

# TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

09295

## INSTRUMENT APPROACH PROCEDURE CHARTS

### IFR TAKE-OFF 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 take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. 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 described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

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 take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

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

NAME TAKE-OFF MINIMUMS

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#### ALTURAS, CA

#### ARCATA-EUREKA, CA

ALTURAS MUNI (AAT)

ARCATA

AMDT 2 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1**, std. w/ a min. climb of 429' per NM to 1900. **Rwy 14**, 600-2¼ or std. w/ a min. climb of 486' per NM to 1000'.

DEPARTURE PROCEDURE: Use BACHS DEPARTURE.

DEPARTURE PROCEDURE: **Rwy 1**, climbing left turn thence..., or for climb in visual conditions: cross Arcata Airport westbound at or above 1100, thence...**Rwys 14, 19**, climbing right turn thence...**Rwy 32**, climbing left turn thence...

#### AMEDEE AAF (KAHC),

HERLONG, CA. . . . . 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.

...via ACVR-250 to HOCUT INT and continue climb to MEA on V27.

NOTE: **Rwy 1**, multiple trees beginning 182' from departure end of runway, 11' right of centerline, up to 161' AGL/370' MSL. Multiple trees beginning 281' from departure end of runway, 86' left of centerline, up to 148' AGL/357' MSL. **Rwy 14**, multiple trees beginning 838' from departure end of runway, 372' left of centerline, up to 200' AGL/759' MSL. Multiple trees beginning 1286' from departure end of runway, 716' right of centerline, up to 65' AGL/286' MSL. **Rwy 19**, multiple trees beginning 57' from departure end of runway, 270' right of centerline, up to 30' AGL/218' MSL. **Rwy 32**, multiple trees beginning 113' from departure end of runway, 211' right of centerline, up to 86' AGL/267' MSL. Multiple trees 1' from departure end of runway, 161' left of centerline, up to 21' AGL/202' MSL. Obstruction light 426' from departure end of runway, 257' right of centerline, 21' AGL/202' MSL.

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## AUBURN, CA

### AUBURN MUNI

TAKE-OFF MINIMUMS: **Rwy 7**, CAT A, B 600-2 or std. with a min. climb of 350' per NM to 2300. CAT C, D NA. **Rwy 25**, CAT A, B 300-1 or std. with a min. climb of 390' per NM to 1700. CAT C, D NA.

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn to 3000 heading 305°, intercept MYV R-089 to MYV VOR/DME, then via assigned routing. **Rwy 25**, climb runway heading to 3000, intercept and proceed via MYV R-098 to MYV VOR/DME, then via assigned heading.

## BEALE AFB (KBAB)

### MARYSVILLE, CA. . . . .ORIG, 09155

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.

TAKE-OFF OBSTACLES: **Rwy 33**, Terrain 118' MSL, 62' from DER, 500' right of centerline. Terrain 119' MSL, 190' from DER, 551' right of centerline.

## BECKWOURTH, CA

### NERVINO

TAKE-OFF MINIMUMS: **Rwys 7, 25**, 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 7, 25**, for climb in visual conditions: cross Nervino Airport at or above 8300 before proceeding on course.

NOTE: **Rwy 7**, road 58' from departure end of runway, 469' right of centerline, 15' AGL/4920' MSL. Pole 310' from departure end of runway, 522' right of centerline, 49' AGL/4925' MSL. Pole 528' from departure end of runway, 522' right of centerline, 39' AGL/4924' MSL.

Tree 1.47 NM from departure end of runway, 727' right of centerline, 100' AGL/5193' MSL. Tree 1.9 NM from departure end of runway, 2534' right of centerline, 100' AGL/5499' MSL. Bush 2.03 NM from departure end of runway, 2126' right of centerline, 4' AGL/5406' MSL.

**Rwy 25**, tree 5856' from departure end of runway, 1984' right of centerline, 100' AGL/5339' MSL. Tree 1.25 NM from departure end of runway, 2439' right of centerline, 100' AGL/5420' MSL. Tree 2.07 NM from departure end of runway, 3302' left of centerline, 100' AGL/5570' MSL.

## BISHOP, CA

### EASTERN SIERRA RGNL

TAKE-OFF MINIMUMS: **Rwys 7,12,16**, NA. **Rwys 25, 30,34**, 4000-2 or std. with a min. climb of 350' per NM to 9000.

DEPARTURE PROCEDURE: **Rwys 25,30**, turn right. **Rwy 34**, turn left, climb northwestbound to 13000 via BIH R-322 to NIKOL Int.

## BYRON, CA

### BYRON

TAKE-OFF MINIMUMS: **Rwy 23**, NA-obstacles. **Rwy 30**, 200-1 or std. with a min. climb of 240' per NM to 300. Alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 2000' prior to departure end of runway.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn via heading 120° and ECA VORTAC before proceeding on course. **Rwy 12**, climbing left turn via heading 050° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course. **Rwy 30**, climbing right turn via heading 130° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course.

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

## CHICO, CA

### CHICO MUNI

DEPARTURE PROCEDURE: **Rwys 13L/R**, climbing right turn. **Rwys 31L/R**, climbing left turn. All aircraft, climb via CIC R-205 to JINGO Int. Aircraft departing JINGO Int 020° CW 350° climb on course. All others climb in JINGO Int holding pattern (SE, right turns, 320° inbound) to depart JINGO Int at or above 2800.

## CLOVERDALE, CA

### CLOVERDALE MUNI

TAKE-OFF MINIMUMS: **Rwy 14**, 400-2 or std. with a min. climb of 280' per NM to 1500, then a min. climb of 260' per NM to 3900. **Rwy 32**, NA.

DEPARTURE PROCEDURE: **Rwy 14**, climb direct STS VOR/DME. Continue climb in holding pattern (NW right turns, 140° inbound) to MEA for route of flight.

NOTE: **Rwy 14**, tree 9337' from departure end of runway, 4633' right of centerline, 150' AGL/889' MSL.

## COLUMBIA, CA

### COLUMBIA

TAKE-OFF MINIMUMS: **Rwy 17**, 300-1 with a min. climb rate of 300' per NM to 3000. **Rwy 35**, NA.

DEPARTURE PROCEDURE: **Rwy 17**, use FICHU RNAV DEPARTURE. **Rwy 35**, NA.

