

## V DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 for RADAR vectors to DREMR, thence . . . . TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 for RADAR vectors to DREMR, thence
...on track $345^{\circ}$ to LITLD, then on track $346^{\circ}$ to BLTWY, then on (transition). Maintain ATC assigned
 altitude. Expect filed altitude 10 minutes after departure.

## CRIED TRANSITION (BLTWY7.CRIED)



$\nabla$ DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 , for RADAR vectors to BORRN, thence. . . .
TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 , for RADAR vectors to BORRN, thence. . . .
. . . . on track $267^{\circ}$ 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)
† ZOZ ४
(


TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 for RADAR vectors to RENNK, thence
TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 for RADAR vectors to RENNK, thence
. . . . on track $016^{\circ}$ to COLET, then on track $025^{\circ}$ to SUSHI, then on track $026^{\circ}$ to WWELL, then on track $026^{\circ}$ to INDIE, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

## TPAKK TRANSITION (INDIE8.TPAKK)

† ZOZ ४

$\nabla$
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 , for RADAR vectors to KARRR, thence.
TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 , for RADAR vectors to KARRR, thence. . . .
. . . . on track $218^{\circ}$ 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)
CTAF
122.7
HOUSTON DEP CON
134.45 284.0


†ZOZ Y


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)




DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 , for RADAR vectors to WATFO, thence. . . TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 , for RADAR vectors to WATFO, thence.
. . . . on track $141^{\circ}$ 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)


TAKEOFF RUNWAY 8: Climb on heading $084^{\circ}$ to 540 for RADAR vectors to WYLSN, thence. . . .
TAKEOFF RUNWAY 26: Climb on heading $264^{\circ}$ to 540 for RADAR vectors to WYLSN, thence. . . .
. . . . on track $360^{\circ}$ to MONNT, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

GIFFA TRANSITION (WYLSN8.GIFFA)
MAJKK TRANSITION (WYLSN8.MAJKK)

| APP CRS | Rwy Idg | N/A |
| :---: | :--- | ---: |
|  | TDZE | N/A |
|  | Apt Elev | $\mathbf{3 3}$ |

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

# चIFR TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES 

Civil Airports and Selected Military Airports


#### Abstract

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 FR 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（TO0） | $\sim$ |
| TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES | $\sim$ |
| ORIG 10MAR11（11069）（FAA） | $\sim$ |
| TAKEOFF MINIMUMS： | $\sim$ |
| Rwys 17，35，NA－Environmental． | $\sim$ |
| TAKEOFF | $\sim$ |

TAKEOFF＇
Rwy 12，vehicles on roadway beginning 19 ＇from DER，left and right of centerline，up to $15^{\prime}$ 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<br>TEXAS GULF COAST RGNL（LBX）<br>TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES<br>AMDT 2 22JUN17（17173）（FAA）<br>TAKEOFF OBSTACLE NOTES：<br>Rwy 35，tree 1330＇from DER，797＇left of centerline，71＇MSL．<br>Tree $1404^{\prime}$ from DER， $796^{\prime}$ left of centerline， $73^{\prime}$ MSL．<br>Trees beginning 1467＇from DER， $788^{\prime}$ left of centerline，up to $75^{\prime}$ MSL．<br>Tree $14744^{\prime}$ from DER， $670^{\prime}$＇right of centerline， $72^{\prime}$ MSL．<br>Tree $1516^{\prime}$ from DER， 684 ＇right of centerline， $73^{\prime}$ MSL．<br>Tree 1578 ＇from DER， $759^{\prime}$ right of centerline， $74^{\prime}$ MSL．

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)
Tree 548' from DER, 272' left of centerline, 59' MSL.
Tree 944' from DER, $272^{\prime}$ right of centerline, $70^{\prime}$ 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 100CT19 (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.
Trees, poles beginning 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 $1356^{\prime}$ from DER, $427^{\prime}$ ' left of centerline, $72^{\prime}$ MSL.
Tree 1467' from DER, 531' right of centerline, $80^{\prime}$ MSL.
Tree 1886 ' from DER, 558 ' left of centerline, $91^{\prime}$ 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, $38^{\prime}$ left of centerline, up to $42^{\prime}$ MSL.
Poles, building, trees, traverse way beginning 289' from DER, 4' left of centerline, up to $38^{\prime}$ AGL/71' MSL.
Poles, trees beginning 688' from DER, $70^{\prime}$ right of centerline, up to $48^{\prime}$ 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, $115^{\prime}$ 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 $266^{\prime}$ from DER, left and right of centerline, up to $30^{\prime}$ AGL/59' MSL.
Power lines beginning $356^{\prime}$ from DER, 460 ' left of centerline, up to $32^{\prime}$ AGL/61' MSL.
Pole 663' from DER, $188^{\prime}$ right of centerline, 100' AGL/129' MSL.
Rwy 26, buildings beginning 47' from DER, $118^{\prime}$ right of centerline, up to $30^{\prime}$ AGL/64' MSL.
Buildings beginning 187' from DER, $85^{\prime}$ left of centerline, up to $30^{\prime}$ 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 $15^{\prime}$ AGL/49' MSL.
Trees beginning 619' from DER, left and right of centerline, up to 100' AGL/134' MSL.
Quarry equipment $2800^{\prime}$ from DER, $193^{\prime}$ 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. 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.

