

**DESCRIPTION OF MAP UNITS**  
(Refer to pamphlet for descriptions of stratified map units)

**POST-ACCRETION SEDIMENTARY ROCKS**

Qs Sedimentary rocks (Quaternary)  
T<sub>3</sub> Sedimentary rocks (Tertiary)  
Czs Sedimentary rocks (Cretaceous)  
Ks Sedimentary rocks (Late Cretaceous)-In northern Alaska includes minor Late Jurassic sedimentary rocks  
Qm Cravina-Nutanin overlap assemblage (mid-Cretaceous to Late Jurassic)  
Qn Kandik River overlap assemblage (Early Cretaceous, Jurassic, and Late Triassic)  
Kk Kahlina overlap assemblage (Cretaceous and Late Jurassic)

**POST-ACCRETION CENOZOIC AND LATE CRETACEOUS VOLCANIC ROCKS**  
(Note: Felsic includes siliceous and intermediate igneous rocks.)

QTVf Felsic volcanic rocks (Quaternary and late Tertiary)-Younger than 30 Ma  
QTVm Mafic volcanic rocks (Quaternary and late Tertiary)-Younger than 30 Ma  
mTVf Felsic volcanic rocks (middle Tertiary)-Between 30 and 55 Ma  
mTVm Mafic volcanic rocks (middle Tertiary)-Between 30 and 55 Ma  
TKvs Siliceous volcanic rocks (early Tertiary and Late Cretaceous)-Between 55 and 76 Ma locally as old as 93 Ma in east-central Alaska  
TKvi Intermediate volcanic rocks (early Tertiary and Late Cretaceous)-Between 55 and 76 Ma

**POST-ACCRETION LATE JURASSIC AND YOUNGER PLUTONIC ROCKS**  
(Note: Felsic includes siliceous and intermediate igneous rocks.)

QTPf Felsic plutonic rocks (Quaternary and late Tertiary)-Between 2 and 30 Ma  
mTPf Felsic plutonic rocks (middle Tertiary)-Between 30 and 55 Ma  
mTPm Mafic plutonic rocks (middle Tertiary)-Between 30 and 55 Ma  
eTPm Mafic plutonic rocks (early Tertiary)-Between 55 and 66 Ma  
TKps Siliceous plutonic rocks (early Tertiary and Late Cretaceous)-Between 55 and 76 Ma  
TKpi Intermediate plutonic rocks (early Tertiary and Late Cretaceous)-Between 55 and 76 Ma  
Kpf Felsic plutonic rocks (Cretaceous)-Between 76 and 144 Ma  
Kpm Mafic plutonic rocks (Cretaceous)-Between 76 and 144 Ma  
Kpjm Granite plutonic rocks (Late Jurassic)-Between 144 and 163 Ma

**PRE-ACCRETION MIDDLE JURASSIC AND OLDER PLUTONIC ROCKS**

mJg Granite plutonic rocks (Middle Jurassic)-Occur in Peninsular terrane  
JTG Granite plutonic rocks (Early Jurassic and Late Triassic)-Occur in Siskin(?) terrane  
JTru Ultramafic and mafic plutonic rocks (Early Jurassic and Late Triassic)-Occur along southern margin of Peninsular terrane  
IPzg Granite to mafic plutonic rocks (late Paleozoic)-Occur in Wrangellia and Alexander terranes. Locally metamorphosed and deformed  
mPzg Calcic, mafic, and Yukon-Tanana terranes. Locally highly metamorphosed and deformed  
ePzg Granite plutonic rocks (early Paleozoic)-Occur in Alexander terrane. Locally highly metamorphosed and deformed  
Eg Granite plutonic rocks (Proterozoic)-Occur in Colofon, Nixon Fork, Ruby, and Yukon-Tanana terranes. Locally highly metamorphosed and deformed

**CRATON MARGIN AND OCEANIC ROCK UNITS**

NAM North America  
PAC Pacific plate

**TECTONO-STRATIGRAPHIC TERRANES**  
(Arranged alphabetically by map symbol; inferred tectonic environment in parentheses)

Aretic Alaska superterrane  
AAD De Long Mountains terrane (passive continental margin)  
AAE Endicott Mountains terrane (passive continental margin)  
AAH Hammond terrane (passive continental margin)  
AAN North Slope terrane (passive continental margin)  
AAT Tigara terrane (passive continental margin)  
AM Angayucham terrane (subduction zone - dominantly oceanic rocks)  
AP Aurora Peak terrane (passive continental margin)  
BC Behm Canal terrane (metamorphic)  
BP Broad Pass terrane (metamorphic)  
Chugach terrane  
CGM McHugh Complex and correlative units, and adjacent blanchit and greenschist (subduction zone - dominantly oceanic rocks)  
CGV Valdez Group and correlative units (accretionary wedge - dominantly turbidites)

CH Chulitna terrane (ophiolite)  
CO Colofon terrane (metamorphosed continental margin)  
CW Clearwater terrane (island arc)  
CZ Crepe Mountains terrane (passive continental margin)  
DL Dillingier terrane (passive continental margin)  
GD Goodnews terrane (subduction zone - dominantly oceanic rocks)  
KI Kilbuck-Idona terrane (craton)  
KY Koyukuk terrane (island arc)  
LG Livengood terrane (oceanic crust)  
MA Masley terrane (turbidite basin)  
MK McKinley terrane (sea mount)  
ML Maclean terrane (continental margin arc)  
MN Minchumina terrane (passive continental margin)  
MMK Minook terrane (turbidite basin)  
MY Mysic terrane (passive continental margin)  
NY Nyx terrane (island arc)  
NX Nixon Fork terrane (passive continental margin)  
PC Porcupine terrane (passive continental margin)  
PN Pington terrane (turbidite basin)  
PW Prince William terrane (accretionary wedge - dominantly turbidites)  
RB Ruby terrane (metamorphosed continental margin)  
SD Seward terrane (metamorphosed continental margin)  
SM Seventymile terrane (subduction zone - dominantly oceanic rocks)  
ST Siskin(?) terrane, east-central Alaska (island arc)  
STP Sustain terrane (sea mount)  
SU Southern Wrangellia terrane (island arc)  
SW Togiak terrane (island arc)  
TK Tikchik terrane (island arc)  
UM Ultramafic and associated rocks (oceanic crust?)  
WF West Fork terrane (turbidite basin)  
WV White Mountains terrane (passive continental margin)

**Wrangellia superterrane**  
WRA Alexander sequence (island arc)  
WRP Peninsular sequence (island arc)  
WRW Wrangellia sequence (island arc)  
WS Wickersham terrane (passive continental margin)  
WY Windy terrane (metamorphic)  
YA Yakutat terrane (accretionary wedge - dominantly turbidites)  
YO York terrane (passive continental margin)  
YP Yukon Prong terrane (metamorphosed continental margin)  
YT Yukon-Tanana terrane (metamorphosed continental margin)

**GEOLOGIC MAP SYMBOLS**

**Contacts and Faults**

--- Contact-Depositional or intrusive contact that is not a terrane boundary. Includes marginal contacts of overlap sedimentary and volcanic assemblages, and plutons. Dashed where approximately located; dotted where concealed.

- - - - Fault-Dashed where approximately located; dotted where concealed. Sense of displacement unknown or complex.

--- Strike-slip fault-Dashed where approximately located; dotted where concealed. Arrows denote relative movement.

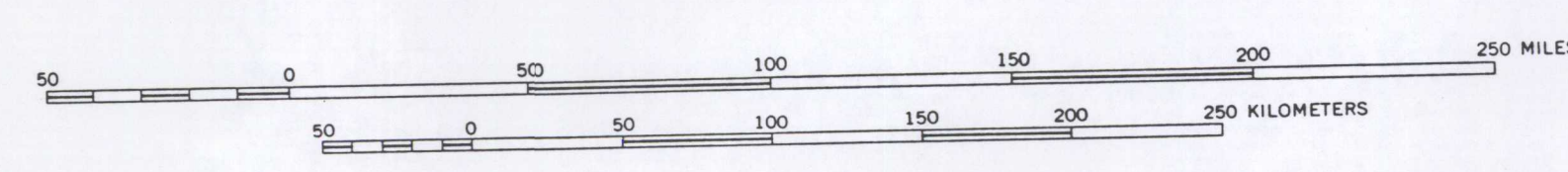
--- Thrust or reverse fault of Mesozoic age-Dashed where approximately located; dotted where concealed. Teeth point towards upper plate.

--- Thrust or reverse fault of Cenozoic age-Dashed where approximately located; dotted where concealed. Teeth point towards upper plate.

--- Extensional fault-Dashed where approximately located; dotted where concealed. Teeth point towards upper plate. Usually younger period of movement on older thrust or reverse fault.

**TECTONOSTRATIGRAPHIC TERRANE AND  
OVERLAP ASSEMBLAGE MAP OF ALASKA**

SCALE 1:2,500,000



By Warren J. Nokleberg<sup>1</sup>, Elizabeth J. Moll-Stalcup<sup>1</sup>, Thomas P. Miller<sup>1</sup>, David A. Brew<sup>1</sup>, Arthur Grantz<sup>2</sup>, John C. Reed, Jr.<sup>1</sup>, George Plafker<sup>1</sup>, Thomas E. Moore<sup>1</sup>, Steven R. Silva<sup>1</sup>, and William W. Patton, Jr.<sup>1</sup>

With contributions on specific regions by Robert B. Blodgett<sup>1</sup>, Stephen E. Box<sup>1</sup>, Dwight C. Bradley<sup>1</sup>, Thomas K. Bundtzen<sup>2</sup>, Cynthia Dusel-Bacon<sup>1</sup>, Bruce M. Gamble<sup>1</sup>, David G. Howell<sup>1</sup>, Helen L. Foster<sup>1</sup>, Susan M. Karl<sup>1</sup>, Marti L. Miller<sup>1</sup>, and Steven W. Nelson<sup>1</sup>

<sup>1</sup>U.S. Geological Survey

<sup>2</sup>Alaska Division of Geological and Geophysical Surveys