

RADIO FIX AND HOLDING DATA RECORD

NAME: OAKLAND VOR/DME STATE: CA COUNTRY: US ICAO REGION CODE: K2
 LATITUDE/LONGITUDE: 374333.32N/1221324.91W 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	OAKLAND	OAK	VOR/DME	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	NW	OAK	VOR/DME	300.00	120.00	R	1		2000	4000	4	4
2	NW		WP	302.00	122.00	R		4	2000	4000	4	5
3	SW		WP	243.00	063.00	R		4	3000	5000	5	6
4	SW	OAK	VOR/DME	240.01	060.01	R	1		3000	5000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	AAO	374857.00N/1220348.00W	2225	4E
1	200	AAO	374906.00N/1221036.00W	1821	4E
2	200	AAO	374906.00N/1221036.00W	1821	4E
3	200	AAO	374041.52N/1222520.98W	1399	2C
4	200	T-L TWR (06-000098)	374030.38N/1222427.51W	1123	1A

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5000
 PRIOR COORDINATION REQUIRED WITH ZOA WHEN HOLDING ABOVE FL370 DUE TO W513 AND W285 A & B
 HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 (PAT 1 AND 2) CONTROLLING OBSTACLE LOCATED 11586.67 FT. INTO SECONDARY.
 PAT 2 MAG COURSE BASED ON KHWD 15E MAGVAR.
 PAT 3 MAG COURSE BASED ON KSFO 14E MAGVAR.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BUCHANAN			KCCR	CONCORD	CA (US)
DP	KANAN			KCCR	CONCORD	CA (US)
DP	BYRON			KLVK	LIVERMORE	CA (US)
DP	LIVERMORE			KLVK	LIVERMORE	CA (US)
DP	TAKEOFF MINIMUMS			KLVK	LIVERMORE	CA (US)
DP	SOUTHLAND			KNUQ	MOUNTAIN VIEW	CA (US)
DP	LIZRD			KAPC	NAPA	CA (US)
DP	MERLOT			KAPC	NAPA	CA (US)
DP	COAST			KOAK	OAKLAND	CA (US)
DP	NUEVO			KOAK	OAKLAND	CA (US)
DP	OAKLAND			KOAK	OAKLAND	CA (US)
DP	SALAD			KOAK	OAKLAND	CA (US)
DP	SILENT			KOAK	OAKLAND	CA (US)
DP	SKYLINE			KOAK	OAKLAND	CA (US)
DP	GAP			KSFO	SAN FRANCISCO	CA (US)
DP	OFFSHORE			KSFO	SAN FRANCISCO	CA (US)
DP	SAN FRANCISCO			KSFO	SAN FRANCISCO	CA (US)
DP	SAN JOSE			KSJC	SAN JOSE	CA (US)
DP	SUNOL			KSJC	SAN JOSE	CA (US)
DP	TAKE OFF MINIMUMS			KSJC	SAN JOSE	CA (US)
DP	CHARLIE			KSTS	SANTA ROSA	CA (US)
EN ROUTE	J1					(US)
EN ROUTE	J110					(US)
EN ROUTE	J3					(US)
EN ROUTE	J32					(US)
EN ROUTE	J58					(US)
EN ROUTE	J80					(US)
EN ROUTE	J84					(US)
EN ROUTE	J94					(US)
EN ROUTE	V107					(US)
EN ROUTE	V109					(US)
EN ROUTE	V195					(US)
EN ROUTE	V244					(US)
EN ROUTE	V28					(US)
EN ROUTE	V301					(US)
EN ROUTE	V392					(US)
EN ROUTE	V6					(US)
IAP	VOR RWY 19R			KCCR	CONCORD	CA (US)
IAP	HI-LOC/DME RWY 11L			KFAT	FRESNO	CA (US)
IAP	LOC/DME RWY 28L		1	KHWD	HAYWARD	CA (US)

