

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

18032

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.

NAME TAKEOFF MINIMUMS

**ANAHUAC, TX**

CHAMBERS COUNTY (T00)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11069 (FAA)

TAKEOFF MINIMUMS: **Rwys 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. 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

AMD2 2 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.

NAME TAKEOFF MINIMUMS

**BAY CITY, TX**

BAY CITY RGNL (BYY)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMD1 1 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.

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## BAYTOWN, TX

BAYTOWN (HPY)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 300-1 or std. w/min. climb of 420' per NM to 300.

TAKEOFF OBSTACLE NOTES: **Rwy 14**, multiple trees, power poles, and houses beginning at DER, left and right of centerline, up to 60' AGL/89' MSL. Vehicle 187' from DER, 47' right of centerline, 15' AGL/44' MSL. Tower 4066' from DER, 1217' right of centerline, 156' AGL/180' MSL. **Rwy 32**, vehicle 53' from DER, 23' right of centerline, 15' AGL/49' MSL. Buildings beginning 104' from DER, left and right of centerline, up to 30' AGL/59' MSL. Trees beginning 116' from DER, left and right of centerline, up to 60' AGL/94' MSL.

## R W J AIRPARK (54T)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14149 (FAA)

TAKEOFF MINIMUMS: **Rwys 14, 32**, Standard-NA at night.

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 14**, vehicle on road beginning 10' from DER, crossing centerline, up to 15' AGL/44' MSL. Buildings beginning 35' from DER, left and right of centerline, up to 30' AGL/59' MSL. Trees beginning 30' from DER, crossing centerline, up to 100' AGL/129' MSL. Power lines beginning 341' from DER, crossing centerline, up to 32' AGL/61' 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 619' 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. **Rwy 32**, vehicle on road beginning 10' from DER, crossing centerline, up to 15' AGL/49' MSL. Fence beginning 30' from DER, crossing centerline, up to 6' AGL/40' MSL. Buildings beginning 29' from DER, 223' left of centerline, up to 30' AGL/64' MSL. Buildings beginning 31' from DER, 146' right of centerline, up to 30' AGL/64' MSL. Power lines beginning 259' from DER, 139' left of centerline, up to 32' AGL/66' MSL. Trees beginning 620' from DER, left and right of centerline, up to 100' AGL/139' MSL.

## BEAUMONT, TX

BEAUMONT MUNI (BMT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 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. Multiple trees, poles and signs beginning 441' from DER, 22' right of centerline, up to 73' AGL/105' MSL. Vehicle on road 152' from DER, 428' left of centerline, 15' AGL/46' 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 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. **Rwy 34**, building 770' from DER, 386' right of centerline, 28' AGL/38' 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 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. **Rwy 34**, trees beginning 18' from DER, 325' right of centerline to 380' left of centerline, up to 61' AGL/351' MSL.

## BRYAN, TX

COULTER FIELD (CFD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07186 (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.

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## CALDWELL, TX

CALDWELL MUNI (RWV)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 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 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 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 100' AGL/220' MSL. Vehicles on road 738' from DER, right and left of centerline, up to 19' AGL/169' MSL.

