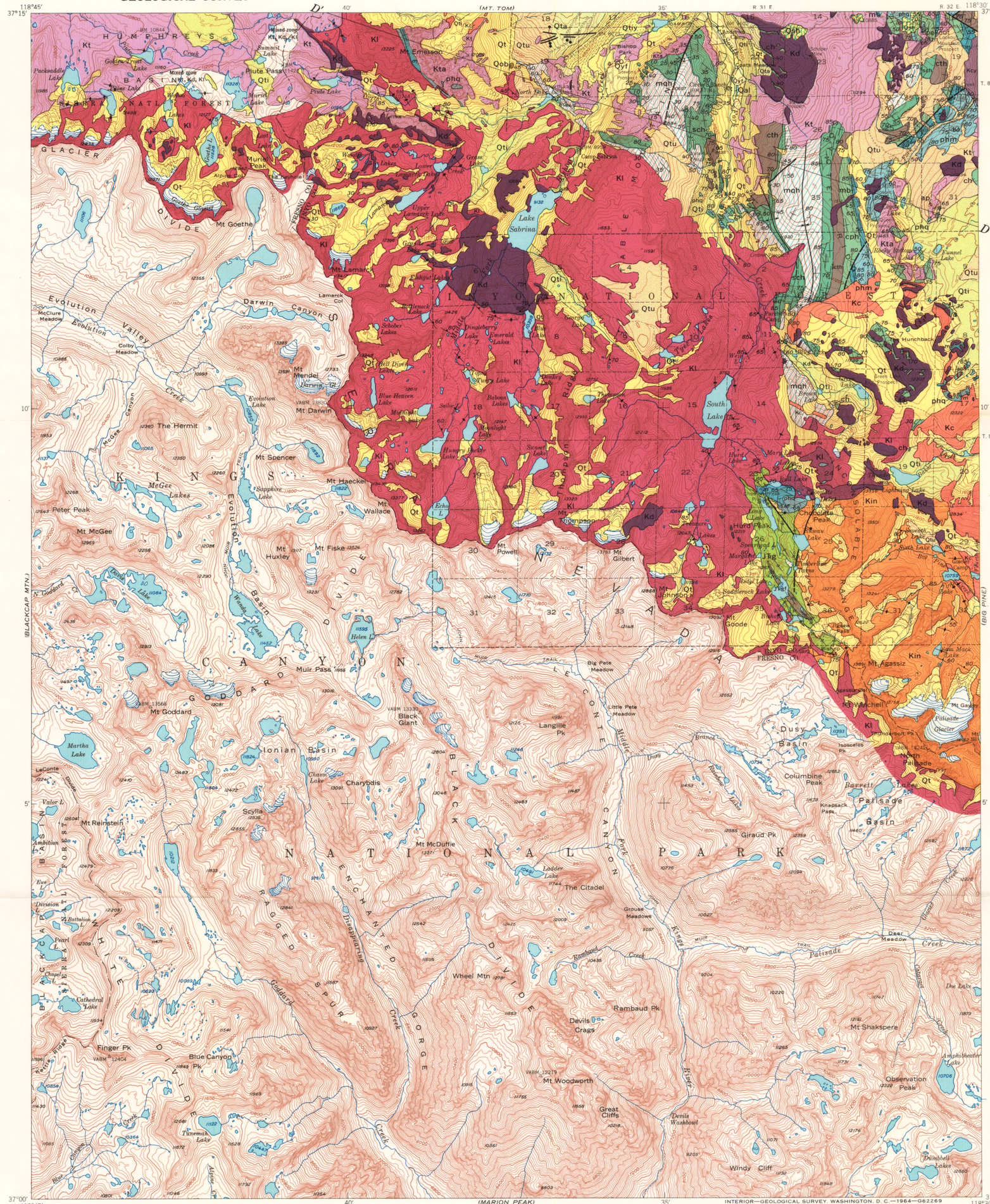
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 470
PLATE 1

GEOLOGIC MAP OF PART OF THE MOUNT GODDARD 15-MINUTE QUADRANGLE, CALIFORNIA



Base map by Topographic Division
U.S. Geological Survey, 1950;
modified 1963

Geology by Paul C. Bateman, assisted by
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SCALE 1:62 500

1 ½ 0 1 2 3 4 5 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

EXPLANATION

Recent

Qal — Alluvial fill

Qt — Talus
Includes rock glaciers and Recent moraines; ridge crests shown semidiagrammatically

Qyf — Younger alluvial fan deposits
May be, in part, of Pleistocene age

Pleistocene

GLACIAL DEPOSITS

Qtiy / Qti — Tioga till
Qtiy, deposits of younger advance delineated only along Bishop Creek. Crests of moraines and other glacial ridges shown by dotted lines

Qtu — Undifferentiated till

Qta — Tahoe till
Crests of moraines and other glacial ridges shown by dotted lines

VOLCANIC DEPOSITS

Qob — Basalt necks
May be of late Tertiary age

Qsh — Sherwin and older tills

QUATERNARY

UNCONFORMITY

GRANITIC ROCKS

ap — Felsic dikes and masses
Chiefly aplite, pegmatite, and alaskite

Mafic dikes
Pre-Cathedral Peak; precise age uncertain

Kc — Rocks similar to the Cathedral Peak granite
Quartz monzonite

Kcy — Granodiorite of Coyote Flat

Kt / Kta — Tungsten Hills quartz monzonite
Kta, *albitized rock*

Kl — Lamarck granodiorite
Dark hybrid facies shown by stippled pattern

Kin — Inconsolable granodiorite

Kd — Diorite, quartz diorite, and hornblende gabbro
Includes some hybrid rocks of granodiorite composition

CRETACEOUS

METAMORPHIC ROCKS

METAMORPHIC ROCKS IN SMALLER MASSES

JTrg / JTrgf — Gneiss in the South Fork of Bishop Creek
JTrgf, *felsic lens. May be sheared granitic rock*

TRIASSIC(?) AND JURASSIC

m — Marble

ch — Calc-hornfels

phq — Pelitic hornfels, micaceous quartzite, and schist

PALEOZOIC AND MESOZOIC

BISHOP CREEK PENDANT

mqh — Micaceous quartzite and pelitic hornfels

sch — Siliceous calc-hornfels

cth — Metachert and andalusite-bearing pelitic hornfels

cph — Banded calc-hornfels and pelitic hornfels

mb — Marble

phm — Pelitic hornfels with interbeds of marble

LOWER PALEOZOIC(?)

TRUE NORTH
MAGNETIC NORTH
16½°

APPROXIMATE MEAN DECLINATION, 1964

Contact
Dashed where approximately located

Fault
Dashed where approximately located; dotted where concealed

High-angle fault with scarp
Dashed where approximately located; dotted where concealed. Includes a few low-angle normal faults. Bar and ball on downthrown side

Anticline
Showing trace of axial plane. Dashed where approximately located

Syncline
Showing trace of axial plane. Dashed where approximately located

50 — Strike and dip of beds

Strike of vertical beds

2 — Strike of folded beds

70 — Strike and dip of primary foliation in granitic rocks

Strike of vertical primary foliation in granitic rocks

80 — Strike and dip of foliation in gneiss

Strike of vertical foliation in gneiss

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1964—G62269