U.S. Terminal Procedures Publication
Southwest (SW) Vol 3 of 4

Effective: 0901Z
07 OCT 2021 to: 0901Z
02 DEC 2021

Consult the Change Notice (CN) effective 04 NOV 2021 for revised Instrument Procedure Charts for this volume

Consult NOTAMs for latest information
Consult/Subscribe to FAA Safety Alerts and Charting Notices at: http://www.faa.gov/air_traffic/flight_info/aeronav/safety_alerts/

Published from digital files compiled in accordance with Interagency Air Committee specifications and agreements approved by Department of Defense - Federal Aviation Administration
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative Components or Visual Aids Table.</td>
<td>A1</td>
</tr>
<tr>
<td>Explanation of Terms/Landing Minima Data.</td>
<td>B1</td>
</tr>
<tr>
<td>General Information.</td>
<td>C1</td>
</tr>
<tr>
<td>Abbreviations.</td>
<td>D1</td>
</tr>
<tr>
<td>Legend — IAP Planview.</td>
<td>E1</td>
</tr>
<tr>
<td>Legend — IAP Profile.</td>
<td>F1</td>
</tr>
<tr>
<td>Legend — Departure Procedures and Standard Terminal Arrival Charts.</td>
<td>G1</td>
</tr>
<tr>
<td>Legend — Airport Diagram/Sketch.</td>
<td>H1</td>
</tr>
<tr>
<td>Legend — Approach Lighting Systems.</td>
<td>I1</td>
</tr>
<tr>
<td>Frequency Pairing.</td>
<td>J1</td>
</tr>
<tr>
<td>Index of Terminal Charts and Minimaums.</td>
<td>K1</td>
</tr>
<tr>
<td>IFR Takeoff Minimums, Departure Procedures, and Diverse Vector Area (Radar Vectors).</td>
<td>L1</td>
</tr>
<tr>
<td>IFR Alternate Airport Minimums.</td>
<td>M1</td>
</tr>
<tr>
<td>Radar Minimums.</td>
<td>N1</td>
</tr>
<tr>
<td>Land and Hold-Short Operations (LAHSO)</td>
<td>O1</td>
</tr>
<tr>
<td>Hot Spots</td>
<td>P1</td>
</tr>
<tr>
<td>Standard Terminal Arrival Charts.</td>
<td>Z1</td>
</tr>
<tr>
<td>Terminal Charts.</td>
<td>Page 1</td>
</tr>
<tr>
<td>Rate of Climb/Descent Table.</td>
<td>Inside Back Cover</td>
</tr>
<tr>
<td>Area of Coverage</td>
<td>Outside Back Cover</td>
</tr>
</tbody>
</table>

**CORRECTIONS, COMMENTS AND/OR PROCUREMENT**

FOR CHARTING ERRORS, OR FOR CHANGES, ADDITIONS, RECOMMENDATIONS
ON PROCEDURAL ASPECTS CONTACT:
FAA, Aeronautical Information Services
1305 East-West Highway
SSMC 4, Room 4531
Silver Spring, MD 20910-3281
Telephone: 1-800-638-8972
[https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/](https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/)

For inquiries regarding military charts, please contact aerohelp@nga.mil

FOR PROCUREMENT:
For digital products, visit our website at:
[https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/](https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/)

For a list of approved FAA Print Providers, visit our website at:
[https://www.faa.gov/air_traffic/flight_info/aeronav/print_providers/](https://www.faa.gov/air_traffic/flight_info/aeronav/print_providers/)

Frequently asked questions (FAQ) are answered on our website at [https://www.faa.gov/go/ais](https://www.faa.gov/go/ais).
See the FAQs prior to contact via toll free number or email.

Request for the creation or revisions to Airport Diagrams should be in accordance with FAA Order 7910.4.
INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE
(For Civil Use Only)

Straight-in and Sidestep landing minimums published on instrument approach procedure charts are based on full operation of all components and visual aids (see exception below for ALSF 1 & 2) associated with the particular approach chart being used. Higher minimums are required with inoperative components or visual aids as indicated below. If more than one component is inoperative, each minimum is raised to the highest minimum required by any single component that is inoperative. ILS glideslope inoperative minimums are published on the instrument approach charts as localizer minimums. This table applies to approach categories A thru D and is to be used unless amended by notes on the approach chart. Such notes apply only to the particular approach category(ies) as stated. Category E inoperative notes will be specified when published on civil charts. The inoperative table does not apply to Circling minimums. See legend page for description of components indicated below.

Full Operation Exception: For ALSF 1 & 2 operated as SSALR, or when the sequenced flashing lights are inoperative, there is no effect on visibility for ILS lines of minima.

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ALS types (except ODALS)</td>
<td>¼ mile</td>
</tr>
</tbody>
</table>

(2) ILS, LPV, GLS with visibility minima of RVR 1800 †/2000*/2200*  

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALS, SSALR</td>
<td>To RVR 4000†</td>
</tr>
<tr>
<td>TDZL or RCLS</td>
<td>To RVR 4500*</td>
</tr>
<tr>
<td>RVR</td>
<td>To ½ mile</td>
</tr>
</tbody>
</table>

*For ILS, LPV, GLS procedures with a 200 foot HAT, RVR 1800 authorized with use of FD or AP or HUD to DA.

(3) All Approach Types and all lines of minima other than (1) & (2) above

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALS, SSALR</td>
<td>½ mile</td>
</tr>
<tr>
<td>MALS, MALS, SSALF, SSALS, SALS, SALS</td>
<td>¼ mile</td>
</tr>
</tbody>
</table>

(4) Sidestep minima (CAT C-D)

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid to Sidestep Runway</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALS, SSALR</td>
<td>½ mile</td>
</tr>
</tbody>
</table>

(5) All Approach Types, All lines of minima

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODALS (CAT A-B)</td>
<td>¼ mile</td>
</tr>
<tr>
<td>ODALS (CAT C-D)</td>
<td>½ mile</td>
</tr>
</tbody>
</table>
TERMS/LANDING MINIMA DATA 20142

IFR LANDING MINIMA

The United States Standard for Terminal Instrument Procedures (TERPS) is the approved criteria for formulating instrument approach procedures. Landing minima are established for six aircraft approach categories (ABCDE and COPTER).

In the absence of COPTER MINIMA, helicopters may use the CAT A minimums of other procedures.

LANDING MINIMA FORMAT

In this example airport elevation is 1179, and runway touchdown zone elevation is 1152.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-ILS 27</td>
<td>1352/24</td>
<td>200</td>
<td>(200-1½)</td>
<td>1440/50</td>
</tr>
<tr>
<td>S-LOC 27</td>
<td>1440/24</td>
<td>288</td>
<td>(300-1½)</td>
<td>1740-2</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1540-1</td>
<td>1640-1</td>
<td>1640-1½</td>
<td>561</td>
</tr>
<tr>
<td></td>
<td>361 (400-1)</td>
<td>461 (500-1)</td>
<td>461 (500-1½)</td>
<td></td>
</tr>
</tbody>
</table>

MDA HAA Visibility in Statute Miles

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-176°</td>
<td>680-½</td>
</tr>
</tbody>
</table>

No circling minimums are provided

NOTE: The W symbol indicates outages of the WAAS vertical guidance may occur daily at this location due to initial system limitations. WAAS NOTAMS for vertical outages are not provided for this approach. Use LNAV minima for flight planning at these locations, whether as a destination or alternate. For flight operations at these locations, when the WAAS avionics indicate that LNAV/VNAV or LPV service is available, then vertical guidance may be used to complete the approach using the displayed level of service. Should an outage occur during the procedure, reversion to LNAV minima may be required.

As the WAAS coverage is expanded, the W will be removed.

RNAV minima are dependent on navigation equipment capability, as stated in the applicable AFM, AFMS, or other FAA approved document. See AIM paragraph 5-4-5, AC 90-105 and AC 90-107 for detailed requirements for each line of minima.

COLD TEMPERATURE AIRPORTS

NOTE: A -12°C symbol indicates a cold temperature altitude correction is required at this airport when reported temperature is at or below the published temperature. See the following Cold Temperature Error Table to make manual corrections. Advise ATC with altitude correction. Advising ATC with altitude corrections is not required in the final segment. See Aeronautical Information Manual (AIM), Chapter 7, for guidance and additional information. For a complete list, see the "Cold Temperature Airports" link under the Additional Resources heading at the bottom of the following page:

http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dtpp/search/

COLD TEMPERATURE ERROR TABLE

<table>
<thead>
<tr>
<th>HEIGHT ABOVE AIRPORT IN FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>280</td>
</tr>
<tr>
<td>280</td>
</tr>
<tr>
<td>280</td>
</tr>
<tr>
<td>280</td>
</tr>
<tr>
<td>280</td>
</tr>
<tr>
<td>280</td>
</tr>
</tbody>
</table>

COLD TEMPERATURE ERROR TABLE

<table>
<thead>
<tr>
<th>REPORTED TEMP °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>-10</td>
</tr>
<tr>
<td>-20</td>
</tr>
<tr>
<td>-30</td>
</tr>
<tr>
<td>-40</td>
</tr>
<tr>
<td>-50</td>
</tr>
</tbody>
</table>

AIRCRAFT APPROACH CATEGORIES

Aircraft approach category indicates a grouping of aircraft based on a speed of VREF, if specified, or if VREF not specified, 1.3 VSO at the maximum certificated landing weight. VREF, VSO, and the maximum certificated landing weight are those values as established for the aircraft by the certification authority of the country of registry. Helicopters are Category A aircraft. An aircraft shall fit in only one category. When necessary to operate the aircraft at an airspeed in excess of the maximum airspeed of its certified aircraft approach category, pilots should use the applicable higher category minima.

For additional options and to ensure the aircraft remains within protected airspace, consult the AIM. See following category limits:

MANEUVERING TABLE

<table>
<thead>
<tr>
<th>Approach Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed (Knots)</td>
<td>0-90</td>
<td>91-120</td>
<td>121-140</td>
<td>141-165</td>
<td>Abv 165</td>
</tr>
</tbody>
</table>
### TERMS/LANDING MINIMA DATA

#### CIRCLING APPROACH OBSTACLE PROTECTED AIRSPACE

The circling MDA provides vertical obstacle clearance during a circle-to-land maneuver. The circling MDA protected area extends from the threshold of each runway authorized for landing following a circle-to-land maneuver for a distance as shown in the tables below. The resultant arcs are then connected tangentially to define the protected area.

#### STANDARD CIRCLING APPROACH MANEUVERING RADIUS

Circling approach protected areas developed prior to late 2012 used the radius distances shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category. The approaches using standard circling approach areas can be identified by the absence of the \( C \) symbol on the circling line of minima.

<table>
<thead>
<tr>
<th>Circling MDA in feet MSL</th>
<th>Approach Category and Circling Radius (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAT A</td>
</tr>
<tr>
<td>All Altitudes</td>
<td>1.3</td>
</tr>
</tbody>
</table>

#### EXPANDED CIRCLING APPROACH MANEUVERING AIRSPACE RADIUS

Circling approach protected areas developed after late 2012 use the radius distance shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category, and the altitude of the circling MDA, which accounts for true airspeed increase with altitude. The approaches using expanded circling approach areas can be identified by the presence of the \( C \) symbol on the circling line of minima.

<table>
<thead>
<tr>
<th>Circling MDA in feet MSL</th>
<th>Approach Category and Circling Radius (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAT A</td>
</tr>
<tr>
<td>1000 or less</td>
<td>1.3</td>
</tr>
<tr>
<td>1001-3000</td>
<td>1.3</td>
</tr>
<tr>
<td>3001-5000</td>
<td>1.3</td>
</tr>
<tr>
<td>5001-7000</td>
<td>1.3</td>
</tr>
<tr>
<td>7001-9000</td>
<td>1.4</td>
</tr>
<tr>
<td>9001 and above</td>
<td>1.4</td>
</tr>
</tbody>
</table>

#### Comparable Values of RVR and Visibility

The following table shall be used for converting RVR to ground or flight visibility. For converting RVR values that fall between listed values, use the next higher RVR value; do not interpolate. For example, when converting 4800 RVR, use 5000 RVR with the resultant visibility of 1 mile.

<table>
<thead>
<tr>
<th>RVR (feet)</th>
<th>Visibility (SM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>1/4</td>
</tr>
<tr>
<td>1800</td>
<td>1/2</td>
</tr>
<tr>
<td>2000</td>
<td>3/4</td>
</tr>
<tr>
<td>2200</td>
<td>5/8</td>
</tr>
</tbody>
</table>

#### RADAR MINIMA

<table>
<thead>
<tr>
<th>RWY</th>
<th>GP/TCH/RPI</th>
<th>DA/MDA-VIS</th>
<th>HAT</th>
<th>CEIL-VIS</th>
<th>CAT</th>
<th>DA/MDA-VIS</th>
<th>HAT</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR</td>
<td>10</td>
<td>2.5°/42/1000</td>
<td>ABCDE</td>
<td>195/16</td>
<td>100</td>
<td>100</td>
<td>6000</td>
<td>5000</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>2.5°/48/1068</td>
<td>ABCDE</td>
<td>187/16</td>
<td>100</td>
<td>100</td>
<td>6000</td>
<td>5000</td>
</tr>
<tr>
<td>ASR</td>
<td>10</td>
<td>ABC</td>
<td>560/40</td>
<td>463</td>
<td>(500-1)</td>
<td>DE</td>
<td>560/50</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>AB</td>
<td>600/50</td>
<td>513</td>
<td>(600-1)</td>
<td>CDE</td>
<td>600/60</td>
<td>513</td>
</tr>
<tr>
<td>CIR</td>
<td>10</td>
<td>AB</td>
<td>560-1/4</td>
<td>463</td>
<td>(500-1)</td>
<td>CDE</td>
<td>560-1/4</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>AB</td>
<td>600-1/4</td>
<td>503</td>
<td>(600-1)</td>
<td>CDE</td>
<td>600-1/4</td>
<td>503</td>
</tr>
</tbody>
</table>

### Radar Minima:

1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives for their category of aircraft.
2. The circling MDA and weather minima to be used are those for the runway to which the final approach is flown; not the landing runway. In the above RADAR MINIMA example, a category C aircraft flying a radar approach to runway 10, circling to land on runway 28, must use an MDA of 560 feet with weather minima of 500-1.

### Additional Information:

- **Military RADAR MINIMA** may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows: (E) VHF and UHF emergency frequencies monitored
- (V) VHF emergency frequency (121.5) monitored
- (U) UHF emergency frequency (243.0) monitored

Additional, unmonitored frequencies which are available on request from the controlling agency may be annotated with an "x".

- **Alternate Minimums not standard.** Civil users refer to tabulation, USA/USN/USAF pilots refer to appropriate regulations.
- **Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.**
- **Airport is published in the Takeoff Minimums, (Obstacle) Departure Procedures, and Diverse Vector Area (Radar Vectors) tabulation.**
GENERAL INFORMATION

This publication is issued every 56 days and includes Standard Instrument Approach Procedures (SIAPs), Standard Instrument Departures (SIDs), Standard Terminal Arrivals (STARs), IFR Takeoff Minimums and (Obstacle) Departure Procedures (ODPs), IFR Alternate Minimums, and Radar Instrument Approach Minimums for use by civil and military aviation. The organization responsible for SIAPs, Radar Minimums, SIDs, STARs and graphic ODPs is identified in parentheses in the top margin of the procedure; e.g., (FAA), (FAA-O), (USA), (USAF), (USN). SIAPs with the (FAA) and (FAA-O) designation are regulated under 14 CFR, Part 91. SIAPs with the (FAA-O) designation have been developed under Other Transaction Agreement (OTA) by private providers and have been certified by the FAA. See 14 CFR, Part 91.175 (a) and the AIM for further details. 14 CFR, Part 91.175 (g) and the Special Notices section of the Chart Supplement contain information on civil operations at military airports.

The FAA uses an internal numbering system on all charts in the TPP. This Approach and Landing (AL) number is located on the top center margin of the chart followed by the organization responsible for the procedure in parentheses, e.g., AL-18 (FAA), AL-227 (USAF).

CHART CURRENCY INFORMATION

The Date of Latest Revision identifies the Julian date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest revision of any kind has been made to the chart.

<table>
<thead>
<tr>
<th>FAA Procedure</th>
<th>Orig</th>
<th>Amendment Number</th>
<th>Amdt</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAA Procedure</td>
<td>31DEC09</td>
<td>Amdt 2B 12MAR09</td>
<td>Procedure Amendment</td>
<td></td>
</tr>
</tbody>
</table>

The FAA Procedure Amendment Number represents the most current amendment of a given procedure. The Procedure Amendment Effective Date represents the AIRAC cycle date on which the procedure amendment was incorporated into the chart. Updates to the amendment number & effective date represent procedural/criteria revisions to the charted procedure, e.g., course, fix, altitude, minima, etc. On Departure Procedures and Standard Terminal Arrivals, procedural revisions to the current chart are indicated by an upnumber to the procedure title with the procedure amendment effective date following. On Radar Minima, Takeoff Minimums and (Obstacle) Procedure Amendment Number, Procedure Effective Date, and the Julian Date of Last Revision will be shown on the same line, e.g., AMDT 2 10DEC15 (15344).

MISCELLANEOUS

* Indicates a non-continuously operating facility, see Chart Supplement.

For Civil (FAA) instrument procedures, "RADAR REQUIRED" in the planview of the chart indicates that ATC radar must be available to assist the pilot when transitioning from the en route environment. "Radar required" in the pilot briefing portion of the chart indicates that ATC radar is required on portions of the procedure outside the final approach segment, including the missed approach. Some military procedures also have equipment requirements such as "Radar Required", but do not conform to the same charting application standards used by the FAA.

Distances are in nautical miles (except visibility in statute miles and Runway Visual Range in hundreds of feet). Runway dimensions are in feet. Elevations are in feet, Mean Sea Level (MSL). Ceilings are in feet above airport elevation. Radials/bearings/ headings/courses are magnetic. Horizontal Datum: Unless otherwise noted on the chart, all coordinates are referenced to North American Datum 1983 (NAD 83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

Terrain is scaled within the neat lines (planview boundaries) and does not accurately underlie not-to-scale distance depictions or symbols.
**STANDARD TERMINAL ARRIVALS AND DEPARTURE PROCEDURES**

The use of the associated codified STAR/DP and transition identifiers are requested of users when filing flight plans via teletype and are required for users filing flight plans via computer interface. It must be noted that when filing a STAR/DP with a transition, the first three coded characters of the STAR and the last three coded characters of the DP are replaced by the transition code. Examples: ACTON SIX ARRIVAL, file (AQN.AQN6); ACTON SIX ARRIVAL, EDNAS TRANSITION, file (EDNAS.AQN6); FREEHOLD THREE DEPARTURE, file (FREH3.RBV), FREEHOLD THREE DEPARTURE, ELWOOD CITY TRANSITION, file (FREH3.EWC).

**PROCEDURE PBN/EQUIPMENT REQUIREMENTS**

Users will begin to see Performance-Based Navigation (PBN) Requirements and Equipment Requirements on Instrument Approach Procedures (IAPs), RNAV STARS and RNAV DPs prominently displayed in separate, standardized notes boxes. For procedures with PBN elements, the PBN box will contain the procedure’s navigation specification(s); and, if required: specific sensors or infrastructure needed for the navigation solution; any additional or advanced functional requirements; the minimum Required Navigation Performance (RNP) value and any amplifying remarks. Items listed in this PBN box are REQUIRED for the procedure’s PBN elements. The Equipment Requirements Box will list non-PBN requirements. On charts with both PBN elements and equipment requirements, the PBN requirements box will be listed first. The publication of these notes will continue incrementally until all charts have been amended to comply with the new standard.

**IAP PBN/Equipment Requirements Notes Box**

<table>
<thead>
<tr>
<th>PBN Requirements Box</th>
<th>Equipment Requirements Box</th>
<th>Standard Procedure Notes Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>From WINRZ, LIBGE: RNAV-1 GPS, RNAV-1GPS from MAP to YARKU.</td>
<td>DME required for LOC only.</td>
<td>Circling to Rwy 25 NA at night.</td>
</tr>
<tr>
<td># For inop MALSR increase S-ILS 16R all cats visibility to 2.5 SM.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RNAV STAR and DP PBN/Equipment Requirements Notes Box**

<table>
<thead>
<tr>
<th>PBN Requirements Box</th>
<th>Equipment Requirements Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNAV 1 - DME/DME/IRU or GPS</td>
<td>RADAR required</td>
</tr>
</tbody>
</table>

**PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS**

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., ![negative symbol]
2. Approach lighting systems that do not bear a system identification are indicated with a negative “!” beside the name.

A star (*) indicates non-standard PCL, consult Chart Supplement, e.g., ![star symbol]

To activate lights, use frequency indicated in the communication section of the chart with a ![key mike symbol] or the appropriate lighting system identification e.g., UNICOM 122.8 ![key mike symbol]

**FUNCTION**

<table>
<thead>
<tr>
<th>Key Mike</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 times within 5 seconds</td>
<td>Highest intensity available</td>
</tr>
<tr>
<td>5 times within 5 seconds</td>
<td>Medium or lower intensity (Lower REIL or REIL-off)</td>
</tr>
<tr>
<td>3 times within 5 seconds</td>
<td>Lowest intensity available (Lower REIL or REIL-off)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Meaning</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>AAUP</td>
<td>Attention All Users Page</td>
</tr>
<tr>
<td>ADF</td>
<td>Automatic Direction Finder</td>
</tr>
<tr>
<td>ADIZ</td>
<td>Air Defense Identification Zone</td>
</tr>
<tr>
<td>AFIS</td>
<td>Automatic Flight Information Service</td>
</tr>
<tr>
<td>ALS</td>
<td>Approach Light System</td>
</tr>
<tr>
<td>ALSF</td>
<td>Approach Light System with Sequenced Flashing Lights</td>
</tr>
<tr>
<td>AOB</td>
<td>At or Below</td>
</tr>
<tr>
<td>AP</td>
<td>Autopilot System</td>
</tr>
<tr>
<td>APCH</td>
<td>Approach</td>
</tr>
<tr>
<td>APP CON</td>
<td>Approach Control</td>
</tr>
<tr>
<td>AR</td>
<td>Authorization Required</td>
</tr>
<tr>
<td>ARR</td>
<td>Arrival</td>
</tr>
<tr>
<td>ASOS</td>
<td>Automated Surface Observing System</td>
</tr>
<tr>
<td>ASR/PAR</td>
<td>Published Radar Minimums at this Airport</td>
</tr>
<tr>
<td>ASSC</td>
<td>Airport Surface Surveillance Systems</td>
</tr>
<tr>
<td>ATIS</td>
<td>Automated Terminal Information Service</td>
</tr>
<tr>
<td>AUNICOM</td>
<td>Automated UNICOM</td>
</tr>
<tr>
<td>AWOS</td>
<td>Automated Weather Observing System</td>
</tr>
<tr>
<td>AZ</td>
<td>Azimuth</td>
</tr>
<tr>
<td>BC</td>
<td>Back Course</td>
</tr>
<tr>
<td>BND</td>
<td>Bound</td>
</tr>
<tr>
<td>C</td>
<td>Circling</td>
</tr>
<tr>
<td>CAT</td>
<td>Category</td>
</tr>
<tr>
<td>CCW</td>
<td>Counter Clockwise</td>
</tr>
<tr>
<td>CDI</td>
<td>Course Deviation Indicator</td>
</tr>
<tr>
<td>Chan</td>
<td>Channel</td>
</tr>
<tr>
<td>CIFP</td>
<td>Coded Instrument Flight Procedures</td>
</tr>
<tr>
<td>CIR</td>
<td>Circling</td>
</tr>
<tr>
<td>CLNC DEL</td>
<td>Clearance Delivery</td>
</tr>
<tr>
<td>CNF</td>
<td>Computer Navigation Fix</td>
</tr>
<tr>
<td>CPDLC</td>
<td>Controller Pilot Data Link</td>
</tr>
<tr>
<td>CTAF</td>
<td>Communication</td>
</tr>
<tr>
<td>CW</td>
<td>Common Traffic Advisory Frequency</td>
</tr>
<tr>
<td>D-ATIS</td>
<td>Clockwise</td>
</tr>
<tr>
<td>DA</td>
<td>Decision Altitude</td>
</tr>
<tr>
<td>DER</td>
<td>Departure End of Runway</td>
</tr>
<tr>
<td>DH</td>
<td>Decision Height</td>
</tr>
<tr>
<td>DME</td>
<td>Distance Measuring Equipment</td>
</tr>
<tr>
<td>DTHR</td>
<td>Displaced Threshold</td>
</tr>
<tr>
<td>DVA</td>
<td>Diverse Vector Area</td>
</tr>
<tr>
<td>ELEV</td>
<td>Elevation</td>
</tr>
<tr>
<td>EMAS</td>
<td>Engineered Material Arresting System</td>
</tr>
<tr>
<td>FAF</td>
<td>Final Approach Fix</td>
</tr>
<tr>
<td>FD</td>
<td>Flight Director System</td>
</tr>
<tr>
<td>FM</td>
<td>Fan Marker</td>
</tr>
<tr>
<td>FMS</td>
<td>Flight Management System</td>
</tr>
<tr>
<td>GBAS</td>
<td>Ground Based Augmentation System</td>
</tr>
<tr>
<td>GCO</td>
<td>Ground Communications Outlet</td>
</tr>
<tr>
<td>GLS</td>
<td>Ground based Augmentation System Landing System</td>
</tr>
<tr>
<td>GP</td>
<td>Glidepath</td>
</tr>
<tr>
<td>GPI</td>
<td>Ground Point of Interception</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>GS</td>
<td>Glide Slope</td>
</tr>
<tr>
<td>HAA</td>
<td>Height above Airport</td>
</tr>
<tr>
<td>HAL</td>
<td>Height above Landing</td>
</tr>
<tr>
<td>HAT</td>
<td>Height above Touchdown</td>
</tr>
<tr>
<td>HATh</td>
<td>Height above Threshold</td>
</tr>
<tr>
<td>HCH</td>
<td>Heliport Crossing Height</td>
</tr>
<tr>
<td>HGS</td>
<td>Heads-up Guidance System</td>
</tr>
<tr>
<td>HIIRL</td>
<td>High Intensity Runway Lights</td>
</tr>
<tr>
<td>HUD</td>
<td>Head-up Display</td>
</tr>
<tr>
<td>IAF</td>
<td>Initial Approach Fix</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IF</td>
<td>Intermediate Fix</td>
</tr>
<tr>
<td>IM</td>
<td>Inner Marker</td>
</tr>
<tr>
<td>INOP</td>
<td>Inoperative</td>
</tr>
<tr>
<td>INT</td>
<td>Intersection</td>
</tr>
<tr>
<td>K</td>
<td>Knots</td>
</tr>
<tr>
<td>KIAS</td>
<td>Knots Indicated Airspeed</td>
</tr>
<tr>
<td>LAAS</td>
<td>Local Area Augmentation System</td>
</tr>
<tr>
<td>LDA</td>
<td>Localizer Type Directional Aid</td>
</tr>
<tr>
<td>Ldg</td>
<td>Landing</td>
</tr>
<tr>
<td>LIRL</td>
<td>Low Intensity Runway Lights</td>
</tr>
<tr>
<td>LNAV</td>
<td>Lateral Navigation</td>
</tr>
<tr>
<td>LOC</td>
<td>Localizer</td>
</tr>
<tr>
<td>LP</td>
<td>Localizer Performance</td>
</tr>
<tr>
<td>LPV</td>
<td>Localizer Performance with Vertical Guidance</td>
</tr>
<tr>
<td>LR</td>
<td>Lead Radial. Provides at least 2 NM (Copter 1 NM) of lead to assist in turning onto the intermediate/final course.</td>
</tr>
<tr>
<td>MAA</td>
<td>Maximum Authorized Altitude</td>
</tr>
<tr>
<td>MALS</td>
<td>Medium Intensity Approach Light System</td>
</tr>
<tr>
<td>MALSF</td>
<td>Medium Approach Lighting System with Sequenced Flashers</td>
</tr>
<tr>
<td>MALSR</td>
<td>Medium Intensity Approach Light System with RAIL</td>
</tr>
<tr>
<td>MAP</td>
<td>Missed Approach Point</td>
</tr>
<tr>
<td>MDA</td>
<td>Minimum Decent Altitude</td>
</tr>
<tr>
<td>MIRL</td>
<td>Medium Intensity Runway Lights</td>
</tr>
<tr>
<td>MM</td>
<td>Minimum Reception Altitude</td>
</tr>
<tr>
<td>MRA</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NA</td>
<td>Not Authorized</td>
</tr>
<tr>
<td>N/DB</td>
<td>Non-directional Radio Beacon</td>
</tr>
<tr>
<td>NM</td>
<td>Nautical Mile</td>
</tr>
<tr>
<td>NoPT</td>
<td>No Procedure Turn Required (Procedure Turn shall not be executed without ATC clearance)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ODALS</td>
<td>Omnidirectional Approach Light System</td>
</tr>
<tr>
<td>ODP</td>
<td>Obstacle Departure Procedure</td>
</tr>
<tr>
<td>OM</td>
<td>Outer Marker</td>
</tr>
<tr>
<td>PAR</td>
<td>Precision Approach Radar</td>
</tr>
<tr>
<td>PDC</td>
<td>Pre-Departure Clearance</td>
</tr>
<tr>
<td>PRM</td>
<td>Precision Runway Monitor</td>
</tr>
<tr>
<td>R</td>
<td>Radial</td>
</tr>
<tr>
<td>RA</td>
<td>Radio Altimeter setting height</td>
</tr>
<tr>
<td>RAIL</td>
<td>Runway Alignment Indicator Lights</td>
</tr>
<tr>
<td>RCLS</td>
<td>Runway Centerline Light System</td>
</tr>
<tr>
<td>REIL</td>
<td>Runway End Identifier Lights</td>
</tr>
<tr>
<td>RF</td>
<td>Radius-to-Fix</td>
</tr>
<tr>
<td>RLLS</td>
<td>Runway Lead-in Light System</td>
</tr>
<tr>
<td>RNAV</td>
<td>Area Navigation</td>
</tr>
<tr>
<td>RNP</td>
<td>Required Performance Navigation</td>
</tr>
<tr>
<td>RPI</td>
<td>Runway Point of Intercept(ion)</td>
</tr>
<tr>
<td>RRL</td>
<td>Runway Remaining Lights</td>
</tr>
<tr>
<td>Rwy</td>
<td>Runway</td>
</tr>
<tr>
<td>S</td>
<td>Straight-in</td>
</tr>
<tr>
<td>SALS</td>
<td>Short Approach Light System</td>
</tr>
<tr>
<td>SALSF</td>
<td>Short Approach Lighting System with Sequenced Flashing Lights</td>
</tr>
<tr>
<td>SSALF</td>
<td>Simplified Short Approach Lighting System with Sequenced Flashers</td>
</tr>
<tr>
<td>SSALR</td>
<td>Simplified Short Approach Light System with RAIL</td>
</tr>
<tr>
<td>SSALS</td>
<td>Simplified Short Approach Lighting System</td>
</tr>
<tr>
<td>SDF</td>
<td>Simplified Directional Facility</td>
</tr>
<tr>
<td>SM</td>
<td>Statute Mile</td>
</tr>
<tr>
<td>SOIA</td>
<td>Simultaneous Offset Instrument Approach</td>
</tr>
<tr>
<td>SR-SS</td>
<td>Sunrise-Sunset</td>
</tr>
<tr>
<td>TAA</td>
<td>Terminal Arrival Area</td>
</tr>
<tr>
<td>TAC</td>
<td>TACAN</td>
</tr>
<tr>
<td>TCH</td>
<td>Threshold Crossing Height (height in feet above ground level)</td>
</tr>
<tr>
<td>TDZ</td>
<td>Touchdown Zone</td>
</tr>
<tr>
<td>TDZE</td>
<td>Touchdown Zone Elevation</td>
</tr>
<tr>
<td>TDZ/CL</td>
<td>Touchdown Zone and Runway Centerline Lighting</td>
</tr>
<tr>
<td>TDZL</td>
<td>Touchdown Zone Lights</td>
</tr>
<tr>
<td>THR</td>
<td>Threshold</td>
</tr>
<tr>
<td>TODA</td>
<td>Takeoff Distance Available</td>
</tr>
<tr>
<td>TORA</td>
<td>Takeoff Run Available</td>
</tr>
<tr>
<td>TR</td>
<td>Track</td>
</tr>
<tr>
<td>VASI</td>
<td>Visual Approach Slope Indicator</td>
</tr>
<tr>
<td>VCOA</td>
<td>Visual Climb over Airport</td>
</tr>
<tr>
<td>VDP</td>
<td>Visual Descent Point</td>
</tr>
<tr>
<td>VGSI</td>
<td>Visual Glide Slope Indicator</td>
</tr>
<tr>
<td>VNAV</td>
<td>Vertical Navigation</td>
</tr>
<tr>
<td>WAAS</td>
<td>Wide Area Augmentation System</td>
</tr>
<tr>
<td>WP/WPT</td>
<td>Waypoint (RNAV)</td>
</tr>
</tbody>
</table>
Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: GS 3.00°.

2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format: GP 3.00°.

3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure track following the fix it is based on. Absence of a VDA or a note that the VDA is not authorized indicates that the prescribed obstacle clearance surface is not clear and the VDA must not be used below MDA. VDA is depicted in the following format: \( \pm 3.00^\circ \). On Copter procedures this is depicted in the following format: \( \pm 7.30^\circ \).

Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: GS 3.00°.

2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format: GP 3.00°.

3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure track following the fix it is based on. Absence of a VDA or a note that the VDA is not authorized indicates that the prescribed obstacle clearance surface is not clear and the VDA must not be used below MDA. VDA is depicted in the following format: \( \pm 3.00^\circ \). On Copter procedures this is depicted in the following format: \( \pm 7.30^\circ \).
**LEGEND 21168  STANDARD TERMINAL ARRIVAL (STAR) CHARTS**

### RADIO AIDS TO NAVIGATION

**Compulsory:**
- ✡️ VOR
- ✕ VORTAC
- ■ DME
- ✧ NDB/DME

**Non-Compulsory:**
- ◯ VOR
- ◯ VORTAC
- □ DME
- ◇ NDB/DME
- ✝ LMM, LOM (Compass locator)
- ∇ Marker Beacon
- ▪ Localizer Front Course
- □ SDF Course
- (T) indicates frequency protection range
- (Y) TACAN must be placed in "Y" mode to receive distance information

**FIXES/ATC REPORTING REQUIREMENTS**

**Reporting Points**
- 112.25 (T) ORL
- N28°32.56' - W81°20.10'

**Identiﬁer**
- ORLANDO

**Frequency**
- ORL Chan 59 (Y)

**Geographic Position**
- L-19, H-5

**DME or TACAN Channel**
- 1200°

**Underline indicates no voice transmitted on this frequency**

### Routes

- **MAA FL200** Maximum Authorized Altitude
- 4500 MEA-Minimum Enroute Altitude
- *3500 MOCA-Minimum Obstruction Clearance Altitude

- **Arrival Route**
  - 270°
  - (65) Mileage between Radio Aids, Reporting Points, and Route Breaks

- **Transition Route**
  - R-275
  - Radial line and value

- **Lost Communications Track**
  - Holding Pattern
  - (IAS) Holding Pattern

**Holding pattern with max. restricted airspeed (175K) applies to all altitudes (210K) applies to altitudes above 6000' to and including 14000'**

### SPECIAL USE AIRSPACE

- R-Restricted
- W-Warning
- P-Prohibited
- A-Alert
- M-Military Operations Area

### ALTITUDES

- **Mandatory Altitude** (Cross at)
  - 5500
  - 2300
  - 4800

- **Minimum Altitude** (Cross at or above)
  - 15000
  - 12000

- **Maximum Altitude** (Cross at or below)
  - 4800

- **Black Altitude**
  - 12000

**Altitude change at other than Radio Aids to Navigation**

### INDICATED AIRSPEED

- **Mandatory Airspeed**
  - 175K
  - 120K
  - 250K

**Minimum Airspeed**

**Maximum Airspeed**

### MISCELLANEOUS

- **Changeover Point**
- **Air Defense Identification Zone**

### AIRPORTS

- ✡️ Civil
- ☯ Military
- ☑ Joint (Civil-Military)

**Airports not served by the procedure shown in screened color**

- ✡️ Civil
- ☯ Military
- ☑ Joint (Civil-Military)
DEPARTURE PROCEDURE (DP) CHARTS

RADIO AIDS TO NAVIGATION

Compulsory:
- VOR
- VORTAC
- DME
- NDB
- NDB/DME

Non-Compulsory:
- VOR
- VORTAC
- DME
- NDB
- NDB/DME

Marker Beacon

LOC/DME

Location Report

Enroute Chart

Position

Geographic

Channel

TACAN

DME or

LOC/DM

(when installation is

offset from its normal position

off the end of the runway.)

Fixes/ATC Reporting Requirements

Reporting Points

VOR

VORTAC

DME

NDB

NDB/DME

LMM, LOM

(Compass locator)

Frequency

Underline indicates no voice transmitted on this frequency

Frequency

Indentifier

Identifier

Frequency

Position Report

DME Reference

DME or

TACAN

Channel

Enroute Chart

Identifiers

Frequency

DME Mileage

(when not obvious)

WAYPOINT

(Compulsory)

WAYPOINT

(Non-Compulsory)

X Computer Navigation Fix (CNF) - No ATC Function

(JEHN)

N00°00.00' W00°00.00'

Miscellaneous

Changeover Point

Distance not to scale

International Boundary

Sector Boundary

Air Defense Identification Zone

Takeoff Minimums and (Obstacle) Departure Procedures entry published.

Routes

4500 MEA-Minimum Enroute Altitude

3500 MOCA-Minimum Obstruction Clearance Altitude

270° Departure Route

(65) Mileage between Radio Aids, Reporting Points, and Route Breaks

R-275 Radial line and value

Lost Communications Track

Visual Flight Path

Airway/Jet Route Identification

Holding pattern with max. restricted airspeed (175K) applies to all altitudes (210K) applies to altitudes above 6000' to and including 14000'

Top Altitude Restriction

Top Altitude: 5000

Indicated Airspeed

175K Mandatory Airspeed

120K Minimum Airspeed

250K Maximum Airspeed

Airports

Civil

Military

Heliport

Joint (Civil-Military)

Minimum Safe Altitude (MSA)

MSA CRW 2.5 NM

4500 090° 270°

4100 5300 4700

2500

M6 AIA 2.5 NM

SW-3, 07 OCT 2021 to 02 DEC 2021
**INSTRUMENT APPROACH PROCEDURES (CHARTS)**

**LEGEND**

- **Runways:**
  - Hard Surface
  - Other Than Hard Surface
  - Stopways, Taxiways, Parking Areas
  - Metal Surface

- **Surface:**
  - Closed Runway
  - Under Construction
  - Water Runway

- **ARRESTING SYSTEM:**
  - 1 - uni-directional
  - 2 - bi-directional
  - 3 - Jet Barrier

- **REFERENCE FEATURES:**
  - Displaced Threshold
  - Hot Spot
  - Runway Holding Position Markings
  - Buildings
  - 24-Hour Self-Serve Fuel
  - Tanks
  - Obstructions
  - Airport Beacon
  - Runway
  - Radar Reflectors
  - Control Tower
  - TWR

- **ARRESTING GEAR:** Specific arresting gear systems, e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

- **NOTE:** Landmark features depicted on Copter Approach insets and sketches are provided for visual reference only.

- **NOTE:** Runway Slope measured to midpoint on runways 8000 feet or longer.

- **NOTE:** U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

- **Approach light symbols are shown in the Flight Information Handbook.**

- **Airport diagram scales are variable.**

- **True/magnetic North orientation may vary from diagram to diagram.**

- **Coordinate values are shown in 1 or 2 minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.**

- **Positional accuracy within ±600 feet unless otherwise noted on the chart.**

- **Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.**

- **A D symbol is shown to indicate runway declared distance information available, see appropriate Chart Supplement for distance information.**

**SCOPE**

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.
Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g., ✧, ◦, etc.

A dot ✧ portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., ✧. Negative symbology, e.g., ◦, ◦ indicates Pilot Controlled Lighting (PCL).

### Approach Lighting Systems

#### ALSF-2

- **High Intensity**
- Length 2400/3000 Feet
- Note: Civil ALSF-2 may be operated as SSALR during favorable weather conditions

#### ALSF-1

- **High Intensity**
- Length 2400/3000 Feet
- **Medium Intensity** (MALS and MALSF) or Simplified Short (SSALS and SSALF) Approach Lighting Systems

#### ALSF/SALS

- **High Intensity**
- Same as inner 1500' of ALSF-1

#### SSALR

- **Medium Intensity**
- Length 2400/3000 Feet

#### SSALF

- **Medium Intensity**
- Length 1400 Feet

#### ODALS

- **High Intensity**
- Length 1500 Feet

#### VASI

- **High Intensity**
- Length 2400'/3000'

- **Medium Intensity**
- Length 1400 Feet

- **Simple Intensity**
- Length 700 Feet

### Visual Approach SLOPE INDICATOR

**VASI**

- **High Intensity**
- Length 2400'/3000'

### Visual Approach GLIDE SLOPE INDICATOR

**VASI**

- **High Intensity**
- Length 2400'/3000'

### Instrument Approach Procedures (Charts)

**Approach Lighting System - United States**

**LEGEND**

**Note in Sketch** e.g. "TDZ/CL Rwy 15"

**AVAILABILITY** of TDZ/CL will be shown by NOTE in Sketch e.g. "TDZ/CL Rwy 15"
Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, etc.

A dot portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., Negative symbology, e.g., indicates Pilot Controlled Lighting (PCL).

**Legend**

- White
- Red

**Precision Approach Path Indicator (PAPI)**

- Too low
- Slightly low
- On correct approach path
- Slightly high
- Too high

**Pulsating Visual Approach Slope Indicator (PVASI)**

**Tri-Color Visual Approach Slope Indicator (TRCV)**

**Alignment of Elements Systems (APAP)**

Painted panels which may be lighted at night.

To use the system the pilot positions the aircraft so the elements are in alignment.

**CAUTION:** When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

**CAUTION:** When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.
### FREQUENCY PAIRING TABLE

<table>
<thead>
<tr>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>17Y</td>
<td>108.05</td>
<td>40X</td>
<td>110.30</td>
<td>88Y</td>
<td>114.15</td>
</tr>
<tr>
<td>18X</td>
<td>108.10</td>
<td>40Y</td>
<td>110.35</td>
<td>89Y</td>
<td>114.25</td>
</tr>
<tr>
<td>18Y</td>
<td>108.15</td>
<td>41Y</td>
<td>110.45</td>
<td>90Y</td>
<td>114.35</td>
</tr>
<tr>
<td>19Y</td>
<td>108.25</td>
<td>42X</td>
<td>110.50</td>
<td>91Y</td>
<td>114.45</td>
</tr>
<tr>
<td>20X</td>
<td>108.30</td>
<td>42Y</td>
<td>110.55</td>
<td>92Y</td>
<td>114.55</td>
</tr>
<tr>
<td>20Y</td>
<td>108.35</td>
<td>43Y</td>
<td>110.65</td>
<td>93Y</td>
<td>114.65</td>
</tr>
<tr>
<td>21Y</td>
<td>108.45</td>
<td>44X</td>
<td>110.70</td>
<td>94Y</td>
<td>114.75</td>
</tr>
<tr>
<td>22X</td>
<td>108.50</td>
<td>44Y</td>
<td>110.75</td>
<td>95Y</td>
<td>114.85</td>
</tr>
<tr>
<td>22Y</td>
<td>108.55</td>
<td>45Y</td>
<td>110.85</td>
<td>96Y</td>
<td>114.95</td>
</tr>
<tr>
<td>23Y</td>
<td>108.65</td>
<td>46X</td>
<td>110.90</td>
<td>97Y</td>
<td>115.05</td>
</tr>
<tr>
<td>24X</td>
<td>108.70</td>
<td>46Y</td>
<td>110.95</td>
<td>98Y</td>
<td>115.15</td>
</tr>
<tr>
<td>24Y</td>
<td>108.75</td>
<td>47Y</td>
<td>111.05</td>
<td>99Y</td>
<td>115.25</td>
</tr>
<tr>
<td>25Y</td>
<td>108.85</td>
<td>48X</td>
<td>111.10</td>
<td>100Y</td>
<td>115.35</td>
</tr>
<tr>
<td>26X</td>
<td>108.90</td>
<td>48Y</td>
<td>111.15</td>
<td>101Y</td>
<td>115.45</td>
</tr>
<tr>
<td>26Y</td>
<td>108.95</td>
<td>49Y</td>
<td>111.25</td>
<td>102Y</td>
<td>115.55</td>
</tr>
<tr>
<td>27Y</td>
<td>109.05</td>
<td>50X</td>
<td>111.30</td>
<td>103Y</td>
<td>115.65</td>
</tr>
<tr>
<td>28X</td>
<td>109.10</td>
<td>50Y</td>
<td>111.35</td>
<td>104Y</td>
<td>115.75</td>
</tr>
<tr>
<td>28Y</td>
<td>109.15</td>
<td>51Y</td>
<td>111.45</td>
<td>105Y</td>
<td>115.85</td>
</tr>
<tr>
<td>29Y</td>
<td>109.25</td>
<td>52X</td>
<td>111.50</td>
<td>106Y</td>
<td>115.95</td>
</tr>
<tr>
<td>30X</td>
<td>109.30</td>
<td>52Y</td>
<td>111.55</td>
<td>107Y</td>
<td>116.05</td>
</tr>
<tr>
<td>30Y</td>
<td>109.35</td>
<td>53Y</td>
<td>111.65</td>
<td>108Y</td>
<td>116.15</td>
</tr>
<tr>
<td>31Y</td>
<td>109.45</td>
<td>54X</td>
<td>111.70</td>
<td>109Y</td>
<td>116.25</td>
</tr>
<tr>
<td>32X</td>
<td>109.50</td>
<td>54Y</td>
<td>111.75</td>
<td>110Y</td>
<td>116.35</td>
</tr>
<tr>
<td>32Y</td>
<td>109.55</td>
<td>55Y</td>
<td>111.85</td>
<td>111Y</td>
<td>116.45</td>
</tr>
<tr>
<td>33Y</td>
<td>109.65</td>
<td>56X</td>
<td>111.90</td>
<td>112Y</td>
<td>116.55</td>
</tr>
<tr>
<td>34X</td>
<td>109.70</td>
<td>56Y</td>
<td>111.95</td>
<td>113Y</td>
<td>116.65</td>
</tr>
<tr>
<td>34Y</td>
<td>109.75</td>
<td>80Y</td>
<td>113.35</td>
<td>114Y</td>
<td>116.75</td>
</tr>
<tr>
<td>35Y</td>
<td>109.85</td>
<td>81Y</td>
<td>113.45</td>
<td>115Y</td>
<td>116.85</td>
</tr>
<tr>
<td>36X</td>
<td>109.90</td>
<td>82Y</td>
<td>113.55</td>
<td>116Y</td>
<td>116.95</td>
</tr>
<tr>
<td>36Y</td>
<td>109.95</td>
<td>83Y</td>
<td>113.65</td>
<td>117Y</td>
<td>117.05</td>
</tr>
<tr>
<td>37Y</td>
<td>110.05</td>
<td>84Y</td>
<td>113.75</td>
<td>118Y</td>
<td>117.15</td>
</tr>
<tr>
<td>38X</td>
<td>110.10</td>
<td>85Y</td>
<td>113.85</td>
<td>119Y</td>
<td>117.25</td>
</tr>
<tr>
<td>38Y</td>
<td>110.15</td>
<td>86Y</td>
<td>113.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39Y</td>
<td>110.25</td>
<td>87Y</td>
<td>114.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See the Chart Supplement for a complete listing.
<table>
<thead>
<tr>
<th>INDEX OF TERMINAL CHARTS AND MINIMUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>APPLE VALLEY, CA</td>
</tr>
<tr>
<td>APPLE VALLEY (APV)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS ........ RNAV (GPS) RWY 18</td>
</tr>
<tr>
<td>DPS .......... EXCON ONE (OBSTACLE) (RNAV)</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>AVALON, CA</td>
</tr>
<tr>
<td>CATALINA (AVX)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... VOR/DME OR GPS-B</td>
</tr>
<tr>
<td>VOR OR GPS-A</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>BAKERSFIELD, CA</td>
</tr>
<tr>
<td>BAKERSFIELD MUNI (L45)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 34</td>
</tr>
<tr>
<td>VOR/DME RWY 34</td>
</tr>
<tr>
<td>DPS ........... STIGR TWO</td>
</tr>
<tr>
<td>MEADOWS FLD (BFL)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>STARS ........ FASTO TWO</td>
</tr>
<tr>
<td>IAPS .......... ILS OR LOC RWY 30R</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 12L</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 12R</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 30L</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 30R</td>
</tr>
<tr>
<td>VOR-A</td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
</tr>
<tr>
<td>DPS .......... MARIC FOUR</td>
</tr>
<tr>
<td>MEADOWS FOUR</td>
</tr>
<tr>
<td>WRING FOUR</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>BARSTOW-DAGGERT</td>
</tr>
<tr>
<td>---SEE DAGGERT, CA</td>
</tr>
<tr>
<td>BERMUDA DUNES</td>
</tr>
<tr>
<td>---SEE PALM SPRINGS, CA</td>
</tr>
<tr>
<td>BIG BEAR CITY, CA</td>
</tr>
<tr>
<td>BIG BEAR CITY (L35)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 26</td>
</tr>
<tr>
<td>DPS .......... OKACO ONE (OBSTACLE) (RNAV)</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>BLYTHE, CA</td>
</tr>
<tr>
<td>BLYTHE (BLH)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 26</td>
</tr>
<tr>
<td>VOR/DME RWY 26</td>
</tr>
<tr>
<td>VOR/DME-A</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>BOB HOPE</td>
</tr>
<tr>
<td>---SEE BURBANK, CA</td>
</tr>
<tr>
<td>BOB MAXWELL MEML AIRFIELD</td>
</tr>
<tr>
<td>---SEE OCEANSIDE, CA</td>
</tr>
<tr>
<td>BORREGO SPRINGS, CA</td>
</tr>
<tr>
<td>BORREGO VALLEY (L08)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 26</td>
</tr>
<tr>
<td>DPS .......... ZUNGU ONE (OBSTACLE) (RNAV)</td>
</tr>
<tr>
<td>KUMBA ONE (RNAV)</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>BRACKETT FLD</td>
</tr>
<tr>
<td>---SEE LA VERNE, CA</td>
</tr>
<tr>
<td>BRAWLEY, CA</td>
</tr>
<tr>
<td>BRAWLEY MUNI (BWC)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 26</td>
</tr>
<tr>
<td>VOR-B</td>
</tr>
<tr>
<td>BROWN FLD MUNI</td>
</tr>
<tr>
<td>---SEE SAN DIEGO, CA</td>
</tr>
<tr>
<td>BURBANK, CA</td>
</tr>
<tr>
<td>BOB HOPE (BUR)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>LAHSO</td>
</tr>
<tr>
<td>HOT SPOT</td>
</tr>
<tr>
<td>STARS .......... FERNANDO SEVEN</td>
</tr>
<tr>
<td>JANNY FIVE (RNAV)</td>
</tr>
<tr>
<td>LYNX EIGHT</td>
</tr>
<tr>
<td>ROKKR TWO (RNAV)</td>
</tr>
<tr>
<td>THRNE THREE (RNAV)</td>
</tr>
<tr>
<td>WEESL ONE (RNAV)</td>
</tr>
<tr>
<td>IAPS .......... ILS Y OR LOC Y RWY 08</td>
</tr>
<tr>
<td>ILS Z OR LOC Z RWY 08</td>
</tr>
<tr>
<td>RNAV (RNP) Y RWY 08</td>
</tr>
<tr>
<td>RNAV (GPS) Z RWY 08</td>
</tr>
<tr>
<td>RNAV (GPS) A</td>
</tr>
<tr>
<td>VOR RWY 08</td>
</tr>
<tr>
<td>FOUR STACKS VISUAL RWY 15</td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
</tr>
<tr>
<td>DPS .......... ELMOO NINE</td>
</tr>
<tr>
<td>OROSZ TWO (RNAV)</td>
</tr>
<tr>
<td>SLAPP TWO (RNAV)</td>
</tr>
<tr>
<td>VAN NUYS THREE</td>
</tr>
<tr>
<td>VVERA TWO (RNAV)</td>
</tr>
<tr>
<td>CABLE</td>
</tr>
<tr>
<td>---SEE UPLAND, CA</td>
</tr>
<tr>
<td>CALIFORNIA CITY, CA</td>
</tr>
<tr>
<td>CALIFORNIA CITY MUNI (L71)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 06</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 24</td>
</tr>
<tr>
<td>DPS .......... CALIFORNIA CITY ONE (OBSTACLE) (RNAV)</td>
</tr>
<tr>
<td>CALIPATRIA, CA</td>
</tr>
<tr>
<td>CLIFF HATFIELD MEML (CLR)</td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
</tr>
<tr>
<td>IAPS .......... RNAV (GPS) RWY 08</td>
</tr>
</tbody>
</table>

**INDEX**

21280
INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMARILLO, CA</td>
<td>CAMARILLO(CMA)</td>
<td></td>
<td>CHINO, CA</td>
<td>CHINO(CNO)</td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td>N</td>
<td></td>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>Z28</td>
<td></td>
<td>STARS</td>
<td>Z74</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 08</td>
<td>47</td>
<td></td>
<td>8 Stars</td>
<td>286</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 26</td>
<td>48</td>
<td></td>
<td>8 Stars</td>
<td>286</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Z RWY 26</td>
<td>49</td>
<td></td>
<td>RNAV (GPS) RWY 26</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>VOR RWY 26</td>
<td>50</td>
<td></td>
<td>VOR RWY 26</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>51</td>
<td></td>
<td>AIRPORT DIAGRAM</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>CAMP PENDLETON MCAS (MUNN FLD) (KNFG)</td>
<td>OCEANSIDE, CA</td>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADIARM MINIMUMS</td>
<td>N</td>
<td></td>
<td>STARS</td>
<td>LEGEOZ TWO (RNAV)</td>
<td>246</td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 21</td>
<td>52</td>
<td></td>
<td>8 VOR/DME OR TACAN Y RWY 21</td>
<td>53</td>
</tr>
<tr>
<td>TACAN RWY 03</td>
<td>54</td>
<td></td>
<td>TACAN Z RWY 21</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>COPTER TACAN RWY 21</td>
<td>56</td>
<td></td>
<td>AIRPORT DIAGRAM</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>BEACH EIGHT (OBSTACLE)</td>
<td>58</td>
<td></td>
<td>BULLDOG ONE (OBSTACLE)</td>
<td>59</td>
</tr>
<tr>
<td>CORRI TWO (OBSTACLE)</td>
<td>60</td>
<td></td>
<td>MUNN TWO (OBSTACLE)</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>CARLSBAD, CA</td>
<td>MCCLELLAN-PALOMAR(CRQ)</td>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td>LEGEOZ TWO (RNAV)</td>
<td>246</td>
<td></td>
<td>8 IAPS</td>
<td>ILS OR LOC RWY 24</td>
</tr>
<tr>
<td>RNAV (RNP) Z RWY 06</td>
<td>63</td>
<td></td>
<td>RNAV (RNP) Z RWY 24</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) X RWY 24</td>
<td>65</td>
<td></td>
<td>RNAV (GPS) Y RWY 06</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 24</td>
<td>67</td>
<td></td>
<td>VOR-A</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>69</td>
<td></td>
<td>AIRPORT DIAGRAM</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>CWARD TWO (RNAV)</td>
<td>70</td>
<td></td>
<td>PADTZ TWO (RNAV)</td>
<td>71</td>
</tr>
<tr>
<td>CATALINA</td>
<td>SEE AVALON, CA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHINA LAKE NAWS (ARMITAGE FLD)(KNID)</td>
<td>RIDGECREST, CA</td>
<td></td>
<td>CHINO, CA</td>
<td>CHINO(CNO)</td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 03</td>
<td>72</td>
<td></td>
<td>8 RNAV (GPS) RWY 05R</td>
<td>91</td>
</tr>
<tr>
<td>TACAN RWY 32</td>
<td>73</td>
<td></td>
<td>RNAV (GPS) RWY 23L</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>TACAN Y RWY 03</td>
<td>75</td>
<td></td>
<td>VOR/DME OR TACAN RWY 05L</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>76</td>
<td></td>
<td>VOR/DME OR TACAN RWY 23R</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>ROSIE FOUR (OBSTACLE) (RNAV)</td>
<td>77</td>
<td></td>
<td>VOR/DME OR TACAN Y RWY 05R</td>
<td>95</td>
</tr>
<tr>
<td>SALTD SEVEN</td>
<td>78</td>
<td></td>
<td>AIRPORT DIAGRAM</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>

INDEX

21280
<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EL MONTE, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN GABRIEL VALLEY(EMT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>GPS RWY 18</td>
<td>109</td>
</tr>
<tr>
<td>DPS</td>
<td>FALLBROOK ONE (OBSTACLE)</td>
<td>110</td>
</tr>
<tr>
<td><strong>FALLBROOK, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FALLBROOK COMMUNITY AIRPARK(L18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>GPS RWY 18</td>
<td>109</td>
</tr>
<tr>
<td>DPS</td>
<td>FALLBROOK ONE (OBSTACLE)</td>
<td>110</td>
</tr>
<tr>
<td><strong>GILLESPIE FLD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE SAN DIEGO/EL CAJON, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FULLERTON, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FULLERTON MUNI(FUL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 24</td>
<td>111</td>
</tr>
<tr>
<td>LOC/DME RWY 24</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>VOR-A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>ANAHEIM ONE</td>
<td>115</td>
</tr>
<tr>
<td><strong>FLABOB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE RIVERSIDE/RUBIDOUX, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FRENCH VALLEY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE MURIETA/TEMECULA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GENERAL WM J FOX AIRFIELD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE LANCASTER, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HAWTHORNE, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JACK NORTHROP FLD/HAWTHORNE MUNI(HHR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 25</td>
<td>118</td>
</tr>
<tr>
<td>LOC RWY 25</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>VOR RWY 25</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td><strong>HEMET, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEMET-RYAN(HMT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 05</td>
<td>123</td>
</tr>
<tr>
<td><strong>HUNTER-LIGGETT, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE TUSI AHP</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IMPERIAL, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMPERIAL COUNTY(IPL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>VOR OR GPS-A</td>
<td>124</td>
</tr>
<tr>
<td><strong>IMPERIAL BEACH NOLF (REAM FIELD)(NRS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IMPERIAL BEACH, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>COPTER TACAN RWY 27</td>
<td>126</td>
</tr>
<tr>
<td><strong>INYO KERN, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INYO KERN(IYK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 02</td>
<td>128</td>
</tr>
<tr>
<td>DPS</td>
<td>LAKE HUGHES TWO (OBSTACLE) (RNAV)</td>
<td>129</td>
</tr>
<tr>
<td><strong>FLACKE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE SANTA ANA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JACK NORTHROP FLD/HAWTHORNE MUNI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE HAWTHORNE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JACQUELINE COCHRAN RGNL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE PALM SPRINGS, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JOHN WAYNE/ORANGE COUNTY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE SANTA ANA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LA VERNE, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRACKETT FLD(POC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>ILS RWY 26L</td>
<td>131</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 26L</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td>LOC RWY 26L</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>VOR OR GPS-A</td>
<td>134</td>
<td></td>
</tr>
<tr>
<td><strong>LANCASTER, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENERAL WM J FOX AIRFIELD(WJF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 06</td>
<td>135</td>
</tr>
<tr>
<td>RNAV (GPS) RWY 24</td>
<td>137</td>
<td></td>
</tr>
<tr>
<td>VOR-B</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td><strong>LOMPOC, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOMPOC(LPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 25</td>
<td>140</td>
</tr>
<tr>
<td>VOR/DME-A</td>
<td>141</td>
<td></td>
</tr>
</tbody>
</table>
# INDEX

## 21280

## INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LONG BEACH, CA</strong></td>
<td></td>
<td></td>
<td><strong>LOS ANGELES, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LONG BEACH (DAUGHERTY FLD)(LGB)</strong></td>
<td></td>
<td></td>
<td><strong>LOS ANGELES INTL(LAX)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td>L</td>
<td></td>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td><strong>LHSAO</strong></td>
<td></td>
<td></td>
<td><strong>STARS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HOT SPOT</strong></td>
<td>P</td>
<td></td>
<td><strong>ANJLL FOUR (RNAV)</strong></td>
<td>Z1</td>
<td></td>
</tr>
<tr>
<td><strong>STARS</strong></td>
<td></td>
<td></td>
<td><strong>BASET FIVE</strong></td>
<td>Z5</td>
<td></td>
</tr>
<tr>
<td>BAUBB TWO (RNAV)</td>
<td></td>
<td></td>
<td><strong>BAYST ONE (RNAV)</strong></td>
<td>Z8</td>
<td></td>
</tr>
<tr>
<td>DSNEE FIVE (RNAV)</td>
<td></td>
<td></td>
<td><strong>BIGGR THREE (RNAV)</strong></td>
<td>Z10</td>
<td></td>
</tr>
<tr>
<td>KAYOH SEVEN</td>
<td></td>
<td></td>
<td><strong>BOGET TWO (RNAV)</strong></td>
<td>Z12</td>
<td></td>
</tr>
<tr>
<td>PCFC TWO (RNAV)</td>
<td></td>
<td></td>
<td><strong>BRUEN TWO (RNAV)</strong></td>
<td>Z14</td>
<td></td>
</tr>
<tr>
<td>ROOBY THREE (RNAV)</td>
<td></td>
<td></td>
<td><strong>DIRBY ONE (RNAV)</strong></td>
<td>Z19</td>
<td></td>
</tr>
<tr>
<td>TANDY FIVE</td>
<td></td>
<td></td>
<td><strong>GOATZ ONE (RNAV)</strong></td>
<td>Z27</td>
<td></td>
</tr>
<tr>
<td><strong>IAPS</strong></td>
<td></td>
<td></td>
<td><strong>HLYWD ONE (RNAV)</strong></td>
<td>Z30</td>
<td></td>
</tr>
<tr>
<td>ILS OR LOC RWY 30</td>
<td>142</td>
<td></td>
<td><strong>HJULL TWO (RNAV)</strong></td>
<td>Z33</td>
<td></td>
</tr>
<tr>
<td>RNAV (RNP) RWY 12</td>
<td>143</td>
<td></td>
<td><strong>IRNMM TWO (RNAV)</strong></td>
<td>Z34</td>
<td></td>
</tr>
<tr>
<td>RNAV (RNP) Y RWY 30</td>
<td>144</td>
<td></td>
<td><strong>KIMMO THREE</strong></td>
<td>Z43</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Z RWY 30</td>
<td>145</td>
<td></td>
<td><strong>LEENA SEVEN</strong></td>
<td>Z45</td>
<td></td>
</tr>
<tr>
<td>VOR OR TACAN RWY 30</td>
<td>146</td>
<td></td>
<td><strong>MDNYT TWO (RNAV)</strong></td>
<td>Z51</td>
<td></td>
</tr>
<tr>
<td>ARSENAL VISUAL RWY 30</td>
<td>147</td>
<td></td>
<td><strong>MOORPARK FOUR</strong></td>
<td>Z53</td>
<td></td>
</tr>
<tr>
<td>LA RIVER VISUAL RWY 12</td>
<td>148</td>
<td></td>
<td><strong>OCEAN THREE</strong></td>
<td>Z54</td>
<td></td>
</tr>
<tr>
<td><strong>AIRPORT DIAGRAM</strong></td>
<td>149</td>
<td></td>
<td><strong>OLAA TWO (RNAV)</strong></td>
<td>Z57</td>
<td></td>
</tr>
<tr>
<td><strong>DPS</strong></td>
<td></td>
<td></td>
<td><strong>RYDRR TWO (RNAV)</strong></td>
<td>Z66</td>
<td></td>
</tr>
<tr>
<td>ANAHEIM ONE</td>
<td>150</td>
<td></td>
<td><strong>SADDE EIGHT</strong></td>
<td>Z68</td>
<td></td>
</tr>
<tr>
<td>FRITR THREE (RNAV)</td>
<td>151</td>
<td></td>
<td><strong>SEAVU TWO</strong></td>
<td>Z73</td>
<td></td>
</tr>
<tr>
<td>HAWWC THREE (RNAV)</td>
<td>152</td>
<td></td>
<td><strong>SNSTT TWO (RNAV)</strong></td>
<td>Z77</td>
<td></td>
</tr>
<tr>
<td>TOPMM FOUR (RNAV)</td>
<td>153</td>
<td></td>
<td><strong>VISTA THREE</strong></td>
<td>Z83</td>
<td></td>
</tr>
<tr>
<td>ZOOMM THREE (RNAV)</td>
<td>154</td>
<td></td>
<td><strong>WAYVE ONE (RNAV)</strong></td>
<td>Z84</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ALAMITOS AAF(KSLI)</strong></td>
<td></td>
<td></td>
<td><strong>ZUUMA THREE (RNAV)</strong></td>
<td>Z88</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ALAMITOS, CA</strong></td>
<td></td>
<td></td>
<td><strong>IAPS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
<td>ILS OR LOC RWY 06L</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td>L</td>
<td></td>
<td>ILS OR LOC RWY 06R</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>RADAR MINIMUMS</td>
<td>L</td>
<td></td>
<td>ILS OR LOC RWY 07L</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td><strong>STARS</strong></td>
<td></td>
<td></td>
<td>ILS OR LOC RWY 07R</td>
<td>166</td>
<td></td>
</tr>
<tr>
<td>KAYOH SEVEN</td>
<td>Z42</td>
<td></td>
<td>ILS OR LOC RWY 24L</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td><strong>IAPS</strong></td>
<td></td>
<td></td>
<td>ILS OR LOC RWY 24R</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 22L</td>
<td>159</td>
<td></td>
<td>ILS OR LOC RWY 25L</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>VOR OR TACAN RWY 22L</td>
<td>160</td>
<td></td>
<td>ILS RWY 24R</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td><strong>AIRPORT DIAGRAM</strong></td>
<td>161</td>
<td></td>
<td>ILS RWY 24R (CAT II - III)</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td><strong>DPS</strong></td>
<td></td>
<td></td>
<td>ILS RWY 25L (CAT II - III)</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>HAWWC THREE (RNAV)</td>
<td>162</td>
<td></td>
<td>RNAV (RNP) Z RWY 06L</td>
<td>173</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ANGEITOS AAF(KSLI)</strong></td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 06R</td>
<td>174</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ANGEITOS, CA</strong></td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 07L</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 07R</td>
<td>176</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 24L</td>
<td>177</td>
<td></td>
</tr>
<tr>
<td>RADAR MINIMUMS</td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 24R</td>
<td>178</td>
<td></td>
</tr>
<tr>
<td><strong>STARS</strong></td>
<td></td>
<td></td>
<td>RNAV (RNP) Z RWY 25L</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>KAYOH SEVEN</td>
<td>Z42</td>
<td></td>
<td>RNAV (RNP) Z RWY 25R</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td><strong>IAPS</strong></td>
<td></td>
<td></td>
<td>RNAV (GPS) Y RWY 06L</td>
<td>181</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 22L</td>
<td>159</td>
<td></td>
<td>RNAV (GPS) Y RWY 06R</td>
<td>182</td>
<td></td>
</tr>
<tr>
<td>VOR OR TACAN RWY 22L</td>
<td>160</td>
<td></td>
<td>RNAV (GPS) Y RWY 07L</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td><strong>AIRPORT DIAGRAM</strong></td>
<td>161</td>
<td></td>
<td>RNAV (GPS) Y RWY 07R</td>
<td>184</td>
<td></td>
</tr>
<tr>
<td><strong>DPS</strong></td>
<td></td>
<td></td>
<td>RNAV (GPS) Y RWY 24L</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>HAWWC THREE (RNAV)</td>
<td>162</td>
<td></td>
<td>RNAV (GPS) Y RWY 24R</td>
<td>186</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ANGEITOS AAF(KSLI)</strong></td>
<td></td>
<td></td>
<td>RNAV (GPS) Y RWY 25L</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td><strong>LOS ANGEITOS, CA</strong></td>
<td></td>
<td></td>
<td>RNAV (GPS) Y RWY 25R</td>
<td>188</td>
<td></td>
</tr>
</tbody>
</table>

---

**INDEX**

| 21280 | | | | | |

---

K4
<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS ANGELES, CA(CON'T) LOS ANGELES INTL(LAX)(CON'T)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>CATALINA EIGHT</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>CHATY FIVE</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>DARRK THREE (RNAV)</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>DOTSS TWO (RNAV)</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>GARDY FOUR (RNAV)</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>GORMAN SEVEN</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>LADY J FOUR (RNAV)</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>LAXX ONE</td>
<td>202</td>
</tr>
<tr>
<td></td>
<td>MOOS TWO (RNAV)</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>MUELR FOUR (RNAV)</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>ORCKA FIVE (RNAV)</td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>OSNHN ONE (RNAV)</td>
<td>209</td>
</tr>
<tr>
<td></td>
<td>PERCH THREE</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>PNDAH TWO (RNAV)</td>
<td>212</td>
</tr>
<tr>
<td></td>
<td>SEAL BEACH EIGHT</td>
<td>214</td>
</tr>
<tr>
<td></td>
<td>SEBBY THREE</td>
<td>215</td>
</tr>
<tr>
<td></td>
<td>SKWRL TWO (RNAV)</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>SUMMR TWO (RNAV)</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>TRTON TWO (RNAV)</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>TUSTI TWO (RNAV)</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td>VENTURA EIGHT</td>
<td>223</td>
</tr>
<tr>
<td></td>
<td>WNNDY THREE (RNAV)</td>
<td>224</td>
</tr>
<tr>
<td></td>
<td>ZILLI FOUR (RNAV)</td>
<td>226</td>
</tr>
<tr>
<td>MARCH ARB(KRIV) RIVERSIDE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 12</td>
<td>228</td>
</tr>
<tr>
<td>VOR-A</td>
<td>229</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>WHITEMAN ONE (OBSTACLE)</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITEMAN(WHP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 12</td>
<td>228</td>
</tr>
<tr>
<td>VOR-A</td>
<td>229</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>WHITEMAN ONE (OBSTACLE)</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIRAMAR MCAS (JOE FOSS FLD)(KNKX) SAN DIEGO, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>IAPS</td>
<td>ILS OR LOC/DME RWY 24R</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) RWY 24L</td>
<td>242</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) RWY 24R</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>TACAN RWY 24R</td>
<td>244</td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>245</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>LAKEE THREE</td>
<td>246</td>
</tr>
<tr>
<td></td>
<td>REDIN FOUR</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>SWOLF NINE</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>TINNY FOUR</td>
<td>251</td>
</tr>
<tr>
<td></td>
<td>VITKO THREE</td>
<td>253</td>
</tr>
<tr>
<td>MOJAVE, CA MOJAVE AIR AND SPACE PORT(MHV)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 04</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) RWY 22</td>
<td>256</td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>257</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>JERID FIVE (RNAV)</td>
<td>258</td>
</tr>
<tr>
<td>MONTGOMERY-GIBBS EXEC SEE SAN DIEGO, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MURRIETA/TEMECULA, CA FRENCH VALLEY(F70)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 18</td>
<td>259</td>
</tr>
<tr>
<td>NEEDLES, CA NEEDLES(EED)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>RNAV (GPS) RWY 29</td>
<td>260</td>
</tr>
<tr>
<td>VOR-A</td>
<td>261</td>
<td></td>
</tr>
<tr>
<td>NORTH ISLAND NAS /HALSEY FLD/(KNZY) SAN DIEGO, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>RALAR MINIMUMS</td>
<td>262</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>GPS RWY 06</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>GPS RWY 24</td>
<td>272</td>
</tr>
<tr>
<td>VOR-A</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td>OCEANSIDE, CA BOB MAXWELL MEML AIRFIELD(OKB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>271</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td>GPS RWY 06</td>
<td>272</td>
</tr>
<tr>
<td></td>
<td>GPS RWY 24</td>
<td>272</td>
</tr>
<tr>
<td>VOR-A</td>
<td>273</td>
<td></td>
</tr>
</tbody>
</table>

INDEX

21280
<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCEANSIDE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE CAMP PENDLETON MCAS (MUNN FLD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXNARD, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE POINT MUGU NAS (NAVAL BASE VENTURA CO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PALM SPRINGS, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BERMUDA DUNES(UDD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXNARD, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXNARD(OXR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PALM SPRINGS INTL(PSP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PALMDALE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PALMDALE USAF PLANT 42(PMD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PASO ROBLES, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PASO ROBLES MUNI(PRB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCEANSIDE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONTARIO, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONTARIO INTL(ONT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXNARD, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXNARD(OXR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INDEX

21280
# INDEX

## 21280

## INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POINT MUGU NAS (NAVAL BASE VENTURA CO)(KNTD)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIVERSIDE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>RADAR MINIMUMS</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>STARS ..... SETER FIVE</td>
<td>Z74</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... ILS Y OR LOC/DME RWY 21</td>
<td>330</td>
<td></td>
</tr>
<tr>
<td>ILS Z OR LOC/DME RWY 21</td>
<td>331</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 03</td>
<td>332</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 21</td>
<td>333</td>
<td></td>
</tr>
<tr>
<td>TACAN RWY 21</td>
<td>334</td>
<td></td>
</tr>
<tr>
<td>TACAN Y OR VOR/DME RWY 03</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>TACAN Y OR VOR/DME RWY 03</td>
<td>336</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>DPS ..... DOYLE NINE</td>
<td>338</td>
<td></td>
</tr>
<tr>
<td>SAN MARCUS NINE</td>
<td>339</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN BERNARDINO, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAN BERNARDINO INTL(SBD)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS ..... ZIGGY SEVEN</td>
<td>Z86</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... ILS OR LOC Z RWY 06</td>
<td>355</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 06</td>
<td>356</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Z RWY 06</td>
<td>357</td>
<td></td>
</tr>
<tr>
<td>LOC Y RWY 06</td>
<td>358</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>359</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN CLEMENTE ISLAND NALF(FREDERICK</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHERMAN FIELD)(KNUC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAN CLEMENTE ISLAND, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>RADAR MINIMUMS</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... RNAV (GPS) RWY 24</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>TACAN RWY 24</td>
<td>361</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>362</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN DIEGO, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BROWN FLD MUNI(SDM)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS ..... CHASR TWO (RNAV)</td>
<td>Z16</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... RNAV (GPS) RWY 08L</td>
<td>363</td>
<td></td>
</tr>
<tr>
<td>VOR OR TACAN-A</td>
<td>364</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>DPS ..... CWARD TWO (RNAV)</td>
<td>366</td>
<td></td>
</tr>
<tr>
<td>PADRZ TWO (RNAV)</td>
<td>367</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MONTGOMERY-GIBBS EXEC(MYP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... ILS OR LOC RWY 28R</td>
<td>368</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 28R</td>
<td>369</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>370</td>
<td></td>
</tr>
<tr>
<td>DPS ..... CWARD TWO (RNAV)</td>
<td>371</td>
<td></td>
</tr>
<tr>
<td>PADRZ TWO (RNAV)</td>
<td>372</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RIVERSIDE, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RIVERSIDE MUNI(RAL)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS ..... SETER FIVE</td>
<td>Z74</td>
<td></td>
</tr>
<tr>
<td>ZIGGY SEVEN</td>
<td>Z86</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... ILS OR LOC RWY 09</td>
<td>347</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 09</td>
<td>348</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 27</td>
<td>349</td>
<td></td>
</tr>
<tr>
<td>VOR RWY 09</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>VOR</td>
<td>351</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td>DPS ..... RIVERSIDE TWO (OBSTACLE)</td>
<td>353</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RIVERSIDE/RUBIDOUX, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FLABOB(RIR)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>IAPS ..... RNAV (GPS)-A</td>
<td>354</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21280</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**SW3, 07 OCT 2021 to 02 DEC 2021**
## INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN DIEGO, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN DIEGO INTL(SAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td>Z3</td>
<td></td>
</tr>
<tr>
<td>COMIX TWO (RNAV)</td>
<td>Z16</td>
<td></td>
</tr>
<tr>
<td>HUBRD ONE</td>
<td>Z32</td>
<td></td>
</tr>
<tr>
<td>LUCKI ONE</td>
<td>Z48</td>
<td></td>
</tr>
<tr>
<td>PLYYA ONE (RNAV)</td>
<td>Z61</td>
<td></td>
</tr>
<tr>
<td>SHAMU ONE</td>
<td>Z75</td>
<td></td>
</tr>
<tr>
<td>TOPGN TWO (RNAV)</td>
<td>Z82</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILS Y OR LOC Y RWY 09</td>
<td>373</td>
<td></td>
</tr>
<tr>
<td>ILS Z OR LOC Z RWY 09</td>
<td>374</td>
<td></td>
</tr>
<tr>
<td>RNAV (RNP) Z RWY 27</td>
<td>375</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 09</td>
<td>376</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 27</td>
<td>377</td>
<td></td>
</tr>
<tr>
<td>LOC RWY 27</td>
<td>378</td>
<td></td>
</tr>
<tr>
<td>SWEETWATER VISUAL RWY 27</td>
<td>379</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>380</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BORDER SEVEN</td>
<td>381</td>
<td></td>
</tr>
<tr>
<td>CWARD TWO (RNAV)</td>
<td>382</td>
<td></td>
</tr>
<tr>
<td>ECHO TWO (RNAV)</td>
<td>383</td>
<td></td>
</tr>
<tr>
<td>FALCC ONE</td>
<td>384</td>
<td></td>
</tr>
<tr>
<td>MMOTO TWO (RNAV)</td>
<td>385</td>
<td></td>
</tr>
<tr>
<td>PADRZ TWO (RNAV)</td>
<td>386</td>
<td></td>
</tr>
<tr>
<td>PEBLE SIX</td>
<td>387</td>
<td></td>
</tr>
<tr>
<td>SAYOW TWO (RNAV)</td>
<td>388</td>
<td></td>
</tr>
<tr>
<td>ZZO00 TWO (RNAV)</td>
<td>389</td>
<td></td>
</tr>
<tr>
<td><strong>SAN GABRIEL VALLEY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---SEE EL MONTE, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAN LUIS OBISPO, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN LUIS COUNTY RGNL(SBP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILS RWY 11</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 11</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 29</td>
<td>401</td>
<td></td>
</tr>
<tr>
<td>LOC RWY 11</td>
<td>402</td>
<td></td>
</tr>
<tr>
<td>VOR OR TACAN-A</td>
<td>403</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>404</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVILA FOUR</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>CREPE THREE</td>
<td>406</td>
<td></td>
</tr>
<tr>
<td>WYNNR FOUR</td>
<td>407</td>
<td></td>
</tr>
<tr>
<td><strong>SAN NICOLAS ISLAND NOLF(KNSI)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAN NICOLAS ISLAND, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILS Y OR LOC/DME RWY 30</td>
<td>408</td>
<td></td>
</tr>
<tr>
<td>ILS Z OR RNAV (GPS) RWY 30</td>
<td>409</td>
<td></td>
</tr>
<tr>
<td>TACAN RWY 30</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>411</td>
<td></td>
</tr>
<tr>
<td><strong>SANTA ANA, CA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JOHN WAYNE/ORANGE COUNTY(SNA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>ALTERNATE VECTOR AREA</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSNEE FIVE (RNAV)</td>
<td>Z20</td>
<td></td>
</tr>
<tr>
<td>KAYOH SEVEN</td>
<td>Z24</td>
<td></td>
</tr>
<tr>
<td>OHSEA TWO (RNAV)</td>
<td>Z55</td>
<td></td>
</tr>
<tr>
<td>ROOBY THREE (RNAV)</td>
<td>Z64</td>
<td></td>
</tr>
<tr>
<td>TANDY FIVE</td>
<td>Z78</td>
<td></td>
</tr>
<tr>
<td>TILLT TWO (RNAV)</td>
<td>Z81</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILS RWY 20R (SA CAT I)</td>
<td>412</td>
<td></td>
</tr>
<tr>
<td>RNAV (RNP) Z RWY 02L</td>
<td>413</td>
<td></td>
</tr>
<tr>
<td>RNAV (RNP) Z RWY 20R</td>
<td>414</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 02L</td>
<td>415</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 20R</td>
<td>416</td>
<td></td>
</tr>
<tr>
<td>LOC BC RWY 02L</td>
<td>417</td>
<td></td>
</tr>
<tr>
<td>LDA/DME RWY 20R</td>
<td>418</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>419</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAHEIM ONE</td>
<td>420</td>
<td></td>
</tr>
<tr>
<td>CHANNEL THREE</td>
<td>421</td>
<td></td>
</tr>
<tr>
<td>EL TORO FOUR</td>
<td>422</td>
<td></td>
</tr>
<tr>
<td>FINZZ THREE (RNAV)</td>
<td>423</td>
<td></td>
</tr>
<tr>
<td>HAWWC THREE (RNAV)</td>
<td>424</td>
<td></td>
</tr>
<tr>
<td>HHERO THREE (RNAV)</td>
<td>425</td>
<td></td>
</tr>
<tr>
<td>HOBOW THREE (RNAV)</td>
<td>426</td>
<td></td>
</tr>
<tr>
<td>IRVINE FIVE</td>
<td>427</td>
<td></td>
</tr>
<tr>
<td>MIKAA ONE (RNAV)</td>
<td>428</td>
<td></td>
</tr>
<tr>
<td>MUSEL EIGHT</td>
<td>429</td>
<td></td>
</tr>
<tr>
<td>PIGGN TWO (RNAV)</td>
<td>430</td>
<td></td>
</tr>
<tr>
<td>STAYY THREE (RNAV)</td>
<td>431</td>
<td></td>
</tr>
<tr>
<td><strong>INDEX</strong></td>
<td>21280</td>
<td></td>
</tr>
</tbody>
</table>
INDEX

INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>SANTA BARBARA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA BARBARA MUNI(SBA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS .... PITBL ONE (RNAV)</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>IAPS .... ILS OR LOC RWY 07</td>
<td>438</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 07</td>
<td>439</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 25</td>
<td>440</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>441</td>
<td></td>
</tr>
<tr>
<td>DPS .... FLOUT FIVE</td>
<td>442</td>
<td></td>
</tr>
<tr>
<td>GAUCH TWO (RNAV)</td>
<td>443</td>
<td></td>
</tr>
<tr>
<td>HABUT FOUR</td>
<td>444</td>
<td></td>
</tr>
<tr>
<td>KWANG FIVE</td>
<td>446</td>
<td></td>
</tr>
<tr>
<td>MISHN THREE (RNAV)</td>
<td>446</td>
<td></td>
</tr>
<tr>
<td>SANTA BARBARA FIVE</td>
<td>447</td>
<td></td>
</tr>
<tr>
<td>SANTA MARIA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD(SMX)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>STARS .... ILS OR LOC RWY 12</td>
<td>449</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 12</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) RWY 30</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td>LOC/DME BC-A</td>
<td>452</td>
<td></td>
</tr>
<tr>
<td>VOR RWY 12</td>
<td>453</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>454</td>
<td></td>
</tr>
<tr>
<td>DPS .... BUELT FOUR</td>
<td>455</td>
<td></td>
</tr>
<tr>
<td>SANTA MONICA, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA MONICA MUNI(SMO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARS .... BOGET TWO (RNAV)</td>
<td>212</td>
<td></td>
</tr>
<tr>
<td>BONOJO TWO (RNAV)</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td>FERNANDO SEVEN</td>
<td>223</td>
<td></td>
</tr>
<tr>
<td>KIMMO THREE</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>THRNE THREE (RNAV)</td>
<td>278</td>
<td></td>
</tr>
<tr>
<td>WAYVE ONE (RNAV)</td>
<td>284</td>
<td></td>
</tr>
<tr>
<td>ZUUMA THREE (RNAV)</td>
<td>288</td>
<td></td>
</tr>
<tr>
<td>IAPS .... RNAV (GPS) RWY 21</td>
<td>456</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Y RWY 03</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>RNAV (GPS) Z RWY 03</td>
<td>458</td>
<td></td>
</tr>
<tr>
<td>VOR-A</td>
<td>459</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td>460</td>
<td></td>
</tr>
<tr>
<td>DPS .... TOPANGA TWO (OBSTACLE)</td>
<td>461</td>
<td></td>
</tr>
<tr>
<td>CHOIY THREE (RNAV)</td>
<td>462</td>
<td></td>
</tr>
<tr>
<td>CTRUS FOUR (RNAV)</td>
<td>464</td>
<td></td>
</tr>
<tr>
<td>PEVEE SIX (RNAV)</td>
<td>466</td>
<td></td>
</tr>
<tr>
<td>SANTA MONICA THREE (RNAV)</td>
<td>468</td>
<td></td>
</tr>
</tbody>
</table>

SANTA YEZ, CA

SANTA YEZ(IZA)

TAKEOFF MINIMUMS | L | 
| DIVERSE VECTOR AREA | | 
| ALTERNATE MINIMUMS | M | 
| IAPS .... GPS RWY 08 | 469 | 
| GPS-A | 470 | 
| VOR OR GPS-B | 471 | 

SHAFTER, CA

SHAFTER-MINTER FLD(MIT)

TAKEOFF MINIMUMS | L | 
| IAPS .... RNAV (GPS) RWY 12 | 472 | 
| VOR-A | 473 | 

SOUTHERN CALIFORNIA LOGISTICS

---SEE VICTORVILLE, CA

Torrance, CA

ZAMPERINI FLD(TOA)

TAKEOFF MINIMUMS | L | 
| ALTERNATE MINIMUMS | | 
| HOT SPOT | P | 
| STARS .... KAYOH SEVEN | 242 | 
| IAPS .... ILS OR LOC RWY 29R | 474 | 
| RNAV (GPS) RWY 11L | 475 | 
| RNAV (GPS) RWY 29R | 476 | 
| VOR RWY 11L | 477 | 
| AIRPORT DIAGRAM | 478 | 
| DPS .... HAWWC THREE (RNAV) | 479 | 

TUSI AHHT(GHT)

HUNTER-LIGGETT, CA

TAKEOFF MINIMUMS | L | 
| IAPS .... COTER RNAV (GPS) RWY 32 | 480 | 

TWENTYNINE PALMS, CA

TWENTYNINE PALMS(TNP)

TAKEOFF MINIMUMS | L | 
| IAPS .... RNAV (GPS) RWY 26 | 481 | 
| VOR RWY 26 | 482 | 

UPLAND, CA

CABLE(CCB)

TAKEOFF MINIMUMS | L | 
| IAPS .... RNAV (GPS) RWY 06 | 483 | 
| VOR-A | 484 | 

INDEX

21280
INDEX

INDEX OF TERMINAL CHARTS AND MINIMUMS

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
<th>NAME</th>
<th>PROC</th>
<th>SECT PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAN NUYS, CA</td>
<td></td>
<td></td>
<td>VAN NUYS(VNY)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td></td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARS</td>
<td></td>
<td></td>
<td>FERNANDO SEVEN</td>
<td>Z23</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IVINS ONE (RNAV)</td>
<td>Z36</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JANNY FIVE (RNAV)</td>
<td>Z37</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LYNXX EIGHT</td>
<td>Z49</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>THRNE THREE (RNAV)</td>
<td>Z79</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WEESL ONE (RNAV)</td>
<td>Z85</td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
<td>ILS Y RWY 16R</td>
<td>485</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ILS Z RWY 16R</td>
<td>486</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LDA-C</td>
<td>487</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VOR-A</td>
<td>488</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VOR-B</td>
<td>489</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
<td></td>
<td>490</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
<td>ADAMM THREE</td>
<td>491</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CANOGA THREE</td>
<td>492</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HARYS FOUR (RNAV)</td>
<td>494</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HAYZ NINE (RNAV)</td>
<td>495</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NEWHALL ONE</td>
<td>497</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ROSCOE THREE (RNAV)</td>
<td>499</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VVERA TWO (RNAV)</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WLKKR FOUR (RNAV)</td>
<td>501</td>
<td></td>
</tr>
<tr>
<td>VANDENBERG AFB(KVBG)</td>
<td></td>
<td></td>
<td>LOMPOC, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVERSE VECTOR AREA</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
<td>ILS OR LOC/DME RWY 12</td>
<td>502</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ILS OR LOC/DME RWY 30</td>
<td>503</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TACAN RWY 12</td>
<td>504</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TACAN RWY 30</td>
<td>505</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
<td></td>
<td>506</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
<td>GAVIOTA THREE</td>
<td>507</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VANDENBERG THREE</td>
<td>508</td>
<td></td>
</tr>
<tr>
<td>VICTORVILLE, CA</td>
<td></td>
<td></td>
<td>SOUTHERN CALIFORNIA LOGISTICS(VCV)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAKEOFF MINIMUMS</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATE MINIMUMS</td>
<td></td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOT SPOT</td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAPS</td>
<td></td>
<td></td>
<td>ILS OR LOC RWY 17</td>
<td>509</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RNAV (GPS) RWY 17</td>
<td>510</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VOR/DME RWY 17</td>
<td>511</td>
<td></td>
</tr>
<tr>
<td>AIRPORT DIAGRAM</td>
<td></td>
<td></td>
<td></td>
<td>512</td>
<td></td>
</tr>
<tr>
<td>WHITEMAN</td>
<td></td>
<td></td>
<td>---SEE LOS ANGELES, CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZAMPERINI FLD</td>
<td></td>
<td></td>
<td>---SEE TORRANCE, CA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.

