

RADIO FIX AND HOLDING DATA RECORD

NAME: ASTORIA VOR/DME **STATE:** OR **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 460942.11N/1235249.36W **TYPE:**
AIRSPACE DOCKET: 17-ANM-24 **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 FEET	MAA
1	ASTORIA	AST	VOR/DME	L						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	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W	AST	VOR/DME	259.00	079.00	R	1		2400	8000	4	8
2	W	AST	VOR/DME	249.98	069.98	R	1		2000	8000	4	8
3	SE	AST	VOR/DME	119.00	299.00	L	1		3000	8000	4	8

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	461100.14N/1234741.34W	899	2C
2	200	AAO	461100.49N/1234747.71W	850	4A
3	200	AAO	461712.00N/1235345.00W	1565	5E
3	310	AAO	462025.10N/1235222.30W	1915	4E

REASON FOR NONSTANDARD HOLDING:

PAT 3 TO ELIMINATE ADDITIONAL AIRSPACE

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
3	VOR RWY 8	KAST	ASTORIA	OR (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 ASSIGNED FACILITY MAGVAR: E15/2020.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ASTORIA (OBSTACLE)			KAST	ASTORIA	OR (US)
DP	TAKE-OFF MINIMUMS			KAST	ASTORIA	OR (US)
DP	PORTLAND			KPDX	PORTLAND	OR (US)
DP	SEATTLE			KSEA	SEATTLE	WA (US)
EN ROUTE	T317					(US)
EN ROUTE	V112					(US)
EN ROUTE	V187					(US)
EN ROUTE	V27					(US)
IAP	COPTER LOC RWY 26		1	KAST	ASTORIA	OR (US)
IAP	COPTER VOR RWY 8		2	KAST	ASTORIA	OR (US)
IAP	ILS RWY 26		1	KAST	ASTORIA	OR (US)
IAP	RNAV (GPS) RWY 26			KAST	ASTORIA	OR (US)
IAP	VOR RWY 8		3	KAST	ASTORIA	OR (US)
IAP	RNAV (GPS) RWY 6			KTDO	TOLEDO	WA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 17

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
 2. FIX USE: REMOVED V7 AND ADDED T317.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON



*Digitally signed by***SIGNATURE: ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:**NFDC**
FPO: WST
ARTCC: ZSE
ATC FACILITY:
OTHER: MMV FSSA green circular stamp with the text "QUALITY" at the top, "30" in the center, and "CHECKED" at the bottom.

RADIO FIX AND HOLDING DATA RECORD

NAME: AUBBY

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 471852.66N/1110542.95W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: ESTABLISH

FIX RESTRICTIONS:

MCA T317 8300 EASTBOUND

FIX USE:

USE TYPE
EN ROUTE

USE TITLE
T317

FAC PAT AIRPORT IDENT CITY

STATE
(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 08/15/2019

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: AWASH **STATE:** NM **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 351635.44N/1065915.33W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	ALBUQUERQUE	ABQ	VORTAC	H	315.90	328.90	16.29	16.29	7000	17000
2	SANTA FE	SAF	VORTAC	L	238.00	251.00		47.94	8000	17000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SAF	VORTAC	R-238	48	9000	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 DME	MIN	MAX	MIN	MAX
1	NW	ABQ	VORTAC	316.00	136.00	R		4	9000	17000	9	15

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (35-006082)	351437.00N/1065125.00W	6248	4D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

ALBUQUERQUE (FAC 1) AND SANTA FE (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	ILS OR LOC RWY 22	1, 2	1	KAEG	ALBUQUERQUE	NM (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

- ADDED AIRSPACE DOCKET NUMBER.
- ADDED WP TO TYPE.
- FIX MAKE-UP: FAC 1 MAG/TRUE BRG CHANGED FROM 316.00/329.00 TO 315.90/328.90 AND DME/DIST CHANGED FROM 16.30 TO 16.29
- FIX MAKE-UP: FAC 2 CHANGED DIST FROM 47.90 TO 47.94.
- REMARKS: CHANGED ALBUQUERQUE (FAC 1) USED TO ESTABLISH FIX COORDINATES TO ALBUQUERQUE (FAC 1) AND SANTA FE (FAC 2) USED TO ESTABLISH FIX COORDINATES
- FIX USE: ADDED T317.
- CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW AND ADDED IAP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY:
OTHER:

QUALITY
 30
 CHECKED

NAME: BACUN	STATE: WA	COUNTRY: US	ICAO REGION CODE: K1
LATITUDE/LONGITUDE: 461816.04N/1182912.44W	TYPE: WP, INT, DME		
AIRSPACE DOCKET: 17-ANM-24	FIX TYPE OF ACTION: NO CHANGE		

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM FAC FEET	MRA	MAA
1	PASCO	PSC	VOR/DME	L	070.30	085.30	26.32	26.32	4000	17500
2	WALLA WALLA	ALW	VOR/DME	L	308.26	328.26		15.36	4000	17500

HOLDING TYPE OF ACTION: NO CHANGE

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	PSC	VOR/DME	070.30	250.30	R	1	4000 14000	5 11
2	NW	ALW	VOR/DME	308.26	128.26	R	1	4000 14000	5 11

PAT		AIR	SPEED	AAO	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1		200		AAO		462115.00N/1181754.00W	2304	4E
2		200		AAO		462130.00N/1182557.00W	1723	4E

HOLDING LIMITED TO ESTABLISHED PATTERN

PASCO (FAC 1) AND WALLA WALLA (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED. PAT 1 ATC REQUESTED HOLDING.
COORDINATES SUBMITTED FROM IPDS TO THE ENTERPRISE: 461816.040N-1182912.440W.

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V357	1, 2				(US)
EN ROUTE	V187	1, 2				WA (US)
IAP	RNAV (GPS) Y RWY 21R			KPSC	PASCO	WA (US)
IAP	RNAV (GPS) Y RWY 30			KPSC	PASCO	WA (US)
IAP	ILS Y OR LOC RWY 20	1, 2	2	KALW	WALLA WALLA	WA (US)
IAP	ILS Z OR LOC/DME RWY 20	1, 2	2	KALW	WALLA WALLA	WA (US)
IAP	RNAV (GPS) RWY 20			KALW	WALLA WALLA	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 08/15/2019

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: DELETED RNAV (GPS) RWY 16 AT KALW.
3. FIX USE: ADDED T317.
4. FIX USE: CHANGED ILS OR LOC Y RWY 20 TO ILS Y OR LOC RWY 20.
5. FIX USE: CHANGED ILS OR LOC/DME Z RWY 20 TO ILS Y OR LOC/DME RWY 20.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 NAME: BARRY SMITH

APPROVED BY: _____ DATE: _____ OFFICE: AJV-A422 NAME: MARLON ROBINSON

DATE: _____ OFFICE: AJV-A422
Digitally signed by _____

SIGNATURE: *ALLAN WILL*

Oct 15, 2019

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: CHINOOK APP CON, PSC ATCT
OTHER:

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BUTOC **STATE:** WA **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 461915.10N/1180931.07W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **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	PASCO	PSC	VOR/DME	L	070.30	085.30	40.00	40.00	4000	17500
2	WALLA WALLA	ALW	VOR/DME	L	001.63	021.63		15.11	4000	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 DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	W	PSC	VOR/DME	070.30	070.30	R	1-1 1/2	4600 14000	7 12

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	462200.00N/1181127.00W	2418	4E

HOLDING RESTRICTIONS:

HOLDING RESTRICTED TO ESTABLISHED PATTERN.

REMARKS:

PASCO (FAC 1) AND WALLA WALLA (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	ILS Z OR LOC/DME RWY 20	1, 2	1	KALW	WALLA WALLA	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. FIX USE: REMOVED RNAV (GPS) RWY 16 AT KALW.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE:	<i>Digitally signed by</i> OFFICE: AJV-A422	NAME: MARLON ROBINSON
	SIGNATURE:	ALLAN WILL	
		Oct 15, 2019	
DISTRIBUTION:	NFDC FPO: WST ARTCC: ZSE ATC FACILITY: ALW ATCT OTHER: CHINOOK APP CON		



RADIO FIX AND HOLDING DATA RECORD

NAME: CABZO STATE: NM COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 353015.90N/1070923.31W TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	SANTA FE	SAF	VORTAC	L	255.00	268.00	53.50	53.50		10000	17500
2	ALBUQUERQUE	ABQ	VORTAC	H	315.90	328.90	32.26	32.26		10000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SAF	VORTAC	R-255	54	10000	17500

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	AAO	352344.44N/1072800.54W	9366	2A

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
UPN	230	267

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 11700.