NOTE: **Rwy 17**, 51' AGL pole 502' from departure end of runway, 368' right of centerline, 90' AGL tree 483' from departure end of runway, 535' right of centerline; 100 AGL tree 1258' from departure end of runway, 494' left of centerline; 167' AGL tree 1644' from departure end of runway, 924' right of centerline.

## COLUSA, CA

### COLUSA COUNTY

DEPARTURE PROCEDURE: Climb direct to ILA VORTAC.

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**CONCORD, CA**

**BUCHANAN FIELD (CCR)  
AMDT 2 07354 (FAA)**

TAKE-OFF MINIMUMS: **Rwys 1L/R**, std. w/ min. climb of 360' per NM to 1100, or 2200-3 for climb in visual conditions. **Rwys 14L/R**, std. w/ min. climb of 420' per NM to 2700, or 2200-3 for climb in visual conditions. **Rwys 19L/R**, std. w/ min. climb of 490' per NM to 4000, or 2200-3 for climb in visual conditions. **Rwys 32L/R**, std. w/ min. climb of 320' per NM to 500, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1L/R**, climb direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence... **Rwys 14L/R, 19L/R** climbing left turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence... **Rwys 32L/R**, climbing right turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...

...aircraft departing CCR VOR/DME R-150 clockwise R-110 climb on course. All others climb in CCR VOR/DME holding pattern (north, left turns, 191° inbound) to cross CCR VOR/DME at or above 2700 before proceeding on course.

NOTE: **Rwy 1L**, multiple trees and bushes beginning 675' from departure end of runway, 9' left of centerline, up to 48' AGL/98' MSL. Multiple poles, light poles and antennas on buildings beginning 639' from departure end of runway, 120' left of centerline, up to 50' AGL/72' MSL. Fence 117' from departure end of runway, 2' right of centerline, 12' AGL/29' MSL. Sign 1996' from departure end of runway, 812' left of centerline, 45' AGL/78' MSL. Flagpole 1520' from departure end of runway, 753' left of centerline, 40' AGL/71' MSL. **Rwy 1R**, multiple trees and poles beginning 1552' from departure end of runway, 98' right of centerline, up to 52' AGL/131' MSL. **Rwy 19R**, multiple trees beginning 604' from departure end of runway, 82' left of centerline, up to 70' AGL/108' MSL. Light pole 1392' from departure end of runway, 749' right of centerline, 51' AGL/71' MSL. Obstruction light on building 2451' from departure end of runway, 911' left of centerline, 73' AGL/97' MSL. Fence 123' from departure end of runway, 503' left of centerline, 6' AGL/30' MSL. **Rwy 19L**, multiple trees beginning 2132' from departure end of runway, 28' left of centerline, up to 70' AGL/106' MSL. **Rwy 32L**, road/vehicle 561' from departure end of runway, on centerline, 15' AGL/49' MSL. Light on tank 6617' from departure end of runway, 1926' right of centerline, 114' AGL/213' MSL. Hangar 259' from departure end of runway, 300' left of centerline, 21' AGL/37' MSL. Transmission tower 6015' from departure end of runway, 1338' left of centerline, 145' AGL/173' MSL. Tree 825' from departure end of runway, 136' left of centerline, 25' AGL/40' MSL, building 633' from departure end of runway, 254' right of centerline, 20' AGL/35' MSL.

**BUCHANAN FIELD (CON'T)**

**Rwy 32R**, train 6345' from departure end of runway, 1948' left of centerline, 23' AGL/102' MSL, obstruction light on hopper 2110' from departure end of runway, 601' right of centerline, 79' AGL/99' MSL. Obstacle light on tank 6617' from departure end of runway, 1426' right of centerline, 193' AGL/213' MSL. Flagpole 655' from departure end of runway, 300' right of centerline, 35' AGL/43' MSL. Sign 697' from departure end of runway, 248' right of centerline, 25' AGL/41' MSL. Road/vehicle 561' from departure end of runway, on centerline, 15' AGL/49' MSL. Building 633' from departure end of runway, 246' left of centerline, 20' AGL/35' MSL, tree 825' from departure end of runway, 635' left of centerline, 25' AGL/40' MSL, transmission tower 6015' from departure end of runway, 1839' left of centerline, 145' AGL/173' MSL. **Rwy 14R**, obstacle lights, obstacle lights on buildings, obstacle lights on windsocks, buildings and trees beginning 412' from departure end of runway, 167' right of centerline, up to 104' AGL/136' MSL. **Rwy 14L**, multiple trees beginning 841' from departure end of runway, 61' left of centerline, up to 78' AGL/102' MSL, building 1071' from departure end of runway, 35' left of centerline, 30' AGL/58' MSL. Fence 225' from departure end of runway, 29' left of centerline, 12' AGL/33' MSL.

**CRESCENT CITY, CA**

**JACK MCNAMARA FIELD**

TAKE-OFF MINIMUMS: **Rwy 11**, 300-1. **Rwy 17**, 300-1 or std. with a min. climb of 240' per NM to 300. DEPARTURE PROCEDURE: **Rwys 11, 17**, climbing right turn. **Rwys 29, 35**, climbing left turn. **All aircraft**, climb direct CEC VORTAC. Aircraft departing CEC R-131 CW R-330 climb on course. All others continue climb in CEC holding pattern (S, left turns, 341° inbound) to cross CEC VORTAC at or above: R-331 CW R-010, 1100; R-011 CWR R-050, 2200; R-051 CW R-090, 4100; R-091 CWR R-130, 2700.

**DAVIS, CA**

**UNIVERSITY (EDU)**

**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.

NOTE: **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.

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## DAVIS/WOODLAND/WINTERS, CA

YOLO COUNTY (DWA)

AMDT 1 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 164° to 2100 before turning right. **Rwy 34**, climb heading 344° to 1500 before turning left.

NOTE: **Rwy 16**, multiple trees beginning 595' from DER, 308' right of centerline, up to 120' AGL/206' MSL. Multiple trees beginning 1046' from DER, 257' left of centerline, up to 120' AGL/195' MSL. **Rwy 34**, multiple trees beginning 417' from DER, 361' right of centerline, up to 120' AGL/206' MSL. Trees beginning 683' from DER, 491' left of centerline, up to 120' AGL/206' MSL. Pole 859' from DER, 548' left of centerline, 47' AGL/137' MSL.