IAP	RNAV (GPS) RWY 28L	2	KHWD	HAYWARD	CA (US)
IAP	VOR/DME-A	1	KHWD	HAYWARD	CA (US)
IAP	ILS OR LOC RWY 12		KOAK	OAKLAND	CA (US)
IAP	ILS OR LOC RWY 30(ALT MA)	1	KOAK	OAKLAND	CA (US)
IAP	ILS OR LOC/DME RWY 28R		KOAK	OAKLAND	CA (US)
IAP	ILS RWY 12 (SA CAT I)		KOAK	OAKLAND	CA (US)
IAP	ILS RWY 30 (CAT II - III)(ALT MA)	1	KOAK	OAKLAND	CA (US)
IAP	ILS RWY 30 (SA CAT I)(ALT MA)	1	KOAK	OAKLAND	CA (US)
IAP	VOR RWY 10R		KOAK	OAKLAND	CA (US)
IAP	ILS OR LOC RWY 19L		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28L		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28R		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28R (CAT II/III)		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28R (SA CAT I)		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS RWY 28L (SA CAT II)		KSFO	SAN FRANCISCO	CA (US)
IAP	LDA PRM RWY 28R (SIM CLOSE PAR)	4	KSFO	SAN FRANCISCO	CA (US)
IAP	LDA/DME RWY 28R	4	KSFO	SAN FRANCISCO	CA (US)
IAP	QUIET BRIDGE VISUAL RWYS 28L/R		KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) PRM X RWY 28R	3	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) X RWY 28R	3	KSFO	SAN FRANCISCO	CA (US)
IAP	TIPP TOE VISUAL RWY 28L		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC/DME RWY 30L (ALT MA)		KSJC	SAN JOSE	CA (US)
IAP	ILS RWY 30L (SA CAT I) (ALT MA)		KSJC	SAN JOSE	CA (US)
STAR	PANOCHÉ		KHWD	HAYWARD	CA (US)
STAR	MANTECA		KOAK	OAKLAND	CA (US)
STAR	PANOCHÉ		KOAK	OAKLAND	CA (US)
STAR	BIG SUR		KSFO	SAN FRANCISCO	CA (US)
STAR	MODESTO		KSFO	SAN FRANCISCO	CA (US)
STAR	POINT REYES		KSFO	SAN FRANCISCO	CA (US)
STAR	RISTI		KSFO	SAN FRANCISCO	CA (US)
STAR	JAWWS		KSJC	SAN JOSE	CA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 25

DATE OF REVISION: 06/22/2017

REASON FOR REVISION:

DELETED MADWIN STAR AT KHWD/KOAK FROM FIX USE.

DEVELOPED BY: **DATE:** 01/19/2017 **OFFICE:** AJV-5431 **NAME:** LIAM DONAHUE

APPROVED BY: **DATE:** **OFFICE:** AJV-5430 **NAME:** PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZOA
ATC FACILITY: NORCAL/SFO
OTHER: OAK ATCT

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	MRA FEET	MAA
1	MUSTANG	FMG	VORTAC	H						45000

FIX RESTRICTIONS:

MCA V6 12000 SOUTHWEST BOUND
MCA V165 10000 SOUTHBOUND
MCA V28-113 10500 SOUTHBOUND

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	FMG	VORTAC	041.13	221.13	L	1-1 1/2		10000	17500	9	16
2	NE	FMG	VORTAC	041.13	221.13	R	1-1 1/2		10000	17500	9	16
3	NE	WP		041.13	221.13	L		7	12000	17500	10	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	393858.20N/1192743.60W	8235	6A
1	310	AAO	394512.90N/1192745.20W	8566	6A
2	230	AAO	393858.20N/1192743.60W	8235	6A
2	310	AAO	394512.90N/1192745.20W	8566	6A
3	230	AAO	393858.20N/1192743.60W	8235	6A
3	310	AAO	394512.90N/1192745.20W	8566	6A

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	310	297
1	230	288
2	230	294
3	230	293

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST
PAT 3 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	HUNGRY	KRNO	RENO	NV (US)
1	MUSTANG	KRNO	RENO	NV (US)
1	TAKEOFF MINIMUMS	KRNO	RENO	NV (US)
1	VISTA	KRNO	RENO	NV (US)
1	VOR-D	KRNO	RENO	NV (US)
1	MYBAD (RNAV)	KRNO	RENO	NV (US)
2	TAKEOFF MINIMUMS	KRTS	RENO	NV (US)
3	KENNO (RNAV)	KRNO	RENO	NV (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
MAGAVAR FMG 16E.

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	DUDES			KSMF	SACRAMENTO	CA (US)
DP	RICHY			KTVL	SOUTH LAKE TAHOE	CA (US)
DP	SHOLE			KTVL	SOUTH LAKE TAHOE	CA (US)
DP	TAHOE (RNAV)			KTRK	TRUCKEE	CA (US)
DP	TRUCK			KTRK	TRUCKEE	CA (US)
DP	HUNGRY		1	KRNO	RENO	NV (US)
DP	MUSTANG		1	KRNO	RENO	NV (US)
DP	PVINE (RNAV)			KRNO	RENO	NV (US)
DP	RENO			KRNO	RENO	NV (US)
DP	SPLTM (RNAV)			KRNO	RENO	NV (US)
DP	TAKEOFF MINIMUMS		1	KRNO	RENO	NV (US)

DP	VISTA	1	KRNO	RENO	NV (US)
DP	WAGGE		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	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/DME-1 RWY 18		KTVL	SOUTH LAKE TAHOE	CA (US)
IAP	RNAV (GPS) Y RWY 20		KTRK	TRUCKEE	CA (US)
IAP	RNAV (GPS) Z RWY 20		KTRK	TRUCKEE	CA (US)
IAP	ILS OR LOC/DME RWY 34L		KRNO	RENO	NV (US)
IAP	ILS Y RWY 16R		KRNO	RENO	NV (US)
IAP	LOC Y RWY 16R		KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 16L		KRNO	RENO	NV (US)
IAP	RNAV (GPS) X RWY 16R		KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 34L		KRNO	RENO	NV (US)
IAP	RNAV (RNP) Z RWY 34R		KRNO	RENO	NV (US)
IAP	VOR-D	1	KRNO	RENO	NV (US)
IAP	ILS OR LOC/DME RWY 32		KRTS	RENO	NV (US)
STAR	OAKEY		KSUU	FAIRFIELD	CA (US)
STAR	SQUAW VALLEY		KSUU	FAIRFIELD	CA (US)
STAR	GOLDEN GATE		KSFO	SAN FRANCISCO	CA (US)
STAR	MODESTO		KSFO	SAN FRANCISCO	CA (US)
STAR	STINS		KSFO	SAN FRANCISCO	CA (US)
STAR	BRINY		KSJC	SAN JOSE	CA (US)
STAR	EL NIDO		KSJC	SAN JOSE	CA (US)
STAR	ANAHO		KRNO	RENO	NV (US)
STAR	CANNON		KRNO	RENO	NV (US)
STAR	EELZA (RNAV)		KRNO	RENO	NV (US)
STAR	HARTT (RNAV)	3	KRNO	RENO	NV (US)
STAR	KENNO (RNAV)	3	KRNO	RENO	NV (US)
STAR	MYBAD (RNAV)	1	KRNO	RENO	NV (US)
STAR	RUSME (RNAV)	3	KRNO	RENO	NV (US)
STAR	RYANN		KRNO	RENO	NV (US)
STAR	TARVR		KRNO	RENO	NV (US)
STAR	WADOL (RNAV)		KRNO	RENO	NV (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 31

DATE OF REVISION: 06/22/2017

REASON FOR REVISION:

1. REMOVED KFAT FRESNO SID FROM FIX USE.
2. REMOVED KOAK/KHWD MADWIN STAR FROM FIX USE.
3. REMOVED KRNO RNAV (RNP) Z RWY 16L/16R FROM FIX USE.