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

```
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.
Rwy 34, building 770' from DER, 386' right of centerline, 28' AGL/38' MSL.
Multiple trees beginning \(1274^{\prime}\) from DER, \(398^{\prime}\) right of centerline, up to \(70^{\prime}\) AGL/80' MSL.
Multiple trees beginning \(1288^{\prime}\) from DER, \(218^{\prime}\) ' 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 $305^{\prime}$ left of centerline, up to 89' AGL/299' MSL. Rwy 34, trees beginning $18^{\prime}$ from DER, $325^{\prime}$ right of centerline to $380^{\prime}$ left of centerline, up to 61 ' AGL/351' 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 $169^{\prime}$ from DER, $339^{\prime}$ 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 $36^{\prime}$ from DER, 207' left of centerline, up to $35^{\prime}$ 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 $372^{\prime}$ 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 $3624^{\prime}$ from DER, 1031 ' left of centerline $215^{\prime}$ AGL/648' MSL.

## CENTER, TX

CENTER MUNI (F17)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 29JUL10 (10210) (FAA)
DEPARTURE PROCEDURE:
Rwy 17, climb heading $167^{\circ}$ 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 $1724^{\prime}$ from DER, $388^{\prime}$ left and right of centerline, up to $100^{\prime}$ AGL/459' MSL. Vehicle on road 1091' from DER, 742' right of centerline, up to 15 ' AGL/354' MSL.

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

## CLEVELAND，TX

CLEVELAND MUNI（6R3）
TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
AMDT 1 22SEP11（11265）（FAA）
DEPARTURE PROCEDURE：
Rwy 16，climb heading $157^{\circ}$ to 1400 before turning right．
Rwy 34，climb heading $312^{\circ}$ 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 $225^{\prime}$ from DER， $363^{\prime}$ right of centerline，up to $100^{\prime}$ AGL／220＇MSL．
Vehicles on road 738＇from DER，right and left of centerline，up to 19＇AGL／169＇MSL．

## COLLEGE STATION，TX

EASTERWOOD FLD（CLL）
TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
AMDT 4A 28FEB19（21112）（FAA）
DEPARTURE PROCEDURE：
Rwy 35，climb heading $346^{\circ}$ to 900 before turning right ． TAKEOFF OBSTACLE NOTES：
Rwy 11，traverse way 5 ＇from DER， 275 ＇right of centerline， $322^{\prime}$ MSL．
Tree $8^{\prime}$ from DER， $497^{\prime}$＇right of centerline， $40^{\prime}$ 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， $162^{\prime}$ right of centerline，up to $44^{\prime}$ AGL／352＇MSL．
Electrical system 139 ＇from DER，498＇left of centerline，315＇MSL．
Tree 496＇from DER， 30 ＇left of centerline， $42^{\prime}$ AGL／325＇MSL．
Trees beginning 497＇from DER， 101 ＇left of centerline，up to 331 ＇MSL．
Elevator，building beginning $1888^{\prime}$ from DER，704＇left of centerline，up to $64^{\prime}$ AGL／366＇MSL．
Transmission line $2483^{\prime}$ from DER， $1148^{\prime}$ left of centerline， $374^{\prime}$ MSL．
Rwy 29，pole 11＇from DER，55＇right of centerline，1＇AGL／320＇MSL．
Tree 30 ＇from DER，414＇left of centerline， $322^{\prime}$ MSL．
Tree $135^{\prime}$ from DER， $530^{\prime}$ left of centerline， $343^{\prime}$ MSL．
Trees beginning 305 ＇from DER， 533 ＇left of centerline，up to 361 ＇MSL．
Trees beginning 536＇from DER， $561^{\prime}$ right of centerline，up to $346^{\prime}$ MSL．
Tree 838 ＇from DER， 665 ＇right of centerline， 348 ＇MSL．
Trees beginning $1010^{\prime}$ from DER， $371^{\prime}$＇left of centerline，up to $362^{\prime}$ MSL．
Pole beginning 1083 ＇from DER， $692^{\prime}$ right of centerline，up to 358 ＇MSL．
Trees beginning 1174 ＇from DER， $244^{\prime}$＇left of centerline，up to $363^{\prime}$ MSL．
Tree，pole beginning 1257 ＇from DER， 251 ＇left of centerline，up to 365 ＇MSL．
Trees beginning $1429^{\prime}$ from DER， $420^{\prime}$ right of centerline，up to $366^{\prime}$ MSL．
Trees beginning $1542^{\prime}$ from DER， 528 ＇right of centerline，up to $370^{\prime}$ MSL．
Pole beginning $1735^{\prime}$ from DER， 278 ＇left of centerline，up to $42^{\prime}$ AGL／367＇MSL．
Trees beginning 1865＇from DER，87＇right of centerline，up to 379 ＇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， $576^{\prime}$ 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 $1169^{\prime}$ from DER， $506^{\prime}$ right of centerline， $40^{\prime}$ AGL／104＇MSL．

