

RADIO FIX AND HOLDING DATA RECORD

NAME: COLOM **STATE:** CA **COUNTRY:** US **ICAO REGION CODE:** K2

LATITUDE/LONGITUDE: 385020.30N/1205212.07W **TYPE:** WP, INT, DME

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	SQUAW VALLEY	SWR	VOR/DME	L	218.11	234.11	34.74	34.74	11000	17500
2	HANGTOWN	HNW	VOR/DME	L	303.44	320.44	8.89	8.89	6000	17500
3	SACRAMENTO	SAC	VORTAC	H	036.30	053.30	39.85	39.85	5000	45000
4	MUSTANG	FMG	VORTAC	H	218.15	234.15	70.21	70.21	18000	45000

FIX RESTRICTIONS:

MCA V6 9500 NORTHEAST 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	SWR	VOR/DME	218.11	218.11	L	1-1 1/2	11000 17500	11 18
2	SW	SAC	VORTAC	036.30	036.30	R	1-1 1/2	7000 17500	10 18

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	390239.00N/1203503.00W	5338	4E
2	230	AAO	385415.00N/1204221.00W	4646	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	230	296
2	230	99

REASON FOR NONSTANDARD HOLDING:

PAT 1 REQUESTED BY AIR TRAFFIC

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:

SQUAW VALLEY (FAC 1) AND HANGTOWN (FAC 2) AND SACRAMENTO (FAC 3) USED TO ESTABLISH FIX COORDINATES.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J32	3, 4				CA (US)
EN ROUTE	V332	1, 2, 3				CA (US)
EN ROUTE	V6	1, 2, 3	1			CA (US)
IAP	ILS OR LOC RWY 22L	2		KMHR	SACRAMENTO	CA (US)
IAP	ILS RWY 22L (SA CAT I, SA CAT II)	1, 2		KMHR	SACRAMENTO	CA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14 **DATE OF REVISION:** 12/05/2019

REASON FOR REVISION:

UPDATED FIX USE: ADDED ILS RWY 22L (SA CAT I, SA CAT II) TO KMHR.
UPDATED REQUIRED CHARTING WITH CONTROLLER HIGH AND CONTROLLER LOW.

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

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 **NAME:** TODD BOWLING

APPROVED BY: **DATE:** 10/29/2019 **OFFICE:** AJV-A430 **NAME:** LONNIE EVERHART

SIGNATURE:

DISTRIBUTION: NFDC
FPO: WST
ARTCC: ZOA
ATC FACILITY: NORCAL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MUSTANG VORTAC **STATE:** NV **COUNTRY:** US **ICAO REGION CODE:** K2

LATITUDE/LONGITUDE: 393152.60N/1193921.87W **TYPE:**

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

FIX MAKE-UP FACILITIES:

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

FIX RESTRICTIONS:

MCA V28 10500 SOUTHBOUND
MCA V113 10500 SOUTHBOUND
MCA V6 12000 SOUTHWEST BOUND
MCA V165 15000 SOUTHBOUND

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	NE	FMG	VORTAC	041.13	221.13	L	1	10000 17500	9 17
2	NE	FMG	VORTAC	041.13	221.13	R	1	10000 17500	9 17
3	NE		WP	041.13	221.13	L	7	11000 17500	10 17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	393909.00N/1192745.00W	8222	4E
1	310	AAO	394521.00N/1192739.00W	8537	4E
2	230	AAO	393909.00N/1192745.00W	8222	4E
2	310	AAO	394521.00N/1192739.00W	8537	4E
3	230	AAO	393909.00N/1192745.00W	8222	4E
3	265	AAO	394521.00N/1192739.00W	8537	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	310	370
1	230	340
2	310	370
2	230	340
3	230	340
3	265	360

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST
PAT 3 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S)

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	TAKEOFF MINIMUMS	KRNO	RENO	NV (US)
1	VOR-D	KRNO	RENO	NV (US)
1	MUSTANG	KRNO	RENO	NV (US)
2	TAKEOFF MINIMUMS	KRTS	RENO	NV (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
MAGVAR FMG 16E/1985.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHICO			KCIC	CHICO	CA (US)
DP	YOSEMITE			KFAT	FRESNO	CA (US)
DP	OZIEE (RNAV)			KAPC	NAPA	CA (US)
DP	SHASTA			KRDD	REDDING	CA (US)
DP	FROGO			KSMF	SACRAMENTO	CA (US)
DP	RICHY			KTVL	SOUTH LAKE TAHOE	CA (US)
DP	TRUCK			KTRK	TRUCKEE	CA (US)
DP	MUSTANG		1	KRNO	RENO	NV (US)
DP	PVINE			KRNO	RENO	NV (US)
DP	RENO			KRNO	RENO	NV (US)
DP	TAKEOFF MINIMUMS		1	KRNO	RENO	NV (US)
DP	WAGGE			KRNO	RENO	NV (US)
DP	ZEFFR			KRNO	RENO	NV (US)
DP	TAKEOFF MINIMUMS		2	KRTS	RENO	NV (US)
DP	KINGSLEY			KLMT	KLAMATH FALLS	OR (US)
EN ROUTE	J32					(US)

