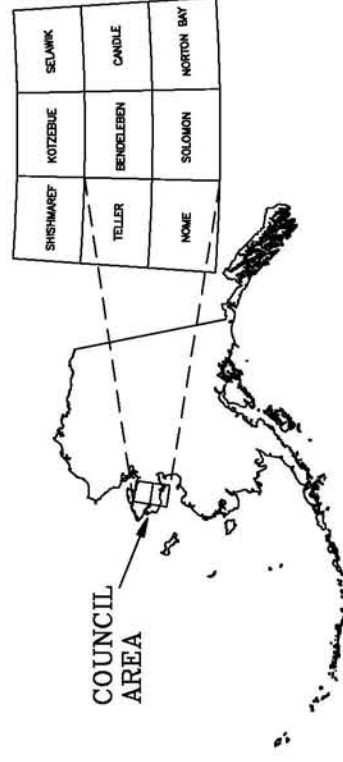


Base from U.S. Geological Survey, Solomon D-4, 1973, Quadrangle, Alaska.



DESCRIPTIVE NOTES

The geophysical data were acquired with a DIGHEM[®] Electromagnetic (EM) system and a Scintrex cesium gravimeter. The DIGHEM system consists of a 50-foot vertical coil pair, a 50-foot horizontal coil pair, a radar altimeter, GPS navigation system, 50/60 Hz monitors and video camera. Flights were performed with an AS350B-2 helicopter at a mean terrain elevation of 2000 feet. The flight track was a grid of survey flight lines with a spacing of a quarter of a mile. The lines were flown perpendicular to the flight lines at intervals of approximately 3 miles. An Ashtech GG24 NAVSTAR / GLOPASS Global Positioning System was used for navigation. The helicopter position was derived every 0.5 seconds using post-flight differential positioning to a base station located at the Council Area. The positions were projected onto the Clarke 1866 (UTM zone 3) spheroid, 1927 North American datum using a central meridian (CM) of 165° 5' north of the prime meridian. The accuracy of the data is better than 10 m with respect to the UTM grid.

ELECTROMAGNETICS

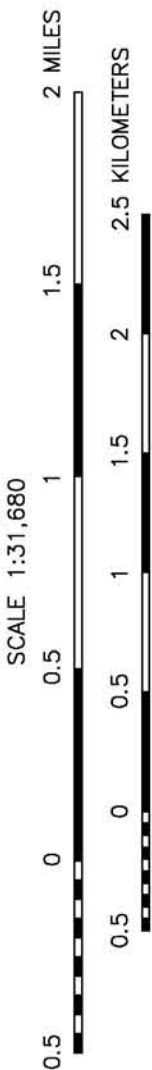
To determine the location of EM anomalies or their boundaries, the DIGHEM EM system measured inphase and quadrature components at five frequencies. Two vertical coil-pair systems operated at 1000 and 5500 Hz with 1000 Hz EM data were sampled at 0.1 second intervals. The EM system responds to bedrock conductors, conductive overburden, and cultural sources. The type of conductor is indicated on the aeromagnetic map. The determination of the type of conductor is based on EM anomaly shapes of the coaxial- and coplanar-coil responses, together with conductor and magnetic patterns and topography. The power line monitor and the flight track video were examined to locate cultural sources.

ELECTROMAGNETIC ANOMALIES

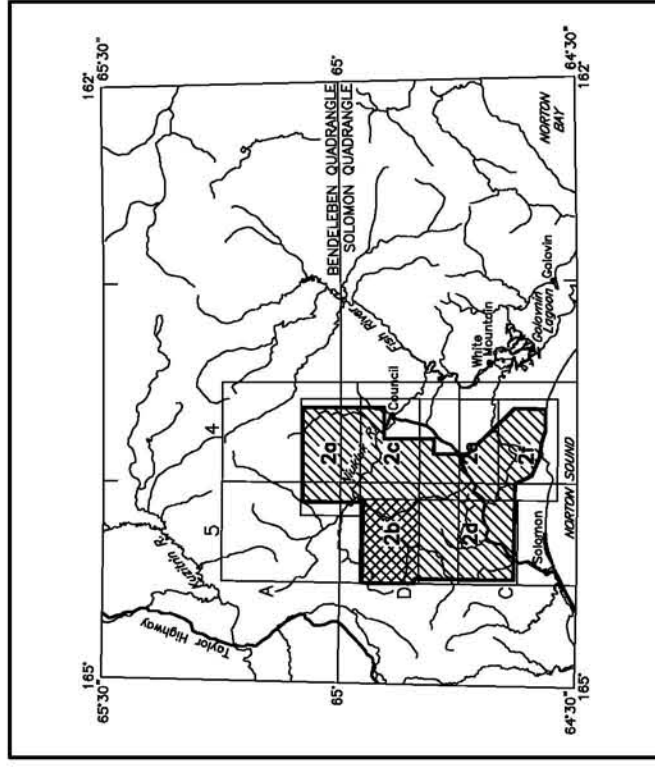
Anomaly	Conductance	Interpretive symbol
●	>100 siemens	B
●	50-100 siemens	D
●	20-50 siemens	S
●	10-20 siemens	H
●	5-10 siemens	E
○	1-5 siemens	L
○	<1 siemens	
*	Questionable anomaly	
△	EM magnetic response	

Interpretive symbol	Interpretive symbol
●	Depth is greater than 15 m
○	Depth is 30 m
○	Depth is 45 m
○	Depth is 60 m
○	Inphase and quadrature correlation is greater than 0.9
○ 10 ppm
○ 15 ppm
○ 20 ppm

MAGNETIC CONTOUR INTERVAL	MAGNETIC CONTOUR INTERVAL
..... 250 nT 250 nT
..... 50 nT 50 nT
..... 10 nT 10 nT
..... 5 nT 5 nT
..... magnetic low magnetic low
..... magnetic high magnetic high



LOCATION INDEX FOR SCALE 1:31,680



TOTAL MAGNETIC FIELD AND DETAILED ELECTROMAGNETIC ANOMALIES OF THE COUNCIL AREA, SEWARD PENINSULA, ALASKA

PART OF SOLOMON D-5 QUADRANGLE 2003

SURVEY HISTORY

This map has been compiled and drawn under contract by the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys (DGGGS), and Stevens Exploration Management Corp. Airborne geophysical data for the area were acquired and processed by Fugro Airborne Surveys in 2002. Laurel Burns was the contract manager for DGGGS.

This map and other products from this survey are available by mail order or in person from DGGGS, 794 University Ave., Suite 200, Fairbanks, Alaska, 99709.

TOTAL MAGNETIC FIELD

The total magnetic field data were acquired with a sampling interval of 0.1 seconds, and were (1) corrected for diurnal variations by subtraction of the digitally recorded base station magnetic data, (2) leveled to the tie line data, and (3) interpolated to a 100 m grid. The regional variation (or IGRF (1970) technique). The regional variation (or IGRF gradient, 2000, updated to August, 2002) was removed from the leveled magnetic data.

Aloma, H., 1970. A new method of interpolation and smooth curve fitting based on local procedures. *Journal of the Association of Computing Machinery*, v. 17, no. 4, p. 589-602.