

# RADIO FIX AND HOLDING DATA RECORD

NAME: GRAAP

STATE: ID

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 462923.52N/1145217.17W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
DP

USE TITLE  
VICTO (RNAV)

FAC

PAT

AIRPORT IDENT  
KMSO

CITY  
MISSOULA

STATE  
MT (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 08/10/2023

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

*Digitally signed by*  
**CASIMIR L TABAKA**

Apr 20, 2023



# RADIO FIX AND HOLDING DATA RECORD

NAME: HELENA VORTAC

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 463624.56N/1115712.51W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

## FIX MAKE-UP FACILITIES:

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

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	E	HLN	VORTAC	075.00	255.00	R	1		8000	10000	4	4

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	100	AAO	463551.00N/1114354.00W	5528	4E

## PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	100	210

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	COPTER VOR 258	KHLN	HELENA	MT (US)

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
ASSIGNED MAG/VAR: E12/2025

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BILLINGS			KBIL	BILLINGS	MT (US)
DP	DIVIDE			KHLN	HELENA	MT (US)
DP	HELENA			KHLN	HELENA	MT (US)
DP	SIEBE			KHLN	HELENA	MT (US)
DP	STAKK			KHLN	HELENA	MT (US)
DP	BILLINGS			6S8	LAUREL	MT (US)
DP	VICTO (RNAV)			KMSO	MISSOULA	MT (US)
EN ROUTE	J136					(US)
EN ROUTE	J34					(US)
EN ROUTE	J90					(US)
EN ROUTE	T268					(US)
EN ROUTE	V113					(US)
EN ROUTE	V2					(US)
EN ROUTE	V21					(US)
EN ROUTE	V247					(US)
EN ROUTE	V365					(US)
IAP	COPTER VOR 258		1	KHLN	HELENA	MT (US)
IAP	ILS Y OR LOC Y RWY 27			KHLN	HELENA	MT (US)
IAP	ILS Z OR LOC Z RWY 27			KHLN	HELENA	MT (US)
IAP	LOC BC-C			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			KHLN	HELENA	MT (US)
IAP	VOR-B			KHLN	HELENA	MT (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 15

DATE OF REVISION: 08/10/2023

## REASON FOR REVISION:

1. FIX USE: ADDED DP VICTO (RNAV) AND SIEBE
2. FIX USE: CHANGED ILS Y OR LOC Z RWY 27 AT KHLN TO ILS Z OR LOC Z RWY 27

INITIATED BY:

DATE:

ORGANIZATION:

NAME:



OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

*Digitally signed by***CASIMIR L TABAKA**

Apr 20, 2023

QUALITY  
26  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: INHAL

STATE: ID

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470439.89N/1152018.53W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
DP

USE TITLE  
VICTO (RNAV)

FAC

PAT

AIRPORT IDENT  
KMSO

CITY  
MISSOULA

STATE  
MT (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 08/10/2023

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

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**CASIMIR L TABAKA**  
Apr 20, 2023

QUALITY  
26  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MOHEN

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 473734.85N/1144655.15W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
DP

USE TITLE  
VICTO (RNAV)

FAC

PAT

AIRPORT IDENT  
KMSO

CITY  
MISSOULA

STATE  
MT (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 08/10/2023

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

*Digitally signed by*  
**CASIMIR L TABAKA**  
Apr 20, 2023



# RADIO FIX AND HOLDING DATA RECORD

NAME: QIANA

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 464638.50N/1140335.29W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
DP

USE TITLE  
VICTO (RNAV)

FAC

PAT

AIRPORT IDENT  
KMSO

CITY  
MISSOULA

STATE  
MT (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 08/10/2023

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

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**CASIMIR L TABAKA**  
Apr 20, 2023

QUALITY  
26  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** SALMON VOR/DME **STATE:** ID **COUNTRY:** US **ICAO REGION CODE:** K1

**LATITUDE/LONGITUDE:** 450116.72N/1140503.25W **TYPE:**

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** NO CHANGE

**FIX MAKE-UP FACILITIES:**

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM FEET	MRA	MAA
1	SALMON	LKT	VOR/DME	VH						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	SW	LKT	VOR/DME	223.00	043.00	L	1	11600 17500	9 20

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	445314.10N/1141256.60W	10160	6A
1	310	AAO	445314.10N/1141256.60W	10160	6A

**PRECIPITOUS TERRAIN ADDITIONS:**

PAT	SPEED	ADDITION
1	310	375
1	230	375

**REASON FOR NONSTANDARD HOLDING:**

PAT 1 TERRAIN & ATC REQUIREMENTS

**PROCEDURES REQUIRING CLIMB-IN-HOLD:**

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR/DME-B	KSMN	SALMON	ID (US)

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED  
REFERENCE MAGVAR SALMON VOR/DME: 13E 2020

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
SPECIAL DP	ZAROD (RNAV)			0ID2	MAY	ID (US)
SPECIAL IAP	RNAV (GPS) M RWY 11			0ID2	MAY	ID (US)
DP	TAKEOFF MINIMUMS			KSMN	SALMON	ID (US)
DP	DIDLY			KMSO	MISSOULA	MT (US)
DP	MZULA			KMSO	MISSOULA	MT (US)
DP	VICTO (RNAV)			KMSO	MISSOULA	MT (US)
EN ROUTE	J52					(US)
EN ROUTE	J7					(US)
EN ROUTE	V113					(US)
EN ROUTE	V121					(US)
EN ROUTE	V231					(US)
EN ROUTE	V269					(US)
EN ROUTE	V520					(US)
IAP	VOR/DME-B		1	KSMN	SALMON	ID (US)

**REQUIRED CHARTING:** DP, IAP, EN ROUTE LOW, EN ROUTE HIGH, SPECIAL IAP, SPECIAL DP, CONTROLLER LOW, CONTROLLER HIGH

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 8

**DATE OF REVISION:** 08/10/2023

**REASON FOR REVISION:**

1. FIX USE: ADDED DP VICTO (RNAV)

**INITIATED BY:** **DATE:** **ORGANIZATION:** **NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:** AJV-A432 **NAME:** APRIL SARMENTO

**APPROVED BY:** **DATE:** 08/10/2023 **OFFICE:** AJV-A432 **NAME:** CASIMIR TABAKA

**SIGNATURE:** *Digitally signed by*  
**CASIMIR L TABAKA**

Apr 20, 2023



# RADIO FIX AND HOLDING DATA RECORD

NAME: VICTO

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 463440.81N/1140058.98W

TYPE: WP, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	MISSOULA	MSO	VOR/DME	L	159.00	172.00	20.00	20.00		11000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MZULA	1		KMSO	MISSOULA	MT (US)
DP	VICTO (RNAV)			KMSO	MISSOULA	MT (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/10/2023

## REASON FOR REVISION:

1. TYPE FIX: ADDED WP
2. FACILITY MAKE-UP FACILITIES: CHANGED FAC 1 DME AND DIST FROM FAC FROM 19.99 TO 20.00
3. FIX USE: ADDED DP VICTO (RNAV)

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: APRIL SARMENTO

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

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**CASIMIR L TABAKA**  
Apr 20, 2023