## COLLEGE STATION, TX

EASTERWOOD FIELD (CLL)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 18032 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 300 - 1/4 or std. w/min.  
climb of 243' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 34**, climb heading 346° to 900 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 4**, trees beginning 187' from DER, 424' right of centerline, up to 45' AGL/345' MSL. Trees beginning 411' from DER, 105' right of centerline, up to 350' MSL. Trees beginning 720' from DER, 389' left of centerline, up to 340' MSL. Tree 766' from DER, 121' left of centerline, 341' MSL. Tree 1094' from DER, 659' left of centerline, 346' MSL. Building 1.3 NM from DER, 210' left of centerline, 543' MSL. Building 1.3 NM from DER, 195' left of centerline, 547' MSL. Building, tower beginning 1.3 NM from DER, 256' left of centerline, up to 214' AGL/564' MSL. Pole 1.4 NM from DER, 9' right of centerline, 545' MSL. Pole 1.4 NM from DER, 365' left of centerline, 545' MSL. **Rwy 10**, 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. **Rwy 22**, trees beginning 108' from DER, 288' right of centerline, up to 341' MSL. Trees beginning 124' from DER, 9' left of centerline, up to 341' MSL. **Rwy 28**, pole 11' from DER, 55' right of centerline, 1' AGL/320' MSL. Tree 30' from DER, 414' left of centerline, 322' MSL. Tree 135' from DER, 530' left of centerline, 343' MSL. Trees beginning 305' from DER, 533' left of centerline, up to 361' MSL. Trees beginning 536' from DER, 561' right of centerline, up to 346' MSL. Tree 838' from DER, 665' right of centerline, 348' MSL. Trees beginning 1010' from DER, 371' left of centerline, up to 362' MSL. Pole beginning 1083' from DER, 692' right of centerline, up to 358' MSL. Trees beginning 1174' from DER, 244' left of centerline, up to 363' MSL. Tree, pole beginning 1257' from DER, 251' left of centerline, up to 365' MSL. Trees beginning 1429' from DER, 420' right of centerline, up to 366' MSL. Trees beginning 1542' from DER, 528' right of centerline, up to 370' MSL. Pole beginning 1735' from DER, 278' left of centerline, up to 42' AGL/367' MSL. Trees beginning 1865' from DER, 87' right of centerline, up to 379' MSL. Tree, pole beginning 1879' from DER, 37' left of centerline, up to 49' AGL/369' MSL. Trees beginning 1945' from DER, 65' left of centerline, up to 48' AGL/371' MSL. Tree 2059' from DER, 378' left of centerline, 372' MSL. **Rwy 34**, pole 11' from DER, 55' left of centerline, 1' AGL/321' MSL. Sign 23' from DER, 251' left of centerline, 322' MSL. Tree 232' from DER, 552' left of centerline, 38' AGL/361' MSL. Trees beginning 297' from DER, 460' left of centerline, up to 41' AGL/364' MSL. Tree 774' from DER, 598' right of centerline, 341' MSL. Tree 808' from DER, 607' right of centerline, 349' MSL. Tree, building beginning 883' from DER, 235' left of centerline, up to 366' MSL. Tree 1085' from DER, 649' right of centerline, 355' MSL. Tree 1181' from DER, 719' right of centerline, 356' MSL. Pole 1552' from DER, 818' left of centerline, 376' MSL. Trees beginning 1740' from DER, 751' left of centerline, up to 380' MSL.

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## CROCKETT, TX

HOUSTON COUNTY (DKR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 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. w/min. 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.

## EAGLE LAKE, TX

EAGLE LAKE (ELA)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 04330 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 200-1, or std. with a min. climb of 420' per NM to 500.  
TAKEOFF OBSTACLE NOTES: **Rwy 17**, tower 3068' from DER, 793' left of centerline, 192' AGL/317' MSL.

## EDNA, TX

JACKSON COUNTY (26R)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 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 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. Trees and poles beginning 50' from DER, 75' right of centerline, up to 60' AGL/65' MSL. **Rwy 32**, crane 4434' from DER, 1081' left of centerline, 131' AGL/131' MSL. **Rwy 36**, bush 419' from DER, 577' left of centerline, 12' AGL/17' 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 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.

