U.S. Terminal Procedures Publication
South Central (SC) Vol 5 of 5

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05 SEP 2024

Consult the Change Notice (CN) effective 08 AUG 2024 for revised Instrument Procedure Charts for this volume.

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**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/

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

FOR PROCUREMENT:
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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
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.

(1) ILS, PAR, LPV, GLS 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, MALSR, SSALR</td>
<td>To RVR 4000†</td>
</tr>
<tr>
<td></td>
<td>To RVR 4500*</td>
</tr>
<tr>
<td>TDZL or RCLS</td>
<td>To RVR 2400#</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, MALSR, SSALR</td>
<td>½ mile</td>
</tr>
<tr>
<td>MALSF, MALS, SSALF, SSALS, SALSF, 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, MALSR, 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>⅛ mile</td>
</tr>
</tbody>
</table>
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>(200-½)</td>
<td></td>
</tr>
<tr>
<td>S-LOC 27</td>
<td>1440/24</td>
<td>288</td>
<td>(300-½)</td>
<td>1440/50</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>361 (400-1)</td>
<td>461 (500-1)</td>
<td>461 (500-½)</td>
<td>561 (600-2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DA</th>
<th>HAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-176°</td>
<td>680-½</td>
<td>363 (400-½)</td>
</tr>
</tbody>
</table>

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 minimums 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 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. Adverse 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>REPORTED TEMP °C</th>
<th>200</th>
<th>300</th>
<th>400</th>
<th>500</th>
<th>600</th>
<th>700</th>
<th>800</th>
<th>900</th>
<th>1000</th>
<th>1500</th>
<th>2000</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>0</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>60</td>
<td>90</td>
<td>120</td>
<td>170</td>
<td>230</td>
<td>280</td>
</tr>
<tr>
<td>-10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>290</td>
<td>390</td>
<td>490</td>
</tr>
<tr>
<td>-20</td>
<td>30</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>130</td>
<td>140</td>
<td>210</td>
<td>280</td>
<td>340</td>
<td>420</td>
<td>520</td>
</tr>
<tr>
<td>-30</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>150</td>
<td>170</td>
<td>190</td>
<td>280</td>
<td>380</td>
<td>570</td>
<td>710</td>
<td>910</td>
</tr>
<tr>
<td>-40</td>
<td>50</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>150</td>
<td>170</td>
<td>190</td>
<td>220</td>
<td>240</td>
<td>360</td>
<td>480</td>
<td>720</td>
<td>970</td>
<td>1210</td>
</tr>
<tr>
<td>-50</td>
<td>60</td>
<td>90</td>
<td>120</td>
<td>150</td>
<td>180</td>
<td>210</td>
<td>240</td>
<td>270</td>
<td>300</td>
<td>450</td>
<td>590</td>
<td>890</td>
<td>1190</td>
<td>1500</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 20142
### 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 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**

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 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>

### COMPAREABLE 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>⅛</td>
</tr>
<tr>
<td>1800</td>
<td>½</td>
</tr>
<tr>
<td>2000</td>
<td>⅜</td>
</tr>
<tr>
<td>2200</td>
<td>¾</td>
</tr>
</tbody>
</table>

#### RADAR MINIMA

<table>
<thead>
<tr>
<th>RWY</th>
<th>GP/TCH/RPI</th>
<th>CAT</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></td>
<td></td>
<td></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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASR</td>
<td>10</td>
<td>560/40</td>
<td>463</td>
<td>(500-%)</td>
<td>DE</td>
<td>600/50</td>
<td>463</td>
<td>(500-%)</td>
<td></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>
<td>(600-1)</td>
</tr>
<tr>
<td>CIR</td>
<td>10</td>
<td>AB</td>
<td>600-1½</td>
<td>463</td>
<td>(500-1½)</td>
<td>CDE</td>
<td>600-1½</td>
<td>463</td>
<td>(500-1½)</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>AB</td>
<td>600-1½</td>
<td>503</td>
<td>(600-1½)</td>
<td>CDE</td>
<td>600-1½</td>
<td>503</td>
<td>(600-1½)</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 500-1½.

**NOTE:** 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

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

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

**TERMS/LANDING MINIMA DATA**
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 97. SIAPS with the (FAA-O) designation have been developed by an authorized non-FAA service provider. 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-11919 (FAA-O). Military procedures do not show AL number, but do show the appropriate authority for the procedure, e.g., (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.

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) Departure Procedures and Diverse Vector Areas, the FAA 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.
GENERAL INFO 24137

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 online. 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

- PBN Requirements Box
- Equipment Requirements Box
- Standard Procedure Notes Box

RNAV STAR and DP PBN/Equipment Requirements Notes Box

- PBN Requirements Box
- Equipment Requirements Box

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Reference the Chart Supplement for detailed information on pilot controlled lighting (PCI) systems.

Available FAA standard approach lighting systems are charted as a negative symbol to indicate pilot controlled lighting, e.g., ☞, ☞

Available airport lighting systems that are charted as notes, e.g. REIL, MIRL, are shown with a negative "●" symbol beside the name to indicate pilot controlled lighting.

To activate lights, use frequency indicated in the communications section of the chart with a ☞

KEY MIKE

- 7 times within 5 seconds: Highest intensity available
- 5 times within 5 seconds: Medium or lower intensity (Lower REIL or REIL-off)
- 3 times within 5 seconds: Lowest intensity available (Lower REIL or REIL-off)
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<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>
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<td>APCH</td>
<td>Approach</td>
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<td>APP CON</td>
<td>Approach Control</td>
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<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>
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<td>AZ</td>
<td>Azimuth</td>
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<td>BC</td>
<td>Back Course</td>
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<td>BND</td>
<td>Bound</td>
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<td>C</td>
<td>Circling</td>
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<td>Category</td>
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<tr>
<td>CCW</td>
<td>Counter Clockwise</td>
</tr>
<tr>
<td>CDI</td>
<td>Course Deviation Indicator</td>
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<td>Chan</td>
<td>Channel</td>
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<tr>
<td>CIFP</td>
<td>oded Instrument Flight Procedures</td>
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<tr>
<td>CIR</td>
<td>Circling</td>
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<tr>
<td>CLNC DEL</td>
<td>Clearance Delivery</td>
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<tr>
<td>CNF</td>
<td>Computer Navigation Fix</td>
</tr>
<tr>
<td>CPDLC</td>
<td>Controller Pilot Data Link Communication</td>
</tr>
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<td>CTAF</td>
<td>Common Traffic Advisory Frequency</td>
</tr>
<tr>
<td>CW</td>
<td>Clockwise</td>
</tr>
<tr>
<td>D-ATIS</td>
<td>Digital-Automated Terminal Information Service</td>
</tr>
<tr>
<td>DA</td>
<td>Decision Altitude</td>
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<tr>
<td>DER</td>
<td>Departure End of Runway</td>
</tr>
<tr>
<td>DH</td>
<td>Decision Height</td>
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<tr>
<td>DME</td>
<td>Distance Measuring Equipment</td>
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<td>DTHR</td>
<td>Displaced Threshold</td>
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<tr>
<td>DVA</td>
<td>Diverse Vector Area</td>
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<td>ELEV</td>
<td>Elevation</td>
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<td>EMAS</td>
<td>Engineered Material Arresting System</td>
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<tr>
<td>FAF</td>
<td>Final Approach Fix</td>
</tr>
<tr>
<td>FD</td>
<td>Flight Director System</td>
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<td>FM</td>
<td>Fan Marker</td>
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<tr>
<td>FMS</td>
<td>Flight Management System</td>
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<tr>
<td>GBAS</td>
<td>Ground Based Augmentation System</td>
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<td>GCO</td>
<td>Ground Communications Outlet</td>
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<tr>
<td>GLS</td>
<td>Ground Based Augmentation System Landing System</td>
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<tr>
<td>GP</td>
<td>Glidepath</td>
</tr>
<tr>
<td>GPI</td>
<td>Ground Point of Intersection</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<tr>
<td>GS</td>
<td>Glide Slope</td>
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<td>HAA</td>
<td>Height above Airport</td>
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<tr>
<td>HAL</td>
<td>Height above Landing</td>
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<tr>
<td>HAT</td>
<td>Height above Touchdown</td>
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<tr>
<td>HATh</td>
<td>Height above Threshold</td>
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<td>HCH</td>
<td>Heliport Crossing Height</td>
</tr>
<tr>
<td>HGS</td>
<td>Heads-up Guidance System</td>
</tr>
<tr>
<td>HIRL</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>
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<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<tr>
<td>IF</td>
<td>Intermediate Fix</td>
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<td>IM</td>
<td>Inner Marker</td>
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<td>INOP</td>
<td>Inoperative</td>
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<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>
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<td>LAAS</td>
<td>Local Area Augmentation System</td>
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<tr>
<td>LDA</td>
<td>Localizer Type Directional Aid</td>
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<td>Ldg</td>
<td>Landing</td>
</tr>
<tr>
<td>LIRL</td>
<td>Low Intensity Runway Lights</td>
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<td>LNAD</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 Descent Altitude</td>
</tr>
<tr>
<td>MIRL</td>
<td>Medium Intensity Runway Lights</td>
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<td>MM</td>
<td>Middle Marker</td>
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<tr>
<td>MRA</td>
<td>Minimum Reception Altitude</td>
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<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NA</td>
<td>Not Authorized</td>
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<tr>
<td>NDB</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>
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<td>--------------</td>
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<tr>
<td>ODALS</td>
<td>Omnidirectional Approach Light System</td>
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<td>ODP</td>
<td>Obstacle Departure Procedure</td>
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<td>OM</td>
<td>Outer Marker</td>
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<tr>
<td>PAR</td>
<td>Precision Approach Radar</td>
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<td>PDC</td>
<td>Pre-Departure Clearance</td>
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<tr>
<td>PRM</td>
<td>Precision Runway Monitor</td>
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<tr>
<td>R</td>
<td>Radial</td>
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<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>
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<tr>
<td>REIL</td>
<td>Runway End Identifier Lights</td>
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<tr>
<td>RF</td>
<td>Radius-to-Fix</td>
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<tr>
<td>RLLS</td>
<td>Runway Lead-in Light System</td>
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<td>RNAV</td>
<td>Area Navigation</td>
</tr>
<tr>
<td>RNP</td>
<td>Required Performance Navigation</td>
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<tr>
<td>RPI</td>
<td>Runway Point of Intercept(ion)</td>
</tr>
<tr>
<td>RRL</td>
<td>Runway Remaining Lights</td>
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<td>Rwy</td>
<td>Runway</td>
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<td>RVR</td>
<td>Runway Visual Range</td>
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<td>S</td>
<td>Straight-in</td>
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<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>
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<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>
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<tr>
<td>SDF</td>
<td>Simplified Directional Facility</td>
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<tr>
<td>SM</td>
<td>Statute Mile</td>
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<tr>
<td>SOIA</td>
<td>Simultaneous Offset Instrument Approach</td>
</tr>
<tr>
<td>SR-SS</td>
<td>Sunrise-Sunset</td>
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<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>
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<tr>
<td>TDZ/CL</td>
<td>Touchdown Zone and Runway Centerline Lighting</td>
</tr>
<tr>
<td>TDZL</td>
<td>Touchdown Zone Lights</td>
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<tr>
<td>THR</td>
<td>Threshold</td>
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<td>TODA</td>
<td>Takeoff Distance Available</td>
</tr>
<tr>
<td>TORA</td>
<td>Takeoff Run Available</td>
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<tr>
<td>TR</td>
<td>Track</td>
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<tr>
<td>VASI</td>
<td>Visual Approach Slope Indicator</td>
</tr>
<tr>
<td>VCOA</td>
<td>Visual Climb over Airport</td>
</tr>
<tr>
<td>VDA</td>
<td>Vertical Descent Angle</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>
**LEGEND 23334**

**INSTRUMENT APPROACH PROCEDURES (CHARTS)**

**PLANVIEW SYMBOLS**

**ROUTES**
- Procedure Track
- Feeder Route
- Missed Approach
- Visual Flight Path

**Altitudes**
- 5500 Mandatory Altitude
- 3000 Recommended Altitude
- 2500 Minimum Altitude
- 5000 Mandatory Block
- 4300 Maximum Altitude
- 3000 Altitude

**INDICATED AIRSPEED**
- 175K Mandatory Airspeed
- 120K Minimum Airspeed
- 250K Maximum Airspeed
- 180K Recommended Airspeed

**RADIO AIDS TO NAVIGATION**
- Underline indicates No Voice transmitted on this frequency
- VOR
- VORTAC: TACAN
- VOR/DME
- DME
- NDB
- NDB/DME

**_FIXES/ATC REPORTING REQUIREMENTS**
- Reporting Point
- Waypoint
- MAP WP (Flyby)
- MAP WP (Flyover)
- Map WP
- Flyover Point
- Computer Navigation Fix (CNF): No ATC Function

**HOLDING PATTERNS**
- Hold-in-lieu of Procedure Turn
- Holding Pattern with maximum restricted airspeed:
  - (175K) applies to all altitudes.
  - (210K) applies to altitudes above 6000' and including 14000'.
- Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg.

**TIMING or DISTANCE LIMITS for Hold-in-lieu of Procedure Turn**
- HOLD 8000
- 4 NM

**Primary NAVAID**
- LIMA
- 114.5 LIM
- Chan 92

**Secondary NAVAID**
- LOM
- 362 AK

**TACAN or DME NAVAID**
- SCOTT
- Chan 59
- SKE
- VHF
- Paired Frequency

**Legend**
- “x” omitted when it is a MAP
- Computer Navigation Fix (CNF): No ATC Function
- Radial line and value
- Lead Radial
- Lead Bearing

**Arrival**
- 270°
- 270°
- 090°
- 090°

**Missed Approach**
- 270°
- 270°
- HOLD 8000
- 1 min

**Conclusion**
- Timing or distance limits for Hold-in-lieu of Procedure Turn Holding Patterns will be shown. DME fixes may be shown.
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PROFILE VIEW

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° TCH 55.

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° TCH 50.

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: 3.00° TCH 55.

On Copter procedures this is depicted in the following format: 7.30° TCH 20.

4. On RNAV and GLS procedures with only a minimum descent altitude (MDA), the information is placed above or below the procedure track following the fix it is based on. Absence of shaded area indicates 34:1 is not clear or Visual Segment-Obstacles.

- Visual Descent Point (VDP)
- Visual Descent Point (VP)
- Visual Descent Point (VP)

5. Altitude restrictions at stepdown fixes on final approach not applicable to Precision (ILS) Approaches.

6. "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° TCH 50.

7. "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° TCH 55.

8. "VDA" on non-vertically guided conventional approaches. 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: 3.00° TCH 55.

On Copter procedures this is depicted in the following format: 7.30° TCH 20.

9. Altitude restrictions at stepdown fixes on final approach not applicable to Precision (ILS) Approaches.

10. "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° TCH 55.

11. "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° TCH 50.

12. 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: 3.00° TCH 55.

On Copter procedures this is depicted in the following format: 7.30° TCH 20.
**LEGEND**

**STANDARD TERMINAL ARRIVAL (STAR) CHARTS**

### RADIO AIDS TO NAVIGATION
- **Compulsory:**
  - VOR
  - VORTAC
  - DME
  - NDB/DME
- **Non-Compulsory:**
  - VOR
  - VORTAC
  - DME
  - NDB/DME

#### UNDERLINE INDICATES
- Distance information
- In "Y" mode to receive
- Underline indicates no voice transmitted on this frequency

#### (T) INDICATES FREQUENCY PROTECTION RANGE

#### LOCALIZER FRONT COURSE

#### LOCALIZER BACK COURSE

#### SCOTT
- Channel 59
- Ske (112.2)

#### VHF PAIRED FREQUENCY

#### ORLANDO
- Channel 59 (Y)

### SPECIAL USE AIRSPACE
- R-Prohibited
- W-Warning
- A-Alert
- M-Prohibited
- A-Alert
- R-Restricted
- W-Warning

### FIXES/ATC REPORTING REQUIREMENTS
- ▲ Unnamed DME fix
- ▲ Reporting Point (Compulsory)
- ▲ Reporting Point (Non-Compulsory)
- ▲ Obvious DME
  - (DME mileage matches route mileage)
- ★ Waypoint (Compulsory)
- ★ Waypoint (Non-Compulsory)
- △ Flyover Point

#### AIRPORTS
- ★ Civil
- ★ Military
- ★ Joint

### ROUTES
- MAA FL200 Maximum Authorized Altitude
- 4500 MEA-Minimum Enroute Altitude
- 3500 MOCA-Minimum Obstruction Clearance Altitude
- 270° Arrival Route
- Mileage between Radio Aids, Reporting Points, and Route Breaks

### ALTIMETERS
- 5500 Mandatory Altitude (Cross at)
- 2300 Minimum Altitude (Cross at or above)
- 4800 Maximum Altitude (Cross at or below)
- 15000 Block Altitude
- 12000 Altitude change at other than Radio Aids to Navigation

### INDICATED AIRSPEED
- 175K Mandatory Airspeed
- 120K Minimum Airspeed
- 250K Maximum Airspeed

### MISCELLANEOUS
- Changeover Point
- Air Defense Identification Zone
- Indicates True North is not aligned to the top of the page

### AIRPORTS
- ★ Civil
- ★ Military
- ★ Joint

### AIRPORTS
- ★ Civil
- ★ Military
- ★ Joint

### ALTITUDES
- 5500
- 2300
- 4800
- 15000
- 12000
- Block Altitude
- Altitude change at other than Radio Aids to Navigation

###folios
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

- Hard Surface
- Other Than Hard Surface
- Stopways, Taxiways, Parking Areas
- Metal Surface
- Water Runway

Closed Runway

Surface Hard

Non-Movement Under Construction

ARRESTING SYSTEM

(EMAS)

REFERENCE FEATURES

Displaced Threshold

Hot Spot

Runway Holding Position Markings

Buildings

Self-Serve Fuel ##

Airports

Land Markers

Fire Protection

Obstructions

Bridges

Control Tower #

Wind Cone

Runway Radar Reflectors

Tetrahedron

Landing Tee

Runway Holding Position Markings

TWR

Unlit    Lit

# When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

## See appropriate Chart Supplement for information.

Runway Weight Bearing Capacity or Pavement Classification Number (PCN)/Pavement Classification Rating (PCR) is shown as a codified expression. Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCR 660 R/B/W/T; S-75, D-185, 2D-325, 2D/2D2-1120

NOTE:

- H. 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 1/2 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.

NOTE:

- All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in DoD FLIP. (Foreign Only)

The airport sketch box includes the final approach course or final approach course extended.

H1
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).

**CATEGORY I APPROACH LIGHTING SYSTEM**

**ALSF-1**

- Red
- White
- Green
- Sequenced flashing lights

(High Intensity)
Length 2400/3000 Feet

**CATEGORY II APPROACH LIGHTING SYSTEM**

**ALSF-2**

- Red
- White
- Green
- Sequenced flashing lights

(High Intensity)
Length 2400/3000 Feet

**SHORT APPROACH LIGHTING SYSTEM**

**SALS/SALSF**

- RED
- GREEN
- White
- Sequenced flashing lights

(High Intensity)
Length 1500 Feet

**SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM**

**SSALR**

- Green
- White
- Sequenced flashing lights

(High Intensity)
Length 2400 Feet

**MEDIUM INTENSITY APPROACH LIGHTING SYSTEM**

with Runway Alignment Indicator Lights

**MALS**

- Green
- White
- Sequenced flashing lights

Length 1500 Feet

**OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM**

**ODALS**

- White
- Sequenced flashing lights

Length 1500 Feet

**MEDIUM INTENSITY (MALS and MALSF) OR SIMPLIFIED SHORT (SSAL and SSALF) APPROACH LIGHTING SYSTEMS**

**TDZ/CL**

- Green
- White
- Sequenced flashing lights

Length 1400 Feet

**RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS**

**TDZ/CL**

- CL
-TDZL

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).

**Precision Approach Path Indicator**

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

Legend: ☺ White ☻ Red

**Visual Approach Slope Indicator**

- **VASI**
  - Visual Approach Slope Indicator with Standard Threshold Clearance provided.
  - All lights white — too high
  - Far lights red
  - Near lights white — on glide slope
  - All lights red — too low

**Tri-Color Visual Approach Slope Indicator**

- **TRCV**
  - Above glide path
  - On glide path
  - Below glide path
  - Slightly below glide path

Legend: ☺ Amber ☻ Red

**Visual Approach Slope Indicator**

- **VASI**
  - 3-bar, 6 or 16 box, visual approach slope indicator that provides 2 glide angles and 2 threshold crossing heights.

**Alignment of Elements Systems**

- **APAP**
  - Above glide path
  - On Glide Path
  - Below Glide Path

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

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

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

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

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

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

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

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

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

ANAHUAC, TX

CHAMBERS COUNTY (T00)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10MAR11 (11069) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, 35, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 12, vehicles on roadway beginning 19’ from DER, left and right of centerline, up to 15’ AGL/34’ MSL.

Trees beginning 986’ from DER, 732’ left of centerline, up to 100’ AGL/119’ MSL.

Rwy 30, trees beginning 60’ from DER, left and right of centerline, up to 100’ AGL/124’ MSL.

Trees beginning 60’ from DER, left and right of centerline, up to 100’ AGL/124’ MSL.

Vehicles on roadway 121’ from DER, 512’ right of centerline, up to 17’ AGL/36’ MSL.

Tower 2152’ from DER, 593’ right of centerline 60’ AGL/83’ MSL.

ANGleton/Lake JackSon, TX

Texas gulf coast rgnl (LBX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 22JUN17 (17173) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 35, tree 1330’ from DER, 797’ left of centerline, 71’ MSL.

Tree 1404’ from DER, 796’ left of centerline, 73’ MSL.

Trees beginning 1467’ from DER, 788’ left of centerline, up to 75’ MSL.

Tree 1474’ from DER, 670’ right of centerline, 72’ MSL.

Tree 1516’ from DER, 684’ right of centerline, 73’ MSL.

Tree 1578’ from DER, 759’ right of centerline, 74’ MSL.
BAY CITY, TX
BAY CITY RGNL (BYY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 22JUN17 (17173) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 13, trees and poles beginning 51' from DER, 306' left of centerline, up to 91' MSL.
Tree 337' from DER, 442' right of centerline, 79' MSL. Tree 478' from DER, 473' right of centerline, 83' MSL.
Trees beginning 714' from DER, 496' right of centerline, up to 86' MSL.
Rwy 31, tree 102' from DER, 340' right of centerline, 61' MSL.
Tree 548' from DER, 272' left of centerline, 59' MSL.
Tree 944' from DER, 272' right of centerline, 70' MSL.
Trees beginning 1002' from DER, 255' right of centerline, up to 78' MSL.
Tree 1139' from DER, 750' right of centerline, 80' MSL.

BAYTOWN, TX
BAYTOWN (HPY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 10OCT19 (19283) (FAA)
TAKEOFF MINIMUMS:
Rwy 14, 300-1 or std. w/min. climb of 460' per NM to 300.
TAKEOFF OBSTACLE NOTES:
Rwy 14, tree 9' from DER, 214' left of centerline, 47' MSL.
Trees, poles, traverse way beginning 11' from DER, 33' right of centerline, up to 54' MSL.
Tree 89' from DER, 413' left of centerline, 51' MSL.
Poles, building, trees, traverse way beginning 122' from DER, 9' left of centerline, up to 58' MSL.
Tree 316' from DER, 158' left of centerline, up to 66' MSL.
Poles, trees beginning 462' from DER, 237' left of centerline, up to 67' MSL.
Tree 977' from DER, 447' left of centerline, 68' MSL.
Tree 1223' from DER, 90' left of centerline, 70' MSL.
Tree 1356' from DER, 427' left of centerline, 72' MSL.
Tree 1467' from DER, 531' right of centerline, 80' MSL.
Tree 1886' from DER, 558' left of centerline, 91' MSL.
Tower 4066' from DER, 1217' right of centerline, 156' AGL/180' MSL.
Rwy 32, trees, building, fence, poles beginning 131' from DER, 6' right of centerline, up to 76' MSL.
Buildings beginning 251' from DER, 38' left of centerline, up to 42' MSL.
Poles, building, trees, traverse way beginning 289' from DER, 4' left of centerline, up to 38' AGL/71' MSL.
Poles, trees beginning 688' from DER, 70' right of centerline, up to 48' AGL/80' MSL.

RWJ AIRPARK (54T)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1A 25APR19 (19115) (FAA)
TAKEOFF MINIMUMS:
Rwys 14, 32, NA - Environmental.
TAKEOFF OBSTACLE NOTES:
Rwy 8, trees beginning 21' from DER, 152' left of centerline, up to 100' AGL/129' MSL.
Vehicle on road beginning 100' from DER, crossing centerline, up to 15' AGL/44' MSL.
Fence beginning abeam DER, 115' right of centerline, up to 6' AGL/35' MSL.
Trees beginning 133' from DER, 333' right of centerline, up to 100' AGL/129' MSL.
Buildings beginning 266' from DER, left and right of centerline, up to 30' AGL/59' MSL.
Power lines beginning 356' from DER, 460' left of centerline, up to 32' AGL/61' MSL.
Pole 663' from DER, 188' right of centerline, 100' AGL/129' MSL.
Rwy 26, buildings beginning 47' from DER, 118' right of centerline, up to 30' AGL/64' MSL.
Buildings beginning 187' from DER, 85' left of centerline, up to 30' AGL/64' MSL.
Power lines beginning 407' from DER, crossing centerline, up to 32' AGL/66' MSL.
Vehicle on road beginning 448' from DER, crossing centerline, up to 15' AGL/49' MSL.
Trees beginning 618' from DER, left and right of centerline, up to 100' AGL/134' MSL.
Quarry equipment 2800' from DER, 193' right of centerline, up to 100' AGL/134' MSL.

BEAUMONT, TX
BEAUMONT MUNI (BMT)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 15JAN09 (09015) (FAA)
TAKEOFF MINIMUMS:
Rwys 16,34, NA - Obstacles.
TAKEOFF OBSTACLE NOTES:
Rwy 13, multiple trees, poles and buildings beginning 82' from DER, 2' left of centerline, up to 74' AGL/106' MSL.
Vehicle on road beginning 100' from DER, crossing centerline, up to 15' AGL/44' MSL.
Tree 441' from DER, 22' right of centerline, up to 73' AGL/105' MSL.
Train on railroad 545' from DER, 506' right of centerline, 23' AGL/57' MSL.
Rwy 31, multiple trees, poles and transmission line towers beginning 81' from DER, 2' left of centerline, up to 64' AGL/94' MSL.
Multiple trees, poles, and transmission line towers beginning 241' from DER, 4' right of centerline, up to 56' AGL/88' MSL.
Train on railroad 375' from DER, 354' right of centerline, 23' AGL/55' MSL.
BEAUMONT/PORT ARTHUR, TX
JACK BROOKS RGNL (BPT)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 17DEC09 (09351) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 12, multiple trees beginning 1024' from DER, 202' left of centerline, up to 43' AGL/48' MSL. Trees 1676' from DER, 778' right of centerline, 51' AGL/56' MSL.
Rwy 16, multiple trees beginning 580' from DER, 519' right of centerline, up to 51' AGL/56' MSL.
Rwy 30, trees 1005' from DER, 629' right of centerline, 54' AGL/64' MSL. Multiple trees beginning 1041' from DER, 617' left of centerline, up to 67' AGL/77' MSL. Multiple trees beginning 1274' from DER, 398' right of centerline, up to 70' AGL/80' MSL. Multiple trees beginning 1288' from DER, 218' left of centerline, up to 72' AGL/82' MSL. Tower 1487' from DER, 398' right of centerline, 60' AGL/75' MSL.

BRENHAM, TX
BRENHAM MUNI (11R)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 11FEB10 (10042) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 16, trees and poles beginning 45' from DER, 272' right of centerline to 305' left of centerline, up to 89' AGL/299' MSL.

BRYAN, TX
COULTER FLD (CFD)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 05JUL07 (22139) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 15, vehicle on road 266' from DER, on centerline, 17' AGL/386' MSL. Multiple trees and poles beginning 169' from DER, 339' right of centerline, up to 20' AGL/389' MSL. Multiple trees and poles beginning 203' from DER, 245' left of centerline, up to 35' AGL/400' MSL. Rwy 33, multiple poles and T-L towers beginning 36' from DER, 207' left of centerline, up to 35' AGL/382' MSL. Trees 508' from DER, 290' right of centerline, 25' AGL/371' MSL.

CALDWELL, TX
CALDWELL MUNI (RWV)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 20SEP12 (12264) (FAA)
TAKEOFF MINIMUMS:
Rwy 33, 300-1 or std. w/min. climb of 778' per NM to 800.
TAKEOFF OBSTACLE NOTES:
Rwy 15, trees beginning 323' from DER, left and right of centerline, up to 40' AGL/399' MSL. Train on tracks 372' from DER, left and right of centerline, up to 23' AGL/382' MSL. Power lines beginning 1896' from DER, left and right of centerline, up to 100' AGL/499' MSL. Rwy 33, trees beginning 5' from DER, left and right of centerline, up to 40' AGL/449' MSL. Power lines beginning 925' from DER, left and right of centerline, up to 50' AGL/499' MSL. Water tank 3624' from DER, 1031' left of centerline 215' AGL/648' MSL.

CENTER, TX
CENTER MUNI (F17)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 29JUL10 (10210) (FAA)
DEPARTURE PROCEDURE:
Rwy 17, climb heading 167° to 1000 before turning right.
TAKEOFF OBSTACLE NOTES:
Rwy 17, numerous trees beginning 326' from DER, 432' right and left of centerline, up to 100' AGL/414' MSL. Vehicle on road 234' from DER, 530' left of centerline, up to 15' AGL/314' MSL. Rwy 35, numerous trees beginning 1724' from DER, 388' left and right of centerline, up to 100' AGL/459' MSL. Vehicle on road 1091' from DER, 742' right of centerline, up to 15' AGL/354' MSL.
CLEVELAND, TX
CLEVELAND MUNI (6R3)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 22SEP11 (11265) (FAA)
DEPARTURE PROCEDURE:
Rwy 16, climb heading 157° to 1400 before turning right.
Rwy 34, climb heading 312° to 2000 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 16, trees beginning abeam DER, right and left of centerline, up to 100' AGL/239' MSL.
Rwy 34, trees beginning 120' from DER, 243' left of centerline, up to 100' AGL/259' MSL.
Trees and poles beginning 225' from DER, 363' right of centerline, up to 19' AGL/169' MSL.

COLLEGE STATION, TX
EASTERNWOOD FLD (CLL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4A 28FEB19 (21112) (FAA)
DEPARTURE PROCEDURE:
Rwy 35, climb heading 346° to 900 before turning right.
TAKEOFF OBSTACLE NOTES:
Rwy 11, traverse way 5' from DER, 275' right of centerline, 322' MSL.
Tree 8' from DER, 497' right of centerline, 40' AGL/346' MSL.
Tree 10' from DER, 323' right of centerline, 39' AGL/347' MSL.
Pole 10' from DER, 55' left of centerline, 2' AGL/312' MSL.
Tree, traverse way beginning 44' from DER, 162' right of centerline, up to 44' AGL/352' MSL.
Electrical system 139’ from DER, 498’ left of centerline, 315’ MSL.
Tree 496’ from DER, 30’ left of centerline, 42’ AGL/325’ MSL.
Trees beginning 497’ from DER, 101’ left of centerline, up to 331’ MSL.
Elevator, building beginning 1888’ from DER, 704’ left of centerline, up to 64’ AGL/366’ MSL.
Transmission line 2483’ from DER, 1148’ left of centerline, 374’ MSL.

CROCKETT, TX
HOUSTON COUNTY (DKR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 15DEC11 (11349) (FAA)
TAKEOFF MINIMUMS:
Rwy 2, 400-2 or std. w/min. climb of 280’ per NM to 800.
Rwy 20, 300-1½ or std. climb of 459’ per NM to 700.
TAKEOFF OBSTACLE NOTES:
Rwy 2, multiple trees beginning 57’ from DER, 61’ right of centerline, up to 50’ AGL/399’ MSL.
Multiple trees and terrain beginning 27’ from DER, 109’ left of centerline, up to 50’ AGL/409’ MSL.
Tower 1.5 NM from DER, 2864’ left of centerline 233’ AGL/623’ MSL.
Rwy 20, multiple towers beginning 4567’ from DER, 1025’ right of centerline, up to 200’ AGL/529’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

EAGLE LAKE, TX
EAGLE LAKE (ELA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 05DEC19 (19339) (FAA)
TAKEOFF MINIMUMS:
Rwy 17, 300-2½, or std. w/min. climb of 210' per NM to 400.
TAKEOFF OBSTACLE NOTES:
Rwy 17, vehicles on road, tree, vegetation beginning 38' from DER, 126' left of centerline, up to 197' MSL.
Tree 153' from DER, 110' left of centerline, 202' MSL.
Trees on road, tree beginning 155' from DER, 6' right of centerline, up to 197' MSL.
Trees beginning 155' from DER, 12' left of centerline, up to 36' AGL/216' MSL.
Trees, vehicles on road beginning 216' from DER, 205' right of centerline, up to 212' MSL.
Trees beginning 270' from DER, 357' left of centerline, up to 40' AGL/220' MSL.
Tree 1682' from DER, 458' left of centerline, 233' MSL.
Tower 2588' from DER, 792' left of centerline, 192' AGL/317' MSL.
Tower 1.7 NM from DER, 3144' right of centerline, 270' AGL/443' MSL.

EDNA, TX
JACKSON COUNTY (26R)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 10DEC15 (15344) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 15, trees beginning 758' from DER, left and right of centerline, up to 20' AGL/84' MSL.
Rwy 33, vehicle on road beginning 292' from DER, 576' left of centerline, up to 15' AGL/79' MSL.
Power poles beginning 783' from DER, 397' left of centerline, 40' AGL/104' MSL.
Power pole 1169' from DER, 506' right of centerline, 40' AGL/104' MSL.

GALVESTON, TX
SCHOLES INTL AT GALVESTON (GLS)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5 22AUG13 (13234) (FAA)
DEPARTURE PROCEDURE:
Rwy 32, climb heading 318° to 800 before turning left.
TAKEOFF OBSTACLE NOTES:
Rwy 14, building 2614' from DER, 376' right of centerline, 76' AGL/81' MSL.
Rwy 18, buildings beginning 2560' from DER, 284' left of centerline, up to 121' AGL/178' MSL.
T-L tower 636' from DER, 551' right of centerline, 55' AGL/60' MSL.
Tower 636' from DER, 1081' left of centerline, up to 121' AGL/178' MSL.
Tree 526' from DER, 371' left of centerline, 14' AGL/19' MSL.
Trees beginning 713' from DER, 383' right of centerline, up to 27' AGL/32' MSL.

GIDDINGS, TX
GIDDINGS-LEE COUNTY (GYB)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 29JUL10 (10210) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 17, numerous trees beginning 720' from DER, 58' right of centerline, up to 50' AGL/479' MSL.
Numerous trees beginning 754' from DER, 340' left of centerline, up to 50' AGL/479' MSL.
Rwy 35, numerous trees beginning 613' from DER, 272' right of centerline, up to 50' AGL/539' MSL.
Numerous trees beginning 558' from DER, 265' left of centerline, up to 50' AGL/559' MSL.
Vehicle on road 516' from DER, 246' left of centerline, 15' AGL/514' MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

HOUSTON, TX
CONROE/NORTH HOUSTON RGNL (CXC)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4 22JUN17 (21336) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 1, tree 829' from DER, 548' right of centerline, 312' MSL.
Trees beginning 1609' from DER, 300' left of centerline, up to 327' MSL.
Tree 3830' from DER, 580' right of centerline, 347' MSL.

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4  22JUN17  (21336)  (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 1, tree 829' from DER, 548' right of centerline, 312' MSL.
Trees beginning 1609' from DER, 300' left of centerline, up to 327' MSL.
Tree 3830' from DER, 580' right of centerline, 347' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 14, NAVAID 399' from DER, 266' right of centerline, 20' AGL/255' MSL.
Tree 1478' from DER, 691' right of centerline, 291' MSL.
Tree 1653' from DER, 682' left of centerline, 294' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 19, tree 1' from DER, 474' left of centerline, 302' MSL.
Trees beginning 16' from DER, 264' left of centerline, up to 295' MSL.
Tree 67' from DER, 322' right of centerline, 263' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 17R, trees, pole beginning 84' from DER, 294' right of centerline, up to 189' MSL.
Building 432' from DER, 526' left of centerline, 27' AGL/172' MSL.
Building, NAVAID beginning 643' from DER, 256' left of centerline, up to 29' AGL/173' MSL.
Trees beginning 706' from DER, 430' left of centerline, up to 188' MSL.
Tree 1383' from DER, 860' right of centerline, 190' MSL.
Tree 1514' from DER, 164' left of centerline, 189' MSL.
Trees beginning 1648' from DER, 394' left of centerline, up to 197' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 4, tree 1526' from DER, 737' right of centerline, 39' AGL/69' MSL.
Tree, pole beginning 888' from DER, 144' right of centerline, up to 229' MSL.
Tree 898' from DER, 283' left of centerline, 223' MSL.
Tree, pole beginning 930' from DER, 31' left of centerline, up to 226' MSL.
Trees beginning 1190' from DER, 613' right of centerline, up to 233' MSL.
Tree 1266' from DER, 330' left of centerline, 228' MSL.

TAKEOFF OBSTACLE NOTES:
Rwy 22, 200-1¼ or std w/min. climb of 214' per NM to 300, or alternatively with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

TAKEOFF MINIMUMS:
Rwy 17R, pole 1488' from DER, 817' right of centerline, 40' AGL/74' MSL.

TAKEOFF MINIMUMS:
Rwy 22, obstruction light on GS and equipment 321' from DER, 544' left of centerline, 39' AGL/68' MSL.
Sign 213' from DER, 472' right of centerline, 6' AGL/32' MSL.
Antenna on building 1998' from DER, 598' right of centerline, 54' AGL/83' MSL.
Obstruction light on communication equipment and antenna 1626' from DER, 837' right of centerline, 88' AGL/114' MSL.
Obstruction light on water tower and tank 6114' from DER, 1835' right of centerline, 159' AGL/192' MSL.

CON’T
HOUSTON, TX (CON’T)
ELLINGTON (EFD) (CON’T)

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

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

Rwy 35L, trees beginning 1119’ from DER, 679’ right of centerline, up to 37’ AGL/77’ MSL.
Crane 2353’ from DER, 1024’ left of centerline, 58’ AGL/97’ MSL.
Rwy 35R, tree 1597’ from DER, 32’ left of centerline, 50’ AGL/80’ MSL.
Tank 2639’ from DER, 1157’ right of centerline, 77’ AGL/109’ MSL.

TAKEOFF OBSTACLE NOTES:

HOUSTON, TX (CON’T)
ELLINGTON (EFD) (CON’T)

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

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

Rwy 35L, trees beginning 1119’ from DER, 679’ right of centerline, up to 37’ AGL/77’ MSL.
Crane 2353’ from DER, 1024’ left of centerline, 58’ AGL/97’ MSL.
Rwy 35R, tree 1597’ from DER, 32’ left of centerline, 50’ AGL/80’ MSL.
Tank 2639’ from DER, 1157’ right of centerline, 77’ AGL/109’ MSL.

Rwy 35R, tree 2686’ from DER, 1027’ right of centerline, 73’ AGL/172’ MSL.

TAKEOFF OBSTACLE NOTES:

GEORGE BUSH INT’NTL/HOU (IAH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 05JUN08 (21112) (FAA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 05JUN08 (21112) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 8L, tree 2866’ from DER, 921’ left of centerline, 107’ AGL/201’ MSL.
Multiple trees beginning 2750’ from DER, 106’ right of centerline, up to 80’ AGL/174’ MSL.
Rwy 15L, multiple trees beginning 2638’ from DER, 758’ right of centerline, up to 76’ AGL/160’ MSL.
Rwy 15R, tower 1431’ from DER, 591’ left of centerline, 48’ AGL/133’ MSL.

Rwy 28R, pole 950’ from DER, 660’ right of centerline, 40’ AGL/129’ MSL.
Rwy 33R, tree 2868’ from DER, 1027’ right of centerline, 73’ AGL/172’ MSL.

TAKEOFF OBSTACLE NOTES:

HOUSTON EXEC (TME)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 30AUG07 (21112) (FAA)

DEPARTURE PROCEDURE:

Rwy 36, climb heading 355° to 700 before turning east.

TAKEOFF OBSTACLE NOTES:

Rwy 36, power poles from left to right beginning 703’ from DER, 623’ left to 685’ right of centerline, up to 32’ AGL/196’ MSL.

HOUSTON/SOUTHWEST (AXH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 05JUN08 (21336) (FAA)

DEPARTURE PROCEDURE:

Rwy 9, climb heading 089° to 2000 before turning left.
Rwy 27, climb heading 269° to 2200 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 9, multiple hangars beginning 239’ from DER, 360’ right of centerline, up to 42’ AGL/106’ MSL.
Multiple trees beginning 501’ from DER, 355’ right of centerline, up to 43’ AGL/111’ MSL.
Multiple hangars beginning 119’ from DER, 498’ left of centerline, up to 41’ AGL/105’ MSL.

Pole 332’ from DER, 299’ left of centerline, 43’ AGL/97’ MSL.
Antenna 1172’ from DER, 658’ left of centerline, 51’ AGL/115’ MSL.
Multiple trees beginning 558’ from DER, 68’ left of centerline, up to 58’ AGL/122’ MSL.
Rwy 27, multiple trees beginning 1050’ from DER, 40’ left of centerline, up to 71’ AGL/140’ MSL.
Vehicle and road 99’ from DER, 291’ right of centerline, 15’ AGL/83’ MSL.
Multiple trees beginning 873’ from DER, 514’ right of centerline, up to 59’ AGL/130’ MSL.
Multiple transmission poles beginning 1304’ from DER, 131’ right of centerline, up to 41’ AGL/110’ MSL.

TAKEOFF OBSTACLE NOTES:

PEARLAND RGNL (LVJ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 03APR14 (14093) (FAA)

DEPARTURE PROCEDURE:

Rwy 14, climb heading 142° to 1600 before turning right.
Rwy 32, climb heading 322° to 700 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 14, vehicles on road beginning 11’ from DER, 450’ right of centerline, up to 15’ AGL/54’ MSL.
Hangers 99’ from DER, 521’ left of centerline, up to 13’ AGL/53’ MSL.
Trees beginning 102’ from DER, 328’ left of centerline, up to 27’ AGL/71’ MSL.

Rwy 14, vehicles on road beginning 11’ from DER, 450’ right of centerline, up to 15’ AGL/54’ MSL.
Hangers 99’ from DER, 521’ left of centerline, up to 13’ AGL/53’ MSL.
Trees beginning 102’ from DER, 328’ left of centerline, up to 27’ AGL/71’ MSL.

Rwy 14, vehicles on road beginning 11’ from DER, 450’ right of centerline, up to 15’ AGL/54’ MSL.
Hangers 99’ from DER, 521’ left of centerline, up to 13’ AGL/53’ MSL.
Trees beginning 102’ from DER, 328’ left of centerline, up to 27’ AGL/71’ MSL.

Rocks 68’ from DER, 103’ right of centerline, 26’ AGL/70’ MSL.

Multiple buildings and poles beginning 103’ from DER, 235’ right of centerline, up to 34’ AGL/78’ MSL.

Vehicles on road 513’ from DER, left and right of centerline, 15’ AGL/59’ MSL.

Multiple poles and trees beginning 605’ from DER, left and right of centerline up to 84’ AGL/128’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

HOUSTON, TX (CON’T)
SUGAR LAND RGNL (SGR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 7A 20SEP12 (12264) (FAA)
DEPARTURE PROCEDURE:
Rwy 17, climb heading 170° to 1500 before turning eastbound.
Rwy 35, climb heading 350° to 1100 before turning southbound.
TAKEOFF OBSTACLE NOTES:
Rwy 17, multiple poles beginning 436’ from DER, 172’ right of centerline, up to 44’ AGL/124’ MSL.
Railroad 110’ from DER, 10’ left of centerline, 23’ AGL/104’ MSL.
Multiple poles beginning 135’ from DER, 270’ left of centerline, up to 44’ AGL/111’ MSL.
Building 1036’ from DER, 743’ right of centerline, 26’ AGL/102’ MSL.
Rwy 35, vehicle and road 65’ from DER, 2’ right of centerline, 15’ AGL/96’ MSL.
Multiple trees beginning 37’ from DER, 275’ right of centerline, up to 81’ AGL/164’ MSL.
DME antenna 380’ from DER, 253’ right of centerline, 24’ AGL/100’ MSL.
Multiple trees beginning 83’ from DER, 65’ left of centerline, up to 81’ AGL/155’ MSL.

WEST HOUSTON (IWS)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4 20SEP12 (12264) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 15, road and vehicle beginning 74’ from DER, 60’ left of centerline, up to 15’ AGL/123’ MSL.
Road and vehicle beginning 342’ from DER, 6’ right of centerline, up to 15’ AGL/123’ MSL.
Building 177’ from DER, 396’ left of centerline, 18’ AGL/126’ MSL.
Light pole 942’ from DER, 453’ right of centerline, 39’ AGL/145’ MSL.
Trees beginning 307’ from DER, 275’ left of centerline, up to 81’ AGL/164’ MSL.
Trees beginning 130’ from DER, 111’ right of centerline, up to 100’ AGL/208’ MSL.
Rwy 33, trees beginning 168’ from DER, 9’ left of centerline, up to 70’ AGL/179’ MSL.
Trees beginning 66’ from DER, 3’ right of centerline, up to 75’ AGL/184’ MSL.

WILLIAM P HOBBY (HOU)
AMDT 7A 07OCT21 (21280) (FAA)
TAKEOFF MINIMUMS:
Rwy 22, std. w/min. climb of 290’ per NM to 2700.
DEPARTURE PROCEDURE:
Rwys 31L/R, climb on heading 311° to 800 before turning westbound.
TAKEOFF OBSTACLE NOTES:
Rwy 4, lighting beginning 2’ from DER, 85’ left of centerline, up to 1’ AGL/39’ MSL.
Lighting beginning 2’ from DER, 84’ right of centerline, up to 1’ AGL/39’ MSL.
Lighting beginning 9’ from DER, 4’ left of centerline, up to 1’ AGL/40’ MSL.
Lighting beginning 9’ from DER, 5’ right of centerline, up to 1’ AGL/40’ MSL.
Building 1562’ from DER, 858’ right of centerline, 69’ AGL/103’ MSL.
Tree 2399’ from DER, 154’ left of centerline, 66’ AGL/99’ MSL.
Pole beginning 4403’ from DER, 767’ right of centerline, up to 121’ AGL/166’ MSL.
Lighting beginning 9’ from DER, 39’ left of centerline, up to 75’ AGL/115’ MSL.
Lighting beginning 9’ from DER, 39’ left of centerline, up to 1’ AGL/40’ MSL.
Sign 26’ from DER, 149’ left of centerline, 2’ AGL/42’ MSL.
Trees, building, tree beginning 174’ from DER, 9’ right of centerline, up to 75’ AGL/115’ MSL.
Trees beginning 108’ from DER, 24’ right of centerline, up to 75’ AGL/118’ MSL.
Trees beginning 238’ from DER, 55’ left of centerline, up to 75’ AGL/118’ MSL.
Trees 2448’ from DER, 1149’ right of centerline, 75’ AGL/121’ MSL.
Rwy 13R, lighting beginning 12’ from DER, 85’ right of centerline, up to 1’ AGL/42’ MSL.
Lighting beginning 12’ from DER, 94’ left of centerline, up to 1’ AGL/42’ MSL.
Lighting 41’ from DER, 115’ left of centerline, 3’ AGL/44’ MSL.
Lighting 42’ from DER, 114’ right of centerline, 2’ AGL/43’ MSL.
Fence 87’ from DER, 492’ left of centerline, 7’ AGL/45’ MSL.
Traverse way 178’ from DER, 497’ left of centerline, 55’ MSL.
Traverse way 516’ from DER, 542’ right of centerline, 55’ MSL.
Pole, tree beginning 752’ from DER, 686’ left of centerline, up to 50’ AGL/90’ MSL.
Trees beginning 1113’ from DER, 737’ right of centerline, up to 58’ AGL/98’ MSL.
Tree 1930’ from DER, 905’ left of centerline, 50’ AGL/92’ MSL.
Tree 2313’ from DER, 948’ right of centerline, 58’ AGL/101’ MSL.
Tree 2365’ from DER, 1030’ right of centerline, 59’ AGL/105’ MSL.
Tree 2716’ from DER, 1128’ right of centerline, 70’ AGL/117’ MSL.
Rwy 22, lighting beginning 5’ from DER, 84’ right of centerline, up to 1’ AGL/43’ MSL.
Pole, tree beginning 727’ from DER, 626’ right of centerline, up to 34’ AGL/77’ MSL.
Pole 1353’ from DER, 776’ left of centerline, 38’ AGL/82’ MSL.
Pole 1804’ from DER, 968’ right of centerline, 64’ AGL/109’ MSL.
Pole 2942’ from DER, 1189’ right of centerline, 72’ AGL/117’ MSL.
CON’T
24137

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

HOUSTON, TX (CON’T)
WILLIAM P HOBBY (HOU) (CON’T)

Rwy 31L, lighting 9' from DER, 94' right of centerline, 1' AGL/45' MSL.
Lighting beginning 9' from DER, 85' left of centerline, up to 1' AGL/45' MSL.
Electrical system 135' from DER, 482' left of centerline, 7' AGL/50' MSL.
Pole 190' from DER, 508' left of centerline, 40' AGL/83' MSL.
Pole, building beginning 359' from DER, 411' left of centerline, up to 39' AGL/84' MSL.
Building 547' from DER, 273' right of centerline, 27' AGL/69' MSL.
Tree 1391' from DER, 468' left of centerline, 89' MSL.
Tree 2585' from DER, 702' left of centerline, 83' AGL/121' MSL.

