

Supplementary Material for “Seismic and Tsunami Hazard Potential of the Negros–Sulu Megathrust, Philippines”

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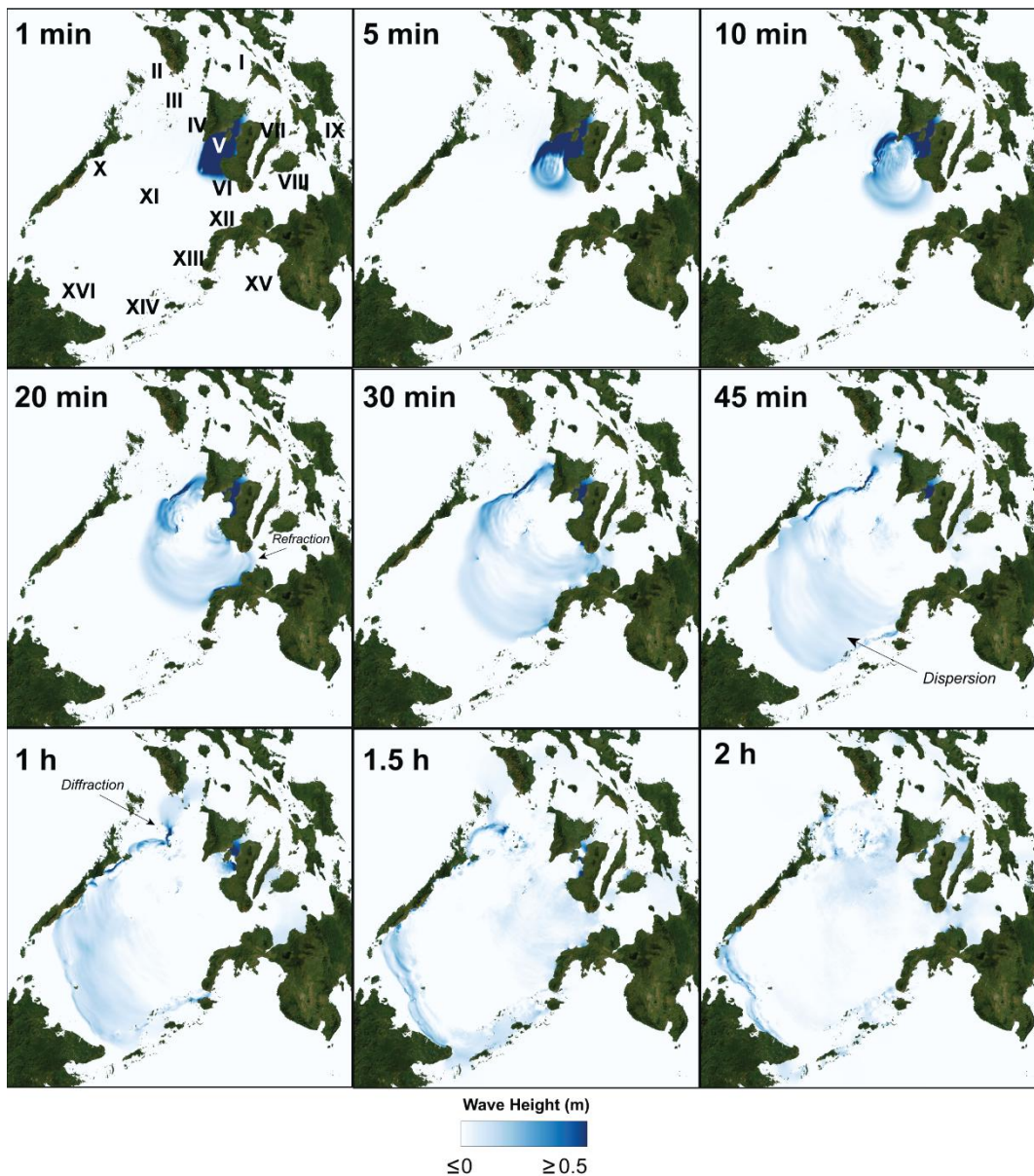
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Table S1. Synthetic tide gauge locations and coordinates for tsunami modeling.

ID	Location	Longitude	Latitude
1	Coron Bay, Palawan	120.155	11.889
2	Pandarochan Bay, Oriental Mindoro	121.171	12.221
3	Boracay, Aklan	121.913	11.964
4	Pandan, Antique	122.085	11.72
5	Roxas, Palawan	119.342	10.255
6	Cuyo Island, Palawan	121.084	10.828
7	San Jose de Buenavista, Antique	121.952	10.721
8	Anini-y, Antique	121.922	10.427
9	Iloilo City	122.506	10.671
10	Puerto Princesa, Palawan	118.751	9.708
11	Cagayancillo, Palawan	121.276	9.645
12	Sipalay, Negros Occidental	122.397	9.748
13	Himamaylan, Negros Occidental	122.859	10.098
14	Bacolod City, Negros Occidental	122.93	10.672
15	Brook's Point, Palawan	117.842	8.771
16	Bayawan City, Negros Oriental	122.813	9.355
17	Dumaguete City, Negros Oriental	123.314	9.302
18	Cebu City	123.916	10.287
19	Tagbilaran City, Bohol	123.825	9.671
20	San Juan, Siquijor	123.518	9.133
21	Mabini, Bohol	124.557	9.852
22	Maasin City, South Leyte	124.856	10.122
23	Surigao City	125.493	9.798
24	Butuan City	125.494	9.01
25	Cagayan de Oro	124.652	8.526
26	Iligan City	124.229	8.24
27	Dipolog City	123.333	8.6
28	Sindangan, Zamboanga del Norte	122.991	8.234
29	Labason, Zamboanga del Norte	122.511	8.073
30	Siocon, Zamboanga del Norte	122.121	7.69
31	Zamboanga City	122.06	6.906
32	Isabela City	121.95	6.703
33	Jolo, Sulu	120.995	6.056
34	Sandakan, Malaysia	118.12	5.897