## HOUSTON, TX

CONROE-NORTH HOUSTON RGNL (CXO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 17173 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 01**, tree 829' from DER, 548' right of centerline, 297' MSL. Tree 1252' from DER, 553' right of centerline, 312' MSL. Trees beginning 1609' from DER, 300' left of centerline, up to 322' MSL. Trees beginning 3635' from DER, 464' left of centerline, up to 327' MSL. Tree 3830' from DER, 580' right of centerline, 347' MSL. Tree 4658' from DER, 135' right of centerline, 348' MSL. **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. Tree 2129' from DER, 80' right of centerline, 306' MSL. Tree 2153' from DER, 407' left of centerline, 300' MSL. **Rwy 19**, tree 1' from DER, 474' left of centerline, 292' MSL. Trees beginning 16' from DER, 264' left of centerline, up to 295' MSL. Tree 67' from DER, 322' right of centerline, 263' MSL. Trees beginning 855' from DER, 324' right of centerline, up to 303' MSL. Trees beginning 2139' from DER, 65' right of centerline, up to 316' MSL. Trees beginning 2365' from DER, 331' left of centerline, up to 312' MSL. Trees beginning 2475' from DER, 158' left of centerline, up to 315' MSL. Tree 3423' from DER, 123' right of centerline, 323' MSL.

DAVID WAYNE HOOKS MEMORIAL (DWH)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 08157 (FAA)

TAKEOFF MINIMUMS: **Rwys 17L, 35R**, NA-Environmental. **Waterways 17, 35**, NA - air traffic.  
TAKEOFF OBSTACLE NOTES: **Rwy 17R**, multiple trees beginning 708' from DER, 68' left of centerline, up to 71' AGL/220' MSL. Multiple hangars beginning 433' from DER, 515' left of centerline, up to 37' AGL/182' MSL. DME antenna 653' from DER, 256' left of centerline, 13' AGL/162' MSL. Multiple trees and pole beginning 85' from DER, 294' right of centerline, up to 45' AGL/189' MSL. **Rwy 35L**, multiple trees and poles beginning 144' from DER, 32' left of centerline, up to 79' AGL/238' MSL. Multiple hangars and buildings beginning 85' from DER, 9' left of centerline, up to 53' AGL/202' MSL. Multiple trees, towers and pole beginning 100' from DER, 124' right of centerline, up to 93' AGL/247' MSL. Vehicle and road 315' from DER, on centerline 15' AGL/166' MSL. Building 894' from DER, 231' right of centerline, 23' AGL/173' MSL.

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## HOUSTON, TX (CON'T)

ELLINGTON (EFD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 13010 (FAA)

TAKEOFF MINIMUMS: **Rwy 22**, 200-1¼ or std w/min. 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 OBSTACLE NOTES: **Rwy 4**, tree 1526' from DER, 737' right of centerline, 39' AGL/69' MSL. **Rwy 17R**, pole 1488' from DER, 817' right of centerline, 40' AGL/74' MSL. **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, 1635' right of centerline, 159' AGL/192' MSL. **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.

## GEORGE BUSH INTERCONTINENTAL/ HOUSTON (IAH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 08157 (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 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. Antenna on glideslope 1469' from DER, 621' left of centerline, 49' AGL/133' MSL. **Rwy 26R**, 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.

## HOUSTON EXECUTIVE (TME)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 07242 (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, TX (CON'T)

HOUSTON-SOUTHWEST (AXH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 08157 (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.

## PEARLAND RGNL (LVJ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 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. Trees beginning 199' from DER, 307' right of centerline, up to 64' AGL/98' MSL. Vehicles on road beginning 364' from DER, left and right of centerline, up to 15' AGL/59' MSL. Trees beginning 618' from DER, 331' left of centerline, up to 32' AGL/71' MSL. Trees beginning 983' from DER, 94' right of centerline, up to 20' AGL/90' MSL. Trees beginning 1251' from DER, 72' left of centerline, up to 60' AGL/94' MSL. **Rwy 32**, multiple trees beginning 30' from DER, 142' right of centerline, up to 59' AGL/100' MSL. Multiple trees beginning 41' from DER, 200' left of centerline, up to 74' AGL/118' MSL. Pole 68' from DER, 107' 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.

