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Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. **NUMBER DP COMPUTER CODE** SUPERSEDED NUMBER **DATED EFFECTIVE DATE** DP NAME 22 JUN 17 NGP7.NGP **TRUAX** SEVEN SIX 11/10/2016 TYPE: **OBSTACLE** COPTER SID **SPECIAL** RNAV XDP ROUTE DESCRIPTION: DEPARTING GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH) ALL RUNWAYS: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT. MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE. THENCE... **DEPARTING WILLIAM P HOBBY (KHOU)** RWY 4, 13L, 13R, 22, 35: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... RWY 17: CLIMB HEADING 175.94 TO 700 BEFORE TURNING. THEN CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT. MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE. THENCE... RWY 31L: CLIMB HEADING 310.96 TO 800 BEFORE TURNING, THEN CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... RWY 31R: CLIMB HEADING 310.94 TO 800 BEFORE TURNING, THEN CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 16000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... **DEPARTING ELLINGTON FIELD (KEFD)** ALL RUNWAYS: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 4000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... SUGAR LAND RGNL (KSGR) RWY 17: CLIMB HEADING 170,28 TO 1500 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT. MAINTAIN 4000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE. THENCE... RWY 35: CLIMB HEADING 350.28 TO 1100 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 4000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... SCHOLES INTL AT GALVESTON (KGLS) RWY 14. 18. 36: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT. MAINTAIN 4000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... RWY 32: CLIMB HEADING 318.12 TO 800 BEFORE TURNING. WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT, MAINTAIN 4000. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE. THENCE... **TEXAS GULF COAST RGNL (KLBX)** ALL RUNWAYS: WHEN ENTERING CONTROLLED AIRSPACE, CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YAWNS INT. MAINTAIN 4000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE, THENCE... ...ON VUH R-228 AND NGP R-047 TO NGP VORTAC. TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

**FROM** TO **CROSSING TRANSITION COURSE** TRANSITION NAME DISTANCE MEA MOCA COMPUTER CODE FIX/NAVAID FIX/NAVAID ALTITUDE/FIXES

PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED.

NOTE: FOR AIRCRAFT FILED FL180 AND ABOVE TO RIO GRANDE VALLEY AREA OR FOR AIRCRAFT FILED FL180 AND ABOVE OVERFLYING NGP VORTAC TO INTERNATIONAL DESTINATIONS.

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<u>DP NAME</u>	<u>NUMBER</u>	DP COMPUTER CODE	SUPERSEDED NUMBER	<u>DATED</u>	<b>EFFECTIVE DATE</b>
TRUAX	SEVEN	NGP7.NGP	SIX	11/10/2016	22 JUN 17

#### **TAKEOFF MINIMUMS:**

#### GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH)

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

### WILLIAM P HOBBY (KHOU)

RWY 13L, 13R, 31L, 31R, 35 STANDARD.

RWY 4, 300-1 OR STANDARD WITH MINIMUM CLIMB OF 270 FT PER NM TO 300.

RWY 17, 300-1.

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 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.

#### SUGAR LAND RGNL (KSGR)

RWY 17, 35 STANDARD

#### SCHOLES INTL AT GALVESTON (KGLS)

RWY 14, 18, 32, 36 STANDARD.

#### **TEXAS GULF COAST RGNL (KLBX)**

RWY 17, 35 STANDARD.

#### **TAKEOFF OBSTACLES NOTES:**

#### GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH)

NOTE: RWY 8L: TREE 2866 FT FROM DER, 921 FT LEFT OF CENTERLINE, 107 FT AGL/201 FT MSL. MULTIPLE TREES BEGINNING 2750 FT FROM DER, 106 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/174 FT MSL.

NOTE: RWY 15L: MULTIPLE TREES BEGINNING 2638 FT FROM DER, 758 FT RIGHT OF CENTERLINE, UP TO 76 FT AGL/160 FT MSL.

NOTE: RWY 15R: TOWER 1431 FT FROM DER, 591 FT LEFT OF CENTERLINE, 48 FT AGL/133 FT MSL. ANTENNA ON GLIDESLOPE 1469 FT FROM DER, 621 FT LEFT OF CENTERLINE, 49 FT AGL/133 FT

MSL.

NOTE: RWY 26R: POLE 950 FT FROM DER, 660 FT RIGHT OF CENTERLINE, 40 FT AGL/129 FT MSL.

NOTE: RWY 33R: TREE 2868 FT FROM DER, 1027 FT RIGHT OF CENTERLINE, 73 FT AGL/172 FT MSL.

#### **WILLIAM P HOBBY (KHOU)**

NOTE: RWY 4: POLE 4403 FT FROM DER, 1609 FT RIGHT OF CENTERLINE, 121 FT AGL/166 FT MSL. LIGHT ON BUILDING 1562 FT FROM DER, 859 FT RIGHT OF CENTERLINE, 59 FT AGL/103 FT MSL. BUILDING 3990 FT FROM DER, 1223 FT RIGHT OF CENTERLINE, 139 FT AGL/174 FT MSL. LIGHT ON FLGPL 4618 FT FROM DER, 768 FT RIGHT OF CENTERLINE, 117 FT AGL/161 FT MSL.

NOTE: RWY 13L: ANTENNA ON HANGER 1548 FT FROM DER, 424 FT LEFT OF CENTERLINE, 45 FT AGL/85 FT MSL.

NOTE: RWY 13R: VEHICLE AND ROAD 514 FT FROM DER, 543 FT RIGHT OF CENTERLINE, 17 FT AGL/55 FT MSL. TREE 1217 FT FROM DER, 756 FT RIGHT OF CENTERLINE, 43 FT AGL/89 FT MSL. FENCE 85 FT FROM DER, 492 FT LEFT OF CENTERLINE, 4 FT AGL/45 FT MSL. VEHICLE AND ROAD 176 FT FROM DER, 497 FT LEFT OF CENTERLINE, 17 FT AGL/55 FT MSL. POLE 1011 FT FROM DER, 696 FT LEFT OF CENTERLINE, 33 FT AGL/73 FT MSL. TREE 1256 FT FROM DER, 783 FT LEFT OF CENTERLINE, 38 FT AGL/78 FT MSL.

NOTE: RWY 17: MULTIPLE POLES BEGINNING 606 FT FROM DER, 393 FT RIGHT OF CENTERLINE, UP TO 79 FT AGL/124 FT MSL. CRANE 1795 FT FROM DER, 689 FT RIGHT OF CENTERLINE, 100 FT AGL/150 FT MSL. ANT ON BUILDING 620 FT FROM DER, 312 FT LEFT OF CENTERLINE, 27 FT AGL/72 FT MSL. MULTIPLE TREES BEGINNING 721 FT FROM DER, 260 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/116 FT MSL. RADAR REFLECTOR 1214 FT FROM DER, 258 FT LEFT OF CENTERLINE, 32 FT AGL/77 FT MSL.

NOTE: RWY 22: POLE 727 FT FROM DER, 626 FT RIGHT OF CENTERLINE, 28 FT AGL/77 FT MSL. TREE 1310 FT FROM DER, 679 FT RIGHT OF CENTERLINE, 27 FT AGL/76 FT MSL. ANTENNA ON LT POLE 1805 FT FROM DER. 968 FT RIGHT OF CENTERLINE, 60 FT AGL/109 FT MSL.

NOTE: RWY 31L: ANTENNA ON BUILDING 547 FT FROM DER, 274 FT RIGHT OF CENTERLINE, 23 FT AGL/69 FT MSL. MULTIPLE POLES BEGINNING 341 FT FROM DER, 501 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/84 FT MSL. MULTIPLE TREES BEGINNING 1392 FT FROM DER, 466 FT LEFT OF CENTERLINE, UP TO 78 FT AGL/118 FT MSL.

NOTE: RWY 31R: POLE 1096 FT FROM DER, 785 FT RIGHT OF CENTERLINE, 29 FT AGL/75 FT MSL. ANTENNA ON BUILDING 500 FT FROM DER, 525 FT LEFT OF CENTERLINE, 33 FT AGL/69 FT MSL.

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DP NAMENUMBER<br/>TRUAXDP COMPUTER CODE<br/>SEVENSUPERSEDED NUMBER<br/>NGP7.NGPDATEDEFFECTIVE DATESEVENNGP7.NGPSIX11/10/201622 JUN 17

NOTE: RWY 35: ANTENNA ON LT POLE 738 FT FROM DER, 519 FT RIGHT OF CENTERLINE, 40 FT AGL/86 FT MSL. LT POLE 1119 FT FROM DER, 353 FT RIGHT OF CENTERLINE, 31 FT AGL/77 FT MSL. ANTENNA ON BUILDING 66 FT FROM DER, 471 FT LEFT OF CENTERLINE, 33 FT AGL/69 FT MSL.

#### **ELLINGTON (KEFD)**

NOTE: RWY 4: TREE 1526 FT FROM DER, 737 FT RIGHT OF CENTERLINE, 39 FT AGL/69 FT MSL.

NOTE: RWY 17R: POLE 1488 FT FROM DER, 817 FT RIGHT OF CENTERLINE, 40 FT AGL/74 FT MSL.

NOTE: RWY 22: OL ON GS AND EQUIPMENT 321 FT FROM DER, 544 FT LEFT OF CENTERLINE, 39 FT AGL/68 FT MSL. SIGN 213 FT FROM DER, 472 FT RIGHT OF CENTERLINE, 6 FT AGL/32 FT MSL. ANTENNA ON BUILDING 1998 FT FROM DER, 598 FT RIGHT OF CENTERLINE, 54 FT AGL/83 FT MSL. OBSTRUCTION LIGHT ON COMM EQUIPMENT AND ANTENNA 1626 FT FROM DER, 837 FT RIGHT OF CENTERLINE, 88 FT AGL/114 FT MSL. OL ON WATER TOWER AND TANK 6114 FT FROM DER, 1635 FT RIGHT OF CENTERLINE, 159 FT AGL/192 FT MSL.

NOTE: RWY 35L: TREES BEGINNING 1119 FT FROM DER, 679 FT RIGHT OF CENTERLINE, UP TO 37 FT AGL/77 FT MSL. CRANE 2353 FT FROM DER, 1024 FT LEFT OF CENTERLINE, 58 FT AGL/97 FT MSI

NOTE: RWY 35R: TREE 1597 FT FROM DER. 32 FT LEFT OF CENTERLINE. 50 FT AGL/80 FT MSL. TANK 2639 FT FROM DER. 1157 FT RIGHT OF CENTERLINE. 77 FT AGL/109 FT MSL.

#### SUGAR LAND RGNL (KSGR)

NOTE: RWY 17: MULTIPLE POLES BEGINNING 436 FT FROM DER, 172 FT RIGHT OF CENTERLINE, UP TO 44 FT AGL/124 FT MSL. BUILDING 1036 FT FROM DER, 743 FT RIGHT OF CENTERLINE, 26 FT AGL/102 FT MSL. RAILROAD 110 FT FROM DER, 10 FT LEFT OF CENTERLINE, 23 FT AGL/104 FT MSL. MULTIPLE POLES BEGINNING 135 FT FROM DER, 270 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/111 FT MSL.

NOTE: RWY 35: VEHICLE AND ROAD 65 FT FROM DER, 2 FT RIGHT OF CENTERLINE, 15 FT AGL/96 FT MSL. MULTIPLE TREES BEGINNING 37 FT FROM DER, 275 FT RIGHT OF CENTERLINE, UP TO 81 FT AGL/164 FT MSL. DME ANTENNA 380 FT FROM DER, 253 FT RIGHT OF CENTERLINE, 24 FT AGL/100 FT MSL. MULTIPLE TREES BEGINNING 83 FT FROM DER, 65 FT LEFT OF CENTERLINE, UP TO 81 FT AGL/155 FT MSL.

#### SCHOLES INTL AT GALVESTON (KGLS)

NOTE: RWY 14: BUILDING 2614 FT FROM DER. 376 FT RIGHT OF CENTERLINE. 76 FT AGL/81 FT MSL.

NOTE: RWY 18: BUILDINGS BEGINNING 2560 FT FROM DER, 284 FT LEFT OF CENTERLINE, UP TO 121 FT AGL/178 FT MSL. T-L TOWER 636 FT FROM DER, 551 FT RIGHT OF CENTERLINE, 55 FT AGL/60 FT MSL. TREES AND POLES BEGINNING 50 FT FROM DER, 75 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/65 FT MSL.

NOTE: RWY 32: CRANE 4434 FT FROM DER. 1081 FT LEFT OF CENTERLINE. 131 FT AGL/131 FT MSL.

NOTE: RWY 36: BUSH 419 FT FROM DER, 577 FT LEFT OF CENTERLINE, 12 FT AGL/17 FT MSL. TREE 526 FT FROM DER, 371 FT LEFT OF CENTERLINE, 14 FT AGL/19 FT MSL. TREES BEGINNING 713 FT FROM DER, 383 FT RIGHT OF CENTERLINE, UP TO 27 FT AGL/32 FT MSL.

#### **TEXAS GULF COAST RGNL (KLBX)**

NOTE: RWY 35: TREE 1330 FT FROM DER, 797 FT LEFT OF CENTERLINE, 71 FT MSL. TREE 1404 FT FROM DER, 796 FT LEFT OF CENTERLINE, 73 FT MSL. TREES BEGINNING 1467 FT FROM DER, 788 FT LEFT OF CENTERLINE, UP TO 75 FT MSL. TREE 1474 FT FROM DER, 670 FT RIGHT OF CENTERLINE, 72 FT MSL. TREE 1516 FT FROM DER, 684 FT RIGHT OF CENTERLINE, 73 FT MSL. TREE 1578 FT FROM DER, 759 FT RIGHT OF CENTERLINE, 74 FT MSL.

#### **CONTROLLING OBSTACLES:**

#### WILLIAM P HOBBY (KHOU)

RWY 4: 174 FT MSL BUILDING 293935.00N/0951526.00W.

RWY 17: 150 FT MSL CRANE 293751.23N/0951710.97W, 2049 FT MSL TOWER 293430.00N/0952938.00W.

RWY 22, 31L, 31R: 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.

#### SCHOLES INTL AT GALVESTON (KGLS)

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



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DP NAME	NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	<b>EFFECTIVE DATE</b>
TRUAX	SEVEN	NGP7.NGP	SIX	11/10/2016	22 JUN 17

#### 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: 4000

SCHOLES INTL AT GALVESTON (KGLS) - CHART: TOP ALTITUDE 4000

SUGAR LAND RGNL (KSGR) - CHART: TOP ALTITUDE: 4000 TEXAS GULF COAST RGNL (KLBX) - CHART: TOP ALTITUDE: 4000

#### **AIRPORTS SERVED:**

AIRPORT NAME	<u>CITY</u>	<u>STATE</u>
GEORGE BUSH INTERCONTINENTAL/HOUSTON (KIAH)	HOUSTON	TX
WILLIAM P HOBBY (KHOU)	HOUSTON	TX
ELLINGTON FIELD (KEFD)	HOUSTON	TX
SUGAR LAND RGNL (KSGR)	HOUSTON	TX
SCHOLES INTL AT GALVESTON (KGLS)	GALVESTON	TX
TEXAS GULF COAST RGNL (KLBX)	ANGLETON/LAKE JACKSON	TX

#### **COMMUNICATIONS:**

ATIS: IAH, HOU, EFD.

AWOS/ASOS: IAH, HOU, EFD, SGR, GLS, LBX.

CTAF: SGR, GLS, LBX.

CLNC DEL: IAH, HOU, SGR, GLS, LBX. DEP CON: IAH, HOU, EFD, SGR, GLS, LBX. GND CON: IAH, HOU, EFD, SGR, GLS. TWR: IAH, HOU, EFD, SGR, GLS.

### **FIXES AND/OR NAVAIDS:**

CHART: ELA VOR/DME, HUB VOR/DME, VUH VOR/DME

**REMARKS:** 

ABBREVIATED AMENDMENT



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DP NAME							<u>NUMBER</u>	DP COMPUTER CODE	SUPERSEDED NU	<u>IMBER</u>	<u>DATED</u>	EFFECTIVE DATI
TRUAX							SEVEN	NGP7.NGP	SIX		11/10/2016	22 JUN 17
FLIGHT INS	PECTED E	<u>BY</u> :	Digitali	ly signed by					OFFICE SYMBOL:	DATE:		
ROBIN CAL	UDLE			G HAMILTO	N				FICO	03/08/2017	7	
DEVELOPE	D BY:		Mar	14, 2017	al boo				OFFICE SYMBOL:	DATE:		
BRIAN J BIO	RIAN J BICKETT  Jan 04, 2017						AJV-5422	01/04/201	7			
Digitally signed by  APPROVED BY: ROBERT G HAMILTON						OFFICE SYMBOL:	DATE:					
JULIE MOR	GAN		Mar 14, 2017						AJV-5420			
REQUIRED ROUTINE	EFFECTIV	<u>E DATE</u> :										
COORDINA	TED WITH	:										
<u>A4A</u>	<u>ALPA</u>	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	NBAA							
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OTHER:												
ZHU, HOU A	APP CON,	IAH ATCT, HC	OU ATCT, EI	FD ATCT, SO	GR ATCT, A	MGR: IAH, HOU, EF	D, SGR, GLS, LE	BX.				
OUANOEO	DEAGON	^	,	•	•							
CHANGES -				OBBV (KHOI	I): ADDED	D\\\/\ 17 21  21D T	EVTIINI DEDAG	RTURE PROCEDURES - T	O MATCH CLIDDENT I	DI IDI IQUEN 0	260 154	
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								Y 4, 17L, 17R, 35L, 35R" -				
			`	,		, , ,	*	R, 35L TO 35L, 35R - PER				
				,				S - NEW SURVEY DATA.				

8. CONTROLLING OBSTACLES: ADDED OBSTACLES MANDATING ROUTE DEVELOPMENT TO SCHOLES INTL AT GALVESTON (KGLS) - TO MATCH DOCUMENTATION ON 8260-15A.

9. ADDITIONAL FLIGHT DATA: ADDED SCHOLES INTL AT GALVESTON (KGLS) – CHART: TOP ALTITUDE 4000 - PER 8260.46F DOCUMENTATION CRITERIA.

10. FIXES AND/OR NAVAIDS: ADDED CHART: ELA VOR/DME, HUB VOR/DME, VUH VOR/DME - NAVAIDS ARE CHARTED ON CURRENT PUBLISHED PROCEDURE.