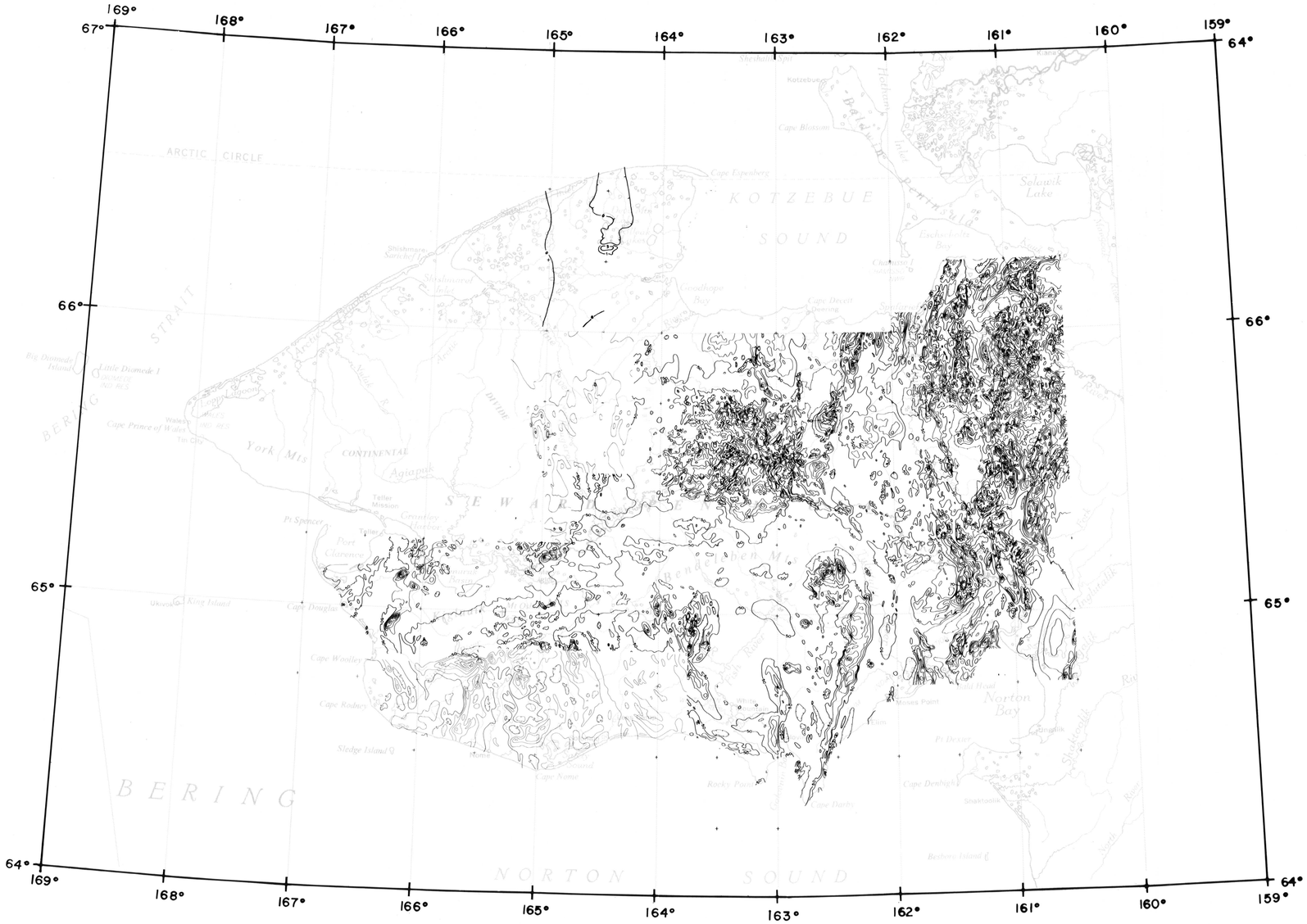
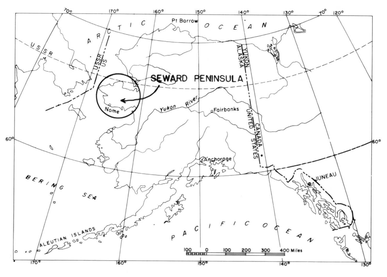
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT
77-796E





LOCATION OF SEWARD PENINSULA, ALASKA

Base map from the National Atlas of the United States of America, U.S. Geological Survey, 1970.

