

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

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<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
LBSTA	SIX	LBSTA6.LBSTA	FIVE	10/12/2017	07 DEC 2017

<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 4R:** CLIMB HEADING 034.74 TO 520, THEN DIRECT NHANT, THEN ON TRACK 091.09 TO CROSS HURBE AT OR ABOVE 4000, THENCE...**TAKEOFF RWY 9:** CLIMB HEADING 091.56 TO 520, THEN DIRECT CLAWW, CROSS CLAWW AT OR ABOVE 4000, THENCE...**TAKEOFF RWY 15R:** CLIMB HEADING 150.16 TO INTERCEPT COURSE 131.00 TO FOXXX, DO NOT EXCEED 210 KIAS UNTIL 520 FT MSL, THENCE...**TAKEOFF RWY 22L:** CLIMB HEADING 214.74 TO INTERCEPT COURSE 139.00 TO TJAYY, DO NOT EXCEED 210 KIAS UNTIL 520 FT MSL, THENCE...**TAKEOFF RWY 22R:** CLIMB HEADING 214.74 TO INTERCEPT COURSE 143.40 TO TJAYY, DO NOT EXCEED 210 KIAS UNTIL 520 FT MSL, THENCE...**TAKEOFF RWY 27:** CLIMB HEADING 271.58 TO INTERCEPT COURSE 234.00 TO KIRAA, THENCE...**TAKEOFF RWY 33L:** CLIMB HEADING 330.18 TO INTERCEPT COURSE 313.00 TO TEKKE, THEN ON TRACK 353.00 TO CROSS CAMWI AT OR ABOVE 4000, THENCE...

...ON DEPICTED ROUTE TO LBSTA. MAINTAIN 5000 OR LOWER ASSIGNED ALTITUDE. EXPECT CLEARANCE TO FILED ALTITUDE/FLIGHT LEVEL WITHIN TEN (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>
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PROCEDURAL DATA NOTES:**NOTE:** DME/DME/IRU OR GPS REQUIRED.**NOTE:** RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.**NOTE:** RNAV 1.**NOTE:** FOR TURBOJETS ONLY.**NOTE:** DEPARTURE HDG/RNAV TRACKS/VECTORS ARE PREDICATED ON AVOIDING NOISE SENSITIVE AREAS. FLIGHT CREW AWARENESS AND COMPLIANCE IS IMPORTANT IN MINIMIZING NOISE IMPACTS ON SURROUNDING COMMUNITIES.**NOTE: RWY 15R, 22L, 22R:** DO NOT EXCEED 210 KIAS UNTIL 520 FT MSL.**NOTE:** AT/BELOW 250K UNTIL BOATT.**TAKEOFF MINIMUMS:****RWY 4L, 14, 15L, 32, 33R:** NA-ATC.**RWY 4R:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 3600.**RWY 9:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 4000.**RWY 15R:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 520.**RWY 22L:** 300-1 WITH MINIMUM CLIMB OF 500 FT PER NM TO 520, OR STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 520 IF TOWER REPORTS NO TALL VESSELS IN THE DEPARTURE AREA.**RWY 22R:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 520.**RWY 27:** STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 1300.**RWY 33L:** STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 3100.**TAKEOFF OBSTACLES NOTES:****NOTE: RWY 4R:** SHIPS BEGINNING 578 FT FROM DER, ON CENTERLINE, UP TO 50 FT AGL/50 FT MSL. TREES, POLE, AND TOWER BEGINNING 1807 FT FROM DER, 382 FT LEFT OF CENTERLINE, UP TO 30 FT AGL/68 FT MSL. TREES BEGINNING 2282 FT FROM DER, 691 FT LEFT OF CENTERLINE, UP TO 57 FT AGL/77 FT MSL.**NOTE: RWY 9:** SHIPS BEGINNING 761 FT FROM DER, ON CENTERLINE, UP TO 65 FT AGL/65 FT MSL. TANK AND OBSTACLE LIGHT BEGINNING 5883 FT FROM DER, 1453 FT LEFT OF CENTERLINE, UP TO 120 FT AGL/217 FT MSL.**NOTE: RWY 15R:** SIGN 45 FT FROM DER, 267 FT RIGHT OF CENTERLINE, 15 FT AGL/16 FT MSL.

QUALITY
9
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NOTE: RWY 22L: POLE 394 FT FROM DER, ON CENTERLINE, 15 FT AGL/31 FT MSL. SHIP RIG 2440 FT FROM DER, 34 FT LEFT OF CENTERLINE, 176 FT AGL/176 FT MSL. TOWER AND LIGHT 3585 FT FROM DER, 926 FT LEFT OF CENTERLINE, 114 FT AGL/128 FT MSL. CRANES BEGINNING 3675 FT FROM DER, 439 FT RIGHT OF CENTERLINE, UP TO 146 FT AGL/146 FT MSL.

NOTE: RWY 22R: SHIP RIG 4064 FT FROM DER, 8 FT RIGHT OF CENTERLINE, 176 FT AGL/176 FT MSL. STACK 1.4 NM FROM DER, 2755 FT RIGHT OF CENTERLINE, 250 FT AGL/265 FT MSL.

NOTE: RWY 27: LIGHT POLE AND ROD BEGINNING 1690 FT FROM DER, 750 FT RIGHT OF CENTERLINE, UP TO 86 FT AGL/102 FT MSL. BUILDINGS BEGINNING 1.2 NM FROM DER, 126 FT LEFT OF CENTERLINE, UP TO 251 FT AGL/261 FT MSL. BUILDINGS BEGINNING 1.4 NM FROM DER, 1166 FT RIGHT OF CENTERLINE, UP TO 261 FT AGL/274 FT MSL. BUILDINGS BEGINNING 1.6 NM FROM DER, 2654 FT RIGHT OF CENTERLINE, UP TO 548 FT AGL/560 FT MSL. BUILDINGS BEGINNING 1.7 NM FROM DER, 1532 FT RIGHT OF CENTERLINE, UP TO 620 FT AGL/643 FT MSL. BUILDINGS BEGINNING 1.93 NM FROM DER, 1507 FT RIGHT OF CENTERLINE, UP TO 685 FT AGL/709 FT MSL.

NOTE: RWY 33L: TREE 248 FT FROM DER, 377 FT RIGHT OF CENTERLINE, 16 FT AGL/27 FT MSL. WIND INDICATOR 1403 FT FROM DER, 322 FT RIGHT OF CENTERLINE, 19 FT AGL/59 FT MSL. LIGHT ON BUILDING AND ROD ON TANK BEGINNING 1677 FT FROM DER, 603 FT LEFT OF CENTERLINE, UP TO 58 FT AGL/73 FT MSL. TREES BEGINNING 2072 FT FROM DER, 51 FT RIGHT OF CENTERLINE, UP TO 72 FT AGL/94 FT MSL. SIGN 3015 FT FROM DER, 1123 FT RIGHT OF CENTERLINE, 73 FT AGL/101 FT MSL. TREE 4001 FT FROM DER, 578 FT LEFT OF CENTERLINE, 43 FT AGL/119 FT MSL. BUILDINGS 4363 FT FROM DER, 1082 FT LEFT OF CENTERLINE, 64 FT AGL/129 FT MSL. BUILDING 5080 FT FROM DER, 1494 FT LEFT OF CENTERLINE, 71 FT AGL/149 FT MSL. LIGHT ON BRIDGE 1.4 NM FROM DER, 2566 FT LEFT OF CENTERLINE, 262 FT AGL/262 FT MSL.

CONTROLLING OBSTACLES:

RWY 9: 206 FT MSL TANK 422204.30N/0705803.73W.

RWY 22L: 176 FT MSL SHIP RIG 422041.00N/0710053.00W.

RWY 22R: 176 FT MSL SHIP RIG 422051.00N/0710110.00W.

RWY 27: 639 FT MSL BLDG 422120.28N/0710307.73W. 920 FT MSL BLDG 422050.00N/0710457.00W.

RWY 33L: 262 FT MSL BRIDGE 422308.76N/0710248.14W.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KBOS 15W, EPOCH YEAR: 2020

DME/DME ASSESSMENT: SAT (RNP 2.0)

CHART: TOP ALTITUDE: 5000.

CHART: SPEED ICON MAXIMUM SPEED 250 KIAS AT BOATT.

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>CITY</u>	<u>STATE</u>
GENERAL EDWARD LAWRENCE LOGAN INTL	BOSTON	MA

COMMUNICATIONS:

ATIS, CLNC DEL, GND CON, TOWER, DEP CON

FIXES AND/OR NAVAIDS:

BOATT, CLMPP, GLOWB, HEARR, HRALD, SHAUN, STAYC.



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REMARKS:

1. ALL CLIMB GRADIENTS ESTABLISHED TO SUPPORT MINIMUM DME/DME/IRU RECEPTION RNAV PRO RUN ALTITUDES EXCEPT RWY 27 WHICH IS FOR OBSTACLES.
2. RWY 27, 920 MSL BLDG IS LOCATED JUST OUTSIDE OF OBSTACLE SEARCH TRAP. TAKEOFF MINIMUMS PROTECT AIRCRAFT FROM THE OBSTACLE.
3. ABBREVIATED AMENDMENT, DOES NOT MEET PERIODIC REVIEW REQUIREMENTS.

FLIGHT INSPECTED BY:

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED
IAW FLIGHT TEAM (AJW-333) MEMO, MAY 30, 2017.

Digitally signed by

ROBERT G HAMILTON

Oct 10, 2017

OFFICE SYMBOL:

DATE:

DEVELOPED BY:

Digitally signed by

PETER GUIMOND

PETER R GUIMOND

Sep 18, 2017

OFFICE SYMBOL:

DATE:

AJV-5422

09/18/2017

APPROVED BY:

Digitally signed by

ROBERT G HAMILTON

Oct 10, 2017

OFFICE SYMBOL:

DATE:

AJV-5420

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA**

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OTHER:

ZBW, BOS APP CON, BOS ATCT, AMGR

CHANGES - REASONS:

AMENDED DP COMPUTER CODE FROM LBSTA5.LBSTA TO LBSTA6.LBSTA - CORRECTED TYPO.

QUALITY
9
CHECKED

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
LBSTA							SIX	LBSTA6.LBSTA	FIVE	10/12/2017	07 DEC 2017
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
RW04R (AER)*	422114.55N/0710037.27W*	N	-	-	-	-				*DISPL THLD (1155 FT)	
520 MSL		-	-	VA	019.74	-				CG 500 FT/NM TO 3600	
NHANT	422623.24N/0705759.97W	Y	FB	DF	-	-					
HURBE	422738.74N/0705107.04W	Y	FB	TF	076.09	5.25	AT/ABOVE 4000				
STAYC	423028.20N/0704729.61W	Y	FB	TF	043.50	3.89					
SHAUN	424034.24N/0703827.06W	Y	FB	TF	033.43	12.11					
LBSTA	424800.00N/0703648.70W	Y	FB	TF	009.23	7.52					
RW09 (AER)	422120.72N/0710046.42W	N	-	-	-	-					
520 MSL		-	-	VA	076.56	-				CG 500 FT/NM TO 4000	
CLAWW	422325.27N/0704847.67W	Y	FB	DF	-	-	AT/ABOVE 4000				
CLMPP	422847.73N/0704335.17W	Y	FB	TF	035.64	6.61					
SHAUN	424034.24N/0703827.06W	Y	FB	TF	017.84	12.37					
LBSTA	424800.00N/0703648.70W	Y	FB	TF	009.23	7.52					
RW15R (AER)*	422221.20N/0710056.13W*	N	-	-	-	-				*DISPL THLD (881 FT)	
	422026.20N/0705822.01W	-	-	VI	135.16	2.70		AT/BELOW 210K		CG 500 FT/NM TO 520	
FOXXX	421855.28N/0705410.54W	Y	FB	CF	116.00	3.46				RECOMMENDED NAVAID: CON VOR/DME	
BOATT	422031.61N/0704513.67W	Y	FB	TF	076.36	6.83		AT/BELOW 250K			
HEARR	422649.28N/0704235.12W	Y	FB	TF	017.27	6.59					
SHAUN	424034.24N/0703827.06W	Y	FB	TF	012.51	14.08					
LBSTA	424800.00N/0703648.70W	Y	FB	TF	009.23	7.52					

QUALITY
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RW22R (AER)*	422234.26N/0710019.93W*	N	-	-	-	-	*DISPL THLD (819 FT)
	422029.09N/0710120.47W	-	-	VI	199.74	2.22	AT/BELOW 210K CG 500 FT/NM TO 520
TJAYY	421818.19N/0705737.75W	Y	FB	CF	128.40	3.51	RECOMMENDED NAVAID: CON VOR/DME
BOATT	422031.61N/0704513.67W	Y	FB	TF	076.35	9.46	AT/BELOW 250K
HEARR	422649.28N/0704235.12W	Y	FB	TF	017.27	6.59	
SHAUN	424034.24N/0703827.06W	Y	FB	TF	012.51	14.08	
LBSTA	424800.00N/0703648.70W	Y	FB	TF	009.23	7.52	

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
RW27 (AER)	422136.78N/0705915.73W	N	-	-	-	-					
	422058.84N/0710249.80W	-	-	VI	256.58	2.72				CG 500 FT/NM TO 1300	
KIRAA	421631.48N/0710741.78W	Y	FB	CF	219.00	5.73				RECOMMENDED NAVAID: CON VOR/DME	
GLOWB	421721.83N/0711306.18W	Y	FB	TF	281.84	4.10					
HRALD	422248.26N/0711528.72W	Y	FB	TF	342.06	5.72					
CAMWI	423041.97N/0710909.58W	Y	FB	TF	030.62	9.17					
LBSTA	424800.00N/0703648.70W	Y	FB	TF	053.89	29.48					
RW33L (AER)	422116.74N/0705929.71W	N	-	-	-	-					
	422317.97N/0710212.28W	-	-	VI	315.18	2.85				CG 500 FT/NM TO 3100	
TEKKK	422445.85N/0710555.09W	Y	FB	CF	298.00	3.12				RECOMMENDED NAVAID: CON VOR/DME	
CAMWI	423041.97N/0710909.58W	Y	FB	TF	338.00	6.40	AT/ABOVE 4000				
LBSTA	424800.00N/0703648.70W	Y	FB	TF	053.89	29.48					

