

INSTRUMENT APPROACH PROCEDURE CHARTS

**A** IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non-precision approaches and approaches with vertical guidance [NDB, VOR, LOC, TACAN, LDA, SDF, VOR/DME, ASR, RNAV (GPS) or RNAV (RNP)] are 800-2. Standard alternate minimums for precision approaches (ILS, PAR, or GLS) are 600-2. Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Civil pilots see FAR 91. IFR Alternate Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Minimums Notes for alternate airfield suitability.

NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS
<b>ALTURAS, CA</b>		<b>CONCORD, CA</b>	
ALTURAS		BUCHANAN	
MUNI (AAT).....	RNAV (GPS) Rwy 31	FIELD (CCR).....	LDA Rwy 19R <sup>12</sup>
Category B, 900-2.			RNAV (GPS) Rwy 19R <sup>3</sup>
			VOR Rwy 19R <sup>2</sup>
<b>ARCATA/EUREKA, CA</b>		<sup>1</sup> NA when control tower closed.	
CALIFORNIA REDWOOD COAST-HUMBOLDT		<sup>2</sup> Category C, 1000-2¼; Category D, 1300-3.	
COUNTY (ACV).....	RNAV (GPS) Rwy 1 <sup>1</sup>	<sup>3</sup> Categories A, B, 1000-2; Category C, 1000-3;	
	RNAV (GPS) Rwy 32 <sup>2</sup>	Category D, 1300-3.	
<sup>1</sup> Categories A, B, 900-2; Category C, 900-2¼;			
Category D, 900-2¼.			
<sup>2</sup> Category D, 800-2¼.		<b>COLUMBIA, CA</b>	
<b>ATWATER, CA</b>		COLUMBIA (O22).....	RNAV (GPS) Rwy 35
CASTLE (MER).....	ILS or LOC/DME Rwy 31 <sup>1</sup>	Categories A, B, 1100-2; Category C, 1100-3.	
	RNAV (GPS) Rwy 13		
	RNAV (GPS) Rwy 31		
	VOR/DME Rwy 31		
NA when local weather not available.		<b>CRESCENT CITY, CA</b>	
<sup>1</sup> NA when control tower closed.		JACK MC NAMARA	
<b>AUBURN, CA</b>		FIELD (CEC).....	RNAV (GPS) Rwy 12
AUBURN MUNI (AUN).....	RNAV (GPS) Rwy 7		RNAV (GPS) Rwy 36
Category B, 900-2.			VOR Rwy 12
			VOR/DME Rwy 12
			VOR/DME Rwy 36
		NA when local weather not available.	
<b>BISHOP, CA</b>		<b>FRESNO, CA</b>	
BISHOP (BIH).....	LDA Rwy 17 <sup>1</sup>	FRESNO YOSEMITE	
	RNAV (GPS) Y Rwy 12 <sup>2</sup>	INTL (FAT).....	ILS Y or LOC Y Rwy 29R <sup>1</sup>
	RNAV (GPS) Z Rwy 12 <sup>3</sup>		LOC Y Rwy 11L <sup>2</sup>
<sup>1</sup> Categories A, B, 2300-2; Categories C, D, 2300-3.			VOR/DME or TACAN Rwy 11L <sup>2</sup>
<sup>2</sup> Categories A, B 2500-2; Category C, 2500-3.			VOR/DME or TACAN Rwy 29R <sup>2</sup>
<sup>3</sup> Categories A, B, 2300-2; Category C, 2300-3.		<sup>1</sup> ILS, LOC, Category E, 900-2¼.	
		<sup>2</sup> Category E, 900-2¼.	
<b>BYRON, CA</b>		<b>GRASS VALLEY, CA</b>	
BYRON (C83).....	RNAV (GPS) Rwy 30	NEVADA	
Category D, 800-2¼.		COUNTY (GOO).....	RNAV (GPS) Rwy 7
		Category D, 800-2¼.	
<b>CHICO, CA</b>			
CHICO MUNI (CIC).....	VOR/DME Rwy 31R		
NA when control tower closed except for operators			
with approved weather reporting service.			

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NAME ALTERNATE MINIMUMS

**HAYWARD, CA**

HAYWARD  
EXECUTIVE (HWD).....LOC/DME Rwy 28L<sup>1</sup>  
RNAV (GPS) Rwy 28L  
VOR/DME-A

NA when local weather not available.

<sup>1</sup>NA when control tower closed.

**HOLLISTER, CA**

HOLLISTER  
MUNI (CVH).....RNAV (GPS) Rwy 31

NA when local weather not available.

**LINCOLN, CA**

LINCOLN RGNL/KARL  
HARDER FIELD (LHM).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33

NA when local weather not available.

**LIVERMORE, CA**

LIVERMORE MUNI (LVK).....ILS Rwy 25R<sup>1</sup>  
LOC Rwy 25R<sup>23</sup>  
RNAV (GPS) Rwy 25R<sup>4</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>NA when tower closed.

<sup>3</sup>LOC, Categories A, B, 1600-2; Categories C, D, 1600-3.

<sup>4</sup>Category D, 1400-3.

**MAMMOTH LAKES, CA**

MAMMOTH  
YOSEMITE (MMH).....RNAV (GPS) Rwy 27  
Categories A, B, 1300-2; Category C, 1300-3.

**MARYSVILLE, CA**

YUBA COUNTY (MYV).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32

NA when local weather not available.

**MODESTO, CA**

MODESTO CITY-COUNTY-HARRY SHAM  
FIELD (MOD).....ILS or LOC Rwy 28R<sup>1</sup>  
RNAV (GPS) Rwy 28R<sup>2</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>NA when local weather not available.

NAME ALTERNATE MINIMUMS

**MONTEREY, CA**

MONTEREY  
RGNL (MRY).....ILS or LOC Rwy 10R<sup>12</sup>  
LOC Rwy 28L<sup>13</sup>  
RNAV (GPS) Rwy 10R<sup>6</sup>  
RNAV (GPS) Y Rwy 28L<sup>4</sup>  
RNAV (RNP) Z Rwy 28L<sup>5</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>LOC, Category C, 1100-3; Category D, 1600-3.

<sup>3</sup>Categories A, B, 1700-2; Categories C, D, 1700-3.

<sup>4</sup>Categories A, B, 900-2; Category C, 1100-3.

<sup>5</sup>Categories A, B, C, 1000-3.

<sup>6</sup>Category C, 1100-3; Category D, 1600-3.

**MOUNTAIN VIEW, CA**

MOFFET FEDERAL  
AFLD (NUQ).....ILS or LOC Rwy 32R<sup>12</sup>  
LOC Rwy 14L<sup>13</sup>  
RNAV (GPS) Rwy 14L<sup>4</sup>  
RNAV (GPS) Rwy 14R<sup>4</sup>  
RNAV (GPS) Rwy 32L<sup>4</sup>  
RNAV (GPS) Rwy 32R<sup>3</sup>  
TACAN Rwy 32L<sup>15</sup>  
TACAN Rwy 32R<sup>15</sup>

<sup>1</sup>NA when tower closed.

<sup>2</sup>LOC, Category D, 800-2½; Category E, 1000-3.

<sup>3</sup>Category D, 800-2½.

<sup>4</sup>Category D, 800-2¼.

<sup>5</sup>Category D, 800-2½; Category E, 1000-3.

**NAPA, CA**

NAPA  
COUNTY (APC).....ILS or LOC Z Rwy 36L<sup>12</sup>  
LOC Y Rwy 36L<sup>13</sup>  
RNAV (GPS) X Rwy 36L<sup>4</sup>  
RNAV (GPS) Y Rwy 36L<sup>5</sup>  
RNAV (GPS) Z Rwy 36L<sup>5</sup>  
VOR Rwy 6<sup>56</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>LOC, Category C, 900-2¾; Category D, 1200-3.

<sup>3</sup>Category C, 1200-3; Category D, 1800-3.

<sup>4</sup>Categories A, B, 1300-2; Category C, 1300-3, Category D, 1800-3.

<sup>5</sup>NA when local weather not available.

<sup>6</sup>Category D, 1300-3.

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NAME ALTERNATE MINIMUMS

**OAKLAND, CA**

METROPOLITAN

OAKLAND INTL (OAK).....**ILS or LOC Rwy 12<sup>1</sup>**  
**ILS or LOC Rwy 30<sup>1</sup>**  
**ILS or LOC/DME Rwy 28R<sup>1</sup>**  
**RNAV (GPS) Rwy 10L<sup>2</sup>**  
**RNAV (GPS) Rwy 10R<sup>2</sup>**  
**RNAV (GPS) Y Rwy 12<sup>2</sup>**  
**RNAV (GPS) Y Rwy 28L<sup>2</sup>**  
**RNAV (GPS) Y Rwy 28R<sup>2</sup>**  
**RNAV (GPS) Y Rwy 30<sup>2</sup>**  
**VOR Rwy 10R<sup>2</sup>**

<sup>1</sup>ILS, Category C, 700-2; Category D, 1400-3;

LOC, Category D, 1400-3.

<sup>2</sup>Category D, 1400-3.

**PALO ALTO, CA**

PALO ALTO (PAO).....**VOR/DME Rwy 31**

NA when control tower closed.

**PETALUMA, CA**

PETALUMA MUNI (O69).....**RNAV (GPS) Rwy 29**

NA when local weather not available.

**PLACERVILLE, CA**

PLACERVILLE (PVF).....**RNAV (GPS) Rwy 5**

NA when local weather not available.

**RED BLUFF, CA**

RED BLUFF

MUNI (RBL).....**RNAV (GPS) Rwy 15<sup>1</sup>**  
**RNAV (GPS) Rwy 33**  
**VOR Rwy 33**  
**VOR/DME Rwy 15<sup>1</sup>**

NA when local weather not available.

<sup>1</sup>Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**REDDING, CA**

REDDING

MUNI (RDD).....**ILS or LOC/DME Rwy 34<sup>123</sup>**  
**LOC/DME BC Rwy 16<sup>23</sup>**  
**RNAV (GPS) Rwy 34<sup>3</sup>**  
**VOR Rwy 34<sup>4</sup>**

<sup>1</sup>ILS, Categories A, B, C, D, 700-2; Category E,

900-3. LOC, Category E, 900-3.

<sup>2</sup>NA when control tower closed.

<sup>3</sup>NA when local weather not available.

<sup>4</sup>Category C, 800-2<sup>1</sup>/<sub>4</sub>; Category D, 800-2<sup>1</sup>/<sub>2</sub>.

**SACRAMENTO, CA**

SACRAMENTO

EXECUTIVE (SAC).....**ILS or LOC Rwy 2<sup>1</sup>**  
**RNAV (GPS) Rwy 2**  
**VOR Rwy 2**

NA when local weather not available.

<sup>1</sup>NA when control tower closed.

NAME ALTERNATE MINIMUMS

**SACRAMENTO, CA (CON'T)**

SACRAMENTO

INTL (SMF).....**ILS or LOC Rwy 16L<sup>3</sup>**  
**ILS or LOC Rwy 34L<sup>2</sup>**  
**RNAV (GPS) Y Rwy 16L<sup>1</sup>**  
**RNAV (GPS) Y Rwy 34R<sup>1</sup>**

<sup>1</sup>Category D, 900-2<sup>3</sup>/<sub>4</sub>.

<sup>2</sup>NA when local weather not available.

<sup>3</sup>ILS, LOC Category D, 900-2<sup>3</sup>/<sub>4</sub>.

SACRAMENTO

MATHER (MHR).....**ILS or LOC Rwy 22L<sup>12</sup>**  
**RNAV (GPS) Rwy 4R<sup>3</sup>**  
**RNAV (GPS) Rwy 22L<sup>3</sup>**

<sup>1</sup>NA when control tower closed.

<sup>2</sup>LOC, Category D, 800-2<sup>1</sup>/<sub>4</sub>; Category E, 800-2<sup>1</sup>/<sub>2</sub>.

<sup>3</sup>Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**SALINAS, CA**

SALINAS MUNI (SNS).....**ILS Rwy 31<sup>1</sup>**  
**LOC/DME Rwy 31<sup>2</sup>**  
**RNAV (GPS) Rwy 13<sup>12</sup>**  
**RNAV (GPS) Y Rwy 31<sup>12</sup>**  
**RNAV (GPS) Z Rwy 31<sup>1</sup>**  
**VOR Rwy 13<sup>3</sup>**

<sup>1</sup>NA when local weather not available.

<sup>2</sup>Category D, 800-2<sup>1</sup>/<sub>4</sub>.

<sup>3</sup>Category D, 1000-3.

**SAN ANDREAS, CA**

CALAVERAS CO-MAURY RASMUSSEN

FIELD (CPU).....**RNAV (GPS) Rwy 31**  
Category C, 1100-3.

**SAN CARLOS, CA**

SAN CARLOS (SQL).....**RNAV (GPS) Y Rwy 30<sup>1</sup>**  
**RNAV (GPS) Z Rwy 30<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1300-2.

<sup>2</sup>Categories A, B, 900-2.

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**SAN FRANCISCO, CA**

SAN FRANCISCO  
INTL (SFO).....**ILS or LOC Rwy 19L<sup>1</sup>**  
**ILS or LOC Rwy 28L<sup>2</sup>**  
**RNAV (GPS) Rwy 10L<sup>3</sup>**  
**RNAV (GPS) Rwy 28L<sup>4</sup>**  
**RNAV (GPS) Y Rwy 10R<sup>3</sup>**  
**RNAV (GPS) Z Rwy 28R<sup>5</sup>**  
**RNAV (RNP) Z Rwy 10R<sup>5</sup>**

<sup>1</sup>LOC, Categories A, B, 1800-2; Categories C, D, 1800-3.

<sup>2</sup>ILS, Categories A, B, C, D, 800-2; LOC, Category A, 900-2; Category B, 1000-2; Category C, 1600-3.

<sup>3</sup>Categories A, B, 1200-2; Categories C, D, 1200-3.

<sup>4</sup>Categories A, B, 1100-2; Category C, 1600-3; Category D, 1100-2½.

<sup>5</sup>Category B, 1000-2; Category C, 1600-3.

<sup>6</sup>Categories A, B, C, D, 1100-4.

**SAN JOSE, CA**

NORMAN Y MINETA SAN JOSE  
INTL (SJC).....**ILS or LOC Rwy 12R**  
**ILS or LOC Rwy 30L**  
NA when control tower closed.

**SAN MARTIN, CA**

SAN MARTIN (E16).....**RNAV (GPS) Rwy 32**  
Categories A, B, 1000-2.

**SANTA ROSA, CA**

CHARLES M SCHULZ-SONOMA  
COUNTY (STS).....**ILS or LOC/DME Rwy 32<sup>12</sup>**  
**RNAV (GPS) Rwy 2<sup>3</sup>**  
**RNAV (GPS) Rwy 14<sup>3</sup>**  
**RNAV (GPS) Rwy 32<sup>3</sup>**  
**VOR/DME Rwy 14<sup>34</sup>**

<sup>1</sup>NA when control tower closed.

<sup>2</sup>ILS, LOC, Category C, 1000-3; Category D, 1300-3.

<sup>3</sup>Category C, 1000-3; Category D, 1300-3.

<sup>4</sup>NA when local weather not available.

**STOCKTON, CA**

STOCKTON METROPOLITAN  
(SCK).....**ILS or LOC Rwy 29R**  
NA when control tower closed.

**SUSANVILLE, CA**

SUSANVILLE  
MUNI (SVE).....**RNAV (GPS) Rwy 29**  
Categories A, B, 1700-2; Categories C, D, 1700-3.

NAME ALTERNATE

**TRUCKEE, CA**

TRUCKEE-TAHOE  
(TRK).....**RNAV (GPS)-A<sup>1</sup>**  
**RNAV (GPS) Rwy 11<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1600-2; Category C, 1800-3.

<sup>2</sup>Categories A, B, 1900-2; Category C, 1900-3.