APPLE VALLEY, CA
APPLE VALLEY (APV)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1A 19JUL18 (18200) (FAA)
TAKEOFF MINIMUMS:
Rwys 8, 18, 26, NA - Environmental.
DEPARTURE PROCEDURE:
Rwys 36, use EXCON DEPARTURE.
TAKEOFF OBSTACLE NOTES:
Rwys 36, vegetation 219' from DER, 283' left of centerline, 3069' MSL.
Vegetation 681' from DER, 415' right of centerline, 3084' MSL.
Rising terrain, fence beginning 718' from DER, 403' left of centerline, up to 3108' MSL.
Rising terrain, vegetation beginning 742' from DER, 222' left of centerline, up to 3109' MSL.

AVALON, CA
CATALINA (AVX)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
DEPARTURE PROCEDURE:
Rwys 4, 22, climb straight ahead to 2300 then proceed on course.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

BAKERSFIELD, CA
BAKERSFIELD MUNI (L45)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 06FEB14 (14037) (FAA)
TAKEOFF MINIMUMS:
Rwy 34, 400-1½ or std. with a min. climb of 555' per NM to 900.

DEPARTURE PROCEDURE:
Rwy 16, climbing right turn direct EHF VORTAC, thence...
Rwy 34, climbing left turn direct EHF VORTAC, thence...

... Aircraft departing EHF VORTAC R-180 CW R-360 climb on course, aircraft departing EHF VORTAC R-001 CW R-100 continue climb in EHF VORTAC holding pattern (hold NW, right turns, 144° inbound) to cross EHF VORTAC at or above 5200 then proceed on course, aircraft departing EHF VORTAC R-101 CW R-179 continue climb in EHF VORTAC holding pattern (hold NW, right turns, 144° inbound) to cross EHF VORTAC at or above 4100 then proceed on course.

TAKEOFF OBSTACLE NOTES:
Rwy 16, light pole 168' from DER, 498' left of centerline, 26' AGL/400' MSL.
Tree 395' from DER, 491' left of centerline, 40' AGL/400' MSL.
Powerlines beginning 546' from DER, 608' right of centerline, 120' AGL/474' MSL.
Pole 644' from DER, 474' left of centerline, 30' AGL/403' MSL.
Trees beginning 1603' from DER, 196' right of centerline, up to 40' AGL/453' MSL.
Obstruction light on transmission tower 2464' from DER, 780' left of centerline, 106' AGL/477' MSL.
Catenary 2486' from DER, 484' left of centerline, 106' AGL/477' MSL.
Catenary 2529' from DER, 725' right of centerline, 111' AGL/483' MSL.
Obstruction light on transmission tower 2539' from DER, 214' right of centerline, 10' AGL/478' MSL.
Catenary 2540' from DER, 482' right of centerline, 111' AGL/482' MSL.
Rwy 34, trees beginning 604' from DER, 341' right of centerline, up to 15' AGL/399' MSL.
Tower 5100' from DER, 1646' right of centerline, 266' AGL/656' MSL.
Vehicles on road 764' from DER, 499' left of centerline, up to 15' AGL/399' MSL.
Hanger 372' from DER, 545' left of centerline, 20' AGL/404' MSL.

MEADOWS FLD (BFL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3 26MAY16 (21112) (FAA)

DEPARTURE PROCEDURE:
All aircraft, climbing right turn direct EHF VORTAC. Aircraft departing EHF R-180 CW R-350 climb on course. All others continue climb northwest bound via EHF R-324, then climbing left turn to cross EHF VORTAC at or above:
EHF R-110 CW R-179 3000; EHF R-351 CW R-109 4000.

TAKEOFF OBSTACLE NOTES:
Rwy 12L, trees beginning 2221' from DER, 684' left of centerline, up to 72' AGL/546' MSL.
Ground 146' from DER, 525' left of centerline, 479' MSL.
Rwy 12R, tree 2612' from DER, 1158' left of centerline, 69' AGL/533' MSL.
Trees beginning 456' from DER, 575' right of centerline, up to 46' AGL/510' MSL.
Fence 14' from DER, 215' right of centerline, 4' AGL/466' MSL.
Rwy 30R, pole 1248' from DER, 113' left of centerline, 31' AGL/543' MSL.
Transmission tower 3632' from DER, 1097' left of centerline, 94' AGL/602' MSL.
Poles beginning 2297' from DER, 925' right of centerline, up to 36' AGL/577' MSL.
Pump 529' from DER, 538' right of centerline, 5' AGL/523' MSL.
Building 373' from DER, 257' right of centerline, 10' AGL/524' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 26, tower 2.4 NM from DER, 991' left of centerline, 159' AGL/957' MSL.

BIG BEAR CITY, CA
BIG BEAR CITY (L35)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 20APR00 (00111) (FAA)
TAKEOFF MINIMUMS:
Rwy 8, 1200-2 or std. with a min. climb of 282' per NM to 8000.
Rwy 26, NA.

DEPARTURE PROCEDURE:
Use OKACO RNAV DEPARTURE.
Rwy 26, NA.

BLYTHE, CA
BLYTHE (BLH)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1A 22AUG13 (13234) (FAA)
TAKEOFF MINIMUMS:
Rwy 26, 600-2½ or std. with a min. climb of 348' per NM to 1200.

DEPARTURE PROCEDURE:
Rwys 8, 17, 35, turn right.
Rwy 26, turn left, climb to 1500 via heading 180° and BLH R-120, then climbing left turn direct BLH VORTAC, MCA 2000.

TAKEOFF OBSTACLE NOTES:
Rwy 26, tower 2.4 NM from DER, 991' left of centerline, 159' AGL/957' MSL.
BORREGO SPRINGS, CA
BORREGO VALLEY (L08)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 10APR08 (08101) (FAA)
DEPARTURE PROCEDURE:
Use ZUNGU DEPARTURE (RNAV).

BRAWLEY, CA
BRAWLEY MUNI (BWC)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 30MAR17 (17089) (FAA)
TAKEOFF MINIMUMS:
Rwy 26, NA-Obstacles and noise abatement.
DEPARTURE PROCEDURES:
Rwy 8, climbing right turn heading 120° to intercept IPL VORTAC R-009 to 3000 to IPL VORTAC, then climb on course.
TAKEOFF OBSTACLE NOTES:
Rwy 8, trees, beginning 81' from DER, 314' left of centerline, up to -106' MSL.
Trees, beginning 274' from DER, 441' right of centerline, up to -124' MSL.
Vehicles on road, beginning 380' from DER, 348' right of centerline, up to -116' MSL.
Trees, beginning 457' from DER, 362' left of centerline, up to -96' MSL.
Tree 458' from DER, 406' left of centerline, -94' MSL.

BURBANK, CA
BOB HOPE (BUR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 28JUL11 (11209) (FAA)
TAKEOFF MINIMUMS:
Rwy 8, std. w/min. climb of 410' per NM to 5000.
Rwy 15, std. w/min. climb of 335' per NM to 5000.
Rwy 26, std. w/min. climb of 325' per NM to 5000.
Rwy 33, std. w/min. climb of 550' per NM to 5000' or 600-2½ w/min. climb of 300' per NM to 5000.
DEPARTURE PROCEDURE:
Rwys 8, 15, climbing right turn direct VNY VOR/DME.
Rwy 26, climb direct VNY VOR/DME.
Rwy 33, Climbing left turn direct VNY VOR/DME.
All aircraft continue climb in VNY holding pattern (SE, left turns, 295° inbound) to cross VNY VOR/DME at or above 5100, then westbound on V326 to GINNA or eastbound on V186 to DARTS.
TAKEOFF OBSTACLE NOTES:
Rwy 8, multiple trees, poles, and buildings beginning 124' from DER, 42' right of centerline, up to 65' AGL/745' MSL.
Multiple trees, buildings and poles beginning 278' from DER, 73' left of centerline, up to 56' AGL/746' MSL.
Rwy 15, multiple trees, buildings, poles, and blast fence beginning 50' from DER, 2' right of centerline, up to 65' AGL/762' MSL.
Multiple trees, buildings, poles, blast fence beginning 185' from DER, 53' left of centerline, up to 108' AGL/777' MSL.
Rwy 26, multiple trees, poles, transmission towers, buildings, and roads, and terrain beginning 26' from DER, 4' right of centerline, up to 145' AGL/731' MSL.
Multiple trees, poles, transmission towers, railroad, and buildings beginning 302' from DER, 437' left of centerline, up to 117' AGL/846' MSL.
Rwy 33, multiple trees, poles, terrain, buildings, road beginning 33' from DER, 30' right of centerline, up to 100' AGL/1333' MSL.
Multiple trees, poles, buildings, antenna, railroad, and blast fence beginning 97' from DER, 11' left of centerline, up to 50' AGL/878' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
ORIG 26MAY16 (16147) (FAA)
Rwy 8, heading as assigned by ATC; requires minimum climb of 420' per NM to 2500.
Rwy 15, heading as assigned by ATC; requires minimum climb of 340' per NM to 2100.
Rwy 26, heading as assigned by ATC; requires minimum climb of 380' per NM to 4800.
Rwy 33, heading as assigned by ATC; requires minimum climb of 460' per NM to 4900.

CALIFORNIA CITY, CA
CALIFORNIA CITY MUNI (L71)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 17MAR05 (05076) (FAA)
DEPARTURE PROCEDURE:
Use CALIFORNIA CITY (RNAV) DEPARTURE.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

CALIPATRIA, CA
CLIFF HATFIELD MEML (CLR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 12OCT17 (21112) (FAA)
DEPARTURE PROCEDURE:
Rwy 8, climb runway heading to 400, then climbing right turn to 3000 via heading 200° and IPL R-336 to IPL VORTAC.
Rwy 26, climb runway heading to 400, then climbing left turn to 3000 via IPL R-336 to IPL VORTAC.
TAKEOFF OBSTACLE NOTES:
Rwy 8, pole 525' from DER, 140' right of centerline, 15' AGL/-166' MSL.
Poles beginning 616' from DER, 204' right of centerline, 15' AGL/-165' MSL.
Building, pole beginning 748' from DER, 307' right of centerline, 25' AGL/-155' MSL.
Transmission line 838' from DER, 150' right of centerline, 31' AGL/-150' MSL.
Rwy 26, pole 190' from DER, 329' right of centerline, -152 MSL.
Road 223' from DER, on centerline -170' MSL.
Tree 328' from DER, 484' left of centerline, -155' MSL.
Tree 541' from DER, 634' right of centerline, -125' MSL.
Pole 1103' from DER, 582' right of centerline, -140' MSL.
Antenna 1444' from DER, 565' left of centerline, -131' MSL.

CAMARILLO, CA
CAMARILLO (CMA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4 10NOV16 (16315) (FAA)
DEPARTURE PROCEDURE:
Rwy 8, climbing left turn to 2500 on CMA VOR/DME R-058 thence. . . .
Rwy 26, climb to 2500 on CMA VOR/DME R-265 thence...
... Climbing left turn direct CMA VOR/DME before proceeding on course.

CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)
OCEANSIDE, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 03JAN19 (19003)
DEPARTURE PROCEDURE:
Rwys 3, 21, diverse departures not authorized.
TAKEOFF OBSTACLE NOTES:
Rwy 3, palm tree 2186' from DER, 670' right of cntrln, 73' AGL/155' MSL.
Palm tree 2108' from DER, 783' right of cntrln, 61' AGL/149' MSL.
Palm tree 2088' from DER, 675' right of cntrln, 64' AGL/147' MSL.
Palm tree 2192' from DER, 572' right of cntrln, 67' AGL/150' MSL.
Palm tree 2117' from DER, 770' right of cntrln, 59' AGL/143' MSL.
Palm tree 2186' from DER, 650' right of cntrln, 73' AGL/155' MSL.
Palm tree 2157' from DER, 729' right of cntrln, 46' AGL/132' MSL.
Palm tree 2186' from DER, 619' right of cntrln, 63' AGL/155' MSL.
Palm tree 2185' from DER, 640' right of cntrln, 66' AGL/148' MSL.
Palm tree 2143' from DER, 746' right of cntrln, 46' AGL/132' MSL.
Terrain 3976' from DER, 1566' left of cntrln, 181' MSL.
Terrain 4256' from DER, 1298' left of cntrln, 220' MSL.
Palm tree 2188' from DER, 595' right of cntrln, 65' AGL/149' MSL.
Palm tree 2187' from DER, 702' right of cntrln, 65' AGL/151' MSL.
Pylon 2.5 NM from DER, 3894' right of cntrln, 52' AGL/443' MSL.
Rwy 21, twr 1008' from DER, 786' left of cntrln, 60' AGL/119' MSL.
Terrain 3659' from DER, 1480' left of cntrln, 190' MSL.
Terrain 3533' from DER, 1446' left of cntrln, 177' MSL.
Cellphone twr 1.5 NM from DER, 2669' right of cntrln, 100' AGL/672' MSL.
Pylon 2.3 NM from DER, 538' left of cntrln, 0' AGL/518' MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

CARLSBAD, CA
MC CLELLAN-PALOMAR (CRQ)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 21JUL16 (16203) (FAA)
TAKEOFF MINIMUMS:
Rwy 6, std. w/min. climb of 255' per NM to 1700 or 2700-3 for climb in visual conditions.

DEPARTURE PROCEDURE:
Rwy 6, climbing left turn heading 245° to 3000 before proceeding on course. Do not exceed 210 Kias until established on heading 245°.

Rwy 24, climbing heading 245° to 2400 before proceeding on course.

VCOA:
Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross McClellan-Palomar airport at or above 2900 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 6, fence beginning 6' from DER, 453' left of centerline, up to 1' AGL/328' MSL.
Obstruction light on blast fence beginning 96' from DER, 398' right of centerline, up to 18' AGL/332' MSL.
Tree 325' from DER, 508' left of centerline, 347' MSL.
Trees beginning 519' from DER, 504' left of centerline, up to 379' MSL.
Tree 3682' from DER, 945' left of centerline, 424' MSL.

DEPARTURE PROCEDURE:
Rwy 6, climbing left turn heading 245° to 3000 before proceeding on course. Do not exceed 210 Kias until
established on heading 245°.

Rwy 24, climbing heading 245° to 2400 before proceeding on course.

VCOA:
Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross McClellan-Palomar airport at or above 2900 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 6, fence beginning 6' from DER, 453' left of centerline, up to 1' AGL/328' MSL.
Obstruction light on blast fence beginning 96' from DER, 398' right of centerline, up to 18' AGL/332' MSL.
Tree 325' from DER, 508' left of centerline, 347' MSL.
Trees beginning 519' from DER, 504' left of centerline, up to 379' MSL.
Tree 3682' from DER, 945' left of centerline, 424' MSL.

CHINA LAKE NAWS (ARMITAGE FLD) (KNID)
RIDGECREST, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
15JUL21 (21196) (USN)
DEPARTURE PROCEDURE:
Diverse departures NA, use published departure.

TAKEOFF OBSTACLE NOTES:

Rwy 14, pylon 2252' from DER, 1094' right of centerline, 49' AGL/2309' MSL.
Pylon 2519' from DER, 945' right of centerline, 49' AGL/2311' MSL.
Pylon 2681' from DER, 1182' left of centerline, 49' AGL/2289' MSL.
Pylon 2772' from DER, 807' right of centerline, 49' AGL/2312' MSL.
Pylon 2909' from DER, 1176' left of centerline, 49' AGL/2286' MSL.
Pylon 2952' from DER, 580' right of centerline, 49' AGL/2305' MSL.
Pylon 3128' from DER, 351' right of centerline, 49' AGL/2305' MSL.
Pylon 3131' from DER, 580' left of centerline, 49' AGL/2305' MSL.
Pylon 3132' from DER, 264' left of centerline, 49' AGL/2295' MSL.
Pylon 3133' from DER, 52' right of centerline, 49' AGL/2289' MSL.
Pylon 3137' from DER, 1022' left of centerline, 49' AGL/2288' MSL.
Pylon 3134' from DER, 876' left of centerline, 49' AGL/2287' MSL.

CHINO, CA
CHINO (CNO)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 30NOV00 (00335) (FAA)
TAKEOFF MINIMUMS:
Rwy 3, std. with a min. climb of 270' per NM to 4800.
Rwys 8L/R, std. with a min. climb of 270' per NM to 4800.
Rwy 21, Cat A/B std. with a min climb of 250' per NM to 4800, Cat C/D std. with a min. climb of 400' per NM to 4800.
Rwys 26L/R, Cat A/B std. with a min. climb of 270' per NM to 4800, Cat C/D std. with a min. climb of 410' per NM to 4800.

DEPARTURE PROCEDURE:
Rwys 3, 8L/R, climbing right turn direct PDZ VORTAC.
Rwys 21, 26L/R, climbing left turn direct PDZ VORTAC.
All aircraft climb in PDZ VORTAC holding pattern (Hold E, right turns, 258° inbound) to the appropriate MEA.

TAKEOFF OBSTACLE NOTES:
108' AGL trees 1200' from DER 3, 600' left of centerline.
**CHINO, CA (CON’T)**

**CHINO (CNO) (CON’T)**

**DIVERSE VECTOR AREA (RADAR VECTORS)**

**AMDT 1 15OCT15 (15288) (FAA)**

- **Rwy 3**, heading as assigned by ATC; requires minimum climb of 250’ per NM to 4300.
- **Rwys 8L, 8R**, heading as assigned by ATC; requires minimum climb of 370’ per NM to 4100.
- **Rwy 21**, heading as assigned by ATC; requires minimum climb of 320’ per NM to 1800.
- **Rwys 26L, 26R**, heading as assigned by ATC; requires minimum climb of 270’ per NM to 2100.

**CORONA, CA**

**CORONA MUNI (AJO)**

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

**AMDT 3 26MAY94 (94146) (FAA)**

**TAKEOFF MINIMUMS:**

- **Rwy 7**, 1000-2 or std. with a min. climb of 310’ per NM to 1700.
- **Rwy 25**, 600-2 or std. with a min. climb of 280’ per NM to 1200.

**DEPARTURE PROCEDURE:**

- **Rwy 7**, climbing left turn.
- **Rwy 25**, climbing right turn.

All aircraft continue climb direct to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ VORTAC holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-141 CW R-230 4000, R-281 CW R-090 6700.

**DAGGETT, CA**

**BARSTOW-DAGGETT (DAG)**

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

**AMDT 3 29JUL10 (10210) (FAA)**

**DEPARTURE PROCEDURE:**

Use DAGGETT DEPARTURE.

**DELANO, CA**

**DELANO MUNI (DLO)**

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

**AMDT 3A 08MAY08 (08129) (FAA)**

**TAKEOFF MINIMUMS:**

- **Rwy 32**, 400-1 or std. with a min. climb rate of 390’ per NM to 400.

**DEPARTURE PROCEDURE:**

- **Rwy 14**, Climb via heading 140° and EHF VORTAC R-324 to 3000 before proceeding on course.
- **Rwy 32**, climb via heading 320° and EHF VORTAC R-324 to 3000 before proceeding on course.

**TAKEOFF OBSTACLE NOTES:**

65’ AGL tree 600’ from DER, 500’ left of centerline runway 14.

**EDWARDS AF AUX NORTH BASE (9L2)**

**EDWARDS, CA**

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

**Rwy 6-24**, climb on course, cross 15 NM from ARP at or above 4500.

**EDWARDS AFB (KEDW)**

**EDWARDS, CA**

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

**10OCT19 (19283)**

- **Rwys 5L/R**, RADAR required, climb 340’ per NM to 5500, track inbound on EDW R-223 to EDW VORTAC, then out EDW R-043. Climb as instructed, expect RADAR vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500.
- **Rwys 23L/R**, RADAR and DME required. CAT A/B/C track outbound EDW R-223. At 12 DME turn right heading 020°, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect RADAR vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. CAT D/E track outbound EDW R-223. At 12 DME turn right, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect RADAR vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

EL CENTRO NAF (VRACIU FIELD) (KNJK)

EL CENTRO, CA

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 18JUN20 (20170)

TAKEOFF MINIMUMS:

Rwys 8, 12, 26, 30, 2000-3 for climb in visual conditions.

DEPARTURE PROCEDURE:

Rwys 8, 12, 26, for climb in visual conditions, cross El Centro airport at or above 1800 before proceeding on course.

When executing VCOA, notify ATC prior to departure.

TAKEOFF OBSTACLE NOTES:

Rwy 8, road 182' from DER, 99' left of cntrln, 10' AGL/-37' MSL.

Road 183' from DER, 3' right of cntrln, 10' AGL/-37' MSL.

Road 183' from DER, 100' right of cntrln, 10' AGL/-37' MSL.

Rwy 12, terrain 0' from DER, 500' left of cntrln, -39' MSL.

Terrain 0' from DER, 500' right of cntrln, -36' MSL.

Fence 199' from DER, 305' left of cntrln, 8' AGL/-34' MSL.

Fence 289' from DER, 213' left of cntrln, 8' AGL/-34' MSL.

Road 278' from DER, 100' left of cntrln, 10' AGL/-35' MSL.

Road 372' from DER, 95' right of cntrln, 10' AGL/-35' MSL.

Road 338' from DER, 8' left of cntrln, 10' AGL/-35' MSL.

Fence 504' from DER, 3' right of cntrln, 8' AGL/-34' MSL.

Pole 153' from DER, 884' right of cntrln, -3' MSL.

Pylon 1532' from DER, 884' right of cntrln, 41' AGL/-3' MSL.

Rwy 26, terrain 0' from DER, 500' left of cntrln, -45' MSL.

Rwy 30, electrical box 176' from DER, 139' left of cntrln, 4' AGL/-45' MSL.

EL MONTE, CA

SAN GABRIEL VALLEY (EMT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 13SEP18 (18256) (FAA)

TAKEOFF MINIMUMS:

Rwy 1, std. w/min. climb of 290' per NM to 1800, or 1600-3 for VCOA.

DEPARTURE PROCEDURE:

Rwy 1, climbing heading 011° to 700 then climbing right turn on heading 128° and on PDZ R-278 to PDZ VORTAC thence...

Rwy 19, climbing heading 191° to 1500 then climbing left turn on heading 068° and on PDZ R-278 to PDZ VORTAC thence...

...aircraft departing PDZ R-078 CW R-292 climb on course. All others continue climb in PDZ VORTAC holding pattern (hold northeast, right turn, 210° inbound) to cross PDZ VORTAC at or above MEA for route of flight.

VCOA:

Rwy 1, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross San Gabriel Valley airport at or above 1700 then intercept PDZ R-278 to PDZ VORTAC. Aircraft departing PDZ R-078 CW R-292 climb on course. All others continue climb in PDZ VORTAC holding pattern (hold northeast, right turn, 210.00 inbound) to cross PDZ VORTAC at or above MEA for route of flight.

TAKEOFF OBSTACLE NOTES:

Rwy 1, sign 18' from DER, 124' right of centerline, 300' MSL.

Building 98' from DER, 269' left of centerline, 334' MSL.

Building 273' from DER, 299' right of centerline, 310' MSL.

Lighting 526' from DER, 257' left of centerline, 338' MSL.

Trees beginning 609' from DER, 277' left of centerline, up to 364' MSL.

Traverse way 662' from DER, on centerline, 322' MSL.

Tree 791' from DER, 205' right of centerline, 335' MSL.

Lighting 942' from DER, 221' right of centerline, 343' MSL.

Lighting 943' from DER, 446' right of centerline, 344' MSL.

Pole 1698' from DER, on centerline, 365' MSL.

Tree 2828' from DER, 23' right of centerline, 404' MSL.

Rwy 19, sign 16' from DER, 130' left of centerline, 285' MSL.

Trees beginning 74' from DER, 179' left of centerline, up to 317' MSL.

Tree, lighting, pole beginning 363' from DER, 86' left of centerline, up to 322' MSL.

Tower 1019' from DER, 692' left of centerline, 40' AGL/333' MSL.

Tree 1051' from DER, 370' right of centerline, 323' MSL.

Tree 1133' from DER, 206' left of centerline, 334' MSL.

Tree 1466' from DER, 382' left of centerline, 348' MSL.

Pole 1661' from DER, 548' left of centerline, 350' MSL.

Pole 2033' from DER, 370' right of centerline, 358' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 27APR17 (17117) (FAA)

Rwys 1, headings as assigned by ATC; requires minimum climb of 290' per NM to 1300.

Rwys 19, headings assigned by ATC.

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

SW-3, 07 OCT 2021 to 02 DEC 2021
FALLBROOK, CA
FALLBROOK COMMUNITY AIRPARK (L18)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 10NOV16 (16315) (FAA)
DEPARTURE PROCEDURE:
Use FALLBROOK DEPARTURE.

FULLERTON, CA
FULLERTON MUNI (FUL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 03MAY12 (12124) (FAA)
TAKEOFF MINIMUMS:
Rwy 6, std. w/min. climb of 280' per NM to 600.
DEPARTURE PROCEDURE:
Rwy 6, climbing right turn to 2300 direct SLI VORTAC, thence ...
Rwy 24, climbing left turn to 2300 direct SLI VORTAC, thence ...
... Climbing in holding pattern (hold South, left turns, 351° inbound) until at or above MEA for direction of flight before proceeding course.
TAKEOFF OBSTACLE NOTES:
Rwy 6, windsock 58' from DER, 189' right of centerline, 12' AGL/109' MSL.
Obstruction light on pole 109' from DER, 116' left of centerline, 23' AGL/118' MSL.
Multiple poles beginning 115' from DER, left and right of centerline, up to 40' AGL/198' MSL.
Trains 221' from DER, left and right of centerline, up to 23' AGL/144' MSL.
Light standard 486' from DER, 133' right of centerline, 20' AGL/123' MSL.
Hopper on building 977' from DER, 468' left of centerline, 36' AGL/132' MSL.
Obstruction light on building 1002' from DER, 31' right of centerline, 25' AGL/126' MSL.
Light pole 1247' from DER, 143' left of centerline, 35' AGL/131' MSL.
Tree 1462' from DER, 35' left of centerline, 75' AGL/168' MSL.
Obstacle light on silo 1620' from DER, 317' right of centerline, 50' AGL/146' MSL.
Building 3206' from DER, 820' right of centerline, 112' AGL/217' MSL.

HAWTHORNE, CA
JACK NORTHROP FLD/HAWTHORNE MUNI (HHR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 20JUN19 (21168) (FAA)
TAKEOFF MINIMUMS:
Rwy 7, 300-1¾ or std. w/min. climb of 365' per NM to 400.
Rwy 25, 300-1 or std. w/min. climb of 290' per NM to 300.
DEPARTURE PROCEDURE:
Rwy 7, climbing right turn to 3000 heading 220° and the LAX VORTAC R-170 to LIMBO INT.
Rwy 25, climbing left turn to 3000 heading 205° and the LAX VORTAC R-170 to LIMBO INT.
TAKEOFF OBSTACLE NOTES:
Rwy 7, trees, wall, vehicles on road, fence, lighting, pole, signs, buildings beginning 23' from DER, 3' left of centerline, up to 52' AGL/114' MSL.
Pole 29' from DER, 395' right of centerline, 30' AGL/89' MSL.
Signs, poles, wall, fence, lighting, vehicles on road, tree, building beginning 78' from DER, on and right of centerline, up to 38' AGL/94' MSL.
Trees, poles, vehicles on road, buildings, signs beginning 476' from DER, 39' left of centerline, up to 136' MSL.
Buildings, pole beginning 759' from DER, 96' right of centerline, up to 42' AGL/102' MSL.
Pole 1465' from DER, 203' right of centerline, 38' AGL/103' MSL.
Poles beginning 1489' from DER, 20' right of centerline, up to 41' AGL/111' MSL.
Trees beginning 2120' from DER, 110' left of centerline, up to 63' AGL/137' MSL.
Trees, poles beginning 2163' from DER, 84' left of centerline, up to 66' AGL/147' MSL.
Buildings beginning 2168' from DER, 264' right of centerline, up to 36' AGL/116' MSL.
Trees, poles beginning 2704' from DER, 112' left of centerline, up to 72' AGL/161' MSL.
Poles, trees beginning 2799' from DER, 54' right of centerline, up to 61' AGL/148' MSL.
Trees, poles beginning 2876' from DER, 27' left of centerline, up to 78' AGL/168' MSL.
Poles, trees beginning 2915' from DER, 277' right of centerline, up to 59' AGL/149' MSL.
Trees, poles beginning 2971' from DER, 94' right of centerline, up to 157' MSL.
Poles 3192' from DER, 172' right of centerline, 62' AGL/160' MSL.
Trees beginning 3207' from DER, 81' right of centerline, up to 67' AGL/167' MSL.
CON'T
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

HAWTHORNE, CA (CON’T)

JACK NORTHROP FLD/HAWTHORNE MUNI (HHR) (CON’T)

Rwy 7 (CON’T), trees, poles beginning 3304' from DER, 8' left of centerline, up to 170' MSL.

Trees, poles beginning 3497' from DER, 109' right of centerline, up to 71' AGL/178' MSL.

Trees, poles, antenna, building beginning 3712' from DER, 102' left of centerline, up to 65' AGL/179' MSL.

Trees, poles beginning 3719' from DER, 2' right of centerline, up to 74' AGL/188' MSL.

Tree 3850' from DER, 1301' left of centerline, 41' AGL/180' MSL.

Trees, poles beginning 3859' from DER, 23' left of centerline, up to 51' AGL/185' MSL.

Trees, poles beginning 4061' from DER, 28' left of centerline, up to 203' MSL.

Tree 4079' from DER, 291' right of centerline, 69' AGL/190' MSL.

Tree 4111' from DER, 411' right of centerline, 82' AGL/202' MSL.

Trees, poles beginning 4101' from DER, 17' right of centerline, up to 90' AGL/211' MSL.

Trees, poles beginning 4323' from DER, 32' left of centerline, up to 52' AGL/212' MSL.

Trees, poles, building beginning 4484' from DER, 3' left of centerline, up to 66' AGL/235' MSL.

Tree, pole beginning 4532' from DER, 31' left of centerline, up to 46' AGL/236' MSL.

Building, pole beginning 4649' from DER, 46' right of centerline, up to 66' AGL/214' MSL.

Tree, pole, building beginning 4989' from DER, 1' right of centerline, up to 220' MSL.

Tree, pole, building beginning 5058' from DER, 44' left of centerline, up to 241' MSL.

Antenna, trees, buildings, sign, fence, tower beginning 5140' from DER, 93' left of centerline, up to 55' AGL/243' MSL.

Trees, poles beginning 5202' from DER, on and right of centerline, up to 76' AGL/227' MSL.

Trees, sign beginning 5356' from DER, 55' left of centerline, up to 54' AGL/302' MSL.

Trees, poles beginning 5383' from DER, 62' right of centerline, up to 102' AGL/257' MSL.

Towers, transmission lines, poles, sign, buildings, trees, elevator beginning 5428' from DER, 35' left of centerline, up to 139' AGL/307' MSL.

Tower, tree beginning 1.2 NM from DER, 1711' left of centerline, up to 115' AGL/322' MSL.

Building, monument, trees, towers, antenna, transmission line, pole beginning 1.2 NM from DER, 205' left of centerline, up to 104' AGL/328' MSL.

Tree 1.3 NM from DER, 16' right of centerline, 76' AGL/278' MSL.

Tower 1.4 NM from DER, 824' right of centerline, 116' AGL/289' MSL.

Tower 1.4 NM from DER, 1041' right of centerline, 119' AGL/302' MSL.

Rwy 25, sign 24' from DER, 100' left of centerline, 3' AGL/67' MSL.

Pole, building beginning 51' from DER, 302' right of centerline, up to 38' AGL/105' MSL.

NAVAID 72' from DER, 1' left of centerline, 8' AGL/73' MSL.

Building, poles, fence beginning 112' from DER, 183' left of centerline, up to 30' AGL/95' MSL.

Trees, lighting, fence, vehicles on road, poles, sign, building, antenna beginning 128' from DER, on and right of centerline, up to 48' AGL/114' MSL.

Pole, fence, tree, sign beginning 158' from DER, 5' left of centerline, up to 38' AGL/102' MSL.

Pole, vehicles on road, tree, sign beginning 206' from DER, 38' left of centerline, up to 39' AGL/103' MSL.

Tree, vehicles on road, signs, buildings, poles beginning 258' from DER, 5' left of centerline, up to 40' AGL/105' MSL.

Pole, antenna, building, trees beginning 423' from DER, 39' left of centerline, up to 41' AGL/107' MSL.

Tree, antennas, buildings, vehicles on road, poles beginning 449' from DER, 5' left of centerline, up to 122' MSL.

Poles, trees, antenna beginning 670' from DER, 7' right of centerline, up to 54' AGL/120' MSL.

Trees, poles beginning 1031' from DER, 27' left of centerline, up to 62' AGL/128' MSL.

Trees, pole beginning 1054' from DER, 12' right of centerline, up to 136' MSL.

Trees beginning 2208' from DER, 32' right of centerline, up to 78' AGL/144' MSL.

Trees beginning 2218' from DER, 41' left of centerline, up to 65' AGL/131' MSL.

Tree, building beginning 2222' from DER, 3' right of centerline, up to 79' AGL/145' MSL.

Trees beginning 2229' from DER, 152' left of centerline, up to 66' AGL/132' MSL.

Tree 2239' from DER, 344' left of centerline, 67' AGL/135' MSL.

Trees beginning 2249' from DER, 11' left of centerline, up to 80' AGL/147' MSL.

Buildings, fence, tree beginning 2423' from DER, 148' left of centerline, up to 83' AGL/154' MSL.

Tree pole beginning 2740' from DER, 360' right of centerline, up to 77' AGL/149' MSL.

Trees beginning 3179' from DER, 207' right of centerline, up to 74' AGL/150' MSL.

Tree 3222' from DER, 228' right of centerline, 76' AGL/153' MSL.

Tank 4537' from DER, 1313' left of centerline, 137' AGL/227' MSL.

Water tower 4539' from DER, 1321' left of centerline, 132' AGL/229' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 07DEC17 (17341) (FAA).

Rwy 7, heading as assigned by ATC; requires minimum climb of 370' per NM to 400.

Rwy 25, heading as assigned by ATC; requires minimum climb of 290' per NM to 300.
HEMET, CA

HEMET-RYAN (HMT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 10NOV16 (16315) (FAA)

TAKEOFF MINIMUMS:

Rwy 5, Std. w/min. climb of 440’ per NM to 3500, or 1700-3 for climb in visual conditions. Aircraft shall advise ATC prior to executing the VCOA.

Rwy 23, Std. w/min. climb of 495’ per NM to 3000, or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE:

Rwy 5, climbing left turn direct HDF VOR thence...

Rwy 23, climbing heading 230° to 3000 then right turn direct HDF VOR thence...

...continue climb in HDF holding pattern (hold se, right turn, 315° inbound) to cross HDF VOR at or above MEA/MCA for route of flight.

VCOA:

Rwy 5, 23, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Hemet -Ryan airport westbound at or above 3100 then proceed direct HDF VOR and continue climb in HDF holding Pattern (hold se, right turn, 315° inbound) to cross HDF VOR at or above MEA/MCA for route of flight.

TAKEOFF OBSTACLE NOTES:

Rwy 5, vehicles on roadway, 199’ from DER, crossing centerline, up to 15’ AGL/1534’ MSL.

Rwy 23, trees beginning 1.1 NM from DER, 2166’ right of centerline, up to 100’ AGL/1859’ MSL.

Trees beginning 1.3 NM from DER, 2249’ right of centerline, up to 100’ AGL/2019’ MSL.

Trees beginning 1.5 NM from DER, 1686’ left of centerline, up to 100’ AGL/1808’ MSL.

IMPERIAL, CA

IMPERIAL COUNTY (IPL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2A 27AUG09 (09239) (FAA)

TAKEOFF MINIMUMS:

Rwy 14, 400-2¼ or std. w/min. climb of 220’ per NM to 400, or alternatively, with standard TAKEOFF minimums and a normal 200’ per NM climb gradient, TAKEOFF must occur no later than 1800’ prior to DER.

DEPARTURE PROCEDURE:

Rwys 8, 32, turn right.

Rwy 14, climb runway heading.

Rwy 26, turn left.

All aircraft climb direct IPL VORTAC.

TAKEOFF OBSTACLE NOTES:

Rwy 8, multiple VASI beginning 687’ from DER, 31’ right of centerline, up to 5’ AGL/52’ MSL.

Light on pole, 1984’ from DER, 386’ left of centerline, 45’ AGL/-11’ MSL.

Sign 1733’ from DER, 35’ left of centerline, 45’ AGL/-11’ MSL.

Pole 1457’ from DER, 393’ right of centerline, 37’ AGL/-19’ MSL.

Rwy 26, multiple obstruction lights on poles beginning 1509’ from DER, 15’ left of centerline, up to 60’ AGL/3’ MSL.

Obstruction light on pole 1511’ from DER, 459’ right of centerline, 59’ AGL/2’ MSL.

Rwy 32, obstruction light on tank, 823’ from DER, 574’ right of centerline 110’ AGL/53’ MSL.

Numerous tanks beginning 3580’ from DER, 296’ right of centerline, up to 109’ AGL/53’ MSL.

Tree 373’ from DER, 387’ right of centerline, 80’ AGL/-24’ MSL.

Multiple lights beginning 243’ from DER, 361’ right of centerline, up to 28’ AGL-29’ MSL.

Pole 657’ from DER, 370’ left of centerline, 27’ AGL/-44’ MSL.

Road 191’ from DER, 237’ left of centerline, 13’ AGL/-44’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

IMPERIAL BEACH NOLF (REAM FIELD) (KNRS)
IMPERIAL BEACH, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
20AUG15 (15232)
Rwy 8, 9, 26, departures not authorized.
Rwy 27, diverse departure not authorized. Departures authorized for military rotorcraft only. Climb to 2000 via heading 274° to intercept NRS TACAN R-273. Cross NRS 1.5 DME at or above 800. Minimum ATC climb rate of 600’/NM till 800 with takeoff occurring NLT 3038’ prior to DER or cross DER at or above 320.
TAKEOFF OBSTACLE NOTES:
Rwy 27, pylon 186’ inward of DER, 552’ right of cntrln, 30’ AGL/43’ MSL.
Pylon 79’ inward of DER, 521’ right of cntrln, 30’ AGL/42’ MSL.
Pylon 61’ inward of DER, 587’ right of cntrln, 39’ AGL/51’ MSL.
Pylon 30’ inward of DER, 704’ right of cntrln, 39’ AGL/50’ MSL.
Pylon 2’ from DER, 499’ right of cntrln, 32’ AGL/43’ MSL.
Pylon 2’ from DER, 498’ right of cntrln, 32’ AGL/42’ MSL.
Light pole 12’ from DER, 571’ right of cntrln, 11’ MSL.
Terrain 50’ from DER, 500’ right of cntrln, 11’ MSL.
Terrain 63’ from DER, 517’ right of cntrln, 11’ MSL.
Fence 96’ from DER, 19’ right of cntrln, 9’ AGL/10’ MSL.
Tree 141’ from DER, 540’ right of cntrln, 34’ AGL/44’ MSL.
Pylon 228’ from DER, 515’ right of cntrln, 30’ AGL/42’ MSL.
Pylon 305’ from DER, 802’ right of cntrln, 39’ AGL/48’ MSL.
Bldg 2840’ from DER, 979’ left of cntrln, 60’ MSL.

INYOKERN, CA
INYOKERN (IYK)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 04SEP03 (03247) (FAA)
TAKEOFF MINIMUMS:
Rwys 2, 10, 15, 28, 33, NA.
DEPARTURE PROCEDURE: Rwy 20, use LAKE HUGHES RNAV DEPARTURE.

LA VERNE, CA
BRACKETT FLD (POC)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 03JAN19 (21112) (FAA)
TAKEOFF MINIMUMS:
Rwy 26L, 300-1 or std. w/min. climb of 713’ per NM to 1400.
Rwy 26R, 300-1 or std. w/m. climb of 676’ per NM to 1400.
DEPARTURE PROCEDURE:
Rwys 8L, 8R, climb heading 079° to 1500 then climbing right turn on heading 215° and POM R-164 to PRADO INT thence...
Rwys 26L, 26R, climb heading 259° to 1400 then climbing left turn on heading 130° and POM R-164 to PRADO INT thence...
...continue climb in PRADO holding pattern (hold south, right turn, 344° inbound) to cross PRADO INT at or above MEA for route of flight.
TAKEOFF OBSTACLE NOTES:
Rwy 8L, sign 24’ from DER, 98’ left of centerline, 1015’ MSL.
Vehicles on road beginning 46’ from DER, 479’ left of centerline, up to 1030’ MSL.
Vehicles on road 161’ from DER, 477’ left of centerline, 1031’ MSL.
Vehicles on road, sign beginning 187’ from DER, 462’ left of centerline, up to 1032’ MSL.
Vehicles on road beginning 327’ from DER, 449’ left of centerline, up to 1037’ MSL.
Building, vehicles on road beginning 394’ from DER, 418’ left of centerline, up to 1061’ MSL.
Building, tree beginning 561’ from DER, 397’ left of centerline, up to 1062’ MSL.
Vehicles on road 602’ from DER, 6’ right of centerline, 1029’ MSL.
Building, vehicles on road, pole beginning 683’ from DER, 187’ left of centerline, up to 1069’ MSL.
Pole 1210’ from DER, 518’ right of centerline, 1047’ MSL.
Transmission line 1299’ from DER, 673’ right of centerline, 55’ AGL/1057’ MSL.
Pole beginning 1401’ from DER, 164’ right of centerline, up to 1064’ MSL.
Pole 1566’ from DER, 294’ right of centerline, 1065’ MSL.
Pole beginning 1719’ from DER, 24’ right of centerline, up to 54’ AGL/1067’ MSL.
Pole beginning 1803’ from DER, 148’ left of centerline, up to 72’ AGL/1094’ MSL.
Tree, pole beginning 1806’ from DER, 24’ right of centerline, up to 1090’ MSL.
Rwy 8R, sign 43’ from DER, 239’ right of centerline, 1016’ MSL.
Vehicles on road 118’ from DER, 463’ right of centerline, 1017’ MSL.
Vehicles on road 346’ from DER, 7’ right of centerline, 1021’ MSL.
Vehicles on road 527’ from DER, 294’ left of centerline, 1029’ MSL.
Vehicles on road 715’ from DER, 641’ left of centerline, 1034’ MSL.
Pole 900’ from DER, 515’ left of centerline, 32’ AGL/1049’ MSL.
Pole beginning 1048’ from DER, 217’ right of centerline, up to 56’ AGL/1052’ MSL.
CON’T
LA VERNE, CA (CON’T)
BRACKETT FLD (POC) (CON’T)

**Rwy 8R (CON’T)**, transmission line 1223’ from DER, 372’ right of centerline, 55’ AGL/1057’ MSL.
Pole beginning 1326’ from DER, 131’ left of centerline, up to 1064’ MSL.
Pole beginning 1347’ from DER, 74’ right of centerline, up to 1062’ MSL.
Pole 1490’ from DER, 5’ left of centerline, 1065’ MSL.
Pole beginning 1517’ from DER, 275’ left of centerline, up to 51’ AGL/1067’ MSL.
Pole, tree beginning 1727’ from DER, 24’ left of centerline, up to 72’ AGL/1094’ MSL.

Trees beginning 1730’ from DER, 689’ right of centerline, up to 1090’ MSL.
Tree, transmission line beginning 3447’ from DER, 982’ left of centerline, up to 1100’ MSL.
Tree 3586’ from DER, 14’ left of centerline, 1101’ MSL.
Tree 4027’ from DER, 403’ left of centerline, 1114’ MSL.

**Rwy 26L** sign 46’ from DER, 199’ left of centerline, 967’ MSL.
Tree 159’ from DER, 477’ left of centerline, 989’ MSL.
Tree 191’ from DER, 482’ left of centerline, 1003’ MSL.
Vegetation 359’ from DER, 498’ left of centerline, 1010’ MSL.
Vegetation, terrain, tree, building beginning 359’ from DER, 225’ left of centerline, up to 1028’ MSL.

Trees beginning 561’ from DER, 231’ left of centerline, up to 1037’ MSL.
Tree 814’ from DER, 96’ right of centerline, 990’ MSL.
Trees beginning 824’ from DER, 217’ right of centerline, up to 1017’ MSL.
Tree 851’ from DER, 271’ right of centerline, 1018’ MSL.
Trees beginning 889’ from DER, 66’ right of centerline, up to 1021’ MSL.
Trees beginning 998’ from DER, 85’ left of centerline, up to 1041’ MSL.
Trees beginning 1027’ from DER, 114’ right of centerline, up to 1022’ MSL.
Tree 1100’ from DER, 330’ right of centerline, 1023’ MSL.
Trees beginning 1158’ from DER, 0’ right of centerline, up to 1028’ MSL.

Tree, building beginning 1767’ from DER, 697’ right of centerline, up to 1033’ MSL.

Building, terrain beginning 2358’ from DER, 897’ right of centerline, up to 1131’ MSL.
Antenna, tree, vehicles on road, building, terrain, vegetation beginning 2404’ from DER, 482’ right of centerline, up to 1156’ MSL.

Tree 2760’ from DER, 1102’ right of centerline, 1197’ MSL.
Tree, vehicles on road, terrain, building beginning 2768’ from DER, 483’ right of centerline, up to 1212’ MSL.

Tree, vehicles on road, terrain, building beginning 3147’ from DER, 228’ right of centerline, up to 1224’ MSL.

Tank, vehicles on road, pole, tree, building, vegetation beginning 3429’ from DER, 323’ right of centerline, up to 50’ AGL/1233’ MSL.

Tree 3470’ from DER, 10’ left of centerline, 1065’ MSL.

**Rwy 26R** building beginning 7’ from DER, 356’ right of centerline, up to 1003’ MSL.

Building 72’ from DER, 488’ right of centerline, 1004’ MSL.

Building, sign beginning 72’ from DER, 210’ right of centerline, up to 1005’ MSL.

Trees beginning 1405’ from DER, 523’ right of centerline, up to 1034’ MSL.
Vegetation, terrain beginning 1463’ from DER, 807’ left of centerline, up to 1026’ MSL.

Trees beginning 1526’ from DER, 541’ right of centerline, up to 1067’ MSL.

Trees beginning 1664’ from DER, 699’ left of centerline, up to 1037’ MSL.

Tree, vehicles on road beginning 1887’ from DER, 942’ right of centerline, up to 1068’ MSL.

Trees beginning 2102’ from DER, 716’ left of centerline, up to 1041’ MSL.

Trees beginning 2233’ from DER, 723’ right of centerline, up to 1100’ MSL.

Trees beginning 2485’ from DER, 987’ right of centerline, up to 1109’ MSL.

Tree, vehicles on road beginning 2974’ from DER, 791’ right of centerline, up to 1125’ MSL.

Tree, vehicles on road beginning 3005’ from DER, 796’ right of centerline, up to 1133’ MSL.

Tree, vehicles on road beginning 3256’ from DER, 919’ right of centerline, up to 1251’ MSL.

Tree, vehicles on road, building, antenna, terrain, pole, vegetation beginning 3300’ from DER, 22’ right of centerline, up to 1258’ MSL.

LANCASTER, CA

GENERAL WM. J. FOX AIRFIELD (WJF)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 24SEP09 (09267) (FAA)

DEPARTURE PROCEDURE:
Climb southeast bound on R-299 to PMD VORTAC. Depart PMD at published MCA for direction of flight.

TAKEOFF OBSTACLE NOTES:

**Rwy 6**, trees beginning 1170’ from DER, 590’ right of centerline, up to 44’ AGL/2374’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

LOMPOC, CA

LOMPOC (LPC)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2A 04FEB16 (16035) (FAA)
TAKEOFF MINIMUMS:
Rwy 7, w/min. climb of 425' per NM to 1400, or 1300-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 7, climbing right turn. For climb in visual conditions: cross Lompoc Airport eastbound at or above 1200 MSL.
Rwy 25, turn right heading 130°.
All aircraft climb to 6000 via GVO R-278 to GVO VORTAC. Aircraft departing GVO R-120 CW R-020 climb on course, all others climb in GVO holding pattern (NW, right turns, 127° inbound) to depart GVO VORTAC at or above MEA for route of flight.
TAKEOFF OBSTACLE NOTES:
Rwy 7, trees 3583' from DER, 2.3 NM right of centerline, 50' AGL/889' MSL.
Trees 1.2 NM from DER, 2.2 NM right of centerline, 50' AGL/791' MSL.
Trees 1.6 NM from DER, 1.9 NM right of centerline, 50' AGL/743' MSL.

LONG BEACH, CA

LONG BEACH (DAUGHERTY FLD) (LGB)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6B 10SEP20 (21168) (FAA)
TAKEOFF MINIMUMS:
Rwy 26L, std. w/min. climb of 225' per NM to 2300.
Rwy 26R, std. w/min. climb of 230' per NM to 2300.
DEPARTURE PROCEDURE:
Rwy 26L/R, climb on heading 076° to 800, then climbing right turn direct SLI VORTAC then on SLI VORTAC R-210 to PADDR INT.
Rwy 26R, climb on heading 121° to intercept SLI VORTAC R-210 to PADDR INT.
Rwy 26L/R, climb on heading 256° to 800, then climbing left turn on heading 200 and LAX VORTAC R-145 to PADDR INT.
Rwy 30, climb on heading 301° to 800, then climbing left turn on heading 200 and LAX VORTAC R-145 to PADDR INT.
TAKEOFF OBSTACLE NOTES:
Rwy 8L, vehicles on road 1' from DER, 272' left of centerline, 52' MSL.
Pole 10' from DER, 489' left of centerline, 27' AGL/66' MSL.
Building, tree, vehicles on road, and poles beginning 63' from DER, 15' left of centerline, up to 41' AGL/77' MSL.
Vehicles on road 121' from DER, 278' right of centerline, 52' MSL.
Buildings and vehicles on road beginning 193' from DER, 2' right of centerline, up to 53' MSL.
Buildings, vehicles on road, poles, and trees beginning 440' from DER, 13' left of centerline, up to 43' AGL/79' MSL.
Building and tree beginning 514' from DER, 13' right of centerline, up to 67' MSL.
Building, poles, and trees beginning 590' from DER, 47' right of centerline, up to 73' MSL.
Tree 716' from DER, 20' right of centerline, 34' AGL/76' MSL.
Trees beginning 769' from DER, 36' right of centerline, up to 80' AGL/116' MSL.
Buildings and trees beginning 1088' from DER, 22' left of centerline, up to 52' AGL/89' MSL.
Trees beginning 1789' from DER, 280' right of centerline, up to 83' AGL/118' MSL.
Trees beginning 2102' from DER, 180' left of centerline, up to 60' AGL/98' MSL.
Tree 2399' from DER, 612' left of centerline, 112' MSL.
Trees beginning 2427' from DER, 101' left of centerline, up to 123' MSL.
Trees beginning 2739' from DER, 711' right of centerline, up to 121' MSL.
Rwy 8R, wind indicator 715' from DER, 227' left of centerline, 21' AGL/54' MSL.
Tower 746' from DER, 566' right of centerline, 26' AGL/58' MSL.
Building 1038' from DER, 575' left of centerline, 39' AGL/73' MSL.
Buildings beginning 1126' from DER, 570' left of centerline, up to 76' MSL.
Buildings beginning 1528' from DER, 902' left of centerline, up to 58' AGL/90' MSL.
Tree 2755' from DER, 1058' right of centerline, 93' AGL/110' MSL.
Buildings beginning 2978' from DER, 803' right of centerline, up to 85' AGL/118' MSL.
Buildings beginning 3038' from DER, 903' right of centerline, up to 90' AGL/120' MSL.
Buildings beginning 3500' from DER, 1095' right of centerline, up to 133' AGL/162' MSL.
Buildings beginning 3651' from DER, 1203' right of centerline, up to 145' AGL/163' MSL.
Rwy 12, vehicles on road beginning 5' from DER, 432' right of centerline, up to 39' MSL.
Pole and trees beginning 474' from DER, 619' left of centerline, up to 53' MSL.
Tree 678' from DER, 659' right of centerline, 60' MSL.
Trees beginning 981' from DER, 127' right of centerline, up to 89' AGL/92' MSL.
General utility, poles, and trees beginning 990' from DER, 334' left of centerline, up to 71' MSL.
Trees beginning 1341' from DER, 361' left of centerline, up to 50' AGL/72' MSL.
Tree 2055' from DER, 890' left of centerline, 82' MSL.
Trees beginning 2332' from DER, 470' left of centerline, up to 81' AGL/101' MSL.
Tree 2553' from DER, 762' left of centerline, 83' AGL/103' MSL.
Tree 2918' from DER, 1249' right of centerline, 99' MSL.
Tree 3004' from DER, 1205' left of centerline, 100' MSL.
Spire 3095' from DER, 1181' right of centerline, 98' AGL/118' MSL.
Tree 3394' from DER, 1063' left of centerline, 95' AGL/121' MSL.
CONT
LONG BEACH, CA (CON’T)

LONG BEACH (DAUGHERTY FLD) (LGB) (CON’T)

Rwy 26L, buildings beginning 110’ from DER, 505’ left of centerline, up to 81’ MSL.
Pole 227’ from DER, 554’ left of centerline, 87’ MSL.

Buildings beginning 261’ from DER, 520’ right of centerline, up to 73’ MSL.
Trees and poles beginning 482’ from DER, 369’ left of centerline, up to 93’ MSL.

Building 722’ from DER, 672’ right of centerline, 122’ MSL.

Building and sign beginning 1040’ from DER, 235’ left of centerline, up to 118’ MSL.

Building 1112’ from DER, 745’ left of centerline, 123’ MSL.

Buildings, poles, stack, tower, and trees beginning 1149’ from DER, 96’ right of centerline, up to 105’ AGL/163’ MSL.

Trees, buildings, sign, poles, transmission line, and tower beginning 1161’ from DER, 123’ left of centerline, up to 88’ AGL/153’ MSL.

Tree 3909’ from DER, 1450’ left of centerline, 161’ MSL.
Pole 4520’ from DER, 1646’ left of centerline, 175’ MSL.

Rwy 26R, vehicles on road and pole beginning 9’ from DER, 276’ left of centerline, up to 72’ MSL.

Vehicles and poles beginning 95’ from DER, 165’ right of centerline, up to 78’ MSL.

Vehicles on road 109’ from DER, 467’ left of centerline, 73’ MSL.

Vehicles on road 192’ from DER, 374’ left of centerline, 76’ MSL.

Vehicles on road beginning 237’ from DER, 289’ left of centerline, up to 77’ MSL.

Trees, buildings, vehicles on road, and poles beginning 241’ from DER, 5’ right of centerline, up to 97’ MSL.

Poles and vehicles on road beginning 320’ from DER, 195’ left of centerline, up to 34’ AGL/95’ MSL.

Poles and vehicles on road beginning 475’ from DER, 15’ left of centerline, up to 96’ MSL.

Tree, poles, vehicles on road, and buildings beginning 612’ from DER, 52’ left of centerline, up to 97’ MSL.

Trees, buildings, and poles beginning 622’ from DER, on centerline, up to 59’ AGL/122’ MSL.

Signs, poles, and trees beginning 1151’ from DER, 7’ left of centerline, up to 77’ AGL/139’ MSL.

Trees and poles beginning 1262’ from DER, on centerline, up to 65’ AGL/124’ MSL.

Trees and poles beginning 1306’ from DER, 76’ right of centerline, up to 84’ AGL/144’ MSL.

Trees beginning 1886’ from DER, 33’ right of centerline, up to 147’ MSL.

Trees beginning 2604’ from DER, 303’ right of centerline, up to 78’ AGL/150’ MSL.

Trees beginning 2918’ from DER, 7’ right of centerline, up to 82’ AGL/156’ MSL.

Trees beginning 3536’ from DER, 69’ left of centerline, up to 73’ AGL/154’ MSL.

Building 3995’ from DER, 1343’ right of centerline, 173’ MSL.

Building 1.0 NM from DER, 963’ right of centerline, 154’ AGL/243’ MSL.

Buildings beginning 1.1 NM from DER, 935’ right of centerline, up to 156’ AGL/248’ MSL.

Building 1.2 NM from DER, 651’ right of centerline, 157’ AGL/259’ MSL.

Rwy 30, vehicles on road 15’ from DER, 480’ right of centerline, 74’ MSL.

Vehicles on road 190’ from DER, 456’ right of centerline, 75’ MSL.

Pole and vehicles on road beginning 193’ from DER, on centerline, up to 34’ AGL/93’ MSL.

Building 350’ from DER, 554’ left of centerline, 18’ AGL/82’ MSL.

Building and vehicles on road beginning 440’ from DER, 25’ left of centerline, up to 21’ AGL/86’ MSL.

Pole, building, and vehicles on road beginning 678’ from DER, 17’ left of centerline, up to 22’ AGL/89’ MSL.

Tree and poles beginning 878’ from DER, 122’ left of centerline, up to 92’ MSL.

Rod 953’ from DER, 564’ right of centerline, 94’ MSL.

Poles beginning 983’ from DER, 516’ left of centerline, up to 25’ AGL/93’ MSL.

Pole and tree beginning 1009’ from DER, 69’ left of centerline, up to 33’ AGL/101’ MSL.

Terrain, tree, poles, and vehicles on road beginning 1024’ from DER, 8’ left of centerline, up to 33’ AGL/102’ MSL.

Poles and trees beginning 1057’ from DER, 23’ right of centerline, up to 102’ MSL.

Pole 1161’ from DER, 1654’ left of centerline, 77’ MSL.

Poles beginning 1472’ from DER, 294’ right of centerline, up to 36’ AGL/105’ MSL.

Trees beginning 1614’ from DER, 103’ right of centerline, up to 44’ AGL/112’ MSL.

Tree 1701’ from DER, 363’ right of centerline, 121’ MSL.

Trees beginning 1874’ from DER, 196’ right of centerline, up to 57’ AGL/125’ MSL.

Trees and poles beginning 2183’ from DER, 169’ left of centerline, up to 134’ MSL.

Building 2520’ from DER, 776’ right of centerline, 128’ MSL.

Building 2617’ from DER, 802’ right of centerline, 66’ AGL/139’ MSL.

Trees beginning 2738’ from DER, 417’ left of centerline, up to 142’ MSL.

Poles beginning 2902’ from DER, 311’ right of centerline, up to 72’ AGL/145’ MSL.

Tree 3379’ from DER, 839’ right of centerline, 150’ MSL.

Tree 3528’ from DER, 1000’ left of centerline, 160’ MSL.

Tree 3643’ from DER, 1074’ right of centerline, 166’ MSL.

Trees beginning 3769’ from DER, 873’ left of centerline, up to 174’ MSL.

Tree 3779’ from DER, 1222’ right of centerline, 158’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 2, 19JUL18 (18200) (FAA)

Rwy’s 8L/R, 12, 30 heading as assigned by ATC.

Rwy 26L, heading as assigned by ATC; requires minimum climb of 330’ per NM to 700.

Rwy 26R, heading as assigned by ATC; requires minimum climb of 230’ per NM to 1600.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

LOS ALAMITOS AAF (KSLI)
LOS ALAMITOS, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 17JUN21 (21168) (USA)
DEPARTURE PROCEDURE:
All aircraft, climb direct SLI VORTAC. Aircraft departing SLI VORTAC R-040 CW 345° climb on course. All others continue climb via the SLI R-171 southbound then climbing right turn direct SLI VORTAC to cross at or above 4600.

Rwys 4L/R, climbing right turn.
Rwys 22L/R, 300-1 or std. w/min. climb of 230'/NM to 400, climbing left turn.
TAKEOFF OBSTACLE NOTES:
Rwy 4R, trees 1062' from DER, 615' left of cntrln, 66' AGL/100' MSL.
Bldg 3548' from DER, 770' left of cntrln, 85' AGL/126' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 20JUN19 (19171) (FAA)
Rwys 4L, 4R, 22L, 22R, heading as assigned by ATC.

LOS ANGELES, CA
LOS ANGELES INTL (LAX)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 14 17AUG17 (17229) (FAA)
DEPARTURE PROCEDURE:
Rwys 6L/R, 7L/R, climb to 2000 heading 071°, then climbing right turn, thence...
Rwys 24L/R, climb to 2000 heading 251°, then climbing left turn, thence...
Rwys 25L/R, turbojet climb to 2000 heading 251°, then climbing left turn, thence...
non-turbojet climb to 2000 heading 251°, at the SMO R-154 turn heading 200°, thence...
...climb direct SLI VORTAC, then climb on course.
TAKEOFF OBSTACLE NOTES:
Rwy 6L, runway light 7' from DER, 4' left of centerline, 1' AGL/120' MSL.
Vehicles on road beginning 12' from DER, 170' left of centerline, up to 131' MSL.
Buildings beginning 1761' from DER, 920' left of cntrln, up to 92' AGL/203' MSL.
Rw 6R, NAVAID 79' from DER, 321' left of centerline, 20' AGL/123' MSL.
NAVAID 83' from DER, 1' right of centerline, 19' AGL/126' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 6 14SEP17 (17257)
Rwys 6L/R, 7L/R, 24L/R, 25L/R, headings as assigned by ATC.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

LOS ANGELES, CA (CON’T)

WHITEMAN (WHP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 24MAY18 (18144) (FAA)

DEPARTURE PROCEDURE:
Use WHITEMAN DEPARTURE.

TAKEOFF OBSTACLE NOTES:

Rwy 12, pole beginning 34’ from DER, 276’ right of centerline, up to 20’ AGL/979’ MSL. Building 180’ from DER, 9’ left of centerline, 22’ AGL/978’ MSL. Tower, pole beginning 489’ from DER, 278’ right of centerline, up to 60’ AGL/1012’ MSL. Stack 1 NM from DER, 1131’ left of centerline, 250’ AGL/1183’ MSL. Pole 152’ from DER, 282’ left of centerline, 20’ AGL/1025’ MSL. Pole 262’ from DER, 282’ left of centerline, 20’ AGL/1027’ MSL. Pole 372’ from DER, 283’ left of centerline, 20’ AGL/1028’ MSL. Pole beginning 482’ from DER, 282’ left of centerline, up to 20’ AGL/1029’ MSL. Pole 703’ from DER, 283’ left of centerline, 20’ AGL/1030’ MSL. Pole 812’ from DER, 283’ left of centerline, 20’ AGL/1031’ MSL. Pole beginning 922’ from DER, 283’ left of centerline, up to 20’ AGL/1032’ MSL. Pole 1141’ from DER, 283’ left of centerline, 20’ AGL/1033’ MSL. Tower 1700’ from DER, 511’ right of centerline, 49’ AGL/1075’ MSL. Tower 3532’ from DER, 1118’ right of centerline, 54’ AGL/1098’ MSL.

MARCH ARB (KRIV)

RIVERSIDE, CA

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 24MAY18 (18144)

TAKEOFF MINIMUMS:

Rwys 12, 30, not authorized.

Rwy 32, 1200-3, or std. w/ min. climb rate of 240’ per NM to 3100.

DEPARTURE PROCEDURE:

Rwy 14, climb direct HDF VOR, then climbing right turn on hdg between 155° CW to 181°. Max airspeed 250K. Use caution when departing, rapid rising terrain within 3.5 NM se of March ARB.

Rwy 32, climb left turn HDG between 150° to 135° CCW from DER. Maximum 250K or 2300-3 For Climb in Visual conditions within 4.5 NM of March ARB, cross March ARB at or above 3700’ MSL then climb and maintain 6000 direct HDF VOR, then via HDF R-153 to HDF R-153/PDZ R-130, direct SKYES int. Do not exceed 250K until passing SKYES.

Aircraft shall advise ATC prior to executing VCOA. VCOA not available for Cat E aircraft.

TAKEOFF OBSTACLE NOTES:

Rwy 14, tree 2248’ from DER, 1000’ right of centerline, 150’ AGL/1630’ MSL. Tree 1920’ from DER, 1000’ right of centerline, 150’ AGL/1630’ MSL. Tree 1789’ from DER, 1000’ right of centerline, 150’ AGL/1630’ MSL. Tree 2278’ from DER, 1000’ right of centerline, 150’ AGL/1630’ MSL. Aircraft 28’ inward of DER, 542’ left of centerline, 65’ AGL/1565’ MSL. Aircraft 31’ inward of DER, 282’ right of centerline, 30’ AGL/1565’ MSL.

MIRAMAR MCAS (JOE FOSS FLD) (KNXX)

SAN DIEGO, CA

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

13SEP18 (18256)

TAKEOFF MINIMUMS:

Rwys 6L/R, 340° through 150° CW-Civil, std w/min climb of 300’/NM to 7600; Military, std w/min climb of 280’/NM to 7600.

Rwys 24L/R, 100° through 340° CW-Civil, std w/min climb of 290’/NM to 7600; Military, std w/min climb of 270’/NM to 7600.

TAKEOFF OBSTACLE NOTES:

Rwy 6L, building 2321’ from DER, 1084’ left of cntrln, 0’ AGL/539’ MSL. Twr 2322’ from DER, 1083’ left of cntrln, 53’ AGL/538’ MSL. Twr 2366’ from DER, 1083’ left of cntrln, 53’ AGL/538’ MSL. Rwy 24L, terrain 0’ from DER, 500’ left of cntrln, 458’ MSL. Terrain 384’ from DER, 549’ right of cntrln, 459’ MSL. Terrain 50’ from DER, 507’ right of cntrln, 459’ MSL. Landfill 3091’ from DER, 1243’ left of cntrln, 40’ AGL/525’ MSL. Landfill 3312’ from DER, 1197’ left of cntrln, 40’ AGL/525’ MSL. Landfill 3388’ from DER, 1023’ left of cntrln, 40’ AGL/525’ MSL. Landfill 3792’ from DER, 1225’ left of cntrln, 40’ AGL/525’ MSL. Pylon 3978’ from DER, 1295’ left of cntrln, 50’ AGL/498’ MSL. Pylon 4087’ from DER, 1363’ left of cntrln, 50’ AGL/505’ MSL.
MOJAVE, CA
MOJAVE AIR AND SPACE PORT (MHV)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2A 26JUN14 (14177) (FAA)
TAKEOFF MINIMUMS:
Rwys 4, 8, 12, NA - restricted airspace.
Rwys 22, 26, std. w/min. climb of 415’ per NM to 6800 or 4100-3 for climb in visual conditions.
Rwy 30, std. w/min. climb of 510’ per NM to 5600 or 4100-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 22, climb to 8000 heading 218° and LHS R-023 to LHS VORTAC.
Rwy 26, climbing left turn to 8000 heading 218° and LHS R-023 to LHS VORTAC.
Rwy 30, climbing left turn to 8000 heading 200° and LHS R-023 to LHS VORTAC.
VCOA:
Rwy 22, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions cross Mojave airport southwest bound at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC.
Rwy 26, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions cross Mojave airport at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC.
Rwy 30, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions cross Mojave airport at or above 6800, then climb to 8000 on LHS R-023 to LHS VORTAC.
TAKEOFF OBSTACLE NOTES:
Rwy 22, antenna on tower 2260’ from DER, 812’ right of centerline, 60’ AGL/2838’ MSL.
Sign 283’ from DER, 466’ right of centerline, 10’ AGL/2878’ MSL.
Rwy 26, antenna on tower 1797’ from DER, 615’ left of centerline, 58’ AGL/2838’ MSL.
Sign 32’ from DER, 341’ right of centerline, 8’ AGL/2788’ MSL.
Tree 258’ from DER, 120’ left of centerline, 8’ AGL/2788’ MSL.
Rwy 30, multiple poles beginning 3083’ from DER, 306’ right of centerline, up to 91’ AGL/2892’ MSL.
Road and railroad beginning 1241’ from DER, right and left of centerline, up to 44’ AGL/2845’ MSL.
Bush 305’ from DER, 457’ right of centerline, 16’ AGL/2817’ MSL.

MURRIETA/TEMECULA, CA
FRENCH VALLEY (F70)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 11SEP97 (97254) (FAA)
TAKEOFF MINIMUMS:
Rwy 18, NA.
Rwy 36, 700-2 or std. with a min. climb of 340’ per NM to 2200.
DEPARTURE PROCEDURE:
Rwy 36, climb runway heading to 2200, then climbing left turn via HDF R-145 to HDF VOR. Aircraft departing HDF VOR 065° CW 352° climb on course. Aircraft departing northeast bound, climb in HDF holding pattern, (SE, right turns, 315° inbound) to depart HDF VOR at or above: 353° CW 054°, 6800; 055° CW 064°, 5800; before proceeding on course.

NEEDLES, CA
NEEDLES (EED)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 09JAN14 (14009) (FAA)
TAKEOFF MINIMUMS:
Rwy 11, std. w/min. climb of 235’ per NM to 2800, or 2600-3 for climb in visual conditions.
Rwy 20, std. w/min. climb of 420’ per NM to 3700, or 2600-3 for climb in visual conditions.
Rwy 29, std. w/min. climb of 390’ per NM to 2200, or 2600-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 2, climb heading 015° to 1700, then climbing right turn direct EED VORTAC, thence . . .
Rwys 11, 20, climbing left turn direct EED VORTAC, thence . . .
Rwy 29, climb runway heading to 2200, then climbing left turn via HDF R-145 to HDF VOR. Aircraft departing HDF VOR 065° CW 352° climb on course. Aircraft departing northeast bound, climb in HDF holding pattern, (SE, right turns, 315° inbound) to depart HDF VOR at or above: 353° CW 054°, 6800; 055° CW 064°, 5800; before proceeding on course. When executing VCOA, notify ATC prior to departure.
TAKEOFF OBSTACLE NOTES:
Rwy 11, terrain 20’ from DER, 301’ right of centerline, 920’ MSL.
Rwy 20, building 73’ from DER, 451’ left of centerline, 21’ AGL/976’ MSL.
Windsock 181’ from DER, 409’ left of centerline, 23’ AGL/972’ MSL.
Terrain beginning 295’ from DER, 341’ right of centerline up to 1079’ MSL.
Rwy 29, terrain 92’ from DER, 328’ left of centerline 1000’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

NORTH ISLAND NAS (HALEY FIELD) (KNZY)
SAN DIEGO, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
05NOV20 (20310)
DEPARTURE PROCEDURE:
Rwy 11, diverse departures authorized 131° CW 184°. Std. w/min. climb of 223’ per NM to 500. Make immediate right turn to assigned heading within 1.4 DME of NZY TACAN to avoid over flying the city of Coronado.
Rwy 18, diverse departures authorized 131° CW 177°.
Rwy 29, diverse departures not authorized. Use published departure procedure.
Rwy 36, departure not authorized.
TAKEOFF OBSTACLE NOTES:
Rwy 11, numerous trees left and right of Rwy cntrln from 9’ prior to DER to 2018’, 33’ MSL to 95’ MSL.
Golf ball fencing 2226’ from DER, 1215’ left of cntrln, 74’ AGL/88’ MSL.
Tree 8’ inward of DER, 429’ right of cntrln, 48’ AGL/74’ MSL.
Tree 11’ from DER, 525’ right of cntrln, 46’ AGL/73’ MSL.
Multiple trees 159’ from DER, 433’ right of cntrln, 43’ AGL/71’ MSL.
Tree 78’ from DER, 371’ right of cntrln, 29’ AGL/56’ MSL.
Tree 91’ from DER, 460’ right of cntrln, 28’ AGL/55’ MSL.
Palm 90’ from DER, 468’ right of cntrln, 27’ AGL/54’ MSL.
Rwy 18, top of light pole 1031’ from DER, 626’ right of cntrln, 40’ MSL.
Top of light pole 1209’ from DER, 625’ right of cntrln, 41’ MSL.
Top of light pole 491’ from DER, 627’ right of cntrln, 39’ MSL.
Top of light pole 669’ from DER, 626’ right of cntrln, 38’ MSL.
Top of light pole 850’ from DER, 627’ right of cntrln, 40’ MSL.
Rwy 29, shipping channel accommodating vessels, starting 2577’ from DER, on cntrln, up to 200’ AGL (206’ MSL with tidal range).
Twin twrs 1.4 NM from DER, 2645’ left of cntrln, 145’ AGL/534’ MSL.
Twr 1.5 NM from DER, 1969’ left of cntrln, 479’ MSL.
Twr 1.5 NM from DER, 2054’ left of cntrln, 100’ AGL/455’ MSL.
Twr 1139’ from DER, 2.1 NM left of cntrln, 120’ AGL/544’ MSL.

OCEANSIDE, CA
BOB MAXWELL MEML AIRFIELD (OKB)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4A 28APR16 (21112) FAA
TAKEOFF MINIMUMS:
Rwy 6, 400-1 or std. w/min. climb of 320’ per NM to 500.
Rwy 24, 300-1 or std. w/min. climb of 670’ per NM to 300.
DEPARTURE PROCEDURE:
Rwy 6, climbing right turn.
Rwy 24, climbing left turn.
All aircraft, climb via heading 235° to 1500, then climbing right turn direct OCN VORTAC.

ONTARIO, CA
ONTARIO INTL (ONT)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 9 26MAY16 (16147) (FAA)
TAKEOFF MINIMUMS:
Rwy 8L, 8R, std. w/min. climb of 285’ per NM to 3000.
DEPARTURE PROCEDURE:
Rwy 8L, 8R, climb heading 078° to 2600 then climbing right turn direct PDZ VORTAC, thence...
Rwys 26L, 26R, climb heading 258° to 2600 then climbing left turn direct PDZ VORTAC, thence...
...climb in PDZ holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above MEA for route of flight before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 8L, grd 81’ from DER, 443’ left of centerline, 936’ MSL.
Building 1605’ from DER, 846’ left of centerline, 975’ MSL.
Lt poles beginning 2042’ from DER, 684’ left of centerline, up to 990’ MSL.
Rwy 26L, pole 754’ from DER, 670’ left of centerline, 964’ MSL.
Trees beginning 1050’ from DER, 708’ left of centerline, up to 985’ MSL.
Tree 1987’ from DER, 329’ left of centerline, 986’ MSL.
OL on GS, 125’ from DER, 339’ right of centerline, 982’ MSL.
Rwy 26R, grd, antenna on building, beginning 30’ from DER, 396’ left of centerline, up to 951’ MSL.
Lt pole 483’ from DER, 263’ left of centerline, 973’ MSL.
Pole, RR, LT pole beginning 580’ from DER, 371’ left of centerline, up to 978’ MSL.
OL on DME, OL on LOC, beginning 369’ from DER, 1’ right of centerline, up to 962’ MSL.
Lt poles beginning 1144’ from DER, 211’ right of centerline, up to 981’ MSL.
Pole, LT pole beginning 1244’ from DER, 543’ right of centerline, up to 986’ MSL.
Trees, beginning 1672’ from DER, 696’ right of centerline, 996’ MSL.
Trees, beginning 2882’ from DER, 673’ right of centerline, up to 1030’ MSL.
ONTARIO, CA (CON’T)
ONTARIO INTL (ONT) (CON’T)
DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 2  26MAY16  (16147)  (FAA)
- Rwys 8L, headings as assigned by ATC; requires min. climb of 280’ per NM to 2900.
- Rwys 8R, headings as assigned by ATC; requires min. climb of 285’ per NM to 2900.
- Rwys 26L/R, headings as assigned by ATC.

OXNARD, CA
OXNARD (OXR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6  15JUN00  (00167)  (FAA)
- TAKEOFF MINIMUMS:
  - Rwys 8L, 1200-5 or std. with a min. climb of 290’ per NM to 2600.
- DEPARTURE PROCEDURE:
  - Rwys 8L, climbing left turn.
  - Rwys 25, climb runway heading.

OXNARD, CA
OXNARD (OXR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6  15JUN00  (00167)  (FAA)
- TAKEOFF MINIMUMS:
  - Rwys 8L, 1200-5 or std. with a min. climb of 290’ per NM to 2600.
- DEPARTURE PROCEDURE:
  - Rwys 8L, climbing left turn.
  - Rwys 25, climb runway heading.

PALM SPRINGS, CA
BERMUDA DUNES (UDD)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1  15SEP16  (16259)  (FAA)
- TAKEOFF MINIMUMS:
  - Rwys 12, std. w/min. climb of 364’ per NM to 3400.
  - Rwys 17, std. w/min. climb of 374’ per NM to 3400.
  - Rwys 30, std. w/min. climb of 402’ per NM to 3400.
  - Rwys 35, std. w/min. climb of 364’ per NM to 3400.
- DEPARTURE PROCEDURE:
  - Rwys 12, climbing right turn to intercept TRM VORTAC R-136 to MECCA, thence...
  - Rwys 17, Climbing left turn heading 100° to intercept TRM VORTAC R-136 to MECCA, thence...
  - Rwys 30, 35, Climbing right turn heading 180° to intercept TRM VORTAC R-136 to MECCA, thence...
  - …aircraft departing MECCA on TRM VORTAC R-101 CW R-139, climb on course. All others turn left direct TRM VORTAC and climb in TRM VORTAC holding pattern (hold e, right turns, 289° inbound) until reaching MEA/MCA for route of flight. DME required.

JACQUELINE COCHRAN RGNL (TRM)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3  15SEP16  (16259)  (FAA)
- TAKEOFF MINIMUMS:
  - Rwys 12, std. w/min. climb of 364’ per NM to 3400.
  - Rwys 17, std. w/min. climb of 374’ per NM to 3400.
  - Rwys 30, std. w/min. climb of 402’ per NM to 3400.
  - Rwys 35, std. w/min. climb of 364’ per NM to 3400.
- DEPARTURE PROCEDURE:
  - Rwys 12, climbing right turn to intercept TRM VORTAC R-136 to MECCA, thence...
  - Rwys 17, Climbing left turn heading 100° to intercept TRM VORTAC R-136 to MECCA, thence...
  - Rwys 30, 35, Climbing right turn heading 180° to intercept TRM VORTAC R-136 to MECCA, thence...
  - …aircraft departing MECCA on TRM VORTAC R-101 CW R-139, climb on course. All others turn left direct TRM VORTAC and climb in TRM VORTAC holding pattern (hold e, right turns, 289° inbound) until reaching MEA/MCA for route of flight. DME required.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

PALM SPRINGS, CA (CON’T)
PALM SPRINGS INTL (PSP)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5A 27JUN13 (13178) (FAA)
TAKEOFF MINIMUMS:
Rwy 13L, minimum climb of 440’ per NM to 2300’ or 5900-3 for climb in visual conditions.
Rwy 13R, minimum climb of 422’ per NM to 2300’ or 5900-3 for climb in visual conditions.
Rwy 31L, minimum climb of 386’ per NM to 4500’ or 5900-3 for climb in visual conditions.
Rwy 31R, minimum climb of 405’ per NM to 4500’ or 5900-3 for climb in visual conditions.

DEPARTURE PROCEDURE:
Rwys 13L/R, climbing left turn heading 090° to intercept TRM R-304 to TRM VORTAC or for climb in visual conditions cross Palm Springs Intl airport at or above 6300 then direct PSP VORTAC thence ... via PSP R-124 and TRM R-304 to TRM VORTAC.
All Rwys if not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern (hold E, right turns, 289° inbound) until reaching MEA/MCA for assigned route of flight. When executing VCOA, notify ATC prior to departure.
TAKEOFF OBSTACLE NOTES:
Rwy 13L, trees beginning 299’ from DER, 530’ left of centerline, up to 66’ AGL/465’ MSL.
HGR 935’ from DER, 552’ left of centerline, 31’ AGL/440’ MSL.
Rwy 13R, trees beginning 1170’ from DER, 239’ right of centerline, up to 100’ AGL/599’ MSL.
Poles beginning 615’ from DER, 209’ right of centerline, up to 44’ AGL/433’ MSL.
Light 843’ from DER, 441’ right of centerline, 38’ AGL/427’ MSL.
Antenna 1642’ from DER, 26’ right of centerline, 53’ AGL/442’ MSL.
Rwy 31L, poles beginning 1641’ from DER, 125’ right of centerline, up to 31’ AGL/550’ MSL.
Trees beginning 2418’ from DER, 402’ left of centerline, up to 59’ AGL/560’ MSL.
Tree 3016’ from DER, 66’ right of centerline, up to 48’ AGL/507’ MSL.
Vent on building 919’ from DER, 399’ right of centerline, 15’ AGL/474’ MSL.

