Supplemental Material for "Teleconnected tide gauges record the 20th century enhancement of decadal climate variability"

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Table S1. First 32 tide gauges included in this analysis. Completeness is the fraction of months with data over the time period beginning in the first full year and ending in the last full year, inclusive.

Tide Gauge	Lat	Lon	First Full Year	Last Full Year	Completeness
Honolulu	21.31	-157.87	1905	2019	100.0 %
Ketchikan	55.33	-131.62	1919	2019	99.0 %
Astoria (Tongue Point)	46.21	-123.77	1926	2019	98.8 %
Victoria	48.42	-123.37	1910	2018	99.0 %
San Francisco	37.81	-122.47	1900	2019	99.9 %
Seattle	47.6	-122.34	1900	2019	99.9 %
Los Angeles	33.72	-118.27	1924	2019	99.0 %
La Jolla (Scripps Pier)	32.87	-117.26	1925	2019	96.9 %
San Diego (Quarantine Station)	32.71	-117.17	1906	2019	98.5 %
Galveston II, Pier 21	29.31	-94.79	1909	2019	99.5 %
Pensacola	30.4	-87.21	1924	2019	98.6 %
Key West	24.55	-81.81	1913	2019	99.2 %
Charleston I	32.78	-79.92	1922	2019	100.0 %
Balboa	8.97	-79.57	1908	2018	99.4 %
Baltimore	39.27	-76.58	1903	2019	99.8 %
Annapolis (Naval Academy)	38.98	-76.48	1929	2019	96.3 %
Sewells Point, Hampton Roads	36.95	-76.33	1928	2019	99.8 %
Philadelphia (Pier 9N)	39.93	-75.14	1901	2019	97.5 %
New York (The Battery)	40.7	-74.01	1900	2019	99.3 %
Boston	42.35	-71.05	1921	2019	99.1 %
Portland (Maine)	43.66	-70.25	1912	2019	99.8 %
Newlyn	50.1	-5.54	1916	2018	98.5 %
Vlissingen	51.44	3.6	1900	2018	100.0
Hoek Van Holland	51.98	4.12	1900	2018	100.0 %
Maassluis	51.92	4.25	1900	2018	100.0 %
Ijmuiden	52.46	4.55	1900	2018	100.0 %
Den Helder	52.96	4.75	1900	2018	100.0 %
West-Terschelling	53.36	5.22	1921	2018	100.0 %
Marseille	43.28	5.35	1900	2017	96.2 %
Harlingen	53.18	5.41	1900	2018	100.0 %
Delfzijl	53.33	6.93	1900	2018	100.0 %
Tregde	58.01	7.55	1928	2019	97.6 %

Table S2. As Table S1, for the last 32 tide gauges.

Tide Gauge	Lat	Lon	First Full Year	Last Full Year	Completeness
Esbjerg	55.46	8.44	1900	2017	98.7 %
Cuxhaven 2	53.87	8.72	1900	2018	100.0 %
Heimsjo	63.43	9.1	1928	2019	96.4 %
Fredericia	55.56	9.75	1900	2017	99.2 %
Hirtshals	57.6	9.96	1900	2017	95.9 %
Aarhus	56.15	10.22	1900	2017	97.4 %
Frederikshavn	57.44	10.55	1900	2017	97.0 %
Slipshavn	55.29	10.83	1900	2017	96.4 %
Korsor	55.33	11.14	1900	2017	98.2 %
Smogen	58.35	11.22	1911	2018	100.0 %
Wismar 2	53.9	11.46	1900	2018	99.9 %
Gedser	54.57	11.93	1900	2017	99.2 %
Warnemunde 2	54.17	12.1	1900	2018	99.9 %
Hornbaek	56.09	12.46	1900	2017	98.3 %
Kobenhavn	55.7	12.6	1900	2017	97.5 %
Klagshamn	55.52	12.89	1930	2018	99.9 %
Kungsholmsfort	56.11	15.59	1900	2018	99.9 %
Olands Norra Udde	57.37	17.1	1900	2018	100.0 %
Stockholm	59.32	18.08	1900	2018	100.0 %
Visby	57.64	18.28	1916	2018	99.6 %
Foglo / Degerby	60.03	20.38	1924	2018	95.7 %
Ratan	63.99	20.89	1900	2018	99.8 %
Kaskinen / Kasko	62.34	21.21	1927	2018	97.9 %
Furuogrund	64.92	21.23	1916	2018	99.8 %
Mantyluoto	61.59	21.46	1911	2018	98.5 %
Turku / Abo	60.43	22.1	1922	2018	98.2 %
Pietarsaari / Jakobstad	63.71	22.69	1915	2018	98.3 %
Kemi	65.67	24.52	1920	2018	96.6 %
Helsinki	60.15	24.96	1900	2018	99.9 %
Oulu / Uleaborg	65.04	25.42	1900	2018	95.2 %
Hamina	60.56	27.18	1929	2018	98.7 %
Sydney, Fort Denison 2	-33.85	151.23	1915	2019	98.6 %

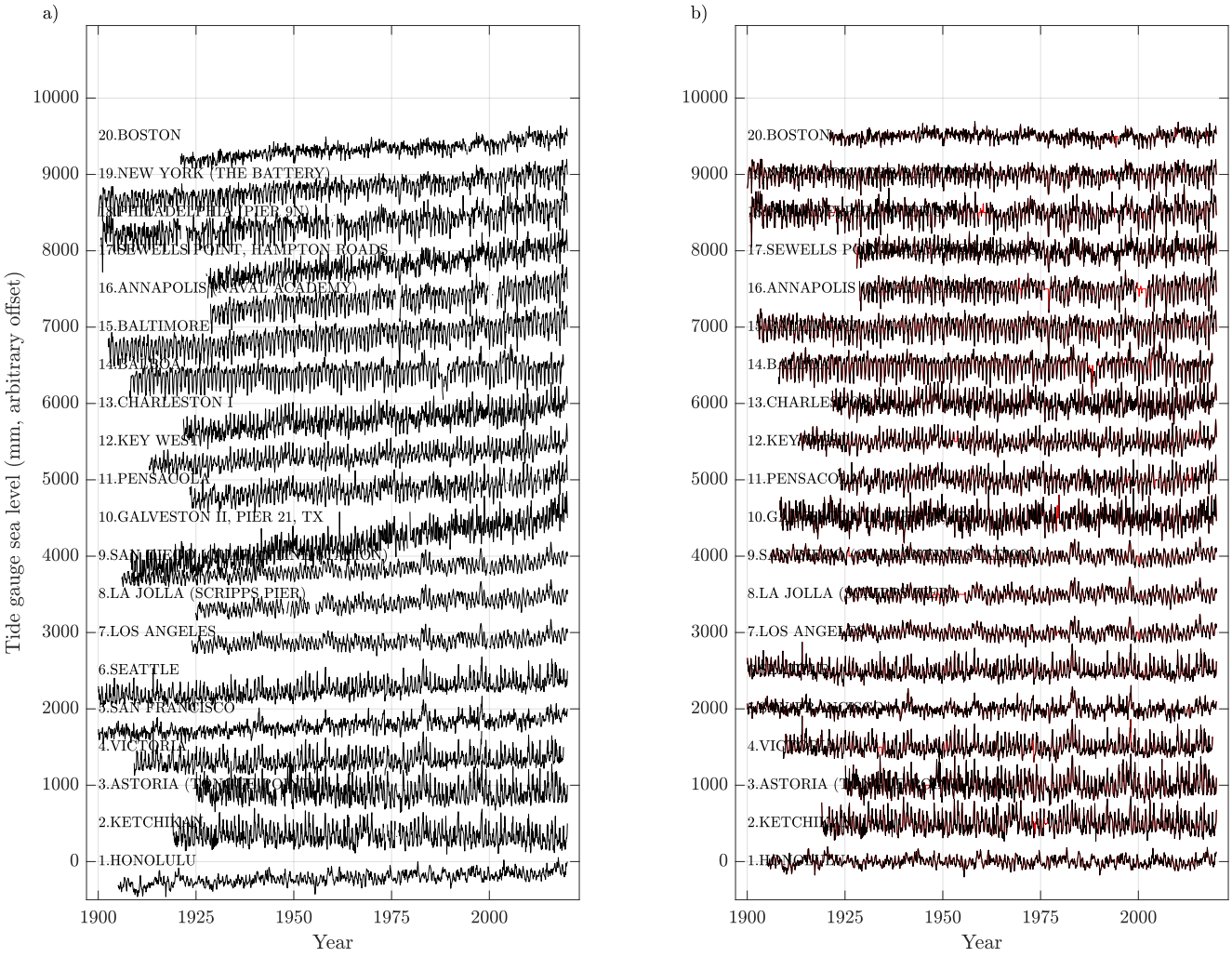

Figure S1. a) Monthly sea level records from tide gauges 1-20. b) Tide gauge records after interpolation (in red) and detrending.