## EUREKA, CA

MURRAY FIELD (EKA)

AMDT 4 09239 (FAA)

TAKE-OFF 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.

NOTE: **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

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn. **Rwy 30**, climbing left turn. All aircraft climb via heading 150° and PNX R-061 to MENDO Int. Aircraft departing MENDO Int, heading 230° CW 150° climb on course. All others climb in MENDO holding pattern (NE, right turns, 241° inbound) to cross MENDO Int at or above 2000.

## FORTUNA, CA

ROHNERVILLE

TAKE-OFF MINIMUMS: **Rwy 11**, NA.

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

## FRESNO, CA

FRESNO-CHANDLER EXECUTIVE (FCH)

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.

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

## FRESNO YOSEMITE INTL

DEPARTURE PROCEDURE: **Rwys 11L, 11R**, climbing left turn direct CZQ VORTAC. **Rwys 29L, 29R**, climbing right turn direct CZQ VORTAC. All aircraft climb in CZQ VORTAC holding pattern (SE, left turns, 322° inbound) to cross CZQ VORTAC at or above MEA/MCA for direction of flight before proceeding en route.

NOTE: **Rwy 11L**, pole 647' from departure end of runway, 543' left of centerline, 17' AGL/349' MSL. Sign 1693' from departure end of runway, 863' right of centerline, 53' AGL/383' MSL. **Rwy 11R**, transmissometer 432' from departure end of runway, 281' left of centerline, 19' AGL/ 349' MSL. Light, 1701' from departure end of runway, 293' right of centerline, 53' AGL/386' MSL. **Rwy 29L**, arresting sys, 124' from departure end of runway, 527' right of centerline, 2' AGL/334' MSL. Building 219' from departure end of runway, 296' left of centerline, 7' AGL, 336' MSL. **Rwy 29R**, trees 1076' from departure end of runway, 775' right of centerline, 63' AGL/397' MSL. Arresting sys, 95' from departure end of runway, 149' right of centerline, 3' AGL/336' MSL. Multiple trees beginning 1076' from departure end of runway, 775' right of centerline, up to 75' AGL/397' MSL.

## GRASS VALLEY, CA

NEVADA COUNTY AIR PARK

TAKE-OFF MINIMUMS: **Rwy 7**, NA.

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

## GROVELAND, CA

PINE MOUNTAIN LAKE

TAKE-OFF MINIMUMS: **Rwy 9**, 400-2 or std. with a min. climb of 400' per NM to 4000.

DEPARTURE PROCEDURE: **Rwy 9**, turn right.

**Rwy 27**, turn left. All aircraft climb direct LIN VORTAC. Cross LIN VORTAC at or above 5000.

## HALF MOON BAY, CA

HALF MOON BAY

TAKE-OFF MINIMUMS: **Rwy 12**, 2600-2 or std. with a min. climb of 300' per NM to 3000. **Rwy 30**, NA.

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

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## HANFORD, CA

HANFORD MUNI

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

## HAYWARD, CA

HAYWARD EXECUTIVE

TAKE-OFF MINIMUMS: **Rwys 10L, 10R**, 300-1.  
DEPARTURE PROCEDURE: **Rwys 28L, 28R**, climb straight ahead. **Rwys 10L, 10R**, turn right, climb to 2500 via direct OAK VORTAC and OAK R-288. Aircraft southeastbound and capable of climbing 250' per NM to 4500 may proceed direct to MABRY Int via OAK R-114.

## HOLLISTER, CA

HOLLISTER MUNI (CVH)

AMDT 1 08157 (FAA)

TAKE-OFF 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.

NOTE: **Rwy 13**, terrain beginning 992' from departure end of runway, 348' left of centerline, up to 289' MSL. Terrain beginning 2467' from departure end of runway, 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 departure end of runway, 153' right of centerline, up to 270' MSL. **Rwy 31**, terrain beginning 76' from departure end of runway, 392' left of centerline, up to 247' MSL. Terrain beginning 14' from departure end of runway, 179' right of centerline, up to 231' MSL.

## JACKSON, CA

WESTOVER FIELD AMADOR COUNTY

DEPARTURE PROCEDURE: **Rwy 1**, turn left. **Rwy 19**, turn right. All aircraft climb direct LIN VORTAC, continue climb on course.

## LAKEPORT, CA

LAMPSON FIELD

TAKE-OFF MINIMUMS: **Rwy 10**, 1700-3 or std. with a min. climb of 610' per NM to 3200. **Rwy 28**, 1500-3 or std. with a min. climb of 620' per NM to 2200.  
DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn to heading 275°. **Rwy 28**, climbing right turn to heading 035°. Intercept and climb northwestbound via the LOP NDB 336° bearing to 4000, then climbing left turn direct ENI VORTAC. Cross ENI VORTAC at or above 6000.

## LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CA . . . . . 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

DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn. **Rwy 33**, climbing left turn. All aircraft climb direct MYV VOR/DME, then climb on course.

## LIVERMORE, CA

LIVERMORE MUNI

TAKE-OFF MINIMUMS: **Rwys 7L, 7R**, 1500-2 or std. with a min. climb of 260' per NM to 2200.

**Rwys 25L, 25R**, 2300-2 or std. with a min. climb of 375' per NM to 3100.

DEPARTURE PROCEDURE: **Rwys 7L, 7R**, climb direct REIGALOM, then climbing left turn via the 030° bearing from REIGALOM to intercept V109, then proceed on course. **Rwys 25L, 25R**, climb runway heading to 1200, then climbing right turn via heading 020° and OAK R-060 to ALTAM Int, then proceed on course.

## LODI, CA

LODI

DEPARTURE PROCEDURE: Climb direct to LIN VORTAC.

## LOS BANOS, CA

LOS BANOS MUNI

DEPARTURE PROCEDURE: Aircraft departing 320° CW 120° climb on course. All others climb via heading 240° to intercept V109. Southeastbound via V109 requires a climb rate of 300' per NM to 4000.

## MADERA, CA

MADERA MUNI

DEPARTURE PROCEDURE: **Rwy 30**, climbing right turn via FRA R-243 to BEREN Int/FRA 18.6 DME then via assigned route. **Rwy 12**, turn left, climb heading 095° to 1500, continue climb direct CZQ VORTAC, then via assigned route.

