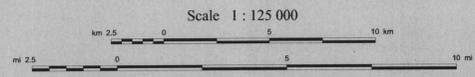


Base modified from U.S. Geological Survey 1:250,000 Series Marshall (1964), Russian Mission (1980), Baird Inlet (1980) and Bethel (1980).

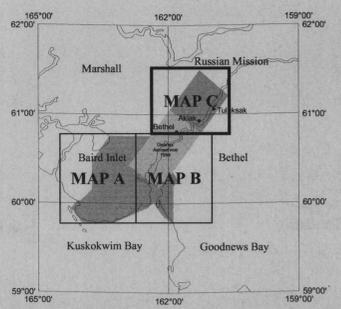


## MAP C

### TOTAL FIELD MAGNETICS OF THE SOUTHEASTERN BETHEL BASIN, ALASKA

### FLIGHT LINES

#### LOCATION INDEX



#### SURVEY HISTORY

This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys, and Sander Geophysics Limited. The airborne magnetic data were acquired by Sander Geophysics Limited in October, 1996 and merged with data acquired by Geonex Aeroservice in August, 1994. This and other products from this survey are available from the Alaska Division of Geological & Geophysical Surveys, 794 University Ave., Suite 200, Fairbanks, Alaska, 99709.

#### DESCRIPTIVE NOTES

The aeromagnetic data were acquired using a Scintrex CS-2 cesium vapor magnetometer and an RMS AADC-4 Mk II automatic compensator installed in a Beechcraft Queenair fixed wing aircraft. In addition, the Sander ABAT digital acquisition system recorded data from both radar and barometric altimeters, from the GPS navigation/positioning system and a video camera. Differential post-processing of the GPS data resulted in a relative positional accuracy of 10 meters or better.

Surveyed	October 1996
Average Sensor Elevation	328 feet above terrain
Clarke 1866 Spheroid	UTM Projection Zone 4
Datum	NAD27
Inclination at 60°30'N, 164°00'W	71.6° North
Declination at 60°30'N, 164°00'W	16.1° East
Inclination at 60°30'N, 161°00'W	72.0° North
Declination at 60°30'N, 161°00'W	17.8° East
Intensity	54230 nT
Contour Interval	5, 20, 100 nT
Traverse Interval	0.5 mile
Tie Line Interval	5.0 miles

#### TOTAL FIELD MAGNETICS

The total field magnetic contours were produced using digitally recorded data from a Scintrex CS-2 cesium vapor magnetometer with a sampling interval of 0.1 seconds. The magnetic data were (1) corrected for diurnal variations by subtraction of the digitally recorded base station magnetic data, (2) corrected for regional variation by subtracting the IGRF 1990 updated to October 1996 and adding a bias of 54230 nT, (3) leveled to the tie line data, and (4) interpolated onto a regular 100 m grid.