HUNTSVILLE, TX
HUNTSVILLE MUNI (UTS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 16MAY24 (24137) (FAA)

TAKEOFF OBSTACLE NOTES:
Rwy 18, trees beginning 3' from DER, 341' right of centerline, up to 50' AGL/407' MSL.
Building, sign, vehicle on road beginning 118' from DER, 347' right of centerline, up to 50' AGL/407' MSL.
Pole 955' from DER, 651' left of centerline, 30' AGL/394' MSL.
Vehicle on road 1193' from DER, 375' right of centerline, up to 50' AGL/407' MSL.

Rwy 36, tree, pole beginning 90' from DER, 438' left of centerline, up to 349' MSL.
Tree, pole beginning 157' from DER, 426' right of centerline, up to 352' MSL.
Tree 1235' from DER, 570' left of centerline, 399' MSL.
Tree 1625' from DER, 351' right of centerline, 355' MSL.
Trees beginning 1797' from DER, 157' right of centerline, up to 382' MSL.
Tree 2235' from DER, 297' left of centerline, 366' MSL.
Trees beginning 2311' from DER, 343' left of centerline, up to 369' MSL.

JACKSONVILLE, TX
CHEROKEE COUNTY (JSO)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 16FEB06 (06047) (FAA)

DEPARTURE PROCEDURE:
Rwy 14, climb via heading 135° to 1200 before proceeding on course.

JASPER, TX
JASPER COUNTY/BELL FLD (JAS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 27AUG09 (21336) (FAA)

TAKEOFF OBSTACLE NOTES:
Rwy 18, trees beginning 2081' from DER, 118' left of centerline, up to 100' AGL/327' MSL.
Trees beginning 64' from DER, 277' right of centerline, up to 50' AGL/329' MSL.
Rwy 36, hangar 320' from DER, 504' left of centerline, 27' AGL/236' MSL.
Trees beginning 534' from DER, 139' left of centerline, up to 100' AGL/329' MSL.
Pole 968' from DER, 409' left of centerline, 33' AGL/262' MSL.
Bush 94' from DER, 476' right of centerline, 8' AGL/217' MSL.
Trees beginning 541' from DER, 6' right of centerline, up to 100' AGL/354' MSL.
Hangar 1176' from DER, 675' right of centerline, 30' AGL/249' MSL.
Tower 1246' from DER, 611' right of centerline, 40' AGL/258' MSL.

KOUNTZE/SILSBEE, TX
HAWTHORNE FLD (45R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 14FEB08 (21280) (FAA)

TAKEOFF OBSTACLE NOTES:
Rwy 13, terrain 3' from DER, 81' right of centerline, 0' AGL/69' MSL.
Trees beginning 64' from DER, 277' right of centerline, up to 50' AGL/119' MSL.
Tree 111' from DER, 516' left of centerline, 50' AGL/124' MSL.
Terrain 172' from DER, 119' left of centerline, 0' AGL/74' MSL.
Rwy 31, terrain 109' from DER, 134' left of centerline, 0' AGL/74' MSL.
Tree 536' from DER, 457' right of centerline, 50' AGL/114' MSL.
LA GRANGE, TX
FAYETTE RGNL AIR CENTER (3T5)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 13SEP18 (18256) (FAA)
TAKEOFF OBSTACLE NOTES:

Rwy 16, trees, terrain beginning 146' from DER, 389' right of centerline, up to 45' AGL/378' MSL.

Trees beginning 246' from DER, 454' right of centerline, up to 47' AGL/381' MSL.

Tree 525' from DER, 533' right of centerline, 49' AGL/383' MSL.

Tree 570' from DER, 540' left of centerline, 35' AGL/355' MSL.

Tree, building beginning 760' from DER, 527' right of centerline, up to 45' AGL/384' MSL.

Tree 769' from DER, 569' left of centerline, 43' AGL/361' MSL.

Tree 880' from DER, 524' right of centerline, 45' AGL/386' MSL.

Tree, pole, catenary beginning 926' from DER, 589' right of centerline, up to 48' AGL/390' MSL.

Tree 945' from DER, 532' left of centerline, 45' AGL/364' MSL.

Trees beginning 1005' from DER, 367' left of centerline, up to 46' AGL/365' MSL.

Tree 1183' from DER, 532' right of centerline, 49' AGL/396' MSL.

Trees beginning 1319' from DER, 259' left of centerline, up to 44' AGL/369' MSL.

Trees beginning 1465' from DER, 297' right of centerline, up to 56' AGL/406' MSL.

Tree 1570' from DER, 652' right of centerline, 54' AGL/407' MSL.

Tree, catenary, pole beginning 1625' from DER, 32' right of centerline, up to 56' AGL/411' MSL.

Tree 2052' from DER, 188' left of centerline, 34' AGL/381' MSL.

Tree 2111' from DER, 523' left of centerline, 42' AGL/382' MSL.

Trees beginning 2456' from DER, 51' left of centerline, up to 44' AGL/399' MSL.

Tree 2599' from DER, 5' right of centerline, up to 60' AGL/415' MSL.

LA PORTE, TX
LA PORTE MUNI (T41)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 29MAY14 (14149) (FAA)
DEPARTURE PROCEDURE:

Rwy 5, climb heading 046° to 500 before proceeding on course.

Rwy 12, climb heading 121° to 500 before turning right.

Rwy 30, climb heading 301° to 700 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 5, trees beginning 334' from DER, left and right of centerline, up to 67' AGL/91' MSL.

Poles beginning 973' from DER, 387' left of centerline, up to 40' AGL/64' MSL.

Buildings beginning 319' from DER, left and right of centerline, up to 30' AGL/54' MSL.

Stack 2.3 NM from DER, 3296' left of centerline, 300' AGL/334' MSL.

Rwy 12, poles beginning 127' from DER, left and right of centerline, up to 54' AGL/74' MSL.

Trees beginning 183' from DER, 466' right of centerline, up to 40' AGL/60' MSL.

Building 675' from DER, 411' right of centerline, up to 32' AGL/55' MSL.

Trees beginning 888' from DER, 113' right of centerline, up to 43' AGL/63' MSL.

Rwy 23, buildings beginning 30' from DER, 242' left of centerline, up to 30' AGL/54' MSL.

Buildings beginning 231' from DER, 134' right of centerline, up to 30' AGL/54' MSL.

Trees beginning 243' from DER, 494' right of centerline, up to 67' AGL/91' MSL.

Poles beginning 363' from DER, left and right of centerline, up to 40' AGL/64' MSL.

Vehicle on road beginning 493' from DER, 562' left of centerline, up to 15' AGL/39' MSL.

Trees beginning 573' from DER, 292' left of centerline, up to 67' AGL/91' MSL.

Trees beginning 1123' from DER, 69' right of centerline, up to 67' AGL/91' MSL.

Rwy 30, trees beginning 44' from DER, 331' right of centerline, up to 51' AGL/71' MSL.

Pole 114' from DER, 500' left of centerline, 37' AGL/60' MSL.

Buildings beginning 334' from DER, 355' left of centerline, up to 25' AGL/50' MSL.

Trees beginning 367' from DER, 471' left of centerline, up to 37' AGL/57' MSL.

Building 669' from DER, 415' right of centerline, 30' AGL/55' MSL.

Poles beginning 768' from DER, 427' right of centerline, up to 50' AGL/74' MSL.

Trees beginning 1048' from DER, left and right of centerline, up to 67' AGL/87' MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

LIBERTY, TX
LIBERTY MUNI (T78)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1  29MAY14  (14149)  (FAA)

DEPARTURE PROCEDURE:
Rwy 16, climb heading 161° to 1700 before turning left.
Rwy 34, climb heading 341° to 1000 before turning right.

TAKEOFF OBSTACLE NOTES:
Rwy 16, hangars beginning 4' from DER, 340' right of centerline, up to 21' AGL/91' MSL.
Tree 273' from DER, 401' right of centerline, 28' AGL/96' MSL.
Trees beginning 1067' from DER, 122' left of centerline, up to 76' AGL/146' MSL.

Rwy 34, trees beginning 176' from DER, 262' left of centerline, up to 52' AGL/117' MSL.
Poles beginning 427' from DER, 318' right of centerline, up to 40' AGL/105' MSL.
Poles beginning 451' from DER, 236' left of centerline, up to 39' AGL/106' MSL.
Trees beginning 758' from DER, 101' right of centerline, up to 101' AGL/166' MSL.
Trees beginning 1953' from DER, 40' left of centerline, up to 96' AGL/161' MSL.

LIVINGSTON, TX
LIVINGSTON MUNI (00R)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1  05MAY11  (11125)  (FAA)

DEPARTURE PROCEDURE:
Rwy 12, climb heading 125° to 1700 before proceeding on course.
Rwy 30, climb heading 305° to 800 before turning south.

TAKEOFF OBSTACLE NOTES:
Rwy 12, trees beginning at DER, right and left of centerline, up to 100' AGL/249' MSL.
Rwy 30, vehicle on road 10' from DER, 492' right of centerline, 10' AGL/159' MSL.

LUFKIN, TX
ANGELINA COUNTY (LFK)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1  07DEC17  (17341)  (FAA)

TAKEOFF OBSTACLE NOTES:
Rwy 7, trees beginning 109' from DER, 333' right of centerline, up to 354' MSL.
Trees beginning 358' from DER, 293' left of centerline, up to 350' MSL.

Rwy 16, trees beginning 6' from DER, 384' left of centerline, up to 56' AGL/324' MSL.

Rwy 25, tree 265' from DER, 511' right of centerline, 302' MSL.

Trees beginning 403' from DER, 283' right of centerline, up to 354' MSL.

Trees beginning 407' from DER, 555' left of centerline, up to 299' MSL.

Trees beginning 1333' from DER, 388' right of centerline, up to 324' MSL.

Trees beginning 1932' from DER, 49' right of centerline, up to 327' MSL.

Tree, pole beginning 809' from DER, 230' right of centerline, up to 361' MSL.

Trees beginning 1249' from DER, 233' right of centerline, up to 364' MSL.

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

**MADISONVILLE, TX**
MADISONVILLE MUNI (51R)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 31MAY12 (12152) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 18, multiple trees and power poles beginning at DER, 179’ right of centerline, up to 50’ AGL/310’ MSL.
Multiple trees and power poles beginning at DER, 200’ left of centerline, up to 50’ AGL/309’ MSL.
Rwy 36, multiple trees and power poles beginning 99’ from DER, 50’ left of centerline, up to 50’ AGL/341’ MSL. Multiple trees beginning 50’ from DER, 75’ right of centerline, up to 50’ AGL/346’ MSL.

**MARLIN, TX**
MARLIN (T15)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 10JAN13 (13010) (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 17, power lines beginning 411’ from DER, left and right of centerline, up to 125’ AGL/524’ MSL.
Building 7’ from DER, 155’ left of centerline, 30’ AGL/439’ MSL.
Trees beginning 656’ from DER, left and right of centerline, up to 50’ AGL/449’ MSL.
Building 309’ from DER, 100’ left of centerline, 30’ AGL/439’ MSL.
Vehicles in parking lot 364’ from DER, on centerline, up to 15’ AGL/439’ MSL.
Rwy 35, trees 225’ from DER, 232’ right of centerline, up to 50’ AGL/468’ MSL.
Trees 181’ from DER, 240’ left of centerline, up to 50’ AGL/459’ MSL.
Trees beginning 708’ from DER, left and right of centerline, up to 50’ AGL/469’ MSL.
Vehicles 68’ from DER, 347’ right of centerline, up to 15’ AGL/424’ MSL.

**MEXIA, TX**
MEXIA-LIMESTONE CO (LXY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 11AUG22 (22223) (FAA)
TAKEOFF MINIMUMS:
Rwy 36, 300-2½ or std. w/min. climb of 259’ per NM to 1000, or alternatively, with std. takeoff minimums and a normal 200’ per NM climb gradient, takeoff must occur no later than 1700’ prior to the DER.
TAKEOFF OBSTACLE NOTES:
Rwy 18, vehicles on road beginning 202’ from DER, 400’ left of centerline, up to 15’ AGL/554’ MSL.
Tree 419’ from DER, 292’ right of centerline, up to 80’ AGL/439’ MSL.
Rwy 36, trees beginning 179’ from DER, 382’ right of centerline, up to 80’ AGL/469’ MSL.
Trees beginning 391’ from DER, 315’ left of centerline, up to 80’ AGL/629’ MSL.

**NACOGDOCHES, TX**
NACOGDOCHES A L MANGHAM JR RGNL (OCH)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2A 22JUN17 (17173) (FAA)
DEPARTURE PROCEDURE:
Rwy 36, climb heading 359° to 1000 before turning right.
TAKEOFF OBSTACLE NOTES:
Rwy 18, trees 47’ from DER, 503’ left of centerline, 67’ AGL/397’ MSL.
Trees 1227’ from DER, 580’ left of centerline, 52’ AGL/382’ MSL.
Trees 2234’ from DER, 939’ right of centerline, 71’ AGL/431’ MSL.
Rwy 36, trees 252’ from DER, 485’ left of centerline, 81’ AGL/401’ MSL.
Trees 792’ from DER, 513’ left of centerline, 87’ AGL/447’ MSL.
Trees beginning 1957’ from DER, 23’ left of centerline, up to 70’ AGL/470’ MSL.
Trees 207’ from DER, 492’ right of centerline, 58’ AGL/388’ MSL.
Multiple OL’s and trees beginning 661’ from DER, 2’ right of centerline, up to 74’ AGL/434’ MSL.
Multiple trees beginning 2290’ from DER, 316’ right of centerline, up to 87’ AGL/487’ MSL.

**NAVASOTA, TX**
NAVASOTA MUNI (60R)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 02FEB84 (84033) (FAA)
DEPARTURE PROCEDURE:
Rwy 35, climb runway heading to 2100 before turning eastbound.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

ORANGE, TX
ORANGE COUNTY (ORG)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 22OCT09 (09295) (FAA)
TAKEOFF MINIMUMS:
- Rwy 4, 400-1/4 or std. w/ min. climb of 425' per NM to 500.
- Rwys 13, 31, NA-Environmental.
TAKEOFF OBSTACLE NOTES:
- Rwy 4, trees beginning 893' from DER, 513' right of centerline, up to 30' AGL/87' MSL.
- Trees beginning 1856' from DER, 550 left of centerline, up to 30' AGL/66' MSL.
- Transmission poles beginning 2518' from DER, left and right of centerline, up to 73' AGL/83' MSL.
- Tower 6401' from DER, 1900' left of centerline, 283' AGL/298' MSL.
- Rwy 22, trees beginning at DER, left and right of centerline, up to 30' AGL/39' MSL.

PALACIOS, TX
PALACIOS MUNI (PSX)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 26MAY16 (16147) (FAA)
DEPARTURE PROCEDURE:
- Rwy 8, climbing right turn heading 125° to 1800 before proceeding on course.
- Rwy 13, climb heading 132° to 1100 before turning left.
- Rwy 36, climb heading 357° to 1100 before turning right.
TAKEOFF OBSTACLE NOTES:
- Rwy 31, bush 20' from DER, 296' right of centerline, 6' AGL/16' MSL.

PALESTINE, TX
PALESTINE MUNI (PSN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3 30JAN20 (20030) (FAA)
TAKEOFF MINIMUMS:
- Rwy 9, 400-3 w/min. climb of 262' per NM to 1200 or std. w/min. climb of 316' per NM to 900 or 1000-3 for VCOA.
- VCOA:
  - Rwy 9, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Palestine Muni at or above 1300 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
- Rwy 9, trees beginning 201' from DER, 195' left of centerline, up to 100' AGL/381' MSL.
- Trees beginning 207' from DER, 87' right of centerline, up to 100' AGL/378' MSL.
- Trees beginning 2276' from DER, 216' left of centerline, up to 100' AGL/434' MSL.
- Trees beginning 2535' from DER, 218' left of centerline, up to 100' AGL/384' MSL.
- Trees beginning 2538' from DER, 84' right of centerline, up to 100' AGL/388' MSL.
- Trees beginning 2794' from DER, 221' left of centerline, up to 100' AGL/394' MSL.
- Trees beginning 2796' from DER, 69' right of centerline, up to 100' AGL/401' MSL.
- Trees beginning 3052' from DER, 223' left of centerline, up to 100' AGL/401' MSL.
- Trees beginning 4085' from DER, 233' left of centerline, up to 100' AGL/407' MSL.
- Trees beginning 4344' from DER, 236' left of centerline, up to 100' AGL/414' MSL.
- Trees beginning 4350' from DER, 66' right of centerline, up to 100' AGL/407' MSL.
- Trees beginning 4603' from DER, 238' left of centerline, up to 100' AGL/420' MSL.
- Trees beginning 4609' from DER, 64' right of centerline, up to 100' AGL/414' MSL.
- Trees beginning 4862' from DER, 241' left of centerline, up to 100' AGL/427' MSL.
- Trees beginning 4868' from DER, 61' right of centerline, up to 100' AGL/420' MSL.
- Trees beginning 5124' from DER, 243' left of centerline, up to 100' AGL/430' MSL.
- Trees beginning 5127' from DER, 59' right of centerline, up to 100' AGL/430' MSL.
- Tree 5380' from DER, 649' left of centerline, 100' AGL/434' MSL.
- Trees beginning 5386' from DER, 56' right of centerline, up to 100' AGL/437' MSL.
- Trees beginning 5404' from DER, 54' right of centerline, up to 100' AGL/440' MSL.
- Trees beginning 5627' from DER, 855' left of centerline, up to 100' AGL/440' MSL.
- Trees beginning 5639' from DER, 249' left of centerline, up to 100' AGL/443' MSL.
- Tree 5663' from DER, 1872' right of centerline, 100' AGL/443' MSL.
- Tree 5883' from DER, 2070' left of centerline, 100' AGL/447' MSL.
- Trees beginning 5886' from DER, 251' left of centerline, up to 100' AGL/450' MSL.
- Trees beginning 5904' from DER, 51' right of centerline, up to 100' AGL/450' MSL.
- Tree 1 NM from DER, 2073' left of centerline, 100' AGL/457' MSL.
- Trees beginning 1 NM from DER, 260' left of centerline, up to 100' AGL/460' MSL.
- Trees beginning 1 NM from DER, 48' right of centerline, up to 100' AGL/457' MSL.
- Tree 1 NM from DER, 1867' right of centerline, 100' AGL/460' MSL.
- Tree 1 NM from DER, 2075' left of centerline, 100' AGL/463' MSL.
- Trees beginning 1 NM from DER, 256' left of centerline, up to 100' AGL/470' MSL.
- Trees beginning 1 NM from DER, 46' right of centerline, up to 100' AGL/463' MSL.
- Tree 1 NM from DER, 2078' left of centerline, 100' AGL/473' MSL.
- Trees beginning 1 NM from DER, 43' right of centerline, up to 100' AGL/473' MSL.
- Tree 1.1 NM from DER, 2080' left of centerline, 100' AGL/468' MSL.

CON’T
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND
DIVERSE VECTOR AREA (RADAR VECTORS)

PALESTINE, TX (CON’T)

PALESTINE MUNI (PSN) (CON’T)

Rwy 9 (CON’T), Trees beginning 1.1 NM from DER, 261’ left of centerline, up to 100’ AGL/489’ MSL.

Trees beginning 1.1 NM from DER, 41’ right of centerline, up to 100’ AGL/479’ MSL.

Trees beginning 1.1 NM from DER, 950’ right of centerline, up to 100’ AGL/483’ MSL.

Tree 1.1 NM from DER, 2083’ left of centerline, 100’ AGL/493’ MSL.

Trees beginning 1.1 NM from DER, 264’ left of centerline, up to 100’ AGL/499’ MSL.

Trees beginning 1.1 NM from DER, 38’ right of centerline, up to 100’ AGL/486’ MSL.

Trees beginning 1.1 NM from DER, 36’ right of centerline, up to 100’ AGL/493’ MSL.

Tree 1.2 NM from DER, 1479’ left of centerline, 100’ AGL/509’ MSL.

Trees beginning 1.2 NM from DER, 267’ left of centerline, up to 100’ AGL/519’ MSL.

Trees beginning 1.2 NM from DER, 33’ right of centerline, up to 100’ AGL/499’ MSL.

Trees beginning 1.2 NM from DER, 269’ left of centerline, up to 100’ AGL/525’ MSL.

Trees beginning 1.3 NM from DER, 272’ left of centerline, up to 100’ AGL/552’ MSL.

Trees beginning 1.3 NM from DER, 12’ right of centerline, up to 100’ AGL/552’ MSL.

Trees beginning 1.3 NM from DER, 274’ left of centerline, up to 100’ AGL/568’ MSL.

Tree 1.4 NM from DER, 2705’ left of centerline, 100’ AGL/575’ MSL.

Trees beginning 1.4 NM from DER, 279’ left of centerline, up to 100’ AGL/601’ MSL.

Trees beginning 1.4 NM from DER, 5’ left of centerline, up to 100’ AGL/621’ MSL.

Tower 2.5 NM from DER, 345’ left of centerline, 419’ AGL/809’ MSL.

Rwy 18, Tree abeam DER, 409’ left of centerline, 415’ MSL.

Tree, terrain beginning 43’ from DER, 241’ right of centerline, up to 421’ MSL.

Trees beginning 80’ from DER, 257’ left of centerline, up to 435’ MSL.

Trees beginning 158’ from DER, 166’ right of centerline, up to 447’ MSL.

Trees beginning 328’ from DER, 41’ left of centerline, up to 81’ AGL/451’ MSL.

Trees, vehicle on road beginning 481’ from DER, 478’ right of centerline, up to 449’ MSL.

Tree 594’ from DER, 352’ right of centerline, 450’ MSL.

Trees beginning 695’ from DER, 35’ right of centerline, up to 463’ MSL.

Trees beginning 1561’ from DER, 109’ right of centerline, up to 465’ MSL.

Rwy 27, trees beginning 189’ from DER, 149’ left of centerline, up to 100’ AGL/420’ MSL.

Trees beginning 195’ from DER, 133’ right of centerline, up to 100’ AGL/411’ MSL.

Rwy 36, tree, terrain beginning 134’ from DER, 404’ right of centerline, up to 439’ MSL.

Tree 178’ from DER, 403’ left of centerline, 418’ MSL.

Tree 200’ from DER, 481’ left of centerline, 421’ MSL.

Trees beginning 432’ from DER, 270’ left of centerline, up to 434’ MSL.

Tree 561’ from DER, 481’ left of centerline, 452’ MSL.

Trees beginning 612’ from DER, 306’ left of centerline, up to 462’ MSL.

Trees beginning 783’ from DER, 401’ left of centerline, up to 471’ MSL.

Tree 990’ from DER, 733’ right of centerline, 456’ MSL.

PORT LAVACA, TX

CALHOUN COUNTY (PKV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 13SEP18 (18256) (FAA)

TAKEOFF MINIMUMS.

Rwys 5, 23, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 14, vehicles on road 475’ from DER, on centerline, up to 44’ MSL.

Rwy 32, vegetation 65’ from DER, 408’ left of centerline, 34’ MSL.

Pole and vehicles on road beginning 547’ from DER, 412’ right of centerline, up to 35’ AGL/60’ MSL.

VICTORIA, TX

VICTORIA RGNL (VCT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 12AUG21 (21224) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 18, building 588’ from DER, 415’ left of centerline, 18’ AGL/118’ MSL.

Industrial system 1696’ from DER, 265’ right of centerline, 61’ AGL/159’ MSL.

Rwy 36, vegetation 104’ from DER, 165’ right of centerline, 10’ AGL/116’ MSL.

WHARTON, TX

WHARTON RGNL (ARM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 27AUG09 (09239) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 32, vehicle on roads beginning 26’ from DER, 312’ right of centerline, up to 17’ AGL/113’ MSL.

Buildings beginning 40’ from DER, 338’ right of centerline, up to 26’ AGL/125’ MSL.

Poles beginning 140’ from DER, 467’ right of centerline, up to 43’ AGL/142’ MSL.

Tree 828’ from DER, 509’ right of centerline, 28’ AGL/127’ MSL.

Fence 144’ from DER, 288’ left of centerline, 4’ AGL/103’ MSL.

Tree 1147’ from DER, 425’ left of centerline, 41’ AGL/140’ MSL.
WINNIE/STOWELL, TX
CHAMBERS COUNTY/WINNIE STOWELL (T90)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 05OCT23 (23278) (FAA)

TAKEOFF MINIMUMS:
Rwy 17, std w/min climb of 376’/NM to 2700, or 1800-3 for VCOA.
Rwy 35, std w/min climb of 341’/NM to 2700, or 1800-3 for VCOA.

VCOA:
All runways, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Chambers County/Winnie Stowell airport at or above 1700 before proceeding on course.

TAKEOFF OBSTACLE NOTES:
Rwy 17, trees beginning 616’ from DER, 23’ left of centerline, up to 125’ MSL.
Trees beginning 1164’ from DER, 475’ right of centerline, up to 125’ MSL.
Rwy 35, trees beginning 742’ from DER, 212’ left of centerline, up to 130’ MSL.
Tree 1572’ from DER, 672’ right of centerline, 130’ MSL.
### IFR Alternate Minimums

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability. An designation on the approach chart means that pilots may not use that approach as an alternate due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Approaches with the $\text{\textdagger}$ designation are not listed in this section. A designation on the approach chart indicates that the approach procedure has non-standard minimums (for aircraft other than helicopters) or restrictions (for all users) for its use as an alternate.

#### Alternate Minima (ref: 14 CFR 91.169)

<table>
<thead>
<tr>
<th>Name</th>
<th>Alternate Minimums</th>
<th>Airport Code</th>
<th>Approach Type</th>
<th>Minimums</th>
<th>Category</th>
<th>Remarks</th>
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<td><strong>Angleton/Lake Jackson, TX</strong>&lt;br&gt;Texas Gulf&lt;br&gt;Coast RGNL (LBX)</td>
<td>RNAV (GPS) Rwy 17&lt;br&gt;RNAV (GPS) Rwy 35</td>
<td>NA when local weather not available.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
<td></td>
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<td><strong>Bay City, TX</strong>&lt;br&gt;Bay City&lt;br&gt;RGNL (BYY)</td>
<td>RNAV (GPS) Rwy 13&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 31&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;VOR-A&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1NA when local weather not available.&lt;br&gt;2Categories A, B, 1100-2; Category C, 1100-3.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
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<tr>
<td><strong>Beaumont, TX</strong>&lt;br&gt;Beaumont&lt;br&gt;Muni (BMT)</td>
<td>RNAV (GPS) Rwy 13&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 31&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1Category D, 800-2¼.&lt;br&gt;2NA when local weather not available.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
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<td><strong>Beaumont/Port Arthur, TX</strong>&lt;br&gt;Jack Brooks&lt;br&gt;RGNL (BPT)</td>
<td>RNAV (GPS) Rwy 12&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 12&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 16&lt;br&gt;RNAV (GPS) Rwy 30&lt;br&gt;RNAV (GPS) Rwy 34</td>
<td>NA when local weather not available.&lt;br&gt;1NA when control tower closed.&lt;br&gt;2LOC, Categories A, B, C, D, E, 900-2.&lt;br&gt;3Category D, 800-2½; Category E, 900-2¼.</td>
<td>Precision Approach</td>
<td>600-2</td>
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<td><strong>Brenham, TX</strong>&lt;br&gt;Brenham&lt;br&gt;Muni (11R)</td>
<td>RNAV (GPS) Rwy 16&lt;br&gt;RNAV (GPS) Rwy 34</td>
<td>NA when local weather not available.&lt;br&gt;Category D, 800-2¼.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
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<td><strong>Caldwell, TX</strong>&lt;br&gt;Caldwell&lt;br&gt;Muni (RwV)</td>
<td>RNAV (GPS) Rwy 15&lt;br&gt;RNAV (GPS) Rwy 33&lt;br&gt;VOR/DME-A</td>
<td>NA when local weather not available.&lt;br&gt;Category B, 900-2.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
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<td><strong>Cleveland, TX</strong>&lt;br&gt;Cleveland Muni (6R3)</td>
<td>RNAV (GPS) Rwy 16</td>
<td>NA when local weather not available.</td>
<td>Precision Approach</td>
<td>600-2</td>
<td>A</td>
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</tbody>
</table>

### Note:
For alternate airport flight planning purposes, precision approach operations include: ILS, PAR, and GLS, and Non-Precision approach operations include: NDB, VOR, LOC, TACAN, LDA, SDF, ASR, RNAV (GPS) and RNAV (RNP).

**Precision Approach**
- Ceiling: 200’ above published ceiling
- Visibility: the greater of 1 SM visibility or the published visibility

**Non-Precision Approach**
- Ceiling: 200’ above published ceiling
- Visibility: the greater of 1 SM visibility or the published visibility

**Non-Standard or Restrictions**
- As indicated below
- As indicated below
ALTERNATE MINS

24109

SC-5, 11 JUL 2024 to 05 SEP 2024

NAME ALTERNATE MINIMUMS

COLLEGE STATION, TX
EASTERNWOOD
FLD (CLL)..............................ILS or LOC Rwy 35\(^1\)
LOC BC Rwy 17\(^3\)
RNAV (GPS) Rwy 11\(^4\)
RNAV (GPS) Rwy 17\(^3\)
RNAV (GPS) Rwy 29\(^3\)
RNAV (GPS) Rwy 35\(^3\)
VOR Rwy 29\(^3\)
VOR or TACAN Rwy 11\(^3\)

1NA when control tower closed.
2LOC, Category D, 900-2¼; Category E, 900-3.
3Category D, 900-2¼; Category E, 900-3.
4NA when local weather not available.
5Category D, 900-2¼.

CROCKETT, TX
HOUSTON
COUNTY (DKR)..................RNAV (GPS) Rwy 2
NA when local weather not available.

EAGLE LAKE, TX
EAGLE LAKE (ELA)........RNAV (GPS) Rwy 17\(^1\)
RNAV (GPS) Rwy 35
Category C, 900-2¾.
NA when local weather not available.

GALVESTON, TX
SCHOLES INTL
AT GALVESTON (GLS).........RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 18\(^1\)
RNAV (GPS) Rwy 32\(^1\)
RNAV (GPS) Rwy 36\(^1\)
NA when local weather not available.
1Category E, 800-2¼.

GIDDINGS, TX
GIDDINGS-
LEE COUNTY (GYB).........RNAV (GPS) Rwy 17
RNAV (GPS) Rwy 35
NA when local weather not available.
Category C, 800-2¼.

HEARNE, TX
HEARNE MUNI (LHB).........RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 36
NA when local weather not available.

HOUSTON, TX
CONROE/NORTH HOUSTON
RGNL (CXO)........................RNAV (GPS) Rwy 1
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 19\(^1\)
RNAV (GPS) Rwy 32
Category D, 800-2¼.
1NA when local weather not available.

DAVID WAYNE HOOKS
MEML (DWH).....................RNAV (GPS) Rwy 35L
NA when local weather not available.

HOUSTON, TX (CON’T)
ELLINGTON (EFD)............ILS Z or LOC Z Rwy 17R\(^1\)
ILS Z or LOC Z Rwy 22\(^1\)
ILS Z or LOC Z Rwy 35L\(^1\)
RNAV (GPS) Rwy 4\(^2\)
RNAV (GPS) Rwy 17R\(^2\)
RNAV (GPS) Rwy 22\(^2\)
RNAV (GPS) Rwy 35L\(^2\)

1LOC, Category E, 800-2¾.
2Category E, 800-2¼.

HOUSTON
EXEC (TME).....................RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 36
NA when local weather not available.
Category D, 900-2¼.

PEARLAND RGNL (LVJ).....RNAV (GPS) Rwy 32
NA when local weather not available.

SUGAR LAND
RGNL (SGR)....................ILS or LOC Rwy 35\(^1\)
RNAV (GPS) Rwy 35
NA when local weather not available.
1NA when local weather not available.

WILLIAM P
HOBBY (HOU)...............ILS or LOC Rwy 4\(^1\)
ILS or LOC Rwy 13R\(^1\)
ILS or LOC Rwy 31L\(^2\)
LOC Rwy 22\(^2\)
RNAV (GPS) Rwy 4\(^1\)
RNAV (GPS) Rwy 13R\(^2\)
RNAV (GPS) Rwy 22\(^2\)
RNAV (GPS) Rwy 31L\(^2\)

1LOC, Categories C, D, 800-2¼; Category E, 900-3.
2LOC, Categories C, D, 800-2¼.
3Category D, 800-2¼; Category E, 800-2¼.
4Categories C, D, 800-2¼; Category E, 900-3.
5Categories C, D, 800-2¼.

HUNTSVILLE, TX
HUNTSVILLE
MUNI (UTS)....................RNAV (GPS) Rwy 18
VOR/DME-A
NA when local weather not available.
Category C, 800-2¼.

JACKSONVILLE, TX
CHEROKEE
COUNTY (JSO)...................RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 32
VOR Rwy 14
NA when local weather not available.

JASPER, TX
JASPER COUNTY/BELL
FLD (JAS).....................RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 36
NA when local weather not available.
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<th>ALTERNATE MINIMUMS</th>
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<td>VOR Rwy 16</td>
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<td>NACOGDOCHES, TX</td>
<td>NACOGDOCHES A L MANGHAM JR RGNL (OCH)...</td>
<td>NACOGDOCHES, TX</td>
<td>NACOGDOCHES A L MANGHAM JR RGNL (OCH)...</td>
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<td>RNAV (GPS) Rwy 18</td>
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<td>RNAV (GPS) Rwy 18</td>
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<tr>
<td></td>
<td>RNAV (GPS) Rwy 36</td>
<td></td>
<td>RNAV (GPS) Rwy 36</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not available.</td>
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<td>NA when local weather not available.</td>
</tr>
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<td>ORANGE, TX</td>
<td>ORANGE COUNTY (ORG)..............</td>
<td>ORANGE, TX</td>
<td>ORANGE COUNTY (ORG)..............</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 22</td>
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<td>RNAV (GPS) Rwy 22</td>
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<td>NA when local weather not available.</td>
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<tr>
<td>PALACIOS, TX</td>
<td>PALACIOS MUNI (PSX)..............</td>
<td>PALACIOS, TX</td>
<td>PALACIOS MUNI (PSX)..............</td>
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<tr>
<td></td>
<td>RNAV (GPS) Rwy 13</td>
<td></td>
<td>RNAV (GPS) Rwy 13</td>
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<td></td>
<td>VOR Rwy 13</td>
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<td>VOR Rwy 13</td>
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<td>NA when local weather not available.</td>
<td></td>
<td>NA when local weather not available.</td>
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<tr>
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<td>Category D, 800-2¼.</td>
<td></td>
<td>Category D, 800-2¼.</td>
</tr>
<tr>
<td>PALESTINE, TX</td>
<td>PALESTINE MUNI (PSN).............</td>
<td>PALESTINE, TX</td>
<td>PALESTINE MUNI (PSN).............</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 18</td>
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<td>RNAV (GPS) Rwy 18</td>
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<td></td>
<td>RNAV (GPS) Rwy 36</td>
<td></td>
<td>RNAV (GPS) Rwy 36</td>
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<tr>
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<td>NA when local weather not available.</td>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
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<td>Category C, 1000-2¾; Category D, 1000-3.</td>
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<td>Category C, 1000-2¾; Category D, 1000-3.</td>
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<tr>
<td>PORT LAVACA, TX</td>
<td>CALHOUN COUNTY (PKV)............</td>
<td>PORT LAVACA, TX</td>
<td>CALHOUN COUNTY (PKV)............</td>
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<td>RNAV (GPS) Rwy 14</td>
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<td>RNAV (GPS) Rwy 14</td>
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<td></td>
<td>RNAV (GPS) Rwy 32</td>
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<td>RNAV (GPS) Rwy 32</td>
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<td>VOR/DME-A</td>
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<td>VOR/DME-A</td>
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<tr>
<td></td>
<td>NA when local weather not available.</td>
<td></td>
<td>NA when local weather not available.</td>
</tr>
<tr>
<td>VICTORIA, TX</td>
<td>VICTORIA RGNL (VCT).............</td>
<td>VICTORIA, TX</td>
<td>VICTORIA RGNL (VCT).............</td>
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<td>ILS or LOC Rwy 13¹²</td>
<td></td>
<td>ILS or LOC Rwy 13¹²</td>
</tr>
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<td></td>
<td>RNAV (GPS) Rwy 13²</td>
<td></td>
<td>RNAV (GPS) Rwy 13²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 31³</td>
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<td>RNAV (GPS) Rwy 31³</td>
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<td>VOR Rwy 13³</td>
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<td>VOR Rwy 13³</td>
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<td>VOR Rwy 31³</td>
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<td>NA when local weather not available.</td>
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<td>NA when control tower closed.</td>
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<td>NA when control tower closed.</td>
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<tr>
<td></td>
<td>LOC, Category D, 800-2¼.</td>
<td></td>
<td>LOC, Category D, 800-2¼.</td>
</tr>
<tr>
<td></td>
<td>Category D, 800-2¼.</td>
<td></td>
<td>Category D, 800-2¼.</td>
</tr>
</tbody>
</table>
THERE ARE NO RADAR PROCEDURES
FOR SOUTHEAST TEXAS (SC-5)
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>HOUSTON, TX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEORGE BUSH INTcntl/</td>
<td>26L</td>
<td>TWY NE</td>
<td>9,010 feet</td>
</tr>
<tr>
<td>HOUSTON (IAH)</td>
<td>08R</td>
<td>TWY NP</td>
<td>9,019 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>BEAUMONT/PORT ARTHUR, TX</td>
<td>HS 1</td>
<td>South end of Twy B not visible from control twr.</td>
</tr>
<tr>
<td>COLLEGE STATION, TX</td>
<td>HS 1</td>
<td>Rwy holding position marking Twy B and Rwy 11.</td>
</tr>
<tr>
<td>HOUSTON, TX</td>
<td>HS 1</td>
<td>Ramp A and Twy C at Rwy 17R.</td>
</tr>
<tr>
<td>DAVID WAYNE HOOKS MEML (DWH)</td>
<td></td>
<td>Twy E, Twy D, Twy K at Rwy 17L.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Twy E at Rwy 17R-35L.</td>
</tr>
<tr>
<td></td>
<td>HS 4</td>
<td>Int of Twy G and Rwy 17L-35R.</td>
</tr>
<tr>
<td></td>
<td>HS 5</td>
<td>Int of Twy H and Rwy 17L-35R.</td>
</tr>
<tr>
<td></td>
<td>HS 6</td>
<td>Twy K at Rwy 17L.</td>
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<tr>
<td>HOUSTON, TX</td>
<td>HS 1</td>
<td>Twy F west of Twy D.</td>
</tr>
<tr>
<td>CONROE/NORTH HOUSTON RGNL (CXO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOUSTON, TX</td>
<td>HS 1</td>
<td>Twy E int with Twy A, Twy A3 from Rwy 17-35.</td>
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<tr>
<td>SUGAR LAND RGNL (SGR)</td>
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<tr>
<td>HOUSTON, TX</td>
<td>HS 1</td>
<td>Twy G at Rwy 13R.</td>
</tr>
<tr>
<td>WILLIAM P. HOBBY (HOU)</td>
<td></td>
<td>Twy E at int Rwy 13L.</td>
</tr>
</tbody>
</table>

*See appropriate Chart Supplement HOT SPOT table for additional information.
BAYYY FIVE ARRIVAL (RNAV) Transition Routes

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From BAYYY on track 274° to cross PUCKS between 10000 and 14000.

LANDING RUNWAY 4: From PUCKS on track 290° to cross FRDDY between 8000 and 10000 and at 240K, then on track 289° to cross FIGGG between 6000 and 7000, then on track 255° to cross SHUUG at 6000 and at 210K, then on track 222° to EMARR, then on track 222°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 13L/R: From PUCKS on track 290° to cross FRDDY between 8000 and 10000 and at 240K, then on track 289° to cross FIGGG between 6000 and 7000, then on track 278° to cross IVEEE at 6000 and at 210K, then on track 280° to VILLI, then on track 311° to ALLLY, then on track 311°. Expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

COLLT TRANSITION (COLLT.BELLR5)
CORPUS CHRISTI TRANSITION (CRP.BELLR5)
LMEDA TRANSITION (LMEDA.BELLR5)
SAN ANTONIO TRANSITION (SAT.BELLR5)
WEMAR TRANSITION (WEMAR.BELLR5)

From BELLR on track 049° to cross HNTRR between 8000 and 10000.

LANDING RUNWAY 4: From HNTRR on track 084° to cross GEEEO at 6000 and 210K. Expect ILS or LOC Rwy 4 approach.

LANDING RUNWAYS 13L/R: From HNTRR on track 052° to cross HACKT at or below 7000, then on track 052° to cross CRSTY at 6000 and at 210K, then on track 042° to cross SEUSS at 6000, then on track 042°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 22: From HNTRR on track 067° to cross AWSTN at or below 7000 and at 210K, then on track 067° to cross VILLI at 6000, then on track 093° to cross MAAHH at 6000, then on track 110°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 31L/R: From HNTRR on track 067° to cross AWSTN at or below 7000 and at 210K, then on track 067° to cross VILLI at 6000, then on track 130° to cross RAAY at 6000, then on track 130°. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

COLLEGE STATION TRANSITION (CLL.BLUBL4): From over CLL VORTAC on CLL R-153 to BLUBL. Thence . . .

ELLVR TRANSITION (ELLVR.BLUBL4): From over ELLVR on CLL R-334 to CLL VORTAC, then on CLL R-153 to BLUBL. Thence . . .

JAYJO TRANSITION (JAYJO.BLUBL4): From over JAYJO on TNV R-266 to BLUBL. Thence . . .

LEONA TRANSITION (LOA.BLUBL4): From over LOA VORTAC on LOA R-087 and CLL R-268 to LEONA VORTAC on LOA R-209 and CLL R-029 to CLL VORTAC, then on CLL R-153 to BLUBL. Thence . . .

LLANO TRANSITION (LLO.BLUBL4): From over LLO VORTAC on LLO R-087 and CLL R-268 to CLL VORTAC, then on CLL R-153 to BLUBL. Thence . . .

. . . From over BLUBL on CLL R-153 to cross SNDAY at 9000, from SNDAY fly heading 153°. Expect vectors to final approach course at or prior to SNDAY.

NOTE: RADAR required.
NOTE: JAYJO TRANSITION for Austin Terminal Area Departures only.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: DME/DME/IRU or GPS equipped Turbojet and Turboprop aircraft capable of 280K or greater must file the WAAPL (RNAV) STAR.

(NARRATIVE ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From CESAN on track 185° to CREPO, then on track 196° to PLEDO.

**LANDING HOU RWYS 13L/R:** From PLEDO on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to LLEGS, then on track 239° to FRDDY, then on track 289° to FIGGG, then on track 278° to IVEEE, then on track 280° to VILLI, then on track 311° to ALLLY, then on track 311°. Expect vectors to final approach course.

**LANDING HOU RWY 4:** From PLEDO on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to LLEGS, then on track 239° to FRDDY, then on track 289° to FIGGG, then on track 255° to SHUUG, then on track 222° to EMARR, then on track 222°. Expect vectors to approach course.

**LANDING HOU RWY 22:** From PLEDO on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to LLEGS, then on track 273° to WWILD, then on track 310° to JCNTO, then on track 310°. Expect vectors to final approach course.

**LANDING HOU RWYS 31L/R:** From PLEDO on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to LLEGS, then on track 220° to MMOOW, then on track 274°. Expect vectors to final approach course.

**ALL OTHER AIRPORTS:** From CESAN on track 185° to CREPO, then on track 196° to PLEDO, then on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to KAANE, then on track 215°. Expect vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.DOobi2)
PLANB TRANSITION (PLANB.DOobi2)
SAWMILL TRANSITION (SWB.DOobi2)

From DOOBI on track 217° to cross HHART at or above 10000, at or below 13000 and at or above 230K, then on track 215° to cross BOPPR at or above 9000 and at 210K, then on track 215° to cross ODISS at or above 8000 and at 210K, then on track 216° to cross BOZZZ at 8000 and at 210K.

Expect assigned instrument approach.

LOST COMMUNICATIONS
In the event of lost communication prior to runway assignment, execute the ILS RWY 26L approach.

NOTE: Speed Restriction: Turbojet aircraft descend via mach number until intercepting 280K.

NOTE: Expect runway assignment from Houston TRACON upon initial contact.

NOTE: Corresponding RNAV STAR is SKNRD. Expect SKNRD when IAH is landing east.

NOTE: Speed Restriction: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by STAR.

NOTE: Chart not to scale.
COWBOY TRANSITION (CVE.DRLLR5):
DIESL TRANSITION (DIESL.DRLLR5):
YLEXY TRANSITION (YLEXY.DRLLR5): Austin Terminal
Area Departures only.
MILLSAP TRANSITION (MQP.DRLLR5):
OILL TRANSITION (OILL.DRLLR5):
TORRN TRANSITION (TORRN.DRLLR5):

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet and turboprop aircraft capable of 280K or greater only.
NOTE: Fly the Runway 26R transition; Houston Approach control may assign a different transition on initial contact.
NOTE: Corresponding RNAV STAR is GUSHR. Expect GUSHR when IAH is landing east.
NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.

(Notes on the following page)
(Narrative on following page)
**ARRIVAL ROUTE DESCRIPTION**

From MPORT on track 136° to cross DRLLR between 13000 and 16000 and at 250K, then on track 137° to cross PTROL between 11000 and 13000, then on track 137° to cross DOMNO between 8000 and 10000 and at 240K.

**LANDING RUNWAY 26L:** From DOMNO on track 087° to cross ZOEEE at 7000 and at 210K, then on track 087°. Expect vectors to final approach course.

**LANDING RUNWAY 26R:** From DOMNO on track 087° to cross SKLER at 6000 and at 210K, then on track 087°. Expect vectors to final approach course.

**LANDING RUNWAY 27:** From DOMNO on track 136° to cross BYSUN at 6000, then on track 136° to SMOCR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect vectors to final approach course.
DUUUK THREE ARRIVAL

DUUUK THREE ARRIVAL

NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS equipped turbojet and turboprop aircraft must file the HTOWN/TEJAS RNAV STARs.

NOTE: SAT TRANSITION FL240 and above only.

CONTINUED ON FOLLOWING PAGE
ARRIVAL ROUTE DESCRIPTION

CORPUS CHRISTI TRANSITION (CRP.DUUUK3): From over CRP VORTAC on CRP R-015 to CHVRN, then on IAH R-236 to DUUUK. Thence . . . .

PALACIOS TRANSITION (PSX.DUUUK3): From over PSX VORTAC on PSX R-359 to GMANN, then on IAH R-236 to DUUUK. Thence . . . .

SAN ANTONIO TRANSITION (SAT.DUUUK3): From over SAT VORTAC on SAT R-095 to CHVRN, then on IAH R-236 to DUUUK. Thence . . . .

. . . . From over DUUUK on IAH R-236 to BII GG. Depart BII GG heading 085° for vectors to final approach.
NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turbojet and turboprop aircraft only.

NOTE: Fly the Runway 08L transition; Houston approach control may assign a different transition on initial contact.

NOTE: Corresponding RNAV STAR is ZEEKK. Expect ZEEKK when IAH is landing west.

NOTE: Except for aircraft departing SHV, PLANB transition is ATC assigned only; do not file.

NOTE: CARPR transition is ATC assigned only; do not file.

NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.GESNR1):
CARPR TRANSITION (CARPR.GESNR1):
PLANB TRANSITION (PLANB.GESNR1):
SAWMILL TRANSITION (SWB.GESNR1):

From ZEEKK on track 229° to cross GESNR at or above 13000, at or below 16000 and at 280K.