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

## HOUSTON，TX

CONROE／NORTH HOUSTON RGNL（CXO）
TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
AMDT 4 22JUN17（21336）（FAA）
TAKEOFF OBSTACLE NOTES：
Rwy 1，tree $829^{\prime}$ from DER， $548^{\prime}$ right of centerline，297＇MSL
Tree 1252 ＇from DER， 553 ＇right of centerline， $312^{\prime}$ MSL
Trees beginning 1609 ＇from DER， $300^{\prime}$ left of centerline，up to $322^{\prime}$ MSL
Trees beginning 3635＇from DER，464＇left of centerline，up to 327＇MSL．
Tree 3830＇from DER， $580^{\prime}$ right of centerline，347＇MSL．
Tree $4658^{\prime}$ from DER， $135^{\prime}$ right of centerline， $348^{\prime}$ 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， $682^{\prime}$ left of centerline，294＇MSL．
Tree 2129＇from DER， $80^{\prime}$ 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 $16^{\prime}$ from DER， 264 ＇left of centerline，up to 295＇MSL．
Tree 67 ＇from DER， 322 ＇right of centerline， 263 ＇MSL．
Trees beginning $855^{\prime}$ from DER， $324^{\prime}$ right of centerline，up to $303^{\prime}$ MSL．
Trees beginning $2139^{\prime}$ from DER， $65^{\prime}$ right of centerline，up to $316^{\prime}$ MSL．
Trees beginning 2365＇from DER， 331 ＇left of centerline，up to $312^{\prime}$ MSL．
Trees beginning 2475 ＇from DER， $158^{\prime}$ left of centerline，up to $315^{\prime}$ MSL．
Tree $3423^{\prime}$ from DER， $123^{\prime}$ right of centerline， $323^{\prime}$ MSL．
DAVID WAYNE HOOKS MEML（DWH）
TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
AMDT 3A 20APR23（23110）（FAA）
TAKEOFF MINIMUMS：
Rwys 17L，35R，NA－Environmental．
Waterways 17，35，NA－Air traffic．
TAKEOFF OBSTACLE NOTES：
Rwy 17R，trees，pole beginning 84＇from DER，294＇right of centerline，up to 189＇MSL．
Building $432^{\prime}$ from DER， $526^{\prime}$ left of centerline， $27^{\prime}$ AGL／172＇MSL．
Building，NAVAID beginning 643＇from DER， 256 ＇left of centerline，up to 29＇AGL／173＇MSL
Trees beginning $708^{\prime}$ from DER， 430 ＇left of centerline，up to $188^{\prime}$ MSL．
Tree 1383＇from DER， 860 ＇right of centerline， $190^{\prime}$ MSL．
Tree 1514 ＇from DER， 164 ＇left of centerline， 189 ＇MSL．
Trees beginning 1648＇from DER，394＇left of centerline，up to 197＇MSL．
Trees beginning $2100^{\prime}$ from DER， $67^{\prime}$ left of centerline，up to $214^{\prime}$ MSL．
Tree 2407＇from DER， $188^{\prime}$ left of centerline，215＇MSL．
Tree 2469＇from DER， 81 ＇left of centerline， $217^{\prime}$ MSL．
Trees beginning 2743＇from DER， 163 ＇left of centerline，up to 220＇MSL
Rwy 35L，building，pole，tree beginning $85^{\prime}$ from DER， $68^{\prime}$ left of centerline，up to 48＇AGL／202＇MSL．
Tree，vehicle on road beginning 100＇from DER，on centerline，up to 175＇MSL．
Tree $487^{\prime}$ from DER， $488^{\prime}$ right of centerline， $200^{\prime}$ MSL．
Trees beginning $750^{\prime}$ from DER， $123^{\prime}$ right of centerline，up to 203 ＇MSL．
Tree，building，pole beginning 797＇from DER， $42^{\prime}$ left of centerline，up to $211^{\prime}$ MSL．
Tree，pole beginning $868^{\prime}$ from DER， $144^{\prime}$ right of centerline，up to $228^{\prime}$ MSL．
Tree $898^{\prime}$ from DER， $283^{\prime}$ left of centerline， $223^{\prime}$ MSL
Tree，pole beginning $930^{\prime}$ from DER， $31^{\prime}$＇left of centerline，up to $226^{\prime}$ MSL．
Trees beginning 1190＇from DER， 613 ＇right of centerline，up to $233^{\prime}$ MSL．
Tree $1266^{\prime}$ from DER， $330^{\prime}$＇left of centerline，228＇MSL．
Tree 1333 ＇from DER， 76 ＇left of centerline， $231^{\prime}$ MSL．
Tree，building，transmission line beginning $1342^{\prime}$ from DER， $152^{\prime}$ left of centerline，up to 233 ＇MSL． Transmission line，tree beginning 1428＇from DER，245＇right of centerline，up to 107＇AGL／254＇MSL． Building 1649＇from DER， $252^{\prime}$ left of centerline， 48 ＇AGL／199＇MSL．
Tree，transmission line beginning 2084＇from DER，569＇left of centerline，up to 238＇MSL．

## ELLINGTON（EFD）

TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
AMDT 3 10JAN13（13010）（FAA）
TAKEOFF MINIMUMS：
Rwy 22，200－11／4 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 OBSTACLE NOTES：
Rwy 4，tree $1526^{\prime}$ 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 $321^{\prime}$＇from DER， 544 ＇left of centerline，39＇AGL／68＇MSL．
