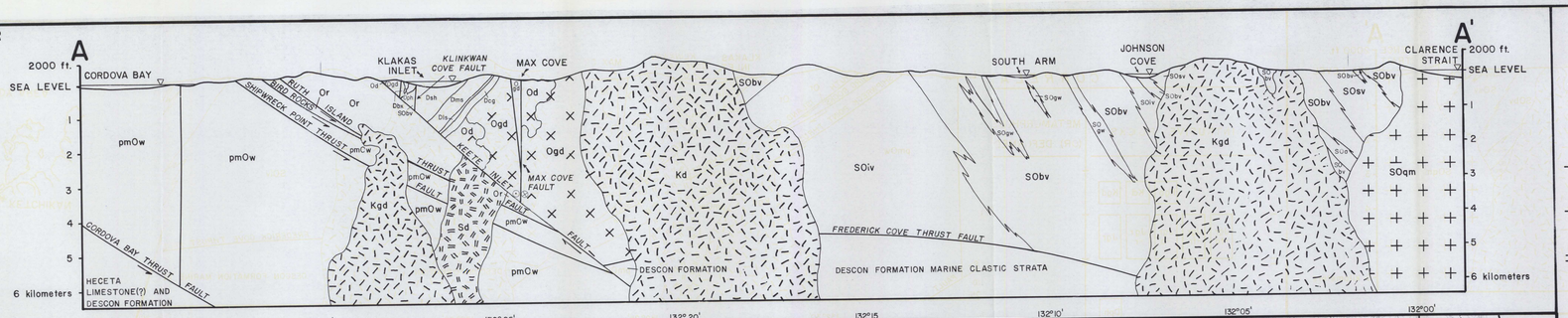
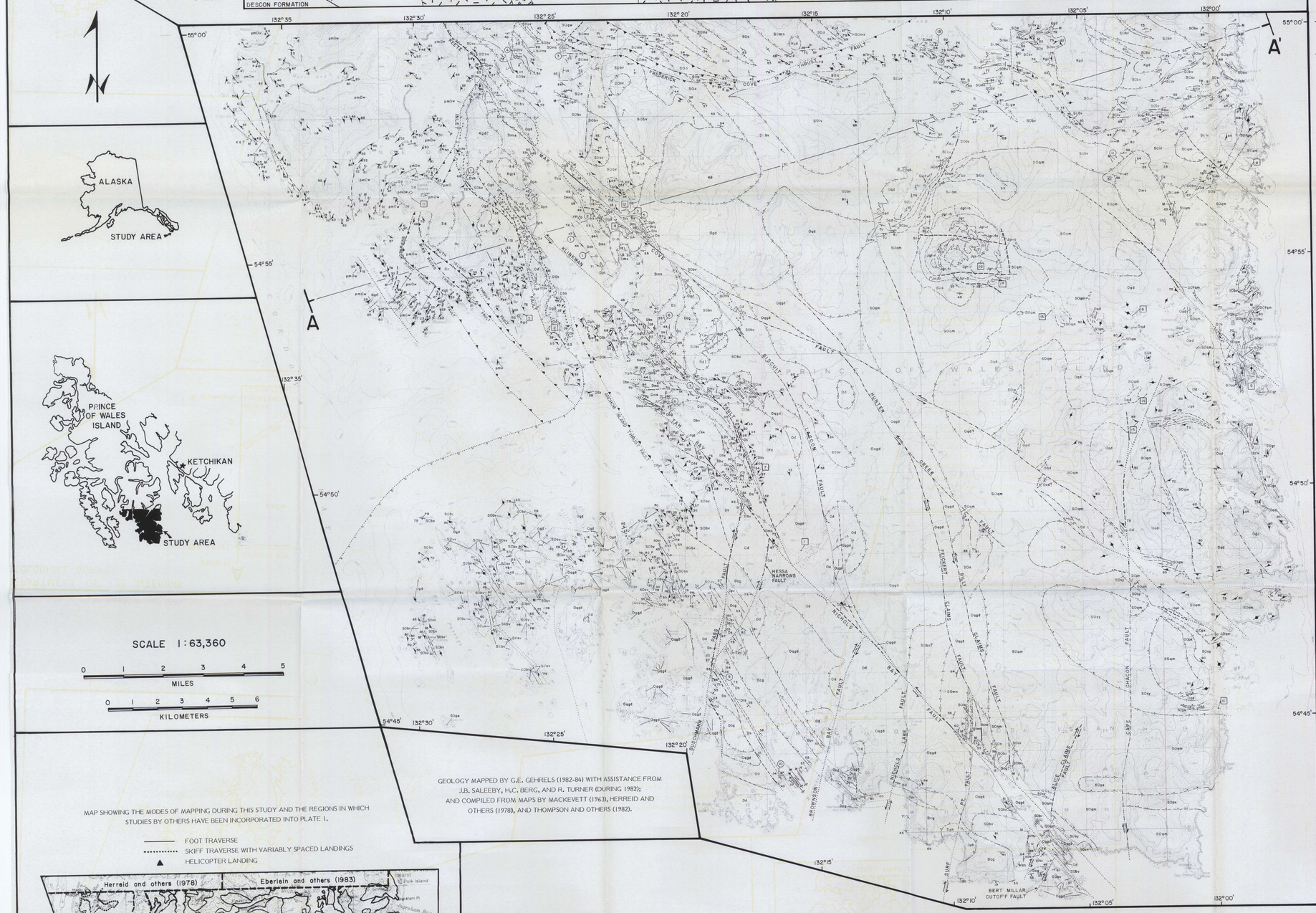
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OPEN-FILE REPORT 86-275
PLATE I





