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SS-precursors observed by NECESSArray: Lehman discontinuity beneath the northeastern Pacific ?

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We analyze SS-precursors from aftershocks of the 2010 Chilean (Mw 8.8) earthquake recorded by NECESSArray. Slant-stacked seismograms of 13 shallow events recorded by ~120 stations of NECESSArray show a strong signal above the 4-sigma noise level about 85 sec before the arrival of the parent SS-phase. This may be originated from the Lehman discontinuity located at a depth of ~200km, but the polarity may be reversed. While signals from 410km- and 660km-discontinuity are well resolved, no signal for the G-discontinuity deeper than 60km is observed. The G-discontinuity (or seismic LAB) beneath the bounce point of the SS-phase (northeastern Pacific) may be shallower than 60km or absent.