

HISTORICALLY ACTIVE VOLCANOES OF ALASKA

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Definition of Historically Active

The 54* volcanoes displayed on this map meet at least one of the following criteria since 1700 CE:

- Documented, unquestioned eruption **OR**
- A strongly suspected eruption, often an eruption documented in a historical account with very little information. Current geologic knowledge must not contradict the eruption account, **OR**
- Persistent (usually on the order of decades, but certainly longer than several months) fumaroles, with temperatures (where measured) within ~10°C of the boiling point, **OR**
- Significant, measured, volcanic-related, non-eruptive deformation, **OR**
- Documented earthquake swarm with strongly suspected volcanic cause

* Gilbert's fumaroles have not been observed in recent years and Gilbert may be removed from future versions of this list. In 2014 and 2015, fieldwork at Tana and Herbert (C. Neal and K. Nicolaysen, personal commun., 2016) revealed the presence of high-temperature fumaroles. Although we do not have decades of observation at Tana or Herbert, they have been added to this version.

Date of Last Eruptive Event

Where confidently known, the year of the most recent eruptive event is listed below the volcano name. See the accompanying data table for a field containing the year of suspected eruptive events for those volcanoes with no certain historical eruptions.

Sources of Data

See accompanying data file for a description of how each volcano met the historically active criteria, and up to three overview references pertinent to the historical activity of the volcano.

Historically Active Volcanoes

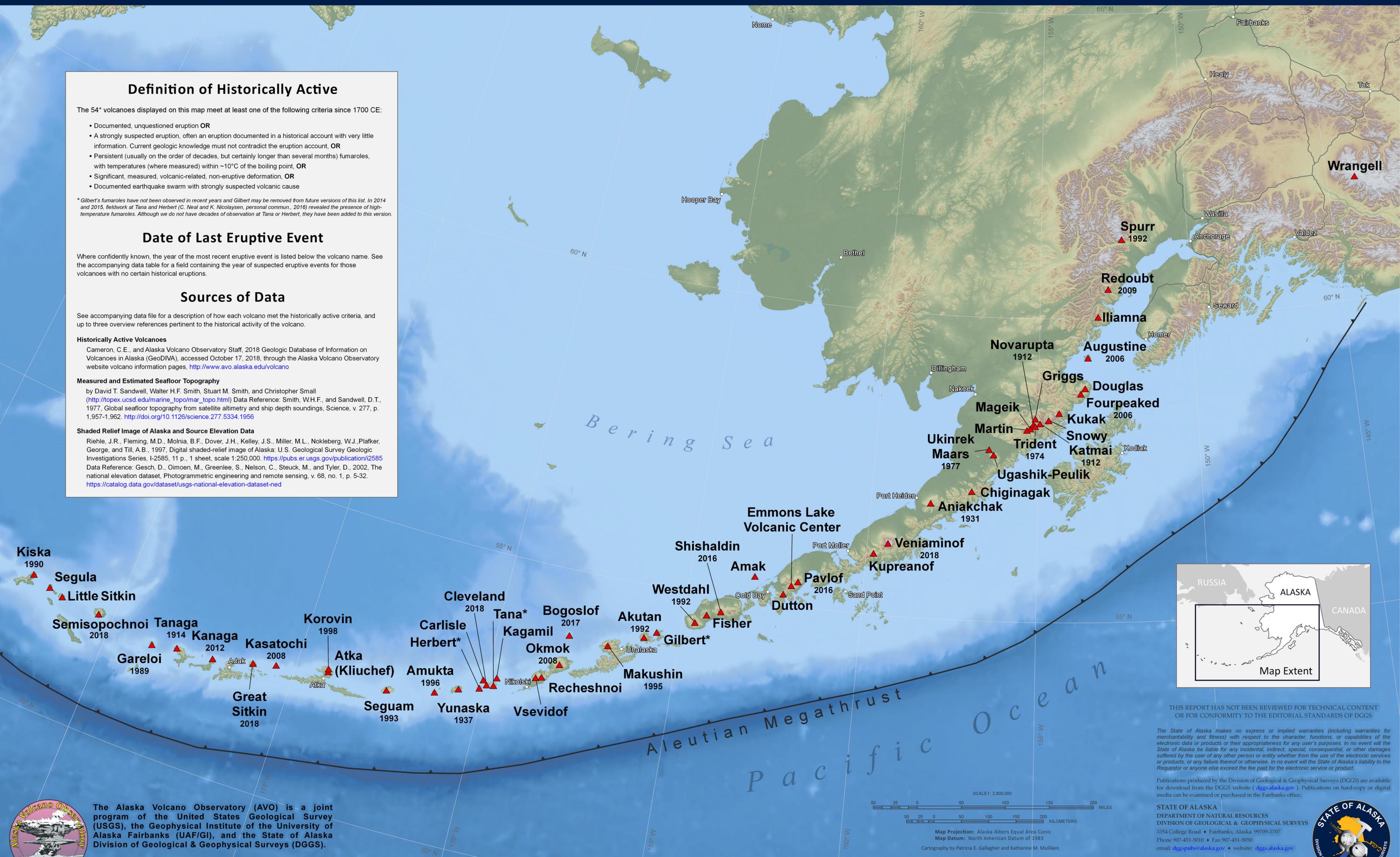
Cameron, C.E., and Alaska Volcano Observatory Staff, 2018 Geologic Database of Information on Volcanoes in Alaska (GeoDIVA), accessed October 17, 2018, through the Alaska Volcano Observatory website volcano information pages, <http://www.avo.alaska.edu/volcano>

Measured and Estimated Seafloor Topography

by David T. Sandwell, Walter H.F. Smith, Stuart M. Smith, and Christopher Small (http://topex.ucsd.edu/marine_topo/mar_topo.html) Data Reference: Smith, W.H.F., and Sandwell, D.T., 1977, Global seafloor topography from satellite altimetry and ship depth soundings, Science, v. 277, p. 1,957-1,962. <http://doi.org/10.1126/science.277.5334.1956>

Shaded Relief Image of Alaska and Source Elevation Data

Riehle, J.R., Fleming, M.D., Molnia, B.F., Dover, J.H., Kelley, J.S., Miller, M.L., Nogleberg, W.J., Plafker, George, and Till, A.B., 1997, Digital shaded-relief image of Alaska: U.S. Geological Survey Geologic Investigations Series, I-2585, 11 p., 1 sheet, scale 1:250,000. <https://pubs.er.usgs.gov/publication/i2585> Data Reference: Gesch, D., Oimoen, M., Greenlee, S., Nelson, C., Steuck, M., and Tyler, D., 2002, The national elevation dataset, Photogrammetric engineering and remote sensing, v. 68, no. 1, p. 5-32. <https://catalog.data.gov/dataset/usgs-national-elevation-dataset-nd>

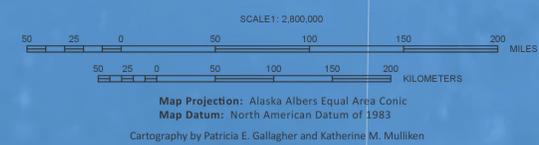


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