

TRACKLINES OF MULTICHANNEL SEISMIC-REFLECTION DATA
COLLECTED BY THE U.S. GEOLOGICAL SURVEY
IN THE BEAUFORT AND CHUKCHI SEAS IN 1977
FOR WHICH PROFILES AND STACK TAPES ARE AVAILABLE

by
Arthur Grantz, Dennis M. Mann and Steven D. May

The U.S. Geological Survey (USGS) collected approximately 5700 km of 24-channel seismic reflection data from late August through early October, 1977, over the continental shelf, slope, and rise in the Beaufort Sea, and the continental shelf in the Chukchi Sea. The data were collected from the USGS Research Vessel Samuel P. Lee. The seismic energy source consisted of a tuned array of five airguns with a total volume of 1326 cubic inches of air compressed to approximately 1900 psi. The recording system consisted of a 24-meter, 24-group streamer and a GUS (Globe Universal Sciences) model 4200 digital recording instrument. Shots were fired every 50 meters and the group interval was 100 meters. A 2-millisecond sample rate was used in the field; the field data were later resampled to a 4-millisecond rate during the demultiplexing process. The survey was positioned by a Marconi integrated satellite-doppler sonar navigation system. Record lengths vary from 6 to 11 seconds, depending on water depth, in order to obtain data 6 to 7 seconds below the seafloor. Processing was done at the USGS Marine Geology Multichannel Seismic Data Processing Center in Menlo Park, California, in the sequences editing-demultiplexing, velocity analysis, stacking.

- The data are available in 2 formats:
1. Electrostatically plotted profiles which were deconvolved and filtered after stacking. Copies of the profiles may be purchased through National Geophysical and Solar-Terrestrial Data Center, National Oceanic and Atmospheric Administration, Boulder, Colorado 80302.
 2. Digital magnetic stack tapes. Copies of the stack tapes and a description of the tape format can be obtained at the requestor's expense by contacting:
Data Curator
Pacific-Arctic Branch of Marine Geology
U. S. Geological Survey
345 Middlefield Road
Menlo Park, California 94025

The stacking velocities used in the processing may also be obtained by contacting the Data Curator.

For those interested in complete reprocessing of the data, the demultiplexed field tapes (USGS Open-File Report 82-651) can also be obtained at the requestor's expense by contacting the Data Curator.