**UKIAH, CA**

UKIAH MUNI (UKI).....**RNAV (GPS)-B<sup>1</sup>**  
**VOR-A<sup>2</sup>**

<sup>1</sup>Categories A, B, 2000-2; Categories C, D, 2000-3.

<sup>2</sup>Categories A, B, 2800-2; Categories C, D, 2800-3.

**VACAVILLE, CA**

NUT TREE (VCB).....**RNAV (GPS) Rwy 20<sup>1</sup>**  
**VOR-A<sup>2</sup>**

<sup>1</sup>Category C, 900-2½; Category D, 1300-3.

<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 1300-3.

**VISALIA, CA**

VISALIA  
MUNI (VIS).....**ILS or LOC Rwy 30**  
**RNAV (GPS) Rwy 12**  
**RNAV (GPS) Rwy 30**  
**VOR Rwy 12**

NA when local weather not available.

**WATSONVILLE, CA**

WATSONVILLE  
MUNI (WVI).....**RNAV (GPS) Rwy 2**  
**VOR-A<sup>1</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1200-2; Categories C, D, 1200-3.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**  
**DIVERSE VECTOR AREA (RADAR VECTORS)**  
 INSTRUMENT APPROACH PROCEDURE CHARTS

19227

**IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be listed that contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME	TAKEOFF MINIMUMS	NAME	TAKEOFF MINIMUMS
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**ALTURAS, CA**

ALTURAS MUNI (AAT)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT 2 08101 (FAA)  
 DEPARTURE PROCEDURE: Use BACHS  
 DEPARTURE.

**AMEDEE AAF (KAHC),**

HERLONG, CA  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT 1, 09239  
**Rwy 8, 26:** 4000-3 for climb in visual conditions.  
**Rwy 8, 26:** Cross Amedee AAF at or above 7900  
 before proceeding on course.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

## ARCATA-EUREKA, CA

CALIFORNIA REDWOOD COAST—  
HUMBOLDT COUNTY (ACV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 17285 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, std. w/min. climb of 360' per NM to 500 or 1100-2½ for VCOA. **Rwy 14**, 400-2½ or std. w/min. climb of 382' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 1, 32**, climbing left turn to intercept ACV R-250 to HOCUT INT and continue climb to MEA on V27. **Rwy 14, 19**, climbing right turn to intercept ACV R-250 to HOCUT INT and continue climb to MEA on V27.

VCOA: **Rwy 1**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross California Redwood Coast-Humboldt County airport westbound at or above 1200 to intercept ACV R-250 to HOCUT INT and continue climb to MEA on V27.

TAKEOFF OBSTACLE NOTES: **Rwy 1**, runway lights 10' from DER, 54' left and right of centerline, 1' AGL/209' MSL. Fence beginning 150' from DER, 397' right of centerline, up to 9' AGL/217' MSL. Tree, fence, pole beginning 222' from DER, 158' right of centerline, up to 260' MSL. Tree 276' from DER, 491' left of centerline, 245' MSL. Trees beginning 310' from DER, 198' left of centerline, up to 248' MSL. Tree 383' from DER, 408' right of centerline, 316' MSL. Trees beginning 385' from DER, 0' left of centerline, up to 179' AGL/325' MSL. Trees beginning 423' from DER, 11' left of centerline, up to 118' AGL/260' MSL. Trees beginning 583' from DER, 6' left of centerline, up to 178 AGL/278' MSL. Trees beginning 1922' from DER, 179' right of centerline, up to 344' MSL. Trees beginning 2291' from DER, 266' right of centerline, up to 124 AGL/356' MSL. Tree 3390' from DER, 164' left of centerline, 150' AGL/335' MSL. Trees beginning 3400' from DER, 108' left of centerline, up to 175' AGL/357' MSL. Trees beginning 3478' from DER, 12' left of centerline, up to 187' AGL/364' MSL. Tree 3602' from DER, 725' right of centerline, 358' MSL. Trees beginning 3603' from DER, 1' right of centerline, up to 177' AGL/365' MSL. Trees beginning 3714' from DER, 34' left of centerline, up to 192' AGL/369' MSL. Trees beginning 3722' from DER, 51' left of centerline, up to 197' AGL/372' MSL. Trees beginning 3763' from DER, 1' left of centerline, up to 202' AGL/375' MSL. Tree 4016' from DER, 567' right of centerline, 367' MSL. Trees beginning 4017' from DER, 67' right of centerline, up to 197' AGL/373' MSL. Trees beginning 6044' from DER, 852' left of centerline, up to 163' AGL/379' MSL. Tree 1.1 NM from DER, 48' right of centerline, 385' MSL. Trees beginning 1.2 NM from DER, 1220' right of centerline, up to 416' MSL. Trees beginning 1.7 NM from DER, 2648' right of centerline, up to 602' MSL. Tree 1.8 NM from DER, 3460' right of centerline, 605' MSL.

## ARCATA-EUREKA, CA (CON'T)

CALIFORNIA REDWOOD COAST—  
HUMBOLDT COUNTY (ACV) (CONT')

**Rwy 14**, runway lights 9' from DER, 54' left and right of centerline, 1' AGL/223' MSL. Tree 621' from DER, 591' left of centerline, 256' MSL. Tree, antenna, pole, beginning 733' from DER, 378' left of centerline, up to 262' MSL. Tree 1086' from DER, 716' right of centerline, 277' MSL. Trees, beginning 1110' from DER, 717' right of centerline, up to 290' MSL. Tree 1701' from DER, 860' left of centerline, 283' MSL. Trees beginning 1843' from DER, 875' left of centerline, up to 307' MSL. Trees, beginning 2568' from DER, 801' left of centerline, up to 321' MSL. Trees beginning 3085' from DER, 565' left of centerline, up to 326' MSL. Tree 3807' from DER, 1202' left of centerline, 374' MSL. Trees, beginning 3827' from DER, 794' left of centerline, up to 392' MSL. Trees, beginning 4152' from DER, 813' left of centerline, up to 420' MSL. Trees, beginning 4514' from DER, 1245' left of centerline, up to 443' MSL. Trees, beginning 4707' from DER, 880' left of centerline, up to 446' MSL. Trees, beginning 5176' from DER, 1028' left of centerline, up to 447' MSL. Trees, beginning 5712' from DER, 1337' left of centerline, up to 467' MSL. Trees, beginning 1.1 NM from DER, 1618' left of centerline, up to 515' MSL. Trees, beginning 1.2 NM from DER, 1929' left of centerline, up to 565' MSL. Tree 1.7 NM from DER, 3238' left of centerline, 568' MSL. Trees beginning 1.8 NM from DER, 1864' left of centerline, up to 588' MSL. **Rwy 19**, runway lights 9' from DER, 55' left and right of centerline, 189' MSL. Vegetation 15' from DER, 270' right of centerline, 191' MSL. Tree 776' from DER, 696' right of centerline, 77' AGL/215' MSL. **Rwy 32**, fence, beginning 91' from DER, 476' right of centerline, up to 196' MSL. Fence 132' from DER, 221' left of centerline, 8' AGL/188' MSL. Tree, fence, bush beginning 183' from DER, 202' left of centerline, up to 195' MSL. Fence, beginning 268' from DER, 176' right of centerline, up to 13' AGL/197' MSL. Obs light DME, NAVAIID, beginning 580' from DER, 258' right of centerline, up to 29' AGL/203' MSL. Tree 1022' from DER, 624' right of centerline, 256' MSL. Trees, beginning 1036' from DER, 448' right of centerline, up to 267' MSL.

## ATWATER, CA

CASTLE (MER)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/ min. climb of 250' per NM to 2500 or 2200-3 for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 13**, climb heading 126° to 2500 before turning left. For climb in visual conditions, cross Castle Airport at or above 2200 before proceeding on course. **Rwy 31**, climb heading 306° to 1100 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, tree 2539' from DER, 1005' right of centerline, 89' AGL/261' MSL. **Rwy 31**, tree 1274' from DER, 829' left of centerline, 20' AGL/224' MSL. Trees beginning 2909' from DER, 542' right of centerline, 65' AGL/269' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## AUBURN, CA

### AUBURN MUNI (AUN)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 300-1 w/ min. climb of 387' per NM to 2500, or 1100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn to 5000 heading 310°, and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course, or for climb in visual

conditions: cross Auburn Muni airport at or above 2500, continue climb to 5000 via heading 275° and MYV VOR/DME R-094 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course. **Rwy 25**, climbing right turn to 5000 via heading 310° and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 7**, trees beginning 1117' from DER, 504' right of centerline, up to 40' AGL/1708' MSL. Pole 1365' from DER, 600' right of centerline, 59' AGL/1679' MSL. Tree 3791' from DER, 700' right of centerline, 40' AGL/1639' MSL. **Rwy 25**, tree 37' from DER, 479' left of centerline, 40' AGL/1528' MSL. Tree 86' from DER, 461' right of centerline, 40' AGL/1532' MSL. Fence 301' from DER, 244' right of centerline, 8' AGL/1508' MSL. Trees beginning 660' from DER, 249' right of centerline, up to 40' AGL/1559' MSL.

## BEALE AFB (KBAB)

### MARYSVILLE, CA

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 2, 14149

DEPARTURE PROCEDURE: **Rwy 15**, Climb on a heading between 100° CW to 325° from DER.

**Rwy 33**, Climb on a heading between 146° CW to 344° from DER.

TAKEOFF OBSTACLE NOTES: **Rwy 33**, terrain 118' MSL, 62' from DER, 500' right of centerline. Terrain 118' MSL, 63' from DER, 517' right of centerline. Aircraft tail 16' AGL/134' MSL, 39' from DER, 533' right of centerline. Aircraft tail 16' AGL/134' MSL, 129' from DER, 525' right of centerline.

## BECKWOURTH, CA

### NERVINO (O02)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### ORIG-A 13290 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 8, 26**, for climb in visual conditions: cross Nervino Airport at or above 8300 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 8**, road 58' from DER, 469' right of centerline, 15' AGL/4920' MSL. Pole 310' from DER, 522' right of centerline, 49' AGL/4925' MSL. Pole 528' from DER, 522' right of centerline, 39' AGL/4924' MSL. Tree 1.47 NM from DER, 727' right of centerline, 100' AGL/5193' MSL. Tree 1.9 NM from DER, 2534' right of centerline, 100' AGL/5499' MSL. Bush 2.03 NM from DER, 2126' right of centerline, 4' AGL/5406' MSL. **Rwy 26**, tree 5856' from DER, 1984' right of centerline, 100' AGL/5339' MSL. Tree 1.25 NM from DER, 2439' right of centerline, 100' AGL/5420' MSL. Tree 2.07 NM from DER, 3302' left of centerline, 100' AGL/5570' MSL.

## BISHOP, CA

### BISHOP (BIH)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 4A 18088 (FAA)

TAKEOFF MINIMUMS: **Rwy 8, 12, 17**, 9000-3 for VCOA.

**Rwy 26**, std. w/ min. climb of 280' per NM to 10400', or 9000-3 for VCOA. **Rwys 30, 35**, std. w/ min. climb of 285' per NM to 10500', or 9000-3 for VCOA.

DEPARTURE PROCEDURE: **Rwys 26, 30**, climbing right turn on heading 360, thence... **Rwy 35**, climbing left turn on heading 290, thence...

...all aircraft intercept BIH R-322 to NIKOL INT/BIH 38.46 DME. Aircraft departing NIKOL on V244 westbound cross NIKOL at or above 13100; aircraft departing NIKOL on V381 southeast bound cross NIKOL at or above 13000; aircraft departing NIKOL on T298 westbound or T259 westbound cross NIKOL at or above 12200; all other aircraft cross NIKOL at or above 11000.

VCOA: **All runways**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Bishop airport at or above 13000' before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 26**, trees and bushes beginning 69' from DER, 150' right of centerline, up to 4197' MSL. Trees beginning 925' from DER, 32' left of centerline, up to 4167' MSL. **Rwy 35**, trees beginning 238' from DER, 31' left of centerline, up to 4146' MSL. Trees beginning 215' from DER, 146' right of centerline, up to 4146' MSL.

## BYRON, CA

### BYRON (C83)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 2 17229 (FAA)

TAKEOFF MINIMUMS: **Rwy 23**, NA - obstacles.

**Rwy 30**, 200-1½ or std. with a min. climb of 245' per NM to 300, or alternatively, with standard takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 1900' prior to DER.

DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn heading 010°, thence... **Rwy 12**, climbing left turn heading 360°, thence... **Rwy 30**, climbing right turn heading 065°, thence...

...on LIN VOR/DME R-227 to LIN VOR/DME before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 5**, bush 17' from DER, 67' right of centerline, 6' AGL/52' MSL. **Rwy 12**, multiple trees and bush beginning 240' from DER, 286' right of centerline, up to 39' AGL/76' MSL. **Rwy 30**, multiple poles, building, and terrain beginning 66' from DER, 228' left of centerline, up to 65' AGL/225' MSL. Multiple poles beginning 949' from DER, 28' right of centerline, up to 42' AGL/103' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)


**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

19227

**CHICO, CA****CHICO MUNI (CIC)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6A 13346 (FAA)

DEPARTURE PROCEDURE: **Rwy 13L/R**, climbing right turn to intercept CIC R-205, thence ... **Rwy 31L/R**, climbing left turn heading 140° to intercept CIC R-205. Thence ... all aircraft climb via CIC R-205 to JINGO INT. Aircraft departing JINGO INT 030° CW 345° climb on course. All others climb in JINGO INT holding pattern (hold SE, right turns, 320° inbound) to depart JINGO INT at or above 3800.

TAKEOFF OBSTACLE NOTES: **Rwy 13L**, terrain 298' from DER, 534' left of centerline, 216' MSL. Pole 957' from DER, 735' left of centerline, 35' AGL/232' MSL. Trees beginning 948' from DER, 559' left of centerline, up to 51' AGL/241' MSL. **Rwy 13R**, plane on tarmac 582' from DER, 647' left of centerline, up to 40' AGL/255' MSL. **Rwy 31L**, plane on tarmac 570' from DER, 647' right of centerline, up to 40' AGL/279' MSL. Tower 611' from DER, 349' right of centerline, 35' AGL/267' MSL. **Rwy 31R**, trees beginning 1124' from DER, right and left of centerline, up to 60' AGL/282' MSL.

**CLOVERDALE, CA****CLOVERDALE MUNI (O60)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 19087 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, NA - obstacles. **Rwy 14**, 700-3 w/ min. climb of 390' per NM to 1200 or standard w/ min. climb of 744' per NM to 1000, or 3600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, climb direct STS VOR/DME, thence . . . or climb in visual conditions to cross Cloverdale Muni airport at or above 3700 before proceeding on course .

... Climb in STS VOR/DME holding pattern, hold NW, right turn, 140° inbound, to cross STS VOR/DME at or above MEA/MCA for direction of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 14**, trees beginning 19' from DER, 23' right of centerline, up to 100' AGL/404' MSL. Trees beginning 1.6 NM from DER, 491' right of centerline, up to 100' AGL/959' MSL. Trees beginning 258' from DER, on centerline, up to 100' AGL/296' MSL. Trees beginning 21' from DER, 7' left of centerline, up to 100' AGL/442' MSL. Trees beginning 1.7 NM from DER, 34' left of centerline, up to 100' AGL/679' MSL. Buildings 1524' from DER, 110' right of centerline, up to 427' MSL. Buildings 4605' from DER, 532' left of centerline, up to 408' MSL.

**COLUMBIA, CA****COLUMBIA (O22)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 17257 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, NA - ATC.

DEPARTURE PROCEDURE: **Rwy 17**, use FICHU RNAV DEPARTURE.

