

[Earth and Space Science]

Supporting Information for

Vertical velocity of acoustic wave determined from altitudes of TEC disturbances after a foreshock of the 2011 Tohoku Earthquake

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Introduction

The supplementary material consists of Figure S1 and captions of Movies S1 to S3. One Hz GNSS data provided by the Geospatial Information Authority of Japan were used.

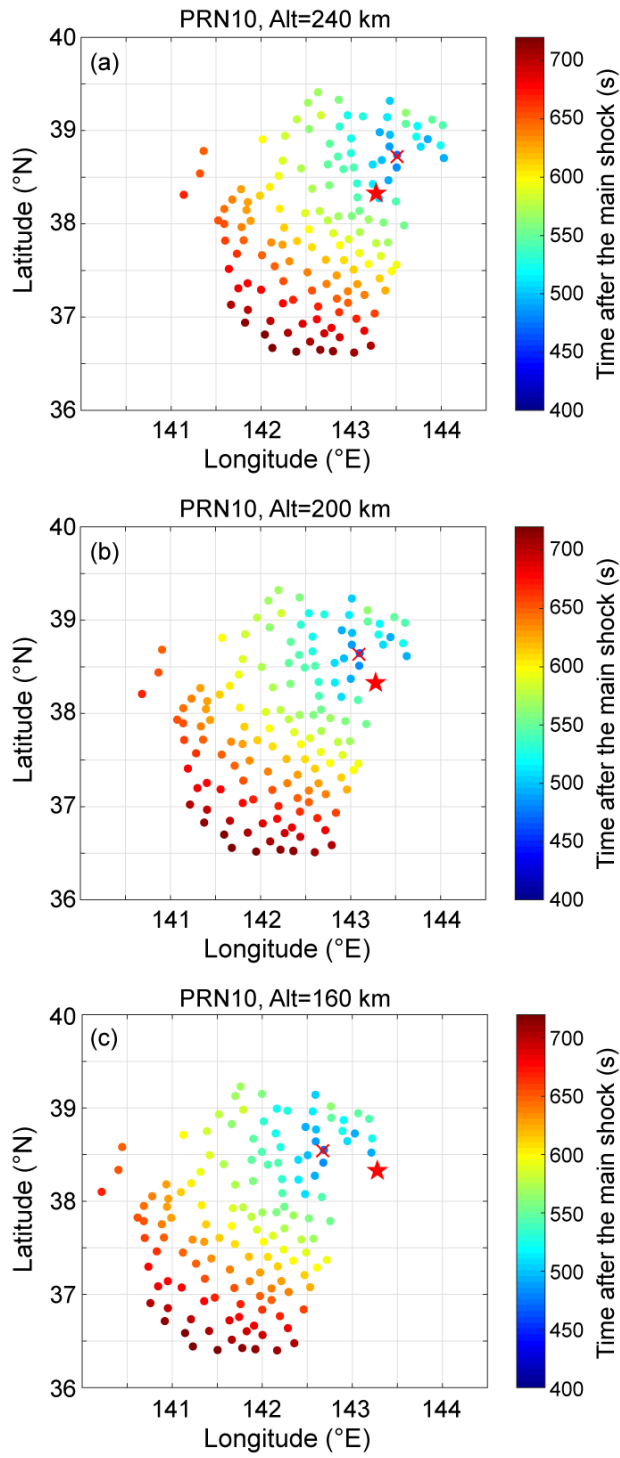


Figure S1. Spatial distribution of the arrival times of the acoustic wave observed by PRN10, where we take the assumed altitudes of (a) 240 km, (b) 200 km, and (c) 160 km. The red stars and the red crosses indicate the epicenters and the onset points at the assumed altitude, respectively.

Movie S1. Spatial distribution of the amplitude of the 10-180 s filtered TEC disturbance observed by PRN07. The assumed observed altitude is set at 155 km. A red star indicates the epicenter.

Movie S2. The same as Movie S1 but for PRN08 at 225 km.

Movie S3. The same as Movie S1 but for PRN10 at 235 km.