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## HOUSTON, TX (CON'T)

SUGAR LAND RGNL (SGR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 7A 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 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, 398' 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, 26' left of centerline, up to 58' AGL/165' MSL. Trees beginning 130' from DER, 117' 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.

## HOUSTON, TX (CON'T)

WILLIAM P. HOBBY (HOU)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6B 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 300-1 or std. w/min. climb of 270' per NM to 300. **Rwy 17**, 300-1. **Rwy 22**, std. w/ min. climb of 290' per NM to 1500.

DEPARTURE PROCEDURE: **Rwy 17**, climb heading 176° to 700 before turning westbound. **Rwys 30L, 30R**, climb heading 311° to 800 before turning westbound.

TAKEOFF OBSTACLE NOTES: **Rwy 4**, pole 4403' from DER, 1609' right of centerline, 121' AGL/166' MSL. Light on building 1562' from DER, 859' right of centerline, 59' AGL/103' MSL. Building 3990' from DER, 1223' right of centerline, 139' AGL/174' MSL. Light on flagpole 4618' from DER, 768' right of centerline, 117' AGL/161' MSL. **Rwy 13L**, antenna on hanger 1548' from DER, 424' left of centerline, 45' AGL/85' MSL. **Rwy 13R**, vehicle and road 514' from DER, 543' right of centerline, 17' AGL/55' MSL. Tree 1217' from DER, 756' right of centerline, 43' AGL/89' MSL. Fence 85' from DER, 492' left of centerline, 4' AGL/45' MSL. Vehicle and road 176' from DER, 497' left of centerline, 17' AGL/55' MSL. Pole 1011' from DER, 696' left of centerline, 33' AGL/73' MSL. Tree 1256' from DER, 783' left of centerline, 38' AGL/78' MSL. **Rwy 17**, multiple poles beginning 606' from DER, 393' right of centerline, up to 79' AGL/124' MSL. Crane 1795' from DER, 689' right of centerline, 100' AGL/150' MSL. Ant on building 620' from DER, 312' left of centerline, 27' AGL/72' MSL. Multiple trees beginning 721' from DER, 260' left of centerline, up to 71' AGL/116' MSL. Radar fltr 1214' from DER, 258' left of centerline, 32' AGL/77' MSL. **Rwy 22**, pole 727' from DER, 626' right of centerline, 28' AGL/77' MSL. Tree 1310' from DER, 679' right of centerline, 27' AGL/76' MSL. Antenna on lt pole 1805' from DER, 968' right of centerline, 60' AGL/109' MSL. **Rwy 31L**, antenna on building 547' from DER, 274' right of centerline, 23' AGL/69' MSL. Multiple poles beginning 341' from DER, 501' left of centerline, up to 39' AGL/84' MSL. Multiple trees beginning 1392' from DER, 466' left of centerline, up to 78' AGL/118' MSL. **Rwy 31R**, pole 1096' from DER, 785' right of centerline, 29' AGL/75' MSL. Antenna on building 500' from DER, 525' left of centerline, 33' AGL/69' MSL. **Rwy 35**, antenna on lt pole 738' from DER, 519' right of centerline, 40' AGL/86' MSL. Lt pole 1119' from DER, 353' right of centerline, 31' AGL/77' MSL. Antenna on building 66' from DER, 471' left of centerline, 33' AGL/69' MSL.

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## HUNTSVILLE, TX

HUNTSVILLE MUNI (UTS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
DEPARTURE PROCEDURE: **Rwy 18**, climb runway  
heading to 700 before turning.

## JACKSONVILLE, TX

CHEROKEE COUNTY (JSO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 06047 (FAA)  
DEPARTURE PROCEDURE: **Rwy 14**, climb via  
heading 135° to 1200 before proceeding on course.