**COLUSA, CA****COLUSA COUNTY (O08)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 300-1 or std. w/min. climb of 310' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 31**, climbing left turn direct ILA VORTAC before proceeding on course. **Rwy 13**, climbing right turn direct ILA VORTAC before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, fence 1' from DER, 234 right of centerline, 49' MSL. Tree 138' from DER, 346' left of centerline, 77' MSL. Bldg 255' from DER, 496' right of centerline, 62' MSL. Trees beginning 543' from DER, 146' right of centerline, up to 85' MSL. Bldg 1476' from DER, 428' left of centerline, 61' AGL/107' MSL. **Rwy 13**, tower 1396' from DER, 92' right of centerline, 55' AGL/105' MSL. Tower 4958' from DER, 1806' right of centerline, 190' AGL/240' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

## CONCORD, CA

### BUCHANAN FIELD (CCR)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 3 17173 (FAA)

TAKEOFF MINIMUMS: **Rwys 1L/R**, standard with minimum climb of 330' per NM to 1000 or 3700-3 for VCOA. **Rwy 14L/R**, standard with minimum climb of 420' per NM to 2700 or 3700-3 FOR VCOA. **Rwys 19L/R**, standard with minimum climb of 490' per NM to 3900 or 3700-3 for VCOA. **Rwys 32L/R**, standard with minimum climb of 330' per NM to 1000 or 3700-3 for VCOA.

DEPARTURE PROCEDURE: **Rwy 1L/R, 14L/R, 19L/R**, climbing left turn direct CCR VOR/DME, thence... **Rwy 32L/R**, climbing right turn direct CCR VOR/DME, thence... aircraft departing on CCR VOR/DME R-150 clockwise R-110, climb on course. **All others**, climb in CCR VOR/DME holding pattern (hold N, left turns, 191° inbound) to cross CCR VOR/DME at or above 3400 before proceeding on course.

VCOA: **All Rwys**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Buchanan Field airport at or above 3600 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 1L**, fence 116' from DER, 1' right of centerline, 29' MSL. Building 639' from DER, 381' right of centerline, 25' AGL/48' MSL. Vegetation 675' from DER, 96' left of centerline, 38' MSL. Tree and poles beginning 1261' from DER, 19' right of centerline, up to 78' MSL. Flagpole 1520' from DER, 753' left of centerline, 71' MSL. Tree, camera, and general utility beginning 1860' from DER, 48' right of centerline, up to 98' MSL. Pole 1906' from DER, 120' left of centerline, 51' AGL/72' MSL. Sign 1996' from DER, 812' left of centerline, 78' MSL. Tree 2392' from DER, 8' left of centerline, 83' MSL. **Rwy 1R**, pole 1551' from DER, 97' right of centerline, 43' AGL/67' MSL. Pole 1864' from DER, 357' right of centerline, 96' MSL. Tree 1927' from DER, 222' right of centerline, 131' MSL. Tree 2110' from DER, 981' right of centerline, 133' MSL. **Rwy 14L**, vehicles on road and fences beginning 82' from DER, 29' left of centerline, up to 40' MSL. Building and trees beginning 731' from DER, 191' left of centerline, up to 51' MSL. Trees and buildings beginning 840' from DER, 93' left of centerline, up to 77' MSL. Trees, poles, and buildings beginning 942' from DER, 13' left of centerline, up to 102' MSL. Trees, buildings, and poles beginning 1116' from DER, 10' right of centerline, up to 40' AGL/71' MSL. Tree 1465' from DER, 112' right of centerline, 73' MSL. Trees beginning 1496' from DER, 121' right of centerline, up to 84' MSL. Trees beginning 1648' from DER, 62' right of centerline, up to 91' MSL. Trees and building beginning 1750' from DER, 30' left of centerline, up to 105' MSL. Tree 2570' from DER, 93' right of centerline, 92' MSL. Buildings beginning 5413' from DER, 99' left of centerline, up to 177' MSL. Building 5456' from DER, 138' left of centerline, 146' AGL/179' MSL. **Rwy 14R**, windsock 411' from DER, 451' right of centerline, 31' AGL/51' MSL. Control tower 1140' from DER, 315' right of centerline, 61' AGL/84' MSL. Electrical system, tree, pole, and antenna beginning 1140' from DER, 167' right of centerline, up to 98' MSL. Tree 2744' from DER, 886' left of centerline, 102' MSL. Building 3149' from DER, 946' right of centerline, 92' AGL/125' MSL. Buildings beginning 3253' from DER, 846' right of centerline, up to 103' AGL/136' MSL. **Rwy 19L**, tree 2132' from DER, 376' left of centerline, 90' MSL. Tree 2257' from DER, 27' left of centerline, 97' MSL. Tree 2543' from DER, 384' right of centerline, 87' MSL. Tree 3111' from DER, 946' right of centerline, 106' MSL.

## CONCORD, CA (CON'T)

### BUCHANAN FIELD (CON'T)

**Rwy 19R**, terrain 43' from DER, 397' left of centerline, 25' MSL. Fence 123' from DER, 502' left of centerline, 30' MSL. Tree 603' from DER, 489' right of centerline, 44' MSL. Pole and trees beginning 844' from DER, 152' right of centerline, up to 94' MSL. Tree 1023' from DER, 81' left of centerline, 59' MSL. Pole and trees beginning 1201' from DER, 568' left of centerline, up to 77' MSL. Building and trees beginning 1275' from DER, 114' left of centerline, up to 97' MSL. Tree 2129' from DER, 447' right of centerline, 106' MSL. Tree 2755' from DER, 216' left of centerline, 108' MSL. **Rwy 32L**, building 7' from DER, 321' left of centerline, 18' AGL/35' MSL. Vehicles on road and hangar beginning 259' from DER, 300' left of centerline, up to 37' MSL. Vehicles on road beginning 560' from DER, 3' right of centerline, up to 34' MSL. Vehicles on road 627' from DER, 609' left of centerline, 38' MSL. Vehicles on road beginning 631' from DER, 63' left of centerline, up to 38' MSL. Building 633' from DER, 253' right of centerline, 17' AGL/35' MSL. Vehicles on road 699' from DER, 8' right of centerline, 38' MSL. Vehicles on road beginning 715' from DER, 37' right of centerline, up to 39' MSL. Vehicles on road beginning 720' from DER, 2' left of centerline, up to 39' MSL. Vehicles on road beginning 730' from DER, 137' right of centerline, up to 40' MSL. Vehicles on road beginning 751' from DER, 216' right of centerline, up to 41' MSL. Vehicles on road beginning 792' from DER, 493' right of centerline, up to 42' MSL. Vehicles on road beginning 798' from DER, on centerline, up to 42' MSL. Tree 824' from DER, 135' left of centerline, 40' MSL. Vehicles on road beginning 891' from DER, 488' right of centerline, up to 43' MSL. Vehicles on road 920' from DER, 642' right of centerline, 44' MSL. Transmission towers beginning 6014' from DER, 1332' left of centerline, up to 173' MSL. Tank 1 NM from DER, 1927' right of centerline, 213' MSL. Chimney 1.4 NM from DER, 2458' right of centerline, 355' AGL/378' MSL. Refinery 1.6 NM from DER, 2934' right of centerline, 308' AGL/322' MSL. **Rwy 32R**, terrain 81' from DER, 481' right of centerline, 21' MSL. Vehicles on road 559' from DER, 3' right of centerline, 34' MSL. Vehicles on road 585' from DER, 496' left of centerline, 34' MSL. Building 632' from DER, 246' left of centerline, 35' MSL. Building 653' from DER, 236' right of centerline, 41' MSL. Flagpole, signs, and vehicles on road beginning 654' from DER, 55' right of centerline, up to 21' AGL/43' MSL. Vehicles on road beginning 677' from DER, 491' left of centerline, up to 38' MSL. Vehicles on road beginning 714' from DER, 374' left of centerline, up to 39' MSL. Vehicles on road beginning 730' from DER, 243' left of centerline, up to 40' MSL. Vehicles on road and trees beginning 750' from DER, 6' left of centerline, up to 41' MSL. Vehicles on road beginning 820' from DER, 285' right of centerline, up to 45' MSL. Vehicles on road beginning 824' from DER, 234' right of centerline, up to 47' MSL. Vehicles on road 828' from DER, 624' right of centerline, 48' MSL. Vehicles on road beginning 829' from DER, on centerline, up to 50' MSL. Vehicles on road beginning 867' from DER, 43' left of centerline, up to 42' MSL. Vehicles on road 899' from DER, 11' left of centerline, 43' MSL. Vehicles on road beginning 932' from DER, 269' right of centerline, up to 52' MSL. Agricultural equipment 2109' from DER, 600' right of centerline, 78' AGL/99' MSL. Pole 3700' from DER, 1431' right of centerline, up to 40' AGL/150' MSL. Pole 4067' from DER, 1531' right of centerline, 43' AGL/161' MSL. Tank 4527' from DER, 1675' right of centerline, 57' AGL/170' MSL. Transmission tower 6013' from DER, 1840' left of centerline, 173' MSL. Tank 1 NM from DER, 1423' right of centerline, 126' AGL/213' MSL. Chimney 1.4 NM from DER, 1954' right of centerline, 355' AGL/378' MSL. Refinery 1.6 NM from DER, 2429' right of centerline, 308' AGL/322' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## CRESCENT CITY, CA

### JACK MC NAMARA FIELD (CEC)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 2A 19003 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 300-2¼ or std. w/min. climb of 254' per NM to 300, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 2200' prior to DER. **Rwy 18**, 300-1 or std. w/min. climb of 308' per NM to 400. **Rwy 36**, 300-1 or std. w/min. climb of 443' per NM to 300.

DEPARTURE PROCEDURE: **Rwys 12, 18**, climbing right turn, thence... **Rwys 30, 36**, climbing left turn, thence...  
...Climb direct CEC VORTAC. Aircraft departing CEC R-144 CW R-350 climb on course. All others continue climb in CEC VORTAC holding pattern (hold south, left turn, 346° inbound) to cross CEC VORTAC at or above:

R-351 CW R-048, 2900;

R-049 CW R-113, 4300;

R-114 CW R-143, 2900.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, terrain 7' from DER, 6' right of centerline, 54' MSL. Terrain 9' from DER, 15' left of centerline, 54' MSL. NAVAID and tree beginning 12' from DER, 117' left of centerline, up to 4' AGL/57' MSL. Tree 798' from DER, 378' left of centerline, 149' MSL. Trees beginning 828' from DER, 437' left of centerline, up to 151' MSL. Tree 1078' from DER, 390' right of centerline, 101' MSL. Trees beginning 1162' from DER, 75' left of centerline, up to 163' MSL. Trees beginning 1185' from DER, 156' right of centerline, up to 123' MSL. Tree and pole beginning 1332' from DER, 215' right of centerline, up to 149' MSL. Trees beginning 1458' from DER, 2' left of centerline, up to 169' MSL. Tree and pole beginning 1526' from DER, 93' right of centerline, up to 150' MSL. Trees beginning 1914' from DER, 83' right of centerline, up to 152' MSL. Trees beginning 2058' from DER, 155' right of centerline, up to 156' MSL. Trees beginning 2353' from DER, 182' right of centerline, up to 159' MSL. Trees beginning 2549' from DER, 604' right of centerline, up to 173' MSL. Trees beginning 2656' from DER, 108' right of centerline, up to 175' MSL. Trees beginning 2986' from DER, 73' right of centerline, up to 189' MSL. Tree 5151' from DER, 211' right of centerline, 216' MSL. Tree 5184' from DER, 47' left of centerline, 195' MSL. Antenna 1.8 NM from DER, 2439' left of centerline, 320' AGL/333' MSL. **Rwy 18**, terrain 27' from DER, 12' left of centerline, 52' MSL. Structure 35' from DER, 113' right of centerline, 7' AGL/57' MSL. Structure 35' from DER, 116' left of centerline, 4' AGL/54' MSL. Trees beginning 183' from DER, 384' right of centerline, up to 59' MSL. Vehicles on road 319' from DER, 570' left of centerline, 60' MSL. Tree 412' from DER, 166' left of centerline, 64' MSL. Trees beginning 445' from DER, 188' left of centerline, up to 66' MSL. Trees beginning 543' from DER, 411' left of centerline, up to 68' MSL. Terrain 4897' from DER, 1653' right of centerline, 202' MSL. Terrain 4973' from DER, 1722' right of centerline, 242' MSL. **Rwy 30**, NAVAID and terrain beginning 4' from DER, 5' right of centerline, up to 1' AGL/58' MSL. Trees beginning 29' from DER, 374' right of centerline, up to 65' MSL. Tree 153' from DER, 332' left of centerline, 65' MSL. Tree 164' from DER, 439' left of centerline, 73' MSL. **Rwy 36**, terrain six' from DER, 317' left of centerline, 77' MSL. Tree 104' from DER, 467' right of centerline, 77' MSL. Tree 143' from DER, 201' left of centerline, 84' MSL. Tree and vegetation beginning 185' from DER, 92' right of centerline, up to 86' MSL. Tree and vegetation beginning 405' from DER, 197' right of centerline, up to 97' MSL. Tree 663' from DER, 30' left of centerline, 86' MSL. Tree 762' from DER, 97' left of centerline, 94' MSL. Tree 791' from DER, 155' left of centerline, 96' MSL.

## CRESCENT CITY, CA (CON'T)

### JACK MC NAMARA FIELD (CEC) (CON'T)

**Rwy 36 (CON'T)**, tree 843' from DER, 227' left of centerline, 105' MSL. Trees beginning 981' from DER, 100' left of centerline, up to 117' MSL. Trees beginning 1081' from DER, 35' left of centerline, up to 135' MSL. Tree 1135' from DER, 226' right of centerline, 104' MSL. Tree 1273' from DER, 60' right of centerline, 111' MSL. Trees beginning 1352' from DER, 100' right of centerline, up to 112' MSL. Trees beginning 1550' from DER, 25' right of centerline, up to 129' MSL. Tree 1629' from DER, 425' left of centerline, 149' MSL. Trees beginning 1654' from DER, 473' left of centerline, up to 151' MSL. Trees beginning 1824' from DER, 192' left of centerline, up to 159' MSL. Trees beginning 1961' from DER, 78' left of centerline, up to 164' MSL. Trees beginning 2056' from DER, 978' right of centerline, up to 150' MSL. Tree 2322' from DER, 757' right of centerline, 155' MSL. Trees beginning 2322' from DER, 35' right of centerline, up to 176' MSL. Tree 2590' from DER, 908' right of centerline, 179' MSL. Tree 2591' from DER, 1044' right of centerline, 189' MSL. Trees beginning 2644' from DER, 367' right of centerline, up to 192' MSL. Trees beginning 2696' from DER, 70' right of centerline, up to 195' MSL. Trees beginning 2928' from DER, 135' left of centerline, up to 174' MSL. Trees beginning 2933' from DER, 37' right of centerline, up to 196' MSL. Trees beginning 3318' from DER, 75' left of centerline, up to 181' MSL. Trees beginning 3587' from DER, 132' left of centerline, up to 182' MSL.

## DAVIS, CA

### UNIVERSITY (EDU)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn via heading 200° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 35**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 17**, trees beginning 1353' from DER, 31' right of centerline, up to 40' AGL/109' MSL. **Rwy 35**, tree 24' from DER, 433' left of centerline, 40' AGL/104' MSL. Vehicle 288' from DER, on centerline, 15' AGL/74' MSL.

