

A Page-sized Generalized Geologic Map of Alaska – A Work In Progress

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The Alaska Division of Geological & Geophysical Surveys (DGGS) has received numerous requests for a page sized geologic map of Alaska. A map of this size presents some formidable obstacles such as trying to meaningfully represent Alaska's geology on a standard letter sized sheet given the size and shape of Alaska and Alaska's complex geology. However, DGGS recognizes that a small geologic map of Alaska would be useful for inclusion in reports by government agencies and industry, and as one step in DGGS's attempt to educate the public about Alaska's geology and geologic resources.

A polygonal coverage of Beikman's (1980) geologic map of Alaska, available from the U.S. Geological Survey (USGS) at website <http://agdc.usgs.gov/data/usgs/geology/index.html>, is the beginning base map. The polygonal USGS version contains 5069 polygons, representing 182 geologic units and other polygons for large glaciers/icefields, lakes, and unmapped areas in southeastern Alaska. An 8.5" X 11" version of this map should contain no more than roughly two dozen geologic units to be both visually appealing and easy to read. First attempts at generalizing the Beikman map by merging geologic units of similar age and rock type produced 39 geologic units.

Line coverages for faults on Beikman's (1980) map are not available from the USGS website. Faults will likely be added through a combination of using faults already existing in the DGGS GIS (ArcInfo) system and digitizing other major faults. These structures are also available commercially.

A generalized color geologic map of Alaska will be published by DGGS in paper and electronic versions. The map projection will be Albers conical equal area, using the North American Datum of 1927 as the geodetic model. The final version of this map should be completed by mid- to late 1999. After publication, a version of this map will also be available on DGGS's Website at <http://www.dggs.dnr.state.ak.us>.

This geologic map work is driven by requests from outside of DGGS. We welcome input from all interested parties to produce a version, or possible versions, of this page-sized geologic map of Alaska that will serve the needs of the widest possible audience.

Reference: Beikman, H.M., 1980, Geologic map of Alaska: U.S. Geological Survey Special Map, scale 1:2,500,000, two sheets.