15 Figure S1. Tsunami wave (2 h) propagation from NT1-1 segment at 20° dip angle. Basemap from World Imagery.

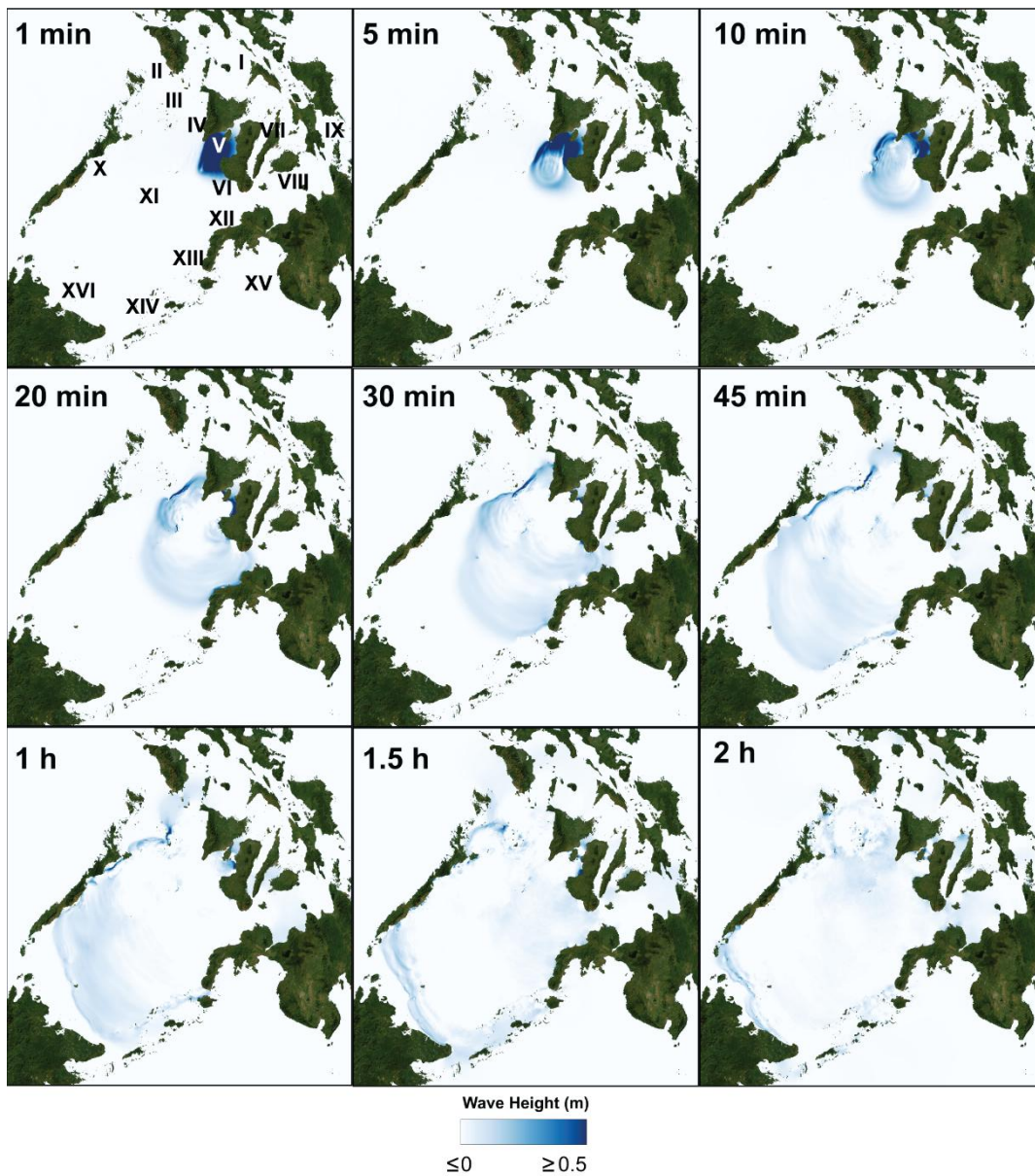


Figure S2. Tsunami wave (2 h) propagation from NT1-2 segment at 20° dip angle. Basemap from World Imagery.

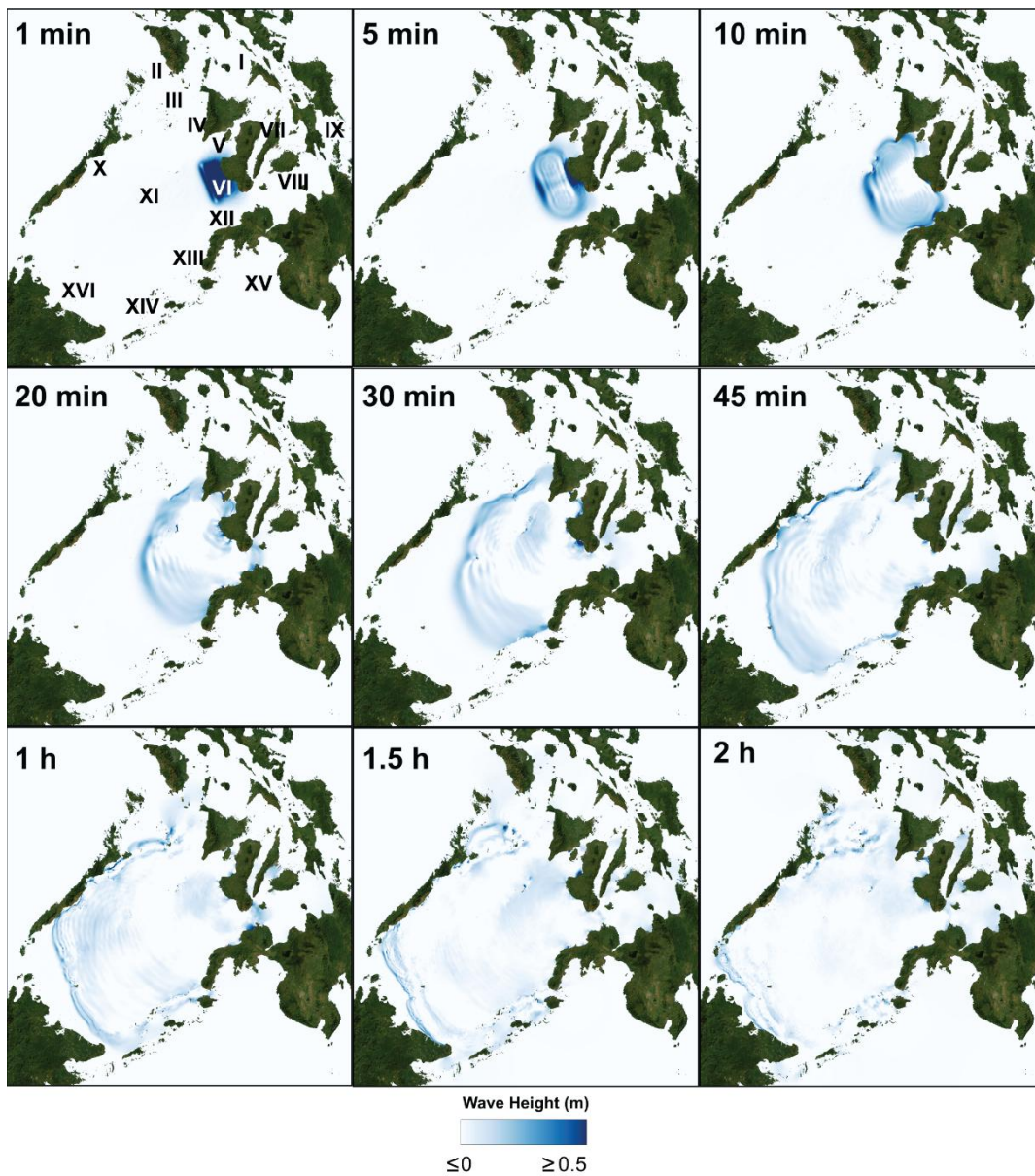


Figure S3. Tsunami wave (2 h) propagation from NT2 segment at 20° dip angle. Basemap from World Imagery.