LANDING RUNWAY 8L: From GESNR on track 226° to cross KENNN at or above 10000, at or below 11000 and at 250K, then on track 227° to cross KNGWD at or above 8000, at or below 10000 and at 240K, then on track 257° to CROSS ZOEEE at 7000 and at 240K, then on track 267° to cross CASST at 6000 and at 210K, then on track 226°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 8R/9: From GESNR on track 226° to cross KENNN at or above 10000, at or below 11000 and at 250K, then on track 227° to cross KNGWD at or above 8000, at or below 10000 and at 240K, then on track 225° to cross EDEEE at or below 8000, then on track 225° to cross REAPR at 6000, then on track 225° to cross SHIVV at 6000 and at 240K, then on track 267° to cross HOWLN at 6000 and at 210K, then on track 267°. Expect RADAR vectors to final approach course.
NOTE: Chart not to scale.
ARIVAL ROUTE DESCRIPTION

HARVEY TRANSITION (HRV.GILCO5): From over HRV VORTAC on HRV R-258 to JEPEG, then on MHF R-085 to WOLDE. Thence . . . .
JEPEG TRANSITION (JEPEG.GILCO5): From over JEPEG on MHF R-085 to WOLDE. Thence . . . .
KLAMS TRANSITION (KLAMS.GILCO5): From over KLAMS on SBI R-136 to KUGLE, then on MHF R-085 to WOLDE. Thence . . . .
LAFAYETTE TRANSITION (LFT.GILCO5): From over LFT VORTAC on LFT R-230 to GIRLY, then on MHF R-085 to WOLDE. Thence . . . .
LEEVILLE TRANSITION (LEV.GILCO5): From over LEV VORTAC on LEV R-276 to JEPEG, then on MHF R-085 to WOLDE. Thence . . . .
SABINE PASS TRANSITION (SBI.GILCO5): From over SBI VOR/DME on SBI R-233 to WOLDE. Thence . . . .
SEMMES TRANSITION (SJI.GILCO5): From SJI VORTAC on SJI R-244 to TOPEZ, then on HRV R-258 to JEPEG, then on MHF R-085 to WOLDE. Thence . . . .

. . . From over WOLDE on IAH R-111 to GILCO.

LANDING RUNWAYS 8L/R, 9:
From GILCO fly heading 265° for vectors to final approach course.

FOR ALL OTHER RUNWAYS:
Expect vectors to final approach course at or prior to GILCO.
ARRIVAL ROUTE DESCRIPTION

COWBOY TRANSITION (CVE.GUSHR3):
DIESL TRANSITION (DIESL.GUSHR3):
ILEXY TRANSITION (ILEXY.GUSHR3):
MILLSAP TRANSITION (MQP.GUSHR3):
OILL TRANSITION (OILLL.GUSHR3):
TORNN TRANSITION (TORNN.GUSHR3):

From MPORT on track 171° to cross GUSHR at 6000 and at 210K. Expect ILS or LOC Rwy 08L.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

CORPUS CHRISTI TRANSITION (CRP.HTOWN3)
LMEDA TRANSITION (LMEDA.HTOWN3)
NEHOW TRANSITION (NEHOW.HTOWN3)
SAN ANTONIO TRANSITION (SAT.HTOWN3)
WEMAR TRANSITION (WEMAR.HTOWN3)
YEEHA TRANSITION (YEEHA.HTOWN3)

From GMANN on track 040° to cross HTOWN at 9000 and at 240K, then on track 031° to cross WDLNS at 7000 and at 210K. Expect ILS or LOC RWY 8R.
NOTE: Chart not to scale.

PLANNING INFORMATION

VERTICAL NAVIGATION

NOTE: RADAR required.

NOTE: For use by Turbojet and Turboprop aircraft capable of 280K or greater only.

NOTE: DME/DME/IRU or GPS equipped aircraft must file the WAPPL (RNAV) STAR.

NOTE: ATC assigned only for aircraft landing CXO, DWH, IAH, T78, and 6R3.

(CONTINUED ON FOLLOWING PAGE) NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.HUDZY4): From over AEX VORTAC on AEX R-235 to WAPPL, then on IAH R-067 to HUDZY. Thence. . . .

SAWMILL TRANSITION (SWB.HUDZY4): From over SWB VOR/DME on SWB R-211 to BRWCK, then on AEX R-235 to WAPPL, then on IAH R-067 to HUDZY. Thence. . . .

. . . . from over HUDZY on IAH R-067 to CLWSN, then on IAH R-067 to SWWAA, then on heading 190°. Expect RADAR vectors to final approach course.
NOTE: Chart not to scale.

(continued on following page)
ARRIVAL ROUTE DESCRIPTION

From KIDDZ on track 152° to cross SNIFY at 12000 and at 270K, then on track 152° to QTRBK, then on track 150° to cross RVEEE at or above 11000, then on track 147° to cross AAHZZ at 10000, then on track 148° to cross GLUVR at or above 9000 and at 240K.

LANDING RUNWAY 4: From GLUVR on track 127° to cross GEEEO at 6000 and at 210K. Expect ILS or LOC Rwy 04 approach.

LANDING RUNWAYS 13L/R: From GLUVR on track 090° to cross CRSTY at 6000 and at 210K, then on track 042° to SEUSS, then on track 042°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 22: From GLUVR on track 090° to cross CRSTY at 6000 and at 210K, then on track 090° to VILLI, then on track 093° to MAAHH, then on track 110°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 31L/R: From GLUVR on track 090° to cross CRSTY at 6000 and at 210K, then on track 090° to VILLI, then on track 130° to RJAAY, then on track 130°. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.
ARIVAL ROUTE DESCRIPTION

From LINKK on track 301° to cross GILL between 8000 and 10000 and at 240K.

LANDING RUNWAY 26L: From GILL on track 325° to cross GARRR at 7000 and at 210K. Expect assigned instrument approach RWY 26L.

LANDING RUNWAY 26R: From GILL on track 325° to cross GARRR at 7000 and at 210K, then on track 290° at 210K. Expect vectors to final approach course.

LANDING RUNWAY 27: From GILL on track 313° to cross RDFSH at 6000 and at 210K. Expect assigned instrument approach RWY 27.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

BRKAT TRANSITION (BRKAT.MSCOT4): 
CHLLY TRANSITION (CHLLY.MSCOT4): 
DIESL TRANSITION (DIESL.MSCOT4): 
ILEXY TRANSITION (ILEXY.MSCOT4): 

From SUUNR on track 116° to cross MSCOT at 10000, then on track 116° to HWKII, then on track 087° to cross DOMNO between 8000 and 10000 and at 240K.

LANDING RUNWAY 26L: From DOMNO on track 087° to cross ZOEEE at 7000 and at 210K, then on track 087°. Expect vectors to final approach course.

LANDING RUNWAY 26R: From DOMNO on track 087° to cross SKLER at 6000 and at 210K, then on track 087°. Expect vectors to final approach course.

LANDING RUNWAY 27: From DOMNO on track 136° to cross BYSUN at 6000, then on track 136° to SMOCTR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect vectors to final approach course.
NOTE: Chart not to scale.

SJI
SEMMES
LFT
LAFAYETTE
POLND
LEV
LEEVILLE
KELPP
GIRLY
HRV
HARVEY
SEAGL
PEGLG
MULLT
JEPEG
SHREQ

NOTE: RNAV 1 - DME/DME/IRU or GPS.

NOTE: RNAV transition for arrival routes.
See following page (CONTINUED ON FOLLOWING PAGE)
(NARRATIVE ON FOLLOWING PAGE)

GEORGE BUSH INTL/HOUSTON (IAH)

HOUSTON, TEXAS

NNCEE TWO ARRIVAL (RNAV) Transition Routes

(LINKK.NNCEE2) 30NOV23

SC-5, 11 JUL 2024 to 05 SEP 2024

Z25
AL-5461 (FAA)

NNCEE TWO ARRIVAL (RNAV) Transition Routes

(GEORGE BUSH INTL/HOUSTON (IAH))

HOUSTON, TEXAS

(LINKK.NNCEE2) 30NOV23

SC-5, 11 JUL 2024 to 05 SEP 2024

Z25
AL-5461 (FAA)
ARRIVAL ROUTE DESCRIPTION

From LINKK on track 293° to cross NANCE at or below 15000, then on track 293° to cross BEDIM at or above 10000 and at 250K.

Landing Runway 8L: From BEDIM on track 293° to cross CHKEN at or below 7000, then on track 290° to cross PRAY at 6000, then on track 293° to cross CASST at 6000 and below 7000, then on track 280° to cross ShiV at 240K, then on track 267° to cross HOWIN at 6000 and at 210K, then on track 267° to final approach course.

Landing Runways 8R, 9: From BEDIM on track 293° to cross CHKEN at or below 7000, then on track 290° to cross PRAY at 6000, then on track 293° to cross CASST at 6000 and below 7000, then on track 280° to cross ShiV at 240K, then on track 267° to cross HOWIN at 6000 and at 210K, then on track 267° to final approach course.

NOTE: IAH is landing west. Corresponding RNAV STAR is LINKK. Expect LINKK when may assign a different transition on initial contact.

Fly the runway 8R, 9 transition; Houston Approach Control may assign a different transition on initial contact.

NOTE: Jet and turboprop aircraft only. Descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.

NOTE: IAH is landing west. Corresponding RNAV STAR is LINKK. Expect LINKK when

Jet and turboprop aircraft only.

NOTE: IAH is landing west.

Maintain 280K until slowed by the STAR.

NOTE: IAH is landing west.
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.OHIO4):
From over AEX VORTAC via AEX R-251 to LYMBO INT, then on IAH R-046 to OHIO INT. Thence . . .

LUFKIN TRANSITION (LFK.OHIO4):
From over LFK VORTAC on LFK R-159 to ZEEKK INT, then on IAH R-046 to OHIO INT. Thence . . .

GEORGE BUSH INTCTNL AIRPORT
/ HOUSTON (IAH):
. . . . from OHIO INT on IAH R-046 to PNUUT. Thence . . .

LANDING RUNWAYS 8L/R or 9:
. . . . fly heading 265° for vectors to final approach course.

LANDING ALL OTHER RUNWAYS:
. . . . expect vectors to final approach course at or prior to PNUUT.

FOR ALL OTHER AIRPORTS:
. . . . from OHIO INT on IAH R-046 to PNUUT. Expect vectors to final approach course at or prior to PNUUT.

NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS equipped turbojet aircraft landing IAH must file the GESNR/ZEEKK or DOOBI/SKNRD (RNAV) STAR.

NOTE: ATC assigned only for airports other than KIAH, KDWH and KCXO, T78 and 6R3.

VERTICAL NAVIGATION

TURBOJETS:
Landing East at IAH
Expect 17000 280K
Landing West at IAH
Expect 12000 250K

PLANNING INFORMATION

Expect 12000 250K
Landing West at IAH
Expect 17000 280K
Landing East at IAH
ARRIVAL ROUTE DESCRIPTION

EATIT TRANSITION (EATIT.PIEGY)

LANDING ALL AIRPORTS: From WHAEL on track 027° to cross PIEGY at 7000, then on track 027° to COWZZ, then on track 027° to cross MUTWO at 5000, then on track 070°. Expect RADAR vectors to final approach course.
NOTE: Chart not to scale.

See following page for Arrival Routes.

**BAYYY**

15000 250K
12000

**SHUDL** 8000 1400 27° (19)
**GEEAR** 8000 270° (46)
**SLYCE**

12000 1400 248° (31)
**JEPEG**

12000 3100 248° (56)
**SEMMES**

12000 *1800 248° (56)
**SJI**

NOTE: Expect runway assignment from Houston TRACON upon initial contact.

NOTE: Corresponding RNAV STAR is BAYYY. Expect BAYYY when HOU is landing 4/13.

NOTE: For turbojet and turboprop aircraft capable of 280K or greater only.

NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.

**BAYYY.PUCKS4** 2/7/24

SC-5, 11 JUL 2024 to 05 SEP 2024
ARRIVAL ROUTE DESCRIPTION

From BAYYY on track 274° to cross PUCKS between 8000 and 11000.

LANDING RUNWAY 22: From PUCKS on track 310° to cross SQRLL at or above 8000, then on track 310° to cross KEMAH at 6000, then on track 310° to cross WWILD at 6000 and at 210K, then on track 310° to cross JCNTO at 4000, then on track 310°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 31L/R: From PUCKS on track 274° to cross BLEAU at or above 8000, then on track 274° to cross MMOOW at 6000 and at 210K, then on track 274°. Expect RADAR vectors to final approach course.
RIICE NINE ARRIVAL (RIICE.RIICE9) 03NOV22

Transition Routes

HOUSTON, TEXAS

NOTE: DME/DME/IRU or GPS equipped turboprop landing IAH capable of 280K or greater must file the DRLLR/GUSHR (RNAV) STARs.

MILLSAP 117.7 MQP  ➞ Chan 124
COWBOY 116.2 CVE  ➞ Chan 109

BILEE TRANSITION (BILEE.RIICE9): From over BILEE on TNV R-334 to HOMRN, then on IAH R-313 to RIICE. Thence . . .

COLLEGE STATION TRANSITION (CLL.RIICE9): From over CLL VORTAC on CLL R-076 to BAZBL, then on IAH R-313 to RIICE. Thence . . .

COWBOY TRANSITION (CVE.RIICE9): From over CVE VOR/DME on CVE R-160 to TORN, then on TNV R-334 to HOMRN, then on IAH R-313 to RIICE. Thence . . .

ILEXY TRANSITION (ILEXY.RIICE9): From over ILEXY on CLL R-238 to CLL VORTAC, then on CLV R-076 to BAZBL, then on IAH R-313 to RIICE. Thence . . .

ILEXY TRANSITION (ILEXY.RIICE9): From over ILEXY on CLL R-238 to CLL VORTAC, then on CLV R-076 to BAZBL, then on IAH R-313 to RIICE. Thence . . .

LEONA TRANSITION (LOA.RIICE9): From over LOA VORTAC on LOA R-181 to BAZBL, then on IAH R-313 to RIICE. Thence . . .

LLO VORTAC on LLO R-081 to BAZBL, then on IAH R-313 to RIICE. Thence . . .

MILLSAP TRANSITION (MQP.RIICE9): From over MQP VORTAC on MQP R-124 to TORN, then on TNV R-334 to HOMRN, then on IAH R-313 to RIICE. Thence . . .

TORN TRANSITION (TORN.RIICE9): From over TORN on TNV R-334 to HOMRN, then on IAH R-313 to RIICE. Thence . . .
ARRIVAL ROUTE DESCRIPTION

GEORGE BUSH INTCNTL/HOUSTON (IAH):
. . . . From over RIICE on IAH R-313 to BRKMN, to MLRRR, to LYYTE.

LANDING RUNWAY 26L/R or 27:
. . . . Fly heading 085° for vectors to final approach course.

LANDING ALL OTHER RUNWAYS:
. . . . Expect vectors to final approach course at or prior to LYYTE.

FOR ALL OTHER AIRPORTS:
. . . . From over RIICE on IAH R-313 to BRKMN, thence as depicted to LYYTE expect vectors to final approach course at or prior to LYYTE.
NARRATIVE ON FOLLOWING PAGE
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.SKNRD4):

PLANB TRANSITION (PLANB.SKNRD4):

SAWMILL TRANSITION (SWB.SKNRD4):

From DOOBI on track 242° to cross SKNRD at or below 16000 and at 280K.

LANDING RUNWAY 8L: From SKNRD on track 242° to cross BFFET at or above 12000 and, at or below 14000 and at 250K, then on track 242° to cross KNGWD at or above 8000, at or below 10000 and at 240K, then on track 257° to cross ZOEEE at 7000 and at 240K, then on track 267° to cross CASST at 6000 and at 210K, then on track 267°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 8R, 9: From SKNRD on track 242° to cross BFFET at or above 12000, at or below 14000 and at 250K, then on track 242° to cross KNGWD at or above 8000, at or below 10000 and at 240K, then on track 225° to cross EDEEE at or below 8000, then on track 225° to cross REAPR at 6000, then on track 225° to cross SHIVV at 6000 and at 240K, then on track 267° to cross HOWLN at 6000 and at 210K, then on track 267°. Expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

COLLEGE STATION TRANSITION (CLL.SNIFY1): From over CLL VORTAC on CLL R-147 to KIDDZ. Thence....

ELLVR TRANSITION (ELLVR.SNIFY1): From over ELLVR on CLL R-334 to CLL VORTAC, then on CLL R-147 to KIDDZ. Thence....

LLANO TRANSITION (LLO.SNIFY1): From over LLO VORTAC on LLO R-087 and CLL R-268 to CLL VORTAC, then on CLL R-147 to KIDDZ. Thence....

....from KIDDZ on CLL R-147 to cross SNIFY at 12000. Expect vectors to final approach course at or prior to SNIFY.

NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: ATC assigned only.
NOTE: Expect runway assignment from Houston TRACON upon initial contact.
NOTE: Turbojet and turboprop aircraft capable of 280K or greater only.
NOTE: GPS required for KELPP, PEGLG, and SEAGL transitions.
ARRIVAL ROUTE DESCRIPTION

From BAYYY on track 304° to SOULL at 240K.

LANDING RUNWAY 8L: From SOULL on track 304° to PHLLY at 240K, then on track 306° to CHKEN, then on track 280° to PRAYY, then on track 319° to GOVYV, then on track 267° to DOMNO at 210K, then on track 267° at 210K. Expect vectors to final approach course.

LANDING RUNWAY 8R: From SOULL on track 304° to PHLLY at 240K, then on track 306° to CHKEN, then on track 280° to PRAYY, then on track 267° to SMOCR, then on track 267° to SHIVV, then on track 267° to HOWLN at 210K, then on track 267°. Expect vectors to final approach course.

LANDING RUNWAY 9: From SOULL on track 304° to PHLLY at 240K, then on track 306° to CHKEN, then on track 280° to PRAYY, then on track 267° to SMOCR, then on track 267° to SHIVV, then on track 267° to HOWLN at 210K, then on track 267°. Expect vectors to final approach course.

LANDING RUNWAY 26L: From SOULL on track 338° to GARRR at 210K. Expect ILS or LOC Rwy 26L.

LANDING RUNWAY 26R: From SOULL on track 338° to GARRR at 210K, then on track 290° at 210K. Expect vectors to final approach course.

LANDING RUNWAY 27: From SOULL on track 336° to RDFS at 210K. Expect ILS or LOC Rwy 27.
TEJAS FIVE ARRIVAL (RNAV) Transition Routes

NOTE: Chart not to scale.

NOTE: Jet and turboprop aircraft only.

NOTE: Fly the Rwy 27 transition; Houston Approach Control may assign a different transition on initial contact.

NOTE: Corresponding RNAV STAR is HTOWN. Expect HTOWN when IAH is landing east.

NOTE: Jet aircraft descend via mach number until 280K, if unable, advise ATC.

GMANN
16000 FL190
280K

WEMAR
FL240
9000
2900
2300

KATYY
FL240
7000
090°
*96°
(43)

ALVNN
FL230
9000
2200

YEEHA
FL190
2200
9000
036°

NEHOW
FL230
9000
2200

CORPUS CHRISTI TRANSITION (CRP.TEJAS5)
LMEDA TRANSITION (LMEDA.TEJAS5)
NEHOW TRANSITION (NEHOW.TEJAS5)
SAN ANTONIO TRANSITION (SAT.TEJAS5)
WEMAR TRANSITION (WEMAR.TEJAS5)
YEEHA TRANSITION (YEEHA.TEJAS5)

(CONTINUED ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

From GMANN on track 058° to cross CITTE at or below 16000, then on track 059° to cross TEJAS between 12000 and 14000 and at 250K.

LANDING RUNWAY 26L: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 087° to SMOCR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 26R: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 034° to ZOEEE, then on track 087° to cross SKLER at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 27: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 087° to SHIVV, then on track 087° to SMOCR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

NOTE: Jet and turboprop aircraft only.
NOTE: Fly the Rwy 27 transition; Houston Approach Control may assign a different transition on initial contact.
NOTE: Corresponding RNAV STAR is HTOWN. Expect HTOWN when IAH is landing east.
NOTE: Jet aircraft descend via mach number until 280K, if unable, advise ATC.

NOTE: Chart not to scale.
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

NOTE: Turbojet and turboprop aircraft only.
NOTE: ATC assigned only for aircraft landing HOU.

SC-5, 11 JUL 2024 to 05 SEP 2024
ARRIVAL ROUTE DESCRIPTION

BBURT TRANSITION (BBURT.TKNIQ3)

From TKNIQ on track 301° to DOCCC.

LANDING HOU RUNWAY 4: From DOCCC on track 302° to FRDDY, then on track 289° to FIGGG, then on track 255° to SHUUG, then on track 222° to EMARR, then on track 220°. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAYS 13L/R: From DOCCC on track 302° to FRDDY, then on track 289° to FIGGG, then on track 278° to IVEEE, then on track 280° to VILLI, then on track 311° to ALLLY, then on track 311°. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAY 22: From DOCCC on track 323° to KEMAH, then on track 310°. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAYS 31L/R: From DOCCC on track 288° to MMOOW, then on track 274°. Expect RADAR vectors to final approach course.

LANDING AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41, 54T: From DOCCC on track 288° to MMOOW, then on track 253°. Expect RADAR vectors to final approach course.
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS equipped turbojet and turboprop aircraft landing HOU must file the BELLR (RNAV) STAR.
NOTE: DME required.
NOTE: DME required for holding at HYDRL.

SAN ANTONIO
116.8 SAT
Chan 115

VICTORIA
109.0 VCT
Chan 27

PALACIOS
115.5 PSX
Chan 120

CORPUS CHRISTI TRANSITION (CRP.TSHRT2): From over CRP VORTAC on CRP R-029 to HYDRL, then on IAH R-221 to BELLR. Thence . . . .

PALACIOS TRANSITION (PSX.TSHRT2): From over PSX VORTAC on PSX R-011 to BELLR. Thence . . . .

SAN ANTONIO TRANSITION (SAT.TSHRT2): From over SAT VORTAC on SAT R-100 to HYDRL, then on IAH R-221 to BELLR. Thence . . . .
fly heading 075° for vectors to final approach course. . . . from over BELLR on IAH R-221 to cross TSHRT at 12000. From TSHRT fly heading 075° for vectors to final approach course.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS equipped turbojet and turboprop aircraft landing HOU must file the BELLR (RNAV) STAR.
NOTE: DME required.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

BRKAT TRANSITION (BRKAT.TTORO3):
CHLLY TRANSITION (CHLLY.TTORO3):
DIESL TRANSITION (DIESL.TTORO3):
ILEXY TRANSITION (ILEXY.TTORO3):

From SUUNR on track 159° to cross TTORO at 8000 and at 210K. Expect ILS or LOC RWY 8R.

NOTE: RADAR Required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS Required.
NOTE: Turboprop aircraft only.
NOTE: Expect runway assignment from Houston TRACON upon initial contact.
NOTE: Turboprop aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
NOTE: Corresponding RNAV STAR is MSCOT. Expect MSCOT when IAH is landing west.
NOTE: BRKAT transition ATC only.
NOTE: IILEXY transition for Austin terminal area departures only.

NOTE: Chart not to scale.
NOTE: Expect runway assignment from Houston TRACON upon initial contact.

NOTE: For turbojet and turboprop aircraft capable of 280K or greater only.

NOTE: Turbojet aircraft descend via MACH number until intercepting 280K. Maintain 280K until slowed by the STAR.

NOTE: ZEBBB TRANSITION ATC assigned only.

NOTE: Except for aircraft departing SHV, PLANB TRANSITION is ATC assigned only. Do not file.

RNAV 1 - DME/DME/IRU or GPS. RADAR required.

RADAR required.
NOTE: Expect runway assignment from Houston TRACON upon initial contact.
NOTE: For turbojet and turboprop aircraft capable of 280K or greater only.
NOTE: Turbojet aircraft descend via MACH number until intercepting 280K. Maintain 280K until slowed by the STAR.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

From WAPPL on track 250° to cross WLMOR between 15000 and FL210, then on track 250° to HUDZY, then on track 250° to cross CLWSN between 12000 and 14000 and at 280K, then on track 250° to cross SWWAA between 10000 and 12000 and at 250K, then on track 191° to cross PUSHN at or above 8000.

LANDING HOU RUNWAY 4: From PUSHN on track 192° to cross BUGZY at or below 10000, then on track 192° to cross PRTCH at or below 7000, then on track 177° to cross SHUUG at 6000 and at 210K, then on track 222° to EMARR, then on track 222°.
Expect RADAR vectors to final approach course.

LANDING HOU RUNWAYS 13L/R: From PUSHN on track 192° to cross BUGZY at or below 10000, then on track 192° to cross PRTCH at or below 7000, then on track 200° to cross MOLLR at 6000 and at 210K, then on track 251° to VILL, then on track 311° to ALLY, then on track 311°. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAY 22: From PUSHN on track 192° to cross BUGZY at or below 10000, then on track 175° to cross RTWNG at 7000 and at 210K, then on track 111° to MAAHH, then on track 111°. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAYS 31L/R: From PUSHN on track 192° to cross BUGZY at or below 10000, then on track 192° to cross PRTCH at or below 7000, then on track 126° to cross UBETR at 6000 and at 210K, then on track 126°. Expect RADAR vectors to final approach course.

LANDING GLS, TME, AXH, HPY, T41, 54T, T00, SGR, ARM, BYY, LBX, LVJ, IWS, EFD: From WAPPL on track 250° to cross WLMOR between 15000 and FL210, then on track 250° to HUDZY, then on track 250° to cross CLWSN between 12000 and 14000 and at 280K, then on track 250° to cross SWWAA between 10000 and 12000 and at 250K, then on track 191° to cross PUSHN at or above 8000, then on track 192° to cross BUGZY at or below 10000, then on track 175° to cross PLKTN at 8000, then on track 175°.
Expect RADAR vectors to final approach course.
NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turbojet or turboprop aircraft capable of 280K or greater only.

NOTE: Fly the runway 26R transition; Houston approach control may assign a different transition on initial contact.

NOTE: Corresponding RNAV STAR is GESNR. Expect GESNR when IAH is landing east.

NOTE: Except for aircraft departing SHV, PLANB TRANSITION is ATC assigned only; do not file.

NOTE: CARPR TRANSITION is ATC assigned only, do not file.

NOTE: Turbojet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.ZEEKK2)
CARPR TRANSITION (CARPR.ZEEKK2)
PLANB TRANSITION (PLANB.ZEEKK2)
SAWMILL TRANSITION (SWB.ZEEKK2)

From ZEEKK on track 211° to cross BLUZZ at or below 10000 and at 240K.

LANDING RUNWAY 26L: From BLUZZ on track 191° to cross ODISS at or above 8000 and at 210K, then on track 216° to cross BOZZZ at 8000 and at 210K. Expect ILS or LOC RWY 26L approach.

LANDING RUNWAY 26R: From BLUZZ on track 194° to cross TABRR between 6000 and 7000, then on track 194° to cross HOOTI at 6000 and at 210K. Expect ILS or LOC RWY 26R approach.

LANDING RUNWAY 27: From BLUZZ on track 172° to cross PPUNK at or below 8000, then on track 172° to cross VZEEE at or above 6000, then on track 172° to SOFFT, then on track 185° to cross CLSIK at 4000 and at 210K. Expect ILS or LOC RWY 27 approach.
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RADAR required. Use William P Hobby altimeter setting. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Procedure NA at night. Rwy 12 helicopter visibility reduction below 1 SM NA. Circling NA to Rwys 17 and 35.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 17, 35: NA - Environmental
Rwys 12, 30: Standard with minimum climb of 500' per NM to 540.

TAKEOFF RUNWAY 12: Climb on heading 124° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 30: Climb on heading 304° to 540 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
CTAF
122.9
HOUSTON DEP CON
134.45 284.0

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwys 17, 35: NA - Environmental.
Rwys 12, 30: Standard with minimum
climb of 500'/NM to 540.

NOTE: CRGER TRANSITION ATC assigned only
for aircraft departing 54T, AXH, EFD, GLS,
HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb on heading 124° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 30: Climb on heading 304° to 540, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
**HOODO SEVEN DEPARTURE (RNAV)**

**CTAF**
122.9
HOUSTON DEP CON
134.45 284.0

**NOTE:** RNAV 1.
**NOTE:** RADAR required.
**NOTE:** ATC assigned only.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME's must be operational.

**TAKEOFF MINIMUMS**

Rwys 17, 35: NA - Environmental.
Rwys 12, 30: Standard with minimum climb of 500’ per NM to 540.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 12:** Climb on heading 124° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .
**TAKEOFF RUNWAY 30:** Climb on heading 304° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**
**CFOOD TRANSITION (HOODO7.CFOOD)**
**HARVEY TRANSITION (HOODO7.HRV)**
**LEEVILLE TRANSITION (HOODO7.LEV)**
**SBIRD TRANSITION (HOODO7.SBIRD)**
INDIE EIGHT DEPARTURE (RNAV)

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 12:** Climb on heading 124° to 540 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 30:** Climb on heading 304° to 540 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**

**NOTE:** Chart not to scale.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

**Takeoff Minimums**
Rwys 17, 35: NA - Environmental.
Rwys 12, 30: Standard with minimum climb of 500' per NM to 540.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb on heading 124° to 540, for RADAR vectors to KARRR, thence . . .
TAKEOFF RUNWAY 30: Climb on heading 304° to 540, for RADAR vectors to KARRR, thence. . . .

. . . .on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 12:** Climb on heading 124° to 540 for RADAR vectors to KNTKY, thence . . . .

**TAKEOFF RUNWAY 30:** Climb on heading 304° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**
NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.
ANAHUAC, TEXAS
CHAMBERS COUNTY
AL-6395 (FAA)
ASSIGNED BY ATC
TOP ALTITUDE: ASSIGNED BY ATC
Rwys 12, 30: Standard.
Rwys 17, 35: NA - Environmental.
TAKEOFF MINIMUMS
Rwys 12, 30: Standard.
Rwys 17, 35: NA - Environmental.
NOTE: Chart not to scale.
(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb on heading 124° to 540 for RADAR vectors to KNTKY, thence . . .

TAKEOFF RUNWAY 30: Climb on heading 304° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)

JBUll TRANSITION (STRYA8.JBUll)
DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 12:** Climb on heading 124° to 540 for RADAR vectors to BBYSE, thence...

**TAKEOFF RUNWAY 30:** Climb on heading 304° to 540 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
Departure Route Description

Takeoff Runway 12: Climb on heading 124° to 540, for Radar vectors to WATFO, thence. . .

Takeoff Runway 30: Climb on heading 304° to 540, for Radar vectors to WATFO, thence. . .

. . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

ANKRR Transition (WATFO6.ANKRR)
KELPP Transition (WATFO6.KELPP)
MUSYL Transition (WATFO6.MUSYL)
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 17, 35: NA - Environmental.
Rwy 12, 30: Standard with minimum climb of 500' per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb on heading 124° to 540 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAY 30: Climb on heading 304° to 540 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
For inop ALS, increase S-LOC 17 Cat C/D visibility to ½ SM. Circling NA east of Rwy 17-35.

**DME required.**

- **MALSR:**
  - Missed Approach: Climb to 600 then climbing left turn to 3000 on heading 090° and VUH VOR/DME R-243 to DELVE/VUH 22.1 DME and hold, continue climb-in-hold to 3000.

**ASOS**

- **HOUSTON APP CON**
- **CLNC DEL**
- **UNICOM**

Procedure NA for arrival on VUH VOR/DME airway radials 243 CW 273.

**CATEGORY**

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<th>B</th>
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<td>S-LOC 17</td>
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<td>475 (500-1½)</td>
<td>595 (600-2)</td>
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**Amdt 8 03NOV22**

- **29°07′N-95°28′W**

- **LANDING NO. 17**

- **HDG 175°**

- **TDZE 25**

- **ELEVUNICOM 123.0 (CTAF)**

- **ASOS 119.925**

- **CLNC DEL 125.2**

- **UNICOM 123.0 (CTAF)**

- **ASOS 119.925**

- **HOUSTON APP CON 134.45 284.0**

- **CLNC DEL 125.2**

- **UNICOM 123.0 (CTAF)**
Circling NA east of Rwy 17-35. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use William P. Hobby altimeter setting and increase LPV DA to 363 feet; increase LNAV/VNAV DA to 441 feet and all visibilities ¼ SM; increase all MDAs 100 feet and LNAV visibility Cat C/D ½ SM, and Circling visibility Cat D ¼ SM.

Procedure NA for arrivals at KEEDS on T466 westbound.
RNAV (GPS) RWY 35
TEXAS GULF COAST RGNL (LBX)

ASOS
119.925
HOUSTON APP CON
134.45 284.0
CLNC DEL
125.2
UNICOM
123.0 (CTAF)

VGSI and RNAV glideslope not coincident (VGSI Angle 3.00/TCH 40).

**Procedure**
Turn NA
GP 3.00°
TCH 50

**CATEGORY**
A  B  C  D

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<td>475 (500-1/2)</td>
<td>595 (600-2)</td>
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MIRL Rwy 17-35

**DME/DME RNP-0.3 NA.** Baro-VNAV NA below -16°C (4°F). When local altimeter setting not received, use William P. Hobby altimeter setting and increase all DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.

**MISSING APPROACH:** Climb to 2000 direct PLOT and right turn via 104° track to DELVE and hold.

**ACFT when using William P. Hobby altimeter setting.**
Circling NA east of Rwy 17-35. All DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.

**ACFT when using William P. Hobby altimeter setting.**
Circling NA east of Rwy 17-35. All DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.

**ACFT when using William P. Hobby altimeter setting.**
Circling NA east of Rwy 17-35. All DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.

**ACFT when using William P. Hobby altimeter setting.**
Circling NA east of Rwy 17-35. All DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.

**ACFT when using William P. Hobby altimeter setting.**
Circling NA east of Rwy 17-35. All DAs/MDAs 100 feet and Circling Cat D visibility 1/4 SM. Baro-VNAV and VDP NA when using William P. Hobby altimeter setting. Circling NA east of Rwy 17-35.
NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure, thence.

. . . .on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS.
Rwys 17, 35: Standard with minimum climb of 500’ per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 175° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 35: Climb on heading 355° to 540 for RADAR vectors to DREMR, thence . . . .

. . . . on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

NOTE: Chart not to scale.
**DEPARTURE ROUTE DESCRIPTION**

- **TAKEOFF RUNWAY 17:** Climb on heading 175° to 540, for RADAR vectors to BORRN, thence... . . .
- **TAKEOFF RUNWAY 35:** Climb on heading 355° to 540, for RADAR vectors to BORRN, thence... . . .

. . . .on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

- **CRGER TRANSITION (BORRN6.CRGER)**
- **JUNCTION TRANSITION (BORRN6.JCT)**
- **MNURE TRANSITION (BORRN6.MNURE)**
- **SAN ANTONIO TRANSITION (BORRN6.SAT)**
- **WAILN TRANSITION (BORRN6.WAILN)**
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: Radar required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

... on IAH R-358 to cross GIFFA INT at or above 10000.

NOTE: Chart not to scale.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Climb on heading 175° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .
**TAKEOFF RUNWAY 35:** Climb on heading 355° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**
**CFOOD TRANSITION (HOODO7.CFOOD)**
**HARVEY TRANSITION (HOODO7.HRV)**
**LEEVILLE TRANSITION (HOODO7.LEV)**
**SBIRD TRANSITION (HOODO7.SBIRD)**
INDIE EIGHT DEPARTURE (RNAV)

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500’ per NM to 540.

TAKEOFF RUNWAY 17: Climb on heading 175° to 540 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 35: Climb on heading 355° to 540 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

**INDUSTRY ONE DEPARTURE**

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<td>Junction</td>
<td>116.0 JCT</td>
<td>Chan 107</td>
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</table>

**Radar Information**

- **Junction Transition:** For aircraft overflying JCT VORTAC on J2, J15 or J86.
- **Centex Transition:** ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
- **Corpus Christi Transition:** ATC assigned only.
- **Laredo Transition:** ATC assigned only.

**Takeoff Minimums**

Rwys 17, 35: Standard.

**Note:** Radar required.

*(Continued on following page)*
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
**NOTE:** Chart not to scale.

**RNAV-1 DME/DME/IRU or GPS.**

**RADAR required.**

**TAKEOFF MINIMUMS**

Rwys 17, 35: Standard with minimum climb of 500' per NM to 540.

**TOP ALTITUDE: ASSIGNED BY ATC**

**(NARRATIVE ON FOLLOWING PAGE)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 175° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 35: Climb on heading 355° to 540, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: Chart not to scale.

LEONA FOUR DEPARTURE

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.

NOTE: For aircraft destined LIT or overflying LIT or PXV.

LUFKIN
112.1 LFK
Chan 58

SUSHI

SKKIP

COLET

KYANN

HUMBLE
116.6 IAH
Chan 113

LITTLE ROCK
113.9 LIT
Chan 86

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

... on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 175° to 540 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 35: Climb on heading 355° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
### DEPARTURE ROUTE DESCRIPTION

#### TAKEOFF RUNWAY 17:
Climb on heading 175° to 540, for RADAR vectors to MMALT, thence. . . .

#### TAKEOFF RUNWAY 35:
Climb on heading 355° to 540, for RADAR vectors to MMALT, thence. . . .

. . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

#### GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)

### TAKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500'/NM to 540.

### NOTE:
GUSTI and LCH Transitions ATC assigned only for aircraft departing
AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.

### RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
T - DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
STRYA EIGHT DEPARTURE (RNAV)

NOTE: Chart not to scale.

NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500’ per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 175° to 540 for RADAR vectors to KNTKY, thence. . . .

TAKEOFF RUNWAY 35: Climb on heading 355° to 540 for RADAR vectors to KNTKY, thence. . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Climb on heading 175° to 540 for RADAR vectors to BBYSE, thence... 

**TAKEOFF RUNWAY 35:** Climb on heading 355° to 540 for RADAR vectors to BBYSE, thence... 

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 175° to 540, for RADAR vectors to WATFO, thence. . . .
TAKEOFF RUNWAY 35: Climb on heading 355° to 540, for RADAR vectors to WATFO, thence. . . .

. . . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
WYLSON EIGHT DEPARTURE (RNAV)

**NOTE:** Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 17:** Climb on heading 175° to 540 for RADAR vectors to WYLSON, thence.

**TAKEOFF RUNWAY 35:** Climb on heading 355° to 540 for RADAR vectors to WYLSON, thence.

... on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSON8.GIFFA)**

**MAJKK TRANSITION (WYLSON8.MAJKK)**
RNAV (GPS) RWY 13
BAY CITY RGNL (BYY)

AWOS-3 118.075
HOUSTON CENTER 128.6 360.8
UNICOM 122.8 (CTAF)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Rwy 13, 31 helicopter visibility reduction below 1 SM NA. RADAR required. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Palacios altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase LNAV visibility Cat C ¼ mile. VDP and Baro-VNAV N/A when using Palacios altimeter setting.

MISSED APPROACH: Climb to 2000 direct LEMUR and hold.

NoPT for arrival at COSDI on V13 southwest bound.

Procedure NA for arrival on PSX VORTAC airway radials 009 CW 060.

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).

No PT for arrival at COSDI on V13 southwest bound.

Procedure NA for arrival on PSX VORTAC airway radials 009 CW 060.

RNAV (GPS) RWY 13
BAY CITY RGNL (BYY)
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Rwy 13, 31 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Palacios altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase LNAV visibility Cat C 1/4 mile. VDP and Baro-VNAV N/A when using Palacios altimeter setting.

MISSED APPROACH: Climb to 2000 direct COSDI and hold.

Procedure NA for arrival on PSX VORTAC airway radials 009 CW 060.
**MISSED APPROACH:** Climb to 1100 then climbing right turn to 2600 on PSX VORTAC R-054 to MARVY/17 DME and hold.

**Category:** A

**Amdt 4D 17AUG17**

28°58'N-95°52'W
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 13, 31: Standard with minimum climb of 500’ per NM to 560.

TAKEOFF RUNWAY 13: Climb on heading 131° or as assigned by ATC for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 31: Climb on heading 311° or as assigned by ATC for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)

NOTE: Chart not to scale.
INDIE EIGHT DEPARTURE (RNAV)

AWOS-3
118.075
CTAF
122.8
HOUSTON CENTER
128.6 360.8

INDIE EIGHT DEPARTURE (RNAV) 21336

AL-5824 (FAA)

BAY CITY RGNL (BYY)
BAY CITY, TEXAS

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

TAKEOFF MINIMUMS
Rwy 13, 31: Standard with minimum climb of 500’ per NM to 560.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 131° to 560 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 31: Climb on heading 311° to 560 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 13, 31: Standard with minimum climb of 500’ per NM to 560.

TAKEOFF RUNWAY 13: Climb on heading 131° to 560 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 31: Climb on heading 311° to 560 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)

NOTE: Chart not to scale.
NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 131° to 560, for RADAR vectors to MMALT, thence . . .

TAKEOFF RUNWAY 31: Climb on heading 311° to 560, for RADAR vectors to MMALT, thence . . .

. . . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.lla)
**STRYA EIGHT DEPARTURE (RNAV)**

**NOTE:** Chart not to scale.

**AWOS-3**
- 118.075
- CTAF
- 122.8
- HOUSTON CENTER
- 128.6 360.85

**TOP ALTITUDE: ASSIGNED BY ATC**

**TAKEOFF MINIMUMS**
Rwys 13, 31: Standard with minimum climb of 500' per NM to 560.

**NOTE:** RADAR required.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 13:** Climb on heading 131° to 560 for RADAR vectors to KNTKY, thence . . .
**TAKEOFF RUNWAY 31:** Climb on heading 311° to 560 for RADAR vectors to KNTKY, thence . . .

. . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**
**JBULL TRANSITION (STRYA8.JBULL)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 131° to 560 for RADAR vectors to BBYSE, thence...
TAKEOFF RUNWAY 31: Climb on heading 311° to 560 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)
ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 131° to 560 for RADAR vectors to WYLSN, thence. . . .
TAKEOFF RUNWAY 31: Climb on heading 311° to 560 for RADAR vectors to WYLSN, thence. . . .

. . . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
Circling NA at night. Rwy 14 helicopter visibility reduction below 1 SM NA. Obtain local altimeter setting on CTAF; when not received, use William P Hobby altimeter setting and increase all MDA 60 feet.

Missed approach: Climb to 2000 direct to POMDE and hold.

Circling NA at night. Rwy 14 helicopter visibility reduction below 1 SM NA. Obtain local altimeter setting on CTAF; when not received, use William P Hobby altimeter setting and increase all MDA 60 feet.

Missed approach: Climb to 2000 direct to POMDE and hold.

Circling NA at night. Rwy 14 helicopter visibility reduction below 1 SM NA. Obtain local altimeter setting on CTAF; when not received, use William P Hobby altimeter setting and increase all MDA 60 feet.

Missed approach: Climb to 2000 direct to POMDE and hold.
Circling NA at night. Rwy 14 helicopter visibility reduction below 1 SM NA. Obtain local altimeter setting on CTAF; when not received, use William P Hobby altimeter setting and increase all MDA 60 feet.

MISSING APPROACH: Climbing right turn to 2000 direct to POMDE and hold.

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<thead>
<tr>
<th>HOUSTON APP CON</th>
<th>UNICOM</th>
</tr>
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<tbody>
<tr>
<td>134.45 281.4</td>
<td>122.8 (CTAF)</td>
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RNAV (GPS) RWY 32

**BAYTOWN (HPY)**

**RNP APCH-GPS.**

- **MIRL Rwy 14-32**
- **REIL Rwy 14 and 32**

**MIRL Rwy 14-32**

**REIL Rwy 14 and 32**

**APP CRS 320°**

**TDZE 28**

**Apt Elev 34**

**3100**

**CIRCLING**

1.6 NM to RW32

**OCWOY**

1.6 NM to RW32

**IGBEC**

**VGS1 and descent angles not coincident**

(VGSI Angle 3.00/TCH 20).

**RNP APCH-GPS.**

**MIRL Rwy 14-32**

**REIL Rwy 14 and 32**

**APP CRS 320°**

**TDZE 28**

**Apt Elev 34**

**3100**

**CIRCLING**

1.6 NM to RW32

**OCWOY**

1.6 NM to RW32

**IGBEC**

**VGS1 and descent angles not coincident**

(VGSI Angle 3.00/TCH 20).

**RNP APCH-GPS.**

**MIRL Rwy 14-32**

**REIL Rwy 14 and 32**

**APP CRS 320°**

**TDZE 28**

**Apt Elev 34**

**3100**

**CIRCLING**

1.6 NM to RW32

**OCWOY**

1.6 NM to RW32

**IGBEC**

**VGS1 and descent angles not coincident**

(VGSI Angle 3.00/TCH 20).

**RNP APCH-GPS.**

**MIRL Rwy 14-32**

**REIL Rwy 14 and 32**

**APP CRS 320°**

**TDZE 28**

**Apt Elev 34**

**3100**

**CIRCLING**

1.6 NM to RW32

**OCWOY**

1.6 NM to RW32

**IGBEC**

**VGS1 and descent angles not coincident**

(VGSI Angle 3.00/TCH 20).
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 14, 32: Standard with minimum climb of 500' per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 540 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)

NOTE: Chart not to scale.
**NOTE:** Chart not to scale.

**BORRN SIX DEPARTURE (RNAV)**

CTAF
122.8
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:**

ASSIGNED BY ATC

**NOTE:** CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

**TAKEOFF MINIMUMS**

Rwys 14, 32: Standard with minimum climb of 500’/NM to 540.

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

**JUNCTION JCT**

**CRGER**

12000
3700
290°
77

**FOWLR**

12000
2900
278°
62

**PSTUR**

12000
2400
275°
33

**PUFER**

12000
2100
275°
44

**ZUUU**

12000
8600
271°
19

**HAYYY**

12000
2600
261°
68

**MNURE**

12000
2100
275°
62

**DILRE**

2000

**BOCCK**

1700
7700
238°
17

**WEEED**

1600
7600
270°
20

**WAILN**

10800
1800
270°
(20)

**MARCS**

12000
2800
239°
(35)

**SAN ANTONIO SAT**

12000
2300
239°
(35)

**NOTE:** NARRATIVE ON FOLLOWING PAGE

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 540, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500' per NM to 540.

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

NOTE: Chart not to scale.
INDIE EIGHT DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540 for RADAR vectors to RENNK, thence . . .

TAKEOFF RUNWAY 32: Climb on heading 320° to 540 for RADAR vectors to RENNK, thence . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

TAKEOFF MINIMUMS

Rwys 14, 32: Standard with minimum climb of 500’ per NM to 540.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

CTAF
122.8
HOUSTON DEP CON
134.45 284.0

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 540, for RADAR vectors to KARRR, thence . . . .

. . . .on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
LURIC EIGHT DEPARTURE (RNAV)

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 140° to 540, for RADAR vectors to MMALT, thence.

TAKEOFF RUNWAY 32: Climb on heading 320° to 540, for RADAR vectors to MMALT, thence.

...on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)

NOTE: MMALT SEVEN DEPARTURE (RNAV) 
MMALT, MMALT-7 
 treasurer 
 HOUSTON DEP CON 
134.45 284.0 
CTAF 122.8 
RNAV 1 - DME/DME/IRU or GPS. 
RADAR required.

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500'/NM to 540.

NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.

SC-5, 11 JUL 2024 to 05 SEP 2024
TAKEN OFF MINIMUMS
Rwy 14: 300-1 or standard with a minimum climb of 420’ per NM to 300.
Rwy 32: Standard.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
**NOTE:** Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 540 for RADAR vectors to KNTKY, thence . . .

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 540 for RADAR vectors to KNTKY, thence . . .

. . . .on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBULL TRANSITION (STRYA8.JBULL)**
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 540 for RADAR vectors to BBYSE, thence... 

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 540 for RADAR vectors to BBYSE, thence... 

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 540, for RADAR vectors to WATFO, thence... 

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 540, for RADAR vectors to WATFO, thence... 

...on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**  
**KELPP TRANSITION (WATFO6.KELPP)**  
**MUSYL TRANSITION (WATFO6.MUSYL)**
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 540 for RADAR vectors to WYLSN, thence . . .

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 540 for RADAR vectors to WYLSN, thence . . .

. . .on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSN8.GIFFA)**

**MAJKK TRANSITION (WYLSN8.MAJKK)**
**RNAV (GPS)-A**

**RWJ AIRPARK (54T)**

**BAYTOWN, TEXAS**

**APP CRS**
- 264°
- N/A
- N/A
- 33

**RNP APCH.**
- Circling NA to Rwys 14 and 32. Procedure NA at night. Use William P Hobby altimeter setting.
- Missed Approach: Climb to 500 then climbing right turn to 2200 direct TRIOS and hold.

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<th>HOUSTON APP CON</th>
<th>UNICOM</th>
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<tr>
<td>124.6</td>
<td>134.45 284.0</td>
<td>122.7 (CTAF)</td>
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**Category**
- A: 480-1
- B: 447 (500-1)
- C: 500-1
- D: 467 (500-1)
- NA: filek

**ELEV 33**

**FILEK**
- 2000

**DUHU**
- 264°

**264°**
- 1700
- 5.1 NM

**BAYTOWN, TEXAS**

**Orig 20JUN19**

**29°46'N-94°51'W**

**RA-6674 (FAA)**

**24081**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 8**: Climb on heading 084° to 540 for RADAR vectors to DREMR, thence . . . .
**TAKEOFF RUNWAY 26**: Climb on heading 264° to 540 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**CRIED TRANSITION (BLTWY7.CRIED)**

NOTE: Chart not to scale.
NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 26: Climb on heading 264° to 540, for RADAR vectors to BORRN, thence. . . .

...on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 26: Climb on heading 264° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540 for RADAR vectors to RENNK, thence . . . .

TAKEOFF RUNWAY 26: Climb on heading 264° to 540 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 26: Climb on heading 264° to 540, for RADAR vectors to KARRR, thence. . . .

. . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPORUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 8:** Climb on heading 084° to 540 for RADAR vectors to KNTKY, thence . . . .