## MAMMOTH LAKES, CA

MAMMOTH YOSEMITE

TAKE-OFF MINIMUMS: **Rwy 9**, 500-2 or std. with a min. climb of 400' per NM to 10700. **Rwy 27**, 5000-5 or std. with a min. climb of 450' per NM to 11800.

DEPARTURE PROCEDURE: **Rwy 9**, climbing left turn heading 050° to intercept BIH R-307. **Rwy 27**, climbing right turn to heading 095° to intercept BIH R-307. All aircraft proceed via BIH R-307 to BIH VOR/DME, then via BIH R-322 (V381) to NIKOL Int then via assigned route.

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**MARINA, CA**

**MARINA MUNI**

TAKE-OFF MINIMUMS: **Rwy 11**, std. with a min. climb of 291' PER NM TO 4600, OR 2000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, for climb in visual conditions: cross Marina Municipal Airport at or above 2100, continue climb direct SNS VORTAC, thence...

**Rwy 29**, climb via heading 288° to 1000', then climbing right turn direct SNS VORTAC, thence... **All aircraft** continue climb in SNS holding pattern (W, left turns, SNS VORTAC 084° inbound) to cross SNS VORTAC at or above MEA/MCA for direction of flight before proceeding enroute.

**MARIPOSA, CA**

**MARIPOSA-YOSEMITE**

TAKE-OFF 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.

NOTE: **Rwy 26**, tree 10' from departure end of runway, 313' left of centerline, 100' AGL/2265' MSL. Tree 1146' from departure end of runway, 303' left of centerline, 100' AGL/2298' MSL.

**MARYSVILLE, CA**

**YUBA COUNTY**

DEPARTURE PROCEDURE: **All runways**, climb direct ILA VORTAC.

**MERCED, CA**

**CASTLE (MER)**

**AMDT 1 09015 (FAA)**

TAKE-OFF 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.

NOTE: **Rwy 13**, tree 2539' from departure end of runway, 1005' right of centerline, 89' AGL/261' MSL. **Rwy 31**, Tree 1274' from departure end of runway, 829' left of centerline, 20' AGL/224' MSL. Trees beginning 2909' from departure end of runway, 542' right of centerline, 65' AGL/269' MSL.

**MERCED RGNL/MACREADY FIELD (MCE)**

**AMDT 5A 09155 (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.

**MODESTO, CA**

**MODESTO CITY-COUNTY HARRY SHAM FIELD (MOD)**

**AMDT 5 08269 (FAA)**

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

NOTE: **Rwy 10R**, post 55' from departure end of runway, 204' right of centerline, 15' AGL/85' MSL. Multiple trees beginning 180' from departure end of runway, 295' right of centerline, up to 105' AGL/194' MSL. Multiple trees beginning 839' from departure end of runway, 81' left of centerline, up to 88' AGL/148' MSL. **Rwy 10L**, multiple trees beginning 915' from departure end of runway, 598' right of centerline, up to 87' AGL/167' MSL. **Rwy 28R**, pole 746' from departure end of runway, 700' right of centerline, 40' AGL/133' MSL. Pole 1414' from departure end of runway, 624' right of centerline, 40' AGL/133' MSL. Multiple trees beginning 2069' from departure end of runway, 378' left of centerline, up to 74' AGL/173' MSL. Building 2176' from departure end of runway, 21' left of centerline, 56' AGL/151' MSL. **Rwy 28L**, light pole 142' from departure end of runway, 519' left of centerline, 40' AGL/136' MSL. Hanger 358' from departure end of runway, 306' left of centerline, 15' AGL/109' MSL. Multiple trees beginning 745' from departure end of runway, 375' left of centerline, up to 79' AGL/173' MSL. Multiple trees, building and antenna beginning 1170' from departure end of runway, 322' right of centerline, up to 57' AGL/152' MSL.

**MONTAGUE, CA**

**SISKIYOU COUNTY**

TAKE-OFF 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 (N, right turns, 172° inbound). **Rwy 35**, climb to 7000 via runway heading and 352° 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.

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**MONTEREY, CA**

MONTEREY PENINSULA (MRY)

AMDT 6 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10L**, std. w/ min. climb of 428' per NM to 1900 or 1700-2½ for climb in visual conditions. **Rwy 10R**, std. w/ min. climb of 451' per NM to 1900 or 1700-2½ for climb in visual conditions.

**Rwy 28L**, std. w/ min. climb of 218' per NM to 800 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10L**, climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 10R**, climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course.

**Rwy 28L**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 28R**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course.

NOTE: **Rwy 10L**, obstruction light on DME 555' from DER, 217' right of centerline, 12' AGL/272' MSL. Tree 1.8 NM from DER, 2817' right of centerline, up to 100' AGL/859' MSL. **Rwy 10R**, obstruction light on DME 64' from DER, 284' left of centerline, 12' AGL/ 272' MSL. Tree 1.7 NM from DER, 2318' right of centerline, up to 100' AGL/859' MSL. **Rwy 28L**, tree 743' from DER, 619' left of centerline, up to 100' AGL/240' MSL. Tree 2.9 NM from DER, 2298' left of centerline, up to 100' AGL/640' MSL. Tree 2.9 NM from DER, 4578' left of centerline, 114' AGL/853' MSL. **Rwy 28R**, airplane 6' from DER, 179' left of centerline, 64' AGL/263' MSL.

**MOUNTAIN VIEW, CA**

MOFFETT FEDERAL AFLD

TAKE-OFF MINIMUMS: **Rwy 14L**, std. with a min. climb of 489' per NM to 6100. **Rwy 14R**, std. with a min. climb of 495' per NM to 6100. **Rwy 32L**, std. with a min. climb of 429' per NM to 6100. **Rwy 32R**, std. with a min. climb of 424' per NM to 6100.

**NAPA, CA**

NAPA COUNTY

TAKE-OFF MINIMUMS: **Rwy 6**, 1800-2½, climb in visual conditions to cross Napa County Airport at or above 1700 MSL before proceeding direct SGD VORTAC or std. with a min. climb of 475' per NM to 1400.

**Rwys 36L, 36R**, 1800-2½, climb in visual conditions to cross Napa County Airport at or above 1700 MSL before proceeding direct SGD VORTAC or std. with a min. climb of 370' per NM to 1200.

DEPARTURE PROCEDURE: **Rwys 6, 18L, 18R**, turn right. **Rwys 24, 36L, 36R**, turn left. All aircraft climb direct SGD VORTAC. Aircraft departing SGD R-060 CWR-270 climb on course. All others continue climb via SGD R-165 to 2000, then climbing right turn direct SGD VORTAC, climb on course.