## DAVIS/WOODLAND/WINTERS, CA

### YOLO COUNTY (DWA)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 2 18200 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 164° to 2200 before turning right. **Rwy 34**, climb heading 344° to 1500 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, tree 462' from DER, 543' right of centerline, 139' MSL. Tree 733' from DER, 566' right of centerline, 147' MSL. Trees beginning 1182' from DER, 434' left of centerline, up to 195' MSL. Tree 2760' from DER, 217' right of centerline, 197' MSL. **Rwy 34**, tree 367' from DER, 574' right of centerline, 135' MSL. Tree, pole beginning 544' from DER, 473' left of centerline, up to 166' MSL. Tree 1010' from DER, 541' left of centerline, 206' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## EUREKA, CA

### MURRAY FIELD (EKA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. w/ min. climb of 465' per NM to 1800 or 3800-3 for climb in visual conditions.  
DEPARTURE PROCEDURE: **Rwy 12** climbing right turn heading 265° to intercept V27. For climb in visual conditions: cross Eureka airport at or above 3700 before proceeding on course. **Rwy 30**, climbing left turn heading 265° to intercept V27.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, bush 50' from DER, 82' left of centerline, 6' AGL/16' MSL. Multiple trees beginning 1.5 NM from DER, 2993' left of centerline. Multiple trees beginning 1.6 NM from DER, 2318' right of centerline. **Rwy 30**, multiple trees, beginning 443' from DER, 389' right of centerline, up to 93' AGL/103' MSL. Tree 664' from DER, 587' left of centerline, 46' AGL/56' MSL. Pole 753' from DER, 155' right of centerline 27' AGL/37' MSL. Railroad 786' from DER, 4' left of centerline 23' AGL/31' MSL. Road beginning 602' from DER, 4' left of centerline up to 15' AGL/23' MSL. Bush 566' from DER, 69' left of centerline, 8' AGL/18' MSL.

## FIREBAUGH, CA

### FIREBAUGH (F34)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn heading 134° to intercept the PXN VORTAC R-061 to MENDO INT. Aircraft departing MENDO INT heading 230° CW 150°, climb on course. All others, climb in MENDO INT holding pattern (hold NE, right turns, 241° inbound) to cross MENDO INT at or above 3000 before proceeding on course. **Rwy 30**, climbing left turn heading 180° to intercept PXN VORTAC R-061 to PXN VORTAC, continue climb in PXN VORTAC holding pattern (SW, right turns, 049° inbound) to cross PXN VORTAC at or above airway MEA/MCA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 30**, poles beginning 921' from DER, 525' left of centerline, up to 65' AGL/203' MSL. Elevator 1941' from DER, 739' right of centerline, 97' AGL/242' MSL.

## FORTUNA, CA

### ROHNERVILLE (FOT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 86296 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, NA.  
DEPARTURE PROCEDURE: Climb direct FOT VORTAC. Continue climb in holding pattern (hold N, right turns, 161° inbound) to cross FOT VORTAC at or above 3000.

## FRESNO, CA

### FRESNO CHANDLER EXECUTIVE (FCH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 111° to 2000 then climbing right turn to 6300 via heading 200° and CZQ VORTAC R-167 before proceeding on course.  
**Rwy 30**, climb heading 291° to 2000 then climbing left turn to 5500 via heading 140° and CZQ VORTAC R-167 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, multiple trees, poles, and terrain beginning 84' from DER, 16' left of centerline, up to 92' AGL/371' MSL. Multiple trees, poles, road, fence and terrain beginning 53' from DER, 94' right of centerline, up to 62' AGL/341' MSL. **Rwy 30**, multiple trees, poles, bushes and terrain beginning 125' from DER, 46' left of centerline, up to 111' AGL/389' MSL. Multiple poles, road, and fence beginning 236' from DER, 23' right of centerline, up to 42' AGL/320' MSL.

## FRESNO YOSEMITE INTL (FAT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 8B 17341(FAA)

DEPARTURE PROCEDURE: **Rwys 11L, 11R**, climbing left turn heading 292°, thence... **Rwys 29L, 29R**, climb heading 292°, thence...

...continue climb on heading 292° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME, continue Climb in hold (hold S, right turn, 022° Inbound) to cross NIVEE at or above 5000.

TAKEOFF OBSTACLE NOTES: **Rwy 11L**, sign 1693' from DER, 863' right of centerline, 51' AGL/383' MSL. Tree 1420' from DER, 667' right of centerline, 375' MSL. Terrain 128' from DER, 506' right of centerline, 338' MSL. Pole 1228' from DER, 664' right of centerline, 33' AGL/365' MSL. Terrain 175' from DER, 271' left of centerline, 338' MSL. Pole 648' from DER, 542' left of centerline, 16' AGL/349' MSL. Electrical system 1223' from DER, 662' right of centerline, 30' AGL/363' MSL. **Rwy 11R**, poles beginning 1205' from DER, 394' right of centerline, up to 54' AGL/384' MSL. Electrical system 1598' from DER, 294' right of centerline, 57' AGL/386' MSL. Tower 664' from DER, 274' left of centerline, 34' AGL/362' MSL. Poles beginning 1598' from DER, 263' right of centerline, up to 55' AGL/385' MSL. Pole 329' from DER, 279' left of centerline, 21' AGL/349' MSL. **Rwy 29L**, trees beginning 998' from DER, 14' left of centerline, up to 396' MSL. Trees beginning 1659' from DER, 81' right of centerline, up to 379' MSL. Pole 1638' from DER, 427' right of centerline, 42' AGL/375' MSL. Pole 998' from DER, 620' left of centerline, 47' AGL/377' MSL. **Rwy 29R**, poles beginning 993' from DER, 547' right of centerline, up to 32' AGL/365' MSL. Tree 2315' from DER, 874' left of centerline, 395' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## GRASS VALLEY, CA

NEVADA COUNTY (GOO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 18088 (FAA)

TAKEOFF MINIMUMS: **Rwy 7, NA.**

DEPARTURE PROCEDURE: **Rwy 25**, climb via MYV R-058 to 6000 then continue climb on course.

TAKEOFF OBSTACLE NOTES: **Rwy 25**, multiple trees and bushes beginning 40' from DER, 78' right of centerline, up to 3087' MSL. Trees beginning 68' from DER, 312' left of centerline, up to 3137' MSL. Trees beginning 593' from DER, 149' right of centerline, up to 3088' MSL. Tree 648' from DER, 176' right of centerline, 3093' MSL. Trees beginning 698' from DER, 175' right of centerline, up to 3094' MSL. Tree 748' from DER, 138' right of centerline, 3096' MSL. Tree 773' from DER, 167' right of centerline, 3102' MSL.

## GROVELAND, CA

PINE MOUNTAIN LAKE (E45)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, 600-2¾ or std. w/min. climb of 400' per NM to 4000.

DEPARTURE PROCEDURE: **Rwy 9**, turn right. **Rwy 27**, turn left. **All aircraft** climb direct LIN VOR/DME. Cross LIN VOR/DME at or above 5000.

## HALF MOON BAY, CA

HALF MOON BAY (HAF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 16259 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 2600-2 or std. with a min. climb of 306' per NM to 3400. **Rwy 30, NA.**

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 3000, then climb direct OSI VOR/DME, to cross OSI VOR/DME at or above 3500 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, tree 2556' from DER, 212' left of centerline, 90' AGL/104' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 14289 (FAA)

**Rwy 12**, heading as assigned by ATC.

## HANFORD, CA

HANFORD MUNI (HJO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 16259 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climbing left turn heading 050° to intercept V-23. **Rwy 32**, climbing right turn heading 050° to intercept V-23.

TAKEOFF OBSTACLE NOTES: **Rwy 14**: fence 9' from DER, 298' left of centerline, 244' MSL. Catenary 1293' from DER, 1293' left of centerline, 39' AGL/287' MSL. Poles beginning 1679' from DER, crossing centerline, up to 52' AGL/296' MSL. Trees beginning 2224' from DER, 391' left of centerline up to 313' MSL. **Rwy 32**: fence 168' from DER, 9' left of centerline, 245' MSL. Pole 588' from DER, 588' left of centerline, 25' AGL/278' MSL. Sign 614' from DER, 151' right of centerline, 9' AGL/261' MSL. Trees and poles beginning 592' from DER, 3' left of centerline, up to 300' MSL. Poles beginning 1127' from DER, 222' right of centerline, up to 40' AGL/293' MSL. Tree 2159' from DER, 434' right of centerline, 299' MSL.

## HAYWARD, CA

HAYWARD EXECUTIVE (HWD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11013 (FAA)

DEPARTURE PROCEDURE: **Rwys 10L, 10R**, Climbing right turn direct OSI VORTAC. **Rwys 28L, 28R**, Climbing left turn direct OSI VORTAC.

TAKEOFF OBSTACLE NOTES: **Rwy 10L**, hangars, trees and buildings beginning 625' from DER, 67' left of centerline, up to 100' AGL/155' MSL. Trees beginning 2050' from DER, 1' right of centerline, up to 60' AGL/107' MSL. **Rwy 10R**, trees, poles, and buildings beginning 21' from DER, 61' left of centerline, up to 100' AGL/155' MSL. Windsock, blast fence, trees, buildings and pole beginning 23' from DER, 38' right of centerline, up to 74' AGL/119' MSL. **Rwy 28L**, trees beginning 899' from DER, 141' left of centerline, up to 93' AGL/108' MSL. Antennas, road, and trees beginning 108' from DER, 68' right of centerline, up to 87' AGL/102' MSL. **Rwy 28R**, antenna and trees beginning 728' from DER, 28' left of centerline, up to 87' AGL/102' MSL. Trees beginning 391' from DER, 4' right of centerline, up to 95' AGL/125' MSL.

HAYWARD EXECUTIVE (HWD)

DIVERSE VECTOR AREA (RADAR VECTORS)  
AMDT 1 16007 (FAA)

**Rwy 10L/R**, Heading as assigned by ATC. **Rwy 28L/R**, Heading as assigned by ATC; requires minimum climb of 310' per NM to 4600.

## HOLLISTER, CA

HOLLISTER MUNI (CVH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 08157 (FAA)

TAKEOFF MINIMUMS: **Rwy 6, NA**-obstacles. **Rwy 24, NA**-ATC. **Rwy 13**, std. w/ min. climb of 391' per NM to 3500, or 3100-3 for climb in visual conditions. **Rwy 31**, std. w/ min climb of 209' per NM to 2300, or 3100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn to heading 332° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course. **Rwy 31**, climb heading 307° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, terrain beginning 992' from DER, 348' left of centerline, up to 289' MSL. Terrain beginning 2467' from DER, 154' right of centerline, up to 309' MSL, trees beginning 1277' from departure end of runway, 348' left of centerline, up to 309' MSL, trees beginning 2467' from DER, 153' right of centerline, up to 270' MSL. **Rwy 31**, terrain beginning 76' from DER, 392' left of centerline, up to 247' MSL. Terrain beginning 14' from DER, 179' right of centerline, up to 231' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## JACKSON, CA

WESTOVER FIELD AMADOR COUNTY (JAQ)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 16315 (FAA)  
DEPARTURE PROCEDURE: **Rwy 1**, turn left. **Rwy 19**,  
turn right. **All aircraft** climb direct LIN VOR/DME, continue  
climb on course.

## LAKEPORT, CA

LAMPSON FIELD (102)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10098 (FAA)  
TAKEOFF MINIMUMS: **Rwy 10**, std. with a min. climb of  
400' per NM to 4500, do not exceed 210 Knots until  
intercepting the ENI R-073 or 3200-3 for climb in visual  
conditions. **Rwy 28**, NA-Rapidly rising terrain.  
DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn to  
6000 via heading 310° and ENI R-073 to ENI VORTAC  
before proceeding on course, or for climb in visual  
conditions: cross Lampson Field at or above 4400 MSL  
before proceeding on course.  
TAKEOFF OBSTACLE NOTES: **Rwy 10**, vehicle on road  
347' from DER, 7' right of centerline, 15' AGL/1394' MSL.  
Trees beginning 280' from DER, 201' left of centerline, up  
to 100' AGL/1479' MSL. Trees beginning 494' from DER,  
219' right of centerline, up to 100' AGL/1479' MSL.

## LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
07270  
**Rwy 14L**, Cross DER at or above 15' AGL/235' MSL.  
**Rwy 14R**, Cross DER at or above 15' AGL/245' MSL.  
**Rwy 32L**, Cross DER at or above 15' AGL/234' MSL,  
Departure headings 142° CW 283°, minimum  
military climb 220 ft/NM to 6400, minimum civil  
climb 220 ft/NM to 6600.  
**Rwy 32R**, Cross DER at or above 15' AGL/239' MSL,  
Departure headings 142° CW 281° minimum military  
climb 220 ft/NM to 6400, minimum civil climb  
220 ft/NM to 6600.

## LINCOLN, CA

LINCOLN RGNL/KARL HARDER FIELD (LHM)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 95201 (FAA)  
DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn.  
**Rwy 33**, climbing left turn. **All aircraft** climb direct MYV  
VOR/DME, then climb on course.

DIVERSE VECTOR AREA (RADAR VECTORS)  
ORIG 15036 (FAA)  
**Rwys 15,33**, headings as assigned by ATC.

## LITTLE RIVER, CA

LITTLE RIVER (LLR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 10154 (FAA)  
DEPARTURE PROCEDURE: Use LITTLE RIVER  
DEPARTURE.

## LIVERMORE, CA

LIVERMORE MUNI (LVK)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 17173 (FAA)  
DEPARTURE PROCEDURE: Use LIVERMORE  
DEPARTURE.

DIVERSE VECTOR AREA (RADAR VECTORS)  
ORIG 15092 (FAA)

**Rwys 7L, 7R, 25L, 25R**, heading as assigned by ATC;  
requires minimum climb of 375' per NM to 5000.

## LODI, CA

LODI (103)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 16315 (FAA)  
TAKEOFF MINIMUMS: **Rwys 12, 30**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 8**, climb heading 076°  
to 600 then climbing right turn on LIN R-290 to LIN VOR/  
DME, thence... **Rwy 26**, climb heading 256° to 800  
climbing right turn on heading 080° to intercept LIN R-290  
to LIN VOR/DME, thence... ..continue climb in hold  
(hold Southeast, right turns, 326° inbound) to MCA or  
MEA for route of flight.  
TAKEOFF OBSTACLE NOTES: **Rwy 8**, hangars, buildings,  
and vehicles on roadways beginning at DER, left and right  
of centerline, up to 25' AGL/84' MSL. Power lines  
beginning at 4.9 NM from DER, left and right of centerline,  
up to 160' AGL/220' MSL. **Rwy 26**, vehicles on roadway  
beginning 7' from DER, 265' right of centerline, up to 15'  
AGL/69' MSL. Trees beginning 15' from DER, left and  
right of centerline, up to 100' AGL/154' MSL. Power lines  
beginning at 4.6 NM from DER, left and right of centerline,  
up to 160' AGL/220' MSL.

## LOS BANOS, CA

LOS BANOS MUNI (LSN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 09351 (FAA)  
DEPARTURE PROCEDURE: **Rwy 14**, climb on a heading  
between 318° CW to 151° from DER, or minimum climb of  
320' per NM to 5100 for all other courses. **Rwy 32**, climb  
on a heading between 260° CW to 137° from DER, or  
minimum climb of 273' per NM to 5200 for all other  
courses.  
TAKEOFF OBSTACLE NOTES: **Rwy 14**, multiple trees,  
poles, buildings beginning 3' from DER, 24' left of  
centerline, up to 73' AGL/194' MSL. Multiple trees, poles,  
buildings beginning 20' from DER, 21' right of centerline,  
up to 85' AGL/206' MSL. **Rwy 32**, multiple trees  
beginning 220' from DER, 453' right of centerline, up to 40'  
AGL/160' MSL. Multiple poles, beginning 1120' from DER,  
173' left of centerline, up to 60' AGL/181' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## MADERA, CA

MADERA MUNI (MAE)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 8, 26**, NA-Environmental.

DEPARTURE PROCEDURE: **Rwy 12**, climbing left turn heading 334° and FRA R-243 to BEREN INT/FRA 18.6 DME before proceeding on course. **Rwy 30**, climbing right turn to intercept FRA R-243 to BEREN INT/FRA 18.6 DME before proceeding on course.

## MAMMOTH LAKES, CA

MAMMOTH YOSEMITE (MMH)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 15064 (FAA)

DEPARTURE PROCEDURE: Use NIKOL DEPARTURE.

## MARINA, CA

MARINA MUNI (OAR)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 10042 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, std. with a min. climb of 307' per NM to 4500, or 2000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading 108° and SNS VORTAC R-252 to SNS VORTAC, thence... or for climb in visual conditions: cross Marina Muni Airport at or above 2100, then proceed on SNS VORTAC R-261 to SNS VORTAC, thence... **Rwy 29**, climb via heading 288° to 1200', then climbing right turn direct SNS VORTAC, thence...

All aircraft continue climb in SNS holding pattern (West, left turns, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for direction of flight before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 11**, windsock 32' from DER, 386' left of centerline, 8' AGL/148' MSL. **Rwy 29**, bush 158' from DER, 272' right of centerline, 10' AGL/142' MSL.

## MARIPOSA, CA

MARIPOSA-YOSEMITE (MPI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 05020 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, N/A-Obstacles

DEPARTURE PROCEDURE: **Rwy 26**, climb via heading 265° to 3000, then climbing left turn to 7000 direct FRA VORTAC before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 26**, tree 10' from DER, 313' left of centerline, 100' AGL/2265' MSL. Tree 1146' from DER, 303' left of centerline, 100' AGL/2298' MSL.

## MARYSVILLE, CA

YUBA COUNTY (MYV)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1A 13178 (FAA)

DEPARTURE PROCEDURE: All runways, climb direct ILA VORTAC.

TAKEOFF OBSTACLE NOTES: **Rwy 5**, tree 750' from DER, 239' right of centerline, 44' AGL/109' MSL. Tower 986' from DER, 258' left of centerline, 46' AGL/108' MSL. Tree 1737' from DER, 191' left of centerline, 70' AGL/134' MSL. Tree 2792' from DER, 607' left of centerline, 81' AGL/145' MSL. **Rwy 23**, railroad 822' from DER, 1' right of centerline, 23' AGL/85' MSL. Building 903' from DER, 387' right of centerline, 29' AGL/89' MSL. **Rwy 32**, pole 1040' from DER, 717' left of centerline, 32' AGL/94' MSL. Tree 2487' from DER, 586' left of centerline, 75' AGL/134' MSL. Tree 3135' from DER, 672' right of centerline, 93' AGL/157' MSL.

## MERCED, CA

MERCED RGNL/MACREADY FIELD (MCE)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 5B 15344 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn to 3000 via heading 330° and MOD R-120 to MOD. **Rwy 30**, climb to 3000 via heading 300° and MOD R-120 to MOD.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, tree 1321' from DER, 785' left of centerline, 50' AGL/190' MSL. **Rwy 30**, bush 183' from DER, 490' right of centerline, 20' AGL/161' MSL. Bush 486' from DER, 604' left of centerline, 20' AGL/170' MSL. Tree 2457' from DER, 263' left of centerline, 50' AGL/220' MSL.

## MODESTO, CA

MODESTO CITY-COUNTY HARRY SHAM  
FIELD (MOD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 5A 13010 (FAA)

DEPARTURE PROCEDURE: **Rwys 28L, 28R**, climb on a heading between 256° CW to 109° from DER, or minimum climb of 230' per NM to 5000 for all other courses.

TAKEOFF OBSTACLE NOTES: **Rwy 10R**, trees beginning 169' from DER, 37' right of centerline, up to 91' AGL/195' MSL. Sign 57' from DER, 211' right of centerline, 15' AGL/89' MSL. Sign 16' from DER, 135' left of centerline, 4' AGL/87' MSL. Trees beginning 823' from DER, 79' left of centerline, up to 89' AGL/148' MSL. **Rwy 10L**, trees beginning 15' from DER, 65' right of centerline, up to 68' AGL/172' MSL. Vehicles on road beginning 178' from DER, 17' left of centerline, up to 15' AGL/96' MSL. Trees beginning 1413' from DER, 184' left of centerline, up to 63' AGL/126' MSL. **Rwy 28R**, vehicles on road beginning 47' from DER, 332' right of centerline, up to 15' AGL/114' MSL. Pole 754' from DER, 699' right of centerline, 34' AGL/133' MSL. Building 979' from DER, 697' right of centerline, 29' AGL/128' MSL. Tree 1390' from DER, 516' right of centerline, 37' AGL/136' MSL. Trees beginning 2077' from DER, 379' left of centerline, up to 79' AGL/173' MSL. **Rwy 28L**, multiple poles, trees, and buildings beginning 128' from DER, 34' left of centerline, up to 102' AGL/196' MSL. Vehicles on road beginning 448' from DER, 219' left of centerline, up to 15' AGL/112' MSL. Multiple poles and building beginning 1021' from DER, 350' right of centerline, up to 57' AGL/154' MSL. Trees beginning 1112' from DER, 20' right of centerline, up to 70' AGL/164' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## MONTAGUE, CA

### SISKIYOU COUNTY (SIY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2A 14009 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, CAT A,B 2400-2 or std. with a min. climb of 350' per NM to 5500. CAT C,D 4100-2 or std. with a min. climb of 350' per NM to 7400. **Rwy 35**, 4000-2 or std. with a min. climb of 300' per NM to 7000.

DEPARTURE PROCEDURE: **Rwy 17**, climb direct MOG NDB. Continue climb to 10000 in MOG holding pattern (hold N, right turns, 176° inbound). **Rwy 35**, climb to 7000 via runway heading and 356° bearing from MOG NDB, then climbing right turn to 10000 direct MOG NDB. All aircraft depart MOG NDB at or above MEA for route of flight.

## MONTEREY, CA

### MONTEREY RGNL (MRY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 8 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 10L**, std. w/min. climb of 449' per NM to 1800, or 1700-2½ for climb in visual conditions.

**Rwy 10R**, std. w/min. climb of 459' per NM to 1800, or 1700-2½ for climb in visual conditions. **Rwy 28L**, std. w/min. climb of 218' per NM to 3300, or 1700-2½ for climb in visual conditions. **Rwy 28R**, std. w/min. climb of 205' per NM to 3300, or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10L**, climbing left turn heading 045.00 and SNS VORTAC R-225 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight. **Rwy 10R**, climbing left turn heading 045° and SNS VORTAC R-225 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

**Rwy 28L**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight. **Rwy 28R**, climbing right turn heading 045.00 and SNS VORTAC R-260 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

VCOA: Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Monterey RGNL at or above 1800, then on SNS VORTAC R-231 to SNS VORTAC. Climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 10L**, NAVAID 556' from DER, 217' right of centerline, 20' AGL/272' MSL. Bushes beginning 1.6 NM from DER, 1188' left of centerline up to 9' AGL/729' MSL. Trees beginning 1.7 NM from DER, 923' left of centerline up to 102' AGL/764' MSL. Trees beginning 1.6 NM from DER, 1993' right of centerline up to 90' AGL/923' MSL. Bushes beginning 1.9 NM from DER, 2497' right of centerline up to 9' AGL/781' MSL. Tower 2 NM from DER 3305' left of centerline, 27' AGL/767' MSL. **Rwy 10R**, ground 11' from DER, 358' left of centerline 258' MSL. Tree 230' from DER 388' left of centerline 21' AGL/265' MSL. NAVAID 240' from DER, 282' left of centerline, 20' AGL/272' MSL. Bushes beginning 1.5 NM from DER, 2381' left of centerline, up to 9' AGL/648' MSL. Trees beginning 1.7 NM from DER, 388' left of centerline up to 76' AGL/629' MSL. Bushes beginning 1.8 NM from DER, 2005' right of centerline up to 9' AGL/741' MSL.

## MONTEREY, CA (CON'T)

### MONTEREY RGNL (MRY) (CON'T)

**Rwy 10R (CON'T)**, trees beginning 1.5 NM from DER, 1749' right of centerline up to 90' AGL/843' MSL. **Rwy 28L**, terrain abeam DER, 198' left of centerline, up to 163' MSL. Trees beginning 797' from DER, 608' left of centerline, up to 83' AGL/228' MSL. Tree 1008' from DER, 616' left of centerline, 100' AGL/195' MSL. Pole 1128' from DER, 716' left of centerline, 54' AGL/195' MSL. Tree 1372' from DER, 755' left of centerline, 93' AGL/227' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16175 (FAA)

**Rwy 10L**, heading as assigned by ATC; requires minimum climb of 360' per NM to 2900. **Rwy 10R**, heading as assigned by ATC; requires minimum climb of 370' per NM to 2800. **Rwy 28L**, heading as assigned by ATC; requires minimum climb of 310' per NM to 1100.

**Rwy 28R**, heading as assigned by ATC; requires minimum climb of 250' per NM to 1100.

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## MOUNTAIN VIEW, CA

MOFFETT FEDERAL AFLD (NUQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 12292 (FAA)

TAKEOFF MINIMUMS: **Rwys 14L, 14R**, std. w/ min. climb of 550' per NM to 4000 or 1700-2½ for climb in visual conditions. **Rwys 32L, 32R**, std. w/ min. climb of 285' per NM to 3500 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 14L, 14R**, climbing right turn direct OSI VORTAC, thence...

...or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

**Rwys 32L, 32R**, climb heading 322° to 700, then climbing left turn heading 230° until receiving OSI VORTAC, then direct OSI VORTAC, thence...

...or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

...continue climb in OSI VORTAC holding pattern (hold southeast, left turns, 321° inbound) to cross OSI VORTAC at or above MEA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 32R**, light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/7' MSL. Vehicles on road beginning 5' from DER, 92' left of centerline, up to 15' AGL/20' MSL.

Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/20' MSL. Fence 134' from DER, left and right of centerline, up to 8' AGL/12' MSL. **Rwy 32L**, light support structures abeam DER, 76' left and 76' right of centerline, up to 1' AGL/5' MSL. Navaid 449' from DER, 315' right of centerline, up to 17' AGL/21' MSL. Tree 1632' from DER, 934' left of centerline, up to 100' AGL/129' MSL. **Rwy 14L**, light support structure 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL. Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL. Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/60' MSL.

Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL. Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/153' MSL. **Rwy 14R**, light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/37' MSL. Fence, 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL. Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/55' MSL. Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL. Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.

## NAPA, CA

NAPA COUNTY (APC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 10154 (FAA)

DEPARTURE PROCEDURE: Use NAPAA DEPARTURE.

## NOVATO, CA

GNOSS FIELD (DVO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 13122 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 400-2¼ or std. w/ min. climb of 580' per NM to 500. **Rwy 31**, 600-2½ w/ min. climb of 285' per NM to 1500 or std. w/ min. climb of 679' per NM to 800 or 2000-2½ for climb in visual conditions...

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 132° to 600 then turn left direct SGD VORTAC before proceeding on course. **Rwy 31**, climbing right turn direct SGD VORTAC before proceeding on course

... For climb in visual conditions, cross GnoSS Field at or above 1900' MSL then proceed direct SGD VORTAC before proceeding on course. When executing VCOA, notify ATC prior to departure.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 2633' from DER, 627' left of centerline, up to 50' AGL/346' MSL. Trees beginning 3630' from DER, 1274' right of centerline, up to 50' AGL/369' MSL. Power line 1.7 NM from DER, 1980' left of centerline, 121' AGL/360' MSL.

**Rwy 31**, trees beginning 3237' from DER, 321' left of centerline, up to 50' AGL/569' MSL.

## OAKDALE, CA

OAKDALE (O27)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn via heading 020° and LIN VOR/DME R-124 to WRAPS INT/ LIN 16.66 DME. Climb in WRAPS holding pattern (Northwest, right turn, 124° inbound) to cross WRAPS INT at or above MEA for direction of flight. **Rwy 28**, climb via heading 276° and LIN VOR/DME R-146 to LIN VOR/DME to cross LIN VOR/DME at or above MEA for direction of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 10**, terrain beginning 388' from DER, up to 279' MSL. **Rwy 28**, power line 3447' from DER, 407' right of centerline, 115' AGL/329' MSL.

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## OAKLAND, CA

### METROPOLITAN OAKLAND INTL (OAK) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 13290 (FAA)

DEPARTURE PROCEDURE: **Rwys 10L, 10R, 12, 15, 30**,  
climbing right turn to intercept V107-301, thence ...**Rwys 28L, 28R**, climb heading 278° to intercept V107-301, thence ...**Rwy 33**, climbing left turn to intercept V107-301, thence...

... to cross COMMO INT at or above 4000, continue climb-in-hold (hold E, right turns, 288° inbound) to 4000 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 10L**, building, hanger and road beginning 225' from DER, 554' left of centerline, up to 37' AGL/42' MSL. Trees beginning 1644' from DER, 309' left of centerline, up to 59' AGL/67' MSL. **Rwy 10R**, Runway lights 9' from DER, 26' left and right of centerline, 1' AGL/9' MSL. Sign 63' from DER, 251' left of centerline, 4' AGL/10' MSL. Signs, fence and poles beginning 361' from DER, 540' right of centerline up to 35' AGL/44' MSL. Signs and trees beginning 1160' from DER, 177' right of centerline, up to 36' AGL/50' MSL. **Rwy 12**, Runway end and ALS lights beginning 11' from DER, 9' left and right of centerline, 1' AGL/10' MSL. **Rwy 15**, ATCT 3613' from DER, 1017' left of centerline, 88' AGL/101' MSL. Obstruction light on WSK 813' from DER, 577' right of centerline, 24' AGL/27' MSL. **Rwy 28L**, rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL. Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL. Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL. Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL. Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL. Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL. **Rwy 28R**, multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL. Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL. **Rwy 30**, light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL. **Rwy 33**, multiple trees, buildings and poles beginning 256' from DER, 497' left of centerline, up to 41' AGL/45' MSL. Multiple trees, buildings, poles and towers beginning 762' from DER, 267' right of centerline, up to 39' AGL/51' MSL.

### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 14289 (FAA)

**Rwy 10L**, headings as assigned by ATC; requires minimum climb of 340' per NM to 2300. **Rwy 10R**, headings as assigned by ATC; requires minimum climb of 330' per NM to 2300. **Rwys 12, 15**, headings as assigned by ATC. **Rwys 28L, 28R, 30**, headings as assigned by ATC; requires minimum climb of 240' per NM to 2400. **Rwy 33**, headings as assigned by ATC; requires minimum climb of 210' per NM to 2400.

## ORLAND, CA

### HAIGH FIELD (O37)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 94286 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn.

**Rwy 33**, climbing right turn. All aircraft climb via CIC R -238 to GONGS Int. Aircraft departing GONGS Int. 070° CW 240° or 290° CW 360° climb on course. All others climb in GONGS holding pattern (NE, right turns, 238° inbound) to depart GONGS Int at or above: 001° CW 069°, 3200; 241° CW 289°, 2300.

## OROVILLE, CA

### OROVILLE MUNI (OVE)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 17173 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. w/ min. climb of 280' per NM to 1500, or 1000-2½ for VCOA. **Rwy 31**, 300-1½ or std. w/ min. climb of 245' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 2, 31**, climbing left turn to 5000 on heading 200° direct ILA VORTAC before proceeding on course. **Rwy 13, 20**, climbing right turn to 5000 on heading 210° direct ILA VORTAC before proceeding on course.

VCOA:

TAKEOFF OBSTACLE NOTES: **Rwy 02**, ground 170' from DER, 475' right of centerline, 189' MSL. Ground 191' from DER, 489' right of centerline, 190' MSL. Tree 511' from DER, 600' left of centerline, 231' MSL. Tree 513' from DER, 603' left of centerline, 236' MSL. NAVAID 1143' from DER, 348' right of centerline, 215' MSL. Pole 1364' from DER, 740' right of centerline, 255' MSL. Poles beginning 1365' from DER, 537' right of centerline, up to 256' MSL. **Rwy 13**, poles beginning 128' from DER, 292' right of centerline, up to 29' AGL/203' MSL. Vertical structure 177' from DER, 493' left of centerline, 184' MSL. Vehicles on road 210' from DER, 515' left of centerline, 189' MSL. Tree 312' from DER, 554' left of centerline, 205' MSL. **Rwy 20**, vehicles on road 819' from DER, 376' left of centerline, 203' MSL. Poles beginning 902' from DER, 655' right of centerline, up to 36' AGL/217' MSL. **Rwy 31**, sign 32' from DER, 325' left of centerline, 195' MSL. Ground beginning 109' from DER, 410' right of centerline, up to 200' MSL. Trees beginning 641' from DER, 621' left of centerline, up to 244' MSL. Tree 1380' from DER, 466' left of centerline, 264' MSL. T-L tower 1.3 NM from DER, 1826' right of centerline, 144' AGL/444' MSL.