**TAKEOFF RUNWAY 26:** Climb on heading 264° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**
NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 14, 32: NA-Environmental.
Rwys 8, 26: Standard with minimum climb of 500'/NM to 540.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540, for RADAR vectors to MMALT, thence.

TAKEOFF RUNWAY 26: Climb on heading 264° to 540, for RADAR vectors to MMALT, thence.

. . . .on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)
PALACIOS THREE DEPARTURE

CTAF
122.7
HOUSTON DEP CON
134.45 284.0

TOP ALTITUDE:
ASSIGNED BY ATC

RATION and DME required.

TAKEOFF MINIMUMS
Rwy 8, 26: Standard.
Rwy 14, 32: Standard - NA at night.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
**NOTE:** Chart not to scale.

**NOTE:** RADAR required.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** RNAV 1.

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 8:** Climb on heading 084° to 540 for RADAR vectors to KNTKY, thence.

**TAKEOFF RUNWAY 26:** Climb on heading 264° to 540 for RADAR vectors to KNTKY, thence.

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**J BULL TRANSITION (STRYA8.JBULL)**
RNAV

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
Rwys 14, 32: NA-Environmental.
Rwys 8, 26: Standard with minimum climb of 500' per NM to 540.

TAKEOFF RUNWAY 8: Climb on heading 084° to 540 for RADAR vectors to BBYSE, thence... .On track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
WATFO SIX DEPARTURE (RNAV)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

CTAF
122.7
HOUSTON DEP CON
134.45 284.0

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading 084° to 540, for RADAR vectors to WATFO, thence.
TAKEOFF RUNWAY 26: Climb on heading 264° to 540, for RADAR vectors to WATFO, thence.

. . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 8:** Climb on heading 084° to 540 for RADAR vectors to WYLSN, thence...

**TAKEOFF RUNWAY 26:** Climb on heading 264° to 540 for RADAR vectors to WYLSN, thence...

...on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSN8.GIFFA)**

**MAJKK TRANSITION (WYLSN8.MAJKK)**

---

**NOTE:** Chart not to scale.
RNAV (GPS) RWY 13
BEAUMONT MUNI (BMT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C. Circling Rwy 31 NA at night. Rwy 13 helicopter visibility reduction below ¾ SM NA.

Procedure NA for arrival at DAS VOR/DME on V574 westbound.

Procedure NA for arrivals at SILBE on V569 southeast bound.

REIL Rwy 13
MIRL Rwy 13-31
RNAV (GPS) RWY 31
BEAUMONT MUNI (BMT)

### WAAS
- CH 58241
- W31A

### APP CRS
- Rwy Idg 3934
- TDZE 32
- Apt Elev 32

### RNP APCH - GPS
- V: Rwy 31 helicopter visibility reduction below 1 SM NA.
- A: Straight-in Rwy 31 NA at night, Circling Rwy 31 NA at night.

### MISSED APPROACH
- Climb to 500 then climbing right turn to 2000 direct KIELL and hold, continue to climb-in-hold to 2000.

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<th>HOUSTON APP CON</th>
<th>CLNC DEL</th>
<th>UNICOM</th>
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<td>118.425</td>
<td>121.3 377.1</td>
<td>121.75</td>
<td>123.0 (CTAF)</td>
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### CLINIC DEL
- 3.4 NM
- 6.4 NM

### CATEGORY
- LP MDA 380-1 348 (400-1) NA
- LNAV MDA 500-1 468 (500-1) NA
- CIRCLING 580-1 548 (600-1) 620-1 588 (600-1) NA

### SC-5, 11 JUL 2024 to 05 SEP 2024

**Amdt 2 21MAR24**
RNAV (GPS) RWY 12
JACK BROOKS RGNL (BPT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C or above 54°C. Baro-VNAV and VDP NA when using Orange County altimeter setting. Rwy 12 helicopter visibility reduction below RVR 4000 NA. When local altimeter setting not received, use Orange altimeter setting: increase LPV DA to 297 feet; increase LNAV/VNAV DA to 464 feet and all visibilities to RVR 4500; increase all MDAs 40 feet and LNAV visibility Cat C/D/E to RVR 5000 and Circling visibility Cat E 1/4 SM. Inop table does not apply to LPV. For inop ALS, increase LNAV/VNAV visibility all Cats to RVR 6000; LNAV Cats A/B to RVR 5500, Cat E to 1/8 SM. For inop ALS when using Orange County altimeter setting, increase LPV all Cats visibility to RVR 4500, LNAV/VNAV visibility Cat E to 1/8 SM; and increase LNAV visibility Cats A/B to RVR 5500, Cats C/D/E 1/8 SM.

ATIS
126.3

HOUSTON APP CON
121.3 377.1

BEAUMONT TOWER
119.5 (CTAF)

GND CON
124.85

CLNC DEL
118.3

UNICOM
122.95

MALSR

SC-5, 11 JUL 2024 to 05 SEP 2024

REIL Rwys 16, 30 and 34
HIRL Rwys 12-30, 16-34

RNAV (GPS) RWY 12
JACK BROOKS RGNL (BPT)
RNAV (GPS) RWY 16

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C or above 54°C. Baro-VNAV and VDP NA when using Orange County altimeter setting. Rw 16 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use Orange County altimeter setting; increase LPV DA to 307 feet and all visibilities ½ SM; increase LNAV/VNAV DA to 363 feet and all visibilities ¾ SM; increase all MDAs 40 feet and LNAV visibility Cat C/D/E ½ SM.

MISSED APPROACH: Climb to 500 then climbing left turn to 3000 direct MARSA and hold.

**RNP APCH - GPS.**
RNAV (GPS) RWY 30
JACK BROOKS RGNL (BPT)

MISSED APPROACH:
Climb to 3100 direct GIDDY and hold, continue climb-in-hold to 3100.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C or above 54°C. Rwy 30 helicopter visibility reduction below ½SM NA. Baro-VNAV and VDP NA when using Orange County altimeter setting. When local altimeter setting not received, use Orange County altimeter setting:
increase LPV DA to 294 feet and all visibilities ½ SM. Increase LNAV/VNAV DA to 355 feet and all visibilities ½ SM. Increase all MDAs 40 feet and LNAV visibility Cat C/D/E ½ SM.

ATIS
126.3
HOUSTON APP CON
121.3 377.1
BEAUMONT TOWER
119.5 (CTAF) 2
GND CON
124.85
CLNC DEL
118.3
UNICOM
122.95

RNAV (GPS) RWY 30
JACK BROOKS RGNL (BPT)

RNAV (GPS) RWY 30
JACK BROOKS RGNL (BPT)
Baro-VNAV NA when using Orange County altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C or above 54°C. When local altimeter setting not received, use Orange County altimeter setting: increase LPV DA to 346 feet; increase LNAV/VNAV DA to 347 feet and all visibilities 1/2 SM; increase all MDAs 40 feet.

Missed Approach: Climb to 500 then climbing left turn to 3100 direct GIDDY and hold, continue climb-in-hold to 3100.

*** RNP APCH - GPS. ***

[Diagram with navigation points and instructions]
RNAV (GPS) RWY 16
BRENHAM MUNI (11R)

**AWOS-3** 121.125  
**HOUSTON APP CON** 134.3 360.85  
**UNICOM** 123.075 (CTAF)

**Radar Required**

**Missed Approach Fix**

**JINGA**

**VGSi and Rnav Glidepath not coincident**

**Category**

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<td>276 (300-7½)</td>
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<td>362 (400-1¼)</td>
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<tr>
<td>LNAV MDA</td>
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<td>562 (600-1)</td>
<td>880-1½</td>
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</tbody>
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**Brenham, Texas**

Amdt 2C 07NOV19

**30°13'N-96°22'W**

SC-5, 11 JUL 2024 to 05 SEP 2024

**LNAV/VNAV**

**LPV**

**DA**

**MDA**

**Category**

**Brenham Muni (11R)**

**RNAV (GPS) RWY 16**

**MISSED APPROACH:** Climb to 2200 direct JINGA and hold.

**Rwy 16 helicopter visibility reduction below 3/4 SM NA.** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C or above 37°C. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet, increase LPV and LNAV/VNAV all CATs and LNAV CATs C/D visibility 1/4 SM. VDP and Baro-VNAV NA with College Station altimeter setting.

**AWOS-3** 121.125

**HOUSTON APP CON** 134.3 360.85

**UNICOM** 123.075 (CTAF)

**1045°**

**VGSi and Rnav Glidepath not coincident**

**Category**

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**Brenham, Texas**

Amdt 2C 07NOV19

**30°13'N-96°22'W**

SC-5, 11 JUL 2024 to 05 SEP 2024

**LNAV/VNAV**

**LPV**

**DA**

**MDA**

**Category**
RNAV (GPS) RWY 34  
BRENHAM MUNI (11R) 

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 37°C. RW34 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 52 feet, and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility ½ SM. VDP and Baro-VNAV NA with College Station altimeter setting.

MISSED APPROACH: Climb to 3100 direct DUDYA and hold.

AWOS-3 121.125  
HOUSTON APP CON 134.3 360.85  
UNICOM 123.075 (CTAF)

RADAR REQUIRED
**RNAV (GPS) RWY 15**

**COULTER FLD (CFD)**

**Radar Required**

Procedure NA for arrivals at SUXOE on V369 northwest bound.

**Missed Approach Fix**

**WOTPO**

148° to RW15

**MISSED APPROACH:**

Climb to 2000 direct WOTPO and hold.

**Baro-VNAV NA:** Rwy 15 helicopter visibility reduction below 3/4 SM NA.

Use College Station altimeter setting, when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**AWOS-3PT**

125.975

**CLL ASOS**

126.85

**HOUSTON APP CON**

134.3 360.85

**UNICOM**

123.0 (CTAF)

**BRYAN, TEXAS**

30°43'N-96°20'W

**Amdt 1C 07NOV19**

**3000**

**RNAV (GPS) RWY 15**

**COULTER FLD (CFD)**

**RNP APCH.**

**AA**

**NA**

**Baro-VNAV NA:** Rwy 15 helicopter visibility reduction below 3/4 SM NA.

Use College Station altimeter setting, when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**Procedure NA for arrivals at SUXOE on V15 northwest bound.**

**Procedure NA for arrivals at GASEC on V15 northwest bound.**

**Missed Approach Fix**

**WOTPO**

148° to RW15

**MISSED APPROACH:**

Climb to 2000 direct WOTPO and hold.

**Baro-VNAV NA:** Rwy 15 helicopter visibility reduction below 3/4 SM NA.

Use College Station altimeter setting, when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**AWOS-3PT**

125.975

**CLL ASOS**

126.85

**HOUSTON APP CON**

134.3 360.85

**UNICOM**

123.0 (CTAF)

**BRYAN, TEXAS**

30°43'N-96°20'W

**Amdt 1C 07NOV19**

**3000**

**RNAV (GPS) RWY 15**

**COULTER FLD (CFD)**

**RNP APCH.**

**AA**

**NA**

**Baro-VNAV NA:** Rwy 15 helicopter visibility reduction below 3/4 SM NA.

Use College Station altimeter setting, when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**Procedure NA for arrivals at SUXOE on V15 northwest bound.**

**Procedure NA for arrivals at GASEC on V15 northwest bound.**

**Missed Approach Fix**

**WOTPO**

148° to RW15

**MISSED APPROACH:**

Climb to 2000 direct WOTPO and hold.

**Baro-VNAV NA:** Rwy 15 helicopter visibility reduction below 3/4 SM NA.

Use College Station altimeter setting, when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**AWOS-3PT**

125.975

**CLL ASOS**

126.85

**HOUSTON APP CON**

134.3 360.85

**UNICOM**

123.0 (CTAF)
Baro-VNAV NA. Use College Station altimeter setting; when not received, use Caldwell altimeter setting and increase all DA 31 feet and all MDA 40 feet.

**Radar Required**

- **AWOS-3PT:** 125.975
- **CLL ASOS:** 126.85
- **HOUSTON APP CON:** 134.3 360.85
- **UNICOM:** 123.0 (CTAF)

**Missed Approach:** Climb to 2500, use Caldwell altimeter setting when not received, direct NUCIB and hold.

**RNAV (GPS) RWY 33**

**COULTER FLD (CFD)**

**ELEV:** 367

**TDZE:** 367

**WAAS CH 70603 W33A**

**Rwy Idg:** 4000

**Apt Elev:** 367

**MIRL Rwy 15-33**

**RNP APCH:**

- **LPV DA:** 642-1 275 (300-1)
- **LNAV DA:** 642-1 275 (300-1)
- **LNAV MDA:** 880-1 513 (600-1)

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**30°43’N-96°20’W**
When local altimeter setting not received, use College Station altimeter setting and increase all MDA 60 feet. Circling NA east of Rwy 15-33. DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.

**MISSING APPROACH:** Climb to 2000 direct KOKEC and hold.

- **AWOS-3PT:** 118.35
- **HOUSTON APP CON:** 134.3 360.85
- **CTAF:** 122.9

**RADAR REQUIRED**

- **ELEV:** 391
- **TDZE:** 391

**MIRL Rwy 15-33:** 30°31'N-96°42'W

**ORIGINAL OBSERVATIONS**

- **AWOS-3PT**
- **HOUSTON APP CON**
- **CTAF**

**CATEGORY**

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<td>CIRCLING</td>
<td>1000-1</td>
<td>1220-1/4</td>
<td>829 (900-1/4)</td>
</tr>
</tbody>
</table>

**SAN FRANCISCO, CALIFORNIA**

**CATEGORICAL OBSERVATIONS**

- **30°31'N-96°42'W**

**ORIGINAL OBSERVATIONS**

- **AWOS-3PT**
- **HOUSTON APP CON**
- **CTAF**

**CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNAV MDA</td>
<td>960-1</td>
<td>569 (600-1)</td>
<td>NA</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1000-1</td>
<td>1220-1/4</td>
<td>829 (900-1/4)</td>
</tr>
</tbody>
</table>
When local altimeter setting not received, use College Station altimeter setting and increase all MDA 60 feet. Circling NA east of Rwy 15-33. DME/DME RNP-0.3 NA. Procedure NA at night. Rwy 33 helicopter visibility reduction below 1 SM NA.

**MISSING APCH FIX**
4 NM ➔ NUPSY

**AWOS-3PT**
118.35

**HOUSTON APP CON**
134.3 360.85

**CTAF**
122.9

**RADAR REQUIRED**

<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>760-1</td>
<td>370 (400-1)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1000-1</td>
<td>609 (700-1)</td>
<td>1220-1¼</td>
<td>829 (900-1¼)</td>
</tr>
</tbody>
</table>

**CalDWELL MUNI (RWV)**

**RNAV (GPS) RWY 33**

**30°31’N 96°42’W**

**CalDWELL, Texas**

**Orig-C 30DEC21**
VOR/DME-A
Caldwell Muni (RWV)

AWOS-3PT
118.35

HOUSTON APP CON
134.3 360.85

CTAF
122.9

MISSED APPROACH: Climb to 2000 then climbing left turn to 2100 direct CLL VORTAC and hold.

When local altimeter setting not received, use College Station altimeter setting and increase MDA 60 feet. Circling NA east of Rwy 15-33. Procedure NA at night.

NoPT for arrival on CLL VORTAC airway radials 318 CW 143.
RNAV (GPS) RWY 17
CENTER MUNI (F'17)

AWOS-3PT 128.775 OCH AWOS-3 135.625 FORTH WORTH CENTER 126.325 346.25 UNICOM 122.8 (CTAF)

Rwy 17 helicopter visibility reduction below 1 SM NA.
Straight-in RWY 17 NA at night, Circling Rwy 17 NA at night.

Procedure NA for arrivals at CARTH via V13 northbound.

<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>800-1 481 (500-1)</td>
<td>800-1¼ 481 (500-1¼)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>860-1 541 (600-1)</td>
<td>1160-2½ 841 (900-2½)</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
Rwy 35 helicopter visibility reduction below 3/4 SM NA.
Circling Rwy 35 NA at night.

Procedure NA for arrivals on LFK VORTAC airway radials 354 CW 082.

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 49).

MISSED APPROACH: Climb to 3800 direct WENDE and on track 353° to CARTH and hold.

AWOS-3PT 128.775
OCH AWOS-3 135.625
FORTH WORTH CENTER 126.325 346.25
UNICOM 122.8 (CTAF)
MISSED APPROACH: Climb to 1500 then climbing 340° to 49° then climbing 132° to 46.5° and follow the chart.

Remain within 10 NM of CZJ NDB after 030° to 3000 direct CZJ NDB and hold.

ELEV 319
TDZE 319

CATEGORY  | A        | B          | C          | D          |
----------|----------|------------|------------|------------|
S-17      | 1200-1¼  | 881 (900-1¼) | 1200-2½  | NA         |
          |          | 881 (900-2½) |            |            |
CIRCLING  | 1200-1¼  | 881 (900-1¼) | 1200-2½  | NA         |
          |          | 881 (900-2½) |            |            |
**RNAV (GPS) RWY 16**

**CLEVELAND MUNI (6R3)**

**Circling to RWY 34 NA at night. RWY 16 helicopter visibility reduction below 3/4 SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C.**

**MISSING APPROACH:** Climb to 620 then climbing left turn to 2000 direct KENNN and hold.

<table>
<thead>
<tr>
<th>AWOS:3</th>
<th>HOUSTON APP CON</th>
<th>UNICOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>119.325</td>
<td>119.7 281.4</td>
<td>123.0 (CTAF)</td>
</tr>
</tbody>
</table>

**RNP APCH.**

**Addendum:**

- Procedure NA for arrivals at EAKES on T254 westbound.
- MIRL Rwy 16-34
- **LPV DA** 400-1 250 (300-1) NA
- **LNAV/VNAV DA** 433-1 283 (300-1) NA
- **LNAV MDA** 540-1 390 (400-1) 540-1½ 390 (400-1½) NA
- **CIRCLING** 600-1 450 (500-1) 660-1½ 510 (600-1½) NA

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**30°21'N 95°00'W**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 34: Climb on heading 312° to 2000 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(TOP ALTITUDE: ASSIGNED BY ATC)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwy 16: Standard with minimum climb of 500'/NM to 660.
Rwy 34: Standard with minimum climb of 500'/NM to 1000.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400, for RADAR vectors to BORRN, thence. . .
TAKEOFF RUNWAY 34: Climb on heading 337° to 2000, for RADAR vectors to BORRN, thence. . .

. . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAY 34: Climb on heading 312° to 2000, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400 for RADAR vectors to RENNK, thence . . . .

TAKEOFF RUNWAY 34: Climb on heading 312° to 2000 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

RNAV. DME/DME/IRU or GPS. RADAR required.

TAKEOFF MINIMUMS
Rwy 16: Standard with minimum climb of 500' per NM to 660.
Rwy 34: Standard with minimum climb of 500' per NM to 1000.

(RIGHT OF WAY)

(RIGHT OF WAY)

(RIGHT OF WAY)

(RIGHT OF WAY)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400, for RADAR vectors to KARRR, thence. . . .

TAKEOFF RUNWAY 34: Climb on heading 337° to 2000, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
LURIC EIGHT DEPARTURE (RNAV)

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 157° to 1400 for RADAR vectors to KNTKY, thence . . . .

**TAKEOFF RUNWAY 34:** Climb on heading 312° to 2000 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**

NOTE: Chart not to scale.
GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF MINIMUMS
Rwy 16: Standard with minimum climb of 500'/NM to 660.
Rwy 34: Standard with minimum climb of 500'/NM to 1000.

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400, for RADAR vectors to MMALT, thence . . .
TAKEOFF RUNWAY 34: Climb on heading 337° to 2000, for RADAR vectors to MMALT, thence . . .

. . . .on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

NOTE: Chart not to scale.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 157° to 1400 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

**TAKEOFF RUNWAY 34:** Climb on heading 312° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on PSX R-038 to PSX VORTAC.

**FORT STOCKTON TRANSITION (PSX3.FST):** From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

**SAN ANTONIO TRANSITION (PSX3.SAT):** From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

**(STRYA8.STRYA)** 21280

**AL-6073 (FAA)**

**CLEVELAND MUNI (6R3)**

**CLEVELAND, TEXAS**

---

**TOP ALTITUDE: ASSIGNED BY ATC**

**TAKEOFF MINIMUMS**

Rwys 16, 34: Standard with minimum climb of 500’ per NM to 660.

---

**NOTE: RADAR required.**

**NOTE: DME/DME/IRU or GPS required.**

**NOTE: RNAV 1.**

---

**STRYA EIGHT DEPARTURE (RNAV)**

**(STRYA8.STRYA)** 07OCT21

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 157° to 1400 for RADAR vectors to KNTKY, thence.

**TAKEOFF RUNWAY 34:** Climb on heading 312° to 2000 for RADAR vectors to KNTKY, thence.

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBULL TRANSITION (STRYA8.JBULL)**
STYCK EIGHT DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 157° to 1400 for RADAR vectors to BBYSE, thence... 
TAKEOFF RUNWAY 34: Climb on heading 312° to 2000 for RADAR vectors to BBYSE, thence... 

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON transition (STYCK8.WTSON)

NOTE: Chart not to scale.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 157° to 1400, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 34:** Climb on heading 337° to 2000, for RADAR vectors to WATFO, thence. . . .

. . . .on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**
**KELPP TRANSITION (WATFO6.KELPP)**
**MUSYL TRANSITION (WATFO6.MUSYL)**
**WYLSN EIGHT DEPARTURE (RNAV)**

**AWOS-3**
119.325
CTAF
123.0
HOUSTON DEP CON
119.7  281.4

**NOTE:** RADAR required.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** RNAV 1.

**NOTE:** Chart not to scale.

**Takeoff Minimums**
Rwy 16, 34: Standard with minimum climb of 500' per NM to 660.

**Departure Route Description**

**Takeoff Runway 16:** Climb on heading 157° to 1400 for RADAR vectors to WYLSN, thence. . . .

**Takeoff Runway 34:** Climb on heading 312° to 2000 for RADAR vectors to WYLSN, thence. . . .

. . . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**Giffa Transition (WYLSN8.GIFFA)**
**Majkk Transition (WYLSN8.MAJKK)**

**Top Altitude:** Assigned by ATC
RNAV (GPS) RWY 11
EASTERWOOD FLD (CLL)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. Rw 11 helicopter visibility reduction below ½ SM NA.

MISSED APPROACH: Climb to 3000 direct EDAYA and hold.

ATIS 126.85
HOUSTON APP CN 134.3 360.85
EASTERWOOD TOWER* 118.5 (CTAF) 284.7
GND CON 128.7 284.7
CLNC DEL 120.4
UNICOM 122.95

3000 EDA

ICESCO 2000
APZIC 2000
3.9 NM
1.2 NM
7 NM

LPV DA 569-3⁄4 250 (300-3⁄4)
LNAV/VNAV DA 641-1 322 (400-1)
LNAV MDA 740-1 421 (500-1)
421 (500-1 4⁄4) 1180-2 859 (900-2 3⁄4) 859 (900-3)

CIRCLING 860-1 539 (600-1) 880-1 559 (600-1) 1000-2 679 (700-2) 1180-2 859 (900-2 3⁄4) 859 (900-3)

Category A B C D E

GP 3.00° TCH 50

106°

106°

1022

106°

906

813

584

395

470

Rwy 11

RNAV only.

3000 EDA

ICESCO 2000
APZIC 2000

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000

106°

2000
RNAV (GPS) RWY 17
EASTERWOOD FLD (CLL)

MISSED APPROACH: Climb to 2000 direct JOTAD and hold.

 CATEGORY A B C D E  
 LPV DA 571-3/4 250 (300-3/4)  
 LNAV/ VNAV DA 637-1 316 (400-1)  
 LNAV MDA 840-1 519 (600-1) 840-1 840-1 519 (600-1)  
 CIRCLING 860-1 539 (600-1) 880-1 679 (700-2) 1000-2 859 (900-2 1/4) 1180-3  

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. RWy 17 helicopter visibility reduction below 1/4 SM NA.
RNAV (GPS) RWY 29
EASTERWOOD FLD (CLL)

Baro-VNAV NA when using Caldwell altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. RW 29 helicopter visibility reduction below ¾ SM NA.

**Missed Approach:** Climb to 2000 direct ICESO and hold.

**Table: RNP APCH.**

<table>
<thead>
<tr>
<th>ATIS</th>
<th>HOUSTON APP CON</th>
<th>EASTERWOOD TOWER</th>
<th>GND CON</th>
<th>CLNC DEL</th>
<th>CLNC DEL</th>
<th>UNICOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>126.85</td>
<td>134.3</td>
<td>360.85</td>
<td>118.5</td>
<td>284.7</td>
<td>128.7</td>
<td>120.4</td>
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</table>

<table>
<thead>
<tr>
<th><strong>ELEV</strong></th>
<th><strong>TDZE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>321</td>
<td>314</td>
</tr>
</tbody>
</table>

**Diagram:**

- **ICESO**
- **RW29 2.5 NM**
- **3000**
- **MISSED APPROACH:** Climb to 2000 direct ICESO and hold.
- **RNAV (GPS) RWY 29**
- **ELEV 321**
- **TDZE 314**
- **TWR 388**
- **LPV DA 564-3/4 250 (300-3/4)**
- **LNAV/VNAV DA 762-1/3 448 (500-1/3)**
- **LNAV MDA 740-1 426 (500-1)**
- **CIRCLING 860-1 539 (600-1) 679 (700-2) 859 (900-2 1/2) 1180-3 859 (900-3)**

**Amdt 1B 20JUN19**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**Category**

1. **A**
2. **B**
3. **C**
4. **D**
5. **E**

**RNAV (GPS) RWY 29**

**EDAYA**

**EASTERWOOD FLD (CLL)**

**30°35'N-96°22'W**
RNAP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. For inop ALS, increase LPV Cat E and LNAV/VNAV all cats visibility to 3/4 SM, increase LNAV Cat E visibility to 1 1/2 SM.

MISS APCH FIX
7 NM
ZAKBU

ELEV 321
TDZE 311

GPT 3.00°
TCH 55

LNAV/MDA
511 1/2
200 (200-1/2)

LNAV/VNAV DA
563 1/2
252 (300-1/2)

LNAV MDA
760 1/2
449 (500-1/2)

CIRCLING
860-1
35

1180-3
539 (600-1)

1180-2 1/2
859 (900-2 1/4)

880-1
559 (600-1)

1180-2 1/4
859 (900-3)

1000-2
679 (700-2)

346°

2000

2100

ZAKBU

EASTERWOOD FLD (CLL)

COLLEGE STATION, TEXAS

AL-928 (FAA)

SC-5, 11 JUL 2024 to 05 SEP 2024

RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. For inop ALS, increase LPV Cat E and LNAV/VNAV all cats visibility to 3/4 SM, increase LNAV Cat E visibility to 1 1/2 SM.

MISS APCH FIX
7 NM
ZAKBU

ELEV 321
TDZE 311

GPT 3.00°
TCH 55

LNAV/MDA
511 1/2
200 (200-1/2)

LNAV/VNAV DA
563 1/2
252 (300-1/2)

LNAV MDA
760 1/2
449 (500-1/2)

CIRCLING
860-1
35

1180-3
539 (600-1)

1180-2 1/2
859 (900-2 1/4)

880-1
559 (600-1)

1180-2 1/4
859 (900-3)

1000-2
679 (700-2)

346°

2000

2100

ZAKBU

EASTERWOOD FLD (CLL)

COLLEGE STATION, TEXAS

AL-928 (FAA)

SC-5, 11 JUL 2024 to 05 SEP 2024
LOC BC RWY 17
EASTERWOOD FLD (CLL)

DME required.

\( \text{Rwy 17 helicopter visibility reduction below } \frac{3}{4} \text{ SM NA.} \)

**ATIS**
- Houston APP CON 134.3
- HOUSTON APP CON 360.85
- EASTERWOOD TOWER 118.5

**GND CON**
- 128.7
- 284.7

**CLNC DEL**
- 128.7

**CLNC DEL**
- 284.7

**UNICOM**
- 122.95

MISSED APPROACH: Climb to 2000 on heading 166° and
C LL R-127 to HEDIX/CLL 14 DME and hold.

Use I-CLL DME when on the localizer course.

Disregard glideslope indications.

Back Course

**Category**
- A
- B
- C
- D
- E

**S-LOC 17**
- 940-1 619 (700-1)
- 940-3 619 (700-1)

**CIRCLING**
- 940-1 619 (700-1)
- 1000-2
- 1180-2
- 1180-3

**Knots**
- 60
- 90
- 120
- 150
- 180

**Min:Sec**
- 4:18
- 2:52
- 2:09
- 1:43
- 1:26

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**Amdt 8A  28FEB19**
Rwy 29 helicopter visibility reduction below ¾ SM NA.

DME required for procedure entry. DME required.

MISSED APPROACH: Climb to 2500 direct CLL VORTAC then on CLL VORTAC R-299 to THONY INT/CLL 7.5 DME and hold.
COLLEGE STATION, TEXAS

VOR or TACAN RWY 11
EASTWOOD FLD (CLL)

DME required for procedure entry.

MIssed Approach: Climb to 3100 on CLL VORTAC.
R:101 to JUDDY INT/CLL 15 DME and hold.

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 50).

Remain within 10 NM

CIRCLING

VOR or TACAN RWY 11
EASTWOOD FLD (CLL)

Amdt 19F 15JUN23
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
CROCKETT, TEXAS  
AL-9412 (FAA)  

<table>
<thead>
<tr>
<th>WAAS CH 53526 W02A</th>
<th>APP CRS 016°</th>
<th>Rwy Idg 4000</th>
<th>TDZE 341</th>
<th>Apt Elev 348</th>
</tr>
</thead>
</table>

**RNAV (GPS) RWY 2**  
HOUSTON COUNTY (DKR)

- ** AWOS-3PT  
  118.775**
- ** HOUSTON CENTER  
  134.8  269.6**
- ** CTAFT  
  122.9 **

**CIRCLING 532 (600-1) 016° to MIRL Rwy 2-20**

**ELEV 348  TDZE 341**

- ** DAVID  (IF)  
  3000  086°**
- ** PIENE  (IF)  
  2000  016°**
- ** CRCKT  
  3000  016°**
- ** RW02  
  4000  016°**

**MISSED APPROACH:** Climb to 1000 then climbing left turn to 4000 direct LOA VORTAC and hold.

**Procedure NA for arrivals on LOA VORTAC airway radials 013 CW 131.**

**Procedure NA for arrivals on LFK VORTAC airway radials 171 CW 318.**

**Strategy:**

- **CIRCLING  
  840-1  499 (500-1)**
- **NA**

**LNAV MDA 820-1 479 (500-1) NA**

**LP MDA 840-1 499 (500-1) NA**

**AWOS-3PT 980-1 632 (700-1) NA**

**31°18'N-95°24'W**

**AOA 348 313° 4000 LOA VORTAC and hold.**

**Category A**

- **LP MDA**
  - 820-1 479 (500-1) NA

**Category B**

- **LNAV MDA**
  - 840-1 499 (500-1) NA

**Category C**

- **CIRCLING**
  - 880-1 532 (600-1) 980-1 632 (700-1) NA
RNP APCH.

Procedure NA at night.
Rwy 20 helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climbing right turn to 4000 direct LOA VORTAC and hold.

**Procedure NA for arrival on LOA VORTAC airway radials 323 CW 131.**

**Procedure NA for arrival on LFK VORTAC airway radials 245 CW 020.**

**Visual Segment - Obstacles.**

**ELEV 348 TDZE 348**

**2000 PATRK**

**3000 BRWER**

**AWOS-3PT**

118.775

**HOUSTON CENTER**

134.8 269.6

**CTAF**

122.9

**Amdt 1 20JUN19**
RNAV (GPS) RWY 17
EAGLE LAKE (ELA)

EAGLE LAKE, TEXAS

- WAAS CH 40229
- App CRS W17A
- Rwy Idg 4280
- TDZE 184
- Apt Elev 184

**RNAV (GPS) RWY 17**

**AWOS-3PT** 128.475

**HOUSTON APP CON** 124.225 306.975

**CTAF** 122.9

**APPROACH**

EAGLE LAKE, TEXAS

- **RNAV (GPS) RWY 17**
- **MIRL Rwy 17-35**
- **RNAV (GPS) RWY 17**

**CIRCLING**

- **2000 Hidim**
- **229°**
- **241°**
- **HIDIM**
- **IVUYU**

**CATEGORY**

- **LP MDA** 580-1 396 (400-1)
- **LNAV MDA** 600-1 416 (500-1)
- **CIRCLING** 860-1 676 (700-1)

**MISSED APPROACHES**

- Climb to 2000 direct ZOMVA and hold.

- WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WHARTON ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, INCREASE LNAV AND CIRCLING CAT C VISIBILITY ¼ SM. VDP NA WHEN USING WHARTON ALTIMETER SETTING.

**Amdt 1C 17JUN21**
Rwy 35 helicopter visibility reduction below 1 SM NA. Straight-in and Circling Rwy 35 NA at night.

MISSED APPROACH: Climb to 2000 direct HIDIM and hold.

AWOS-3PT
128.475

HOUSTON APP CON
124.225 306.975

CTAF
122.9

AL-5270 (FAA)
EAGLE LAKE, TEXAS

EAGLE LAKE, TEXAS

EAGLE LAKE (ELA)

RNAV (GPS) RWY 35

RNAV (GPS) RWY 35
EAGLE LAKE (ELA)

EAGLE LAKE, TEXAS
Amdt 2 05DEC19

EAGLE LAKE (ELA)

RNAV (GPS) RWY 35

29°36'N-96°19'W

135
**RNAV (GPS)-A**

**JACKSON COUNTY (26R)**

**APP CRS**
- CIRCLING

**Rwy Idg**
- N/A

**TDZE**
- N/A

**Apt Elev**
- 61

**MISSING APPROACH**
- Climb to 2200 direct MERRY and hold.

**Use Victoria altimeter setting; when not received, use Port Lavaca altimeter setting.**

**VCT ASOS**
- 119.025

**HOUSTON CENTER**
- 135.05 353.6

**UNICOM**
- 122.8 (CTAF)

**Location:**
- EDNA, Texas
- Jackson County

**Holding Pattern**
- 4 NM

**IF (IF/IAF)**
- ZEDNA

**FAF**
- SHAVE

**ZEDNA**
- 147° 327°
- 30 NM to ZEDNA (NoPt)
- 2000

**2200**
- 057°
- 30 NM to ZEDNA

**MERRY**
- 147°
- 4 NM

**SHAVE**
- 147°
- 3.00° TCH 40
- 1600

**MIRL Rwy 15-33**
- 9392.72°

**RNAV (GPS)-A**
- 23278

**RNAV (GPS)-A**
- 23278

**UNICOM**
- 122.8 (CTAF)
Use Victoria altimeter setting; when not received, use Port Lavaca altimeter setting.

MISSED APPROACH: Climb to 2000 direct ZEDNA and hold.

VCT ASOS
119.025

HOUSTON CENTER
135.05  353.6

UNICOM
122.8 (CTAF)

RNAV (GPS)-B
JACKSON COUNTY (26R)

HOLD 6000 2200

MERRY

327° 237°

2000 ZEDNA

EDNA, TEXAS
Orig-A 24MAY18

AL-6468 (FAA)

SC-5, 11 JUL 2024 to 05 SEP 2024

29°00'N-96°35'W

137
Radar required for procedure entry at UCENU.

Circling NA east of Rwy 18 and northeast of Rwy 32. For inop ALS, increase S-LOC 14 Cat A and B visibility to 1 SM. DME from VUH VOR/DME. Simultaneous reception of I-GLS and VUH DME required. Inop table does not apply to S-ILS 14 all Cats.

MISSED APPROACH: Climb to 1200 then climbing right turn to 2400 on heading 360° and VUH VOR/DME R-315 to SWANE INT/VUH DME required. Inop table does not apply to S-ILS 14 all Cats.

Procedure NA for arrivals at VUH VOR/DME on V536 eastbound.

138°

1800 to SWANE 315° (5.6)

003°

183°

318°

360°

315° (5.6)

GS 3.00°
TCH 53
RNAV (GPS) RWY 14
SCHOLES INTL AT GALVESTON (GLS)

MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct DELVE and hold.

ASOS | HOUSTON APP CON | GALVESTON TOWER* | GND CON | CLNC DEL | UNICOM
-----|----------------|------------------|---------|----------|-------------------
123.95 | 134.45 | 120.575 (CTAF) | 118.625 | 135.35 | 123.05

RNAV APCH - GPS.

Circling NA east of Rwy 18 and northeast of Rwy 32. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C or above 54°C.

 CATEGORY | A | B | C | D
 LPV | DA | 205-½ | 200 (200-½) |
 LNAV/ VNAV DA | 342-½ | 337 (400-½) |
 LNAV MDA | 460-½ | 455 (500-½) | 460-7/8 | 455 (500-½) |
 CIRCLING | 500-1 | 494 (500-1) | 520-1 | 514 (600-1) | 620-1¾ | 614 (700-1¾) | 620-2 | 614 (700-2) |

GALVESTON, TEXAS
Amvl 2 03NOV22

29°16’N-94°52”W
Circling NA east of Rwy 18 and northeast of Rwy 32.

MISSED APPROACH: Climb to 800 then climbing right turn to 3000 direct DELVE and hold.
RNAV (GPS) RWY 36
SCHOLES INTL AT GALVESTON (GLS)

ASOS 123.95
HOUSTON APP CON 134.45 284.0
GALVESTON TOWER* 120.575 (CTAF) 0
GND CON 118.625
CLNC DEL 135.35 (When brw closed)
UNICOM 123.05

Radar Required

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.

When VGSI inop, Straight-in/Circling RW 36 procedure NA at night. Circling NA east of RWy 36 and northeast of RWy 32. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

When local altimeter setting not received, use William P Hobby altimeter setting; increase all MDA 80 feet. Increase LP Cat C/D/E visibility ½ SM, LNAV Cat C/D/E visibility ¾ SM and Circling Cat C/D/E visibility ¾ SM.
DME and RADAR required.

MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 on heading 284° and VUH VOR/DME R-243 to DELVE/22.1 DME and hold.

TRINITY
114.75 MHF
Chan 94(Y)

SCHOLES
113.0 VUH
Chan 77

ASOS
123.95

HOUSTON APP CON
134.45 284.0

GALVESTON TOWER
120.575 (CTAF)

GND CON
118.625

CLNC DEL
135.35

UNICOM
123.05

REIL Rwys 18, 32, and 36

MIRL Rwy 18-36

HIRL Rwy 13-32

1200 to ZELDA 323° (5)

2000 to ZELDA
323° (5)
131°
148°

2017

MISSED APCH FIX

DELVE

113.0 VUH
Chan 77

114.75 MHF
Chan 94(Y)

VUH VOR/DME

DELVE

143°

2013

ZELDA INT

323°

1200

3000

5dgt

284°

VUH

R-243

143°

1600

323°

143°

2000

1600

2013

ELEV

5

TDZE

5

REIL Rwys 18, 32, and 36

MIRL Rwy 18-36

HIRL Rwy 13-32

SCHOLES INTL AT GALVESTON (GLS)

29°16'N-94°52"W

Rwy Idg

5

App CRS

143°

Rwy Idgs

6000

Apt Elev

6

VOR/DME VUH

113.0

Chan 77

R-243 to DELVE/22.1 DME and hold.

135.35

When twr closed

VUH VOR/DME

Circling NA east of Rwy 18 and northeast of Rwy 32.

MIRL Rwy 18-36

REIL Rwys 18, 32, and 36

GALVESTON, TEXAS

Amrd 4D 02DEC21

2SC-5, 11 JUL 2024 to 05 SEP 2024

SCHOLES INTL AT GALVESTON (GLS)

VOR Rwy 14

23054
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: RADAR required.
NOTE: The following TRANSITIONS are ATC assigned only. Do not file.
CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).
MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TAKEOFF MINIMUMS
Rwys 14, 18, 32, 36: Standard.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

. . . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)

NOTE: Chart not to scale.

NOTE:  RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 14, 18, 32, 36:
Standard with minimum climb of 500’ per NM to 520.

STANDARD WITH MINIMUM CLimb OF 500’ PER NM TO 520. TAKEOFF RUNWAY 14: CLimb ON HEADING 138° TO 520 FOR RADAR VECTORS TO DREMR, THENCE . . . . TAKEOFF RUNWAY 18: CLimb ON HEADING 179° TO 520 FOR RADAR VECTORS TO DREMR, THENCE . . . . TAKEOFF RUNWAY 32: CLimb ON HEADING 318° TO 520 FOR RADAR VECTORS TO DREMR, THENCE . . . . TAKEOFF RUNWAY 36: CLimb ON HEADING 359° TO 520 FOR RADAR VECTORS TO DREMR, THENCE . . . . .

...ON TRACK 345° TO LITLD, THEN ON TRACK 346° TO BLTWY, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520, for RADAR vectors to BORRN, thence . . .

TAKEOFF RUNWAY 18: Climb on heading 179° to 520, for RADAR vectors to BORRN, thence . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 520, for RADAR vectors to BORRN, thence . . .

TAKEOFF RUNWAY 36: Climb on heading 359° to 520, for RADAR vectors to BORRN, thence . . .

. . . .on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: Radar required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

Rwys 14, 18, 32, 36: Standard.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required. 
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS
Rwys 14, 18, 32, 36: Standard.

TAKEOFF ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT, maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure. Thence . . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure. Thence . . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)

TAKEOFF MINIMUMS
Rwys 14, 18, 32, 36: Standard with minimum climb of 500' per NM to 520.
**INDIE EIGHT DEPARTURE (RNAV)**

- **ASOS**
  - 123.95
  - 135.35 (when twr closed)
- **GALVESTON TOWER**
  - 120.575 (CTAF)
  - HOUSTON DEP CON
  - 134.45 284.0

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**TAKEOFF MINIMUMS**

Rwys 14, 18, 32, 36:
Standard with minimum climb of 500’ per NM to 520.

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**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 138° to 520 for
RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 18:** Climb on heading 179° to 520 for
RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 32:** Climb on heading 318° to 520 for
RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 36:** Climb on heading 359° to 520 for
RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI,
then on track 026° to WWELL, then on track 026° to INDIE,
then on (transition). Maintain ATC assigned altitude. Expect
filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**

**NOTE:** Chart not to scale.
NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 14, 18, 32, 36: Standard.

NOTE: RADAR required.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.
TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IDU R-085 to BOCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

**TAKEOFF MINIMUMS**
Rwys 14, 18, 32, 36: Standard with minimum climb of 500' per NM to 520.

**NOTE:** Chart not to scale.
TAKEOFF RUNWAY 14: Climb on heading 138° to 520, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: Chart not to scale.

LEONA FOUR DEPARTURE

(LOA4.LOA) 07OCT21

GALVESTON, TEXAS

SCHOLES INTL AT GALVESTON (GLS)

LEONA FOUR DEPARTURE

(LOA4.LOA) 24137

SCHIOLES INTL AT GALVESTON (GLS)

GALVESTON, TEXAS

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.

NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.

NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.

NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

. . . .on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520, for RADAR vectors to MMALT, thence. . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520, for RADAR vectors to MMALT, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520, for RADAR vectors to MMALT, thence. . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520, for RADAR vectors to MMALT, thence. . . .

. . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)

NOTE: Chart not to scale.
TOP ALTITUDE: ASSIGNED BY ATC

(PSX3,PSX) 24/07

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14, 18, 36: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 800 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . .on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520 for RADAR vectors to KNTKY, thence. . . .
TAKEOFF RUNWAY 18: Climb on heading 179° to 520 for RADAR vectors to KNTKY, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 318° to 520 for RADAR vectors to KNTKY, thence. . . .
TAKEOFF RUNWAY 36: Climb on heading 359° to 520 for RADAR vectors to KNTKY, thence. . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 18: Climb on heading 179° to 520 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 32: Climb on heading 318° to 520 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 36: Climb on heading 359° to 520 for RADAR vectors to BBYSE, thence...

.on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)
WATFO SIX DEPARTURE (RNAV)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwy 14, 18, 32, 36: Standard with minimum climb of 500'/NM to 520.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520, for RADAR vectors to WATFO, thence...
TAKEOFF RUNWAY 18: Climb on heading 179° to 520, for RADAR vectors to WATFO, thence...
TAKEOFF RUNWAY 32: Climb on heading 318° to 520, for RADAR vectors to WATFO, thence...
TAKEOFF RUNWAY 36: Climb on heading 359° to 520, for RADAR vectors to WATFO, thence...

. . . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 138° to 520 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAY 18: Climb on heading 179° to 520 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAY 32: Climb on heading 318° to 520 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAY 36: Climb on heading 359° to 520 for RADAR vectors to WYLSN, thence. . . .

. . . .on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
RNAV (GPS) RWY 17
GIDDINGS-LEE COUNTY (GYB)

AWOS-3 119.225
AUSTIN APP CON 127.225 317.65
UNICOM 123.05 (CTAF)

MISSED APCH FIX
RAMOS 168°
168° to RW17

2300 348°
2100

4 NM
Holding Pattern

PPENS

HARQE

JAYJO

JOMBU

VGSIX and descent angles not coincident
(VGSIX Angle 3.75/TCH 34).

MISSED APPROACH: Climb to 2500 direct RAMOS and hold.

 Procedure NA at night. When local altimeter setting not received, use Austin-Bergstrom Intl altimeter setting and increase all MDA 100 feet; increase visibility Cat C 1/2 SM.

DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

ELEV 484
TDZE 484

GIDDINGS-LEE COUNTY (GYB)

RNAV (GPS) RWY 17

MIRL Rwy 17-35

GIDDINGS, TEXAS
Orig-B 27JAN22

30°10'N-96°59'W

GIDDINGS, TEXAS
AL-6499 (FAA)
RNAV (GPS) RWY 35
GIDDINGS-LEE COUNTY (GYB)

- **MISSED APPROACH:** Climb to 2500 direct PPENS and hold.

- **AWOS-3:** 119.225
- **AUSTIN APP CON:** 127.225 317.65
- **UNICOM:** 123.05 (CTAF)

**APP CRS 348°**
- **Rwy Idg:** 4000
- **TDZE:** 473
- **Apt Elev:** 484

**DME/DME RNP-0.3 NA.** Procedure NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Austin-Bergstrom Intl altimeter setting and increase all MDA 100 feet; increase visibility Cat C ¼ SM.

**RNAV (GPS) RWY 35**

**MIRL Rwy 17-35**

**Category**

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<td>487 (500-1)</td>
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<td>NA</td>
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<td>CIRCLING</td>
<td>960-1</td>
<td>1160-1</td>
<td>1240-2¼</td>
<td>NA</td>
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<td>676 (700-1)</td>
<td>756 (800-2¼)</td>
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**ELEV 484**

**TDZE 473**

**UNICOM**

**CIRCLING**

168°

348°

RAMOS

3.04°

TCH 43

5 NM

6 NM

**MISSED APCH FIX**

4 NM

PPENS

**RNAV (GPS) RWY 35** (IF/IAF)

**MISSED APCH FIX**

4 NM

PPENS and hold.

**GIDDINGS, TEXAS**

Orig-B 27JAN22

**30°10'N-96°59'W**
**VOR/DME-A**

GIDDINGS-LEE COUNTY (GYB)

**AWOS-3**

119.225

**AUSTIN APP CON**

127.225 317.65

**UNICOM**

123.05 (CTAF)

---

**Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Use Austin-Bergstrom altimeter setting.**

**MISSED APPROACH:** Climbing left turn to 2500 via IDU R-293 to IUKKA 20 DME and hold.

**APP CRS 293°**

**966**

**972**

**947**

**MISTAKEN IDU 14 for IDU 20**

**GIDDINGS, TEXAS**

AL-6499 (FAA)

**VORTAC IDU 110.2**

**Chan 39**

**Rwy Idg**

**TDZE**

**Apt Elev**

**N/A**

**N/A**

**484**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**22027**

**CIRCLING**

**1300-1⅓ 816 (900-1⅓)**

**1300-2½ 816 (900-2½)**

**NA**

**MIRL Rwy 17-35**

**30°10'N-96°59'W**

**GIDDINGS-LEE COUNTY (GYB)**

**VOR/DME-A**

**Amdt 3B 27JAN22**
RNAV (GPS) RWY 18
HEARNE MUNI (LHB)

RNP APCH.

Baro-VNAV and VDP NA when using College Station altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C.

MISSED APPROACH: Climb to 2100 direct HISEM and hold.

AWOS-3
118.675
HOUSTON APP CON
134.3 360.85
CTAF
122.9
123.3

systems, LNAV/VNAV NA below -15°C or above 54°C.

MISSED APCH FIX
HISEM

HEARNE, TEXAS
Orig-C 19MAY22

RNAV (GPS) RWY 18
HEARNE MUNI (LHB)

30°52'N-96°37'W

175
RNAV (GPS) RWY 36
HEARNE MUNI (LHB)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use College Station altimeter setting and increase all DA 55 feet and all MDA 60 feet. Increase LPV, LNAV/VNAV all Cats and LNAV Cat C visibility ½ mile. Increase Circling Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using College Station altimeter setting.

MISSED APPROACH: Climb to 2600 direct JUPAX and hold.