NOTE: **Rwy 6**, Flood light 90' from departure end of runway, 500' left of centerline, 30' AGL/64' MSL. Flood light 581' from departure end of runway, 485' left of centerline, 30' AGL/67' MSL. Railroad 1143' to 1236' from departure end of runway, on centerline to 500' left of centerline, 23' AGL/64' to 67' MSL. Pole 1396' from departure end of runway, 741' right of centerline, 33' AGL/77' MSL. Trees 1563' from departure end of runway, 575' left of centerline, 34' AGL/78' MSL. Trees 2331' from departure end of runway, 203' right of centerline, 53' AGL/106' MSL. Trees 3297' from departure end of runway, 476' left of centerline, 52' AGL/ 131' MSL. Obstruction light hopper 3440' from departure end of runway, 273' right of centerline, 50' AGL/133' MSL. Trees 4895' from departure end of runway, 1067' left of centerline, 108' AGL/198' MSL. **Rwy 18L**, tree 4982' from departure end of runway, 237' left of centerline, 58' AGL/92' MSL. **Rwy 24**, bridge 4964' from departure end of runway, 1716' right of centerline, 167' AGL/167' MSL. **Rwy 36R**, floodlight 462' from departure end of runway, 339' right of centerline, 29' AGL/53' MSL. Tree 8701' from departure end of runway, 1286' right of centerline, 70' AGL/289' MSL. Tree 8838' from departure end of runway, 2299' right of centerline, 64' AGL/383' MSL. **Rwy 36L**, terrain 1' from departure end of runway, 491' left of centerline, 34' MSL. Terrain 210' from departure end of runway, 417' left of centerline, 32' MSL. Trees 595' from departure end of runway, 517' right of centerline, 18' AGL/42' MSL. Trees 3182' from departure end of runway, 793' right of centerline, 81' AGL/117' MSL. Trees 4636' from departure end of runway, 345' right of centerline, 114' AGL/153' MSL. Trees 7061' from departure end of runway, 1800' right of centerline, 70' AGL/289' MSL. Pole 12845' from departure end of runway, 1471' right of centerline, 53' AGL/372' MSL. Pole 13005' from departure end of runway, 3483' right of centerline, 39' AGL/558' MSL. Tree 19688' from departure end of runway, 2155' right of centerline, 100' AGL/894' MSL.

**NOVATO, CA**

GNOSS FIELD

TAKE-OFF MINIMUMS: **Rwy 13**, NA. **Rwy 31**, 500-2 or std. with a min. climb of 250' per NM to 1000.

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

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# TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

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## OAKDALE, CA

### OAKDALE

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn via heading 020° and LIN VORTAC 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 VORTAC R-146 to LIN VORTAC cross LIN VORTAC at or above MEA for direction of flight.

NOTE: **Rwy 10**, terrain beginning 388' from departure end of runway, up to 279' MSL. **Rwy 28**, powerline 3447' from departure end of runway, 407' right of centerline, 115' AGL/329' MSL.

## OAKLAND, CA

### METROPOLITAN OAKLAND INTL

DEPARTURE PROCEDURE: **Rwys 9L, 9R, 11, 15, 29**, turn right. **Rwys 27L, 27R**, maintain runway heading. **Rwy 33**, turn left. **All aircraft** climb to 4000 or above via V107 to COMMO Int. If not at 4000 at COMMO Int, climb in holding pattern (E, right turns, 288° inbound) before proceeding on course.

## ORLAND, CA

### HAIGH FIELD

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)

#### AMDT 2A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1**, 1300-2 or std. w/ min. climb of 260' per NM to 1700. **Rwy 30**, 400-1½ or std. w/ min. climb of 245' per NM to 600.

DEPARTURE PROCEDURE: **Rwys 1, 30**, climbing left turn heading 170°. **Rwys 12, 19**, climbing right turn heading 290°. **All aircraft** climb via MXW R-052 to TALUM Int/MXW 16.9 DME. Continue climb on course.

NOTE: **Rwy 1**, light poles beginning 1368' from DER, 538' right of centerline, up to 71' AGL/255' MSL. Tree 513' from DER, 603' left of centerline, 52' AGL/236' MSL. Windsock 1143' from DER, 350' right of centerline, 19' AGL/213' MSL. Ground 191' from DER, 489' right of centerline, 190' MSL. **Rwy 12**, light on pole 128' from DER, 293' right of centerline, 27' AGL/203' MSL. **Rwy 19**, pole 902' from DER, 655' right of centerline, 36' AGL/ 217' MSL. Vehicle on road 819' from DER, 376' left of centerline, 15' AGL/203' MSL. **Rwy 30**, obstruction light on transmission tower 1.4 NM from DER, 1825' right of centerline, 250' AGL/442' MSL. Tree 642' from DER, 638' left of centerline, 52' AGL/244' MSL.

## PALO ALTO, CA

### PALO ALTO AIRPORT OF

### SANTA CLARA COUNTY

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

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

## PETALUMA, CA

### PETALUMA MUNI

DEPARTURE PROCEDURE: **Rwy 11**, climb to 2400 or above direct SGD VORTAC. **Rwy 29**, climb runway heading to 1500 then climbing left turn to 3000 direct SGD VORTAC. **All aircraft** continue climb to MEA for route of flight.

## PLACERVILLE, CA

### PLACERVILLE (PVF)

#### AMDT 2 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 23**, climb to 5000 via HNW R-226 then climbing right turn via HNW R-226 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 turn, 048° inbound) to cross HNW VOR/DME at or above MEA/MCA for direction of flight before proceeding en route.

NOTE: **Rwy 23**, hangar 20' from departure end of runway, 340' right of centerline, 27' AGL/2586' MSL.

## PORTERVILLE, CA

### PORTERVILLE MUNI

TAKE-OFF MINIMUMS: **Rwy 12**, 200-1 or std. with a min. climb rate of 220' per NM to 600.

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

NOTE: 559' frost fan 3000' east southeast runway 12.

## RED BLUFF, CA

### RED BLUFF MUNI

TAKE-OFF MINIMUMS: **Rwy 33**, CATS C,D 2500-2 or std. with a min. climb of 300' per NM to 3300.

