CRATON

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Profile CRATON

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Data summary

Location: Berezovo-Ust'-May (see map in Figure 1)
Acquired by Center GEON, 1978-1980
Profile length: approximately 3900 km
4 PNEs and 30 chemical explosions of 3000-5000 kg
Recording systems: Portable 3-component analogue systems TAIGA and CHEREPAKHA, 1-Hz sensors

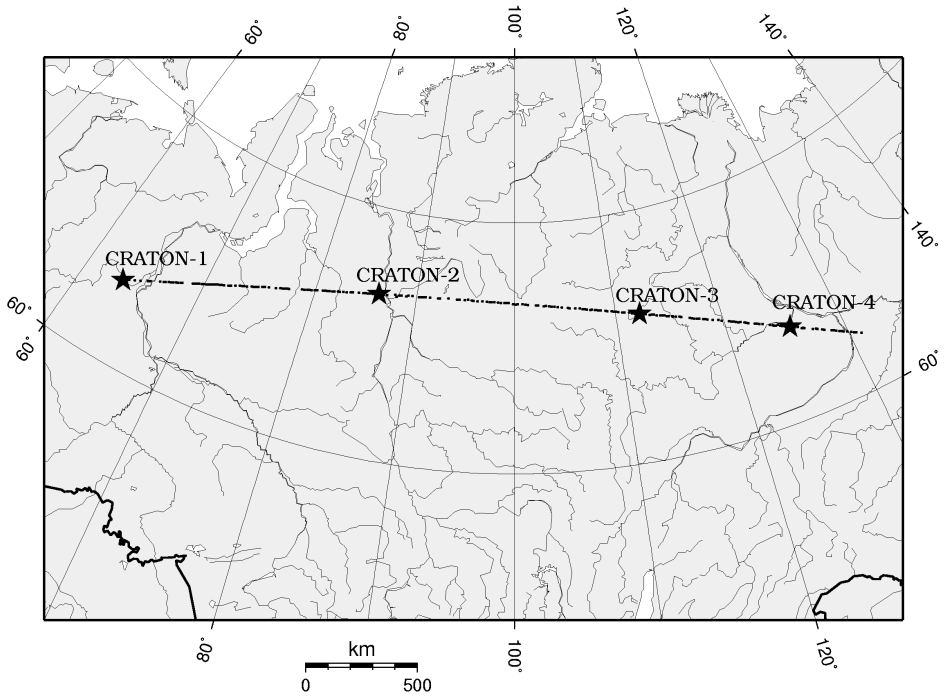

Figure 1 Location map of profile CRATON in Northern Asia. Stars indicate the PNEs, small triangles are 3-component recording sites.

Data format

Data format is identical to that of QUARTZ records delivered earlier. The data are provided in standard SEGY format using IBM floating point representation of data values. Geographic coordinates of shots and receivers (in degrees), and offsets (in meters) are loaded in data headers. Recording station numbers (numbering starting from the West, Figure 1) are loaded in SEGY headers as `CHANNEL, and the FFIDs` correspond to shot numbers. Each data file contains a single component of recordings from one shot. File names follow the following convention:

```
crat-<shot_number>-<component_index>.segy
```

where `shot_number` is the number of the PNE (1,2,3, or 4; Figure 1), and the `component_number` is `'v'` for the vertical (upward), `'r'` for radial (directed away from the shot), and `'t'` for the transverse (directed to the right when looking away from the shot point).

Selected recent publications using Craton records

The following list is incomplete and gives only the most recent publications.

Nielsen, L., H. Thybo, **I. B. Morozov**, S. B. Smithson, and L. Solodilov, Teleseismic *Pn* Arrivals: Influence of Mantle Velocity Gradient and Crustal Scattering, submitted to *Geophys. Res. Lett*.

Nielsen, L., and H. Thybo, Seismic tomoraphic inversion of Russian PNE data along profile Kraton, *Geophys. Res. Lett*., 26, 3413-3416, 1999.

Morozov, I. B., and Smithson, S. B., Coda of long-range arrivals from nuclear explosions, *BSSA*, 90, 929-939, 2000.