AWOS-3
118.675
HOUSTON APP CON
134.3 360.85
CTAF
122.9
123.3 Ω

MISSED APCH FIX
4 NM
358°
JUPAX

ELEV 285
TDZE 284

RADAR REQUIRED

HEARNE MUNI (LHB)
RNAV (GPS) RWY 36

HEARNE, TEXAS
Orig-B 19MAY22

30°52'N-96°37'W
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below
-15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.
Rwy 1 helicopter visibility reduction below 1/4 SM NA.

MISSING APPROACH: Climb to 2000 direct IPOME and hold.

**MISSING APCH FIX**

**IPOME**

**A1349**

**HOPNU**

**JEVIB**

**IXIGY**

**1.7 NM to RW01**

**HOPNU**

**2000**

**012°**

**2000**

**IXIGY**

**1.7 NM to RW01**

**2000**

**IPOME**

**LNAV only.**

**2000**

**102°**

**920**

**RW01**

**6 NM**

**3.6 NM**

**1.7 NM**

** CATEGORY**

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<td>GP 3.00°</td>
<td>TCH 49°</td>
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<td>414 (500-1 1/2)</td>
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<td>423 (500-1)</td>
<td><strong>660-1 1/4</strong></td>
<td>423 (500-1 1/4)</td>
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<td><strong>700-1</strong></td>
<td>455 (500-1)</td>
<td><strong>880-1 3/4</strong></td>
<td>635 (700-1 3/4)</td>
</tr>
</tbody>
</table>

**MISSED APCH FIX**

**CONROE/TOWER**

**124.125 (CTAF)**

**GND CON**

**120.45**

**CLNC DEL**

**119.55**

**When tower closed**

**HOUSTON**

**APR CON**

**237**

**WAAS**

**86719**

**W01A**

**APR CRS**

**012°**

**Rwy Idg**

**5000**

**Apt Elev**

**245**

**CONROE/NORTH HOUSTON RGNL (CXO)**

**RNAV (GPS) RWY 1**

**AL-5573 (FAA)**

SC-5, 11 JUL 2024 to 05 SEP 2024
For uncompensated Baro-VNAV systems, UNAV/VNAV NA below -6°C (-22°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 700 then climbing left turn to 3100 direct CLEEP and hold.
HoUSTON, TExAS  AL-5573 (FAA)  24109

RNAV (GPS) RWY 19
CONROE/NORTH HOUSTON RGNL (CXO)

Rwy 19 helicopter visibility reduction below 3/8 SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C. When local altimeter setting not received, use David Wayne Hooks Meml altimeter setting and increase LPV DA to 584 feet and all visibilities 1/8 SM. Increase LNAV/VNAV DA to 739 feet; increase all MDAs 60 feet and LNAV visibility Cat C/D 1/8 SM, and Circling visibility Cat C/D 1/8 SM. Baro-VNAV and VDP NA when using David Wayne Hooks Meml altimeter setting.

SC-5, 11 JUL 2024 to 05 SEP 2024
RNAV (GPS) RWY 32
CONROE/NORTH HOUSTON RGNL (CXO)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -6°C (-22°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Rwy 32 helicopter visibility reduction below ¾ SM NA.

**MISSING APCH FIX**

4 NM to AXTEP

ATIS
118.325
HOUSTON APP CON
119.7 281.4
CONROE TOWER
124.125 (CTAF)
GND CON
120.45
CLNC DEL
119.55
(When twr closed)

ELEV 245
TDZE 245

HOUSTON, TEXAS
AL-5573 (FAA)

WAAS CH 62819 W32A
APP CRS 321°
Rwy Idg 7501
tDZE 245
Apt Elev 245

NORLE
BRZZI
CAGAR
AXTEP
CONROE TOWER
GND CON
CLNC DEL
ATIS
HOUSTON APP CON
CONROE TOWER
GND CON
CLNC DEL
(When twr closed)

LNAV/VNAV NA below -6°C (-22°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Rwy 32 helicopter visibility reduction below ¾ SM NA.

**MISSING APCH FIX**

4 NM to AXTEP

 CATEGORY
A
B
C
D
LPV DA
495-⅔
250 (300-¾)
LNAV/ VNAV DA
505-⅔
260 (300-¾)
LNAV MDA
580-1
335 (400-1)
CIRCLING
700-1
455 (500-1)
880-1⅔
635 (700-1¼)
960-2⅔
715 (800-2¼)

CONROE/NORTH HOUSTON RGNL (CXO)

RNAV (GPS) RWY 32

SC-5, 11 JUL 2024 to 05 SEP 2024

Amdt 2A 22JUN17
MISSING APPROACH: Climb to 1000 then climbing left turn to 2100 direct ALIBI LOM and hold.
ALEXANDRIA THREE DEPARTURE

ALEXANDRIA THREE DEPARTURE

NOTE: RADAR required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard.

(Continued on following page)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . .on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32:
Standard with minimum climb of 500’ per NM to 760.

TAKEOFF RUNWAY 1: Climb on heading 012° to 760 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 14: Climb on heading 140° to 760 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 19: Climb on heading 192° to 760 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 760 for RADAR vectors to DREMR, thence . . . .

…on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DEPARTURE ROUTE DESCRIPTION

CRIED TRANSITION (BLTWY7.CRIED)
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard with minimum climb of 500’/NM to 760.

NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 1:** Climb on heading 012° to 760, for RADAR vectors to BORRN, thence. . . .

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 760, for RADAR vectors to BORRN, thence. . . .

**TAKEOFF RUNWAY 19:** Climb on heading 192° to 760, for RADAR vectors to BORRN, thence. . . .

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 760, for RADAR vectors to BORRN, thence. . . .

. . . .on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**CRGER TRANSITION (BORRN6.CRGER)**

**JUNCTION TRANSITION (BORRN6.JCT)**

**MNURE TRANSITION (BORRN6.MNURE)**

**SAN ANTONIO TRANSITION (BORRN6.SAT)**

**WAILN TRANSITION (BORRN6.WAILN)**
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard.

NOTE: RADAR required.
EL DORADO ONE DEPARTURE

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: Radar required.
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

...... on IAH R-358 to cross GIFFA INT at or above 10000.
ASSIGNED BY ATC

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard with minimum climb of 500’ per NM to 760.

TAKEOFF RUNWAY 1: Climb on heading 012° to 760, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 14: Climb on heading 140° to 760, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 19: Climb on heading 192° to 760, for RADAR vectors to VUH VOR/DME, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 760, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
INDIE EIGHT DEPARTURE (RNAV)

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32:
Standard with minimum climb of 500’ per NM to 760.

TAKEOFF RUNWAY 1: Climb on heading 012° to 760 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 14: Climb on heading 140° to 760 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 19: Climb on heading 192° to 760 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 760 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
**JUNCTION ONE DEPARTURE**

**NOTE:** Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF ALL RUNWAYS:** When entering controlled airspace, climb on assigned heading for RADAR vectors to CUZZZ INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-276 and JCT R-090 to JCT VORTAC.

**TAKEOFF MINIMUMS**

Rwys 1, 14, 19, 32: Standard.

**TOP ALTITUDE:**

*ASSIGNED BY ATC*
NOTE: Chart not to scale.

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32:
Standard with minimum climb of 500’ per NM to 760.

ASSIGNED BY ATC

TOP ALTITUDE:

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 012° to 760, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 14: Climb on heading 140° to 760, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 19: Climb on heading 192° to 760, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 320° to 760, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
DEPARTURE ROUTE DESCRIPTION

When entering controlled airspace, climb on assigned heading for RADAR vectors to WEDRI INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . .on IAH R-082 to HOURN INT, then on LCH R-253 to LCH VORTAC.

FIGHTING TIGERS TRANSITION (LCH5.LSU): From over LCH VORTAC on LCH R-070 and LSU R-252 to LSU VORTAC.

NOTE: RADAR required.

LAKE CHARLES FIVE DEPARTURE

(LCH5.LCH) 22JUN17

CONROE/NORTH HOUSTON RGNL (CXO)

HOUSTON, TEXAS

TAKEOFF MINIMUMS
Rwy 1, 14, 19, 32 Standard.

NOTE: Chart not to scale.
**LEONA FOUR DEPARTURE**

**TOP ALTITUDE: ASSIGNED BY ATC**

**NOTE:** Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.

NOTE: For aircraft destined LIT or overflying LIT or PXV.

TOP ALTITUDE: ASSIGNED BY ATC

LITTLE ROCK
113.9 LIT
Chan 86

LUFKIN
112.1 LFK
Chan 58

HUMBLE
116.6 IAH
Chan 113

SUSHI
SKKIP

COLET

KYANN

HUMBLE
116.6 IAH
Chan 113

DAISETTA
116.9 DAS
Chan 116

CONROE/NORTH HOUSTON RGNL (CXO)
HOUSTON, TEXAS

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
**LURIC EIGHT DEPARTURE (RNAV)**

---

**TOP ALTITUDE: ASSIGNED BY ATC**

- **HAWES**: 12,000 (031°)
- **ORRTH**: 12,000 (031°)
- **LURIC**: 12,000 (031°)
- **ENJOY**: 12,000 (031°)
- **VELCO**: 12,000 (031°)
- **CLAVN**: 12,000 (031°)
- **MUSIQ**: 12,000 (031°)
- **DARTR**: 12,000 (031°)
- **PEETY**: 12,000 (031°)

**NOTE: Chart not to scale.**

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 1**: Climb on heading 012° to 760 for RADAR vectors to KNTKY, thence . . . . .

**TAKEOFF RUNWAY 14**: Climb on heading 140° to 760 for RADAR vectors to KNTKY, thence . . . . .

**TAKEOFF RUNWAY 19**: Climb on heading 192° to 760 for RADAR vectors to KNTKY, thence . . . . .

**TAKEOFF RUNWAY 32**: Climb on heading 320° to 760 for RADAR vectors to KNTKY, thence . . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**

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**NOTE:  RNAV 1.**

**NOTE:  DME/DME/IRU or GPS required.**

**NOTE:  RADAR required.**

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**TOP ALTITUDE: ASSIGNED BY ATC**

- **HAWES**: 12,000 (031°)
- **ORRTH**: 12,000 (031°)
- **LURIC**: 12,000 (031°)
- **ENJOY**: 12,000 (031°)
- **VELCO**: 12,000 (031°)
- **CLAVN**: 12,000 (031°)
- **MUSIQ**: 12,000 (031°)
- **DARTR**: 12,000 (031°)
- **PEETY**: 12,000 (031°)

**NOTE: Chart not to scale.**
**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 1: Climb on heading 012° to 760, for RADAR vectors to MMALT, thence . . . .

TAKEOFF RUNWAY 14: Climb on heading 140° to 760, for RADAR vectors to MMALT, thence . . . .

TAKEOFF RUNWAY 19: Climb on heading 192° to 760, for RADAR vectors to MMALT, thence . . . .

TAKEOFF RUNWAY 32: Climb on heading 320° to 760, for RADAR vectors to MMALT, thence . . . .

. . . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**GUSTI TRANSITION (MMALT7.GUSTI)**

**LAKE CHARLES TRANSITION (MMALT7.LCH)**

**WHITE LAKE TRANSITION (MMALT7.LLA)**

**NOTE:** Chart not to scale.
NOTE: Chart not to scale.

RADAR and DME required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 1, 14, 19, 32: Standard.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

...on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 012° to 760 for RADAR vectors to KNTKY, thence...

TAKEOFF RUNWAY 14: Climb on heading 140° to 760 for RADAR vectors to KNTKY, thence...

TAKEOFF RUNWAY 19: Climb on heading 192° to 760 for RADAR vectors to KNTKY, thence...

TAKEOFF RUNWAY 32: Climb on heading 320° to 760 for RADAR vectors to KNTKY, thence...

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 1:** Climb on heading 012° to 760 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 760 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 19:** Climb on heading 192° to 760 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 760 for RADAR vectors to BBYSE, thence. . .

. . .on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
WATFO SIX DEPARTURE (RNAV)

RNAV 1 - DME/DME/IRU or GPS
RADAR required.

**TOP ALTITUDE:**
ASSIGNED BY ATC

- ATIS 119.55
- CLNC DEL 120.45
- CLNC Del (when tower closed) 118.325
- GND CON 120.45
- CONROE TOWER * 124.125 (CTAF)
- HOUSTON DEP CON 119.7 281.4

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 1:** Climb on heading 012° to 760, for RADAR vectors to WATFO, thence... . . .
**TAKEOFF RUNWAY 14:** Climb on heading 140° to 760, for RADAR vectors to WATFO, thence... . . .
**TAKEOFF RUNWAY 19:** Climb on heading 192° to 760, for RADAR vectors to WATFO, thence... . . .
**TAKEOFF RUNWAY 32:** Climb on heading 320° to 760, for RADAR vectors to WATFO, thence... . . .

...on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)

**NOTE:** Chart not to scale.
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 1:** Climb on heading 012° to 760 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 14:** Climb on heading 140° to 760 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 19:** Climb on heading 192° to 760 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 32:** Climb on heading 320° to 760 for RADAR vectors to WYLSN, thence. . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSN8.GIFFA)**

**MAJKK TRANSITION (WYLSN8.MAJKK)**
RNP APCH-GPS.

Baro-VNAV NA when using George Bush Intcntl/Houston altimeter setting. For uncompensated Baro-VNAV systems, procedure NA below -2°C or above 54°C. Rwy 17R helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, use George Bush Intcntl/Houston altimeter setting: Increase all DAs 36 feet and visibilities ½ SM; increase all MDAs 40 feet. When control tower closed, LPV visibility 1 SM.

ATIS
128.375

HOUSTON APP CON
119.7 281.4

HOOKS TOWER
127.4 354.1 EAST

GND CON
118.4 (CTAF) 354.1 WEST

CLNC DEL
119.45

UNICOM
122.95

Procedure NA for arrivals at ZMSKL on V477 northbound and V306 eastbound.

Procedure NA for arrivals at SEALY on T200 southeast bound, V222 westbound and T200-220 northwest bound.

LCM-A

G5-125

ELEV 152

TDZE 152

WATER RWY
17W-35W
2530 X 100
Rwy 17L-35R
3500 X 35

HOUSTON, TEXAS
AL-5457 (FAA-O)

RNAV (GPS) RWY 17R
DAVID WAYNE HOOKS MEML (DWH)

Amdt 2A 21APR22

30°04'N-95°33'W

DAVID WAYNE HOOKS MEML (DWH)

RNAV (GPS) RWY 17R

30°04'N-95°33'W
HOUSTON, TEXAS

RNAV (GPS) RWY 35L
DAVID WAYNE HOOKS MEML (DWH)

Amdt 1F 20APR23

 Astroscale 213
**LOC RWY 17R**

**DAVID WAYNE HOOKS MEML (DWH)**

**RADAR**

When local altimeter setting not received, use George Bush Intcntl/Houston altimeter setting and increase all MDA 40 feet; increase S-LOC 17R Cats C/D visibility ½ mile. Circling NA to Rwys 17W and 35W. Rw 17R helicopter visibility reduction below ¾ SM NA. Circling Rwy 35R NA at night.

**ATIS**

HOUSTON APP CON 119.7 281.4

HUMBLE,

MISSED APCH FIX

NAVASOTA 115.9 TNV 106

**LOC/WAY**

**App CRS**

110.5

**TAD**

180°

**Apt Elev**

152

**TDZE**

6002

**ELEV**

152

**LOCALIZER**

110.5

**Chan**

42

**IF**

I-HEW 14.3 RADAR

**IF**

FLIKA INT 6 RADAR

**IF**

TUKII INT 14.3 RADAR

**FAF**

S-LOC 17R 640-1

HUMBLE 117.1 IAH 25 NM

**CIRCLING**

640-1

1800

**Visual Segment - Obstacles**

**CATEGORY**

A

B

C

D

**S-LOC 17R**

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

640-1 488 (500-1)

**CIRCLING**

640-1

488 (500-1)

508 (600-1)

528 (600-1)

628 (700-2)

HOUSTON, TEXAS

AL-5457 (FAA)

SC-5, 11 JUL 2024 to 05 SEP 2024

Amdt 3G 20APR23

30°04'N-95°33'W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: RADAR required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

(Continued on following page)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard with minimum climb of 500' per NM to 660.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to DREMR, thence. . . .
TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to DREMR, thence. . . .

. . . . on track 345° to LITLD, then on track 346° to BLTWY, then on (transition).
Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard with minimum climb of 500' / NM to 660.

NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660, for RADAR vectors to BORRN, thence.

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660, for RADAR vectors to BORRN, thence.

. . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard.

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: Radar required.

NOTE: For aircraft destined KMEM or filed via Q32 or J42.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for Radar vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

... on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Rwys 17R, 35L: Standard.
Waterway 17, 35: NA - Air Traffic.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

.... on IAH R-358 to cross GIFFA INT at or above 10000.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660, for RADAR vectors to VUH VOR/DME, thence . . .

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660, for RADAR vectors to VUH VOR/DME, thence . . .

. . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
INDIE EIGHT DEPARTURE (RNAV)

NOTE: Chart not to scale.

TAKEOFF ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to RENNK, thence. . . .

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to RENNK, thence. . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA-Environmental.
Waterways 17, 35: NA-Air Traffic.
Rwys 17R, 35L: Standard with minimum climb of 500' per NM to 660.

INDIE EIGHT DEPARTURE (RNAV)

INDIE EIGHT DEPARTURE (RNAV) 07OCT21

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to RENNK, thence. . . .

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to RENNK, thence. . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to RENNK, thence. . . .

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to RENNK, thence. . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

ATIS 128.375
CLNC DEL 119.45
GND CON 121.8 239.0
HOOKS TOWER 127.4 354.1 (EAST)
118.4 (CTAF) 354.1 (WEST)
HOUSTON DEP CON 123.8 257.7 (Rwy 17L/R)
119.7 281.4 (Rwy 35L/R)

NOTE: LAREDO TRANSITION: ATC assigned only.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

TOP ALTITUDE:

INDUSTRY ONE DEPARTURE

IDU, IDU (IDU)

CENTEX
112.8 CWK
Chan 75

STONEWALL
113.8 STV
Chan 85

SAN ANTONIO
116.8 SAT
Chan 115

MARCS
10000
276°
(173)

10000
259°
(68)

10000
289°
(55)

10000
(19)

HUMBLE
115.1 IH
Chan 113

INDUSTRY
110.2 IDU
Chan 35

NAVASOTA
115.9 TNV
Chan 106

BOCCK
119.7 281.4 (Rwys 35L/R)

SHYNIR
113.8 STV
Chan 85

CORPUS CHRISTI
115.5 CRP
Chan 105

LAREDO
117.4 LRD
Chan 121

NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 17L, 35R, NA - Environmental.
Waterways 17, 35, NA - Air Traffic.
Rwys 17L, 35L: Standard.

NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to CUZZZ INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . on IAH R-276 and JCT R-090 to JCT VORTAC.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard with minimum climb of 500' per NM to 660.

TOP ALTITUDE: ASSIGNED BY ATC

(NARRATIVE ON FOLLOWING PAGE)

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660, for RADAR vectors to KARRR, thence... 
TAKEOFF RUNWAY 35L: Climb on heading 348° to 660, for RADAR vectors to KARRR, thence... 

...on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
DEPARTURE ROUTE DESCRIPTION

When entering controlled airspace, climb on assigned heading for RADAR vectors to WEDRI INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . on IAH R-082 to HOURN INT, then on LCH R-253 to LCH VORTAC.

FIGHTING TIGERS TRANSITION (LCH5.LSU): From over LCH VORTAC on LCH R-070 and LSU R-252 to LSU VORTAC.
NOTE: Radar required.
NOTE: Except for aircraft destined ACT or the DFW terminal area,
all aircraft filing the LEONA SID must file one of the published
transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or
BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of
the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of
the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL
VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
TOP ALTITUDE:
ASSIGNED BY ATC

NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

LITTLE ROCK
113.9 LIT
Channel 86

R-312
R-295
R-273

SKKIP

LUFKIN
112.1 LFK
Channel 58

SUSHI

COLET

KYANN

HUMBLE
116.6 IAH
Channel 113

DAISETTA
116.9 DAS
Channel 116

LUFKIN THREE DEPARTURE
(LFK3.LFK) 07OCT21

HOUSTON, TEXAS

DAVID WAYNE HOOKS MEML (DWH)

TAKING MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17R:** Climb on heading 168° to 660 for RADAR vectors to KNTKY, thence . . . .

**TAKEOFF RUNWAY 35L:** Climb on heading 348° to 660 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**
NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660, for RADAR vectors to MMALT, thence.

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660, for RADAR vectors to MMALT, thence.

...on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)
NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

ATIS
128.375
CLNC DEL
119.45
GND CON
121.8 239.0

HOOKS TOWER
127.4 354.1 (EAST)
118.4 (CTAF) 354.1 (WEST)
HOUSTON DEP CON
119.7 281.4 (Rwys 35L/R)
123.8 257.7 (Rwys 17L/R)

TOP ALTITUDE: ASSIGNED BY ATC

CHAN
TOP

FORT STOCKTON
116.9 FST
Channel 116

SAN ANTONIO
116.8 SAT
Channel 115

SKUBA
218°
Channel 92 (Y)

ROCKSPRINGS
114.55 RSG
Channel 92 (Y)

COTULLA
115.8 COT
Channel 105

THREE RIVERS
111.4 THX
Channel 51

PALLACOS
117.3 PSX
Channel 120

RADAR and DME required.

TAKEOFF MINIMUMS
Rwys 17L, 35R: NA - Environmental.
Waterways 17, 35: NA - Air Traffic.
Rwys 17R, 35L: Standard.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to KNTKY, thence. . . .
TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to KNTKY, thence. . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17R:** Climb on heading 168° to 660 for RADAR vectors to BBYSE, thence.

**TAKEOFF RUNWAY 35L:** Climb on heading 348° to 660 for RADAR vectors to BBYSE, thence.

. . .on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
WATFO SIX DEPARTURE (RNAV)

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17R**: Climb on heading 168° to 660, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 35L**: Climb on heading 348° to 660, for RADAR vectors to WATFO, thence. . . .

. . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**

**KELPP TRANSITION (WATFO6.KELPP)**

**MUSYL TRANSITION (WATFO6.MUSYL)**

NOTE: Chart not to scale.
WYLSN EIGHT DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17R: Climb on heading 168° to 660 for RADAR vectors to WYLSN, thence . . .

TAKEOFF RUNWAY 35L: Climb on heading 348° to 660 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

G riffa TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)

NOTE: Chart not to scale.
Circling NA west of Rwy 17R-35L. DME from EFD TACAN. Simultaneous reception of I-FNF and EFD DME required.

For inop ALS, increase S-ILS 22 Cat E visibility to RVR 4000 and S-LOC 22 Cat E visibility to 1/2 SM.

RADAR required for procedure entry.

MISSED APPROACH: Climb to 700 then climbing left turn to 3100 on VUH VOR/DME R-320 to WATFO INT/VUH 9.3 DME and hold. (TACAN aircraft climb to 700 then climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold southeast, left turn, 316° inbound.)

EGNYT only. Simultaneous reception of I-FNF and EFD DME required.
HOUSTON, TEXAS

ATIS
135.575 269.9

HOUSTON APP CON
134.45 284.0

ELLINGTON TOWER
126.05 253.5

GND CON
121.6 275.8

**ILS Z or LOC Z RWY 35L**

**ELLINGTON (EFD)**

**ATIS**

135.575 269.9

**HOUSTON APP CON**

134.45 284.0

**ELLINGTON TOWER**

126.05 253.5

**GND CON**

121.6 275.8

**LOCALIZER**

**111.1**

**I-EFD**

**ELLINGTON**

**Chan 31**

**EFD**

**(109.4)**

**LOC**

**Circling NA west of Rwy 17R-35L. DME from EFD TACAN. Simultaneous reception of I-EFD and EFD DME required.**

**JUVUM**

**RADAR**

** Required for procedure entry.**

**MALSF**

**TAGS**

**R-136**

**EFD**

**TRINITY**

**114.75 MHF**

**Chan 94(Y)**

**ATIS**

**ELEV**

**33**

**TDZE**

**28**

**Rwy Idg**

**TDZE**

**28**

**Apt Elev**

**33**

**9001**

**LOC I-EFD**

**111.1**

**APP CRS**

**354°**

**WATFO INT**

**3100**

**VUH R-320**

**MARZY INT**

**EFD 7.1**

**EFD RADAR**

**PAHSU INT**

**EFD 15**

**EFD RADAR**

**VGS and ILS glidepath not coincident**

**VGSI Angle 3.00/TCH 32.**

**SIMULTANEOUS**

**RECEPTION**

**I-EFD and EFD DME required.**

**CIRCLING**

**S-ILS 35L**

**228/40**

**200 (200-34)**

**S-LOC 35L**

**620/40 592 (600-34)**

**620-1 592 (600-134)**

**620-1 620 (600-134)**

**640-2 607 (700-2)**

**667 (700-24)**

**700-24**

**JUVUM FIX MINIMUMS (DME REQUIRED)**

**S-LOC 35L**

**440/40 412 (500-34)**

**440/50 412 (500-1)**

**440/50 412 (500-1)**

**440/50 412 (500-1)**

**S-LOC 35L**

**467 (500-1)**

**547 (600-1)**

**607 (700-2)**

**667 (700-24)**

**CIRCLING**

** CATEGORY **

**A**

**B**

**C**

**D**

**E**

**0.6 NM**

**1.1 NM**

**4.6 NM**

**7.9 NM**

**Knots**

**60**

**90**

**120**

**150**

**180**

**Min:Sec**

**5:42**

**3:48**

**2:51**

**2:17**

**1:54**

**HOUSTON, TEXAS**

**Amdt 7 15AUG19**

**29°36'N-95°10'W**

**ILS Z or LOC Z RWY 35L**

**ELLINGTON (EFD)**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**24137**
HOUSTON, TEXAS

APP CRS
039°

Rwy Idg 8001
TDZE 30
Apt Elev 33

ATIS
135.575 269.9

HOUSTON APP CON
134.45 284.0

ELLINGTON TOWER
126.05 253.5

GND CON
121.6 275.8

RADAR REQUIRED

Circling NA west of Rwy 17R-35L. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3100 direct EWOFY and right turn on track 129° to CEROP and right turn on track 219° to WATFO and hold.

HOUSTON, TEXAS AL-197 (FAA)
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. Inop table does not apply to LPV DA. For inop MALSF, increase LNAV/VNAV all Cats and LNAV Cats A and B visibility to RVR 5500 and Cats C/D/E visibility to 1/3 miles. Circling NA west of Rwy 17R-35L.

MALSF

**MISSDE APPROACH:** Climb to 3100 direct ATZIB and on track 125° to WATFO and hold.

<table>
<thead>
<tr>
<th>ATIS</th>
<th>HOUSTON APP CON</th>
<th>ELLINGTON TOWER</th>
<th>GND CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>135.575 269.9</td>
<td>134.45 284.0</td>
<td>126.05 253.5</td>
<td>121.6 275.8</td>
</tr>
</tbody>
</table>

**Radar Required**

- **AZTIB**
- **WATFO**

**Category**

- **LPV DA**
- **LNAV/VNAV DA**
- **LNAV MDA**
- **CIRCLING**

**HIRL Rwy Ts**

- **35R**
- **22**

**GND CON**

- **HOUSTON APP CON**
- **ELLINGTON TOWER**
- **(IF) ZORLU**
- **TRAPS**
- **FUSI**

**Map Indicators**

- **3100**
- **125°**
- **190°**
- **499°**
- **523°**

**Chart Notes**

- **HOUSTON, TEXAS**
- **ELLLINGTON (EFD)**
- **29°36’N-95°10’W**

**AL-197 (FAA)**

**Amdt 1C 08OCT20**
Circling NA west of Rwy 17R - 35L. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C or above 54°C. For inop ALS, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to RVR 4500, and LNAV Cats C/D/E visibility to RVR 5500.

MISSED APPROACH: Climb to 500 then climbing left turn to 3100 direct WATFO and hold.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 43°C (109°F). Circling NA west of Rwy 17R-35L. DME/DME RNP-0.3 NA. For inop MALSF, increase LNAV/VNAV all Cats visibility to 1 mile, and LNAV Cats A and B visibility to 1 mile and Cats C, D and E visibility to 1½ mile. Inop table does not apply to LPV.

MALSF

MALSF

MISSED APPROACH: Climb to 1500 then climbing right turn to 3100 direct WATFO and hold.

VGSi and RNAV glidepath not coincident (VGSi Angle 3.00°/TCH 32).

* LNAV only.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tr>
<td>LPV DA</td>
<td>228/40</td>
<td>200</td>
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<td>LNAV/VNAV DA</td>
<td>499/60</td>
<td>471</td>
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<tr>
<td>LNAV MDA</td>
<td>440/40</td>
<td>412</td>
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<tr>
<td>CIRCLING</td>
<td>500-1</td>
<td>468</td>
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</tbody>
</table>

For inop MALSF, increase LNAV/VNAV all Cats visibility to 1 mile, and LNAV Cats A and B visibility to 1 mile and Cats C, D and E visibility to 1½ mile. Inop table does not apply to LPV.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 43°C (109°F). Circling NA west of Rwy 17R-35L. DME/DME RNP-0.3 NA. For inop MALSF, increase LNAV/VNAV all Cats visibility to 1 mile, and LNAV Cats A and B visibility to 1 mile and Cats C, D and E visibility to 1½ mile. Inop table does not apply to LPV.
Circling NA west of Rwy 17R-35L.
Helicopter visibility reduction below 1 SM NA.

ATIS
HOUSTON APP CON
ELLINGTON TOWER
GND CON
135.575 269.9
134.45 284.0
126.05 253.5
121.6 275.8

RADAR REQUIRED

HOUSTON, TEXAS
SC-5, 11 JUL 2024 to 05 SEP 2024

ELLIJCTON (EFD)
29°36'N-95°10'W

TACAN RWY 4
ELLINGTON (EFD)

HOUSTON TOWER (TDZE)

HOUSTON APP CON

ELLINGTON TOWER

GND CON

135.575 269.9
134.45 284.0
126.05 253.5
121.6 275.8

Radar Required

TACAN RWY 4
ELLINGTON (EFD)

HOUSTON, TEXAS
Orig B 08OCT20

AL-197 (FAA)
When ALS inop, increase visibility Cat A/B to RVR 5500 and Cat C/D/E visibility to 1½ miles. Circling NA west of Rwy 17R-35L.

MISSED APPROACH: Climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.

ATIS
HOUSTON APP CON 134.45 284.0
ELLINGTON TOWER 126.05 253.5
GND CON 121.6 275.8

RADAR REQUIRED

TACAN EFD
Chan 31 (109.4)
APP CRS 163°
Rwy Idg 9001
TDZE 32
Apt Elev 33

MALS

CIRCLING
HOUSTON, TEXAS
Orig B 08OCT20

ELLINGTON (EFD)

SC-5, 11 JUL 2024 to 05 SEP 2024
TACAN RWY 22

ELLIJNGTON (EFD)

**ATTENTION**

- Circling NA west of Rwy 17R-35L. When ALS inop, increase S-22 Cat A/B visibility to RVR 5500 and Cat C/D/E to 1½ miles.

** Atlas**

ATIS

HOUSTON APP CON

ELLIJNGTON TOWER

GND CON

135.575 269.9

134.45 284.0

126.05 253.5

121.6 275.8

**RADAR REQUIRED**

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 50).

Cat D/E VDA not for civil use.

**CATEGORY**

- **A**
- **B**
- **C**
- **D**
- **E**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</thead>
<tbody>
<tr>
<td>S-22</td>
<td>500/24</td>
<td>469 (500-½)</td>
<td>500/50</td>
<td>469 (500-1)</td>
<td></td>
</tr>
<tr>
<td>CIRCLING</td>
<td>500-1</td>
<td>467 (500-1)</td>
<td>580-½</td>
<td>640-2</td>
<td>700-2½</td>
</tr>
</tbody>
</table>

**Notes**

- MALSR
- MISSED APPROACH: Climbing left turn to 3100 on EFD TACAN R-136 to WAITFO/EFD 16 DME and hold.

**Diagram**

- EFD 3100
- WATFO EFD 16
- KIRNY EFD 13
- SONAR EFD 1
- FIKKO EFD 2
- TDZE 31
- ELEV 33

**Sectional Chart**

SC-5, 11 JUL 2024 to 05 SEP 2024

**Origin**

HOUSTON, TEXAS

Orig C 08OCT20

**AL-197 (FAA)**

24137

**HOUSTON, TEXAS**

**ELLINGTON (EFD)**

**TACAN RWY 22**

**TWR**

**APP CRS**

**Rwy Idg**

**Apt Elev**

**1049**

**MSA EFD 25 NM**

**ESA W/IN 100 NM 16000**

**ELLINGTON**

**Chan 31**

**EFD (109.4)**
Circling NA west of Rwy 17R-35L. When ALS inop, increase S-35L Cats A/B visibility to RVR 5500 and Cats C/D/E to 1 1/2 miles.

ATIS: 135.575 269.9
HOUSTON APP CON: 134.45 284.0
ELLINGTON TOWER: 126.05 253.5
GND CON: 121.6 275.8

RADAR REQUIRED

VANBE EFD 15
LULLI EFD 6
KEHRO EFD 1.4

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 32).

3100

CATEGORY

S-35L
520/40 492 (500-3/4)
520/60 492 (500-1 1/4)

CIRCLING
520-1 487 (500-1)
580-1 547 (600-1 1/2)
640-2 607 (700-2)
700-2 667 (700-2 1/4)

HOUSTON, TEXAS
SC-5, 11 JUL 2024 to 05 SEP 2024
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: RADAR required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

**TOP ALTITUDE: ASSIGNED BY ATC**

**TAKEOFF MINIMUMS**

Rwys 4, 17L/R, 35L/R: Standard.

Rwy 22: 200-1½ or standard with minimum climb of 214’ per NM to 300, or alternatively, with standard takeoff minimums and a normal 200’ per NM climb gradient, takeoff must occur no later than 1400’ prior to DER.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb of 500’ per NM to 540.

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb of 500'/NM to 540.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
CRIED ONE DEPARTURE

NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1½ or Standard with minimum climb of 214’ per NM to 300 or alternatively with standard takeoff minimums and a normal 200’ per NM climb gradient, takeoff must occur no later than 1400’ prior to DER.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
EL DORADO ONE DEPARTURE

NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

TAKING OFF MINIMUMS
Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1 1/4 or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS
Rwy 22: 200-1/4 or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

**TAKEOFF MINIMUMS**

Rwys 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500’ per NM to 540.

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**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 039° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAYS 17L/R:** Climb on heading 174° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAY 22:** Climb on heading 219° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAYS 35L/R:** Climb on heading 354° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**

**CFOOD TRANSITION (HOODO7.CFOOD)**

**HARVEY TRANSITION (HOODO7.HRV)**

**LEEVILLE TRANSITION (HOODO7.LEV)**

**SBIRD TRANSITION (HOODO7.SBIRD)**
INDIE EIGHT DEPARTURE (RNAV)

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb of 500’ per NM to 540.

TAKEOFF RUNWAY 4:
Climb on heading 039° to 540 for RADAR vectors to RENNK, thence . . . .

TAKEOFF RUNWAYS 17L/R:
Climb on heading 174° to 540 for RADAR vectors to RENNK, thence . . . .

TAKEOFF RUNWAY 22:
Climb on heading 219° to 540 for RADAR vectors to RENNK, thence . . . .

TAKEOFF RUNWAYS 35L/R:
Climb on heading 354° to 540 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

**NOTE:** Chart not to scale.
**NOTE: Chart not to scale.**

**TOP ALTITUDE: ASSIGNED BY ATC**

- **ATIS**: 135.575 269.9
- **GND CON**: 121.6 275.8
- **ELLINGTON TOWER**: 126.05 253.5
- **HOUSTON DEP CON**: 134.45 284.0

**NOTE: LAREDO TRANSITION:** ATC assigned only.

**NOTE: CORPUS CHRISTI TRANSITION:** ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE: JUNCTION TRANSITION:** For aircraft overflying JCT VORTAC on J2, J15 or J86.

**NOTE: CENTEX TRANSITION:** ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.

**NOTE: CORPUS CHRISTI TRANSITION:** ATC assigned only.

**NOTE: LAREDO TRANSITION:** ATC assigned only.

**TAKEOFF MINIMUMS**

- **RWYS 4, 17L/R, 35L/R:** Standard.
- **RWY 22:** 200-1/4 or standard with minimum climb of 214’ per NM to 300 or alternatively with standard takeoff minimums and a normal 200’ per NM climb gradient, takeoff must occur no later than 1400’ prior to DER.

**NOTE:** RADAR required.

**NOTE:** RADAR required.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.

**NOTE:** JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

**NOTE:** CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
RNAV-1 DME/DME/IRU or GPS. RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb of 500’ per NM to 540.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: Radar required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to WILLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
LUFKIN THREE DEPARTURE

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

LUFKIN
112.1 LFK
Chan 58

SUSHI

COLET

KYANN

HUMBLE
116.6 IAH
Chan 113

DAISETTA
116.9 DAS
Chan 116

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
LURIC EIGHT DEPARTURE (RNAV)

**ATIS**
135.575 269.9  
GND CON  
121.6 275.8  
ELLINGTON TOWER  
126.05 253.5  
HOUSTON DEP CON  
134.45 284.0  

**NOTE:** RADAR required.  
**NOTE:** DME/DME/IRU or GPS required.  
**NOTE:** RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 039° to 540 for RADAR vectors to KNTKY, thence . . . .  
**TAKEOFF RUNWAYS 17L/R:** Climb on heading 174° to 540 for RADAR vectors to KNTKY, thence . . . .  
**TAKEOFF RUNWAY 22:** Climb on heading 219° to 540 for RADAR vectors to KNTKY, thence . . . .  
**TAKEOFF RUNWAYS 35L/R:** Climb on heading 354° to 540 for RADAR vectors to KNTKY, thence . . . .  

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**  
**ORRTH TRANSITION (LURIC8.ORRTH)**  

**NOTE:** Chart not to scale.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 039° to 540, for RADAR vectors to MMALT, thence....

**TAKEOFF RUNWAYS 17L/R:** Climb on heading 174° to 540, for RADAR vectors to MMALT, thence....

**TAKEOFF RUNWAY 22:** Climb on heading 219° to 540, for RADAR vectors to MMALT, thence....

**TAKEOFF RUNWAYS 35L/R:** Climb on heading 354° to 540, for RADAR vectors to MMALT, thence....

....on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**GUSTI TRANSITION (MMALT7.GUSTI)**

**LAKE CHARLES TRANSITION (MMALT7.LCH)**

**WHITE LAKE TRANSITION (MMALT7.LLA)**
NOTE: Chart not to scale.

**PALACIOS THREE DEPARTURE**

**TOP ALTITUDE:**
**ASSIGNED BY ATC**

**FORT STOCKTON**
116.9 FST
Chan 116

**ROCKSPRINGS**
114.55 RSG
Chan 92 (Y)

**COTULLA**
115.8 COT
Chan 105

**SAN ANTONIO**
116.8 SAT
Chan 115

**THREE RIVERS**
111.4 THX
Chan 51

**PALACIOS**
117.3 PSX
Chan 120

**SKUBA**

**Radar and DME required.**

**TAKOPE MINIMUMS**
Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1½ or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

**ATIS**
135.575 269.9

**GND CON**
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**NOTE:**
(PSX3.PSX) 03 NOV 22

**ELLINGTON, TEXAS**

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**(CONTINUED ON FOLLOWING PAGE)**

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

**NOTE:** RADAR required.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RNAV 1.

**TAKEOFF MINIMUMS**

Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb of 500' per NM to 540.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 039° to 540 for RADAR vectors to KNTKY, thence. . . .

**TAKEOFF RUNWAYS 17L/R:** Climb on heading 174° to 540 for RADAR vectors to KNTKY, thence. . . .

**TAKEOFF RUNWAY 22:** Climb on heading 219° to 540 for RADAR vectors to KNTKY, thence. . . .

**TAKEOFF RUNWAYS 35L/R:** Climb on heading 354° to 540 for RADAR vectors to KNTKY, thence. . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBULL TRANSITION (STRYA8.JBULL)**
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 039° to 540 for RADAR vectors to BBYSE, thence...

**TAKEOFF RUNWAYS 17L/R, 22, 35L/R:** Climb on heading 174° to 540 for RADAR vectors to BBYSE, thence...

**TAKEOFF RUNWAY 22:** Climb on heading 219° to 540 for RADAR vectors to BBYSE, thence...

**TAKEOFF RUNWAYS 35L/R:** Climb on heading 354° to 540 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**

**NOTE:** Chart not to scale.

**NOTE:** RADAR required.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RNAV 1.
WATFO SIX DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to WATFO, thence....
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to WATFO, thence....
TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to WATFO, thence....
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to WATFO, thence....

...on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to WYLSN, thence. . . .

. . . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
ILS or LOC RWY 8R

GEORGE BUSH INT’L/HOUSTON (IAH)

D-ATIS 124.05
HOUSTON APP CON 120.05 379.1 EAST
HOUSTON TOWER 125.35 290.2
GND CON 118.575
CLNC DEL 128.1
CPDLC 2049

RNAV 1-GPS or RADAR required for procedure entry, DME.

Simultaneous approach authorized. For inop ALS, increase S-LOC 8R Cat C/D/E visibility to 1½ SM. For inop ALS, increase S-ILS 8R Cat E visibility to RVR 4000.

MISSED APPROACH: Climb to 3000 on heading 087° and on DAS VORTAC R-242 to DAS VORTAC and hold.
LOCATION: 116.6 IAH (Channel 113)

MISSING APCH FIX

LOCALIZER 109.7
I-JYV

HUMBLE
116.6 IAH (Channel 113)

ILS or LOC RWY 26L
GEORGE BUSH INTCNTL/HOUSTON (IAH)

DME required. From BOZZZ, GARRR; RNAV 1-GPS required.

Simultaneous approach authorized with RWY 26R and RWY 27. For inop ALS, increase S-ILS 26L Cat E visibility to RVR 4000, S-LOC 26L Cat C/D/E visibility to RVR 3000.

MISSAPPROACH: Climb to 3000 then left turn heading 240° and IAH VORTAC R-270 to LUCEP INT/IAH 22.9 DME and hold.
ILS or LOC RWY 27
GEORGE BUSH INTCTRL/ HOUSTON (IAH)

D-ATIS
124.05

HOUSTON APP CON
120.05 379.1 EAST
124.35 316.15 WEST

HOUSTON TOWER
135.15 290.2

GND CON
118.575

CLNC DEL
128.1

CPDLC

MISSING APCH FIX
TICOY IAH 20

RNGI and ILS glidepath not coincident (VGS Angle 3.00/TCH 70).

This is a Federal Aviation Administration (FAA) chart for ILS or LOC RWY 27 at George Bush Intercontinental/Houston International Airport (IAH). The chart includes information on approach procedures, glidepath angles, missed approach instructions, and navigational aids.

- **Category:** GS 3.00°
- **TCH:** 70
- **Apt Elev:** 110.9
- **DME:** Required.
- **RNAV 1-GPS or RADAR required for procedure entry.**
- **Visibility:** To RVR 4000 and S-LOC 27 Cat C visibility to 1 SM.
- **Simultaneous approach authorized.**
- **Use of FD or AP required during simultaneous operations.**

For inop ALS, increase S-ILS 27 Cat E visibility to RVR 4000 and S-LOC 27 Cat C-E visibility to 1 SM.

Missed Approach: Climb to 560 then climbing left turn to 3000 on IAH VORTAC R-215 to TICOY/IAH 20 DME and hold.
HOUSTON, TEXAS
AL-5461 (FAA)

ILS or LOC RWY 33R
GEORGE BUSH INT’L/HOUSTON (IAH)

DME from IAH VORTAC. Simultaneous reception of I-CDG and IAH DME Required. For inop MALSR, increase S-ILS 33R Cat E visibility to RVR 4000 and S-LOC 33R Cat E visibility to 1½ mile. DME or RADAR Required. #RVR 1800 authorized with the use of FD or AP or HUD to DA.

MISSED APPROACH: Climb to 2000 on IAH VORTAC R-330 to GOMER INT/TNV 26.8 DME and hold.

Radar Required

LOC I-CDG

ELEV 111.9
APR CRS 329°
Rwy 33R Idg 12001
TDZE 89
TDZE 90
Apt Elev 96
Apt Elev 96
S-ILS 33R
S-LOC 33R
SIDESTEP Rwy 33L

115.9 TNV
Chan 106
R-076

GOMER INT/TNV 26.8

329°

FAF to MAP 4.6 NM

Knots 60 90 120 150 180
Min/Sec 4.36 3.04 2.18 1.50 1.32

S-ILS 33R

540/24 451 (500-1½)
540/45 451 (500-7½)

S-LOC 33R

540-1 450 (500-1)
540-1½ 450 (500-1½)
540-2 450 (500-2)
NA

SIDESTEP Rwy 33L

1049 2400

329°

GS 3.00°

TCH 49

CATEGORY A B C D E

FAF to MAP 4.6 NM

29°59'N-95°20'W

SC-5, 11 JUL 2024 to 05 SEP 2024
ILS RWY 8L (SA CAT I)

GEORGE BUSH INTL/ HOUSTON (IAH)

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HOUSTON, TEXAS

Amdt 4E 20JUN19

SA-5, 11 JUL 2024 to 05 SEP 2024

HOUSTON, TEXAS

AL-5461 (FAA) 24193

ILS RWY 8L (SA CAT I)

GEORGE BUSH INTNATIONAL/HOUSTON (IAH)

HOUSTON, TEXAS

AL-5461 (FAA) 24193

ILS RWY 8L (SA CAT I)

GEORGE BUSH INTNATIONAL/HOUSTON (IAH)

HOUSTON, TEXAS

AL-5461 (FAA) 24193

ILS RWY 8L (SA CAT I)

GEORGE BUSH INTNATIONAL/HOUSTON (IAH)

HOUSTON, TEXAS

AL-5461 (FAA) 24193

ILS RWY 8L (SA CAT I)
DME required. From BOZZZ, GARR: RNAV 1-GPS required.

Simultaneous approach authorized with Rwy 26R and Rwy 27. Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

MISSING APCH FIX

VGSI and ILS glidepath not coincident (VGSI Angle 3.00°/TCH 71).

MISSED APPROACH: Climb to 3000 then left turn heading 240° and IAH VORTAC R-270 to LUCEP INT/IAH 22.9 DME and hold.

SA CATEGORY 1 ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED
DME required. From HOOTI: RNAV 1-GPS required.

Simultaneous approach authorized with Rwy 26L and Rwy 27.
Requires specific OPSPEC, MSPEC or LOA approval and use of HUD to DH.

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 on IAH VORTAC R-344 to PEPBI INT/IAH 20 DME and hold.

HOUSTON, TEXAS
AL-5461 (FAA) 24193

ILS RWY 26R (SA CAT I)
GEORGE BUSH INTL/HOUSTON (IAH)

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HOUSTON, TEXAS
Amdt 4B 25APR19
29°59'N-95°20'W
293
ILS RWY 9 (SA CAT I & II)

HOUSTON, TEXAS

Amdt 10B 25APR19

SA CATEGORY I and II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

GEOGE BUSH INTNCNTL/HOUSTON (IAH)

29°59'N-95°20'W

DME required. RADAR required for procedure entry.

Simultaneous approach authorized with Rwy BL/R. SA CAT I: Requires specific OPSPEC, MSPEC, or LOA approval and use of AUTOLAND or HUD to touchdown. SA CAT II: Reduced lighting: requires specific OPSPEC, MSPEC, or LOA approval and use of AUTOLAND or HUD to touchdown.

MISSED APPROACH: Climb to 580 then climbing right turn to 3000 on IAH VORTAC R-130 to JEBOX/IAH 18.3 DME and hold.

EGEORGE BUSH INTNCNTL/HOUSTON (IAH)

114.75 MHF Chan 94(Y)

CPDLC

DEP/ARR CON

D-ATIS

HOUSTON APP CON

HOUSTON TOWER

GND CON

CLNC DEL

LOCALIZER 110.9

I-UYO

Chan 46

TWR

TCH 50

GS 3.00°

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).

CATEGORY

A

B

C

D

S-ILS 9

SA CAT I

RA 148/14

150 DA 240

SA CAT II

RA 98/12

100 DA 190

1049

116.6

IAH

Chan 113

5.7

399

256

255

HYWAY

116.6

IAH

Chan 113

636

4000

3000

2000

MSPEC, or LOA approval and use of AUTOLAND or HUD to touchdown.  SA CAT II: Reduced lighting: requires specific OPSPEC, MSPEC, or LOA approval and use of AUTOLAND or HUD to touchdown.
 category II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

Convertible to Category II or III ILS PMDs.

ILS RWY 26L
(CAT II & III)

S-ILS 26L
CAT II RA 100/12
100 DA 195

S-ILS 26L
CAT III RVR 06

AIRCRFT CERTIFICATION REQUIRED

HOUSTON, TEXAS

Amdt 21D 25APR19

29°59'N-95°20'W

ILS RWY 26L (CAT II & III)
GEORGE BUSH INT’L/HOUSTON (IAH)

MISSED APCH: Climb to 3000 then left turn heading 240° and IAH VORTAC R-270 to LUCEP INT/IAH 22.9 DME and hold.

DME required. From BOZZZ, GARRR: RNAV 1-GPS required.