Sign $213^{\prime}$ from DER， $472^{\prime}$＇right of centerline，6＇AGL／32＇MSL．
Antenna on building 1998＇from DER， $598^{\prime}$ right of centerline，54＇AGL／83＇MSL．
Obstruction light on communication equipment and antenna $1626^{\prime}$ from DER， $837^{\prime}$ right of centerline， $88^{\prime}$ AGL／114＇MSL．
Obstruction light on water tower and tank 6114＇from DER，1635＇right of centerline，159＇AGL／192＇MSL．
CON＇T

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

## 23278

## HOUSTON，TX（CON＇T）

ELLINGTON（EFD）（CON＇T）
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， $50^{\prime}$ AGL／80＇MSL．
Tank 2639＇from DER，1157＇right of centerline， 77 ＇AGL／109＇MSL
GEORGE BUSH INTCNTL／HOUSTON（IAH）
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， $106^{\prime}$ right of centerline，up to $80^{\prime}$ 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 EXEC（TME）

TAKEOFF MINIMUMS AND（OBSTACLE）DEPARTURE PROCEDURES
ORIG 30AUG07（21112）（FAA）

## DEPARTURE PROCEDURE：

Rwy 36，climb heading $355^{\circ}$ 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 $089^{\circ}$ to 2000 before turning left．
Rwy 27，climb heading $269^{\circ}$ 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 03APR14（14093）（FAA）
DEPARTURE PROCEDURE：
Rwy 14，climb heading $142^{\circ}$ to 1600 before turning right．
Rwy 32，climb heading $322^{\circ}$ 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 $99^{\prime}$ from DER， $521^{\prime}$ left of centerline，up to $13^{\prime}$ AGL／53＇MSL．
Trees beginning 102＇from DER， $328^{\prime}$＇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 $983^{\prime}$ from DER， $94^{\prime}$ right of centerline，up to 20＇AGL／90＇MSL．
Trees beginning 1251＇from DER， $72^{\prime}$＇left of centerline，up to 60＇AGL／94＇MSL．
Rwy 32，multiple trees beginning 30＇from DER， $142^{\prime}$ right of centerline，up to 59＇AGL／100＇MSL．
Multiple trees beginning $41^{\prime}$ from DER， 200 ＇left of centerline，up to $74^{\prime}$＇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 $34^{\prime}$ AGL／78＇MSL．
Vehicles on road 513＇from DER，left and right of centerline， $15^{\prime}$ AGL／59＇MSL．
Multiple poles and trees beginning 605 ＇from DER，left and right of centerline up to $84^{\prime}$ AGL／128＇MSL．

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

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 $170^{\circ}$ to 1500 before turning eastbound.
Rwy 35, climb heading $350^{\circ}$ 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 $135^{\prime}$ from DER, 270' left of centerline, up to 44' AGL/ 111' MSL.
Building 1036' from DER, $743^{\prime}$ 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 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 $58^{\prime}$ AGL/165' MSL
Trees beginning 130 ' from DER, $117^{\prime}$ right of centerline, up to 100 ' AGL/208' MSL.
Rwy 33, trees beginning 168 ' from DER, $9^{\prime}$ left of centerline, up to 70' AGL/179' MSL.
Trees beginning $66^{\prime}$ from DER, 3 ' right of centerline, up to $75^{\prime}$ AGL/184' MSL.

Rwy 22, std. w/min. climb of 290' per NM to 2700
DEPARTURE PROCEDURE
Rwys 31L/R, climb on heading $311^{\circ}$ to 800 before turning westbound.
TAKEOFF OBSTACLE NOTES:
Rwy 4, lighting beginning $2^{\prime}$ from DER, $85^{\prime}$ left of centerline, up to $1^{\prime}$ 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 $1562^{\prime}$ from DER, 858 ' right of centerline, 69' AGL/103' MSL.
Tree 2399' from DER, 154 ' left of centerline, 66' AGL/99' MSL.

## V <br> 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, $411^{\prime}$ 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, 466' left of centerline, 89' MSL.
Tree 2585' from DER, $702^{\prime}$ ' left of centerline, 83 ' AGL/121' MSL.
Rwy 31R, sign beginning 29' from DER, 82 ' left of centerline, up to 2' AGL/47' MSL.
Trees, pole beginning 60' from DER, $308^{\prime}$ right of centerline, up to 75' AGL/121' MSL.
Building 499' from DER, 525' left of centerline, 27' AGL/69' MSL.
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 16FEB06 (06047) (FAA)
DEPARTURE PROCEDURE:
Rwy 14, climb via heading $135^{\circ}$ 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 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, $6^{\prime}$ right of centerline, up to $100^{\prime}$ AGL/354' MSL.
Hangar 1176' from DER, $675^{\prime}$ right of centerline, $30^{\prime}$ 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 $3^{\prime}$ from DER, 81' right of centerline, $0^{\prime}$ AGL/69' MSL.
Trees beginning 64' from DER, 277' right of centerline, up to 50' AGL/119' MSL.
Tree 111 ' from DER, $516^{\prime}$ left of centerline, 50 ' AGL/124' MSL.
Terrain $172^{\prime}$ from DER, $119^{\prime}$ left of centerline, $0^{\prime}$ 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.

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

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

## 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 $146^{\prime}$ from DER, 389' right of centerline, up to 45' AGL/378' MSL.
Vehicles on traverse way beginning 199' from DER, 481' left of centerline, up to $15^{\prime}$ AGL/336' MSL.
Trees beginning $246^{\prime}$ 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, $540^{\prime}$ left of centerline, 35 ' AGL/355' MSL.
Tree, building beginning $760^{\prime}$ from DER, $527^{\prime}$ right of centerline, up to $45^{\prime}$ AGL/384' MSL.
Tree $769^{\prime}$ from DER, $569^{\prime}$ left of centerline, $43^{\prime}$ AGL/361' MSL.
Tree $880^{\prime}$ from DER, $524^{\prime}$ right of centerline, $45^{\prime}$ AGL/386' MSL
Tree, pole, catenary beginning $926^{\prime}$ ' from DER, $589^{\prime}$ right of centerline, up to $48^{\prime}$ AGL/390' MSL.
Tree 945 ' from DER, 532 ' left of centerline, 45 ' AGL/364' MSL.
Trees beginning $1005^{\prime}$ from DER, $367^{\prime}$ left of centerline, up to $46^{\prime}$ AGL/365' MSL.
Tree 1183' from DER, 632' right of centerline, 49' AGL/396' MSL.
Trees beginning $1319^{\prime}$ from DER, 259' left of centerline, up to $44^{\prime}$ AGL/369' MSL.
Trees beginning $1465^{\prime}$ from DER, 297 ' right of centerline, up to $56^{\prime}$ AGL/406' MSL.
Trees beginning 1467 ' from DER, $28^{\prime}$ left of centerline, up to $48^{\prime}$ AGL/380' MSL.
Tree $1570^{\prime}$ 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, $188^{\prime}$ ' left of centerline, 34 ' AGL/381' MSL.
Tree 2111' from DER, 523 ' left of centerline, $42^{\prime}$ AGL/382' MSL.
Trees beginning 2456' from DER, $51^{\prime}$ ' left of centerline, up to 44' AGL/399' MSL.
Trees beginning 2599' from DER, 5 ' right of centerline, up to 60' AGL/415' MSL.
Rwy 34, trees beginning 35 ' from DER, $322^{\prime}$ left of centerline, up to 53 ' AGL/358' MSL.
Tree 200' from DER, 482' right of centerline, $13^{\prime}$ AGL/315' MSL.
Tree 262' from DER, 335 ' right of centerline, $24^{\prime}$ AGL/326' MSL.
Trees beginning 310' from DER, $361^{\prime}$ right of centerline, up to 29' AGL/331' MSL.
Tree $494^{\prime}$ from DER, $396^{\prime}$ left of centerline, $58^{\prime}$ AGL/360' MSL.
Tree, pole, catenary beginning $513^{\prime}$ from DER, 205 ' left of centerline, up to 61' AGL/365' MSL.
Trees beginning 634' from DER, 389' right of centerline, up to 52' AGL/352' MSL.
Trees beginning 799' from DER, 162' right of centerline, up to 55' AGL/353' MSL.

## LA PORTE, TX

LA PORTE MUNI (T41)

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

TAKEOFF MINIMUMS，（OBSTACLE）DEPARTURE PROCEDURES，AND DIVERSE VECTOR AREA（RADAR VECTORS）
Trees beginning 1953 ' from DER, $40^{\prime}$ 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 $125^{\circ}$ to 1700 before proceeding on course．
Rwy 30，climb heading $305^{\circ}$ 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 <br> 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 $358^{\prime}$ from DER， 293 ＇left of centerline，up to $350^{\prime}$ MSL．
Trees beginning 467＇from DER，452＇right of centerline，up to 365＇MSL．
Trees beginning 513 ＇from DER， $302^{\prime}$ left of centerline，up to 381 ＇MSL．
Tree $1470^{\prime}$ from DER， $328^{\prime}$ right of centerline， $366^{\prime}$ MSL．
Trees beginning 1477 ＇from DER， 483 ＇right of centerline，up to 367 ＇MSL．
Trees beginning $1599^{\prime}$ from DER， $36^{\prime}$ left of centerline，up to $387^{\prime}$ MSL．
Trees beginning $1618^{\prime}$ from DER， $274^{\prime}$ right of centerline，up to $369^{\prime}$ MSL．
Trees beginning 1636＇from DER，42＇right of centerline，up to 376 ＇MSL．
