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Supplement of

Global seismic energy scaling relationships based on the type of faulting

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Supplementary Material

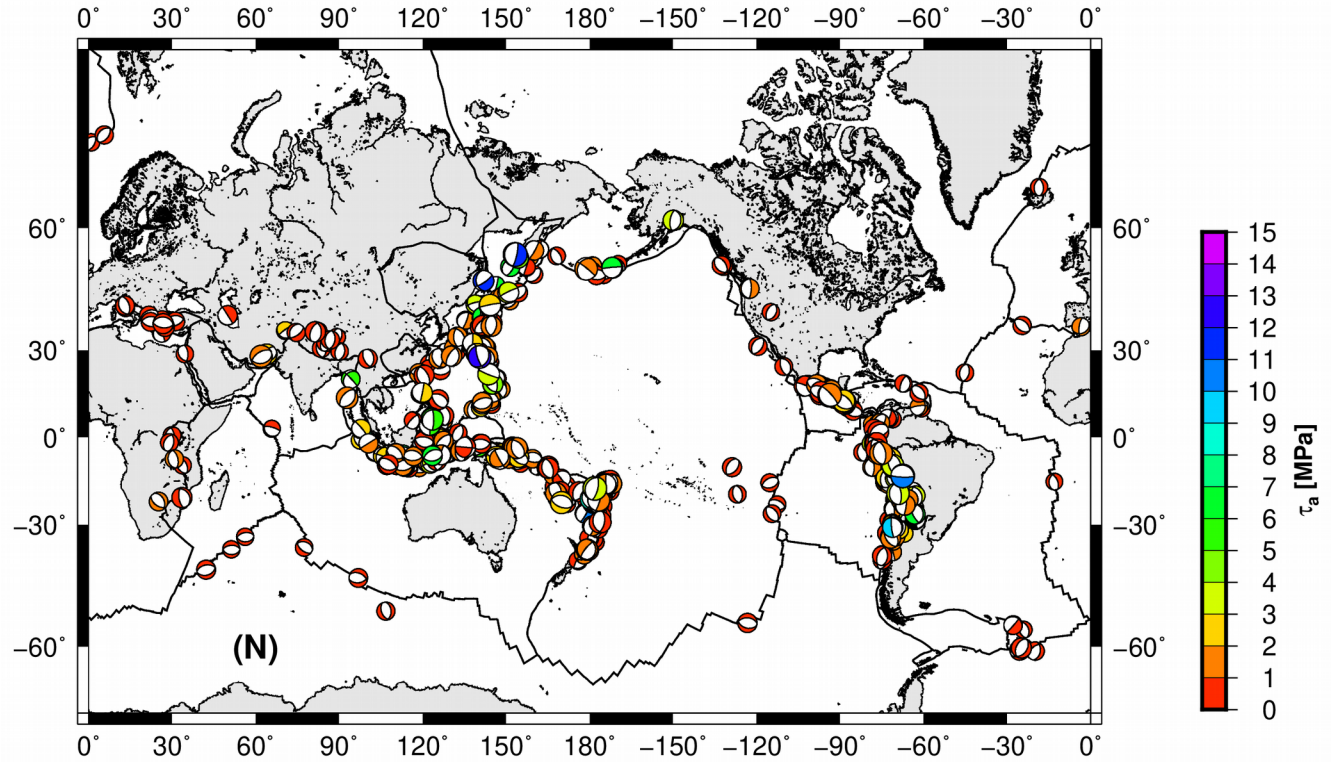

Figure S1. Spatial distribution of apparent stress for N events.

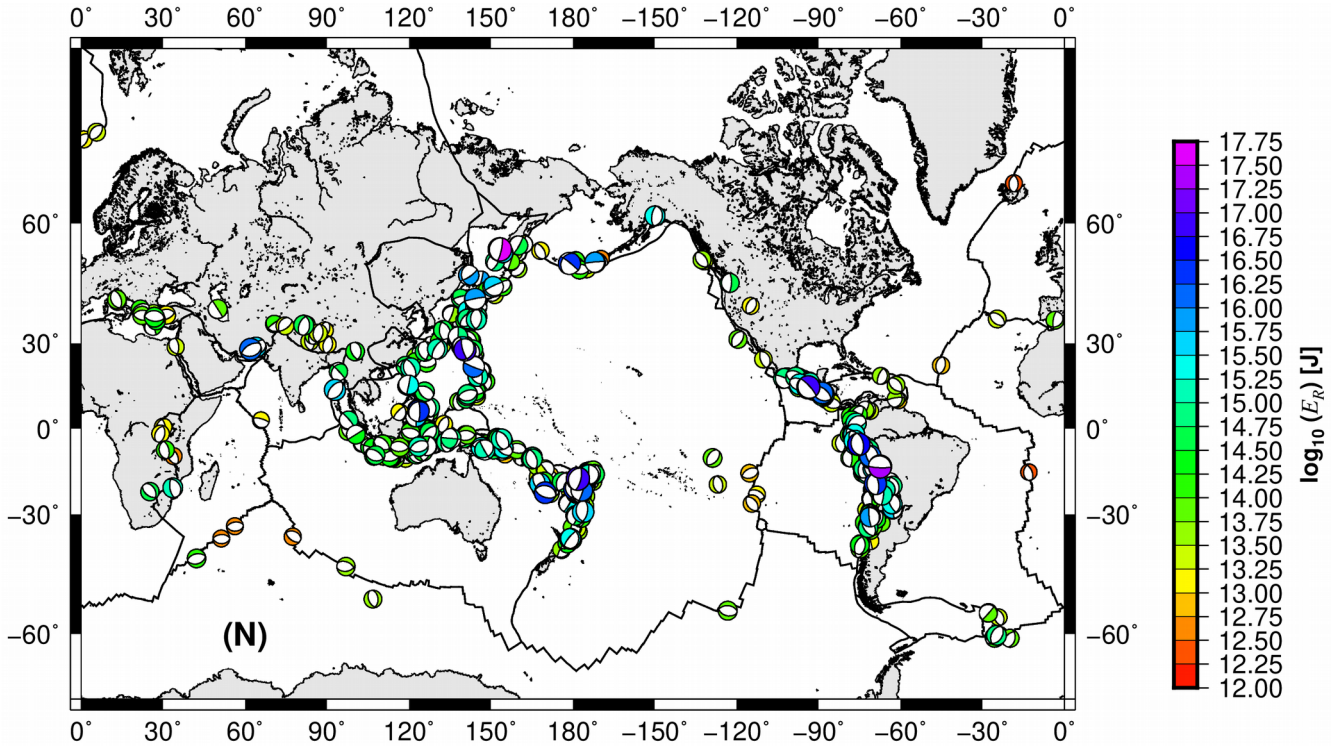

Figure S2. Spatial distribution of radiated seismic energy for N events.