Simultaneous approach authorized with Rwy 26R and Rwy 27.
Cat II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

S-ILS 26L & AIRCRAFT CERTIFICATION REQUIRED

GEORGE BUSH INT’L/HOUSTON (IAH)

LOC/DME I-JYV
109.7
Chan 34

APP CRS
267°

Rwy Idg
9402
TDZE
95
Apt Elev
96

D-ATIS
124.05
HOUSTON APP CON
120.05 379.1 EAST
124.35 316.15 WEST

HOUSTON TOWER
125.35 290.2

GND CON
118.575
CLNC DEL
128.1

CPDLC

LOCALIZER 109.7
I-JYV
Chan 34

HUMBLE
116.6 IAH
Chan 113

VGSi and ILS glidespath not coincident
(VGSi Angle 3.00/TCH 71).

IM
190

CATE 1
A

B

C

D

S-ILS 26L
CAT II RA 100/12
100 DA 195

S-ILS 26L
CAT III RVR 06

MISSING APCH FIX
LUCEP INT
IAH 22.9

R-270
90°

Rwy Idg
TDZE

ELEV

95

Apt Elev

96

TWR

9000 X 150
12001 X 150
10000 X 150
9402 X 150
8L
8R
90°

TDZ/CL Rwys BR, 8L, 15R, 26R, 26L, 27 and 33L
HIRL all Rwys

R-270
240°

Apt Elev

96

TWR

9000 X 150
12001 X 150
10000 X 150
9402 X 150
8L
8R
90°

TDZ/CL Rwys BR, 8L, 15R, 26R, 26L, 27 and 33L
HIRL all Rwys
**ILS RWY 26R (CAT II & III)**

**GEORGE BUSH INT’L/HOUSTON (IAH)**

**Amdt 4B 25APR19**

**S-ILS-26R**

**CAT II RA 99/12 100 DA 195**

**S-ILS-26R**

**CAT III RVR 06**

**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

**HOUSTON, TEXAS**

**AL-5461 (FAA)**

**24193**

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**LOC/DME I-OND**

<table>
<thead>
<tr>
<th>111.55</th>
<th>267°</th>
<th>APP CRS</th>
<th>9000</th>
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<tbody>
<tr>
<td>Chan 52 (Y)</td>
<td>95</td>
<td>Rwy Idg</td>
<td>96</td>
</tr>
</tbody>
</table>

**HOUSTON**

**TDZE 95**

**HIGH GND CON CLNC DEL**

**ELEV 116.8 IAH**

**MISSED APPROACH**

Climb to 600 then climbing right turn to 3000 on IAH VORTAC R-344 to PEPBI INT/IAH 20 DME and hold.

---

**HOUSTON, TEXAS**

**CHAN 267°**

**APPROACH Beacon**

**LOCALIZER** 111.55

**I-OND Chan 52 (Y)**

---

**WASHINGTON**

**TDZE 95**

**HIGH GND CON CLNC DEL**

**ELEV 116.8 IAH**

**MISSED APPROACH**

Climb to 600 then climbing right turn to 3000 on IAH VORTAC R-344 to PEPBI INT/IAH 20 DME and hold.
HOUSTON, TEXAS
Al-5461 (FAA) 24193

ILS RWY 27 (CAT II & III)
GEORGE BUSH ITCNTL/HOUSTON (IAH)

LOC/DME I-GHI
110.9  Chan 46

APP CRS
267°

Rwy IDg 10000
TDZE 86
Apt Elev 96

D-ATIS
124.05

HOUSTON APP CON
120.05 379.1 EAST
124.35 316.15 WEST

HOUSTON TOWER
135.15 290.2

GND CON
118.575

CLNC DEL
128.1

CPDLC

LOCALIZER 110.9
I-GHI
Chan 46

635
258±
256
530
255

HUMBLE 116.6 IAH
Chan 113

MISSAPCH FIX
TICOY IAH [20]

REDOC I-GHI 6.1

FESTA I-GHI 10.5

DENTO I-GHI 17.7

TRANN INT I-GHI 22

IM

IM

116.9 IAH
Chan 116

A 2049

DAISETTA

IM

H-223

R-210

RDFSH

(IAF) 6000 210K

TICOY/IAH 20 DME and hold.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Cat II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

RNAV 1-GPS or RADAR required for procedure entry. DME required.

Category II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HOUSTON, TEXAS
Amdt 11D 12AUG21

300
UPDATE INFORMATION

GEORGE BUSH INTL/HOUSTON (IAH)

RNP APCH - GBAS

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 295.

GLS RWY 8R

BELOW 3000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

BELOW 2000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

BELOW 1000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

NOTE: Use of GBAS for approach.

FAA APPROVED

HOUSTON, TEXAS

AL-5461 (FAA)

24193

HOUSTON, TEXAS

GEORGE BUSH INTL/HOUSTON (IAH)

RNP APCH - GBAS

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 295.

GLS RWY 8R

BELOW 3000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

BELOW 2000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

BELOW 1000 FT: No altitude restriction. 1000 X 1500 for all Rwys.

NOTE: Use of GBAS for approach.
Amdt 1C  23FEB23

** RVR 1800 authorized with use of FD or AP or HUD to DA.

** Simultaneous operations. Autopilot coupled approach NA below 290.

** Simultaneous approach authorized. Use of FD or AP required during simultaneous operations.

Simultaneous approach authorized. Use of FD or AP during simultaneous operations. Autopilot coupled approach NA below 290.

GBAS RPI
G09A

** RVR 1800 authorized with use of FD or AP or HUD to DA.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations.

Simultaneous approach authorized. Use of FD or AP during simultaneous operations. Autopilot coupled approach NA below 290.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 290.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 290.

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Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 290.
Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Autopilot coupled approach NA below 295.

MISSED APPROACH: Climb to 3000 direct LUCEP and hold.

VGSi and GLS glidepath not coincident (VGSi Angle 3.00°/TCH 71).
MISSED APPROACH: Climb to 560 then climbing left turn to 3100 direct TICOY and hold.
RNAV (RNP) Y RWY 8L

GEORGE BUSH INT’L/HOUSTON (IAH)

HOUSTON, TEXAS

29°59’N-95°20’W

AL-5461 (FAA)

RNP AR APCH-GPS.

Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -2°C or above 54°C. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For inop ALS, increase RNP 0.30 all CATs visibility to RVR 5500.

MISSED APPROACH: Climb to 580 then climbing left turn to 4000 direct CLEEP and hold.

MISSED APCH FIX

4 NM

CLEEP

See planview for multiple IF locations.

AUTHORIZATION REQUIRED

GEORGE BUSH INT’L/HOUSTON (IAH)

HOUSTON, TEXAS

Amdt 1 19MAY22

29°59’N-95°20’W

307
For uncorrected Baro-VNAV systems, procedure NA below -3°C or above 54°C. For inop ALS increase RNP 0.13 all Cats visibility to RVR 4500, RNP 0.14 all Cats visibility to RVR 5600, RNP 0.30 all Cats visibility to 1/2 SM. Simultaneous approach authorized.

MISSED APPROACH: Climb to 3000 on track 087° to MKAYE and hold.

For uncompensated Baro-VNAV systems, procedure NA below -3°C or above 54°C. For inop ALS increase RNP 0.13 all Cats visibility to RVR 4500, RNP 0.14 all Cats visibility to RVR 5600, RNP 0.30 all Cats visibility to 1/2 SM. Simultaneous approach authorized.

MISSED APPROACH: Climb to 3000 on track 087° to MKAYE and hold.
RNAV (RNP) Y RWY 9
GEORGE BUSH INTL/HOUSTON (IAH)

For uncompensated Baro-VNAV systems, procedure NA below -3°C (27°F) or above 54°C (130°F). GPS required. For inop MALSR, increase all CATs visibility to 1½ mile. Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

- MALS R
- MISSED APPROACH: Climb to 3000 then climbing right turn to direct JEBOX and hold.

Authorization Required

RNAV track guidance required during simultaneous operations. To 1 mile. Simultaneous approach authorized. Use of FD or AP providing above 54°C (130°F). GPS required. For inop MALSR, increase all Cats visibility for uncompensated Baro-VNAV systems, procedure NA below -3°C (27°F) or above 54°C (130°F).
For uncompensated Baro-VNAV systems, procedure NA below -3°C or above 54°C. Simultaneous approach authorized. For inop ALS, increase RNP 0.13 all Cats visibility to RVR 5100, and RNP 0.30 all Cats visibility to 1/2 SM.

**RNAV (RNP) Y RWY 26L**

**GEORGE BUSH INTL/ HOUSTON (IAH)**

**D-ATIS**
124.05

**HOUSTON APP CON**
120.05 379.1 EAST
124.35 316.15 WEST

**HOUSTON TOWER**
125.35 290.2

**GND CON**
118.575

**CLNC DEL**
128.1

**CPDLC**

**AUTHORIZATION REQUIRED**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
For uncompensated Baro-VNAV systems, procedure NA below -3°C (27°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized. For inop ALS, increase RNP 0.11 all Cats visibility to RVR 5000 and increase RNP 0.15 all Cats visibility to 1/2 SM. Use of FD or AF providing RNAV track guidance required during simultaneous operations.

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 direct PEPBI and hold.

TDZ/CL Rwys 8R, 8L, 15R, 26R, 26L, 27 and 33L
HIRL all Rwys

See planview for multiple IF locations.
Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. For uncompensated Baro-VNAV systems, procedure NA below -2°C or above 54°C. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 4500.

AUTHORIZATION REQUIRED
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C or above 54°C. For inop ALS, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to RVR 5500, and LNAV Cat C/D/E visibility to 1 3/4 SM.

**Amdt 2C 30JAN20**
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV Cat E visibility to 1/4, and LNAV Cat C/D/E visibility to 1/3. Simultaneous approach authorized with Rwy 8R and Rwy 9. DME/DME RNP-0.3 NA. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations.

MISSED APPROACH: Climb to 580 then climbing left turn to 4000 direct CLEEP and hold.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop MALSR, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to RVR 6000, and LNAV Cat C/D/E visibility to 1/2. Simultaneous approach authorized with RWy 8L and RWy 9. DME/DME RNP-0.3 NA. Use of FD or AP providing RNAV track guidance required during simultaneous operations. RNAV procedure NA during simultaneous operations.

RNAV (GPS) Z RWY 8R

**RADAR REQUIRED**

**124.05**

**120.05 379.1 EAST**

**124.35 316.15 WEST**

**125.35 290.2**

**118.575**

**128.1**

**125.35 316.15 EAST**

**120.05 379.1 EAST**

**124.35 316.15 WEST**

**125.35 290.2**

**118.575**

**128.1**

**CPDLC**

**MISSING APCH FIX**

**04 NM**

**267°**

**MKAYE**

**A 255**

**A 923**

**A 530**

**A 646**

**3100**

**MSA RWY08R 2.5 NM**

**MISSED APPROACH**

Climb to 3000 direct MKAYE and hold.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop MALSR, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV Cat E visibility to 1/2 mile, and LNAV Cat C/D/E visibility to 1/2 mile. Simultaneous approach authorized with Rwy 8L/R. DME/DME RNP-0.3 NA. 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.

MISSED APPROACH: Climb to 580 then climbing right turn to 3000 direct JEOBOX and hold.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV Cat E visibility to 1½, and LNAV Cat E visibility to 1½. DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 26R and Rwy 27. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MISSING APPROACH:**

- Climb to 3000 direct LUCEP and hold.
- **RADAR REQUIRED**
- Use of FD or AP providing RNAV track guidance required during simultaneous approach authorized with Rwy 26R and Rwy 27. LNAV procedure NA during simultaneous operations.
- For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV Cat E visibility to 1½, and LNAV Cat E visibility to 1½. DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 26R and Rwy 27. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**RADAR REQUIRED:**

- Use of FD or AP providing RNAV track guidance required during simultaneous approach authorized with Rwy 26R and Rwy 27. LNAV procedure NA during simultaneous operations.
RNAV (GPS) Z RWY 26R

GEORGE BUSH INT’L/HOUSTON (IAH)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to 1 1/2, and LNAV Cat C/D/E visibility to 1 1/2.

DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 26L and Rwy 27. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

ASLF-2

ALSF-2

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -3°C (27°F) or above 54°C (130°F). For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to 1 1/2, and LNAV Cat C/D/E visibility to 1 1/2.

DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 26L and Rwy 27. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

ALSF-2
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CLEARANCES.

Runway Status Lights in operation.

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

Runway Status Lights in operation.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: Chart not to scale.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS BL/R, 9:** Climb on heading 087° to 600 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAYS 15L/R:** Climb on heading 149° to 600 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAYS 26L/R, 27:** Climb on heading 267° to 600 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAYS 33L/R:** Climb on heading 329° to 600 for RADAR vectors to DREMR, thence . . . .

. . . . on track 345° to LITLD, then on track 346° to BLTwy, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

**CRIED TRANSITION (BLTWY7.CRIED)**

**TOP ALTITUDE:**

16000

**NOTE:** Chart not to scale.

**BLTWY7.BLTWY**

21280

GEORGE BUSH INT'NTL/ HOUSTON (IAH)

HOUSTON, TEXAS

D-ATIS
124.05
CLNC DEL
128.1
CPDLC
GND CON
118.575 (Rwys 8L/R, 26L/R, 9/27)
121.7 (Rwys 15L/R, 33L/R)
HOUSTON TOWER
120.725 290.2 (Rwys 8R/26R)
125.35 290.2 (Rwys 8R/26L)
127.3 288.25 (Rwys 15L/R, 33L/R)
135.15 290.2 (Rwys 9/27)
HOUSTON DEP CON
132.25 285.425

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required.

BLTWY SEVEN DEPARTURE (RNAV)

BLTWY SEVEN DEPARTURE (RNAV) 07OCT21

GEORGE BUSH INT'NTL/ HOUSTON (IAH)

HOUSTON, TEXAS
HOUSTON DEP CON
126.675 339.8
D-ATIS
124.05
CLNC DEL
128.1
CPDLC
GND CON
118.575 (Rwys 8L/R, 26L/R, 9, 27)
121.7 (Rwys 15L/R, 33L/R)
HOUSTON TOWER
120.725 290.2 (Rwys 8L, 26R)
125.35 290.2 (Rwys 8R, 26L)
127.3 288.25 (Rwys 15L/R, 33L/R)
135.15 290.2 (Rwys 9, 27)

RNAV 1 - DME/DME/IRU or GPS required.
RADAR required.
RADAR required for non-GPS equipped aircraft.

TAKEOFF MINIMUMS
Rwys 15L/R, 26L/R, 27, 33L/R: Standard with minimum climb of 500’/NM to 1200.

NOTE: For use during west flow at IAH, for east flow file the PITZZ DEPARTURE.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 15L/R: Climb heading 149° to 600, then right turn direct to cross SCAMM at or below 5000, then on track 277° to SHAAK, thence . . . .
TAKEOFF RUNWAYS 26L/R, 27: Climb heading 267° to 600, expect RADAR vectors to SHAAK, thence . . . .
TAKEOFF RUNWAYS 33L/R: Climb heading 329° to 600, expect RADAR vectors to SHAAK, thence . . . .

. . . . on track 277° to BNDTO, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BNDTO6.CRGER)
MNURE TRANSITION (BNDTO6.MNURE)
SAN ANTONIO TRANSITION (BNDTO6.SAT)
WAILN TRANSITION (BNDTO6.WAILN)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF ALL RUNWAYS:** Climb on assigned heading for RADAR vectors to LITLD INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: Chart not to scale.

NOTE: RNAV 1.
NOTE: GPS required.

NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard with minimum climb of 500’ per NM to 800.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb heading 087° to 600, expect RADAR vectors to cross BOTLL at or below 5000, thence . . . .

TAKEOFF RUNWAYS 15L/R: Climb heading 149° to 600, then left turn direct to cross TTAPS at or below 4000, then on track 123° to cross BOTLL at or below 5000, thence . . . .

TAKEOFF RUNWAYS 26L/R, 27: Climb heading 267° to 600, expect RADAR vectors to cross BOTLL at or below 5000, thence . . . .

TAKEOFF RUNWAYS 33L/R: Climb heading 329° to 600, expect RADAR vectors to cross BOTLL at or below 5000, thence . . . .

. . . . on track 139° to cross FLYZA at or above 7000, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (FLYZA5.ANKRR)
KELPP TRANSITION (FLYZA5.KELPP)
MUSYL TRANSITION (FLYZA5.MUSYL)
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to MONNT INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
NOTE:  RNAV 1.
DME/DME/IRU or GPS Required.
NOTE:  RADAR required.
NOTE:  RNAV 1.

TOP ALTITUDE:  
16000

TAKEOFF MINIMUMS:
Rwy 8L/R, 9, 15L/R: Standard with minimum climb of 500' per NM to 1700.

NOTE:  RADAR required.
NOTE:  DME/DME/IRU or GPS Required.
(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb heading 087° to 600, expect RADAR vectors to cross DWSUN at or below 4000, thence . . .

TAKEOFF RUNWAYS 15L/R: Climb heading 149° to 600, then left turn direct CRTMN, then on track 086° to cross DWSUN at or below 4000, thence . . .

. . . on track 086° to cross GUMBY at or below 5000, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (GUMBY3.GUSTI)
LAKE CHARLES TRANSITION (GUMBY3.LCH)
WHITE LAKE TRANSITION (GUMBY3.LLA)
TAKEOFF MINIMUMS
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard with minimum climb of 500' per NM to 600.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb on heading 087° to 600, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAYS 15L/R: Climb on heading 149° to 600, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAYS 26L/R, 27: Climb on heading 267° to 600, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAYS 33L/R: Climb on heading 329° to 600, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
**INDIE EIGHT DEPARTURE (RNAV)**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 8L/R, 9:** Climb on heading 087° to 600 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAYS 15L/R:** Climb on heading 149° to 600 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAYS 26L/R, 27:** Climb on heading 267° to 600 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAYS 33L/R:** Climb on heading 329° to 600 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**

**INDIE EIGHT DEPARTURE (RNAV)**

**TOP ALTITUDE:**

**16000**

**NOTE:** RADAR required.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RNAV 1.

**NOTE:** TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

**TAKEOFF MINIMUMS**

Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard with minimum climb of 500' per NM to 600.

**NOTE:** Chart not to scale.
NOTE: Chart not to scale.

Top Altitude: 16000

Takeoff Minimums

Note: Radar required.
Note: Junction Transition: For aircraft overflying JCT VORTAC on J2, J15 or J86.
Note: Centex Transition: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
Note: Corpus Christi Transition: ATC assigned only.
Note: Laredo Transition: ATC assigned only.

(Continued on following page)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to SHYNR INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to CUZZZ INT. Maintain 16000. Expect filed altitude 10 minutes after departure. Thence . . . .

. . . . on IAH R-276 and JCT R-090 to JCT VORTAC.
DEPARTURE ROUTE DESCRIPTION

Climb on assigned heading for RADAR vectors to WEDRI INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence...

...on IAH R-082 to HOURNAL INT, then on LCH R-253 to LCH VORTAC.

FIGHTING TIGERS TRANSITION (LCH5.LSU): From over LCH VORTAC on LCH R-070 and LSU R-252 to LSU VORTAC.
TOP ALTITUDE: 16000

NOTE: Chart not to scale.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to WLLIS INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: Radar and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

TOP ALTITUDE: 16000

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to KYANN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence...

...on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard with minimum climb of 500’ per NM to 600.

TAKEOFF RUNWAYS 8L/R, 9: Climb on heading 087° to 600 for RADAR vectors to KNTKY, thence . . .
TAKEOFF RUNWAYS 15L/R: Climb on heading 149° to 600 for RADAR vectors to KNTKY, thence . . .
TAKEOFF RUNWAYS 26L/R, 27: Climb on heading 267° to 600 for RADAR vectors to KNTKY, thence . . .
TAKEOFF RUNWAYS 33L/R: Climb on heading 329° to 600 for RADAR vectors to KNTKY, thence . . .
. . . . on track 032° to PEETY, then on track 032° to DART, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

HADES TRANSITION (LURIC8.HAEDS)
ORRTH TRANSITION (LURIC8.ORRTH)
TAKEOFF MINIMUMS
Rwys 15L/R, 26L/R, 27, 33L/R: Standard
with minimum climb of 500’ per NM to 800.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: For use during west flow at IAH.
For east flow file the GUMBY RNAV DEPARTURE.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 15L/R: Climb heading 149° to 600, then left turn
direct to cross TTAPS at or below 4000, then on track 123°
to cross BOTLL at or below 5000, thence . . . .
TAKEOFF RUNWAYS 26L/R, 27: Climb heading 267° to 600, expect
RADAR vectors to cross BOTLL at or below 5000, thence . . . .
TAKEOFF RUNWAYS 33L/R: Climb heading 329° to 600, expect RADAR
vectors to cross BOTLL at or below 5000, thence . . . .

. . . . on track 090° to MMUGS, then on (transition). Maintain 16000.
Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMUGS4.GUSTI)
LAKE CHARLES TRANSITION (MMUGS4.LCH)
WHITE LAKE TRANSITION (MMUGS4.LLA)
NOTE: Chart not to scale.

RAIL and DME required.

TOP ALTITUDE: 16000

TAKEOFF MINIMUMS
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to SKUBA, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: For use during east flow at IAH.
For west flow file the BNDTO RNAV departure.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 8L/R, 9:** Climb heading 087° to 600, expect RADAR vectors to RODKL, thence. . . .

**TAKEOFF RUNWAYS 15L/R:** Climb heading 149° to 600, then right turn direct to cross JAYLO at or below 5000, then on track 237° to RODKL, thence. . . .

. . . .on track 238° to cross PITZZ at or above 7000, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

**CRGER TRANSITION (PITZZ5.CRGER)**

**MNURE TRANSITION (PITZZ5.MNURE)**

**SAN ANTONIO TRANSITION (PITZZ5.SAT)**

**WAILN TRANSITION (PITZZ5.WALIN)**
**RITAA SEVEN DEPARTURE (RNAV)**

- **RNAV - 1 DME/DME/IRU or GPS.**
- **RADAR required.**

**TOP ALTITUDE:**
16000

**TAKEOFF MINIMUMS**
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard with minimum climb of 500’ per NM to 800.

**NOTE:** Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb on heading 087° to 600, for RADAR vectors to cross BOTLL at or below 5000, thence . . . .
TAKEOFF RUNWAYS 15L/R: Climb on heading 149° to 600, then left turn direct to cross TTAPS at or below 4000, then on track 123° to cross BOTLL at or below 5000, thence . . . .
TAKEOFF RUNWAYS 26L/R, 27: Climb on heading 267° to 600, for RADAR vectors to cross BOTLL at or below 5000, thence . . . .
TAKEOFF RUNWAYS 33L/R: Climb on heading 329° to 600, for RADAR vectors to cross BOTLL at or below 5000, thence . . . .

. . . . on track 139° to cross FLYZA at or above 7000, then on track 216° to cross WINEO at or above 9000, then on track 221° to cross RITAA at or above 10000, then on (transition). Maintain 16000. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (RITAA7.CRP)
PALACIOS TRANSITION (RITAA7.PSX)
TRUAAX TRANSITION (RITAA7.NGP)
WWREN TRANSITION (RITAA7.WWREN)
YOMOM TRANSITION (RITAA7.YOMOM)
NOTE: Chart not to scale.

NOTE:  RNAV 1.
NOTE:  DME/DME/IRU or GPS required.
NOTE:  RADAR required.

**NOTE:** RADAR required.

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 8L/R, 9:** Climb on heading 087° to 600 for RADAR vectors to KNTKY, thence . . .

**TAKEOFF RUNWAYS 15L/R:** Climb on heading 149° to 600 for RADAR vectors to KNTKY, thence . . .

**TAKEOFF RUNWAYS 26L/R, 27:** Climb on heading 267° to 600 for RADAR vectors to KNTKY, thence . . .

**TAKEOFF RUNWAYS 33L/R:** Climb on heading 329° to 600 for RADAR vectors to KNTKY, thence . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBULL TRANSITION (STRYA8.JBULL)**
STYCK EIGHT DEPARTURE (RNAV) (STYCK8.STYCK) 07OCT21

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb on heading 087° to 600 for RADAR vectors to BBYSE, thence.
TAKEOFF RUNWAYS 15L/R: Climb on heading 149° to 600 for RADAR vectors to BBYSE, thence.
TAKEOFF RUNWAYS 26L/R, 27: Climb on heading 267° to 600 for RADAR vectors to BBYSE, thence.
TAKEOFF RUNWAYS 33L/R: Climb on heading 329° to 600 for RADAR vectors to BBYSE, thence.

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R, 9: Climb on heading 087° to 600 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAYS 15L/R: Climb on heading 149° to 600 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAYS 26L/R, 27: Climb on heading 267° to 600 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAYS 33L/R: Climb on heading 329° to 600 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
Baro-VNAV NA when using David Wayne Hooks Meml altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. VDP NA when using David Wayne Hooks Meml altimeter setting. When local altimeter setting not received, use David Wayne Hooks Meml altimeter setting and increase LPV DA to 471 feet, LNAV/VNAV DA to 719 feet; increase all MDA 60 feet. Increase LNAV/VNAV visibility ½ mile all Cats and LNAV and circling Cat C/D ½ mile.

**MISSED APPROACH:** Climb to 2000 direct AGAXE and via 328° track to BIMTE and hold.

**RADAR REQUIRED**

Category A

- **LPV DA:** 414-1
- **LNAV/VNAV DA:** 662-1¾
- **LNAV MDA:** 620-1
- **CIRCLING:** 820-1

Category B

- **LPV DA:** 250 (300-1)
- **LNAV/VNAV DA:** 498 (500-1¾)
- **LNAV MDA:** 456 (500-1)
- **CIRCLING:** 654 (700-1)

Category C

- **LPV DA:** 620-1¼
- **LNAV/VNAV DA:** 456 (500-1¼)
- **LNAV MDA:** 620-1¼
- **CIRCLING:** 860-2

Category D

- **LPV DA:** 1000-2¾
- **LNAV/VNAV DA:** 834 (900-2½)
- **LNAV MDA:** 860-2
- **CIRCLING:** 694 (700-2)
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

FIELD ELEV
166

AIRPORT DIAGRAM

ATIS
119.525
EXECUTIVE TOWER *
126.975
GND CON
132.075
CLNC DEL
132.075

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

HANGARS
TERMINAL
HANGAR
FUEL
FARM

RWY 18-36
D-101

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: MAGNETIC VOR offsets.

TAKEOFF MINIMUMS
Rwys 18, 36: Standard.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . .on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 18, 36: Standard with minimum climb of 500’ per NM to 680.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to DREMR, thence . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to DREMR, thence . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)

NOTE: Chart not to scale.
**TAKING MINIMUMS**

Rwys 18, 36: Standard with minimum climb of 500' / NM to 680.

**NOTE:**

*CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.*

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18:  When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 36:  Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

... on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on IAH R-358 to cross GIFFA INT at or above 10000.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 18:** Climb on heading 175° to 680, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAY 36:** Climb on heading 355° to 700, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**
**CFOOD TRANSITION (HOODO7.CFOOD)**
**HARVEY TRANSITION (HOODO7.HRV)**
**LEEVILLE TRANSITION (HOODO7.LEV)**
**SBIRD TRANSITION (HOODO7.SBIRD)**
INDIE EIGHT DEPARTURE (RNAV)

TAKEOFF MINIMUMS
Rwy 18, 36: Standard with minimum climb of 500’ per NM to 680.

NOTE: Chart not to scale.

TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition).
Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

INDUSTRY ONE DEPARTURE

STONELONE WALL
113.8 STV
Chan 85

SAN ANTONIO
116.8 SAT
Chan 115

LAREDO
117.4 LRD
Chan 121

HUMBLE
116.6 IAH
Chan 113

CORPUS CHRISTI
115.5 CRP
Chan 102

INDUSTRY
110.2 IDU
Chan 39

NAVASOTA
115.9 TNV
Chan 106

CENTEX
112.8 CWK
Chan 75

JUNCTION
116.0 JCT
Chan 107

THERE IS NO FACILITY AT MARCS.

NOTE: RADAR required.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

NOTE: INDUSTRY ONE DEPARTURE

(*) EXECUTIVE TOWER
126.975 (CTAF)
HOUSTON DEP CON
123.8 257.7

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

**NOTE:** Chart not to scale.

**ATIS**
119.525
CLNC DEL
132.075
EXECUTIVE TOWER *
126.975 (CTAF)
HOUSTON DEP CON
123.8 257.7

**TAKEROFF MINIMUMS**
Rwys 18, 36:
Standard with minimum climb of 500’ per NM to 680.

**ASSIGNED BY ATC**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
TOP ALTITUDE: ASSIGNED BY ATC

- ARDMORE 116.7 ADM  Chan 114
- RANGER 115.7 FUZ  Chan 104
- WACO 115.3 ACT  Chan 100
- BONHAM 114.6 BYP  Chan 93
- NAVASOTA 116.9 TNV  Chan 106
- LEONA 110.8 LOA  Chan 45
- CEDAR CREEK 114.8 CQY  Chan 95
- HUMBLE 116.6 IAH  Chan 113

TAKEOFF MINIMUMS
Rwys 18, 36: Standard.

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ) ADM (LOA4.ADM) or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LFK): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
DEPARTURE ROUTE DESCRIPTION

NOTE: GUSTI and ICH Transitions ATC assigned only for aircraft departing MMALT SEVEN.

TAKEOFF RUNWAY 18: Climb on heading 175° to 680, for RADAR vectors to MMALT, hence.

TAKEOFF RUNWAY 36: Climb on heading 355° to 680, for RADAR vectors to MMALT, hence.

NOTE: Chart not to scale.

MANUAL DEPARTURE

TME, HOUSTON EXEC

SC-5,11 JUL 2024 to 05 SEP 2024
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 36: Climb on heading 355° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 18, 36: Standard with minimum climb of 500' per NM to 680.

TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to KNTKY, thence . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to KNTKY, thence . . .

. . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to BBYSE, thence.

TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to BBYSE, thence.

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)

WTSON TRANSITION (STYCK8.WTSON)
WATFO SIX DEPARTURE (RNAV)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE:
ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 18, 36: Standard with minimum climb of 500'/NM to 680.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: Climb on heading 175° to 680, for RADAR vectors to WATFO, thence.

TAKEOFF RUNWAY 36: Climb on heading 355° to 680, for RADAR vectors to WATFO, thence.

. . . .on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 18, 36: Standard with minimum climb of 500’ per NM to 680.

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 18: Climb on heading 175° to 680 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAY 36: Climb on heading 355° to 680 for RADAR vectors to WYLSN, thence . . .

. . . . on track 360° to MONNT, then on (transition).
Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
Circling Rwy 27 NA at night.
Rwy 9 helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2700 direct WENPI and on track 179° to HEBUR and on track 267° to KEEDS and hold.

VGSI and descent angles not coincident (VGSI Angle 3.5°/TCH 50).

Category A

LNAV MDA
580-1
511 (600-1)

CIRCLING
620-1
551 (600-1)
RNAV (GPS) RWY 27
HOUSTON/SOUTHWEST (AXH)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). Rwy 27 helicopter visibility reduction below ½ SM NA. Obtain local altimeter setting on CTAF; when not received use William P. Hobby altimeter setting and increase all DAs/MDA’s 40 feet, and LPV, LNAV Cat C visibility ½ mile. Baro-VNAV NA when using William P. Hobby altimeter setting.

MISSED APPROACH: Climb to 2700 direct RUPRE and via 200° track to KEEDS.

AWOS-3  HOUSTON APP CON  CLNC DEL  UNICOM
123.625  123.8  257.7  120.8  123.0 (CTAF)

ELEV 68  TDZE 67

REIL Rwy 9 and 27  MIRL Rwy 9-27

2700  RUPRE  Ir 200°  KEEDS

HEGRE

269°

2000

269°

1100

3.1 NM

6.2 NM

-15°C (5°F)

GP 3.00°

TCH 45

CATEGORY
A
B
C
D
LPV DA
367-1 300 (300-1)
NA

LNAV/ VNAV DA
604-2 537 (600-2)
NA

LNAV MDA
560-1 493 (500-1)
560-1¼ 493 (500-1½)
NA
**LOC RWY 9**

**HOUSTON/SOUTHWEST (AXH)**

**AWOS-3**
123.625

**HOUSTON APP CON**
123.8 257.7

**CLNC DEL**
120.8

**UNICOM**
123.0 (CTAF)

---

**LOCATOR 108.9**

**I-AXH**

**REIL Rwy 9 and 27**

**MIRL Rwy 9-27**

**LOCALIZER 108.9**

**I-AXH**

**PAUSE 69**

**TDZE 69**

**CATEGORY**

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**Rwy 9 helicopter visibility reduction below 3/4 SM NA.**

**MISSED APPROACH:** Climbing right turn to 2500 direct KEEDS.

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**SC-5, 11 JUL 2024 to 05 SEP 2024**
NOTE: Radar required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 9, 27: Standard.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

. . . . . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 9:** Climb on heading 089° to 2000 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAY 27:** Climb on heading 269° to 2200 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**CRIED TRANSITION (BLTWY7.CRIED)**

**NOTE:** Chart not to scale.
TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 9, 27: Standard with minimum climb of 500'/NM to 580.

NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 27: Climb on heading 269° to 2200, for RADAR vectors to BORRN, thence. . . .

. . . .on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 9, 27: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

GIFFA ONE DEPARTURE

CONTINUED ON FOLLOWING PAGE

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
HOUSTON SEVEN DEPARTURE (RNAV)

**NOTE:** Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 9:** Climb on heading 089° to 2000, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAY 27:** Climb on heading 269° to 2200, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

- **BOWFN TRANSITION (HOODO7.BOWFN)**
- **CFOOD TRANSITION (HOODO7.CFOOD)**
- **HARVEY TRANSITION (HOODO7.HRV)**
- **LEEVILLE TRANSITION (HOODO7.LEV)**
- **SBIRD TRANSITION (HOODO7.SBIRD)**
**INDIE EIGHT DEPARTURE (RNAV)**

**TAKEOFF MINIMUMS**

Rwys 9, 27: Standard with minimum climb of 500’ per NM to 580.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 9:** Climb on heading 089° to 2000 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 27:** Climb on heading 269° to 2200 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition).

Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**
NOTE: Chart not to scale.

INDUSTRY ONE DEPARTURE

INDUSTRY ONE DEPARTURE

HOUSTON/SOUTHWEST (AXH)

HOUSTON/SOUTHWEST (AXH)

INDUSTRY ONE DEPARTURE

(RUT) 116.0 JCT
Chan 107

CENTEX

112.8 CWK
Chan 75

STONEY WALL

113.8 SAT
Chan 85

SAN ANTONIO

116.8 SAT
Chan 115

JUNCTION

116.0 JCT
Chan 107

INDUSTRY

110.2 IDU
Chan 39

MARCS

10000
(173)

276°

10000
(55)

289°

R-110

R-203

R-085

R-192

R-170

R-262

269°

2200

089°

2000

NOTE: RADAR required.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

TAKEOFF MINIMUMS
Rwys 9, 27: Standard.

TOP ALTITUDE:
ASSIGNED BY ATC

AWOS-3
123.625
CLNC DEL
120.8
CTAF
123.0
HOUSTON DEP CON
123.8 257.7

NOTE: LAREDO TRANSITION: ATC assigned only.

NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.

NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound on J2, J15 or J86.

NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.

NOTE: RADAR required.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

NOTE: Chart not to scale.
TAKEOFF RUNWAY 9: Climb on heading 089° to 2000, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 27: Climb on heading 269° to 2200, for RADAR vectors to KARRR, thence. . . .

. . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

LEONA FOUR DEPARTURE

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

LUFKIN
112.1 LFK
Chan 58

SUSI
113°
026°

COLET
013°
19

KYANN
023°
31

HUMBLE
116.6 IAH
Chan 113

LITTLE ROCK
113.9 LIT
Chan 86

TOP ALTITUDE:
ASSIGNED BY ATC

DAISETTA
116.9 DAS
Chan 116

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 9, 27: Standard.

(continued on following page)
TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TOP ALTITUDE: ASSIGNED BY ATC

HAWES

ORRTH

LURIC

ENJOY

VELCO

CLAVN

MUSIQ

DARTR

PEETY

KNTKY

TAKEOFF MINIMUMS
Rwys 9, 27: Standard with minimum climb of 500' per NM to 580.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000, for RADAR vectors to MMALT, thence . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200, for RADAR vectors to MMALT, thence . . .

. . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7, GUSTI)
LAKE CHARLES TRANSITION (MMALT7, LCH)
WHITE LAKE TRANSITION (MMALT7, LLA)

NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and S4T.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
STRYA EIGHT DEPARTURE (RNAV)

TAKEN OFF MINIMUMS

Rwys 9, 27: Standard with minimum climb of 500’ per NM to 580.

NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 for RADAR vectors to KNTKY, thence.

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 for RADAR vectors to KNTKY, thence.

. . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)

JBULL TRANSITION (STRYA8.JBULL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)
NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 9:** Climb on heading 089° to 2000, for RADAR vectors to WATFO, thence.

**TAKEOFF RUNWAY 27:** Climb on heading 269° to 2200, for RADAR vectors to WATFO, thence.

...on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**

**KELPP TRANSITION (WATFO6.KELPP)**

**MUSYL TRANSITION (WATFO6.MUSYL)**

---

**WATFO SIX DEPARTURE (RNAV)**

(WATFO6.WATFO) 10AUG23
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 9, 27: Standard with minimum climb of 500’ per NM to 580.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb on heading 089° to 2000 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAY 27: Climb on heading 269° to 2200 for RADAR vectors to WYLSN, thence. . . .
. . . .on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)

NOTE: Chart not to scale.
Circling to Rwy 14 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1°C (31°F) or above 54°C (130°F). When local altimeter setting not received, use William P Hobby altimeter setting and increase all DA 18 feet and all MDA 20 feet, increase LNAV/VNAV visibilities all Cats ½ mile. VDP and Baro-VNAV NA when using William P Hobby altimeter setting.

MISSED APPROACH:
Climb to 500 then climbing left turn to 3000 direct ACOLA and hold.

ASOS

HOUSTON APP CON

CLNC DEL

UNICOM

HOUSTON, TEXAS

AL-6460 (FAA)

22195

RNAV (GPS) RWY 32

PEARLAND RGNL (LVJ)

RADAR REQUIRED
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500' per NM to 560.

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 322° to 700 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
ASOS  
118.325  
CTAF  
122.725  
CLNC DEL  
124.0  
HOUSTON DEP CON  
134.45  284.0

BORRN SIX DEPARTURE (RNAV)  
(BORRN6.BORRN)  
30NOV23

NOTE: Chart not to scale.

NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(SC-5, 11 JUL 2024 to 05 SEP 2024)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 322° to 900, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

TAKEOFF MINIMUMS
 Rwys 14, 32: Standard with minimum climb of 500’ per NM to 560.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600, for RADAR vectors to VUH VOR/DME, thence ....
TAKEOFF RUNWAY 32: Climb on heading 322° to 700, for RADAR vectors to VUH VOR/DME, thence ....

.... on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
INDIE EIGHT DEPARTURE (RNAV)

ASOS
118.525
CLNC DEL
124.0
CTAF
122.725
HOUSTON DEP CON
134.45 284.0

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 322° to 700 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500’ per NM to 560.

INDIE EIGHT DEPARTURE (RNAV)
**NOTE:** Chart not to scale.

**RNAV-1 DME/DME/IRU or GPS.**
RADAR required.

**TOP ALTITUDE:**
ASSIGNED BY ATC

**TAKEOFF MINIMUMS**
Rwys 14, 32: Standard with minimum climb of 500' per NM to 560.

**ASSIGNED BY ATC**

**NARRATIVE ON FOLLOWING PAGE**


DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600, for RADAR vectors to KARRR, thence. . . .

TAKEOFF RUNWAY 32: Climb on heading 322° to 900, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARR7.CRP)
PALACIOS TRANSITION (KARR7.PSX)
TRUAX TRANSITION (KARR7.NGP)
WWREN TRANSITION (KARR7.WWREN)
YOMOM TRANSITION (KARR7.YOMOM)
NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500’ per NM to 560.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 32: Climb on heading 322° to 700 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
OrrTH TRANSITION (LURIC8.ORRTH)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600, for RADAR vectors to MMALT, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 322° to 900, for RADAR vectors to MMALT, thence. . . .

. . . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7,GUSTI)
LAKE CHARLES TRANSITION (MMALT7,LCH)
WHITE LAKE TRANSITION (MMALT7,LLA)

NOTE: Chart not to scale.
ASSIGNED BY ATC

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 14, 32: Standard.

Note: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 before turning, when entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 32: Climb on heading 322° to 700 before turning, when entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 142° to 1600 for RADAR vectors to KNTKY, thence.

**TAKEOFF RUNWAY 32:** Climb on heading 322° to 700 for RADAR vectors to KNTKY, thence.

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBUll TRANSITION (STRYA8.JBUll)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 for RADAR vectors to BBYSE, thence... 

TAKEOFF RUNWAY 32: Climb on heading 322° to 700 for RADAR vectors to BBYSE, thence... 

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY) 
WTSON TRANSITION (STYCK8.WTSON)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 142° to 1600, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 32:** Climb on heading 322° to 900, for RADAR vectors to WATFO, thence. . . .

. . . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKR TRANSITION (WATFO6.ANKRR)**
**KELPP TRANSITION (WATFO6.KELPP)**
**MUSYL TRANSITION (WATFO6.MUSYL)**
NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 142° to 1600 for RADAR vectors to WYLSN, thence . . .

TAKEOFF RUNWAY 32: Climb on heading 322° to 700 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)

NOTE: Chart not to scale.
ILS or LOC RWY 35
SUGAR LAND RGNL (SGR)

ATIS* 118.125
HOUSTON APP CON 123.8 257.7
SUGAR LAND TOWER* 118.65 (CTAF) 0
GND CON 121.4
CLNC DEL 121.4
CLNC DEL 119.25 (when twr closed)
UNICOM 122.95

MISSED APPROACH: Climb to 900 then climbing left turn to 2000 on I-TXH localizer south course to HULLO/I-TXH 6.3 DME and hold.

VDP NA when using William P Hobby altimeter setting. When local altimeter setting not received, use William P Hobby altimeter setting and increase all DA 51 feet and all MDA 60 feet and S-LOC 35 Cat C/D visibility ½ mile, and Circling Cat C/D visibility ¾ mile.

DA 51 feet and all MDA 60 feet and S-LOC 35 Cat C/D visibility ½ mile, and Circling Cat C/D visibility ¾ mile.

*600 when using William P Hobby altimeter setting.

HOUSTON, TEXAS
Amdt 5 20JUN19

HULLO/I-TXH 6.3 DME and hold.

RADAR required for procedure entry.

DME required for procedure entry.

LOC/DME I-TXH
110.7
Chan 44
APP CRS 350°
Rwy Idg 6016
TDZE 78
Apt Elev 82

ELEV 82
TDZE 78

REIL Rwys 17 and 35
HIRL Rwy 17-35

VOG 720-1 638 (700-1)

S-LOC 35
400-1 322 (400-1)

CIRCLING

CATEGORY
A
B
C
D
S-ILS 35
278-¾
200 (200-¾)
S-LOC 35
400-1 322 (400-1)

LEGEND
SC-5, 11 JUL 2024 to 05 SEP 2024

HOUSTON, TEXAS
AL-5537 (FAA)

ILS or LOC RWY 35
SUGAR LAND RGNL (SGR)

HOUSTON, TEXAS
Amdt 5 20JUN19

HULLO/I-TXH 6.3 DME and hold.

RADAR required for procedure entry.

DME required for procedure entry.

LOC/DME I-TXH
110.7
Chan 44
APP CRS 350°
Rwy Idg 6016
TDZE 78
Apt Elev 82

ELEV 82
TDZE 78

REIL Rwys 17 and 35
HIRL Rwy 17-35

VOG 720-1 638 (700-1)

S-LOC 35
400-1 322 (400-1)

CIRCLING

CATEGORY
A
B
C
D
S-ILS 35
278-¾
200 (200-¾)
S-LOC 35
400-1 322 (400-1)

LEGEND
SC-5, 11 JUL 2024 to 05 SEP 2024

HOUSTON, TEXAS
Amdt 5 20JUN19

HULLO/I-TXH 6.3 DME and hold.

RADAR required for procedure entry.

DME required for procedure entry.

LOC/DME I-TXH
110.7
Chan 44
APP CRS 350°
Rwy Idg 6016
TDZE 78
Apt Elev 82

ELEV 82
TDZE 78

REIL Rwys 17 and 35
HIRL Rwy 17-35

VOG 720-1 638 (700-1)

S-LOC 35
400-1 322 (400-1)

CIRCLING

CATEGORY
A
B
C
D
S-ILS 35
278-¾
200 (200-¾)
S-LOC 35
400-1 322 (400-1)

LEGEND
SC-5, 11 JUL 2024 to 05 SEP 2024

HOUSTON, TEXAS
Amdt 5 20JUN19
HOUSTON, TEXAS

RNP APCH.

**RNAV (GPS) RWY 17**

**SUGAR LAND RGNL (SGR)**

**ATIS**

HOUSTON APP CON

SUGAR LAND TOWER*

GND CON

CLNC DEL

CLNC DEL

UNICOM

118.125

123.8  257.7

118.65 (CTAF) 0

121.4

121.4

119.25

122.95

**Rwy 17 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C.**

**MISSED APPROACH:** Climb to 2000 direct POPAM and hold.

**ELEV 82**

**TDZE 82**

**29°37'N-95°39'W**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F).

Bara-VNAV and VDP NA when using William P Hobby altimeter setting. When local altimeter setting not received, use William P Hobby altimeter setting: increase all DA 51 feet; increase all MDA 60 feet and increase LNAV-VNAV all Cats visibility to 1 1/8, LNAV Cat C/D visibility to 1 1/2, and Circling Cat C visibility to 2, Cat D to 2 1/2. When VGSI inop, Circling Rwy 17 NA at night.

### RNP APCH.

- **LNAV only.**
- **RNP APCH.**
- **Bara-VNAV and VDP NA when using William P Hobby altimeter setting.** When local altimeter setting not received, use William P Hobby altimeter setting: increase all DA 51 feet; increase all MDA 60 feet and increase LNAV-VNAV all Cats visibility to 1 1/8, LNAV Cat C/D visibility to 1 1/2, and Circling Cat C visibility to 2, Cat D to 2 1/2. When VGSI inop, Circling Rwy 17 NA at night.

### ATIS

- **ATIS**
- **HOUSTON APP CON**
- **SUGAR LAND TOWER**
- **GND CON**
- **CLNC DEL**
- **CLNC DEL (when twr closed)**
- **UNICOM**

<table>
<thead>
<tr>
<th>ATIS</th>
<th>HOUSTON APP CON</th>
<th>SUGAR LAND TOWER</th>
<th>GND CON</th>
<th>CLNC DEL</th>
<th>CLNC DEL (when twr closed)</th>
<th>UNICOM</th>
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<tr>
<td>118.125</td>
<td>123.8 257.7</td>
<td>118.65 (CTAF)</td>
<td>121.4</td>
<td>121.4</td>
<td>119.25</td>
<td>122.95</td>
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### MISSER APCH FIX

- **MISSER APCH FIX**
- **DREWZ**
- **RALD REQUIRED**

### RADAR REQUIRED

- **ELEV 82**
- **TDZE 78**

### SC-5, 11 JUL 2024 to 05 SEP 2024

- **437**
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
**ALEXANDRIA THREE DEPARTURE**

**TOP ALTITUDE:**

**ASSIGNED BY ATC**

**NOTE:** Chart not to scale.

**NOTE:** The following TRANSITIONS are ATC assigned only. Do not file.

**CRESTVIEW TRANSITION:** (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

**MC COMB TRANSITION:** (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

**TAKEOFF MINIMUMS**

Rwys 17, 35: Standard.

(Continued on following page)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

ALEXANDRIA THREE DEPARTURE

... on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

ALEXANDRIA THREE DEPARTURE

(AEX3.AEX) 07OCT21
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500' per NM to 600.

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 35: Climb on heading 350° to 1100, for RADAR vectors to BORRN, thence. . . .

. . .on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: RADAR required.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

NOTE: Chart not to scale.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Climb on heading 170° to 1500, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAY 35:** Climb on heading 350° to 1100, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**
**CFOOD TRANSITION (HOODO7.CFOOD)**
**HARVEY TRANSITION (HOODO7.HRV)**
**LEEVILLE TRANSITION (HOODO7.LEV)**
**SBIRD TRANSITION (HOODO7.SBIRD)**

**NOTE:** Chart not to scale.

**TOP ALTITUDE: ASSIGNED BY ATC**

**TAKEOFF MINIMUMS**

Rwys 17, 35: Standard with minimum climb of 500' per NM to 600.

**NOTE:** For non-GPS equipped aircraft, LCH, LLA, DME/DME/IRU or GPS required.

**NOTE:** ATC assigned only.

**NOTE:** RADAR required.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME's must be operational.

**NOTE:** Chart not to scale.
ATIS *
118.125
CLNC DEL
121.4
CLNC DEL
119.25 (when twr closed)
GND CON
121.4
SUGARLAND TOWER *
118.65 (CTAF)
HOUSTON DEP CON
123.8 257.7

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: TPAKK TRANSITION: For non GPS equipped aircraft TNV DME must be operational.

