

**U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION
GRAPHIC DEPARTURE PROCEDURE (DP)**

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
DIVIDE	ONE	DIVD1.DIVD	NONE		

TYPE: OBSTACLE

DP ROUTE DESCRIPTION:

TAKEOFF RWY 5: CLIMBING LEFT TURN HEADING 270, THENCE...
 TAKEOFF RWY 9: CLIMBING LEFT TURN HEADING 270, THENCE...
 TAKEOFF RWY 23: CLIMBING RIGHT TURN HEADING 020, THENCE...
 TAKEOFF RWY 27: CLIMBING RIGHT TURN HEADING 020, THENCE...

... CONTINUE CLIMB NORTHWESTBOUND ON HLN R-318 TO 8100, THEN CLIMBING RIGHT TURN DIRECT HLN VORTAC, CROSS HLN VORTAC AT OR ABOVE 9000 BEFORE PROCEEDING ON COURSE, OR FOR CLIMB IN VISUAL CONDITIONS; CROSS HELENA RGNL AIRPORT NORTHBOUND AT OR ABOVE 5900 AND CONTINUE CLIMBING ON HLN R-336 TO WOKEN INT BEFORE PROCEEDING ON COURSE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

RWY 16, 34 NA – ENVIRONMENTAL
 RWY 5. STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 8100 FT, OR 2200-3 FOR CLIMB IN VISUAL CONDITIONS.
 RWY 9, STANDARD WITH MINIMUM CLIMB OF 240 FT PER NM TO 8100 FT, OR 2200-3 FOR CLIMB IN VISUAL CONDITIONS.
 RWY 23, STANDARD WITH MINIMUM CLIMB OF 450 FT PER NM TO 8100 FT, OR 2200-3 FOR CLIMB IN VISUAL CONDITIONS.
 RWY 27, STANDARD WITH MINIMUM CLIMB OF 390 FT PER NM TO 8100 FT, OR 2200-3 FOR CLIMB IN VISUAL CONDITIONS.

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 5, TREES BEGINNING 991 FT FROM DER, 630 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/3939 FT MSL. RISING TERRAIN BEGINNING 5 FT FROM DER, 495 FT RIGHT OF CENTERLINE, UP TO 3826 FT MSL, FENCE BEGINNING 423 FT FROM DER, 332 FT RIGHT OF CENTERLINE, UP TO 12 FT AGL/3832 FT MSL.
 NOTE: RWY 9, TREES BEGINNING 1391 FT FROM DER, 50 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/3979 FT MSL. TREES BEGINNING 2928 FT FROM DER, 878 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/ 3979 FT MSL.
 NOTE: RWY 23, TOWER 4448 FT FROM DER, 357 FT LEFT OF CENTERLINE, 131 FT AGL/4054 FT MSL. POLES BEGINNING 1329 FT FROM DER, 3 FT LEFT OF CENTERLINE, UP TO 55 FT AGL/3996 FT MSL. TREES BEGINNING 1011 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/4059 FT MSL. ROD ON BLDG 953 FT FROM DER, 321 FT LEFT OF CENTERLINE, 44 FT AGL/ 3943 FT MSL, ROAD (I) 2374 FT FROM DER, 771 FT LEFT OF CENTERLINE, UP TO 17 FT AGL/ 3972' MSL. OL ON HGR 457 FT FROM DER, 219 FT LEFT OF CENTERLINE, 43 FT AGL/3905 FT MSL. TREES BEGINNING 1519 FT FROM DER, 142 FT RIGHT OF CENTERLINE, UP TO 52 FT AGL/ 4011 FT MSL. POLES BEGINNING 1379 FT FROM DER, 57 FT RIGHT OF CENTERLINE, UP TO 46 FT AGL/3965 FT MSL. ANT ON BLDG 316 FT FROM DER, 352 FT RIGHT OF CENTERLINE, 34 FT AGL/3913 FT MSL. BLDG 584 FT FROM DER, 470 FT RIGHT OF CENTERLINE, 49 FT AGL/3948 FT MSL.
 NOTE: RWY 27, TREES BEGINNING 1079 FT FROM DER, 616 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/3999 FT MSL. BLDG 1593 FT FROM DER, 731 FT LEFT OF CENTERLINE, 18 FT AGL/3917 FT MSL. RISING TERRAIN BEGINNING 101 FT FROM DER, 347 FT LEFT OF CENTERLINE, UP TO 3871 FT MSL. TREES BEGINNING 333 FT FROM DER, 507 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/3959 FT MSL..