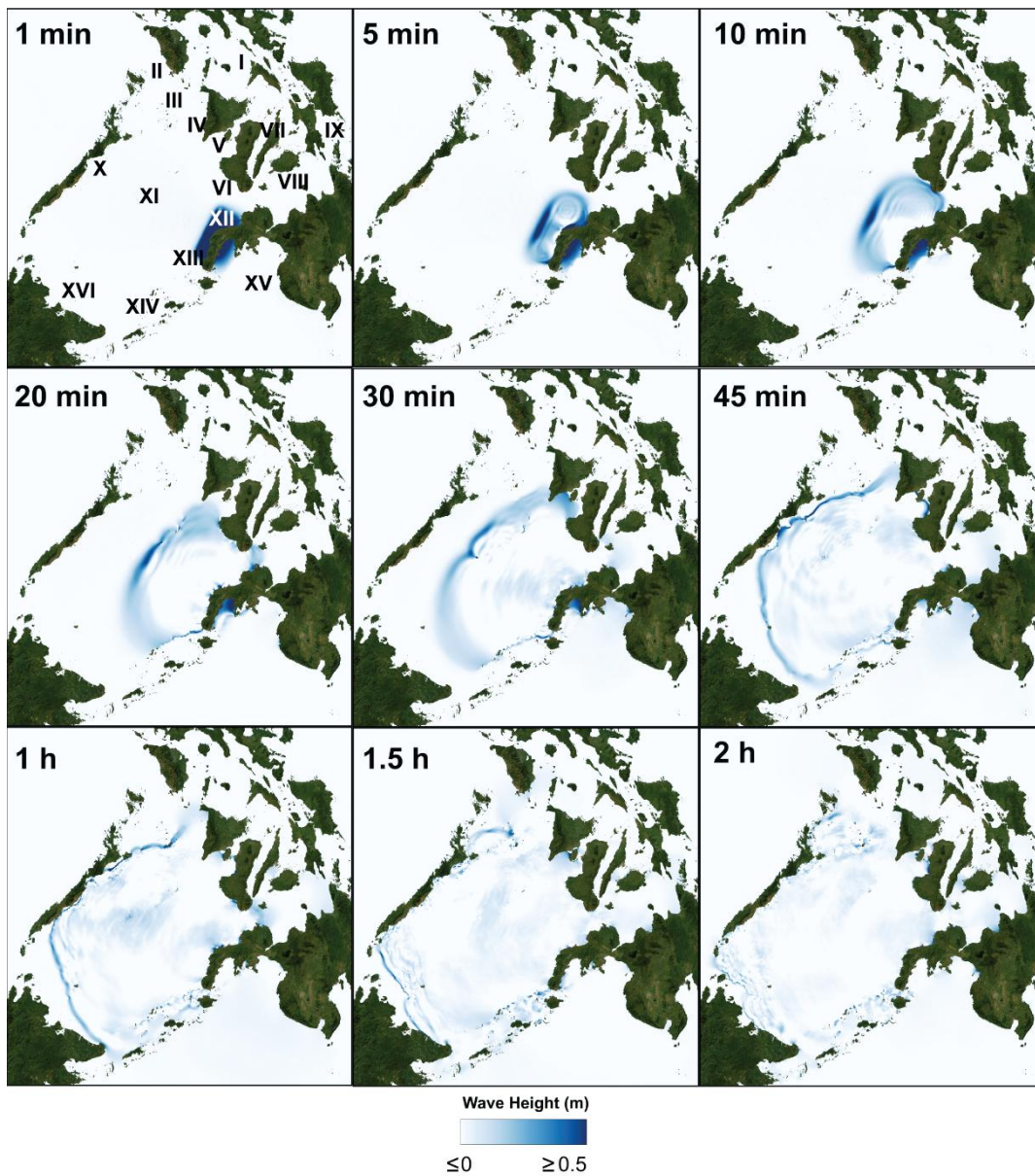


Figure S4. Tsunami wave (2 h) propagation from ST1 segment at 20° dip angle. Basemap from World Imagery.

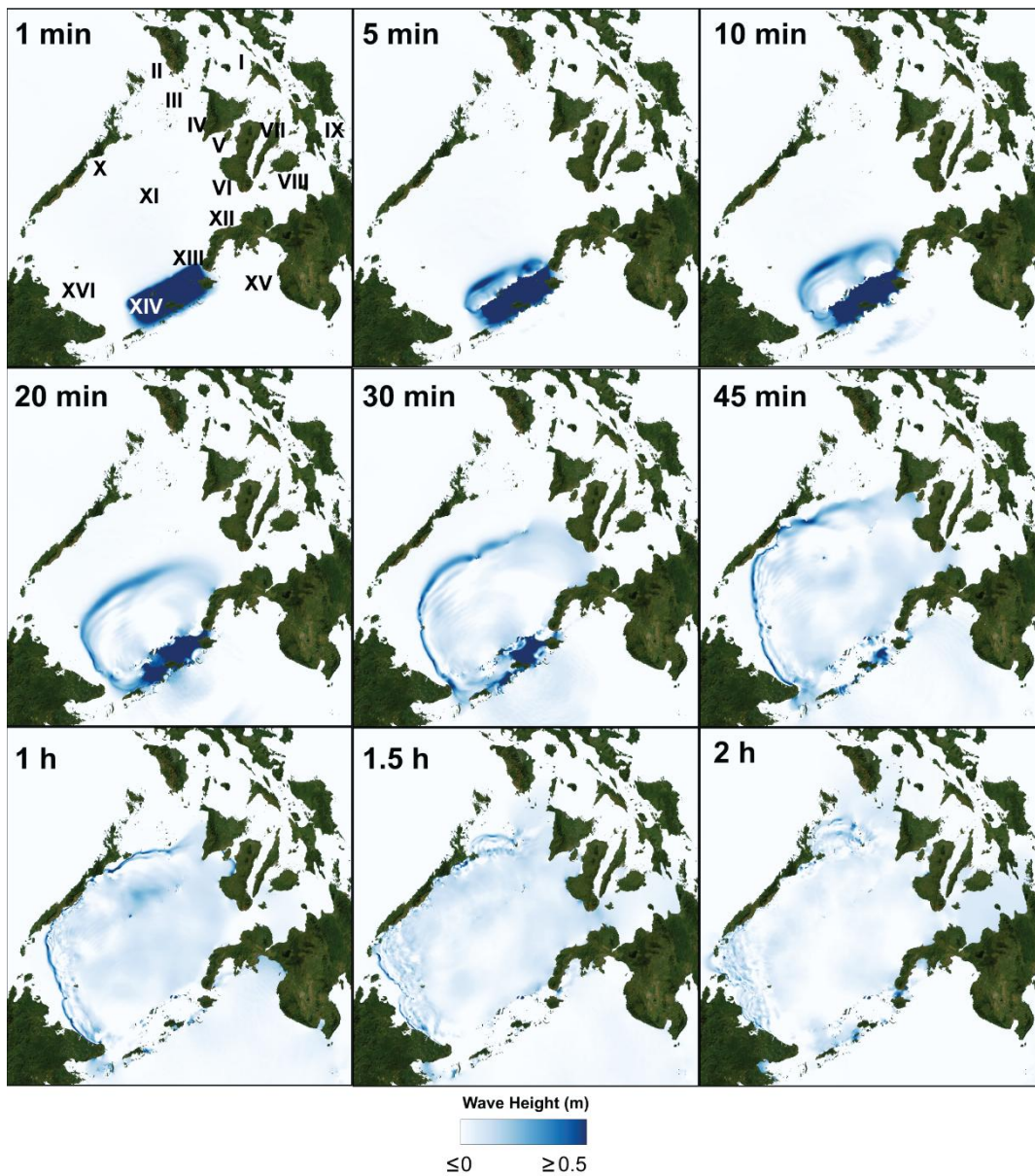
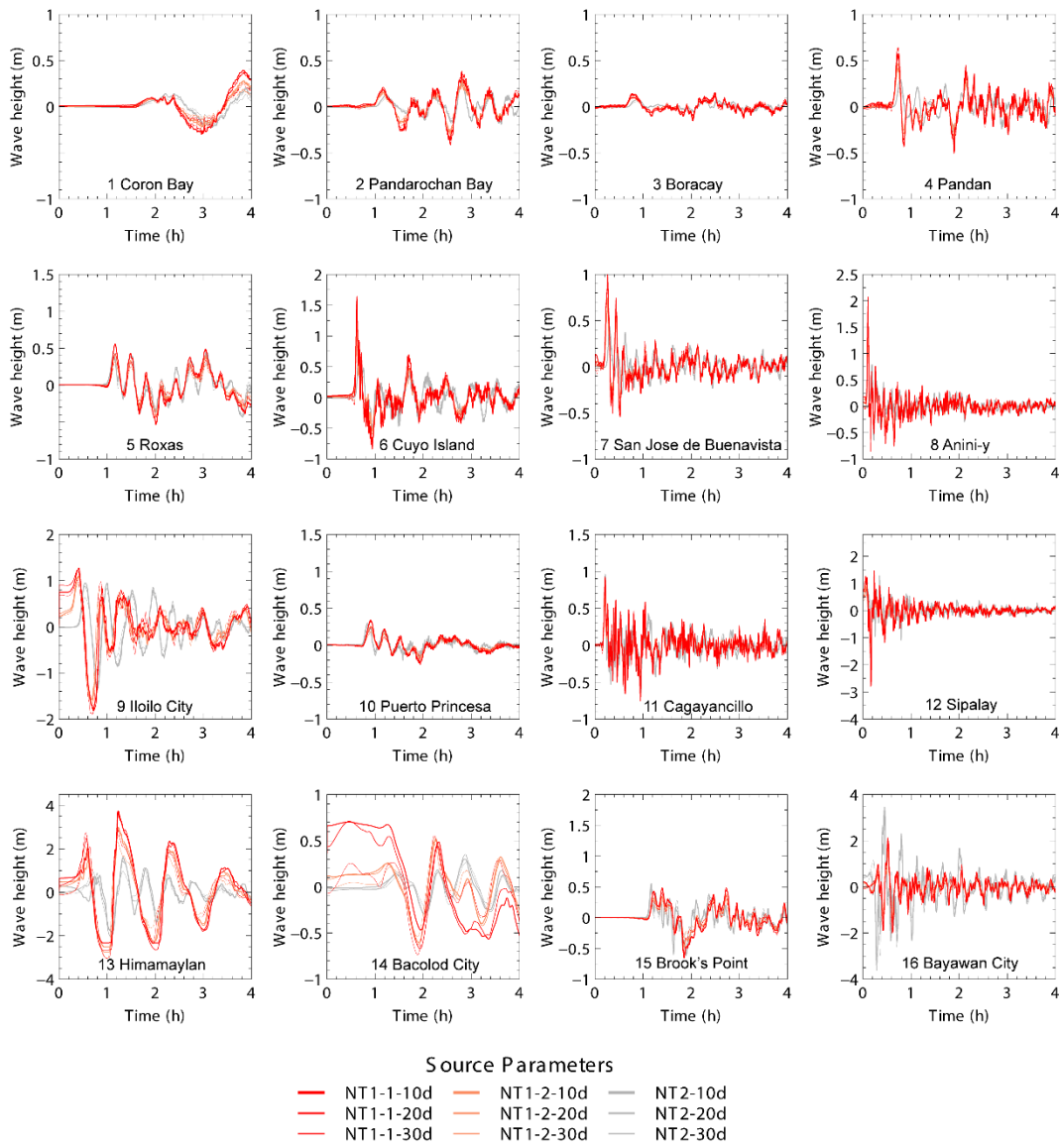


Figure S5. Tsunami wave (2 h) propagation from ST2 segment at 20° dip angle. Basemap from World Imagery.



25 **Figure S6. Tsunami waveforms in TGS 1–16 from Negros Trench segments (see Fig. 4 for locations).**

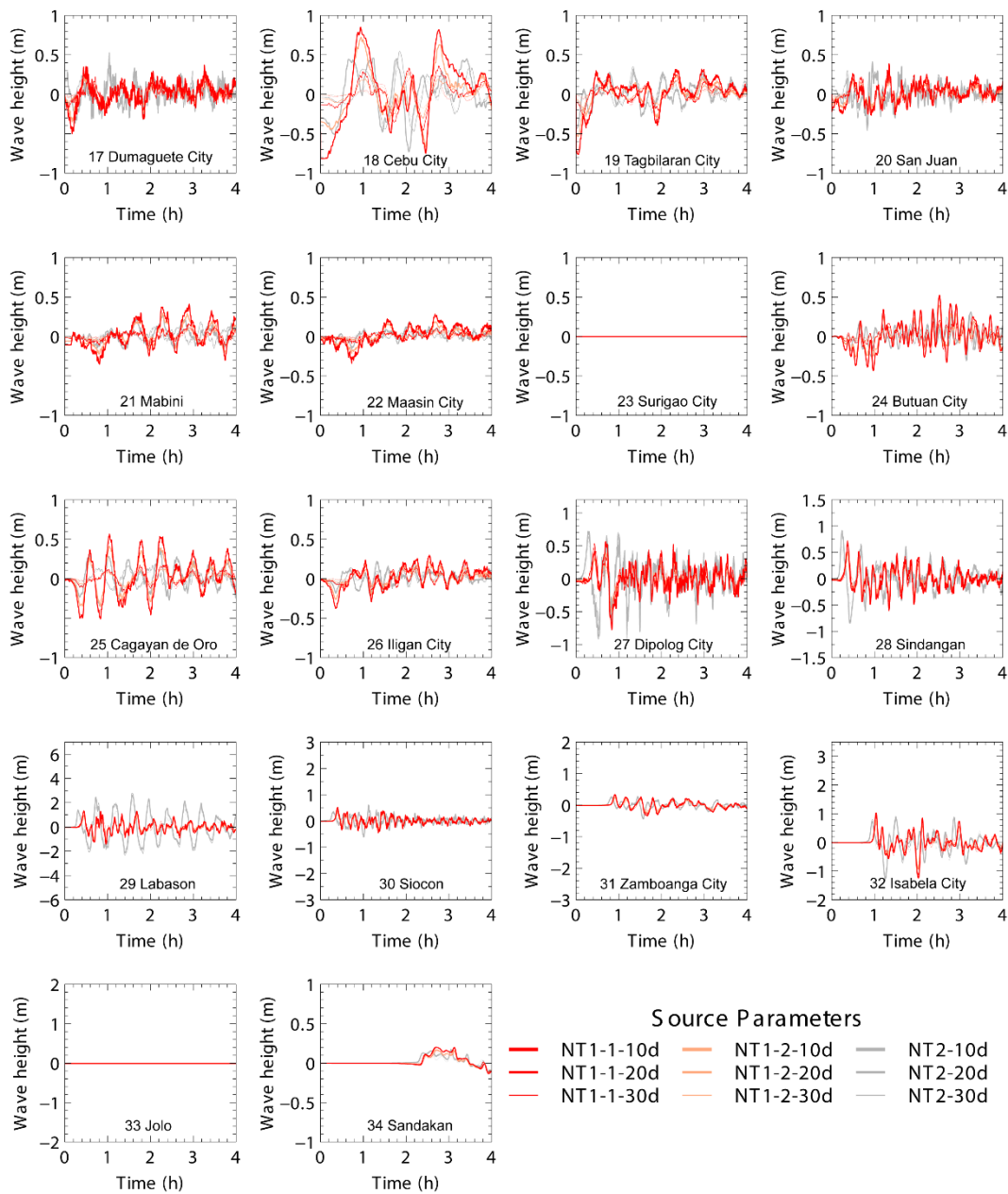


Figure S7. Tsunami waveforms in TGS 17–34 from Negros Trench segments (see Fig. 4 for locations).

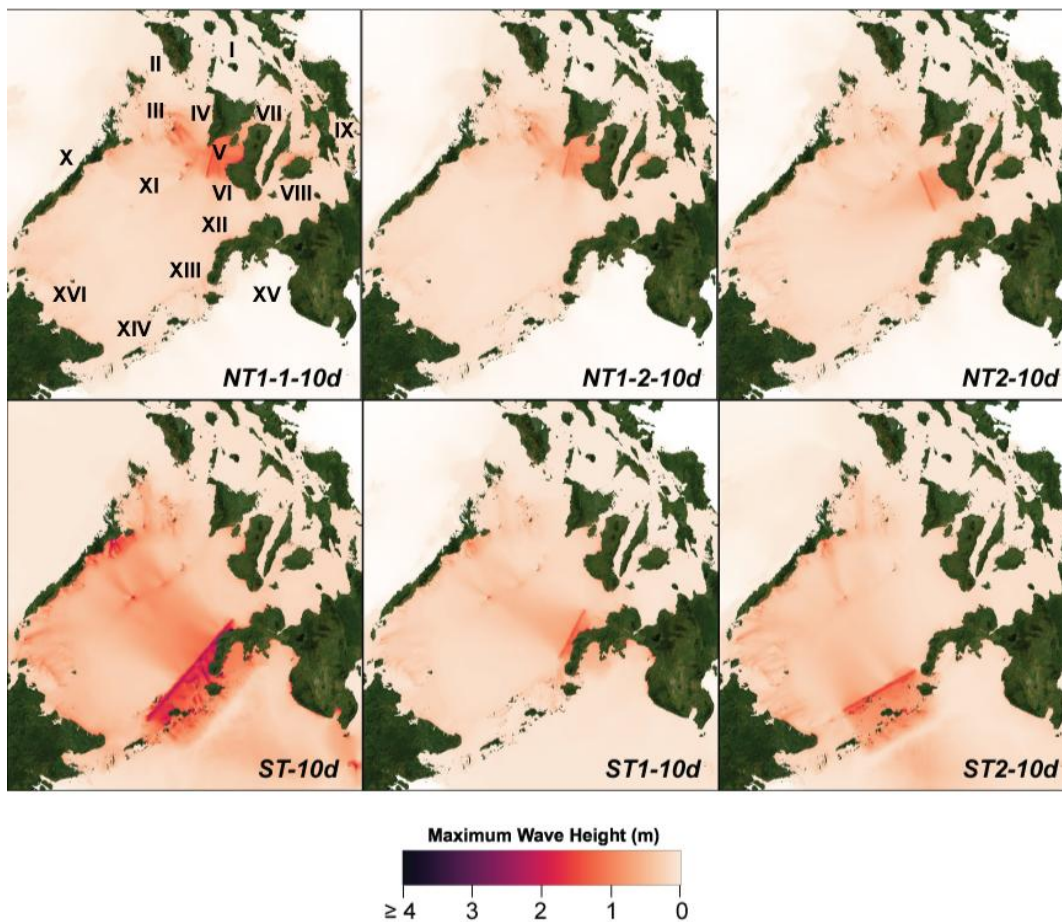


Figure S8. Maximum wave height (m) from the 4-h tsunami simulation of six segments with a megathrust dipping at 10° . Basemap from World Imagery.

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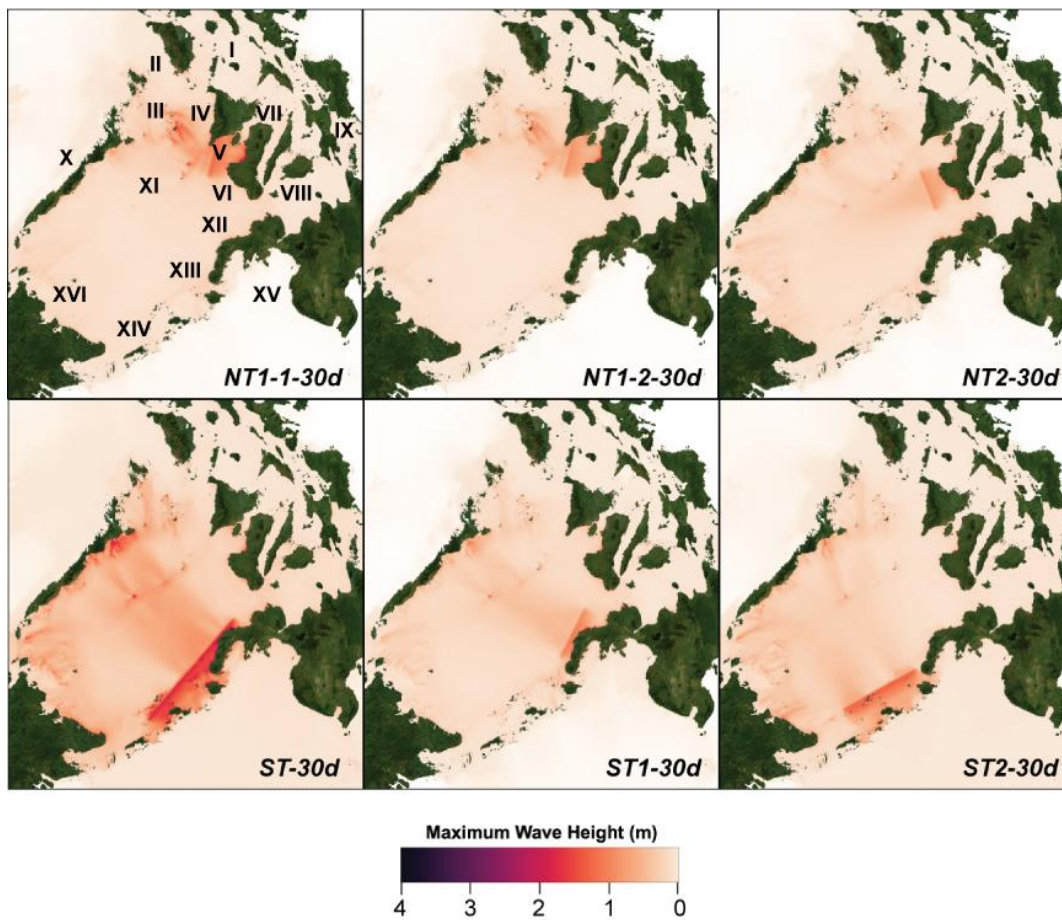
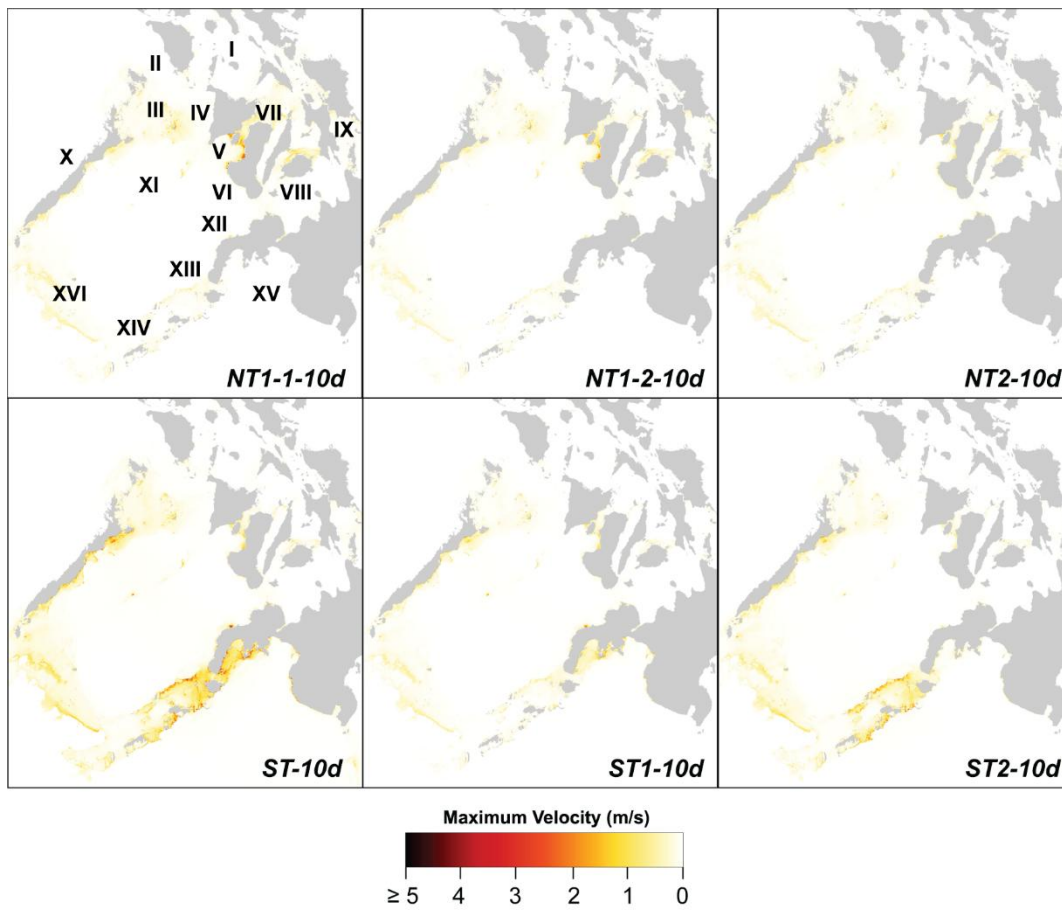


Figure S9. Maximum wave height (m) from the 4-h tsunami simulation of six segments with a megathrust dipping at 30°. Basemap from World Imagery.



35 Figure S10. Maximum flow velocity (m/s) from the 4-h tsunami simulation of six segments with a megathrust dipping at 10°.

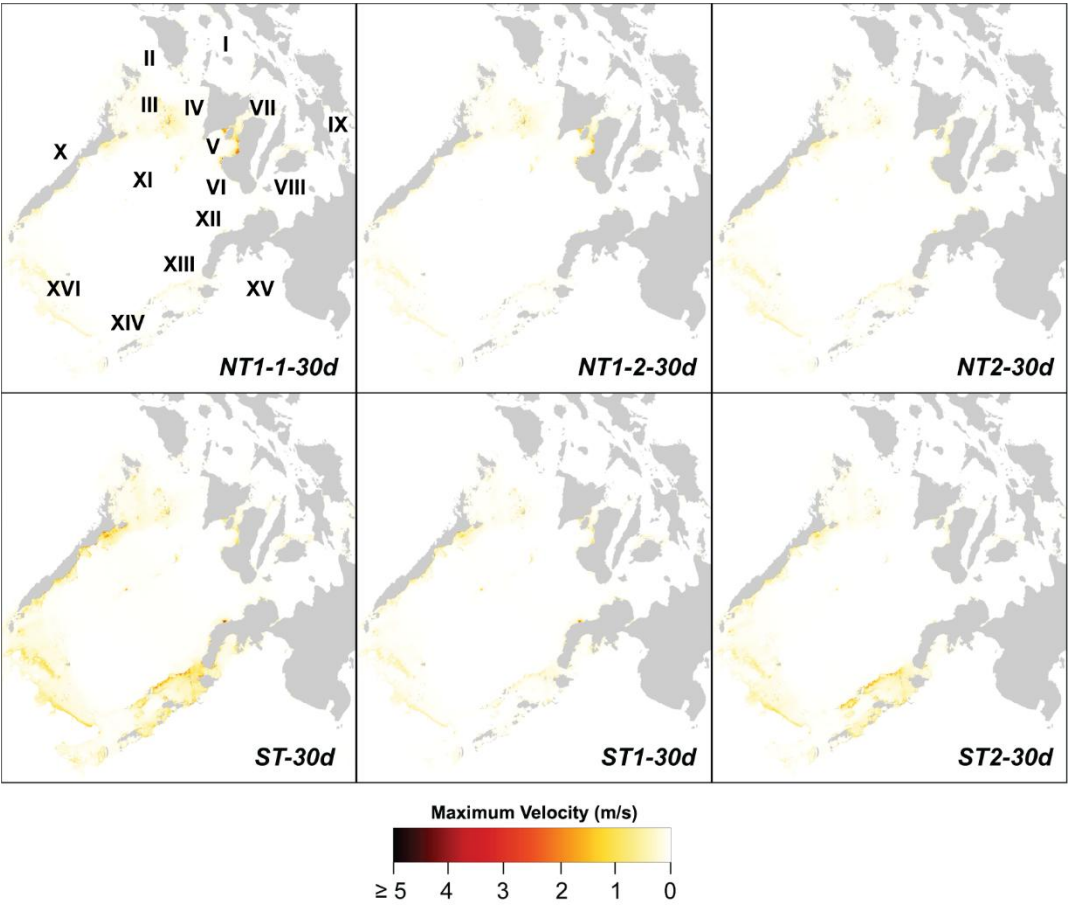
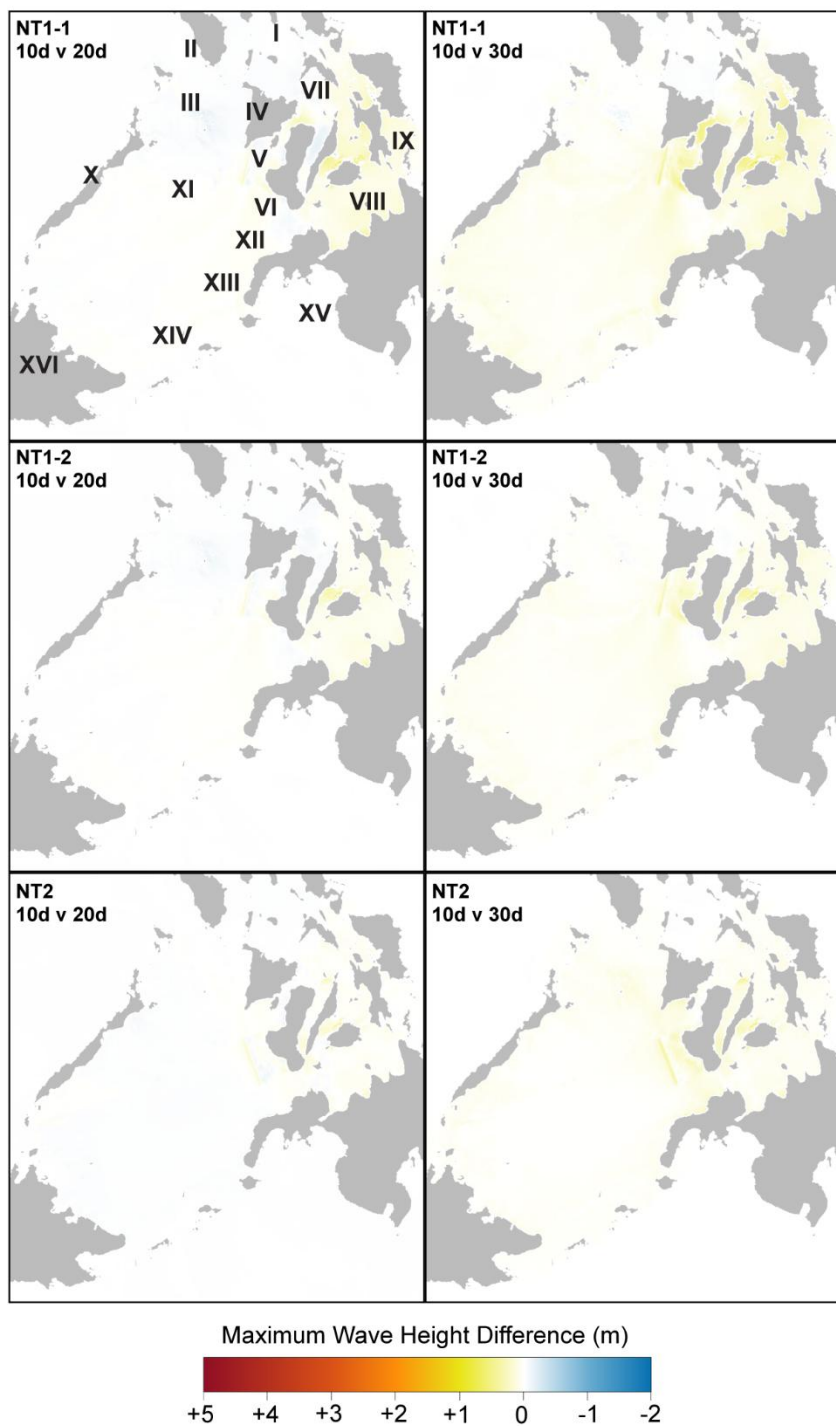


Figure S11. Maximum flow velocity (m/s) from the 4-h tsunami simulation of six segments with a megathrust dipping at 30°.

