

# RADIO FIX AND HOLDING DATA RECORD

NAME: DIRLE

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 452229.57N/1113926.27W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**REMARKS:**

IPDS DERIVED COORDINATES: 452229.565N/1113926.267W

**FIX USE:**

USE TYPE  
IAP

USE TITLE

RNAV (GPS) RWY 16

FAC

PAT

AIRPORT IDENT

KEKS

CITY

ENNIS

STATE

MT (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 09/15/2016

DEVELOPED BY:

DATE: 05/03/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZLC

ATC FACILITY: BZN APP CON

OTHER:

QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: WHITEHALL VOR/DME

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 455142.44N/1121010.59W

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	MRA	MAA
1	WHITEHALL	HIA	VOR/DME	H						45000

## FIX RESTRICTIONS:

MCA V21 9300 NORTHBOUND

MCA V86 9100 WESTBOUND

SPECIAL ILS Z RWY 15, KBTM, BUTTE, MT

## HOLDING:

HOLDING TYPE OF ACTION: CANCEL

## 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	HIA	VOR/DME	077.90	257.90	R	1-1 1/2		9500	17500	9	16
2	E	HIA	VOR/DME	095.10	275.10	R	1-1 1/2		10500	17500	9	16
3	N	WP	WP	010.52	190.52	R		7	10600	17500	10	17

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	455812.00N/1120051.00W	8042	4E
2	230	AAO	454251.00N/1120245.00W	9452	4E
3	230	AAO	460506.00N/1120345.00W	8809	2A

## PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
3	230	380

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

PAT 1 AND 2 USED BY ZLC.

PAT 2 CONTROLLING OBS LOCATED IN SECONDARY AREA. PRIMARY EQUIVALENT ELEV: 8740 FT.

PAT 1 AND 2 USED IAPA FOR CONVENTIONAL HOLDING PATTERN PROCEDURE PRECIPITOUS EVAL, PAT 3 SED IPDS FOR RNAV HOLDING PATTERN PRECIPITOUS EVAL.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BILLINGS			KBIL	BILLINGS	MT (US)
DP	BOZEMAN			KBZN	BOZEMAN	MT (US)
DP	TEERX (RNAV)			KBZN	BOZEMAN	MT (US)
DP	WHITEHALL			KBZN	BOZEMAN	MT (US)
DP	ENNIS (RNAV)			KEKS	ENNIS	MT (US)
DP	BILLINGS			K6S8	LAUREL	MT (US)
EN ROUTE	J151					(US)
EN ROUTE	J16					(US)
EN ROUTE	V21					(US)
EN ROUTE	V86					(US)
IAP	VOR/DME OR GPS-A			K3U3	ANACONDA	MT (US)
IAP	ILS OR LOC RWY 12			KBZN	BOZEMAN	MT (US)
IAP	RNAV (GPS) Y RWY 12			KBZN	BOZEMAN	MT (US)
IAP	RNAV (RNP) RWY 30			KBZN	BOZEMAN	MT (US)
IAP	RNAV (RNP) Z RWY 12			KBZN	BOZEMAN	MT (US)
IAP	VOR RWY 12			KBZN	BOZEMAN	MT (US)
IAP	VOR/DME RWY 12			KBZN	BOZEMAN	MT (US)
IAP	ILS Y RWY 15			KBTM	BUTTE	MT (US)
IAP	ILS Z RWY 15 (SPECIAL)			KBTM	BUTTE	MT (US)
IAP	LOC/DME RWY 15			KBTM	BUTTE	MT (US)
IAP	VOR/DME OR GPS-A			KBTM	BUTTE	MT (US)
IAP	RNAV (GPS) RWY 17		3	KDLN	DILLON	MT (US)
IAP	RNAV (GPS) RWY 35		3	KDLN	DILLON	MT (US)
IAP	RNAV (GPS) RWY 16			KEKS	ENNIS	MT (US)
IAP	RNAV (RNP) Y RWY 27			KHLN	HELENA	MT (US)
IAP	RNAV (RNP) Z RWY 27			KHLN	HELENA	MT (US)

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

COMPULSORY REPORTING POINT: NO

QUALITY  
6  
CHECKED

RECORD REVISION NUMBER: 14

DATE OF REVISION: 09/15/2016

## REASON FOR REVISION:

REMOVED PAT 4.  
ADDED ATC FACILITY TO FORM.

DEVELOPED BY: DATE: 05/04/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: WST  
ARTCC: ZLC  
ATC FACILITY: BZN APP CON  
OTHER:QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: HUDAT

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 452700.75N/1114711.85W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

FIX USE:  
USE TYPE  
IAP

USE TITLE  
RNAV (GPS) RWY 16

FAC PAT AIRPORT IDENT CITY  
KEKS ENNIS

STATE  
MT (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 09/15/2016

DEVELOPED BY: DATE: 05/03/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: WST  
ARTCC: ZLC  
ATC FACILITY: BZN APP CON  
OTHER:

QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: JFFRS

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 454918.46N/1113802.70W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
IAP

USE TITLE  
RNAV (GPS) RWY 16

FAC

PAT

AIRPORT IDENT  
KEKS

CITY  
ENNIS

STATE  
MT (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 09/15/2016

REASON FOR REVISION:

ADDED BZN APP CON TO ATC FACILITY.

