

**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SUPERSEDED NUMBER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>
RETYR	SEVEN	RETYR7.RETYR	SIX	10/07/2021	27 JAN 2022

<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 checked="" type="checkbox"/>

DP ROUTE DESCRIPTION:

TAKEOFF RWY 4: CLIMB ON HEADING 040.95 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...
 TAKEOFF RWY 13L: CLIMB ON HEADING 130.95 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...
 TAKEOFF RWY 13R: CLIMB ON HEADING 130.95 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...
 TAKEOFF RWY 22: CLIMB ON HEADING 220.96 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...
 TAKEOFF RWY 31L: CLIMB ON HEADING 310.96 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...
 TAKEOFF RWY 31R: CLIMB ON HEADING 310.95 TO 560, EXPECT RADAR VECTORS TO RETYR, THENCE...

...ON TRACK 297.97 TO MNNKE, THEN ON (TRANSITION). MAINTAIN 16000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

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>
CRGER	RETYR7.CRGER	MNNKE	ZUUUU	TRACK 313.51	27.31	9400	1700	
			PUFER	TRACK 277.06	44.15	12000	2100	
			PSTUR	TRACK 276.78	34.30	12000	2100	
			CRGER	TRACK 280.77	32.91	12000	3100	
JUNCTION	RETYR7.JCT	MNNKE	BOCCK	TRACK 297.62	19.96	7900	1600	
			MNURE	TRACK 277.31	18.98	10800	2100	
			HAYYY	TRACK 277.05	62.34	12000	2100	
			FOWLR	TRACK 280.43	33.11	12000	2900	
			JCT VORTAC	TRACK 280.85	77.40	12000	3700	
			BOCCK	TRACK 297.62	19.96	7900	1600	
			MNURE	TRACK 277.31	18.98	10800	2100	
			BOCCK	TRACK 297.62	19.96	7900	1600	
SAN ANTONIO	RETYR7.SAT	MNNKE	BOCCK	TRACK 297.62	19.96	7900	1600	
			MNURE	TRACK 277.31	18.98	10800	2100	
			MARCS	TRACK 262.50	67.76	12000	2600	

QUALITY
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CHECKED

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RETYR	SEVEN	RETYR7.RETYR	SIX	10/07/2021	27 JAN 2022
		SAT VORTAC	TRACK 241.29	34.82	12000 2800
WAILN	RETYR7.WAILN	MNNKE	WEEED	TRACK 269.64	15.88 7100 1700
		WAILN	TRACK 271.98	20.41	10100 1800

PROCEDURAL DATA NOTES:

NOTE: DME/DME/IRU OR GPS REQUIRED.

NOTE: RADAR REQUIRED.

NOTE: RNAV 1.

NOTE: CRGER TRANSITION ATC ASSIGNED ONLY.

TAKEOFF MINIMUMS:

RWY 4, 13L, 13R, 31L, 31R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 560.

RWY 22: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 800.

TAKEOFF OBSTACLES NOTES:

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

CONTROLLING OBSTACLES:

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

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

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

REFERENCE MAGVAR: KHOU 3E EPOCH YR 2015.

DME/DME ASSESSMENT: SAT (RNP 2.0).

CHART: MEA/MOCA FROM RETYR TO MNNKE, 6000/1500.

CHART: TOP ALTITUDE 16000.

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
WILLIAM P HOBBY	KHOU	HOUSTON	TX

COMMUNICATIONS:

ATIS, CLNC DEL, HOU GND CON, HOU ATCT, HOU DEP CON, CPDLC.

FIXES AND/OR NAVAIDS:**REMARKS:**

ABBREVIATED AMENDMENT



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
RETYR	SEVEN	RETYR7.RETYR	SIX	10/07/2021	27 JAN 2022

FLIGHT INSPECTED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021, SUBJECT:
GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION.

*Digitally signed by***JON DENTON**

Dec 06, 2021

OFFICE**DATE****DEVELOPED BY**

JON DENTON (JOHN KEEFER)

*Digitally signed by***JON DENTON**

Dec 06, 2021

OFFICE

AJV-A432

DATE

10/07/2021

APPROVED BY

LONNIE EVERHART

*Digitally signed by***JON DENTON**

Dec 06, 2021

OFFICE

AJV-A430

DATE**TITLE**

MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZHU ARTCC, HOU DEP CON, HOU ATCT, AMGR.

CHANGES - REASONS:

1. CHANGED DP ROUTE DESCRIPTION RWY 13L HEADING FROM 130.93 TO 130.95 - NEW AIRNAV DATA.
2. CHANGED DP ROUTE DESCRIPTION RWY 31R HEADING FROM 310.94 TO 310.95 - NEW AIRNAV DATA.
3. CHANGED CONTROLLING OBSTACLE MANDATING ODP ROUTE DEVELOPMENT FROM RWY 13R, 31L TO RWYS 31L, 31R. - FORM CORRECTION.
4. REMOVED PILOT NAVIGATION AREA DOCUMENTED IN ADDITIONAL FLIGHT DATA SECTION. - 8260.46G COMPLIANCE.
5. REMOVED REMARK: RETYR SEVEN AMENDMENT DOES NO SATISFY PERIODIC REVIEW REQUIREMENTS. - REDUNDANT NOTE.
6. REMOVED ZHU ARTCC FROM COMMUNICATIONS. - DOES NOT NEED TO BE CHARTED IAW 8260.46G CRITERIA.

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**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
DEPARTURE (DATA RECORD)**

DP NAME				NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		ACTUAL EFFECTIVE DATE	
RETYR				SEVEN		RETYR7.RETYR		SIX		10/07/2021		27 JAN 2022	
FIX/NAVAID		LAT/LONG		C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW04 (AER)		293820.80N/0951707.16W		N	-	-	-	-					
560 MSL		-		-	-	VA	043.95	-	AT/ABOVE 560		CG 500 FT PER NM TO 560		
-		-		-	-	VM	043.95	-					
RW13L (AER)		293909.39N/0951701.94W		N	-	-	-	-					
560 MSL		-		-	-	VA	133.95	-	AT/ABOVE 560		CG 500 FT PER NM TO 560		
-		-		-	-	VM	133.95	-					
RW13R (AER)*		293856.27N/0951659.41W*		N	-	-	-	-			*DISPL THLD (1034 FT)		
560 MSL		-		-	-	VA	133.95		AT/ABOVE 560		CG 500 FT PER NM TO 560		
-		-		-	-	VM	133.95						
RW22 (AER)		293914.97N/0951607.36W		N	-	-	-						
560 MSL		-		-	-	VA	223.96		AT/ABOVE 560		CG 500 FT PER NM TO 800		
-		-		-	-	VM	223.96						
RW31L (AER)		293811.14N/0951605.85W		N	-	-	-						
560 MSL				-	-	VA	313.96		AT/ABOVE 560		CG 500 FT PER NM TO 560		
-				-	-	VM	313.96	-					
RW31R (AER)		293834.02N/0951619.93W		N	-	-	-	-					
560 MSL		-		-	-	VA	313.95	-	AT/ABOVE 560		CG 500 FT PER NM TO 560		
QUALITY 88													

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RETYR		SEVEN		RETYR7.RETYR		SIX		10/07/2021	27 JAN 2022
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
-	-	-	-	VM	313.95	-			
RETYR	294323.15N/0954736.87W	Y	-	IF	-	-			
MNNKE	294602.38N/0955241.21W	Y	FB	TF	300.97	5.15			
MNNKE	294602.38N/0955241.21W	Y	-	IF	-	-			RETYR7.CRGER
ZUUUU	300552.42N/0961421.48W	Y	FB	TF	316.51	27.31			
PUFER	301326.48N/0970432.09W	Y	FB	TF	280.06	44.15			
PSTUR	301911.13N/0974335.19W	Y	FB	TF	279.78	34.30			
CRGER	302657.12N/0982034.26W	Y	FB	TF	283.77	32.91			
MNNKE	294602.38N/0955241.21W	Y	-	IF	-	-			RETYR7.JCT
BOCCK	295612.26N/0961227.32W	Y	FB	TF	300.62	19.96			
MNURE	295934.88N/0963357.84W	Y	FB	TF	280.31	18.98			
HAYYY	301010.16N/0974446.53W	Y	FB	TF	280.05	62.34			
FOWLR	301747.44N/082158.72W	Y	FB	TF	283.43	33.11			
JCT VORTAC	303552.88N/0994902.93W	Y	FB	TF	283.85	77.40			
MNNKE	294602.38N/0955241.21W	Y	-	IF	-	-			RETYR7.MNURE
BOCCK	295612.26N/0961227.32W	Y	FB	TF	300.62	19.96			
MNURE	295934.88N/0963357.84W	Y	FB	TF	280.31	18.98			
MNNKE	294602.38N/0955241.21W	Y	-	IF	-	-			RETYR7.SAT
BOCCK	295612.26N/0961227.32W	Y	FB	TF	300.62	19.96			

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RETYR		SEVEN		RETYR7.RETYR		SIX		10/07/2021	27 JAN 2022
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
MNURE	295934.88N/0963357.84W	Y	FB	TF	280.31	18.98			
MARCS	295352.04N/0975140.70W	Y	FB	TF	265.50	67.76			
SAT VORTAC	293838.51N/0982740.73W	Y	FB	TF	244.29	34.82			
MNNKE	294602.38N/0955241.21W	Y	-	IF	-	-			RETYR7.WAILN
WEEED	294645.14N/0961054.94W	Y	FB	TF	272.64	15.88			
WAILN	294829.63N/0963417.12W	Y	FB	TF	274.98	20.41			

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