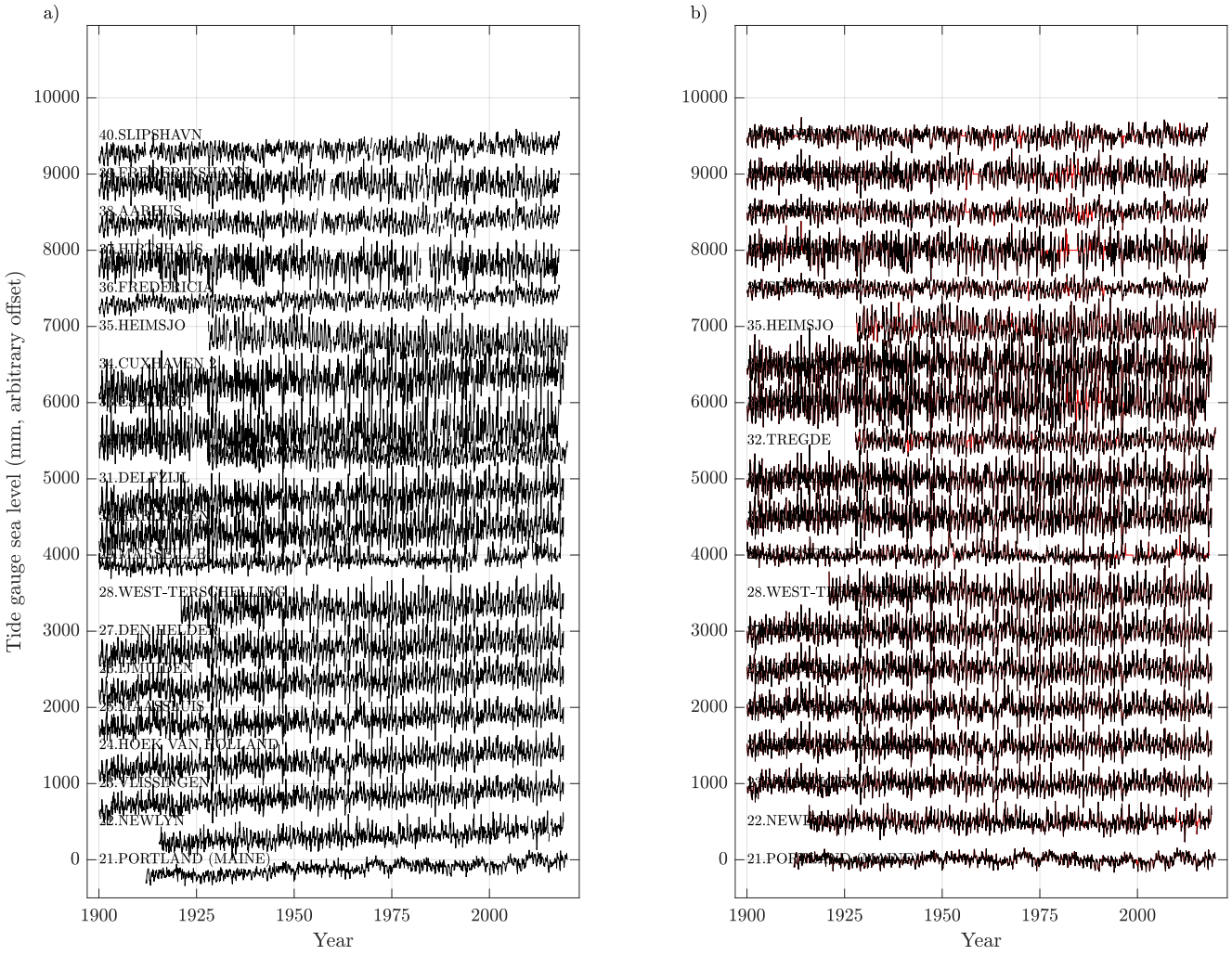

Figure S2. a) Monthly sea level records from tide gauges 21-40. b) Tide gauge records after interpolation (in red) and detrending.

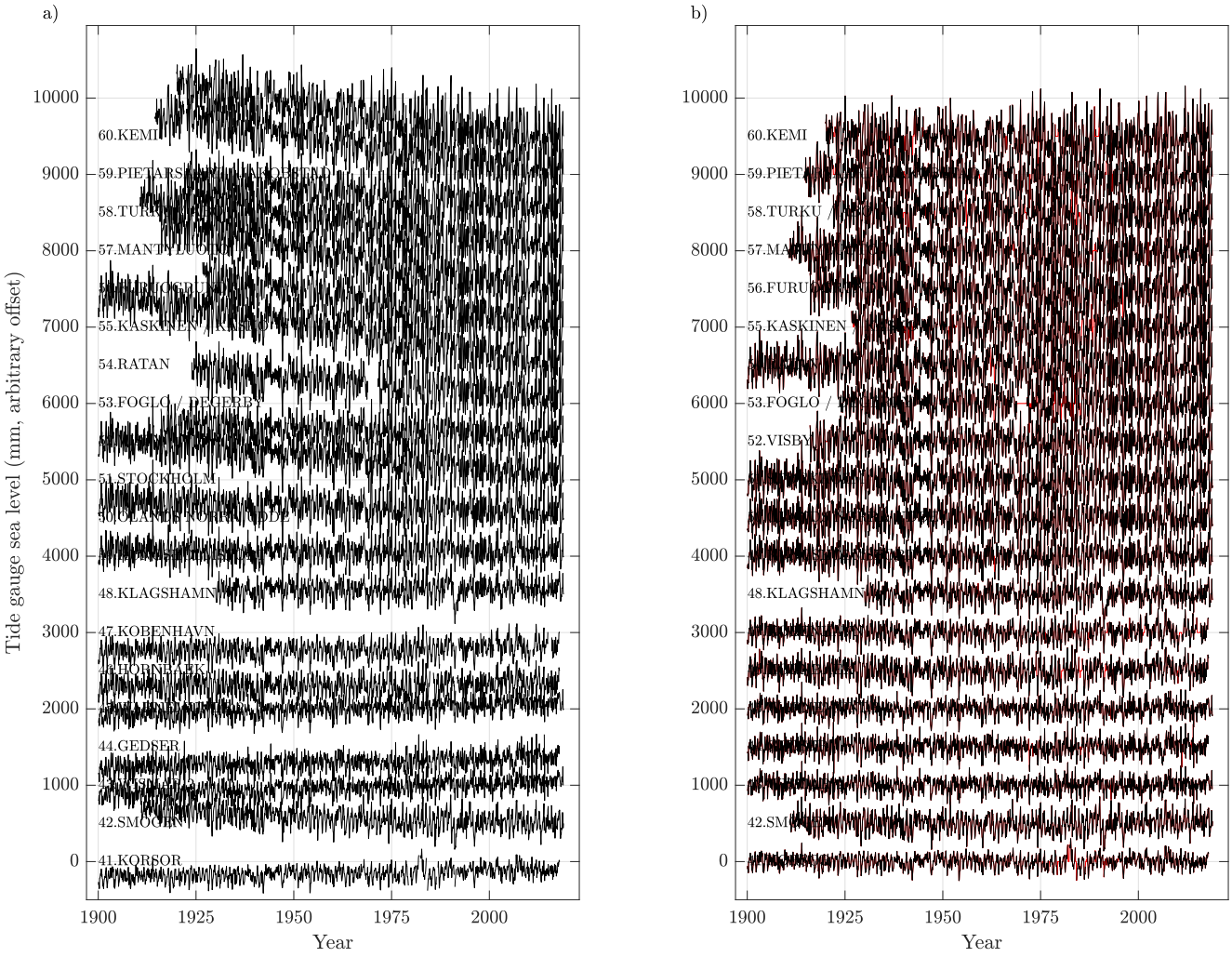

Figure S3. a) Monthly sea level records from tide gauges 41-60. b) Tide gauge records after interpolation (in red) and detrending.

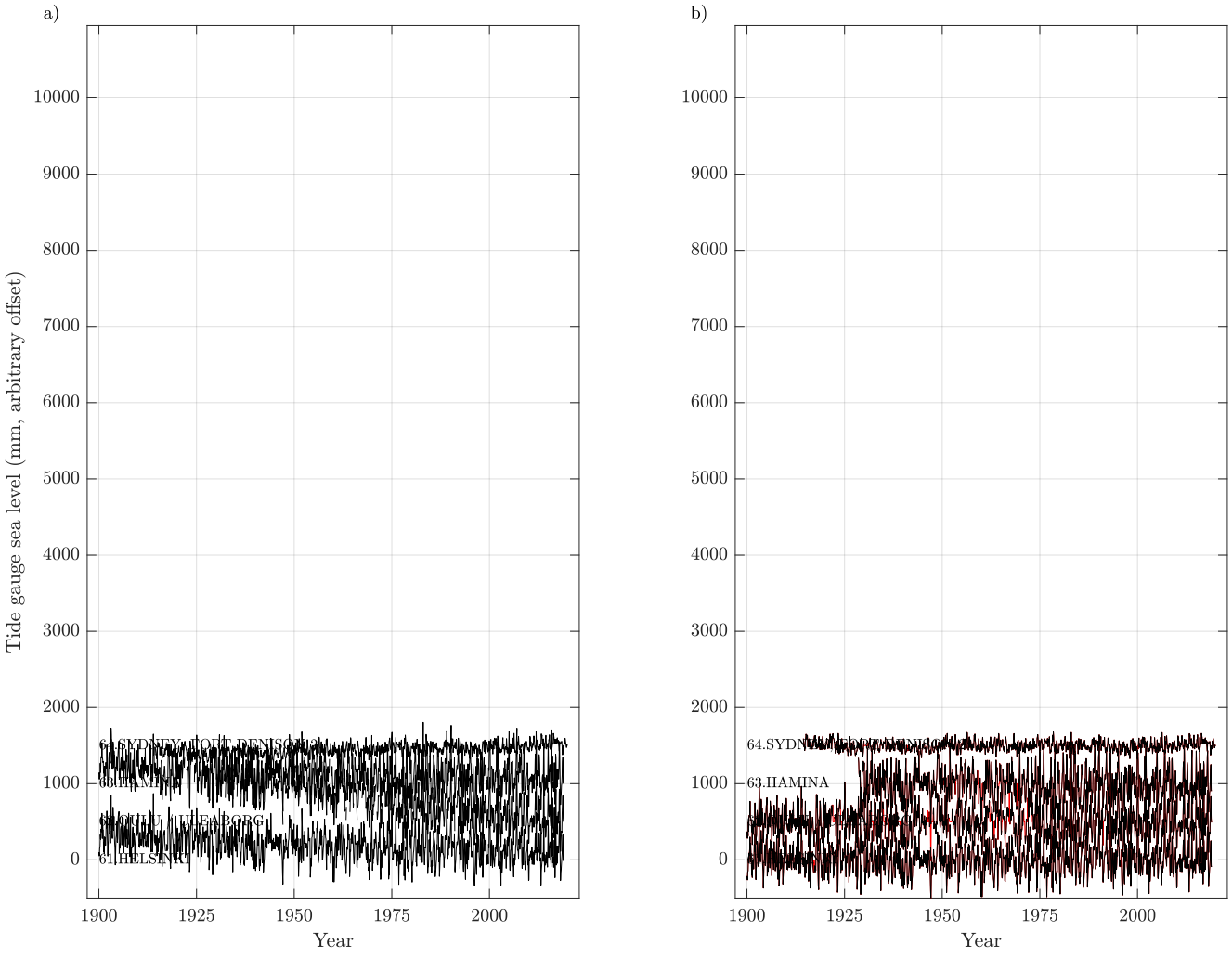

Figure S4. a) Monthly sea level records from tide gauges 61-64. b) Tide gauge records after interpolation (in red) and detrending.