## JASPER, TX

JASPER COUNTY-BELL FIELD (JAS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09239 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 18**, trees  
beginning 2081' from DER, 118' left of centerline, up to  
100' AGL/327' MSL. Trees beginning 690' from DER,  
87' right of centerline, up to 100' 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 1968'  
from DER, 409' left of centerline, 33' AGL/262' MSL.  
Bush 94' from DER, 476' right of centerline, 8'  
AGL/217' MSL. Trees beginning 514' 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 FIELD (45R)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 08045 (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  
ORIG 08157 (FAA)  
TAKEOFF OBSTACLE NOTES: **Rwy 16**, tree 140' from  
DER, 276' right of centerline, 100' AGL/432' MSL. Tree  
612' from DER, 551' left of centerline, 100' AGL/422'  
MSL. Road with vehicle 942' from DER, 667' left of  
centerline, 15' AGL/350' MSL.

## LA PORTE, TX

LA PORTE MUNI (T41)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6 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, 446' 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.

## LIBERTY, TX

LIBERTY MUNI (T78)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 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.  
Trees and poles beginning 1166' from DER. 48' right of  
centerline, up to 85' AGL/155' 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.

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## LIVINGSTON, TX

LIVINGSTON MUNI (00R)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 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. Trees beginning 260' from DER, 304' right of centerline, up to 100' AGL/249' MSL.

## LUFKIN, TX

ANGELINA COUNTY (LFK)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 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. Trees beginning 467' from DER, 452' right of centerline, up to 365' MSL. Trees beginning 513' from DER, 302' left of centerline, up to 381' MSL. Tree 1470' from DER, 328' right of centerline, 366' MSL. Trees beginning 1477' from DER, 483' right of centerline, up to 367' MSL. Trees beginning 1599' from DER, 36' left of centerline, up to 387' MSL. Trees beginning 1618' from DER, 274' right of centerline, up to 369' MSL. Trees beginning 1636' from DER, 42' right of centerline, up to 376' MSL. Trees beginning 1977' from DER, 44' right of centerline, up to 379' MSL. Trees beginning 3207' from DER, 1351' left of centerline, up to 391' MSL. Tree 3787' from DER, 965' left of centerline, 395' MSL. Trees beginning 3798' from DER, 1035' left of centerline, up to 403' MSL. **Rwy 16**, trees beginning 6' from DER, 384' left of centerline, up to 56' AGL/324' MSL. Tree 138' from DER, 529' right of centerline, 284' MSL. Trees beginning 184' from DER, 3' left of centerline, up to 79' AGL/344' MSL. Tree 260' from DER, 229' right of centerline, 289' MSL. Tree, rd (n) beginning 264' from DER, 164' right of centerline, up to 320' 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 2612' from DER, 448' right of centerline, 90' AGL/342' 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 1375' from DER, 605' left of centerline, up to 328' MSL. Tree 1627' from DER, 629' left of centerline, 330' MSL. Tree 2655' from DER, 144' left of centerline, 353' MSL. Tree 3109' from DER, 417' right of centerline, 362' MSL. **Rwy 34**, sign 20' from DER, 200' left of centerline, 1' AGL/290' MSL. Ldg 48' from DER, 457' right of centerline, 303' MSL. Tree 95' from DER, 328' right of centerline, 330' MSL. Trees beginning 166' from DER, 314' right of centerline, up to 54' AGL/338' MSL. Pole and trees beginning 344' from DER, 310' right of centerline, up to 346' MSL. Vehicles on road 571' from DER, 3' left of centerline, 312' MSL. Vehicle on road beginning 579' from DER, 75' right of centerline, up to 306' MSL. Trees beginning 602' from DER, 166' left of centerline, up to 367' MSL. Trees beginning 620' from DER, 446' right of centerline, up to 354' 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.

## MADISONVILLE, TX

MADISONVILLE MUNI (51R)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 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 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/415' MSL. **Rwy 35**, trees 225' from DER, 232' right of centerline, up to 50' AGL/469' 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 11125 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, 300-2¼ or std. w/min. climb of 212' per NM to 1000, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to 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/619' MSL. **Rwy 36**, trees beginning 179' from DER, 382' right of centerline, up to 80' AGL/619' MSL. Trees beginning 391' from DER, 315' left of centerline, up to 80' AGL/629' MSL.

