Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 09/07/2011	Task #: 201109073257950100 1	Request #: 20110907325795
Procedure: ILS OR LOC RWY 28 L AMDT 23		Airport ID: KSFO	Airport: SAN FRANCISCO INTL		Reimbursable #:
City: SAN FRANCISCO	ST: CA	GPS #:		Estimated Chart Date: 09/20/2012	FICO #:
Fac ID: SFO	Fac. Type: ILS Proc-A	Specialist: AMANDA ROBBINS			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	03/14/2012	06/25/2012	ADOLFO URRUTIA	P1
QA:	06/25/2012	06/28/2012	STEVEN SZUKALA	
Liaison:	06/28/2012	SPurlin		

Procedure Comments: Non Enroute **Remark Type:** INFORMATION HANDOFF Pkg 2 of 2

SAN FRANCISCO, CA SAN FRANCISCO INTL (KSFO) ILS OR LOC RWY 28L, AMDT 23 ENROUTE-NO FC BY; 8.7.12 PUB: 9.20.12
ATTACHED FORMS: ESV(S): (I-SFO) ILS (LOC/DME/GS) (10); 8260-3, 8260-9, 8260-10.
8260-2(S): CFBHX, ORIG (CNF); DIVEC INT, REV 1; DUYET INT, REV 2; FAITH INT, REV 11; HEMAN INT, REV 2; MENLO INT, REV 7; OLYMM INT, REV 11; PONKE INT, REV 1; ROKME INT, REV 3; SAN JOSE (SJC) VDME, REV 11; WETOR INT, REV 2; ZORLO (CNF), CANX.

CONTACT: ADOLFO URRUTIA/LONNIE EVERHART, AJV-354 LEADS, 405.954.2079/4576

SAN FRANCISCO, CALIFORNIA

AL-375 (FAA)

FIG

ILS or LOC RWY 28L

SAN FRANCISCO INTL (SFO)

NEW

PDF EDITED

AUTOMATED AL-375 ILS or LOC RWY 28L

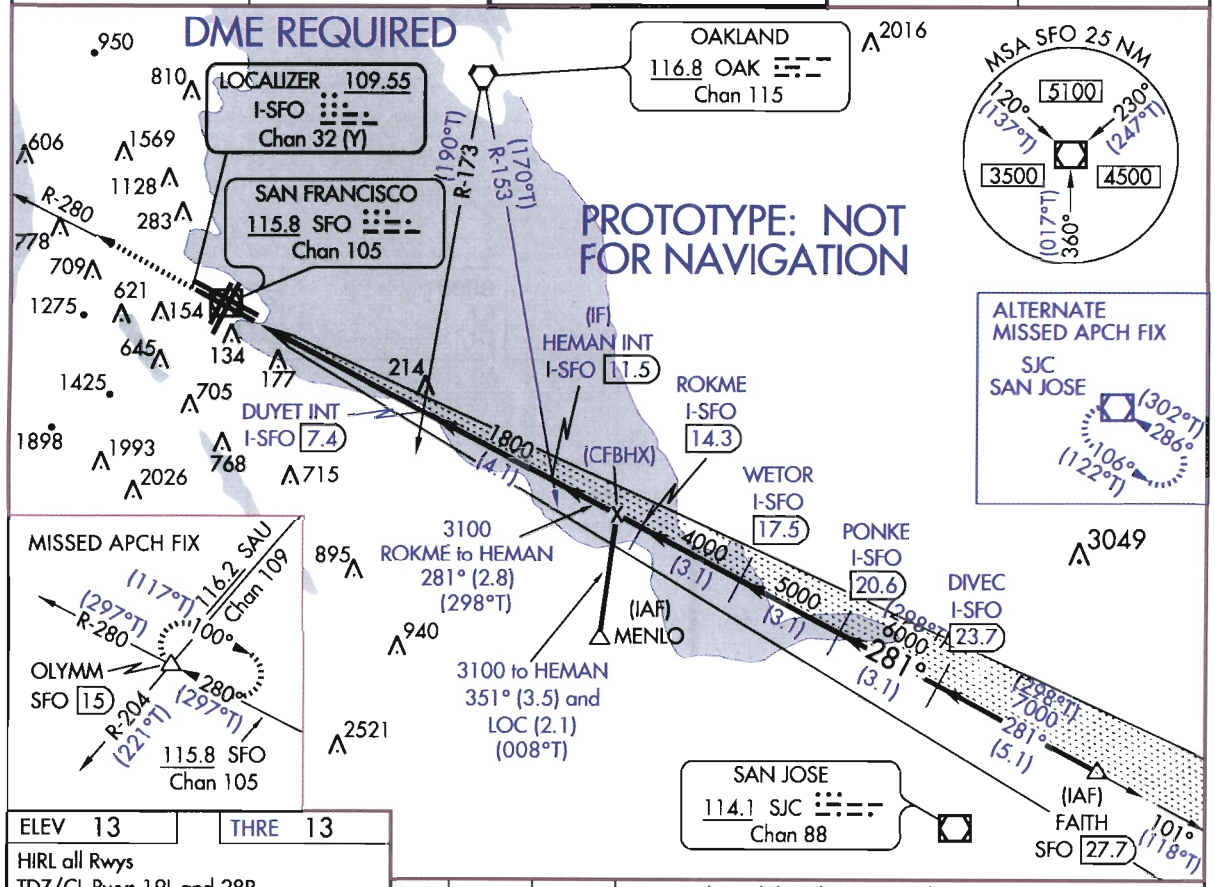
LOC/DME I-SFO	APP CRS	Rwy Idg	10608
109.55	281°	THRE	13
Chan 32 (Y)		Apt Elev	13

When VGSI inop, Circling Rwy 10R NA at night. #Missed approach requires a minimum climb of 310 feet per NM to 2100. †RVR 1800 authorized with the use of FD or AP or HUD to DA. Circling to Rwys 01L, 01R and 19R NA at night.

SSALR Rwy 28L

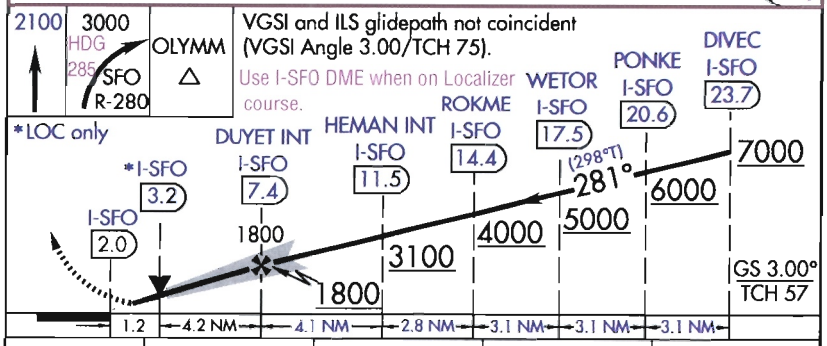
MISSED APPROACH: Climb to 2100 then climbing right turn to 3000 on HEADING 285 AND SFO VOR/DME R-280 to OLYMM INT/SFO 15 DME and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2



ELEV 13	THRE 13

HIRL all Rwys
TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L



CATEGORY	A	B	C	D
S-ILS 28L #†	213/24 200 (200-½)			
S-ILS 28L	797/2¼ 784 (800-2¼)			
S-LOC 28L #	460/24 447 (500-½)		460/45 447 (500-⅞)	
S-LOC 28L	940/40 927 (1000-¾)		940/2 927 (1000-2)	
CIRCLING	940-1¼ 927 (1000-1¼)		1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

281° 5.4 NM from FAF

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-2
23 MAY 2012
COMPILER: CW
REVIEWER:
DBL CHKR:
EFF: FIG
UID#: 16074

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : LOC	Frequency : M109.55	Reference No.: 12052251	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890728-012	101	0	24	70	80

Requirement: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-012	101	0	24	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-012	101	0	24	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-012	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : DME	Frequency : M1119	Reference No.: 12052250	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890725-009	101	0	24	70	80

Requirement: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-009	101	0	24	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-009	101	0	24	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-009	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : GS	Frequency : M332.45	Reference No.: 12052249	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890727-013	101	0	22	70	80

Requirement: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.

Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-013	101	0	22	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-013	101	0	22	70	80	APPROVE

Requirement/Remarks: DIVEC DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-013	101	0				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : LOC	Frequency : M109.55	Reference No.: 12052246	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890728-011	101	0	21	60	70

Requirement: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-011	101	0	21	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-011	101	0	21	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-011	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : DME	Frequency : M1119	Reference No.: 12052247	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890725-008	101	0	21	60	70

Requirement: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.

Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-008	101	0	21	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-008	101	0	21	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-008	101	0				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : GS	Frequency : M332.45	Reference No.: 12052248	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890727-012	101	0	19	60	70

Requirement: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-012	101	0	19	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-012	101	0	19	60	70	APPROVE

Requirement/Remarks: PONKE DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890727-012	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : DME	Frequency : M1119	Reference No.: 12052245	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890725-007	101	0	18	50	60

Requirement: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-007	101	0	18	50	60	APPROVE

Requirement/Remarks: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-007	101	0	18	50	60	APPROVE

Requirement/Remarks: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-007	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : LOC	Frequency : M109.55	Reference No.: 12052244	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890728-010	101	0	18	50	60

Requirement: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-010	101	0	18	50	60	APPROVE

Requirement/Remarks: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-010	101	0	18	50	60	APPROVE

Requirement/Remarks: WETOR DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-010	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : DME	Frequency : M1119	Reference No.: 12052243	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890725-006	101	0	15	45	60

Requirement: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.

Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-006	101	0	15	45	60	APPROVE

Requirement/Remarks: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-006	101	0	15	45	60	APPROVE

Requirement/Remarks: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890725-006	101	0				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : SAN FRANCISCO	City : SAN FRANCISCO	Ident : SFO	State : CA
Type/Class : LOC	Frequency : M109.55	Reference No.: 12052242	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 890728-009	101	0	15	45	60

Requirement: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.		
Signature: Robbins Amanda	Routing Symbol: AJV-354	Date: 05/01/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-009	101	0	15	45	60	APPROVE

Requirement/Remarks: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: HEPSEN JOHN	Routing Symbol:	Date: 05/07/2012

Expanded Service Volume Data: (Super FMO)

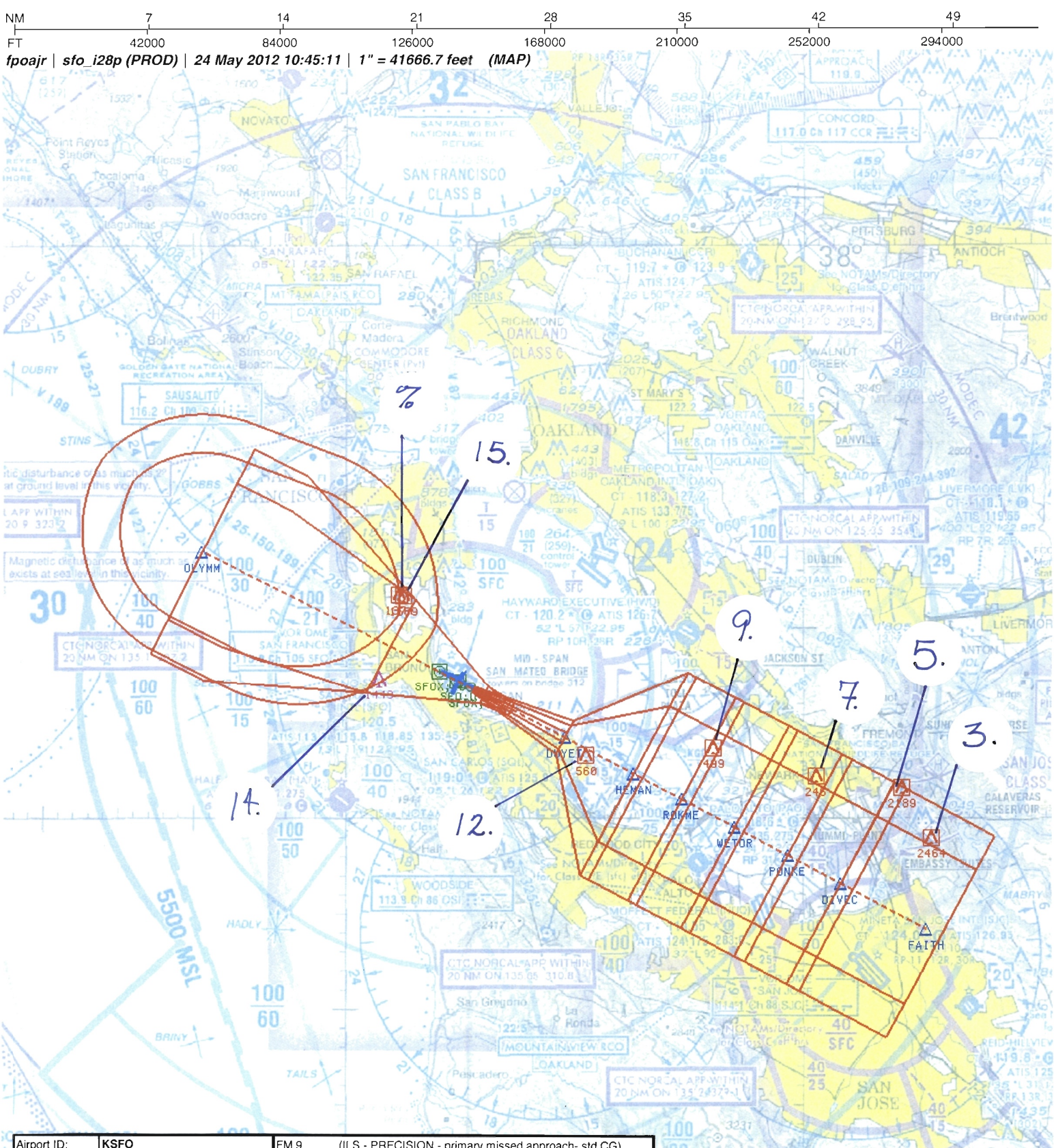
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-009	101	0	15	45	60	APPROVE

Requirement/Remarks: ROKME DME FIX- KSFO R28L BOTH ILS IAPS- MULTIPLE FIX ON GLIDESLOPE.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 05/08/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 890728-009	101	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:



