

## Global Volcanic Eruption Patterns & Cosmic Alignment Windows

This document provides a structured record of major volcanic eruptions worldwide, their recurrence intervals, and projected 'risk windows' aligned with tectonic stress and cosmic cycles (Antikythera-inspired). Includes recent eruptions in Russia (2023–2025).

Volcano / Event	Location	VEI	Recurrence Estimate	Recent or Recorded Eruptions	Future Risk Window
Shiveluch	Kamchatka, Russia	4	Decades–centuries	Apr 2023; Aug 2024	2030–2040 (solar + Saros)
Krashennnikov	Kamchatka, Russia	4–5	Centuries	Aug 3, 2025 (first in ~600 yrs)	2600s–2700s (long cycle)
Karymsky	Kamchatka, Russia	3–4	Decades	Aug 14, 2025 (17:50 local)	2040–2050
Hunga Tonga–Hunga Ha’apai	Tonga (Pacific)	6	~50–100 yrs	Jan 15, 2022	2070–2120 (solar/planetary)
Mount Pinatubo	Philippines	6	~50–100 yrs	Jun 15, 1991 (13:42 local)	2040–2050 (solar peak)
Mount St. Helens	USA (Cascade Range)	5	Decades–centuries	May 18, 1980	2040–2060
Tambora	Indonesia	7	~500–1,000 yrs	Apr 10–11, 1815	2400–2800
VEI ≥7 Super Eruptions	Global (e.g., Santorini, Long Valley)	7–8	500–50,000+ yrs	Santorini ~1600 BCE; Long Valley ~760,000 BCE	Beyond human-scale projection

Note: These risk windows do not guarantee eruption events but highlight periods when geological stress and cosmic cycles may align, based on Antikythera-style models.