

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks 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 feet RVR.

<u>AIRPORT</u> SAN FRANCISCO INTL	<u>AIRPORT ID</u> KSFO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 28L	<u>ORIGINAL/AMENDMENT</u> 7	<u>CITY</u> SAN FRANCISCO	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 13	<u>TDZE</u> 13	<u>SUPERSEDED</u> RNAV (GPS) RWY 28L	<u>ORIGINAL/AMENDMENT</u> 6	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 13 SEPTEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2015

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
ARCHI	IAF	PONKE		TF	FB	1.00	237.62	6.07	6000
FAITH	IAF	DIVEC		TF	FB	1.00	284.53	3.98	7000
DIVEC		PONKE		TF	FB	1.00	284.07	3.30	6000
PONKE		WETOR		TF	FB	1.00	284.03	3.31	5000
WETOR		ROKME		TF	FB	1.00	283.99	3.31	4000
ROKME		HEMAN		TF	FB	1.00	283.96	2.97	3100
EDDY	IAF	SIDBY		TF	FB	1.00	330.71	4.71	4000
SIDBY	IAF	HEMAN		TF	FB	1.00	330.69	5.17	3100
HEMAN	IF	DUYET		TF	FB	1.00	283.92	4.30	1800
DUYET	FAF	NEPIC/3.36 NM TO RW28L		TF	FB	0.30	283.88	2.37	
NEPIC/3.36 NM TO RW28L		RW28L	MAP	TF	FO	0.30	283.88	3.36	
RW28L	MAP	1020 MSL		CA		1.00	283.88		1020
1020 MSL		OLYMM		DF	FO	1.00			4000



MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW28L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1020 THEN CLIMBING LEFT TURN TO 4000 DIRECT OLYMM AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.
**MISSED APPROACH REQUIRES MINIMUM CLIMB OF 330 FEET PER NM TO 1600.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)					
2. PROFILE STARTS AT HEMAN									
3. FAC:	283.88	FAF:	DUYET	DIST FAF TO MAP:	5.74	DIST FAF TO THLD:	5.74		
4. MIN ALT: HEMAN 3100, DUYET 1800, NEPIC/3.36 NM TO RW28L 1080*									
5. DIST TO THLD FROM OM:		MM:		IM:		150 HAT:		200 HAT: 0.49	
6. MIN GP INCPT:	1800	GP ALT AT PFAF :			DUYET 1800	OM:		MM:	IM:
7. GP ANGLE:	2.85	34:1:	IS CLEAR	20:1:	IS CLEAR	TCH:	52.6		
8. MSA FROM: RW28L 5100									

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 3C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
FOR INOPERATIVE ALS, INCREASE LPV% ALL CATS VISIBILITY TO 2 1/2 SM, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 2 SM.

*LNAV ONLY
CHART NOTE: CIRCLING NA TO RWYS 10L, 10R, 19L, AND 19R.
CHART NOTE: CIRCLING RWY 1L, 1R NA AT NIGHT.
CHART SPEED ICON IN PLANVIEW AT EDDYY: MAX 240 KIAS.
CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART MANDATORY 7000 AT ARCHI.
CHART MANDATORY 6000 AT EDDYY.
WAAS CHANNEL #53415
REFERENCE PATH ID: W28B
CHART FAS OBST: 203 TREE 373525N/1221919W.
HOLD E, LT, 278.21 INBOUND
LTP HAE: -29 M

MINIMUMS:

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

ALTERNATE: NA STANDARD - CAT A, B 1100-2, CAT C 1600-3, CAT D 1100-2 1/2



CATEGORY:	A			B			C			D			E			
	FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA									
LPV DA**	213	2400	200	213	2400	200	213	2400	200	213	2400	200				
LPV DA%	798	1 3/4	785	798	1 3/4	785	798	1 3/4	785	798	1 3/4	785				
LNAV/VNAV DA	770	1 3/4	757	770	1 3/4	757	770	1 3/4	757	770	1 3/4	757				
LNAV MDA	1020	4000	1007	1020	5500	1007	1020	2 1/2	1007	1020	2 1/2	1007				
CIRCLING	1020	1 1/4	1007	1020	1 1/2	1007	1560	3	1547		NA					

CHANGES - REASONS

1. LOWERED MANDATORY ALTITUDE AT ARCHI FROM 8000 TO 7000 - RESTORED TO PREVIOUS ALTITUDE AFTER RESOLVING CLASS B AIRSPACE ISSUE.
2. REMOVED AIRSPEED RESTRICTION AT ARCHI - FPT REQUEST DUE TO AIRSPEED RESTRICTION REMOVED FROM STAR.
3. ESTABLISHED SIDBY AS AN IAF - FPT REQUEST.
4. LPV NON-CG DA/HAT RAISED FROM 769/756 TO 798/785 - MISSED SECTION 2 CONTROLLING OBSTACLE.
5. LNAV/VNAV DA/HAT RAISED FROM 754/741 TO 770/757 - MISSED SECTION 2 CONTROLLING OBSTACLE.
6. REPLACED DME/DME RNP-0.3 NA NOTE WITH RNP APCH PBN REQUIREMENTS NOTE - NEW FORMAT PER 8260.19H.
7. INCREASED LPV MISSED APPROACH CG FROM 300 TO 1500 TO 330 TO 1600 - SECTION 2 MISSED CONTROLLING OBSTACLE AND TO MATCH THE GROUND BASED PROCEDURE.
8. ADDED LPV ADJUSTMENT TO INOPERATIVE ALS NOTE - VIS CK VALIDATED WITH NEW INOP TABLE.
9. LOWERED MSA FROM 5100 TO 5000 - CONTROLLING OBSTACLE CHANGED.



COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA OTHER: ZOA, NORCAL APP CON, AMGR, CA AERO, ATA

Digitally signed by

FLIGHT CHECKED BY

DANIEL C FAVORITE

DONALD H LANIER

Aug 07, 2018

OFFICE

FICO

DATE

8/2/18

DEVELOPED BY

KELLY DEAN

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KELLY D DEAN

May 22, 2018

OFFICE

AJV-5431

DATE

05/22/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

Aug 07, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KSFO
RUNWAY	RW28L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W28B
LTP/FTP LATITUDE	373643.5470N
LTP/FTP LONGITUDE	1222133.3530W
LTP/FTP ELLIPSOIDAL HEIGHT	-00288
FPAP LATITUDE	373734.6480N
FPAP LONGITUDE	1222335.1795W
THRESHOLD CROSSING HEIGHT (TCH)	00052.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	02.85
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER 6F49E1EF

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00038
FPAP ORTHOMETRIC HEIGHT	+00038