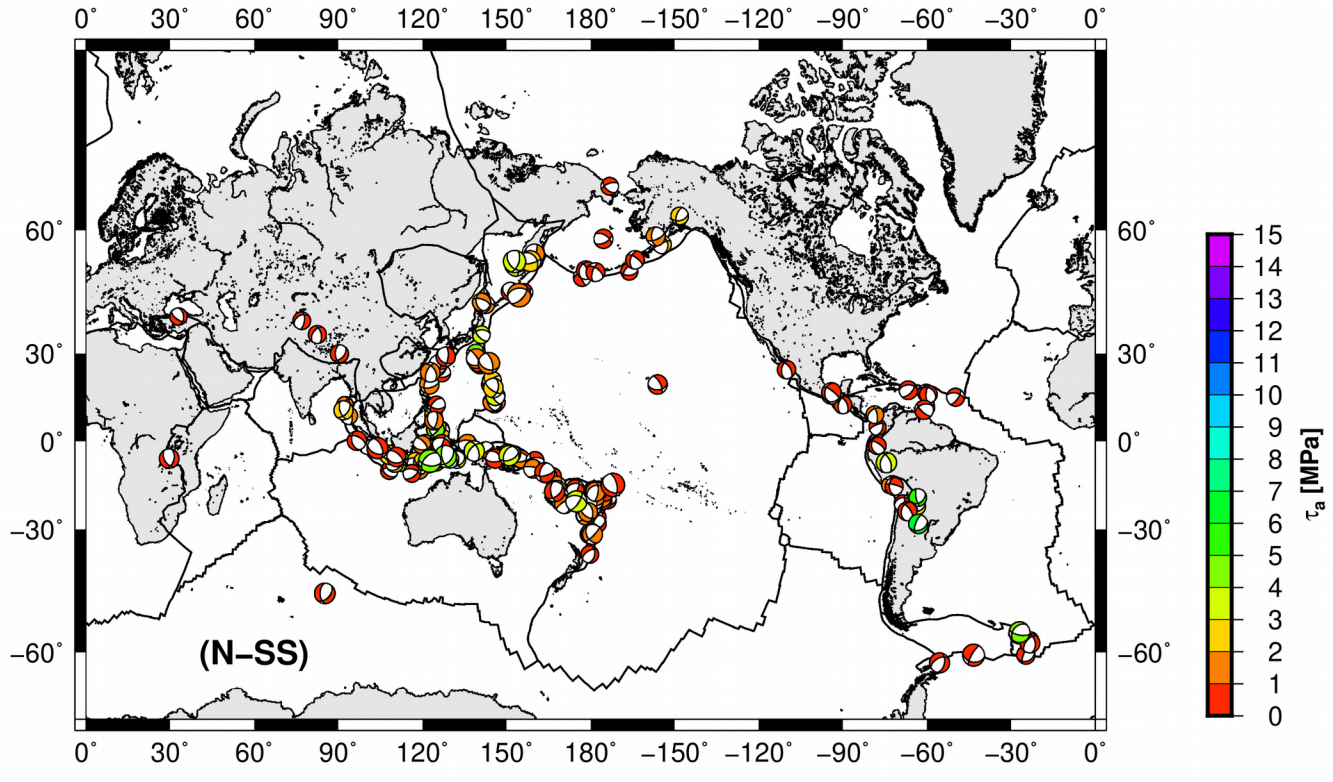

Figure S3. Spatial distribution of apparent stress for N-SS events.

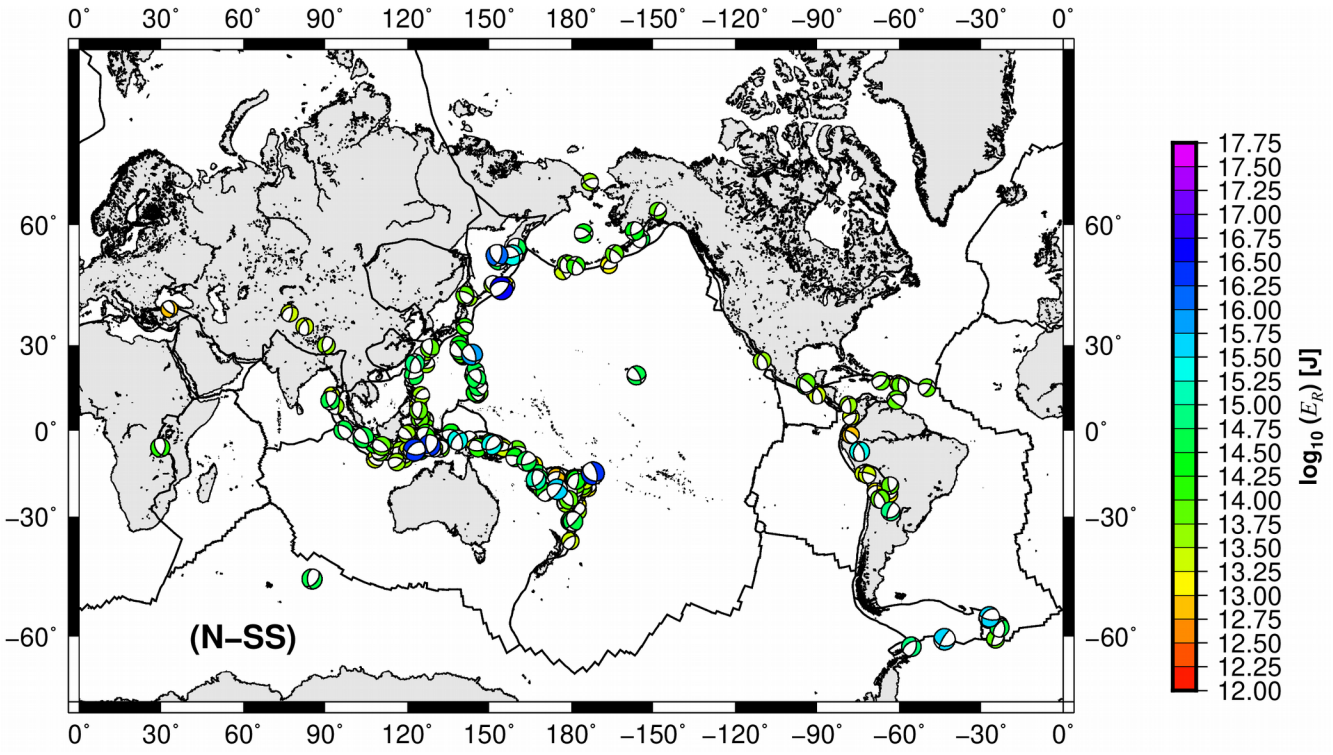

Figure S4. Spatial distribution of radiated seismic energy for N-SS events.

