

## List of pages in this Trip Kit

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Airport Information For KSFO

Terminal Charts For KSFO

Revision Letter For Cycle 11-2024

Change Notices

Notebook

## General Information

Location: SAN FRANCISCO CA USA  
ICAO/IATA: KSFO / SFO  
Lat/Long: N37° 37.13', W122° 22.52'  
Elevation: 13 ft

Airport Use: Public  
Daylight Savings: Observed  
UTC Conversion: +8:00 = UTC  
Magnetic Variation: 14.0° E  
Sectional Chart: San Francisco

Fuel Types: Jet, Jet A  
Oxygen Types: HP Bottle, LP Bottle  
Customs: Upon Prior Request  
Airport Type: IFR  
Landing Fee: Yes  
Control Tower: Yes  
Jet Start Unit: Yes  
LLWS Alert: Yes  
Beacon: Yes

Sunrise: 1249 Z  
Sunset: 0326 Z

## Runway Information

Runway: 01L  
Length x Width: 7650 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 11 ft  
Lighting: Edge, Centerline, REIL  
Displaced Threshold: 640 ft

Runway: 01R  
Length x Width: 8650 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 11 ft  
Lighting: Edge, Centerline, REIL  
Displaced Threshold: 560 ft

Runway: 10L  
Length x Width: 11870 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 7 ft  
Lighting: Edge, Centerline, REIL

Runway: 10R  
Length x Width: 11381 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 8 ft

Lighting: Edge, Centerline

Runway: 19L

Length x Width: 8650 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 11 ft

Lighting: Edge, ALS, Centerline, TDZ

Runway: 19R

Length x Width: 7650 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 11 ft

Lighting: Edge, Centerline

Runway: 28L

Length x Width: 11381 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 13 ft

Lighting: Edge, ALS, Centerline

Displaced Threshold: 300 ft

Runway: 28R

Length x Width: 11870 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 13 ft

Lighting: Edge, ALS, Centerline, TDZ

Displaced Threshold: 300 ft

## Communication Information

ATIS: 113.700

ATIS: 115.800

ATIS: 118.850

San Francisco Tower: 120.500

San Francisco Ground: 121.800

San Francisco Ramp/Taxi: 119.225

San Francisco Ramp/Taxi: 127.575

San Francisco Ramp/Taxi: 131.000

San Francisco Clearance Delivery: 118.200

San Francisco Clearance Pre-Taxi: 118.200

Norcal Approach: 134.500 Initial Contact

Norcal Approach: 133.950 Secondary

Norcal Approach: 128.325

Norcal Terminal Control Area: 135.100

Norcal Terminal Control Area: 134.500

Norcal Terminal Control Area: 133.950

Norcal Terminal Control Area: 127.000

Norcal Terminal Control Area: 125.350

Norcal Terminal Control Area: 120.900

Norcal Departure: 135.100

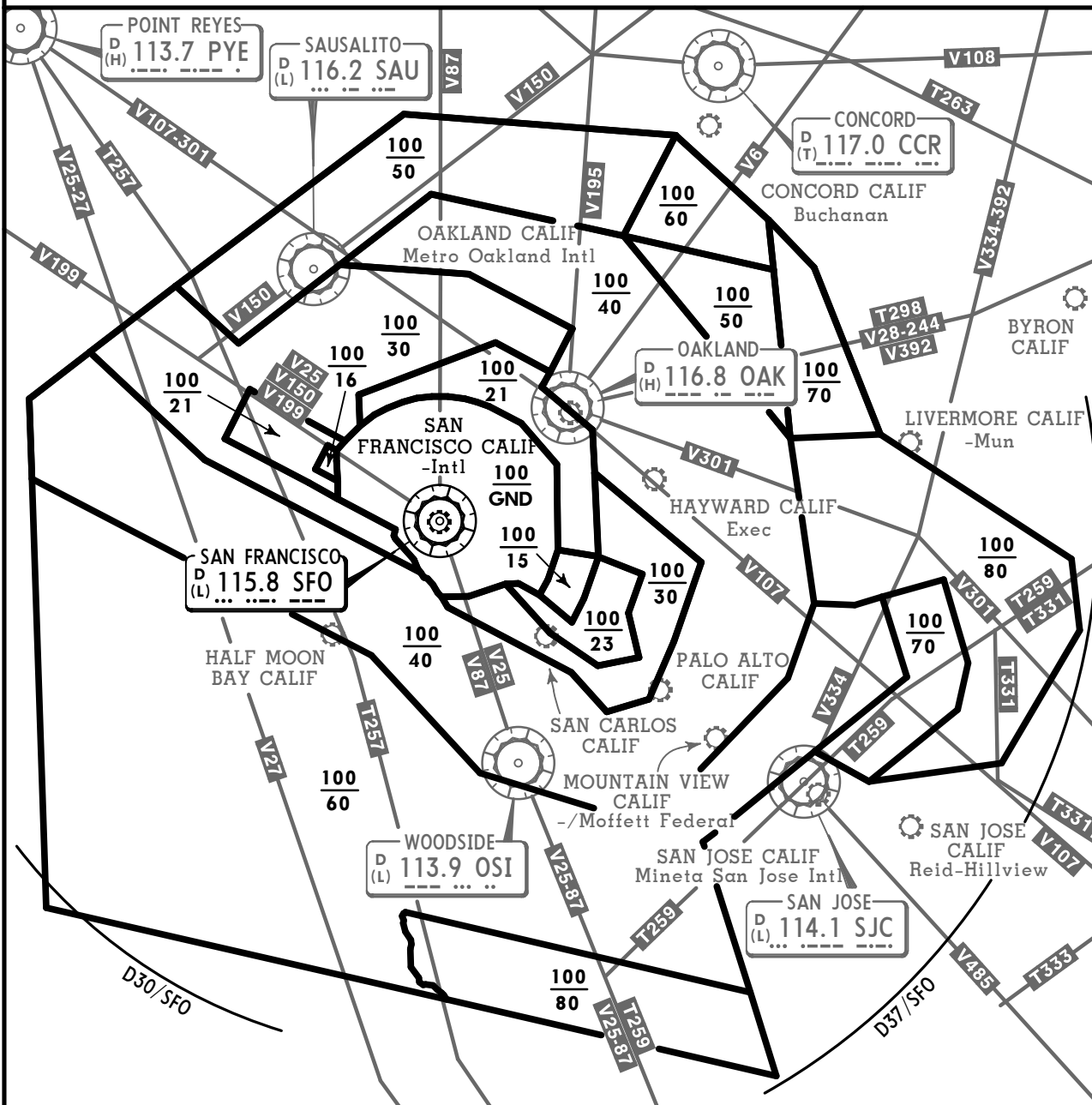
Norcal Departure: 120.900

San Francisco Intl UNICOM: 122.950

**SAN FRANCISCO CLASS B AIRSPACE**

**CLASS B AIRSPACE VFR COMMUNICATIONS**

NORCAL App 120.9 (NW) 127.0 (N) 125.35 (NE-E) 134.5 (SE) 135.65 (S) 135.1 (W)



FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS  
SEE FAR 91.131, 91.117 AND 91.215

**FLIGHT PROCEDURES**

IFR Flights - Aircraft operating within the San Francisco Class B Airspace must be operated in accordance with ATC clearances and instructions.

VFR Flights-

1. Arriving aircraft should contact the appropriate approach control on specified frequencies and in relation to geographic fixes shown on the accompanying chart. Although arriving aircraft may be operating beneath the floor of the Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
2. Aircraft departing the primary airports are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airports whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
3. Aircraft desiring to transit Class B Airspace must obtain an ATC clearance to enter the Class B Airspace and will be handled on an ATC workload permitting basis.

**KSFO/SFO**  
SAN FRANCISCO INTL

D-ATIS  
**113.7 115.8 118.85**

Apt Elev  
**13**

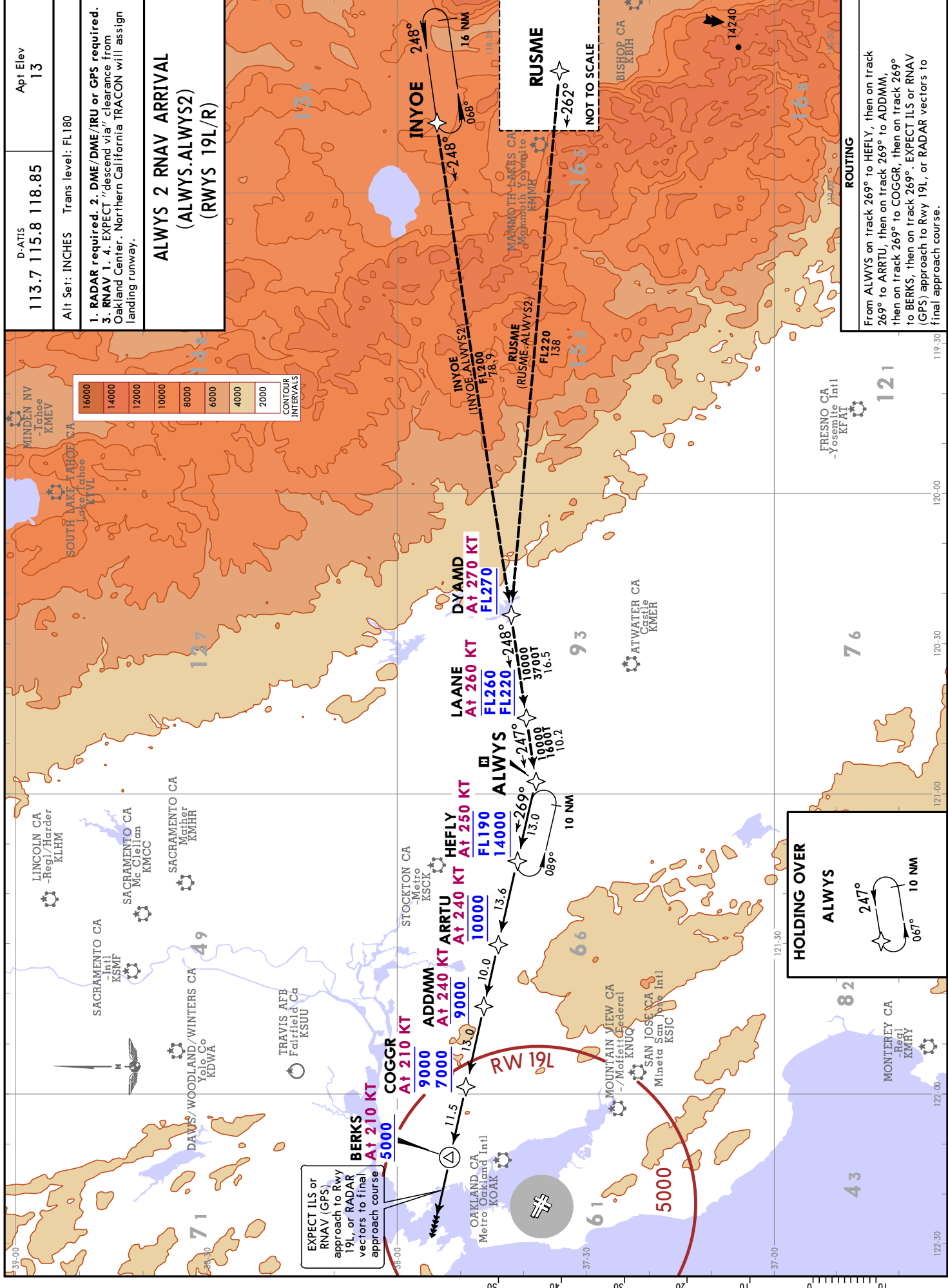
Alt Set: INCHES Trans level: FL180

**1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1, 4. EXPECT "descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.**

**ALWAYS 2 RNAV ARRIVAL**  
(ALWYS.ALWYS2)  
(RWYS 19L/R)

16000
14000
12000
10000
8000
6000
4000
2000

CONTOUR INTERVALS

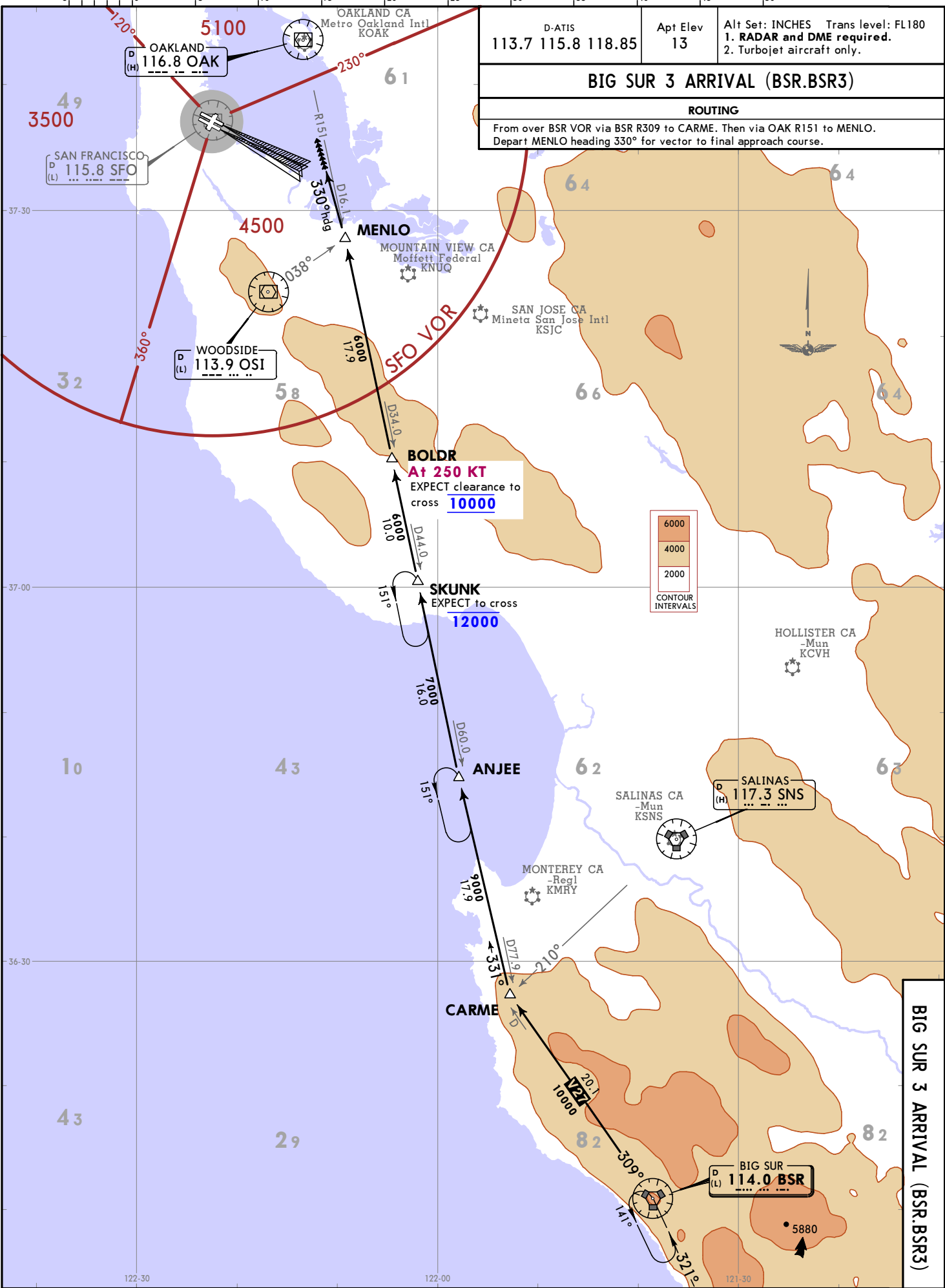




CHANGES: None

KSFO/SFO  
SAN FRANCISCO INTL

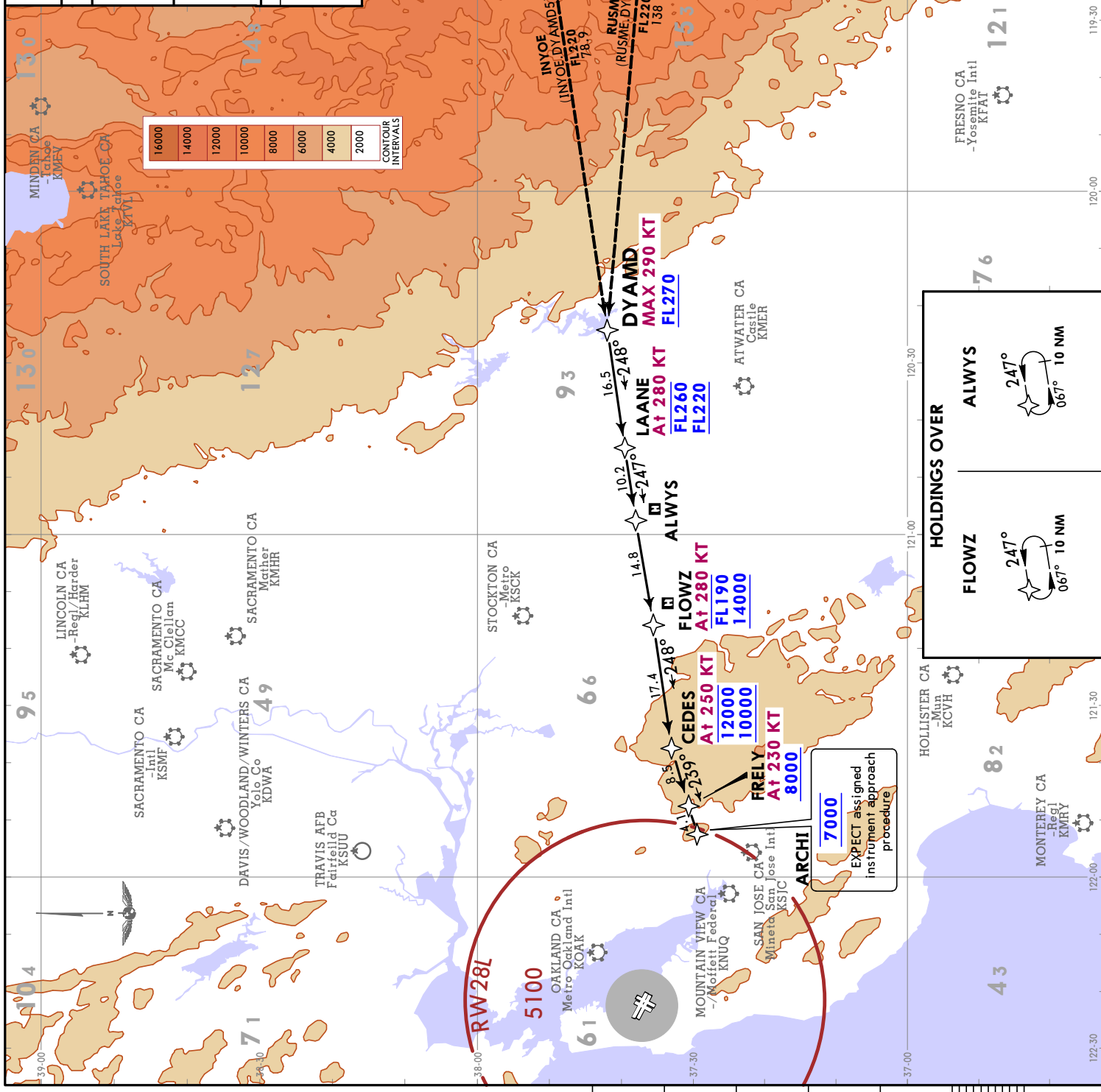
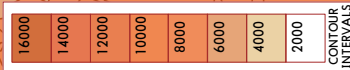
D-ATIS 113.7 115.8 118.85	Apt Elev 13	Alt Set: INCHES Trans level: FL180 1. RADAR and DME required. 2. Turbojet aircraft only.
<b>BIG SUR 3 ARRIVAL (BSR.BSR3)</b>		
<b>ROUTING</b>		
From over BSR VOR via BSR R309 to CARMÉ. Then via OAK R151 to MENLO. Depart MENLO heading 330° for vector to final approach course.		



28 DEC 18  
JEPPESSEN  
10-2B  
EFF 3 Jan  
SAN FRANCISCO, CALIF  
STAR

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D-ATIS 113.7 115.8 118.85	Apt Elev 13
Alt Set: INCHES Trans level: FL180	
<ol style="list-style-type: none"> <li><b>RADAR required for non-GPS equipped aircraft.</b></li> <li><b>DME/DME/IRU or GPS required.</b> 3. RNAV 1.</li> <li><b>EXPECT</b> to receive "descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.</li> </ol>	
<b>DYAMD 5 RNAV ARRIVAL</b> <b>(DYAMD.DYAMD5)</b> <b>(RWYS 28L/R)</b>	
<b>ROUTING</b> From DYAMD on track 248° to LAANE, then on track 247° to ALWAYS, then on track 248° to CEDES, then on track 239° to FRELY, then on track 248° to INYOE. EXPECT assigned instrument approach procedure.	



**HOLDINGS OVER**

<b>FLOWZ</b> 247° 067° 10 NM	<b>ALWAYS</b> 247° 067° 10 NM
------------------------------------	-------------------------------------

EXPECT assigned instrument approach procedure



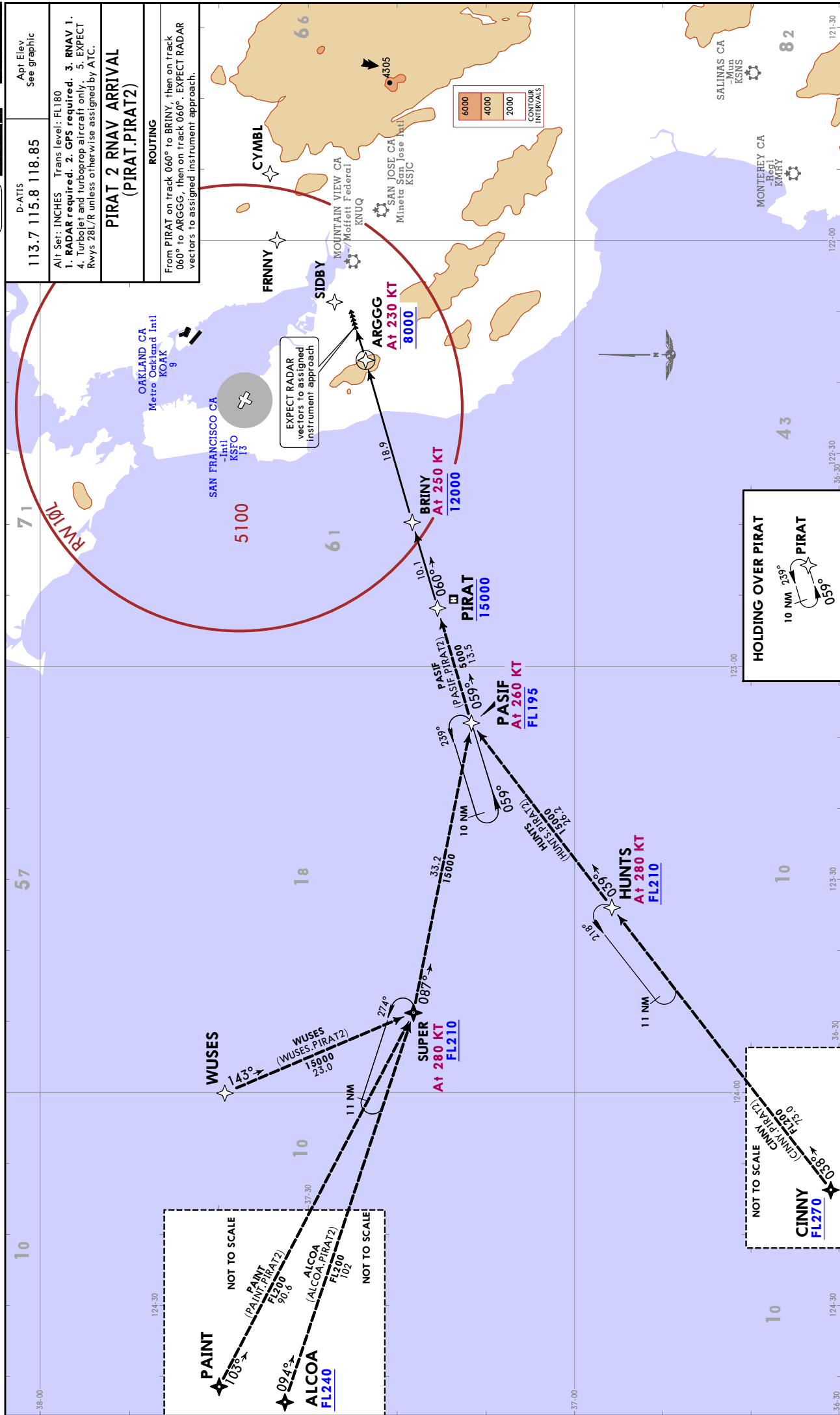


**JEPPESEN**  
 19 APR 19  
 (10-2E) Eff 25 Apr  
**RNAV STAR**

**SAN FRANCISCO, CALIF**

**KSFO/SFO**  
**SAN FRANCISCO INTL**

D-ATIS <b>113.7 115.8 118.85</b>	Apt. Elev. See graphic
Alt Set: INCHES Trans level: FL180	
1. RADAR required. 2. CPS required. 3. RNAV 1.	
4. Turbojet and turboprop aircraft only. 5. EXPECT	
Rwys 28L/R unless otherwise assigned by ATIS.	
<b>PIRAT 2 RNAV ARRIVAL (PIRAT.PIRAT2)</b>	
<b>ROUTING</b>	
From PIRAT on track 060° to BRINY, then on track 060° to ARGGG, then on track 060°. EXPECT RADAR vectors to assigned instrument approach.	



KSFO/SFO  
SAN FRANCISCO INTL

JEPPESSEN  
16 JUN 17 (10-2F) Eff 22 Jun

SAN FRANCISCO, CALIF

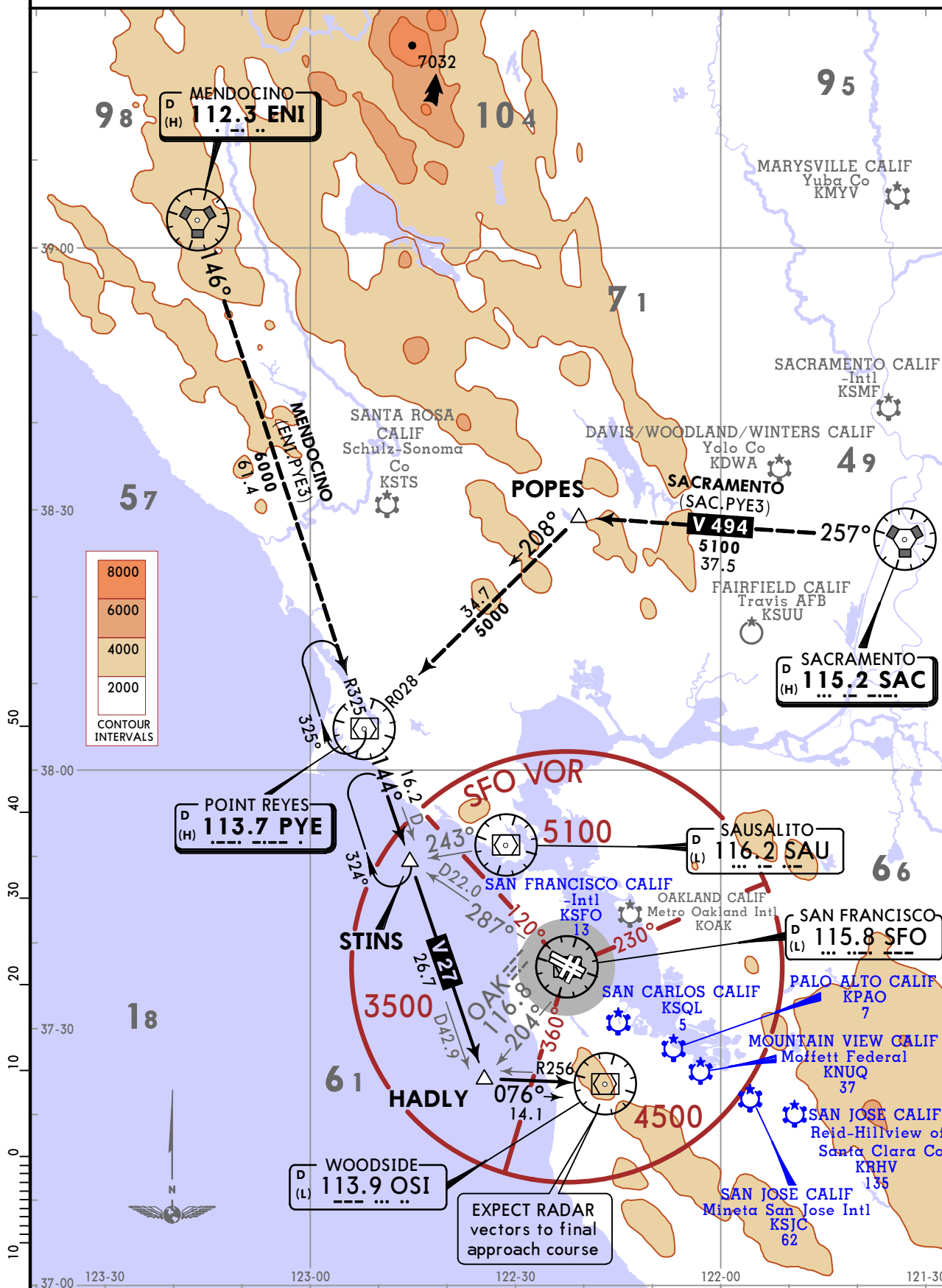
STAR

D-ATIS  
113.7 115.8 118.85

Apt Elev  
See graphic

Alt Set: INCHES Trans level: FL180  
1. **RADAR required.**  
2. SACRAMENTO Transition to be used only when assigned by ATC.

POINT REYES 3 ARRIVAL (PYE.PYE3)



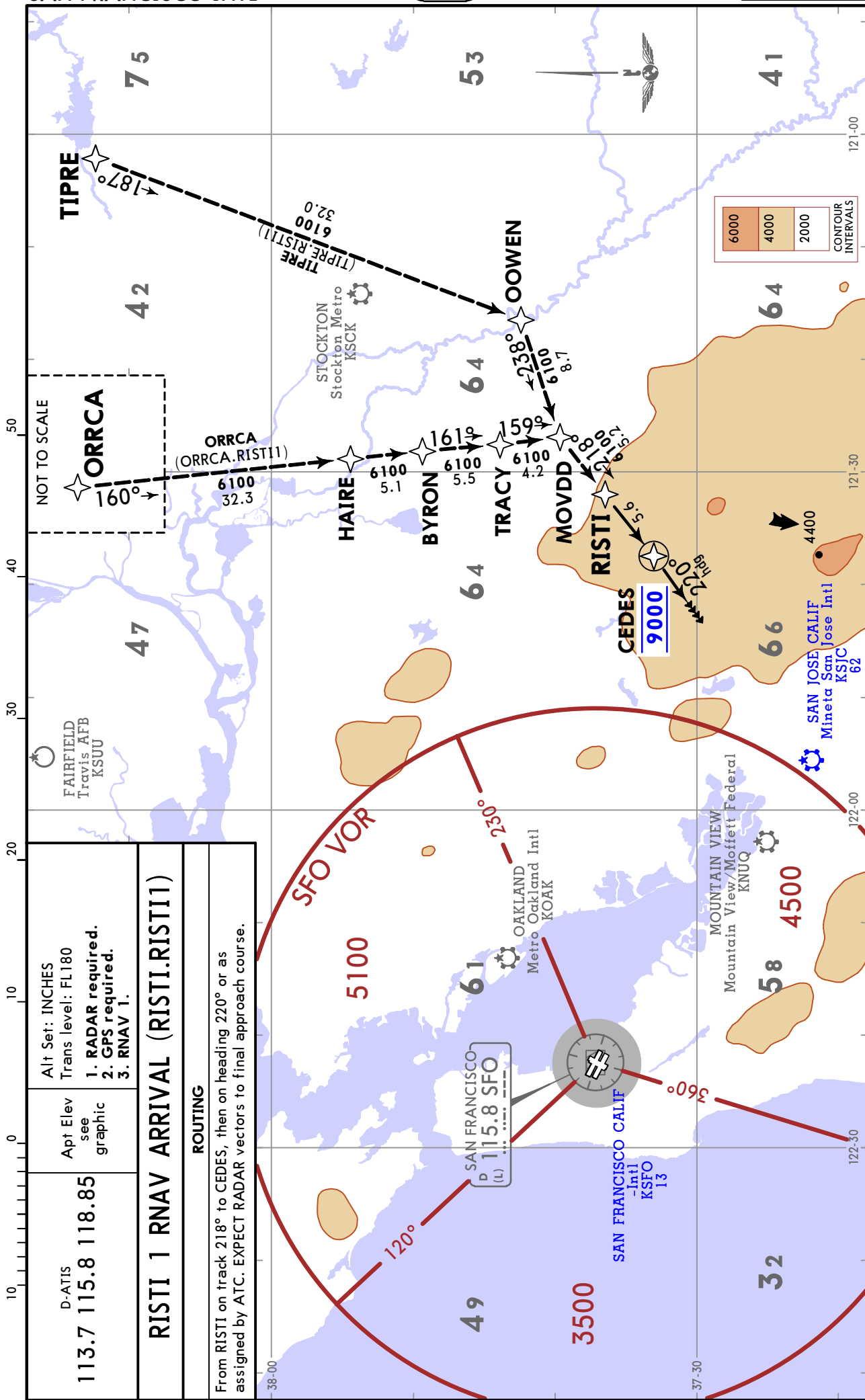
**ROUTING**

From over PYE VOR on PYE R144 to HADLY, then on OSI R256 to OSI VOR. EXPECT RADAR vectors to final approach course.

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESSEN**  
16 JUN 17 (10-2G)

**SAN FRANCISCO, CALIF**  
Eff 22 Jun **RNAV STAR**



CHANGES: New procedure at this airport, RISTI 4 Arrival cancelled.

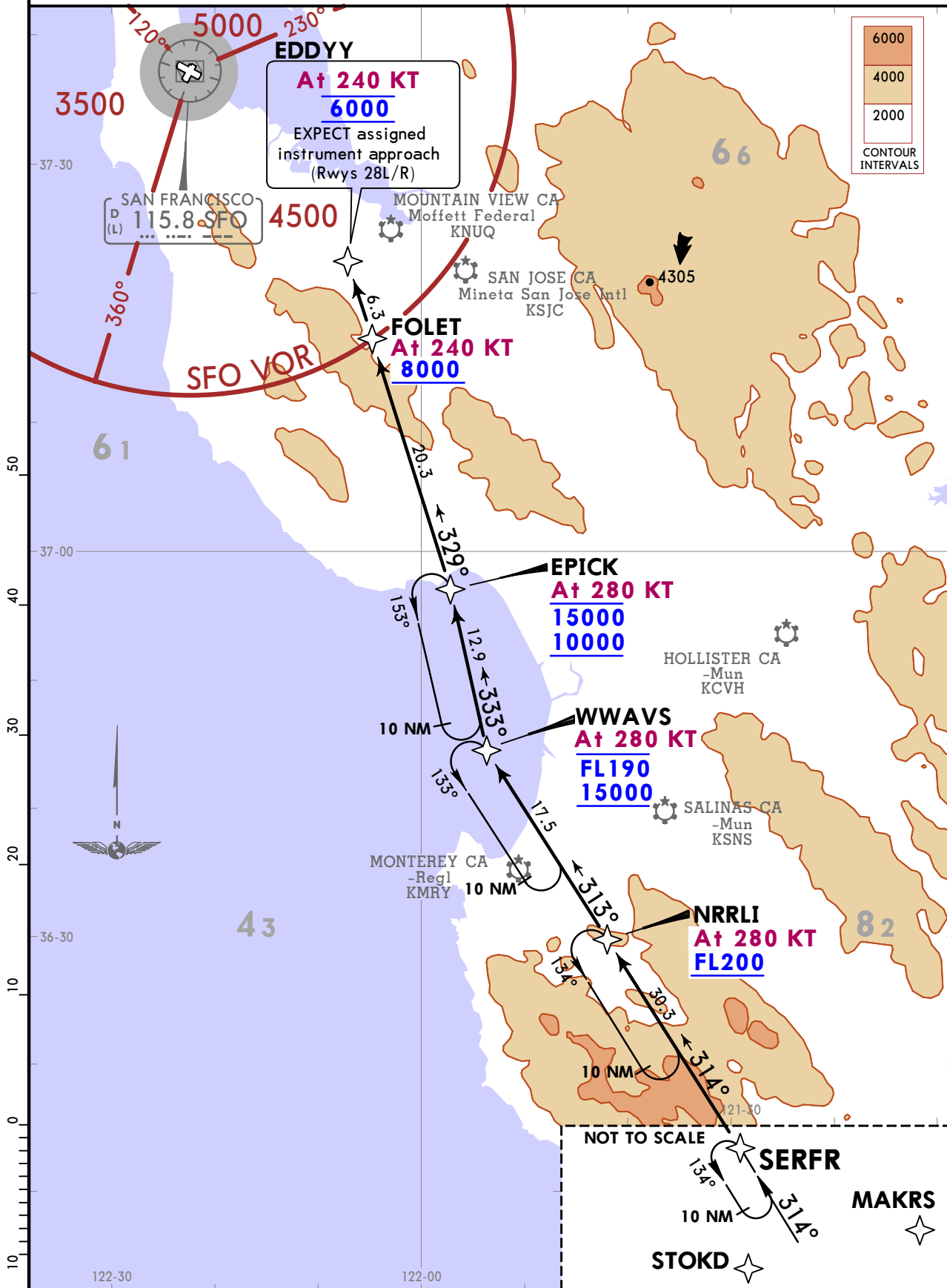
**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESSEN**  
11 JUN 21 (10-2H) Eff 17 Jun

**SAN FRANCISCO, CALIF**  
**RNAV STAR**

D-ATIS 113.7 115.8 118.85	Apt Elev 13	Alt Set: INCHES Trans level: FL180 1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1. 4. EXPECT to receive "Descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.
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**SERFR 4 RNAV ARRIVAL (SERFR.SERFR4)**



**ROUTING**

From SERFR on track 314° to NRRLI, then on track 313° to WWAVS, then on track 333° to EPICK, then on track 329° to FOLET, then on track 329° to EDDYY. EXPECT assigned instrument approach (Rwys 28L/R).

# KSFO/SFO SAN FRANCISCO INTL

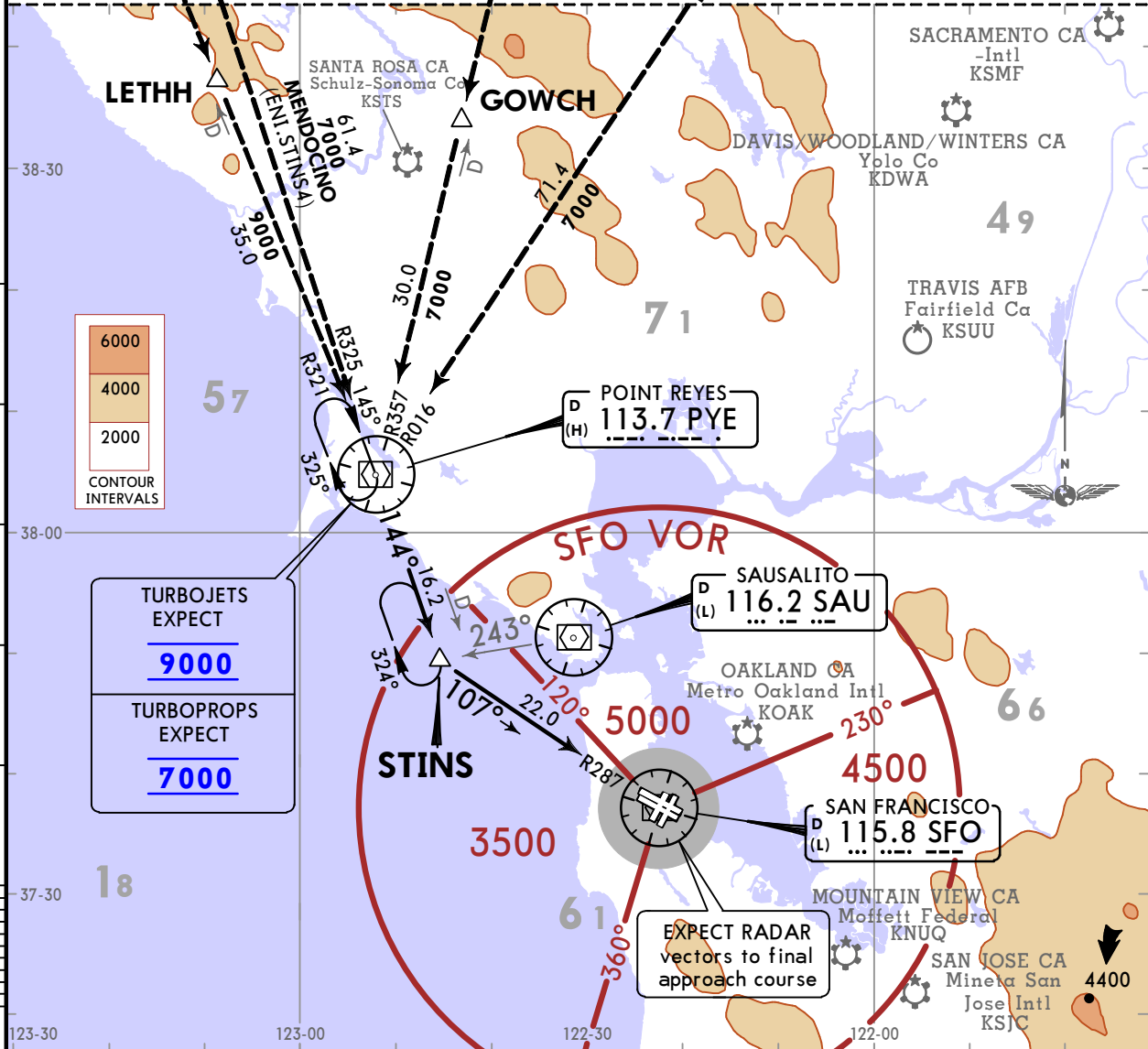
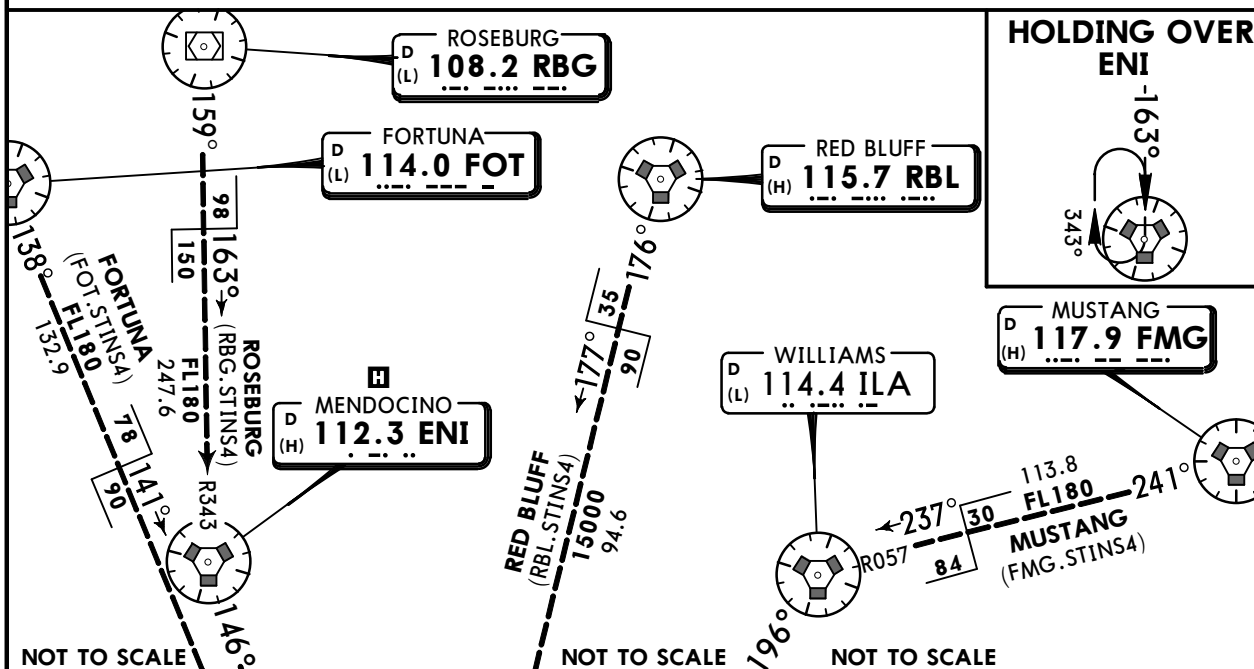
**JEPPesen** 11 JUN 21 (10-2J) Eff 17 Jun

# SAN FRANCISCO, CALIF

**STAR**

D-ATIS 113.7 115.8 118.85	Apt Elev 13	Alt Set: INCHES Trans level: FL180 1. RADAR required. 2. FORTUNA and RED BLUFF transitions DME required.
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## STINS 4 ARRIVAL (PYE.STINS4)



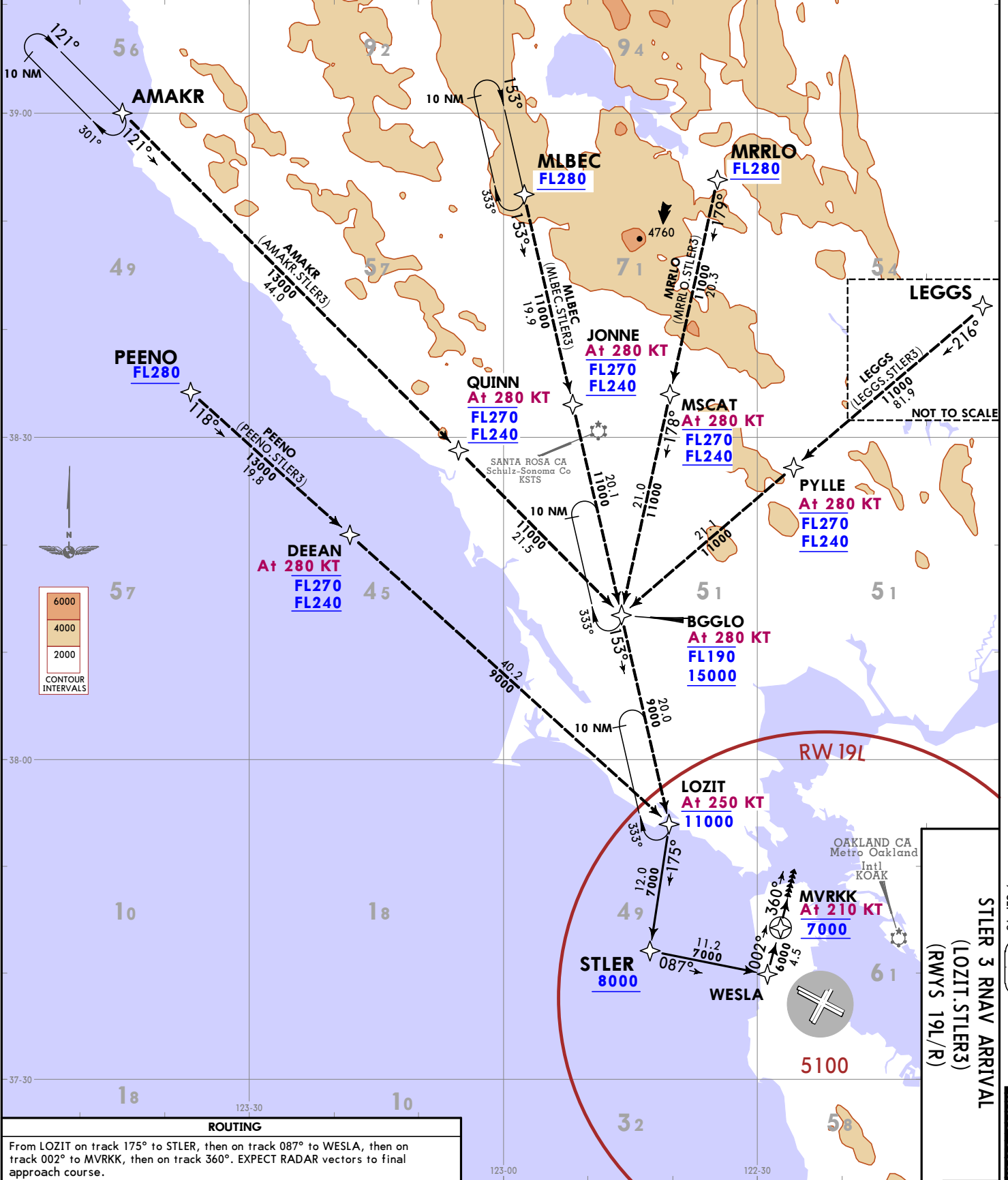
**ROUTING**  
From over PYE VOR on PYE R144 to STINS, then on SFO R287 to SFO VOR. EXPECT RADAR vectors to final approach course.

KSFO/SFO  
SAN FRANCISCO INTL

D-ATIS 113.7 115.8 118.85  
Apt Elev 13  
Alt Set: INCHES Trans level: FL180

1. RADAR required.
2. DME/DME/IRU or GPS required.
3. RNAV 1.
4. PEENO transition: ATC assigned only.

**STLER 3 RNAV ARRIVAL**  
(LOZIT.STLER3)  
(RWYS 19L/R)



7 SEP 18 (10-2K) EFF 13 Sep RNAV STAR  
JEPPIESSEN SAN FRANCISCO, CALIF

CHANGES: Procedure renumbered, GEEHH waypoint renamed PYLLE.  
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**KSFO/SFO**  
**SAN FRANCISCO INTL**

**JEPPESSEN**

**SAN FRANCISCO, CALIF**

7 SEP 18

10-2L

Eff 13 Sep

**RNAV STAR**

D-ATIS  
113.7 115.8 118.85

Apt Elev  
13

Alt Set: INCHES Trans level: FL180  
1. RADAR required. 2. DME/DME/IRU or GPS required.  
3. RNAV 1.

**WWAVS 1 RNAV ARRIVAL**  
**(SERFR.WWAVS1)**  
**(RWYS 19L/R)**



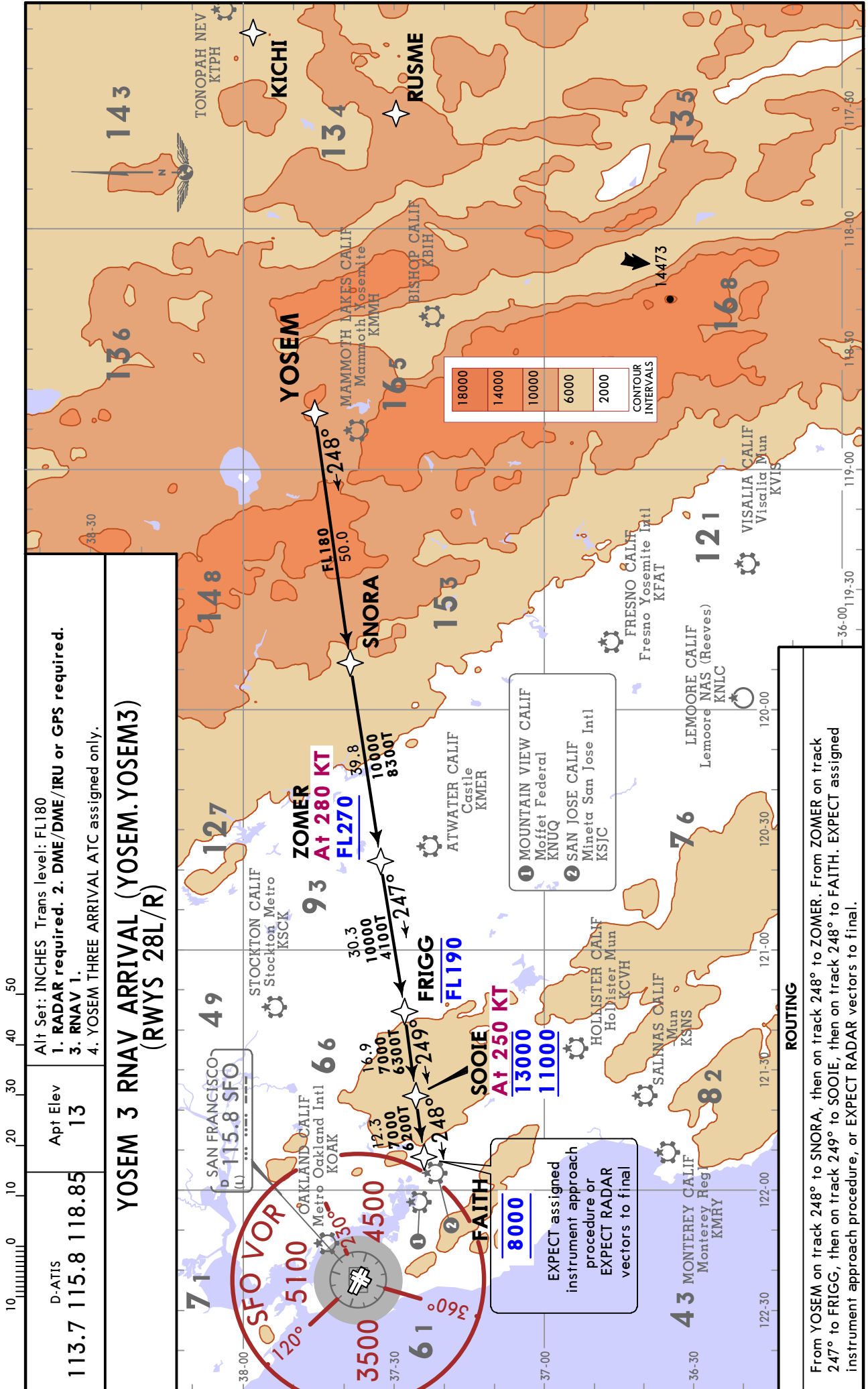


KSFO/SFO  
SAN FRANCISCO INTL

JEPPesen  
30 JUN 17 10-2M

SAN FRANCISCO, CALIF

RNAV STAR

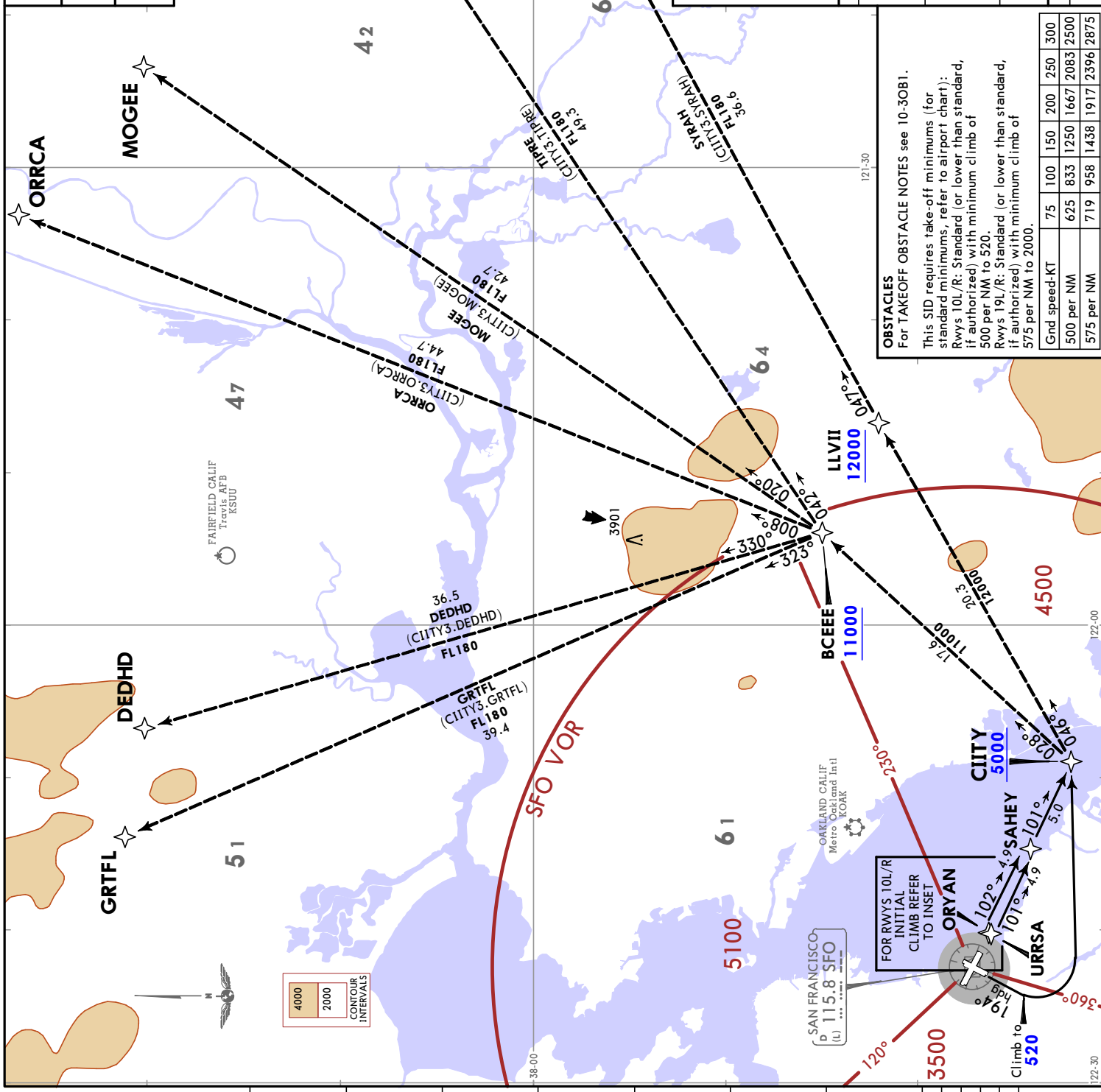


**JEPPESANSAN FRANCISCO, CALIF**  
 19 FEB 21 10-3 **RNAV SID**

NORCAL Departure (R)  
**120.9**  
 Apt Elev  
**13**  
 Trans alt: 18000

1. RADAR required.  
 2. DME/DME/IRU or GPS required.  
 3. RNAV 1.

**CITY 3 RNAV DEPARTURE**  
 (CITY3.CITY)



**INITIAL CLIMB RWYS 10L/R**  
 Climb to **520**  
 104° hdg  
 Climb to **520**  
 104° hdg  
 Climb to **520**  
**URRSA**  
 NOT TO SCALE  
**TOP ALTITUDE**

RWY	INITIAL CLIMB	TOP ALTITUDE
10L	Climb heading 104° to 520, then direct ORYAN, then on track 102° to SAHEY, then on track 101° to cross CITY at or above 5000.	FL 190
10R	Climb heading 104° to 520, then direct URRSA, then on track 101° to SAHEY, then on track 101° to cross CITY at or above 5000.	FL 190
19L/R	Climb heading 194° to 520, then LEFT turn direct to cross CITY at or above 5000.	FL 190

**ROUTING**  
 From CITY on transition. MAINTAIN FL 190. EXPECT filed altitude 10 minutes after departure.

**OBSTACLES**  
 For TAKEOFF OBSTACLE NOTES see 10-30B1.

This SID requires take-off minimums (for standard minimums, refer to airport chart):  
 Rws 10L/R: Standard (or lower than standard, if authorized) with minimum climb of 500 per NM to 520.  
 Rws 19L/R: Standard (or lower than standard, if authorized) with minimum climb of 575 per NM to 2000.

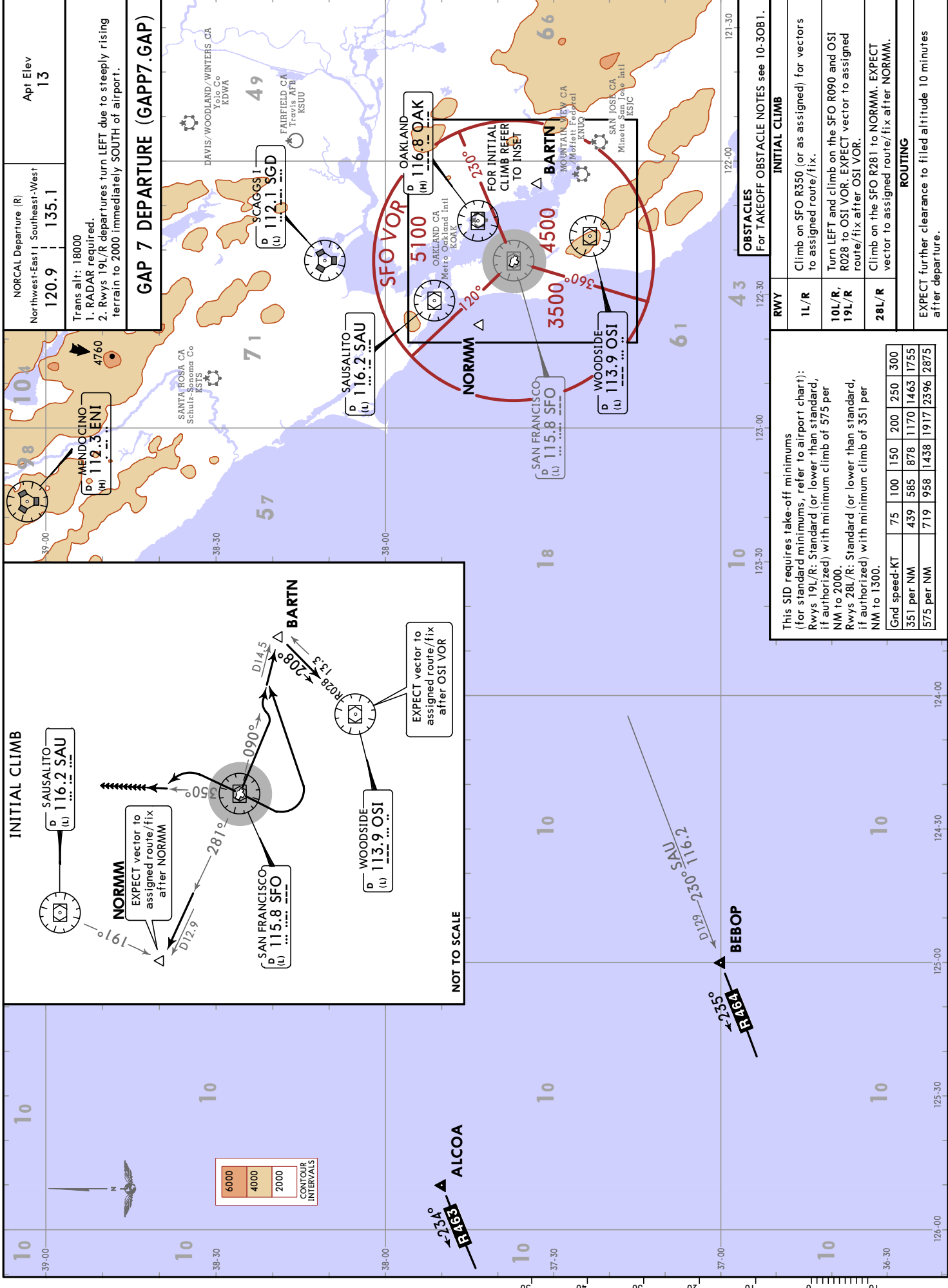
Obstacle	75	100	150	200	250	300
Grnd speed-KT	75	100	150	200	250	300
500 per NM	625	833	1250	1667	2083	2500
575 per NM	719	958	1438	1917	2396	2875

**KSFO/SFO**  
 SAN FRANCISCO INTL

(SAN FRANCISCO)  
 P 115.8 SFO  
 (L) ... ..  
**FOR RWYS 10L/R**  
**INITIAL CLIMB REFER TO INSET**

**ORYAN**  
 Climb to **520**  
 194° hdg  
 102°  
 101°  
 101°  
 5.0  
 4.9  
**SAHEY**  
**CITY 5000**  
 0.8°  
 0.45°  
**URRSA**

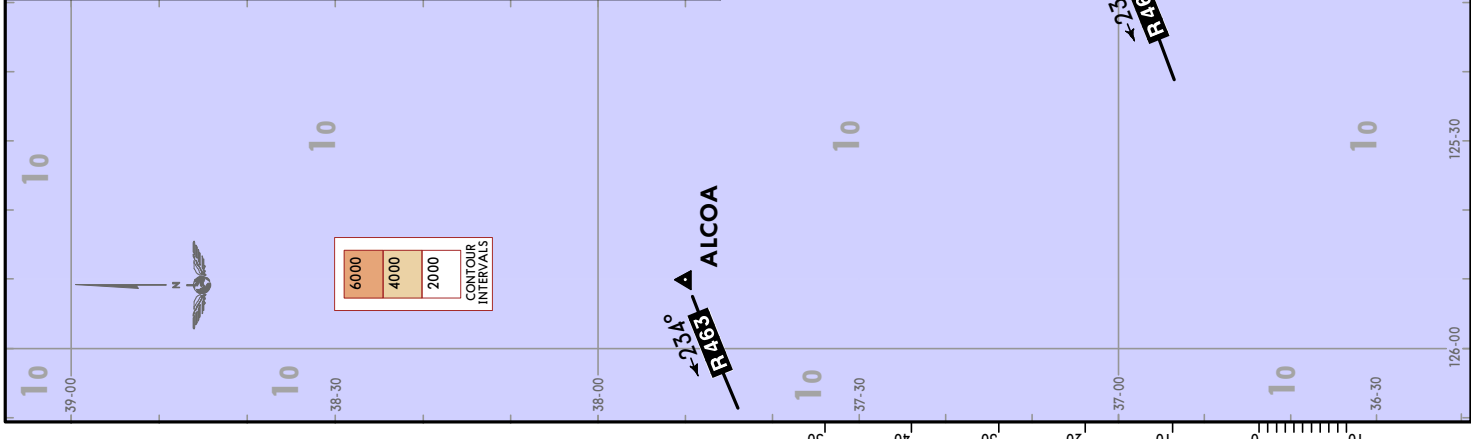
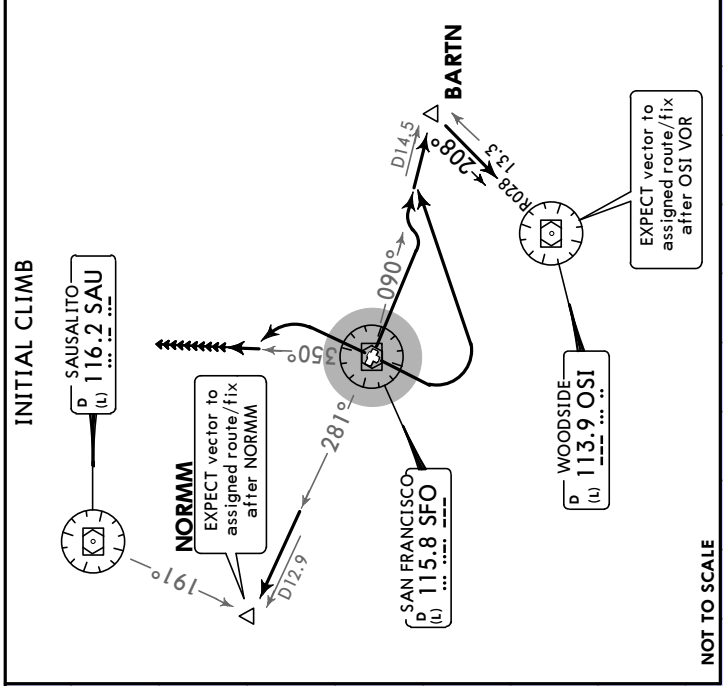
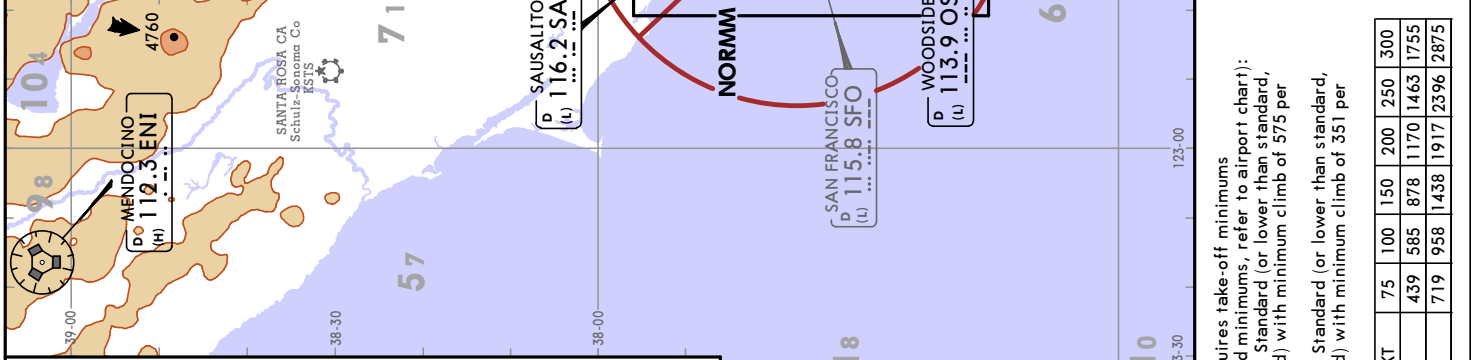
**KSFO/SFO**  
**SAN FRANCISCO INTL**



NORCAL Departure (R)  
 Northwest-East | Southeast-West  
 120.9 | 135.1  
 Apt Elev  
 13

Trans alt: 18000  
 1. RADAR required.  
 2. Rwy 19L/R departures turn LEFT due to steeply rising terrain to 2000 immediately SOUTH of airport.

**GAP 7 DEPARTURE (GAPP7.GAP)**



This SID requires take-off minimums for standard minimums, refer to airport chart; Rwy 19L/R: Standard (or lower than standard, if authorized) with minimum climb of 575 per NM to 2000. Rwy 28L/R: Standard (or lower than standard, if authorized) with minimum climb of 351 per NM to 1300.

