Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 04/09/2012	Task #: 2009092818896521002	Request #: 20090928188965
Procedure: RNAV (RNP) Z RWY 34 R ORIG		Airport ID: KSMF	Airport: SACRAMENTO INTL		Reimbursable #:
City: SACRAMENTO	ST: CA	GPS #:		Estimated Chart Date: 09/20/2012	FICO #: 1090453
Fac ID: SMF	Fac. Type: Proc-P	Specialist: JIMMY HUGHES			P1

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	03/16/2012	07/20/2012	ADOLFO URRUTIA	
QA:	06/21/2012	06/21/2012	STEVEN SZUKALA	
Liaison:	06/21/2012		K. Spurlin	APPROVAL REQUEST - WAIVER - REPLACEMENT 7/19/12 - RESUBMIT 7/25/12 P1(6) 1 of 2

Procedure Comments: ENROUTE **Remark Type:** INFORMATION

SACRAMENTO, CA SACRAMENTO INTL (KSMF) RNAV (RNP) Z RWY 34R, ORIG (RNP) ENROUTE-YES FC: 7.24.12 PUB: 9.20.12
ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): CFBFX, ORIG; CFBFZ, ORIG; FIPIN, REV 1; ISYOH-INT, REV 1; JUNBO, ORIG; LERIY, ORIG; OTOYE, ORIG; PIECH-INT, REV 1; PUGYI, ORIG; SACRAMENTO (SAC) VTAC, REV 19; TENCO-INT, REV 5; ZITUL, ORIG; ZOKEM, ORIG; ZUNEG, ORIG; (INFO ONLY) GRIME-INT, REV 10.
REPLACEMENT 7/19/12 -10 ARINC CODING
RESUBMIT 7/25/12: -3, -10, -9
CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036/405.954.3636

RNAV (RNP) Z RWY 34R

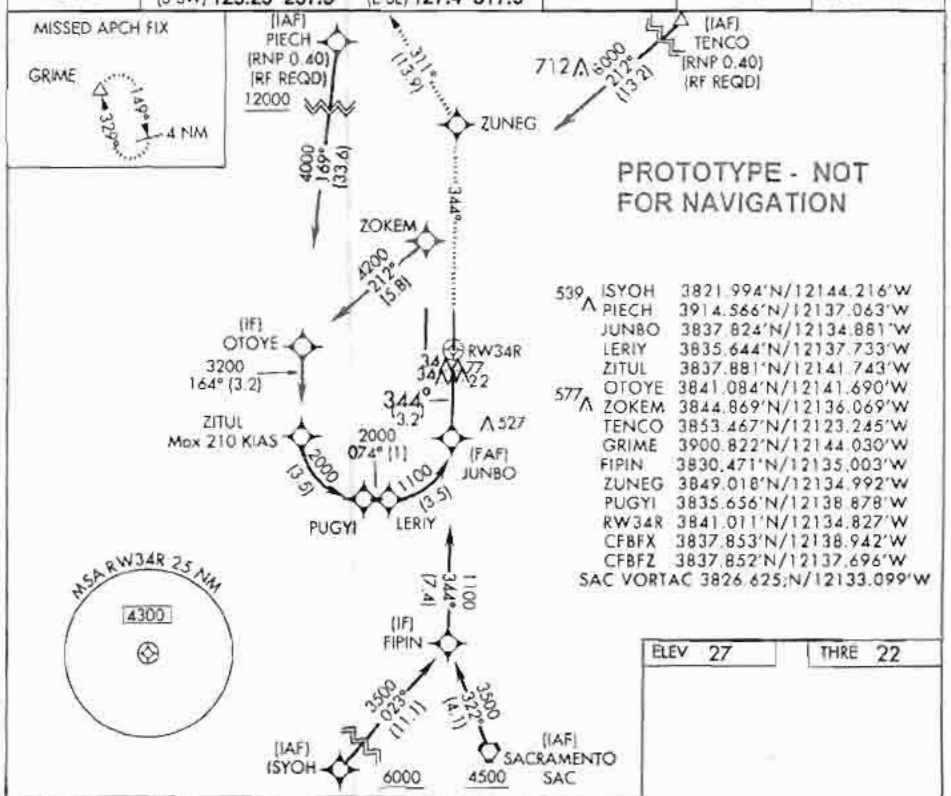
SACRAMENTO INTL (SMF)

APP CRS	Rwy Idg	8605
344°	THRE	22
	Apt Elev	27

For uncompensated Baro/VNAV systems, procedure NA below -15°C (5°F) or above -54°C (130°F). When VGSI inop procedure NA at night. GPS Required.

MISSED APPROACH: Climb to 2000 on track 344° to ZUNEG and on track 311° to GRIME and hold

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			

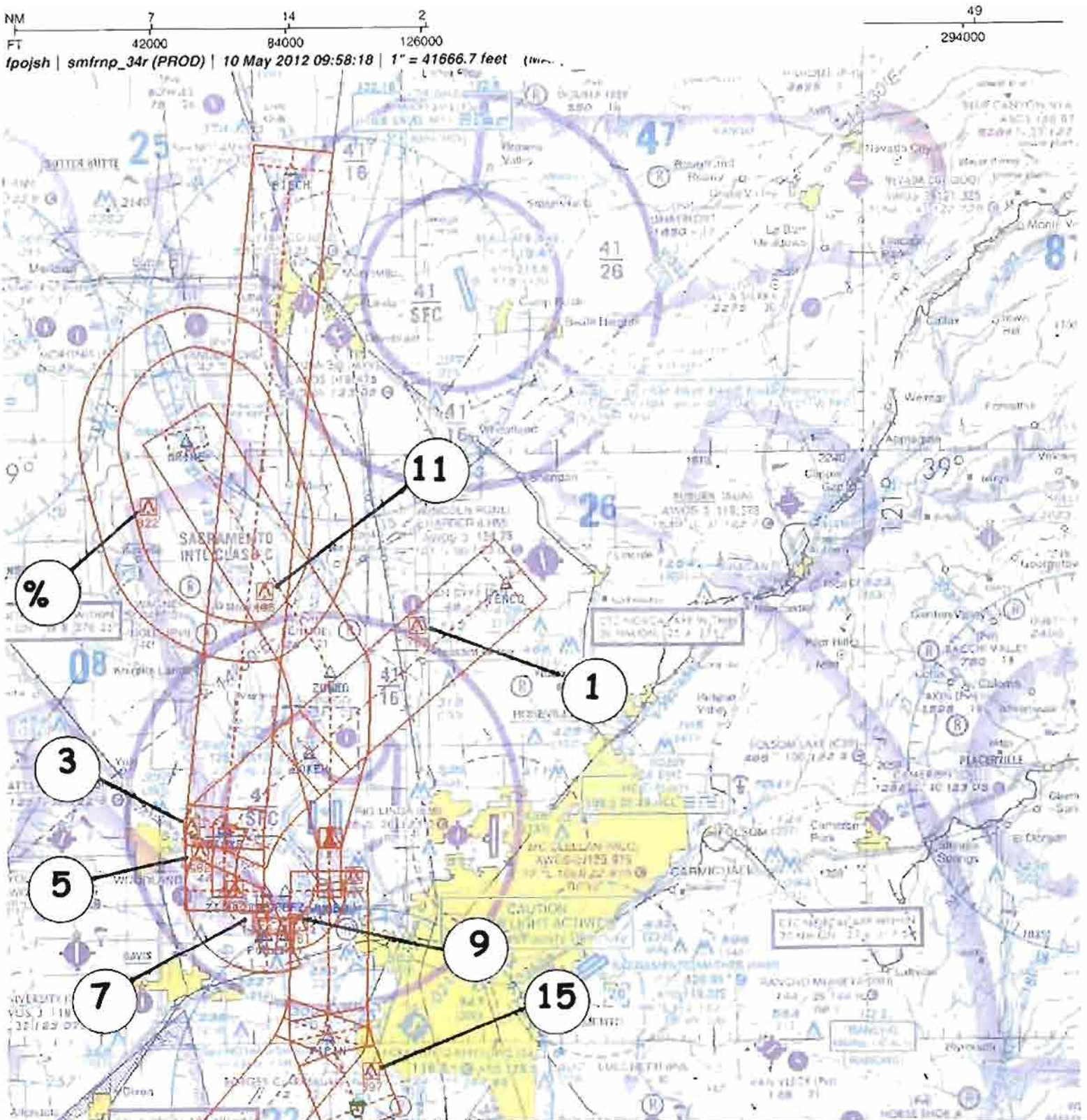


CATEGORY	A	B	C	D
RNP 0.10 DA		326-50	304 (300-1)	
RNP 0.30 DA		394-60	372 (400-1¼)	

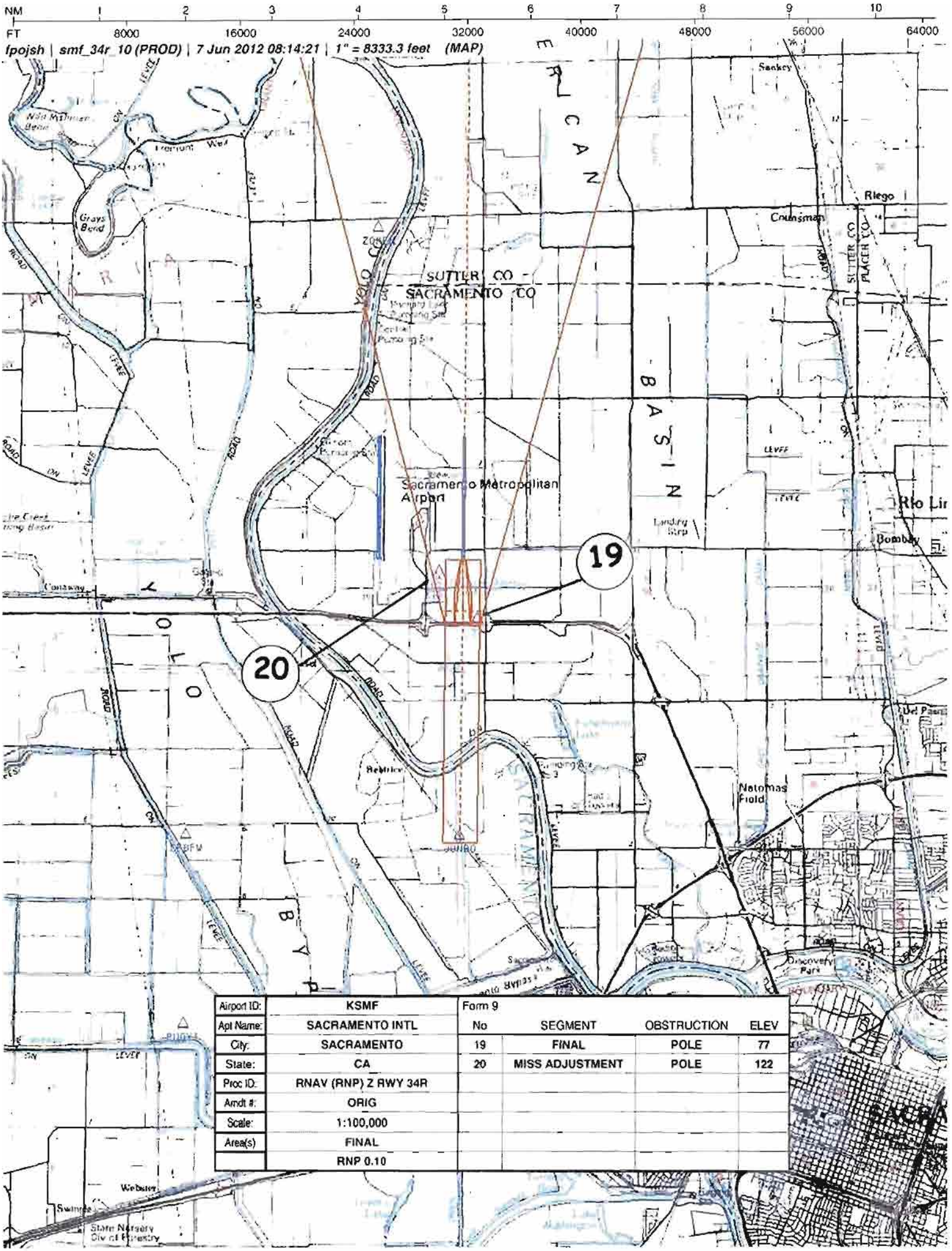
AUTHORIZATION REQUIRED

344° to RW34R

TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R



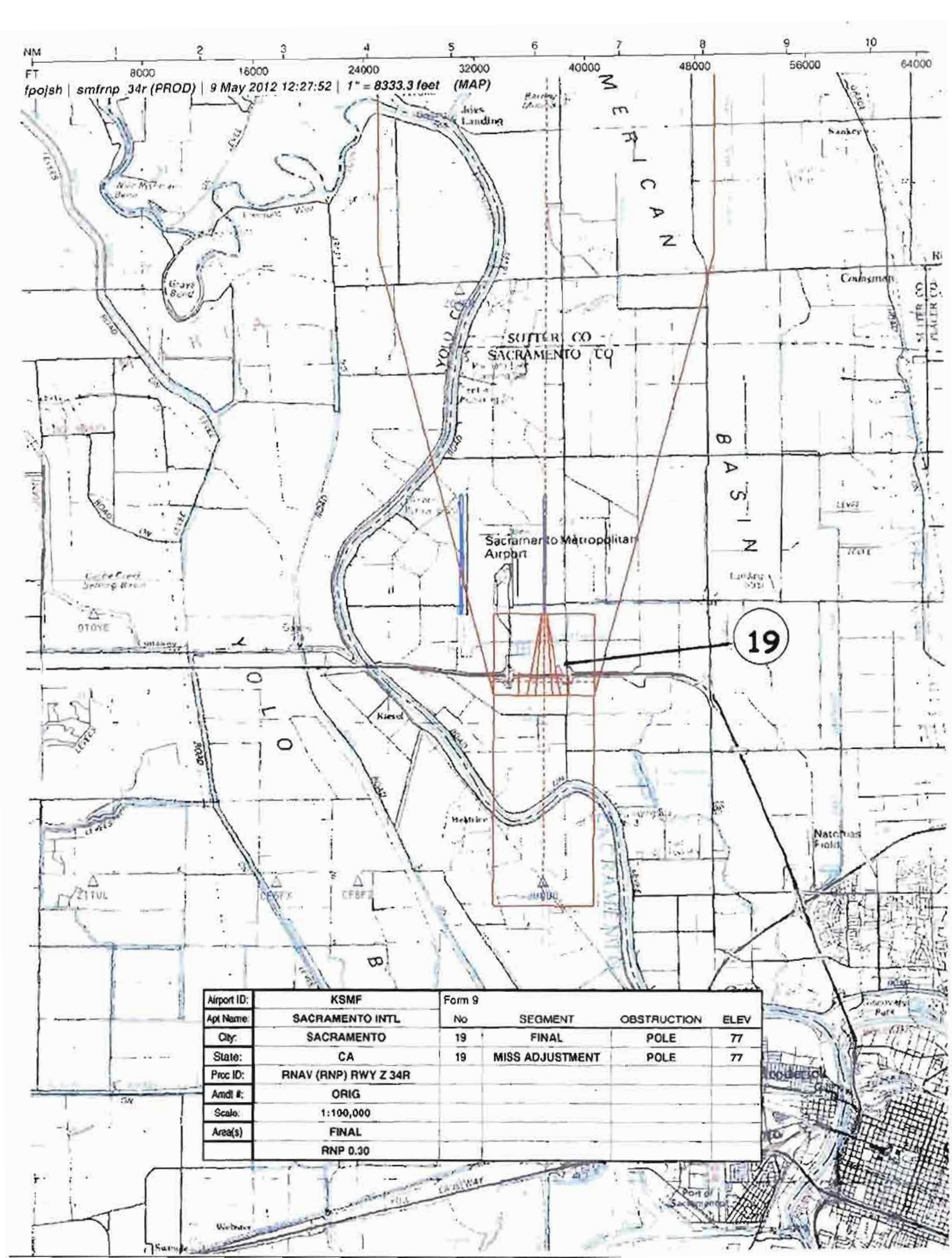
Airport ID:	KSMF	Form 9			
Apt Name:	SACRAMENTO INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	SACRAMENTO	1	TENCO-INITIAL	TOWER	712
State:	CA	3	ZOKEM SD-INITIAL	AAO	240
Proc ID:	RNAV (RNP) Z RWY 34R	5	OTOYE INTERM	TOWER	532
Amdt #:	ORIG	7	ZITUL INTERM SD	AAO	260
Scale:	1:500,000	9	LERIY INTERM SD	AAO	263
Area(s)	INITIALS, INTERMEDIATES	17	FIPIN INTERM	TOWER	527
	MISSED, HOLDING	11	PIECH-INITIAL	AAO	305
		13	ISYOH-INITIAL	TOWER	662
		15	SAC-INITIAL	AAO	299
		11	MISSED LVL SFC	AAO	305
		%	MISSED HOLDING	AAO	322



Airport ID:	KSMF
Apt Name:	SACRAMENTO INTL
City:	SACRAMENTO
State:	CA
Proc ID:	RNAV (RNP) Z RWY 34R
Amdt #:	ORIG
Scale:	1:100,000
Area(s)	FINAL
	RNP 0.10

Form 9

No	SEGMENT	OBSTRUCTION	ELEV
19	FINAL	POLE	77
20	MISS ADJUSTMENT	POLE	122



Airport ID:	KSMF	Form 9			
Apt Name:	SACRAMENTO INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	SACRAMENTO	19	FINAL	POLE	77
State:	CA	19	MISS ADJUSTMENT	POLE	77
Proc ID:	RNAV (RNP) RWY Z 34R				
Amdt #:	ORIG				
Scale:	1:100,000				
Area(s)	FINAL				
	RNP 0.30				

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	PUGYI (RF) (FB) (RNP 1.00)	(2.19 NM RADIUS CCW CFBFX)/3.45	2000
PUGYI	LERIY (TF) (FB) (RNP 0.40)	073.74 / 0.98	2000
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 2000 ON TRACK 343.76 TO ZUNEG AND ON TRACK 311.33 TO GRIME AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT JUNBO
3. FAC: 343.75 FAF: ____ DIST FAF TO MAP: ____ THLD: ____
4. MIN. ALT: JUNBO 1100
5. DIST TO THLD FROM OM: 3.18 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1100 GS ALT AT: JUNBO 1100 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 64.0# 34:1 IS NOT CLEAR
8. MSA FROM: RW34R 4300

ADDITIONAL FLIGHT DATA:

HOLD SE, RT, 329.00 INBOUND.
CHART FAS OBST: 77 TRMSN POLE 384015N/1213437W
CHART: 22 SIGN 384100N/1213447W
CHART: 34 ROAD 384057N/1213450W
CHART: 34 ROAD 384058N/1213450W
DISTANCE TO THLD FROM 304 HATH: 0.75 NM.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
#TCH 86.0 (DO NOT CHART)
CHART MINIMUM 12000 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 0.10 DA	326	5000	304	326	5000	304	326	5000	304	326	5000	304			
RNP 0.30 DA	394	6000	372	394	6000	372	394	6000	372	394	6000	372			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F).
CHART NOTE: WHEN VGSI INOP, PROCEDURE NA AT NIGHT.
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE AT ZITUL : MAX 210 KIAS.
(SEE FORM 8260-10)

CITY AND STATE	ELEVATION: 27 THRE: 22 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34R, ORIG	AMDT: NONE
				DATED

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] 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	04/28/2012

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 04/28/2012.
1. TERMINAL ROUTE ZOKEM TO OTOYE ALTITUDED CHANGED FROM 4000 TO 4200.

07/24/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/28/2012.
1. TERMINAL ROUTE TENCO TO ZOKEM ALTITUDED CHANGED FROM 5000 TO 6000.

08/07/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/28/2012.
1. ADDED "CHART: 22 SIGN 384100N/1213447W, CHART: 34 ROAD 384057N/1213450W, CHART: 34 ROAD 384058N/1213450W" IN ADDITIONAL FLIGHT DATA .
2. CHANGED OBSTACLE 8 ON 8260-9, MINIMUM ALTITUDE FROM 1500 TO 1000.
3. CHANGED OBSTACLE 10 ON 8260-9, ALTITUDE ADJUSTMENT FROM 1500-1000.

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

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

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
LERIY	JUNBO (RF) (FB) (RNP 0.40)	(2.21 NM RADIUS CCW CFBFZ)/3.47	1100
PIECH (IAF)	OTOYE (TF) (FB) (RNP 1.00)	169.18 / 33.64	4000
ISYOH (IAF)	FIPIN (TF) (FB) (RNP 1.00)	023.48 / 11.14	3500
SAC VORTAC (IAF)	FIPIN (TF) (FB) (RNP 1.00)	321.75 / 4.12	3500
FIPIN (IF)	JUNBO (TF) (FB) (RNP 1.00)	343.75 / 7.35	1100
JUNBO (FAF)	RW34R (MAP) (TF) (FO)	343.75 / 3.18	
RW34R (MAP)	ZUNEG (TF)(FB) (RNP 1.00)	343.76 / 8.00	
ZUNEG	GRIME (TF) (FO) (RNP 1.00)	311.33 / 13.86	2000

NOTES, (CONT.):
CHART PLANVIEW NOTE ADJACENT TO TENCO IAF: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO PIECH IAF: RF REQUIRED.
CHART PLANVIEW NOTE AT TENCO: (RNP 0.40).
CHART PLANVIEW NOTE AT PIECH: (RNP 0.40).
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.

CITY AND STATE	ELEVATION: 27 THRE: 22 / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34R, 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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ARINC PACKET - 424-18 - RNAV (RNP)

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID    12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAD        SAC   K2011520VTHW N38263748W121330594    N38263748W121330594E0170000032     NARSACRAMENTO

          1         2         3         4         5         6         7         8         9         0         1         2         3
WP        12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAEAENRT   CFBFX K20    W     N38375120W121385652                    E0141     NAR           CNF(CFBFX)
          SUSAEAENRT   CFBFZ K20    W     N38375114W121374178                    E0141     NAR           CNF(CFBFZ)
          SUSAEAENRT   FIPIN K20    W     N38302826W121350017                    E0141     NAR           FIPIN
          SUSAEAENRT   GRIME K20    C   L N39004933W121440181                    E0142     NAR           GRIME
          SUSAEAENRT   ISYOH K20    C     N38215964W121441297                    E0141     NAR           ISYOH
          SUSAEAENRT   JUNBO K20    W     N38374944W121345283                    E0141     NAR           JUNBO
          SUSAEAENRT   LERIY K20    W     N38353862W121374399                    E0141     NAR           LERIY
          SUSAEAENRT   OTOYE K20    W     N38410501W121414141                    E0142     NAR           OTOYE
          SUSAEAENRT   PIECH K20    C     N39143395W121370376                    E0143     NAR           PIECH
          SUSAEAENRT   PUGYI K20    W     N38353938W121385869                    E0141     NAR           PUGYI
          SUSAEAENRT   TENCO K20    C     N38532801W121231470                    E0142     NAR           TENCO
          SUSAEAENRT   ZITUL K20    W     N38375284W121414458                    E0141     NAR           ZITUL
          SUSAEAENRT   ZOKEM K20    W     N38445213W121360416                    E0142     NAR           ZOKEM
          SUSAEAENRT   ZUNEG K20    W     N38490108W121344149                    E0142     NAR           ZUNEG

          1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT   12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAP KSMFK2ASMF     0     086YHN38414360W121352680E017000027        18000018000C    MNAR    SACRAMENTO INTL

          1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT   12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAP KSMFK2FH34RZ AISYOH 010ISYOHK2EA0E  A    IF                          + 06000     18000              A FS
          SUSAP KSMFK2FH34RZ AISYOH 020FIPINK2EA0E  B 010TF                          + 03500                        A FS
          SUSAP KSMFK2FH34RZ AISYOH 030JUNBOK2EA0EE   010TF                          + 01100                        A FS
          SUSAP KSMFK2FH34RZ APIECH 010PIECHK2EA0E  A    IF                          + 12000     18000              A FS
          SUSAP KSMFK2FH34RZ APIECH 020OTOYEK2EA0E  B 010TF                          + 04000                        A FS
          SUSAP KSMFK2FH34RZ APIECH 030ZITULK2EA0E    010TF                          + 03200         210            A-FS
          SUSAP KSMFK2FH34RZ APIECH 040PUGYIK2EA0E   L010RF       0021901637    07370035    + 02000          CFBFX K2EAA FS
          SUSAP KSMFK2FH34RZ APIECH 050LERIYK2EA0E    041TF                          + 02000                        A FS
          SUSAP KSMFK2FH34RZ APIECH 060JUNBOK2EA0EE  L041RF       0022100737    34380035    + 01100          CFBFZ K2EAA FS
          SUSAP KSMFK2FH34RZ ASAC   010SAC  K2D 0V  A    IF                          + 04500     18000              A FS
          SUSAP KSMFK2FH34RZ ASAC   020FIPINK2EA0E  B 010TF                          + 03500                        A FS
          SUSAP KSMFK2FH34RZ ASAC   030JUNBOK2EA0EE   010TF                          + 01100                        A FS
          SUSAP KSMFK2FH34RZ ATENCO 010TENCOK2EA0E  A    IF                                      18000              A FS
```

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 22	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34R, 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:

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```
SUSAP KSMFK2FH34RZ ATENCO 020ZOKEMK2EA0E    010TF                                  + 05000                          A FS
SUSAP KSMFK2FH34RZ ATENCO 030OTOYEK2EA0E  B 010TF                                  + 04200                          A FS
SUSAP KSMFK2FH34RZ ATENCO 040ZITULK2EA0E    010TF                                  + 03200          210             A-FS
SUSAP KSMFK2FH34RZ ATENCO 050PUGYIK2EA0E   L010RF       0021901637    07370035    + 02000                CFBFX K2EAA FS
SUSAP KSMFK2FH34RZ ATENCO 060LERIYK2EA0E    041TF                                  + 02000                          A FS
SUSAP KSMFK2FH34RZ ATENCO 070JUNBOK2EA0EE  L041RF       0022100737    34380035    + 01100                CFBFZ K2EAA FS
SUSAP KSMFK2FH34RZ H      020JUNBOK2EA1E  F    IF                                 + 01100     18000      RW34R K2PGA FS
SUSAP KSMFK2FH34RZ H      020JUNBOK2EA2W                                             A031A011                       FS
SUSAP KSMFK2FH34RZ H      030RW34RK2PG0GY M 031TF                                    00086            -300          A FS
SUSAP KSMFK2FH34RZ H      040ZUNEGK2EA0E M  010TF                                                                 A FS
SUSAP KSMFK2FH34RZ H      050GRIMEK2EA0EY   010TF                                  + 02000                          A FS
SUSAP KSMFK2FH34RZ H      060GRIMEK2EA0EE  R   HM                    32900040    + 02000                          A FS
```

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
       ------------------------------------------------------------------------------------------------------------------------
       SUSAP KSMFK2GRW34R   0086053438 N38410065W121344964+0100     -0023900022000064150R
```

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
MSA    12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
       ------------------------------------------------------------------------------------------------------------------------
       SUSAP KSMFK2SRW34RK2PG              0   18018004325                                                              M
```

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 22	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34R, 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	FIPIN	020		TF		FB	1.0			AA 03500	
	ISYOH	JUNBO	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	PUGYI	040		RF	L	FB	1.0		003.5	AA 02000	
	PIECH	LERIY	050		TF		FB	0.4			AA 02000	
	PIECH	JUNBO	060		RF	L	FB	0.4		003.5	AA 01100	
	SAC	SAC	010	IAF	IF		FB				AA 04500	
	SAC	FIPIN	020		TF		FB	1.0			AA 03500	
	SAC	JUNBO	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	PUGYI	050		RF	L	FB	1.0		003.5	AA 02000	
	TENCO	LERIY	060		TF		FB	0.4			AA 02000	
	TENCO	JUNBO	070		RF	L	FB	0.4		003.5	AA 01100	
		JUNBO	020	FAF	IF		FB				AA 01100	
		RW34R	030	MAP	TF		FO	0.3			AT 00086	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ZUNEG	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
	CFBFX	N383751.20	W1213856.52	N3837.853	W12138.942
	CFBFZ	N383751.14	W1213741.78	N3837.852	W12137.696
	FIPIN	N383028.26	W1213500.17	N3830.471	W12135.003
	GRIME	N390049.33	W1214401.81	N3900.822	W12144.030
	ISYOH	N382159.64	W1214412.97	N3821.994	W12144.216
	JUNBO	N383749.44	W1213452.83	N3837.824	W12134.881
	LERIY	N383538.62	W1213743.99	N3835.644	W12137.733
	OTOYE	N384105.01	W1214141.41	N3841.084	W12141.690
	PIECH	N391433.95	W1213703.76	N3914.566	W12137.063
	PUGYI	N383539.38	W1213858.69	N3835.656	W12138.978
	TENCO	N385328.01	W1212314.70	N3853.467	W12123.245

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 22	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: **SACRAMENTO INTL**	**RNAV**	**RNAV (RNP) Z RWY 34R, 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:

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.

ZITUL	N383752.84	W1214144.58	N3837.881	W12141.743
ZOKEM	N384452.13	W1213604.16	N3844.869	W12136.069
ZUNEG	N384901.08	W1213441.49	N3849.018	W12134.692
RW34R	N384100.65	W1213449.64	N3841.011	W12134.827

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW34R	00022	64

QUALITY CHECKED

CITY AND STATE	ELEVATION: 27 THRE: 22	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SACRAMENTO, CA	AIRPORT NAME: SACRAMENTO INTL	RNAV	RNAV (RNP) Z RWY 34R, 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	385057.00N/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:	ZITUL	PUGYI	5. TOWER (06-002117)	383926.00N/1214316.00W	532 (5D)	500	AC50 AT918	2000
STEPDOWN (RNP 1.00)			6. TERRAIN	383754.00N/1214257.00W	92 (100)		AS1500	1600
INTERMEDIATE:	PUGYI	LERIY	7. AAO	383621.00N/1213918.00W	260 (4E)	500	AC50 AT1190	2000
STEPDOWN (RNP 0.40)			8. TERRAIN	383557.00N/1213745.00W	37 (0)		AS1000	1000
INTERMEDIATE:	LERIY	JUNBO	9. AAO	383551.00N/1213648.00W	263 (4E)	500	AC98	900
STEPDOWN (RNP 0.40)			10. TERRAIN	383557.00N/1213645.00W	63 (100)		AS1000	1100
INITIAL	PIECH	OTOYE	11. AAO	385242.00N/1213900.00W	305 (4E)	1000	AC98 AT2597	4000
(RNP 1.00)			12. TERRAIN	385242.00N/1213900.00W	105 (100)		AS1500	1600
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA	GRIME	20. POLE (KSMFT0317)	384047.90N/1213510.93W	122 (2C)	ASC	AC20	2000
			11. AAO	385242.00N/1213900.00W	305 (4E)	1000	AC98	1500
ELEV:	124/130		12. TERRAIN	385242.00N/1213900.00W	105 (100)		AS1500	1600

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:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	251/ 28.6	3257 (6A)	4300					

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

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ZOA ARTCC NORCAL APP CON SMF TOWER	N W S / F A A / 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:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 64.0

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

10. WAIVERS: 1

AFS-400 MEMORANDUM DATED OCT 3, 2011, 1. B. RF RULE: CALCULATED RF BANK ANGLE BASED ON THE DESIGN RADIUS NOT TO EXCEED 25 DEGREES (20 DEGREES FOR RNP/ATT VALUES LESS THAN 1.0).

PART D - PREPARED BY: JIMMY S. HUGHES	DATE: 04/28/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

MAX SPEED ZITUL TO PUGYI - 210 KIAS.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

SEE ATTACHED AIRSPACE LETTER.

TERPS VOLUME 1, VISUAL PORTION OF FINAL PENETRATIONS:
34:1 PENETRATIONS: FPT NOTIFIED

34R:
34 ROAD (KSMFT0277) 384054.95N/1213450.53W (4.39)

20:1
34 ROAD (KSMFT0276) 384055.89N/1213450.50W (1.79)
34 ROAD (KSMFT0274) 384056.98N/1213450.48W (7.30)
31 ROAD (KSMFT0273) 384057.31N/1213454.89W (5.74)
31 ROAD (KSMFT0270) 384056.62N/1213445.68W (7.79)
34 ROAD (KSMFT0266) 384058.07N/1213450.45W (12.81)
30 ROAD (KSMFT0265) 384058.37N/1213444.79W (10.63)

TREE HEIGHT 50 FT PER FPT.

RF SEGMENT RADIUS/BANK ANGLE COMPUTATIONS:
8260.54A TAILWIND COMPONENT USED FOR RF TURNS.

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
ZITUL-PUGYI	3200	210	2233.44	3173	37.50	2.19	24.60
LERIY-JUNBO	2000	210	218.40	1973	30.00	2.21	22.19

TF TURN FIX	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
OTOYE	3200	250	260.00	3173	50.00	4.31	18.00
FIPIN	3500	250	260.00	3473	50.00	4.30	18.00

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

BARO-VNAV NA BELOW -15C (5F) OR ABOVE 48C (118F).
ACT: -15

BACK-UP ALTIMETER NOT REQUIRED, MULTIPLE SOURCES.

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

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	ISYOH	FIPIN	13. TOWER (06-000807)	382228.00N/1214658.00W	662 (5D)	1000	AC50 AT1788	3500
(RNP 1.00)			14. TERRAIN	382721.00N/1213918.00W	76 (100)		AS1500	1600
INITIAL	SAC VORTAC	FIPIN	15. AAO	382809.00N/1213209.00W	299 (4E)	1000	AC98 AS2103	3500
(RNP 1.00)			16. TERRAIN	382809.00N/1213209.00W	99 (100)		AS1000	1100
INTERMEDIATE	FIPIN	JUNBO	17. TOWER (06-000037)	383811.00N/1213314.00W	527 (4D)	500	AC50	1100
(RNP 1.00)			18. TERRAIN	383333.00N/1213600.00W	89 (100)		AS1000	1100
FINAL: RNP 0.30	JUNBO	RW34R	19. TRMSN POLE	384014.72N/1213436.64W	77 (1A)	21:69	AC3 MA43	394/372
			(KSMFT0286)					
FINAL: RNP 0.10	JUNBO	RW34R	19. TRMSN POLE	384014.72N/1213436.64W	77 (1A)	21:73	AC3 MA54	326/304
			(KSMFT0286)					
MISSED APPROACH	DA	RW34L	20. POLE (KSMFT0317)	384047.90N/1213510.93W	122 (2C)	ASC	AC20	
(RNP 0.10-1.00)		(40:1)						
MISSED APPROACH	DA	RW34L				ASC		
(RNP 0.30-1.00)		(40:1)						
MISSED APPROACH	RW34L	ZUNEG				ASC		
(RNP 0.10-1.00)		(40:1)						

3. MISSED APPROACH	
MAP:	
ELEV:	

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:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

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

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ N W S OTHER:	SOURCE:
	☐ F A A	DISTANCE:
	☐ A / C	HOURS REMOTE OPERATION:
☐ V H F ☐ U H F ☐ H F	LOCATION:	ADJUSTMENT:

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

5. APPROACH & RUNWAY LIGHTING	☐	**ALS**
	☐	**(S) SALS**
	☐	**MALS**
	☐	**HIRL**
	☐	**MIRL**
	☐	**REIL**
	☐	**TDZ**
	☐	**C/LINE**
	☐	**OTHER (SPECIFY)**

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

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

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1 APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
MISSED APPROACH	**RW34L**	**ZUNEG**				**ASC**		
(RNP 0.30-1.00)		**(40:1)**						
MISSED APPROACH	**ZUNEG**	**GRIME**				**ASC**		
(RNP 1.00)		**(40:1)**						

3. MISSED APPROACH								
	MAP:							
	ELEV:							

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL					
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:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

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

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ N W S ☐ F A A ☐ A / C OTHER:	SOURCE: DISTANCE: HOURS REMOTE OPERATION:
☐ V H F ☐ U H F ☐ H F	LOCATION:	ADJUSTMENT:

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

5. APPROACH & RUNWAY LIGHTING	
☐	ALS
☐	(S) SALS
☐	MALS
☐	HIRL
☐	MIRL
☐	REIL
☐	TDZ
☐	C/LINE
☐	OTHER (SPECIFY)

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

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

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBFX **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383751.20N/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) RWY 34R			KSMF	SACRAMENTO	CA (US)

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/27/2012 **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 CHECKED 4

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBFZ **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383751.14N/1213741.78W **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 34R			KSMF	SACRAMENTO	CA (US)

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/27/2012 **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: FIPIN **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383028.26N/1213500.17W **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) Y RWY 34R			KSMF	SACRAMENTO	CA (US)
IAP	RNAV (RNP) Z RWY 34R			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
1. DELETED FAC 1, NO LONGER REQUIRED.
2. UPDATED FIX USE.

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: 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: JUNBO **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383749.44N/1213452.83W **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 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:** 04/27/2012 **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: SMF ATCT

RADIO FIX AND HOLDING DATA RECORD

NAME: LERIY **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383538.62N/1213743.99W **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 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:** 04/27/2012 **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: PUGYI **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 383539.38N/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 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:** 04/27/2012 **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 CHECKED 4

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:

QUALITY CHECKED

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:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZUNEG **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 384901.08N/1213441.49W **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 35R			KSMF	SACRAMENTO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

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: NORCL 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:

TERMINAL AIRSPACE DATA REQUIREMENTS

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

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

PROCEDURE: **RNAV (RNP) Z RWY 34R** 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 **000.75**
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 **1.60**
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) ... **384100.65N** / **1213449.64W**
10. ARP Coordinates ..... **384143.60N** / **1213526.80W**
11. Runway Approach End and distance furthest from ARP.....RWY **34R**
    Distance **.86** NM
12. FAF Coordinates ..... **383749.44N** / **1213452.83W**
    (Click to Select)

REMARKS: Approach/Drawing attached. *RF SEGMENT ZITUL TO PUGYI, RADIUS TURN CENTERPOINT CNF (CFBFX) ARC RADIUS 2.19 NM. RF SEGMENT LERIY TO JUNBO, RADIUS TURN CENTERPOINT CNF (CFBFZ ARC RADIUS 2.21 NM. THIS IS AIRSPACE FORM 2 OF 2

TERMINAL AIRSPACE DATA REQUIREMENTS

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

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

PROCEDURE: **RNAV (RNP) Z RWY 34R** 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 **000.75**
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 **000.75**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **89**
9. Threshold Coordinates (if straight-in) ... **384100.65N** / **1213449.64W**
10. ARP Coordinates ..... **384143.60N** / **1213526.80W**
11. Runway Approach End and distance furthest from ARP.....RWY **34R**
    Distance **.86** NM
12. FAF Coordinates ..... **383749.44N** / **1213452.83W**
    (Click to Select)

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

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:
SACRAMENTO, CA
SACRAMENTO INTL
RNAV (RNP) Z RWY 34R

2. Waiver Required and Applicable Standard:
INTERMEDIATE RF SEGMENT WAIVER REQUIRED TO AFS400 MEMORANDUM DATED OCT 3, 2011, 1. B. RF RULE: CALCULATED RF BANK ANGLE BASED ON THE DESIGN RADIUS NOT TO EXCEED 25 DEGREES (20 DEGREES FOR RNP/ATT VALUES LESS THAN 1.0)

3. Reason for Waiver *(Justification for nonstandard treatment)*:
BANK ANGLE AT LERIY TO JUNBO IS 22.19 DEGREES.

4. Equivalent Level of Safety Provided:
1. **AUTHORIZATION REQUIRED FOR THIS PROCEDURE.**
2. **THE PROCEDURE WAS VALIDATED IN SIMULATOR WITH SATISFACTORY RESULTS.**
3. **RF INTERMEDIATE SEGMENT WAS SATISFACTORILY EVALUATED FOR OBSTACLES BASED ON AN RNP VALUE OF 1.00.**

5. How Relocation or Additional Facilities Will Affect Waiver Requirement:
N/A - RNAV PROCEDURE

6. Coordination With User Organizations *(Specify)*:
AJV-354____

7. SUBMITTED BY

DATE:	Office Identification:	Title:	Signature:
	AJV-35	**MANAGER, TERMINAL PRODUCTS GROUP**	**GREGORY YAMAMOTO**

FAA FORM 8260 - 1 / July 2003 (computer generated)

8. CONTINUATION

Comments:

9. AFS ACTION		
		Approved
		Disapproved
		Not Required

Comments:

Date:	Routing Symbol:	Signature:

DO NOT REMOVE FROM PACKAGE

KSMF RWY 34R
RF TRANSITION
INTERMEDIATE TO PFAF SEGMENT

PFAF

Min Intermediate Segment Alt (a):	
LTP MSL Elevation (b):	
TCH:	
Glidepath Angle (c):	
Distance from LTP to PFAF (D):	0.00
	0.00 NM
LTP/FTP Latitude:	
LTP/FTP Longitude:	
True RWY Bearing/True Course:	
PFAF Latitude:	000° 00' 00.00"
PFAF Longitude:	000° 00' 00.00"

Latitude/Longitude used for straight segment only.

VEB

Intermediate Segment Altitude:	1100
LTP Elevation:	26.9
Glidepath Angle:	3
TCH:	64
RNP Value:	0.30
Δ ISA:	-30.0976

Straight In Segment

(Wingspan =<262) LTP to Origin:	3,631.95'
(Wingspan =<136) LTP to Origin:	2,415.01'
OCS Slope Ratio:	21.69 : 1

RF Turn Segment | Bank angle

(Wingspan =<262) LTP to Origin:	NA
(Wingspan =<136) LTP to Origin:	NA
OCS Slope Ratio:	NA

VEB

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	7000	
LTP Elevation:	5349.9	
ACT:	-25.00°C	
Min Glidepath Angle	2.76°	
NA Below	-25.60°C	-13.00°F
NA Above	38.29°C	100.93°F

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	26.90
TCH (ft)	64.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,631.95
Obstacle Distance (ft) *(measured along-track from LTP)*	40,406.00
VEB ROC	493
Glidepath MSL altitude at Obstacle	2,247.61
OCS MSL altitude at Obstacle	1,754.74