DEVELOPED BY:

DATE: 05/04/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: WST  
ARTCC: ZLC  
ATC FACILITY: BZN APP CON  
OTHER:

QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MDISN

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 453720.62N/1114041.61W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

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	N		WP	344.59	164.59	R	7	11900 12000	10 10

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	453430.00N/1115115.00W	7894	4D
1	310	AAO	452908.51N/1115503.78W	10439	2C

## PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	340
1	310	380

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
PAT 1 310 IPDS ACCURACY CODE USED.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ENNIS (RNAV)			KEKS	ENNIS	MT (US)
IAP	RNAV (GPS) RWY 16		1	KEKS	ENNIS	MT (US)
IAP	RNAV (GPS) RWY 34		1	KEKS	ENNIS	MT (US)

REQUIRED CHARTING: DP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 09/15/2016

## REASON FOR REVISION:

INCREASED PAT 1 MIN ALTITUDE FROM 11000 TO 11900.  
ADDED 310K PAT 1 HOLDING.  
ADDED PAT 1 310K PERCIPITOUS TERRAIN ADDITION 380 FT.  
ADDED RNAV (GPS) RWY 34 TO FIX USE.

DEVELOPED BY:

DATE: 05/03/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: WST  
ARTCC: ZLC  
ATC FACILITY: BZN APP CON  
OTHER:

QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: RANBW

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 452651.84N/1113948.37W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

**REMARKS:**

IPDS DERIVED COORDINATES: 452651.837N/1113948.374W

**FIX USE:**

USE TYPE

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

IAP

RNAV (GPS) RWY 16

KEKS

ENNIS

MT (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 09/15/2016

**REASON FOR REVISION:**

ADDED IPDS DERIVED COORDINATES.

DEVELOPED BY:

DATE: 05/16/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZLC

ATC FACILITY: BZN APP CON

OTHER:

QUALITY  
6  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: NYMPF

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 453115.29N/1113831.52W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE  
IAP

USE TITLE  
RNAV (GPS) RWY 16

FAC

PAT

AIRPORT IDENT  
KEKS

CITY  
ENNIS

STATE  
MT (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 09/15/2016

REASON FOR REVISION:

ADDED BZN APP CON.

DEVELOPED BY:

DATE: 05/04/2016

OFFICE: AJV-5433

NAME: RONALD SALPINO

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: LONNIE EVERHART

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: WST  
ARTCC: ZLC  
ATC FACILITY: BZN APP CON  
OTHER:

QUALITY  
6  
CHECKED



# RADIO FIX AND HOLDING DATA RECORD

**NAME:** QUERY **STATE:** MT **COUNTRY:** US **ICAO REGION CODE:** K1

**LATITUDE/LONGITUDE:** 451151.07N/1113140.16W **TYPE:** WP, INT, DME

**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	MRA	MAA
1	BOZEMAN	BZN	VOR/DME	H	186.20	204.20	38.54	38.54	15000	17500
2	DILLON	DLN	VOR/DME	H	075.69	093.69		43.34	15000	17500

**HOLDING:** **HOLDING TYPE OF ACTION:** NO CHANGE

**PATTERNS:**

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES MIN DME	MAX	TEMPLATES MIN	MAX
1	S		WP	190.20	010.20	R		10	15000	17500	16 17

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	265	AAO	445444.80N/1112735.50W	11520	4E

**PRECIPITOUS TERRAIN ADDITIONS:**

PAT	SPEED	ADDITION
1	265	380

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERN

**REMARKS:**

BOZEMAN (FAC 1) USED TO ESTABLISH FIX COORDINATES  
 PRECIPITOUS TERRAIN EVALUATION COMPLETE.  
 IPDS USED FOR PRECIPITOUS TERRAIN EVAL.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V343	1, 2				(US)
IAP	RNAV (GPS) RWY 16			KEKS	ENNIS	MT (US)
IAP	RNAV (GPS) RWY 1		1	KWYS	WEST YELLOWSTONE	MT (US)
IAP	RNAV (GPS) RWY 19			KWYS	WEST YELLOWSTONE	MT (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 2 **DATE OF REVISION:** 09/15/2016

**REASON FOR REVISION:**

ADDED ATC FACILITY TO FORM.

**DEVELOPED BY:** **DATE:** 05/04/2016 **OFFICE:** AJV-5433 **NAME:** RONALD SALPINO

**APPROVED BY:** **DATE:** **OFFICE:** AJV-5430 **NAME:** LONNIE EVERHART

**SIGNATURE:**

**DISTRIBUTION:**

NFDC  
 FPO: WST  
 ARTCC: ZLC  
 ATC FACILITY: BZN APP CON  
 OTHER:

