing Distance Available can be reduced for arriving aircraft.

When the Landing Distance Available has been reduced for a landing aircraft on runway 03 this runway may simultaneously be crossed by departing, landing or taxiing aircraft on runway 11/29 and by taxiing aircraft on taxiway Bravo.

When the Landing Distance Available has been reduced for a landing aircraft on runway 11 this runway may simultaneously be crossed by departing, landing or taxiing aircraft on runway 03/21.

Air Traffic Control will assess in which cases the procedures for reduction of Landing Distance Available can be applied. However, the Pilot-in-Command of the aircraft involved is responsible for determining whether the reduced Landing Distance Available in the actual situation is adequate for the aircraft in question.

The procedure for reduction of Landing Distance Available, will be used on the following conditions:

- a) Landing Distance Available is reduced only during the daily period for VFR flights.
- b) Landing Distance Available is reduced only when visual meteorological conditions (VMC) exists, and only when the pilots in command of the aircraft involved are able to see the other aircraft
- c) If reduced braking action, due to e.g. rain or slush, is not reported and if measured, the coefficient, is 0.40 or above.
- d) Two-way radio communication must be established between Roskilde Tower and the aircraft involved on the same frequency.
- e) The landing aircraft will in due time be asked whether the reduction of the Landing Distance Available is acceptable.

Following phraseology will be used:

For Runway 03: "CONFIRM ABLE TO ACCEPT A SHORT LANDING RUNWAY 03, SO AS TO STOP THE AIRCRAFT NOT LATER THAN TAXIWAY A3. LANDING DISTANCE AVAILABLE 740 METRES".

For Runway 11: "CONFIRM ABLE TO ACCEPT A SHORT LANDING RUNWAY 11, SO AS TO STOP THE AIRCRAFT NOT LATER THAN TAXIWAY A. LANDING DISTANCE AVAILABLE 940 METRES".

- f) Traffic information will be issued to both aircraft involved.
- g) Involved aircraft must be in sight from Roskilde Tower from the time, where traffic information are issued and until landing.
- h) Landing clearance will be issued with following phraseology:
For Runway 03: "STOP THE AIRCRAFT NOT LATER THAN TAXIWAY A3, RUNWAY 03 CLEARED TO LAND".
For Runway 11: "STOP THE AIRCRAFT NOT LATER THAN TAXIWAY A, RUNWAY 11 CLEARED TO LAND".
- i) The condition as well as the clearance must be read back by the landing aircraft.

NOISE ABATEMENT PROVISIONS

1.1 General provisions

1.1.1 Deviations from the Noise Abatement Provisions are permitted when necessary in connection with:

- a. Take-off and landing for vital flights, such as **search and rescue, hospital flights, head of state, medevac, environmental monitoring flights or humanitarian flights.**
- b. Take-off and landing in connection with security control of the airport area.



1.1.2 Overflying the towns Gadstrup, Snoldelev, Tjæreby, Tune, Vindinge and Vor Frue should be avoided in connection with VFR take-off and landing. This provision is valid for all VFR flights to and from Roskilde Airport and for all flights (IFR and VFR) flying visual aerodrome traffic circuits for landing exercises.

1.1.3 Violation of the Noise Abatement Provisions can be punished in pursuance of the Regulations for Civil Aviation BL 3-40 "Abatement of Noise from Controlled Aerodromes".

1.2 Jet aircraft

1.2.1 Jet aircraft may operate only, if they are noise certificated according to ICAO Annex 16, chapter 2 or chapter 3, and if they comply with the noise criteria given in ICAO Annex 16, chapter 2 for aircraft with a MTOM up to 34.000 KG.

1.2.2 School and training flights are prohibited with jet aircraft with a MTOM above 5700 KG, unless it can be documented that the noise level for the aircraft concerned is less than or equal to 80 dB (A), cf. Guidance Material no 5/1994 - issued by the Danish Environmental Protection Agency - concerning noise from aerodromes.

1.2.3 Before executing VFR school and training flights the Pilot-in-Command shall obtain more specified instructions from the Airport Office/Briefing.

1.2.4 VFR landing exercises carried out in connection with school flights are permitted only as stated in item 1.3.4.

1.3 Propeller and turboprop aeroplanes

1.3.1 After take-off the Pilot-in-Command should aim to use an air speed giving the best rate of climb.

1.3.2 School and training flights are prohibited with aircraft with a MTOM above 5.700 KG, unless it can be documented that the noise level for the aircraft concerned is less than or equal to 80 dB (A), cf. Guidance Material no 5/ 1994 - issued by the Danish Environmental Protection Agency - concerning noise from aerodromes (noise class I, II and III).

1.3.3 Before executing VFR school and training flights the Pilot-in-Command shall obtain more specified instructions from the Airport Office /Briefing.

1.3.4 VFR landing exercises and continuous approaches carried out in connection with school flights are permitted only:

a. From 1 MAY to 31 AUG:

MON-FRI, EXC HOL	0700-1900 Danish time
SAT, EXC HOL	0700-1400 Danish time

b. From 1 SEP to 30 APR:

MON-FRI, EXC HOL	0700-2200 Danish time
SAT, EXC HOL	0700-1400 Danish time

VFR landing exercises and continuous approaches carried out in connection with school flights are also permitted - from 1 SEP to 30 APR on certain Saturdays within the period 1400-1900 Danish time - by arrangement with the Airport Office.

1.3.4.1 VFR landing exercises and continuous approaches carried out by a holder of a licence in order to maintain the privileges of the licence are permitted all days between 0700-2200. If performed outside the times specified in 1.3.4, the pilot license number must be submitted to the ARO.

1.3.4.2 IFR landing exercises and continuous approaches are permitted only:

MON-FRI, EXC HOL	H24
SAT, EXC HOL	0700-1400 Danish time

IFR landing exercises and continuous approaches are also permitted in the period 1 SEP to 30 APR from 1400-1900 Danish time on certain Saturdays - by arrangement with the Airport Office.

1.4 Helicopters

1.4.1 School and training flights with helicopters with MTOM above 5.700 kg are prohibited.

1.4.2 Before executing VFR school and training flights, the Pilot-in-Command shall obtain more specified instructions from the Airport Office/Briefing.

1.4.3 VFR landing exercises carried out in connection with school flights are permitted only as stated in item 1.3.4.

1.5 Reporting

1.5.1 Reporting by the Pilot-in-Command to the Danish CAA.

1.5.1.1 The Pilot-in-Command shall as fast as possible report to the Danish CAA when it has not been possible to comply with the provision in item 1.1.2 due to safety reasons.

1.5.2 Reporting by the Air Navigation Services KØBENHAVN to the Danish CAA.

1.5.2.1 The Air Navigation Services KØBENHAVN shall notify The Danish CAA of every clearance deviating from the above mentioned provisions.

1.5.2.2 The Air Navigation Services KØBENHAVN shall notify the Danish CAA of every clearance according to the provision in item 1.1.1.

1.5.2.3 The Air Navigation Services KØBENHAVN shall notify the Danish CAA when observing the towns overflowed - mentioned in item 1.1.2 - in connection with VFR take-off or landing.

1.5.3 Københavns Lufthavne A/S (Copenhagen Airports) reporting to the Danish CAA.

1.5.3.1 Københavns Lufthavne A/S (Copenhagen Airports) shall notify the Danish CAA when it has been ascertained that jet aircraft has been operating against the regulation in item 1.2.1.

1.5.3.2 Københavns Lufthavne A/S (Copenhagen Airports) shall notify the Danish CAA when it has been ascertained that aircraft has executed school and training flights against the provisions in item 1.2.2, 1.3.2 or 1.4.1.

1.5.3.3 Københavns Lufthavne A/S (Copenhagen Airports) shall notify the Danish CAA when it has been ascertained that school flight has taking place against the provisions in item 1.2.4, 1.3.4 or 1.4.3.

1.5.4 The Danish CAA follow-up of reports.

1.5.4.1 The Danish CAA will make further investigation based on the received reports. The investigation will include an evaluation of whether liability to punishment shall be exercised according to Regulations for Civil Aviation BL 5-40.

ROSKILDE ARRIVAL

Flight Planning

IFR traffic to København/Roskilde shall be planned via the appropriate primary holding (TIDVU, ERNOV, KOR or FSKO) via routes listed below. Holdings are described on page 9-8.

Note: Traffic via AALBORG VOR/DME shall flight plan via T551-TNO to FSKO. Traffic via RØNNE VOR shall flight plan via L983-ROBUS-DCT-KOR.

TIDVU holding and ERNOV holding are inside Swedish territory. Operators not permitted to overfly Swedish territory shall file outside Swedish territory.

Filing of Flight Plan

Traffic to København/Roskilde shall include appropriate primary holding in the flight plan.

Performance Restrictions/Level Restrictions

Descend from cruising level/top of descend shall be planned so as to meet the following level restrictions:

ARR via	Level restriction	Primary Holding
ROBUS	MAX FL 70	KOR
	MAX FL 70 (20 NM prior to KOR)	KOR
TNO	MAX FL70 (20 NM prior to TNO)	FSKO

Radio communication failure during IFR approach.

In case of radio communication failure, the latest received and acknowledged level shall be maintained until the appropriate primary holding. In TIDVU holding descend to FL 70. In ERNOV holding descend to FL 100. In FSKO and KOR holding

Ground handling

It is mandatory for all aircraft above 3000 kgs to contact "Roskilde Handling" 15 MIN prior to arrival, stating ETA, POB, fuel requirement, intention and to receive parking instructions. Ground handling is mandatory for non-resident commercial and private operators of aircraft with MTOM above 3000 kgs when using main apron facilities.

ARRIVAL INFORMATION

Primary holdings for København/Roskilde

Holding name	Inbound track (MAG)	Turn	MAX IAS	MNM/MAX level Time	Entry procedure
TIDVU 55° 24.678'N 013° 33.452'E	294	Right	230	5000FT 1.5 MIN	Omni-directional
FISKO TNO VOR R-112/12.5 DME. KV 13.2 DME 55° 41.083'N 011° 46.267'E	112	Right	210	3000FT/FL140 1 MIN	Direct via TNO R-112
KORSA KOR VOR/DME 55° 26.362'N 011° 37.892'E	298	Right	210	3000FT/FL140 1 MIN	Omni-directional
ERNOV 56° 10.132'N 012° 34.427'E	179	Left	230	FL 100 /- 1.5 MIN	Omni-directional

Secondary Holdings for København/Roskilde

Holding name	Inbound track (MAG)	Turn	MAX IAS	MNM/MAX level Time	Entry procedure
ROSKILDE L RK 55° 37.388'N 011° 59.830'E	112	Right	210	2000FT/6000FT 1 MIN	Omni-directional

DEPARTURE INFORMATION

ROSKILDE DEPARTURE

Flight Planning

Standard Instrument Departures are not established.

1. For destinations outside Copenhagen Area and outside the lateral limit of Malmö TMA, flight planning shall be via one of the Departure routes. See below.
2. For destinations within Copenhagen Area and within the lateral limit of Malmö TMA, flights may be planned direct between significant points/aerodromes.

PROP aircraft			JET aircraft		
Route	RMK	Note	Aircraft type	RMK	Note
NOVPO DCT VEDAR			NOVPO DCT VEDAR		
ERNOV	Only AVBL FL090 and below		ERNOV	Only AVBL FL090 and below	
ASTOS			KEMAX		
GAVBA DCT BALOX		A	DENEK DCT SIMEG		A
TNO	Only AVBL FL060 and below		TNO	Only AVBL FL60 and below	
DOBEL DCT ODN			KOR	Only AVBL FL060 and below	
KOR	Only AVBL FL060 and below		BISTA DCT NEXEN or BETUD	Only AVBL FL070 and above	A
MAXEL DCT KOPEX or BETUD	Only AVBL FL070 and above	A	TOBIS DCT LANGO	Only AVBL FL070 and above	
MIRGO DCT GOLGA	Only AVBL FL070 and above		DOBEL DCT ODN		
			SORGA DCT MIKSI	Only AVBL FL070 and above	B
			MIRGO DCT GOLGA	Only AVBL FL070 and above	

Notes:

- A. Departure route BETUD available only to operators not permitted to fly over Swedish territory. Generally Departure route BALOX/SIMEG applies. Flight planning via Departure route BETUD is restricted to MAX FL 70 until BETUD.
- B. Departure route SORGA DCT MIKSI traverses Restricted area EK R19. During hours of activity this Departure route is not available. Alternate MIRGO DCT GOLGA applies.

ATC clearance

For flights to destinations outside Copenhagen Area and outside the lateral limit of Malmö TMA, ATC clearance will be issued via the departure routes based on VOR radials or DCT. Traffic via DOBEL (below FL065), KOR and TNO can expect a maximum of 5000 FT until leaving Copenhagen Area.

Omnidirectional Departure from Roskilde

Climb straight ahead to at least 800 FT MSL before turn is commenced.

Departure from military helipad:

- Departure 140: Climb on track 139 to 800 FT MSL before turn is commenced.
- Departure 295: Climb on track 294 to 800 FT MSL before turn is commenced.

CHANGES: EDITORIAL

AIR COMMAND DENMARK - MIL-AIM 21 APR 2022

DEPARTURE INFORMATION

Radar vectoring

Radar vectoring may be used to expedite traffic. Heading deviations after departure shall not be initiated below 800 FT MSL.

Speed limit: FL 70 and below: MAX IAS 250 KT.

Radio Communication Failure

1. Flights leaving Copenhagen Area and Malmö TMA:

In case of radio communication failure after departure, maintain for a period of three minutes the cleared level. Then climb to 4000 FT MSL or maintain cleared level if higher. Maintain until final waypoint of the departure route, then climb to requested flight level. In case of radio communication failure after departure, while under radar vectoring, aircraft shall proceed in the most direct manner to the departure route filed and climb according to above described procedure.

2. Flights with entire route within Copenhagen Area and Malmö TMA:

In case of radio communication failure after departure, maintain for a period of three minutes the cleared level, then continue in accordance with the current flight plan. In case of radio communication failure after departure, while under radar vectoring, aircraft shall proceed in the most direct manner in accordance with the current flight plan and climb according to above described procedure.

Waypoint list

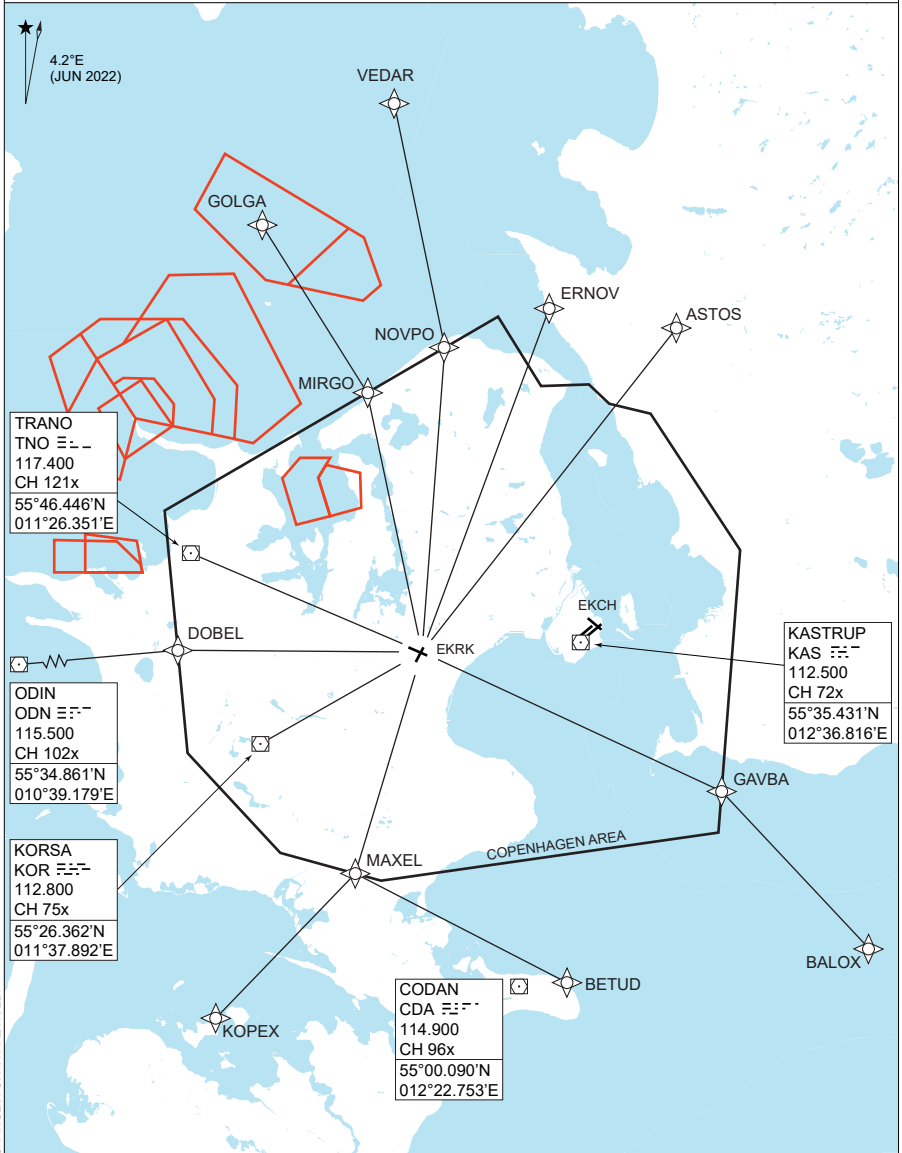
Way-point	Latitude /Longitude VOR/DME definition	Way-point	Latitude /Longitude VOR/DME definition
ASTOS	56° 07.228'N 012° 57.675' E KAS 018/33.9 NM	LANGO	54° 56.738'N 010° 51.378'E KAS 236/71.8 NM
BALOX	55° 02.132'N 013° 25.618' E KAS 137/43.4 NM	MAXEL	55° 12.555'N 011° 54.149'E KAS 225/33.4 NM, KOR 145/16.7 NM
BETUD	55° 00.435'N 012° 31.346'E KAS 185/35.2 NM	MIKSI	56° 12.165'N 011° 35.444'E KAS 315/50.5 NM, KOR 357/45.9 NM
BISTA	55° 12.203'N 012° 07.383' E KAS 214/28.7 NM, KOR 128/ 22.0 NM	MIRGO	56° 02.142'N 011° 59.882'E KAS 320/33.9 NM, KOR 018/37.9 NM
CDA	55° 00.090'N 012° 22.753'E	NEXEN	54° 48.647'N 011° 37.515'E KAS 216/57.9 NM
DENEK	55° 25.663'N 013° 02.495'E KAS 124/17.6 NM	NOVPO	56° 06.400'N 012° 14.467'E KAS 338/33.5 NM, KOR 027/45.1 NM
DOBEL	55° 36.365'N 011° 23.396'E ODN 085/25.1 NM, KOR 320/13.0 NM, KAS 270/41.7 NM	ODN	55° 34.861'N 010° 39.179'E
GAVBA	55° 19.082'N 013° 00.917'E KAS 140/21.4 NM	SIMEG	55° 15.002'N 013° 30.072'E KAS 122/36.5 NM
GOLGA	56° 19.984'N 011° 41.703'E KAS 326/54.3 NM, TNO 014/34.7 NM	SORGA	55° 58.888'N 011° 48.843'E KAS 309/35.9 NM, KOR 009/33.2 NM
KAS	55° 35.431'N 012° 36.816'E	ERNOV	56° 10.132'N 012° 34.427'E
KEMAX	56° 07.587'N 013° 27.230' E KAS 039/43.0 NM	TOBIS	55° 15.141'N 011° 40.577'E KAS 236/38.0 NM, KOR 128/22.0 NM
KOPEX	54° 58.223'N 011° 28.061'E KAS 225/54.2 NM	TNO	55° 46.446'N 011° 26.351'E
KOR	55° 26.362'N 011° 37.892'E	VEDAR	56° 31.900'N 012° 07.417'E KAS 344/58.9 NM

INSTRUMENT DEPARTURE CHART

IFR TRAFFIC FROM ROSKILDE

PROP

Procedures are also valid for IFR traffic from Danish aerodromes within Copenhagen Area, except København / Kastrup (EKCH).
 FOR FURTHER INFORMATION SEE PAGE 9-9 TO 9-10.



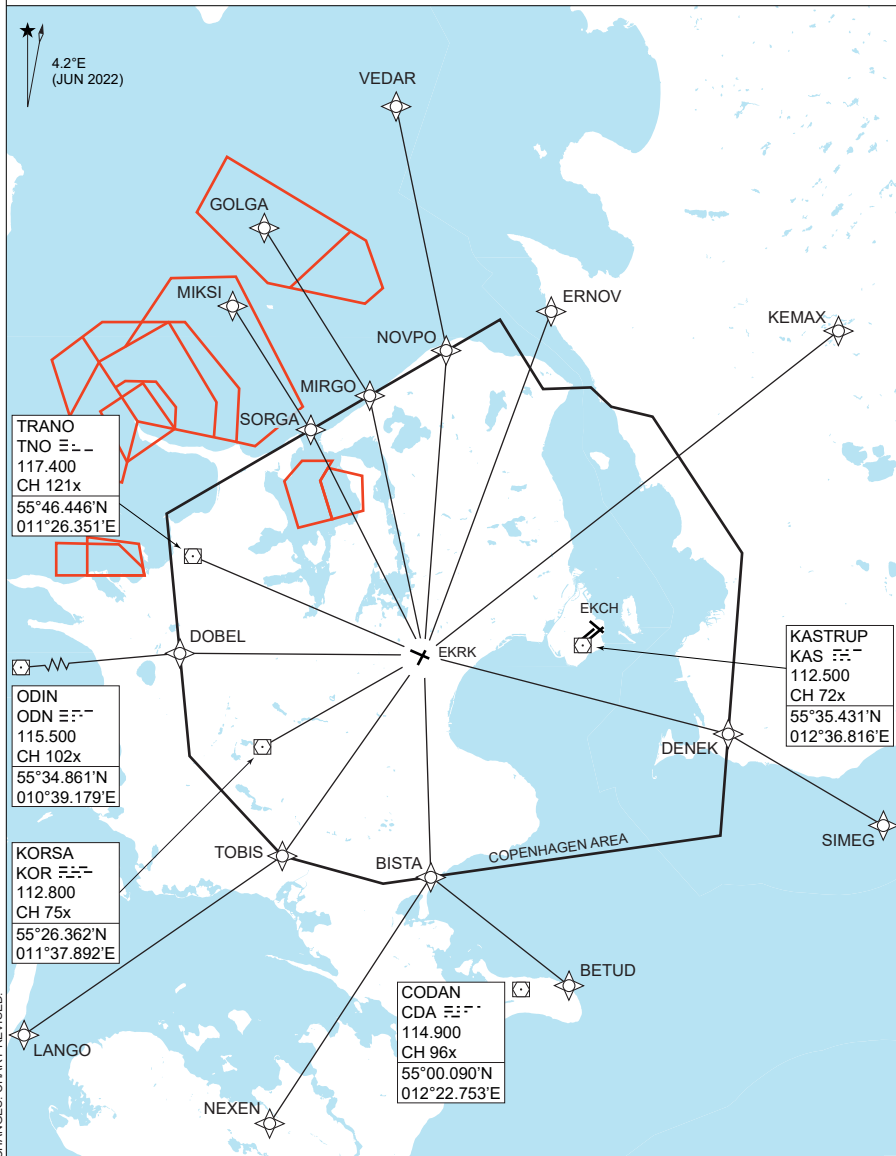
INSTRUMENT DEPARTURE CHART

IFR TRAFFIC FROM ROSKILDE

JET

Procedures are also valid for IFR traffic from Danish aerodromes within Copenhagen Area, except København / Kastrup (EKCH).

FOR FURTHER INFORMATION SEE PAGE 9-9 TO 9-10.



CHANGES: CHART REVISED.

AIR COMMAND DENMARK - MIL AIM 16 JUN 2022

MIPS

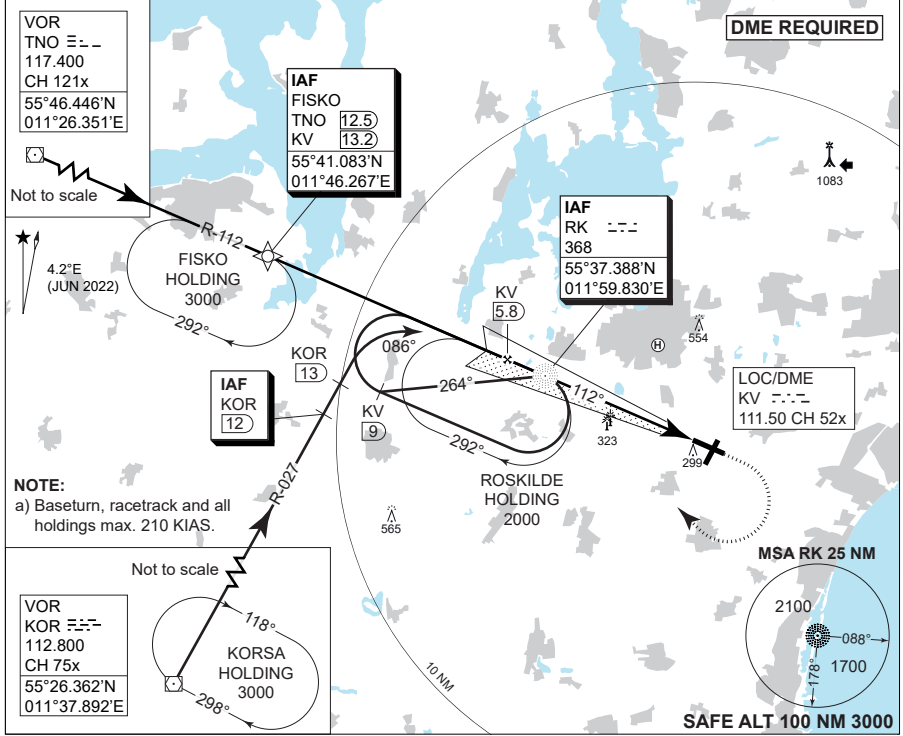
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AD ELEV 146

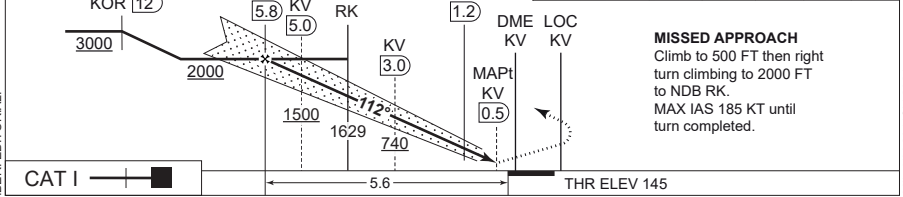
ILS or LOC RWY 11 (CAT C-E)

ROSKILDE (EKRR)

COPENHAGEN APPROACH 119.805		ROSKILDE ATIS 123.805		ROSKILDE APPROACH 125.530		ROSKILDE TOWER 118.905 119.655	
LOC/DME KV 111.50 CH 52x	APP COURSE 112°	GS INTCP ALT 2000 FT	GS 3.00°	DA SEE CAT	THR ELEV 145 FT	ALS LENGTH 900 M	LDA 5708 FT



TA 5000 GS 3.0° RDH 52	LOC ONLY CDFA 3.0° / 5.3%					
	DME KV	5	4	3	2	1
	DIST TO THR	4.8	3.8	2.8	1.8	0.8
	ALT	1740	1420	1100	780	460



CATEGORY	C	D	E
S-ILS 11 (MACG 2.5%)	439 - 650 294 (300-0.8/1.4)	449 - 700 304 (400-0.8/1.4)	467 - 800 322 (400-0.8/1.5)
S-ILS 11 (MACG 5.0%)		345 - 550 200 (200-0.8/1.2)	
S-LOC 11		520 - 1000 375 (400-1.0/1.7)	
CIRCLING	950 - 2400 804 (900-2.4)	950 - 3600 804 (900-3.6)	1050 - 3600 904 (1000-3.6)

ILS or LOC RWY 11 (CAT C-E)

55°35.13'N
012°07.89'E

ROSKILDE (EKRR)

9-17

EKRR

CHANGES: NEW PAGE NUMBER, EDITORIAL.

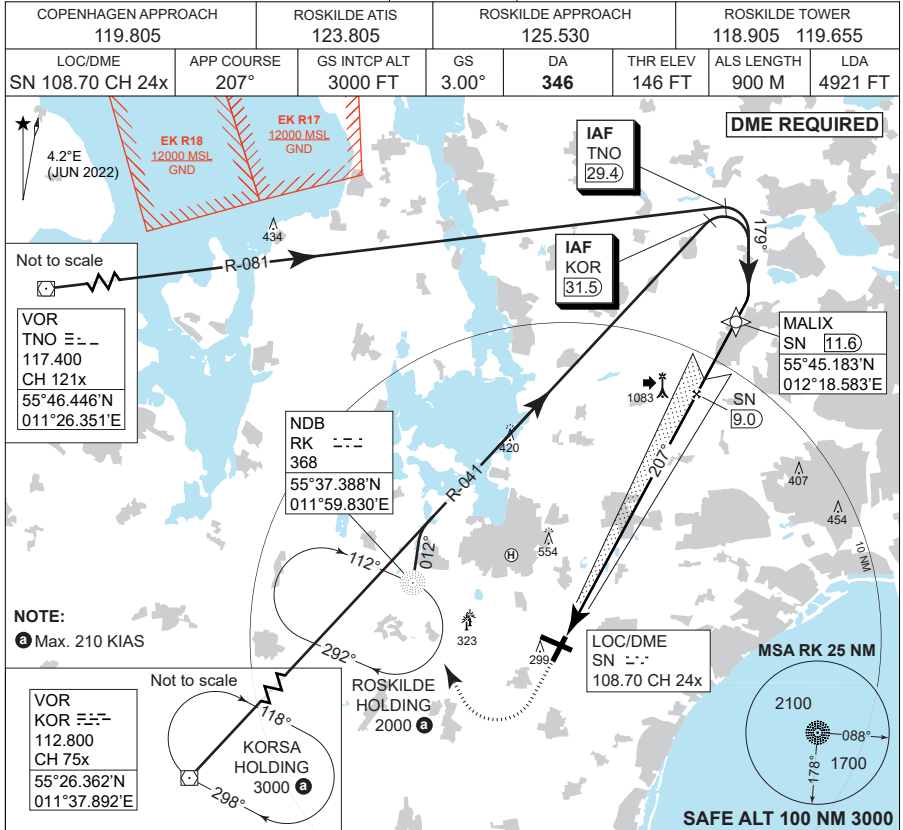
AIR COMMAND DENMARK - MIL-AIM 28 NOV 2024

MIPS

INSTRUMENT APPROACH CHART

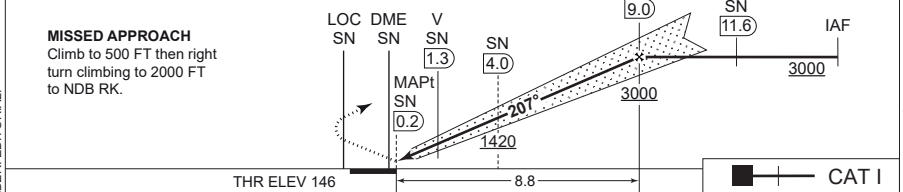
AD ELEV 146

**ILS or LOC RWY 21
ROSKILDE (EKRK)**



LOC ONLY CDFA 3.0° / 5.2%							
DME SN	2	3	4	5	6	7	8
DIST TO THR	1.8	2.8	3.8	4.8	5.8	6.8	7.8
ALT	780	1100	1420	1730	2050	2370	2680

TA 5000
GS 3.0
RDH 50



CATEGORY	A	B	C	D	E
S-ILS 21	346 - 550 200 (200-0.8/1.2)				
S-LOC 21	540 - 1100 394 (400-1.1/1.8)				
CIRCLING	610 - 1.5 464 (500-1.5)	850 - 1.6 704 (800-1.6)	950 - 2.4 804 (900-2.4)	950 - 3.6 804 (900-3.6)	1050 - 3.6 804 (1100-3.6)

ILS or LOC RWY 21

55°35.13'N
012°07.89'E

ROSKILDE (EKRK)

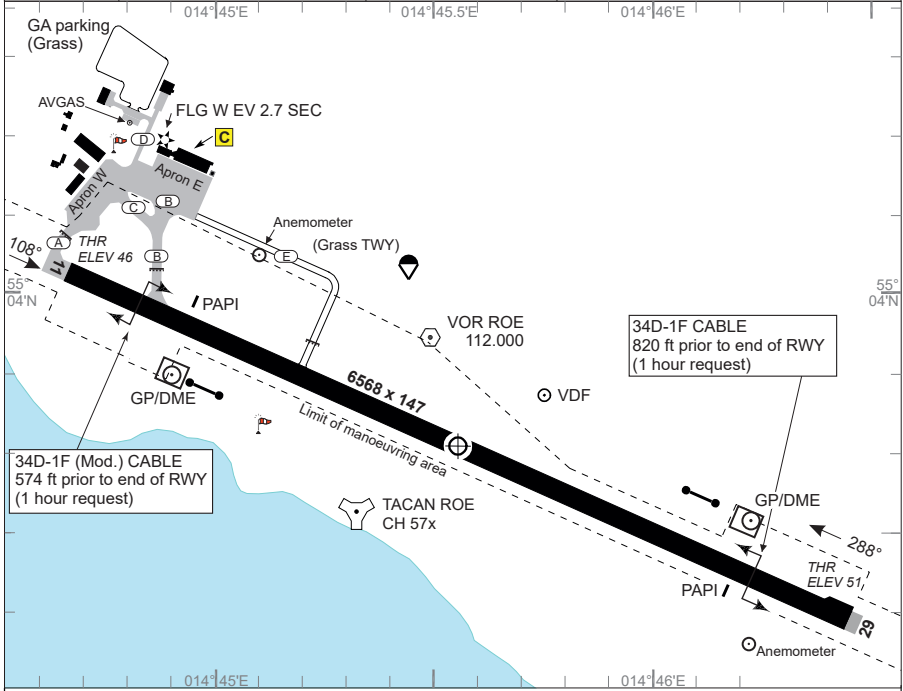
CHANGES: NEW PAGE NUMBER, EDITORIAL.

AIR COMMAND DENMARK - MIL-AIM 28 NOV 2024

AERODROME CHART

ROENNE (EKRN)

RØNNE TOWER 118.330 (VDF) 257.800		BORNHOLM HANDLING 131.550		REMARK: Airport phone: +45 56 95 26 26
AD Elev 52	ARP 55°03.80'N 014°45.58'E	VAR 5.5°E (JAN 2023)		



RWY	PCN	DECLARED DISTANCES					THR ELEV	RWY LIGHTING					THR PSN		
		PSN	TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE			END
11	38 F/B/X/T	THR				6568	46	LIH	3.00°			LIH	LIH	55°04.01'N	014°44.71'E
		A	6568	6568	6568										
		B	5928	5928	5928										
29		THR	6568	6568	6568	6568	51	LIH	3.00°			LIH	LIH	55°03.58'N	014°46.43'E

Flight Procedures

1. IFR Arrival

- 1.1 Aircraft will normally be cleared by SWEDEN CONTROL to ROE VOR.
- 1.2 Navigation aid designated for radio communication failure during IMC for arriving aircraft is NDB FAU.

2. IFR Departure

- 2.1 Standard Instrument Departures (SID) have not been established.
- 2.2 Omnidirectional departures
- RWY 11: Climb straight ahead to at least 700 FT MSL before turn is commenced.
- RWY 29: Climb straight ahead to at least 500 FT MSL before turn is commenced. Procedure design gradient 4.5% up to 800 FT MSL, due to cranes 525 FT - 2.1 NM NW from THR.

MIPS	CIRCLING MINIMA (SOUTH of aerodrome only)				
	A	B	C	D	E
500	-1.5 450 (500-1.5)	-1.6 650 (700-2.3)	-2.4 750 (800-2.7)	-3.6 750 (800-3.6)	-3.6 850 (900-3.6)

AERODROME CHART

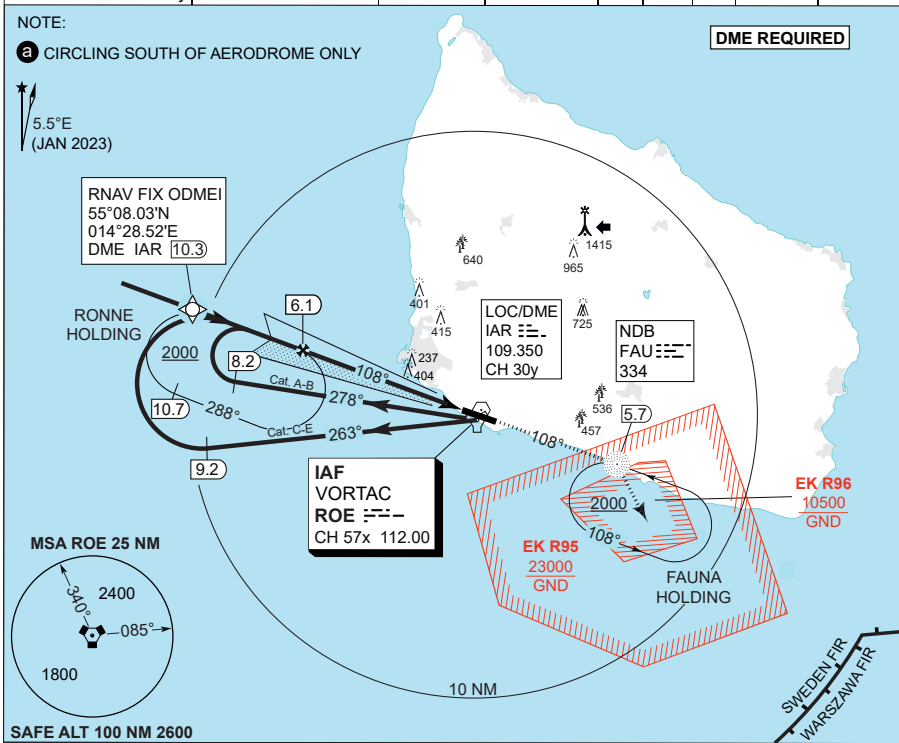
ROENNE (EKRN)

MIPS
INSTRUMENT APPROACH CHART

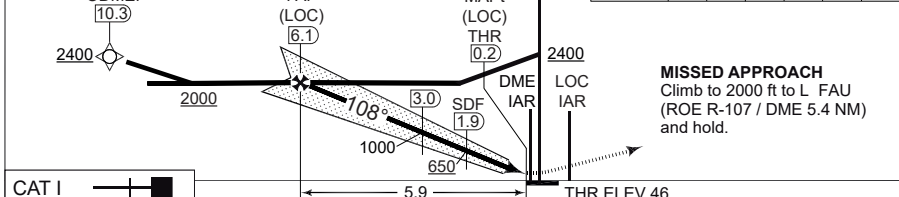
ILS or LOC RWY 11
ROENNE (EKRN)

AD ELEV 52

SWEDEN CONTROL 134.980 128.180		ROENNE TOWER 257.800 118.330						
LOC/DME IAR 109.350/CH 30y	VORTAC ROE 112.00/CH 57x	APP COURSE 108°	GS INTCP ALT 2000 FT	GS 3.0°	DA 246	THR 46	ALS length 600 M	LDA 6568 FT



TA 5000 GS 3° RDH 55	LOC CDF A 3° / 5.2%						
	DME IAR	6	5	4	3	2	1
	DIST THR	5.8	4.8	3.8	2.8	1.8	0.8
ALT	1960	1640	1320	1000	690	370	



CATEGORY	A	B	C	D	E
S-ILS 11	246 - 750 200 (200-0.8/1.2)				255 - 750 209 (300-0.8/1.2)
S-LOC 11	350 - 1000 304 (400-1.0/1.4)				
CIRCLING a	500 - 1.5 450 (500-1.5)	700 - 2.3 650 (700-2.3)	800 - 2.7 750 (800-2.7)	800 - 3.6 750 (800-3.6)	900 - 3.6 850 (900-3.6)

ILS or LOC RWY 11 **ROENNE (EKRN)**

55°03.80'N
014°45.58'E
10-2

CHANGES: TMR FREQ CHG

AIR COMMAND DENMARK - MIL AIM 13 JUN 2024

INTENTIONALLY

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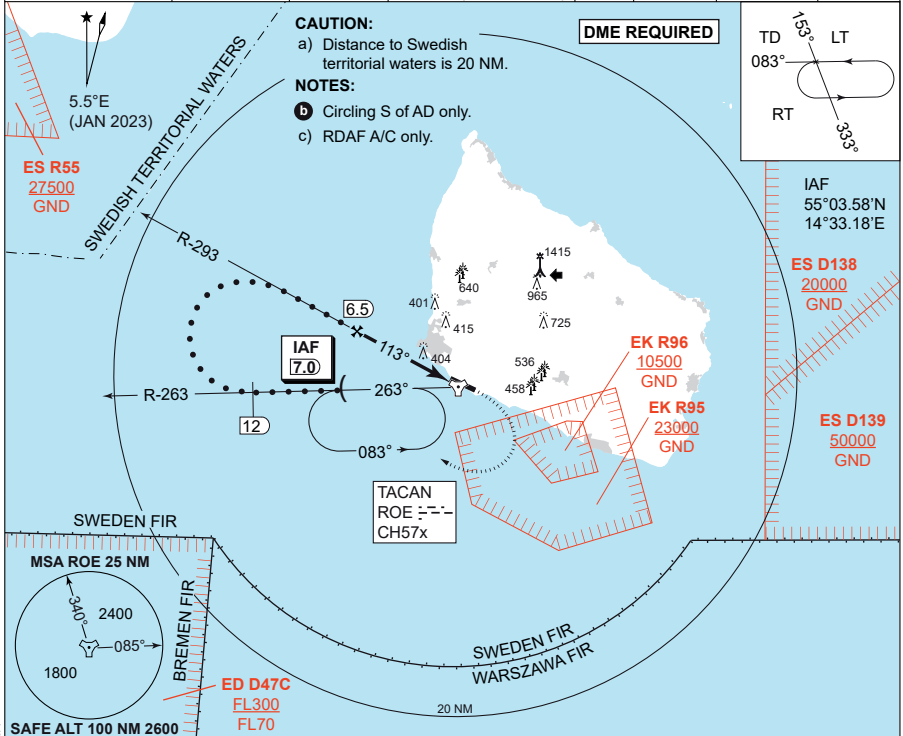
MIPS INSTRUMENT APPROACH CHART

HPMA TACAN RWY 11 ROENNE (EKRN)

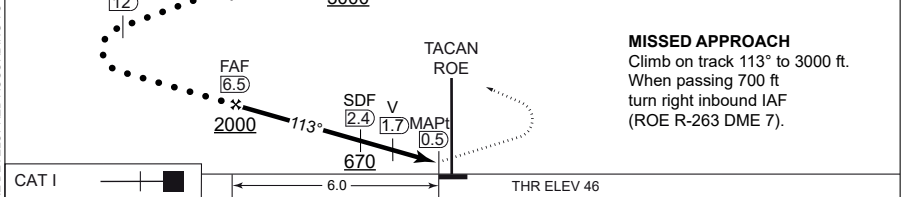
AD ELEV 52

SWEDEN CONTROL 134.980 128.180				ROENNE TOWER 257.800 118.330			
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TACAN ROE CH 57x	APP COURSE 113°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 440	THR ELEV 46	ALS LENGTH 600 M	LDA 6568 FT
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TA 5000	IAF 7.0	FL 90	CDFA 3.00° / 5.24%					
	FL 3000		DME ROE	6	5	4	3	2
			DIST THR	5.5	4.5	3.5	2.5	1.5
			ALT	1870	1550	1230	910	600



HPMA	
S-TACAN 11	440 - 1400 394 (400-1.4/1.8)
CIRCLING	610 - 3.2 558 (600-3.2)

HPMA TACAN RWY 11 55°03.80'N **ROENNE (EKRN)**
014°45.58'E
10-4

CHANGES: NEW PROCEDURE DEVELOPED ACCORDING TO HPMA CRITERIA

AIR COMMAND DENMARK - MIL AIM 03 OCT 2024

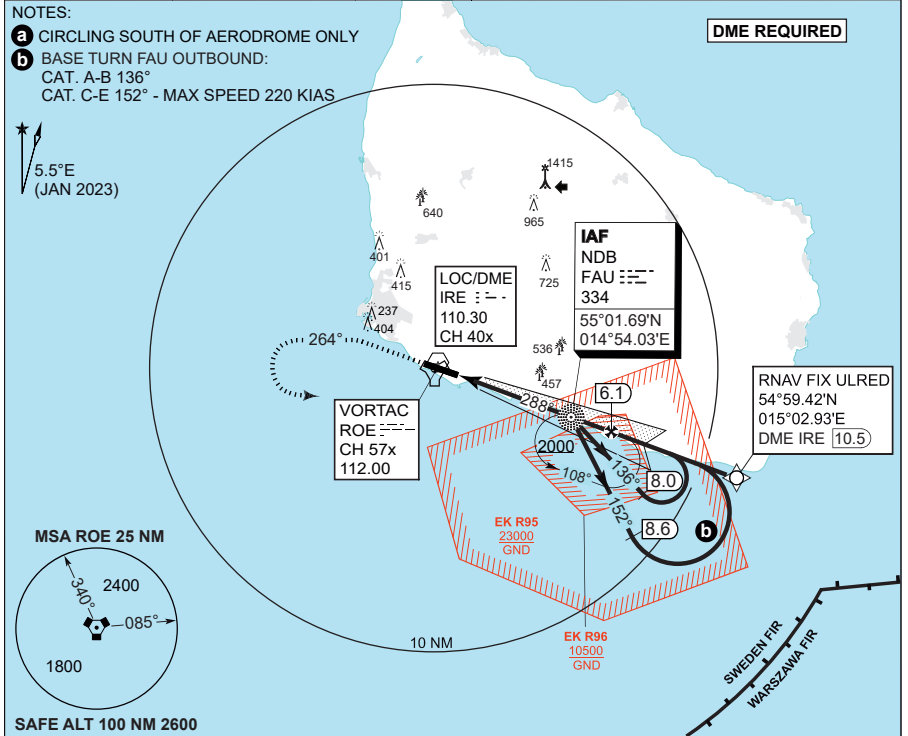
MIPS

INSTRUMENT APPROACH CHART

**ILS or LOC RWY 29
ROENNE (EKRN)**

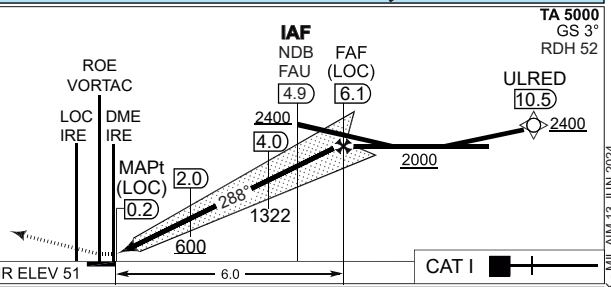
AD ELEV 52

SWEDEN CONTROL 134.980 128.180			ROENNE TOWER 257.800 118.330					
LOC/DME IRE 110.30/CH40x	VORTAC ROE 112.00/CH 57x	APP COURSE 288°	GS INTCP ALT 2000 FT	GS 3.0°	DA 251	THR 51	ALS length 900 M	LDA 6568 FT



LOC CDFA 3.00° / 5.2%					
DME IRE	2	3	4	5	6
DIST THR	1.8	2.8	3.8	4.8	5.8
ALT	690	1010	1330	1640	1960

MISSED APPROACH
Climb to minimum 700 ft, turn left and climb on track 264° to 2000 ft. Turn left to FAU NDB (ROE R-107, IRE DME 4.9) and hold.



CATEGORY	A	B	C	D	E
S-ILS 29			251 - 550 200 (200-0.8/1.2)		
S-LOC 29			400 - 900 349 (400-0.9/1.6)		
CIRCLING a	500 - 1.5 450 (500-1.5)	700 - 2.3 650 (700-2.3)	800 - 2.7 750 (800-2.7)	800 - 3.6 750 (800-3.6)	900 - 3.6 850 (900-3.6)

ILS or LOC RWY 29

55 03.80'N
014 45.58'E
10-5

ROENNE (EKRN)

EKRN

CHANGES: TWR FREQ CHG

AIR COMMAND DENMARK - MIL AIM 13 JUN 2024

INTENTIONALLY

LEFT

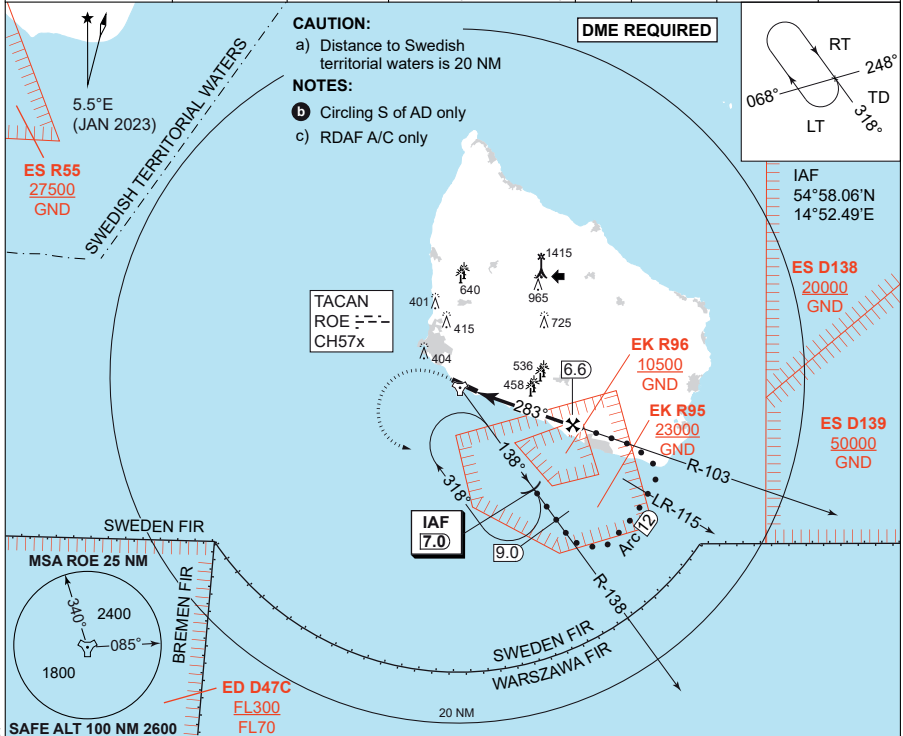
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MIPS
INSTRUMENT APPROACH CHART

HPMA TACAN RWY 29
ROENNE (EKRN)

AD ELEV 52

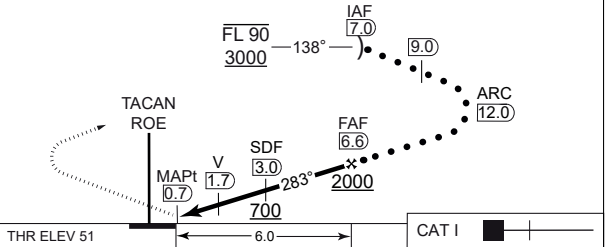
SWEDEN CONTROL 134.980 128.180				ROENNE TOWER 257.800 118.330			
TACAN ROE CH 57x	APP COURSE 283°	FAF ALT 2000 FT	DESCENT GR 5.24% (318 FT/NM)	MDA 460	THR ELEV 51	ALS LENGTH 900 M	LDA 6568 FT



CDFA 3.00' / 5.24%						
DME ROE	2	3	4	5	6	
DIST THR	1.4	2.4	3.4	4.4	5.4	
ALT	540	860	1180	1500	1820	

TA 5000

MISSED APPROACH
Climb on track 283 to 3000 ft.
When passing 700 ft turn left inbound IAF (ROE R-138 DME 7).



CATEGORY	HPMA
S-TACAN 29	460 - 1200 409 (500-1.2/1.9)
CIRCLING	610 - 3.2 558 (600-3.2)

HPMA TACAN RWY 29

ROENNE (EKRN)

55°03.80'N
014°45.58'E
10-7

EKRN

CHANGES: NEW PROCEDURE DEVELOPED ACCORDING TO HPMA CRITERIA

AIR COMMAND DENMARK - MIL AIN 03 OCT 2024

INTENTIONALLY

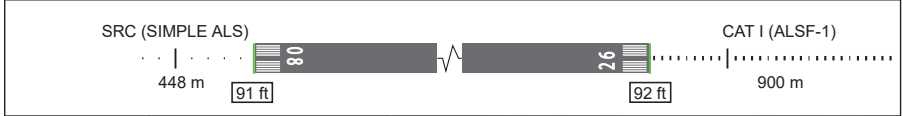
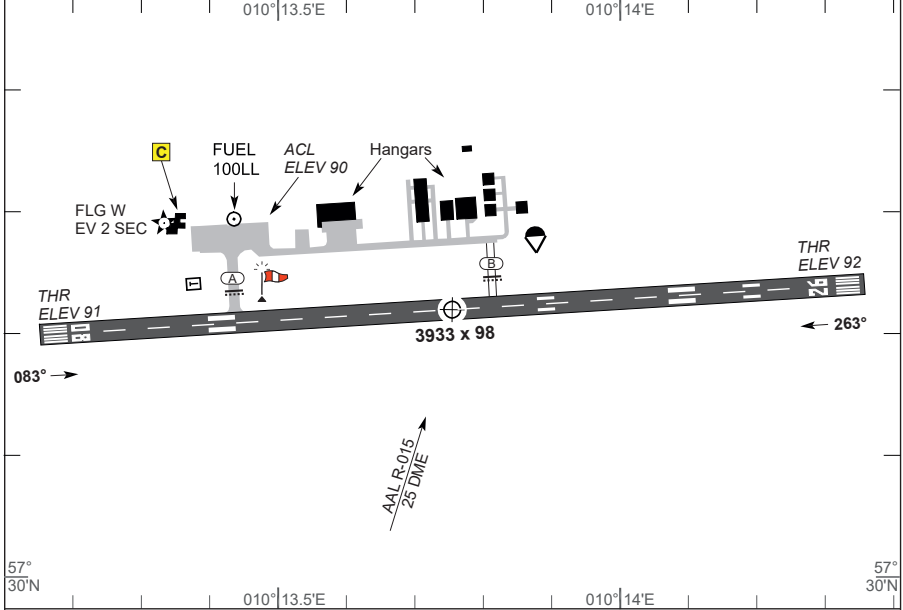
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AERODROME CHART

SINDAL (EKSJ)

SINDAL RADIO 118.750		AALBORG APPROACH 123.980		Sindal Airport: +45 98 93 58 00
AD Elev 92		ARP 57°30.21'N 010°13.76'E		Briefing EKCH*: +45 32 47 82 72
		VAR 3.0°E (JAN 2020)		Flight plan closing (ACC)*: +45 32 46 23 38
				*outside AD hours



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
08	24 F/B/Y/T	3933	4261	3933	3933	91	LIH	N/A			LIH	LIH	57°30.19'N 010°13.16'E
26	24 F/B/Y/T	3933	4261	3933	3933	92	LIH	N/A			LIH	LIH	57°30.23'N 010°14.36'E

AD approved for:
 a. VMC day and VFR night operations.
 b. Self-service when ADO is closed.

Outside ADO/ARO hours: Obtain PPR for self-service on phone number +45 98 93 58 00 (H24).

Customs available during regular ADO hours. Require 1 hour PN.

Refuelling 100 LL (100 L/MIN).

Parachuting may take place.

CHANGES: SINDAL FIZ / RMZ AND L SD WITHDRAWN.

AIR COMMAND DENMARK - MIL-LAIM 22 FEB 2024

AERODROME CHART

SINDAL (EKSJ)



INTENTIONALLY

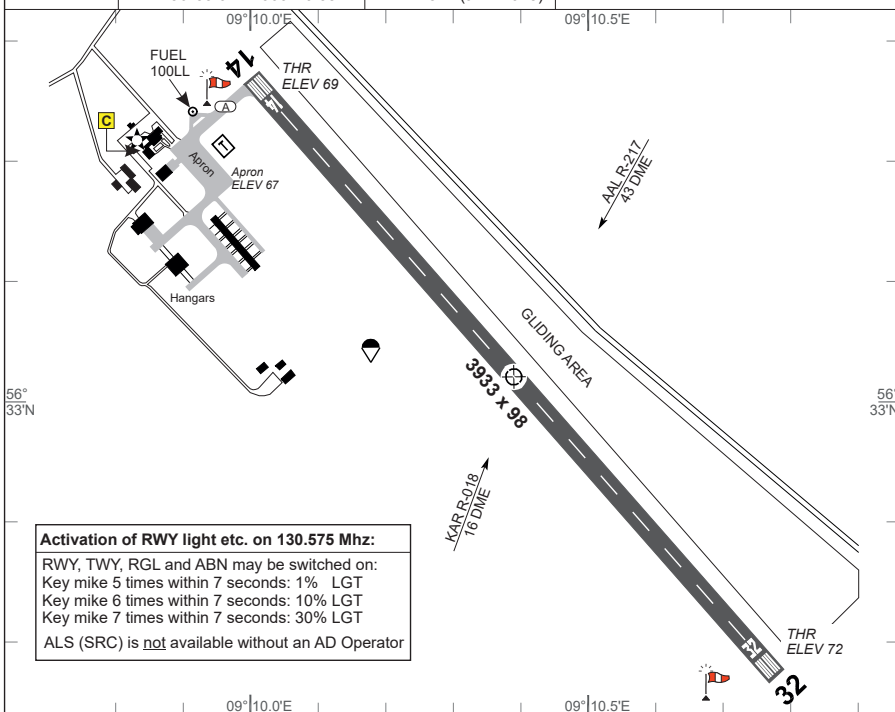
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AERODROME CHART

SKIVE (EKSV)

SKIVE RADIO 130.575		KARUP APPROACH 292.750 / 120.430		Skive Airport: +45 97 53 57 77
AD Elev 74		ARP 56°33.01'N 009°10.38'E		Briefing EKCH: +45 32 47 82 72
		VAR 2.5°E (JAN 2018)		Flight plan closing (ACC): +45 32 46 23 38



Activation of RWY light etc. on 130.575 Mhz:
 RWY, TWY, RGL and ABN may be switched on:
 Key mike 5 times within 7 seconds: 1% LGT
 Key mike 6 times within 7 seconds: 10% LGT
 Key mike 7 times within 7 seconds: 30% LGT
 ALS (SRC) is not available without an AD Operator



RWY	PCN	TORA	TODA	ASDA	LDA	THR ELEV	RWY LIGHTING					THR PSN	
							THR	PAPI	TDZ	CL	EDGE		END
14	12 F/A/Y/T	3933	3933	3933	3933	69	LIH	N/A			LIH	LIH	56°33.26'N 09°10.00'E
32	12 F/A/Y/T	3933	3933	3933	3933	72	LIH	N/A			LIH	LIH	56°32.77'N 09°10.76'E

AD approved for VMC day and VFR night operations. Self-service only. The Airfield log must be updated for all operations (by the Pilot), including "Touch and Go" and "Low passes". All registrations must be updated not later than 12.00 the next working day, or by www.eksv.dk
 Fuel available PPR 2 HR PN on telephone: +45 97 51 12 95 between 0900 - 1500 (0800-1400). Only with local card or cash (Dankort and VISA accepted).
 Customs: The airport is open for traffic to/from all States. Hours for customs clearance and immigration on PN submitted MON-FRI 0900-1500 (0800-1400) not later than 2 hours before flight is commenced. TEL: +45 97 51 12 95.