SCALE 1:63,360

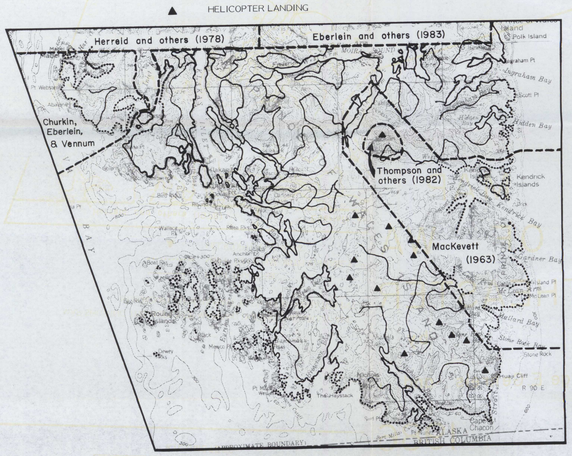
0 1 2 3 4 5 MILES

0 1 2 3 4 5 6 KILOMETERS

GEOLOGY MAPPED BY G.E. GEHRELS (1982-84) WITH ASSISTANCE FROM J.B. SALEEBY, H.C. BERG, AND R. TURNER (DURING 1982); AND COMPILED FROM MAPS BY MACKEVETT (1963), HERREID AND OTHERS (1978), AND THOMPSON AND OTHERS (1982).

MAP SHOWING THE MODES OF MAPPING DURING THIS STUDY AND THE REGIONS IN WHICH STUDIES BY OTHERS HAVE BEEN INCORPORATED INTO PLATE 1.