## PALO ALTO, CA

### PALO ALTO (PAO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-B 15288 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, turn left.

**Rwy 31**, turn right. All aircraft climb direct SJC VOR/ DME before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, building with ship mast 1325' from DER, 450' left of centerline, 60' AGL/67' MSL.

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## PETALUMA, CA

### PETALUMA MUNI (O69)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 14317 (FAA)

TAKEOFF PROCEDURES: **Rwy 11**, std. w/min. climb of 235' per NM to 1500. **Rwy 29**, 300-1¼ or std. w/min. climb of 276' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading 108° to 1500 then continue climb direct SGD VORTAC. **Rwy 29**, climb heading 289° to 1500 then climbing left turn to 3000 direct SGD VORTAC. All aircraft continue climb to MEA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 11**, tree 1095' from DER, 779' right of centerline, 55' AGL/116' MSL. Sign 69' from DER, 141' right of centerline, 9' AGL/80' MSL.

Vertical structure 8' from DER, 248' left of centerline, 10' AGL/81' MSL. Trees 172' from DER, beginning 399' left of centerline, up to 46' AGL/117' MSL. Trees 40' from DER, beginning 465' left of centerline, up to 40' AGL/111' MSL. **Rwy 29**, trees 1091' from DER, beginning 151' right of centerline, up to 91' AGL/172' MSL. Vertical structure 194' from DER, 248' right of centerline, up to 19' AGL/98' MSL. Trees 121' from DER, beginning 282' right of centerline, up to 51' AGL/132' MSL. Trees and buildings 88' from DER, beginning 292' left of centerline, up to 40' AGL/121' MSL. Trees 1363' from DER, 462' left of centerline, up to 96' AGL/177' MSL. Pole 1262' from DER, 90' left of centerline, 41' MSL/ 122' AGL. Poles 2508' from DER, beginning 87' left of centerline, up to 94' AGL/175' MSL.

## PLACERVILLE, CA

### PLACERVILLE (PVF)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 12320 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 23**, climb to 5000 on HNW R-226 then climbing right turn on HNW R-276 to HNW VOR/DME. Aircraft departing HNW VOR/DME R-180 CW R-303 climb on course; all others climb in HNW VOR/DME holding pattern (hold SW, right turns, 048° inbound) to cross HNW VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 23**, hangar 20' from DER, 340' right of centerline, 27' AGL/2586' MSL.

## PORTERVILLE, CA

### PORTERVILLE MUNI (PTV)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2A 18340 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. w/min. climb of 220' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn thence... **Rwy 30**, climbing left turn thence...  
...climb direct TTE VOR/DME. Aircraft departing TTE VOR/DME R-146 CW R-330 climb on course. All other aircraft climb in TTE VOR/DME holding pattern (hold northwest, right turn, 143° inbound) to cross TTE R-331 CW R-060, 8600; R-061 CW R-145, 7000.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, tree 618' from DER, 241' right of centerline, 460' MSL. Trees beginning 776' from DER, 193' left of centerline, up to 467' MSL. Pole 906' from DER, 588' left of centerline, 43' AGL/491' MSL. **Rwy 30**, fence 176' from DER, 499' right of centerline, 6' AGL/436' MSL.

## RED BLUFF, CA

### RED BLUFF MUNI (RBL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 11041 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climb direct RBL VORTAC, thence... **Rwy 33**, climbing right turn direct RBL VORTAC, thence... continue climb in RBL holding pattern (S, right turns, 341° inbound) to cross RBL VORTAC at or above MEA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 15**, WSK 5' from DER, 258' right of centerline, 18' AGL/361' MSL. Tree 2065' from DER, 879' left of centerline, 100' AGL/449' MSL. **Rwy 33**, trees beginning 468' from DER, 563' left of centerline, up to 54' AGL/387' MSL. Trees beginning 587' from DER, 493' right of centerline, up to 73' AGL/393' MSL.

## REDDING, CA

### REDDING MUNI (RDD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 5B 17005 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb on heading 122° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwy 16**, climbing left turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwy 30, 34**, climbing right turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, bush 86' from DER, 388' left of centerline, 500' MSL. Fence 281' from DER, 330' left of centerline, 19' AGL/500' MSL. Trees beginning 462' from DER, 327' left of centerline, up to 541' MSL. Trees 1112' from DER, 209' left of centerline, up to 568' MSL. Transmission line towers, 1732' from DER, 677' left of centerline, up to 60' AGL/543' MSL. Trees beginning 1929' from DER, 285' left of centerline, up to 570' MSL.

**Rwy 30**, pole and bldg, beginning 289' from DER, 385' left of centerline, up to 30' AGL/529' MSL. Pole 474' from DER, 442' left of centerline, 34' AGL/534' MSL. Pole 850' from DER, 524' right of centerline, 35' AGL/536' MSL. Bldg 1126' from DER, 528' left of centerline, 34' AGL/537' MSL. Trees beginning 1686' from DER, 326' right of centerline, 577' MSL. Trees beginning 1936' from DER, 210' left of centerline, up to 594' MSL. **Rwy 34**, sign 98' from DER, 356' left of centerline, 5' AGL/510' MSL. Tree 588' from DER, 483' left of centerline, 521' MSL. Tower 3311' from DER, 1033' left of centerline, 108' AGL/622' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## REEDLEY, CA

### REEDLEY MUNI (O32)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### ORIG 19003 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb on a heading between 132° CW to 323° from DER. **Rwy 34**, climb on a heading between 156° CW to 320° from DER.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, vehicles on road, terrain, building and vegetation beginning 26' from DER, 309' left of centerline, up to 15' AGL/402' MSL. Tree 1551' from DER, 778' right of centerline, 431' MSL. Tree 1648' from DER, 893' left of centerline, 461' MSL. Tree 1737' from DER, 210' right of centerline, 434' MSL. Tree 2010' from DER, 189' left of centerline, 453' MSL. Trees beginning 2033' from DER, 615' left of centerline, up to 482' MSL. Tree 2894' from DER, 630' left of centerline, 483' MSL. **Rwy 34**, tree 116' from DER, 376' right of centerline, 403' MSL. Tree 166' from DER, 499' right of centerline, 406' MSL. Vehicles on road and tree beginning 289' from DER, 329' right of centerline, up to 407' MSL.

## RIO VISTA, CA

### RIO VISTA MUNI (O88)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 1 12208 (FAA)

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

**Rwy 15**, climb to 800 then climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

**Rwy 25**, climb to 500 then climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

**Rwy 33**, climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 7**, trees 11' from DER, 402' right of centerline, up to 20' AGL/39' MSL. Trees 184' from DER, 216' left of centerline, up to 20' AGL/39' MSL.

**Rwy 15**, trees 917' from DER, 124' right of centerline, up to 20' AGL/49' MSL. Vehicle on road 168' from DER, 437' right of centerline, up to 15' AGL/44' MSL. Vehicle on road 268' from DER, 234' left of centerline, up to 15' AGL/34' MSL. Buildings 61' from DER, 354' right of centerline, up to 20' AGL/49' MSL. **Rwy 25**, trees 526' from DER, 169' left of centerline, up to 20' AGL/59' MSL. Vehicles on road 179' from DER, 228' left of centerline, up to 15' AGL/44' MSL. Buildings 231' from DER, 546' left of centerline, up to 20' AGL/49' MSL. **Rwy 33**, trees 316' from DER, 138' left of centerline, up to 20' AGL/39' MSL.

## SACRAMENTO, CA

### SACRAMENTO EXECUTIVE (SAC)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### ORIG-A 19171 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 2**, multiple trees 1128' from DER, 108' left of centerline, up to 76' AGL/96' MSL. Antenna 1376' from DER, 663' left of centerline, 51' AGL/71' MSL. Trees 1858' from DER, 137' right of centerline, 73' AGL/93' MSL. **Rwy 12**, multiple trees 518' from DER, 26' left of centerline, up to 83' AGL/98' MSL. Light pole 507' from DER, 336' left of centerline, 37' AGL/52' MSL. Transmission pole 3971' from DER, 647' left of centerline, 130' AGL/154' MSL. Multiple trees 475' from DER, 476' right of centerline up to 97' AGL/112' MSL. Light poles 711' from DER, 241' right of centerline, 36' AGL/51' MSL. **Rwy 20**, multiple trees beginning 850' from DER, 626' left of centerline, up to 92' AGL/107' MSL. Multiple trees beginning 714' from DER, 515' right of centerline, up to 66' AGL/81' MSL. **Rwy 30**, obstruction light on hangers 460' from DER, 360' right of centerline, 25' AGL/43' MSL. Multiple trees beginning 631' from DER, 195' right of centerline, up to 56' AGL/74' MSL. Multiple trees beginning 1331' from DER, 247' left of centerline, up to 90/110' MSL. Antenna on building 1543' from DER, 442' left of centerline, 47' AGL/67' MSL.

## SACRAMENTO INTL (SMF)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 1 15008 (FAA)

DEPARTURE PROCEDURE: **Rwy 16L**, climb heading 164° to 700 before turning east.

TAKEOFF OBSTACLE NOTES: **Rwy 16L**, vehicles on road, 225' from DER, crossing runway centerline, 10' AGL/31' MSL. **Rwy 34L**, tree 3656' from DER, 1296' left of centerline, 98' AGL/123' MSL. **Rwy 34R**, pole 1786' from DER, 945' right of centerline, 46' AGL/73' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

#### ORIG 16175 (FAA)

**Rwy 16L**, heading as assigned by ATC; requires minimum climb of 220' per NM to 700.

## SACRAMENTO MATHER (MHR)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### ORIG 94006 (FAA)

DEPARTURE PROCEDURE: **Rwys 4L,4R**, climbing right turn direct SAC VORTAC. **Rwys 22L,22R** climb direct SAC VORTAC.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SALINAS, CA

### SALINAS MUNI (SNS)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 4 11321 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/min climb of 243' per NM to 800 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climbing right turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course or for climb in visual conditions: cross Salinas Muni Airport at or above 1700 then intercept SNS VORTAC R-124 to 5500 before proceeding on course.

**Rwy 13**, climbing left turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course. **Rwy 26**, climbing right turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course. **Rwy 31**, climbing left turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 8**, trees beginning 1967' from DER, 900' left of centerline, up to 100' AGL/199' MSL. **Rwy 26**, tree, light pole and road beginning 109' from DER, 266' left of centerline, up to 38' AGL/98' MSL. Light pole and road beginning 137' from DER, 281' right of centerline, up to 40' AGL/100' MSL. Poles beginning 909' from DER, 232' right of centerline, up to 52' AGL/102' MSL. Antenna on building, tower and tree beginning 1645' from DER, 426' left of centerline, up to 116' AGL/176' MSL. Microwave tower and tree beginning 1909' from DER, 31' right of centerline, up to 85' AGL/145' MSL. **Rwy 31**, building, road, and trees beginning 170' from DER, 1' right of centerline, up to 79' AGL/159' MSL. Road and trees 205' from DER, 200' left of centerline, up to 63' AGL/133' MSL. Pole and trees beginning 1042' from DER, 5' left of centerline up to 102' AGL/172' MSL. Fence, poles and trees 1109' from DER, 202' right of centerline, up to 78' AGL/158' MSL.

## SALINAS MUNI (SNS)

### DIVERSE VECTOR AREA (RADAR VECTORS)

#### ORIG 15064 (FAA)

**Rwys 8, 13**, heading as assigned by ATC; requires minimum climb of 330' per NM to 5000.

**Rwys 26, 31**, heading as assigned by ATC.

## SAN ANDREAS, CA

### CALAVERAS CO-MAURY RASMUSSEN

#### FIELD (CPU)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 1 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 1800-5 or std. w/min. climb of 300' per NM to 3700.

DEPARTURE PROCEDURE: **Rwy 13**, climb runway heading to 3100, then climbing right turn via LIN R-085 to LIN VOR/DME. **Rwy 31**, climb via heading 311° to 3000, then climbing left turn via Linden (LIN) VOR/DME R-029 to LIN VOR/DME.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, windsock 4' from DER, 129' right of centerline, 14' AGL/1341' MSL. Lights 4' from DER, 68' right of centerline, up to 2' AGL/1330' MSL. Bush 24' from DER, 140' right of centerline, 3' AGL/1331' MSL. Tree 43' from DER, 287' right of centerline, up to 8' AGL/ 1336' MSL. Bush 26' from DER, 96' left of centerline, up to 1' AGL/1329' MSL. **Rwy 31**, tree 19' from DER, 242' left of centerline, up to 30' AGL/1335' MSL. Trees 220' from DER, 375' right of centerline, up to 40' AGL/1345' MSL. Pole 667' from DER, 653' left of centerline, 23' AGL/1326' MSL. Trees 1010' from DER, 651' right of centerline, up to 46' AGL/1351' MSL.

## SAN CARLOS, CA

### SAN CARLOS (SQL)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

#### AMDT 1A 18200 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, N/A- obstacles and ATC.

**Rwy 12**, 300-1 ¾ or std. w/min. climb of 240' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 120° to intercept SJC VOR/DME R-281 to SJC VOR/DME before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, terrain 1' from DER, 149' left of centerline, 11' MSL. Dam beginning 117' from DER, 58' left of centerline, up to 3' AGL/12' MSL. Pole 716' from DER, 294' right of centerline, 38' MSL. Transmission line 1676' from DER, 735' right of centerline, 92' AGL/94' MSL. Transmission line 1.1 NM from DER, 2196' left of centerline, 200' AGL/208' MSL.

### DIVERSE VECTOR AREA (RADAR VECTORS)

#### ORIG 16147 (FAA)

**Rwy 12**, headings as assigned by ATC; requires minimum climb of 470' per NM to 3400.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

19227

**SAN FRANCISCO, CA****SAN FRANCISCO INTL (SFO)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES****AMDT 9 14205 (FAA)**

**TAKEOFF MINIMUMS:** **Rwys 19L, 19R**, std. w/min. climb of 575' per NM to 2000. **Rwys 28L, 28R**, std. w/min. climb of 351' per NM to 1300.