SCALE 1:1 000 000

25 0 25 50 75 100 MILES

25 0 25 50 75 100 KILOMETERS

PRELIMINARY AEROMAGNETIC MAP OF SEWARD PENINSULA, ALASKA

compiled by

John Decker and Susan Karl

1977

SOURCES AND EXPLANATION OF DATA

1. Cramer, C.H., Grantz, Arthur, and Hanna, W.F., 197_, Marine magnetic anomaly map of the Alaskan continental shelf in the Chukchi and Beaufort Seas: U.S. Geol. Survey report (in preparation), scale 1:1,000,000, contour interval 20 gammas.

   Contour interval: 100 gammas; numbers are hundreds of gammas.
   Datum: arbitrary, IGRF removed (1965).
   Data from the following sources:
   Andreasen, G.E., 1960, Total intensity aeromagnetic profiles of Cape Espenberg, Alaska: U.S. Geol. Survey open-file report 60-5, scale 1:63,360, 8 north-south profiles, flight elevation 500 feet above ground level, flown in 1958.
   U.S. Geological Survey, 1969, Airborne geophysical surveys in Seward Peninsula area, Alaska: U.S. Geol. Survey open-file report 69-294, scale 1:63,360, 2 north-south profiles, flight elevation 500 feet above ground level, flown in 1968.

2. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, southwestern part of Selawik quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 1, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

3. U.S. Geological Survey, 1969, Airborne geophysical surveys in Seward Peninsula area, Alaska: U.S. Geol. Survey open-file report 69-294, scale 1:63,360, contour interval 20 gammas.
   <u>also see</u>: Cady, John W., and Hummel, C.L., 1976, Magnetic studies of selected geologic and aeromagnetic features in southwest Seward Peninsula, west-central Alaska: U.S. Geol. Survey open-file report 76-425, scale 1:125,000, contour interval 20 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Datum: arbitrary.
   Flight line spacing and direction: 1 mile east-west.
   Flight elevation: 2500 feet above sea level (1000-2000) feet above ground level).
   Year flown: 1968.

4. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, southeastern part of Teller quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 2, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

5. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, Bendeleben quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 3, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

6. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, west half of Candle quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 4, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

7. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, northeastern part of Nome quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 5, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

8. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, northern part of Solomon quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 6, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

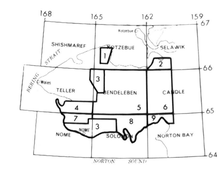
9. Alaska Division of Geological and Geophysical Surveys, 1973, Aeromagnetic map, northwestern part of Norton Bay quadrangle, Alaska: Alaska Div. Geol. and Geophys. Surveys open-file report 7, scale 1:250,000, contour interval 10 gammas.

   Contour interval: 100 gammas; heavy numbered contours are 500 gammas; numbers are hundreds of gammas.
   Relative datum: 5000 gammas = zero datum, IGRF removed.
   Flight line spacing and direction: 3/4 mile east-west with 15 mile north-south tie lines.
   Flight elevation: 1000 feet above ground level.
   Type of magnetometer: fluxgate.
   Year flown: 1971.

ACKNOWLEDGMENTS

This map was compiled under the direction of J.E. Case and Andrew Griscom, U.S. Geological Survey.

This map is a compilation of the available aeromagnetic data from Seward Peninsula, Alaska; no attempt has been made to establish a common datum or to resolve boundary differences between adjacent surveys. The map is intended to show large scale magnetic anomaly patterns and to aid in regional geologic interpretations. Anyone interested in the detailed magnetic data for a particular area is referred to the original data.



INDEX MAP SHOWING SOURCES OF AEROMAGNETIC DATA

MAP SYMBOLS

Magnetic contours, numbers are gammas x 100.

Hatchered contours indicate magnetic lows.

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.