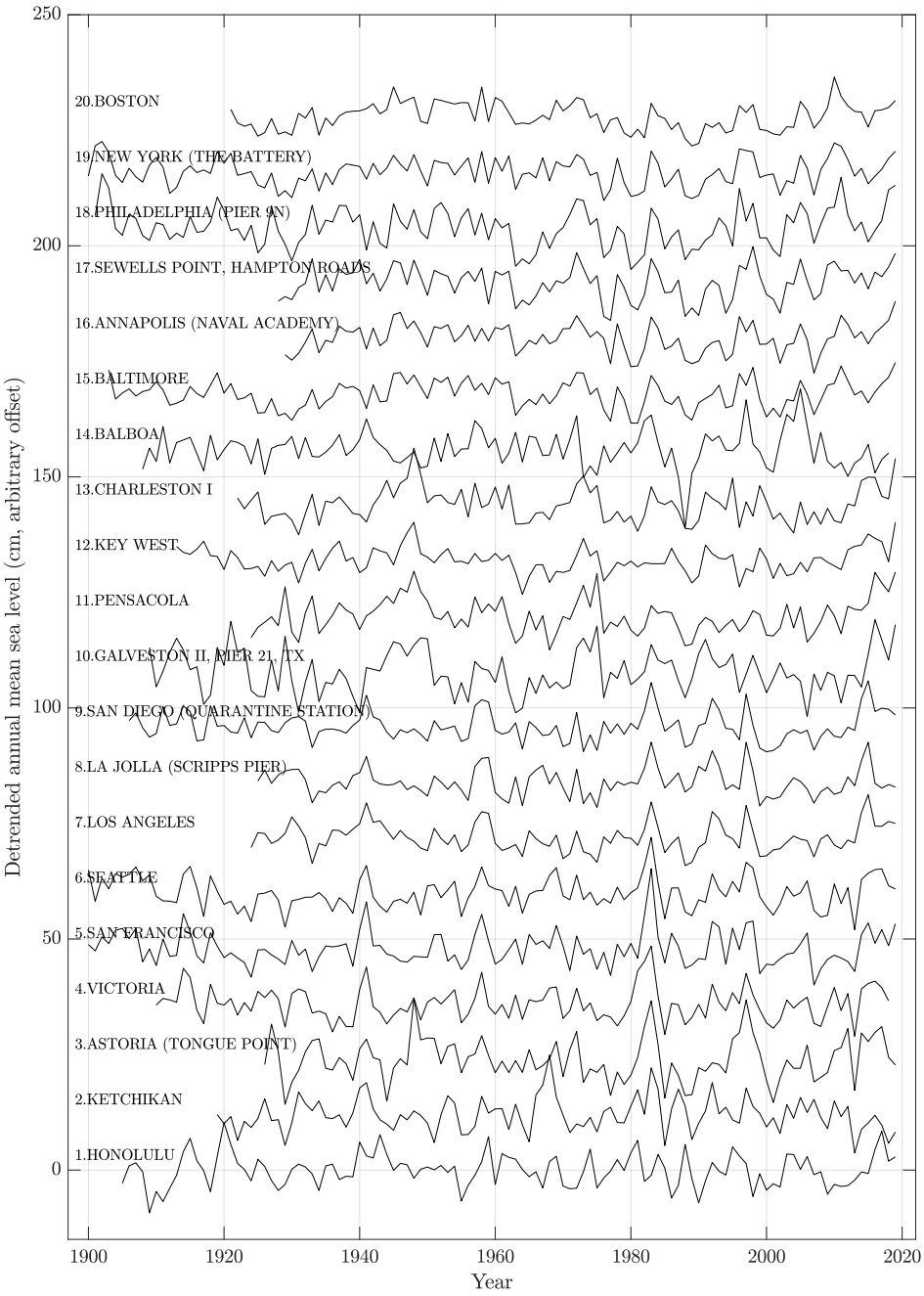

Figure S5. Annual mean detrended sea level records (ζ) for tide gauges 1-20, following processing described in the main text.

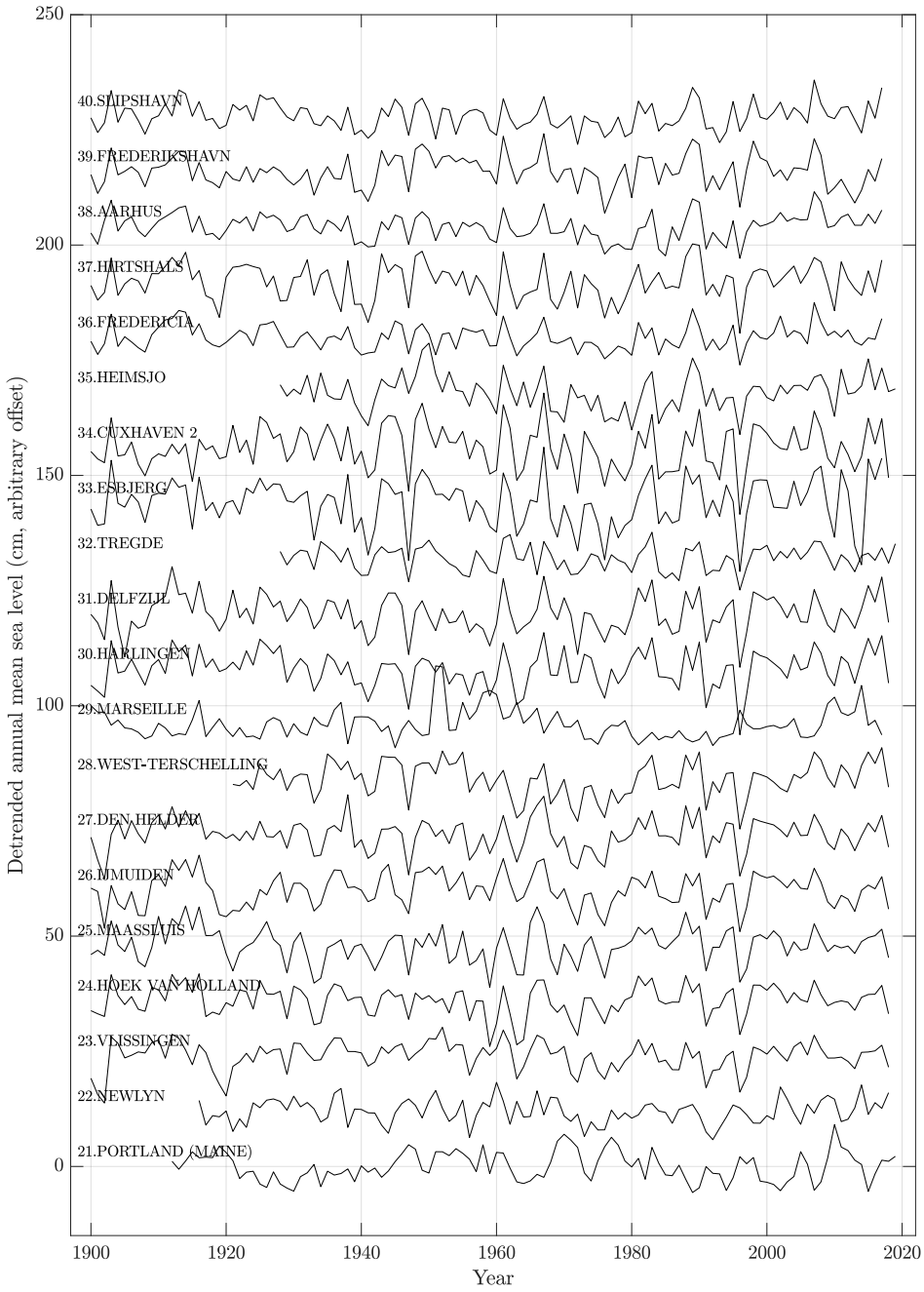

Figure S6. Annual mean detrended sea level records (ζ) for tide gauges 21-40, following processing described in the main text.

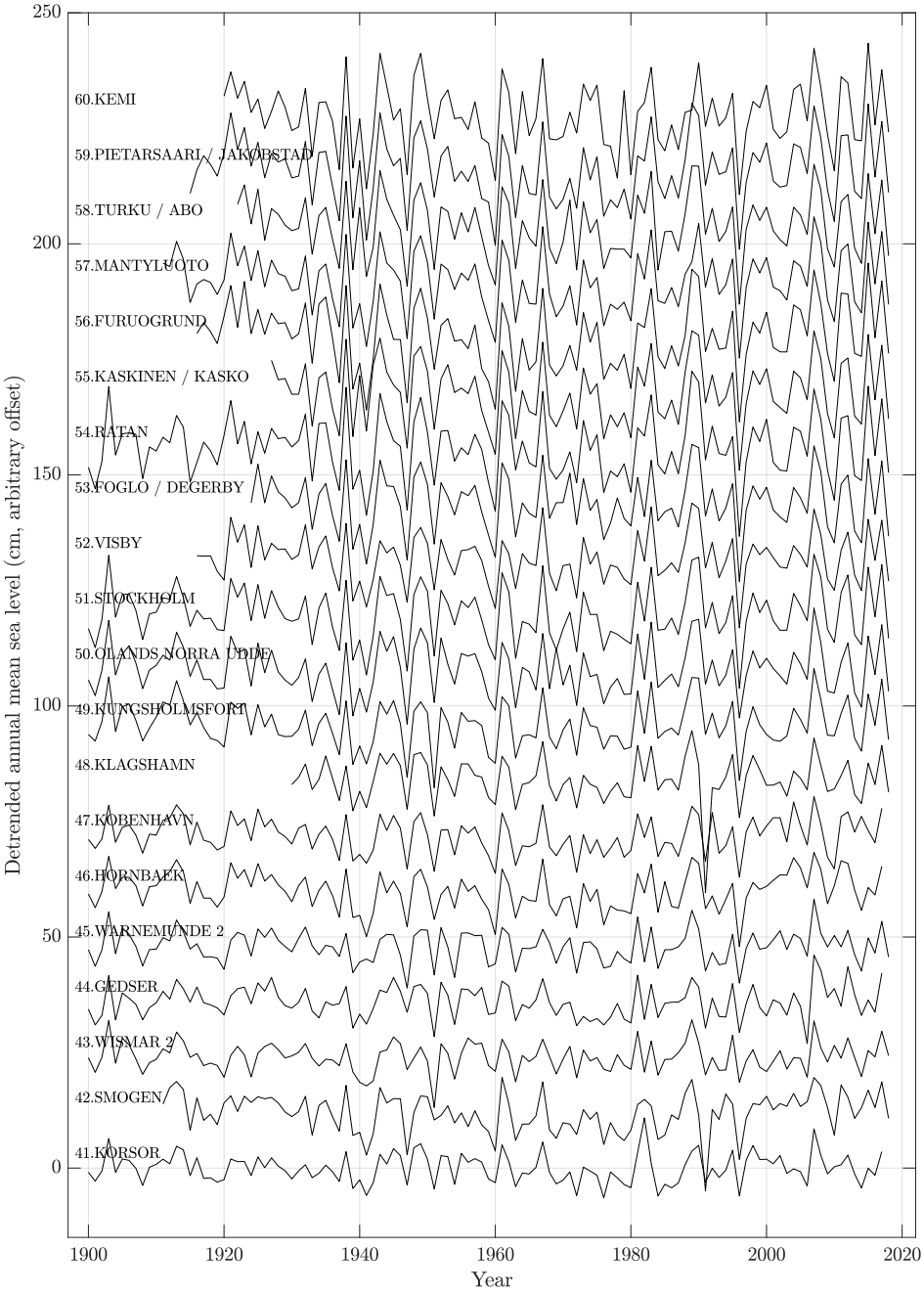

Figure S7. Annual mean detrended sea level records (ζ) for tide gauges 41-60, following processing described in the main text.

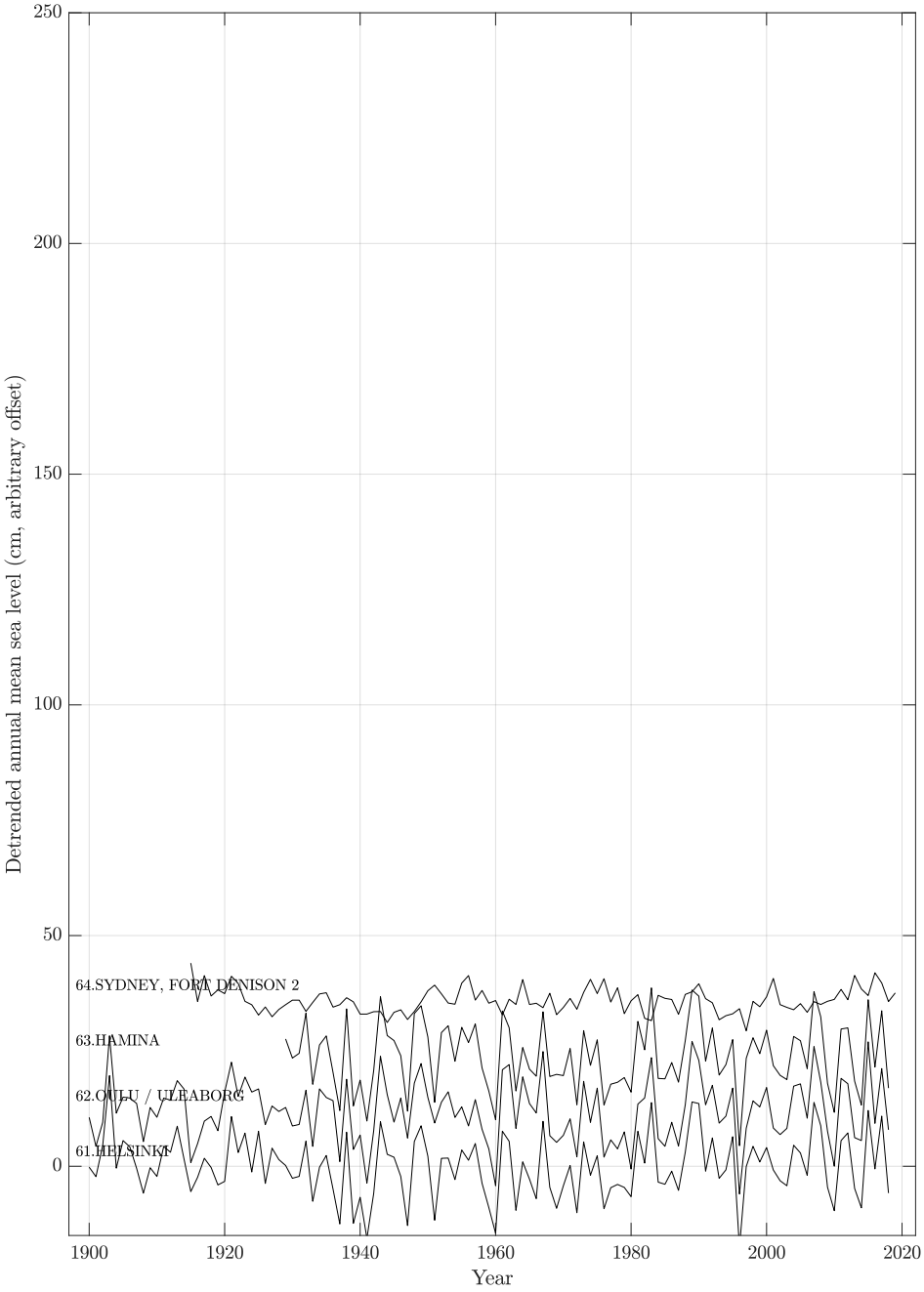

Figure S8. Annual mean detrended sea level records (ζ) for tide gauges 61-64, following processing described in the main text.

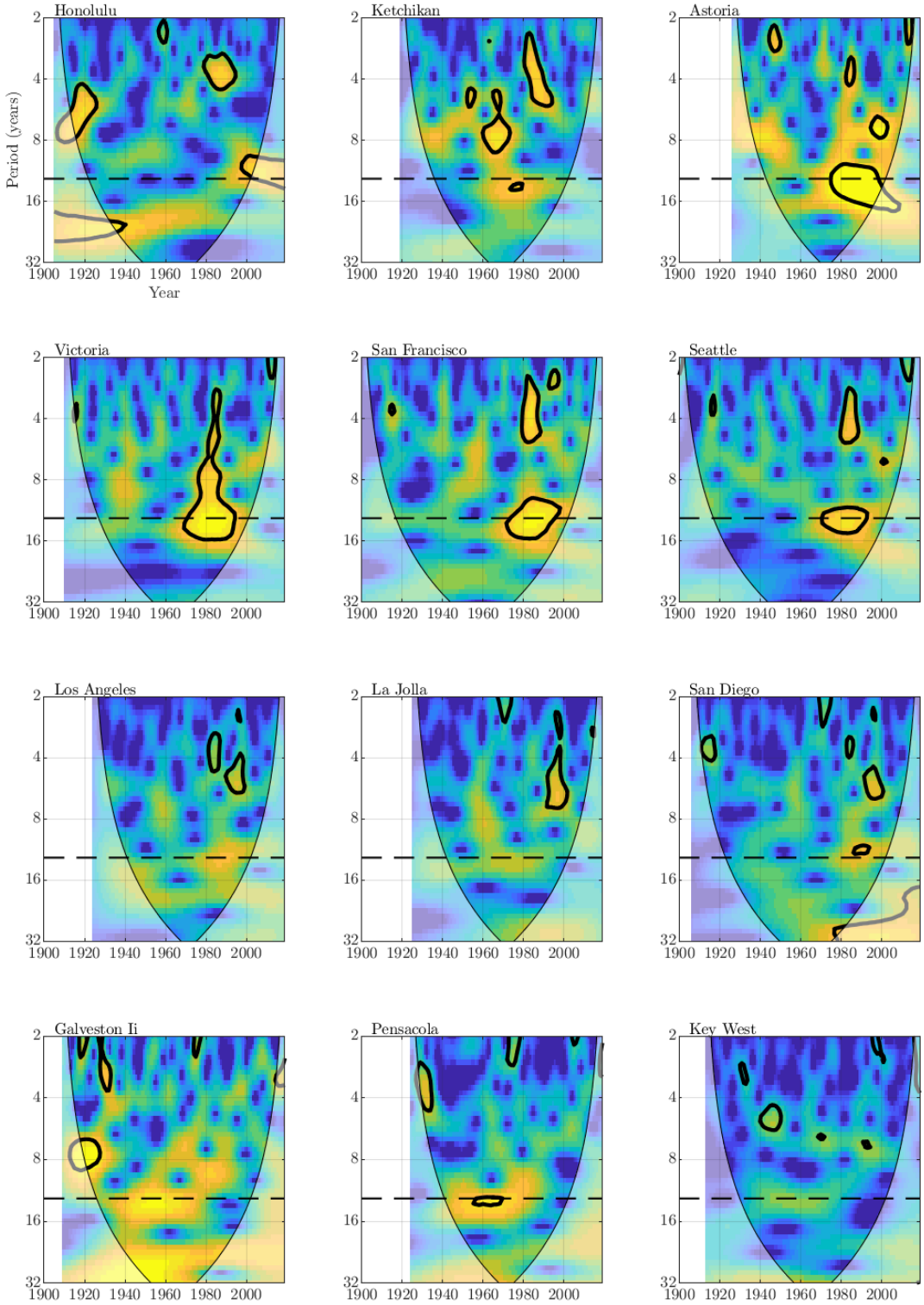

Figure S9. As Fig. 1b (with the identical color scale), for ζ at tide gauges 1-12. Dashed line indicates a period centered on 12.4 years.

