

**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SUPERSEDED NUMBER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>
ELMAA	FIVE	ELMAA5.ELMAA	FOUR	07/14/2022	
<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 type="checkbox"/>	<input type="checkbox"/>

**DP ROUTE DESCRIPTION:**

TAKEOFF RWY 16L: CLIMB ON HEADING 165.00 AND SEA R-161 THENCE...

TAKEOFF RWY 16C: CLIMB ON HEADING 161.00 AND SEA R-161 THENCE...

TAKEOFF RWY 16R: CLIMB ON HEADING 161.00 AND SEA R-161 THENCE...

...TO CROSS PEAKK/5.00 DME/RADAR AT OR ABOVE 3000, THEN RIGHT TURN ON HEADING 251 TO INTERCEPT SEA VORTAC R-230 TO ELMAA/HQM 32.66 DME, THEN ON TRANSITION/ASSIGNED ROUTE. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT REQUESTED ALTITUDE 15 NM FROM SEA.

**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>
HOQUIAM	ELMAA5.HQM	ELMAA	HQM VORTAC	229.05 (HQM R-049)	32.66	FL180	3000	

**PBN REQUIREMENT NOTES:**

**EQUIPMENT REQUIREMENT NOTES:**

RADAR AND DME REQUIRED.

**PROCEDURAL DATA NOTES:**

**TAKEOFF MINIMUMS:**

RWY 16L: STANDARD WITH MINIMUM CLIMB OF 560 FT/NM TO 3000.

RWY 16C: STANDARD WITH MINIMUM CLIMB OF 515 FT/NM TO 3000.

RWY 16R: STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 3000.

**TAKEOFF OBSTACLES NOTES:**

SEE FORM 8260.15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

**CONTROLLING OBSTACLES:**

RWY 16L: 499 FT MSL TREE 472523.86N/1221847.29W.

RWY 16R: 509 FT MSL TREE 472529.01N/1221856.84W.

**MSA:**

MSA FROM SEA VORTAC: 360-160 6400, 160-250 2200, 250-360 3400

**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**

CHART: TOP ALTITUDE: ASSIGNED BY ATC.

AIRPORT MV: SEA 19E/2000



AIRPORTS SERVED:

AIRPORT ID	CITY	STATE
KSEA	SEATTLE	WA

COMMUNICATIONS:

CHART: SEA ATIS, SEA CLNC DEL.

FIXES AND/OR NAVAIDS:

REMARKS:

ABBREVIATED AMENDMENT TO REMOVE CORVALLIS TRANSITION DUE TO YYJ DECOM.  
APPROVAL LETTER ON FILE FOR CLIMB GRADIENTS GREATER THAN 500 FT/NM FOR RWY 16L/C FOR NOISE ABATEMENT.  
MSA DATA DERIVED FROM KSEA ILS PROCEDURES.

<u>FLIGHT INSPECTED BY</u>	<u>SIGNATURE</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
“Processed IAW Technical Support Group (AJF-17) Memo dated 07/07/07, Subject: Guidance for Procedural Changes Requiring Flight Inspection/Validation”		<b>ERIC N SUSKI</b> Nov 15, 2024			
<u>DEVELOPED BY</u>	<u>SIGNATURE</u>		<u>OFFICE</u>	<u>DATE</u>	
RICHARD E. CHRISTENSEN	<i>Digitally signed by</i> <b>RICHARD E. CHRISTENSEN</b> Nov 14, 2024		AJV-A431	06/13/2024	
<u>APPROVED BY</u>	<u>SIGNATURE</u>		<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
ERIC N. SUSKI	<i>Digitally signed by</i> <b>ERIC N SUSKI</b> Nov 15, 2024		AJV-A431		MANAGER
<u>REQUIRED EFFECTIVE DATE</u>					
ROUTINE					

COORDINATED WITH:

A4A☒ALPA☒AOPA☒APA☒HAI☐NBAA☒OTHER: ZSE, SEA APCH CON, SEA ATCT, AMGR, WA AERO

CHANGES - REASONS:

1. DP ROUTE DESCRIPTION: ADDED "TAKEOFF" BEFORE RWY NUMBERS, CHANGED DESCRIPTION FROM "TO CROSS PEAKK/5.00 DME/RADAR AT OR ABOVE 3000, THEN RIGHT TURN HEADING 251 TO INTERCEPT SEA R-230 TO ELMAA/HQM 32.66 DME, THEN ON (TRANSITION/ASSIGNED ROUTE), EXPECT REQUESTED ALTITUDE/FLIGHT LEVEL 15 NM FROM SEA" TO "TO CROSS PEAKK/5.00 DME/RADAR AT OR ABOVE 3000, THEN RIGHT TURN ON HEADING 251 TO INTERCEPT SEA VORTAC R-230 TO ELMAA/HQM 32.66 DME, THEN ON COURSE 229.05 TO CROSS HQM VORTAC R-049 AT OR ABOVE MEA FOR ROUTE OF FLIGHT. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT REQUESTED ALTITUDE 15 NM FROM SEA" - "TAKEOFF" IAW 8260.46J EXAMPLES, CVO TRANSITION REMOVED FROM PROCEDURE SO INCLUDED HQM ROUTE IN DESCRIPTION.
2. TRANSITION ROUTES: REMOVED TRANSITIONS FORM FORM - CVO TRANSITION REMOVED FROM PROCEDURE DUE TO YYJ DECOM, ONLY HQM ROUTE REMAINS ON PROCEDURE AND ADDED TO DP ROUTE DESCRIPTION.
3. TAKEOFF MINIMUMS: REMOVED RWY 34L/C/R: NA - NOISE ABATEMENT - NOT REQUIRED ON 15B DOCUMENTATION ONLY 15A.
4. TAKEOFF OBSTACLES NOTES: ADDED SEE FORM 8260.15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) - IAW 8260.46J APPENDIX D, SECTION 2, PARA 2I.
5. MSA: ADDED MSA FROM SEA VORTAC: 360-160 6400, 160-250 2200, 250-360 3400 - IAW 8260.46J APPENDIX D, SECTION 2, PARA 2K.
6. ADDITIONAL FLIGHT DATA: REMOVED CHART: COP ON CVO TRANSITION YYJ 154/CVO 100 - CVO TRANSITION REMOVED FROM PROCEDURE.
7. ADDITIONAL FLIGHT DATA: ADDED AIRPORT MV: SEA 19E/2000 - IAW MEMO 283 DATED 7/15/2022.
8. REMARKS: REMOVED "RADAR REQUIRED FOR POTENTIAL YYJ SIGNAL RECEPTION ISSUES", ADDED "ABBREVIATED AMENDMENT TO REMOVE CORVALLIS TRANSITION DUE TO YYJ DECOM", "MSA DATA DERIVED FROM KSEA ILS PROCEDURES", AND "APPROVAL LETTER ON FILE FOR CLIMB GRADIENTS GREATER THAN 500 FT/NM FOR RWY 16L/C FOR NOISE ABATEMENT" - CVO TRANSITION REMOVED FROM PROCEDURE, IAW 8260.46J APPENDIX D, SECTION 2, PARA 2Q(3), AND FOR FUTURE SPECIALISTS REFERENCE.

11/14/24: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 08/02/24.

1. DP ROUTE DESCRIPTION: CHANGED DP ROUTE DESCRIPTION FROM "...TO CROSS PEAKK/5.00 DME/RADAR AT OR ABOVE 3000, THEN RIGHT TURN ON HEADING 251 TO INTERCEPT SEA VORTAC R-230 TO ELMAA/HQM 32.66 DME, THEN ON COURSE 229.05 TO CROSS HQM VORTAC R-049 AT OR ABOVE MEA FOR ROUTE OF FLIGHT. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT REQUESTED ALTITUDE 15 NM FROM SEA." TO "...TO CROSS PEAKK/5.00 DME/RADAR AT OR ABOVE 3000, THEN RIGHT TURN ON HEADING 251 TO INTERCEPT SEA VORTAC R-230 TO ELMAA/HQM 32.66 DME, THEN ON TRANSITION/ASSIGNED ROUTE. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT REQUESTED ALTITUDE 15 NM FROM SEA."

2. TRANSITION ROUTE: ADDED HOQUIAM TRANSITION BACK INTO TRANSITION ROUTES.

