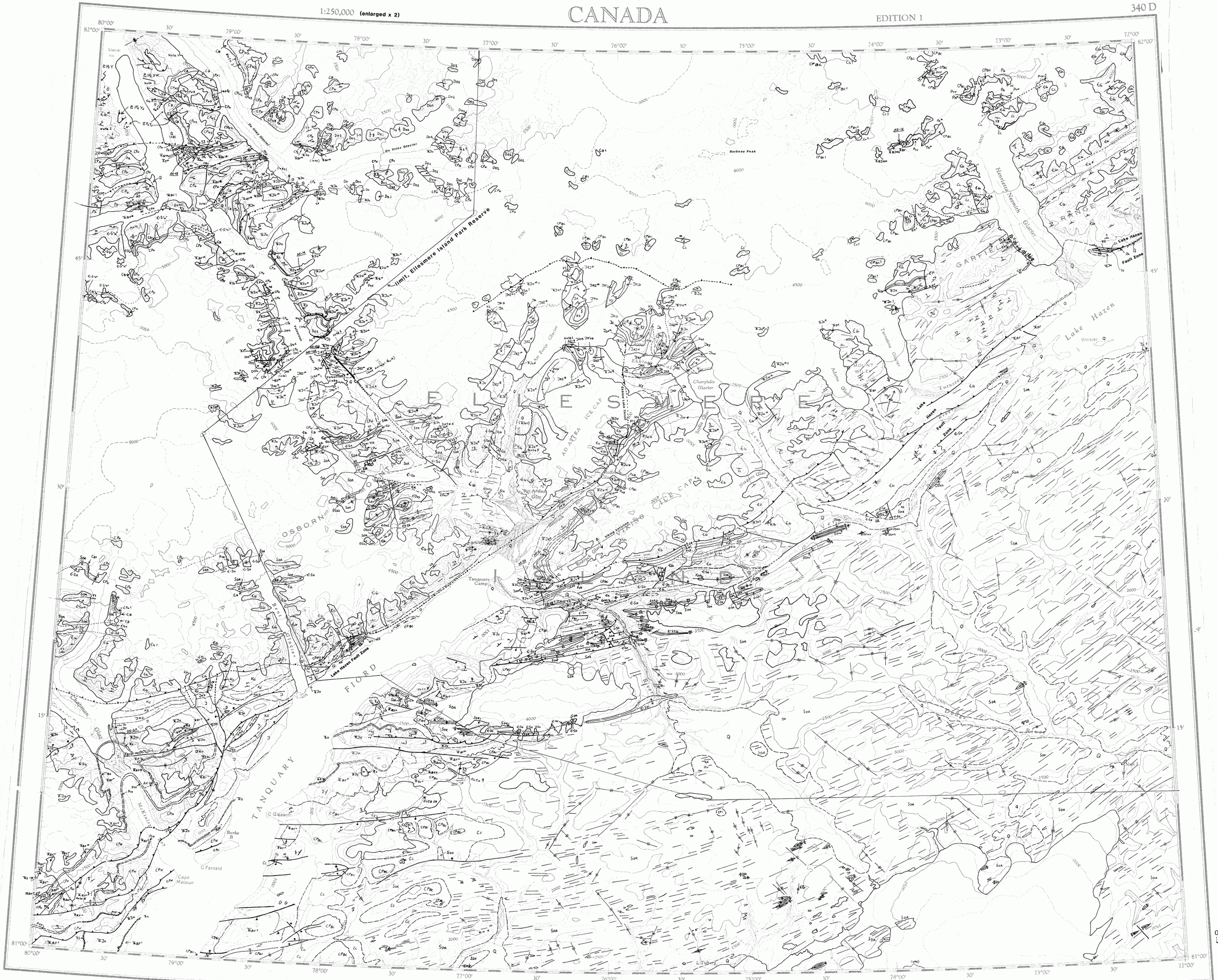
340 D

CANADA

1:250,000 (enlarged x 2)

EDITION 1

340 D



LEGEND

QUATERNARY

Q — *Unconsolidated sediments (mapped only where underlying bedrock geology cannot be inferred with reasonable certainty)*

SVERDRUP BASIN AND TERTIARY BASINS

TERTIARY (?)
PALEOGENE (?)
EUREKA SOUND GROUP (?)