DEPARTURE PROCEDURE: **Rwy 15**, climb direct RBL VORTAC. **Rwy 33**, climbing right turn direct RBL VORTAC. **All aircraft** departing RBL R-091 CW R-200 climb on course. All others climb in RBL holding pattern (S, right turns, 341° inbound) to depart RBL VORTAC at or above: R-021 CW R-060, 4500'; R-061 CW R-090, 2100'; R-201 CW R-270, 4000'; R-271 CW R-020, 2400'.

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# TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

**REDDING, CA**

**REDDING MUNI**

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

NOTE: **Rwy 12**, multiple trees and bush 86' from departure end of runway, 174' left of centerline up to 87' AGL/576' MSL, fence and equipment 282' from departure end of runway, 330' left of centerline, up to 8' AGL/500' MSL. **Rwy 30**, multiple trees beginning 1936' from departure end of runway, 210' left of centerline, up to 94' AGL/594' MSL, multiple trees beginning 1686' from departure end of runway, 326' right of centerline, 68' AGL/568' MSL. Multiple poles and antenna on hangar beginning 289' from departure end of runway, 385' left of centerline up to 34' AGL/534' MSL. Rod on pole 850' from departure end of runway, 524' right of centerline, 36' AGL/536' MSL. Powerline 2419' from departure end of runway, 1091' left of centerline 84' AGL/584' MSL. Hangar 1126' from departure end of runway, 528' left of centerline, 37' AGL/537' MSL. **Rwy 34**, sign 98' from departure end of runway, 356' left of centerline 5' AGL/510' MSL, tree 588' from departure end of runway, 483' left of centerline 16' AGL/521' MSL.

**RIO VISTA, CA**

**RIO VISTA MUNI**

DEPARTURE PROCEDURE: **Rwy 7**, turn left. **Rwys 14, 25, 32** turn right. All aircraft climb direct SAC VORTAC.

**SACRAMENTO, CA**

**MC CLELLAN AIRFIELD (MCC)**

**AMDT 1 08101 (FAA)**

TAKE-OFF MINIMUMS: STANDARD.

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

**SACRAMENTO EXECUTIVE (SAC)**

**ORIG 08325 (FAA)**

NOTE: **Rwy 2**, multiple trees 1128' from departure end of runway, 108' left of centerline, up to 76' AGL/96' MSL. Antenna 1376' from departure end of runway, 663' left of centerline, 51' AGL/71' MSL. Trees 1858' from departure end of runway, 137' right of centerline, 73' AGL/93' MSL. **Rwy 12**, multiple trees 518' from departure end of runway, 26' left of centerline, up to 83' AGL/98' MSL. Light pole 507' from departure end of runway, 336' left of centerline, 37' AGL/52' MSL. Transmission pole 3971' from departure end of runway 647' left of centerline, 130' AGL/154' MSL. Multiple trees 475' from departure end of runway, 476' right of centerline up to 97' AGL/112' MSL. Light poles 711' from departure end of runway, 241' right of centerline, 36' AGL/51' MSL. **Rwy 16**, light pole 22' from departure end of runway, 481' left of centerline, 38' AGL/53' MSL. Antenna 540' from departure end of runway, 516' left of centerline, 53' AGL/67' MSL. Multiple trees beginning 1317' from departure end of runway, 36' left of centerline, up to 78' AGL/88' MSL. Multiple trees beginning 588' from departure end of runway, 195' right of centerline, up to 67' AGL/77' MSL. **Rwy 20**, multiple trees beginning 850' from departure end of runway, 626' left of centerline, up to 92' AGL/107' MSL. Multiple trees beginning 714' from departure end of runway, 515' right of centerline, up to 66' AGL/81' MSL. **Rwy 30**, obstruction light on hangers 460' from departure end of runway, 360' right of centerline, 25' AGL/43' MSL. Multiple trees beginning 631' from departure end of runway, 195' right of centerline, up to 56' AGL/74' MSL. Multiple trees beginning 1331' from departure end of runway, 247' left of centerline, up to 90' AGL/110' MSL. Antenna on building 1543' from departure end of runway, 442' left of centerline, 47' AGL/67' MSL. **Rwy 34**, trees 1724' from departure end of runway, 854' left of centerline, 56' AGL/74' MSL. Tree 2233' from departure end of runway, 1062' right of centerline, 79' AGL/99' MSL.

**SACRAMENTO INTL**

DEPARTURE PROCEDURE: **Rwy 16L**, climb via heading 164° to 800 before turning east.

**SACRAMENTO MATHER**

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

**SALINAS, CA**

**SALINAS MUNI**

TAKE-OFF MINIMUMS: **Rwys 3, 14, 21, 32**, NA.

**Rwy 8**, CAT C, D 3600-2 or std. with a min. climb of 420' per NM to 4100. **Rwy 13**, CAT C, D 3600-2 or std. with min. climb of 500' per NM to 4000. **Rwy 31**, RVR/24, FAR 135.

DEPARTURE PROCEDURE: **Rwys 8, 13, 26**, turn right. **Rwy 31**, turn left. Climb on SNSR-275 to 2000, then climbing right turn to cross SNS VORTAC at or above 3000.

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**SAN ANDREAS, CA**

CALAVERAS CO-MAURY RASMUSSEN FIELD

TAKE-OFF MINIMUMS: **Rwy 13**, 1800-5 or std. with a min. climb of 290' per NM to 3100.DEPARTURE PROCEDURE: **Rwy 13**, climb runway heading to 3100, then climbing right turn via LIN R-085 to LIN VORTAC. **Rwy 31**, climb via heading 311° to 3000, then climbing left turn via Linden (LIN) VORTAC R-029 to LIN VORTAC.**SAN CARLOS, CA**

SAN CARLOS (SQL)

AMDT 1 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 30**, NA.DEPARTURE PROCEDURE: **Rwy 12**, climbing left turn via heading 120° and SJC VOR/DME R-281 to SJC VOR/DME before proceeding on course.NOTE: **Rwy 12**, ground 0' from DER, 148' left of centerline, 0' AGL/11' MSL. Building 2' from DER, 167' right of centerline, 27' AGL/30' MSL. Levee beginning 117' from DER, 90' left of centerline, up to 12' AGL/12' MSL. Pole 715' from DER, 294' right of centerline, 34' AGL/38' MSL. Tower 1674' from DER, 741' right of centerline, 106' AGL/111' MSL.**SAN FRANCISCO, CA**