Gnd speed-KT	75	100	150	200	250	300
351 per NM	439	585	878	1170	1463	1755
575 per NM	719	958	1438	1917	2396	2875



# KSFO/SFO SAN FRANCISCO INTL

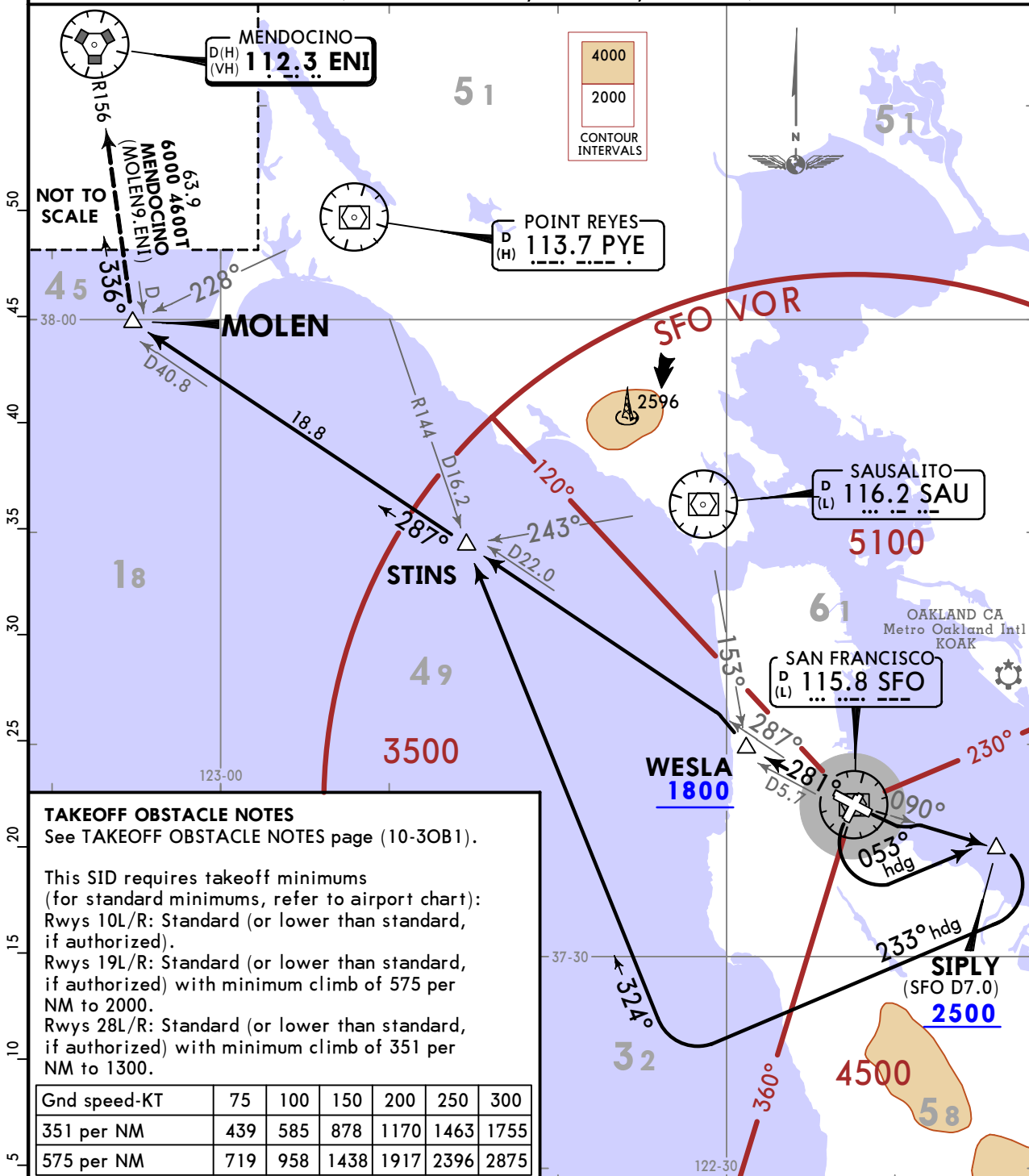
**JEPPesen** 23 DEC 22 **10-3E** Eff 29 Dec

**SAN FRANCISCO, CALIF**

**SID**

NORCAL Departure (R) <b>135.1</b>	Apt Elev <b>13</b>	Trans alt: 18000 1. RADAR required. 2. DME required. 3. Rapidly rising terrain to 2000 immediately SOUTH of airport.
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## MOLEN 9 DEPARTURE (MOLEN9.MOLEN) (RWYS 10L/R, 19L/R, 28L/R)



### TAKEOFF OBSTACLE NOTES

See TAKEOFF OBSTACLE NOTES page (10-30B1).

This SID requires takeoff minimums (for standard minimums, refer to airport chart):  
 Rwy 10L/R: Standard (or lower than standard, if authorized).  
 Rwy 19L/R: Standard (or lower than standard, if authorized) with minimum climb of 575 per NM to 2000.  
 Rwy 28L/R: Standard (or lower than standard, if authorized) with minimum climb of 351 per NM to 1300.

Gnd speed-KT	75	100	150	200	250	300
351 per NM	439	585	878	1170	1463	1755
575 per NM	719	958	1438	1917	2396	2875

RWY	INITIAL CLIMB	TOP ALTITUDE
<b>10L/R</b>	Climbing LEFT turn to intercept SFO R090 to cross SIPLY at or above 2500, then climbing RIGHT turn heading 233° to intercept and proceed on PYE R144 to STINS, then on SFO R287 to MOLEN.	Assigned by ATC
<b>19L/R</b>	Climbing LEFT turn heading 053° to intercept SFO R090 to cross SIPLY at or above 2500, then climbing RIGHT turn heading 233° to intercept and proceed on PYE R144 to STINS, then on SFO R287 to MOLEN.	
<b>28L/R</b>	Climb on SFO R281 to cross WESLA at or above 1800, then climbing RIGHT turn to intercept SFO R287 to MOLEN.	

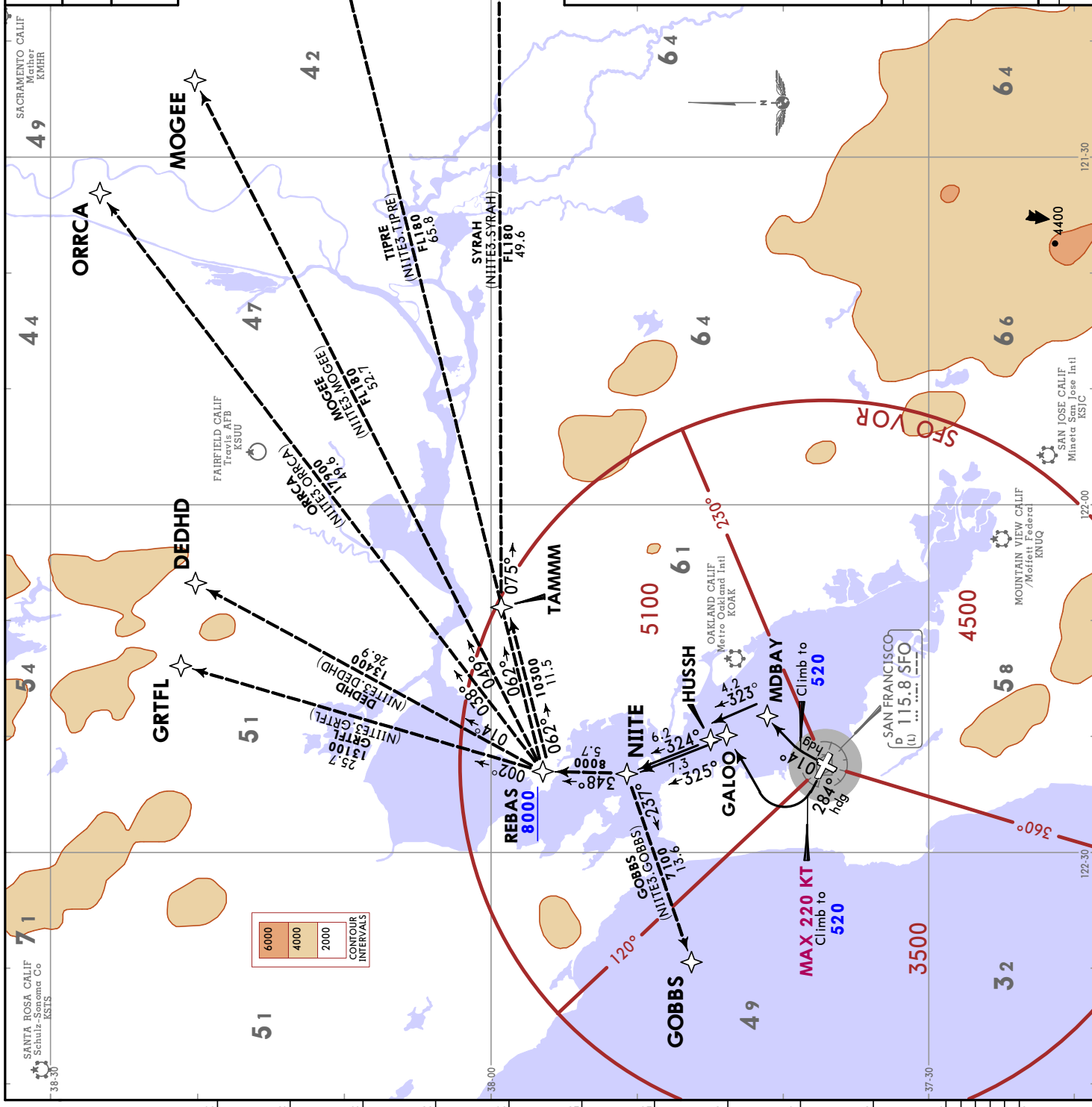
### ROUTING

From MOLEN on transition. EXPECT clearance to filed altitude 10 minutes after departure.

NORCAL Departure (R)  
**120.9**  
 Apt Elev  
 13  
 Trans alt: 18000

**1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.**

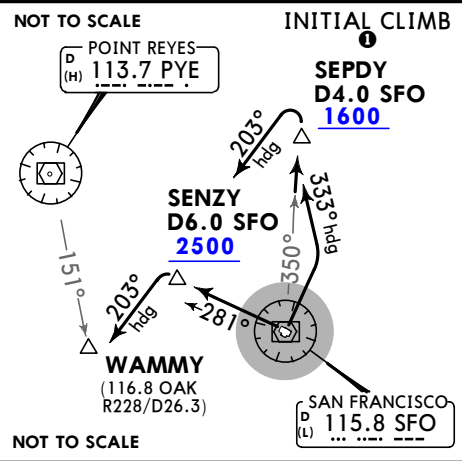
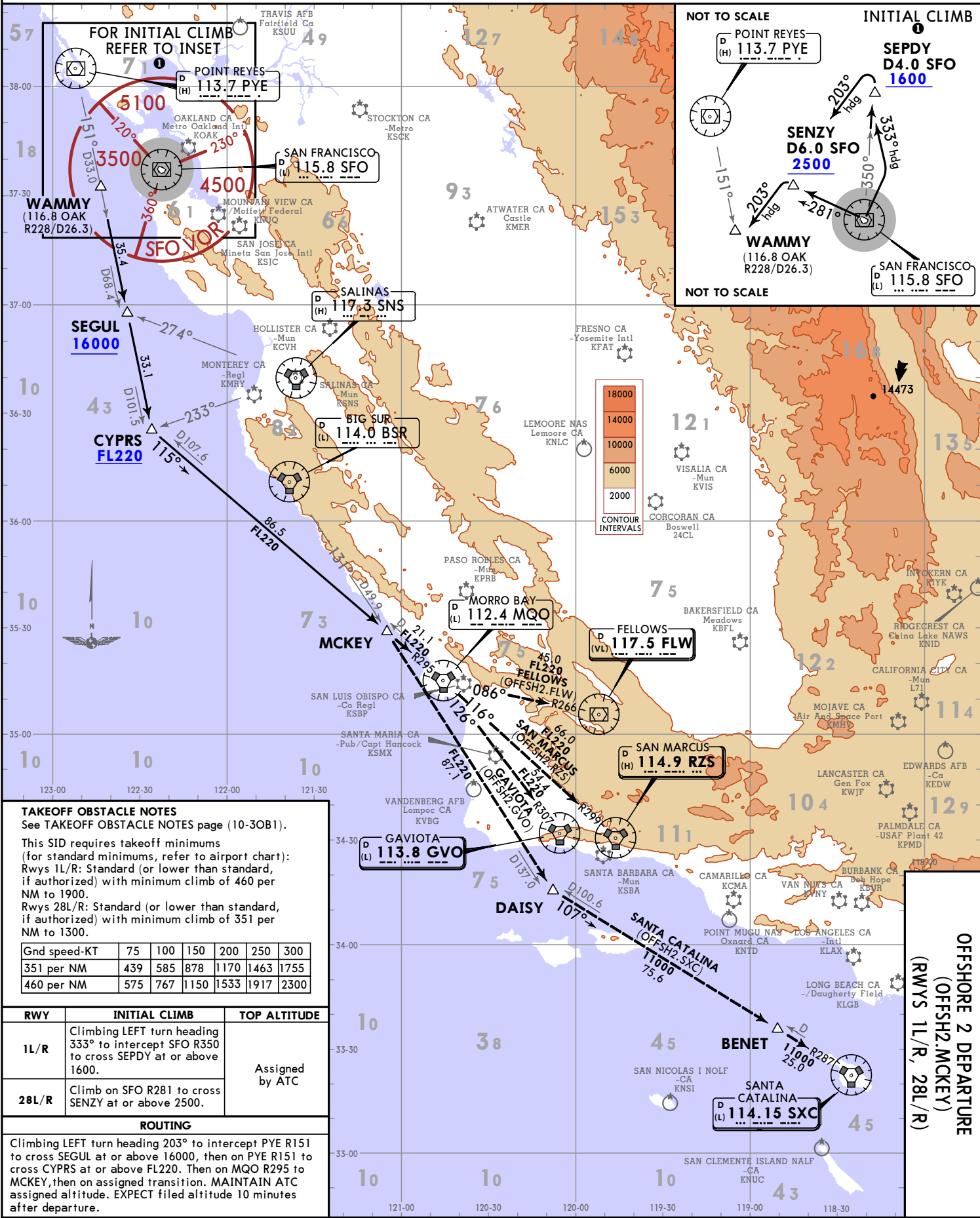
**NIITE 3 RNAV DEPARTURE (NIITE3.NIITE)**



CHANGES: SXC VOR Frequency.

NORCAL Departure (R) **135.1**      Apt Elev **13**      Trans alt: 18000  
 1. RADAR required. 2. DME required.  
 3. Turbojet only.

**OFFSHORE 2 DEPARTURE (OFFSH2.MCKEY) (RWYS 1L/R, 28L/R)**



**TAKEOFF OBSTACLE NOTES**  
 See TAKEOFF OBSTACLE NOTES page (10-30B1).  
 This SID requires takeoff minimums (for standard minimums, refer to airport chart):  
 Rwy 1L/R: Standard (or lower than standard, if authorized) with minimum climb of 460 per NM to 1900.  
 Rwy 28L/R: Standard (or lower than standard, if authorized) with minimum climb of 351 per NM to 1300.

Gnd speed-KT	75	100	150	200	250	300
351 per NM	439	585	878	1170	1463	1755
460 per NM	575	767	1150	1533	1917	2300

RWY	INITIAL CLIMB	TOP ALTITUDE
1L/R	Climbing LEFT turn heading 333° to intercept SFO R350 to cross SEPDY at or above 1600.	Assigned by ATC
28L/R	Climb on SFO R281 to cross SENZY at or above 2500.	

**ROUTING**

Climbing LEFT turn heading 203° to intercept PYE R151 to cross SEGUL at or above 16000, then on PYE R151 to cross CYPRS at or above FL220. Then on MQO R295 to MCKEY, then on assigned transition. MAINTAIN ATC assigned altitude. EXPECT filed altitude 10 minutes after departure.

KSFO/SFO SAN FRANCISCO INTL  
 8 JUL 22 10-3G EFF 14 JUL  
 JEPPESEN SAN FRANCISCO, CALIF  
 SID





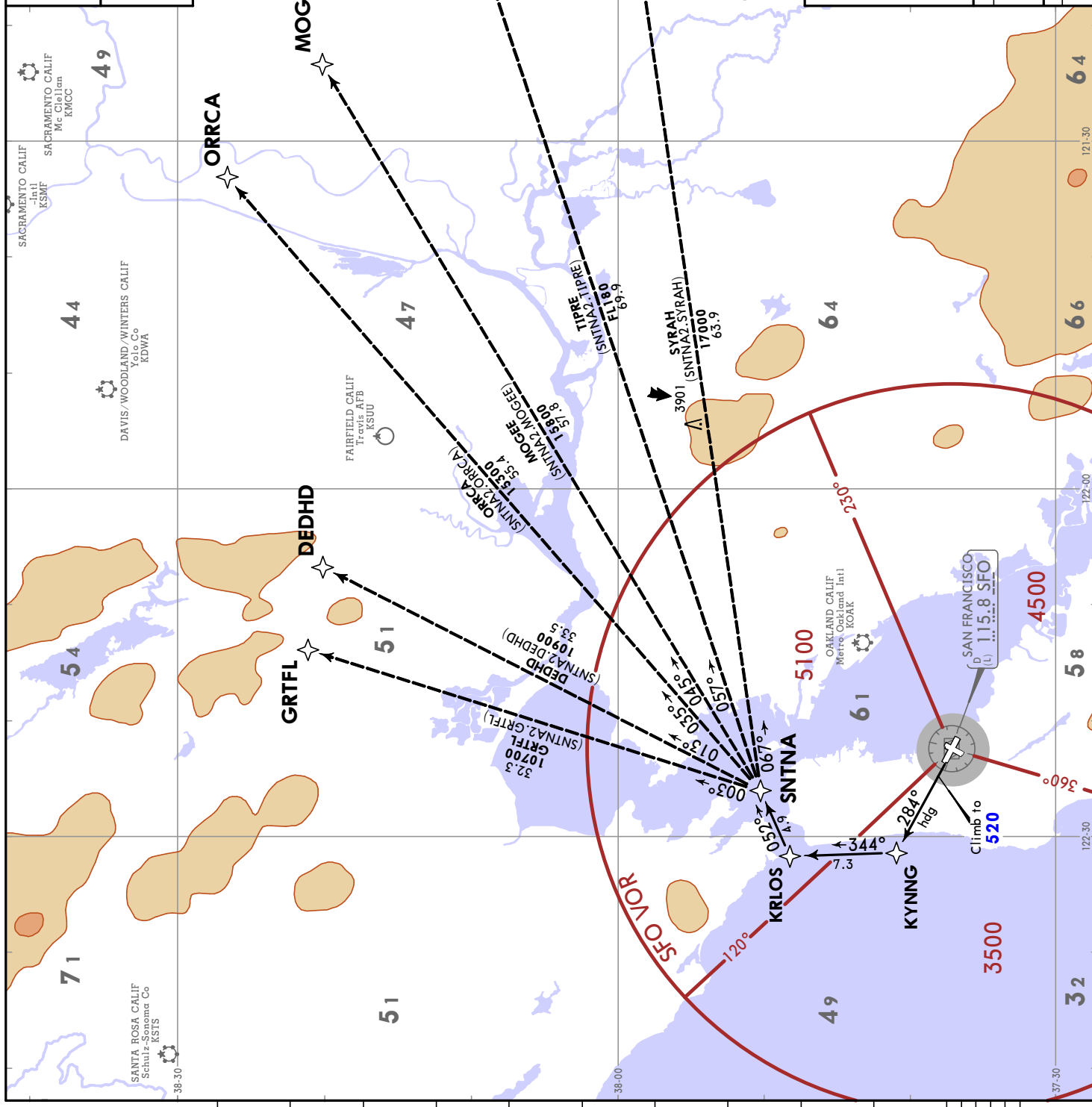


NORCAL  
 Departure (R)  
**120.9**

Apt Elev  
**13**

Trans alt: 18000  
 1. RADAR required.  
 2. DME/DME/IRU or GPS required.  
 3. RNAV 1.

**SNTNA 2 RNAV DEPARTURE**  
 (SNTNA2.SNTNA)  
 (RWYS 28L/R)



This SID requires takeoff minimums (for standard minimums, refer to airport chart):  
 Rwy 28L/R: Standard (or lower than standard, if authorized) with a minimum climb of 500 per NM to 1300.

Gnd speed-KT	75	100	150	200	250	300
500 per NM	625	833	1250	1667	2083	2500

**OBSTACLES**  
 For TAKEOFF OBSTACLE NOTES see 10-30B1.

INITIAL CLIMB	TOP ALTITUDE
Climb heading 284° to 520, then direct KYNNG, then on depicted route to SNTNA.	3000

From SNTNA on transition. MAINTAIN 3000. EXPECT filed altitude 10 minutes after departure.

**JEPPesen SAN FRANCISCO, CALIF**  
**RNAV SID**  
 6 AUG 21 10-3L Eff 12 Aug

**KSFO/SFO**  
**SAN FRANCISCO INTL**

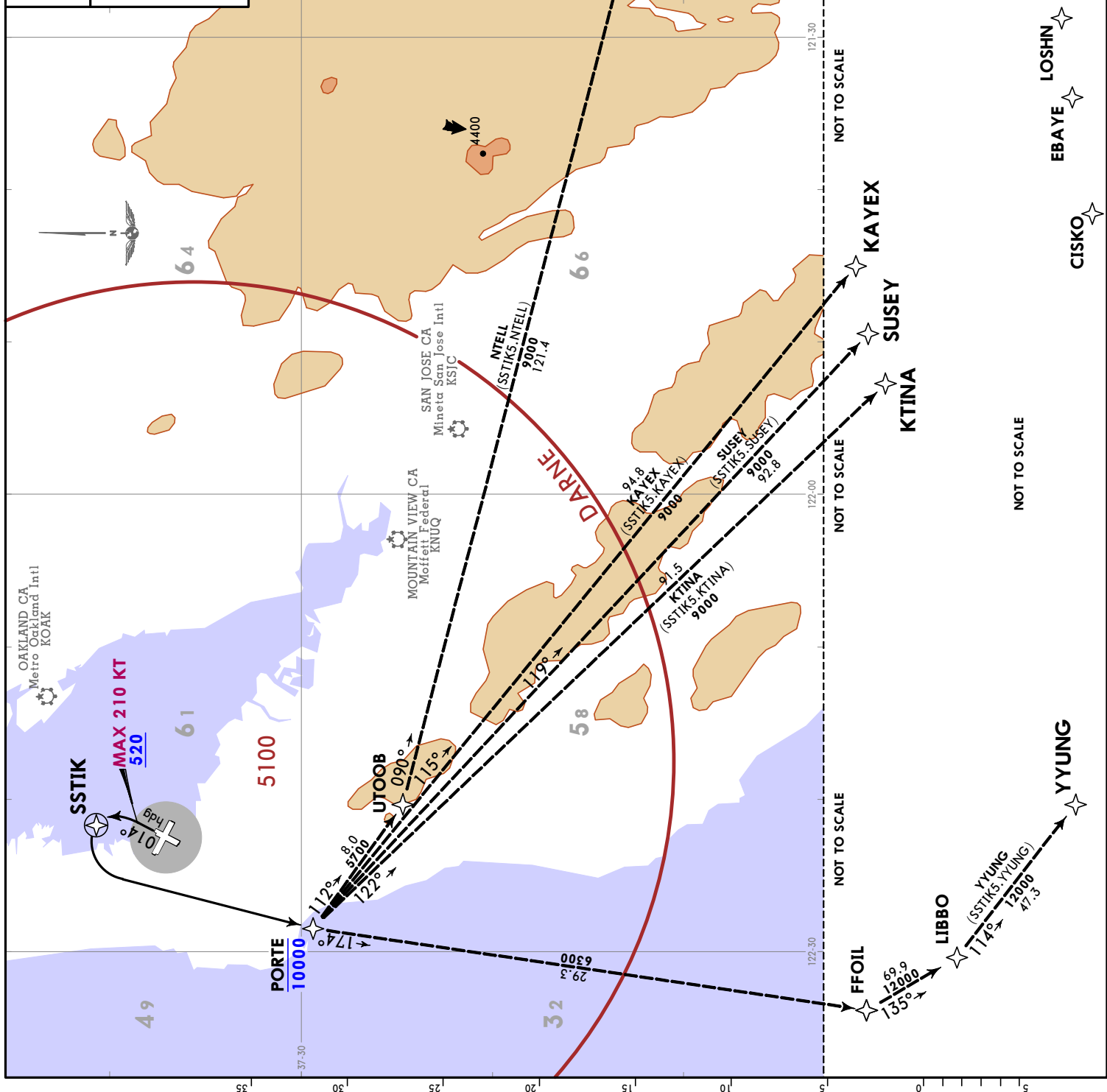
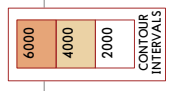
NORCAL  
 Departure (R)  
**135.1**

Apt Elev  
**13**

Trans alt: 18000  
 1. RADAR required.  
 2. GPS required.  
 3. RNAV 1.

**SSTIK 5 RNAV DEPARTURE**  
**(SSTIK5.SSTIK)**  
**(RWYS 1L/R)**

**SPEED: DO NOT EXCEED 210 KT**  
**UNTIL LEAVING 520**



**TAKEOFF OBSTACLE NOTES**  
 See TAKEOFF OBSTACLE NOTES page (10-30B1).

This SID requires takeoff minimums (for standard minimums, refer to airport chart):  
 Rwy 1L/R: Standard (or lower than standard, if authorized) with minimum climb of 500 per NM to 1600.  
 Rwys 10L/R, 19L/R, 28L/R: Not authorized - ATC.

Gnd speed-KT	75	100	150	200	250	300
500 per NM	625	833	1250	1667	2083	2500

INITIAL CLIMB	TOP ALTITUDE
Climb on heading 014° to 520, then climbing LEFT turn direct SSTIK, then climbing LEFT turn direct to cross PORTE at or below 10000.	FL190

**ROUTING**

From PORTE on transition. MAINTAIN FL190, EXPECT filed altitude 10 minutes after departure.



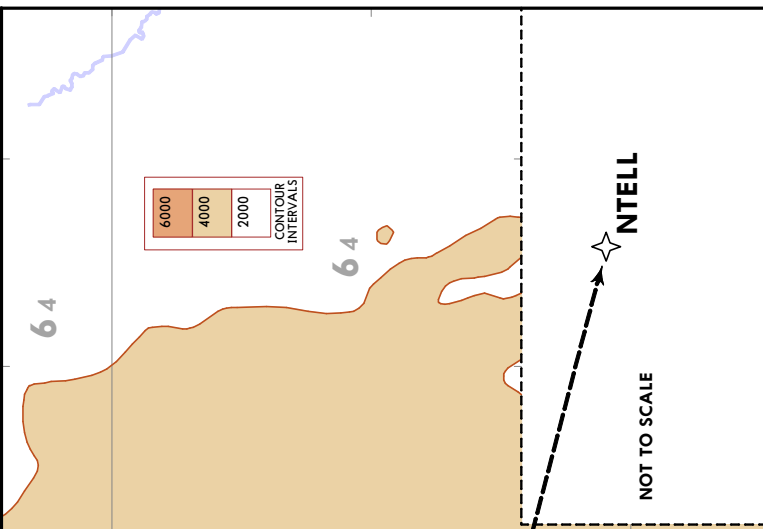
**JEPPesen SAN FRANCISCO, CALIF**  
 6 AUG 21 (10-3N) Eff 12 Aug **RNAV SID**

NORCAL  
 Departure (R)  
**135.1**

Apt Elev  
**13**

Trans alt: 18000  
 1. RADAR required for non-GPS equipped aircraft.  
 2. DME/DME/IRU or GPS required.  
 3. RNAV 1.

**WESLA 5 RNAV DEPARTURE**  
 (WESLA5.WESLA)  
 (RWYS 28L/R)  
**SPEED: DO NOT EXCEED 210 KT UNTIL LEAVING 520**



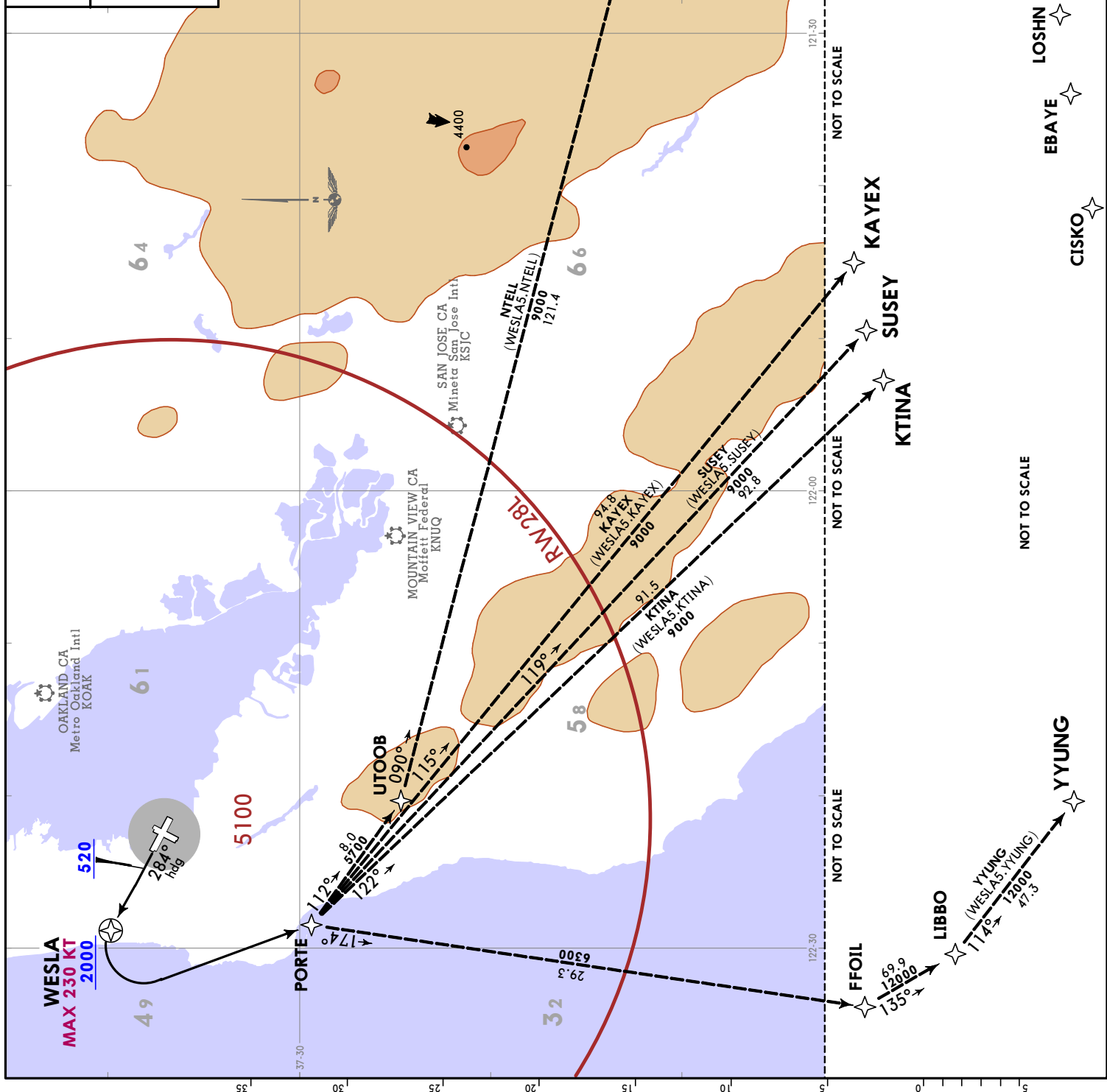
**TAKEOFF OBSTACLE NOTES**  
 See TAKEOFF OBSTACLE NOTES page (10-30B1).

This SID requires takeoff minimums (for standard minimums, refer to airport chart):  
 Rwy 1L/R, 10L/R, 19L/R: Not authorized - ATC.  
 Rwy 28L/R: Standard (or lower than standard, if authorized) with minimum climb of 500 per NM to 2000.

Gnd speed-KT	75	100	150	200	250	300
500 per NM	625	833	1250	1667	2083	2500

INITIAL CLIMB		TOP ALTITUDE	
Climb on heading 284° to 520, then direct to cross WESLA at or above 2000, then climbing LEFT turn direct PORTE.	Assigned by ATC		
ROUTING			
From PORTE on transition. MAINTAIN 3000. EXPECT filed altitude 10 minutes after departure.			

**KSFO/SFO**  
**SAN FRANCISCO INTL**



KSFO/SFO


**JEPPESEN**  
 18 JUL 14 (10-30B1)

**SAN FRANCISCO, CALIF**  
**Eff 24 Jul SAN FRANCISCO INTL**

## TAKEOFF OBSTACLE NOTES

◦ RWY 1L:

SHIPS BEGINNING 1646' FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150' AGL/  
150' MSL.

◦ RWY 1R:

SHIPS BEGINNING 1173' FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150' AGL/  
150' MSL.

◦ RWY 10L:

SIGN 62' FROM DER, 300' LEFT OF CENTERLINE, 4' AGL/15' MSL. BUILDING AND  
ROD ON BUILDING BEGINNING 257' FROM DER, 560' LEFT OF CENTERLINE, UP TO  
14' AGL/24' MSL.

◦ RWY 19L:

MULTIPLE POLES BEGINNING 548' FROM DER, 46' LEFT OF CENTERLINE, UP TO 20' AGL/  
48' MSL. MULTIPLE POLES AND SIGNS BEGINNING 652' FROM DER, 337' RIGHT OF  
CENTERLINE, UP TO 20' AGL/38' MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS,  
POLES, TREES, SIGNS, ELECTRICAL SYSTEM BEGINNING 937' FROM DER, 11' LEFT OF  
CENTERLINE, UP TO 100' AGL/127' MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS,  
POLES, TREES, SIGNS, ELECTRICAL SYSTEM BEGINNING 887' FROM DER, 61' RIGHT OF  
CENTERLINE, UP TO 100' AGL/128' MSL. MULTIPLE BUILDINGS 3831' FROM DER, 1138'  
LEFT OF CENTERLINE, UP TO 105' AGL/127' MSL. MULTIPLE BUILDINGS AND TREES  
BEGINNING 3831' FROM DER, 74' RIGHT OF CENTERLINE, UP TO 100' AGL/167' MSL.

◦ RWY 19R:

MULTIPLE POLES, TREES, ELECTRICAL SYSTEM BEGINNING 454' FROM DER, 82'  
RIGHT OF CENTERLINE, UP TO 40' AGL/60' MSL. MULTIPLE TRANSMISSION TOWERS,  
TREES BEGINNING 918' FROM DER, 7' LEFT OF CENTERLINE, UP TO 80' AGL/  
96' MSL. POLES AND ELECTRICAL SYSTEM 1188' FROM DER, 1' RIGHT OF CENTERLINE,  
44' AGL/50' MSL. MULTIPLE TRANSMISSION TOWERS, TREES BEGINNING 1617' FROM  
DER, 16' RIGHT OF CENTERLINE, UP TO 80' AGL/85' MSL.

◦ RWY 28L:

SIGN 19' FROM DER, 500' RIGHT OF CENTERLINE, 5' AGL/9' MSL. OBSTRUCTION  
LIGHTS ON DME BEGINNING 277' FROM DER, 162' LEFT OF CENTERLINE, UP TO  
16' AGL/26' MSL. OBSTRUCTION LIGHT ON LOCALIZER BEGINNING 219' FROM DER,  
ON CENTERLINE UP TO 10' AGL/17' MSL. MULTIPLE POLES, ELECTRICAL SYSTEM  
BEGINNING 824' FROM DER, 300' LEFT OF CENTERLINE, UP TO 40' AGL/56' MSL.  
MULTIPLE BUILDINGS, TRANSMISSION TOWERS, TANK AND POLE BEGINNING 1305'  
FROM DER, 370' LEFT OF CENTERLINE, UP TO 95' AGL/103' MSL.

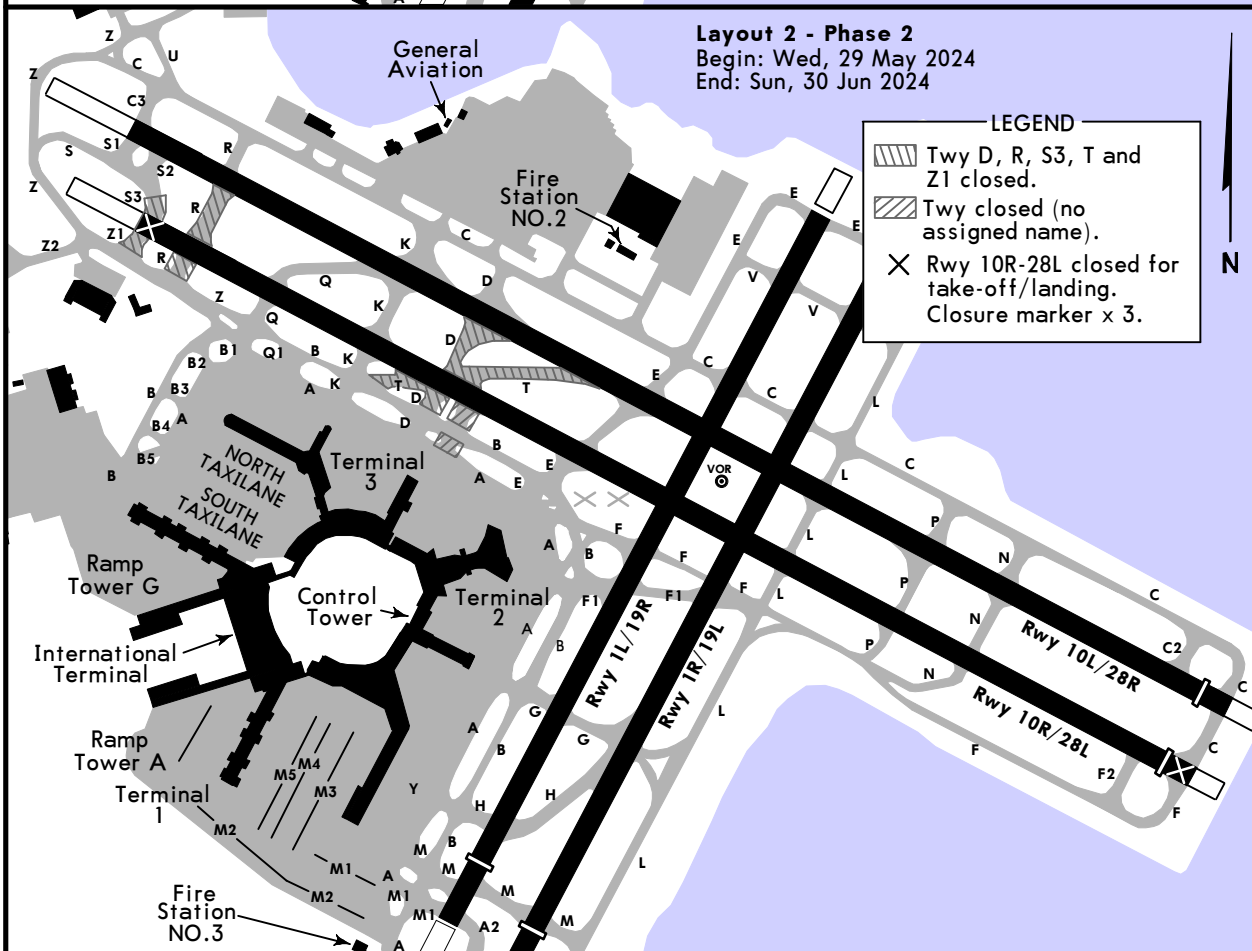
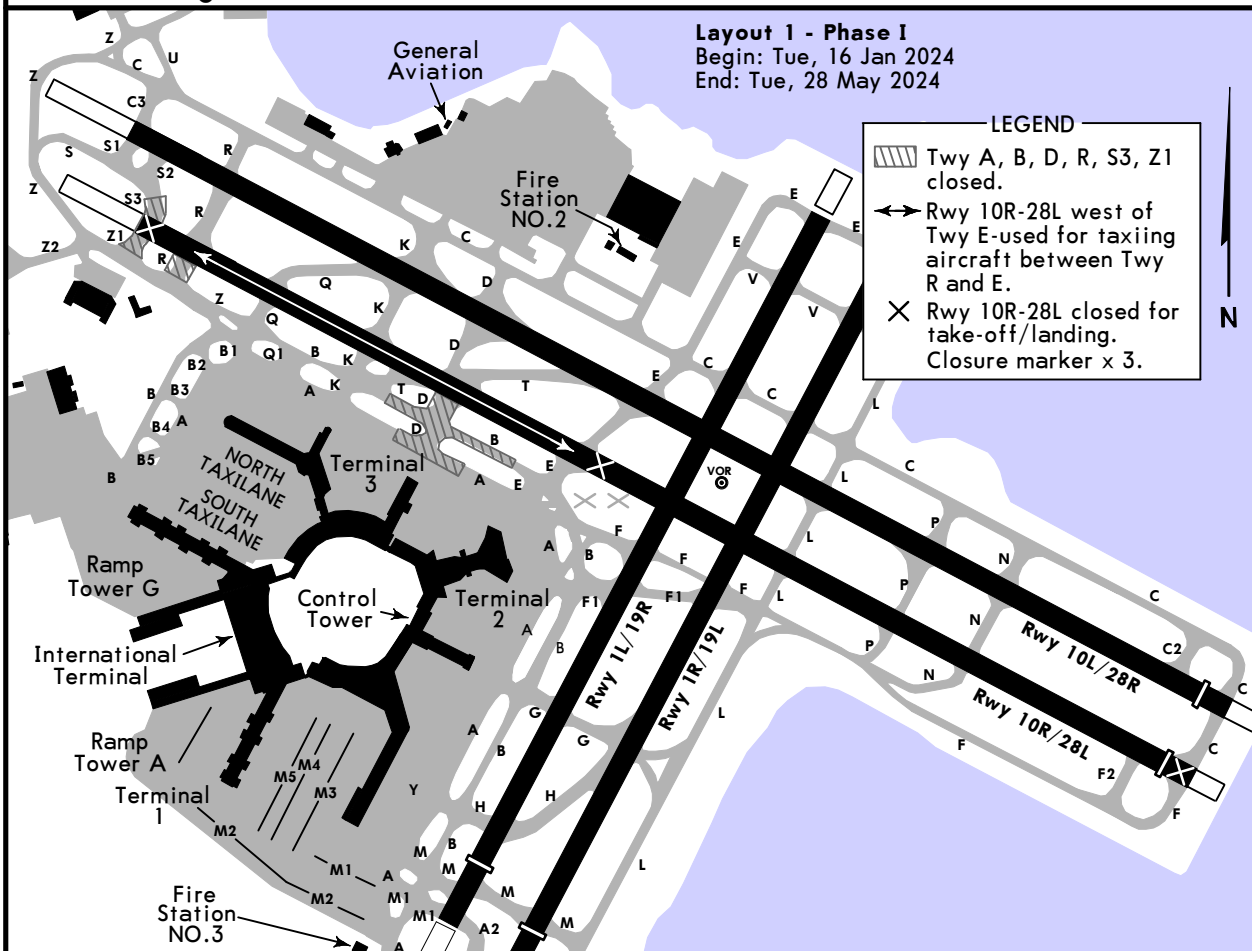
◦ RWY 28R:

MULTIPLE SIGNS BEGINNING 23' FROM DER, 140' RIGHT OF CENTERLINE, UP TO  
5' AGL/10' MSL. TERRAIN BEGINNING 58' FROM DER, 146' RIGHT OF CENTERLINE,  
UP TO 10' MSL. SIGN 63' FROM DER, 250' LEFT OF CENTERLINE, 5' AGL/8' MSL.  
TERRAIN BEGINNING 130' FROM DER, 235' LEFT OF CENTERLINE, UP TO 10' MSL.  
ANTENNA ON BUILDING, OBSTRUCTION LIGHT ON DME, TREE BEGINNING 556'  
FROM DER, 268' RIGHT OF CENTERLINE, UP TO 35' AGL/43' MSL. MULTIPLE POLES  
BEGINNING 918' FROM DER, 598' LEFT OF CENTERLINE, UP TO 22' AGL/35' MSL.  
MULTIPLE BUILDINGS, TREES BEGINNING 1467' FROM DER, 683' RIGHT OF  
CENTERLINE, UP TO 60' AGL/68' MSL. MULTIPLE BUILDINGS, TRANSMISSION  
TOWERS, TREES AND ELECTRICAL SYSTEM BEGINNING 1826' FROM DER, 123' LEFT  
OF CENTERLINE, UP TO 95' AGL/103' MSL.

### SAN FRANCISCO INTL CONSTRUCTION

Taxiways Delta and Tango Reconstruction commencing 2 Jan 2024.

All Dates are Approximate, Implementation Should be Verified Through NOTAMs. See Current NOTAMs for Additional Information.



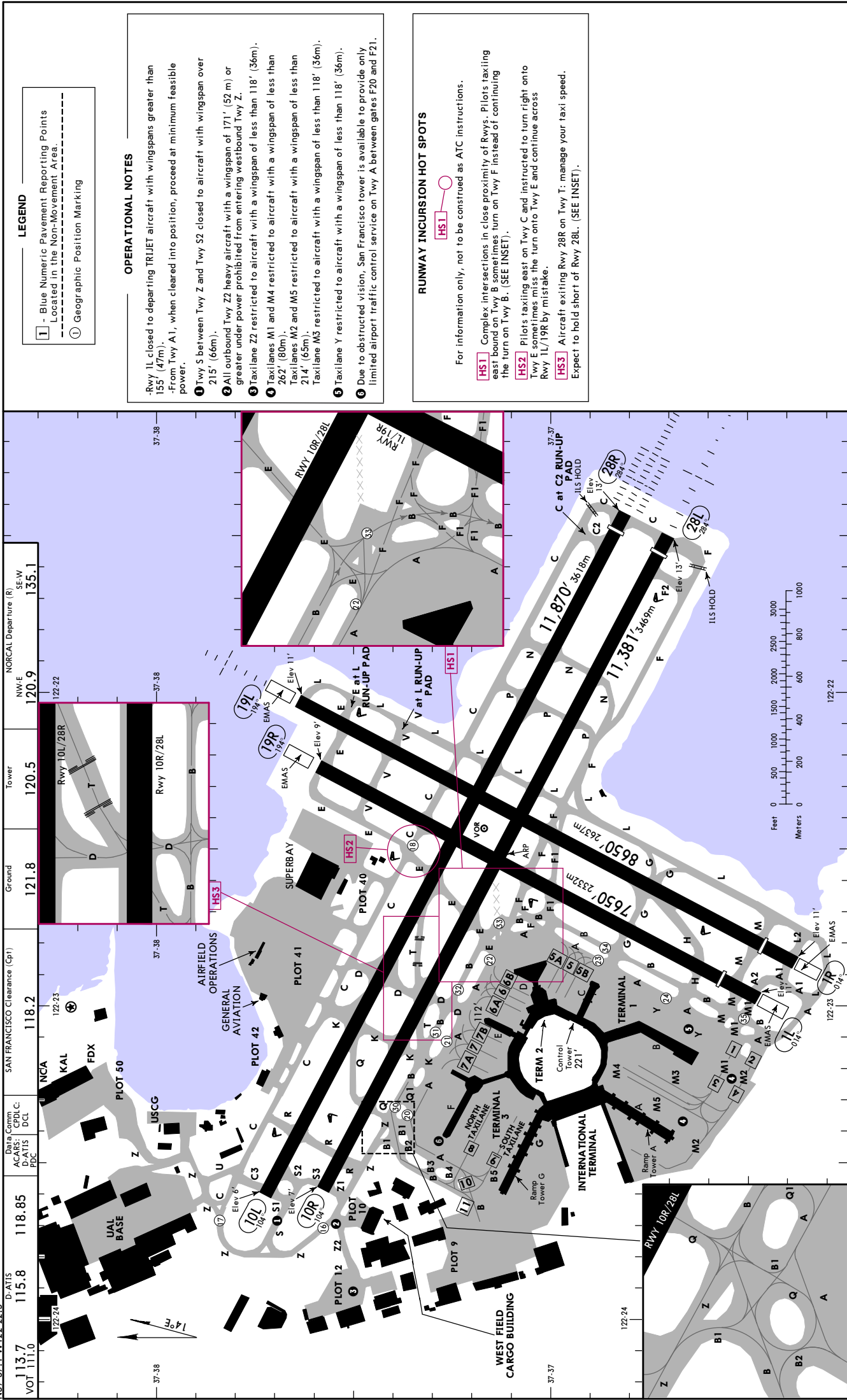




**SAN FRANCISCO, CALIF**  
SAN FRANCISCO INTL

**JEPPESEN**  
24 MAY 24 10-9

**KSFO/SFO**  
Apt Elev 13',  
NSR 37.1 W 122.5



TERMS		TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE (AMBD 9)	
LOWER THAN STANDARD OpSpec Authorization Required 2 operating RVRs are required. All operating RVRs are controlling.		RWYS 1L/R, 10L/R	
CL & HIRL	CL, or RCLM & HIRL	RCLM (day only) or CL or HIRL	RCLM or CL or HIRL or Adequate Vis Ref
TDZ RVR 5	TDZ RVR 10	TDZ RVR 12	TDZ RVR 16
Mid RVR 5	Mid RVR 10	Mid RVR 12	(if TDZ inop) Mid RVR 16
Rollout RVR 5	Rollout RVR 10	Rollout RVR 10	or 1/4
RWYS 19L/R			
With Min climb of 575'/NM to 2000'			
LOWER THAN STANDARD OpSpec Authorization Required 2 operating RVRs are required. All operating RVRs are controlling.		RWYS 28L/R	
CL & HIRL	CL, or RCLM & HIRL	RCLM (day only) or CL or HIRL	RCLM or CL or HIRL or Adequate Vis Ref
TDZ RVR 5	TDZ RVR 10	TDZ RVR 12	TDZ RVR 16
Mid RVR 5	Mid RVR 10	Mid RVR 12	(if TDZ inop) Mid RVR 16
Rollout RVR 5	Rollout RVR 10	Rollout RVR 10	or 1/4
RWYS 28L/R			
With Min climb of 351'/NM to 1300'			
LOWER THAN STANDARD OpSpec Authorization Required 2 operating RVRs are required. All operating RVRs are controlling.		RWYS 10L/R	
CL & HIRL	CL, or RCLM & HIRL	RCLM (day only) or CL or HIRL	RCLM or CL or HIRL or Adequate Vis Ref
TDZ RVR 5	TDZ RVR 10	TDZ RVR 12	TDZ RVR 16
Mid RVR 5	Mid RVR 10	Mid RVR 12	(if TDZ inop) Mid RVR 16
Rollout RVR 5	Rollout RVR 10	Rollout RVR 10	or 1/4
RWYS 10L/R			
With Min climb of 420'/NM to 2600'			

**OBSTACLE DP**  
 Rwys 1L/R: Climb heading 014° to 2000', thence...  
 Rwys 28L/R: Climb heading 284° to 2000', thence...  
 Rwys 10L/R: Climb heading 104° to 2000', thence...  
 Rwys 19L/R: Climb heading 194° to 2000', thence...  
 ...continue climb on course.  
 (For TAKEOFF OBSTACLE NOTES see 10-9A1)

**DIVERSE VECTOR AREA (Radar Vectors)** (AMBD 1)  
 Rwy 1L: Headings as assigned by ATC; requires minimum climb of 420'/NM to 2600'.  
 Rwy 1R: Headings as assigned by ATC; requires minimum climb of 410'/NM to 2600'.  
 Rwy 10L/10R: Headings as assigned by ATC.

FOR FILING AS ALTERNATE			
ILS Rwy 28R	ILS Rwy 19L	LOC Rwy 28R	RNAV (GPS) Rwy 19L
600-2	800-2	800-2	900-2
		1000-2	1000-2
		1600-3	1600-3
		800-2	900-2 1/2
			1100-2
			1100-2 1/2
RNAV (GPS) Rwy 10L	RNAV (GPS) Rwy 10R	RNAV (GPS) Y Rwy 10R	LOC Rwy 19L
1100-2	1100-4	1200-2	1800-2
1600-3		1200-3	1800-3
1100-2 1/2			NA

**GENERAL CAUTION:** Be alert to runway crossing clearances. Readback all runway assignments. Readback of all runway hold short instructions is required. Airport Surface Surveillance Capability (ASCC) in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces. Runway status lights in operation. Birds in vicinity of airport. Simultaneous operations in effect all runways. Low-Level Wind Shear Alert System.

RWY	HIRL CL REIL	MALSF TDZ	ADDITIONAL RUNWAY INFORMATION		USABLE LENGTHS	
			Threshold	Glide Slope	TAKE-OFF	WIDTH
19L	HIRL CL REIL	MALSF TDZ ① PAPI-L	8090' 2466m	7607' 2319m		200' 61m
① Angle 3.0°.						
1L	HIRL CL REIL		7010' 2137m			200' 61m
19R	HIRL CL PAPI-L (angle 3.15°)					
② Angle 2.85°.						
10R	HIRL CL PAPI-L (angle 3.00°)		10,704' 3263m			200' 61m
28L	HIRL CL MALS R ② PAPI-L		10,275' 3132m	10,015' 3053m		
③ Angle 2.85°.						
10L	HIRL CL REIL ③ PAPI-L		11,193' 3412m			200' 61m
28R	HIRL CL ALSF-II TDZ ③ PAPI-L		11,236' 3425m	10,505' 3202m		
④ Angle 3.0°.						

KSFO/SFO

SAN FRANCISCO, CALIF  
SAN FRANCISCO INTL

## ODP TAKEOFF OBSTACLE NOTES

- RWY 1L:

SHIPS BEGINNING 1646' FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150' AGL/  
150' MSL.

- RWY 1R:

SHIPS BEGINNING 1173' FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 150' AGL/  
150' MSL.

- RWY 10L:

SIGN 62' FROM DER, 300' LEFT OF CENTERLINE, 4' AGL/15' MSL. BUILDING AND  
ROD ON BUILDING BEGINNING 257' FROM DER, 560' LEFT OF CENTERLINE, UP TO  
14' AGL/24' MSL.

- RWY 19L:

MULTIPLE POLES BEGINNING 548' FROM DER, 46' LEFT OF CENTERLINE, UP TO 20' AGL/  
48' MSL. MULTIPLE POLES AND SIGNS BEGINNING 652' FROM DER, 337' RIGHT OF  
CENTERLINE, UP TO 20' AGL/38' MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS,  
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CENTERLINE, UP TO 100' AGL/127' MSL. MULTIPLE BUILDINGS, TRANSMISSION TOWERS,  
POLES, TREES, SIGNS, ELECTRICAL SYSTEM BEGINNING 887' FROM DER, 61' RIGHT OF  
CENTERLINE, UP TO 100' AGL/128' MSL. MULTIPLE BUILDINGS 3831' FROM DER, 1138'  
LEFT OF CENTERLINE, UP TO 105' AGL/127' MSL. MULTIPLE BUILDINGS AND TREES  
BEGINNING 3831' FROM DER, 74' RIGHT OF CENTERLINE, UP TO 100' AGL/167' MSL.

- RWY 19R:

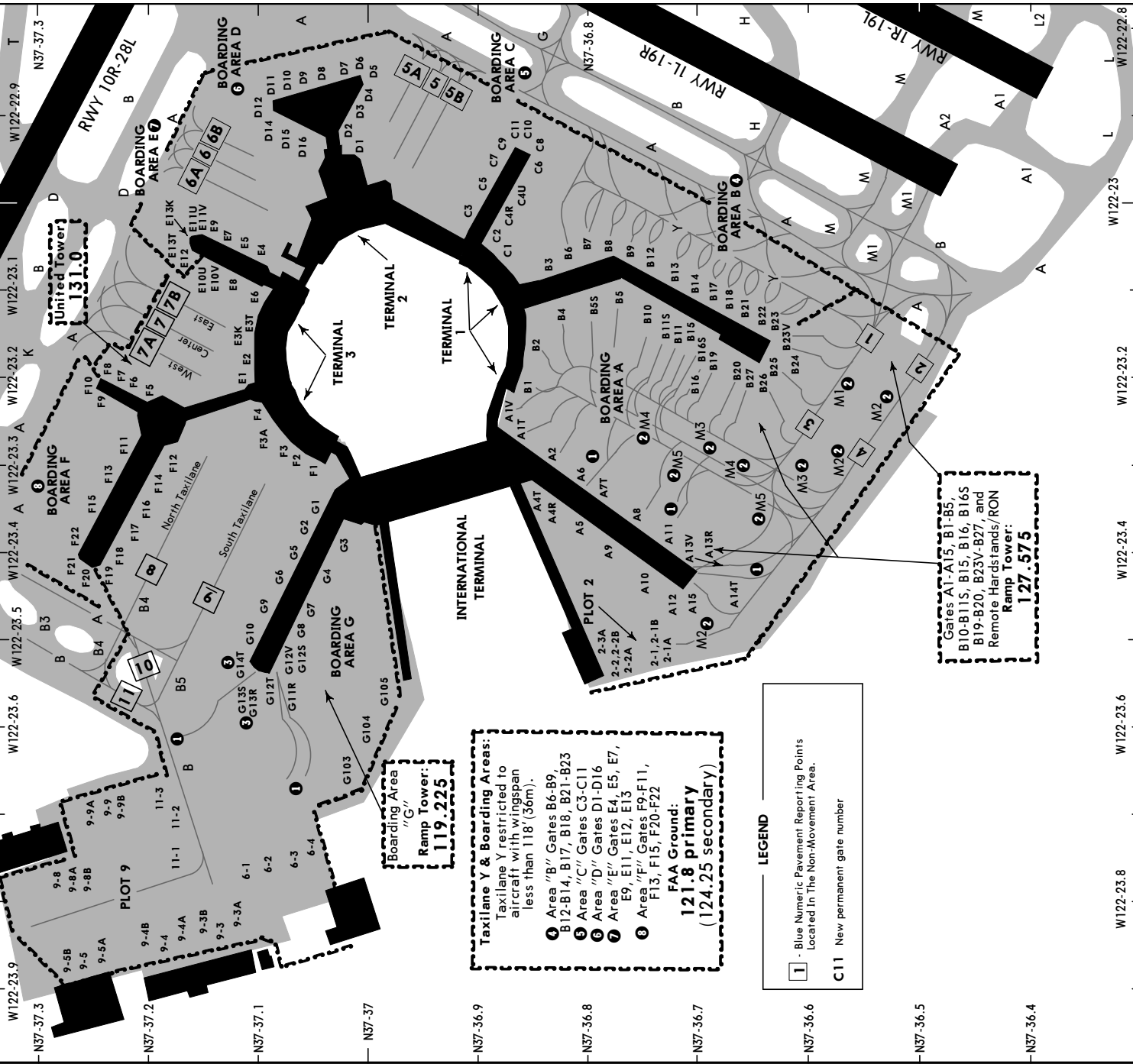
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RIGHT OF CENTERLINE, UP TO 40' AGL/60' MSL. MULTIPLE TRANSMISSION TOWERS,  
TREES BEGINNING 918' FROM DER, 7' LEFT OF CENTERLINE, UP TO 80' AGL/  
96' MSL. POLES AND ELECTRICAL SYSTEM 1188' FROM DER, 1' RIGHT OF CENTERLINE,  
44' AGL/50' MSL. MULTIPLE TRANSMISSION TOWERS, TREES BEGINNING 1617' FROM  
DER, 16' RIGHT OF CENTERLINE, UP TO 80' AGL/85' MSL.

- RWY 28L:

SIGN 19' FROM DER, 500' RIGHT OF CENTERLINE, 5' AGL/9' MSL. OBSTRUCTION  
LIGHTS ON DME BEGINNING 277' FROM DER, 162' LEFT OF CENTERLINE, UP TO  
16' AGL/26' MSL. OBSTRUCTION LIGHT ON LOCALIZER BEGINNING 219' FROM DER,  
ON CENTERLINE UP TO 10' AGL/17' MSL. MULTIPLE POLES, ELECTRICAL SYSTEM  
BEGINNING 824' FROM DER, 300' LEFT OF CENTERLINE, UP TO 40' AGL/56' MSL.  
MULTIPLE BUILDINGS, TRANSMISSION TOWERS, TANK AND POLE BEGINNING 1305'  
FROM DER, 370' LEFT OF CENTERLINE, UP TO 95' AGL/103' MSL.

- RWY 28R:

MULTIPLE SIGNS BEGINNING 23' FROM DER, 140' RIGHT OF CENTERLINE, UP TO  
5' AGL/10' MSL. TERRAIN BEGINNING 58' FROM DER, 146' RIGHT OF CENTERLINE,  
UP TO 10' MSL. SIGN 63' FROM DER, 250' LEFT OF CENTERLINE, 5' AGL/8' MSL.  
TERRAIN BEGINNING 130' FROM DER, 235' LEFT OF CENTERLINE, UP TO 10' MSL.  
ANTENNA ON BUILDING, OBSTRUCTION LIGHT ON DME, TREE BEGINNING 556'  
FROM DER, 268' RIGHT OF CENTERLINE, UP TO 35' AGL/43' MSL. MULTIPLE POLES  
BEGINNING 918' FROM DER, 598' LEFT OF CENTERLINE, UP TO 22' AGL/35' MSL.  
MULTIPLE BUILDINGS, TREES BEGINNING 1467' FROM DER, 683' RIGHT OF  
CENTERLINE, UP TO 60' AGL/68' MSL. MULTIPLE BUILDINGS, TRANSMISSION  
TOWERS, TREES AND ELECTRICAL SYSTEM BEGINNING 1826' FROM DER, 123' LEFT  
OF CENTERLINE, UP TO 95' AGL/103' MSL.



**OPERATIONAL NOTES**

- Aircraft Gates A6, A13, A14, G11, G12, G13, and G14 are configured to accept either one widebody or two simultaneous narrow-body aircraft. Widebody aircraft must use the center lead-in lines only - marked 11 (for Gate A11), G11, G12, or G13, G14 respectively.
- Taxilanes M1 and M4 restricted to aircraft with a wingspan of less than 262' (80m). Taxilanes M2 and M5 restricted to aircraft with a wingspan of less than 214' (65m). Taxilane M3 restricted to aircraft with a wingspan of less than 118' (36m).
- Gates G13 and G14 Restricted: B747/A340/A380 tow-in required when aircraft stops short of gate due to jetbrakes.

All widebody aircraft must tow into gate G12 at all times; All widebody aircraft must tow into gate G8 if the aircraft stops prior to reaching the gate stopbar.

Due to obstructed vision, the Tower is unable to determine if aircraft pulling into gate F11 are at the hook-up spot or in the gate.

Due to obstructed vision, San Francisco Tower is able to provide only limited airport traffic control service on Twy A between gates F20 and F21.

**Alleyway between Boarding Areas C and D; D and E as depicted:**  
Departures: Contact Ground Control (121.8) for pushback and tow clearance to spots 5, 5A, 5B, 6, 6A, & 6B. B767 or larger must pushback on to Twy A. Taxilanes/Reporting Points 5 and 6 will accommodate B757 and larger aircraft. Taxilanes 5A/B and 6A/B will accommodate simultaneous B737/A321 or smaller aircraft operations.

**Alleyway between Boarding Areas E and F as depicted:**  
Arrivals: Contact the Shuttle Tower on approach to the appropriate blue numeric pavement marking "77", "77A", "77A" or "77B".  
Departures: Contact the Shuttle Tower for pushback and taxi/tow clearance to spot "77", "77A" or "77B".

**Taxi/Tow procedures for aircraft operations between Terminal 1 - Boarding Area B and the International Terminal - Boarding Area A:**  
There are three designated taxi/line lines located between aircraft Gates A8 & A1. The center M4 taxi/line is for aircraft with wingspans up to 262' (80m). Taxilanes M3 and M5 are designed for simultaneous operations of aircraft with wingspans less than 118' (36m). Unless otherwise directed by Ramp Tower A, aircraft should pushback with the Tail directed to the North (terminal 1) and be towed to the engine start point abeam aircraft gate A8 prior to engine start, including A380/B748. Aircraft with wingspans up to 262' (80m) must follow taxi/line M4 while taxiing to/from gates A2, A6. Aircraft with wingspans less than 118' (36m) shall use the taxi/line M3 line while taxiing to/from Boarding Area B and the taxi/line M4 line for Boarding Area A aircraft gates A2, A6.

**Non-Movement Areas: Boarding Areas A, G, B and F as depicted:**  
Arrivals: Contact the Ramp Control Tower prior to entering the ramp on approach to the appropriate blue numeric pavement marking (spots) "1", "2", "10", "11".  
Departures: Contact the Ramp Control Tower for pushback and taxi/tow clearance to the appropriate blue numeric pavement marking "1", "2", "10", "11" [note: unless otherwise directed, outbound aircraft will report to Spots "1", (Taxiway "M1") or "10" (Taxiway "A")]. Upon reaching these points, the aircraft will contact FAA Air Traffic Control Tower for subsequent instructions. Plot 9 aircraft must contact the Boarding Area G Ramp Tower for pushback and taxi/tow clearance.

**Taxilane Y & Boarding Areas:**  
Taxilane Y restricted to aircraft with wingspan less than 118' (36m).

- Area "B" Gates B6-B9, B12-B14, B17, B18, B21-B23
- Area "C" Gates C3-C11
- Area "D" Gates D1-D16
- Area "E" Gates E4, E5, E7, E9, E11, E12, E13
- Area "F" Gates F9-F11, F13, F15, F20-F22

**FAA Ground:**  
**121.8 primary**  
(124.25 secondary)

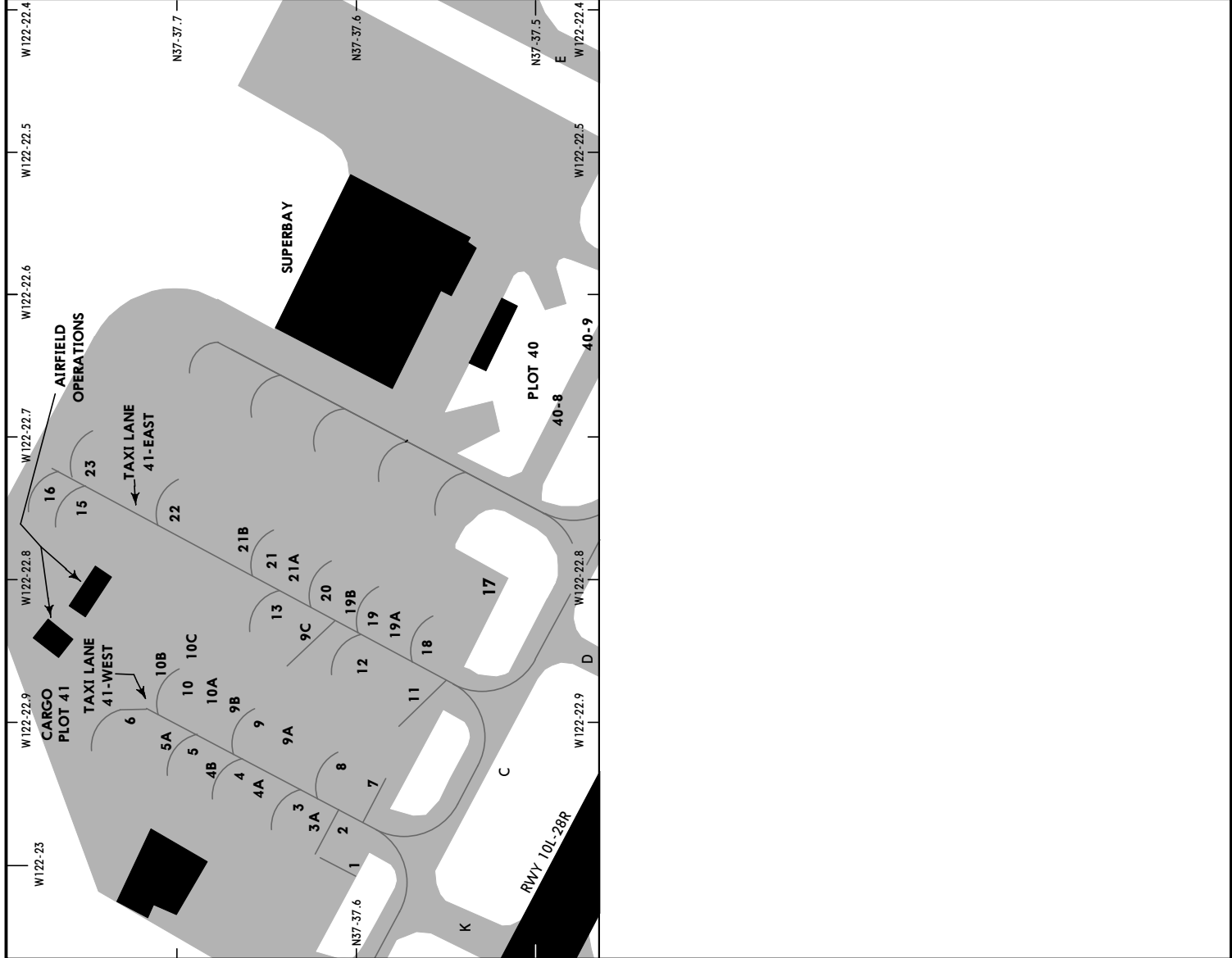
**LEGEND**

**1** - Blue Numeric Pavement Reporting Points Located in the Non-Movement Area.

**C11** New permanent gate number

Gates A1-A15, B1-B5  
B10-B15, B15, B16, B16S  
B19-B20, B23V-B27, and  
Remote Hardstands/RON  
Ramp Tower:  
**127.575**

PARKING GATE COORDINATES			
GATE No.	COORDINATES	GATE No.	COORDINATES
<b>BOARDING AREA A</b>			
A1V	N37 36.9 W122 23.2	<b>PLOT 2</b>	
A1T, A2, A4T, A4R	N37 36.8 W122 23.3	2-1, 2-1A, 2-1B	N37 36.7 W122 23.5
A5	N37 36.8 W122 23.4	2-2, 2-2A, 2-2B	N37 36.8 W122 23.5
A6 thru A8	N37 36.8 W122 23.3	2-3	N37 36.8 W122 23.5
A9, A10	N37 36.8 W122 23.4	<b>PLOT 6</b>	
A11 thru A15	N37 36.7 W122 23.4	6-1, 6-2	N37 37.1 W122 23.8
<b>BOARDING AREA B</b>			
B1	N37 36.9 W122 23.2	6-3, 6-4	N37 37.0 W122 23.7
B2	N37 36.8 W122 23.2	<b>PLOT 9</b>	
B3 thru B9	N37 36.8 W122 23.1	9-3, 9-3A, 9-3B	N37 37.1 W122 23.8
B10 thru B18	N37 36.7 W122 23.1	9-4, 9-4A, 9-4B	N37 37.2 W122 23.8
B19, B20	N37 36.7 W122 23.2	9-5, 9-5A, 9-5B	N37 37.3 W122 23.9
B21	N37 36.7 W122 23.1	9-8, 9-8A, 9-8B	N37 37.3 W122 23.8
B22, B23, B23V	N37 36.6 W122 23.1	9-9, 9-9A, 9-9B	N37 37.2 W122 23.7
B24 thru B26	N37 36.6 W122 23.2	11-1	N37 37.2 W122 23.8
B27	N37 36.7 W122 23.2	11-2, 11-3	N37 37.2 W122 23.7
<b>BOARDING AREA C</b>			
C1 thru C5	N37 36.9 W122 23.0	<b>PLOT 10</b>	
C6 thru C11	N37 36.9 W122 22.9	West Field Cargo	N37 37.5 W122 23.6
<b>BOARDING AREA D</b>			
D1 thru D8	N37 37.0 W122 22.9	<b>PLOT 40</b>	
D9 thru D16	N37 37.1 W122 22.9	40-8	N37 37.5 W122 22.7
<b>BOARDING AREA E</b>			
E1, E2	N37 37.1 W122 23.2	40-9	N37 37.5 W122 22.6
E3 thru E6	N37 37.1 W122 23.1	<b>41-WEST</b>	
E7, E9	N37 37.1 W122 23.0	1, 2, 3, 3A	N37 37.6 W122 23.0
E8, E10U, E10V	N37 37.1 W122 23.1	4, 4A, 4B, 5, 5A, 6	N37 37.7 W122 22.9
E11	N37 37.2 W122 23.0	7, 8, 9A	N37 37.6 W122 22.9
E12	N37 37.2 W122 23.1	9, 9B	N37 37.7 W122 22.9
E13	N37 37.2 W122 23.0	10, 10A, 10B, 10C	N37 37.7 W122 22.9
<b>BOARDING AREA F</b>			
F1 thru F3A	N37 37.1 W122 23.3	<b>41-EAST</b>	
F4	N37 37.1 W122 23.2	9C	N37 37.6 W122 22.8
F5 thru F10	N37 37.2 W122 23.2	11, 12	N37 37.6 W122 22.9
F11 thru F14	N37 37.2 W122 23.3	13	N37 37.6 W122 22.8
F15 thru F19	N37 37.2 W122 23.4	15, 16	N37 37.8 W122 22.7
F20 thru F22	N37 37.3 W122 23.4	17	N37 37.5 W122 22.8
<b>BOARDING AREA G</b>			
G1, G2	N37 37.1 W122 23.4	<b>18, 19, 19A, 19B</b>	
G3, G4	N37 37.0 W122 23.4	<b>20, 21, 21A</b>	
G5, G6	N37 37.1 W122 23.4	21B, 22	N37 37.7 W122 22.8
G7 thru G14	N37 37.1 W122 23.5	23	N37 37.8 W122 22.7
G103	N37 37.0 W122 23.7	<b>G104, G105</b>	
G104, G105	N37 37.0 W122 23.6		



