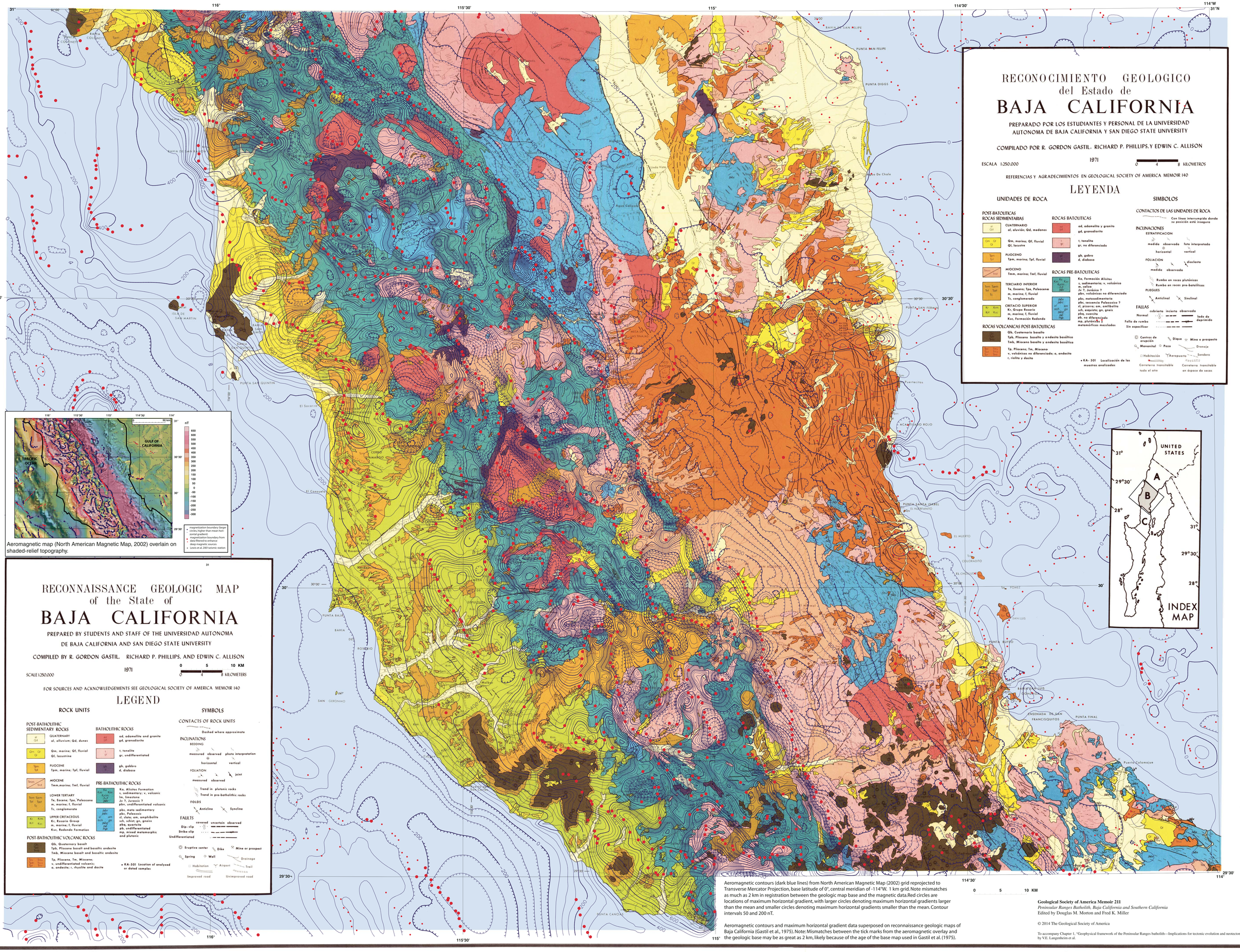

Aeromagnetic map (North American Magnetic Map, 2002) overlain on shaded-relief topography.