FOOT TRAVERSE
SKIFF TRAVERSE WITH VARIABLY SPACED LANDINGS
▲ HELICOPTER LANDING



GEOLOGIC MAP OF SOUTHERN PRINCE OF WALES ISLAND, SOUTHEASTERN ALASKA

by

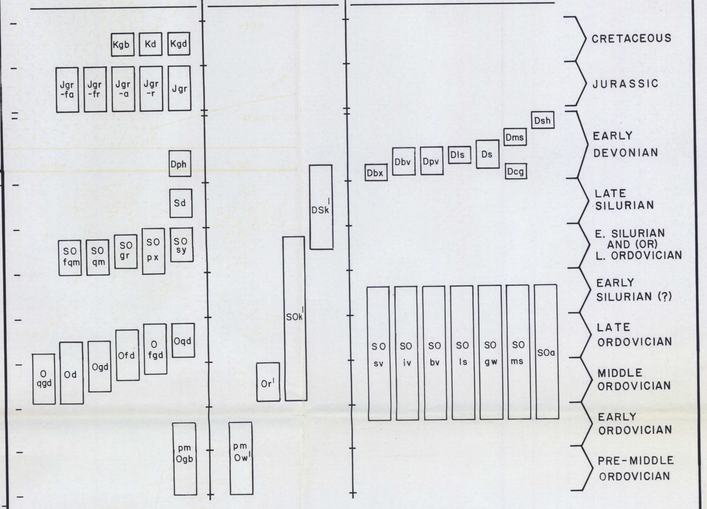
George E. Gehrels and Jason B. Saleeby

1986

BASE FROM U.S. GEOLOGICAL SURVEY DIXON ENTRANCE C-1, D-1, AND D-2, PRINCE RUPERT D-6, KETCHIKAN A-6, AND CRAIG A-1 AND A-2 15-MINUTE QUADRANGLES.

THIS MAP IS PRELIMINARY AND HAS NOT BEEN REVIEWED FOR CONFORMITY WITH U. S. GEOLOGICAL SURVEY EDITORIAL STANDARDS AND STRATIGRAPHIC NOMENCLATURE

CORRELATION OF MAP UNITS



[1] AGE DESIGNATION REFERS TO THE AGE OF METAMORPHISM AND (OR) DEFORMATION.

DEFINITION OF MAP UNITS

COLLUVIUM, ALLUVIUM, AND BEACH DEPOSITS (QUATERNARY)

SEDIMENTARY AND (OR) VOLCANIC ROCKS

KARHEEN FORMATION (EARLY DEVONIAN)

Dsh	SHALE (EARLY DEVONIAN)
Dms	MUDSTONE AND SILTSTONE (EARLY DEVONIAN)
Ds	SANDSTONE (EARLY DEVONIAN)
Dls	LIMESTONE (EARLY DEVONIAN)
Dpv	PLAGIOCLASE-PORPHYRITIC VOLCANIC ROCKS (EARLY DEVONIAN)
Dbv	BASALTIC TO ANDESITIC ROCKS (EARLY DEVONIAN)
Dcg	CONGLOMERATIC STRATA (EARLY DEVONIAN)
Dbx	SEDIMENTARY BRECCIA (EARLY DEVONIAN)

DESCON FORMATION (EARLY SILURIAN AND ORDOVICIAN)

SOa	ARGILLITE AND SHALE (EARLY SILURIAN AND ORDOVICIAN)
SOms	BANDED MUDSTONE AND SILTSTONE (EARLY SILURIAN AND ORDOVICIAN)
SOgw	GRAYWACKE (EARLY SILURIAN AND ORDOVICIAN)
SOls	LIMESTONE (EARLY SILURIAN AND ORDOVICIAN)
SObv	BASALTIC TO ANDESITIC VOLCANIC ROCKS (EARLY SILURIAN AND ORDOVICIAN)
SOiv	INTERMEDIATE COMPOSITION (ANDESITIC TO DACITIC) VOLCANIC ROCKS (EARLY SILURIAN AND ORDOVICIAN)
SOsv	SILICIC (DACITIC TO RHYOLITIC) VOLCANIC ROCKS (EARLY SILURIAN AND ORDOVICIAN)

REGIONALLY METAMORPHOSED AND (OR) DEFORMED ROCKS

DSk	COMPLEX OF KLAKAS INLET (EARLY DEVONIAN AND SILURIAN)[1]
SOk	COMPLEX OF KENDRICK BAY (EARLY SILURIAN AND ORDOVICIAN)[1]
Or	COMPLEX OF RUTH BAY (ORDOVICIAN)[1]
pmOw	WALES METAMORPHIC SUITE (PRE-MIDDLE ORDOVICIAN)[1]

INTRUSIVE ROCKS

BASALTIC TO DACITIC(?) DIKES (CRETACEOUS TO ORDOVICIAN)

