Geochemistry, Geophysics, Geosystems

Supporting Information for

Variation in Upper Plate Crustal and Lithospheric Mantle Structure in the Greater and Lesser Antilles from Ambient Noise Tomography

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Additional Supporting Information (Files uploaded separately)

Caption for Table S1

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Figures S1 to S7

Introduction

This document contains the caption to Table S1 with the table file itself being uploaded as a separate txt file, as well as Figures S1 to S7.

Table S1. Names, networks and locations of stations used in this study. The abbreviations in the table are: [*] BVI – British Virgin Islands; Gdl – Gouadeloupe; OBS – Ocean bottom seismometer (no island); USVI – United States Virgin Islands; [**] CU – Caribbean Network; G – Geoscope; NA – Netherlands Antilles Seismic Network; TR – Eastern Caribbean Seismograph Network; WI – West Indies French Seismic Network; XZ – VoiLA.

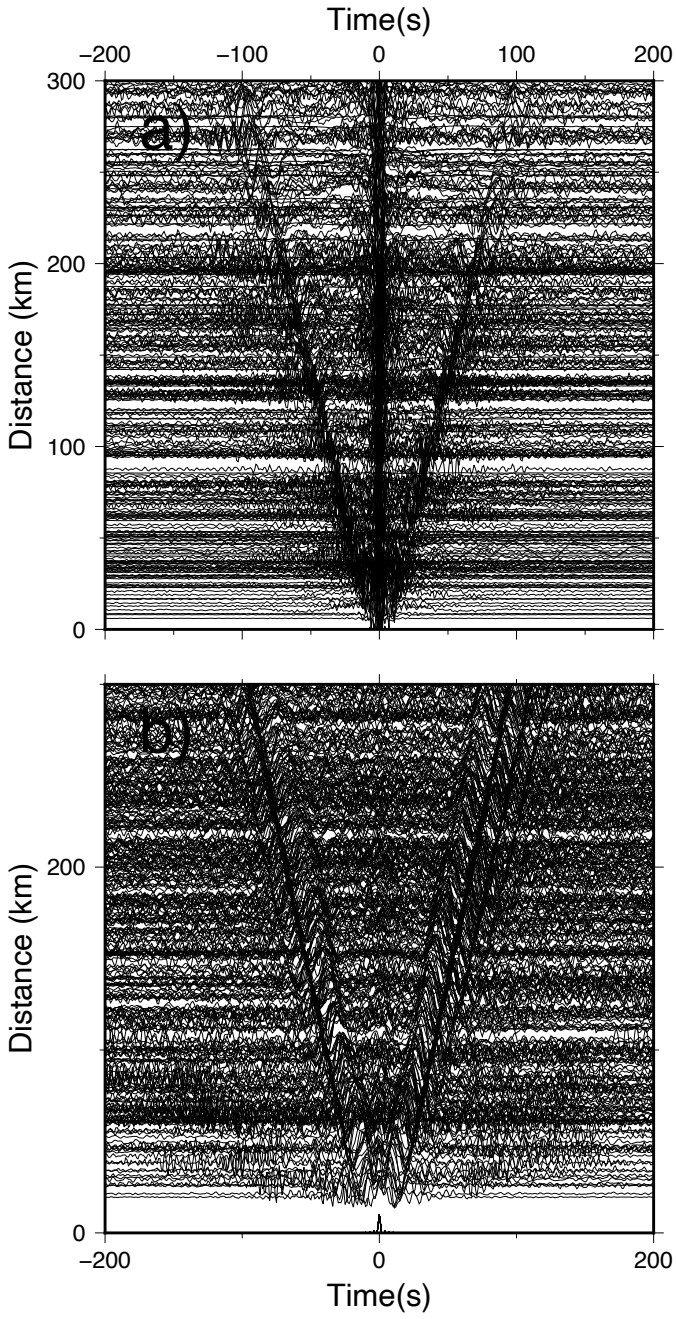

Figure S1. *Symmetric cross-correlations of the vertical-vertical component of all station pairs closer than 300 km ordered by station distance for the island stations (a) and the VoiLA OBS (b). For additional details see Figure 4 of the manuscript.*

