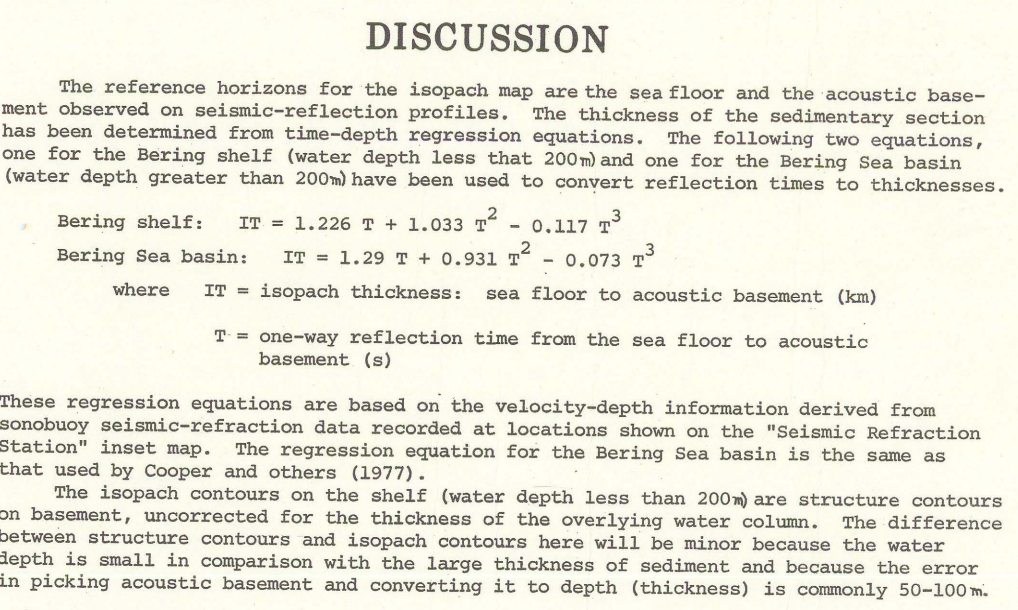




**Acoustic basement:** The deepest coherent reflecting horizon that can be identified on the vertical-soundings, semi-reflection profiles, the logs and composite sections. It is the base of the sedimentary sequence.

The rocks that are frequently below the Acoustic basement are:

| Age                  | Fracture velocity | Age                   | Rock type                   | Inference                                         |
|----------------------|-------------------|-----------------------|-----------------------------|---------------------------------------------------|
| Lower Berling (Chel) | 4.2 to 5.5 km/s   | Mesozoic              | Evaporitic/sedimentary      | Marlow and others 1978<br>Repsher and others 1969 |
| Lower Berling (Chel) | -                 | Mesozoic and Tertiary | Basaltic igneous            | Marlow and others 1978<br>Farnon and others 1976  |
| Basal Berling        | 4.0 to 6.0 km/s   | Mesozoic              | Osmotic                     | Cosper and others 1973<br>Cooper and others 1976  |
| Basal Berling        | 3.2 to 5.1 km/s   | Early Tertiary        | Altered igneous or volcanic | Hobell and others 1975                            |

The boundary between the lower and older crustal lies along the lowermost edge of the Acoustic basement.

**Sedimentary Section - Hering shell and spong**

The sedimentary section, defined by the leopards corners, includes various shellular rocks that may range in age from late Mesozoic(?) to Holocene (Rocks and strata, 1976, 1979). The only information on age and lithology of the offshore rocks is from a sample collected from the Heringsburg section. The oldest rocks recovered along the margin, from above the acrotic basal zone, are Eocene. The sedimentary section is composed of a variety of sedimentary rocks. Within the Laramy subunit, the sedimentary section is available. The Heringsburg section (about 1- to 2 m thick) that is strongly reflective and a dense sequence of rocks that are highly reflective and strongly reflective. The upper part probably consists of Heringsburg diatomaceous sandstone. The lower part is thought to be composed of locally derived, coarse clastic rocks that may be as old as Mesozoic (Rocks and strata, 1976).