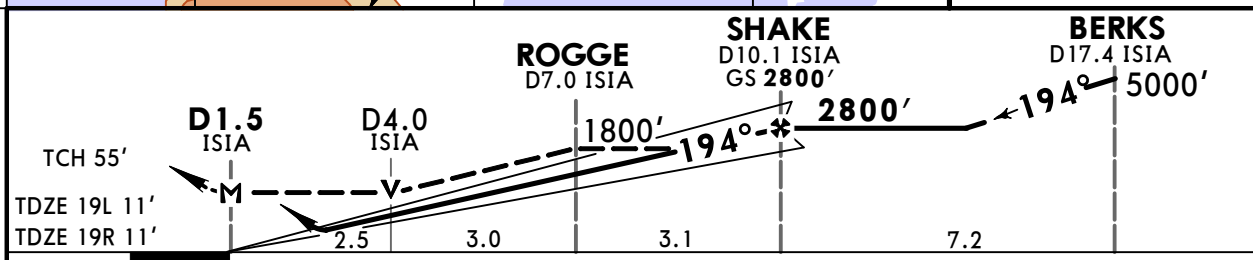
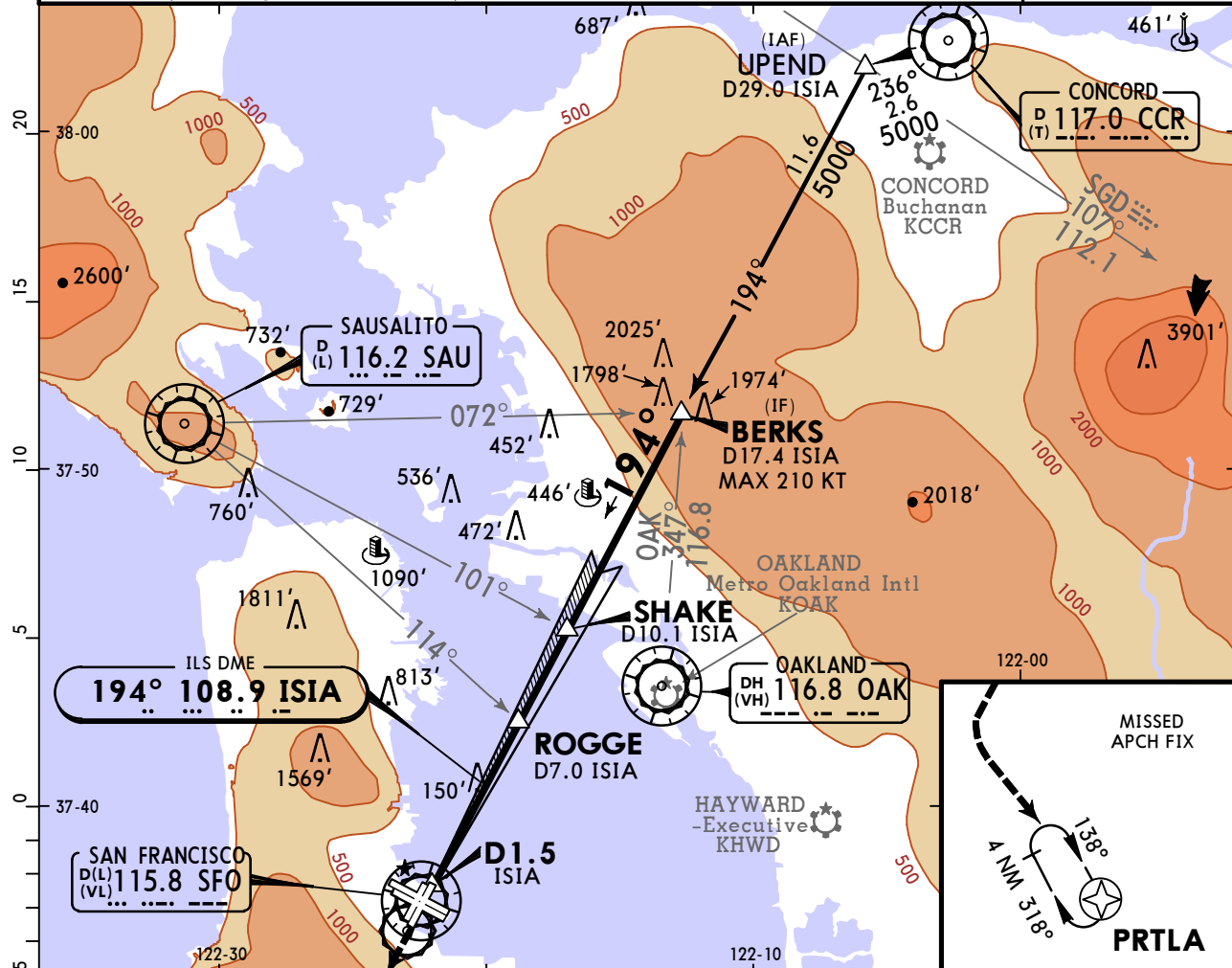
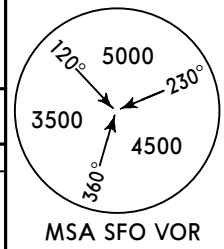


# KSFO/SFO SAN FRANCISCO INTL

**JEPPESSEN**  
24 NOV 23  
Eff 30 Nov (11-1)

# SAN FRANCISCO, CALIF ILS or LOC Rwy 19L

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5		SAN FRANCISCO Tower 120.5		Ground 121.8	
LOC ISIA <b>108.9</b>	Final Apch Crs <b>194°</b>	SHAKE <b>2800'</b> (2789')		ILS DA(H) (CONDITIONAL) <b>300'</b> (289')		Apt Elev 13' TDZE 11'	
<b>MISSED APCH:</b> Climb to 1100', then climbing LEFT turn to 4000' direct PRTLA and hold. Refer to minimums for missed apch climb gradient.							
RNP Apch-GPS		Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. Sidestep not authorized until passing ROGGE intersection. 2. Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on the glideslope. 3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 71').							



Gnd speed-Kts	70	90	100	120	140	160	MALSF 1100'	PAPI 4000'	D	PRTLA	
GS	3.00°	372	478	531	637	743					849
MAP at D1.5 ISIA or SHAKE to MAP	8.6	7:22	5:44	5:10	4:18	3:41	3:14				

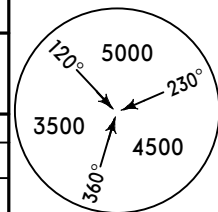
TERPS				STRAIGHT-IN LANDING RWY 19L				SIDESTEP LANDING RWY 19R			
ILS		LOC (GS out)		ILS		LOC (GS out)		ILS		LOC (GS out)	
<b>1</b>		<b>2</b>		<b>1</b>		<b>2</b>		<b>1</b>		<b>2</b>	
DA(H) <b>300'</b> (289')		DA(H) <b>774'</b> (763')		MDA(H) <b>880'</b> (869')		MDA(H) <b>1800'</b> (1789')		MDA(H) <b>880'</b> (869')		MDA(H) <b>880'</b> (869')	
ALS out		ALS out		ALS out		ALS out		ALS out		ALS out	
A				RVR 40 or 3/4	RVR 50 or 1		1 1/4				2
B	RVR 40 or 3/4	RVR 45 or 7/8	2	2 1/2	RVR 55 or 1	RVR 60 or 1/4	1 1/2				2
C											3
D					2 1/2	2 3/4	3				3

**1** Missed approach requires minimum climb of 357'/NM to 2000'. **2** Dual VOR receivers or DME required.

# KSFO/SFO SAN FRANCISCO INTL

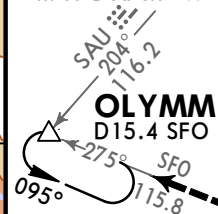
**JEPPESSEN** SAN FRANCISCO, CALIF  
24 NOV 23 **(11-2)** Eff 30 Nov ILS or LOC Rwy 28L

D-ATIS 113.7 115.8 118.85	NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5	Ground 121.8
LOC ISFO <b>109.55</b>	Final Apch Crs <b>284°</b>	DUYET <b>1800'</b> (1787')	ILS DA(H) (CONDITIONAL) <b>213'</b> (200')
Apt Elev 13'			TDZE 13'
<b>MISSED APCH: Climb to 4000' outbound on SFO VOR R-275 to OLYMM INT/D15.4 SFO and hold, continue climb-in-hold to 4000'.</b>			
Alt Set: INCHES		Trans level: FL 180	Trans alt: 18000'
RNAV APCH - GPS or RADAR required for procedure entry. DME required.			
1. Circling to Rwy 1L/R not authorized at night. 2. Use ISFO DME when on LOC course. 3. VGSI and ILS glidepath not coincident (VGSI angle 2.85°/TCH 67'). 4. CAT I ILS: Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on glideslope. 5. LOC procedure not authorized during simultaneous operations.			

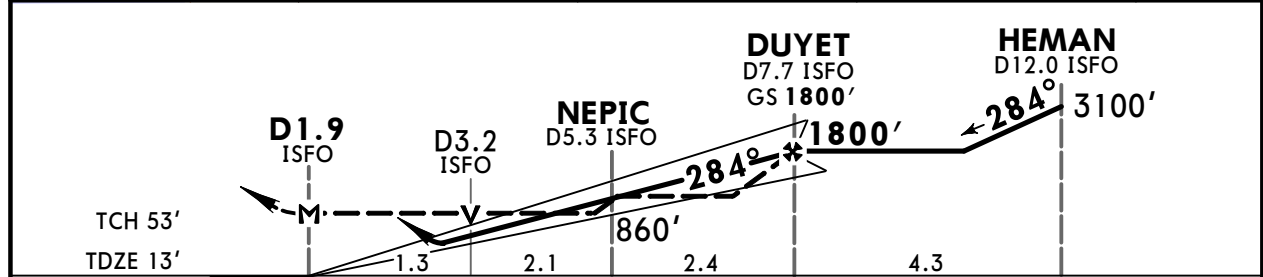
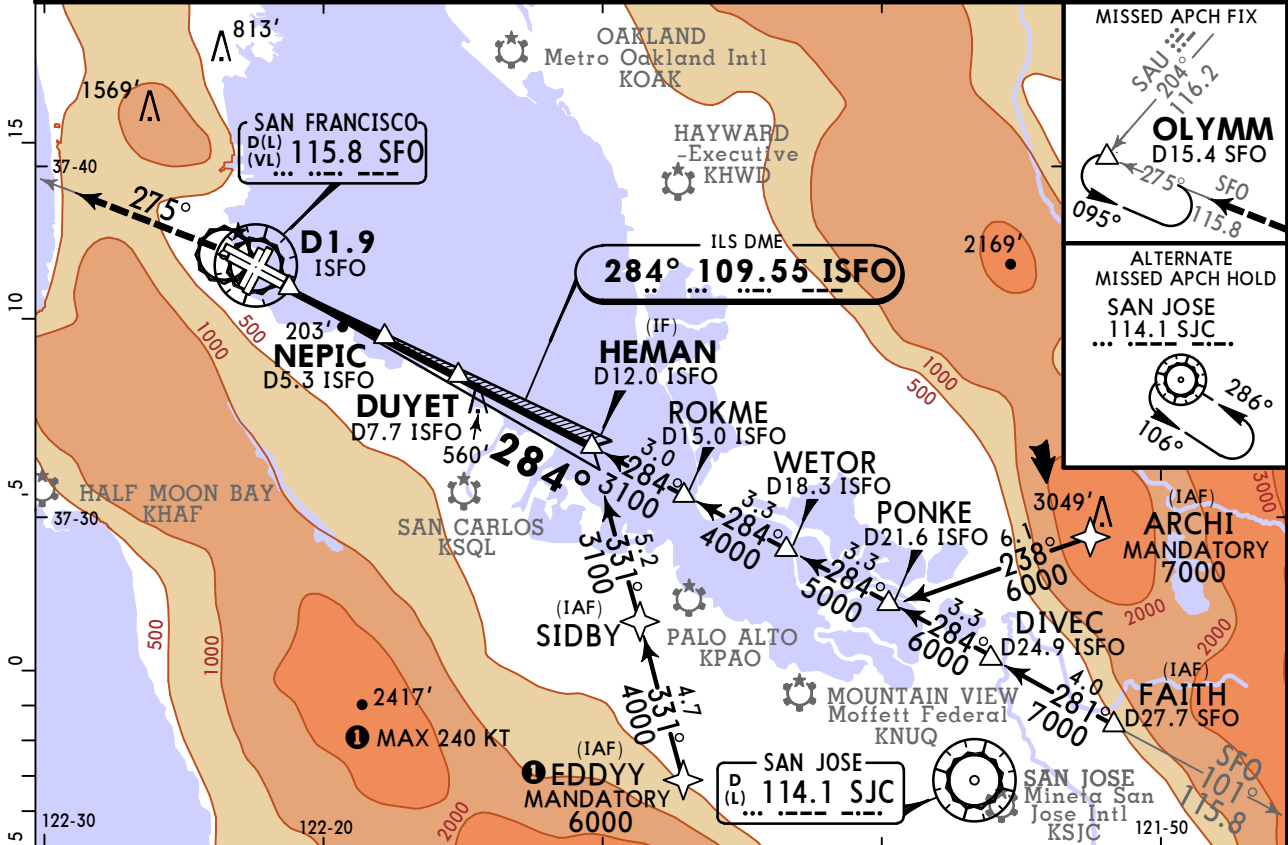


MSA SFO VOR

MISSED APCH FIX



ALTERNATE MISSED APCH HOLD



Gnd speed-Kts	70	90	100	120	140	160	MALSR 4000' SFO	PAPI ↑ on 115.8 OLYMM R-275
Gs	2.85°	353	454	504	605	807		
MAP at D1.9 ISFO								

TERPS						STRAIGHT-IN LANDING RWY 28L				CIRCLE-TO-LAND	
ILS		LOC (GS out)		LOC (GS out)		LOC (GS out)		LOC (GS out)		CIRCLE-TO-LAND	
1	DA(H)	1	DA(H)	1	DA(H)	1	DA(H)	1	DA(H)	Not Authorized to Rwy 10L/R and 19L/R.	
	RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out	Max Kts	MDA(H)
A	213' (200')	789' (776')	460' (447')	860' (847')	24 or 1/2	50 or 1	24 or 1/2	50 or 1	90	860' (847')	-1 1/4
B	RVR 24 or 1/2	RVR 40 or 3/4	1 3/4	2 1/2	RVR 24 or 1/2	50 or 1	RVR 40 or 3/4	60 or 1/4	120	960' (947')	-1 1/4
C			RVR 45 or 7/8	1 3/8			1 7/8	2 1/2	140	1560' (1547')	-3
D									D	NA	

1 Missed approach requires a minimum climb of 330'/NM to 1600'.  
 2 RVR 18 authorized with use of Flight Director or Autopilot or HUD to DA(H).

TERPS AMEND 27C 11 AUG 2022

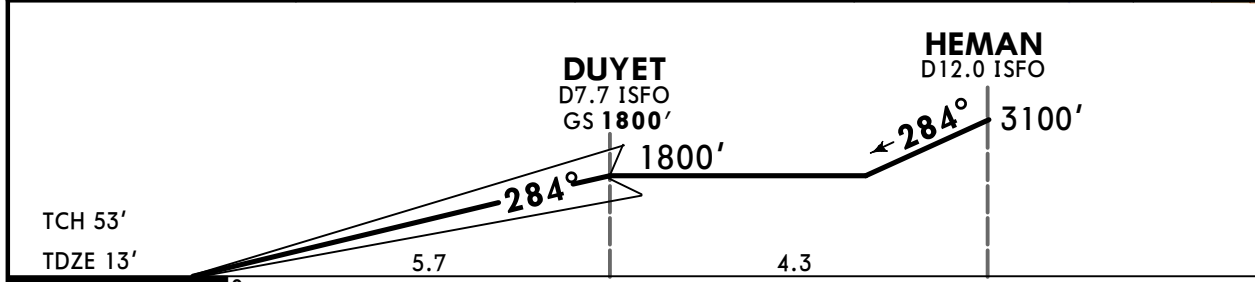
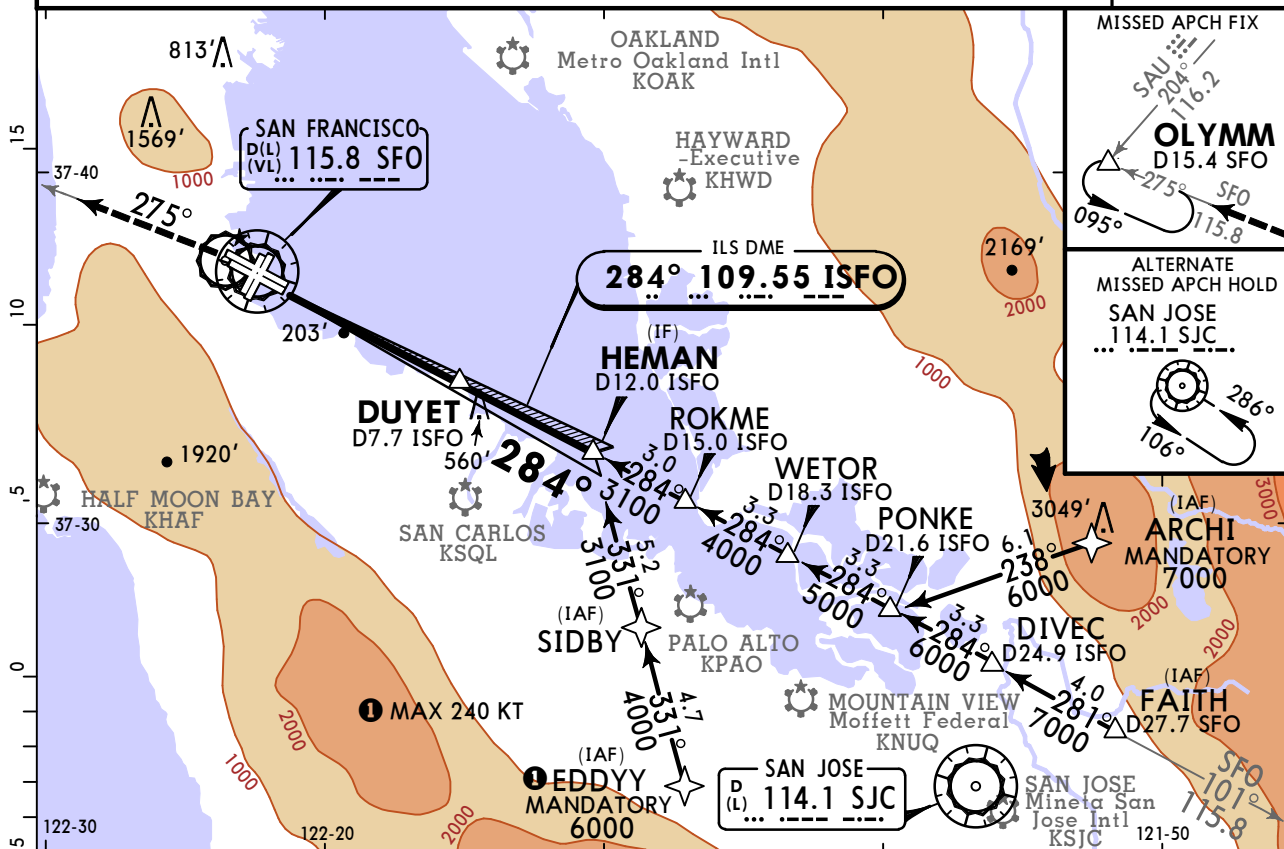


# KSFO/SFO SAN FRANCISCO INTL

**JEPPesen**  
26 APR 24 **(11-2A)**

# SAN FRANCISCO, CALIF ILS Rwy 28L SA CAT II

D-ATIS <b>113.7 115.8 118.85</b>		NORCAL Approach (R) <b>134.5</b>		SAN FRANCISCO Tower <b>120.5</b>		Ground <b>121.8</b>	
LOC ISFO <b>109.55</b>	Final Apch Crs <b>284°</b>	DUYET <b>1800'</b> (1787')		SA CAT II ILS <b>RA 113'</b> DA(H) 113' (100')		Apt Elev 13' TDZE 13'	
<b>MISSED APCH: Climb to 4000' outbound on SFO VOR R-275 to OLYMM INT/D15.4 SFO and hold, continue climb-in-hold to 4000'.</b> Missed approach requires minimum climb of 330'/NM to 1600'.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
RNAV APCH - GPS or RADAR required for procedure entry. DME required.							
1. Special Aircrew & Acft Certification Required. 2. Use ISFO DME when on LOC course. 3. VGSI and ILS glidepath not coincident (VGSI angle 2.85°/TCH 67').							MSA SFO VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI <b>4000'</b> SFO on <b>115.8</b> OLYMM R-275
GS	2.85°	353	454	504	605	807	

**TERPS** STRAIGHT-IN LANDING RWY 28L  
**SA CAT II ILS**  
**RA 113'**  
 DA(H) 113' (100')

A	<b>RVR 12</b>
B	
C	
D	

**1** Requires specific OPSPEC, MSPEC, or LOA approval.

TERPS AMEND 27C 11 AUG 2022

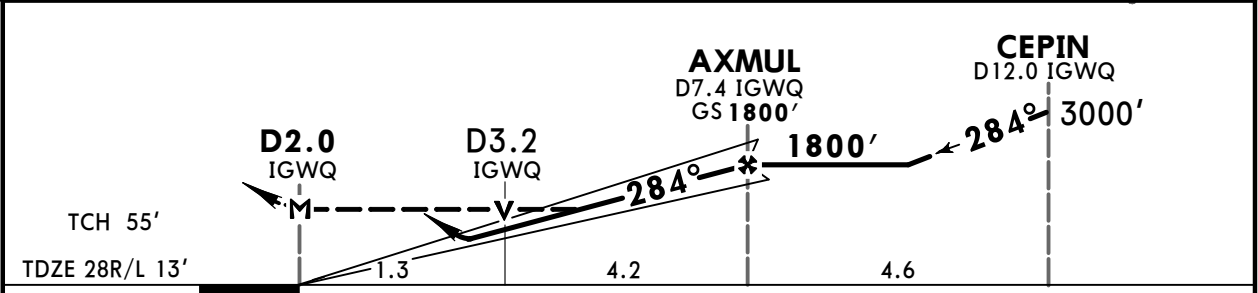
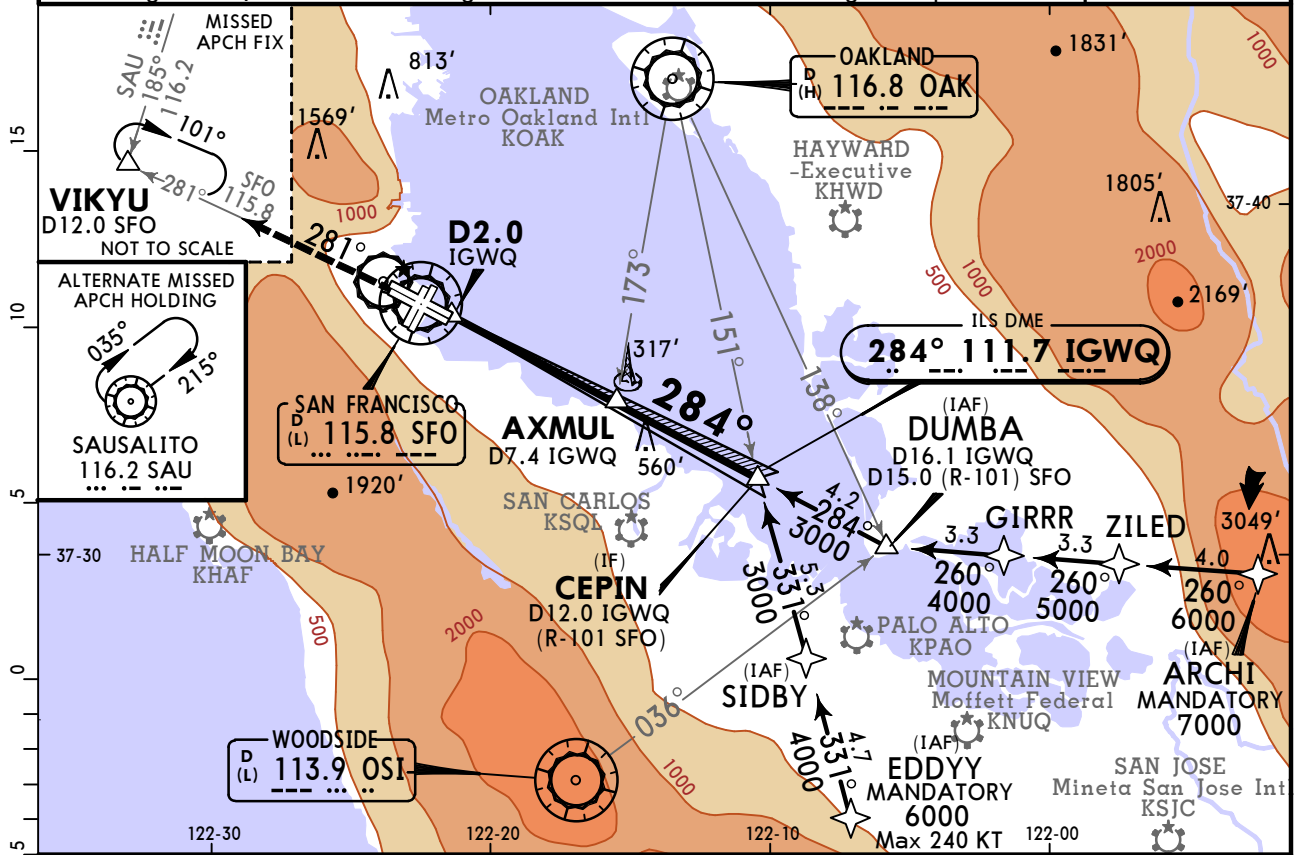
# KSFO/SFO SAN FRANCISCO INTL

13 MAY 22

**(11-3) Eff 19 May**

# JEPPESEN SAN FRANCISCO, CALIF ILS or LOC Rwy 28R

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5		Ground 121.8	
LOC IGWQ <b>111.7</b>	Final Apch Crs <b>284°</b>	AXMUL <b>1800'</b> (1787')	ILS DA(H) <b>213'</b> (200')	Apt Elev 13' TDZE 28R 13'		
<b>MISSED APCH:</b> Climb to 3000' on SFO VOR R-281 to VIKYU INT/ D12.0 SFO and hold. Missed approach requires minimum climb of 350'/NM to 1900'; if unable to meet climb gradient, see ILS or LOC Rwy 28L (11-2).					<p>MSA SFO VOR</p>	
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'
RNAV 1-GPS or RADAR required for procedure entry.						
1. Circling Rwy 1L, 1R not authorized at night. 2. Use IGWQ DME when on the localizer course. 3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 68'). 4. MALSR, PAPI-L on Rwy 28L. 5. LOC procedure not authorized during simultaneous operations. 6. CAT I ILS: Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on glideslope.						



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 3000' on 115.8 VIKYU R-281
GS	3.00°	372	478	531	637	849	
MAP at D2.0 IGWQ or AXMUL to MAP	5.4	4:38	3:36	3:14	2:42	2:19	

	STRAIGHT-IN LANDING RWY 28R				SIDESTEP LANDING RWY 28L		CIRCLE-TO-LAND	
	ILS		LOC (GS out)		MDA(H) 480' (467')		Not Authorized to Rwy 10L/R and 19L/R.	
	DA(H) 213' (200')	TDZ/CL out	ALS out	MDA(H) 480' (467')	ALS out	RAIL/ALS out	Max Kts	MDA(H)
A				RVR 24 or 1/2	RVR 50 or 1		90	740' (727') -1
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 3/8	RVR 55 or 1	120	960' (947') -1 1/4
C						1 1/2	140	1560' (1547') -3
D						2	D	NA

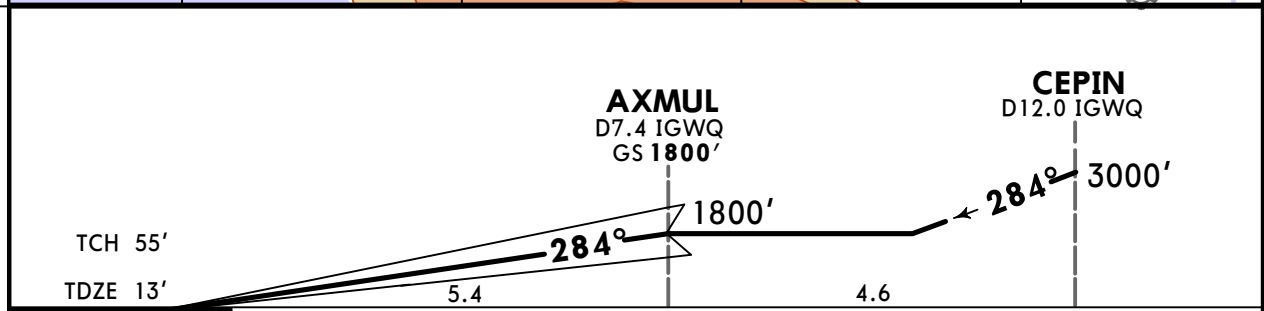
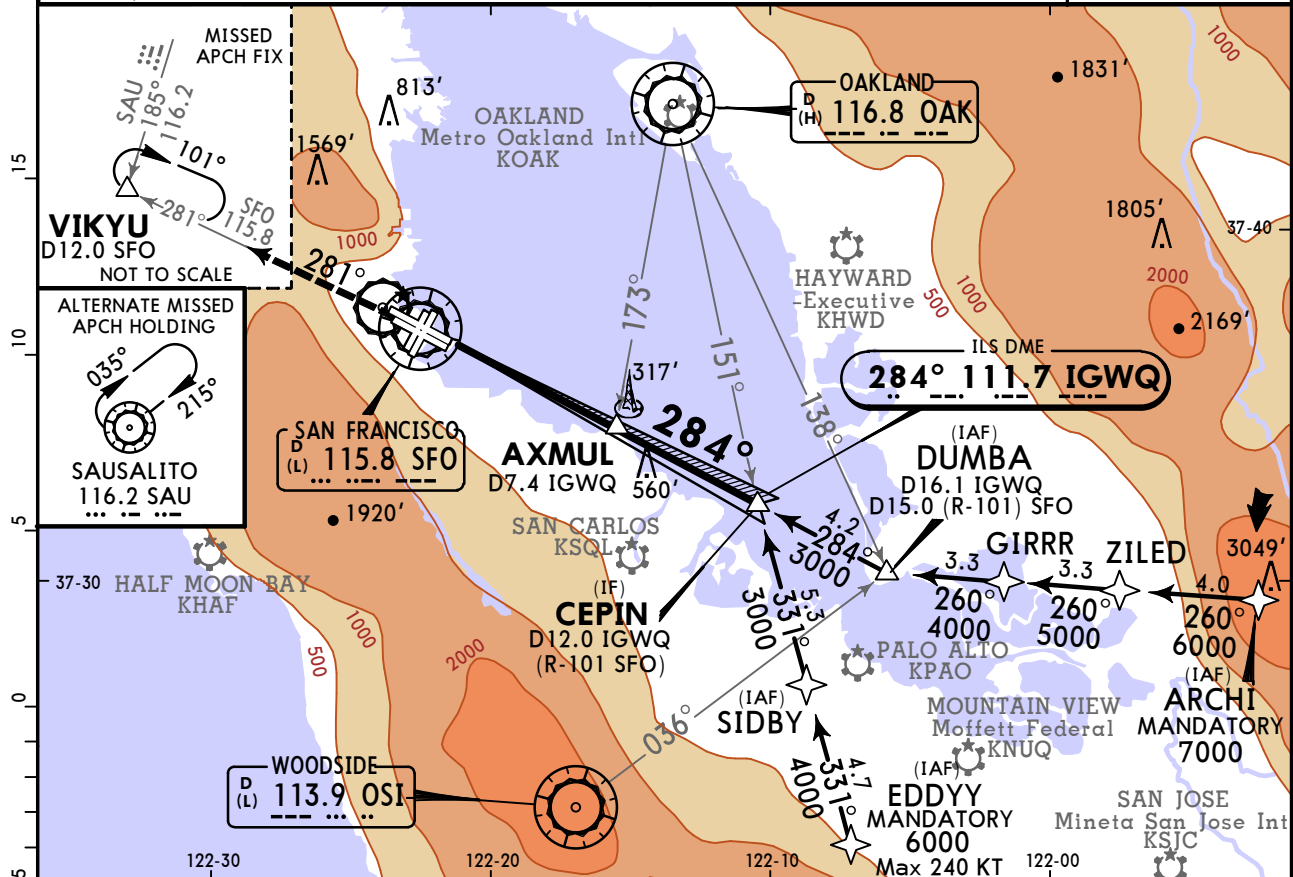
CHANGES: Inner marker removed. © JEPPESEN, 1999, 2022. ALL RIGHTS RESERVED.