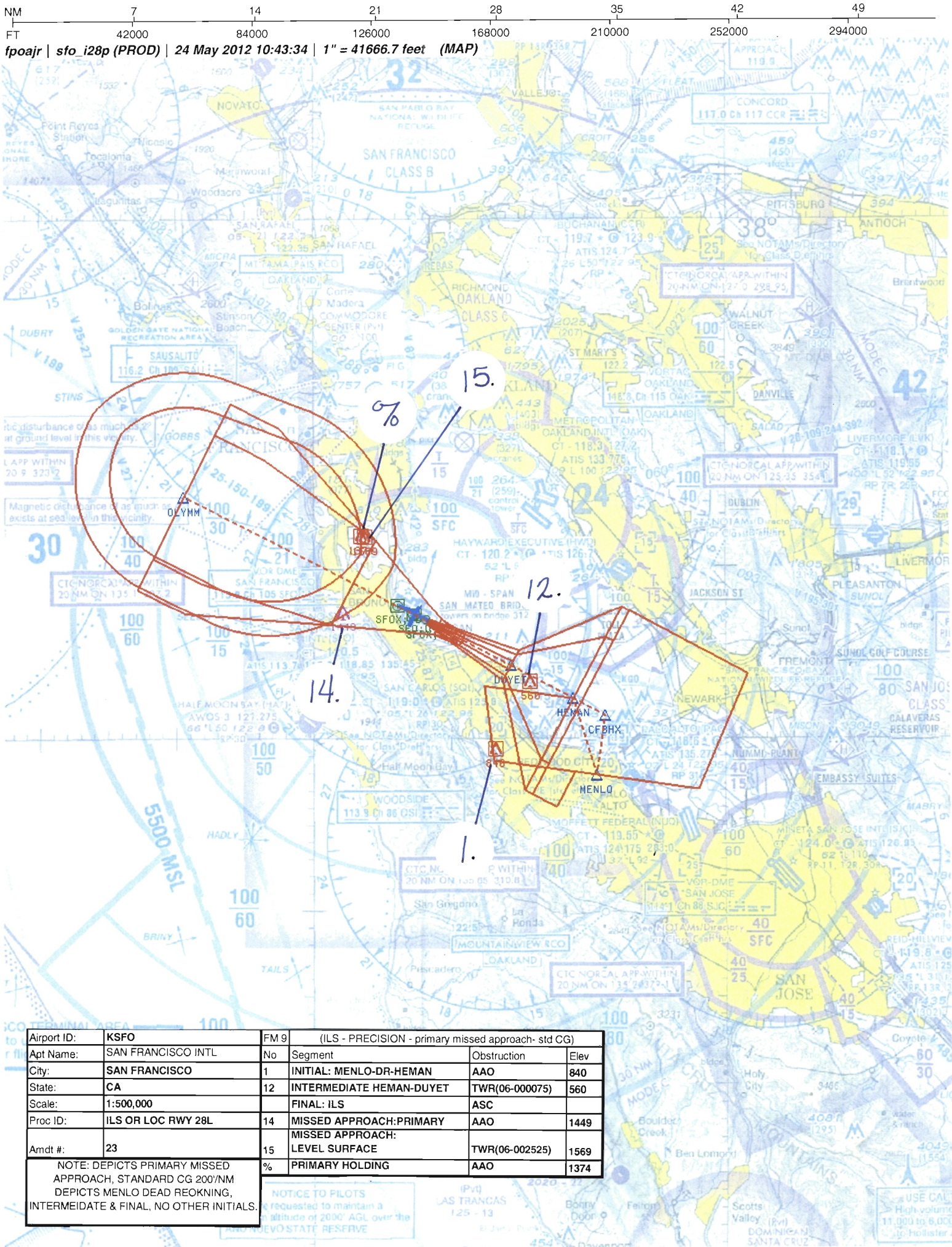
Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:500,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23

NOTE: DEPICTS PRIMARY MISSED APPROACH, STANDARD CG 200'/NM

DOES NOT DEPICT MENLO DEAD RECOKNING TO HEMAN.

FM 9 (ILS - PRECISION - primary missed approach- std CG)

No	Segment	Obstruction	Elev
3	INITIAL: FAITH-DIVEC	AAO	2464
5	INITIAL SD: DIVEC-PONKE	AAO	2189
7	INITIAL SD: PONKE-WETOR	AAO	246
9	INITIAL SD: WETOR-ROKME AND INITIAL SD: ROKME-HEMAN	AAO	499
12	INTERMEDIATE HEMAN-DUYET	TWR(06-000075)	560
	FINAL: ILS	ASC	
14	MISSED APPROACH: PRIMARY	AAO	1449
15	MISSED APPROACH: LEVEL SURFACE	TWR(06-002525)	1569
%	PRIMARY HOLDING	AAO	1374

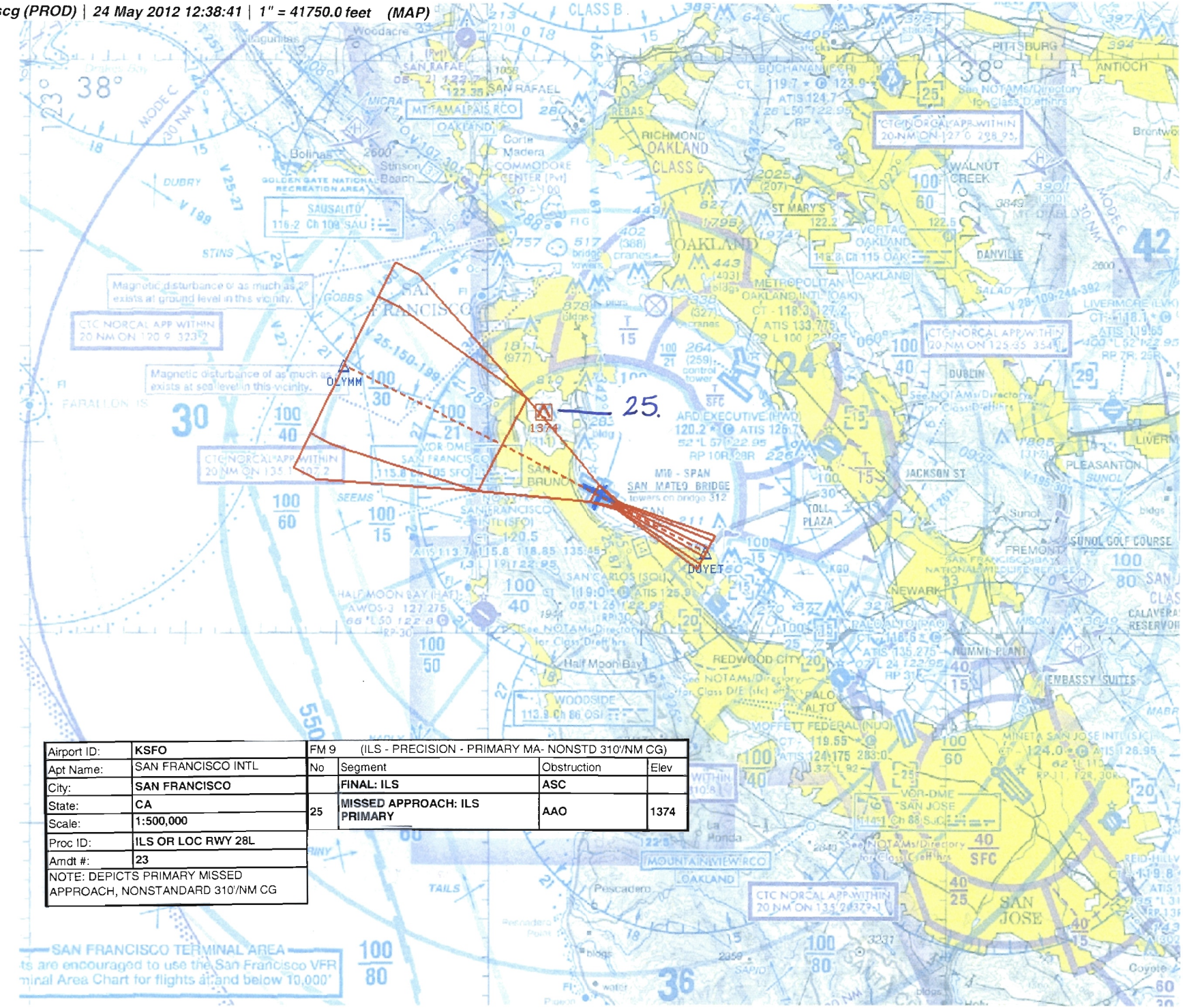


Airport ID:	KSFO	FM 9	(ILS - PRECISION - primary missed approach- std CG)		
Apt Name:	SAN FRANCISCO INTL	No	Segment	Obstruction	Elev
City:	SAN FRANCISCO	1	INITIAL: MENLO-DR-HEMAN	AAO	840
State:	CA	12	INTERMEDIATE HEMAN-DUYET	TWR(06-000075)	560
Scale:	1:500,000		FINAL: ILS	ASC	
Proc ID:	ILS OR LOC RWY 28L	14	MISSED APPROACH:PRIMARY	AAO	1449
Amdt #:	23	15	MISSED APPROACH: LEVEL SURFACE	TWR(06-002525)	1569
NOTE: DEPICTS PRIMARY MISSED APPROACH, STANDARD CG 200'/NM DEPICTS MENLO DEAD REOKNING, INTERMEIDATE & FINAL, NO OTHER INITIALS.		%	PRIMARY HOLDING	AAO	1374

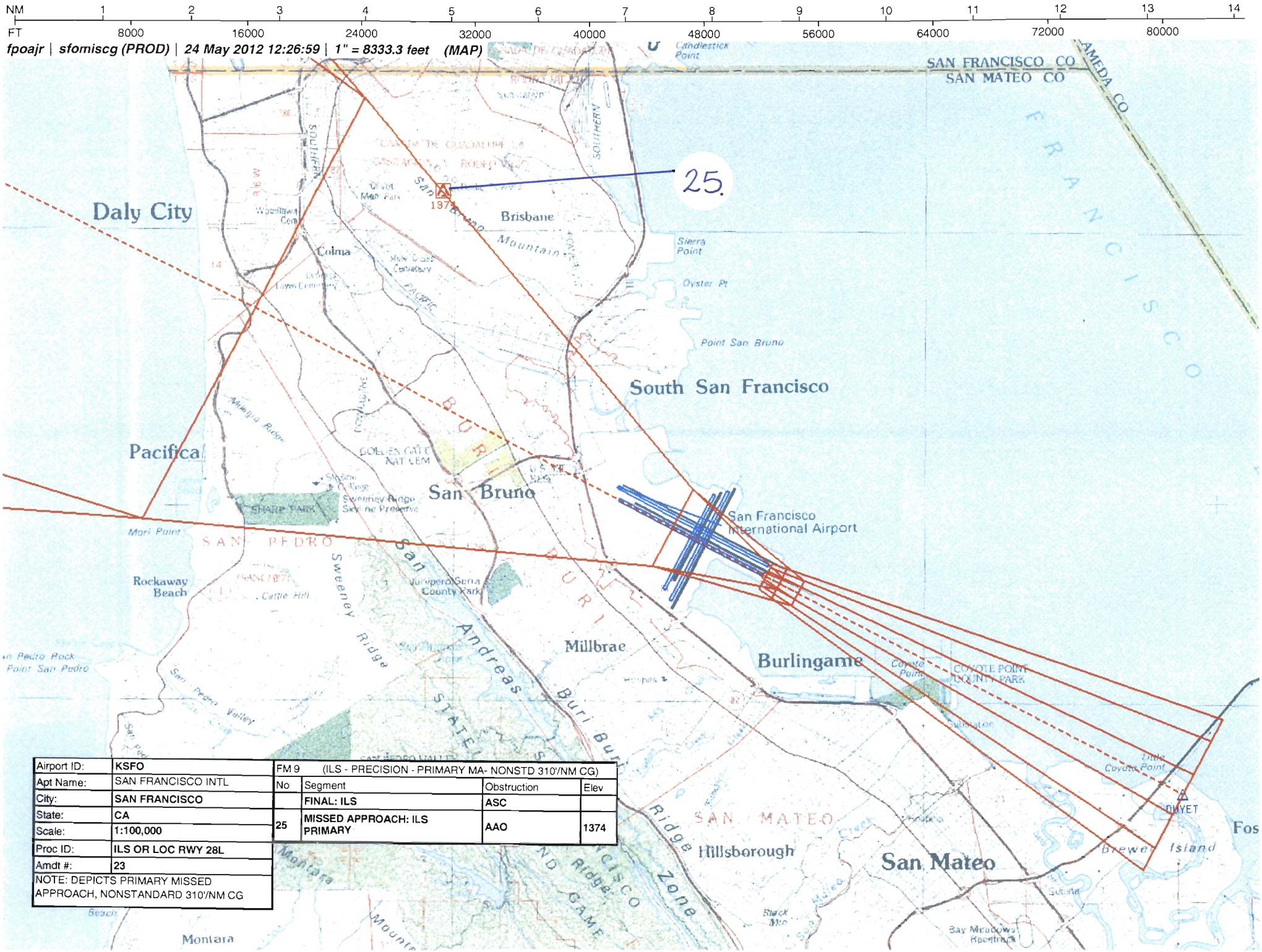
NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fpoajr | sfomiscg (PROD) | 24 May 2012 12:38:41 | 1" = 41750.0 feet (MAP)