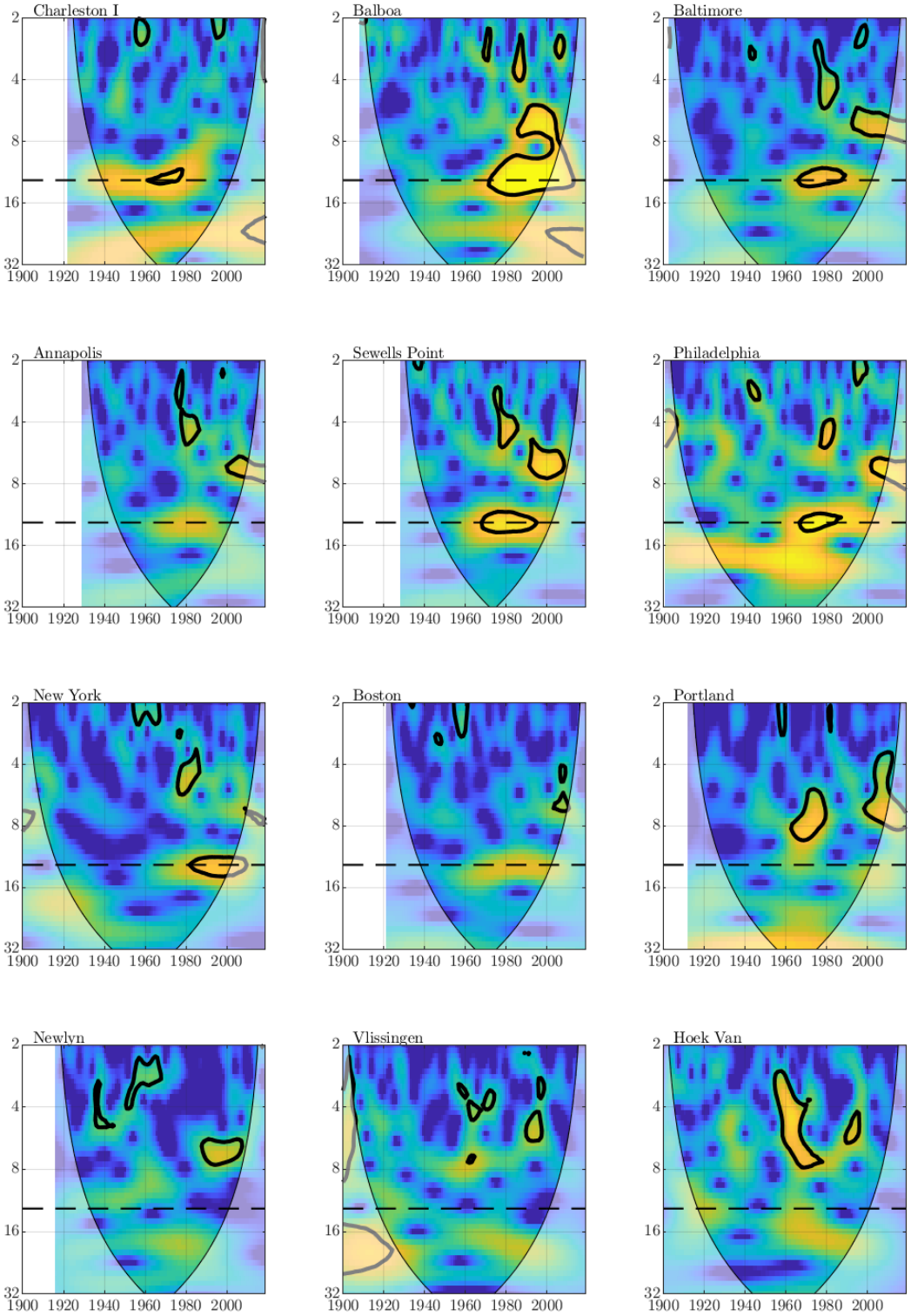

Figure S10. As Fig. 1b (with the identical color scale), for ζ at tide gauges 13-24. Dashed line indicates a period centered on 12.4 years.

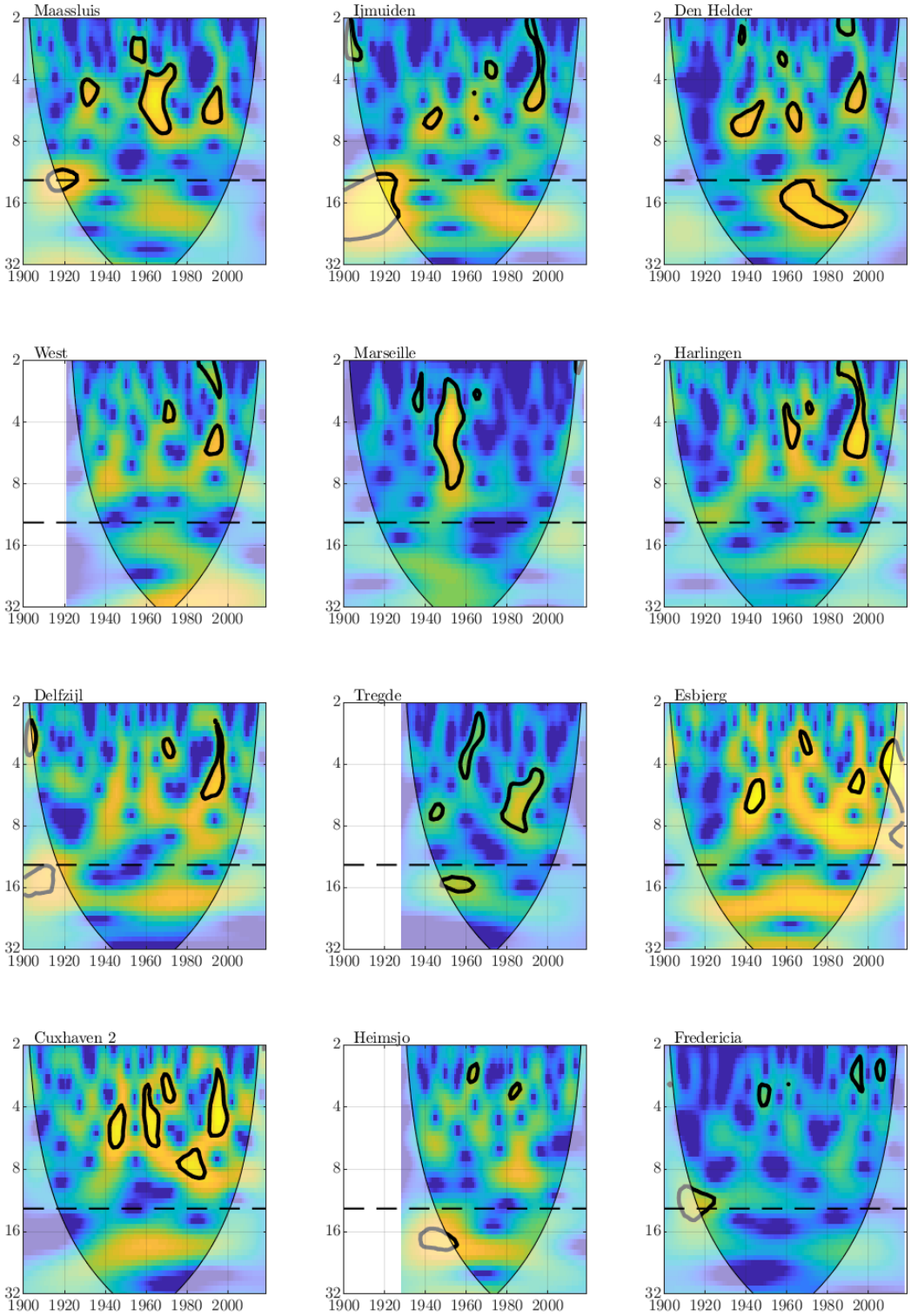

Figure S11. As Fig. 1b (with the identical color scale), for ζ at tide gauges 25-36. Dashed line indicates a period centered on 12.4 years.