Kgd	GRANODIORITE (CRETACEOUS)
Kd	DIORITE (CRETACEOUS)
Kgb	GABBRO (CRETACEOUS)
Jgr	BOKAN MOUNTAIN GRANITE - UNDIVIDED (JURASSIC)
Jgr-r	BOKAN MOUNTAIN GRANITE - RIEBEKITE GRANITE PORPHYRY (JURASSIC)
Jgr-a	BOKAN MOUNTAIN GRANITE - AEGIRINE GRANITE PORPHYRY (JURASSIC)
Jgr-fr	BOKAN MOUNTAIN GRANITE - FINE-GRAINED RIEBEKITE GRANITE PORPHYRY (JURASSIC)
Jgr-fa	BOKAN MOUNTAIN GRANITE - FELTY-AEGIRINE GRANITE (JURASSIC)
Dph	PLAGIOCLASE-PORPHYRITIC HYPABYSSAL ROCKS (EARLY DEVONIAN)
Sd	LEUCODIORITE (LATE SILURIAN)
SOsy	QUARTZ SYENITE AND GRANITE (EARLY SILURIAN AND (OR) LATE ORDOVICIAN)
SOpx	PYROXENITE AND HORNBLENDITE (EARLY SILURIAN AND (OR) LATE ORDOVICIAN)
SOgr	GRANITE (EARLY SILURIAN AND (OR) LATE ORDOVICIAN)
SOqm	QUARTZ MONZONITE AND GRANITE (EARLY SILURIAN AND (OR) LATE ORDOVICIAN)
SOfqm	FOLIATED QUARTZ MONZONITE (EARLY SILURIAN AND (OR) LATE ORDOVICIAN)
Oqd	QUARTZ DIORITE AND DIORITE (LATE ORDOVICIAN)
Ofgd	FOLIATED GRANODIORITE (ORDOVICIAN)
Ofd	FOLIATED AND LAYERED DIORITE AND QUARTZ DIORITE (ORDOVICIAN)
Ogd	LEUCOGRANODIORITE (ORDOVICIAN)
Od	DIORITE (ORDOVICIAN)
Oqgd	QUARTZ-PORPHYRITIC GRANODIORITE (ORDOVICIAN)
pmOgb	METAGABBRO (PRE-MIDDLE ORDOVICIAN)

[1] Age designation refers to the age of metamorphism and (or) deformation.

MAP SYMBOLS

T	TUFF
TB	TUFF BRECCIA
P	PILLOWS IN VOLCANIC ROCK
PB	PILLOW BRECCIA
S	SILICIC VOLCANIC ROCK
L	LIMESTONE OR MARBLE
A	ARGILLITE AND SHALE
M	MINERALIZATION (Rocks with disseminated sulfide minerals and(or) abundant staining)

○ = PALEONTOLOGIC SAMPLES (See Table 1)
□ = GEOCHRONOLOGIC SAMPLES (See Table 2)

BEACH DEPOSITS COVERING BEDROCK

CATACLASTIC BRECCIATION

SEMISCHISTOSE DEFORMATIONAL FABRIC

STRIKE AND DIP OF FOLIATION AND BEDDING (Facing direction shown where known)

TREND AND PLUNGE OF MINERAL LINEATION (m), ELONGATION FABRIC (e), AND MINOR FOLD AXES (f)

AXIAL TRACE OF SYNCLINE (SYNFORM), ANTICLINE (ANTIFORM), AND OVERTURNED ANTIFORM

CONTACT: Dashed where approximately located, queried where location poorly constrained, dotted where concealed. Dip symbol indicates orientation.

STRIKE-SLIP FAULT: Dashed where approximately located, queried where location poorly constrained, dotted where concealed. Dip symbol indicates orientation. Arrows indicate relative sense of displacement.

THRUST FAULT: Dashed where approximately located, queried where location poorly constrained, dotted where concealed. Dip symbol indicates orientation. Sawteeth on upper plate.

NORMAL FAULT: Dashed where approximately located, queried where location poorly constrained, dotted where concealed. Dip symbol indicates orientation. Hachures on upper plate.

FAULT IDENTIFIED ON AERIAL PHOTOGRAPHS.