- Local Regulations/Remarks**
- Overflying the town Vinkel (1 NM NW of ARP) during TKOF / LDG and Landing exercises should be avoided.
 - Launching of gliders by cable may take place. When gliding is taking place, overflying the aerodrome should be avoided below 2000 FT MSL. Landing will take place NE of RWY. Gliders shall use frequency 130.575 during take off / landing and traffic circuit.
 - Parachuting may take place. Landing will take place SW of RWY

CHANGES: KAR APP FREQ.

AIR COMMAND DENMARK - MIL AIM 18 APR 2024

AERODROME CHART

SKIVE (EKSV)



INTENTIONALLY

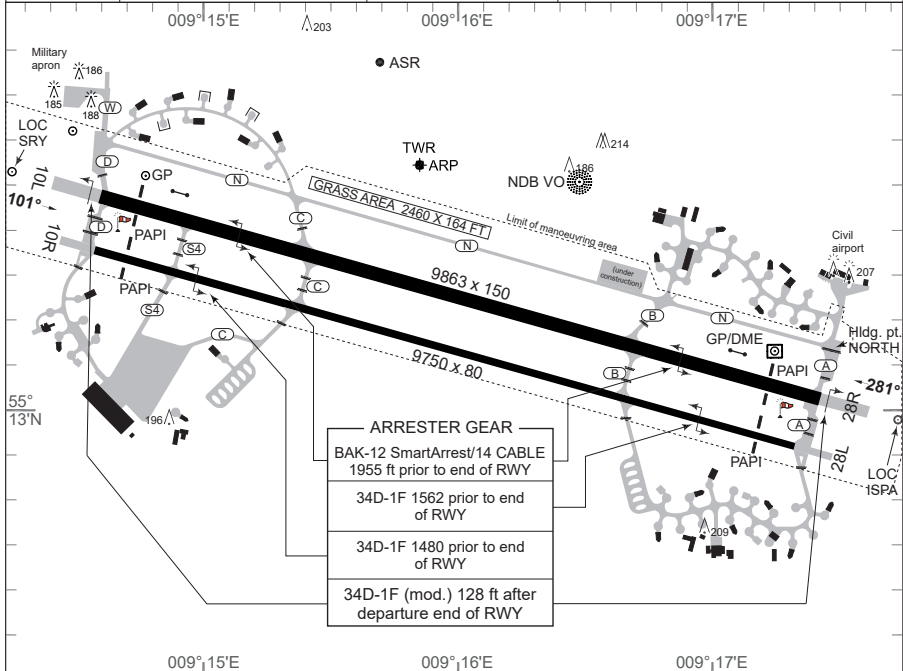
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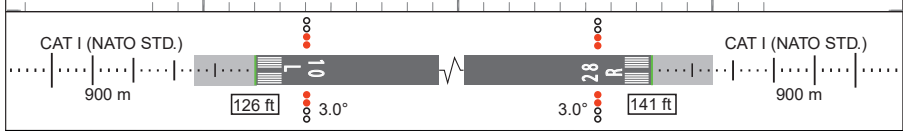
AERODROME CHART

SKRYDSTRUP (EKSP)

SKRYDSTRUP ATIS 133.905	SKRYDSTRUP TOWER 286.375 / 118.280	SKRYDSTRUP APPROACH 315.100 / 124.105	AD Admin and FPL: Email: +45 72 84 81 22 comm.skpops@mil.dk
AD Elev 141	ARP 55°13.53'N 009°15.84'E	VAR 3.7°E (JAN 2023)	



— ARRESTER GEAR —
 BAK-12 SmartArrest/14 CABLE
 1955 ft prior to end of RWY
 34D-1F 1562 prior to end of RWY
 34D-1F 1480 prior to end of RWY
 34D-1F (mod.) 128 ft after departure end of RWY



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
10L	90 F/B/W/T Asphalt/ Concrete	9863	9863	10597	9863	126	LIH	3°			LIH	LIH	55°13.48'N 009°14.64'E
28R		9863	9863	10600	9863	141	LIH	3°			LIH	LIH	55°13.05'N 009°17.37'E
10R	77 F/B/W/T Asphalt/ Concrete	9750	9750	10237	9750	124	LIL	3°			LIL	LIL	55°13.36'N 009°14.60'E
28L		9750	9750	10237	9750	139	LIL	3°			LIL	LIL	55°12.94'N 009°17.30'E

Gliding may take place outside hours of MIL operations.
 Gliding may take place at Rødekro.

Omnidirectional IFR-departures:

RWY 10L & R: Climb straight ahead to at least 700 FT AMSL before turn is commenced.
 RWY 28R & L: Climb straight ahead to at least 600 FT AMSL before turn is commenced.

MIPS	CIRCLING MINIMA								
	A	B	C	D	E				
630	-1.5 489 (500-1.5)	700	-1.6 559 (600-1.6)	800	-2.4 659 (700-2.4)	890	-3.6 749 (800-3.6)	1490	-3.6 1349 (1400-3.6)

AERODROME CHART

SKRYDSTRUP (EKSP)

CHANGES: ATC VHF FREQ.

AIR COMMAND DENMARK - MIL AIN 18 APR 2024

MIPS INSTRUMENT APPROACH CHART

AD ELEV 141

ILS or LOC RWY 10L SKRYDSTRUP (EKSP)

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905		SKRYDSTRUP APPROACH 315.100 124.105			SKRYDSTRUP TOWER 286.375 118.280	
LOC-DME ISPA 109.35/CH 30y	APP COURSE 101°	FAP/FAF ALT 2000 FT	GS 3.00°	DA 326	THR 126	ALS length 900 M	LDA 9863 FT	

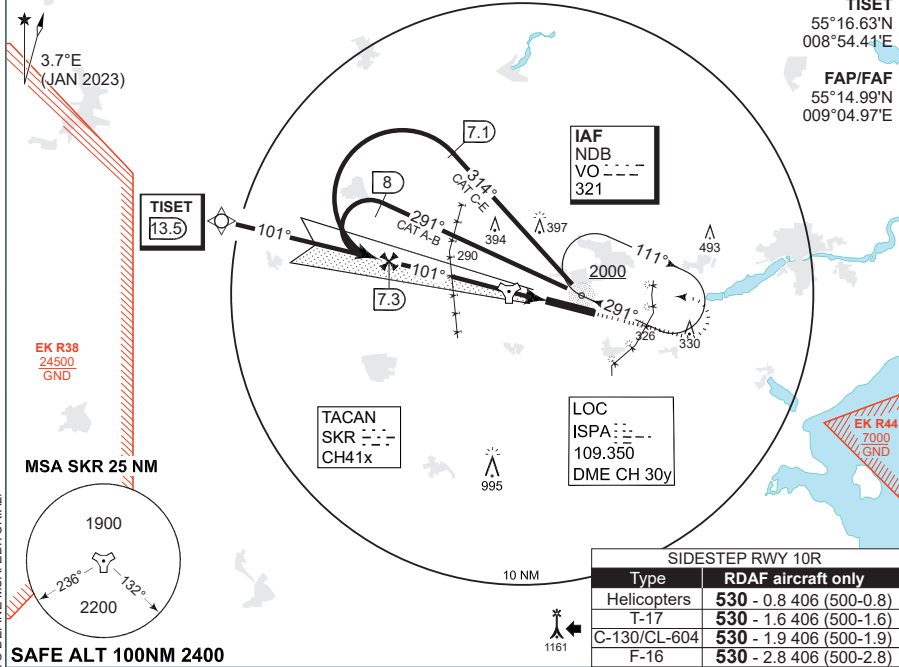
NOTE:
SPEED RESTRICTION ACFT CAT C-E:
Base turn limited to 240 KIAS maximum

ADF AND DME REQUIRED

IAF (NDB VO)
55°13.48'N
009°16.42'E

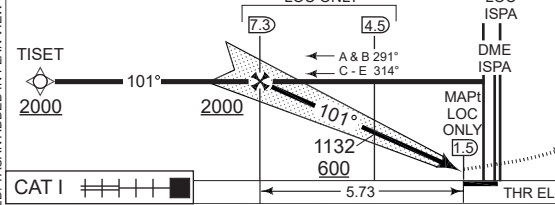
TISET
55°16.63'N
008°54.41'E

FAP/FAF
55°14.99'N
009°04.97'E



SIDESTEP RWY 10R	
Type	RDAF aircraft only
Helicopters	530 - 0.8 406 (500-0.8)
T-17	530 - 1.6 406 (500-1.6)
C-130/CL-604	530 - 1.9 406 (500-1.9)
F-16	530 - 2.8 406 (500-2.8)

TA 3000
GS 3.00°
RDH 50



LOC ONLY (CDFA 3.0° / 5.24%)					
DIST TO THR (NM)	5	4	3	2	1
DME ISPA (NM)	6.5	5.5	4.5	3.5	2.5
ALT	1770	1450	1130	820	500

MISSED APPROACH
Climb on HDG 101° to 2000 FT.
Then turn left to join NDB VO holding.

CATEGORY	A	B	C	D	E					
S-ILS 10L			326	-550 200 (200-0.8/1.2)						
S-LOC 10L			410	-750 284 (300-0.8/1.4)						
CIRCLING	630	-1.5 489 (500-1.5)	700	-1.6 559 (600-1.6)	800	-2.4 659 (700-2.4)	890	-3.6 749 (800-3.6)	1490	-3.6 1349 (1400-3.6)

ILS or LOC RWY 10L

55°13.53'N
009°15.84'E
13-2

SKRYDSTRUP (EKSP)

CHANGES: ADF REQUIRED. TACAN ADDED IN PLAN VIEW IN ORDER TO DEFINE MSA. EDITORIAL.

AIR COMMAND DENMARK - MIL-AIM 28 NOV 2024

INTENTIONALLY

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MIPS INSTRUMENT APPROACH CHART

AD ELEV 141

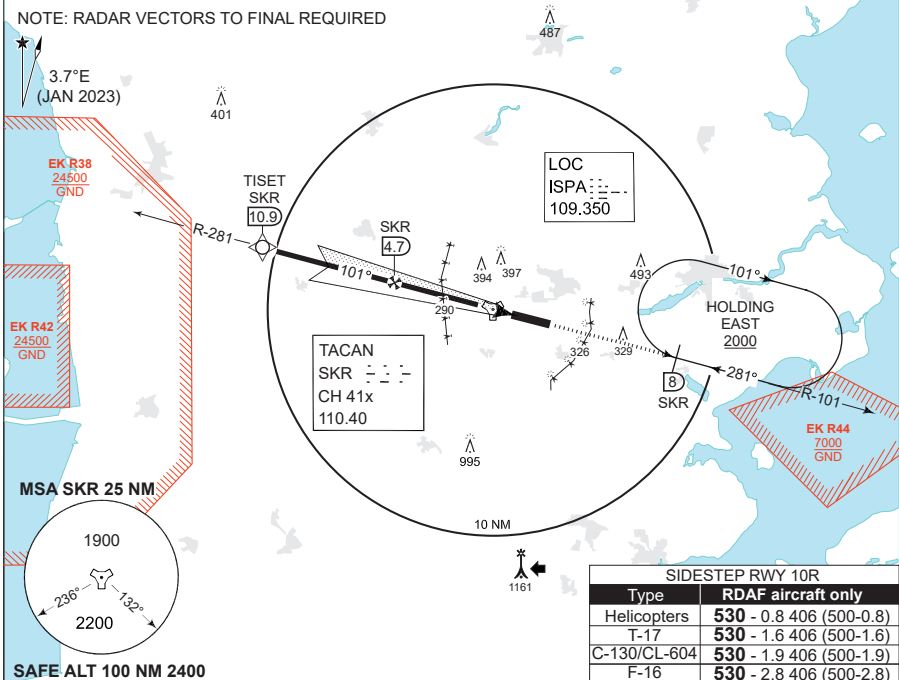
ILS or LOC Z RWY 10L SKRYDSTRUP (EKSP)

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905		SKRYDSTRUP APPROACH 315.100 124.105			SKRYDSTRUP TOWER 286.375 118.280		
TACAN SKR 110.4/CH 41x	LOC ISPA 109.35	APP COURSE 101°	FAP/FAF ALT 2000 FT	GS 3.00°	DA 326	THR 126	ALS length 900 M	LDA 9863 FT	

CAUTION:
THE DME INDICATIONS ARE FROM TACAN SKR
- NOT FROM THE DME ASSOCIATED WITH THE ILS
NOTE: RADAR VECTORS TO FINAL REQUIRED

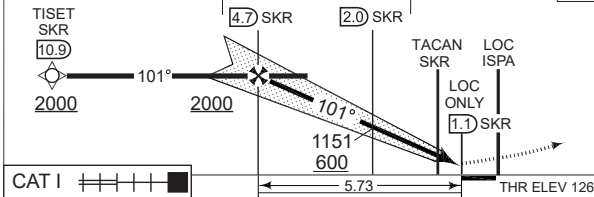
DME REQUIRED

TISET
55° 16.63'N
008° 54.41'E



TA 3000

GS 3.00°
RDH 50



CAT I

CATEGORY	A	B	C	D	E
S-ILS 10L			326 -550 200 (200-0.8/1.2)		
S-LOC 10L			410 -750 284 (300-0.8/1.4)		
CIRCLING	630 -1.5 489 (500-1.5)	700 -1.6 559 (600-1.6)	800 -2.4 659 (700-2.4)	890 -3.6 749 (800-3.6)	1490 -3.6 1349 (1400-3.6)

ILS or LOC Z RWY 10L

55°13.53'N
009°15.84'E
13-4

SKRYDSTRUP (EKSP)

CHANGES: EDITORIAL

AIR COMMAND DENMARK - MIL. AIM 03 OCT 2024

MIPS

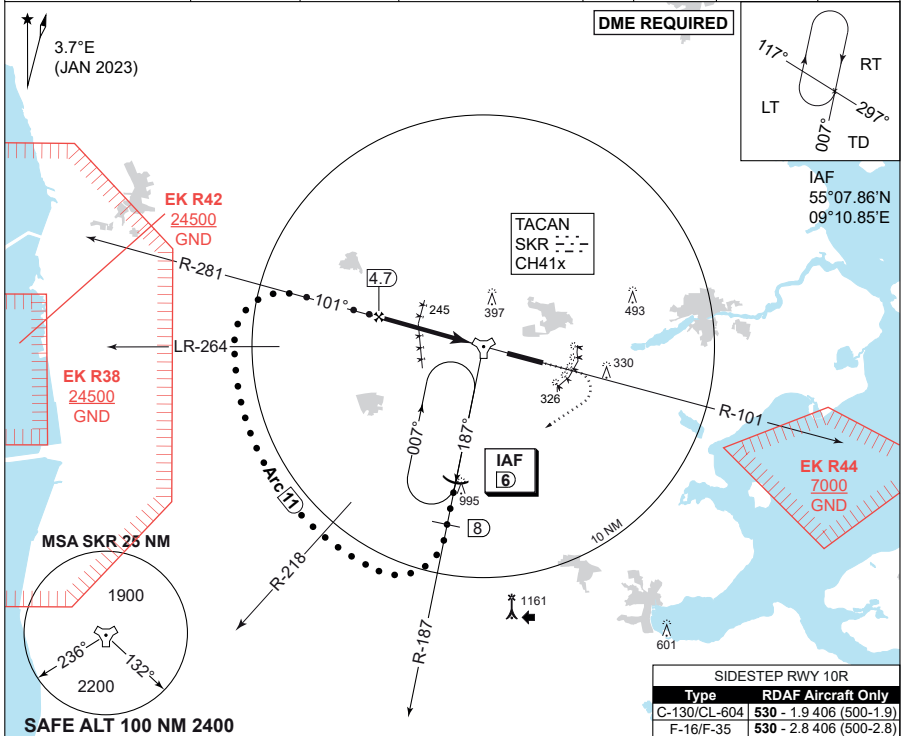
INSTRUMENT APPROACH CHART

AD ELEV 141

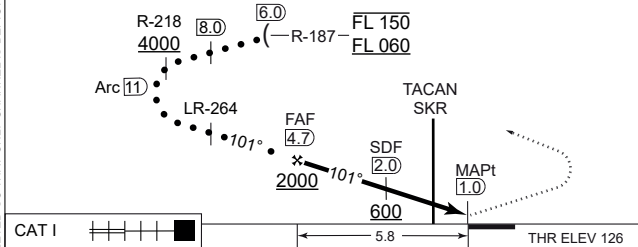
HPMA TACAN RWY 10L

SKRYDSTRUP (EKSP)

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905	SKRYDSTRUP APPROACH 315.100 124.105	SKRYDSTRUP TOWER 286.375 118.280			
TACAN SKR CH 41x	APP COURSE 101°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 460	THR ELEV 126	LDA 900 M	LDA 9863 FT



TA 3000



CDFA: 3.00° / 5.24%

DME SKR	4	3	2	1	0
DIST THR	5.1	4.1	3.1	2.1	1.1
ALT	1790	1470	1150	830	520

MISSED APPROACH
Climb on SKR R-101 to FL 60. When passing 2000 ft turn right inbound IAF (SKR R-187 DME 6)

CHANGES: TACAN FREQ DELETED SO THAT ONLY CHANNEL IS DEPICTED.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

CATEGORY	HPMA
S-TACAN 10L	460 - 800 334 (400-0.8/1.5)
CIRCLING	700 - 3.2 559 (600-3.2)

HPMA TACAN RWY 10L

55°13.53'N
009°15.84'E
13-5

SKRYDSTRUP (EKSP)

EKSP

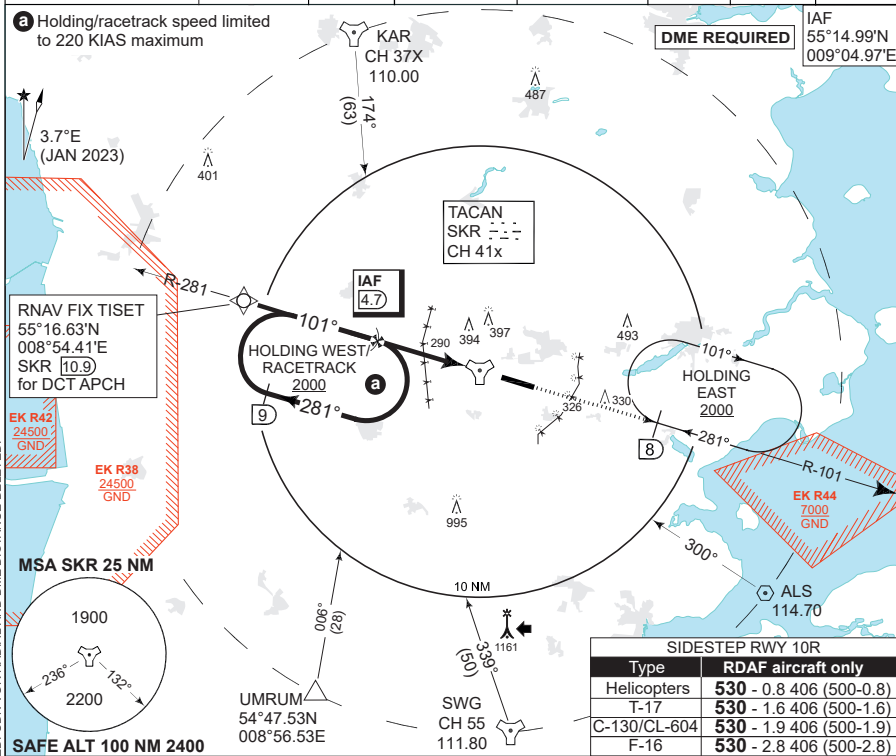
MIPS INSTRUMENT APPROACH CHART

TACAN RWY 10L SKRYDSTRUP (EKSP)

AD ELEV 141

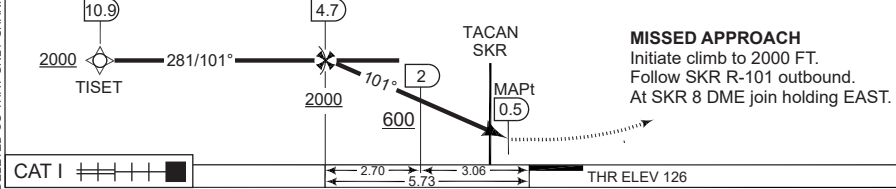
COPENHAGEN CONTROL 360.100 133.155	SKRYDSTRUP ATIS 133.905	SKRYDSTRUP APPROACH 315.100 124.105	SKRYDSTRUP TOWER 286.375 118.280
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TACAN SKR CH 41x	APP COURSE 101°	FAF ALT 2000 FT	DESCENT GR 319 FT/NM	MDA See minima	THR ELEV 126	ALS length 900 M	LDA 9863 FT
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SIDESTEP RWY 10R				
Type	RDAF aircraft only			
Helicopters	530	0.8	406	(500-0.8)
T-17	530	-1.6	406	(500-1.6)
C-130/CL-604	530	-1.9	406	(500-1.9)
F-16	530	-2.8	406	(500-2.8)

TA 3000	CDFA 3.0° / 5.24%				
	4	3	2	1	0
	DME SKR	5.1	4.1	3.1	2.1
DIST to THR	1790	1470	1150	830	520
ALT					



CATEGORY	A	B	C	D	E
S-TACAN 10L	430 -750 304 (400-0.8/1.4)				
CIRCLING	630 -1.5 489 (500-1.5)	700 -1.6 559 (600-1.6)	800 -2.4 659 (700-2.4)	890 -3.6 749 (800-3.6)	1490 -3.6 1349 (1400-3.6)

TACAN RWY 10L 55°13.53'N 009°15.84'E 13-6 **SKRYDSTRUP (EKSP)**

CHANGES: TACAN FREQ DELETED SO THAT ONLY CHANNEL IS DEPICTED. ODN VOR RADIAL AND DME DISTANCE DELETED.

AIR COMMAND DENMARK - MIL. AIX 28 NOV 2024

MIPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 28R SKRYDSTRUP (EKSP)

AD ELEV 141

COPENHAGEN CONTROL 360.100 133.155	SKRYDSTRUP ATIS 133.905	SKRYDSTRUP APPROACH 315.100 124.105	SKRYDSTRUP TOWER 286.375 118.280
LOC / DME SRY 109.35/CH 30y	APP COURSE 281°	GS INTCP ALT 2200 FT	GS 3.0°
	DA 341	THR ELEV 141	ALS LENGTH 900 M
			LDA 9863 FT

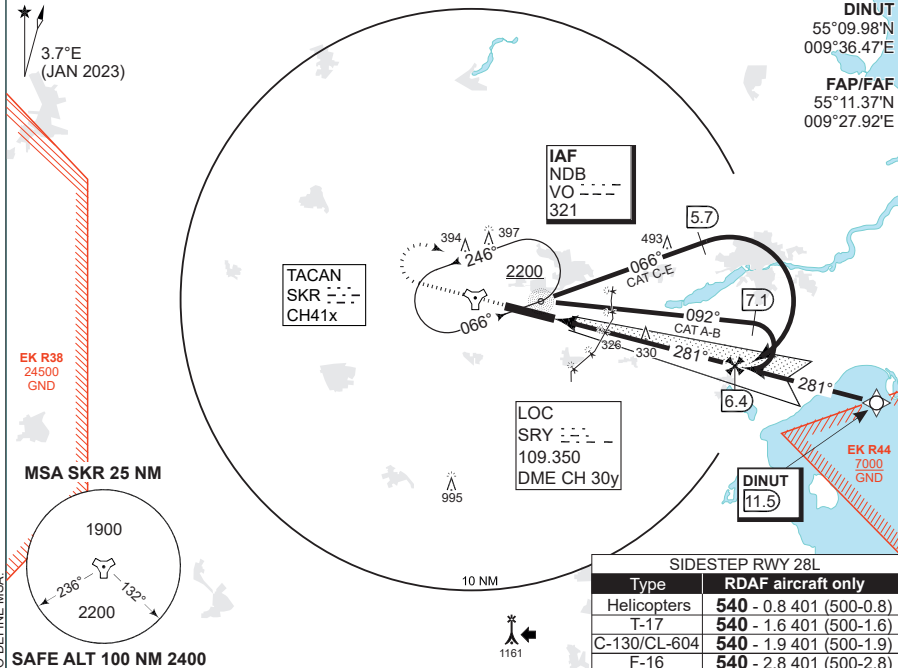
NOTE:
SPEED RESTRICTION ACFT CAT C-E:
Base turn limited to 240 KIAS maximum

ADF AND DME REQUIRED

IAF (NDB VO)
55°13.48'N
009°16.42'E

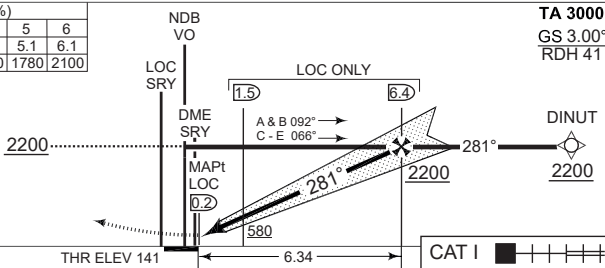
DINUT
55°09.98'N
009°36.47'E

FAP/FAF
55°11.37'N
009°27.92'E



LOC ONLY (CDFA 3.0° / 5.24%)						
DIST TO THR (NM)	1	2	3	4	5	6
DME SRY (NM)	1.1	2.1	3.1	4.1	5.1	6.1
ALT	500	820	1140	1460	1780	2100

MISSED APPROACH
Climb on RWY HDG to 2200 FT. Turn right to join holding at NDB VO.



CATEGORY	A	B	C	D	E
S-ILS/DME 28R			341	-550 200 (200-0.8/1.2)	
S-LOC/DME 28R			470	-800 329 (400-0.8/1.5)	
CIRCLING	630	-1.5 489 (500-1.5)	700	-1.6 559 (600-1.6)	800
				-2.4 659 (700-2.4)	890
					-3.6 749 (800-3.6)
					1490
					-3.6 1349 (1400-3.6)

ILS or LOC RWY 28R

55°13.53'N
009°15.84'E
13-9

SKRYDSTRUP (EKSP)

CHANGES: ADF REQUIRED. TACAN ADDED IN PLAN VIEW IN ORDER TO DEFINE MSA

AIR COMMAND DENMARK - MIL. AIM 28 NOV 2024

INTENTIONALLY

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MIPS INSTRUMENT APPROACH CHART

ILS or LOC Z RWY 28R SKRYDSTRUP (EKSP)

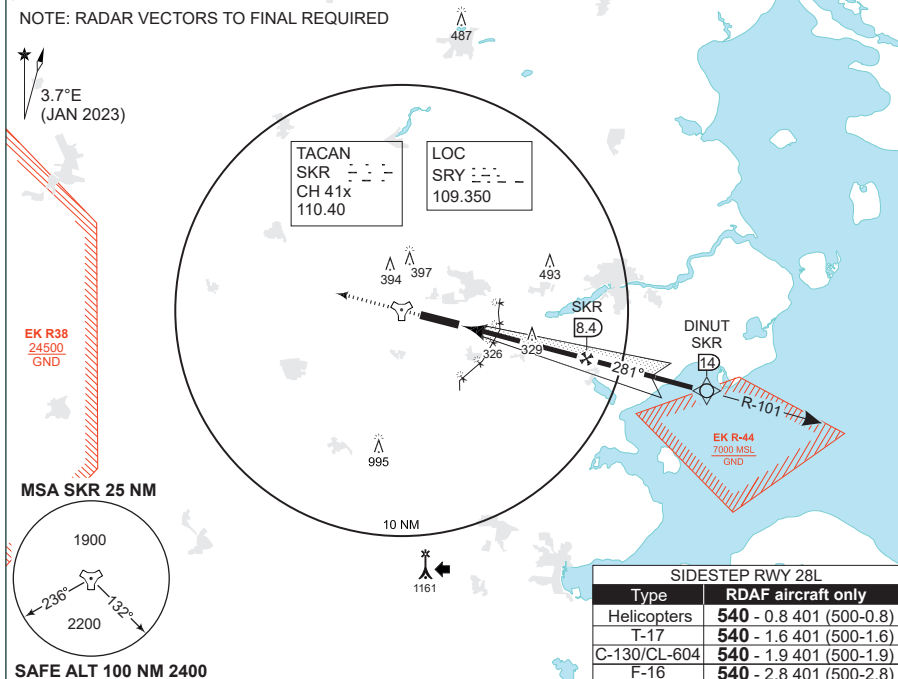
AD ELEV 141

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905		SKRYDSTRUP APPROACH 315.100 124.105			SKRYDSTRUP TOWER 286.375 118.280		
TACAN SKR 110.40/CH 41x	LOC SRY 109.35	APP COURSE 281°	GS INTCP ALT 2000 FT	GS 3.0°	DA 341	THR 141	ALS length 900 M	LDA 9863 FT	

CAUTION:
THE DME INDICATIONS ARE FROM TACAN SKR
- NOT FROM THE DME ASSOCIATED WITH THE ILS
NOTE: RADAR VECTORS TO FINAL REQUIRED

DME REQUIRED

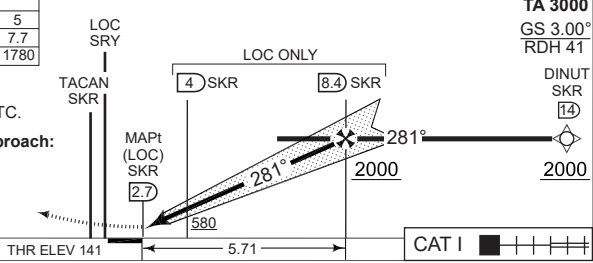
DINUT
55° 09.98'N
009° 36.48'E



LOC ONLY (CDFA 3.0° / 5.24%)					
DIST TO THR (NM)	1	2	3	4	5
DME SKR (NM)	3.7	4.7	5.7	6.7	7.7
ALT	500	820	1140	1460	1780

MISSED APPROACH

Climb on track 281° to 2000 ft. Inform ATC.
Radio com. failure during Missed Approach:
Initiate climb to 2000 ft on track 281°.
When passing 1000 ft turn left inbound
SKR R-101/8.4 DME and hold.
Squawk 7600.



THR ELEV 141	5.71	CAT I
TA 3000	GS 3.00°	RDH 41
DINUT SKR 14	2000	2000

CATEGORY	A	B	C	D	E					
S-ILS/DME 28R		341	-550	200 (200-0.8/1.2)						
S-LOC/DME 28R		470	-800	329 (400-0.8/1.5)						
CIRCLING	630	-1.5 489 (500-1.5)	700	-1.6 559 (600-1.6)	800	-2.4 659 (700-2.4)	890	-3.6 749 (800-3.6)	1490	-3.6 1349 (1400-3.6)

ILS or LOC Z RWY 28R

55°13.53'N
009°15.84'E
13-11

SKRYDSTRUP (EKSP)

CHANGES: EDITORIAL

AIR COMMAND DENMARK - MIL. AIM 03 OCT 2024

EKSP

MIPS

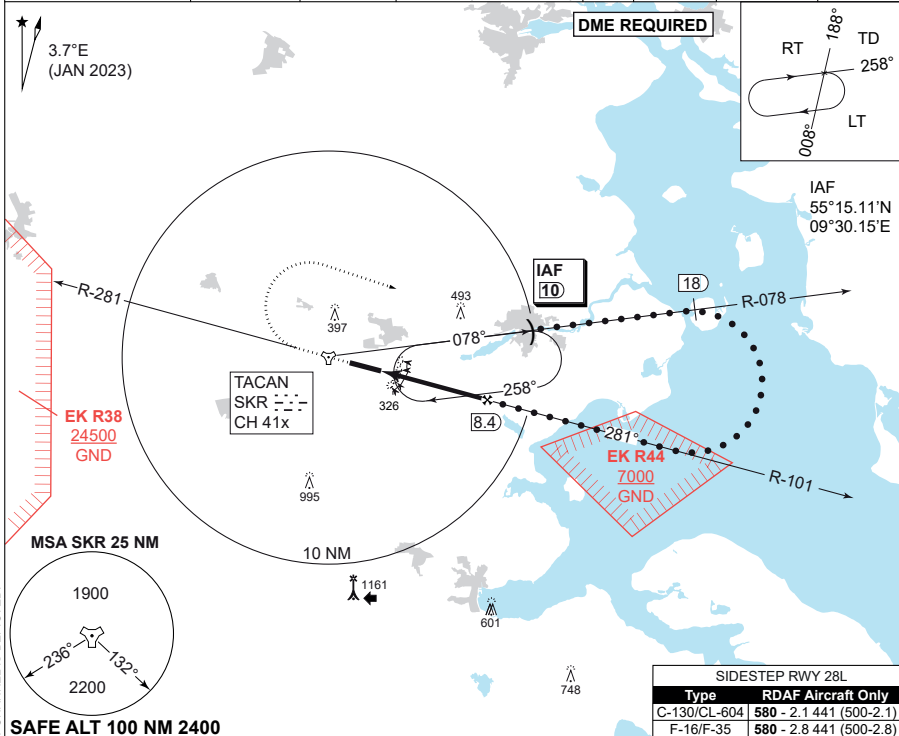
INSTRUMENT APPROACH CHART

AD ELEV 141

HPMA TACAN RWY 28R

SKRYDSTRUP (EKSP)

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905	SKRYDSTRUP APPROACH 315.100 124.105		SKRYDSTRUP TOWER 286.375 118.280		
TACAN SKR CH 41x	APP COURSE 281°	FAF ALT 2000 FT	DESCENT GR. 5.24% (318 FT/NM)	MDA 580	THR ELEV 141	ALS LENGTH 900 M	LDA 9863 FT



CHANGES: VORTAC CHANGED TO TACAN. ITS FREQUENCY DELETED SO THAT ONLY CHANNEL IS DEPICTED.

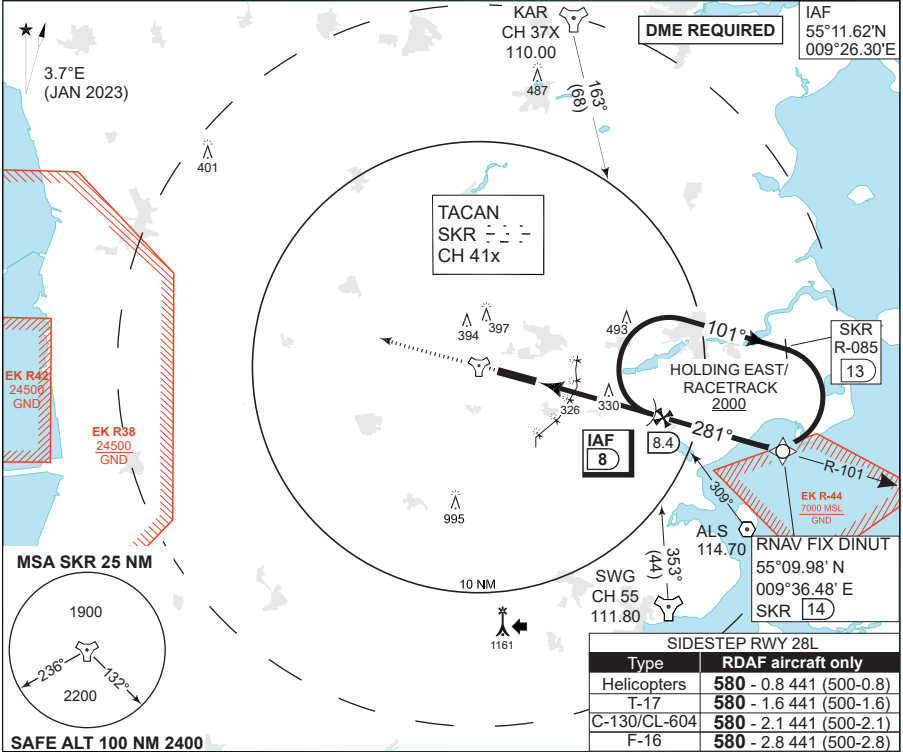
AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

MIPS INSTRUMENT APPROACH CHART

TACAN RWY 28R SKRYDSTRUP (EKSP)

AD ELEV 141

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP ATIS 133.905		SKRYDSTRUP APPROACH 315.100 124.105		SKRYDSTRUP TOWER 286.375 118.280	
TACAN SKR CH 41x	APP COURSE 281°	FAF ALT 2000 FT	DESCENT GR 319 FT/NM	MDA 580	THR ELEV 141	ALS length 900 M	LDA 9863 FT



SAFE ALT 100 NM 2400

CDFA 3.0° / 5.24%					
DME SKR	4	5	6	7	8
DIST to THR	1.3	2.3	3.3	4.3	5.3
ALT	610	930	1250	1560	1880

MISSED APPROACH
Climb on track 281° to 2000 ft. Inform ATC.

Radio communication failure during Missed Approach:
Initiate climb to 2000 ft on track 281°. When passing 1000 ft turn left inbound IAF and hold. Squawk 7600.

MIPS	CATEGORY	A	B	C	D	E
	S-TACAN 28R	580 - 1300 439 (500-1.3/1.5)			580 - 1300 439 (500-1.3/2.0)	
	CIRCLING	630 -1.5 489 (500-1.5)	700 -1.6 559 (600-1.6)	800 -2.4 659 (700-2.4)	890 -3.6 749 (800-3.6)	1490 -3.6 1349 (1400-3.6)

TACAN RWY 28R

SKRYDSTRUP (EKSP)

55°13.53'N
009°15.84'E
13-13

CHANGES: TACAN FREQ DELETED SO THAT ONLY CHANNEL IS DEPICTED. ODN VOR RADIAL AND DME DISTANCE DELETED.

AIR COMMAND DENMARK - MIL. AIX 28 NOV 2024

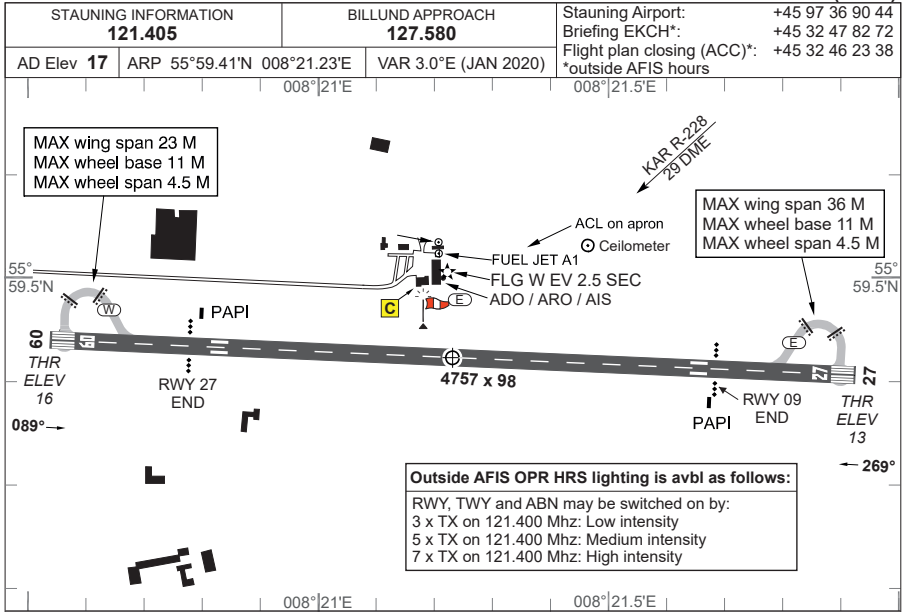
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AERODROME CHART

STAUNING (EKVJ)



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
09	21 F/A/Y/T	3933	4757	4757	3933	16	LIH	3°			LIH	LIH	55°59.42'N 008°20.54'E
27	21 F/A/Y/T	3933	4757	4757	3933	13	LIH	3°			LIH	LIH	55°59.39'N 008°21.93'E

Overflying the summer house area west of the aerodrome should be avoided in connection with TKOF and LDG. Overflying the towns within the FIZ should be avoided.

IFR Arrival
 1. Aircraft will normally be cleared by ACC KØBENHAVN to STAUNING HOLDING.
 2. Instrument approach procedures are in airspace classified G below 3500 FT MSL.
 3. Radio communication failure: Navigation aid designated for radio communication failure during IMC for arriving aircraft is NDB VJ.
Note: Circling S of AD only.

IFR Departure
 1. Standard Instrument Departures (SID) have not been established.
 2. Omnidirectional departures RWY 09/27: Climb straight ahead to at least 600 FT MSL before turn is commenced.
 3. Procedures are in airspace classified G below 3500 FT MSL.

VFR Flights
 1. VFR reporting points and VFR routes are established, see LFC 1:500 000 - Denmark.
 2. Stauning FIZ is designated as Radio Mandatory Zone (RMZ).

MIPS	CIRCLING MINIMA		
A	B	C	
720 - 2600 703 (800-2.6)	720 - 2600 703 (800-2.6)	910 - 2600 893 (900-2.6)	

INTENTIONALLY

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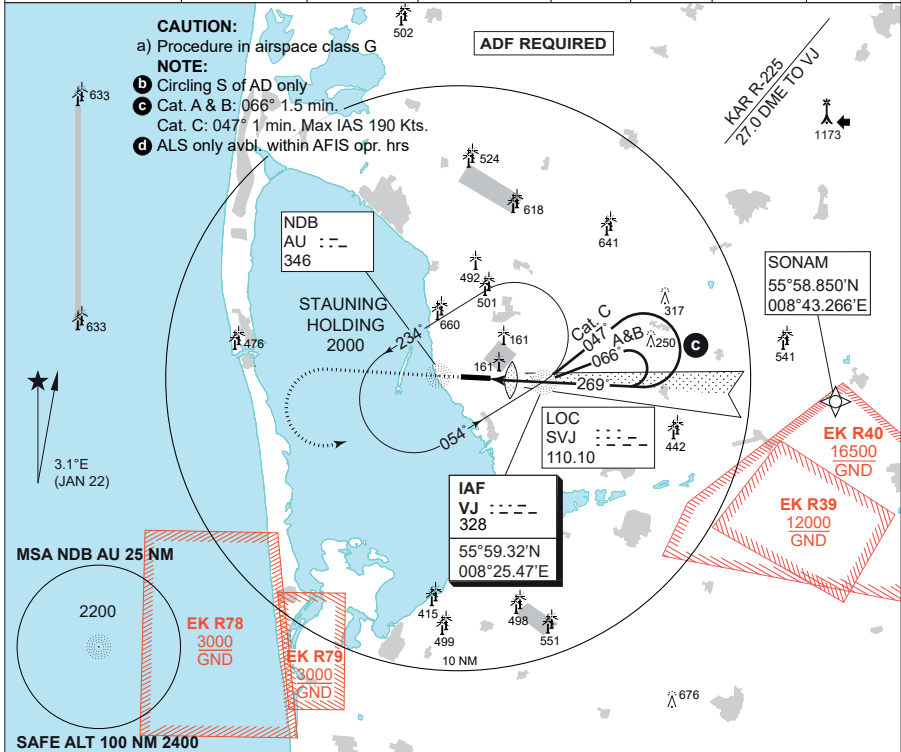
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MIPS INSTRUMENT APPROACH CHART

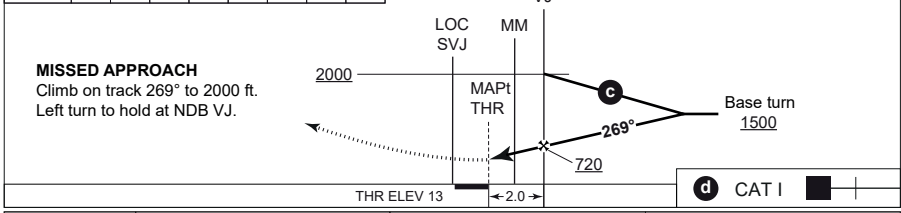
LOC RWY 27 STAUNING (EKVJ)

AD ELEV 17

COPENHAGEN CONTROL 362.750 136.555		BILLUND APPROACH 127.580			STAUNING INFORMATION 121.405		
LOC SVJ 110.10	APP COURSE 269°	FAF ALT 720 FT	DESCENT GR 329 FT / NM	MDA 720	THR ELEV 13	ALS LENGTH 900 M	LDA 3933 FT



NDB VJ TO MAPt 1.99 NM								TA 3000
Knots	70	80	90	100	110	120	150	160
Min:Sec	1:42	1:30	1:20	1:12	1:05	1:00	0:48	0:45



CATEGORY	A		B		C
S-LOC 27	720 - 2600 707 (800-2.6/3.3)				
CIRCLING b	720 - 2600 703 (800-2.6)	720 - 2600 703 (800-2.6)	910 - 2600 893 (900-2.6)		

CHANGES: ADF REQUIRED

LOC RWY 27 55°59.41'N 008°21.23'E **STAUNING (EKVJ)**

AIR COMMAND DENMARK - MIL-AIM 28 NOV 2024

INTENTIONALLY

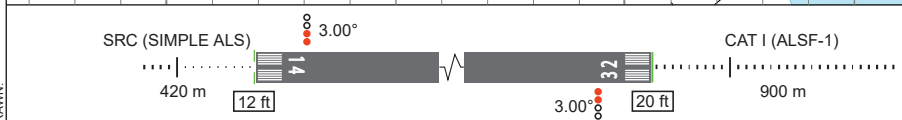
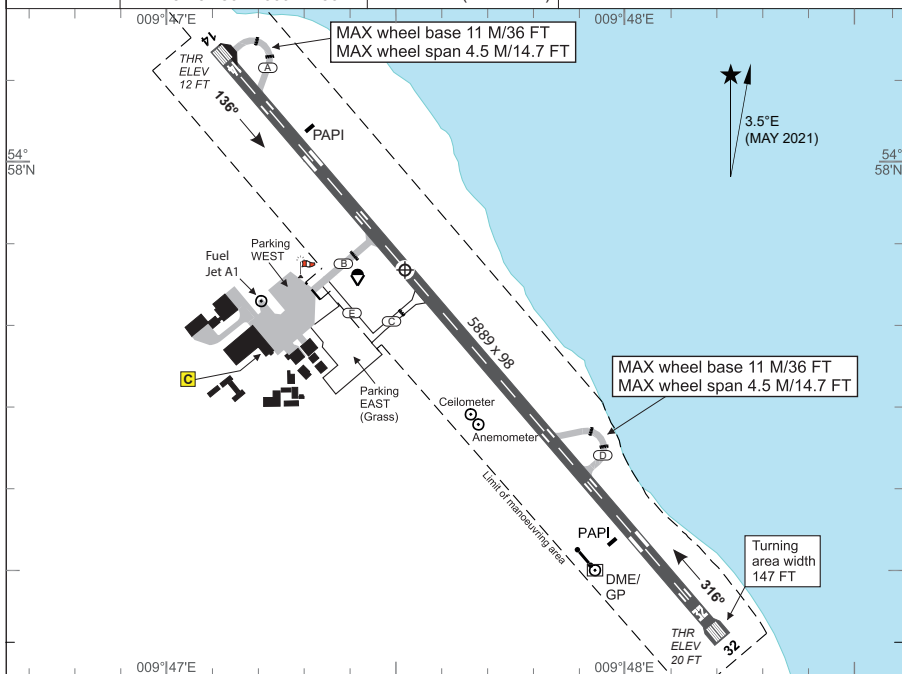
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AERODROME CHART

SOENDERBORG (EKSB)

SØNDERBORG INFORMATION 126.400		SKRYDSTRUP APPROACH 315.100 / 124.105		Sønderborg AFIS: +45 73 42 21 70 AD PPR outside operational hours.
AD Elev 24	ARP 54°57.86'N 009°47.50'E	VAR 3.5°E (MAY 2021)		



RWY	PCN	DECLARED DISTANCES				THR ELEV	RWY LIGHTING				THR PSN			
		PSN	TORA	TODA	ASDA		LDA	THR	PAPI	TDZ		CL	EDGE	END
14	40 F/A/W/T		5889	5889	5889	5889	12	LIH	3°			LIH	LIH	54°58.14'N 009°47.10'E
32			5889	5889	5889	5889	20	LIH	3°			LIH	LIH	54°57.40'N 009°48.19'E

Traffic circuits NE of AD only. Parachuting may take place.

IFR Arrival

1. Aircraft will normally be cleared by ACC KØBENHAVN to LIBRI HOLDING.
2. Fix designated for radio communication failure during IMC for arriving aircraft is LIBRI.

IFR Departure

1. Standard Instrument Departures (SID) have not been established.
2. Omnidirectional departures RWY 14/32: Climb to at least 500 FT before turn is commenced.

MIPS	CIRCLING MINIMA (East of AD only)		
	A	B	C
	480 - 1500 456 (500-1.5)	530 - 1600 509 (600-1.6)	690 - 2400 669 (700-2.4)

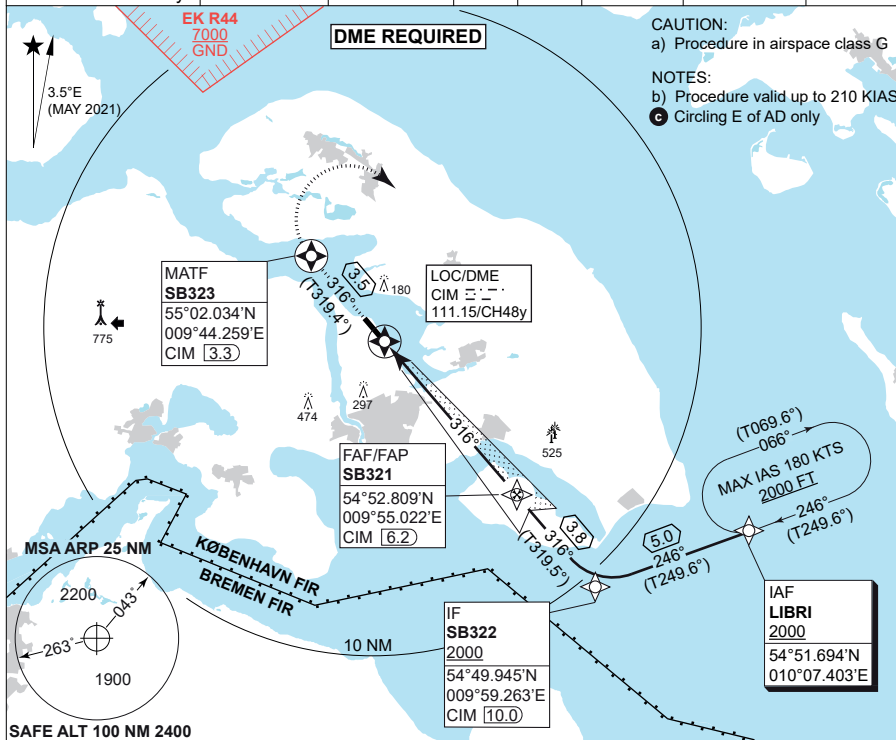
AERODROME CHART

SOENDERBORG (EKSB)

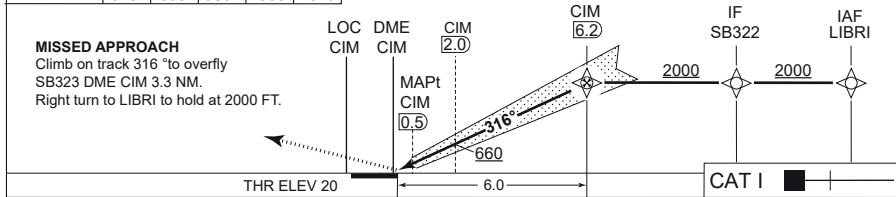
MIPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 32 SOENDERBORG (EKSB)

COPENHAGEN CONTROL 360.100 133.155		SKRYDSTRUP APPROACH 315.100 124.105			SOENDERBORG INFORMATION 126.400		
LOC / DME CIM 111.15/CH 48y	APP COURSE 316°	GS INTCP ALT 2000 FT	GS 3.00°	DA 220	THR ELEV 20	ALS LENGTH 900 M	LDA 5889 FT



LOC ONLY: CDFA 3.00° / 5.24%					
DME CIM	1	2	3	4	5
DIST THR	0.8	1.8	2.8	3.8	4.8
ALT	340	660	980	1300	1620



CATEGORY	A	B	C
S-ILS 32		220 - 550 200 (200-0.8/1.2)	
S-LOC 32		280 - 800 259 (300-0.8/1.3)	
CIRCLING c	480 - 1500 456 (500-1.5)	530 - 1600 509 (600-1.6)	690 - 2400 669 (700-2.4)

ILS or LOC RWY 32

SOENDERBORG (EKSB)

54°57.86'N
009°47.50'E
15-4

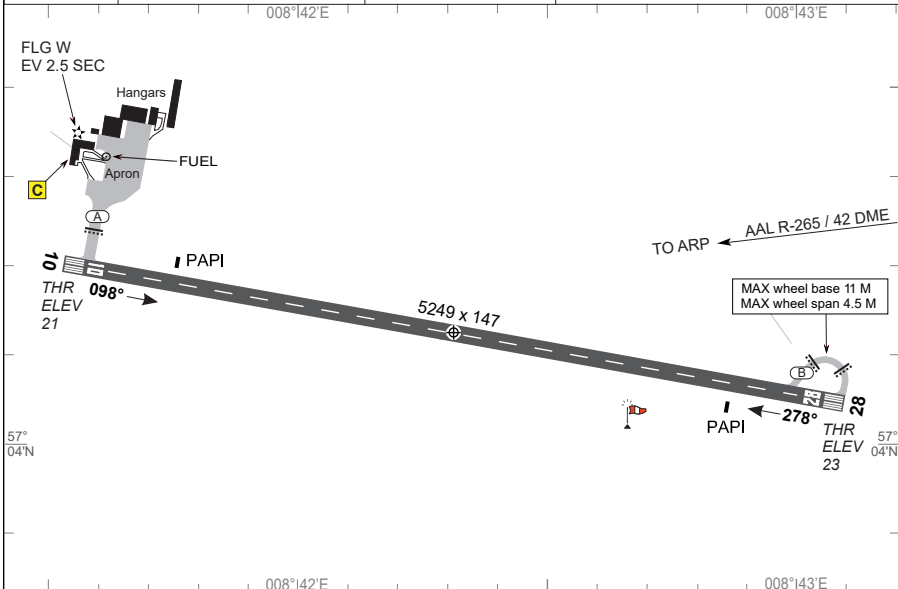
CHANGES, SKP APP FREQ, MIPS

AIR COMMAND DENMARK - MIL AIM 18 APR 2024

AERODROME CHART

THISTED (EKTS)

THISTED RADIO 118.125		AALBORG APPROACH 123.975		Thisted Airport: +45 99 17 37 80
AD Elev 23		ARP 57°04.13'N 008°42.31'E		Briefing EKCH*: +45 32 47 82 72
		VAR 2.4°E (JAN 2018)		Flight plan closing (ACC)*: +45 32 46 23 38
				*outside AD hours



RWY	PCN	DECLARED DISTANCES				TDZE	RWY LIGHTING					THR PSN	
		TORA	TODA	ASDA	LDA		THR	PAPI	TDZ	CL	EDGE		END
10	25 F/A/X/T	5249	5249	5249	5249	21	LIH				LIH	LIH	57°04.21'N 008°41.53'E
28	25 F/A/X/T	5249	5249	5249	5249	23	LIH				LIH	LIH	57°04.05'N 008°43.10'E

AD approved for:
 a. VMC day and VFR night operations.
 b. Self-service when ADO is closed.
 Outside ADO/ARO hours: PPR for AD/ADO submitted to ADO not later than 1 hour before termination of service.

Refuelling (100LL and Jet A1) only within AD hours.

CAUTION: Various wind farms in closer and more distant vicinity of AD. Exceptionally high wind turbines (1000 ft AMSL) 5.6 NM east of AD.

CHANGES: EDITORIAL

AIR COMMAND DENMARK - MIL-AIM 24 FEB 2022

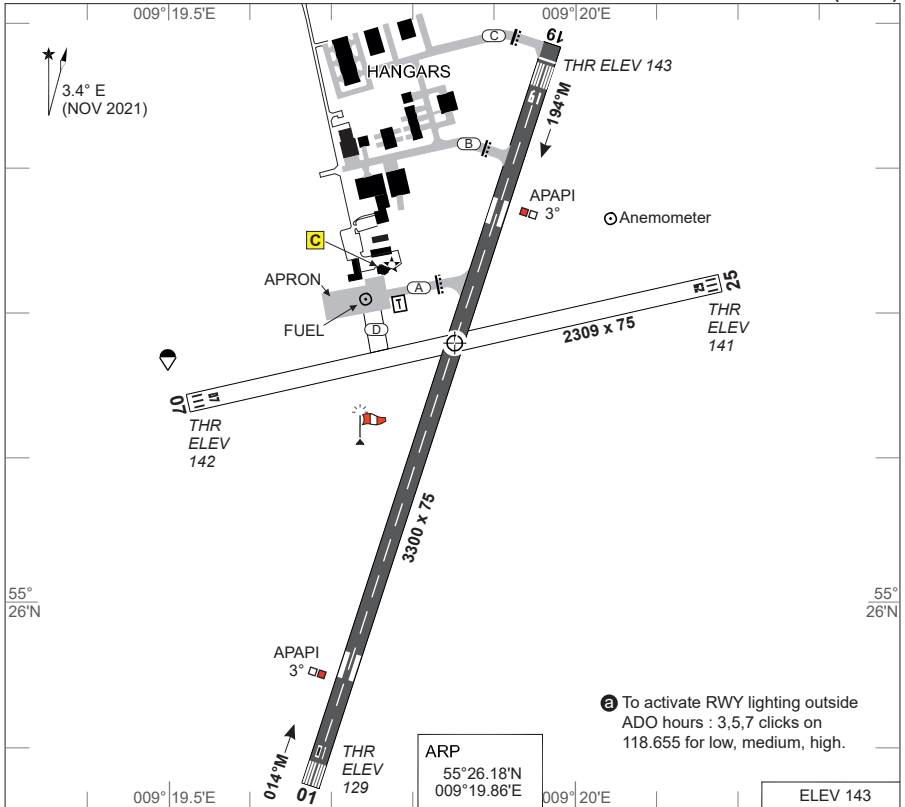
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AERODROME CHART

VAMDRUP (EKVD)



a To activate RWY lighting outside ADO hours : 3,5,7 clicks on 118.655 for low, medium, high.