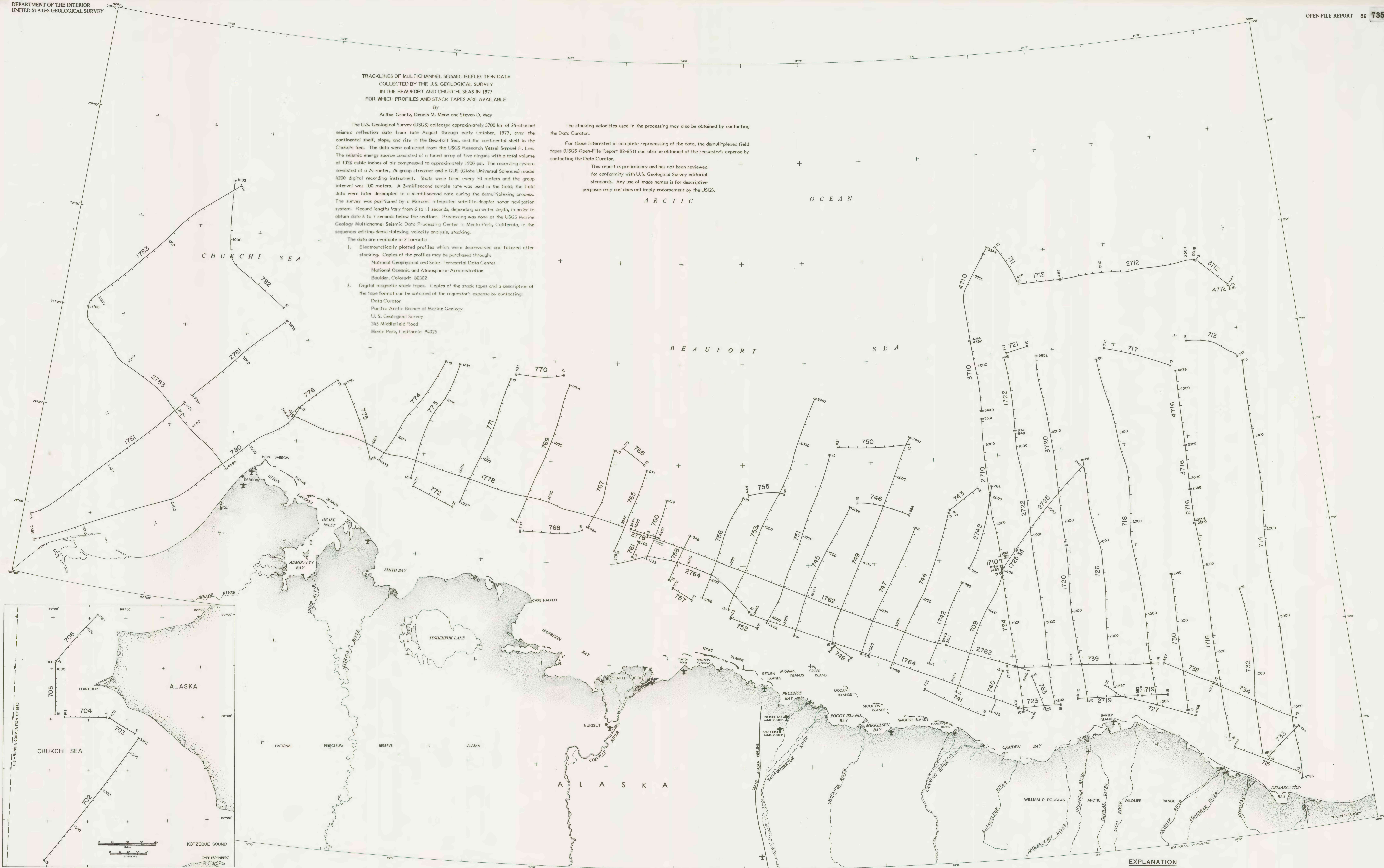
This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

ARCTIC

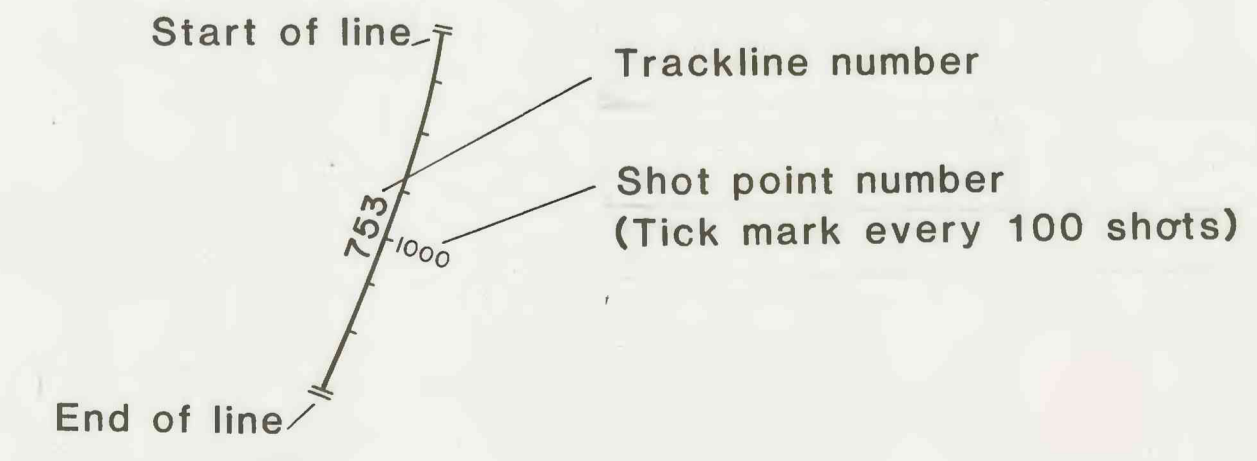
OCEAN

BEAUFORT

SEA



EXPLANATION



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