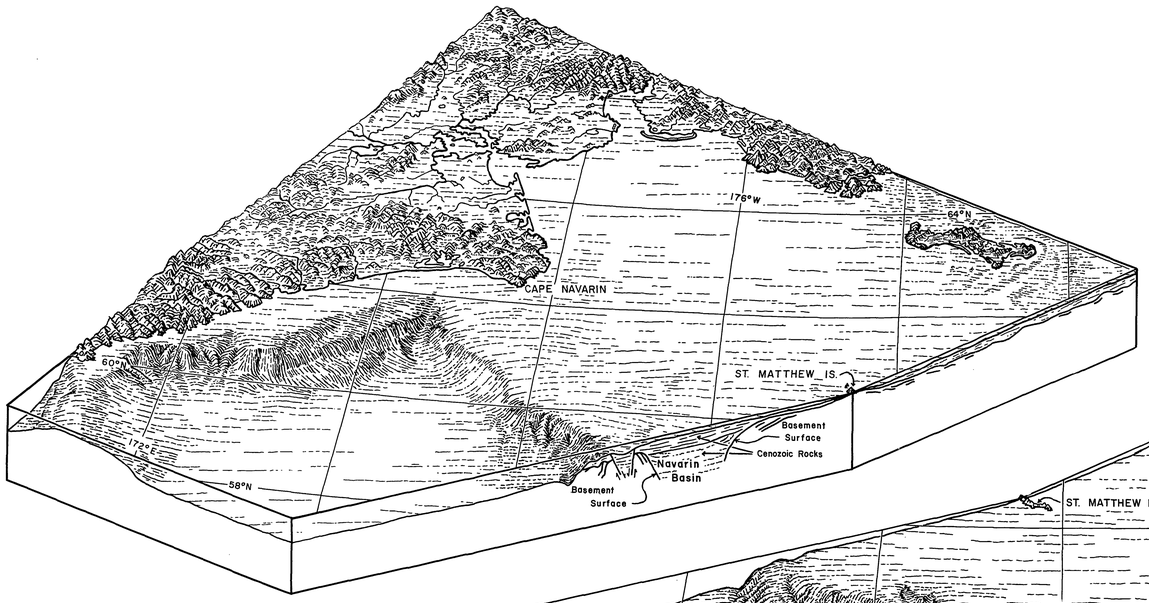
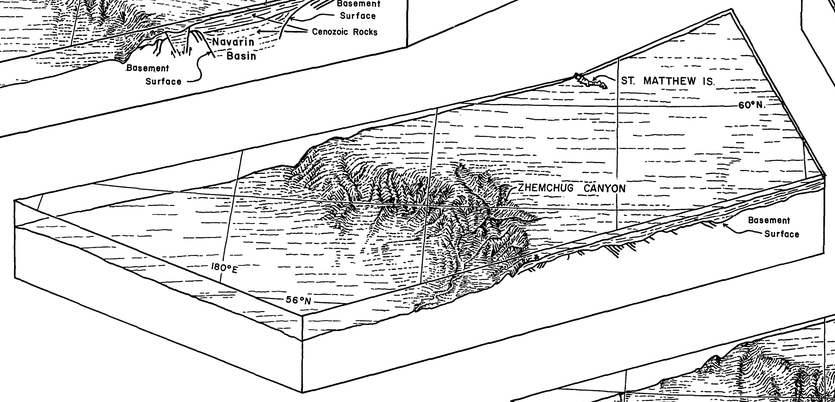
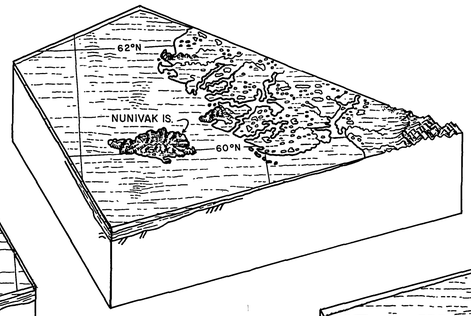
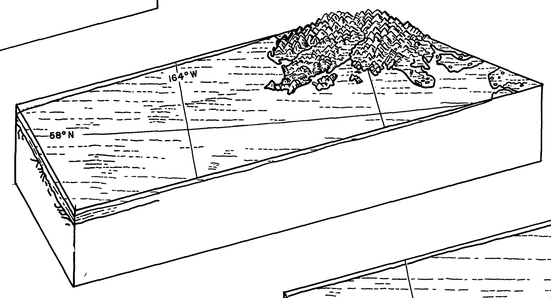
Department of the Interior
United States Geological Survey