ARP
55°26.18'N
009°19.86'E
ELEV 143

RWY	PCN	DECLARED DISTANCES						RWY LIGHTING a					THR PSN	
		PSN	TORA	TODA	ASDA	LDA	TDZE	THR	APAPI	TDZ	CL	EDGE		END
01	17 F/B/X/T		3202	3300	3202	3300	129	LIH	3°			LIH	LIH	55°25.87'N 009°19.68'E
19		B	3300	3300	3300	3202	143	LIH	3°			LIH	LIH	55°26.37'N 009°19.96'E
		A	2267	2267	2267									

VAMDRUP INFORMATION 118.655 SKRYDSTRUP APPROACH 124.105

- 1. IFR Arrival**
 - 1.1 Aircraft will normally be cleared by ACC KØBENHAVN to L KD (KD HOLDING NORTH or KD HOLDING SOUTH). Instrument approach procedures are partly in airspace classified G below 3500 FT MSL.
 - 1.2 Navigation aid designated for radio communication failure during IMC for arriving aircraft is L KD.
- 2. IFR Departure**
 - 2.1 Standard Instrument Departures (SID) have not been established.
 - 2.2 Omnidirectional departures: RWY 01/19: Climb straight ahead to at least 800 FT MSL before turn is commenced.
 - 2.3 Caution: Procedures are partly in airspace classified G below 3500 FT MSL.
- 3. Additional Information**
 - 3.1 In the period 2100-0600 (2000-0500) the airport is closed for all traffic. Commercial operations may take place - after request to ADO 1 HR PN before closing time. No IFR traffic is permitted when AFIS is not established.
 - 3.2 PPR for use of RWY 08/26. Runway will be closed outside service hours.
 - 3.3 Noise abatement: Overflying the built-up areas Hjarup, Skanderup and Vamdrup during TKOF and LDG should be avoided as far as possible.

CHANGES: SKP APP FREQ CHG.

AIR COMMAND DENMARK - MIL AIM 18 APR 2024

AERODROME CHART

VAMDRUP (EKVD)



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MISCELLANEOUS

TRANSITION FROM TERPS TO PANS OPS 20-2

AIRCRAFT CATEGORIES / SPEEDS 20-6

HIGH PERFORMANCE MILITARY A/C (HPMA) 20-8

LANDING MINIMA EXPLANATION 20-9

COLD WEATHER ALTITUDE CORRECTION 20-11

DECLARED DISTANCES 20-12

AIRCRAFT CLASSIFICATION/PAVEMENT-
CLASSIFICATION NUMBER (ACN/PCN) 20-13

NON-PA – FLYING TECHNIQUES 20-15

APPROACH LIGHTING SYSTEMS 20-17

SIDESTEP PROCEDURE 20-18

RADIO NAVIGATIONAL AIDS 20-19

NDB BEARING/DISTANCES 20-20

VOR/TACAN BEARING/DISTANCES 20-21

LIST OF AERODROMES 20-22

AERODROME BEARING/DISTANCES 20-23

CHANGES: EDITORIAL

AIR COMMAND DENMARK - MIL-AIM 21/APR 2022

INSTRUMENT APPROACH PROCEDURES – TRANSITION FROM TERPS CRITERIA TO ICAO DOC 8168 (PANS OPS)

In the coming versions of this FLIP a growing number of Instrument Approach Procedures (IAP) will be based on criteria in accordance with ICAO DOC 8168 (PANS OPS) and NATO STANAG 3759 (NATO SUPPLEMENT TO ICAO DOC 8168-0PS/611, VOL II FOR THE PREPARATION OF INSTRUMENT APPROACH AND DEPARTURE PROCEDURES (AATCP-1)). Procedures designed in accordance with these two documents will be marked MIPS (Military Instrument Procedures Standardization). Older IAP's based on TERPS criteria will remain valid until the transition process is complete. It will be clearly marked on which criteria an IAP is based:

TERPS INSTRUMENT APPROACH CHART							AD ELEV 171			HI-TACAN RWY 27L KARUP AIR BASE (EKKA)	
COPENHAGEN CONTROL 242.650 124.555		KARUP ATIS 120.575		KARUP APPROACH 292.750 120.425		KARUP TOWER					
TACAN KAR 110.00/CH 37x	APP COURSE 267°	FAF ALT 2000 FT	DESCENT GR 305 FT/NM	MDA 600	TDZE 170	ALS length 900 M	LDA 9607 FT				

TERPS - this IAP is based on TERPS criteria

MIPS INSTRUMENT APPROACH CHART							AD ELEV 171			ILS or LOC RWY 27L KARUP AIR BASE (EKKA)	
COPENHAGEN CONTROL 242.650 124.555		KARUP ATIS 120.575		KARUP APPROACH 292.750 120.425		KARUP TOWER					
LOC/DME KR 108.150/CH18y	APP COURSE 266°	GS INTCP ALT 2000 FT	GS 3.00°	DA 370	THR ELEV 170	ALS LENGTH 900 M	LDA 9607 FT				

MIPS (Military Instrument Procedure Standardization)

The following text explaining the main differences between TERPS and PANS OPS is a cut and paste from the latest version of STANAG 7199 (AFPP-1(B)) - NATO Supplement to ICAO Doc 8168 Volume I Flight Procedures, dated June 2017 and ratified by Denmark.

TERPS VERSUS PANS-OPS AND MIPS.

TERPS philosophy regarding the constructing of procedures differs from that of ICAO PANS-OPS in several areas, which also affects the way procedures are to be flown, e.g. turn radius, visual manoeuvring, ILS, missed approach. For aircrew that are used to only flying TERPS procedures, the following is worth noticing:

a. Aircraft Categories/Speeds.

Aircraft approach categories play a significant role in the design of PANS-OPS/MIPS instrument procedures. In addition to affecting final approach minima, PANS-OPS references maximum speeds by category for holding, departures and the initial and intermediate segments of instrument approaches. Also the final approach speeds specified by category will be different from the TERPS procedure speeds. The PANS-OPS references are as follows:

Turning departure speeds: PANS-OPS Part I, Section 3, Chapter 2, Table I-3-2-1.

Approach, circling and missed approach speeds: PANS-OPS Part I, Section 4, Chapter 1, Tables I-4-1-1 and I-4-1-2.

Holding speeds: PANS-OPS Part I, Section 6, Chapter 1, Table I-6-1-1.

Holding speeds (Helicopter): PANS-OPS Part I, Section 6, Chapter 1, Table I-6-1-2.

Helicopter only speeds: PANS-OPS Part I, Section 8, Chapter 3, Table I-8-3-1.

HPMA (High Performance Military Aircraft): The MIPS use a separate set of speeds for HPMA. Chapter 6 also provides a set of HPMA parameters for universal use.

Holding speeds (Helicopter): PANS-OPS Part I, Section 6, Chapter 1, Table I-6-1-2.
 Helicopter only speeds: PANS-OPS Part I, Section 8, Chapter 3, Table I-8-3-1.
 HPMA (High Performance Military Aircraft): The MIPS use a separate set of speeds for the unique HPMA category. AFPP-1, Chapter 6, Tables 6.2 and 6.3 show the speeds for HPMA. Chapter 6 also provides a set of HPMA parameters for universal use.
 (Note: The speeds (except helicopter only speeds) are summarized on pages 20-6 and 20-7).

b. Track.

Obstacle clearance in PANS-OPS/MIPS procedures is provided under the assumption that pilots will maintain the depicted ground track.

c. Bank Angle.

Unless otherwise specified, PANS-OPS approach procedures are based on average achieved bank angle of 25° or the bank angle giving a rate of turn of 3°/sec, whichever is less.

For departures and missed approach, PANS-OPS procedures are based on an average achieved bank angle of 15°. MIPS procedures generally are the same as PANS-OPS, but VCOA departures are based on 23° bank angle. The bank angle for HPMA is 30° for all segments.

d. Established on Course.

PANS-OPS defines "established on course" as being within half full-scale deflection for a VOR/DME or ILS (localizer) and within $\pm 5^\circ$ of the required final bearing for an NDB. MIPS applies the same deflection tolerance flying a TACAN as PANS-OPS applies for flying a VOR/DME approach.

Do not consider the aircraft to be established on course until within these limits.

PANS-OPS/MIPS obstacle clearance surfaces assume that the pilot does not normally deviate from the centre line more than one-half scale deflection after being established on track. Despite the fact that there is a range of "acceptable" variation, every attempt must be made to fly the aircraft on the course centre line and on the glide path.

Allowing a more than half-scale deflection (or a more than half-scale fly-up deflection on glideslope) combined with other system tolerances could place the aircraft near the edge or at the bottom of the protected airspace where loss of protection from obstacles can occur.

e. Omnidirectional Departures.

The PANS-OPS "Omnidirectional Departure" is somewhat similar to the TERPS "Diverse Departure"; a departure procedure without any track guidance provided.

An important difference is that an Omnidirectional Departure may be published even though obstacles penetrate the 2.5% Obstacle Identification Surface (OIS).

PANS-OPS then provides the procedure designer the following options for publishing departure restrictions.

1. Standard case.

Where no obstacles penetrate the 2.5% OIS, normally no departure restrictions will be published. Upon reaching 400 feet above Departure End of Runway (DER), a turn in any direction may be initiated.

2. Specified turn altitude.

The procedure may dictate a climb to a specified altitude, where an omnidirection-

ing departure restrictions.

1. Standard case.

Where no obstacles penetrate the 2.5% OIS, normally no departure restrictions will be published. Upon reaching 400 feet above Departure End of Runway (DER), a turn in any direction may be initiated.

2. Specified turn altitude.

The procedure may dictate a climb to a specified altitude, where an omnidirectional turn safely can be made.

3. Specified climb gradient.

The procedure may specify a minimum climb gradient of more than 3.3% to an altitude before turns are permitted.

4. Sector departure.

The procedure may identify sectors for which either a minimum turn altitude or a minimum climb gradient is specified. (e.g. "Climb in sector 180° - 270° to 2000 feet before commencing a turn.

f. Departures with Track Guidance.

PANS-OPS uses the term Standard Instrument Departure (SID) to refer to departures using track guidance. Minimum climb gradients above the standard 3.3% may apply.

For turning departures:

PANS-OPS protection area is based on using an average bank angle of 15° for the departure turn. Where a departure route requires a turn of more than 15°, a turning departure may be constructed. Turns may be specified at an altitude/height, at a fix or overhead a facility. If an obstacle prohibits turns before the departure end of the runway or prior to reaching an altitude/height, a turning point or a minimum turn altitude/height will be specified. Tracks to be flown and radials/bearings to be intercepted will also be specified.

1. Turning departure speeds.

If restricted below the standard maximum speeds, the restricted speeds should be published by category or by a general note. For example, the procedure may be annotated "Departure limited to CAT C aircraft" or "Departure turn limited to 185 kt IAS maximum". You must comply with the speed limit published on the departure to remain within protected airspace. If you require a higher speed for safe aircraft performance, ATC may approve the higher speed or assign an alternative departure procedure.

g. Departure: Runway End Crossing Height.

For PANS-OPS, the origin of the Obstacle Identification Surface (OIS) begins at 16 ft above the DER.

h. TERPS Low Altitude Approaches.

PANS-OPS does not distinguish between low and high altitude procedures.

PANS-OPS Part I, Section 4, Chapter 3 describes how to enter and fly the different manoeuvres and entries in the initial approach segment.

Differences from TERPS:

category definition, which for CAT D is 165 kt IAS.

Also, one important distinction to make is between the terms “runway environment” and “airport environment.” While circling using a PANS-OPS designed procedure, pilots must maintain visual contact with the runway environment throughout the entire circling manoeuvre. TERPS procedures only require pilots to maintain visual contact with the airport environment while circling to land, but cannot descend out of the circling MDA until the runway environment is in sight. The PANS-OPS protection area is based on using an average bank angle of 20° for the turn to final.

For HPMA, the circling criteria are stated on page 20-8.

a

j. Holding.

Differences from TERPS:

The PANS-OPS holding entry procedures are mandatory. Timing, distances and limiting radials must be complied with. Enter the holding pattern based on the heading relative to the three entry sectors depicted in PANS-OPS Part I, Section 6, Chapter 1, Paragraph 1.4. The margins on each sector dividing line is $\pm 5^\circ$. Upon reaching the holding fix, follow the appropriate procedure according to entry sector.

Bank angle must not be reduced for wind corrections. The bank angle used in PANS-OPS should be 25° or a rate of 3°/sec, whichever is less.

Timing is made on the outbound leg.

Attempt to maintain the track by allowing for known winds and applying corrections to heading and timing during entry and while flying in the holding pattern.

A radial or a DME value may be published to limit the outbound track.

k. Transition Altitude/Level.

Transition altitude is the altitude in the vicinity of an aerodrome at or below which the vertical position of an aircraft is determined from the altimeter set to QNH. Transition altitude is normally specified for each airfield by the country in which the airfield exists.

Transition altitude will not normally be below 3000 ft Height Above Aerodrome (HAA) and must be published on the appropriate charts.

Transition level is the lowest flight level available for use above the transition altitude.

Transition level is usually communicated to the aircraft together with the descent/approach clearances. The transition layer (area between the transition altitude and transition level) may also be supplied by ATC via the ATIS or during arrival. VFR flight levels may be used on some places, e.g. FL 045.

The vertical position of an aircraft at or below transition altitude shall be expressed in altitude (QNH). Vertical position at or above the transition level shall be expressed in terms of flight levels according to the standard altimeter setting 1013.2 hPa. When passing through the transition layer, vertical position shall be expressed in terms of flight levels when climbing and in terms of altitudes (QNH) when descending.

After an approach clearance has been issued and the descent is commenced, the vertical positioning of an aircraft above the transition level may be by reference to altitude (QNH) provided that a level off above the transition altitude is not anticipated.

This is intended for turbo jet aircraft where an uninterrupted descent from high altitude is desired.

AIRCRAFT CATEGORIES / SPEEDS (PANS OPS/ MIPS)

Approach, circling, missed approach and turning departure speeds

A/C category	V _{at}	Range of speeds for initial approach	Range of final approach speeds	Max. speeds for visual manoeuvring (circling)	Max speeds for missed approach		Max. speeds for turning departures
					Inter-mediate	Final	
A	<91	90/150(110 ¹)	70/100	100	100	110	120
B	91/120	120/180(140 ¹)	85/130	135	130	150	165
C	121/140	160/240	115/160	180	160	240	265
D	141/165	185/250	130/185	205	185	265	290
E	166/210	185/250	155/230	240	230	275	300
H	N/A	70/120 ²	60/90 ³	N/A	90	90	90
HPMA	See page 20-8						
CAT H (Pins) ³	NA	70/120	60/90	N/A	70 or 90		

V_{at} — Speed at threshold based on 1.3 times stall speed V_{so} or 1.23 times stall speed V_{slg} in the landing configuration at maximum certificated landing mass. (Not applicable to helicopters.)

- 1 Maximum speed for reversal and racetrack procedures.
- 2 Maximum speed for reversal and racetrack procedures up to and including 6.000 ft is 100 kt, and maximum speed for reversal and racetrack procedures above 6.000 ft is 110 kt.
- 3 Helicopter point-in-space procedures based on basic GNSS may be designed using maximum speeds of 120 kt for initial and intermediate segments and 90 kt on final and missed approach segments, or 90 kt for initial and intermediate segments and 70 kt on final and missed approach segments based on operational need. Refer to PANS-OPS, Volume II, Part IV, Chapter 1, "Area navigation (RNAV) point-in-space (PinS) approach procedures for helicopters using basic GNSS receivers".
- 4 Range of speeds for holding, initial, approach, reversal, racetrack and intermediate segment.

Note. The V_{at} speeds given in Column 1 of Table I-4-1-1 are converted exactly from those in this table, since they determine the category of aircraft. The speeds given in the remaining columns are converted and rounded to the nearest multiple of five for operational reasons and from the standpoint of operational safety are considered to be equivalent.

In accordance with FKOBST 152.1 item 36.3, aircraft of the Royal Danish Air Force are classified as follows:

T-17	Category A
AS-550 Fennec	Category A/H
Seahawk	Category A/H
EH-101	Category A/H
C-130J	Category C
CL-604	Category C
F-16	Category E

Holding speeds - Categories A through E

Levels ¹⁾	Normal conditions	Turbulence conditions
Up to 14.000 ft inclusive	230 kt ²⁾ 170 kt	280 kt ³⁾ 170 kt ⁴⁾
Above 14.000 ft to 20.000 ft inclusive	240 kt ⁵⁾	280 kt or 0.8 Mach, whichever is less ³⁾
Above 20.000 ft to 34.000 ft inclusive	265 kt ⁵⁾	
Above 20.000 ft to 34.000 ft inclusive	0.83 Mach	0.83 Mach

- 1) The levels shown represent altitudes or corresponding flight levels depending upon the altimeter setting in use.
- 2) When the holding procedure is followed by the initial segment of an instrument approach procedure promulgated at a speed higher than 230 kt, the holding should also be promulgated at this higher speed wherever possible.
- 3) The speed of 280 kt (0.8 Mach) reserved for turbulence conditions shall be used for holding only after prior clearance with ATC, unless the relevant publications indicate that the holding area can accommodate aircraft flight at these high holding speeds.
- 4) For holdings limited to CAT A and B aircraft only.
- 5) Wherever possible, 280 kt should be used for holding procedures associated with airway route structures.

Holding speeds — for helicopter procedures

Maximum speed up to 6.000 ft	
Maximum speed above 6.000 ft	
Note: MOC in secondary area for helicopter holding procedures is linear from zero to full MOC	

Final approach speeds – TERPS vs. PANS

A/C category	Range of final approach speeds	
	TERPS	PANS OPS
A	Less than 91 kt	70 - 100 kt
B	91 -121 kt	85 - 130 kt
C	121 - 141 kt	115 - 160 kt
D	141 - 166 kt	130 - 185 kt
E	166 kt or more	155 - 230 kt

MISCELLANEOUS

HIGH PERFORMANCE MILITARY AIRCRAFT (HPMA)

In order to fly procedures marked "HPMA" the aircraft shall, as a minimum, adhere to the gradients, segment speeds, bank angle and transition times described below. The specific HPMA-criteria replaces, amends or provides criteria in addition to PANS-OPS and MIPS:

- Departure procedures, minimum climb performance: 8.75% (5.0°).
- Initial segment descent gradient: Up to 1000 ft/NM.
- Bank angle: Minimum 30° for all segments, with a bank angle establishment Time of maximum 5 sec.
- Maximum aircraft dimensions for ILS: Wing span 30 m and glide path antenna to wheel base maximum 6 m.
- Height loss during precision approach transition to missed approach: Maximum 100 ft.
- Missed approach climb gradient: 6.0% (3.43°), with a transition time from level flight to the required climb gradient of maximum 10 sec.

Turn construction parameters / HPMA Speeds (IAS) for Procedure Calculations:

<i>Segment or fix</i>	<i>Speed (IAS)</i>	<i>Bank angle</i>	<i>Bank establishment Time (seconds)</i>	<i>Pilot reaction Time (seconds)</i>	
Departure	350 kt *)	30°	5	3	
Holding	300 kt *)	30°	5	3	
Initial approach	Reversal and racetrack	300 kt *)	30°	5	3
	DR track	300 kt *)	30°	5	3
Holding, initial approach, reversal, racetrack, intermediate segment	250 – 300 kt	30°	5	3	
Range of final approach speeds	90 – 185 kt	30°	5	3	
Max speed visual manoeuvring (circling)	220 kt	30°	N/A	N/A	
Visual manoeuvring using prescribed track	220 kt	30°	N/A	N/A	
Max speed missed approach	Intermediate	300 kt	30°	5	3
	Final	350 kt	30°	5	3

VISUAL MANOEUVRING (CIRCLING).

The visual manoeuvring (circling) radii are drawn around the thresholds on the applicable runway(s) and joined with tangents to the arcs. The radii values depends on the aerodrome elevation and will be 3.55 NM at sea level.

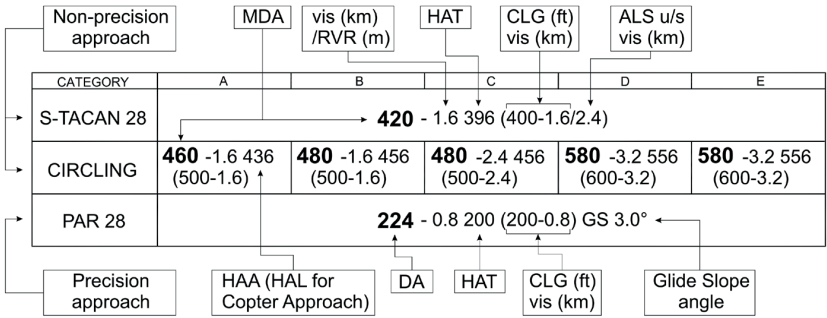
Obstacle clearance for circling areas:

<i>Aircraft category</i>	<i>Minimum obstacle clearance (ft)</i>	<i>Minimum OCH above AD elev (ft)</i>	<i>Minimum visibility km</i>
HPMA	300	550	3.2

CHARTING.

The term "HPMA" will be added for the procedure name, e.g. "HPMA TACAN RWY 10L".

LANDING MINIMA EXPLANATION



CLG Ceiling

A ceiling is expressed in feet above the published aerodrome elevation, and is equal to or greater than the height of the associated DA or MDA.

DA Decision Altitude

A specified altitude or height in a 3D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

HAA Height Above Aerodrome Elevation

The height of the MDA above the published aerodrome elevation. HAA will be published in conjunction with all circling minima.

HAT Height Above Touchdown Zone Elevation

The height of the DA or MDA above the highest runway centerline elevation in the touchdown zone. HAT will be published in conjunction with all straight-in minima.

MDA Minimum Descent Altitude

A specified altitude or height in a 2D instrument approach operation or circling approach operation below which descent must not be made without the required visual reference.

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VIS Visibility

RVR Runway Visual Range

Visibility values are expressed as visual range (estimated horizontal visual range on the ground = VIS) or as runway visual range (measured horizontal visual range on the ground along the runway = RVR). The visibility values published following the DA or MDA is the required minimum visibility for the approach.

For straight-in approaches, the visibility value may be either VIS or RVR. For circling approaches, the visibility value will always be VIS. The visibility value published in parentheses with the ceiling value is applicable for flight planning purpose. It is also the required minimum visibility in the event that RVR is not available. The value will always be VIS. For ALS u/s, the last VIS value (after the slash) should be used.

ILS Cat. II operations

CATEGORY	A	B	C	D	E
ILS Cat. II 28		RA 101	(DA 124) - 350 100		N/A



RA Radio Altimeter Height.

An indication of the vertical distance between a point on the nominal glide slope at DH and the terrain directly beneath this point.

Note: ILS Cat. II criteria for aircraft Cat. E are not established.

COLD WEATHER ALTITUDE CORRECTION

International Standard Atmosphere (ISA) is used as a basis for the altitude corrections below. ISA temperature at sea level is +15° Celsius, decreasing 2° per 1000 feet above sea level. When actual temperature is lower than ISA, the aircraft will be lower than indicated in its pressure altimeter. Under such circumstances a compensation should be added to altitudes flown during the approach procedure. The altimeter error is approximately 0.4% of aircraft height above reference datum (AD) per degree C below ISA.

When AD temperature is 0 degrees or colder, values in the Altitude Correction Chart should be added to:

- All procedure altitudes below Transition Level (TL) and ATC assigned IFR altitudes, if not already compensated.
- Minimum Sector Altitudes (MSA) and Emergency Safe Altitudes.

Pilots must advise ATC when temperature correction is applied, and state amount of correction or new altitude to be flown.

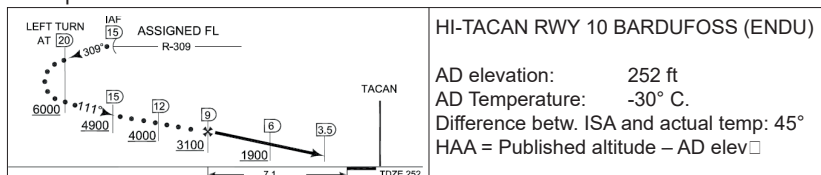
A/D Temp °C	HEIGHT ABOVE THE ALTIMETER SOURCE																
	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000	6000	7000	8000
0	20	20	30	30	40	40	50	50	60	90	120	170	230	280	340	400	460
-10	20	30	40	50	60	70	80	90	100	150	200	290	390	490	590	690	790
-20	30	50	60	70	90	100	120	130	140	210	280	420	570	710	850	1000	1150
-30	40	60	80	100	120	140	150	170	190	280	380	570	760	950	1140	1340	1540
-40	50	80	100	120	150	170	190	220	240	360	480	720	970	1210	1460	1710	1960
-50	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500	1800	2110	2420

VALUES TO BE ADDED TO PUBLISHED ALTITUDES

Note: The table is calculated for sea level AD. Values are conservative when applied at higher AD. (Reference: ICAO Doc 8168-OPS/611 Volume I, Table III-1-4-1 b).

For odd temperatures or altitudes the following 'rule of thumb' is easy to remember: Add 4 feet for each -1°C temperature deviation from ISA (+15 at SL), per 1000' altitude above the airport. (This method is slightly less conservative than the table above).

Example:



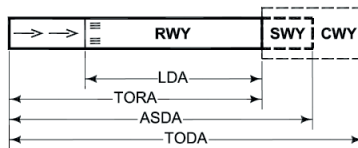
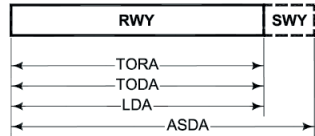
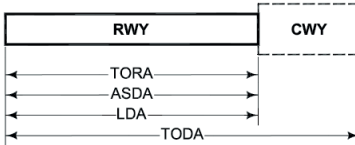
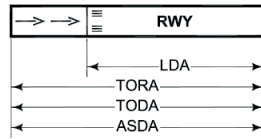
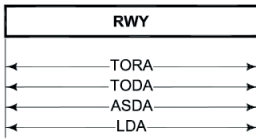
HI-TACAN RWY 10 BARDUFOSS (ENDU)
 AD elevation: 252 ft
 AD Temperature: -30° C.
 Difference betw. ISA and actual temp: 45°
 HAA = Published altitude – AD elev □

	Pub. alt.	HAA	Correction *)	Indicated alt **)
20 DME	6000	5748	+ 1100	7100
15 DME	4900	4648	+ 890	5800
12 DME	4000	3748	+ 720	4800
FAF	3100	2848	+ 550	3700
6 DME	1900	1648	+ 320	2300
MDA	1420	1168	+ 230	1650

*) Rounded up to the nearest 10 ft

**) Rounded up to the nearest 100 ft, except MDA

DETERMINATION OF DECLARED DISTANCES FOR RUNWAYS



SWY Stopway

A defined rectangular area on the ground at the end of take-off run available, prepared as a suitable area in which an aircraft can be stopped in case of an aborted take-off.

CWY Clearway

A defined rectangular area on the ground or water at the end of the runway in the direction of take-off and under control of an appropriate authority, selected or prepared as a suitable area over which an aircraft may make a portion of its initial climb to a specified height, (extension laterally to a distance of at least 75 metres either side of the extended runway centerline and not longer than half the length of the runway).

TORA Take-Off Run Available

The length of runway declared available and suitable for the ground run of an aircraft taking off.

TODA Take-Off Distance Available

The length of the take-off run available plus the length of the clearway, if provided.

ASDA Accelerate Stop Distance Available

The length of the take-off run available plus the length of the stopway, if provided.

LDA Landing Distance Available

The length of runway, which is declared available and suitable for the ground run of an aircraft landing. The LDA commences at the threshold/displaced threshold.

THE AIRCRAFT CLASSIFICATION/PAVEMENT CLASSIFICATION NUMBER (ACN/PCN) SYSTEM

1. ACN/PCN System

The ACN/PCN system provides a method of classifying pavement bearing strength for aircraft above 5700 KG Maximum Total Weight Authorized (MTWA).

The ACN is a number expressing the relative effect of an aircraft load on a pavement for a specified sub-grade strength.

The PCN is a number expressing the bearing strength of a pavement for unrestricted operations. Using the ACN/PCN system means to compare the ACN with the PCN.

2. Aircraft Classification Number (ACN)

The ACN is calculated, taking into account the weight of the aircraft, the pavement type and the sub-grade category. ACN values are normally given in the Flight Manuals for rigid and flexible pavements.

3. Pavement Classification Number (PCN)

PCN are reported as a five part code. Apart from the numerical value of the PCN, the report includes the pavement type (rigid or flexible) and the sub-grade support strength category.

Provision is made in the report for the aerodrome authority to place a limit on maximum allowable tyre pressure, if this is a constraint, and an indication is required of whether the pavement has been evaluated by technical means or by past experience of aircraft use of the pavement.

Details of the coded format and an example are:

- 3.1 The PCN number.
- 3.2 The type of pavement:
R = Rigid
F = Flexible
- 3.3 The pavement sub-grade category:
A = High
B = Medium
C = Low
D = Ultra-low
- 3.4 The maximum tyre pressure authorized for the pavement:
W = High, no limit
X = Medium, limited to 217 psi
Y = Low, limited to 145 psi
Z = Very low, limited to 73 psi

3.5 Pavement evaluation method:
T = Technical evaluation
U = By experience of aircraft using the pavement

3.6 Example:
If the bearing strength of a rigid pavement resting on a medium strength sub-grade has been assessed by a technical evaluation to be a PCN of 80 and there is no tyre pressure limit, then the reported information would be:

PCN: 80/R/B/W/T

4. Operating procedure.

- Provided a pavement PCN is equal to or greater than the ACN of the aircraft unlimited use of the pavement is permitted.
- Provided the PCN is smaller than the ACN, the use of the pavement by an aircraft can only be undertaken when prior permission of the individual aerodrome authority is granted or by reduction of the aircraft load.

NON-PRECISION APPROACHES – FLYING TECHNIQUES

In accordance with COMMISSION REGULATION (EC) No 859/2008 of 20 August 2008, the following is stated for civil aircraft:

... All non-precision approaches shall be flown using the continuous descent final approaches (CDFA) technique unless otherwise approved by the Authority for a particular approach to a particular runway. When calculating the minima in accordance with Appendix 1 (New), the operator shall ensure that the applicable minimum RVR is increased by 200 metres (m) for Cat A/B aeroplanes and by 400 m for Cat C/D aeroplanes for approaches not flown using the CDFA technique, providing that the resulting RVR/CMV value does not exceed 5 000 m.

There are three techniques for flying non-precision approaches:

- CDFA (Continuous descent final approach)
- Constant descent angle
- Step down descent (“dive and drive”)

CDFA

Continuous descent final approach (CDFA). A technique, consistent with stabilized approach procedures, for flying the final approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre should begin for the type of aircraft flown.

ICAO Doc 8168-OPS/611 Vol I § 1.7.2.2 “This technique (CDFA) requires a continuous descent, flown either with VNAV guidance calculated by on-board equipment or based on manual calculation of the required rate of descent, without level-offs”.

Constant descent angle

ICAO Doc 8168-OPS/611 Vol I § 1.7.3.1 The second technique involves achieving a constant, unbroken angle from the final approach fix (FAF), or optimum point on procedures without an FAF, to a reference datum above the runway threshold, e.g. 15 m (50 ft).

When the aircraft approaches the MDA/H, a decision shall be made to either continue on the constant angle or level off at or above the MDA/H, depending on visual conditions.

ICAO Doc 8168-OPS/611 Vol I § 1.7.3.2 If the visual conditions are adequate, the aircraft continues the descent to the runway without any intermediate level-off.

ICAO Doc 8168-OPS/611 Vol I § 1.7.3.3 If visual conditions are not adequate to continue, the aircraft shall level off at or above the MDA/H and continue inbound until either encountering visual conditions sufficient to descend below the MDA/H to the runway or, reaching the published missed approach point and thereafter executing the missed approach procedure.

Step down descent (“dive and drive”)

ICAO Doc 8168-OPS/611 Vol I §1.7.4 The third technique involves an expeditious descent and is described as “descend immediately to not below the minimum step down fix altitude/height or MDA/H, as appropriate”. This technique is acceptable as long as the achieved descent gradient remains less than 15 per cent and the missed approach is initiated at or before the MAPt. Careful attention to altitude control is required with this technique due to the high rates of descent before reaching the MDA/H and, thereafter, because of the increased time of exposure to obstacles at the minimum descent altitude.

The NATO preferred flying technique

NATO is currently not recommending a preferred flying technique. Nor is visibility minima increased for flights not using the CDFA technique.

Procedure design

There are no differences in the design criteria for non-precision approaches, irrespective of the flying technique used during the final segment. However, in accordance with ICAO Doc 8168 Vol II Part I §9 4 3 5:

... Where distance information is available, to facilitate a continuous descent final approach (CDFA), descent profile advisory information for the final approach should be provided to assist the pilot in maintaining the calculated descent gradient. This information should consist of a table showing altitudes/heights through which the aircraft should be passing at each 2 km or 1 NM as appropriate.

Where DME is available all revised (MIPS) non-precision procedures in this FLIP will therefore contain a distance/altitude table in the profile view to define the distance/height relationship for the descent path angle required to facilitate the CDFA technique.

For pilots preferring the constant descent angle approach information of the descent angle/ gradient is provided in the distance/altitude table.

Pilots preferring the ‘dive and drive’ technique may ignore the distance/altitude table.

APPROACH LIGHTING SYSTEMS

For planning purposes the following approach lighting systems are to be considered as ALS:

Description	FLIP Code	System (Example)	IAC Depiction
ALFS-2 Standard length: 730/900 M *)	(A)		CAT II
ALFS-1 Standard length: 730/900 M *)	(A1)		CAT I
SSALR Standard length: 730/900 M *)	(A3)		CAT I
MALS/MALSF Standard length: 420 M *)	(A4) (A4)		CAT I
NATO standard Standard length: 900 M *)	(BP)		CAT I
Former NATO standard Standard length: 900 M	(BN)		CAT I
CALVERT Standard length: 900 M *)	(J)		CAT I
Centerline (high intensity) Standard length: 900 M *)	(O)		CAT I

*) The actual length of the ALS is indicated in the IAC briefing strip.

In accordance with FKOBST F.152-1 chapter 36 all other systems than those mentioned above are to be considered as SRC (Single Row Centerline).

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SIDESTEP PROCEDURE

A sidestep manoeuvre is the visual alignment manoeuvre, required by a pilot executing an approach to one runway and cleared to land on a parallel runway.

Pans Ops considers landing on any other runway than the approach runway as being a circling manoeuvre that requires circling minima. In some cases, this results in undesirable high minima.

In order to gain a much needed operational advantage, the sidestep procedure is introduced **as a national measure, applicable only to RDAF aircraft and only on the three airbases, Aalborg, Karup and Skrydstrup**. Landing minima to the parallel runway will be equal to or higher than the minima to the primary runway, but will normally be lower than the published circling minima.

The sidestep procedure is developed in accordance with the principles described in AFMAN 11-202 Vol 3 Flight Operations - FLIGHT OPERATIONS (10 JANUARY 2022) but using criteria from ICAO Doc. 8168 Vol II. Visibility minima are derived from STANAG 3759 (AATCP-1(E)), FAA Order 8260.3F Flight Procedures and Airspace (09/07/2023) and FKOBS F.152.1, chapter 36 whichever is the highest.

The procedure ensures adequate obstacle clearance within the entire final approach area covering both the approach runway and the sidestep runway. Area width depends on the navaid used as well as the location of the navaid, i.e. the area for an ILS or a Localizer only approach is narrower than that of a VORTAC. The obstacle clearance altitude (OCA) for the sidestep procedure has been calculated in parallel with that of the approach runway and the highest of the two determines the sidestep minima. However, the published minimum is never below the MDH as determined by FKOBS F.152.1, chapter 36 per aircraft type for landing on parallel runways.

How to fly a sidestep procedure:

- Do NOT initiate the sidestep manoeuvre prior to passing the FAP/FAF.
- After the FAP/FAF commence the sidestep manoeuvre as soon as possible after the runway or runway environment is in sight.
- Comply with any minimum altitude associated with step down fixes.
- Maintain the sidestep MDA until reaching a point where a normal descent to land on the sidestep runway can be started.
- If you lose visual reference during the manoeuvre, follow the missed approach specified for the approach procedure just flown, unless otherwise directed. An initial climbing turn towards the approach runway will ensure that the aircraft remains within the obstruction clearance area.

Sidestep minima are published only for Aalborg, Karup and Skrydstrup.


RADIO NAVIGATIONAL AIDS

VOR / TACAN / DME					
Station	ID	Facility	Var.	Freq / Ch	Position
Aalborg	AAL	VOR	4°E (2022)	116.70	N57°06.22' E009°59.74'
Aalborg	AAL	TACAN	4°E (2023)	CH 114X	N57°06.24' E009°59.57'
Alsie	ALS	VOR	4°E (2022)	114.70	N54°54.33' E009°59.60'
Bella	BEL	DME		114.65/CH 93Y	N55°47.47' E012°05.75'
Codan	CDA	VOR/DME	3°E (2016)	114.90/CH 96X	N55°00.09' E012°22.75'
Esebo	ESE	DME		116.60/CH 113X	N55°31.35' E008°33.52'
Karup	KAR	TACAN	4°E (2023)	CH 37X	N56°17.80' E009°00.52'
Kastrup	KAS	VOR/DME	5°E (2022)	112.50/CH 72X	N55°35.43' E012°36.82'
Korsa	KOR	VOR/DME	4°E (2022)	112.80/CH 75X	N55°26.36' E011°37.89'
Lemme	LME	DME		115.35/CH 100Y	N55°59.56' E008°21.26'
Odin	ODN	VOR/DME	4°E (2022)	115.50/CH 102X	N55°34.86' E010°39.18'
Ramme	RAM	DME		111.85/CH 55Y	N56°28.70' E008°11.24'
Rønne	ROE	VOR	4°E (2016)	112.00	N55°03.94' E014°45.52'
Rønne	ROE	TACAN	5.5°E (2023)	CH 57X	N55°03.71' E014°45.35'
Skrydstrup	SKR	TACAN	4°E (2023)	CH 41X	N55°13.74' E009°12.84'
Trano	TNO	VOR/DME	4°E (2022)	117.40/CH 121X	N55°46.45' E011°26.35'
Vamdrup	VAM	DME		110.05/CH 37Y	N55°26.28' E009°20.10'

NDB			
Station	ID	Freq (KHz)	Position
Stauning	AU	346	N55°59.46' E008°19.10'
Esbjerg	EJ	400.5	N55°32.47' E008°41.98'
Esbjerg	HP	376	N55°30.69' E008°24.76'
Vamdrup	KD	357	N55°26.60' E009°20.09'
Roskilde	RK	368	N55°37.39' E011°59.83'
Sindal	SD	339	N57°30.05' E010°09.04'
Aarhus	TL	384	N56°18.02' E010°37.12'
Stauning	VJ	328	N55°59.32' E008°25.47'
Skrydstrup	VO	321	N55°13.48' E009°16.42'

NDB BEARING/DISTANCE FROM VOR/TACAN


Bearings from the VOR/TACAN facility are magnetic (and equal to the radial), corrected for the variation published in MIL AIP page ENR 4.1 (See also page 20-20). Distances are in nautical miles.

	AAL	ALS*)	CDA	KAR	KAS	KOR	ODN	SKR	TNO
AU	216.4°	315.4°	291.9°	227.9°	276.2°	283.8°	284.3°	322.7°	274.3°
	87.0	86.8	150.8	29.6	147.4	117.2	82.3	55.0	106.2
EJ	201.2°	307.2°	282.9°	189.1°	265.3°	270.7°	264.7°	313.1°	258.6°
	103.4	58.6	130.4	46.6	133.3	100.2	66.6	25.7	94.2
HP	205.5°	300.5°	281.3°	199.3°	264.8°	269.6°	263.8°	298.1°	258.5°
	109.4	65.4	139.6	51.3	143.2	110.0	46.8	32.3	104.1
KD	188.7°	321.3°	282.5°	163.7°	261.8°	267.1°	256.1°	013.8°	251.3°
	102.2	39.5	107.9	52.5	112.2	78.5	45.7	13.5	74.3
RK	138.2°	053.1°	337.9°	106.6°	270.6°	044.2°	082.3°	070.8°	111.4°
	111.3	81.2	39.6	108.6	21.1	16.6	45.8	98.0	21.0
SD	008.0°	357.9°	331.6°	023.0°	320.6°	335.0°	348.0°	008.5°	334.2°
	24.4	156.1	167.7	81.6	141.0	133.4	116.6	140.1	112.2
TL	152.5°	010.0°	320.3°	085.1°	298.3°	323.0°	354.5°	031.8°	315.3°
	52.5	86.5	98.4	53.8	79.7	62.1	43.3	80.1	42.0
VJ	214.5°	317.2°	292.4°	222.9°	276.3°	284.2°	284.9°	325.9°	274.5°
	84.9	84.3	147.4	27.0	143.9	113.7	79.4	53.0	102.7
VO	188.4°	304.0°	275.4°	168.0°	255.5°	257.9°	242.1°	093.1°	242.8°
	115.5	31.4	107.8	65.1	116.3	81.8	51.8	2.1	80.9

*)No DME

VOR/TACAN BEARING/DISTANCE FROM VOR/TACAN

Bearings from the VOR/TACAN facility are magnetic (and equal to the radial), corrected for the variation published in MIL AIP page ENR 4.1 (See also page 20-20). Distances are in nautical miles.

	AAL	ALS*)	CDA	KAR	KAS	KOR	ODN	SKR	TNO
AAL		356.0° 132.2	325.6° 149.7	029.4° 58.5	312.2° 126.1	328.0° 114.0	342.7° 94.1	010.7° 115.7	325.5° 93.3
ALS	176.0° 132.2		264.0° 82.7	153.8° 90.1	241.5° 98.9	237.0° 64.9	205.4° 46.5	123.6° 33.2	220.1° 72.0
CDA	142.6° 149.7	081.0° 82.7		118.8° 138.5	187.9° 36.3	131.4° 36.8	115.8° 68.7	093.9° 109.9	140.9° 56.5
KAR	210.3° 58.5	334.6° 90.1	302.6° 138.5		285.7° 128.8	297.3° 102.5	304.5° 70.2	351.9° 64.6	288.0° 87.6
KAS	131.0° 126.1	060.3° 98.9	009.7° 36.3	103.7° 128.8		070.4° 34.7	084.7° 66.8	076.0° 118.3	101.0° 41.4
KOR	146.6° 114.0	055.7° 64.9	313.1° 36.8	115.1° 102.5	250.2° 34.7		099.9° 34.4	078.3° 83.8	157.9° 21.2
ODN	162.2° 94.1	024.9° 46.5	298.2° 68.7	123.2° 70.2	265.3° 66.8	280.7° 34.4		064.1° 53.6	242.8° 29.1
SKR	189.4° 115.7	302.2° 33.2	275.5° 109.9	169.7° 64.6	255.8° 118.3	258.3° 83.8	243.3° 53.6		243.5° 82.7
TNO	144.3° 93.3	038.9° 72.0	322.7° 56.5	106.0° 87.6	281.0° 41.4	338.1° 21.2	060.1° 29.1	063.7° 82.7	

*)No DME


LIST OF AERODROMES

Aerodrome	Lat/Long	RWY	RWY length		Freq.	Phone	PPR
EKAE (Ærø)	N54 51,2 E010 27,4	15/33	2591 x 98 ft	○	123.175	6352 6367	Y
EKAH (Århus)	See page 2-1						
EKAT (Anholt)	N56 42,0 E011 33,3	03/21	2132 x 65 ft	○	131.500	4619 1114	N
EKBI (Billund)	See page 3-1						
EKCH (Kastrup)	See page 6-1						
EKEB (Esbjerg)	See page 4-1						
EKEL (Endelave)	N55 45,3 E010 15,2	11/29	2132 x 82 ft	○	129.800	7568 9062	N
EKGH (Grønholt)	N55 56,4 E012 22,9	11/29	2393 x 59 ft	●	122.500	3332 6560	Y
EKHG (Herning)	N56 11,1 E009 02,8	09/27	3933 x 98 ft	●	121.000	9714 1244	N
EKHK (Holbæk)	N55 44,0 E011 36,2	10/28	1853 x 59 ft	○	123.500	2694 4174	Y
EKHV (Haderslev)	N55 18,2 E009 31,4	10/28	3674 x 75 ft	●	122.225	4087 8640	N
EKKA (Karup)	See page 5-1						
EKKL (Kalundborg)	N55 42,1 E011 15,1	09/27	2293 x 59 ft	●	122.500	5929 1123	N
EKLS (Læsø)	N57 16,7 E011 00,3	07/25	3044 x 75 ft	●	123.175	2498 3595	N
EKLV (Lemvig)	N56 30,2 E008 18,3	08/26	2434 x 98 ft	○	123.500	9782 1368	N
Lindtorp	N56 23,7 E008 26,5	08/26	3937 x 98 ft	●	122.500	9748 7573	N
EKMB (Maribo)	See page 7-1						
EKNM (Morsø)	N56 49,5 E008 47,2	11/29	2296 x 98 ft	○	122.075	9772 0004	N
Næstved	N55 12,6 E011 43,1	07/25	1387 x 49 ft	○	N/A	6173 1950	N
EKOD (Odense)	See page 8-1						
EKPB (Kruså/Padborg)	N54 52,3 E009 16,8	06/24	3523 x 98 ft	●	122.075	7467 6517	N
EKRA (Rårup)	N55 46,6 E009 56,5	10/28	2296 x 65 ft	○	122.500	4010 7707	Y
EKRD (Randers)	N56 30,4 E010 02,3	07/25	2952 x 75 ft	●	122.075	8640 4011	N
EKRK (Roskilde)	See page 9-1						
EKRN (Rønne)	See page 10-1						
EKRS (Ringsted)	N55 25,6 E011 48,4	05/23	2404 x 131	○	123.500	2029 3428	N
EKSB (Sønderborg)	See page 15-1						
EKSD (Spjald)	N56 06,2 E008 30,9	14/32	2132 x 98 ft	○	N/A	9738 1194	Y
EKSN (Sindal)	See page 11-1						
EKSP (Skrydstrup)	See page 13-1						
EKSS (Samsø)	N55 53,4 E010 36,9	10/28	2293 x 98 ft	○	123.500	4016 4044	N
EKST (Sydfyn/Tåsinge)	N55 01,1 E010 33,8	11/29	2952 x 75 ft	○	123.400		N
EKSV (Skive)	See page 12-1						
EKTD (Tønder)	N54 55,8 E008 50,5	12/30	2788 x 98 ft	○	122.500	7472 2655	N
EKTS (Thisted)	See page 16-1						
EKVB (Viborg)	N56 24,6 E009 24,6	11/29 17/35	1896 x 98 ft 2214 x 98 ft	○ ○	123.500	8660 1860	N
EKVD (Vamdrup)	See page 17-1						
EKVH (Vesthimmerland)	N56 50,9 E009 27,6	11/29	3976 x 75 ft	●	122.225	9966 7385	N
EKVJ (Staining)	See page 14-1						
EKYT (Aalborg)	See page 1-1						

● Asphalt ○ Grass

AERODROME BEARING/DISTANCE FROM VOR/TACAN


Bearings from the VOR/TACAN facility are magnetic (and equal to the radial) corrected for the variation published in MIL AIP page ENR 4.1 (See also page 20-20). Distances are in nautical miles.

	AAL	ALS*)	CDA	KAR	KAS	KOR	ODN	SKR	TNO
EKAE	169.2° 136.3	097.0° 16.4	260.1° 68.6	145.8° 98.4	238.9° 87.3	225.4° 53.7	184.9° 43.8	113.3° 46.8	207.7° 65.0
EKAH	152.5° 52.4	010.0° 86.5	320.3° 98.6	085.1° 53.8	300.4° 79.8	322.9° 62.2	354.5° 43.5	031.7° 80.2	315.2° 42.1
EKAT	110.7° 56.9	021.5° 120.1	342.1° 105.7	069.0° 88.1	329.4° 75.5	354.1° 75.7	019.9° 73.7	036.8° 118.5	360.0° 55.7
EKBI	195.2° 86.6	326.5° 57.9	290.2° 118.9	167.7° 33.8	272.8° 117.7	279.1° 86.2	277.3° 51.7	352.4° 30.8	265.4° 77.4
EKCH	130.0° 126.0	059.8° 100.9	011.3° 38.2	102.8° 129.6	038.1° 2.2	068.5° 36.5	083.3° 68.2	073.3° 119.9	098.3° 42.3
EKEB	203.5° 106.3	303.6° 62.0	282.1° 135.0	194.5° 48.8	267.1° 138.3	270.1° 105.2	264.2° 71.6	304.7° 28.8	258.5° 99.2°
EKEL	169.9° 81.4	005.6° 51.9	299.8° 85.9	123.4° 52.9	275.1° 80.9	288.6° 50.7	303.8° 17.3	043.6° 47.5	265.0° 40.3
EKGH	126.4° 105.8	047.7° 102.6	357.0° 56.5	095.3° 115.2	336.5° 22.5	036.0° 39.5	064.9° 62.4	063.0° 116.0	068.0° 33.4
EKHG	206.0° 63.6	333.6° 83.5	300.5° 134.1	165.9° 6.8	285.0° 125.9	294.2° 98.5	300.4° 65.5	350.2° 57.8	284.0° 84.5
EKHK	142.3° 98.3	043.3° 74.3	326.3° 51.4	106.1° 93.7	281.6° 35.4	352.8° 17.7	069.7° 33.6	064.6° 87.1	109.3° 6.1
EKHV	184.5° 109.5	322.0° 28.8	278.6° 99.9	159.6° 62.3	258.9° 106.9	260.4° 72.6	242.9° 42.0	063.5° 11.5	243.2° 71.2
EKKA	207.0° 56.8	336.9° 89.0	303.4° 136.0	085.3° 3.9	288.2° 125.9	298.4° 99.9	306.1° 67.8	352.6° 64.3	288.8° 84.7
EKKL	149.1° 94.2	037.5° 64.3	314.9° 57.1	110.5° 83.6	275.6° 46.3	316.5° 20.3	066.3° 21.5	063.0° 75.1	233.3° 7.8
EKLS	068.0° 34.5	008.9° 146.6	338.9° 144.4	043.3° 88.3	329.8° 114.8	345.5° 112.5	002.3° 102.6	021.1° 136.9	347.0° 91.5
EKLV	233.6° 66.2	326.0° 111.7	301.9° 164.8	294.4° 26.4	289.6° 154.8	297.1° 128.9	302.1° 96.3	334.7° 82.4	290.0° 113.8
Lindtorp	227.0° 66.5	326.0° 104.0	300.8° 157.7	283.9° 19.9	287.8° 148.6	295.4° 122.0	300.3° 89.1	336.0° 74.9	287.7° 107.4
EKMB	156.7° 152.6	099.3° 51.7	238.2° 37.3	134.2° 126.9	214.5° 67.1	184.5° 45.0	148.7° 59.5	107.6° 83.2	176.0° 64.6
EKNM	243.5° 43.1	337.0° 122.4	310.6° 163.4	343.0° 32.6	298.7° 148.1	308.3° 126.7	316.9° 97.5	347.7° 97.0	302.6° 108.9
Næstved	148.3° 127.7	068.2° 62.2	296.1° 26.1	120.3° 112.6	230.6° 38.2	164.1° 14.0	117.1° 42.7	085.7° 86.0	160.3° 35.1
EKOD	169.2° 98.5	014.5° 36.2	28.9° 76.0	133.3° 66.5	262.8° 78.2	269.4° 44.6	236.3° 12.8	064.3° 40.9	241.0° 41.8

*)No DME

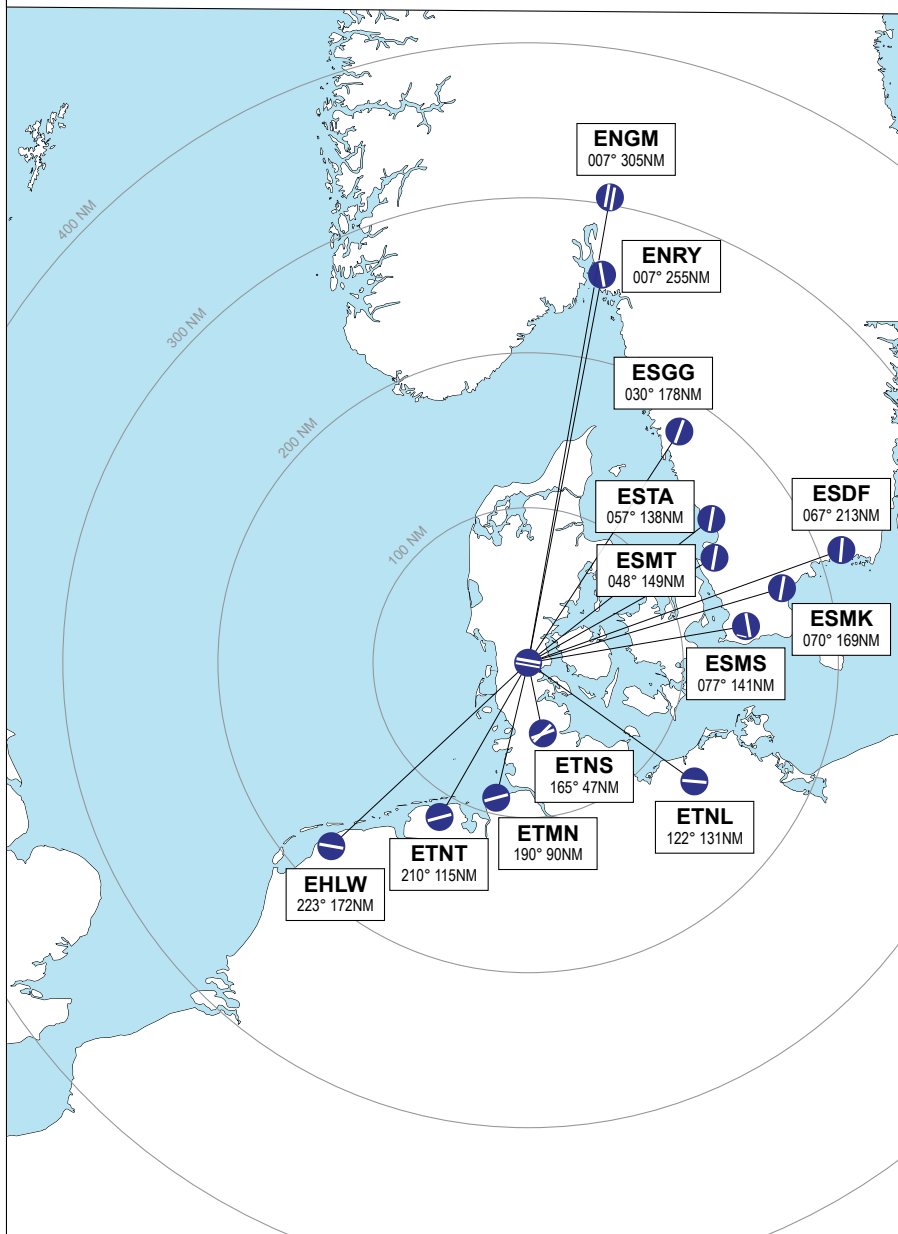
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AERODROME BEARING/DISTANCE FROM VOR/TACAN (continued)

	AAL	ALS*)	CDA	KAR	KAS	KOR	ODN	SKR	TNO
EKPB	186.5° 136.4	261.4° 24.8	264.1° 107.5	169.8° 86.2	245.6° 122.5	244.0° 87.9	224.4° 63.7	170.0° 21.7	230.6° 91.8
EKRA	177.3° 79.8	354.1° 52.5	197.3° 95.6	130.5° 44.3	273.2° 91.4	286.2° 61.0	292.4° 26.9	033.6° 41.3	266.8° 50.7
EKRD	173.3° 35.9	356.8° 96.3	316.7° 120.4	065.3° 36.5	298.5° 102.7	316.7° 83.7	335.8° 59.4	015.5° 81.7	309.7° 64.5
EKRK	137.1° 115.9	056.0° 84.0	343.5° 36.1	106.8° 113.7	264.2° 16.4	058.5° 19.2	085.1° 50.3	072.6° 102.0	111.5° 26.1
EKRN	121.5° 201.7	080.7° 165.0	083.4° 82.3	104.4° 208.9	107.5° 80.0	096.6° 109.7	096.8° 144.1	086.7° 191.1	105.3° 121.3
EKRS	144.3° 117.7	058.6° 69.8	319.7° 32.2	113.8° 108.1	245.5° 29.2	094.6° 6.1	098.9° 40.5	077.3° 89.6	145.0° 24.9
EKSB	178.0° 128.9	292.7° 7.7	266.6° 89.4	157.3° 84.5	244.8° 103.8	242.3° 69.4	214.7° 47.5	124.5° 25.6	225.7° 74.5
EKSD	215.7° 77.6	321.6° 87.9	295.3° 147.4	231.0° 20.2	279.2° 142.0	288.0° 112.9	290.4° 78.8	332.0° 57.6	278.5° 100.6
EKSN	013.6° 25.2	358.8° 156.4	332.4° 166.7	024.4° 82.9	321.5° 139.6	336.0° 132.6	349.2° 116.5	009.4° 140.9	335.4° 111.5
EKSP	188.4° 115.8	303.5° 31.4	275.3° 108.0	168.2° 65.2	255.4° 116.6	257.7° 82.0	242.0° 52.1	100.7° 1.9	242.7° 81.2
EKSS	160.0° 75.9	015.4° 62.8	309.3° 80.6	109.8° 59.2	280.7° 70.2	304.5° 43.9	351.8° 18.6	045.6° 62.0	280.3° 28.7
EKST	167.1° 126.9	067.0° 20.8	268.6° 62.7	140.9° 93.4	239.6° 78.3	231.6° 44.6	181.2° 34.1	100.8° 48.2	209.6° 54.5
EKSV	215.4° 42.9	340.6° 102.7	309.0° 143.1	015.7° 16.2	293.0° 129.3	305.9° 106.4	316.2° 76.6	355.0° 79.5	298.5° 89.2
EKTD	193.0° 136.3	268.6° 40.0	266.4° 122.5	180.0° 82.4	249.4° 135.4	249.4° 100.8	234.5° 73.5	211.7° 22.1	237.3° 102.4
EKTS	263.7° 42.2	338.1° 137.1	313.7° 175.3	343.9° 47.5	300.9° 157.9	312.3° 138.5	320.8° 110.6	347.4° 111.9	307.7° 119.8
EKVB	201.0° 45.9	343.9° 92.6	308.3° 131.6	058.8° 15.0	290.9° 118.6	304.9° 95.0	316.5° 65.1	001.2° 71.3	296.2° 78.2
EKVD	188.7° 102.7	320.8° 39.2	282.3° 108.0	164.0° 52.8	261.6° 112.4	266.8° 78.6	255.6° 45.9	013.7° 13.1	251.0° 74.6
EKVH	224.8° 23.4	347.4° 118.1	316.6° 148.4	020.1° 36.3	301.9° 129.9	316.2° 111.7	328.8° 86.0	000.7° 97.6	311.2° 92.4
EKVJ	215.7° 86.3	316.1° 86.0	292.1° 149.6	226.2° 28.7	276.3° 146.2	284.0° 116.0	284.5° 81.7	323.8° 54.3	274.4° 105.0
EKYT	259.4° 4.5	354.0° 131.7	324.1° 151.8	025.9° 55.6	310.7° 129.1	325.9° 115.9	340.1° 94.8	006.6° 114.2	323.1° 95.3

