

**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SUPERSEDED NUMBER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>
NORWOOD	FOUR	OWD4.OWD	THREE	03/17/2021	<b>23 Feb 2023</b>

<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:****TAKEOFF RWY 10:** CLIMB ON HEADING 103.77 TO 1100, THEN AS ASSIGNED BY ATC, THENCE...**TAKEOFF RWY 17:** CLIMB ON ASSIGNED HEADING THENCE...**TAKEOFF RWY 28:** CLIMB ON HEADING 283.77 TO 700 THEN AS ASSIGNED BY ATC, THENCE...**TAKEOFF RWY 35:** CLIMB ON HEADING 280 CW 330 AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO ASSIGNED ROUTE/NAVAID/FIX. MAINTAIN 2000. 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: NON-GPS EQUIPPED AIRCRAFT CAN EXPECT VECTORS ON ASSIGNED ROUTE.

NOTE: BLZZR DEPARTURES EXPECT VECTORS ON BOS R-273.

NOTE: BRUWN DEPARTURES EXPECT VECTORS ON BOS R-159.

NOTE: CELTK DEPARTURES EXPECT VECTORS ON BOS R-114.

NOTE: HYLND DEPARTURES EXPECT VECTORS ON BOS R-350.

NOTE: PATSS DEPARTURES EXPECT VECTORS ON BOS R-260.

NOTE: REVSS DEPARTURES EXPECT VECTORS ON BOS R-285.

NOTE: SSOXS DEPARTURES EXPECT VECTORS ON BOS R-177.

**PBN REQUIREMENTS NOTES:****EQUIPMENT REQUIREMENT NOTES:**

RADAR REQUIRED.

DME REQUIRED: BLZZR, BRUWN, HYLND, PATSS, REVSS DEPARTURES

**TAKEOFF MINIMUMS:****RWY 17:** STANDARD**RWY 10:** 400-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 335 FT PER NM TO 300.**RWY 28:** 400-2 OR STANDARD WITH MINIMUM CLIMB OF 385 FT PER NM TO 400.**RWY 35:** 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 230 FT PER NM TO 400, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1900 FT PRIOR TO DER.**TAKEOFF OBSTACLES NOTES:**

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

**CONTROLLING OBSTACLES:****RWY 10:** 222 FT MSL TREE 421121.22N/0710852.91W (CLIMB GRADIENT/CLIMB-TO ALTITUDE), 355 FT MSL POLE 421156.18N/0710709.88W (CEILING/VISIBILITY).

QUALITY  
12  
CHECKED

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
NORWOOD	FOUR	OWD4.OWD	THREE	03/17/2021	<b>23 Feb 2023</b>

**RWY 28:** 261 FT MSL TOWER 421133.00N/0711142.00W (CLIMB GRADIENT/CLIMB-TO ALTITUDE), 386 FT MSL TOWER 421136.55N/0711258.00W (CEILING), 314 FT MSL TREE 421116.98N/0711300.00W (VISIBILITY).

**RWY 35:** 262 FT MSL TREE 421236.06N/0711144.94W (CLIMB GRADIENT/CLIMB-TO ALTITUDE), 282 FT MSL TREE 421239.96N/0711159.26W (CEILING), 274 FT MSL TREE 421243.87N/0711200.57W (VISIBILITY).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

**MSA:**

**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**

CHART: BOS R-273/35.3 DME AT BLZZR.

CHART: BOS R-159/56.6 DME AT BRUWN.

CHART: BOS R-114/39.8 AND LFV R-005/15.2 DME AT CELTK.

CHART: BOS R-260/36.0 DME AT PATSS.

CHART: BOS R-285/36.5 DME AT REVSS.

CHART: BOS R-177/33.1 DME AND PVD R-091/31.4 DME AT SSOXS.

CHART: BOS R-048/31 DME AT LBSTA.

CHART: BAF R-107/24.9 DME AT ONEPS.

CHART: TOP ALTITUDE: 2000.

AIRPORT MV: OWD 15W/1980.

**AIRPORTS SERVED:**

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KOWD	NORWOOD	MA

**COMMUNICATIONS:**

CHART ATIS, CHART CLEARANCE DELIVERY, CHART GROUND CONTROL, CHART TOWER.

**FIXES AND/OR NAVAIDS:**

ACK VOR/DME, BAF VORTAC, BOS VOR/DME, CAM VOR/DME, CTR VOR/DME, ENE VOR/DME, LFV VOR/DME, MVY VOR/DME, PVD VOR/DME, SEY VOR/DME, SYR VORTAC, BLZZR, BOSOX, BRUWN, BURDY, BUZRD, CELTK, DUNKK, FREDO, FRILL, GLYDE, HYLND, LBSTA, MANCH, ONEPS, PATSS, PEASE, REVSS, SSOXS.

**REMARKS:**

**FLIGHT INSPECTED BY**

BOB S PRESSLER

*Digitally signed by*  
**JASON KRETSCHMER**  
Oct 05, 2022

**OFFICE**

FPO

**DATE**

10/03/2022

**DEVELOPED BY**

ANDRE L. MARSH

*Digitally signed by*  
**ANDRE L MARSH**  
Sep 13, 2022

**OFFICE**

AJV-A421

**DATE**

08/29/2022

**APPROVED BY**

MARLON ROBINSON

*Digitally signed by*  
**JASON KRETSCHMER**  
Sep 15, 2022

**OFFICE**

AJV-A420

**DATE**

**TITLE**

MANAGER

**REQUIRED EFFECTIVE DATE**

ROUTINE



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
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**COORDINATED WITH:**

**A4A** ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZWB, BOS APP CON, OWD ATCT, AMGR.

**CHANGES - REASONS:**

1. ADDED WAYPOINTS/FIX MANCH AND PEASE - FOR COORDINATION POINTS ON NORTH DEPARTURES.
2. CHANGED DEPARTURE ROUTE DESCRIPTION: TAKEOFF RWY 17 FROM "CLIMB ON HEADING AS ASSIGNED BY ATC, THENCE.." TO "CLIMB ON ASSIGNED HEADING, THENCE.." 8260.46H, 2-1-1.G.(2).
3. CHANGED DEPARTURE ROUTE DESCRIPTION FROM: "ON RADAR VECTORS TO ASSIGNED ROUTE/NAVAID/FIX. MAINTAIN 2000 OR ASSIGNED LOWER ALTITUDE AND EXPECT CLEARANCE TO FILED ALTITUDE/FLIGHT LEVEL WITHIN TEN (10) MINUTES AFTER DEPARTURE" TO "FOR RADAR VECTORS TO ASSIGNED ROUTE/NAVAID/FIX. MAINTAIN 2000. EXPECT CLEARANCE TO FILED ALTITUDE/FLIGHT LEVEL WITHIN TEN (10) MINUTES AFTER DEPARTURE" - 8260.46H, 2-1-1.G.(2).
4. DELETED NOTE: RADAR REQUIRED FROM PROCEDURAL DATA NOTES - MOVED TO EQUIPMENT REQUIREMENT NOTES.
5. CHANGED PROCEDURAL DATA NOTES: FROM: "NOTE: BLZZR DEPARTURES EXPECT VECTORS ON BOS R-273, DME REQUIRED" TO "NOTE: BLZZR DEPARTURES EXPECT VECTORS ON BOS R-273", "NOTE: BRUWN DEPARTURES EXPECT VECTORS ON BOS R-159, DME REQUIRED" TO "NOTE: BRUWN DEPARTURES EXPECT VECTORS ON BOS R-159", "NOTE: PATSS DEPARTURES EXPECT VECTORS ON BOS R-260, DME REQUIRED" TO "NOTE: PATSS DEPARTURES EXPECT VECTORS ON BOS R-260", AND "NOTE: REVSS DEPARTURES EXPECT VECTORS ON BOS R-285, DME REQUIRED" TO "NOTE: REVSS DEPARTURES EXPECT VECTORS ON BOS R-285" - IAW 8260.46H, APPENDIX D AND 8260.19I, 8-6-8.
6. ADDED EQUIPMENT NOTES: RADAR REQUIRED, AND DME REQUIRED: FOR BLZZR, BRUWN, HYLND, PATSS, REVSS DEPARTURES - IAW 8260.46H, 2-1-1.F.
7. ADDED CONTROLLING OBSTACLE TO RWY 35: 1447 FT MSL TOWER 421837.18N/0711411.71W - TO MATCH DOCUMENTATION ON THE ODP.
8. CHANGED ADDITIONAL FLIGHT DATA: FROM "REFERENCE MGVAR: KOWD 15W EPOCH YR 1980" TO "AIRPORT MV:OWD 15W/1980" - IAW MEMO 283.
9. ADDED CHART TO COMMUNICATIONS: ATIS, CLEARANCE DELIVERY, GROUND CONTROL, AND TOWER - IAW 8260.46H, APPENDIX D. SECTION 1.14.
10. DELETED DEPARTURE CONTROL FROM COMMUNICATIONS - IAW 8260.46H, APPENDIX D. SECTION 1.14.

