

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

09351

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

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

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

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

NAME	TAKE-OFF MINIMUMS	NAME	TAKE-OFF MINIMUMS
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ALICE, TX

ALICE INTL

NOTE: **Rwy 17**, multiple poles beginning 601' from departure end of runway, 413' right to 340' left of centerline, up to 36' AGL/204' MSL. Multiple trees beginning 205' from departure end of runway, 348' left to 317' right of centerline, up to 26' AGL/194' MSL.

Rwy 26, building 797' from departure end of runway, 366' left of centerline, 30' AGL/208' MSL. Tree 812' from departure end of runway, 301' left of centerline, 27' AGL/205' MSL. Rod on OL DME, 715' from departure end of runway, 258' right of centerline, 21' AGL/199' MSL.

Steel post 83' from departure end of runway, 344' right of centerline, 4' AGL/181' MSL. **Rwy 31**, rod on OL DME 388' from departure end of runway, 256' left of centerline, 21' AGL/199' MSL. Tree 439' from departure end of runway, 608' left of centerline, 16' AGL/194' MSL. Steel post 2' from departure end of runway, 251' right of centerline, 164' AGL/181' MSL. Tree 1067' from departure end of runway, 359' right of centerline, 28' AGL/206' MSL. **Rwy 35**, windmill 1461' from departure end of runway, 164' left of centerline, 140' AGL/214' MSL. Bush 330' from departure end of runway, 287' right of runway, 14' AGL/185' MSL.

ALPINE, TX

ALPINE-CASPARIS MUNI

TAKE-OFF MINIMUMS: **Rwys 19, 23**, DAY 1700-2; NIGHT NA.

DEPARTURE PROCEDURE: **Rwy 1**, climb direct BWR NDB; **Rwys 5, 19, 23**, climbing left turn direct BWR NDB. **All aircraft** continue climb in holding pattern (Hold N, left turns, 194" inbound) (Maximum holding airspeed 175K) to 7000 before proceeding on course.

AUSTIN, TX

AUSTIN-BERGSTROM INTL

DEPARTURE PROCEDURE: **Rwys 35L, 35R**, climb via heading 353° to 1800 before turning left on course.

NOTE: **Rwy 17L**, trees beginning 498' from departure end of runway, 576' left of centerline, up to 80' AGL/517' MSL. Tree 617' from departure end of runway, 585' right of centerline, 55' AGL/498' MSL. **Rwy 17R**, trees 1007' from departure end of runway, 739' right of centerline, up to 61' AGL/523' MSL. **Rwy 35R**, tree 817' from departure end of runway, 664' right of centerline, 55' AGL/528' MSL.

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AUSTIN, TX (CON'T)

LAKEWAY AIRPARK (3R9)
AMDT 1 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwys 16, 34**, 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 16, 34**, For climb in visual conditions cross Lakeway Airpark airport at or above 1900 MSL before proceeding on course.

NOTE: **Rwy 16**, powerline 303' from departure end of runway, right and left of centerline, 79' AGL/967' MSL. Trees beginning 8243' from departure end of runway, 324' right of centerline, up to 50' AGL/1169' MSL. Road 114' from departure end of runway, right and left of centerline, 15' AGL/954' MSL. Tower 2.11 NM from departure end of runway, 1314' right of centerline, 195' AGL/1326' MSL. Towers starting 1.6 NM from departure end of runway, 4821' left of centerline, up to 150' AGL/1450' MSL. Tree 2085' from departure end of runway, 186' left of centerline, 50' AGL/969' MSL. **Rwy 34**, trees beginning 800' from departure end of runway, 426' left of centerline, up to 50' AGL/1009' MSL. Trees beginning 1374' from departure end of runway, 141' right of centerline, up to 50' AGL/969' MSL. House 499' from departure end of runway, on centerline, 50' AGL/969' MSL.

BEEVILLE, TX

BEEVILLE MUNI

TAKE-OFF MINIMUMS: **Rwys 18, 36**, NA-environmental. **Rwy 30**, 300-2 or std. w/min. climb of 239' per NM to 700.

NOTE: **Rwy 30**, tower 1.5 NM from departure end of runway 2566' right of centerline, 230' AGL/542' MSL.

BIG LAKE, TX

REAGAN COUNTY

TAKE-OFF MINIMUMS: **Rwys 9, 27**, NA-environmental.

NOTE: **Rwy 16**, road 384' from departure end of runway, 603' right of centerline, 17' AGL/2716' MSL.

BIGGS AAF (KBIF)

FORT BLISS, TX 07130

Rwy 21: Left turn direct to ELP VORTAC, continue climb via R-130 to airway MEA or as directed by ATC. **Rwy 3**: Right turn direct to ELP VORTAC, continue climb via R-130 to airway MEA or as directed by ATC.

BRADY, TX

CURTIS FIELD (BBD)

ORIG 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwys 8, 26**, NA-Environmental.

NOTES: **Rwy 17**, Light poles, trees, fence, terrain, and vehicle on road beginning 50' from departure end of runway, 362' left of centerline, up to 30' AGL/1827' MSL. Trees beginning 17' from departure end of runway, 216' right of centerline, up to 30' AGL/1818' MSL.

BURNET, TX

BURNET MUNI KATE CRADDOCK FIELD (BMQ)

AMDT 1 09351 (FAA)

NOTE: **Rwy 1**, trees and cars beginning 362' from DER, 488' right of centerline, up to 100' AGL/1379' MSL. Trees and cars beginning 274' from DER, 86' left of centerline, up to 100' AGL/1419' MSL. **Rwy 19**, trees beginning 32' from DER, 103' right of centerline, up to 100' AGL/1379' MSL. Trees beginning 188' from DER, 332' left of centerline, up to 100' AGL/1369' MSL.