*)No DME

FW FOREIGN ALTERNATE AERODROMES



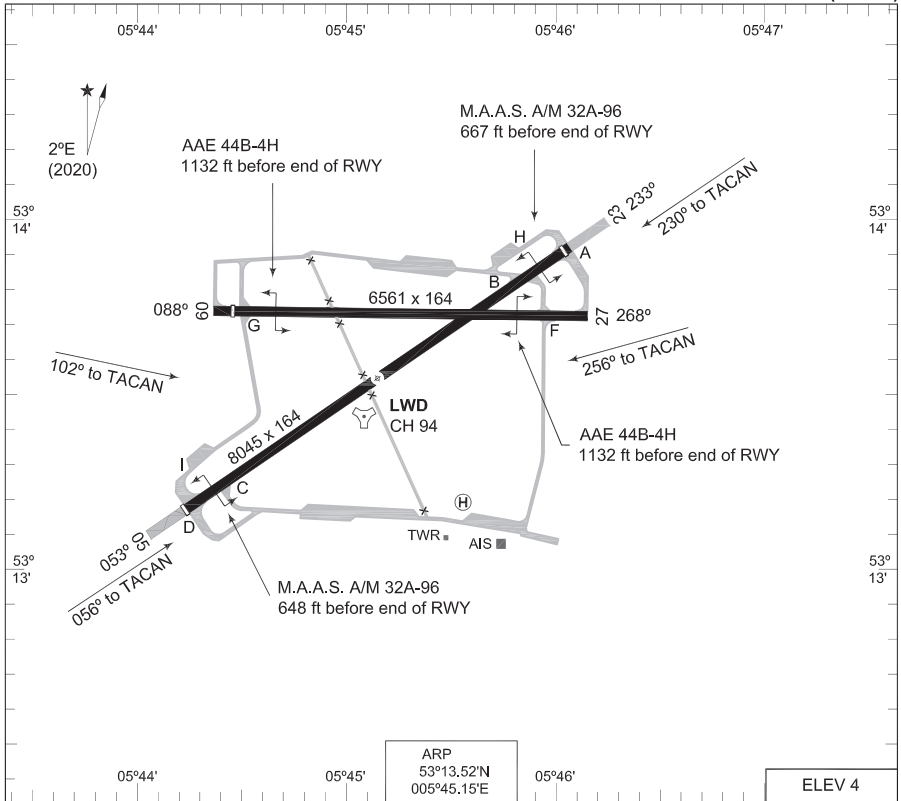
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**MIPS
AERODROME CHART**

LEEUWARDEN (EHLW)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI	THR ELEV	THR PSN
23	64 F/B/W/T	8045	8045	8832	7863	3.0°	4	53°13.88'N 005°46.04'E
05	64 F/B/W/T	8045	8045	8865	8036	3.0°	4	53°13.15'N 005°44.27'E
27	52 F/B/W/T	6561	6561	6561	6561		3	53°13.71'N 005°46.18'E
09	52 F/B/W/T	6561	6561	6561	6368		3	53°13.71'N 005°44.44'E

LEEUWARDEN TWR 344.850 120.705 (Ground Control) 362.525
 LEEUWARDEN ARRIVAL 339.700
 RAPCON NORTH 284.475 132.030

SRA	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
	MIPS	23					AB	MIPS	450-1100 446 (500-1.1/1.9)
							C		450-1200 446 (500-1.2/2.0)
							D		450-1600 446 (500-1.6/2.4)
							E		450-2000 446 (500-2.0/2.8)
	MIPS	05					AB	MIPS	470-1100 446 (500-1.1/1.9)
							C		470-1200 446 (500-1.2/2.0)
							D		470-1600 446 (500-1.6/2.4)
							E		470-2000 446 (500-2.0/2.8)
	MIPS	27					AB	MIPS	420-1900 417 (500-1.9/1.9)
							CD		420-2000 417 (500-2.0/2.0)
							E		420-2400 417 (500-2.4/2.4)
	MIPS	09					AB	MIPS	460-1900 458 (500-1.9/1.9)
							C		460-2000 458 (500-2.0/2.0)
							DE		460-2400 458 (500-2.4/2.4)

CHANGES: MAGVAR, CABLE

RNLAF 03 DEC 2020

AERODROME CHART

LEEUWARDEN (EHLW)

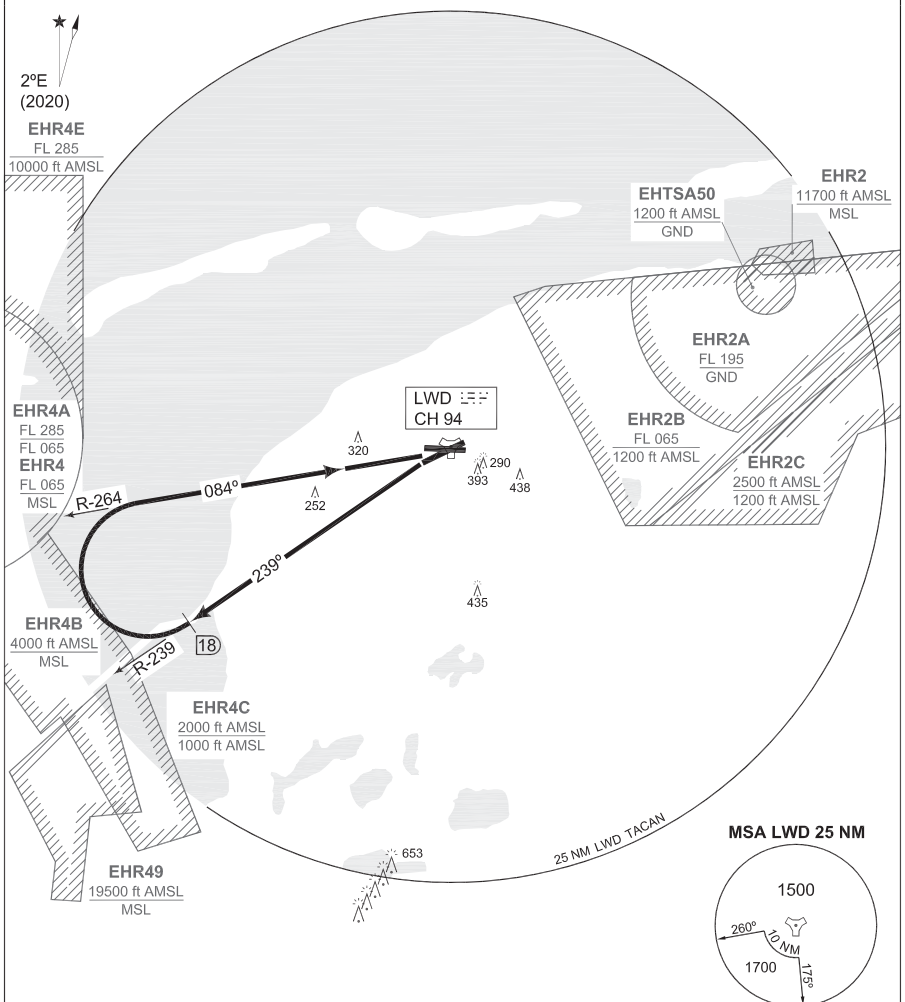


TERPS INSTRUMENT DEPARTURE CHART

LW1

LEEWARDEN (EHLW)

GND CTL 362.525	LEEWARDEN TWR 344.850 120.705	RAPCON NORTH 284.475 132.030		DUTCH MIL 259.250 128.355					
		RWY 23	Knots V/V (fpm)	120 600	180 900	240 1200	300 1500	360 1800	to 1000 ft



EMERG SAFE ALT 100 NM 2300

TA 3000

LEEWARDEN 1 (RWY 23)

- Climb on R-239 outbound Leeuwarden TACAN.
- At 18 DME turn right to intercept R-264 inbound and proceed to Leeuwarden TACAN.

NOTE: Procedure may be changed by ATC when BREEZANDDIJK firing range is active.

CHANGES: MSA

RNLAF 23 MAR 2023

LW1

53°13.52'N
005°45.15'E

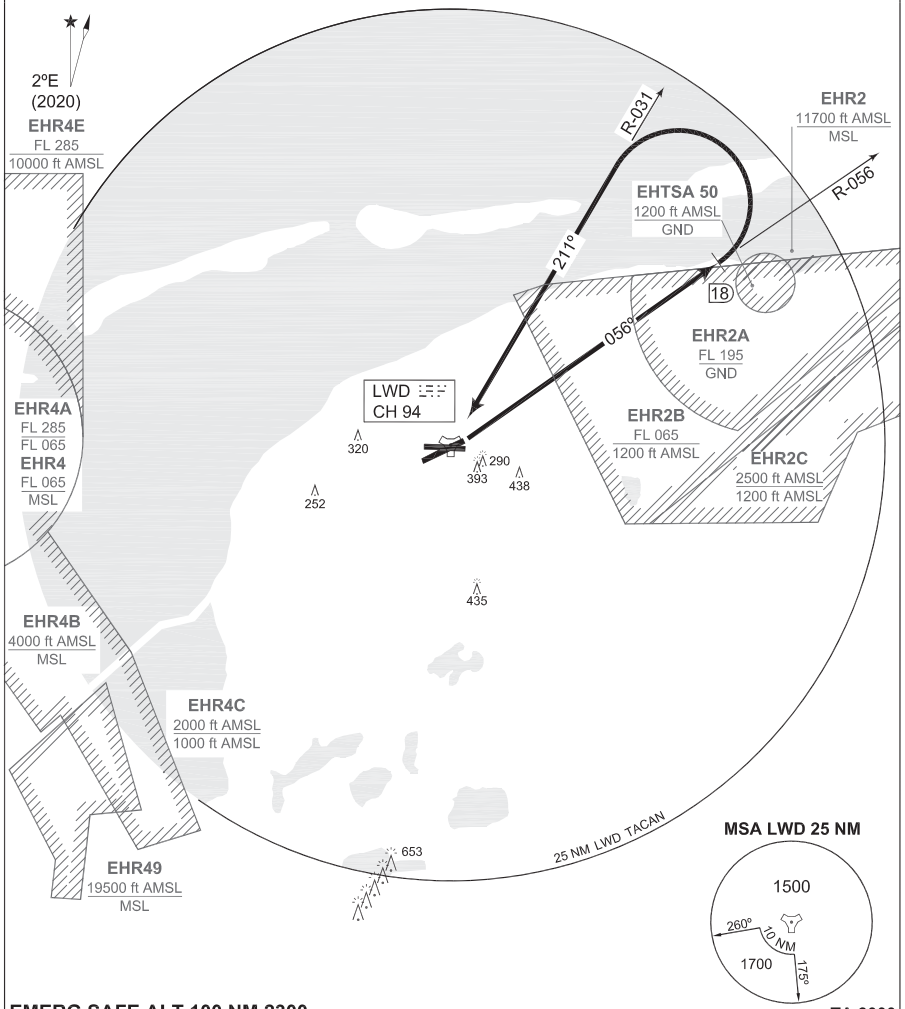
LEEWARDEN (EHLW)

**TERPS
INSTRUMENT DEPARTURE CHART**

LW3

LEEWARDEN (EHLW)

GND CTL 362.525	LEEWARDEN TWR 344.850 120.705	RAPCON NORTH 284.475 132.030		DUTCH MIL 259.250 128.355					
		RWY	Knots	120	180	240	300	360	to
		05	V/V (fpm)	540	810	1080	1350	1620	1000 ft



EMERG SAFE ALT 100 NM 2300 **TA 3000**

LEEWARDEN 3 (RWY 05)	<ul style="list-style-type: none"> - Climb on R-056 outbound Leeuwarden TACAN. - At 18 DME turn left to intercept R-031 inbound and proceed to Leeuwarden TACAN.
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CHANGES: MSA

RNLAF 23 MAR 2023

LW3

53°13.52'N
005°45.15'E

LEEWARDEN (EHLW)

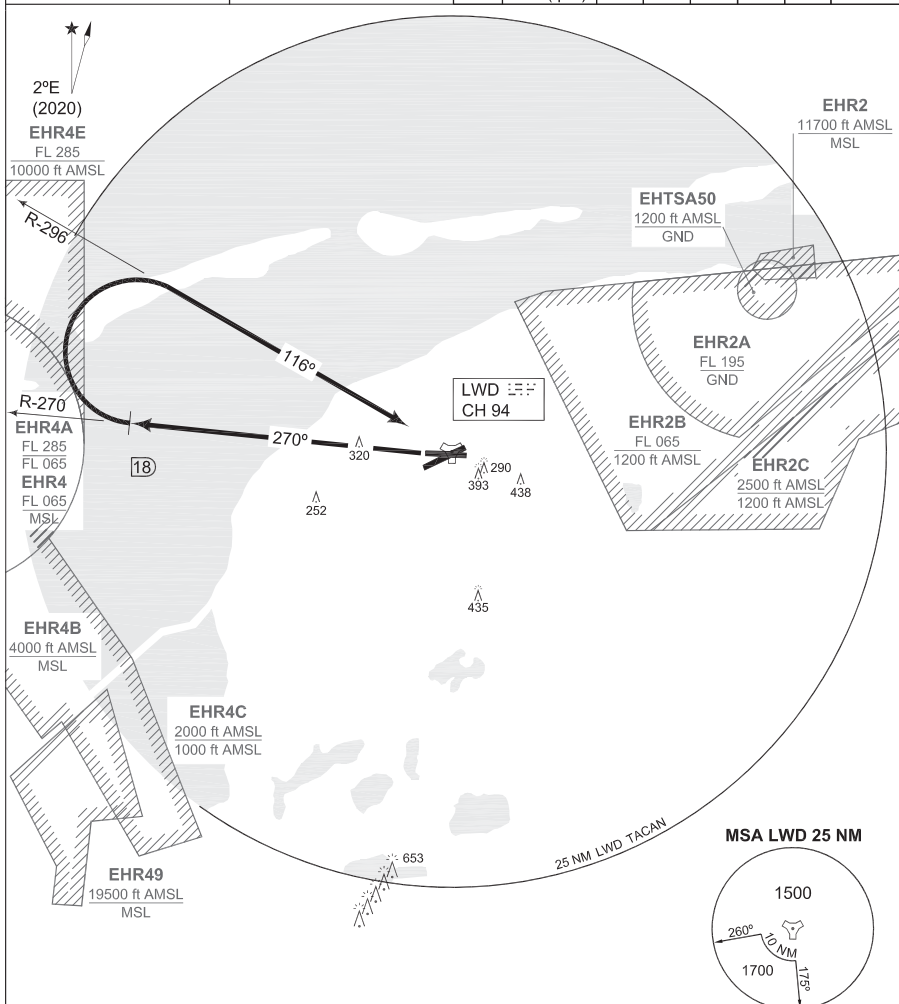


TERPS INSTRUMENT DEPARTURE CHART

LW5

LEEWARDEN (EHLW)

GND CTL 362.525	LEEWARDEN TWR 344.850 120.705	RAPCON NORTH 284.475 132.030		DUTCH MIL 259.250 128.355					
		RWY 27	Knots V/V (fpm)	120 550	180 825	240 1100	300 1375	360 1700	to 1000 ft



EMERG SAFE ALT 100 NM 2300

TA 3000

LEEWARDEN 5 (RWY 27)	<ul style="list-style-type: none"> - After take-off RWY 27 intercept R-270 outbound Leeuwarden TACAN. - At 18 DME turn right to intercept R-296 inbound Leeuwarden TACAN.
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CHANGES: MSA

RNLAF 23 MAR 2023

LW5

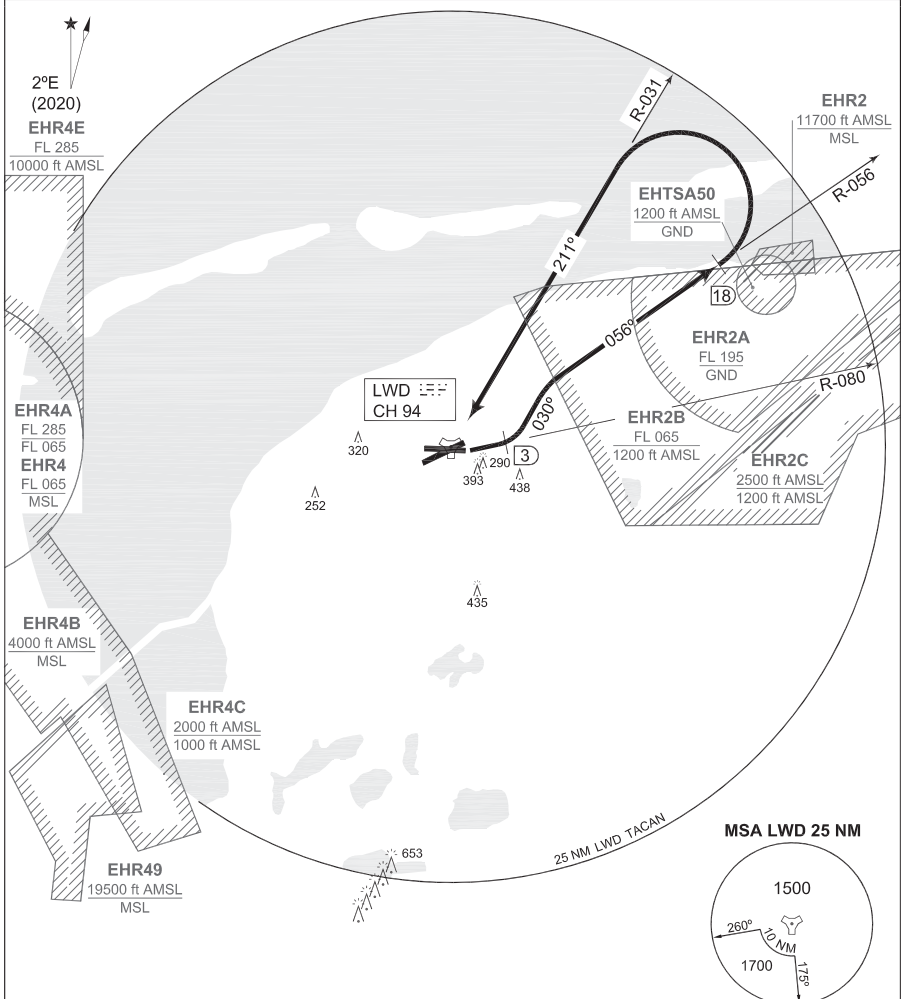
53°13.52'N
005°45.15'E

LEEWARDEN (EHLW)

**TERPS
INSTRUMENT DEPARTURE CHART**

**LW7
LEEWARDEN (EHLW)**

GND CTL 362.525	LEEWARDEN TWR 344.850 120.705	RAPCON NORTH 284.475 132.030		DUTCH MIL 259.250 128.355					
		RWY	Knots	120	180	240	300	360	to
		09	V/V (fpm)	750	1125	1500	1875	2250	1000 ft



EMERG SAFE ALT 100 NM 2300 **TA 3000**

<p>LEEWARDEN 7 (RWY 09)</p>	<ul style="list-style-type: none"> - After take-off intercept R-080 outbound Leeuwarden TACAN. - At 3 DME turn left heading 030° to intercept R-056 Leeuwarden TACAN. - At 18 DME turn left to intercept R-031 inbound Leeuwarden TACAN.
--	---

CHANGES: MSA

RNLAF 23 MAR 2023

LW7

53°13.52'N
005°45.15'W

LEEWARDEN (EHLW)



MIPS
INSTRUMENT APPROACH CHART

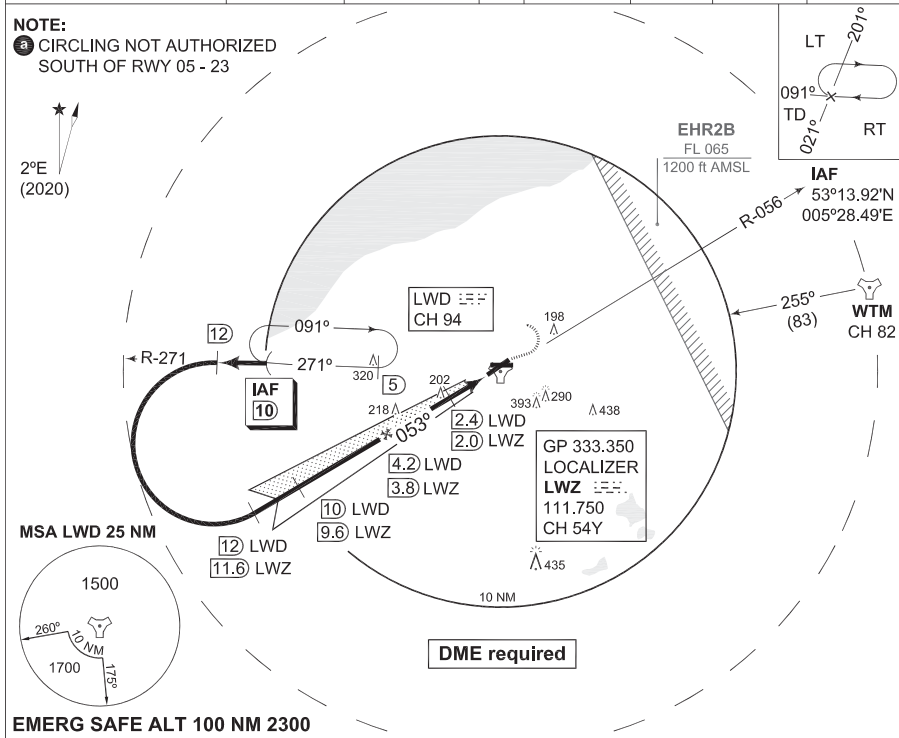
ILS or LOC RWY 05
LEEUWARDEN (EHLW)

AD ELEV 4

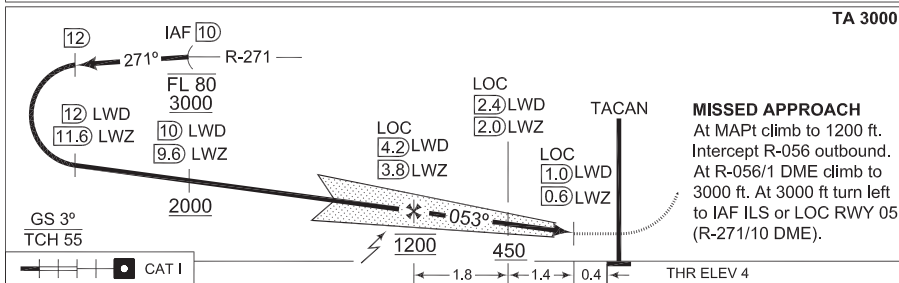
DUTCH MIL 259.250 128.355	RAPCON NORTH 284.475 132.030	LEEUWARDEN TWR 344.850 120.705	GND CTL 362.525
LOCALIZER / DME LWZ 111.750 / CH 54Y	APP COURSE 053°	GS INTCEPT ALT 1200 FT	GS 3° DA SEE CAT
THR ELEV 4	ALS 660 m	LDA 8036 FT	

NOTE:

(a) CIRCLING NOT AUTHORIZED SOUTH OF RWY 05 - 23



TA 3000



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1				
	A	B	C	D	E
S-ILS 05	204-800 200 (200-0.8/1.6)	208-800 204 (300-0.8/1.6)	218-800 214 (300-0.8/1.6)	227-800 223 (300-0.8/1.6)	246-800 242 (300-0.8/1.6)
S-LOC 05	350-800 346 (400-0.8/1.6)	510-2800 506 (600-2.8)	350-1200 346 (400-1.2/1.6)	350-1200 346 (400-1.2/2.0)	
CIRCLING (a)	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

ILS or LOC RWY 05

53°13.52'N
005°45.15'E
21-6

LEEUWARDEN (EHLW)

CHANGES: MSA
MIPS

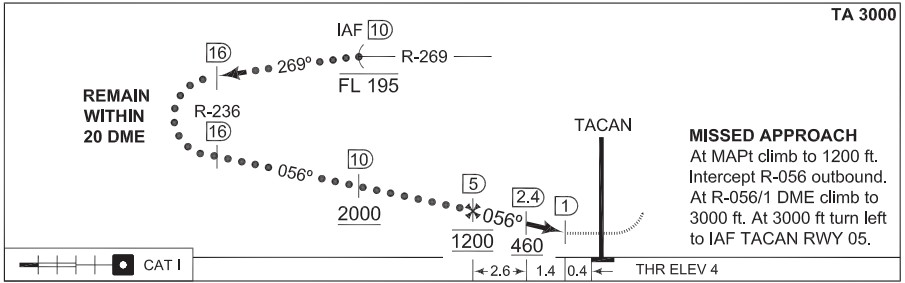
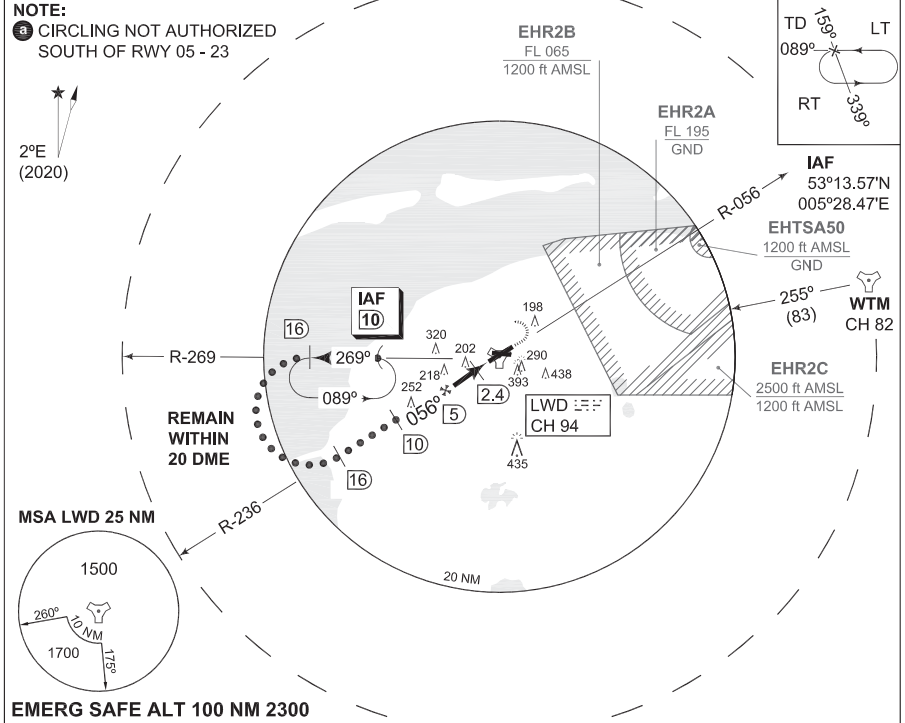
RN IAF 23 MAR 2023

MIPS
INSTRUMENT APPROACH CHART

HI-TACAN RWY 05
LEEUWARDEN (EHLW)

AD ELEV 4

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 056°	FAF ALT 1200 FT	Descent GR	MDA 380	THR ELEV 4	ALS 660 m	LDA 8036 FT



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1		
	C	D	E
S-TACAN 05	380-1200 376 (400-1.2/1.6)	380-1200 376 (400-1.2/2.0)	
CIRCLING a	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

HI-TACAN RWY 05

53°13.52'N
005°45.15'E
21-7

LEEUWARDEN (EHLW)

CHANGES: MSA
MIPS

RNLAF 23 MAR 2023

EHLW

MIPS
INSTRUMENT APPROACH CHART

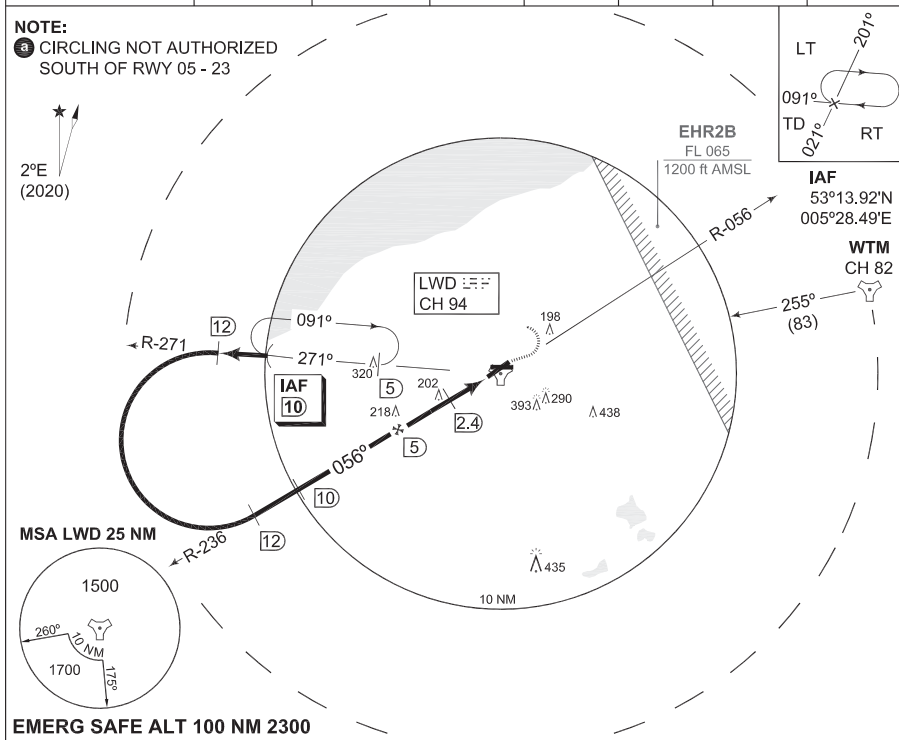
TACAN RWY 05
LEEWARDEN (EHLW)

AD ELEV 4

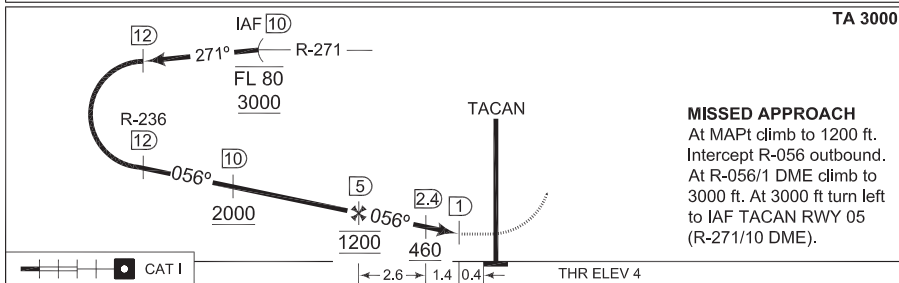
DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 056°	FAF ALT 1200 FT	Descent GR	MDA 380	THR ELEV 4	ALS 660 m	LDA 8036 FT

NOTE:

a CIRCLING NOT AUTHORIZED SOUTH OF RWY 05 - 23



EMERG SAFE ALT 100 NM 2300



TA 3000

MISSED APPROACH
At MAPt climb to 1200 ft. Intercept R-056 outbound. At R-056/1 DME climb to 3000 ft. At 3000 ft turn left to IAF TACAN RWY 05 (R-271/10 DME).

CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1				
	A	B	C	D	E
S-TACAN 05	380-800 376 (400-0.8/1.6)		380-1200 376 (400-1.2/1.6)	380-1200 376 (400-1.2/2.0)	
CIRCLING a	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

TACAN RWY 05

53°13.52'N
005°45.15'E

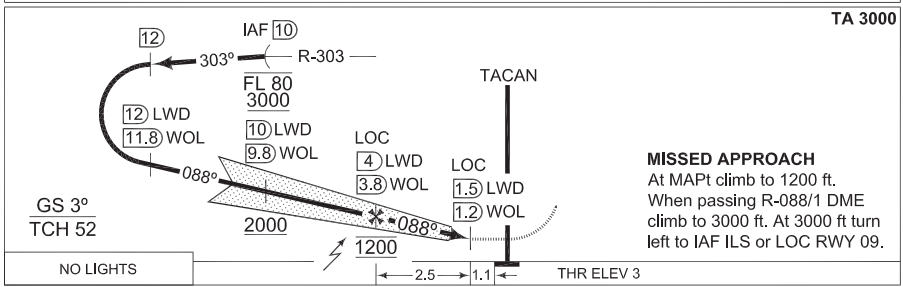
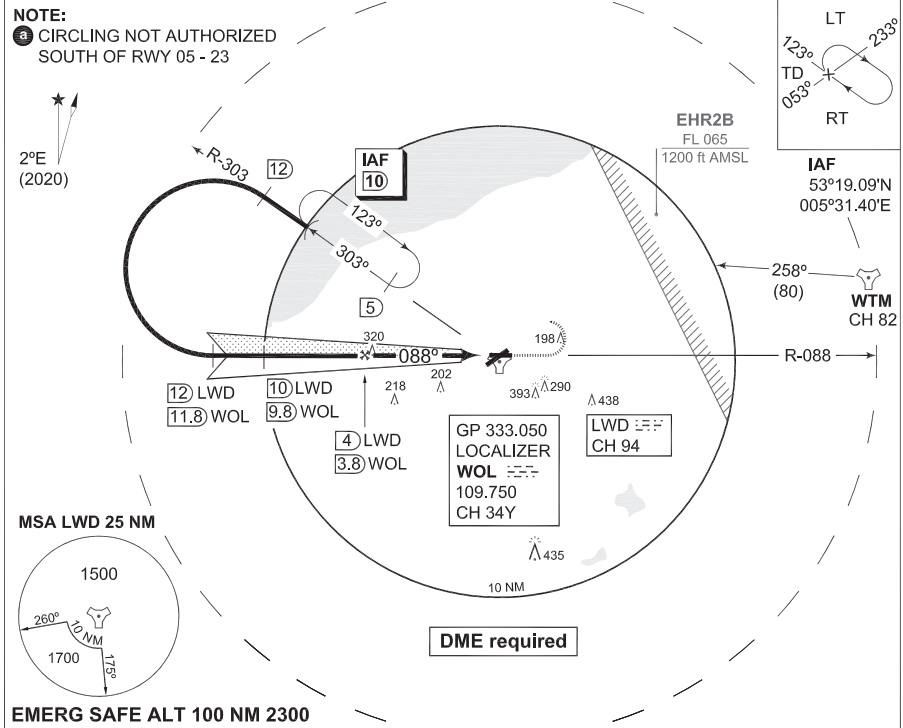
LEEWARDEN (EHLW)

MIPS
INSTRUMENT APPROACH CHART

ILS or LOC RWY 09
LEEUWARDEN (EHLW)

AD ELEV 4

DUTCH MIL 259.250 128.355	RAPCON NORTH 284.475 132.030	LEEUWARDEN TWR 344.850 120.705	GND CTL 362.525
LOCALIZER / DME WOL 109.750 / CH 34Y	APP COURSE 088°	GS INTCEPT ALT 1200 FT	GS 3°
		DA SEE CAT	THR ELEV 3
			ALS -
			LDA 6368 FT



CATEGORY	MINIMA ACCORDING TO PANS-OPS: NOT ACCORDING TO APATC-1					
	A	B	C	D	E	H
S-ILS 09	221-1600 218 (300-1.6/1.6)	231-1600 228 (300-1.6/1.6)	240-1600 237 (300-1.6/1.6)	250-1600 247 (300-1.6/1.6)	268-1600 265 (300-1.6/1.6)	205-800 202 (300-0.8/0.8)
S-LOC 09	430-1600 427 (500-1.6/1.6)	510-2800 506 (600-2.8/2.8)	430-2000 427 (500-2.0/2.0)	430-2400 427 (500-2.4/2.4)	820-6500 816 (900-6.5)	430-800 427 (500-0.8/0.8)
CIRCLING a	500-1900 496 (500-1.9)	510-2800 506 (600-2.8/2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)	N.A.

ILS or LOC RWY 09

53°13.52'N
005°45.15'E

LEEUWARDEN (EHLW)

CHANGES: MSA

MIPS

EHLW

RNLAF 23 MAR 2023

MIPS
INSTRUMENT APPROACH CHART

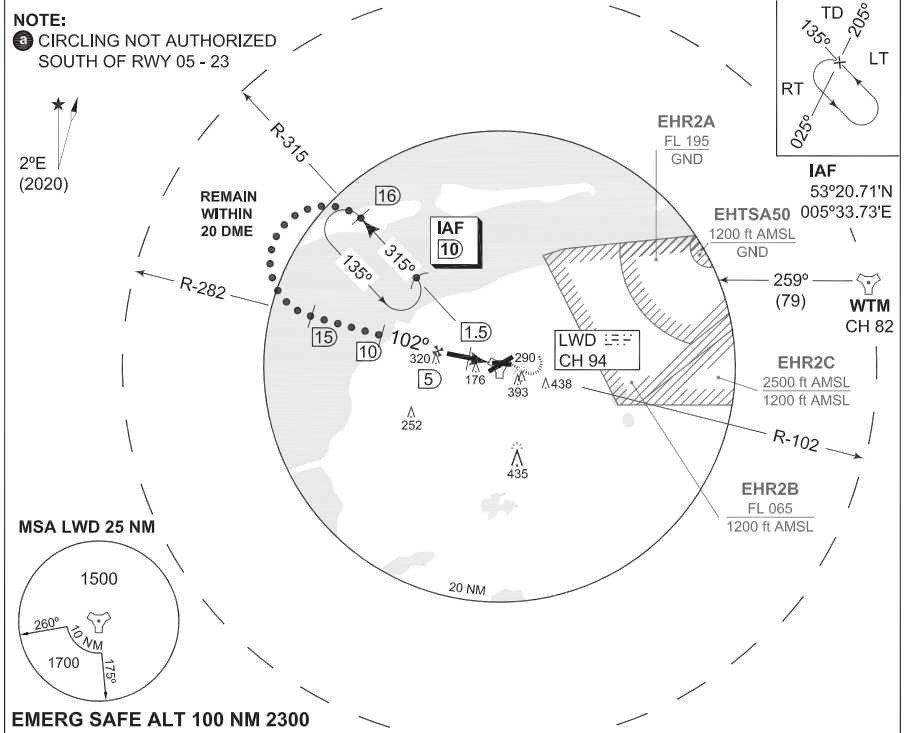
HI-TACAN RWY 09
LEEUWARDEN (EHLW)

AD ELEV 4

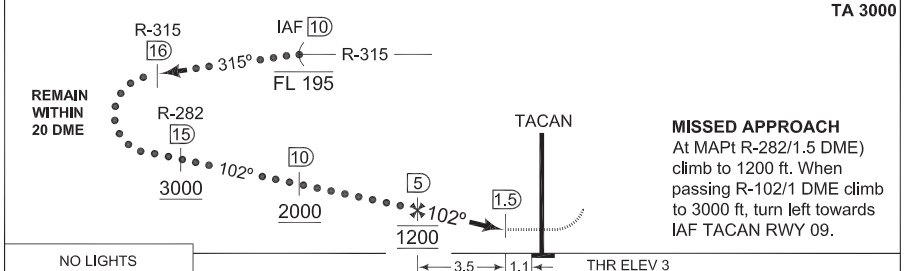
DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 102°	FAF ALT 1200 FT	Descent GR	MDA 440	THR ELEV 3	ALS -	LDA 6368 FT

NOTE:
a CIRCLING NOT AUTHORIZED SOUTH OF RWY 05 - 23

2°E
(2020)



TA 3000



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1	
	C	D
S-TACAN 09	440-2000 437 (500-2.0/2.0)	440-2400 437 (500-2.4/2.4)
CIRCLING a	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)
		820-6500 816 (900-6.5)

HI-TACAN RWY 09

53°13.52'N
005°45.15'E
21-1

LEEUWARDEN (EHLW)

CHANGES: MSA
MIPS

RNLAF 23 MAR 2023

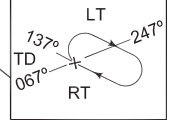
MIPS
INSTRUMENT APPROACH CHART

TACAN RWY 09
LEEUWARDEN (EHLW)

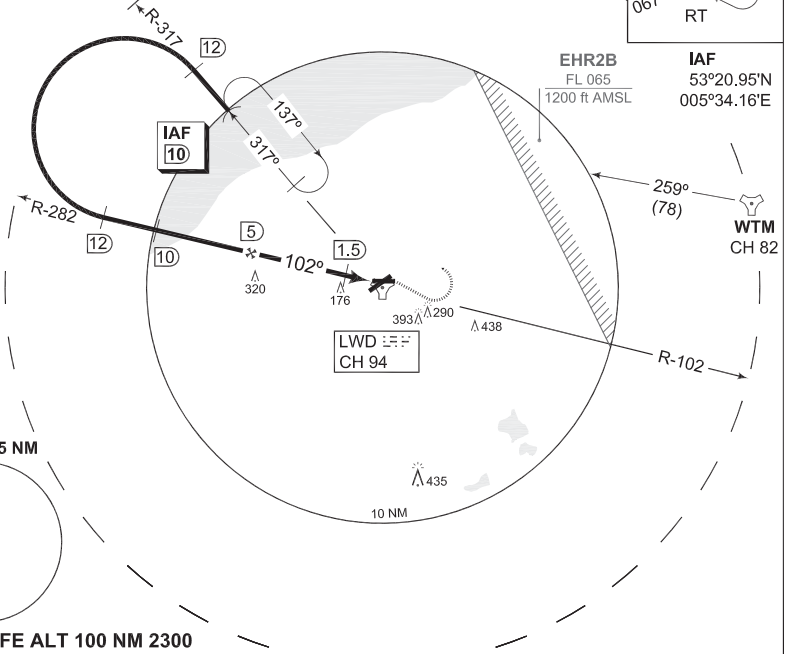
AD ELEV 4

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 102°	FAF ALT 1200 FT	Descent GR	MDA 440	THR ELEV 3	ALS -	LDA 6368 FT

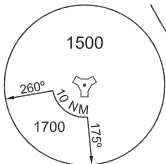
NOTE:
a CIRCLING NOT AUTHORIZED SOUTH OF RWY 05 - 23



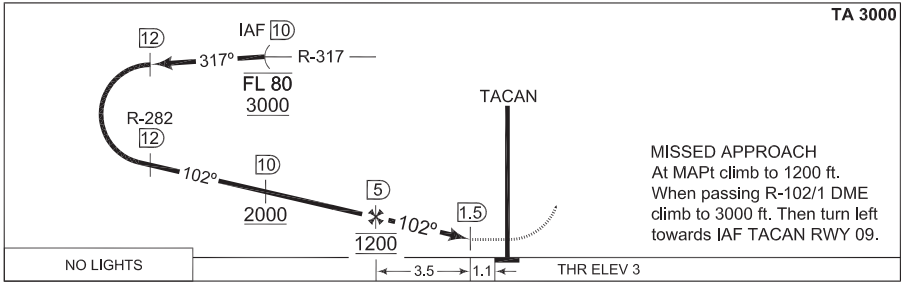
2°E
(2020)



MSA LWD 25 NM



EMERG SAFE ALT 100 NM 2300



TA 3000

MISSED APPROACH
At MAPt climb to 1200 ft.
When passing R-102/1 DME climb to 3000 ft. Then turn left towards IAF TACAN RWY 09.

NO LIGHTS

THR ELEV 3

CATEGORY	MINIMA ACCORDING TO PANS-OPS: NOT ACCORDING TO APATC-1				
	A	B	C	D	E
S-TACAN 09	440 -1600 437 (500-1.6/1.6)		440 -2000 437 (500-2.0/2.0)	440 -2400 437 (500-2.4/2.4)	
CIRCLING a	500 -1900 496 (500-1.9)	510 -2800 506 (600-2.8)	610 -3700 606 (700-3.7)	720 -4600 716 (800-4.6)	820 -6500 816 (900-6.5)

CHANGES: MSA
MIPS

TACAN RWY 09

53°13.52'N
005°45.15'E
21-11

LEEUWARDEN (EHLW)

EHLW

RNLAF 23 MAR 2023

MIPS
INSTRUMENT APPROACH CHART

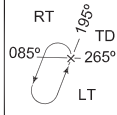
ILS or LOC RWY 23
LEEUWARDEN (EHLW)

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525		
LOCALIZER / DME LWO 111.750 / CH 54Y		APP COURSE 233°	GS INTCEPT ALT 1200 FT	GS 3°	DA SEE CAT	THR ELEV 4	ALS 720 m	LDA 7863 FT

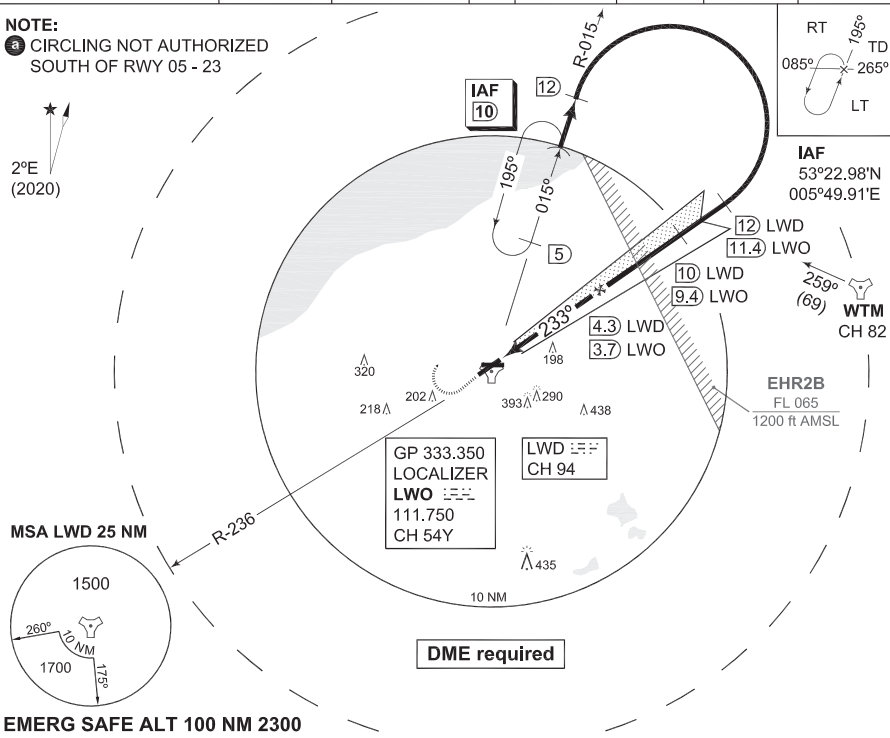
AD ELEV 4

NOTE:

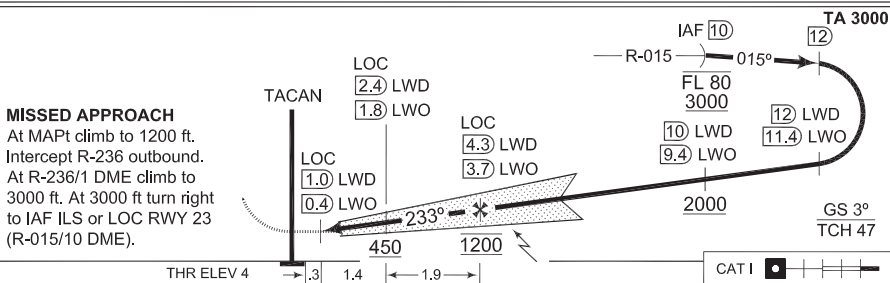
(a) CIRCLING NOT AUTHORIZED SOUTH OF RWY 05 - 23



IAF
53°22.98'N
005°49.91'E



EMERG SAFE ALT 100 NM 2300



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1				
	A	B	C	D	E
S-ILS 23	217-800 213 (300-0.8/1.6)	227-800 223 (300-0.8/1.6)	237-800 233 (300-0.8/1.6)	247-800 243 (300-0.8/1.6)	265-800 262 (300-0.8/1.6)
S-LOC 23	340-800 336 (400-0.8/1.6)		340-1200 336 (400-1.2/1.6)	340-1200 336 (400-1.2/2.0)	
CIRCLING (a)	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

ILS or LOC RWY 23

53°13.52'N
005°45.15'E
21-12

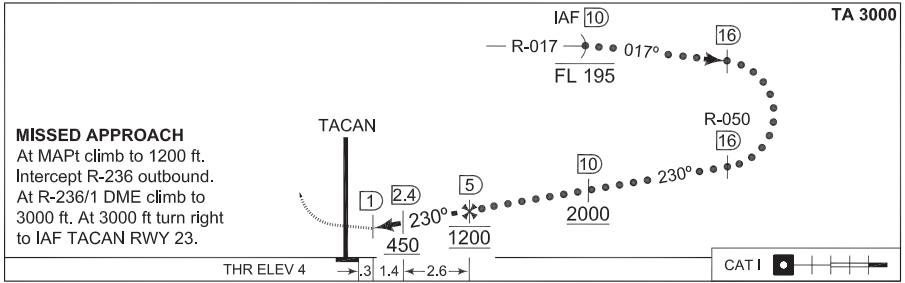
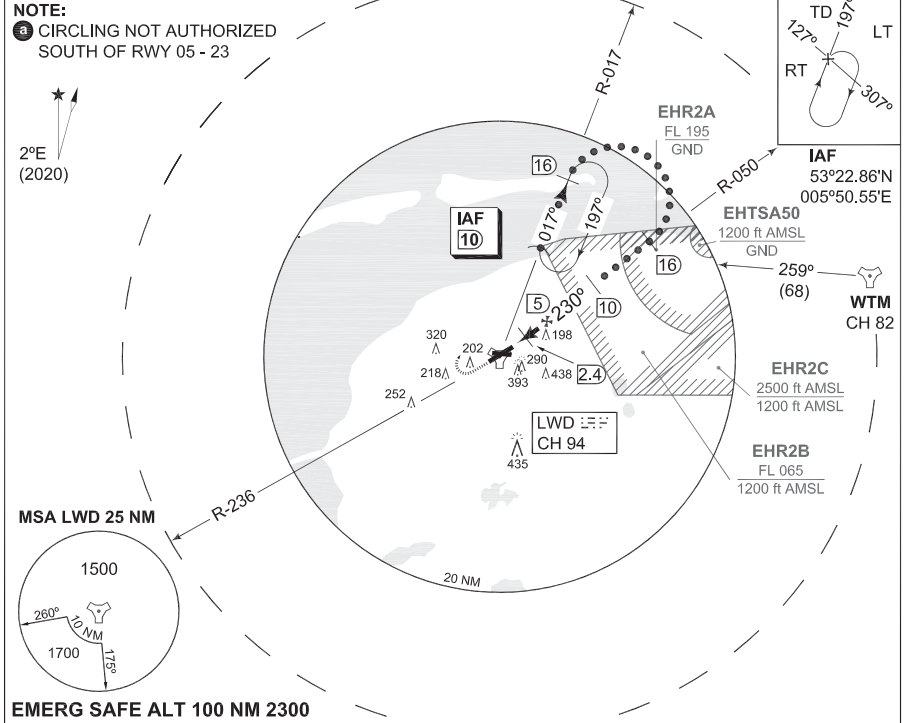
LEEUWARDEN (EHLW)

MIPS
INSTRUMENT APPROACH CHART

HI-TACAN RWY 23
LEEUWARDEN (EHLW)

AD ELEV 4

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 230°	FAF ALT 1200 FT	Descent GR	MDA 380	THR ELEV 4	ALS 720 m	LDA 7863 FT



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1		
	C	D	E
S-TACAN 23	380-1200 376 (400-1.2/1.6)	380-1200 376 (400-1.2/2.0)	
CIRCLING a	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

HI-TACAN RWY 23

53°13.52'N
005°45.15'E
21-13

LEEUWARDEN (EHLW)

CHANGES: MSA
MIPS

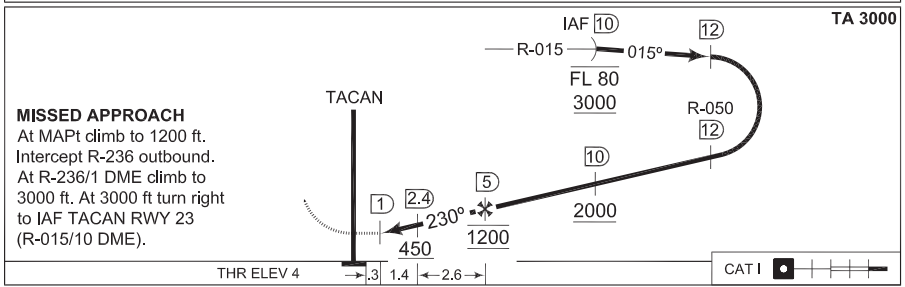
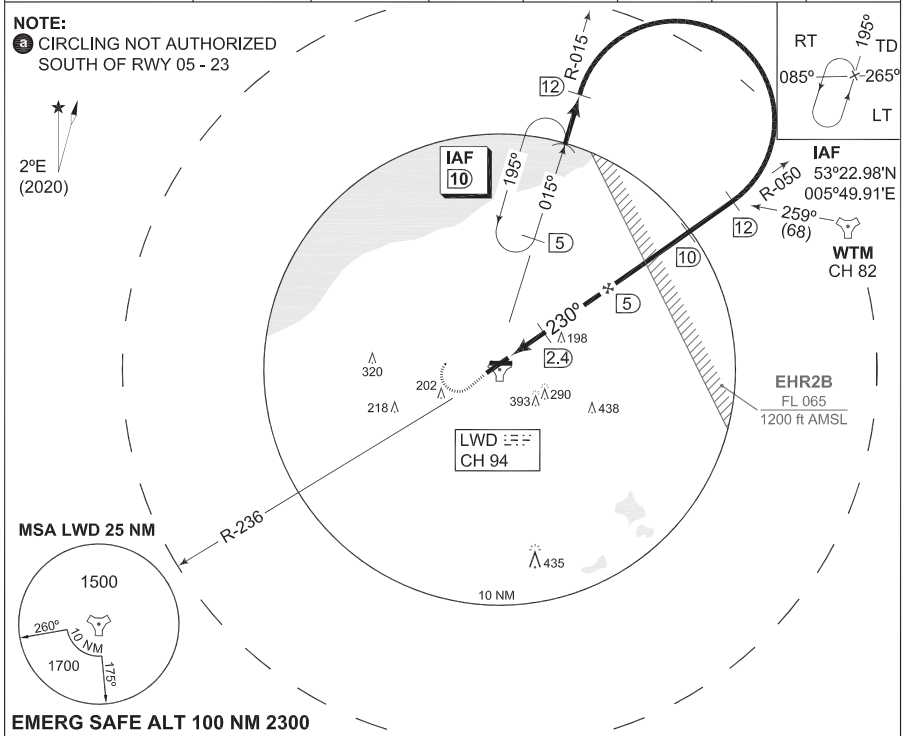
RNLAF 23 MAR 2023

EHLW

MIPS INSTRUMENT APPROACH CHART

TACAN RWY 23 LEEUWARDEN (EHLW)

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 230°	FAF ALT 1200 FT	Descent GR	MDA 380	THR ELEV 4	ALS 720 m	LDA 7863 FT



CATEGORY	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1				
	A	B	C	D	E
S-TACAN 23	380-800 376 (400-0.8/1.6)		380-1200 376 (400-1.2/1.6)	380-1200 376 (400-1.2/2.0)	
CIRCLING a	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

CHANGES: MSA

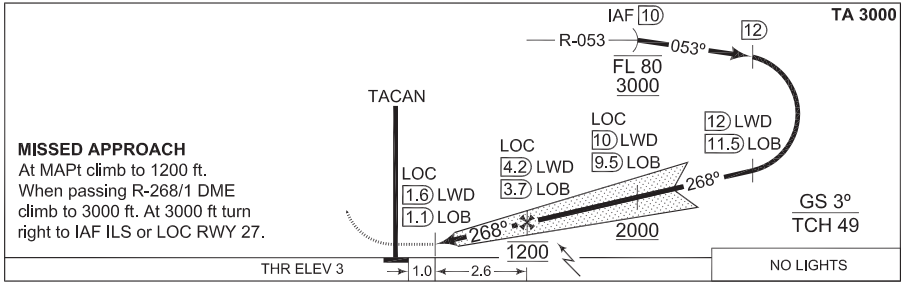
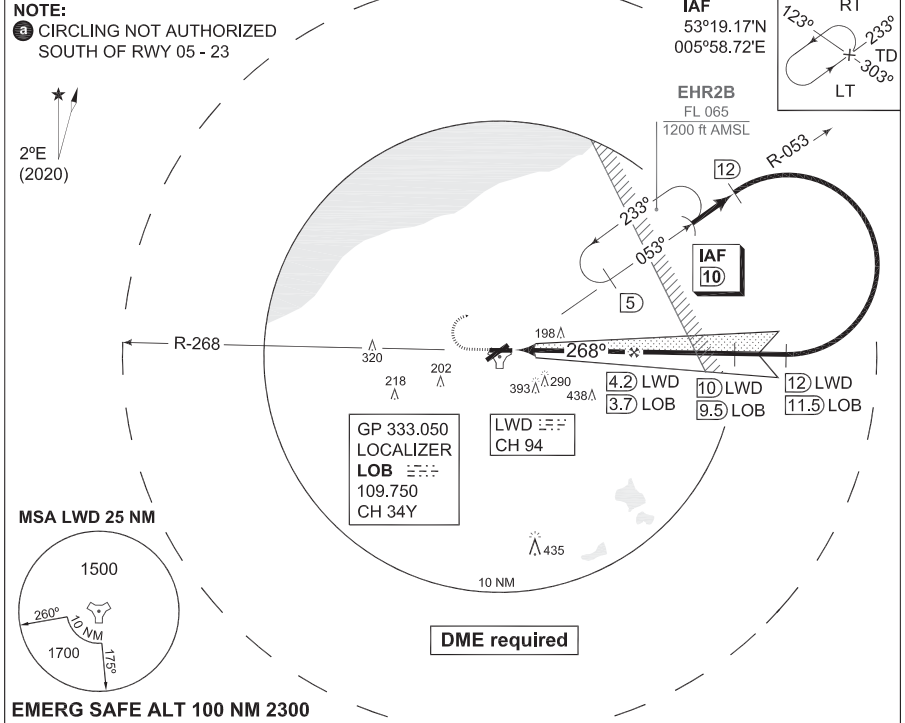
RNLAF 23 MAR 2023

MIPS
INSTRUMENT APPROACH CHART

ILS or LOC RWY 27
LEEUWARDEN (EHLW)

AD ELEV 4

DUTCH MIL 259.250 128.355	RAPCON NORTH 284.475 132.030	LEEUWARDEN TWR 344.850 120.705	GND CTL 362.525
LOCALIZER / DME LOB 109.750 / CH 34Y	APP COURSE 268°	GS INTCEPT ALT 1200 FT	GS 3° DA SEE CAT THR ELEV 3
		ALS -	LDA 6561 FT



CATEGORY	A	B	C	D	E	H
MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1						
S-ILS 27	203-1600 200 (200-1.6/1.6)	211-1600 208 (300-1.6/1.6)	220-1600 217 (300-1.6/1.6)	230-1600 227 (300-1.6/1.6)	240-1600 237 (300-1.6/1.6)	203-800 200 (200-0.8/0.8)
S-LOC 27	360-1600 357 (400-1.6/1.6)			360-2000 357 (400-2.0/2.0)		360-800 357 (400-0.8/0.8)
CIRCLING a	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)	N.A.