PALM SPRINGS INTL (PSP)
DIVERSE VECTOR AREA (RADAR VECTORS)
ORIG 12NOV15 (15316) (FAA)
Rwy 13L, heading as assigned by ATC; requires minimum climb of 310’ per NM to 4800.
Rwy 13R, heading as assigned by ATC; requires minimum climb of 340’ per NM to 2700.
Rwy 31L, heading as assigned by ATC; requires minimum climb of 480’ per NM to 7000.
Rwy 31R, heading as assigned by ATC; requires minimum climb of 450’ per NM to 7000.

PALMDALE, CA
PALMDALE USAF PLANT 42 (PMD)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 03JUN10 (10154) (FAA)
TAKEOFF MINIMUMS:
Rwy 22, std. with a min. climb of 300’ per NM to 3800 or 1300-3 for climb in visual conditions.

DEPARTURE PROCEDURE:
Rwys 4, 7, climbing left turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight.
Rwys 22, climbing right turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight, or for climb in visual conditions cross Palmdale Rgnl/USAF Plant 42 at or above 3700 then via PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route of flight, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight.
Rwy 25, climbing right turn intercept PMD VORTAC R-298 to cross FISCH INT at or above MEA/MCA for route, if not at MEA/MCA continue climb in FISCH INT holding pattern (hold Southeast, left turns, 298° inbound) to cross FISCH INT at or above 6500 or MCA for route of flight.
TAKEOFF OBSTACLE NOTES:
Rwy 25, tree 2395’ from DER 886’ left of centerline, 100’ AGL/2659’ MSL.
PASO ROBLES, CA
PASO ROBLES MUNI (PRB)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 21MAY20 (20142) (FAA)
DEPARTURE PROCEDURE:
Use PASO ROBLES DEPARTURE.
TAKEOFF OBSTACLE NOTES:
Rwy 1, lighting 9' from DER, 115' right of centerline, 804' MSL.
Lighting 10' from DER, 113' left of centerline, 805' MSL.
Tree 301' from DER, 425' left of centerline, 812' MSL.
Rwy 13, pole 34' from DER, 29' left of centerline, 840' MSL.
Trees, pole beginning 766' from DER, 395' left of centerline, up to 900' MSL.
Trees beginning 1656' from DER, 389' left of centerline, up to 906' MSL.
Trees beginning 1746' from DER, 13' left of centerline, up to 910' MSL.
Tree 1948' from DER, 1' right of centerline, 907' MSL.
Trees beginning 2045' from DER, 56' left of centerline, up to 911' MSL.
Trees beginning 2256' from DER, 409' left of centerline, up to 915' MSL.
Tree 2581' from DER, 511' left of centerline, 917' MSL.
Trees beginning 2601' from DER, 635' left of centerline, up to 923' MSL.
Tree 3261' from DER, 856' left of centerline, 932' MSL.
Tree 3860' from DER, 952' left of centerline, 944' MSL.
Tree 3961' from DER, 784' left of centerline, 950' MSL.
Rwy 19, pole 10' from DER, 39' left of centerline, 815' MSL.
Trees, pole beginning 992' from DER, 705' left of centerline, 851' MSL.
Tree 1098' from DER, 618' left of centerline, up to 876' MSL.
Rwy 31, wind indicator 78' from DER, 334' right of centerline, 823' MSL.

POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)
OXNARD, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 31DEC20 (20366) (USN)
DEPARTURE PROCEDURE:
Rwy 3, diverse departures authorized 220° to 270° CW. Right turns on departure NA. Turn left to assigned hdg within 3 DME of NTD TACAN. Do not exceed 300K until established on assigned hdg.
Rwy 9, diverse departures NA.
Rwy 21, diverse departures authorized 140° to 290°.
Rwy 27, diverse departures authorized 140° to 290° CW. Right turns on departure NA. Turn left to assigned hdg. Do not exceed 310K until established on assigned hdg.
CAUTION: Mountainous terrain NW thru SE.
TAKEOFF OBSTACLE NOTES:
Rwy 3, trees 2921' from DER, 1197' left of cntrln, 90' MSL.
Tree 27, trees beginning 94' from DER, 343' right of centerline, 20' AGL/1403' MSL.
Twr 3006' from DER, 1235' left of cntrln, 90' MSL.
Rwy 27, DASR antenna 960' from DER, 983' right of cntrln, 56' AGL/66' MSL.
Pole 1318' from DER, 582' right of centerline, 44' MSL.

RAMONA, CA
RAMONA (RNM)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3A 25JUL13 (13206) (FAA)
TAKEOFF MINIMUMS:
Rwy 9, std. w/ min. climb of 500' per NM to 4000, or 3800-3 for climb in visual conditions.
Rwy 27, std. w/ min. climb of 332' per NM to 2600, or 3800-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 9, climb via heading 088° to 4000, then climbing left turn via heading 330° and JLI VORTAC R-263/OCN VORTAC R-083 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course. When executing VCOA, notify ATC prior to departure.
Rwy 27, climb via heading 268° to 2600, then climbing right turn via PGY VORTAC R-336 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course. When executing VCOA, notify ATC prior to departure.
TAKEOFF OBSTACLE NOTES:
Rwy 9, sign 23' from DER, 178' left of centerline, 9' AGL/1399' MSL.
Tree 94' from DER, 343' right of centerline, 20' AGL/1403' MSL.
Twr 3006' from DER, 180' right of centerline, up to 100' AGL/1539' MSL.
Trees beginning 2637' from DER, 305' left of centerline, up to 100' AGL/1487' MSL.
Rwy 27, tree 657' from DER, 12' left of centerline, 100' AGL/1499' MSL.
Trees 1.85 NM from DER, 92' left of centerline, up to 100' AGL/1719' MSL.
REDLANDS, CA
REDLANDS MUNI (REI)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-B 07OCT21 (21280) (FAA)
TAKEOFF MINIMUMS:
Rwy 8, NA-Terrain.
Rwy 26, 1700-2 or std. w/min. climb of 300’ per NM to 4000.
DEPARTURE PROCEDURE:
Rwy 26, climbing left turn direct PDZ VORTAC. Aircraft departing PDZ VORTAC R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue to PDZ VORTAC holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above, R-281 CW R-090, 7700 and continue climb on course; R-141 CW R-230, 4900 and continue climb on course.
TAKEOFF OBSTACLE NOTES:
Rwy 26, vegetation 16’ from DER, 278’ left of centerline, 1477’ MSL.
Tree 1114’ from DER, 229’ left of centerline, 1502’ MSL.
Tree 1268’ from DER, 289’ left of centerline, 1506’ MSL.

RIVERSIDE, CA
RIVERSIDE MUNI (RAL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 12 31DEC20 (20366) (FAA)
TAKEOFF MINIMUMS:
Rwy 16, NA - Terrain.
DEPARTURE PROCEDURE:
Rwys 9, 27, 34, use RIVERSIDE DEPARTURE.
TAKEOFF OBSTACLE NOTES:
Rwy 9, terrain 4’ from DER, 497’ left of centerline, 836’ MSL.
Fence, vegetation, terrain beginning 77’ from DER, 496’ left of centerline, up to 843’ MSL.
Tree 604’ from DER, 590’ right of centerline, 856’ MSL.
Trees beginning 989’ from DER, 594’ right of centerline, up to 867’ MSL.
Rwy 27, tree 600’ from DER, 548’ right of centerline, 786’ MSL.
Pole 609’ from DER, 484’ left of centerline, 40’ AGL/783’ MSL.
Pole 758’ from DER, 680’ right of centerline, 41’ AGL/790’ MSL.
Tree 1073’ from DER, 650’ left of centerline, 803’ MSL.
Rwy 34, building 29’ from DER, 306’ right of centerline, 13’ AGL/800’ MSL.
Poles, trees, buildings beginning 62’ from DER, 200’ right of centerline, up to 811’ MSL.
Building 62’ from DER, 350’ left of centerline, 35’ AGL/796’ MSL.
Pole 300’ from DER, 287’ left of centerline, 38’ AGL/789’ MSL.
Tree 543’ from DER, 291’ left of centerline, 814’ MSL.
Tree, building beginning 829’ from DER, 420’ right of centerline, up to 854’ MSL.
Building 1214’ from DER, 376’ left of centerline, 70’ AGL/832’ MSL.
Transmission line, pole beginning 1914’ from DER, 134’ left of centerline, up to 811’ MSL.
Building 1.7 NM from DER, 1237’ right of centerline, 23’ AGL/1369’ MSL.

RIVERSIDE/RUBIDOUX, CA
FLABOB (RIR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 30JUN11 (11181) (FAA)
TAKEOFF MINIMUMS:
Rwy 6, std. w/min. climb of 670’ per NM to 4000 or 400-2 w/min. climb of 480’ per NM to 4000 or 2100-3 for climb in visual conditions.
Rwy 24, std. w/min. climb of 630’ per NM to 3000 or 800-2¾ w/min. climb of 305’ per NM to 4600 or 2100-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 6, climb via heading 064° to 4000 then right turn direct PDZ VORTAC, or for climb in visual conditions cross Flabob Airport Southwest bound at or above 2700 then via PDZ R-039 to PDZ VORTAC.
Rwy 24, climb via heading 244° and PDZ R-031 to PDZ VORTAC, or for climb in visual conditions cross Flabob airport Southwest bound at or above 2700 then via PDZ R-039 to PDZ VORTAC.
All aircraft climb in PDZ VORTAC holding pattern (hold East, right turns, 258° inbound) to cross PDZ VORTAC at or above MEA for direction of flight before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 6, trees beginning 3783’ from DER, 1152’ right of centerline, up to 40’ AGL/1119’ MSL.
Rwy 24, antenna on tank 6193’ from DER, 2057’ right of centerline, 38’ AGL/1237’ MSL.
Trees beginning 2494’ from DER, 434’ right of centerline, up to 40’ AGL/1519’ MSL.
Pole 6261’ from DER, 1950’ right of centerline, 30’ AGL/1230’ MSL.
Building 1.52 NM from DER, 1154’ right of centerline, up to 29’ AGL/1369’ MSL.
Antenna on tank 1.26 NM from DER, 2047’ right of centerline, 54’ AGL/1254’ MSL.
Tank 4043’ from DER, 794’ right of centerline, 66’ AGL/961’ MSL.
Tree 1.79 NM from DER, 434’ right of centerline, 58’ AGL/1138’ MSL.
SAN BERNARDINO, CA
SAN BERNARDINO INTL (SBD)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 09DEC93 (93343) (FAA)
TAKEOFF MINIMUMS:
  Rwy 6, CAT A, B 2100-2 or std. with a min. climb of 340' per NM to 3700.  CAT C, D 3100-2 or std. with a min. climb of 480' per NM to 4600.
DEPARTURE PROCEDURE:
  Rwy 6, climbing right turn.
  Rwy 24, climbing left turn.
All aircraft climb direct PDZ VORTAC.  Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course.  All others continue climb in PDZ holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 7700; R-141 CW R-230, 4900.

SAN CLEMENTE ISLAND NALF (FREDERICK SHERMAN FLD) (KNUC)
SAN CLEMENTE ISLAND, CA
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
25APR19 (19115)
DEPARTURE PROCEDURE:
  Rwy 6, diverse departures authorized 235° to 092° CW.
  Rwy 24, diverse departures authorized 162° to 055° CW.
TAKEOFF OBSTACLE NOTES:
  Rwy 6, terrain 958' from DER, 613' right of centerline, 199' MSL.

SAN DIEGO, CA
BROWN FLD MUNI (SDM)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4 03JUN10 (21168) (FAA)
TAKEOFF MINIMUMS:
  Rwy 8L, std. w/min. climb of 570' per NM to 3100.
  Rwy 8R, 26L, NA-ATC.
DEPARTURE PROCEDURE:
  Rwy 8L, climbing left turn, thence...
  Rwy 8R, climbing right turn, thence...
  ...via heading 280° to intercept MZB R-160 to MZB VORTAC.
TAKEOFF OBSTACLE NOTES:
  Rwy 26R, tree 1284' from DER, 778' left of centerline, 52' AGL/561' MSL.

MONTGOMERY-GIBBS EXEC (MYF)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4A 08NOV18 (21168) (FAA)
TAKEOFF MINIMUMS:
  Rwy 5, NA-Environmental.
DEPARTURE PROCEDURE:
  Rwy 10L/R, climbing right turn.
  Rwy 28L/R, climbing left turn.
All aircraft, climb direct to MZB VORTAC.  Aircraft departing MZB VORTAC R-090 CW R-360 climb on course.  All others climb in MZB holding pattern (holding west, right turns, 075° inbound) to cross MZB VORTAC at or above 2300.
TAKEOFF OBSTACLE NOTES:
  Rwy 23, trees beginning 958' from DER, 549' left of centerline, up to 456' MSL.
  Tree 1070' from DER, 719' left of centerline, 458' MSL.
  Tree 1093' from DER, 558' right of centerline, 62' AGL/468' MSL.
  Tree 1152' from DER, 532' left of centerline, 459' MSL.
  Trees beginning 1165' from DER, 531' left of centerline, up to 473' MSL.
  Trees beginning 1255' from DER, 125' right of centerline, up to 472' MSL.
  Trees, vegetation on road beginning 1560' from DER, 79' right of centerline, up to 81' AGL/483' MSL.
  Tree 1824' from DER, 189' left of centerline, 87' AGL/485' MSL.
  Trees, pole beginning 1854' from DER, 131' right of centerline, up to 86' AGL/485' MSL.
  Trees beginning 1954' from DER, 22' right of centerline, up to 95' AGL/489' MSL.
  Trees, antenna beginning 1955' from DER, 333' left of centerline, up to 493' MSL.
  Tree 2400' from DER, 867' left of centerline, 500' MSL.
  Transmission lines, trees beginning 2618' from DER, 414' left of centerline, up to 102' AGL/529' MSL.
  Tree 2703' from DER, 831' right of centerline, 491' MSL.
  Trees beginning 2732' from DER, 321' right of centerline, up to 74' AGL/495' MSL.
  Transmission lines, poles, tree beginning 2786' from DER, 17' right of centerline, up to 106' AGL/535' MSL.
  Transmission line, trees beginning 2996' from DER, 15' right of centerline, up to 114' AGL/548' MSL.
  Rwy 10L, vegetation 48' from DER, 495' right of centerline, 430' MSL.
  Vegetation beginning 68' from DER, 76' left of centerline, up to 7' AGL/434' MSL.
  Trees beginning 209' from DER, 493' left of centerline, up to 8' AGL/439' MSL.
  Tree 826' from DER, 680' left of centerline, 478' MSL.
  Trees beginning 832' from DER, 632' right of centerline, up to 45' AGL/466' MSL.
  Trees beginning 951' from DER, 671' left of centerline, up to 479' MSL.

CON'T
SAN DIEGO, CA (CON’T)
MONTGOMERY-GIBBS EXEC (MYF) (CON’T)

Rwy 10L (CON’T), trees beginning 1063’ from DER, 578’ right of centerline, up to 55’ AGL/472’ MSL.

Trees beginning 1149’ from DER, 492’ right of centerline, up to 77’ AGL/493’ MSL.

Trees beginning 1610’ from DER, 677’ left of centerline, up to 69’ AGL/498’ MSL.

Trees beginning 1728’ from DER, 664’ left of centerline, up to 501’ MSL.

Rwy 10R, lighting 39’ from DER, 69’ left of centerline, 3’ AGL/423’ MSL.

Electrical system 40’ from DER, 65’ left of centerline, 6’ AGL/426’ MSL.

Building, tree beginning 233’ from DER, 106’ right of centerline, up to 441’ MSL.

Tree, vegetation beginning 284’ from DER, 230’ left of centerline, up to 433’ MSL.

Tree 1039’ from DER, 719’ right of centerline, 462’ MSL.

Tree 1135’ from DER, 670’ right of centerline, 465’ MSL.

Tree 1183’ from DER, 805’ right of centerline, 476’ MSL.

Trees beginning 1247’ from DER, 582’ right of centerline, up to 479’ MSL.

Trees beginning 1536’ from DER, 342’ right of centerline, up to 482’ MSL.

Trees beginning 1925’ from DER, 86’ right of centerline, up to 88’ AGL/497’ MSL.

Trees beginning 2808’ from DER, 1185’ left of centerline, up to 69’ AGL/498’ MSL.

Rwy 28L, sign, vegetation beginning 11’ from DER, 247’ right of centerline, up to 2’ AGL/415’ MSL.

Sign beginning 12’ from DER, 125’ left of centerline, up to 2’ AGL/418’ MSL.

Vehicles on helicopter ramp 523’ from DER, 523’ left of centerline, up to 429’ MSL.

Antenna 788’ from DER, 570’ left of centerline, 450’ MSL.

Trees, sign beginning 903’ from DER, 8’ left of centerline, up to 461’ MSL.

Trees, pole beginning 954’ from DER, 263’ right of centerline, up to 53’ AGL/460’ MSL.

Trees, building beginning 1265’ from DER, 135’ right of centerline, up to 59’ AGL/470’ MSL.

Tree 1349’ from DER, 546’ left of centerline, 484’ MSL.

Tree 1405’ from DER, 496’ right of centerline, 62’ AGL/473’ MSL.

Tree 1513’ from DER, 541’ left of centerline, 467’ MSL.

Trees, tower beginning 1676’ from DER, 224’ right of centerline, up to 474’ MSL.

Tree 2034’ from DER, 236’ right of centerline, 67’ AGL/475’ MSL.

Trees beginning 2092’ from DER, 174’ right of centerline, up to 68’ AGL/477’ MSL.

Rwy 28R, sign 11’ from DER, 251’ left of centerline, 2’ AGL/415’ MSL.

Pole 594’ from DER, 615’ right of centerline, 449’ MSL.

Pole, sign beginning 735’ from DER, 323’ right of centerline, up to 450’ MSL.

Trees, poles beginning 862’ from DER, 253’ right of centerline, up to 469’ MSL.

Trees beginning 988’ from DER, 215’ left of centerline, up to 33’ AGL/444’ MSL.

Tree 1006’ from DER, 507’ left of centerline, 451’ MSL.

Poles, trees beginning 1206’ from DER, 17’ right of centerline, up to 64’ AGL/475’ MSL.

Trees beginning 1278’ from DER, 12’ left of centerline, up to 56’ AGL/467’ MSL.

Sign, tree, building beginning 1303’ from DER, 26’ right of centerline, up to 62’ AGL/483’ MSL.

Sign, trees beginning 1324’ from DER, 12’ right of centerline, up to 68’ AGL/488’ MSL.

Trees, tower beginning 1406’ from DER, 2’ left of centerline, up to 62’ AGL/473’ MSL.

Trees, pole beginning 1487’ from DER, 319’ right of centerline, up to 71’ AGL/493’ MSL.

Tree 2034’ from DER, 263’ left of centerline, 67’ AGL/475’ MSL.

Trees beginning 2092’ from DER, 290’ left of centerline, up to 68’ AGL/477’ MSL.

SAN DIEGO INTL (SAN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 9 10NOV16 (16315) (FAA)

TAKEOFF MINIMUMS:

Rwy 9, 400-1¼ w/min. climb of 290’ per NM to 900.

Rwy 27, 400-2½ or std. w/min. climb of 353’ per NM to 500.

DEPARTURE PROCEDURE:

Rwy 9, climb heading 095° to 900, then climbing left turn direct MBZ VORTAC. Thence ...

Rwy 27, climb heading 275° to 900, then climbing right turn direct MBZ VORTAC. Thence ...

...Aircraft departing MBZ VORTAC R-180 CW R-360 climb on course. All others climb in MBZ VORTAC holding pattern (hold West, right turn, 075° inbound) to cross MBZ VORTAC at or above 2300 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 9, fence, terrain, beginning 14’ from DER, 67’ left of centerline, up to 14’ AGL/35’ MSL.

Pole, building, terrain, fence, beginning 21’ from DER, 8’ right of centerline, up to 35’ AGL/50’ MSL.

Sign, terrain, beginning 268’ from DER, 137’ left of centerline, up to 50’ AGL/77’ MSL.

Tree, building, beginning 781’ from DER, 265’ right of centerline, up to 91’ MSL.

Building, terrain, beginning 877’ from DER, 180’ left of centerline, up to 66’ AGL/106’ MSL.

Building 1385’ from DER, 356’ right of centerline, 55’ AGL/95’ MSL.

Electric sys, terrain, beginning 1395’ from DER, 319’ left of centerline, up to 44’ AGL/138’ MSL.

Tree, terrain, beginning 1822’ from DER, 561’ left of centerline, up to 196’ MSL.

Tree 1857’ from DER, 45’ right of centerline, 45’ AGL/144’ MSL.

Tree, terrain, building, beginning 2140’ from DER, 119’ left of centerline, up to 198’ MSL.

Building, terrain, beginning 2596’ from DER, 101’ right of centerline, up to 89’ AGL/158’ MSL.

Trees, terrain, beginning 2681’ from DER, 190’ left of centerline, up to 215’ MSL.

T-l tower, terrain, building, pole, tree, beginning 2948’ from DER, 40’ left of centerline, up to 67’ AGL/272’ MSL.

Tree, terrain, building, beginning 2965’ from DER, 30’ right of centerline, up to 211’ MSL.

Building, terrain, beginning 3857’ from DER, 39’ right of centerline, up to 44’ AGL/216’ MSL.

Building 4376’ from DER, 1295’ left of centerline, 117’ AGL/364’ MSL.

CON’T
SAN DIEGO/EL CAJON, CA

SAN DIEGO INTL (SAN) (CON’T)

Rwy 9 (CON’T), building, terrain, beginning 4410’ from DER, 322’ left of centerline, up to 128’ AGL/389’ MSL.

Building, beginning 4433’ from DER, 1207’ right of centerline, up to 165’ AGL/296’ MSL.

AMDT 6  23MAR21 (21356) (FAA)

Terrain, tree, pole, beginning 4550’ from DER, 213’ left of centerline, up to 132’ MSL.

Tree, building, beginning 5159’ from DER, 325’ right of centerline, up to 113’ AGL/301’ MSL.

Building 6023’ from DER, 1934’ right of centerline, 224’ AGL/370’ MSL.

Building 1 NM from DER, 1543’ right of centerline, 234’ AGL/372’ MSL.

Terrain, building, beginning 1 NM from DER, 21’ right of centerline, up to 287’ AGL/401’ MSL.

TRANSMISSION LINE 1 NM from DER, 1339’ left of centerline, 53’ AGL/310’ MSL.

Pole 1.3 NM from DER, 1721’ left of centerline, 35’ AGL/306’ MSL.

Stack, tree, beginning 1.4 NM from DER, 501’ left of centerline, up to 170’ AGL/374’ MSL.

Tree 1.9 NM from DER, 490’ left of centerline, 330’ MSL.

Rwy 27, pole 192’ from DER, 347’ right of centerline, 17’ AGL/29’ MSL.

TRANSMISSION LINE 2125’ from DER, 19’ AGL/28’ MSL.

Tree 754’ from DER, 156’ right of centerline, 24’ AGL/34’ MSL.

Tree 1021’ from DER, 620’ right of centerline, 71’ MSL.

Pole 2515’ from DER, 707’ left of centerline, 103’ AGL/118’ MSL.

Tree 2594’ from DER, 353’ right of centerline, 90’ AGL/107’ MSL.

Tree 3179’ from DER, 410’ right of centerline, 111’ MSL.

Tree 3494’ from DER, 947’ right of centerline, 169’ MSL.

Tower 3675’ from DER, 14’ right of centerline, 60’ AGL/115’ MSL.

Tree 4248’ from DER, 403’ left of centerline, 75’ AGL/150’ MSL.

Tree 4441’ from DER, 1199’ right of centerline, 111’ AGL/199’ MSL.

Trees, beginning 5046’ from DER, 7’ left of centerline, up to 96’ AGL/235’ MSL.

Tree, building, beginning 5693’ from DER, 272’ right of centerline, up to 227’ MSL.

Tree 6050’ from DER, 1703’ left of centerline, 256’ MSL.

Trees, beginning 1 NM from DER, 532’ left of centerline, up to 65’ AGL/261’ MSL.

Building, tree, beginning 1 NM from DER, 257’ right of centerline, up to 40’ AGL/238’ MSL.

Tree 1.9 NM from DER, 3367’ left of centerline, 65’ AGL/328’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1  20AUG15 (15232) (FAA)

Rwy 27, headings as assigned by ATC; requires minimum climb of 360’ per NM to 800.

SAN DIEGO/EL CAJON, CA

GILLESPIE FLD (SEE)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7  22APR21 (21168) (FAA)

DEPARTURE PROCEDURE:

USE MISSION BAY DEPARTURE.

TAKEOFF OBSTACLE NOTES:

Rwy 9L, terrain 11’ from DER, 202’ left of centerline, 395’ MSL.

Terrain 189’ from DER, 236’ left of centerline, 398’ MSL.

Vehicle on road beginning 604’ from DER, 12’ right of centerline, up to 428’ MSL.

Sign, bridge, vehicle on road, pole beginning 739’ from DER, on centerline, up to 42’ AGL/448’ MSL.

Building 916’ from DER, 354’ left of centerline, 24’ AGL/448’ MSL.

Tree, pole beginning 940’ from DER, 314’ left of centerline, up to 468’ MSL.

Tree 1259’ from DER, 676’ left of centerline, 451’ MSL.

Tree, pole, building on road beginning 1287’ from DER, 4’ right of centerline, up to 480’ MSL.

Tree, building, pole beginning 1413’ from DER, 420’ left of centerline, up to 486’ MSL.

Tree, poles beginning 1423’ from DER, 176’ left of centerline, up to 499’ MSL.

Tree 1630’ from DER, 620’ left of centerline, 519’ MSL.

Tree, poles beginning 1634’ from DER, 8’ left of centerline, up to 522’ MSL.

Poles beginning 2125’ from DER, 39’ right of centerline, up to 42’ AGL/485’ MSL.

Pole 2226’ from DER, 19’ right of centerline, 43’ AGL/488’ MSL.

Trees, poles beginning 2333’ from DER, 55’ right of centerline, up to 509’ MSL.

Tree, poles, transmission line beginning 2601’ from DER, 1’ left of centerline, up to 530’ MSL.

Trees, transmission line, poles, building beginning 2949’ from DER, 88’ left of centerline, up to 566’ MSL.

Tree, poles, transmission line beginning 3042’ from DER, 26’ right of centerline, up to 532’ MSL.

Poles beginning 3611’ from DER, 246’ left of centerline, up to 44’ AGL/575’ MSL.

Poles beginning 3802’ from DER, 119’ left of centerline, up to 43’ AGL/583’ MSL.

Poles, transmission line beginning 3920’ from DER, 38’ left of centerline, up to 43’ AGL/589’ MSL.

Transmission line, poles beginning 4371’ from DER, 362’ left of centerline, up to 62’ AGL/949’ MSL.

Poles beginning 4389’ from DER, 131’ right of centerline, up to 45’ AGL/533’ MSL.

Tree, poles beginning 4443’ from DER, 14’ left of centerline, up to 624’ MSL.

Pole 4576’ from DER, 53’ right of centerline, 45’ AGL/541’ MSL.

Poles beginning 4720’ from DER, 102’ right of centerline, up to 50’ AGL/545’ MSL.

Transmission line from DER, 246’ right of centerline, up to 55’ AGL/648’ MSL.

Poles beginning 5145’ from DER, 340’ left of centerline, up to 39’ AGL/641’ MSL.

Tree, poles beginning 5412’ from DER, 5’ left of centerline, up to 654’ MSL.

Transmission line 5476’ from DER, 374’ right of centerline, 55’ AGL/552’ MSL.

Tree, poles beginning 5712’ from DER, 23’ left of centerline, up to 672’ MSL.

CONT’
SW-3, 07 OCT 2021 to 02 DEC 2021

SAN DIEGO/EL CAJON, CA (CON’T)

Gillespie Fld (see) (Con’T)

Rwy 9L (Con’T), trees, poles, transmission line beginning 578’2 from DER, 67’ right of centerline, up to 628’ MSL.
Pole 1.1 NM from DER, 2123’ left of centerline, 40’ AGL/1219’ MSL.
Tower 1.1 NM from DER, 2086’ left of centerline, 60’ AGL/1236’ MSL.
Tower, poles, trees, terrain, fence, vegetation, transmission lines beginning 1.1 NM from DER, 51’ left of centerline, up to 63’ AGL/1242’ MSL.

Tree 1.1 NM from DER, 523’ right of centerline, 672’ MSL.

Pole 1.1 NM from DER, 2249’ right of centerline, 37’ AGL/689’ MSL.
Transmission line 1.2 NM from DER, 1980’ right of centerline, 38’ AGL/771’ MSL.
Pole beginning 1.2 NM from DER, 1962’ right of centerline, up to 57’ AGL/774’ MSL.
Building, pole beginning 1.2 NM from DER, 517’ right of centerline, up to 29’ AGL/813’ MSL.

Trees, poles, transmission lines beginning 1.2 NM from DER, 52’ right of centerline, up to 824’ MSL.

Rwy 9R, pole 921’ from DER, 521’ right of centerline, 42’ AGL/432’ MSL.
Vehicle on road 1544’ from DER, 404’ left of centerline, 428’ MSL.

Transmission line, sign beginning 1665’ from DER, 51’ right of centerline, up to 51’ AGL/452’ MSL.
Vehicle on road 1827’ from DER, 409’ left of centerline, 430’ MSL.

Building 1855’ from DER, 772’ left of centerline, 24’ AGL/448’ MSL.

Trees, poles beginning 1879’ from DER, 732’ left of centerline, up to 468’ MSL.
Poles beginning 1900’ from DER, 67’ right of centerline, up to 60’ AGL/455’ MSL.

Tower, tree beginning 2042’ from DER, 258’ right of centerline, up to 65’ AGL/459’ MSL.

Tree 2226’ from DER, 173’ left of centerline, 480’ MSL.

Tree, pole, building beginning 2352’ from DER, 264’ left of centerline, up to 486’ MSL.

Tree, pole beginning 2363’ from DER, 594’ right of centerline, up to 499’ MSL.

Trees, poles beginning 2490’ from DER, 41’ right of centerline, up to 480’ MSL.

Tree 2569’ from DER, 1038’ left of centerline, 519’ MSL.

Trees, poles, vehicle on road beginning 2573’ from DER, 92’ left of centerline, up to 522’ MSL.

Trees, poles, transmission line beginning 3540’ from DER, 4’ left of centerline, up to 530’ MSL.

Tree, pole beginning 3633’ from DER, 82’ right of centerline, up to 505’ MSL.

Trees, poles, transmission line beginning 3888’ from DER, 45’ left of centerline, up to 566’ MSL.
Poles, transmission line beginning 4572’ from DER, 259’ left of centerline, up to 38’ AGL/567’ MSL.

Transmission line beginning 4885’ from DER, 116’ left of centerline, up to 43’ AGL/584’ MSL.

Transmission line, poles beginning 5310’ from DER, 288’ left of centerline, up to 62’ AGL/594’ MSL.

Tree, poles, transmission line beginning 5382’ from DER, 173’ left of centerline, up to 624’ MSL.
Poles beginning 1 NM from DER, 118’ right of centerline, up to 39’ AGL/641’ MSL.
Poles, transmission line beginning 1 NM from DER, 44’ left of centerline, up to 654’ MSL.

Trees, poles beginning 1 NM from DER, 51’ left of centerline, up to 672’ MSL.

Trees, poles, transmission line beginning 1.1 NM from DER, 16’ right of centerline, up to 628’ MSL.
Pole 1.2 NM from DER, 2543’ left of centerline, 40’ AGL/1219’ MSL.

Tower 1.2 NM from DER, 2507’ left of centerline, 60’ AGL/1236’ MSL.

Tower, trees, poles, terrain, fence, vegetation, transmission lines beginning 1.2 NM from DER, 11’ left of centerline, up to 63’ AGL/1242’ MSL.

Tree 1.3 NM from DER, 103’ right of centerline, 672’ MSL.
Pole 1.3 NM from DER, 1829’ right of centerline, 37’ AGL/689’ MSL.

Transmission line 1.3 NM from DER, 1559’ right of centerline, 38’ AGL/771’ MSL.
Poles beginning 1.3 NM from DER, 1541’ right of centerline, up to 57’ AGL/774’ MSL.

Building, pole beginning 1.3 NM from DER, 97’ right of centerline, up to 29’ AGL/813’ MSL.

Tree, pole beginning 1.3 NM from DER, 193’ right of centerline, up to 824’ MSL.

Rwy 17, fence 14’ from DER, 43’ right of centerline, 9’ AGL/393’ MSL.
Pole 36’ from DER, 456’ right of centerline, 40’ AGL/424’ MSL.
Poles, building beginning 50’ from DER, 123’ left of centerline, up to 45’ AGL/428’ MSL.
Poles, buildings beginning 266’ from DER, 149’ left of centerline, up to 42’ AGL/429’ MSL.

Trees, pole, building beginning 390’ from DER, 33’ right of centerline, up to 457’ MSL.

Tree, pole beginning 970’ from DER, 57’ left of centerline, up to 470’ MSL.

Tree, building beginning 1145’ from DER, 377’ right of centerline, up to 473’ MSL.

Trees, building, poles beginning 1618’ from DER, 54’ left of centerline, up to 472’ MSL.
Pole 1.4 NM from DER, 2367’ right of centerline, 43’ AGL/814’ MSL.
Pole 1.5 NM from DER, 2346’ right of centerline, 43’ AGL/856’ MSL.
Pole beginning 1.6 NM from DER, 2319’ right of centerline, up to 38’ AGL/746’ MSL.

Rwy 27L, tree 1548’ from DER, 765’ right of centerline, 428’ MSL.

Trees beginning 2189’ from DER, 700’ right of centerline, up to 453’ MSL.

Tree 2943’ from DER, 655’ left of centerline, 441’ MSL.

Tree, building beginning 3732’ from DER, 464’ left of centerline, up to 470’ MSL.

Tree, pole beginning 5745’ from DER, 827’ left of centerline, up to 572’ MSL.

Vegetation 1.4 NM from DER, 1507’ left of centerline, 722’ MSL.

Rwy 27R, tree, poles beginning 178’ from DER, 235’ right of centerline, up to 411’ MSL.

Vehicle on road 510’ from DER, 412’ left of centerline, 379’ MSL.

Trees, poles beginning 525’ from DER, 38’ right of centerline, up to 453’ MSL.
Pole 799’ from DER, 83’ left of centerline, 41’ AGL/390’ MSL.

Trees, pole of centerline, up to 470’ MSL.

Tree, tower beginning 4080’ from DER, 978’ left of centerline, 572’ MSL.

Vegetation 1.2 NM from DER, 1924’ left of centerline, 722’ MSL.

Rwy 35, pole 34’ from DER, 202’ right of centerline, 21’ AGL/388’ MSL.
Pole, building beginning 51’ from DER, 248’ right of centerline, up to 29’ AGL/399’ MSL.

CON’T
SAN DIEGO/EL CAJON, CA (CON'T)
GILLESPIE FLD (SEE) (CON'T)

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

Rwy 35 (CON'T), trees, building, poles beginning 231' from DER, 29' right of centerline, up to 447' MSL.
Poles beginning 381' from DER, 336' left of centerline, up to 405' MSL.
Tree 1107' from DER, 118' left of centerline, 408' MSL.
Tree 1145' from DER, 581' left of centerline, 427' MSL.
Tree 1486' from DER, 293' left of centerline, 438' MSL.
Trees beginning 1487' from DER, 344' left of centerline, up to 439' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

SAN LUIS OBISPO, CA
SAN LUIS COUNTY RGNL(SBP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 8  25FEB21  (21056)  (FAA)

TAKEOFF MINIMUMS:

Rwys 7, 25, NA - Obstacles.
Rwy 11, std. w/ min. climb of 412' per NM to 2100 or 2800-3 for VCOA.
Rwy 29, std. w/ min. climb of 460' per NM to 2000 or 2800-3 for VCOA.

DEPARTURE PROCEDURE:

Rwy 11, climb on heading 110° to 700, then climbing right turn to intercept MQO VORTAC R-115 to MQO VORTAC and hold, continue climb in MQO holding pattern (hold southeast, left turns, 306° inbound) to cross MQO VORTAC at or above 4000 or MEA for route of flight.
Rwy 29, climb on heading 290° to intercept MQO VORTAC R-050 to MQO VORTAC and hold, continue climb in MQO holding Pattern (hold southeast, left turns, 306° inbound) to cross MQO VORTAC at or above 4000 or MEA for route of flight.

VCOA:

Rwys 11, 29, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross San Luis County Rgnl at or above 2900 before proceeding direct MQO VORTAC.

TAKEOFF OBSTACLE NOTES:

Rwy 11, fence 14' from DER, 492' left of centerline, 6' AGL/214' MSL.
Tree 295' from DER, 565' left of centerline, 27' AGL/235' MSL.
Vehicle on road 398' from DER, 389' right of centerline, 223' MSL.

Rwy 29, vehicle on road 591' from DER, 507' right of centerline, 240' MSL.
Tree on road, building beginning 621' from DER, 269' right of centerline, up to 247' MSL.

San Nicolás Island NOLF (KNSI)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1  03JAN19  (19003)

DEPARTURE PROCEDURE:

Rwy 30, diverse departures authorized 301° to 121° CW.

TAKEOFF OBSTACLE NOTES:

Rwy 12, terrain 0' from DER, 500' right of cntrl, 515' MSL.
Rwy 30, localizer antenna 51' from DER, 3' right of cntrl, 8' AGL/491' MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

SANTA ANA, CA
JOHN WAYNE/ORANGE COUNTY (SNA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 16SEP14 (21168) (FAA)
DEPARTURE PROCEDURE:
Rwys 2L/R, climbing left turn direct SLI VORTAC.
Rwys 20L/R, climbing right turn direct SLI VORTAC.
All aircraft climb in SLI holding pattern (hold S, left turns, 351° inbound) to cross SLI VORTAC at or above MEA for direction of flight before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 2L, pole and trees beginning 94’ from DER, 490’ left of centerline, up to 26’ AGL/63’ MSL.
Navaid 497’ from DER, 625’ right of centerline, 19’ AGL/55’ MSL.
Trees beginning 970’ from DER, 608’ left of centerline, up to 90’ AGL/127’ MSL.
Rwy 2R, navaid 497’ from DER, 125’ right of centerline, 19’ AGL/55’ MSL.
Pole 1104’ from DER, 307’ right of centerline, 19’ AGL/68’ MSL.
Building 1681’ from DER, 49’ right of centerline, 49’ AGL/87’ MSL.
Tree 1745’ from DER, 309’ right of centerline, 52’ AGL/85’ MSL.
Rwy 20R, pole and trees beginning 204’ from DER, 490’ right of centerline, up to 38’ AGL/91’ MSL.
Wsk on hangar 536’ from DER, 605’ left of centerline, 40’ AGL/92’ MSL.
Poles and trees beginning 808’ from DER, 489’ right of centerline, up to 58’ AGL/108’ MSL.
Tree 1574’ from DER, 765’ left of centerline, 60’ AGL/113’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 16OCT14 (14289) (FAA)
Rwys 2L, 2R, headings as assigned by ATC.
Rwy 20L, headings as assigned by ATC; requires minimum climb of 260’ per NM to 1300.
Rwy 20R, headings as assigned by ATC; requires minimum climb of 270’ per NM to 1300.

SANTA BARBARA, CA
SANTA BARBARA MUNI (SBA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 8A 29MAR18 (18088) (FAA)
TAKEOFF MINIMUMS:
Rwys 33L, 33R: NA- ATC.
Rwy 7, std. w/ min. climb of 260’ per NM to 1100, or 2800-3 for VCOA.
DEPARTURE PROCEDURE:
Rwy 7, climbing right turn heading 170°, thence...
Rwy 25, climbing left turn heading 155°, thence...
Rwys 15L, 15R, climbing heading 152°, thence...
...on RZS R-185 to GOLET INT. Climb in GOLET INT holding pattern (SE, right turns, 307° inbound), to cross GOLET INT at or above MEA/MCA for route of flight, before proceeding on course.
VCOA:
Rwy 7, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Santa Barbara Muni airport southbound at or above 2700’ thence...
...on RZS R-185 to GOLET INT. Climb in GOLET INT holding pattern (SE, right turns, 307° inbound), to cross GOLET INT at or above MEA/MCA for route of flight, before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 7, vehicles on parking lot 88’ from DER, 516’ right of centerline, 25’ MSL.
Pole 208’ from DER, 243’ left of centerline, 25’ AGL/36’ MSL.
Vehicles on parking lot beginning 255’ from DER, 518’ right of centerline, up to 26’ MSL.
Poles and a tree beginning 715’ from DER, 579’ right of centerline, up to 47’ MSL.
Trees beginning 1099’ from DER, 631’ left of centerline, up to 45’ MSL.
Tree, building, tank, and a pole beginning 1225’ from DER, 566’ left of centerline, up to 52’ MSL.
Poles beginning 1229’ from DER, 569’ right of centerline, up to 53’ MSL.
Tree 1474’ from DER, 752’ right of centerline, 57’ MSL.
Trees beginning 1606’ from DER, 472’ left of centerline, up to 57’ MSL.
Trees beginning 1671’ from DER, 365’ right of centerline, up to 75’ MSL.
Trees beginning 1686’ from DER, 234’ left of centerline, up to 65’ MSL.
Tree 2628’ from DER, 421’ right of centerline, 79’ MSL.
Trees beginning 2829’ from DER, 594’ left of centerline, up to 103’ MSL.
Tree 2918’ from DER, 152’ right of centerline, 78’ AGL/91’ MSL.
Tree 3525’ from DER, 838’ left of centerline, 111’ MSL.
Tree 4902’ from DER, 1793’ left of centerline, 145’ MSL.
Rwy 15L, bushes beginning 19’ from DER, 18’ right of centerline, up to 6’ AGL/17’ MSL.
Buildings beginning 38’ from DER, 446’ left of centerline, up to 25’ MSL.
Trees, vehicles on parking lots, a fence, and vehicle on road beginning 146’ from DER, 345’ left of centerline, up to 18’ AGL/29’ MSL.
Vehicle on road beginning 905’ from DER, 640’ left of centerline, up to 44’ MSL.
Poles and trees beginning 989’ from DER, 146’ left of centerline, up to 54’ MSL.
Sign, overpass, pole, trees, and vehicle on road beginning 1280’ from DER, 345’ right of centerline, up to 94’ MSL.

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

SW-3, 07 OCT 2021 to 02 DEC 2021
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

SANTA BARBARA, CA (CON’T)

SANTA BARBARA MUNI (SBA) (CON’T)

Rwy 15R, bushes beginning 18’ from DER, 33’ right of centerline, up to 8’ AGL/15’ MSL.
Bushes and a sign beginning 25’ from DER, 240’ left of centerline, up to 6’ AGL/17’ MSL.
Bush 993’ from DER, 758’ right of centerline, 61’ MSL.
Trees, fence, pole, sign, building, overpass, and vehicle on road beginning 1099’ from DER, 26’ right of centerline, up to 91’ AGL/145’ MSL.
Trees beginning 1355’ from DER, 16’ left of centerline, up to 25’ AGL/55’ MSL.
Trees and a bush beginning 1676’ from DER, 728’ right of centerline, up to 25’ AGL/88’ MSL.

SW-3 07 OCT 2021 to 02 DEC 2021

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 26MAY16 (16147) (FAA)

Rwy 7, heading as assigned by ATC; requires minimum climb of 270’ per NM to 1100.
Rwy 15L/R, heading as assigned by ATC.
Rwy 25, heading as assigned by ATC; requires minimum climb of 500’ per NM to 4600.

SANTA MARIA, CA

SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 03MAY12 (21112) (FAA)

TAKEOFF MINIMUMS:

Rwy 20, NA - Obstacles.
Rwy 12, 400-2½ w/min. climb of 287’ per NM to 1500 or std. w/min. climb of 388’ per NM to 1200.

DEPARTURE PROCEDURE:

Rwy 2, climbing left turn:
Rwy 12, climbing left turn (do not exceed 230 KIAS until established northwest bound to GLJ VOR).
Rwy 30, climb heading 294°.

All aircraft: climb direct GLJ VOR, then continue climb to airway MEA via GLJ R-300 to intercept MQO R-137 to MQO VORTAC. Cross MQO VORTAC at or above MEA/MCA for assigned route of flight.

TAKEOFF OBSTACLE NOTES:

Rwy 2, trees beginning 541’ from DER, 153’ right of centerline, up to 108’ AGL/332’ MSL.
Tree 1018’ from DER, 246’ left of centerline, 34’ AGL/254’ MSL.

Rwy 12, trees beginning 988’ from DER, 271’ right of centerline, up to 83’ AGL/402’ MSL.
Trees beginning 54’ from DER, 277’ left of centerline, up to 84’ AGL/409’ MSL.

SANTA MONICA, CA

SANTA MONICA MUNI (SMO)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 02MAR17 (17061) (FAA)

TAKEOFF MINIMUMS:

Use TOPANGA DEPARTURE.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 2 01FEB18 (18032) (FAA)

Rwy 3, heading as assigned by ATC; requires min. climb of 320’ per NM to 1100.
Rwy 21, heading as assigned by ATC; requires min. climb of 350’ per NM to 5900.

SANTA YNEZ, CA

SANTA YNEZ (IZA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 04FEB16 (16035) (FAA)

TAKEOFF MINIMUMS:

Rwy 8, 500-2½ w/min. climb of 251’ per NM to 1700 or std. w/min. climb of 317’ per NM to 1300.
Rwy 26, 300-2 or std. w/min. climb of 226’ per NM to 1100.

DEPARTURE PROCEDURE:

Rwy 8, climbing left turn heading 260° to 6000, intercept GVO VORTAC R-307 to ORCUT INT/MQO 30.00 DME. Do not exceed 150 KIAS until established on GVO VORTAC R-307.
Rwy 26, climb heading 264° to 6000, intercept GVO VORTAC R-307 to ORCUT INT/MQO 30.00 DME.

TAKEOFF OBSTACLE NOTES:

Rwy 8, sign 23’ from DER, 81’ left of centerline, 28’ AGL/675’ MSL.
Building 384’ from DER, 240’ left of centerline, 7’ AGL/684’ MSL.
Tree 973’ from DER, 592’ right of centerline, 57’ AGL/704’ MSL.

CON’T
SANTA YNEZ, CA (CON’T)

Rwy 26, buildings and hangars beginning 9’ from DER, 330’ right of centerline, up to 27’ AGL/693’ MSL.
Tree 299’ from DER, 415 right of centerline, 24’ AGL/664’ MSL.
Fence 315’ from DER, 407’ left of centerline, 2’ AGL/666’ MSL.
Building 353’ from DER, 277’ right of centerline, 20’ AGL/684’ MSL.
Trees 391’ from DER, 233’ left of centerline, 56’ AGL/696’ MSL.
Trees 435’ from DER, 305’ right of centerline, up to 58’ AGL/698’ MSL.
Fence 749’ from DER, 273’ right of centerline, 7’ AGL/678’ MSL.
Tree 859’ from DER, 427’ right of centerline, 54’ AGL/688’ MSL.
Tree 1271’ from DER, 296’ left of centerline, 47’ AGL/687’ MSL.

SANTA YNEZ (IZA) (CON’T)

Rwy 27, structures beginning 24’ from DER, 300’ right of centerline, up to 21’ AGL/683’ MSL.
Trees beginning 31’ from DER, 102’ right of centerline, 20’ AGL/684’ MSL.
Fence 195’ from DER, 287’ left of centerline, 1’ AGL/666’ MSL.
Tree 291’ from DER, 121’ right of centerline, 58’ AGL/698’ MSL.
Trees 355’ from DER, 295’ right of centerline, up to 58’ AGL/698’ MSL.
Fence 803’ from DER, 235’ right of centerline, 14’ AGL/677’ MSL.
Trees 901’ from DER, 419’ right of centerline, 33’ AGL/693’ MSL.
Tree 955’ from DER, 131’ left of centerline, 3’ AGL/666’ MSL.
Tree 1271’ from DER, 296’ left of centerline, 47’ AGL/687’ MSL.

SHAFTER, CA

SHAFTER-MINTER FLD (MIT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 02MAY13 (21224) (FAA)

DEPARTURE PROCEDURE:
Rwy 12, 17, 26, climbing right turn heading 300° to 4000. Thence...
Rwy 8, 30, 35, climbing left turn heading 240° to 4000. Thence...
Westbound aircraft intercept V248 until reaching 4000, then proceed on course. Eastbound aircraft intercept V248 upon reaching 4000 turn right direct EHF VORTAC, then proceed on course.

TAKEOFF OBSTACLE NOTES:
Rwy 8, vehicles on road beginning 41’ from DER, 7’ left of centerline, up to 15’ AGL/442’ MSL.
Rwy 12, windsock 504’ from DER, 397’ left of centerline, 26’ AGL/439’ MSL.
Trees beginning 2476’ from DER, 344’ left of centerline, up to 75’ AGL/488’ MSL.
Trees beginning 862’ from DER, 378’ right of centerline, up to 31’ AGL/441’ MSL.
Rwy 17, vehicles on road 489’ from DER, left and right of centerline, up to 15’ AGL/429’ MSL.
Tree 1150’ from DER, 724’ left of centerline, 51’ AGL/463’ MSL.
Windsock 1340’ from DER, 43’ right of centerline, 46’ AGL/455’ MSL.
Rwy 30, vehicles on road 146’ from DER, 273’ left of centerline, 10’ AGL/420’ MSL.
Rwy 35, vehicles on road 461’ from DER, 86’ right of centerline to 386’ right of centerline, up to 15’ AGL/442’ MSL.

TORRANCE, CA

ZAMPERINI FLD (TOA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 29JUL10 (21168) (FAA)

TAKEOFF MINIMUMS:
Rwy 11L, 400-2 or std. w/min. climb of 325’ per NM to 600.
Rwy 11R, 400-2½ or std. w/min. climb of 325’ per NM to 600.

DEPARTURE PROCEDURE:
Rwys 29L/R, climb runway heading.
Rwys 11L/R, climbing left turn to heading 290°.
Both departures climb to 3000, intercept LAX R-170 to LIMBO Int.

TUSI AHP (KHGT)

HUNTER LIGGETT, CA

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 25SEP08 (08269)

Helicopter use only. Climb on a heading between 010° CW to 190° from heliport (or a minimum climb rate of 530’ per NM to 7800 for all other courses).

TWENTYNINE PALMS, CA

TWENTYNINE PALMS (TNP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 05OCT00 (00279) (FAA)

TAKEOFF MINIMUMS:
Rwy 17, NA.
Rwy 26, 35, std. with a min. climb of 280’ per NM to 5500.

DEPARTURE PROCEDURE:
Rwys 8, 26, 35, turn right direct TNP VORTAC. Eastbound on V264 continue climb on course. All others climb in TNP holding pattern (E, left turns, 255° inbound) to cross TNP VORTAC at or above 6000 before proceeding on course. Northeast bound on V514-538 cross TNP VORTAC at or above 7900.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

UPLAND, CA
CABLE (CCB)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3A  19JUL18  (18200)  (FAA)
TAKEOFF MINIMUMS:
Rwy 6, 300-1/4 or std. w/min. climb of 332' per NM to 1900.
DEPARTURE PROCEDURE:
Rwy 6, climbing right turn.
Rwy 24, climbing left turn.
All aircraft climb direct PDZ VORTAC and hold (east, right turns, 258°, inbound), continue climb-in-hold to MEA for route of flight.
TAKEOFF OBSTACLE NOTES:
Rwy 6, pole, sign beginning 21' from DER, 99' right of centerline, up to 40' AGL/1464' MSL.
Sign 31' from DER, 100' left of centerline, 7' AGL/1451' MSL.
Pole, traverse way, tree, building beginning 87' from DER, 7' right of centerline, up to 41' AGL/1472' MSL.
Tree, traverse way, fence beginning 94' from DER, 82' left of centerline, up to 1461' MSL.
Building, pole, traverse way, fence beginning 106' from DER, 100' left of centerline, up to 40' AGL/1495' MSL.
Tree, building, traverse way beginning 260' from DER, 6' right of centerline, up to 1484' MSL.
Pole 351' from DER, 410' left of centerline, 40' AGL/1498' MSL.
Pole, vertical point, building, fence, traverse way, vegetation, tree beginning 411' from DER, 193' left of centerline, up to 36' AGL/1499' MSL.
Pole, building, fence, tree, general utility, traverse way beginning 628' from DER, 34' left of centerline, up to 32' AGL/1500' MSL.
Pole, tree, general utility, tower, building beginning 961' from DER, 180' left of centerline, up to 57' AGL/1532' MSL.
Pole, building beginning 1228' from DER, 54' left of centerline, up to 76' AGL/1545' MSL.
Trees beginning 1271' from DER, 80' right of centerline, up to 1498' MSL.
Pole, building, traverse way, tree beginning 1289' from DER, 29' left of centerline, up to 75' AGL/1548' MSL.
Tree, traverse way, fence beginning 1506' from DER, 16' right of centerline, up to 11506' MSL.
Tree, building, traverse way beginning 933' from DER, 25' left of centerline, up to 1555' MSL.
Tree, building beginning 2152' from DER, 67' left of centerline, up to 1565' MSL.
Tree, building, pole beginning 2241' from DER, 58' left of centerline, up to 1573' MSL.
Trees beginning 2485' from DER, 104' left of centerline, up to 1511' MSL.
Tree, building, pole, fence beginning 1524' from DER, 0' right of centerline, up to 1554' MSL.
Tree, pole, building, traverse way beginning 3512' from DER, 0' left of centerline, up to 1575' MSL.
Tree, pole, building, traverse way beginning 3782' from DER, 384' left of centerline, up to 1593' MSL.
Tree, building, traverse way, pole beginning 4075' from DER, 596' left of centerline, up to 1610' MSL.
Tree, building, traverse way, pole beginning 4235' from DER, 586' left of centerline, up to 1619' MSL.
Tree, pole, building beginning 4980' from DER, 949' left of centerline, up to 1620' MSL.
Tree 1 NM from DER, 1434' left of centerline, 1632' MSL.
Pole 1357' from DER, 583' right of centerline, 62' AGL/1436' MSL.

VAN NUYS, CA
VAN NUYS (VNY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6  21JUL16  (16203)  (FAA)
TAKEOFF MINIMUMS:
Rwys 16L/R, std. w/min. climb of 370' per NM to 7100.
Rwys 34L/R, std. w/min. climb of 370' per NM to 7100.
DEPARTURE PROCEDURE:
Rwys 16L/R, climbing left turn on heading 053° and VNY R-095 to DARTS INT, thence...
Rwys 34L/R, climbing right turn on heading 143° and VNY R-095 to DARTS INT, thence...
...aircraft eastbound on V186 and southeast bound on V459 climb on course, all others climb in DARTS holding pattern (hold W, right turns, 095° inbound) to depart DARTS INT at or above 7100.
TAKEOFF OBSTACLE NOTES:
Rwy 16L, light on hangar 713' from DER, 361' left of centerline, 27' AGL/798' MSL.
Rwy 16R, hangar 209' from DER, 516' right of centerline, 15' AGL/755' MSL.
Flagpole 570' from DER, 549' right of centerline, 21' AGL/761' MSL.
Building 941' from DER, 599' left of centerline, 28' AGL/774' MSL.
Trees beginning 1129' from DER, left and right of centerline, up to 81' AGL/821' MSL.
Obstruction light on blast fence, 241' from DER, 195' left of centerline, 17' AGL/819' MSL.
Multiple trees beginning 325' from DER, 549' right of centerline, up to 91' AGL/921' MSL.
Train 305' from DER, 369' right of centerline, 23' AGL/832' MSL.
Building 424' from DER, 589' right of centerline, 29' AGL/831' MSL.
Antenna on building 449' from DER 462' left of centerline, 15' AGL/817' MSL.
Pole 1376' from DER, 779' left of centerline, 68' AGL/870' MSL.
Trees beginning 828' from DER, 15' left of centerline, 78' AGL/907' MSL.
CON'T
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

VAN NUYS, CA (CON’T)
VAN NUYS (VNY) (CON’T)

Rwy 34R, train 305’ from DER, 5’ left of centerline, 23’ AGL/832’ MSL.
Building 424’ from DER, 214’ right of centerline, 32’ AGL/831’ MSL.
Trees beginning 324’ from DER, left and right of centerline, up to 91’ AGL/921’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 21JUL16 (16203) (FAA)

Rwy 16L, heading as assigned by ATC; requires minimum climb of 380’ per NM to 2600.
Rwy 16R, heading as assigned by ATC; requires minimum climb of 450’ per NM to 2600.

VANDENBERG AFB (KVBG)
LOMPOC, CA

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 10SEP20 (20254) (USAF)

TAKEOFF MINIMUMS:

Rwy 16L, 300-1½ w/min. climb of 310’ per NM to 3300 or std. w/min. climb of 330’ per NM to 3200.

DEPARTURE PROCEDURE:

Rwy 30, use VANDENBERG THREE DEPARTURE.

VCOA:

Rwy 12/30, for climb in visual conditions 1700-2½. Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Vandenberg airport at or above 1900 before proceeding on course. Remain within 4 NM of Vandenberg airport during climb in visual conditions.

Note: Aircrews must notify ATC prior to executing this VCOA procedure.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 09SEP21 (21252) (USAF)

Rwy 12, hdg as assigned by ATC; requires min. climb of 296’ per NM to 3300.
Rwy 30, hdg as assigned by ATC; requires min. climb of 247’ per NM to 3300.

VICTORVILLE, CA

SOUTHERN CALIFORNIA LOGISTICS (VCV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 15MAR07 (07074) (FAA)

TAKEOFF MINIMUMS:

Rwy 3, std. w/min. climb of 266’ per NM to 3500 or 5300-3 for climb in visual conditions.

DEPARTURE PROCEDURE:

Rwy 3, climbing left turn heading 220°, thence... or for climb in visual conditions cross Southern California Logistics Airport at or above 8000 MSL before proceeding on course.

Rwys 17, 21, climbing right turn heading 325°, thence... . . .All aircraft climb via VCV VOR/DME R-269 to ETHER INT. Continue climb in ETHER holding pattern (NE PMD VORTAC, left turn, 247° inbound) to MEA for direction of flight.

TAKEOFF OBSTACLE NOTES:

Rwy 3, pole 408’ from DER, 511’ right of centerline, 29’ AGL/2873’ MSL.
Terrain beginning 153’ from DER, 41’ right of centerline, up to 3196’ MSL.
Terrain beginning 17’ from DER, 104’ left of centerline, up to 2855’ MSL.
Tree 2.1 NM from DER, 3735’ right of centerline, 50’ AGL/3269’ MSL.
Antenna on building 701’ from DER, 203’ left of centerline, 20’ AGL/2902’ MSL.
### Instrumen Approach Procedure Charts

#### 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.

<table>
<thead>
<tr>
<th>NAME</th>
<th>ALTERNATE MINIMUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BAKERSFIELD, CA</strong></td>
<td></td>
</tr>
<tr>
<td>MEADOWS</td>
<td></td>
</tr>
<tr>
<td>FLD (BFL)</td>
<td>ILS or LOC Rwy 30R¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 12L</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 30R</td>
</tr>
<tr>
<td>NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td>NA when control tower closed.</td>
<td></td>
</tr>
<tr>
<td><strong>BIG BEAR CITY, CA</strong></td>
<td></td>
</tr>
<tr>
<td>BIG BEAR CITY (L35)</td>
<td>RNAV (GPS) Rwy 26</td>
</tr>
<tr>
<td>Categories A, B, 1600-2.</td>
<td></td>
</tr>
<tr>
<td><strong>BLYTHE, CA</strong></td>
<td></td>
</tr>
<tr>
<td>BLYTHE (BLH)</td>
<td>RNAV (GPS) Rwy 26¹</td>
</tr>
<tr>
<td></td>
<td>VOR/DME-Rwy 26²</td>
</tr>
<tr>
<td>¹Categories A, B, 1700-2; Categories C, D, 1700-3.</td>
<td></td>
</tr>
<tr>
<td>²Category D, 900-2½.</td>
<td></td>
</tr>
<tr>
<td><strong>BORREGO SPRINGS, CA</strong></td>
<td></td>
</tr>
<tr>
<td>BORREGO VALLEY (L08)</td>
<td>RNAV (GPS) Rwy 26</td>
</tr>
<tr>
<td>NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td>Categories A, B, 1200-2; Category C, 1400-3.</td>
<td></td>
</tr>
<tr>
<td><strong>BURBANK, CA</strong></td>
<td></td>
</tr>
<tr>
<td>BOB HOPE (BUR)</td>
<td>ILS Y or LOC Y Rwy 8³</td>
</tr>
<tr>
<td></td>
<td>ILS Z or LOC Z Rwy 8¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS)-A²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Z Rwy 8⁴</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Y Rwy 8⁵</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 8⁶</td>
</tr>
<tr>
<td>¹LOC, Category B, 900-2; Category C, 1500-3; Category D, 1600-3.</td>
<td></td>
</tr>
<tr>
<td>²Categories A, B, 1100-2; Category C, 1500-3; Category D, 1600-3.</td>
<td></td>
</tr>
<tr>
<td>³ILS Categories A, B, C, D 900-2½; LOC, Categories A, B, 900-2; Category C, 1500-3; Category D, 1600-3.</td>
<td></td>
</tr>
<tr>
<td>⁴Categories A, B, 900-2; Category C, 1500-3; Category D, 1600-3.</td>
<td></td>
</tr>
<tr>
<td>⁵Categories A, B, C, D, 800-2½.</td>
<td></td>
</tr>
<tr>
<td><strong>CARMILLO, CA</strong></td>
<td></td>
</tr>
<tr>
<td>CAMARILLO (CMA)</td>
<td>RNAV (GPS) Rwy 8¹³</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 26¹</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 26²</td>
</tr>
<tr>
<td>¹NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td>²Categories A, B, 1100-2; Category C, 1100-3.</td>
<td></td>
</tr>
<tr>
<td>³Categories C, D, 800-2½.</td>
<td></td>
</tr>
<tr>
<td><strong>CARLSBAD, CA</strong></td>
<td></td>
</tr>
<tr>
<td>MC CLELLAN-PALOMAR (CRQ)</td>
<td>RNAV (GPS) X Rwy 24³</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 6⁴</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 24³</td>
</tr>
<tr>
<td></td>
<td>VOR-A⁵⁶</td>
</tr>
<tr>
<td>¹NA when control tower closed.</td>
<td></td>
</tr>
<tr>
<td>²ILS, Categories A, B, 700-2; Category C, 1000-2¾; LOC, Category C 1000-2¾.</td>
<td></td>
</tr>
<tr>
<td>³Category C, 1000-2¾.</td>
<td></td>
</tr>
<tr>
<td>⁴Categories A, B, 900-2; Category C, 1000-2¾; Category D 1500-3.</td>
<td></td>
</tr>
<tr>
<td>⁵Categories A, B, 1000-2; Category C, 1000-3.</td>
<td></td>
</tr>
<tr>
<td>⁶NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td><strong>CHINO, CA</strong></td>
<td></td>
</tr>
<tr>
<td>CHINO (CNO)</td>
<td>ILS or LOC Rwy 26R¹²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26R³</td>
</tr>
<tr>
<td>NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td>¹NA when control tower closed.</td>
<td></td>
</tr>
<tr>
<td>²LOC, Category D, 800-2½.</td>
<td></td>
</tr>
<tr>
<td>³Category D, 800-2½.</td>
<td></td>
</tr>
<tr>
<td><strong>DAGGETT, CA</strong></td>
<td></td>
</tr>
<tr>
<td>BARSTOW-DAGGETT (DAG)</td>
<td>RNAV (GPS) Rwy 22¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26³</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 22²</td>
</tr>
<tr>
<td>NA when local weather not available.</td>
<td></td>
</tr>
<tr>
<td>¹Category B, 900-2; Category C, 1000-2¾; Category D, 1000-3.</td>
<td></td>
</tr>
<tr>
<td>²Categories A, B, 1700-2; Categories C, D, 1700-3.</td>
<td></td>
</tr>
<tr>
<td>³Category B, 1000-2; Categories C, D, 1600-3.</td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>EL MONTE, CA</td>
<td>SAN GABRIEL VALLEY (EMT)…………………..VOR-A¹²</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category A, B, 1000-2; Category C, 1000-3</td>
</tr>
<tr>
<td></td>
<td>Category D, 1100-3.</td>
</tr>
<tr>
<td>FULLERTON, CA</td>
<td>FULLERTON MUNI (FUL)…………………..LOC/DME Rwy 24¹²³</td>
</tr>
<tr>
<td></td>
<td>VOR-A⁴</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category A, B, 1500-2.</td>
</tr>
<tr>
<td>HAWTHORNE, CA</td>
<td>JACK NORTHROP FLD/ HAWTHORNE MUNI (HHR)……………….LOC Rwy 25¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 25</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 25¹²</td>
</tr>
<tr>
<td></td>
<td>Category D, 800-2¼.</td>
</tr>
<tr>
<td></td>
<td>NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td>HEMET, CA</td>
<td>HEMET-RYAN (HMT)…………………..RNAV (GPS) Rwy 5</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 900-2; Category C, 1100-3.</td>
</tr>
<tr>
<td>IMPERIAL, CA</td>
<td>IMPERIAL COUNTY (IPL)…………………..VOR or GPS-A</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td>LA VERNE, CA</td>
<td>BRACKETT FLD (POC)…………………..ILS Rwy 26L¹²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26L¹²³</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26L¹³</td>
</tr>
<tr>
<td></td>
<td>VOR or GPS-A²³</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category C, 800-2¼.</td>
</tr>
<tr>
<td></td>
<td>NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>Category C, 800-2½.</td>
</tr>
<tr>
<td>LANCASTER, CA</td>
<td>GENERAL WILLIAM J. FOX AIRFIELD (WJF)…………………..RNAV (GPS) Rwy 6¹²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 24¹²</td>
</tr>
<tr>
<td></td>
<td>VOR-B³</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category A, B, 800-2½; Category D, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1000-2; Categories C, D, 1000-3.</td>
</tr>
<tr>
<td>LOMPOC, CA</td>
<td>LOMPOC (LPC)…………………..RNAV (GPS) Rwy 25¹²</td>
</tr>
<tr>
<td></td>
<td>VOR/DME-A³</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1300-2.</td>
</tr>
<tr>
<td>LONG BEACH, CA</td>
<td>LONG BEACH (DAUGHERTY FLD) (LGB)…………………..VOR-A¹²</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Rwy 12¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Rwy 26L¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Y Rwy 30¹</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 30³</td>
</tr>
<tr>
<td></td>
<td>NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>LOC, Category C, 800-2½; Category D, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>LOC, Category C, 800-2½; Category D, 800-2½; NA when control tower closed.</td>
</tr>
<tr>
<td>LOS ANGELES, CA</td>
<td>WHITEMAN (WHP)…………………..VOR-A</td>
</tr>
<tr>
<td></td>
<td>Category B, 900-2; Category C, 1200-3.</td>
</tr>
<tr>
<td>MOJAVE, CA</td>
<td>MOJAVE AIR AND SPACE PORT (MHV)…………………..RNAV (GPS) Rwy 4</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 22</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category C, 1400-3; Category D, 1700-3.</td>
</tr>
<tr>
<td>NEEDLES, CA</td>
<td>NEEDLES (EED)…………………..RNAV (GPS) Rwy 29</td>
</tr>
<tr>
<td></td>
<td>VOR-A</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category D, 1000-3.</td>
</tr>
<tr>
<td>OCEANSIDE, CA</td>
<td>BOB MAXWELL MEML AIRFIELD (OKB)…………………..VOR-A</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1200-2.</td>
</tr>
<tr>
<td>ONTARIO, CA</td>
<td>ONTARIO INTL (ONT)…………………..VOR-A</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1200-2.</td>
</tr>
<tr>
<td></td>
<td>LOC, Categories A, B, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>LOC, Category D, 800-2½.</td>
</tr>
<tr>
<td>OXNARD, CA</td>
<td>OXNARD (OXR)…………………..VOR-A</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1200-2.</td>
</tr>
<tr>
<td></td>
<td>LOC, Categories A, B, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>LOC, Category D, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>Category D, 700-2.</td>
</tr>
<tr>
<td></td>
<td>LOC, Categories A, B, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>LOC, Category D, 800-2½.</td>
</tr>
<tr>
<td></td>
<td>NA when control tower closed.</td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>PALM SPRINGS, CA</strong></td>
<td></td>
</tr>
<tr>
<td>JACQUELINE COCHRAN</td>
<td>RNAV (GPS) Rwy 301</td>
</tr>
<tr>
<td>RGNL (TRM)</td>
<td>RNAV (GPS) Rwy 352</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 301</td>
</tr>
<tr>
<td></td>
<td>VOR-A</td>
</tr>
<tr>
<td></td>
<td>1Category D, 900-3</td>
</tr>
<tr>
<td></td>
<td>2Categories C, D, 1100-3.</td>
</tr>
<tr>
<td></td>
<td>3Categories A, B, 1600-2; Categories C, D, 1600-3.</td>
</tr>
<tr>
<td><strong>PALM SPRINGS</strong></td>
<td>RNAV (RNP) Y Rwy 31L</td>
</tr>
<tr>
<td><strong>INTL (PSP)</strong></td>
<td>RNAV (RNP) Z Rwy 13R</td>
</tr>
<tr>
<td></td>
<td>VOR or GPS-B2</td>
</tr>
<tr>
<td></td>
<td>1NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2Categories A, B, 1900-2; Categories C, D, 1900-3.</td>
</tr>
<tr>
<td><strong>PALMDALE, CA</strong></td>
<td>RNAV (GPS) Rwy 2512</td>
</tr>
<tr>
<td><strong>USAF</strong></td>
<td>RNAV (GPS) Rwy 73</td>
</tr>
<tr>
<td>PLANT 42 (PMD)</td>
<td>RNAV (GPS) Rwy 223</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 253</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 254</td>
</tr>
<tr>
<td></td>
<td>1NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2ILS, LOC, Categories A, B, 1000-2; Category C, 1000-3; Category D, 1200-3; Category E, 1300-3.</td>
</tr>
<tr>
<td></td>
<td>3Category D, 1200-3.</td>
</tr>
<tr>
<td></td>
<td>4Category D, 1200-3; Category E, 1300-3.</td>
</tr>
<tr>
<td><strong>PASO ROBLES, CA</strong></td>
<td>RNAV (GPS) Rwy 1912</td>
</tr>
<tr>
<td><strong>PASO ROBLES</strong></td>
<td>RNAV (GPS) Rwy 3112</td>
</tr>
<tr>
<td><strong>MUNI (PRB)</strong></td>
<td>RNAV (GPS) Rwy 2512</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 1912</td>
</tr>
<tr>
<td></td>
<td>VOR-B3</td>
</tr>
<tr>
<td></td>
<td>1NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>2Category D, 900-2¾.</td>
</tr>
<tr>
<td></td>
<td>3Category D, 900-3.</td>
</tr>
<tr>
<td><strong>RAMONA, CA</strong></td>
<td>RNAV (GPS)-B1</td>
</tr>
<tr>
<td><strong>RAMONA (RNM)</strong></td>
<td>RNAV (GPS) Rwy 9 2</td>
</tr>
<tr>
<td></td>
<td>VOR/DME-A3</td>
</tr>
<tr>
<td></td>
<td>1Categories A, B, 1400-2; Category C, 1800-3.</td>
</tr>
<tr>
<td></td>
<td>2Categories A, B, 900-2; Category C, 1800-3.</td>
</tr>
<tr>
<td></td>
<td>3Categories A, B 1200-2; Category C, 1800-3.</td>
</tr>
<tr>
<td><strong>SAN DIEGO, CA</strong></td>
<td>RNAV (GPS) Rwy 28R1</td>
</tr>
<tr>
<td><strong>BROWN FLD</strong></td>
<td>RNAV (GPS) Rwy 9 2</td>
</tr>
<tr>
<td><strong>MUNI (SDM)</strong></td>
<td>RNAV (GPS) Rwy 7 3</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN-A3</td>
</tr>
<tr>
<td></td>
<td>1LOC, Categories A, B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>2LOC, Category B, 900-2; Category C, 900-2¾; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>3Categories A, B, 900-2; Category C, 900-2¾; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>4Category B, 900-2; Category C, 900-2¾; Category D, 1000-3.</td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>SAN DIEGO/EL CAJON, CA</td>
<td>GILLESPIE FLD (SEE) ......................................</td>
</tr>
<tr>
<td></td>
<td>LOC-D&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 9&lt;sup&gt;l&lt;/sup&gt; 3</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 17&lt;sup&gt;45&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;NA&lt;/sup&gt; when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;Categories A, B, 1200-2; Categories C, D, 1600-3.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;Categories A, B, 1400-2.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;Categories A, B, 1100-2; Categories C, D, 1100-3.</td>
</tr>
<tr>
<td></td>
<td>5&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td>SAN LUIS OBISPO, CA</td>
<td>SAN LUIS COUNTY RGNL (SBP) ................................</td>
</tr>
<tr>
<td></td>
<td>ILS Rwy 11&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>LOC Rwy 11&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 11&lt;sup&gt;34&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 29&lt;sup&gt;34&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;NA&lt;/sup&gt; when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;Category A, 1000-2; Category B, 1100-2; Category C, 1300-3; Category D, 1400-3.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;Category B, 1100-2; Category C, 1300-3; Category D, 1400-3.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td>SANTA ANA, CA</td>
<td>JOHN WAYNE/ORANGE COUNTY (SNA) ................................</td>
</tr>
<tr>
<td></td>
<td>ILS or LOC Rwy 20&lt;sup&gt;R&lt;/sup&gt;&lt;sup&gt;13&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>LDA/DME Rwy 20&lt;sup&gt;R&lt;/sup&gt;&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>LOC BC Rwy 2&lt;sup&gt;L&lt;/sup&gt;&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 2&lt;sup&gt;L&lt;/sup&gt;&lt;sup&gt;24&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 20&lt;sup&gt;R&lt;/sup&gt;&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;NA&lt;/sup&gt; when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;Category A, 800-2½; Category D, 1000-2.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;ILS, LOC, Categories A, B, 1000-2; Category C, 1000-3; Category D, 1200-3.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td>SANTA BARBARA, CA</td>
<td>SANTA BARBARA MUNI (SBA) ....................................</td>
</tr>
<tr>
<td></td>
<td>ILS or LOC Rwy 7&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 7&lt;sup&gt;13&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>VOR or GPS Rwy 25&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;ILS, Categories A, B, 800-2½; Category C, 800-2½; Category D, 1000-3; Category C, 800-2½; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;Category C, 800-2½; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;Categories A, B, 1000-2; Categories C, D, 1000-3.</td>
</tr>
<tr>
<td>SANTA MARIA, CA</td>
<td>SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX) .........</td>
</tr>
<tr>
<td></td>
<td>ILS or LOC Rwy 12&lt;sup&gt;145&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>LOC/DME BC-A&lt;sup&gt;24&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 12&lt;sup&gt;35&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 30&lt;sup&gt;36&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 12&lt;sup&gt;35&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;ILS, LOC, Category D, 1100-3.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;Categories A, B, 900-2½; Category C, 900-2½; Category D, 1100-3.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;Category D, 1100-3.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;NA&lt;/sup&gt; when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>5&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>6&lt;sup&gt;Categories A, B, 1400-2; Category C, 1400-3.</td>
</tr>
<tr>
<td>SANTA MONICA, CA</td>
<td>SANTA MONICA MUNI (SMO) ....................................</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 21&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 3&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Z Rwy 3&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;Categories A, B, 1000-2; Categories C, D, 1000-2½.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;Categories A, B, 900-2½; Categories C, D, 900-2½.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;Categories A, B, 1300-2.</td>
</tr>
<tr>
<td>SANTA YNEZ, CA</td>
<td>SANTA YNEZ (IZA) ...........................................</td>
</tr>
<tr>
<td></td>
<td>VOR or GPS-B</td>
</tr>
<tr>
<td></td>
<td>Categories A, B, 1300-2.</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>NA except for operators with approved weather reporting service.</td>
</tr>
<tr>
<td>TORRANCE, CA</td>
<td>ZAMPERINI FLD (TOA) ........................................</td>
</tr>
<tr>
<td></td>
<td>ILS or LOC Rwy 29&lt;sup&gt;R&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 11&lt;sup&gt;L&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 29&lt;sup&gt;R&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>VOR Rwy 11&lt;sup&gt;L&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>NA when control tower closed, except for operators with approved weather reporting services.</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;Categories A, B, 900-2; Category C, 900-2½.</td>
</tr>
<tr>
<td>VAN NUYS, CA</td>
<td>VAN NUYS (VNY) .............................................</td>
</tr>
<tr>
<td></td>
<td>ILS Y Rwy 16&lt;sup&gt;R&lt;/sup&gt;&lt;sup&gt;123&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>ILS Z Rwy 16&lt;sup&gt;R&lt;/sup&gt;&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>LDA-C&lt;sup&gt;24&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>VOR-A&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>VOR-B&lt;sup&gt;7&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;NA&lt;/sup&gt; when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;NA&lt;/sup&gt; when local weather not available.</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;ILS, Categories A, B, C, D, 700-2.</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;Category D, 1300-3.</td>
</tr>
<tr>
<td></td>
<td>5&lt;sup&gt;NA&lt;/sup&gt; when KBUR control tower closed.</td>
</tr>
<tr>
<td></td>
<td>6&lt;sup&gt;Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>7&lt;sup&gt;Categories A, B, 900-2½; Category C, 900-2½; Category D, 1000-3.</td>
</tr>
<tr>
<td></td>
<td>8&lt;sup&gt;Categories A, B, 900-2½; Category C, 900-2½; Category D, 1000-3.</td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>VICTORVILLE, CA</td>
<td>SOUTHERN CALIFORNIA LOGISTICS (VCV)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> LOC, Category D, 900-3.  
<sup>2</sup> Category D, 900-3.
### CAMP PENDLETON MCAS (MUNN FIELD) (KNFG), Oceanside, CA

**Amendment 2, 25MAR21 (21084) (USN)**

**Radar - (E) 236.3 277.325 ▲ NA**

**ELEV 78**

#### Radar Instrument Approach Minimums

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-Vis</th>
<th>HAT/HATh/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR</td>
<td>21(^1)25(^8)</td>
<td>ABCD</td>
<td>387(^{3/2})</td>
<td>309 (400-4½)</td>
</tr>
<tr>
<td></td>
<td>21(^1)56(^8)</td>
<td>AB</td>
<td>920-1</td>
<td>842 (900-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD</td>
<td>920-2</td>
<td>842 (900-2)</td>
</tr>
<tr>
<td>W/O GS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASR</td>
<td>21(^1)3(^8)</td>
<td>AB</td>
<td>1000-1</td>
<td>922 (1000-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD</td>
<td>1000-2½</td>
<td>922 (1000-2½)</td>
</tr>
<tr>
<td>CIR</td>
<td>ALL RWY(^4)(^7)(^8)</td>
<td>A</td>
<td>1000-1½</td>
<td>922 (1000-1½)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>1180-1½</td>
<td>1102 (1100-1½)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD</td>
<td>1400-3</td>
<td>1322 (1400-3)</td>
</tr>
</tbody>
</table>

1. **CAUTION** - Trees penetrate 35:1 visual obstacle surfaces approximately 2300’ from threshold, 500’ left of cntrl. Pilots must have trees in sight prior to descending from DH/MDA.
2. When ALS inop, increase CAT ABCD vis to ½ mile.
3. When ALS inop, increase CAT AB vis to 1¼ miles.
4. Cir auth fr ASR and PAR W/O GS only.
5. No-NOTAM preventative maint sked: PAR 2100-0100Z++Mon.
6. When ALS inop, increase CAT AB vis to 1½ miles, CAT CD to 2½ miles.
7. Circling to Rwy 3 NA at night when PAPI OTS.
8. Visibility reduction for Helicopters NA.
LOS ALAMITOS AAF (KSLI), CA (1-Amdt 6, 2-Amdt 3, 3-Orig-A, 18144 USA) ELEV 35

RADAR 1 - (E) 124.75 127.95 279.5 285.55 290.9  Δ NA

<table>
<thead>
<tr>
<th>RADAR 1</th>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/MDA-VIS</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR</td>
<td>22L</td>
<td>3.0°/40/745</td>
<td>ABCD</td>
<td>285-⅜</td>
<td>250</td>
<td>(300-⅜)</td>
</tr>
<tr>
<td>PAR W/O GS</td>
<td>22L</td>
<td>3.4°/745</td>
<td>AB</td>
<td>420-⅘</td>
<td>385</td>
<td>(400-⅘)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CD</td>
<td>420-⅘</td>
<td>385</td>
<td>(400-⅘)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RADAR 2</th>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/MDA-VIS</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPTER PAR</td>
<td>22L</td>
<td>4.0°/40/572</td>
<td>A</td>
<td>235-⅘</td>
<td>200</td>
<td>(200-⅘)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RADAR 3</th>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/MDA-VIS</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASR</td>
<td>22L</td>
<td>3.0°/40/572</td>
<td>AB</td>
<td>440-⅘</td>
<td>405</td>
<td>(500-⅘)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CD</td>
<td>440-⅘</td>
<td>405</td>
<td>(500-⅘)</td>
</tr>
<tr>
<td>CIR</td>
<td>22L</td>
<td>4.0°/40/572</td>
<td>A</td>
<td>440-⅘</td>
<td>405</td>
<td>(500-⅘)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>500-⅘</td>
<td>465</td>
<td>(500-⅘)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>500-⅘</td>
<td>465</td>
<td>(500-⅘)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>600-⅘</td>
<td>565</td>
<td>(600-⅘)</td>
</tr>
</tbody>
</table>

1PAR opr 1500-2300Z++ Mon and Fri, 2100-0500Z++ Tue-Thu, clsd wkend and hol.
2Multiple PAR apch avbl during VFR ctc twr for freq assn.
3When ALS inop, increase PAR Rwy 22L vis all CATs to ⅛ mile, increase PAR W/O GS Rwy 22L CAT D vis to ⅛ mile.
4Circling NA N of Rwy 4L-22R.
5When ALS inop, increase vis all CATs ¼ mile.
6When local altimeter setting not received, use Santa Ana altimeter setting and increase all DAs 30 ft, MDAs 40 ft and increase PAR W/O GS CAT C and D vis to 1 mile.
7When ALS INOP and using Santa Ana altimeter setting, increase CAT D vis to 1⅛ SM.
8When local altimeter setting not received, use Santa Ana altimeter setting and increase DA 30 ft, increase vis to ⅜ mile.
9VGSI and PAR glidepath not coincident.
**MIRAMAR MCAS (JOE FOSS FLD) (KNKX),** San Diego, CA

<table>
<thead>
<tr>
<th>RADAR</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>133.625</td>
<td>134.3x</td>
</tr>
</tbody>
</table>

**ELEV 477**

**RADAR INSTRUMENT APPROACH MINIMUMS**

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HAA</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PAR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24R²</td>
<td>3.0°/53/1136</td>
<td>ABCDE</td>
<td>575-⅔</td>
<td>100</td>
<td>(100-⅔)</td>
</tr>
<tr>
<td>24L</td>
<td>3.0°/46/1036</td>
<td>ABCDE</td>
<td>577-½</td>
<td>100</td>
<td>(100-½)</td>
</tr>
<tr>
<td><strong>PAR W/O GS⁵ ⁶</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24R³</td>
<td>AB</td>
<td>840-½</td>
<td>365</td>
<td>(400-½)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CDE</td>
<td>840-⅔</td>
<td>365</td>
<td>(400-⅔)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABCDE</td>
<td>840-1</td>
<td>363</td>
<td>(400-1)</td>
<td></td>
</tr>
<tr>
<td><strong>ASR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6L⁷</td>
<td>AB</td>
<td>820-1</td>
<td>388</td>
<td>(400-1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CDE</td>
<td>820-⅔</td>
<td>388</td>
<td>(400-⅔)</td>
<td></td>
</tr>
<tr>
<td>24R⁴ ⁸</td>
<td>AB</td>
<td>940-⅔</td>
<td>465</td>
<td>(500-⅔)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CDE</td>
<td>940-1</td>
<td>465</td>
<td>(500-1)</td>
<td></td>
</tr>
<tr>
<td>24L⁸</td>
<td>AB</td>
<td>940-1</td>
<td>463</td>
<td>(500-1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CDE</td>
<td>940-1½</td>
<td>463</td>
<td>(500-1½)</td>
<td></td>
</tr>
<tr>
<td><strong>CIR⁶</strong></td>
<td>All Rwy</td>
<td>A</td>
<td>940-1</td>
<td>463</td>
<td>(500-1)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>960-1</td>
<td>483</td>
<td>(500-1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>960-⅔</td>
<td>483</td>
<td>(500-⅔)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>1180-2¼</td>
<td>703</td>
<td>(800-2¼)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>1360-3</td>
<td>883</td>
<td>(900-3)</td>
<td></td>
</tr>
</tbody>
</table>

¹Other APP CON freq as asgn.
²When ALS inop, increase vis CAT ABCDE to ½ mile.
³When ALS inop, increase vis CAT ABCDE to 1 mile.
⁴When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1½ miles.
⁵No NOTAM MP: PAR O/S 1400-2000Z++ Tue.
⁶CAT E circling not authorized S of Rwy 6R-24L.
⁷Step Down Fix at 2 NM from thld, 1120 min.
⁸Step Down Fix at 4 NM from thld, 1900 min, Step Down Fix at 2 NM from thld, 1260 min.
NORTH ISLAND NAS (HALSEY FIELD) (KNZY), San Diego, CA
Amdt 1 05NOV20 (20310) (USN)  ELEV 26
RADAR - (E) 127.7x  133.175x  319.9x  350.8x  353.5x  382.0x  385.5x

PAR¹

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>36°</td>
<td>3.0°/45/846</td>
<td>ABCDE</td>
<td>119-¼</td>
<td>100 (100-¼)</td>
</tr>
<tr>
<td>29° to 11</td>
<td>3.0°/35/722</td>
<td>ABCDE</td>
<td>276-3½</td>
<td>250 (300-3½)</td>
</tr>
<tr>
<td>36°</td>
<td>AB</td>
<td></td>
<td>420-¾</td>
<td>401 (400-¾)</td>
</tr>
<tr>
<td>29°</td>
<td>AB</td>
<td>CDE</td>
<td>420-1</td>
<td>401 (400-1)</td>
</tr>
<tr>
<td>3.10</td>
<td>AB</td>
<td>CDE</td>
<td>540-¾</td>
<td>514 (600-¾)</td>
</tr>
</tbody>
</table>

PAR W/O GS¹

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>36°</td>
<td>3.0°/45/846</td>
<td>ABCDE</td>
<td>119-¼</td>
<td>100 (100-¼)</td>
</tr>
<tr>
<td>29°</td>
<td>3.0°/35/722</td>
<td>ABCDE</td>
<td>276-3½</td>
<td>250 (300-3½)</td>
</tr>
<tr>
<td>36°</td>
<td>AB</td>
<td></td>
<td>420-¾</td>
<td>401 (400-¾)</td>
</tr>
<tr>
<td>29°</td>
<td>AB</td>
<td>CDE</td>
<td>420-1</td>
<td>401 (400-1)</td>
</tr>
<tr>
<td>3.10</td>
<td>AB</td>
<td>CDE</td>
<td>540-¾</td>
<td>514 (600-¾)</td>
</tr>
</tbody>
</table>

PAR E RWY 29 SHORT (OFFSET)

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29°</td>
<td>3.0°/35/722</td>
<td>A</td>
<td>620-2</td>
<td>594 (600-2)</td>
</tr>
</tbody>
</table>

PAR or PAR W/O GS D RWY 29 (OFFSET)

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29°</td>
<td>3.0°/35/722</td>
<td>A</td>
<td>620-2</td>
<td>594 (600-2)</td>
</tr>
</tbody>
</table>

ASR

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29°</td>
<td>AB</td>
<td></td>
<td>540-¾</td>
<td>514 (600-¾)</td>
</tr>
<tr>
<td>36°</td>
<td>AB</td>
<td>CDE</td>
<td>540-1</td>
<td>514 (600-1)</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td></td>
<td>760-¾</td>
<td>741 (800-¾)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td></td>
<td>760-1</td>
<td>741 (800-1)</td>
</tr>
<tr>
<td></td>
<td>CDE</td>
<td></td>
<td>760-1½</td>
<td>741 (800-1½)</td>
</tr>
</tbody>
</table>

ASR C RWY 29 (OFFSET)

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29°</td>
<td>ABCDE</td>
<td></td>
<td>620-2</td>
<td>594 (600-2)</td>
</tr>
</tbody>
</table>

CIR

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HATH/CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29°</td>
<td>ABCDE</td>
<td></td>
<td>620-2</td>
<td>594 (600-2)</td>
</tr>
</tbody>
</table>

NOT AUTHORIZED

1No-NOTAM MP sked 2000-2400Z++ Mon.
2Cir auth to Rwy 18 only. Cir not auth W Rwy 18-36.
3When ALS inop, increase vis CAT AB to 1¾ miles, CAT CDE to 1¾ miles.
4When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1¾ miles.
5When ALS inop, increase vis to ½ mile.
6When ALS inop, increase vis to 1¼ miles, CAT B to 1¾ miles, CAT CDE to 2 miles.
7Minima applicable for rotoercraft short offset approaches.
8When ALS inop, increase vis CAT A to 1 mile, CAT B to 1¾ miles, CAT CDE to 2 miles.
9CAUTION: WCH Group 3: 15’ and Group 4: 10’ is less than required 20’.
10Rwy 29 VGSI and PAR TCH not coincident, VGSI TCH 46’.
11Visibility Reduction by Helicopters NA.
POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD),
Oxnard, CA Amdt 2 31DEC20 (20366) (USN)

RADAR Instrument Approach Minimums

Expanded RADAR svc-All flt conducted under positive ctl. Inbd acft not opr under ATC or PLEAD ctc
APP CON 25 NM out on 307.275 or 128.65.