SAN FRANCISCO INTL

TAKE-OFF MINIMUMS: **Rwy 19L**, 2000-2 or std. with a min. climb of 520' per NM to 2300. **Rwy 19R**, 2000-2 or std. with a min. climb of 500' per NM to 2300.**Rwys 28L, 28R**, 800-2 or std. with a min. climb of 270' per NM to 1000.DEPARTURE PROCEDURE: **Rwys 1L, 1R, 28L, 28R**, climb runway heading to 2000. **Rwys 10L, 10R, 19L, 19R**, climbing left turn via heading 050° and SFO R-090. **All aircraft** continue climb on course.**SAN JOSE, CA**

NORMAN Y MINETA SAN JOSE INTL (SJC)

AMDT 6A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwys 11, 12R**, 400-2½ or std. with a min. climb of 260' per NM to 500. **Rwy 12L**, 400-1¼ or std. with a min. climb of 278' per NM to 500.DEPARTURE PROCEDURE: **Rwys 11, 12L, 12R**, climbing right turn via heading 315° to 2000, then via OAK R-135 to OAK VORTAC before proceeding on course. **Rwys 29, 30L, 30R**, Climb via heading 312° to 2000, then via OAK R-132 to OAK VORTAC before proceeding on course.NOTE: **Rwy 11**, multiple trees beginning 1837' from DER, 230' right of centerline, up to 85' AGL/154' MSL. Crane 2.14 NM from DER, 1144' left of centerline, 305' AGL/389' MSL. **Rwy 12L**, multiple cranes, trees, and bldg beginning 286' from centerline, 69' right of centerline, up to 305' AGL/389' MSL. Multiple antennas, poles, bldg, and trees beginning 191' from DER, 48' left of centerline, up to 275' AGL/366' MSL. **Rwy 12R**, multiple antennas, bldg, cranes, poles, and trees beginning 1402' from DER, 194' left of centerline, up to 305' AGL/389' MSL. Multiple antennas, bldg, cranes, poles, and trees beginning 659' from DER, 150' right of centerline, up to 73' AGL/142' MSL. **Rwy 29**, tree 2252' from DER, 114' left of centerline, 86' AGL/125' MSL. OL on GS 821' from DER, 400' right of centerline, 35' AGL/74' MSL. **Rwy 30L**, multiple antennas, poles, towers, and trees beginning 1014' from DER, 350' left of centerline, up to 59' AGL/94' MSL. Multiple antennas, poles, and trees beginning 1279' from DER, 379' right of centerline, up to 52' AGL/88' MSL. **Rwy 30R**, multiple antennas, fences, and poles beginning 139' from DER, 40' right of centerline, up to 95' AGL/124' MSL. Multiple poles and trees beginning 185' from DER, 38' left of centerline, up to 51' AGL/85' MSL.

REID-HILLVIEW OF SANTA CLARA COUNTY

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

DEPARTURE PROCEDURE: Use DECOT DEPARTURE.

**SAN MARTIN, CA**

SOUTH COUNTY AIRPORT OF SANTA CLARA COUNTY

TAKE-OFF MINIMUMS: **Rwy 14, NA. Rwy 32**, 400-2 or std. with a min. climb of 350' per NM to 4000.DEPARTURE PROCEDURE: **Rwy 32**, **all aircraft** climb runway heading to 2200, aircraft departing northwest via V-485, climbing left turn to 4600, heading 270° to intercept SJC R-121 (V-485) to SJC VOR/DME proceed on course; aircraft departing southeast via V-485, climbing left turn to 4600, heading 170° to intercept SJC R-121 (V485) southeast bound to GILRO Int and proceed on course.

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**TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**


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**SANTA ROSA, CA****CHARLES M. SCHULZ-SONOMA COUNTY**

TAKE-OFF MINIMUMS: **Rwy 1**, std. with a min. climb of 267' per NM to 2400, or 1000-2½ for climb in visual conditions. **Rwy 32**, std. with a min. climb of 314' per NM to 2400, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1, 32**, climbing left turn heading 164°, thence... or climb in visual conditions to cross the STS VOR/DME southwestbound at or above 1100, thence... **Rwy 14**, climbing right turn heading 250°, thence... **Rwy 19**, climb on heading 190°, thence...

...intercept and climb via STS R-202 to FREES INT, cross FREES at or above MEA for route of flight or continue climb in FREES holding pattern (SE, right turns, PYE VORTAC 334.73 inbound) to MEA for route of flight.

NOTE: **Rwy 1**, tree 739' from departure end of runway, 525' left of centerline, 40' AGL/141' MSL. **Rwy 14**, multiple trees beginning 321' from departure end of runway, 421' left of centerline up to 73' AGL/172' MSL. Tree 2113' from departure end of runway, 721' right of centerline, 77' AGL/176' MSL. **Rwy 19**, posts 39' from departure end of runway, 259' right of centerline, 7' AGL/126' MSL. Multiple trees beginning 1482' from departure end of runway, 461' right of centerline, up to 100' AGL/253' MSL. Multiple trees beginning 1666' from departure end of runway, 58' left of centerline, up to 55' AGL/257' MSL. **Rwy 32**, windsock 39' from departure end of runway, 341' left of centerline, 25' AGL/133' MSL. Multiple trees beginning 810' from departure end of runway, 87' right of centerline up to 50' AGL/205' MSL. Multiple trees beginning 2419' from departure end of runway, 167' left of centerline, up to 50' AGL/216' MSL.

**SOUTH LAKE TAHOE, CA****LAKE TAHOE**

TAKE-OFF MINIMUMS: **Rwy 18**, 4000-3 or std. with min. climb of 700' per NM to 9800. **Rwy 36**, 2700-3 or std. with a min. climb of 400' per NM to 8300.

DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 9800, then continue climbing right turn via heading 280° and SWR R-152 to SWR VOR/DME.

**Rwy 36**, climb runway heading to 8300, then continue climbing left turn via heading 340° and SWR R-102 to SWR VOR/DME. Then **all aircraft** proceed on course.

**STOCKTON, CA****STOCKTON METROPOLITAN (SCK)****ORIG 09015 (FAA)**

TAKE-OFF MINIMUMS: **Rwy 29R**, 300-1¼ or std. w/ min. climb of 210' per NM to 300 or alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1300' prior to departure end of runway.