**Sedimentary Section - Hering Sea Basin**

[illegible]

## REFERENCES

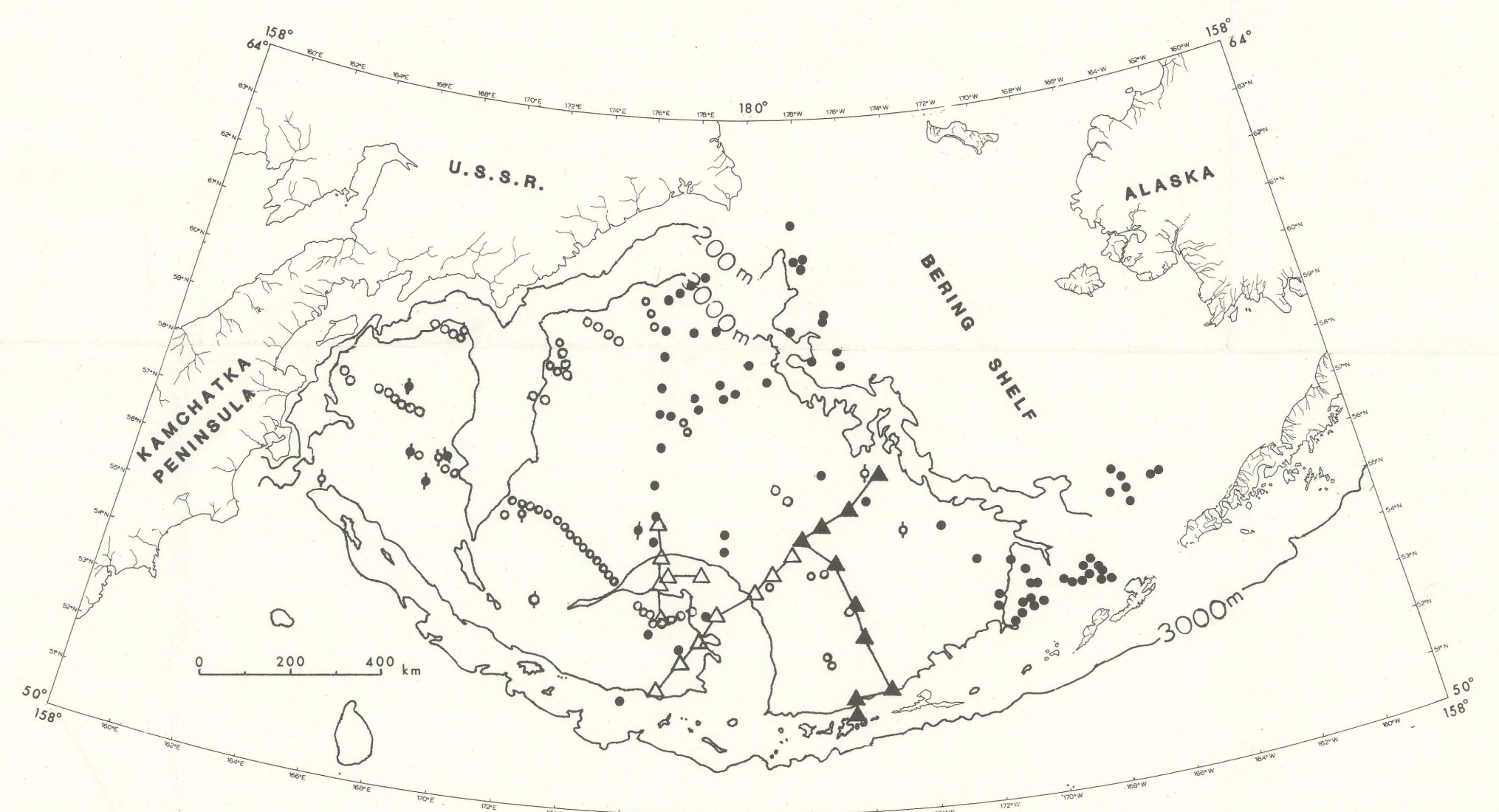
- [illegible]