REMARKS:

SANTA FE (FAC 1) AND ALBUQUERQUE (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ZIAS	1, 2		KSAF	SANTA FE	NM (US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V62	1, 2				(US)

REQUIRED CHARTING: DP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 NAME: BARRY SMITH

APPROVED BY: DATE: Digitally signed by OFFICE: AJV-A422 NAME: MARLON ROBINSON

SIGNATURE: ALLAN WILL

Oct 15, 2019

DISTRIBUTION: NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY: SAF ATCT
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: CAGEV

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 323427.17N/1065719.60W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM FEET	MRA	MAA
1	TRUTH OR CONSEQUENCES	TCS	VORTAC	H	145.75	158.75	45.48	45.48	10000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
TCS	VORTAC	R-146	46	10000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V611					(US)
IAP	RNAV (GPS) RWY 12			KLRU	LAS CRUCES	NM (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by **OFFICE: AJV-A422**

NAME: MARLON ROBINSON

SIGNATURE: *ALLAN WILL*

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: CEPER

STATE: ID

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 462811.37N/1162547.60W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	NEZ PERCE	MQG	VOR/DME	L	053.65	073.65	19.00	19.00		5500	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS) Y RWY 23			KPUW	PULLMAN/MOSCOW,ID	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Office: AJV-A422
Digitally signed by

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY:
OTHER:

QUALITY
9
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CETUV STATE: WA COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 463559.91N/1232120.75W TYPE: WP, DME
 AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	OLYMPIA	OLM	VORTAC	H	201.16	220.16	29.12	29.12		5000	17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

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	W		WP	254.00	074.00	R		5	5000	6000	6	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	463006.00N/1232309.00W	2773	4E
1	310	AAO	462912.60N/1231242.00W	3360	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	200	210
1	310	210

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 16	KCLS	CHEHALIS	WA (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	T355					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS) RWY 16		1	KCLS	CHEHALIS	WA (US)
IAP	RNAV (GPS) RWY 6			KTDO	TOLEDO	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET 17-ANM-24.
2. CHANGED HOLDING PAT 1 200KT OBST ACCURACY CODE FROM 2E TO 4E AND REMOVED REMARK.
3. CHANGED HOLDING PAT 1 310KT OBST ACCURACY CODE FROM 6C TO 4E.
4. MOVED HOLDING LIMITED TO ESTABLISHED PATTERN FROM FIX RESTRICTIONS TO HOLDING RESTRICTIONS.
5. ADDED T317 AND T355 TO FIX USE.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY: DATE: ORGANIZATION: NAME:
 OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 NAME: BARRY SMITH
 APPROVED BY: DATE: OFFICE: AJV-A422 NAME: MARLON ROBINSON
 SIGNATURE: *Digitally signed by ALLAN WILL*
 Oct 15, 2019

DISTRIBUTION: NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: SEA APP CON
 OTHER:

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: COFAY

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470443.83N/1223001.57W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX RESTRICTIONS:

MCA T317 4600 EASTBOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE

USE TITLE

FAC

PAT

AIRPORT IDENT CITY

STATE

EN ROUTE

T317

HAWKZ (RNAV)

KSEA

SEATTLE

(US)

WA (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. RESTRICTIONS: ADDED MCA T317 4600 EASTBOUND.
2. FIX USE: ADDED T317. CHANGED KSEA HAWKZ (STAR) TO HAWKZ (RNAV) STAR.
3. CHARTING: ADDED ENROUTE LOW AND CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZSE

ATC FACILITY: SEA APP CON

OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: CRANY STATE: WY COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 441545.64N/1082427.47W TYPE: WP, INT, DME
 AIRSPACE DOCKET: 17-ANM-24 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	BOYSEN RESERVOIR	BOY	VOR/DME	H	338.46	354.46	48.20	48.20	9000	17500
2	WORLAND	RLY	VOR/DME	L	299.37	312.37	26.66	26.66	8500	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
BOY	VOR/DME	R-338	49	9000	21100

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	SE		WP	118.37	298.37	R		7	8500	14000	10	11
2	N		WP	339.00	159.00	R		7	8500	14000	10	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	441724.00N/1083339.00W	6405	6A
1	310	AAO	441724.00N/1083418.00W	6431	6A
2	230	AAO	441724.00N/1083418.00W	6431	6A

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 8	KGEY	GREYBULL	WY (US)

REMARKS:

BOYSEN RESERVOIR (FAC 1) AND WORLAND (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V319	1, 2				(US)
IAP	RNAV (GPS) RWY 22			KCOD	CODY	WY (US)
IAP	RNAV (GPS) RWY 34		1	KGEY	GREYBULL	WY (US)
IAP	RNAV (GPS) RWY 8		1	KGEY	GREYBULL	WY (US)
IAP	RNAV (GPS) RWY 13		2	KPOY	POWELL	WY (US)
IAP	RNAV (GPS) RWY 31			KPOY	POWELL	WY (US)
IAP	RNAV (GPS) RWY 16			KWRL	WORLAND	WY (US)
IAP	RNAV (GPS) RWY 34		1	KWRL	WORLAND	WY (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

- ADDED AIRSPACE DOCKET NUMBER.
- FIX USE: ADDED T317.
- CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
 FPO: WST
 ARTCC: ZLC

QUALITY
 30
 CHECKED

ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: CURLY STATE: NM COUNTRY: US ICAO REGION CODE: K2
 LATITUDE/LONGITUDE: 352504.75N/1070532.33W TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	ALBUQUERQUE	ABQ	VORTAC	H	315.90	328.90	26.20	26.20	8500	45000
2	SANTA FE	SAF	VORTAC	L	249.00	262.00		50.88	9500	24000
3	GALLUP	GUP	VORTAC	H	077.76	091.76		87.34	14000	45500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SAF	VORTAC	R-249	51	9500	24000
GUP	VORTAC	R-078	88	14000	24500

FIX RESTRICTIONS:

MCA V187 9500 NORTHWEST BOUND

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	NW	ABQ	VORTAC	316.00	136.00	R	1-1 1/2 5	10000 23000	6 21

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	175	TERRAIN/TREES	352620.00N/1071500.00W	8049	
1	230	TERRAIN/TREES	353200.00N/1071900.00W	8299	
1	265	TERRAIN/TREES	352500.00N/1072300.00W	9049	

REMARKS:

ALBUQUERQUE (FAC 1) AND SANTA FE (FAC 2) USED TO ESTABLISH FIX COORDINATES
 ALBUQUERQUE ARTCC: REQUEST THE DME (FROM ABQ VORTAC) PORTION TO BE PUBLISHED ON ENROUTE HIGH CHARTS FOR USE ON J15 AS A METERING FIX FOR TURBOJET ARRIVALS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J15	1, 2				(US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
STAR	CURLEY	1, 2, 3		KABQ	ALBUQUERQUE	NM (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

- ADDED AIRSPACE DOCKET NUMBER.
- ADDED WP TO TYPE.
- FIX MAKE-UP: FAC 1 ADDED DIST TO FAC 26.20 AND CHANGED MAA FROM 23000 TO 45000.
- FIX MAKE-UP: FAC 2 ADDED DIST TO FAC 50.88 AND CHANGED MAA FROM 23000 TO 45000.
- ADDED GUP TO FIX MAKE-UP.
- ADDED GUP AND SAF ESV.
- REMARKS: REMOVED UNPLANNED HOLDING NOTE.
- REMARKS: REMOVED HOLDING OUTSIDE OF CONTROLLED AIRSPACE NOTE.
- FIX USE: ADDED T317.
- FIX USE: REFORMATED V187, J15, AND CURLY STAR.
- DISTRIBUTION: CHANGED FTW FPO TO CEN FPO.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
 FPO: CEN
 ARTCC: ZAB
 ATC FACILITY:
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: DATES STATE: WA COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 461909.54N/1181125.36W TYPE: WP, INT, DME
 AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	WALLA WALLA	ALW	VOR/DME	L	356.94	016.94	14.58	14.58		4000	17500
2	PASCO	PSC	VOR/DME	L	070.30	085.30		38.68		4000	17500

FIX RESTRICTIONS:

MCA V187 4500 EASTBOUND

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	W	PSC	VOR/DME	070.30	070.30	R	1 1/2		4000	17500	6	18
2	SW	WP	WP	245.30	065.30	R		4	4000	14000	5	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	462152.00N/1181131.00W	2440	2C
2	200	AAO	462152.00N/1181131.00W	2440	2C

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	200	0
2	200	0

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

WALLA WALLA (FAC 1) AND PASCO (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED
 PATTERN 1 USED BY ATC

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V444	1, 2				(US)
IAP	ILS Y OR LOC RWY 20	1		KALW	WALLA WALLA	WA (US)
IAP	RNAV (GPS) RWY 2	2		KALW	WALLA WALLA	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. PATTERN 1 LEG LENGTH CHANGED FROM 1-1 1/2 TO 1 1/2.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: ALW ATCT



OTHER: CHINOOK APP CON



RADIO FIX AND HOLDING DATA RECORD

NAME: DUCAS

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 325335.84N/1070604.30W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	TRUTH OR CONSEQUENCES	TCS	VORTAC	H	145.75	158.75	25.00	25.00		10000	17500

FIX RESTRICTIONS:

MCA T317 9200 NORTHWEST BOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

LOCATED IN R-5111 C & D

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V611	1				(US)
IAP	RNAV (GPS)-A	1		KTCS	TRUTH OR CONSEQUENCES	NM (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: REMOVED FAC 2.
3. RESTRICTIONS: ADDED MCA T317 9200 NORTHWEST BOUND.
4. FIX USE: ADDED T317.
5. FIX USE: UPDATED FORMATING FOR V611 AND RNAV (GPS)-A.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
7. ADDED FAC 1 (TCS) DIST FROM FAC IN FIX MAKE-UP FACILITIES.
8. DISTRIBUTION: CHANGED FTW FPO TO CEN FPO.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY:
OTHER:

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: EXODE

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 462702.51N/1191950.92W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	PASCO	PSC	VOR/DME	L	305.75	320.75	14.00	14.00		3500	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				WA (US)
IAP	ILS OR LOC/DME RWY 21R	1		KPSC	PASCO	WA (US)
IAP	VOR/DME RWY 21R	1		KPSC	PASCO	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: ADDED CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: CHINOOK APP CON
OTHER: PSC ATCT

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FEBUS **STATE:** WA **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 465358.90N/1195213.74W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	MOSES LAKE	MWH	VOR/DME	H	212.77	230.77	29.41	29.41		6000	17500
2	ELLENSBURG	ELN	VOR/DME	H	086.00	107.00	25.29	25.29		6000	17500
3	PASCO	PSC	VOR/DME	L	305.75	320.75	48.98	48.98		4700	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
PSC	VOR/DME	R-306	49	4700	17500

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

REMARKS:

MOSES LAKE (FAC 1) AND ELLENSBURG (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2, 3				(US)
EN ROUTE	V448	1, 2, 3				(US)
IAP	RNAV (GPS) Y RWY 32R			KMWH	MOSES LAKE	WA (US)
IAP	RNAV (RNP) Z RWY 32R			KMWH	MOSES LAKE	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10 **DATE OF REVISION:** 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**
OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH
APPROVED BY: **DATE:** *Digitally signed by* **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON
SIGNATURE: **ALLAN WILL**
 Oct 15, 2019
DISTRIBUTION: NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: MWH APP CON
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: FESAS

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470513.84N/1224400.62W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE
EN ROUTE
IAP

USE TITLE

T317
RNAV (GPS) RWY 35

FAC

PAT

AIRPORT IDENT

CITY

KTIW

TACOMA

STATE

(US)
WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: REMOVED FAC 1.
3. FIX USE: REFORMATTED RNAV (GPS) RWY 35 AT KTIW.
4. CHARTING: ADDED CONTROLLER LOW AND ENROUTE LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZSE

ATC FACILITY: SEA APP CON, TIW ATCT

OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: FETIK **STATE:** WY **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 431724.59N/1082203.98W **TYPE:** WP, DME
AIRSPACE DOCKET: 17-ANM-24 **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	RIVERTON	RIW	VOR/DME	L	005.94	015.94	14.00	14.00		9600	17500
2	BOYSEN RESERVOIR	BOY	VOR/DME	H	180.04	196.04	10.80	10.80		9600	17500

FIX RESTRICTIONS:

MCA T317 8800 NORTHBOUND

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	S	BOY	VOR/DME	180.04	000.04	R	1	9600 14000	9 18

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	431015.00N/1082645.00W	5893	4E
1	310	AAO	432654.00N/1081745.00W	7287	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 28	KRIW	RIVERTON	WY (US)

REMARKS:

RIVERTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V85	1, 2				(US)
IAP	ILS OR LOC RWY 28	1, 2	1	KRIW	RIVERTON	WY (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. RESTRICTIONS: ADDED MCA TO T317 8800 NORTH BOUND.
4. FIX USE: ADDED T317.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER: CPR FSS



RADIO FIX AND HOLDING DATA RECORD

NAME: FRIAN **STATE:** NM **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 321746.23N/1064945.44W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **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	TRUTH OR CONSEQUENCES	TCS	VORTAC	H	145.75	158.75	63.32	63.32		10000	17500
2	DEMING	DMN	VORTAC	L	076.00	088.00		39.50		7000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
TCS	VORTAC	R-146	64	10000	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	NW	TCS	VORTAC	145.75	145.75	R	1		10000	16000	11	17

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.
MAX HOLDING ALTITUDE RESTRICTED TO 16,000.

REMARKS:

TRUTH OR CONSEQUENCES (FAC 1) AND DEMING (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE (US) (US)
EN ROUTE	T317					
EN ROUTE	V611	1, 2				

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX MAKE-UP: FAC 1 ADDED DIST FROM FAC 63.32.
4. FIX MAKE-UP: FAC 2 ADDED DME 39.50.
5. PATTERNS: PAT 1 CHANGED LEG TIME FROM 1-1 1/2 TO 1.
6. UPDATED PAT 1 CONTROLLING OBSTRUCTIONS.
7. FIX USE: ADDED T317.
8. FIX USE: UPDATED V611 FORMATING AND ADDED FAC 1 AND FAC 2.
9. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
10. MOVED HOLDING REMARKS TO HOLDING RESTRICTIONS.
11. ADDED TO REMARKS; TRUTH OR CONSEQUENCES (FAC 1) AND DEMING (FAC 2) USED TO ESTABLISH FIX COORDINATES.
12. DISTRIBUTION: CHANGED FTW FPO TO CEN FPO.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**
OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH
APPROVED BY: **DATE:** *Digitally signed by* **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON
SIGNATURE: **ALLAN WILL**
 Oct 15, 2019
DISTRIBUTION: NFDC
 FPO: CEN
 ARTCC: ZAB
 ATC FACILITY:
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: HAVWU **STATE:** CO **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 375816.92N/1082737.15W **TYPE:** WP, DME
AIRSPACE DOCKET: 17-ANM-24 **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	CONES	ETL	VOR/DME	L	234.72	246.72	10.42	10.42		12000	17500
2	RATTLESNAKE	RSK	VORTAC	H	332.84	346.84	75.30	75.30		15000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
RSK	VORTAC	R-333	76	15000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V68	1, 2				(US)
IAP	RNAV (GPS) Y RWY 21			KCEZ	CORTEZ	CO (US)
IAP	RNAV (GPS) Z RWY 21			KCEZ	CORTEZ	CO (US)
IAP	RNAV (GPS) Y RWY 09			KTEX	TELLURIDE	CO (US)
IAP	RNAV (GPS) Z RWY 09			KTEX	TELLURIDE	CO (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. MAK-UP FIX: ADDED RSK.
3. ADDED RSK ESV.
4. FIX USE: ADDED T317.
5. FIX USE: REFORMATED V68 AND V187 AND ADDED FAC 2.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. CHANGED FAC 2 MAA FROM 45000 TO 17500 IN FIX MAKE-UP - NOT USED OR CHARTED ON HIGH ALT STRUCTURE.
2. CHANGED RSK VORTAC ESV DIST FROM 75 TO 76 - GRANDFATHERED ESV PENDING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY:
OTHER:

QUALITY
 9
 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HEVOL **STATE:** WA **COUNTRY:** US **ICAO REGION CODE:** K1

LATITUDE/LONGITUDE: 462420.79N/1233522.60W **TYPE:** WP, DME

AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	ASTORIA	AST	VOR/DME	L	024.45	039.45	19.00	19.00		5000	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	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	S		WP	202.45	022.45	R		5	5000	6000	6	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	462743.00N/1233250.60W	3080	6A

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS) RWY 24		1	KTDO	TOLEDO	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.

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

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH

APPROVED BY: **DATE:** **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: SEA APP CON
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: HONOX

STATE: WY

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 424956.42N/1082716.33W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	RIVERTON	RIW	VOR/DME	L	169.82	179.82	14.00	14.00		12000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	ILS OR LOC RWY 28	1		KRIW	RIVERTON	WY (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER: CPR FSS

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JUGAP

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 463842.20N/1094553.32W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	BILLINGS	BIL	VORTAC	H	303.00	317.00	69.11	69.11		8000	17500
2	LEWISTOWN	LWT	VOR/DME	H	180.00	195.00		25.34		8000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
BIL	VORTAC	R-303	70	8000	17500

FIX RESTRICTIONS:

MCA V187 9500 NORTHWEST BOUND
MCA T317 8400 NORTHWEST BOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

BILLINGS (FAC 1) AND LEWISTOWN (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO FIX USE.
3. FIX MAKE-UP: ADDED DIST TO FAC TO FAC 1 AND 2.
4. ESV: REMOVED FAC 1 ON LINE AND ADDED BIL ESV.
5. FIX USE: REFORMATED V187.
6. FIX USE: ADDED T317.
7. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
8. REMARKS: ADDED BILLINGS (FAC 1) AND LEWISTOWN (FAC 2) USED TO ESTABLISH FIX COORDINATES.
9. DISTRIBUTION: CHANGED SEA FPO TO WST FPO.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER: GTF FSS

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KUNZY

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470458.19N/1131537.72W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: ESTABLISH

FIX USE:

USE TYPE
EN ROUTE

USE TITLE
T317

FAC PAT AIRPORT IDENT CITY

STATE
(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

08/05/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.
NAME; CHANGED FROM TREVR TO KUNZY.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER:

QUALITY
9
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: LOMMA STATE: CO COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 391650.94N/1084840.36W TYPE: WP, RADAR, INT, DME

AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	GRAND JUNCTION	I-GJT	LOC/DME		292.19	305.19	16.99	16.99	9300	17500
2	GRAND JUNCTION	JNC	VOR/DME	H	341.25	356.25	13.29	13.29	8200	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING BRG-292	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-GJT	LOC/DME		17	9300	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	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W		WP	292.00	112.00	R		6	9000	14000	8	9
2	W		WP	292.00	112.00	R		6	10000	14000	10	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	210	AAO	392430.00N/1090642.00W	7533	4E
2	230	AAO	292430.00N/1090918.00W	8363	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	210	142
2	230	217

HOLDING RESTRICTIONS:

PAT 1 CHART 210K ICON
HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED
GJT ILS DME ANTENNA COORDINATES 390706.61N/1083045.80W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	RHONE (RNAV)	2		KGJT	GRAND JUNCTION	CO (US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	ILS OR LOC RWY 11	1, 2		KGJT	GRAND JUNCTION	CO (US)
IAP	RNAV (GPS) RWY 29		2	KGJT	GRAND JUNCTION	CO (US)
IAP	RNAV (GPS) Y RWY 11		1	KGJT	GRAND JUNCTION	CO (US)
IAP	RNAV (RNP) Z RWY 11			KGJT	GRAND JUNCTION	CO (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 16 DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: FAC 1 CHANGED MAA CHANGED FROM 9300 TO 17500.
3. FIX MAKE-UP: FAC 1 MAG/TRUE BRG CHANGED FROM 292.17/305.17 TO 292.19/305.19.
4. ESV MIN ALT CHANGED FROM 9000 TO 9300.
5. FIX USE: ADDED FAC 1 TO V187.
6. FIX USE: ADDED T317.
7. FIX USE: CHANGED DP RHONE TO RHONE (RNAV).
8. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
9. FIX MAKE-UP: CHANGED FAC 1 (I-GJT) MRA FROM 8200 TO 9300 TO MATCH ESV.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE:	OFFICE: AJV-A422	NAME: MARLON ROBINSON