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55 Figure S12. Maximum wave height difference from 10°-dip megathrust compared to that of 20° and 30° in the Negros Trench segments.

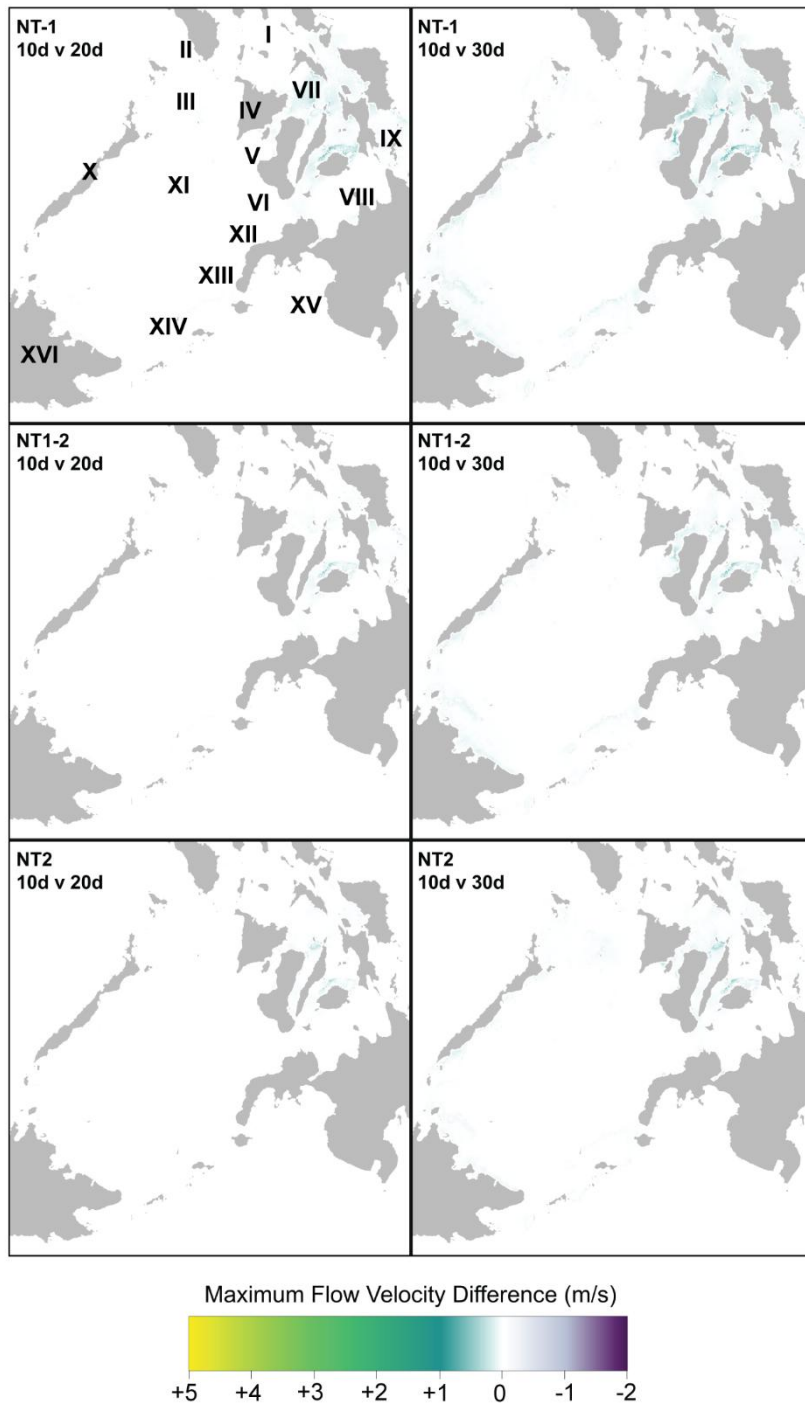


Figure S13. Maximum flow velocity difference from 10°-dip megathrust compared to that of 20° and 30° in the Negros Trench segments.