ILS or LOC RWY 27

53°13.52'N
005°45.15'E
21-15

LEEUWARDEN (EHLW)

CHANGES: MSA
MIPS

RNLAF 23 MAR 2023

EHLW

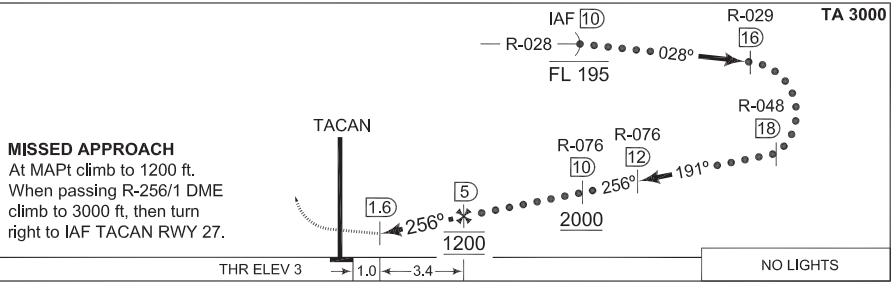
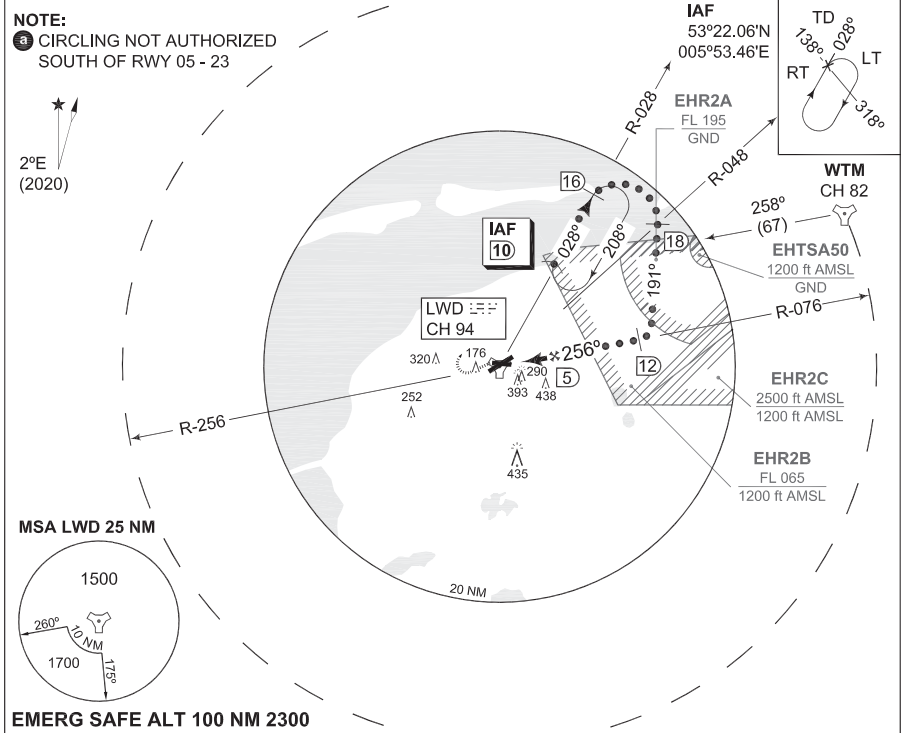
MIPS
INSTRUMENT APPROACH CHART

HI-TACAN RWY 27
LEEUWARDEN (EHLW)

AD ELEV 4

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 256°	FAF ALT 1200 FT	Descent GR	MDA 390	THR ELEV 3	ALS -	LDA 6561 FT

NOTE:
a CIRCLING NOT AUTHORIZED
SOUTH OF RWY 05 - 23



CATEGORY	C		D		E	
	MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1					
S-TACAN 27	390 -1600 387 (400-1.6/1.6)		390 -2000 387 (400-2.0/2.0)			
CIRCLING a	610 -3700 606 (700-3.7)		720 -4600 716 (800-4.6)		820 -6500 816 (900-6.5)	

HI-TACAN RWY 27

53°13.52'N
005°45.15'E
21-16

LEEUWARDEN (EHLW)

CHANGES: MSA

MIPS

RNLAF 23 MAR 2023

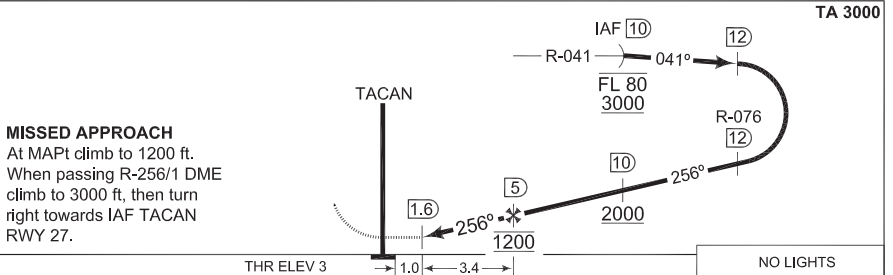
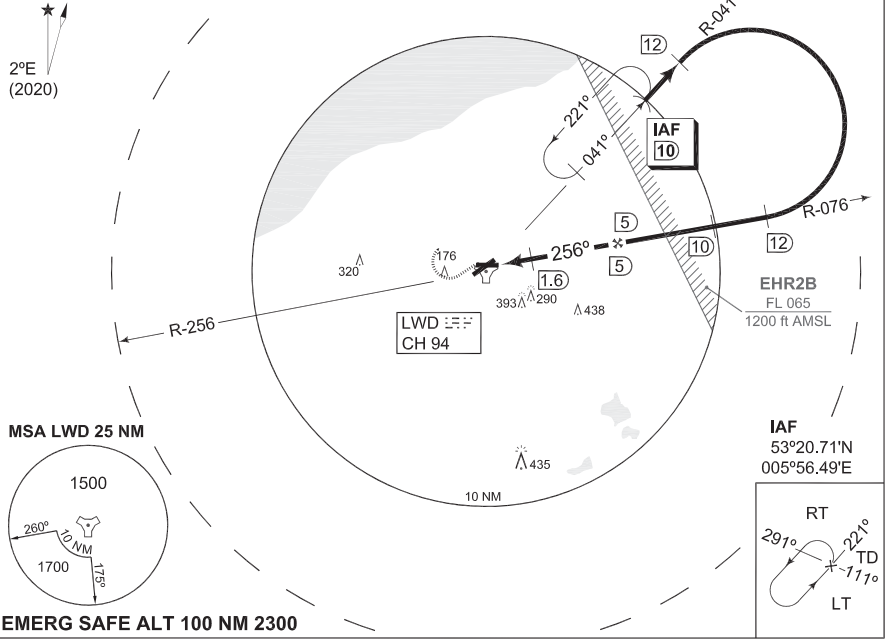
MIPS
INSTRUMENT APPROACH CHART

AD ELEV 4

TACAN RWY 27
LEEUWARDEN (EHLW)

DUTCH MIL 259.250 128.355		RAPCON NORTH 284.475 132.030		LEEUWARDEN TWR 344.850 120.705		GND CTL 362.525	
TACAN LWD CH 94	APP COURSE 256°	FAF ALT 1200 FT	Descent GR	MDA 390	THR ELEV 3	ALS -	LDA 6561 FT

NOTE:
a CIRCLING NOT AUTHORIZED
SOUTH OF RWY 05 - 23



CATEGORY	A	B	C	D	E
MINIMA ACCORDING TO PANS-OPS; NOT ACCORDING TO APATC-1					
S-TACAN 27	390-1600 387 (400-1.6/1.6)			390-2000 387 (400-2.0/2.0)	
CIRCLING a	500-1900 496 (500-1.9)	510-2800 506 (600-2.8)	610-3700 606 (700-3.7)	720-4600 716 (800-4.6)	820-6500 816 (900-6.5)

TACAN RWY 27

53°13.52'N
005°45.15'E
21-17

LEEUWARDEN (EHLW)

CHANGES: MSA

ENLAF 23 MAR 2023



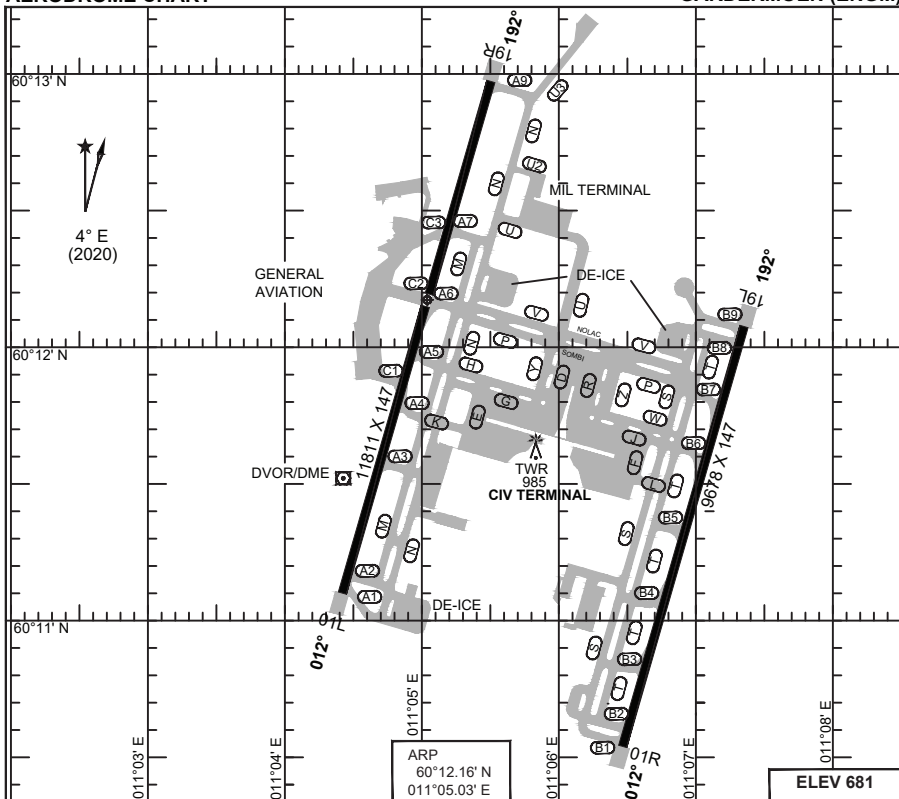
INTENTIONALLY

LEFT

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AERODROME CHART

GARDERMOEN (ENGM)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI	ALS	TDZE	THR PSN
01L	75 F/A/W/T	11811	11811	11811	11811	3.0°	BP	656	60°11.10' N - 011°04.42' E
19R	75 F/A/W/T	11811	11811	11811	11811	3.0°	BN	675	60°12.60' N - 011°05.50' E
01R	75 F/A/W/T	9678	9678	9678	9678	3.0°	BN	670	60°10.55' N - 011°06.47' E
19L	75 F/A/W/T	9678	9678	10990	9678	3.0°	BP	681	60°12.07' N - 011°07.35' E

ATIS - DEP	127.150
ATIS - ARR	126.125
GARDERMOEN DELIVERY	DLV WEST 121.680 DLV EAST 121.930
GARDERMOEN GROUND	GND WEST 121.605 337.975 GND EAST 121.905 337.975
DE-ICE COORDINATOR	121.855
GARDERMOEN TOWER	SECTOR WEST INCL ILS 01L/19R 118.300 257.800 SECTOR EAST INCL ILS 01R/19L 120.100 257.800
GARDERMOEN OPS (MIL)	123.275 362.800

AERODROME CHART

GARDERMOEN (ENGM)

MIPS
INSTRUMENT APPROACH CHART

AD ELEV 681

HPMA ILS or LOC RWY 01L
GARDERMOEN (ENGM)

ATIS	OSLO APP	DIRECTOR	FINAL	GARDERMOEN TWR		GROUND	
126.125	W 120.450 E 118.475	136.400	128.900	W 118.300	E 120.100	W 121.605	E 121.905
LOCALIZER/DME		APP COURSE	GS INTCP ALT	GS	DA	THR ELEV	ALS LDA
OBW 110.300 / CH40X		012°	3500	3.0°	856	656	670 m 11811

CAUTION:

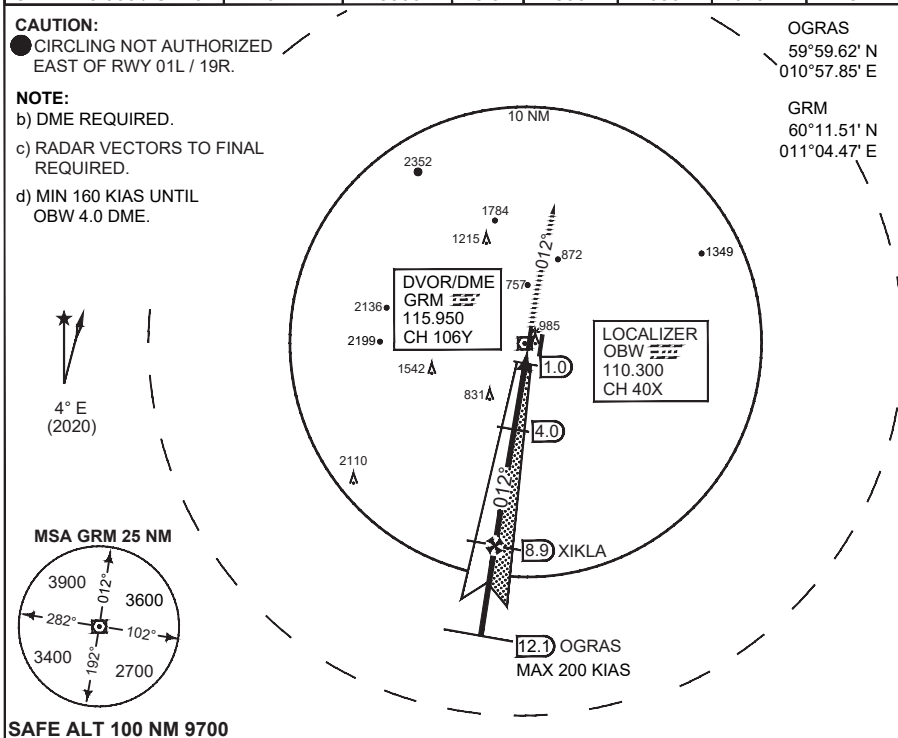
- CIRCLING NOT AUTHORIZED EAST OF RWY 01L / 19R.

NOTE:

- b) DME REQUIRED.
- c) RADAR VECTORS TO FINAL REQUIRED.
- d) MIN 160 KIAS UNTIL OBW 4.0 DME.

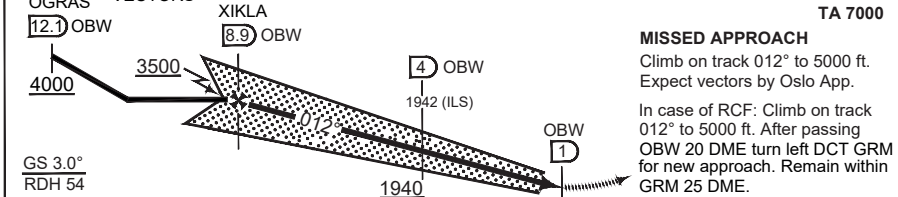
OGRAS
59°59.62' N
010°57.85' E

GRM
60°11.51' N
011°04.47' E



SAFE ALT 100 NM 9700

DME OBW	8	7	6	5	4	3	2
ALT	3210	2890	2570	2250	1940	1620	1300



MISSED APPROACH

Climb on track 012° to 5000 ft. Expect vectors by Oslo App.

In case of RCF: Climb on track 012° to 5000 ft. After passing OBW 20 DME turn left DCT GRM for new approach. Remain within GRM 25 DME.

CAT 3	8.8	THR ELEV 656
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CATEGORY	HPMA	
S-ILS 01L	856-800	200 (200-0.8/1.2)
S-LOC 01L	960-1200	304 (400-1.2/1.6)
● CIRCLING	2040-3.2	1359 (1400-3.2)

HPMA ILS or LOC RWY 01L

60°12.16' N
011°05.03' E

GARDERMOEN (ENGM)

MIPS
INSTRUMENT APPROACH CHART

AD ELEV 681

HPMA ILS or LOC RWY 01R
GARDERMOEN (ENGM)

ATIS	OSLO APP	DIRECTOR	FINAL	GARDERMOEN TWR			GROUND	
126.125	W 120.450 E 118.475	136.400	128.900	W 118.300	E 120.100	W 121.605	E 121.905	
LOCALIZER/DME		APP COURSE	GS INTCP ALT	GS	DA	THR ELEV	ALS	LDA
ONE 111.950 / CH56Y		012°	3500	3.0°	880	670	880 m	9678

CAUTION:

● CIRCLING NOT AUTHORIZED
WEST OF RWY 01R / 19L.

NOTE:

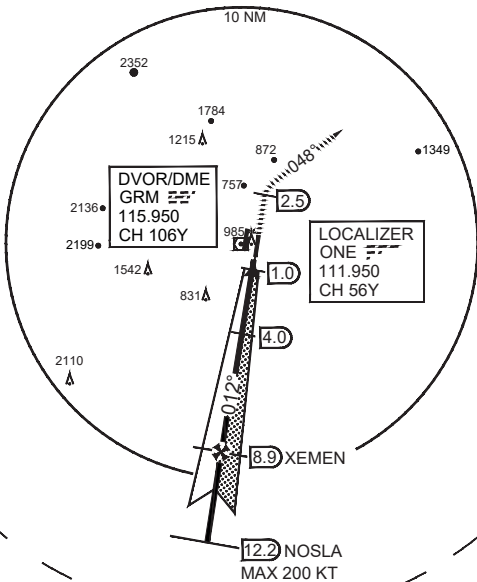
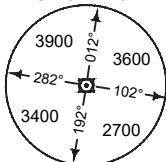
- b) DME REQUIRED.
- c) RADAR VECTORS TO FINAL REQUIRED.
- d) MIN 160 KIAS UNTIL ONE 4.0 DME.

NOSLA
59°59.02' N
010°59.85' E

GRM
60°11.51' N
011°04.47' E

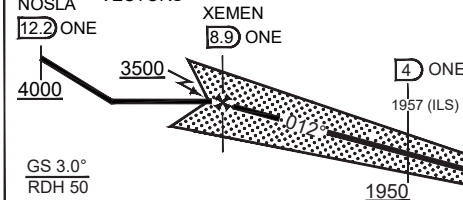


MSA GRM 25 NM



SAFE ALT 100 NM 9700

	DME ONE	8	7	6	5	4	3	2
NOSLA	12.2 ONE	3220	2900	2590	2270	1950	1630	1310



MISSED APPROACH

TA 7000

Climb on track 012° to DME 2.5 after ONE. Turn right (MAX 265 KIAS) and proceed on HDG 048° to 4000 ft. Expect vectors.

In case of RCF: Climb to 4000 ft on HDG 048°. After passing ONE 20 DME turn right DCT GRM for new approach. Remain within GRM 25 DME.

CAT 3	8.7	THR ELEV 670
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CATEGORY	HPMA	
S-ILS 01R	880	- 800 210 (300-0.8/1.2)
S-LOC 01R	970	-1200 300 (300-1.2/1.6)
● CIRCLING	1570	- 3.2 889 (900-3.2)

HPMA ILS or LOC RWY 01R

60°12.16' N
011°05.03' E

GARDERMOEN (ENGM)

MIPS INSTRUMENT APPROACH CHART

HPMA ILS or LOC RWY 19L GARDERMOEN (ENGM)

AD ELEV 681

ATIS	OSLO APP	DIRECTOR	FINAL	GARDERMOEN TWR		GROUND	
126.125	W 120.450 E 118.475	136.400	128.900	W 118.300	E 120.100	W 121.605	E 121.905
LOCALIZER/DME	APP COURSE	GS INTCP ALT	GS	DA	THR ELEV	ALS	LDA
GME 110.550 / CH 42Y	192°	3500	3.0°	881	681	900 m	9678

CAUTION:

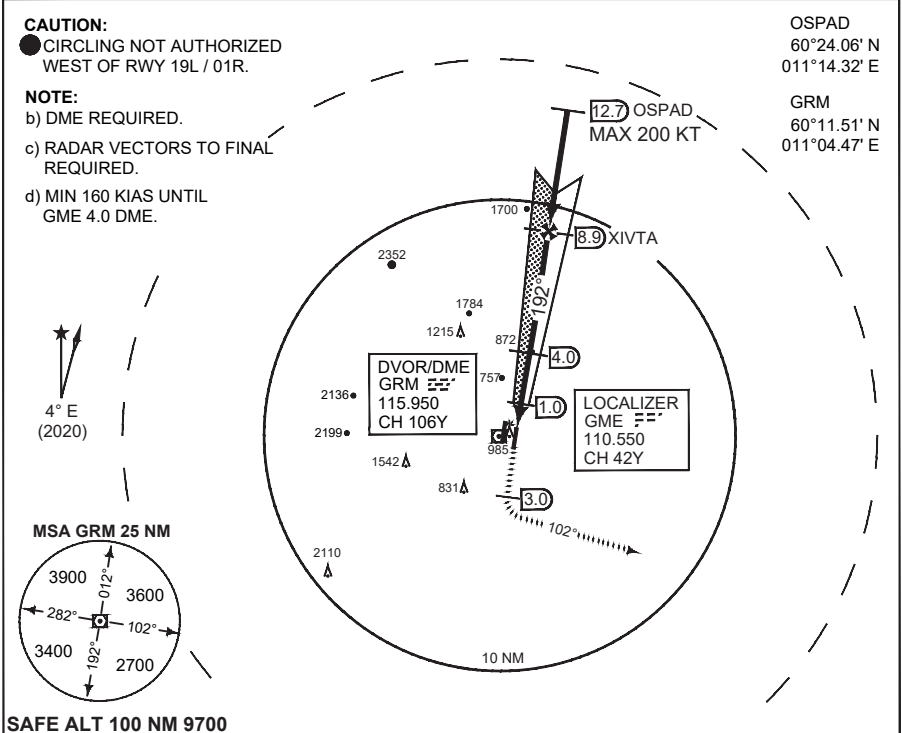
● CIRCLING NOT AUTHORIZED WEST OF RWY 19L / 01R.

NOTE:

- b) DME REQUIRED.
- c) RADAR VECTORS TO FINAL REQUIRED.
- d) MIN 160 KIAS UNTIL GME 4.0 DME.

OSPAD
60°24.06' N
011°14.32' E

GRM
60°11.51' N
011°04.47' E



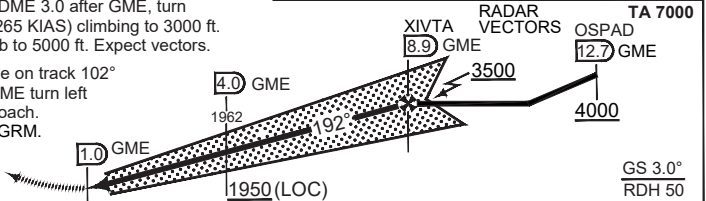
SAFE ALT 100 NM 9700

MISSED APPROACH

Climb on track 192°. At DME 3.0 after GME, turn left to track 102° (MAX 265 KIAS) climbing to 3000 ft. At DME 13.0 GME, climb to 5000 ft. Expect vectors.

In case of RCF: Continue on track 102° to 5000 ft. At DME 20 GME turn left DCT GRM for new approach. Remain within DME 25 GRM.

DME GME	2	3	4	5	6	7	8
ALT	1320	1640	1950	2270	2590	2910	3230



THR ELEV 681 8.7 CAT 3

CATEGORY	HPMA	
S-ILS 19L	881	- 800 200 (200-0.8/1.2)
S-LOC 19L	1030	- 1200 349 (400-1.2/1.6)
● CIRCLING	1570	- 3.2 889 (900-3.2)

HPMA ILS or LOC RWY 19L

60°12.16' N
011°05.03' E

GARDERMOEN (ENGM)

MIPS INSTRUMENT APPROACH CHART

AD ELEV 681

HPMA ILS or LOC RWY 19R GARDERMOEN (ENGM)

ATIS	OSLO APP	DIRECTOR	FINAL	GARDERMOEN TWR	GROUND		
126.125	W 120.450 E 118.475	136.400	128.900	W 118.300 E 120.100	W 121.605	E 121.905	
LOCALIZER/DME	APP COURSE	GS INTCP ALT	GS	DA	THR ELEV	ALS	LDA
GSW 111.300 / CH 50X	192°	3500	3.0°	875	675	900 m	11811

CAUTION:

- CIRCLING NOT AUTHORIZED EAST OF RWY 19R / 01L.

NOTE:

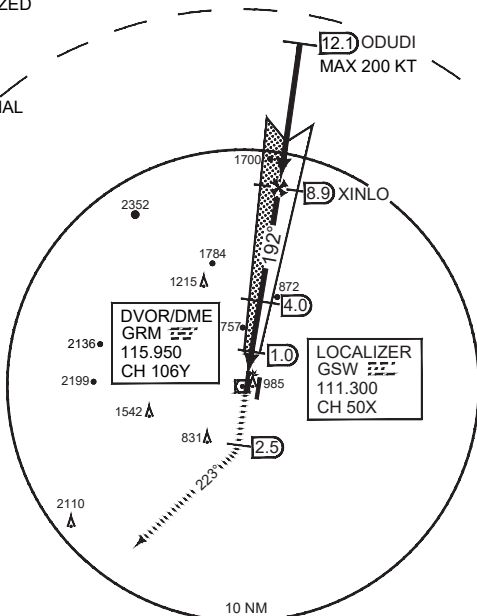
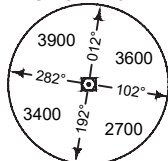
- b) DME REQUIRED.
- c) RADAR VECTORS TO FINAL REQUIRED.
- d) MIN 160 KIAS UNTIL GSW 4.0 DME.

ODUDI
60°24.37' N
010°12.11' E

GRM
60°11.51' N
011°04.47' E



MSA GRM 25 NM



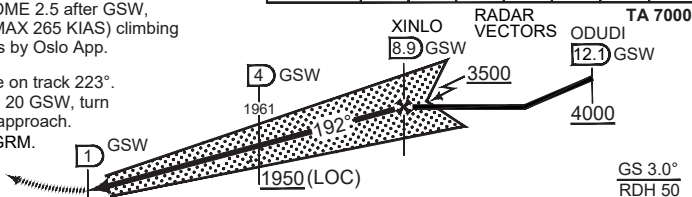
SAFE ALT 100 NM 9700

MISSED APPROACH

Climb on track 192°. At DME 2.5 after GSW, turn right to track 223° (MAX 265 KIAS) climbing to 5000 ft. Expect vectors by Oslo App.

In case of RCF: Continue on track 223°. Climb to 5000 ft. At DME 20 GSW, turn right DCT GRM for new approach. Remain within DME 25 GRM.

DME GSW	2	3	4	5	6	7	8
ALT	1320	1630	1950	2270	2590	2910	3230



THR ELEV 675

8.7

CAT 3

CATEGORY	HPMA
S-ILS 19R	875 - 800 200 (200-0.8/1.2)
S-LOC 19R	1020 - 1200 345 (400-1.2/2.0)
● CIRCLING	1980 - 3.2 1299 (1300-3.2)

HPMA ILS or LOC RWY 19R

60°12.16' N
011°05.03' E

GARDERMOEN (ENGM)

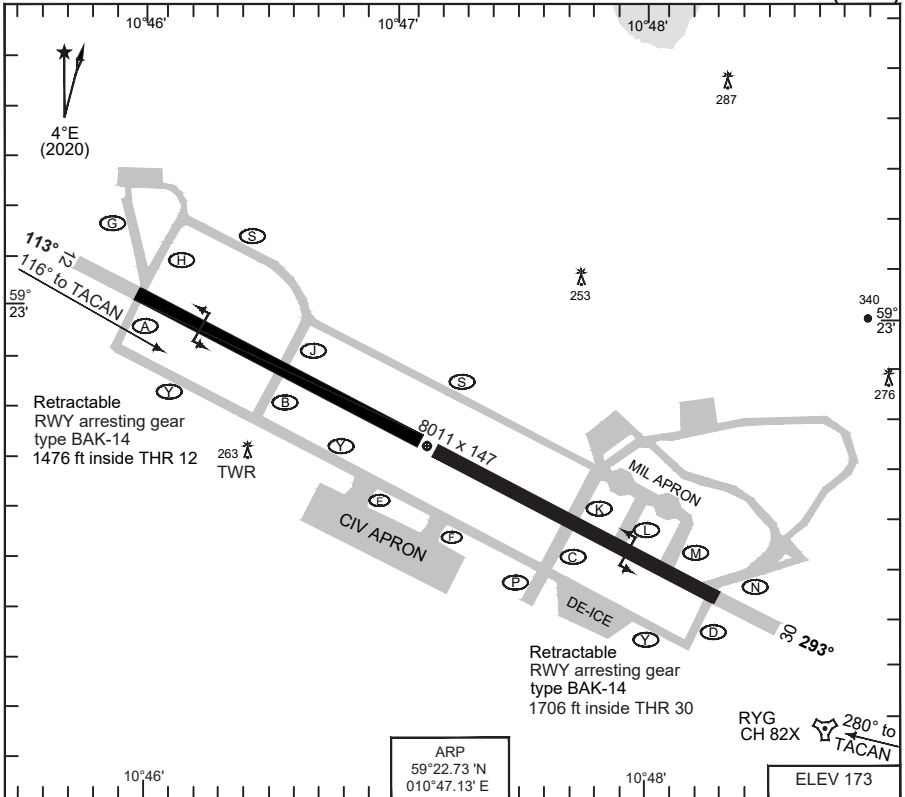
INTENTIONALLY

LEFT

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AERODROME CHART

RYGGE (ENRY)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI	THR ELEV	THR PSN
12	85 F/C/X/T	8011	8011	8822	8011	3.0°	168	59°23.02' N - 010°45.97' E
30	85 F/C/X/T	8011	8011	8208	8011	3.0°	169	59°22.43' N - 010°48.28' E

ATIS 136.175
 RYGGE GND 121.700
 RYGGE TWR 119.500 308.850 257.800

CHANGES: MAGYAR, EDITORIAL

RNOAF 24 FEB 2022

AERODROME CHART

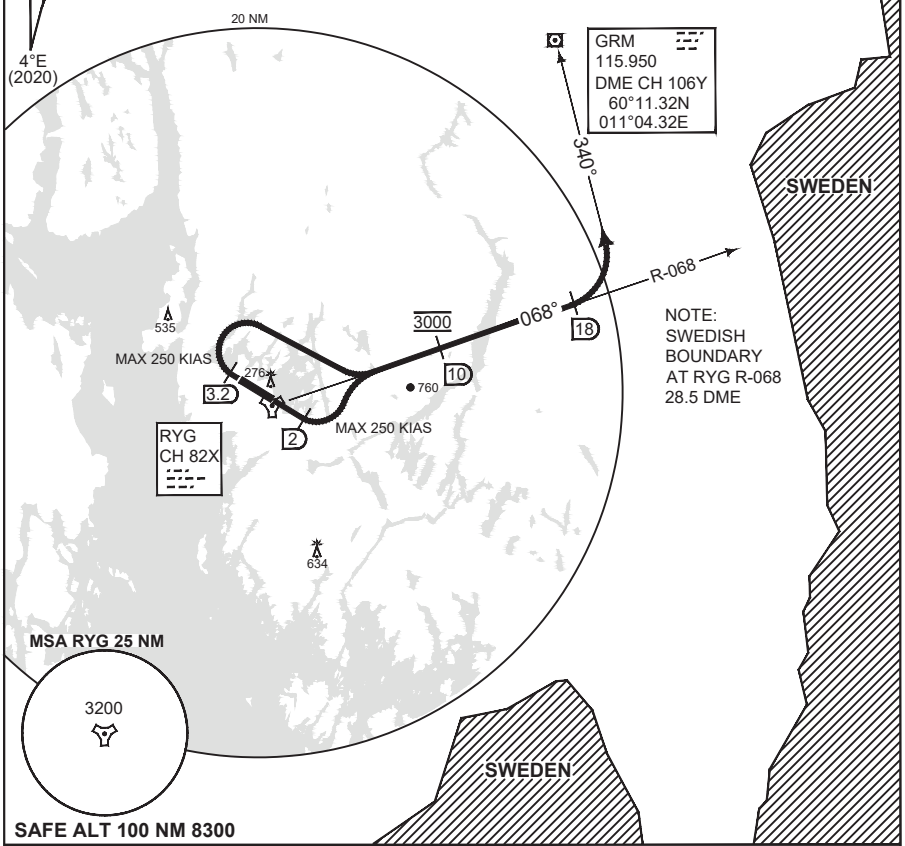
RYGGE (ENRY)



**MIPS
INSTRUMENT DEPARTURE CHART**

**SID EAST
RYGGE (ENRY)**

ATIS 136.175		RYGGE TWR 122.100 308.850				FARRIS APP E 124.350 W 134.050					
OSLO CONTROL EAST 125.050 279.000		AD ELEV 173	RWY	GS (kt)	FROM-TO	60	120	180	240	300	REASON
			12	V/V (fpm)	DER-3000	280	560	840	1120	1400	ATC
			30	V/V (fpm)	DER-3000	340	680	1020	1360	1700	



SAFE ALT 100 NM 8300		TA 7000
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SID EAST RWY 12	- Climb RWY track to 1000 ft or RYG 2 DME, whichever occurs first, then turn left to intercept R-068 outbound to 18 DME. Maximum 250 KIAS. Cross 10 DME at 3000 ft. Follow ATC instruction. - Minimum climb gradient 4.6% (2.7°) to 3000 ft.
--------------------	---

SID EAST RWY 30	- Climb RWY track to 1000 ft or RYG 3.2 DME, whichever occurs first, then turn right to intercept R-068 outbound to 18 DME. Maximum 250 KIAS. Cross 10 DME at 3000 ft. Follow ATC instruction. - Minimum climb gradient 5.5% (3.2°) to 3000 ft.
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CHANGES: EDITORIAL

RNOAF 16 JUN 2022

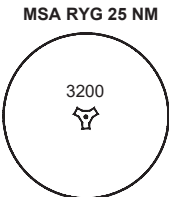
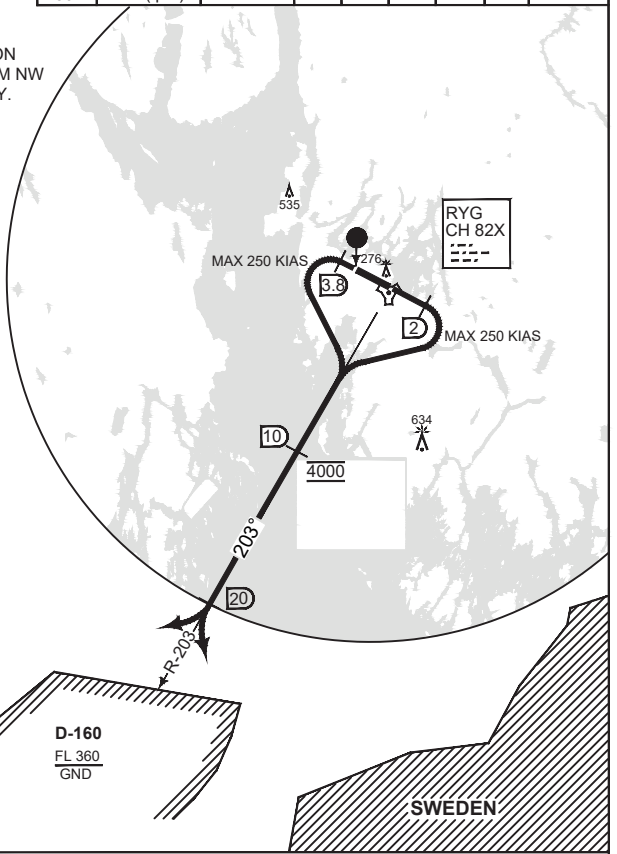
**MIPS
INSTRUMENT DEPARTURE CHART**

**SID WEST
RYGGE (ENRY)**

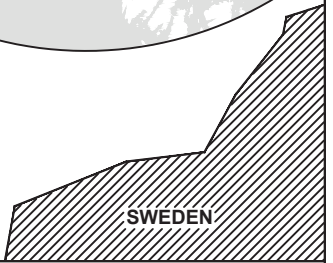
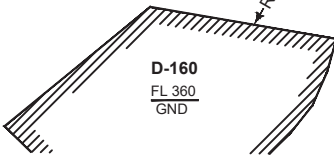
ATIS 136.175		RYGGE TWR 122.100 308.850				FARRIS APP 124.350 134.050						
OSLO CONTROL EAST 125.050 279.000		AD ELEV 173		RWY	GS (kt)	FROM-TO	60	120	180	240	300	REASON
				12	V/V (fpm)	DER-4000	330	660	990	1320	1650	ATC
				30	V/V (fpm)	DER-4000	220	440	660	880	1100	

WARNING:

● CLOSE-IN OBSTACLES
RISING TERRAIN/VEGETATION
FROM DER RWY 30 TO 0.4 NM NW
MUST BE AVOIDED VISUALLY.



SAFE ALT 100 NM 8300



TA 7000

SID WEST RWY 12	- Climb RWY track to 1000 ft or 2 DME RYG, whichever occurs first, then turn right to intercept R-203 outbound to 20 DME. Maximum 250 KIAS. Cross 10 DME at 4000 ft. Follow ATC instruction. - Minimum climb gradient 5.4% (3.1°) to 4000 ft.
● SID WEST RWY 30	- Climb RWY track to 1000 ft or RYG 3.8 DME, whichever occurs first, then turn left to intercept R-203 outbound to 20 DME. Maximum 250 KIAS. Cross 10 DME at 4000 ft. Follow ATC instruction. - Minimum climb gradient 3.6% (2.1°) to 4000 ft.

RYGGE SID WEST

59°22.73' N
010°47.13' E

RYGGE (ENRY)

23-3

CHANGES: WARNING, EMERGENCY SAFE, CLIMB, DME, SPEED, INSTRUCTIONS, EDITORIAL

RNGA/F 24 FEB 2022

ENRY

MIPS INSTRUMENT APPROACH CHART

AD ELEV 173

TACAN RWY 12 RYGGE (ENRY)

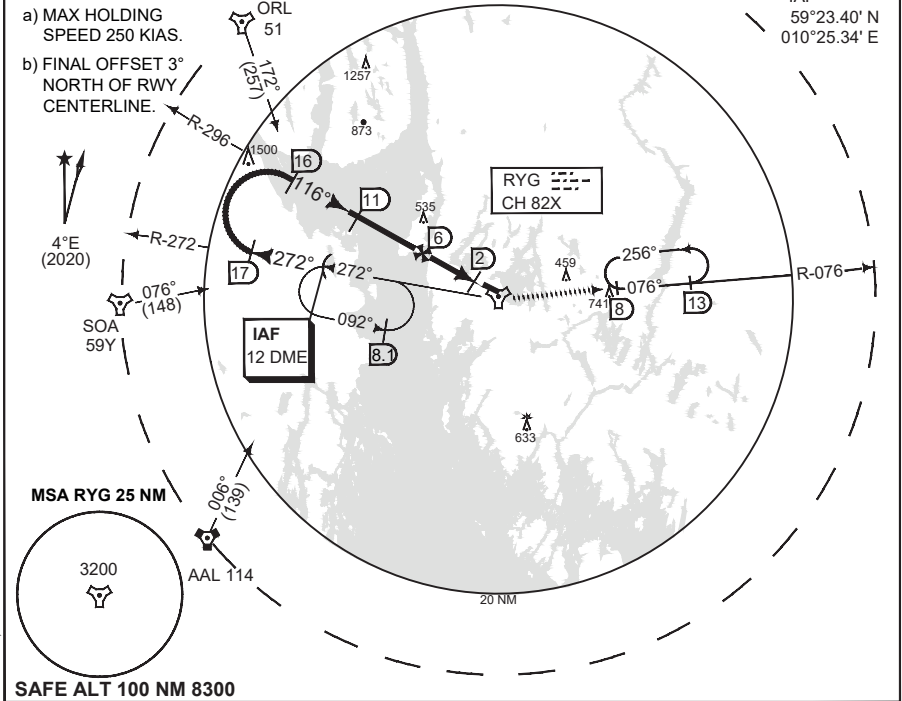
ATIS 136.175	RYGGE GND 121.700	RYGGE TWR 119.500 122.100	308.850	FARRIS APP (WEST) 134.050	FARRIS APP (EAST) 124.350		
TACAN RYG CH 82X	APP COURSE 116°	FAF ALT 1600	Descent GR 5.2%	MDA 610	THR ELEV 168	ALS 900 m	LDA 8011

CAUTION:

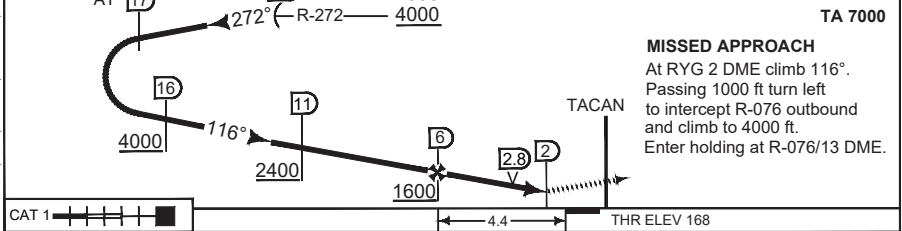
a) MAX HOLDING SPEED 250 KIAS.

b) FINAL OFFSET 3° NORTH OF RWY CENTERLINE.

IAF
59°23.40' N
010°25.34' E



SAFE ALT 100 NM 8300	DME	5	4	3
	ALT RYG	1290	980	660
	TA 7000			



MISSED APPROACH
At RYG 2 DME climb 116°. Passing 1000 ft turn left to intercept R-076 outbound and climb to 4000 ft. Enter holding at R-076/13 DME.

CATEGORY	A	B	C	D	E
S-TAC 12	610 - 1400 442 (400-1.4/2.1)				
CIRCLING	670 - 2.3 497 (500-2.3)	680 - 2.4 507 (600-2.4)	860 - 3.2 687 (700-3.2)	910 - 3.6 737 (800-3.6)	1150 - 4.5 977 (1000-4.5)

TACAN RWY 12 59°22.73' N 010°47.13' E **RYGGE (ENRY)**

CHANGES: MAGVAR, DIST/ALT TABLE, VDP, MINIMA, CAUTION, MISSED APPROACH, EDITORIAL

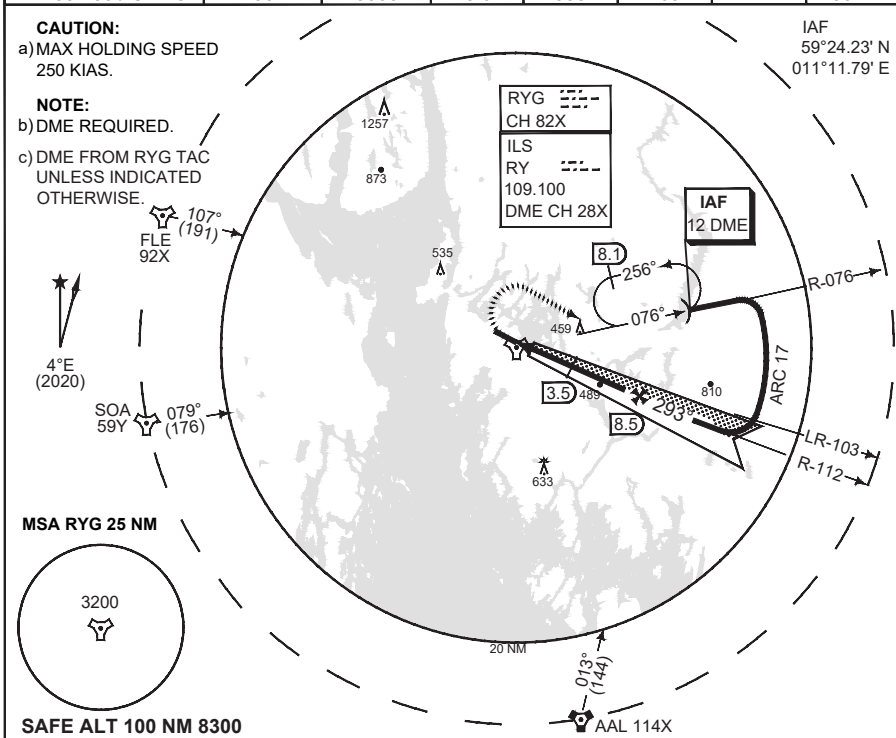
RNOA/F 24 FEB 2022

MIPS INSTRUMENT APPROACH CHART

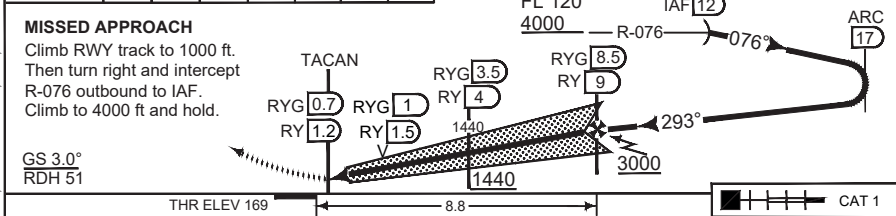
HPMA ILS or LOC RWY 30 RYGGE (ENRY)

AD ELEV 173

ATIS 136.175	RYGGE GND 121.700	RYGGE TWR 119.500 122.100 308.850			FARRIS APP (WEST) 134.050			FARRIS APP (EAST) 124.350	
ILS/DME RY 109.100 / CH 28X		APP COURSE 293°	GS INTCP ALT 3000	GS 3.0°	DA 388	THR ELEV 169	ALS 720 m	LDA 8011	



DME	2	3	4	5	6	7	8
ALT RYG	960	1290	1610	1940	2270	2600	2930
ALT RY	800	1130	1450	1780	2110	2440	2770



CATEGORY	HPMA
S-ILS 30	388 - 550 219 (300-0.8/1.2)
S-LOC 30	610 - 1400 441 (500-1.4/2.1)
CIRCLING	730 - 3.2 557 (600-3.2)

HPMA ILS or LOC RWY 30 RYGGE (ENRY)

59°22.73' N
010°47.13' E



CHANGES: MAGVAR, CAUTION, DIST/ALT TABLE, VDP, MINIMA

RNOGAF 24 FEB 2022

MIPS INSTRUMENT APPROACH CHART

ILS M or LOC M RWY 30 RYGGE (ENRY)

AD ELEV 173

ATIS 136.175	RYGGE GND 121.700	RYGGE TWR 119.500 122.100 308.850	FARRIS APP (WEST) 134.050	FARRIS APP (EAST) 124.350			
ILS/DME RY 109.100 / CH 28X	APP COURSE 293°	GS INTCP ALT 3000	GS 3.0°	DA SEE CAT	THR ELEV 169	ALS 720 m	LDA 8011

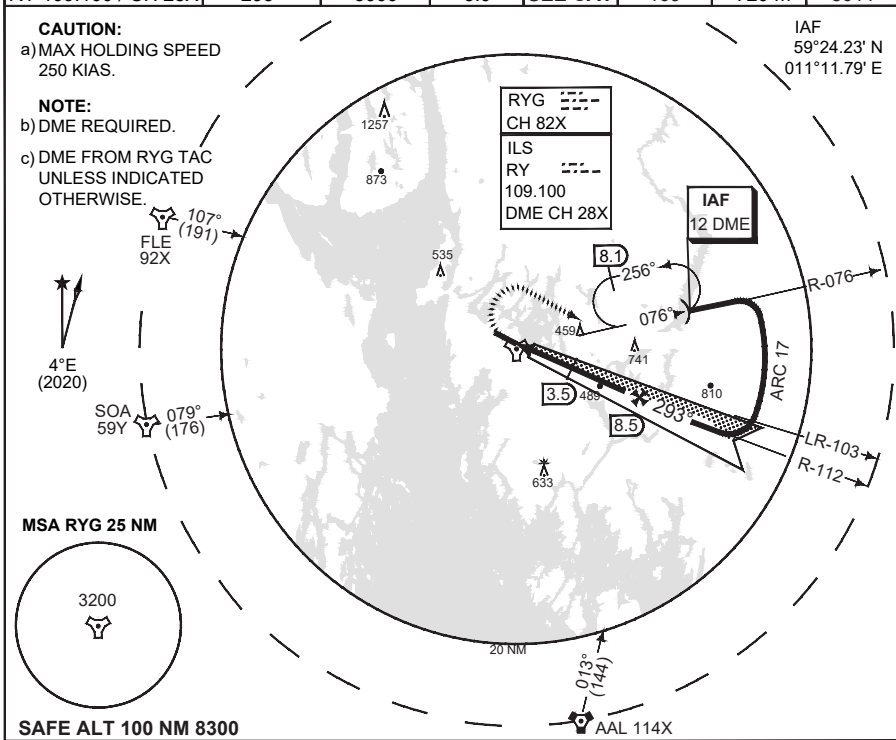
CAUTION:

a) MAX HOLDING SPEED 250 KIAS.

b) DME REQUIRED.

c) DME FROM RYG TAC UNLESS INDICATED OTHERWISE.

IAF
59°24.23' N
011°11.79' E



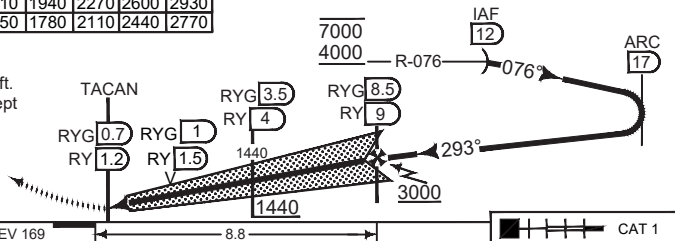
DME	2	3	4	5	6	7	8
ALT RYG	960	1290	1610	1940	2270	2600	2930
ALT RY	800	1130	1450	1780	2110	2440	2770

TA 7000

MISSED APPROACH

Climb RWY track to 1000 ft. Then turn right and intercept R-076 outbound to IAF. Climb to 4000 ft and hold.

GS 3.0°
RDH 51



MIPS	CATEGORY	A	B	C	D	E
	S-ILS 30	377 - 550 208 (300-0.8/1.2)	385 - 550 216 (300-0.8/1.2)	391 - 550 222 (300-0.8/1.2)	401 - 550 232 (300-0.8/1.2)	419 - 550 250 (300-0.8/1.3)
	S-LOC 30	610 - 1400 441 (500-1.4/2.1)				
CIRCLING	670 - 2.3 497 (500-2.3)	670 - 2.3 497 (500-2.3)	860 - 3.2 687 (700-3.2)	880 - 3.6 707 (800-3.6)	1120 - 4.3 947 (1000-4.3)	

ILS M or LOC M RWY 30

59°22.73' N
010°47.13' E

RYGGE (ENRY)

CHANGES: MAGVAR, CAUTION, DIST/ALT TABLE, VDP, MINIMA

RN04F 24 FEB 2022

MIPS INSTRUMENT APPROACH CHART

AD ELEV 173

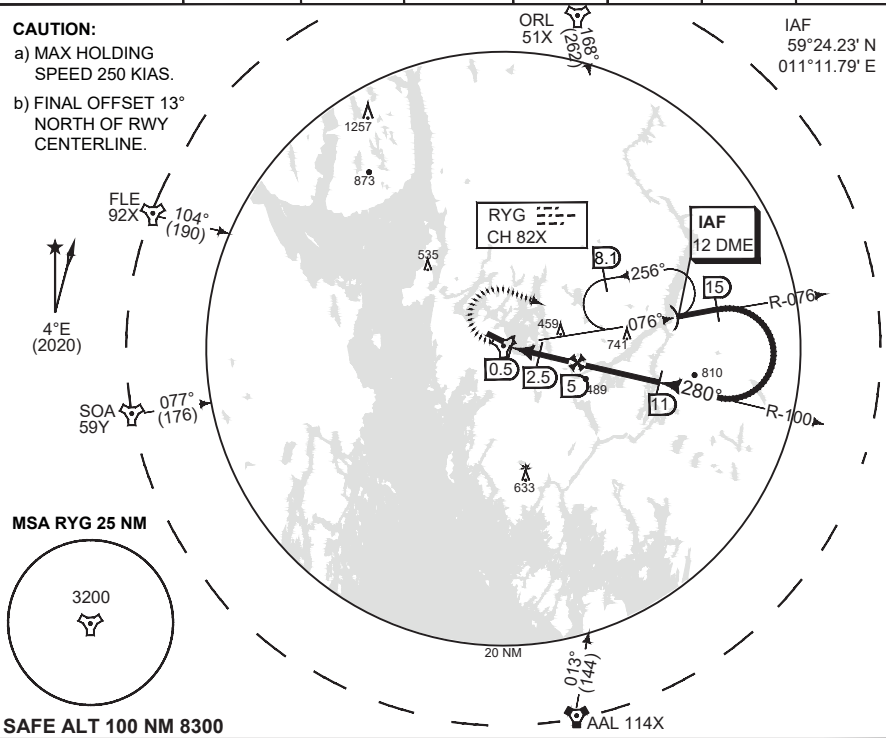
TACAN RWY 30 RYGGE (ENRY)

ATIS 136.175	RYGGE GND 121.700	RYGGE TWR 119.500	308.850	FARRIS APP (WEST) 134.050	FARRIS APP (EAST) 124.350		
TACAN RYG CH 82X	APP COURSE 280°	FAF ALT 2000	Descent GR 5.6%	MDA 570	THR ELEV 169	ALS 720 m	LDA 8011

CAUTION:

- a) MAX HOLDING SPEED 250 KIAS.
- b) FINAL OFFSET 13° NORTH OF RWY CENTERLINE.

IAF
59°24.23' N
011°11.79' E

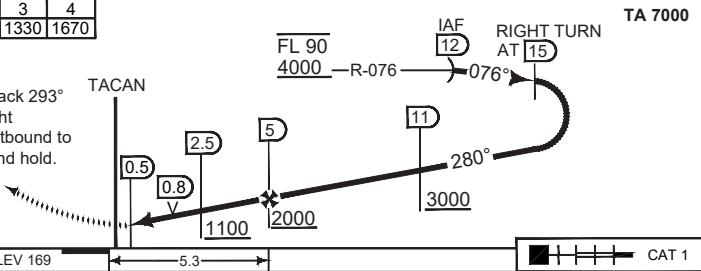


SAFE ALT 100 NM 8300

DME	1	2	3	4
ALT RYG	660	990	1330	1670

MISSED APPROACH

At 0.5 DME climb on track 293° to 1000 ft, then turn right and intercept R-076 outbound to IAF. Climb to 4000 ft and hold.



CATEGORY	A	B	C	D	E
S-TAC 30	570 - 1200 401 (500-1.2/1.9)				
CIRCLING	670 - 2.3 497 (500-2.3)	680 - 2.4 507 (600-2.4)	860 - 3.2 687 (700-3.2)	910 - 3.6 737 (800-3.6)	1150 - 4.5 977 (1000-4.5)

TACAN RWY 30

59°22.73' N
010°47.13' E

RYGGE (ENRY)

CHANGES: MAGVAR, CAUTION, DIST/ALT TABLE, VDP, MINIMA, EDITORIAL

RNOCAF 24 FEB 2022

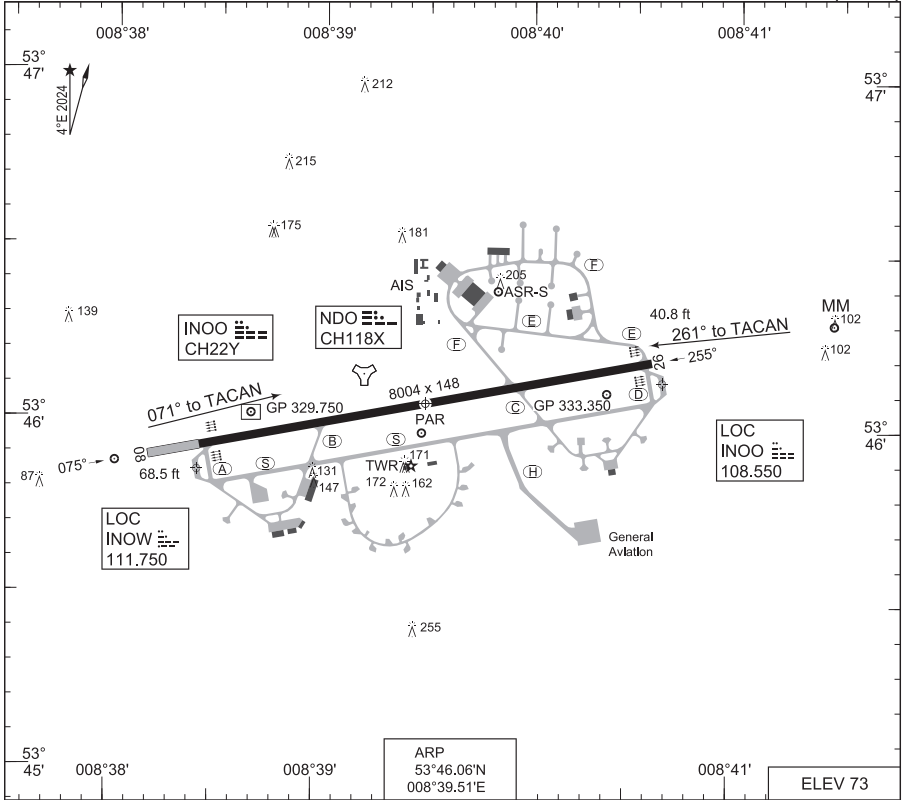
INTENTIONALLY

LEFT

BLANK

AERODROME CHART

NORDHOLZ (ETMN)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI		TDZE	THR PSN
08	86 F/A/W/T	8004	8004	8004	8004	3.0°		73	53°45.93'N 008°38.42'E
26	86 F/A/W/T	8004	8906	8906	8004	3.0°		64	53°46.19'N 008°40.60'E

NORDHOLZ TOWER 315.700 142.900 131.255
 NORDHOLZ RADAR 267.000 129.855 342.625 341.475 SSR 4240 - 4247

PAR	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
	TERPS	08	3.0°	43		751	ABCDE	TERPS	274 - 0.8 200 (200-0.8/1.2)
	TERPS	26	3.0°	68		1085	ABCDE	TERPS	267 - 0.8 200 (200-0.8/1.2)
	TERPS	079	3.0°				COPTER	TERPS	174 - 0.4 100 (100-0.4/0.8)

CHANGE: VAR (05/7/24)

ZentLufOp 18 APR 2024

AERODROME CHART

NORDHOLZ (ETMN)

**PANS-OPS
INSTRUMENT DEPARTURE CHART**

AD ELEV 73

**MN 108 - 126
NORDHOLZ (ETMN)**

NORDHOLZ TOWER
315.700 131.255

NORDHOLZ RADAR
342.625 129.855

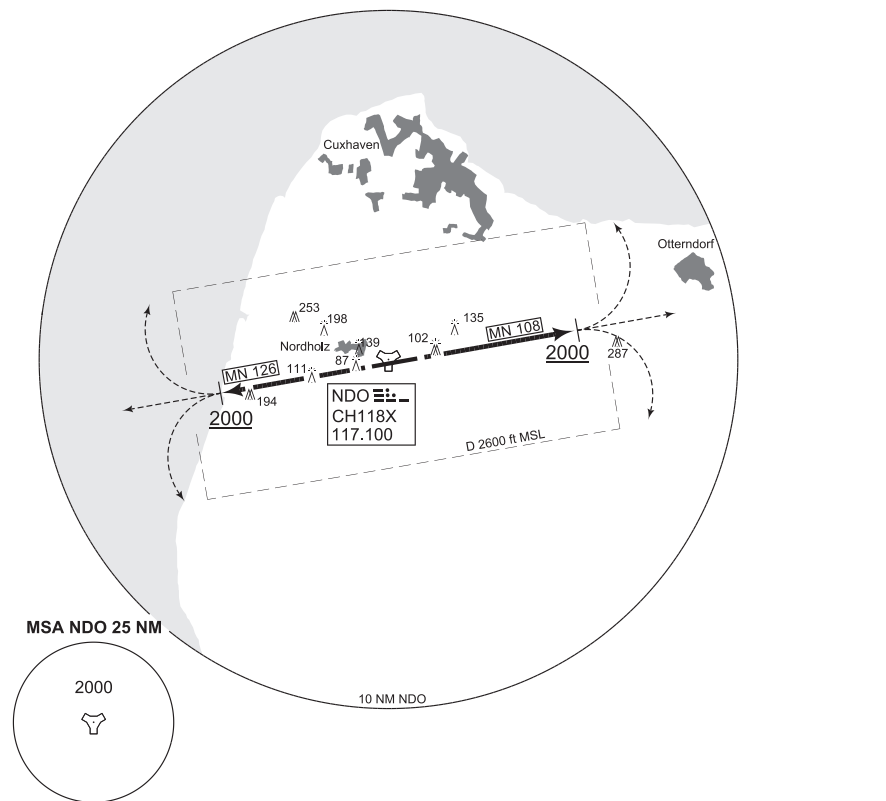
BREMEN RADAR
398.000 124.075

NOTE:

a) NO TURN BEFORE DER.



IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



EMERG SAFE ALT 100 NM 2700

TA 5000

CHANGE: VAR (05/7/24)

<p>MN 108 (RWY 08)</p>	<ul style="list-style-type: none"> - Climb on track 075° to 2000 ft - Continue as cleared by ATC
<p>MN 126 (RWY 26)</p>	<ul style="list-style-type: none"> - Climb on track 255° to 2000 ft - Continue as cleared by ATC

Zent/LuftOp - 18 APR 2024

MN 108 - 126

53°46.06'N
008°39.51'E
25-2

NORDHOLZ (ETMN)

**PANS-OPS
INSTRUMENT APPROACH CHART**

**ILS or LOC RWY 08
NORDHOLZ (ETMN)**

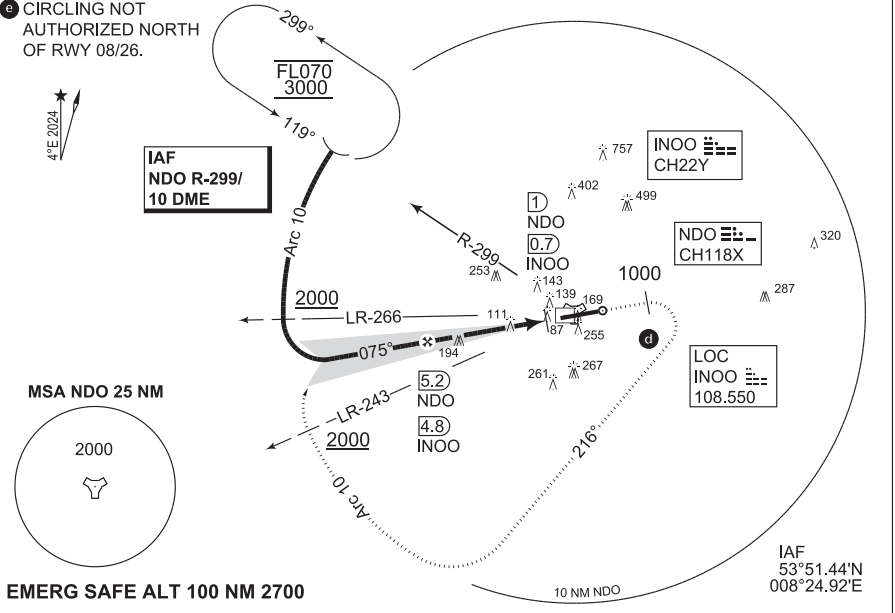
AD ELEV 73

BREMEN RADAR 299.100 120.225		NORDHOLZ RADAR 342.625 129.855		NORDHOLZ TOWER 315.700 131.255 122.100			
TACAN / LOCALIZER CH 118X / INOO 108.55	APP COURSE 075°	GS INTCP ALT 1600	DESCENT GR 3.0° / 5.2%	DA See CAT	THR ELEV 69	ALS-LENGTH 900 M	LDA 8004

NOTE:

- a) NO TURN BEFORE MAPT.
- b) TIMING NOT AUTHORIZED FOR DEFINING MAPT.
- c) TACAN REQUIRED.
- d) MISSED APPROACH LIMITED TO 230 KIAS MAX.
- e) CIRCLING NOT AUTHORIZED NORTH OF RWY 08/26.

IFR PROFILES WITHIN AIRSPACE CLASS "E" WATCH OUT FOR VFR TRAFFIC UNKNOWN TO ATC.



MISSED APPROACH
Climb on RWY track to 2000 ft MSL. When passing 1000 ft MSL turn right heading 216° and intercept Arc 10 DME NDO TACAN and return to final.

DIST INOO	4	3	2	1
DIST NDO	4.3	3.3	2.3	1.3
Altitude	1340	1020	700	380

CAT I	4.65			THR ELEV 69
-------	------	--	--	-------------

CATEGORY	A	B	C	D
ILS 08	269 - 0.8 550 200 (200-0.8/1.2)			
LOC 08	440 - 1.0 371 (400-1.0/1.5)		440 - 1.0 371 (400-1.0/1.7)	
e CIRCLING	560 - 2.3 487 (500-2.3)	570 - 2.3 497 (500-2.3)	780 - 3.3 707 (800-3.3)	930 - 4.0 857 (900-4.0)

ILS or LOC RWY 08

53°46.06'N
008°39.51'E

NORDHOLZ (ETMN)

25-3

TERPS INSTRUMENT APPROACH CHART

**TACAN RWY 08
NORDHOLZ (ETMN)**

AD ELEV 73

BREMEN RADAR 299.100 120.225		NORDHOLZ RADAR 342.625 129.855			NORDHOLZ TOWER 315.700 131.255		
TACAN NDO CH118X	APP COURSE 070°	FAF ALT 1600	MDA 450	THR ELEV 69	ALS-LENGTH 900 M	LDA 8004	

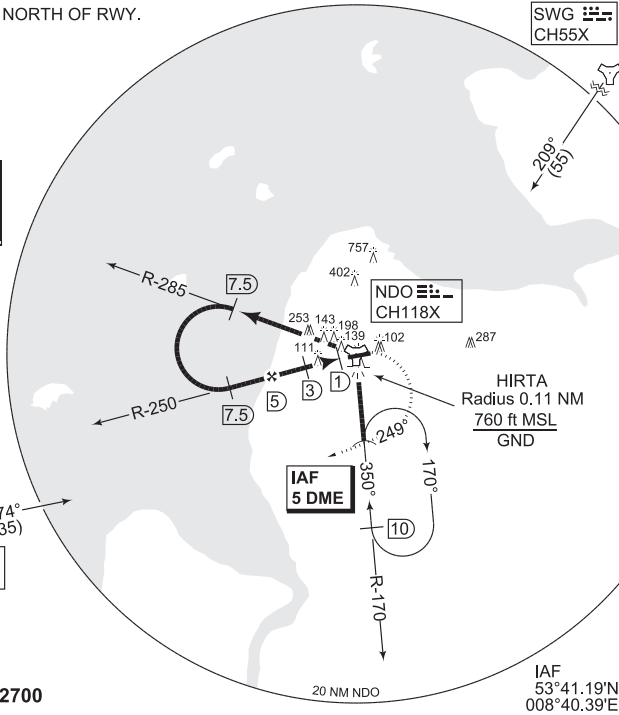
CAUTION:

1 CIRCLING NOT AUTHORIZED NORTH OF RWY.

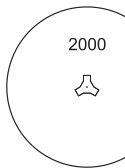
SWG CH55X



IFR PROFILES WITHIN AIRSPACE CLASS "E" WATCH OUT FOR VFR TRAFFIC UNKNOWN TO ATC.



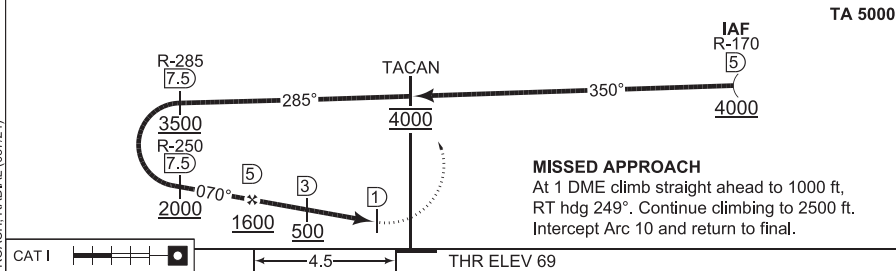
MSA NDO 25 NM



WTM CH82X

EMERG SAFE ALT 100 NM 2700

TA 5000



CHANGE: VAR, MISSED APPROACH, RADIAL (057/24)

TERPS	CATEGORY	A	B	C	D	E
	S-TACAN 08	450 - 1.1 381 (400-1.1/1.5)		450 - 1.1 381 (400-1.1/1.8)		
1	CIRCLING	560 - 2.3 487 (500-2.3)	570 - 2.3 497 (500-2.3)	780 - 3.3 707 (800-3.3)	930 - 4.0 857 (900-4.0)	1030 - 4.5 957 (1000-4.5)
	PAR 08	274 - 0.8 200 (200-0.8/1.2) GS 3.0°				

TACAN RWY 08

53°46.06'N
008°39.51'E

NORDHOLZ (ETMN)

**PANS-OPS
INSTRUMENT APPROACH CHART**

**ILS or LOC RWY 26
NORDHOLZ (ETMN)**

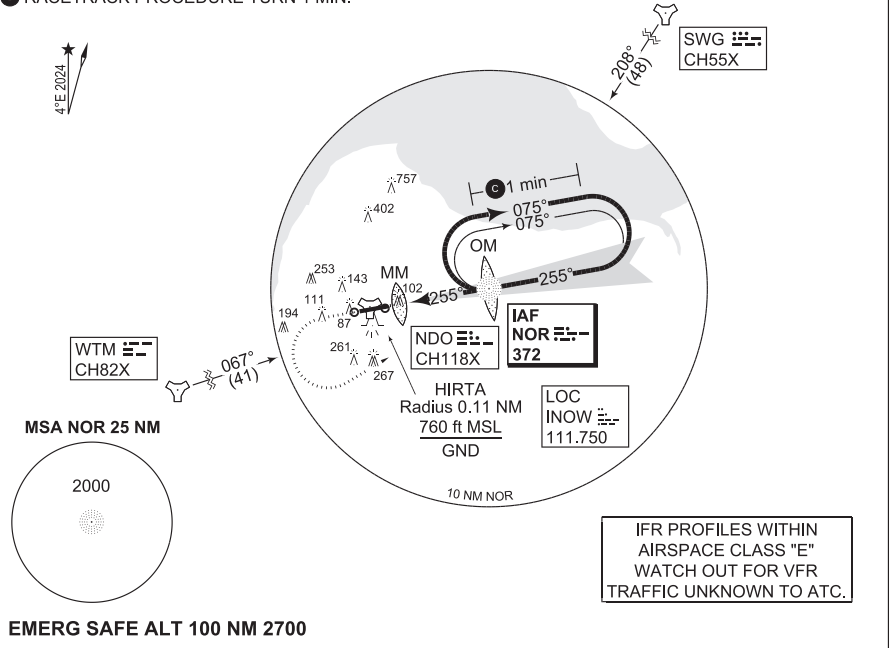
AD ELEV 73

BREMEN RADAR 299.100 120.225		NORDHOLZ RADAR 342.625 129.855		NORDHOLZ TOWER 315.700 131.255			
TACAN / LOCALIZER CH 118X / INOW 111.750	APP COURSE 255°	GS INTCP ALT 1600	GS 3.0° (5.2%)	DA See CAT	TDZE 64	ALS-LENGTH 900 M	LDA 8004

NOTE:

- a) PROCEDURE LIMITED TO 230 KIAS.
- b) CIRCLING NOT AUTHORIZED NORTH OF RWY.
- c) RACETRACK PROCEDURE TURN 1 MIN.

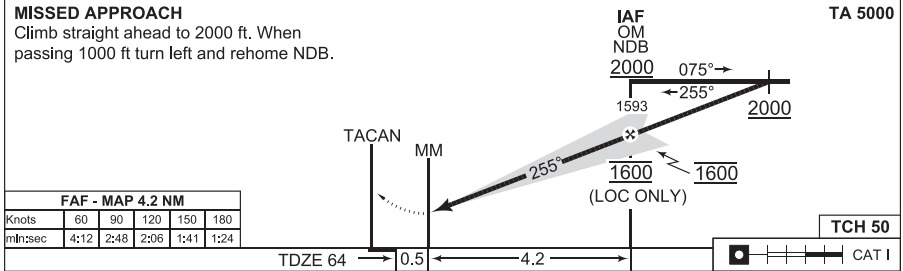
IAF
53°47.11'N
008°48.37'E



EMERG SAFE ALT 100 NM 2700

MISSED APPROACH

Climb straight ahead to 2000 ft. When passing 1000 ft turn left and rehome NDB.



CATEGORY	A	B	C	D
S-ILS 26	264 - 0.8/550 200 (200-0.8/1.2)			
S-LOC 26	480 - 1.2 416 (500-1.2/1.5)		480 - 1.2 416 (500-1.2/1.9)	
b CIRCLING	560 - 2.3 487 (500-2.3)	570 - 2.3 497 (500-2.3)	780 - 3.3 707 (800-3.3)	930 - 4.0 857 (900-4.0)

ILS or LOC RWY 26

53°46.06'N
008°39.51'E

NORDHOLZ (ETMN)

25-5

ETMN

CHANGE: VAR (05/7/24)

MPS

ZentLufOp 18 APR 2024

TERPS INSTRUMENT APPROACH CHART

**TACAN RWY 26
NORDHOLZ (ETMN)**

AD ELEV 73

BREMEN RADAR 299.100 120.225		NORDHOLZ RADAR 342.625 129.855			NORDHOLZ TOWER 315.700 131.255		
TACAN NDO CH118X	APP COURSE 260°	FAF ALT 1600	MDA 450	THR ELEV 41	ALS-LENGTH 900 M	LDA 8004	

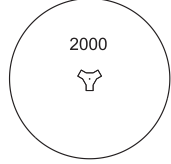
CAUTION:
 CIRCLING NOT AUTHORIZED NORTH OF RWY.

SWG
 CH55X

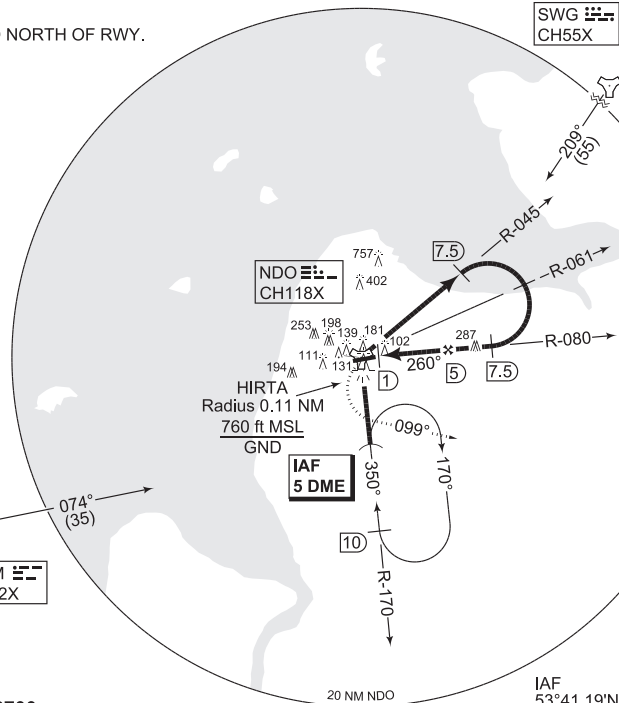


IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

MSA NDO 25 NM

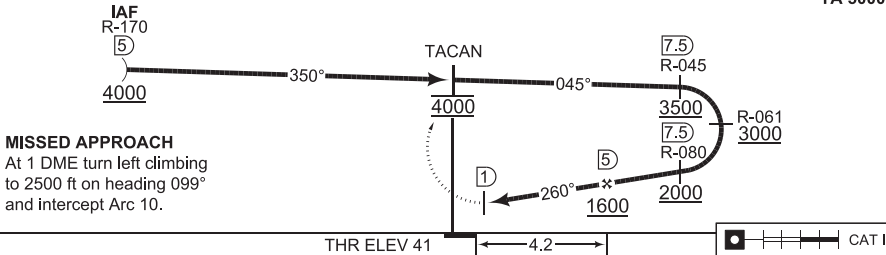


WTM
 CH82X



EMERG SAFE ALT 100 NM 2700

TA 5000



MISSED APPROACH
 At 1 DME turn left climbing
to 2500 ft on heading 099°
and intercept Arc 10.

CHANGE: VAR, MISSED APPROACH, RADIAL (05/7/24)

TERPS	CATEGORY	A	B	C	D	E
	S-TACAN 26	450 - 1.2 409 (500-1.2/1.5)		450 - 1.2 409 (500-1.2/1.9)		
	CIRCLING	560 - 2.3 487 (500-2.3)	570 - 2.3 497 (500-2.3)	780 - 3.3 707 (800-3.3)	930 - 4.0 857 (900-4.0)	1030 - 4.5 957 (1000-4.5)
	PAR 26	267 - 0.8 200 (200-0.8/1.2) GS 3.0°				

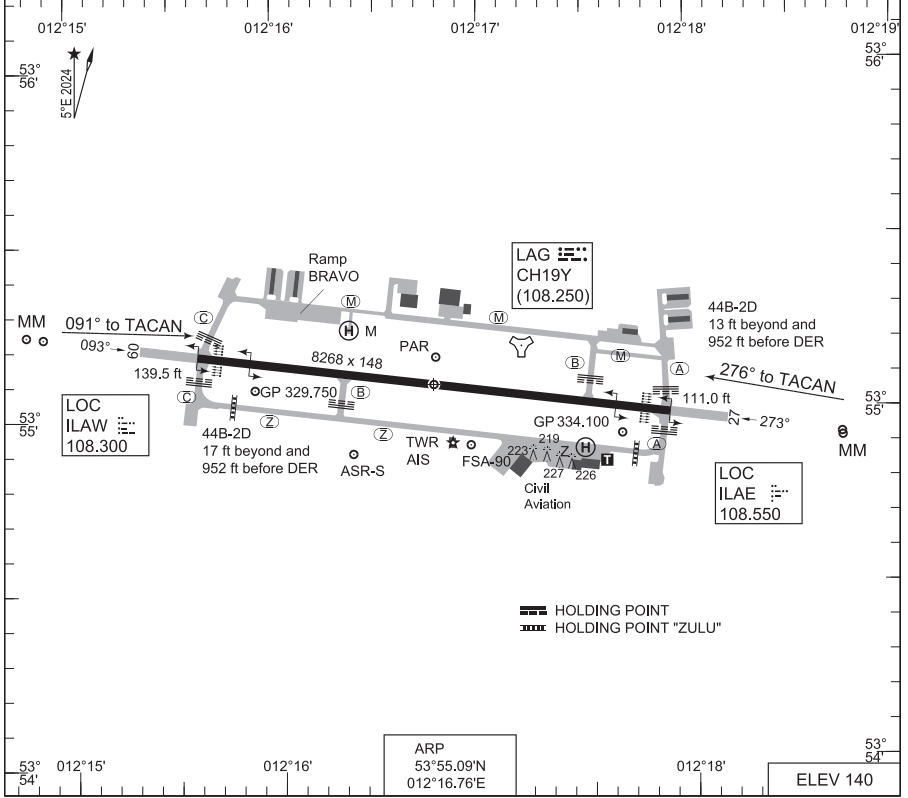
TACAN RWY 26

53°46.06'N
008°39.51'E

NORDHOLZ (ETMN)

AERODROME CHART

LAAGE (ETNL)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI		TDZE	THR PSN
09	88 R/B/W/T	8268 (8924*)	9266	10283 (10938*)	8268	3.0°		140	53°55.18'N 012°15.62'E
27	88 R/B/W/T	8268 (8924*)	9269	9909 (10564*)	8268	3.0°		134	53°54.99'N 012°17.90'E

*SWY available for TKOF on request via backtrack (PCN 66)

LAAGE TOWER 336.400 118.430
 LAAGE RADAR 376.400 133.105 SSR 4210 - 4217
 LAAGE ATIS 134.605

	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
PAR	PANS-OPS	09	3.0°	23		459	ABCDE	TERPS	340 - 0.8 200 (200-0.8/1.2)
	PANS-OPS	27	3.0°	29		460	ABCDE	TERPS	335 - 0.8 200 (200-0.8/1.2)

CHANGE: VAR (376/23)

ZentLufOp 28 DEC 2023

AERODROME CHART

LAAGE (ETNL)

**TERPS
INSTRUMENT DEPARTURE CHART**

AD ELEV 140

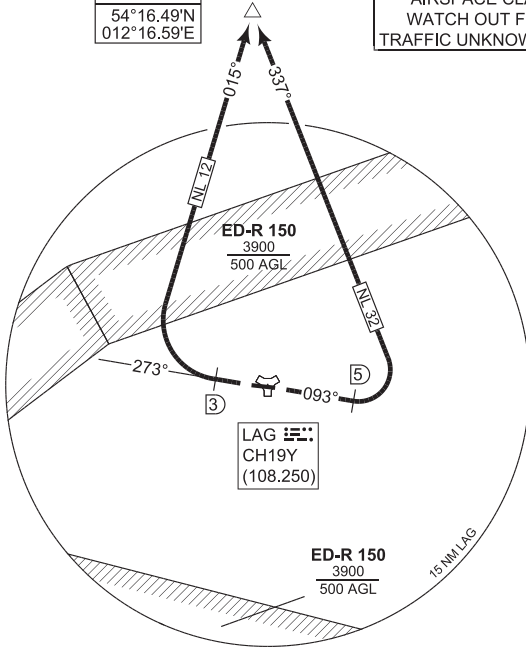
**NL 12 - 32
LAAGE (ETNL)**

LAAGE TOWER 336.400 118.430		LAAGE RADAR 376.400 133.105		BREMEN RADAR 259.825 124.175			LAAGE ATIS 134.605		
RWY	Knots	60	120	180	240	300	360	to	
27	V/V (fpm)	270	540	810	1080	1350	1620	1420 ft	
09	V/V (fpm)	230	460	690	820	1050	1280	1800 ft	



GASBO
54°16.49'N
012°16.59'E

IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

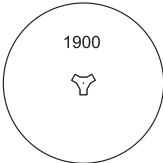


LAG CH19Y
(108.250)

ED-R 150
3900
500 AGL

15 NM LAG

MSA LAG 25 NM



EMERG SAFE ALT 100 NM 3500

TA 5000

NL 12 (RWY 27)	<ul style="list-style-type: none"> - Climb on track 273° to LAG/3 DME - Turn right and proceed on track 015° to GASBO - INITIAL CLIMB: 4000 ft
NL 32 (RWY 09)	<ul style="list-style-type: none"> - Climb on track 093° to LAG/5 DME - Turn left and proceed on track 337° to GASBO - INITIAL CLIMB: 4000 ft

NL 12 - 32

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**TERPS
INSTRUMENT DEPARTURE CHART**

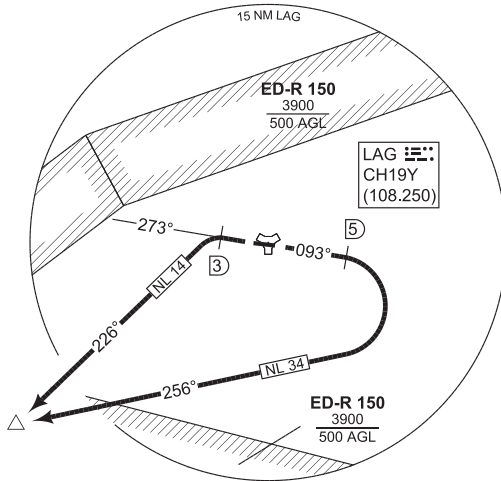
AD ELEV 140

**NL 14 - 34
LAAGE (ETNL)**

LAAGE TOWER 336.400 118.430		LAAGE RADAR 376.400 133.105		BREMEN RADAR 259.825 124.175				LAAGE ATIS 134.605		
	RWY	Knots	60	120	180	240	300	360	to	
	27	V/V (fpm)	250	500	750	1000	1250	1500	3500 ft	
	09	V/V (fpm)	230	460	690	920	1150	1380	1800 ft	

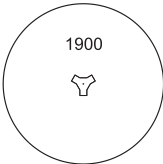


IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



TAGOB
53°44.09'N
011°49.98'E

MSA LAG 25 NM



EMERG SAFE ALT 100 NM 3500

TA 5000

NL 14 (RWY 27)	<ul style="list-style-type: none"> - Climb on track 273° to LAG/3 DME. - Turn left and proceed on track 226° to TAGOB - INITIAL CLIMB: 4000 ft
NL 34 (RWY 09)	<ul style="list-style-type: none"> - Climb on track 093° to LAG/5 DME - Turn right and proceed on track 256° to TAGOB - INITIAL CLIMB: 4000 ft

CHANGE: VAR (376/23)

ZentriLuitOp 28 DEC 2023

NL 14 - 34

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**TERPS
INSTRUMENT DEPARTURE CHART**

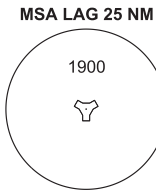
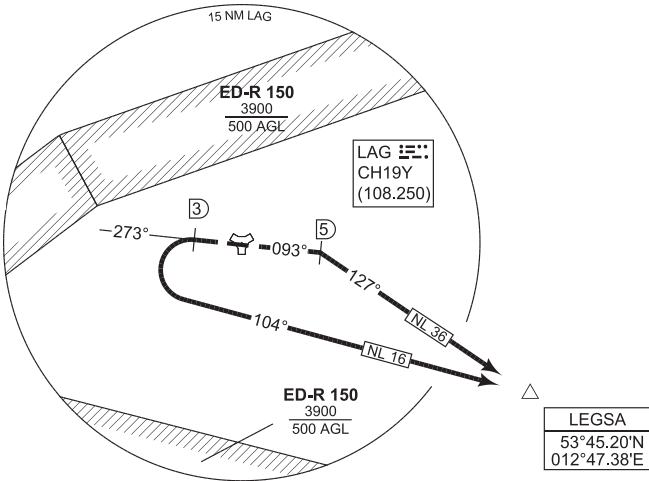
AD ELEV 140

**NL 16 - 36
LAAGE (ETNL)**

LAAGE TOWER 336.400 118.430		LAAGE RADAR 376.400 133.105		BREMEN RADAR 259.825 124.175				LAAGE ATIS 134.605			
	RWY	Knots	60	120	180	240	300	360	to		
	27	V/V (fpm)	250	500	750	1000	1250	1500	3500 ft		
	09	V/V (fpm)	230	460	690	920	1150	1380	1800 ft		



IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



EMERG SAFE ALT 100 NM 3500

TA 5000

NL 16 (RWY 27)	<ul style="list-style-type: none"> - Climb on track 273° to LAG/3 DME - Turn left and proceed on track 104° to LEGSA - INITIAL CLIMB: 4000 ft
NL 36 (RWY 09)	<ul style="list-style-type: none"> - Climb on track 093° to LAG/5 DME - Turn right and proceed on track 127° to LEGSA - INITIAL CLIMB: 4000 ft

CHANGE: VAR (376/23)

Zent/LuitOp 28 DEC 2023

NL 16 - 36

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**PANS-OPS
OPERATIONAL INSTRUMENT DEPARTURE CHART**

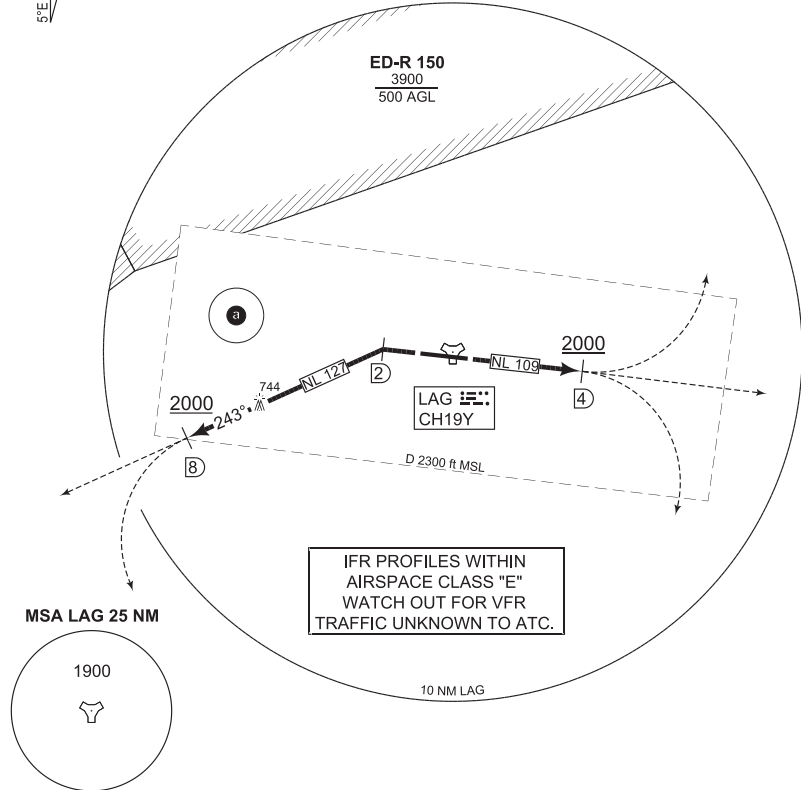
AD ELEV 140

**NL 109 - 127
LAAGE (ETNL)**

LAAGE TOWER 336.400 118.430	LAAGE RADAR 376.400 133.105	BREMEN RADAR 259.825 124.175				LAAGE ATIS 134.605			
	RWY	from - to	60	120	180	240	300	360	Reason
	09	DER - 2000	582	1164	1746	2328	2910	3492	ATC
	27	DER - 1000	477	954	1431	1908	2385	2862	ATC

NOTE:

- a) NOISE ABATEMENT AREA AROUND CITY OF SCHWAAAN.
- b) DME REQUIRED.



EMERG SAFE ALT 100 NM 3500

TA 5000

NL 109 (RWY 09)	<ul style="list-style-type: none"> - Climb straight ahead - Pass LAG/4 DME at 2000 ft or above - Continue as cleared by ATC - INITIAL CLIMB: 4000 ft
NL 127 (RWY 27)	<ul style="list-style-type: none"> - Climb straight ahead - When passing LAG/2 DME turn left and proceed on track 243° to LAG/8 DME, pass LAG/8 DME at 2000 ft or above - Continue as cleared by ATC - INITIAL CLIMB: 4000 ft

CHANGE: VAR (376/23)

Zentli/utl/Op-28 DEC 2023

NL 109 - 127

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**PANS-OPS
OPERATIONAL INSTRUMENT DEPARTURE CHART**

AD ELEV 140

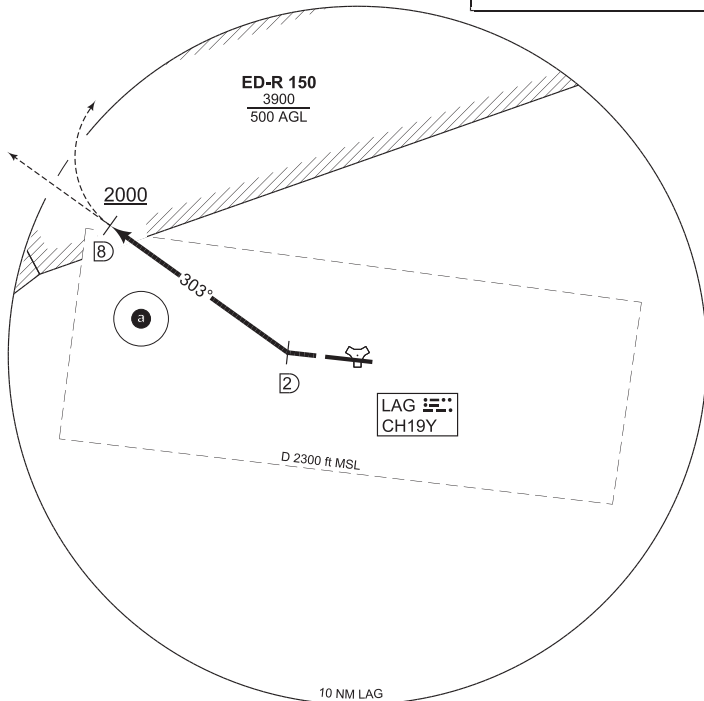
**NL 227
LAAGE (ETNL)**

LAAGE TOWER		LAAGE RADAR		BREMEN RADAR			LAAGE ATIS			
336.400	118.430	376.400	133.105	259.825	124.175		134.605			
		RWY	from-to	60	120	180	240	300	360	Reason
		27	DER - 1000	477	954	1431	1908	2385	2862	ATC

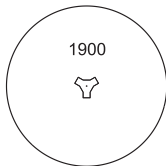
NOTE:

- a) NOISE ABATEMENT AREA AROUND CITY OF SCHWAAN.
- b) DME REQUIRED.

IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



MSA LAG 25 NM



EMERG SAFE ALT 100 NM 3500

TA 5000

NL 227
(RWY 27)

- Climb straight ahead
- When passing LAG/2 DME turn right and proceed on track 303° to LAG/8 DME, pass LAG/8 DME at 2000 ft or above
- Continue as cleared by ATC
- INITIAL CLIMB: 4000 ft

CHANGE: VAR (376/23)

Zent/LuitOp 28 DEC 2023

NL 227

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**PANS-OPS
INSTRUMENT APPROACH CHART**

**ILS or LOC Y RWY 09
LAAGE (ETNL)**

AD ELEV 140

BREMEN RADAR 259.825 124.175	LAAGE RADAR 376.400 133.105	LAAGE TOWER 336.400 118.430	LAAGE ATIS 134.605
TACAN/LOCALIZER LAG CH19Y/ILAE 108.550	APP COURSE 093°	GS INTCP ALT 2000	GS 3.0°
		DA See CAT	TDZE 140
		ALS-LENGTH 900 M	LDA 8268

NOTE:

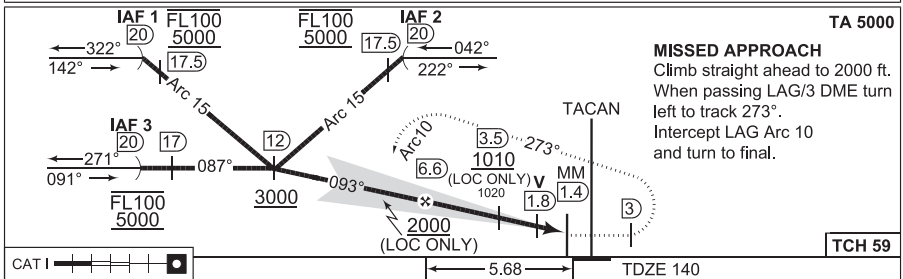
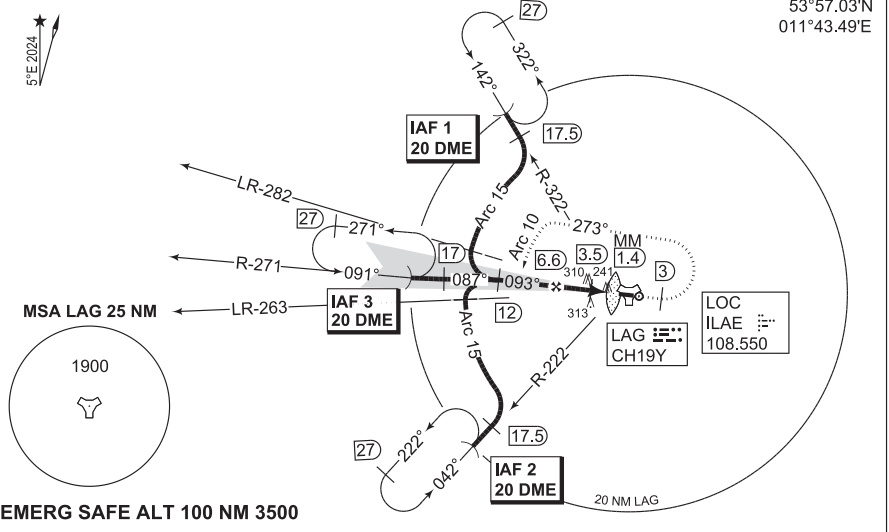
- a) TIMING NOT AUTHORIZED FOR DEFINING THE MAPT.
- b) NON STANDARD PROCEDURE (DEAD RECKONING INTERCEPTS LOC WITH 6.0° ONLY).
- c) FOR MILITARY USE ONLY.
- d) PAPI AND ILS GLIDEPATH DO NOT COINCIDE.
- e) TACAN REQUIRED.
- f) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- g) HPMA

IAF 1
54°11.91'N
011°58.64'E

IAF 2
53°41.53'N
011°52.58'E

IAF 3
53°57.03'N
011°43.49'E

IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



CAT I	5.68			TDZE 140	TCH 59
CATEGORY	A	B	C	D	E
ILS Y 09	340 - 0.8 200 (200-0.8/1.2)				NOT AUTHORIZED
LOC Y 09	490 - 0.8 350 (400-0.8/1.6)	490 - 1.2 350 (400-1.2/1.6)		490 - 1.2 350 (400-1.2/2.0)	NOT AUTHORIZED
f CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)		1070 - 4.3 930 (1000-4.3) g

ILS or LOC Y RWY 09

53°55.09'N
012°16.76'E

LAAGE (ETNL)

CHANGE: VAR (376/23)

MPS

ZentLufTop-28 DEC 2023

**PANS-OPS
INSTRUMENT APPROACH CHART**

**ILS or LOC Z RWY 09
LAAGE (ETNL)**

AD ELEV 140

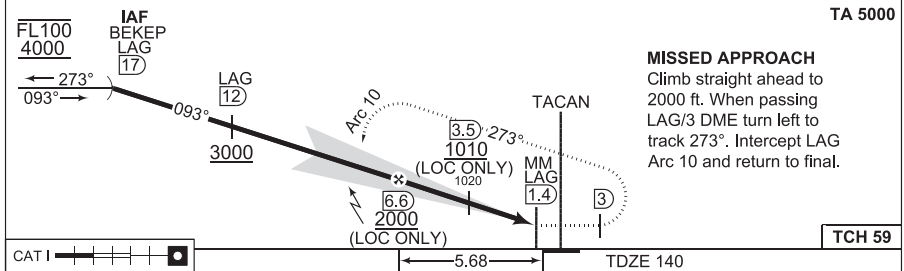
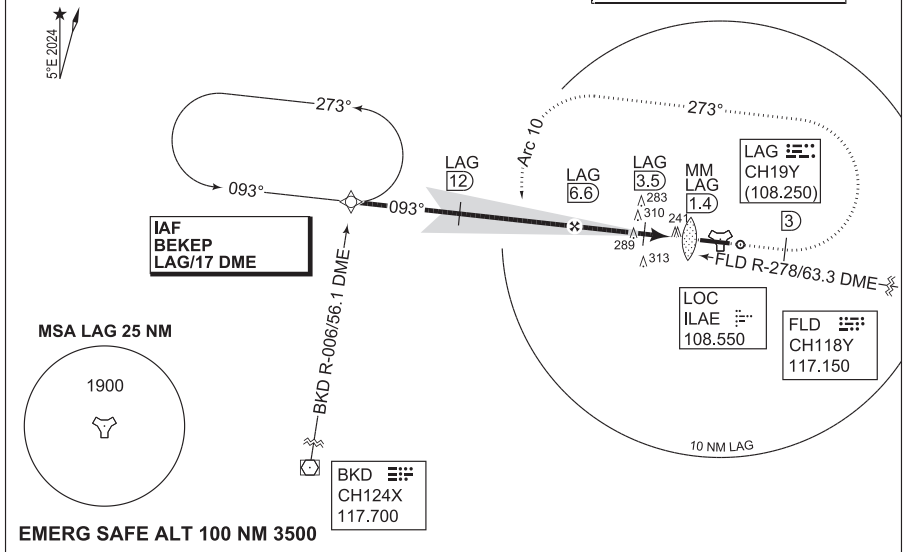
BREMEN RADAR 259.825 124.175	LAAGE RADAR 376.400 133.105	LAAGE TOWER 336.400 118.430	LAAGE ATIS 134.605
TACAN/LOCALIZER LAG CH19Y/ILAE 108.550	APP COURSE 093°	GS INTCP ALT 2000	GS 3.0°
		DA See CAT	TDZE 140
		ALS-LENGTH 900 M	LDA 8268

NOTE:

- a) PAPI AND ILS GLIDEPATH DO NOT COINCIDE.
- b) DME REQUIRED.
- c) RNAV REQUIRED FOR HOLDING, IN CASE OF LOST COM FOR NON-RNAV EQUIPPED ACFT DISREGARD ETA AND START APPROACH WITHOUT DELAY.
- d) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- e) HPMA

IAF BEKEP
53°57.16'N
011°48.38'E

IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.



CATEGORY	A	B	C	D	E
ILS Z 09	340 - 0.8 200 (200-0.8/1.6)				NOT AUTHORIZED
LOC Z 09	490 - 0.8 350 (400-0.8/1.6)		490 - 1.2 350 (400-1.2/1.6)	490 - 1.2 350 (400-1.2/2.0)	NOT AUTHORIZED
d CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)		1070 - 4.3 930 (1000-4.3) e

ILS or LOC Z RWY 09

53°55.09'N
012°16.76'E

LAAGE (ETNL)

CHANGE: VAR (376/23)

ZentLufTop-28 DEC 2023

**PANS-OPS
INSTRUMENT APPROACH CHART**

AD ELEV 140

**TACAN RWY 09
LAAGE (ETNL)**

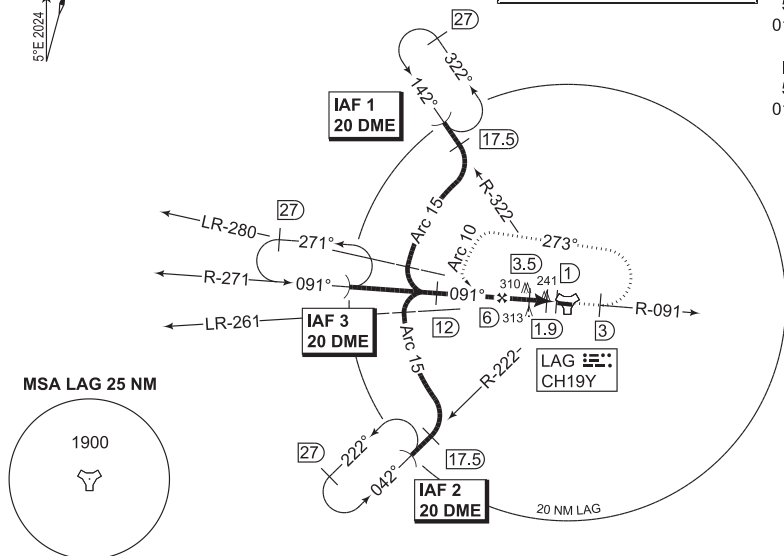
BREMEN RADAR 259.825 124.175		LAAGE RADAR 376.400 133.105		LAAGE TOWER 336.400 118.430		LAAGE ATIS 134.605	
TACAN LAG CH19Y	APP COURSE 091°	FAF ALT 1800	DESCENT GR 5.2%	MDA 500	TDZE 140	ALS-LENGTH 900 M	LDA 8268

NOTE:

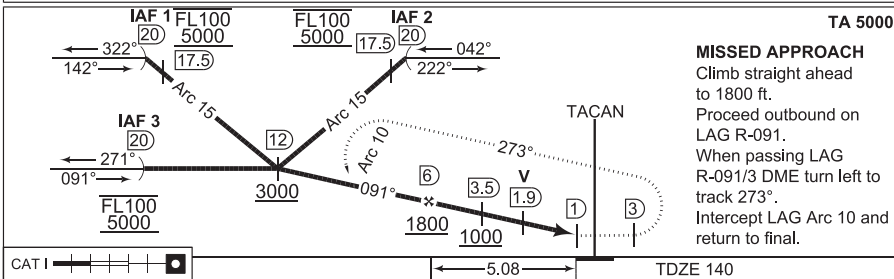
- a) TIMING NOT AUTHORIZED FOR DEFINING THE MAPT.
- b) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- c) HPMA

IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

- IAF 1
54°11.91'N
011°58.64'E
- IAF 2
53°41.53'N
011°52.58'E
- IAF 3
53°57.03'N
011°43.49'E



EMERG SAFE ALT 100 NM 3500



TA 5000
MISSED APPROACH
Climb straight ahead to 1800 ft. Proceed outbound on LAG R-091. When passing LAG R-091/3 DME turn left to track 273°. Intercept LAG Arc 10 and return to final.

CATEGORY	A	B	C	D	E
TACAN 09	500 - 1.2 360 (400-1.2/1.6)			500 - 1.2 360 (400-1.2/2.0)	
b) CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)	1070 - 4.3 930 (1000-4.3)	
PAR 09	340 - 0.8 200 (200-0.8/1.2)				

CHANGE: VAR. LR (3/76/23)

TACAN RWY 09

53°55.09'N
012°16.76'E

LAAGE (ETNL)

ZentLufTop-28 DEC 2023

**PANS-OPS
INSTRUMENT APPROACH CHART**

**ILS or LOC Y RWY 27
LAAGE (ETNL)**

AD ELEV 140

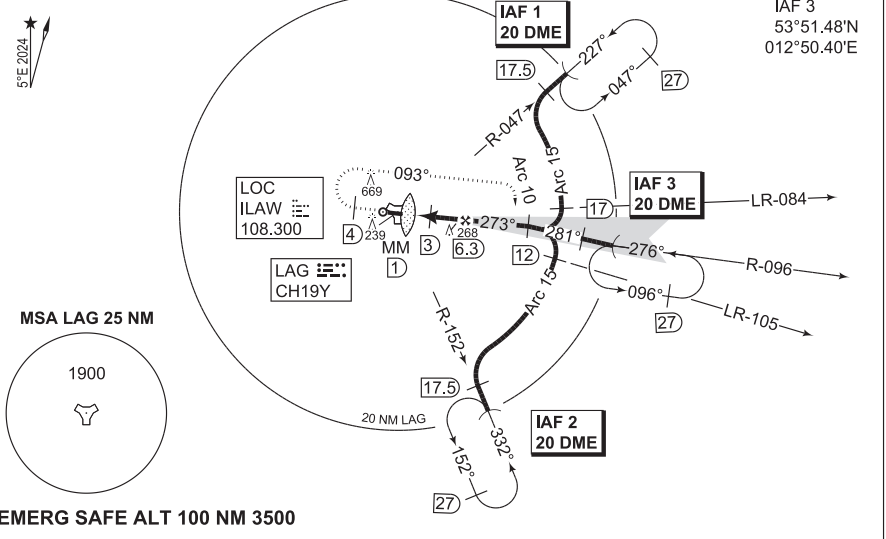
BREMEN RADAR 259.825 124.175	LAAGE RADAR 376.400 133.105	LAAGE TOWER 336.400 118.430	LAAGE ATIS 134.605
TACAN/LOCALIZER LAG CH19Y/ILAW 108.300	APP COURSE 273°	GS INTCPT ALT 2000	GS 3.0° / 5.2%
		DA See CAT	TDZE 135
			ALS-LENGTH 900 M
			LDA 8268

NOTE:

- a) TIMING NOT AUTHORIZED FOR DEFINING THE MAPT.
- b) NON STANDARD PROCEDURE (DEAD RECKONING INTERCEPTS LOC WITH 8.0° ONLY).
- c) FOR MILITARY USE ONLY.
- d) PAPI AND ILS GLIDEPATH DO NOT COINCIDE.
- e) TACAN REQUIRED.
- f) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- g) HPMA

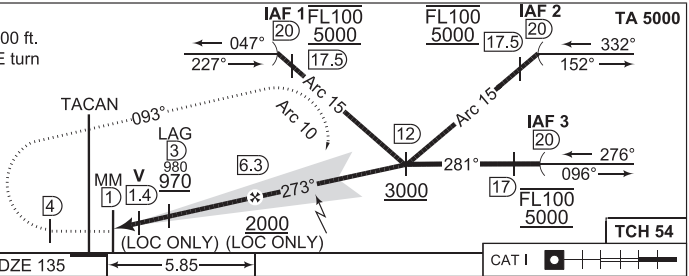
IFR PROFILES WITHIN AIRSPACE CLASS "E" WATCH OUT FOR VFR TRAFFIC UNKNOWN TO ATC.

- IAF 1
54°07.43'N
012°43.97'E
- IAF 2
53°36.80'N
012°30.31'E
- IAF 3
53°51.48'N
012°50.40'E



MISSED APPROACH

Climb straight ahead to 2000 ft. When passing LAG/4 DME turn right to track 093°. Intercept LAG Arc 10 and return to final.



CATEGORY	A	B	C	D	E
ILS Y 27	335 - 0.8 200 (200-0.8/1.6)				NOT AUTHORIZED
LOC Y 27	480 - 0.8 345 (400-0.8/1.6)		480 - 1.2 345 (400-1.2/1.6)	480 - 1.2 345 (400-1.2/2.0)	NOT AUTHORIZED
f) CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)		1070 - 4.3 930 (1000-4.3) g)

ILS or LOC Y RWY 27

53°55.09'N
012°16.76'E

LAAGE (ETNL)

CHANGE: VAR, LR (3/76/23)

ZenturTop-28 DEC 2023

**PANS-OPS
INSTRUMENT APPROACH CHART**

AD ELEV 140

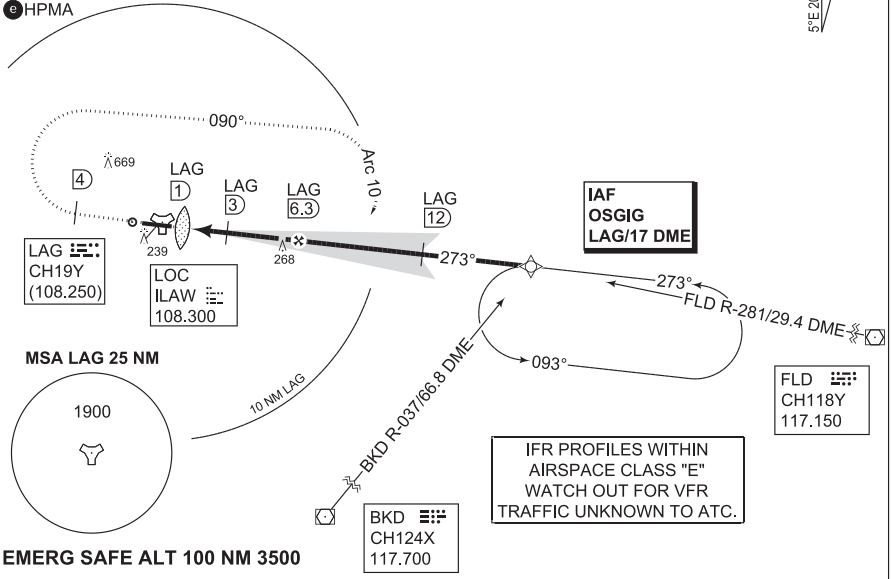
**ILS or LOC Z RWY 27
LAAGE (ETNL)**

BREMEN RADAR 259.825 124.175	LAAGE RADAR 376.400 133.105	LAAGE TOWER 336.400 118.430	LAAGE ATIS 134.605
TACAN/LOCALIZER LAG CH19Y/ILAW 108.300	APP COURSE 273°	GS INTCP ALT 2000	GS 3.0° / 5.2%
		DA See CAT	TDZE 135
			ALS-LENGTH 900 M
			LDA 8268

NOTE:

- a) PAPI AND ILS GLIDEPATH DO NOT COINCIDE
- b) DME REQUIRED.
- c) RNAV REQUIRED FOR HOLDING, IN CASE OF LOST COM FOR NON-RNAV EQUIPPED ACFT DISREGARD ETA AND START APPROACH WITHOUT DELAY.
- d) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- e) HPMA

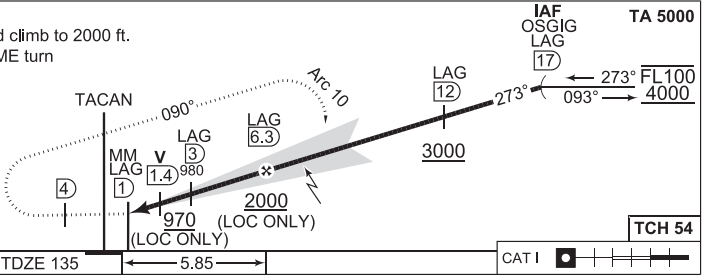
IAF OSGIG
53°52.71'N
012°45.61'E



EMERG SAFE ALT 100 NM 3500

MISSED APPROACH

Climb straight ahead and climb to 2000 ft.
When passing LAG/4 DME turn right to track 090°.
Intercept LAG Arc 10 and return to final.