Digitally signed by
SIGNATURE: ALLAN WILL

Oct 15, 2019

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DENVER APP CON, KGJT ATCT
OTHER: DEN FSS, CDC FSS

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MANCA

STATE: CO

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 371627.62N/1081510.31W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	RATTLESNAKE	RSK	VORTAC	H	332.83	346.83	32.37	32.37		10900	17500
2	CORTEZ	CEZ	VOR/DME	L	101.00	115.00		16.32		10900	17500

FIX RESTRICTIONS:

MCA V187 11200 NORTHBOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

RATTLESNAKE (FAC 1) AND CORTEZ (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V211	1, 2				(US)
IAP	RNAV (GPS) Y RWY 21			KCEZ	CORTEZ	CO (US)
IAP	RNAV (GPS) Z RWY 21			KCEZ	CORTEZ	CO (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: MISSY **STATE:** NM **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 362956.44N/1075425.56W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	RATTLESNAKE	RSK	VORTAC	H	134.15	148.15	17.58	17.58		8700	17500
2	DURANGO	DRO	VOR/DME	L	177.00	191.00		39.93		9000	17500

FIX RESTRICTIONS:

MRA V187 9000

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	SE	RSK	VORTAC	134.15	314.15	R		4	9700	17500	10	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	362024.00N/1073803.00W	7661	4E

HOLDING RESTRICTIONS:

RSK DME REQUIRED FOR HOLDING.
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1	1			(US)
IAP	RNAV (GPS) RWY 25			KFMN	FARMINGTON	NM (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. HOLDING PATTERN 1 MIN ALT CHANGED FROM 8700 TO 9700.
3. UPDATED HOLDING PATTERN CONTROLLING OBSTRUCTION.
4. FIX USE: ADDED T317.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZDV
ATC FACILITY: FMN ATCT
OTHER:

QUALITY
 30
 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MOLLY

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 320347.91N/1064327.24W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	TRUTH OR CONSEQUENCES	TCS	VORTAC	H	145.75	158.75	78.25	78.25		10000	17500
2	NEWMAN	EWM	VORTAC	L	274.28	286.28	24.00	24.00		9000	17500
3	DEMING	DMN	VORTAC	L	093.57	105.57		46.65		9000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
TCS	VORTAC	R-146	79	10000	17500
DMN	VORTAC	R-094	47	9000	17500

FIX RESTRICTIONS:

MCA T317 7700 EASTBOUND
MRA V94 10000

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	DMN	VORTAC	093.57	273.57	L	1	9000 14000	11 12
2	E	EWM	VORTAC	274.28	274.28	L	1	9000 14000	11 12
3	E		WP	097.57	277.57	L	7	9000 14000	10 11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	315412.00N/1062936.00W	7287	4E
1	310	AAO	315412.00N/1062936.00W	7287	4E
2	230	AAO	315412.00N/1062936.00W	7287	4E
2	310	AAO	315412.00N/1062936.00W	7287	4E
3	230	AAO	315412.00N/1062936.00W	7287	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
3	230	100

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUESTED
PAT 2 ATC REQUESTED
PAT 3 ATC REQUESTED

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 30	KLRU	LAS CRUCES	NM (US)
2	ILS OR LOC RWY 30 (ALT MISS)	KLRU	LAS CRUCES	NM (US)

REMARKS:

TRUTH OR CONSEQUENCES (FAC 1) AND NEWMAN (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V611	1, 2				(US)
EN ROUTE	V94	1, 2				(US)
IAP	ILS OR LOC RWY 30	1, 2, 3	1	KLRU	LAS CRUCES	NM (US)
IAP	ILS OR LOC RWY 30 (ALT MISS)	1, 2	2	KLRU	LAS CRUCES	NM (US)
IAP	RNAV (GPS) RWY 30		3	KLRU	LAS CRUCES	NM (US)
IAP	RNAV (GPS) RWY 10			K5T6	SANTA TERESA	NM (US)
STAR	MOLLY (RNAV)			KELP	EL PASO	TX (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 15

DATE OF REVISION: 08/15/2019



REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: REMOVED DME FROM FAC 3.
3. RESTICTIONS: ADDED MCA T317 7700 EASTBOUND.
4. RESTICTIONS: CHANGED MRA ALL 10000 TO MRA V94 10000.
5. FIX USE: ADDED T317.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:**DATE:****ORGANIZATION:****NAME:****OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A422

NAME: BARRY SMITH**APPROVED BY:****DATE:****OFFICE:** AJV-A422**NAME:** MARLON ROBINSON**SIGNATURE:** *Digitally signed by*
ALLAN WILL

Oct 15, 2019

DISTRIBUTION:**NFDC**
FPO: CEN
ARTCC: ZAB
ATC FACILITY:
OTHER:**QUALITY**
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MOUNT

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470619.17N/1215417.49W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	MCCHORD	TCM	VORTAC	T	081.00	096.00	23.50	23.50		8000	17500
2	SEATTLE	SEA	VORTAC	H	121.00	140.00		25.81		8000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
TCM	VORTAC	R-081	24	12000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MCCHORD (FAC 1) AND SEATTLE (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 01/30/2020

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. DELETED V187 FROM FIX USE - AIRSPACE DOCKET 19-ANM-17.
2. DELETED FAC 1 (TCM) AND FAC 2 (SEA) FROM FIX MAKE-UP.
3. DELETED INT AND DME FROM FIX TYPE.
4. DELETED TCM VORTAC ESV.
5. DELETED FIX COORDINATES REMARK.

11/06/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/06/19.

1. FIX TYPE: ADD INT AND DME.
2. FIX MAKE-UP FACILITIES: ADD MCCHORD (TCM) VORTAC AS FAC 1 AND SEATTLE (SEA) VORTAC AS FAC 2.
3. EXPANDED SERVICE VOLUME (ESV): ADD TCM ESV.
4. REMARKS: ADD MCCHORD (FAC 1) AND SEATTLE (FAC 2) USED TO ESTABLISH FIX COORDINATES.
5. FIX USE: ADD V187.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE: 09/06/2019

Office: AJV-A422
Digitally signed by

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Nov 13, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: SEA APP CON
OTHER:

QUALITY
13
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NELWN STATE: MT COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 453235.86N/1083511.55W TYPE: WP, DME
 AIRSPACE DOCKET: 17-ANM-24 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	BILLINGS	BIL	VORTAC	H	160.24	174.24	16.00	16.00		7000	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	S	BIL	VORTAC	160.24	340.24	R	1 1/2	20000 24000	18 20

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	265	AAO	450936.00N/1082812.00W	9023	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	265	349

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	HI VOR/DME OR TACAN RWY 28R	1	1	KBIL	BILLINGS	MT (US)
IAP	VOR/DME RWY 28R	1		KBIL	BILLINGS	MT (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
5. HOLDING: CHANGED PAT 1 LEG LENGTH TIME FROM 1-1 1/2 TO 1 1/2 AND REMOVED DME.
6. DISTRIBUTION: CHANGED SEA TO WST.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

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



RADIO FIX AND HOLDING DATA RECORD

NAME: NEZ PERCE VOR/DME

STATE: ID

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 462253.61N/1165210.24W

TYPE:

AIRSPACE DOCKET: 17-ANM-24

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	NEZ PERCE	MQG	VOR/DME	L						17500

FIX RESTRICTIONS:

MCA V253 6400 SOUTHEAST BOUND

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	NE	MQG	VOR/DME	045.00	225.00	R	1		5000	17500	5	16
2	SW	MQG	VOR/DME	246.00	066.00	L	1		5000	17500	5	16
3	NE		WP	050.00	230.00	R		5	6000	17500	6	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	463009.00N/1164906.00W	2799	4E
1	310	AAO	461939.00N/1163818.00W	3996	4E
2	200	TOWER (16-000286)	462733.00N/1170218.00W	3193	5E
2	310	AAO	461615.00N/1164712.00W	3599	4E
3	200	AAO	463051.00N/1164921.00W	2999	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	200	117
1	310	253
2	200	149
2	310	247
3	200	143

REASON FOR NONSTANDARD HOLDING:

PAT 2 TERRAIN

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S).

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR RWY 8	KLWS	LEWISTON	ID (US)
1	ILS RWY 26	KLWS	LEWISTON	ID (US)
2	TAKEOFF MINIMUMS	KLWS	LEWISTON	ID (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.
REFERENCE MAGVAR NEZ PERCE VOR/DME: 20E 1975
PAT 2 C-I-H EVALUATED TO 6400 FOR V253 MCA USING PAT 14.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	TAKEOFF MINIMUMS		2	KLWS	LEWISTON	ID (US)
DP	TRI-CITIES			KPSC	PASCO	WA (US)
DP	SPOKANE			KGEG	SPOKANE	WA (US)
DP	FELTS			KSFF	SPOKANE	WA (US)
DP	WALLA WALLA			KALW	WALLA WALLA	WA (US)
EN ROUTE	T317					(US)
EN ROUTE	V182					(US)
EN ROUTE	V187					(US)
EN ROUTE	V253					(US)
EN ROUTE	V520					(US)
IAP	ILS RWY 26		1	KLWS	LEWISTON	ID (US)
IAP	RNAV (GPS) Y RWY 26			KLWS	LEWISTON	ID (US)
IAP	RNAV (RNP) RWY 30		3	KLWS	LEWISTON	ID (US)
IAP	RNAV (RNP) Z RWY 12			KLWS	LEWISTON	ID (US)
IAP	VOR RWY 8		1	KLWS	LEWISTON	ID (US)
IAP	ILS OR LOC RWY 5			KPUW	PULLMAN/MOSCOW	WA (US)
IAP	RNAV (GPS) Y RWY 23			KPUW	PULLMAN/MOSCOW	WA (US)
IAP	VOR RWY 5			KPUW	PULLMAN/MOSCOW	WA (US)

QUALITY
9
CHECKED

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 19

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. FIX USE: ADDED KPUW ILS OR LOC RWY 5. ADDED KPUW AIRPORT IDENT TO RNAV (GPS) Y RWY 23 AND VOR RWY 5.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by **OFFICE:** AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZSE

ATC FACILITY: LWS ATCT

OTHER:

QUALITY
9
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NIALS STATE: WA COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 463507.32N/1192929.09W TYPE: WP, INT, DME
 AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	PASCO	PSC	VOR/DME	L	305.75	320.75	24.47	24.47	2900	17500
2	MOSES LAKE	MWH	VOR/DME	H	172.90	190.90		38.23	2900	17500

FIX RESTRICTIONS:

MCA T317 3300 NORTHWEST BOUND

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	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX	
1	SE	PSC	VOR/DME	125.75	305.75	R	1	3500	14000	6	12	
2	SE		WP	123.75	303.75	R		4	3500	14000	5	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	463612.00N/1193057.00W	1290	4E
2	200	AAO	463612.00N/1193057.00W	1290	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:

PASCO (FAC 1) AND MOSES LAKE (FAC 2) USED TO ESTABLISH FIX COORDINATES
 HOLDING PAT 1 FOR ATC USE.
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	RNAV (GPS) Y RWY 12			KPSC	PASCO	WA (US)
IAP	RNAV (RNP) Z RWY 12			KPSC	PASCO	WA (US)
IAP	RNAV (RNP) Z RWY 21R			KPSC	PASCO	WA (US)
IAP	RNAV (RNP) Z RWY 3L			KPSC	PASCO	WA (US)
IAP	RNAV (GPS) RWY 26		2	KRLD	RICHLAND	WA (US)
IAP	RNAV (GPS) Y RWY 19			KRLD	RICHLAND	WA (US)
IAP	RNAV (GPS) Z RWY 19			KRLD	RICHLAND	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. CONTROLLING OBST: ADDED AC TO PAT 2.
3. REMARKS: REMOVED NOTE, PAT 2 OBS AC PER IPDS
4. FIX USE: ADDED T317.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
6. FIX RESTRICTIONS: ADDED MCA T317 3300 NORTHWEST BOUND.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: *Digitally signed by* ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: CHINOOK APP CON
 OTHER:

QUALITY
 30
 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: OCEDA

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 465915.86N/1134244.15W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

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	059.45	072.45	16.00	16.00		11400	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				MT (US)
IAP	VOR-B	1		KMSO	MISSOULA	MT (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY: GEG APP CON, MSO ATCT
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: OYREX

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 461720.00N/1184655.05W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	PASCO	PSC	VOR/DME	L	070.30	085.30	14.00	14.00		4000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	VOR/DME RWY 30	1		KPSC	PASCO	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: CHINOOK APP CON
OTHER: PSC ATCT



RADIO FIX AND HOLDING DATA RECORD

NAME: OZEYO

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 464636.50N/1230827.05W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	OLYMPIA	OLM	VORTAC	H	201.16	220.16	15.28	15.28		4000	17500

FIX RESTRICTIONS:

MCA T317 3800 SOUTHWEST BOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	VOR RWY 35	1		KOLM	OLYMPIA	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. RESTRICTION: ADDED MCA T317 3800 SOUTHWEST.
4. FIX USE: ADDED T317.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: SEA/OLM
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: PECKK **STATE:** WY **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 442936.15N/1082621.10W **TYPE:** WP, INT
AIRSPACE DOCKET: 17-ANM-24 **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	BOYSEN RESERVOIR	BOY	VOR/DME	H	338.46	354.46		62.10	11000	17500
2	CODY	COD	VOR/DME	L	094.49	108.49		23.81	11000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
BOY	VOR/DME	R-338	63	11000	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	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W		WP	254.25	074.25	R		7	7200	9000	9	9

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	442148.00N/1084215.00W	5725	3E

REMARKS:

BOYSEN RESERVOIR (FAC 1) AND CODY (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PECKK (RNAV)			KGEY	GREYBULL	WY (US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	RNAV (GPS) RWY 8		1	KGEY	GREYBULL	WY (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**
OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH
APPROVED BY: **DATE:** *Digitally signed by* **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON
SIGNATURE: **ALLAN WILL**
 Oct 15, 2019
DISTRIBUTION: NFDC
 FPO: WST
 ARTCC: ZLC
 ATC FACILITY:
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: PETEZ STATE: ID COUNTRY: US ICAO REGION CODE: K1
 LATITUDE/LONGITUDE: 462608.23N/1163605.16W TYPE: WP, DME
 AIRSPACE DOCKET: 17-ANM-24 FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	NEZ PERCE	MQG	VOR/DME	L	053.65	073.65	11.59	11.59		5500	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NE		WP	057.88	237.88	L	5	5700	6000	6	14

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	462030.00N/1163754.00W	3914	4E
1	310	AAO	463527.80N/1162339.80W	4340	6C

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	200	212
1	310	265

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) Y RWY 08	KLWS	LEWISTON	ID (US)
1	RNAV (GPS) Y RWY 12	KLWS	LEWISTON	ID (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS) Y RWY 08		1	KLWS	LEWISTON	ID (US)
IAP	RNAV (GPS) Y RWY 12		1	KLWS	LEWISTON	ID (US)
IAP	RNAV (GPS) Y RWY 26			KLWS	LEWISTON	ID (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: LWS ATCT
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: PREEL

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 471552.71N/1122201.82W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: ESTABLISH

FIX RESTRICTIONS:

MCA T317 10200 SOUTHWEST BOUND

FIX USE:

USE TYPE
EN ROUTE

USE TITLE
T317

FAC PAT AIRPORT IDENT CITY

STATE
(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. NAME; CHANGED FROM OLSEN TO PREEL.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER:

QUALITY
9
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PRYER

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 452338.65N/1083355.18W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

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	BILLINGS	BIL	VORTAC	H	160.24	174.24	25.00	25.00		7000	17500

FIX RESTRICTIONS:

MCA T317 9900 SOUTHBOUND

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
4. FIX RESTRICTIONS: ADDED MCA T317 9900 SOUTHBOUND.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY: BIL
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: RACER **STATE:** CO **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 400629.17N/1085258.43W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **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	GRAND JUNCTION	JNC	VOR/DME	H	341.22	356.22	63.00	63.00	12000	45000
2	MEEKER	EKR	VOR/DME	H	258.47	273.47	44.18	44.18	10500	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
JNC	VOR/DME	R-341	63	12000	22000
EKR	VOR/DME	R-258	45	10000	23000

FIX RESTRICTIONS:

MRA V200 12000

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	EKR	VOR/DME	258.47	258.47	L	1 1/2		15000	45000	17	31
2	E		WP	082.47	262.47	L		16	24000	45000	20	30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
2	265	AAO	395521.00N/1083730.00W	8898	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
2	265	270

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST FOR TRAFFIC
 PAT 2 ATC REQUEST FOR TRAFFIC

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

GRAND JUNCTION (FAC 1) AND MEEKER (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V200	1, 2				(US)
IAP	RNAV (GPS) RWY 3			KEEO	MEEKER	CO (US)
STAR	LEEHY (RNAV)		2	KSLC	SALT LAKE CITY	UT (US)
STAR	SPAN	1, 2	1	KSLC	SALT LAKE CITY	UT (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

- ADDED AIRSPACE DOCKET NUMBER.
- ADDED CONTROLLING OBSTRUCTION FOR PAT 1.
- PERCIPITOUS TERRAIN ADDITIONS: ADDED PAT 1 SPEED 265 ADDITION 270.
- FIX USE: ADDED T317.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON



Digitally signed by

SIGNATURE: ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: RADDY

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470428.09N/1213058.25W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	SEATTLE	SEA	VORTAC	H	104.45	123.45	39.00	39.00		10000	45000
2	OLYMPIA	OLM	VORTAC	H	064.30	083.30	57.21	57.21		10000	45000
3	MCCHORD	TCM	VORTAC	T	081.03	096.03	39.54	39.54		10000	17500
4	YAKIMA	YKM	VORTAC	H	283.82	304.82		53.53		10000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
OLM	VORTAC	R-064	58	10000	14900
TCM	VORTAC	R-081	40	10000	17500
YKM	VORTAC	R-284	54	10000	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	SEA	VORTAC	104.45	284.45	R	1-1 1/2	10000 24000	11 21

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	465843.90N/1211959.60W	7160	6C

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	371

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN, DME REQUIRED.

REMARKS:

SEATTLE (FAC 1) USED TO ESTABLISH FIX COORDINATES
SEATTLE AREA METERING FIX - ZSE.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
YKM ESV IS APPROVED FOR VOR RADIAL ONLY.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J20	1, 2, 3				(US)
EN ROUTE	J34	1, 2, 3				(US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2, 3, 4				(US)
EN ROUTE	V4	1, 2, 3				(US)
STAR	CHINS	1	1	KPAE	EVERETT	WA (US)
STAR	CHINS	1	1	KRNT	RENTON	WA (US)
STAR	CHINS	1	1	KBFI	SEATTLE	WA (US)
STAR	CHINS	1	1	KSEA	SEATTLE	WA (US)
STAR	ELLENSBURG (RNAV)			KTCM	TACOMA	WA (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 13

DATE OF REVISION: 01/30/2020

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. REMOVED SEA ESV.
3. FIX USE: ADDED T317.
4. REMARKS: REMOVED (SEE PR ADDITIONS).
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW AND ADDED CONTROLLER HIGH.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. DELETED V187 FROM FIX USE - AIRSPACE DOCKET 19-ANM-17.

11/06/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/06/19.