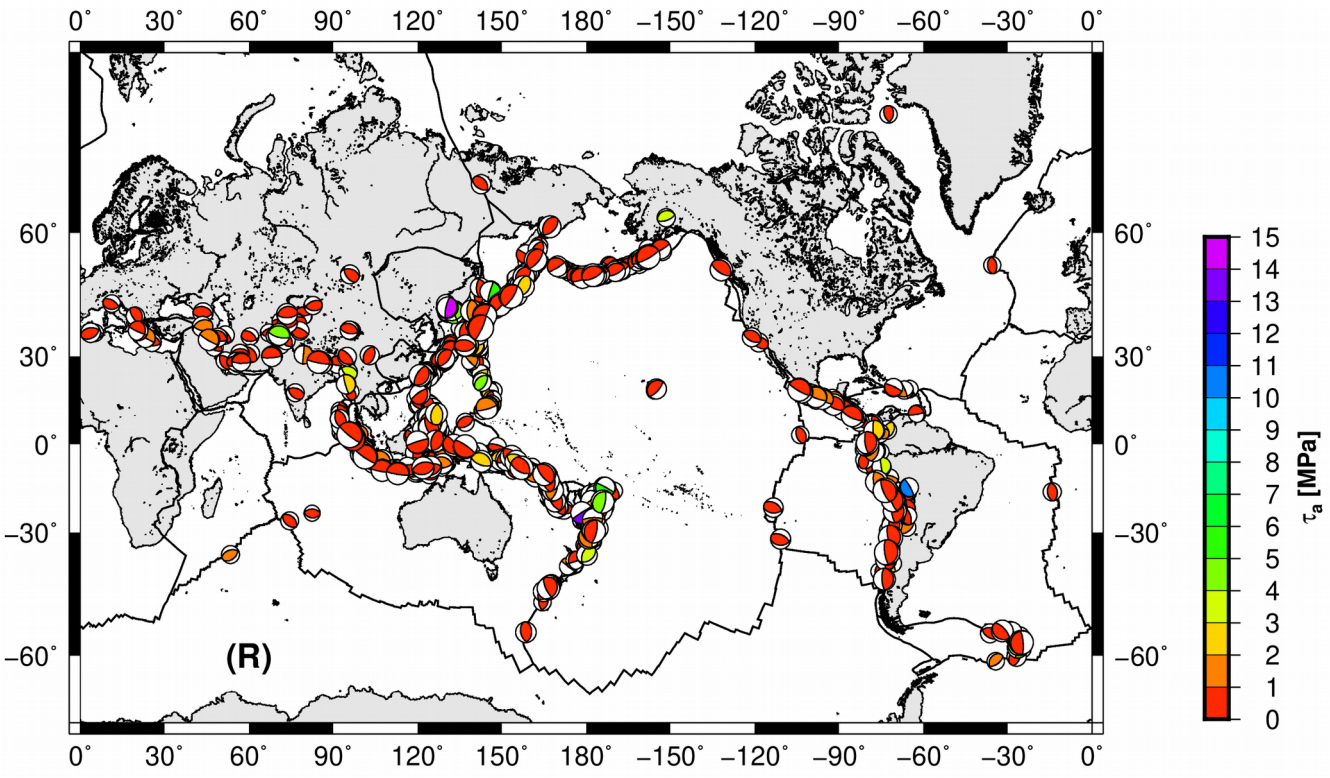

Figure S5. Spatial distribution of apparent stress for R events.

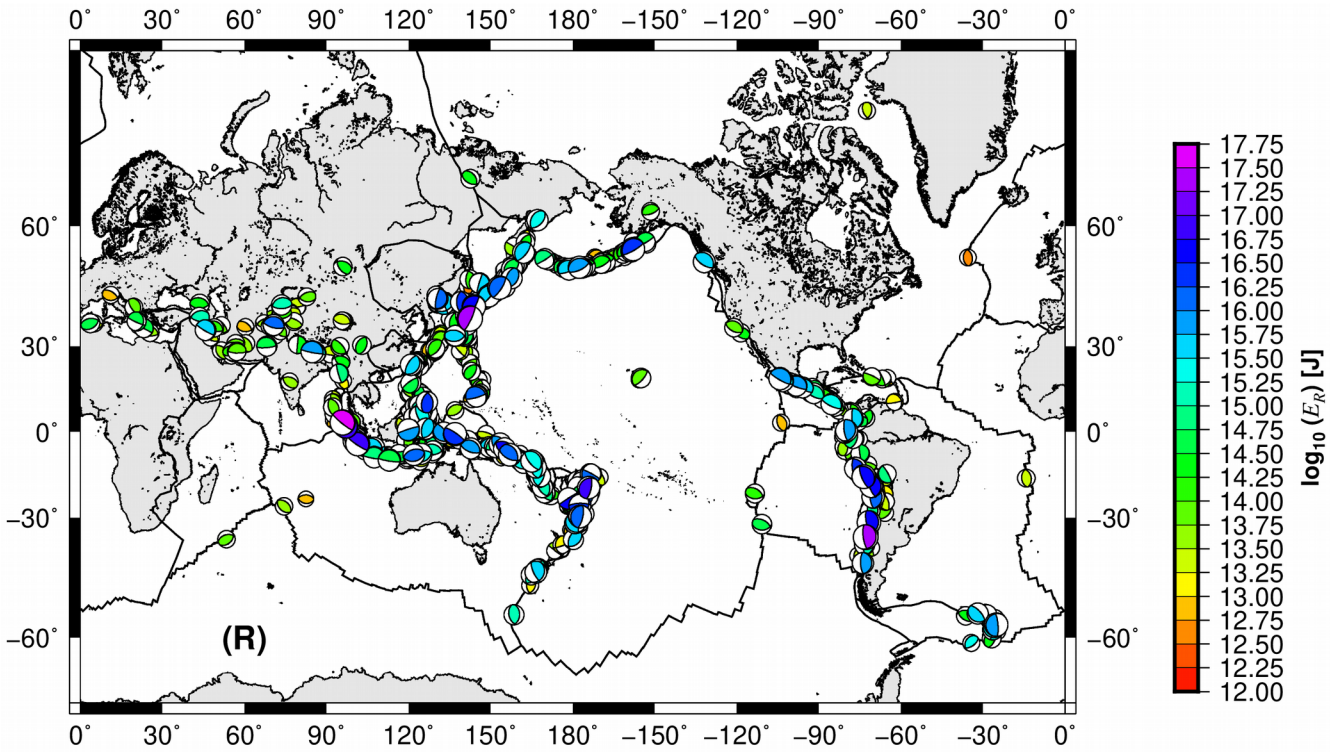

Figure S6. Spatial distribution of radiated seismic energy for R events.

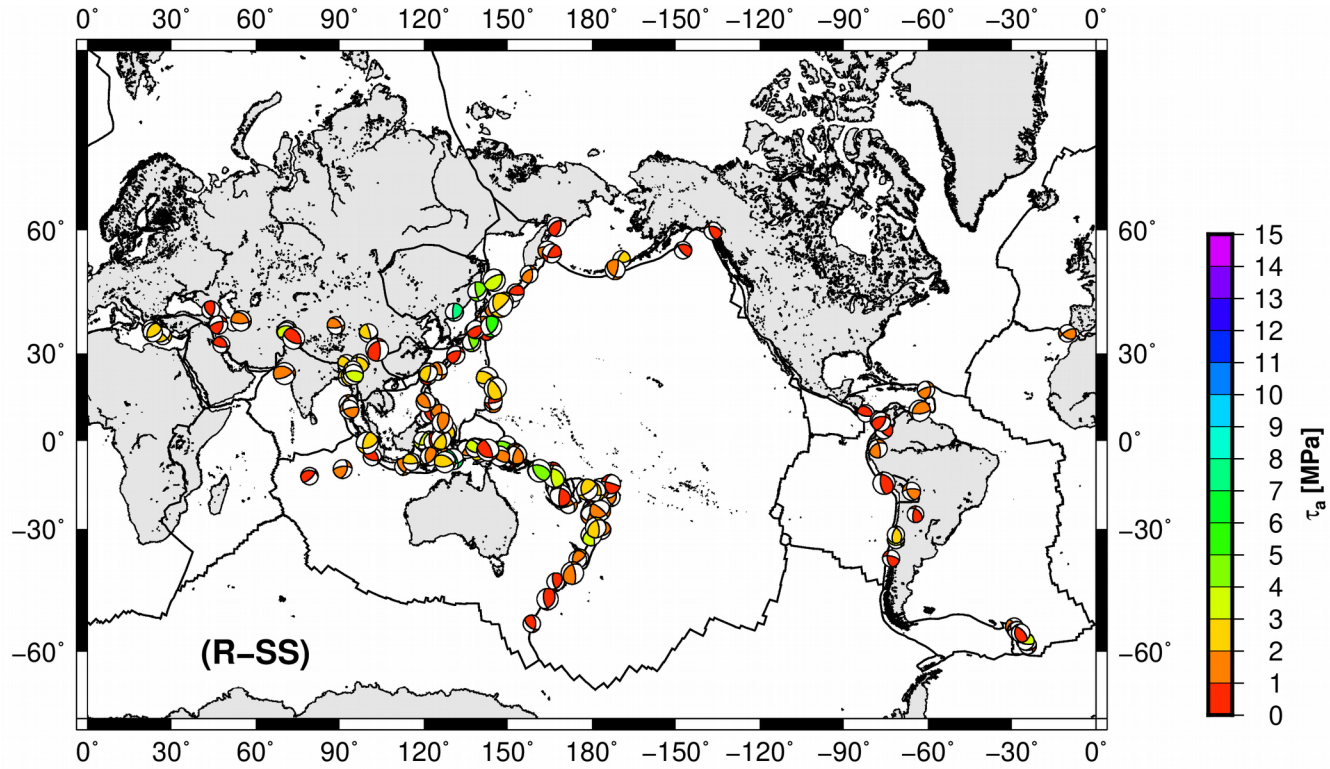

Figure S7. Spatial distribution of apparent stress for R-SS events.

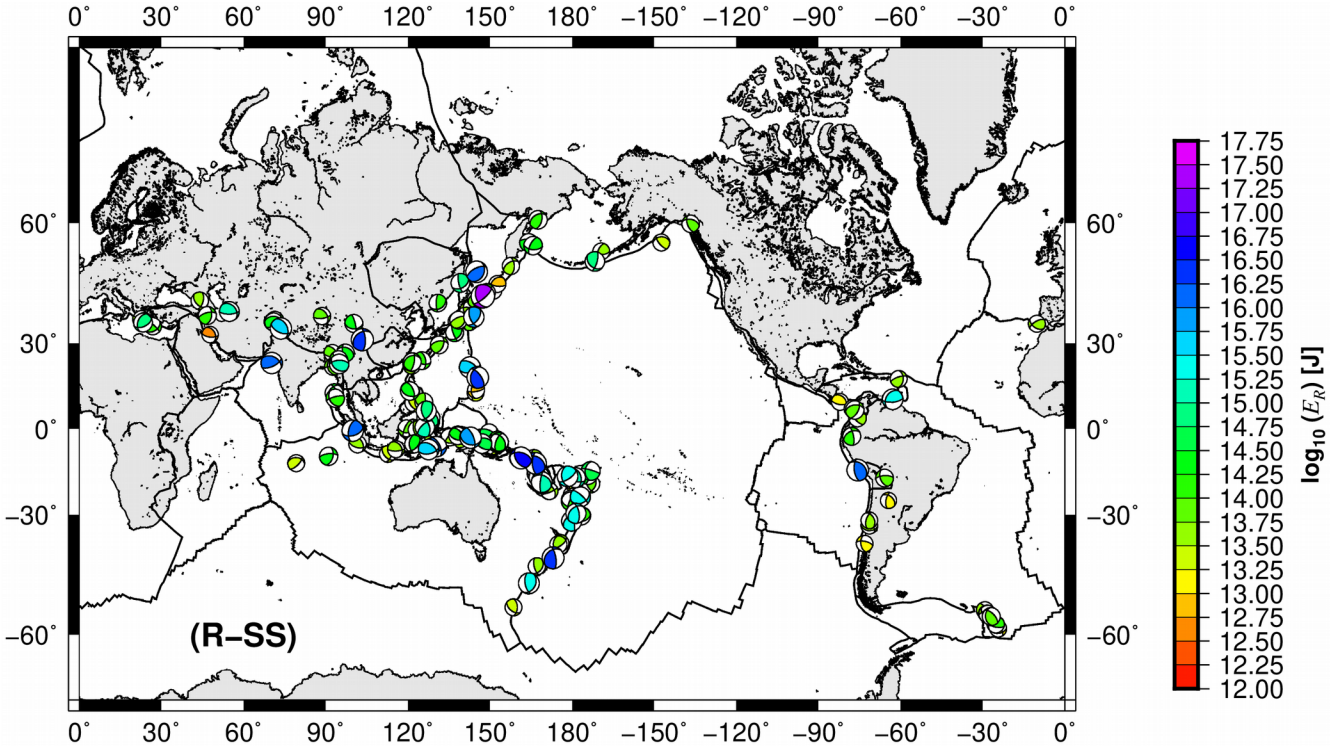

Figure S8. Spatial distribution of radiated seismic energy for R-SS events.

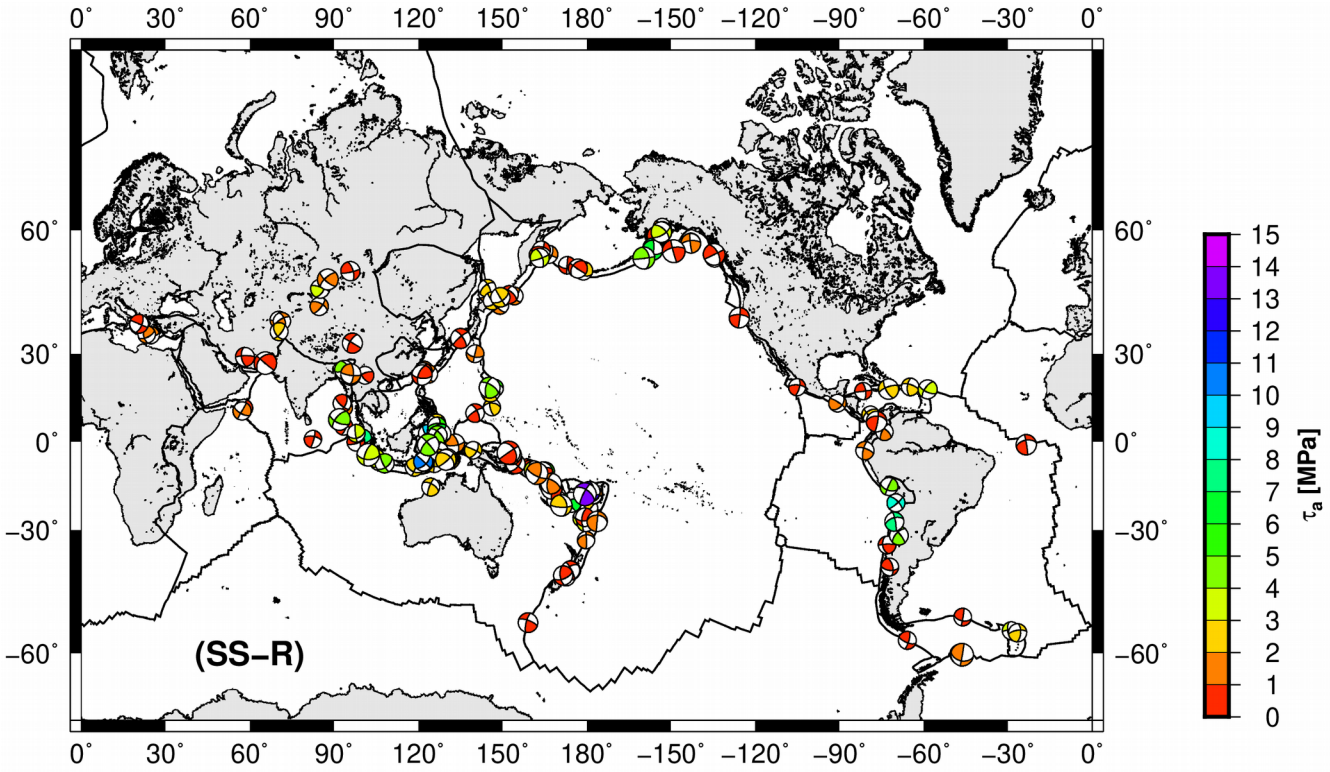

Figure S9. Spatial distribution of apparent stress for SS-R events.

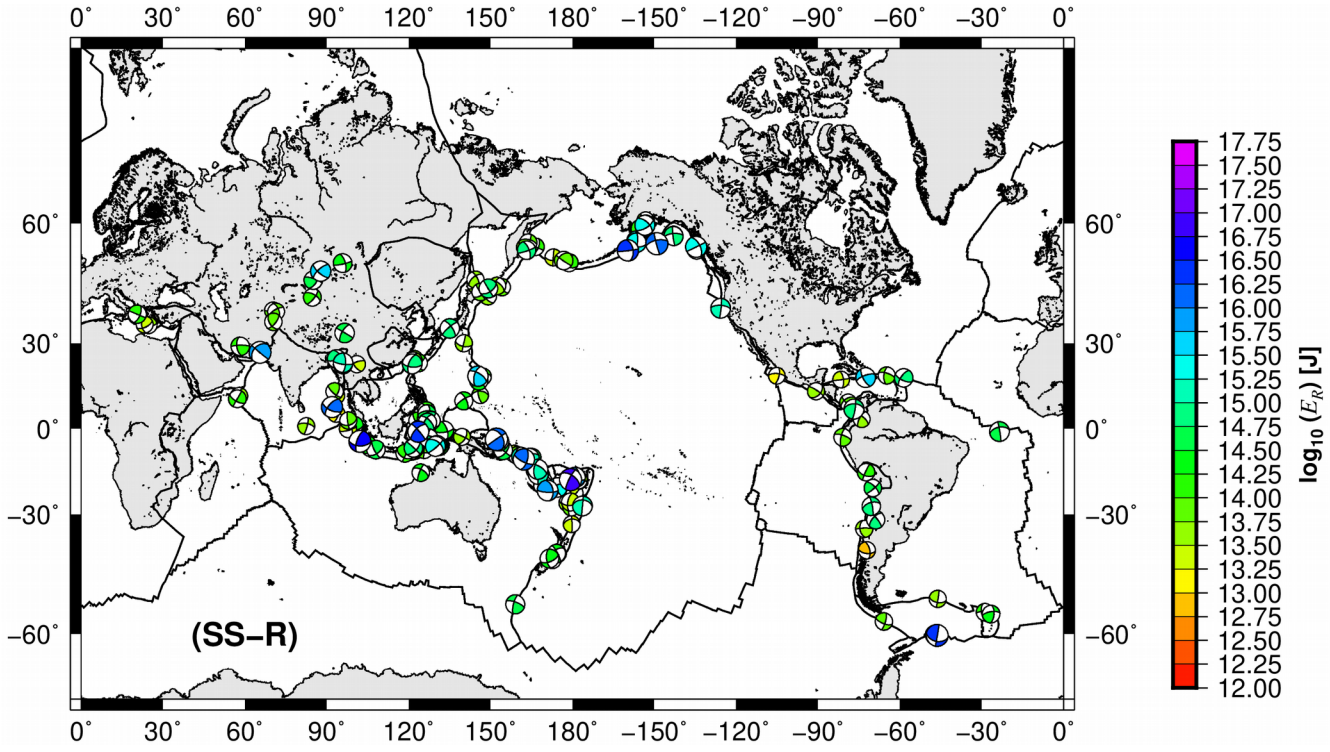

Figure S10. Spatial distribution of radiated seismic energy for SS-R events.

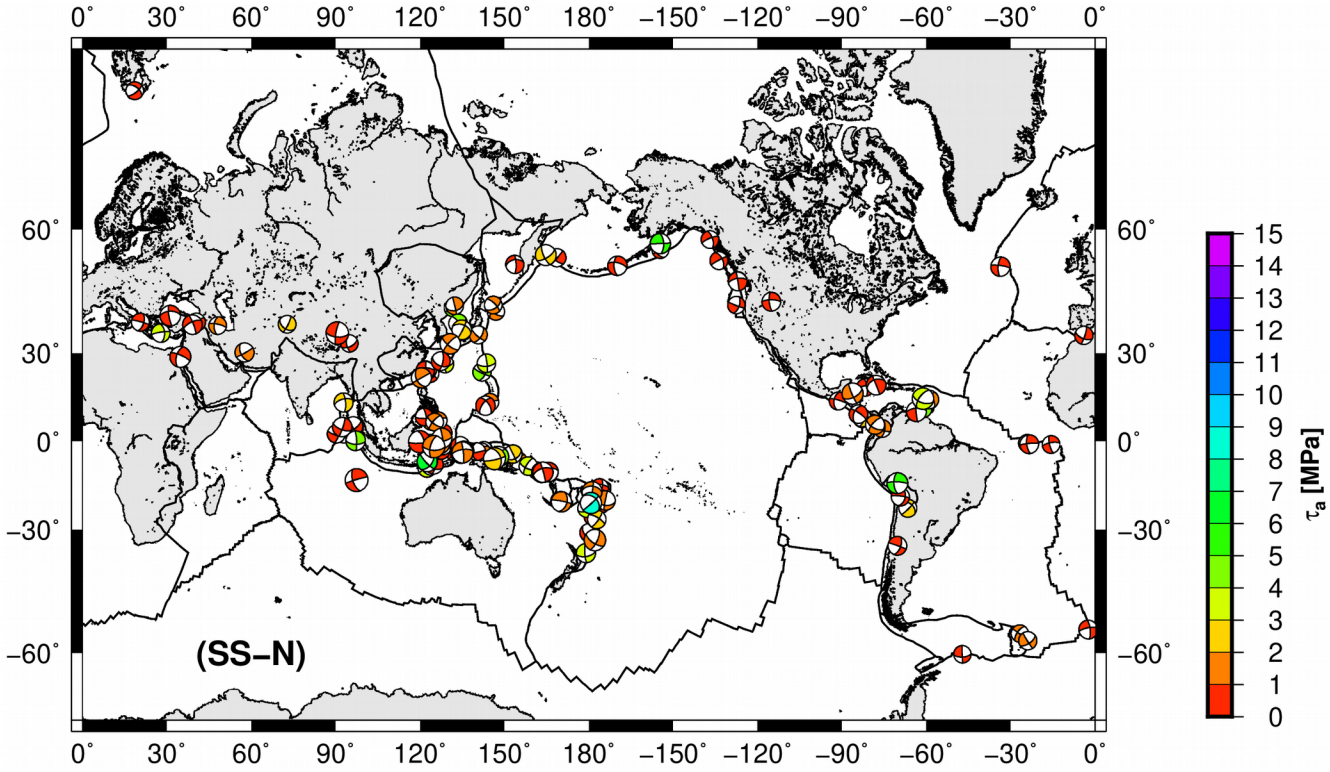

Figure S11. Spatial distribution of apparent stress for SS-N events.

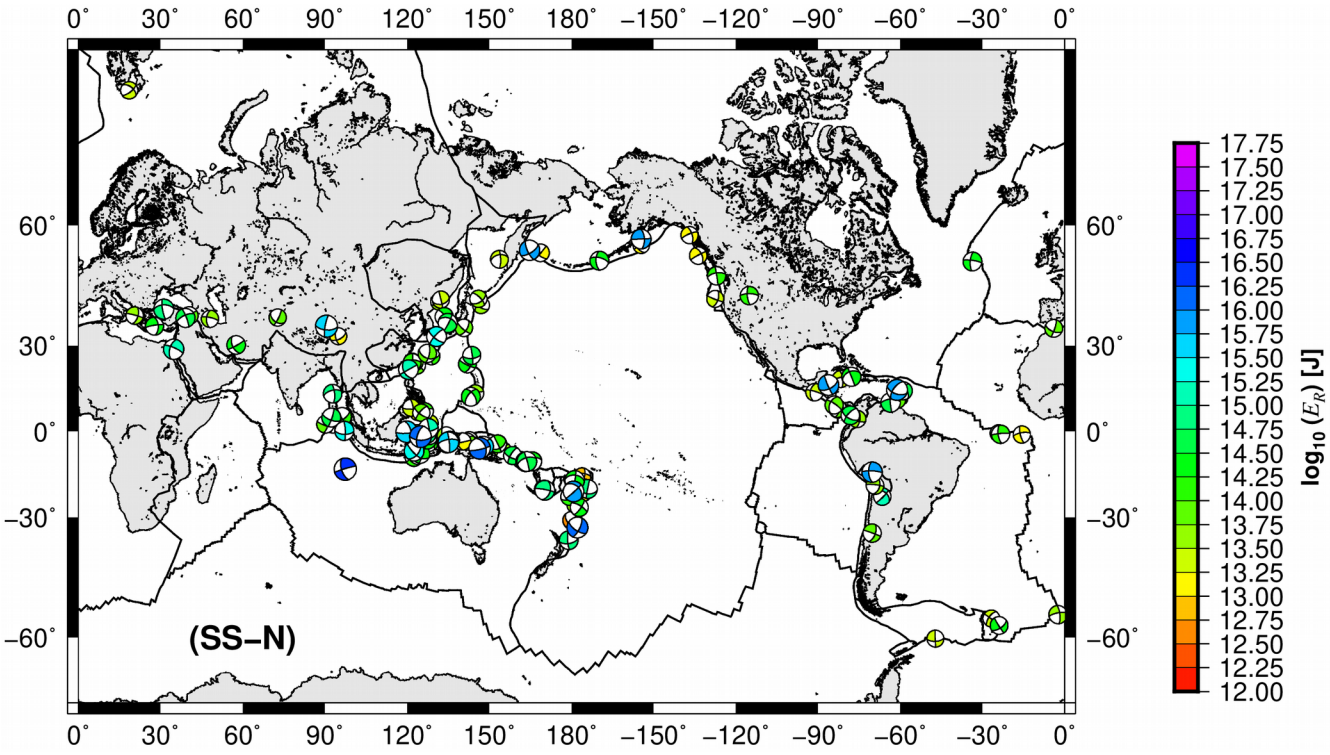

Figure S12. Spatial distribution of radiated seismic energy for SS-N events.

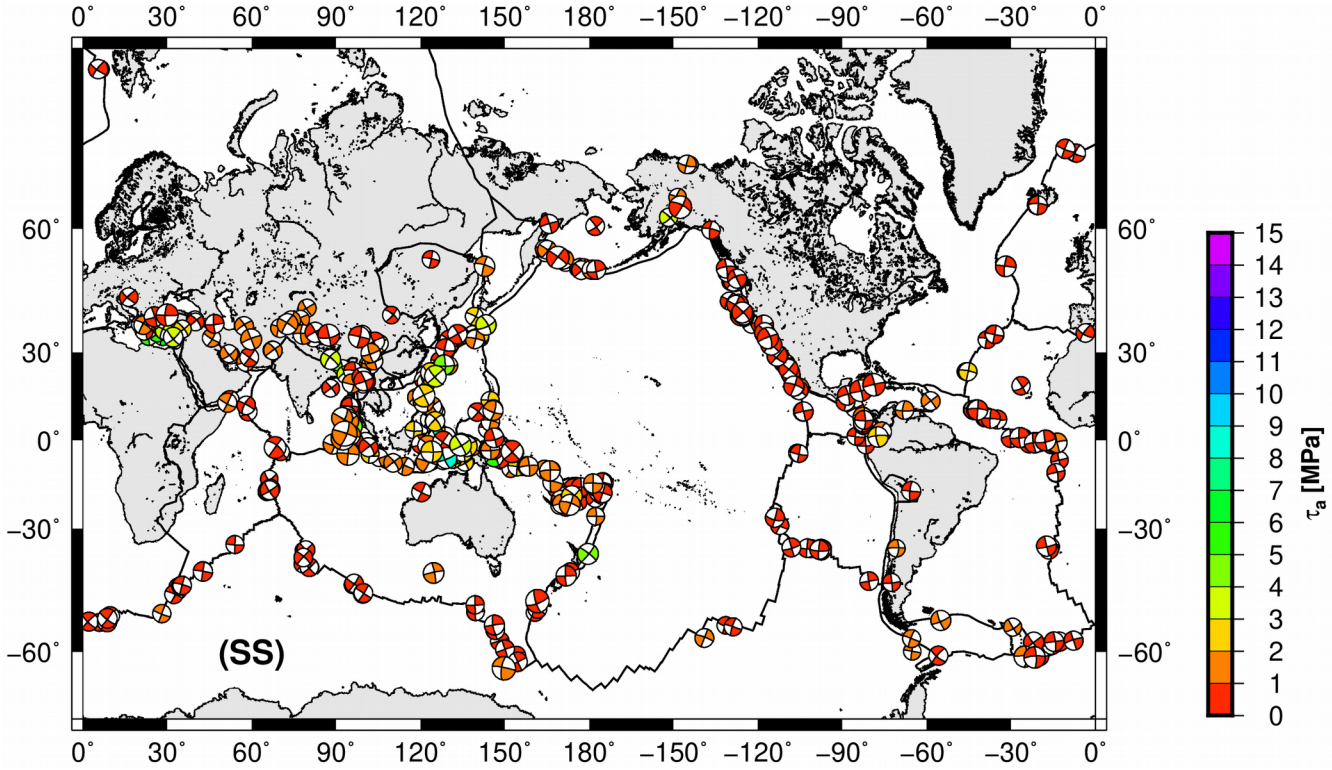

Figure S13. Spatial distribution of apparent stress for SS events.

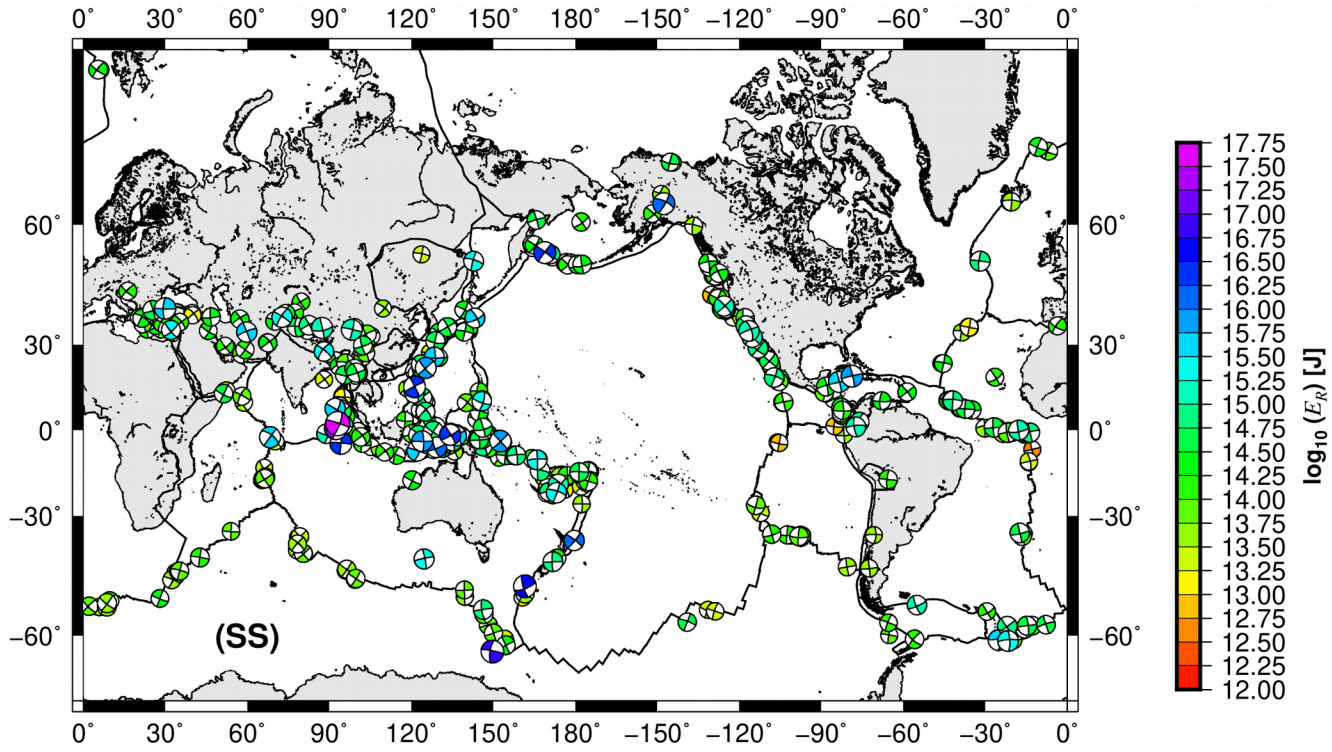

Figure S14. Spatial distribution of radiated seismic energy for SS events.

Table S1. T-test for finite-fault energy estimations of N events (Z < 30 km). In this and the following tables, *p* values which indicate a rejection of the null hypothesis based on 95% confidence (< 0.05), are highlighted in red.

	E_{mrt}	E_U	E_O
E_{mrt}	X		
E_U	0.0008	X	
E_O	$< 1 \times 10^{-4}$	$< 1 \times 10^{-6}$	X

Table S2. T-test for finite-fault energy estimations of R events (Z = 30 km).

	E_{mrt}	E_U	E_O
E_{mrt}	X		
E_U	$< 1 \times 10^{-12}$	X	
E_O	$< 1 \times 10^{-9}$	$< 1 \times 10^{-30}$	X

Table S3. T-test for finite-fault energy estimations of SS events (Z = 30 km).

E_{mrt}	X		
E_U	0.0038	X	
E_O	0.0058	$< 1 \times 10^{-6}$	X

Table S4. T-test for E_R/M_0 for Z < 30 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	0.0005	X					
R	0.0007	$< 1 \times 10^{-8}$	X				
R-SS	$< 1 \times 10^{-5}$	0.4336	$< 1 \times 10^{-13}$	X			
SS	$< 1 \times 10^{-9}$	0.2416	$< 1 \times 10^{-32}$	0.5917	X		
SS-N	$< 1 \times 10^{-11}$	0.0189	$< 1 \times 10^{-26}$	0.0687	0.1082	X	
SS-R	$< 1 \times 10^{-6}$	0.2322	$< 1 \times 10^{-16}$	0.4814	0.6954	0.40.13	X

Table S5. T-test for E_R/M_0 for 30 < Z < 60 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	0.2576	X					
R	$< 1 \times 10^{-6}$	$< 1 \times 10^{-5}$	X				
R-SS	0.2006	0.6872	$< 1 \times 10^{-13}$	X			
SS	0.7375	0.0904	$< 1 \times 10^{-32}$	0.5917	X		
SS-N	0.0196	0.4538	$< 1 \times 10^{-26}$	0.0687	0.1082	X	
SS-R	$< 1 \times 10^{-4}$	0.0255	$< 1 \times 10^{-16}$	0.4814	0.6954	0.4013	X

Table S6. T-test for E_R/M_0 for 60 < Z < 90 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	X	X					
R	$< 1 \times 10^{-4}$	X	X				
R-SS	0.8664	X	0.0026	X			
SS	X	X	X	X	X		
SS-N	0.9564	X	0.0017	0.8658	X	X	
SS-R	0.0015	X	$< 1 \times 10^{-11}$	0.0151	X	0.0268	X

Table S7. T-test for E_R/M_0 for 90 < Z < 120 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	X	X					
R	0.9428	X	X				
R-SS	0.0371	X	0.1112	X			
SS	X	X	X	X	X		
SS-N	X	X	X	X	X	X	
SS-R	0.0401	X	0.0665	0.9383	X	X	X

Table S8. T-test for E_R/M_0 for 120 < Z < 150 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	X	X					
R	0.9428	X	X				
R-SS	0.0371	X	0.1112	X			
SS	X	X	X	X	X		
SS-N	X	X	X	X	X	X	
SS-R	0.0401	X	0.0665	0.9382	X	X	X

Table S9. T-test for E_R/M_0 for 150 < Z < 180 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	X	X					
R	0.6854	X	X				
R-SS	X	X	X	X			
SS	X	X	X	X	X		
SS-N	X	X	X	X	X	X	
SS-R	X	X	X	X	X	X	X

Table S10. T-test for E_R/M_0 for Z > 180 km.

	N	N-SS	R	R-SS	SS	SS-N	SS-R
N	X						
N-SS	X	X					
R	0.2014	X	X				
R-SS	X	X	X	X			
SS	X	X	X	X	X		
SS-N	X	X	X	X	X	X	
SS-R	X	X	X	X	X	X	X