Supporting Online Material for

Singing Icebergs

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This PDF file includes:

Figs. S1 to S3

Other Supporting Online Material for this manuscript includes the following:
(available at www.sciencemag.org/cgi/content/full/310/5752/1299/DC1)

Audio S1

Supporting Online Material

The supplemental Audio file AudioS1 is the audified seismogram of the 22 July 2000 tremor. The tremor episode and its spectral features as described in the article are even more demonstrative by listening to corresponding audified seismograms. Audification was realized by time compression of the seismogram by a factor of 350.

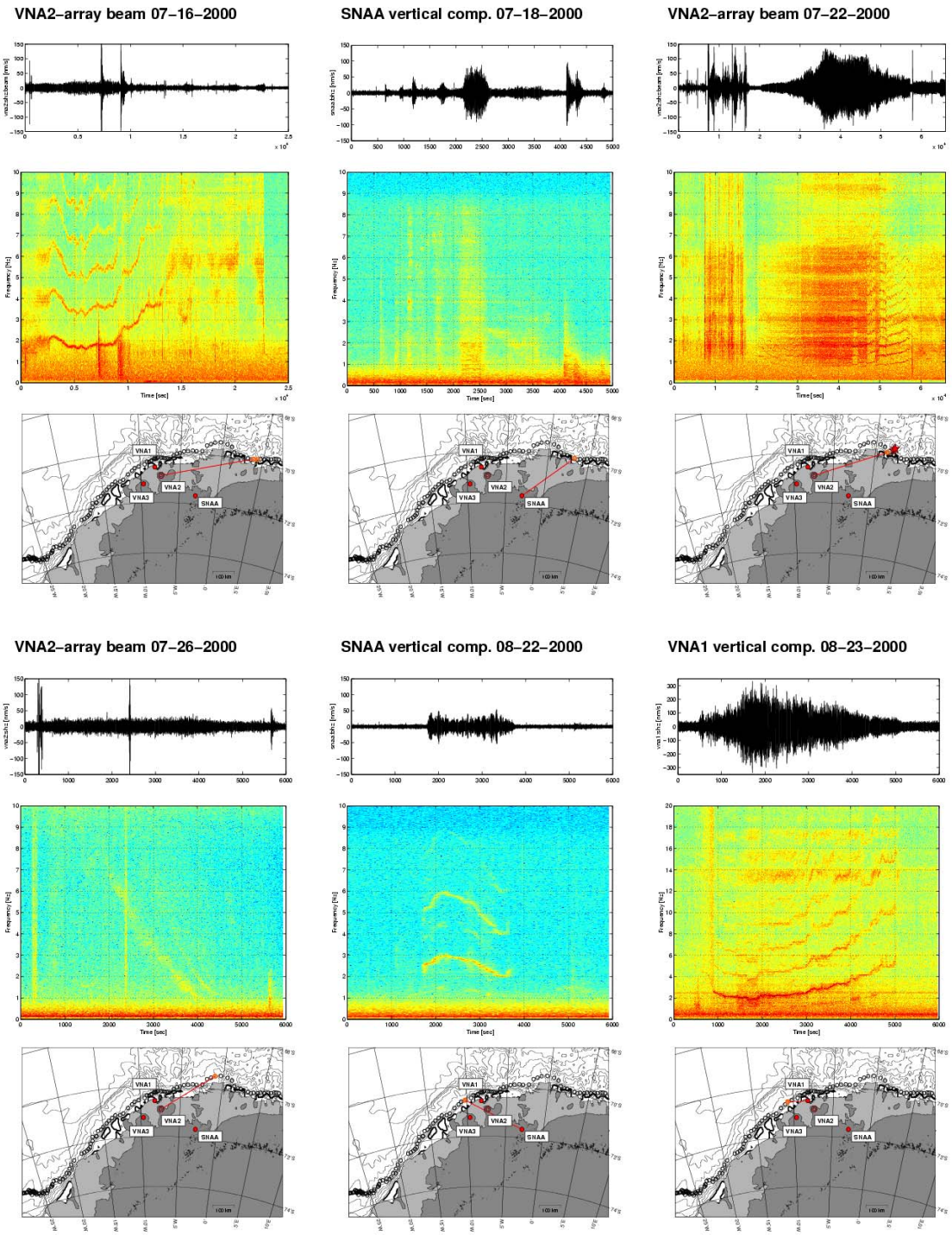

Fig. S1 Eleven examples of recordings of harmonic tremor from selected stations of the Neumayer Station seismological network. Shown are the vertical components or in case of VNA2 the array beams (top), corresponding spectrograms (middle), and map showing the position of the iceberg and recording station (bottom).