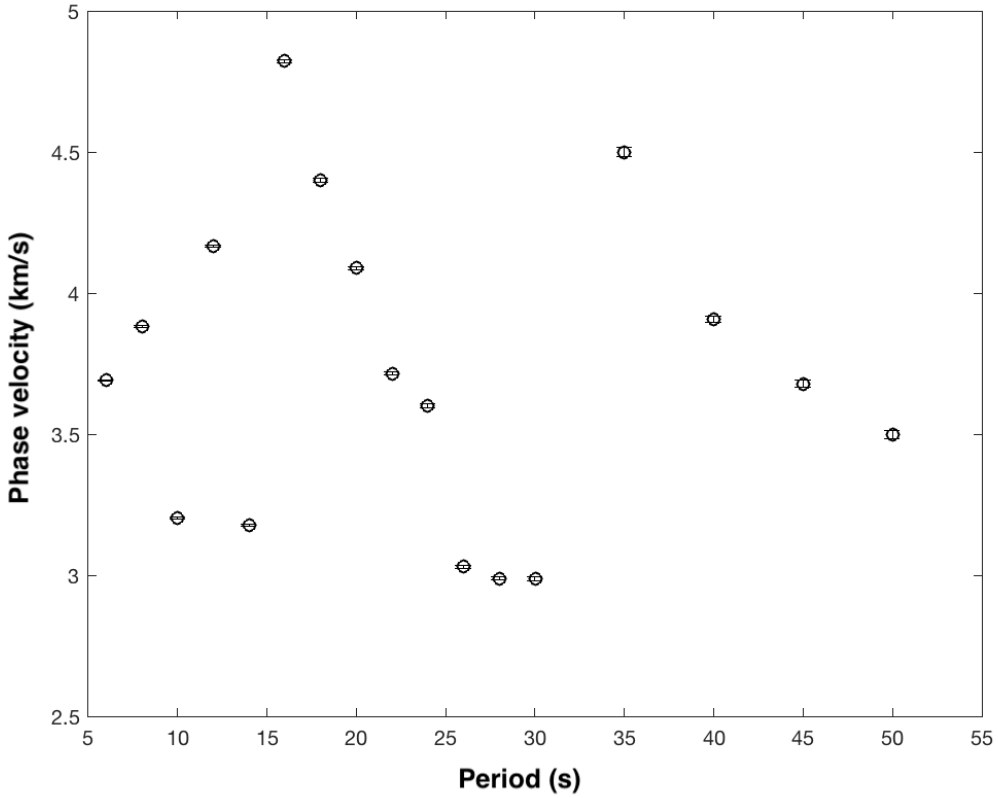

Figure S2. Erratic average phase measured using OBS-land station pairs.