Trees beginning 1977＇from DER， $44^{\prime}$ right of centerline，up to $379^{\prime}$ 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 $3798^{\prime}$ from DER， $1035^{\prime}$ left of centerline，up to $403^{\prime}$ MSL．
Rwy 16，trees beginning 6＇from DER， $384^{\prime}$＇left of centerline，up to $56^{\prime}$ AGL／324＇MSL．
Tree $138^{\prime}$ from DER， $529^{\prime}$ right of centerline，284＇MSL．
Trees beginning $184^{\prime}$ from DER， $3^{\prime}$＇left of centerline，up to 79＇AGL／344＇MSL．
Tree 260 ＇from DER，229＇right of centerline，289＇MSL．
Tree，rd（ $n$ ）beginning $264^{\prime}$ from DER， $164^{\prime}$＇right of centerline，up to $320^{\prime}$ MSL．
Trees beginning $1333^{\prime}$ from DER， $388^{\prime}$ right of centerline，up to $324^{\prime}$ MSL．
Trees beginning 1932＇from DER，49＇right of centerline，up to 327＇MSL．
Tree $2612^{\prime}$ from DER， 448 ＇right of centerline， $90^{\prime}$ 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 $354^{\prime}$ MSL．
Trees beginning 407＇from DER， $555^{\prime}$ left of centerline，up to 299＇MSL．
Trees beginning $1375^{\prime}$ from DER， $605^{\prime}$ left of centerline，up to $328^{\prime}$ MSL．
Tree 1627＇from DER，629＇left of centerline， $330^{\prime}$ MSL．
Tree 2655＇from DER， $144^{\prime}$ left of centerline， $353^{\prime}$ MSL．
Tree $3109^{\prime}$ from DER， 417 ＇right of centerline， $362^{\prime}$ MSL．
Rwy 34，sign 20＇from DER，200＇left of centerline，1＇AGL／290＇MSL．
Ldg 48＇from DER，457＇right of centerline， $303^{\prime}$ MSL．
Tree $95^{\prime}$ from DER， 328 ＇right of centerline，330＇MSL．
Trees beginning $166^{\prime}$ from DER， $314^{\prime}$ right of centerline，up to $54^{\prime}$ AGL／338＇MSL．
Pole and trees beginning $344^{\prime}$ from DER， $310^{\prime}$ right of centerline，up to $346^{\prime}$ MSL．
Vehicles on road 571＇from DER， 3 ＇left of centerline，312＇MSL．
Vehicle on road beginning $579^{\prime}$ from DER， $75^{\prime}$ right of centerline，up to $306^{\prime}$ MSL．
Trees beginning $602^{\prime}$ from DER， $166^{\prime}$ left of centerline，up to $367^{\prime}$ MSL．
Trees beginning 620＇from DER，446＇right of centerline，up to 354 ＇MSL．
Tree，pole beginning $809^{\prime}$ from DER， 230 ＇right of centerline，up to 361 ＇MSL．
Trees beginning $1249^{\prime}$ from DER， $233^{\prime}$ right of centerline，up to $364^{\prime}$ MSL．

# 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 $99^{\prime}$ from DER, 50 ' left of centerline, up to $50^{\prime}$ AGL/341' MSL. Multiple trees beginning 50 ' from DER, 75 ' right of centerline, up to 50 ' AGL/ 346' MSL

## MARLIN, TX <br> MARLIN (T15) <br> TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 10JAN13 (13010) (FAA) <br> 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, $155^{\prime}$ ' left of centerline, $30^{\prime}$ 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 $15^{\prime}$ AGL/415' MSL.
Rwy 35, trees $225^{\prime}$ 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 $15^{\prime}$ AGL/424' MSL.

MEXIA, TX
MEXIA-LIMESTONE CO (LXY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 11AUG22 (22223) (FAA)
TAKEOFF MINIMUMS:
Rwy 36, $300-2 \frac{1}{4}$ 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 $80^{\prime}$ 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, $315^{\prime}$ left of centerline, up to $80^{\prime}$ 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 $359^{\circ}$ to 1000 before turning right.
TAKEOFF OBSTACLE NOTES:
Rwy 18, trees 47' from DER, 503' left of centerline, 67' AGL/397' MSL.
Trees $1227^{\prime}$ from DER, 580 ' left of centerline, $52^{\prime}$ AGL/382' MSL.
Trees 2234' from DER, 939' right of centerline, 71' AGL/431' MSL.
Rwy 36, trees $252^{\prime}$ from DER, $485^{\prime}$ left of centerline, 81 ' AGL/401' MSL.
Trees 792 ' from DER, 513' left of centerline, 87 ' AGL/447' MSL.
Trees beginning 1957' from DER, $23^{\prime}$ ' 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, 400-11/4 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 $2518^{\prime}$ from DER, left and right of centerline, up to $73^{\prime}$ 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 $125^{\circ}$ to 1800 before proceeding on course
Rwy 13, climb heading $132^{\circ}$ to 1100 before turning left.
Rwy 36, climb heading $357^{\circ}$ 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, $216^{\prime}$ left of centerline, up to 100' AGL/384' MSL.
