EXPLANATION

Pleistocene and Recent

Qag — Glacial and alluvial deposits

QTv — Basalt and andesite lava and pyroclastic rocks

Paleocene and Eocene

Tc — Nonmarine sedimentary rocks
Kenai formation in most of area; Chickaloon, Wishbone and Tsadaka formations in Wishbone Hill district; gravels of post-Kenai age in Kahiltna district

Lower and Upper Cretaceous

Ks — Sedimentary rocks
Marine sedimentary rocks of the Matanuska formation, and nonmarine sedimentary rocks of the Arkose Ridge formation

Middle and Upper Jurassic

KJi — Plutonic rocks
Predominantly diorite and quartz diorite, includes granite in the foothills of the Alaska Range

Js — Marine sedimentary rocks
Naknek, Chinitna, and Tuxedni formations

KJag — Slatey argillite and graywacke
Equivalent in part to Ks *and* Js *sedimentary rocks. Identification doubtful in northeast corner of area*

Lower Jurassic

Jv — Marine volcanic rocks
Intermediate and mafic pyroclastic rocks and lava and interbedded marine sedimentary rocks. Includes Talkeetna formation

Upper Triassic

TRlc — Limestone and chert

TRls — Limestone and schist
Crystalline limestone and siliceous schist that may be Upper Triassic limestone and chert metamorphosed in a fault zone

TRPg — Basalt and diabase, altered to greenstone

RpCs — Metamorphic rocks
Schist, gneiss, quartzite, crystalline limestone, slate and chert

Generalized contact
Includes inferred, indefinite, approximate, and gradational contacts. Some faults are mapped as contacts. Dotted where concealed

Fault
Dashed where approximately located; dotted where concealed. U, *upthrown side;* D, *downthrown side*

Reverse fault
Dotted where concealed; queried where doubtful. U, *upthrown side;* D, *downthrown side*

Limit of geologic information

Dry hole — Oil well — Gas well
Test wells drilled for oil and gas, showing depth in feet

Reliable
Estimated
Aeromagnetic flight line, showing map location points and path of aircraft
Solid where reliable, dashed where estimated

Aeromagnetic trend line or contact
Dashed where projected or where an alternative path is shown, queried where doubtful

Area of aeromagnetic anomaly

Location of aeromagnetic feature observed on one flight line

Aeromagnetic profiles and anomalies observed along the flight lines are shown on plates 19, 20, and 21

QUATERNARY

TERTIARY AND QUATERNARY

TERTIARY

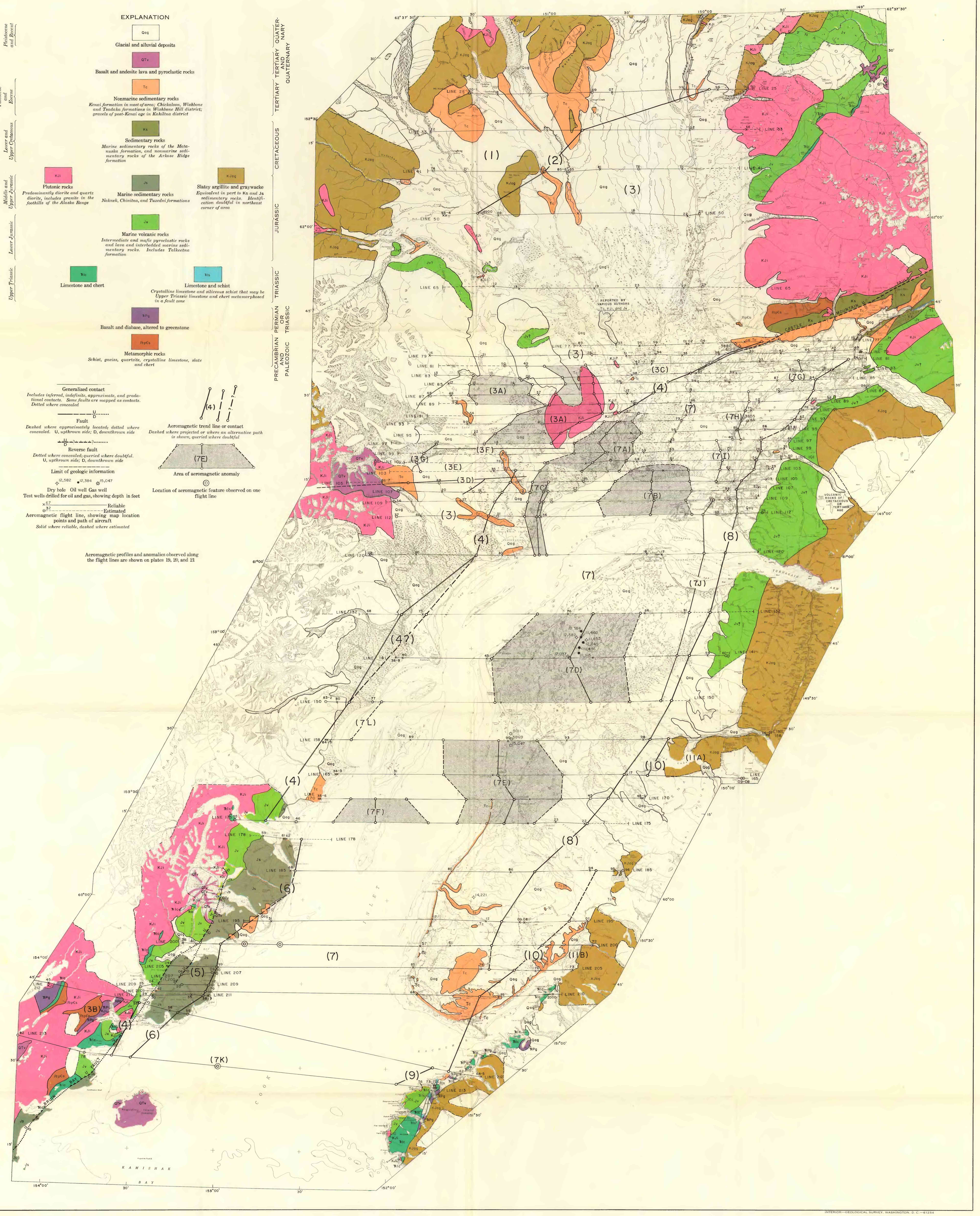
CRETACEOUS

JURASSIC

TRIASSIC

PERMIAN OR TRIASSIC

PRECAMBRIAN AND PALEOZOIC



Base map compiled from U. S. Geological Survey Alaska Reconnaissance Topographic Series quadrangles, 1944–52

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—61254

Geology compiled and generalized by Arthur Grantz, 1959, primarily from the U. S. Geological Survey reports on Alaskan geology listed in the "Selected references"

GENERALIZED GEOLOGIC MAP OF THE COOK INLET AREA, ALASKA, SHOWING POSITION OF AEROMAGNETIC FLIGHT LINES AND MAGNETIC TRENDS

SCALE 1:500 000

8 0 8 16 24 32 40 MILES