**KSFO/SFO**  
SAN FRANCISCO INTL

13 MAY 22  
Eff 19 May **11-3A**

**JEPPESEN** SAN FRANCISCO, CALIF  
ILS Rwy 28R CAT II & III

D-ATIS			NORCAL Approach (R)		SAN FRANCISCO Tower		Ground	
113.7 115.8 118.85			134.5		120.5		121.8	
LOC IGWQ <b>111.7</b>	Final Apch Crs <b>284°</b>	<b>AXMUL</b> 1800' (1787')	CAT III Refer to Minimums		CAT II ILS <b>RA 113'</b> DA(H) 113' (100')		Apt Elev 13' TDZE 13'	<p>MSA SFO VOR</p>
<p><b>MISSED APCH:</b> Climb to 3000' on SFO VOR R-281 to VIKYU INT/ D12.0 SFO and hold. Missed approach requires minimum climb of 350'/NM to 1900'; if unable to meet climb gradient, see ILS or LOC Rwy 28L (11-2).</p>								
Alt Set: INCHES		Trans level: FL 180			Trans alt: 18000'			
<p>RNAV 1-GPS or RADAR required for procedure entry. 1. Special Aircrew &amp; Acft Certification Required. 2. Use IGWQ DME when on the localizer course. 3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 68').</p>								



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 3000' on 115.8 R-281	SFO VIKYU
GS	3.00°	372	478	531	637	743		

<b>TERPS</b>		STRAIGHT-IN LANDING RWY 28R	
CAT III ILS		CAT II ILS <b>RA 113'</b> DA(H) 113' (100')	
RVR 6		RVR 12	

TERPS AMEND 15B 19 MAY 2022

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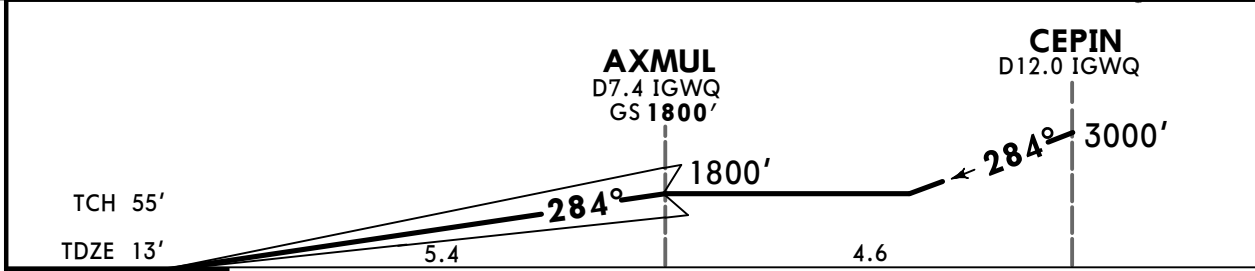
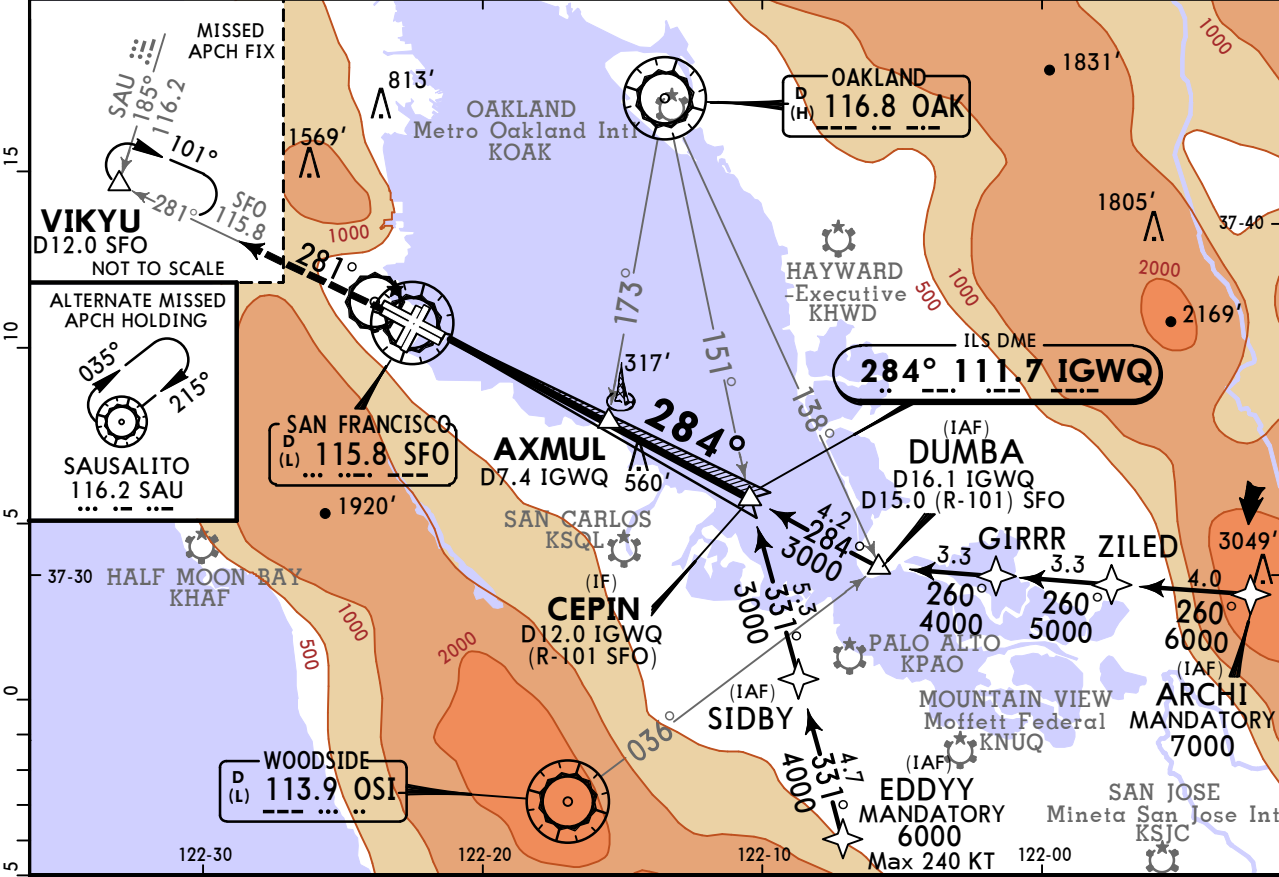
**KSFO/SFO**  
SAN FRANCISCO INTL

13 MAY 22  
Eff 19 May

**JEPPESEN**  
**11-3B**

**SAN FRANCISCO, CALIF**  
ILS Rwy 28R SA CAT I

D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground		
113.7 115.8 118.85		134.5		120.5		121.8		
LOC IGWQ <b>111.7</b>	Final Apch Crs <b>284°</b>	AXMUL <b>1800'</b> (1787')	SA CAT I ILS <b>RA 163'</b> DA(H) 163' (150')	Apt Elev 13'	TDZE 13'			
<b>MISSED APCH:</b> Climb to 3000' on SFO VOR R-281 to VIKYU INT/ D12.0 SFO and hold. Missed approach requires minimum climb of 350'/NM to 1900'; if unable to meet climb gradient, see ILS or LOC Rwy 28L (11-2).								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'				
RNAV 1-GPS or RADAR required for procedure entry.								
1. Special Aircrew & A/cft Certification Required. 2. Use IGWQ DME when on the localizer course. 3. VGSI and ILS glidepath not coincident (VGSI angle 3.00°/TCH 68').							MSA SFO VOR	



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II PAPI	3000'	SFO on 115.8 R-281	VIKYU
GS	3.00°	372	478	531	637	743				

**TERPS** STRAIGHT-IN LANDING RWY 28R  
**SA CAT I ILS**  
**RA 163'**  
 DA(H) 163' (150')

A	RVR 14
B	
C	
D	

**Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.**

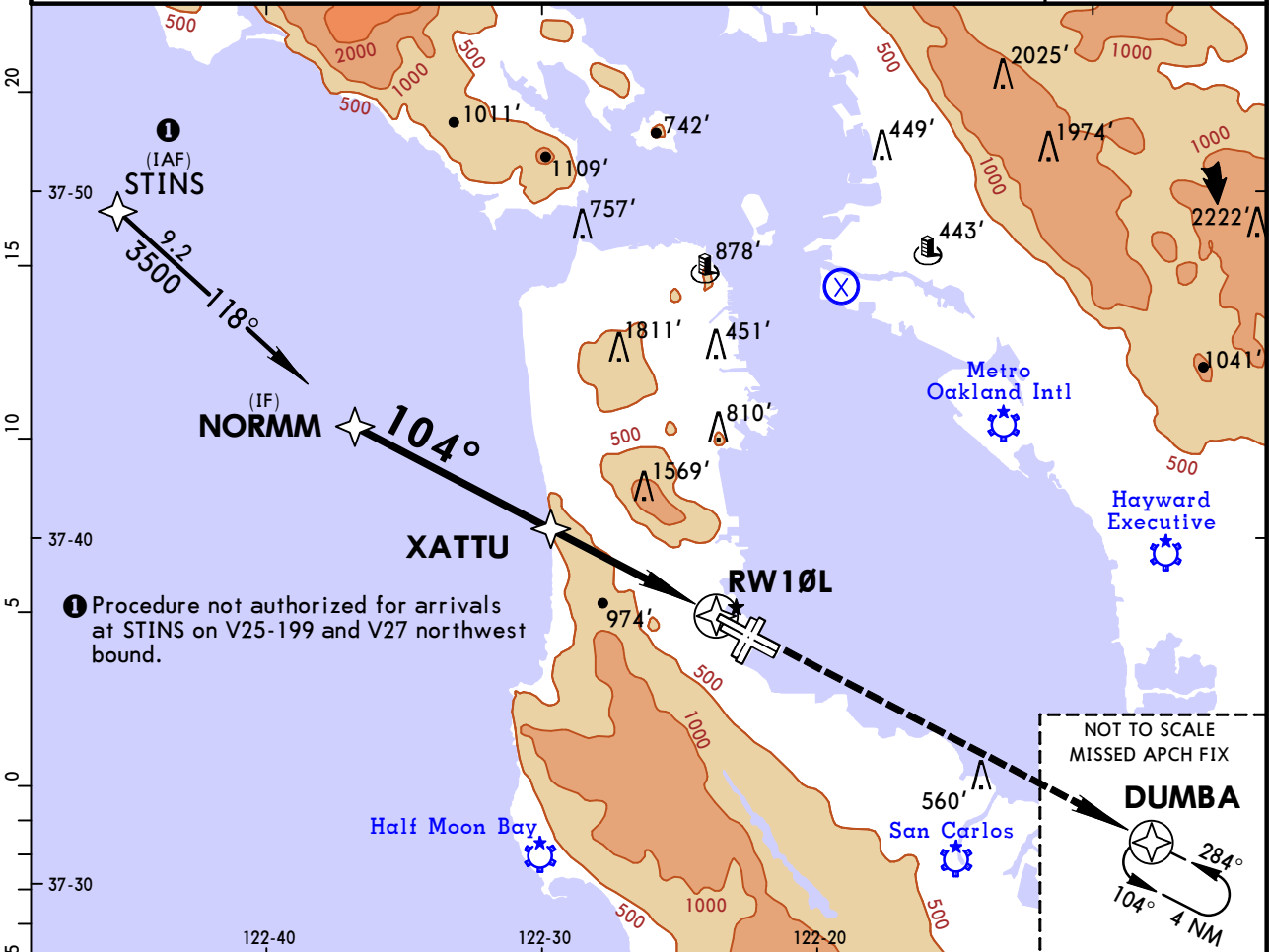
TERPS AMEND 15B 19 MAY 2022

**KSFO/SFO**  
SAN FRANCISCO INTL

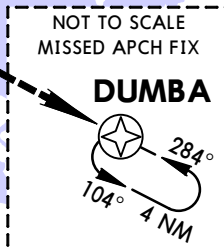
**JEPPESEN**  
4 NOV 16  
Eff 10 NOV 12-1

**SAN FRANCISCO, CALIF**  
RNAV (GPS) Rwy 10L

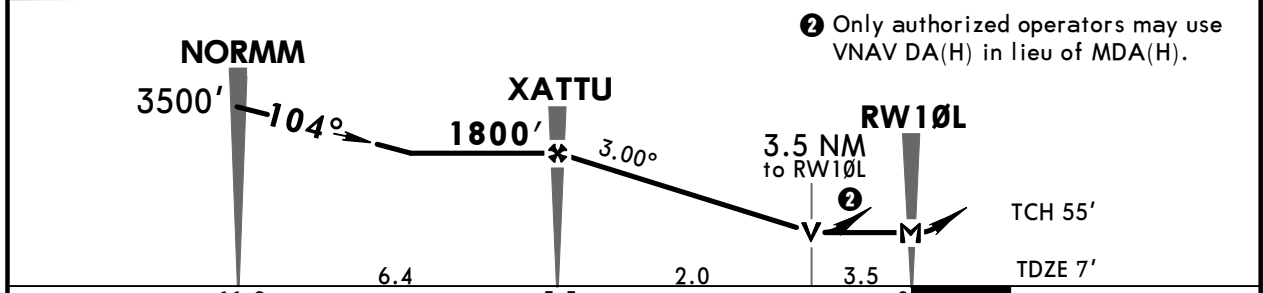
D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground		
113.7	115.8	118.85	134.5	120.5	121.8			
RNAV	Final Apch Crs	Minimum Alt	LNAV MDA(H)	Apt Elev 13'				
	<b>104°</b>	<b>1800'</b> (1793')	<b>1200'</b> (1193')	TDZE 7'				
<b>MISSED APCH: Climb to 4000' direct DUMBA and hold.</b>								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'				
1. DME/DME RNP-0.30 not authorized. 2. VGSI and descent angles not coincident.								
3. Helicopter visibility reduction below RVR 40 not authorized.								



① Procedure not authorized for arrivals at STINS on V25-199 and V27 northwest bound.



② Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI-L	4000'	D →	DUMBA
Descent angle	3.00°	372	478	531	637	849				
MAP at RW10L										

**TERPS** STRAIGHT-IN LANDING RWY 10L  
LNAV MDA(H) **1200'** (1193')

A	RVR <b>60</b> or 1/4
B	1/2
C	
D	3

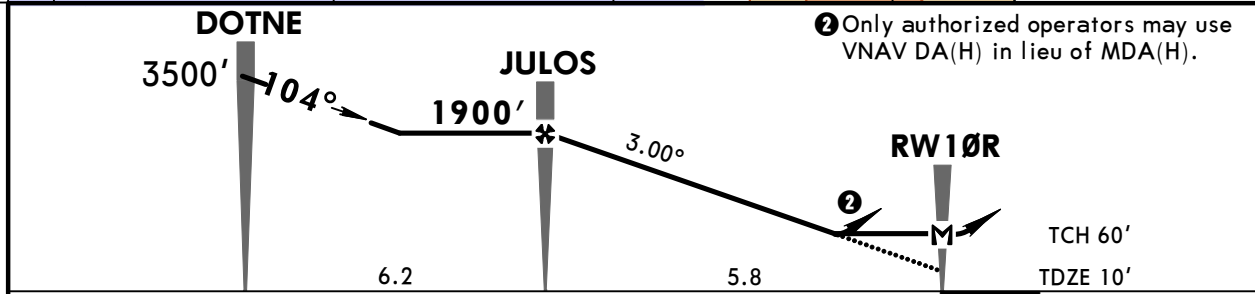
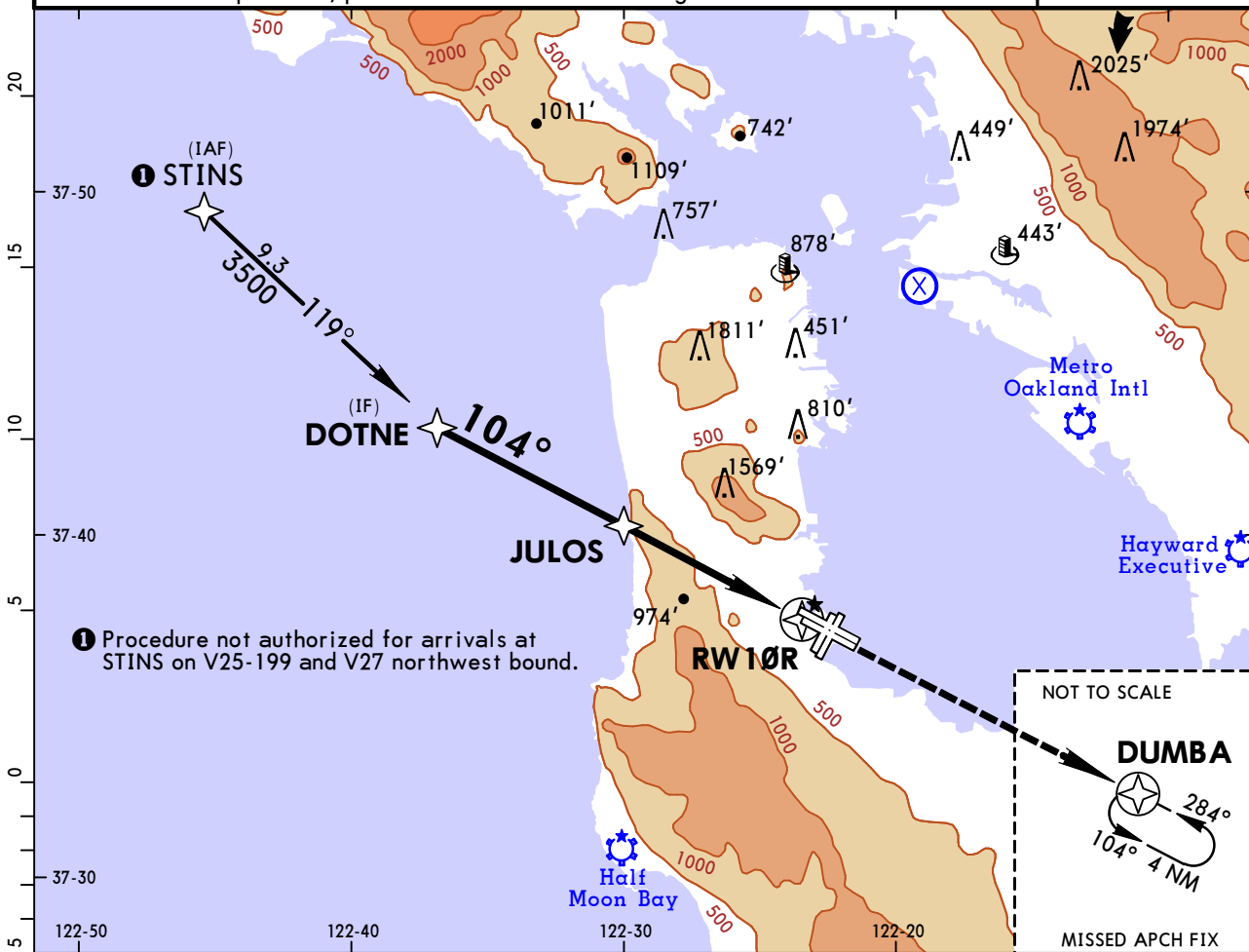
TERPS AMEND 2A 26 JUN 2014

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
4 NOV 16  
Eff 10 Nov 12-2

**SAN FRANCISCO, CALIF**  
RNAV (GPS) Y Rwy 10R

D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground
113.7	115.8	118.85	134.5	120.5		121.8
RNAV	Final Apch Crs <b>104°</b>	Minimum Alt <b>JULOS</b> 1900' (1890')	LNAV MDA(H) <b>1200'</b> (1190')	Apt Elev 13' TDZE 10'		5100' MSA RW10R
<b>MISSED APCH: Climb to 4000' direct DUMBA and hold.</b>						
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		
1. DME/DME RNP-0.30 not authorized. 2. Helicopter visibility reduction below RVR 50 not authorized. 3. VGSI and descent angles not coincident. 4. When VGSI inoperative, procedure not authorized at night.						



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	4000'	D →	DUMBA
Descent Angle	3.00°	372	478	531	637	743				
MAP at RW10R										

**TERPS** STRAIGHT-IN LANDING RWY 10R  
LNAV  
MDA(H) **1200'** (1190')

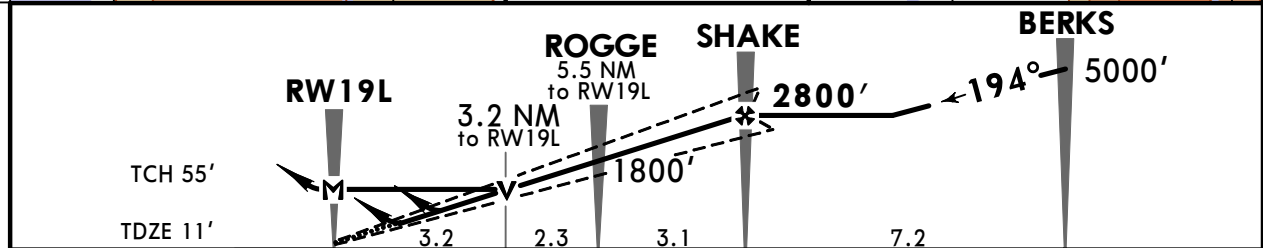
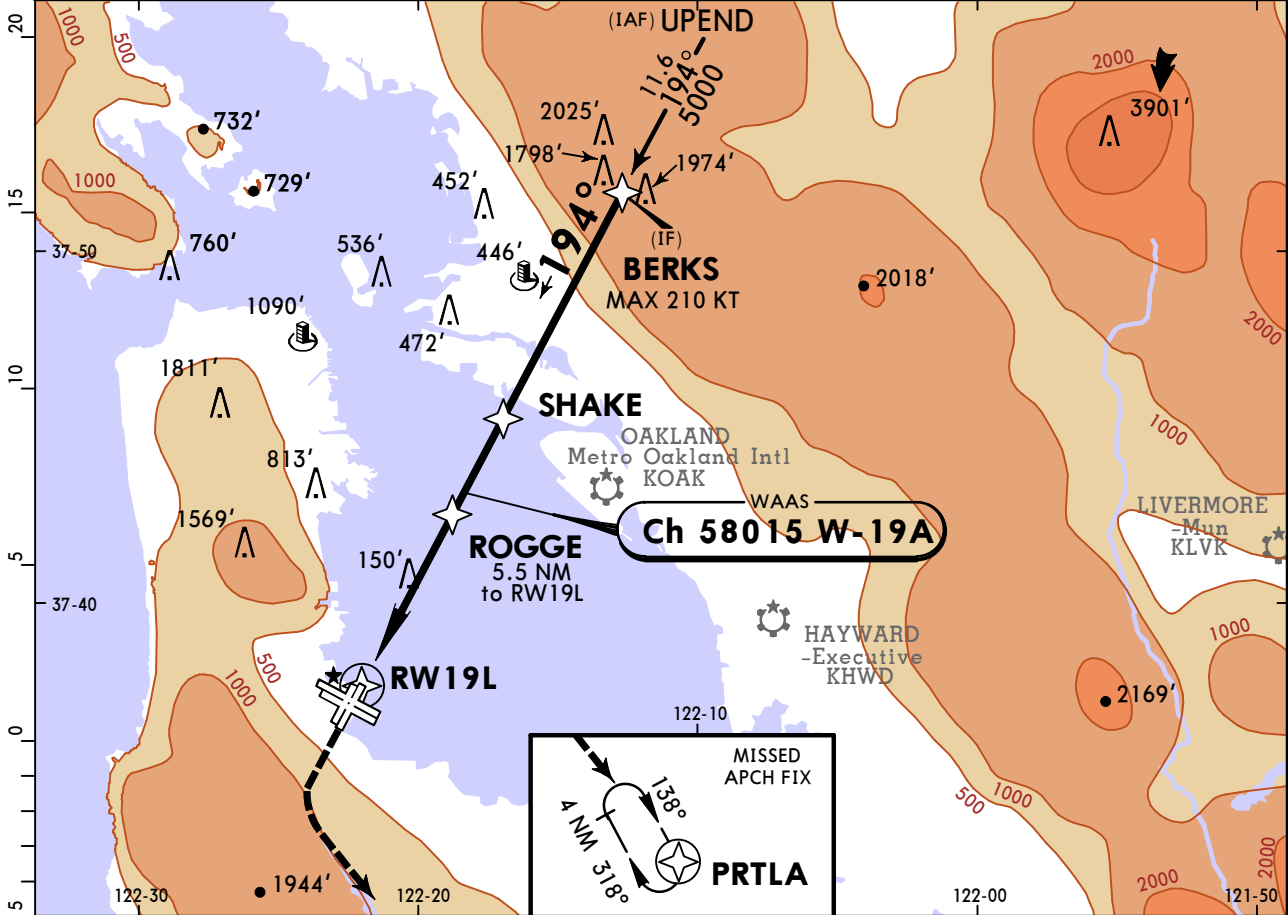
A	RVR 60 or 1/4
B	1 1/2
C	
D	3

TERPS AMEND 2A 26 JUN 2014

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN** SAN FRANCISCO, CALIF  
24 NOV 23 (12-3) Eff 30 Nov RNAV (GPS) Rwy 19L

D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground		
113.7 115.8 118.85		134.5		120.5		121.8		
WAAS <b>Ch 58015</b> W-19A		Final Apch Crs <b>194°</b>		SHAKE <b>2800'</b> (2789')		LPV DA(H) (CONDITIONAL) <b>293'</b> (282')		
				Apt Elev 13'		TDZE 11'		
MISSED APCH: Climb to 1100' then climbing LEFT turn to 4000' direct PRTLA and hold. Refer to minimums for missed apch climb gradient.							5000	
RNP Apch-GPS		Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 4°C or above 54°C. 2. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 71').								
							MSA RW19L	



Gnd speed-Kts	70	90	100	120	140	160	MALSF	1100'	4000'	D	PRTLA
Glide Path Angle	3.00°	372	478	531	637	849					
MAP at RW19L							PAPI	↑	← LT		

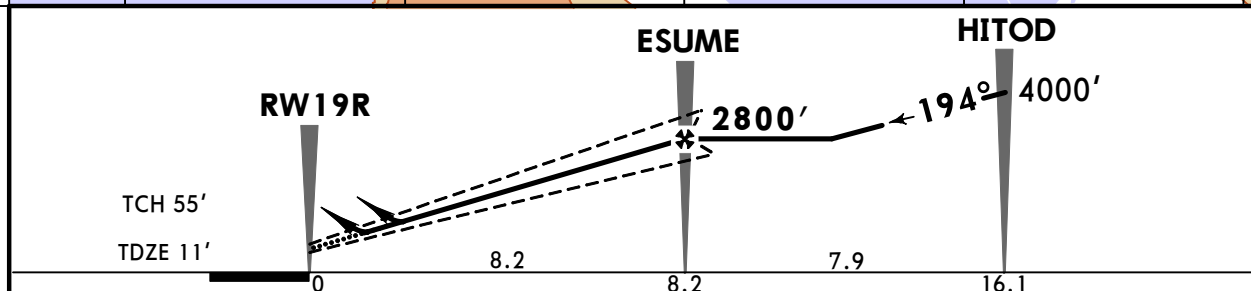
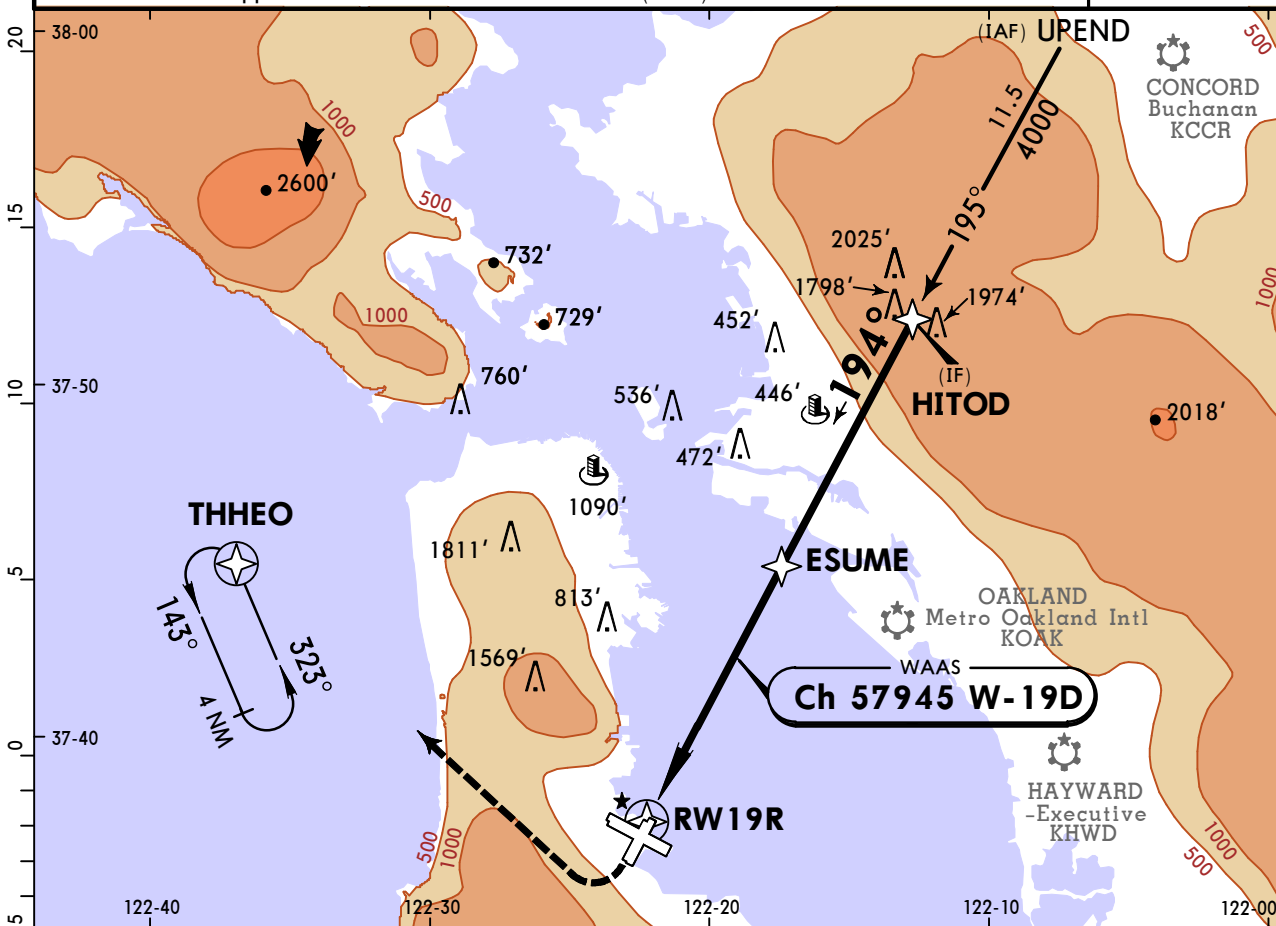
TERPS											
STRAIGHT-IN LANDING RWY 19L											
Missed approach requires minimum climb of 357'/NM to 2000'				Missed approach requires minimum climb of 357'/NM to 2000'							
LPV		LPV		LNAV/VNAV		LNAV/VNAV		LNAV			
DA(H) 293' (282')		DA(H) 656' (645')		DA(H) 350' (339')		DA(H) 794' (783')		MDA(H) 1100' (1089')			
ALS out		ALS out		ALS out		ALS out		ALS out			
A								RVR 55 or 1	RVR 60 or 1/4		
B	RVR 40 or 3/4	RVR 45 or 7/8	1 5/8	RVR 40 or 3/4	RVR 50 or 1	2	2 1/2	1/4	1 1/2		
C								2 1/2	3		
D											

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
24 NOV 23  
Eff 30 Nov (12-4)

**SAN FRANCISCO, CALIF**  
RNAV (GPS) Z Rwy 19R

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5		SAN FRANCISCO Tower 120.5		Ground 121.8		
WAAS <b>Ch 57945</b> W-19D		Final Apch Crs <b>194°</b>		<b>ESUME</b> 2800' (2789')		LPV DA(H) <b>317' (306')</b>		
				Apt Elev 13'		TDZE 11'		
<b>MISSED APCH:</b> Climb to 600' then climbing RIGHT turn to 3000' direct THHEO and hold. Missed approach requires minimum climb of 395'/NM to 2100'; if unable to meet climb gradient, see RNAV (GPS) Y RWY 19R.							5000	
RNP Apch-GPS		Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 4°C or above 54°C. 2. Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on glidepath. 3. Simultaneous approach not authorized below 12°C (52°F).								
							MSA RW19R	



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	600'	3000'	D → THHEO
Glide Path Angle 3.15°	390	502	557	669	780	892				

<b>TERPS</b>		STRAIGHT-IN LANDING RWY 19R	
LPV DA(H) <b>317' (306')</b>		LNAV/VNAV DA(H) <b>328' (317')</b>	

A	RVR 45 or 7/8	RVR 45 or 7/8
B		
C		
D		

TERPS ORIG 30 NOV 2023

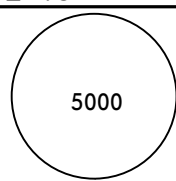


**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
24 NOV 23  
Eff 30 Nov (12-5)

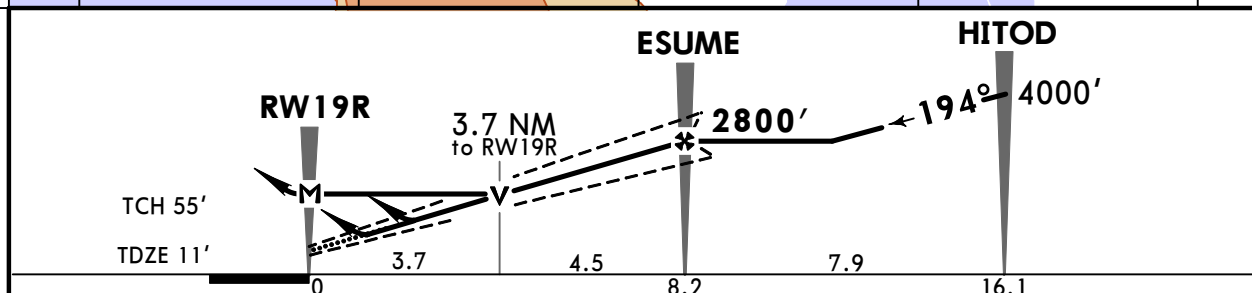
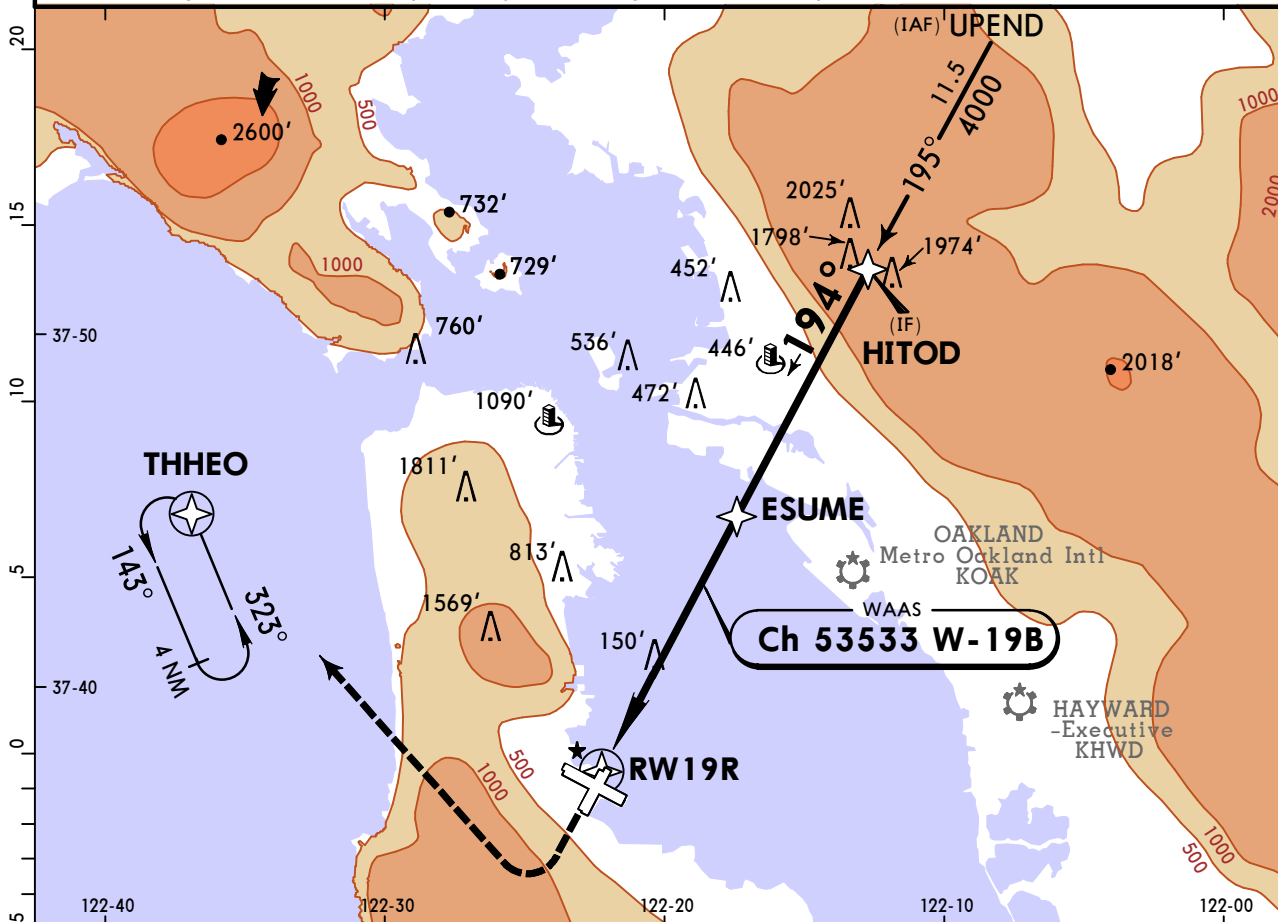
**SAN FRANCISCO, CALIF**  
RNAV (GPS) Y Rwy 19R

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5	Ground 121.8
WAAS <b>Ch 53533</b> W-19B	Final Apch Crs <b>194°</b>	ESUME <b>2800'</b> (2789')	LNAV/VNAV DA(H) <b>878'</b> (867')	Apt Elev 13' TDZE 11'



**MISSED APCH:** Climb to 1540' then climbing RIGHT turn to 3000' direct THHEO and hold.  
RNP Apch-GPS | Alt Set: INCHES | Trans level: FL 180 | Trans alt: 18000' | MSA RW19R

1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 4°C or above 54°C.
2. LNAV procedure not authorized during simultaneous operations.
3. Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on glidepath.
4. Simultaneous approach not authorized below 12°C (52°F).
5. Use of Flight Director or Autopilot required during simultaneous operations.