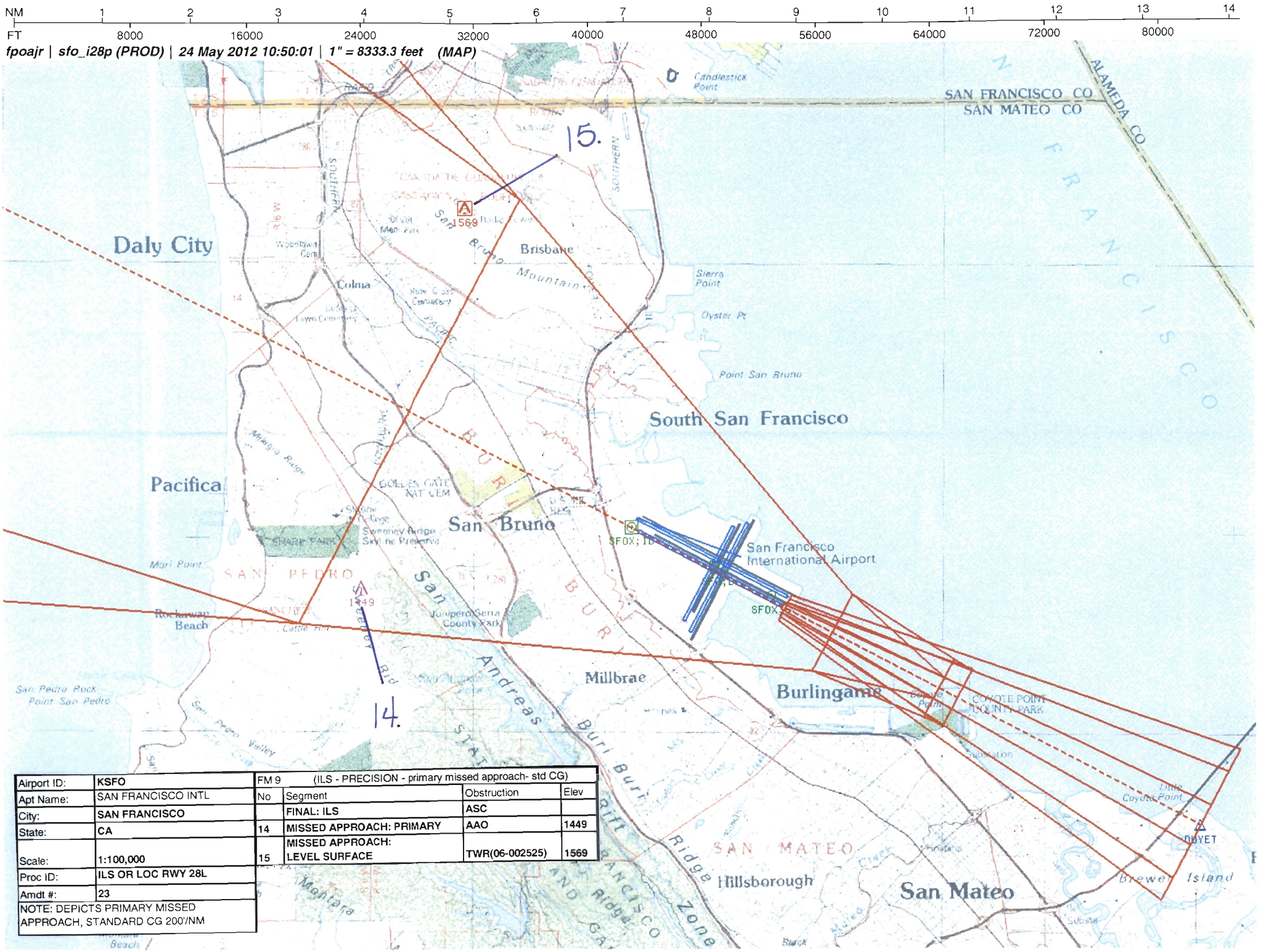
Airport ID:	KSFO	FM 9	(ILS - PRECISION - PRIMARY MA- NONSTD 310'/NM CG)		
Apt Name:	SAN FRANCISCO INTL	No	Segment	Obstruction	Elev
City:	SAN FRANCISCO		FINAL: ILS	ASC	
State:	CA	25	MISSED APPROACH: ILS PRIMARY	AAO	1374
Scale:	1:500,000				
Proc ID:	ILS OR LOC RWY 28L				
Amdt #:	23				
NOTE: DEPICTS PRIMARY MISSED APPROACH, NONSTANDARD 310'/NM CG					



Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23
NOTE: DEPICTS PRIMARY MISSED APPROACH, NONSTANDARD 310'/NM CG	

FM 9 (ILS - PRECISION - PRIMARY MA- NONSTD 310'/NM CG)

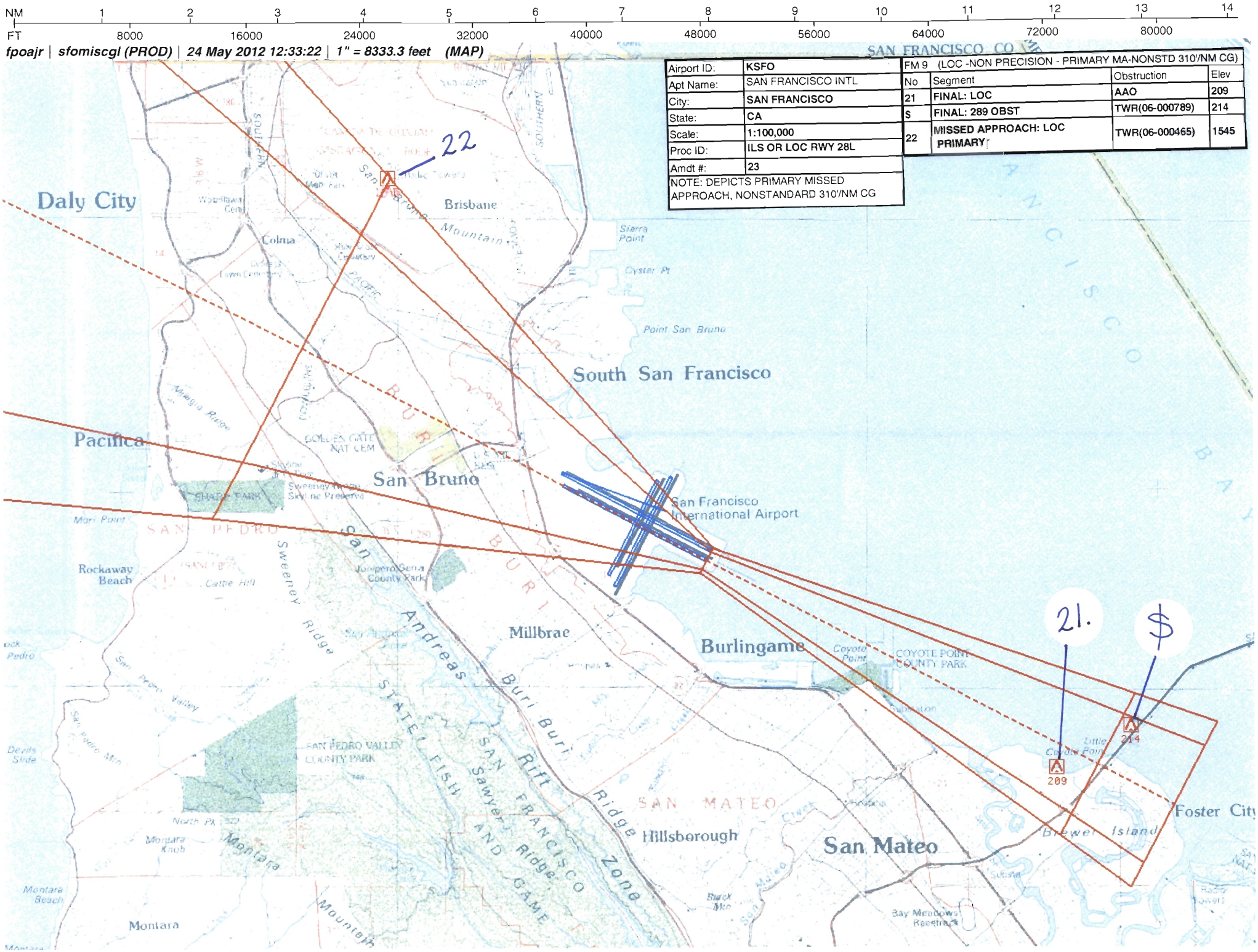
No	Segment	Obstruction	Elev
	FINAL: ILS	ASC	
25	MISSED APPROACH: ILS PRIMARY	AAO	1374



Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23
NOTE: DEPICTS PRIMARY MISSED APPROACH, STANDARD CG 200'/NM	

FM 9 (ILS - PRECISION - primary missed approach- std CG)

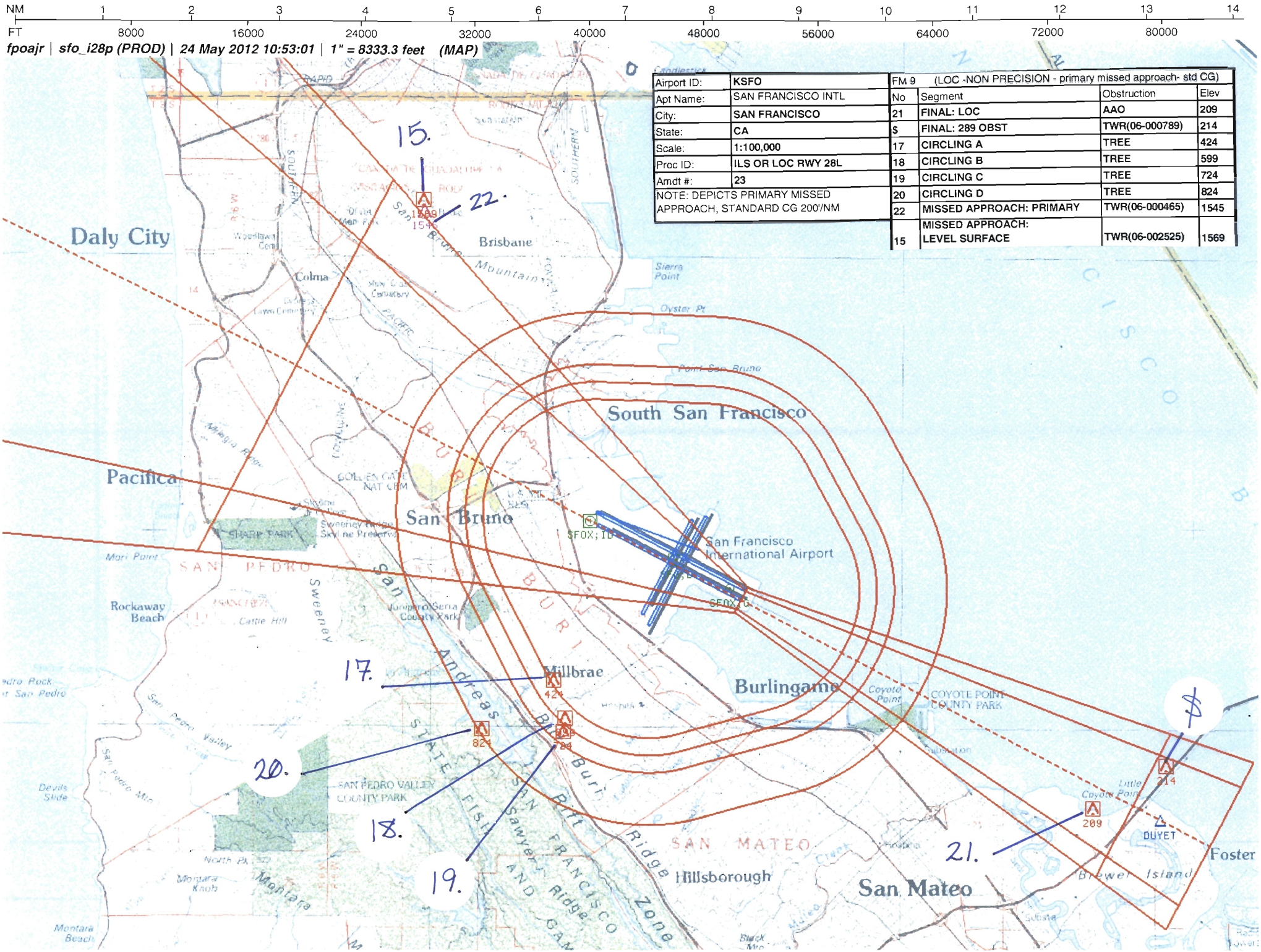
No	Segment	Obstruction	Elev
	FINAL: ILS	ASC	
14	MISSED APPROACH: PRIMARY	AAO	1449
15	MISSED APPROACH: LEVEL SURFACE	TWR(06-002525)	1569



Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23
NOTE: DEPICTS PRIMARY MISSED APPROACH, NONSTANDARD 310'/NM CG	

FM 9 (LOC -NON PRECISION - PRIMARY MA-NONSTD 310'/NM CG)

No	Segment	Obstruction	Elev
21	FINAL: LOC	AAO	209
$	FINAL: 289 OBST	TWR(06-000789)	214
22	MISSED APPROACH: LOC PRIMARY	TWR(06-000465)	1545


NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14
FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000
fpoajr | sfo_i28p (PROD) | 24 May 2012 10:53:01 | 1" = 8333.3 feet (MAP)
Airport ID: KSFO
Apt Name: SAN FRANCISCO INTL
City: SAN FRANCISCO
State: CA
Scale: 1:100,000
Proc ID: ILS OR LOC RWY 28L
Amdt #: 23
NOTE: DEPICTS PRIMARY MISSED APPROACH, STANDARD CG 200'/NM
FM 9 (LOC -NON PRECISION - primary missed approach- std CG)
No | Segment | Obstruction | Elev
21 | FINAL: LOC | AAO | 209
$ | FINAL: 289 OBST | TWR(06-000789) | 214
17 | CIRCLING A | TREE | 424
18 | CIRCLING B | TREE | 599
19 | CIRCLING C | TREE | 724
20 | CIRCLING D | TREE | 824
22 | MISSED APPROACH: PRIMARY | TWR(06-000465) | 1545
15 | MISSED APPROACH: LEVEL SURFACE | TWR(06-002525) | 1569
15.
22.
17.
20.
18.
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21.
$
Daly City
Brisbane
Colma
South San Francisco
Pacifica
San Bruno
San Francisco International Airport
SFOX; ID
Millbrae
Burlingame
San Mateo
Hillsborough
Foster
Rockaway Beach
SAN PEDRO VALLEY COUNTY PARK
COYOTE POINT COUNTY PARK
DUYET
SAN MATEO
Montara
Montara Beach
Devils Slide
Sharp Park
Mori Point
Sierra Point
Oyster Pt
Point San Bruno
Coyote Point
Little Coyote Point
Brewer Island
Ridge Zone
SAN FRANCISCO
Burl
Andreas
STATE
Sweeney
Mills
Cattle Hill
Montara Knob
Black Mtn
Foothills
Sunshine Gardens
Lawn Cemetery
Woodlawn Cem
Skyline Ridge
Sweeney Ridge
Skyline Preserve
Junipero Serra County Park
GOLDEN GATE NAT CEM
Lawn Memorial Park
Colma Creek
Millbrae Ave
Mills Creek
Hayne
Sawyer
Fish
Pedro Valley
Pedro Mtn
Pedro Point
San Pedro Creek
Cañada de Guadalupe la Visitacion
Condit
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Sequoia
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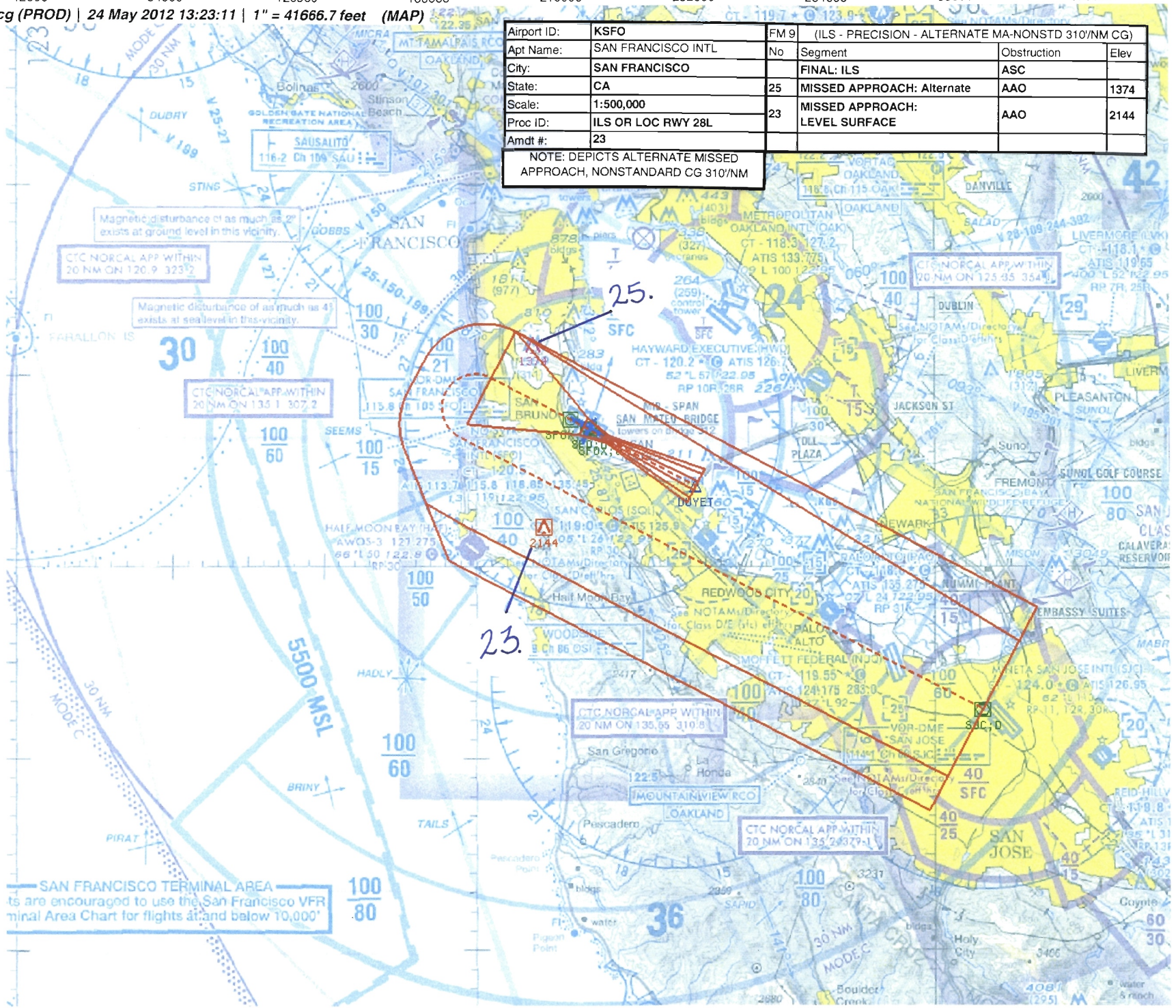
Cañada de Guadalupe la Visitacion
Condit
Rapid
Southern
Pacific
Mountain
Mateo
Sequoia
Subdivision
Foothills

NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fpoajr | sfomaltcg (PROD) | 24 May 2012 13:23:11 | 1" = 41666.7 feet (MAP)



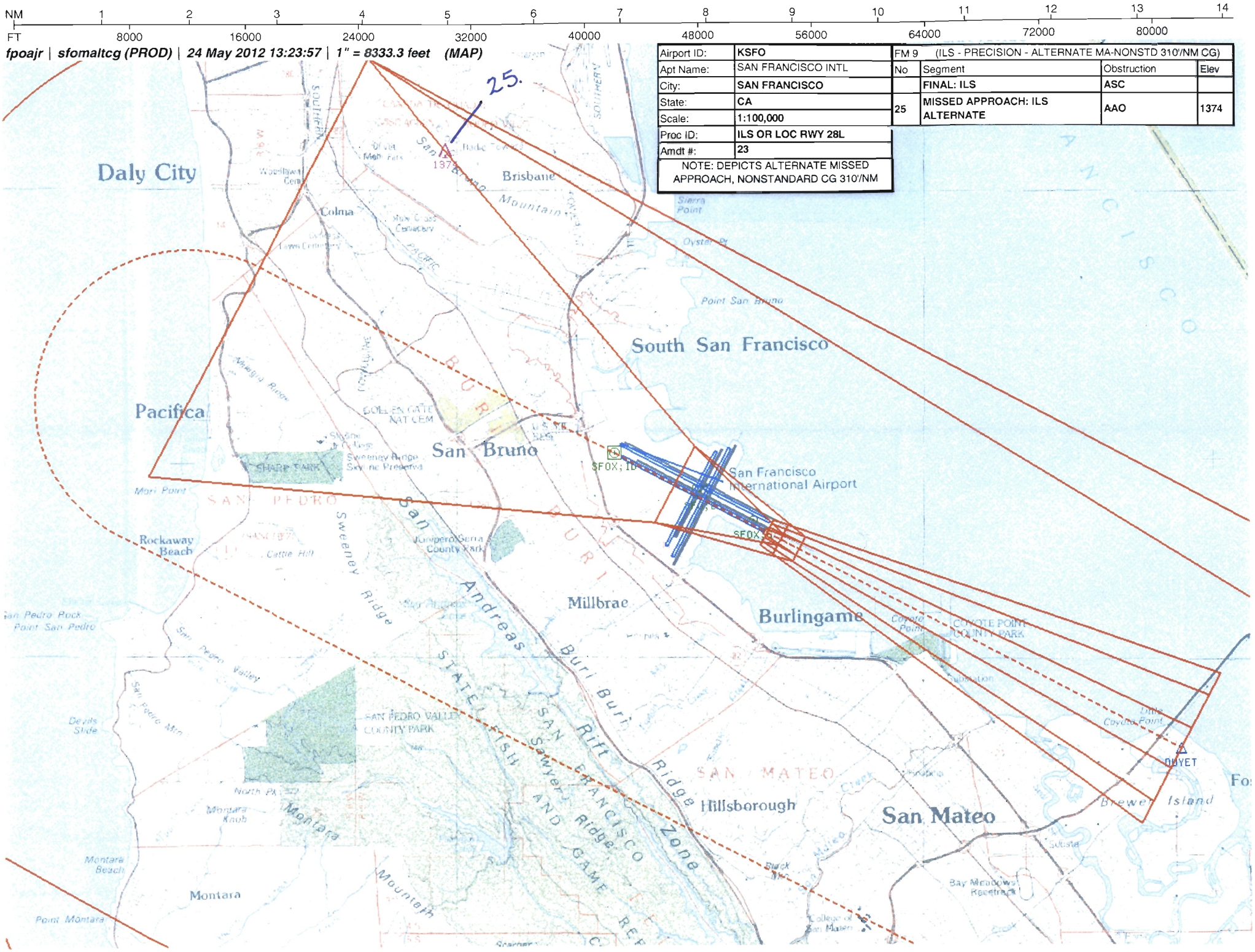
NM	7	14	21	28	35	42	49
FT	42000	84000	126000	168000	210000	252000	294000

fpoajr | sfomaalt (PROD) | 24 May 2012 11:47:45 | 1" = 41666.7 feet (MAP)

Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:500,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23

NOTE: DEPICTS ALTERNATE MISSED APPROACH, STANDARD CG 200'/NM

FM 9	(ILS - PRECISION - alternate missed approach- std CG)		
No	Segment	Obstruction	Elev
	FINAL: ILS	ASC	
14	MISSED APPROACH: Alternate	AAO	1449
23	MISSED APPROACH: LEVEL SURFACE	AAO	2144
%	Alternate HOLDING	AAO	2494



Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23

NOTE: DEPICTS ALTERNATE MISSED APPROACH, NONSTANDARD CG 310'/NM

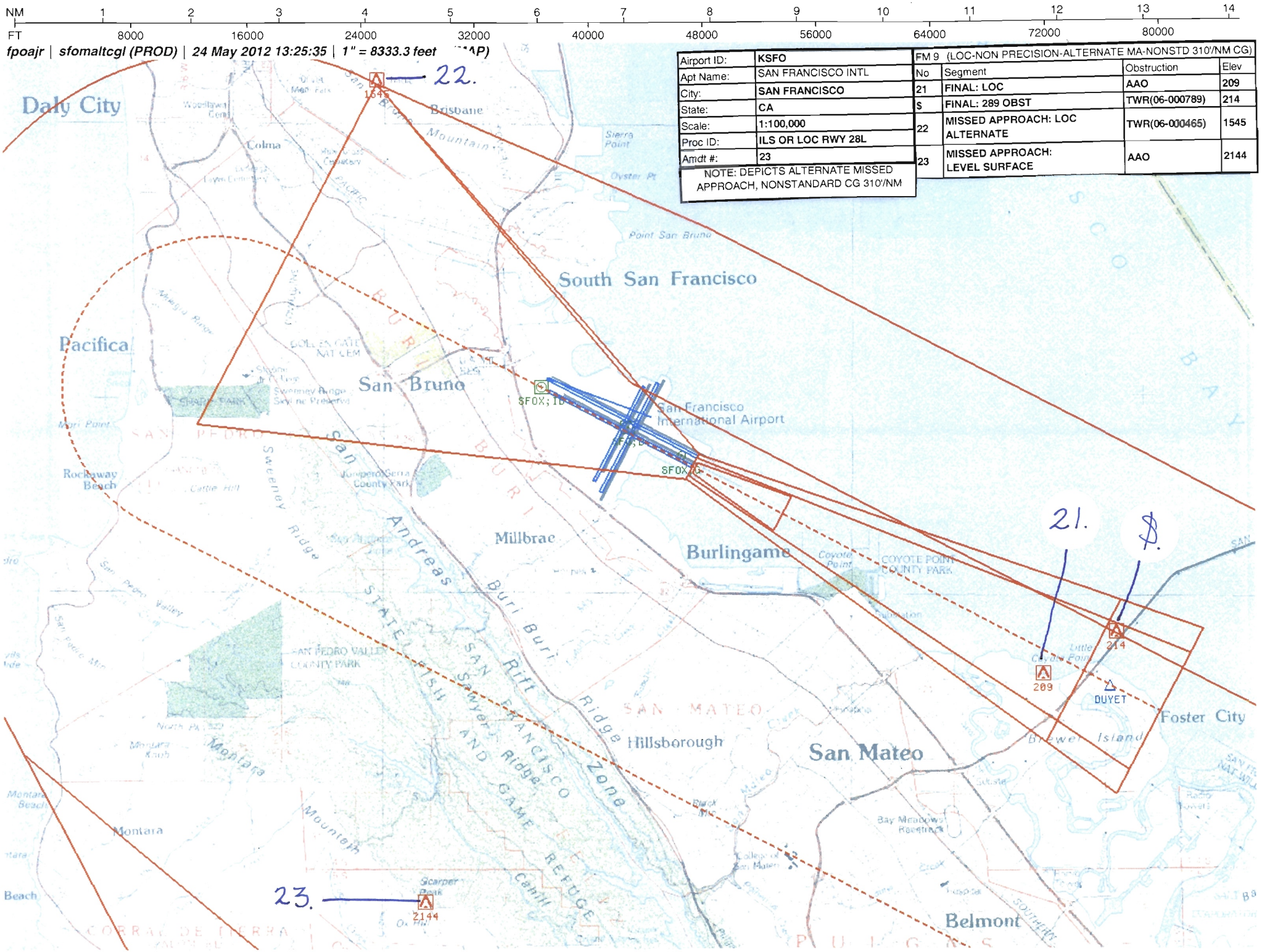
FM 9	(ILS - PRECISION - ALTERNATE MA-NONSTD 310'/NM CG)		
No	Segment	Obstruction	Elev
	FINAL: ILS	ASC	
25	MISSED APPROACH: ILS ALTERNATE	AAO	1374

fpoajr | sfomaalt (PROD) | 24 May 2012 11:52:12 | 1" = 8350.0 feet (MAP)

Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23
NOTE: DEPICTS ALTERNATE MISSED APPROACH, STANDARD CG 200'/NM	

FM 9 (ILS - PRECISION - alternate missed approach- std CG)

No	Segment	Obstruction	Elev
	FINAL: ILS	ASC	
14	MISSED APPROACH: ILS ALTERNATE	AAO	1449
23	MISSED APPROACH: LEVEL SURFACE	AAO	2144

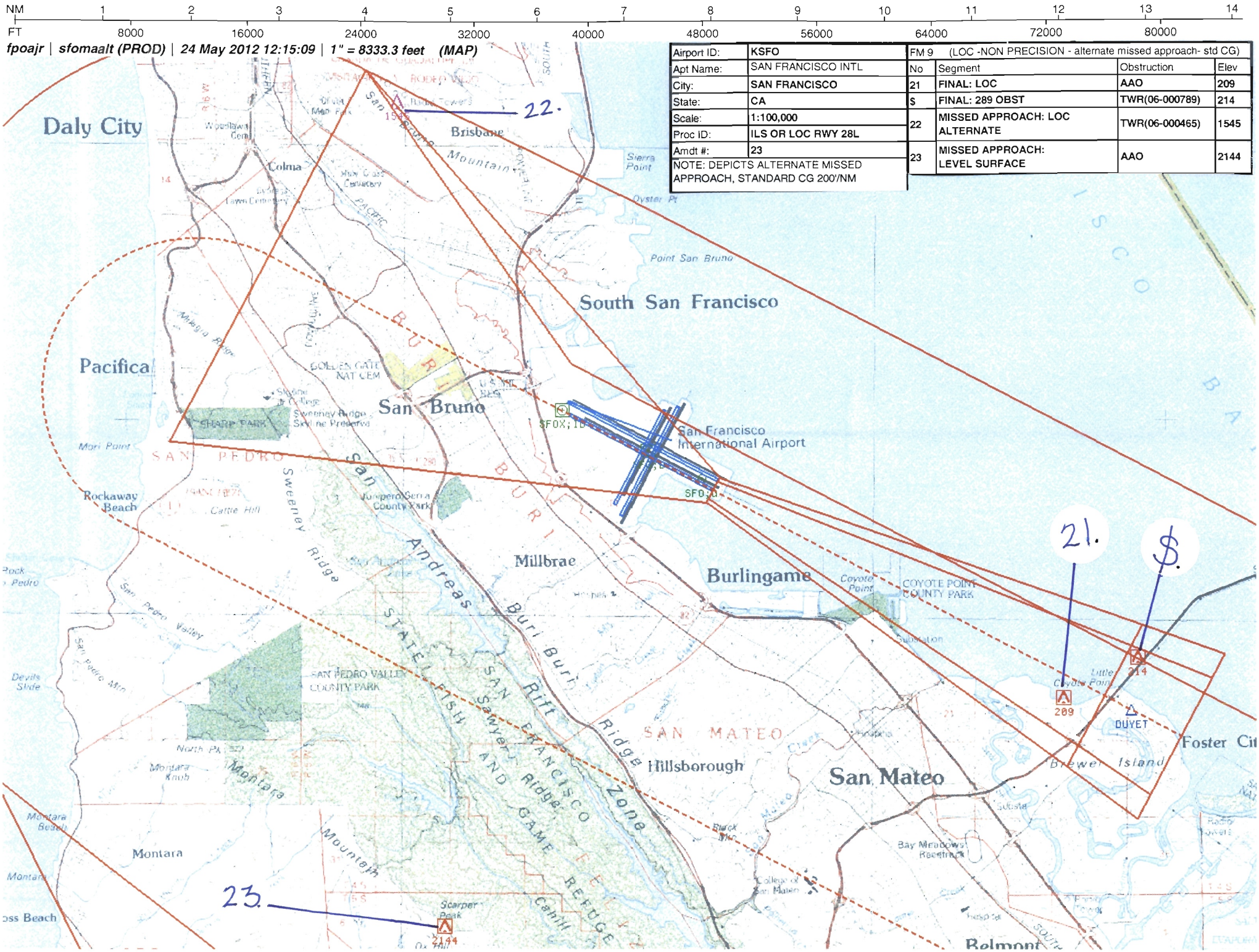


Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23

NOTE: DEPICTS ALTERNATE MISSED APPROACH, NONSTANDARD CG 310'/NM

FM 9 (LOC-NON PRECISION-ALTERNATE MA-NONSTD 310'/NM CG)

