

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
INDUSTRY	ONE	IDU1.IDU	NINE	06/22/2017	07 OCT 2021

<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DP ROUTE DESCRIPTION:**GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH)**

ALL RUNWAYS: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

WILLIAM P HOBBY (KHOU)

TAKEOFF RWY 4, 13L, 13R, 22: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 31L: CLIMB ON HEADING 310.96 TO 800 BEFORE TURNING, THEN CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 31R: CLIMB ON HEADING 310.94 TO 800 BEFORE TURNING, THEN CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

ELLINGTON (KEFD)

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...

SUGAR LAND RGNL (KSGR)

TAKEOFF RWY 17: CLIMB ON HEADING 170.28 TO 1500 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 35: CLIMB ON HEADING 350.28 TO 1100 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

HOUSTON-SOUTHWEST (KAXH)

TAKEOFF RWY 9: CLIMB ON HEADING 089.22 TO 2000 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 27: CLIMB ON HEADING 269.23 TO 2200 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

HOUSTON EXECUTIVE (KTME)

TAKEOFF RWY 18: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 36: CLIMB ON HEADING 355.25 TO 700 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

SCHOLES INTL AT GALVESTON (KGLS)

TAKEOFF RWY 14, 18, 36: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 32: CLIMB ON HEADING 318.12 TO 800 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

LA PORTE MUNI (KT41)

TAKEOFF RWY 5: CLIMB ON HEADING 046.34 TO 500 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 12: CLIMB ON HEADING 121.17 TO 500 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

QUALITY
20
CHECKED

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TAKEOFF RWY 23: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

TAKEOFF RWY 30: CLIMB ON HEADING 301.18 TO 700 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

ALL OTHER AIRPORTS

ALL RUNWAYS: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO SHYNR INT. MAINTAIN ATC ASSIGNED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE...

...ON IDU R-085 TO BOCCK INT, THEN ON IDU R-085 TO IDU VORTAC.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>
JUNCTION	IDU1.JCT	IDU VORTAC	JCT VORTAC	275.62 & 273.98 (IDU R-276 & JCT R-094)	173.43	10000		
CENTEX	IDU1.CWK	IDU VORTAC	CWK VORTAC	288.92 & 290.43 (IDU R-289 & CWK R-110)	56.32	10000		
CORPUS CHRISTI	IDU1.CRP	IDU VORTAC	MARCS INT	259.38 (IDU R-259)	67.82	10000		
			SAT VORTAC	235.99 (SAT R-056)	34.82	FL180		
			CRP VORTAC	144.52 & 144.01 (SAT R-145 & CRP R-324)	117.12	FL180		
LAREDO	IDU1.LRD	IDU VORTAC	MARCS INT	259.38 (IDU R-259)	67.82	10000		
			SAT VORTAC	235.99 (SAT R-056)	34.82	FL180		
			LRD VORTAC	193.53 & 192.08 (SAT R-194 & LRD R-012)	139.08	FL180		

PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED

JUNCTION TRANSITION: FOR AIRCRAFT OVERFLYING JCT VORTAC ON J2, J15 OR J86.

CENTEX TRANSITION: ATC ASSIGNED ONLY FOR AIRCRAFT INBOUND TO THE DFW METROPLEX AREA THAT ARE BEING REROUTED DUE TO BAD WEATHER.

CORPUS CHRISTI TRANSITION: ATC ASSIGNED ONLY.

LAREDO TRANSITION: ATC ASSIGNED ONLY.

TAKEOFF MINIMUMS:

GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH)

RWY 8L, 8R, 9, 27, 15L, 15R, 26L, 26R, 33L, 33R: STANDARD.

WILLIAM P HOBBY (KHOU)

RWY 4, 13L, 13R, 31L, 31R: STANDARD.

RWY 22: STANDARD WITH MINIMUM CLIMB OF 290 FT PER NM TO 1500.

ELLINGTON (KEFD)

RWY 4, 17L, 17R, 35L, 35R: STANDARD.

RWY 22: 200-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 214 FT PER NM TO 300 OR ALTERNATIVELY WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1400 FT PRIOR TO DER.

CONROE-NORTH HOUSTON RGNL (KCXO)

RWY 1, 14, 19, 32: STANDARD.



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DAVID WAYNE HOOKS MEMORIAL (KDWH)

RWY 17L, 35R: NA - ENVIRONMENTAL.
WATERWAY 17, 35: NA - AIR TRAFFIC.
RWY 17R, 35L: STANDARD.

SUGAR LAND RGNL (KSGR)

RWY 17, 35: STANDARD

HOUSTON-SOUTHWEST (KAXH)

RWY 9, 27: STANDARD.

HOUSTON EXECUTIVE (KTME)

RWY 18, 36: STANDARD.

WEST HOUSTON (KIWS)

RWY 15, 33: STANDARD.

SCHOLES INTL AT GALVESTON (KGLS)

RWY 14, 18, 32, 36: STANDARD.

TEXAS GULF COAST RGNL (KLBX)

RWY 17, 35: STANDARD.

LA PORTE MUNI (KT41)

RWY 5, 12, 23, 30: STANDARD.

TAKEOFF OBSTACLES NOTES:

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:**WILLIAM P HOBBY (KHOU)**

RWY 22, 31L, 31R: 2049 FT MSL TOWER 293430.00N/0952938.00W.

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 31R, 31L 2049 FT MSL TOWER 293430.00N/0952938.00W.

ELLINGTON (KEFD)

RWY 22: 192 FT MSL WATER TOWER, 293521.00N/0951048.09W.

SUGAR LAND RGNL (KSGR)

RWY 17: 2049 FT MSL TOWER 293415.70N/0953038.30W.
RWY 35: 2049 FT MSL TOWER 293435.00N/0953037.00W.

HOUSTON-SOUTHWEST (KAXH)

RWY 9, 27: 2049 FT MSL TOWERS 293341.00N/0953005.00W.

HOUSTON EXECUTIVE (KTME)

RWY 36: 546 FT MSL TOWER 295050.00N/0955259.00W.

SCHOLES INTL AT GALVESTON (KGLS)

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 32: 2013 FT MSL TOWER 291800.65N/0950640.27W.



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LA PORTE MUNI (KT41)

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 5: 334 FT MSL STACK 294201.00N/0950211.00W. RWY 12: 499 FT MSL STACK 293747.00N/0950316.00W. RWY 30: 584 FT MSL TOWER 294253.26N/0950540.31W.

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH) - CHART: TOP ALTITUDE: 16000
 WILLIAM P HOBBY (KHOU) - CHART: TOP ALTITUDE: 16000
 ELLINGTON (KEFD) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 CONROE-NORTH HOUSTON RGNL (KCXO) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 DAVID WAYNE HOOKS MEMORIAL (KDWH) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 SUGAR LAND RGNL (KSGR) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 HOUSTON-SOUTHWEST (KAXH) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 HOUSTON EXECUTIVE (KTME) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 WEST HOUSTON (KIWS) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 SCHOLLES INTL AT GALVESTON (KGLS) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 TEXAS GULF COAST RGNL (KLBX) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.
 LA PORTE MUNI (KT41) - CHART: TOP ALTITUDE: ASSIGNED BY ATC.

REFERENCE MAG VAR: KHOU 3E EPOCH YR: 2015.

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
GEORGE BUSH INTERCONTINENTAL/HOUSTON	KIAH	HOUSTON	TX
WILLIAM P HOBBY	KHOU	HOUSTON	TX
ELLINGTON	KEFD	HOUSTON	TX
CONROE-NORTH HOUSTON RGNL	KCXO	HOUSTON	TX
DAVID WAYNE HOOKS MEMORIAL	KDWH	HOUSTON	TX
SUGAR LAND RGNL	KSGR	HOUSTON	TX
HOUSTON-SOUTHWEST	KAXH	HOUSTON	TX
HOUSTON EXECUTIVE	KTME	HOUSTON	TX
WEST HOUSTON	KIWS	HOUSTON	TX
SCHOLLES INTL AT GALVESTON	KGLS	GALVESTON	TX
TEXAS GULF COAST RGNL	KLBX	ANGLETON/LAKE JACKSON	TX



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LA PORTE MUNI	KT41		LA PORTE		TX

COMMUNICATIONS:**ATIS:** IAH, HOU, EFD, CXO, DWH, SGR, TME.**AWOS/ASOS:** IAH, HOU, EFD, CXO, DWH, SGR, AXH, TME, GLS, LBX.**CTAF:** CXO, DWH, SGR, AXH, TME, IWS, GLS, LBX, T41.**CLNC DEL:** IAH, HOU, CXO, DWH, SGR, AXH, TME, IWS, GLS, LBX, T41.**DEP CON:** IAH, HOU, EFD, CXO, DWH, SGR, AXH, TME, IWS, GLS, LBX, T41.**GND CON:** IAH, HOU, EFD, CXO, DWH, SGR, GLS, TME.**TWR:** IAH, HOU, EFD, CXO, DWH, SGR, GLS, TME.**CPDLC:** IAH, HOU.**FIXES AND/OR NAVAIDS:**

CHART: SHYNR INT (IAH R-262/TNV R-170/IDU R-085), BOCCK INT (IDU R-085 & TNV R-192), MARCS INT (IDU R-259/CWK R-205/STV R-105).

REMARKS:

ABBREVIATED AMENDMENT

INDUSTRY ONE AMENDMENT DOES NOT SATISFY PERIODIC REVIEW REQUIREMENTS.

FLIGHT INSPECTED BYPROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020 SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED.*Digitally signed by* **OFFICE****DATE****LONNIE EVERHART**

Jun 28, 2021

DEVELOPED BY

JON DENTON (JOHN KEEFER)

*Digitally signed by***LONNIE EVERHART**

Jun 28, 2021

OFFICE**DATE**

AJV-A432

05/04/2021

APPROVED BY

LONNIE EVERHART

*Digitally signed by***LONNIE EVERHART**

Jun 28, 2021

OFFICE**DATE**

AJV-A430

TITLE

MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:**A4A** ☒**ALPA** ☒**AOPA** ☒**APA** ☒**HAI** ☐**NBAA** ☒**OTHER:**

ZHU, HOU APP CON, IAH ATCT, HOU ATCT, DWH ATCT, EFD ATCT, SGR ATCT, AMGR: IAH, HOU, EFD, SGR, AXH, IWS, TME, DWH, CXO, GLS, T41, LBX.

CHANGES - REASONS:

1. CHANGED "CLIMB HEADING" TO "CLIMB ON HEADING" FOR THE FOLLOWING AIRPORTS AND RUNWAYS; KHOU RWY 31L, 31R, KSGR RWY 17, 35, KAXH RWY 9, 27, KTME RWY 36, KGLS RWY 32, KT41 RWY 5, 12, 30. - 8260.46G COMPLIANCE.
2. REMOVED RUNWAYS 17 AND 35 FROM KHOU DP ROUTE DESCRIPTION. - RUNWAYS HAVE BEEN REMOVED.
3. CHANGED DP ROUTE DESCRIPTION LA PORTE MUNI RWY 05 TO RWY 5. - 8260.46G COMPLIANCE.
4. ADDED TAKEOFF TO ALL AIRPORTS RUNWAYS IN DP ROUTE DESCRIPTION. - 8260.46G COMPLIANCE.
5. CHANGED DEPARTING GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH) TO GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH) IN DP ROUTE DESCRIPTION. - STANDARDIZATION OF AIRPORT ENTRIES.
6. CHANGED DEPARTING WILLIAM P HOBBY (KHOU) TO WILLIAM P HOBBY (KHOU) -STANDARDIZATION OF AIRPORT ENTRIES.
7. CHANGED DEPARTING ELLINGTON (KEFD) TO ELLINGTON (KEFD). - STANDARDIZATION OF AIRPORT ENTRIES.
8. REPLACED TAKEOFF OBSTACLE NOTES WITH SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP). - 8260.46G COMPLIANCE.
9. ADDED REFERENCE MAG VAR: KHOU 3E EPOCH YR: 2015. - 8260.46G COMPLIANCE.
10. REMOVED KHOU RWY 17, 35 FROM TAKEOFF MINIMUMS. - RUNWAYS HAVE BEEN REMOVED.
11. REMOVED KHOU RWY 17 FROM CONTROLLING OBSTACLES. - RUNWAYS HAVE BEEN REMOVED.

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12. REMOVED KHOU CONTROLLING OBSTACLE RWY 4: 174 FT MSL BUILDING 293935.00N0951526.00W. - NO 40:1 PENETRATIONS PER ODP.
13. UPDATED ALL REFERENCES FROM IDU9. TO IDU1. - UPDATES WITH AMENDMENT.
14. ADDED IAH, HOU TO CPDLC IN COMMUNICATION. - CPDLC IS AVAILABLE AT THESE AIRPORTS.
15. ADDED SGR, TME TO ATIS IN COMMUNICATION. - ATIS IS AVAILABLE AT THESE AIRPORTS
16. ADDED TME TO GND CON AND TWR IN COMMUNICATION. - GND CON AND TWR ARE AVAILABLE AT THIS AIRPORT.
17. ADDED OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 31R, 31L 2049 FT MSL TOWER 293430.00N/0952938.00W TO KHOU CONTROLLING OBSTACLES. - 8260.46G COMPLIANCE.
18. CHANGED KHOU TAKEOFF MINIMUMS RWY 13L, 13R, 31L, 31R, 35 STANDARD TO RWY 4, 13L, 13R, 31L, 31R: STANDARD. - PER ODP.
19. REMOVED KHOU TAKEOFF MINIMUMS FROM RWY 4: 300-1 OR STANDARD WITH MINIMUM CLIMB OF 270 FT PER NM TO 300. - PER ODP.