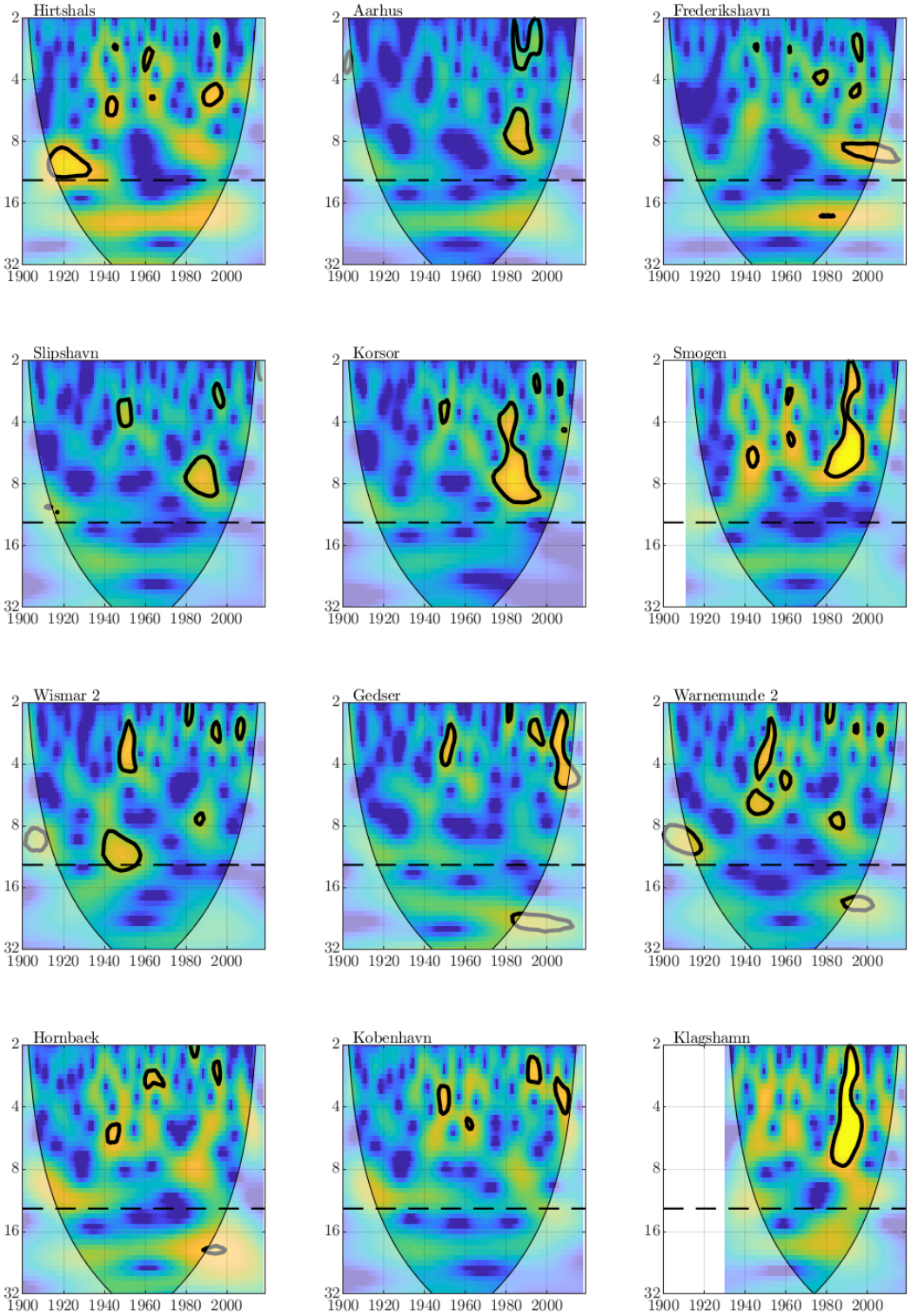

Figure S12. As Fig. 1b (with the identical color scale), for ζ at tide gauges 37-48. Dashed line indicates a period centered on 12.4 years.

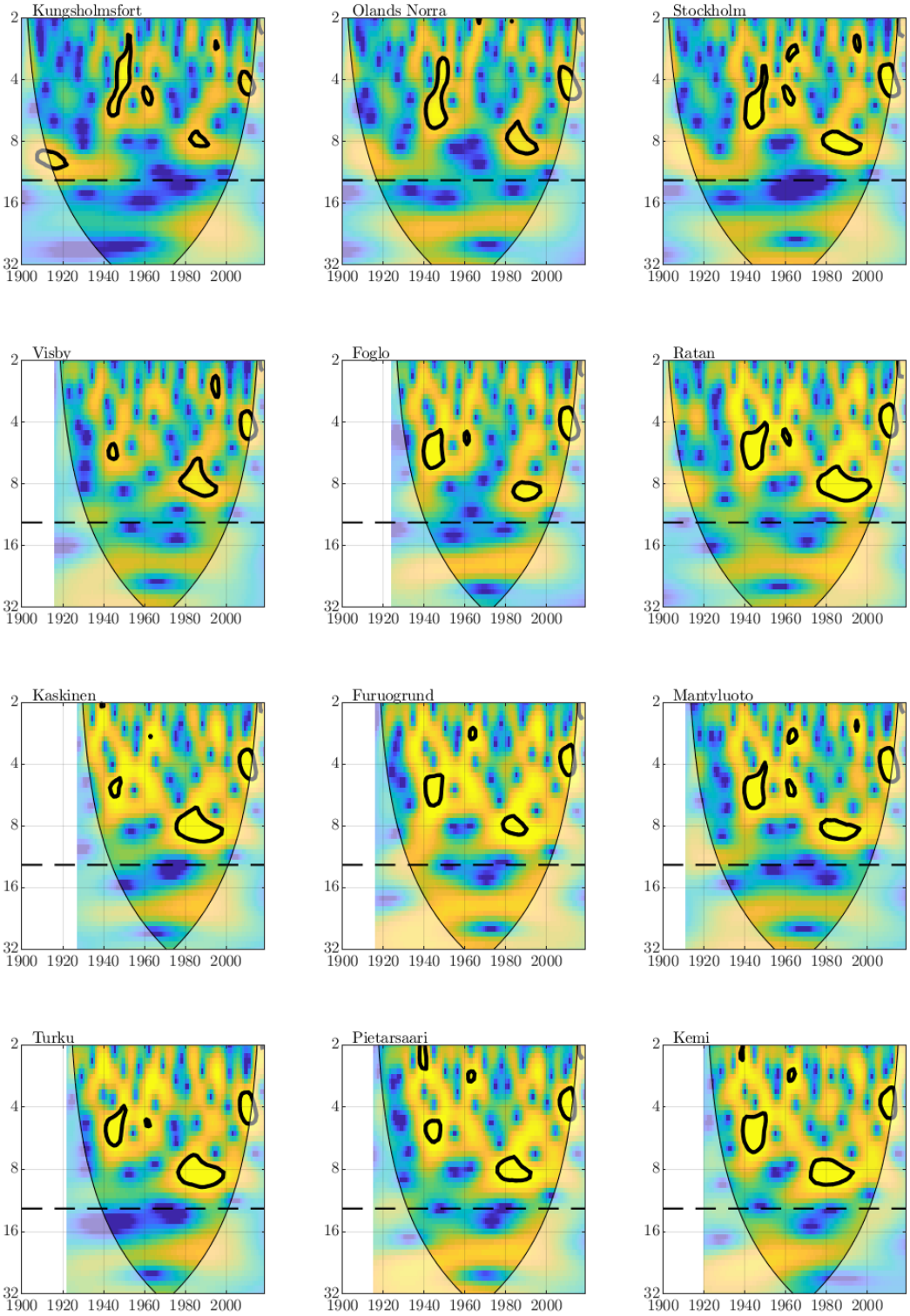

Figure S13. As Fig. 1b (with the identical color scale), for ζ at tide gauges 49-60. Dashed line indicates a period centered on 12.4 years.

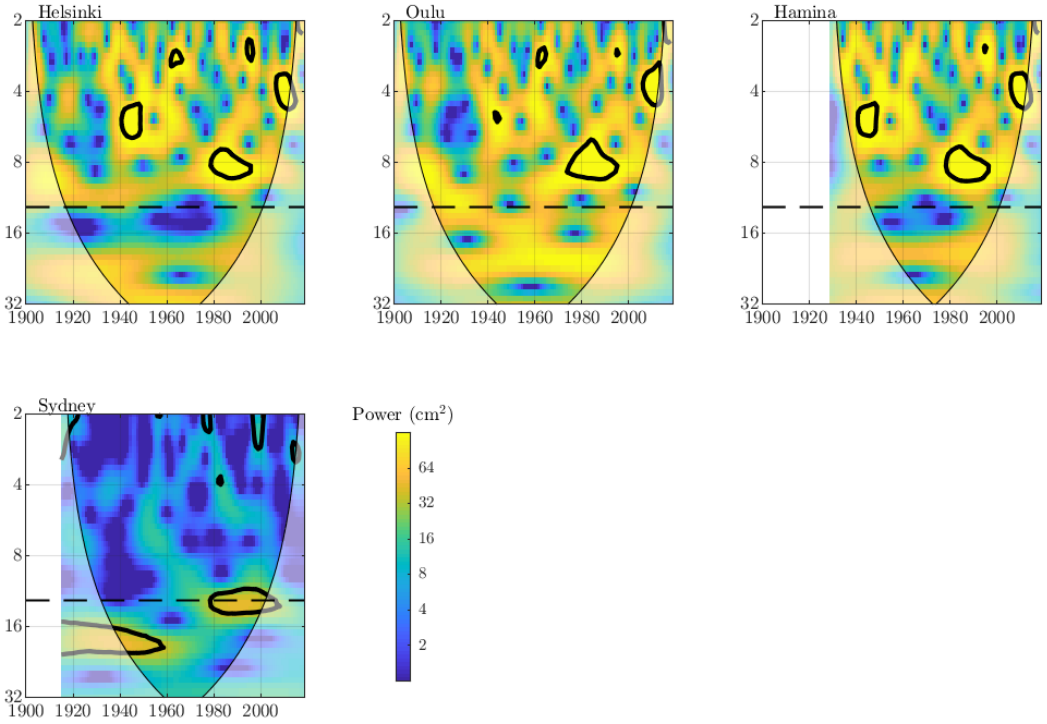

Figure S14. As Fig. 1b (with the identical color scale), for ζ at tide gauges 61-64. Dashed line indicates a period centered on 12.4 years.