NOTE: **Rwy 11L**, truck on road 199' from departure end of runway, 439' left of centerline, 15' AGL/49' MSL.

Obstruction light on blast fence and antenna on building beginning 294' from departure end of runway, 39' right of centerline, up to 20' AGL/50' MSL. **Rwy 29L**, antenna on building 2956' from departure end of runway, 1204' left of centerline, 90' AGL/117' MSL. Stack 5562' from departure end of runway, 1721' right of centerline, 143' AGL/171' MSL. **Rwy 29R**, obstruction light on grain elevator, 1.0 NM from departure end of runway, 1882' left of centerline, 161' AGL/191' MSL. Light tower and rod on field light tower beginning 245' from departure end of runway, 1' left of centerline up to 44' AGL/71' MSL. Stacks and light on silo beginning 256' from departure end of runway, 381' right of centerline, up to 144' AGL/171' MSL.

**SUSANVILLE, CA****SUSANVILLE MUNI**

DEPARTURE PROCEDURE: Use AMEDEE DEPARTURE.

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**TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**




TRACY, CA

TRACY MUNI (TCY)  
AMDT 3 09295 (FAA)

TAKE-OFF 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.

NOTE: **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 . . . . . 09295

All **Rwy**: Comply with assigned SID or ATC radar vectors.

TAKE-OFF OBSTACLES: **Rwy 3L**, 56' MSL, Terrain 10' to 46' from DER, 500' left 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.

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.

TRUCKEE, CA

TRUCKEE-TAHOE (TRK)  
AMDT 4 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwys 10, 19, NA**-obstacles. DEPARTURE PROCEDURE: **Rwys 1, 28**, use TRUCK DEPARTURE.

TULARE, CA

MEFFORD FIELD

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn. **Rwy 31**, climbing left turn. All aircraft climb direct to VIS VOR/DME. Aircraft departing VIS R-001 CW R-140 continue climb in VIS holding pattern (E, right turns, 287° inbound) to cross VIS VOR/DME at or above 4000. All other aircraft climb on course.

UKIAH, CA

UKIAH MUNI

TAKE-OFF MINIMUMS: **Rwy 15, NA, Rwy 33**, 300-1 and min. climb of 350' per NM to 4000. DEPARTURE PROCEDURE: Climb to 4000 via heading 350° then climbing left turn to 6000 direct ENI.

VACAVILLE, CA

NUT TREE (VCB)

AMDT 4 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 20**, std. w/ min. climb of 424' per NM to 1600, or 1200-2½ for climb in visual conditions.

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, or, for climb in visual conditions: cross Nut Tree Airport eastbound at or above 1300, then climb to 2000 via SAC R-242 to SAC VORTAC, proceed on course.

NOTE: **Rwy 2**, trees beginning 222' from DER, 514' left of centerline up to 106' AGL/225' MSL. Light pole 337' from DER, 534' left of centerline, 28' AGL/147' MSL. **Rwy 20**, pole 161' from DER, 500' left of centerline, 120' AGL/239' MSL. Trees beginning 269' from DER, 335' left of centerline, up to 117' AGL/236' MSL. Pole 777' from DER, 436' left of centerline, 119' AGL/238' MSL. Windsock 6' from DER, 166' right of centerline, 8' AGL/127' MSL. Fence 193' from DER, 202' right of centerline, 3' AGL/122' MSL.

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**VISALIA, CA**

VISALIA MUNI (VIS)  
AMDT 3 09239 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn via heading 230° to 2000 to intercept V23. **Rwy 30**, climbing left turn via heading 230° to 2000 to intercept V23.

NOTE: **Rwy 12**, tree 774' from DER, 618' right of centerline, 46' AGL/340' MSL. Tree 1327' from DER, 823' left of centerline, 55' AGL/349' MSL. **Rwy 30**, multiple trees beginning 179' from DER, 260' left of centerline, up to 54' AGL/343' MSL. Antenna on building 285' from DER, 250' right of centerline, 16' AGL/305' MSL. Truck on road 522' from DER, on centerline, 17' AGL/342' MSL. Railroad 690' from DER, 549' left of centerline, 23' AGL/317' MSL. Multiple trees beginning 876' to 3029' from DER, 341' to 461' left of centerline, up to 90' AGL/379' MSL. Multiple trees beginning 1886' from DER, 103' right of centerline, up to 58' AGL/347' MSL.

**WATSONVILLE, CA**

WATSONVILLE MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, 1100-2 CAT A,B, 1900-2 CAT C,D or std. with a min. climb of: CAT A,B 330' per NM to 2200; CAT C,D 460' per NM to 2400. **Rwy 8**, std. with a min. climb of 290' per NM to 2200. **Rwy 20**, std. with a min. climb of 330' per NM to 2200. **Rwy 26**, std. with a min. climb of 330' per NM to 2200.

DEPARTURE PROCEDURE: **Rwy 2** climbing right turn.

**Rwy 20**, climb runway heading. **Rwy 26**, climbing left turn. **All aircraft** intercept 212° bearing from PAJAR NDB and climb to cross MOVER Int at or above 2200. Climb in MOVER INT holding pattern (NE, right turns, 212° inbound) until reaching MEA or assigned altitude.

NOTE: **Rwy 2**, 40' AGL pole 17' from departure end of runway, 340' left of centerline. **Rwy 8**, 189' AGL tower 4696' from departure end of runway, 1200' right of centerline. **Rwy 20**, 106' AGL tree 954' from departure end of runway, 550' left of centerline. **Rwy 26**, 174' AGL tree 625' from departure end of runway, 580' left of centerline.

**WILLITS, CA**

ELLS FIELD-WILLITS MUNI

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

**WILLOWS, CA**

WILLOWS-GLENN COUNTY

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn. **Rwy 16**, climb runway heading. **Rwy 31, 34**, climbing left turn. **All aircraft** climb direct to MXW VORTAC. Aircraft departing MXW Vortac R-330 CW R-220, climb on course. All others continue climb in MXW holding pattern (S, 350° inbound, left turns) to depart MXW Vortac 220° CW 290°, 6500, 291° CW 330°, 5500.

NOTE: **Rwy 34**, 55' AGL pole 530' from departure end of runway, 430' right of centerline.

**WOODLAND, CA**

WATTS-WOODLAND (O41)  
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.

NOTE: **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.

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