Circling NA E of Rwy 3-21 with PAR approach or when Alternate MAP Rwy 21 in use.

1. No-NOTAM preventive maint 1500-2000Z++ Tue.
2. When ALS inop, increase vis to ½ mile.
3. When ALS inop, increase vis to 1¼ miles.
4. When ALS inop, increase vis to 1 mile.
5. Step down fix at 2 NM from RPI, 460 min.
6. When ALS inop, increase CAT AB vis to 1 mile, CAT CDE vis to 1¾ miles.
7. Step down fix at 3 NM from RPI, 1000 min.
8. When ALS inop, increase vis to 2½ miles.
9. Step down fix at 3 NM from thld, 1000 min.
10. Step down fix at 2 NM from thld, 460 min.
11. Step down fix at 4 NM from thld, 1300 min, 3 NM from thld, 1000 min.
### SAN CLEMENTE ISLAND NALF (KNUC), (FREDERICK SHERMAN FLD), CA

**ELEV 184**

**Radar Data**
- **Radar - (E)**: 127.05x 282.275 292.15 351.85x

**Radar Instrument Approach Minimums**

<table>
<thead>
<tr>
<th>RWY</th>
<th>GS/TCH/RPI</th>
<th>CAT</th>
<th>DH/MDA-VIS</th>
<th>HAT/HAA</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR³</td>
<td>24</td>
<td>3.0⁰-38/861</td>
<td>ABCDE</td>
<td>293-½</td>
<td>109</td>
</tr>
<tr>
<td>PAR¹</td>
<td>W/O GS 24</td>
<td>AB</td>
<td>580-1</td>
<td>396</td>
<td>(400-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CDE</td>
<td>580-1½</td>
<td>396</td>
<td>(400-1½)</td>
</tr>
<tr>
<td>ASR¹</td>
<td>24</td>
<td>AB</td>
<td>860-1</td>
<td>676</td>
<td>(700-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CDE</td>
<td>860-1½</td>
<td>676</td>
<td>(700-1½)</td>
</tr>
<tr>
<td>CIR²</td>
<td>W/O GS All Rwy</td>
<td>A</td>
<td>580-1</td>
<td>396</td>
<td>(400-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>640-1</td>
<td>456</td>
<td>(500-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>640-1½</td>
<td>456</td>
<td>(500-1½)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DE</td>
<td>740-2</td>
<td>556</td>
<td>(600-2)</td>
</tr>
<tr>
<td>CIR²</td>
<td>All Rwy</td>
<td>AB</td>
<td>860-1</td>
<td>676</td>
<td>(700-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>860-2</td>
<td>676</td>
<td>(700-2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D</td>
<td>860-2½</td>
<td>676</td>
<td>(700-2½)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E</td>
<td>860-2½</td>
<td>676</td>
<td>(700-2½)</td>
</tr>
</tbody>
</table>

¹No-NOTAM MP PAR/ASR 1800-2200Z++ Tue.
²Circling not authorized S of Rwy 6-24.
³CAUTION: WCH Group 3: 19’ and Group 4: 14’ is less than required 20’.
**LAND AND HOLD-SHORT OPERATIONS (LAHSO)**

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

<table>
<thead>
<tr>
<th>CITY/AIRPORT</th>
<th>LDG RWY</th>
<th>HOLD-SHORT POINT</th>
<th>AVBL LDG DIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>BURBANK, CA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOB HOPE (BUR)</td>
<td>15</td>
<td>08-26</td>
<td>4,250 feet</td>
</tr>
<tr>
<td>LONG BEACH, CA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG BEACH (DAUGHERTY FLD) (LGB)</td>
<td>26R</td>
<td>12-30</td>
<td>3,400 feet</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>08L-26R</td>
<td>5,850 feet</td>
</tr>
</tbody>
</table>
An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

<table>
<thead>
<tr>
<th>CITY/ AIRPORT</th>
<th>HOT SPOT</th>
<th>DESCRIPTION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BURBANK, CA</td>
<td>HS 1</td>
<td>NW corner of terminal ramp close proximity to Rwy 33-15 rwy holding position markings</td>
</tr>
<tr>
<td>CARLSBAD, CA</td>
<td>HS 1</td>
<td>Large Jets may obscure twr visibility of small aircraft.</td>
</tr>
<tr>
<td>CHINO, CA</td>
<td>HS 1</td>
<td>Twy D close proximity to Rwy 08L-26R.</td>
</tr>
<tr>
<td>EL MONTE, CA</td>
<td>HS 1</td>
<td>Rwy 25 run-up area.</td>
</tr>
<tr>
<td>HAWTHORNE, CA</td>
<td>HS 1</td>
<td>Pilots mistake Rwy 06-24 for Twy A.</td>
</tr>
<tr>
<td>LONG BEACH, CA</td>
<td>HS 1</td>
<td>Rwy 12-30 and Rwy 08L-26R, Twy B and Twy K.</td>
</tr>
<tr>
<td>LOS ANGELES, CA</td>
<td>HS 1</td>
<td>Rwy 24L and Twy AA.</td>
</tr>
<tr>
<td>MOJAVE, CA</td>
<td>HS 1</td>
<td>Rwy 08 and Rwy 04 at Twy C and Twy F. Ensure clearance received for each rwy.</td>
</tr>
<tr>
<td>ONTARIO, CA</td>
<td>HS 1</td>
<td>Twy F at Rwy 08R/26L frequent centerline confusion crossing rwy southbound.</td>
</tr>
</tbody>
</table>

(SEE CONTINUATION PAGE FOR MORE LISTINGS)
<table>
<thead>
<tr>
<th>CITY/AIRPORT</th>
<th>HOT SPOT</th>
<th>DESCRIPTION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PALM SPRINGS, CA</td>
<td>HS 1</td>
<td>Twy C mistaken for Rwy 13R-31L or Rwy 13L-31R.</td>
</tr>
<tr>
<td></td>
<td>HS 2</td>
<td>Int of Twy B and Twy C.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Twy B and Rwy 31R.</td>
</tr>
<tr>
<td></td>
<td>HS 4</td>
<td>Twy C and Twy J.</td>
</tr>
<tr>
<td>PALM SPRINGS INTL (PSP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIVERSIDE, CA</td>
<td>HS 1</td>
<td>Twy A and Rwy 34.</td>
</tr>
<tr>
<td></td>
<td>HS 2</td>
<td>ATC non-vis area.</td>
</tr>
<tr>
<td>RIVERSIDE MUNI (RAL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN DIEGO, CA</td>
<td>HS 1</td>
<td>Rwy 28R and Rwy 28L, Twy M.</td>
</tr>
<tr>
<td>MONTGOMERY-GIBBS EXEC (MYF)</td>
<td>HS 2</td>
<td>Rwy 28L-10R and Rwy 05-23.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Rwy 28L and Twy B.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN DIEGO INTL (SAN)</td>
<td>HS 1</td>
<td>Twy J at Twy H.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAN LUIS OBISPO, CA</td>
<td>HS 1</td>
<td>Area directly below the Control Twr &quot;not visible&quot;.</td>
</tr>
<tr>
<td>SAN LUIS COUNTY RGNL (SBP)</td>
<td>HS 2</td>
<td>Twy E, Rwy 29.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA ANA, CA</td>
<td>HS 1</td>
<td>Rwy 20L and Twy L.</td>
</tr>
<tr>
<td>JOHN WAYNE/ORANGE COUNTY (SNA)</td>
<td>HS 2</td>
<td>Rwy 20L and Rwy 20R, Twy H.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Twy A, Twy H, and Twy C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA BARBARA, CA</td>
<td>HS 1</td>
<td>Rwy 07-25, Twy C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANTA MARIA, CA</td>
<td>HS 1</td>
<td>Twy A, Twy A7, Twy A8, Twy V, and Twy W.</td>
</tr>
<tr>
<td>SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)</td>
<td>HS 2</td>
<td>Twy A, Twy A6, Twy A5, Twy R, and Twy S.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Rwy 20 and Twy A.</td>
</tr>
<tr>
<td></td>
<td>HS 4</td>
<td>Rwy 12 and Twy B2 and Twy A2.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TORRANCE, CA</td>
<td>HS 1</td>
<td>Pilots exiting Rwy 11L-29R sometimes fail to hold short of the Rwy 11R-29L apch hold area on Twy H.</td>
</tr>
<tr>
<td>ZAMPERINI FLD (TOA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VICTORVILLE, CA</td>
<td>HS 1</td>
<td>Wrong rwy departure risk.</td>
</tr>
<tr>
<td>SOUTHERN CALIFORNIA LOGISTICS (VCV)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See appropriate Chart Supplement HOT SPOT table for additional information.
ARRIVAL ROUTE DESCRIPTION

CGNEY TRANSITION (CGNEY.ANJLL4)
DNERO TRANSITION (DNERO.ANJLL4)
HAKMN TRANSITION (HAKMN.ANJLL4)
OTOOL TRANSITION (OTOOL.ANJLL4)
SALYY TRANSITION (SALYY.ANJLL4)
SHTNR TRANSITION (SHTNR.ANJLL4)

From ANJLL on track 240° to cross CAANN at or above 17000, then on track 240° to cross BOYEL at or above 14000, then on track 241° to cross CRCUS between 12000 and 14000 and at 270K. Expect ILS or RNAV (RNP) RWY 25L approach.

LOST COMMUNICATIONS: In the event of lost communication prior to runway assignment proceed on ILS or LOC RWY 25L.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

THERMAL TRANSITION (TRM.ARKOE): From over TRM VORTAC on TRM R-237 to KRATZ INT, then on OCN R-054 and PDZ R-113 to ARKOE INT.

From over ARKOE INT expect to intercept the localizer for an ILS Y or LOC RWY 32 or vector VOR/TACAN RWY 32.

NOTE: DME required.

NOTE: Chart not to scale.
NOTE: Turbojet aircraft only.
NOTE: RADAR required.
NOTE: When SAN arrivals are using RWY 9, aircraft can expect to depart and re-enter the TCA southwest of PGY VOR.

TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION
TNP, EED and PKE transitions
expect 12000 at CARUL

LANE 115.0 JLI
Channel 87

LOCALIZER 111.55
I-SAN
Channel 52 (Y)

MISSION BAY 117.8 MZB
Channel 125

LOCALIZER 110.9
I-UBR
Channel 46

BARET N32°46.45′
W116°40.65′

SW-3, 07 OCT 2021 to 02 DEC 2021
ARRIVAL ROUTE DESCRIPTION

IMPERIAL TRANSITION (IPL.BARET5): From over IPL VORTAC on IPL R-258 and MZB R-076 to BARET INT. Thence . . . .

NEEDLES TRANSITION (EED.BARET5): From over EED VORTAC on EED R-208 to SHADI INT, then on JLI R-040 to SALTN INT, then on PGY R-027 to CARUL INT, then on JLI R-177 to BARET INT. Thence . . . .

PARKER TRANSITION (PKE.BARET5): From over PKE VORTAC on PKE R-227 to SHADI INT, then on JLI R-040 to SALTN INT, then on PGY R-027 to CARUL INT, then on JLI R-177 to BARET INT. Thence . . . .

TWENTYNINE PALMS TRANSITION (TNP.BARET5): From over TNP VORTAC on TNP R-179 to MOMAR INT, then on JLI R-040 to SALTN INT, then on PGY R-027 to CARUL INT, then on JLI R-177 to BARET INT. Thence . . . .

. . . .LANDING SAN RWY 9: From BARET INT on PGY R-043 to PGY VORTAC, then on PGY R-270 to IFSOX, then on OCN R-162 to SARGS INT. Expect ILS Rwy 9 approach to SAN or LOC/DME-B to NZY.

. . . .LANDING SAN RWY 27 and NZY: From BARET INT on PGY R-043 to IFHEJ, then on I-UBR localizer to VYDDA INT. Expect LOC Rwy 27 approach to SAN or LOC/DME-A to NZY.

LOST COMMUNICATIONS: In the event of lost communications, North Island arrivals shall execute the TACAN Rwy 29 or TACAN Rwy 36.
ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.BASET5): From over HEC VORTAC via HEC R-211 and PDZ R-030 to CIVET INT, then via LAX R-068 to BASET INT. Thence. . . .

JULIAN TRANSITION (JLI.BASET5): From over JLI VORTAC via JLI R-303 to WYVIL, then via PDZ R-105 to PDZ VORTAC, then via PDZ R-277 to ARNES, then via LAX R-068 to BASET. Thence. . . .

PEACH SPRINGS TRANSITION (PGS.BASET5): From over PGS VOR/DME via PGS R-229 and PDZ R-046 to RUSTT INT, then via LAX R-068 to BASET INT. Thence. . . .

TWENTYNINE PALMS TRANSITION (TNP.BASET5): From over TNP VORTAC via TNP R-245 and PDZ R-069 to PDZ VORTAC, then via PDZ R-277 to ARNES, then via LAX R-068 to BASET. Thence. . . .

. . . . from BASET on LAX VORTAC R-068 to cross DOWNE at or above 10000, then on LAX R-068 to cross REEDR at or above 9000.

LANDING RUNWAYS 6L/R: From REEDR on SMO VOR/DME R-097 to cross SMO at or above 8000, then on heading 251° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 7L/R: From REEDR on heading 213° or as assigned by ATC. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
In the event of lost communications: If landing Rwys 6L/R proceed on the ILS or LOC RWY 6R. If landing Rwys 7L/R depart REEDR heading 213° to intercept the SLI R-251 to TANDY.
TILLT TRANSITION (TILLT.BAUBB2)
From BAUBB on track 087° to cross STYFF at or below 9000.

LANDING RUNWAY 12: From STYFF on track 078° to cross KAYNN at or below 7000, then on track 015° to cross PADDR between 3000 and 6000, then on track 009° to cross QGATE at or above 3000, then on track 332° to cross BREKE at 3000. Expect RNAV (RNP) RWY 12 approach.

LANDING RUNWAYS 26R, 30: From STYFF on track 078° to cross KAYNN at or below 7000, then on track 055° to cross LAXB at or below 5000, then on track 055° to cross ALBAS at 4000, then on track 020° to cross EZKEL at or above 4000, then on track 020°. Expect RNAV (RNP) Y RWY 30 or RADAR vectors to final approach course.

LOST COMMUNICATIONS
RUNWAYS 26R, 30: After ALBAS proceed on the RNAV (RNP) Y RWY 30 or ILS or LOC RWY 30 approach.
RUNWAY 12: After BREKE proceed on the RNAV (RNP) RWY 12 approach.
If unable approach to LGB, after ALBAS/BREKE climb to 4000 direct SLI VORTAC and hold.

NOTE: Radar required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Expect Rwy 30 unless otherwise assigned by ATC.
NOTE: Turbojet and high performance turboprop aircraft only.
NOTE: Chart not to scale.
BURGL TRANSITION (BURGL.BAYST1)
CERNL TRANSITION (CERNL.BAYST1)
FRASR TRANSITION (FRASR.BAYST1)
HUULL TRANSITION (HUULL.BAYST1)
MUPPT TRANSITION (MUPPT.BAYST1)
REBRG TRANSITION (REBRG.BAYST1)
RYDRR TRANSITION (RYDRR.BAYST1)
SNAXX TRANSITION (SNAXX.BAYST1)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turboprop aircraft only.
NOTE: Expect Rwy 25L unless otherwise assigned by ATC.
NOTE: CERNL TRANSITION GPS required.
NOTE: BURGL, FRASR, HUULL, SNAXX, MUPPT, REBRG, RYDRR TRANSITIONS DME/DME/IRU or GPS required.
NOTE: Do not file to be assigned by ATC.

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From BAYST on track 084° to cross JUUSE between 8000 and 9000, then on track 084° to cross CLIFY between 7000 and 8000 and at 210K, then on track 110° to cross DWYER at 7000 and at 210K, then on track 095° to cross AYYYY at 6000, then on track 071° to cross PETYR at 5000, then on track 071° or as assigned by ATC. Expect RADAR vectors to ILS or RNAV (RNP) RWY 25L final approach course.

LOST COMMUNICATIONS

After PETYR turn left heading 315° and intercept the Rwy 25L localizer, proceed on the ILS RWY 25L approach.
NOTE: LosAngel
esl
andi
ng eastt
r
af
f
i
c.

Seef
ol
l
owi
ng page
f
orAr
r
i
valRout
es.

FL290 280K
FL240

ANJ
LL

N

LEM M N

FL280 280K
FL240

BCALL

FL320
FL270

GLESN

11
(

2
23 )

0
19
FL
°
FL290

SALYY

4°
05

10 NM

FLOJ
O

4
23 )

23
(

90
FL1 °

0
9 °
1
FL 14 )
2 0
(3

SHTNR

LOS ANGELES INTL(LAX)

LOS ANGELES, CALIFORNIA

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Char
tnott
o scal
e.

0
9 °
1
90
FL 14
L1
2 1) F 34°
2 )
(3
32
(

SM ASH

(
CONTI
NUED ON FOLLOW I
NG PAGE)

1
(

23 )
7

0
00
17 2°

OTOOL

NOTE: SHTNR t
r
ansi
t
i
on r
est
r
i
ct
ed t
o LAS depar
t
ur
esonl
y.

NOTE: CGNEY and OTOOLt
r
ansi
t
i
onsATC assi
gned onl
y,do notf
i
l
e.

NOTE: Expectl
ocalar
ea al
t
i
met
err
eachi
ng FL230.

NOTE: Expectr
unway 7R unl
essot
her
wi
se assi
gned.

NOTE: Tur
boj
etai
r
cr
af
tonl
y.

(
N)133.
9 239.
3

SLLRS

10 NM

(
54)

260°

FL190

0
19
FL 0°
23 )
31
(

CGNEY

DNERO

SHTNR TRANSI
TI
ON (
SHTNR.
BI
GBR3)

OTOOLTRANSI
TI
ON (
OTOOL.
BI
GBR3)

HAKM N TRANSI
TI
ON (
HAKM N.
BI
GBR3)

DNERO TRANSI
TI
ON (
DNERO.
BI
GBR3)

CGNEY TRANSI
TI
ON (
CGNEY.
BI
GBR3)

°
5
3
0

0
9
1
°
FL 15
2 4)
(3

HAKM N

BIGBR THREE ARRIVAL(RNAV)Transition Routes

17
0
2 00
0
4
(
15 °
)

(ANJLL.BIGBR3)24MAY18

FL
1
20 90
2
(
22 °
)

(
S)120.
95 379.
1

NOTE: DM E/DM E/I
RU orGPS r
equi
r
ed.

LOS ANGELES TOW ER

NOTE: RNAV 1.

NOTE: RADAR r
equi
r
ed.

133.
8

DATI
S ARR

124.
05 353.
775

SOCALAPPCON

SW-3, 07 OCT 2021 to 02 DEC 2021

BIGBR THREE ARRIVAL(RNAV)Transition Routes

F
L
1
2 90
0
5
(
13 °
)

(ANJLL.BIGBR3)18144
Z10

AL-237 (FAA)

LOS ANGELES INTL(LAX)
LOS ANGELES, CALIFORNIA


ARRIVAL ROUTE DESCRIPTION

From ANJLL on track 240° to cross KAOSS between FL190 and FL230, then on track 244° to cross TOLLA between 14000 and 17000, then on track 244° to cross SLACR at or below 15000, then on track 244° to cross BIGBR between 13000 and 14000.

LANDING RUNWAYS 6L/R: From BIGBR on track 252° to cross DRYSS between 10000 and 12000, then on track 253° to cross TOMYS at or above 9000, then on track 264° to cross CLIFY at 7000 and at 220K, then on track 259° to HNCHE, then on track 251° to cross SASSI at 7000 and at 210K, then on track 251°. Expect RADAR vectors to ILS or RNAV (RNP) RWY 6L final approach course.

LANDING RUNWAYS 7L/R: From BIGBR on track 237° to cross LADDD between 10000 and 12000, then on track 253° to cross JOELZ between 8000 and 9000, then on track 226° to cross NORML at or above 6000 and at 220K, then on track 251° to cross WNDFL at 6000 and at 210K, then on track 251°. Expect RADAR vectors to ILS or RNAV (RNP) RWY 7R final approach course.

LOST COMMUNICATIONS: In the event of lost communication proceed on the RNAV (RNP) RWY 7R or ILS or LOC RWY 7R approach.
BOGET TWO ARRIVAL (RNAV)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Landing LAX expect Rwy 24R unless otherwise assigned by ATC.
NOTE: Landing SMO expect Rwy 21 unless otherwise assigned by ATC.
NOTE: This procedure NA for turbojets landing LAX.
NOTE: KREME transition restricted to KLAS departures only.
NOTE: WNCHL transition ATC assigned only-do not file.

LANDING KLAX/KSMO: From BOGET on track 183° to cross MEET at or above 7500, then on track 173° to cross WATSS at or above 6900, then on track 157° to cross UPDOC at 6000, then on track 140°. Expect RADAR vectors to final approach course.

ARRIVAL ROUTE DESCRIPTION

BUGGA TRANSITION (BUGGA.BOGET2)
NEEDLES TRANSITION (EED.BOGET2)
KREME TRANSITION (KREME.BOGET2)
PURSE TRANSITION (PURSE.BOGET2)
WELUM TRANSITION (WELUM.BOGET2)
WNCHL TRANSITION (WNCHL.BOGET2)

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

HIHWY TRANSITION (HIHWY.BONJO2)
HONZK TRANSITION (HONZK.BONJO2)
PRPLE TRANSITION (PRPLE.BONJO2)
RDHOT TRANSITION (RDHOT.BONJO2)
REBRG TRANSITION (REBRG.BONJO2)

From ROKKR on track 131° to cross ZEPPE between 9000 and 10000, then on track 129° to cross IVINS at or above 8000, then on track 113° to cross ROLLI at or above 6000, then on track 084° to cross BONJO at 5000, then on track 103°. Expect RADAR vectors to final approach course.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Los Angeles landing east traffic.
NOTE: Expect runway 7R unless otherwise assigned.
NOTE: Expect local area altimeter reaching FL230.
NOTE: MDLER transition ATC only, do not file.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From HLYWD on track 251° to cross BRUEN at or below FL320, then on track 252° to cross AVATR between FL240 and FL290 and at 280K, then on track 250° to cross TRUBL between FL190 and FL230, then on track 253° to cross EMMMY between 14000 and 17000, then on track 253° to cross WHDDN at or below 15000, then on track 253° to cross SHRTZ between 13000 and 14000.

LANDING RUNWAYS 6L/R: From SHRTZ on track 267° to cross DRYSS between 10000 and 12000, then on track 253° to cross TOMYS at or above 9000, then on track 264° to cross CLIFY at 7000 and at 220K, then on track 259° to HNCHIE, then on track 251° to cross SASSI at 7000 and at 210K, then on track 251° to SHIPM, then on track 251°. Expect RADAR vectors to ILS or RNAV (RNP) RWY 6L final approach course.

LANDING RUNWAYS 7L/R: From SHRTZ on track 252° to cross LADD between 10000 and 12000, then on track 253° to cross JOELZ between 8000 and 9000, then on track 226° to cross NORML at or above 6000 and at 220K, then on track 251° to cross WNDFL at 6000 and at 210K, then on track 251° to NIKEY, then on track 251°. Expect RADAR vectors to ILS or RNAV (RNP) RWY 7R final approach course.

LOST COMMUNICATIONS: In the event of lost communication proceed on the RNAV (RNP) RWY 7R or ILS or LOC RWY 7R approach.
ARRIVAL ROUTE DESCRIPTION

IMPERIAL TRANSITION (IPL.CHASR2)
MOMAR TRANSITION (MOMAR.CHASR2)
PARKER TRANSITION (PKE.CHASR2)
TRUE TRANSITION (ITRUE.CHASR2)

NZY/SDM: From TOPGN on track 249° to cross CHASR at 6400, then on track 250°.
Expect RADAR vectors to final approach course.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Descend via mach number until intercepting 270K. Maintain 270K until slowed by the STAR or assigned by ATC.
ARRIVAL ROUTE DESCRIPTION

BLYTHE TRANSITION (BLH.CLOWD1): From over BLH VORTAC on BLH R-278 and PSP R-072 to CLOWD DME. Thence. . . .

DECAS TRANSITION (DECAS.CLOWD1): From over DECAS INT on BLH R-278 and PSP R-072 to CLOWD DME. Thence. . . .

GOFFS TRANSITION (GFS.CLOWD1): From over GFS VORTAC on GFS R-185 and TNP R-028 to TNP VORTAC, then on TNP R-199 to CLOWD DME. Thence. . . .

NEEDLES TRANSITION (EED.CLOWD1): From over EED VORTAC on EED R-216 and TRM R-037 to UBABE DME, then on PSP R-072 to CLOWD DME. Thence. . . .

. . . . From over CLOWD DME on TRM R-021 to TRM VORTAC. Expect RADAR vectors to final approach course.

NOTE: DME required.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

HUULK TRANSITION (HUULK.COMIX2)
LOS ANGELES TRANSITION (LAX.COMIX2)
SANTA CATALINA TRANSITION (SXC.COMIX2)

From COMIX on track 134° to FLSSH, then on track 134° to cross LNTRN at or above 9000 and at 230K, then on track 134° to cross XMANS at or above 7000, then on track 094° to cross KLOMN at 6000 and at 210K, then on track 104° to cross NADDO at 6000, then on heading 095° or as assigned by ATC. Expect RADAR vectors to final approach course.

NOTE: Turbojet and turboprop aircraft only.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

RDHOT TRANSITION (RDHOT.DIRBY1)

From DIRBY on track 082° to cross PHUNN at or below 14000, then on track 034° to cross SHHOW at or below 12000, then on track 346° to cross ZAPPP at or above 9000, then on track 346° to cross BUFIE at or below 8000, then on track 332° to cross SLI VORTAC at 7000 and at 210K, then on track 326° to cross TRNDO at 5000 and at 210K. Expect RADAR vectors to ILS or RNAV (RNP) Z RWY 25L final approach course.

LOST COMMUNICATIONS

In the event of lost communications: RNP arrivals proceed on the RNAV (RNP) Z RWY 25L approach. All other aircraft proceed on the ILS or LOC RWY 25L.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: ATC assigned only, do not file.
NOTE: Expect runway 25L unless otherwise assigned by ATC.
NOTE: Non RNP AR aircraft expect RADAR vector to final approach course after SLI VORTAC.
ARRIVAL ROUTE DESCRIPTION

LANDING KLGB RUNWAY 12: From DSNEE on track 236° to cross MCKYE at or above 7200, then on track 236° to cross MOUSS at or above 6500, then on track 236° to cross GOOFY at 4000, then on track 237° to cross PIBBB at 4000, then on track 256° to LUVCI, then on track 269° to cross QGATE at or above 3000, then on track 332° to cross BREKE at 3000. Expect RNAV (RNP) RWY 12 approach.

LANDING KLGB RUNWAYS 26R, 30: From DSNEE on track 236° to cross MCKYE at or above 7200, then on track 236° to cross MOUSS at or above 6500, then on track 236° to cross GOOFY at 4000, then on track 236° to cross MIDDs at 4000, then on track 236°. Expect ILS or RNAV (RNP) RWY 30 approach, or RNAV (RNP) RWY 26R approach.

LANDING KSNA: From DSNEE on track 235° to cross JWARD, then on heading 260° or as assigned by ATC. Expect vectors to ILS or RNAV (RNP) RWY 20R final approach course.

LOST COMMUNICATIONS: In the event of lost communications:

LANDING LGB RUNWAYS 26R, 30: After MIDDs proceed on the RNAV (RNP) RWY 30 or ILS RWY 30 approach.

LANDING LGB RUNWAY 12: After BREKE proceed on the RNAV (RNP) RWY 12 approach, if unable approach, after MIDDs/BREKE climb to 4000 direct SLI VORTAC and hold.

LANDING SNA RUNWAY 20R: After DSNEE proceed on the RNAV (RNP) RWY 20R approach. If unable approach, after DSNEE maintain 6000 direct SLI VORTAC and hold.
FASTO TWO ARRIVAL

ARRIVAL ROUTE DESCRIPTION

GORMAN TRANSITION (GMN.FASTO2): From over GMN VORTAC on GMN R-344 to FASTO INT. Thence . . . .

LAKE HUGHES TRANSITION (LHS.FASTO2): From over LHS VORTAC on LHS R-305 and GMN R-344 to FASTO INT. Thence . . . .

PALMDALE TRANSITION (PMD.FASTO2): From over PMD VORTAC on PMD R-298 and EHF R-123 to MINGI INT, then on I-BFL LOC course to FASTO INT. Thence . . . .

. . . . From over FASTO INT on the I-BFL Localizer for the ILS or LOC RWY 30R procedure.

LOST COMMUNICATIONS: From FASTO INT direct to JUPEX INT maintain 2500; intercept and execute ILS or LOC RWY 30R approach. If unable, proceed to JUPEX INT and hold and maintain 2500.

NOTE: Chart not to scale.

NOTE: RADAR required.

NOTE: DME required.
ARRIVAL ROUTE DESCRIPTION

AVENAL TRANSITION (AVE.FERN7): From over AVE VOR/DME on AVE R-129 and FIM R-310 to FIM VORTAC. Thence. . . .

DERBB TRANSITION (DERBB.FERN7): From over DERBB INT on AVE R-129 and FIM R-310 to FIM VORTAC. Thence. . . .

FELLOWS TRANSITION (FLW.FERN7): From over FLW VOR/DME on FLW R-116 and FIM R-297 to FIM VORTAC. Thence. . . .

OHIGH TRANSITION (OHIGH.FERN7): From over OHIGH INT on FIM R-267 to FIM VORTAC. Thence. . . .

...From over FIM VORTAC:

LANDING VAN NUYS RWY 16: Via FIM R-053 to UMBER INT, then via I-VNY localizer. Expect ILS RWY 16R.

LANDING VAN NUYS RWY 34: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect LDA-C; circle to land Rwy 34L.

LANDING BOB HOPE: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect ILS RWY 8.

LANDING SANTA MONICA MUNI: Via FIM R-097 and VNY R-277 to VNY then via VNY R-095 to DARTS INT. Expect VOR-A approach.
NOTE: Chart not to scale.

GLRNO TWO ARRIVAL (RNAV) Transition Routes

ONTARIO, CALIFORNIA

ONTARIO INTL (ONT)

CLASN TRANSITION (CLASN.GLRNO2)

OWEY TRANSITION (OWEY.GLRNO2)

134°

15000

120°

121°

159°

159°

FL240

NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS required.

NOTE: Expect local area altimeter reaching FL200.

NOTE: Turbojet and turboprop aircraft only.

NOTE: RNAV 1.

NOTE: Radar required.

NOTE: Expect Rwy 26L, unless otherwise assigned by ATC.

NOTE: Chart not to scale.

See following page for arrival routes.

SW-3, 07 OCT 2021 to 02 DEC 2021
ARRIVAL ROUTE DESCRIPTION

From GLRNO on track 121° to cross JEEYU at or below FL230, then on track 090° to cross TRJAN at or above 15000, then on track 090° to cross DODJR between 14000 and 15000 and at 250K, then on track 100° to cross CASAA at or above 11000, then on track 137° to cross RAFII at 8000 and at 240K.

LANDING RUNWAYS 8L/R: From RAFII on track 167° to cross WELDR at 8000, then on track 210° to cross EWAYE at 6000, then on track 211° to cross EFFXX at 6000 and at 210K, then on track 267° to cross CASIE at 4000, then on track 267°. Expect RNAV (RNP) Z RWY 8L approach or RADAR vectors to final approach course.

LANDING RUNWAYS 26L/R: From RAFII on track 137° to cross BOTIE at 8000, then on track 137°. Expect RNAV (RNP) Z RWY 26L or RADAR vectors to final approach course.

LOST COMMUNICATIONS

LANDING WEST: Proceed on the RNAV (RNP) Z RWY 26L approach.

LANDING EAST: Proceed on the RNAV (RNP) Z RWY 8L approach.
ARRIVAL ROUTE DESCRIPTION

FICKY TRANSITION (FICKY.GOATZ1)

From GOATZ on track 038° to cross DIRBY between 16000 and FL190 and at 280K, then on track 082° to cross PHUNN at or below 14000, then on track 034° to cross SHHOW at or below 12000, then on track 346° to cross ZAPPP at or above 9000, then on track 346° to cross BUFIE at or below 8000, then on track 332° to cross SLI VORTAC at 7000 and at 210K, then on track 326° to cross TRNDO at 5000 and at 210K. Expect ILS or RNAV (RNP) RWY 25L.

LOST COMMUNICATIONS

In event of lost communication, proceed on the RNAV (RNP) RWY 25L approach.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet aircraft only.
NOTE: Expect Rwy 25L unless otherwise assigned by ATC.
NOTE: Non RNP-AR aircraft expect RADAR vectors to final approach course upon reaching SLI VORTAC.

NOTE: Chart not to scale.
NOTE: Radar required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turboprop aircraft only.
NOTE: KREME TRANSITION restricted to KLAS departures only.
NOTE: WNCHL TRANSITION ATC assigned only.

(Continued on following page)

Bugga Transition (Bugga, Guera2)
Kreme Transition (Kreme, Guera2)
Needles Transition (Needles, Guera2)
Purse Transition (Purse, Guera2)
Welum Transition (Welum, Guera2)
WNCHL Transition (WNCHL, Guera2)
NOTE: Turbojet and turboprop aircraft only.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

LANDING KNTD RWY 21: From GUERA on track 233° to FIM VORTAC at or above 5100. Expect ILS Y or LOC/DME RWY 21 approach.

LANDING KOXR/KCMA: From GUERA on track 201° to cross SESPE at 5300, then on track 200° to cross DOOBY at 5000, then on track 200°. Expect RADAR vectors to final approach course.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turboprop aircraft only.
NOTE: Los Angeles landing west traffic.
NOTE: Expect runway 25L unless otherwise assigned by ATC.
NOTE: Expect local area altimeter reaching FL230.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From HLYWD on track 251° to cross BRUEN between FL240 and FL300 and at 280K, then on track 252° to cross AVATR between FL190 and FL240, then on track 249° to cross DAAAY at or above 17000, then on track 250° to cross WADUP at or above 15000, then on track 250° to cross NEILE at or above 14000, then on track 250° to cross SEAVU between 12000 and 14000 and at 270K. Expect ILS or RNAV (RNP) RWY 25L approach.

LOST COMMUNICATIONS: In the event of lost communication prior to runway assignment proceed on ILS or LOC RWY 25L.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turboprop aircraft only.
NOTE: Los Angeles landing west traffic.
NOTE: Expect runway 25L unless otherwise assigned by ATC.
NOTE: Expect local area altimeter reaching FL230.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.HUBRD1): From over LAX VORTAC on LAX R-118 to OTISS INT, then on LAX R-118 to HUBRD INT. Thence . . .

SANTA CATALINA TRANSITION (SXC.HUBRD1): From over SXC VORTAC on SXC R-084 to HUBRD INT. Thence . . .

. . . From over HUBRD INT via LAX R-118 to CARDI FIX via MZB R-320 to TORIE FIX. Expect vector to final approach course.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

TOKIO TRANSITION (TOKIO.HUULL2)

From HUULL on track 079° to cross GNZZO between 13000 and 14000, then on track 079° to cross RYDRR at 11000 and at 250K, then on track 103° to cross KEVVI at or above 10000, then on track 103° to cross BAYST at or above 9000 and at 240K, then on track 084° to cross JUUSE between 8000 and 9000, then on track 084° to cross CLIFY between 7000 and 8000 and at 210K, then on track 066° to cross DAHJR at 6000 and at 210K, then on track 071° to cross GADDO at 6000, then on track 071°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

In the event of lost communications: RNP LAX arrivals proceed on the RNAV (RNP) Z RWY 24R approach at DAHJR or proceed on the ILS or LOC RWY 24R.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Procedure is only for use when Los Angeles landing west.
NOTE: Expect Runway 24R unless otherwise assigned by ATC.

NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Procedure is only for use when Los Angeles landing west.

NOTE: FRASR TRANSITION ATC assigned only.
NOTE: MUPPT TRANSITION restricted to FAT and BFL area departures, otherwise, ATC assigned only.
NOTE: Expect Rwy 24R unless otherwise assigned by ATC.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

LANDING KLAX/KHHR: From IRNMN on track 131° to cross SYMON between 12000 and 13000 and at 250K, then on track 126° to cross BAYST at or above 9000 and at 240K, then on track 084° to cross JUUSE between 8000 and 9000, then on track 084° to cross CLIFY between 7000 and 8000 and at 210K, then on track 066° to cross DAHJR at 6000 and at 210K, then on track 071° to cross GADDO at 6000, then on track 071°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
In the event of lost communications proceed on the RNAV (RNP) Z RWY 24R approach or the ILS or LOC RWY 24R.

NOTE: Chart not to scale. 

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Procedure is only for use when Los Angeles landing west.
NOTE: Expect Rwy 24R unless otherwise assigned by ATC.
ARRIVAL ROUTE DESCRIPTION

HIHWY TRANSITION (HIHWY.IVINS1)
HONZK TRANSITION (HONZK.IVINS1)
PRPLE TRANSITION (PRPLE.IVINS1)
RDHOT TRANSITION (RDHOT.IVINS1)
REBRG TRANSITION (REBRG.IVINS1)

LANDING RWY 16R: From IVINS on track 063°
to cross HNTUN at 7000, then on track 058°.
Expect RADAR vectors to final approach course.

LANDING RWY 34L: From IVINS on track 126°
to cross MIKEI at 7000, then on track 126° to
cross EHUNT at 6000, then on track 126°.
Expect RADAR vectors to final approach course.
ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL

ONTARIO, CALIFORNIA

ONTARIO INTL
NOTE: Expect local area altimeter setting reaching FL200.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turbojet aircraft only.

NOTE: Expect Rwy 26L unless otherwise assigned by ATC.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

From JCKIE on track 222° to cross GBNEY between 14000 and 16000, then on track 229° to cross GGRAY between 12000 and 14000, then on track 217° to cross HINOH between 11000 and 13000.

LANDING RUNWAY 8L/R: From HINOH on track 196° to cross ARRAN at or above 10000 and at or below 250K, then on track 218° to cross FIXUT at 9000, then on track 218° to cross ILONE at 8000, then on track 218° to cross ESAYE at 6000, then on track 211° to cross EFFXX at 6000 and at 210K then on track 267° to CASIE, then on heading 267° or as assigned by ATC. Expect RNAV (RNP) Z RWY 8L approach or RADAR vectors to final approach course.

LANDING RWY 26L/R: From HINOH on track 196° to cross RUMBL at 10000 and at 240K, then on heading 196° or as assigned by ATC. Expect RNAV (RNP) Z RWY 26L approach or RADAR vectors to final approach course.

LOST COMMUNICATIONS
LANDING WEST: Proceed on the RNAV (RNP) Z RWY 26L approach or ILS or LOC RWY 26L approach.
LANDING EAST: Proceed on the RNAV (RNP) Z RWY 8L approach or ILS or LOC RWY 8L approach.
ARRIVAL ROUTE DESCRIPTION

ELKEY TRANSITION (ELKEY.KARLB2)
FICKY TRANSITION (FICKY.KARLB2)

From DIRBY on track 082° to cross PHUNN at or below 14000, then on track 034° to cross SHHOW at or below 12000, then on track 010° to cross COAZT at or above 9000, then on track 010° to cross KARLB at or below 8000, then on track 010° to cross POXKU at 7000 and at 220K, then on track 061° to cross PDZ VORTAC at 7000, then on heading 046° or as assigned by ATC. Expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.KAYOH7): From over HEC VORTAC on HEC R-211 to BULGY INT then on R-211 and PDZ R-030 to DAWNS INT, then on HDF R-353 to HDF VOR, then on HDF R-257 to FRETS INT, then on HDF R-257 and SLI R-075 to KAYOH INT. Thence. . . .

PALM SPRINGS TRANSITION (PSP.KAYOH7): From over PSP VORTAC on PSP R-260 to BANDS INT, then on HDF R-054 to HDF VOR, then on HDF R-257 to FRETS INT, then on HDF R-257 and SLI R-075 to KAYOH INT. Thence. . . .

. . . . from over KAYOH on SLI R-075 to JOGIT INT, then on SLI R-075 to SLI VORTAC, expect RADAR vectors to final approach course.

NOTE: RADAR required
NOTE: Procedure for non-turbojet aircraft only except PALMDALE TRANSITION to Santa Monica Airport.

NOTE: RADAR required.

NOTE: DME required on TULE TRANSITION.
ARRIVAL ROUTE DESCRIPTION

LAKE HUGHES TRANSITION (LHS.KIMMO3): From over LHS VORTAC on LHS R-139 to KIMMO INT. Thence.

PALMDALE TRANSITION (PMD.KIMMO3): From over PMD VORTAC on PMD R-218 to KIMMO INT. Thence.

SHAFTER TRANSITION (EHF.KIMMO3): From over EHF VORTAC on EHF R-123 and LHS R-329 to LHS VORTAC, then on LHS R-139 to KIMMO INT. Thence.

TULE TRANSITION (TTE.KIMMO3): From over TTE VOR/DME on TTE R-147 and LHS R-329 to LHS VORTAC, then on LHS R-139 to KIMMO INT. Thence.

. . . .From over KIMMO INT on LHS R-139 and SLI R-319 to DARTS INT/SLI 25 DME.

LANDING LOS ANGELES INTL: Depart DARTS INT heading 140°, expect RADAR vectors to final approach course.

LANDING SANTA MONICA MUNI: Depart DARTS INT heading 140°, expect RADAR vectors to final approach course.
NOTE: RADAR and DME required.

NOTE: GPS required for arrivals at FICKY.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

BAUBB TRANSITION (BAUBB.LEGOZ2)
BLOXX TRANSITION (BLOXX.LEGOZ2)
BURGL TRANSITION (BURGL.LEGOZ2)
LANDO TRANSITION (LANDO.LEGOZ2)
REBRG TRANSITION (REBRG.LEGOZ2)
TILT TRANSITION (TILT.LEGOZ2)

LANDING CRQ RUNWAY 6: From LEGOZ on track 104° to cross BRIKS at or below 13000, then on track 084° to cross AVOLS at 11000 and at 250K, then on track 085° to cross PACIF at 7000. Expect RNAV (RNP) Z RWY 6 approach.

LANDING CRQ RUNWAY 24: From LEGOZ on track 104° to cross BRIKS at or below 13000, then on track 084° to cross AVOLS at 11000 and at 250K, then on track 085° to cross PACIF at 7000, then on track 085° to cross OCN VORTAC at 5000, then on track 085°. Expect RADAR vectors to ILS or LOC RWY 24 final approach course.

LANDING NFG: From LEGOZ on track 104° to cross BRIKS at or below 13000, then on track 084° to cross AVOLS at 11000 and at 250K, then on track 085° to cross PACIF at 7000, then on track 085° to cross OCN VORTAC at 5000, then on track 085°. Expect RNAV (GPS) RWY 21 approach or RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

HOGGZ TRANSITION (HOGGZ.LUCK1)
IMPERIAL TRANSITION (IPL.LUCK1)
LYELL TRANSITION (LYELL.LUCK1)
MOMAR TRANSITION (MOMAR.LUCK1)
PARKER TRANSITION (PKE.LUCK1)
TTRUE TRANSITION (TTRUE.LUCK1)

From LUCKI on track 239° to cross LYNDI at or above 5000 and at 210K. Expect RNAV (GPS) RWY 27 or LOC RWY 27 approach.

LOST COMMUNICATIONS: In the event of lost communication: join the San Diego RNAV (GPS) RWY 27 approach at LYNDI. If unable, proceed direct VYDAA and join the San Diego LOC RWY 27 approach.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: IPL transition ATC assigned only.

NOTE: Chart not to scale.
**ARIVAL ROUTE DESCRIPTION**

**DAGGETT TRANSITION (DAG.LYNXX8):** From over DAG VORTAC via DAG R-239 and PMD R-065 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence . . .

**HECTOR TRANSITION (HEC.LYNXX8):** From over HEC VORTAC via HEC R-248 and PMD R-067 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence . . .

**LAKE HUGHES TRANSITION (LHS.LYNXX8):** From over LHS VORTAC via LHS R-170 to LYNXX INT. Thence . . .

**PALMDALE TRANSITION (PMD.LYNXX8):** From over PMD VORTAC via PMD R-240 to LYNXX INT. Thence . . .

. . . From over LYNXX INT via VNY R-329 to VNY VOR/DME. Expect RADAR vectors to final approach course after VNY VOR/DME.
MARCH FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

From over PMD VORTAC via PMD R-104 to HITOP INT. Thence via HDF R-332 to HDF VOR. Expect VOR approach or vector to intercept ILS Rwy 32.

NOTE: VOR equipped aircraft only.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

LANDING RUNWAYS 6L/R: From MDNYT on track 252° to DOWNE, then on track 268° to cross DOYRS at or above 10000, then on track 267° to cross CLIFY between 8000 and 10000 and at 230K, then on track 259° to HNCHE, then on track 251° to cross SASSI at 7000 and at 210K, then on track 251° to SHIPM, then on track 251°. Expect RADAR vectors to ILS or RNAV (RNP) RWY 6R final approach course.

LOST COMMUNICATIONS: In the event of lost communication proceed on the RNAV (RNP) RWY 6R or ILS or LOC RWY 6R approach.

NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: This arrival for use only when noise abatement procedures are in effect.
NOTE: Expect runway 6R unless otherwise assigned.
NOTE: Expect local area altimeter reaching FL230.
AVENAL TRANSITION (AVE.MOOR4): From over AVE VOR/DME on AVE R-129 and FIM R-310 to FIM VORTAC. Thence. . . .

DERBB TRANSITION (DERBB.MOOR4): From over DERBB INT on AVE R-129 and FIM R-310 to FIM VORTAC. Thence. . . .

DINTY TRANSITION (DINTY.MOOR4): From over DINTY INT on RZS R-233 to RZS VORTAC. Then on RZS R-087 and FIM R-267 to FIM VORTAC. Thence. . . .

. . . .From over FIM VORTAC via FIM R-158 to WAKER INT. For Runways 6L/R or 7L/R: From WAKER INT expect vector to final approach course for Los Angeles Intl Airport.
ARRIVAL ROUTE DESCRIPTION

From over JULI VOR on JULI R-263 and OCN R-083 to VISTA, then on OCN R-083 to CYNDE DME, then on OCN R-083 to OCN VORTAC, then on OCN R-272 and VTU R-114 to SHILY INT, then on SLI R-251 to DOYLE INT, then on VTU R-129 to EXERT INT, then on LAX R-246 to MERMA INT. Expect RADAR vectors to final approach course for Runways 6 or 7.
OHSEA TWO ARRIVAL (RNAV) Transition Routes

(CONTINUED ON FOLLOWING PAGE)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and high performance turboprop aircraft only.
NOTE: Expect Rwy 20R unless otherwise assigned by ATC.
NOTE: REESR TRANSITION ATC assigned only.

See following page for Arrival Routes.
NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From PCIFC on track 150° to cross CRAYN at or above 17000, then on track 150° to cross SIPPP at or above 14000, then on track 150° to cross TANDY between 13000 and 14000, then on track 152° to OHSEA.

LANDING RUNWAY 2L: From OHSEA on track 111° to cross STYFF at or below 9000, then on track 111° to cross JJAWS at or below 6000, then on track 092° to cross PUZZL at 5000, then on track 017° to cross MINOE at or above 3000 and at 210K. Expect RNAV (RNP) Z RWY 2L or vectors to final approach course.

LANDING RUNWAY 20R: From OHSEA on track 111° to cross STYFF at or below 9000, then on track 080° to cross KAYNN at or below 7000, then on track 057° to cross LAXBB at 5000, then on track 044° to cross KLEVR at 5000, then on track 016° to cross BHEAR at 5000, then on track 016°. Expect RNAV (RNP) Z RWY 20R or vectors to final approach course.

LOST COMMUNICATIONS

LANDING RUNWAY 20R: After BHEAR turn right direct SAGER and proceed on the ILS or LOC RWY 20R approach.

LANDING RUNWAY 2L: Proceed on LOC BC RWY 2L, RNAV (GPS) Y RWY 2L or RNAV (RNP) Z RWY 2L.
ARRIVAL ROUTE DESCRIPTION

From AMMOR on track 289° to cross RNCHO at or above FL260, then on track 282° to cross REGGO at or above FL240, then on track 268° to cross CYNDE at or below 14000, then on track 269° to cross OLAAA between 12000 and 13000, then on track 291° to PESOZ, then on track 328° to cross MADOW at or below 8000, then on track 331° to cross TOZEK at 7000, then on track 331° to cross SLI VORTAC at 7000 and at 210K, then on track 326° to cross TRNDO at 5000 and at 210K. Expect RADAR vectors to ILS or RNAV (RNP) RWY 25L final approach course.

LOST COMMUNICATIONS: In the event of lost communication, proceed on the RNAV (RNP) RWY 25L or the ILS or LOC RWY 25L approach.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Expect runway 25L unless otherwise assigned by ATC.
NOTE: Non-RNP AR aircraft expect RADAR vectors to final approach course after SLI VORTAC.
NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and high performance turboprop aircraft only.
NOTE: Expect Rwy 30 unless otherwise assigned by ATC.
NOTE: REESR Transition ATC assigned only.

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From PCIFC on track 148° to cross CRAYN at or above 17000, then on track 148° to cross SIPPP at or above 14000, then on track 148° to cross TANDY between 13000 and 14000, then on track 150° to OHSEA, then on track 109° to cross STYFF at or below 9000.

LANDING RUNWAY 12: From STYFF on track 078° to cross KAYNN at or below 7000, then on track 015° to cross PADDR at or below 6000, then on track 009° to cross QGATE at or above 3000, then on track 332° to cross BREKE at 3000. Expect RNAV (RNP) RWY 12 approach.

LANDING RUNWAYS 26R, 30: From STYFF on track 078° to cross KAYNN at or below 7000, then on track 055° to cross LAXBB at or below 5000, then on track 055° to cross ALBAS at 4000, then on track 020° to cross EZKEL at or above 4000, then on track 020°. Expect RNAV (RNP) Y RWY 30 or RADAR vectors to final approach course.

LOST COMMUNICATIONS

LANDING RUNWAYS 26R, 30: After ALBAS proceed on the RNAV (RNP) Y RWY 30 or ILS or LOC RWY 30 approach.

LANDING RUNWAY 12: After BREKE proceed on the RNAV (RNP) RWY 12 approach. If unable approach to LGB, after ALBAS/BREKE climb to 4000 direct SLI VORTAC and hold.
ARRIVAL ROUTE DESCRIPTION

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Landing Rwy 7 expect to cross GRYSN at 4000.
NOTE: For non GPS-equipped aircraft, FIM must be operational.

LANDING RUNWAY 7: From PITBL on track 245° to KWANG, then on track 267° to HHOME, then on track 254° to GRYSN, then on track 254°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 25: From PITBL on track 245° to KWANG, then on track 267° to SWAMM, then on track 267°. Expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.PLYYA1)

From PLYYA on track 126° to cross MNLYT at or above 4000.
LANDING RUNWAY 9: From MNLYT on track 120° to cross SARGS at or above 2100.
Expect ILS or LOC RWY 9 approach.
NOTE: Radar required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Landing BUR expect Runway 8 unless otherwise assigned by ATC.

(CONTINUED ON FOLLOWING PAGE)
**ARRIVAL ROUTE DESCRIPTION**

From ROKKR on track 131° to cross ZEPPE between 9000 and 10000, then on track 129° to cross IVINS at or above 8000.

**KBUR RUNWAY 8:** From IVINS on track 126° to cross MIKEI at 7000. Expect ILS or LOC RWY 8 approach.

**KBUR RUNWAY 15:** From IVINS on track 083° to cross MAURK at 6000, then on track 083°. Expect RADAR vectors to final approach course.

**KBUR RUNWAY 33:** From IVINS on track 126° to cross MIKEI at 7000, then on track 126° to cross EHUNT at 6000, then on track 126°. Expect RADAR vectors to final approach course.
N E E D L E S  T R A N S I T I O N  (E E D . R O O B Y 3)

F E Y L A  T R A N S I T I O N  (F E Y L A . R O O B Y 3)

H I M D U  T R A N S I T I O N  (H I M D U . R O O B Y 3)

L R S O N  T R A N S I T I O N  (L R S O N . R O O B Y 3)

M A R U E  T R A N S I T I O N  (M A R U E . R O O B Y 3)


N E E D L E S  T R A N S I T I O N  (E E D . R O O B Y 3)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Procedure is only for use when SNA is landing north.
NOTE: Landing LGB expect Runway 30 unless otherwise assigned by ATC.
NOTE: Landing SNA expect Runway 2L unless otherwise assigned by ATC.
NOTE: Expect local area altimeter reaching FL230.
NOTE: FEYLA transition restricted to LAS departures only.
NOTE: LRSON transition ATC assigned only.

Note: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

LANDING LGB: From ROOBY on track 192° to cross SLPPR at or above 8000, then on track 192° to cross WRSTL between 6000 and 8000, then on track 255° to cross JITSU at or above 5500 and at 220K, then on track 255° to cross FYTRR at 4000 and at 210K, then on heading 270° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING SNA: From ROOBY on track 192° to cross SLPPR at or above 8000, then on track 192° to cross WRSTL between 6000 and 8000, then on track 255° to cross JITSU at or above 5500 and at 220K, then on track 255° to cross FYTRR at 4000 and at 210K, then on heading 242° or as assigned by ATC. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS:
LANDING LGB RUNWAY 30: Intercept and proceed on the RNAV (RNP) RWY 30 or ILS RWY 30 approach.
LANDING LGB RUNWAY 12: Maintain 3000 and proceed direct BREKE then on the RNAV (RNP) RWY 12 approach. If unable approach to LGB climb to 4000 direct SLI VORTAC and hold.
LANDING SNA RUNWAY 2L: Proceed on the RNAV (RNP) RWY 2L approach or maintain 3000 and proceed direct MINOE then on the LOC BC RWY 2L approach. If unable approach to SNA climb to 5000 direct SLI VORTAC and hold.
Transition Routes

SNAXX Transition (SNAXX.RYDRR2)

EESSA Transition (EESSA.RYDRR2)

ELKEY Transition (ELKEY.RYDRR2)

SNAXX Transition (SNAXX.RYDRR2)

NOTE: Chart not to scale.

NOTE: Procedure is only for use when Los Angeles landing west.

NOTE: LAX arrivals expect Rwy 24R unless otherwise assigned by ATC.

NOTE: Turbojet and turboprop aircraft only.

NOTE: SNAXX and EESSA transitions DME/DME/IRU or GPS required.

NOTE: CERNL and ELKEY transitions GPS required.

NOTE: Radar required.

NOTE: RNAV 1.

NOTE: SNAXX Transition (SNAXX.RYDRR2)

NOTE: Procedure is only for use when Los Angeles landing west.

NOTE: LAX arrivals expect Rwy 24R unless otherwise assigned by ATC.

NOTE: Turbojet and turboprop aircraft only.

NOTE: SNAXX and EESSA transitions DME/DME/IRU or GPS required.

NOTE: CERNL and ELKEY transitions GPS required.

NOTE: Radar required.

NOTE: RNAV 1.

NOTE: Transition Routes
ARIVAL ROUTE DESCRIPTION

LANDING KLAX/KHHR: From RYDRR on track 103° to cross KEVVI at or above 10000, then on track 103° to cross BAYST at or above 9000 and at 240K, then on track 084° to cross JUUSE between 8000 and 9000, then on track 084° to cross CLIFY between 7000 and 8000 and at 210K, then on track 066° to cross DAHJR at 6000 and at 210K, then on track 071° to cross GADDO at 6000, then on track 071°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
In the event of lost communications: RNP LAX arrivals proceed on the RNAV (RNP) Z RWY 24R approach at DAHJR or proceed on the ILS or LOC RWY 24R.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Procedure is only for use when Los Angeles landing west.
NOTE: LAX arrivals expect Rwy 24R unless otherwise assigned by ATC.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

AVENAL TRANSITION (AVE.SADDE8): From over AVE VOR/DME on AVE R-129 and FIM R-310 to FIM VORTAC, then on FIM R-148 to SADDE. Thence. . . .

DERBB TRANSITION (DERBB.SADDE8): From over DERBB on AVE R-129 and FIM R-310 to FIM VORTAC, then on FIM R-148 to SADDE. Thence. . . .

DINTY TRANSITION (DINTY.SADDE8): From over DINTY on RZS R-233 to RZS VORTAC, then on RZS R-109 and VTU R-289 to VTU VOR/DME, then on VTU R-093 to SADDE. Thence. . . .

ELKEY TRANSITION (ELKEY.SADDE8): From over ELKEY on VTU R-226 to VTU VOR/DME then on VTU R-093 to SADDE. Thence. . . .

FILLMORE TRANSITION (FIM.SADDE8): From over FIM VORTAC on FIM R-148 to SADDE. Thence. . . .

PALMDALE TRANSITION (PMD.SADDE8): From over PMD VORTAC on PMD R-251 and FIM R-347 to FIM VORTAC, then on FIM R-148 to SADDE. Thence. . . .

SAN MARCUS TRANSITION (RZS.SADDE8): From over RZS VORTAC on RZS R-109 and VTU R-289 to VTU VOR/DME, then on VTU R-093 to SADDE. Thence. . . .

VENTURA TRANSITION (VTU.SADDE8): From over VTU VOR/DME on VTU R-093 to SADDE. Thence. . . .

. . . From SADDE on SMO VOR/DME R-261 to cross SMO VOR/DME at or above 7000. Then on heading 070°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
In the event of lost communications proceed on the ILS or LOC RWY 24R.
**ARRIVAL ROUTE DESCRIPTION**

**BLYTHE TRANSITION (BLH.SBONO1):** From over BLH VORTAC on BLH R-278 and PSP R-072 to SBONO DME. Thence. . . .

**DECAS TRANSITION (DECAS.SBONO1):** From over DECAS INT on BLH R-278 and PSP R-072 to SBONO DME. Thence. . . .

**GOFFS TRANSITION (GFS.SBONO1):** From over GFS VORTAC on GFS R-185 and TNP R-028 to TNP VORTAC, then on TNP R-199 and PSP R-072 to SBONO DME. Thence. . . .

**NEEDLES TRANSITION (EED.SBONO1):** From over EED VORTAC on EED R-216 and TRM R-037 to UBABE DME, then on PSP R-072 to SBONO DME. Thence. . . .

. . . .From over SBONO DME expect RADAR vectors to final approach course.
SCBBY TWO ARRIVAL (RNAV) Transition Routes

See following page for Arrival Routes.

ONTARIO, CALIFORNIA

SCBBY

11000 9300

DEWAY

14000 11000

9300 256°

11000 275°

275°

16000 275°

15000 265°

ZOINK

FL200

16000 265°

DEWWW

FL210

17000 265°

FL290

247°

GHOUL

17000 265°

243°

GOAST

17000 265°

244°

DAFNY

17000 244°

(11)

ON T A R I O  T O W E R

126.7 370.95 (E)

D-ATIS

124.25

ONTARIO TOWER

120.6 360.775

NOTE: RNAV 1.

NOTE: For non-GPS equipped aircraft, JLI DME must be operational.

NOTE: Turbojet and high performance turboprop aircraft only.

NOTE: Expect runway 26L unless otherwise advised by ATC.

NOTE: Expect local area altimeter setting reaching FL200.

NOTE: TTRUE transition ATC assigned only, do not file.

NOTE: Chart not to scale.

AMMOR TRANSITION (AMMOR.SCBBY2)

DAFNY TRANSITION (DAFNY.SCBBY2)

PHRED TRANSITION (PHRED.SCBBY2)

TTRUE TRANSITION (TTRUE.SCBBY2)

Continued on following page.

Ontario, California

SW-3, 07 Oct 2021 to 02 Dec 2021
ARRIVAL ROUTE DESCRIPTION

LANDING RUNWAYS 8L/R: From SCBBY on track 258° to cross RRJAY between 8000 and 9000, then on track 258° to cross HRVEE at or above 7000, then on track 258° to cross HVANI at 6000 and at 240K, then on track 261° to cross EFFXX at 6000 and at 210K, then on track 267° to CASIE, then on track 267°. Expect RNAV (RNP) Z RWY 8L approach or RADAR vectors to final approach course.

LANDING RUNWAYS 26L/R: From SCBBY on track 281° to cross STRKS at or above 7900, then on track 281° to cross CAYDE at or above 6000, then on track 273° to cross KALEA at or above 5000 and at 220K, then on track 272° to cross TAKOE at or above 4300 and at 210K. Expect assigned instrument approach or RADAR vectors to final approach course.

LOST COMMUNICATIONS

LANDING WEST: Proceed on the RNAV (RNP) Z RWY 26L approach or ILS or LOC RWY 26L approach.
LANDING EAST: Proceed on the RNAV (RNP) Z RWY 8L approach or ILS or LOC RWY 8L approach.
NOTE: Expect runway assignment on initial contact with Southern California TRACON.
In the event of lost communications prior to runway assignment proceed via ILS Rwy 25L.

NOTE: DME or RADAR required.

ARRIVAL ROUTE DESCRIPTION

TWENTYNINE PALMS TRANSITION (TNP.SEAVU2):
From over TNP VORTAC on TNP R-245 and PDZ R-069 to CATAW, then on POM R-098 to SEAVU.

LOST COMMUNICATIONS: In the event of lost communication prior to runway assignment proceed via ILS Rwy 25L.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

JULIAN TRANSITION (JL.I.SETER5): From over JL.I VORTAC on JL.I R-315 to SETER. Thence . . .

PALM SPRINGS TRANSITION (PSP.SETER5): From over PSP VORTAC on PSP R-260 to BANDS, then on PDZ R-078 to SETER. Thence . . .

LANDING ONTARIO INTL

RUNWAYS 26L/R: From over SETER on SB NDB 292° course to SB NDB; expect ILS approach.
RUNWAYS 8L/R: From over SETER on PDZ R-078 to BERDU, then on PDZ R-078 to PDZ VORTAC; expect vectors to final approach course.

ALL OTHER AIRPORTS
From over SETER via PDZ R-078 to BERDU, then on PDZ R-078 to PDZ VORTAC; expect vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.SHAMU1): From over LAX VORTAC via LAX R-132 and MZB R-294 to SHAMU FIX. Thence.

...From over SHAMU FIX via heading 135° to intercept MZB R-255 then via MZB R-255 to SARGS INT. Expect RADAR vectors to SAN Rwy 9 localizer.
ARRIVAL ROUTE DESCRIPTION

CLASN TRANSITION (CLASN.SIZLR3)

OYVEY TRANSITION (OYVEY.SIZLR3)

LANDING ALL AIRPORTS: From SIZLR on track 103° to MXIMO, then on track 103° to HITOP, then on track 106° to cross PZUKY at 16000, then on track 106° to cross BITTY at 16000, then on track 106° to cross MORON at 14000, then on track 095° to cross FERNN at 11000, then on track 123° to cross PSP VORTAC at 9000, then on track 124° to cross DEZZY at 9000, then on track 124°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
Proceed direct TRM VORTAC and execute the VOR or GPS-B approach.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.

NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: SNSTT STAR ATC assigned only.
NOTE: Los Angeles landing west traffic.
NOTE: Expect Rwy 25L unless otherwise assigned.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From AMMOR on track 289° to cross RNCHO at or above FL260, then on track 298° to cross SNSTT between FL240 and FL260 and at 280K, then on track 328° to cross SOLAY at or below FL190, then on track 316° to cross LAHVA at 17000, then on track 287° to cross LAAMP at or above 15000, then on track 287° to cross SNDDR at or above 14000, then on track 287° to cross SEAVU between 12000 and 14000 and at 270K. Expect ILS or RNAV (RNP) RWY 25L approach.

LOST COMMUNICATIONS

In the event of lost communication prior to runway assignment proceed on ILS or LOC RWY 25L.
TANDY FIVE ARRIVAL

ARRIVAL ROUTE DESCRIPTION

FELLOWS TRANSITION (FLW.TANDY5): From over FLW VOR/DME on FLW R-123 to SADDE. Thence.

FILLMORE TRANSITION (FIM.TANDY5): From over FIM VORTAC on FIM R-148 to SADDE. Thence.

. . . . . . From over SADDE on FIM R-148 to PAROL. From over PAROL on SXC R-310 to SXC VORTAC. Then from over SXC VORTAC on SXC R-037 to ALBAS. Then from ALBAS on SLI R-171 to SLI VORTAC.

NOTE: FIM R-154 lead radial on Fellows Transition.

NOTE: Chart not to scale
See following page for Arrival Routes.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Expect local area altimeter setting reaching FL200.
THRNE THREE ARRIVAL (RNAV) Arrival Routes

AL-67 (FAA) BURBANK, CALIFORNIA

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

LANDING KBUR: From THRNE on track 274° to cross BFOON at 10,000, then on track 26° to cross NNEDD at 8,000, then on track 253°. Expect RADAR vectors to final approach course.

LANDING KSOM: From THRNE on track 274° to cross BFOON at 10,000, then on track 26° to cross SMEGL at or above 7,000, then on track 26° to cross JOFRY at 6,000, then on track 26° to cross NNEDD at 8,000, then on track 272°. Expect RADAR vectors to final approach course.

LANDING KVNY: From THRNE on track 274° to cross BFOON at 10,000, then on track 26° to cross SMEGL at or above 7,000, then on track 26° to cross JOFRY at 6,000, then on track 26° to cross NNEDD at 8,000, then on track 26° to cross SMEGL at or above 7,000, then on track 26° to cross JOFRY at 6,000, then on track 26° to cross NNEDD at 8,000, then on track 272°. Expect RADAR vectors to final approach course.
**ARRIVAL ROUTE DESCRIPTION**

From TILLT on track 126° to ZIPRR, then on track 134° to WURLL, then on track 134° to cross TCUPS at or above FL260, then on track 109° to cross RUKKI at or above FL210 and at 280K, then on track 109° to cross BAUBBB between 11000 and 14000.

**LANDING RUNWAY 2L**: From BAUBBB on track 099° to cross JJAWS at or below 6000, then on track 092° to PUZZL, then on track 017° to cross MINOE at or above 3000 and at 210K. Expect RNAV (RNP) Z RWY 2L or vectors to final approach course.

**LANDING RUNWAY 20R**: From BAUBBB on track 089° to cross STYFF at or below 9000, then on track 080° to cross KAYNN at or below 7000, then on track 057° to cross LAXBB at 5000, then on track 044° to cross KLEVR at 5000, then on track 016° to BHEAR, then on track 016°. Expect RNAV (RNP) Z RWY 20R or vectors to final approach course.

**LOST COMMUNICATIONS**

**LANDING RUNWAY 20R**: After BHEAR turn right direct SNAKE and execute the ILS or LOC RWY 20R approach.

**LANDING RUNWAY 2L**: Proceed on LOC BC RWY 2L, RNAV (GPS) Y RWY 2L, or RNAV (RNP) Z RWY 2L.

---

**NOTE**: Radar required.

**NOTE**: RNAV 1.

**NOTE**: DME/DME/IRU or GPS required.

**NOTE**: Expect Rwy 20R unless otherwise assigned by ATC.

**NOTE**: Rwy 2L transition ATC assigned only.

**NOTE**: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

IMPERIAL TRANSITION (IPL.TOPGN2)

MOMAR TRANSITION (MOMAR.TOPGN2)

PARKER TRANSITION (PKE.TOPGN2)

TRUES TRANSITION (TTRUE.TOPGN2)

From TOPGN on track 250° to cross ISEM at or above 6400, then on track 253° to cross ZIPP between 6000 and 8000, then on track 273° to cross TMCAT at 6000 and at 210K, then on track 270°. Expect RADAR vectors to ILS or LOC RWY 9 approach.

LOST COMMUNICATIONS:

In the event of lost communication: proceed direct SARGS then on the ILS or LOC RWY 9 approach.

NOTE: Chart not to scale.

NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turboprop aircraft only.

NOTE: When San Diego is landing RWY 9 and departing RWY 27, expect RADAR vectors to DOGFT then direct TMCAT.

NOTE: Descend via mach number until intercepting 270K. Maintain 270K until slowed by the STAR or assigned by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021
ARRIVAL ROUTE DESCRIPTION

JULIAN TRANSITION (JLI-VISTA3): From over JLI VORTAC on JLI R-263 and OCN R-083 to VISTA. Thence,....

....from VISTA to CYNDE on OCN R-083. From CYNDE to OCN VORTAC on OCN R-083. From OCN VORTAC to SHIVE on OCN R-259 and SLI R-148. From SHIVE to CWARD on SLI R-148. From CWARD to BAYER on SLI R-148. From BAYER to MADOW on SLI R-148. From MADOW to TOZEK on SLI R-148. From TOZEK to SLI VORTAC on SLI R-148. Expect RADAR vectors to final approach course for Runways 24 or 25.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.
**ARRIVAL ROUTE DESCRIPTION**

**LAKE HUGHES TRANSITION (LHS.WAYVE1)**

**LOPES TRANSITION (LOPES.WAYVE1)**

**SHAEFTER TRANSITION (EHF.WAYVE1)**

**TULE TRANSITION (TTE.WAYVE1)**

**LANDING KLAX/KSMO:** From WAYVE on track 142° to SAUGS, then on track 142° to KIMMO, then on track 143° to UPDOC, then on track 140°. Expect RADAR vectors to final approach course.

NOTE: RADAR required
NOTE: RNAV 1
NOTE: DME/DME/IRU or GPS required
NOTE: Landing LAX expect Rwy 24R unless otherwise assigned by ATC.
NOTE: Landing SMO expect runway 21 unless otherwise assigned by ATC.
NOTE: This procedure not authorized for turboprop aircraft.

**NOTE:** Chart not to scale.
**ARRIVAL ROUTE DESCRIPTION**

**NINTY TRANSITION (NINTY.WEESL1)**

**SHAFTER TRANSITION (EHF.WEESL1)**

**WRING TRANSITION (WRING.WEESL1)**

**LANDING KBUR/KVNY:** From WEESL on track 150° to GRRIT, then on track 145° to cross SWIIM at 9000, then on track 144° to cross LYNXX at 9000, then on track 192°. Expect RADAR vectors to final approach course.

**NOTE:** RADAR required.

**NOTE:** RNAV 1.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** Landing BUR expect runway 8 unless otherwise assigned by ATC.

**NOTE:** Landing VNY expect runway 16R unless otherwise assigned by ATC.

**NOTE:** This procedure not authorized for turbojet aircraft.

**NOTE:** Chart not to scale.
NOTE: Approximate distance from DAWNA to ONT Runways: 28 NM
Approximate distance from HITOP to ONT Runways: 27 NM
NOTE: HECTOR transition restricted to turbojet aircraft only.

NOTE: DME required.
NOTE: RADAR required.

(NARRATIVE ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY7): From over HEC VORTAC on HEC R-211 and PDZ R-030 to ZIGGY. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY7): From over PMD VORTAC on PMD R-104 to HITOP, then on HDF R-332 to ZIGGY. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY7): From over EHF VORTAC on EHF R-128 and PMD R-295 to PMD VORTAC, then on PMD R-104 to HITOP, then on HDF R-332 to ZIGGY. Thence . . . .

TULE TRANSITION (TTE.ZIGGY7): From over TTE VOR/DME on TTE R-147 and PMD R-295 to PMD VORTAC, then on PMD R-104 to HITOP, then on HDF R-332 to ZIGGY. Thence . . . .

LANDING ONTARIO INTL

RUNWAYS 8L/R: From over ZIGGY on PDZ R-030 to PDZ VORTAC; expect RADAR vectors to final approach course.

RUNWAYS 26 L/R: From over ZIGGY direct PETIS NDB or on PDZ R-030 to PETIS; expect RADAR vectors for ILS approach.

ALL OTHER AIRPORTS
From over ZIGGY on PDZ R-030 to PDZ VORTAC; expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

BURGL TRANSITION (BURGL.ZUUMA3)
REBRG TRANSITION (REBRG.ZUUMA3)

LANDING KLAX RUNWAYS 6L/R, 7L/R: From ZUUMA on track 142° to cross WAKER at 6000 and at 210K. Expect ILS or LOC RWY 6L approach or RADAR vectors to final approach course.

LANDING KSMO: From ZUUMA on track 142° to cross WAKER at 6000 and at 210K. Expect RNAV (GPS) RWY 3 approach.

LOST COMMUNICATIONS

LANDING LAX: Proceed on the RNAV (RNP) Z RWY 6L or ILS or LOC RWY 6L approach.
LANDING SMO: Proceed on the RNAV (GPS) RWY 3 approach.

NOTE: Chart not to scale.
Circling NA to Rwy 8 and 26. Circling to Rwy 36 NA at night. Rwy 18 helicopter visibility reduction below 5/8 SM NA. Use Victorville altimeter setting; if not received, procedure NA.

Procedure NA for arrivals at BASAL on V210-394 northeast bound.
NOTE: GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 36: 300'-1 or standard with a minimum climb gradient of 340' per NM until 5800'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 36: Climb via 002° course to HUNEY WP, then 339° course to EXCON WP, then climb in EXCON WP holding pattern (hold S left turns 339° inbound) to 7500' MSL then proceed on course.
VOR or GPS-A

MISSED APPROACH: Climbing left turn to 3400 in SXC VORTAC holding pattern.

ASOS
120.675

SOCAL APP CON
127.4 323.275

UNICOM
122.7 (CTAF)
DME/DME RNP-0.3 NA. Use Meadows Fld altimeter setting. When Meadows Fld altimeter setting not received, use Porterville altimeter setting and increase all MDA 80 feet, increase LNAV and Circling Cat C and D visibility ¼ mile. Helicopter visibility reduction below ½ SM NA. Night Landing Rwy 16 NA.

MISSING APPROACH: Climb to 1200 then climbing left turn to 3000 direct UMKOW and hold.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNAV MDA</td>
<td>840-1</td>
<td>463 (500-1)</td>
<td>840-1½</td>
<td>463 (500-1½)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1060-1</td>
<td>682 (700-1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Procedure NA for arrivals at TAFTO on V137 northwest bound and on V183 southbound.

Procedure NA for arrivals at LOPES on V165-459 southeast bound.
Use Meadows Fld altimeter setting. When Meadows Fld altimeter setting not received, use Porterville altimeter setting and increase all MDA 80 feet, increase S-34 and Circling Cat C and D visibility ¼ mile. Visibility reduction by helicopters below ½ SM NA. Night Landing Rwy 16 NA.

**MISSED APPROACH:** Climbing left turn to 3000 on heading 260° to EHF R-196 to STIGR/EHF 10 DME and hold, continue climb-in-hold to 3000.

- **SHAFTER** 115.4 EHF : : : : (IAF)
  - Chan 101

**BFL ASOS** 118.6

**BAKERSFIELD APP CON** 126.45 270.3

**UNICOM** 122.8 (CTAF)

**BAKERSFIELD, CALIFORNIA**

**AL-9118 (FAA)**

**VOR/DME RWY 34**

**BAKERSFIELD MUNI (L45)**

**ELEV 378**

**TDZE 377**

- **Rwy Ldg** 4000
- **Apt Elev** 378

- **319°**
- **(L45)**

- **319° 5.9 NM from FAF**

- **319° 5.9 NM from FAF**

**BAKERSFIELD, CALIFORNIA**

**Amdt 1B 31MAR16**

**SW-3, 07 OCT 2021 to 02 DEC 2021**
LOS ANGELES CENTER
127.1 317.7
BAKERSFIELD DEP CON ★
126.45 270.3

NOTE: Chart not to scale.

TOP ALTITUDE:
ASSIGNED BY ATC

SHAFER
115.4 EHF
Chan 101

STIGR
N35°20.38'
W119°11.92'
3000

NOTE: DME required.

TAKEOFF MINIMUMS:
Rwy 16: Standard.
Rwy 34: 400-1¼ or standard with minimum climb of 555' per NM to 900.

NOTE: DME required.

TAKEOFF ROUTE DESCRIPTION

TAKEOFF RWY 16: Climbing right turn heading 260° to intercept V183,
to STIGR/EHF 10 DME, thence . . . .

TAKEOFF RWY 34: Climbing left turn heading 250° to intercept V183,
to STIGR/EHF 10 DME, thence . . . .

. . . . climb in STIGR holding pattern to cross STIGR/EHF 10 DME at or above 3000
or MEA for route of flight then proceed on course.

STIGR TWO DEPARTURE
(STIGR2.STIGR) 15SEP16
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 12L/R:** Turn right heading 240°. Thence....

**TAKEOFF RUNWAYS 30L/R:** Turn left heading 240°. Thence....

....intercept and proceed on the EHF R-196 to MARIC. Thence via (transition) or (assigned route).

**GORMAN TRANSITION (MARIC4.GMN):** From over MARIC via AVE R-109 and GMN R-328 to GMN VORTAC.

**LAKE HUGHES TRANSITION (MARIC4.LHS):** From over MARIC via AVE R-109 and LHS R-305 to LHS VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L/R: Climb heading 121° to 3000 for vector to assigned route/fix. Thence. . . .

TAKEOFF RUNWAYS 30L/R: Climb heading 301° to 3000 for vector to assigned route/fix. Thence. . . .

. . . Thence, maintain ATC assigned altitude. Expect clearance to requested altitude five minutes after departure.

LOST COMMUNICATIONS: If no radio contact for two minutes, proceed direct SHAFTER VORTAC and hold. Climb in holding pattern to expected altitude prior to proceeding on course.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 12L/R:** Climbing right turn direct EHF VORTAC. Thence.

**TAKEOFF RUNWAYS 30L/R:** Climb direct EHF VORTAC. Thence.

. . . From over EHF VORTAC via EHF R-067 to cross WRING at or above 5400. Thence via (assigned route).
Amdt 2B 20JUN19

BIG BEAR CITY, CALIFORNIA

RG A-9469 (FAA) 19171

RNAV (GPS) RWY 26
BIG BEAR CITY (L35)

WAAS
CH 99434
W26A
APP CRS 256°
Rwy Idg 5250
TDZE 6752
Apt Elev 6752

RNP APCH:

Straight-in RWY 26 NA at night. Circling RWY 26 NA at night. Circling NA north of RWY 8-26. RWY 26 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH:
Climb to 8800, then climbing right turn to 11000 direct BRGET and hold.

8800
11000
BRGET

Fürri and descent angles not coincident (VGSI Angle 4.30/TCH 46).

UNICOM
122.725 (CTAF)

BIG BEAR CITY, CALIFORNIA

AWOS-3
135.925

LOS ANGELES CENTER
126.35 290.2

ELEV 6752
TDZE 6752

LNAV MDA
8260-1 4
8260-1 4
8260-1 4

MIRL Rwy 8-26

BIG BEAR CITY (L35)

RNAV (GPS) RWY 26
NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwy 8: 1200-2 or standard with minimum climb of 282’ per NM to 8000’.

TAKEOFF OBSTACLE NOTE
Rwy 8: 7439’ MSL trees 2.5 NM from DER, 2400’ right of centerline.

NOTE: For use by slant E, F, and G equipped aircraft only.
NOTE: GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb via course 076° to OKACO WP; maintain 11000 or as assigned by ATC. If not at 11000 or at assigned cruising altitude upon reaching OKACO WP, climb in holding pattern unless otherwise advised by ATC.
RNAV (GPS) RWY 26

**BLYTHE (BLH)**

**ASOS**
- **120.175**

**LOS ANGELES CENTER**
- **128.15 285.6**

**UNICOM**
- **122.8 (CTAF)**

---

When local altimeter setting not received, procedure NA.