1. FIX USE: ADD V187.

QUALITY
13
CHECKED

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE: 09/06/2019	OFFICE: AJV-A422	NAME: MARLON ROBINSON
	SIGNATURE:	<i>Digitally signed by</i> ALLAN WILL	
DISTRIBUTION:	NFDC FPO: WST ARTCC: ZSE ATC FACILITY: SEATTLE APP CON OTHER:	Nov 13, 2019	



RADIO FIX AND HOLDING DATA RECORD

NAME: RENAE

STATE: CO

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 402514.08N/1085437.01W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	GRAND JUNCTION	JNC	VOR/DME	H	341.22	356.22	81.78	81.78		13000	17500
2	VERNAL	VEL	VOR/DME	L	069.49	084.49	26.84	26.84		11000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
JNC	VOR/DME	R-341	82	13000	17500

FIX RESTRICTIONS:

MRA V101 13000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

GRAND JUNCTION (FAC 1) AND VERNAL (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V101	1, 2				(US)
EN ROUTE	V187	1, 2				(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. CHANGED THE ORDER OF FIX MAKE-UP.
4. FIX MAKE-UP: CHANGED VAL MAG/TRUE BRG FROM 069.00/084.00 TO 069.49/084.49 AND ADDED DME/DIST FROM FAC 26.84.
5. FIX MAKE-UP: CHANGED JNC MAG/TRUE BRG FROM 341.00/356.00 TO 341.22/356.22 AND ADDED DME/DIST FROM FAC 81.78.
6. RESTRICTIONS: CHANGED MRA FROM V187 TO V101.
7. ADDED REMARK GRAND JUNCTION (FAC 1) AND VERNAL (FAC 2) USED TO ESTABLISH FIX COORDINATES.
8. FIX USE: REFORMATED V101 AND V187.
9. FIX USE: ADDED T317.
10. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
11. ADDED ESV FAC 1 (JNC).
12. DISTRIBUTION: CHANGED SEA FPO TO WST FPO.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY:
OTHER:

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: RINDS

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 464538.74N/1230937.54W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

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	OLYMPIA	OLM	VORTAC	H	201.16	220.16	16.54	16.54		4000	17500
2	HOQUIAM	HQM	VORTAC	H	085.99	104.99		42.23		4000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
HQM	VORTAC	R-086	43	4000	14600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

OLYMPIA (FAC 1) AND HOQUIAM (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	RNAV (GPS) RWY 35			KOLM	OLYMPIA	WA (US)
IAP	RNAV (GPS) RWY 5			KSHN	SHELTON	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: FAC 1 ADDED DIST FROM FAC 16.54.
3. FIX MAKE-UP: FAC 2 ADDED DIST FROM FAC 42.23 AND CHANGED MRA FROM 4000 TO 5000.
4. ESV: CHANGED HQM DISTANCE FROM 42 TO 43.
5. REMARKS: ADDED OLYMPIA (FAC 1) AND HOQUIAM (FAC 2) USED TO ESTABLISH FIX COORDINATES.
6. FIX USE: ADDED FACS 1 AND 2 TO V187.
7. FIX USE: ADDED T317.
8. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
9. DISTRIBUTION: CHANGED SEA FPO TO WST FPO.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. FIX MAKE-UP: CHANGED FAC 2 MRA FROM 5000 TO 4000.
2. ESV: CHANGED HQM MIN/MAX ALT FROM 5000/17500 TO 4000/14600.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422
Digitally signed by

NAME: MARLON ROBINSON

SIGNATURE: *ALLAN WILL*

Oct 15. 2019

DISTRIBUTION:

NFDC:
FPO: WST
ARTCC: ZSE
ATC FACILITY: SEA APP CON
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: RIVERTON VOR/DME

STATE: WY

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 430356.63N/1082719.92W

TYPE:

AIRSPACE DOCKET: 17-ANM-24

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 FEET	MAA
1	RIVERTON	RIW	VOR/DME	L						17500

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

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	SE	RIW	VOR/DME	113.07	293.07	R	1		7700	17500	8	20
2	W	RIW	VOR/DME	281.01	101.01	R	1		7700	17500	8	20
3	SE		WP	113.07	293.07	R		7	8200	10000	10	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	431015.00N/1082645.00W	5893	4E
1	310	AAO	425206.00N/1080636.00W	6126	4E
2	230	AAO	430703.00N/1084830.00W	6139	4E
2	310	AAO	430818.00N/1085515.00W	6414	4E
3	230	AAO	424533.00N/1081048.00W	6086	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR RWY 28	KRIW	RIVERTON	WY (US)
1	TEXTUAL DEPARTURE	KRIW	RIVERTON	WY (US)
2	VOR RWY 10	KRIW	RIVERTON	WY (US)
2	ILS OR LOC RWY 28	KRIW	RIVERTON	WY (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: 10E 2020.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CASPER			KCPK	CASPER	WY (US)
DP	TEXTUAL DEPARTURE		1	KRIW	RIVERTON	WY (US)
EN ROUTE	T317					(US)
EN ROUTE	V138					(US)
EN ROUTE	V187					(US)
EN ROUTE	V330					(US)
EN ROUTE	V85					(US)
IAP	RNAV (GPS) RWY 22		3	KLND	LANDER	WY (US)
IAP	ILS OR LOC RWY 28		2	KRIW	RIVERTON	WY (US)
IAP	RNAV(GPS) RWY 10			KRIW	RIVERTON	WY (US)
IAP	RNAV(GPS) RWY 28			KRIW	RIVERTON	WY (US)
IAP	VOR RWY 10		2	KRIW	RIVERTON	WY (US)
IAP	VOR RWY 28		1	KRIW	RIVERTON	WY (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. CHANGED HOLDING PAT 1 AND 2 LEG TIME FROM 1-1 1/2 TO 1.
3. FIX USE: ADDED T317.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. ADDED HOLDING PAT 3.
2. ADDED KLND RNAV (GPS) RWY 22 WITH PAT 3 IN FIX USE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:



OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

*Digitally signed by***ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER:QUALITY
9
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: RIZAL **STATE:** CO **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 370113.87N/1081041.98W **TYPE:** WP, INT, DME
AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	RATTLESNAKE	RSK	VORTAC	H	332.83	346.83	16.75	16.75		9200	17500
2	DURANGO	DRO	VOR/DME	L	235.00	249.00		22.06		9200	17500

FIX RESTRICTIONS:

MCA T317 10000 NORTHBOUND

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	NW		WP	336.41	156.41	R	7	11000 15000	10 16

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	371733.00N/1081609.00W	8475	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	140

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

RATTLESNAKE (FAC 1) AND DURANGO (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	RNAV (GPS) RWY 03			KDRO	DURANGO	CO (US)
IAP	RNAV (GPS) RWY 21		1	KDRO	DURANGO	CO (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 12/05/2019

REASON FOR REVISION:

FIX USE; ADDED T317.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: HEIDI SNIDER

Nov 04, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: FMN ATCT
OTHER: DEN FSS



NAME: ROSOE	STATE: MT	COUNTRY: US	ICAO REGION CODE: K1
LATITUDE/LONGITUDE: 471908.51N/1120530.62W		TYPE: WP, INT, DME	
AIRSPACE DOCKET: 17-ANM-24		FIX TYPE OF ACTION: MODIFY	

FIX/MARK OF FACILITIES.										
FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM FEET	MRA	MAA
1	GREAT FALLS	GTF	VORTAC	H	238.41	254.41	28.80	28.80	8000	17500
2	HELENA	HLN	VORTAC	H	336.47	352.47	43.13	43.13	9500	17500

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
HLN	VORTAC	R-336	44	9500	17500

REMARKS:
GREAT FALLS (FAC 1) AND HELENA (FAC 2) USED TO ESTABLISH FIX COORDINATES

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V365	1, 2				(US)
IAP	RNAV (GPS) Y RWY 3			KGTF	GREAT FALLS	MT (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 DATE OF REVISION: 08/15/2019

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: FAC 2 MAA CORRECTED FROM 71500 TO 17500.
3. ESV: ADDED HLN R336 AT 44 9500 TO 17500.
4. FIX USE: ADDED T317.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
6. FIX MAKE-UP: FAC 2 DME ADDED AND MRA CHANGED FROM 8000 TO 9500 TO MATCH ESV.
7. REMARKS: ADDED GREAT FALLS (FAC 1) AND HELENA (FAC 2) USED TO ESTABLISH FIX COORDINATES.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE:	OFFICE: AJV-A422	NAME: MARLON ROBINSON
	<i>Digitally signed by</i>		
SIGNATURE:	ALLAN WILL		
	Oct 15, 2019		

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY: GTF
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: SOCORRO VORTAC

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 342020.04N/1064913.69W

TYPE:

AIRSPACE DOCKET: 17-ANM-24

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 FEET	MAA
1	SOCORRO	ONM	VORTAC	H						45000

FIX RESTRICTIONS:

MCA V264 10000 WESTBOUND

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	ONM	VORTAC	002.00	182.00	R	1 1/2		8000	17500	8	16
2	S	ONM	VORTAC	165.00	345.00	L	1 1/2		8000	17500	8	16
3	N		WP	006.00	186.00	R		7	8000	14000	9	11
4	N	ONM	VORTAC	002.00	182.00	R	1		10000	14000	9	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	341903.00N/1064333.00W	5676	4E
2	230	AAO	341100.00N/1065945.00W	7641	4E
3	230	AAO	341903.00N/1064330.00W	5719	2C
4	230	AAO	341903.00N/1064333.00W	5676	4E
4	310	AAO	342552.00N/1070514.40W	9410	6A

REASON FOR NONSTANDARD HOLDING:

PAT 2 AVOID R-5107C

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
4	T/O MINS AND DP	KONM	SOCORRO	NM (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 PATTERN 2 CONTROLLING OBSTRUCTION LOCATED 4260' INTO SECONDARY.
 PATTERN 4 CLIMB IN HOLD OBSTACLE LOCATED 4032' INTO SECONDARY.
 ASSIGNED FACILITY MAGVAR: 13E/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BALDY			KPHX	PHOENIX	AZ (US)
DP	ALBUQUERQUE			KABQ	ALBUQUERQUE	NM (US)
DP	BOSQE (RNAV)			KABQ	ALBUQUERQUE	NM (US)
DP	MNZNO (RNAV)			KABQ	ALBUQUERQUE	NM (US)
DP	T/O MINS AND DP		4	KONM	SOCORRO	NM (US)
EN ROUTE	J104					(US)
EN ROUTE	J142					(US)
EN ROUTE	J57					(US)
EN ROUTE	T317					(US)
EN ROUTE	V187					(US)
EN ROUTE	V264					(US)
EN ROUTE	V611					(US)
IAP	HI-ILS OR LOC RWY 8			KABQ	ALBUQUERQUE	NM (US)
IAP	HI-TACAN RWY 8			KABQ	ALBUQUERQUE	NM (US)
IAP	ILS OR LOC RWY 3			KABQ	ALBUQUERQUE	NM (US)
IAP	ILS OR LOC RWY 8			KABQ	ALBUQUERQUE	NM (US)
IAP	VOR-A		2	KBRG	BELEN	NM (US)
IAP	RNAV (GPS) RWY 33		3	KONM	SOCORRO	NM (US)
IAP	VOR/DME-A		1	KONM	SOCORRO	NM (US)
STAR	KRKEE (RNAV)			KABQ	ALBUQUERQUE	NM (US)
STAR	LAVAN			KABQ	ALBUQUERQUE	NM (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 08/15/2019



REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. FIX USE: REMOVED DP ST JOHN AT KPHX AND DP RDRNR (RNAV) AT KABQ.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:**DATE:****ORGANIZATION:****NAME:****OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A422

NAME: BARRY SMITH**APPROVED BY:****DATE:****OFFICE:** AJV-A422**NAME:** MARLON ROBINSON*Digitally signed by***SIGNATURE:** **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: SQIDS

STATE: MT

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 465751.52N/1134944.67W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

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	059.00	072.00	11.00	11.00		13000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				MT (US)
IAP	VOR-A	1		KMSO	MISSOULA	MT (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZLC

ATC FACILITY: GEG APP CON, MSO ATCT

OTHER:

QUALITY
30
CHECKED

NAME: SWEAT	STATE: WY	COUNTRY: US	ICAO REGION CODE: K1
LATITUDE/LONGITUDE: 422635.02N/1082710.31W		TYPE: WP, INT, DME	
AIRSPACE DOCKET: 17-ANM-24		FIX TYPE OF ACTION: MODIFY	

MAA FACILITIES:										
FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM FAC FEET	MRA	MAA
1	ROCK SPRINGS	OCS	VOR/DME	H	013.00	026.00	57.00	57.00	12000	17500
2	CHEROKEE	CKW	VOR/DME	H	301.95	316.95		56.68	10000	17500
3	RIVERTON	RIW	VOR/DME	L	169.82	179.82	37.35	37.35	12000	17500
4	BIG PINEY	BPI	VOR/DME	H	079.79	095.79		73.95	15000	17500

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
OCS	VOR/DME	R-013	57	12000	17500
CKW	VOR/DME	R-302	57	10000	17500
BPI	VOR/DME	R-080	74	15000	17500

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:
ROCK SPRINGS (FAC 1) AND RIVERTON (FAC 3) USED TO ESTABLISH FIX COORDINATES

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ALPIN	1, 4		KJAC	JACKSON	WY (US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2, 3, 4				(US)
IAP	RNAV (GPS) RWY 22			KLND	LANDER	WY (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 DATE OF REVISION: 12/05/2019

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. REMARKS: ROCK SPRINGS (FAC 1) AND RIVERTON (FAC 3) USED TO ESTABLISH FIX COORDINATES.
4. FIX USE: ADDED T317.
5. FIX USE: ADDED FAC 4 TO V187.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

1. FIX USE; ADDED KLND RNAV (GPS) RWY 22.
2. REQUIRED CHARTING: ADDED IAP.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE:	OFFICE: AJV-A422	NAME: MARLON ROBINSON
	SIGNATURE:	<i>Digitally signed by</i> ALLAN WILL	
DISTRIBUTION:	NEDC	Oct 15, 2019	

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: TANER

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 355205.77N/1072542.57W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	ALBUQUERQUE	ABQ	VORTAC	H	315.90	328.90	57.79	57.79		11000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
ABQ	VORTAC	R-316	58	11000	45000

HOLDING:

HOLDING TYPE OF ACTION: CANCEL

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J15	1				(US)
EN ROUTE	J76	1				(US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
STAR	CURLY	1		KABQ	ALBUQUERQUE	NM (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. REMOVED HOLDING AND HOLDING RESTRICTIONS.
3. REMARKS: REMOVED PRECIPITOUS TERRAIN EVALUATION COMPLETED.
4. FIX USE: REMOVED STAR LOWBO (RNAV).
5. FIX USE: ADDED T317.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW. ADDED CONTROLLER HIGH.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: *Digitally signed by*

ALLAN WILL

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY: ABQ APP CON
OTHER:

Oct 15, 2019



RADIO FIX AND HOLDING DATA RECORD

NAME: TASSE **STATE:** MT **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 460357.65N/1085812.87W **TYPE:** WP, DME
AIRSPACE DOCKET: 17-ANM-24 **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	BILLINGS	BIL	VORTAC	H	303.00	317.00	21.17	21.17		6000	17500

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

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	NW		WP	294.10	114.10	R		7	8000	12000	9	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	460542.00N/1091736.00W	4954	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS) RWY 9		1	KHWQ	HARLOWTON	MT (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 **DATE OF REVISION:** 12/05/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. FIX USE: ADDED T317.
4. CHARTING: ADDED CONTROLLER LOW.
5. DISTRIBUTION: CHANGED SEA FPO TO WST FPO.

08/05/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. HOLDING; ADDED PAT 1 AND ASSOCIATED RESTRICTIONS/REMARKS.
2. FIX USE; ADDED KHWQ RNAV (GPS) RWY 9 AND HOLDING PAT 1.
3. REQUIRED CHARTING; ADDED IAP.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**
OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH
APPROVED BY: **DATE:** *Digitally signed by* **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON
SIGNATURE: *ALLAN WILL*
 Oct 15, 2019

DISTRIBUTION: NFDC
 FPO: WST
 ARTCC: ZLC
 ATC FACILITY:
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: TESSY

STATE: CO

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 392946.32N/1084947.36W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	GRAND JUNCTION	JNC	VOR/DME	H	341.22	356.22	26.23	26.23		8000	17500
2	MEEKER	EKR	VOR/DME	H	216.00	231.00		54.08		10500	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
EKR	VOR/DME	R-216	55	10500	17500

FIX RESTRICTIONS:

MCA T317 10700 NORTHBOUND
MCA V187 10700 NORTHBOUND
MRA V187 10500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

GRAND JUNCTION (FAC 1) AND MEEKER (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. ADDED WP TO TYPE.
3. RESTRICTIONS: ADDED MCA T317 10700 NORTHBOUND. ADDED MRA V187 10500 - ALREADY CHARTED.
4. REMAKS: ADDED GRAND JUNCTION (FAC 1) AND MEEKER (FAC 2) USED TO ESTABLISH FIX COORDINATES.
5. FIX USE: ADDED T-317.
6. FIX USE: REMOVED WALKER FIELD ILS OR LOC/DME RWY 11, VOR RWY 11 AT KGJT.
7. FIX USE: REFORMATED V187.
8. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW. REMOVED DP AND IAP.
9. ADDED ESV FAC 2 (EKR).
10. FIX MAKE-UP: ADDED DIST FROM FAC TO FAC 1 AND FAC 2. DELETED DME FROM FAC 2 (EKR) AND CHANGED MRA FROM 10000 TO 10500 TO MATCH ESV.
11. DISTRIBUTION: CHANGED SEA FPO TO WST FPO.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: GJT ATCT
OTHER: DEN FSS



RADIO FIX AND HOLDING DATA RECORD

NAME: THICK

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 470229.04N/1204937.78W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	YAKIMA	YKM	VORTAC	H	310.00	331.00		32.38		9000	17500
2	ELLENSBURG	ELN	VOR/DME	H	253.00	274.00	15.17	15.17		10000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

YAKIMA (FAC 1) AND ELLENSBURG (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
EN ROUTE	V298	1, 2				(US)
STAR	ELLENSBURG (RNAV)			KTCM	TACOMA	WA (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: WST

ARTCC: ZSE

ATC FACILITY: SEATTLE APP CON

OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: TRUTH OR CONSEQUENCES VORTAC **STATE:** NM **COUNTRY:** US **ICAO REGION CODE:** K2
LATITUDE/LONGITUDE: 331657.01N/1071649.97W **TYPE:**
AIRSPACE DOCKET: 17-ANM-24 **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 FEET	MAA
1	TRUTH OR CONSEQUENCES	TCS	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 TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	N	TCS	VORTAC	360.00	180.00	L	1		8300	12000	9	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	332442.80N/1070629.60W	7034	6A
1	310	AAO	333115.00N/1072418.00W	8202	4E

REASON FOR NONSTANDARD HOLDING:

PAT 1 HIGHER TERRAIN TO WEST.