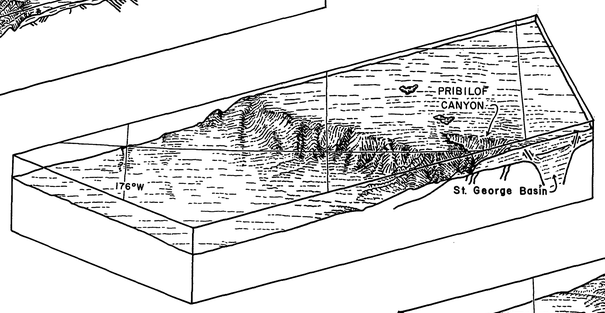
Open-file 75-1 Map
Sheet 2

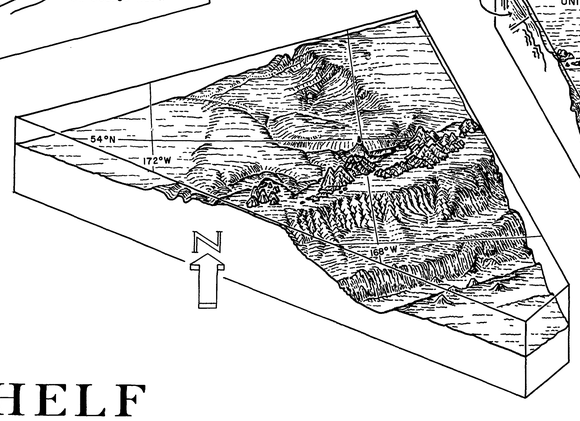


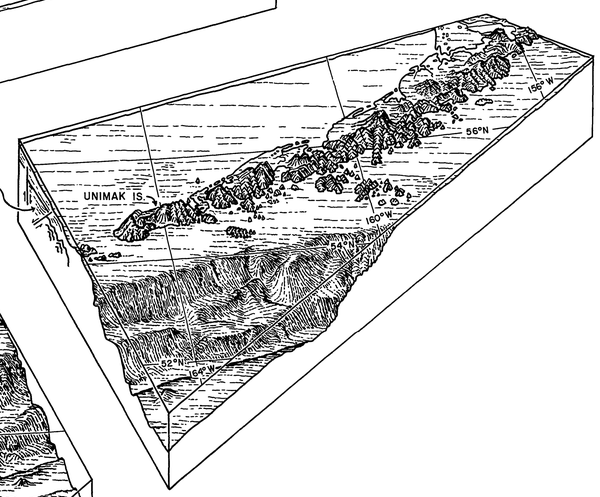


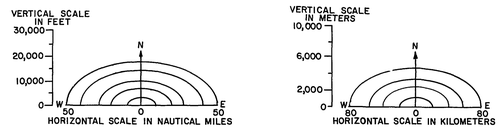




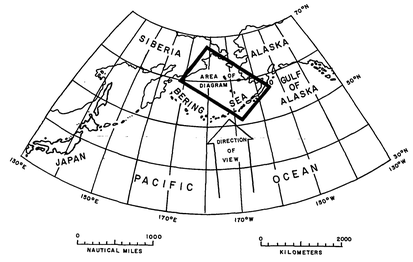








SCALE
VERTICAL EXAGGERATION 10:1



INDEX MAP

C. Cutaway of Physiography and subsurface sedimentary and basement sections.

Sheet 2

BERING SEA SHELF
ALASKA

by
M.S. Marlow, T.R. Alpha, D.W. Scholl and E.C. Buffington

1975

EXPLANATION

The indicated relief of basement rock (Sheet 1) mostly of pre-Tertiary age is based on a structure contour map of the Bering shelf (Marlow and others, in prep.) Approximately 23,400 km of seismic reflection lines were used to prepare this map. Travel times were converted to thickness using the velocity information of Houtz and others (1970), Ludwig and others (1971), and Hamilton and others (1974). The basement surface traced by the structure contours (Sheet 1) is the acoustic basement on reflection records. Over most of the shelf the acoustic basement is thought to be the surface of deformed rocks of Late Cretaceous and older age (Sheet 2; Scholl and others, 1968; Hopkins and others, 1969). Beneath the deeper parts of the basins underlying the outer shelf, e.g. Navarin and St. George, the acoustic basement is not clearly defined and the structure contours are only approximate guides to the surface of pre-Tertiary rocks. The folds within the basement rock shown on the cutaway drawing (Sheet 2) are diagrammatic representations. These drawings also show that the overlying sedimentary section includes a divergence in dip between older and younger Cenozoic beds. A regional unconformity, perhaps of Miocene age, may be implied by the divergence. Datum is sea level, structure contours are in meters.

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