# Missed approach requires a minimum climb of 375 feet per NM to 3500.

* Missed approach requires a minimum climb of 345 feet per NM to 3500.

**RNAV (GPS) RWY 26**

**BLYTHE, CALIFORNIA**

**APP CRS** 246°

**Rwy Idg** 6543

**TDZE** 396

**Apt Elev** 400

---

**Missed Approach:** Climbing right turn to 5400 direct ROGBE and hold, continue climb-in-hold to 5400.

---

**Category**

- **LP MDA**: 800-1 404 (400-1)
- **LP MDA**: 1940-1 1544 (1600-1 1/2)
- **# LNAV MDA**: 800-1 404 (400-1)
- **LNAV MDA**: 2060-1 1664 (1700-1 1/2)
- **CIRCLING**: 2060-1 1660 (1700-1 1/2)

---

**ELEV** 400

**TDZE** 396

---

**ZUSIS**

Procedure NA for arrivals at SODSE on V135 northbound.

---

**MIRL Rwys 8-26 and 17-35**

---

**33°37'N-114°43'W**
VOR/DME RWY 26
BLYTHE (BLH)

ASOS
120.175

LOS ANGELES CENTER
128.15 285.6

UNICOM
122.8 (CTAF)

CHANGING BLH VORTAC R-080 to JAROZ/15 DME and hold.

MISSED APPROACH: Climb to 1200 then climbing left turn to 4600 via BLH VORTAC R-080 to JAROZ/15 DME and hold.

ASOS
120.175

LOS ANGELES CENTER
128.15 285.6

UNICOM
122.8 (CTAF)
MISSED APPROACH: Climb to 1000, then climbing right turn to 4600 via heading 120° and BLH R-080 outbound to JAROZ/15 DME and hold.
RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.

RNAV (GPS) RWY 26
BORREGO VALLEY (I,08)

AWOS: 3P 126.575
LOS ANGELES CENTER 128.6 291.7
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDA 580 feet. Circling not authorized south of Rwy 8-26.
ZUNGU ONE DEPARTURE (OBSTACLE) (RNAV)  
(ZUNGU1.ZUNGU) 10APR08

NOTE: GPS required.
NOTE: RNAV 1
NOTE: Takeoff Rwy 8/26 do not exceed 220K until ZUNGU.

TAKEOFF MINIMUMS
Rwy 8: Standard with a minimum climb of 335' per NM to 2000, do not exceed 220K until ZUNGU.
Rwy 26: Standard with a minimum climb of 465' per NM to 5000, do not exceed 220K until ZUNGU.

TAKEOFF OBSTACLE NOTES
Rwy 8: Numerous trees beginning 2000' from DER, on centerline, up to 75' AGL/875' MSL.
Rwy 26: Numerous trees beginning 1000' from DER, 400' left of centerline, up to 75' AGL/634' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb direct CELOP then via depicted route to ZUNGU.

TAKEOFF RUNWAY 26: Climb direct HORGA, and left turn 144° track to CEMBI, then via depicted route to ZUNGU.
NOTE: GPS required
NOTE: RNAV 1
NOTE: Takeoff Rwy 8/26 do not exceed 220K until KUMBA.

TAKEOFF MINIMUMS
Rwy 8: Standard with a minimum climb of 345' per NM to 5000, do not exceed 220K until KUMBA.
Rwy 26: Standard with a minimum climb of 465' per NM to 5000, do not exceed 220K until KUMBA.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb direct CELOP then via depicted route to KUMBA.

TAKEOFF RUNWAY 26: Climb direct HORGA, and left turn 144° track to CEMBI, then via depicted route to KUMBA.
RNAV (GPS) RWY 26
BRAWLEY MUNI (BWC)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNAV MDA</td>
<td>360-1</td>
<td>495 (500-1)</td>
<td>360-1/4</td>
<td>495 (500-1/4)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>560-1</td>
<td>689 (700-1)</td>
<td>560-2</td>
<td>689 (700-2)</td>
</tr>
</tbody>
</table>

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Use Imperial County altimeter setting. Circling Rwy 8 NA at night.

MISSED APPROACH: Climbing left turn to 3600 direct IPL VORTAC and hold.

REIL Rwy 8 and 26
MIRL Rwy 8-26

BRAWLEY, CALIFORNIA
Orig-A 01FEB18

33°00'N-115°31'W

BRAWLEY MUNI (BWC)
MISSED APPROACH: Climb to 3000 direct IPL VORTAC and hold.

Use Imperial County altimeter setting.

DME Required.

Circling Rwy 8 NA at night.

DME REQUIRED

IPL ASOS 132.175
LOS ANGELES CENTER 128.6 291.7
CTAF 122.9
ILS Y or LOC Y RWY 8
BOB HOPE (BUR)

From MIKEI: RNAV 1-GPS required.

MISSED APPROACH: Climb to 1800 then climbing right turn to 4600 on heading 210° and VTU VOR/DME R-086 to VTU VOR/DME and hold.

ALTERNATE MISSED APCH FIX

GS 3.00°
TCH 60

CATEGORY

A
B
C
D

S ILS 8 1555-2\(^\frac{1}{2}\) 828 (800-2\(^\frac{1}{2}\))

S-LOC 8 1620/50 893 (900-1) 1620-2 893 (900-2)

C CIRCLING 1620-1\(^\frac{3}{4}\) 842 (900-1\(^\frac{1}{4}\)) 1640-1\(^\frac{3}{4}\) 862 (900-1\(^\frac{1}{4}\)) 2240-3 1462 (1500-3) 2320-3 1542 (1600-3)

BOB HOPE (BUR)

BURBANK, CALIFORNIA
Amdt 6A, 28FEB19

34°12'N-118°22'W
From MIKEI: RNAV 1-GPS required.

- Localizer unusable within 0.9 NM to thld. Straight-in RWY 8 at night, Circling to RWY 33 at night, operational VGSI required, remain on or above VGSI glidepath until threshold. Circling RWY 26 NA at night and Circling RWY 33 NA at night for Cat D. Circling NA for Cats A/B/C northeast of RWY 15 and 26. Circling NA for Cat D east of RWY 15-33. Inop table does not apply to S-ILS 8. For inop ALS, increase S-LOC 8 Cats A/B visibility to RVR 6000 and S-LOC 8 Cats C/D visibility to 1/2 SM. RWY 8 helicopter visibility reduction below RVR 5000 NA.

- MISSED APPROACH: Climb to 1300 then climbing right turn to 4600 on heading 210° and VTU VOR/DME R-086 to VTU VOR/DME and hold. #Missed approach requires a minimum climb of 340 feet per NM to 2520 (If unable to meet climb gradient, see ILS Y or LOC Y RWY 8).

- One Minute Holding Pattern
  - Holding Pattern
  - 259° heading 210° and VTU VOR/DME then climbing right turn to 4600 on holding pattern.

- ALTERNATE MISSED APCH FIX
  - SILEX VNY 6.1
  - 113.1 VNY Channel 78
  - 2025
  - R-086

- BOB HOPE (BUR)

- CATEGORY
  - A
  - B
  - C
  - D

- TWR
  - TWI 025±
  - 850±

- MIRL Rwy 15-33
  - HIRL Rwy 8-26
  - REIL Rwy 15, 26 and 33

- FAF to MAP 5.2 NM
  - Min:Sec
  - 5:12
  - 3:28
  - 2:36
  - 2:05
  - 1:44

- CIRCLING
  - 34°12’N-118°22’W

- BURBANK, CALIFORNIA
  - Amdt 39A 28FEB19

- 34°12’N-118°22’W
RNAV (GPS) Z RWY 8

BOB HOPE (BUR)

Straight-in RwY 8 at night, Circling to RwY 33 at night, operational VGSI required, remain on or above VGSI glideslope until threshold. Circling RwY 26 NA at night and Circling RwY 33 NA at night for Cat D. Circling NA for Cats A/B/C northeast of RwY 15 and 26. Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Procedure NA for arrival on VTU VOR/DME airway radials 015 CW 129.

Procedure NA for arrival on VTU VOR/DME airway radials 015 CW 129.

MISSED APPROACH: Climbing right turn to 4600 direct COTSI and on track 263° to VTU VOR/DME and hold.

VGSI and RNAV glideslope not coincident (VGSI Angle 3.00/TCH 72).

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.

Circling NA for Cat D east of RwY 15-33. For inop ALS, increase LP Cat A/B visibility to 1 ½ SM and LP Cat C/D visibility to 2 ½ SM. For inop ALS, increase LNAV Cat A/B visibility to 1 ½ SM. RwY 8 helicopter visibility reduction below RVR 5000 NA.
RNAV (GPS)-A

BOB HOPE (BUR)

RNP APCH:
- Circling NA for Cats A/B/C northeast of Rwys 15 and 26.
- Circling NA for Cat D east of Rwy 15-33.
- Circling Rwy 26 NA at night and Circling Rwy 33 NA at night for Cat D.
- Circling to Rwy 8, 33 at night, operational VGSI required, remain on or above VGSI glidepath until threshold.

MISSED APPROACH: Climbing right turn to 4600 direct COTSI on track 263° to VTU VOR/DME and hold.

---

D-ATIS
SOCAL APP CON
BURBANK TOWER
GND CON
CLNC DEL
CPDLC

134.5
120.4 360.6 (NORTH)
134.2 338.2 (WEST)
118.7 254.3
123.9 348.6
118.0 348.6

---

CEZKA
SUMXY
IGAXY

124°
263°

---

CATEGORY
A
B
C
D

1860-1 1/4
1860-1 1/2
2240-3
2320-3

1082 (1100 1/4)
1082 (1100 1/2)
1462 (1500 3)
1542 (1600 3)

---

Burbank, California
Orig-A 28FEB19

---

34°12’N-118°22’W
FOUR STACKS VISUAL APPROACH RWY 15

When Visual Approaches to Runway 15 are in progress, clearances will be given to aircraft from the Northwest thru Northeast utilizing the following phraseology:

"[IDENT] CLEARED FOR FOUR STACKS VISUAL APPROACH TO RUNWAY 15."
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ELMOO NINE DEPARTURE

CLNC DEL
118.0 348.6
CPDLC
SOCAL DEP CON
135.05 317.5

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climbing right turn heading 123° intercept VNY VOR/DME R-095 to ELMOO.

TAKEOFF RUNWAY 15: Climbing left turn heading 113° intercept VNY VOR/DME R-095 to ELMOO.

TAKEOFF RUNWAY 26: Climbing left turn heading 113° intercept VNY VOR/DME R-095 to ELMOO.

TAKEOFF RUNWAY 33: Climbing left turn heading 123° intercept VNY VOR/DME R-095 to ELMOO.

...thence via assigned route. Maintain ATC assigned altitude.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.
(OROSZ2.OROSZ) 18032

OROSZ TWO DEPARTURE (RNAV)

AL-67 [FAA]

BURBANK, CALIFORNIA

Bob Hope (BUR)

Burbank, California

CLNC Del

118.0 348.6

Cpdlc

 SOCAL DEP CON

124.6 298.85

Corez

Cstro

Heyjo

Brrkk

OROSZ

9000

Tillr

8000

Top Altitude:

FL230

NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

NOTE: Radar required.

NOTE: Maintain at or below 250K unless otherwise directed by ATC.

Takeoff Minimums

Rwy 8: Standard with minimum climb of 420' per NM to 2500.
Rwy 15: Standard with minimum climb of 340' per NM to 2100.
Rwy 26: Standard with minimum climb of 380' per NM to 4800.
Rwy 33: Standard with minimum climb of 460' per NM to 4900.

Departure Route Description

Takeoff Runways 8, 15: Climbing right turn heading 210° or as assigned by ATC, expect vectors to cross Tillr at or above 8000, then on track 324° to cross Orosz at or above 9000, thence. . . .

Takeoff Runway 26: Climbing right turn heading 290° or as assigned by ATC, expect vectors to cross Tillr at or above 8000, then on track 324° to cross Orosz at or above 9000, thence. . . .

Takeoff Runway 33: Climbing left turn heading 270° or as assigned by ATC, expect vectors to cross Tillr at or above 8000, then on track 324° to cross Orosz at or above 9000, thence. . . .

. . . .on (transition) maintain FL230. Expect filed altitude 10 minutes after departure.

Corez Transition (OROSZ2.COREZ)

Cstro Transition (OROSZ2.CSTRO)
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Turboprop only.
NOTE: MISEN transition restricted to aircraft landing LAS terminal area.
NOTE: HAILO transition ATC assigned only.

TAKING OFF MINIMUMS
Rwy 8: Standard with minimum climb of 420’ per NM to 2500.
Rwy 15: Standard with minimum climb of 340’ per NM to 2100.
Rwy 26: Standard with minimum climb of 380’ per NM to 4800.
Rwy 33: Standard with minimum climb of 460’ per NM to 4900.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climbing right turn to heading 210°, expect vectors to RAYVE, then on track 009° to cross SLAPP at or above 13000, thence. . . .

TAKEOFF RUNWAY 15: Climbing right turn to heading 210°, or as assigned by ATC, expect vectors to RAYVE, then on track 009° to cross SLAPP at or above 13000, thence. . . .

TAKEOFF RUNWAY 26: Climbing right turn to heading 290°, expect vectors to RAYVE, then on track 009° to cross SLAPP at or above 13000, thence. . . .

TAKEOFF RUNWAY 33: Climbing left turn to heading 270°, expect vectors to RAYVE, then on track 009° to cross SLAPP at or above 13000, thence. . . .

. . . .on (transition) maintain FL230. Expect filed altitude 10 minutes after departure.

BLYTHE TRANSITION (SLAPP2.BLH)
HAILO TRANSITION (SLAPP2.HAILO)
HECTOR TRANSITION (SLAPP2.HEC)
LAS VEGAS TRANSITION (SLAPP2.LAS)
MISEN TRANSITION (SLAPP2.MISEN)
TOP ALTITUDE: ASSIGNED BY ATC

- EDWARDS 116.4 EDW 35°
  Chan 111

- PALMDALE 114.5 PAL 35°
  Chan 92

- BOGET N34°18.85' W118°15.09'
  Chan 111

- LANG 113.1 LAX 35°
  Chan 83

- SUANA N34°13.39' W118°43.24'
  Chan 108

- IPIHO N34°13.40' W118°34.44'
  Chan 108

- SLAPP N34°27.84' W118°19.90'
  Chan 111

- LAN 113.1 LAX 35°
  Chan 78

- VAN NUYS N34°13.41' W118°29.50'
  Chan 78

- DDRGT N34°57.75' W118°34.69'
  Chan 111

- VCV 109.05 VCV 35°
  Chan 127

- NARRATIVE ON FOLLOWING PAGE

NOTE: RADAR required

TAKEOFF MINIMUMS
- Rwy 8: Standard with minimum climb of 410' per NM to 2500.
- Rwy 15: Standard with minimum climb of 335' per NM to 2300.
- Rwy 26: Standard with minimum climb of 305' per NM to 5000.
- Rwy 33: Standard with minimum climb of 550' per NM to 5000, or 600-2 1/4 with minimum climb of 300' per NM to 5000.

NOTE: Chart not to scale.

(CHARACTERISTICS OF AIRPORTS)

- SW-3, 07 OCT 2021 to 02 DEC 2021

(BURBANK, CALIFORNIA)

- BOB HOPE (BUR)
- BOB HOPE (BUR)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climbing right turn heading 213° . . . .
TAKEOFF RUNWAY 15: Climbing right turn heading 213° . . . .
TAKEOFF RUNWAY 26: Climbing right turn heading 293° . . . .
TAKEOFF RUNWAY 33: Climbing left turn heading 273° . . . .

. . . . .expect RADAR vector to VNY VOR/DME. Thence via (transition) or (assigned route).

AVENAL TRANSITION (VNY3.AVE): From over VNY VOR/DME on VNY R-255 and LAX R-323 to TWINE, then on LAX R-323 and GMN R-142 to GMN VORTAC, then on GMN R-310 and AVE R-086 to AVE VOR/DME.

DAGGETT TRANSITION (VNY3.DAG): From over VNY VOR/DME on VNY R-255 and LAX R-323 to TWINE, then on VTU R-046 and PMD R-218 to PMD VORTAC, then on PMD R-067 and DAG R-238 to DAG VORTAC.

FILLMORE TRANSITION (VNY3.FIM): From over VNY VOR/DME on VNY R-255 and FIM R-120 to FIM VORTAC.

GORMAN TRANSITION (VNY3.GMN): From over VNY VOR/DME on VNY R-255 and LAX R-323 to TWINE, then on LAX R-323 and GMN R-142 to GMN VORTAC.

PALMDALE TRANSITION (VNY3.PMD): From over VNY VOR/DME on VNY R-255 and LAX R-323 to TWINE, then on VTU R-046 and PMD R-218 to PMD VORTAC.

TWINE TRANSITION (VNY3.TWINE): From over VNY VOR/DME on VNY R-255 and LAX R-323 to TWINE.
TOP ALTITUDE: 13000

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8, 15: Climbing right turn heading 210° or as assigned by ATC, expect vectors to cross CCHUM at or above 6800, then on track 003° to cross KIMMO at or above 7000, then on depicted route to VVERA, thence . . . .

TAKEOFF RUNWAY 26: Climbing right turn heading 290° or as assigned by ATC, expect vectors to cross CCHUM at or above 6800, then on track 003° to cross KIMMO at or above 7000, then on depicted route to VVERA, thence . . . .

TAKEOFF RUNWAY 33: Climbing left turn heading 270° or as assigned by ATC, expect vectors to cross CCHUM at or above 6800, then on track 003° to cross KIMMO at or above 7000, then on depicted route to VVERA, thence . . . .

. . . . on (transition). Maintain 13000. Expect filed altitude 10 minutes after departure.

DAGGETT TRANSITION (VVERA2.DAG)
HECTOR TRANSITION (VVERA2.HEC)
**RNAV (GPS) RWY 6**

**CALIFORNIA CITY MUNI (L71)**

**APP CRS**
- TDZE 2454
- Apt Elev 2454
- Rwy Idg 6027

**RNP APCH.**

- **RADAR required.**
- **NA**
- If local altimeter setting not received, use Edwards AFB altimeter setting and increase all MDAs 60 feet; if neither received, procedure not authorized.

**AWOS-1**
- 120.875

**JOSHUA APP CON**
- 133.65 348.7

**UNICOM**
- 122.7 (CTAF)

**MISSED APCH FIX**

**Procedure Turn**
- NA

**MISSED APPROACH:** Climb to 9000 direct HETOM and via 333° track to BACRA and hold, continue climb-in-hold to 9000.

**RNAV (GPS) RWY 6**

**9000**
- 033°

**ISABELLA MOA**

**BAKERSFIELD MOA**

**AWOS-1**
- 120.875

**JOSHUA APP CON**
- 133.65 348.7

**RNAV (GPS) RWY 6**

**COTBA 6.1 NM to JODIP**

**HETOM**
- 333° fr
- BACRA

**JODIP**
- 3.06°
- TCH 50

**ODACE**
- 047°

**3660-1°**
- 1206 (1300-1°)
- 1206 (1300-1°)

**3660-3**
- 1206 (1300-3)

**7000**
- 033°

**5100**
- 047°

**3000**
- 3027

**5000**
- 4308

**6698**
- 4396

**5196**
- 5203

**5288**
- 4396

**5424**
- 4396

**5580**
- 4396

**4600**
- 4396

**4675**
- 4396

**4600**
- 4396

**4743**
- 4396

**4781**
- 4396

**4826**
- 4396

**4875**
- 4396

**5000**
- 4396

**5060**
- 4396

**5100**
- 4396

**5145**
- 4396

**5190**
- 4396

**5235**
- 4396

**5280**
- 4396

**5325**
- 4396

**5400**
- 4396

**5456**
- 4396

**5500**
- 4396

**5550**
- 4396

**5600**
- 4396

**5700**
- 4396

**5750**
- 4396

**5800**
- 4396

**5850**
- 4396

**5900**
- 4396

**5950**
- 4396

**6000**
- 4396

**6050**
- 4396

**6100**
- 4396

**6150**
- 4396

**6200**
- 4396

**6250**
- 4396

**6300**
- 4396

**6350**
- 4396

**6400**
- 4396

**6450**
- 4396

**6500**
- 4396

**6550**
- 4396

**6600**
- 4396

**6650**
- 4396

**6700**
- 4396

**ISABELLA MOA**

**GOVVE**

**JODIP**
- 6.1 NM to

**COTBA**
- 6.1 NM to

**R-2515**

**ELEV 2454**

**TDZE 2454**

**3660-1°**
- 1206 (1300-1°)
- 1206 (1300-1°)

**3660-3**
- 1206 (1300-3)

**RNAV (GPS) RWY 6**

**CALIFORNIA CITY, CALIFORNIA**

**Orig B 18JUL19**

**MIRL Rwy 6-24**

**REIL Rwy 24**

**35°09'N-118°01'W**

**43**
**RNAV (GPS) RWY 24**

**CALIFORNIA CITY MUNI (L71)**

**APP CRS 227°**

- Rwy Idg: 6027
- TDZE: 2429
- Apt Elev: 2454

**RNP APCH**

If local altimeter setting not received, use Edwards AFB altimeter setting and increase all MDAs 60 feet; if neither received, procedure not authorized.

**AWOS-1**

- 120.875

**JOSHUA APP CON**

- 133.65
- 348.7

**UNICOM**

- 122.7 (CTAF)

**MISSED APCH FIX**

- JERID
- MIVDE
- FEKIG
- ICINA
- CIBIV
- 8 NM to RAKVE

**Radar Required**

- 9000
- MIVDE
- 213°
- Tr

**VGSI and descent angles not coincident**

- (VGS Angle 3.00/TCH 40).

**PEXOE**

- 6900

**Procedure Turn**

- NA

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNAV MDA</td>
<td>2820-1</td>
<td>391 (400-1)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>2960-1</td>
<td>506 (600-1)</td>
<td>3080-1¼</td>
<td>626 (700-1¼)</td>
</tr>
</tbody>
</table>

**MISSED APPROACH:** Climb to 9000 direct MIVDE and via 213° track to JERID and hold, continue climb-in-hold to 9000.
CALEIFORNIA CITY ONE DEPARTURE (OBS) (RNAV) CALIFORNIA CITY, CALIFORNIA

NOTE: GPS required
NOTE: RNAV 1

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb direct WIRUS, then via depicted route to LHS VORTAC. Maintain 9000.

TAKEOFF RUNWAY 24: Climb direct ZUSUR, then via depicted route to LHS VORTAC. Maintain 9000.

NOTE:  RNAV 1
NOTE: GPS required

TAKEOFF MINIMUMS
Rwy 6: Standard with minimum climb of 250’ per NM to 6400.
Rwy 24: Standard.

TAKEOFF OBSTACLE NOTES
Rwy 6: Ground 37’ from DER, 408’ right of centerline, 0’ AGL/2406’ MSL.
Rwy 24: Windsock 8’ from DER, 159’ right of centerline, 25’ AGL/2476’ MSL.
Bush 220’ from DER, 456’ left of centerline, 9’ AGL/2467’ MSL.
Bush 550’ from DER, 447’ left of centerline, 16’ AGL/2474’ MSL.
Bush 365’ from DER, 299’ left of centerline, 8’ AGL/2469’ MSL.
Bush 245’ from DER, 449’ left of centerline, 8’ AGL/2466’ MSL.
Bush 422’ from DER, 454’ left of centerline, 12’ AGL/2470’ MSL.
Bush 355’ from DER, 106’ left of centerline, 6’ AGL/2467’ MSL.

NOTE: Chart not to scale.
RNAV (GPS) RWY 8
CLIFF HATFIELD MEML (CLR)

DME/DME RNP-0.3 NA. Procedure NA at night.
Visibility reduction by helicopters NA.
Use Imperial altimeter setting, when not received, procedure NA.

Procedure NA for arrivals at BOREN via V460 southwest bound.

LNAV MDA

- Category

- LNAV MDA

- Circling
RNAV (GPS) RWY 8
CAMARILLO (CMA)

Circling NA north of RW 8-26. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Oxnard altimeter setting and increase all MDA 20 feet.

Procedure NA for arrivals at DEANO via V27 eastbound.

Procedure NA for arrivals at VTU VOR/DME via airway radials 289 CW 311.
Terminal route VTU VOR/DME to HATLI NA when W-289 active.

MISSED APPROACH: Climbing right turn to 3000 direct HATU and hold.

ATIS
126.025

POINT MUGU APP CON
124.7 335.5

CAMARILLO TOWER
128.2 [CTAF] 269.4

GND CON
121.8

CLNC DEL
121.8

POINT MUGU CLNC DEL
120.75 279.55

UNICOM
122.95

ELEV 77  TDZE 68
Circling NA north of Rwy B-26. DME/DME RNP-0.3 NA. If local altimeter setting not received, use Oxnard altimeter setting and increase all MDAs 20 feet. VDP NA when using Oxnard altimeter setting.

Procedure NA for arrivals at SUANA via V326 eastbound and arrivals at SESPE via V186-597 westbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 48).

*1720 when using Oxnard altimeter setting.

MISSED APPROACH: Climb to 3000 direct LECIK and via 254° track to HATLI and hold.
RNAV (GPS) Z RWY 26
CAMARILLO (CMA)

**RNAV (GPS) Z RWY 26**

### Ultralight Operating Area

- **Ch** 58202
- **W26A**
- **APP CRS** 257°
- **Rwy Idg** 6013
- **TDZE** 77
- **Apt Elev** 77

**DME/DME RNP -0.3 NA.**

If local altimeter setting not received, use Oxnard altimeter setting and increase DA 18 feet.

**Transition of Flight Guidance Service**

**ATIS** 126.025
**POINT MUGU APP CON** 124.7
**CAMARILLO TOWER** 128.2 (CTAF)
**GND CON** 121.8
**CLNC DEL** 121.8
**POINT MUGU CLNC DEL** 120.75 279.55
**UNICOM** 122.95

**Misused Approach Fix**

- **5 NM**
- **253°**
- **HATLI**

**Procedure NA for arrivals at SUANA via V326 eastbound and arrivals at SESPE via V186-597 westbound.**

- **VAANG**
  - **Oxnard**
  - **253°**
  - **RW26**

**Procedure NA for arrivals at VAANG via 253° track to HATLI and hold.**

- **Point MUGU**
  - **CLNC DEL** 120.75 279.55
  - **UNICOM** 122.95

### RNAV (GPS) Z RWY 26

**Category**

- **A**
- **B**
- **C**
- **D**

- **LPV DA**
  - **327-3/4**
  - **250 (300-3/4)**

**Gnd Con:**

- **121.8**
- **120.75**
- **279.55**

**Unicom:**

- **122.95**

**Atis:**

- **126.025**
- **124.7**
- **128.2 (CTAF)**

**City:**

- **Camarillo, California**

**Orig-A:**

- **27JUN13**
Circling not authorized north of Rwy 8/26.

Point of Interest:
- **Clcn Del** (Cooga Int)
- **CECEE Int**
- **BAINE Int**
- **COOGA Int**
- **CMA West**
- **CMA East**
- **Fillmore**
- **W-289**
- **FILLMORE**
- **NAPA CMA 25 NM**
- **4300**
- **2824**
- **2000**
- **3400**
- **2500**
- **2400**
- **2314**
- **2214**
- **1850**
- **1500**
- **1150**
- **0700**
- **8700**
- **3111**
- **CAMARILLO**
- **Point Mugu**
- **Ventura**
- **Van Nuys**
- **VOR RWY 26**

CMA 4.9 NM from FAF: 247°

FAF to Map 4.9 NM:
- **MIRL Rwy 8-26 1**
- **REIL Rwy 8 and 26 1**

**CIRCLING**

**FGSI and descent angles not coincident (FGSI Angle 3.00/TCH 48).**

**067°** from FAF

**247°** climb to 2000 via CMA R-265 then climbing left turn to 4400 direct CMA VOR/DME and hold.

**SW-3, 07 OCT 2021 to 02 DEC 2021**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. 
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**COPPER TACAN Rwy 21**

**TACAN NFG**
- Chan 55

**APCH CRS**
- 211°

**Rwy Ldg TDZE Arpt Elev**
- 6006 78
- 78

**AIRPORT**
- CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

**ATIS***
- 285.45

**SOCAL APP CON**
- 127.3 323.0

**CAMP PENDLETON TOWER***
- 128.775 340.2

**GND CON**
- 134.675 360.2

**CLNC DEL**
- 134.675 271.6

**ASR/PAR**

---

**EMERG SAFE ALT 100 NM 13,500**

**TACAN**

**ZAKES**

**HOPIL**

**HONRA**

**CORRI**

**GOZER**

**EMERG NAV**

**BAKERY**

**TOWER**

**HORIZ RANGE**

**MAX HDG ALT 7000**

**MIN HDG ALT 6000**

---

**CATEGORY**

**COPPER**

<table>
<thead>
<tr>
<th>H-21*</th>
<th>940-3/4 862 (900-3/4)</th>
</tr>
</thead>
</table>

**CIRCLING**

**NOT AUTHORIZED**

---

**OCEANSIDE, CALIFORNIA**

**Amnd 4 03JAN19**

---

**OCEANSIDE, CALIFORNIA**

**33°18'N-117°21'W**

**CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)**

---

**SALSIF**

**MISSED APPROACH:** Climb to 2000 direct NFG TACAN then direct AMFIB and hold.

---

**NOTE:** When ALIN inop, increase vis to 1 mile.
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 21: Climb on heading 211° to 900. Cross OCN VORTAC at assigned altitude, then direct QUNTN.
**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RWY 3:** Climbing right turn to intercept NFG TACAN R-045 to ZUKEM then right turn direct VISTA. Cross VISTA at 4000 or assigned altitude.

**TAKE-OFF RWY 21:** Climb on heading 211° to 1300 then climb direct OCN VORTAC, then left turn to intercept OCN R-083 direct VISTA. Cross VISTA at 4000 or assigned altitude.
19003
CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)
OCEANSIDE, CALIFORNIA

ATIS 285.45
CLNC DEL
134 675 271.6
GND CON
134 675 360.2
CAMP PENDLETON TOWER *
128 775 340.2
SOCAL DEP CON
127 3 323.0

SL-5985 [USN]

<table>
<thead>
<tr>
<th>Rwy</th>
<th>Knots</th>
<th>60</th>
<th>120</th>
<th>180</th>
<th>240</th>
<th>300</th>
<th>360</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>V/V[fpm]</td>
<td>358</td>
<td>716</td>
<td>1074</td>
<td>1432</td>
<td>1790</td>
<td>2148</td>
</tr>
<tr>
<td>21</td>
<td>V/V[fpm]</td>
<td>446</td>
<td>892</td>
<td>1338</td>
<td>1784</td>
<td>2230</td>
<td>2676</td>
</tr>
</tbody>
</table>

Minimum Climb Rate to 1000

Do Not Exceed 200 KIAS until intercepting NFG TACAN R-047

CAMP PENDLETON
Chan 55 NFG

RADAR REQUIRED
NOT FOR CIVIL USE
NOT FOR USE BY CAT D/E AIRCRAFT

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb on heading 031° to 1000 then climbing right turn to 3800 and intercept NFG TACAN R-047 to CORRI.

TAKE-OFF RWY 21: Climb on heading 211° to 1300 then climbing left turn to 3800 and intercept NFG TACAN R-047 to CORRI.
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb on heading 031° to 1100 then climbing right turn heading 140° to intercept OCN VORTAC R-083 to ROBNN.
Cross ROBNN at 5000 or as directed by ATC.
For uncompensated Baro-VNAV systems, procedure NA below 4°C (40°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climbing right turn to 3000 direct TIZIE and hold, continue climb-in-hold to 3000.

<table>
<thead>
<tr>
<th>ATIS</th>
<th>SOCAL</th>
<th>PALOMAR TOWER</th>
<th>GND CON</th>
<th>CLNC DEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>120.15</td>
<td>127.3</td>
<td>118.6 (CTAF)</td>
<td>121.8</td>
<td>134.85</td>
</tr>
</tbody>
</table>

Procedure NA for arrival on TRM VORTAC airway radials 126 CW 306.

Procedure NA for arrivals at PACIF on V25-27 northwest bound and V208-458 westbound.

Procedure NA for arrivals on TRM VORTAC airway radials.

AUTHORIZATION REQUIRED
RNAV (RNP) Z RWY 24
MC CLELLAN-PALOMAR (CRQ)

For uncompensated Baro-VNAV systems, procedure NA below 1°C (34°F) or above 54°C (130°F). For inoperative MALS R, increase RNP 0.10 visibility to RVR 6000 all Cats, RNP 0.30 visibility to 1 ½ all Cats. GPS required.

PROEDURE NA: Climb to 2000 on track 245° to IBUGE and hold.

ATIS 120.15
SOCAL APP CON 127.3 323.0
PALOMAR TOWER 118.6 (CTAF) 276.4
GND CON 121.8
CLNC DEL 134.85

245° to RW24

MISSED APPROACH: Climb to 2000 on track 245° to IBUGE and hold.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. RF required.

Rwy 24 helicopter visibility reduction below RVR 4000 NA. For inop ALS, increase LNAV/VNAV all Cats visibility to 1/8 SM. Increase LNAV Cats A/B visibility to RVR 5500, Cat C to 1 1/2 SM. Inop table does not apply to LPV.

**MALSR**

**ATIS**

**SOCAL APP CON**

**PALOMAR TOWER**

**GND CON**

**CLNCE DEL**

Procedure NA for arrival on OCN VORTAC airway radials 145 CW 162.

**OS AND SIDE OCN**

**IBUGE and hold.**

**Climb to 2000 direct**

**MISSED APPROACH:**

Climb to 2000 direct IBUGE and hold.

**ATIS**

**SOCAL APP CON**

**PALOMAR TOWER**

**GND CON**

**CLNCE DEL**

**ATIS**

**SOCAL APP CON**

**PALOMAR TOWER**

**GND CON**

**CLNCE DEL**

**ATIS**

**SOCAL APP CON**

**PALOMAR TOWER**

**GND CON**

**CLNCE DEL**

**ATIS**

**SOCAL APP CON**

**PALOMAR TOWER**

**GND CON**

**CLNCE DEL**
RNAV (GPS) Y RWY 6
MC CLELLAN-PALOMAR (CRQ)

**ATIS** 120.15  **SOCAL APP CON** 127.3  **PALOMAR TOWER** 118.6 (CTAF)  **GND CON** 121.8  **CLNC DEL** 134.85

**For uncompensated Baro-VNAV systems, procedure NA below 4°C (40°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.**

**MISSING APPROACH:** Climbing right turn to 3000 direct TIZIE and hold, continue climb-in-hold to 3000.

Procedure NA for arrivals at PACIF on V25-27 northwest bound and V208-458 westbound.
CARLSBAD, CALIFORNIA
AL-5310 (FAA) 20310

**VOR-A**
MC CLELLAN-PALOMAR (CRQ)

**ATIS**
120.15

**SOCAL APP CON**
127.3 323.0

**PALOMAR TOWER**
118.6 (CTAF) 276.4

**GND CON**
121.8

**CLNC DEL**
134.85

---

**NOPT** for arrival on OCN VORTAC airway radial 301.

**MISSION BAY**
117.8 MZB 301°
Chan 125

**MZB**
180° and on MZB R-326 to MZB VORTAC.

**MALIGNED CIRCLING**
5680

**VOR-A**
119° 9.4 NM from FAF

**REIL Rwy 24**

**HIRL Rwy 6-24**

---

**One Minute Holding Pattern**

**3000**

**OCN VORTAC**

**REIL Rwy 24**

**HIRL Rwy 6-24**

---

**ZEBNU FIX MINIMUMS**

**KNOTS**
60 90 120 150 180

**MIN:SEC**
9:24 6:16 4:42 3:46 3:08

---

**CARLSBAD, CALIFORNIA**

**Amdt 8A 27FEB20**

---

**33°08'N-117°17'W**
WARNING: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 6**: Climbing left turn heading 245° to 2300, do not exceed 210K until established on heading 245°, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

**TAKEOFF RUNWAY 24**: Climb heading 245° to 2300, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

. . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**LOS ANGELES TRANSITION (CWARD2.LAX)**

**SEAL BEACH TRANSITION (CWARD2.SLI)**
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 6:** Climbing left turn heading 245° to 2300, do not exceed 210K until established on heading 245°, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence . . .

**TAKEOFF RUNWAY 24:** Climb heading 245° to 2300, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence . . . .

. . . . . on (transition). Maintain 15000. Expect higher altitude 10 minutes after departure.

**CHECK TRANSITION (PADRZ2.CHKNN)**

**DINTY TRANSITION (PADRZ2.DINTY)**

**IKAYE TRANSITION (PADRZ2.IKAYE)**

**MALIT TRANSITION (PADRZ2.MALIT)**

**OROSZ TRANSITION (PADRZ2.OROSZ)**

**SHAFER TRANSITION (PADRZ2.EHF)**

NOTE: RNAV 1.

NOTE: RADAR required.

NOTE: Turbojets and turboprops only.

NOTE: CHKNN, SHAFER, IKAYE, OROSZ TRANSITIONS: DME/DME/IRU or GPS required.

NOTE: DINTY, MALIT TRANSITIONS: GPS only.

NOTE: For non-GPS equipped aircraft, Oceanside (OCN) must be operational.

NOTE: DINTY TRANSITION ATC assigned only.

NOTE: DINTY and MALIT TRANSITIONS NA from SEE, SDM and RNM airports.

**TAKEOFF MINIMUMS**

Rwy 6: Standard with minimum climb of 255° per NM to 1700.

Rwy 24: Standard.

NOTE: Chart not to scale.
ATIS 322.375  JOSHUA APP/DEP CON 133.65  348.7  TOWER 120.15  340.2  GND CON 360.2  CLNC DEL 274.7

CAUTION: Short Intermediate Segment (4 NM), recommend early configuration.

CAUTION: DG from CISUN to IDALE 333 ft/NM. IDALE to HAMEN 440 ft/NM.

EMERG SAFE ALT 100 NM 15,500

ELEV 2284  TDZE 2284

V/V[fpm] 370  740  1110  1480  1850  2220

Min climb of 370 ft/NM to 9500 - Controlling Obstacle Unk
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb heading 028° to 3100, then climbing right turn direct ZUDID. Thence...

TAKE-OFF RWY 14: Climb heading 140° to 3000, then climbing right turn direct ZUDID. Thence...

TAKE-OFF RWY 21: Climb heading 208° to 3000, then climbing left turn direct ZUDID. Thence...

TAKE-OFF RWY 26: Climb heading 257° to 2700, then climbing left turn direct ZUDID. Thence...

TAKE-OFF RWY 32: Climb heading 320° to 3100, then climbing right turn direct BUGWU, then direct ZUDID. Thence...

...from over ZUDID proceed via depicted route to FILLMORE VORTAC. Cross ROSIE at or above 8000 or as assigned.
Rwy 32: Do not exceed 240 KIAS until leaving 3300.

**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RUNWAY 14:** Climbing right turn to intercept NID TACAN R-212, then direct SALTD. From SALTD, proceed via assigned transition or RADAR vectors to join assigned route. Cross SALTD at or above 15,000. Thence...

**TAKE-OFF RUNWAY 21:** Climb via NID TACAN R-212 to FAMAK, then direct SALTD. From SALTD, proceed via assigned transition or RADAR vectors to join assigned route. Cross FAMAK at or above 5,000 and cross SALTD at or above 15,000. Thence...

**TAKE-OFF RUNWAY 32:** Climb via NID TACAN R-322 to 3300 then climbing right turn direct NID, then via NID R-212 to FAMAK, then direct SALTD. From SALTD, proceed via assigned transition or RADAR vectors to join assigned route. Cross FAMAK at or above 5000 and cross SALTD at or above 15,000. Thence...

**GORMAN TRANSITION (SALTD7-GMN):** Via GMN VORTAC R-032 to GMN.

**HECTOR TRANSITION (SALTD7-HEC):** Via HEC VORTAC R-283 to HEC.
**ILS or LOC RWY 26R**

**CHINO (CNO)**

**LOC I-CNO**
- **111.5**

**APP CRS**
- **255°**

<table>
<thead>
<tr>
<th>FAF</th>
<th>4919 x 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>1110</td>
<td>4500 RAL</td>
</tr>
</tbody>
</table>

**ATIS**
- **125.85**

**SOCAL APP CON**
- **135.4 318.2**

**CHINO TOWER**
- **118.5 (CTAF)**

**GND CON**
- **121.6**

**UNICOM**
- **122.95**

**ELEV 650**

**TDZE 636**

**Helicopter visibility reduction below 1/4 SM NA.**

When local altimeter setting not received, use Ontario altimeter setting and increase DA to 940 feet and all visibilities 1/4 SM; increase all MDAs 60 feet and visibility S-LOC 26R and Circling Cat C and D 1/4 SM.

**MISSING APPROACH:** Climb to 1100 then climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.

**ATIS**
- **125.85**

**SOCAL APP CON**
- **135.4 318.2**

**CHINO TOWER**
- **118.5 (CTAF)**

**GND CON**
- **121.6**

**UNICOM**
- **122.95**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**ILS or LOC RWY 26R**

**CHINO (CNO)**

**AL-5599 (FAA)**

**ATIS**
- **125.85**

**SOCAL APP CON**
- **135.4 318.2**

**CHINO TOWER**
- **118.5 (CTAF)**

**GND CON**
- **121.6**

**UNICOM**
- **122.95**

**ELEV 650**

**TDZE 636**

**Helicopter visibility reduction below 1/4 SM NA.**

When local altimeter setting not received, use Ontario altimeter setting and increase DA to 940 feet and all visibilities 1/4 SM; increase all MDAs 60 feet and visibility S-LOC 26R and Circling Cat C and D 1/4 SM.

**MISSING APPROACH:** Climb to 1100 then climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.

**ATIS**
- **125.85**

**SOCAL APP CON**
- **135.4 318.2**

**CHINO TOWER**
- **118.5 (CTAF)**

**GND CON**
- **121.6**

**UNICOM**
- **122.95**

**ELEV 650**

**TDZE 636**

**Helicopter visibility reduction below 1/4 SM NA.**

When local altimeter setting not received, use Ontario altimeter setting and increase DA to 940 feet and all visibilities 1/4 SM; increase all MDAs 60 feet and visibility S-LOC 26R and Circling Cat C and D 1/4 SM.

**MISSING APPROACH:** Climb to 1100 then climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.
### Chart Information

**VOR RWY 26R**

**CHINO (CNO)**

**Notes**
- Rwy 26R helicopter visibility reduction below ¾ SM NA.
- When local altimeter setting not received, use Ontario altimeter setting and increase all MDAs 60 feet; increase HINTN FIX minimums.
- S-26R and Circling Cat B, C, and D ¾ SM.
- **MISSED APPROACH:** Climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.

**ATIS**

<table>
<thead>
<tr>
<th>125.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>122.95</td>
</tr>
</tbody>
</table>

**SOCAL APP CON**

| 135.4 |
| 318.2 |

**CHINO TOWER**

| 118.5 (CTAF) |

**GND CON**

| 121.6 |

**UNICOM**

| 112.95 |

### Diagram

- **MSA RAL 25 NM**
- **Riverside**

### Table: HINTN Fix Minimums

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-26R</td>
<td>2140-1/4</td>
<td>2140-1/2</td>
<td>2140-3</td>
<td>1504 (1500-3)</td>
</tr>
<tr>
<td></td>
<td>1504 (1500-1/4)</td>
<td>1504 (1500-1/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIRCLING</td>
<td>2140-1/4</td>
<td>2140-1/2</td>
<td>2140-3</td>
<td>1490 (1500-3)</td>
</tr>
<tr>
<td></td>
<td>1490 (1500-1/4)</td>
<td>1490 (1500-1/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HINTN INT</td>
<td>3.32°</td>
<td>TCH 53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Diagram Instructions

- **PARADISE**
- **RIVERSIDE**
- **3900 NoPT 275° (8.5)**
- **IF/IAF EDITS**

**ELEV**

| 650 |

**TDZE**

| 636 |

**FAF to MAP 9.1 NM**

<table>
<thead>
<tr>
<th>FAF</th>
<th>4.3 NM</th>
<th>4.8 NM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Visibility S-26R and Circling Cat B, C, and D SM.**

**When local altimeter setting not received, use Ontario altimeter setting and increase all MDAs 60 feet; increase HINTN FIX minimums.**

**Runway 26R helicopter visibility reduction below ¾ SM NA.**

**Muni altimeter setting.**

**continue climb-in-hold to 4500.**

**to 4500 direct RAL VOR and hold,**

**MISSED APPROACH:** Climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.

**TCH 53**

**3.32°**

**4.8 NM**

**5.1 NM**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**1320-1**

**674 (700-1)**

**1320-2**

**670 (700-2)**

**690 (700-2 1/2)**

**33°58'N-117°38'W**

| 81 |

**Orig:** 07OCT21
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**CORONA MUNI (AJO)**

**VOR or GPS-A**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLING</td>
<td>1660-1¼</td>
<td>1660-1½</td>
<td>1127 (1200-1¼)</td>
<td>1127 (1200-1½)</td>
</tr>
</tbody>
</table>

**APPROACH**

- WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ONTARIO INTL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET.
- MISSED APPROACH: CLIMBING RIGHT TURN TO 3100 DIRECT PDZ VORTAC AND HOLD, CONTINUE CLIMB IN HOLD TO 3100.

**AWOS-3PT**

132.175

**SOCAL APP CON**

135.4 318.2

**UNICOM**

122.7 (CTAF)

---

**CORONA, CALIFORNIA**

Amdt 4A 28AUG08

---

**VOR or GPS-A**

**AL-5987 (FAA)**

---

**SW-3, 07 OCT 2021 to 02 DEC 2021**
RNAV (GPS) RWY 22
BARSTOW-DAGGETT (DAG)

ASOS
132.175

LOS ANGELES CENTER
132.5 284.7

UNICOM
123.0 (CTAF)

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at TEELE on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

RNAV (GPS) RWY 22
BARSTOW-DAGGETT (DAG)

ELEV 1930
TDZE 1918

MISSED APCH FIX
NUMMN
247°

7 NM

8000
CIKVI
tr
275°

BINTE
tr
192°

NUMMN
△

BILKE

VGSI and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.

VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).

Procedure NA for arrivals at DISBE on V394 northeast bound.

Procedure NA for arrivals at TEELE on V587 northeast bound.

Procedure NA for arrivals at HEC VORTAC on V12-210 eastbound.
RNAV (GPS) RWY 26
BARSTOW-DAGGETT (DAG)

**RNP APCH.**

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C or above 54°C. Circling NA for Cat D south of Rwy 8-26. Rwy 26 helicopter visibility reduction below ½ SM NA.

# Missed approach requires a minimum climb of 220 feet per NM to 8000.

**ASOS**

132.175

**LOS ANGELES CENTER**

132.5 284.7

**UNICOM**

123.0 (CTAF)

**Procedure NA for arrivals at DISBE on V394 northeast bound.**

**Procedure NA for arrivals at TEELE on V587 northeast bound.**

**Procedure NA for arrivals at BASAL on V12-210 southwest bound.**

**Limit initial and intermediate approach to 210K.**

**Limit final and missed approach to 185 KIAS.**

**RNAV (GPS) RWY 26**

BARSTOW-DAGGETT (DAG)
Circling NA for Cat D south of Rwy 8-26.

MISSED APPROACH: Climbing right turn to 5000 via heading 090° and via DAG VORTAC R-224 to DAG VORTAC and hold (TACAN aircraft climb to 6000 via DAG VORTAC R-047 to TEELE/DAG 12 DME and hold NE, LT 227° inbound).

ASOS
132.175

LOS ANGELES CENTER
132.5 284.7

UNICOM
123.0

DAGGETT, CALIFORNIA

VOR or TACAN RWY 22
BARSTOW-DAGGETT (DAG)

One Minute Holding Pattern

224°

MISSED APPROACH: Climbing right turn to 5000 via heading 090° and via DAG VORTAC R-224 to DAG VORTAC and hold (TACAN aircraft climb to 6000 via DAG VORTAC R-047 to TEELE/DAG 12 DME and hold NE, LT 227° inbound).

ASOS
132.175

LOS ANGELES CENTER
132.5 284.7

UNICOM
123.0

DAGGETT, CALIFORNIA

VOR or TACAN RWY 22
BARSTOW-DAGGETT (DAG)

One Minute Holding Pattern

224°

MISSED APPROACH: Climbing right turn to 5000 via heading 090° and via DAG VORTAC R-224 to DAG VORTAC and hold (TACAN aircraft climb to 6000 via DAG VORTAC R-047 to TEELE/DAG 12 DME and hold NE, LT 227° inbound).

ASOS
132.175

LOS ANGELES CENTER
132.5 284.7

UNICOM
123.0

DAGGETT, CALIFORNIA

VOR or TACAN RWY 22
BARSTOW-DAGGETT (DAG)

One Minute Holding Pattern

224°

MISSED APPROACH: Climbing right turn to 5000 via heading 090° and via DAG VORTAC R-224 to DAG VORTAC and hold (TACAN aircraft climb to 6000 via DAG VORTAC R-047 to TEELE/DAG 12 DME and hold NE, LT 227° inbound).

ASOS
132.175

LOS ANGELES CENTER
132.5 284.7

UNICOM
123.0

DAGGETT, CALIFORNIA

VOR or TACAN RWY 22
BARSTOW-DAGGETT (DAG)

One Minute Holding Pattern

224°
DAGGETT ONE DEPARTURE (OBSTACLE)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
Rwy 4: Standard.
Rwy 8: Standard.
Rwy 22: Standard with minimum climb of 452’ per NM to 3700, or 4600-3 for climb in visual conditions.
Rwy 26: Standard with minimum climb of 420’ per NM to 4600, or 4600-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES
Rwy 4: Bush 44° from DER, 286’ left of centerline, 6’ AGL/1914’ MSL. Bush 51° from DER, 295’ left of centerline, 7’ AGL/1915’ MSL. Bush 126’ from DER, 86’ left of centerline, 4’ AGL/1912’ MSL.
Rwy 8: Multiple bushes beginning 113’ from DER, 259’ left of centerline, up to 16’ AGL/1924’ MSL.
Rwy 22: Tree 5668’ from DER, 1824’ left of centerline, 40’ AGL/2143’ MSL. Multiple poles 78’ left of centerline, up to 73’ AGL/1995’ MSL. Railroad 1224’ from DER, 402’ left of centerline, 23’ AGL/1968’ MSL. Pole 2635’ from DER, 279’ right of centerline, 72’ AGL/1995’ MSL.
Rwy 26: Vehicles on road 360’ from DER, 265’ left of centerline, 15’ AGL/1946’ MSL. Railroad 953’ from DER, 355’ left of centerline, 23’ AGL/1958’ MSL.

NOTE: Chart not to scale.

SW-3, 07 OCT 2021 to 02 DEC 2021

88

88
Circling not authorized Southwest of Rwy 14-32.

Missed Approach: Climbing right turn to 3000 direct TTE VOR/DME and hold.
Circling NA southwest of Rwy 14-32.

MISSED APPROACH: Climbing right turn to 2000 via EHF R-322 to JUTTY INT and hold.

AWOS-3P  BAKERSFIELD APP CON*  UNICOM
119.55  118.9  122.8 (CTAF)

ELEV 314  TDZE 313

2000 EHF R-322
JUTTY INT

JUTTY INT
EHF 11.3

2000 NoPT
322° (11.3)

EA-32
CI-RING

DELANO MUNI (DLO)

AWOS-3P

119.55

BAKERSFIELD APP CON*

118.9

UNICOM

122.8 (CTAF)

VOR RWY 32

VOR RWY 32

DELANO, CALIFORNIA

35°45'N-119°14'W

DELANO MUNI (DLO)

VOR RWY 32

DELANO, CALIFORNIA

35°45'N-119°14'W

DELANO MUNI (DLO)

VOR RWY 32
ILS or LOC/DME Y RWY 23L

**LOC (EDW) 110.1**  
**APCH CRS 226**  
**Rwy Idg 15,024**  
**TDZE 2286**  
**Arpt Elev 2311**  
**AL-500 [USAF]**  
**EDWARDS AFB (KEDW)**

- **Locater** 110.1 EDW
- **Localizer only**
- **Emerg Safe Alt 100 NM 16,500**
- **EDW R-226**
- **Gries EDW 2650**
- **Dashh EDW 2516**
- **Gebuw EDW 3000**
- **Curbo 7.5**
- **VGS and ILS glidepath not coincident [VGS]: Angle 3.00/TCH 49**
- **Loc only**
- **LOM 226**
- **7400**
- **7700**
- **5900**

**Circling**  
**2880-1**  
**569 (600-1)**

**Missed Approach Climb to 7400. Track EDW R-226 outbound to Gries, then turn left direct MORRI and hold.**

**Missed approach requires use of RNAV or ATC RADAR monitoring.**

Amdt 2 23APR20

**34°55'N - 117°53'E**

**EMERG SAFE ALT 100 NM 16,500**

**LOC I-EDW 110.1**

**APCH CRS 226**

**Rwy Idg 15,024**

**TDZE 2286**

**Arpt Elev 2311**

**AL-500 [USAF]**

**EDWARDS AFB (KEDW)**

- **ATIS 127.425 269.9**
- **SPORT AP CON 132.75**
- **TOWER 120.7 (CTAF) 318.1 (CTAF)**
- **GND CON 121.8 225.4**

**Circling not authorized NW of Rwy 5L-23R. Circling not authorized at night to Rwy 5L-23R.**

**Missed APPROACH. Climb to 7400. Track EDW R-226 outbound to Gries, then turn left direct MORRI and hold.**

**Missed approach requires use of RNAV or ATC RADAR monitoring.**

**EMERG SAFE ALT 100 NM 16,500**

**LOC I-EDW 110.1**

**APCH CRS 226**

**Rwy Idg 15,024**

**TDZE 2286**

**Arpt Elev 2311**

**AL-500 [USAF]**

**EDWARDS AFB (KEDW)**

- **ATIS 127.425 269.9**
- **SPORT AP CON 132.75**
- **TOWER 120.7 (CTAF) 318.1 (CTAF)**
- **GND CON 121.8 225.4**

**Circling not authorized NW of Rwy 5L-23R. Circling not authorized at night to Rwy 5L-23R.**

**Missed APPROACH. Climb to 7400. Track EDW R-226 outbound to Gries, then turn left direct MORRI and hold.**

**Missed approach requires use of RNAV or ATC RADAR monitoring.**

**EMERG SAFE ALT 100 NM 16,500**

**LOC I-EDW 110.1**

**APCH CRS 226**

**Rwy Idg 15,024**

**TDZE 2286**

**Arpt Elev 2311**

**AL-500 [USAF]**

**EDWARDS AFB (KEDW)**

- **ATIS 127.425 269.9**
- **SPORT AP CON 132.75**
- **TOWER 120.7 (CTAF) 318.1 (CTAF)**
- **GND CON 121.8 225.4**

**Circling not authorized NW of Rwy 5L-23R. Circling not authorized at night to Rwy 5L-23R.**

**Missed APPROACH. Climb to 7400. Track EDW R-226 outbound to Gries, then turn left direct MORRI and hold.**

**Missed approach requires use of RNAV or ATC RADAR monitoring.**

**EMERG SAFE ALT 100 NM 16,500**

**LOC I-EDW 110.1**

**APCH CRS 226**

**Rwy Idg 15,024**

**TDZE 2286**

**Arpt Elev 2311**

**AL-500 [USAF]**

**EDWARDS AFB (KEDW)**

- **ATIS 127.425 269.9**
- **SPORT AP CON 132.75**
- **TOWER 120.7 (CTAF) 318.1 (CTAF)**
- **GND CON 121.8 225.4**

**Circling not authorized NW of Rwy 5L-23R. Circling not authorized at night to Rwy 5L-23R.**

**Missed APPROACH. Climb to 7400. Track EDW R-226 outbound to Gries, then turn left direct MORRI and hold.**

**Missed approach requires use of RNAV or ATC RADAR monitoring.**

EMERG SAFE ALT 100 NM 16,500.
EDWARDS, CALIFORNIA

RNAV (GPS) RWY 5R

APCH CRS
Rwy ldg 15,024
TDZE 2303
Arpt Elev 2311

AL-500 (USAF)
EDWARDS AFB (KEDW)

ATIS
127.425 269.9

SPORT APP CON/DEP CON
132.75 343.7

TOWER
120.7 (CTAF) 318.1 (CTAF)

GND CON
121.8 225.4

For uncompensated Baro
VNAV systems, procedure
NA below -19°C (-2°F) or
above 54°C (130°F).

DME/DME RNP-0.3 NA .4197

EMERG SAFE ALT 100 NM 16,500

VGSI and descent
angles not coincident.

† LNAV only

† 1.5 NM to
RW05R

2344

SW-3, 07 OCT 2021 to 02 DEC 2021

EDWARDS, CALIFORNIA
34°55'N - 117°53'W
RNAV (GPS) RWY 23L

ATIS * 127.425 269.9
SPORT APP CON/DEP CON 132.75 343.7
TOWER * 120.7 (CTAF) 318.1 (CTAF)
GND CON 121.8 225.4

For uncompensated Baro-VNAV systems,
Procedure NA below -19°C (-2°F) or above 34°C (130°F).

DME/DME RNP-0.3 NA

EMERG SAFE ALT 100 NM 16,500

5010 •

54° 55' N - 117° 53' W

EDWARDS, CALIFORNIA

RNAV (GPS) RWY 23L

EDWARDS AFB (KEDW)

APCH CRS 226° Rwy Idg 15,024 TDZE 2286 Arpt Elev 2311

AL-500 (USAF)

EDWARDS AFB (KEDW)

SW-3, 07 OCT 2021 to 02 DEC 2021

EMERG SAFE ALT 100 NM 16,500

3700 LDFRD

† LNAV only

4500

GP 3.00°

CH 31

REIL Rwy 23L
HIRL Rwy SR-23L

EDWARDS, CALIFORNIA

Amendment 30JAN20

RNAV (GPS) RWY 23L
**CIRCLING**

- **S-5L**
  - A: 2840-1, 529 (600-1)
  - B: 2840-1½, 529 (600-1½)

- **TOWER**
  - 120.7 (CTAF)
  - 318.1 (CTAF)

- **EMERG SAFE ALT**
  - 100 NM 16,500
**EDWARDS, CALIFORNIA**

**EMERG SAFE ALT 100 NM 16,500**

**VOR/DME or TACAN Y RWY 23L**

- **VORAC EDW**: 116.4 Chan 111
- **APCH CRS**: 226°
- **RWY Idg**: 15024
- **TDZE**: 2286
- **Arpt Elev**: 2311
- **AL-500 (USAF)**
- **EDWARDS AFB (KEDW)**

**ATIS**: 127.425 269.9
**SPORT APP CON/DEP CON**: 132.75 343.7
**TOWER**: 120.7 (CTAF) 318.1 (CTAF)
**GND CON**: 121.8 225.4

**FAF**

- EDWARDS 116.4 EDW 226° Chan 111

**MISSED APPROACH**

- Climb to 7400. Track EDW VORAC R-226 outbound to GRIES, then turn left direct MORRI and hold.

**EMERG SAFE ALT 100 NM 16,500**

**VGS and descent angles not coincident (VGS Angle 3.00/TCH 49).**

**CATEGORY**

- **A**: 2640-1
- **B**: 354
- **C**: 400-1

**EDWARDS, CALIFORNIA**

Amtd 2 23APR20

**EDWARDS AFB (KEDW)**

34°55'N - 117°53'W

**23°L**
RNAV (GPS) RWY 26

ATIS 269.275
LOS ANGELES CENTER 128.6 291.7
TOWER 119.1 360.2
GND CON 121.9 254.35
CLNC DEL 340.2

CAUTION: Extensive civil aircraft operations at Imperial County airport.

CAUTION: Missed approach max 250 KIAS until 500.

NOTE: Aircraft inbound from East use ARGUS straight-in. Aircraft inbound from West use BEENY, requires holding.

EMERG SAFE ALT 100 NM 17,100

CATEGORY A B C D

LNAV MDA 300-1 346 (400-1)

CIRCLING 420-1 462 (500-1) 420-1½ 520-2

EL CENTRO, CALIFORNIA
Amdt 5 18JUN20

EL CENTRO NAF (VRACIU FLD) (KNJK)

RNAV (GPS) RWY 26
VOR/DME RWY 30

EL CENTRO, CALIFORNIA

<table>
<thead>
<tr>
<th>VORTAC IPL</th>
<th>APCH CRS</th>
<th>Rwy Idg</th>
<th>TDZE</th>
<th>Arpt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>115.9</td>
<td>284*</td>
<td>6825</td>
<td>-42</td>
<td>-42</td>
</tr>
</tbody>
</table>

AL-472 [USN] EL CENTRO NAF (VRCACI FLD) (KNJK)

Visibility reduction by helicopters NA.

ATIS * LOS ANGELES CENTER TOWER * GND CON CLNC DEL
269.275 128.6 291.7 119.1 360.2 121.9 254.35 340.2

RWY 30: 20.1 visual area penetrated by Fence, lit, 289 ft from thld, 213 ft right of course, 8 AGL/-34 MSL Fence, 199 ft from thld, 305 ft right of course, 8 AGL/-34 MSL Fence, 504 ft from thld, 3 ft right of course, 8 AGL/-34 MSL

CAUTION: Extensive civil aircraft operations at Imperial County airport.

CAUTION: Do not overfly the US-Mexican border.

EMERG SAFE ALT 100 NM, 17,100 from NJK TACAN

600 2000 IPL R-074 BEENY IPL 7

CAUTION: Intmd seg len 5 NM Short intermediate, recommend early configuration

ELEV -42 TDZE -42

HRL Rwy 8-26, 12-30

284° 3.5 NM from FAF

MIN: 300 Sec: 1.00

Knots 60 90 120 150 180

Min: 300 200 130 112 100

CIRCLING 420-1 462 (500-1) 420-1 1/2 520-2

462 (500-1 1/2) 562 (600-2)

EL CENTRO, CALIFORNIA

32°50'N-115°40'W

EL CENTRO NAF (VRCACI FLD) (KNJK)

Amdt 4 18JUN20
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
Circling NA west of Rwy 18-36. Obtain local altimeter setting on CTAF; when not received, use MCAS Miramar altimeter setting minimums.

**MISSING APPROACH:** Climbing left turn to 5000 direct ROBNN WP and hold.

### AWOS-3P
- **118.425**

### SOCAL APP CON
- **127.3 323.0**

### CTAF
- **123.05**

---

**ELEV 708**

**TDZE 708**

**MIRL Rwy 18-36**

**FALLBROOK, CALIFORNIA**

**Orig 26FEB98**

---

**MCAS MIRAMAR ALTIMETER SETTING MINIMUMS**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>S-18</th>
<th>CIRCLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1260-1</td>
<td>1260-1</td>
</tr>
<tr>
<td>B</td>
<td>552 (600-1)</td>
<td>552 (600-1)</td>
</tr>
<tr>
<td>C</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>D</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>S-18</th>
<th>CIRCLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1360-1</td>
<td>1360-1</td>
</tr>
<tr>
<td>B</td>
<td>652 (700-1)</td>
<td>652 (700-1)</td>
</tr>
<tr>
<td>C</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>D</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb heading 181° to 1200, then climbing left turn on heading 160° to join V208-458. Aircraft westbound proceed on course, aircraft eastbound on V208-458 continue climb in VISTA holding pattern to 5000 before proceeding on course.

TAKEOFF RUNWAY 36: Climb heading 001° to intercept OCN VORTAC R-027 to TANNR INT before proceeding on course or, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Fallbrook Community Airpark at or above 2200, then proceed on OCN VORTAC R-027 to TANNR INT before proceeding on course.
 procedure NA for arrivals at WISUP INT via V16-370 eastbound.

Procedure NA for arrivals at WISUP INT via V16-370 eastbound.
FULLERTON, CALIFORNIA

VOR-A

FULLERTON MUNI (FUL)

ATIS 125.05
SOCAL APP CON 125.35 316.125
FULLERTON TOWER* 119.1 (CTAF)
GND CON 121.8
UNICOM 122.85

VOR-A

FULLERTON MUNI (FUL)

Amdt 7C 15JUL21

Helicopter visibility reduction below 1 SM NA.
Night landing: Rwy 6 NA.
Maximum entry altitude 6000.

MISSED APPROACH: Climbing right turn to 2600 via
heading 145° and SLI R-058 to SLI VORTAC and hold.

MINIMUMS

CATEGORY B C D
CIRCLING 1500-1½ 1500-1½ NA

BWALT FIX MINIMUMS

CIRCLING 760-1 1060-1½ NA

Knots 60 90 120 150 180
Min:Sec 6:18 4:12 3:09 2:31 2:06

Helicopter visibility reduction below 1 SM NA.
Night landing: Rwy 6 NA.

Maximum entry altitude 6000.
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
TOP ALTITUDE: 2000

TAKEOFF MINIMUMS
Rwy 6: Standard with minimum climb of 280' per NM to 600.
Rwy 24: Standard.

NOTE: This departure procedure not authorized for turbo-prop or turbo-jet aircraft.
NOTE: RADAR required.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Turn right heading 120° for vectors to SLI VORTAC, thence...

TAKEOFF RUNWAY 24: Turn left heading 120° for vectors to SLI VORTAC, thence...

...on (transition) or (assigned route). Maintain 2000 and expect filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM1.HEC): From over SLI VORTAC on SLI R-058 and PDZ R-238 to PDZ VORTAC, then on PDZ R-012 to APLES, then on HEC R-232 to HEC VORTAC.

LAKE HUGHES TRANSITION (ANAHM1.LHS): From over SLI VORTAC on SLI R-058 and PDZ R-238 to POXKU, then on POM R-164 to BAYJY, then on VNY R-095 to DARTS, then on LHS R-139 to LHS VORTAC.

VENTURA TRANSITION (ANAHM1.VTU): From over SLI VORTAC on SLI R-251 to WILMA, then on LAX R-123 to LAX VORTAC, then on LAX R-276 to SADDE, then on VTU R-093 to VTU VOR/DME.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb heading 063° to 596, then right turn on heading 120° to 2000 for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 24: Climb heading 243° to 596, then on heading 240° to 2000 for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

. . . . on (transition). Maintain 6000. Expect higher altitude 10 minutes after departure.

IKAYE TRANSITION (HAWWC3.IKAYE)

TAKEOFF MINIMUMS
Rwy 6: Standard with minimum climb of 280 feet per NM to 600.
Rwy 24: Standard.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: This procedure not authorized for turbojet aircraft.
RNAV (GPS) RWY 25
JACK NORTHRUP FLD/HAWTHORNE MUNI (HHR)

ATIS 118.4
SOCAL APP CON 124.9 269.0
HAWTHORNE TOWER* 121.1 [CTAF] 257.8
GND CON 125.1

Circling NA north of RWy 7-25. Procedure NA at night. RWy 25 helicopter visibility reduction below 1 SM NA. For uncompensated Baro-VNAV systems, procedure NA below 6°C or above 54°C. Circling NA when control tower closed. For inop ALS, increase LNAV/VNAV Cats A/B visibilities to 1 1/2 SM. Inop table does not apply to LPV and LNAV. Simultaneous approach authorized with LAX 25L/R, 24L/R. LNAV and LNAV/VNAV only approach NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

Procedure NA for arrivals at POWUP on V394 northeast bound.

Procedure NA for arrivals at PDZ VORTAC airway radials 238 CW 012.

Procedure NA for arrivals at SEAL BEACH SLL airway radials 012.

Procedure NA for arrivals at PDZ VORTAC airway radials 251 CW 058.

MISSED APPROACH: Climb to 800 then climbing left turn to 3000 direct LIMBO and hold, continue climb-in-hold to 3000.

For uncompensated Baro-VNAV systems, use of FD or AP providing RNAV track guidance required during simultaneous operations.

Use of FD or AP providing RNAV track guidance required during simultaneous operations.
Inop table does not apply to Cat C. Rwy 25 helicopter visibility reduction below ¾ SM NA. Circling NA when control tower closed. When local altimeter setting not received, use Los Angeles Intl altimeter setting. Simultaneous approach authorized with LAX 25L/R 24L/R. Circling NA north of Rwy 7-25. DME from LAX VORTAC. Simultaneous reception of I-HHR and LAX DME required. Procedure NA at night.

Procedure NA for arrivals at SJ VORTAC on V459-597 southeast bound.

VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 26).

Inop table does not apply to Cat C. Rwy 25 helicopter visibility reduction below ¾ SM NA. Circling NA when control tower closed. When local altimeter setting not received, use Los Angeles Intl altimeter setting. Simultaneous approach authorized with LAX 25L/R 24L/R. Circling NA north of Rwy 7-25. DME from LAX VORTAC. Simultaneous reception of I-HHR and LAX DME required. Procedure NA at night.

Procedure NA for arrivals at SJ VORTAC on V459-597 southeast bound.

VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 26).
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climb on heading 073° to 580, then turn right direct to cross SPACX at 3000 then on track 200. Thence . . . .

TAKEOFF RUNWAY 25: Climb on heading 253° to intercept course 200° to cross SPACX at 3000 then on track 200°. Thence . . . .

. . . . on assigned course/route. Maintain ATC assigned altitude. Expect filed altitude 5 minutes after departure.
Procedure NA for arrivals at WESIN on V186 southeast bound.

Rwy 4-22 restricted for glider operations.
VOR or GPS-A
IMPERIAL COUNTY (IPL)

MISSED APPROACH: Climbing right turn to 2000 direct IPL VORTAC and hold.

ASOS
132.175

LOS ANGELES CENTER
128.6 291.7

UNICOM
122.7 [CTAF] 0

UNITED STATES MEXICO

2562

2000 IPL

IPL VORTAC

One Minute Holding Pattern

FAF to MAP 5.7 NM

MIRL Rwys 8-26 and 14-32

CIRCLING

560-1 614 (700-1)

560-1 614 (700-1)

560-2 614 (700-1/4)

560-2 614 (700-2)

CATEGORY

A

B

C

D

FAF to MAP 5.7 NM

Knots

60

90

120

150

180

Min:Sec

5:42

3:48

2:51

2:17

1:54

IMPERIAL, CALIFORNIA

Amdt 4B 12AUG21

32°50'N-115°35'W
**IMPERIAL BEACH, CALIFORNIA**

<table>
<thead>
<tr>
<th>TACAN</th>
<th>NRS</th>
<th>APCH CRS</th>
<th>RWY IDG</th>
<th>THRE</th>
<th>Arpt Elev</th>
<th>AL-307 [USN]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chan</td>
<td>29</td>
<td>258*</td>
<td>4997</td>
<td>20</td>
<td>24</td>
<td>1350</td>
</tr>
</tbody>
</table>

**MISSING APPROACH:** Climb to 1600 via NRS TACAN R-078 to NRS, then via NRS R-273 to FOLTA, continue climb-in-hold to 1600. Remain within 5.2 DME when established in holding.

**RADAR REQUIRED**
EMERGENCY SAFE ALT 100 NM 13,600

**ATIS */ASOS 276.2**

**SOCAL APP CON**

| 125.15 | 317.55 |

**IMPERIAL BEACH TOWER */ GND CON**

| 120.65 | 239.25 | 285.575 |

**Max airspeed 90 KIAS**

**IS**

<table>
<thead>
<tr>
<th>CESVI NRS 13</th>
<th>CESVI NRS 13</th>
<th>CESVI NRS 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUMGE NRS 4</td>
<td>ZIPAD NRS 4</td>
<td>ZIPAD NRS 4</td>
</tr>
</tbody>
</table>

**UNITED STATES MEXICO**

| 739 United States MEXICO |

**UNITED STATES MEXICO**

| 930 United States MEXICO |

**EMERGENCY SAFE ALT 100 NM 13,600**

**COPPER**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-27</td>
<td>360-1</td>
</tr>
</tbody>
</table>

**HRL Rwy 9-27**

**Amdt 4 20AUG15**
TAKEOFF MINIMUMS
Rwy 20: Standard with a minimum climb of 240' per NM to 7000.
Rwys 2, 15, 33, 10, 28: NA-restricted airspace.

NOTE: GPS required.
NOTE: RNAV 1.
INYOKERN TWO DEPARTURE

NOTE: Chart not to scale.

JOSHUA DEP CON
133.65 348.7

TOP ALTITUDE:
10000

KOLEE
N35°27.74'
W118°01.56'

TAKEOFF MINIMUMS
Rwys 2, 10, 15, 28, 33: NA-restricted airspace/terrain.
Rwy 20: Standard with minimum climb of 400' per NM to 8200.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 20: Climb to 10000 on heading 207° and LHS VORTAC R-015 to LHS VORTAC, then proceed on course.

INYOKERN TWO DEPARTURE
(IYK2.LHS) 15SEP16

INYOKERN, CALIFORNIA
INYOKERN, (IYK)
ILS RWY 26L
BRACKETT FLD (POC)

MISSED APPROACH: Climb to 2100 then climbing left turn to 4000 on POM VORTAC R-164 to PRADO INT/POM 9.3 DME.

When local altimeter setting not received, use Ontario Intl altimeter setting and increase DA to 1364.

WHEN GS NOT USED, USE LOC RWY 26L PROCEDURE.

PROJECTION NA FOR ARRIVALS

1014
1105
3253

0.9% U P
1.0% Up

APP CRS
Apt Elev
TDZE
MIRL Rwy 8R-26L

ILS RWY 26L

SW-3, 07 OCT 2021 to 02 DEC 2021

LA VERNE, CALIFORNIA
131
Circling to Rwy 8L NA at night. Circling NA for Cat C north of Rwy 8L-26R. When circling to Rwy 8R at night, operational VGSI required, remain on or above VGSI glidepath until threshold. Rwy 26L helicopter visibility reduction below 2/3 SM NA. When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDAs 40 feet.

**ATTENTION**
- When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDAs 40 feet.
- AMENDMENT: 03JAN19
- Procedure NA for arrivals at PDZ VORTAC on airway radials 292 CW 030.
- When Circling to Rwy 8R at night, operational VGSI required, remain on or above VGSI glidepath until threshold. Rwy 26L helicopter visibility reduction below 2/3 SM NA.
- When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDAs 40 feet.
When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDA 40 feet and visibility Cat C ½ mile. Night landing: Rwy 8L NA, Rwy 8R operational VGSI required, remain on or above VGSI glidepath until threshold. Helicopter visibility reduction below 1 SM not authorized. Circling NA for Cat C north of Rwy 8L-26R.

BRACKETT TOWER
Rwy 8R/26L
Rwy 8L/26R

POMONA

POM 9.3

SEAL BEACH
115.7 SLI

ELEV 1014

LA VERNE, CALIFORNIA

VOR or GPS-A
BRACKETT FLD (POC)

LAHAB

PARADISE

POMONA

PRADO

Apt Elev

TWR

0.9% U P

1.0% U P

CATEGORY

A

B

C

D

1800-1

786 (800-1)

1800-1 ½

786 (800-1 ½)

1800-2 ½

786 (800-2 ½)

NA

1680-1

666 (700-1)

1760-2 ½

746 (800-2 ½)

NA

134°06'N-117°47'W

SW-3, 07 OCT 2021 to 02 DEC 2021

BRACKETT FLD (POC)
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

SW-3, 07 OCT 2021 to 02 DEC 2021
When VGSI inop, Straight-in/Circling Rwy 6 procedure NA at night.
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F). When local altimeter setting not received, use Palmdale altimeter setting: increase LPV DA to 2661 feet, LNAV/VNAV DA to 2709 feet and all MDAs 60 feet, and increase Circling Cats C/D visibility ¼ SM.
Baro-VNAV NA when using Palmdale altimeter setting.

**MISSING APPROACH:** Climb to 6000 direct SISOY and via 091° track to ETHER and hold.

**Procedure**

- **IN** HONUL GP 3°0 NA
- **OUT** SISOY and via 091° track to ETHER

**CIRCLING**

- LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F).
- Visibility reduction by helicopters NA.
- When VGSI inop, Straight-in/Circling Rwy 6 procedure NA at night.
- For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F). When local altimeter setting not received, use Palmdale altimeter setting: increase LPV DA to 2661 feet, LNAV/VNAV DA to 2709 feet and all MDAs 60 feet, and increase Circling Cats C/D visibility ¼ SM.
- Baro-VNAV NA when using Palmdale altimeter setting.

**MISSING APPROACH**

- Climb to 6000 direct SISOY and via 091° track to ETHER and hold.
RNAV (GPS) RWY 24
GENERAL WM J FOX AIRFIELD (WJF')

ATIS
126.3

FOX TOWER
118.525 (CTAF) 256.9

GND CON
121.7 256.9

UNICOM
122.95

Procedure NA for arrivals at ETHER via V12 eastbound.

LANCASTER, CALIFORNIA
Orig A 09SEP21

34°44'N-118°13'W
**General WM J Fox Airfield (WJF)**

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circling</td>
<td>3320-1½</td>
<td>3320-1½</td>
<td>3320-3</td>
<td>969 (1000-3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knots</th>
<th>60</th>
<th>90</th>
<th>120</th>
<th>150</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min:Sec</td>
<td>2:42</td>
<td>1:48</td>
<td>1:21</td>
<td>1:05</td>
<td>0:54</td>
</tr>
</tbody>
</table>

**ATIS**
- **LANCASTER, CALIFORNIA**
- **JOSHUA APP CON**
- **FOX TOWER**
- **GND CON**
- **UNICOM**

**URGED INT**
- **EFALO**
- **PMD: 20.3**
- **URGED INT**
- **PMD: 13.1**

**Number of Sector Points**
- **5400**
- **7300**
- **114.5**
- **296°**

**MISSED APPROACH:** Climb to 4500 direct PMD VORTAC and hold.

**One Minute Holding Pattern**

**116° 2.7 NM from FAF**

**PMD: 10.4**

**CAGSI INT**
- **LHS: 9.3**

**EFALO INT**
- **PMD: 20.3**

**DUAL VOR or DME REQUIRED**

**Rwy Idg**
- **TDZE**
- **Apt Elev 2351**

**VOR-B**

**General WM J Fox Airfield (WJF)**

**LOCATION**
- **LANCASTER, CALIFORNIA**
- **SW-3, 07 OCT 2021 to 02 DEC 2021**

**ATIS**
- **126.3**
- **126.1 290.3**

**Fox Tower**
- **118.525 (CTAF) 256.9**

**Ground Control**
- **121.7 256.9**

**Unicom**
- **122.95**

**CIRCLING**
- **3320-1½ 969 (1000-1½)**
- **3320-3 969 (1000-3)**

**256°**

**2.7 NM**

**296°**

**116°**

**5400**

**7300**

**114.5**

**296°**

**10.4**

**Rwy Idg TDZE**

**Apt Elev 2351**

**2.7 NM**

**FAF to MAP**
- **2.7 NM**

**247°**

**067°**

**116°**

**ELEV 2351**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
Procedure NA at night.

MISSED APPROACH: Climb to 1400, then climbing right turn to 3500 direct GLJ VOR and hold.

AWOS-3PT 133.875

SANTA BARBARA APP CON* 124.15 327.8

UNICOM 122.7 (CTAF)
RNAV (RNP) RWY 12
LONG BEACH (DAUGHERTY FLD) (LGB)

For uncompensated Baro-VNAV systems, procedure NA below 4°C (40°F) or above 54°C (130°F). RF required. GPS required.

MISSING APPROACH: Climb to 3000 on track 121° to GUNEY, right turn to LUVCI, and on track 183° to ALBAS and hold.

ATIS 127.75  SOCAL APP CON 125.35 316.125
LONG BEACH TOWER 120.5 257.6 (Rwy 12)
GND CON 133.0 257.6
CLNC DEL 118.15
UNICOM 122.95

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).

RNP 0.15 DA 414-1¼ 361 (400-1¼)
RNP 0.30 DA 485-1½ 432 (500-1½)

AUTHORIZATION REQUIRED
RNAV (RNP) Y RWY 30
LONG BEACH (DAUGHERTY FLD) (LGB)

For uncompensated Baro-VNAV systems, procedure NA below 4°F C or above 54°F C.

ATIS
SOCAL APP CON
LONG BEACH TOWER
GND CON
CLNC DEL
UNICOM
127.75
125.35 316.125
120.5 257.6 (Rwy 12)
119.4 (CTAF) 257.6 (Rwy 30)
133.0 257.6
118.15
122.95

Procedure NA for arrivals at MIDS on V23-165-597 southeast bound.

For uncompensated Baro-VNAV systems, procedure NA below 4°F C or above 54°F C.

Authorization Required

RNAV (RNP) Y RWY 30
LONG BEACH, CALIFORNIA

Amdt 3 28FEB19

33°49'N-118°09'W
RNAV (GPS) Z RWY 30
LONG BEACH (DAUGHERTY FLD) (LGB)

ATIS 127.75  SOCAL APP CON 125.35 316.125  LONG BEACH TOWER* 120.5 257.6 (Rwy 12) 119.4 [CTAF] 257.6 (Rwy 30)  GND CON 133.0 257.6  CLNC. DEL 118.15  UNICOM 122.95

MAISR

MALSR

MISSING APPROACH: Climb to 800 then climbing left turn to 3000 direct PADDR and hold

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 4°C or above 54°C. For inop ALS, increase LNAV Cat C and D visibility to 1.5 SM.

ATIS 127.75
SOCAL APP CON 125.35 316.125
LONG BEACH TOWER* 120.5 257.6 (Rwy 12)
119.4 [CTAF] 257.6 (Rwy 30)
GND CON 133.0 257.6
CLNC. DEL 118.15
UNICOM 122.95

MALSR

MISSING APPROACH: Climb to 800 then climbing left turn to 3000 direct PADDR and hold

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 4°C or above 54°C. For inop ALS, increase LNAV Cat C and D visibility to 1.5 SM.
Vertical Guidance Navaid and Angle:
LOC I-LGB Glide Slope 3.00°.
VGSI and ILS glidepath not coincident
(VGSI Angle 3.00/TCH 73).

**RADAR REQUIRED**

Weather Minimums: 5000 foot ceiling and 10 miles visibility.
PROCEDURE NOT AUTHORIZED AT NIGHT.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
NOTE: Chart not to scale.

NOTE: RADAR required.

NOTE: This departure procedure not authorized for turbo-prop or turbo-jet aircraft.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb heading 076° to 800, thence. . . .
TAKEOFF RUNWAY 12: Climb heading 121° to 800, thence. . . .
TAKEOFF RUNWAYS 26L/R: Climb heading 256° to 800, thence. . . .
TAKEOFF RUNWAY 30: Climb heading 301° to 800, thence. . . .
HECTOR or LAKE HUGHES TRANSITION: Expect vectors to SLI VORTAC.
VENTURA TRANSITION: Expect vectors to LAX VORTAC.

. . . . on (transition) or (assigned route). Maintain assigned altitude and expect filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM1.HEC): From over SLI VORTAC on SLI R-058 and PDZ R-238 to PDZ VORTAC, then on PDZ R-012 to APLES, then on HEC R-232 to HEC VORTAC.
LAKE HUGHES TRANSITION (ANAHM1.LHS): From over SLI VORTAC on SLI R-058 and PDZ R-238 to POXKU, then on POM R-164 to BAYJY, then on VNY R-095 to DARTS, then on LHS R-139 to LHS VORTAC.
VENTURA TRANSITION (ANAHM1.VTU): From over SLI VORTAC on SLI R-251 to WILMA, then on LAX R-123 to LAX VORTAC, then on LAX R-276 to SADDE, then on VTU R-093 to VTU VOR/DME.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 121° to 600, then on heading 121° or as assigned by ATC for vectors to cross FRITR at or above 5000, then on track 076° to DOTSS, thence . . . .

TAKEOFF RUNWAY 26R: Climb heading 256° to 580, then on heading 180° or as assigned by ATC for vectors to cross FRITR at or above 5000, then on track 076° to DOTSS, thence . . . .

TAKEOFF RUNWAY 30: Climb heading 301° to 1500, then left turn heading 180° or as assigned by ATC for vectors to cross FRITR at or above 5000, then on track 076° to DOTSS, thence . . . .

. . . .on (transition). Maintain 17000. Expect higher altitude 10 minutes after departure.

AVRRY TRANSITION (FRITR3.AVRRY)
CNERY TRANSITION (FRITR3.CNERY)
TCATE TRANSITION (FRITR3.TCATE)

NOTE: Turbojet aircraft only.