Trees beginning 2535' from DER, 218 ' left of centerline, up to 100' AGL/388' 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, 549' 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, 254' 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, $43^{\prime}$ right of centerline, up to 100' AGL/473' MSL.
Tree 1.1 NM from DER, 2080' left of centerline, 100' AGL/483' MSL.
CON'T

## 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 $100^{\prime}$ 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, $100^{\prime}$ 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, $38^{\prime}$ right of centerline, up to $100^{\prime}$ 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, $33^{\prime}$ right of centerline, up to 100' AGL/499' MSL.
Trees beginning 1.2 NM from DER, 269' left of centerline, up to 100' AGL/532' MSL.
Trees beginning 1.2 NM from DER, 30' right 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, $12^{\prime}$ right of centerline, up to $100^{\prime}$ AGL/552' MSL.
Trees beginning 1.3 NM from DER, $274^{\prime}$ ' left of centerline, up to 100' AGL/568' MSL.
Tree 1.4 NM from DER, $2705^{\prime}$ left of centerline, $100^{\prime}$ 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, $5^{\prime}$ left of centerline, up to 100' AGL/621' MSL.
Tower 2.5 NM from DER, $345^{\prime}$ left of centerline, 199' AGL/809' MSL.
Rwy 18, tree abeam DER, $409^{\prime}$ left of centerline, 415 ' MSL.
Tree, terrain beginning 43 ' from DER, $241^{\prime}$ right of centerline, up to 421 ' MSL.
Trees beginning $80^{\prime}$ from DER, 257' left of centerline, up to $435^{\prime}$ MSL.
Trees beginning $158^{\prime}$ from DER, $166^{\prime}$ right of centerline, up to $447{ }^{\prime}$ 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, $352^{\prime}$ 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, $403^{\prime}$ left of centerline, 418 ' MSL.
Tree 200' from DER, 481' left of centerline, 421' MSL.
Trees beginning 432' from DER, $270^{\prime}$ left of centerline, up to $434^{\prime}$ MSL.
Tree 561 ' from DER, 481 ' left of centerline, $452^{\prime}$ MSL.
Trees beginning $612^{\prime}$ from DER, $306^{\prime}$ left of centerline, up to $462^{\prime}$ MSL.
Trees beginning 783' from DER, 401' left of centerline, up to 471' MSL.
Tree 990 ' from DER, $733^{\prime}$ right of centerline, $456^{\prime}$ 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, $408^{\prime}$ left of centerline, $34^{\prime}$ MSL.
Pole and vehicles on road beginning 547' from DER, 412' right of centerline, up to 35' AGL/60' MSL.
Vehicles on road 570' from DER, 411' left of centerline, up to 45' MSL.
VICTORIA, TX
VICTORIA RGNL (VCT)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1A 12AUG21 (21224) (FAA)
TAKEOFF OBSTACLE NOTES
Rwy 18, building $588^{\prime}$ from DER, 415 ' left of centerline, 18' AGL/118' MSL.
Industrial system 1696' from DER, 265 ' right of centerline, $61^{\prime}$ 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 $26^{\prime}$ from DER, 312' right of centerline, up to $17{ }^{\prime}$ 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.

23278

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

## 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 $341^{\prime} / \mathrm{NM}$ 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, $23^{\prime}$ ' left of centerline, up to $125^{\prime}$ MSL.
Trees beginning $1164^{\prime}$ from DER, $475^{\prime}$ right of centerline, up to $125^{\prime}$ MSL.
Rwy 35, trees beginning $742^{\prime}$ from DER, $212^{\prime}$ left of centerline, up to 130' MSL
Tree 1572 ' from DER, $672^{\prime}$ right of centerline, $130^{\prime}$ MSL.



## ARRIVAL ROUTE DESCRIPTION

From CESAN on track $185^{\circ}$ to CREPO, then on track $196^{\circ}$ to PLEDO.
LANDING HOU RWYS 13L/R: From PLEDO on track $196^{\circ}$ to FRITZ, then on track $196^{\circ}$ to SSERA, then on track $244^{\circ}$ to LLEGS, then on track $239^{\circ}$ to FRDDY, then on track $289^{\circ}$ to FIGGG, then on track $278^{\circ}$ to IVEEE, then on track $280^{\circ}$ to VILLI, then on track $311^{\circ}$ to ALLLY, then on track $311^{\circ}$. Expect vectors to final approach course.