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

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## NACOGDOCHES, TX

A L MANGHAM JR RGNL (OCH)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 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 84033 (FAA)

DEPARTURE PROCEDURE: **Rwy 35**, climb runway heading to 2100 before turning eastbound.

## ORANGE, TX

ORANGE COUNTY (ORG)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 400-1¼ 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 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 2 04274 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, std. with a min. climb of 313' per NM to 1200, or 600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 9**, for climb in visual conditions: cross Palestine Municipal Airport at or above 1200.

TAKEOFF OBSTACLE NOTES: **Rwy 9**, multiple trees and terrain beginning 1.5 NM from DER, 2404' left of centerline, up to 100' AGL/739' MSL. Terrain 1.6 NM from DER, 1545' right of centerline, 601' MSL.

## VICTORIA, TX

VICTORIA RGNL (VCT)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 12152 (FAA)

TAKEOFF MINIMUMS: **Rwys 6, 24**, NA - environmental. TAKEOFF OBSTACLE NOTES: **Rwy 13R**, poles, railroad, and tower beginning 796' from DER, 61' right of centerline, up to 59' AGL/161' MSL. Hopper and tank beginning 1124' from DER, 407' left of centerline, up to 32' AGL/134' MSL. **Rwy 18**, DME on building 588' from DER, 414' left centerline, 15' AGL/118' MSL. **Rwy 36**, bush 104' from DER, 165' right of centerline, 10' AGL/116' MSL.

## WHARTON, TX

WHARTON RGNL (ARM)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 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 24' from DER, 288' left of centerline, 4' AGL/103' MSL. Tree 1147' from DER, 425' left of centerline, 41' AGL/140' MSL.

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

18032

SC-5

## INSTRUMENT APPROACH PROCEDURE CHARTS

**A IFR ALTERNATE AIRPORT MINIMUMS**

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

NAME ALTERNATE MINIMUMS

**ANGLETON/LAKE JACKSON, TX**

TEXAS GULF

COAST RGNL (LBX).....**ILS or LOC Rwy 17**  
**RNAV (GPS) Rwy 17**  
**RNAV (GPS) Rwy 35**

NA when local weather not available.

**BAY CITY, TX**

BAY CITY

RGNL (BYY).....**RNAV (GPS) Rwy 13<sup>1</sup>**  
**RNAV (GPS) Rwy 31<sup>1</sup>**  
**VOR-A<sup>2</sup>**

<sup>1</sup>NA when local weather not available.<sup>2</sup>Categories A, B, 1100-2; Category C, 1100-3.**BEAUMONT, TX**

BEAUMONT

MUNI (BMT).....**RNAV (GPS) Rwy 13**  
 Category D, 800-2½;

**BEAUMONT/PORT ARTHUR, TX**

JACK BROOKS

RGNL (BPT).....**ILS or LOC Rwy 12<sup>12</sup>**  
**RNAV (GPS) Rwy 12<sup>3</sup>**  
**RNAV (GPS) Rwy 16<sup>3</sup>**  
**RNAV (GPS) Rwy 30<sup>3</sup>**  
**RNAV (GPS) Rwy 34<sup>3</sup>**  
**VOR/DME Rwy 34<sup>3</sup>**  
**VOR Rwy 12<sup>3</sup>**

NA when local weather not available.

<sup>1</sup>ILS, LOC, Categories A, B, 900-2; Category C, D, 900-2½; Category E, 900-2¼.<sup>2</sup>NA when control tower closed.<sup>3</sup>Category E, 900-2¼.**BRENHAM, TX**

BRENHAM

MUNI (11R).....**RNAV (GPS) Rwy 16**  
**RNAV (GPS) Rwy 34**

NA when local weather not available.