TAKEOFF MINIMUMS
Rwy 8L/R, 26L: NA-ATC.
Rwy 12, 30: Standard.
Rwy 26R: Standard with a minimum climb of 230’ per NM to 1600.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb heading 076° to 580, then on heading 076° or as assigned by ATC for vectors to PJIN, cross PJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 12: Climb heading 121° to 580, then on heading 121° or as assigned by ATC for vectors to PJIN, cross PJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 26L: Climb heading 256° to 800, then on heading 270° or as assigned by ATC for vectors to PJIN, cross PJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 26R: Climb heading 256° to 580, then on heading 270° or as assigned by ATC for vectors to PJIN, cross PJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 30: Climb heading 301° to 580, then on heading 270° or as assigned by ATC for vectors to PJIN, cross PJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

. . . . on (transition). Maintain 6000. Expect higher altitude 10 minutes after departure.

IKAYE TRANSITION (HAWWC3.IKAYE)

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 8L/R, 12, 30: Standard.
Rwy 26L: Standard with minimum climb of 330’ per NM to 700.
Rwy 26R: Standard with minimum climb of 230’ per NM to 1600.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: This procedure not authorized for turbojet aircraft.
TOP ALTITUDE:
IKAYE TRANSITION: 12000;
CSTRO AND COREZ
TRANSITIONS: 15000

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Some departures may be vectored to OROSZ when required for traffic.
NOTE: IKAYE TRANSITION ATC assigned only.
NOTE: Departing Rwy 26R, do not exceed 210K until established on 302° course to TOPMM.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.

TAKEOFF MINIMUMS
Rwys 8L/R, 26L: NA-ATC.
Rwy 12: Standard.
Rwy 26R: Standard with minimum climb of 270’ per NM to 600.
Rwy 30: Standard with minimum climb of 285’ per NM to 600.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 121° to 600, then direct to cross OMMAA at 3000 and at or below 210K, then on track 196° to PLTAA, then on track 269° to AAYJY, then on track 350° to cross QMARY at 4000 and at or below 230K, then on track 312° to TOPMM, thence. . . .

TAKEOFF RUNWAY 26R: Climb heading 256° to intercept course 302° to TOPMM, thence. . . .

TAKEOFF RUNWAY 30: Climb heading 301° to intercept course 269° to TOPMM, thence. . . .

. . . .on (transition). IKAYE transition maintain 12000; COREZ and CSTRO transitions maintain 15000. Expect filed altitude 10 minutes after departure.

COREZ TRANSITION (TOPMM4.COREZ)

CSTRO TRANSITION (TOPMM4.CSTRO)

IKAYE TRANSITION (TOPMM4.IKAYE)
TOP ALTITUDE:  
(TURBOJETS) 17000

NOTE: RADAR required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turboprop only.  
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.  
NOTE: HAILO/ LAS/ NNAVY transitions ATC only.
TAKEOFF RUNWAY 12: Climb on heading 121° to 600, then on heading 121° or as assigned by ATC for vectors to cross CAHIL at or above 15000, then on track 023° to cross ZOOMM at or above 16000, thence. . . .

TAKEOFF RUNWAY 26R: Climb on heading 256° to 580, then on heading 180° or as assigned by ATC for vectors to cross CAHIL at or above 15000, then on track 023° to cross ZOOMM at or above 16000, thence. . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 1500, then left turn heading 180° or as assigned by ATC for vectors to cross CAHIL at or above 15000, then on track 023° to cross ZOOMM at or above 16000, thence. . . .

. . . on (transition) turbojets maintain 17000, expect filed altitude 10 minutes after departure.

BEALE TRANSITION (ZOOMM3.BEALE)
HAILO TRANSITION (ZOOMM3.HAILO)
LAS VEGAS TRANSITION (ZOOMM3.LAS)
MISEN TRANSITION (ZOOMM3.MISEN)
NNAVY TRANSITION (ZOOMM3.NNAVY)
When Los Alamos altimeter setting not available, use Santa Ana altimeter setting.

Procedure NA for arrivals on POM VORTAC airway R-112 CW R-254.

VDP NA when using Santa Ana altimeter setting.

DME/DME RNP 0.3 N/A.
When Los Alamitos altimeter setting not available, use Santa Ana altimeter setting.

**At or above 620 when using Santa Ana Altimeter setting.**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 041° to 540, then on heading 041° or as assigned by ATC for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 22L: Climb heading 221° to 540, then on heading 181° or as assigned by ATC for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

. . . . on (transition). Maintain 6000. Expect higher altitude 10 minutes after departure.

IKAYE TRANSITION (HAWWC3.IKAYE)

NOTE: Chart not to scale.
Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Intl (LAX)

Material may not apply to Sidestep 6R Craft A/B. For inop ALS, increase S-LOC 6L Cat C/D visibility to RVR 5500. Simultaneous approach authorized.

DME or Radar Required

VGS1 and ILS glidepath not coincident (VGS1 Angle 3.00/TCH 77).

Category A B C D

S-ILS 6L 369/24 250 (300-1/2)
S-LOC 6L 460/24 341 (400-3/4) 460/30 341 (400-3/4) 460-1/2

Sidestep 6R 460/55 344 (400-1) 344 (400-1/2)

Los Angeles, California

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles Int'l (LAX)

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17

ILS or LOC RWY 6L

Los Angeles Int'l (LAX)

Amdt 14 27APR17

33°57′N-118°24′W

163

Los Angeles, California

Amdt 14 27APR17
ILS or LOC RWY 6R

LOS ANGELES INTL (LAX)

D-ME or RADAR REQUIRED

Procedure NA for arrivals at EXERT on V25 southwest bound, V27 northwest bound.

SIMULATED APCH FIX

AMTRA LAX 17.3

MISSED APPROACH: Climb to 600 then climbing left turn to 3000 on LAX VORTAC R-046 to AMTRA INT/ LAX 17.3 DME and hold.

LOS ANGELES, CALIFORNIA

Amdt 18 10NOV16

LOS ANGELES INTL (LAX)

ILS or LOC RWY 6R
ILS or LOC RWY 7L
LOS ANGELES INTL (LAX)

From FIM VOR TAC: RNAV 1-GPS required. DME or RADAR required.

Simultaneous approach authorized. Autopilot coupled approach NA below 925. Inop table does not apply to Sidestep Rwy 7R Cats A and B.

D-ATIS
ARR 133.8
DEP 135.65

SOCIAL APP CON
124.3 363.2
(ARM F M WEST) 124.5 235.975
(225°-244°) 128.5 360.7
(043°-089°)

LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1

GND CON
N 121.65 327.0
S 121.75 327.0
W 121.4 327.0

CINC DEL
120.35 327.0

MISSED APPROACH: Climb to
3000 on LAX VORTAC R-068
doewne INT/LAX 15.5
DME/RADAR and hold.

ILS or LOC RWY 7L
LOC/DME I-1AS
111.1
Ch 48

APP CRS
071°

Rwy Idg
11259 11095
TDZE 128 128
Apt Elev 128 128

MALSR
Rwy 7L
Rwy 7R

MISSED APCH FIX
DOWNE LAX (15.5)

R-068

248°

R-084

113.6 LAX

Ch 45

Ch 48

LAX 15.5

EXERT

(IAF)

LAX (20.9)

RADAR

I-IAS 4.9

HAS 10.8

R-068

RADAR

I-IAS 10.8

FEKIL

(IAF)

(IFT)

BOWIL

ELEV 128

TDZE 7L 128

TDZE 7R 128

LOS ANGELES

113.6 LAX

Rwy 7L

MALSR

R-068

RADAR

I-IAS 10.8

113.6 LAX

Rwy 7L

TURKA

I-IAS 4.9

3000

LAX 15.5

HAS 0.8

LOC only

H-1AS

LOCIZER 111.1

Ch 48

Rwy Idg

11259 11095
TDZE 128 128
Apt Elev 128 128

MISSED APPROACH: Climb to
3000 on LAX VORTAC R-068
doewne INT/LAX 15.5
DME/RADAR and hold.

ILS or LOC RWY 7L
LOC/DME I-1AS
111.1
Ch 48

APP CRS
071°

Rwy Idg
11259 11095
TDZE 128 128
Apt Elev 128 128

MALSR
Rwy 7L
Rwy 7R

MISSED APCH FIX
DOWNE LAX (15.5)

R-068

248°

R-084

113.6 LAX

Ch 45

Ch 48

LAX 15.5

EXERT

(IAF)

LAX (20.9)

RADAR

I-IAS 4.9

HAS 10.8

R-068

RADAR

I-IAS 10.8

FEKIL

(IAF)

(IFT)

BOWIL

ELEV 128

TDZE 7L 128

TDZE 7R 128

LOS ANGELES

113.6 LAX

Rwy 7L

MALSR

R-068

RADAR

I-IAS 10.8

113.6 LAX

Rwy 7L

TURKA

I-IAS 4.9

3000

LAX 15.5

HAS 0.8

LOC only

H-1AS

LOCIZER 111.1

Ch 48

Rwy Idg

11259 11095
TDZE 128 128
Apt Elev 128 128

MISSED APPROACH: Climb to
3000 on LAX VORTAC R-068
doewne INT/LAX 15.5
DME/RADAR and hold.
Simultaneous approach authorized. DME or RADAR required. Inop table does not apply to Sidestep Rwy 7L Cats A and B. # RVR 1800 authorized with use of FD or AP or HUD to DA.

Procedure NA for arrivals at EXERT on V25 southwest bound.

2000
1000
1000

0.3%  U P
0.3%  U P

389
TWR
240°
270°

010°

4200
120°

7700

A

A

A

A

A

A

A

6L
8826 X 150

24R

24L

25R

25L

11095 X 200

7L

7R

6R

10885 X 150

12923 X 150

LOS ANGELES, CALIFORNIA

LOS ANGELES INTL (LAX)

AL-237 (FAA)

20366

ILS or LOC RWY 7R

LOSS ANGELES, CALIFORNIA

LOS ANGELES INTL (LAX)

AMdt 8A 07DEC17 33°57'N-118°24'W

Amdt 8A 07DEC17

LOS ANGELES, CALIFORNIA

LOS ANGELES INTL (LAX)
From CRCUS, SEAVU: RNAV 1-GPS required. DME or RADAR required.

Simultaneous approach authorized with HHR. LOC procedure NA during simultaneous operations with HHR LOC RWY 25. Simultaneous approach authorized. For inop ALS, increase S-LOC 24R Cat C/D visibility to RVR 5500.

D-ATIS SW-3, 07 OCT 2021 to 02 DEC 2021

MISSED APPROACH: Climb to 2000 on heading 251° and LAX VORTAC R-260 to RAFFS INT/LAX 15.1 DME and hold.

LOCALIZER 108.5 I-OSS Chan 22

ELEV 128 TDZE 24R 122 TDZE 24L 123

251° 6.4 NM from FAF

HILR all Rwy

TDZ/CL Rwy 6R, 7L, 24R, and 25L

ILS or LOC RWY 24R

LOS ANGELES INTL (LAX)

AMTD 26B 20MAY21 33°57'N-118°24'W
ILS or LOC RWY 25R

From CRCUS, SEAVU, TRNDO, CLPUR: RNAV 1-GPS required. DME or RADAR required.

Simultaneous approach authorized. Simultaneous approach authorized with HHR. For inop ALS increase Sidestep 25L Cat C visibility to 1½ SM. #RVR 1800 authorized with use of FD or AP or HUD to DA.

LOC/DEME I-CFN 111.1
Chan 48

MALSR Rwy 25R
ALSF-2 Rwy 25L

GND CON
N 121.65 327.0
S 121.75 327.0
W 121.4 327.0

MISSED APPROACH: Climb to 2000 on heading 251° until crossing SMO R-160 then left turn on heading 236° and SMO VOR/DME R-195 to CATLY INT/SMO 15.7 DME and hold.

D-ATIS
ARR 133.8
DEP 135.65

SOCAL APP CON
124.3 363.2
124.9 269.0
124.5 235.975
128.5 360.7

LOD ANGELES TOWER
N 133.9 239.3
S 120.95 379.1

LOC only
251°

LOCALIZER 111.1
Chan 48

ILS or LOC RWY 25R

LOS ANGELES INTL (LAX)

LSA LAX 25 R

ELV 128
D

LOC only

GRIMY
I-CFN 3.9
RADAR

I-CFN 2.1

S-ILS 25R

GND CON

S-LOC 25R

SIDESTEP 25L

LOS ANGELES, CALIFORNIA

Amdt 19A  22APR21

33°57′N-118°24′W
From CRCUS, SEAVU: RNAV 1-GPS required. DME or RADAR required.

Simultaneous approach authorized with HHR. Simultaneous approach authorized.

V

MISSING APCH FIX
RAFFS INT
LAX (15.1)

LOCALIZER 108.5
I-ROSS
Chan B3

LOCALIZER 108.5
I-ROSS
Chan 22

2000
ELEV 128
TDZE 122

ILS RWY 24R (CAT II & III)
LOS ANGELES INTL (LAX)

MISSING APPROACH: Climb to 2000 on heading 251° and LAX VORTAC R-260 to RAFFS INT/LAX 15.1 DME and hold.

- VGS ILS glidepath not coincident
- VGS Angle 3.00°/TCH 73.

- CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

- TDZ/CL Rwy 6R, 7L, 24R, and 25L
- HIRL all Rwy
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). Simultaneous approach authorized. GPS required. For inop MALSR, increase RNP 0.30 all Cats visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.
RNAV (RNP) Z RWY 6R

LOS ANGELES INTL (LAX)

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized.

For inop ALS, increase RNP 0.30. All categories visibility to RVR 6000.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F), GPS required. Simultaneous approach authorized. For inap ALS, increase RNP 0.11 all Cats visibility to RVR 5000 and RNP 0.30 all Cats visibility to RVR 6000.

MISSED APPROACH: Climb to 3000 on track 071° to FILBA and on track 072° to DOWNE and hold.

Procedure NA for arrivals at EXERT on V25 westbound and V27 northwest bound.

For uncompensated Baro-VNAV, all Cats visibility to RVR 6000.

For inap ALS, increase RNP 0.11 all Cats visibility to RVR 5000 and RNP 0.30 all Cats visibility to RVR 6000.

RNP 0.11 DA
441/24 313 (400-½)

RNP 0.30 DA
485/40 357 (400-¾)

EXERT (IAF)
VIREO (IF)
WNDFL (RF REQD)
HURL all Rwys

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HURL all Rwys

Los Angeles, California

Amdt 1 10NOV16

33°57'N-118°24'W

Los Angeles, California
RNAV (RNP) Z RWY 7R

LOS ANGELES INTL (LAX)

For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). For inop MALSR, increase RNP 0.11 all Cats visibility to RVR 4500. Simultaneous approach authorized.

MISSED APPROACH: Climb to 3000 on track 071° to ESINE and on track 071° to DOWNE and hold.

GPS REQUIRED

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 57).

RNP 0.11 DA
414/24 286 (300-1/2)

RNP 0.30 DA
538/45 410 (500-%)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

AUTHORIZATION REQUIRED
Simultaneous approach authorized with HHR. For uncompensated Baro-VNAV systems, procedure NA below 5°C or above 54°C. For inop AILS, increase RNP 0.15 all Cats visibility to RVR 6000 and RNP 0.30 all Cats visibility to 1½ SM. Simultaneous approach authorized.

ROUTE TO BREEA
(not to scale)

BREEA
DECOR
SKOLL
IGUPE
MUBME
KOBE

See planview for multiple IF locations.

RNP 0.15 DA
484/40
362 (400-34)

RNP 0.30 DA
586/60
464 (500-1½)

AUTHORIZATION REQUIRED

LOS ANGELES, CALIFORNIA

Amdt 1D 07OCT21
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). Simultaneous approach authorized with HHR. GPS required. For inop ALS, increase RNP 0.11 all Cats visibility to RVR 6000.

See planview for multiple IF locations.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C (41°F) or above 54°C (130°F). DME/DME RNP -0.3 NA. LNAV procedure NA during simultaneous operations. Use of FD or AF providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized.

Procedure NA for arrivals at EXERT on V25 westbound, V27 northwest bound.

VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 83).

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNAV/DA</td>
<td>464/30</td>
<td>336 (400-1/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>560/24</td>
<td>432 (500-1/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDZ/CL Rwys 6R, 7L, 24R, and 25L HIRL all Rwys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RNAV (GPS) Y RWY 7L**  
**Los Angeles Intl (LAX)**  
Amdt 3A 07DEC17  
**33°57'N-118°24'W**  
**Los Angeles, California**
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C (41°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations. # RVR 1800 authorized with use of FD or AP or HUD to DA.

**Procedure NA for arrivals at EXERT on V25 westbound, and V27 northwest bound.**

**Procedure NA for arrivals on FIM VORTAC airway radials 087 CW 195.**

**Procedure NA for arrival on FIM VORTAC**

**All Rwy RVR 1800 authorized with use of FD or AP or HUD to DA. AP providing RNAV track guidance required during simultaneous operations.**

**For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C (41°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations. # RVR 1800 authorized with use of FD or AP or HUD to DA.**

**Category LNAV only**

**LNAV DA#**

**328/24 200 (200-1/2)**

**LNAV/VNAV DA**

**462/30 334 (400-5/6)**

**LNAV MDA**

**560/24 432 (500-1/2)**

**560/40 432 (500-3/4)**
RNAV (GPS) Y RWY 24R
LOS ANGELES INTL (LAX)

**RNP APCH.**

- RNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. Simultaneous approach authorized with HHR. For uncompensated Baro-VNAV systems, RNAV/VNAV NA below 6°C or above 54°C. Simultaneous approach authorized. For inop ALS, increase LNAV/VNAV all Cats visibility to 1/2 SM, and LNAV Cat C/D visibility to 1 SM.

**ALSF-2**

- MISSED APPROACH: Climb to 2000 direct IGUPE and track 263° to RAFFS and hold.

**SOCAL APP CON**

- 142.4 363.2 (APCH FM WEST) 142.9 269.0 (025°-224°)
- 142.5 235.975 128.5 360.7 (225°-045°)

**MISSED APCH FIX**

- IGUPE
- RAFFS

**D-ATIS**

- Arr 123.8 135.65
- Dep 120.95 379.1

**LOS ANGELES TOWER**

- GND CON
  - N 121.65 327.0
  - S 121.75 327.0
  - W 121.4 327.0

**RNAV (GPS) Y RWY 24R**

- IGUPE and track 263°
- Climb to 2000 direct.

**RGNL CON**

- 720 to 2000 direct.

**CLNC DEL**

- 2000 to 2200 direct.

**CATEGORY**

- LPV DA: 322/18 200 (200-1/2)
- LNAV/VNAV DA: 589/60 467 (500-1/4)
- LNAV MDA: 640/24 518 (600-1/2) 640/55 518 (600-1)
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C or above 54°C. For inop ALS, increase LPV all Cats visibility to RVR 4500. Simultaneous approach authorized. Simultaneous approach authorized with HIR 25. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations.

RNP APCH.

MISSAPPROACH: Climb to 2000 direct ZERAN and on track 187° to CATLY and hold.

D-AVIS
ARR 133.8
DEP 135.65
SOCAL APP CON
N 133.9 239.3
S 120.95 379.1
GND CON
N 121.65 327.0
S 121.75 327.0
W 121.4 327.0
CLNC DEL
120.35 327.0
CPDLC

ALS-2

2000 ZERAN
ZERAN 187° CATLY

VGSJ and RNAV glidepath not coincident
(VGSJ Angle 3.00/TCH 70).

RNAV (GPS) Y RWY 25L
LOS ANGELES INTL (LAX)

RNAV (GPS) Y RWY 25L
LOS ANGELES INTL (LAX)

LOS ANGELES, CALIFORNIA
Amdt 4C 20MAY21
33°57'N-118°24'W

20140
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C or above 54°C. Simultaneous approach authorized. Simultaneous approach authorized with HHR. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. RVR 1800 authorized with use of FD or AP or HUD to DA.

D-ATIS

**MISSED APPROACH:**

Climb to 2000 direct ZIMRU and track 188° to CATLY and hold.

**ATC Instructions:**

- Call Hawthorne Muni for uncompensated Baro-VNAV systems.
- HHR authorized.
- HHIR authorized.
LANDING AIRCRAFT CAN EXPECT TO REMAIN ON TOWER FREQUENCY UNTIL SPECIFICALLY INSTRUCTED TO CONTACT GROUND CONTROL.

Runway Status Lights in operation.

Rwy 06L-24R, 06R-24L, 07L-25R
PCN 70 R/A/W/T
S-175, D-225, 2D-400, 2D/2D2-900
Rwy 07R-25L
PCN 75 R/A/W/T
S-175, D-225, 2D-400, 2D/2D2-900
ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb heading 071° for vectors to SXC VORTAC. Then on (assigned route). All aircraft expect further clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS:

TAKEOFF RUNWAYS 6L/R, 7L/R: If not in contact with Departure Control after reaching 2000’, turn right heading 245°. Cross LAX R-170 at or above 5000’, then turn left and proceed direct SXC VORTAC. Cross SLI R-235 at or below 9000’.
TOP ALTITUDE: ASSIGNED BY ATC

SAN MARCUS
114.9 RZS
Chan 96
N34°30.57'-W119°46.26'
L-3-4-7, H-4

GAVIOTA
113.8 GVO
Chan 85

KWANG
111.9 RZS
Chan 85
N34°18.55'
W119°30.85'
L-3-4-7

OHIGH
112.5 FI M
N34°25.88'
W119°18.65'
L-3-4-7

FILM MORE
112.5 FI M
N34°21.40'-W118°52.88'

DEANO
111.9 RZS
N34°19.00'
W119°24.99'

VENTURA
108.2ITU
Chan 19

GORMAN
116.1 GMN
Chan 108
N34°48.24'-W118°51.68'
L-3-4-7, H-4

CASTA
113.5 FI M
N34°31.97'
W118°43.60'
3000

JOSUL
113.5 FI M
N34°15.45'
W118°35.45'

VAN NUYS
113.1 VNY
Chan 78

NOTE: Procedure for non turbojet aircraft only.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R: Climb heading 041° for vector to V23, thence.
TAKEOFF RUNWAYS 7L/R: Climb heading 071° for vector to V23, thence.

. . . then on (transition) or (assigned route). Expect filed altitude 5 minutes after departure.

LOST COMMUNICATIONS
RUNWAYS 6L/R, 7L/R: If not in contact with departure control within 3 minutes after departure, turn left heading 270°, intercept V23 to CHATY INT and resume the CHATY FIVE DEPARTURE. Continue on course.

GORMAN TRANSITION (CHATY5.GMN): From over CHATY INT on LAX R-323 and GMN R-142 to GMN VORTAC.
HENER TRANSITION (CHATY5.HENER): From over CHATY INT on LAX R-323 to JOSUL, then on FIM R-097 to FIM VORTAC, then on FIM R-250 to HENER INT.
KWANG TRANSITION (CHATY5.KWANG): From over CHATY INT on LAX R-323 to JOSUL, then on FIM R-097 to FIM VORTAC, then on FIM R-250 to KWANG INT.
SAN MARCUS TRANSITION (CHATY5.RZS): From over CHATY INT on LAX R-323 to JOSUL, then on FIM R-097 to FIM VORTAC, then on FIM R-267 to OHIGH INT, then on RZS R-087 to RZS VORTAC.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: STOKD, SCTRR, and MCKEY transitions:
DME/DME/IRU or GPS required.
NOTE: DINTY transitions: GPS only.
NOTE: Turbojet aircraft only.
NOTE: File the RIZIN TRANSITION in lieu of the LADYJ DEPARTURE during time periods 2100-0700 LCL. All other times RIZIN TRANSITION ATC assigned only.

TOP ALTITUDE:
FL230

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: NA - ATC.
Rwys 24L/R, 25L/R: Standard with minimum climb of 500' per NM to 640'.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on track 253° to NAANC, then on track 253° to cross DARRK at or below 12000, thence. . . .

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on track 253° to NAANC, then on track 253° to cross DARRK at or below 12000, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 256° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 258° to cross DARRK at or below 12000, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 252° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 258° to cross DARRK at or below 12000, thence. . . .

. . . .on (transition) maintain FL230. Expect filed altitude 5 minutes after departure.

DINTY TRANSITION (DARRK3.DINTY)
MCKEY TRANSITION (DARRK3.MCKEY)
RIZIN TRANSITION (DARRK3.RIZIN)
SCTRR TRANSITION (DARRK3.SCTRR)
STOKD TRANSITION (DARRK3.STOKD)
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Turn at HIIPR and DOCKR are required for ATC separation.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on depicted route to cross DOTSS at or above 15000, thence. . . .

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on depicted route to cross DOTSS at or above 15000, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 221° to cross ADORE at or below 5000, then on depicted route to cross DOTSS at or above 15000, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 220° to cross WEILR at or below 5000, then on depicted route to cross DOTSS at or above 15000, thence. . . .

. . . . on (transition). Maintain 17000. Expect filed altitude five minutes after departure.

CLEEE TRANSITION (DOTSS2.CLEE)
CNERY TRANSITION (DOTSS2.CNER)

DOTSS TWO DEPARTURE (RNAV)
(DOTSS2.DOTSS) 17AUG17
TOP ALTITUDE: ASSIGNED BY ATC

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Chart not to scale.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: HAILO/LAS VEGAS/NNAVY TRANSITIONS ATC only.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: If unable climb restrictions, use the TUSTI or LAXX SID.
NOTE: Maintain 250K until otherwise advised by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Chart not to scale.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: HAILO/LAS VEGAS/NNAVY TRANSITIONS ATC only.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: If unable climb restrictions, use the TUSTI or LAXX SID.
NOTE: Maintain 250K until otherwise advised by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Chart not to scale.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: HAILO/LAS VEGAS/NNAVY TRANSITIONS ATC only.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: If unable climb restrictions, use the TUSTI or LAXX SID.
NOTE: Maintain 250K until otherwise advised by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Chart not to scale.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: HAILO/LAS VEGAS/NNAVY TRANSITIONS ATC only.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: If unable climb restrictions, use the TUSTI or LAXX SID.
NOTE: Maintain 250K until otherwise advised by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021

NOTE: Chart not to scale.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: HAILO/LAS VEGAS/NNAVY TRANSITIONS ATC only.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: If unable climb restrictions, use the TUSTI or LAXX SID.
NOTE: Maintain 250K until otherwise advised by ATC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6L: Climb on heading 071° to intercept course 056° to CHVEZ, then on track 058° to cross TRAAP at 8000, then on track 064° to cross JIIVE at or above 10000, then on track 048° to cross CLUTZ at or above 13000, then on track 048° to cross GARDY at or above 16000, thence. . . .

TAKEOFF RUNWAY 6R: Climb on heading 071° to intercept course 056° to KOFAX, then on track 057° to cross TRAAP at 8000, then on track 064° to cross JIIVE at or above 10000, then on track 048° to cross CLUTZ at or above 13000, then on track 048° to cross GARDY at or above 16000, thence. . . .

TAKEOFF RUNWAYS 7L/R: Climb on heading 071° to 640, then on heading 071° or as assigned by ATC, expect vectors to cross TRAAP at 8000, then on track 064° to cross JIIVE at or above 10000, then on track 048° to cross CLUTZ at or above 13000, then on track 048° to cross GARDY at or above 16000, thence. . . .

. . . on (transition). Maintain ATC assigned altitude. Expect filed altitude five minutes after departure.

BEALE TRANSITION (GARDY4.BEALE)
HAILO TRANSITION (GARDY4.HAILO)
LAS VEGAS TRANSITION (GARDY4.LAS)
MISEN TRANSITION (GARDY4.MISEN)
NNAVY TRANSITION (GARDY4.NNAVY)
**TOP ALTITUDE: ASSIGNED BY ATC**

GORMAN 116.1 GMN Chan 108

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 6L/R:** Climb on heading 071° until LAX VORTAC 3 DME, then turn left heading 056° for vector to join VNY R-126 to VNY VOR/DME, then on VNY R-317 and GMN R-136 to GMN VORTAC, thence.

**TAKEOFF RUNWAYS 7L/R:** Climb on heading 071° for vector to join VNY R-126 to VNY VOR/DME, then on VNY R-317 and GMN R-136 to GMN VORTAC, thence.

**TAKEOFF RUNWAYS 24L/R, 25L/R:** Climb on heading 251° for vector to join VNY R-126 to VNY VOR/DME, then on VNY R-317 and GMN R-136 to GMN VORTAC, thence.

...on (transition) or (assigned route). All aircraft expect further clearance to filed flight level 5 minutes after departure.

**LOST COMMUNICATIONS:** If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

**AVENAL TRANSITION (GMN7.AVE):** From over GMN VORTAC on GMN R-310 to COREZ then on AVE R-086 to AVE VOR/DME.

**SHAFTER TRANSITION (GMN7.EHF):** From over GMN VORTAC on GMN R-328 and EHF R-150 to EHF VORTAC.
LADYJ FOUR DEPARTURE (RNAV)

TOP ALTITUDE: 8000

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Restricted to turbojet aircraft only.
NOTE: Some departures may be RADAR vectored to MLIBU, LADYJ, or OROSZ.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.
NOTE: Use the DARRK, SUMMR, or VENTURA DEPARTURE during the time periods of 2100-0700 local in lieu of the LADYJ DEPARTURE.

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: NA-ATC.

(LADYJ4.LADYJ) 01FEB18

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on track 253° to EYENO, then on track 316° to cross MLIBU at or above 7000, then on track 351° to cross LADYJ at 8000, thence. . . .

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on track 253° to EYENO, then on track 316° to cross MLIBU at or above 7000, then on track 351° to cross LADYJ at 8000, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 256° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 319° to cross MLIBU at or above 7000, then on track 351° to cross LADYJ at 8000, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 252° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 319° to cross MLIBU at or above 7000, then on track 351° to cross LADYJ at 8000, thence. . . .

. . . . . .on (transition) maintain 8000. Expect filed altitude 5 minutes after departure.

COREZ TRANSITION (LADYJ4.COREZ)
CSTRO TRANSITION (LADYJ4.CSTRO)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb heading 071° for vectors to SLI VORTAC, thence. . . .
TAKEOFF RUNWAYS 24L/R: Climb on heading 251° to cross SMO R-160 at or below 3000, then on RADAR vectors to assigned route/fix/transition, thence. . . .
TAKEOFF RUNWAYS 25L/R: Climb on heading 251°, at the SMO R-160 turn left heading 221°, cross SMO R-160 at or below 3000, expect RADAR vectors to assigned route/fix/transition thence. . . .

. . . .all aircraft expect further clearance to filed flight level five minutes after departure.

IMPERIAL TRANSITION (LAXX1.IPL): From over SLI VORTAC on SLI R-120 to DANAH, then on OCN R-301 to OCN VORTAC, then on OCN R-105 to PILLO, then on MZB R-076 and IPL R-258 to IPL VORTAC.

MISSION BAY TRANSITION (LAXX1.MZB): From over SLI VORTAC on SLI R-120 to DANAH, then on OCN R-301 to OCN VORTAC, then on OCN R-145 to CARIF, then on MZB R-326 to MZB VORTAC.

OCEANSIDE TRANSITION (LAXX1.OCN): From over SLI VORTAC on SLI R-120 to DANAH, then on OCN R-301 to OCN VORTAC.

ROSIN TRANSITION (LAXX1.ROSIN): From over SLI VORTAC on SLI R-202 and SXC R-022 to SXC VORTAC, then on SXC R-213 to ROSIN.

THERMAL TRANSITION (LAXX1.TRM): From over SLI VORTAC on SLI R-080 to TUSTI, then on SLI R-080 and TRM R-263 to HEMET, then on TRM R-263 to TRM VORTAC.

LOST COMMUNICATIONS

RUNWAYS 6L/R, 7L/R: If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude whichever is lower, turn right direct SLI VORTAC and proceed on assigned route. Aircraft filed FL240 or above, maintain FL230 for five minutes then continue climb to filed altitude.

RUNWAYS 24L/R, 25L/R: If not in contact with Departure Control within five minutes after departure, turn left heading 080°, climb to FL230 or filed altitude whichever is lower, and when able proceed direct filed or assigned route. Aircraft filed FL240 or above, maintain FL230 for five minutes then continue climb to filed altitude.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 24L/R, 25L/R:** Climb heading 251° to 640, then on heading 251° or as assigned by ATC, expect vectors to cross DTAIL at or above 3100, then on track 282° to cross MOOOS at or above 4900 and at or below 8000, thence. . . .

. . . . on (transition). Maintain 9000. Expect filed altitude five minutes after departure.

**LOST COMMUNICATIONS:** If not in contact with Departure Control within five minutes after departure, turn right and proceed direct MOOOS WP, climb to 9000’ or filed altitude whichever is lower, and when able proceed direct filed or assigned route/fix/transition. Aircraft filing 10000 or above, climb to filed altitude ten minutes after departure.

**IKAYE TRANSITION (MOOOS2.IKAYE)**

**TAKEOFF MINIMUMS**

Rwys 6L/R, 7L/R: NA-ATC.

**NOTE:** Radar required.
**NOTE:** RNAV 1.
**NOTE:** Turboprop aircraft only.
**NOTE:** DME/DME/IRU or GPS required.
TOP ALTITUDE: 10000

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: NA-ATC.
Rwys 24L/R, 25L/R: Standard with minimum climb of 500' per NM to 640.

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojets only.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb on heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or above 1300 and at or below 5000, then on depicted route to cross FIXIT at 10000, thence. . . .

TAKEOFF RUNWAY 24R: Climb on heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or above 1300 and at or below 5000, then on depicted route to cross FIXIT at 10000, thence. . . .

TAKEOFF RUNWAY 25L: Climb on heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 256° to cross EVOSE at or above 1300 and at or below 5000, then on depicted route to cross FIXIT at 10000, thence. . . .

TAKEOFF RUNWAY 25R: Climb on heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 252° to cross EVOSE at or above 1300 and at or below 5000, then on depicted route to cross FIXIT at 10000, thence. . . .

. . . .on (transition). Maintain 10000. Expect filed altitude five minutes after departure.

KWANG TRANSITION (MUELR4.KWANG)
SAN MARCUS TRANSITION (MUELR4.RZS)
TOP ALTITUDE: FL230

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: NA-ATC.
Rwys 24L/R, 25L/R: Standard with minimum climb of 500' per NM to 640.

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turn at HIIPR and DOCKR are required for ATC separation.
NOTE: File the OSHNN DEPARTURE during the period 2100-0700 local time in lieu of the ORCKA DEPARTURE.
NOTE: If unable to meet crossing restriction at KEGGS within 30 flying miles, use the OSHNN DEPARTURE.
NOTE: MISEN TRANSITION restricted to aircraft landing LAS terminal area.
NOTE: HAILO/BEALE/YELAH TRANSITIONS ATC assigned only.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb on heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on heading 251° or as assigned by ATC, expect left turn to cross KLIPR at or above 10000, then on track 044° to cross KEGGS at or above 13000 and at or below FL190, then on track 044° to cross COOPP at or above 15000, then on track 044° to ORCKA, thence. . . .

TAKEOFF RUNWAY 24R: Climb on heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on heading 251° or as assigned by ATC, expect left turn to cross KLIPR at or above 10000, then on track 044° to cross KEGGS at or above 13000 and at or below FL190, then on track 044° to cross COOPP at or above 15000, then on track 044° to ORCKA, thence. . . .

TAKEOFF RUNWAY 25L: Climb on heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on heading 236° or as assigned by ATC, expect left turn to cross KLIPR at or above 10000, then on track 044° to cross KEGGS at or above 13000 and at or below FL190, then on track 044° to cross COOPP at or above 15000, then on track 044° to ORCKA, thence. . . .

TAKEOFF RUNWAY 25R: Climb on heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on heading 236° or as assigned by ATC, expect left turn to cross KLIPR at or above 10000, then on track 044° to cross KEGGS at or above 13000 and at or below FL190, then on track 044° to cross COOPP at or above 15000, then on track 044° to ORCKA, thence. . . .

. . . . on (transition). Maintain FL230. Expect filed altitude five minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control within five minutes after departure, turn left and proceed direct KLIPR Waypoint, climb to FL230 or filed altitude whichever is lower, and when able proceed direct filed or assigned route/fix/transition. Aircraft filing FL240 or above, climb to filed altitude ten minutes after departure.

BEALE TRANSITION (ORCKA5.BEALE)
HAILO TRANSITION (ORCKA5.HAILO)
LAS VEGAS TRANSITION (ORCKA5.LAS)
MISEN TRANSITION (ORCKA5.MISEN)
YELAH TRANSITION (ORCKA5.YELAH)
Takeoff Minimums

Rwys 6L/R, 7L/R: NA-ATC.

Rwys 24L/R, 25L/R: Standard with minimum climb of 500' per NM to 640.

Note: DME/DME/IRU or GPS required.

Note: RNAV 1.

Note: RADAR required.

Note: This departure to be used only if unable to use the ORCKA DEPARTURE.

Note: Rwys 24L/R departure expect RADAR vector to PEVEE prior to NAANC.

Note: Turn at HIIPR and DOCKR are required for ATC separation.

Note: Misen transition restricted to aircraft landing LAS terminal area.

*NARRATIVE ON FOLLOWING PAGE*
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb on heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on depicted route to OSHNN, thence. . . .

TAKEOFF RUNWAY 24R: Climb on heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on depicted route to OSHNN, thence. . . .

TAKEOFF RUNWAY 25L: Climb on heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 221° to cross ADORE at or below 5000, then on depicted route to OSHNN, thence. . . .

TAKEOFF RUNWAY 25R: Climb on heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 220° to cross WEILR at or below 5000, then on depicted route to OSHNN, thence. . . .

. . . . on (transition). Maintain 17000. Expect filed altitude five minutes after departure.

BEALE TRANSITION (OSHNN1.BEALE)
MISEN TRANSITION (OSHNN1.MISEN)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb on heading 071° for RADAR vectors to DINITY or FICKY, thence . . . .

TAKEOFF RUNWAYS 24L/R, 25L/R: Climb on heading 251° to cross SMO R-160 at or below 3000, then on RADAR vectors to DINITY or FICKY, thence . . . .

. . . . on (assigned route). All aircraft expect further clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS:

TAKEOFF RUNWAYS 6L/R, 7L/R: If not in contact with Departure Control within 3 minutes after departure, turn right heading 250°, cross SMO R-210 at or above 5000 and at or below 10000. After leaving 10000, turn right heading 270° to intercept and proceed on LAX R-249 to PERCH INT. Climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude 10 minutes after departure.

TAKEOFF RUNWAYS 24L/R, 25L/R: If not in contact with Departure Control within 5 minutes after departure, proceed to PERCH INT on LAX R-249. Climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude 10 minutes after departure.
NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.
NOTE: Turn at HIIPR and DOCKR are required for ATC separation.

PNDAH TWO DEPARTURE (RNAV)

TOP ALTITUDE: FL200

TANNN 15000

PNDAH FL200

OTAYY

TTCE

FL200

097°

(21)

(63)

FL200

125°

(11)

NOTE: Chart not to scale.

NOTE: D-ATIS DEP
     135.65
     CINC DEL
     120.35  327.0
     CPDC
     GND CON
     (N) 121.65  327.0
     (S) 121.75  327.0
     (W) 121.4  327.0

LOS ANGELES TOWER
    (N) 133.9  239.3
    (S) 120.95  379.1

SOCAL DEP CON
    124.3  363.2 (045°-224°)
    125.2  263.025 (225°-044°)

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: NA-ATC.

SW-3, 07 OCT 2021 to 02 DEC 2021

PNDAH TWO DEPARTURE (RNAV)

(PNDAH2.PNDAH) 17AUG17

PNDAH TWO DEPARTURE (RNAV)

PNDAH FL200
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on depicted route to PNDAH, thence.

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on depicted route to PNDAH, thence.

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 221° to cross ADORE at or below 5000, then on depicted route to PNDAH, thence.

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 220° to cross WEILR at or below 5000, then on depicted route to PNDAH, thence.

.on (transition). Maintain FL200. Expect filed altitude five minutes after departure.

OTAYY TRANSITION (PNDAH2.OTAYY)
TCATE TRANSITION (PNDAH2.TCATE)
TOP ALTITUDE:
ASSIGNED BY ATC

NOTE: Chart not to scale.

TAKEOFF MINIMUMS

NOTE: TAKEOFF RWYS 24L/R, 25L/R: This departure is for non-turbojet aircraft. Turbojet aircraft use LAXX DEPARTURE. Note: South Complex turn at SMO R-154 to 201° is required for ATC separation.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb on heading 071° for RADAR vectors to SLI VORTAC, thence. . . .

TAKEOFF RUNWAYS 24L/R: Climb on heading 251° to cross SMO R-154 at or below 3000, then RADAR vectors to SLI VORTAC, thence. . . .

TAKEOFF RUNWAYS 25L/R: Climb on heading 251° to cross SMO R-154 at or below 3000, then turn left heading 201° for RADAR vectors to SLI VORTAC, thence. . . .

. . . .on (assigned route). All aircraft expect further clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 24L/R: Climb on heading 251° to cross SMO VOR/DME R-160 at or below 3000, thence . . .

TAKEOFF RUNWAYS 25L/R: Climb on heading 251°, at the SMO VOR/DME R-160 turn left heading 221°, cross SMO R-160 at or below 3000, thence . . .

. . . . on RADAR vectors to cross SLI VORTAC at or above 14000, then on SLI R-022 to cross SEBBY/23 DME FIX at or above 16000. Then on DAG R-214 to DAG VORTAC. All aircraft expect further clearance to filed flight level five minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, turn left direct SLI VORTAC and proceed on assigned route, climb to FL230 or filed altitude whichever is lower. Aircraft filed FL240 or above climb to filed altitude ten minutes after departure.
SKWRL TWO DEPARTURE (RNAV)

GORMAN GMN

OROSZ

BULLL 6000

NTSHA 6000

SKWRL 5000

RCKYY 4000

VALEY

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 24L/R, 25 L/R: Climb heading 251° to 640, then on heading 251° or as assigned by ATC, expect vectors to cross RCKYY at or above 4000, then on track 330° to cross SKWRL at or above 5000, thence. . . .

. . . on (transition). Maintain ATC assigned altitude. Expect filed altitude five minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control within five minutes after departure, turn right and proceed direct SKWRL WP, climb to 7000 or filed altitude whichever is lower, and when able proceed direct filed or assigned route/fix/transition. Aircraft filing 8000 or above, climb to filed altitude ten minutes after departure.

GORMAN TRANSITION (SKWRL2.GMN)

VALEY TRANSITION (SKWRL2.VALEY)
TAKING MINIMUMS
Rwy 6L/R, 7L/R: NA - ATC.
Rwy 24L/R, 25L/R: Standard with minimum climb of 500’ per NM to 640’.

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: STOKD, SCTRR and MKKEY transitions:
DME/DME/IRU or GPS required.
NOTE: DINTY and FICKY transitions: GPS only.
NOTE: Turbojet aircraft only.
NOTE: File the RIZIN TRANSITION in lieu of the LADYJ DEPARTURE during

time periods 2100-0700 LCL. All other times RIZIN TRANSITION ATC

SW-3, 07 OCT 2021 to 02 DEC 2021
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on track 253° to NAANC, then on track 253° to cross DARRK at or below 12000, then on track 260° to SUMMR, thence. . . .

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on track 253° to NAANC, then on track 253° to cross DARRK at or below 12000, then on track 260° to SUMMR, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 256° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 258° to cross DARRK at or below 12000, then on track 260° to SUMMR, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 252° to cross EVOSE at or below 5000, then on track 252° to MKGEE, then on track 258° to cross DARRK at or below 12000, then on track 260° to SUMMR, thence. . . .

. . . . on (transition) maintain FL230. Expect filed altitude 5 minutes after departure.

DINTY TRANSITION (SUMMR2.DINTY)
FICKY TRANSITION (SUMMR2.FICKY)
MCKEY TRANSITION (SUMMR2.MCKEY)
RIZIN TRANSITION (SUMMR2.RIZIN)
SCTRR TRANSITION (SUMMR2.SCTRR)
STOKD TRANSITION (SUMMR2.STOKD)
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: STOKD, SCTRR and MCKEY transitions:
DME/DME/IRU or GPS required.
NOTE: DINTY and FICKY transitions: GPS required.
NOTE: Turbojet aircraft only.

TAKEOFF MINIMUMS
Rwys 24L/R, 25L/R: NA-ATC.
Rwys 6L/R, 7L/R: Standard with a minimum climb of 500’ per NM to 640.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb on heading 071° to 640, then climb on heading 071° or as assigned by ATC, expect vectors to cross TRTON at or above 8000, then on track 277° to cross DARRK at or below 12000', thence . . .

. . . on (transition) maintain FL230. Expect filed altitude 5 minutes after departure.

LOST COMMUNICATIONS
If not in contact with departure control within 5 minutes after departure, turn right and proceed direct DARRK WP, cross DARRK at or below 12000'. Climb to FL230 or filed altitude, whichever is lower, and when able proceed direct filed route or assigned route/fix/transition. Aircraft filing FL240 or above, climb to filed altitude ten minutes after departure.

DINTY TRANSITION (TRTON2.DINTY)
FICKY TRANSITION (TRTON2.FICKY)
MCKEY TRANSITION (TRTON2.MCKEY)
SCTRR TRANSITION (TRTON2.SCTRR)
STOKD TRANSITION (TRTON2.STOKD)
TOP ALTITUDE: 17000

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R: Standard with minimum climb of 500’ per NM to 640.
Rwys 24L/R, 25L/R: NA-ATC.

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Turbojet aircraft only.

NOTE: SW-3, 07 OCT 2021 to 02 DEC 2021

LOS ANGELES TOWER
(N) 133.9 239.3
(S) 120.95 379.1
SOCAL DEP CON
124.3 363.2 [045°-224°]
125.2 263.025 [225°-044°]

LOS ANGELES, CALIFORNIA (LAX)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb heading 071° to 640, then on heading 071° or as assigned by ATC, expect vectors to BUULI, then on track 099° to TUSTI, thence. . . .

.on (transition) maintain 17000, expect filed altitude five minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, turn right and proceed direct BUULI WP, cross BUULI at or below 9000. Climb to FL230 or filed altitude whichever is lower, and when able proceed direct filed or assigned route/fix/transition. Aircraft filing FL230 or above, climb to filed altitude ten minutes after departure.

AVRRY TRANSITION (TUSTI2.AVRRY)
CNERY TRANSITION (TUSTI2.CNERY)
OTAYY TRANSITION (TUSTI2.OTAYY)
TCATE TRANSITION (TUSTI2.TCATE)
VENTURA EIGHT DEPARTURE

TOP ALTITUDE:
ASSIGNED BY ATC

NOTE: Chart not scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
NOTE: RADAR required.
NOTE: DINTY TRANSITION: DME required.

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb on heading 071° for RADAR vectors to VTU VOR/DME, thence . . .
TAKEOFF RUNWAYS 24L/R, 25L/R: Climb on heading 251° for RADAR vectors to VTU VOR/DME, cross SMO R-154 at or below 3000, thence . . .
.on (assigned route). All aircraft expect further clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure climb to FL230 or filed altitude, whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

DINTY TRANSITION (VTU8.DINTY): From over VTU VOR/DME on VTU R-272 to SUDDO INT then on RZS R-233 to DINTY.
SAN MARCUS TRANSITION (VTU8.RZS): From over VTU VOR/DME on VTU R-289 and RZS R-109 to RZS VORTAC.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.
NOTE: Turbojet aircraft only.

TAKEOFF MINIMUMS
Rwys 24L/R, 25L/R: NA-ATC.
Rwys 6L/R, 7L/R: Standard with a minimum climb of 500’ per NM to 640.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6L: Climb heading 071° to intercept course 056° to CHVEZ, then on track 332° to cross JRGSN at or above 6300, then on track 315° to WNNDY, thence. . . .

TAKEOFF RUNWAY 6R: Climb heading 071° to intercept course 056° to KOFAX, then on track 333° to cross JRGSN at or above 6300, then on track 315° to WNNDY, thence. . . .

TAKEOFF RUNWAYS 7L/R: Climb heading 071° to 640, then on heading 071° or as assigned by ATC, for vectors to cross JRGSN at or above 6300, then on track 315° to WNNDY, thence. . . .

. . . . on (transition) maintain FL230. Expect filed altitude 5 minutes after departure.

LOST COMMUNICATIONS
If not in contact with departure control within 5 minutes after departure, turn left and proceed direct JRGSN WP, cross JRGSN at or below 7000. Climb to FL230 or filed altitude whichever is lower, and when able proceed direct filed or assigned route/fix/transition. Aircraft filing FL240 or above, climb to filed altitude ten minutes after departure.

COREZ TRANSITION [WNNDY3.COREZ]
CSTRO TRANSITION [WNNDY3.CSTRO]
NOTE: G P S required.
NOTE: R N A V 1.
NOTE: R A D A R required.
NOTE: T urn at H I I P R and D O C K R are required for A T C separation.

NOTE: R w y 2 4 L /R departures expect R A D A R vector to T A N D Y, Z I L L I, L A U E R or B E A U T prior to N A A N C.

NOTE: S o m e aircraft may be R A D A R vectored to T A N D Y, Z I L L I, L A U E R, or B E A U T.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24L: Climb heading 251° to 640, then climb direct to cross DLREY at or below 3000, then on track 256° to cross ENNEY at or below 5000, then on depicted route to ZILLI, thence. . . .

TAKEOFF RUNWAY 24R: Climb heading 251° to 640, then climb direct to cross FABRA at or below 3000, then on track 253° to cross ENNEY at or below 5000, then on depicted route to ZILLI, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 251° to 640, then climb direct to cross HIIPR at or below 3000, then on track 221° to cross ADORE at or below 5000, then on depicted route to ZILLI, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 251° to 640, then climb direct to cross DOCKR at or below 3000, then on track 220° to cross WEILR at or below 5000, then on depicted route to ZILLI, thence. . . .

. . . .on (transition). Maintain 14000, expect filed altitude five minutes after departure.

BEAUT TRANSITION (ZILLI4.BEAUT)
LAUER TRANSITION (ZILLI4.LAUER)
Procedure NA at night. When local altimeter setting not received, use Burbank altimeter setting. Rwy 12 helicopter visibility reduction below 1 SM NA.

**RNAV (GPS) RWY 12**
**WHITEMAN (WHP)**

**ATIS**
132.1

**SOCAL APP CON**
120.4 360.6 (NORTH)
134.2 338.2 (WEST)

**WHITEMAN TOWER**
135.0 (CTAF)

**GND CON**
125.0

**UNICOM**
122.95

**NODUQ**
5215 5019 4141 4700 3620 2220

**JAZEE**
2877 3765 3124 1004

**WOSIR**
997 1534 1173 1399

**YUDKU**

**Final approach course offset 15.69°.**

**Category**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LNAV MDA</strong></td>
<td>1660-1</td>
<td>662 (700-1)</td>
<td>1660-1½</td>
<td>662 (700-1½)</td>
</tr>
<tr>
<td><strong>CIRCLING</strong></td>
<td>1700-1</td>
<td>697 (700-1)</td>
<td>1860-1½</td>
<td>857 (900-1¼)</td>
</tr>
</tbody>
</table>

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**Orig A 30JAN20**

**WTHR**

**21056**

**228**
When local altimeter setting not received, use Burbank altimeter setting. Procedure NA at night.

Procedure NA for arrivals at FIM VORTAC on VS18 westbound.

Procedure NA at night. When local altimeter setting not received, use Burbank altimeter setting. Procedure NA at night.

MISSED APPROACH: Climbing left turn to 3900 direct VNY VOR/DME then on VNY VOR/DME R-255 to CANOG INT/5.1 DME and hold.

One Minute Holding Pattern
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 12:** Climbing right turn direct VNY VOR/DME, then on VNY R-325 to 4600, thence . . . .

**TAKEOFF RUNWAY 30:** Climbing left turn heading 260° and on VNY VOR/DME R-325 to 4600, thence . . . .

. . . . climbing left turn direct VNY VOR/DME to depart VNY VOR/DME at or above MEA for route of flight.
RIVERSIDE, CALIFORNIA

**LOC I-RIV 110.1**
- APCH CRS: 315*
- Rwy Idg: 13,302
- TDZE: 1497
- Arpt Elev: 1536

**AL-348 [USAF]**

**ILS or LOC X RWY 32**

**MARCH ARB (KRIV)**

- **ATIS**: 134.75 239.05
- **SOCAL APP CON**: 134.0 278.3
- **MARCH TOWER**: 127.65 253.5
- **GND CON**: 121.75 335.8
- **CLNC DEL**: 121.75 335.8

***Circling not authorized NE of Rwy 14-32. Rapid rising terrain.***

**NOTE:** When ALS inop, increase CAT ABCDE RVR to 40 and vis to ½ mile.

**NOTE:** When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile and CAT CDE RVR to 60 and vis to 1 ½ miles.

**MISSING APPROACH:** Climb to 5300 direct RIV TACAN, then turn left to intercept RIV R-138 direct BOGLE, continue climb in hold to 5300.

**EMERG SAFE ALT 100 NM**
- 13,700 from "RIV" TACAN

**RIVERSIDE, CALIFORNIA**

**Amdt 10 08NOV18**
**When ALS inop, increase CAT AB RVR to 60 and vis to 1 1/2 miles, CAT CDE vis to 1 1/2 miles.**

**Circling not authorized NE of Rwy 14-32. Rapid rising terrain.**

**ALSF-1**

**MISSED APPROACH Climb to 5300 on HDF VOR R-315 to TALPE, then turn left direct HDF continue climb-in-hold to 5300.**

---

**PARADISE**

112.2 PDZ

Chan 59

---

**EMERG SAFE ALT 100 NM 13,700**

**HDF**

**R-315**

---

**RIVERSIDE, CALIFORNIA**

Amdt 15 23APR20
**When ALS inop, increase CAT A/RV to 55 and vis to 1 mi, CAT C/D vis to 1/4 miles.
**Circling not authorized NE of RWY 14-32. Rapid rising terrain.

**MISSED APPROACH: Climb to 3300 on RIV TACAN R-138 to DALCO, then turn left to intercept RIV R-138 direct BOGLE, continue climb in hold to 3300.

**CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

**ELEV 1536**

**TDZE 1497**

**CATEGORY**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-32*</td>
<td>2040/24</td>
<td>543 (600-1/4)</td>
<td>2040/60</td>
<td>543 (600-1/4)</td>
<td>4400-3</td>
</tr>
<tr>
<td>CIRCLING**</td>
<td>2180-1</td>
<td>644 (700-1)</td>
<td>2260-1</td>
<td>724 (800-1)</td>
<td>2300-2 1/4</td>
</tr>
</tbody>
</table>

RIVERSIDE, CALIFORNIA

Ammd 14 02FEB17
**SKYES-FOUR DEPARTURE (SKYES 4 • SKYES)**

**Departure Route Description**

- **TAKE-OFF RWY 14:** Climb via RIV TACAN R-136 or climb direct HDF VOR, then via HDF R-136 to MURRE, intercept MZB VORTAC R-357 to SKYES, cross MURRE at or above 7000', and SKYES at or above 12,000'. Thence via transition or assigned route.

- **TAKE-OFF RWY 32:** Climb on track 315°, then turn left crossing PDZ VORTAC R-073/RIV TACAN 1.4 DME direct DIAMD, proceed no closer than 7.5 DME PDZ. Remain within 5 DME RIV. Cross DIAMD at or above 5800'. Intercept PDZ R-130 to SKYES, cross SKYES at or above 12,000'. Thence via transition or assigned route.

- **JULIAN TRANSITION (SKYES 4 JLI):** From over SKYES via JLI VORTAC R-284 direct JLI. Max 310 KIAS until passing JULIAN VORTAC.

- **OCEANSIDE TRANSITION (SKYES 4 OCN):** From over SKYES via PDZ VORTAC R-130 direct HIGOP, intercept OCN VORTAC R-085 direct OCN.

- **THERMAL TRANSITION (SKYES 4 TRM):** From over SKYES track 059° to TRM. (Radar required)

**SKYES-FOUR DEPARTURE (SKYES 4 • SKYES)**

**Orig 28FEB19**

**RIVERSIDE, CALIFORNIA**

**MARCH ARB (KRIV)**

---

**ATIS 134.75 239.05**

**GND CON/CLNC DEL 121.75 335.8**

**TOWER 127.65 253.5**

**SOCIAL DEP CON 134.0 278.3**

**MARCH RADAR 133.5 306.975**

**LOS ANGELES CENTER 132.5 284.7**

**RADAR REQUIRED TRM TRANSITION**

**CAUTION:** Balloon, glider and parachute act. vicinity 136/6 NM, 1 NM off dep crs, and vicinity Perris Valley arpt.

**DIAMD**

N33° 37.85'  
W117° 17.37'

**HOMELAND**

N133° 4.01'  
W117° 0.55'

**DIA 4780**

**5687'**

**PAK**

**PERRIS VALLEY**

**RIV 3250**

**2574**

**3040**

**5800**

**7000**

**OCEANSIDE**

N33° 14.44'  
W117° 25.06'

**MISSION BAY**

N117° 8.87'  
W116° 54.22'

**15 NM from Rwy 32**

---

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**MARCH ARB (KRIV)**

**RIVERSIDE, CALIFORNIA**

240
**RNAV (GPS) RWY 24L**

- **ATIS**: 133.475
- **SOCAL APP CON**: 132.2
- **FOSS TOWER**: 135.2
- **GND CON**: 128.625
- **CLNC DEL**: 125.975
- **LA CENTER**: 291.7
- **AIR/ PAR**: NA

For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F).

**CAUTION**: Intermediate deceleration segment descent gradient 309 FPM is greater than 150 FPM.

**EMERG SAFE ALT 100 NM 13,600**

- **3000**: HUVEL, REDIN
- **ELEV 477**: TDZE 477

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV DA</td>
<td>677-³/₄</td>
<td>200</td>
<td>(200-³/₄)</td>
<td></td>
</tr>
<tr>
<td>LNAV/VNAV DA</td>
<td>733-³/₄</td>
<td>744-³/₄</td>
<td>752-³/₄</td>
<td>763-³/₄</td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>1040-1</td>
<td>563 (600-1)</td>
<td>1040-1 ³/₄</td>
<td>563 (600-1 ³/₄)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1040-1</td>
<td>563 (600-1)</td>
<td>1040-1 ³/₄</td>
<td>1180-2 ³/₄</td>
</tr>
</tbody>
</table>

**SAN DIEGO, CALIFORNIA**

Amdt 3 13SEP18
### RNAV (GPS) RWY 24R

**SAN DIEGO, CALIFORNIA**

<table>
<thead>
<tr>
<th>WAAS CH</th>
<th>W24B</th>
<th>APCH CRS</th>
<th>RWy IDG</th>
<th>TDZE</th>
<th>Arpt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>61450</td>
<td>243</td>
<td>12,000</td>
<td>475</td>
<td>477</td>
<td>------------</td>
</tr>
</tbody>
</table>

#### DME/DME RNP-0.3 NA.

<table>
<thead>
<tr>
<th>ATIS</th>
<th>SOCIAL APP CON</th>
<th>FOSS TOWER</th>
<th>GND CON</th>
<th>CLNC DEL</th>
<th>LA CENTER</th>
<th>ASR/ PAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>352.0</td>
<td>132.2</td>
<td>135.2</td>
<td>128.625</td>
<td>125.975</td>
<td>291.7</td>
<td>4600</td>
</tr>
<tr>
<td>133.475</td>
<td>269.1</td>
<td>298.925</td>
<td>307.325</td>
<td>254.325</td>
<td></td>
<td>209.0</td>
</tr>
</tbody>
</table>

For uncompensated Baro-VNNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F).

**CAUTION:** Intermediate deceleration segment descent gradient 309 FPM is greater than 150 FPM.

---

**EMERG SAFE ALT 100 NM 13,600**

- 3000 HOTIG tr 288° RW24R
- 5000 REDIN
- 1054 HOTIG
- 629 969
- 939 243° FOSEB
- 1237 2600 (FAF) CINUS
- 244° (CINUS) UYOCA
- 3517 3049
- (IAF/IF) SIMBE
- 3042 3105 3200 4400
- 328 338 4400
- 3625

**VGSIs and RNAV glidepath not coincident**

- VGSi Angle 3.00°/TCH 57
- GP 3.00°/TCH 53

**CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV DA</td>
<td>675-1/2</td>
<td>200</td>
<td>(200-1/2)</td>
</tr>
<tr>
<td>LNAV/VNAV DA</td>
<td>725-1/2</td>
<td>250</td>
<td>(300-1/2)</td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>1080-1/2</td>
<td>605</td>
<td>(700-1/2)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1080-1</td>
<td>603</td>
<td>(700-1)</td>
</tr>
</tbody>
</table>

**SAN DIEGO, CALIFORNIA**

Amtd 3 13SEP'18

**21112**

**MIRAMAR MCAS (JOE FOSS FLD) (KNKK)**

**RNAV (GPS) RWY 24R**

- 12,000 HIRL Rwy 6L-24R
- 6,590 HIRL Rwy 6R-24L
- 11,700+ HIRL Rwy 6L-24R
- 11,700+ HIRL Rwy 6R-24L

---

**EMERG SAFE ALT 100 NM 13,600**

- 3000 HOTIG tr 288° RW24R
- 5000 REDIN
- 1054 HOTIG
- 629 969
- 939 243° FOSEB
- 1237 2600 (FAF) CINUS
- 244° (CINUS) UYOCA
- 3517 3049
- (IAF/IF) SIMBE
- 3042 3105 3200 4400
- 328 338 4400
- 3625

**VGSIs and RNAV glidepath not coincident**

- VGSi Angle 3.00°/TCH 57
- GP 3.00°/TCH 53

**CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV DA</td>
<td>675-1/2</td>
<td>200</td>
<td>(200-1/2)</td>
</tr>
<tr>
<td>LNAV/VNAV DA</td>
<td>725-1/2</td>
<td>250</td>
<td>(300-1/2)</td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>1080-1/2</td>
<td>605</td>
<td>(700-1/2)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1080-1</td>
<td>603</td>
<td>(700-1)</td>
</tr>
</tbody>
</table>

**SAN DIEGO, CALIFORNIA**

Amtd 3 13SEP'18
20310  MIRAMAR MCAS (JOE FOSS FLD) (KNKX)  SAN DIEGO, CALIFORNIA

LAKEE-THREE DEPARTURE (LAKEE3 • LAKEE)

ATIS 133.475 352.0  SHL-903 [USN]
CLNC DEL 125.975 254.325
GND CON 128.625 307.325
FOSS TOWER 135.2 298.925
SOCAL DEP CON 132.2 269.1 E

<table>
<thead>
<tr>
<th>Rwy</th>
<th>Knots</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°</td>
<td>to 60</td>
</tr>
<tr>
<td>24L/R</td>
<td>V/V [kph]</td>
</tr>
<tr>
<td>0°</td>
<td>to 120</td>
</tr>
<tr>
<td>250</td>
<td>520</td>
</tr>
<tr>
<td>24L/R</td>
<td>V/V [kph]</td>
</tr>
<tr>
<td>0°</td>
<td>to 240</td>
</tr>
<tr>
<td>280</td>
<td>560</td>
</tr>
<tr>
<td>24L/R</td>
<td>V/V [kph]</td>
</tr>
<tr>
<td>0°</td>
<td>to 300</td>
</tr>
<tr>
<td>378</td>
<td>678</td>
</tr>
<tr>
<td>24L/R</td>
<td>V/V [kph]</td>
</tr>
<tr>
<td>0°</td>
<td>to 360</td>
</tr>
<tr>
<td>235</td>
<td>470</td>
</tr>
</tbody>
</table>

*Military Minimum  **Civil Minimum  †ATC Climb Rate
( ) to 3600  ( ) to 7000
( ) to 3800  ( ) 7500 to 11,000

LAKEE-THREE DEPARTURE (LAKEE3 • LAKEE)

EMERG SAFE ALT 100 NM 13,600

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Turn right to intercept and proceed via MZB VORTAC R-360 to LAKEE INT. Cross HELSI at or below 6000. Cross GERNE at or above 7000. Thence...

ADUDE TRANSITION (LAKEE3 • ADUDE): Via JLI VORTAC R-245 to JLI. Then via JLI R-070 to ADUDE. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000. (To operate in KANE MOA.)

IMPERIAL TRANSITION (LAKEE3 • IPL): Via JLI VORTAC R-245 to JLI. Then via JLI R-115 to KUMBA INT, then via IPL VORTAC R-258 to IPL. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.

(Continued on next page)
DEPARTURE ROUTE DESCRIPTION  
(Continued)

JULIAN TRANSITION  (LAKEE3 • JLI): Via JLI VORTAC R-245 to JLI. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.

RAMON TRANSITION  (LAKEE3 • RAMON): Via JLI VORTAC R-245 to NKX TACAN 13 DME. Then arc NE of NKX via the 13 DME arc to RAMON. Cross RAMON at 7000 mandatory.

THERMAL TRANSITION  (LAKEE3 • TRM): Via JLI VORTAC R-245 to JLI. Then via JLI R-021 to TRM VORTAC. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.
REDIN-FOUR DEPARTURE (REDIN4 • REDIN)

ATIS 133 475 352.0
CLNC DEL 125.975 254.325
GND CON 128.625 307.325
FOSS TOWER 135.2 298.925
SOCAL DEP CON 119.6 363.1 W

RESTRICTED TO CAT A & B ACFT ONLY

EMERG SAFE ALT 100 NM 13,600

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Climbing right turn to 2000 via heading 303° to intercept and proceed via NKK TACAN R-283 to SWOLF. Complete turn within NKK 2 DME. Cross NKK R-283/3 DME at 2000 mandatory. Maintain 2000 at SWOLF mandatory.

REDIN TRANSITION (REDIN4 • REDIN): Turn left heading 276° to intercept MZB VORTAC R-304 at REDIN.

SAN DIEGO, CALIFORNIA

MIRAMAR MCAS (JOE FOSS FLD) (KNKX)
TAKE-OFF RWY 24L/R: Climbing right turn to 2000 via heading 303° to intercept and proceed via NKX TACAN R-283 to SWOLF. Complete turn within NKX 2 DME. Cross NKX R-283/3 DME at 2000 mandatory. Maintain 2000 at SWOLF mandatory. Thence…

MOUSE TRANSITION (SWOLF9 • MOUSE): Turn left heading 255° to intercept NKX R-262 at MOUSE. Maintain 2000 for entry into W-291.

(Continued on next page)
RODEN TRANSITION (SWOLF9 • RODEN): Turn left heading 254° to intercept NKX R-268 at TRAHP. Then turn left heading 197° to intercept NKX R-229 at RODEN. Maintain 2000 for entry into W-291 via heading 250°.

NOTE:
(1) FLETA HOT-ACTIVE FIRING AREA (DANGER, REMAIN CLEAR)
(2) ALL AIRCRAFT SHOULD MAINTAIN LAST ASSIGNED HEADING/RADIAL AND ALTITUDE TO AVOID INBOUND MILITARY OR CIVIL AIRCRAFT AT HIGHER ALTITUDES
TINNY-FOUR DEPARTURE (TINNY4 • TINNY) SAN DIEGO, CALIFORNIA

**20310**

**MIRAMAR MCAS (JOE FOSS FLD) (KNKX)**

**TINNY-FOUR DEPARTURE (TINNY4 • TINNY)**

**Shl-903 [USN]**

**Rwy** | **Knots** | **120** | **180** | **240** | **300** | **360** | **24L/R** | **V/V thrill**
---|---|---|---|---|---|---|---|---
| | | | | | | | 780 | 1560 | 2340 | 3120 | 3900 | 4680

**ATIS** | 133 475 352.0 | **SHAFTER**

**CLNC DEL** | 125 975 254 325 | **115.4 EHF**

**GND CON** | 128 625 307 325 | **Chan 101**

**FOSS TOWER** | 135 2 298 925 | **L-3, L-7, H-4**

**SOCAL DEP CON** | 119 6 363 1 W | **DO NOT EXCEED 300 KIAS UNTIL INTERCEPTING R-283**

**SAN MARCUS** | 114 9 RZS | **VENTURA**

**Chan 96** | **108 2 VTU** | **Chan 19**

**SHAFTER TRANSITION** | 121 | **TINNY**

**SAN MARCUS TRANSITION** | 291 | **MISSION BAY**

**R-111** | **117.0 MZB** | **Chan 125**

**R-341** | **EMERG SAFE ALT 100 NM 13,600** | **NOTE: Chart not to scale**

**SWOLF** | **2000** | **256°**

**R-283** | **30°** | **300°**

**R-300** | **256°**

**R-283** | **2000**

**MISSION BAY** | **117.0 MZB** | **Chan 125**

**SHL-903 [USN]**

**NOTE: Chart not to scale**
TAKE-OFF RWY 24L/R: Climbing right turn to 2000 heading 303° to intercept and proceed via NKX TACAN R-283 to SWOLF. Complete turn within NKX 2 DME. Cross NKX R-283/3 DME at 2000 mandatory. Maintain 2000 at SWOLF mandatory. Then turn left heading 256° to intercept and proceed via MZB VORTAC R-300 to TINNY int. Thence...

SAN MARCUS TRANSITION (TINNY4·RZS): Via VTU VOR/DME R-111 to VTU, then via RZS VORTAC R-109 to RZS.

SHAFTER TRANSITION (TINNY4·EHF): Via EHF VORTAC R-144 to EHF.
**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RWY 6L/R:** Climb via heading 063° to intercept and proceed via MZB VORTAC R-041 to VITKO. Join MZB R-041 at or above 3000. Thence...

**ADUDE TRANSITION (VITKO3 • ADUDE):** Via MZB R-041 to JLI VORTAC. Then JLI R-070 to ADUDE. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000. (To operate in KANE MOA.)

**IMPERIAL TRANSITION (VITKO3 • IPL):** Via MZB R-041 to JLI VORTAC. Then via JLI R-115 to KUMBA INT, then via IPL VORTAC R-258 to IPL. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000.

(Continued on next page)
RODEN TRANSITION (VITKO3 • RODEN):  Arc N of MZB VORTAC via the 13 mile arc to REDIN. Then turn left heading 197° to intercept NNX R-229 at RODEN. Then turn right heading 250° for entry into W-291. Cross MUNDE at or above 5000. Cross WIPAK at or above 7000.

SANTA CATALINA TRANSITION (VITKO3 • SXC):  Arc N of MZB VORTAC via the 13 mile arc to REDIN. Then via MZB R-304 to PACIF INT. Then via SXC R-084 to SXC VORTAC. Cross MUNDE at or above 5000. Cross WIPAK at or above 7000.

THERMAL TRANSITION (VITKO3 • TRM): Via MZB R-041 to JLI VORTAC. Then via JLI R-021 to TRM VORTAC. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000.

NOTE:
(1) FLETA HOT-ACTIVE FIRING AREA (DANGER, REMAIN CLEAR).
(2) ALL AIRCRAFT SHOULD MAINTAIN LAST ASSIGNED HEADING/RADIAL AND ALTITUDE TO AVOID INBOUND MILITARY OR CIVIL AIRCRAFT AT HIGHER ALTITUDES!
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: RNAV 1.
NOTE: GPS required.

TAKEOFF MINIMUMS
Rwys 4, 8, 12: NA - restricted airspace.
Rwys 22 and 26: Standard with minimum climb of 480’ per NM to 7600.
Rwy 30: Standard with minimum climb of 497’ per NM to 7000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 22: Climb direct PGRAC, then on track 209° to JERID, thence.

TAKEOFF RUNWAY 26: Climb direct OFYEP, then on track 206° to JERID, thence.

TAKEOFF RUNWAY 30: Climb direct SHAWK, then climbing left turn on track 205° to JERID, thence.

. . . maintain 10000, expect filed altitude 10 minutes after departure.
MISSED APPROACH: Climbing right turn to 6000 direct to EED VORTAC and hold.
Circling NA for Cats C and D south of Rwy 11-29.

MISSED APPROACH: Climbing right turn to 6000 direct EED VORTAC and hold.

ASOS
128.325

LOS ANGELES CENTER
134.65 360.65

UNICOM
123.0 (CTAF)

NEEDLES, CALIFORNIA
Amdt 3A 07OCT21

NEEDLES, CALIFORNIA (EED)
AL-543 (FAA)
Visibility reduction by helicopters not authorized.

CAUTION:
Final apch length 12 2 NM.
Final apch intersects RCL at 3726 ft.
Final apch crs 117 ft from RCL at 3000 ft from thld.

RADAR required for westbound V317 arrivals at PGY VORTAC.
**CAUTION:** Maneuvering for circling approach not authorized W of RWy 18-36 centerline. Circling approach authorized for RWy 18 only.

CAUTION: Inmed segment descent gradient 350'/NM.

CAUTION: Intmed seg len 4 NM.
Aircraft avoid overflying Coronado Cayes and City of Coronado below 2500’ MSL. Proceed visually via the NZY R-128 or MZB R-148 until reaching NZY 2 DME / MZB 6 DME, then maneuver to runway centerline for straight-in Runway 29.
NASNI NINE DEPARTURE (OBSTACLE) (NASNI 9 • NASNI)

SAN DIEGO, CALIFORNIA

ATIS •
317.8 CLNC DEL
128.4 288.25
GND CON
118 0 360.675
NORTH ISLAND TOWER •
135.1 336.4
SOCAL DEP CON
125.15 317.55

SHL-374 [USN]

270

NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

20310

Rwy | Knots | 60 | 120 | 180 | 240 | 300 | 360
---|-------|----|----|----|----|----|----
11 | V/V(fpm) | 275 | 450 | 550 | 825 | 1100 | 1375 | 1650
11 | V/V(fpm) | 290 | 580 | 870 | 1160 | 1450 | 1740 |
29 | V/V(fpm) | 420 | 840 | 1260 | 1680 | 2100 | 2520 |
29 | V/V(fpm) | 490 | 980 | 1470 | 1960 | 2450 | 2940 |

Minimum Climb Rate
(a) Military climb to 700 or 600-2½ authorized in lieu of climb rate.
(b) Civil climb to 700 or 600-2½ authorized in lieu of climb rate.
(c) Military climb to 700 or 600-2½ authorized in lieu of climb rate.
(d) Civil climb to 700 or 600-2½ authorized in lieu of climb rate.

CAUTION: Rwy 29 Cross DER at or above 35°

CAT E aircraft not authorized off Rwy 11 and 29

Rwy 29 CIVIL departure dual DME required

RADAR and DME REQUIRED

Do not exceed 250 KIAS until completion of turn

Advise ATC prior to taxi if unable to meet climb gradients, DER crossing restrictions or remain within turn restrictions of published departure for an alternate runway assignment.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF Rwy 11: Turn right as soon as practicable climbing to 2000 via heading 177°, remain within NZY TACAN 1 DME to not overfly the City of Coronado, thence...

TAKE-OFF Rwy 18: Climbing left turn to 2000 intercept the NZY R-178 (MWB R-168) to NASNI, thence...

TAKE-OFF Rwy 29 (CIVIL): Turn left as soon as practicable climbing to 2000, remain within NZY TACAN 1 DME to not overfly Point Loma, intercept the MWB R-168 to NASNI, thence...

TAKE-OFF Rwy 29 (MILITARY): Turn left as soon as practicable climbing to 2000, remain within NZY TACAN 1 DME to not overfly Point Loma, intercept the NZY R-178 to NASNI, thence...

... Expect RADAR vectors to join assigned route.
Night Landing: Rwy 6 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing right turn to 2000 direct OCICE WP and hold.

ASOS 127.8
SOCAL APP CON 127.3 323.0
UNICOM 122.725 (CTAF)
Helicopter visibility reduction below 1 SM NA.
Night Landing: Rwy 6 NA.

MISSED APPROACH: Climbing left turn to 4000 via heading 030° and OCN R-083 to VISTA INT/OCN 9.3 DME and hold.

ASOS
127.8

SOCAL APP CON
127.3 323.0

UNICOM
122.725 (CTAF)

VOR-A
BOB MAXWELL MEML AIRFIELD (OKB)

OCEANSIDE, CALIFORNIA
AL-5666 (FAA)

VOR TAC
OCN 115.3
Chan 100

APP CRS
096°

Rwy Idg
TDZE
Apt Elev
N/A
N/A

28

3.4 NM

One Minute
Holding Pattern

OCN VORTAC

4000
hdg
030°

OCN R-083

VISTA

OCN 3.4

FAF to MAP 3.4 NM

CATEGORY
A
B
C
D

CIRCLING
1140-1¼
1140-1½
1140-1½
NA

KNOTS
60
90
120
150
180

MIN:SEC
3:24
2:16
1:42
1:21
1:08

AL-5666
33°13'N-117°21'W
BOB MAXWELL MEML AIRFIELD (OKB)

VOR-A

OCEANSIDE, CALIFORNIA
Amdt 3E
31MAR16

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021

SW-3
07 OCT 2021 to 02 DEC 2021
ILS or LOC RWY 26L
ONTARIO INTL (ONT)

Circling NA north of Rwy 8L-26R. Inop table does not apply to Sidestep 26R Cat A. For inop ALS, increase S-LOC Rwy 26L Cat C/D and Sidestep 26R Cat C visibility to 2½ SM, and Sidestep 26R Cat B visibility to 1½ SM, and BAKES DME minimums S-LOC 26L Cat C/D to RVR 6000.

Procedure NA for arrivals on PDZ VORTAC airway radials 012 CW 078.

2000 4000 PDZ

VGSI and ILS glidepath not coincident (VGSI Angle 3.00°/TCH 74).

*LOC only

BAKES I-TWO 1.8

Tesre I-TWO 7.8

Pathfinder, INT 112.2 PDZ Channel 59

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)

Localizer 111.35

Chan 50 (Y)
Circling NA north of RWY 8L-26R. Inop table does not apply to Sidestep 26L Cat A. For inop ALS, increase Sidestep 26L Cat B visibility to 1½ SM and Sidestep 26L Cat C to 2½ SM. # RVR 1800 authorized with use of FD or AP or HUD to DA.

MISSED APPROACH: Climb to 2200 then climbing left turn to 4000 direct PDZ VORTAC and hold.

Procedure NA for arrivals on PDZ VORTAC airway radials 012 CW 078.

RVR 1800 authorized with use of FD or AP or HUD to DA. Cat B visibility to 1 SM and Sidestep 26L Cat A. For inop ALS, increase Sidestep 26L Circling NA north of RWY 8L-26R. Inop table does not apply to Sidestep 26L Cat A. For inop ALS, increase Sidestep 26L Cat B visibility to 1½ SM and Sidestep 26L Cat C to 2½ SM. # RVR 1800 authorized with use of FD or AP or HUD to DA.

MISSED APPROACH: Climb to 2200 then climbing left turn to 4000 direct PDZ VORTAC and hold.

Procedure NA for arrivals on PDZ VORTAC airway radials 012 CW 078.
ILS RWY 26L (CAT II & III)
ONTARIO INTL (ONT)

D-ATIS
124.25
SOCAL APP CON
127.0 318.2
ONTARIO TOWER
120.6 360.775
GND CON
121.9 257.8
CLNC DEL
118.1
CPDLC

D-ATIS
1799A
SOCAL APP CON
1805
ONTARIO TOWER
1665 ±
GND CON
1525
CLNC DEL
1599
CPDLC

LOCALIZER 111.35
I-TWO Σ
Chan 50 (Y)

Procedure NA for arrivals on PDZ VORTAC
airway radials 012 CW 078.

VGS and ILS glidepath not coincident
(VGS Angle 3.00/TCH 74).

CATEGORY II & III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

ONTARIO, CALIFORNIA
Amdt 8C 26MAR20

TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

ONTARIO, CALIFORNIA
Amdt 8C 26MAR20

ILS RWY 26L (CAT II & III)
RNAV (RNP) Z RWY 8L
ONTARIO INTL (ONT)

For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (130°F).

MISSED APPROACH: Climb to 5300 direct CABUB on track 161° to DLIUS and hold, continue climb-in-hold to 5300.

GPS REQUIRED

See planview for multiple IF locations.

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 62).

For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (130°F).

MISSED APPROACH: Climb to 5300 direct CABUB on track 161° to DLIUS and hold, continue climb-in-hold to 5300.

See planview for multiple IF locations.
RNAV (RNP) Z RWY 26L
ONTARIO INTERNATIONAL (ONT)

For uncompensated Baro-VNAV systems, procedure NA below 1°C or above 54°C. For inop ALS, increase RNP 0.15 visibility all Cats to RVR 4500, RNP 0.18 visibility all Cats to RVR 5500, RNP 0.30 visibility all Cats to RVR 6000.

MISSED APPROACH: Climb to 3400 on track 258° to AXOYO and track 174° to LAKVE and track 258° to AXOYO and track 174° to MRIAM and track 079° to ADRYN and hold.

See planview for multiple IF locations.

VGS and RNAV glidepath not coincident (VGS Angle 3.00/TCH 74).

Procedure NA for arrivals at GAREY on V8-21 northeast bound.
ONTARIO, CALIFORNIA

AL-965 (FAA)

RNAV (GPS) Y RWY 8L
ONTARIO INTL (ONT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Circling NA north of RWY 8L-26R.

Procedure NA for arrivals at ELMOO on V186 westbound.

VNAV and RNAV glidepath not coincident (VGS/GL 3.00° TCH 62).

LPV DA

1266/30 322 (400-3%) 576 (600-1½)

LNAV MDA

305 (600) 353 (600-1½) 305 (600-1½) 576 (600-1½)

CIRCLING

1480-1 536 (600-1) 1540-1 596 (600-1½) 1600-2 656 (700-2)

SW-3, 07 OCT 2021 to 02 DEC 2021
RNAV (GPS) Y RWY 8R
ONTARIO INTL (ONT)

For uncompensated Baro-VNAV systems, procedure NA below 2° C (36°F) or above 54° C (130°F). Circling NA north of Rwy 8L-26R. DME/DME RNP-0.3 NA.

MIssed Approach: Climb to 1500 then climbing right turn to 5000 direct IBAXE and hold, continue climb-in-hold to 5000.

Procedure NA for arrival at AMTRA on V264 westbound.

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00°/TCH 65)

1500 5000 IBAXE

Amdt 2 27APR17

SW-3, 07 OCT 2021 to 02 DEC 2021
RNAV (GPS) Y RWY 26L
ONTARIO INTL (ONT)

For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (120°F). Circling NA north of RWy 8L-26R. DME/DME RNP-0.3 NA.

Procedure NA for arrival on PDZ VORTAC airway radials 012 CW 130.

D-ATIS 124.25  SOCIAL APP CON 127.0 318.2  ONTARIO TOWER 120.6 360.775  GND CON 121.9 257.8  CLNC DEL 118.1  CPDLC 1126/24  200 (200-½)

PDZ 1219/26L  200 (200-½)  1556/30  1264/30  338 (400-%)

PDZ VORTAC 012 CW 130.

VGS and RNAV glidepath not coincident (VGS Angle 3.00/TCH 74).

* LNAV only

1.2 NM to RW26L

1.2 NM to RW26L

1.5 NM to RW26L

3.3 NM to RW26L

5 NM to RW26L

1.2 NM to RW26L

1.5 NM to RW26L

3.3 NM to RW26L

5 NM to RW26L

LNAV DA 1380/24 454 (500-½)  1380/45 454 (500-%)

LNAV MDA 1380/24 454 (500-½)  1380/45 454 (500-%)

LNAV DA 1380/24 454 (500-½)  1380/45 454 (500-%)

LNAV MDA 1380/24 454 (500-½)  1380/45 454 (500-%)

CIRCLING 1400-1 456 (500-1)  1400-1 456 (500-1)

1500-1/2 556 (600-½)  1540-2 596 (600-2)

Procedure NA for arrivals at ACINS on V283-587 southbound.

PDZ VORTAC airway radials 012 CW 130.

For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (120°F). Circling NA north of RWy 8L-26R. DME/DME RNP-0.3 NA.

Procedure NA for arrival on PDZ VORTAC airway radials 012 CW 130.
For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (130°F). Circling NA north of Rwy 8L-26R. DME/DME RNP-0.3 NA.

MALSR

MISSING APPROACH: Climb to 3700 direct EGAYAZ and on track 173° to LAKVE and on track 100° to PDZ VORTAC and hold.

D-ATIS 124.25
SOCIAL APP CON 127.0 318.2
ONTARIO TOWER 120.6 360.775
GND CON 121.9 257.8
CLNC DEL 118.1
CPDLC

Procedure NA for arrivals at ACINS.

Procedure NA for arrival on PDZ VORTAC airway radials 012 CW 130.

*LPV* DA 1132/24 200 (200-1/2)

*RNAV only.*

MDA 1380/30 332 (400-1/4)

RNAV/ VNAV DA 1380/45 448 (500-1/2)

RNAV MDA 448 (500-1/2)

CIRCLING 1400-1 456 (500-1)

For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 54°C (130°F). Circling NA north of Rwy 8L-26R. DME/DME RNP-0.3 NA.

MALSR

MISSING APPROACH: Climb to 3700 direct EGAYAZ and on track 173° to LAKVE and on track 100° to PDZ VORTAC and hold.

