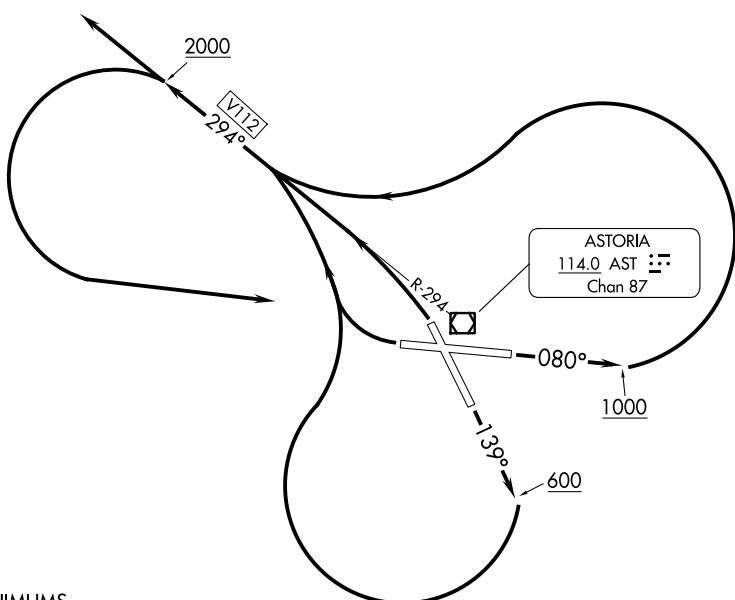


SEATTLE CENTER  
124.2 317.6TAKEOFF MINIMUMS

Rwy 32: Standard.

Rwy 8: Standard with a minimum climb of 218' per NM to 800, or 2300-3 for climb in visual conditions.

Rwy 14: 600-3 with a minimum climb gradient of 239' per NM to 800, or standard with a minimum climb of 285' per NM to 600 or 2300-3 for climb in visual conditions.

Rwy 26: 300-1 1/4 or standard with a minimum climb of 234' per NM to 300 or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1800' prior to DER or 2300-3 for climb in visual conditions.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 080° to 1000 then climbing left turn, thence . . . .TAKEOFF RUNWAY 14: Climb heading 139° to 600 then climbing right turn, thence . . . .TAKEOFF RUNWAY 26: Climbing right turn, thence . . . .TAKEOFF RUNWAY 32: Climbing left turn, thence . . . .

. . . . intercept the AST VOR/DME R-294 westbound, aircraft northwest bound intercept V112 and continue climb on course. All other aircraft climb to 2000 or above then turn left direct AST VOR/DME and continue climbing on course.

VCOA RUNWAYS 8, 14, 26: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Astoria Rgnl airport at or above 2300 before proceeding on course.

## ASTORIA THREE DEPARTURE (OBSTACLE)

## TAKEOFF OBSTACLE NOTES

Rwy 8: Bush 57' from DER, 120' left of centerline, 14' MSL.  
 Fence, bushes, trees, beginning 65' from DER, 102' left of centerline, up to 17' AGL/27' MSL.  
 Fence, bush, trees beginning 70' from DER, 215' right of centerline, up to 22' MSL.  
 Trees, building beginning 151' from DER, 76' right of centerline, up to 36' MSL.  
 Trees beginning 207' right of centerline, up to 41' MSL.  
 Trees beginning 510' from DER, 79' left of centerline, up to 34' MSL.  
 Trees beginning 668' from DER, 281' right of centerline, up to 43' MSL.  
 Trees beginning 815' from DER, 336' right of centerline, up to 52' MSL.  
 Tree 1112' from DER, 453' right of centerline, 58' MSL.  
 Trees beginning 3167' from DER, 1145' right of centerline, up to 119' AGL/124' MSL.

Rwy 14: Pole 44' from DER, 224' left of centerline, 12' AGL/25' MSL.  
 Tree 354' from DER, 381' left of centerline, 67' MSL.  
 Tree 524' from DER, 316' right of centerline, 33' MSL.  
 Trees beginning 571' from DER, 641' left of centerline, up to 87' MSL.  
 Tree 666' from DER, 544' right of centerline, 78' MSL.  
 Trees beginning 1255' from DER, 450' right of centerline, up to 121' MSL.  
 Tree 1792' from DER, 104' left of centerline, 89' MSL.  
 Tree 2493' from DER, 280' left of centerline, 121' MSL.  
 Tree 3291' from DER, 312' right of centerline, 154' MSL.  
 Tree 1.3 NM from DER, 2289' left of centerline, 100' AGL/249' MSL.  
 Tree 1.5 NM from DER, 2813' left of centerline, 100' AGL/299' MSL.  
 Tree 1.5 NM from DER, 2950' left of centerline, 100' AGL/349' MSL.  
 Tree 2.1 NM from DER, 3088' left of centerline, 100' AGL/399' MSL.  
 Tree 2.3 NM from DER, 2635' left of centerline, 100' AGL/449' MSL.  
 Tree 2.3 NM from DER, 2875' left of centerline, up to 100' AGL/499' MSL.

Rwy 26: Terrain 25' from DER, 14' left of centerline, 13' MSL.  
 Bushes beginning 38' from DER, 241' left of centerline, up to 16' MSL.  
 Trees and bush beginning 42' from DER, 266' right of centerline, up to 18' AGL/27' MSL.  
 Traverse way 226' from DER, 439' left of centerline, 24' MSL.  
 Trees, bush beginning 247' from DER, 372' right of centerline, up to 30' MSL.  
 Trees, beginning 695' from DER, 625' left of centerline, up to 54' MSL.  
 Tree 736' from DER, 620' right of centerline, 36' MSL.  
 Tree 1380' from DER, 720' left of centerline, 58' MSL.  
 Tree 1698' from DER, 702' left of centerline, 73' MSL.  
 Trees beginning 1975' from DER, 273' left of centerline, up to 92' MSL.  
 Sign 1982' from DER, 1010' right of centerline, 64' MSL.  
 Tree 2137' from DER, 490' left of centerline, 93' MSL.  
 Trees beginning 2239' from DER, 64' left of centerline, up to 102' AGL/107' MSL.  
 Tree 3051' from DER, 1157' left of centerline, 116' MSL.  
 Tree 3089' from DER, 849' left of centerline, 122' MSL.  
 Tree 3140' from DER, 699' left of centerline, 124' MSL.  
 Trees beginning 3194' from DER, 248' left of centerline, up to 131' AGL/139' MSL.  
 Trees beginning 4022' from DER, 879' right of centerline, up to 130' MSL.  
 Trees beginning 4103' from DER, 273' right of centerline, up to 145' MSL.  
 Trees beginning 4206' from DER, 150' right of centerline, up to 141' AGL/148' MSL.  
 Trees beginning 4250' from DER, 229' left of centerline, up to 146' MSL.  
 Trees beginning 4690' from DER, 1267' left of centerline, up to 149' MSL.  
 Tree 4744' from DER, 1488' left of centerline, 150' MSL.  
 Trees beginning 4821' from DER, 218' left of centerline, up to 164' MSL.  
 Tree 5241' from DER, 1316' left of centerline, 165' MSL.  
 Trees beginning 5434' from DER, 1603' left of centerline, up to 171' MSL.  
 Tree 5893' from DER, 1752' left of centerline, 173' MSL.  
 Trees beginning 6051' from DER, 1803' left of centerline, up to 174' AGL/182' MSL.  
 Antenna 1 NM from DER, 1558' right of centerline, 164' AGL/173' MSL.

Rwy 32: Vehicles, trees, fence beginning 2' from DER, 231' left of centerline, up to 46' MSL.