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
STINS (IAF)	DOTNE (TF) (FB) (RNP 1.00)	115.85 / 9.25	3500
DOTNE (IF)	JULOS (TF) (FB) (RNP 1.00)	100.65 / 6.15	1900
JULOS (FAF)	RW10R (MAP) (TF) (FO)	100.72 / 5.76	
RW10R (MAP)	IGUKE (TF) (FB) (RNP 1.00)	100.69 / 7.23	
IGUKE	DUMBA (TF) (FO) (RNP 1.00)	100.16 / 8.74	3600

MISSED APPROACH

RNP: DA

CLIMB TO 3600 ON TRACK 100.69 TO IGUKE AND ON TRACK 100.16 TO DUMBA AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD E, LT, 280.98 INBOUND.
DISTANCE TO THLD FROM 386 HATH: 1.02 NM.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
#TCH 67.2 MSL (DO NOT CHART)

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT STINS
3. FAC: 100.72 FAF: ____ DIST FAF TO MAP: 5.76 THLD: ____
4. MIN. ALT: STINS 3500, DOTNE 3500, JULOS 1900
5. DIST TO THLD FROM OM: 5.76 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1900 GS ALT AT: JULOS 1900 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 60.0# 34:1 IS NOT CLEAR
8. MSA FROM: RW10R 5100

MAG VAR: 17E EPOCH YEAR: 1975

MINIMUMS

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

ALTERNATE: N A

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 0.20 DA	393	1 1/4	386	393	1 1/4	386	393	1 1/4	386	393	1 1/4	386			
RNP 0.30 DA	1105	4	1098	1105	4	1098	1105	4	1098	1105	4	1098			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F).
CHART NOTE: GPS REQUIRED.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT STINS VIA V27 NORTHWEST BOUND AND VIA V25-150-199 (SEE FORM 8260-10)

CITY AND STATE	ELEVATION: 13 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP: RNAV (RNP) Y RWY 10R
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	RNAV	RNAV (RNP) Z RWY 10R, AMDT 1	AMDT: ORIG-A
				DATED 06/30/2011

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, SFO ATCT, SOCAL APP CON, AFLD MGR**

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: **ROY E. CURRIE**	FIFO **AJV-354**	DATE: **05/11/2012**
APPROVED BY		
NAME: **DEZ SILAGYI** **MANAGER**	FIFO **AJV-354**	DATE:

CHANGES:

1. CHANGED PFAF FROM JABGO TO JULOS, MOVED 1300.85FT NW.
2. CHANGED RNP 0.20 DA FROM 368 TO 393, AND RNP 0.30 DA FROM 1040 TO 1105.
3. CHANGED BARO-VNAV NOTE FROM: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW 2C (36F) OR ABOVE 48C (120F); TO: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F).
4. CHANGED PROCEDURE NAME FROM Y TO Z.

REASONS:

1. NEW PFAF LOCATION ASSOCIATED WITH APPROACH END RUNWAY EXTENTION OF 775FT. NEW FIX NAME JULOS DUE TO JABGO USED ON OTHER PROCEDURE NOT BEING AMENDED.
2. RUNWAY THLD LOCATION CHANGE, USE OF THLD FOR CALCULATIONS INSTEAD OF TDZE, AND PFAF CALCULATION FORMULA.
3. NOAA WEATHER HISTORY WEBSITE NOT AVAILABLE, NO OTHER RELIABLE SOURCE. USED -30 ISA.
4. FPT REQUESTED.

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NOTES, (CONT.):
NORTHWEST BOUND.

CITY AND STATE	ELEVATION: 13 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP: RNAV (RNP) Y RWY 10R
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	RNAV	RNAV (RNP) Z RWY 10R, AMDT 1	AMDT: ORIG-A
				DATED: 06/30/2011

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

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:

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.

ARINC PACKET - 424-18 - RNAV (RNP)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   DOTNE K20    W     N37430718W122365136                      E0141     NAR           DOTNE
        SUSAEAENRT   DUMBA K20    C     N37301266W122054613                      E0140     NAR           DUMBA
        SUSAEAENRT   IGUKE K20    W     N37341266W122153233                      E0140     NAR           IGUKE
        SUSAEAENRT   JULOS K20    W     N37401566W122295996                      E0141     NAR           JULOS
        SUSAEAENRT   STINS K20    C   L N37492524W122452406                      E0141     NAR           STINS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2ASFO     0     118YHN37370830W122222960E017000013         1800018000C    MNAR    SAN FRANCISCO INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2FH10RZ ASTINS 010STINSK2EA0E  A    IF                                + 03500     18000                A FS
        SUSAP KSFOK2FH10RZ ASTINS 020DOTNEK2EA0EE B 010TF                                + 03500                          A FS
        SUSAP KSFOK2FH10RZ H      010DOTNEK2EA0E  I    IF                                + 03500     18000                A FS
        SUSAP KSFOK2FH10RZ H      020JULOSK2EA1E  F 010TF                                + 01900                 RW10R K2PGA FS
        SUSAP KSFOK2FH10RZ H      020JULOSK2EA2W                                               A031A021                     FS
        SUSAP KSFOK2FH10RZ H      030RW10RK2PG0GY M 031TF                                  00067            -300           A FS
        SUSAP KSFOK2FH10RZ H      040IGUKEK2EA0E M  010TF                                                                 A FS
        SUSAP KSFOK2FH10RZ H      050DUMBAK2EA0EY   010TF                                + 03600                          A FS
        SUSAP KSFOK2FH10RZ H      060DUMBAK2EA0EE  L   HM                     28100040   + 03600                          A FS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2GRW10R   0113811008 N37373464W122233518+0000    -0030400007000060200R

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2SRW10RK2PG               0   18018005125                                                                          M
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CITY AND STATE	ELEVATION: 13 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP: RNAV (RNP) Y RWY 10R
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	RNAV	RNAV (RNP) Z RWY 10R, AMDT 1	AMDT: ORIG
				DATED: 06/30/2011

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

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
	STINS	STINS	010	IAF	IF		FB				AA 03500	
	STINS	DOTNE	020		TF		FB	1.0			AA 03500	
		DOTNE	010	FACF	IF		FB				AA 03500	
		JULOS	020	FAF	TF		FB	1.0			AA 01900	
		RW10R	030	MAP	TF		FO	0.3			AT 00067	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	IGUKE	040		TF		FB	1.0				
	DUMBA	050		TF		FO	1.0			AA 03600	
	DUMBA	060		HM	L	FO		281.0(298.0T)	004.0	AA 03600	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	DOTNE	N374307.18	W1223651.36	N3743.120	W12236.856
	DUMBA	N373012.66	W1220546.13	N3730.211	W12205.769
	IGUKE	N373412.66	W1221532.33	N3734.211	W12215.539
	JULOS	N374015.66	W1222959.96	N3740.261	W12229.999
	STINS	N374925.24	W1224524.06	N3749.421	W12245.401
	RW10R	N373734.64	W1222335.18	N3737.577	W12223.586

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW10R	00007	60

CITY AND STATE	ELEVATION: 13 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP: RNAV (RNP) Y RWY 10R
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	RNAV	RNAV (RNP) Z RWY 10R, AMDT 1	AMDT: ORIG
				DATED: 06/30/2011

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

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	STINS	DOTNE	1. 208' SHIP*	374640.62N/1224135.87W	208 (4D)	1000	AC50 AT2242	3500
			2. OVER WATER	374640.62N/1224135.87W	0 (0)		AS1500	1500
INTERMEDIATE	DOTNE	JULOS	3. AAO	374006.00N/1222912.00W	893 (4E)	500	AC66 DG441	1900
			4. TERRAIN	374006.00N/1222912.00W	693 (700)		AS1000	1700
FINAL: RNP 0.20	JULOS	RW10R	5. TRMSN TWR (KSFOT3648)	373736.61N/1222414.70W	145 (1A)	ASC	AC3 MA133	393/386
FINAL: RNP 0.30	JULOS	RW10R	6. TREE	373821.82N/1222651.88W	699 (4D)	ASC	AC50 MA798	1105/1098
MISSED APPROACH (RNP 0.20-1.00)	DA	RW10R (40:1)				ASC		
MISSED APPROACH (RNP 0.30-1.00)	DA	RW10R (40:1)				ASC		
MISSED APPROACH (RNP 0.20-1.00)	RW10R	IGUKE (40:1)	7. POLE (KSFOT3460)	373819.82N/1222406.51W	135 (1A)	ASC	MA 133	
MISSED APPROACH (RNP 0.30-1.00)	RW10R	IGUKE (40:1)	6. TREE	373821.82N/1222651.88W	699 (4D)	ASC	MA 798	
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA (SEE ABOVE)					ASC		3600
ELEV:	116/705							

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

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW10R

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	039/ 27.4	3888 (4E)	5100					

CITY AND STATE	ELEVATION: 13 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
SAN FRANCISCO, CA	SAN FRANCISCO INTL	RNAV	RNAV (RNP) Z RWY 10R, AMDT 1	AWP

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
ZOA BAY APCH SFO ATCT		N W S	OTHER: ASOS-3	SOURCE: KSFO
	X	F A A		DISTANCE:
		A / C		HOURS REMOTE OPERATION: 24
SATISFACTORY ON: X V H F X U H F H F	LOCATION: KSFO			ADJUSTMENT: 0

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN: CAT 1	
	HRS OPTN: CAT 3	
5. APPROACH & RUNWAY LIGHTING	X	ALSF-2 28R
		(S) SALS
	X	MALSF 19L
	X	HIRL 01R, 19L, 01L, 10L, 10R, 19R, 28R, 28L
		MIRL
	X	REIL 01R, 01L, 10L
	X	TDZ 19L, 28R
	X	C/L 01R, 19L, 01L, 10L, 10R, 19R, 28R, 28L
	X	OTHER (SPECIFY) SSALR 28L PAPI-4L 19L, 10L, 10R, 19R, 28R, 28L
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 01R, 19L, 10L, 10R, 28R, 28L
	INSTRUMENT	NPI-G 01L, 19R
7. RUNWAY VISUAL RANGE	APPROACH	01R, 19L, 01L, 10L, 10R, 19R, 28R, 28L
	MIDFIELD	01R, 19L, 01L, 10L, 10R, 19R, 28R, 28L
	ROLL OUT	01R, 19L, 01L, 10L, 10R, 19R, 28R, 28L
8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 7.2
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 60.0
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD FT. FROM THRESHOLD
	X	ON CENTERLINE FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: ROY E. CURRIE	DATE: 05/11/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BACK-UP ALTIMETER NOT PUBLISHED. REDUNDANT REPORTING ON AIRPORT.

VGSI DATA: 3.00/75

KSFO ASOS ON SERVICE A/24 HRS

SEE ATTACHED AIRSPACE LETTER.

*OBSTACLE MAY OCCUR THROUGHOUT SEGMENT.

VEB DATA: SEE ATTACHED SPREADSHEET.

BARO-VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F)
ACT: -30 USED (NOAA WEATHER SITE INOP, NO OTHER SOURCE AVAILABLE)
DELTA ISA LOW: -44.94

TF TURN FIX	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
DOTNE	3500	250	270.2	3486.8	55	4.74	18.00

GQS PENETRATORS IDENTIFIED, CHECKED "PERMITTED" IN IPDS:
29' DME 28L (KSFOT3287) 373734.57N/1222339.34W (1A)
28' OL ON DME (DSFO0060) 373733.93N/1222339.54W (1A)

OBSTACLES WITH NO ACCURACY CODE MODIFIED TO (4D):
2810 TOWER (06-006280)
2683 TOWER (06-006282)
292 TOWER (06-003226)
45 POLE (06-001015)
806 TOWER (06-006118)
390 T-L TWR (06-006267)
387 T-L TWR (06-006265)
630 TOWER (06-006184)
350 BLDG (06-002738)
3849 SPOT (SF-S-0211)
3231 TOWER (SF-T-0014)
139 T-L TWR (06-001450)
606 TOWER (06-021557)

OBSTACLES ADDED TO WORKFILE FROM PREVIOUS AMENDMENT:
208' SHIP 374640.62N/1224135.87W (4D)
699' TREE 373821.82N/1222651.88W (2C)

ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS:
20:1
26 DME 28L (KSFOT3287) (1A) 373734.57N/1222339.34W (18.17)
25 OL ON DME (KSFO0060) (1A) 373733.93N/1222339.54W (17.97)
17 OL ON DME (KSFO0059) (1A) 373735.65N/1222337.60W (12.80)
17 LOC (KSFOT3286) (1A) 373736.01N/1222338.19W (9.87)
39 POLE (KSFOT3636) (1A) 373734.73N/1222346.70W (4.60)
7 GRD (KSFOT3283) (1A) 373737.16N/1222336.70W (2.46)
10 GRD (KSFOT3288) (1A) 373736.01N/1222338.88W (0.41)
34:1
26 DME 28L (KSFOT3287) (1A) 373734.57N/1222339.34W (19.66)
25 OL ON DME (KSFO0060) (1A) 373733.93N/1222339.54W (19.13)
CONT.

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	**IGUKE**	**DUMBA**	**6. TREE**	**373821.82N/1222651.88W**	**699 (4D)**	**1000**		**3600**
(RNP 1.00)		**(40:1)**	**8. TERRAIN**	**373821.82N/1222651.88W**	**599 (600)**		**AS 1500**	**2100**

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
SAN FRANCISCO, CA	**ELEVATION: 13** AIRPORT NAME: **SAN FRANCISCO INTL**	**RNAV**	**RNAV (RNP) Z RWY 10R, AMDT 1**	**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
		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:

CONTINUED.

39 POLE (KSFOT3636) (1A) 373734.73N/1222346.70W (17.04)
17 OL ON DME (KSFO0059) (1A) 373735.65N/1222337.60W (12.80)
17 LOC (KSFOT3286) (1A) 373736.01N/1222338.19W (11.07)
35 POLE (KSFOT3305) (1A) 373735.88N/1222347.44W (9.89)
36 POLE (KSFOT3307) (1A) 373736.85N/1222348.44W (7.45)
36 POLE (KSFOT3308) (1A) 373737.84N/1222349.44W (3.99)
103 TRMSN TWR (KSFOT3429) (1A) 373746.46N/1222416.17W (3.08)
97 TRMSN TWR (KSFOT3423) (1A) 373743.97N/1222415.16W (2.65)

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DOTNE **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 374307.18N/1223651.36W **TYPE:** WP

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

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	W		WP	280.65	100.65	R		4	3500	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	SHIP MAST	374107.00N/1223249.00W	208	2C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPTIOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 10R		1	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (RNP) Z RWY 10R			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
REMOVE FAC1, KSFO R10R.
UPDATED HOLDING PAT1 MAX TEMPLATE FROM 5 TO 6.
UPDATED FIX USE AND FIX USE FORMAT.
ADDED REMARK "PRECIPITOUS TERRAIN EVALUATION COMPLETE".
MOVED "HOLDING LIMITED TO ESTABLISHED PATTERN" FROM REMARK TO HOLDING RESTRICTIONS.

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-354 **NAME:** ROY CURRIE

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: IGUKE **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373412.66N/1221532.33W **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 (RNP) Z RWY 10R			KSFO	SAN FRANCISCO	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 (KSFOR10R)
2. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/16/2012 **OFFICE:** AJV-354 **NAME:** ROY CURRIE

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: JULOS **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 374015.66N/1222959.96W **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 10R			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-354 **NAME:** ROY CURRIE

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: STINS **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 374925.24N/1224524.06W **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	POINT REYES	PYE	VORTAC	H	144.00	161.00	16.23	16.23		3500	17500
2	SAUSALITO	SAU	VORTAC	L	243.39	260.39		11.28		3500	17500
3	SAN FRANCISCO	SFO	VOR/DME	L	287.00	304.00	21.95	21.95		3500	17500

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NW	PYE	VORTAC	144.00	144.00	R	1-1 1/2		3500	17500	5	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	375736.00N/1224521.00W	1401	4E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
SAUSALITO (FAC 2) AND POINT REYES (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MOLEN	1, 2, 3		KSFO	SAN FRANCISCO	CA (US)
EN ROUTE	V199	1, 2, 3				(US)
EN ROUTE	V25	1, 2, 3				(US)
EN ROUTE	V27	1, 2, 3				(US)
IAP	RNAV (GPS) RWY 10L			KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Y RWY 10R			KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (RNP) Z RWY 10R			KSFO	SAN FRANCISCO	CA (US)
STAR	POINT REYES	1, 2, 3	1	KSFO	SAN FRANCISCO	CA (US)
STAR	STINS	1, 2	1	KSFO	SAN FRANCISCO	CA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FAC3 IN HISTORY, AMENDMENT REQUIRED TO PUT IN ACTIVE STATUS.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-354 **NAME:** ROY CURRIE

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

SIGNATURE:

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

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD INFO ONLY

NAME: DUMBA **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373012.66N/1220546.13W **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	SAN FRANCISCO	I-GWQ	LOC/DME		102.82	117.82	16.13	16.15		4000	4500
2	WOODSIDE	OSI	VORTAC	L	036.00	053.00		11.07		4000	17500
3	OAKLAND	OAK	VORTAC	H	138.46	155.46	14.65	14.65		4000	17500
4	SAN FRANCISCO	SFO	VOR/DME	L	100.59	117.59	14.96	14.96		4000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-GWQ	LOC/DME	R-103	25	4000	4500

FIX RESTRICTIONS:

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	E	I-GWQ	LOC/DME	102.82	282.82	L	1		4000	4100	5	6
2	E		WP	100.98	280.98	L		4	3600	10000	5	10
3	E	SFO	VOR/DME	100.59	280.59	L	1		4000	10000	5	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	372924.00N/1215257.00W	1969	4E
2	200	AAO	372921.00N/1215257.00W	1933	4E
2	310	AAO	372551.00N/1214506.00W	3071	4E
3	200	AAO	372921.00N/1215254.00W	1992	4E

REASON FOR NONSTANDARD HOLDING:
PAT 2 ATC REQUEST
PAT 1 ATC REQUEST
PAT 3 ATC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN(S).

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
2	RNAV (GPS) Z RWY 19L	KSFO	SAN FRANCISCO	CA (US)

REMARKS:
NOTE: WHEN OSI VORTAC OTS DME IS REQUIRED FOR HOLDING. OAK VORTAC AND SFO VOR/DME DO NOT MEET 45 DEGREE DIVERGENCE.
PRECIPITOUS TERRAIN EVALUATED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 19L	1, 2, 3	3	KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28R	1, 2, 3	1	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) RWY 10L		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Y RWY 10R		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Y RWY 19L		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Y RWY 19R		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Z RWY 19L		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Z RWY 19R		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Z RWY 28R		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (RNP) Z RWY 10R		2	KSFO	SAN FRANCISCO	CA (US)
STAR	MODESTO	1, 2, 3		KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. CHANGED PAT 1 MAX HOLDING ALTITUDE FROM 4000 TO 4100.
2. CHANGED PAT 1 MAX HOLDING TEMPLATE FROM 5 TO 6.
3. ADDED ESV FOR GWQ LOC/DME.

DEVELOPED BY:	**DATE:** 02/14/2012	**OFFICE:** AJV-354	**NAME:** DAVID DOWLING
APPROVED BY:	**DATE:** 02/21/2012	**OFFICE:** AJV-354	**NAME:** DEZ SILAGYI
	SIGNATURE:		

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

QUALITY CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **SAN FRANCISCO** STATE: **CA**

AIRPORT NAME: **SAN FRANCISCO INTL** ID: **KSFO**

PROCEDURE: **RNAV (RNP) Z RWY 10R** AMDT: **1**

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 **4.82**
   (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 **117.79**
4. High Terrain in **FINAL** segment containing 1000' point **601**
5. Distance from **THLD** to 1500' point **6.68**
   (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 **117.65**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **693**
9. Threshold Coordinates (if straight-in) ... **373734.64N** / **1222335.18W**
10. ARP Coordinates ..... **373708.30N** / **1222229.60W**
11. Runway Approach End and distance furthest from ARP.....RWY **10L**
    Distance **1.06** NM
12. FAF Coordinates ..... **374015.66N** / **1222959.96W**
    (Click to Select)

REMARKS: Approach/Drawing attached.