Category D, 800-2¼.

NAME ALTERNATE MINIMUMS

**CALDWELL, TX**

CALDWELL

MUNI (RWV).....**RNAV (GPS) Rwy 15**  
**RNAV (GPS) Rwy 33**  
**VOR/DME-A**

NA when local weather not available.

**CLEVELAND, TX**

CLEVELAND

MUNI (6R3).....**RNAV (GPS) Rwy 16**  
 NA when local weather not available.

**COLLEGE STATION, TX**

EASTERWOOD

FIELD (CLL).....**ILS or LOC Rwy 34<sup>12</sup>**  
**LOC BC Rwy 16<sup>15</sup>**  
**RNAV (GPS) Rwy 10<sup>45</sup>**  
**RNAV (GPS) Rwy 16<sup>45</sup>**  
**RNAV (GPS) Rwy 28<sup>45</sup>**  
**RNAV (GPS) Rwy 34<sup>4</sup>**  
**VOR Rwy 28<sup>6</sup>**  
**VOR or TACAN Rwy 10<sup>45</sup>**

<sup>1</sup>NA when control tower closed.<sup>2</sup>ILS, Category C, 700-2; Category D, 900-2¼;

Category E, 900-3. LOC, Category D, 900-2¼; Category E, 900-3.

<sup>3</sup>LOC, Category D, 900-2¼; Category E, 900-3.<sup>4</sup>NA when local weather not available.<sup>5</sup>Category D, 900-2¼; Category E, 900-3.<sup>6</sup>Category D, 900-2¼;**CROCKETT, TX**

HOUSTON

COUNTY (DKR).....**RNAV (GPS) Rwy 2**  
**RNAV (GPS) Rwy 20**

NA when local weather not available.

**GALVESTON, TX**

SCHOLES INTL

AT GALVESTON (GLS).....**RNAV (GPS) Rwy 14**  
**RNAV (GPS) Rwy 18**  
**RNAV (GPS) Rwy 32**  
**RNAV (GPS) Rwy 36**

Category E 800-2¼.

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NAME ALTERNATE MINIMUMS

**GIDDINGS, TX**

GIDDINGS-  
LEE COUNTY (GYB).....RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35  
NA when local weather not available.

**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).....NDB Rwy 14  
RNAV (GPS) Rwy 1  
RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 19  
RNAV (GPS) Rwy 32  
Category D, 800-2¼.

DAVID WAYNE HOOKS

MEMORIAL (DWH).....RNAV (GPS) Rwy 17R  
RNAV (GPS) Rwy 35L  
NA when local weather not available.

ELLINGTON (EFD).....

ILS or LOC Rwy 17R<sup>1</sup>  
ILS or LOC Rwy 22<sup>2</sup>  
ILS or LOC Rwy 35L<sup>3</sup>  
RNAV (GPS) Rwy 4<sup>4</sup>  
RNAV (GPS) Rwy 17R<sup>4</sup>  
RNAV (GPS) Rwy 22<sup>4</sup>  
RNAV (GPS) Rwy 35L<sup>4</sup>

<sup>1</sup>Categories A, B, 1100-2, Categories C, D, E, 1100-3.

<sup>2</sup>LOC, Category E, 800-2¼.

<sup>3</sup>ILS, Category E, 700-2¼. LOC, Category E, 800-2¼.

<sup>4</sup>Category E, 800-2¼.

GEORGE BUSH INTERCONTINENTAL/

HOUSTON (IAH).....ILS or LOC Rwy 8R<sup>1</sup>  
ILS or LOC Rwy 26L<sup>2</sup>

<sup>1</sup>ILS, LOC, Categories A, B, 900-2; Categories C, D, E, 900-2½.

<sup>2</sup>ILS, Categories A, B, 800-2; Categories C, D, E, 800-2½; LOC, Categories C, D, E, 800-2½.