D-ATIS 124.25
SOCIAL APP CON 127.0 318.2
ONTARIO TOWER 120.6 360.775
GND CON 121.9 257.8
CLNC DEL 118.1
CPDLC

Procedure NA for arrivals at ACINS.

Procedure NA for arrival on PDZ VORTAC airway radials 012 CW 130.

*LPV* DA 1132/24 200 (200-1/2)

*RNAV only.*

MDA 1380/30 332 (400-1/4)

RNAV/ VNAV DA 1380/45 448 (500-1/2)

RNAV MDA 448 (500-1/2)

CIRCLING 1400-1 456 (500-1)
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**NIKKL ONE DEPARTURE**

**NOTE:** Rwys 26L/R, DME required.

**TAKOFF MINIMUMS**
- Rwy 8L/R: Standard with minimum climb of 220 feet per NM to 2200.
- Rwy 26L/R: Standard

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 8L/R:** Climbing right turn direct PDZ VORTAC. Thence....

**TAKEOFF RUNWAYS 26L/R:** Climbing left turn direct PDZ VORTAC, cross 6 DME northwest of PDZ VORTAC at or below 4000'. Thence....

.... on (assigned transition) or (assigned route). Cross PDZ VORTAC at or above 2700. Expect filed altitude 10 minutes after departure.

**MISSION BAY TRANSITION (NIKKL1, MZB):** From over PDZ VORTAC on PDZ R-130 and MZB R-355 to MZB VORTAC.

**THERMAL TRANSITION (NIKKL1, TRM):** From over PDZ VORTAC on PDZ R-130, SLI R-080 and TRM R-263 to TRM VORTAC.
NOTE: DME required.
NOTE: RADAR required for Runways 8L/R. If unable to comply with SULZU restriction, advise ATC prior to departure.
NOTE: The DAG transition requires a minimum of 373’ per NM to MEA of 14000 when crossing POM VORTAC at 7000.

**TAKEOFF MINIMUMS**

Rwys 26L/R DAG transition standard with minimum climb of 470’ per NM to 14000.
Rwys 8L/R DAG transition standard with minimum climb of 343’ per NM to 12400.
Rwys 26L/R EHF and GMN transitions standard with minimum climb of 309’ per NM to 8600.
Rwys 8L/R EHF and GMN transitions standard with minimum climb of 282’ per NM to 8500.

† Approximate distance from takeoff area Rwy 8 to POM VORTAC.
# Approximate distance from takeoff area Rwy 26 to POM VORTAC.

NOTE: Chart not to scale.
POMONA ONE DEPARTURE

ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climbing right turn heading 258° to intercept and proceed on POM R-114 to POM VORTAC, cross POM VORTAC at or below 7000. Thence. . . .

TAKEOFF RUNWAYS 26L/R: Climb heading 258° to intercept and proceed on POM R-114 to POM VORTAC, cross POM VORTAC at or below 7000. Thence. . . .

. . . .on (transition). Expect filed altitude ten minutes after departure.

AVENAL TRANSITION (POM1.AVE): From over POM VORTAC on POM R-294 to BUCK, then on GMN R-113 to GMN VORTAC, then on GMN R-310 to COREZ, then on AVE R-086 to AVE VOR/DME.

DAGGETT TRANSITION (POM1.DAG): From over POM VORTAC on POM R-301 to SULZU then on DAG R-227 to DAG VORTAC.

GORMAN TRANSITION (POM1.GMN): From over POM VORTAC on POM R-294 to BUCK, then on GMN R-113 to GMN VORTAC.

SHAFTER TRANSITION (POM1.EHF): From over POM VORTAC on POM R-294 to BUCK, then on GMN R-113 to TOOB, then on EHF R-137 to EHF VORTAC.

TAKEOFF RUNWAYS 8L/R: Climb heading 258° to intercept and proceed on POM R-114 to POM VORTAC, cross POM VORTAC at or below 7000. Thence. . . .
NOTE: Chart not to scale.

**TOP ALTITUDE**

**DINTY AND MALIT TRANSITIONS:**

15000

**ALL OTHER TRANSITIONS:**

ASSIGNED BY ATC

**TAKEOFF MINIMUMS**

Rwys 8L/R, 26L/R: Standard with a minimum climb of 500’ per NM to 1460.

**NOTE:** RNAV 1.

**NOTE:** RADAR required.

**NOTE:** OTAYY, MTBAL and AVRRY Transitions: DME/DME/IRU or GPS required.

**NOTE:** DINTY and MALIT Transitions: GPS required.

**NOTE:** Turbojet and turboprop aircraft only.

**NOTE:** MALIT and DINTY Transitions available between 2200 and 0600 local only.

**NOTE:** DINTY Transition ATC assigned only.

**NOTE:** For non-GPS equipped aircraft on the AVRRY Transition, JULIAN VORTAC (JLI) must be operational.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb heading 078° to 1460, then right turn direct to cross
SOEHL at or above 4000, then on track 133° to cross RAJEE at or below 7000, thence . . . .

TAKEOFF RUNWAYS 26L/R: Climb heading 258° to 1460, then left turn direct to cross
SOEHL at or above 4000, then on track 133° to cross RAJEE at or below 7000, thence . . . .

. . . . on transition. DINTY and MALIT transitions: Maintain 15000. All other transitions:
maintain ATC-assigned altitude. Expect higher altitude 10 minutes after departure.

AVRRY TRANSITION (RAJEE3.AVRRY)
DINTY TRANSITION (RAJEE3.DINTY)
MALIT TRANSITION (RAJEE3.MALIT)
MTBAL TRANSITION (RAJEE3.MTBAL)
OTAYY TRANSITION (RAJEE3.OTAYY)
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: MISEN transition restricted to aircraft landing LAS terminal area.
NOTE: HAILO/BEALE/YELAH transition ATC only.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb on heading 078° to 1460 at or below 210K, then right turn direct to cross LEESI at or above 5000, then on track 285° to cross POM VORTAC at or below 8000, then on track 300° to SNSHN, thence. . . .

TAKEOFF RUNWAYS 26L/R: Climb on heading 258° to 1460, then direct DINNK, then on track 274° to cross POM VORTAC at or below 8000, then on track 300° to SNSHN, thence. . . .

. . . .on (transition) maintain FL230, expect filed altitude 10 minutes after departure.

BEALE TRANSITION (SNSHN5.BEALE)
COREZ TRANSITION (SNSHN5.COREZ)
HAILO TRANSITION (SNSHN5.HAILO)
LAS VEGAS TRANSITION (SNSHN5.LAS)
MISEN TRANSITION (SNSHN5.MISEN)
SHAFTER TRANSITION (SNSHN5.EHF)
YELAH TRANSITION (SNSHN5.YELAH)
**ILS or LOC RWY 25**

**OXNARD (OXR)**

Rwy 25 helicopter visibility reduction below 1/4 SM NA. Autopilot coupled approach NA below 867°. Inop table does not apply. When local altimeter setting not received, use Camarillo altimeter setting and increase S-ILS 25 DA to 3 1/2 and all MDA 20 feet, increase S-LOC 25 Cat C/D visibility 1/2 mile, and Circling C visibility 1/2 mile, Cat D 1/4 mile.

**MISSED APPROACH:** Climb to 520 then climbing left turn to 2000 on CMA VOR/DME R-249 to SQUID INT/14.7 DME and hold.

**Procedure NA for arrival on FIM VORTAC airway radials 148 CW 195.**

**ATIS**

118.05

**POINT MUGU APP CON**

* 124.7 336.5

**OXNARD TOWER**

* 134.95 (CTAF) 257.8

**GND CON**

121.9

**ELEV** 45

**TDZE** 44

**FAF to MAP** 9.7 NM

**Knots**

60 90 120 150 180

**Min:Sec**


**CATEGORY**

A B C D

**GS 3.00° TCH 58**

**S-ILS 25**

294-1 250 (300-1)

**S-LOC 25**

580-1 536 (600-1) 580-1 1/2 536 (600-1 1/2)

**CIRCLING**

580-1 535 (600-1) 580-1 1/2 535 (600-1 1/2) 700-2 655 (700-2)

**AMDT 13C 29MAR18**

**OXNARD, CALIFORNIA**

Amdt 13C 29MAR18

**34°12'N-119°12'W**

**AL-674 (FAA) 18088**

**ILS or LOC RWY 25**

**OXNARD (OXR)**

**TDZE 44**

**REIL Rwy 7**

**MLIR Rwy 7-25**

**CIRCLING**

580-1 535 (600-1)

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9

**ATIS**

118.05

**GND CON**

121.9
RNAV (GPS) RWY 7
OXNARD (OXR)

Baro-VNAV NA when using Camarillo altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). DME/DME RNP -0.3 NA. When local altimeter setting not received, use Camarillo altimeter setting and increase all DA 18 feet and all MDA 20 feet, increase Circling Cat D visibility ½ mile.

MISSED APPROACH:
Climb to 500, then climbing right turn to 3000 direct UVICA and hold.

UVICA and hold.

Procedure NA for arrivals on RZS VORTAC airway radials 071 CW 109.

Procedure NA for arrivals at HENER on V27-186 eastbound.

Procedure NA for arrivals at VTU VOR/DME on V25 eastbound.

VTU VOR/DME to UVICA terminal route not authorized when W-289 active.

Amdt 1A 29 MAY 2014

SW-3, 07 OCT 2021 to 02 DEC 2021
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF MINIMUMS**
- Rwy 7: 2000-5 or Standard with minimum climb of 320' per NM to 4100.
- Rwy 25: 2100-5 or Standard with a minimum climb of 300' per NM to 4100.

**TAKEOFF OBSTACLE NOTES**
- Rwy 7: Tree 527' from DER, 501' left of centerline, 59' AGL/108' MSL.

**NOTE:** Aircraft proceeding on FILLMORE TRANSITION: If not at MCA/MEA prior to reaching FIM VORTAC, continue climbing in depicted holding pattern to MCA or assigned altitude.

**NOTE:** RADAR required.

**TOP ALTITUDE:** 8000

**FILLMORE TRANSITION (CMA6.FIM):** From over CMA VOR/DME via CMA R-249 to CMA VOR/DME, thence. . .

**GINNA TRANSITION (CMA6.GINNA):** From over CMA VOR/DME via CMA R-072 to GINNA INT.

**VENTURA TRANSITION (CMA6.VTU):** From over CMA VOR/DME via VTU R-324 to VTU VOR/DME.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climbing left turn to 6000 (or assigned altitude) to intercept CMA R-249 westbound to SKIFF INT . . .

TAKEOFF RUNWAY 25: Climb to 6000 (or assigned altitude) on CMA R-249 to cross SKIFF INT at or above 600 . . . .

. . . . thence on (transition) or (assigned route).

GOLET TRANSITION (SKIFF7.GOLET): From over SKIFF INT via CMA R-249 to (SUPNY), then via GVO R-127 to GOLET INT.

KWANG TRANSITION (SKIFF7.KWANG): From over SKIFF INT via VTU R-282 to KWANG INT.

SQUID TRANSITION (SKIFF7.SQUID): From over SKIFF INT via CMA R-249 to SQUID INT.

VENTURA TRANSITION (SKIFF7.VTU): From over SKIFF INT via CMA R-249 to VENTURA INT.

SKIFF SEVEN DEPARTURE (SKIFF7.SKIFF) 1SEP16

TOP ALTITUDE: 6000

TAKEOFF MINIMUMS

Rwy 7: 2100-5 or Standard with minimum climb of 290’ per NM to 2600.

Rwy 25: Standard except KWANG TRANSITION requires a minimum climb of 370’ per NM to 600.

TAKEOFF OBSTACLE NOTES

Rwy 7: Tree 527’ from DER, 501’ left of centerline, 59’ AGL/108’ MSL.

NOTE: Chart not to scale.
RNAV (GPS) RWY 10
BERMUDA DUNES (UDD)

**Category**
- **A**: RNAV (GPS) RWY 10
- **B**: RNAV (GPS) RWY 10
- **C**: RNAV (GPS) RWY 10
- **D**: RNAV (GPS) RWY 10

**RNAV and RNP**
- **RNAV (GPS) RWY 10**
- **RNP-0.3**
- **DME/DME RNP-0.3 NA**

**Unicom**
- **SOCAL APP CON**: 135.275 251.1

**UNICOM**
- **122.8 (CTAF)**

**Procedure**
- **NA for arrival at YUCCA on V264 eastbound and V386 northbound.**
- **NA for arrival at MORON on V137 northwestbound.**

**LNAV MDA**
- **480-1**
- **407 (500-1)**

**CIRCLING**
- **700-1**
- **627 (700-1)**

**Weather**
- **Use Jacqueline Cochran Rgnl altimeter setting.**

**Location**
- **33°45'N-116°16'W**

**App CRS**
- **102°**

**TDZE**
- **73**

**ELEV**
- **73**

**TRM ASOS**
- **118.325**

**SOCAL APP CON**
- **135.275**
- **251.1**

**UNICOM**
- **122.8 (CTAF)**

**Reil**
- **Rwy 28**
- **10-28**

**SW-3, 07 OCT 2021 to 02 DEC 2021**
- **SW-3, 07 OCT 2021 to 02 DEC 2021**

**SW-3, 07 OCT 2021 to 02 DEC 2021**
- **SW-3, 07 OCT 2021 to 02 DEC 2021**

**SW-3, 07 OCT 2021 to 02 DEC 2021**
- **SW-3, 07 OCT 2021 to 02 DEC 2021**
RNAV (GPS) RWY 28
BERMUDA DUNES (UDD)

TRM ASOS
118.325

SOCAL APP CON
135.275 251.1

UNICOM
122.8 (CTAF)

Use Jacqueline Cochran Rgnl altimeter setting. Rwy 28 Straight-in and Circling minimums NA at night. Rwy 28 helicopter visibility reduction below 1 SM NA.

MINSED APPROACH: Climb to 3300 via course 296° to AKEGE WP then right turn via course 298° to PSP VORTAC and hold.

MISSED APPROACH: Climb to 3300 via course 296° to AKEGE WP then right turn via course 298° to PSP VORTAC and hold.

RNAV (GPS) RWY 28
BERMUDA DUNES (UDD)

TRM ASOS
118.325

SOCAL APP CON
135.275 251.1

UNICOM
122.8 (CTAF)

Use Jacqueline Cochran Rgnl altimeter setting. Rwy 28 Straight-in and Circling minimums NA at night. Rwy 28 helicopter visibility reduction below 1 SM NA.

MINSED APPROACH: Climb to 3300 via course 296° to AKEGE WP then right turn via course 298° to PSP VORTAC and hold.

MISSED APPROACH: Climb to 3300 via course 296° to AKEGE WP then right turn via course 298° to PSP VORTAC and hold.
Use Jacqueline Cochran Rgnl altimeter setting. Circling to Rwy 28 NA at night.

MISSED APPROACH: Climb to 3300 via PSP R-120 to PSP VORTAC and hold.

TRM ASOS
118.325

SOCAL APP CON
135.275 251.1

UNICOM
122.8 (CTAF)

MISSED APPROACH: Climb to 3300 via PSP R-120 to PSP VORTAC and hold.

TRM VORTAC

One Minute Holding Pattern

FAF to MAP 8.1 NM

CATEGORY
CIRCLING
A 960-1/4
B 887 (900-1/4)
C 1100-3
D 1027 (1100-3)

Knots
60 90 120 150 180
Min:Sec
8:06 5:24 4:03 3:14 2:42

Palm Springs, California
33°45’N - 116°16’W

Bermuda Dunes
303
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 10:** Climbing right turn heading 150° to intercept TRM R-304 to TRM VORTAC, thence . . . or, obtain ATC approval for VCOA when requesting IFR clearance; climb in visual conditions to cross Bermuda Dunes Airport at or above 2600, then on TRM R-304 to TRM VORTAC, thence . . .

**TAKEOFF RUNWAY 28:** Climb heading 282° to 900 then climbing left turn heading 090° to intercept TRM R-304 to TRM VORTAC, thence . . . or, obtain ATC approval for VCOA when requesting IFR clearance; climb in visual conditions to cross Bermuda Dunes Airport at or above 2600, then on TRM R-304 to TRM VORTAC, thence . . .

. . . continue climbing in TRM VORTAC holding pattern to cross TRM VORTAC at or above MEA/MCA for route of flight.
RNAV (GPS) RWY 30
JACQUELINE COCHRAN RGNL (TRM)

RNP APCH.

Rwy 30 helicopter visibility reduction below ½ SM NA.

ASOS 118.325
SOCAL APP CON 135.275 251.1
CLNC DEL 120.225
UNICOM 123.0 (CTAF)

Procedure NA for arrivals at SHADI on V64 eastbound V460 northeastbound.

MISSED APPROACH: (Do not exceed 230K until JEROD) Climb to 1200 then climbing right turn to 3500 direct JEROD and hold.

Procedure NA for arrivals at KARRO on V460 southwestbound.

RNAV and RNAV glidepath not coincident (VGSI Angle 3.00°/TCH 25).

LPV DA
260-1 381 (400-1)
260-1 381 (400-1)

LNAV MDA
260-1 381 (400-1)
260-1 381 (400-1)

CIRCLING
320-1
340-1
460-1 381 (400-1)
780-3
435 (500-1)
455 (500-1)
575 (600-1)
895 (900-3)

Reil Rwy 17 and 35
MIRL Rwy 12-30 and 17-35

Amdt 1 19JUL18
SW-3, 07 OCT 2021 to 02 DEC 2021
Final approach course offset 11.21°.

MISSED APPROACH: Climb to 1200 then climbing right turn to 4300 direct OPOSE and hold.
Rwy 30 helicopter visibility reduction below ¾ SM NA.

Missed Approach: Climb to 1300 on TRM VORTAC R-316 then climbing right turn to 5400 direct TRM VORTAC and hold, continue climb-in-hold to 5400.

ASOS
118.325

SOCAL APP CON
135.275 251.1

CLNC DEL
120.225

UNICOM
123.0 (CTAF)

DME required.

Amdt 2 19JUL18

SW-3, 07 OCT 2021 to 02 DEC 2021
MISSED APPROACH: Climb to 2000 on TRM VORTAC R-304 then climbing right turn to 5400 direct TRM VORTAC and hold, continue climb-in-hold to 5400.

Descend in holding pattern to 7600 prior to starting procedure turn.

CIRCLING

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1400-1½</td>
<td>1400-1½</td>
<td>1400-3</td>
<td>1515 (1600-3)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1515 (1600-1½)</td>
<td>1515 (1600-1½)</td>
<td>1515 (1600-1½)</td>
<td>1515 (1600-1½)</td>
</tr>
</tbody>
</table>
NOTE: Chart not to scale.

MECCA ONE DEPARTURE

MECCA ONE DEPARTURE

AL-529 (FAA)

MECCA ONE DEPARTURE

AL-529 (FAA)

NOTE: DME required.

TAKEOFF MINIMUMS

Rwys 12, 17, 30: Standard with a minimum climb of 250’ per NM to 5000.

Rwy 35: Standard with a minimum climb of 402’ per NM to 3400.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climbing right turn heading 147° to intercept TRM VORTAC R-136 to MECCA, then climbing left turn direct TRM VORTAC. Thence. . . .

TAKEOFF RUNWAY 17: Climbing left turn heading 100° to intercept TRM VORTAC R-136 to MECCA, then climbing left turn direct TRM VORTAC. Thence. . . .

TAKEOFF RUNWAY 30: Climbing right turn heading 180° to intercept TRM VORTAC R-136 to MECCA, then climbing left turn direct TRM VORTAC. Thence. . . .

TAKEOFF RUNWAY 35: Climbing right turn heading 195° to intercept TRM VORTAC R-136 to MECCA, then climbing left turn direct TRM VORTAC. Thence. . . .

. . . then on (assigned transition). Expect filed altitude 10 minutes after departure.

PALM SPRINGS TRANSITION (MECCA1.PSP): From over TRM VORTAC on TRM R-304 to PSP VORTAC.

TWENTY NINE PALMS TRANSITION (MECCA1.TNP): From over TRM VORTAC on TRM R-021 and TNP R-199 to TNP VORTAC.
Missed approach requires minimum climb of 340' per NM to 3000. For uncompensated Baro-VNAV systems, procedure NA below 2°C or above 54°C.

**Missed APPROACH:** Climb to 1800, then climbing right turn to 4000 direct TRM VORTAC and hold.

Procedure NA for arrival on TRM VORTAC airway radials 053 CW 124.

Procedure NA for arrival on PSP VORTAC airway radials 053 CW 124.

Procedure NA for arrival on TRM VORTAC airway radials 203 CW 078.

For uncompensated Baro-VNAV systems, procedure NA below 2°C or above 54°C. Missed approach requires minimum climb of 340’ per NM to 3000.
Circling not authorized southwest of Rwy 13R-31L.

MISSED APPROACH: Climbing right turn to 4000 direct PSP VORTAC then via PSP R-124 and TRM R-304 to TRM VORTAC and hold.

ATIS 124.65
SOCAL APP CON 126.7 370.95
PALM SPRINGS TOWER 119.7 (CTAF) 377.05
GND CON 121.9
CLNC DEL 128.35
UNICOM 122.95

Amdt 3  22MAR01
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**TAKEOFF MINIMUMS**

Rwy 13L, Standard with minimum climb of 440' per NM to 2300.
Rwy 13R, Standard with minimum climb of 422' per NM to 2300.
Rwy 31L, Standard with minimum climb of 405' per NM to 2700.
Rwy 31R, Standard with minimum climb of 386' per NM to 2700.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 13L/R:**
Climbing left turn heading 100°
to cross PSP VORTAC R-176, then turn left heading 040° to
intercept PSP R-104, thence . . .

**TAKEOFF RUNWAYS 31L/R:**
Climb heading 310° to cross PSP VORTAC R-268, then turn right direct PSP VORTAC, thence . . .

. . . . . . climb via PSP R-104 to EMRUD INT/PSP 10 DME, then turn right
direct PSP VORTAC. If not at MEA/MCA at PSP VORTAC, climb in
PSP VORTAC holding pattern until reaching MEA/MCA for assigned
route of flight.
**THERMAL SIX DEPARTURE**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 13L/R:** Climbing left turn heading 075° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

**TAKEOFF RUNWAYS 31L/R:** Climb heading 090° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

. . . .If not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern until reaching the MEA/MCA for assigned route of flight.

**NOTE:** Chart not to scale.

---

**THERMAL SIX DEPARTURE**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 13L/R:** Climbing left turn heading 075° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

**TAKEOFF RUNWAYS 31L/R:** Climb heading 090° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

. . . .If not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern until reaching the MEA/MCA for assigned route of flight.

---

**THERMAL SIX DEPARTURE**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 13L/R:** Climbing left turn heading 075° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

**TAKEOFF RUNWAYS 31L/R:** Climb heading 090° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

. . . .If not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern until reaching the MEA/MCA for assigned route of flight.
Circling NA for Cats C and D south of Rwys 4 and 25.

Procedure NA for arrivals at JEFFY on V165-459 and V137 northwest bound.

Caution: high terrain 5 NM southwest of airport.

MISSED APPROACH: Climbing right turn to 7000 direct IMSIJ and hold.

LP MDA: 2880-1 340 (400-1)
LNAV MDA: 2920-1 380 (400-1)
CIRCLING: 3020-1

ATIS: 118.275
JOSHUA APP CON: 124.55 363.0
PALMDALE TOWER*: 123.7 (CTAF) 317.6
GND CON: 121.9 317.6

VGS I and descent angles not coincident (VGS I Angle 3.00°/TCH 78).

Final approach course offset 3.00°
RNAV (GPS) RWY 22
PALMDALE USAF PLANT 42 (PMD)

ATIS 118.275
JOSHUA APP CON 124.55 363.0
PALMDALE TOWER 123.7 (CTAF) 317.6
GND CON 121.9 317.6

Procedure NA for arrivals at Ether on V12 east bound.

Final approach course offset 3.00°

CAUTION: High terrain 5 NM southwest of airport.

LNAV  MDA
301°  1.8 NM
3.2 NM
6.1 NM
5 NM

CATEGORY
LP MDA
2780-1 282 (300-1)

LNAV MDA
2860-1 362 (400-1)

CIRCLING
3020-1 3060-1 3140-1 3740-3
477 (500-1) 517 (600-1) 597 (600-1) 1197 (1200-3)
VOR or TACAN RWY 25
PALMDALE USAF PLANT 42 (PMD)

MISSED APPROACH: Climb to 5000 on PMD VORTAC R-282 then climbing right turn to 7000 direct PMD VORTAC and hold [TACAN aircraft climbing right turn to 6700 on PMD VORTAC. R-298 to FISCH INT/ 14.3 DME and hold SE left turn 298° inbound, continue climb-in-hold to 6700].

DME REQUIRED

Procedure NA for arrival on PMD VORTAC airway radials 067 CW 142.

CAUTION: High terrain 5 NM southwest of airport.

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 76).

Remain within 1.5 NM of PMD VORTAC.

SW-3, 07 OCT 2021 to 02 DEC 2021

Category A

S-25

CIRCLING

Palmdale, California

Amdt 8 24MAY18

34°38’N-118°05’W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
RNAV (GPS) RWY 31
PASO ROBLES MUNI (PRB)

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

Procedure NA for arrivals at PRB VORTAC on radials 218 CW 038.

Procedure NA for arrival on AVE VOR/DME airway radials 257 CW 313.

Procedure NA for arrivals at MQO VORTAC on T329 southbound.

Category

A

B

C

D

LNAV MDA
1400-1 561 (600-1)

1400-1 561 (600-1)

1700-2 861 (900-2)

1440-1 601 (700-1)

1440-1 561 (600-1)

1700-2 861 (900-2)

CIRCLING
1400-1 561 (600-1)

1400-1 561 (600-1)

1440-1 601 (700-1)

1700-2 861 (900-2)

RNAV (GPS) RWY 31
PASO ROBLES MUNI (PRB)

Missed Approach: Climbing right turn to 4500 direct JEBNO and hold, continue to climb-in-hold to 4500.
VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ASOS
120.125

OAKLAND CENTER
128.7 307.0

UNICOM
123.0 (CTAF)

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.

ELEV 839
TDZE 812

MASA PRB 25 NM
090°
270°
5600
5100

172° 6 NM from FAF

PASO ROBLES, CALIFORNIA

AL-858 (FAA)

VOR RWY 19
PASO ROBLES MUNI (PRB)

DME required.

MISSED APPROACH: Climb to 1300 then climbing left turn to 4500 on heading 032° and PRB R-077 to JEBNO 12.5 DME and hold, continue climb-in-hold to 4500.
DME required.

MISSED APPROACH: Climbing right turn to 4700 in PRB VORTAC holding pattern, continue climb-in hold to 4700.
PASO ROBLES ONE DEPARTURE (OBSTACLE)

**ASOS**
120.125

**OAKLAND CENTER**
128.7 307.0

**CTAF**
123.0

**NOTE:** Chart not to scale.

### TAKEOFF MINIMUMS

- **Rwy 1:** Standard with minimum climb of 230' per NM to 2200, or 1500-3 for VCOA.
- **Rwy 13:** Standard with minimum climb of 220' per NM to 1700, or 1500-3 for VCOA.
- **Rwy 19:** Standard.
- **Rwy 31:** Standard with minimum climb of 235' per NM to 2200, or 1500-3 for VCOA.

### TAKEOFF OBSTACLE NOTES

- **Rwy 1:** Lighting 9' from DER, 115' right of centerline, 804' MSL.
  - Lighting 10' from DER, 113' left of centerline, 805' MSL.
  - Tree 301' from DER, 425' left of centerline, 812' MSL.
- **Rwy 13:** Pole 34' from DER, 29' left of centerline, 840' MSL.
  - Trees, pole beginning 766' from DER, 395' left of centerline, up to 900' MSL.
  - Trees beginning 1656' from DER, 389' left of centerline, up to 906' MSL.
  - Tree 1948' from DER, 13' right of centerline, 907' MSL.
  - Tree beginning 2045' from DER, 56' left of centerline, up to 911' MSL.
  - Tree 2581' from DER, 511' left of centerline, 917' MSL.
  - Trees beginning 2601' from DER, 635' left of centerline, up to 923' MSL.
  - Tree 3261' from DER, 856' left of centerline, 932' MSL.
  - Tree 3860' from DER, 952' left of centerline, 944' MSL.
  - Tree 3961' from DER, 784' left of centerline, 950' MSL.
- **Rwy 19:** Pole 10' from DER, 39' left of centerline, 815' MSL.
  - Tree 992' from DER, 705' left of centerline, 851' MSL.
  - Trees beginning 1098' from DER, 618' left of centerline, up to 876' MSL.
- **Rwy 31:** Wind indicator 78' from DER, 334' right of centerline, 823' MSL.

### DEPARTURE ROUTE DESCRIPTION

- **TAKEOFF RUNWAY 1:** Climb on heading 014° to 2800 then climbing right turn heading 160° to intercept PRB VORTAC R-040 to PRB VORTAC before proceeding on course.
- **TAKEOFF RUNWAY 13:** Climb on heading 129° to 2800 then climbing left turn heading 310° to intercept PRB VORTAC R-100 to PRB VORTAC before proceeding on course.
- **TAKEOFF RUNWAY 19:** Climb on heading 194° to 2000 then climbing left turn heading 030° to intercept PRB VORTAC R-155 to PRB VORTAC before proceeding on course.
- **TAKEOFF RUNWAY 31:** Climb on heading 309° to 1800 then climbing right turn heading 110° to intercept PRB VORTAC R-360 to PRB VORTAC before proceeding on course.

- **VCOA RUNWAYS 1, 13, 31:** Obtain ATC approval for VCOA when requesting IFR clearance. Climb-in-visual conditions to cross PRB VORTAC at or above 2200 before proceeding on course.

---

**PASO ROBLES ONE DEPARTURE (OBSTACLE)**

**PASO ROBLES, CALIFORNIA**
NOTE: DME required.

TAKEOFF MINIMUMS
Rwy 1: Standard with minimum climb of 235' per NM to 2200.
Rwy 13: Standard with minimum climb of 220' per NM to 1700.
Rwy 19: Standard.
Rwy 31: Standard with minimum climb of 235' per NM to 2200.

TAKEOFF RUNWAY 1: Climbing left turn on heading 280° to intercept PRB VORTAC R-326 to BRALY/PRB 15 DME, thence . . .
TAKEOFF RUNWAY 13: Climb on heading 129° to 2800 then climbing left turn heading 310° to intercept PRB VORTAC R-100 to PRB VORTAC, then on R-326 to BRALY/PRB 15 DME, thence . . .
TAKEOFF RUNWAY 19: Climb on heading 194° to 2000 then climbing left turn heading 030° to intercept PRB VORTAC R-155 to PRB VORTAC, then on R-326 to BRALY/PRB 15 DME, thence . . .
TAKEOFF RUNWAY 31: Climbing right turn heading 340° and PRB VORTAC R-326 to BRALY/PRB 15 DME, thence . . .

. . . maintain ATC assigned altitude; expect clearance to filed altitude 10 minutes after departure.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 014° to 2800 then climbing right turn heading 160° to intercept PRB VORTAC R-040 to PRB VORTAC, then on R-179 to JEDGI/PRB 13 DME, thence. . . .

TAKEOFF RUNWAY 13: Climbing right turn on heading 210° to intercept PRB VORTAC R-179 to JEDGI/PRB 13 DME, thence. . . .

TAKEOFF RUNWAY 19: Climbing left turn on heading 150° to intercept PRB VORTAC R-179 to JEDGI/PRB 13 DME, thence. . . .

TAKEOFF RUNWAY 31: Climb on heading 309° to 1800 then climbing right turn heading 110° to intercept PRB VORTAC R-360 to PRB VORTAC, then on R-179 to JEDGI/PRB 13 DME, thence. . . .

. . . . maintain ATC assigned altitude; expect clearance to filed altitude 10 minutes after departure.
**SW-3, 07 OCT 2021 to 02 DEC 2021**

**ILS Y or LOC/DME RWY 21**

**Oxnard, California**

<table>
<thead>
<tr>
<th>LOC/DME I-RRG</th>
<th>APCH CRS</th>
<th>Rwy Ldg</th>
<th>TDZE</th>
<th>Arpt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>109.3</td>
<td>212°</td>
<td>11,102</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

**AL-225 [USN]**

**POIN T MUGU NAS**

**NAV Y BASE VENTURA CO [KNTD]**

**DME or RADAR required**

- **V** When ALS inop, increase vis to 1/2 mile.
- **** When ALS inop, increase vis CAT A/B to 1 mile, CAT CD vis to 1/2 miles.
- ***** Circling not authorized E of Rwy 3-21

**ATIS**

- 125.55 363.05
- 128.65 307.275

**POIN T MUGU APP CON**

- 124.85 290.375

**GND CON**

- 121.6 360.2

**CLNC DEL**

- 120.75 279.55

**ASR/PAR**

- 330

**CAUTION:** WCH for B-747/DC-10/C-17 type aircraft 17' AGL

**Auto coupled approach not available below 233'**

**FILLMORE**

112.5 FM
Chan 72

**Camarillo**

115.8 CMA
Chan 105

**CMA**

**EMERG SAFE ALT 100 NM 12,100**

**LOCALIZER 109.3**

I-RRG

**NEWAR**

12°

**WINIE**

12°

**R-070**

**CMA**

R-1.48

**CEILO**

**TROYE**

13

**I-RRG**

9.2

**I-RRG**

13

**I-RRG**

15

**LOCATOR 109.3**

**I-RRG**

**CMA**

2500

**YAGIS**

11

**TROYE**

13

**4300**

**212°**

**HELO**

6000

**4300**

**212°**

**HELO**

6000

**212°**

**HELO**

6000

**212°**

**HELO**

6000

**8600**

**4000**

**5600**

**090°**

**3000**

**128.65 307.275**

**330**

**OxNard, CALIFORNIA**

**Amdt 4 15JUL21**
CAUTION: WCH for 8-747/DC-10/C-17 type aircraft 17' AGL.

CAUTION: DME based on NTD TACAN Chan 43.

Auto coupled approach not available below 233°.
OXNARD, CALIFORNIA

APCH CRS 212°
Rwy Ldg 11,102
TDZE 13
Arpt Elev 13

AL-925 (USN)
POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

MALSR
MISSING APPROACH: Climb to 600 then climbing left turn to 2600 direct RENET and hold.

ATIS* 125.55 363.05
APP CON/DEP CON 128.65 307.275
TOWER* 124.85 290.375
GND CON 121.6 360.2
CLNC DEL 120.75 279.55
ASR/PAR

DME/DME RNP-0.3 NA
For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F).

CAUTION: Intermediate descent gradient (279 fpm) greater than DoD standard.

OXNARD, CALIFORNIA
Amrd 5 31DEC20
DOYLE-NINE DEPARTURE (DOYLE 9 • DOYLE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climbing left turn within 3 DME of NTD TACAN, direct NTD, thence...

TAKE-OFF RWY 21, 27: Left turn, thence...

Intercept NTD R-163 and via NTD R-163 to BIMPE (NTD R-163/24 DME), then via SLI VORTAC R-251 to DOYLE, then via assigned routing. Cross BIMPE at or above 5500.

SANTA CATALINA TRANSITION (DOYLE 9 • SXC): DOYLE (SLI R-251/34 DME) to SANTA CATALINA VORTAC via SXC R-310. Then as filed.

DOYLE-NINE DEPARTURE (DOYLE 9 • DOYLE)
SAN MARCUS-ONE DEPARTURE (RZS 1 • RZS)

TACAN REQUIRED

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climbing left turn to 212° within 3 DME of NTD TACAN, thence...

TAKE-OFF RWY 21: Turn right, thence...

TAKE-OFF RWY 27: Turn left, thence...

Intercept NTD R-248 and via NTD R-248 to FANKO (NTD R-248/16 DME), then via RZS VORTAC R-133 to RZS VORTAC, then via assigned routing. Cross CIBCI (RZS R-133/17 DME) at or above 5700.

AVENAL TRANSITION (RZS 1 • AVE): From over SAN MARCUS VORTAC via RZS R-335 to AVENAL VOR/DME. Cross SAN MARCUS VORTAC at or above 7900.

SHAFTER TRANSITION (RZS 1 • EHF): From over SAN MARCUS VORTAC via RZS R-016 to SHAFTER VORTAC. Cross SAN MARCUS VORTAC at or above 8900.
Circling NA north of Rwy 9-27. Circling NA for Cat C when using Gillespie Field altimeter setting. DME/DME RNP -0.3 NA. LNAV minima NA when using Gillespie Field altimeter setting. When local altitude setting not received, use Gillespie Field altimeter setting and increase all circling MDA 180 feet and increase circling visibility Cat B 1/4 SM. Helicopter visibility reduction below 3/4 SM NA.

Procedure NA for arrivals at ROBNN on V186 northbound.

Circling NA north of Rwy 9-27. Circling NA for Cat C when using Gillespie Field altimeter setting. DME/DME RNP -0.3 NA. LNAV minima NA when using Gillespie Field altimeter setting. When local altitude setting not received, use Gillespie Field altimeter setting and increase all circling MDA 180 feet and increase circling visibility Cat B 1/4 SM. Helicopter visibility reduction below 3/4 SM NA.

Procedure NA for arrivals at ROBNN on V186 northbound.
Circling NA north of Rwy 9-27.
When local altimeter setting not received, use Gillespie Fld altimeter setting and increase all MDA 180 feet.

ATIS 132.025
SOCAL APP CON 132 269.1
RAMONA TOWER * 119.875 (CTAF) 0
GND CON 121.65
UNICOM 122.95

VOR/DME-A
RAMONA (RNMI)

MISSED APPROACH: Climbing right turn to 5000 via heading 290° and PGY VORTAC R-336 to DEGLE/PGY 40 DME and hold.

NoPT for arrival on JLI VORTAC airway. Radials 021 CW 170.

DEGLE/PGY 40
R-336
Rwy 9-27
Apt Elev 1395

ELEV 1395

REIL Rwy 27
MRL Rwy 9-27

RAMONA, CALIFORNIA
Amdt 2A 07OCT21

VOR/DME-A
AL-6667 (FAA)

33°02'N-116°55'W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 27: Climb heading 268° to 2600, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence . . . .

. . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

LOS ANGELES TRANSITION (CWARD2.LAX)
SEAL BEACH TRANSITION (CWARD2.SLI)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS or DME/DME/IRU required.
NOTE: Turbojet and turboprop only.
NOTE: Tower En Route control only.

ATIS
132.025
RAMONA TOWER*
119.875
SOCAL DEP CON
119.6 363.1

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 27: Climb heading 268° to 2600, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence . . . .

. . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

LOS ANGELES TRANSITION (CWARD2.LAX)
SEAL BEACH TRANSITION (CWARD2.SLI)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 27: Climb heading 268° to 2600, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence. . . .

. . . .on (transition). Maintain 15000. Expect higher altitude 10 minutes after departure.

CHKNN TRANSITION (PADRZ2.CHKNN)
IKAYE TRANSITION (PADRZ2.IKAYE)
OROSZ TRANSITION (PADRZ2.OROSZ)
SHAFTER TRANSITION (PADRZ2.EHF)
Circling Rwy 26 NA at night. Helicopter visibility reduction below 1 SM NA. DME/DME RNP-0.3 NA. Use San Bernardino altimeter setting; when not received, use Ontario altimeter setting and increase all MDA 160 feet.

MISSING APPROACH: Do not exceed 230K until WEEDD) Climbing left turn to 7000 direct WEEDD and hold, continue climb-in-hold to 7000.
Circling NA north of RWY 9-27 for Cat D. When local altimeter setting not received, use Chino altimeter setting and increase all DA 46 feet and all MDA 60 feet, increase S-ILS 9 visibility ½ mile all Cats, S-LOC 9 Cat C/D visibility ½ mile. Autopilot coupled approach NA below 1192.

*Missed approach requires minimum climb of 270 feet per NM to 2500.

**MDA 60 Feet, increase S-ILS 9 visibility 1/2 mile all Cats, S-LOC 9 Cat C/D visibility 1/2 mile. Autopilot coupled approach NA below 1192.

MISSED APPROACH: Climb to 2000 then climbing right turn to 4200 on PDZ VORTAC R-098 to PDZ VORTAC then on PDZ VORTAC R-256 to WISUP INT/PDZ VORTAC 9.4 DME and hold.

**Missed approach requires minimum climb of 270 feet per NM to 2500.

Circling NA north of RWY 9-27 for Cat D. When local altimeter setting not received, use Chino altimeter setting and increase all DA 46 feet and all MDA 60 feet, increase S-ILS 9 visibility 1/2 mile all Cats, S-LOC 9 Cat C/D visibility 1/2 mile. Autopilot coupled approach NA below 1192.

*Missed approach requires minimum climb of 270 feet per NM to 2500.

**MDA 60 Feet, increase S-ILS 9 visibility 1/2 mile all Cats, S-LOC 9 Cat C/D visibility 1/2 mile. Autopilot coupled approach NA below 1192.

MISSED APPROACH: Climb to 2000 then climbing right turn to 4200 on PDZ VORTAC R-098 to PDZ VORTAC then on PDZ VORTAC R-256 to WISUP INT/PDZ VORTAC 9.4 DME and hold.

**Missed approach requires minimum climb of 270 feet per NM to 2500.
DME/DME RNP-0.3 NA. When local altimeter setting not received, use Chino altimeter setting and increase all DA 46 feet and all MDA 60 feet and increase LPV all Cats and Circling Cats C and D visibility ¼ mile and LNAV/VNAV all cases and LNAV Cats C and D visibility ½ mile. VDF and Baro-VNAV NA with Chino altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). Circling NA for Cat D north of Rwy 9-27.

Procedure NA for arrivals at PRADO on V186 westbound, and arrivals at PRADO on V186 westbound.  

Procedure for arrivals on POM VORTAC airway radials 073 CW 187.  

MISSED APPROACH:  
Climb to 6000 direct JIKUB and on track 121° to HDF VOR and hold, continue climb-in-hold to 6000.
**RNAV (GPS) RWY 27**

**RIVERSIDE MUNI (RAL)**

**ATIS** 128.8

**SOCAL APP CON** 135.4 377.125

**RIVERSIDE TOWER** 121.0 (CTAF) 257.8

**GND CON** 121.7

**UNICOM** 122.95

**MISSING APCH FIX**

Procedure NA for arrivals at BANDS via V372 northeast bound and via V16-370 eastbound.

---

**RIVERSIDE, CALIFORNIA**

**AL-769 (FAA)**

**WAAS**

**CH** 82201

**W27A**

**APP CRS** 269°

**Rwy Idg** 5401

**TDZE** 818

**Apt Elev** 818

---

**DME/DME RNP -0.3 NA.**

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 46°C (116°F).

**Circling NA for Cat D north of Rwy 9-27.**

**Visibility reduction by helicopters NA.**

**MISSING APPROACH:** Climb to 4000 direct ICIYE and via 246° track to PRADO and hold.

---

**RNAV (GPS) RWY 27**

**RIVERSIDE MUNI (RAL)**

**ATIS** 128.8

**SOCAL APP CON** 135.4 377.125

**RIVERSIDE TOWER** 121.0 (CTAF) 257.8

**GND CON** 121.7

**UNICOM** 122.95

**MISSING APCH FIX**

Procedure NA for arrivals at BANDS via V372 northeast bound and via V16-370 eastbound.
When local altimeter setting not received, use Chino altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing left turn to 4500 direct PDZ VORTAC and hold, continue climb-in-hold to 4500.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 1800 then climbing right turn heading 210° to intercept PDZ VORTAC R-093 to PDZ VORTAC, thence . . .

TAKEOFF RUNWAY 27: Climb on heading 255° to intercept PDZ R-030 to PDZ VORTAC thence . . .

TAKEOFF RUNWAY 34: Climbing left turn to intercept PDZ VORTAC R-030 to PDZ VORTAC, thence . . .

. . . continue climb in PDZ holding pattern to cross PDZ VORTAC at or above 5000 or higher MEA for route of flight before proceeding on course.
Circling NA northwest of Rwy 6-24. When local altitude setting not received, use Ontario altitude setting and increase DA to 1426 feet and all visibilities 1/4 SM; increase all MDA 80 feet and S-LOC Cats C/D and Circling Cat C visibility 1/4 SM.

MISSED APPROACH: Climb to 2000 then climbing right turn to 6000 direct PDZ VORTAC and hold, continue climb-in-hold to 6000. * Missed approach requires minimum climb of 340 feet per NM to 4000; if unable to meet climb gradient, see LOC Y RWY 6.

 Procedure NA for arrival on PDZ VORTAC airway radials 012 CW 030.

TWR
0.7%  UP

0.8%  DOWN

San Bernardino, California
RNAV (GPS) Y RWY 6
SAN BERNARDINO INTL (SBD)

ATIS 124.175
SOCAL APP CON 127.0 318.2
SAN BERNARDINO TOWER* 119.45 (CTAF)
GND CON 121.8
UNICOM 122.975

Circling NA northwest of Rwy 6-24. When local altimeter setting not received, use Ontario altimeter setting and increase all MDA 80 feet.

Procedure NA for arrival on PDZ VORTAC airway radials 278 CW 078.

RNAV (GPS) Y RWY 6
SAN BERNARDINO INTL (SBD)

SAN BERNARDINO, CALIFORNIA
AL-547 (FAA)

SAN BERNARDINO, CALIFORNIA
Amdt 1 13SEP18

SW-3, 07 OCT 2021 to 02 DEC 2021

RNAV (GPS) Y RWY 6
SAN BERNARDINO INTL (SBD)

SAN BERNARDINO, CALIFORNIA
AL-547 (FAA)

SAN BERNARDINO, CALIFORNIA
Amdt 1 13SEP18
RNPA PCH

Circling NA northwest of Rwy 6-24. When local altimeter setting not received, use Ontario altimeter setting and increase DA to 1426 feet and all visibilities 1/2 SM; increase all MDA 80 feet and LNAV Cats C/D and Circling Cat C visibility 1/2 SM.

Procedure NA for arrival on PDZ VORTAC airway radials 278 CW 078.

See RNAV (GPS) Y Rwy 6.

MISSED APPROACH: Climb to 2000 then climbing right turn to 6000 direct PDZ VORTAC and hold, continue climb-in-hold to 6000.

# Missed approach requires minimum climb of 340 feet per NM to 4000; if unable to meet climb gradient, see RNAV (GPS) Y Rwy 6.
**LOC Y RWY 6**

**SAN BERNARDINO INTL (SBD)**

- **ATIS**: 124.175
- **SOCAL APP CON**: 127.0 318.2
- **SAN BERNARDINO TOWER**: 119.45 (CTAF)
- **GND CON**: 121.8
- **UNICOM**: 122.975

**Procedure NA for arrival on PDZ VORTAC**

1. **IF** SUDOC INT
2. **LOCALIZER** 109.3 I-SBD
3. **PARADISE** 112.2 PDZ Chan 59
4. **PETIS** 397 SBD
5. **PETIS INT**

**ELEV** 1159

**TDZE**: 1103

**FAR** Radials 012 CW 030.

**FAF to MAP 6.1 NM**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-6</td>
<td>2020-1 ¼</td>
<td>917 (900-1 ¼)</td>
<td>2060-3</td>
<td>957 (1000-3)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>2020-1 ¼</td>
<td>861 (900-1 ¼)</td>
<td>2060-3</td>
<td>901 (1000-3)</td>
</tr>
</tbody>
</table>

**Miscellaneous**

- **SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

- Increase S-LOC Cat B and Circling Cat B visibility ¼ SM.
- Missed Approach: Climb to 2700 then climbing right turn to 6000 direct PDZ VORTAC and hold, continue climb-in-hold to 6000.

**SAN BERNARDINO, CALIFORNIA**

Amdt 1 13SEP18

**34°06’N-117°14’W**
ATIS * 268.6

SAN CLEMENTE APP CON 127.05 292.15

SAN CLEMENTE ISLAND TOWER * 126.75 278.8

GND CON 119.55 251.05

ASR/PAR

SW-3, 07 OCT 2021 to 02 DEC 2021

* Circling not authorized S of Rwy 6-24.

EMERG SAFE ALT 100 NM 12,100
AIRPORT DIAGRAM
SAN CLEMENTE ISLAND NALF (FREDERICK SHERMAN FLD) (KNUC)
AFD-5126 [USN]
SAN CLEMENTE ISLAND, CALIFORNIA

ATIS 268.6
SAN CLEMENTE ISLAND TOWER
126.75 278.8
GND CON
119.55 251.05

APRIL 2016
ANNUAL RATE OF CHANGE
0.1°W

FIELD
ELEV 184

E-28
235°
10% DOWN
TANKS

HI HOT REFUEL AREA

EXTERNAL HELO OPS/
EQUIPMENT AREA

CONTROL
TOWER/OPERATIONS

DE-ARM/
RED LABEL AREA

Rwy 06-24
PCN 49 R/B/W/T

Rotating Beacon located 6836' SE.
RNAV (GPS) RWY 8L
BROWN FLD MUNI (SDM)

Circling NA south of Rwy 8R-26L. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 2°C or above 54°C.

Procedure NA for arrival on MZB VORTAC airway radials 114 CW 255.

MISSED APPROACH: (Do not exceed 190K until LUGJA) Climb to 980 then climbing left turn to 3000 direct LUGJA and hold.

**Category**
- LPV: DA
- LNAV/VNAV: DA
- LNAV: MDA
- CIRCLING

**A)** 1020-1
**B)** 494 (500-1)
**C)** 1200-2
**D)** 674 (700-2)
**E)** 2260-3
**F)** 1734 (1800-3)

**GP 3.00° TCH 52**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
CWARD TWO DEPARTURE (RNAV)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8L: Climbing left turn heading 280° to 2900, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence.

TAKEOFF RUNWAY 26R: Climbing right turn heading 280° to 2300, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence.

... on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

LOS ANGELES TRANSITION (CWARD2.LAX)
SEAL BEACH TRANSITION (CWARD2.SLI)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 8L:** Climbing left turn heading 280° to 2900, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence...  
**TAKEOFF RUNWAY 26R:** Climbing right turn heading 280° to 2300, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence...  

...on (transition). Maintain 15000. Expect higher altitude 10 minutes after departure.

**CHKNN TRANSITION (PADRZ2.CHKNN)**

**IKAYE TRANSITION (PADRZ2.IKAYE)**

**OROSZ TRANSITION (PADRZ2.OROSZ)**

**SHAFTER TRANSITION (PADRZ2.EHF)**

**TAKEOFF MINIMUMS**

Rwys 8R/26L: NA-ATC.  
Rwy 8L: Standard with minimum climb of 570' per NM to 3100.  
Rwy 26R: Standard.

---

**NOTE:** RNAV 1.  
**NOTE:** RADAR required.  
**NOTE:** Turbojets and turboprops only.  
**NOTE:** CHKNN, SHAFTER, IKAYE, OROSZ TRANSITIONS: DME/DME/IRU or GPS required.  
**NOTE:** DINTY, MALIT TRANSITIONS: GPS only.  
**NOTE:** For non-GPS equipped aircraft, Oceanside (OCN) must be operational.  
**NOTE:** DINTY TRANSITION ATC assigned only.  
**NOTE:** DINTY and MALIT TRANSITIONS NA from SEE, SDM and RNM airports.

---

**NOTE:** Chart not to scale.
Circling Rwy 10L, 23, 28L NA at night. Rwy 28R helicopter visibility reduction below ½ SM NA. Inop table does not apply to S-ILS all Cats. For inop ALS, increase S-LOC 28R all Cats visibility to 1 SM.

DME or RADAR required.

MISSING APPROACH: Climb to 1100 then climbing left turn to 3000 on heading 270° and MZB VORTAC R-326 to CARIF INT/MZB 16.3 DME and hold.

CIRCLING:

GS 3.00°

TCH 41

**LOC only**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climbing right turn heading 270° to 2000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence . . . .

TAKEOFF RUNWAY 23: Climbing right turn heading 270° to 2000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence . . . .

TAKEOFF RUNWAYS 28L/R: Climbing left turn heading 270° to 2000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence . . . .

. . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

LOS ANGELES TRANSITION (CWARD2.LAX)
SEAL BEACH TRANSITION (CWARD2.SLI)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/10R: Climbing right turn heading 270° to 2000, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence...

TAKEOFF RUNWAY 23: Climbing right turn heading 270° to 2000, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence...

TAKEOFF RUNWAYS 28L/28R: Climbing left turn heading 270° to 2000, expect vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence...

...on (transition). Maintain 15000. Expect higher altitude 10 minutes after departure.

CHKNN TRANSITION (PADRZ2.CHKNN)
DINTY TRANSITION (PADRZ2.DINTY)
IKAYE TRANSITION (PADRZ2.IKAYE)
MALIT TRANSITION (PADRZ2.MALIT)
OROSZ TRANSITION (PADRZ2.OROSZ)
SHAFTER TRANSITION (PADRZ2.EHF)

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Turbojets and turboprops only.
NOTE: CHKNN, SHAFTER, IKAYE, OROSZ TRANSITIONS: DME/DME/IRU or GPS required.
NOTE: DINTY, MALIT TRANSITIONS: GPS only.
NOTE: For non-GPS equipped aircraft, Oceanside (OCN) must be operational.
NOTE: DINTY TRANSITION ATC assigned only.
NOTE: DINTY and MALIT TRANSITIONS NA from SEE, SDM and RNM airports.

TAKEROFF MINIMUMS
Rwy 5: NA-ATC.

NOTE: Chart not to scale.
ILS Y or LOC Y RWY 9
SAN DIEGO INTL (SAN)

Circling NA north of Rwy 9-27. Autopilot coupled approach NA below 530. When Circling to Rwy 27 at night, operational VGS I required, remain on or above VGSI glidepath until threshold. For inop ALS, increase S-ILS 9 all Cats visibility to 2 1/2 SM. Rwy 9 helicopter visibility reduction below RVR 4000 NA. # Inop table does not apply to S-ILS 9.

MIssed approach requires minimum climb of 270 feet per NM to 4000.

---

SAN DIEGO, CALIFORNIA
AL-373 (FAA) 19227

LOC/DME I-SAN 111.55
APP CRS 095°
Chan 52 (Y)

Rwy Idg 7280
TDZE 17
Apt Elev 17

70 407 175 176 48 65 159
TWR P A
9400 X 200

292 P

MALSR

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)

SAN DIEGO INTL (SAN)

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)

SAN DIEGO INTL (SAN)

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)

SAN DIEGO INTL (SAN)

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)

SAN DIEGO INTL (SAN)

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)

SAN DIEGO INTL (SAN)

D-ATIS 134.8
SOCAL APP CON 119.6 363.1 (WEST)
124.35 279.625 (EAST)

LINDBERGH TOWER 118.3 338.225

GND CON 123.9
CLNC DEL 125.9

MISSION BAY
117.8 MZB
Chan 125

POGGI
116.45 PGY
Chan 111 (Y)

LOCALIZER 111.55
Chan 52 (Y)
Circling NA north of Rwy 9-27. Autopilot coupled approach NA below 530. When Circling to Rwy 27 at night, operational VGSI required, remain on or above VGSI glidepath until threshold. For inop ALS, increase S-LOC Cat A/B visibility to RVR 5500, and Cat C/D to 1/3 SM. LOC only: Rwy 9 helicopter visibility reduction below RVR 4000 NA.

MISSED APPROACH: Climb to 5000 on heading 095° and on PGY VORTAC R-300 to PGY VORTAC, then right turn on PGY VORTAC R-268 to CAPUS INT/23.4 DME and hold.

Missed approach requires minimum climb of 280 feet per NM to 3800; if unable to meet climb gradient, see ILS Y or LOC Y RWY 9.

LOC/DME I-SAN 111.55 Chan 52 [M]

APP CRS 095°

Rwy ldg 7280

TDZE 17

Apt Elev 17

TSW-3, 07 OCT 2021 to 02 DEC 2021
RNAV (RNP) Z RWY 27
SAN DIEGO INTL (SAN)

SOCAL APP CON 119.6 363.1 [WEST]
LINDBERGH TOWER 118.3 338.225
GND CON 123.9
CLNC DEL 125.9
CPDLC

AUTHORIZATION REQUIRED

SAN DIEGO, CALIFORNIA
Orig-A 15AUG19
SAN DIEGO INTL (SAN)
32°44'N-117°11'W
375
RNAV (GPS) RWY 9
SAN DIEGO INTL (SAN)

Circling NA north of Rwy 9-27. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 6°C or above 47°C. When Circling to Rwy 27 at night, operational VGSI required, remain on or above VGSI glidespath until threshold. Rwy 9 helicopter visibility reduction below RVR 4000 NA. Inop table does not apply to LPV all Cats. For inop ALS, increase LNAV Cats A/B visibility to RVR 5500.

Procedures NA for arrivals at SARGS on V165 west bound.

VGS relaxes and RNAV glidespath not coincident (VGS Angle 3.30/TCH 76).

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV DA</td>
<td>262/40</td>
<td>245 (300-3/4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNAV/ VNAV DA</td>
<td>621-1 1/2</td>
<td>604 (700-1 1/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>600/40</td>
<td>583 (600-3/4)</td>
<td>600-1 1/4</td>
<td>583 (600-1 1/4)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>800-1</td>
<td>820-1</td>
<td>820-2 1/4</td>
<td>940-3</td>
</tr>
<tr>
<td></td>
<td>783 (800-1)</td>
<td>803 (900-1)</td>
<td>803 (900-2 1/4)</td>
<td>923 (1000-3)</td>
</tr>
</tbody>
</table>

LNAV/VNAV NA below 6°C or above 47°C. When Circling to Rwy 27 at night, operational VGSI required, remain on or above VGSI glidespath until threshold. Rwy 9 helicopter visibility reduction below RVR 4000 NA. Inop table does not apply to LPV all Cats. For inop ALS, increase LNAV Cats A/B visibility to RVR 5500.

Procedures NA for arrivals at SARGS on V165 west bound.

VGS relaxes and RNAV glidespath not coincident (VGS Angle 3.30/TCH 76).
Rwy 27 helicopter visibility reduction below RVR 5000 NA. Straight-in Rwy 27 at night, operational VGSI required, remain on or above VGSI glidepath until threshold. Circling NA north of Rwy 9-27. For inop ALS, increase LNAV Cats C/D visibility to 2 SM. Inop table does not apply to LP Cats A/B and LNAV Cat A.

**RNAV (GPS) Y RWY 27**

**SAN DIEGO INTL (SAN)**

**RNP APCH:**

- **MALS**
  - **OP NOTES:**
    - If not on or above VGSI glidepath, climb to 2000 for inop ALS.
    - For inop ALS, increase LNAV Cats C/D visibility to 2 SM.
    - Inop table does not apply to LP Cats A/B and LNAV Cat A.
    - MISSED APPROACH: Climb to 2500 direct SARGS and hold.

**D-ATIS**
- 134.8

**SOCAL APP CON**
- 119.6 363.1 (WEST)
- 124.35 279.625 (EAST)

**LINDBERGH TOWER**
- 118.3 338.225

**GND CON**
- 123.9

**CLNC DEL**
- 125.9

**CPDLC**

**UNITED STATES MEXICO**

**TDZE**

**APPROACH**

- **TDZ**
  - 17

**ELEV**
- 17
SWEETWATER VISUAL RWY 27

Radar Required

Weather Minimums: 5000 feet ceiling and 10 miles visibility.
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 9:** Climb on heading 093° to intercept MZB VORTAC R-096 to BROWS INT. Thence, . . .

**TAKEOFF RUNWAY 27:** Climb on heading 278° until PGY 19 DME, then left turn on heading 123° to intercept PGY VORTAC R-260 and R-069 to BROWS INT. Thence, . . .

. . . (transition) or (assigned route). Maintain assigned altitude. Expect filed altitude/flight level 10 minutes after departure.

**IMPERIAL TRANSITION (BRDR7.IPL):** From over BROWS INT on PGY R-069 and IPL R-250 to IPL VORTAC.

**JULIAN TRANSITION (BRDR7.JLI):** From over BROWS INT on JLI R-182 to JLI VORTAC.

**TOP ALTITUDE:**

**ASSIGNED BY ATC**

**TAKEOFF MINIMUMS**

Rwy 9: 400-1 with minimum climb of 610’ per NM to 1900 or standard with minimum climb of 686’ per NM to 1900.

Rwy 27: 400-2½ or standard with minimum climb of 353’ per NM to 400.

**NOTE:** Rwy 9- RADAR required.

**NOTE:** Rwy 27- DME required.

**NOTE:** Chart not to scale.
Note: Chart not to scale.

Takeoff Runway 27: Climb heading 275° to 520, then right turn direct WINFLD, then on track 296° to cross GWYNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, then . . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

Takeoff Runway 27: Climb heading 275° to 520, then right turn direct WINFLD, then on track 296° to cross GWYNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, then . . . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.

Rwy 9: NA-ATC, climb of 500' per NM to 3000.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.

Rwy 9: NA-ATC, climb of 500' per NM to 3000.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.

Rwy 9: NA-ATC, climb of 500' per NM to 3000.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.

Rwy 9: NA-ATC, climb of 500' per NM to 3000.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.

Rwy 9: NA-ATC, climb of 500' per NM to 3000.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Takeoff Minimums

Rwy 27: 400-2½ or standard with minimum climb of 500', per NM to 3000.

Rwy 9: NA-ATC.

Departure Route Description

Los Angeles Transition (CWARD2.LAX)

Seal Beach Transition (CWARD2.SLX)

Rwy 27: NA-ATC, climb of 500' per NM to 3000.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 095° to 4000, then left turn direct BAUCA, then on track 307° to ECHHO, thence. . . .

TAKEOFF RUNWAY 27: Climb heading 275° to 520, then right turn direct LANDN, then on track 330° to ECHHO, thence. . . .

. . . .on (transition), maintain 15000. Expect filed altitude 10 minutes after departure.

IKAYE TRANSITION (ECHHO2.IKAYE)

SEAL BEACH TRANSITION (ECHHO2.SLI)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 095° to 4000, then left turn on heading 278° to intercept MZB R-314 to MAFAN INT. Thence...

TAKEOFF RUNWAY 27: Climbing right turn on heading 293° to intercept OCN R-155 to CLSTR INT. Cross CLSTR INT at or below 4000, then on OCN R-155 and MZB R-314 to MAFAN INT. Thence...

. . . . cross MAFAN INT at or above 8000, then on MZB R-314 to FALCC INT. Then (transition) or (assigned route). Maintain assigned altitude.

SANTA CATALINA TRANSITION (FALCC1.SXC): From over FALCC INT on SXC R-084 to SXC VORTAC.

SEAL BEACH TRANSITION (FALCC1.SLI): From over FALCC INT on SLI R-127 to SLI VORTAC.

NOTE: Chart not to scale.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 9:** Climb heading 095° to 4000, then left turn direct BAUCA, then on track 307° to ECHHO, then on track 308° to cross GOFUR at or above 15000, then on track 306° to cross MMOTO at or below FL190, thence... .

**TAKEOFF RUNWAY 27:** Climb heading 275° to 520, then right turn direct LANDN, then on track 330° to ECHHO, then on track 308° to cross GOFUR at or above 15000, then on track 306° to cross MMOTO at or below FL190, thence... .

... on (transition) maintain altitude assigned by ATC, expect filed altitude 10 minutes after departure.

**DINTY TRANSITION (MMOTO2.DINTY)**

**MALIT TRANSITION (MMOTO2.MALIT)**

**NOTE:** Chart not to scale.

**NOTE:** Radar required.

**NOTE:** RNAV 1.

**NOTE:** GPS required.

**NOTE:** If unable altitude restriction at GOFUR, advise ATC on initial contact.

**NOTE:** DINTY transition ATC only.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 27:** Climb heading 275° to 520, then right turn direct WNFLD, then on track 296° to KERNL, then on track 296° to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence . . .

. . . on (transition). Maintain 15000. Expect higher altitude 10 minutes after departure.

**CHKNN TRANSITION (PADRZ2.CHKNN)**

**DINTY TRANSITION (PADRZ2.DINTY)**

**IKAYE TRANSITION (PADRZ2.IKAYE)**

**MALIT TRANSITION (PADRZ2.MALIT)**

**OROSZ TRANSITION (PADRZ2.OROSZ)**

**SHAFTER TRANSITION (PADRZ2.EHF)**

**NOTE:** Chart not to scale.

---

**TAKEOFF MINIMUMS**

**Rwy 9:** NA-ATC.

**Rwy 27:** 400-2½ or standard with minimum climb of 353’ per NM to 3000.

**NOTE:** RNAV 1.

**NOTE:** RADAR required.

**NOTE:** Turbojets and turboprops only.

**NOTE:** CHKNN, SHAFTER, IKAYE, OROSZ TRANSITIONS: DME/DME/IRU or GPS required.

**NOTE:** DINTY, MALIT TRANSITIONS: GPS only.

**NOTE:** For non-GPS equipped aircraft, Oceanside (OCN) must be operational.

**NOTE:** DINTY TRANSITION ATC assigned only.

**NOTE:** DINTY and MALIT TRANSITIONS NA from SEE, SDM and RNM airports.

---

**TOP ALTITUDE:**

15000

---

**NOTE:** SW-3, 07 OCT 2021 to 02 DEC 2021
PEBLE SIX DEPARTURE

**TOP ALTITUDE: ASSIGNED BY ATC**

**SEAL BEACH**
- 115.7 SU
- Chan 104
- N33°47.00'-W118°03.29'
- L-3-4, H-4

**SANTA CATALINA**
- 111.4 SXC
- Chan 51
- N33°22.50'-W118°25.19'
- L-3-4, H-4

**PEBLE**
- N33°10.92'
- W117°50.17'

**MELDY**
- N33°05.36'
- W117°41.63'
- 14000

**PARADISE**
- 112.2 PDZ
- Chan 59

**MISSION BAY**
- 115.3 MZB
- Chan 100

**OCEANSIDE**
- 112.3 PN
- Chan 100

**NOTE:** Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF MINIMUMS**
- Rwy 9: NA-ATC operations.
- Rwy 27: 400-2½ or standard with minimum climb of 353' per NM to 500.

**NOTE:** RADAR required.

**NOTE:** Aircraft climbing above 13000 expect RADAR vectors northwest bound prior to PEBLE INT.

**TAKEOFF RUNWAY 27:** Climing right turn heading 293° until crossing OCN VORTAC R-170, then turn right heading 318° to intercept MZB VORTAC R-293 to cross MELDY INT/MZB 30 DME at or above 14000 (or lower ATC assigned altitude) then on MZB R-293 to PEBLE INT/MZB 39 DME, thence . . . .

. . . . via (transition) or (assigned route). Maintain assigned altitude.

**SANTA CATALINA TRANSITION (PEBLE6.SXC):** From over PEBLE INT on SXC R-096 to SXC VORTAC.

**SEAL BEACH TRANSITION (PEBLE6.SL):** From over PEBLE INT on SLI R-148 to SLI VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 095° to 520, then direct to cross SAYOW at or above 4900, thence . . . .

. . . . on (transition) jets maintain FL190, turboprops maintain 15000, expect filed altitude 10 minutes after departure.

IMPERIAL TRANSITION (SAYOW2.IPL)

MTBAL TRANSITION (SAYOW2.MTBAL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 27: Climb heading 275° to 520 then direct to cross JETTI at or below 12000, then left turn direct ZZOOO, thence . . . .

. . . on (transition). Turbojets maintain FL230, turboprops maintain 15000, expect filed altitude 10 minutes after departure.

CENZA TRANSITION (ZZ0002.CENZA)

IMPERIAL TRANSITION (ZZ0002.IPL)

MTBAL TRANSITION (ZZ0002.MTBAL)

TAKEOFF MINIMUMS
Rwy 27: Standard with minimum climb of 500’ per NM to 520.

TOP ALTITUDE:
JETS FL230
TURBOPROPS 15000

NOTE: Radar required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Some aircraft may be RADAR vectored to CENZA, JORRJ or GRIDR.
NOTE: If unable ATC altitude restriction at JORRJ, advise ATC on initial contact.
NOTE: Parachute jumping all hours, 13500 and below north of JORRJ at Otay Jump Zone.
NOTE: For non-GPS equipped aircraft using MTBAL or IPL TRANSITIONS, PGY DME must be operational.

NOTE: Chart not to scale.
Procedure NA for arrival at CARIF on V23-363-597 northwest bound.
Circling NA northeast of Rwy 17 and 27R. When local altimeter setting not received, use Miramar MCAS altimeter setting and increase all MDA 40 feet. Rwy 17 heliport visibility reduction below 1 SM NA. Circling Rwy 27R, 35 NA at night.

Procedure NA for arrivals at ROBNN on V186 northwest bound and V208-458 westbound.

MIRL Rwys 9L-27R and 17-35

Final approach course offset 19.96°.

Visual Segment - Obstacles.

- 9.3 NM
- 2.9 NM
- 3.2 NM
- 0.5

CATEGORY | A | B | C | D
---|---|---|---|---
LP MDA | 1360-1/4 981 (1000-1/4) | 1360-1/2 981 (1000-1/2) | 1360-3 981 (1000-3) |
LNAV MDA | 1380-1 1001 (1000-1) | 1380-1 1001 (1000-1) | 1380-3 1001 (1000-3) |
CIRCLING | 1440-1/4 1052 (1100-1/4) | 1440-1/2 1052 (1100-1/2) | 1440-3 1052 (1100-3) |

981 (1000-1) 1001 (1000-1) 1001 (1000-1)

ASIXY - Visual Segment - Obstacles.

TOCOD and hold.

MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 direct TOCOD and hold.
LOC/DME 110.5
App CRS 269°
Chan 42

ATIS 125.45
SOCAL APP CON 124.35 279.625
Gillespie Tower* 120.7 (CTAF) 257.8
GND CON 121.7
CINC Del 125.1

Mission Approach Fix
Mission Bay
Mzb 117.8
Chan 125

R-255 075° 255°

Mission Bay
Mzb 117.8
Chan 125

ASA Mzb 25 NM

WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MIRAMAR MCAS ALTIMETER SETTING AND INCREASE ALL MDA 40 FEET. CIRCLING NA NORTHWEST OF RWY 27R-17.

Circling RWY 27R, 35 NA at night.

Missed Approach: Climbing left turn to 3000 direct to Mzb VORTAC and hold.

Category
A
1500-1 1/4
1112 (2000-1 1/4)

B
1500-1 1/2
1112 (2000-1 1/2)

C
1900-3
1552 (1600-3)

D

Circling
3.1 NM
4.5 NM
3 NM
4.3 NM
3 NM

32°50'N-116°58'W
INSTRUCTIONS IS REQUIRED.
READBACK OF ALL RUNWAY HOLDING CLEARANCES.
INSTRUCTIONS IS REQUIRED.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
Rwy 9L: 900-2 3/4 with minimum climb of 400’ per NM to 3600, or 4400-3 for VCOA.
Rwy 9R: 900-2 3/4 with minimum climb of 405’ per NM to 3600, or 4400-3 for VCOA.
Rwy 17: Standard with minimum climb of 440’ per NM to 1800, or 4400-3 for VCOA.
Rwys 27L/R: Standard with minimum climb of 500’ per NM to 2000, or 4400-3 for VCOA.
Rwy 35: Standard with minimum climb of 360’ per NM to 1900, or 4400-3 for VCOA.

TAKEOFF RUNWAYS 9L/R: Climbing right turn on heading 165°, thence . . . .
TAKEOFF RUNWAY 17: Climb on heading 165°, thence . . . .
TAKEOFF RUNWAYS 27L/R: Climbing right turn on heading 062° and on PGY R-348, thence . . . .
TAKEOFF RUNWAY 35: Climbing left turn on heading 165°, thence . . . .

. . . . on MZB R-076 to MZB VORTAC.

ALL RUNWAYS: Obtain ATC approval for VCOA when requesting IFR clearance.
Climb in visual conditions to cross Gillespie Fld at or above 4600 before proceeding on assigned route of flight.
TAKEOFF OBSTACLE NOTES

Rwy 9L: Terrain 11’ from DER, 202’ left of centerline, 395’ MSL. Terrain 189’ from DER, 236’ left of centerline, 398’ MSL. Vehicle on road beginning 604’ from DER, 12’ right of centerline, 428’ MSL. Sign, bridge, vehicle on road, pole beginning 739’ from DER, on centerline, up to 42’ AGL/448’ MSL. Building 916’ from DER, 354’ left of centerline, 24’ AGL/448’ MSL. Tree, pole beginning 940’ from DER, 314’ left of centerline, up to 468’ MSL. Tree 1259’ from DER, 676’ right of centerline, 451’ MSL. Tree, pole, building, vehicle on road beginning 1287’ from DER, 4’ right of centerline, up to 480’ MSL. Tree, building, pole beginning 1413’ from DER, 420’ left of centerline, up to 486’ MSL. Tree, poles beginning 1423’ from DER, 176’ left of centerline, up to 499’ MSL. Tree 1630’ from DER, 620’ left of centerline, 519’ MSL. Tree, poles beginning 1634’ from DER, 8’ left of centerline, up to 522’ MSL. Poles beginning 2125’ from DER, 39’ right of centerline, up to 42’ AGL/485’ MSL. Pole 2226’ from DER, 19’ right of centerline, 43’ AGL/488’ MSL. Trees, poles beginning 2333’ from DER, 55’ right of centerline, up to 509’ MSL. Tree, poles, transmission line beginning 2601’ from DER, 1’ left of centerline, up to 530’ MSL. Trees, transmission line, poles, building beginning 2949’ from DER, 88’ left of centerline, up to 566’ MSL. Tree, poles beginning 3042’ from DER, 26’ right of centerline, up to 532’ MSL. Poles beginning 3611’ from DER, 246’ left of centerline, up to 44’ AGL/575’ MSL. Poles, transmission line beginning 3802’ from DER, 119’ left of centerline, up to 43’ AGL/583’ MSL. Poles, transmission line beginning 3920’ from DER, 38’ left of centerline, up to 43’ AGL/589’ MSL. Transmission line, poles beginning 4371’ from DER, 362’ left of centerline, up to 62’ AGL/594’ MSL. Poles beginning 4389’ from DER, 131’ right of centerline, up to 45’ AGL/553’ MSL. Tree, poles beginning 4443’ from DER, 14’ left of centerline, up to 624’ MSL. Pole 4576’ from DER, 53’ right of centerline, 45’ AGL/541’ MSL. Poles beginning 4720’ from DER, 102’ right of centerline, up to 50’ AGL/545’ MSL. Transmission line, pole beginning 5111’ from DER, 246’ right of centerline, up to 55’ AGL/548’ MSL. Poles beginning 5145’ from DER, 340’ left of centerline, up to 39’ AGL/641’ MSL. Tree, poles beginning 5412’ from DER, 5’ left of centerline, up to 654’ MSL. Transmission line 5476’ from DER, 374’ right of centerline, 55’ AGL/552’ MSL. Tree, poles beginning 5712’ from DER, 23’ left of centerline, up to 672’ MSL. Trees, poles, transmission line beginning 5782’ from DER, 67’ right of centerline, up to 628’ MSL. Pole 1.1 NM from DER, 2123’ left of centerline, 40’ AGL/1219’ MSL. Tower 1.1 NM from DER, 2086’ left of centerline, 60’ AGL/1236’ MSL. Tower, poles, trees, terrain, fence, vegetation, transmission lines beginning 1.1 NM from DER, 51’ right of centerline, up to 63’ AGL/1242’ MSL. Tree 1.1 NM from DER, 523’ right of centerline, 672’ MSL. Pole 1.1 NM from DER, 2249’ right of centerline, 37’ AGL/689’ MSL. Transmission line 1.2 NM from DER, 1980’ right of centerline, 38’ AGL/771’ MSL. Poles beginning 1.2 NM from DER, 1962’ right of centerline, up to 57’ AGL/774’ MSL. Building, pole beginning 1.2 NM from DER, 517’ right of centerline, up to 29’ AGL/813’ MSL. Trees, poles, transmission lines beginning 1.2 NM from DER, 52’ right of centerline, up to 824’ MSL.

Rwy 9R: Pole 921’ from DER, 521’ right of centerline, 42’ AGL/432’ MSL. Vehicle on road 1544’ from DER, 404’ left of centerline, 428’ MSL. Transmission line, sign beginning 1669’ from DER, 24’ right of centerline, up to 51’ AGL/452’ MSL. Vehicle on road 1827’ from DER, 409’ left of centerline, 430’ MSL. Building 1855’ from DER, 772’ left of centerline, 24’ AGL/448’ MSL. Trees, poles beginning 1879’ from DER, 732’ left of centerline, up to 468’ MSL. Poles beginning 1960’ from DER, 67’ right of centerline, up to 60’ AGL/455’ MSL. Tower, tree beginning 2042’ from DER, 258’ right of centerline, up to 65’ AGL/459’ MSL. Tree 2226’ from DER, 173’ left of centerline, 460’ MSL. Tree, pole, building beginning 2352’ from DER, 264’ left of centerline, up to 486’ MSL. Tree, pole beginning 2363’ from DER, 594’ left of centerline, up to 499’ MSL. Tree, poles beginning 2490’ from DER, 41’ right of centerline, up to 480’ MSL. Tree 2569’ from DER, 1038’ left of centerline, 519’ MSL. Trees, poles, vehicle on road beginning 2573’ from DER, 92’ left of centerline, up to 522’ MSL. Trees, poles, transmission line beginning 3540’ from DER, 4’ left of centerline, up to 530’ MSL. Tree, pole beginning 3633’ from DER, 82’ right of centerline, up to 505’ MSL. Trees, poles, transmission line beginning 3888’ from DER, 45’ left of centerline, up to 556’ MSL. Poles, transmission line beginning 4572’ from DER, 259’ left of centerline, up to 38’ AGL/567’ MSL. Poles, transmission line beginning 4885’ from DER, 116’ left of centerline, up to 43’ AGL/584’ MSL. Poles, beginning 5310’ from DER, 288’ left of centerline, up to 62’ AGL/594’ MSL. Tree, poles, transmission line beginning 5382’ from DER, 173’ left of centerline, up to 624’ MSL. Poles beginning 1 NM from DER, 118’ left of centerline, up to 39’ AGL/641’ MSL. Tree, poles, transmission line beginning 1 NM from DER, 44’ left of centerline, up to 654’ MSL. Trees, poles beginning 1 NM from DER, 51’ left of centerline, up to 672’ MSL. Trees, poles, transmission line beginning 1.1 NM from DER, 16’ right of centerline, up to 428’ MSL. Pole 1.2 NM from DER, 2543’ left of centerline, 40’ AGL/1219’ MSL. Tower 1.2 NM from DER, 2507’ left of centerline, 60’ AGL/1236’ MSL. Tower, poles, trees, terrain, fence, vegetation, transmission lines beginning 1.2 NM from DER, 11’ left of centerline, up to 63’ AGL/1242’ MSL. Tree 1.3 NM from DER, 103’ right of centerline, 672’ MSL. Pole 1.3 NM from DER, 1829’ right of centerline, 37’ AGL/689’ MSL. Transmission line 1.3 NM from DER, 1559’ right of centerline, 38’ AGL/771’ MSL. Poles beginning 1.3 NM from DER, 1541’ right of centerline, up to 57’ AGL/774’ MSL. Building, pole beginning 1.3 NM from DER, 97’ right of centerline, up to 29’ AGL/813’ MSL. Trees, poles, beginning 1.3 NM from DER, 193’ right of centerline, up to 824’ MSL.
TAKEOFF OBSTACLE NOTES

Rwy 17: Fence 14' from DER, 43' right of centerline, 9' AGL/393' MSL.
Pole 36' from DER, 456' right of centerline, 40' AGL/424' MSL.
Poles, building beginning 50' from DER, 123' right of centerline, up to 45' AGL/428' MSL.
Poles, buildings beginning 266' from DER, 149' left of centerline, up to 42' AGL/429' MSL.
Trees, pole, building beginning 390' from DER, 33' right of centerline, up to 457' MSL.
Trees, pole, building beginning 970' from DER, 57' left of centerline, up to 470' MSL.
Tree, building beginning 1145' from DER, 377' right of centerline, up to 473' MSL.
Trees, building, poles beginning 1618' from DER, 54' left of centerline, up to 472' MSL.
Pole 1.4 NM from DER, 2367' right of centerline, 43' AGL/614' MSL.
Pole 1.5 NM from DER, 2346' right of centerline, 43' AGL/658' MSL.
Poles beginning 1.6 NM from DER, 2319' right of centerline, up to 38' AGL/746' MSL.

Rwy 27L: Tree 1548' from DER, 765' right of centerline, 428' MSL.
Trees beginning 2189' from DER, 700' right of centerline, up to 453' MSL.
Tree 2943' from DER, 655' left of centerline, 441' MSL.
Tree, building beginning 3732' from DER, 464' left of centerline, up to 470' MSL.
Tree, pole beginning 5745' from DER, 827' left of centerline, up to 572' MSL.
Vegetation 1.4 NM from DER, 1507' left of centerline, 722' MSL.

Rwy 27R: Tree, poles beginning 178' from DER, 235' right of centerline, up to 411' MSL.
Vehicle on road 510' from DER, 412' left of centerline, 379' MSL.
Trees, poles beginning 525' from DER, 38' right of centerline, up to 453' MSL.
Pole 799' from DER, 83' left of centerline, 41' AGL/390' MSL.
Trees, poles beginning 2068' from DER, 19' left of centerline, up to 470' MSL.
Tree, tower beginning 4080' from DER, 978' left of centerline, 572' MSL.
Vegetation 1.2 NM from DER, 1924' left of centerline, 722' MSL.

Rwy 35: Pole 34' from DER, 202' right of centerline, 21' AGL/388' MSL.
Pole, building beginning 51' from DER, 248' right of centerline, up to 29' AGL/399' MSL.
Trees, building, poles beginning 231' from DER, 29' right of centerline, up to 447' MSL.
Poles beginning 381' from DER, 336' left of centerline, up to 42' AGL/405' MSL.
Tree 1107' from DER, 118' left of centerline, 408' MSL.
Tree 1145' from DER, 581' left of centerline, 427' MSL.
Tree 1486' from DER, 293' left of centerline, 438' MSL.
Trees beginning 1487' from DER, 344' left of centerline, up to 439' MSL.
NOTE:  Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climbing right turn heading 165° and on MZB R-076 to MZB VORTAC to 3000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

TAKEOFF RUNWAY 17: Climb heading 165° and MZB R-076 to MZB VORTAC to 2800, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

TAKEOFF RUNWAYS 27L/R: Climbing right turn heading 320° to 3000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

TAKEOFF RUNWAY 35: Climbing left turn heading 320° to 3000, expect vectors to cross GYWNN at or above 6000, then on track 308° to PADRZ, then on track 337° to cross CWARD at or below 12000, thence. . . .

. . . on transition. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

LOS ANGELES TRANSITION (CWARD2.LAX)
SEAL BEACH TRANSITION (CWARD2.SLI)
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Turbojets and turboprops only.
NOTE: CHKN, SHAFTER, IKAYE, OROSZ
TRANSITIONS: DME/DME/IRU
or GPS required.
NOTE: DINTY, MALIT TRANSITIONS: GPS only.
NOTE: For non-GPS equipped aircraft,
Oceanside (OCN) must be operational.
NOTE: DINTY TRANSITION ATC assigned only.
NOTE: DINTY and MALIT TRANSITIONS NA
from SEE, SDM and RNM airports.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 9L/9R:** Climbing right turn
heading 165° and on MZB R-076 to MZB VORTAC
to 3000, expect vectors to cross GYWNN at or above,
8000, then on track 308° to PADRZ, thence. . . .

**TAKEOFF RUNWAY 17:** Climb heading 165° and
on MZB R-076 to MZB VORTAC to 2800, expect
vectors to cross GYWNN at or above 8000, then on track 308° to PADRZ, thence. . . .

**TAKEOFF RUNWAYS 27L/27R:** Climbing right turn
heading 320° to 3000, expect vectors to cross
GYWNN at or above 8000, then on track 308° to
PADRZ, thence. . . .

**TAKEOFF RUNWAY 35:** Climbing left turn heading
320° to 3000, expect vectors to cross GYWNN at or
above 8000, then on track 308° to PADRZ, thence. . . .

. . . .on (transition). Maintain 15000. Expect higher
altitude 10 minutes after departure.

**CHKNN TRANSITION (PADRZ2.CHKN)**
**IKAYE TRANSITION (PADRZ2.IKAYE)**
**OROSZ TRANSITION (PADRZ2.OROSZ)**
**SHAFTER TRANSITION (PADRZ2.EHF)**

**TAKEOFF MINIMUMS**

Rwy 9L: 900-2 3/4 with minimum climb
of 400’ per NM to 3600.

Rwy 9R: 900-2 3/4 with minimum climb
of 405’ per NM to 3600.

Rwy 17: Standard with minimum climb
of 480’ per NM to 2200.