No	Segment	Obstruction	Elev
21	FINAL: LOC	AAO	209
8	FINAL: 289 OBST	TWR(06-000789)	214
22	MISSED APPROACH: LOC ALTERNATE	TWR(06-000465)	1545
23	MISSED APPROACH: LEVEL SURFACE	AAO	2144



Airport ID:	KSFO
Apt Name:	SAN FRANCISCO INTL
City:	SAN FRANCISCO
State:	CA
Scale:	1:100,000
Proc ID:	ILS OR LOC RWY 28L
Amdt #:	23
NOTE: DEPICTS ALTERNATE MISSED APPROACH, STANDARD CG 200'/NM	

FM 9	(LOC -NON PRECISION - alternate missed approach- std CG)		
No	Segment	Obstruction	Elev
21	FINAL: LOC	AAO	209
S	FINAL: 289 OBST	TWR(06-000789)	214
22	MISSED APPROACH: LOC ALTERNATE	TWR(06-000465)	1545
23	MISSED APPROACH: LEVEL SURFACE	AAO	2144

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ILS - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.29

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
MENLO INT (IAF)	HEMAN INT/I-SFO 11.50 DME	350.81 / 3.48 (HDG) & 280.81 / 2.08 (I-SFO)	3100
FAITH/SFO 27.72 DME (IAF)	DIVEC/I-SFO 23.74 DME	281.00 / 5.09 (SFO R-101)	7000
DIVEC/I-SFO 23.74 DME	PONKE/I-SFO 20.60 DME	280.81 / 3.14 (I-SFO)	6000
PONKE/I-SFO 20.60 DME	WETOR/I-SFO 17.47 DME	280.81 / 3.14 (I-SFO)	5000
WETOR/I-SFO 17.47 DME	ROKME/I-SFO 14.33 DME	280.81 / 3.14 (I-SFO)	4000
ROKME/I-SFO 14.33 DME	HEMAN INT/I-SFO 11.50 DME	280.81 / 2.83 (I-SFO)	3100
HEMAN INT/I-SFO 11.50 DME (IF)	DUYET INT/I-SFO 7.42 DME	280.81 / 4.08 (I-SFO)	1800

MISSED APPROACH

ILS: DA
LOC: 5.43 MILES AFTER DUYET INT/SFO 7.42 DME OR AT I-SFO 1.98 DME FIX

CLIMB TO 2100 THEN CLIMBING RIGHT TURN TO 3000 ON HEADING 285 AND SFO VOR/DME R-280 TO OLYMM INT/SFO 15.00 DME AND HOLD, OR AS DIRECTED BY ATC.

ALTERNATE MA: CLIMB TO 2100 THEN CLIMBING LEFT TURN TO 5000 DIRECT SJC VOR/DME AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT DIVEC/I-SFO 23.74 DME
3. FAC: 280.81 FAF: DUYET INT/I-SFO 7.42 DME DIST FAF TO MAP: 5.43 THLD: 5.43
4. MIN. ALT: DIVEC 7000, PONKE 6000, WETOR 5000, ROKME 4000, HEMAN 3100, DUYET 1800
5. DIST TO THLD FROM OM: - MM: - IM: - 150 HAT: - 100 HAT: - GS ANT: 1093
6. MIN GS INCPT: 1800 GS ALT AT: DUYET 1800 OM: - MM: - IM: -
7. GS ANGLE: 3.00 TCH: 57.1
8. MSA FROM: SFO VOR/DME 050-180 4500, 180-300 3500, 300-050 5100

ADDITIONAL FLIGHT DATA:

HOLD E, RT, 280.00 INBOUND.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD E SJC VOR/DME, LT, 286.00 INBOUND.
FAS OBST: 209 AAO 373413N/1221626W
CHART 214 T-L TWR 373442N/1221522W.
CHART VDP AT 3.15 DME*;
DISTANCE VDP TO THLD 1.17 MILES.
*LOC ONLY.
CHART (CFBHX) AT INTERSECTION OF MENLO DR LEG AND INTERMEDIATE COURSE.
CHART IN PLANVIEW: SJC VOR/DME.

MAG VAR: 17E EPOCH YEAR: 1975

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT | ALTERNATE: N A | ILS: ## | LOC: @

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
S-ILS 28L # †	213	2400	200	213	2400	200	213	2400	200	213	2400	200			
S-ILS 28L	797	2 1/4	784	797	2 1/4	784	797	2 1/4	784	797	2 1/4	784			
S-LOC 28L #	460	2400	447	460	2400	447	460	4500	447	460	4500	447			
S-LOC 28L	940	4000	927	940	4000	927	940	2	927	940	2	927			
CIRCLING	940	1 1/4	927	940	1 1/4	927	1040	3	1027	1160	3	1147			

NOTES:
CHART NOTE: WHEN VGSI INOP, CIRCLING RWY 10R NA AT NIGHT.
CHART NOTE: #MISSED APPROACH REQUIRES A MINIMUM CLIMB OF 310 FEET PER NM TO 2100.
CHART PLANVIEW NOTE: DME REQUIRED.
CHART PROFILE NOTE: USE I-SFO DME WHEN ON THE LOCALIZER COURSE.
(SEE FORM 8260-10)

CATEGORY

CAT A, B 1000-2, CAT C 1100-3, CAT D 1200-3
@ CAT A, B 1000-2, CAT C 1100-3, CAT D 1200-3

CITY AND STATE	ELEVATION: 13 THRE: 13 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23 SEP 20 2012	AMDT: 22A DATED 04/10/2008

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		09/20/2012

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[X]	[ ]	[X]	[X]	[X]	[X]	[X] ZOA, NORCAL APP CON, SFO ATCT, AMGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:

DEVELOPED BY		
NAME:	FIFO	DATE:
ADOLFO URRUTIA (AMANDA ROBBINS)	AJV-354	05/20/2012

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

CHANGES:

GS: 373650.13N/1222140.10W, DME: 373739.54N/1222341.45W, LOC: 373737.46N/1222341.89W, NGS 405 SURVEY.
1. UPDATED DME: DIVEC 22.5 TO 23.74; PONKE 19.66 TO 20.60; WETOR 16.79 TO 17.47; ROKME 13.86 TO 14.33; HEMAN 11.49 TO 11.50; DUYET 7.27 TO 7.42.
2. UPDATED SEG DIST: CNF TO HEMAN 2.02 TO 2.08; FAITH TO DIVEC 6.27 TO 5.09; DIVEC TO PONKE 2.84 TO 3.14; PONKE TO WETOR 2.88 TO 3.14; WETOR TO ROKME 2.92 TO 3.14; ROKME TO HEMAN 2.37 TO 2.83; HEMAN TO DUYET 4.22 TO 4.08.
3.UDPATE LOC MAP FROM 5.35 MILES AFTER DUYET INT/SFO 7.27 DME OR AT I-SFO 1.92 DME FIX TO 5.43 MILES AFTER DUYET INT/SFO 7.42 DME OR AT I-SFO 1.98 DME FIX. 4.UPDATED DIST FAF TO MAP AND DIST FAF TO THLD FROM 5.35 TO 5.43, AND VDP FROM 3.09 DME TO 3.15 DME.
5. ADDED CHART NOTE: #MISSED APPROACH REQUIRES A MINIMUM CLIMB OF 310 FEET PER NM TO 2100.
6. UPDATED TCH FROM 57.0 TO 57.1. 7. CHART ALTERNATE MA HOLDING AT SJC VOR/DME IN PLANVIEW.
8. CHANGE NAME OF CNF AT INTERSECTION OF MENLO DR LEG AND INTERMEDIATE COURSE FROM ZORLO TO CFBHX.
9. ADDED RADIAL FROM OAK VORTAC TO HEMAN INT.
10. CHANGED ALL REFERENCES OF TDZE 13 TO THRE 13, AND ALL REFERENCES OF HAT CHANGED TO HATH.
11. REMOVED SIDESTEP 28R LINE OF MINIMA, AND ALL INDICATIONS OF SS 28R.
12.UPDATED CIRCLING CAT A MINS FROM: MDA 760 VIS 1 HAA 747, TO MDA 940 VIS 1 1/4 HAA 927.
13.ADDED # 310 FT/NM MA CG TO 2100 TO S-ILS 28L 200 HATH AND S-LOC 28L 460 MDA BOTH MA.
SEE 8260-10

REASONS:

1.,2.,3.,4.I-SFO LOC AND DME MOVED, AND 8260.54A L-V RNP PFAF FORMULA APPLIED TO ALL FIXES TO PLACE ON GS INTCP TO SUPPORT SIM CLOSE PARALLEL PRM, ALL FIXES MENTIONED IN CHANGE 1 MOVED.
5.NONSTD CG REQUIRED TO SUPPORT LOWER MINS, NOTE REQUIRED TO INFORM PILOTS OF REQUIREMENT, APPLIES TO BOTH PRIMARY AND ALTERNATE MA.
6.CORRECTED TO MATCH ASIS DATA, FACILITY TCH IS 57.1, NOT 57.
7.CRITERIA NOW REQUIRES TO CHART ALTERNATE MISSED APPROACH HOLDING.
8.CRITERIA NOW REQUIRES ALL CNF FIXES TO BE NAMED ACCORDING TO NAMING CONVENTION CFXXX (X TO BE CONSONANTS).
9.FOR INTERSECTION FIX MAKEUP TO INTERMEDIATE.
10.CRITERIA CHANGED AND NOW REQUIRES DOCUMENTATION FROM THRE VS THE TDZE, AND HAT TO HATH.
11.CRITERIA REQUIRES 5 LINES OF MINS OR LESS, SFO ATC, NORCAL TRACON, AND FPT DIRECTED TO REMOVE SIDESTEP MINS.
12.CRITERIA DOES NOT ALLOW CIRCLING MINS TO BE BELOW HIGHEST LINE OF NPA STRAIGHT IN MINS.
13.ADDING AAO IN MA REQ CG 310FT/NM TO 2100 TO CLEAR OBST AND MAINTAIN LOWER MINS, PER CRITERIA MARKED NONSTD MINS W/# TO MATCH NOTE OF REQUIRED NONSTD CG REQUIREMENT FOR MINS.
14.NEW CRITERIA REFLECTS CHANGES IN HOW VISIBILITY/RVR IS CALCULATED.
15.FOR EACH LINE OF MINS A NONSTD MA CG IS APPLIED TO, CRITERIA REQUIRES A SECOND LINE OF MINS AT STD 200 FT/NM CG MA BE PUBLISHED.
16.MINIMA UPDATED, AND RAISED, AND NEW CRITERIA FOR DEFINING MINIMA AND VISIBILITY.
17.NOTES ARE NO LONGER NECESSARY, AND PER FPT OM DCOM-NO SIGNAL.
SEE 8260-10

QUALITY 1 CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

ILS - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.29

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 aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

NOTES, (CONT.):
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT.
CHART NOTE: † RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA.
CHART NOTE: CIRCLING TO RWYS 01L, 01R, AND 19R NA AT NIGHT.

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 13 THRE: 13 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23 SEP 20 2012	AMDT: 22A DATED: 04/10/2008

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:

CHANGES CONT.
14. UPDATED S-LOC 28L # MDA 460 RVR FROM CAT C 4000 AND CAT D 5000 TO RVR CAT C, D 4500. 15.ADDED NEW LINES OF MINS W/ 200FT/NM CG TO S-ILS 28L 784 HATH, AND TO S-LOC 28L 940 MDA. 16.NONSTD ALT MINS UPDATED FROM #CAT A 800-2, CAT B 1000-2, CAT C 1100-3, CAT D 1200-3 AND @CAT B 1000-2, CAT C 1100-3, CAT D 1200-3; BOTH TO ##@CAT A,B 1000-2, CAT C 1100-3, CATD 1200-3. 17.RMVD NOTES: INOPERATIVE TABLE DOES NOT APPLY TO SIDESTEP 28R; DISREGARD IM AND MM INDICATIONS. 18.RMVD PLANVIEW/ PROFILE NOTE:#WHEN ASSIGNED BY ATC, INTERCEPT GLIDEPATH AT ROKME, 4000; OR WETOR, 5000; OR PONKE, 6000; OR DIVEC, 7000. 19.CHANGED SYMBOL FOR REMARK #RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA FROM # TO +, THEN ADDED T SYMBOL TO RELATED S-ILS 28L#. 20.MA CHANGED FROM: CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 3000 VIA HEADING 285 AND SFO VOR/DME R-280 TO OLYMM INT/15 DME AND HOLD; OR WHEN DIRECTED BY ATC, CLIMB VIA HEADING 281 TO 3000 THEN CLIMBING LEFT TURN TO 5000 DIRECT SJC VOR/DME AND HOLD E, LEFT TURN, 286 INBOUND; TO NOW READ: CLIMB TO 2100 THEN CLIMBING RIGHT TURN TO 3000 ON HEADING 285 AND SFO VOR/DME R-280 TO OLYMM INT/SFO 15 DME AND HOLD, OR AS DIRECTED BY ATC. ALT MA CLIMB TO 2100 THEN CLIMBING LEFT TURN TO 5000 DIRECT SJC VOR/DME AND HOLD. 21.ADDED CIRCLING NOTE RESTRICTIONS. 22.CHANGE HEMAN FROM IF SD TO IF, WETOR FROM IF TO IAF SD. 23.CNX WAIVER FOR NONSTD INTERMEDIATE DG.