EXPLANATION

- I ----- Isopach - Showing thickness of strata above  
 acoustic basement, in kilometers. Contour  
 interval 1 Km  
  
 Area of thicker strata  
 Area of thinner strata  
 ----- (m) ----- Bathymetric contour. Depth in meters

Bathymetric contours and shoreline from Schunacher 1976a, 197

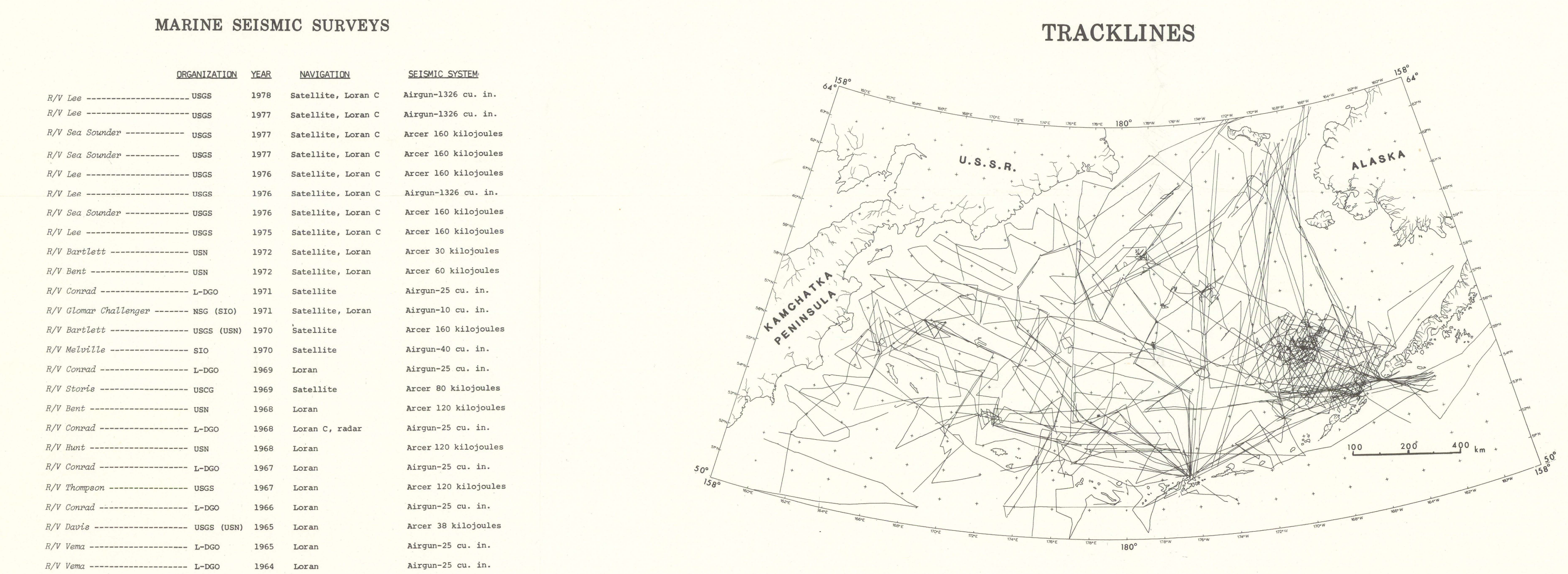
## SEISMIC REFRACTION STATIONS



TWO SHIP REFRACTION STATIONS

- |                           |                                                          |               |
|---------------------------|----------------------------------------------------------|---------------|
| ▲                         | Shaw (1964)                                              | SD            |
| ▲-△                       | Loebig and others (1971)                                 | 1-000         |
| <b>SONOBUJOY STATIONS</b> |                                                          |               |
| ◇                         | Hamilton and others (1974)                               | USA, USSR, SD |
| ●                         | Shen and Fucini (1974)                                   | SD            |
| ○                         | Rakimovite and Cooper (1977)<br>Loebig and others (1971) | 1-000         |
| ●                         | Childs and Cooper (1979)                                 | ESG           |

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## ISOPACH MAP OF STRATA ABOVE ACOUSTIC BASEMENT IN THE BERING SEA

by

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