PEARLAND RGNL (LVJ).....RNAV (GPS) Rwy 32  
VOR-B

NA when local weather not available.

NAME ALTERNATE MINIMUMS

**HOUSTON, TX (CON'T)**

SUGAR LAND  
RGNL (SGR).....ILS or LOC Rwy 35<sup>12</sup>  
RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35  
VOR/DME-A

NA when local weather not available.

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

<sup>2</sup>ILS, Categories A, B, C, D, 700-2.

WILLIAM P

HOBBY (HOU).....ILS or LOC Rwy 4<sup>2</sup>  
ILS or LOC Rwy 13R<sup>4</sup>  
ILS or LOC Rwy 31L<sup>5</sup>  
LOC Rwy 22<sup>1</sup>  
RNAV (GPS) Rwy 4<sup>3</sup>  
RNAV (GPS) Rwy 13R<sup>3</sup>  
RNAV (GPS) Rwy 22<sup>1</sup>  
RNAV (GPS) Rwy 31L<sup>6</sup>

<sup>1</sup>Category E, 900-3.

<sup>2</sup>ILS, Category D, 700-2¼; Category E, 900-3.

LOC, Category D, 800-2¼; Category E, 900-3.

<sup>3</sup>Categories C, D, 800-2¼; Category E, 900-3.

<sup>4</sup>ILS, Categories C, D, 700-2¼; Category E, 900-3.  
LOC, Categories C, D, 800-2¼; Category E, 900-3.

<sup>5</sup>ILS, Categories C, D, 700-2¼. LOC, Categories C, D, 800-2¼.

<sup>6</sup>Categories C, D, 800-2¼;

**HUNTSVILLE, TX**

HUNTSVILLE  
MUNI (UTS).....RNAV (GPS) Rwy 18  
VOR/DME-A

NA when local weather not available.

**JACKSONVILLE, TX**

CHEROKEE  
COUNTY (JSO).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32  
VOR /DME Rwy 14

NA when local weather not available.

**JASPER, TX**

JASPER COUNTY-  
BELL FIELD (JAS).....RNAV (GPS) Rwy 18  
RNAV (GPS) Rwy 36

NA when local weather not available.

**LA GRANGE, TX**

FAYETTE RGNL  
AIR CENTER (3T5).....RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34

NA when local weather not available.

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NAME ALTERNATE MINIMUMS NAME ALTERNATE

**LUFKIN, TX**

ANGELINA  
COUNTY (LFK).....RNAV (GPS) Rwy 7  
RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 25  
RNAV (GPS) Rwy 34  
VOR Rwy 16  
VOR Rwy 34

Category D, 900-2¾.

**NACOGDOCHES, TX**

NACOGDOCHES A L MANGHAM JR  
RGNL (OCH).....RNAV (GPS) Rwy 18  
RNAV (GPS) Rwy 36

NA when local weather not available.

**ORANGE, TX**

ORANGE  
COUNTY (ORG).....RNAV (GPS) Rwy 22  
VOR/DME Rwy 22

NA when local weather not available.

**PALACIOS, TX**

PALACIOS  
MUNI (PSX).....RNAV (GPS) Rwy 13  
NA when local weather not available.

**PALESTINE, TX**

PALESTINE  
MUNI (PSN).....RNAV (GPS) Rwy 18  
RNAV (GPS) Rwy 36

NA when local weather not available.

**PORT LAVACA, TX**

CALHOUN  
COUNTY (PKV).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32

NA when local weather not available.

**VICTORIA, TX**

VICTORIA  
RGNL (VCT).....RNAV (GPS) Rwy 13L  
RNAV (GPS) Rwy 31R  
VOR Rwy 13L  
VOR/DME Rwy 31R

NA when local weather not available.

**WHARTON, TX**

WHARTON  
RGNL (ARM).....VOR/DME-A

NA when local weather not available.

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