T(?) — *ICEBERG BAY FORMATION (?): sedimentary breccia*

CRETACEOUS
LOWER CRETACEOUS

Kc — *CHRISTOPHER FORMATION: silty shale, siltstone; thin chert pebble conglomerate at base*

Ki — *ISACHSEN FORMATION: sandstone; minor pebble conglomerate, siltstone, shale, coal*

JURASSIC AND CRETACEOUS
UPPER (+MAJOR) AND LOWER CRETACEOUS

JKo — *OKTE BAY FORMATION: shale, siltstone; minor sandstone; JKo*: includes Ringnes and Awingak formations (Upper Jurassic)*

JURASSIC
LOWER, MIDDLE, AND UPPER JURASSIC

J — *JAMESON BAY, SANDY POINT, McCONNELL ISLAND, RINGNES, AND AWINGAK formations: siltstone, shale, sandstone*

UPPER JURASSIC

JA — *AWINGAK FORMATION: sandstone, shale, siltstone*

JRn — *RINGNES FORMATION: silty shale, siltstone; JRn*: includes McConnell Island and Hiccles Cove formations (Middle Jurassic); McCONNELL ISLAND FORMATION: shale, siltstone, ironstone; HICCLES COVE FORMATION: sandstone; minor shale, siltstone*

LOWER AND MIDDLE JURASSIC

JsM — *SANDY POINT FORMATION: sandstone; JsM*: includes McConnell Island Formation (Middle Jurassic); shale, siltstone, ironstone*

UPPER TRIASSIC TO LOWER JURASSIC

TrJn — *HEIBERG FORMATION: sandstone, siltstone, shale; minor coal; TrJn+: includes Sandy Point Formation and locally McConnell Island Formation (Middle Jurassic); Trn+: includes Blind Fiord Formation (Triassic) and locally Awingak Formation (Middle Jurassic) and locally also Beicher Channel (Upper Carboniferous to Lower Permian) and Sabine Bay formations*

TRIASSIC
MAINLY UPPER TRIASSIC

Tr — *SCHEI POINT GROUP: PAT BAY AND BARROW formations: silty shale, siltstone; sandstone; Tr+: locally includes Assistance and Trold Fiord (Lower and Upper Permian) formations*

LOWER AND MIDDLE TRIASSIC

TrmLm — *BJORNE FORMATION AND MURRAY HARBOUR FORMATION (Schei Point Group):shale, sandstone*

LOWER TRIASSIC

Tbf — *BLIND FIORD FORMATION: shale, siltstone, sandstone; Tbf+: transitional to Bjorne Formation; Tm*: includes Hoyle Bay and Pat Bay formations and locally Bjorne Formation (Upper Triassic); Tbf+: includes Trold Fiord Formation (Lower and Upper Permian); Hoyle Bay Formation: sandstone, minor limestone; Hoyle Bay Formation: calcareous, shale, siltstone and minor sandstone; minor limestone*

PERMIAN
UPPER PERMIAN
(Different Unitsfacies, not in stratigraphic order)

Pmr — *TROLD FIORD FORMATION: sandstone*

Pd — *DEGERBOLS FORMATION: limestone, chert*

LOWER PERMIAN

Pa — *HENRIETTA NESMITH FORMATION: Henrietta Nesmith Glacier: calcareous sandstone; Yelverton Inlet: shale, limestone; Pa+: includes Sabine Bay Formation (Lower Permian)*

Ps — *SABINE FORMATION: sandstone*

CARBONIFEROUS AND PERMIAN

CP — *Undifferentiated Carboniferous and Permian formations*

UPPER CARBONIFEROUS AND LOWER PERMIAN
(Different Unitsfacies, not in stratigraphic order)

CPbc — *BELCHER CHANNEL FORMATION: limestone*

CPn — *NANSEN FORMATION: CPnu: upper member, dolostone; CPnu: middle member, anhydrite, sandstone, shale, marl; CPnl: lower member, dolostone*

CARBONIFEROUS
UPPER CARBONIFEROUS
(Age ranges overlap)

Cb — *BORUP FIORD FORMATION: conglomerate, sandstone (mostly redbeds)*

Cc — *CANYON FIORD FORMATION: sandstone, siltstone, limestone, conglomerate (mostly redbeds)*

DEVONIAN INTERMONTANE BASIN

DEVONIAN
MIDDLE AND/OR UPPER DEVONIAN

Dos — *OKSE BAY FORMATION: Dosu: upper member, sandstone, conglomerate (redbeds common); Dosl: lower member, sandstone, siltstone, shale*

CLEMENTS MARKHAM FOLD BELT

SILURIAN
LOWER SILURIAN
Yelverton Pass beds

Sym — *Limestone, chert (secondary)*

CAMBRIAN TO SILURIAN
LOWER CAMBRIAN TO LOWER SILURIAN

C-Sv* — *Hazen Formation Equivalent: chert (primary and secondary); minor recalcitrated limestone (lime mudstone, calcarenite, rare pebble conglomerate). Includes chertified uppermost Grant Land Formation and may include chertified Yelverton Pass beds)*

