

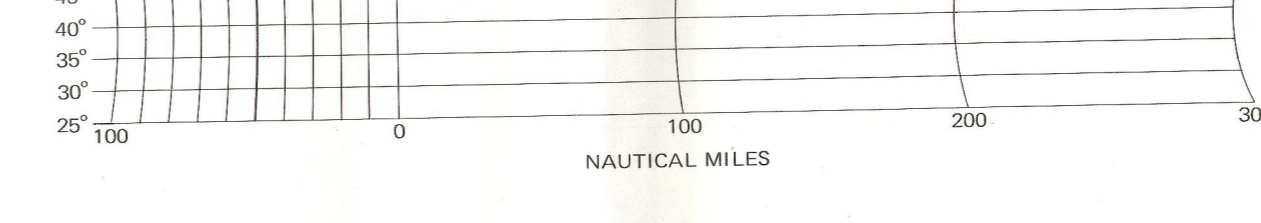
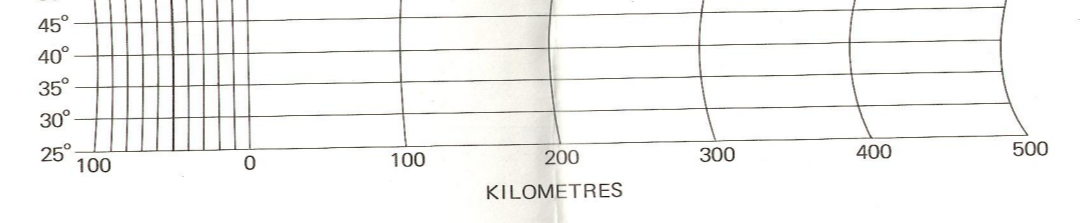
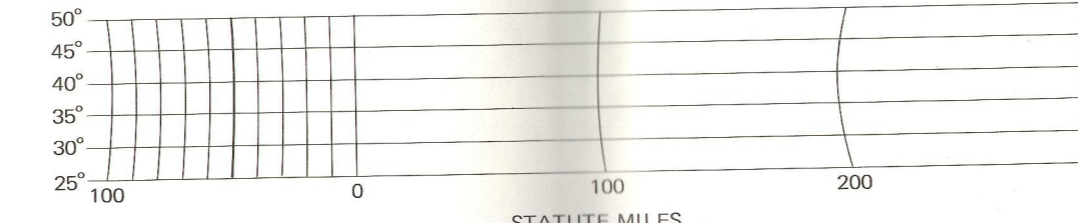
Prepared in cooperation with the  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY



The north end of the compass needle is usually considered the area of magnetic annual change and westward over the area of westward annual change in an annual rate indicated by the isogonic lines, the lines of equal annual change. These lines were derived from a least squares analysis of the rates of change measured at regional magnetic observatories (A) and at more than 100 magnetic repeat stations occupied through the 1974 field season. Single observations (B) at repeat stations (A) were used.

Isogonic lines over the Canadian border were computed with preliminary information supplied by the Department of Energy, Mines and Resources, Ottawa, Canada, and where practical appropriate adjustments were made. Solid lines indicate magnetic change; dashed lines westward change.



### MAGNETIC DECLINATION IN THE UNITED STATES—EPOCH 1975.0

By  
Eugene B. Fabiano

UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.

Magnetic declination data (solid contour lines) as of the beginning of 1975 is shown by means of isogonic lines, which are defined as lines of equal declination and which were derived by an isogonic analysis. The lines are solid in the area where 10 points per inch east of true north and dashed in the area where 10 points west of true north.

To avoid major discontinuities near map borders, the isogonic lines have been compared with the lines of the World Chart of Magnetic Variation, Epoch 1975.0, published by the U.S. Naval Hydrographic Office in collaboration with the U.S. Geological Survey. Near the Canadian border, comparisons were made with preliminary magnetic maps of the Canadian charts for 1975. Over the land area of the United States, the lines exhibit somewhat greater detail than those on the world charts; they are, however, drawn to show a reasonably smooth distribution.

Isolated data numbers represent observed measured values.

Source: Geological Survey, Bulletin, No. 1179  
Editions prior to 1975 published as Chart 2077 by the Coast and Geodetic Survey, Environmental Science Services Administration, U.S. Department of Commerce

GL01413 doc 33

For sale by U.S. Geological Survey, Fort Belknap, Alaska 99701  
Denver, Colo. 80225 or Reston, Va. 22092, price \$1.25