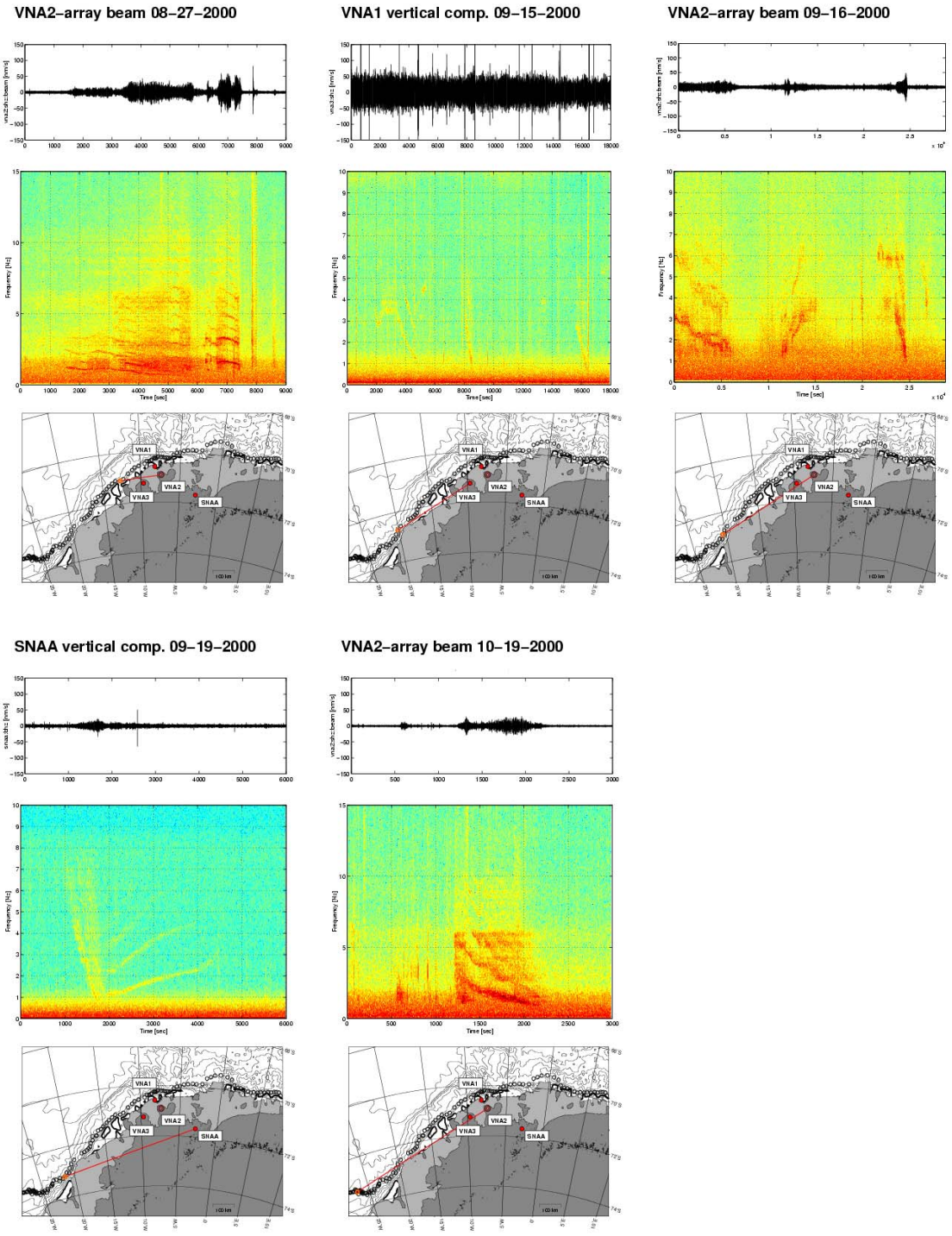

Fig. S1 Continued

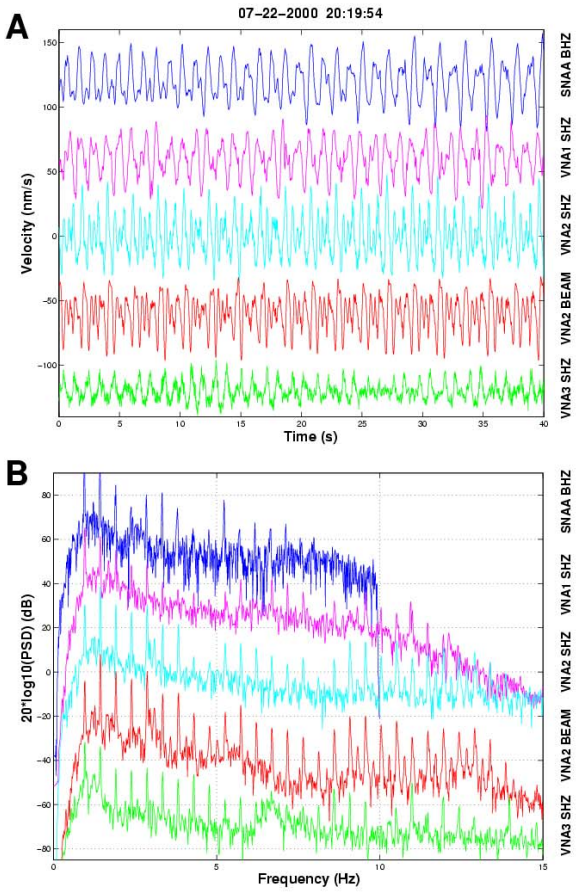

Fig. S2 Comparison of the seismograms and power spectral densities (PSD) for stations SNAA, VNA1, VNA2, VNA2 array beam, and VNA3 for tremor episode on 22 July 2000. Shown are 40 s time windows of vertical component records and corresponding power spectral densities. The PSD is dominated by nearly 30 sharp spectral peaks at 0.96 Hz, 1.44 Hz, 1.92 Hz, ... at intervals of 0.48 Hz. The spectral peaks occur at exactly the same frequencies at all four stations suggesting source rather than path or receiver site effects.

