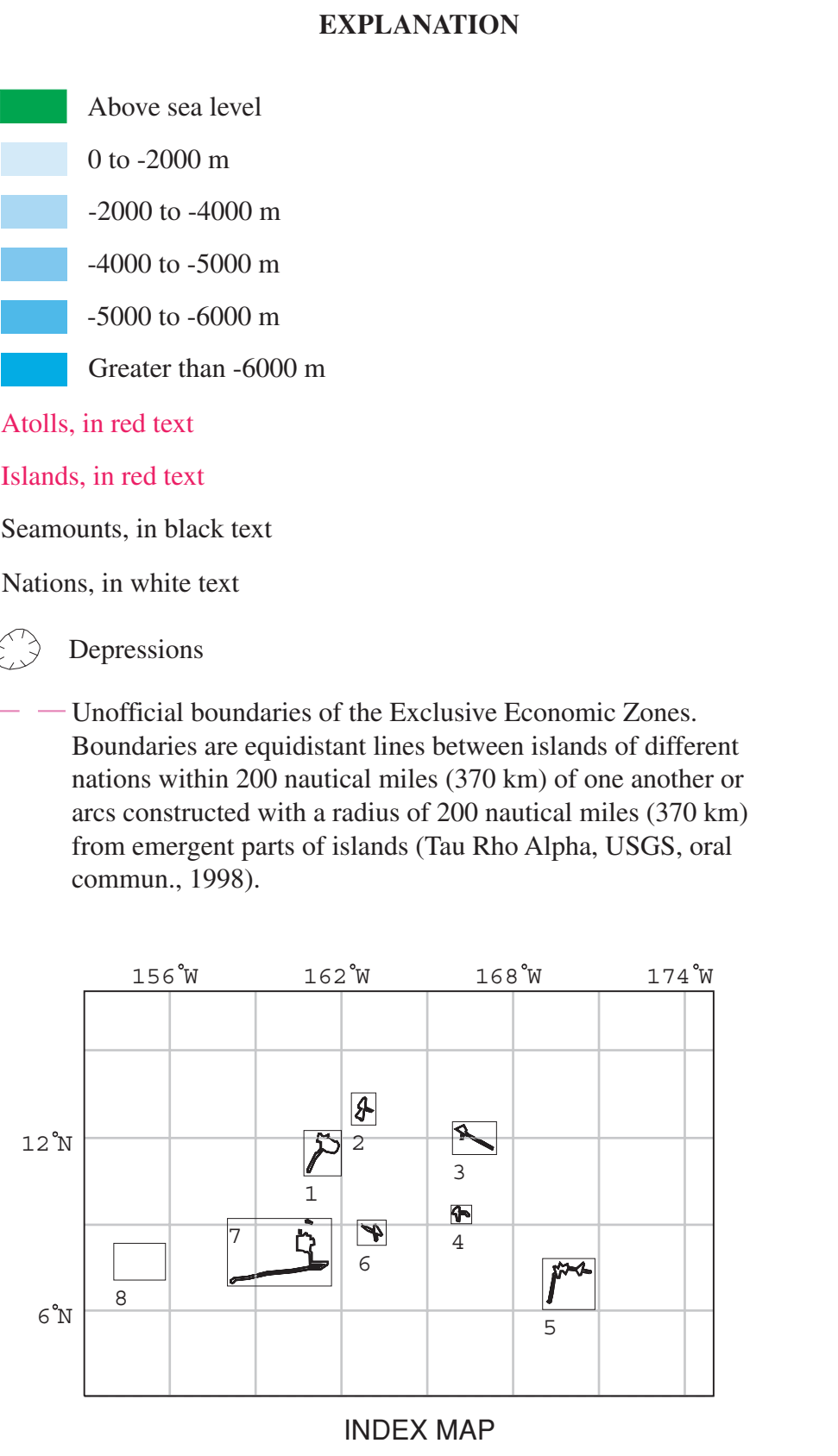




The index map is labeled with the sources of data keyed to the following numbers:

- 1, 2, 3, 5, 6: USGS-KORDI 1989 survey F-10-89-CP (digitized 1998), Hein and others (1990)
1, 4, 7: KORDI-USGS 1997 survey KODOS 97-4, Hein and others (in press)
1, 7: KORDI-USGS 1998 survey KODOS 98-3, Hein and others (in press)
8: Chase and others (1984) coastline

Remainder of coastline from GMT (Wessel and Smith, 1995)
Remainder of bathymetric data from Smith and Sandwell (1997)

DISCUSSION

This bathymetric map of the Republic of the Marshall Islands was constructed from (1) unpublished data collected during recent surveys conducted by the U.S. Geological Survey (USGS) and the Korean Ocean Research Development Institute (J.W. Moon and K.Y. Lee; Hein and others, in press), (2) the two-minute gridded satellite altimetry data from Smith and Sandwell (1997), and (3) coastline data from the Generic Mapping Tools (GMT) software (Wessel and Smith, 1995) and Chase and others (1984).

These data sets were merged by the following method. The new USGS-KORDI survey data were desampled to a 250-m spacing. A buffer zone 4500 m to either side of the new data was used to mask out the underlying two-minute data. The resulting data sets were combined to construct a surface according to the triangular irregular network (TIN) model supported by ArcInfo. The data were gridded on 1000-m grid cells with a smoothing (quintic) option. Contours were extracted at 200-m intervals.

The spellings of island, atoll, and seamount names follow the recommendation of the Republic of the Marshall Islands government and are consistent with those in the Marshallese-English dictionary, including the diacritical marks (Abo and others, 1976). We were provided a list of names for the seamounts by Alfred Capelle (Alele Museum and National Archives, now located at the College of the Marshall Islands), who solicited those traditional names from village leaders from the various islands. We applied the appropriate names to seamounts located within specifically defined sectors adjacent to the various atolls and islands. The names are primarily from Marshallese legends and the meaning of each is provided by Hein and others (1990).

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AREA OF MAP

Base from Smith and Sandwell, 1997

Mercator Projection, Central Meridian 165°,
Standard Parallel 10°, WGS84

NOTE: THIS MAP IS NOT INTENDED FOR NAVIGATION

SCALE 1:2,000,000
(1 inch represents 31.57 miles)

0 50 100 STATUTE MILES
BATHYMETRIC CONTOUR INTERVAL 200 METERS

BATHYMETRY OF THE REPUBLIC OF THE MARSHALL ISLANDS AND VICINITY

By

James R. Hein, Florence L. Wong, and Dan L. Mosier

1999

ISBN 0-607-92671-

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