

## FEATURES OF EXISTING GLACIERS

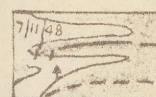
Margin of glacier  
or ice field.

Crevasses  
(Generalized to show  
pattern and distribution)

Ice fall

Approximate firm limit  
Average for period 1948 to 1954 as inter-  
preted from aerial photographs and field  
observations.

Englacial pits  
Ponds shown in larger pits.



Superglacial moraine  
(Long dashes indicate crest of ice-cored  
ridge; short dashes indicate boundary  
between debris bands of different color;  
arrow indicates direction of dip of  
debris-rich layer. Hachured dashed line  
is upper limit of debris as defined by  
snow line on aerial photographs; date  
6/30/48 unless otherwise indicated.

Ogives  
(Generalized; shown only southeast of  
the Chalk Hills).

Direction of  
ice movement

Approximate inner limit of brush on  
superglacial moraine and on recently  
deglaciated areas.

## SURFICIAL DEPOSITS

The units listed below overlap in age  
and therefore are not arranged in  
stratigraphic order.

Outwash deposits  
(Deposits of existing glacial streams;  
braided channels not shown. Largely bare  
of vegetation.)

Channeled outwash deposits  
(Deposits of former glacial streams,  
largely covered with brush.)

Marine beach, bar  
and spit deposits  
Q<sub>my</sub>--Youngest; supports scattered growth  
of brush locally.  
Q<sub>ml</sub>--Intermediate age; covered with  
brush and trees.  
Q<sub>mo</sub>--Oldest; covered with mature forest.

Marine lagoon deposits  
(Swampy areas, largely with little or no  
vegetation.)

Lake deposits and marine  
lagoon deposits, undifferentiated  
(Flat areas with little or no vegetation.)

Marine beach, bar, and  
lagoon deposits, undifferentiated  
(Linear beach and bar deposits covered with  
brush and trees, alternating with flat areas  
with little vegetation. Dotted lines indi-  
cate general trend of beach or bar deposits.)

Dune(?) deposits  
(Northwesterly-trending ridges covered with  
brush and trees, alternating with lakes  
and swamps.)

End and ground  
moraine deposits  
(Surface gently undulating, largely covered  
with brush and scattered trees. Arrows  
are drawn along axes of elongate swampy  
depressions and indicate inferred direction  
of ice movement.)

Esker deposits  
Bare ridges; near east shore of Icy Bay.

Moraine deposits,  
undifferentiated  
(Interlobate and lateral moraine deposits  
along mountain front; covered with brush  
and trees.)

Channeled outwash  
deposits  
(Deposits of former glacial streams drain-  
ing from the Yakutat Bay lobe; covered with  
mature forest.)

End and ground  
moraine deposits  
(Surface hummocky, largely covered with mature  
forest. Arrows are drawn along axes of elon-  
gate depressions occupied by lakes or swamps,  
and indicate inferred direction of ice movement.)

Bedrock outcrop  
(Includes areas in which bedrock is partly  
covered by thin surficial deposits.)

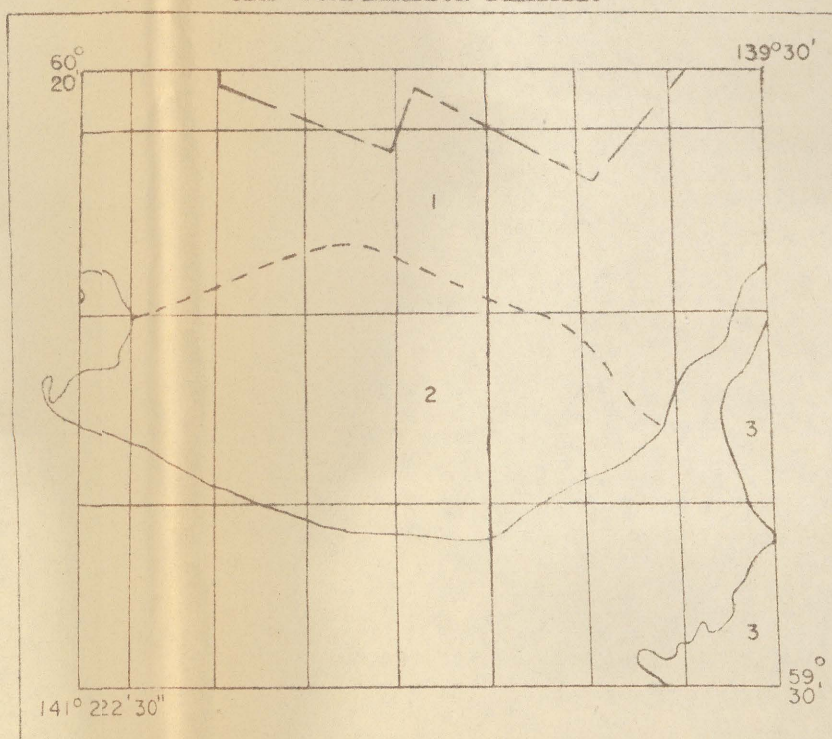
Maximum stand of glaciers  
during younger advance  
(Dashed where inferred; not shown where coin-  
cident with present front of the Malaspina  
Glacier.)