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DIVIDE	ONE	DIVD1.DIVD	NONE		

CONTROLLING OBSTACLES:

RWY 23: 5460 FT MSL BUSH 463516.96N-1120355.72W.
RWY 27: 5452 FT MSL AAO 464035.42N-1120504.55W, 6328 FT MSL AAO 464944.00N-1120731.70W.
VCOA: 5560 FT MSL TREE 463506.30N-1120407.30W.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

CHART HLN R-318, CHART HLN VORTAC

AIRPORTS SERVED:

HELENA RGNL

HELENA, MT

COMMUNICATIONS:

ZLC, HLN ATCT, RCO FSS.

FIXES AND/OR NAVAIDS:

HLN VORTAC

REMARKS:

OPERATIONAL CG ESTABLISHED FOR RWY 5 AND RWY 9 TO FACILITATE CLIMB TO 8100.

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
DIVIDE	ONE	DIVD1.DIVD	NONE		

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

ADOLFO URRATIA (DAVID JENNER) AJV 354 02/07/2011

APPROVED BY:

DEZ SILAGYI AJV 354

COORDINATED WITH:

ATA, ALPA, APA, AOPA, NBAA, ZLC, HLN APCH, HLN ATCT.

CHANGES:

1. VCOA CHANGED FROM "1600-3 FOR CLIMB IN VISUAL CONDITIONS" TO "2200-3 FOR CLIMB IN VISUAL CONDITIONS" AND AIRCRAFT CTA OVER HELENA REGIONAL AIRPORT CHANGED FROM 5300 FT TO 5900 FT.
2. RWY 5 TAKEOFF MINIMUMS CHANGED FROM "2500-3 OR STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 8100" TO "STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 8100".
3. RWY 23 TAKEOFF MINIMUMS CHANGED FROM "1600-3 OR STANDARD WITH MINIMUM CLIMB OF 560 FT PER NM TO 8100" TO "STANDARD WITH MINIMUM CLIMB OF 450 FT PER NM TO 8100".
4. RWY 27 TAKEOFF MINIMUMS CHANGED FROM "1600-3 OR STANDARD WITH MINIMUM CLIMB OF 390 FT PER NM TO 8100" TO "STANDARD WITH MINIMUM CLIMB OF 390 FT PER NM TO 8100".
5. UPDATED CONTROLLING OBSTACLES.
6. CHANGED FROM TEXTUAL ODP TO GRAPHIC ODP, NAME OF GRAPHIC DP IS "DIVIDE 1".
7. TAKEOFF OBSTACLE NOTES UPDATED.

REASONS:

1. NEW OBSTACLE IN VCA.
2. CG OPERATIONAL, 250 CG USED TO SHORTEN DISTANCE NEEDED TO GET TO 8100FT AND TO KEEP CG CONSISTENT WITH "OLD" PROCEDURE.
3. RWY 23 ICA SHORTENED TO 0.9 NM TO AVOID OBSTACLE CAUSING HIGHER CG. 450 CG BASED ON LENGTH OF ICA.
4. CEILING/VISIBILITY DELETED, OBSTACLE USED IN PREVIOUS PROCEDURE GREATER THAN 3 NM, ACTUAL DISTANCE 3.01 NM (3.46 SM).
5. RWY 5/9 CG CHANGED TO OPERATIONAL CG, THEREFORE NO CONTROLLING OBSTACLES.
6. PROCEDURE HAS MORE THAN 1 TURN, IAW 8260-46D, PARA 2-1 B (4) (A).
7. IAW 8260-46D, APPENDIX D PARA 6 C (1).

RADIO FIX AND HOLDING DATA RECORD

NAME: HELENA VORTAC

STATE: MT

COUNTRY: US

LATITUDE/LONGITUDE: 463624.56N/1115712.51W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	HELENA	HLN	VORTAC	H						45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	E	HLN	VORTAC	086.00	266.00	R	1-1 1/2	8400 17500	9 16

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	462736.00N/1114724.00W	8104	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	222

