



Base from Army Map Service Anchorage and Kodiak sheets

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1966—W65179  
Map modified after D. J. Miller, T. G. Payne,  
and George Gryc (1959)

EXPLANATION

**Surficial deposits**  
Mainly glacial and outwash deposits; include recent alluvium. Underlying units shown by appropriate color where age may be inferred

QUATERNARY

**Bedded volcanic rock**  
Undeformed to very gently deformed terrestrial volcanic flows and associated pyroclastic beds chiefly of andesite, basalt, and rhyolite of late Tertiary and Quaternary age

TERTIARY AND QUATERNARY

**Bedded Tertiary rock**  
Undeformed to very gently deformed sedimentary rocks, chiefly continental deposits of early to late Tertiary age; unconformable on older rock units

TERTIARY

**Batholith and stocks**  
Intrusive rocks of felsic to intermediate composition, chiefly granodiorite, quartz diorite, and quartz monzonite. Aleutian Range batholith is early Middle Jurassic in age; stocks Jurassic to late Tertiary

MIDDLE JURASSIC TO UPPER TERTIARY

**Bedded rocks of secondary geosyncline**  
Gently to sharply folded sedimentary rocks, chiefly epieugeosynclinal deposits of graywacke, conglomerate, siltstone, and shale; regionally unconformable on older rocks

MIDDLE JURASSIC TO CRETACEOUS

**Bedded rocks of primary geosyncline**  
Moderate to highly deformed rocks, mainly limestone, calcareous shale, chert, and mafic, igneous rocks of Triassic age and marine volcanic rocks of Early Jurassic age; rocks locally metamorphosed to marble greenstone, and low-rank schist; exposed chiefly in geanticlinal uplifts; unconformable on basement complex

PERMIAN(?) TO LOWER JURASSIC

**Crystalline basement complex**  
Highly deformed rocks exposed along flanks of Talkeetna geanticline; commonly foliated; includes schist, gneiss, quartzite, greenstone, and marble

UPPER PALEOZOIC TO LOWER JURASSIC(?)

**Tectonic boundaries**  
Dashed where approximately located; queried where doubtful

**Bruin Bay fault**  
Major high-angle reverse fault on Alaska Peninsula and in Cook Inlet region; in general separates older Mesozoic rocks along west side of Cook Inlet; Tertiary in age; may have large lateral component of movement; sawteeth on up-thrown block, dotted where concealed

**Geanticlinal and anticlinal axes**  
Geanticlinal elements mainly of Mesozoic age; anticlinal folds mainly Tertiary; dashed where inferred

**Geosynclinal and synclinal axes**  
Geosynclinal elements mainly of Mesozoic age; synclinal folds mainly Tertiary; dashed where inferred

**Boundary of Cenozoic basin**  
Basins known or inferred to be the result of Cenozoic tectonic movement

TECTONIC MAP OF PART OF ALASKA PENINSULA AND COOK INLET REGION, ALASKA