**DEPARTURE PROCEDURE:** **Rwys 1L, 1R**, climb heading 014° to 2000, thence ...

**Rwys 10L, 10R**, climbing left turn heading 053° to intercept SFO R-090 eastbound to 2300; thence ...

**Rwys 19L, 19R**, climbing left turn heading 053° to intercept SFO R-090 eastbound to 2600, thence ...

**Rwys 28L, 28R**, climb heading 284° to 2000, thence ...  
... continue climb on course.

**TAKEOFF OBSTACLE NOTES:** **Rwy 1 L**, 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/480' 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, CA (CON'T)****SAN FRANCISCO INTL (SFO) (CON'T)****DIVERSE VECTOR AREA (RADAR VECTORS)  
AMDT 1 15232 (FAA)**

**Rwys 1L, 1R**, headings as assigned by ATC; requires minimum climb of 420' per NM to 2600. **Rwys 10L, 10R**, headings as assigned by ATC.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## SAN JOSE, CA

NORMAN Y MINETA SAN JOSE INTL (SJC)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6C 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy12 L/R**, 400-2½ or std. w/min. climb of 261' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 12L/R**, climbing right turn to 2000 on Heading 318° and on OAK R-135 to OAK VOR/DME before proceeding on course. **Rwy 30L/R**, climb via heading 315° to 2000, then via OAK R-132 to OAK VOR/DME before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12L**, fence 156' from DER, 57' left of centerline, 14' AGL/73' MSL. OI on blast fence, 156' from DER, 57' left of centerline, 73' MSL. Pole 191' from DER, 81' left of centerline, 34' AGL/93' MSL. Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL. T-L twr. pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL. Tree 1281' from DER, 529' left of centerline, 117' MSL. T-L twr 1731' from DER, 729' left of centerline, 86' AGL/156' MSL. Tree 1799' from DER, 273' left of centerline, 144' MSL. Tree 1887' from DER, 68' right of centerline, 124' MSL. T-L twr 3047' from DER, 543' left of centerline, 73' AGL/147' MSL. Building 1.2 NM from DER, 630' left of centerline, 170' AGL/250' MSL. Building 1.3 NM from DER, 1051' left of centerline, 265' MSL. Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL. Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL. Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL. Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL. Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/370' MSL. Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 282' right of centerline, 281' AGL/372' MSL. **Rwy 12R**, oi on loc 10' from DER, on centerline, 68' MSL. OI on blast fence 45' from DER, 115' right of centerline, 75' MSL. Fence 45' from DER, 115' right of centerline, 14' AGL/75' MSL. Tree 269' from DER, 149' right of centerline, 100' MSL. Trees, beginning 285' from DER, 193' left of centerline, up to 107' MSL. Rd 338' from DER, 2' right of centerline, 82' MSL. Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL. Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL. Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL. Tree 2604' from DER, 551' right of centerline, 133' MSL. T-L twr 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL. Tree 3079' from DER, 873' right of centerline, 142' MSL. Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 751' left of centerline, 228' AGL/309' MSL. Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL. Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL. Building 1.6 NM from DER, 345' right of centerline, 320' MSL. Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 417' left of centerline, 281' AGL/372' MSL.

## SAN JOSE, CA (CON'T)

NORMAN Y MINETA SAN JOSE INTL (SJC)  
(CON'T)

**Rwy 30L**, poles beginning 166' from DER, 494' left of centerline, up to 69' MSL. NAVAID 174' from DER, on centerline, 7' AGL/44' MSL. Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL. Tree 308' from DER, 424' left of centerline, 71' MSL. Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL. Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL. NAVAID 782' from DER, 350' left of centerline, 47' AGL/83' MSL. Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL. Pole 1315' from DER, 548' right of centerline, 49' AGL/80' MSL. Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL. Tree 1852' from DER, 179' right of centerline, 85' MSL. Tree 2561' from DER, 738' right of centerline, 108' MSL. Trmsn twr, t-l twr, beginning 2618' from DER, 1130' left of centerline, up to 120' MSL. Pole 2806' from DER, 1215' left of centerline, 135' MSL. Pole 2897' from DER, 614' left of centerline, 113' MSL. Pole, t-l twr, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL. **Rwy 30R**, pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL. Fence 138' from DER 243' right of centerline, 13' AGL/47' MSL. Fence 184' from DER, 329' left of centerline, 15' AGL/51' MSL. Tree 411' from DER, 37' left of centerline, 70' MSL. Tree 473' from DER, 319' left of centerline, 72' MSL. Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL. Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL. Vehicle on rd beginning 688' from DER, on centerline, up to 68' MSL. Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL. Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL. Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL. Tree 1852' from DER, 519' left of centerline, 85' MSL. Tree 2561' from DER, 39' right of centerline, 108' MSL. Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)  
AMDT 1 16203(FAA)

**Rwy 12L/12R**, heading as assigned by ATC; requires minimum climb of 470' per NM to 5600. **Rwys 30L/30R**, heading as assigned by ATC; requires minimum climb of 490' per NM to 5600 and do not exceed 210 KTS until established on assigned heading.

REID-HILLVIEW OF SANTA CLARA COUNTY  
(RHV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

TAKEOFF MINIMUMS: **Rwys 13L, 13R**, NA - environmental.

DEPARTURE PROCEDURE: Use DECOT DEPARTURE.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

**SAN MARTIN, CA**

SAN MARTIN (E16)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1A 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, std. w/min. climb of 324' per NM to 2200 or 1700-2½ for climb in visual conditions. **Rwy 32**, std. w/min. climb of 324' per NM to 1600 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, all aircraft, climb to 2100 on heading 141°. Aircraft departing northwest on V485, climbing left turn heading 284° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climb on SJC R-121 and proceed on course. For climb in visual conditions: cross San Martin airport northwest bound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure. **Rwy 32**, all aircraft, climb to 1600 on heading 321°. Aircraft departing northwest on V485, climbing left turn heading 270° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climbing left turn heading 120° to intercept SJC R-121 (V485) southeast bound to GILRO INT and proceed on course. For climb in visual conditions cross San Martin airport northwest bound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure.

TAKEOFF OBSTACLE NOTES: **Rwy 14**, multiple trees, poles and vehicles on road beginning 25' from DER, 800' left of centerline, up to 100' AGL/359' MSL. **Rwy 32**, multiple trees, poles and vehicles on road beginning 17' from DER, 1521' left of centerline, up to 100' AGL/399' MSL. Trees beginning 3.9 NM from DER, 1.1 NM right of center, up to 200' AGL/1239' MSL.

**SANTA ROSA, CA**

CHARLES M SCHULZ-SONOMA COUNTY

(STS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 7 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. with a min. climb of 319' per NM to 2400, or 1200-2½ for climb in visual conditions. **Rwy 32**, std. with a min. climb of 391' per NM to 2500, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 2, 32**, climbing left turn heading 164°, thence...

**Rwy 14**, climbing right turn heading 250°, thence...

**Rwy 20**, climb on heading 190°, thence...

...intercept and climb on STS R-202 to cross FREES INT

at or above MEA for route of flight or continue climb in FREES holding pattern (hold SE, right turns, PYE VORTAC 335° inbound) to MEA for route of flight.

VCOA: **Rwys 2, 32**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross STS VOR/DME southwest bound at or above 1200. Thence...

... Intercept and climb on STS R-202 to cross FREES INT at or above MEA for route of flight or continue climb in FREES holding pattern (hold SE, right turns, PYE VORTAC 335° inbound) to MEA for route of flight.

TAKEOFF OBSTACLE NOTES: **Rwy 2**, trees beginning 492' from DER, 36' left of centerline, up to 60' AGL/156' MSL. Trees beginning 515' from DER, 114' right of centerline, up to 55' AGL/156' MSL. Trees beginning 1000' from DER, 9' left of centerline, up to 100' AGL/178' MSL. Trees beginning 1109' from DER, 135' right of centerline, up to 100' AGL/184' MSL. Trees beginning 2104' from DER, 342' right of centerline, up to 100' AGL/196' MSL. Tree 2119' from DER, 619' right of centerline, up to 100' AGL/173' MSL. **Rwy 14**, tree 1' from DER, 498' right of centerline, 20' AGL/136' MSL. Light structure 6' from DER, 40' left of centerline, 1' AGL/121' MSL. Trees beginning 409' from DER, 602' left of centerline, up to 50' AGL/147' MSL. Trees beginning 1201' from DER, 275' left of centerline, up to 70' AGL/167' MSL. Tree 2194' from DER, 1034' right of centerline, 60' AGL/180' MSL. **Rwy 20**, tree 108' from DER, 462' right of centerline, 40' AGL/162' MSL. Trees beginning 1596' from DER, 403' left of centerline, up to 100' AGL/187' MSL. Trees beginning 1498' from DER, 566' right of centerline, up to 144' AGL/274' MSL. Trees beginning 2841' from DER, 109' left of centerline, up to 123' AGL/228' MSL. **Rwy 32**, trees beginning 67' from DER, 891' right of centerline, up to 55' AGL/158' MSL. Trees beginning 89' from DER, on centerline, up to 55' AGL/153' MSL. Tree 1492' from DER, 319' left of centerline, up to 60' AGL/158' MSL. Tree 3187' from DER, 140' left of centerline, 167' AGL/257' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

## SOUTH LAKE TAHOE, CA

LAKE TAHOE (TVL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 18256 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, std. w/min. climb of 810' per NM to 10800, or alternatively, 1600-3 w/min. climb of 765' per NM to 10800, or 5100-5 for VCOA. **Rwy 36**, 300-1½ or std. w/min. climb of 755' per NM to 6500.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 177° to 7900 then climbing right turn to intercept and climb on SWR R-133 to SWR VOR/DME thence . . . **Rwy 36**, climb heading 357° to intercept and climb on SWR R-113 to SWR VOR/DME thence . . . . . Proceed on course.

VCOA: **Rwy 18**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross South Lake Tahoe Airport at or above 11200' MSL then intercept and proceed on SWR R-127 to SWR VOR/DME.

TAKEOFF OBSTACLE NOTES: **Rwy 18**, pole 10' from DER, 40' left of centerline, 2' AGL/6270' MSL. Vehicles on road, sign beginning 16' from DER, 247' right of centerline, up to 6282' MSL. Trees beginning 19' from DER, 378' left of centerline, up to 88' AGL/6354' MSL. Trees, vehicles on road, vegetation, terrain, pole beginning 140' from DER, 20' right of centerline, up to 88' AGL/6355' MSL. Pole, trees beginning 263' from DER, 4' left of centerline, up to 102' AGL/6369' MSL. Trees beginning 917' from DER, 1' left of centerline, up to 111' AGL/6388' MSL. Trees beginning 1095' from DER, 8' right of centerline, up to 107' AGL/6392' MSL. Trees beginning 1702' from DER, on centerline, up to 6403' MSL. Trees beginning 1960' from DER, 6' left of centerline, up to 98' AGL/6412' MSL. Trees, poles beginning 2021' from DER, 1' right of centerline, up to 6416' MSL. Trees beginning 2392' from DER, 8' left of centerline, up to 113' AGL/6418' MSL. Trees, buildings beginning 2441' from DER, 1' left of centerline, up to 6419' MSL. Trees, buildings, vehicles on road, poles, antenna, vegetation beginning 2712' from DER, on centerline, up to 91' AGL/6420' MSL. Tree 2.5 NM from DER, 1451' left of centerline, 7837' MSL. **Rwy 36**, sign 9' from DER, 212' left of centerline, 4' AGL/6256' MSL. Vehicle on road 18' from DER, 360' left of centerline, 6266' MSL. Trees, vehicle on road beginning 51' from DER, 330' right of centerline, up to 47' AGL/6296' MSL. Tree, pole, terrain, fence beginning 142' from DER, 236' right of centerline, up to 50' AGL/6302' MSL. Trees beginning 175' from DER, 210' right of centerline, up to 44' AGL/6312' MSL. Trees beginning 225' from DER, 173' right of centerline, up to 47' AGL/6319' MSL. Trees beginning 459' from DER, 181' right of centerline, up to 58' AGL/6328' MSL. Trees, vehicles on road beginning 593' from DER, 52' right of centerline, up to 59' AGL/6330' MSL. Trees, vehicles on road beginning 768' from DER, 84' right of centerline, up to 71' AGL/6340' MSL. Trees, vehicles on road beginning 953' from DER, 143' right of centerline, up to 67' AGL/6348' MSL. Trees, vehicles on road beginning 1116' from DER, 104' right of centerline, up to 54' AGL/6355' MSL. Tree 1324' from DER, 564' right of centerline, 62' AGL/6370' MSL. Tree 1331' from DER, 761' right of centerline, 61' AGL/6379' MSL. Trees, vehicles on road beginning 1382' from DER, 142' right of centerline, up to 6382' MSL. Trees beginning 1497' from DER, 161' right of centerline, up to 69' AGL/6391' MSL. Trees, vehicles on road, terrain beginning 1520' from DER, 41' left of centerline, up to 6402' MSL. Trees, vehicles on road, fence, NAVAID, poles, tower beginning 1838' from DER, 5' left of centerline, up to 74' AGL/6427' MSL. Trees beginning 5300' from DER, 377' right of centerline, up to 133' AGL/6430' MSL. Trees beginning 1 NM from DER, 703' right of centerline, up to 6436' MSL. Trees beginning 1 NM from DER, 1100' right of centerline, up to 134' AGL/6420' MSL.

## STOCKTON, CA

STOCKTON METROPOLITAN (SCK)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 19171 (FAA)

TAKEOFF MINIMUMS: **Rwy 29R**, 200-1¼ or std. w/min. climb of 215' per NM to 300 or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 11L**, building 231' from DER, 401' left of centerline, 8' AGL/39' MSL. Traverse way 413' from DER, 456' left of centerline, 49' MSL. **Rwy 11R**, traverse way 621' from DER, 486' right of centerline, 43' MSL. Lighting 122' from DER, 415' left of centerline, 2' AGL/29' MSL. **Rwy 29L**, traverse way, aircraft parking, electrical system beginning 132' from DER, 235' left of centerline, up to 45' MSL. Buildings beginning 424' from DER, 369' left of centerline, up to 61' MSL. Building 2946' from DER, 1215' left of centerline, 102' MSL. Building 2963' from DER, 1203' left of centerline, 97' AGL/117' MSL. Stack, building beginning 5568' from DER, 1600' right of centerline, up to 150' AGL/171' MSL. **Rwy 29R**, fence, trees beginning 181' from DER, 5' right of centerline, up to 18' AGL/41' MSL. Fence, trees, traverse way, pole beginning 208' from DER, 1' left of centerline, up to 17' AGL/41' MSL. Poles, traverse way beginning 255' from DER, 35' right of centerline, up to 32' AGL/55' MSL. Poles beginning 528' from DER, 305' left of centerline, up to 31' AGL/54' MSL. Pole 653' from DER, 515' left of centerline, 32' AGL/55' MSL. Pole 834' from DER, 693' left of centerline, 38' AGL/60' MSL. Pole 1587' from DER, 857' left of centerline, 48' AGL/69' MSL. Elevator 4480' from DER, 868' right of centerline, 122' AGL/141' MSL. Stack, buildings beginning 4599' from DER, 827' right of centerline, up to 150' AGL/171' MSL. Elevator, building beginning 1 NM from DER 1878' left of centerline, up to 174' AGL/191' MSL.

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SW-2



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

## SUSANVILLE, CA

### SUSANVILLE MUNI (SVE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 03359 (FAA)  
DEPARTURE PROCEDURE: Use AMEED E DEPARTURE.

## TRACY, CA

### TRACY MUNI (TCY)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 09295 (FAA)  
TAKEOFF MINIMUMS: **Rwy 26**, 700-3 or std. w/ a min. climb of 320' per NM to 1000.  
DEPARTURE PROCEDURE: **Rwy 8**, climb to 3000 via heading 073° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 12**, climbing left turn to 3000 to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 26**, climbing right turn to 3000 via heading 150° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 30**, climbing right turn to 3000 via heading 150° to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 8**, tree 472' from DER, 198' left of centerline, 50' AGL/194' MSL. Fence 167' from DER, 8' right of centerline, 25' AGL/176' MSL. Vehicle on road 241' from DER, 412' left of centerline, 15' AGL/183' MSL. Vehicles on roads starting 241' from DER, 7' right of centerline, up to 15' AGL/189' MSL. Poles starting 403' from DER, 204' left of centerline, up to 54' AGL/208' MSL. Poles starting 727' from DER, 49' right of centerline, up to 54' AGL/212' MSL. **Rwy 12**, trees starting 436' from DER, 251' right of centerline, up to 72' AGL/253' MSL. Conveyor 1995' from DER, 504' left of centerline, 66' AGL/270' MSL. Poles starting 832' from DER, 396' right of centerline, up to 56' AGL/240' MSL. Obstruction light on hopper 1934' from DER, 274' right of centerline, 74' AGL/255' MSL. Vehicles on road starting 133' from DER, 272' left of centerline, up to 15' AGL/206' MSL. Fence 32' from DER 405' left of centerline, 25' AGL/194' MSL. **Rwy 26**, tree 1173' from DER, 180' right of centerline, 35' AGL/234' MSL. Trees starting 1067' from DER, 125' left of centerline, up to 35' AGL/794' MSL. Vehicle on road 236' from DER, 150' left of centerline, 15' AGL/214' MSL. Fence 69' from DER, 133' left of centerline, 23' AGL/203' MSL. Rising terrain 11105' from DER, 2814' left of centerline, up to 739' MSL. **Rwy 30**, trees starting 438' from DER, 30' right of centerline, up to 35' AGL/209' MSL. Tree 1079' from DER, 82' left of centerline, 35' AGL/214' MSL. Obstruction light on hopper 985' from DER, 353' right of centerline, 72' AGL/236' MSL. Bush 195' from DER, 364' left of centerline, 25' AGL/189' MSL. Light pole 1149' from DER, 160' left of centerline, 47' AGL/211' MSL. Obstruction light on building 2289' from DER, 65' right of centerline, 74' AGL/238' MSL.