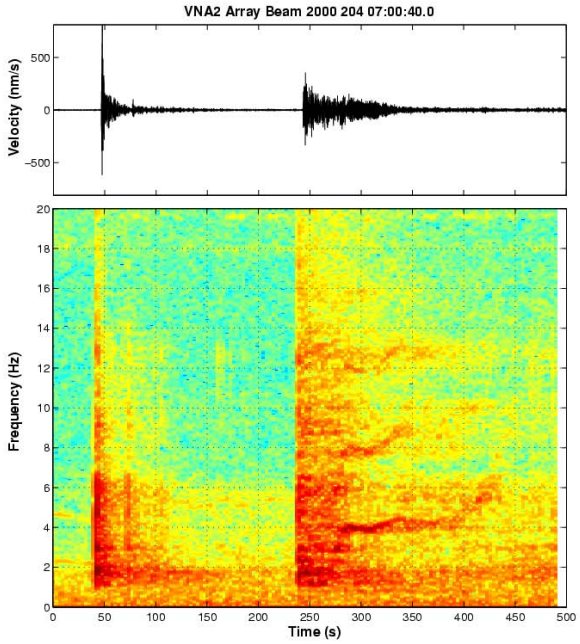

Fig. S3 VNA2 array beam of the two earthquakes preceding the 22 July tremor and their spectrograms. Both events originated by the collision of iceberg B-09A with the continental margin. The first appears as a normal tectonic event with clear P- and S-wave onsets, broad-band frequency content, and rapidly decaying coda. The second event however, following nearly three minutes later is characterised by lacking S-waves and slowly decay ing coda with spectral peaks at 4, 8, and 12 Hz. Here, also slight frequency gliding occurs. The slowly decaying coda and the spectral behaviour resemble volcanic 'tornillo'-type events.