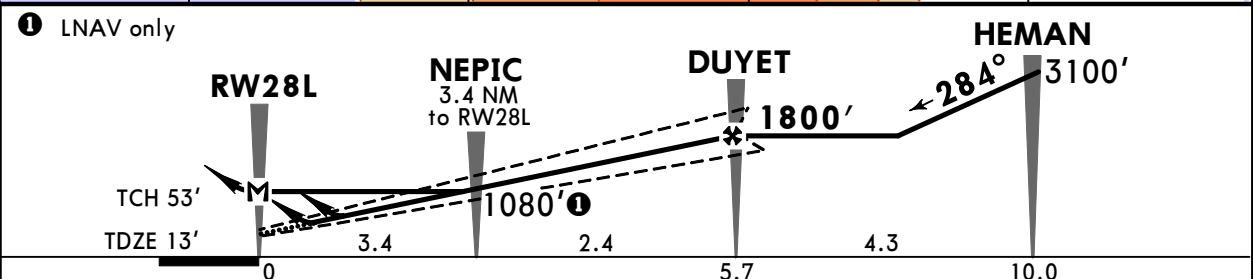
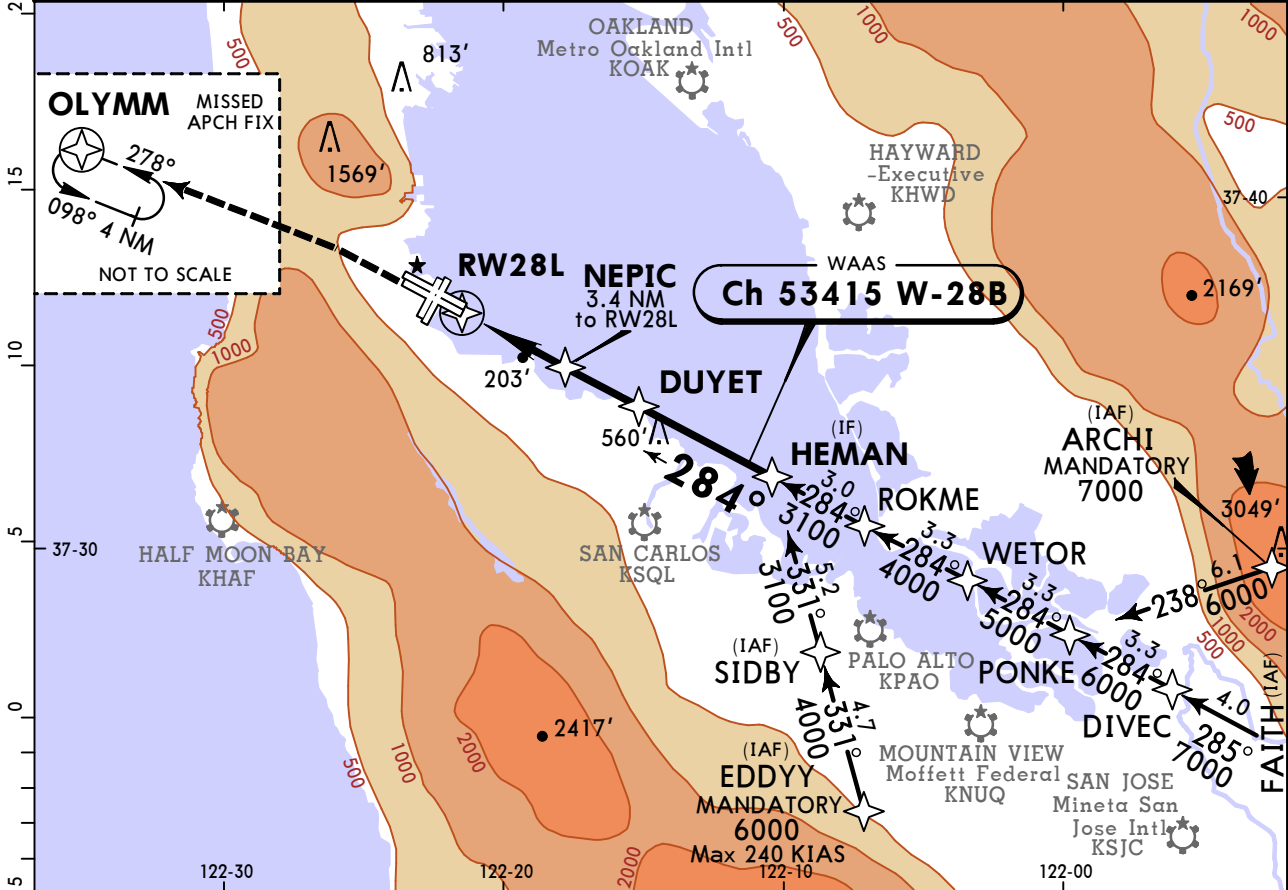
Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	1540'	3000'	D → THHEO
Glide Path Angle	3.15°	390	502	557	669	780		892	↑	

<b>TERPS</b>			STRAIGHT-IN LANDING RWY 19R		
LPV		LNAV/VNAV		LNAV	
DA(H) <b>1005'</b> (994')		DA(H) <b>878'</b> (867')		MDA(H) <b>1320'</b> (1309')	
A				1¼	
B				1½	
C	4		2½		
D				3	

TERPS AMEND 4 30 NOV 2023

**KSFO/SFO** **JEPPESEN** **SAN FRANCISCO, CALIF**  
**SAN FRANCISCO INTL** 24 NOV 23 **(12-6)** **Eff 30 Nov** **RNAV (GPS) Rwy 28L**

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5		SAN FRANCISCO Tower 120.5		Ground 121.8		
WAAS <b>Ch 53415</b> W-28B		Final Apch Crs <b>284°</b>		DUYET <b>1800'</b> (1787')		LPV DA(H) (CONDITIONAL) <b>213'</b> (200')		
				Apt Elev 13'		TDZE 13'		
<b>MISSED APCH: Climb to 1020' then climbing LEFT turn to 4000' direct OLYMM and hold, continue climb-in-hold to 4000'.</b>							5100	
RNP Apch		Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		
1. Circling Rwy 1L/R not authorized at night. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 3°C (38°F) or above 54°C (130°F). 3. VGSI and RNAV glidepath not coincident (VGSI angle 2.85°/TCH 67').								
							MSA RW28L	



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1020'	4000'	D → OLYMM
Glide Path Angle	2.85°	353	454	504	605	807	PAPI	↑	LT	
MAP at RW28L										

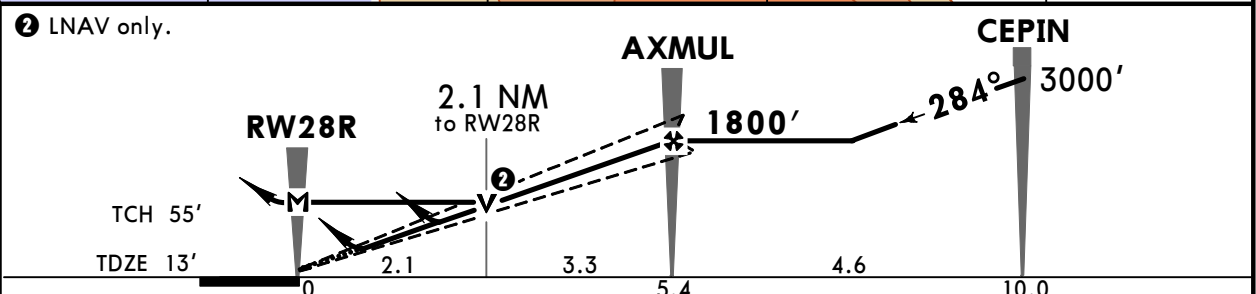
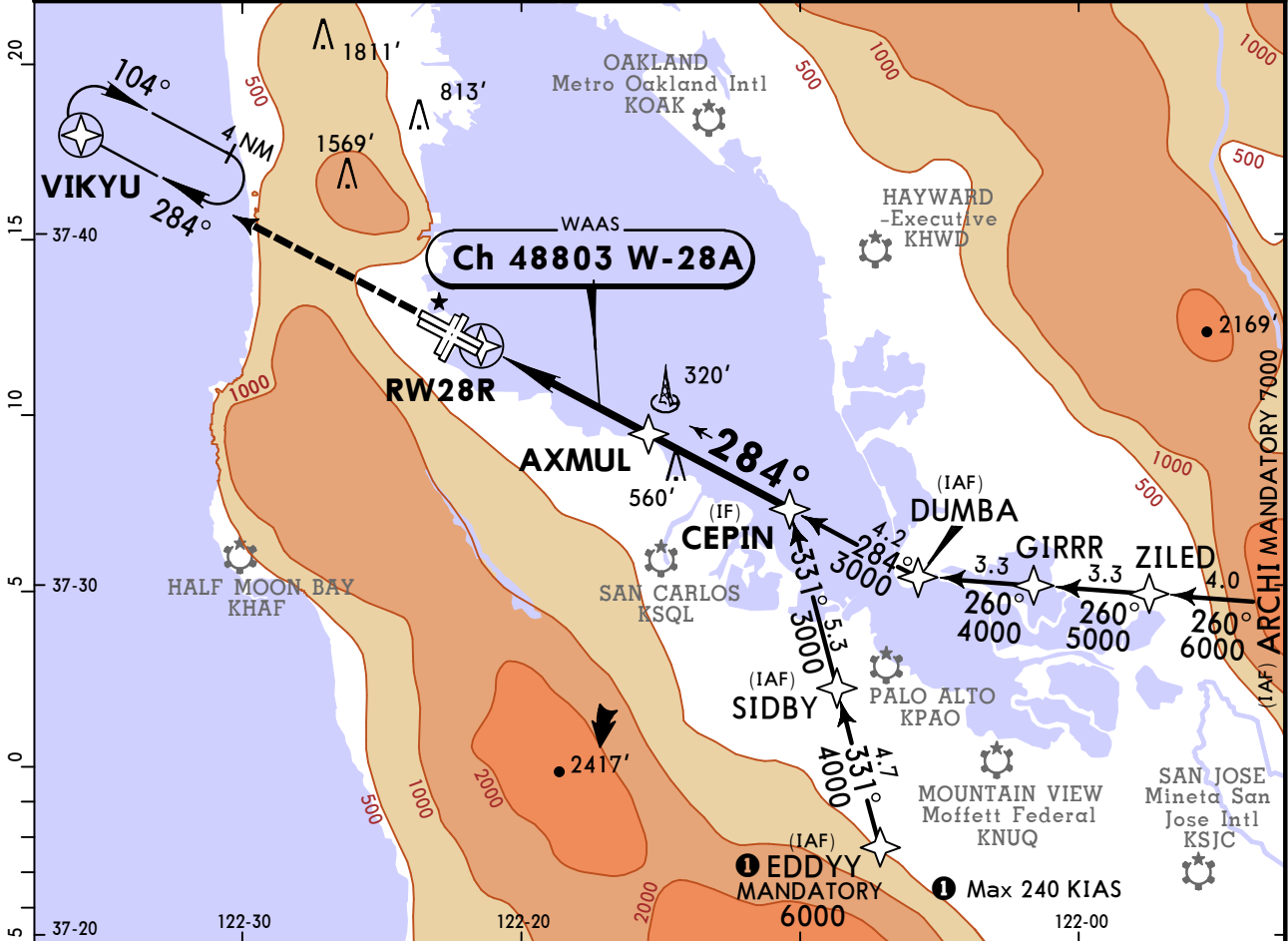
TERPS							STRAIGHT-IN LANDING RWY 28L		3 CIRCLE-TO-LAND	
1 LPV		LPV		LNAV/VNAV		LNAV		3		
DA(H) 213' (200')		DA(H) 798' (785')		DA(H) 770' (757')		MDA(H) 1020' (1007')		Max Kts		
RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		RAIL/ALS out		MDA(H)		
A	2					RVR 40 or 3/4	RVR 60 or 1 1/4	90	1020' (1007') -1/4	
B	RVR 24 or 1/2	RVR 40 or 3/4	1 3/4	2 1/2	1 3/4	2	1 1/2	120	1020' (1007') -1/2	
C								140	1560' (1547') -3	
D							3	D	NA	

1 Missed apch requires min climb of 330'/NM to 1600'. 2 RVR 18 authorized with use of Flight Director or Autopilot or HUD to DA. 3 Not authorized to Rwy 10L, 10R, 19L, and 19R.

TERPS AMEND 7 13 SEP 2018

**KSFO/SFO** **JEPPESEN** **SAN FRANCISCO, CALIF**  
**SAN FRANCISCO INTL** 24 NOV 23 **12-7** **Eff 30 Nov** **RNAV (GPS) Z Rwy 28R**

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5		SAN FRANCISCO Tower 120.5		Ground 121.8		
WAAS <b>CH 48803</b> W-28A		Final Apch Crs <b>284°</b>		AXMUL <b>1800'</b> (1787')		LPV DA(H) <b>213'</b> (200')		
				Apt Elev 13'		TDZE 13'		
<b>MISSED APCH: Climb to 3200' direct VIKYU and hold, continue climb-in-hold to 3200'.</b>							5000	
RNP Apch		Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		
1. Circling Rwy 1L, 1R not authorized at night. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 3°C (38°F) or above 54°C (130°F). 3. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 68').								
							MSA RW28R	

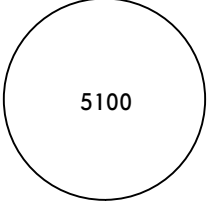


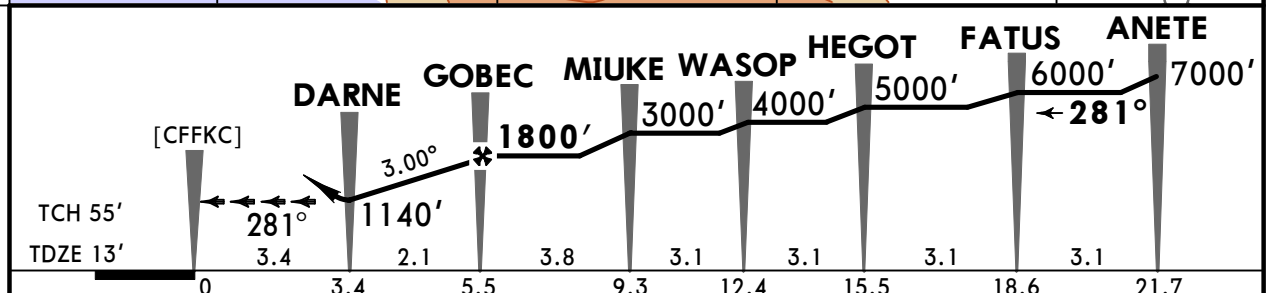
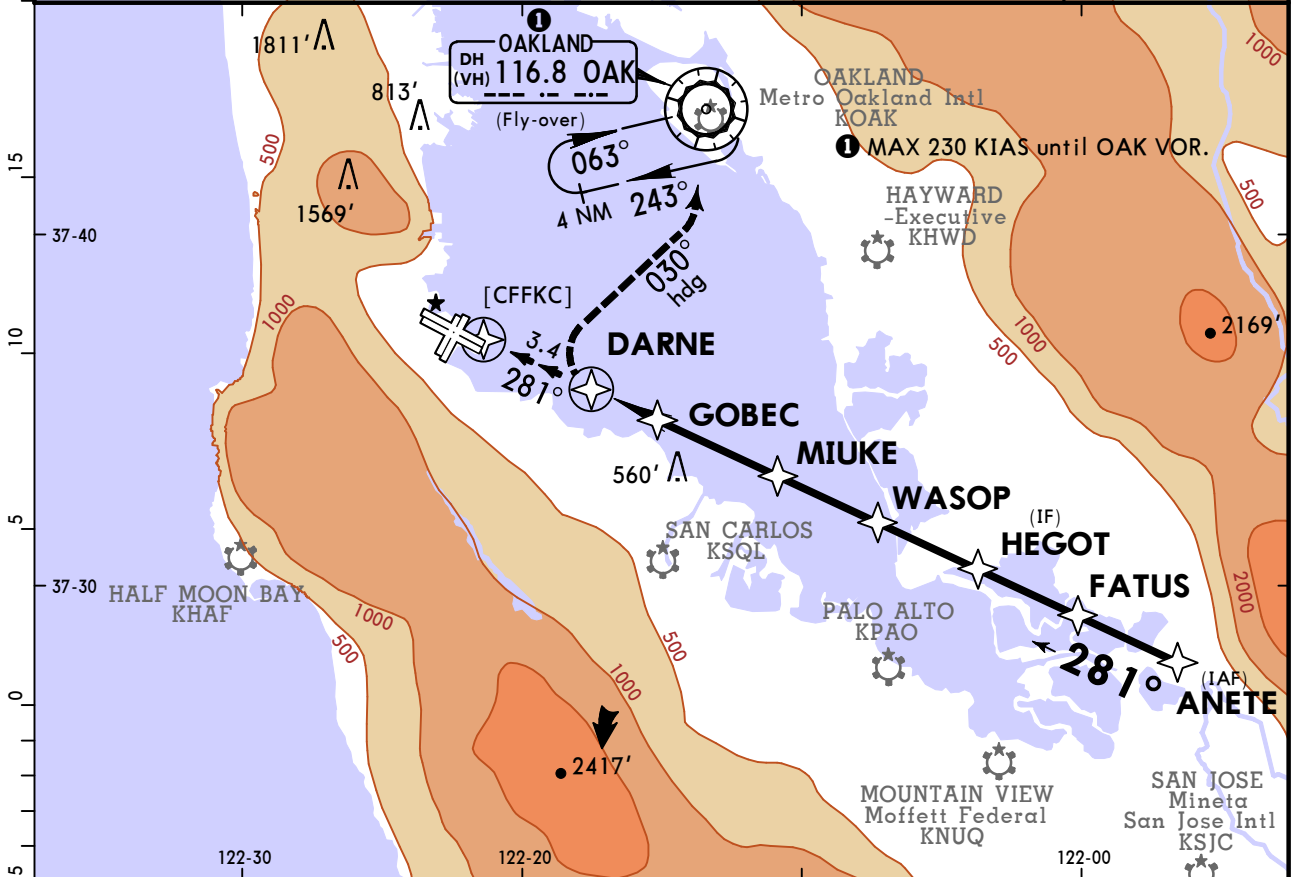
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	3200'	D → VIKYU
Glide Path Angle	3.00°	372	478	531	637	743			
MAP at RW28R									

TERPS						STRAIGHT-IN LANDING RWY 28R			CIRCLE-TO-LAND	
LPV DA(H) <b>213'</b> (200')		LNAV/VNAV DA(H) <b>642'</b> (629')		LNAV MDA(H) <b>760'</b> (747')						
TDZ/CL out		ALS out		ALS out		ALS out		Max Kts		
A						RVR 24 or 1/2	RVR 50 or 1	90	760' (747') - 1	
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	1 3/8	1 3/4	RVR 40 or 3/4	RVR 60 or 1/4	120	960' (947') - 1 1/4	
C						1 3/4	2	140	1560' (1547') - 3	
D								D	NA	

**1** RVR 18 with Flight Director or Autopilot or HUD to DA. **2** Not Authorized to Rwy 10L, 10R, 19L, and 19R.  
 CHANGES: Topo, chart format, reindexed. © JEPPESEN, 2001, 2023. ALL RIGHTS RESERVED.

**KSFO/SFO** **JEPPESEN** **SAN FRANCISCO, CALIF**  
**SAN FRANCISCO INTL** 24 NOV 23 **12-8** **Eff 30 Nov** **RNAV (GPS) X Rwy 28R**

D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground		
113.7 115.8 118.85		134.5		120.5		121.8		
RNAV	Final Apch Crs <b>281°</b>	<b>GOBEC</b> 1800' (1787')	DA(H) <b>1140'</b> (1127')	Apt Elev 13' TDZE 13'		 5100  MSA DARNE		
<b>MISSED APCH:</b> Climbing RIGHT turn to 3000' on heading 030° then direct OAK VOR and hold. When executing a missed approach or go around, unless otherwise instructed by ATC, initially turn right to 030° utilizing HEADING mode.								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'				
1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 2°C (36°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. Final approach course offset 2.95°. 5. VGSI and RNAV glidepath not coincident. 6. Rwy 28L and 28R separated by 750' centerline to centerline. 7. Final approach course 1343' right of Rwy centerline extended 3000' from threshold.								



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 3000' RT on hdg 030° D → OAK 116.8
Glide Path Angle	3.00°	372	478	531	637	849	

**TERPS** **1 STRAIGHT-IN LANDING RWY 28R**  
**LNAV/VNAV**  
 DA(H) **1140'** (1127')  
 ALS out

A	
B	
C	4
D	

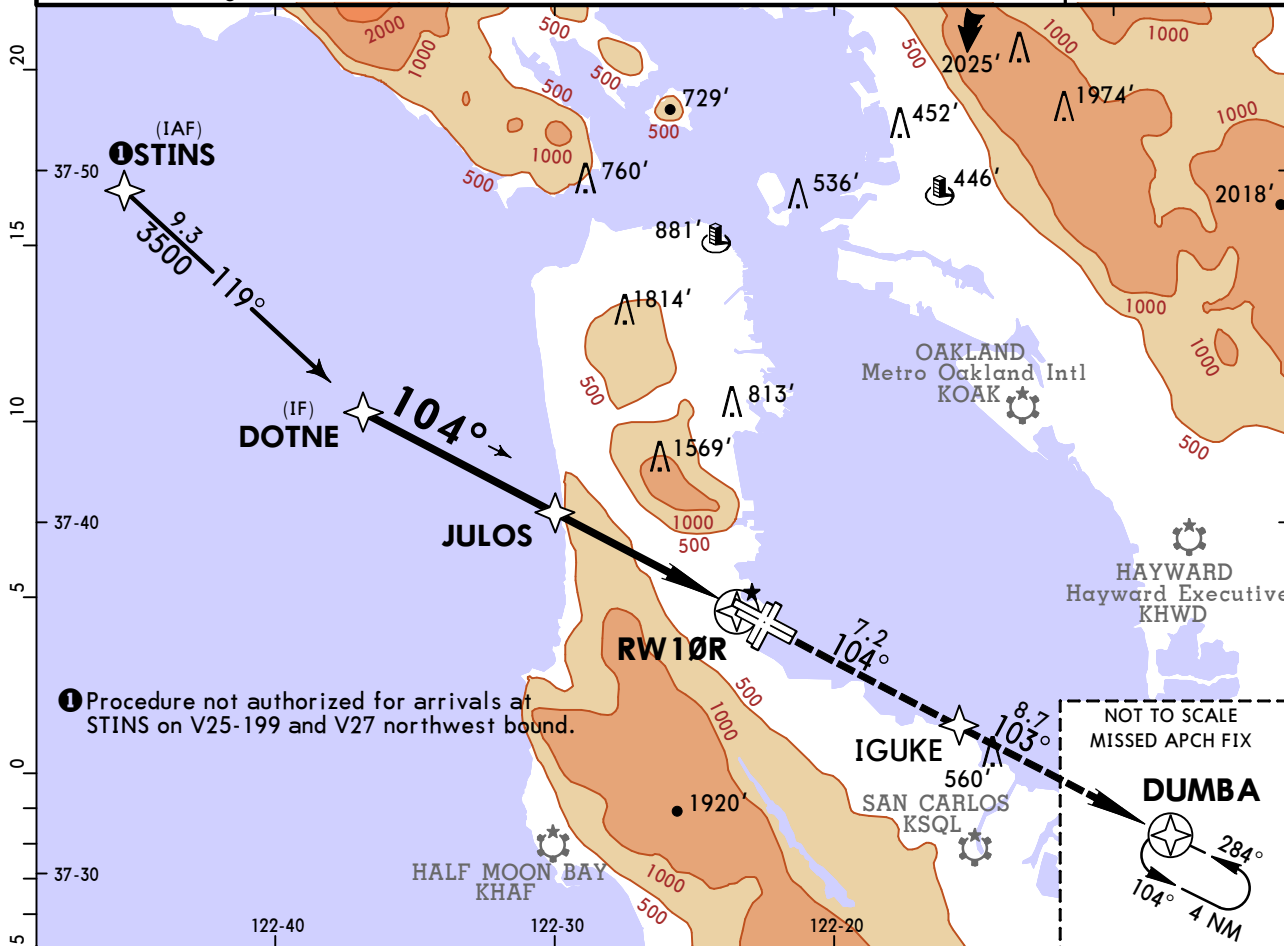
**1** If a go around is executed after passing DARNE, go around requires a minimum climb gradient of 380'/NM to 1800'.

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESSEN**  
5 OCT 18 **(12-20)**

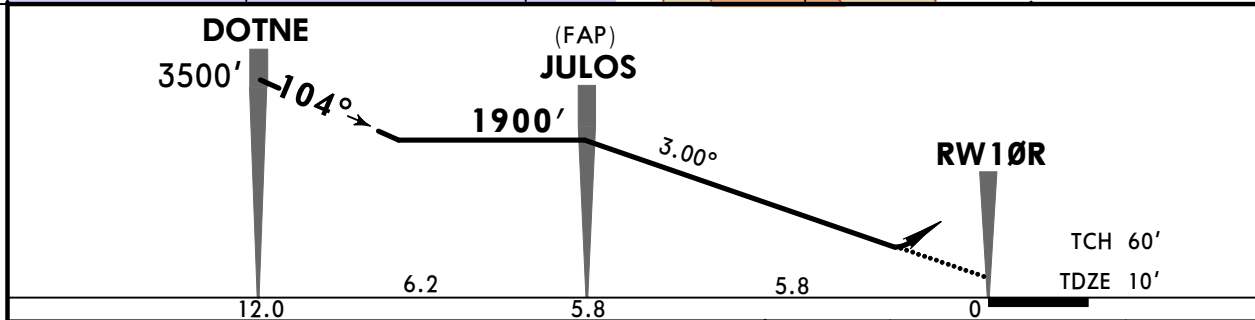
**SAN FRANCISCO, CALIF**  
**RNAV (RNP) Z Rwy 10R**

D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground	
113.7	115.8	118.85	134.5		120.5		121.8
RNAV	Final Apch Crs <b>104°</b>	Minimum Alt <b>JULOS</b> 1900' (1890')	RNP 0.20 DA(H) <b>396'</b> (386')	Apt Elev 13'	TDZE 10'		
<b>MISSED APCH: Climb to 3600' on track 104° to IGUKE and on track 103° to DUMBA and hold.</b>							
Alt Set: INCHES      Trans level: FL 180      Trans alt: 18000' <b>1. AUTHORIZATION REQUIRED. 2. GPS required.</b> 3. For uncompensated Baro-VNAV systems, procedure not authorized below 2°C (36°F) or above 54°C (130°F). 4. VGSI and RNAV glidepath not coincident. 5. When VGSI inop, procedure not authorized at night.							
MSA RW10R							



① Procedure not authorized for arrivals at STINS on V25-199 and V27 northwest bound.

NOT TO SCALE  
MISSED APCH FIX



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	3600'	on 104°	IGUKE	
Descent Angle	3.00°	372	478	531	637	743					849
MAP at DA											

<b>TERPS</b>		STRAIGHT-IN LANDING RWY 10R	
RNP 0.20 DA(H) <b>396'</b> (386')		RNP 0.30 DA(H) <b>1108'</b> (1098')	
A			
B			
C	1/4		4
D			

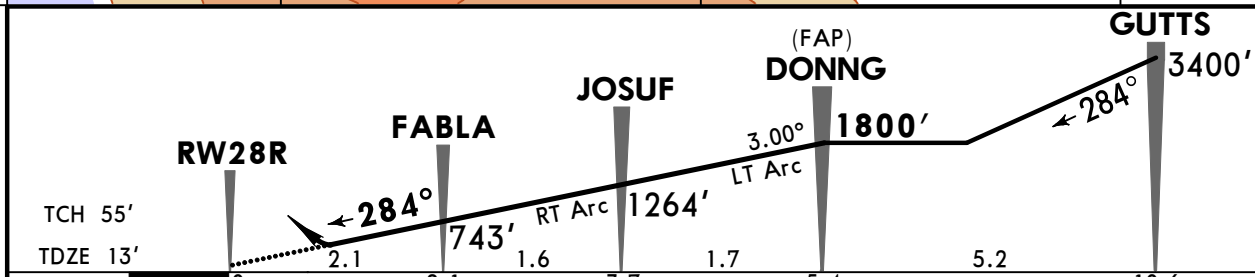
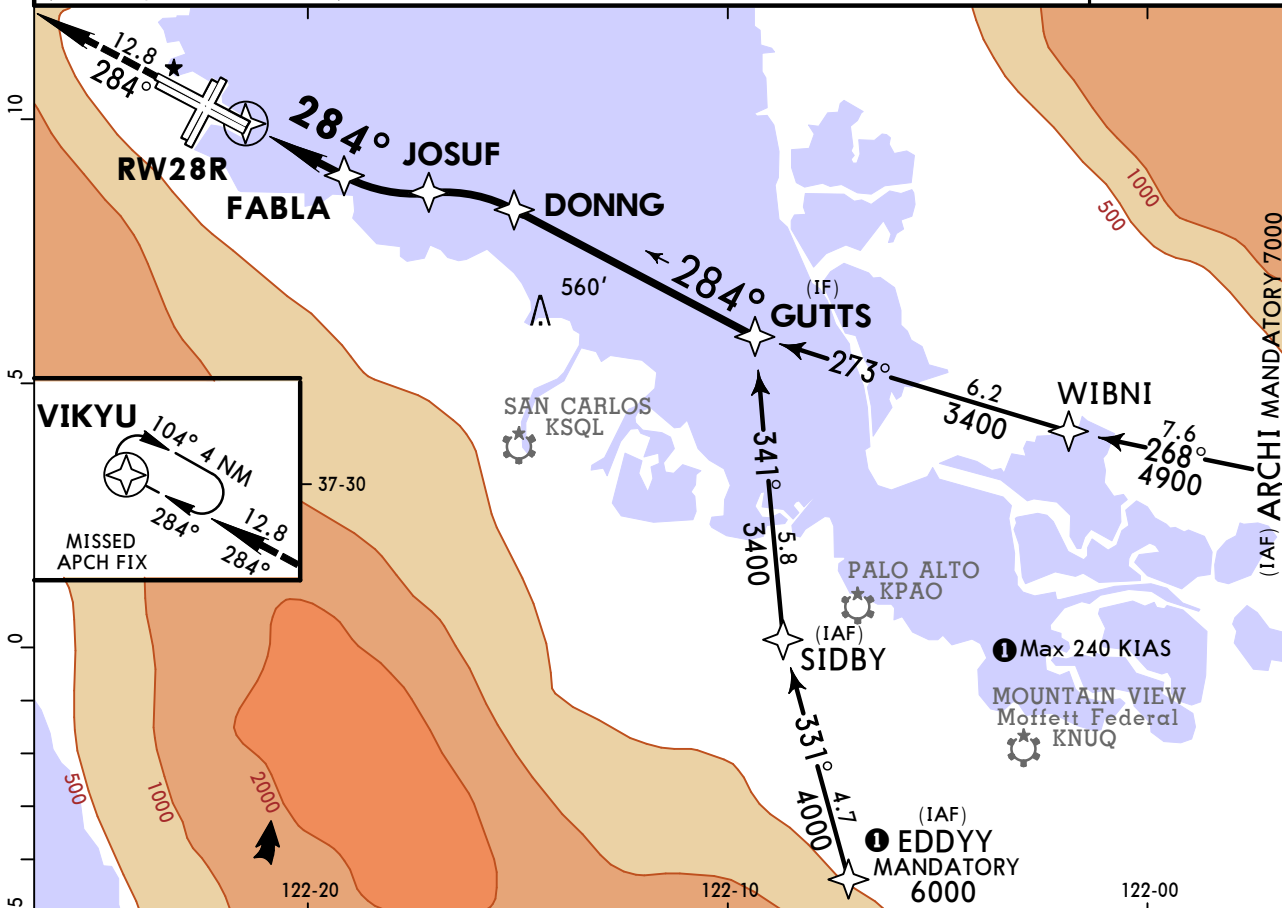
TERPS AMEND 2A 26 JUN 2014

**KSFO/SFO**  
**SAN FRANCISCO INTL**

**JEPPESEN**  
5 OCT 18 (12-21)

**SAN FRANCISCO, CALIF**  
**RNAV (RNP) Y Rwy 28R**

D-ATIS 113.7 115.8 118.85			NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5	Ground 121.8
RNAV	Final Apch Crs <b>284°</b>	Minimum Alt <b>DONNG</b> 1800' (1787')	RNP 0.11 DA(H) (CONDITIONAL) <b>263'</b> (250')	Apt Elev 13'	5000  MSA RW28R
<b>MISSED APCH: Climb to 3000' on track 284° to VIKYU and hold.</b>					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
RNP AR Apch. RF Required.					
1. AUTHORIZATION REQUIRED. 2. For uncompensated Baro-VNAV systems, procedure not authorized below 3°C or above 54°C. 3. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 68').					



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II PAPI	3000'	on 284°	VIKYU
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at DA										

**TERPS** STRAIGHT-IN LANDING RWY 28R

<b>1</b> RNP 0.11 DA(H) <b>263'</b> (250')		<b>2</b> RNP 0.30 DA(H) <b>326'</b> (313')	
ALS out		ALS out	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2
B			
C			
D			

**1** Missed approach requires minimum climb of 250'/NM to 1600'.  
**2** Missed approach requires minimum climb of 350'/NM to 2100'.