## TRAVIS AFB (KSUU)

### FAIRFIELD, CA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
11069

**All Rwy:** Comply with assigned SID or ATC radar vectors.  
DEPARTURE PROCEDURE: **Rwy 3L**, Climb on a heading between 344° CW to 137° from DER. **Rwy 3R**, Climb on a heading between 328° CW to 140° from DER. **Rwy 21L/R**, Climb on a heading between 187° CW to 237° from DER.  
TAKEOFF OBSTACLE NOTES: **Rwy 3L**, Potential vehicle, 15' AGL/72' MSL, 616' from DER, 289' left of centerline. Potential vehicle, 15' AGL/71' MSL, 615' from DER, 267' right of centerline. **Rwy 21L**, Light pole 15' AGL/83' MSL, 148' from DER, 546' left of centerline. Light pole 15' AGL/84' MSL, 346' from DER, 547' left of centerline. Light pole 15' AGL/84' MSL, 521' from DER, 548' left of centerline. Light pole 15' AGL/83' MSL, 702' from DER, 549' left of centerline. Light pole 15' AGL/84' MSL, 880' from DER, 549' left of centerline. Light pole 15' AGL/85' MSL, 926' from DER, 661' left of centerline.

## TRUCKEE, CA

### TRUCKEE-TAHOE (TRK)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 15008 (FAA)  
TAKEOFF MINIMUMS: **Rwys 11, 20**, NA - obstacles.  
DEPARTURE PROCEDURE: **Rwys 2, 29**, use TRUCK DEPARTURE.

## TULARE, CA

### MEFFORD FIELD (TLR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 18200 (FAA)  
DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn direct VIS VOR/DME. Aircraft departing VIS VOR/DME R-001 CW R-140 continue climb in VIS VOR/DME holding pattern (hold east, RT, 287° inbound) to cross VIS VOR/DME at or above 5400 before proceeding on course. All other aircraft climb on course. **Rwy 31**, climbing left turn direct VIS VOR/DME. Aircraft departing VIS VOR/DME R-001 CW R-140 continue climb in VIS VOR/DME holding pattern (hold east, RT, 287° inbound) to cross VIS VOR/DME at or above 5400 before proceeding on course. All other aircraft climb on course.  
TAKEOFF OBSTACLE NOTES: **Rwy 13**, hangars 120' from DER, 525' right of centerline, up to 28' AGL/287 MSL. Trees beginning 371' from DER, 323' right of centerline, 60' AGL/334' MSL. Trees beginning 530' from DER, left and right of centerline, up to 60' AGL/334 MSL. **Rwy 31**, traverse way 83' from DER, 340' right of centerline, 279' MSL. Traverse ways beginning 210' from DER, 376' right of centerline, up to 280' MSL. Traverse way 343' from DER, 415' left of centerline, 280' MSL. Traverse way 492' from DER, 395' left of centerline, 281' MSL. Traverse way 544' from DER, 416' right of centerline, 281' MSL. Traverse way 684' from DER, 458' left of centerline, 283' MSL. Sign 793' from DER, 424' left of centerline, 13' AGL/286' MSL. Pole 1141' from DER, 547' left of centerline, 26' AGL/298' MSL. Sign 1422' from DER, 542' right of centerline, 37' AGL/311' MSL. Tower 3586' from DER, 580' left of centerline, 110' AGL/383' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## UKIAH, CA

### UKIAH MUNI (UKI)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 19031 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, std. w/min. climb of 678' per NM to 3100 or 3100-2½ for climb in visual conditions.

**Rwy 33**, std. w/min. climb of 350' per NM to 5000, or 3100-2½ for climb in visual conditions

DEPARTURE PROCEDURE: **Rwy 15**, climb heading 151° to 3100 before proceeding on course. **Rwy 33**, climb heading 345° to 5000, then left turn direct to cross ENI VORTAC at or above 6000.

VCOA: **Rwys 15, 33**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross UKIAH MUNI airport at or above 3700 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 15**, buildings and signs beginning 34' from DER, 493' right of centerline, up to 30' AGL/629' MSL. Road with vehicles beginning 70' from DER, 245' right of centerline, up to 15' AGL/624' MSL. Road with vehicles beginning 111' from DER, 256' left of centerline, up to 15' AGL/629' MSL. Poles and trees beginning 275' from DER, 357' right of centerline, up to 15' AGL/712' MSL. Trees and poles beginning 527' from DER, 452' left of centerline, up to 100' AGL/698' MSL. Trees beginning 1.2 NM from DER, 2023' right of centerline, up to 100' AGL/1073' MSL. Trees beginning 1.5 NM from DER, 1715' right of centerline, up to 100' AGL/1160' MSL. Trees beginning 2.4 NM from DER, 77' left of centerline, up to 100' AGL/1644' MSL. Trees beginning 3.5 NM from DER, 2704' right of centerline, up to 100' AGL/2331' MSL. **Rwy 33**, poles and trees beginning 27' from DER, 391' right of centerline, up to 100' AGL/679' MSL. Road with vehicles beginning 124' from DER, 147' right of centerline, up to 15' AGL/629' MSL. Trees and poles beginning 461' from DER, 555' right of centerline, up to 100' AGL/679' MSL. Road with vehicles beginning 587' from DER, 313' left of centerline, up to 15' AGL/637' MSL. Trees, poles and signs beginning 888' from DER, 506' left of centerline, up to 100' AGL/709' MSL. Building 1003' from DER, 553' right of centerline, 42' AGL/649' MSL. Tower 5774' from DER, 1155' left of centerline, 124' AGL/770' MSL. Trees beginning 5909' from DER, 1590' left of centerline, up to 100' AGL/769' MSL.

## VACAVILLE, CA

### NUT TREE (VCB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 17229 (FAA)

TAKEOFF MINIMUMS: **Rwy 20**, std. w/ min. climb of 410' per NM to 1600, or 1200-2½ for VCOA .

DEPARTURE PROCEDURE: **Rwy 2**, climbing right turn to intercept SAC R-242 to SAC VORTAC to 2000 before proceeding on course. **Rwy 20**, climbing left turn to intercept SAC R-242 to SAC VORTAC to 2000 before proceeding on course.

VCOA: **Rwy 20**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Nut Tree airport eastbound at or above 1300 then climb to 2000 on SAC R-242 TO SAC VORTAC, proceed on course.

TAKEOFF OBSTACLE NOTES: **Rwy 2**, parking lot, pole beginning 51' from DER, 290' right of centerline, up to 15' AGL/119' MSL. Fence beginning 99' from DER, 210' left of centerline, up to 118' MSL. Pole, parking lot, tree beginning 137' from DER, 417' left of centerline, up to 148' MSL. Tree 948' from DER, 732' right of centerline, 141' MSL. Pole 1099' from DER, 612' left of centerline, 149' MSL. **Rwy 20**, terrain beginning 8' from DER, 253' right of centerline, up to 117' MSL. Tree 61' from DER, 411' left of centerline, 51' AGL/163' MSL. Terrain 140' from DER, 432' right of centerline, 124' MSL. Tree 144' from DER, 538' left of centerline, 85' AGL/197' MSL. Pole, terrain, fence beginning 206' from DER, 167' right of centerline, up to 12' AGL/130' MSL. Tree 259' from DER, 506' left of centerline, 211' MSL. Pole, ant, tree beginning 362' from DER, 497' left of centerline, up to 125' AGL/239' MSL. Tree 544' from DER, 454' right of centerline, 135' MSL. Tree, road (north) beginning 710' from DER, 393' right of centerline, up to 164' MSL. Tree, pole, ant, terrain, chimney/smokestack, sign beginning 825' from DER, 22' left of centerline, up to 264' MSL. Tree, pole beginning 1576' from DER, 344' right of centerline, up to 190' MSL. T-I tower, pole beginning 1860' from DER, 82' right of centerline, up to 55' AGL/191' MSL. Terrain 2985' from DER, 1295' right of centerline, 195' MSL. Terrain 3087' from DER, 1146' right of centerline, 198' MSL. Terrain 3090' from DER, 1303' right of centerline, 210' MSL. Terrain beginning 3155' from DER, 1128' right of centerline, up to 217' MSL. Tree, terrain beginning 3252' from DER, 535' right of centerline, up to 241' MSL. Terrain beginning 3635' from DER, 54' right of centerline, up to 248' MSL. Terrain 4058' from DER, 110' right of centerline, 254' MSL. Terrain, tree beginning 4104' from DER, 18' right of centerline, up to 263' MSL. Tree 5765' from DER, 1605' right of centerline, 264' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

## VISALIA, CA

### VISALIA MUNI (VIS)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 19227 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn to heading 230° to intercept VIS VOR/DME R-151 to PIXEY INT to 3000 before proceeding on course. **Rwy 30**, climbing left turn to heading 230° to intercept VIS VOR/DME R-151 to PIXEY INT to 3000 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, vehicle on road 175' from DER, 252' right of centerline, 307' MSL. Vehicle on road 178' from DER, 248' left of centerline, 308' MSL. Tree 758' from DER, 616' right of centerline, 62' AGL/356' MSL. Tree 1302' from DER, 817' left of centerline, 61' AGL/356' MSL. Tree 3155' from DER, 737' left of centerline, 85' AGL/380' MSL. **Rwy 30**, sign 17' from DER, 249' left of centerline, 3' AGL/292' MSL. Fence beginning 59' from DER, 416' left of centerline, up to 7' AGL/296' MSL. Trees, vehicle on road beginning 186' from DER, 269' left of centerline, up to 40' AGL/330' MSL. Building 291' from DER, 249' right of centerline, 15' AGL/305' MSL. Trees, vehicle on road beginning 791' from DER, 232' left of centerline, up to 332' MSL. Building 849' from DER, 663' right of centerline, 327' MSL. Tree 2663' from DER, 341' left of centerline, 370' MSL. Tree 3035' from DER, 415' left of centerline, 379' MSL.

## WATSONVILLE, CA

### WATSONVILLE MUNI (WV)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 18256 (FAA)

TAKEOFF MINIMUMS: **Rwy 27**, NA - airport obstacles.DEPARTURE PROCEDURE: **Rwys 2, 9, 20**, use WATSONVILLE DEPARTURE.

TAKEOFF OBSTACLE NOTES: **Rwy 2**, lighting 8' from DER, 84' left of centerline, 1' AGL/159' MSL. Lighting 9' from DER, 84' right of centerline, 158' MSL. Pole 14' from DER, 349' left of centerline, 205' MSL. Pole, building, vehicles on road, tree and fence beginning 15' from DER, 322' left of centerline, up to 50' AGL/213' MSL. Trees beginning 278' from DER, 414' right of centerline, up to 188' MSL. pole, vehicles on road, stack, tree and building beginning 429' from DER, 157' left of centerline, up to 58' AGL/220' MSL. pole, building and tree beginning 808' from DER, 22' right of centerline, up to 40' AGL/198' MSL. Tree and transmission line beginning 1021' from DER, 137' right of centerline, up to 222' MSL. Pole 1174' from DER, 328' right of centerline, 57' AGL/224' MSL. Trees beginning 1275' from DER, 298' right of centerline, up to 242' MSL. Tree 1345' from DER, 320' left of centerline, 236' MSL. Tree 2249' from DER, 371' left of centerline, 264' MSL. **Rwy 9**, tree and pole beginning 1' from DER, 152' left of centerline, up to 157' MSL. Pole 65' from DER, 301' right of centerline, 31' AGL/148' MSL. tree, fence, building, vehicles on road and pole beginning 74' from DER, 251' left of centerline, up to 160' MSL. Pole, tree, building, tank and stack beginning 210' from DER, 139' left of centerline, up to 177' MSL. Pole 231' from DER, 250' right of centerline, 32' AGL/153' MSL. Trees beginning 312' from DER, 560' right of centerline, up to 173' MSL. Tower, pole and tree beginning 828' from DER, 136' left of centerline, up to 52' AGL/181' MSL. Trees beginning 915' from DER, 146' right of centerline, up to 197' MSL. Tree 1815' from DER, 365' left of centerline, 215' MSL. Tower 4697' from DER, 1365' right of centerline, 189' AGL/292' MSL. **Rwy 20**, tree 57' from DER, 500' left of centerline, 153' MSL.

## WATSONVILLE, CA (CON'T)

### WATSONVILLE MUNI (WV) (CON'T)

**Rwy 20 (CON'T)**, fence 57' from DER, 268' right of centerline, 7' AGL/143' MSL. Pole 95' from DER, 467' left of centerline, 175' MSL. pole, vehicles on road and tree beginning 96' from DER, 377' left of centerline, up to 50' AGL/183' MSL. Transmission line 848' from DER, 505' left of centerline, 44' AGL/184' MSL. Tree and transmission line beginning 919' from DER, 520' left of centerline, up to 190' MSL. Tree 1153' from DER, 286' right of centerline, 169' MSL. Tree 1207' from DER, 615' left of centerline, 197' MSL. Tree, building and transmission line beginning 1267' from DER, 318' left of centerline, up to 203' MSL. Tree 1336' from DER, 7' right of centerline, 177' MSL. Tree 1337' from DER, 46' right of centerline, 192' MSL. Tree 2201' from DER, 776' right of centerline, 240' MSL.

## WEED, CA

### WEED (O46)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 17173 (FAA)

DEPARTURE PROCEDURE: Use FOBRO (RNAV)  
DEPARTURE.

## WILLITS, CA

### ELLS FIELD-WILLITS MUNI (O28)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, use MENDOCINO  
RNAV DEPARTURE. **Rwy 34**, use FLUEN RNAV  
DEPARTURE.

## WILLOWS, CA

### WILLOWS-GLENN COUNTY (WLW)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 17173 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn heading 150 to 1000 thence... **Rwy 16**, climbing left turn heading 145 to 1000 thence... **Rwy 31**, climbing left turn heading 140 to 1000 thence... **Rwy 34**, climbing right turn heading 150 to 1000 thence... all aircraft continue climb direct ILA VORTAC before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, vehicles beginning 325' from DER, 563' left of centerline, up to 17' AGL/146' MSL. **Rwy 16**, poles beginning 14' from DER, 409' right of centerline, up to 35' AGL/172' MSL. Tree 232' from DER, 436' left of centerline, 149' MSL. **Rwy 34**, tower 869' from DER, 434' right of centerline, 55' AGL/196 MSL. Pole 909' from DER, 305' right of centerline, 24' AGL/165' MSL.

12 SEP 2019 to 10 OCT 2019

12 SEP 2019 to 10 OCT 2019

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

19227

SW-2



19227

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



## WOODLAND, CA

WATTS-WOODLAND (O41)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 185° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 36**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 18**, tree 2478' from DER, 283' right of centerline, 100' AGL/249' MSL. Vehicle on road 192' from DER, on centerline, 15' AGL/144' MSL.

**Rwy 36**, tree 453' from DER, 69' left of centerline, 100' AGL/224' MSL. Vehicle on road 350' from DER, on centerline, 15' AGL/134' MSL. Tree 4489' from DER, 1688' left of centerline, 100' AGL/234' MSL.

12 SEP 2019 to 10 OCT 2019

12 SEP 2019 to 10 OCT 2019



19227

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



SW-2