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PAT 1 CONTROLLING OBSTACLE LOCATED 11976 FEET INTO SECONDARY, PRIMARY EQUIVELANT ELEVATION IS 7106.01 FEET. PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BILLINGS			KBIL	BILLINGS	MT (US)
DP	HELENA			KHLN	HELENA	MT (US)
DP	SIEBE			KHLN	HELENA	MT (US)
DP	STAKK			KHLN	HELENA	MT (US)
DP	TAKE-OFF MINIMUMS			KHLN	HELENA	MT (US)
EN ROUTE	J34-136					(US)
EN ROUTE	J34-90					(US)
EN ROUTE	J90					(US)
EN ROUTE	V113					(US)
EN ROUTE	V2					(US)
EN ROUTE	V2-365					(US)
EN ROUTE	V21					(US)
EN ROUTE	V247					(US)
EN ROUTE	V365					(US)
IAP	ILS OR LOC Y RWY 27			KHLN	HELENA	MT (US)
IAP	ILS OR LOC Z RWY 27			KHLN	HELENA	MT (US)
IAP	LOC/DME BC-C		1	KHLN	HELENA	MT (US)
IAP	NDB-D			KHLN	HELENA	MT (US)
IAP	RNAV (GPS) Y RWY 09			KHLN	HELENA	MT (US)
IAP	RNAV (RNP) Y RWY 27			KHLN	HELENA	MT (US)
IAP	RNAV (RNP) Z RWY 09			KHLN	HELENA	MT (US)
IAP	RNAV (RNP) Z RWY 27			KHLN	HELENA	MT (US)
IAP	VOR-A		1	KHLN	HELENA	MT (US)
IAP	VOR/DME-B		1	KHLN	HELENA	MT (US)

REQUIRED CHARTING: DP, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 11/15/2010

REASON FOR REVISION:

UPDATED FIX USE.
 UPDATED PRECIPITOUS TERRAIN EVALUATION, CHANGED FROM 196 FEET TO 222 FEET.
 MOVED HOLDING LIMITED TO ESTABLISHED PATTERN FROM REMARKS TO HOLDING RESTRICTIONS BLOCK.
 UPDATED SIGNATURE/DISTRIBUTION BLOCKS.

DEVELOPED BY: **DATE:** 11/15/2010 **OFFICE:** AVN-130 **NAME:** ADOLFO URRUTIA (DAVID JENNER)

NFPO APPROVAL: **DATE:** **OFFICE:** AVN-130 **NAME:** DEZ SILAGYI



SIGNATURE:

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY: ZLC APP/DEP CON, HLN ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: WOKEN **STATE:** MT **COUNTRY:** US

LATITUDE/LONGITUDE: 465854.79N/1120133.14W **TYPE:** WP, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	GREAT FALLS	GTF	VORTAC	H	206.00	222.00	37.68	37.68		8800	17500
2	HELENA	HLN	VORTAC	H	336.47	352.47	22.71	22.71		9000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
GTF	VORTAC	R-206	65	9300	17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	GTF	VORTAC	206.00	026.00	R	1-1 1/2	9300 17500	11 18
2	SW		WP	206.00	026.00	R	7	9300 17500	10 17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	200' AAO	465636.00N/1121636.00W	7251	4E
1	310	200' AAO	465548.00N/1114403.00W	7976	4E
2	230	200' AAO	465633.00N/1121427.00W	7202	4E
2	310	AAO	465825.80N/1121703.00W	7960	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	310	308
1	230	295
2	230	255
2	310	305

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC Y RWY 27	KHLN	HELENA	MT (US)
1	VOR/DME - B	KHLN	HELENA	MT (US)
2	RNAV (GPS) RWY 23	KHLN	HELENA	MT (US)
2	RNAV (GPS) X RWY 27	KHLN	HELENA	MT (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DIVIDE			KHLN	HELENA	MT (US)
EN ROUTE	V257	1, 2				(US)
EN ROUTE	V365	1, 2				(US)
IAP	RNAV (GPS) Y RWY 03			KGTF	GREAT FALLS	MT (US)
IAP	ILS OR LOC Y RWY 27	1, 2	1	KHLN	HELENA	MT (US)
IAP	ILS OR LOC Z RWY 27	1, 2	1	KHLN	HELENA	MT (US)
IAP	LOC/DME BC C	1, 2	1	KHLN	HELENA	MT (US)
IAP	RNAV (GPS) RWY 23		2	KHLN	HELENA	MT (US)
IAP	RNAV (GPS) X RWY 27		2	KHLN	HELENA	MT (US)
IAP	VOR-A	1, 2	1	KHLN	HELENA	MT (US)
IAP	VOR/DME - B	1, 2	1	KHLN	HELENA	MT (US)

REQUIRED CHARTING: DP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 11/15/2010

REASON FOR REVISION:

