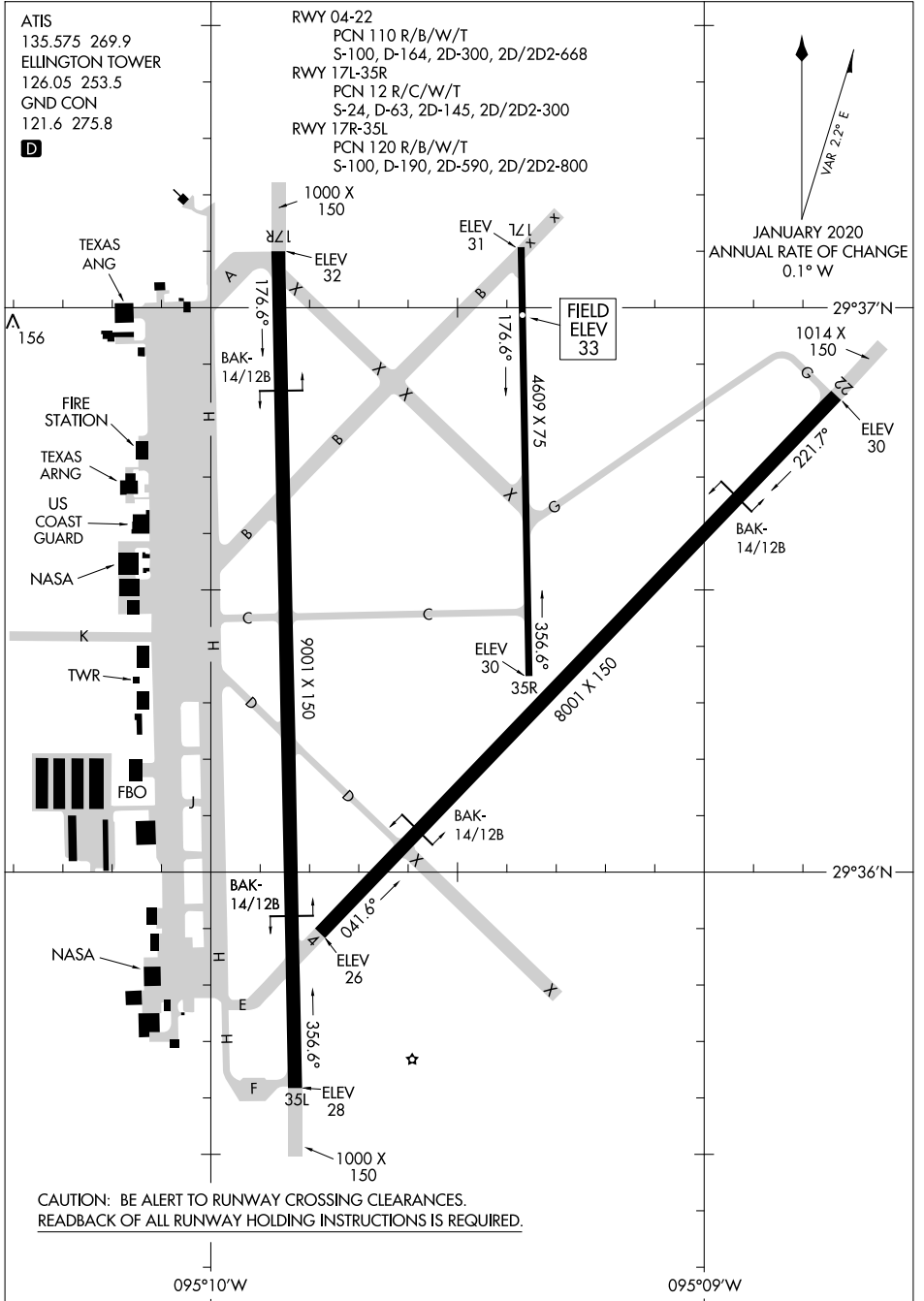


AIRPORT DIAGRAM

AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

HOUSTON, TEXAS
ELLINGTON (EFD)

ALEXANDRIA THREE DEPARTURE
(AEX3.AEX) 07OCT21

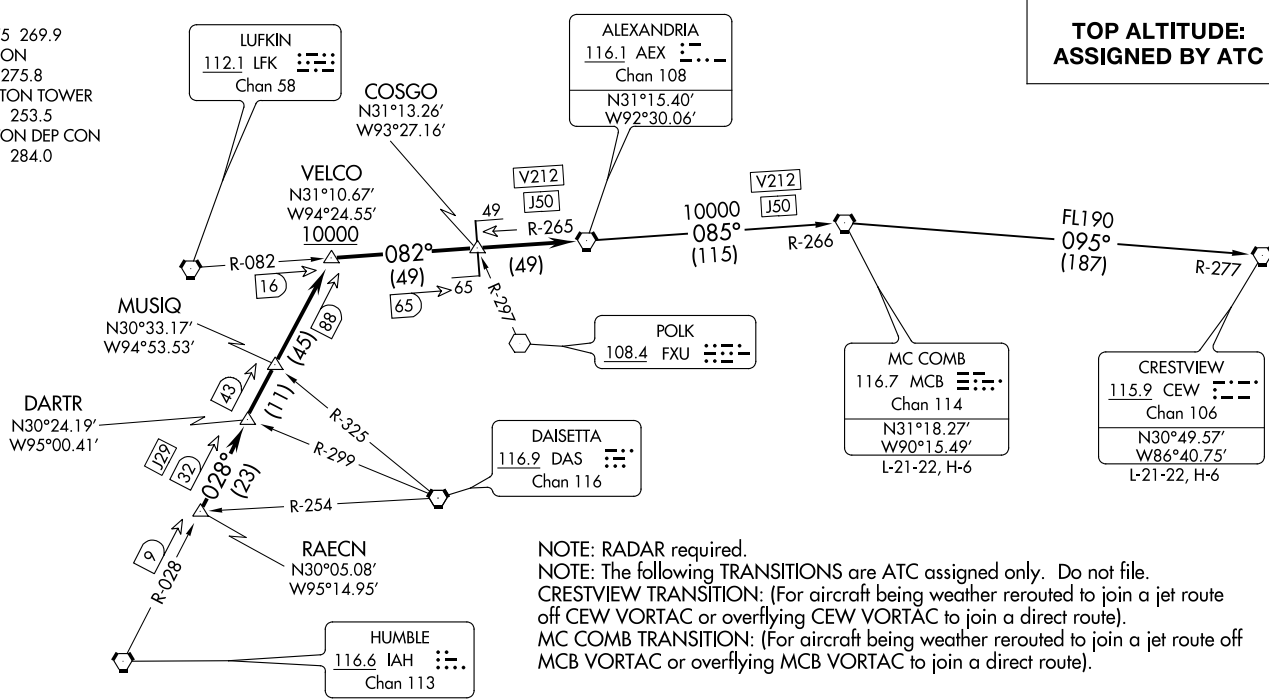
ALEXANDRIA THREE DEPARTURE
(AEX3.AEX) 21280

AL-197 (FAA)

ELLINGTON (E/FD)
HOUSTON, TEXAS

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**



NOTE: RADAR required.
NOTE: The following TRANSITIONS are ATC assigned only. Do not file.
CRESTVIEW TRANSITION: (For aircraft being weather rerouted to join a jet route off CEW VORTAC or overflying CEW VORTAC to join a direct route).
MC COMB TRANSITION: (For aircraft being weather rerouted to join a jet route off MCB VORTAC or overflying MCB VORTAC to join a direct route).

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1¼ or standard with minimum climb of 214' per NM to 300, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

HOUSTON, TEXAS
ELLINGTON (E/FD)

ALEXANDRIA THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

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

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

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

MC COMB TRANSITION (AEX3.MCB): From over AEX VORTAC on AEX R-085 and MCB R-266 to MCB VORTAC.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

(BLTWY7.BLTWY) 21280

AL-197 (FAA)

ELLINGTON (EFD)

HOUSTON, TEXAS

BLTWY SEVEN DEPARTURE (RNAV)

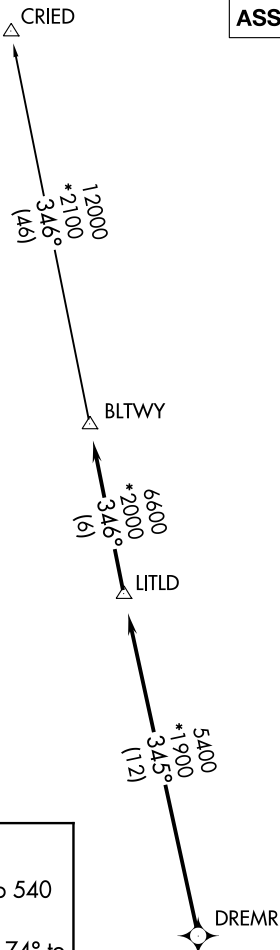
ATIS
 135.575 269.9
 GND CON
 121.6 275.8
 ELLINGTON TOWER
 126.05 253.5
 HOUSTON DEP CON
 134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

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

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 22, 35L/R:
 Standard with minimum climb of 500' per NM to 540.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to DREMR, thence

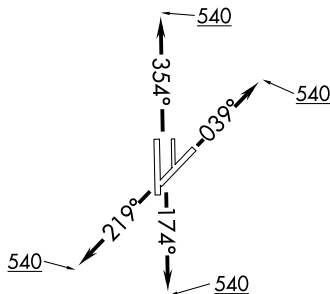
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to DREMR, thence

TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to DREMR, thence

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to DREMR, thence

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

CRIED TRANSITION (BLTWY7.CRIED)



NOTE: Chart not to scale.

BLTWY SEVEN DEPARTURE (RNAV)

(BLTWY7.BLTWY) 07OCT21

HOUSTON, TEXAS
 ELLINGTON (EFD)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

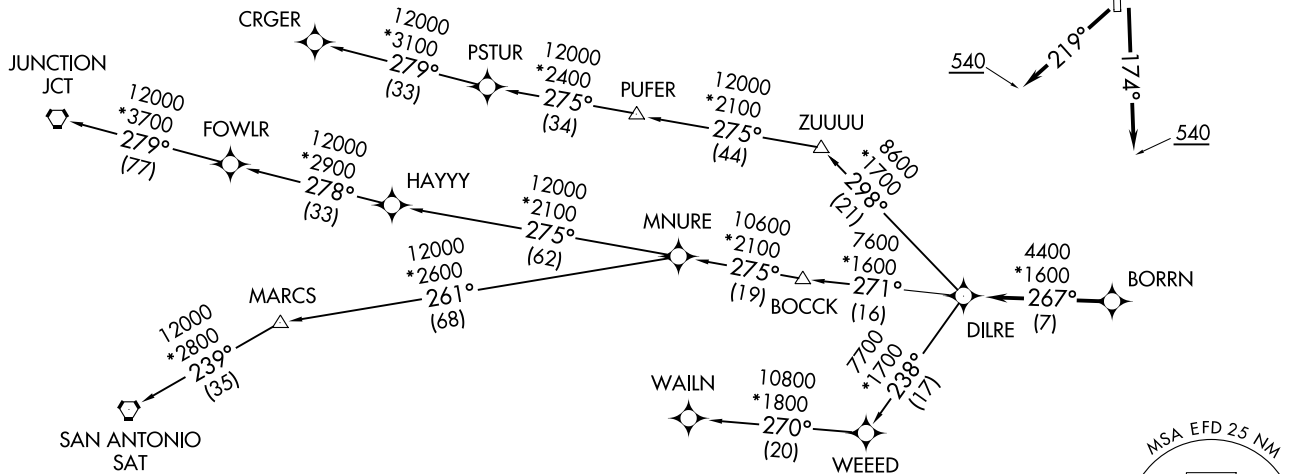
RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

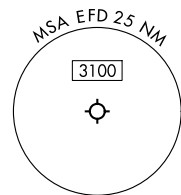
**TOP ALTITUDE:
ASSIGNED BY ATC**

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum
climb of 500'/NM to 540.

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0



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



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

BORRN SIX DEPARTURE (RNAV)
(BORRN6.BORRN) 30NOV23

HOUSTON, TEXAS
ELLINGTON (EFTD)

(BORRN6.BORRN) 23334
BORRN SIX DEPARTURE (RNAV)

AL197 (FAA)

ELLINGTON (EFTD)
HOUSTON, TEXAS

BORRN SIX DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to BORRN, thence. . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to BORRN, thence. . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to BORRN, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to BORRN, thence. . . .

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

CRGER TRANSITION (BORRN6.CRGER)

JUNCTION TRANSITION (BORRN6.JCT)

MNURE TRANSITION (BORRN6.MNURE)

SAN ANTONIO TRANSITION (BORRN6.SAT)

WAILN TRANSITION (BORRN6.WAILN)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

(CRIED1 .CRIED) 21280

CRIED ONE DEPARTURE

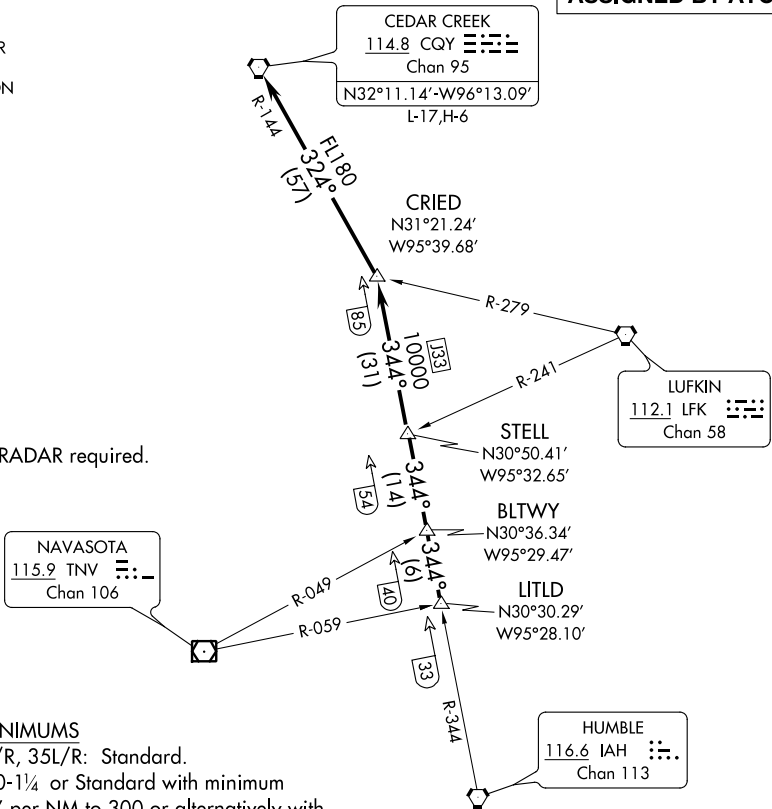
AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

NOTE: RADAR required.



TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1¼ or Standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

DEPARTURE ROUTE DESCRIPTION

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

. . . . on IAH R-344 to STELL INT, then on IAH R-344 to CRIED INT, then left turn on CQY R-144 to CQY VORTAC.

CRIED ONE DEPARTURE

(CRIED1 .CRIED) 07OCT21

HOUSTON, TEXAS
ELLINGTON (EFD)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

EL DORADO ONE DEPARTURE

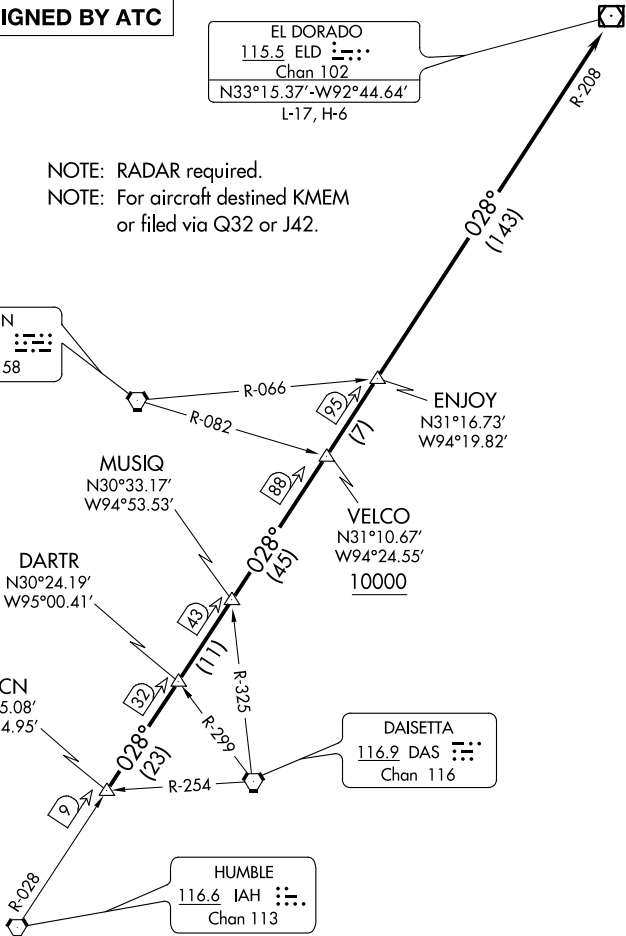
ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

EL DORADO
115.5 ELD
Chan 102
N33°15.37'-W92°44.64'
L-17, H-6

NOTE: RADAR required.
NOTE: For aircraft destined KMEM
or filed via Q32 or J42.

LUFKIN
112.1 LFK
Chan 58



RAECN
N30°05.08'
W95°14.95'

DARTR
N30°24.19'
W95°00.41'

MUSIQ
N30°33.17'
W94°53.53'

ENJOY
N31°16.73'
W94°19.82'

VELCO
N31°10.67'
W94°24.55'
10000

DAISSETA
116.9 DAS
Chan 116

HUMBLE
116.6 IAH
Chan 113

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1¼ or standard with minimum
climb of 214' per NM to 300 or alternatively with
standard takeoff minimums and a normal 200' per
NM climb gradient, takeoff must occur no later than
1400' prior to DER.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

EL DORADO ONE DEPARTURE

(ELD1.ELD) 07OCT21

EL DORADO ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

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

. . . .on IAH R-028 and the ELD R-208 to ELD VOR/DME, cross VELCO INT at or above 10000.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

CEDAR CREEK
114.8 CQY Chan 95

**TOP ALTITUDE:
ASSIGNED BY ATC**

NOTE: RADAR required.
NOTE: For aircraft destined for the DFW
terminal area only.

LEONA
110.8 LOA Chan 45

GIFFA
N31°22.89'
W95°15.10'
L-19-21, H-6
10000

85

358°
(44)

BUMCO
N30°38.91'
W95°18.03'

358°
(110)

MONNT
N30°28.65'
W95°18.70'
L19-21, H7

31

DAISETTA
116.9 DAS Chan 116

TAKEOFF MINIMUMS

Rwys 4, 17L, 17R, 35L, 35R: Standard.
Rwy 22: 200-1¼ or standard with minimum climb
of 214' per NM to 300 or alternatively with
standard takeoff minimums and a normal
200' per NM climb gradient, takeoff must
occur no later than 1400' prior to DER.

DEPARTURE ROUTE DESCRIPTION

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

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



HUMBLE
116.6 IAH Chan 113

NOTE: Chart not to scale.

SC-5, 22 FEB 2024 to 21 MAR 2024

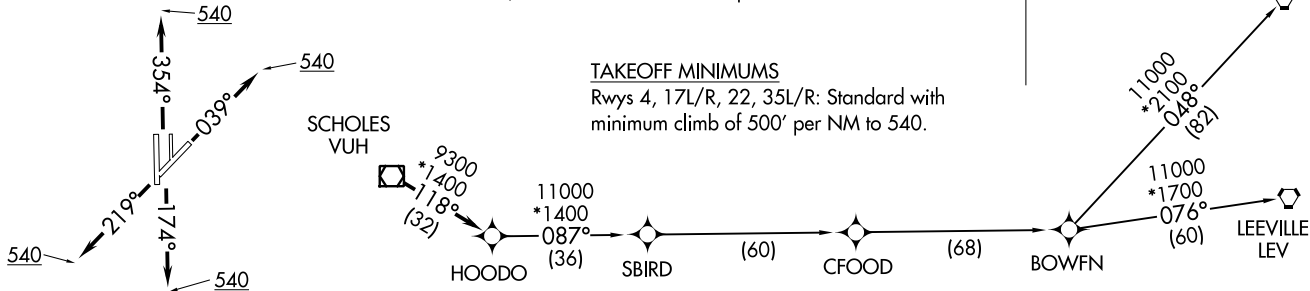
SC-5, 22 FEB 2024 to 21 MAR 2024

HOODO SEVEN DEPARTURE (RNAV)
(HOODO7.HOODO) 07OCT11

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

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

**TOP ALTITUDE:
ASSIGNED BY ATC**



TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500' per NM to 540.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to VUH VOR/DME, thence
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to VUH VOR/DME, thence
TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to VUH VOR/DME, thence
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to VUH VOR/DME, thence
 on track 118° to HOODO, then on (transition). Maintain ATC assigned altitude.
 Expect filed altitude 10 minutes after departure.

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

HOUSTON, TEXAS
ELLINGTON (EFD)

(HOODO7.HOODO) 21280
HOODO SEVEN DEPARTURE (RNAV)
AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS

(INDIE8.INDIE) 21280

AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS

INDIE EIGHT DEPARTURE (RNAV)

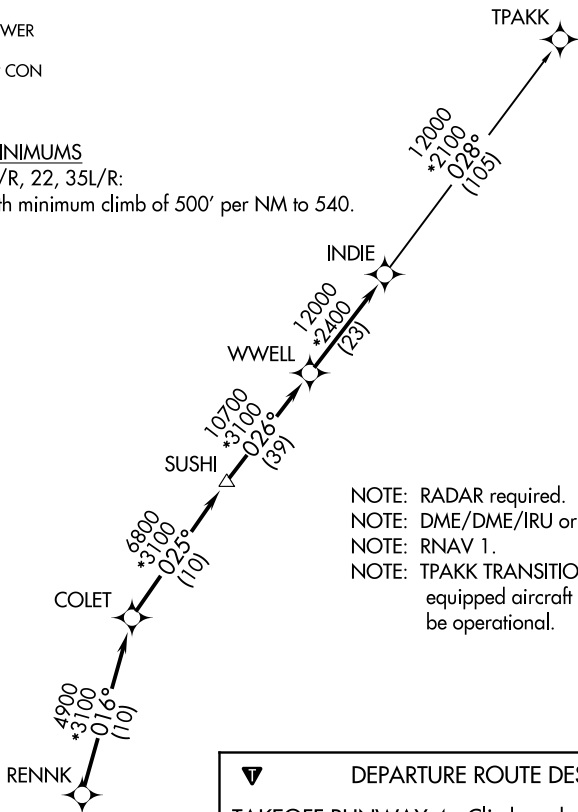
ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 22, 35L/R:

Standard with minimum climb of 500' per NM to 540.



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

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to RENNK, thence

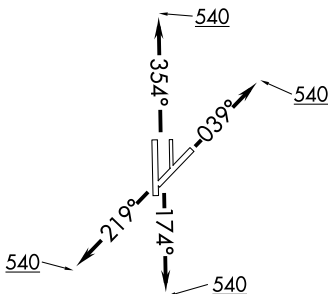
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to RENNK, thence

TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to RENNK, thence

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to RENNK, thence

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

TPAKK TRANSITION (INDIE8.TPAKK)



NOTE: Chart not to scale.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

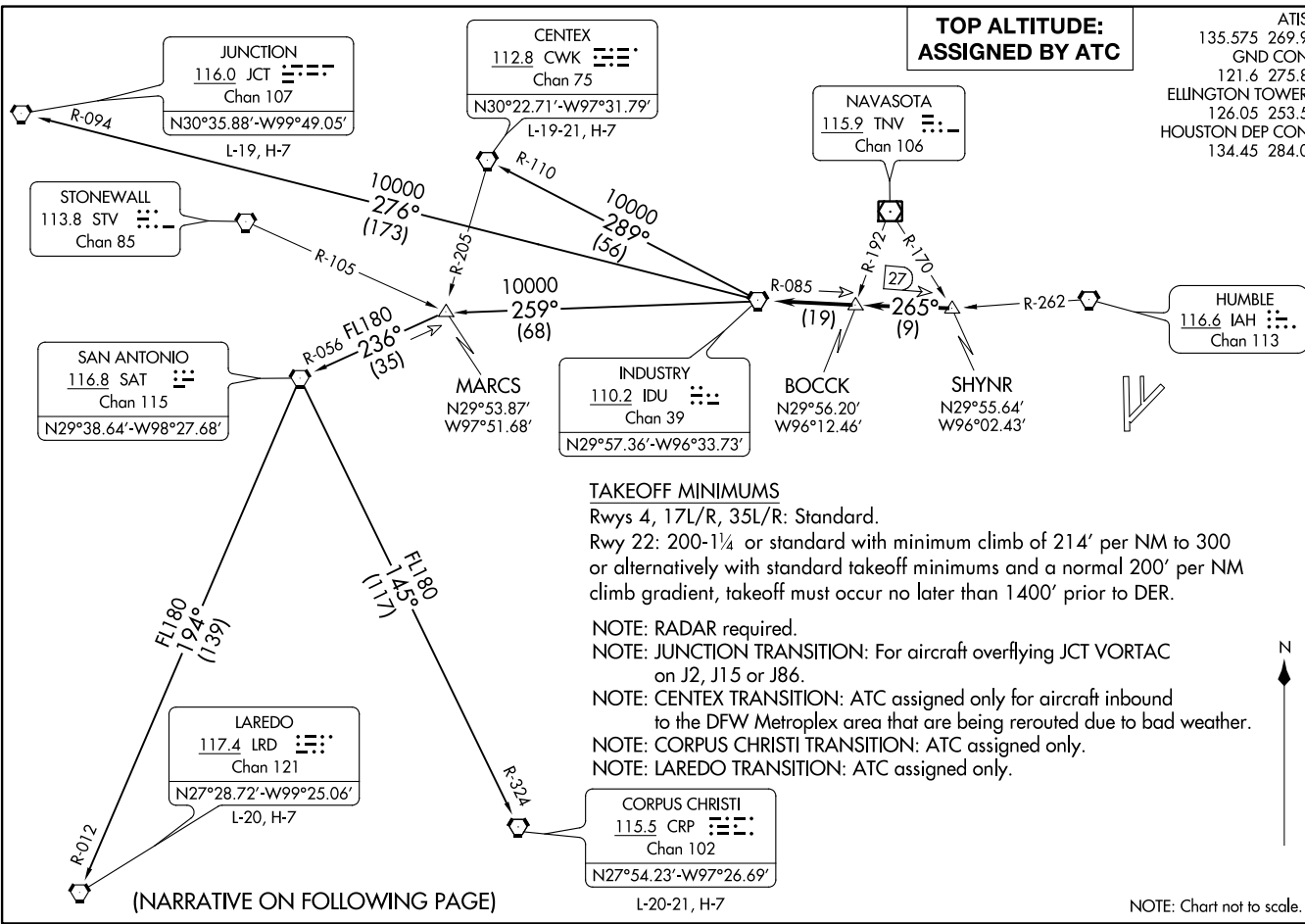
INDIE EIGHT DEPARTURE (RNAV)

(INDIE8.INDIE) 07OCT21

HOUSTON, TEXAS
ELLINGTON (EFD)

INDUSTRY ONE DEPARTURE
(IDU1, IDU) 070C121

HOUSTON, TEXAS
ELLINGTON (EFD)



INDUSTRY ONE DEPARTURE
(IDU1, IDU) 21280

AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.
Rwy 22: 200-1¼ or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

- NOTE: RADAR required.
- NOTE: JUNCTION TRANSITION: For aircraft overflying JCT VORTAC on J2, J15 or J86.
- NOTE: CENTEX TRANSITION: ATC assigned only for aircraft inbound to the DFW Metroplex area that are being rerouted due to bad weather.
- NOTE: CORPUS CHRISTI TRANSITION: ATC assigned only.
- NOTE: LAREDO TRANSITION: ATC assigned only.

(NARRATIVE ON FOLLOWING PAGE)

CORPUS CHRISTI
115.5 CRP
Chan 102
N27°54.23'-W97°26.69'

L-20-21, H-7

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

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

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

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

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

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

LAREDO TRANSITION (IDU1.LRD): From over IDU VORTAC on IDU R-259 to MARCS INT, then on SAT R-056 to SAT VORTAC, then on SAT R-194 and LRD R-012 to LRD VORTAC.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

RNAV-1 DME/DME/IRU or GPS.

RADAR required.

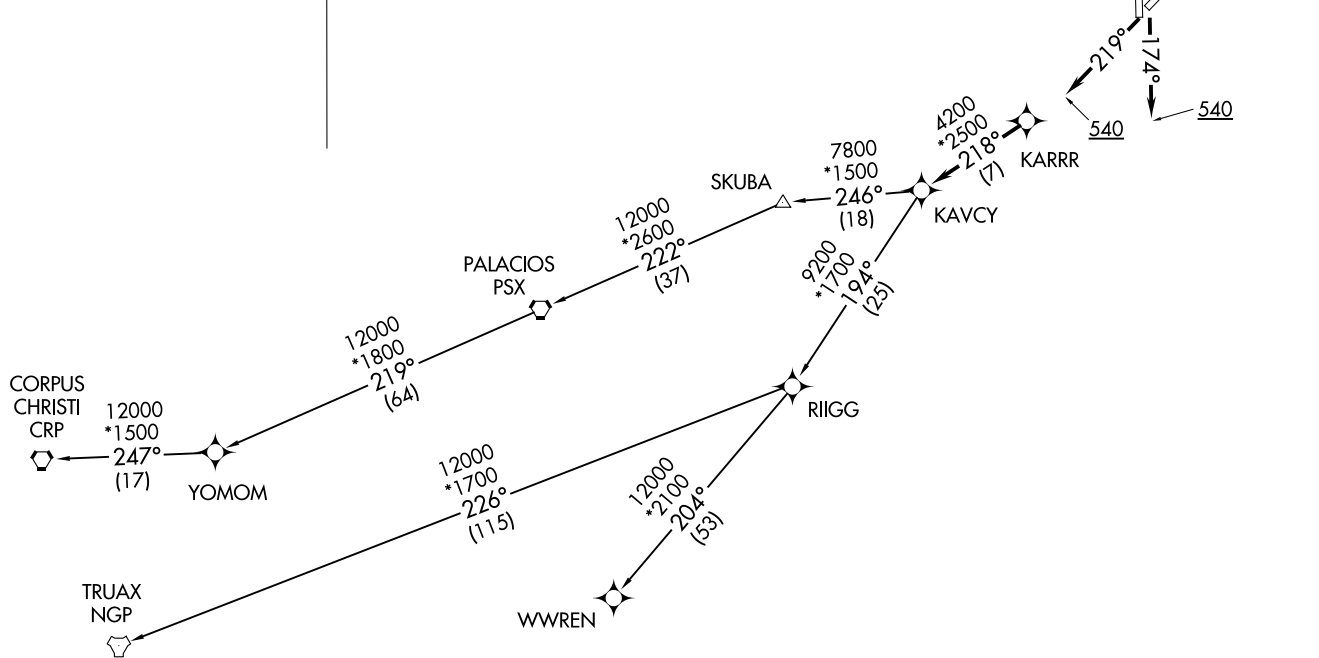
**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 22, 35L/R:

Standard with minimum climb of 500' per NM to 540.



KARRR SEVEN DEPARTURE (RNAV)
(KARRR7.KARRR) 29DEC22

HOUSTON, TEXAS
ELLINGTON (EFTD)

(KARRR7.KARRR) 23222
KARRR SEVEN DEPARTURE (RNAV)

AL-197 (FAA)

ELLINGTON (EFTD)
HOUSTON, TEXAS

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

KARRR SEVEN DEPARTURE(RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to KARRR, thence. . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to KARRR, thence. . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to KARRR, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to KARRR, thence. . . .

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

CORPUS CHRISTI TRANSITION (KARRR7.CRP)

PALACIOS TRANSITION (KARRR7.PSX)

TRUAX TRANSITION (KARRR7.NGP)

WWREN TRANSITION (KARRR7.WWREN)

YOMOM TRANSITION (KARRR7.YOMOM)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

LEONA FOUR DEPARTURE

AL-197 (FAA)

ELLINGTON (EFD)
HOUSTON, TEXAS

TOP ALTITUDE: ASSIGNED BY ATC

ATIS
135.575 269.9
HOUSTON DEP CON
134.45 284.0
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5

ARDMORE
116.7 ADM :
Chan 114
N34°12.69' - W97°10.10'
L-17, H-6

TULSA
114.4 TUL :
Chan 91
N36°11.78' - W95°47.29'

BONHAM
114.6 BYP :
Chan 93
N33°32.25' - W96°14.05'
L-17, H-6

RANGER
115.7 FUZ :
Chan 104
N32°53.37' - W97°10.77'
L-17, H-6

CEDAR CREEK
114.8 CQY :
Chan 95
N32°11.14' - W96°13.09'

DOLEY
N32°11.35'
W96°23.08'

WACO
115.3 ACT :
Chan 100
N31°39.74' - W97°16.14'

LEONA
110.8 LOA :
Chan 45
N31°07.44' - W95°58.08'

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.

Rwy 22: 200-1¼ or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

NAVASOTA
115.9 TNV :
Chan 106

WLLIS
N30°32.08'
W95°39.10'

HUMBLE
116.6 IAH :
Chan 113

NOTE: RADAR required.

NOTE: Except for aircraft destined ACT or the DFW terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ (LOA4.FUZ), ADM (LOA4.ADM), or BYP (LOA4.BYP).

NOTE: RANGER TRANSITION: For aircraft overflying west/northwest of the DFW terminal area FL240 and above.

NOTE: ARDMORE TRANSITION: For aircraft overflying north/northwest of the DFW terminal area FL240 and above.

NOTE: BONHAM TRANSITION: For aircraft overflying/landing TUL VORTAC FL240 and above.



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

LEONA FOUR DEPARTURE

(LOA4.LOA) 07OCT21

HOUSTON, TEXAS
ELLINGTON (EFD)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024



DEPARTURE ROUTE DESCRIPTION

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

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

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

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

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

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

(LFK3.LFK) 21280

AL-197 (FAA)

ELLINGTON (E,F,D)
HOUSTON, TEXAS

LUFKIN THREE DEPARTURE

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

**TOP ALTITUDE:
ASSIGNED BY ATC**

LITTLE ROCK
113.9 LIT :...
Chan 86
N34°40.66'
W92°10.83'
L-18, H-6

NOTE: RADAR and DME required.
NOTE: For aircraft destined LIT or
overflying LIT or PXV.

LUFKIN
112.1 LFK :...
Chan 58
N31°09.75'
W94°43.01'

SUSHI
N30°35.48'
W95°04.39'

COLET
N30°26.96'
W95°09.66'

KYANN
N30°15.53'
W95°13.96'

HUMBLE
116.6 IAH :...
Chan 113

DAISETTA
116.9 DAS :...
Chan 116

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.

Rwy 22: 200-1¼ or standard with minimum climb
of 214' per NM to 300 or alternatively with
standard takeoff minimums and a normal
200' per NM climb gradient, takeoff must
occur no later than 1400' prior to DER.



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

LUFKIN THREE DEPARTURE

(LFK3.LFK) 07OCT21

HOUSTON, TEXAS
ELLINGTON (E,F,D)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

LUFKIN THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading for RADAR vectors to KYANN INT. Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure, thence. . . .

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

LITTLE ROCK TRANSITION (LFK3.LIT): From over LFK VORTAC on LFK R-026 to SKKIP INT, then on LFK R-026 and LIT R-207 to LIT VORTAC.

SC-5, 22 FEB 2024 to 21 MAR 2024

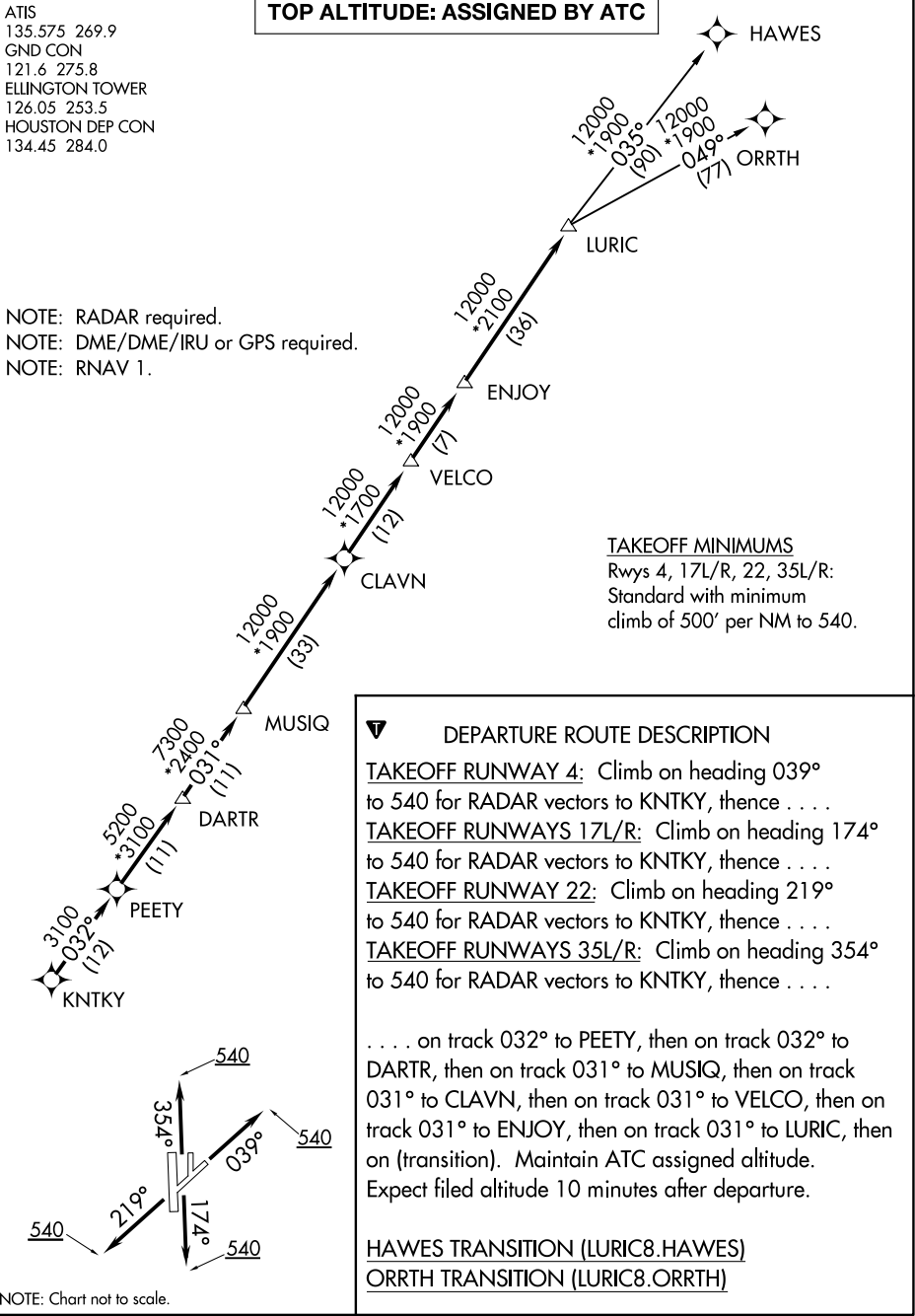
SC-5, 22 FEB 2024 to 21 MAR 2024

LURIC EIGHT DEPARTURE (RNAV)

ATIS
 135.575 269.9
 GND CON
 121.6 275.8
 ELLINGTON TOWER
 126.05 253.5
 HOUSTON DEP CON
 134.45 284.0

TOP ALTITUDE: ASSIGNED BY ATC

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



TAKEOFF MINIMUMS
 Rwy 4, 17L/R, 22, 35L/R:
 Standard with minimum
 climb of 500' per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to KNTKY, thence . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to KNTKY, thence . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to KNTKY, thence . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to KNTKY, thence . . .

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

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

NOTE: Chart not to scale.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

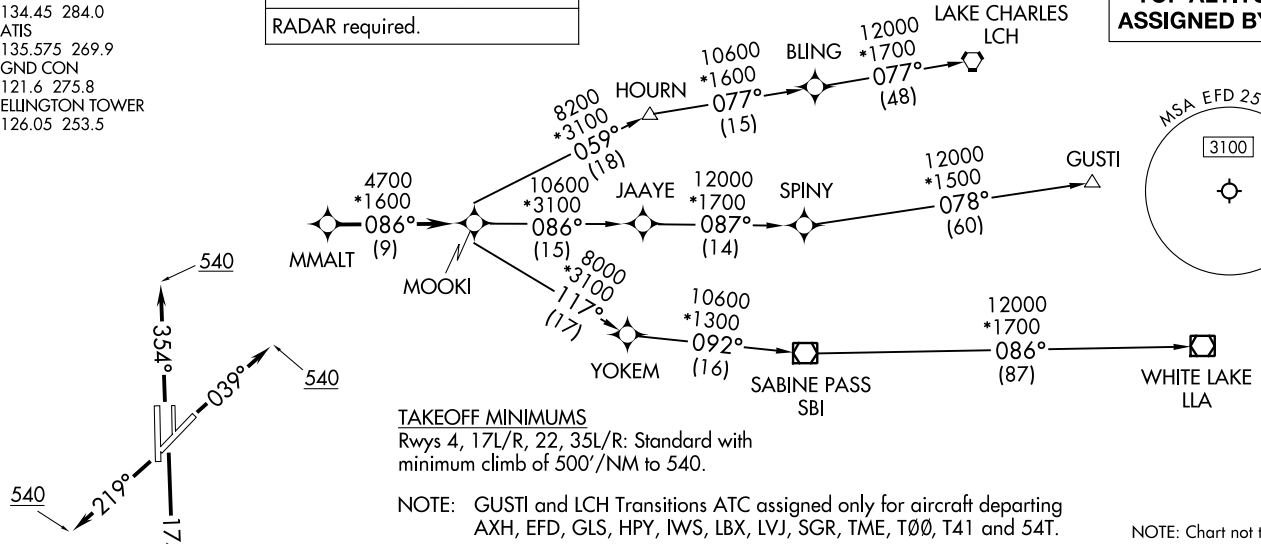
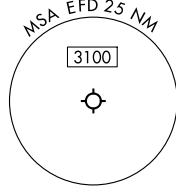
MMALT SEVEN DEPARTURE (RNAV)
(MMALT7.MMALT) 30NOV23

HOUSTON, TEXAS
ELLINGTON (E,F,D)

HOUSTON DEP CON
134.45 284.0
ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5

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

**TOP ALTITUDE:
ASSIGNED BY ATC**



TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500'/NM to 540.

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

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

- TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to MMALT, thence. . .
- TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to MMALT, thence. . .
- TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to MMALT, thence. . .
- TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to MMALT, thence. . .

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

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

(MMALT7.MMALT) 23334
MMALT SEVEN DEPARTURE (RNAV)

AL-197 (FAA)

ELLINGTON (E,F,D)
HOUSTON, TEXAS

RADAR and DME required.

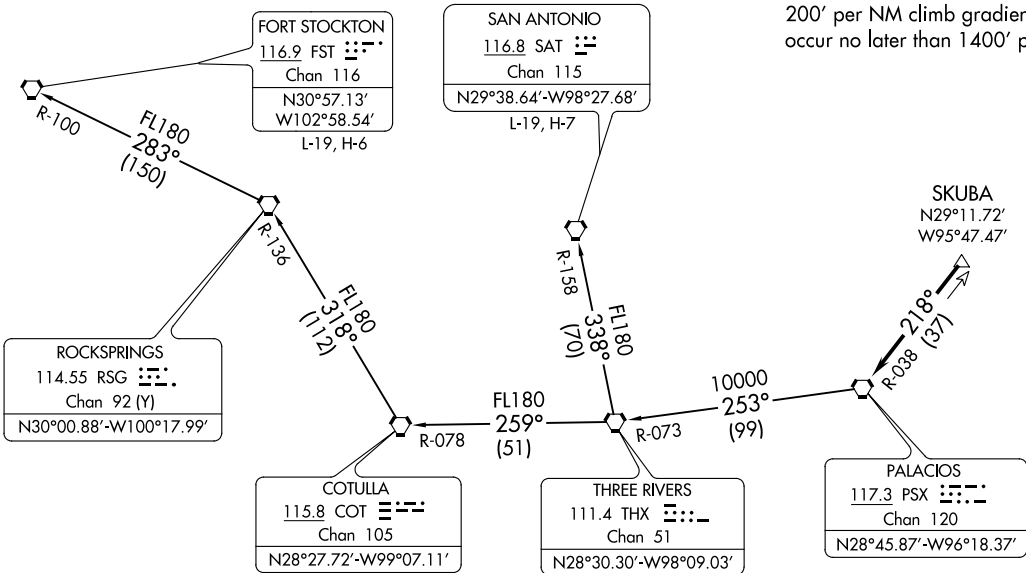
**TOP ALTITUDE:
ASSIGNED BY ATC**

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 35L/R: Standard.

Rwy 22: 200-1¼ or standard with minimum climb of 214' per NM to 300 or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

PALACIOS THREE DEPARTURE
(PSX3.PSX) 03NOV22

HOUSTON, TEXAS
ELLINGTON (EFTD)

(PSX3.PSX) 22307
PALACIOS THREE DEPARTURE

AL-197 (FAA)

ELLINGTON (EFTD)
HOUSTON, TEXAS



DEPARTURE ROUTE DESCRIPTION

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

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

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

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

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

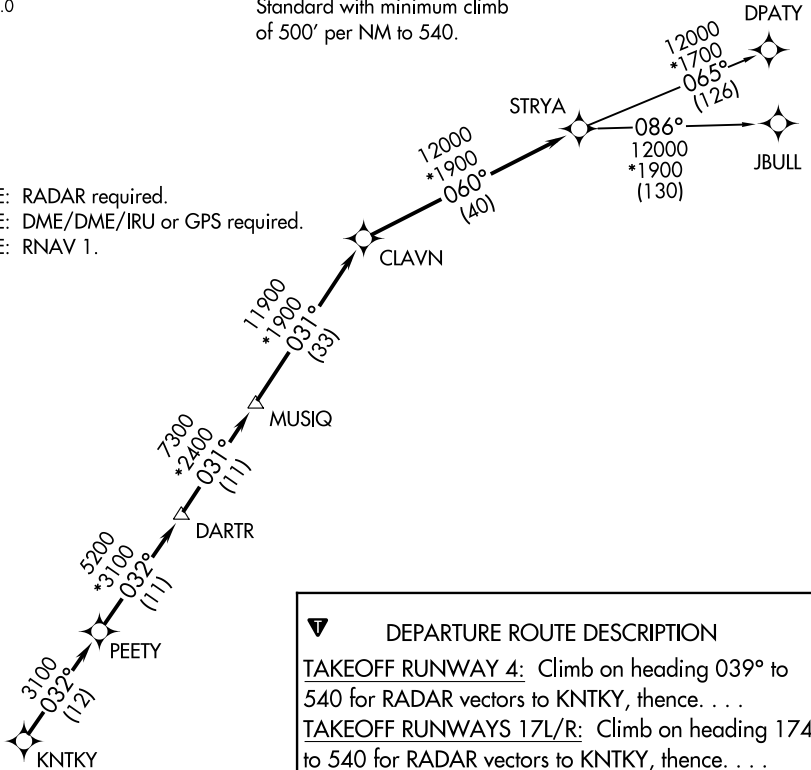
STRYA EIGHT DEPARTURE (RNAV)

TOP ALTITUDE: ASSIGNED BY ATC

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0

TAKEOFF MINIMUMS
Rwys 4, 17L/R, 22, 35L/R:
Standard with minimum climb
of 500' per NM to 540.

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



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to KNTKY, thence. . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to KNTKY, thence. . . .

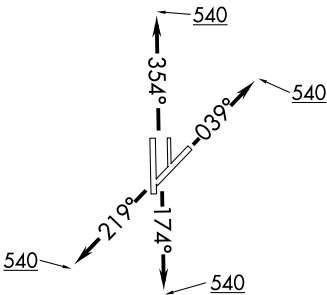
TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to KNTKY, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to KNTKY, thence. . . .

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

DPATY TRANSITION (STRYA8.DPATY)

JBULL TRANSITION (STRYA8.JBULL)



NOTE: Chart not to scale.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

STRYA EIGHT DEPARTURE (RNAV)

(STYCK8.STYCK) 21280

AL-197 (FAA)

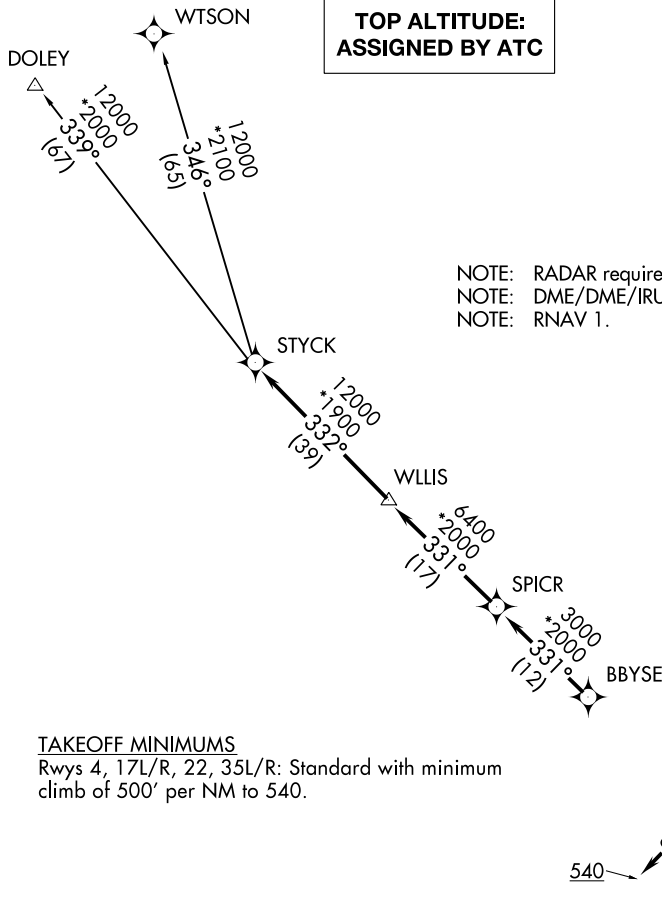
ELLINGTON (EFD)

STYCK EIGHT DEPARTURE (RNAV)

HOUSTON, TEXAS

**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
 135.575 269.9
 GND CON
 121.6 275.8
 ELLINGTON TOWER
 126.05 253.5
 HOUSTON DEP CON
 134.45 284.0



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

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500' per NM to 540.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to BBYSE, thence. . .
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to BBYSE, thence. . .
TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to BBYSE, thence. . .
TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to BBYSE, thence. . .
 . . . on track 331° to SPICR, then on track 331° to WLLIS, then on track 332° to STYCK, then on (transition). Maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

DOLEY TRANSITION (STYCK8.DOLEY)

WTSON TRANSITION (STYCK8.WTSON)

STYCK EIGHT DEPARTURE (RNAV)

(STYCK8.STYCK) 07OCT21

HOUSTON, TEXAS
ELLINGTON (EFD)

SC-5, 22 FEB 2024 to 21 MAR 2024

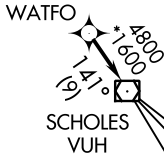
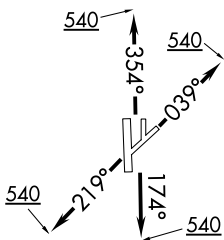
SC-5, 22 FEB 2024 to 21 MAR 2024

WATFO SIX DEPARTURE (RNAV)

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

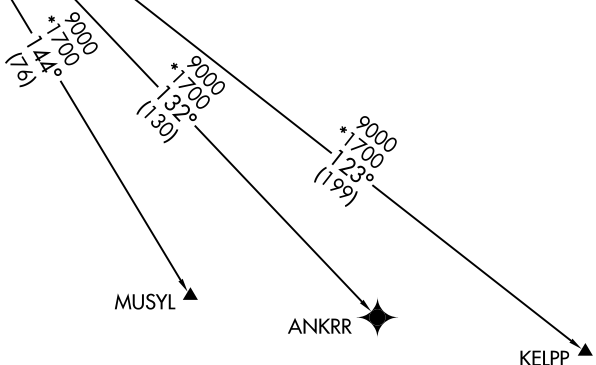
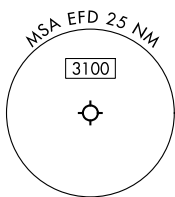
**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
135.575 269.9
GND CON
121.6 275.8
ELLINGTON TOWER
126.05 253.5
HOUSTON DEP CON
134.45 284.0



TAKEOFF MINIMUMS:

Rwy 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500'/NM to 540.



NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540, for RADAR vectors to WATFO, thence. . . .

TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540, for RADAR vectors to WATFO, thence. . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540, for RADAR vectors to WATFO, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540, for RADAR vectors to WATFO, thence. . . .

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

ANKRR TRANSITION (WATFO6.ANKRR)
KELPP TRANSITION (WATFO6.KELPP)
MUSYL TRANSITION (WATFO6.MUSYL)

WYLSN EIGHT DEPARTURE (RNAV)

ATIS
 135.575 269.9
 GND CON
 121.6 275.8
 ELLINGTON TOWER
 126.05 253.5
 HOUSTON DEP CON
 134.45 284.0

**TOP ALTITUDE:
 ASSIGNED BY ATC**

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

TAKEOFF MINIMUMS

Rwys 4, 17L/R, 22, 35L/R: Standard with minimum climb of 500' per NM to 540.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 039° to 540 for RADAR vectors to WYLSN, thence. . . .

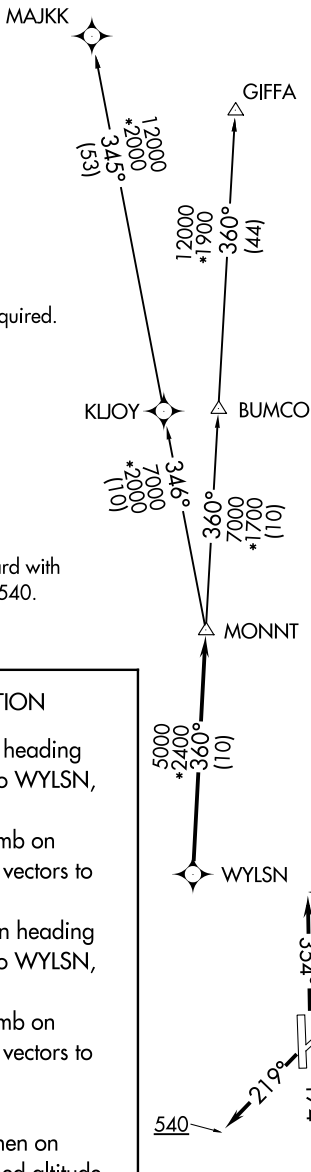
TAKEOFF RUNWAYS 17L/R: Climb on heading 174° to 540 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAY 22: Climb on heading 219° to 540 for RADAR vectors to WYLSN, thence. . . .

TAKEOFF RUNWAYS 35L/R: Climb on heading 354° to 540 for RADAR vectors to WYLSN, thence. . . .

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

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



NOTE: Chart not to scale.

WYLSN EIGHT DEPARTURE (RNAV)

H-ILS Y or LOC Y RWY 17R

ELLINGTON (KEFD)

LOC H-IPV	APCH CRS	Rwy Idg	9001
110.3	174°	TDZE Elev	32 Arpl Elev 33

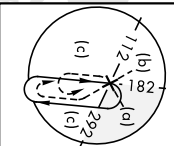
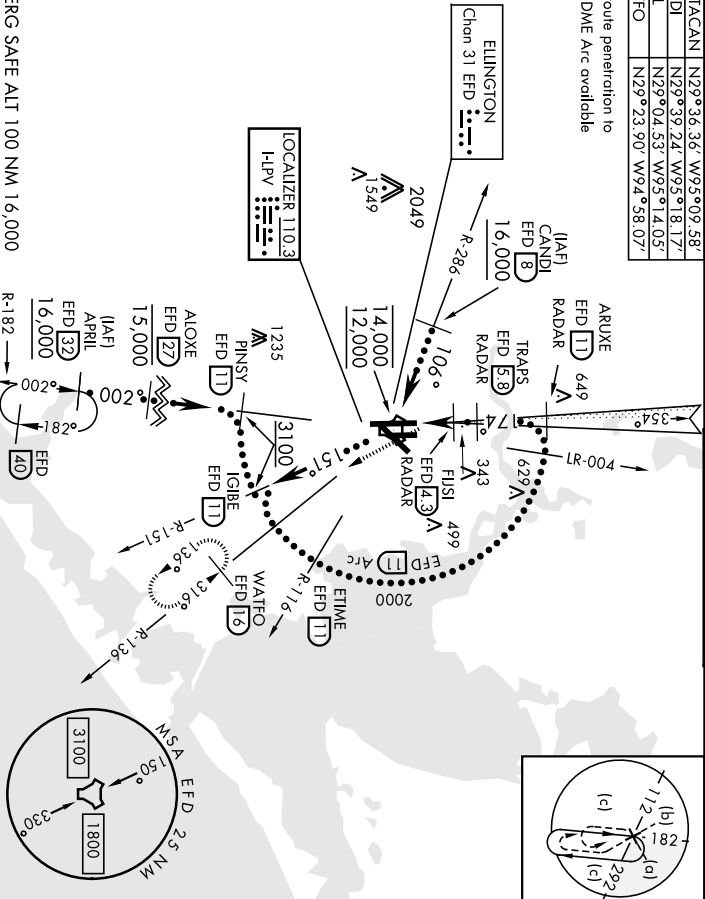
AL-197 [USAF]	MAISF	MISSED APPROACH: Climb to 700 then climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.
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▲ ** When ALS Inop, increase CAT DZE wts to 1 $\frac{3}{8}$ miles.
 ▲ ** Circling not authorized W of Rwy 17R-35L.

AITS		HOUSTON APP CON	134.45 284.0
AITS		TOWER	126.05 253.5
AITS		GND CON	121.6 275.8

EFD TACAN	N29°36.36' W95°09.58'
CAND1	N29°39.24' W95°18.17'
APRIL	N29°04.53' W95°14.05'
WATFO	N29°23.90' W94°58.07'

Enroute penetration to
 11 DME Arc available

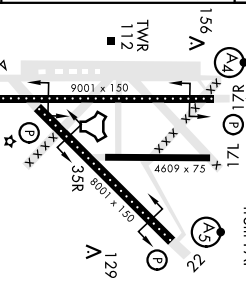
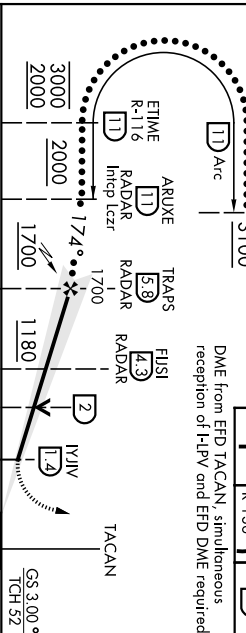


EMERG SAFE ALTI 100 NM 16,000

IGBE R-151 3100
 WATFO EFD 16
 ELEV 33 TDZE 32

ELEV 33 TDZE 32
 174°5.1 NM from FAF

VGSI and ILS GP not coincident (VGSI Angle 3.00/TCH 48)



CATEGORY	C	D	E
S-ILS 17R	232/40	200 (200- $\frac{3}{4}$)	
S-LOC 17R*	480/50	448 (500-1)	
S-LOC 17R**	580-1 $\frac{1}{2}$ 547 (600-1 $\frac{1}{2}$)	640-2 607 (700-2)	700-2 $\frac{1}{4}$ 667 (700-2 $\frac{3}{4}$)

CIRCLING**	580-1 $\frac{1}{2}$ 547 (600-1 $\frac{1}{2}$)	640-2 607 (700-2)	700-2 $\frac{1}{4}$ 667 (700-2 $\frac{3}{4}$)
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HOUSTON, TEXAS
 Arrch 4B 15AUG19

29°36'N 95°10'W

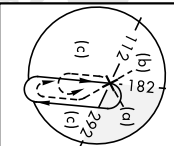
ELLINGTON (KEFD)

H-ILS Y or LOC Y RWY 17R

HILLS Y or LOC Y RWY 22

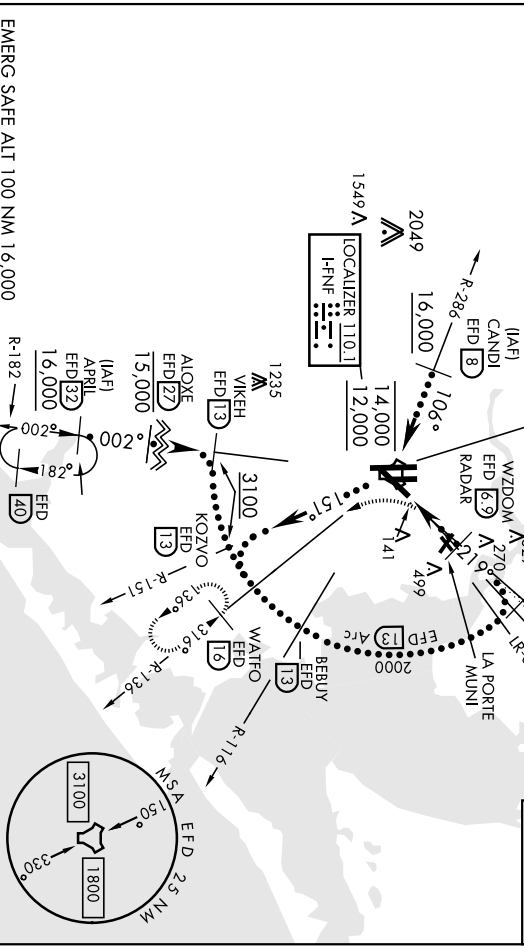
ELLINGTON (KEFD)

LOC I/FNF 110.1	APCH CRS 219°	Rwy Idg TDE Elev App'l Elev 8001 31 33	AL-197 [USAF]	MALSR MISSED APPROACH: Climb to 700 then climbing left turn to 3100 on FFD TACAN R-136 to WATFO/ E/FD 6 DME and hold	TOWER 126.05 253.5	GND CON 121.6 275.8	
DME required. RADAR required for procedure entry. **When ALS inop, increase CAT E vrb to 1/2 mile. **When ALS inop, increase CAT E vrb to 1/2 mile.		AITS		HOUSTON APP CON 134.45 284.0		HOUSTON TACAN 129°36.36' W95°09.58'	
				ELLINGTON Chan 31 FFD		CANDI N29°39.24' W95°18.17'	
						APRIL N29°04.53' W95°14.05'	
						WATFO N29°23.90' W94°58.07'	



EMERG SAFE ALT 100 NM 16,000

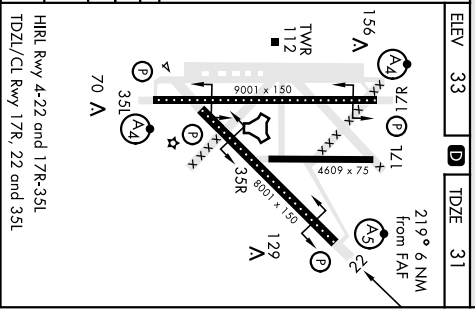
SC-5, 22 FEB 2024 to 21 MAR 2024



ELEV 33	IDZE 31
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700	3100	WATFO	3100	KOZVO	3100	BERBLY
↓	EFD	EFD	↓	R-151	Arc	R-116
	R-136	I19		I13		I13
VGSJ and ILS GP not coincident (VGSJ angle 3.00/TCH 50). DME from FFD TACAN. Simultaneous reception of I/FNF and E/D DME REQUIRED.						
TACAN						
GS 3.00°	TCH 54					
5 NM						
CATEGORY	C	D	E			
S-ILS 22 *	231/24	200	(200-1/2)			
S-ILOC 22 **	560/55	529	(600-1)			

ⓐ CIRCLING	580-1 1/2	640-2	700-2 1/4			
	547 (600-1 1/2)	607 (700-2)	667 (700-2 1/4)			



HOUSTON, TEXAS
Amch 2 15AUG19
29°36'N-95°10'W
ELLINGTON (KEFD)

HILLS Y or LOC Y RWY 22



LOC I-EDD 111.1	APCH CRS 354°	Rev./Idg TDZE Appr Elev	9001 28 33
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[USAF]

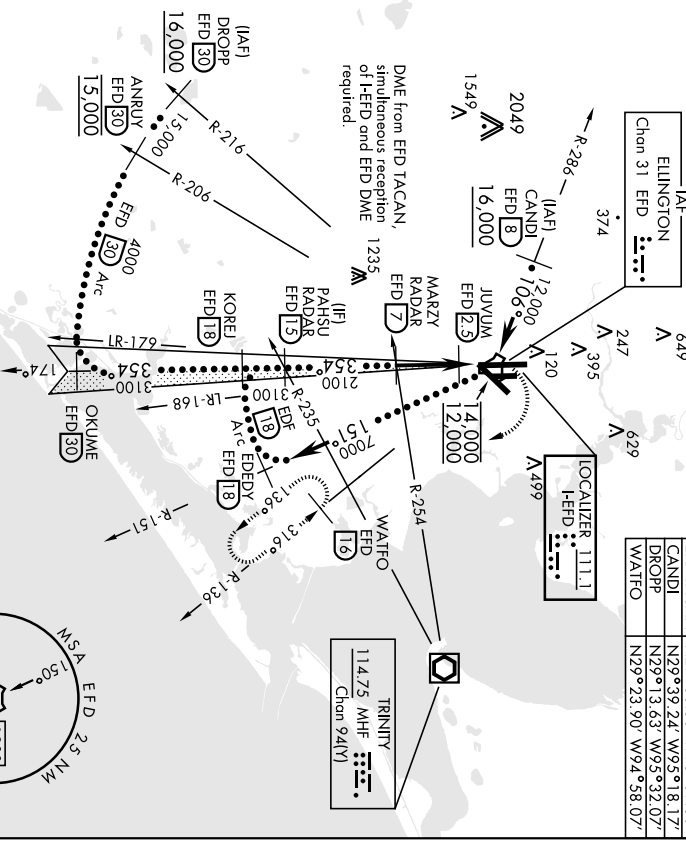
ELLINGTON (KEFD)

DME required. RADAR required for procedure entry.
 ** Circling not authorized W of rwy 17L-35R

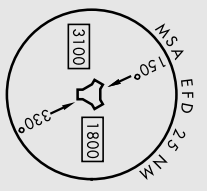
MAISF
 MISSED APPROACH: Climb to 500 then climbing right turn to 3100 via EDD TACAN R-136 to WATFO/EFDD
 16 DME and hold

HOUSTON APP CON 134.45 284.0	TOWER 126.05 253.5	GND CON 121.6 275.8
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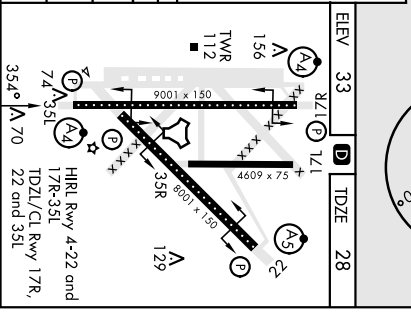
EFDD TACAN	N29°36.36' W95°09.58'
CANDI	N29°39.24' W95°18.17'
DROPP	N29°13.63' W95°32.07'
WATFO	N29°23.90' W94°58.07'



EMERG SAFE ALT 100 NM 16,000



500	3100	WATFO EFD R-136	16
TACAN	JUVUUM EFD 25	MARZY EFD 7 RADAR	2100
BAYUUM EFD 74	620	PAHSU EFD 15 RADAR	3100
0.6 NM 1.1 NM	4.6 NM	KOREI EFD 18	3100
CATEGORY	C	D	E
S-ILS 35L	228/40	200	[200-¾]
S-LOC 35L *	440/50	412	(500-1)
CIRCLING **	580-1½ (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)



HOUSTON, TEXAS

21280

HI-TACAN RWY 17R

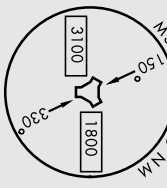
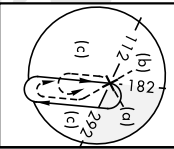
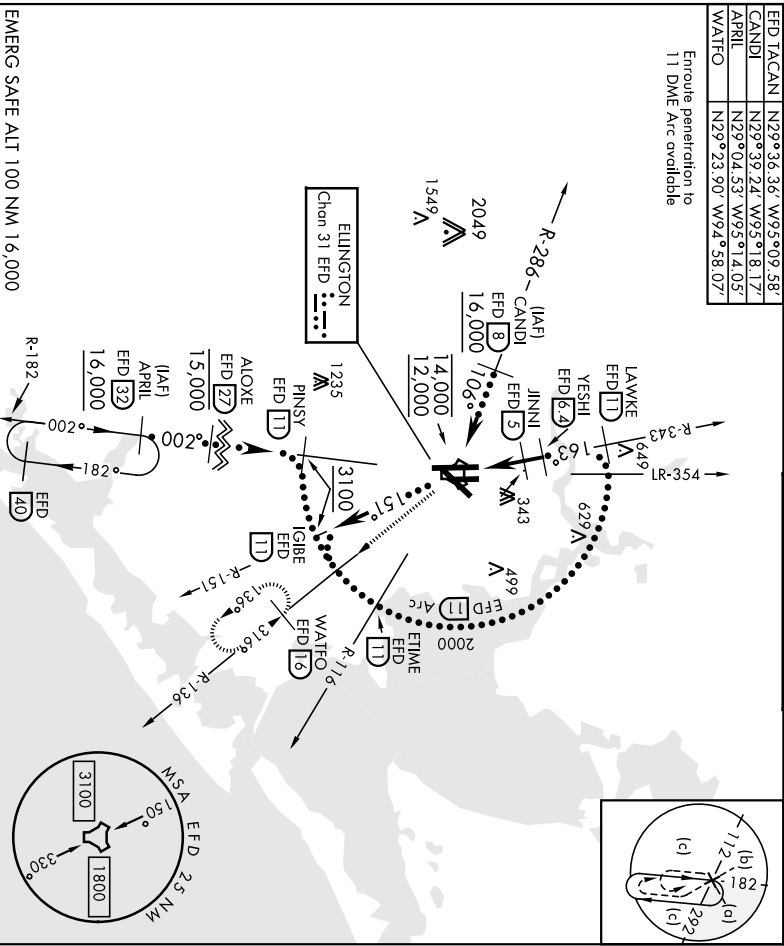
ELLINGTON (KEFD)

AL-197 [USAF]

TACAN EFD Chon 31	APCH CRS 163°	Rev./Idg TDZE Appr Elev	9001 32 33
RADAR required for procedure entry.		MAJFS MISSED APPROACH: Climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.	
* When ALS inop, increase CAT DDE vis to 1 1/8 miles. ** Circling not authorized W of Rwy 17R-35L.			
AITS		HOUSTON APP CON	TOWER
135 575 269.9		134.45 284.0	126.05 253.5
		GND CON	
		121.6 275.8	

EFD TACAN	N29°36.36' W95°09.58'
CANDI	N29°39.24' W95°18.17'
APRIL	N29°04.53' W95°14.05'
WATFO	N29°23.90' W94°58.07'

Enroute penetration to 11 DME Arc available



EMERG SAFE ALT 100 NM 16,000		ELEV 33		D IDZE 32	
ETIME R-116	IGIBE R-151	3100 EFD R-136	WATFO EFD 16	163° 4.2 NM from FAF	
CATEGORY	C	D	E		
S-17R *	580-1 1/2 547 (600-1 1/2)	468 (500-1 1/4)	700-2 1/4 667 (700-2 1/4)		
C CIRCLING**	580-1 1/2 547 (600-1 1/2)	640-2 607 (700-2)	700-2 1/4 667 (700-2 1/4)		
HOUSTON, TEXAS		ELLINGTON (KEFD)			
Amdt 4B 09SEP21		29°36'N-95°10'W			

HI-TACAN RWY 17R

HOUSTON, TEXAS

21,280

HI-TACAN RWY 35L

ELLINGTON (KEFD)

AL-197 [USAF]

TACAN FPD Chom 31	APCH CRS 002°	Rwy/Ldg THR/Elev 28 33	9001
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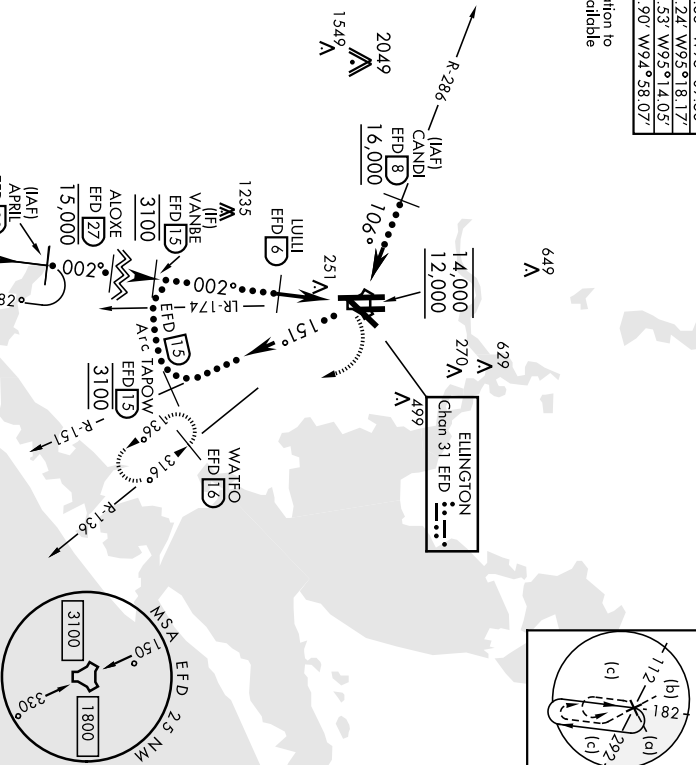
RADAR required for procedure entry

▲ *When A15 inop, increase CAT CDE vis to 1 1/8 miles.
** Circling not authorized W of Rwy 17R-35L.

HOUSTON APP CON	HOUSTON APP CON	TOWER	ELLINGTON Chom 31 FFD
135,575 269.9	134,45 284.0	126,05 253.5	121.6 275.8

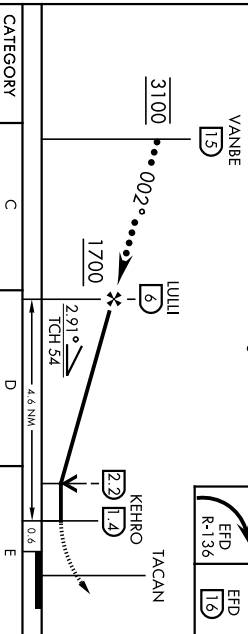
ELL TACAN	N29°36.36' W95°09.58'
CANDI	N29°39.24' W95°18.17'
APRIL	N29°04.53' W95°14.05'
WATFO	N29°23.90' W94°58.07'

Enroute penetration to
1.5 DME Arc available



EMERG SAFE ALT 100 NM 16,000

VGS1 and descent angles not coincident



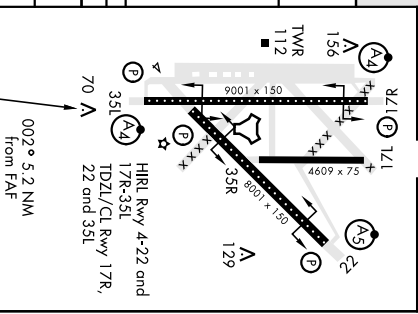
CATEGORY	C	D	E
S-35L *	520/60	492	(500-1 1/4)
CIRCLING**	580-1 1/2 547 (600-1 1/2)	640-2 607 (700-2)	700-2 1/4 667 (700-2 1/4)

HOUSTON, TEXAS

29°36'N-95°10'W

Amdt 4B 09SEP21

ELEV 33	D	THRE 28
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HI-TACAN RWY 35L

ELLINGTON (KEFD)

LOC I-LPV 110.3	APP CRS 174°	Rwy Idg 9001 TDZE 32 Apt Elev 33
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ILS Z or LOC Z RWY 17R

ELLINGTON (EFD)

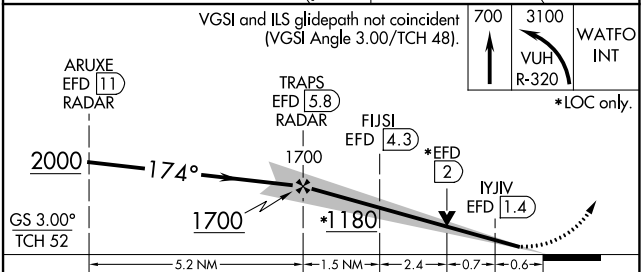
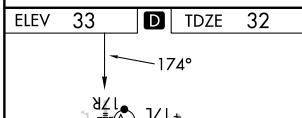
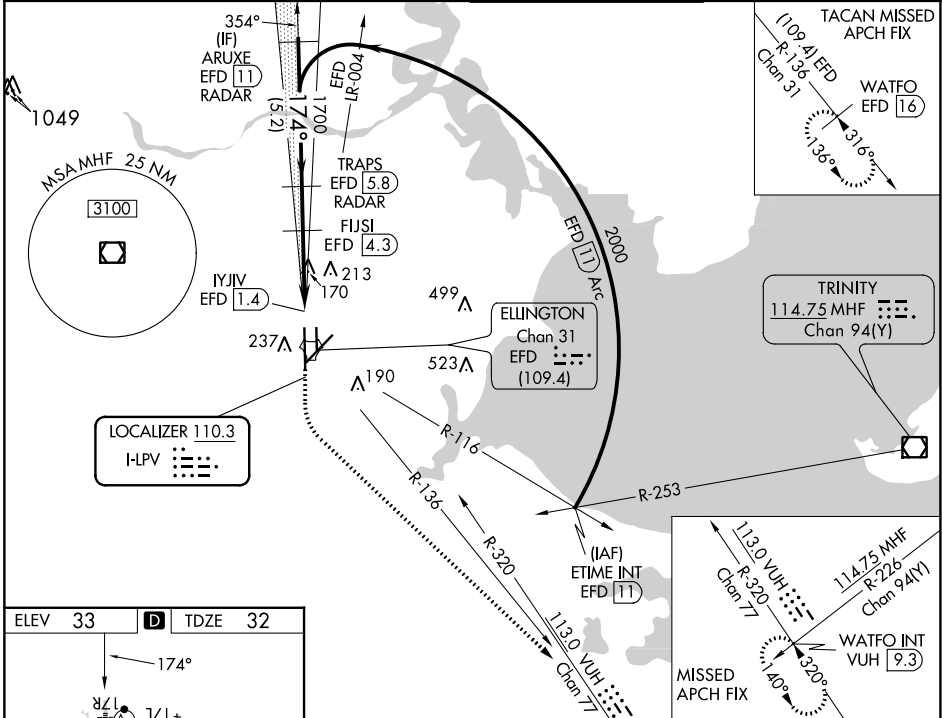
DME required. RADAR required for procedure entry.

▼ Circling NA west of Rwy 17R-35L. DME from EFD TACAN.
▲ Simultaneous reception of I-LPV and EFD DME required. Inop table does not apply to S-ILS 17R. For inop ALS, increase S-LOC 17R Cats C/D/E visibility to 1½ SM.

MALSF

MISSED APPROACH: Climb to 700 then climbing left turn to 3100 on VUH VOR/DME R-320 to WATFO INT/VUH 9.3 DME and hold (TACAN aircraft climb to 700 then climbing left turn to 3100 on EFD TACAN R-136 to WATFO INT/EFD 16 DME and hold southeast, left turn, 316° inbound).

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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CATEGORY	A	B	C	D	E
S-ILS 17R	232/40 200 (200-¾)				
S-LOC 17R	480/40	448 (500-¾)	480/55	448 (500-1)	
C CIRCLING	500-1	467 (500-1)	580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

HOUSTON, TEXAS
Amdt 7 15AUG19

29°36'N-95°10'W

ELLINGTON (EFD) ILS Z or LOC Z RWY 17R

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

LOC I-FNF 110.1	APP CRS 219°	Rwy Idg TDZE Apt Elev	8001 31 33
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ILS Z or LOC Z RWY 22

ELLINGTON (EFD)

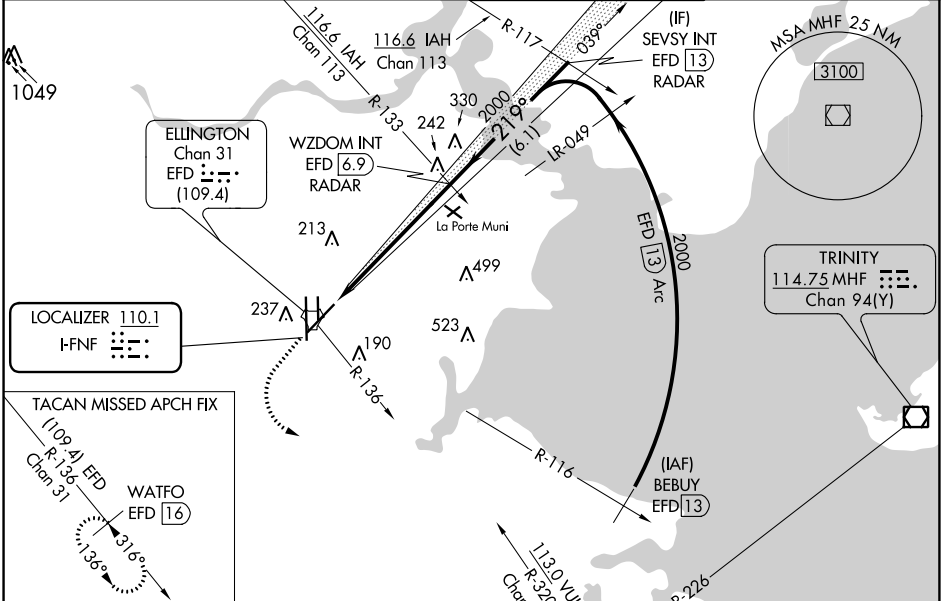
RADAR required for procedure entry.

⚠ Circling NA west of Rwy 17R-35L. DME from EFD TACAN. Simultaneous reception of I-FNF and EFD DME required. For inop ALS, increase S-ILS 22 Cat E visibility to RVR 4000 and S-LOC 22 Cat E visibility to 1½ SM.

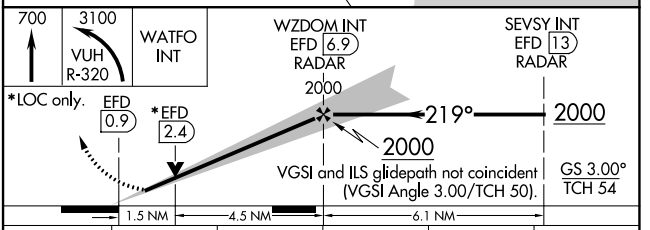
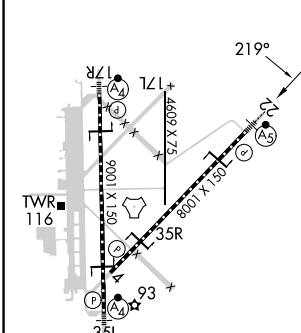
MALSR

MISSED APPROACH: Climb to 700 then climbing left turn to 3100 on VUH VOR/DME R-320 to WATFO INT/VUH 9.3 DME and hold. (TACAN aircraft climb to 700 then climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold southeast, left turn, 316° inbound.)

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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ELEV 33	D	TDZE 31
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HIRL Rwy 4-22 and 17R-35L TDZ/CL Rwy 17R, 22 and 35L FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00
C CIRCLING	560-1	527 (600-1)	580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

LOC I-EPD 111.1	APP CRS 354°	Rwy Idg TDZE Apt Elev 9001 28 33
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ILS Z or LOC Z RWY 35L

ELLINGTON (EFD)

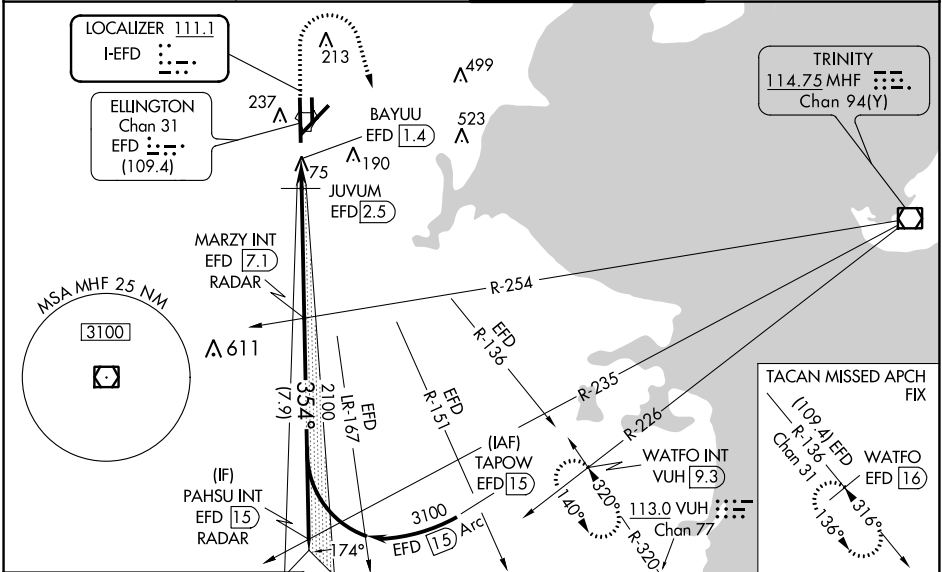
RADAR required for procedure entry.

⚠ Circling NA west of Rwy 17R-35L. DME from EFD TACAN. Simultaneous reception of I-EPD and EFD DME required. Inop table does not apply to S-ILS 35L. For inop ALS, increase S-LOC 35L Cat C/D/E visibility to 1 3/4 SM. For inop ALS when using JUVUM fix minimums, increase S-LOC 35L Cat C/D/E visibility to RVR 6000.

MALSF

MISSED APPROACH: Climb to 700 then dimbing right turn to 3100 on VUH VOR/DME R-320 to WATFO INT/VUH 9.3 DME and hold. (TACAN aircraft climb to 700 then dimbing right turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold southeast, left turn, 316° inbound).

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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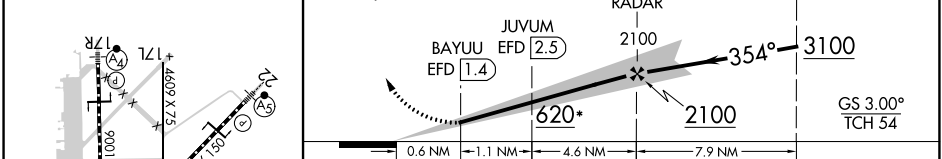
SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

ELEV 33	D TDZE 28	HIRL Rwy 4-22 and 17R-35L TDZ/CL Rwy 17R, 22 and 35L
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700 **3100** **WATFO INT** **VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 32).**

***LOC only.**



CATEGORY	A	B	C	D	E
S-ILS 35L	228/40 200 (200-3/4)				
S-LOC 35L	620/40	592 (600-3/4)	620-1 3/8		592 (600-1 3/8)
C CIRCLING	620-1	587 (600-1)	620-1 3/4	640-2	700-2 1/4
JUVUM FIX MINIMUMS (DME REQUIRED)					
S-LOC 35L	440/40	412 (500-3/4)	440/50		412 (500-1)
C CIRCLING	500-1	467 (500-1)	580-1 1/2	640-2	700-2 1/4
			547 (600-1 1/2)	607 (700-2)	667 (700-2 1/4)

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

WAAS CH 70625 W17A	APP CRS 174°	Rwy Idg 9001 TDZE 32 Apt Elev 33
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RNAV (GPS) RWY 17R

ELLINGTON (EFD)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. Inop table does not apply to LPV DA. For inop MALSF, increase LNAV/VNAV all Cats and LNAV Cats A and B visibility to RVR 5500 and Cats C/D/E visibility to 1½ miles. Circling NA west of Rwy 17R-35L.

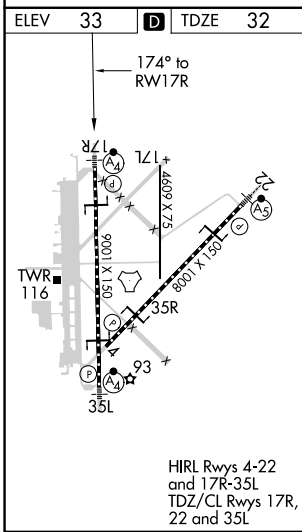
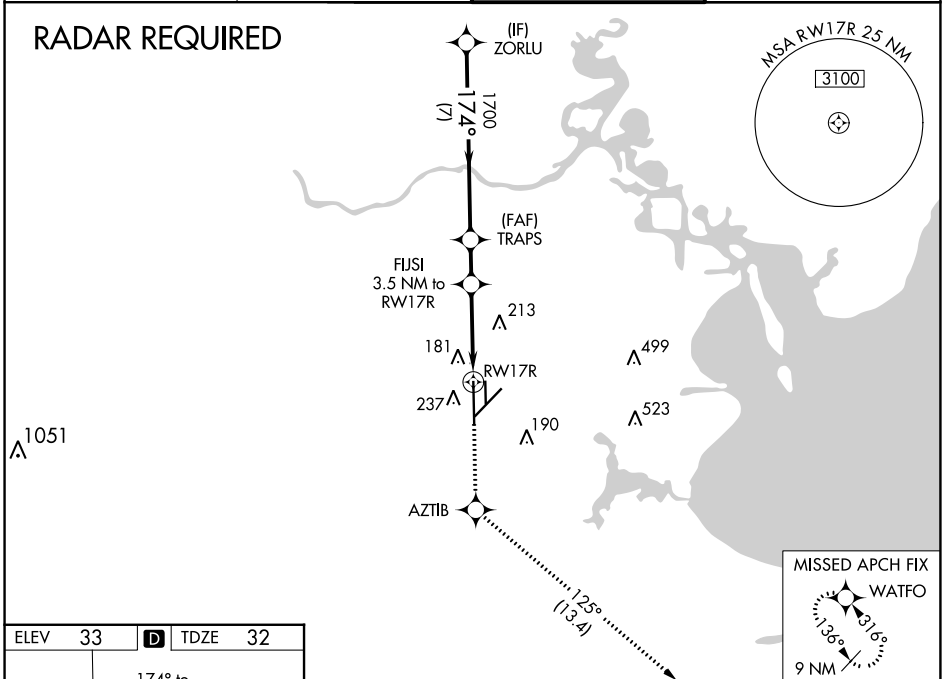
MALSF



MISSED APPROACH: Climb to 3100 direct AZTIB and on track 125° to WATFO and hold.

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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RADAR REQUIRED



HIRL Rwy's 4-22 and 17R-35L
TDZ/CL Rwy's 17R, 22 and 35L

VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 48).		3100	AZTIB	fr 125°	WATFO
ZORLU	2000	TRAPS	FJJSI	*LNAV only.	
	174°	1700	3.5 NM to RWY 17R	*1.4 NM to RWY 17R	RWY 17R
GP 3.00° TCH 52	1700	*1180			
	7 NM	1.6 NM	2.2 NM	1.4 NM	
CATEGORY	A	B	C	D	E
LPV DA	232/40 200 (200-¾)				
LNAV/VNAV DA	363/40 331 (400-¾)				
LNAV MDA	500/40	468 (500-¾)	500/60 468 (500-1¼)		
<input checked="" type="checkbox"/> CIRCLING	500-1	467 (500-1)	580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

WAAS CH 61111 W22A	APP CRS 219°	Rwy Idg 8001 TDZE 31 Apt Elev 33
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RNAV (GPS) RWY 22

ELLINGTON (EFD)

RNP APCH.

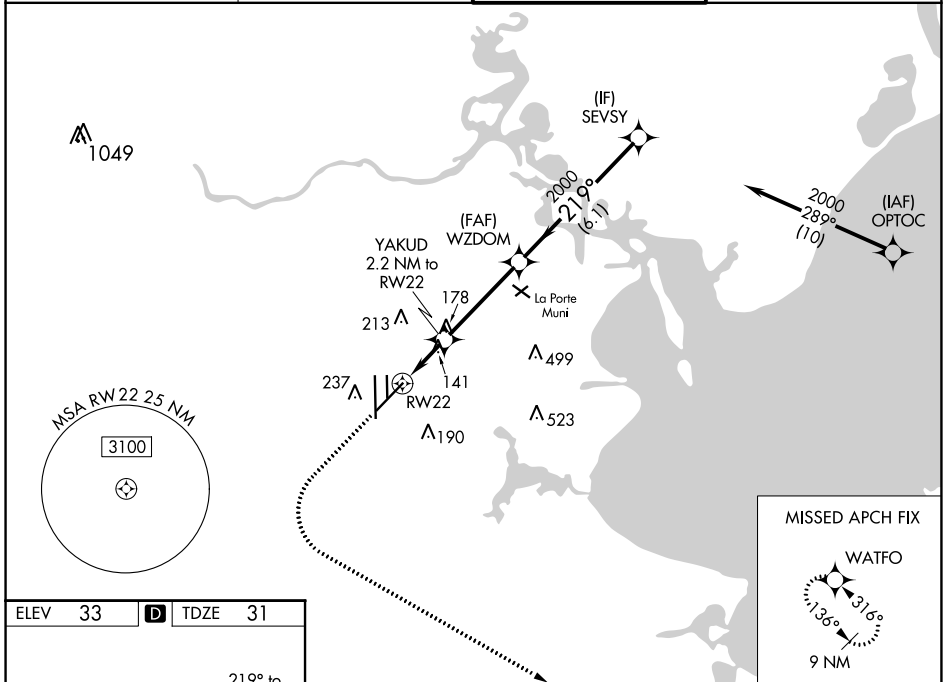
Circling NA west of Rwy 17R - 35L. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C or above 54°C. For inop ALS, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats visibility to RVR 4500, and LNAV Cats C/D/E visibility to RVR 5500.

MALSRL



MISSED APPROACH: Climb to 500 then climbing left turn to 3100 direct WATFO and hold.

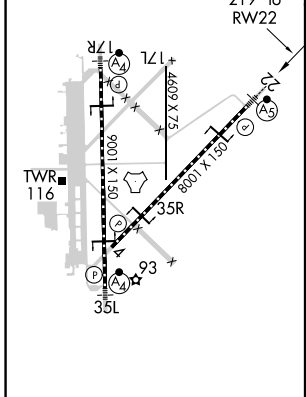
ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

ELEV 33	D	TDZE 31
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500 3100 WATFO

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 50).

*LNAV only.		YAKUD 2.2 NM to RW22	WZDOM 2000	SEVSY 2000	
RW22		*1 NM to RW22	219°	2000	
		780*	2000	GP 3.00° TCH 54	
	1 NM	1.2 NM	3.8 NM	6.1 NM	
CATEGORY	A	B	C	D	E
LPV	DA	231/18		200 (200-1/2)	
LNAV/VNAV	DA	341/24		310 (400-1/2)	
LNAV MDA	400/24 369 (400-1/2)		400/35 369 (400-5/8)		
C CIRCLING	500-1 467 (500-1)		580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

HIRL Rwy 4-22 and 17R-35L
TDZ/CL Rwy 17R, 22 and 35L

29°36'N-95°10'W

ELLINGTON (EFD) RNAV (GPS) RWY 22

WAAS CH 97629 W35A	APP CRS 354°	Rwy Idg 9001 TDZE 28 Apt Elev 33
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RNAV (GPS) RWY 35L

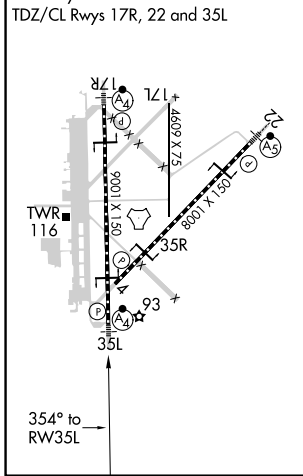
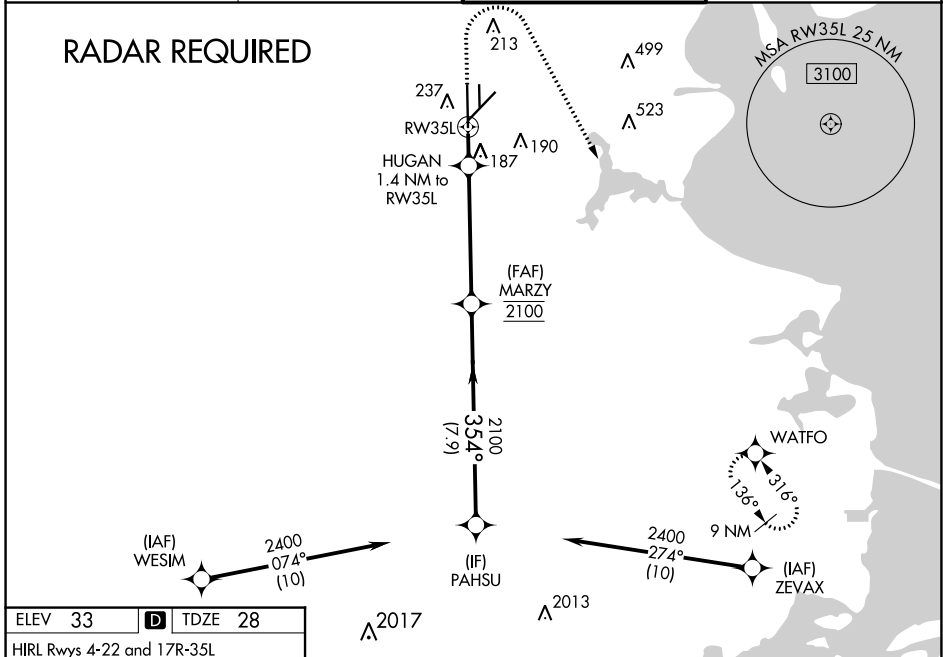
ELLINGTON (EFD)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). Circling NA west of Rwy 17R-35L DME/DME RNP-0.3 NA. For inop MALSF, increase LNAV/VNAV all Cats visibility to 1½ mile, and LNAV Cats A and B visibility to 1 mile and Cats C, D and E visibility to 1½ mile. Inop table does not apply to LPV.

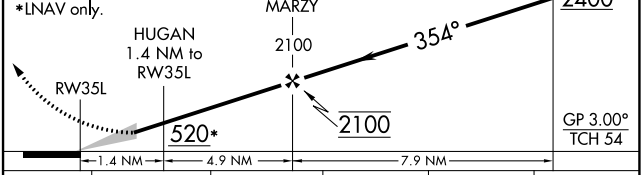
MALSF

MISSED APPROACH: Climb to 1500 then climbing right turn to 3100 direct WATFO and hold.

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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1500 3100 WATFO
 *LNNAV only.
 HUGAN 1.4 NM to RW35L
 MARZY 2100
 PAHSU 2400
 VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 32).
 GP 3.00° TCH 54



CATEGORY	A	B	C	D	E
LPV DA	228/40		200 (200-¾)		
LNAV/VNAV DA	499/60		471 (500-1¼)		
LNAV MDA	440/40	412 (500-¾)	440/50		412 (500-1)
C CIRCLING	500-1	468 (500-1)	580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

APP CRS	Rwy Idg	8001
039°	TDZE	30
	Apt Elev	33

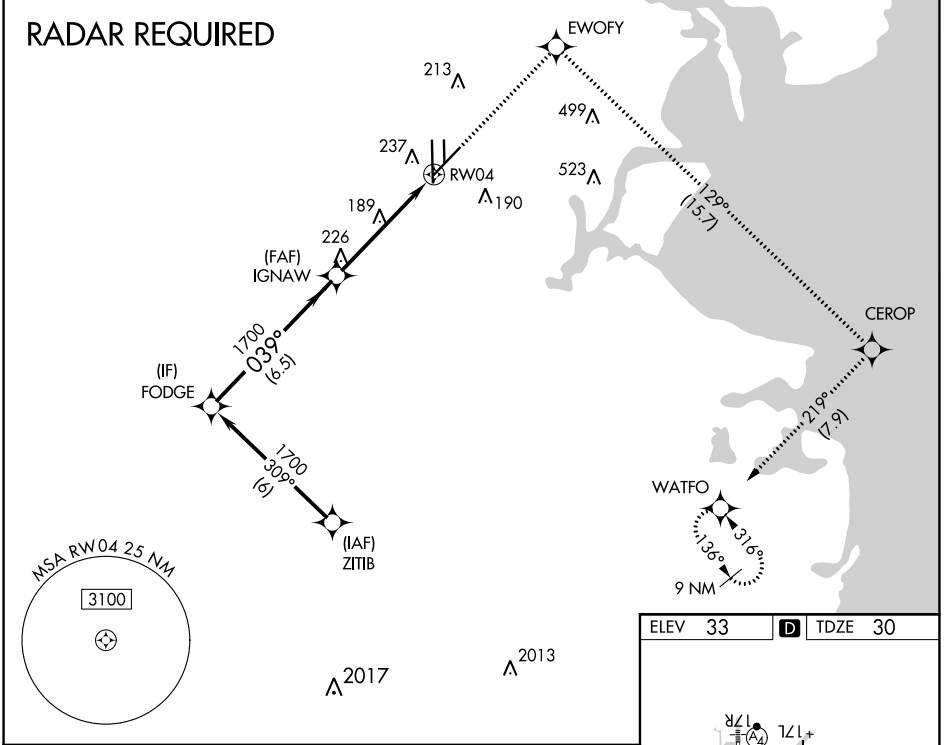
RNAV (GPS) RWY 4

ELLINGTON (EFD)

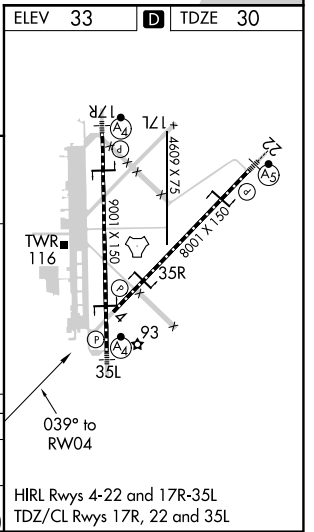
⚠ Circling NA west of Rwy 17R-35L.
⚠ DME/DME RNP-0.3 NA.
 Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3100 direct EWOFY and right turn on track 129° to CEROP and right turn on track 219° to WATFO and hold.

ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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	3100	EWOFY	CEROP	WATFO
	↑	✧	↷ tr 129°	✧
				↷ tr 219°
				✧
FODGE	IGNAW		RWY04	
1700	1700			
039°		3.04°		
		TCH 50		
6.5 NM		5 NM		
CATEGORY	A	B	C	D
LNNAV MDA	500-1	470 (500-1)	500-1 ³ / ₈	470 (500-1 ³ / ₈)
C CIRCLING	500-1	467 (500-1)	580-1 ¹ / ₂ 547 (600-1 ¹ / ₂)	640-2 607 (700-2)
			700-2 ¹ / ₄ 667 (700-2 ¹ / ₄)	



SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

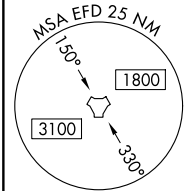
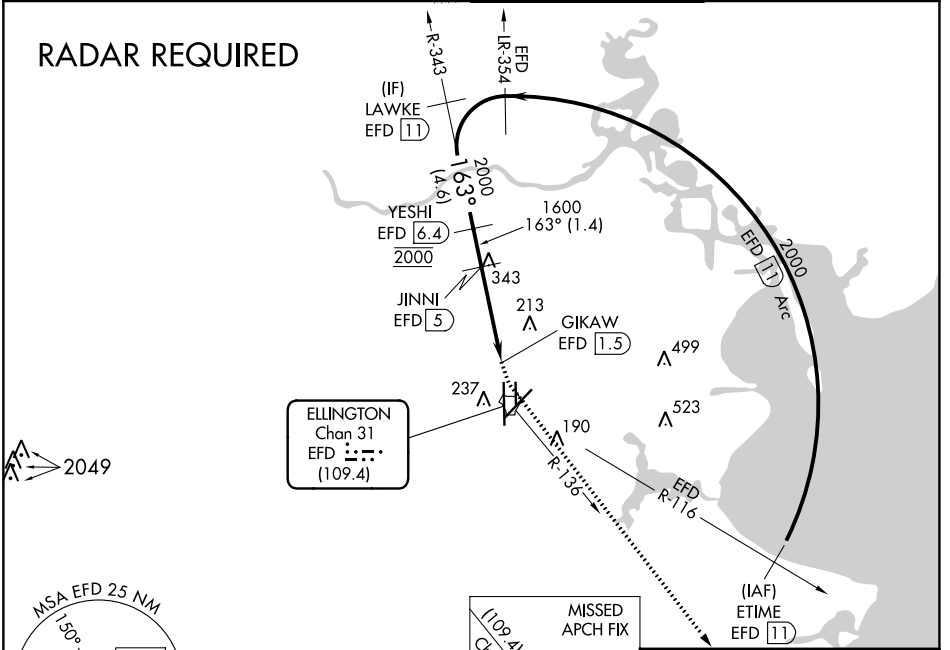
TACAN EFD Chan 31 (109.4)	APP CRS 163°	Rwy Idg TDZE Apt Elev	9001 32 33
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TACAN RWY 17R

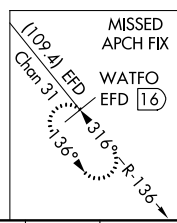
ELLINGTON (EFD)

<p>▽ When ALS inop, increase visibility Cat A/B to RVR 5500 and Cat C/D/E visibility to 1½ miles. Circling NA west of Rwy 17R-35L.</p> <p>△ NA</p>	<p>MALSF</p>	<p>MISSED APPROACH: Climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.</p>
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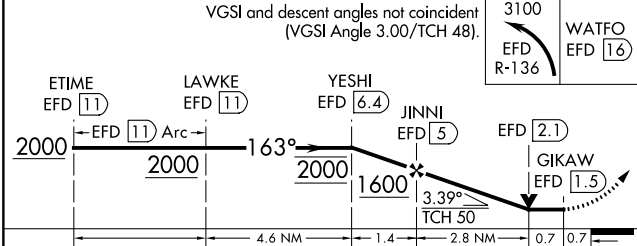
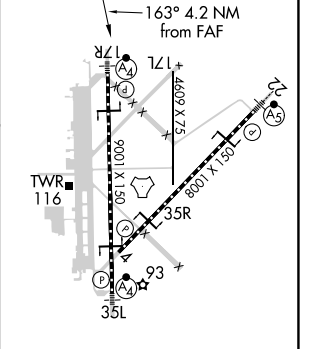
<p>ATIS 135.575 269.9</p>	<p>HOUSTON APP CON 134.45 284.0</p>	<p>ELLINGTON TOWER 126.05 253.5</p>	<p>GND CON 121.6 275.8</p>
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ESA W/IN 100 NM 16000



ELEV 33	D	TDZE 32
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CATEGORY	A	B	C	D	E
S-17R	500/40	468 (500-¾)	500/60 468 (500-1¼)		
CIRCLING	500-1	467 (500-1)	580-1½ 547 (600-1½)	640-2 607 (700-2)	700-2¼ 667 (700-2¼)

HIRL Rwy 4-22 and 17R-35L
TDZ/CL Rwy 17R, 22 and 35L

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

TACAN EFD Chan 31 (109.4)	APP CRS 226°	Rwy Idg 8001 TDZE 31 Apt Elev 33
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TACAN RWY 22

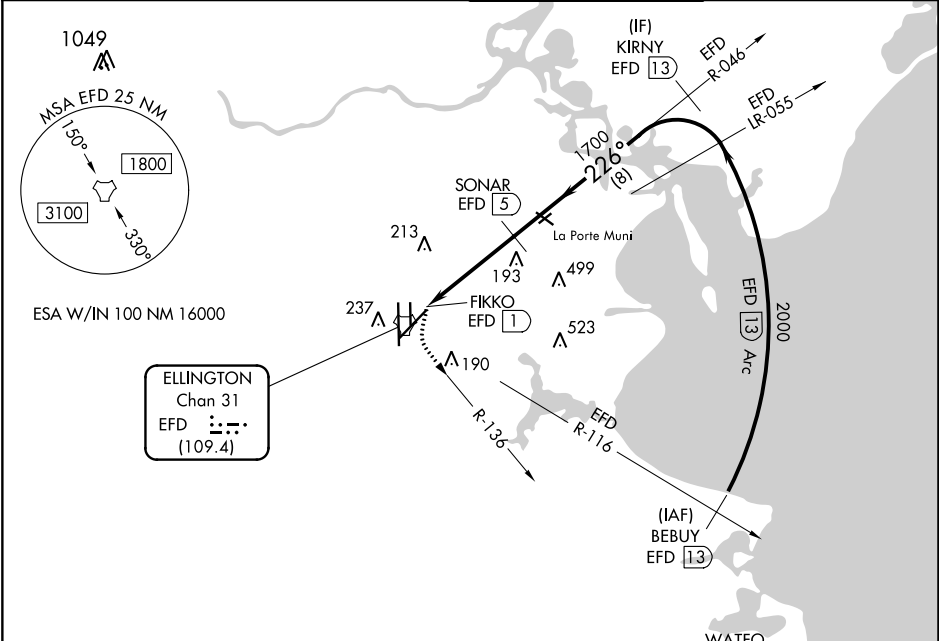
ELLINGTON (EFD)

∇ Circling NA west of Rwy 17R-35L. When ALS inop, increase S-22
Δ NA Cat A/B visibility to RVR 5500 and Cat C/D/E to 1 3/8 miles.



MISSED APPROACH: Climbing left turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.

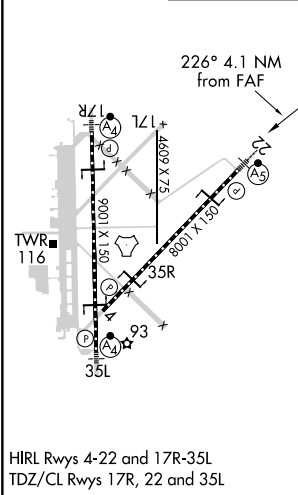
ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

ELEV 33	D	TDZE 31
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RADAR REQUIRED

3100 EFD R-136 WATFO EFD 16 VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 50).

Cat D/E VDA not for civil use.

SONAR EFD 5

226°

1700

2000

3.69° TCH 55

0.2 1.2 2.7 NM 8 NM

CATEGORY	A	B	C	D	E
S-22	500/24	469 (500-1/2)	500/50	469 (500-1)	
C CIRCLING	500-1	467 (500-1)	580-1 1/2 547 (600-1 1/2)	640-2 607 (700-2)	700-2 1/4 667 (700-2 1/4)

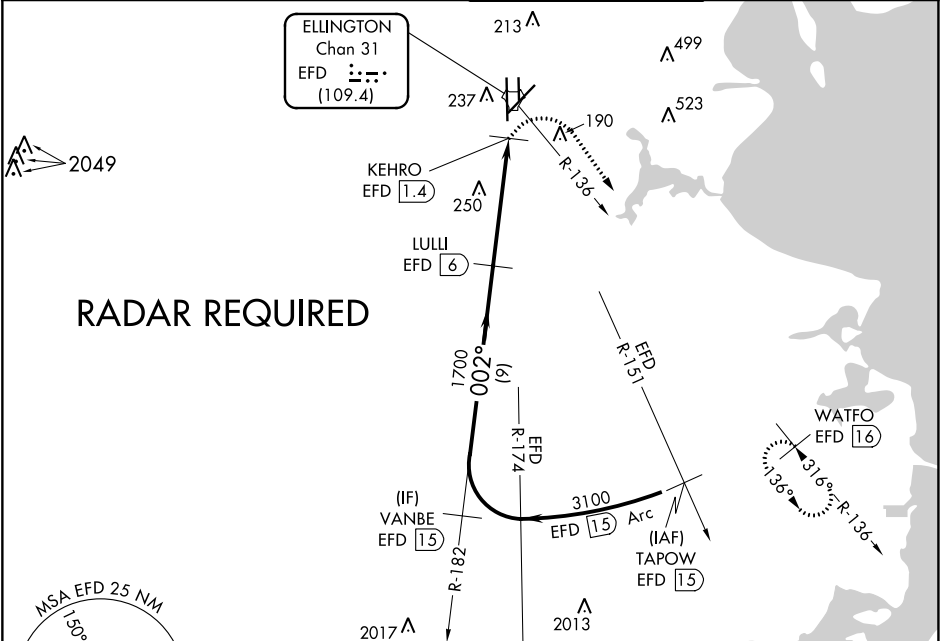
TACAN EFD Chan 31 (109.4)	APP CRS 002°	Rwy Idg TDZE 28 Apt Elev 33
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TACAN RWY 35L

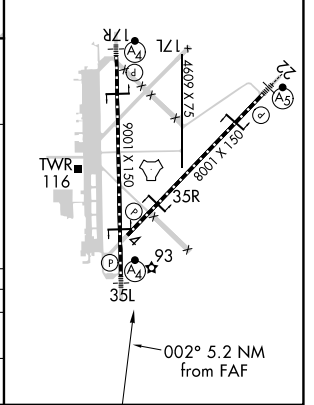
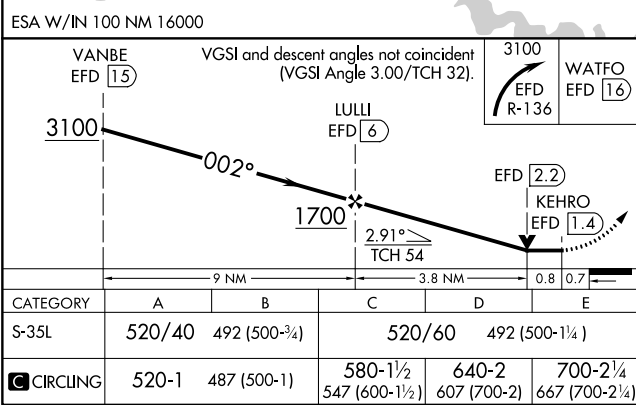
ELLINGTON (EFD)

NA Circling NA west of Rwy 17R-35L. When ALS inop, increase S-35L Cats A/B visibility to RVR 5500 and Cats C/D/E to 1 3/8 miles.	MALSF MISSED APPROACH: Climbing right turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.
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ATIS 135.575 269.9	HOUSTON APP CON 134.45 284.0	ELLINGTON TOWER 126.05 253.5	GND CON 121.6 275.8
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ELEV 33	D	TDZE 28
HIRL Rwys 4-22 and 17R-35L		
TDZ/CL Rwys 17R, 22 and 35L		



SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

TACAN EFD Chan 31 (109.4)	APP CRS 028°	Rwy Idg 8001 TDZE 30 Apt Elev 33
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TACAN RWY 4
ELLINGTON (EFD)

V **NA** Circling NA west of Rwy 17R-35L
Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing right turn to 3100 on EFD TACAN R-136 to WATFO/EFD 16 DME and hold.

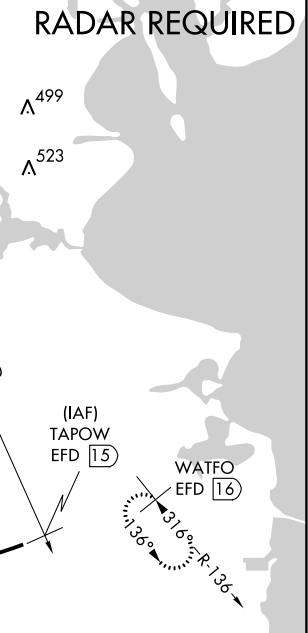
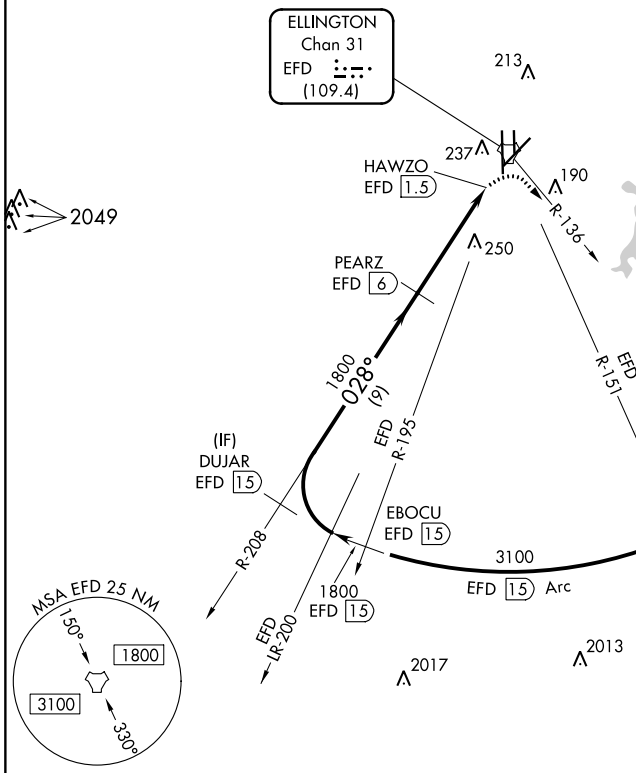
ATIS
135.575 269.9

HOUSTON APP CON
134.45 284.0

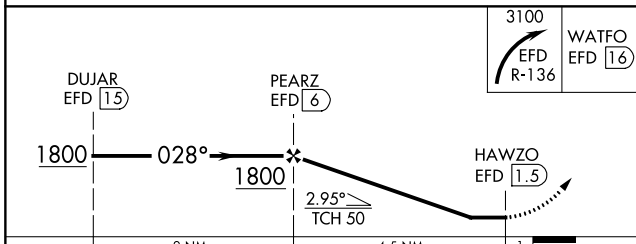
ELLINGTON TOWER
126.05 253.5

GND CON
121.6 275.8

RADAR REQUIRED

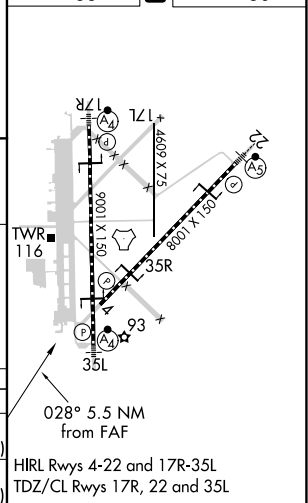


ESA W/IN 100 NM 16000



ELEV 33	D	TDZE 30
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CATEGORY	A	B	C	D	E
S-4	520-1 ¹ / ₄	490 (500-1 ¹ / ₄)		520-1 ¹ / ₂ 490 (500-1 ¹ / ₂)	520-1 ³ / ₄ 490 (500-1 ³ / ₄)
C CIRCLING	520-1 ¹ / ₄	487 (500-1 ¹ / ₄)	580-1 ¹ / ₂ 547 (600-1 ¹ / ₂)	640-2 607 (700-2)	700-2 ¹ / ₄ 667 (700-2 ¹ / ₄)



INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability.

ANA designation on the approach chart means that pilots may not use that approach as an alternate due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Approaches with the **A**NA designation are not listed in this section. **A** designation on the approach chart indicates that the approach procedure has non-standard minimums (for aircraft other than helicopters) or restrictions (for all users) for its use as an alternate.

Alternate Minima (ref: 14 CFR 91.169)

	Precision Approach	Non-Precision Approach
Standard	600-2	800-2
A Non-Standard or restrictions	As indicated below	As indicated below
Helicopters	For the selected approach: Ceiling: 200' above published ceiling Visibility: the greater of 1 SM visibility or the published visibility	
US Military (USA/USN/USAF)	See Service Regulations	

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

NAME ALTERNATE MINIMUMS

ANGLETON/LAKE JACKSON, TX
TEXAS GULF
COAST RGNL (LBX).....**RNAV (GPS) Rwy 17**
RNAV (GPS) Rwy 35
NA when local weather not available.

BAY CITY, TX
BAY CITY
RGNL (BYY).....**RNAV (GPS) Rwy 13¹**
RNAV (GPS) Rwy 31¹
VOR-A²
¹NA when local weather not available.
²Categories A, B, 1100-2; Category C, 1100-3.

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

NAME ALTERNATE MINIMUMS

BEAUMONT/PORT ARTHUR, TX
JACK BROOKS
RGNL (BPT).....**ILS or LOC Rwy 12¹²**
RNAV (GPS) Rwy 12³
RNAV (GPS) Rwy 16
RNAV (GPS) Rwy 30
RNAV (GPS) Rwy 34
NA when local weather not available.
¹NA when control tower closed.
²LOC, Categories A, B, C, D, E, 900-2.
³Category D, 800-2½; Category E, 900-2¾.

BRENHAM, TX
BRENHAM
MUNI (11R).....**RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
NA when local weather not available.
Category D, 800-2¾.

CALDWELL, TX
CALDWELL
MUNI (RWV).....**RNAV (GPS) Rwy 15**
RNAV (GPS) Rwy 33
VOR/DME-A
NA when local weather not available.
Category B, 900-2.

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

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

NAME ALTERNATE MINIMUMS

COLLEGE STATION, TX

EASTERWOOD
FLD (CLL).....**ILS or LOC Rwy 35¹²**
LOC BC Rwy 17¹³
RNAV (GPS) Rwy 11³⁴
RNAV (GPS) Rwy 17³⁴
RNAV (GPS) Rwy 29³⁴
RNAV (GPS) Rwy 35³⁴
VOR Rwy 29⁵
VOR or TACAN Rwy 11³⁴

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

CROCKETT, TX

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

EAGLE LAKE, TX

EAGLE LAKE (ELA).....**RNAV (GPS) Rwy 17¹**
RNAV (GPS) Rwy 35
Category C, 900-2½.
¹NA when local weather not available.

GALVESTON, TX

SCHOLES INTL
AT GALVESTON (GLS).....**RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 18¹
RNAV (GPS) Rwy 32¹
RNAV (GPS) Rwy 36¹
NA when local weather not available.
¹Category E, 800-2¼.

GIDDINGS, TX

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

HEARNE, TX

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

HOUSTON, TX

CONROE/NORTH HOUSTON
RGNL (CXO).....**RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 19
RNAV (GPS) Rwy 32
Category D, 800-2¼.

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

NAME ALTERNATE MINIMUMS

HOUSTON, TX (CON'T)

ELLINGTON (EFD).....**ILS Z or LOC Z Rwy 17R¹**
ILS Z or LOC Z Rwy 22¹
ILS Z or LOC Z Rwy 35L¹
RNAV (GPS) Rwy 4²
RNAV (GPS) Rwy 17R²
RNAV (GPS) Rwy 22²
RNAV (GPS) Rwy 35L²

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

HOUSTON
EXEC (TME).....**RNAV (GPS) Rwy 18**
RNAV (GPS) Rwy 36

NA when local weather not available.
Category D, 900-2¼.

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

SUGAR LAND
RGNL (SGR).....**ILS or LOC Rwy 35¹**
RNAV (GPS) Rwy 35

NA when local weather not available.
¹NA when control tower closed.

WILLIAM P
HOBBY (HOU).....**ILS or LOC Rwy 4¹**
ILS or LOC Rwy 13R¹
ILS or LOC Rwy 31L²
LOC Rwy 22³
RNAV (GPS) Rwy 4⁴
RNAV (GPS) Rwy 13R⁴
RNAV (GPS) Rwy 22³
RNAV (GPS) Rwy 31L⁵

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

HUNTSVILLE, TX

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

JACKSONVILLE, TX

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

JASPER, TX

JASPER COUNTY/BELL
FLD (JAS).....**RNAV (GPS) Rwy 18**
RNAV (GPS) Rwy 36
NA when local weather not available.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

24025

NAME ALTERNATE MINIMUMS

NAME ALTERNATE

LA GRANGE, TX

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

NA when local weather not available.

LUFKIN, TX

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

Category D, 900-2¼.

NACOGDOCHES, TX

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

NA when local weather not available.

ORANGE, TX

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

NA when local weather not available.

PALACIOS, TX

PALACIOS
MUNI (PSX).....RNAV (GPS) Rwy 13
VOR Rwy 13

NA when local weather not available.

Category D, 800-2¼.

PALESTINE, TX

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

NA when local weather not available.

Category C, 1000-2¼; Category D, 1000-3.

PORT LAVACA, TX

CALHOUN
COUNTY (PKV).....RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 32
VOR/DME-A

NA when local weather not available.

VICTORIA, TX

VICTORIA
RGNL (VCT).....ILS or LOC Rwy 13¹²
RNAV (GPS) Rwy 13³
RNAV (GPS) Rwy 31³
VOR Rwy 13³
VOR Rwy 31³

NA when local weather not available.

¹NA when control tower closed.

²LOC, Category D, 800-2½.

³Category D, 800-2½.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

24025

M3

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

23278

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

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

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

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

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

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

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

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

ANAHUAC, TX

CHAMBERS COUNTY (T00)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10MAR11 (11069) (FAA)

TAKEOFF MINIMUMS:

Rwy 17,35, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

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

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

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

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

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

ANGLETON/LAKE JACKSON, TX

TEXAS GULF COAST RGNL (LBX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 22JUN17 (17173) (FAA)

TAKEOFF OBSTACLE NOTES:

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

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

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

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

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

Tree 1578' from DER, 759' right of centerline, 74' MSL.

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

23278

SC-5

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

23278

BAY CITY, TX

BAY CITY RGNL (BYY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 22JUN17 (17173) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 13**, trees and poles beginning 51' from DER, 306' left of centerline, up to 91' MSL.
Tree 337' from DER, 442' right of centerline, 79' MSL. Tree 478' from DER, 473' right of centerline, 83' MSL.
Trees beginning 714' from DER, 496' right of centerline, up to 86' MSL.
- Rwy 31**, tree 102' from DER, 340' right of centerline, 61' MSL.
Tree 548' from DER, 272' left of centerline, 59' MSL.
Tree 944' from DER, 272' right of centerline, 70' MSL.
Trees beginning 1002' from DER, 255' right of centerline, up to 78' MSL.
Tree 1139' from DER, 750' right of centerline, 80' MSL.

BAYTOWN, TX

BAYTOWN (HPY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 10OCT19 (19283) (FAA)

TAKEOFF MINIMUMS:

- Rwy 14**, 300-1 or std. w/min. climb of 460' per NM to 300.

TAKEOFF OBSTACLE NOTES:

- Rwy 14**, tree 9' from DER, 214' left of centerline, 47' MSL.
Trees, poles, traverse way beginning 11' from DER, 33' right of centerline, up to 54' MSL.
Tree 89' from DER, 413' left of centerline, 51' MSL.
Poles, building, trees, traverse way beginning 122' from DER, 9' left of centerline, up to 58' MSL.
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' from DER, 427' left of centerline, 72' MSL.
Tree 1467' from DER, 531' right of centerline, 80' MSL.
Tree 1886' from DER, 558' left of centerline, 91' MSL.
Tower 4066' from DER, 1217' right of centerline, 156' AGL/180' MSL.
- Rwy 32**, trees, building, fence, poles beginning 131' from DER, 6' right of centerline, up to 76' MSL.
Buildings beginning 251' from DER, 38' left of centerline, up to 42' MSL.
Poles, building, trees, traverse way beginning 289' from DER, 4' left of centerline, up to 38' AGL/71' MSL.
Poles, trees beginning 688' from DER, 70' right of centerline, up to 48' AGL/80' MSL.

RWJ AIRPARK (54T)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 25APR19 (19115) (FAA)

TAKEOFF MINIMUMS:

- Rwys 14, 32**, NA - Environmental.

TAKEOFF OBSTACLE NOTES:

- Rwy 8**, trees beginning 21' from DER, 152' left of centerline, up to 100' AGL/129' MSL.
Vehicle on road beginning 100' from DER, crossing centerline, up to 15' AGL/44' MSL.
Fence beginning abeam DER, 115' right of centerline, up to 6' AGL/35' MSL.
Trees beginning 133' from DER, 333' right of centerline, up to 100' AGL/129' MSL.
Buildings beginning 266' from DER, left and right of centerline, up to 30' AGL/59' MSL.
Power lines beginning 356' from DER, 460' left of centerline, up to 32' AGL/61' MSL.
Pole 663' from DER, 188' right of centerline, 100' AGL/129' MSL.
- Rwy 26**, buildings beginning 47' from DER, 118' right of centerline, up to 30' AGL/64' MSL.
Buildings beginning 187' from DER, 85' left of centerline, up to 30' AGL/64' MSL.
Power lines beginning 407' from DER, crossing centerline, up to 32' AGL/66' MSL.
Vehicle on road beginning 448' from DER, crossing centerline, up to 15' AGL/49' MSL.
Trees beginning 619' from DER, left and right of centerline, up to 100' AGL/134' MSL.
Quarry equipment 2800' from DER, 193' right of centerline, up to 100' AGL/134' MSL.

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)

23278

SC-5

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

23278

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' from DER, 398' right of centerline, up to 70' AGL/80' MSL.

Multiple trees beginning 1288' from DER, 218' left of centerline, up to 72' AGL/82' MSL.

Tower 1487' from DER, 398' right of centerline, 60' AGL/75' MSL.

BRENHAM, TX

BRENHAM MUNI (11R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 11FEB10 (10042) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 16, trees and poles beginning 45' from DER, 272' right of centerline to 305' left of centerline, up to 89' AGL/299' MSL.

Rwy 34, trees beginning 18' from DER, 325' right of centerline to 380' left of centerline, up to 61' AGL/351' MSL.

BRYAN, TX

COULTER FLD (CFD)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05JUL07 (22139) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 15, vehicle on road 266' from DER, on centerline, 17' AGL/386' MSL.

Multiple trees and poles beginning 169' from DER, 339' right of centerline, up to 20' AGL/389' MSL.

Multiple trees and poles beginning 203' from DER, 245' left of centerline, up to 35' AGL/400' MSL.

Rwy 33, multiple poles and T-L towers beginning 36' from DER, 207' left of centerline, up to 35' AGL/382' MSL.

Trees 508' from DER, 290' right of centerline, 25' AGL/371' MSL.

CALDWELL, TX

CALDWELL MUNI (RWV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 20SEP12 (12264) (FAA)

TAKEOFF MINIMUMS:

Rwy 33, 300-1 or std. w/min. climb of 778' per NM to 800.

TAKEOFF OBSTACLE NOTES:

Rwy 15, trees beginning 323' from DER, left and right of centerline, up to 40' AGL/399' MSL.

Train on tracks 372' from DER, left and right of centerline, up to 23' AGL/382' MSL.

Power lines beginning 1896' from DER, left and right of centerline, up to 100' AGL/499' MSL.

Rwy 33, trees beginning 5' from DER, left and right of centerline, up to 40' AGL/449' MSL.

Power lines beginning 925' from DER, left and right of centerline, up to 50' AGL/499' MSL.

Water tank 3624' from DER, 1031' left of centerline 215' AGL/648' MSL.

CENTER, TX

CENTER MUNI (F17)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 29JUL10 (10210) (FAA)

DEPARTURE PROCEDURE:

Rwy 17, climb heading 167° to 1000 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 17, numerous trees beginning 326' from DER, 432' right and left of centerline, up to 100' AGL/414' MSL.

Vehicle on road 234' from DER, 530' left of centerline, up to 15' AGL/314' MSL.

Rwy 35, numerous trees beginning 1724' from DER, 388' left and right of centerline, up to 100' AGL/459' MSL. Vehicle on road 1091' from DER, 742' right of centerline, up to 15' AGL/354' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

CLEVELAND, TX

CLEVELAND MUNI (6R3)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 22SEP11 (11265) (FAA)

DEPARTURE PROCEDURE:

Rwy 16, climb heading 157° to 1400 before turning right.

Rwy 34, climb heading 312° to 2000 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 16, trees beginning abeam DER, right and left of centerline, up to 100' AGL/239' MSL.

Rwy 34, trees beginning 120' from DER, 243' left of centerline, up to 100' AGL/259' MSL.

Trees and poles beginning 225' from DER, 363' right of centerline, up to 100' AGL/220' MSL.

Vehicles on road 738' from DER, right and left of centerline, up to 19' AGL/169' MSL.

COLLEGE STATION, TX

EASTERWOOD FLD (CLL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 28FEB19 (21112) (FAA)

DEPARTURE PROCEDURE:

Rwy 35, climb heading 346° to 900 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 11, traverse way 5' from DER, 275' right of centerline, 322' MSL.

Tree 8' from DER, 497' right of centerline, 40' AGL/346' MSL.

Tree 10' from DER, 323' right of centerline, 39' AGL/347' MSL.

Pole 10' from DER, 55' left of centerline, 2' AGL/312' MSL.

Tree, traverse way beginning 44' from DER, 162' right of centerline, up to 44' AGL/352' MSL.

Electrical system 139' from DER, 498' left of centerline, 315' MSL.

Tree 496' from DER, 30' left of centerline, 42' AGL/325' MSL.

Trees beginning 497' from DER, 101' left of centerline, up to 331' MSL.

Elevator, building beginning 1888' from DER, 704' left of centerline, up to 64' AGL/366' MSL.

Transmission line 2483' from DER, 1148' left of centerline, 374' MSL.

Rwy 29, pole 11' from DER, 55' right of centerline, 1' AGL/320' MSL.

Tree 30' from DER, 414' left of centerline, 322' MSL.

Tree 135' from DER, 530' left of centerline, 343' MSL.

Trees beginning 305' from DER, 533' left of centerline, up to 361' MSL.

Trees beginning 536' from DER, 561' right of centerline, up to 346' MSL.

Tree 838' from DER, 665' right of centerline, 348' MSL.

Trees beginning 1010' from DER, 371' left of centerline, up to 362' MSL.

Pole beginning 1083' from DER, 692' right of centerline, up to 358' MSL.

Trees beginning 1174' from DER, 244' left of centerline, up to 363' MSL.

Tree, pole beginning 1257' from DER, 251' left of centerline, up to 365' MSL.

Trees beginning 1429' from DER, 420' right of centerline, up to 366' MSL.

Trees beginning 1542' from DER, 528' right of centerline, up to 370' MSL.

Pole beginning 1735' from DER, 278' left of centerline, up to 42' AGL/367' MSL.

Trees beginning 1865' from DER, 87' right of centerline, up to 379' MSL.

Tree, pole beginning 1879' from DER, 37' left of centerline, up to 49' AGL/369' MSL.

Trees beginning 1945' from DER, 65' left of centerline, up to 48' AGL/371' MSL.

Tree 2059' from DER, 378' left of centerline, 372' MSL.

Rwy 35, pole 11' from DER, 55' left of centerline, 1' AGL/321' MSL.

Sign 23' from DER, 251' left of centerline, 322' MSL.

Tree 232' from DER, 552' left of centerline, 38' AGL/361' MSL.

Trees beginning 297' from DER, 460' left of centerline, up to 41' AGL/364' MSL.

Tree 774' from DER, 598' right of centerline, 341' MSL.

Tree 808' from DER, 607' right of centerline, 349' MSL.

Tree, building beginning 883' from DER, 235' left of centerline, up to 366' MSL.

Tree 1085' from DER, 649' right of centerline, 355' MSL.

Tree 1181' from DER, 719' right of centerline, 356' MSL.

Pole 1552' from DER, 818' left of centerline, 376' MSL.

Trees beginning 1740' from DER, 751' left of centerline, up to 380' MSL.

CROCKETT, TX

HOUSTON COUNTY (DKR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 15DEC11 (11349) (FAA)

TAKEOFF MINIMUMS:

Rwy 2, 400-2 or std. w/min. climb of 280' per NM to 800.

Rwy 20, 300-1½ or std. w/min. climb of 459' per NM to 700.

TAKEOFF OBSTACLE NOTES:

Rwy 2, multiple trees beginning 57' from DER, 61' right of centerline, up to 50' AGL/399' MSL.

Multiple trees and terrain beginning 27' from DER, 109' left of centerline, up to 50' AGL/409' MSL.

Tower 1.5 NM from DER, 2864' left of centerline 233' AGL/623' MSL.

Rwy 20, multiple towers beginning 4567' from DER, 1025' right of centerline, up to 200' AGL/529' MSL.

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

23278

SC-5

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

23278

EAGLE LAKE, TX

EAGLE LAKE (ELA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 05DEC19 (19339) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, 300-2¼, or std. w/min. climb of 210' per NM to 400.

TAKEOFF OBSTACLE NOTES:

Rwy 17, vehicles on road, tree, vegetation beginning 38' from DER, 126' left of centerline, up to 197' MSL.

Tree 153' from DER, 110' left of centerline, 202' MSL.

Vehicles on road, tree beginning 155' from DER, 6' right of centerline, up to 197' MSL.

Trees beginning 155' from DER, 12' left of centerline, up to 36' AGL/216' MSL.

Trees, vehicles on road beginning 216' from DER, 205' right of centerline, up to 212' MSL.

Trees beginning 270' from DER, 357' left of centerline, up to 40' AGL/220' MSL.

Tree 1682' from DER, 458' left of centerline, 233' MSL.

Tower 2588' from DER, 792' left of centerline, 192' AGL/317' MSL.

Tower 1.7 NM from DER, 3144' right of centerline, 270' AGL/443' MSL.

Rwy 35, terrain beginning 5' from DER, 287' left of centerline, up to 186' MSL.

Terrain 9' from DER, 270' right of centerline, 185' MSL.

Trees beginning 96' from DER, 271' right of centerline, up to 17' AGL/199' MSL.

Vegetation 116' from DER, 366' left of centerline, 193' MSL.

Trees, vehicles on road, pole beginning 323' from DER, 127' left of centerline, up to 219' MSL.

Tree 641' from DER, 21' right of centerline, 200' MSL.

Tree 696' from DER, 31' right of centerline, 202' MSL.

Tree, vehicles on road beginning 702' from DER, 16' right of centerline, up to 207' MSL.

Pole 1055' from DER, 441' right of centerline, 219' MSL.

Tree, poles beginning 1062' from DER, 580' right of centerline, up to 223' MSL.

EDNA, TX

JACKSON COUNTY (26R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10DEC15 (15344) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 15, trees beginning 758' from DER, left and right of centerline, up to 20' AGL/84' MSL.

Rwy 33, vehicle on road beginning 292' from DER, 576' left of centerline, up to 15' AGL/79' MSL.

Power poles beginning 783' from DER, 397' left of centerline, 40' AGL/104' MSL.

Power pole 1169' from DER, 506' right of centerline, 40' AGL/104' MSL.

GALVESTON, TX

SCHOLES INTL AT GALVESTON (GLS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 22AUG13 (13234) (FAA)

DEPARTURE PROCEDURE:

Rwy 32, climb heading 318° to 800 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 14, building 2614' from DER, 376' right of centerline, 76' AGL/81' MSL.

Rwy 18, buildings beginning 2560' from DER, 284' left of centerline, up to 121' AGL/178' MSL.

T-L tower 636' from DER, 551' right of centerline, 55' AGL/60' MSL.

Trees and poles beginning 50' from DER, 75' right of centerline, up to 60' AGL/65' MSL.

Rwy 32, crane 4434' from DER, 1081' left of centerline, 131' AGL/131' MSL.

Rwy 36, bush 419' from DER, 577' left of centerline, 12' AGL/17' MSL.

Tree 526' from DER, 371' left of centerline, 14' AGL/19' MSL.

Trees beginning 713' from DER, 383' right of centerline, up to 27' AGL/32' MSL.

GIDDINGS, TX

GIDDINGS-LEE COUNTY (GYB)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 29JUL10 (10210) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 17, numerous trees beginning 720' from DER, 58' right of centerline, up to 50' AGL/479' MSL.

Numerous trees beginning 754' from DER, 340' left of centerline, up to 50' AGL/479' MSL.

Rwy 35, numerous trees beginning 613' from DER, 272' right of centerline, up to 50' AGL/539' MSL.

Numerous trees beginning 558' from DER, 265' left of centerline, up to 50' AGL/559' MSL.

Vehicle on road 516' from DER, 246' left of centerline, 15' AGL/514' MSL.

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

23278

SC-5

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

23278

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' from DER, 548' right of centerline, 297' MSL.
- Tree 1252' from DER, 553' right of centerline, 312' MSL.
- Trees beginning 1609' from DER, 300' left of centerline, up to 322' MSL.
- Trees beginning 3635' from DER, 464' left of centerline, up to 327' MSL.
- Tree 3830' from DER, 580' right of centerline, 347' MSL.
- Tree 4658' from DER, 135' right of centerline, 348' MSL.
- Rwy 14**, NAVAID 399' from DER, 266' right of centerline, 20' AGL/255' MSL.
- Tree 1478' from DER, 691' right of centerline, 291' MSL.
- Tree 1653' from DER, 682' left of centerline, 294' MSL.
- Tree 2129' from DER, 80' right of centerline, 306' MSL.
- Tree 2153' from DER, 407' left of centerline, 300' MSL.
- Rwy 19**, tree 1' from DER, 474' left of centerline, 292' MSL.
- Trees beginning 16' from DER, 264' left of centerline, up to 295' MSL.
- Tree 67' from DER, 322' right of centerline, 263' MSL.
- Trees beginning 855' from DER, 324' right of centerline, up to 303' MSL.
- Trees beginning 2139' from DER, 65' right of centerline, up to 316' MSL.
- Trees beginning 2365' from DER, 331' left of centerline, up to 312' MSL.
- Trees beginning 2475' from DER, 158' left of centerline, up to 315' MSL.
- Tree 3423' from DER, 123' right of centerline, 323' MSL.

DAVID WAYNE HOOKS 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' from DER, 526' left of centerline, 27' AGL/172' MSL.
- Building, NAVAID beginning 643' from DER, 256' left of centerline, up to 29' AGL/173' MSL.
- Trees beginning 708' from DER, 430' left of centerline, up to 188' MSL.
- Tree 1383' from DER, 860' right of centerline, 190' MSL.
- Tree 1514' from DER, 164' left of centerline, 189' MSL.
- Trees beginning 1648' from DER, 394' left of centerline, up to 197' MSL.
- Trees beginning 2100' from DER, 67' left of centerline, up to 214' MSL.
- Tree 2407' from DER, 188' left of centerline, 215' MSL.
- Tree 2469' from DER, 81' left of centerline, 217' MSL.
- Trees beginning 2743' from DER, 163' left of centerline, up to 220' MSL.
- Rwy 35L**, building, pole, tree beginning 85' from DER, 68' 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' from DER, 488' right of centerline, 200' MSL.
- Trees beginning 750' from DER, 123' right of centerline, up to 203' MSL.
- Tree, building, pole beginning 797' from DER, 42' left of centerline, up to 211' MSL.
- Tree, pole beginning 868' from DER, 144' right of centerline, up to 228' MSL.
- Tree 898' from DER, 283' left of centerline, 223' MSL.
- Tree, pole beginning 930' from DER, 31' left of centerline, up to 226' MSL.
- Trees beginning 1190' from DER, 613' right of centerline, up to 233' MSL.
- Tree 1266' from DER, 330' left of centerline, 228' MSL.
- Tree 1333' from DER, 76' left of centerline, 231' MSL.
- Tree, building, transmission line beginning 1342' from DER, 152' 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' 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**, 200-1¼ or std w/min. climb of 214' per NM to 300, or alternatively with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

TAKEOFF OBSTACLE NOTES:

- Rwy 4**, tree 1526' from DER, 737' right of centerline, 39' AGL/69' MSL.
- Rwy 17R**, pole 1488' from DER, 817' right of centerline, 40' AGL/74' MSL.
- Rwy 22**, obstruction light on GS and equipment 321' from DER, 544' left of centerline, 39' AGL/68' MSL.
- Sign 213' from DER, 472' right of centerline, 6' AGL/32' MSL.
- Antenna on building 1998' from DER, 598' right of centerline, 54' AGL/83' MSL.
- Obstruction light on communication equipment and antenna 1626' from DER, 837' right of centerline, 88' AGL/114' MSL.
- Obstruction light on water tower and tank 6114' from DER, 1635' right of centerline, 159' AGL/192' MSL.

CON'T

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

23278

SC-5

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' AGL/80' MSL.
Tank 2639' from DER, 1157' right of centerline, 77' AGL/109' MSL.

GEORGE BUSH INTCNL/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' right of centerline, up to 80' AGL/174' MSL.
Rwy 15L, multiple trees 2638' from DER, 758' right of centerline, up to 76' AGL/160' MSL.
Rwy 15R, tower 1431' from DER, 591' left of centerline, 48' AGL/133' MSL.
Antenna on glideslope 1469' from DER, 621' left of centerline, 49' AGL/133' MSL.
Rwy 26R, pole 950' from DER, 660' right of centerline, 40' AGL/129' MSL.
Rwy 33R, tree 2868' from DER, 1027' right of centerline, 73' AGL/172' MSL.

HOUSTON EXEC (TME)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 30AUG07 (21112) (FAA)

DEPARTURE PROCEDURE:

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

TAKEOFF OBSTACLE NOTES:

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

HOUSTON/SOUTHWEST (AXH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 05JUN08 (21336) (FAA)

DEPARTURE PROCEDURE:

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

TAKEOFF OBSTACLE NOTES:

- Rwy 9**, multiple hangars beginning 239' from DER, 360' right of centerline, up to 42' AGL/106' MSL.
Multiple trees beginning 501' from DER, 355' right of centerline, up to 43' AGL/111' MSL.
Multiple hangars beginning 119' from DER, 498' left of centerline, up to 41' AGL/105' MSL.
Pole 332' from DER, 299' left of centerline, 43' AGL/97' MSL.
Antenna 1172' from DER, 658' left of centerline, 51' AGL/115' MSL.
Multiple trees beginning 558' from DER, 68' left of centerline, up to 58' AGL/122' MSL.
Rwy 27, multiple trees beginning 1050' from DER, 40' left of centerline, up to 71' AGL/140' MSL.
Vehicle and road 99' from DER, 291' right of centerline, 15' AGL/83' MSL.
Multiple trees beginning 873' from DER, 514' right of centerline, up to 59' AGL/130' MSL.
Multiple transmission poles beginning 1304' from DER, 131' right of centerline, up to 41' AGL/110' MSL.

PEARLAND RGNL (LVJ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 03APR14 (14093) (FAA)

DEPARTURE PROCEDURE:

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

TAKEOFF OBSTACLE NOTES:

- Rwy 14**, vehicles on road beginning 11' from DER, 450' right of centerline, up to 15' AGL/54' MSL.
Hangars 99' from DER, 521' left of centerline, up to 13' AGL/53' MSL.
Trees beginning 102' from DER, 328' left of centerline, up to 27' AGL/71' MSL.
Trees beginning 199' from DER, 307' right of centerline, up to 64' AGL/98' MSL.
Vehicles on road beginning 364' from DER, left and right of centerline, up to 15' AGL/59' MSL.
Trees beginning 618' from DER, 331' left of centerline, up to 32' AGL/71' MSL.
Trees beginning 983' from DER, 94' right of centerline, up to 20' AGL/90' MSL.
Trees beginning 1251' from DER, 72' left of centerline, up to 60' AGL/94' MSL.
Rwy 32, multiple trees beginning 30' from DER, 142' right of centerline, up to 59' AGL/100' MSL.
Multiple trees beginning 41' from DER, 200' left of centerline, up to 74' AGL/118' MSL.
Pole 68' from DER, 107' right of centerline, 26' AGL/70' MSL.
Multiple buildings and poles beginning 103' from DER, 235' right of centerline, up to 34' AGL/78' MSL.
Vehicles on road 513' from DER, left and right of centerline, 15' AGL/59' MSL.
Multiple poles and trees beginning 605' from DER, left and right of centerline up to 84' AGL/128' MSL.

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

23278

SC-5

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

23278

HOUSTON, TX (CON'T)

SUGAR LAND RGNL (SGR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7A 20SEP12 (12264) (FAA)

DEPARTURE PROCEDURE:

Rwy 17, climb heading 170° to 1500 before turning eastbound.

Rwy 35, climb heading 350° to 1100 before turning southbound.

TAKEOFF OBSTACLE NOTES:

Rwy 17, multiple poles beginning 436' from DER, 172' right of centerline, up to 44' AGL/124' MSL.

Railroad 110' from DER, 10' left of centerline, 23' AGL/104' MSL.

Multiple poles beginning 135' from DER, 270' left of centerline, up to 44' AGL/ 111' MSL.

Building 1036' from DER, 743' right of centerline, 26' AGL/102' MSL.

Rwy 35, vehicle and road 65' from DER, 2' right of centerline, 15' AGL/ 96' MSL.

Multiple trees beginning 37' from DER, 275' right of centerline, up to 81' AGL/164' MSL.

DME antenna 380' from DER, 253' right of centerline, 24' AGL/100' MSL.

Multiple trees beginning 83' from DER, 65' left of centerline, up to 81' AGL/155' MSL.

WEST HOUSTON (IWS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 20SEP12 (12264) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 15, road and vehicle beginning 74' from DER, 60' left of centerline, up to 15' AGL/123' MSL.

Road and vehicle beginning 342' from DER, 6' right of centerline, up 15' AGL/123' MSL.

Building 177' from DER, 398' left of centerline, 18' AGL/126' MSL.

Light pole 942' from DER, 453' right of centerline, 39' AGL/145' MSL.

Trees beginning 307' from DER, 26 left of centerline, up to 58' AGL/165' MSL.

Trees beginning 130' from DER, 117' right of centerline, up to 100' AGL/208' MSL.

Rwy 33, trees beginning 168' from DER, 9' left of centerline, up to 70' AGL/179' MSL.

Trees beginning 66' from DER, 3' right of centerline, up to 75' AGL/184' MSL.

WILLIAM P HOBBY (HOU)

AMDT 7A 07OCT21 (21280) (FAA)

TAKEOFF MINIMUMS:

Rwy 22, std. w/min. climb of 290' per NM to 2700.

DEPARTURE PROCEDURE:

Rwys 31L/R, climb on heading 311° to 800 before turning westbound.

TAKEOFF OBSTACLE NOTES:

Rwy 4, lighting beginning 2' from DER, 85' left of centerline, up to 1' AGL/39' MSL.

Lighting beginning 2' from DER, 84' right of centerline, up to 1' AGL/39' MSL.

Lighting beginning 9' from DER, 4' left of centerline, up to 1' AGL/40' MSL.

Lighting beginning 9' from DER, 5' right of centerline, up to 1' AGL/40' MSL.

Building 1562' from DER, 858' right of centerline, 69' AGL/103' MSL.

Tree 2399' from DER, 154' left of centerline, 66' AGL/99' MSL.

Pole beginning 4403' from DER, 767' right of centerline, up to 121' AGL/166' MSL.

Rwy 13L, tree, lighting, sign beginning 3' from DER, 39' right of centerline, up to 75' AGL/115' MSL.

Lighting beginning 9' from DER, 39' left of centerline, up to 1' AGL/40' MSL.

Sign 26' from DER, 149' left of centerline, 2' AGL/42' MSL.

Trees, building, tree beginning 174' from DER, 9' left of centerline, up to 75' AGL/115' MSL.

Trees beginning 423' from DER, 24' right of centerline, up to 75' AGL/118' MSL.

Trees beginning 2389' from DER, 55' left of centerline, up to 75' AGL/118' MSL.

Trees 2448' from DER, 1149' right of centerline, 75' AGL/121' MSL.

Rwy 13R, lighting beginning 12' from DER, 85' right of centerline, up to 1' AGL/42' MSL.

Lighting beginning 12' from DER, 94' left of centerline, up to 1' AGL/42' MSL.

Lighting 41' from DER, 115' left of centerline, 3' AGL/44' MSL.

Lighting 42' from DER, 114' right of centerline, 2' AGL/43' MSL.

Fence 87' from DER, 492' left of centerline, 7' AGL/45' MSL.

Traverse way 178' from DER, 497' left of centerline, 55' MSL.

Traverse way 516' from DER, 542' right of centerline, 55' MSL.

Pole, tree beginning 752' from DER, 686' left of centerline, up to 50' AGL/90' MSL.

Trees beginning 1113' from DER, 737' right of centerline, up to 58' AGL/98' MSL.

Tree 1930' from DER, 905' left of centerline, 50' AGL/92' MSL.

Tree 2313' from DER, 948' right of centerline, 58' AGL/101' MSL.

Tree 2365' from DER, 1030' right of centerline, 59' AGL/105' MSL.

Tree 2716' from DER, 1128' right of centerline, 70' AGL/117' MSL.

Rwy 22, lighting beginning 5' from DER, 84' right of centerline, up to 1' AGL/43' MSL.

Pole, tree beginning 727' from DER, 626' right of centerline, up to 34' AGL/77' MSL.

Pole 1353' from DER, 776' left of centerline, 38' AGL/82' MSL.

Pole 1804' from DER, 968' right of centerline, 64' AGL/109' MSL.

Pole 2942' from DER, 1189' right of centerline, 72' AGL/117' MSL.

CON'T

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

HOUSTON, TX (CON'T)

WILLIAM P HOBBY (HOU) (CON'T)

Rwy 31L, lighting 9' from DER, 94' right of centerline, 1' AGL/45' MSL.
Lighting beginning 9' from DER, 85' left of centerline, up to 1' AGL/45' MSL.
Electrical system 135' from DER, 482' left of centerline, 7' AGL/50' MSL.
Pole 190' from DER, 508' left of centerline, 40' AGL/83' MSL.
Pole, building beginning 359' from DER, 411' left of centerline, up to 39' AGL/84' MSL.
Building 547' from DER, 273' right of centerline, 27' AGL/69' MSL.
Tree 1391' from DER, 466' left of centerline, 89' MSL.
Tree 2585' from DER, 702' 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' 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° 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' right of centerline, up to 100' AGL/354' MSL.
Hangar 1176' from DER, 675' right of centerline, 30' AGL/249' MSL.
Tower 1246' from DER, 611' right of centerline, 40' AGL/258' MSL.

KOUNTZE/SILSBEE, TX

HAWTHORNE FLD (45R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 14FEB08 (21280) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 13, terrain 3' from DER, 81' right of centerline, 0' AGL/69' MSL.
Trees beginning 64' from DER, 277' right of centerline, up to 50' AGL/119' MSL.
Tree 111' from DER, 516' left of centerline, 50' AGL/124' MSL.
Terrain 172' from DER, 119' left of centerline, 0' AGL/74' MSL.
Rwy 31, terrain 109' from DER, 134' left of centerline, 0' AGL/74' MSL.
Tree 536' from DER, 457' right of centerline, 50' AGL/114' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

LA GRANGE, TX

FAYETTE RGNL AIR CENTER (3T5)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 13SEP18 (18256) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 16, trees, terrain beginning 146' from DER, 389' right of centerline, up to 45' AGL/378' MSL.
Vehicles on traverse way beginning 199' from DER, 481' left of centerline, up to 15' AGL/336' MSL.
Trees beginning 246' from DER, 454' right of centerline, up to 47' AGL/381' MSL.
Tree 525' from DER, 533' right of centerline, 49' AGL/383' MSL.
Tree 570' from DER, 540' left of centerline, 35' AGL/355' MSL.
Tree, building beginning 760' from DER, 527' right of centerline, up to 45' AGL/384' MSL.
Tree 769' from DER, 569' left of centerline, 43' AGL/361' MSL.
Tree 880' from DER, 524' right of centerline, 45' AGL/386' MSL.
Tree, pole, catenary beginning 926' from DER, 589' right of centerline, up to 48' AGL/390' MSL.
Tree 945' from DER, 532' left of centerline, 45' AGL/364' MSL.
Trees beginning 1005' from DER, 367' left of centerline, up to 46' AGL/365' MSL.
Tree 1183' from DER, 632' right of centerline, 49' AGL/396' MSL.
Trees beginning 1319' from DER, 259' left of centerline, up to 44' AGL/369' MSL.
Trees beginning 1465' from DER, 297' right of centerline, up to 56' AGL/406' MSL.
Trees beginning 1467' from DER, 28' left of centerline, up to 48' AGL/380' MSL.
Tree 1570' from DER, 652' right of centerline, 54' AGL/407' MSL.
Tree, catenary, pole beginning 1625' from DER, 32' right of centerline, up to 56' AGL/411' MSL.
Tree 2052' from DER, 188' left of centerline, 34' AGL/381' MSL.
Tree 2111' from DER, 523' left of centerline, 42' AGL/382' MSL.
Trees beginning 2456' from DER, 51' left of centerline, up to 44' AGL/399' MSL.
Trees beginning 2599' from DER, 5' right of centerline, up to 60' AGL/415' MSL.
Rwy 34, trees beginning 35' from DER, 322' left of centerline, up to 53' AGL/358' MSL.
Tree 200' from DER, 482' right of centerline, 13' AGL/315' MSL.
Tree 262' from DER, 335' right of centerline, 24' AGL/326' MSL.
Trees beginning 310' from DER, 361' right of centerline, up to 29' AGL/331' MSL.
Tree 494' from DER, 396' left of centerline, 58' AGL/360' MSL.
Tree, pole, catenary beginning 513' 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 AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 29MAY14 (14149) (FAA)

DEPARTURE PROCEDURE:

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

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

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

TAKEOFF OBSTACLE NOTES:

Rwy 5, trees beginning 334' from DER, left and right of centerline, up to 67' AGL/91' MSL.
Poles beginning 973' from DER, 387' left of centerline, up to 40' AGL/64' MSL.
Buildings beginning 319' from DER, left and right of centerline, up to 30' AGL/54' MSL.
Stack 2.3 NM from DER, 3296' left of centerline, 300' AGL/334' MSL.
Rwy 12, poles beginning 127' from DER, left and right of centerline, up to 54' AGL/74' MSL.
Trees beginning 183' from DER, 446' right of centerline, up to 40' AGL/60' MSL.
Building 675' from DER, 411' right of centerline, up to 32' AGL/55' MSL.
Trees beginning 888' from DER, 113' right of centerline, up to 43' AGL/63' MSL.
Rwy 23, buildings beginning 30' from DER, 242' left of centerline, up to 30' AGL/54' MSL.
Buildings beginning 231' from DER, 134' right of centerline, up to 30' AGL/54' MSL.
Trees beginning 243' from DER, 494' right of centerline, up to 67' AGL/91' MSL.
Poles beginning 363' from DER, left and right of centerline, up to 40' AGL/64' MSL.
Vehicle on road beginning 493' from DER, 562' left of centerline, up to 15' AGL/39' MSL.
Trees beginning 570' from DER, 292' left of centerline, up to 67' AGL/91' MSL.
Trees beginning 1123' from DER, 69' right of centerline, up to 67' AGL/91' MSL.
Rwy 30, trees beginning 44' from DER, 331' right of centerline, up to 51' AGL/71' MSL.
Pole 114' from DER, 500' left of centerline, 37' AGL/60' MSL.
Buildings beginning 334' from DER, 355' left of centerline, up to 25' AGL/50' MSL.
Trees beginning 367' from DER, 471' left of centerline, up to 37' AGL/57' MSL.
Building 669' from DER, 415' right of centerline, 30' AGL/55' MSL.
Poles beginning 768' from DER, 427' right of centerline, up to 50' AGL/74' MSL.
Trees beginning 1048' from DER, left and right of centerline, up to 67' AGL/87' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

LIBERTY, TX

LIBERTY MUNI (T78)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 29MAY14 (14149) (FAA)

DEPARTURE PROCEDURE:

Rwy 16, climb heading 161° to 1700 before turning left.

Rwy 34, climb heading 341° to 1000 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 16, hangars beginning 4' from DER, 340' right of centerline, up to 21' AGL/91' MSL.

Tree 273' from DER, 401' right of centerline, 28' AGL/96' MSL.

Trees beginning 1067' from DER, 122' left of centerline, up to 76' AGL/146' MSL.

Trees and poles beginning 1166' from DER, 48' right of centerline, up to 85' AGL/155' MSL.

Rwy 34, trees beginning 176' from DER, 262' left of centerline, up to 52' AGL/117' MSL.

Poles beginning 427' from DER, 318' right of centerline, up to 40' AGL/105' MSL.

Poles beginning 451' from DER, 236' left of centerline, up to 39' AGL/106' MSL.

Trees beginning 758' from DER, 101' right of centerline, up to 101' AGL/166' MSL.

Trees beginning 1953' from DER, 40' left of centerline, up to 96' AGL/161' MSL.

LIVINGSTON, TX

LIVINGSTON MUNI (00R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 05MAY11 (11125) (FAA)

DEPARTURE PROCEDURE:

Rwy 12, climb heading 125° to 1700 before proceeding on course.

Rwy 30, climb heading 305° to 800 before turning south.

TAKEOFF OBSTACLE NOTES:

Rwy 12, trees beginning at DER, right and left of centerline, up to 100' AGL/249' MSL.

Rwy 30, vehicle on road 10' from DER, 492' right of centerline, 10' AGL/159' MSL.

Trees beginning 260' from DER, 304' right of centerline, up to 100' AGL/249' MSL.

LUFKIN, TX

ANGELINA COUNTY (LFK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 07DEC17 (17341) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 7, trees beginning 109' from DER, 333' right of centerline, up to 354' MSL.

Trees beginning 358' from DER, 293' left of centerline, up to 350' MSL.

Trees beginning 467' from DER, 452' right of centerline, up to 365' MSL.

Trees beginning 513' from DER, 302' left of centerline, up to 381' MSL.

Tree 1470' from DER, 328' right of centerline, 366' MSL.

Trees beginning 1477' from DER, 483' right of centerline, up to 367' MSL.

Trees beginning 1599' from DER, 36' left of centerline, up to 387' MSL.

Trees beginning 1618' from DER, 274' right of centerline, up to 369' MSL.

Trees beginning 1636' from DER, 42' right of centerline, up to 376' MSL.

Trees beginning 1977' from DER, 44' right of centerline, up to 379' MSL.

Trees beginning 3207' from DER, 1351' left of centerline, up to 391' MSL.

Tree 3787' from DER, 965' left of centerline, 395' MSL.

Trees beginning 3798' from DER, 1035' left of centerline, up to 403' MSL.

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

Tree 138' from DER, 529' right of centerline, 284' MSL.

Trees beginning 184' from DER, 3' left of centerline, up to 79' AGL/344' MSL.

Tree 260' from DER, 229' right of centerline, 289' MSL.

Tree, rd (n) beginning 264' from DER, 164' right of centerline, up to 320' MSL.

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

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

Tree 2612' from DER, 448' right of centerline, 90' AGL/342' MSL.

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

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

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

Trees beginning 1375' from DER, 605' left of centerline, up to 328' MSL.

Tree 1627' from DER, 629' left of centerline, 330' MSL.

Tree 2655' from DER, 144' left of centerline, 353' MSL.

Tree 3109' from DER, 417' right of centerline, 362' MSL.

Rwy 34, sign 20' from DER, 200' left of centerline, 1' AGL/290' MSL.

Ldg 48' from DER, 457' right of centerline, 303' MSL.

Tree 95' from DER, 328' right of centerline, 330' MSL.

Trees beginning 166' from DER, 314' right of centerline, up to 54' AGL/338' MSL.

Pole and trees beginning 344' from DER, 310' right of centerline, up to 346' MSL.

Vehicles on road 571' from DER, 3' left of centerline, 312' MSL.

Vehicle on road beginning 579' from DER, 75' right of centerline, up to 306' MSL.

Trees beginning 602' from DER, 166' left of centerline, up to 367' MSL.

Trees beginning 620' from DER, 446' right of centerline, up to 354' MSL.

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

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

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

23278

SC-5

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

23278

MADISONVILLE, TX

MADISONVILLE MUNI (51R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 31MAY12 (12152) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 18, multiple trees and power poles beginning at DER, 179' right of centerline, up to 50' AGL/310' MSL.

Multiple trees and power poles beginning at DER, 200' left of centerline, up to 50' AGL/309' MSL.

Rwy 36, multiple trees and power poles beginning 99' from DER, 50' left of centerline, up to 50' AGL/341' MSL. Multiple trees beginning 50' from DER, 75' right of centerline, up to 50' AGL/ 346' MSL.

MARLIN, TX

MARLIN (T15)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10JAN13 (13010) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 17, power lines beginning 411' from DER, left and right of centerline, up to 125' AGL/524' MSL.

Building 7' from DER, 155' left of centerline, 30' AGL/439' MSL.

Trees beginning 656' from DER, left and right of centerline, up to 50' AGL/449' MSL.

Building 309' from DER, 100' left of centerline, 30' AGL/439' MSL.

Vehicles in parking lot 364' from DER, on centerline, up to 15' AGL/415' MSL.

Rwy 35, trees 225' from DER, 232' right of centerline, up to 50' AGL/469' MSL.

Trees 181' from DER, 240' left of centerline, up to 50' AGL/459' MSL.

Trees beginning 708' from DER, left and right of centerline, up to 50' AGL/469' MSL.

Vehicles 68' from DER, 347' right of centerline, up to 15' AGL/424' MSL.

MEXIA, TX

MEXIA-LIMESTONE CO (LXY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 11AUG22 (22223) (FAA)

TAKEOFF MINIMUMS:

Rwy 36, 300-2¼ or std. w/min. climb of 259' per NM to 1000, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1700' prior to the DER.

TAKEOFF OBSTACLE NOTES:

Rwy 18, vehicles on road beginning 202' from DER, 400' left of centerline, up to 15' AGL/554' MSL.

Tree 419' from DER, 292' right of centerline, up to 80' AGL/619' MSL.

Rwy 36, trees beginning 179' from DER, 382' right of centerline, up to 80' AGL/619' MSL.

Trees beginning 391' from DER, 315' left of centerline, up to 80' AGL/629' MSL.

NACOGDOCHES, TX

NACOGDOCHES A L MANGHAM JR RGNL (OCH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2A 22JUN17 (17173) (FAA)

DEPARTURE PROCEDURE:

Rwy 36, climb heading 359° to 1000 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 18, trees 47' from DER, 503' left of centerline, 67' AGL/397' MSL.

Trees 1227' from DER, 580' left of centerline, 52' AGL/382' MSL.

Trees 2234' from DER, 939' right of centerline, 71' AGL/431' MSL.

Rwy 36, trees 252' from DER, 485' left of centerline, 81' AGL/401' MSL.

Trees 792' from DER, 513' left of centerline, 87' AGL/447' MSL.

Trees beginning 1957' from DER, 23' left of centerline, up to 70' AGL/470' MSL.

Trees 207' from DER, 492' right of centerline, 58' AGL/388' MSL.

Multiple OL's and trees beginning 661' from DER, 2' right of centerline, up to 74' AGL/434' MSL.

Multiple trees beginning 2290' from DER, 316' right of centerline, up to 87' AGL/487' MSL.

NAVASOTA, TX

NAVASOTA MUNI (60R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 02FEB84 (84033) (FAA)

DEPARTURE PROCEDURE:

Rwy 35, climb runway heading to 2100 before turning eastbound.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

ORANGE, TX

ORANGE COUNTY (ORG)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 22OCT09 (09295) (FAA)

TAKEOFF MINIMUMS:

Rwy 4, 400-1¼ or std. w/ min. climb of 425' per NM to 500.

Rwys 13, 31, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 4, trees beginning 893' from DER, 513' right of centerline, up to 30' AGL/87' MSL.

Trees beginning 1856' from DER, 550 left of centerline, up to 30' AGL/66' MSL.

Transmission poles beginning 2518' from DER, left and right of centerline, up to 73' AGL/83' MSL.

Tower 6401' from DER, 1900' left of centerline, 283' AGL/298' MSL.

Rwy 22, trees beginning at DER, left and right of centerline, up to 30' AGL/39' MSL.

PALACIOS, TX

PALACIOS MUNI (PSX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 26MAY16 (16147) (FAA)

DEPARTURE PROCEDURE:

Rwy 8, climbing right turn heading 125° to 1800 before proceeding on course.

Rwy 13, climb heading 132° to 1100 before turning left.

Rwy 36, climb heading 357° to 1100 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 31, bush 20' from DER, 296' right of centerline, 6' AGL/16' MSL.

PALESTINE, TX

PALESTINE MUNI (PSN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 30JAN20 (20030) (FAA)

TAKEOFF MINIMUMS:

Rwy 9, 400-3 w/min. climb of 262' per NM to 1200 or std. w/min. climb of 316' per NM to 900 or 1000-3 for VCOA.

VCOA:

Rwy 9, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Palestine Muni at or above 1300 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 201' from DER, 195' left of centerline, up to 100' AGL/381' MSL.

Trees beginning 207' from DER, 87' right of centerline, up to 100' AGL/378' MSL.

Trees beginning 2276' from DER, 216' left of centerline, up to 100' AGL/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' 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

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

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

23278

SC-5

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

23278

PALESTINE, TX (CON'T)

PALESTINE MUNI (PSN) (CON'T)

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

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

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

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

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

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

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

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

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

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

Trees beginning 1.2 NM from DER, 269' left of centerline, up to 100' AGL/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' right of centerline, up to 100' AGL/552' MSL.

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

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

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

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

Tower 2.5 NM from DER, 345' left of centerline, 199' AGL/809' MSL.

Rwy 18, tree abeam DER, 409' left of centerline, 415' MSL.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PORT LAVACA, TX

CALHOUN COUNTY (PKV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 13SEP18 (18256) (FAA)

TAKEOFF MINIMUMS:

Rwys 5, 23, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

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

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

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

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' from DER, 415' left of centerline, 18' AGL/118' MSL.

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

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

WHARTON, TX

WHARTON RGNL (ARM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 27AUG09 (09239) (FAA)

TAKEOFF OBSTACLE NOTES:

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

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

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

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

Fence 24' from DER, 288' left of centerline, 4' AGL/103' MSL.

Tree 1147' from DER, 425' left of centerline, 41' AGL/140' MSL.

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

23278

SC-5

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

23278

WINNIE/STOWELL, TX

CHAMBERS COUNTY/WINNIE STOWELL (T90)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05OCT23 (23278) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, std w/min climb of 376'/NM to 2700, or 1800-3 for VCOA.**Rwy 35**, std w/min climb of 341'/NM to 2700, or 1800-3 for VCOA.

VCOA:

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

TAKEOFF OBSTACLE NOTES:

Rwy 17, trees beginning 616' from DER, 23' left of centerline, up to 125' MSL.

Trees beginning 1164' from DER, 475' right of centerline, up to 125' MSL.

Rwy 35, trees beginning 742' from DER, 212' left of centerline, up to 130' MSL.

Tree 1572' from DER, 672' right of centerline, 130' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

BLUBELL FOUR ARRIVAL
(BLUBL.BLUBL4) 26MAR20

HOUSTON APP CON
124.225 306.975
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
SGR ATIS *
118.125
TME ATIS
119.525

WACO
115.3 ACT
Chan 100

LLANO
108.2 ILO
Chan 19
N30°47.78'
W98°47.24'
L-19, H-6

CENTEX
112.8 CWK
Chan 75

MAVERICK
113.1 TTT
Chan 78

COWBOY
116.2 CVE
Chan 109

LEONA
110.8 LOA
Chan 45
N31°07.44'
W95°58.08'
L-19, H-6

COLLEGE STATION
113.3 CLL
Chan 80
N30°36.30'-W96°25.24'
L-19-21, H-7

BLUBL
9000
N30°18.27'
W96°18.18'

NAVASOTA
115.9 TNV
Chan 106

JAYJO
N30°20.23'
W96°48.90'
L-19-21, H-7

SNDAY
N29°56.42'
W96°09.68'
9000

INDUSTRY
110.2 IDU
Chan 39

NOTE: RADAR required.
NOTE: JAYJO TRANSITION
for Austin Terminal Area
Departures only.



NOTE: Chart not to scale.

HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

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

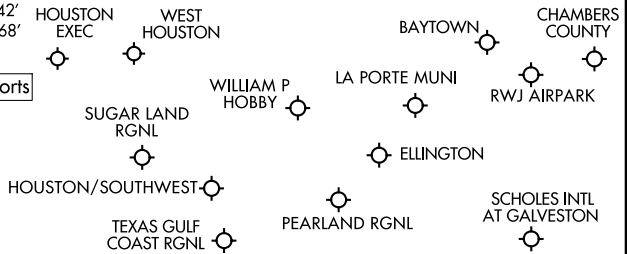
ELLVR TRANSITION (ELLVR.BLUBL4):
From over ELLVR on CLL R-334 to CLL VORTAC, then on CLL R-153 to BLUBL. Thence . . .

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

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

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

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



(BLUBL.BLUBL4) 23110

BLUBELL FOUR ARRIVAL

AL-198 (FAA)

HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

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

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

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

LANDING HOU RWY 22: From PLEDO on track 196° to FRITZ, then on track 196° to SSERA, then on track 244° to LLEGS, then on track 273° to WWILD, then on track 310° to JCNT0, then on track 310°. Expect vectors to final approach course.

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

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

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

HUDZY FOUR ARRIVAL
(HUDZY, HUDZY4) 100CT19

HUDZY FOUR ARRIVAL
(HUDZY, HUDZY4) 23054

AL-198 (FAA)

HOUSTON, TEXAS

HOUSTON APP CON
120.05 379.1
CXO ATIS
118.325
DWH ATIS
128.375
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
IAH D-ATIS
124.05
SGR ATIS *
118.125
TME ATIS
119.525

LUFKIN
112.1 LFK
Chan 58

SAWMILL
113.75 SWB
Chan 84 (Y)
N31°58.39-W92°40.63'
L-22, H-6

BRWCK
N30°35.23'
W93°42.36'

ALEXANDRIA
116.1 AEX
Chan 108
N31°15.40-W92°30.06'
L-21-22, H-6

LAKE CHARLES
113.4 LCH
Chan 81

SABINE PASS
115.4 SBI
Chan 101

WAPPL
N30°13.91'
W94°19.84'
VERTICAL NAVIGATION
PLANNING INFORMATION

CLEVELAND MUNI

CLWSN
N30°04.42'
W94°55.13'

HUDZY
N30°06.21'
W94°48.53'
TURBOJETS:
Expect 14000 280K

CHAMBERS
COUNTY

TRINITY
114.75 MHF
Chan 94(Y)

HUMBLE
116.6 IAH
Chan 113

CONROE/NORTH
HOUSTON RGNL

DAVID WAYNE HOOKS MEML

GEORGE BUSH
INTCNTL/HOUSTON

WEST HOUSTON

HOUSTON EXEC

WILLIAM P
HOBBY

PEARLAND
RGNL

HOUSTON/SOUTHWEST

TEXAS GULF
COAST RGNL

LA PORTE MUNI

ELLINGTON

SCHOLES INTL
AT GALVESTON

BAYTOWN
RWJ
AIRPARK



- NOTE: RADAR required.
- NOTE: For use by Turbojet and Turboprop aircraft capable of 280K or greater only.
- NOTE: DME/DME/IRU or GPS equipped aircraft must file the WAPPL (RNAV) STAR.
- NOTE: ATC assigned only for aircraft landing CXO, DWH, IAH, T78, and 6R3.

(NARRATIVE ON FOLLOWING PAGE) NOTE: Chart not to scale.

HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

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

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

. . . .from over HUDZY on IAH R-067 to CLWSN, then on IAH R-067 to SWWAA, then on heading 190°. Expect RADAR vectors to final approach course.

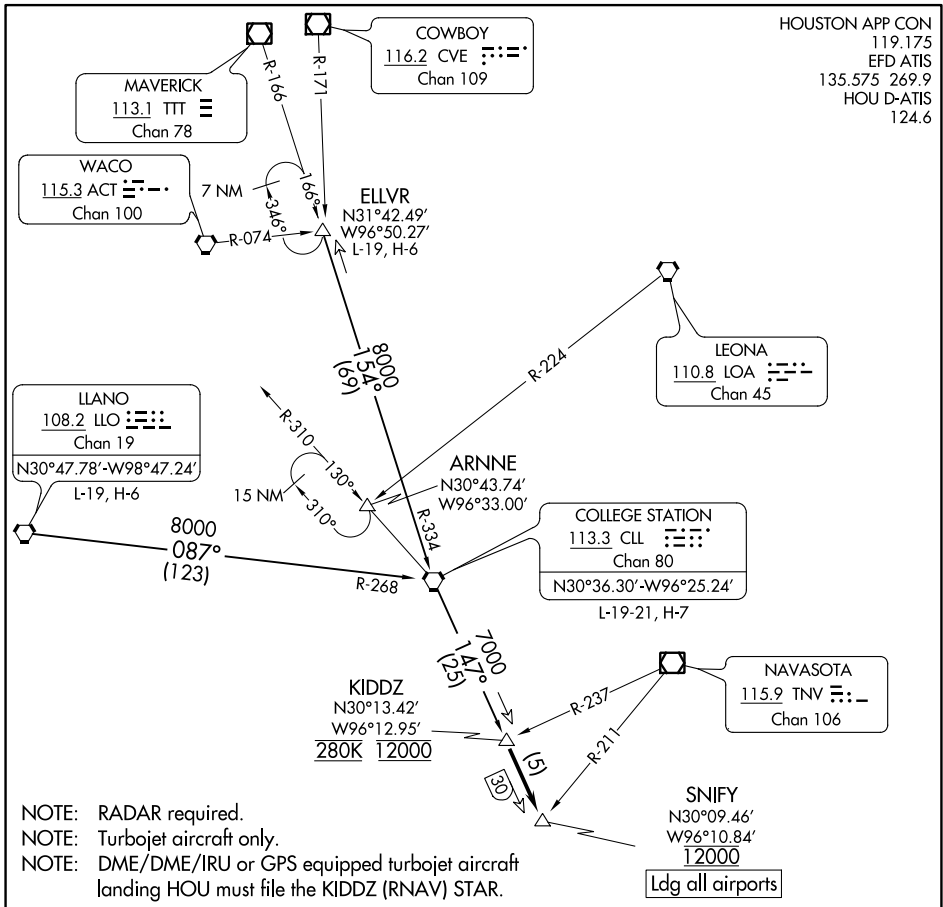
SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

SNIFY ONE ARRIVAL

HOUSTON, TEXAS

HOUSTON APP CON
 119.175
 EFD ATIS
 135.575 269.9
 HOU D-ATIS
 124.6



SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

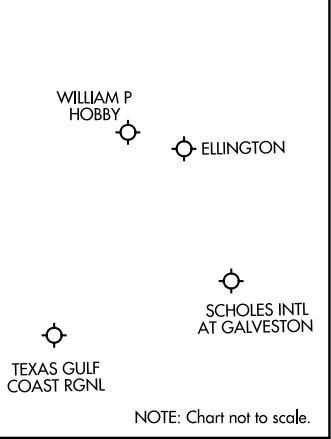
ARRIVAL ROUTE DESCRIPTION

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

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

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

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



NOTE: Chart not to scale.

SNIFY ONE ARRIVAL

HOUSTON, TEXAS

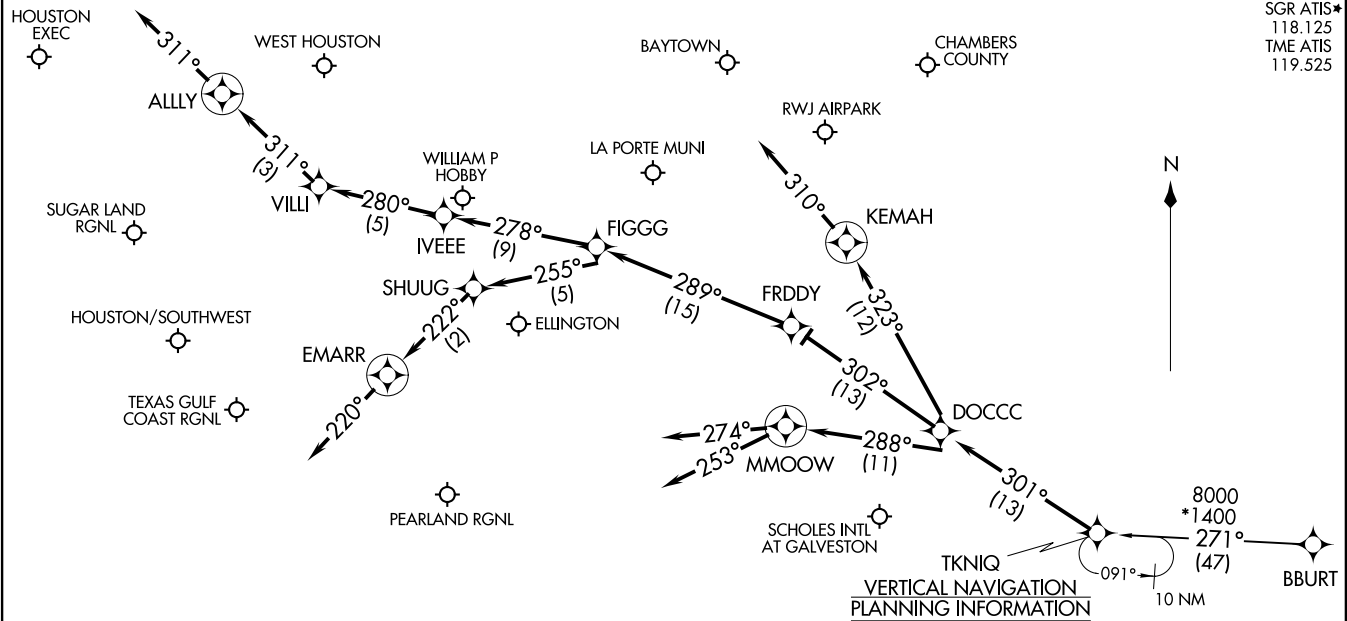
RNAV 1- DME/DME/IRU or GPS.
RADAR required.

HOUSTON APP CON
119.625 226.675
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
SGR ATIS*
118.125
TME ATIS
119.525

TKNIQ THREE ARRIVAL (RNAV)
(TKNIQ.TKNIQ3] 07OCT21)

TKNIQ THREE ARRIVAL (RNAV)
(TKNIQ.TKNIQ3] 21336

AI-198 (FAA)



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

VERTICAL NAVIGATION
PLANNING INFORMATION
HOU TURBOJETS: Expect 12000 250K
SOUTH SATELLITE TURBOJETS: Expect 12000 280K

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

HOUSTON, TEXAS

HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

BBURT TRANSITION (BBURT.TKNIQ3)

From TKNIQ on track 301° to DOCCC.

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

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

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

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

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

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

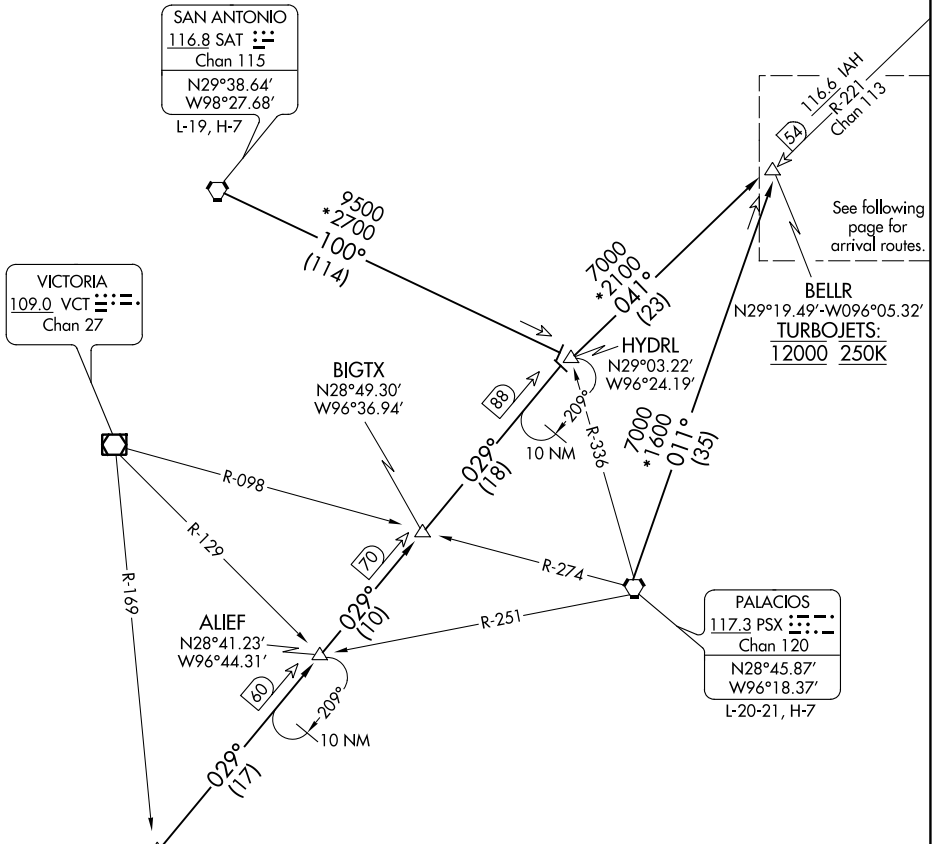
TSHRT TWO ARRIVAL

Transition Routes

HOUSTON, TEXAS

HOUSTON APP CON
 119.175 291.675
 EFD ATIS
 135.575 269.9
 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.



See following page for arrival routes.

SC-5, 22 FEB 2024 to 21 MAR 2024

SC-5, 22 FEB 2024 to 21 MAR 2024

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

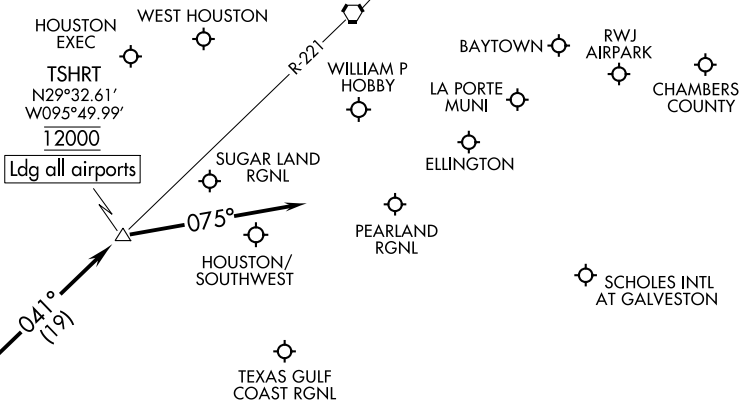
TSHRT TWO ARRIVAL

Transition Routes

HOUSTON, TEXAS

HOUSTON APP CON
119.175 291.675
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
SGR ATIS ★
118.125
TME ATIS
119.525

HUMBLE
116.6 IAH :D:D
Chan 113



Ldg all airports

041°
(19)

075°

IAH
R-221

BELLR
N29°19.49'-W096°05.32'
TURBOJET:
12000 250K

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

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

... from over BELLR on IAH R-221 to cross TSHRT at 12000. From TSHRT fly heading 075° for vectors to final approach course.

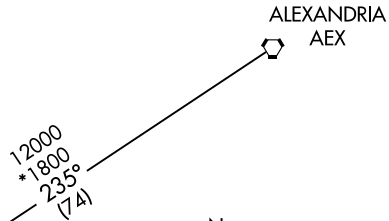
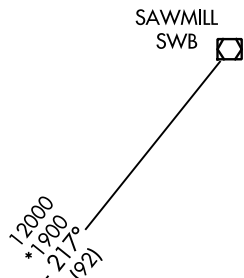
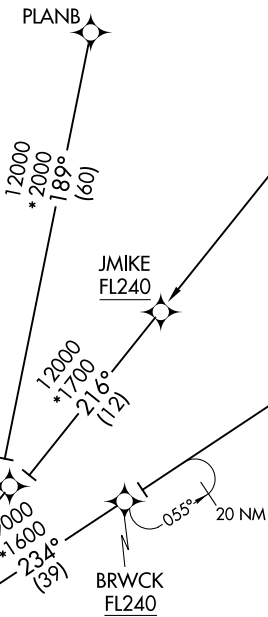
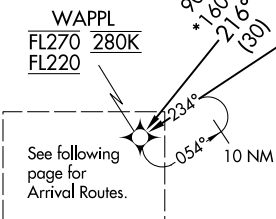
(WAPPL.WAPPL6) 070CT21

WAPPL SIX ARRIVAL (RNAV) Transition Routes

HOUSTON, TEXAS

HOUSTON APP CON
120.05 379.1
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
SGR ATIS ★
118.125
TME ATIS
119.525

- NOTE: Expect runway assignment from Houston TRACON upon initial contact.
- NOTE: For turbojet and turboprop aircraft capable of 280K or greater only.
- NOTE: Turbojet aircraft descend via MACH number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: ZEBBB TRANSITION ATC assigned only.
- NOTE: Except for aircraft departing SHV, PLANB TRANSITION is ATC assigned only. Do not file.



(CONTINUED ON FOLLOWING PAGES)

- ALEXANDRIA TRANSITION (AEX.WAPPL6)
- PLANB TRANSITION (PLANB.WAPPL6)
- SAWMILL TRANSITION (SWB.WAPPL6)
- ZEBBB TRANSITION (ZEBBB.WAPPL6)

NOTE: Chart not to scale.

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

(WAPPL.WAPPL6) 21280

Transition Routes

AI-198 (FAA)

HOUSTON, TEXAS

WAPPL WAPPL6] 07OCT21

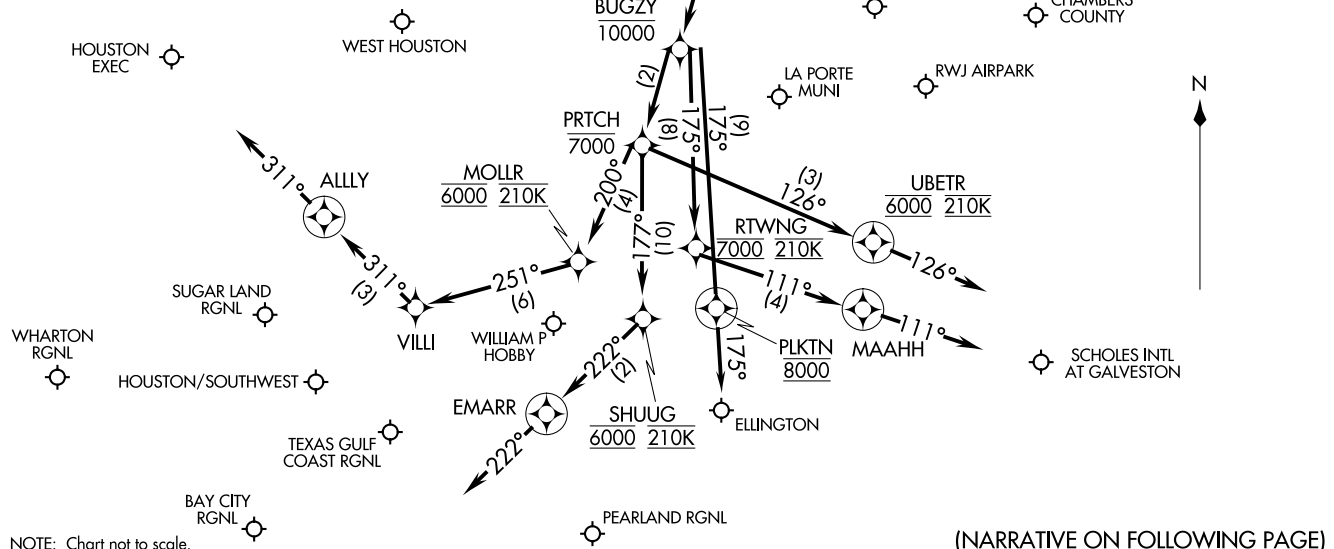
WAPPL SIX ARRIVAL (RNAV) Arrival Routes

HOUSTON, TEXAS

HOUSTON APP CON
120.05 379.1
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
SGR ATIS *
118.125
TME ATIS
119.525

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

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



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

WAPPL WAPPL6] 23054

Arrival Routes

HOUSTON, TEXAS

AL-198 (FAA)

ARRIVAL ROUTE DESCRIPTION

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

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

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

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

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

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

OHIO FOUR ARRIVAL
(OHIO.OHIO4) 22JUN17

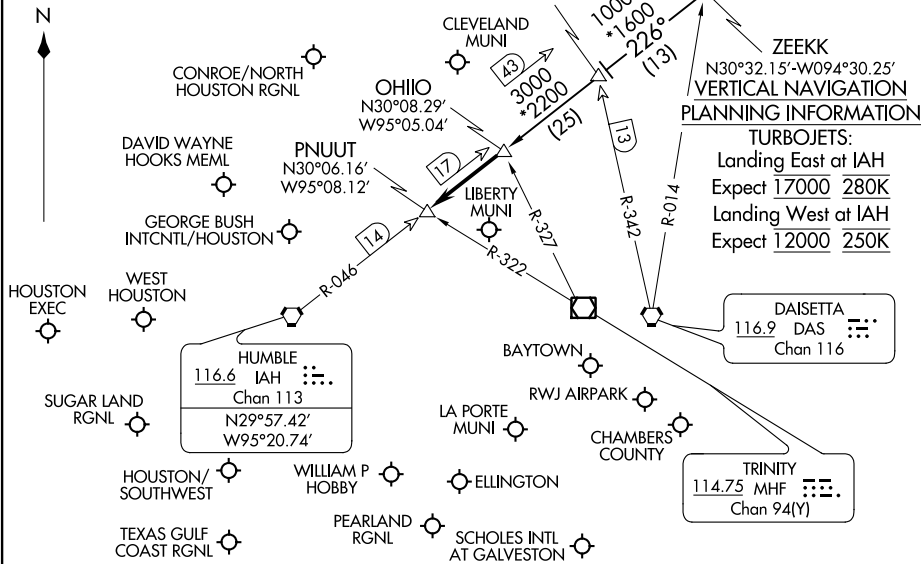
OHIO FOUR ARRIVAL
(OHIO.OHIO4) 23222

HOUSTON APP CON
120.05 379.1
CXO ATIS
118.325
DWH ATIS
128.375
EFD ATIS
135.575 269.9
HOU D-ATIS
124.6
IAH D-ATIS
124.05
SGR ATIS*
118.125
TME ATIS
119.525

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.

NOTE: Chart not to scale.



ARRIVAL ROUTE DESCRIPTION

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

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

GEORGE BUSH INT/CNTL AIRPORT /HOUSTON (IAH):
. . . from OHIO INT on IAH R-046 to PNUUT. Thence . . .
LANDING RUNWAYS 8L/R or 9:
. . . fly heading 265° for vectors to final approach course.

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

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

AL-5461 (FAA)