MAINLY CAMBRIAN
MAINLY LOWER CAMBRIAN

Cs* — *GRANT LAND FORMATION: quartzite, slate, phyllite; (includes fault slices of Yelverton assemblage)*

UPPER PROTEROZOIC AND/OR LOWER PALEOZOIC
Yelverton Assemblage

PPYv — *Basaltic and andesitic flows, tuffs, and sills, (variably metamorphosed); marble, phyllite, minor chert; PPYv: marble, phyllite slim PPYv: includes fault slices of Grant Land Formation*

HAZEN FOLD BELT

SILURIAN

Sdm — *DANISH RIVER FORMATION: calcareous-dolomitic sandstone and mudstone, variably slaty (mainly sediment gravity flows)*

CAMBRIAN TO ORDOVICIAN-SILURIAN
LOWER CAMBRIAN TO LOWER SILURIAN

C-Ds* — *HAZEN FORMATION: €Sac: chert member (Ordovician - Lower Silurian); chert, claystone; rare limestone; €Dm: carbonate member (Cambrian-Ordovician); limestone, dolomitic limestone; mudrock, chert; €Dcc: resistant basal unit of carbonate members of €Dm*: may include Grant Land Formation (Lower Cambrian)*

CAMBRIAN
LOWER CAMBRIAN

Cs — *GRANT LAND FORMATION: quartzite (variably feldspathic), variegated mudrock; slaty; minor pebble conglomerate (mainly sediment gravity flows common); €s*: may include Nesmith beds*

Yelverton beds

Cm — *Limestone, calcareous pebble conglomerate; calcareous sandstone and slate (mainly sediment gravity flows); (may include Grant Land Formation)*

INTRUSIONS

CRETACEOUS
UPPER CRETACEOUS

Kd — *Diabase sills and dykes (mapped at a few localities only)*

Geological boundary (defined, approximate, assumed or projected through ice, overburden or water)

Fault (defined, approximate, assumed or projected through ice, overburden or water)

Thrust fault (teeth on hanging wall)

Normal fault (solid circle on hanging wall)

Lineament (from air photographs)

Anticline (upright, overturned; arrow indicates plunge)

Syncline (upright, overturned; arrow indicates plunge)

Synform

Key bed (see Note 6)

Strike and dip of bed (tops known, unknown; dip unknown) dip estimates from air photographs: g: gentle (about 10°), m: medium (about 10°-25°), s: steep (about 25°-45°), vs: very steep (about 45-90°) vertical

Trend of bedding (with or without dip direction)

Stratigraphic section

Landslide

Note 1: Numerous small faults.

Note 2: Extremely complex structure.

Note 3: Fault is pre-Eocene in age.

Note 4: Heiberg formation may have thin Sabine Bay Formation (Permian) at base.

Note 5: Heiberg formation includes thin upper Paleozoic formations.

Note 6: Key bed marks top of McConnell Island - Hiccles Cove formations (Middle Jurassic).

Note 7: Structure between anticlinal ridges obscured by overburden.

Note 8: The unbroken line that separates the Blind Fiord Formation from the Heiberg Formation may be regarded as representing a thin development of the Schei Point Group.

Note 9: The section of the Belcher Channel Formation at locality 83 comprises Upper Carboniferous strata only.

Note 10: The Belcher Channel Formation apparently overlies the Canyon Fiord Formation beneath the ice cap.

Note 11: This area, partly covered by overburden, has not been visited. Air photo interpretation and setting suggest strata of the Blind Fiord and/or Heiberg formations.

Published source maps include Nassichuk and Christie, 1968, Fig. 4; Thorsteinsson and Trettin, 1972; and Trettin, 1972, Fig. 3.

Subsequent geological contributions by A.F. Embry (1977, 1979, 1980, 1982, 1988), A.K. Higgins (1960), O. Mayr (1971, 1977, 1979, 1982), L. Mayr (1980), K.G. Osadetz (1978), N.J. Soper (1965), H.P. Trettin (1970, 1979, 1980, 1984), and D.G. Wilson (1970).

Cambrian to Silurian geology compiled by H.P. Trettin.
Devonian to Tertiary geology compiled by U. Mayr.

GEOLOGY

TANQUARY FIORD

DISTRICT OF FRANKLIN

NORTHWEST TERRITORIES

Scale 1:125 000

0 10 20 Kilometres

Transverse Mercator Projection

Elevations in feet above mean sea level

Contour interval 500 feet

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