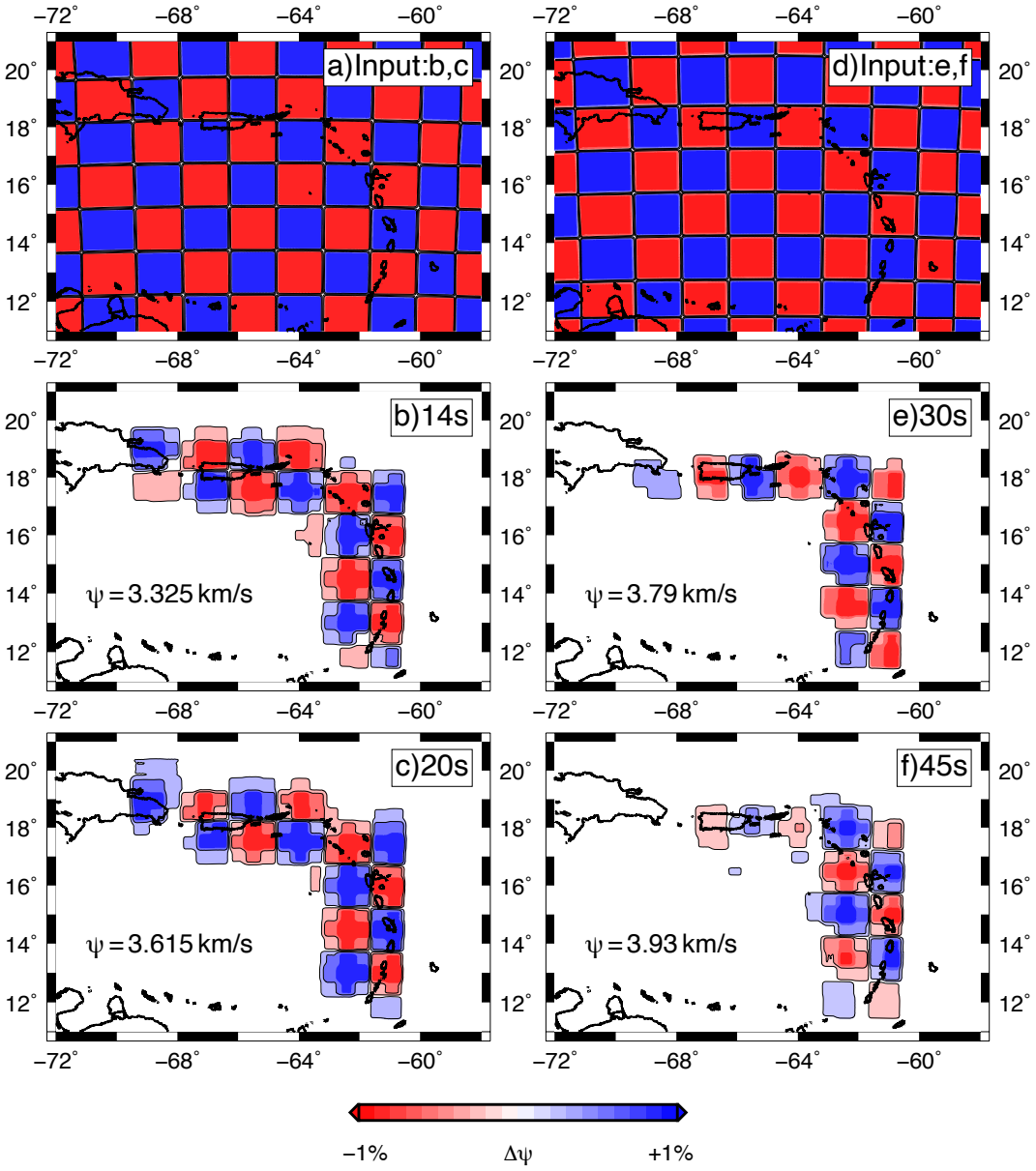

Figure S3. Checkerboard recovery tests using a square checkerboard with the same dimensions as the tests shown in Figure 5 of the manuscript. Except for the design of the input model, the process is equivalent to the recovery tests shown in Fig. 5 of the manuscript.

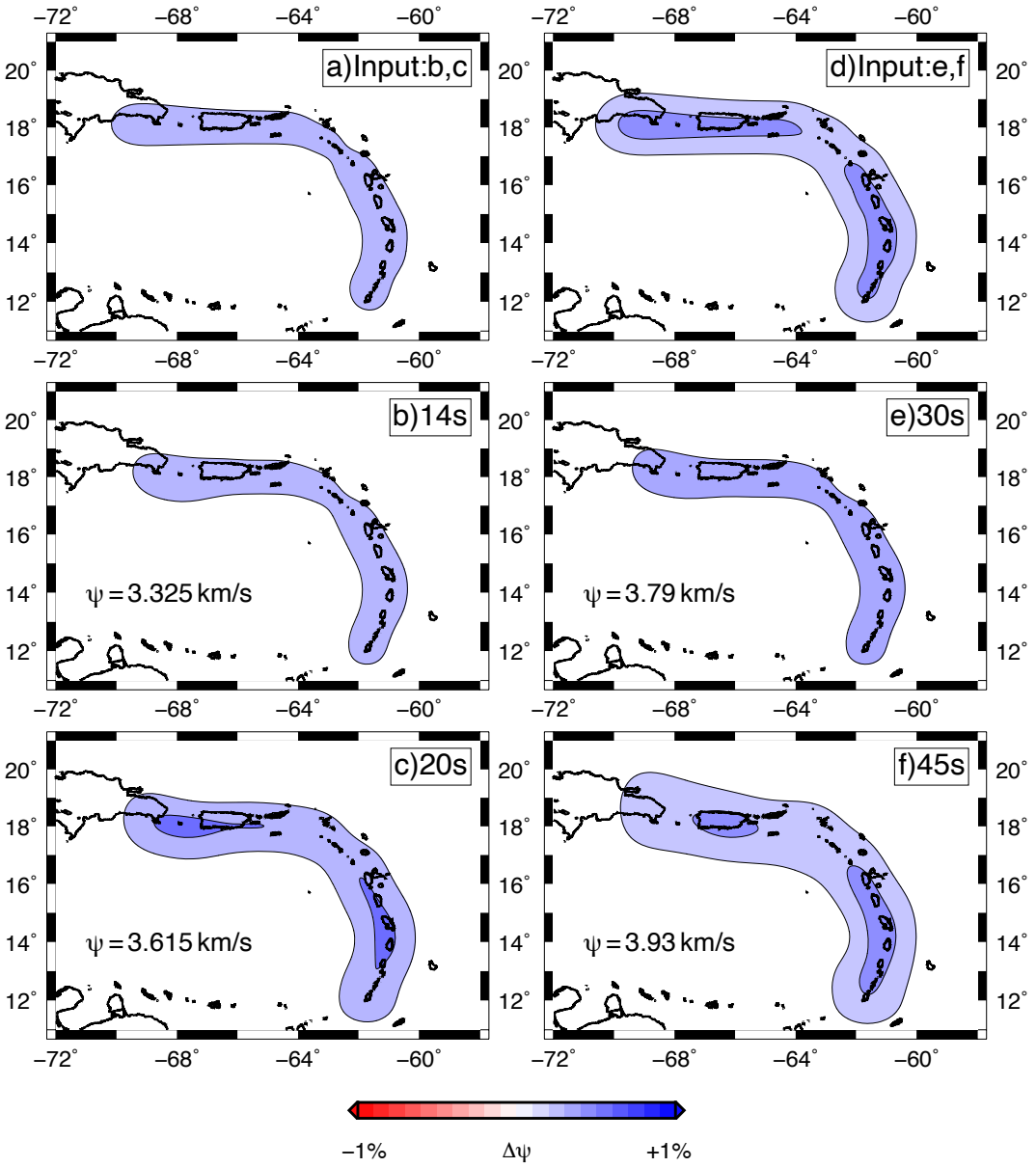

Figure S4. Structural recovery tests for a LAA/GA slab geometry. Except for the design of the input, the process is equivalent to the recovery tests shown in Fig. 5 of the manuscript.

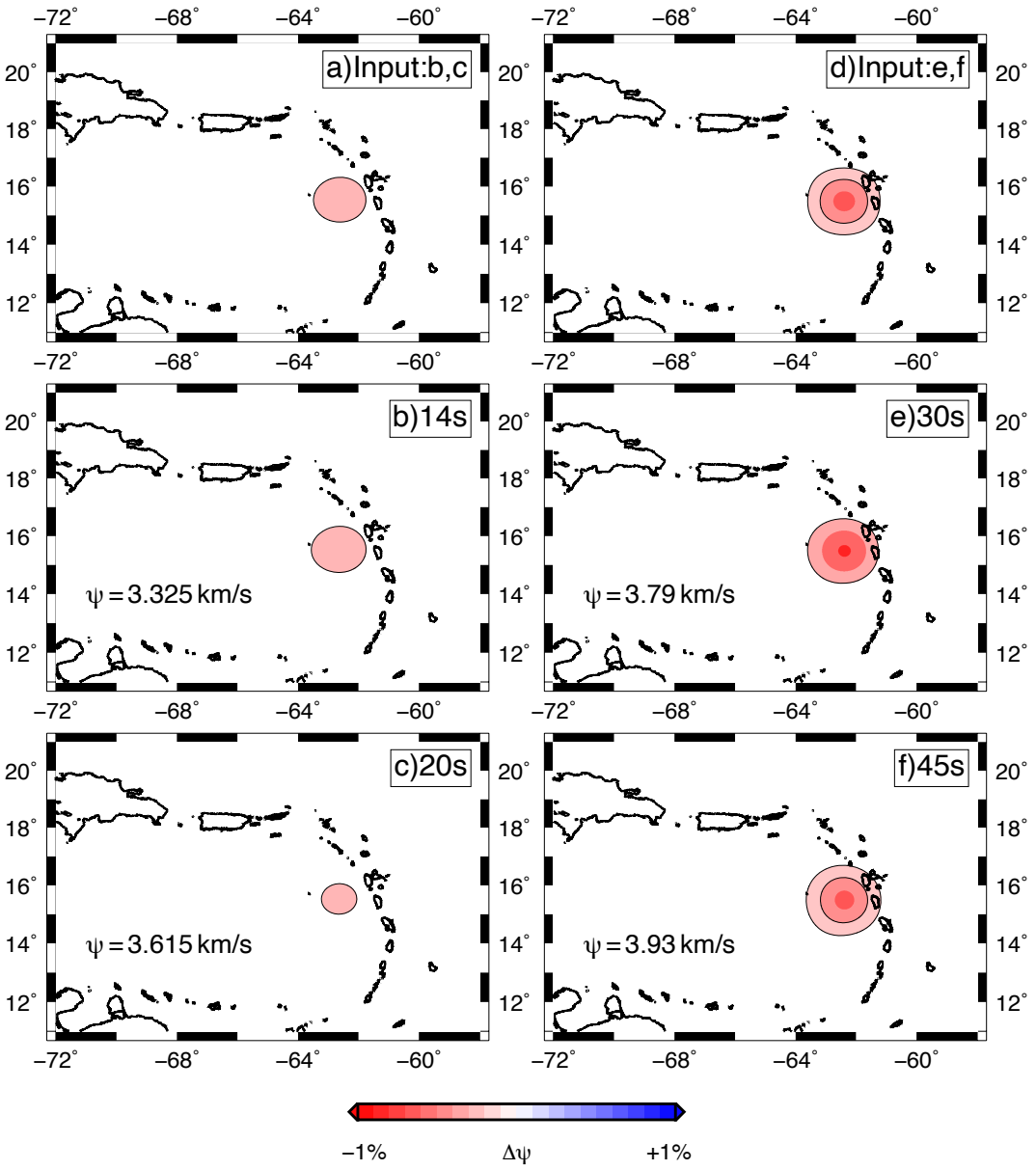

Figure S5. Structural recovery tests for a northern Grenada Basin low velocity anomaly. Except for the design of the input, the process is equivalent to the recovery tests shown in Fig. 5 of the manuscript.