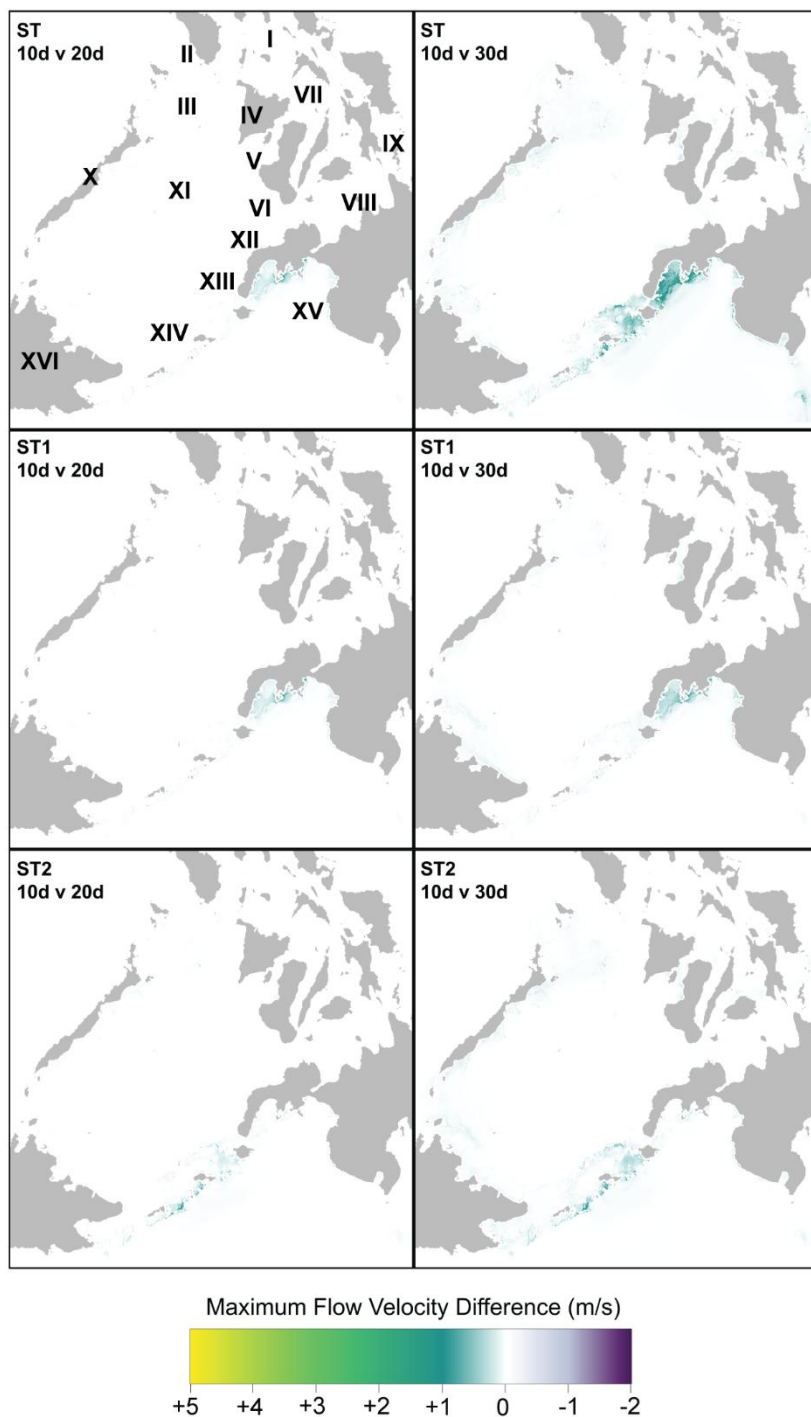
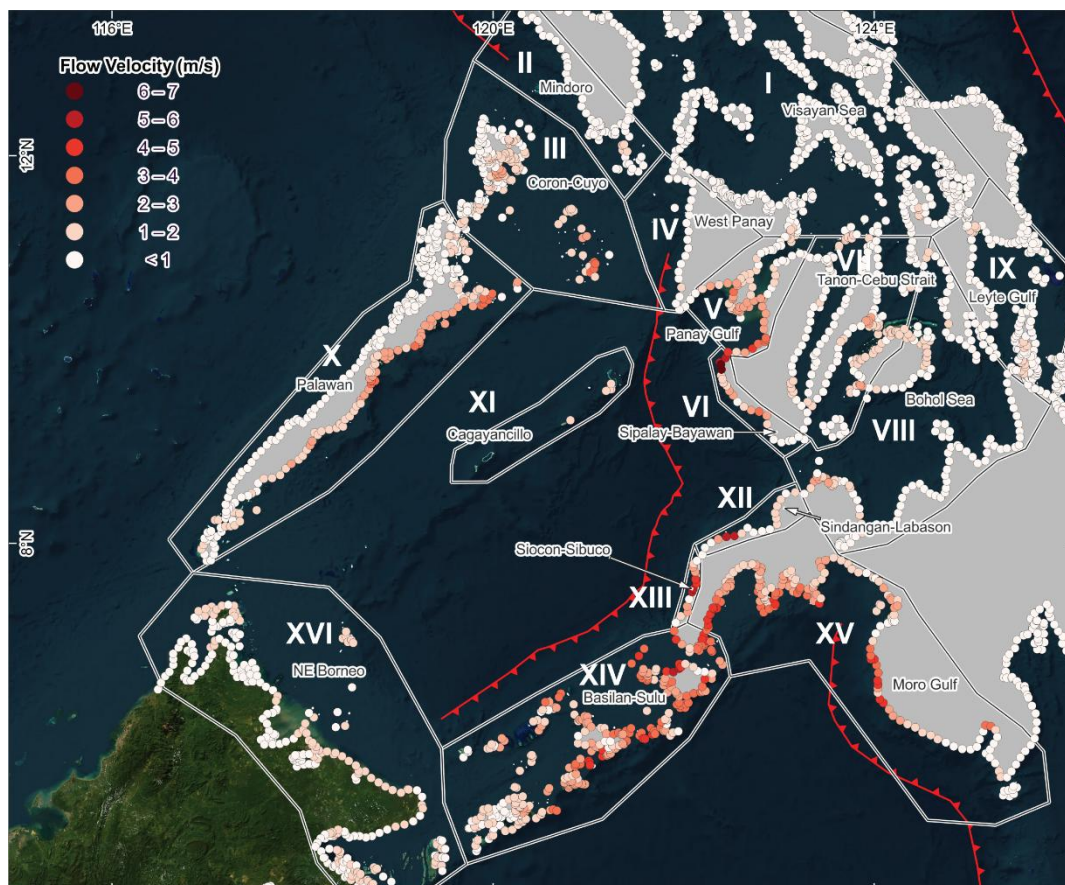


Figure S14. Maximum flow velocity difference from 10°-dip megathrust compared to that of 20° and 30° in the Sulu Trench segments.



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Figure S15. Exposure map of coastal regions in central and southern Philippines of the highest maximum flow velocity from the 18 megathrust rupture scenarios. Basemap from World Imagery.

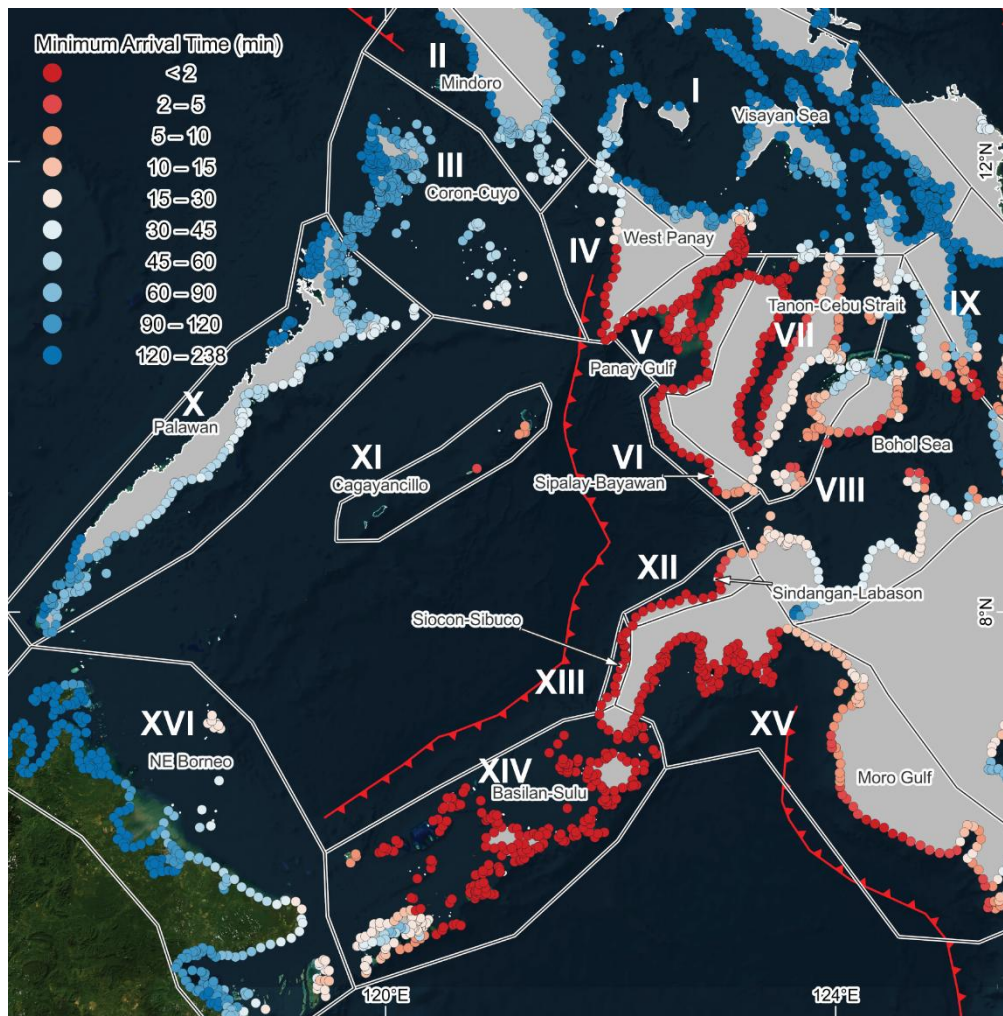


Figure S16. Exposure map of coastal regions in central and southern Philippines of the minimum arrival times from the 18 megathrust rupture scenarios. Basemap from World Imagery.