

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

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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SUPERSEDED NUMBER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>EFFECTIVE DATE</u>
ELOCO	FOUR	ELOCO4.ELOCO	THREE	12/10/2015	
<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"/>	<input checked="" type="checkbox"/>

DP ROUTE DESCRIPTION:

TAKEOFF RWY 4: CLIMB HEADING 040.95 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 13L: CLIMB HEADING 130.93 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 13R: CLIMB HEADING 130.95 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 17: CLIMB HEADING 175.94 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 22: CLIMB HEADING 220.96 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 31L: CLIMB HEADING 310.96 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...
TAKEOFF RWY 31R: CLIMB HEADING 310.94 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE..
TAKEOFF RWY 35: CLIMB HEADING 355.94 TO 560, EXPECT RADAR VECTORS TO ELOCO, THENCE...

...ON TRACK 069.50 TO CHPEE, 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>
WHITE LAKE	ELOCO4.LLA	CHPEE	GRIPY	TRACK 064.59	17.10	8300	1600	
			YOKEM	TRACK 094.84	10.33	10300	3100	
			SBI VOR/DME	TRACK 094.24	16.04	12000	1300	
			LLA VOR/DME	TRACK 087.51	87.00	12000	1700	

PROCEDURAL DATA NOTES:

NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED.
NOTE: RNAV 1.

TAKEOFF MINIMUMS:

RWY 4, 13L, 13R, 17, 22, 31L, 31R, 35, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 560.

TAKEOFF OBSTACLES NOTES:

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 BLDG 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 RFLTR 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.

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ELOCO	FOUR	ELOCO4.ELOCO	THREE	12/10/2015	

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.

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.

CONTROLLING OBSTACLES:

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.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

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

DME/DME ASSESSMENT: SAT (RNP 2.0).

CHART: MEA/MOCA FROM ELOCO TO CHPEE, 3000/1600.

CHART: TOP ALTITUDE: 16000.

PILOT NAVIGATION AREA:

7NM ARC CENTERED ON ELOCO (IF) CW

FROM: POINT A (BEARING 025 DEGREES TO ELOCO).

TO: POINT B (BEARING 115 DEGREES TO ELOCO).

MINIMUM ALTITUDE 3000.

AIRPORTS SERVED:

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

COMMUNICATIONS:

ATIS, CLNC DEL, HOU GND CON, HOU ATCT, HOU DEP CON, ZHU ARTCC.

FIXES AND/OR NAVAIDS:

REMARKS:

ABBREVIATED AMENDMENT



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ELOCO	FOUR	ELOCO4.ELOCO	THREE	12/10/2015	

FLIGHT INSPECTED BY:

OFFICE SYMBOL:

DATE:

DEVELOPED BY:

OFFICE SYMBOL:

DATE:

JOHNNIE BAKER (CHRISTINE BAYSE)

AJV-5431

07/15/2016

APPROVED BY:

OFFICE SYMBOL:

DATE:

TONY LAWSON

AJV-5420

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 ALL REFERENCES OF HOU RWY 12L/R-30L/R TO RWY 13L/R-31 L/R.- UPDATED RUNWAY NUMBERS AFTER MAGVAR.



**FEDERAL AVIATION ADMINISTRATION
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DEPARTURE (DATA RECORD)**

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
ELOCO							FOUR	ELOCO4.ELOCO	THREE	12/10/2015	
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	-				CG 500 FT PER NM TO 560	
-	-	-	-	VM	043.95	-					
ELOCO	293512.98N/0950110.25W	Y	FB	DF	-	-					
RW13L (AER)	293909.38N/0951701.94W	N	-	-	-	-					
560 MSL	-	-	-	VA	133.93	-				CG 500 FT PER NM TO 560	
-	-	-	-	VM	133.93	-					
ELOCO	293512.98N/0950110.25W	Y	FB	DF	-	-					
RW13R (AER)*	293856.26N/0951659.41W*	N	-	-	-	-				*DISPL THLD (1034 FT)	
560 MSL	-	-	-	VA	133.95	-				CG 500 FT PER NM TO 560	
-	-	-	-	VM	133.95	-					
ELOCO	293512.98N/0950110.25W	Y	FB	DF	-	-					
RW17 (AER)	293908.50N/0951704.80W	Y	FB	DF	-	-					
560 MSL	-	-	-	VA	178.94	-				CG 500 FT PER NM TO 560	
-	-	-	-	VM	178.94	-					
ELOCO	293512.98N/0950110.25W	Y	FB	DF	-	-					
RW22 (AER)	293914.97N/0951607.36W	N	-	-	-	-					
560 MSL	-	-	-	VA	223.96	-				CG 500 FT PER NM TO 560	QUALITY

QUALITY
3
CHECKED

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ELOCO				FOUR		ELOCO4.ELOCO		THREE		12/10/2015			
FIX/NAVAID		LAT/LONG		C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE		SPEED		REMARKS
-		-		-	-	VM	223.96	-					
ELOCO		293512.98N/0950110.25W		Y	FB	DF	-	-					
RW31L (AER)		293811.13N/0951605.82W		N	-	-	-	-					
560 MSL		-		-	-	VA	313.96	-					CG 500 FT PER NM TO 560
-		-		-	-	VM	313.96	-					
ELOCO		293512.98N/0950110.25W		Y	FB	DF	-	-					
RW31R (AER)		293834.02N/0951619.93W		N	-	-	-	-					
560 MSL		-		-	-	VA	313.94	-					CG 500 FT PER NM TO 560
-		-		-	-	VM	313.94	-					
ELOCO		293512.98N/0950110.25W		Y	FB	DF	-	-					
RW35 (AER)		293809.12N/0951703.54W		N	-	-	-	-					
560 MSL		-		-	-	VA	358.94	-					CG 500 FT PER NM TO 560
-		-		-	-	VM	358.94	-					
ELOCO		293512.98N/0950110.25W		Y	FB	DF	-	-					
ELOCO		293512.98N/0950110.25W		Y	-	IF	-	-					
CHPEE		293809.50N/0945028.01W		Y	FB	TF	072.50	9.78					
CHPEE		293809.50N/0945028.01W		Y	-	IF	-	-					ELOCO4.LLA

QUALITY

3

QUALITY
3
CHECKED

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ELOCO							FOUR	ELOCO4.ELOCO	THREE	12/10/2015	
<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>		
GRIPY	294440.29N/0943218.37W	Y	FB	TF	067.59	17.10					
YOKEM	294315.00N/0942033.00W	Y	FB	TF	097.84	10.33					
SBI VOR/DME	294112.19N/0940216.72W	Y	FB	TF	097.24	16.04					
LLA VOR/DME	293947.61N/0922225.11W	Y	FB	TF	090.51	87.00					