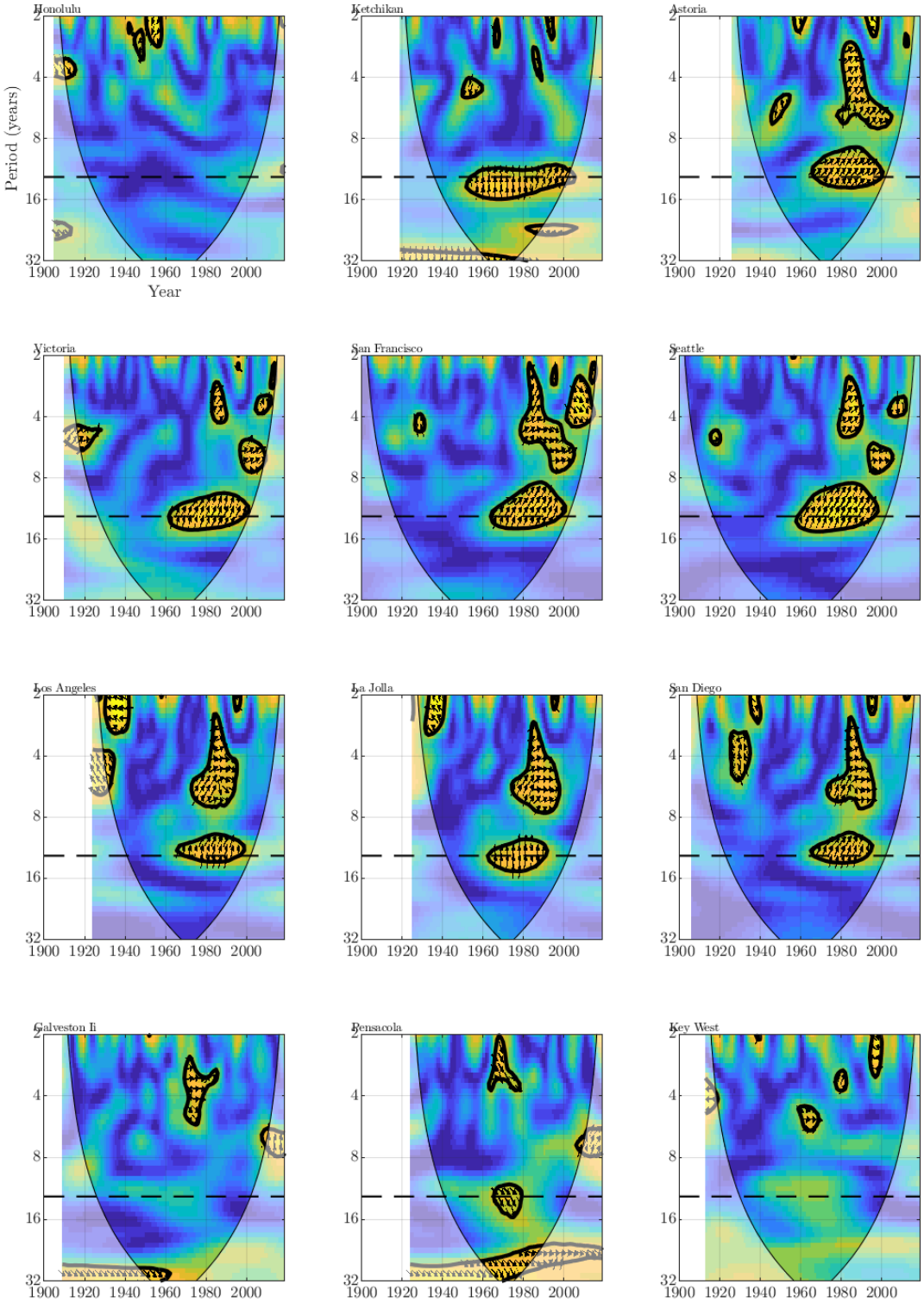

Figure S15. As Fig. 2b (with the identical color scale), for ζ at tide gauges 1-12. Dashed line indicates a period centered on 12.4 years.

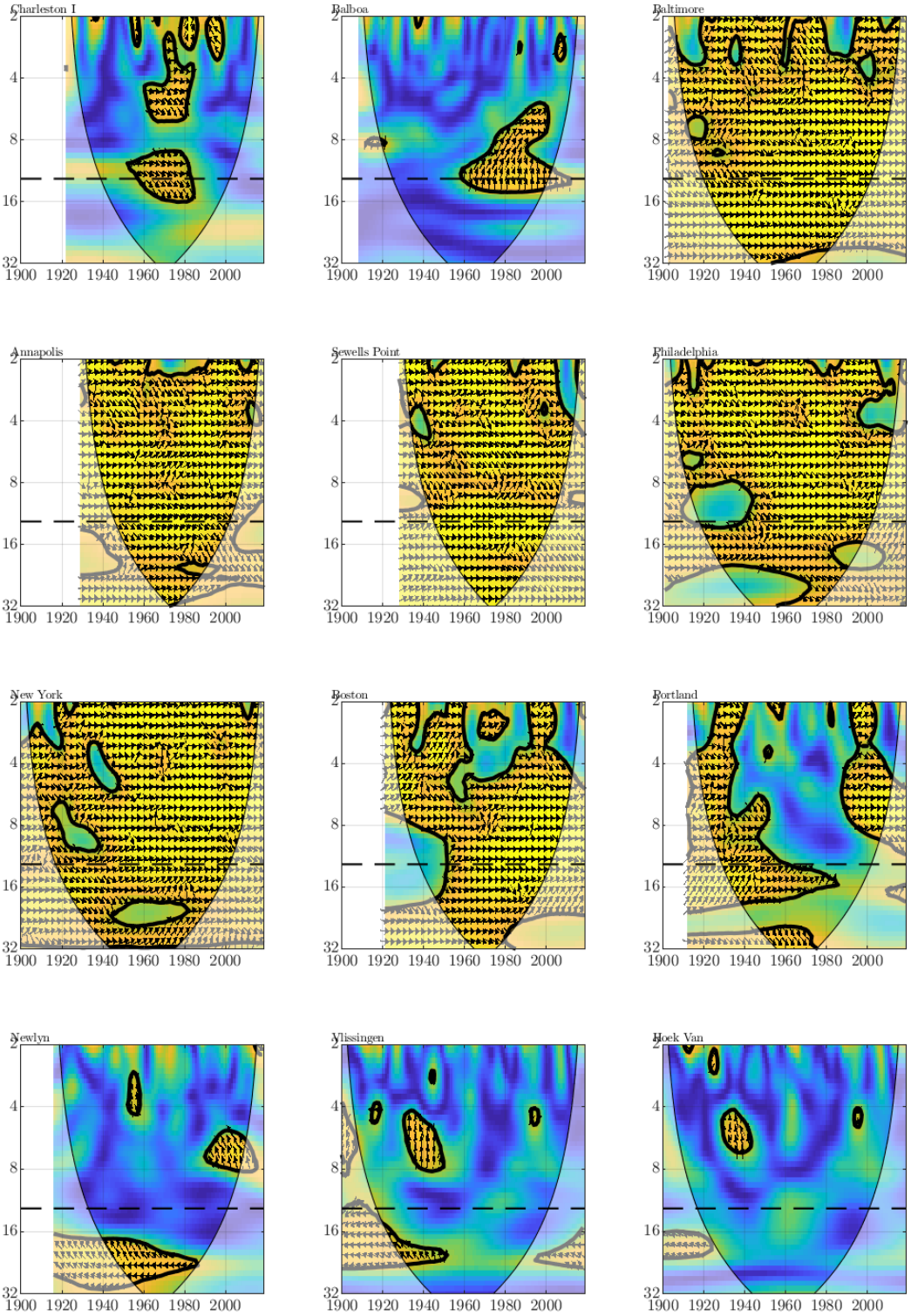

Figure S16. As Fig. 2b (with the identical color scale), for ζ at tide gauges 13-24. Dashed line indicates a period centered on 12.4 years.