EN ROUTE	J5			(US)
EN ROUTE	J7			(US)
EN ROUTE	J92			(US)
EN ROUTE	J94			(US)
EN ROUTE	T274			(US)
EN ROUTE	T331			(US)
EN ROUTE	V105			(US)
EN ROUTE	V113			(US)
EN ROUTE	V165			(US)
EN ROUTE	V200			(US)
EN ROUTE	V28			(US)
EN ROUTE	V32			(US)
EN ROUTE	V392			(US)
EN ROUTE	V452			(US)
EN ROUTE	V564			(US)
EN ROUTE	V6			(US)
IAP	LDA RWY 18	KTVL	SOUTH LAKE TAHOE	CA (US)
IAP	RNAV (GPS) RWY 11	KTRK	TRUCKEE	CA (US)
IAP	RNAV (GPS) RWY 20	KTRK	TRUCKEE	CA (US)
IAP	ILS OR LOC RWY 35L	KRNO	RENO	NV (US)
IAP	ILS Y RWY 17R	KRNO	RENO	NV (US)
IAP	LOC Y RWY 17R	KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 17L	KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 17R	KRNO	RENO	NV (US)
IAP	RNAV (RNP) W RWY 35L	KRNO	RENO	NV (US)
IAP	RNAV (RNP) W RWY 35R	KRNO	RENO	NV (US)
IAP	TACAN-F	KRNO	RENO	NV (US)
IAP	VOR-D	1 KRNO	RENO	NV (US)
IAP	ILS OR LOC RWY 32	KRTS	RENO	NV (US)
STAR	SQUAW VALLEY	KSUU	FAIRFIELD	CA (US)
STAR	MODESTO	KSFO	SAN FRANCISCO	CA (US)
STAR	STINS	KSFO	SAN FRANCISCO	CA (US)
STAR	BRINY	KSJC	SAN JOSE	CA (US)
STAR	ANAHO	KRNO	RENO	NV (US)
STAR	EELZA (RNAV)	KRNO	RENO	NV (US)
STAR	HARTT (RNAV)	3 KRNO	RENO	NV (US)
STAR	MYBAD (RNAV)	3 KRNO	RENO	NV (US)
STAR	RYANN	KRNO	RENO	NV (US)
STAR	TARVR (RNAV)	3 KRNO	RENO	NV (US)
STAR	WADOL (RNAV)	KRNO	RENO	NV (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: 41

DATE OF REVISION: 11/03/2022

REASON FOR REVISION:

PATTERNS: CHANGED PR FOR PAT 1 (SPEED 230) FROM 330 TO 340, CHANGED PR FOR PAT 3 (SPEED 230) FROM 330 TO 340, CHANGED PAT 3 SPEED FROM 310 TO 265 AND PR FROM 370 TO 360.

FIX USE: REMOVED DP TAHOE (SID) AT KTRK AND REMOVED DP VISTA AND HUNGRY AT KRNO.

FIX USE: RMOVED IAP RNAV (RNP) Z RWY 34L AND 34R AT KRNO AND REMOVED RUSME STAR AT KRNO.

FIX USE: ADDED T274 AND FROGO DP AT KSMF AND ADDED RNAV (RNP) W RWY 35L/R AT KRNO.

FIX USE: CHANGED ALL REMAINING RWY 16L/R TO RWY 17L/R AND RWY 34L/R TO RWY 35L/R AT KRNO.

FIX USE: REMOVED /DME FROM ILS OR LOC RWY 35L AT KRNO.

FIX USE: ADDED DP PVINE AND ZEFFR AT KRNO.

FIX USE: CHANGED STAR TARVR TO STAR TARVR (RNAV) AND ADD PAT 3, CHANGED STAR MYBAD FROM PAT 1 TO PAT 3. CHANGED HOLDING PAT 1/2 MAX TEMPLATE FROM 16 TO 17 AND PAT 3 MIN ALTITUDE FROM 12000 TO 11000. CHANGED PAT 3 SPEED FROM 310 TO 265.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: TARA MARTINELLI

APPROVED BY:

DATE: 11/03/2022

OFFICE: AJV-A430

NAME: CASIMIR TABAKA

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: SPOON

STATE: NV

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 390626.20N/1194613.12W

TYPE: WP, RADAR, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	RENO	I-AGY	LOC/DME		167.12	180.12	24.55	24.54		10500	17000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-AGY	LOC/DME	R-167	25	10500	17000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-AGY DME ANTENNA COORDINATES: 393100.30N/1194612.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 35L	1		KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 35R			KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35R			KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35R			KRNO	RENO	NV (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 11/03/2022

REASON FOR REVISION:

1. FAC 1 MAG BRG UPDATED FROM 164.12 TO 167.12.
2. FAC 1 CHANGED TYPE FROM LOC TO LOC/DME.
3. ESV: I-AGY RADIAL CHANGED FROM 164 TO 167.
4. FIX USE: CHANGED ALL RWY REFERENCES AT KRNO FROM 34L/R TO 35L/R.
5. FIX USE: CHANGED ILS OR LOC/DME RWY 34L TO ILS OR LOC RWY 35L AT KRNO.
6. FIX USE: REMOVED RUSME (RNAV) AND TARVR STARS AT KRNO.
7. REQUIRED CHARTING: REMOVED STAR AND MILITARY IAP.
8. REMOVED FAC 2 AND ESV I-RNO WITH ASSOCIATED COORDINATES REMARK - NO LONGER UTILIZED.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: RICHARD CHRISTENSEN

APPROVED BY:

DATE: 11/03/2022

OFFICE: AVJ-A430

NAME: JOHNNIE BAKER

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: TAKLE STATE: NV COUNTRY: US ICAO REGION CODE: K2
 LATITUDE/LONGITUDE: 394149.18N/1194607.39W TYPE: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: NO CHANGE

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:												
PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN	MAX	
1	N		WP	347.12	167.12	R	7	11000	14000	10	18	

CONTROLLING OBSTRUCTIONS:					
PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	395830.00N/1194436.00W	8895	4E
1	310	AAO	395836.00N/1194436.00W	8905	4E

PRECIPITOUS TERRAIN ADDITIONS:		
PAT	SPEED	ADDITION
1	310	370
1	230	350

HOLDING RESTRICTIONS:
 HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:				
PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (RNP) Z RWY 35L	KRNO	RENO	NV (US)
1	RNAV (RNP) W RWY 35L	KRNO	RENO	NV (US)
1	RNAV (RNP) W RWY 35R	KRNO	RENO	NV (US)
1	RNAV (GPS) Y RWY 35R	KRNO	RENO	NV (US)
1	RNAV (RNP) Z RWY 35R	KRNO	RENO	NV (US)
1	RNAV (GPS) X RWY 35L	KRNO	RENO	NV (US)
1	RNAV (GPS) X RWY 35R	KRNO	RENO	NV (US)
1	RNAV (GPS) Y RWY 35L	KRNO	RENO	NV (US)

REMARKS:
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 PAT 1 230 KIAS CONTROLLING OBSTACLE LOCATED 3351' INTO SECONDARY AREA (SA -637).

FIX USE:						
USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) X RWY 35L		1	KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 35R		1	KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35L		1	KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35R		1	KRNO	RENO	NV (US)
IAP	RNAV (RNP) W RWY 35L		1	KRNO	RENO	NV (US)
IAP	RNAV (RNP) W RWY 35R		1	KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35L		1	KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35R		1	KRNO	RENO	NV (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 DATE OF REVISION: 11/03/2022

REASON FOR REVISION:
 1. PAT 1 CRS INBOUND CHANGED FROM 164.12 TO 167.12 AND MIN HOLDING ALT CHANGED FROM 10000 TO 11000.
 2. PRECIPITOUS TERRAIN ADDITION FOR PAT 1 310 SPEED CHANGED FROM 360 TO 370.
 3. REMOVED PLURAL FROM HOLDING RESTRICTIONS.
 4. CHANGED ALL RWY REFERENCES AT KRNO IN PROCEDURES REQUIRING C-I-H AND FIX USE FROM 34R/L TO 35R/L.
 5. FIX USE: ADDED RNAV (RNP) W RWY 35L/R AT KRNO.
 6. PAT 1 MAX TEMPLATE CHANGED FROM 11 TO 18 FOR CIH.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A431	NAME: RICHARD CHRISTENSEN
APPROVED BY:	DATE: 11/03/2022	OFFICE: AJV-A430	NAME: JOHNNIE BAKER
SIGNATURE:			

RADIO FIX AND HOLDING DATA RECORD

NAME: TARVR

STATE: CA

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 384855.51N/1194615.27W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) X RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 35R			KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (GPS) Y RWY 35R			KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35L			KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 35R			KRNO	RENO	NV (US)
STAR	TARVR (RNAV)			KRNO	RENO	NV (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 11/03/2022

REASON FOR REVISION:

1. REMOVED INT AND DME FROM FIX TYPE.
2. REMOVED FAC 1, 2, 3, 4, 5, AND ALL ESV'S AND ASSOCIATED COORDINATE REMARKS - TARVR RNAV WP FIX ONLY.
3. FIX USE: ADDED IAP'S AT KRNO; RNAV (GPS) X RWY 35L/R, RNAV (GPS) Y RWY 35L/R, RNAV (RNP) Z RWY 35L/R.
4. FIX USE: REMOVED KENNO (RNAV) STAR AT KRNO.
5. FIX USE: ADDED (RNAV) TO STAR TARVR AT KRNO AND REMOVED FAC 2, 3, 4, 5.
6. REQUIRED CHARTING: ADDED IAP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: RICHARD CHRISTENSEN

APPROVED BY:

DATE: 11/03/2022

OFFICE: AJV-A430

NAME: JOHNNIE BAKER

SIGNATURE: