No Orbital Launch Range in Washington: Geography, Overflight Physics & Why Launch Pads Sit on Coasts

Pillar: Structural Factors | **Basis:** Geography & Range Physics | **Primary Source:** FAA / Launch Segment Census | **As Of:** Verified Nov 16, 2026

Washington has zero orbital launch pads because eastward equatorial launches and clear downrange ocean corridors require open Atlantic/Gulf coasts (Florida/Texas) or unobstructed Pacific south/west corridors (Vandenberg, CA); Washington therefore hosts vehicle manufacturing and Moses Lake static testing while orbital launches depart out of state.

Documented Policy & Site-Selection Record

• Eastward Rotational Advantage & Overflight: Standard prograde orbital launches fly east to capture Earth's rotational velocity, requiring unpopulated ocean downrange corridors—which Washington's inland geography and Puget Sound population centers lack.

• Polar/Sun-Synchronous Constraint: Even southward polar trajectories from Washington face coastal/maritime and Canadian/US West Coast overflight constraints already served by Vandenberg Space Force Base in California.

• Moses Lake Role: Grant County International Airport (MWH) in Moses Lake supports static engine/stage hot-fire testing (e.g., Stoke Space) and flight-test infrastructure, not orbital pad launches.

• Policy Clarity: Because no tax incentive can create an eastern coastal range in Washington, losing launch-pad operations to Florida is a geographic certainty—whereas losing *factories* to Texas or Alabama is a policy contest.

Launch Value Chain: Geographic Constraint vs. Contestable Policy

Stage	Where It Happens	Driven By
Vehicle Design & Propulsion R&D	Kent, Redmond, Bellevue, Tukwila	Talent density (Contestable by WA policy)
Factory & Tankage Manufacturing	Kent (Blue Origin, Stoke, Cowboy), Bothell	Industrial space & incentives (Contestable)
Static Hot-Fire Testing	Moses Lake (MWH), Grant County	Inland buffer & I-90 corridor (#2185)
Orbital Pad Launch	Cape Canaveral FL / Vandenberg CA / TX	Orbital range geography (Non-contestable)

Founder, Staffer & Site-Selector Takeaways

• Staffer Takeaway: Do not score Florida's pad wins as Washington policy failures; focus policy on retaining R&D, satellite assembly, and rocket factories.

• Founder Takeaway: Plan East-West hardware logistics early (see Batch 7 OSOW & Moses Lake corridor briefs).

Cross-Cluster Links & Primary Sources

• **WA Space Cluster Hub (#1382):** https://bcesg.org/washington-space-cluster-census/

• **WA Space Launch Segment Overview:** https://bcesg.org/wa-space-launch-segment-overview/

• **Launch Segment Production & Moses Lake Test:** https://bcesg.org/wa-space-launch-testing-production-footprint/

• **Moses Lake Test Corridor (MWH):** https://bcesg.org/wa-space-hardware-moses-lake-test-corridor-mwh/

• **Moses Lake WA Space Cluster Profile:** https://bcesg.org/moses-lake-wa-space-cluster-profile/

• **Space Florida (Spaceport Improvement Program):** https://www.spaceflorida.gov/

• **Stoke Space Official Site:** https://www.stokespace.com/

• **WSDOT Puget Sound Gateway Program:**
https://wsdot.wa.gov/construction-planning/major-projects/puget-sound-gateway-program

Provenance Note: Structural geography and orbital-mechanics constraint underlying the WA-engineering / FL-launch split.