NOTE: Chart not to scale.

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)
TAKENOFF MINIMUMS
Rwys 17, 35: Standard.

NOTE: RADAR required.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
**KARRR SEVEN DEPARTURE (RNAV)**

**RNAV-1 DME/DME/IRU or GPS.**
RADAR required.

**KARRR SEVEN DEPARTURE**

**NOTE:** Chart not to scale.

**TOP ALTITUDE: ASSIGNED BY ATC**

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**TAKEOFF MINIMUMS**

Rwys 17, 35:
Standard with minimum climb of 500’ per NM to 600.

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**SC-5, 11 JUL 2024 to 05 SEP 2024**

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**KARRR SEVEN DEPARTURE (RNAV)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 35: Climb on heading 350° to 1100, for RADAR vectors to KARRR, thence. . . .

. . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
LEONA FOUR DEPARTURE

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

TOP ALTITUDE: ASSIGNED BY ATC

LITTLE ROCK
113.9 LIT 11°
Channel 86

SUSHI

SKKIP

COLET

KYANN

LUFKIN
112.1 LFK
Channel 58

HUMBLE
116.6 IAH
Channel 113

DAISETTA
116.9 DAS
Channel 116

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

...on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.

LUFKIN THREE DEPARTURE
(LFK3.LFK) 07OCT21
LURIC EIGHT DEPARTURE (RNAV)

NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500' per NM to 600.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 17: Climb on heading 170° to 1500 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RWY 35: Climb on heading 350° to 1100 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
 DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500, for RADAR vectors to MMALT, thence . . .
TAKEOFF RUNWAY 35: Climb on heading 350° to 1100, for RADAR vectors to MMALT, thence . . .

. . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 03NOV22

NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE

(PSX3.PSX) 24JUL22

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

### TAKEOFF MINIMUMS

Rwys 17, 35: Standard with minimum climb of 500' per NM to 600.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 17:** Climb on heading 170° to 1500 for RADAR vectors to KNTKY, thence . . .

**TAKEOFF RUNWAY 35:** Climb on heading 350° to 1100 for RADAR vectors to KNTKY, thence . . .

. . . .on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on [transition]. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JBULL TRANSITION (STRYA8.JBULL)**
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Climb on heading 170° to 1500 for RADAR vectors to BBYSE, thence... . . .

**TAKEOFF RUNWAY 35:** Climb on heading 350° to 1100 for RADAR vectors to BBYSE, thence... . . .

. . . on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**
WATFO SIX DEPARTURE (RNAV)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE:
ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 17, 35: Standard with minimum climb of 500'/NM to 600.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 170° to 1500, for RADAR vectors to WATFO, thence.

TAKEOFF RUNWAY 35: Climb on heading 350° to 1100, for RADAR vectors to WATFO, thence.

...on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

ANKR Transition (WATFO6.ANKRR)
KELPP Transition (WATFO6.KELPP)
MUSYL Transition (WATFO6.MUSYL)
**WYLSN EIGHT DEPARTURE (RNAV)**

**DEPARTURE ROUTE DESCRIPTION**

**NOTE:** Chart not to scale.

**RNAV 1.**

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RADAR required.

**NOTE:** RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

*For RADAR vectors to WYLSN, thence...*

**TAKEOFF MINIMUMS**

- **Runway 17, 35:** Standard with minimum climb of 500’ per NM to 600.

**TAKEOFF MINIMUMS**

**RUNWAY 17.** Climb on heading 170° to 1500 for RADAR vectors to WYLSN, thence...

**RUNWAY 35.** Climb on heading 350° to 1500 for RADAR vectors to WYLSN, thence...

Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure. 

On track 360° to MONNT, then on (transition)...

**TOP ALTITUDE: ASSIGNED BY ATC**

**WYLSN EIGHT DEPARTURE (RNAV)**

**SUGAR LAND RGNL (SGR)**

**HOUSTON, TEXAS**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
**HOUSTON, TEXAS**

**AL-6079 (FAA)**

**RNAV (GPS) RWY 15**

**WEST HOUSTON (IWS)**

**WAAS CH 40429 W15A**

**Rwy Idg 3953**

**TDZE 111**

**Apt Elev 111**

**RNP APCH.**

**Procedure NA at night.**

Rwy 15 helicopter visibility reduction below 1 SM NA.

Use George Bush Intcntl/Houston altimeter setting.

**HOUSTON APP CON**

**123.8 257.7**

**CLNC DEL**

**121.15**

**UNICOM**

**123.05 (CTAF)**

**ELEV 111**

**TDZE 111**

**HOU**

**LEKR**

**SHYNR**

**JOSEY**

**ORENT**

**ZASGI**

**RPN**

**LA 235**

**LA 471**

**VGSI and descent angles not coincident (VGSI Angle 3.70/TCH 43).**

**CATEGORY A  B  C  D**

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<th>429 (500-1)</th>
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<td><strong>CIRCLING</strong></td>
<td>600-1</td>
<td>489 (500-1)</td>
<td>640-1</td>
<td>800-2</td>
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**VGSI and descent angles not coincident (VGSI Angle 3.70/TCH 43).**

**600 2000**

**SHYNR**

**MISSED APPROACH: Climb to 600 then climbing right turn to 2000 direct SHYNR and hold.**

**Use George Bush Intcntl/Houston altimeter setting.**

**Rwy 15 helicopter visibility reduction below 1 SM NA.**

**Procedure NA at night.**

**Amdt 1D  15JUL21**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**29°49'N-95°40'W**
MISSED APPROACH: Climbing left turn to 2000 direct SHYNR and hold.

Rwy 33 helicopter visibility reduction below 1 SM NA. Use George Bush Intcntl/Houston altimeter setting. Circling Rwy 15 NA at night.

**HOUSTON APP CON**

<table>
<thead>
<tr>
<th>APP CRS</th>
<th>Rwy Ldg</th>
<th>TDZE</th>
<th>Apt Elev</th>
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**CLNC DEL**

| 123.28 | 257.7  |

**UNICOM**

| 121.15 |

**HOUSTON (WST)**

**ELEV** 111

**TDZE** 111

**CIRCLING**

**RNAV (GPS) RWY 33**

**WEST HOUSTON (IWS)**

**RNAV (GPS) RWY 33**

**Rev 1 15 JUL 2024 to 05 SEP 2024**

**DIAGRAM**

- **SHYNR**
- **EMULE**
- **COART**
- **WUXIM**
- **IF**
- **(IF)**
- **(FAF)**

**TABLE**

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<th>B</th>
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<td>489 (500-1)</td>
<td>640-1</td>
<td>800-2</td>
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**NOTES**

- **VGSI and descent angles not coincident (VGSI Angle 3.70/TCH 44).**
- **RNP APCH.**
- **29°49'-N-95°40'-W**
- **469**
- **Amdt 1C 15JUL21**
NOTE: Chart not to scale.

NOTE: RADAR required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

NOTE:  Chart not to scale.

(TOP ALTITUDE: ASSIGNED BY ATC)

ALEXANDRIA THREE DEPARTURE

ALEXANDRIA THREE DEPARTURE

AEX3.AEX

07OCT21

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

. . . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 15, 33: Standard with minimum climb of 500' per NM to 620.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 150° to 620 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 33: Climb on heading 330° to 620 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)

NOTE: Chart not to scale.
CTAF  
123.05
CLNC DEL
121.15
HOUSTON DEP CON
123.8 257.7

NOTE: Chart not to scale.

BORRN SIX DEPARTURE (RNAV)
[30NOV23]

BORRN SIX DEPARTURE (RNAV)
[30NOV23]

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 15, 33: Standard with minimum climb of 500' /NM to 620.

NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)

SC-5, 11 JUL 2024 to 05 SEP 2024
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb heading 150° to 620, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 33: Climb heading 330° to 620, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 15, 33: Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

TAKEOFF MINIMUMS
Rwys 15, 33: Standard.

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

...on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required. 
NOTE: For aircraft destined for the DFW terminal area only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . . . on IAH R-358 to cross GIFFA INT at or above 10000.
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 15:** Climb on heading 150° to 620, for RADAR vectors to VUH VOR/DME, thence . . . .

**TAKEOFF RUNWAY 33:** Climb on heading 330° to 620, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**BOWFN TRANSITION (HOODO7.BOWFN)**
**CFOOD TRANSITION (HOODO7.CFOOD)**
**HARVEY TRANSITION (HOODO7.HRV)**
**LEEVILLE TRANSITION (HOODO7.LEV)**
**SBIRD TRANSITION (HOODO7.SBIRD)**

**NOTE:** Chart not to scale.

**NOTE:** RNAV 1.
**NOTE:** RADAR required.
**NOTE:** ATC assigned only.
**NOTE:** DME/DME/IRU or GPS required.
**NOTE:** For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

**TAKEOFF MINIMUMS**
Rwys 15, 33: Standard with minimum climb of 500’ per NM to 620.

**TOP ALTITUDE:**
**ASSIGNED BY ATC**

**NOTE:** Chart not to scale.
INDIE EIGHT DEPARTURE (RNAV)

NOTE: DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 150° to 620 for RADAR vectors to RENNK, thence . . .

TAKEOFF RUNWAY 33: Climb on heading 330° to 620 for RADAR vectors to RENNK, thence . . .

. . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: RADAR required.

NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.

NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.

NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.

NOTE: LAREDO TRANSITION: ATC assigned only.

TAKEOFF MINIMUMS
Rwys 15, 33: Standard.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
**RNAV-1 DME/DME/IRU or GPS.**
Radar required.

**TAKEOFF MINIMUMS**
Rwys 15, 33: Standard with minimum climb of 500’ per NM to 620.

**NOTE:** Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 150° to 620, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 33: Climb on heading 330° to 620, for RADAR vectors to KARRR, thence. . . .

. . . . On track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
NOTE: Chart not to scale.

(LOA4.LOA) 24137
LEONA FOUR DEPARTURE
AL-6079 (FAA)
WEST HOUSTON (IWS)
HOUSTON, TEXAS

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or
overflying LIT or PXV.

TOP ALTITUDE:
ASSIGNED BY ATC

LITTLE ROCK
113.9 LIT
111
Channel 86

LUFKIN
112.1 LFK
Channel 58

SUSHI
FL 183
026°
(240)

SKKIP
5000
(6)

COLET
023°
(39)
R-203

KYANN
023°
(39)
R-203

HUMBLE
116.6 IAH
Channel 113

DAISETTA
116.9 DAS
Channel 116

TAKEOFF MINIMUMS
Rwys 15, 33: Standard.

NOTE: Chart not to scale.

CONTINUED ON FOLLOWING PAGE
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 150° to 620 for RADAR vectors to KNTKY, thence . . . .
TAKEOFF RUNWAY 33: Climb on heading 330° to 620 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)
Takeoff Minimums
Rwys 15, 33: Standard with minimum climb of 500' / NM to 620.

NOTE: Chart not to scale.

Takeoff Runway 15: Climb on heading 150° to 620 for RADAR vectors to MMALT, thence. . . .

Takeoff Runway 33: Climb on heading 330° to 620 for RADAR vectors to MMALT, thence. . . .

. . . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7,GUSTI)
LAKE CHARLES TRANSITION (MMALT7,LCH)
WHITE LAKE TRANSITION (MMALT7,LLA)
FORT STOCKTON
116.9 FST 
Chan 116

ROCKSPINGS
114.55 RSG 
Chan 92 (Y)

SAN ANTONIO
116.8 SAT 
Chan 115

SKUBA
218°
R-038
(51)

THREE RIVERS
111.4 THX 
Chan 51

PALACIOS
117.3 PSX 
Chan 120

NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 15, 33: Standard

CONTINUED ON FOLLOWING PAGE

RADAR and DME required.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 15:** Climb on heading 150° to 620 for RADAR vectors to KNTKY, thence.

**TAKEOFF RUNWAY 33:** Climb on heading 330° to 620 for RADAR vectors to KNTKY, thence.

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**DPATY TRANSITION (STRYA8.DPATY)**

**JNULL TRANSITION (STRYA8.JNULL)**

**TOP ALTITUDE: ASSIGNED BY ATC**

Rwys 15, 33: Standard with minimum climb of 500’ per NM to 620.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 150° to 620 for RADAR vectors to BBYSE, thence. . .

TAKEOFF RUNWAY 33: Climb on heading 330° to 620 for RADAR vectors to BBYSE, thence. . .

. . .on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)

WTSON TRANSITION (STYCK8.WTSON)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 15:** Climb on heading 150° to 620, for RADAR vectors to WATFO, thence.

**TAKEOFF RUNWAY 33:** Climb on heading 330° to 620, for RADAR vectors to WATFO, thence.

. . . .on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**

**KELPP TRANSITION (WATFO6.KELPP)**

**MUSYL TRANSITION (WATFO6.MUSYL)**
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 15:** Climb on heading 150° to 620 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 33:** Climb on heading 330° to 620 for RADAR vectors to WYLSN, thence. . . .

. . . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSN8.GIFFA)**

**MAJKK TRANSITION (WYLSN8.MAJKK)**

NOTE: Radar required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.
Aircraft not GPS equipped - RADAR required for procedure entry.
From GEEEO: RNAV 1 - GPS required.

For inop ALSF-2, increase S-ILS 4 Cat E visibility to RVR 4000;
S-LOC 4 Cat C/D/E visibility to 1%.

MISSED APPROACH: Climb to 1500 then
descending right turn to 3000 on MHF VOR/DME.
R-290 to MHF VOR/DME and hold.

For GPS-equipped aircraft:
- RNAV 1 - GPS required.
- S-ILS 4 Cat E visibility to RVR 1500.
- S-LOC 4 Cat C/D/E visibility to 1%.

MISSED APCH FIX
- Climb to 1500 then
descending right turn to 3000 on MHF VOR/DME.
- R-290 to MHF VOR/DME and hold.

From GEEEO: RNAV 1 - GPS required.
- S-ILS 4 Cat E visibility to RVR 1500.
- S-LOC 4 Cat C/D/E visibility to 1%.

Aircraft not GPS equipped - RADAR required for procedure entry.

MISSED APPROACH: Climb to 1500 then
descending right turn to 3000 on MHF VOR/DME.
R-290 to MHF VOR/DME and hold.

For inop ALSF-2, increase S-ILS 4 Cat E visibility to RVR 4000;
S-LOC 4 Cat C/D/E visibility to 1%.

MISSED APCH FIX
- Climb to 1500 then
descending right turn to 3000 on MHF VOR/DME.
- R-290 to MHF VOR/DME and hold.
ILS or LOC RWY 13R
WILLIAM P HOBBY (HOU)

Radar or DME required for LOC only.
Radar required for procedure entry.

Inop table does not apply to S-ILS Rwy 13R. Rwy 13R helicopter visibility reduction below 3/4 SM NA. For inop ALS, increase S-LOC 13R Cats A/B visibility to RVR 5500, Cats C/D/E to 1 1/2 SM.

DATIS
124.6

Houston App Con
120.05 379.1 East
124.35 316.15 West

HOBBY TOWER
118.7 256.9

CLNC DEL
125.45

GND CON
121.9

D-ATIS
HOUSTON, TEXAS
AL-198 (FAA)

ILS or LOC RWY 13R
WILLIAM P HOBBY (HOU)

RADAR or DME required for LOC only.
RADAR required for procedure entry.

Inop table does not apply to S-ILS Rwy 13R. Rwy 13R helicopter visibility reduction below 3/4 SM NA. For inop ALS, increase S-LOC 13R Cats A/B visibility to RVR 5500, Cats C/D/E to 1 1/2 SM.
Aircraft not GPS equipped - RADAR required for procedure entry.
From GEEEO: RNAV 1 - GPS required.

**ILS RWY 4 (SA CAT I)**

**HOUSTON, TEXAS**

**WILLIAM P HOBBY (HOU)**

**LOC/DME** I-HUB
- **109.9**
- **APP CRS** 041°
- **Rwy Idg** 7602
- **TDZE** 44
- **Apt Elev** 46

**ALF-2**

**D-ATIS**
- **124.6**

**HOUSTON APP CON**
- **120.05 379.1 EAST**
- **124.35 316.15 WEST**

**HOBBY TOWER**
- **GND CON** 118.7
- **CINC DEL** 256.9

**GND CON**
- **121.9**

**HOU**
- **124.35**

**LOCALIZERS**
- **I-HUB**
- **109.9**
- **Chan 36**

**MISSED APCH FIX**
- **TRINITY**
- **114.75 MHF**
- **Chan 94(Y)**

**ELREN**
- **I-HUB**
- **8.7**

**CARCO INT**
- **I-HUB**
- **15.7**

**R-290**
- **MHF**
- **1500**

**TCH**
- **57**

**GS**
- **3.00°**

**GND CON**
- **121.9**

**CINC DEL**
- **125.45**

**CPDLC**

**ALS-2**

**AIRCRAFT CERTIFICATION REQUIRED**

**MISSED APPROACH:** Climb to 1500 then climbing right turn to 3000 on MHF VOR/DME R-290 to MHF VOR/DME and hold.

**S-ILS 4**

**RA 146/14**

**150 DA 194**

**SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**Amdt 43A  25APR19**

**29°39'N-95°17'W**

**499**
HOUSTON, TEXAS

ILS RWY 4 (CAT II & III)

WILLIAM P HOBBY (HOU)

CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 on MHF VOR/DME R-290 to MHF VOR/DME and hold.

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SC-5, 11 JUL 2024 to 05 SEP 2024
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -2°C (29°F) or above 54°C (130°F). For inop ALSF-2, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to 1¼ miles and LNAV Cat C/D/E visibility to 1½ mile. DME/DME RNP-0.3 NA.

**MISSING APPROACH:**
Climb to 2000 direct RAYCI and hold.

**CLINIC DEL**
125.45

**WAAS**
CH 68209
W04A

**APP CRS**
041°

**Rwy Ldg** 7602
**TDZE** 44
**Apt Elev** 66

**HOU**
12.05 379.1 EAST
124.35 316.15 WEST

**HOB**
118.7 256.9

**GND CON**
121.9

**CLINIC DEL**
125.45

**ELREN**
MISSED APPROACH FIX

**D-ATIS**
124.6

**HOU**
2000 210K

**[IAF]**
GEEEO
6000 210K

**[IF]**
CARCO

**CARCO**
2000 2049 2049 2049 2049 2049 2049 2049

**ELREN**

**EASAAY**
1500 041° (2.9) 2000 041° (2.9)

**TDZE**
44

**RAYCI**

**DME**

**LNAV/VNAV**

**RNAV (GPS)**

**Category**: A B C D E

**LPV DA**
244/18 200 (200-½)

**LNAV/VNAV DA**
440/45 396 (400-½)

**LNAV MDA**
520/24 476 (500-½) 520/50 476 (500-1)

**CIRCLING**
520/1 474 (500-1) 740-2/4 694 (500-2/4) 860-3 814 (900-3)

**CLINIC DEL**
125.45

**GND CON**
121.9

**HOB**
118.7 256.9

**HOUSTON APP CON**
120.05 379.1 EAST
124.35 316.15 WEST

**HOUSTON, TEXAS**

**TPA**
501
HOUSTON, TEXAS
AL-198 (FAA)

RNAV (GPS) RWY 13R
WILLIAM P HOBBY (HOU)

RADAR REQUIRED

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C. DME/DME RNP-0.3 NA. For inop ALS, increase LPV all Cats visibility to RVR 5000; increase LNAV/VNAV Cats A/B/C/D visibility to 1 1/2 SM, Cat E to 3 1/2 SM; and increase LNAV Cats A/B visibility to RVR 5500, Cats C/D to 3 1/2 SM, Cat E to 3 1/2 SM. Rw 13R helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2200 direct LESLO and on track 134° to VUH VOR/DME.

D-ATIS
HOUSTON APP CON
124.6
120.05 379.1 EAST
124.35 316.15 WEST
HOBBY TOWER
GND CON
118.7 256.9
121.9
125.45

WEST
EAST
CPDLC

HOUSTON, TEXAS
Amdt 1D  11AUG22

RNAV (GPS) RWY 13R
WILLIAM P HOBBY (HOU)

ROPCE
LESLO
VUH
SCHOLES

CA
B

A

MISSED APCH FIX

1.4 NM to RW13R
LNAV only

GP 3.00°
TCH 4°

CATEGORY
LPV DA
LNAV/ VNAV DA
LNAV MDA
CIRCLING

330/40
284 (300-3/4)
475/50
429 (500-1)
540/40
494 (500-3/4)
540/50
494 (500-1)
540/60
494 (500-1 3/4)
860-3
814 (900-3)

Apt Elev
6568
46
131°

MALSR

VAO RW13R 25 NM

3100

3101

ROPCE

2200
LESLO
Tr 134°

VUH

131°

TDZ/CL Rwys 4, 13R and 31L
HIRL Rwys 4-22 and 13R-31L
MIRL Rwy 13L-31R
REIL Rwy 31L

RW13R

2049
2049
2049
2049
2049
2049
2049
2049
2049

1.4 NM to RW13R

LNAV/VNAV NA below -15°C or above 54°C. DME/DME RNP-0.3 NA. For inop ALS, increase LPV all Cats visibility to RVR 5000; increase LNAV/VNAV Cats A/B/C/D visibility to 1 1/2 SM, Cat E to 3 1/2 SM; and increase LNAV Cats A/B visibility to RVR 5500, Cats C/D to 3 1/2 SM, Cat E to 3 1/2 SM. Rw 13R helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2200 direct LESLO and on track 134° to VUH VOR/DME.

Apt Elev
6568
46
131°

MALSR

VAO RW13R 25 NM

3100

3101

ROPCE

2200
LESLO
Tr 134°

VUH

131°

TDZ/CL Rwys 4, 13R and 31L
HIRL Rwys 4-22 and 13R-31L
MIRL Rwy 13L-31R
REIL Rwy 31L

RW13R

2049
2049
2049
2049
2049
2049
2049
2049
2049

1.4 NM to RW13R

LNAV/VNAV NA below -15°C or above 54°C. DME/DME RNP-0.3 NA. For inop ALS, increase LPV all Cats visibility to RVR 5000; increase LNAV/VNAV Cats A/B/C/D visibility to 1 1/2 SM, Cat E to 3 1/2 SM; and increase LNAV Cats A/B visibility to RVR 5500, Cats C/D to 3 1/2 SM, Cat E to 3 1/2 SM. Rw 13R helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2200 direct LESLO and on track 134° to VUH VOR/DME.

Apt Elev
6568
46
131°

MALSR

VAO RW13R 25 NM

3100

3101

ROPCE

2200
LESLO
Tr 134°

VUH

131°

TDZ/CL Rwys 4, 13R and 31L
HIRL Rwys 4-22 and 13R-31L
MIRL Rwy 13L-31R
REIL Rwy 31L

RW13R

2049
2049
2049
2049
2049
2049
2049
2049
2049

1.4 NM to RW13R

LNAV/VNAV NA below -15°C or above 54°C. DME/DME RNP-0.3 NA. For inop ALS, increase LPV all Cats visibility to RVR 5000; increase LNAV/VNAV Cats A/B/C/D visibility to 1 1/2 SM, Cat E to 3 1/2 SM; and increase LNAV Cats A/B visibility to RVR 5500, Cats C/D to 3 1/2 SM, Cat E to 3 1/2 SM. Rw 13R helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2200 direct LESLO and on track 134° to VUH VOR/DME.

Apt Elev
6568
46
131°

MALSR

VAO RW13R 25 NM

3100

3101

ROPCE

2200
LESLO
Tr 134°

VUH

131°

TDZ/CL Rwys 4, 13R and 31L
HIRL Rwys 4-22 and 13R-31L
MIRL Rwy 13L-31R
REIL Rwy 31L

RW13R

2049
2049
2049
2049
2049
2049
2049
2049
2049

1.4 NM to RW13R

LNAV/VNAV NA below -15°C or above 54°C. DME/DME RNP-0.3 NA. For inop ALS, increase LPV all Cats visibility to RVR 5000; increase LNAV/VNAV Cats A/B/C/D visibility to 1 1/2 SM, Cat E to 3 1/2 SM; and increase LNAV Cats A/B visibility to RVR 5500, Cats C/D to 3 1/2 SM, Cat E to 3 1/2 SM. Rw 13R helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 2200 direct LESLO and on track 134° to VUH VOR/DME.
RNAP APCH.

RADAR REQUIRED

3000 EISEN 225° ACOLA

LNAV only.

1.5 NM to RW22

2049 2049 2049 2049

4 NM 221° ACOLA

NRA RW22 25 NM

ELEV 46

MALS

HOUSTON, TEXAS

AMT 2C 23APR20

29°39'N-95°17'W

503
MISSING APPROACH: Climb to 2000 direct EDTED and on track 283° to DREWZ and hold.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA.

RADAR REQUIRED

ELEV 46  TDZE 43
For inop ALS, increase S-LOC 22 Cat C/D/E visibility to 1 ½ SM.

MISSED APPROACH: Climb to 3000 direct EISEN and on track 225° to ACOLA and hold.

For inop ALS, increase S-LOC 22 Cat C/D/E visibility to 1 ½ SM.

MISSED APPROACH: Climb to 3000 direct EISEN and on track 225° to ACOLA and hold.

For inop ALS, increase S-LOC 22 Cat C/D/E visibility to 1 ½ SM.

MISSED APPROACH: Climb to 3000 direct EISEN and on track 225° to ACOLA and hold.

For inop ALS, increase S-LOC 22 Cat C/D/E visibility to 1 ½ SM.

MISSED APPROACH: Climb to 3000 direct EISEN and on track 225° to ACOLA and hold.

For inop ALS, increase S-LOC 22 Cat C/D/E visibility to 1 ½ SM.

MISSED APPROACH: Climb to 3000 direct EISEN and on track 225° to ACOLA and hold.
ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.
NOTE: RADAR required.
NOTE: The following TRANSITIONS are ATC assigned only. Do not file.
CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).
MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TAKEOFF MINIMUMS
Rwy 22: Standard with minimum climb of 290’ per NM to 1500.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

TAKEOFF MINIMUMS

Rwys 4, 13L/R, 31L/R: Standard with minimum climb of 500' per NM to 560.

Rwy 22: Standard with minimum climb of 500' per NM to 700.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560 for RADAR vectors to DREMR, thence . . .

TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560 for RADAR vectors to DREMR, thence . . .

TAKEOFF RUNWAY 22: Climb on heading 221° to 700 for RADAR vectors to DREMR, thence . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560 for RADAR vectors to DREMR, thence . . .

. . . on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwy 22: Standard with minimum climb of 290' per NM to 1500.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to LITLD INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to LITLD INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

TAKEOFF MINIMUMS
Rwy 22: Standard with minimum climb of 290’ per NM to 1500.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000, expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to RAECN INT, maintain 16000, expect filed altitude 10 minutes after departure, thence.

... on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560, expect RADAR vectors to ELOCO, thence . . .

TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560, expect RADAR vectors to ELOCO, thence . . .

TAKEOFF RUNWAY 22: Climb on heading 221° to 560, expect RADAR vectors to ELOCO, thence . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560, expect RADAR vectors to ELOCO, thence . . .

. . . on track 070° to CHPEE, then on (transition). Maintain 16000, expect filed altitude 10 minutes after departure.

WHITE LAKE TRANSITION (ELOCO6.LLA)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to MONNT INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to MONNT INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.

NOTE: Chart not to scale.
HOUSTON, TEXAS

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: ATC assigned only.
NOTE: DME/DME/IRU or GPS required.
NOTE: For non-GPS equipped aircraft, LCH, LLA, TBD, and LEV DME’s must be operational.

TAKEOFF MINIMUMS

Rwys 4, 13L/R, 31L/R: Standard with minimum climb of 500’ per NM to 560.
Rwy 22: Standard with minimum climb of 500’ per NM to 700.

TAKEOFF RUNWAY 4: Climb on heading 041° to 560, for RADAR vectors to VUH VOR/DME, thence . . .
TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560, for RADAR vectors to VUH VOR/DME, thence . . .
TAKEOFF RUNWAY 22: Climb on heading 221° to 700, for RADAR vectors to VUH VOR/DME, thence . . .
TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560, for RADAR vectors to VUH VOR/DME, thence . . .

. . . on track 118° to HOODO, then on (transition). Maintain 16000.
Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)

NOTE: Chart not to scale.
TAKEOFF MINIMUMS
Rwys 4, 13L/R, 31L/R:
Standard with minimum climb of 500’ per NM to 560.
Rwy 22:
Standard with minimum climb of 500’ per NM to 700.

TAKEOFF RUNWAY 4: Climb on heading 041° to 560 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 22: Climb on heading 221° to 700 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to SHYNR INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to SHYNR INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
**TOP ALTITUDE: 16000**

**ARDMORE**
116.7 ADM
Chan 114

**RANGER**
115.7 FUZ
Chan 104

**WACO**
115.3 ACT
Chan 100

**BONHAM**
114.6 BYP
Chan 93

**DOLEY**

**CEDAR CREEK**
114.8 CQY
Chan 95

**LEONA**
110.8 LOA
Chan 45

**NAVASOTA**
115.2 TNV
Chan 106

**HUMBLE**
116.6 IAH
Chan 113

**WLLIS**

**CHANNEL 106**

**NOTE:** Chart not to scale.

**TAKEOFF MINIMUMS**

- Rwy 22: Standard with minimum climb of 290' per NM to 1500.

**NOTE:** RADAR required.

**NOTE:** Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

**NOTE:** RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.

**NOTE:** ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.

**NOTE:** BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

**(CONTINUED ON FOLLOWING PAGE)**
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to WLLIS INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to WLLIS INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

TOP ALTITUDE: 16000

SKKIP

SUSHI

COLET

KYANN

HUMBLE

DAISETTA

LUFKIN

026°

5000

(6)

R-013

013°

023°

19

(12)

31

(10)

39

(39)

R-207

R-203

FL183

026°

(240)

R-295

R-273

R-312

R-295

R-273

800

311°

TAKEOFF MINIMUMS

Rwy 22: Standard with minimum climb of 290’ per NM to 1500.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to KYANN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to KYANN INT, maintain 16000. Expect filed altitude 10 minutes after departure, thence.

. . . .on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

NOTE: RNAV 1.

NOTE: RADAR required.
NOTE: RADAR required.
NOTE: RADAR required.
NOTE: RADAR required.
NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAY 22: Climb on heading 221° to 700 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)

ORRTH TRANSITION (LURIC8.ORRTH)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 13L/R, 22: Climb on assigned heading for RADAR vectors to SKUBA, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 800 before turning, then climb on assigned heading for RADAR vectors to SKUBA, maintain 16000. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
PEECE SIX DEPARTURE (RNAV)

**NOTE:** Chart not to scale.

**NOTE:** GPS required for ANKRR, KELPP, and MUSYL TRANSITIONS.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RADAR required.

**NOTE:** RNAV 1.

**NOTE:** GPS required for PEECE SIX DEPARTURE.

**TOP ALTITUDE:**

16000

**TAKEOFF MINIMUMS**

Rwy 4: Standard with minimum climb of 500' per NM to 3800.
Rwy 13L: Standard with minimum climb of 500' per NM to 4200.
Rwy 13R: Standard with minimum climb of 500' per NM to 4400.
Rwy 22: Standard with minimum climb of 500' per NM to 3900.
Rwys 31L/R: Standard with minimum climb of 500' per NM to 3300.

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560, expect RADAR vectors to PEECE, thence . . .
TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560, expect RADAR vectors to PEECE, thence . . .
TAKEOFF RUNWAY 22: Climb on heading 221° to 560, expect RADAR vectors to PEECE, thence . . .
TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560, expect RADAR vectors to PEECE, thence . . .

. . . on track 131° to VUH VOR/DME, then on (transition). Maintain 16000, expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (PEECE6.ANKRR)
KELPP TRANSITION (PEECE6.KELPP)
MUSYL TRANSITION (PEECE6.MUSYL)
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: 16000

TAKEOFF MINIMUMS
Rwy 4: Standard with minimum climb of 500' per NM to 900.
Rwy 13L: Standard with minimum climb of 500' per NM to 3600.
Rwy 13R: Standard with minimum climb of 500' per NM to 3800.
Rwy 22: Standard with minimum climb of 500' per NM to 1900.
Rwy 31L/R: Standard with minimum climb of 500' per NM to 560.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560, expect RADAR vectors to SAALT, thence. . . .
TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560, expect RADAR vectors to SAALT, thence. . . .
TAKEOFF RUNWAY 22: Climb on heading 221° to 560, expect RADAR vectors to SAALT, thence. . . .
TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560, expect RADAR vectors to SAALT, thence. . . .

. . . . on track 191° to PTRON, then on (transition). Maintain 16000, expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (PTRON9.CRP)
PALACIOS TRANSITION (PTRON9.PSX)
TRUAX TRANSITION (PTRON9.NGP)
WWREN TRANSITION (PTRON9.WWREN)
YOMOM TRANSITION (PTRON9.YOMOM)
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: 16000

NOTE: CRGER Transition ATC assigned only.

TAKEOFF MINIMUMS
Rwys 4, 13L/R, 31L/R: Standard with minimum climb of 500’ per NM to 560.
Rwy 22: Standard with minimum climb of 500’ per NM to 800.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560, expect RADAR vectors to RETYR, thence . . . .

TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560, expect RADAR vectors to RETYR, thence . . . .

TAKEOFF RUNWAY 22: Climb on heading 221° to 560, expect RADAR vectors to RETYR, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560, expect RADAR vectors to RETYR, thence . . . .

. . . . on track 298° to MNNKE, then on (transition). Maintain 16000, expect filed altitude 10 minutes after departure.

CRGER TRANSITION (RETYR8.CRGER)
JUNCTION TRANSITION (RETYR8.JCT)
MNURE TRANSITION (RETYR8.MNURE)
SAN ANTONIO TRANSITION (RETYR8.SAT)
WAILN TRANSITION (RETYR8.WAILN)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560 for RADAR vectors to KNTKY, thence.

TAKEOFF RUNWAYS 13L/R: Climb on heading 131° to 560 for RADAR vectors to KNTKY, thence.

TAKEOFF RUNWAY 22: Climb on heading 221° to 700 for RADAR vectors to KNTKY, thence.

TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560 for RADAR vectors to KNTKY, thence.

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)

JBULL TRANSITION (STRYA8.JBULL)
**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 4:** Climb on heading 041° to 560 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 13L/R:** Climb on heading 131° to 560 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 22:** Climb on heading 221° to 700 for RADAR vectors to BBYSE, thence. . .

**TAKEOFF RUNWAY 31L/R:** Climb on heading 311° to 560 for RADAR vectors to BBYSE, thence. . .

. . .on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

**DOLEY TRANSITION (STYCK8.DOLEY)**

**WTSON TRANSITION (STYCK8.WTSON)**

**NOTE:** Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 041° to 560 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAYS 13L/R, 31L/R: Climb on heading 131° to 560 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAY 22: Climb on heading 221° to 700 for RADAR vectors to WYLSN, thence . . .
TAKEOFF RUNWAYS 31L/R: Climb on heading 311° to 560 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain 16000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
RNAV (GPS) RWY 18
HUNTSVILLE MUNI (UTS)

HUNTSVILLE, TEXAS
AL-5813 (FAA)

ASOS 119.425
HOUSTON CENTER 134.8 269.6
UNICOM 122.8 (CTAF)

**Baro-VNAV NA when using Conroe/North Houston Rgnl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA when using Conroe/North Houston Rgnl altimeter setting. When local altimeter setting not received, use Conroe/North Houston Rgnl altimeter setting and increase all DA 75 feet and all MDA 80 feet; increase LPV and LNAV/VNAV all Cats and Circling Cat C visibility ¼ mile.**

**MISSED APPROACH:** Climb to 4000 direct HINET and right turn via track 297° to OSCER and hold.

**VGSI and RNAV glidepath not coincident** (VGSI Angle 3.00/TCH 26).

**LNAV only.**

---

### Table: Category Limits

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<td>588-1</td>
<td>250 (300-1)</td>
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<td>548 (600-2)</td>
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<td>CIRCLING</td>
<td>920-1</td>
<td>557 (600-1)</td>
<td>1120-2½</td>
<td>757 (800-2½)</td>
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</table>
When local altimeter setting not received, use Conroe/North Houston Rgnl altimeter setting and increase MDA 80 feet, increase Circling Cat C visibility 1/4 mile.

MISSED APPROACH: Climbing right turn to 2000 via LOA VORTAC R-131 to KASHE/25 DME and hold.

<table>
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<th>ASOS</th>
<th>HOUSTON CENTER</th>
<th>UNICOM</th>
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<tr>
<td>119.425</td>
<td>134.8 269.6</td>
<td>122.8 (CTAF)</td>
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</tbody>
</table>

Procedure NA for arrivals at LOA VORTAC via V477 northwest bound.

IAF LEONA 110.8 LOA 18° Chan 45

LOA 19 Arc

LOA 19

LOA 19

KASHE LOA 25

MAFAP LOA 29.7

AMBEE LOA 19

KASHE LOA 25

LOA R-131

2000

131°

2000

 Procedure Turn NA

CATEGORY

A

B

C

D

CIRCLING

1000-1

637 (700-1)

1000-1¼

637 (700-1¼)

1120-2¼

757 (800-2¼)

NA

HUNTSVILLE, TEXAS

AL-5813 (FAA)
RNAV (GPS) RWY 14
CHEROKEE COUNTY (JSO)

Baro-VNAV NA when using Nacogdoches altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). When local altimeter setting not received, use Nacogdoches altimeter setting and increase all DA to 1046 feet and increase LPV visibility ½ SM and LNAV/VNAV visibility ¼ SM; increase all MDA 120 feet and LNAV visibility Cat C ¾ SM. Circling visibility Cat C ¾ SM. DME/DME RNP 0.3 NA. VDP NA with Nacogdoches altimeter setting.

AWOS-3
119.075

LONGVIEW APP CON
128.75 379.15

UNICOM
122.7 (CTAF)
RNAV (GPS) RWY 32
CHEROKEE COUNTY (JSO)

Baro-VA/VNAV NA when using Nacogdoches altimeter setting. For uncompensated Baro-VA/VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). When local altimeter setting not received, use Nacogdoches altimeter setting and increase DA 118 feet, increase all MDA 120 feet and LPV, LNAV/VNAV visibility all Cats ¾ mile, LNAV and Circling Cat C visibility ½ mile. When VGSI inop, Straight-in/Circling Rw 32 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3100 direct WOSUL and hold.

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

AWOS-3 119.075 LONGVIEW APP CON* 128.75 379.15 UNICOM 122.7 (CTAF)

Category

LPV DA 915-1 250 (300-1) NA
LNAV/VNAV DA 915-1 250 (300-1) NA
LNAV MDA 1220-1 555 (600-1) 1220-1½ 555 (600-1%) NA
CIRCLING 1220-1 542 (600-1) 1280-1½ 602 (700-1½) NA
VOR RWY 14
CHEROKEE COUNTY (JSO)

AWOS-3  119.075
LONGVIEW APP CON*  128.75  379.15
UNICOM  122.7 (CTAF)

Procedure NA for arrivals at FZT VOR/DME on V569 northwest bound.

MISSED APPROACH: Climbing right turn to 2500 direct FZT VOR/DME and hold.

VOR and descent angles not coincident (VGSI Angle 3.00'/TCH 30).
RNAV (GPS) RWY 36
JASPER COUNTY/BELL FLD (JAS)

AWOS-3
118.375
HOUSTON CENTER
126.95 363.05
UNICOM
122.8 (CTAF)

Procedure NA for arrival at ROMER on V569 northwest bound.

Procedure Turn NA
3000 103° (13.9)

VGSi and RNAV glidepath not coincident (VGSI Angle 3.50°/TCH 45).

4000 MOWHI
Ir 357° RAFTO

* LNAV only

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>594-1 1/6</td>
<td>402 (400-1 1/4)</td>
<td>NA</td>
<td></td>
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<tr>
<td>LNAV/VNAV DA</td>
<td>675-1 1/6</td>
<td>483 (500-1 1/6)</td>
<td>NA</td>
<td></td>
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<tr>
<td>LNAV MDA</td>
<td>680-1 488 (500-1)</td>
<td>488 (500-1 1/1)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>CIRCLING</td>
<td>740-1 527 (600-1)</td>
<td>800-1 587 (600-1 1/1)</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

JASPER, TEXAS
Orig-D 30NOV23

30°53'N-94°02'W

JASPER COUNTY/BELL FLD (JAS)
RNAV (GPS) RWY 36
RNAV (GPS) RWY 13
HAWTHORNE FLD (45R)

**RNAV (GPS) RWY 13**

**HAWTHORNE FLD (45R)**

**BPT ASOS**
126.3

**HOUSTON APP CON**
121.3 377.1

**UNICOM**
122.8 (CTAF)

**ELEV 71**

**TDZE 71**

**Procedure NA at night. Rwy 13 helicopter visibility reduction below 1 SM NA. Use Beaumont/Port Arthur altimeter setting; when not received use Orange altimeter setting.**

**MISSED APPROACH: Climb to 2000 direct JOBMO and hold.**

**Visual Segment - Obstacles.**

**MISSED APCH FIX**

**4 NM**

**2000**

**JOBMO**

**NA**

**LP MDA**
700-1 629 (700-1)
700-1 629 (700-1)
NA

**LNAV MDA**
720-1 649 (700-1)
720-1 649 (700-1)
NA

**CIRCLING**
720-1 649 (700-1)
880-2 809 (900-2)
NA

**WAAS CH 58242**

**APP CRS 136°**

**Rwy Idg 4303**

**Apt Elev 71**

**Amdt 1C 07OCT21**

KOUNTZE/SILSBEE, TEXAS

**HOUSTON APP CON**

**KOUNTZE/SILSBEE, TEXAS**

**W13A**

**HAWTHORNE FLD (45R)**

**4303** 71

**71**

**LNAV MDA**

**HAREV**

**3100**

**2000**

**7 NM**

**5.9 NM**

**2000 direct JOBMO and hold.**

**SC-5, 11 JUL 2024 to 05 SEP 2024**

**30°20'N-94°15'W**

**543**
RNAV (GPS) RWY 16

FAYETTE RGNL AIR CENTER (3T5)

AWOS-3 124.175
AUSTIN APP CON 120.875 270.25
GCO 121.725
UNICOM 122.7 (CTAF)

When local altimeter setting not received, use Giddings-Lee altimeter setting and increase DA 59 feet, all MDA 60 feet, increase LNAV Cat C visibility ½ mile. RW 16 helicopter visibility reduction below ½ SM NA.

AWOS-3
AUSTIN APP CON
GCO
UNICOM

RNAV (GPS) RWY 16

FAYETTE RGNL AIR CENTER (3T5)

RNAV (GPS) RWY 16

FAYETTE RGNL AIR CENTER (3T5)

RNAV (GPS) RWY 16
When local altimeter setting not received, use Giddings-Lee altimeter setting and increase all MDA 60 feet, increase LP and LNAV Cat C visibility ¼ mile. Rwy 34 helicopter visibility reduction below ½ SM NA.

MISSING APPROACH: Climb to 2600 directly BOKKE and hold.

AWOS-3 124.175
AUSTIN APP CON 120.875 270.25
GCO 121.725
UNICOM 122.7 (CTAF)

Missed Approach Fix

4 NM

BOKE

ELEV 324
TDZE 324

La Grange

Reil Rwys 16 and 34
MIRL Rwy 16-34

LA GRANGE, TEXAS

Amdt 2C 07NOV19

29°54’N-96°57’W

FAYETTE RGNL AIR CENTER (3T5)

RNAV (GPS) RWY 34

FAYETTE RGNL AIR CENTER

3.00°

2.5 NM

1160

415

336°

2000

337°

NIYIN

2.5 NM
to RW34

(GAF)

QOPHI

(FAF)

Guanhar to Grange (Closed)

(REIL) JIHRU

2600

30 NM to JIHRU

30 NM to JIHRU

30 NM to JIHRU

30 NM to JIHRU

JIHRU

300-1

540-1

740-1

740-1

NA

NA

2.6 NM

6.9 NM

2.5 NM

LP MDA 700-1 376 (400-1)

LNAV MDA 740-1 416 (500-1)

740-1

416 (500-1)

NA

NA

UNICOM

AWOS-3

L

MISSED APCH FIX

4 NM

BOKE
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
RNAV (GPS) RWY 30
LA PORTE MUNI (T41)

### TERRAIN

- **AWOS-3PT**: 120.275
- **HOUSTON APP CON**: 134.45 284.0
- **CLNC DEL**: 125.6
- **UNICOM**: 122.7 (CTAF)

### WEATHER

- **AWOS-3PT**: 120.275
- **HOUSTON APP CON**: 134.45 284.0
- **CLNC DEL**: 125.6
- **UNICOM**: 122.7 (CTAF)

### RADAR REQUIRED

**ELEV 25**
**TDZE 25**

**RNP APCH.**

- **WAAS CH 93928**
- **APP CRS 301°**
- **Rwy Idg 3760**
- **TDZE 25**
- **Apt Elev 25**

### MISSED APPROACH

- **RNAV (GPS) RWY 30**
- **LA PORTE, TEXAS**
- **UNICOM 122.7 (CTAF)**

### LA PORTE MUNI (T41)

- **RNAV (GPS) RWY 30**
- **LA PORTE, TEXAS**
- **UNICOM 122.7 (CTAF)**

### OTHER

- **AR**
- **AWOS-3PT**
- **HOUSTON APP CON**
- **CLNC DEL**
- **UNICOM**

**CATEGORY**

- **A**
- **B**
- **C**
- **D**

- **LPV DA**
  - 291-1
  - 266 (300-1)
- **NA**

- **LNAV/ VNAV DA**
  - 454-1¾
  - 429 (500-1¼)
- **NA**

- **LNAV MDA**
  - 520-1
  - 495 (500-1)
  - 520-1¾
  - 495 (500-1¾)
- **NA**

- **CIRCLING**
  - 600-1
  - 575 (600-1)
  - 620-1
  - 595 (600-1)
  - 880-2½
  - 855 (900-2½)
- **NA**

**LA PORTE, TEXAS**

**Amdt 2D 04NOV21**

**FAA**

**UNICOM**

**LA PORTE MUNI (T41)**

**29°40'N-95°04'W**

**547**
NOTE: RADAR required.

NOTE: The following TRANSITIONS are ATC assigned only. Do not file.

CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).

MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30: Standard.
ALEXANDRIA THREE DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . .on IAH R-028 to VELCO INT, cross VELCO INT at or above 10000, then right turn on LFK R-082 and AEX R-265 to AEX VORTAC.

CRESTVIEW TRANSITION (AEX3.CEW): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC, then on MCB R-095 and CEW R-277 to CEW VORTAC.

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 5:** Climb on heading 046° to 540 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAY 12:** Climb on heading 121° to 540 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAY 23:** Climb on heading 226° to 540 for RADAR vectors to DREMR, thence . . . .

**TAKEOFF RUNWAY 30:** Climb on heading 301° to 540 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**CRIED TRANSITION (BLTWY7.CRIED)**

---

**NOTE:** Chart not to scale.
*

(
77)

23 )
5

(BORRN6.BORRN)30NOV23

BORRN SIX DEPARTURE(RNAV)

551

*

SAT

*

(
62)

WAILN

*

WEEED

SC-5, 11 JUL 2024 to 05 SEP 2024

(NARRATIVE ON FOLLOWING PAGE)

, T41.

(
20)

270°

10800
1800

*

for aircraft departing 54T, AXH, EFD, GLS,

7600
1600

540

540

DILRE

N

(
7)

267°

4400
1600

6°
22

30
1°

SA

3100

T41 25

N

M

540

540

NOTE: Chart not to scale.

M

BORRN

12
1°

6°
04

TOP ALTITUDE:
ASSIGNED BY ATC

BORRN SIX DEPARTURE(RNAV)

HPY, IWS, LBX, LVJ, SGR, TME, T

ZUUUU

271°
(
19)
BOCCK (
16)

275°

MNURE 10600
2100

NOTE: CRGER-TRANSITION ATC assigned only

68)
(

1200
0
2100

275°

*
261°

12000
2600

HAYYY

(
44)

275°

1200
0
2100

*

SAN ANTONIO

(
33)

(
34)

PUFER

*
*

3
(

*

278
°

120
00
290
0

275°

PSTUR 12000
2400

RADAR required.

0
0
6
8 00 °
7 8
*1 9 )
2 1
(2

MARCS

FOWLR

(
33)

279
°

120
00
310
0

*

0
00
12 00
28 9°

279
°

120
00
370
0

CRGER

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30: Standard with minimum
climb of 500'/NM to 540.

*

JCT

JUNCTION

134.45 284.0

HOUSTON DEP CON

125.6

CLNC DEL

RNAV 1 - DME/DME/IRU or GPS.

AL-5433 (FAA)

00

122.7

SC-5, 11 JUL 2024 to 05 SEP 2024

CTAF

*

77
17 00
2 00
3
8
(
17 °
)

(BORRN6.BORRN)23334
LA PORTE MUNI(T41)
LA PORTE, TEXAS

LA PORTE MUNI(T41)

LA PORTE, TEXAS


DEPARTUREROUTEDESCRIPTION

TAKEOFFRUNWAY5:Climbonheading046°to540,forRADARvectorstoBORRN,thence. . . .
TAKEOFFRUNWAY12:Climbonheading121°to540,forRADARvectorstoBORRN,thence. . . .
TAKEOFFRUNWAY23:Climbonheading226°to540,forRADARvectorstoBORRN,thence. . . .
TAKEOFFRUNWAY30:Climbonheading301°to540,forRADARvectorstoBORRN,thence. . . .

. . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

CRGERTRANSITION (BORRN6.CRGER)
JUNCTIONTRANSITION (BORRN6.JCT)
MNURETRANSITION (BORRN6.MNURE)
SANANTONIOTRANSITION (BORRN6.SAT)
WAILNTURNITION (BORRN6.WAILN)
NOTE: RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC
CRIED ONE DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . .

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.
NOTE: RADAR required.
NOTE: For aircraft destined KMEM or filed via Q32 or J42.

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30: Standard.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.
NOTE: RADAR required.
NOTE: For aircraft destined for the DFW terminal area only.

TAKEOFF MINIMUMS.
Rwys 5, 12, 23, 30: Standard.

CONTINUED ON FOLLOWING PAGE

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

. . . . on IAH R-358 to cross GIFFA INT at or above 10000.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAY 23: Climb on heading 226° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 540, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
INDIE EIGHT DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 12: Climb on heading 121° to 540 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 23: Climb on heading 226° to 540 for RADAR vectors to RENNK, thence . . . .
TAKEOFF RUNWAY 30: Climb on heading 301° to 540 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

TPAKK TRANSITION (INDIE8.TPAKK)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

INDUSTRY ONE DEPARTURE

JUNCTION
116.0 JCT
Chan 107

CENTEX
112.8 CWK
Chan 75

STONESTONE
113.8 STV
Chan 85

SAN ANTONIO
116.8 SAT
Chan 115

INDUSTRY
110.2 IDU
Chan 39

MARCS

NAVASOTA
115.9 TNV
Chan 106

BOCCK

SHYNR

HUMBLE
116.6 IAH
Chan 113

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30: Standard.

NOTE: RADAR required.
NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
NOTE: LAREDO TRANSITION: ATC assigned only.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SHYNR INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on IDU R-085 to BOCCK INT, then on IDU R-085 to IDU VORTAC.

CENTEX TRANSITION (IDU1.CWK): From over IDU VORTAC on IDU R-289 and CWK R-110 to CWK VORTAC.

CORPUS CHRISTI TRANSITION (IDU1.CRP): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-145 and CRP R-324 to CRP VORTAC.

JUNCTION TRANSITION (IDU1.JCT): From over IDU VORTAC on IDU R-276 and JCT R-094 to JCT VORTAC.

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.
KARRR SEVEN DEPARTURE (RNAV)

RNAV-1 DME/DME/IRU or GPS. RADAR required.

NOTE: Chart not to scale.

NAVO 5, 12, 23, 30.
Standard with minimum climb of 500' per NM to 540.

ASSIGNED BY ATC

TOP ALTITUDE: ASSIGNED BY ATC

(TNARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540, for RADAR vectors to KARRR, thence.

TAKEOFF RUNWAY 12: Climb on heading 121° to 540, for RADAR vectors to KARRR, thence.

TAKEOFF RUNWAY 23: Climb on heading 226° to 540, for RADAR vectors to KARRR, thence.

TAKEOFF RUNWAY 30: Climb on heading 301° to 540, for RADAR vectors to KARRR, thence.

...on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
TOP ALTITUDE: ASSIGNED BY ATC

LEONA FOUR DEPARTURE

NOTE: Chart not to scale.

(LOA4.LOA) 24137

LEONA FOUR DEPARTURE

TOP ALTITUDE: ASSIGNED BY ATC

ARDOERE

116.7 ADM
Chan 114

RANGER

116.7 FUZ
Chan 104

WACO

115.9 ACT
Chan 100

TULSA

114.4 TUL
Chan 91

BONHAM

114.6 BYP
Chan 93

CEDAR CREEK

114.8 CQY
Chan 95

NAVASOTA

115.9 TNV
Chan 106

LEONA

110.8 LOA
Chan 45

WLLIS

38

HUMBLE

116.6 IAH
Chan 113

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDOERE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(Continued on following page)

(LOA4.LOA) 07OCT21

LA PORTE, TEXAS

LA PORTE MUNI (T41)

CTAF
122.7
CLNC DEL
125.6
HOUSTON DEP CON
134.45 284.0

TOP ALTITUDE: ASSIGNED BY ATC

ARDOERE

116.7 ADM
Chan 114

RANGER

116.7 FUZ
Chan 104

WACO

115.9 ACT
Chan 100

TULSA

114.4 TUL
Chan 91

BONHAM

114.6 BYP
Chan 93

CEDAR CREEK

114.8 CQY
Chan 95

NAVASOTA

115.9 TNV
Chan 106

LEONA

110.8 LOA
Chan 45

WLLIS

38

HUMBLE

116.6 IAH
Chan 113

NOTE: RADAR required.
NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).
NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.
NOTE: ARDOERE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.
NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.

NOTE: Chart not to scale.

(Continued on following page)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence . . . .

. . . . on LOA R-147 to LOA VORTAC.

ARDMORE TRANSITION (LOA4.ADM): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on ADM R-156 to ADM VORTAC.

BONHAM TRANSITION (LOA4.BYP): From over LOA VORTAC on LOA R-341 and CQY R-163 to CQY VORTAC, then on BYP R-173 to BYP VORTAC.

RANGER TRANSITION (LOA4.FUZ): From over LOA VORTAC on LOA R-334 to DOLEY INT, then on FUZ R-130 to FUZ VORTAC.
NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or overflying LIT or PXV.

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.
(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

.on IAH R-013 to COLET INT, then right turn on LFK R-203 to LFK VORTAC.

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.
LA PORTE MUNI (T41) LA PORTE, TEXAS

LURIC EIGHT DEPARTURE (RNAV)

TOP ALTITUDE: ASSIGNED BY ATC

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30:
Standard with minimum climb of 500’ per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAY 12: Climb on heading 121° to 540 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAY 23: Climb on heading 226° to 540 for RADAR vectors to KNTKY, thence . . . .

TAKEOFF RUNWAY 30: Climb on heading 301° to 540 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HADES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)

NOTE: Chart not to scale.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540, for RADAR vectors to MMALT, thence.
TAKEOFF RUNWAY 12: Climb on heading 121° to 540, for RADAR vectors to MMALT, thence.
TAKEOFF RUNWAY 23: Climb on heading 226° to 540, for RADAR vectors to MMALT, thence.
TAKEOFF RUNWAY 30: Climb on heading 301° to 540, for RADAR vectors to MMALT, thence.

. . . .on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7, GUSTI)
LAKE CHARLES TRANSITION (MMALT7, LCH)
WHITE LAKE TRANSITION (MMALT7, LLA)

NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and 54T.

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

ASSIGNED BY ATC

TOP Altitude:

MINIMUM CLIMB OF 500'/NM TO 540.

Rwy 5, 12, 23, 30: Standard with minimum climb of 500'/NM to 540.

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 12: Climb on heading 121° to 500 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 23: When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

TAKEOFF RUNWAY 30: Climb on heading 301° to 700 before turning. When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence.

. . . .on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 5, 12, 23, 30: Standard with minimum climb of 500’ per NM to 540.

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 5: Climb on heading 046° to 540 for RADAR vectors to KNTKY, thence. . .
TAKEOFF RUNWAY 12: Climb on heading 121° to 540 for RADAR vectors to KNTKY, thence. . .
TAKEOFF RUNWAY 23: Climb on heading 226° to 540 for RADAR vectors to KNTKY, thence. . .
TAKEOFF RUNWAY 30: Climb on heading 301° to 540 for RADAR vectors to KNTKY, thence. . .

... on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 046° to 540 for RADAR vectors to BBYSE, thence...
TAKEOFF RUNWAY 12: Climb on heading 121° to 540 for RADAR vectors to BBYSE, thence...
TAKEOFF RUNWAY 23: Climb on heading 226° to 540 for RADAR vectors to BBYSE, thence...
TAKEOFF RUNWAY 30: Climb on heading 301° to 540 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)

NOTE: Radar required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
**WATFO SIX DEPARTURE (RNAV)**

**RNAV 1 - DME/DME/IRU or GPS.**
- **RADAR required.**

**TOP ALTITUDE:**
- **ASSIGNED BY ATC**
  - CTAF 122.7
  - CLNC DEL 125.6
  - HOUSTON DEP CON 134.45 284.0

**TAKING MINIMUMS:**
- **WATFO SIX DEPARTURE**
- **WATFO SIX DEPARTURE**

**NOTE:** Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 5:** Climb on heading 046° to 540, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 12:** Climb on heading 121° to 540, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 23:** Climb on heading 226° to 540, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 30:** Climb on heading 301° to 540, for RADAR vectors to WATFO, thence. . . .

. . . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

**ANKRR TRANSITION (WATFO6.ANKRR)**
**KELPP TRANSITION (WATFO6.KELPP)**
**MUSYL TRANSITION (WATFO6.MUSYL)**
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

**TAKEOFF MINIMUMS**
Rwys 5, 12, 23, 30: Standard with minimum climb of 500’ per NM to 540.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 5:** Climb on heading 046° to 540 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 12:** Climb on heading 121° to 540 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 23:** Climb on heading 226° to 540 for RADAR vectors to WYLSN, thence. . . .

**TAKEOFF RUNWAY 30:** Climb on heading 301° to 540 for RADAR vectors to WYLSN, thence. . . .

. . . . .on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**GIFFA TRANSITION (WYLSN8.GIFFA)**
**MAJKK TRANSITION (WYLSN8.MAJKK)**
**RNAV (GPS) RWY 16**

**LIBERTY MUNI (T78)**

**Procedure NA at night. Use George Bush Intcntl/Houston altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.**

**MISSED APPROACH:** Climb to 3000 direct WOVOL and hold.

### AWOS-3PT
- 120.775

### HOUSTON APP CON
- 119.7  281.4

### CTAF
- 122.9

### RNAV (GPS) RWY 16

**VTX 091° 2000**

**3.00°**

**VGSZ and descent angles not coincident (VGSZ Angle 3.00/TCH 23).**

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**MIRL Rwy 16-34**

**161°**

**TDZE 70**

**341°**

**WAVOL**

**122.9**

**CH 78130 W16A**

**APP CRS 161°**

**Rwy Idg 3801 T78**

**Apt Elev 70**

**3801**

**ELEV 70**

**3100**

**529**

**241**

**555**

**387**

**310°**

**341°**

**555**

**387**

**3801 X 75**

**AL-5196 (FAA)**

**21224**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
**LIBERTY, TEXAS**

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**LIBERTY MUNI (T78)**

**AWOS-3PT**

### METEOROLOGICAL INFORMATION

- **MISSED APPROACH:** Climb to 2000, then left turn direct DAS VORTAC.
- **Helicopter visibility reduction below 1 SM NA.**

**CTAF**

**HOUSTON APP CON**

**ELEV**

- **70**

**FAF to MAP 7 NM**

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**CIRCLING**

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**SC-5, 11 JUL 2024 to 05 SEP 2024**

**Amdt 5B 26MAY16**
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 16, 34: Standard with minimum climb of 500’ per NM to 580.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700 for RADAR vectors to DREMR, thence . . . .
TAKEOFF RUNWAY 34: Climb on heading 341° to 1000 for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CRIED TRANSITION (BLTWY7.CRIED)
NOTE: CRGER-TRANSITION ATC assigned only for aircraft departing 54T, AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700, for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 34: Climb on heading 341° to 1000, for RADAR vectors to BORRN, thence. . . .

. . . . on track 267° to DILRE, then on (transition). Maintain ATC assigned altitude.
Expect filed altitude 10 minutes after departure.

CRGER TRANSITION (BORRN6.CRGER)
JUNCTION TRANSITION (BORRN6.JCT)
MNURE TRANSITION (BORRN6.MNURE)
SAN ANTONIO TRANSITION (BORRN6.SAT)
WAILN TRANSITION (BORRN6.WAILN)
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700, for RADAR vectors to VUH VOR/DME, thence . . . .

TAKEOFF RUNWAY 34: Climb on heading 341° to 1000, for RADAR vectors to VUH VOR/DME, thence . . . .

. . . . on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

BOWFN TRANSITION (HOODO7.BOWFN)
CFOOD TRANSITION (HOODO7.CFOOD)
HARVEY TRANSITION (HOODO7.HRV)
LEEVILLE TRANSITION (HOODO7.LEV)
SBIRD TRANSITION (HOODO7.SBIRD)
**INDIE EIGHT DEPARTURE (RNAV)**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 161° to 1700 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 34:** Climb on heading 341° to 1000 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**

**NOTE:** Chart not to scale.
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS
Rwys 16, 34: Standard with minimum climb of 500' per NM to 580.

NOTE: Chart not to scale.

ASSIGNED BY ATC

TOP ALTITUDE:

(NARRATIVE ON FOLLOWING PAGE)
KARRR SEVEN DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700, for RADAR vectors to KARRR, thence. . . .
TAKEOFF RUNWAY 34: Climb on heading 341° to 1000, for RADAR vectors to KARRR, thence. . . .

. . . . on track 218° to KAVCY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

CORPUS CHRISTI TRANSITION (KARRR7.CRP)
PALACIOS TRANSITION (KARRR7.PSX)
TRUAX TRANSITION (KARRR7.NGP)
WWREN TRANSITION (KARRR7.WWREN)
YOMOM TRANSITION (KARRR7.YOMOM)
LURIC EIGHT DEPARTURE (RNAV)

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 16, 34: Standard with minimum climb of 500’ per NM to 580.

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700 for RADAR vectors to KNTKY, thence....
TAKEOFF RUNWAY 34: Climb on heading 341° to 1000 for RADAR vectors to KNTKY, thence....

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

HAWES TRANSITION (LURIC8.HAWES)
ORRTH TRANSITION (LURIC8.ORRTH)

Note: Chart not to scale.
GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)
TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 16, 34: Standard.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading $161^\circ$ to 1700 before turning, when entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

TAKEOFF RUNWAY 34: Climb on heading $341^\circ$ to 1000 before turning, when entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence...

. . . .on PSX R-038 to PSX VORTAC.

FORT STOCKTON TRANSITION (PSX3.FST): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on THX R-259 and COT R-078 to COT VORTAC, then on COT R-318 and RSG R-136 to RSG VORTAC, then on RSG R-283 and FST R-100 to FST VORTAC.

SAN ANTONIO TRANSITION (PSX3.SAT): From over PSX VORTAC on PSX R-253 and THX R-073 to THX VORTAC, then on SAT R-158 to SAT VORTAC.
NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 16, 34: Standard with minimum climb of 500’ per NM to 580.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700 for RADAR vectors to KNTKY, thence...
TAKEOFF RUNWAY 34: Climb on heading 341° to 1000 for RADAR vectors to KNTKY, thence...

...on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 34: Climb on heading 341° to 1000 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)

WTSON TRANSITION (STYCK8.WTSON)
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb on heading 161° to 1700, for RADAR vectors to WATFO, thence. . . .

**TAKEOFF RUNWAY 34:** Climb on heading 341° to 1000, for RADAR vectors to WATFO, thence. . . .

. . . on track 141° to VUH VOR/DME, then on (transition). Maintain ATC assigned altitude.

Expect filed altitude 10 minutes after departure.

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb on heading 161° to 1700 for RADAR vectors to WYLSN, thence . . .

TAKEOFF RUNWAY 34: Climb on heading 341° to 1000 for RADAR vectors to WYLSN, thence . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)

WYLSN EIGHT DEPARTURE (RNAV)
(WYLSN8.WYLSN) 07OCT21
RNAV (GPS) RWY 30
LIVINGSTON MUNI (LBR)

APP CRS
305°

RNAV (GPS) RWY 30
LIVINGSTON MUNI (LBR)

Use Conroe/North Houston Rgnl altimeter setting. Rwy 30 helicopter
taking off climb to 1500 MSL then climb 1200 feet above ground level.

HOUSTON CENTER
125.175 285.575

UNICOM
122.7 (CTAF)

ELEV 151
TDZE 151

VISUAL SEGMENT - OBSTACLES.

BOBKO
1800
305°

DILKS
1800
305°

AGEVE
1800
305°

BOBKO
1800
305°

HOLDING PATTERN

125°

4 NM

MIRL Rwy 12-30
LIVINGSTON, TEXAS
Orig D 07OCT21

AL-9044 (FAA)

RNP APCH-GPS.

Use Conroe/North Houston Rgnl altimeter setting. Rwy 30 helicopter
visibility reduction below 1 SM NA. Night landing: Rwy 30 NA.

RNAV (GPS) RWY 30
LIVINGSTON MUNI (LBR)

HOUSTON CENTER
125.175 285.575

UNICOM
122.7 (CTAF)

ELEV 151
TDZE 151

VISUAL SEGMENT - OBSTACLES.

BOBKO
1800
305°

DILKS
1800
305°

AGEVE
1800
305°

BOBKO
1800
305°

HOLDING PATTERN

125°

4 NM

MIRL Rwy 12-30
LIVINGSTON, TEXAS
Orig D 07OCT21

AL-9044 (FAA)

RNP APCH-GPS.

Use Conroe/North Houston Rgnl altimeter setting. Rwy 30 helicopter
visibility reduction below 1 SM NA. Night landing: Rwy 30 NA.
Circling Rwy 16, 25 NA at night.

MISSED APPROACH: Climb to 800 then climbing right turn to 2000 direct LFK VORTAC and hold, continue climb-in-hold.

Procedure NA for arrival on LFK VORTAC airway radials 245 CW 354.

remain within 10 NM

LUFKIN, TEXAS

Amdt 3 07DEC17

SC-5, 11 JUL 2024 to 05 SEP 2024

SC-5, 11 JUL 2024 to 05 SEP 2024
RNAV (GPS) RWY 7
ANGELINA COUNTY (LFK)

Procedure NA for arrival on LFK
VORTAC airway radials 199 CW 354.

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.
Circling Rwy 16, 25 NA at night.

Missed Approach: Climb to
2000 direct MIBER and hold.

Unicom
123.0 (CTAF)
RNAV (GPS) RWY 16
ANGELINA COUNTY (LFK)

**ASOS**

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**HOUSTON CENTER**

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**UNICOM**

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**APP CRS**

| 158°      |

**DME/DME RNP-0.3 NA.**

- Straight in RWY 16 NA at night, Circling RWY 16, 25 NA at night.
- Rwy 16 helicopter visibility reduction below 1 SM NA.

**Category**

<table>
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<tr>
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**LNAV MDA**

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**CIRCLING**

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<th>740-1</th>
<th>760-1</th>
<th>880-1½</th>
<th>1140-2 ½</th>
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</table>

**MISSED APPROACH:** Climb to 2000 direct EXISE and hold.

- Straight in RWY 16 NA at night, Circling RWY 16, 25 NA at night.
- Rwy 16 helicopter visibility reduction below 1 SM NA.

**LUFKIN, TEXAS**

Amdt 1 07DEC17

**FAR PART 91 NOTES**

- 31°14'N-94°45'W
- 597
**RNAV (GPS) RWY 25**

**ANGELINA COUNTY (LFK)**

**MISSING APPROACH:** Climb to 2000 direct SIRTE and hold.

**ASOS**
120.625

**HOUSTON CENTER**
125.175 285.575

**UNICOM**
123.0 [CTAF]

---

**LUFKIN, TEXAS**

**AL-870 (FAA)**

**WAAS**
- CH 72641
- W25A

**APP CRS**
253°

**Rwy Idg**
5400

**TDZE**
296

**Apt Elev**
296

**DME/DME RNP:** 0.3 NA. Straight-in RW 25 NA at night, Circling RW 16, 25 NA at night. RW 25 helicopter visibility reduction below 1 SM NA.

---

**Agent:**

**Category:**
- **A**
- **B**
- **C**
- **D**

<table>
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<tr>
<th>LP</th>
<th>MDA</th>
<th>MIRL RWys</th>
<th>LP MDA</th>
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<tr>
<td>700-1</td>
<td>404 (500-1)</td>
<td>660-1</td>
<td>364 (400-1)</td>
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<td>700-1/2</td>
<td>404 (500-1)</td>
<td>880-1/2</td>
<td>1140-2 3/4</td>
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<tr>
<td>700-1/2</td>
<td>444 (500-1)</td>
<td>880-1/2</td>
<td>1140-2 3/4</td>
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<tr>
<td>464 (500-1)</td>
<td>584 (600-1/2)</td>
<td>844 (900-2 3/4)</td>
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**ELEV**
296

**TDZE**
296

**253° to RW25**

**SIRTE**

**HUSUN**
1.7 NM to RW25

**JEDZE**

**MIBER**

**MSCA RW25 25 25 NM**

**2400**

**Procedure NA for arrivals on LFK VORTAC airway radials 354 CW 082.**

---

**LUFKIN, TEXAS**

**Amdt 2 07DEC17**

**31°14'N-94°45'W**
RNAV (GPS) RWY 34
ANGELINA COUNTY (LFK)

ASOS
120.625

HOUSTON CENTER
125.175 285.575

UNICOM
123.0 (CTAF)

Procedure NA for arrival on LFK VORTAC airway radials 082 CW 245.
Rwy 16 helicopter visibility reduction below 1 SM NA. DME Required. Straight-in Rwy 16 NA at night, Circling Rwy 16, 25 NA at night.

**ASOS**

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<th>HOUSTON CENTER</th>
<th>UNICOM</th>
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**DME REQUIRED**

- **VORTAC LFK**
  - 112.1
  - Chan 58
  - 152°
  - 4311
  - 289
  - 296

- **APP CRS**
  - 107°
  - 287°

- **ELEV**
  - 296

- **TDZE**
  - 289

**LUFKIN, TEXAS**

**31°14'N-94°45'W**

**Amdt 5 07DEC17**

**SC-5, 11 JUL 2024 to 05 SEP 2024**
VOR RWY 34
ANGELINA COUNTY (LFK)

MISSED APPROACH: Climb to 900 then climbing left turn to 2000 direct LFK VORTAC and hold.

ASOS
120.625

HOUSTON CENTER
125.175  285.575

UNICOM
123.0  (CTAF)

VALENTINE COUNTY (VXM)

LUFKIN, TEXAS

Amdt 15  07DEC17

SC-5, 11 JUL 2024 to 05 SEP 2024
RNAV (GPS) RWY 18

MADISONVILLE, TEXAS

Use Huntsville Muni altimeter setting.
Procedure NA at night.

Right turn to 2100 direct LOA VORTAC and hold.

MISSED APPROACH: Climb to 1500, then climbing
RNP APCH.
RNAV (GPS) RWY 36

RNAV (GPS) RWY 36

MADISONVILLE MUNI (51R)

RNP APCH.

Use Huntsville Muni altimeter setting.
Procedure NA at night.
Rwy 36 helicopter visibility reduction below 1 SM NA.

UTS ASOS

HOUSTON CENTER

CTAF

119.425

134.8 269.6

122.9

NA

MADISONVILLE, TEXAS

AL-6843 (FAA)

19311

RNAV (GPS) RWY 36

MADISONVILLE MUNI (51R)

RNAV (GPS) RWY 36

MADISONVILLE, TEXAS

Orig-B 07NOV19

50°55'N-95°57'W

603
MADISONVILLE, TEXAS
AL-6843 (FAA)

VOR/DME RWY 18
MADISONVILLE MUNI (51R)

VORTAC LOA 110.8
Chan 45

APP CRS 3202
Rwy Idg 287
Apt Elev 287

Use Huntsville Muni altimeter setting.
Procedure NA at night.
Helicopter visibility reduction below 1 SM NA.

MISSING APPROACH: Climb to 1500, then climbing right
turn to 2000 direct LOA VORTAC and hold.

UTS ASOS
HOUSTON APP CON
CTAF
119.425 134.8 269.6

122.9

MISSED APPROACH: Climb to 1500, then climbing right
turn to 2000 direct LOA VORTAC and hold.

Huntsville Muni altimeter setting.
Procedure NA at night.
Helicopter visibility reduction below 1 SM NA.

UTS ASOS
HOUSTON APP CON
CTAF
119.425 134.8 269.6

122.9

MISSED APPROACH: Climb to 1500, then climbing right
turn to 2000 direct LOA VORTAC and hold.

UTS ASOS
HOUSTON APP CON
CTAF
119.425 134.8 269.6

122.9

MISSED APPROACH: Climb to 1500, then climbing right
turn to 2000 direct LOA VORTAC and hold.

UTS ASOS
HOUSTON APP CON
CTAF
119.425 134.8 269.6

122.9

MISSED APPROACH: Climb to 1500, then climbing right
turn to 2000 direct LOA VORTAC and hold.
WACO APP CON *
127.65 352.0

CTAF
122.9

Use Waco Rgnl altimeter setting.

MISSED APPROACH: Climbing left turn to 2800 via heading 270° and R-123 to MITRA/14 DME and hold.

MARLIN, TEXAS

AL-5854 (FAA)

VOR/DME or GPS-A

MARLIN (T15)

Amdt 7 18MAY00

31°20'N-96°51'W

605
RNAV (GPS) RWY 36
MEXIA-LIMESTONE COUNTY (LXY)

AWOS:3  127.275
WACO APP CON  127.65 352.0
UNICOM  122.8 (CTAF)

Climb to 2400 direct JUVOT and hold.

DME/DME RNP-0.3 NA. Helicopter visibility reduction below ½ SM NA. Obtain local altimeter setting on CTAF; when not received, use Waco Rgnl altimeter setting and increase all MDA 100 feet; increase LP Cat C visibility ½ mile and LNAV and circling Cat C visibility ¼ mile.

 CATEGORY  A  B  C  D
 LP MDA  860-1  319 (400-1)  NA
 LNAV MDA  880-1  339 (400-1)  NA
 CIRCLING  960-1  1180-1  1220-2  415 (500-1)  635 (700-1)  675 (700-2)  NA

31°38'N-96°31'W

MEXIA-LIMESTONE COUNTY (LXY)
RNAV (GPS) RWY 36

WAAS CH 69229
W36A

APP CRS 005°
Rwy Idg 5000
TDZE 541
Apt Elev 545

UNICOM  WACO APP CON
127.275  127.65 352.0  122.8 (CTAF)

ELEV 541  TDZE 541

SC-5, 11 JUL 2024 to 05 SEP 2024
ILS or LOC RWY 36

NACOGDOCHES, TEXAS

LOC/DME I-OCH
111.5
Chan 52

APP CRS 359°
Rwy Idg 5000
TDZE 343
Apt Elev 343

MALSR

ADF or DME required.

When local altimeter setting not received, use Lufkin altimeter setting:
- Increase S-ILS 36 DA to 599 feet; increase all MDA 60 feet and visibility
- S-LOC 36 and Circling Cat C and CATEB FIX minimums
- S-LOC 36 and Circling Cat C ¾ SM, VDP NA when using Lufkin altimeter setting, Localizer unusable inside 0.3 NM from threshold. Autopilot coupled approach NA below 740.

MISSED APPROACH: Climb to 1000 then climbing left turn to 2100 direct NADOS/OC NDB and hold.

AWOS-3PT 135.625
HOUSTON CENTER 125.175 285.575
UNICOM 123.0 (CTAF)

ALTERNATE MISSP APCH FIX
LUFKIN
IF
OC 25 NM

LOCALIZER

I-OCH

111.5
Chan 52

MALSR

NADOS

I-OCH 6.1

CATEB

Localizer

I-OCH 13.5

IAF

LUFKIN

Chan 58

I-OCH

ZITGI

112.1

ARMOR

LUFKIN

Chan 58

MAFIE

(IAF)

Localizer

NADOS

I-OCH 2.6

I-OCH

CATEB

LOCALIZER

I-OCH

111.5
Chan 52

(IAF)

BODTA

(IAF)

LOC to MAFIE

125.175

Localizer

REIL Rwys 18

NACOGDOCHES A L MANGHAM JR RGNL (OCH)

MALSR

135°

111.5

720

518

433

179

359

2100

2100 to NDB

172° (8.7)

GS 3.00°

TCH 53

3.5 NM

0.7 NA

0.7 NA

0.3

ELEV 343

TDZE 343

FAF to MAP 4.8 NM

Knots 60 90 120 150 180
Min:Sec 4:48 3:12 2:24 1:55 1:36

SC-5, 11 JUL 2024 to 05 SEP 2024

ILS or LOC RWY 36

NACOGDOCHES, TEXAS

Amdt 3G 03NOV22

31°35'N-94°43'W

607
RNAV (GPS) RWY 18
NACOGDOCHES A L MANGHAM JR RGNL (OCH)

**Category**: RNAV (GPS) RWY 18
**RNAV (GPS)**

**AWOS-3PT**

**UNICOM**

**135.625**

**125.175**

**285.575**

**123.0 (CTAF)**

**173°**

**4 NM**

**343**

**Final approach course offset 6.00°.**

**Procedure NA for arrival on LFK VORTAC airway radials 318 CW 082.**

**LNAV Cat C and Circling Cat C SM.**

**LNAV (GPS)**

**MISSED APPROACH: Climb to 2400 direct WAJGU and hold.**

**Final approach course offset 6.00°.**
### RNP APCH-GPS

Baro-VNAV NA when using Lufkin altimeter setting. For uncompensated Baro-VNAV systems, increase LPV DA to 599 feet, LNAV/VNAV DA to 681 feet, and visibility LNAV/VNAV all Cats ¼ SM, increase all MDA 60 feet and visibility LNAV Cat C ¼ SM and Circling Cat C ¼ SM.

### AWOS-3PT

- 135.625

### HOUSTON CENTER

- 125.175
- 285.575

### UNICOM

- 123.0 (CTAF)

### MISSED APROACH: Climb to 2400 direct XOWNU and on track 352° to DRBOB and hold.

### RNAV (GPS) RWY 36

- NACOGDOCHES, TEXAS
- Orig-D 03NOV22

### RNAV (GPS) RWY 36

- NACOGDOCHES A L MANGHAM JR RGNL (OCH)
- 31°35'N-94°43'W
- 609
RNAV (GPS) RWY 17
NAVASOTA MUNI (60R)

RNP APCH-GPS.

- **Baro-VNAV NA.** Rwy 17 helicopter visibility reduction below ½ SM NA.
- When local altimeter setting not received, use Brenham altimeter setting. VDP NA when using Brenham altimeter setting.

**Missed Approach:** Climb to 3000 direct ZUGUK and hold.

**AWOS-3PT**
- 120.925

**HOUSTON APP CON**
- 134.3 360.85

**CTAF**
- 122.9

**123.3**

### Radar Required

**ASA RW17 2.5 NM**
- 3000

**GP 3.00° TCH 45**
- 174°

**HOXID**
- 2000

**JOVPA**
- 1060

**OLNAJ 2.5 NM to RW17**
- 2000

**RW17 1.1 NM to RW17**
- 1060

**LNAV DA**
- 529-1 300 (300-1)

**LNAV/ VNAV DA**
- 635-1½ 406 (500-1½)

**LNAV MDA**
- 620-1 391 (400-1)
- 620-1½ 391 (400-1½)

**CTAF**
- 122.9

**RADAR REQUIRED**

**ELEV 229**

**TDZE 229**

**Apt Elev**
- TPZE 229

**RNAV (GPS) RWY 17 NAVASOTA, TEXAS Orig-D 16MAY24**

**30°22'N-96°07'W**

**NAVASOTA MUNI (60R) RNP APCH-GPS.**

### BARO-VNAV NA.

- Rwy 17 helicopter visibility reduction below ½ SM NA.
- When local altimeter setting not received, use Brenham altimeter setting. VDP NA when using Brenham altimeter setting.

### Missed Approach

- Climb to 3000 direct ZUGUK and hold.

### Category

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tr>
<td>LPV DA</td>
<td>529-1 300 (300-1)</td>
<td></td>
<td></td>
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<tr>
<td>LNAV/ VNAV DA</td>
<td>635-1½ 406 (500-1½)</td>
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<tr>
<td>LNAV MDA</td>
<td>620-1 391 (400-1)</td>
<td>620-1½ 391 (400-1½)</td>
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</table>
Rwy 35 helicopter visibility reduction below ¾ SM NA. Baro-VNAV NA. When local altimeter setting not received, use Brenham altimeter setting. VDF NA when using Brenham altimeter setting.

MISSED APPROACH: Climb to 3000 direct HOXID and hold.

RADAR REQUIRED
RNAV (GPS) RWY 22
ORANGE COUNTY (ORG)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Jack Brooks Rgnl altimeter setting and increase all DA 32 feet and all MDA 40 feet, increase LPV and LNAV/VNAV all Cats visibility ½ mile, and LNAV and Circling Cat C visibility ⅛ mile. Baro-VNAV and VDP NA when using Jack Brooks Rgnl altimeter setting.

Circling NA to Rwy 13/31.

AWOS-3 118.975
HOUSTON APP CON 121.3 377.1
UNICOM 122.8 (CTAF) 0

RADAR REQUIRED
ELEV 13 TDZE 13

MISSED APPROACH: Climb to 2000 direct KEDKY and left turn via track 116° to POPEY and hold.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Jack Brooks Rgnl altimeter setting and increase all DA 32 feet and all MDA 40 feet, increase LPV and LNAV/VNAV all Cats visibility ½ mile, and LNAV and Circling Cat C visibility ⅛ mile. Baro-VNAV and VDP NA when using Jack Brooks Rgnl altimeter setting.

Circling NA to Rwy 13/31.

AWOS-3 118.975
HOUSTON APP CON 121.3 377.1
UNICOM 122.8 (CTAF) 0

RADAR REQUIRED
ELEV 13 TDZE 13

MISSED APPROACH: Climb to 2000 direct KEDKY and left turn via track 116° to POPEY and hold.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Jack Brooks Rgnl altimeter setting and increase all DA 32 feet and all MDA 40 feet, increase LPV and LNAV/VNAV all Cats visibility ½ mile, and LNAV and Circling Cat C visibility ⅛ mile. Baro-VNAV and VDP NA when using Jack Brooks Rgnl altimeter setting.

Circling NA to Rwy 13/31.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C. When local altimeter setting not received, use Port Lavaca altimeter setting: Increase DA to 319 feet and visibility all Cats ½ SM; increase all MDA 60 feet and LNAV Cat C/D and Circling Cat C/D visibility ½ SM. Baro-VNAV and VDP NA when using Port Lavaca altimeter setting. Rwy 13 helicopter visibility reduction below ¾ SM NA. Circling Rwy 8, 18, 26, 31, 36 NA at right.

MISSED APPROACH: Climb to 500 then climbing right turn to 2100 direct NAPTE and hold.

**Notes:**
- For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C.
- When local altimeter setting not received, use Port Lavaca altimeter setting: Increase DA to 319 feet and visibility all Cats ½ SM; increase all MDA 60 feet and LNAV Cat C/D and Circling Cat C/D visibility ½ SM. Baro-VNAV and VDP NA when using Port Lavaca altimeter setting. Rwy 13 helicopter visibility reduction below ¾ SM NA. Circling Rwy 8, 18, 26, 31, 36 NA at right.

**Category:**
- **A:** LPV DA
- **B:** LNAV/ VNAV DA
- **C:** LNAV MDA
- **D:** Circling

**MISSED APPROACH:**
Climb to 500 then climbing right turn to 2100 direct NAPTE and hold.
When local altimeter setting not received, use Port Lavaca altimeter setting:
increase all MDAs 60 feet and S-13 Cat C/D and Circling Cat C/D visibility 1/4 SM. Rwy 13 helicopter visibility reduction below 1/4 SM NA.
Circling Rwy 8, 18, 26, 31, 36 NA at night.

MISSED APPROACH: Climbing right turn to 2000 direct PSX VORTAC and hold.

ASOS 118.025
HOUSTON CENTER 135.05 353.6
UNICOM 122.8 (CTAF)

VOR RWY 13
PALACIOS MUNI (PSX)

PALACIOS, TEXAS
AL-309 (FAA)

TDZE 13
ELEV 14

PALACIOS, TEXAS
Amdt 10H 10AUG23

28°44'N-96°15'W
615
RNP APCH-GPS

VDP NA with C David Campbell Fld-Corsicana Muni altimeter setting. Circling to Rwy 9-27, NA at night. When local altimeter setting not received, use Corsicana altimeter setting and increase all MDAs 100 feet and visibility Cat C ½ SM.

MISSED APPROACH: Climb to 3000 direct FERES and hold.

AWOS-3PT 118.025
FORT WORTH CENTER 135.25 265.1
UNICOM 122.7 (CTAF)

PALESTINE, TEXAS
AL-871 (FAA)

RNP APCH-GPS

Δ

VDP NA with C David Campbell Fld-Corsicana Muni altimeter setting. Circling to Rwy 9-27, NA at night. When local altimeter setting not received, use Corsicana altimeter setting and increase all MDAs 100 feet and visibility Cat C ½ SM.

MISSED APPROACH: Climb to 3000 direct FERES and hold.

AWOS-3PT 118.025
FORT WORTH CENTER 135.25 265.1
UNICOM 122.7 (CTAF)

PALESTINE, TEXAS
AL-871 (FAA)

RNP APCH-GPS

Δ

VDP NA with C David Campbell Fld-Corsicana Muni altimeter setting. Circling to Rwy 9-27, NA at night. When local altimeter setting not received, use Corsicana altimeter setting and increase all MDAs 100 feet and visibility Cat C ½ SM.

MISSED APPROACH: Climb to 3000 direct FERES and hold.

AWOS-3PT 118.025
FORT WORTH CENTER 135.25 265.1
UNICOM 122.7 (CTAF)
RNAV (GPS) RWY 36
PALESTINE MUNI (PSN)

**AWOS-3PT**

- **UNICOM**
- **FORT WORTH CENTER**
- **118.025**
- **135.25**
- **265.1**
- **122.7** (CTAF)

**RNP APCH-GPS**

- **APP CRS 357°**
- **TDZE 415**
- **Apt Elev 423**
- **UNICOM 122.7 (CTAF)**
- **MISSED APPROACH:** Climb to 2500 direct CERBU WP and hold.

** CATEGORY**

- **A**
- **B**
- **C**
- **D**

<table>
<thead>
<tr>
<th>LNAV MDA</th>
<th>CIRCLING</th>
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<tbody>
<tr>
<td>RW36 820-1</td>
<td>960-1</td>
</tr>
<tr>
<td>RW36 405 (400-1)</td>
<td>537 (600-1)</td>
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<tr>
<td>RW36 820-1½</td>
<td>1040-1</td>
</tr>
<tr>
<td>RW36 405 (400-1½)</td>
<td>617 (700-1)</td>
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<tr>
<td>RW36 1360-2½</td>
<td>937 (1000-2½)</td>
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<tr>
<td>RW36 360-3</td>
<td>937 (1000-3)</td>
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</table>

**VDP NA** with C David Campbell Fld-Corsicana Muni altimeter setting. When local altimeter setting not received, use Corsicana altimeter setting and increase all MDAs 100 feet and visibility LNAV Cat C/D ½ SM and Circling Cat C ¼ SM. Circling RW9, 27 NA at night.

**SC-5, 11 JUL 2024 to 05 SEP 2024**
MISSING APPROACH: Climbing right turn to 2500 direct FZT VOR/DME and hold.

Rwy 18 helicopter visibility reduction below ¾ SM NA.

DME required.
RNAV (GPS) RWY 14
CALHOUN COUNTY (PKV)

AWOS-3 118.275
HOUSTON CENTER 135.05 353.6
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climb to 2200 direct TOVEE and hold.

Climb to 2200 direct TOVEE and hold.

RNP APCH - GPS.

Baro-VNAV and VDP NA when using Victoria altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C. When local altimeter setting not received, use Victoria altimeter setting and increase LPV DA and LNAV/VNAV DA to 331 feet and all visibilities 1⁄8 SM; increase all MDA's 60 feet and LNAV visibility Cat C 1⁄8 SM. Circling Rwy 32 NA at night. Circling NA to Rwys 5 and 23.

AWOS-3 118.275
HOUSTON CENTER 135.05 353.6
UNICOM 122.8 (CTAF)

MISSED APPROACH: Climb to 2200 direct TOVEE and hold.

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RNP APCH - GPS.

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**When local altimeter setting not received, use Victoria altimeter setting and increase all MDAs 60 feet and LNAV visibility Cat C ¼ SM and LP visibility Cat C ⅓ SM. Rwy 32 helicopter visibility reduction below 1 SM NA. Straight-In Rwy 32 NA at night, Circling Rwy 32 NA at night.**

**MISSED APPROACH:**
Climb to 2200 direct VULCE and hold.

---

**AWOS-3**

118.275

**HOUSTON CENTER**

135.05 353.6

**UNICOM**

122.8 (CTAF)

---

**ELEV 32**

**TDZE 30**

---

**MIRL Rwy 14-32**

---
When local altimeter setting not received, use Victoria altimeter setting. Circling NA to Rwy 5 and 23. Night landing: Rwy 32 NA.

**Category**

<table>
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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>5.7 NM</td>
<td>5 NM</td>
<td>10 NM</td>
<td>NA</td>
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</table>

**Circling**

- 760-1
- 728 (800-1)
- 760-1½
- 728 (800-1½)
- 760-2
- 728 (800-2)
- NA

**Missed Approach:** Climb to 2100, then right turn via PSX VORTAC R-244 to CATOS/PSX 15 DME and hold.

**AWOS-3**

- 118.275

**HOUSTON CENTER**

- 135.05
- 353.6

**UNICOM**

- 122.8 (CTAF)

**PSX R-244**

- 117.3
- Chan 120

**PSX R-244 to CATOS/PSX 15 DME**

- Hold
For inop ALS, increase S-ILS 13 Cat E visibility to ¾ SM and S-LOC 13 Cat E visibility to 1 SM.
RNAV (GPS) RWY 13
VICTORIA RGNL (VCT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C or above 54°C. For inop ALS, increase LPV Cat E and LNAV/VNAV all Cats visibility to 1/4 SM and LNAV Cat E visibility to 1 SM.

HOLD 6000
2200

GP 3.00°
TCH 53

CATEGORY
LPV DA
LNAV/ VNAV DA
LNAV MDA
CIRCLING

A
B
C
D
E

315-1/2
200 (200-1/2)
365-1/2
250 (300-1/2)
440-1/2
325 (400-1/2)
580-1
465 (500-1)
820-2
705 (800-2)
880-2 1/2
765 (800-2 1/2)

MISSED APPROACH:
Climb to 2200 direct SEYOG and hold.

VICTORIA, TEXAS
Orig-A 27JAN22

28°51’N-96°55’W
623
For inop ALS, increase Cat C/D/E visibility to 1 3/4 SM.

MISSED APPROACH: Climbing left turn to 2200 direct VCT VOR/DME and hold, continue climb-in-hold to 2200.

Procedure NA for arrival on PSX VORTAC airway radials 218 CW 233.
**VOR RWY 31**

**VICTORIA RGNL (VCT)**

**ATIS**

<table>
<thead>
<tr>
<th>Houston Center</th>
<th>Victoria Tower</th>
<th>Gnd Con</th>
<th>Unicom</th>
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<tr>
<td>135.05 353.6</td>
<td>126.075 (CTAF)</td>
<td>120.525 239.25</td>
<td>122.7</td>
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</tbody>
</table>

**Area Navigation**

- R-327 12°
- R-327 30.7°
- 347°

**MAGNETIC VOR**

- VOR IDG 106
- Apt Elev 115

**Procedures**

- **1800 NoPT to RADOY**
  - 287° hdg (4.9)
  - 307° (5.4)

**VICTORIA, TEXAS**

**LAT/LONG**

- 28°51'N - 96°55'W

**Category**

<table>
<thead>
<tr>
<th>Category</th>
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<th>C</th>
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<td>S-31</td>
<td>540-1</td>
<td>434 (500-1)</td>
<td>540-1 ¼</td>
<td>434 (500-1)</td>
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<tr>
<td>C Circling</td>
<td>580-1</td>
<td>465 (500-1)</td>
<td>820-2</td>
<td>705 (800-2)</td>
<td>765 (800-2 ¼)</td>
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</table>
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
MISSED APPROACH: Climb to 2000 direct GOGOZ and hold.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C or above 54°C.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
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<th>C</th>
<th>D</th>
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<td>LNAV/ VNAV DA</td>
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<td>328 (400-1¼)</td>
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<tr>
<td>LNAV MDA</td>
<td>420-1</td>
<td>320 (400-1)</td>
<td>NA</td>
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</table>

WHARTON, TEXAS
Orig-B 07NOV19

29°15'N-96°09'W
**NOTE:** Radar required.

**NOTE:** DME/DME/IRU or GPS required.

**NOTE:** RNAV 1.

**TAKEROFF MINIMUMS**

Rwy 14, 32: Standard with minimum climb of 500’ per NM to 600.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEROFF RUNWAY 14:** Climb on heading 148° or as assigned by ATC for RADAR vectors to DREMR, thence . . . .

**TAKEROFF RUNWAY 32:** Climb on heading 328° or as assigned by ATC for RADAR vectors to DREMR, thence . . . .

...on track 345° to LITLD, then on track 346° to BLTWY, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**CRIED TRANSITION (BLTWY7.CRIED)**

**NOTE:** Chart not to scale.
INDIE EIGHT DEPARTURE (RNAV)

**TAKEOFF MINIMUMS**
Rwys 14, 32: Standard with minimum climb of 500' per NM to 600.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 14:** Climb on heading 148° to 600 for RADAR vectors to RENNK, thence . . . .

**TAKEOFF RUNWAY 32:** Climb on heading 328° to 600 for RADAR vectors to RENNK, thence . . . .

. . . . on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to WWELL, then on track 026° to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**TPAKK TRANSITION (INDIE8.TPAKK)**

NOTE: Chart not to scale.
**NOTE: Chart not to scale.**

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 14:** Climb on heading 148° to 600 for RADAR vectors to KNTKY, thence . . . .

**TAKEOFF RUNWAY 32:** Climb on heading 328° to 600 for RADAR vectors to KNTKY, thence . . . .

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 031° to VELCO, then on track 031° to ENJOY, then on track 031° to LURIC, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

**HAWES TRANSITION (LURIC8.HAWES)**

**ORRTH TRANSITION (LURIC8.ORRTH)**
NOTE: GUSTI and LCH Transitions ATC assigned only for aircraft departing AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, T00, T41 and T4T.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 148° to 600, for RADAR vectors to MMALT, thence . . .

TAKEOFF RUNWAY 32: Climb on heading 328° to 600, for RADAR vectors to MMALT, thence . . .

. . . . on track 086° to MOOKI, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GUSTI TRANSITION (MMALT7.GUSTI)
LAKE CHARLES TRANSITION (MMALT7.LCH)
WHITE LAKE TRANSITION (MMALT7.LLA)
TOP ALTITUDE: ASSIGNED BY ATC

NOTE: Chart not to scale.

TAKEOFF MINIMUMS
Rwys 14, 32: Standard with minimum climb of 500’ per NM to 600.

NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 148° to 600 for RADAR vectors to KNTKY, thence.

TAKEOFF RUNWAY 32: Climb on heading 328° to 600 for RADAR vectors to KNTKY, thence.

. . . . on track 032° to PEETY, then on track 032° to DARTR, then on track 031° to MUSIQ, then on track 031° to CLAVN, then on track 060° to STRYA, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DPATY TRANSITION (STRYA8.DPATY)
JBULL TRANSITION (STRYA8.JBULL)
**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 14: Climb on heading 148° to 600 for RADAR vectors to BBYSE, thence...

TAKEOFF RUNWAY 32: Climb on heading 328° to 600 for RADAR vectors to BBYSE, thence...

...on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)
WTSON TRANSITION (STYCK8.WTSON)
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwy 14, 32: Standard with minimum climb of 500' per NM to 600.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb on heading 148° to 600 for RADAR vectors to WYLSN, thence. . . .
TAKEOFF RUNWAY 32: Climb on heading 328° to 600 for RADAR vectors to WYLSN, thence. . . .

. . . on track 360° to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)
RNAV (GPS)-A

CHAMBERS COUNTY/WINNIE STOWELL (T90)

WINNIE/STOWELL, TEXAS

APP CRS
178°

Rwy 1dg
NA

TDZE
NA

Apt Elev
24

WINNIE/STOWELL, TEXAS
29°49'N-94°26'W

JOSHA

HOUSTON APP CON
121.3  377.1

CTAF
122.9

BMT AWOS-3PT
118.425

MISSED APPROACH: Climb to 900 then climbing left turn to 2500 direct JOSHA and hold.

Procedure NA at night. Rwy 17 and 35 helicopter visibility reduction below 1 SM NA. Use Beaumont altimeter setting; when not received, use Liberty altimeter setting and increase all MDAs 20 feet.

Use Liberty altimeter setting and increase all MDAs 20 feet below 1 SM NA. Use Beaumont altimeter setting; when not received,

Procedure NA at night. Rwy 17 and 35 helicopter visibility reduction below 1 SM NA. Use Beaumont altimeter setting; when not received, use Liberty altimeter setting and increase all MDAs 20 feet.

Use Liberty altimeter setting and increase all MDAs 20 feet below 1 SM NA. Use Beaumont altimeter setting; when not received,
INTENTIONALLY
LEFT
BLANK
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.

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<th>ft/NM</th>
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Including Puerto Rico and the Virgin Islands