CARRIZO SPRINGS, TX

DIMMIT COUNTY

DEPARTURE PROCEDURE: **Rwy 31**, climb runway heading to 1200 prior to left turn to avoid 1114' antenna west of airport.

COMANCHE, TX

COMANCHE COUNTY-CITY

TAKE-OFF MINIMUMS: **Rwys 13, 31**, NA-Environmental.

NOTE: **Rwy 17**, road at departure end of runway, 134' right of centerline, 15' AGL/1394' MSL, road 784' from departure end of runway, 324' right of centerline, 15' AGL/1404' MSL. **Rwy 35**, trees beginning 464' from departure end of runway, across centerline, up to 50' AGL/1429' MSL.

CORPUS CHRISTI, TX

CORPUS CHRISTI INTL (CRP)

AMDT 1 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 35**, 400-2½ or std. w/min. climb of 229' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 31**, Climb heading 309° to 1200 before turning westbound.

NOTE: **Rwy 17**, antenna on building 24' AGL/64' MSL, 749' from departure end of runway, 694' left of centerline.

Rwy 35, tower 401' AGL/423' MSL, 2.21 NM from departure end of runway, 3757' left of centerline.

CORPUS CHRISTI NAS (TRUAX FLD) (KNGP)

CORPUS CHRISTI, TX. ORIG 08325

TAKE-OFF OBSTACLES: **Rwy 13L**, Powerline, 139' MSL, 3884' from DER, 457' left of centerline. Pylon, 112' MSL, 3304' from DER, 362' right of centerline. Pylon, 112' MSL, 3476' from DER, 1017' right of centerline. Pylon, 110' MSL, 3137' from DER, 299' left of centerline. Pylon, 107' MSL, 3561' from DER, 665' left of centerline. **Rwy 13R**, Powerline, 139' MSL, 4434' from DER, 1208' left of centerline. Pylon, 100' MSL, 3686' from DER, 1050' left of centerline.

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COTULLA, TX

COTULLA-LA SALLE COUNTY (COT)
ORIG 07354 (FAA)

NOTE: **Rwy 13**, road 2768' from departure end of runway, 53' left of centerline, 18' AGL/484' MSL. Tree 5520' from departure end of runway, 1764' left of centerline, 50' AGL/480' MSL. Tree 2 NM from departure end of runway, 778' left of centerline, 50' AGL/579' MSL. Tree 1264' from departure end of runway, 93' right of centerline, 50' AGL/499' MSL. Tree 1.3 NM from departure end of runway, 1116' right of centerline, 50' AGL/464' MSL. **Rwy 31**, railroad 2934' from departure end of runway, 153' right of centerline 23' AGL/472' MSL. Tree 1669' from departure end of runway, 66' right of centerline, 50' AGL/499' MSL. Tree 1.2 NM from departure end of runway, 2290' right of centerline, 50' AGL/562' MSL. Terrain beginning 80' from departure end of runway, 428' left of centerline, up to 496' MSL. Terrain 123' from departure end of runway, 379' right of centerline, 496' MSL.

DEL RIO, TX

DEL RIO INTL

DEPARTURE PROCEDURE: **Rwy 13**, climb to 1500 prior to left turn.

DEVINE, TX

DEVINE MUNI

TAKE-OFF MINIMUMS: **Rwy 35**, climb runway heading to 1000 prior to right turn.

EAGLE PASS, TX

MAVERICK COUNTY MEMORIAL INTL (5T9)
ORIG 08269 (FAA)

NOTE: **Rwy 13**, vehicle on road 171' from departure end of runway, 393' right of centerline, 15' AGL/894' MSL.

EDINBURG, TX

SOUTH TEXAS INTL AT EDINBURG

TAKE-OFF MINIMUMS: CAUTION: Unmarked balloon and cable to 15000' MSL in R-6317. **Rwy 14**, 276/37.9 NM, **Rwy 32**, 276/38.5 NM.

NOTE: **Rwy 14**, tree 1109' from departure end of runway, 525' right of centerline, 19' AGL/108' MSL. Terrain 20' from departure end of runway, 312' right of centerline, 0' AGL/74' MSL. **Rwy 32**, multiple poles beginning 831' from departure end of runway, 53' right of centerline, up to 32' AGL/111' MSL. Road 640' from departure end of runway, 671' right of centerline, 17' AGL/96' MSL.

EL PASO, TX

EL PASO INTL

TAKE-OFF MINIMUMS: **Rwys 8L, 26R**, NA. **Rwy 26L**, 3000-2 or std. with a min. climb of 490' per NM to 6300.

DEPARTURE PROCEDURE: **Rwy 4**, right turn. **Rwy 8R**, left turn, climb direct ELP VORTAC, continue climb via ELP R-150 to airway MEA or comply with RADAR vectors. **Rwy 22**, climbing left turn heading 120° to intercept and climb via ELP R-150 to airway MEA or comply with RADAR vectors. **Rwy 26L**, climbing left turn heading 120° to intercept and climb via ELP R-150 to airway MEA or comply with RADAR vectors. This departure requires compliance with published take-off minimums.

FALFURRIAS, TX

BROOKS COUNTY (BKS)
AMDT 1 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 32**, 400-2¼ or std. w/ min. climb of 249' per NM to 600. **Rwy 35**, std. w/ min. climb of 250' per NM to 800, or 500-3 w/ min. climb of 242' per NM to 800, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 35**, for climb in visual conditions: cross Brooks County Airport at or above 900 MSL before proceeding on course.

NOTE: **Rwy 14**, vehicle on road, 29' from DER, 499' left of centerline, 15' AGL/129' MSL. Trees beginning 149' from DER, 523' left of centerline, up to 40' AGL/154' MSL. Trees beginning at DER, 415' right of centerline, up to 40' AGL/149' MSL. **Rwy 17**, vehicle on road, at DER, 364' left of centerline, 15' AGL/119' MSL. Trees beginning 15' from DER, 331' right of centerline, up to 40' AGL/149' MSL. Trees beginning 165' from DER, 126' left of centerline, up to 17' AGL/129' MSL. **Rwy 32**, road and trees beginning 587' from DER, 35' right of centerline, up to 40' AGL/149' MSL. Tower 1.9 NM from DER, 987' left of centerline, 298' AGL/418' MSL. **Rwy 35**, vehicle on road, at DER, 360' right of centerline, 15' AGL/118' MSL. Tree 1010' from DER, 278' right of centerline, 29' AGL/138' MSL. Tower 2.6 NM from DER, 426' right of centerline, 414' AGL/539' MSL.

FORT HOOD, TX

ROBERT GRAY AAF

NOTE: **Rwy 33**, pole 974' from departure end of runway, 746' left of centerline, 35' AGL/1050' MSL. Pole 1121' from departure end of runway, 746' left of centerline, 33' AGL/1048' MSL.

FORT STOCKTON, TX

FORT STOCKTON-PECOS COUNTY (FST)
ORIG 09329 (FAA)

TAKE-OFF MINIMUMS: **Rwys 7, 11, 16, 25, 29, 34**, NA-Environmental. **Rwy 21**, 300-1 or std. w/ min. climb of 280' per NM to 3600.

DEPARTURE PROCEDURE: **Rwy 21**, climb heading 208° to 3600 before turning left.

NOTE: **Rwy 12**, tree 899' from DER, 310' right of centerline, 39' AGL/3049' MSL. **Rwy 21**, brush beginning 110' from DER, 222' right of centerline, up to 20' AGL/3159' MSL. Terrain beginning 124' from DER, 77' right of centerline, up to 3173' MSL. Terrain beginning 56' from DER, 132' left of centerline, up to 3111' MSL. Bush 236' from DER, 30' left of centerline, 6' AGL/3013' MSL. Vehicle on road, 2017' from DER, 973' left of centerline, 17' AGL/3066' MSL. **Rwy 30**, trees beginning 64' from DER, 354' left of centerline, up to 6' AGL/2995' MSL.

FREDERICKSBURG, TX

GILLESPIE COUNTY

DEPARTURE PROCEDURE: **Rwy 14**, climb via heading 139° to 2400 before proceeding on course. **Rwy 32**, climb via heading 319° to 2400 before proceeding on course.

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GEORGE WEST, TX

LIVE OAK COUNTY

TAKE-OFF MINIMUMS: **Rwy 31**, 700-3 or std. with min. climb of 230' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 13**, climb runway heading to 600 before turning right.

NOTE: **Rwy 31**, tower 22,101' from departure end of runway, 1716' left of centerline, 470' AGL/737' MSL.

GEORGETOWN, TX

GEORGETOWN MUNI (GTU)

ORIG 09351 (FAA)

NOTE: **Rwy 11**, numerous trees beginning at DER, 427' left of centerline, up to 30' AGL/789' MSL. Numerous trees beginning at DER, 205' right of centerline, up to 30' AGL/789' MSL. Tower 5361' from DER, 514' right of centerline, 179' AGL/894' MSL. **Rwy 18**, numerous trees beginning at DER, 216' right of centerline, up to 30' AGL/789' MSL. Numerous trees beginning 35' from DER, 259' left of centerline, up to 30' AGL/789' MSL. **Rwy 29**, numerous trees beginning 129' from DER, 475' left of centerline, up to 30' AGL/819' MSL. Numerous trees beginning 207' from DER, 529' right of centerline, up to 30' AGL/839' MSL. **Rwy 36**, numerous trees beginning 235' from DER, 302' right of centerline, up to 30' AGL/819' MSL. Numerous trees beginning 322' from DER, 346' left of centerline, up to 30' AGL/829' MSL.

Tower 928' from DER, 684' right of centerline, 47' AGL/820' MSL.

HAMILTON, TX

HAMILTON MUNI (MNZ)

ORIG 09351 (FAA)

NOTE: **Rwy 18**, tree 689' from DER, 211' left of centerline, 40' AGL/1346' MSL. Vehicle on North-South road 849' from DER, on extended centerline, 15' AGL/1321' MSL. **Rwy 36**, trees beginning 621' from DER, 186' left of centerline, 40' AGL/1359' MSL. Trees 879' from DER, 87' right of centerline, 40' AGL/1359' MSL.

HARLINGEN, TX

VALLEY INTL

NOTE: **Rwy 13**, pole 1031' from departure end of runway, 465' left of centerline, 38' AGL/68' MSL. Pole 1055' from departure end of runway, 475' left of centerline, 38' AGL/68' MSL. **Rwy 17R**, fence 24' from departure end of runway, 499' right of centerline, 8' AGL/41' MSL.

Rwy 17L, road (non-interstate) 416' from departure end of runway, on runway centerline, 20' AGL/51' MSL. Road (non-interstate) 410' from departure end of runway, 520' left of centerline, 20' AGL/50' MSL. **Rwy 31**, tree 983' from departure end of runway, 462' left of centerline, 42' AGL/69' MSL.

HOOD AAF (KHLR)

FORT HOOD (KILLEEN), TX ... AMDT 2, 09351

TAKE-OFF MINIMUMS: **Rwy 16, 34** Standard*

* For Copter use only.

JUNCTION, TX

KIMBLE COUNTY

TAKE-OFF MINIMUMS: **Rwys 8, 17, 26, 35**, 700-2.

KENEDY, TX

KARNES COUNTY

TAKE-OFF MINIMUMS: **Rwy 34**, 600-3 or std. with a min. climb of 260' per NM to 800.

KERRVILLE, TX

KERRVILLE MUNI /LOUIS SCHREINER FIELD

TAKE-OFF MINIMUMS: **Rwy 3**, 400-1½ or std. with a min. climb of 394' per NM to 2100.

NOTE: **Rwy 3**, multiple trees and poles beginning 203' from departure end of runway 46' left of centerline up to 49' AGL/1925' MSL. Multiple trees, poles and towers 136' from departure end of runway 11' right of course up to 50' AGL/1927' MSL. **Rwy 12**, multiple trees beginning 211' from departure end of runway 430' left of course line up to 44' AGL/1644' MSL. Multiple trees beginning 93' from departure end of runway 321' right of centerline up to 49' AGL/1609' MSL. **Rwy 21**, multiple towers and trees beginning 522' from departure end of runway 52' left of centerline 50' AGL/1610' MSL. Multiple trees and poles beginning 288' from departure end of runway 141' right of centerline 50' AGL/1613' MSL. **Rwy 30**, multiple trees poles antennae beginning 248' from departure end of runway 953' left of centerline 51' AGL/1611' MSL. Multiple poles and trees beginning 275' from departure end of runway 351' right of centerline 55' AGL/1615' MSL.

KILLEEN, TX

SKYLARK FIELD (ILE)

AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 19**, climb heading 190° to 1900 before turning east.

NOTE: **Rwy 1**, multiple poles beginning 317' from departure end of runway, 384' left of centerline, up to 27' AGL/868' MSL. Tree, 973' from departure end of runway, 100' left of centerline, 28' AGL/876' MSL. Building, 486' from departure end of runway, 9' right of centerline, 13' AGL/854' MSL. Antenna, 351' from departure end of runway, 277' right of centerline, 11' AGL/852' MSL. **Rwy 19**, pole, 288' from departure end of runway, 588' right of centerline, 32' AGL/880' MSL. Building, 102' from departure end of runway, 411' right of centerline, 8' AGL/856' MSL. Vehicle on road, 232' from departure end of runway, 499' right of centerline, 15' AGL/867' MSL. Pole, 256' from departure end of runway, 497' left of centerline, 32' AGL/873' MSL. Building, 276' from departure end of runway, 342' left of centerline, 11' AGL/859' MSL. Building, 298' from departure end of runway, 83' left of centerline, 9' AGL/857' MSL.

LAMPASAS, TX

LAMPASAS (LZZ)

ORIG 09351 (FAA)

NOTE: **Rwy 16**, building 39' from DER, 374' left of centerline, 20' AGL/1189' MSL. Trees beginning 795' from DER, 217' right of centerline, up to 30' AGL/1189' MSL. **Rwy 34**, trees beginning 657' from DER, 147' left of centerline, up to 30' AGL/1249' MSL.

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LAREDO, TX

LAREDO INTL

DEPARTURE PROCEDURE: **Rwys 14, 17L/R, 32, 35L/R**, climb runway heading to 1500 before turning westbound.

LAUGHLIN AFB (KDLF)

DEL RIO, TX AMDT 2, 07270

TAKE-OFF OBSTACLES: **Rwy 13C**, taxiing aircraft 14' AGL/1079' MSL, 190' from DER, 222' right of centerline. Taxiing aircraft 14' AGL/1103' MSL, 84' from DER, 552' right of centerline. **Rwy 13L**, taxiing aircraft 14' AGL/1076' MSL, 7' from DER, 204' right of centerline. **Rwy 13R**, taxiing aircraft 12' AGL/1107' MSL, 149' from DER, 338' right of centerline. Taxiing aircraft 14' AGL/1090' MSL, 309' from DER, 501' left of centerline. Taxiing aircraft 14' AGL/1090' MSL, 141' from DER, 175' right of centerline. Taxiing aircraft 14' AGL/1090' MSL, 338' from DER, 204' left of centerline. Taxiing aircraft 14' AGL/1090' MSL, 389' from DER, 303' left of centerline. Taxiing aircraft 14' AGL/1113' MSL, 848' from DER, 603' right of centerline. **Rwy 31C**, vehicular traffic 10' AGL/1093' MSL 18' from DER, 462' right of centerline. **Rwy 31L**, taxiing aircraft 14' AGL/1091' MSL, 198' from DER, 172' right of centerline. Vehicular traffic 10' AGL/1108' MSL, 862' from DER, 550' left of centerline. Taxiing aircraft 14' AGL/1094' MSL 249' from DER, 327' right of centerline. Taxiing aircraft 14' AGL/1089' MSL, 178' from DER, 171' left of centerline. Pole 8' AGL/1104' MSL, 229' from DER, 568' left of centerline. Transmissometer 18' AGL/1095' MSL, 299' from DER, 301' left of centerline. **Rwy 31R**, terrain 0' AGL/1083' MSL, 0' from DER, 500' left of centerline. Windsock 0' AGL/1102' MSL, 25' from DER, 496' left of centerline. Terrain 0' AGL/1085' MSL, 89' from DER, 489' right of centerline. Taxiing aircraft 14' AGL/1090' MSL, 11' from DER, 175' left of centerline. Railroad 23' AGL/1122' MSL, 1429' from DER, 468' right of centerline.

