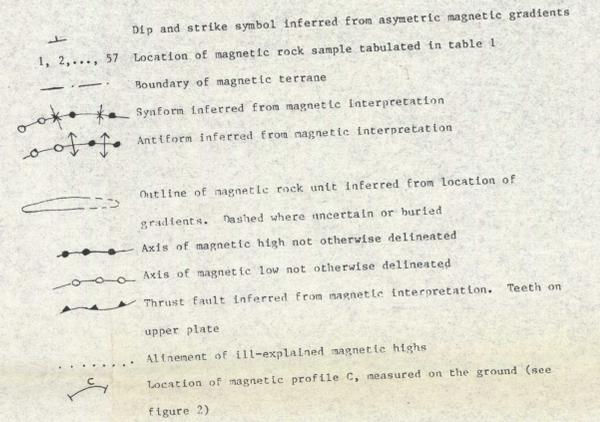


EXPLANATION

- GL1 Magnetic low associated with nonmagnetic granite
- GHI Magnetic high caused by magnetic granite (known and inferred)
- SI Magnetic high inferred to be caused by magnetic chlorite-bearing pelitic schist
- M1 Magnetic high or low inferred to be caused by contact metamorphic rocks
- G1 Magnetic high caused by gabbro (known and inferred)
- U1 Magnetic high over serpentinized ultramafic rocks
- V1 Magnetic high caused by volcanic rocks (generally inferred)
- L1 Magnetic low over nonmagnetic rock other than granitic
- Layer of magnetic rocks (wehrlite or gabbronorite) in East Crazy Mountains.
- 0, 60, 600 Depth below surface to magnetic source inferred from magnetic gradients



EXPLANATION OF SYMBOLS

- Contact: Approximately located, and inferred.
- Fault: Dashed where existence or kind of fault uncertain or where approximately located; dotted beneath covering deposits; arrows indicate apparent direction of offset. U, upstream side; D, downstream side.
- Thrust fault: Postulated; dotted beneath covering deposits.
- Premetamorphic thrust fault: Postulated; predates major regional metamorphism. Dotted beneath covering deposits.
- Inclined Vertical Strike and dip of beds.
- Inclined Vertical Horizontal Strike and dip of foliation.
- Inclined Horizontal Bearing and plunge of axis of minor fold or mineral lineation.
- Staurolite: W W W W.
- Garnet: L L L L.
- First occurrence in quartz-muscovite schists and quartzites isograds for regional, medium-pressure facies metamorphism. Queried where location especially uncertain, ticks on high grade side.
- Quartzite and quartzitic schist containing quartz and/or feldspar megacrysts (shown only in "Area South of Tintina Fault Zone").
- Marble or slightly metamorphosed limestone.
- Calc-silicate rock.
- Amphibolite.
- Chert.
- Felsic tuff.
- Contact metamorphism.
- Vitreous quartzite outcrop (MaPaq unit).
- Quartzite (PaPa unit).
- Greenschist (PaPa unit).
- Sillimanite gneiss (PaPa unit).
- Quartzite (PaPa unit).
- Tectonic breccia.
- Hot springs (Big Windy Creek).
- Area not visited, bedrock covered, or rock too limited in occurrence or too altered to map.
- Fossil locality. Number refers to table 2.
- Felsic dike(s) or sill(s).
- Mafic dike(s) or sill(s).
- Pegmatite dike(s).
- Volcanic rock or porphyritic dike.

- Mineral occurrences
- F Sillimanite
 - K Kyanite
 - A Andalusite
 - S Staurolite
 - D Diopside
 - C Chloritoid

- UNCONSOLIDATED DEPOSITS
- Qa Alluvium
 - Qab Abandoned flood plain alluvium
 - Qac Alluvium and colluvium
 - Qaf Alluvial fan deposits
 - Qs Silt and peat
 - Qsu Silt, undifferentiated and organic material
 - Qg Gravel
 - Ql Loess
 - Qm Moraine deposits, undifferentiated

- SEDIMENTARY ROCKS
- Tcs Conglomerate and sandstone
 - TKg Granite
 - TKf Felsic igneous rock

- UNMETAMORPHOSED IGNEOUS ROCKS
- Kja Quartzite, argillite, conglomerate, and horrfels
 - MaPaq Argillite, tuff, quartzite, and conglomerate
 - MaPaq Argillite and quartzite
 - Paqg Ultramafic and mafic rocks and greenstone
 - Dsd Dolomite and argillite
 - DSI Limestone, dolomite, and shale
 - SOs Siltstone, dolomite, chert, and mafic igneous rocks
 - ODL Livengood Dome(?) chert
 - PaPaCa Argillite, grit, and quartzite
 - PaPaCa Grit, quartzite, and argillite

- AREA NORTH OF TINTINA FAULT ZONE Circle Terrane (Churkin and others, 1982)
- MaPaq Circle Volcanics and associated rocks
 - PaCa Chert, argillite, and quartzite

- Crazy Mountains Terrane (Churkin and others, 1982) West Crazy Mountains
- MaPaq Diorite
 - PaCa Chert pebble conglomerate
 - PaCa Chert, conglomerate, and limestone
 - DI Limestone
 - PaPaCa Argillite, grit, and quartzite

- East Crazy Mountains
- PaCa Chert pebble conglomerate
 - DI Limestone
 - PaPaCa Argillite, grit, and quartzite

- Preacher Block
- PaCa Chert and argillite
 - PaCa Limestone and chert
 - PaPaCa Argillite, grit, and quartzite
 - PaPaCa Basalt and limestone

DEFINITION OF MAP UNITS

- AREA SOUTH OF TINTINA FAULT ZONE Yukon Crystalline Terrane (Churkin and others, 1982)
- PaCa Augen gneiss
 - PaCa Quartzite, meta-argillite and phyllite
 - PaCa Phyllite, calcareous phyllite, and marble
 - PaCa Pelitic schist
 - PaCa Garnet-muscovite schist
 - PaCa Dolomite and marble
 - PaCa Quartzite and quartzitic schists (includes magnetic chlorite schist subunit (PaPaCa))
 - PaCa Mafic schist
 - PaCa Grit and quartzite
- Ultramafic, Mafic, and Eclogitic Rocks
- PaCa Serpentinized peridotite
 - PaCa Greenstones
 - PaCa Eclogite

GEOLOGIC BASE FROM FOSTER AND OTHERS (1953), U.S.G.S. OF 83-170-A

SCALE 1:250,000
0 5 10 15 20 25 km

AEROMAGNETIC MAP AND INTERPRETATION OF MAGNETIC AND GRAVITY DATA, CIRCLE QUADRANGLE, ALASKA
BY JOHN W. CADY AND FLORENCE R. WEBER

PLATE 2 - AEROMAGNETIC INTERPRETATION MAP
1983

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.