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR-A	KTCS	TRUTH OR CONSEQUENCES	NM (US)
1	T/O MINS AND ODP	KTCS	TRUTH OR CONSEQUENCES	NM (US)

REMARKS:

PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-5111 C&D.
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 310 CONTROLLING OBSTRUCTION LOCATED 11678.57 FT INTO THE SECONDARY AREA. PRIMARY EQUIVALENT 7219.01 FT.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CORONA			KALM	ALAMOGORDO	NM (US)
DP	T/O MINS AND ODP		1	KTCS	TRUTH OR CONSEQUENCES	NM (US)
EN ROUTE	J108					(US)
EN ROUTE	J13					(US)
EN ROUTE	J166					(US)
EN ROUTE	J57					(US)
EN ROUTE	J65					(US)
EN ROUTE	T310					(US)
EN ROUTE	T317					(US)
EN ROUTE	V110					(US)
EN ROUTE	V202					(US)
EN ROUTE	V611					(US)
IAP	HI-ILS OR LOC RWY 8			KABQ	ALBUQUERQUE	NM (US)
IAP	HI-TACAN RWY 8			KABQ	ALBUQUERQUE	NM (US)
IAP	RNAV (GPS)-A			KTCS	TRUTH OR CONSEQUENCES	NM (US)
IAP	VOR-A		1	KTCS	TRUTH OR CONSEQUENCES	NM (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER
2. FIX USE: REMOVED DP ATKNN AND JCOXX AT KELP.
3. FIX USE: REMOVED IAP RNAV (GPS) Y RWY 33 AT KONM AND STAR MOLLY AT KELP.
4. FIX USE: CHANGED HI-ILS RWY 8 AT KABQ TO HI-ILS OR LOC RWY 8.
5. FIX USE: ADDED T317.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW AND ADDED CONTROLLER HIGH.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

QUALITY
 30
 CHECKED

APPROVED BY:

DATE:

OFFICE: AJV-A422
Digitally signed by

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZAB

ATC FACILITY: ELP APP CON

OTHER:

A green circular stamp with the words "QUALITY" at the top, "30" in the center, and "CHECKED" at the bottom.

RADIO FIX AND HOLDING DATA RECORD

NAME: TUCKB **STATE:** MT **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 472353.59N/1114101.25W **TYPE:** WP, DME
AIRSPACE DOCKET: 17-ANM-24 **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	GREAT FALLS	GTF	VORTAC	H	238.41	254.41	11.49	11.49		8000	17500

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	SW		WP	241.21	061.21	L		7	8000	10000	9	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	471727.00N/1115148.00W	5807	4E
1	310	AAO	471524.00N/1115040.00W	6342	6C

REASON FOR NONSTANDARD HOLDING:

PAT 1 TERRAIN

HOLDING RESTRICTIONS:

HOLDING RESTRICTED TO ESTABLISHED PATTERN

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) Y RWY 21	KGTF	GREAT FALLS	MT (US)
1	RNAV (RNP) Z RWY 21	KGTF	GREAT FALLS	MT (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317	1				(US)
EN ROUTE	V187					(US)
IAP	RNAV (GPS) Y RWY 21		1	KGTF	GREAT FALLS	MT (US)
IAP	RNAV (RNP) Z RWY 21		1	KGTF	GREAT FALLS	MT (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

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

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 **NAME:** BARRY SMITH

APPROVED BY: **DATE:** *Digitally signed by* **OFFICE:** AJV-A422 **NAME:** MARLON ROBINSON

SIGNATURE: **ALLAN WILL**
Oct 15, 2019

DISTRIBUTION:
 NFDC
 FPO: WST
 ARTCC: ZLC
 ATC FACILITY: GTF
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: WATEX

STATE: TX

COUNTRY: US

ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 315747.02N/1061904.38W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 17-ANM-24

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	NEWMAN	EWM	VORTAC	L	274.28	286.28	2.42	2.42		9000	17500
2	EL PASO	ELP	VORTAC	H	336.22	348.22		9.00		9000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

NEWMAN (FAC 1) AND EL PASO (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V611	1, 2				(US)
EN ROUTE	V94	1, 2				(US)
IAP	VOR RWY 26L	1, 2	KELP		EL PASO	TX (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. REMARKS: ADDED NEWMAN (FAC 1) AND EL PASO (FAC 2) USED TO ESTABLISH FIX COORDINATES.
3. FIX USE: ADDED T317.
4. FIX USE: REFORMATED V94 AND V611.
5. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.
6. FIX MAKE-UP: DELETED FAC 2 (ELP) DME.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

Digitally signed by

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY: ELP ATCT, ELP APP CON
OTHER:

QUALITY
30
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WIKKR

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 320015.27N/1062902.62W

TYPE: WP, DME

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	NEWMAN	EWM	VORTAC	L	274.28	286.28	11.25	11.25		9000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V611	1				(US)
EN ROUTE	V94	1				TX (US)
IAP	RNAV (RNP) Z RWY 22			KELP	EL PASO	TX (US)
IAP	RNAV (RNP) Z RWY 26L			KELP	EL PASO	TX (US)
STAR	MOLLY (RNAV)			KELP	EL PASO	TX (US)
STAR	WAZKO (RNAV)			KELP	EL PASO	TX (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. FIX USE: REFORMATED V94 AND V611.
4. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE: **ALLAN WILL**

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY: ELP APP CON
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: WUSVI **STATE:** WA **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 470251.47N/1205808.35W **TYPE:** WP, DME
AIRSPACE DOCKET: 17-ANM-24 **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	ELLENSBURG	ELN	VOR/DME	H	253.00	274.00	21.00	21.00		10000	17500

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

REMARKS:

ELLENSBURG (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
EN ROUTE	V187	1				(US)
IAP	RNAV (GPS)-C			KELN	ELLENSBURG	WA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 01/30/2020

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

08/20/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. FIX USE; REMOVED V187 - AIRSPACE DOCKET 19-ANM-17.
2. TYPE; DELETED DME.
3. FIX MAKE-UP FACILITIES; DELETED FAC 1 (ELN).
3. REMARKS; REMOVED COORDINATES REMARK.

11/06/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/06/19.

1. TYPE: ADD DME.
2. FIX MAKE-UP FACILITIES: ADD ELLENSBURG (ELN) VOR/DME AS FAC 1.
3. REMARKS: ADD ELLENSBURG (FAC 1) USED TO ESTABLISH FIX COORDINATES.
4. FIX USE: ADD V187.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A422	NAME: BARRY SMITH
APPROVED BY:	DATE: 11/04/2019	OFFICE: AJV-A422	NAME: MARLON ROBINSON
	<i>Digitally signed by</i>		
	SIGNATURE:	ALLAN WILL	
		Nov 13, 2019	
DISTRIBUTION:	NFDC FPO: WST ARTCC: ZSE ATC FACILITY: OTHER:		

QUALITY
 13
 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: YECUG

STATE: NM

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 345918.02N/1065958.00W

TYPE: WP

AIRSPACE DOCKET: 17-ANM-24

FIX TYPE OF ACTION: NO CHANGE

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 MIN	ALTITUDES MAX	TEMPLATES MIN	MAX
1	SW		WP	215.07	035.07	R	7	8800	14000	10	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	344442.00N/1071154.00W	7109	5E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	100

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T317					(US)
IAP	RNAV (GPS) RWY 04		1	KAEG	ALBUQUERQUE	NM (US)
IAP	RNAV (GPS) RWY 22		1	KAEG	ALBUQUERQUE	NM (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 08/15/2019

REASON FOR REVISION:

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX USE: ADDED T317.
3. CHARTING: ADDED CONTROLLER LOW AND ENROUTE LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: BARRY SMITH

APPROVED BY:

DATE:

Digitally signed by OFFICE: AJV-A422

NAME: MARLON ROBINSON

SIGNATURE:

ALLAN WILL

Oct 15, 2019

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZAB
ATC FACILITY: ABQ
OTHER: AMGR

QUALITY
30
CHECKED

NAME: ZERZO	STATE: MT	COUNTRY: US	ICAO REGION CODE: K1
LATITUDE/LONGITUDE: 465225.99N/1100508.51W		TYPE: WP, INT, DME	
AIRSPACE DOCKET: 17-ANM-24	FIX TYPE OF ACTION: MODIFY		

PRIMARY FACILITIES:										
FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM FEET	MRA	MAA
1	BILLINGS	BIL	VORTAC	H	303.00	317.00	88.18	88.18	11000	45000
2	LEWISTOWN	LWT	VOR/DME	H	226.56	241.56		22.45	11000	45000
3	GREAT FALLS	GTF	VORTAC	H	106.00	122.00	64.38	64.38	13000	45000

FAC ID	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
BIL	VORTAC	R-303	89	11000	17500
GTF	VORTAC	R-106	65	13000	17500

HOLDING TYPE OF ACTION: ESTABLISH

PATTERN:	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES DME	MIN	MAX	TEMPLATES MIN	MAX
1	S		WP	172.38	352.38	R	7	9600	12000	10	10	

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	464230.00N/1101242.00W	8252	4E

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS: BILLINGS (FAC 1) AND GREAT FALLS (FAC 3) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	Q146					(US)
EN ROUTE	T317					(US)
EN ROUTE	V187	1, 2				(US)
IAP	RNAV (GPS) RWY 27		1	KHWQ	HARLOWTON	MT (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 12/05/2019

1. ADDED AIRSPACE DOCKET NUMBER.
2. FIX MAKE-UP: FAC 3 CHANGED MRA FROM 11000 TO 13000.
3. ESV: CHANGED BIL ESV FROM 8000 TO 1100.
4. ESV: CHANGED GTF ESV FROM 11000 TO 13000.
5. FIX USE: ADDED T317.
6. CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW. ADDED CONTROLLER HIGH.

08/07/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/21/19.

1. HOLDING; ESTABLISHED HOLDING PAT 1 WITH ASSOCIATED RESTRICTIONS AND REMARKS.
2. FIX USE; ADDED KHWQ RNAV (GPS) RWY 27 AND PAT 1.
3. REQUIRED CHARTING: ADDED IAP.

INITIATED BY: _____ DATE: _____ ORGANIZATION: _____ NAME: _____

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A422 NAME: BARRY SMITH

APPROVED BY: _____ DATE: 01/01/2021 OFFICE: AJV-A422 NAME: MARLON ROBINSON

DATE: *Digitally signed by* OFFICE: AJV-A422

SIGNATURE: *ALLAN WILL*

Oct 15, 2019

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZLC
ATC FACILITY:
OTHER:

QUALITY
9
CHECKED