DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT
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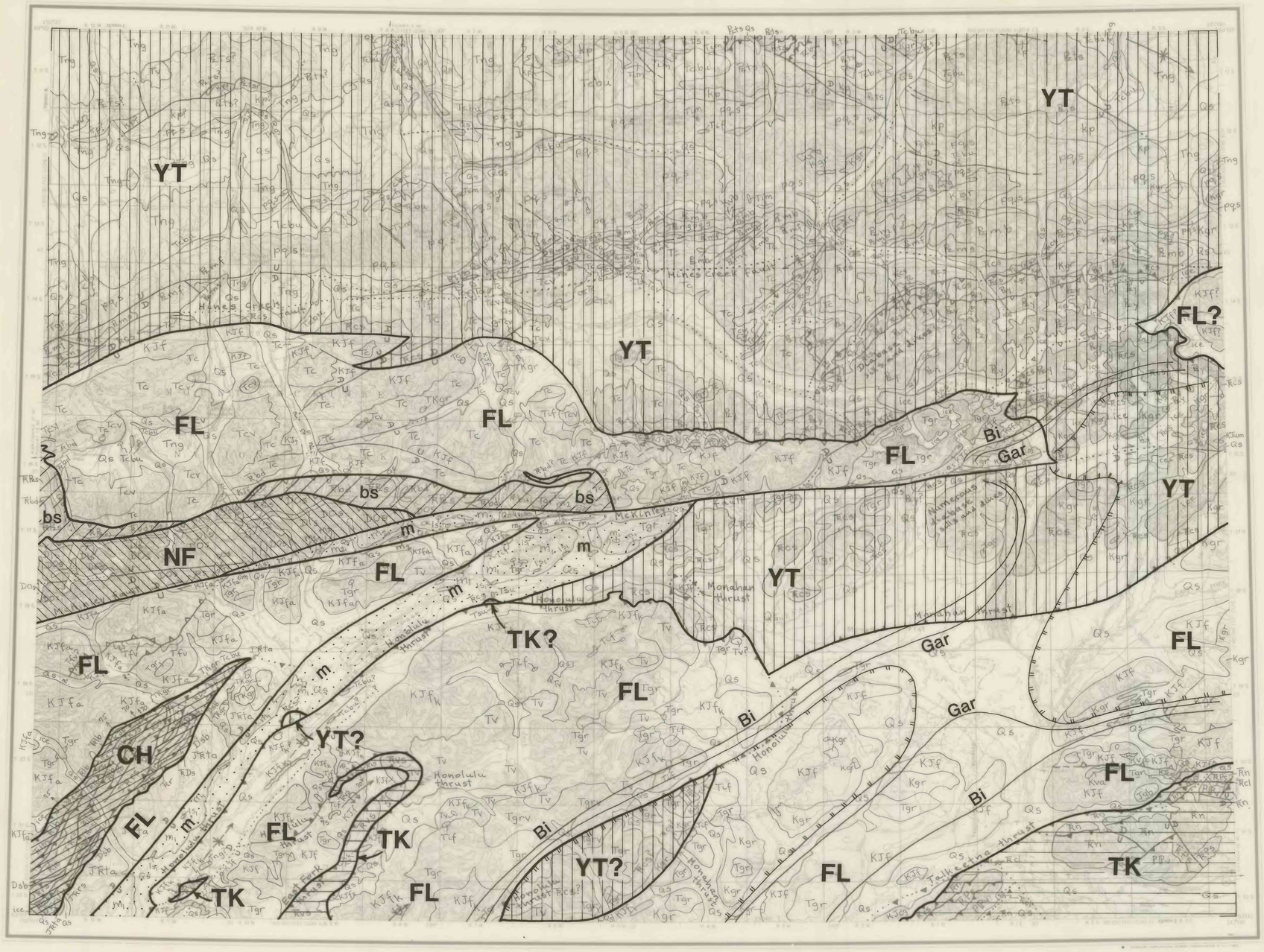
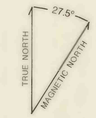
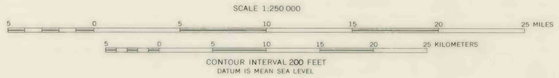


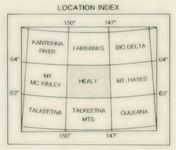
Base by U.S. Geological Survey, 1956, 1963, 1966