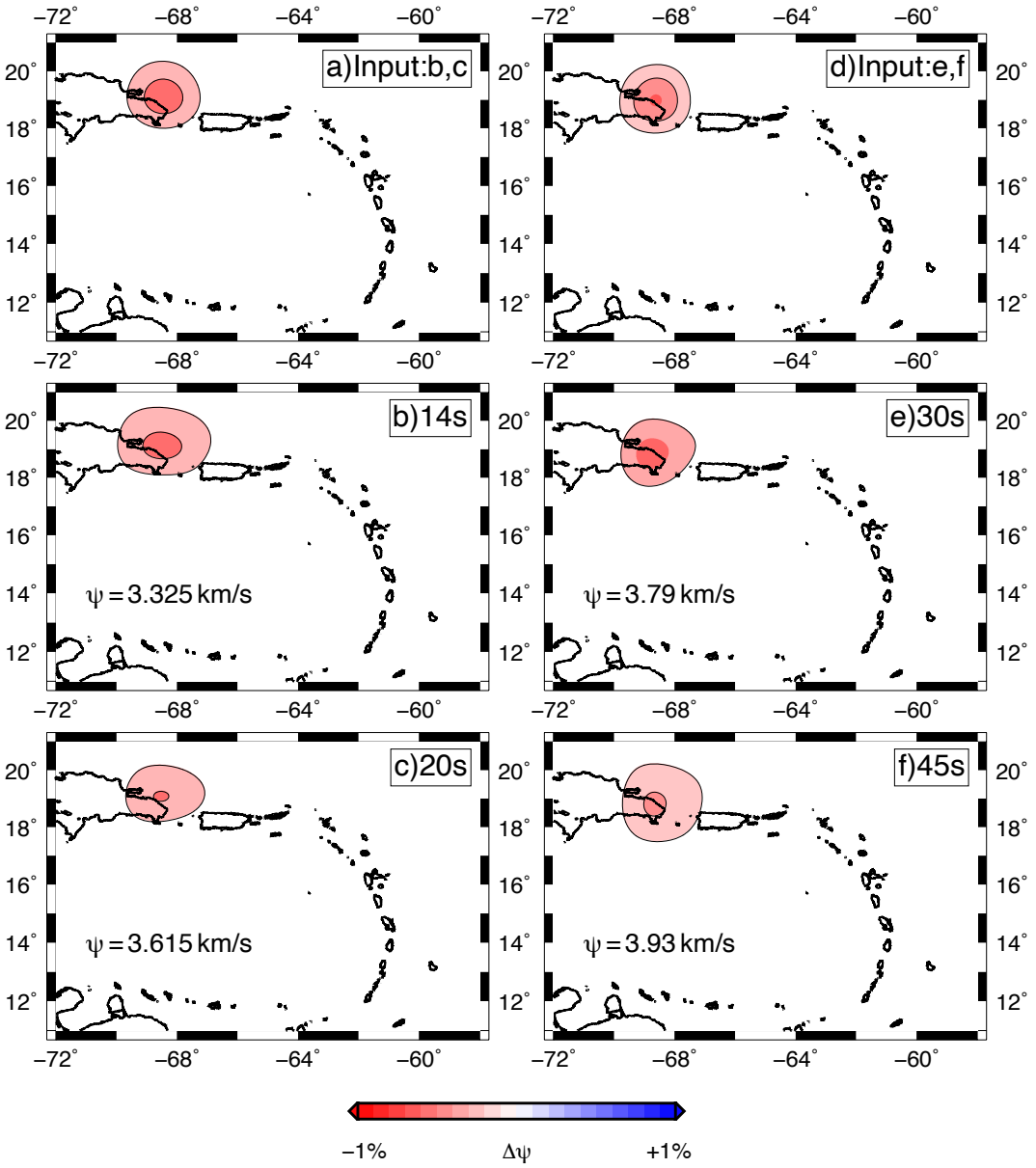

Figure S6. Structural recovery tests for a Mona Passage low velocity anomaly. Except for the design of the input, the process is equivalent to the recovery tests shown in Fig. 5 of the manuscript. This test was chosen to show that recovery in the western part of the Mona Passage is possible, since it is not clearly visible in the test presented in the manuscript.

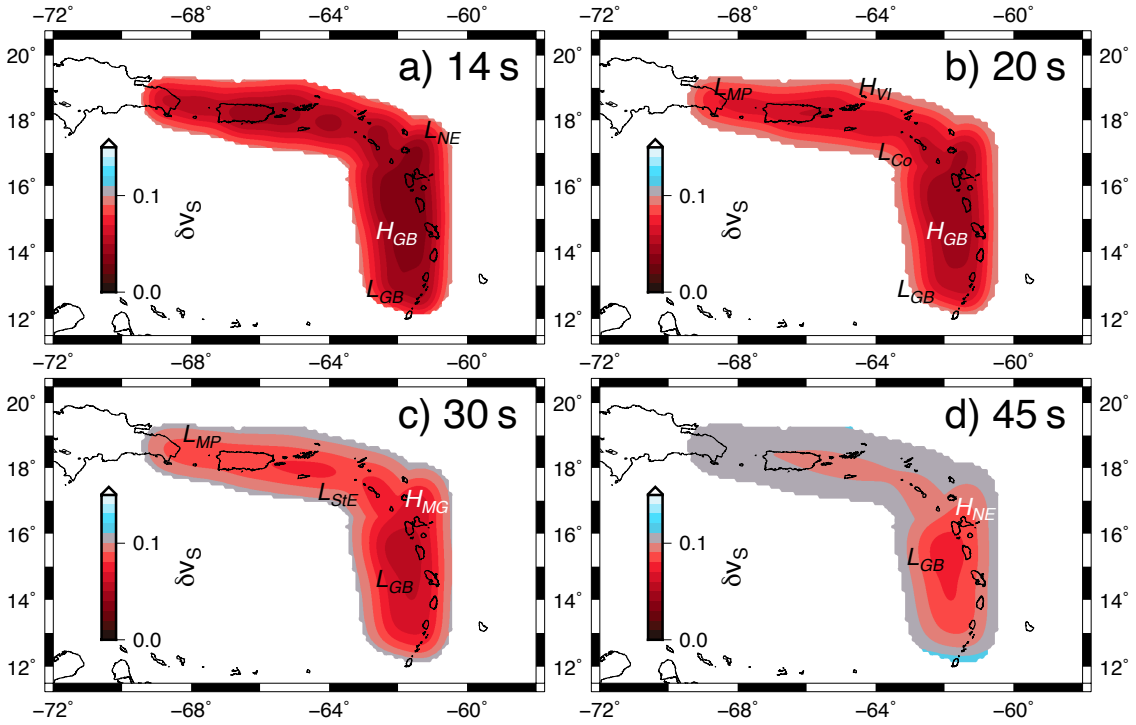

Figure S7. Phase velocity uncertainties of the maps shown in Figure 7 of the manuscript.