Maximum stand of glaciers  
during older advance  
(Dashed where inferred.)

Stream  
(Not shown in areas of bedrock outcrop.)

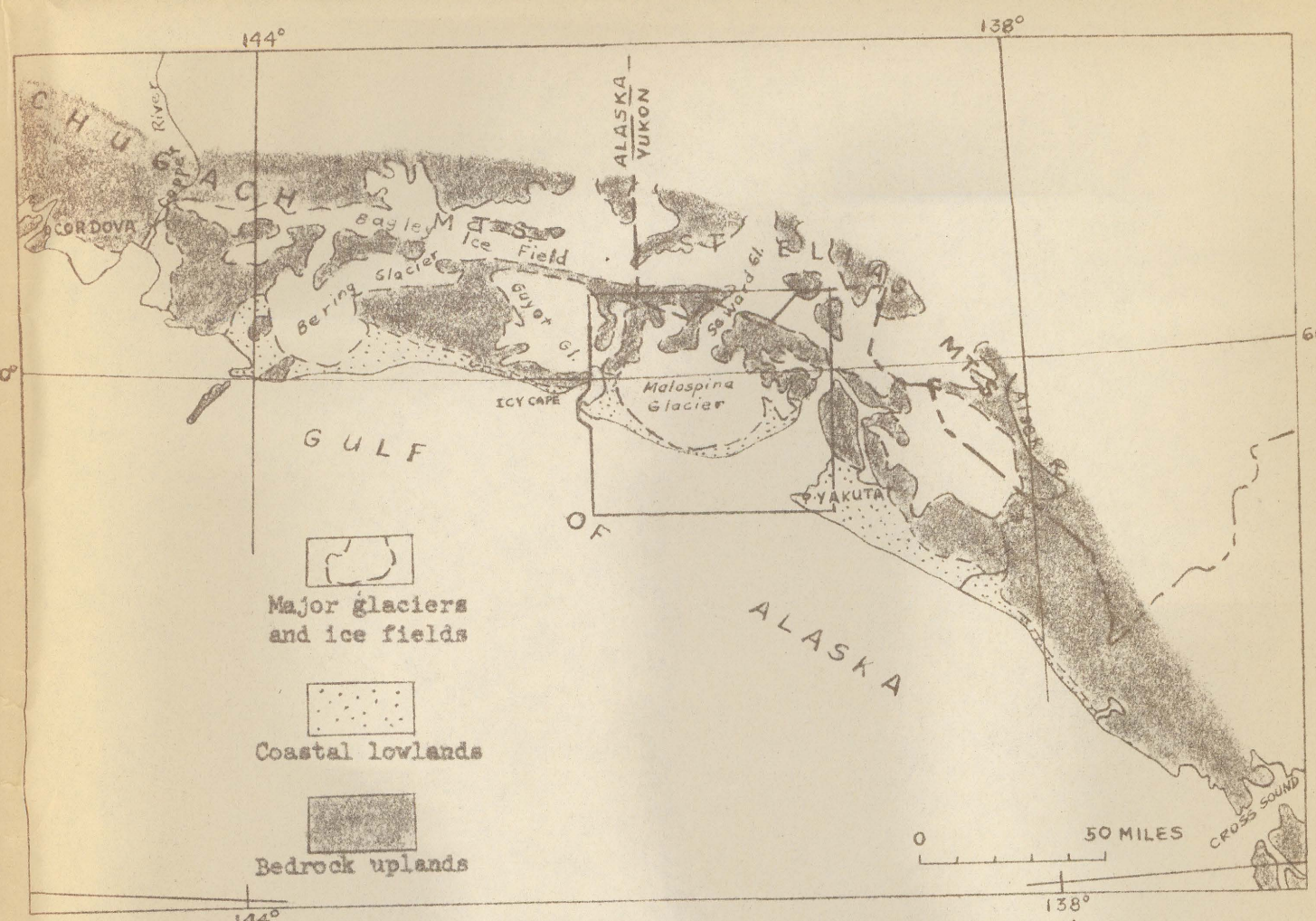
Pond or lake

## MAP COMPILED DIAGRAM



1. Base map and bedrock geology generalized from U. S. Geological Survey Oil and Gas Inv. Map, OM-189. Glacial features and surficial deposits compiled by George Plafker from vertical aerial photographs taken in 1948. Detail transferred by stereoplotting method.
2. Base map, glacial features, and surficial deposits compiled by George Plafker from vertical aerial photographs taken in 1948. Control by radial line method, detail transferred by stereoplotting method.
3. Base map and bedrock geology from U. S. Geological Survey Oil and Gas Inv. Map, OM-189. Surficial deposits mapped by Don J. Miller from uncontrolled vertical aerial photographs taken in 1948.

Hydrography compiled from U. S. Coast and Geodetic Survey Charts.



Index map of the northeastern Gulf of Alaska region showing the geographic setting of the Malaspina district

PLEASE REPLACE IN POCKET  
IN BACK OF BOUND VOLUME