APPROXIMATE MEAN DECLINATION, 1956

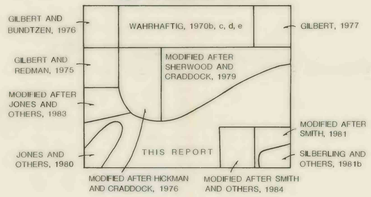


QUADRANGLE LOCATION

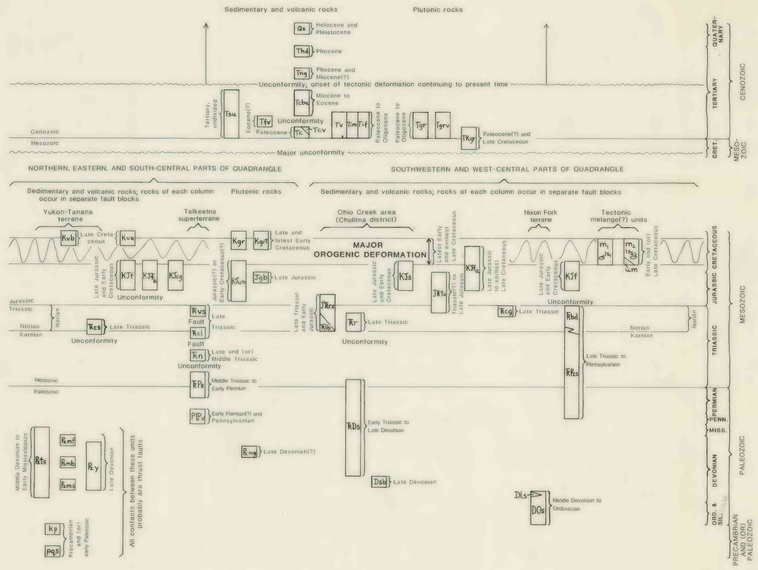


Pamphlet accompanies maps

INDEX TO GEOLOGIC MAPPING



CORRELATION OF MAP UNITS



EXPLANATION OF GEOLOGIC MAP SYMBOLS

- Contact--Approximately located
- Thrust fault--Teeth on upper plate; dashed where inferred; dotted where concealed; small arrow indicates dip direction of overturned thrust fault
- High-angle reverse fault--Teeth indicate upthrown side; dashed where inferred; dotted where concealed
- Fault--Dashed where inferred; dotted where concealed. Where displacement is known, U indicates upthrown side, D indicates downthrown side, arrows indicate relative horizontal movement
- Postulated position of fault prior to intrusion of granitic and subvolcanic rocks
- Anticline--Showing direction of plunge
- Overturned anticline--Showing direction of plunge and dip of limbs
- Syncline--Showing direction of plunge; dashed where inferred
- Overturned syncline--Showing dip of limbs; dashed where inferred

EXPLANATION OF TECTONOSTRATIGRAPHIC TERRANE SYMBOLS

YT - Yukon-Tanana terrane

TK - Talkeetna superterrane

NF - Nixon Fork terrane equivalent

FL - Para-autochthonous flysch deposits and associated rocks

CH - Rocks of the Chulitna district (Chulitna terrane of Jones and others, 1983)

m - Melange rocks

bs - Basalts and sedimentary rocks of unknown relation (Part of the McKinley terrane of Jones and others, 1983)

Terrane designation is querried where correlation is uncertain

EXPLANATION OF METAMORPHIC FEATURES OF THE MACLAREN METAMORPHIC BELT

Approximate extent of amphibolite facies metamorphism; barbs toward amphibolite facies rocks

Metamorphic isograd - approximately located; Bi - Biotite, Gar - Garnet

EXPLANATORY NOTE

In constructing the terrane map and the extent of the Maclaren metamorphic belt, sedimentary and volcanic rocks of Cenozoic age, and plutonic rocks of Tertiary and Cretaceous ages have been omitted for clarity.

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

GEOLOGY AND GEOCHRONOLOGY OF THE HEALY QUADRANGLE, ALASKA

SHEET 4 OF 4 SHEETS OF OPEN-FILE REPORT 86-396 : INTERPRETIVE TECTONOSTRATIGRAPHIC TERRANE MAP OF THE HEALY QUADRANGLE, AND THE APPROXIMATE EXTENT OF THE MIDDLE CRETACEOUS MACLAREN METAMORPHIC BELT IN THE QUADRANGLE

By

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Clyde Wahrhaftig, Campbell Craddock, Wayne M. Brewer, Kirk W. Sherwood, Robert G. Hickman, Gary D. Stricker,

Dennis R. St. Aubin, and David J. Goerz III

1986

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Healy quad.
Terrane map