REASONS:

REASONS CONT.
18.PER CRITERIA THESE NOTES ARE NO LONGER ALLOWED ON PLATES FOR SIMULTANEOUS PROCEDURES.
19.THE T RVR 1800 REDUCTION ONLY APPLIES TO THE S-ILS 28L# WITH NONSTANDARD MA CG.
20.MA CHANGES DUE TO, I-SFO LOC/DME MOVEMENT, AAO APPLICATION IN MA REQUIRING CG/CTA FOR LOWER MINS, WHICH REQUIRED ALL CTA TO BE THE SAME, FINALLY INSTRUCTIONS MODIFIED TO COMPLY WITH NEW CRITERIA MA INSTRUCTION CONVENTIONS.
21.20:1 PENETRATIONS TO 01R,01L, 10R, 19R, ONLY 19R HAS VERIFIED VGSI.
22. HEMAN HAD TO BE IF IN ORDER FOR MENLO DR TRANSITION TO WORK, COULD NOT MOVE MENLO, THIS IS ONLY SOLUTION, NORCAL APP CON ADV MUST KEEP MENLO TRANSITION.
23.REBUILD OF PROCEDURE PROVIDES OPTIMUM DESCENT ANGLE OF 3.00 DEGREES IN INTERMEDIATE, THEREBY PROVIDING OPTIMUM DESCENT GRADIENT, NO WAIVER REQUIRED.

QUALITY 2 CHECKED

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

ILS STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.29**

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 - ILS

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        SFO   K2011580VDLA N37371014W122222602    N37371014W122222602E0170000071     NARSAN FRANCISCO
        SUSAD KSFOK2 ISFO  K2010955 IT                    ISFON37373954W122234145     000060     NARSAN FRANCISCO INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CFBHX K20    W     N37311655W122083685                      E0140     NAR           CNF(CFBHX)
        SUSAEAENRT   DIVEC K20    R     N37262985W121572003                      E0139     NAR           DIVEC
        SUSAEAENRT   DUYET K20    C     N37340974W122152738                      E0140     NAR           DUYET
        SUSAEAENRT   FAITH K20    C     N37240438W121514284                      E0139     NAR           FAITH
        SUSAEAENRT   HEMAN K20    R     N37321502W122105517                      E0140     NAR           HEMAN
        SUSAEAENRT   MENLO K20    C     N37274927W122091317                      E0140     NAR           MENLO
        SUSAEAENRT   OLYMM K20    C     N37435805W122391683                      E0141     NAR           OLYMM
        SUSAEAENRT   PONKE K20    R     N37275850W122004882                      E0139     NAR           PONKE
        SUSAEAENRT   ROKME K20    C     N37305550W122074687                      E0140     NAR           ROKME
        SUSAEAENRT   WETOR K20    R     N37292705W122041778                      E0139     NAR           WETOR

                 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 KSFOK2FI28L  AFAITH 010FAITHK2EA0E  A    IF                                                18000                 0 DS
        SUSAP KSFOK2FI28L  AFAITH 020DIVECK2EA0E       TF                                     + 07000                          0 DS
        SUSAP KSFOK2FI28L  AFAITH 030PONKEK2EA0E       TF                                     + 06000                          0 DS
        SUSAP KSFOK2FI28L  AFAITH 040WETORK2EA0E       TF                                     + 05000                          0 DS
        SUSAP KSFOK2FI28L  AFAITH 050ROKMEK2EA0E       TF                                     + 04000                          0 DS
        SUSAP KSFOK2FI28L  AFAITH 060HEMANK2EA0EE B    CF ISFOK2      1008011528080028PI  + 03100                          0 DS
        SUSAP KSFOK2FI28L  AMENLO 010MENLOK2EA0E  A    IF                                                18000                 0 DS
        SUSAP KSFOK2FI28L  AMENLO 020CFBHXK2EA0E       TF                                     + 03100                          0 DS
        SUSAP KSFOK2FI28L  AMENLO 030HEMANK2EA0EE B    CF ISFOK2      1008011528080021PI  + 03100                          0 DS
        SUSAP KSFOK2FI28L  I      010HEMANK2EA0E  I    IF ISFOK2      10080115        PI  J 031000180018000                0 DS
        SUSAP KSFOK2FI28L  I      020DUYETK2EA0E  F    CF ISFOK2      1008007428100041PI  H 0180001800        -300SFO   K2D 0 DS
        SUSAP KSFOK2FI28L  I      030RW28LK2PG0GY M    CF ISFOK2      1008002028100054PI    00070             -300          0 DS
        SUSAP KSFOK2FI28L  I      040         0  M     CA                      2808       + 02100                          0 DS
        SUSAP KSFOK2FI28L  I      050         0        VI                      2850                                        0 DS
        SUSAP KSFOK2FI28L  I      060OLYMMK2EA0EY      CF SFO K2      2800015028000120D   + 03000                          0 DS
        SUSAP KSFOK2FI28L  I      070OLYMMK2EA0EE  R   HM                      2800T010    + 03000                          0 DS
```

QUALITY A CHECKED

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: **SAN FRANCISCO INTL**	**I-SFO**	**ILS OR LOC RWY 28L, AMDT 23** SEP 20 2012	AMDT: **22A**
				DATED: **04/10/2008**

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.

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2GRW28L   0113812808 N37364216W122213006+0000    -0028700013000057200IISFO1

                1         2         3         4         5         6         7         8         9         0         1         2         3
ILS     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2IISFO1   010955RW28LN37373746W1222341892808N37365013W1222140100610 10930334300E01705700009

                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2SSFO  K2D                 0   120230051252303600452536012003525                                                    M
```

QUALITY A CHECKED

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AMDT: 22A
			SEP 20 2012	DATED: 04/10/2008

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.

ARINC SUMMARY - 424-18 - ILS

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	FAITH	FAITH	010	IAF	IF		FB					
	FAITH	DIVEC	020		TF		FB				AA 07000	
	FAITH	PONKE	030		TF		FB				AA 06000	
	FAITH	WETOR	040		TF		FB				AA 05000	
	FAITH	ROKME	050		TF		FB				AA 04000	
	FAITH	HEMAN	060		CF		FB		280.8()	002.8	AA 03100	
	MENLO	MENLO	010	IAF	IF		FB					
	MENLO	CFBHX	020		TF		FB				AA 03100	
	MENLO	HEMAN	030		CF		FB		280.8()	002.1	AA 03100	
		HEMAN	010	FACF	IF		FB				AA 03100 GI 01800	
		DUYET	020	FAF	CF		FB		281.0()	004.1	GI 01800 GS 01800	
		RW28L	030	MAP	CF		FO		281.0()	005.4	AT 00070	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		280.8()		AA 02100	
		050		VI		FB		285.0()			
	OLYMM	060		CF		FO		280.0()	012.0	AA 03000	
	OLYMM	070		HM	R	FO		280.0()	T01.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	SFO	N373710.14	W1222226.02	N3737.169	W12222.434
	ISFO (DME)	N373739.54	W1222341.45	N3737.659	W12223.691
	CFBHX	N373116.55	W1220836.85	N3731.276	W12208.614
	DIVEC	N372629.85	W1215720.03	N3726.498	W12157.334
	DUYET	N373409.74	W1221527.38	N3734.162	W12215.456
	FAITH	N372404.38	W1215142.84	N3724.073	W12151.714
	HEMAN	N373215.02	W1221055.17	N3732.250	W12210.920
	MENLO	N372749.27	W1220913.17	N3727.821	W12209.220
	OLYMM	N374358.05	W1223916.83	N3743.968	W12239.281
	PONKE	N372758.50	W1220048.82	N3727.975	W12200.814
	ROKME	N373055.50	W1220746.87	N3730.925	W12207.781
	WETOR	N372927.05	W1220417.78	N3729.451	W12204.296
	RW28L	N373642.16	W1222130.06	N3736.703	W12221.501
	ISFO (LOC)	N373737.46	W1222341.89	N3737.624	W12223.698

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW28L	00013	57

CHECKED

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AMDT: 22A
			SEP 20 2012	DATED: 04/10/2008

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

LOC STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.25**

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 - LOC

                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        SFO   K2011580VDLA N37371014W122222602    N37371014W122222602E0170000071     NARSAN FRANCISCO
        SUSAD KSFOK2 ISFO  K2010955 IT                    ISFON37373954W122234145     000060     NARSAN FRANCISCO INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CFBHX K20    W     N37311655W122083685                        E0140     NAR           CNF(CFBHX)
        SUSAEAENRT   DIVEC K20    R     N37262985W121572003                        E0139     NAR           DIVEC
        SUSAEAENRT   DUYET K20    C     N37340974W122152738                        E0140     NAR           DUYET
        SUSAEAENRT   FAITH K20    C     N37240438W121514284                        E0139     NAR           FAITH
        SUSAEAENRT   HEMAN K20    R     N37321502W122105517                        E0140     NAR           HEMAN
        SUSAEAENRT   MENLO K20    C     N37274927W122091317                        E0140     NAR           MENLO
        SUSAEAENRT   OLYMM K20    C     N37435805W122391683                        E0141     NAR           OLYMM
        SUSAEAENRT   PONKE K20    R     N37275850W122004882                        E0139     NAR           PONKE
        SUSAEAENRT   ROKME K20    C     N37305550W122074687                        E0140     NAR           ROKME
        SUSAEAENRT   WETOR K20    R     N37292705W122041778                        E0139     NAR           WETOR

                 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 KSFOK2FL28L  AFAITH 010FAITHK2EA0E  A    IF                                                18000                 0 DS
        SUSAP KSFOK2FL28L  AFAITH 020DIVECK2EA0E       TF                                     + 07000                          0 DS
        SUSAP KSFOK2FL28L  AFAITH 030PONKEK2EA0E       TF                                     + 06000                          0 DS
        SUSAP KSFOK2FL28L  AFAITH 040WETORK2EA0E       TF                                     + 05000                          0 DS
        SUSAP KSFOK2FL28L  AFAITH 050ROKMEK2EA0E       TF                                     + 04000                          0 DS
        SUSAP KSFOK2FL28L  AFAITH 060HEMANK2EA0EE B    CF ISFOK2      1008011528080028PI  + 03100                          0 DS
        SUSAP KSFOK2FL28L  AMENLO 010MENLOK2EA0E  A    IF                                                18000                 0 DS
        SUSAP KSFOK2FL28L  AMENLO 020CFBHXK2EA0E       TF                                     + 03100                          0 DS
        SUSAP KSFOK2FL28L  AMENLO 030HEMANK2EA0EE B    CF ISFOK2      1008011528080021PI  + 03100                          0 DS
        SUSAP KSFOK2FL28L  L      010HEMANK2EA0E  I    IF ISFOK2      10080115        PI  + 03100     18000                 0 DS
        SUSAP KSFOK2FL28L  L      020DUYETK2EA0E  F    CF ISFOK2      1008007428100041PI  + 01800                SFO   K2D 0 DS
        SUSAP KSFOK2FL28L  L      030RW28LK2PG0GY M    CF ISFOK2      1008002028100054PI    00070            -301          0 DS
        SUSAP KSFOK2FL28L  L      040         0  M     CA                     2808        + 02100                          0 DS
        SUSAP KSFOK2FL28L  L      050         0        VI                     2850                                         0 DS
        SUSAP KSFOK2FL28L  L      060OLYMMK2EA0EY      CF SFO K2      2800015028000120D   + 03000                          0 DS
        SUSAP KSFOK2FL28L  L      070OLYMMK2EA0EE  R   HM                     2800T010    + 03000                          0 DS
```

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AMDT: 22A
			SEP 20 2012	DATED: 04/10/2008

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
LOC STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - FAR PART 97.25

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.

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2GRW28L   0113812808 N37364216W122213006+0000    -0028700013000057200IISFO1

                 1         2         3         4         5         6         7         8         9         0         1         2         3
ILS     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2IISFO1   010955RW28LN37373746W1222341892808N37365013W1222140100610 10930334300E01705700009

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSFOK2SSFO  K2D                 0   120230051252303600452536012003525                                                    M
```

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AMDT: 22A
			SEP 20 2012	DATED: 04/10/2008

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

LOC STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.25**

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 SUMMARY - 424-18 - LOC

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	FAITH	FAITH	010	IAF	IF		FB					
	FAITH	DIVEC	020		TF		FB				AA 07000	
	FAITH	PONKE	030		TF		FB				AA 06000	
	FAITH	WETOR	040		TF		FB				AA 05000	
	FAITH	ROKME	050		TF		FB				AA 04000	
	FAITH	HEMAN	060		CF		FB		280.8()	002.8	AA 03100	
	MENLO	MENLO	010	IAF	IF		FB					
	MENLO	CFBHX	020		TF		FB				AA 03100	
	MENLO	HEMAN	030		CF		FB		280.8()	002.1	AA 03100	
		HEMAN	010	FACF	IF		FB				AA 03100	
		DUYET	020	FAF	CF		FB		281.0()	004.1	AA 01800	
		RW28L	030	MAP	CF		FO		281.0()	005.4	AT 00070	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		280.8()		AA 02100	
		050		VI		FB		285.0()			
	OLYMM	060		CF		FO		280.0()	012.0	AA 03000	
	OLYMM	070		HM	R	FO		280.0()	T01.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	SFO	N373710.14	W1222226.02	N3737.169	W12222.434
	ISFO (DME)	N373739.54	W1222341.45	N3737.659	W12223.691
	CFBHX	N373116.55	W1220836.85	N3731.276	W12208.614
	DIVEC	N372629.85	W1215720.03	N3726.498	W12157.334
	DUYET	N373409.74	W1221527.38	N3734.162	W12215.456
	FAITH	N372404.38	W1215142.84	N3724.073	W12151.714
	HEMAN	N373215.02	W1221055.17	N3732.250	W12210.920
	MENLO	N372749.27	W1220913.17	N3727.821	W12209.220
	OLYMM	N374358.05	W1223916.83	N3743.968	W12239.281
	PONKE	N372758.50	W1220048.82	N3727.975	W12200.814
	ROKME	N373055.50	W1220746.87	N3730.925	W12207.781
	WETOR	N372927.05	W1220417.78	N3729.451	W12204.296
	RW28L	N373642.16	W1222130.06	N3736.703	W12221.501
	ISFO (LOC)	N373737.46	W1222341.89	N3737.624	W12223.698