RECONNAISSANCE GEOLOGIC MAP
of the State of
BAJA CALIFORNIA

PREPARED BY STUDENTS AND STAFF OF THE UNIVERSIDAD AUTONOMA DE BAJA CALIFORNIA AND SAN DIEGO STATE UNIVERSITY

COMPILED BY R. GORDON GASTIL, RICHARD P. PHILLIPS, AND EDWIN C. ALLISON

1971

SCALE 1:250,000

0 5 10 KM
0 4 8 KILOMETERS

FOR SOURCES AND ACKNOWLEDGEMENTS SEE GEOLOGICAL SOCIETY OF AMERICA MEMOIR 140

LEGEND

ROCK UNITS

POST-BATHOLITHIC SEDIMENTARY ROCKS

QUATERNARY
al, alluvium; Qd, dunes
Qm, marine; Ql, fluvial
Ql, lacustrine

PLIOCENE
Tpm, marine; Tpl, fluvial

MIOCENE
Tmm, marine; Tml, fluvial

LOWER TERTIARY
Te, Eocene; Tpe, Paleocene
m, marine; f, fluvial
Tc, conglomerate

UPPER CRETACEOUS
Kr, Rosario Group
m, marine; f, fluvial
Kuc, Redondo Formation

POST-BATHOLITHIC VOLCANIC ROCKS
Qb, Quaternary basalt
Tpb, Pliocene basalt and basaltic andesite
Tmb, Miocene basalt and basaltic andesite
Tp, Pliocene, Tm, Miocene;
v, undifferentiated volcanic;
a, andesite; r, rhyolite and dacite

BATHOLITHIC ROCKS
ad, adamellite and granite
gd, granodiorite
t, tonalite
gr, undifferentiated
gb, gabbro
d, diabase

PRE-BATHOLITHIC ROCKS
Ka, Alisitos Formation
s, sedimentary; v, volcanic
lm, limestone
Jv ?, Jurassic ?
pbv, undifferentiated volcanic
pbs, meta sedimentary
pbc, Paleozoic
sl, slate; am, amphibolite
sch, schist; gn, gneiss
pbq, quartzite
pb, undifferentiated
mp, mixed metamorphic and plutonic

KA-501 Location of analyzed or dated samples

SYMBOLS

CONTACTS OF ROCK UNITS
Dashed where approximate

INCLINATIONS
BEDDING
measured observed photo interpretation
horizontal vertical
FOLIATION
measured observed joint
Trend in plutonic rocks
Trend in pre-batholithic rocks
FOLDS
Anticline Syncline
FAULTS
covered uncertain observed
Dip- slip
Strike-slip
Undifferentiated
Eruptive center
Dike
Mine or prospect
Spring
Well
Drainage
Habitation
Airport
Trail
Improved road
Unimproved road

Aeromagnetic contours (dark blue lines) from North American Magnetic Map (2002) grid reprojected to Transverse Mercator Projection, base latitude of 0°, central meridian of -114°W. 1 km grid. Note mismatches as much as 2 km in registration between the geologic map base and the magnetic data. Red circles are locations of maximum horizontal gradient, with larger circles denoting maximum horizontal gradients larger than the mean and smaller circles denoting maximum horizontal gradients smaller than the mean. Contour intervals 50 and 200 nT.

Aeromagnetic contours and maximum horizontal gradient data superposed on reconnaissance geologic maps of Baja California (Gastil et al., 1975). Note: Mismatches between the tick marks from the aeromagnetic overlay and the geologic base may be as great as 2 km, likely because of the age of the base map used in Gastil et al. (1975).

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Peninsular Ranges Batholith, Baja California and Southern California
Edited by Douglas M. Morton and Fred K. Miller

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To accompany Chapter 1, "Geophysical framework of the Peninsular Ranges batholith—Implications for tectonic evolution and neotectonics," by V.E. Langenheim et al.

Geologic base from Plate 1-B of Gastil et al. (1975)