Rwy 27L: Standard with minimum climb
of 320’ per NM to 1200

Rwy 27R: Standard with minimum climb
of 420’ per NM to 1200

Rwy 35: Standard with minimum climb
of 400’ per NM to 1600.

**NOTE:** Chart not to scale.
Circling NA north of Rwy 11-29. Circling Rwy 25 NA at night.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

 Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.

Procedure NA for arrivals
at CALIS on V27 and
T257 westbound.

Procedure NA for arrival
on PRB VORTAC airway
radials 133 CW 179.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
0°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats
visibility to 2 SM.
RNAV (GPS) RWY 29
SAN LUIS COUNTY RGNL (SBP)

**ATIS** 120.6
**SANTA BARBARA APP CON** 127.725 244.575
**SAN LUIS TOWER** 124.0 (CTAF) 379.9
**GND CON** 121.6
**UNICOM** 122.95

**RNP APCH:**
- **Circling to Rw 25 NA at night.** Circling NA north of Rwy 11-29.
- **Rwy 29 helicopter visibility reduction below ¾ SM NA.** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0° C or above 52° C.

**MISSED APCH FIX:**
- Climb to 1100 then climbing left turn to 4100 direct WUNUL and hold, continue climb-in-hold to 4100.

**Procedure NA for arrivals at FABEG on V27, T261 southeast bound.**

**DET** 1409
**905**
**753**
**506**
**771**

**5 NM**

**281°**

**WUNUL**

**53300**

**SAN LUIS OBISPO, CALIFORNIA**

**ATM 30JAN20**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**SAN LUIS COUNTY RGNL (SBP)**

**RNAV (GPS) RWY 29**
**LOC RWY 11**
SAN LUIS COUNTY RGNL (SBP)

**ATIS**
120.6

**SANTA BARBARA APP CON**
127.725 244.575

**SAN LUIS TOWER**
124.0 (CTAF) 379.9

**GND CON**
121.6

**UNICOM**
122.95

---

**Circling NA north of Rwy 11-29.**

**PASO ROBIES**
114.3 PRB 229°

---

**SAN LUIS OBISPO, CALIFORNIA**

**LOC I-SBP** 109.7
**APP CRS** 110°
**Rwy Idg** 5300
**TDZE** 198
**Apt Elev** 212

---

**LOC RWY 11**
SAN LUIS COUNTY RGNL (SBP)

---

**HASBY INT MINIMUMS (DUAL VOR RECEIVERS REQUIRED)**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-11</td>
<td>1180-3/4</td>
<td>1180-1</td>
<td>1180-2 1/2</td>
<td>982 (1000-1)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1180-1/2</td>
<td>1220-1/2</td>
<td>1460-3</td>
<td>1560-3</td>
</tr>
</tbody>
</table>

---

**VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 50).**

---

**110° 6.1 NM from FAF**

---

**VGSI Angel 3.00/TCH 50.**

---

**One Minute Holding Pattern**

---

**110° 6.1 NM from FAF**

---

**LOC RWY 11**
SAN LUIS COUNTY RGNL (SBP)

---

**SAN LUIS OBISPO, CALIFORNIA**

**LOC I-SBP** 109.7
**APP CRS** 110°
**Rwy Idg** 5300
**TDZE** 198
**Apt Elev** 212

---

**HASBY INT MINIMUMS (DUAL VOR RECEIVERS REQUIRED)**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-11</td>
<td>760-1/2</td>
<td>562 (600-1/2)</td>
<td>760-1 1/4</td>
<td>562 (600-1/4)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>840-1</td>
<td>1220-1/2</td>
<td>1460-3</td>
<td>1560-3</td>
</tr>
</tbody>
</table>

---

**SAN LUIS OBISPO, CALIFORNIA**

**Orig-C 12AUG21**

**SDW-3, 07 OCT 2021 to 02 DEC 2021**

**35°14’N-120°39’W**
VOR or TACAN-A
SAN LUIS COUNTY RGNL (SBP)

ATIS 120.6
SANTA BARBARA APP CON* 127.725 244.575
SAN LUIS TOWER* 124.0 (CTAF) 379.9
GND CON 121.6
UNICOM 122.95

Circling NA north of Rwy 11-29.

MISSED APPROACH: Climbing right turn to 3100 via heading 175° and MQO.
R-126 to MQO VORTAC and hold. (TACAN Aircraft continue climb to 4000 via
MQO R-292 to FRAMS 11.2 DME and hold east, right turns, 292° inbound.)

Category
A  B  C  D
CIRCLING 1700-1 1488 (1500-1) 1700-1 1488 (1500-1)
1700-1 1488 (1500-1)
1700-3 1488 (1500-3)

TACAN OR DME MINIMA

Knots 60 90 120 150 180
Min.Sec 5:30 3:40 2:45 2:12 1:50

SAN LUIS OBISPO, CALIFORNIA
Amdt 6C 12AUG21

35°14'N-120°39'W

403
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF MINIMUMS**
Rwy 07, 25, 29: NA - ATC.
Rwy 11: Standard.

**TAKEOFF RUNWAY 11:** Climb on heading 110° to 900, then climbing right turn heading 180° to intercept the FLW VOR/DME R-259 to AVILA INT, then on assigned transition or assigned route. Maintain ATC assigned altitude.

**GAVIOTA TRANSITION (AVILA4.GVO):** From over AVILA on MQO R-126 to ORCUT, then on MQO R-126 and GVO R-307 to GVO VORTAC.

**MORRO BAY TRANSITION (AVILA4.MQO):** From over AVILA on MQO R-126 to MQO VORTAC.

**WINCH TRANSITION (AVILA4.WINCH):** From over AVILA on heading 204° to SAKWE, then on MQO R-140 to WINCH.
NOTE: This SID requires takeoff minimums of 1300-2 or standard with a minimum climb of 275' per NM to 1700.

NOTE: During VFR conditions watch for opposing traffic on localizer course.

NOTE: This procedure applicable to Runway 29 departures only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 29: Climb via San Luis Obispo localizer I-SBP west course to CREPE INT; thence via (transition) or (assigned route).

FRAMS TRANSITION (CREPE3.FRAMS): From over CREPE INT via I-SBP LOC west course and PRB R-204 to FRAMS INT.

MORRO BAY TRANSITION (CREPE3.MQO): From over CREPE INT via PRB R-196 and MQO R-270 to MQO VORTAC.

PASO ROBLES TRANSITION (CREPE3.PRB): From over CREPE INT via PRB R-196 to PRB VORTAC.
TOP ALTITUDE: 8000

ATIS 120.6
GND CON 121.6
CTAF 124.0
SANTA BARBARA DEP CON* 127.725 244.575

SAN MARCUS TRANSITION (WYNNR4.RZS): From over WYNNR INT on RZS R-315 to RZS VORTAC.

PASO ROBLES TRANSITION (WYNNR4.PR): From over WYNNR INT on PRB R-133 to PRB VORTAC.

FELLOWS TRANSITION (WYNNR4.FLW): From over WYNNR INT on FLW R-259 to PRB VORTAC.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
Rwys 7, 25, 29: NA - ATC request.
Rwy 11: Standard with a minimum climb of 320' per NM to 3000.

NOTE: PRB transition expect restriction to cross 18 NM southeast of PRB VORTAC at or above 7000.

SW-3, 07 OCT 2021 to 02 DEC 2021
ILS Y or LOC/DME RWY 30

MisSED APPROACH: Climb to 1000 via heading 301°, then climbing right turn to 3000 to intercept NSI TACAN R-003 to FOBDA, then arc E of NSI 12 mile arc to TAMAY and hold.

Tower
126.85 379.3

ELEV 506
TDZE 506
Rwy 12 Ldg 9011'

SAN NICOLAS ISLAND
Chan 39 NSI

LOCALIZER 109.7
I-NSI

SAN NICOLAS ISLAND

EMERG SAFE ALT 100 NM 10,900

CATEGORY A B C D E
S-ILS 30 706-3/4 200 (200-1/4)
S-LOC 30 780-1 274 (300-1)

CIRCLING
860-1
354 (400-1)

960-1
454 (500-1)

960-1 1/2
454 (500-1 1/2)

1060-2 554 (600-2)

SAN NICOLAS ISLAND, CALIFORNIA
33°14'N-119°27'W

SAN NICOLAS ISLAND NOLF (KNSI)

Amdt 5 07OCT21
**ILS Z or RNAV (GPS) RWY 30**

**SAN NICOLAS ISLAND, CALIFORNIA**

**LOC I-NSI 109.7**  
**APCH CRS 301°**  
**Rwy Ldg 10,002**  
**TDZE 506**  
**Arpt Elev 506**  
**AL-5162 [USN]**  
**SAN NICOLAS ISLAND NOLF (KNSI)**

*GPS required for ILS procedure. RADAR required.*

- **Circling not authorized W of Rwy 12-30.**
- **Missed Approach:** Climb to 3000 direct FEGAV, track 030° to FOBDA, track 105° to CAROM and hold.
- **All act are restricted to 250 KIAS or less until FEGAV during the missed approach procedure.**

**Tower**  
126.85 379.3

---

**EMERG SAFE ALT 100 NM 10,900**

**ELEV 506**  
**TDZE 506**  
Rwy 12 Ldg 9011*

---

**SAN NICOLAS ISLAND, CALIFORNIA**

Amdt 5 07OCT21
SAN NICOLAS ISLAND, CALIFORNIA

TACAN Rwy IDG 10002
TDZE 506
Arpt Elev 506

AL-5162 [USN]
SAN NICOLAS ISLAND NOLF (KNSI)

Radar required

**Circling not authorized W of Rwy 12-30.**

- **CAUTION:**
  - FAC 258° from RCL at 3000 from thld.

**TOWER***
**126.85 379.3**

- **Knots:**
  - 60
  - 120
  - 180
  - 240
  - 300
  - 360

- **V/V([fpm])**:
  - 222
  - 444
  - 666
  - 888
  - 1110
  - 1332

- **Minimum climb of 222 ft/NM to 1300**

Missed approach turn not 400 ft above THLD elevation.

- **NSI**
- **27**
- **21**
- **12**
- **12**

**EMERG SAFE ALT 100 NM 10,900**

**CATEGORY** | **A** | **B** | **C** | **D** | **E**
--- | --- | --- | --- | --- | ---
**5-30** | 820-1 | 314 | 1060-2 | 554 | 1060-2

**CIRCLING**
- **860-1**
  - 354 [400-1]
- **960-1**
  - 454 [500-1]
- **960-1½**
  - 454 [500-1½]

**SAN NICOLAS ISLAND, CALIFORNIA**

Amdt 5 07OCT21
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climb to 800 then climbing left turn to 2600 direct SLI VORTAC and hold.

Procedure NA for arrivals at MINOE on V25 southeast bound.
AUTHORIZATION REQUIRED

37°17'29"N-117°52'12"W
JOHN WAYNE/ORANGE COUNTY (SNA)

RADAR REQUIRED

37°17'29"N-117°52'12"W
JOHN WAYNE/ORANGE COUNTY (SNA)

DEP 196° to MINOE.

ROUTE TO DEPART

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.

For uncompensated Baro-VNAV systems, procedure NA below.

DEP 196° to MINOE.

MISS RD 3000, MINOE. GPS required.
RNAV (GPS) Y RWY 2L
JOHN WAYNE/ORANGE COUNTY (SNA)

MISSED APPROACH: Climb to 800 then climbing left turn to 2600 direct SLI VORTAC and hold.

Procedure NA for arrivals at MINOE on V25 southeast bound.

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 75).

DME/DME RNP-0.3 NA. VDP NA when using Fullerton altimeter setting. When local altimeter setting not received, use Fullerton altimeter setting and increase all MDA 40 feet, increase Circling Cat C visibility ½ SM.

RNAV (GPS) Y RWY 2L

MIRL Rwy 2R-20L
REIL Rwy 20L
HIRL Rwy 2L-20R

SW-3, 07 OCT 2021 to 02 DEC 2021

33°41'N-117°52'W
When local altimeter not received, use Fullerton altimeter setting and increase all
MDA 40 feet and increase S-20R Cat C/D visibility to RVR 5000 and Circling
Cat C visibility 1/4 mile. Helicopter visibility reduction below RVR 4000 NA.

**Missed Approach:** Climb to 1000 then climbing right turn to
3000 direct SU VORTAC and hold.

**MALSR:**

**Unidirectional Traffic:**

**Cat C visibility:**

**Helicopter visibility reduction below RVR 4000 NA.**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

- FUEL FARM
- TRANSIENT PARKING FACILITIES
- FBO
- HANGARS
- EXECUTIVE
- RUNUP
- SOUTHWEST
- 2L
- 2R
- 016.2°
- 196.2°
- 0.4% UP
- ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 20R: Turn right heading 222° for vectors to SLI VORTAC, thence.

TAKEOFF RUNWAYS 2L/R (HECTOR or LAKE HUGHES TRANSITION): Turn left heading 332° for vectors to SLI VORTAC, thence.

TAKEOFF RUNWAYS 2L/R (VENTURA TRANSITION): Turn left heading 242° for vectors to LAX VORTAC, thence.

. . . .on (transition) or (assigned route). Maintain 2000 and expect filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM1.HEC): From over SLI VORTAC on SLI R-058 and PDZ R-238 to PDZ VORTAC, then on PDZ R-012 to APLES, then on HEC R-232 to HEC VORTAC.

LAKE HUGHES TRANSITION (ANAHM1.LHS): From over SLI VORTAC on SLI R-058 and PDZ R-238 to POXKU, then on POM R-164 to BAYJY, then on VNY R-095 to DARTS, then on LHS R-139 to LHS VORTAC.

VENTURA TRANSITION (ANAHM1.VTU): From over SLI VORTAC on SLI R-251 to WILMA, then on LAX R-123 to LAX VORTAC, then on LAX R-276 to SADDE, then on VTU R-093 to VTU VOR/DME.
TAKEOFF MINIMUMS
Rwy 20L: NA - ATC.
Rwy 20R: standard with minimum climb of 440’ per NM to 2400.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 20R: Climb heading 196° or I-SNA localizer south course to I-SNA 1 DME fix or SLI R-118, turn left heading 177°, cross SLI R-132 then turn right heading 202°, intercept and proceed via SXC R-084 to SXC VORTAC, thence . . . .

. . . . via (transition) or (assigned route). Expect filed altitude ten minutes after departure.

GORMAN TRANSITION (CHANL3.GMN): From over SXC VORTAC on SXC R-344 to LAX VORTAC, then on LAX R-323 to GMN VORTAC.

SAN MARCUS TRANSITION (CHANL3.RZS): From over SXC VORTAC on SXC R-310 and VTU R-129 to VTU VOR/DME, then on VTU R-289 and RZS R-109 to RZS VORTAC.

SHAFTER TRANSITION (CHANL3.EHF): From over SXC VORTAC on SXC R-344 to LAX VORTAC, then on LAX R-337 to LANDO INT, then on EHF R-126 to EHF VORTAC.
NOTE: Restricted to turbojet and turboprop aircraft only.

NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2L: Climb heading 016° for vectors to ELB VOR/DME, thence . . . . (transition) or (assigned route). Expect filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control by ELB R-332, turn right direct ELB VOR/DME, climb to 7000 and proceed on assigned transition or route. Climb to filed altitude ten minutes after departure.

IMPERIAL TRANSITION (ELB4.IPL): From over ELB VOR/DME on ELB R-095 to JARDO, then on PDZ R-135 to WODON, then on MZB R-076 and IPL R-258 to GWIRE, then on IPL R-258 to IPL VORTAC.

OCEANSIDE TRANSITION (ELB4.OCN): From over ELB VOR/DME on ELB R-165 to SUBMR, then on OCN R-282 to OCN VORTAC.

THERMAL TRANSITION (ELB4.TRM): From over ELB VOR/DME on ELB R-095 to ZENAP, then on SXC R-061 to TEYKI, then on TRM R-263 to TRM VORTAC.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 20R:** Climb on heading 196° to intercept course 175° to cross STREL at or below 5000, then on track 211° to cross DOLLF at or below 8000, then on track 301° to cross FINZZ at or above 10000, thence... . . . .

... (transition). Maintain 17000. Expect filed altitude 10 minutes after departure.

**BEALE TRANSITION (FINZZ3.BEALE)**
**HAILO TRANSITION (FINZZ3.HAILO)**
**LAS VEGAS TRANSITION (FINZZ3.LAS)**
**MISEN TRANSITION (FINZZ3.MISEN)**
**NNAVY TRANSITION (FINZZ3.NNAVY)**

**TAKEOFF MINIMUMS**
Rwy 20R: Standard with a minimum climb of 320' per NM to 560.

**NOTE:** Chart not to scale.

**NOTE:** RNAV 1.
**NOTE:** RADAR required for non-GPS equipped aircraft.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** MISEN transition restricted to aircraft landing LAS terminal area.
**NOTE:** Turbojets aircraft only.
**NOTE:** HAILO, LAS and NNAVY transitions - ATC assigned only.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2L: Climb heading 014° to 560, then left turn on heading 240° or as assigned by ATC for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

TAKEOFF RUNWAY 20R: Climb heading 194° to 557, then on heading 210° or as assigned by ATC for vectors to PIJIN, cross PIJIN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . .

. . . . on (transition). Maintain 6000. Expect higher altitude 10 minutes after departure.

IKAYE TRANSITION (HAWWC3.IKAYE)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

NOTE: RNAV-1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: OROSZ and SHAFTER TRANSITIONS: turbojet only.
NOTE: IKAYE TRANSITION: turbojet and turboprops only.

TAKEOFF MINIMUMS
Rwy 20R: Standard with a minimum climb of 500’ per NM to 560.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 20R: Climb heading 196° to intercept course 175° to cross STREL at or below 5000, then on track 211° to cross DOLLF at or below 8000, then on depicted route to HHERO, thence . . .

. . . (transition). Maintain altitude assigned by ATC. Expect filed altitude 10 minutes after departure.

IKAYE TRANSITION (HHERO3.IKAYE)
OROSZ TRANSITION (HHERO3.OROSZ)
SHAFTER TRANSITION (HHERO3.EHF)
**HOBOW THREE DEPARTURE (RNAV)**

**FROM** SANTA ANA, CALIFORNIA

- **D-ATIS**
- **126.0**
- **CLNC DEL**
- **118.0**
- **CPDLC**
- **GND CON**
- **120.8 (EAST)**
- **132.25 (WEST)**
- **SOCAL DEP CON**
- **133.85 346.35**

---

**NOTE:** RNAV 1.
**NOTE:** RADAR required for non-GPS equipped aircraft.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** MISEN transition restricted to aircraft landing LAS terminal area.
**NOTE:** Turbojets only.
**NOTE:** HAILO, LAS and NNAVY transitions: ATC assigned only.

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2L:** Climb to heading 016° to 560, then climb direct LION, then on track 058° to CHOAK, then on depicted route to HOBOW, thence. . . .

**(transition).** Turbojets maintain 17000. Expect filed altitude 10 minutes after departure.

- **BEALE TRANSITION (HOBOW3.BEALE)**
- **HAILO TRANSITION (HOBOW3.HAILO)**
- **LAS VEGAS TRANSITION (HOBOW3.LAS)**
- **MISEN TRANSITION (HOBOW3.MISEN)**
- **NNAVY TRANSITION (HOBOW3.NNAVY)**

---

**TAKEOFF MINIMUMS**

Rwy 2L: Standard with a minimum climb of 500’ per NM to 1500.

---

**NOTE:** Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2L: Climb heading 016° to 3000, continue climb to assigned altitude on assigned heading for RADAR vectors to ELB VOR/DME R-215. Thence . . . .

. . . . on (transition) or assigned route. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control by ELB R-332, turn right direct ELB VOR/DME, climb to 7000 and proceed via assigned transition or route. Climb to filed altitude ten minutes after departure.

DAGGETT TRANSITION (IRV5.DAG): From over ELB VOR/DME on ELB R-215 and SLI R-148 to SLI VORTAC, then on SLI R-022 to POM VORTAC, then on POM R-033 and DAG R-214 to DAG VORTAC.

GORMAN TRANSITION (IRV5.GMN): From over ELB VOR/DME on ELB R-215 and SXC R-055 to SXC VORTAC, then on SXC R-344 to LAX VORTAC, then on LAX R-323 to GMN VORTAC.

SAN MARCUS TRANSITION (IRV5.RZS): From over ELB VOR/DME on ELB R-215 and SXC R-055 to SXC VORTAC, then on SXC R-310 and VTU R-129 to VTU VOR/DME, then on VTU R-289 and RZS R-109 to RZS VORTAC.

SEAL BEACH TRANSITION (IRV5.SLI): From over ELB VOR/DME on ELB R-215 and on SLI R-148 to SLI VORTAC.

SHAFTER TRANSITION (IRV5.EHF): From over ELB VOR/DME on ELB R-215 and SXC R-055 to SXC VORTAC, then on SXC R-344 to LAX VORTAC, then on LAX R-337 and EHF R-126 to EHF VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2L: Climb heading 016° to 560, then direct LIION, then on track 058° to CHOAK, then on depicted route to MIKAA thence. . . .

. . . . (transition). Maintain 14000, expect filed altitude within 10 minutes of departure.

HHERO TRANSITION (MIKAA1.HHERO)

TAKEOFF MINIMUMS
Rwy 2L: Standard with a minimum climb of 500' per NM to 1500.

NOTE: Chart not to scale.

NOTE: RNAV 1.
NOTE: RADAR required for non-GPS equipped aircraft.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojets and turboprops only.
TAKEOFF MINIMUMS
Rwy 20L: NA - ATC.
Rwy 20R: Standard with minimum climb of 342’ per NM to 2400.
NOTE: RADAR required.

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 20R: Climb heading 196° or I-SNA localizer south course to I-SNA 1 DME fix or SLI R-118, turn left heading 177° for vectors to MUSEL INT. Thence . . . . on (transition) or (assigned route). Expect filed altitude ten minutes after departure.

DAGGETT TRANSITION (MUSEL8.DAG): From over MUSEL INT on SLI R-150 to SLI VORTAC, then on SLI R-022 to POM VORTAC, then on POM R-033 to GARDY INT and on DAG R-214 to DAG VORTAC.

OCEANSIDE TRANSITION (MUSEL8.OCN): From over MUSEL INT on OCN R-282 to OCN VORTAC.

SEAL BEACH TRANSITION (MUSEL8.SLI): From over MUSEL INT on SLI R-150 to SLI VORTAC.

THERMAL TRANSITION (MUSEL8.TRM): From over MUSEL INT on SXC R-061 to TEYKI INT and TRM R-263 to TRM VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2L: Climb heading 016° to 560, then direct LION, then on track 058° to CHOAK, then on track 133° to cross JAABB at or above 4100 and at or below 210K, then on track 120° to cross MANBY at or above 7000, then on track 105° to cross PIGGN at or above 9000, thence. . . .

TAKEOFF RUNWAY 20R: Climb heading 196° to intercept course 175° to cross STREL at or below 5000, then on track 140° to TANGL, then on track 103° to cross SHIRR at or above 7000, then on track 073° to DANAH, then on track 048° to cross PIGGN at or above 9000, thence. . . .

. . . . on (transition) maintain 13000. Expect filed altitude 10 minutes after departure.

AVRRY TRANSITION (PIGGN2.AVRRY)
CNERY TRANSITION (PIGGN2.CNERY)
OTAYY TRANSITION (PIGGN2.OTAYY)
TCATE TRANSITION (PIGGN2.TCATE)
NOTE: Chart not to scale.

STAY Y THREE DEPARTURE (RNAV) STAYY THREE DEPARTURE (RNAV)

NOTE: RNP 1.
NOTE: RF required.
NOTE: GPS required.
NOTE: RADAR required.
NOTE: Turbojet only.
NOTE: Parachute jumping all hours, 14000 and below, north of route between STAYY and FNCHH.
NOTE: Do not file-To be assigned by ATC.

STAYY THREE DEPARTURE (RNAV)

TOP ALTITUDE: 13000

J O H N  W A Y N E / O R A N G E  C O U N T Y (S N A)

S A N T A  A N A, C A L I F O R N I A

SW-3, 07 OCT 2021 to 02 DEC 2021
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 20R: Climb on course 196° to cross BIKKL at or above 556, then left turn to HEFAY, then right turn to cross PAPAU at or below 5000 and at or below 220K, then left turn to cross LRREN at or below 5000, then left turn to HTCHR, then on track 140° to TANGL, then on track 103° to cross SHIRR at or above 7000, then on track 073° to DANAH, then on track 048° to cross STAYY at or above 9000, thence. . . .

. . . on (transition). Maintain 13000. Expect filed altitude 10 minutes after departure.

AVRRY TRANSITION (STAYY3.AVRRY)
CNERY TRANSITION (STAYY3.CNERY)
OTAYY TRANSITION (STAYY3.OTAYY)
TCATE TRANSITION (STAYY3.TCATE)
ILS or LOC RWY 7  
SANTA BARBARA MUNI (SBA)  

MALSR  

Circling Rwy 15R NA at night. VDP NA when using Oxnard altimeter setting.  
When local altimeter setting not received, use Oxnard altimeter setting and increase all DA/MDA 100 feet, and S-LOC Cat C visibility to RVR 5000, Cat D visibility to RVR 6000.  
Increase Circling Cat A visibility 1/4 mile, Cat C visibility 1/2 mile. For inop ALS when using Oxnard altimeter setting, increase S-ILS 7 all Cats visibility to RVR 5000.  
# RVR 1800 authorized with use of FD or AP or HUD to DA (NA when using Oxnard altimeter setting).  

ATIS  
SANTA BARBARA APP (120.55 319.15 (151°-329°))  
SANTA BARBARA TOWER (119.7 (CTAF))  
GND CON (121.7)  
CLNC DEL (132.9)  
UNICOM (122.95)  

Procedure NA for arrival at GVO VORTAC on T261 northwest bound.  

FIM 601 D GVO 33R 33L 3500 075° 2700 075° 3500 075° 1800 1800 3500 255° 132.9 X 250° 1000-3 700 5000 250° 148° (11.1) 239° 337° 1.4 1.2 2.6 2.9 4 5.4 NM 075° 1.4 2.6 2.9 4 5.4 NM from FAF
SANTA BARBARA, CALIFORNIA

VOR or GPS RWY 25
SANTA BARBARA MUNI (SBA)

ATIS 132.65
SANTA BARBARA APP CON* 120.55 319.15 (151°-329°) 125.4 291.1 (330°-150°)
SANTA BARBARA TOWER* 119.7 (CTAF) 254.35
GND CON 121.7
CLNC DEL 132.9
UNICOM 122.95

AL-378 (FAA)

VORTAC GVO
113.8 GVO
Chan 85

APP CRS
279°
Rwy Idg 6052
TDZE 10
Apt Elev 10

GAVIOTA
113.8 GVO
Chan 85

SAN MARCUS
114.9 RZS
Chan 96

GVO
R-127

ZACKS INT
GVO (20.7)

REIL Rwy 25
MIRL Rwy 15R-33L
HIRL Rwy 7-25

SW-3, 07 OCT 2021 to 02 DEC 2021

21056

Α 111±

Α 166±

279° 6.5 NM from FAF

205°

FAF to MAP 6 NM

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-25</td>
<td>920-1¼</td>
<td>910 (1000-1¼)</td>
<td>920-2¾</td>
<td>920-3</td>
</tr>
<tr>
<td>Circling</td>
<td>920-1¼</td>
<td>910 (1000-1¼)</td>
<td>920-2¾</td>
<td>960-3</td>
</tr>
</tbody>
</table>

FAF to MAP 6 NM

KNOTS

<table>
<thead>
<tr>
<th>Fr</th>
<th>60</th>
<th>90</th>
<th>120</th>
<th>150</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min:Sec</td>
<td>6:00</td>
<td>4:00</td>
<td>3:00</td>
<td>2:24</td>
<td>2:00</td>
</tr>
</tbody>
</table>

SW-3, 07 OCT 2021 to 02 DEC 2021

SANTA BARBARA, CALIFORNIA

Amdt 6C 28APR16

SANTA BARBARA MUNI (SBA)

34°26'N-119°50'W
TAKEOFF RUNWAYS 7 and 15L/R: Turn right, thence . . .
TAKEOFF RUNWAY 25: Turn left, thence . . .
. . . intercept and proceed via RZS R-197 to FLOUT INT. Thence via (transition or assigned route.)

GAVIOTA TRANSITION (FLOUT5.GVO): From over FLOUT INT via GVO R-141 to GVO VORTAC. Cross RZS R-251 at or above 6000’.
SAN MARCUS TRANSITION (FLOUT5.RZS): From over FLOUT INT via RZS R-197 to RZS VORTAC. Cross GVO R-092 at or above 6000’.
VENTURA TRANSITION (FLOUT5.VTU): From over FLOUT INT via VTU R-266 to VTU VOR/DME.

TAKEOFF RUNWAYS 7 and 15L/R: Turn right, thence . . .
TAKEOFF RUNWAY 25: Turn left, thence . . .
. . . intercept and proceed via RZS R-197 to FLOUT INT. Thence via (transition or assigned route.)

GAVIOTA TRANSITION (FLOUT5.GVO): From over FLOUT INT via GVO R-141 to GVO VORTAC. Cross RZS R-251 at or above 6000’.
SAN MARCUS TRANSITION (FLOUT5.RZS): From over FLOUT INT via RZS R-197 to RZS VORTAC. Cross GVO R-092 at or above 6000’.
VENTURA TRANSITION (FLOUT5.VTU): From over FLOUT INT via VTU R-266 to VTU VOR/DME.

NOTE: IFR departure Rwys 33L/R not authorized.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climb on heading 075° to 520, then right turn direct OSHSN, then right turn direct CORRK, then on track 254° to KNNZI, then on track 331° to cross GAUCH at or above 6000, thence . . . .

TAKEOFF RUNWAYS 15L/R: Climb on heading 152° to 520, then right turn direct CORRK, then on track 254° to KNNZI, then on track 331° to cross GAUCH at or above 6000, thence . . . .

TAKEOFF RUNWAY 25: Climb on heading 255° to 520, then direct GRPES, then on track 255° to GRRRR, then on track 320° to cross GAUCH at or above 6000, thence . . . .

. . . . on (transition). Maintain ATC assigned altitude. Expect final altitude 10 minutes after departure.

MORRO BAY TRANSITION (GAUCH2.MQO)

NOTE: Chart not to scale.
NOTE: IFR departure Rwys 33L/R not authorized.

NOTE: Minimum (ATC) climb of 385' per NM to 6000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7 and 15L/R: Turn right, intercept I-SBA west course to HABUT INT, thence via GVO R-163 to GVO VORTAC. Cross RZS R-251 at or above 6000'.

TAKEOFF RUNWAY 25: Intercept I-SBA west course to HABUT INT, thence via GVO R-163 to GVO VORTAC. Cross RZS R-251 at or above 6000'.
KWANG FIVE DEPARTURE

NOTE: IFR departure Rwys 33L/R not authorized.

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 33L/R: NA.
Rwy 7: Standard with a minimum climb of 280’ per NM to 1200.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climbing right turn to intercept GVO VORTAC R-099 to KWANG INT thence . . .

TAKEOFF RUNWAYS 15L/R and 25: Climbing left turn to intercept GVO VORTAC R-099 to KWANG INT thence . . .

. . . via (transition) or (assigned route).

HENER TRANSITION (KWANG5.HENER): From over KWANG INT via FIM R-250 to HENER INT.

SAN MARCUS TRANSITION (KWANG5.RZS): From over KWANG INT via RZS R-119 to RZS VORTAC. Cross GVO R-092 at or above 6000’.

GINNA TRANSITION (KWANG5.GINNA): From over KWANG INT via CMA R-271 to CMA VOR/DME then via CMA R-072 to GINNA.
MISHN THREE DEPARTURE (RNAV)

TOP ALTITUDE: 8000

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climb on heading 075° to 520, then turn right direct MISHN, thence . . . .

TAKEOFF RUNWAYS 15L/R: Climb on heading 152° to 520, then direct EDDEN, then on track 079° to MISHN, thence . . . .

TAKEOFF RUNWAY 25: Climb on heading 255° to intersect course 175° to SRRRA, then on track 121° to EDDEN, then on track 079° to MISHN, thence . . . .

. . . . on (transition). Maintain 8000. Expect final altitude 10 minutes after departure.

BOILE TRANSITION (MISHN3.BOILE)

KPTIN TRANSITION (MISHN3.KPTIN)

NNAVY TRANSITION (MISHN3.NNAVY)
SANTA BARBARA FIVE DEPARTURE

TAKEOFF MINIMUMS
Rwy 33L/R: NA-ATC.
Rwy 7: Standard with minimum climb of 260' per NM to 1100.

NOTE: This DP to be used only when assigned by ATC.
NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

SOUTH OR EAST ROUTE OF FLIGHT:
TAKEOFF RUNWAY 7: Climb heading 075° to 500, then climbing right turn on heading 120°. Thence. . .
TAKEOFF RUNWAYS 15L/15R: Climb heading 152°. Thence. . .
TAKEOFF RUNWAY 25: Climb heading 255°. Thence. . .

. . . . On RADAR vectors, maintain 3000. Expect further clearance to filed altitude 5 minutes after departure.

NORTH OR WEST ROUTE OF FLIGHT:
TAKEOFF RUNWAY 7: Climb heading 075° to 500, then climbing right turn on heading 200°. Thence. . .
TAKEOFF RUNWAYS 15L/R: Climb heading 152° to 500, then climbing right turn on heading 200°. Thence. . .
TAKEOFF RUNWAY 25: Climb heading 255°. Thence. . .

. . . . On RADAR vectors, maintain 3000. Expect further clearance to filed altitude 5 minutes after departure.
Night Landing: Rwy 2 NA. VDP NA with Vandenberg altimeter setting. When local altimeter setting not received, use Vandenberg altimeter setting and increase all DA 43 feet, and all MDA 60 feet, increase S-LOC 12 Cat C/D visibility to RVR 5500 and Circling Cat C visibility to 1½ mile. For inop MALS R, increase S-LOC 12 Cat C/D visibility to 1½ mile. # RVR 1800 authorized with the use of FD or AP or HUD to DA.

MISSING APCH FIX
I-SMX 15.4
WINCH INT
I-SMX 15.4
HILDY OM
I-SMX 6.5
GUADALUPE
111.0 GLJ
LOCALIZER 108.9
I-SMX 15.4
Chan 26

300 to WINCH
300° (10.1)

GS 3.00°
TCH 55

CATEGORY

FAF to MAP 5 NM
Knots
60
90
120
150
180

Min:Sec
5:00
3:20
2:30
2:00
1:40

SANTA MARIA, CALIFORNIA

AMDT 10A 24JUL14

SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)

SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)

SW-3, 07 OCT 2021 to 02 DEC 2021
RNAV (GPS) RWY 12
SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)

**ATIS** 121.15  SANTA BARBARA APP CON 124.15 327.8  SANTA MARIA TOWER 118.3 (CTAF) 239.25  GND CON 121.9  UNICOM 122.95

**MISSING APCH FIX**
5 NM 310°
MORRO BAY MQO

**RNAV (GPS) RWY 12**

**Category**

**LPV** DA

**LNAV/VNAV** DA

**LNAV MDA**

**CIRCLING**

**RNAV (GPS) RWY 12**

**SANTA MARIA, CALIFORNIA**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

---

**Circling Rwy 2 NA at night. Baro-VNAV NA when using Vandenberg altimeter setting.**

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. VDP NA with Vandenberg altimeter setting.

When local altimeter setting not received use Vandenberg altimeter setting and increase all DA 43 feet and all MDAs 60 feet. Increase LNAV/VNAV all Cats visibility to RVR 4000, and increase Circling Cat C visibility to 1/2 mile. For inop MALSR, increase LNAV Cat C/D visibility to 1/2 mile. # RVR 1800 authorized with use of FD or AP or HUD to DA, NA when using Vandenberg altimeter setting.

---

**ATIS** 121.15  SANTA BARBARA APP CON 124.15 327.8  SANTA MARIA TOWER 118.3 (CTAF) 239.25  GND CON 121.9  UNICOM 122.95

**MISSING APCH FIX**
5 NM 310°
MORRO BAY MQO

**RNAV (GPS) RWY 12**

**Category**

**LPV** DA

**LNAV/VNAV** DA

**LNAV MDA**

**CIRCLING**

**RNAV (GPS) RWY 12**

**SANTA MARIA, CALIFORNIA**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

---

**Circling Rwy 2 NA at night. Baro-VNAV NA when using Vandenberg altimeter setting.**

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. VDP NA with Vandenberg altimeter setting.

When local altimeter setting not received use Vandenberg altimeter setting and increase all DA 43 feet and all MDAs 60 feet. Increase LNAV/VNAV all Cats visibility to RVR 4000, and increase Circling Cat C visibility to 1/2 mile. For inop MALSR, increase LNAV Cat C/D visibility to 1/2 mile. # RVR 1800 authorized with use of FD or AP or HUD to DA, NA when using Vandenberg altimeter setting.

---

**ATIS** 121.15  SANTA BARBARA APP CON 124.15 327.8  SANTA MARIA TOWER 118.3 (CTAF) 239.25  GND CON 121.9  UNICOM 122.95

**MISSING APCH FIX**
5 NM 310°
MORRO BAY MQO

**RNAV (GPS) RWY 12**

**Category**

**LPV** DA

**LNAV/VNAV** DA

**LNAV MDA**

**CIRCLING**

**RNAV (GPS) RWY 12**

**SANTA MARIA, CALIFORNIA**

**SW-3, 07 OCT 2021 to 02 DEC 2021**
### RNAV (GPS) RWY 30

**SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)**

**ATIS**
- **121.15**

**SANTA BARBARA APP CON**
- **124.15 327.8**

**SANTA MARIA TOWER**
- **118.3 (CTAF)**
- **239.25**

**GND CON**
- **121.9**

**UNICOM**
- **122.95**

**ELEV**
- **261**

**TDZE**
- **261**

---

**RNAV (GPS) RWY 30**

- **MSA RWY 30 25 NM**

**ATIS**
- **121.15 SANTA MARIA TOWER**

**SANTA BARBARA APP CON**
- **124.15 327.8**

**SANTA MARIA TOWER**
- **118.3 (CTAF)**
- **239.25**

**GND CON**
- **121.9**

**UNICOM**
- **122.95**

**ELEV**
- **261**

**TDZE**
- **261**

---

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**34°54'N 120°27'W**

**451**

---

**Category**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LNAV MDA</strong></td>
<td>1600-1/4</td>
<td>1600-1/2</td>
<td>1600-3</td>
</tr>
<tr>
<td><strong>CIRCLING</strong></td>
<td>1339 (1400-1/4)</td>
<td>1339 (1400-1/2)</td>
<td>1339 (1400-3)</td>
</tr>
</tbody>
</table>

---

**DME/DME RNP-0.3 NA**

- **When local altimeter setting not received, use**
  - San Luis County Rgnl altimeter setting and increase all MDA 60 feet.
  - **Rwy 30** helicopter visibility reduction below 1 SM **NA.**
  - **Straight-in**
  - **Rwy 30 NA at night, Circling Rwy 2, 30 NA at night.**

**Missed Approach**

- **Climb to 4000 direct**
- **HANNU and on track 294° to WINCH and hold.**

**Procedure NA**

- **for arrivals at GVO**

**Visual Segment - Obstacles**

**RNAV (GPS) RWY 30**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**34°54'N 120°27'W**

**451**

---

**RNAV (GPS) RWY 30**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**34°54'N 120°27'W**

**451**

---

**RNAV (GPS) RWY 30**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**34°54'N 120°27'W**

**451**
When local altimeter setting not received, use Vandenberg altimeter setting and increase all MDA 60 feet. Increase S-12 Cat C/D visibility and Circling Cat C visibility ½ mile. For inop MALS when using Vandenberg altimeter setting, increase S-12 Cat C/D visibility to 1½ miles. Night Landing Rwy 2 NA.

- **ATIS**: 121.15
- **SANTA BARBARA APP CON**: 124.15 327.8
- **SANTA MARIA TOWER**: 118.3 (CTAF) 239.25
- **GND CON**: 121.9
- **UNICOM**: 122.95

**MISSED APCH FIX**
- **R-319**

**MORRO BAY**
- MQO 112.4
- Chan 71

**GLJ**
- VOR

**TDZE 230**
- 3.9 NM from FAF

**SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)**

- **SW-3, 07 OCT 2021 to 02 DEC 2021**
- **453**

**AL-379 (FAA)**

- **21112**

**VOR RWY 12**

**CATEGORY**
- **A**
- **B**
- **C**
- **D**

**S-12**
- 740/24 510 (500-½)
- 740/55 510 (500-1)

**CIRCLING**
- 860-1 599 (600-1)
- 860-1½ 599 (600-1½)
- 1320-3 1059 (1000-3)
BUELT FOUR DEPARTURE

NOTE: Remain clear of restricted areas R-2516, R-2517 and R-2534 (A&B).

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 2, 12, 30: Climbing right turn heading 190° to intercept GLJ R-130 to BUELT.

FELLOWS TRANSITION (BUELT4.FLW): From over BUELT INT on FLW R-202 to FLW VOR/DME.

FRAMS TRANSITION (BUELT4.FRAMS): Left turn heading 280° at BUELT INT to intercept GLJ R-130 to GLJ VOR, then on GLJ R-290 to PISMO INT, then on PRB R-204 to FRAMS INT.

GAVIOTA TRANSITION (BUELT4.GVO): From over BUELT INT on GVO R-292 to GVO VORTAC.

SAN MARCUS TRANSITION (BUELT4.RZS): From over BUELT INT on RZS R-275 to RZS VORTAC.

BUELT FOUR DEPARTURE (BUELT4.BUELT) 10NOV16
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 5°C (41°F) or above 14°C (58°F). Rwy 21 helicopter visibility reduction below 1 SM NA.

Procedure NA for arrivals at DARTS on V186-597 eastbound, V459-597 northwest bound and on V459 southeast bound.

Radar Required

- 600 5000 CAPOB
- SADDE
- VGS and RNAV glidepath not coincident (VGS Angle 3.50°/TCH 45).

Category

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV DA</td>
<td>440-1</td>
<td>270 (300-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNAV/ VNAV DA</td>
<td>685-1 3/8</td>
<td>515 (600-1 3/8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>1120-1 1/4</td>
<td>950 (1000-1 1/4)</td>
<td>1120-2 1/2</td>
<td>950 (1000-2 1/2)</td>
</tr>
</tbody>
</table>

ATIS 119.15
SOCAL APP CON 128.5 235.975
SANTA MONICA TOWER* 120.1 (CTAF) 257.8
GND CON 121.9
UNICOM 122.95

RNAV (GPS) RWY 21

SANTA MONICA MUNI (SMO)

SW-3, 07 OCT 2021 to 02 DEC 2021
RNAV (GPS) Y RWY 3
SANTA MONICA MUNI (SMO)

ATIS 119.15
SOCAL APP CON 128.5 235.975
SANTA MONICA TOWER* 120.1 (CTAF) 257.8
GND CON 121.9
UNICOM 122.95

Rwy 3 helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 600 then climbing left turn to 5500 direct NATJU and track 311° to JAASK and track 266° to SESPE and hold.

*Missed approach requires minimum climb of 300 feet per NM to 2400.

Visual Segment - Obstacles.
**RNAV (GPS) Z RWY 3**

**SANTA MONICA MUNI (SMO)**

- **WAAS**
  - CH 77839
  - W03B
  - APP CRS
    - 062°
  - Rwy Idg
    - 3500
  - TDZE
    - 164
  - Apt Elev
    - 170

**Rwy 3**
- Helicopter visibility reduction below 1 SM NA.
- DME/DME RNP-0.3 NA.

**ATIS**
- 119.15

**SOCAL APP CON**
- 128.5 235.975

**SANTA MONICA TOWER**
- 120.1 (CTAF)
  - 257.8

**GND CON**
- 121.9

**UNICOM**
- 122.95

**MISSED APPROACH:**
- Climb to 600 then climbing left turn to 5000 direct DARTS and hold, do not exceed 173K when continuing climb-in-hold to 5000.
- Missed approach requires minimum climb of 290 feet per NM to 3800.

**Final approach course offset 29.95°.**

**CATEGORY**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP MDA*</td>
<td>460-1</td>
<td>296 (300-1)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>LP MDA</td>
<td>1260-1 ½</td>
<td>1260-1 ½</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>LNAV MDA*</td>
<td>500-1</td>
<td>336 (400-1)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>LNAV MDA</td>
<td>1380-1 ½</td>
<td>1380-1 ½</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

**SMO, 07 OCT 2021 to 02 DEC 2021**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**End of Document**
Procedure NA for arrivals at ELMOO on V186 southeast bound. Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Procedure NA for arrivals at ELMOO on V186 southeast bound. Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.

MISSED APPROACH: Climb to 5000 on SMO VOR/DME R-250 and on FIM VORTAC R-148 to SADDE INT/19.9 DME and hold, continue climb-in-hold to 5000.

ATIS 119.15   SOCIAL APP CON 128.5 235.975   SANTA MONICA TOWER* 120.1 (CTAF) 257.8   GND CON 121.9   UNICOM 122.95

Circling NA northwest of Rwy 3-21.
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**TOPANGA TWO DEPARTURE (OBSTACLE)**

**SANTA MONICA MUNI (SMO)**

**DEPARTURE ROUTE DESCRIPTION**

**ATIS**
119.15

**SANTA MONICA TOWER**
120.1 257.8

**SOCAL DEP CON**
125.2 263.025

**SADDE**
N34°02.34' W18°45.88'
L-3-4-7, H-4

**NOTE:** Chart not to scale.

**TAKEOFF MINIMUMS**

- **Rwy 3:** Standard with a minimum climb of 330' per NM to 1100, or 1400-2 1/2 for VCOA.
- **Rwy 21:** Standard.

**TAKEOFF OBSTACLE NOTES**

- **Rwy 3:** Pole 139' from DER, 159' right of centerline, 26' AGL/196' MSL. Trees beginning 764' from DER, 478' right of centerline, up to 213' MSL. Tree 995' from DER, 619' right of centerline, 217' MSL. Tree 1063' from DER, 236' left of centerline, 206' MSL. Tree 1102' from DER, 289' left of centerline, 207' MSL. Trees beginning 1125' from DER, 402' left of centerline, up to 214' MSL.
- **Rwy 21:** Pole, tree beginning 39' from DER, 357' right of centerline, up to 13' AGL/154' MSL. Pole 214' from DER, 437' right of centerline, 30' AGL/174' MSL. Trees beginning 409' from DER, 389' right of centerline, up to 191' MSL. Tree, transmission line beginning 1328' from DER, 506' right of centerline, up to 215' MSL.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 3:** Climbing right turn to 5000 on SMO R-210 and on LAX R-276 to SADDE INT.

**TAKEOFF RUNWAY 21:** Climb to 5000 on SMO R-210 and on LAX R-276 to SADDE INT.

**VCOA RUNWAY 3:** Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross SMO VOR/DME at or above 1400, then continue climb to 5000 on SMO R-210 and LAX R-276 to SADDE INT.

**TOPANGA TWO DEPARTURE (OBSTACLE)**

(18032) SANTA MONICA MUNI (SMO) AL-5023 (FAA) SANTA MONICA, CALIFORNIA

(01FEB18)
NOTE: Chart not to scale.

**TOP ALTITUDE:**
**FL230**

**NOTE:** RNAV 1.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RADAR required.

**NOTE:** Turboprop aircraft only.

**NOTE:** MISEN transition restricted to aircraft landing Las Vegas terminal area.

**NOTE:** HAILO transition ATC assigned only.

**NOTE:** CSTRO, COREZ transitions: Maintain at or below 250K unless otherwise directed by ATC.

---

**SW-3, 07 OCT 2021 to 02 DEC 2021**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 033° to 680, then direct to cross TREKK at or above 4000, then on track 036° to DARTS, then on track 329° to cross CHOIiI at or above 7100, thence. . . .

. . . . on assigned transition, maintain FL230. Expect filed altitude 10 minutes after departure.

BLYTHE TRANSITION (CHOII3.BLH)
COREZ TRANSITION (CHOII3.COREZ)
CSTRO TRANSITION (CHOII3.CSTRO)
FILLMORE TRANSITION (CHOII3.FIM)
HAILO TRANSITION (CHOII3.HAILO)
HECTOR TRANSITION (CHOII3.HEC)
LAS VEGAS TRANSITION (CHOII3.LAS)
MISEN TRANSITION (CHOII3.MISEN)
TOP ALTITUDE:
IKAYE TRANSITION: AS ASSIGNED BY ATC;
ALL OTHER TRANSITIONS: FL230

TAKEOFF MINIMUMS
Rwy 3: NA-ATC.
Rwy 21: Standard with a minimum climb of 500’ per NM to 680,
then 310’per NM to 3800

NOTE: Chart not to scale.

NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Turbojets only on HEC, MISER, and LAS transitions.
NOTE: HAILO transition ATC assigned only.
NOTE: CSTRO, COREZ transitions: Maintain at or below 250K unless otherwise directed by ATC.
NOTE: Turboprop only on IKAYE transition. (CTRUS-WOPPR IKAYE).
NOTE: Turbojet only on STOKD and SCTRR transitions. (CTRUS-DARRK-FIXIT-IKAYE . . )
NOTE: MISER TRANSITION restricted to aircraft landing Las Vegas terminal area.

SW-3, 07 OCT 2021 to 02 DEC 2021
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 21: Climb on heading 213° to intercept course 260° to WRASH, then on track 262° to cross CTRUS at or above 5000, thence . . . .

. . . . on assigned transition, IKAYE transition maintain altitude as assigned by ATC, all other transitions maintain FL230. Expect filed altitude 10 minutes after departure.

COREZ TRANSITION (CTRUS4.COREZ)
CSTRO TRANSITION (CTRUS4.CSTRO)
HAILO TRANSITION (CTRUS4.HAILO)
HECTOR TRANSITION (CTRUS4.HEC)
IKAYE TRANSITION (CTRUS4.IKAYE)
LAS VEGAS TRANSITION (CTRUS4.LAS)
MISEN TRANSITION (CTRUS4.MISEN)
SCTRR TRANSITION (CTRUS4.SCTRR)
STOKD TRANSITION (CTRUS4.STOKD)
PEVEE SIX DEPARTURE (RNAV)

NOTE: Chart not to scale.

NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: Turbojet aircraft only.
NOTE: All aircraft expect RADAR vectors to PEVEE prior to PEEER.

TAKEOFF MINIMUMS
Rwy 3: NA - ATC.
Rwy 21: Standard with a minimum climb of 500’ per NM to 680.

TOP ALTITUDE:
CLEEE and CNERY TRANSMISSIONS: 17000;
OTAYY and TCATE TRANSMISSIONS: FL200

AL-5023 (FAA)

SW-3, 07 OCT 2021 to 02 DEC 2021
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 21: Climb on heading 213° to intercept course 260° to WRASH, then on track 255° to PEEER, then on track 181° to SPRRW, then on track 130° to PEVEE, thence. . . .

. . . .on assigned transitions CLEEE and CNERY maintain 17000, OTAYY and TCATE transitions maintain FL200, expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS: In the event of lost communications, proceed via assigned transition.

CLEEE TRANSITION (PEVEE6.CLEE)
CNERY TRANSITION (PEVEE6.CNERY)
OTAYY TRANSITION (PEVEE6.OTAYY)
TCATE TRANSITION (PEVEE6.TCATE)
NOTE: Chart not to scale.

**NOTE:** RNAV 1.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** RADAR required.
**NOTE:** All Rwy 21 departures expect RADAR vectors to SEAEM prior to CTRUS.
**NOTE:** This departure procedure authorized for turboprop aircraft only.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 3:** Climb heading 033° to 680, then direct to cross TREKK at or above 4000, then on track 036° to DARTS, then on track 329° to cross CHOIi at or above 7100, thence . . . .

**TAKEOFF RUNWAY 21:** Climb heading 213° to intercept course 260° to WRASH, then on track 262° to cross CTRUS at or above 5000, then on track 350° to cross DZINE at or above 6000, then on track 042° to SEAEM, then on track 008° to cross CHOIi at or above 7100, thence . . . .

. . . . on assigned transition maintain altitude assigned by ATC, expect filed altitude 10 minutes after departure.

**DAGGETT TRANSITION (SMO3.DAG)**

**HECTOR TRANSITION (SMO3.HEC)**

**TAKEOFF MINIMUMS**

Rwy 3: Standard with a minimum climb of 500’ per NM to 680, then 275’ per NM to 4300.
Rwy 21: Standard with a minimum climb of 500’ per NM to 680, then 310’ per NM to 3800.
### Lompoc Altimeter Setting Minimums

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-8</td>
<td>1060-1</td>
<td>386 (400-1)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>S-8</td>
<td>1600-1(^\frac{1}{4})</td>
<td>926 (1000-1(^\frac{1}{4}))</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

When local altimeter setting not received, use Lompoc altimeter setting.

**Gaviota, CA**

**Category D**

**Gaviota, CA**

**Apt Elev**

**AWOS-3**

**118.075**

**SANTA BARBARA APP CON**

**124.15 327.8**

**UNICOM**

**122.8 (CTAF)**

**When local altimeter setting not received, use Lompoc altimeter setting.**

**MISSED APPROACH:** Climbing left turn to 5000 direct ORCUT WP and hold.

**ORCUT**

**5700 (11.9)**

**4 NM**

**5100 287° (11.2)**

**1960°**

**ORCUT WP to RW08, 3 NM to RW08**

**GAVIOTA GVO**

**QFE**

**124.15 327.8 (CTAF)**

**AWOS-3**

**118.075**

**SANTA BARBARA APP CON**

**124.15 327.8**

**UNICOM**

**122.8 (CTAF)**

**When local altimeter setting not received, use Lompoc altimeter setting.**

**MISSED APPROACH:** Climbing left turn to 5000 direct ORCUT WP and hold.
Obtain local altimeter setting on CTAF, when not received, except for operators with approved weather reporting service, use Lompoc altimeter setting.

MISSED APPROACH: Climb to 5000 via 269° course to YEWRU WP, then via 309° course to ORCUT WP and hold.

**Procedure**

Turn NA 3900° to YEWRU, then via 309° course to YEWRU WP and hold.

**MISSED APPROACH FIX**

**WAR**

**AWOS-3**

118.075

**SANTA BARBARA APP CON**

124.15  327.8

**UNICOM**

122.8 (CTAF)

**CIRCLING**

1760-1 1/4  1860-1 1/2   NA

**LOMPOC ALTIMETER SETTING MINIMUMS**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLING</td>
<td>1220-1</td>
<td>1320-1</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

**GPS-A**

**SANTA YNEZ (IZA)**

**Orig'D** 12AUG21

34°36'N-120°05'W
**VOR or GPS-B**

**SANTA YNEZ (IZA)**

- **VORTAC RZS 114.9 Chan 96**
- **APP CRS 097°**
- **Rwy Idg TDZE N/A**
- **Apt Elev 674 N/A**

**WARNING:** Obtain local altimeter setting on CTAF, when not received, except for operators with approved weather reporting service, use Lompoc altimeter setting and increase all MDAs 540 feet.

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**MISSING APPROACH:** Climbing left turn to 5000 via heading 260° and GVO R-307 and MQO R-126 to ORCUT INT.

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>

**MISSED APPROACH:** Climbing left turn to 5000 via heading 260° and GVO R-307 and MQO R-126 to ORCUT INT.

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>

**AWOS-3**  
118.075

**SANTA BARBARA APP CON**  
124.15 327.8

**UNICOM**  
122.8 (CTAF)

**RATIONALE:**
- **SAN MARCUS 114.9 RZS 21 Chan 96**
- **GAVIOTA 113.8 GVO 212° Chan 85**
- **5000 GVO R-307 MQO R-126 ORCUT**
- **MIRL Rwy 8-26**
- **REIL Rwy 8 and 26**
- **34°36'N-120°05'W**

**ELEV 674**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1880-1/2</strong></td>
<td>1206 (1300-1 1/4)</td>
<td>1206 (1300-1 1/2)</td>
<td>NA</td>
<td><strong>FAR to MAP 4.6 NM</strong></td>
</tr>
</tbody>
</table>
RNAV (GPS) RWY 12
SHAFTER-MINTER FLD (MIT)

MISSED APPROACH: Climb to 3000 direct TIPVE and on track 199° to MARIC and hold.

Procedure NA for arrivals at PONDD on V23 northbound.

Procedure NA for arrivals at COREZ on V248 westbound.

RNAV (GPS) RWY 12
SHAFTER-MINTER FLD (MIT)

AWOS-3 121.125
BAKERSFIELD APP CON * 126.45 270.3
CTAF 122.9

CTAF 122.9

RNAV (GPS) RWY 12
SHAFTER-MINTER FLD (MIT)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>LPV</th>
<th>DA</th>
<th>LNAV/ VNAV</th>
<th>MDA</th>
<th>CIRCLING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>663 3/4</td>
<td>250 (300-3/4)</td>
<td>NA</td>
<td>900-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>663 3/4</td>
<td>250 (300-3/4)</td>
<td>NA</td>
<td>475 (500-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>720 1</td>
<td>307 (300-1)</td>
<td>NA</td>
<td>900-1/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NA</td>
<td>475 (500-1/2)</td>
</tr>
</tbody>
</table>

SHAFTER, CALIFORNIA
Amdt 1A 29MAY14

SHAFTER-MINTER FLD (MIT)

RNAV (GPS) RWY 12
SHAFTER-MINTER FLD (MIT)

SHAFTER, CALIFORNIA
Amdt 1A 29MAY14

RNAV (GPS) RWY 12
SHAFTER-MINTER FLD (MIT)
Circling to Rwy 17, 35, 8 and 26 NA at night. When local altimeter setting not received, use Bakersfield altimeter setting and increase all MDAS 40 feet and increase Cat C visibility to 1/2.

MISSED APPROACH: Climb to 4000 on EHF VORTAC R-269 to SCRAP INT/EHF 14.7 DME and hold, continue climb-in-hold to 4000.

AWOS-3
121.125

BAKERSFIELD APP CON *
126.45 270.3

CTAF
122.9  

ELEV 425

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLING</td>
<td>1000-1</td>
<td>575 (600-1)</td>
<td>1000-1</td>
<td>575 (600-1)</td>
</tr>
<tr>
<td>ZUDEG FIX MINIMUMS</td>
<td>900-1</td>
<td>475 (500-1)</td>
<td>900-1</td>
<td>475 (500-1)</td>
</tr>
</tbody>
</table>

VOR-A
SHAFTER-MINTER FLD (MIT)

SHAFTER, CALIFORNIA
AL-6926 (FAA)

Amdt 1 02MAY13

35°30'N-119°12'W
473
Circling NA SW of Rwy 11R-29L. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl altimeter setting and increase all DA to 405 feet and increase all MDA 40 feet; increase S-LOC 29R and Circling Cat C visibility ½ SM. For inop ALS, increase S-ILS 29R all Cats visibility to ¾ SM. For inop ALS when using Los Angeles Intl altimeter setting increase S-ILS 29R all Cats visibility to ¾ SM. VDP NA when using Los Angeles Intl altimeter setting.

MISSED APPROACH: Climb to 3000 on heading 294° to cross LAX VORTAC R-150 then climbing left turn on heading 250° and on LAX VORTAC R-192 to INISH INT/ LAX 12 DME and hold.

Procedure NA for arrivals at SLI VORTAC on V8-64 eastbound.

Procedure NA for arrivals at ALBAS on V25 southeast bound.

**ATIS** 125.6  
Secal APP CON 124.3 363.2 (Rwys 11L, 11R)  
**TORRANCE TOWER*** 133.075 257.8 (North)  
**GND CON** 120.9  
**UNICOM** 122.95

**AIRPORT DATA**

**ELEV 103**  
**TDZE 97**

**ILS or LOC RWY 29R**

ZAMPERINI FLD (TOA)

**LOCALIZER 111.9**  
*TOA Chan 56

**ILS or LOC RWY 29R**

ZAMPERINI FLD (TOA)

**ATIS** 125.6  
**SOCAL APP CON** 124.3 363.2 (Rwys 11L, 11R)  
**TORRANCE TOWER*** 133.075 257.8 (North)  
**GND CON** 120.9  
**UNICOM** 122.95

**AIRPORT DATA**

**ELEV 103**  
**TDZE 97**

**ILS or LOC RWY 29R**

ZAMPERINI FLD (TOA)
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). Circling NA southwest of Rwy 11R-29L. Baro-VNAV and VDP NA when using Los Angeles Intl altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl altimeter setting: increase LPV DA to 390 feet and LNAV/VNAV DA to 714 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility, LNAV Cat C visibility and Circling Cat C visibility ¾ SM. Rwy 11L helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 2700 direct FERMY and hold, continue climb-in-hold to 2700.

**Procedure NA for arrivals at INISH on V8-V64 westbound.**

**VGSI and RNAV glidepath not coincident (VGSI Angle 3.50/TCH 10).**

**LNAV only.**

**REIL Rwy 29L**

**MIRL Rwy 11L-29R and 11R-29L**

**CIRCLING**

**Ampd 1 15SEP16**
RNAV (GPS) RWY 29R
ZAMPERINI FLD (TOA)

Amdt 1 15SEP16

FOR uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). Circling NA southwest of Rwy 11R-29L. DME/DME RNP-0.3 NA.

For inop ALS, increase LPV all Cats visibility to 3 SM. For inop ALS when using Los Angeles Intl altimeter setting, increase LPV all Cats visibility to 2 SM, and LNAV/VNAV Cat C visibility to 1½ SM. Baro-VNAV and VDP NA when using Los Angeles Intl altimeter setting. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl setting: increase LPV DA to 391 feet and LNAV/VNAV DA to 763 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility and LNAV Cat C visibility ½ SM.

MALSR

ATIS 125.6

SOCAL APP CON

124.3 363.2 [Rwy 11 L 11 R]
127.2 269.6 [Rwy 29 L 29 R]

TORRANCE TOWER*

133.075 257.8 (NORTH)
124.0 (CTAF) 257.8 (SOUTH)

GND CON 120.9

UNICOM 122.95

Procedure NA for arrivals on SLI VORTAC airway radials 202 CW 272.

 Procedure NA for arrivals at ALBAS on V25 southeast bound.

**LNAV only.

*VGS and RNAV glidespath not coincident [VGS Angle 4.00/1CH 11].

** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). Circling NA southwest of Rwy 11R-29L. DME/DME RNP-0.3 NA.

For inop ALS, increase LPV all Cats visibility to 3 SM. For inop ALS when using Los Angeles Intl altimeter setting, increase LPV all Cats visibility to 2 SM, and LNAV/VNAV all Cats visibility to 1½ SM. Baro-VNAV and VDP NA when using Los Angeles Intl altimeter setting. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl setting: increase LPV DA to 391 feet and LNAV/VNAV DA to 763 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility and LNAV Cat C visibility ½ SM.

** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). Circling NA southwest of Rwy 11R-29L. DME/DME RNP-0.3 NA.

For inop ALS, increase LPV all Cats visibility to 3 SM. For inop ALS when using Los Angeles Intl altimeter setting, increase LPV all Cats visibility to 2 SM, and LNAV/VNAV all Cats visibility to 1½ SM. Baro-VNAV and VDP NA when using Los Angeles Intl altimeter setting. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl setting: increase LPV DA to 391 feet and LNAV/VNAV DA to 763 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility and LNAV Cat C visibility ½ SM.

** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). Circling NA southwest of Rwy 11R-29L. DME/DME RNP-0.3 NA.

For inop ALS, increase LPV all Cats visibility to 3 SM. For inop ALS when using Los Angeles Intl altimeter setting, increase LPV all Cats visibility to 2 SM, and LNAV/VNAV all Cats visibility to 1½ SM. Baro-VNAV and VDP NA when using Los Angeles Intl altimeter setting. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl setting: increase LPV DA to 391 feet and LNAV/VNAV DA to 763 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility and LNAV Cat C visibility ½ SM.
Circling NA southwest of Rwy 11R-29L. When local altimeter setting not received, except for operators with approved weather reporting service, use Los Angeles Intl altimeter setting and increase all MDA 40 feet and increase S-11L Cat A visibility and Circling Cat C visibility 1/2 SM. RWy 11L helicopter visibility reduction below 3/4 SM NA.

**TORRANCE TOWER**

<table>
<thead>
<tr>
<th>ATIS</th>
<th>125.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL APP CON</td>
<td>124.3 363.2 (Rwys 11L, 11R)</td>
</tr>
<tr>
<td></td>
<td>127.2 269.6 (Rwys 29L, 29R)</td>
</tr>
<tr>
<td>GND CON</td>
<td>120.9</td>
</tr>
<tr>
<td>UNICOM</td>
<td>122.95</td>
</tr>
</tbody>
</table>

**MISSED APPROACH:** Climbing left turn to 3000 on heading 075° and on LAX VORTAC R-123 to WILMA INT/LAX 13 DME and hold, continue climb-in-hold to 3000.

Procedure NA for arrivals at SMO VORTAC on T245-247-249 northwest bound.

**ATIS** 125.6

**SOCIAL APP CON**

| Chan 83 | 124.3 363.2 (Rwys 11L, 11R) |
|         | 127.2 269.6 (Rwys 29L, 29R) |

**3000**

- LAX VORTAC
- WILMA VORTAC

**VGSI and descent angles not coincident** (VGSI Angle 3.50/TCH 10).

**CATEGORY**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLING</td>
<td>980-1 884 (900-1)</td>
<td>980-1¼ 884 (900-1¼)</td>
<td>980-2½ 884 (900-2½)</td>
<td>NA</td>
</tr>
</tbody>
</table>

**ZAMPERINI FLD (TOA)**

**VOR RWY 11L**

**ATIS** 125.6

**SOCIAL APP CON**

| Chan 83 | 124.3 363.2 (Rwys 11L, 11R) |
|         | 127.2 269.6 (Rwys 29L, 29R) |

**GND CON** 120.9

**UNICOM** 122.95

**LAX VORTAC**

- 135°
- 1200
- 2900

**BHOOV INT LAX**

- 6
- 1554 ± Λ

TWR 181

SW-3, 07 OCT 2021 to 02 DEC 2021
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
TOP ALTITUDE: 6000

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: This procedure not authorized for turbojet aircraft.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 11L/R: Climb heading 114° to 2700 for vectors to PUIJN, cross PUIJN at or above 4000, then on track 290° to cross HAWWC at or above 5000, thence . . . . .

. . . . on (transition). Maintain 6000. Expect higher altitude 10 minutes after departure.

IKAYE TRANSITION (HAWWC3.IKAYE)

TAKEOFF MINIMUMS
Rwys 11L/R: Standard with minimum climb of 325 feet per NM to 1600.
Rwys 29L/R: NA-ATC.

NOTE: Chart not to scale.
NOT FOR CIVIL USE

DME/DME RNP-0.3 NA
Use Palm Springs Intl altimeter setting; when not received, procedure NA. Circling NA south of Rwy 8-26. DME/DME RNP-0.3 NA.

*Missed approach requires minimum climb of 425 feet per NM to 3900.

MISSED APPROACH: Climbing right turn to 6000 direct WISIR and hold.

Procedure NA for arrivals at TNP VORTAC airway radials 028 CW 043.

Final approach course offset 7.17°.

Circling NA south of Rwy 8-26. DME/DME RNP-0.3 NA.

Use Palm Springs Intl altimeter setting; when not received, procedure NA. Circling NA south of Rwy 8-26. DME/DME RNP-0.3 NA.

*Missed approach requires minimum climb of 425 feet per NM to 3900.

MISSED APPROACH: Climbing right turn to 6000 direct WISIR and hold.

Procedure NA for arrivals at TNP VORTAC airway radials 028 CW 043.

Final approach course offset 7.17°.
### TWENTYNEVE PALMS, CALIFORNIA

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-26</td>
<td>3580-1/4</td>
<td>3580-1/4</td>
<td>1745 (1700-1/2)</td>
<td>1745 (1700-1/2)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>3580-1/4</td>
<td>3580-1/4</td>
<td>1692 (1700-1/2)</td>
<td>1692 (1700-1/2)</td>
</tr>
</tbody>
</table>

**MISSED APPROACH:** Climbing right turn to 5900 direct TNP VOR TAC and hold, continue climb-in-hold to 5900.

When Palm Springs Intl altimeter setting not received, procedure NA. Circling NA south of Rwy 8-26. Use Palm Springs Intl altimeter setting.

**LOS ANGELES CENTER**

**AUNICOM**

128.15 285.6

122.8 (CTAF)

**TWENTYNEVE PALMS (TNP)**

**VOR RWY 26**

**WV**

**NA**

Use Palm Springs Intl altimeter setting.

**TWENTYNEVE PALMS**

**AL-6489 (FAA)**

482
Circling NA northwest of Rwy 6-24. Rwy 6 helicopter visibility reduction below 3/4 SM NA. Circling Rwy 24 NA at night. When local altimeter setting not received, use Ontario altimeter setting and increase all MDA 100 feet.

Procedure NA for arrivals at ELMOO on V186 westbound.

VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 34).

MISSED APPROACH: Climb to 1900 then climbing right turn to 5500 direct ADAMM and hold, continue climb-in-hold to 5500.

Note: All altitudes are in MSL.
Circling NA northwest of Rwy 6-24. Procedure NA at night. When local altimeter setting not received, use Ontario altimeter setting and increase all MDA 100 feet and all visibilities 1/2 SM. Rwy 24 helicopter visibility reduction below 1 SM NA.

**MISSING APPROACH:** Climbing right turn to 4000 via heading 105° and PDZ R-315 to PDZ VORTAC and hold.

**AWOS-3P**
- 119.525

**SOCAL APP CON**
- 125.5
- 349.0

**UNICOM**
- 123.0 (CTAF)

**PARADISE**
- 112.2 PDZ
- Chan 59

**UPLAND, CALIFORNIA**
- Orig-C 26MAR20

**VORTAC POM**
- 110.4
- Chan 41

**APP CRS**
- 053°

**Rwy Idg**
- N/A

**TDZE**
- N/A

**Apt Elev**
- 1444

**ELEV**
- 1444

**MIRL Rwy 6-24**

**CIRCLING**
- 2240-1
- 796 (800-1)
- 2240-2 1/4
- 796 (800-2 1/4)

**CABLE (CCB)**

**VOR-A**

**SW-3, 07 OCT 2021 to 02 DEC 2021**

**34°07'N-117°41'W**
MISSED APPROACH: Climb to cross VNY 1.5 DME south of VNY VOR/DME at or below 1750 then climbing left turn to 4600 on VNY VOR/DME R-152 to HIRVI/VNY VOR/DME 8 DME, direct SMO VOR/DME then on SMO VOR/DME R-267 then on VTU VOR/DME R-087 to VTU VOR/DME and hold.

A descent to at or below 1750 may be required when executing an early missed approach.
Circling Rwy 16L NA at night.

Procedure NA for arrivals on FIM VORTAC airway radials 087 CW 148.

One Minute Holding Pattern

Disregard glide slope indications
Circling Rwy 16L NA at night.

Missed Approach: Climbing right turn to 4000 on VNY VOR/DME R-101 to AMTRA INT/20.2 DME and hold.

Procedure NA for arrivals at FIM VORTAC on V518 westbound.

One Minute Holding Pattern

Category: Circling

Amdt 4D 20JUN19
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**TAKING MINIMUMS**
Rwy 16L: Standard with minimum climb of 380’ per NM to 2600.
Rwy 16R: Standard with minimum climb of 450’ per NM to 2600.
Rwys 34L/R: Standard with minimum climb of 480’ per NM to 4200.

---

**DEPARTURE RUNWAYS 16L/R:** Climb on heading 163° until VNY 2.2 DME, then climbing left turn heading 113°, FOR RADAR VECTORS to VNY R-095 to ADAMM, thence. . . .

**DEPARTURE RUNWAYS 34L/R:** Climbing left turn heading 253°, FOR RADAR VECTORS to VNY R-095 to ADAMM, thence. . . .

. . . .on (transition) or (assigned route). Maintain ATC assigned altitude, expect filed altitude/flight level 10 minutes after departure.

**LOST COMMUNICATIONS:** If not in contact with departure control within 3 NM, turn left heading 093° to intercept VNY R-095 to ADAMM INT maintain 5500’ or as assigned.
NOTE:  RADAR required.
NOTE:  For all Rwys: Do not intercept any
departure radial until advised by ATC.
NOTE:  DME required.
NOTE:  Cross VNY DME 1.5 DME south at or below 1750.

TAKEOFF MINIMUMS
Rwy 16L:  Standard with minimum climb of 380’ per NM to 8300.
Fillmore Transition standard with minimum climb of 380’
per NM to 5000.
Rwy 16R:  Standard with minimum climb of 450’ per NM to 8300.
Fillmore Transition standard with minimum climb of 450’
per NM to 5000.
Rwy 34L/R: Standard with minimum climb of 370’ per NM to 8300.
Fillmore Transition standard with minimum climb of 370’
per NM to 5000.

NOTE:  Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb on heading 163° until VNY 2.2 DME, then climbing
right turn heading 213°, FOR RADAR VECTORS to IPIHO, thence . . .

TAKEOFF RUNWAYS 34L/R: Climbing left turn heading 253°, FOR RADAR VECTORS to
IPIHO, thence . . .

. . . on (transition) or (assigned route). Maintain ATC assigned altitude, expect filed
altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control within 3 NM:
Rwys 16L/R intercept the LAX R-323 and GMN R-142. Then as assigned.
Rwys 34L/R intercept VNY R-255. Then as assigned.

AVENAL TRANSITION (CANOG3.AVE): From over IPIHO on LAX R-323 and GMN
R-142 to CASTA, then on GMN R-142 to GMN VORTAC, then on GMN R-310 to
COREZ, then on AVE R-086 to AVE VOR/DME.

FILLMORE TRANSITION (CANOG3.FIM): From over IPIHO on VNY R-255 to SUANA,
then on FIM VORTAC R-120 to FIM VORTAC.

GORMAN TRANSITION (CANOG3.GMN): From over IPIHO on LAX R-323 and GMN
R-142 to CASTA, then on GMN R-142 to GMN VORTAC.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet and high performance turboprop aircraft only.
NOTE: MISEN transition restricted to aircraft landing LAS terminal area.
NOTE: HAILO transition ATC only.
NOTE: Cross DER/VNY VOR/DME 1.5 DME south at or below 1750.

HARYS FOUR DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16R: Climb on heading 164° to 1303, then direct PPRRY, then on heading 110° or as assigned by ATC, then on vectors to cross BSHOW at or above 6000, then on track 337° to HARYS, thence . . . .

. . . . on (transition) maintain FL230. Expect filed altitude 10 minutes after departure.

BLYTHE TRANSITION (HARYS4.BLH)
HAILO TRANSITION (HARYS4.HA1LO)
HECTOR TRANSITION (HARYS4.HEC)
LAS VEGAS TRANSITION (HARYS4.LAS)
MISEN TRANSITION (HARYS4.MISEN)
**TOP ALTITUDE:**
**FL230**

**TAKEOFF MINIMUMS**
Rwy 34L: Standard with minimum climb of 500’ per NM to 3900.

**NOTE:** RNAV 1.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** RADAR required for non-GPS equipped aircraft.
**NOTE:** MISEN transition restricted to aircraft landing LAS terminal area.
**NOTE:** HAILO transition ATC assigned only.
**NOTE:** COREZ and CSTRO transitions maintain at or below 250K unless otherwise directed by ATC.
**NOTE:** BLH, HAILO, HEC, LAS transitions turbojet, and high performance turboprops only.
**NOTE:** MISEN, CSTRO, COREZ transitions turbojet only.

**NOTE:** Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 34L: Climb on heading 344° to 1303, then climb direct to cross CONDS at or above 2400, then on track 337° to cross TRAFF at or above 3500, then on track 338° to cross LYDEY at or above 5000, then on track 338° to cross HAYEZ at or above 6100 and at or below 250K, thence . . . .

. . . . on (transition) maintain FL230. Expect filed altitude ten minutes after departure.

BLYTHE TRANSITION (HAYEZ9.BLH)
COREZ TRANSITION (HAYEZ9.COREZ)
CSTRO TRANSITION (HAYEZ9.CSTRO)
FILLMORE TRANSITION (HAYEZ9.FIM)
HAIO TRANSITION (HAYEZ9.HAILO)
HECTOR TRANSITION (HAYEZ9.hec)
LAS VEGAS TRANSITION (HAYEZ9.LAS)
MISEN TRANSITION (HAYEZ9.MISEN)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb on heading 163° until VNY 2.2 DME, then climbing left turn heading 113°, FOR RADAR VECTORS to IPIHO, thence. . . .

TAKEOFF RUNWAYS 34L/R: Climbing left turn heading 253°, FOR RADAR VECTORS to IPIHO thence. . . .

. . . .on (transition) or (assigned route). Maintain ATC assigned altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control within 5 DME from VNY VOR/DME, Rwys 16L/R; turn left heading 313° to intercept the LAX R-342; and continue the published procedure.

DAGGETT TRANSITION (NUAL1.DAG): From over IPIHO on LAX R-323 to TWINE, then on VTU R-046 to LANGE, then on PMD R-218 to PMD VORTAC, then on PMD R-067 to ETHER, then on DAG R-238 to DAG VORTAC.

PALMDALE TRANSITION (NUAL1.PMD): From over IPIHO on LAX R-323 to TWINE, then on VTU R-046 to LANGE, then on PMD R-218 to PMD VORTAC.
VAN NUYS, CALIFORNIA

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16R: Climb on heading 164° to 1303, then climb direct PPRRY, then on heading 110° or as assigned by ATC, then on vectors to cross BSHOW at or above 5300, then on track 343° to cross CCHUM at or above 6800, then on track 003° to cross KIMMO at or above 7100, then on track 041° to SLAPP, then on track 055° to JARZO, then on track 065° to VVERA, thence . . .

. . . .on (transition) maintain 13000. Expect filed altitude 10 minutes after departure.

DAGGETT TRANSITION (RSCO3.DAG)

HECTOR TRANSITION (RSCO3.HEC)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: This departure not authorized for turbojet aircraft.
NOTE: Cross DER/VNY VOR/DME 1.5 DME south at or below 1750.
NOTE: Chart not to scale.

**TOP ALTITUDE: 13000**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 34L:** Climbing left turn heading 250° to 4000, expect vectors to cross CCHUM at or above 6800, then on track 003° to cross KIMO at or above 7000, then on depicted route to VVERA, thence . . . .

. . . . on (transition). Maintain 13000. Expect filed altitude 10 minutes after departure.

**DAGGETT TRANSITION (VVERA2.DAG)**

**HECTOR TRANSITION (VVERA2.HEC)**

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: This departure procedure authorized for turboprop aircraft only.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16R: Climb on heading 164° to 1303, then climb direct PPRRY, then on heading 210°, or as assigned by ATC, then on vectors to cross LUVVY at or above 6000 then on track 331° to cross WLKKR at or above 8000 thence. . . .

. . . . on (transition) maintain FL230. Expect filed altitude 10 minutes after departure.

COREZ TRANSITION (WLKKR4.COREZ)

CSTRO TRANSITION (WLKKR4.CSTRO)

OROSZ TRANSITION (WLKKR4.OROSZ)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Maintain or below 250K unless otherwise directed by ATC.
NOTE: Turbojet only.
NOTE: Cross DER/VNY VOR/DME 1.5 DME south at or below 1750.
NOTE: OROSZ TRANSITION for Bakersfield area arrivals only.

NOTE: Chart not to scale.

TOP ALTITUDE:
FL230

TAKEOFF MINIMUMS
Rwy 16L, 34L/R: NA, ATC.
Rwy 16R: Standard with a minimum climb of 450' per NM to 2600.
GAVIOTA THREE DEPARTURE (GVO3 · GVO)

**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RWY 12:** Climb on track 120° to 2000. Then climbing left turn to intercept the GVO VORTAC R-274 inbound to GVO. Cross GVO at or above 6000. Expect vectors to first filed fix/route prior to GVO.

Use extreme caution for extensive UAS ops in the vicinity.
Use extreme caution for extensive UAS ops in the vicinity

**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RWY 30:** Climb on track 305° to intercept MQO VORTAC R-154 at or above 1300 direct to MQO. Cross MQO at or above 4000. Expect vectors to first fix/route prior to MQO.
RNAV (GPS) RWY 17
SOUTHERN CALIFORNIA LOGISTICS (VCV)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Edwards AFB altimeter setting and increase all DA and MDA 160 feet. Increase all visibilities ¼ mile. VDP and Baro-VNAV NA when using Edwards AFB altimeter setting. Circling NA for Cats C and D southeast of Rwy 35 and 21.

MISSED APPROACH: Climb to 6000 direct SPERG and via 257° track to RLONG and via 294° track to ETHER and hold.

ATIS * 135.475
JOSHUA APP CON 124.55 363.0
VICTORVILLE TOWER * 118.35 (CTAF) 282.225
GND CON 124.45

Procedure NA for arrivals at BASAL via V12 northeast bound.
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SOUTHERN CALIFORNIA LOGISTICS (VCV)
VICTORVILLE, CALIFORNIA

AIRPORT DIAGRAM

ATIS: 135.475
VICTORVILLE TOWER: 118.35  282.225
GND CON: 124.45

FIELD ELEV: 2885
ELEV 2815
ELEV 2844
ELEV 2878

RWY 03-21
PCN 76 F/B/X/T
RWY 17-35
PCN 68 F/A/W/T

ANNUAL RATE OF CHANGE
0.1° W

AIRPORT DIAGRAM

VICTORVILLE, CALIFORNIA
SOUTHERN CALIFORNIA LOGISTICS (VCV)

PCN 68 F/B/X/T
RWY 03-21
PCN 76 F/B/X/T
RWY 17-35
PCN 68 F/A/W/T

ANNUAL RATE OF CHANGE
0.1° W

AIRPORT DIAGRAM

VICTORVILLE, CALIFORNIA
SOUTHERN CALIFORNIA LOGISTICS (VCV)
A rate of climb/descent table is provided for use in planning and executing climbs or descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, altitude combination can be programmed which will result in a stable glide rate and altitude favorable for executing a landing if minimums exists upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

<table>
<thead>
<tr>
<th>ft/NM</th>
<th>%</th>
<th>GROUND SPEED (knots)</th>
<th>ANGLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>152</td>
<td>2.50</td>
<td>150</td>
<td>230</td>
</tr>
<tr>
<td>200</td>
<td>3.29</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>210</td>
<td>3.46</td>
<td>210</td>
<td>320</td>
</tr>
<tr>
<td>220</td>
<td>3.62</td>
<td>220</td>
<td>330</td>
</tr>
<tr>
<td>230</td>
<td>3.79</td>
<td>230</td>
<td>350</td>
</tr>
<tr>
<td>240</td>
<td>3.95</td>
<td>240</td>
<td>360</td>
</tr>
<tr>
<td>250</td>
<td>4.11</td>
<td>250</td>
<td>380</td>
</tr>
<tr>
<td>260</td>
<td>4.28</td>
<td>260</td>
<td>390</td>
</tr>
<tr>
<td>270</td>
<td>4.44</td>
<td>270</td>
<td>410</td>
</tr>
<tr>
<td>280</td>
<td>4.61</td>
<td>280</td>
<td>420</td>
</tr>
<tr>
<td>290</td>
<td>4.77</td>
<td>290</td>
<td>440</td>
</tr>
<tr>
<td>300</td>
<td>4.94</td>
<td>300</td>
<td>450</td>
</tr>
<tr>
<td>310</td>
<td>5.10</td>
<td>310</td>
<td>470</td>
</tr>
<tr>
<td>320</td>
<td>5.27</td>
<td>320</td>
<td>480</td>
</tr>
<tr>
<td>330</td>
<td>5.43</td>
<td>330</td>
<td>500</td>
</tr>
<tr>
<td>340</td>
<td>5.60</td>
<td>340</td>
<td>510</td>
</tr>
<tr>
<td>350</td>
<td>5.76</td>
<td>350</td>
<td>530</td>
</tr>
<tr>
<td>360</td>
<td>5.92</td>
<td>360</td>
<td>540</td>
</tr>
<tr>
<td>370</td>
<td>6.09</td>
<td>370</td>
<td>560</td>
</tr>
<tr>
<td>380</td>
<td>6.25</td>
<td>380</td>
<td>570</td>
</tr>
<tr>
<td>390</td>
<td>6.42</td>
<td>390</td>
<td>590</td>
</tr>
<tr>
<td>400</td>
<td>6.58</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>450</td>
<td>7.41</td>
<td>450</td>
<td>680</td>
</tr>
<tr>
<td>500</td>
<td>8.23</td>
<td>500</td>
<td>750</td>
</tr>
<tr>
<td>550</td>
<td>9.05</td>
<td>550</td>
<td>830</td>
</tr>
</tbody>
</table>