DEVELOPED BY: **DATE:** 01/18/2017 **OFFICE:** AJV-5431 **NAME:** LIAM DONAHUE

APPROVED BY: **DATE:** **OFFICE:** AJV-5430 **NAME:** PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZOA
ATC FACILITY: RNO APP CON, RNO ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MANTECA VOR/DME

STATE: CA

COUNTRY: US

ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 375000.98N/1211016.96W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG	BRG	M FAC	MRA	MAA
1	MANTECA	ECA	VOR/DME	H					45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS	TURN	LEG LENGTH	HOLDING ALTITUDES	TEMPLATES
					INBOUND	(L OR R)	TIME DME	MIN MAX	MIN MAX
1	SE	ECA	VOR/DME	124.40	304.40	L	1-1 1/2	1600 17500	4 16
2	SE		WP	124.40	304.40	L	4	3000 17500	5 17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (06-002381)	374345.74N/1210740.78W	559	3C
2	200	TOWER (06-002381)	374345.74N/1210740.78W	559	3C

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST
PAT 2 HIGH TERRAIN

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.
ASSIGNED FACILITY MAG VAR 17 DEGREES EAST.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	TAKEOFF MINIMUMS			KC83	BYRON	CA (US)
DP	BUCHANAN			KCCR	CONCORD	CA (US)
DP	KANAN			KCCR	CONCORD	CA (US)
DP	BYRON			KLVK	LIVERMORE	CA (US)
DP	LIVERMORE			KLVK	LIVERMORE	CA (US)
DP	NIMITZ			KOAK	OAKLAND	CA (US)
DP	SALAD			KOAK	OAKLAND	CA (US)
DP	DUDES			KSMF	SACRAMENTO	CA (US)
DP	FROGO			KSMF	SACRAMENTO	CA (US)
DP	SUNOL			KSJC	SAN JOSE	CA (US)
DP	CHARLIE			KSTS	SANTA ROSA	CA (US)
EN ROUTE	J58					(US)
EN ROUTE	J80					(US)
EN ROUTE	J94					(US)
EN ROUTE	V109					(US)
EN ROUTE	V113					(US)
EN ROUTE	V195					(US)
EN ROUTE	V244					(US)
EN ROUTE	V585					(US)
IAP	VOR RWY 19R			KCCR	CONCORD	CA (US)
IAP	ILS RWY 25R			KLVK	LIVERMORE	CA (US)
IAP	VOR-A			K103	LODI	CA (US)
IAP	RNAV (GPS) RWY 10			KO27	OAKDALE	CA (US)
IAP	RNAV (GPS) RWY 28		2	KO27	OAKDALE	CA (US)
IAP	VOR-A			KO27	OAKDALE	CA (US)
IAP	RNAV (GPS) RWY 12		2	KTCY	TRACY	CA (US)
IAP	RNAV (GPS) RWY 26		2	KTCY	TRACY	CA (US)
IAP	RNAV (GPS) RWY 30		2	KTCY	TRACY	CA (US)
IAP	VOR/DME RWY 26		1	KTCY	TRACY	CA (US)
STAR	MADWIN			KHWD	HAYWARD	CA (US)
STAR	PANOCH			KHWD	HAYWARD	CA (US)
STAR	MADWIN			KOAK	OAKLAND	CA (US)
STAR	PANOCH			KOAK	OAKLAND	CA (US)
STAR	WRAPS			KSMF	SACRAMENTO	CA (US)
STAR	MODESTO			KSFO	SAN FRANCISCO	CA (US)
STAR	RISTI			KSFO	SAN FRANCISCO	CA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 27

DATE OF REVISION: 03/02/2017

REASON FOR REVISION:

REMOVED KSCK PROCEDURES FROM FIX USE.

DEVELOPED BY:**DATE:** 09/15/2016**OFFICE:** AJV-5423**NAME:** THOMAS KIRKPATRICK**APPROVED BY:****DATE:** 12/08/2016**OFFICE:** AJV-5420**NAME:** TONY LAWSON**SIGNATURE:****DISTRIBUTION:****NFDC****FPO:** WST**ARTCC:** ZOA**ATC FACILITY:** NORCAL APP CON**OTHER:**