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW28L	00013	57

CITY AND STATE	ELEVATION: 13 THRE: 13	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAN FRANCISCO, CA	AIRPORT NAME: **SAN FRANCISCO INTL**	**I-SFO**	**ILS OR LOC RWY 28L, AMDT 23** SEP 20 2012	AMDT: **22A** DATED: **04/10/2008**

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	MENLO INT	HEMAN INT/I-SFO	1. AAO	372854.00N/1221633.00W	840 (4E)	1000	XP1260	3100
		11.50 DME	2. TERRAIN	372854.00N/1221633.00W	640 (600)		AS1500	2100
INITIAL	FAITH/SFO 27.72	DIVEC/I-SFO	3. AAO	372827.00N/1215121.00W	2464 (4E)	1000	XP3536	7000
	DME	23.74 DME	4. TERRAIN	372827.00N/1215121.00W	2264 (2300)		AS1500	3800
INITIAL: STEPDOWN	DIVEC/I-SFO	PONKE/I-SFO	5. AAO	373106.00N/1215315.00W	2189 (4E)	1000	SA-897 XP3708	6000
	23.74 DME	20.60 DME	6. TERRAIN	373003.00N/1215503.00W	207 (200)		AS1500	1700
INITIAL: STEPDOWN	PONKE/I-SFO	WETOR/I-SFO	7. AAO	373142.00N/1515857.00W	246 (4E)	1000	XP3754	5000
	20.60 DME	17.47 DME	8. TERRAIN	373142.00N/1215857.00W	46 (0)		AS1500	1500
INITIAL: STEPDOWN	WETOR/I-SFO	ROKME/I-SFO	9. AAO	373313.35N/1220539.88W	499 (2C)	1000	XP2501	4000
	17.47 DME	14.33 DME	10. TERRAIN	373313.35N/1220539.88W	299 (300)		AS1500	1800
INITIAL: STEPDOWN	ROKME/I-SFO	HEMAN INT/I-SFO	9. AAO	373313.35N/1220539.88W	499 (2C)	1000	XP1601	3100
	14.33 DME	11.50 DME	11. TERRAIN	373419.02N/1220616.48W	119 (100)		AS1500	1600
INTERMEDIATE	HEMAN INT/I-SFO	DUYET INT/I-SFO	12. TOWER (06-000075)	373250.00N/1221402.00W	560 (1C)	500	XP740	1800
	11.50 DME	7.42 DME	13. TERRAIN	372903.00N/1221327.00W	17 (0)		AS1500	1500
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA / 5.43	OLYMM INT/SFO	14. AAO	373651.04N/1222738.01W	1449 (2C)	34:1	AC20	3000
	MILES AFTER	15.00 DME	15. TOWER (06-002525)	374114.38N/1222605.32W	1569 (1A)	1000		2600
ELEV:	44/372/210/690		16. TERRAIN	374115.00N/1222612.00W	1316 (1300)		AS1500	2800

4. CIRCLING AREA	DISTANCE		HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL	927	17. TREE	373541.99N/1222412.77W	424 (2C)	300	SI	940
CATEGORY B	1.5 NM		450		927	18. TREE	373515.60N/1222402.84W	599 (2C)	300	SI	940
CATEGORY C	1.7 NM		450		1027	19. TREE	373506.00N/1222405.00W	724 (2C)	300		1040
CATEGORY D	2.3 NM		550		1147	20. TREE	373508.43N/1222515.17W	824 (2C)	300	XP36	1160
CATEGORY E	4.5 NM		550								

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: **SFO VOR/DME**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
050-180	AAO	133/ 27.3	3432 (4E)	4500	300-050	AAO	037/ 26.9	4049 (2A)	5100
180-300	AAO	311/ 21.3	2474 (4E)	3500					

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
SAN FRANCISCO, CA	ELEVATION: 13 AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AWP

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
NORCAL APP CON **ZOA ARTCC** **SFO TOWER** SATISFACTORY ON:	N W S / F A A / A / C — OTHER: **ASOS**	SOURCE: **KSFO** DISTANCE: HOURS REMOTE OPERATION: **24**
X V H F / X U H F / H F	LOCATION: **KSFO**	ADJUSTMENT: **0**

4. MONITOR STATUS

PRIMARY NAVAID: **I-SFO**

MONITOR POINT:

HRS OPTN: CAT 1 **24**; 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**

DISTANCE FROM RWY: **1093**

ELEV RWY THRESHOLD: **12.7**

ELEV GP ANTENNA: **12.5**

THRESHOLD CROSSING HEIGHT: **57.1**

9. FINAL APPROACH COURSE AIMING

X RUNWAY THRESHOLD FT. FROM THRESHOLD

X ON CENTERLINE FT. FROM CENTERLINE

10. WAIVERS: **NONE**

PART D - PREPARED BY: **ADOLFO URRUTIA (AMANDA ROBBINS)**

DATE: **05/20/2012**

TITLE: **AERONAUTICAL INFORMATION SPECIALIST**

OFFICE: **AJV-354**

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

MISSED APPROACH OBSTACLES CONT.
$=NONSTANDARD CG 310FT /NM TO 2100, THEN... APPLIES TO BOTH PRIMARY AND ALTERNATE MA FOR LOWER DA/MDA.

PRIMARY WITH STANDARD CG:
22. TWR (06-000465) 374106.54N/1222604.58W 1545 (1A) 1000 2600 -LOC SLOPE STD CG

ALTERNATE WITH STANDARD CG:
14. AAO 373651.04N/1222738.01W 1449 (2C) 34:1 AC20 5000 - ILS SLOPE STD CG
23. AAO 373134.70N/1222523.40W 2144 (2C) 1000 3200 - LEVEL SURFACE STD CG
24. TERRAIN 373134.70N/1222523.40W 1944 (1900) AS1500 3400 -LEVEL TERRAIN STD CG
22. TWR (06-000465) 374106.54N/1222604.58W 1545 (1A) 1000 2600 -LOC SLOPE STD CG

PRIMARY WITH NONSTANDARD 310FT/NM CG TO 2100:
$25. AAO 374103.57N/1222607.25W 1374 (2C) CG/23:1 3000 -ILS SLOPE NONSTD CG & CTA
$22. TWR (06-000465) 374106.54N/1222604.58W 1545 (1A) 1000 2600 -LOC SLOPE NONSTD CG & CTA

ALTERNATE WITH NONSTANDARD 310FT/NM CG TO 2100:
$25. AAO 374103.57N/1222607.25W 1374 (2C) CG/23:1 5000 - ILS SLOPE NONSTD CG & CTA
$22. TWR (06-000465) 374106.54N/1222604.58W 1545 (1A) 1000 2600 -LOC SLOPE NONSTD CG & CTA

SEE ATTACHED AIRSPACE LETTER.

TERPS 289 APPLIED TO 214 T-L TWR 373442N-1221522W.
ASOS ON SERVICE A. BACKUP ALTIMETER NOT REQUIRED DUE TO REDUNDANT LOCAL SOURCES PER FPT.
VGSI DATA: 3.00/75

ASSUMED VEG 100FT PER FPT.
TALLEST MASTED VESSEL KNOW TO TRAVERSE W/IN 3 MI OF THE AREA IS NOT OVER 150' PER WST FPT, SFO INTL ATCT, SFO USCG AT SFO INTL, AND THE USCG VESSEL TRAFFIC SERVICE IN SFO. AGENCIES ALSO INDICATE THE BAY SHIP CHANNEL IS AT LEAST 3 MILES FROM SFO INTERNATIONAL.

OBSTACLE 5 LOCATED 9229 FEET INTO SECONDARY.

CIRC R01R, 1L, 19R NA AT NIGHT DUE TO 20:1 AND UNVERIFIED VGSI.
WHEN VGSI INOP CIRC R10R NA AT NIGHT DUE TO 20:1.

LOCATION AND ALT DETERMINED FOR INTERCEPTION OF GS, USING 8260.54A L-V RNP PFAF FORMULA 2-16B, ALL ON 3.00 DEGREE GS: HEMAN 3100, ROKME 4000, WETOR 5000, PONKE 6000, DIVEC 7000.

DIVEC, PONKE, WETOR, ROKME, HEMAN, DUYET ARE ALL ON A 3.00 DEGREE GS AND L-V FORMULA PLACEMENT, AS SUCH THE DESCENT GRADIENT IS 318FT/NM AND CHANGE. IAPA DID NOT LIKE THE CHANGE AFTER DECIMAL, I HAD TO PUT DIFFERENT ALT IN INTERMEDATE AND LAST INITIAL STEPDOWN IN ORDER TO GET IT TO BUILD AT THE RIGHT LOCATION. 101 ADV NO WAIVER FOR THIS, AS IT IS THE IDEAL 3.00 DEGREE GLIDESLOPE, IT IS A PROGRAMMING ISSUE.

CONT.

QUALITY 2 CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FINAL: ILS	DUYET INT/I-SFO	RW28L				CG/23:1	$	213/200
	7.42 DME							
FINAL: ILS	DUYET INT/I-SFO	RW28L				34:1	MA584	797/784
	7.42 DME							
FINAL: LOC	DUYET INT/I-SFO	5.43 MILES AFTER	21. AAO	374313.04N/1221626.12W	209 (2C)	250	$	460
	7.42 DME	DUYET INT/SFO						
		7.42 DME OR AT						
		I-SFO 1.98 DME						
		FIX						
FINAL: LOC	DUYET INT/I-SFO	5.43 MILES AFTER	21. AAO	373413.04N/1221626.12W	209 (2C)	250	MA478	940
	7.42 DME	DUYET INT/SFO						
		7.42 DME OR AT						
		I-SFO 1.98 DME						
		FIX						
3. MISSED APPROACH	MAP:							
	ELEV:							

4. CIRCLING AREA	DISTANCE	REQUIRED	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	

HT. ABV. ARPT.

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

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

ALT'L 2 CHECK C

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
SAN FRANCISCO, CA	ELEVATION: 13 AIRPORT NAME: SAN FRANCISCO INTL	I-SFO	ILS OR LOC RWY 28L, AMDT 23	AWP

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ NWS ☐ FAA ☐ A/C OTHER:	SOURCE:
		DISTANCE:
		HOURS REMOTE OPERATION:
☐ VHF ☐ UHF ☐ HF	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.
INTERMEDIATE LENGTH FROM HEMAN TO PFAF MEETS 8260.3 VOL 3 ILS CRITERIA. HEMAN IS NOW INTERMEDIATE DUE TO DEAD RECKONING FROM MENLO, THIS IS THE ONLY WAY MENLO DR WORKS, AND NORCAL APP CON ADV MUST KEEP MENLO TRANSITION.

FAAO 8260.3 VOL1, VISUAL PORTION OF FINAL PENETRATIONS:

FPT NOTIFIED VIA EMAIL 21 MAY 2012 WITH A FULL LIST OF ALL PENETRATIONS, TOO MANY TO LIST ALL HERE, BUT DID LIST HIGHEST PENETRATION FOR THE 4 RWYS IMPACTED BY 20:1.
NO 20:1 OR 34:1 PENETRATIONS FOR RW28L
20:1
R01L 491 TREE (KSFOT2062) 373516.27N/1222402.84W(0.61)
R01R 588 TREE (KSFOT2457) 373503.05N/1222358.14W (82.99)
R10R 26 DME 28L (KSFOT3287) 373734.57N/1222339.34W (14.17)
R19R 14 OL ON LEVEE (KSFO0020) 373739.77N/1222211.21W (4.94)

XP 12: GS INTERCEPT ALT AND DIST

XP 3: GS INTERCEPT ALT AND DIST

XP 5: GS INTERCEPT ALT AND DIST

XP 7: GS INTERCEPT ALT AND DIST

XP 9: GS INTERCEPT ALT AND DIST

XP 01: GS INTERCEPT ALT AND DIST

XP FOR CIRCLING CAT D MATCH OTHER PROCEDURES.

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBHX **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373116.55N/1220836.85W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L			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:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DIVEC **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372629.85N/1215720.03W **TYPE:** 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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	23.74	23.73		7000	8000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-SFO	LOC/DME	R-101	24	7000	8000

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

REMARKS:
I-SFO/DME ANTENNA COORDINATES: 373739.54N-1222341.45W
8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PARALLEL)	1		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:
FIX MOVED SE 1.18NM, FIX NAME RETAINED FOR ATC OPERATIONAL REQUIREMENT.
UPDATED FIX USE AND FORMAT.
FAC1 IN HISTORY STATUS.
ADDED FAC1 DIST FROM FAC IN NM.
UPDATED FAC1 DME DIST FROM 22.50NM TO 23.74NM.
ADDED REMARK 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
REMOVED REMARK AFS420 CALCULATOR UTILIZED TO ESTABLISH PFAF COORDINATES WHERE THE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
UPDATED REMARK I-SFO/DME ANTENNA COORDINATES LAT/LONG FROM 373733.93N-1222339.54W TO 373739.54N-1222341.45W, LOC AND DME MOVED.
REMOVED REMARK FAC 1 ESV ON FILE E CRS/21NM 7000-8000.
ADDED UPDATED ESV FOR FAC1.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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: DUYET **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373409.74N/1221527.38W **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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	7.42	7.41	45004	1800	4500
2	OAKLAND	OAK	VORTAC	H	172.81	189.81		9.52		1800	17500

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

REMARKS:
8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES.
I-SFO/DME ANTENNA COORDINATES: 373739.54N-1222341.45W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1, 2		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PAR)	1, 2		KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) RWY 28L			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FIX MOVED SE 480.05 FT, DUE TO 8260.54A L-V FORMULA.
UPDATED FACILITIES, ALL FACILITIES IN HISTORY STATUS.
I-SFO LOC AND DME MOVED.
CHANGED LAT/LONG IN I-SFO/DME ANTENNA COORDINATES REMARK TO NEW COORDINATES.
UPDATED FAC1 DME DIST FROM 7.27 TO 7.42.
UPDATED FAC1 DIST FROM FAC IN NM AND FEET FROM 7.26/44133 TO 7.41/45004.
UPDATED FAC2 DIST FROM FAC FROM 9.50 TO 9.52, AND BRG FROM 190.27/173.27 TO 189.81/172.81.
DELETED FAC2 DME, NOT USED FOR FIX.
DELETED FAC3 SFO VOR/DME, NO LONGER USED FOR FIX.
REMOVED REMARK: PFAF COORDINATES DERIVED FROM 8260.54 RNP FORMULA.
ADDED REMARK: 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FAITH **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372404.38N/1215142.84W **TYPE:** WP, 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	SAN FRANCISCO	SFO	VOR/DME	L	101.00	118.00	27.72	27.72		4100	17500