LLANO, TX

LLANO MUNI (AQO)

ORIG 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwys 13, 31**, NA- Environmental.
DEPARTURE PROCEDURE: **Rwy 35**, climb heading 354° to 1900 before proceeding on course.
NOTE: **Rwy 17**, tree 11' from DER, 364' left of centerline, 25' AGL/1144' MSL. Trees 811' from DER, 242' left of centerline, 25' AGL/1124' MSL. **Rwy 35**, hangar 209' from DER, 497' right of centerline, 30' AGL/1149' MSL. Tree 485' from DER, 265' right of centerline, 25' AGL/1144' MSL. Vehicles on North-South road, 270' left of centerline, 15' AGL/1114' MSL. Vehicles on road 390' from DER, crosses centerline East-West, 15' AGL/1134' MSL.

MARFA, TX

MARFA MUNI (MRF)

ORIG 08157 (FAA)

TAKE-OFF MINIMUMS: CAUTION: Unmarked balloon and cable to 14000' MSL in R-6318. **Rwys 8, 26**, NA- Environmental.
DEPARTURE PROCEDURE: **Rwy 3**, climbing right turn direct MRF VOR/DME. **Rwy 12**, climb direct MRF VOR/DME. **Rwys 21, 30**, climbing left turn direct MRF VOR/DME. All Aircraft climb in MRF VOR/DME holding pattern (SE, LT, 313° inbound) to cross MRF VOR/DME at or above MEA for direction of flight.
NOTE: **Rwy 3**, vehicle on road abeam departure end of runway, 300' left of centerline, 15' AGL/4864' MSL. **Rwy 12**, vehicle on road 483' from departure end of runway, 616' left of centerline, 15' AGL/4854' MSL. **Rwy 21**, building and greenhouses beginning 34' from departure end of runway, 495' left of centerline, 35' AGL/4852' MSL.

MASON, TX

MASON COUNTY (T92)

ORIG 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 35**, 300-1 or std. w/min. climb of 394' per NM to 1800.
DEPARTURE PROCEDURE: **Rwy 17**, climb heading 181° to 2100' before turning right.
NOTE: **Rwy 13**, terrain beginning 7' from departure end of runway, 100' left of centerline, up to 1523' MSL. Tree 1506' from departure end of runway, 254' left of centerline, 100' AGL/1639' MSL. **Rwy 17**, tree 4503' from departure end of runway, 405' left of centerline, 100' AGL/1619' MSL. Terrain beginning 162' from departure end of runway, 179' right of centerline, up to 1520' MSL. **Rwy 31**, tree 1590' from departure end of runway, 411' left of centerline, 100' AGL/1629' MSL. Terrain beginning 61' from departure end of runway, 51' right of centerline, up to 1513' MSL. Powerlines beginning 2999' from departure end of runway, left and right of centerline, up to 79' AGL/1585' MSL. **Rwy 35**, trees beginning 4019' from departure end of runway, 151' left of centerline, up to 100' AGL/1699' MSL. Tower 4519' from departure end of runway, 361' right of centerline, 55' AGL/1635' MSL.

MC ALLEN, TX

MC ALLEN MILLER INTL (MFE)

AMDT 1 08353 (FAA)

TAKE-OFF MINIMUMS: **Rwy 36**, 300-2½, or std. with a min. climb of 298' per NM to 500'.
NOTE: **Rwy 13**, multiple trees beginning 792' from departure end of runway, 593' left of centerline, 44' AGL/159' MSL. **Rwy 31**, multiple trees beginning 708' from departure end of runway, 361' left of centerline, 43' AGL/157' MSL. Multiple trees beginning 1018' from departure end of runway, 626' right of centerline, 38' AGL/142' MSL. **Rwy 36**, light pole 581' from departure end of runway, on centerline, 17' AGL/122' MSL. Multiple buildings and trees beginning 624' from departure end of runway, 36' left of centerline, 24' AGL/129' MSL. Tower 197' from departure end of runway, 335' left of centerline, 38' AGL/140' MSL. Multiple buildings, poles, and towers beginning 635' from departure end of runway, right of centerline, 25' AGL/394' MSL.

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MIDLAND, TX

MIDLAND AIRPARK

TAKE-OFF MINIMUMS: **Rwy 16**, 700-1, or std. with a min. climb of 300' per NM to 3500.

DEPARTURE PROCEDURE: **Rwy 16**, climb runway heading to 3500, then climb on course.

MIDLAND INTL (MAF)

ORIG 09015 (FAA)

NOTE: **Rwy 4**, tower 1547' from departure end of runway, 727' left of centerline, 93' AGL/2961' MSL. Dome 1234' from departure end of runway, 675' left of centerline, 36' AGL/2900' MSL. **Rwy 10**, rod 467' from departure end of runway, 254' right of centerline, 20' AGL/2874' MSL. Sign 2219' from departure end of runway, 793' left of centerline, 48' AGL/2912' MSL. Pole 1563' from departure end of runway, 733' left of centerline, 31' AGL/2895' MSL. **Rwy 16L**, tree 217' from departure end of runway, 536' right of centerline, 100' AGL/2944' MSL. Sign 94' from departure end of runway, 365' left of centerline, 26' AGL/2875' MSL. Poles beginning 324' from departure end of runway, 277' left of centerline, 29' AGL/2874' MSL. Vehicle on road 382' from departure end of runway, 269' left of centerline, 17' AGL/2860' MSL. Train 553' from departure end of runway, 498' left of centerline, 23' AGL/2867' MSL. Vehicle on road 384' from departure end of runway, 549' left of centerline, 17' AGL/2866' MSL. Train 783' from departure end of runway, 17' left of centerline, 23' AGL/2869' MSL.

Rwy 16R, tree 3717' from departure end of runway, 1419' right of centerline, 100' AGL/2954' MSL. **Rwy 22**, antenna 2747' from departure end of runway, 962' right of centerline, 100' AGL/2964' MSL. Tower 2813' from departure end of runway, 1049' right of centerline, 102' AGL/2964' MSL. Hangar 1113' from departure end of runway, 600' right of centerline, 46' AGL/2905' MSL. Tree 5361' from departure end of runway, 1869' right of centerline, 100' AGL/2989' MSL. **Rwy 34R**, vehicle on road 258' from departure end of runway, 253' right of centerline, 17' AGL/2881' MSL. Tree 255' from departure end of runway, 81' right of centerline, 11' AGL/2875' MSL. Fence post 29' from departure end of runway, 263' right of centerline, 4' AGL/2868' MSL. Vehicle on road 447' from departure end of runway, 11' right of centerline, 15' AGL/2880' MSL. Pole 1279' from departure end of runway, 117' left of centerline, 29' AGL/2903' MSL. Fence 85' from departure end of runway, 257' left of centerline, 5' AGL/2869' MSL. Fence post 185' from departure end of runway, 71' left of centerline, 5' AGL/2869' MSL.

MONAHANS, TX

ROY HURD MEMORIAL

TAKE-OFF MINIMUMS: **Rwys 1, 12**, 400-1 or std. with a min. climb of 300' per NM to 3100.

NEW BRAUNFELS, TX

NEW BRAUNFELS MUNI

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 308° to 2600 before turning right. **Rwy 35**, climb heading 353° to 2200 before turning left.

NOTE: **Rwy 31**, multiple trees and antenna beginning 1125' from departure end of runway, 592' left of centerline, up to 47' AGL/706' MSL. Road 1014' from departure end of runway, 439' right of centerline, 15' AGL/687' MSL.

ODESSA, TX

ODESSA-SCHLEMEYER FIELD (ODO)

AMDT 2 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 20**, 400-2½ or std. w/a min. climb of 225' per NM to 3400, or alternatively, with standard take-off minimums and normal 200' per NM climb gradient, take-off must occur no later than 2100' prior to DER.

NOTE: **Rwy 2**, vehicle on roadway 184' from DER, left and right of centerline, 15' AGL/3024' MSL. **Rwy 16**, building 466' from DER, 487' left of centerline, 50' AGL/3029' MSL. Powerlines 896' from DER, left and right of centerline, 30' AGL/2984' MSL. **Rwy 20**, tower 2.3 miles from DER, 1311' left of centerline, 340' AGL/3287' MSL.

Rwy 29, rising terrain, trees, and poles beginning 8' from DER, 495' right of centerline, up to 27' AGL/3012' MSL. **Rwy 34**, airplane on taxiway 21' from DER, 362' left of centerline, up to 17' AGL/3001' MSL. Vehicles on roadway beginning 48' from DER, left and right of centerline, up to 16' AGL/3014' MSL. Buildings and hangers beginning 739' from DER, left and right of centerline, up to 50' AGL/3044' MSL.

OZONA, TX

OZONA MUNI

TAKE-OFF MINIMUMS: **Rwy 16**, 300-1 or std. with a min. climb of 445' per NM to 2700. **Rwy 34**, 200-1½ or std. with a min. climb of 380' per NM to 2600.

NOTE: **Rwy 16**, trees 3686' from departure end of runway, 354' left of centerline, 100' AGL/2560' MSL. Trees 4436' from departure end of runway, 355' left of centerline, 100' AGL/2574' MSL. **Rwy 34**, trees 1363' from departure end of runway, 638' left of centerline, 100' AGL/2529' MSL. Trees 3479' from departure end of runway, 791' left of centerline, 100' AGL/2535' MSL. Trees 7679' from departure end of runway, 932' left of centerline, 100' AGL/2593' MSL.

PLEASANTON, TX

PLEASANTON MUNI (PEZ)

AMDT 1 08325 (FAA)

NOTE: **Rwy 16**, vehicle on road 108' from departure end of runway, 285' left of centerline, 15' AGL/424' MSL. Fence 135' from departure end of runway, 194' left of centerline, 3' AGL/412' MSL. Fence 235' from departure end of runway, 38' right of centerline, 3' AGL/412' MSL. Trees beginning 246' from departure end of runway, 56' left of centerline, up to 100' AGL/529' MSL. Trees beginning 173' from departure end of runway, 154' right of centerline, up to 100' AGL/529' MSL. **Rwy 34**, vehicle on road 136' from departure end of runway, left to right of centerline, up to 15' AGL/444' MSL. Fence 191' from departure end of runway, 251' left of centerline, 3' AGL/442' MSL. Trees beginning 210' from departure end of runway, 51' left of centerline, up to 100' AGL/539' MSL. Tree 172' from departure end of runway, 74' right of centerline, 100' AGL/529' MSL.

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PORT ARANSAS, TX MUSTANG BEACH (RAS) AMDT 1 09015 (FAA)

NOTE: **Rwy 12**, transmission towers and poles beginning 43' from departure end of runway, 28' right of centerline, up to 81' AGL/86' MSL. Building 2435' from departure end of runway, 967' right of centerline, 130' AGL/135' MSL. Transmission towers and poles beginning 1141' from departure end of runway, 13' left of centerline, up to 83' AGL/88' MSL. **Rwy 30**, boat 1657' from departure end of runway, 915' left of centerline, 50' AGL/50' MSL.

PORT ISABEL, TX PORT ISABEL-CAMERON COUNTY (PIL) AMDT 2 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwy 17**, 400-2 or std. with a min. climb of 253' per NM to 500.

NOTE: **Rwy 3**, trees beginning 178' from departure end of runway, 27' left of centerline, up to 100' AGL/114' MSL.

Rwy 8, trees beginning 2046' from departure end of runway, 511' right of centerline, up to 100' AGL/119' MSL. Trees beginning 1981' from departure end of runway, 118' right of centerline, up to 100' AGL/119' MSL. **Rwy 13**, trees beginning 530' from departure end of runway, 32' left of centerline, up to 100' AGL/119' MSL.

Rwy 17, trees beginning 911' from departure end of runway, 84' left of centerline, up to 100' AGL/119' MSL.

Rwy 35, trees beginning 15' from departure end of runway, 4' left of centerline, up to 100' AGL/114' MSL.

ROBSTOWN, TX NUECES COUNTY

TAKE-OFF MINIMUMS: **Rwy 13**, 1000-3, or std. with a min. climb of 390' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 130° to 1200 prior to turning north or east.

ROCKPORT, TX ARANSAS COUNTY

NOTE: **Rwy 14**, road plus vehicle 500' from departure end of runway, 593' left of centerline, 17' AGL/40' MSL. **Rwy 18**, antenna 5599' from departure end of runway, 602' left of centerline, 160' AGL/171' MSL. **Rwy 32**, road plus vehicle 291' from departure end of runway, 533' left of centerline, 17' AGL/40' MSL. **Rwy 36**, road plus vehicle 576' from departure end of runway, 597' left of centerline, 17' AGL/40' MSL.

ROCKSPRINGS, TX EDWARDS COUNTY

NOTE: **Rwy 14**, multiple trees beginning 1076' from departure end of runway, 22' right of centerline, up to 100' AGL/2459' MSL. **Rwy 32**, fence 101' from departure end of runway, 35' left of centerline, 5' AGL/2374' MSL.

Multiple trees beginning 318' from departure end of runway, 71' left of centerline, up to 100' AGL/2479' MSL.

Multiple trees beginning 992' from departure end of runway, 532' right of centerline, up to 100' AGL/2479' MSL.

SAN ANGELO, TX SAN ANGELO RGNL/MATHIS FIELD

TAKE-OFF MINIMUMS: **Rwys 27, 36**, 900-2 or std. with a min. climb of 240' per NM to 2800.

SAN ANTONIO, TX BOERNE STAGE FIELD

DEPARTURE PROCEDURE: **Rwy 35**, climb heading 346° to 2800 before turning westbound.

NOTE: **Rwy 17**, multiple trees and light poles along tree line beginning 6' from departure end of runway, 128' right of centerline, up to 50' AGL/1427' MSL. Multiple trees and light poles along tree line beginning 81' from departure end of runway, 144' left of centerline, up to 50' AGL/1409' MSL. **Rwy 35**, multiple trees and poles beginning 204' from departure end of runway, 7' left of centerline, up to 50' AGL/1422' MSL. Multiple trees and poles beginning 205' from departure end of runway, 24' right of centerline, up to 50' AGL/1423' MSL. Hangar 80' from departure end of runway, 222' right of centerline, up to 50' AGL/1397' MSL.

SAN ANTONIO INTL (SAT) ORIG 09183 (FAA)

NOTE: **Rwy 3**, tree 734' from DER, 695' left of centerline, 31' AGL/793' MSL. **Rwy 12R**, antenna on tower 1034' from DER, 723' right of centerline, 42' AGL/820' MSL. Building and vent on building beginning 3801' from DER, 1488' right of centerline, 117' AGL/881' MSL. **Rwy 21**, antenna on hangar and flagpole beginning 1198' from DER, 700' right of centerline, up to 39' AGL/825' MSL. Sign 2713' from DER, 1034' right of centerline, 71' AGL/857' MSL. **Rwy 30L**, tower and poles beginning 1931' from DER, 834' left of centerline, up to 42' AGL/892' MSL. Sign 2435' from DER, 1042' right of centerline, 54' AGL/873' MSL. **Rwy 30R**, rod on obstruction light 1261' from DER, 591' left of centerline, 57' AGL/854' MSL.

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SAN ANTONIO, TX (CON'T)

STINSON MUNI (SSF)
AMDT 2 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9**, Std. w/min climb of 225' per NM to 1900 or 1000-2/3 for climb in visual conditions. **Rwy 27**, 300-1/3 or std. w/min. climb of 221' per NM to 900, or alternatively, with standard takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 1700' prior to departure end of runway.

DEPARTURE PROCEDURE: **Rwy 9**, For climb in visual conditions, cross Stinson Muni Airport at or above 1400 MSL before proceeding on course. **Rwy 14**, Climb heading 137° to 1200 before turning left. **Rwy 32**, Climb heading 317° to 1500 before turning right.

NOTES: **Rwy 9**, Vehicle on road 285' from departure end of runway, 380' left of centerline, 15' AGL/584' MSL.

Trees beginning 1653' from departure end of runway, 435' right of centerline, up to 70' AGL/629' MSL. **Rwy 14**, Vehicle on road 114' from departure end of runway, on centerline extending 373' left of centerline, up to 15' AGL/564' MSL. Trees beginning 72' from departure end of runway, 79' right of centerline, up to 70' AGL/607' MSL. Trees beginning 232' from departure end of runway, 54' left of centerline, up to 70' AGL/618' MSL. Transmission line tower 4205' from departure end of runway, 133' right of centerline, 119' AGL/663' MSL. **Rwy 27**, Fence 41' from departure end of runway, 30' right of centerline, 8' AGL/584' MSL. Vehicle on road 108' from departure end of runway, 202' right of centerline, 15' AGL/584' MSL.

Vehicle on road 123' from departure end of runway, 113' right of centerline, 15' AGL/596' MSL. Trees and poles beginning 229' from departure end of runway, 117' right of centerline, up to 70' AGL/645' MSL. Trees and poles beginning 599' from departure end of runway, 6' left of centerline, up to 70' AGL/634' MSL. Tank beginning 1.32 NM from departure end of runway, 1338' right of centerline, 179' AGL/799' MSL. Building 1422' from departure end of runway, 432' right of centerline, 40' AGL/627' MSL. Building 2133' from departure end of runway, 36' left of centerline, 55' AGL/635' MSL. **Rwy 32**, Fence 17' from departure end of runway, 80' left of centerline, 8' AGL/578' MSL. Vehicle on road 54' from departure end of runway, 199' left of centerline, 15' AGL/586' MSL. Trees beginning 164' from departure end of runway, 125' right of centerline, up to 70' AGL/639' MSL. Trees and poles beginning 43' from departure end of runway, 41' left of centerline, up to 75' AGL/668' MSL.

DER, 591' left of centerline, 57' AGL/854' MSL. arcs, tx

SAN MARCOS, TX

SAN MARCOS MUNI

TAKE-OFF MINIMUMS: **Rwy 31**, std. with a min. climb of 211' per NM to 2600, or 1500-3 for climb in visual conditions. **Rwy 35**, std. with a min. climb of 214' per NM to 2600, or 1500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 31, 35**, for climb in visual conditions: cross San Marcos Municipal Airport at or above 1200.

NOTE: **Rwy 8**, tree 942' from departure end of runway, 259' left of centerline, 33' AGL/612' MSL. **Rwy 26**, pole 1217' from departure end of runway, 550' right of centerline, 35' AGL/624' MSL. **Rwy 31**, multiple poles 1062' from departure end of runway, 604' right of centerline, 33' AGL/621' MSL.

SINTON, TX

ALFRED C. BUBBA THOMAS

DEPARTURE PROCEDURE: **Rwy 14**, climb runway heading to 800 prior to turning east.

SONORA, TX

SONORA MUNI

TAKE-OFF MINIMUMS: **Rwy 18**, 700-2. **Rwy 36**, 300-1.

TEMPLE, TX

DRAUGHON-MILLER CENTRAL TEXAS RGNL

DEPARTURE PROCEDURE: **Rwy 2**, climb on heading between 085° clockwise to 200° or 345° counter clockwise to 200° from departure end of runway, or minimum climb of 313' per NM to 3300 for all other courses. **Rwy 33**, climb on heading between 070° clockwise to 150° or 330° counter clockwise to 150° from departure end of runway, or minimum climb of 235' per NM to 3200 for all other courses.

NOTE: **Rwy 2**, multiple bushes and trees beginning 176' from departure end of runway 491' left of centerline, up to 34' AGL/699' MSL. Tree 279' from departure end of runway, 361' right of centerline, 15' AGL/680' MSL. **Rwy 15**, bush 158' from departure end of runway, 412' left of centerline, 7' AGL/676' MSL, tree 941' from departure end of runway, 743' right of centerline, 32' AGL/701' MSL.

TAYLOR, TX

TAYLOR MUNI (T74)

ORIG 08269 (FAA)

NOTE: **Rwy 17**, numerous trees beginning at departure end of runway, 180' right of centerline up to 50' AGL/591' MSL. Terrain beginning 1700' from departure end of runway, 380' left of centerline, up to 601' MSL.

VAN HORN, TX

CULBERSON COUNTY

TAKE-OFF MINIMUMS: **Rwys 17, 21**, 2100-2 or std. with a min. climb of 500' per NM to 5000. **Rwy 25**, NA.

DEPARTURE PROCEDURE: **Rwys 3, 17, 21, 35**, climb runway heading to 5000 then climbing right turn direct VHN NDB and climb in VHN NDB holding pattern to MEA, before proceeding on course. **Rwy 7**, climb runway heading to 5000 then climbing left turn direct VHN NDB and climb in VHN NDB holding pattern to MEA, before proceeding on course.

WACO, TX

MC GREGOR EXECUTIVE

TAKE-OFF MINIMUMS: **Rwys 4, 17, 22, 35**, 2000-3 or std. with a min. climb of 280' per NM to 3000.

DEPARTURE PROCEDURE: **Rwys 17, 22**, climb via ACTR-195 to 3000 before proceeding on course. **Rwys 4, 35**, climb runway heading to 3000 before proceeding on course.

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WACO, TX (CON'T)

TSTC-WACO (CNW)

ORIG 08269 (FAA)

NOTE: **Rwy 17L**, terrain 198' from departure end of runway, 467' right of centerline, 464' MSL. **Rwy 17R**, vehicle on road 137' from departure end of runway, 487' right of centerline, 15' AGL/474' MSL. Trees beginning 872' from departure end of runway, 238' right of centerline, up to 100' AGL/529' MSL. Trees beginning 1239' from departure end of runway, 74' left of centerline, up to 100' AGL/512' MSL. **Rwy 35L**, trees beginning 3386' from departure end of runway, 529' left of centerline, up to 100' AGL/579' MSL. **Rwy 35R**, trees beginning 2606' from departure end of runway, 1042' right of centerline, up to 100' AGL/579' MSL. Tree 2094' from departure end of runway, 910' left of centerline, 45' AGL/524' MSL.

WINK, TX

WINKLER COUNTY (INK)

ORIG 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 147° to 3400 before proceeding on course.

NOTE: **Rwy 13**, vehicles on road beginning 535' from DER, from left to right of centerline, up to 15' AGL/2829' MSL.

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