US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, TITLE 14 CFR PART 97.33

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
TENCO (IAF)	ZOKEM (TF) (FB) (RNP 1.00)	212.47 / 13.20	6000
ZOKEM	OTOYE (TF) (FB) (RNP 1.00)	212.35 / 5.80	4200
OTOYE (IF)	ZITUL (TF) (FB) (RNP 1.00)	163.74 / 3.20	3200
ZITUL	CENIR (RF) (RNP 1.00)	(2.19 NM RADIUS CCW CFBFW)/3.45	1600
CENIR	WOMAV (RF) (FB) (RNP 1.00)	(2.19 NM RADIUS CCW CFBFW)/3.45	1100
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 2000 ON TRACK 343.75 TO JARNU AND ON TRACK 317.17 TO GRIME AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT WOMAV
3. FAC: 343.74 FAF: ____ DIST FAF TO MAP: ____ THLD: ____
4. MIN. ALT: WOMAV 1100
5. DIST TO THLD FROM OM: 3.20 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1100 GS ALT AT: WOMAV 1100 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 59.0# 34:1 IS CLEAR
8. MSA FROM: RW34L 4300

ADDITIONAL FLIGHT DATA:
HOLD SE, RT, 329.00 INBOUND.
CHART FAS OBST: 67 TREE 384008N/1213530W
DISTANCE TO THLD FROM 362 HATH: 0.95 NM.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
#TCH 82.0 (DO NOT CHART)
CHART MINIMUM 12,000 AT PIECH
CHART MINIMUM 6000 AT ISYOH
CHART MINIMUM 4500 AT SAC VORTAC

MAG VAR: 17E EPOCH YEAR: 1980

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: N A

STANDARD

CATEGORY =====>	A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
AUTHORIZATION REQUIRED															
RNP 0.30 DA	385	4000	362	385	4000	362	385	4000	362	385	4000	362			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F).
CHART NOTE: FOR INOPERATIVE MALSR, INCREASE RNP 0.30 ALL CATS VISIBILITY TO RVR 6000.
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE AT ZITUL : MAX 210 KIAS.
(SEE FORM 8260-10)

QUALITY CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 23 / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34L, ORIG	AMDT: NONE
				DATED

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[X] YES [ ] NO		ROUTINE

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[X]	[ ]	[X]	[X]	[X]	[X]	[X] ZOA, NORCAL APP CON, SMF ATCT, APT MNGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:

DEVELOPED BY		
NAME:	FIFO	DATE:
JIMMY S. HUGHES	AJV-354	04/17/2012

APPROVED BY		
NAME:	FIFO	DATE:
DEZ SILAGYI MANAGER	AJV-354	

CHANGES:

1. ORIGINAL PROCEDURE.

REASONS:

1. FPT REQUEST.

07/17/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/2012.
1. TERMINAL ROUTE ZOKEM TO OTOYE ALTITUDE CHANGED FROM 4000 TO 4200.

07/24/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/2012.
1. TERMINAL ROUTE TENCO TO ZOKEM ALTITUDE CHANGED FROM 5000 TO 6000.

09/19/2012: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/05/2012.
1. ADDED FORM 8260-10.

QUALITY CHECKED

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
PIECH (IAF)	OTOYE (TF) (FB) (RNP 1.00)	169.18 / 33.64	4000
ISYOH (IAF)	ELMAC (TF) (RNP 1.00)	022.28 / 9.85	3500
SAC VORTAC (IAF)	ELMAC (TF) (RNP 1.00)	303.18 / 3.90	3500
ELMAC (IF)	WOMAV (TF) (FB) (RNP 1.00)	343.74 / 8.20	1100
WOMAV (FAF)	RW34L (MAP) (TF) (FO)	343.74 / 3.20	
RW34L (MAP)	JARNU (TF) (FB) (RNP1.00)	343.75/6.81	
JARNU	GRIME (TF) (FO) (RNP 1.00)	317.17 / 14.41	2000

NOTES, (CONT.):
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON SAC VORTAC AIRWAY RADIALS 216 CW 021.
CHART PLANVIEW NOTE ADJACENT TO TENCO IAF: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO PIECH IAF: RF REQUIRED.
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.

QUALITY 1 CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34L, ORIG	AMDT: NONE
				DATED:

ALL AFFECTED PROCEDURES REVIEWED? ☐ YES ☐ NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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```
SUSAP KSMFK2FH34LZ ATENCO 050CENIRK2EA0E   L010RF       0021901637    07370035    + 01600                CFBFW K2EAA FS
SUSAP KSMFK2FH34LZ ATENCO 060WOMAVK2EA0EE  L010RF       0021900737    34370035    + 01100                CFBFW K2EAA FS
SUSAP KSMFK2FH34LZ H      020WOMAVK2EA1E   F    IF                                 + 01100     18000      RW34L K2PGA FS
SUSAP KSMFK2FH34LZ H      020WOMAVK2EA2W                                               A031                      FS
SUSAP KSMFK2FH34LZ H      030RW34LK2PG0GY M 031TF                                    00082           -300        A FS
SUSAP KSMFK2FH34LZ H      040JARNUK2EA0E M  010TF                                                                A FS
SUSAP KSMFK2FH34LZ H      050GRIMEK2EA0EY   010TF                                  + 02000                      A FS
SUSAP KSMFK2FH34LZ H      060GRIMEK2EA0EE  R   HM                    32900040    + 02000                      A FS
```

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY    12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAP KSMFK2GRW34L   0085983437 N38410144W121360531+0000     -0023700023000059150IIHUX1
```

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
MSA       12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAP KSMFK2SRW34LK2PG               0   18018004325                                                          M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34L, ORIG**	AMDT: **NONE**
				DATED:

ALL AFFECTED PROCEDURES REVIEWED? ☐ YES ☐ NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (RNP)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ISYOH	ISYOH	010	IAF	IF		FB				AA 06000	
	ISYOH	ELMAC	020		TF		FB	1.0			AA 03500	
	ISYOH	WOMAV	030		TF		FB	1.0			AA 01100	
	PIECH	PIECH	010	IAF	IF		FB				AA 12000	
	PIECH	OTOYE	020		TF		FB	1.0			AA 04000	
	PIECH	ZITUL	030		TF		FB	1.0			AA 03200	AB 210
	PIECH	CENIR	040		RF	L	FB	1.0		003.5	AA 01600	
	PIECH	WOMAV	050		RF	L	FB	1.0		003.5	AA 01100	
	SAC	SAC	010	IAF	IF		FB				AA 04500	
	SAC	ELMAC	020		TF		FB	1.0			AA 03500	
	SAC	WOMAV	030		TF		FB	1.0			AA 01100	
	TENCO	TENCO	010	IAF	IF		FB					
	TENCO	ZOKEM	020		TF		FB	1.0			AA 05000	
	TENCO	OTOYE	030		TF		FB	1.0			AA 04200	
	TENCO	ZITUL	040		TF		FB	1.0			AA 03200	AB 210
	TENCO	CENIR	050		RF	L	FB	1.0		003.5	AA 01600	
	TENCO	WOMAV	060		RF	L	FB	1.0		003.5	AA 01100	
		WOMAV	020	FAF	IF		FB				AA 01100	
		RW34L	030	MAP	TF		FO	0.3			AT 00082	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	JARNU	040		TF		FB	1.0				
	GRIME	050		TF		FO	1.0			AA 02000	
	GRIME	060		HM	R	FO		329.0(346.0T)	004.0	AA 02000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	SAC	N382637.48	W1213305.94	N3826.625	W12133.099
	CENIR	N383539.34	W1213858.69	N3835.656	W12138.978
	CFBFW	N383751.17	W1213856.52	N3837.853	W12138.942
	ELMAC	N382937.13	W1213616.55	N3829.619	W12136.276
	GRIME	N390049.33	W1214401.81	N3900.822	W12144.030
	ISYOH	N382159.64	W1214412.97	N3821.994	W12144.216
	JARNU	N384750.49	W1213558.48	N3847.842	W12135.975
	OTOYE	N384105.01	W1214141.41	N3841.084	W12141.690
	PIECH	N391433.95	W1213703.76	N3914.566	W12137.063
	TENCO	N385328.01	W1212314.70	N3853.467	W12123.245
	WOMAV	N383749.50	W1213608.47	N3837.825	W12136.141
	ZITUL	N383752.84	W1214144.58	N3837.881	W12141.743
	ZOKEM	N384452.13	W1213604.16	N3844.869	W12136.069
	RW34L	N384101.44	W1213605.31	N3841.024	W12136.089

QUALITY CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34L, ORIG**	AMDT: **NONE**
				DATED:

ALL AFFECTED PROCEDURES REVIEWED? ☐ YES ☐ NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER ☐ (specify) _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW34L	00023	59

QUALITY CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34L, ORIG**	AMDT: **NONE**
				DATED:

ALL AFFECTED PROCEDURES REVIEWED? ☐ YES ☐ NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
INITIAL	TENCO	ZOKEM	1. TOWER (06-000022)	385052.00N/1212900.00W	712 (4D)	1000	AC50 AT4238	6000
(RNP 1.00)			2. TERRAIN	385757.00N/1212306.00W	142 (100)		AS1500	1600
INITIAL: STEPDOWN	ZOKEM	OTOYE	3. AAO	384045.00N/1214348.00W	240 (4E)	1000	AC98 AT2862	4200
(RNP 1.00)			4. TERRAIN	384045.00N/1214348.00W	40 (0)		AS1500	1500
INTERMEDIATE	OTOYE	ZITUL	5. TOWER (06-002117)	383926.00N/1214316.00W	532 (5D)	500	AC50 AT2118	3200
(RNP 1.00)			6. TERRAIN	383754.00N/1214257.00W	92 (100)		AS1500	1600
INTERMEDIATE: STEPDOWN	ZITUL	CENIR	5. TOWER (06-002117)	383926.00N/1214316.00W	532 (5D)	500	AC50	1100
(RNP 1.00)			6. TERRAIN	383754.00N/1214257.00W	92 (100)		AS1500	1600
INTERMEDIATE: STEPDOWN	CENIR	WOMAV	7. AAO	383551.00N/1213648.00W	262 (4D)	500	AC98	900
(RNP 1.00)			8. TERRAIN	383551.00N/1213648.00W	62 (100)		AS1000	1100
INITIAL	PIECH	OTOYE	9. AAO	385242.00N/1213900.00W	305 (4E)	1000	AC98 AT2597	4000
(RNP 1.00)			10. TERRAIN	385842.00N/1213900.00W	105 (100)		AS1500	1600
INITIAL	ISYOH	ELMAC	11. TOWER (06-000807)	382228.00N/1214658.00W	662 (5D)	1000	AC50 AT1788	3500
(RNP 1.00)			12. TERRAIN	382721.00N/1213918.00W	76 (100)		AS1500	1600
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA	GRIME	16. POLE (KSMFT0312)	384042.39N/1213517.51W	124 (2C)	ASC	AC50	2000
			9. AAO	385242.00N/1213900.00W	305 (4E)	1000	AC98	1500
ELEV:	117		10. TERRAIN	385842.00N/1213900.00W	105 (100)		AS1000	1100

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL
CATEGORY A	1.3 NM	350	
CATEGORY B	1.5 NM	450	
CATEGORY C	1.7 NM	450	
CATEGORY D	2.3 NM	550	
CATEGORY E	4.5 NM	550	

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: **RW34L**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	251/ 27.7	3257 (6A)	4300					

CHECKED QUALITY

CITY AND STATE	ELEVATION: 27 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
SACRAMENTO, CA	SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34L, ORIG	AWP

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ZOA ARTCC NORCAL APP CON SMF TOWER	NWS FAA A/C OTHER: ASOS	SOURCE: KSMF DISTANCE: HOURS REMOTE OPERATION:
SATISFACTORY ON:		
X VHF X UHF HF	LOCATION: KSMF	ADJUSTMENT: 0

4. MONITOR STATUS		
	PRIMARY NAVAID:	
	MONITOR POINT:	
HRS OPTN:	CAT 1	
	CAT 3	

5. APPROACH & RUNWAY LIGHTING	
X	ALSF-2 16R
	(S) SALS
X	MALSR 16L, 34L
X	HIRL 16L, 34L, 16R, 34R
	MIRL
	REIL
X	TDZ 16L, 16R
X	C/L 16L, 34L, 16R, 34R
X	OTHER (SPECIFY) PAPI-4R 16R PAPI-4L 16L, 34R VASI-4L 34L

6. RUNWAY MARKINGS	
BASIC	
ALL WEATHER	PIR-G 16L, 34L, 16R
INSTRUMENT	NPI-G 34R

7. RUNWAY VISUAL RANGE	
APPROACH	16L, 34L, 16R, 34R
MIDFIELD	16L, 34L, 16R, 34R
ROLL OUT	16L, 34L, 16R, 34R

8. GLIDE PATH		
GP ANGLE: 3.00		ELEV RWY THRESHOLD: 22.5
DISTANCE FROM RWY:		ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 59.0

9. FINAL APPROACH COURSE AIMING			
	X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY:	DATE:
JIMMY S. HUGHES	04/17/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

MAX SPEED ZITUL TO CENIR - 210 KIAS.

PARA 251, 20:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

SEE ATTACHED AIRSPACE LETTER.

BACK-UP ALTIMETER NOT REQUIRED, MULTIPLE SOURCES.

AVERAGE COLD TEMPERATURE DATA NOT AVAILABLE, AVERAGE COLD TEMPERATURE BASED ON STANDARD -30 C ISA DEVIATION.

BARO-VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F).
ACT: -15

PER TECH OPS, OBSTACLES KSMFT0183, KSMFT0185 AND ARE IN THE RSA WHICH HAS CONTROLLED ACCESS FROM ATCT AND ARE NOT TO BE CONSIDERED OBSTACLES.

TREE HEIGHT 50 FT PER FPT.

RF SEGMENT RADIUS/BANK ANGLE COMPUTATIONS:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
ZITUL-CENIR	3200	210	223.44	3173	38.00	2.19	24.43
CENIR-WOMAV	1962.5	210	218.24	1935.5	38.00	2.19	23.62

TF TURN FIX	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
OTOYE	4000	250	266.00	3173	50.00	3.20	18.00
ELMAC	3500	250	260.00	3473	50.00	4.30	18.00

VEB ROC APPLIED/USED.
VEB DATA: SEE ATTACHED SPREADSHEETS.

RADIO FIX AND HOLDING DATA RECORD

NAME: CENIR **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383539.34N/1213858.69W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 06/11/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBFW **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383751.17N/1213856.52W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ELMAC **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 382937.13N/1213616.55W **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	DIST FROM FAC FEET	MRA	MAA
1	SACRAMENTO	I-HUX	LOC/DME		165.74	180.74	12.98	12.96		2000	4500
2	SACRAMENTO	SAC	VORTAC	H	303.18	320.18		3.90		2000	17500

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

REMARKS:
SACRAMENTO (FAC 1) USED TO ESTABLISH FIX COORDINATES
DME COORDINATES: 384236.90N/1213607.12W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 34L	1, 2		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. REMOVED FAC 3 WP, NO LONGER REQUIRED.
2. ADDED DIST FROM FAC TO FAC 1 AND 2.
3. CHANGED FAC 2 TRUE/MAG BRG FROM 320.22/303.22 TO 320.18/303.18.
4. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/13/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ISYOH **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 382159.64N/1214412.97W **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	DIST FROM FAC FEET	MRA	MAA
1	CONCORD	CCR	VOR/DME	T	020.00	037.00	24.17	24.17		5000	17500
2	SACRAMENTO	SAC	VORTAC	H	225.16	242.16		9.89		5000	17500

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

REMARKS:
CONCORD (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)
STAR	CONCORD	1, 2		KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. ADDED WP, DME, INT TO FIX TYPE.
2. REMOVED CNF TO FIX TYPE.
3. UPDATED FIX USE.
4. ADDED FAC 1 AND FAC 2.
5. MOVED FIX 30 FT EAST.

DEVELOPED BY: **DATE:** 04/16/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: OTOYE **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 384105.01N/1214141.41W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: PIECH **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 391433.95N/1213703.76W **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	DIST FROM FAC FEET	MRA	MAA
1	SACRAMENTO	SAC	VORTAC	H	339.32	356.32	47.99	47.99		2000	14500
2	WILLIAMS	ILA	VORTAC	L	043.58	061.58	21.71	21.71		2000	14500

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)
STAR	TUDOR STAR	1, 2		KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. ADDED WP TO FIX TYPE.
2. ADDED DIS FROM FAC TO FAC 1 AND 2.
3. CHANGED FAC 1 DME DISTANCE FROM 48.00 TO 47.99.
4. UPDATED FIX USE.
5. ADDED REQUIRED CHARTING IAP.

DEVELOPED BY: **DATE:** 05/07/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: SACRAMENTO VORTAC **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 382637.48N/1213305.94W **TYPE:**

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	DIST FROM FAC FEET	MRA	MAA
1	SACRAMENTO	SAC	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 LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SW	SAC	VORTAC	224.56	044.56	R	1-1 1/2		2000	6000	4	5
2	S	SAC	VORTAC	196.01	016.01	R	1-1 1/2		1400	6000	4	5
3	SW		WP	228.99	048.99	R		4	2000	14000	4	11
4	S		WP	196.01	016.01	R		4	3100	6000	12	13

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	382112.00N/1213939.00W	305	4E
2	200	AAO	382000.00N/1213418.00W	355	4E
3	200	AAO	382112.00N/1213939.00W	305	4E
4	310	TOWER (06-001883)	381424.00N/1213007.00W	2049	3D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
4	TAKE-OFF MINS	KO88	RIO VISTA	CA (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHICO			KCIC	CHICO	CA (US)
DP	GONGS			KCIC	CHICO	CA (US)
DP	BUCHANAN			KCCR	CONCORD	CA (US)
DP	KANAN			KCCR	CONCORD	CA (US)
DP	TAKE-OFF MINS			KGOO	GRASS VALLEY	CA (US)
DP	BYRON			KLVK	LIVERMORE	CA (US)
DP	LIVERMORE			KLVK	LIVERMORE	CA (US)
DP	MERLOT			KAPC	NAPA	CA (US)
DP	OZIEE (RNAV)			KAPC	NAPA	CA (US)
DP	MARINA			KOAK	OAKLAND	CA (US)
DP	NIMITZ			KOAK	OAKLAND	CA (US)
DP	OAKLAND			KOAK	OAKLAND	CA (US)
DP	SALAD			KOAK	OAKLAND	CA (US)
DP	SILENT			KOAK	OAKLAND	CA (US)
DP	TAKE-OFF MINS		4	KO88	RIO VISTA	CA (US)
DP	KATSO			KMCC	SACRAMENTO	CA (US)
DP	SACRO			KMCC	SACRAMENTO	CA (US)
DP	TAKE-OFF MINS			KMHR	SACRAMENTO	CA (US)
DP	DUDES			KSMF	SACRAMENTO	CA (US)
DP	FROGO			KSMF	SACRAMENTO	CA (US)
DP	DUMBARTON			KSFO	SAN FRANCISCO	CA (US)
DP	QUIET			KSFO	SAN FRANCISCO	CA (US)
DP	SAN FRANCISCO			KSFO	SAN FRANCISCO	CA (US)
DP	SHORELINE			KSFO	SAN FRANCISCO	CA (US)
DP	ALTAM			KSJC	SAN JOSE	CA (US)
DP	DANVILLE			KSJC	SAN JOSE	CA (US)
DP	LOUPE			KSJC	SAN JOSE	CA (US)
DP	SUNOL			KSJC	SAN JOSE	CA (US)
DP	CHARLIE			KSTS	SANTA ROSA	CA (US)
DP	SOKOY			KVCB	VACAVILLE	CA (US)
DP	TAKE-OFF MINS			KO41	WOODLAND	CA (US)
EN ROUTE	J126					(US)
EN ROUTE	J32					(US)
EN ROUTE	J65					(US)
EN ROUTE	Q120					(US)
EN ROUTE	T259					(US)
EN ROUTE	V150					(US)
EN ROUTE	V23					(US)
EN ROUTE	V334					(US)
EN ROUTE	V392					(US)
EN ROUTE	V494					(US)

EN ROUTE	V585				(US)
EN ROUTE	V6				(US)
IAP	VOR RWY 19R		KCCR	CONCORD	CA (US)
IAP	RNAV (GPS) RWY 17		KEDU	DAVIS	CA (US)
IAP	VOR OR GPS-A		KGOO	GRASS VALLEY	CA (US)
IAP	ILS OR LOC RWY 15		KLHM	LINCOLN	CA (US)
IAP	ILS RWY 25R		KLVK	LIVERMORE	CA (US)
IAP	ILS OR LOC RWY 14		KMYV	MARYSVILLE	CA (US)
IAP	VOR RWY 32		KMYV	MARYSVILLE	CA (US)
IAP	VOR/DME-A	2	KO88	RIO VISTA	CA (US)
IAP	ILS RWY 16		KMCC	SACRAMENTO	CA (US)
IAP	VOR/DME RWY 16		KMCC	SACRAMENTO	CA (US)
IAP	VOR/DME RWY 34		KMCC	SACRAMENTO	CA (US)
IAP	ILS OR LOC/DME RWY 22L		KMHR	SACRAMENTO	CA (US)
IAP	RNAV (GPS) RWY 22L	3	KMHR	SACRAMENTO	CA (US)
IAP	RNAV (GPS) RWY 4R		KMHR	SACRAMENTO	CA (US)
IAP	VOR RWY 4R	1	KMHR	SACRAMENTO	CA (US)
IAP	VOR/DME RWY 22L		KMHR	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 2	2	KSAC	SACRAMENTO	CA (US)
IAP	VOR RWY 2	2	KSAC	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 34L		KSMF	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 16L		KSMF	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 16R		KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (CAT II, III)		KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (SA CAT I)		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) RWY Y 34L		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) RWY Y 34R		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 16L		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 16R		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34L		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 20		KVCB	VACAVILLE	CA (US)
IAP	RNAV (GPS) Z RWY 20		KVCB	VACAVILLE	CA (US)
IAP	VOR/DME-A		KVCB	VACAVILLE	CA (US)
IAP	VOR/DME-A		KO41	WOODLAND	CA (US)
STAR	OAKEY		KSUU	FAIRFIELD	CA (US)
STAR	SQUAW VALLEY		KSUU	FAIRFIELD	CA (US)
STAR	CONCORD		KSMF	SACRAMENTO	CA (US)
STAR	FLUNK		KSMF	SACRAMENTO	CA (US)
STAR	TUDOR		KSMF	SACRAMENTO	CA (US)
STAR	WRAPS		KSMF	SACRAMENTO	CA (US)
STAR	POINT REYES		KSFO	SAN FRANCISCO	CA (US)
STAR	RISTI		KSFO	SAN FRANCISCO	CA (US)
STAR	CAPITOL		KSJC	SAN JOSE	CA (US)
STAR	SIERRA		KRNO	RENO	NV (US)
STAR	TARVR		KRNO	RENO	NV (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 19 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. MOVED 32 FEET NORTH DUE TO NEW SURVEY.

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: TENCO **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 385328.01N/1212314.70W **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	DIST FROM FAC FEET	MRA	MAA
1	SQUAW VALLEY	SWR	VOR/DME	L	236.00	252.00	55.06	55.06		5000	17500
2	SACRAMENTO	SAC	VORTAC	H	359.01	016.01		27.90		5000	17500
3	MARYSVILLE	MYV	VOR/DME	T	129.02	145.02		15.17		5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SWR	VOR/DME	R-236	56	5000	17500

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

REMARKS:
SQUAW VALLEY (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 16L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 16R			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)
STAR	FLUNK (RNAV)	1, 2, 3		KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. ADDED DIST FROM FAC TO FACS 1,2,3.
2. FAC 2 TRUE/MAG BRG CHANGED FROM 016.00/359.00 TO 016.01/359.01.
3. FAC 3 TRUE/MAG BRG CHANGED FROM 145.03/129.03 TO 145.02/129.02.
4. UPDATED FIX USE.
5. ADDED WP TO FIX TYPE.

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: WOMAV **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383749.50N/1213608.47W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ZITUL **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383752.84N/1214144.58W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ZOKEM **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 384452.13N/1213604.16W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/12/2012 **OFFICE:** AJV-354 **NAME:** JIMMY HUGHES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: GRIME **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 390049.33N/1214401.81W **TYPE:** WP, INT, DME

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	SACRAMENTO	SAC	VORTAC	H	329.00	346.00	35.22	35.22		2000	17500
2	WILLIAMS	ILA	VORTAC	L	086.00	104.00		14.14		2000	17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE	SAC	VORTAC	329.00	329.00	R	1		2000	4000	5	6
2	SE		WP	149.00	329.00	R		4	2000	4000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	TOWER (06-020287)	391220.00N/1214914.00W	2353	5E
1	200	AAO	385306.00N/1214606.00W	358	4E
2	200	AAO	385703.00N/1214633.00W	322	4E

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 4000.
HOLDING BELOW 4000 LIMITED TO ESTABLISHED PATTERN(S).

REMARKS:
WILLIAMS (FAC 2) AND SACRAMENTO (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V23	1, 2				(US)
IAP	GPS RWY 31			KO08	COLUSA	CA (US)
IAP	RNAV (GPS) RWY 33			KLHM	LINCOLN	CA (US)
IAP	ILS OR LOC RWY 16L	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 16R	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	ILS OR LOC RWY 34L	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (CAT II)	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (CAT III)	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (SA CAT I)	1, 2	1	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 16L		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 16R		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 34L		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 34R		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 16L		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 16R		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34L		2	KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R		2	KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. REVISED PAT 1 AND 2 AC
2. REVISED PAT 1 CONTROLLING OBSTACLE TO 358 AAO.
3. REVISE FIX USE.

DEVELOPED BY: **DATE:** 10/26/2011 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (ROSS BARTO)

APPROVED BY: **DATE:** 03/01/2012 **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

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

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: JARNU **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 384750.49N/1213558.48W **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	DIST FROM FAC FEET	MRA	MAA
1	SACRAMENTO	I-SMF	LOC/DME		345.75	000.75	7.26	7.24	43986	1800	4500

HOLDING: **HOLDING TYPE OF ACTION:** CANCEL

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 16R	1		KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (CAT II, III)	1		KSMF	SACRAMENTO	CA (US)
IAP	ILS RWY 16R (SA CAT I)	1		KSMF	SACRAMENTO	CA (US)
IAP	RNAV (GPS) Y RWY 16R			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34L			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP, CONTROLLER

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. REMOVED FAC 2 AND 3.
2. REVISED FIX COORDINATES, FIX MOVED 561.62 FT NORTH TO NEW PFAF LOCATION.
3. REVISED FAC 1 BEARING, DME DISTANCE, ADDED DIST FROM FAC AND LOWERED MAA TO 4500.
4. DELETED HOLDING.
5. UPDATE FIX USE.

DEVELOPED BY: **DATE:** 10/26/2011 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (ROSS BARTO)

APPROVED BY: **DATE:** 03/01/2012 **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZOA
ATC FACILITY: KSMF
OTHER: NORCAL APCH

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **SACRAMENTO** STATE: **CA**

AIRPORT NAME: **SACRAMENTO INTL** ID: **KSMF**

PROCEDURE: **RNAV (RNP) Z RWY 34L** AMDT: **ORIG**

DOCKET # :
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **2.87**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **000.74**
4. High Terrain in **FINAL** segment containing 1000' point **27**
5. Distance from **THLD** to 1500' point **5.33**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point **000.74**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **88**
9. Threshold Coordinates (if straight-in) ... **384101.44N** / **1213605.31W**
10. ARP Coordinates ..... **384143.60N** / **1213526.80W**
11. Runway Approach End and distance furthest from ARP.....RWY **34R**
    Distance **.86** NM
12. FAF Coordinates ..... **383749.50N** / **1213608.47W**
    (Click to Select)

REMARKS: Approach/Drawing attached. THIS IS AIRSPACE FORM 1 OF 2

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **SACRAMENTO** STATE: **CA**

AIRPORT NAME: **SACRAMENTO INTL** ID: **KSMF**

PROCEDURE: **RNAV (RNP) Z RWY 34L** AMDT: **ORIG**

DOCKET # :
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **2.87**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **000.74**
4. High Terrain in **FINAL** segment containing 1000' point **27**
5. Distance from **THLD** to 1500' point **5.33**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point *****
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **92**
9. Threshold Coordinates (if straight-in) ... **384101.44N** / **1213605.31W**
10. ARP Coordinates ..... **384143.60N** / **1213526.80W**
11. Runway Approach End and distance furthest from ARP.....RWY **34R**
    Distance **.86** NM
12. FAF Coordinates ..... **383749.50N** / **1213608.47W**
    (Click to Select)

REMARKS: Approach/Drawing attached. *RF SEGMENT ZITUL TO WOMAV, RADIUS TURN CENTERPOINT CNF (CFBFW) ARC RADIUS 2.19 NM. THIS IS AIRSPACE FORM 2 OF 2