

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> KHLN	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 15C	<u>CITY</u> HELENA	<u>STATE</u> MT		
<u>AIRPORT ELEVATION</u> 3877	<u>TDZE</u>	<u>SUPERSEDED</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 15B	<u>DATED</u> 07/16/2020	<u>MAG VAR</u> 16E	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> HLN	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>

MISSED APPROACH

MAP:

HLN VORTAC

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 9000 ON HLN VORTAC R-336 TO WOKEN INT AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMBING RIGHT TURN TO 7200 ON HLN VORTAC R-336 THEN CLIMBING LEFT TURN TO 8400 DIRECT HLN VORTAC AND HOLD E, RT, 266.00 INBOUND.

PROFILE:

1. PT L SIDE OF COURSE 085.99 OUTBOUND 8200 FT WITHIN 10 MILES OF HLN VORTAC (IAF)
2.
3. FAF: 265.99 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: HLN VORTAC 045-135 10200, 135-225 10700, 225-315 9600, 315-045 9200

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: PROCEDURE TURN: DESCEND TO 10000 IN HLN VORTAC HOLDING PATTERN PRIOR TO DEPARTING OUTBOUND FOR PROCEDURE TURN.
CHART NOTE: CIRCLING NA FOR CAT D SOUTH OF RWY 9-27.
CHART NOTE: CIRCLING NA TO RWYS 10, 28.
CHART NOTE: CIRCLING RWY 5, 23, 35 NA AT NIGHT.



ADDITIONAL FLIGHT DATA:
HOLD SW, RT, 026.00 INBOUND.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD E HLN VORTAC, RT, 266.00 INBOUND.
CHART FAS OBST: 5459 TREE 463527N/1114348W.
CHART IN PLANVIEW: HLN VORTAC.
CHART CIRCLING ICON.

MINIMUMS:
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ CAT A, B 2900-2, CAT C, D 2900-3

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
CIRCLING	6700	1 1/4	2823	6700	1 1/2	2823	6700	3	2823	6700	3	2823			

CHANGES - REASONS
1. INCORPORATES T-NOTAM 0/6927 AND P-NOTAMS 5/4156 (AMDT 15A) AND 0/2460 (AMDT 15B) - 8260.19I, 8-3-4.

COORDINATED WITH:
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZLC ARTCC, HLN APP CON, AMGR, HLN ATCT

FLIGHT CHECKED BY PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED	OFFICE DATE
DEVELOPED BY DONALD H. LANIER (TIA FERONTI) <i>Digitally signed by</i> DONALD H LANIER Mar 01, 2021	OFFICE AJV-A431 DATE 12/14/2020
APPROVED BY LONNIE EVERHART <i>Digitally signed by</i> DONALD H LANIER Mar 01, 2021	OFFICE AJV-A430 DATE TITLE MANAGER

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
KHLN	VOR-A	15C	HELENA	MT	3877	HLN

PART A: OBSTRUCTION DATA SEGMENTS

FINAL: PT

FROM 10 NM TO HLN VORTAC

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	10.00		HLN VORTAC									
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
TREE	463527.00N/1114348.00W	5459	50	20	2C	300				DG941	6700	

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

PROCEDURE TURN

FROM HLN VORTAC TO 10 NM

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
200' AAO	463006.00N/1114900.00W	6936	164	98	4E	1000					8000	
TERRAIN	463006.00N/1114900.00W	6736 (6700)								AS1500	8200	

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



MISSED APPROACH

FROM
HLN VORTAC

TO
WOKEN INT

RNP	DISTANCE	PAT	MAP	HAT			HMAS 6400					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				9000
200' AAO	465348.80N/1115911.80W		7000	1000	3	6A	1000					8000
TERRAIN	465348.80N/1115911.80W		6800 (6800)								AS1500	8300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH ALTERNATE

FROM
HLN VORTAC

TO
HLN VORTAC

RNP	DISTANCE	PAT	MAP	HAT			HMAS 6400					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
200' AAO	464717.47N/1120432.27W		5452	50	20	2C	1000					6500
TERRAIN	464717.47N/1120432.27W		5252 (5300)								AS1500	6800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

KHLN

PROCEDURE NAME

VOR-A

AMDT NO.

15C

CITY

HELENA

STATE

MT

AIRPORT ELEVATION

3877

FACILITY

HLN

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
100' TREE	463454.00N/1115758.00W	1.37	2823	4339	50	20	2C	300		XP2061	6700
CATEGORY B											
TREE	463436.00N/1120106.00W	1.95	2823	4489	50	20	2C	300		XP1911	6700
CATEGORY C											
TREE	463330.00N/1120148.00W	3.15	2823	5609	50	20	2C	300		XP791	6700
CATEGORY D											
TREE	463330.00N/1120148.00W	4.13	2823	5609	50	20	2C	300		XP791	6700

CIRCLING REMARKS:

XP2061- TO MAINTAIN CURRENT PUBLISHED MINIMUMS. XP1911- TO MAINTAIN CURRENT PUBLISHED MINIMUMS. XP791- TO MAINTAIN CURRENT PUBLISHED MINIMUMS. XP791- TO MAINTAIN CURRENT PUBLISHED MINIMUMS.

MSA

CENTER

HLN VORTAC

RADIUS

25

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

MISSED APPROACH HOLDING - PR 295

VDA NA. FINAL IS ALIGNED FOR CIRCLING ONLY.



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
HLN APP CON, HLN TOWER, ZLC ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KHLN	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KHLN	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>

WX REMARKS:

<u>PRIMARY NAVAID</u> HLN VORTAC	<u>MONITOR POINT</u> POCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
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<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW05 - MIRL (PCL), PAPI-2L	BSC-G	
RW17 - MIRL (PCL), REIL	BSC-G	
RW23 - MIRL (PCL), PAPI-2L	BSC-G	
RW35 - MIRL (PCL), REIL	BSC-G	
RW09 - HIRL (PCL), REIL (PCL), PAPI-4L (PCL)	PIR-G	
RW27 - MALSR (PCL), HIRL (PCL), PAPI-4L (PCL)	PIR-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	☐	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	☐	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS



AIRPORT ID KHLN		PROCEDURE NAME VOR-A	AMDT NO. 15C	CITY HELENA	STATE MT	AIRPORT ELEVATION 3877	FACILITY HLN
Final Type	CIRCLING RWY 05						
20:1							
3996 POLE (30-021053) 463607.25N/1120016.94W (18.95)				3905 BUILDING (30-021094) 463616.36N/1115955.52W (14.99)			
3894 TRAVERSE_WAY (30-041429) 463620.91N/1115955.72W (12.63)				3903 TRAVERSE_WAY (30-039686) 463617.05N/1115956.17W (12.32)			
3904 TRAVERSE_WAY (30-039685) 463616.14N/1115955.91W (12.29)				3902 TRAVERSE_WAY (30-039689) 463617.79N/1115956.39W (12.13)			
3901 TRAVERSE_WAY (30-039691) 463618.49N/1115956.58W (11.95)				3903 TRAVERSE_WAY (30-039684) 463616.60N/1115956.02W (11.88)			
3925 BUILDING (30-056858) 463613.86N/1120001.16W (11.87)				3900 TRAVERSE_WAY (30-056548) 463619.20N/1115956.79W (11.72)			
3904 TRAVERSE_WAY (30-039974) 463616.28N/1115956.24W (11.52)				3894 TRAVERSE_WAY (30-041655) 463620.78N/1115955.99W (11.5)			
3898 TRAVERSE_WAY (30-039975) 463620.39N/1115957.15W (11)				3904 TRAVERSE_WAY (30-041675) 463616.62N/1115956.73W (10.65)			
3898 TRAVERSE_WAY (30-039972) 463619.91N/1115956.99W (10.53)				3897 TRAVERSE_WAY (30-039976) 463620.59N/1115957.19W (10.28)			
3953 TREE (30-021049) 463615.41N/1120011.52W (9.92)				3907 TRAVERSE_WAY (30-040269) 463617.45N/1115958.55W (9.53)			
3953 TREE (30-040515) 463614.62N/1120011.45W (8.53)				3908 TRAVERSE_WAY (30-056708) 463617.90N/1115959.51W (8.38)			
3912 BUILDING (30-044141) 463614.94N/1115959.06W (7.78)				3906 TRAVERSE_WAY (30-040001) 463615.70N/1115957.75W (7.52)			
3909 TRAVERSE_WAY (30-056710) 463618.29N/1120000.35W (7.49)				3904 TRAVERSE_WAY (30-040263) 463616.83N/1115958.26W (6.19)			
3906 TRAVERSE_WAY (30-042372) 463617.46N/1115959.63W (5.1)				3908 TRAVERSE_WAY (30-045964) 463617.41N/1120000.33W (4.76)			
3908 TRAVERSE_WAY (30-043935) 463618.71N/1120001.27W (4.41)				3884 TERRAIN (30-041190) 463617.44N/1115953.18W (3.67)			
3882 TERRAIN (30-041405) 463618.36N/1115953.48W (2.59)				3952 TREE (30-042808) 463615.10N/1120013.40W (2.28)			
3909 TRAVERSE_WAY (30-046536) 463617.30N/1120001.77W (0.93)				3915 TRAVERSE_WAY (30-046565) 463614.04N/1120001.61W (0.79)			
3886 TERRAIN (30-056545) 463617.04N/1115954.56W (0.44)				3916 TRAVERSE_WAY (30-044477) 463614.03N/1120002.03W (0.43)			
3934 POLE (30-021335) 463613.13N/1120007.09W (0.43)				3914 TRAVERSE_WAY (30-044219) 463614.25N/1120001.55W (0.41)			
3906 TRAVERSE_WAY (30-056712) 463619.13N/1120002.17W (0.39)				3910 TRAVERSE_WAY (30-046540) 463616.34N/1120001.71W (0.17)			
3884 TERRAIN (30-039300) 463617.89N/1115954.58W (0.11)							
Final Type	CIRCLING RWY 10						
20:1							
3860 TERRAIN (30-040954) 463621.73N/1115935.13W (0.35)							
Final Type	CIRCLING RWY 23						
20:1							
3821 TERRAIN (30-021514) 463638.42N/1115846.64W (1.27)							
Final Type	CIRCLING RWY 28						

QUALITY
22
CHECKED



AIRPORT ID KHLN	PROCEDURE NAME VOR-A	AMDT NO. 15C	CITY HELENA	STATE MT	AIRPORT ELEVATION 3877	FACILITY HLN
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20:1	
3852 TERRAIN (30-043096) 463617.87N/1115905.86W (0.27)	
Final Type	CIRCLING RWY 35
20:1	
3904 BUILDING (30-057704) 463607.11N/1115846.17W (14.98)	3885 TRAVERSE_WAY (30-057703) 463610.18N/1115847.31W (11.58)
3885 TRAVERSE_WAY (30-039325) 463610.07N/1115847.76W (11.04)	3885 TRAVERSE_WAY (30-039321) 463609.96N/1115848.59W (10.51)
3885 TRAVERSE_WAY (30-038946) 463609.84N/1115849.33W (9.94)	3886 TRAVERSE_WAY (30-038936) 463609.57N/1115851.22W (9.64)
3885 TRAVERSE_WAY (30-038939) 463609.75N/1115850.04W (9.51)	3887 TRAVERSE_WAY (30-041215) 463609.29N/1115853.32W (9.31)
3888 TRAVERSE_WAY (30-038934) 463609.02N/1115853.78W (8.96)	3886 TRAVERSE_WAY (30-054768) 463609.39N/1115852.40W (8.78)
3901 POLE (30-045989) 463606.24N/1115853.42W (7.87)	3900 BUILDING (30-000362) 463606.00N/1115853.00W (5.63)
3891 TRAVERSE_WAY (30-054776) 463607.77N/1115853.78W (5.63)	3892 TRAVERSE_WAY (30-044427) 463607.49N/1115846.72W (4.93)
3890 TRAVERSE_WAY (30-041462) 463607.78N/1115852.95W (4.65)	3890 TRAVERSE_WAY (30-046474) 463607.79N/1115850.96W (4.62)
3890 TRAVERSE_WAY (30-046468) 463607.78N/1115851.79W (4.6)	3890 TRAVERSE_WAY (30-043691) 463607.79N/1115849.92W (4.58)
3893 TRAVERSE_WAY (30-044668) 463607.09N/1115846.72W (3.9)	3889 TRAVERSE_WAY (30-057706) 463607.82N/1115846.96W (3.61)
3889 TRAVERSE_WAY (30-045982) 463607.81N/1115847.92W (3.6)	3889 TRAVERSE_WAY (30-044401) 463607.80N/1115848.88W (3.59)
3892 BUILDING (30-043692) 463607.01N/1115853.22W (2.76)	3893 TRAVERSE_WAY (30-043694) 463606.80N/1115853.77W (2.72)
3893 TRAVERSE_WAY (30-043698) 463606.80N/1115853.42W (2.7)	3865 TERRAIN (30-021302) 463612.35N/1115850.22W (2.69)
3867 TERRAIN (30-042764) 463611.83N/1115847.62W (1.95)	

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

NO SUITABLE BACK-UP ALTIMETER AVAILABLE.
MONITOR POINT VERIFIED WITH POCC.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

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QUALITY
22
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AIRPORT ID KHLN	PROCEDURE NAME VOR-A	AMDT NO. 15C	CITY HELENA	STATE MT	AIRPORT ELEVATION 3877	FACILITY HLN
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	MAP	TO 1000FT POINT	7.00
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	4.80
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	281.99
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	5300
DISTANCE FROM	MAP	TO 1500FT POINT	7.00
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	4.80
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	281.99
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	5300

THRESHOLD
COORDINATES
(IF STR-IN)

ARP COORDINATES463624.20N/1115859.80W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 27 DISTANCE 0.86 NM

FAF
COORDINATES

FIX NAME
COORDINATES

REMARKS

MAP COORDINATES: HLN VORTAC 463624.56N/1115712.51W

QUALITY
22
CHECKED

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Electronic Version

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PART E: PREPARED BY

<u>NAME</u> DONALD H. LANIER (TIA FERONTI)	<u>OFFICE</u> AJV-A431	<u>DATE</u> 12/14/2020	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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