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PAR)	1		KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) RWY 28L			KSFO	SAN FRANCISCO	CA (US)
STAR	YOSEM (RNAV)			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FAC1 IN HISTORY STATUS.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HEMAN **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373215.02N/1221055.17W **TYPE:** 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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	11.50	11.49		3100	4500
2	OAKLAND	OAK	VORTAC	H	153.03	170.03		11.46		3100	17500

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

REMARKS:
I-SFO/DME COORDINATES: 373739.54N-1222341.45W.
8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1, 2		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIMULTANEOUS CLOSE PARALLEL)	1, 2		KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FIX MOVED SE 362.83FT.
UPDATED FIX USE AND FIX USE FORMAT.
FAC1 IN HISTORY STATUS.
UPDATED FAC1 DME FROM 11.49 TO 11.50.
ADDED FAC1 DIST FROM FAC IN NM.
DELETED FAC2, NO LONGER USED FOR FIX MAKEUP.
UPDATED I-SFO/DME COORDINATES REMARK TO NEW COORDINATES.
REMOVED ESV, NO LONGER APPLIES.
REMOVED REMARK: AFS420 CALCULATOR UTILIZED TO ESTABLISH COORDINATES WHERE THE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
ADDED REMARK: 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
MOVED BACKUP FACILITY OAK VORTAC TO FAC2, NOW USED FOR INTERSECTION.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MENLO **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372749.27N/1220913.17W **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	OAKLAND	OAK	VORTAC	H	151.00	168.00	16.07	16.07		4000	17500
2	WOODSIDE	OSI	VORTAC	L	038.00	055.00	7.44	7.44		4000	17500

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

REMARKS:
FLY-OVER WAYPOINT ADDED FOR FMS/GPS EQUIPED AIRCRAFT.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1, 2		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS OR LOC RWY 28R (CAT II/III)	1, 2		KSFO	SAN FRANCISCO	CA (US)
OTHER	QUIET BRIDGE VISUAL RWYS 28L/R	1, 2		KSFO	SAN FRANCISCO	CA (US)
OTHER	TIPP TOE VISUAL RWY 28L	1, 2		KSFO	SAN FRANCISCO	CA (US)
STAR	BIG SUR	1, 2		KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
FAC1 IN HISTORY STATUS.
REMOVED FAC3, BOLDR FIX.
ADDED DIST FROM FAC NM FOR FAC1 AND FAC2.
UPDATED FIX USE AND FIX USE FORMAT.
ADDED DME TO FAC2.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: OLYMM **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 374358.05N/1223916.83W **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	SAN FRANCISCO	SFO	VOR/DME	L	280.00	297.00	15.00	15.00		3000	17500
2	SAUSALITO	SAU	VORTAC	L	203.54	220.54		9.66		3000	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	E	SFO	VOR/DME	280.00	280.00	R	1		3000	6000	5	6
2	E		WP	100.00	280.00	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	374116.54N/1222621.56W	1374	2C
2	200	AAO	374116.54N/1222621.56W	1374	2C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN(S)

REMARKS:
SAN FRANCISCO (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1, 2	1	KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PAR)	1, 2	1	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) RWY 28L		2	KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) Z RWY 28R		2	KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP, AREA

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FAC1 IN HISTORY STATUS.
UPDATED PAT1 AND PAT2 MIN TEMPLATE PAT FROM 4 TO 5.
UPDATED PAT1 AND PAT2 OBST FROM 06-000120 1811FT MSL, TO AAO; 06-000120 IS CTRL FOR TEMPLATE 6, BUT SHOULD NOT BE LISTED.
ADDED REMARK: SAN FRANCISCO (FAC 1) USED TO ESTABLISH FIX COORDINATES.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PONKE **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372758.50N/1220048.82W **TYPE:** 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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	20.60	20.59		6000	7000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-SFO	LOC/DME	R-101	21	6000	7000

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

REMARKS:
I-SFO/DME ANTENNA COORDINATES: 373739.54N-1222341.45W.
GS ANTENNA COORDINATES: 373650.12N-1222140.09W.
8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCEPTS THE SPECIFIED MSL ALTITUDE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PAR)	1		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:
FIX MOVED SE 5319.96FT.
FAC1 IN HISTORY STATUS.
UPDATED ESV USE AND FORMAT.
UPDATE FIX USE AND FIX USE FORMAT, ADDED ESV.
UPDATED FAC1 DME FROM 19.66 TO 20.60.
ADDED DIST FROM FAC NM.
ADDED REMARK: 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCEPTS THE SPECIFIED MSL ALTITUDE.
ADDED REMARK: GS ANTENNA COORDINATES: 373650.12N-1222140.09W.
REMOVED REMARK: AFS420 CALCULATOR UTILIZED TO ESTABLISH PFAF COORDINATES WHERE THE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
REMOVED REMARK: FAC 1 ESV ON FILE: E CRS/18NM 6000-7000.
UPDATED REMARK: I-SFO/DME WITH NEW DME COORDINATES.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ROKME **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373055.50N/1220746.87W **TYPE:** WP, 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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	14.33	14.31		4000	6000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-SFO	LOC/DME	R-101	15	4500	6000

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

REMARKS:
I-SFO/DME ANTENNA COORDINATES: 373739.54N-1222341.45W.
GS ANTENNA COORDINATES: 373650.12N-1222140.09W.
8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCETS THE SPECIFIED MSL ALTITUDE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PAR)	1		KSFO	SAN FRANCISCO	CA (US)
IAP	RNAV (GPS) RWY 28L			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FAC1 IN HISTORY STATUS, LOC AND DME MOVED.
FIX MOVED SE 2407.25 FT.
UPDATED FAC1 DME FROM 13.86 TO 14.33.
UPDATED FAC1 DIST FROM FAC NM 1385 TO 14.31.
ESV FORMAT AND USE UPDATED.
REMARK ISFO/DME ANTENA COORDINATES UPDATED TO NEW LAT/LONG.
REMOVED REMARK RNP PFAF FORMULA USED.
ADDED REMARK 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCETS THE SPECIFIED MSL ALTITUDE.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SAN JOSE VOR/DME **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372228.96N/1215640.80W **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	SAN JOSE	SJC	VOR/DME	L							18000

HOLDING: **HOLDING TYPE OF ACTION:**

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	SJC	VOR/DME	106.00	286.00	L	1		3000	14000	4	10
2	E		WP	106.00	286.00	L		4	3000	14000	5	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	372033.00N/1214430.00W	2494	4E
2	200	AAO	372021.00N/1214418.00W	2536	4E

REASON FOR NONSTANDARD HOLDING:
PAT 1 AIR TRAFFIC

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
PATTERN 1 CONTROLLING OBSTACLE LOCATED 11722.29 FT INTO SECONDARY.
PATTERN 2 CONTROLLING OBSTACLE LOCATED 8942.83 FT INTO SECONDARY.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	TAKE OFF MINIMUMS			KCVH	HOLLISTER	CA (US)
DP	BYRON			KLVK	LIVERMORE	CA (US)
DP	MONTEREY			KMRY	MONTEREY	CA (US)
DP	MUNSO			KMRY	MONTEREY	CA (US)
DP	SECA			KMRY	MONTEREY	CA (US)
DP	TORO			KMRY	MONTEREY	CA (US)
DP	NUEVO			KOAK	OAKLAND	CA (US)
DP	TAKE OFF MINIMUMS			KPAO	PALO ALTO	CA (US)
DP	CHALONE			KSNS	SALINAS	CA (US)
DP	SALINAS			KSNS	SALINAS	CA (US)
DP	TAKE OFF MINIMUMS			KSQL	SAN CARLOS	CA (US)
DP	EUGEN			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	MOONY			KSJC	SAN JOSE	CA (US)
DP	SAN JOSE			KSJC	SAN JOSE	CA (US)
DP	SUNOL			KSJC	SAN JOSE	CA (US)
DP	TAKE OFF MINIMUMS			KE16	SAN MARTIN	CA (US)
EN ROUTE	T259					(US)
EN ROUTE	V334					(US)
EN ROUTE	V485					(US)
IAP	LOC/DME RWY 28L			KHWD	HAYWARD	CA (US)
IAP	RNAV (GPS) RWY 28L			KHWD	HAYWARD	CA (US)
IAP	VOR/DME-A			KHWD	HAYWARD	CA (US)
IAP	ILS OR LOC/DME RWY 27R			KOAK	OAKLAND	CA (US)
IAP	VOR RWY 9R			KOAK	OAKLAND	CA (US)
IAP	GPS RWY 31		2	KPAO	PALO ALTO	CA (US)
IAP	VOR/DME RWY 31		1	KPAO	PALO ALTO	CA (US)
IAP	ILS OR LOC RWY 28L		1	KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIM CLOSE PARALLEL)		1	KSFO	SAN FRANCISCO	CA (US)
IAP	FAIRGROUNDS VISUAL RWY 30L			KSJC	SAN JOSE	CA (US)
IAP	FAIRGROUNDS VISUAL RWY 30R			KSJC	SAN JOSE	CA (US)
IAP	ILS OR LOC RWY 12R			KSJC	SAN JOSE	CA (US)
IAP	ILS OR LOC/DME RWY 30L			KSJC	SAN JOSE	CA (US)
IAP	RNAV (GPS) RWY 11			KSJC	SAN JOSE	CA (US)
IAP	RNAV (GPS) Y RWY 12L			KSJC	SAN JOSE	CA (US)
IAP	RNAV (GPS) Y RWY 12R			KSJC	SAN JOSE	CA (US)
IAP	VOR RWY 12R			KSJC	SAN JOSE	CA (US)
IAP	VOR/DME RWY 30L			KSJC	SAN JOSE	CA (US)

QUALITY 2 CHECKED

IAP	VOR/DME RWY 30R	KSJC	SAN JOSE	CA (US)
STAR	MADWIN	KHWD	HAYWARD	CA (US)
STAR	PANOCHE	KHWD	HAYWARD	CA (US)
STAR	MADWIN	KOAK	OAKLAND	CA (US)
STAR	MARVN	KOAK	OAKLAND	CA (US)
STAR	PANOCHE	KOAK	OAKLAND	CA (US)
STAR	GOLDEN GATE	KSFO	SAN FRANCISCO	CA (US)
STAR	HADLY	KSFO	SAN FRANCISCO	CA (US)
STAR	CAPITOL	KSJC	SAN JOSE	CA (US)
STAR	EL NIDO	KSJC	SAN JOSE	CA (US)
STAR	JAWWS	KSJC	SAN JOSE	CA (US)
STAR	ROBIE	KSJC	SAN JOSE	CA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FAC TO CURRENT AVNIS DATA.
REMOVED "200'" FROM PAT 1 AND 2 CONTROLLING OBSTRUCTION DESCRIPTION.
REMOVED PR ADJUSTMENTS FROM PAT1 AND PAT2.
MOVED PAT1 AND PAT2 CONTROLLING OBST FT INTO SECONDARY REMARKS FROM HOLDING RESTRICTIONS TO REMARKS.
CHANGED PAT1 FT INTO SECONDARY FROM 11791 TO 11722.29.
CHANGED PAT2 FT INTO SECONDARY FROM 9555 TO 8942.83.
UPDATED FIX USE.
UPDATED DISTRIBUTION.

DEVELOPED BY: **DATE:** 04/27/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WETOR **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 372927.05N/1220417.78W **TYPE:** 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	SAN FRANCISCO	I-SFO	LOC/DME		100.81	117.81	17.47	17.45		5000	6000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-SFO	LOC/DME	R-101	18	5000	6000

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

REMARKS:
I-SFO/DME ANTENNA COORDINATES: 373739.54N-1222341.45W.
I-SFO GS ANTENNA COORDINATES: 373650.13N-1222140.10W.

8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCETS THE SPECIFIED MSL ALTITUDE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 28L	1		KSFO	SAN FRANCISCO	CA (US)
IAP	ILS PRM RWY 28L (SIMULTANEOUS CLOSE PARALLEL)	1		KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FIX MOVED SE BY 3731.70FT.
FAC1 IN HISTORY, LOC AND DME MOVED.
UPDATED ESV FORMAT AND ESV USE.
UPDATED FAC1 DME FROM 16.79 TO 17.47.
ADDED FAC1 DIST FROM FAC NM.
REMOVED REMARK: AFS420 CALCULATOR UTILIZED TO ESTABLISH PFAF COORDINATES WHERE THE ILS GLIDEPATH INTERSECTS THE SPECIFIED MSL ALTITUDE.
ADDED REMARK: 8260.54A RNP PFAF L-V FORMULA USED TO ESTABLISH COORDINATES WHERE ILS GLIDEPATH INTERCETS THE SPECIFIED MSL ALTITUDE.
UPDATED REMARK: I-SFO/DME ANTENNA COORDINATES: FROM 373733.93N-1222339.54W TO 373739.54N-1222341.45W.
ADDED REMARK: I-SFO GS ANTENNA COORDINATES: 373650.13N-1222140.10W.

DEVELOPED BY: **DATE:** 05/20/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AMANDA ROBBINS)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD CANCEL

NAME: ZORLO **STATE:** CA **COUNTRY:** US

LATITUDE/LONGITUDE: 373116.63N/1220836.87W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	SAN FRANCISCO INTERNATIONAL - ILS OR LOC RWY 28L			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/20/2007

REASON FOR REVISION:
THIS IS A REPLACEMENT COPY OF THE FORM DATED 10/19/07
CHANGED CHART PUBLICATION FROM NOT REQUIRED TO REQUIRED
CHANGED TO REQUEST CHART PUBLICATION ON AL

DEVELOPED BY: **DATE:** 11/16/2007 **OFFICE:** AVN-130 **NAME:** PONCE BARBER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZOA
ATC FACILITY: BAY/SFO
OTHER: NORCAL TRACON

QUALITY 2 CHECKED

CANCEL

TERMINAL AIRSPACE DATA REQUIREMENTS

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

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

PROCEDURE: **ILS OR LOC RWY 28L** AMDT: **23**

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 **3.24**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **0.92**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **297.81**
4. High Terrain in **FINAL** segment containing 1000' point **99**
5. Distance from **THLD** to 1500' point **5.03**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **FINAL** segment at 1500' point **1.31**
7. True Course of **FINAL** segment containing 1500' point **297.81**
8. High Terrain in **FINAL** segment containing 1500' point **99**
9. Threshold Coordinates (if straight-in) ... **373642.16N** / **1222130.06W**
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 ..... **373409.74N** / **1221527.38W**
    (Click to Select)

REMARKS: Approach/Drawing attached.