LANDING HOU RWY 4: From PLEDO on track $196^{\circ}$ to FRITZ, then on track $196^{\circ}$ to SSERA, then on track $244^{\circ}$ to LLEGS, then on track $239^{\circ}$ to FRDDY, then on track $289^{\circ}$ to FIGGG, then on track $255^{\circ}$ to SHUUG, then on track $222^{\circ}$ to EMARR, then on track $222^{\circ}$. Expect vectors to approach course.

LANDING HOU RWY 22: From PLEDO on track $196^{\circ}$ to FRITZ, then on track $196^{\circ}$ to SSERA, then on track $244^{\circ}$ to LLEGS, then on track $273^{\circ}$ to WWILD, then on track $310^{\circ}$ to JCNTO, then on track $310^{\circ}$. Expect vectors to final approach course.

LANDING HOU RWYS 31L/R: From PLEDO on track $196^{\circ}$ to FRITZ, then on track $196^{\circ}$ to SSERA, then on track $244^{\circ}$ to LLEGS, then on track $220^{\circ}$ to MMOOW, then on track $274^{\circ}$. Expect vectors to final approach course.

ALL OTHER AIRPORTS: From CESAN on track $185^{\circ}$ to CREPO, then on track $196^{\circ}$ to PLEDO, then on track $196^{\circ}$ to FRITZ, then on track $196^{\circ}$ to SSERA, then on track $244^{\circ}$ to KAANE, then on track $215^{\circ}$. Expect vectors to final approach course.


## 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 $190^{\circ}$. Expect RADAR vectors to final approach course.



## ARRIVAL ROUTE DESCRIPTION

BBURT TRANSITION (BBURT.TKNIQ3)

From TKNIQ on track $301^{\circ}$ to DOCCC.
LANDING HOU RUNWAY 4: From DOCCC on track $302^{\circ}$ to FRDDY, then on track $289^{\circ}$ to FIGGG, then on track $255^{\circ}$ to SHUUG, then on track $222^{\circ}$ to EMARR, then on track $220^{\circ}$. Expect RADAR vectors to final approach course.

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

LANDING HOU RUNWAY 22: From DOCCC on track $323^{\circ}$ to KEMAH, then on track $310^{\circ}$. Expect RADAR vectors to final approach course.

LANDING HOU RUNWAYS 31L/R: From DOCCC on track $288^{\circ}$ to MMOOW, then on track $274^{\circ}$. Expect RADAR vectors to final approach course.

LANDING AXH, EFD, GLS, HPY, IWS, LBX, LVJ, SGR, TME, TØØ, T41, 54T:
From DOCCC on track $288^{\circ}$ to MMOOW, then on track $253^{\circ}$. Expect RADAR vectors to final approach course.

HOUSTON APP CON
119.175291 .675

EFD ATIS
135.575269 .9

HOU D－ATIS
124.6

SGR ATIS＊
118.125

TME ATIS
119.525

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 $: \because-$ |
| Chan 115 |
| N $29^{\circ} 38.64^{\prime}$ |
| W98 |



BIGTX
N28 $96^{\circ} 36.30^{\prime}$

NOTE：Chart not to scale．（CONTINUED ON FOLLOWING PAGE）
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 ．．．．
$\frac{\mathrm{W} 97^{\circ} 26.69^{\prime}}{\mathrm{L}-20-21 . \mathrm{H}-7}$

HOUSTON APP CON
119.175291 .675

EFD ATIS
135.575269 .9

HOU D-ATIS
124.6

SGR ATIS *
118.125

TME ATIS
119.525


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.

## ARRIVAL ROUTE DESCRIPTION

. . . . from over BELLR on IAH R-221 to cross TSHRT at 12000. From TSHRT fly heading $075^{\circ}$ for vectors to final approach course.





## ARRIVAL ROUTE DESCRIPTION

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

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

LANDING HOU RUNWAYS 13L/R: From PUSHN on track $192^{\circ}$ to cross BUGZY at or below 10000, then on track $192^{\circ}$ to cross PRTCH at or below 7000 , then on track $200^{\circ}$ to cross MOLLR at 6000 and at 210 K , then on track $251^{\circ}$ to VILLI, then on track $311^{\circ}$ to ALLLY, then on track $311^{\circ}$. Expect RADAR vectors to final approach course.

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

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

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

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.


## ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.OHIIO4): From over AEX VORTAC via AEX R-251 to LYMBO INT, then on IAH R-046 to OHIIO INT. Thence
LUFKIN TRANSITION (LFK.OHIIO4):
From over LFK VORTAC on LFK R-159 to ZEEKK INT, then on IAH R-046 to

GEORGE BUSH INTCNTL AIRPORT /HOUSTON (IAH):
from OHIIO INT on IAH R-046 to PNUUT. Thence .
LANDING RUNWAYS 8L/R or 9:
fly heading $265^{\circ}$ 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 OHIIO INT on IAH R-046 to PNUUT. Expect vectors to final approach course at or prior to PNUUT.