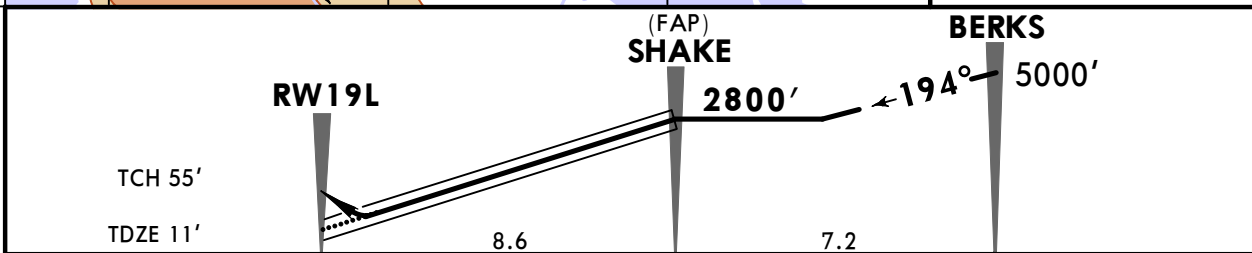
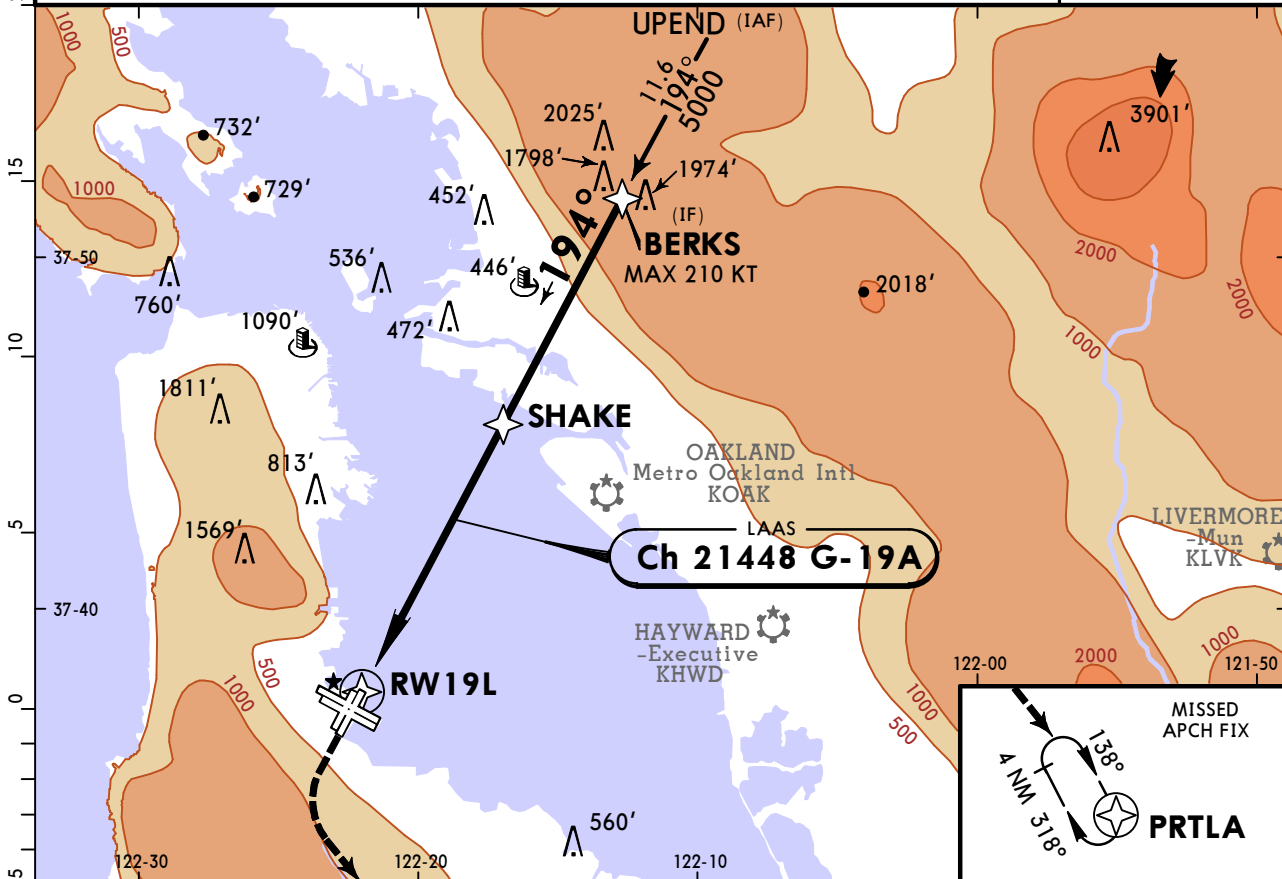
TERPS AMEND 5 13 SEP 2018

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
24 NOV 23 **(12-40)** **Eff 30 Nov**

**SAN FRANCISCO, CALIF**  
**GLS Rwy 19L**

BRIEFING STRIP™	D-ATIS		NORCAL Approach (R)		SAN FRANCISCO Tower		Ground		
	113.7	115.8	118.85	134.5		120.5		121.8	
	LAAS <b>Ch 21448</b> G-19A		Final Apch Crs <b>194°</b>	SHAKE <b>2800'</b> (2789')		GLS DA(H) <b>293'</b> (282')		Apt Elev 13' TDZE 11'	
	<b>MISSED APCH:</b> Climb to 920' then climbing LEFT turn to 4000' direct PRTLA and hold. Missed approach requires minimum climb of 357'/NM to 2000'.								5000          MSA RW19L
	Alt Set: INCHES		Trans level: FL 180			Trans alt: 18000'			
RNP Apch-GPS									
1. Autopilot coupled approach not authorized below 293'. 2. VGSI and GLS glidepath not coincident (VGSI angle 3.00°/TCH 71').									



Gnd speed-Kts	70	90	100	120	140	160	MALSF	920'	4000'	D →	PRTLA
Glide Path Angle	3.00°	372	478	531	637	849		PAPI	↑		

**TERPS** STRAIGHT-IN LANDING RWY 19L  
**GLS**  
 DA(H) **293'** (282')

		ALS out	
A			
B			
C	RVR 40 or 3/4		RVR 45 or 7/8
D			

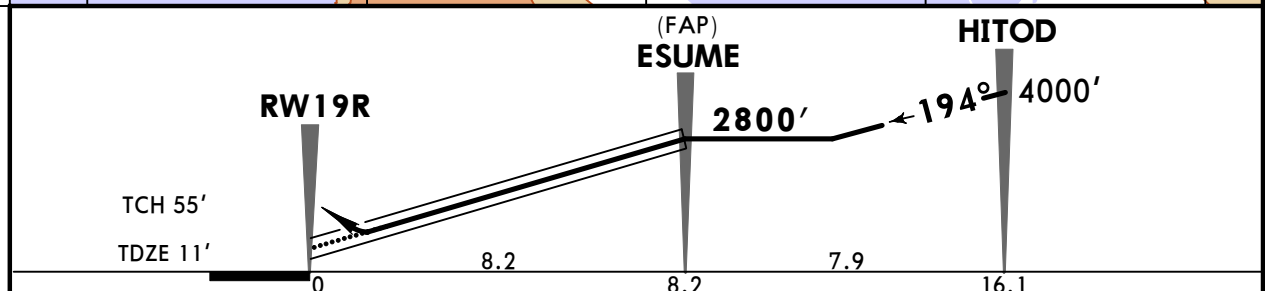
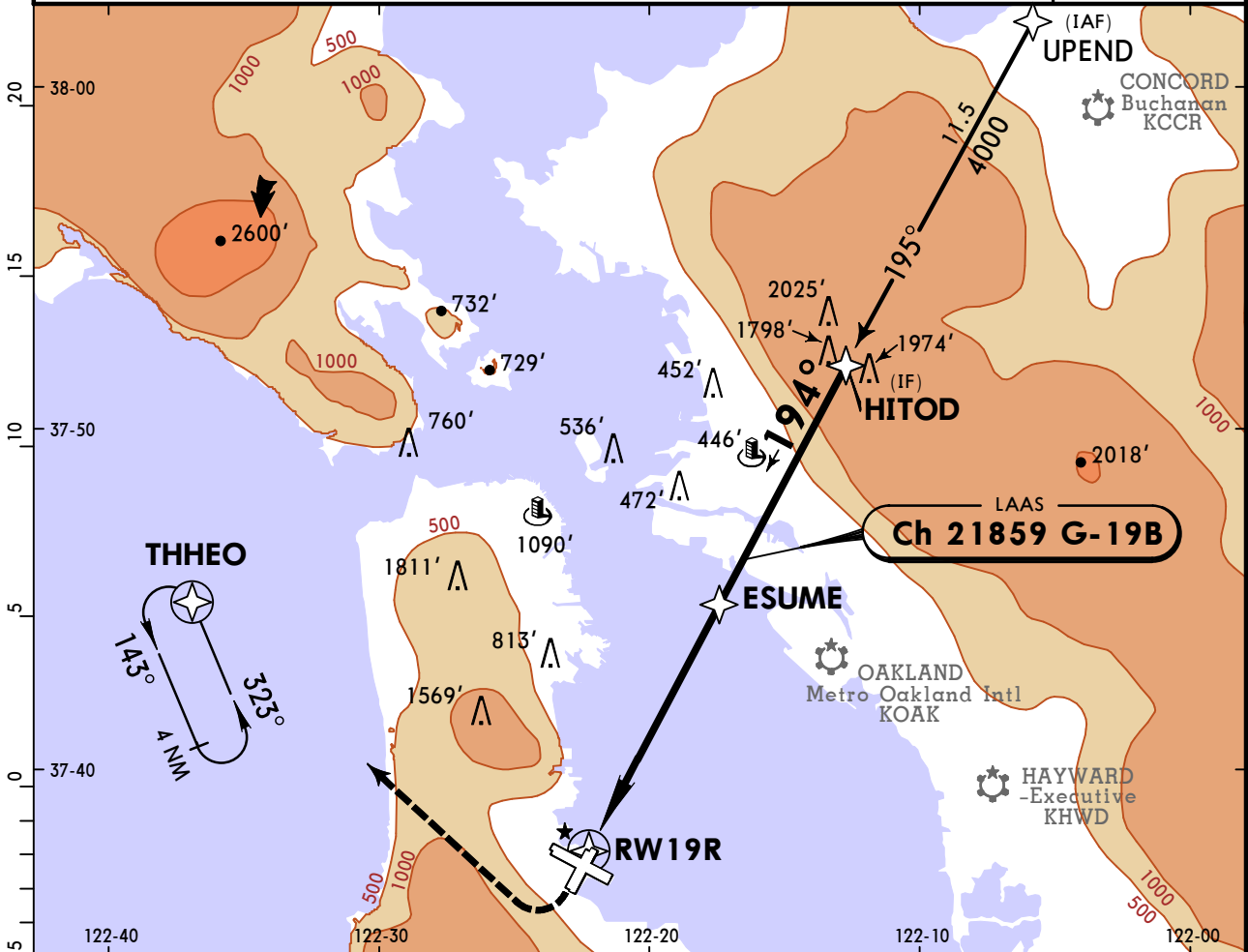
TERPS AMEND 1 30 NOV 2023

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
24 NOV 23 **(12-41)** **Eff 30 Nov**

**SAN FRANCISCO, CALIF**  
**GLS Rwy 19R**

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5	Ground 121.8
LAAS <b>Ch 21859</b> G-19B	Final Apch Crs <b>194°</b>	<b>ESUME</b> <b>2800'</b> (2789')	GLS DA(H) <b>321'</b> (310')	Apt Elev 13' TDZE 11'
<b>MISSED APCH:</b> Climb to 600' then climbing RIGHT turn to 3000' direct THHEO and hold. Missed approach requires minimum climb of 395'/NM to 2100'.				5000  MSA RW19R
Alt Set: INCHES		Trans level: FL 180		
RNP Apch-GPS		Trans alt: 18000'		
Autopilot coupled approach not authorized below 321'.				



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	600'	3000'	D → THHEO
Glide Path Angle 3.15°	390	502	557	669	780	892		↑	RT	

**TERPS** STRAIGHT-IN LANDING RWY 19R  
GLS  
DA(H) **321'** (310')

A	RVR 45 or 7/8
B	
C	
D	

TERPS AMEND 1 30 NOV 2023

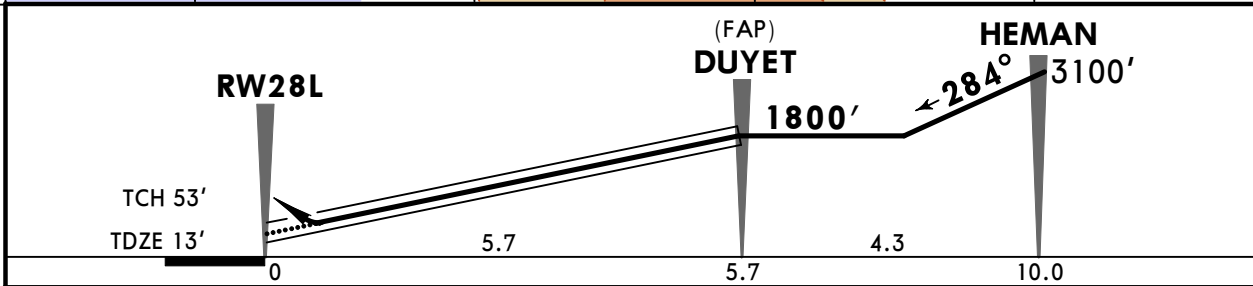
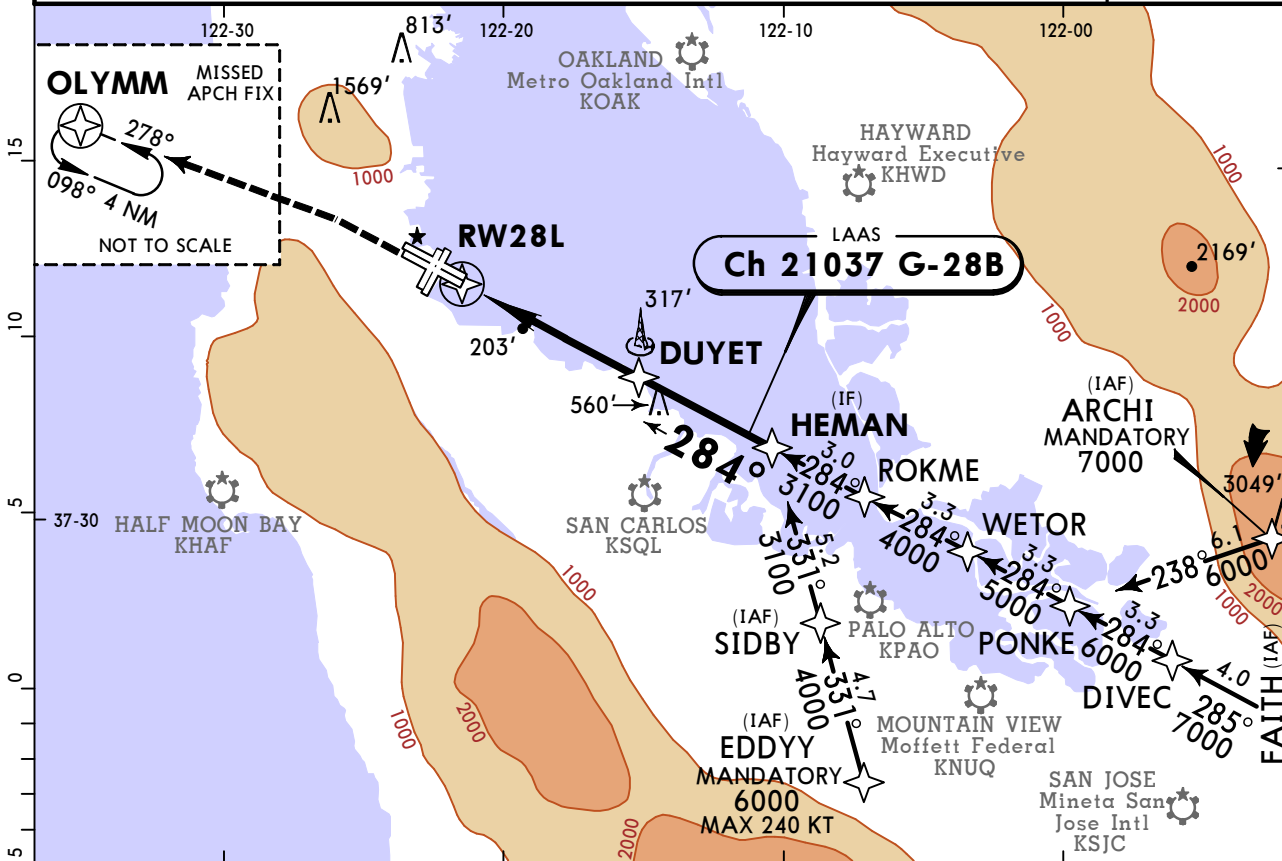


**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
26 NOV 21 **(12-42)** **Eff 2 Dec**

**SAN FRANCISCO, CALIF**  
GLS Rwy 28L

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5	SAN FRANCISCO Tower 120.5		Ground 121.8
LAAS <b>Ch 21037</b> G-28B	Final Apch Crs <b>284°</b>	<b>DUYET</b> 1800' (1787')	GLS DA(H) <b>213' (200')</b>	Apt Elev 13'	TDZE 13'
<b>MISSED APCH: Climb to 1020' then climbing LEFT turn to 4000' direct OLYMM and hold.</b>					5000  MSA RW28L
RNP Apch - GPS	Alt Set: INCHES	Trans level: FL 180		Trans alt: 18000'	
1. Autopilot coupled approach not authorized below 213'. 2. VGSI and GLS glidepath not coincident (VGSI angle 2.85°/TCH 67'). 3. Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; MAINTAIN last assigned altitude until established on glidepath.					



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1020'	4000'	D → OLYMM
Glide Path Angle	2.85°	353	454	504	605	807	PAPI	↑	LT	

**TERPS** STRAIGHT-IN LANDING RWY 28L  
**1 2** GLS  
 DA(H) **213' (200')**  
 RAIL/ALS out

A	<b>3</b> RVR <b>24</b> or 1/2	RVR <b>40</b> or 3/4
B		
C		
D		

**1** Missed apch requires mim climb of 330'/NM to 1600'. **2** Use of Flight Director or Autopilot required during simultaneous operations. **3** RVR 18 authorized with use of Flight Director or Autopilot or HUD to DA.

TERPS ORIG 2 DEC 2021

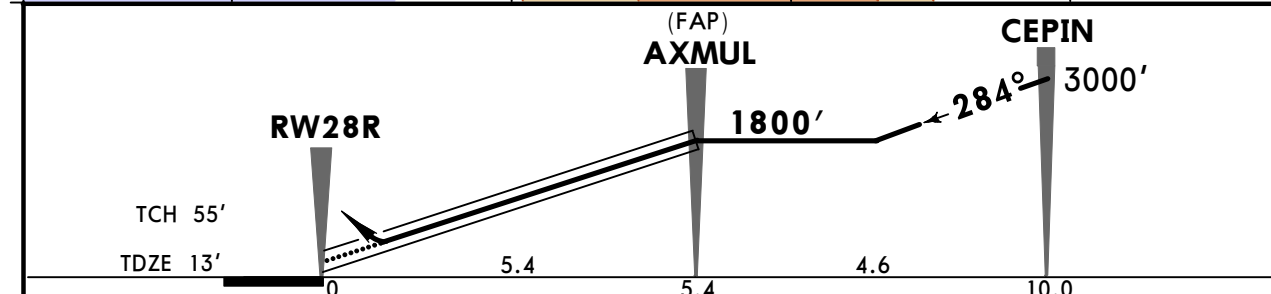
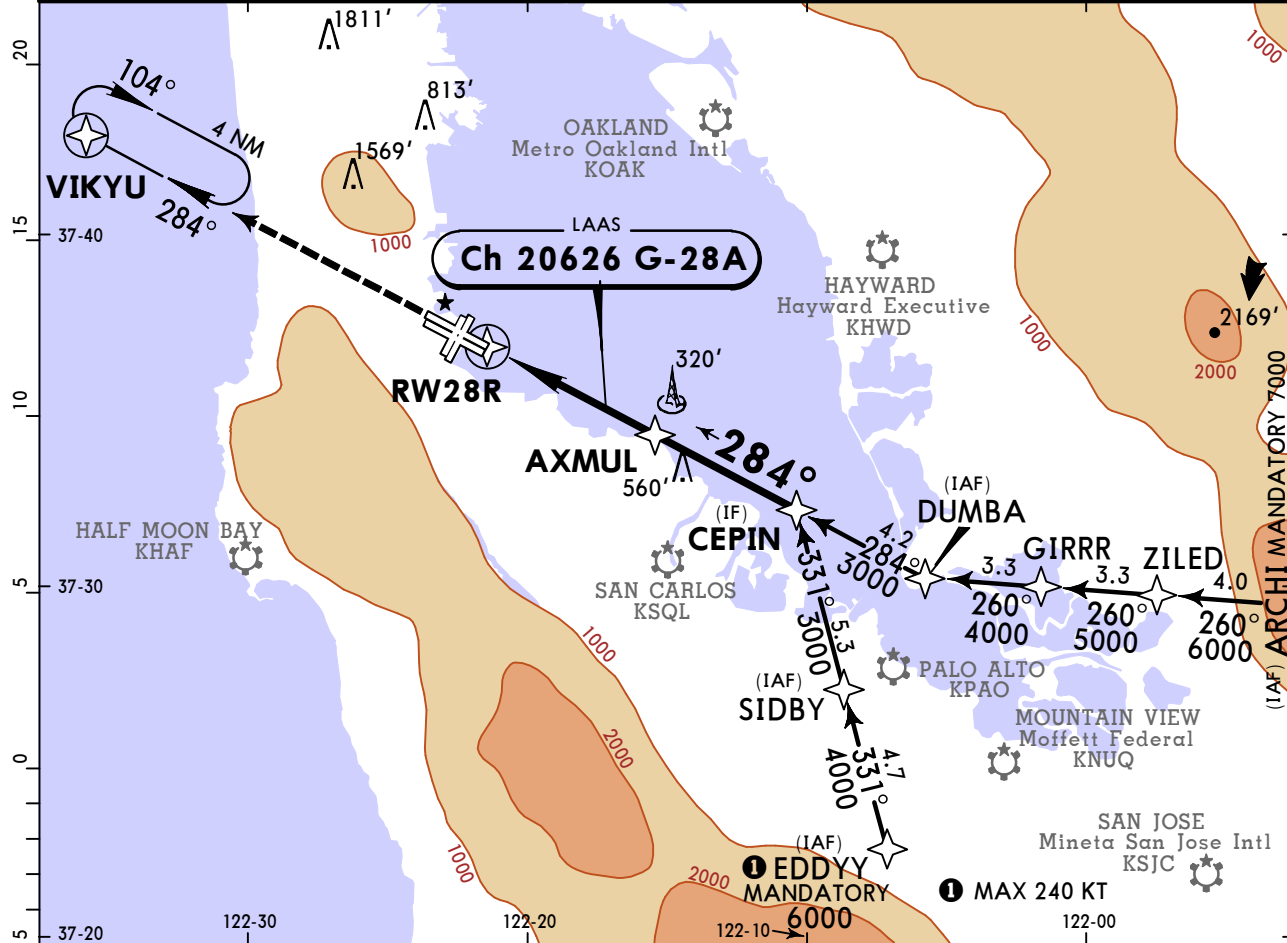
**KSFO/SFO**  
SAN FRANCISCO INTL

26 NOV 21

**(12-43) Eff 2 Dec**

**SAN FRANCISCO, CALIF**  
GLS Rwy 28R

D-ATIS 113.7 115.8 118.85		NORCAL Approach (R) 134.5		SAN FRANCISCO Tower 120.5		Ground 121.8			
LAAS <b>CH 20626</b> G-28A		Final Apch Crs <b>284°</b>		AXMUL <b>1800'</b> (1787')		GLS DA(H) <b>213'</b> (200')			
Apt Elev 13' TDZE 13'						5000  MSA RW28R			
<b>MISSED APCH: Climb to 3200' direct VIKYU and hold.</b>									
RNP Apch - GPS		Alt Set: INCHES		Trans level: FL 180				Trans alt: 18000'	
1. Autopilot coupled approach not authorized below 213'. 2. VGSI and GLS glidepath not coincident (VGSI angle 3.00°/TCH 68'). 3. Simultaneous approach authorized. Simultaneous operations require use of vertical guidance; MAINTAIN last assigned altitude until established on glidepath.									



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	3200'	D →	VIKYU
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at DA										

**TERPS** STRAIGHT-IN LANDING RWY 28R  
**1 2** GLS  
 DA(H) **213'** (200')

		TDZ/CL out	ALS out
A			
B	RVR 18	RVR 24	RVR 40
C	or 1/2	or 1/2	or 3/4
D			

**1** Missed apch requires mim climb of 350'/NM to 1900'. **2** Use of Flight Director or Autopilot required during simultaneous operations.

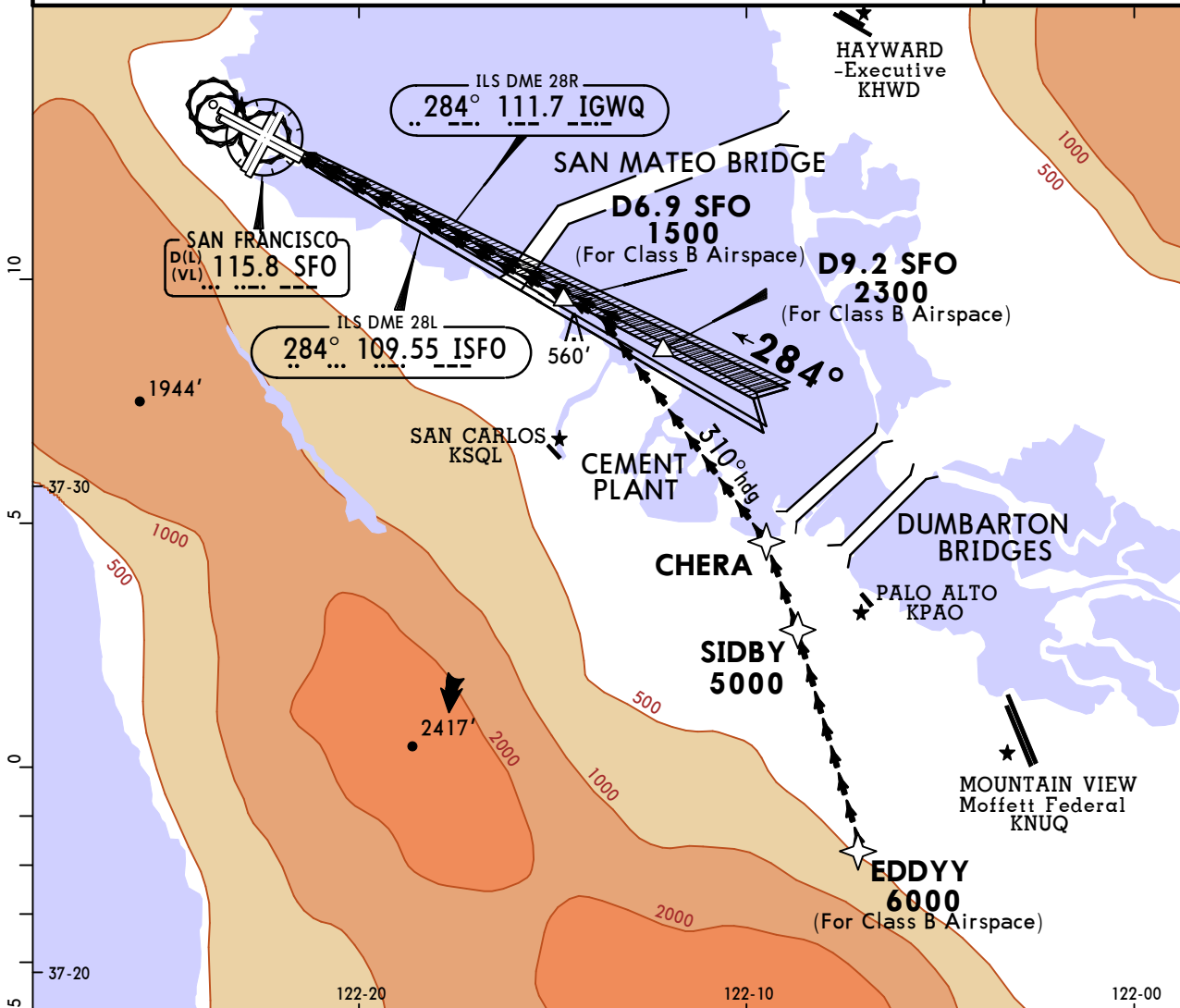
TERPS ORIG 2 DEC 2021

**KSFO/SFO**  
SAN FRANCISCO INTL

**JEPPESEN**  
29 MAR 24 (19-1)

**SAN FRANCISCO, CALIF**  
TIPP TOE VISUAL RWYS 28L/R

BRIEFING STRIP™	D-ATIS	NORCAL Approach (R)	SAN FRANCISCO Tower	Ground	
	113.7 115.8 118.85	134.5	120.5	121.8	
	NAVAIDS- Refer to Planview	Final Apch Crs Rwy 28L/R <b>284°</b>	No FAF	Refer to Minimums	Apt Elev 13'
	<b>MISSED APCH: See below.</b>				
	Alt Set: INCHES	Trans level: FL 180	Trans alt: 18000'		
1. Radar required. 2. Closely spaced parallel visual approaches may be in progress. 3. Vertical Guidance Navaid and Angle: LOC ISFO (GS 2.85°) Rwy 28L, LOC IGWQ (GS 3.00°) Rwy 28R.					



**TIPP TOE VISUAL APPROACH RWYS 28L/R**

Rwy 28L: From CHERA, heading 310° to intercept ISFO localizer.  
 Rwy 28R: From CHERA, heading 310° to intercept IGWQ localizer.

In the event of a go-around:

- Runway 28L, turn LEFT heading 265°, climb and maintain 3000' or as directed by Air Traffic Control.
- Runway 28R, heading 280°, climb and maintain 3000' or as directed by Air Traffic Control.

**WEATHER MINIMUMS**

SFO Ceiling **2500'** - VIS **5**

-OR-

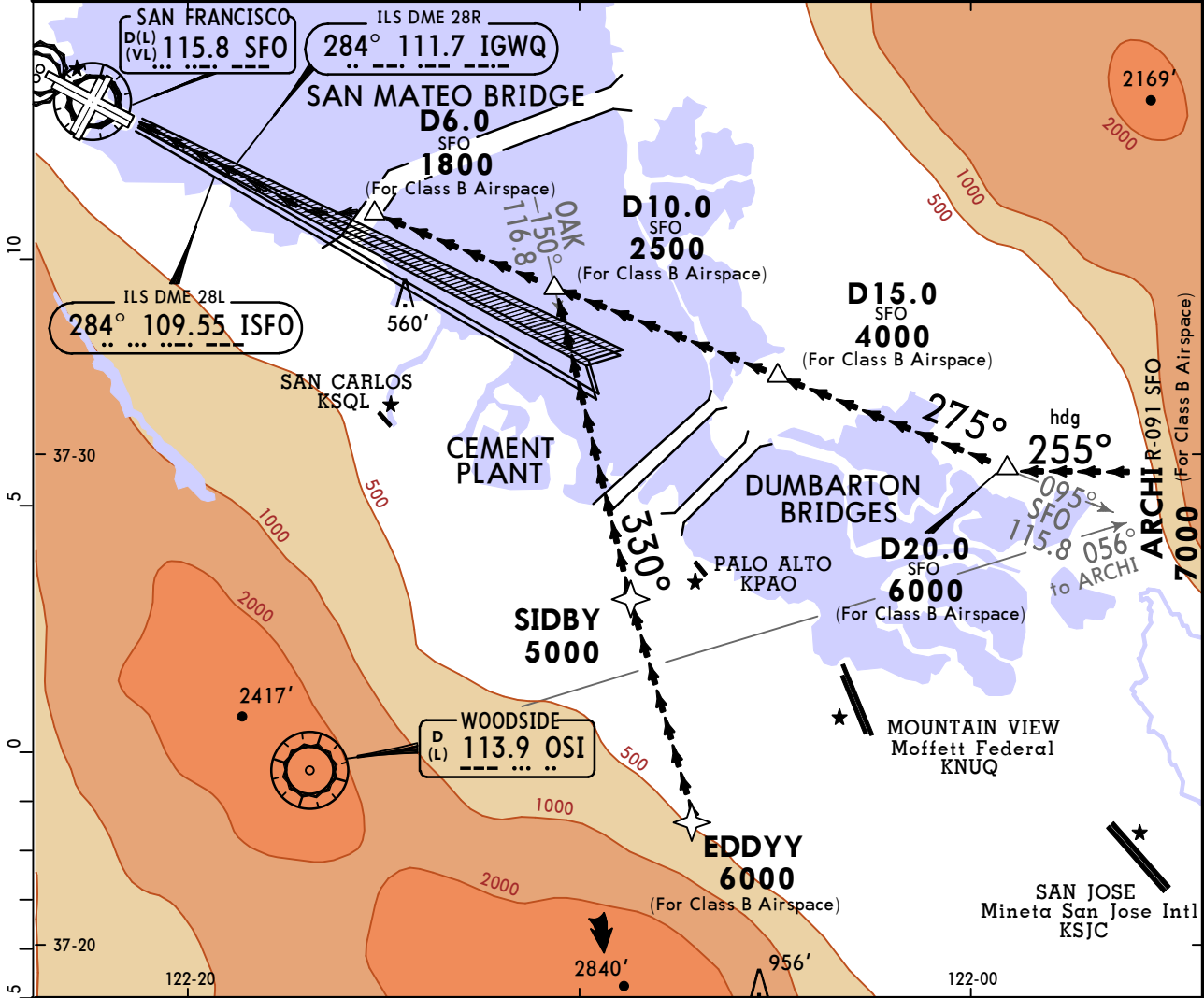
SFO Ceiling 1000' - VIS 3 With VIS 5 in Eastern Quadrant (030° Clockwise 120°) and San Mateo AWOS Ceiling 2400' - VIS 5

[If San Mateo AWOS inop, use San Carlos (KSQ) Ceiling of 2400' - VIS 5; San Carlos ATIS on 125.9]

TERPS AMEND 3 24 MAR 2022

**KSFO/SFO** **JEPPESEN** **SAN FRANCISCO, CALIF**  
**SAN FRANCISCO INTL** 29 MAR 24 **(19-2) QUIET BRIDGE VISUAL RWYS 28L/R**

D-ATIS			NORCAL Approach (R)		SAN FRANCISCO Tower		Ground	
113.7 115.8 118.85			134.5		120.5		121.8	
NAVAIDS-Refer to Planview		Final Apch Crs Rwy 28L/R <b>284°</b>		No FAF	Refer to Minimums		Apt Elev 13'	
<b>MISSED APCH: See below.</b>								
Alt Set: INCHES			Trans level: FL 180			Trans alt: 18000'		
1. Radar required. 2. Closely spaced parallel visual approaches may be in progress to Rwy 28L utilizing ISFO. 3. Visual guidance and navaid angle: LOC IGWQ (GS 3.00°).								



**QUIET BRIDGE VISUAL APPROACH RWYS 28L/R**

From the South: After SIDBY, fly 330° hdg to intercept SFO R-095 inbound.  
 From the East: After ARCHI, fly 255° hdg to intercept SFO R-095 inbound.

In the event of a go-around:

- Runway 28L, turn LEFT heading 265°, climb and maintain 3000' or as directed by Air Traffic Control.
- Runway 28R, fly heading 280°, climb and maintain 3000' or as directed by Air Traffic Control.

**WEATHER MINIMUMS**

SFO Ceiling **2500'** - VIS **5**  
 -OR-

SFO Ceiling 1000' - VIS 3 With VIS 5 in Eastern Quadrant (030° clockwise 120°)  
 and San Mateo AWOS Ceiling 2400' - VIS 5

[If San Mateo AWOS inop, use San Carlos (KSQL) Ceiling of 2400'-VIS 5; San Carlos ATIS on 125.9]

TERPS AMEND 12 8 NOV 2018

## Chart changes since cycle 10-2024

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
<b>SAN FRANCISCO, CA (SAN FRANCISCO INTL - KSFO)</b>				
REV	AIRPORT, AIRPORT INFO	10-9	24 May 2024	
REV	AIRPORT INFO (CONTD), TAK...	10-9A	24 May 2024	
REV	PARKING GATES	10-9B	24 May 2024	
REV	PARKING GATES (CONTD) & C...	10-9C	24 May 2024	

## TERMINAL CHART CHANGE NOTICES

### Chart Change Notices for Airport KSFO

**Type:** Terminal

**Effectivity:** Temporary

**Begin Date:** Immediately

**End Date:** Until Further Notice

(10-9D) Low Visibility Taxi Routes - Surface Movement Guidance and Control System operations suspended until further notice. Contact the San Francisco Airport Commission for details.

### Chart Change Notices for Country USA

**Type:** Gen Tmnl

**Effectivity:** Temporary

**Begin Date:** Immediately

**End Date:** Until Further Notice

Due to a change of the FAA's statute mile equivalent value for RVR, approach charts with a visibility of RVR 55 or 1 1/4 should be RVR 55 or 1.

**Type:** Gen Tmnl

**Effectivity:** Temporary

**Begin Date:** Immediately

**End Date:** Until Further Notice

ILS Procedures RVR 1800 Statute Mile Equivalent-U.S. FAA Airports On a number of ILS approach procedures at U.S. FAA airports, the published landing visibility value of RVR 1800 depicts a Statute Mile equivalent value of 3/8 Statute Mile. According to FAA FAR and AIM publications, the Statute Mile equivalent for RVR 1800 should be 1/2 Statute Mile Beginning with the revision dated 20 May 2016 affected U.S. ILS approach charts will be updated to depict the appropriate Statute Mile equivalent visibility of 1/2 Statute Mile.

**Type:** Gen Tmnl

**Effectivity:** Temporary

**Begin Date:** Immediately

**End Date:** Until Further Notice

MALSR & SSALR RAIL out Lighting Condition - U.S. FAA Locations The FAA has confirmed that for MALSR and SSALR approach light systems, the RAIL out, or partial system condition, is not applicable when determining landing visibilities When any component of a MALSR or SSALR approach light system is inoperative, such as RAIL out, the landing visibilities should be determined as if the entire lighting system were inoperative (ALS out). Therefore, the RAIL out visibility column should be disregarded.