

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> VOR RWY 8	<u>ORIGINAL/AMENDMENT</u> 12C	<u>CITY</u> ASTORIA	<u>STATE</u> OR	
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> VOR RWY 8	<u>ORIGINAL/AMENDMENT</u> 12B	<u>DATED</u> 10/08/2020	<u>MAG VAR</u> 15E
<u>FACILITY</u> AST	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>

MISSED APPROACH

MAP:

AST VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1300 THEN CLIMBING LEFT TURN TO 4800 IN AST VOR/DME HOLDING PATTERN, CONTINUE CLIMB-IN-HOLD TO 4800

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 250.00 OUTBOUND 2000 FT WITHIN 10 MILES OF AST VOR/DME (IAF)
2.
3. FAC: 070.00 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: AST VOR/DME 004-184 4600, 184-004 3400

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.



ADDITIONAL FLIGHT DATA:

CHART 2600 PRIOR TO AST VOR/DME IN PROFILE
HOLD SE, LT, 299.00 INBOUND.
CHART FAS OBST: 249 TREE 460809N/1235635W.
CHART VDP AT 2.44 DME.
DISTANCE VDP TO THLD 2.09 NM.
FAC CROSSES RWY C/L EXTENDED 2881 FT FROM THLD.
CHART CIRCLING ICON.

MINIMUMS:
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - CAT C 1100-3, CAT D 1200-3, NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
S-08	720	1	706	720	1	706	720	2	706	720	2	706			
CIRCLING	720	1	706	800	1	786	1080	3	1066	1160	3	1146			

CHANGES - REASONS

1. INCORPORATED CHANGES FROM P-NOTAM 0/7831 ON TO FORMS - INCREASED CIRCLING RADII
2. AMENDED MISSED APPROACH INSTRUCTIONS FROM “CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 3000 IN AST VOR/DME HOLDING PATTERN” TO “CLIMB TO 1300 THEN CLIMBING LEFT TURN TO 4800 IN AST HOLDING PATTERN, CONTINUE CLIMB-IN-HOLD TO 4800” - HOLDING ALTITUDE INCREASED FOR NEW MAP STUDY AAO AND AIRSPACE CONTAINMENT OF MAP SURVEYED TERRAIN
3. AMENDED PROFILE LINE 1 FROM “1800 FT” TO “2000 FT” - ALTITUDE INCREASED FOR AIRSPACE CONTAINMENT AND ANNOTATED IAW 8260.19I 8-6-7 A
4. AMENDED ADDITIONAL FLIGHT DATA FROM “FAC 22 FT R OF RWY C/L EXTENDED 3000 FT FROM THLD” TO “FAC CROSSES RWY C/L EXTENDED 2881 FEET FROM THLD” - UPDATED DISTANCE AND ANNOTATED IAW 8260.19I 8-6-10 G(2)
5. AMENDED ADDITIONAL FLIGHT DATA TO ADD “CHART VDP AT 2.44 DME” AND “DISTANCE VDP TO THLD 2.09 NM” - ADD IAW 8260.3E 2-6-5 A AND ANNOTATED IAW 8260.19I 8-6-10 M AND ATTACHMENT 3 - ORDER DEFECTS, #4 OF THE IMPLEMENTATION MEMO FOR FAA ORDER 8260.19I - FLIGHT PROCEDURES AND AIRSPACE DATED JUNE 29, 2020
6. AMENDED ADDITIONAL FLIGHT DATA TO ADD “CHART 2600 PRIOR TO AST VOR/DME IN PROFILE” - OBSTACLE IN THE PT ENTRY AREA PRECLUDING EARLY DESCENT AND ANNOTATED IAW 8260.19I 8-6-7 A(2)
7. AMENDED ALTERNATE MINIMUMS FROM “STANDARD EXCEPT CAT C 1100-3, CAT D 1200-3” TO “STANDARD - CAT C 1100-3, CAT D 1200-3, NA WHEN LOCAL WEATHER NOT AVAILABLE” - FORMAT AMENDED IAW 8260.19I 8-6-11 B(6) AND ATTACHMENT 4 - CRITERIA CLARIFICATION, 5(B)(1) OF THE IMPLEMENTATION MEMO FOR FAA ORDER 8260.19I - FLIGHT PROCEDURES AND AIRSPACE DATED JUNE 29, 2020
8. AMENDED S-08 MINIMUMS FROM “MDA 660/HAT 646” TO “MDA 720/HAT 706” - NEW MA LEVEL SURFACE PENETRATION IDENTIFIED
9. AMENDED S-08 CAT C VISIBILITY FROM “1 7/8” TO “2” - IAW 8260.3E TABLE 3-3-1 FOR NALS WITH HAT 706
10. AMENDED CIRCLING CAT A MINIMUMS FROM “MDA 660/HAA 646” TO “MDA 720/HAA 706” - INCREASED TO MATCH STRAIGHT-IN MINIMUMS

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER:

FLIGHT CHECKED BY	Digitally signed by	OFFICE	DATE	QUALITY 10 CHECKED
TROY E DEVINE	MARK D ADAMS	FPO	02/28/2023	
	Mar 06, 2023			
DEVELOPED BY	Digitally signed by	OFFICE	DATE	
KELLY CARLSON	MARK D ADAMS	AJV-A412	09/23/2022	
	Mar 06, 2023			
APPROVED BY	Digitally signed by	OFFICE	DATE	TITLE
MARK ADAMS	MARK D ADAMS	AJV-A412		MANAGER
	Mar 06, 2023			

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> VOR RWY 8	<u>AMDT NO.</u> 12C	<u>CITY</u> ASTORIA	<u>STATE</u> OR	<u>AIRPORT ELEVATION</u> 14	<u>FACILITY</u> AST
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PART A: OBSTRUCTION DATA SEGMENTS

FINAL: PT

FROM
10 NM

TO
AST VOR/DME

<u>RNP</u>	<u>DISTANCE</u> 10.00	<u>PAT</u>	<u>MAP</u> AST VOR/DME	<u>HAT</u> 706	<u>HMAS</u>							<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
												TREE	460809.00N/1235635.00W	249	50	20	2C	300				MA171	720

<u>COMPUTATIONS</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
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SEGMENT REMARKS:

PROCEDURE TURN

FROM
AST VOR/DME

TO
10 NM

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
												AAO	460411.70N/1234844.63W	1200	50	20	2C	1000					2200
												TERRAIN	461539.00N/1235318.00W	1118 (1100)								AS1500	2600

<u>COMPUTATIONS</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
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SEGMENT REMARKS:



MISSED APPROACH

FROM

AST VOR/DME

TO

AST VOR/DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS 440					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	461059.00N/1234747.00W		859	50	20	2C		ASC				4800
AAO	461059.00N/1234747.00W		859	50	20	2C	1000					1900
TERRAIN	461100.00N/1234739.00W		672 (700)								AS1500	2200

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TREE	460814.35N/1235351.25W	1.30	706	350	50	20	2C	300		SI	720
CATEGORY B											
TREE (41-023107)	460804.92N/1235027.21W	1.81	786	482	20	3	1A	300			800
CATEGORY C											
MONUMENT (41-000090)	461052.72N/1234903.27W	2.84	1066	725	20	3	1A	300		XP55	1080
CATEGORY D											
AAO	461102.62N/1234741.69W	3.71	1146	850	50	20	2C	300			1160

CIRCLING REMARKS:

CAT C XP55 - RETAIN PUBLISHED MINIMUMS



MSA

CENTER

AST VOR/DME

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
004-184	AAO	455808.00N/1234106.00W	130	14.2	3419	50	250	2F	1000		XP161	4600
184-004	AAO	463148.00N/1234300.00W	002	23.1	2362	164	98	4E	1000			3400

MSA REMARKS:

XP161 - RETAIN PUBLISHED MINIMUM

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

VEGETATION HEIGHT 100 FT PER FPT



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
ZSE ARTCC, MMV FSS

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KAST	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KAST	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> AWOS-3PT	<u>LOCATION</u> KKLS	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KKLS	<u>DISTANCE</u> 40.85	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 96

WX REMARKS:
RASS PRESSURE PATTERNS THE SAME
KAST 14, KKLS 20
RA = 95.1.

<u>PRIMARY NAVAID</u> AST VOR/DME	<u>MONITOR POINT</u> POCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW14 - MIRL (PCL), REIL, VASI-4L		BSC-G	
RW32 - MIRL (PCL), PAPI-4L		BSC-G	
RW08 - MIRL (PCL), REIL (PCL), VASI-4L		NPI-G	
RW26 - MALSR (PCL), MIRL (PCL)		PIR-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 37.9
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	☐	2881	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE	300
ON CENTERLINE	☒		FT FROM CENTERLINE		

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:



"VISUAL PORTION OF FINAL" PENETRATIONS

Final Type	S-8
34:1	
139 TREE (41-040377) 460929.93N/1235409.42W (29.71)	107 TREE (41-041002) 460932.37N/1235355.45W (25.8)
101 TREE (41-029606) 460930.73N/1235355.81W (19.53)	106 TREE (41-029608) 460932.42N/1235358.03W (19.47)
92 TREE (41-040956) 460929.92N/1235352.03W (18.55)	124 TREE (41-029874) 460931.49N/1235408.44W (16.28)
134 TREE (41-029881) 460934.44N/1235413.00W (16.05)	122 TREE (41-023523) 460929.97N/1235407.92W (15.79)
106 TREE (41-029610) 460934.63N/1235359.83W (15.13)	93 TREE (41-029605) 460932.60N/1235353.97W (14.79)
97 TREE (41-029607) 460934.29N/1235355.78W (14.58)	116 TREE (41-029871) 460926.91N/1235407.79W (10.93)
101 TREE (41-029609) 460935.61N/1235359.51W (10.51)	87 TREE (41-029600) 460934.68N/1235352.88W (10.44)
145 TREE (41-029884) 460947.28N/1235420.00W (8.97)	148 TREE (41-029889) 460940.85N/1235422.35W (8.95)
73 TREE (41-029598) 460930.10N/1235348.04W (7.72)	119 TREE (41-029877) 460928.10N/1235410.91W (7.16)
164 TREE (41-029759) 460928.76N/1235432.80W (6.85)	122 TREE (41-024490) 460933.52N/1235412.13W (6.1)
146 TREE (41-029890) 460928.38N/1235424.71W (5.64)	82 TREE (41-029601) 460930.84N/1235353.95W (4.33)
98 TREE (41-041096) 460933.52N/1235401.80W (3.39)	105 TREE (41-029614) 460929.74N/1235406.60W (1.57)
105 TREE (41-029615) 460928.80N/1235407.29W (0.42)	

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or
5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE KELSO ALTIMETER SETTING AND INCREASE ALL MDAS 100 FEET AND S-08 VISIBILITY CATS B/C/D 1/2 SM, AND CIRCLING VISIBILITY CATS A AND B 1/4 SM

VDP NA WHEN USING KELSO ALTIMETER SETTING

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



AIRPORT ID KAST	PROCEDURE NAME VOR RWY 8	AMDT NO. 12C	CITY ASTORIA	STATE OR	AIRPORT ELEVATION 14	FACILITY AST
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	FACILITY	TO 1000FT POINT	7.00
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	4.80
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	085.00
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	100
DISTANCE FROM	FACILITY	TO 1500FT POINT	7.00
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	4.80
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	085.00
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	600

THRESHOLD
COORDINATES
(IF STR-IN)

460935.12N/1235318.83W

ARP COORDINATES

460928.70N/1235243.00W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 26 DISTANCE 0.49 NM

FAF
COORDINATES

FIX NAME
COORDINATES

REMARKS

1500 FT HIGH TERRAIN IS IN THE PT ENTRY AREA.
THLD DISPLACED 300FT, ACTUAL COORDINATES: 460935.40N/1235323.07W.

QUALITY
10
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> KELLY CARLSON	<u>OFFICE</u> AJV-A412	<u>DATE</u> 09/23/2022	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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