CATEGORY	A	B	C	D	E
ILS Z 27	335 - 0.8 200 (200-0.8/1.6)				NOT AUTHORIZED
LOC Z 27	480 - 0.8 345 (400-0.8/1.6)		480 - 1.2 345 (400-1.2/1.6)	480 - 1.2 345 (400-1.2/2.0)	NOT AUTHORIZED
d) CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)		1070 - 4.3 930 (1000-4.3)

ILS or LOC Z RWY 27

53°55.09'N
012°16.76'E

LAAGE (ETNL)

**PANS-OPS
INSTRUMENT APPROACH CHART**

AD ELEV 140

**TACAN RWY 27
LAAGE (ETNL)**

BREMEN RADAR 259.825 124.175		LAAGE RADAR 376.400 133.105		LAAGE TOWER 336.400 118.430		LAAGE ATIS 134.605	
TACAN LAG CH19Y	APP COURSE 276°	FAF ALT 1900	DESCENT GR 5.2%	MDA 530	TDZE 135	ALS-LENGTH 900 M	LDA 8268

NOTE:

- a) TIMING NOT AUTHORIZED FOR DEFINING THE MAPT.
- b) CIRCLING NOT AUTHORIZED NORTH OF RWY 09/27.
- c) HPMA

IAF 1
54°07.43'N
012°43.97'E

IAF 2
53°36.80'N
012°30.31'E

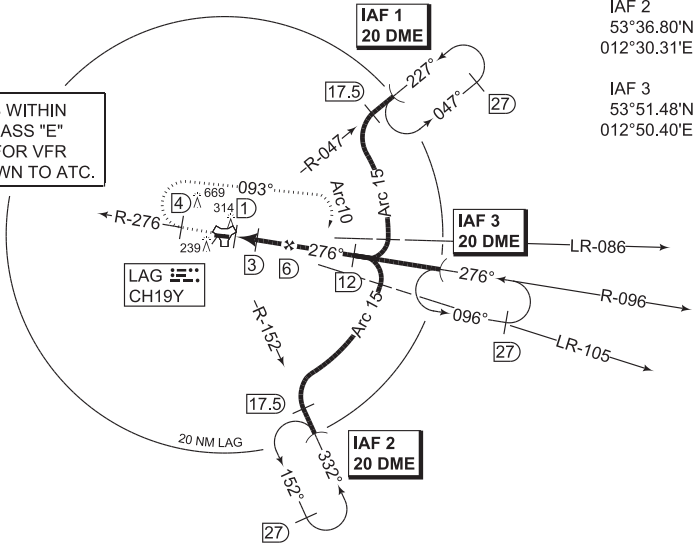
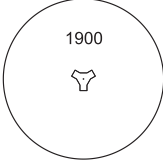
IAF 3
53°51.48'N
012°50.40'E



IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

LAG CH19Y

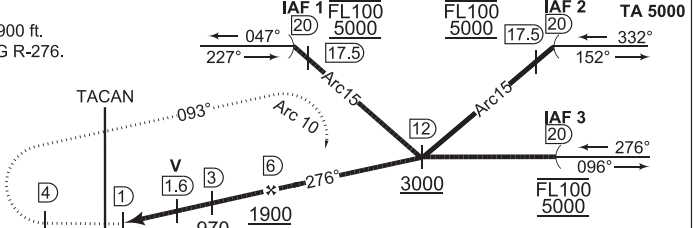
MSA LAG 25 NM



EMERG SAFE ALT 100 NM 3500

MISSED APPROACH

Climb straight ahead to 1900 ft.
Proceed outbound on LAG R-276.
When passing LAG
R-276/4 DME turn right to
track 093°.
Intercept LAG Arc 10 and
return to final.



TDZE 135

5.55

CAT I

CATEGORY	A	B	C	D	E
TACAN 27	530 - 0.8 395 (400-0.8/1.6)		530 - 1.2 395 (400-1.2/1.6)	530 - 1.2 395 (400-1.2/2.0)	530 - 1.6 395 (400-1.6/2.4)
b) CIRCLING	550 - 1.9 410 (500-1.9)	640 - 2.3 500 (500-2.3)	1180 - 4.9 1040 (1100-4.9)		1070 - 4.3 930 (1000-4.3)
PAR 27	335 - 0.8 200 (200-0.8/1.2)				

TACAN RWY 27

53°55.09'N
012°16.76'E

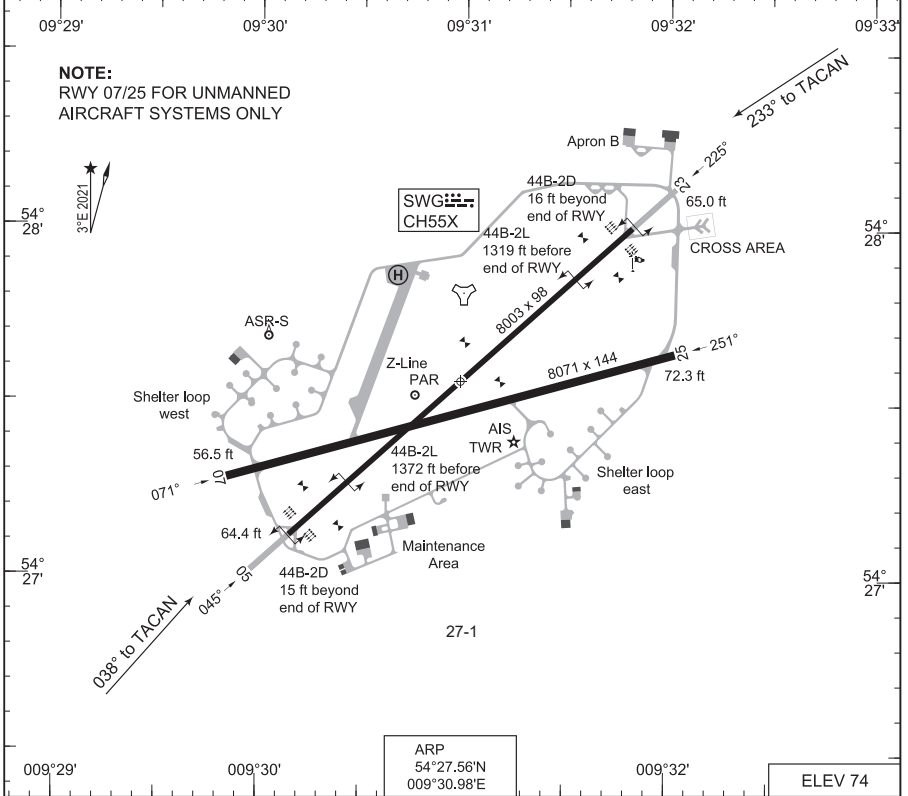
LAAGE (ETNL)

CHANGE: VAR. LR (376/23)

ZentLufTop 28 DEC 2023

AERODROME CHART

SCHLESWIG (ETNS)



RWY	PCN	TORA	ASDA	TODA	LDA	PAPI		TDZE	THR PSN
05	54 F/B/W/T	8003	8003	8003	8003	3.0°		70	54°27.12'N 009°30.15'E
23	54 F/B/W/T	8003	8003	8003	8003	3.0°		69	54°28.00'N 009°31.82'E

SCHLESWIG TOWER 246.500 135.155
 SCHLESWIG RADAR 376.825 399.525 388.525 142.050 SSR 4230 - 4237

	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
PAR	TERPS	05	3.0°	40		750	ABCDE	TERPS	270 - 0.8 200 (200-0.8/1.2)
	TERPS	23	3.0°	38		750	ABCDE	TERPS	269 - 0.8 200 (200-0.8/1.2)

CHANGE: ADD HELIPAD (221/24)

ZentLufOp 28 NOV 2024

AERODROME CHART

SCHLESWIG (ETNS)

PANS-OPS
OPERATIONAL INSTRUMENT DEPARTURE CHART

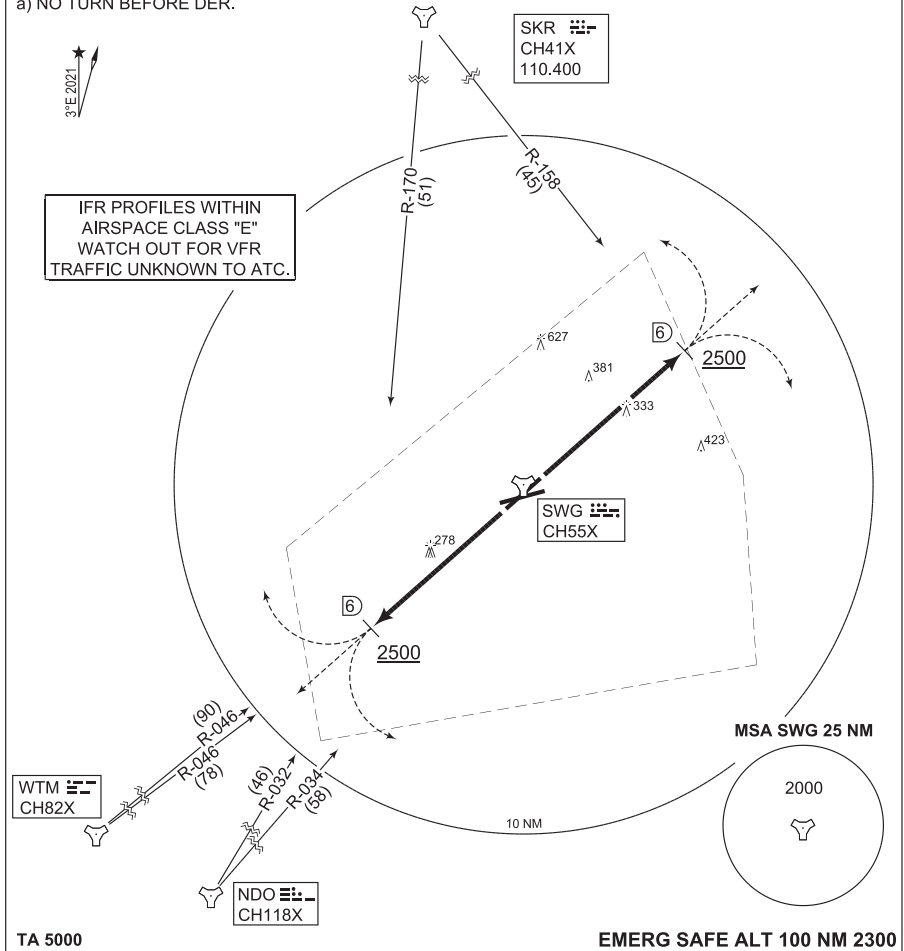
AD ELEV 74

NS 105 - 123
SCHLESWIG (ETNS)

BREMEN RADAR 398.000 124.075		SCHLESWIG RADAR 376.825 142.050				SCHLESWIG TOWER 246.500 135.155			
RWY	from - to	60	120	180	240	300	360	Reason	
05	DER - 3500 ft	437	874	1311	1748	2185	2622	ATC	
23	DER - 3500 ft	468	936	1404	1872	2340	2808	ATC	

NOTE:

a) NO TURN BEFORE DER.



CHANGE: TACAN SKR (414/23)

TA 5000	EMERG SAFE ALT 100 NM 2300
NS 105 (RWY 05)	<ul style="list-style-type: none"> - Climb straight ahead to 2500 ft - Continue as cleared by ATC CLIMBOUT RESTRICTION: Reach 2500 ft within 6 DME - INITIAL CLIMB: 4000 ft
NS 123 (RWY 23)	<ul style="list-style-type: none"> - Climb straight ahead to 2500 ft - Continue as cleared by ATC CLIMBOUT RESTRICTION: Reach 2500 ft within 6 DME - INITIAL CLIMB: 4000 ft

NS 105 - 123

54°27.56'N
009°30.98'E

SCHLESWIG (ETNS)

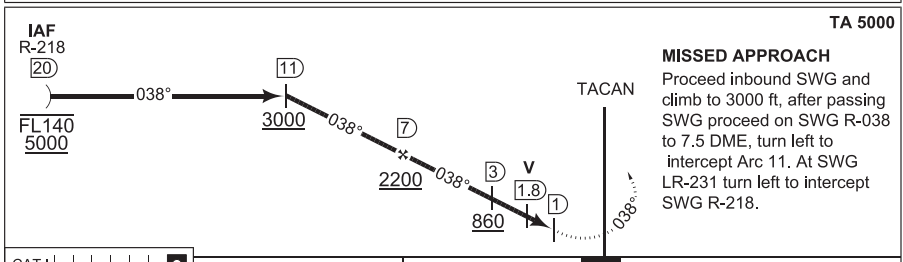
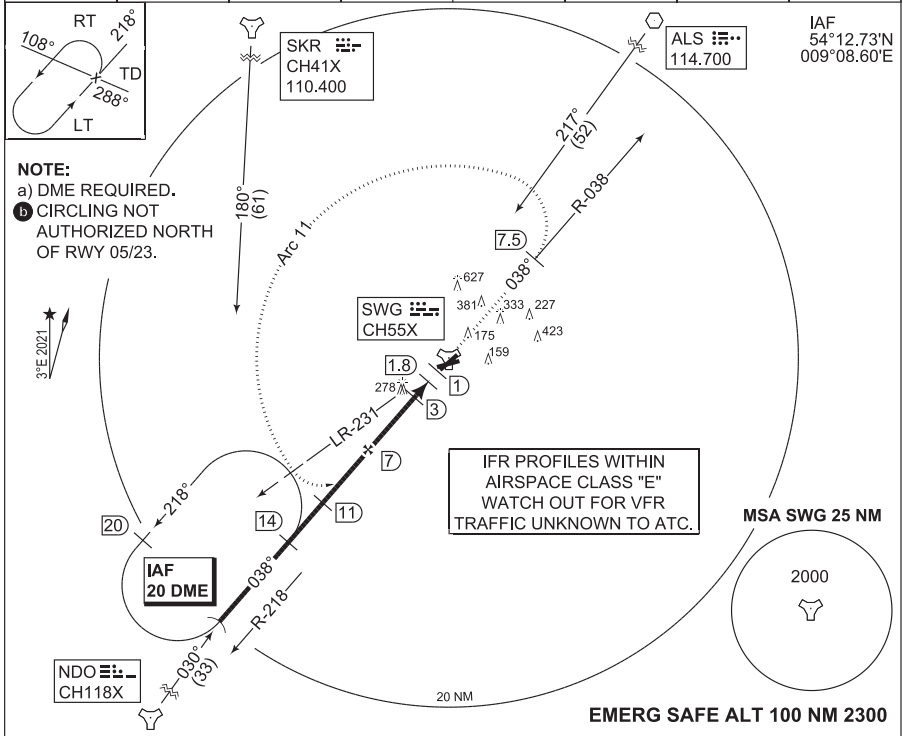
Zent/LuftOp 22 FEB 2024

**PANS-OPS
INSTRUMENT APPROACH CHART**

**TACAN RWY 05
SCHLESWIG (ETNS)**

AD ELEV 74

BREMEN RADAR 398.000 124.075		SCHLESWIG RADAR 376.825 142.050		SCHLESWIG TOWER 246.500 135.155			
TACAN SWG CH55X	APP COURSE 038°	FAF ALT 2200	DESCENT GR 3.2° / 5.7%	MDA 420	TDZE 70	ALS-LENGTH 900 M	LDA 8003



CATEGORY	A	B	C	D	E
TACAN 05	420 - 0.8 350 (400-0.8/1.6)		420 - 1.2 350 (400-1.2/1.6)	420 - 1.2 350 (400-1.2/2.0)	
PAR 05	270 - 0.8 200 (200-0.8/1.2) GS 3.0°				
b) CIRCLING	530 - 2.1 456 (500-2.1)	580 - 2.4 506 (600-2.4)	790 - 3.3 716 (800-3.3)	NOT AUTHORIZED	

TACAN RWY 05

54°27.56'N
009°30.98'E

SCHLESWIG (ETNS)

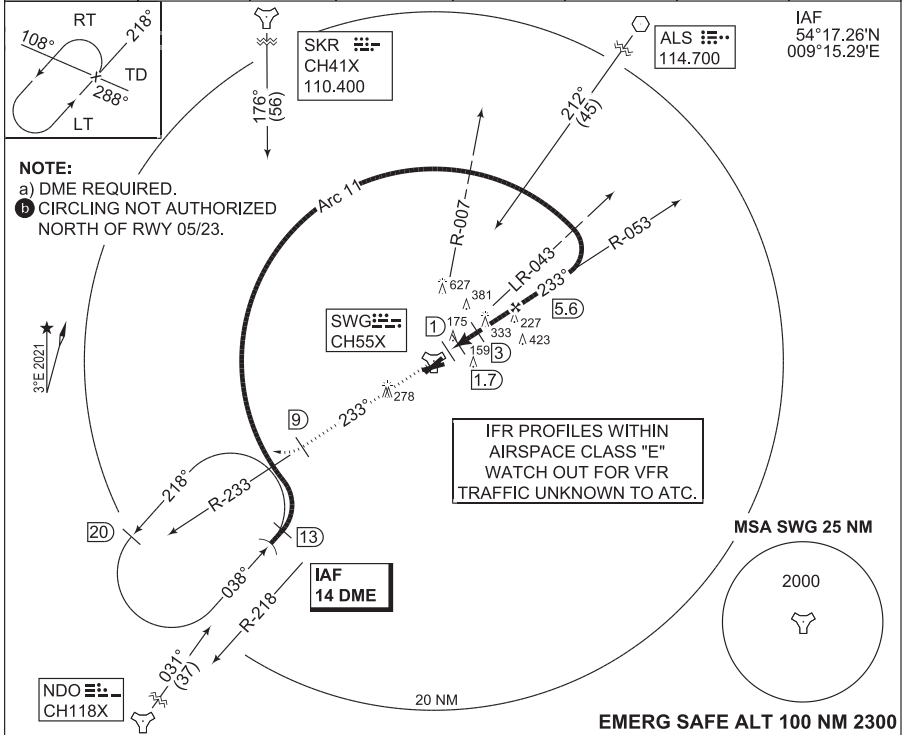
27-3

PANS-OPS INSTRUMENT APPROACH CHART

TACAN RWY 23 SCHLESWIG (ETNS)

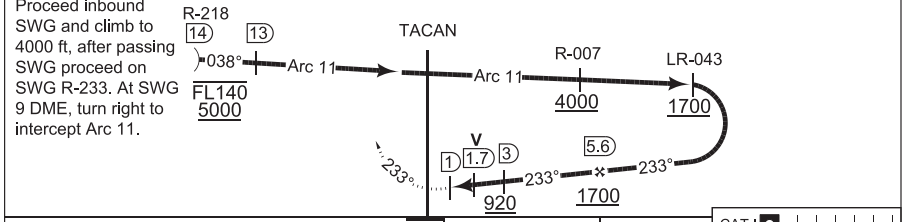
AD ELEV 74

BREMEN RADAR 398.000 124.075		SCHLESWIG RADAR 376.825 142.050			SCHLESWIG TOWER 246.500 135.155		
TACAN SWG CH55X	APP COURSE 233°	FAF ALT 1700	DESCENT GR 3.03° / 5.3%	MDA 490	TDZE 69	ALS-LENGTH 900 M	LDA 8003



EMERG SAFE ALT 100 NM 2300

MISSED APPROACH TA 5000



TDZE 69 5.09 CAT I

CATEGORY	A	B	C	D	E
TACAN 23	490 - 0.8 421 (500-0.8/1.6)		490 - 1.2 421 (500-1.2/2.0)		490 - 1.6 421 (500-1.6/2.4)
PAR 23	269 - 0.8 200 (200-0.8/1.2) GS 3.0°				
b CIRCLING	530 - 2.1 456 (500-2.1)	580 - 2.4 506 (600-2.4)	790 - 3.3 716 (800-3.3)	NOT AUTHORIZED	

TACAN RWY 23 SCHLESWIG (ETNS)

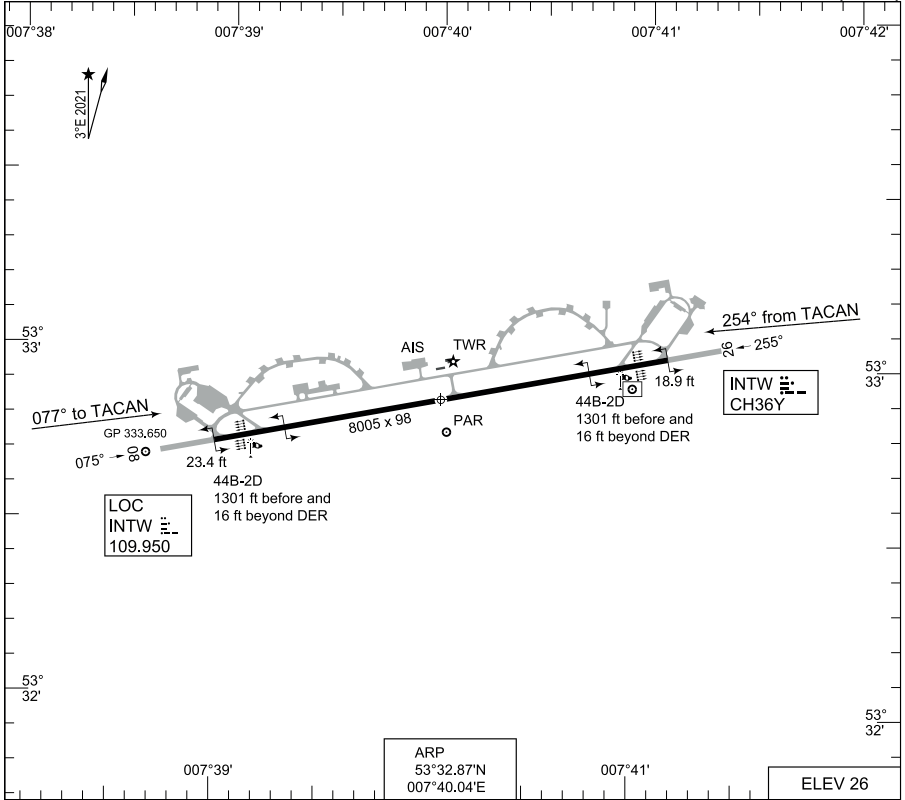
54°27.56'N
009°30.98'E

CHANGE: TACAN SKR (414/23)

ZentLufTop 22 FEB 2024

AERODROME CHART

WITTMUNDHAFEN (ETNT)



RWY	LCN	TORA	ASDA	TODA	LDA	PAPI		TDZE	THR PSN
08	50	8005	8005	8005	8005	3.0°		26	53°32.74'N 007°38.96'E
26	50	8005	8005	8005	8005	3.0°		23	53°33.01'N 007°41.12'E

WITTMUND TOWER 247.950 118.730 122.100
 WITTMUND RADAR 298.250 123.600 131.015 SSR 4210 - 4217

	PROC. CRITERIA	RWY	GS	TCH	OTCH	RPI	CAT	MINIMA CRITERIA	MINIMA
PAR	TERPS TERPS	08 26	3.0° 3.0°	32 32		584 590	ABCDE ABCDE	TERPS TERPS	226 - 0.8 200 (200-0.8) 223 - 0.8 200 (200-0.8)

AERODROME CHART

WITTMUNDHAFEN (ETNT)

CHANGE: EDITORIAL (005/23)

ZentLufOp 23 MAR 2023

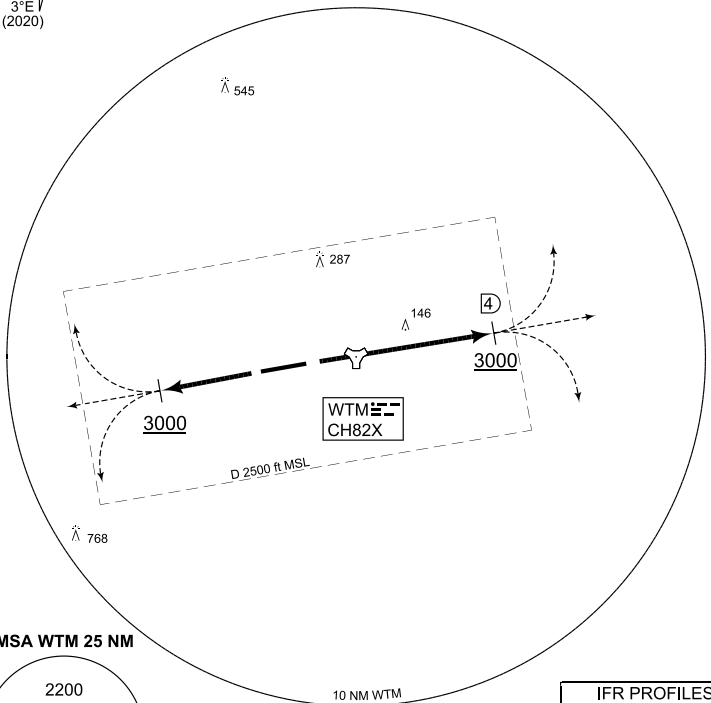


PANS-OPS OPERATIONAL INSTRUMENT DEPARTURE CHART **NT 108 - 126 WITTMUNDHAFEN (ETNT)**

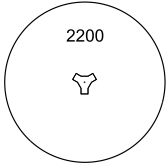
WITTMUND TOWER 247.950 118.730	WITTMUND RADAR 298.250 123.600 131.015	AD ELEV 26	BREMEN RADAR 299.100 120.225	
	RWY	from - to	60 120 180 240 300 360	Reason
	26	DER - 3000 ft	698 1396 2094 2792 3490 4188	ATC
	08	DER - 3000 ft	545 1090 1635 2180 2725 3270	ATC

NOTE:
NT 108 (RWY 08) FOR HOMEBASED AIRCRAFT ONLY

NDO CH118X



MSA WTM 25 NM



IFR PROFILES WITHIN AIRSPACE CLASS "E" WATCH OUT FOR VFR TRAFFIC UNKNOWN TO ATC.

EMERG SAFE ALT 100 NM 2700 **TA 5000**

CHANGE: OBST (005/23)

NT 108 (RWY 08)	<ul style="list-style-type: none"> - Climb straight ahead to WTM/4 DME - Continue as cleared by ATC <p>CLIMBOUT RESTRICTION: Reach 3000 ft within 4 DME</p>
NT 126 (RWY 26)	<ul style="list-style-type: none"> - Climb straight until passing 3000 ft MSL - Continue as cleared by ATC <p>CLIMBOUT RESTRICTION: Reach 3000 ft within 7 DME</p>

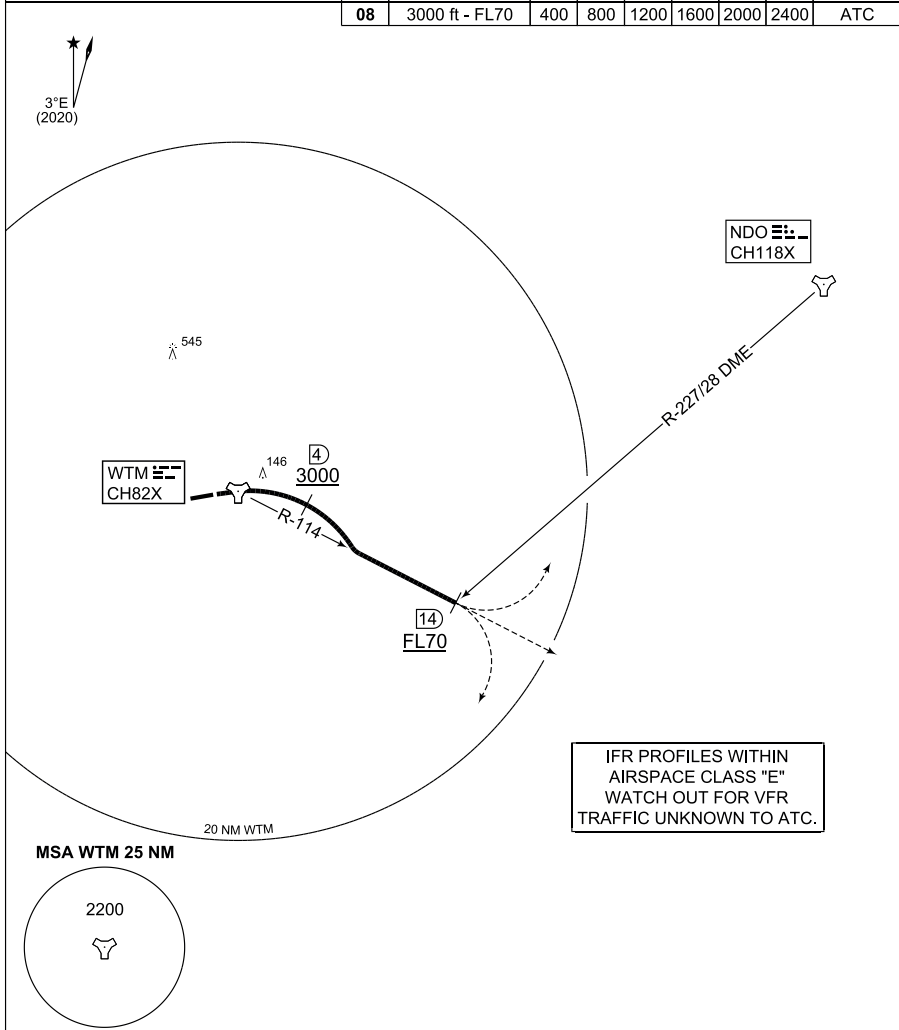
ZentLuitOp 23 MAR 2023

**PANS-OPS
INSTRUMENT DEPARTURE CHART**

AD ELEV 26

**NT 208
WITTMUNDHAFEN (ETNT)**

WITTMUND TOWER 247.950 118.730		WITTMUND RADAR 298.250 123.600 131.015				BREMEN RADAR 299.100 120.225			
RWY	from - to	60	120	180	240	300	360	Reason	
08	DER - 3000 ft	545	1090	1635	2180	2725	3270	ATC	
08	3000 ft - FL70	400	800	1200	1600	2000	2400	ATC	



EMERG SAFE ALT 100 NM 2700 **TA 5000**

NT 208 (RWY 08)	CLIMBOUT RESTRICTION: Pass WTM/4 DME at 3000 ft or above - Climb straight ahead to WTM - At WTM turn right to intercept WTM R-114 - Pass WTM R-114/14 DME at FL070 or as cleared by ATC
--------------------	--

CHANGE: OBST (005/23)

ZentLufOp 23 MAR 2023

NT 208

53°32.87'N
007°40.04'E

WITTMUNDHAFEN (ETNT)



**PANS-OPS
INSTRUMENT APPROACH CHART**

**TACAN RWY 08
WITTMUNDHAFEN (ETNT)**

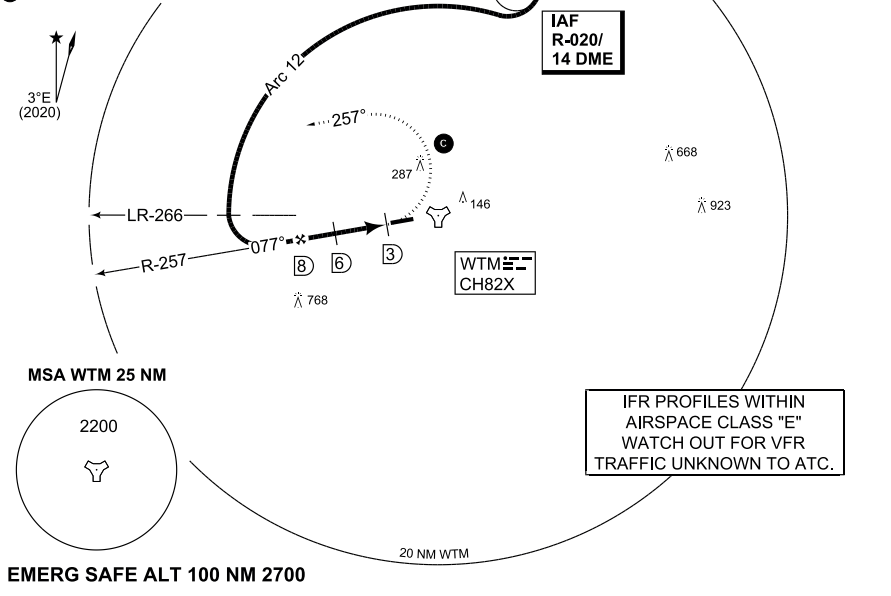
AD ELEV 26		
BREMEN RADAR	WITTMUND RADAR	
299.100 120.225	298.250 123.600	131.015

WITTMUND TOWER		
247.950	118.730	122.100
TACAN	APP COURSE	FAF ALT
WTM CH82X	077°	1700
DESCENT GR	MDA	THR ELEV
5.2%	420	24
ALS-LENGTH	LDA	
900 M	8005	

NOTE:

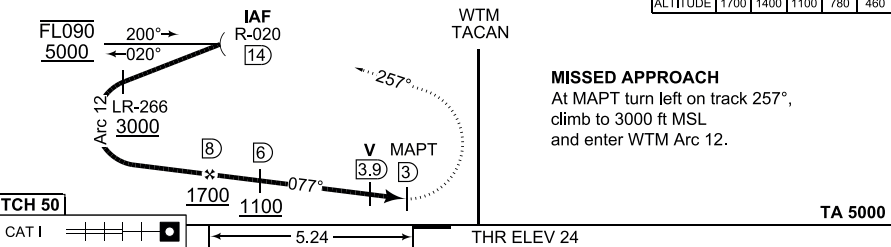
- a) NO TURN BEFORE MAPT.
- b) TIMING NOT AUTHORIZED FOR DEFINING MAPT.
- c) MISSED APPROACH LIMITED TO 230 KIAS MAX.
- d) CIRCLING NOT AUTHORIZED SOUTH OF RWY 08/26.
- e) CIRCLING SPEED LIMITED TO 180 KIAS MAX.

IAF
53°46.21'N
007°52.34'E



IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

DIST WTM	8	7	6	5	4
ALTITUDE	1700	1400	1100	780	460



MISSED APPROACH
At MAPT turn left on track 257°,
climb to 3000 ft MSL
and enter WTM Arc 12.

CATEGORY	A	B	C	D
TACAN 08	420 - 1.1 396 (400-1.1/1.5)		420 - 1.1 396 (400-1.1/1.8)	
CIRCLING	490 - 2.2 464 (500-2.2)		560 - 2.4 534 (600-2.4)	
	1020 - 4.5 994 (1000-4.5)			
PAR 08	226 - 0.8 200 (200-0.8/1.2) GS 3.0°			

TACAN RWY 08

53°32.87'N
007°40.04'E

WITTMUNDHAFEN (ETNT)

CHANGE: OBST (005/23)

ZentLufTop 23 MAR 2023

PANS-OPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 26
WITTMUNDHAFEN (ETNT)

AD ELEV 26

BREMEN RADAR 299.100 120.225		WITTMUND RADAR 298.250 123.600 131.015			WITTMUND TOWER 247.950 118.730 122.100		
TACAN / LOCALIZER CH 82X / INTW 109.95	APP COURSE 255°	GS INTCP ALT 2000	DA See CAT	DESCENT GR 3.0° / 5.2%	THR ELEV 19	ALS-LENGTH 900 M	LDA 8005

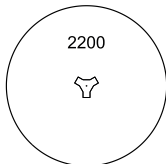
NOTE:

- a) NO TURN BEFORE MAPT.
- b) TIMING NOT AUTHORIZED FOR DEFINING MAPT.
- c) MISSED APPROACH LIMITED TO 230 KIAS MAX.
- d) CIRCLING NOT AUTHORIZED SOUTH OF RWY 08/26.
- e) CIRCLING SPEED LIMITED TO 180 KIAS MAX.

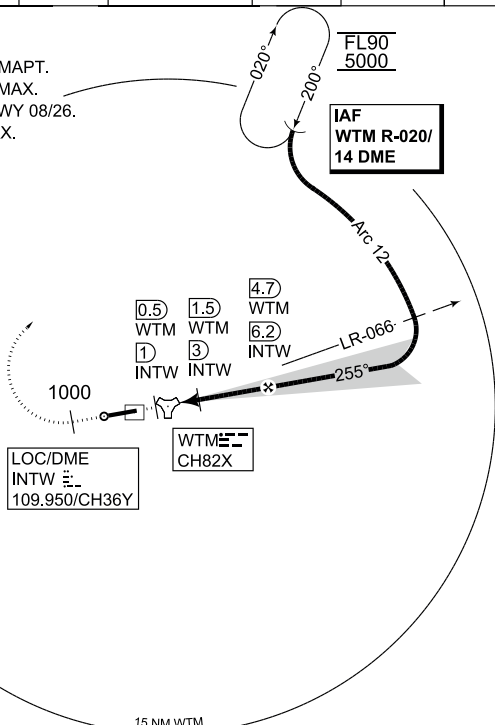


IFR PROFILES WITHIN
AIRSPACE CLASS "E"
WATCH OUT FOR VFR
TRAFFIC UNKNOWN TO ATC.

MSA WTM 25 NM

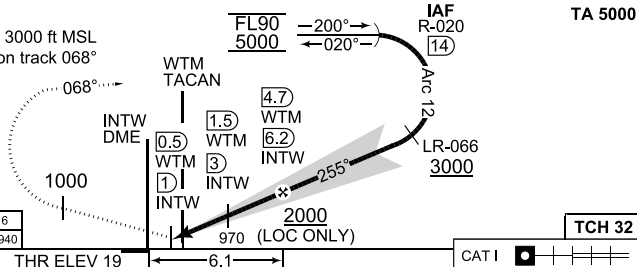


EMERG SAFE ALT 100 NM 2700



MISSED APPROACH

At MAPT climb on RWY track to 3000 ft MSL when passing 1000 ft turn right on track 068° to intercept WTM Arc 12 and return to final.



CHANGE: OBST. ILS GLIDE SLOPE DEPICTION (005/23)

THR ELEV 19	6.1		CAT I	▣	+	+	+	+
CATEGORY	A	B	C	D				
ILS 26	219 - 0.8 550 200 (200-0.8/1.2)							
LOC 26	490 - 1.5 471 (500-1.5)				490 - 1.5 471 (500-1.5/2.2)			
CIRCLING	490 - 2.2 464 (500-2.2)		560 - 2.4 534 (600-2.4)		1020 - 4.5 994 (1000-4.5)			

ILS or LOC RWY 26

53°32.87'N
007°40.04'E

WITTMUNDHAFEN (ETNT)



ZentLufTop 23 MAR 2023

**PANS-OPS
INSTRUMENT APPROACH CHART**

**TACAN RWY 26
WITTMUNDHAFEN (ETNT)**

AD ELEV 26

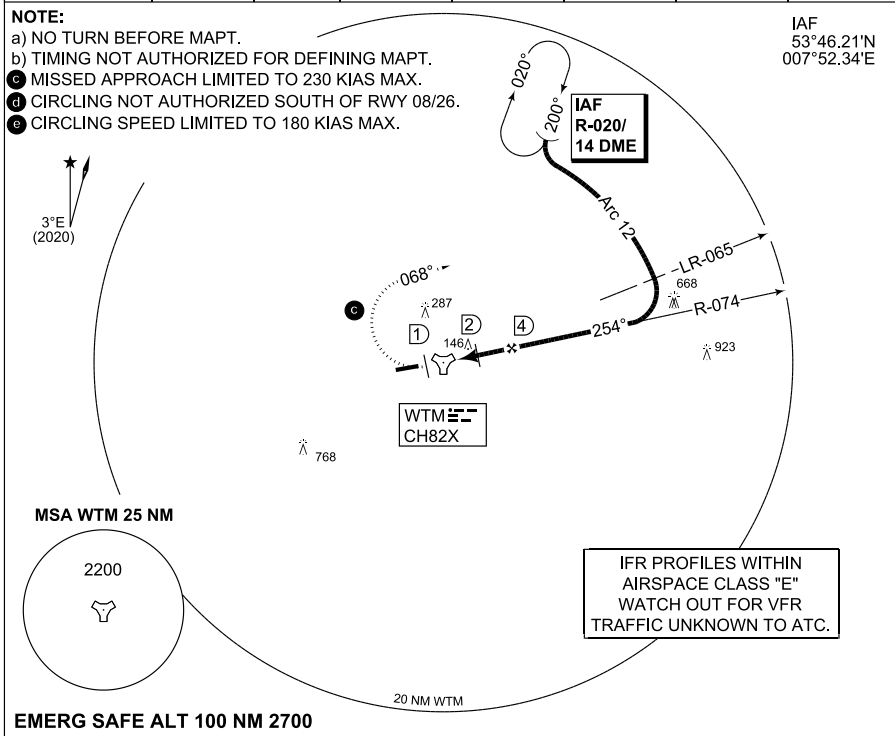
BREMEN RADAR 299.100 120.225		WITTMUND RADAR 298.250 123.600 131.015			WITTMUND TOWER 247.950 118.730 122.100		
---------------------------------	--	---	--	--	---	--	--

TACAN WTM CH82X	APP COURSE 254°	FAF ALT 1800	DESCENT GR 5.2%	MDA 400	THR ELEV 19	ALS-LENGTH 900 M	LDA 8005
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NOTE:

- a) NO TURN BEFORE MAPT.
- b) TIMING NOT AUTHORIZED FOR DEFINING MAPT.
- c) MISSED APPROACH LIMITED TO 230 KIAS MAX.
- d) CIRCLING NOT AUTHORIZED SOUTH OF RWY 08/26.
- e) CIRCLING SPEED LIMITED TO 180 KIAS MAX.

IAF
53°46.21'N
007°52.34'E



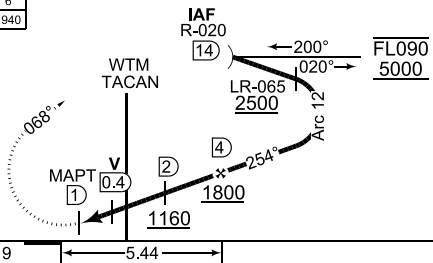
IFR PROFILES WITHIN AIRSPACE CLASS "E" WATCH OUT FOR VFR TRAFFIC UNKNOWN TO ATC.

EMERG SAFE ALT 100 NM 2700

DIST THR	1	2	3	4	5	6	TA 5000
ALTITUDE	350	670	990	1310	1620	1940	

MISSED APPROACH

At 1 DME turn right climbing to 3000 ft on track 068° and intercept Arc 12.



THR ELEV 19	5.44	CAT I	<input checked="" type="checkbox"/> + + + + +
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CATEGORY	A	B	C	D
TACAN 26	400 - 1.0 377 (400-1.0/1.5)		400 - 1.0 377 (400-1.0/1.7)	
d) CIRCLING	490 - 2.2 464 (500-2.2)	560 - 2.4 534 (600-2.4)	1020 - 4.5 994 (1000-4.5)	
e) PAR 26	223 - 0.8 200 (200-0.8/1.2) GS 3.0°			

TACAN RWY 26

53°32.87'N
007°40.04'E

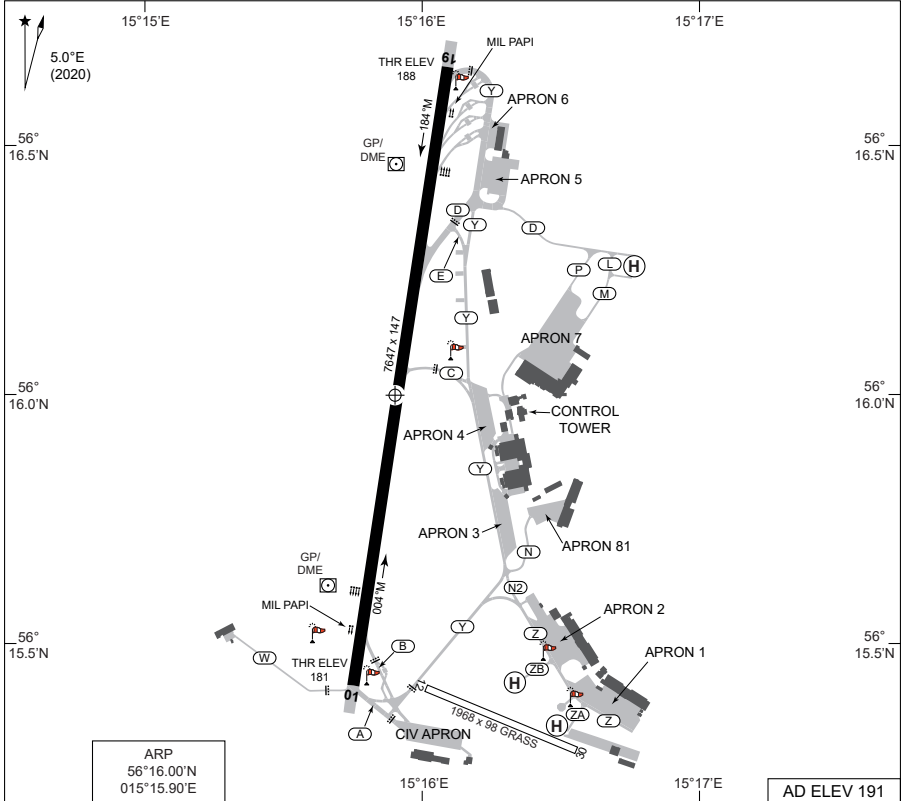
WITTMUNDHAFEN (ETNT)

CHANGE: OBST (005/23)

ZentLufTop 23 MAR 2023

AERODROME CHART

RONNEBY AB (ESDF)



ARP
56°16.00'N
015°15.90'E

AD ELEV 191

RWY	PCN	TORA	TODA	ASDA	LDA		PAPI	ALS	THR ELEV	THR PSN
01	50	7647	7647	7647	7647		3.0°	CAT I	181	56°15.42'N 015°15.75'E
19	50	7647	7647	7647	7647		3.0°	CAT I	188	56°16.66'N 015°16.09'E

RONNEBY TOWER: 119.200
 RONNEBY GROUND: 121.850
 ATIS: N/A

MILITARY EQUIPMENT
 MIL PAPI RWY 01/19 GP 2,86° (5%).
 Arresting nets beyond ends of RWY 01,19 raised outside ATS ordinary hours.
 Marker boards: On both sides of ends and 600m before ends of RWY 01, 19.

OMNIDIRECTIONAL DEPARTURES
 RWY 01:
 CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 700 FT.
 RWY 19:
 CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 600 FT.

STANDARD DEPARTURE MIL JET IFR AND VFR
 Applicable to take-off / touch and go landing /go.
 Note: Follow ATS clearance after standard departure.
 Standard departure will not be read out in ATC clearance.

Standard departure RWY 01:
 Climb straight ahead with a climb angle of 3° - 5° to Turning Point (TP01). At TP01 turn right to HDG 030° and continue climb with a minimum climb angle of 5°. Continue on HDG 030° to distance 5.4 NM from ARP thereafter follow ATC clearance.
 Definition of TP 01: Runway end 0.7 NM from ARP.

Standard departure RWY 19:
 Climb straight ahead with a climb angle of 3° - 5° to Turning Point (TP19). At TP19 turn right to HDG 220° and continue climb with a minimum climb angle of 5°. Continue on HDG 220° to distance 5.4 NM from ARP thereafter follow ATC clearance.
 Definition of TP 19: Railroad distance 1.0 NM from ARP.

MIL JET: Speed 380 kt during departure in TMA, unless otherwise instructed.

CHANGES: NEW AERODROME.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

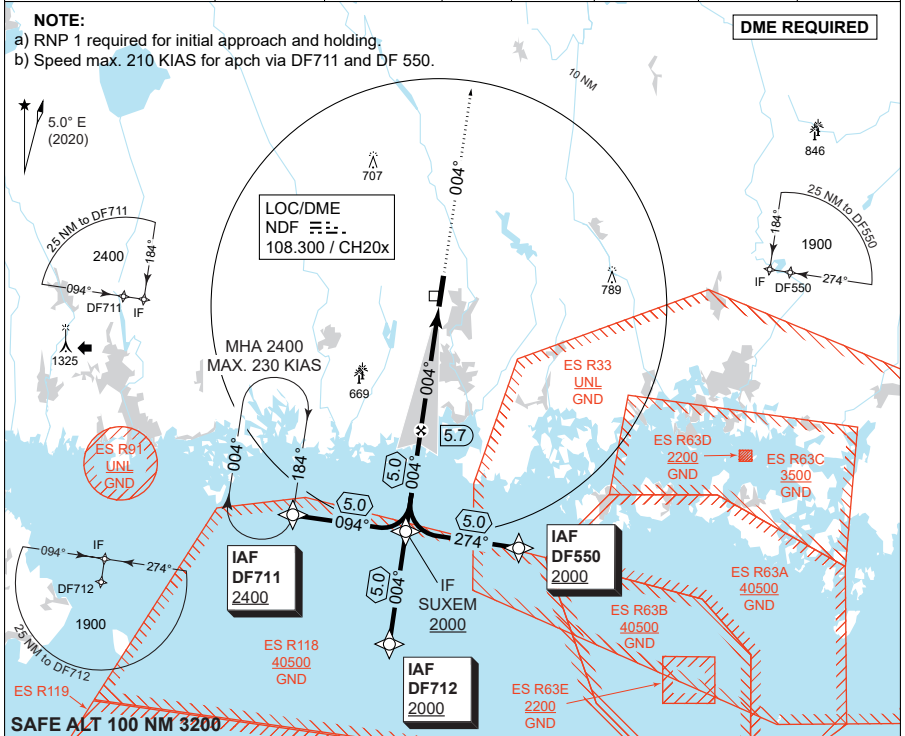
AERODROME CHART

RONNEBY AB (ESDF)

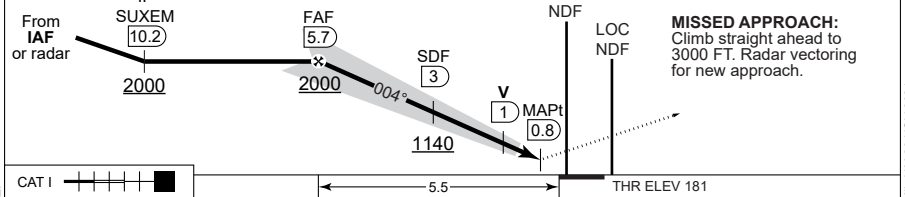
MIPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 01 RONNEBY AB (ESDF)

RONNEBY APPROACH 128.450 129.900		RONNEBY TOWER 119.200			GROUND 121.850		
LOC / DME NDF 108.300 / CH 20x	APP COURSE 004°	GS INTCPPT ALT 2000	GS 3.00°	DA 381	THR ELEV 181	ALS 900 M	LDA 7647 FT



TA 5000 GS 3.00° RDH 51	CDFA: 3.00° / 5.24%
	DME NDF 5 4 3 2
	DIST THR 4.8 3.8 2.8 1.8
	ALT 1780 1460 1140 820



CATEGORY	D
S-ILS 01	381 - 550 200 (200-0.8/1.2)
S-LOC 01	540 - 900 359 (400-0.9/1.6)
CIRCLING	1070 - 3.6 879 (900-3.6)

ILS or LOC RWY 01

56°16.00'N
 015°15.90'E
 29-2

RONNEBY AB (ESDF)

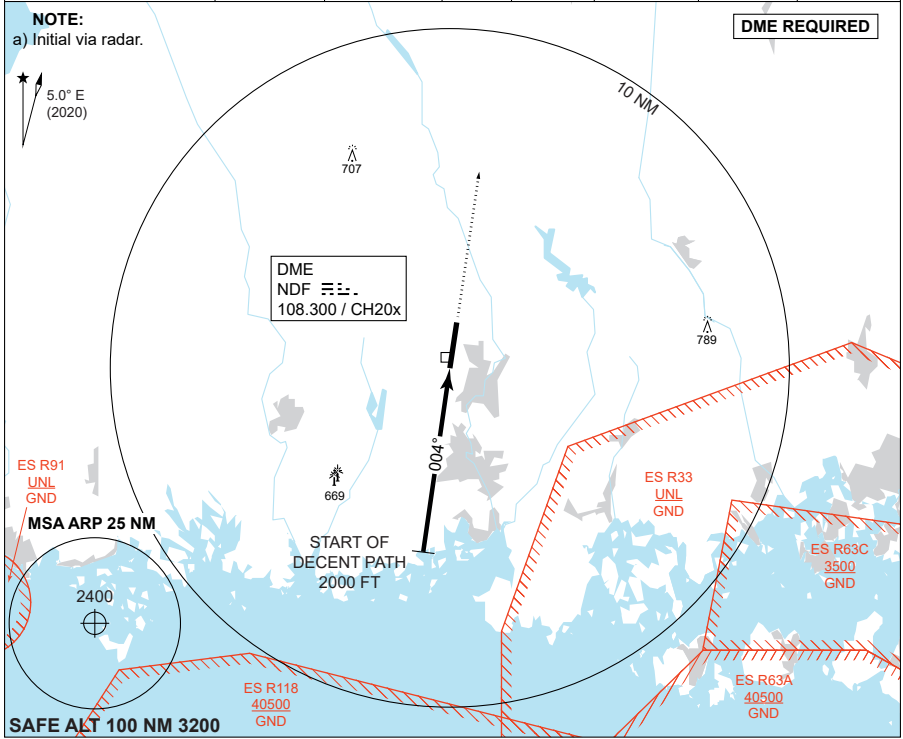
MIPS

INSTRUMENT APPROACH CHART

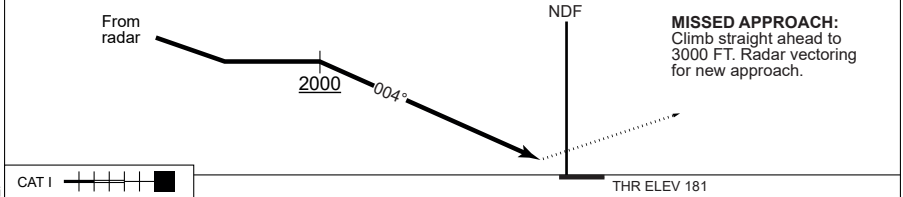
AD ELEV 191

**PAR RWY 01
RONNEBY AB (ESDF)**

RONNEBY APPROACH 128.450 129.900		RONNEBY PRECISION (PAR) 134.100 118.000		RONNEBY TOWER 119.200		GROUND 121.850	
DME NDF 108.300 / CH 20x	APP COURSE 004°	GS INTCP ALT 2000	PAR GS 3.00°	DA 411	THR ELEV 181	ALS 900 M	LDA 7647 FT



TA 5000	CDFA: 3.00° / 5.24%				
GS 3.00°	DME NDF	5	4	3	2
RDH 53	DIST THR	4.8	3.8	2.8	1.8
	ALT	1780	1460	1140	820



CAT I	
CATEGORY	D
S-PAR 01	411 - 550 230 (300-0.8/1.2)
CIRCLING	1070 - 3.6 879 (900-3.6)

PAR RWY 01

56°16.00'N
015°15.90'E
29-3

RONNEBY AB (ESDF)

CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

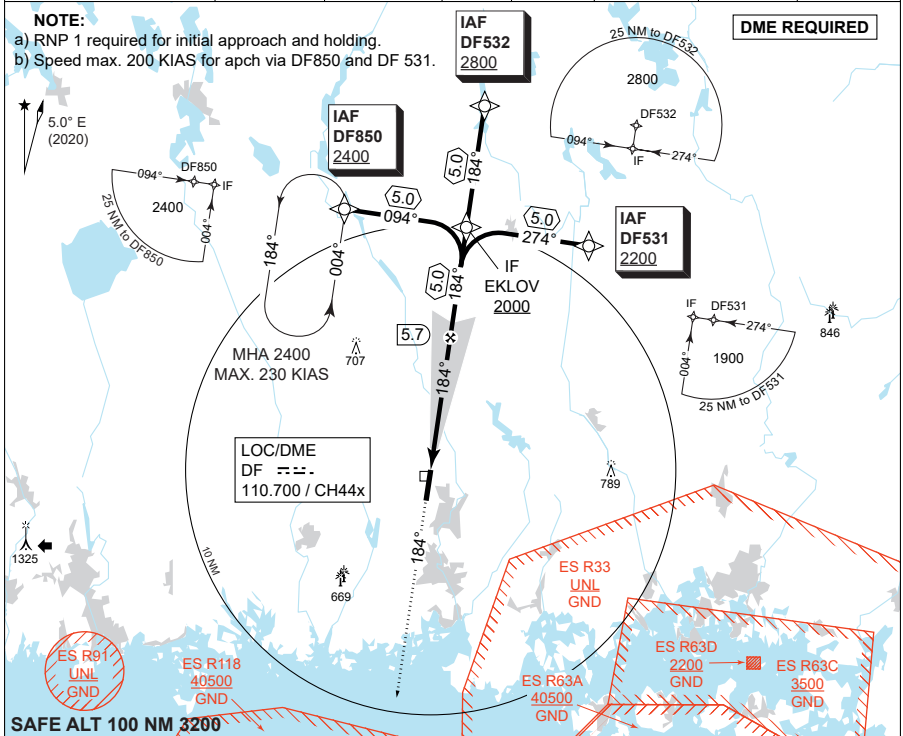
ESDF

MIPS

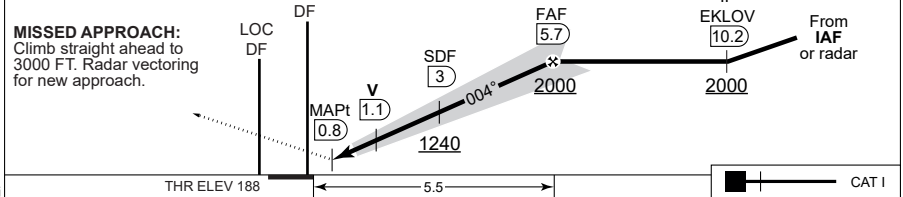
INSTRUMENT APPROACH CHART

**ILS or LOC RWY 19
RONNEBY AB (ESDF)**

RONNEBY APPROACH 128.450 129.900		RONNEBY TOWER 119.200			GROUND 121.850		
LOC / DME DF 110.700 / CH 44x	APP COURSE 184°	GS INTCP ALT 2000	GS 3.00°	DA 388	THR ELEV 188	ALS 900 M	LDA 7647 FT



CDFA: 3.00° / 5.24%					TA 5000 GS 3.00° RDH 72
DME DF	2	3	4	5	
DIST THR	1.8	2.8	3.8	4.8	
ALT	830	1150	1470	1780	



CATEGORY	D
S-ILS 19	388 - 550 200 (200-0.8/1.2)
S-LOC 19	610 - 1200 419 (500-1.2/1.9)
CIRCLING	1070 - 3.6 879 (900-3.6)

ILS or LOC RWY 19

56°16.00'N
015°15.90'E
29-4

RONNEBY AB (ESDF)

CHANGES, NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

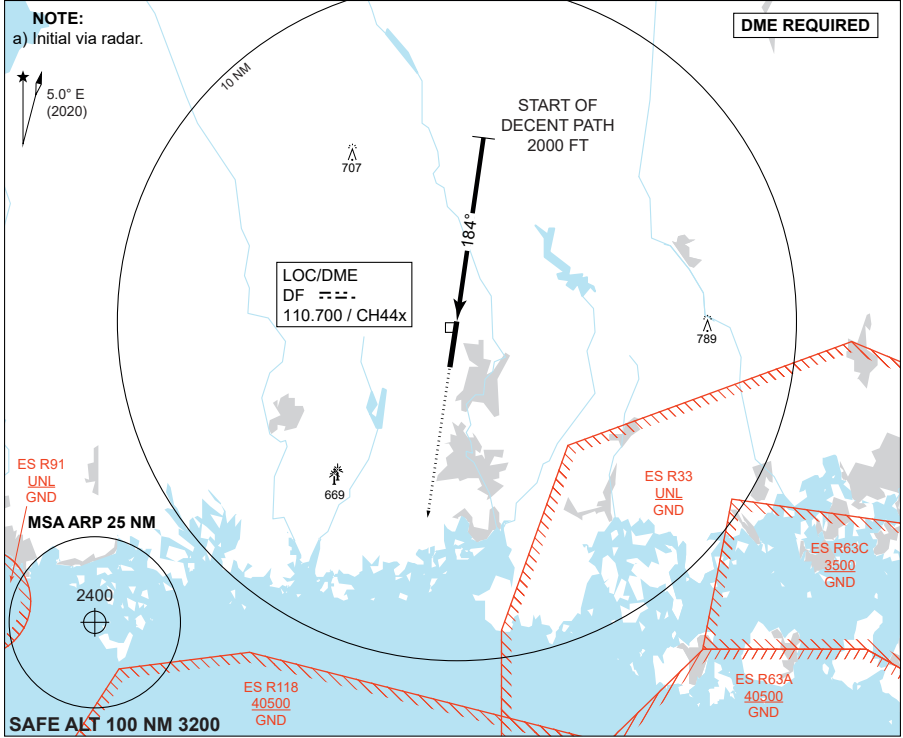
MIPS

INSTRUMENT APPROACH CHART

AD ELEV 191

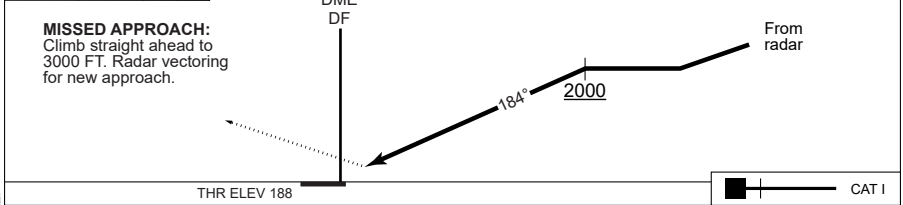
**PAR RWY 19
RONNEBY AB (ESDF)**

RONNEBY APPROACH 128.450 129.900		RONNEBY PRECISION (PAR) 134.100 118.000		RONNEBY TOWER 119.200		GROUND 121.850	
DME DF 110.700 / CH 44x	APP COURSE 184°	GS INTCP ALT 2000	PAR GS 3.00°	DA 463	THR ELEV 188	ALS 900 M	LDA 7647 FT



CDFA: 3.00° / 5.24%				
DME DF	2	3	4	5
DIST THR	1.8	2.8	3.8	4.8
ALT	820	1140	1460	1780

TA 5000
GS 3.00°
RDH 69



CATEGORY	D
S-PAR 19	463 - 600 275 (300-0.8/1.3)
CIRCLING	1070 - 3.6 879 (900-3.6)

PAR RWY 19

56°16.00'N
015°15.90'E
29-5

RONNEBY AB (ESDF)

ESDF

CHANGES: NEW PROCEDURE: MIPS

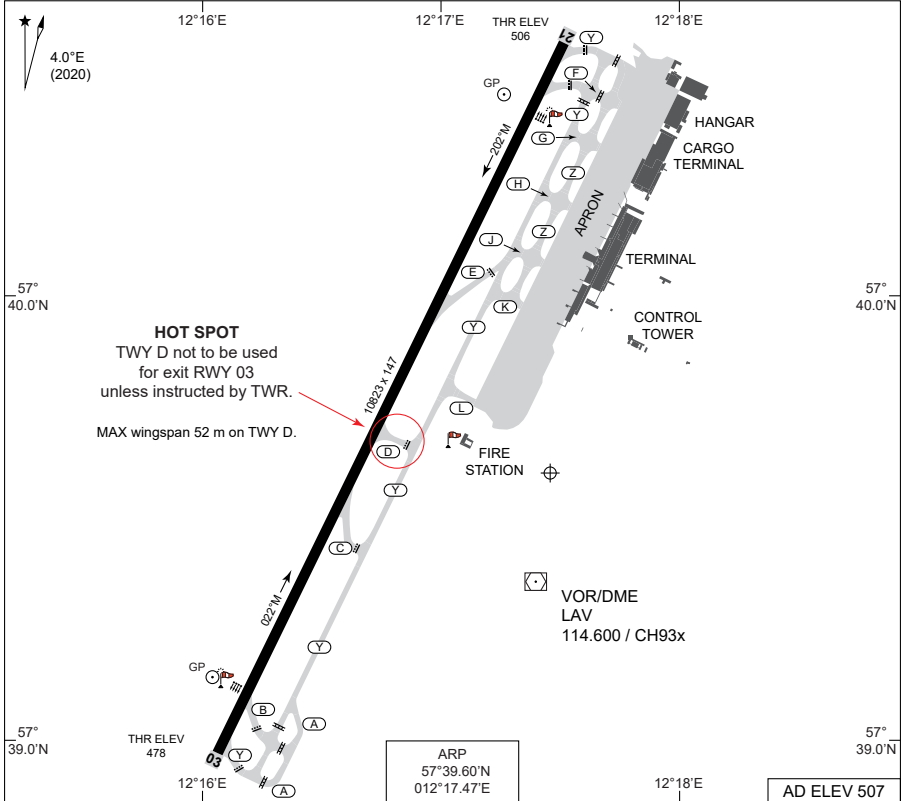
AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

Ronneby AB (ESDF) waypoint coordinates:

		CODING		DISPLAY	
DF531	IAF	56 25 46.0N	015 27 43.1E	56 25.767N	015 27.718E
DF532	IAF	56 31 27.5N	015 20 11.0E	56 31.458N	015 20.183E
DF550	IAF	56 04 47.6N	015 21 52.6E	56 04.793N	015 21.877E
DF711	IAF	56 06 17.4N	015 04 13.6E	56 06.290N	015 04.227E
DF712	IAF	56 00 36.8N	015 11 43.2E	56 00.613N	015 11.720E
DF850	IAF	56 27 16.6N	015 09 54.6E	56 27.277N	015 09.910E
RWY01	THR	56 15 24.95N	015 15 45.17E	56 15.416N	015 15.753E
RWY19	THR	56 16 39.45N	015 16 05.63E	56 16.658N	015 16.094E

AERODROME CHART

GÖTEBORG, LANDVETTER (ESGG)



RWY	PCN	TORA	TODA	ASDA	LDA		PAPI	ALS	THR ELEV	THR PSN
03	81	10823	10823	10823	10823		3.0°	CAT III	478	57°38.97'N 012°16.06'E
21	81	10823	10823	10823	10823		3.0°	CAT III	506	57°40.57'N 012°17.52'E

CLEARANCE DELIVERY 121.680
 LANDVETTER TOWER: 118.605 (Primary)
 123.100 (SAR)
 LANDVETTER GROUND: 121.905
 ATIS: 118.380
 114.600 (LAV VOR)

Call GROUND for Start-up, push-back and taxi instructions.

OMNIDIRECTIONAL DEPARTURES

RWY 03:
 CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 1000 FT.

RWY 21:
 CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 900 FT.

RNAV STARS and SIDs are not published in RDAF FLIP.

RNAV STARS at GÖTEBORG/Landvetter
 RNAV 1 is required for these RNAV STARS. Operators receiving clearance via RNAV STAR and are unable flying RNAV 1, shall inform ATC by using phraseology "UNABLE RNAV STAR". ATC will then provide radar vectors.

RNAV SIDs at GÖTEBORG/Landvetter
 All RNAV SIDs are based on RNAV 1. Operators receiving clearance via RNAV SID and are unable flying RNAV 1, shall inform ATC by using phraseology "UNABLE RNAV SID".

NOISE ABATEMENT PROCEDURES

Over the central parts of Göteborg aircraft should not be operated below 2000 ft AMSL except when necessary for take-off or landing.

Other noise sensitive areas to be avoided are shown in AIP Sweden (AD 2 ESGG).

CHANGES: NEW CHART.

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

AERODROME CHART

GÖTEBORG, LANDVETTER (ESGG)



MIPS

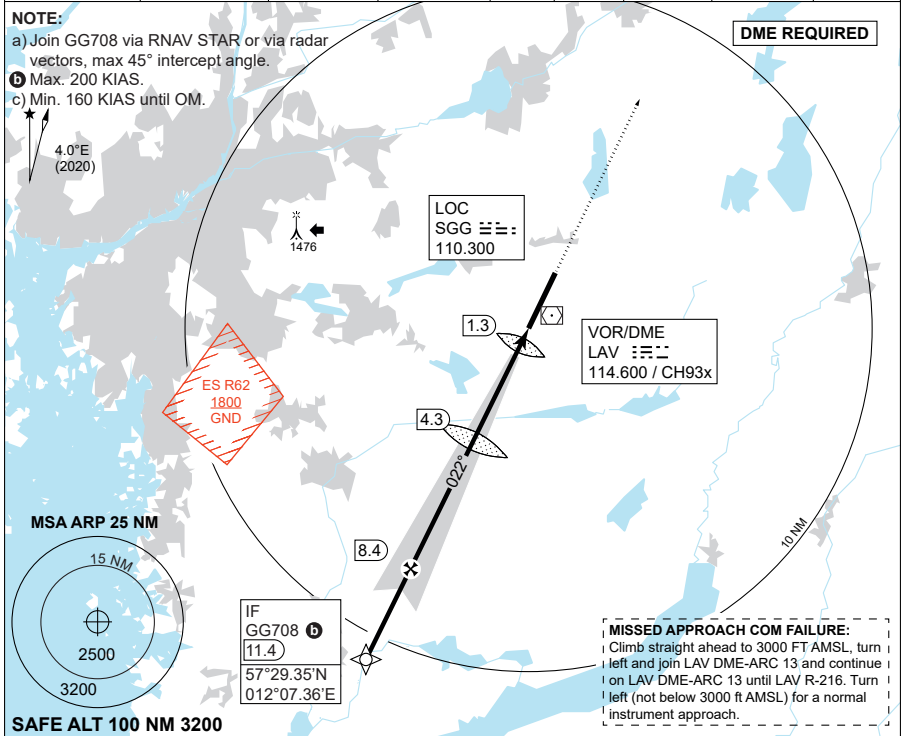
INSTRUMENT APPROACH CHART

AD ELEV 507

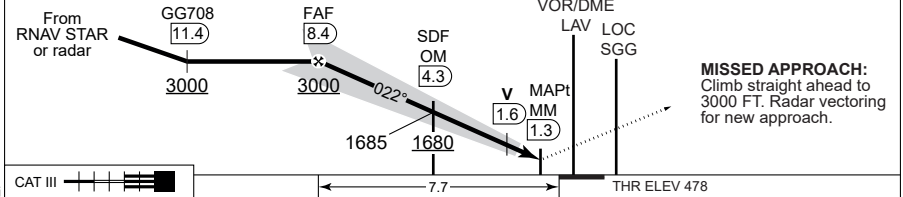
ILS or LOC RWY 03

GÖTEBORG, LANDVETTER (ESGG)

GÖTEBORG APPROACH 124.680		LANDVETTER ATIS 118.380 114.600		LANDVETTER TOWER 118.605		LANDVETTER GROUND 121.905		
LOC SGG 110.300	DME LAV 114.600	APP COURSE 022°	GS INCP ALT 3000 FT	GS 3.00°	DA 678	THR ELEV 478	ALS LENGTH 900 M	LDA 10823



TA 5000 GS 3.00° RDH 54	CDFA: 3.00° / 5.24%
	DME LAV 8 7 6 5 4 3 2
	DIST THR 7.3 6.3 5.3 4.3 3.3 2.3 1.3
	ALT 2860 2540 2220 1900 1580 1260 940



CATEGORY	D
S-ILS 03	678 - 550 200 (200-0.8/1.2)
S-LOC 03	820 - 900 342 (400-0.9/1.6)
CIRCLING	N/A

ILS or LOC RWY 03

57°39.60'N 012°17.47'E **GÖTEBORG, LANDVETTER (ESGG)**

CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

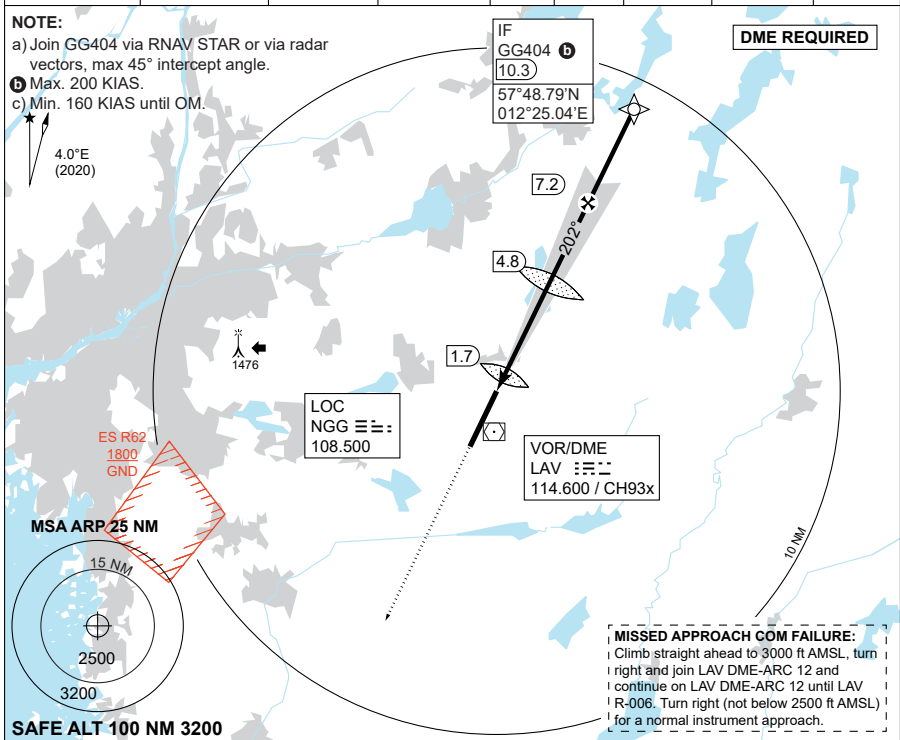
MIPS

INSTRUMENT APPROACH CHART

AD ELEV 507

**ILS or LOC RWY 21
GÖTEBORG, LANDVETTER (ESGG)**

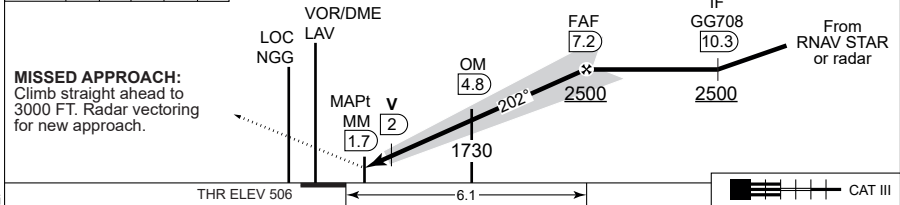
GÖTEBORG APPROACH 124.680		LANDVETTER ATIS 118.380 114.600		LANDVETTER TOWER 118.605		LANDVETTER GROUND 121.905		
LOC NGG 108.500	DME LAV 114.600	APP COURSE 202°	GS INCPALT 2500 FT	GS 3.00°	DA 706	THR ELEV 506	ALS LENGTH 900 M	LDA 10823



CDFA: 3.00° / 5.24%

DME LAV	3	4	5	6	7
DIST THR	1.8	2.9	3.9	4.9	5.9
ALT	1150	1470	1790	2110	2430

TA 5000
 GS 3.00°
 RDH 50



CATEGORY	D	
S-ILS 21	706	- 550 200 (200-0.8/1.2)
S-LOC 21	830	- 800 323 (400-0.8/1.5)
CIRCLING	N/A	

ILS or LOC RWY 21

57°39.60'N **GÖTEBORG, LANDVETTER (ESGG)**
 012°17.47'E



CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

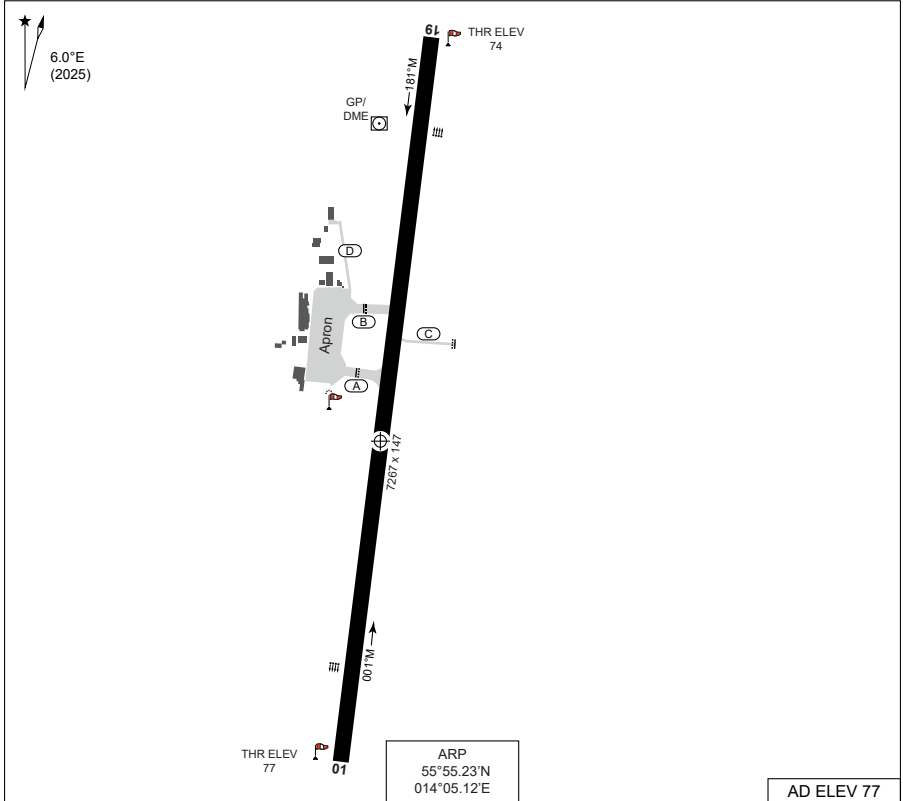
INTENTIONALLY

LEFT

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AERODROME CHART

KRISTIANSTAD (ESMK)



RWY	PCN	TORA	TODA	ASDA	LDA	PAPI	ALS	THR ELEV	THR PSN
01	45	7267	8087	7267	7267	3.00°	NALS	77	55°54.71'N 014°05.00'E
19	45	7267	8415	7267	7267	3.25°	CAT I	74	55°55.89'N 014°05.26'E

KRISTIANSTAD TOWER: 129.355

REMARK: Electronic Flashing System lights to RWY 19 (870-330 m before THR) and crossbar.

OMNIDIRECTIONAL DEPARTURES:

RWY 01
CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 500 FT AMSL.

RWY 19
CLIMB STRAIGHT AHEAD WITH MNM 230 FT/NM (3.8%) TO MNM TURNING ALT 1000 FT AMSL.

NOISE ABATEMENT PROCEDURES:

Overflying the community of Everöd should be avoided.

CHANGES: NEW CHART.

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

AERODROME CHART

KRISTIANSTAD (ESMK)

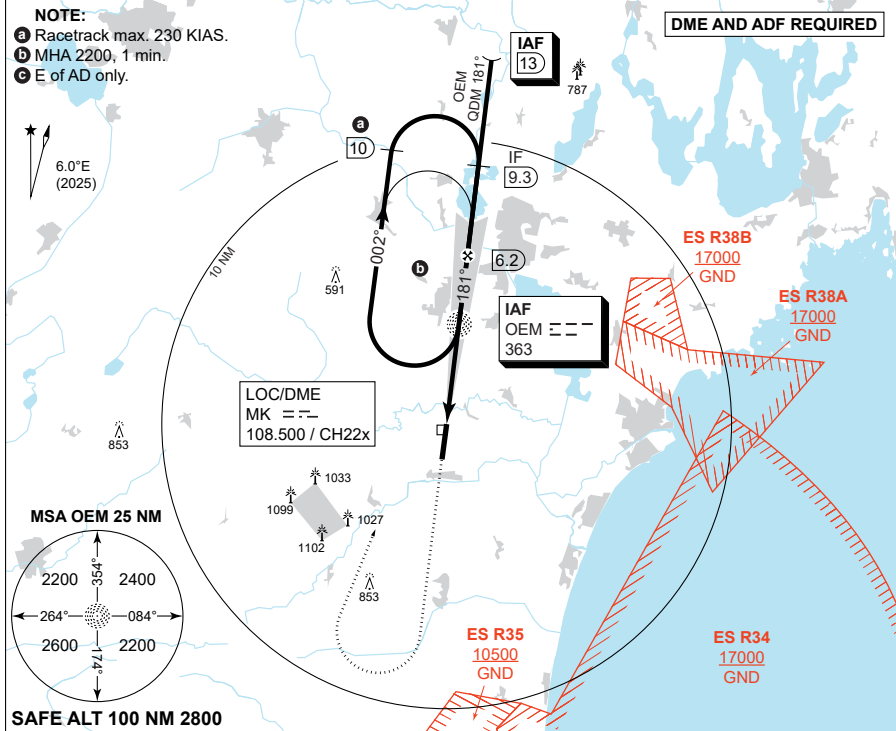


MIPS INSTRUMENT APPROACH CHART

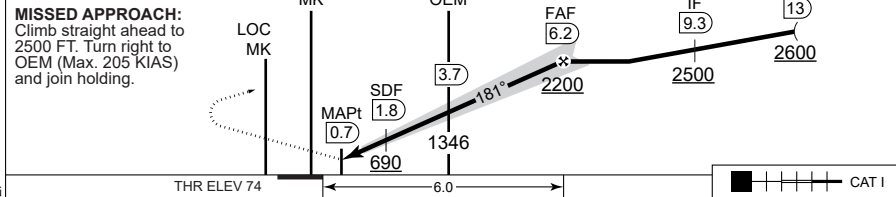
ILS RWY 19 KRISTIANSTAD (ESMK)

KRISTIANSTAD TOWER
AD ELEV 77
129.355

LOC / DME MK 108.500 / CH22x	APP COURSE 182°	GS INCP ALT 2200 FT	GS 3.25°	DA 274	THR ELEV 74	ALS 900 M	LDA 7267
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CDFA: 3.25° / 5.7%						TA 5000 GS 3.25° RDH 52
DME ID	2	3	4	5	6	
DIST THR	1.8	2.8	3.8	4.8	5.8	
ALT	750	1100	1450	1790	2140	



CATEGORY	D
S-ILS 19	274 - 550 200 (200-0.8/1.2)
S-LOC 19	410 - 800 333 (400-0.8/1.5)
CIRCLING	1500 - 3.6 1423 (1500-3.6)
CIRCLING c	940 - 3.6 863 (900-3.6)

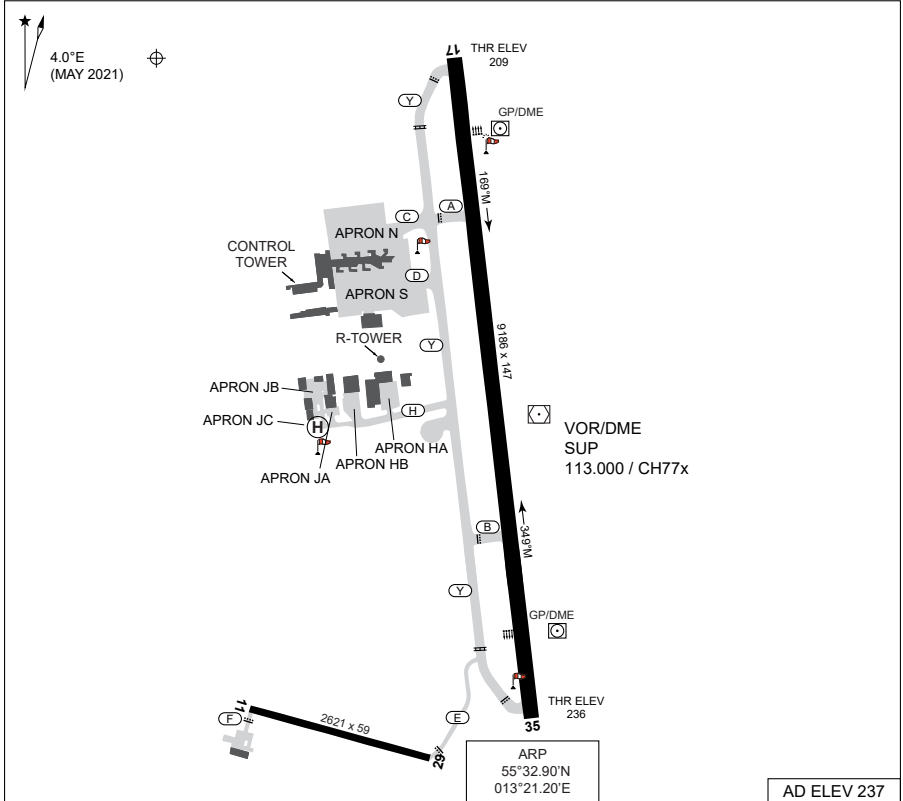
ILS RWY 19 55°55.23'N 014°05.12'E **KRISTIANSTAD (ESMK)**
31-2

CHANGES, NEW PROCEDURE.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

AERODROME CHART

MALMO (ESMS)



ARP
55°32.90'N
013°21.20'E

AD ELEV 237

RWY	PCN	TORA	TODA	ASDA	LDA		PAPI	ALS	THR ELEV	THR PSN
17	80	9186	10170	9186	9186		3.0°	CAT II	209	55°32.88'N 013°22.43'E
35	80	9186	10170	9186	9186		3.0°	CAT I	236	55°31.39'N 013°22.74'E

STURUP TOWER: 118.805 (PRIMARY)
121.705 (HO)
ATIS: 129.280

RNAV STARS and SIDs are not published in RDAF FLIP. Aircraft unable to conform to these procedures shall inform ATS accordingly.

OMNIDIRECTIONAL DEPARTURES

RWY 17:
CLIMB STRAIGHT AHEAD WITH MNM 250 FT/NM (4%) TO MNM TURNING ALT 700 FT.

RWY 35:
CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 700 FT.

NOISE ABATEMENT PROCEDURES

Over the central parts of Malmö and Lund and over built up areas around Malmö aerodrome aircraft should not be operated below 2000 ft AMSL except when necessary for take-off or landing.

CHANGES: NEW CHART.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

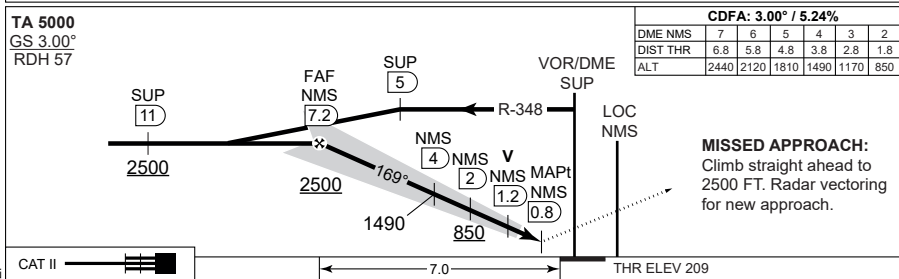
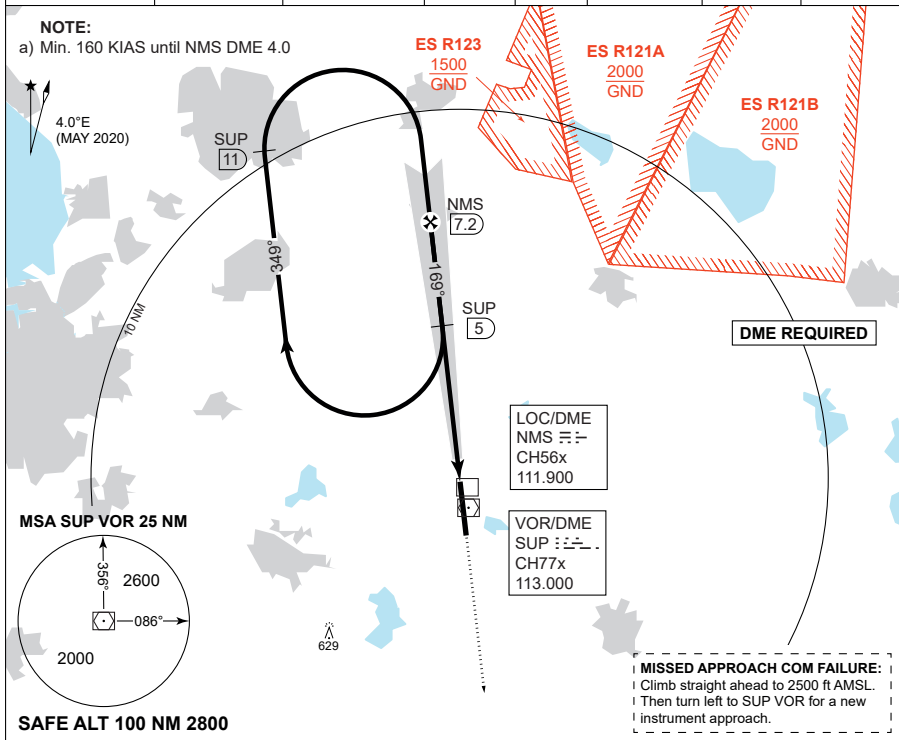
AERODROME CHART

MALMO (ESMS)

MIPS INSTRUMENT APPROACH CHART

ILS or LOC RWY 17 MALMO (ESMS)

SWEDEN CONTROL 134.980		STURUP TOWER 118.805			STURUP ATIS 129.280		
LOC/DME NMS 111.900	APP COURSE 169°	GS INCPNT ALT 2500 FT	GS 3.00°	DA 409	THR ELEV 209	ALS 900 M	LDA 9186



CATEGORY	D
S-ILS 17	409 - 550 200 (200-0.8/1.2)
S-LOC 17	570 - 1000 361 (400-1.0/1.7)
CIRCLING	1100 - 3.6 863 (900-3.6)

ILS or LOC RWY 17

55°32.90'N
013°21.20'E
32-2

MALMO (ESMS)

CHANGES, NEW PROCEDURE.

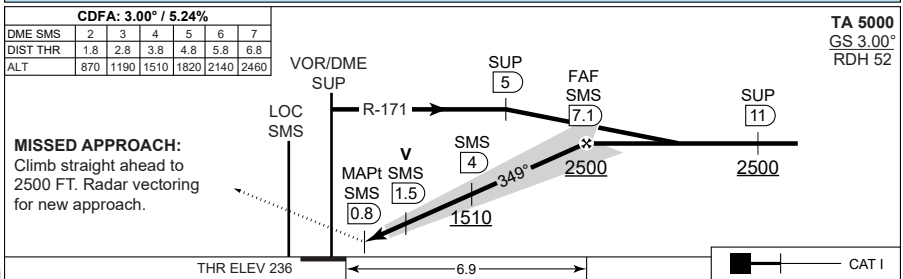
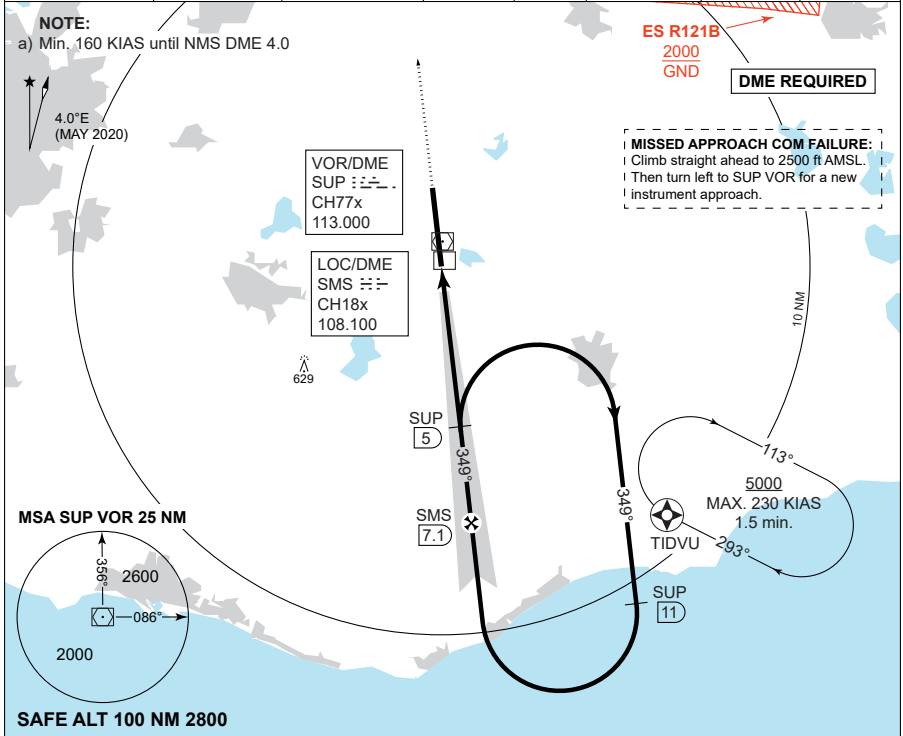
MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

MIPS
INSTRUMENT APPROACH CHART

ILS or LOC RWY 35
MALMO (ESMS)

SWEDEN CONTROL 134.980		STURUP TOWER 118.805			STURUP ATIS 129.280		
LOC/DME SMS 108.100	APP COURSE 349°	GS INCPNT ALT 2500 FT	GS 3.00°	DA 436	THR ELEV 236	ALS 900 M	LDA 9186



CATEGORY	D
S-ILS 35	436 - 550 200 (200-0.8/1.2)
S-LOC 35	690 - 1400 453 (500-1.4/2.1)
CIRCLING	1100 - 3.6 863 (900-3.6)

ILS or LOC RWY 35

MALMO (ESMS)

55°32.90'N
013°21.20'E
32-3

ESMS

CHANGES, NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

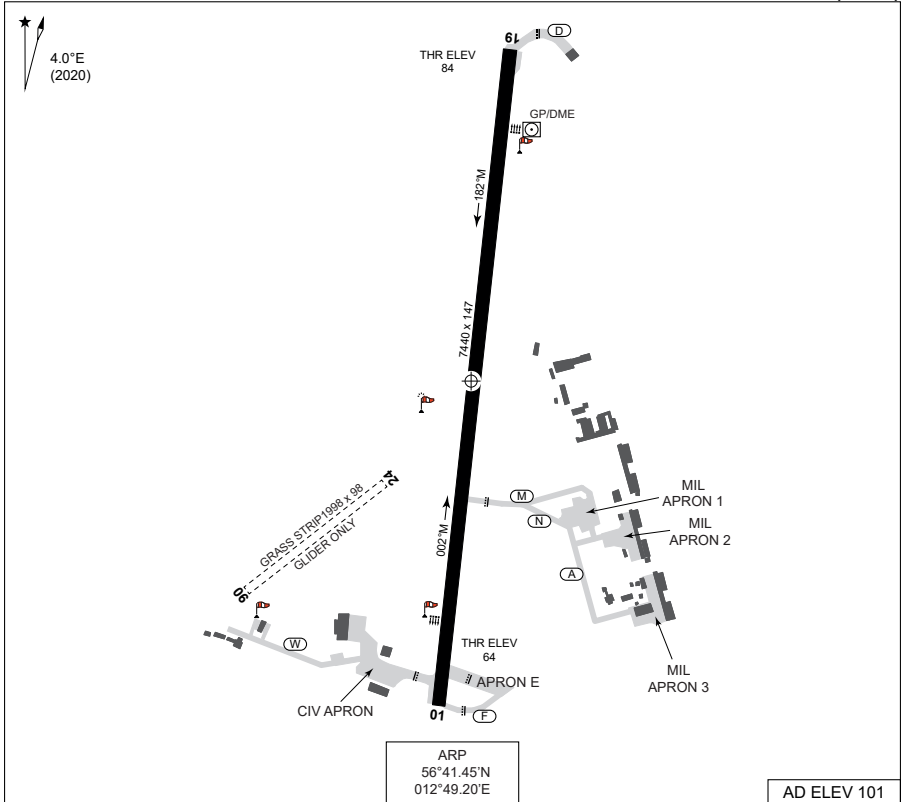
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AERODROME CHART

HALMSTAD (ESMT)



RWY	PCN	TORA	TODA	ASDA	LDA	PAPI	ALS	THR ELEV	THR PSN
01	45	7440	7440	7440	7440	3.25"	SRC	64	56°40.86'N 012°49.09'E
19	45	7440	7440	7440	7440	3.00"	CAT I	84	56°42.07'N 012°49.33'E

HALMSTAD TOWER: 130.105 (PRIMARY)
135.055

RNAV STARS and SIDs are not published in RDAF FLIP. Aircraft unable to conform to these procedures shall inform ATS accordingly.

OMNIDIRECTIONAL DEPARTURES

RWY 01:
CLIMB STRAIGHT AHEAD WITH MNM 360 FT/NM (5.8%) TO MNM TURNING ALT 1300 FT.

RWY 19:
CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 500 FT.

NOISE ABATEMENT PROCEDURES

For departing IFR-traffic with a MTOM exceeding 5700 kg and not cleared via SID the following applies: After take-off RWY 19 turn must not be initiated until passing NDB MF.

Start RWY 19 and landing RWY 01 accepted only when wind conditions or other flight safety reasons so require.

Visual Approach: Aeroplane with MTOM exceeding 5700 kg shall maintain 2000 ft until final.

CHANGES: NEW CHART.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

AERODROME CHART

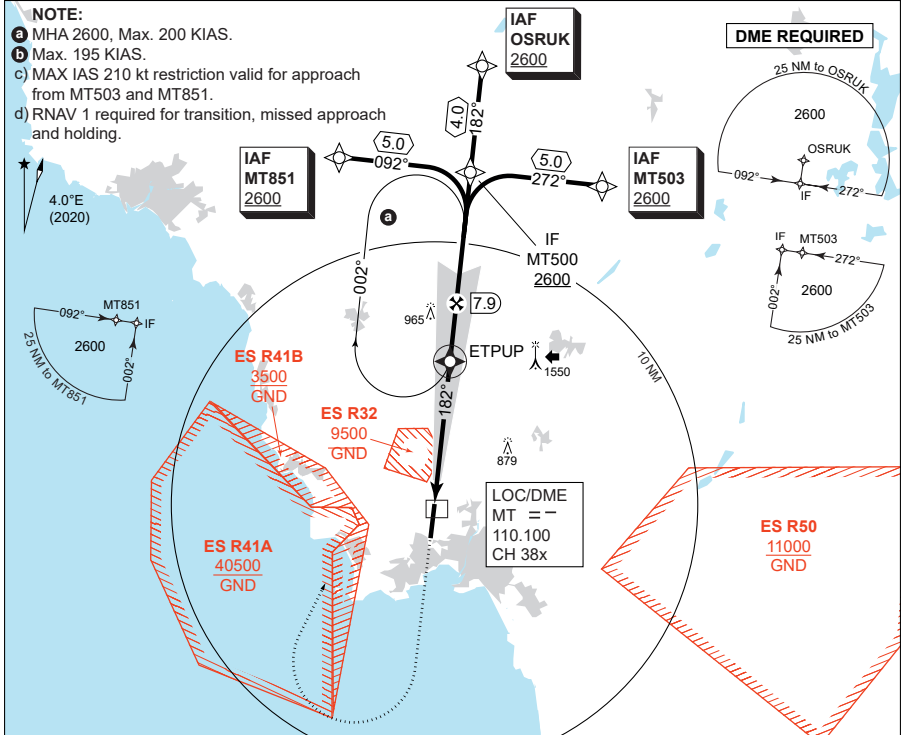
HALMSTAD (ESMT)

MIPS INSTRUMENT APPROACH CHART

ILS Y or LOC Z RWY 19 HALMSTAD (ESMT)

AD ELEV 101
 HALMSTAD TOWER
 130.105 135.055

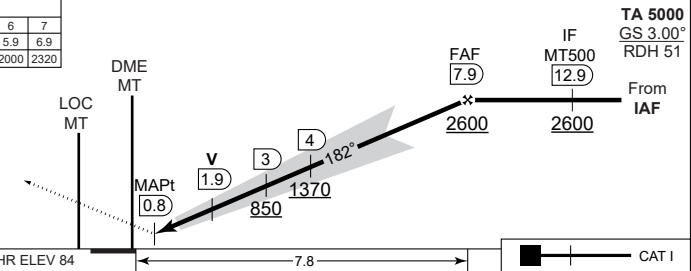
LOC/DME MT 110.100 / CH 38x	APP COURSE 182°	GS INCP T ALT 2600	GS 3.00°	DA 284	THR ELEV 84	ALS 885 M	LDA 7440 FT
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CDFA: 3.00° / 5.24%

DME SMS	2	3	4	5	6	7
DIST THR	1.9	2.9	3.9	4.9	5.9	6.9
ALT	730	1040	1370	1680	2000	2320

MISSED APPROACH:
 Climb straight ahead to 1500 FT. Turn right (max. 230 KIAS) to ETPUP climbing to 2600 FT. Join ETPUP holding.



THR ELEV 84	7.8	CAT I
TA 5000 GS 3.00° RDH 51		
FROM IAF		

CATEGORY	D
S-ILS 19	284 - 550 200 (200-0.8/1.2)
S-LOC 19	720 - 2200 636 (700-2.2/2.9)
CIRCLING b	1280 - 3.6 1179 (1200-3.6)

CHANGES, NEW PROCEDURE.

ILS Y or LOC Z RWY 19

56°41.45'N
 012°49.20'E
 33-2

HALMSTAD (ESMT)

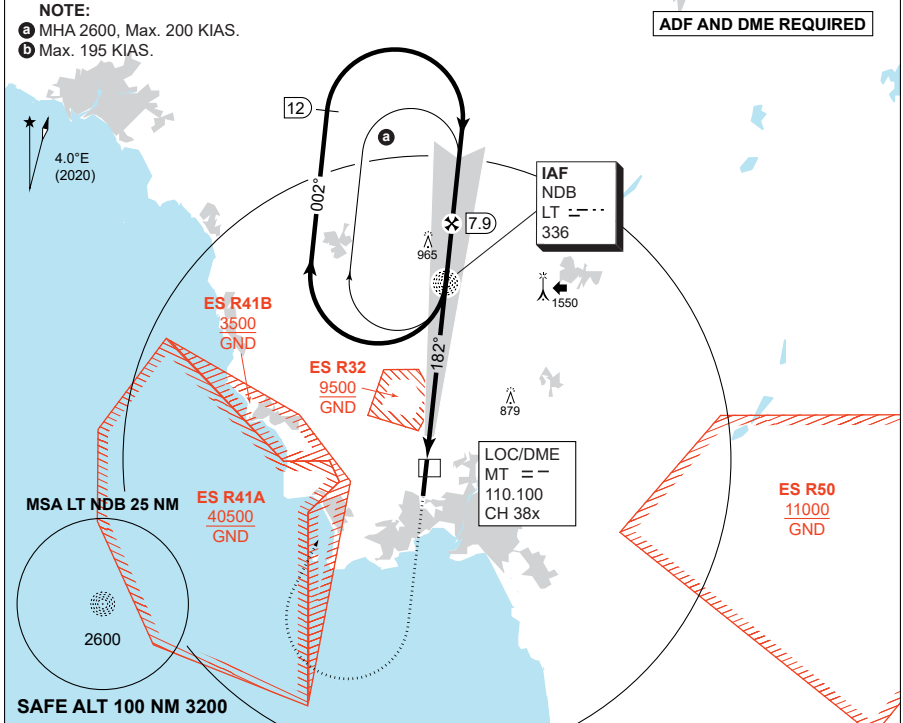
AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

MIPS
INSTRUMENT APPROACH CHART

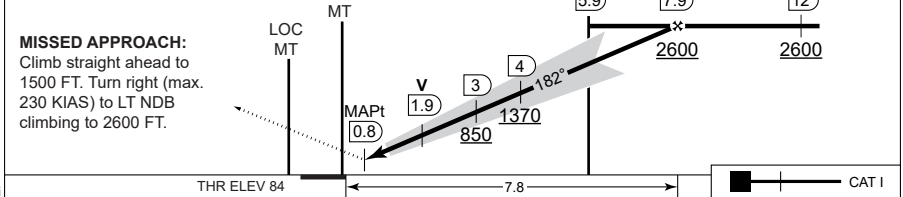
ILS Y or LOC Y RWY 19
HALMSTAD (ESMT)

AD ELEV 101
HALMSTAD TOWER
130.105 135.055

LOC/DME MT 110.100 / CH 38x	APP COURSE 182°	GS INCPT ALT 2600	GS 3.00°	DA 284	THR ELEV 84	ALS 885 M	LDA 7440 FT
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CDFA: 3.00° / 5.24%								TA 5000 GS 3.00° RDH 51
DME SMS	2	3	4	5	6	7		
DIST THR	1.9	2.9	3.9	4.9	5.9	6.9		
ALT	730	1040	1370	1680	2000	2320		



CATEGORY	D	
S-ILS 19	284	- 550 200 (200-0.8/1.2)
S-LOC 19	720	- 2200 636 (700-2.2/2.9)
CIRCLING b	1280	- 3.6 1179 (1200-3.6)

ILS Y or LOC Y RWY 19 **HALMSTAD (ESMT)**

56°41.45'N
012°49.20'E
33-3

CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

ESMT

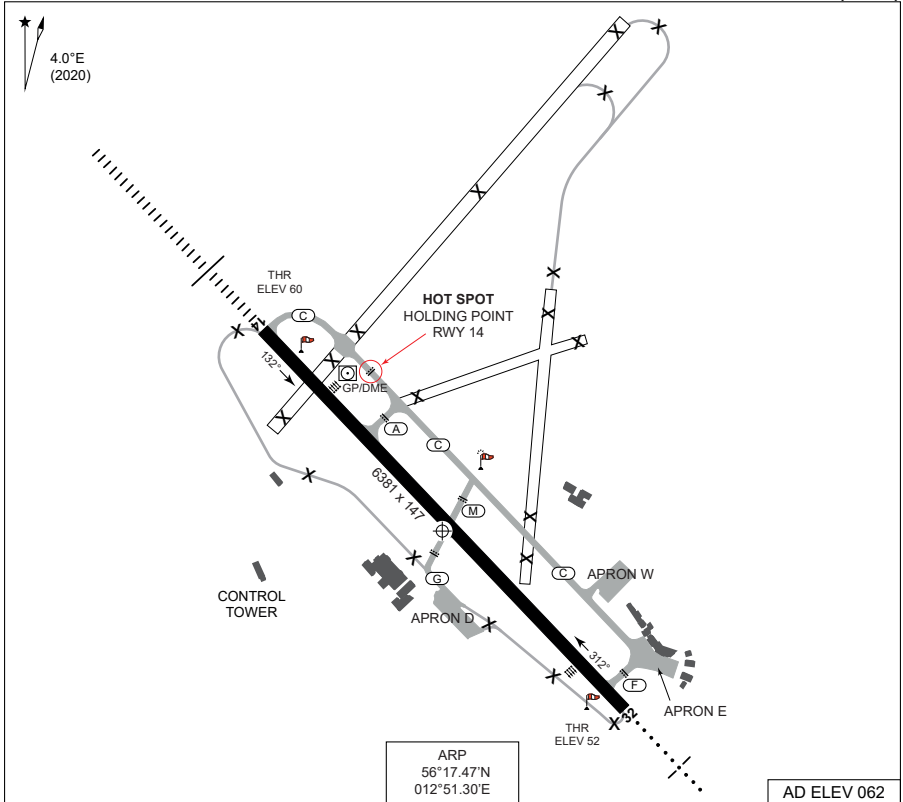
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AERODROME CHART

ÄNGELHOLM (ESTA)



ARP
56°17.47'N
012°51.30'E

AD ELEV 062

RWY	PCN	TORA	TODA	ASDA	LDA		PAPI	ALS	THR ELEV	THR PSN
14	51	6381	6381	6381	6381		3.0°	CAT I	60	56°17.87'N 012°50.65'E
32	51	6381	7053	6381	6381		3.0°	SRC	52	56°17.11'N 012°51.95'E

ÄNGELHOM TOWER: 127.105
ATIS: N/A

RNAV STARS are not published in RDAF FLIP. Aircraft unable to conform to these procedures shall inform ATS accordingly.

OMNIDIRECTIONAL DEPARTURES

RWY 14:
CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 600 FT.

RWY 32:
CLIMB STRAIGHT AHEAD TO MNM TURNING ALT 700 FT.

NOISE ABATEMENT PROCEDURES

Over the central parts of Ängelholm aircraft should not be operated below 2000 ft AMSL except when necessary for take-off or landing.

CHANGES: NEW CHART.

AIR COMMAND DENMARK - MIL AIM 28 NOV 2024

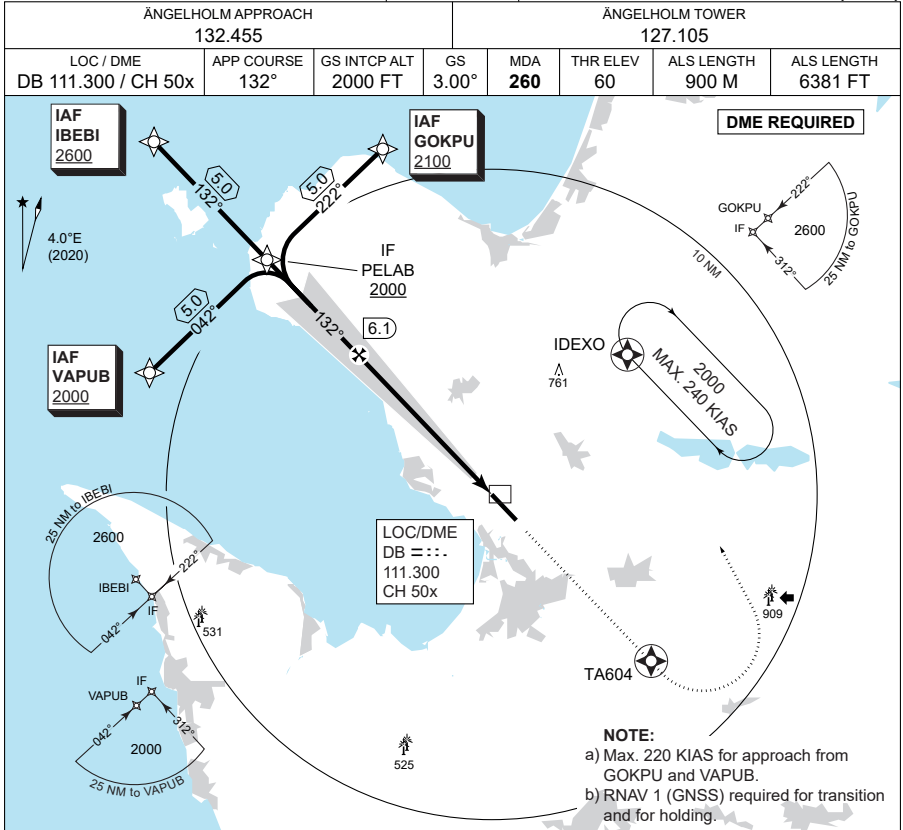
AERODROME CHART

ÄNGELHOLM (ESTA)

MIPS
INSTRUMENT APPROACH CHART

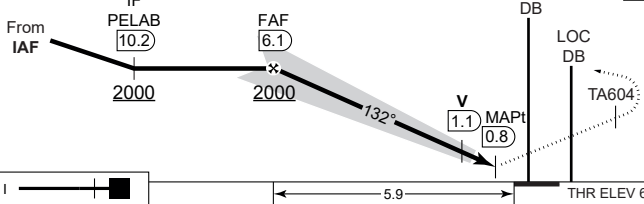
ILS Z or LOC Z RWY 14
ÄNGELHOLM (ESTA)

AD ELEV 62



TA 5000
GS 3.00°
RDH 51

CDFA: 3.00° / 5.24%					
DME DB	6	5	4	3	2
DIST THR	5.8	4.8	3.8	2.8	1.8
ALT	1970	1650	1330	1010	690



MISSED APPROACH:
Climb straight ahead to TA604. Turn left (max. 200 KIAS) and continue climb to hold at IDEXO.

CHANGES: NEW PROCEDURE.

CATEGORY	D
S-ILS 14	260 - 550 200 (200-0.8/1.2)
S-LOC 14	410 - 900 348 (400-0.9/1.6)
CIRCLING	1160 - 3.6 1098 (1100-3.6)

ILS Z or LOC Z RWY 14

56°17.47'N
012°51.30'E

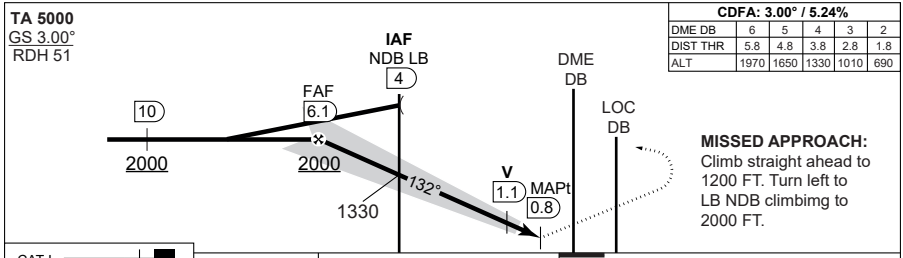
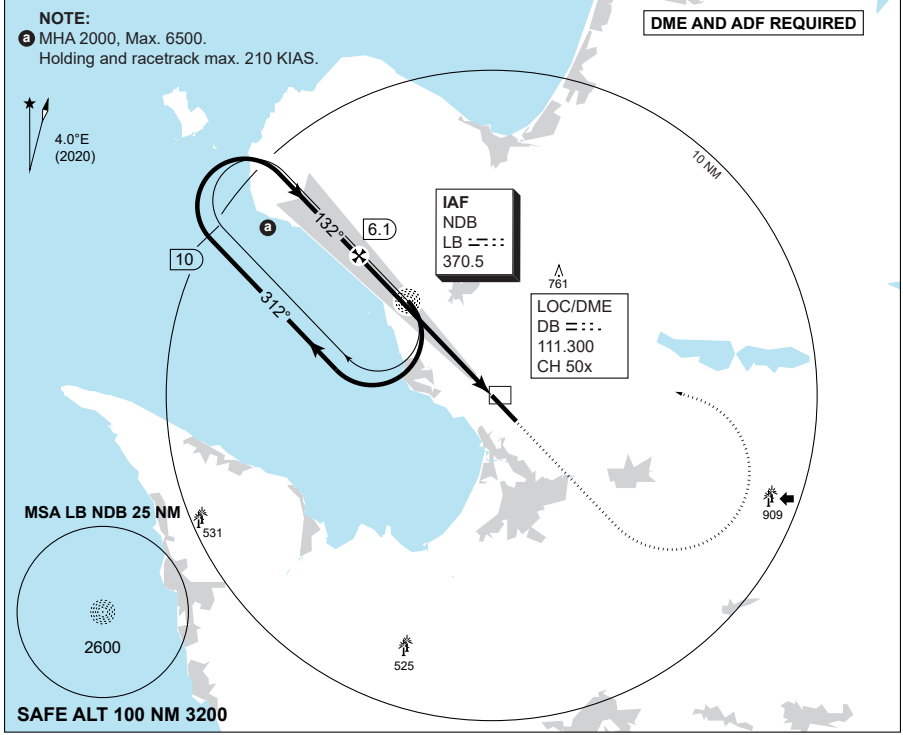
ÄNGELHOLM (ESTA)

MIPS
INSTRUMENT APPROACH CHART

ILS Y or LOC Y RWY 14
ÄNGELHOLM (ESTA)

AD ELEV 62

ÄNGELHOLM APPROACH 132.455				ÄNGELHOLM TOWER 127.105			
LOC / DME DB 111.300 / CH 50x	APP COURSE 132°	GS INTCP ALT 2000 FT	GS 3.00°	MDA 260	THR ELEV 60	ALS LENGTH 900 M	ALS LENGTH 6381 FT



CAT I		5.9	THR ELEV 60
CATEGORY		D	
S-ILS 14		260 - 550 200 (200-0.8/1.2)	
S-LOC 14		410 - 900 348 (400-0.9/1.6)	
CIRCLING		1160 - 3.6 1098 (1100-3.6)	

ILS Y or LOC Y RWY 14

56°17.47'N
 012°51.30'E
 34-3

ÄNGELHOLM (ESTA)

CHANGES: NEW PROCEDURE.

MIPS

AIR COMMAND DENMARK - MIL AIN 28 NOV 2024

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RDAF FLIP

Publication dates and editorial deadlines 2025

Publication date: **12**

Editorial deadline: **25**

JAN	FEB	MAR	APR	MAJ	JUN	JUL	AUG	SEP	OKT	NOV	DEC
1	1	1	1	1	1	1	1	1	1	1	1
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30		30	30	30	30	30	30	30	30	30	30
31		31		31		31	31		31		31

INSTRUMENT DEPARTURE OR APPROACH PROCEDURE CHARTS RATE OF CLIMB OR DESCENT TABLE (FEET PR MINUTE)

A rate of climb or descent table is provided for use in planning and execution of climbs or descent under known or approximate ground speed conditions. All figures are rounded up to the nearest 10 feet increment.

CLIMB / DESCENT GRADIENT			GROUND SPEED (KNOTS)										
Deg.	%	FT/ NM	60	90	120	150	180	210	240	270	300	330	360
1.43°	2.50	160	160	230	310	380	460	540	610	690	760	840	920
2.0°	3.49	220	220	320	430	540	640	750	850	960	1070	1170	1280
2.5°	4.37	270	270	400	540	670	800	930	1070	1200	1330	1460	1600
2.75°	4.80	300	300	440	590	730	880	1030	1170	1320	1460	1610	1760
3.0°	5.24	320	320	480	640	800	960	1120	1280	1440	1600	1760	1920
3.5°	6.12	380	380	560	750	930	1120	1310	1490	1680	1860	2050	2230
4.0°	6.99	430	430	640	850	1070	1280	1490	1700	1920	2130	2340	2550
4.5°	7.87	480	480	720	960	1200	1440	1680	1920	2160	2400	2640	2870
5.0°	8.75	540	540	800	1070	1330	1600	1870	2130	2400	2660	2930	3190
5.5°	9.63	590	590	880	1180	1470	1760	2050	2350	2640	2930	3220	3520
6.0°	10.5	640	640	960	1280	1600	1920	2240	2560	2880	3200	3520	3840
6.5°	11.4	700	700	1040	1390	1740	2080	2430	2770	3120	3470	3810	4160
7.0°	12.3	750	750	1120	1500	1870	2240	2620	2990	3360	3740	4110	4480
7.5°	13.2	800	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
8.0°	14.1	860	860	1290	1710	2140	2570	2990	3420	3850	4270	4700	5130
8.5°	14.9	910	910	1370	1820	2280	2730	3180	3640	4090	4550	5000	5450
9.0°	15.8	970	970	1450	1930	2410	2890	3370	3850	4340	4820	5300	5780
9.5°	16.7	1020	1020	1530	2040	2550	3060	3560	4070	4580	5090	5600	6110
10.0°	17.6	1080	1080	1610	2150	2680	3220	3750	4290	4830	5360	5900	6430