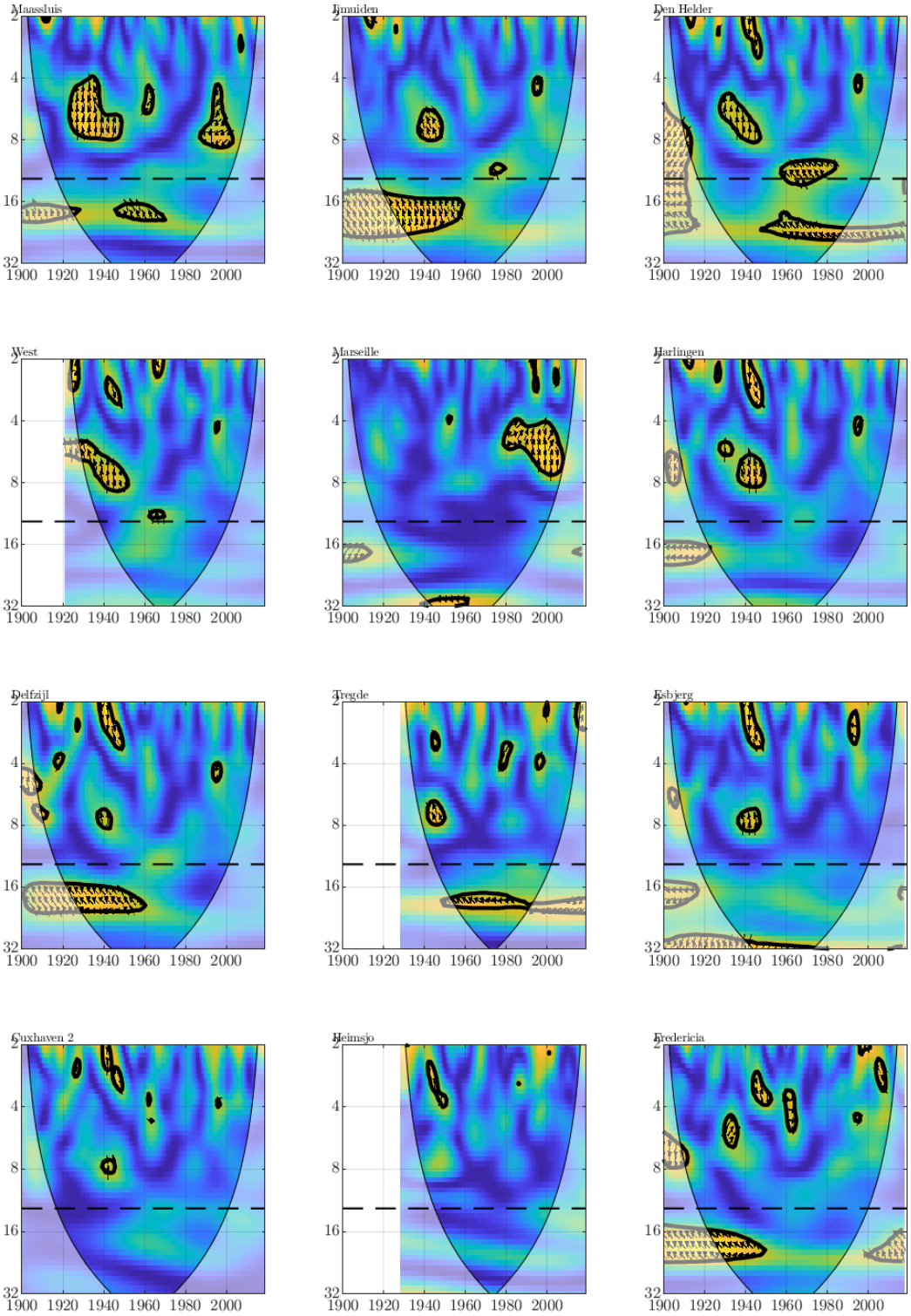

Figure S17. As Fig. 2b (with the identical color scale), for ζ at tide gauges 25-36. Dashed line indicates a period centered on 12.4 years.

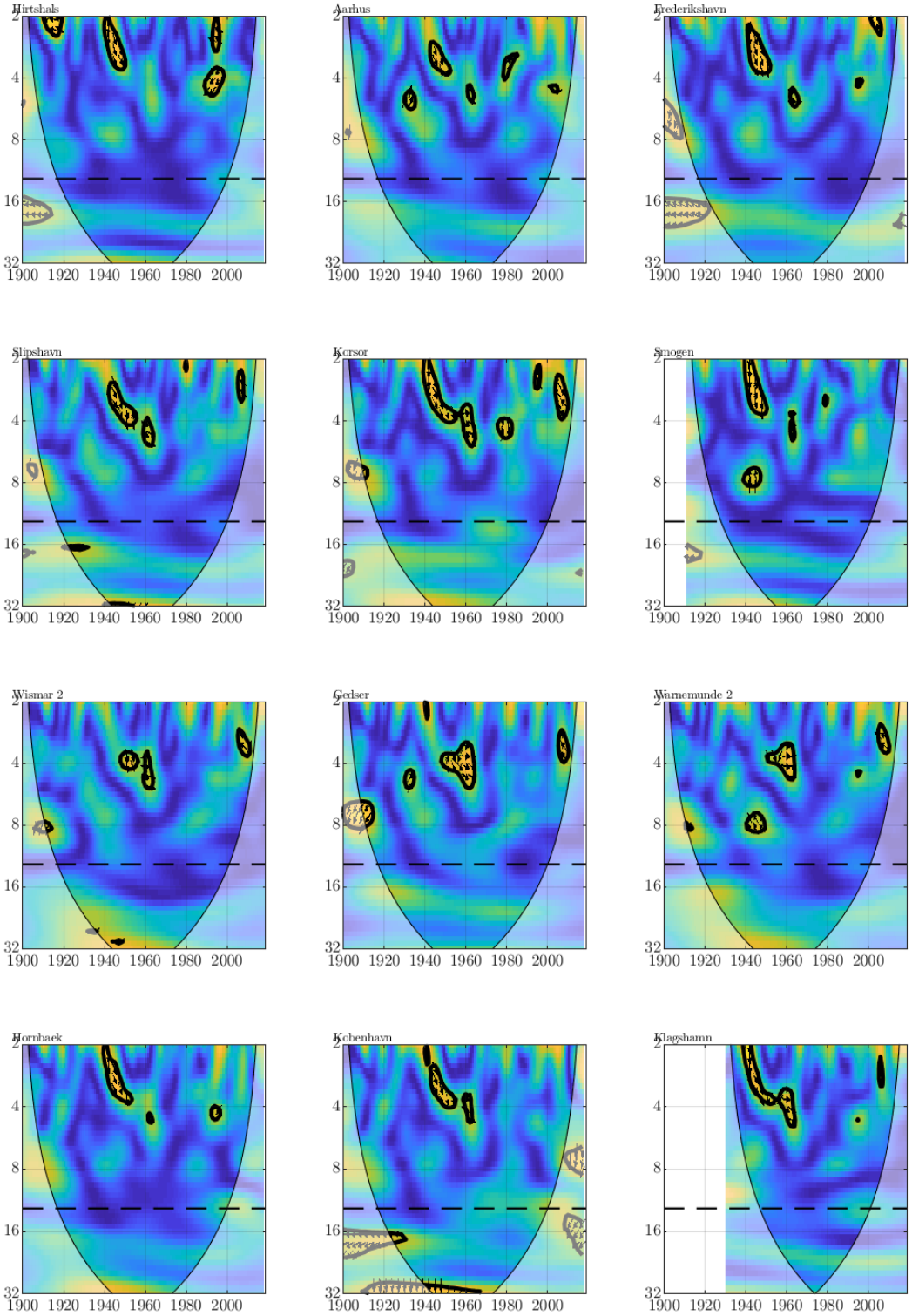

Figure S18. As Fig. 2b (with the identical color scale), for ζ at tide gauges 37-48. Dashed line indicates a period centered on 12.4 years.

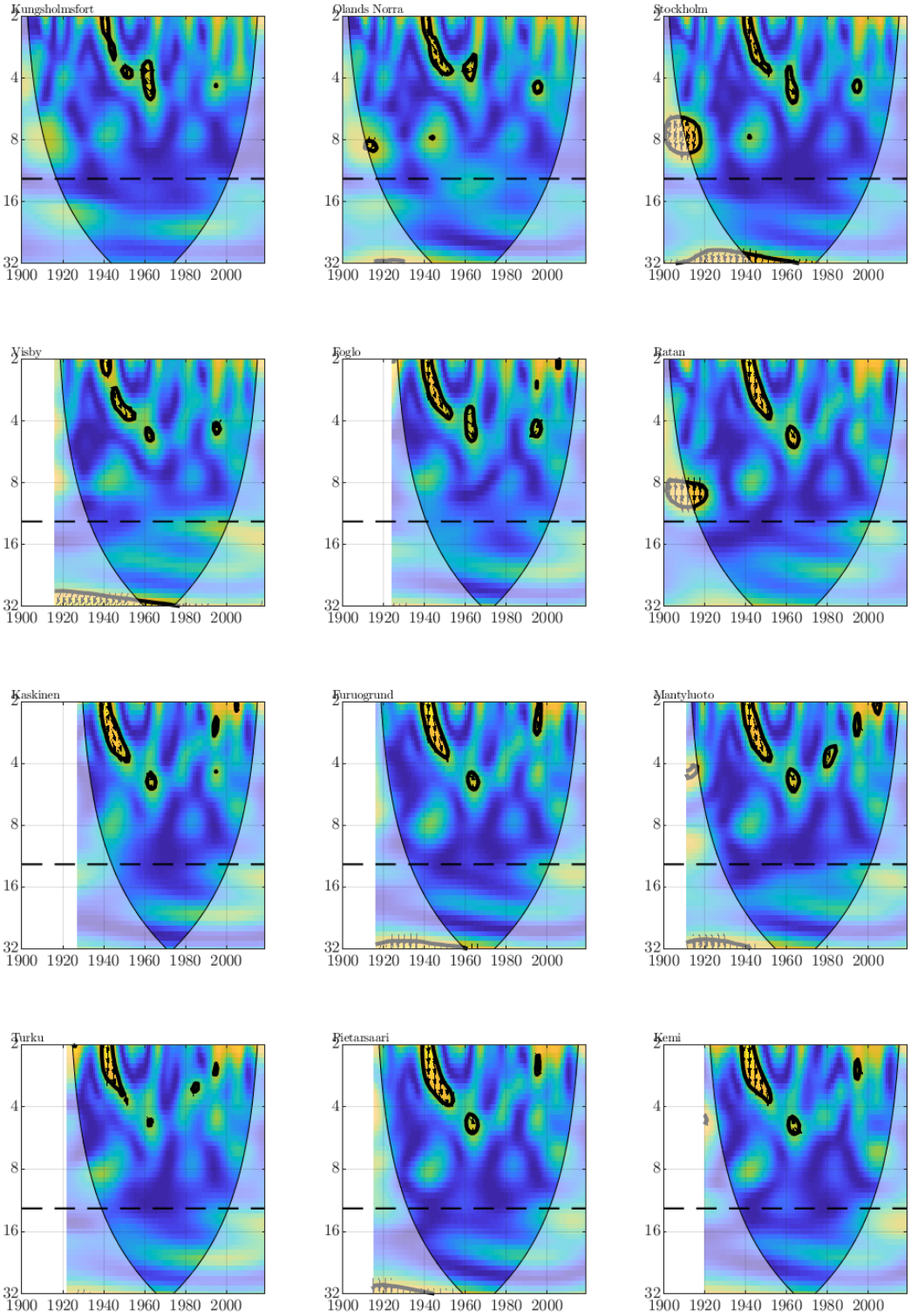

Figure S19. As Fig. 2b (with the identical color scale), for ζ at tide gauges 49-60. Dashed line indicates a period centered on 12.4 years.

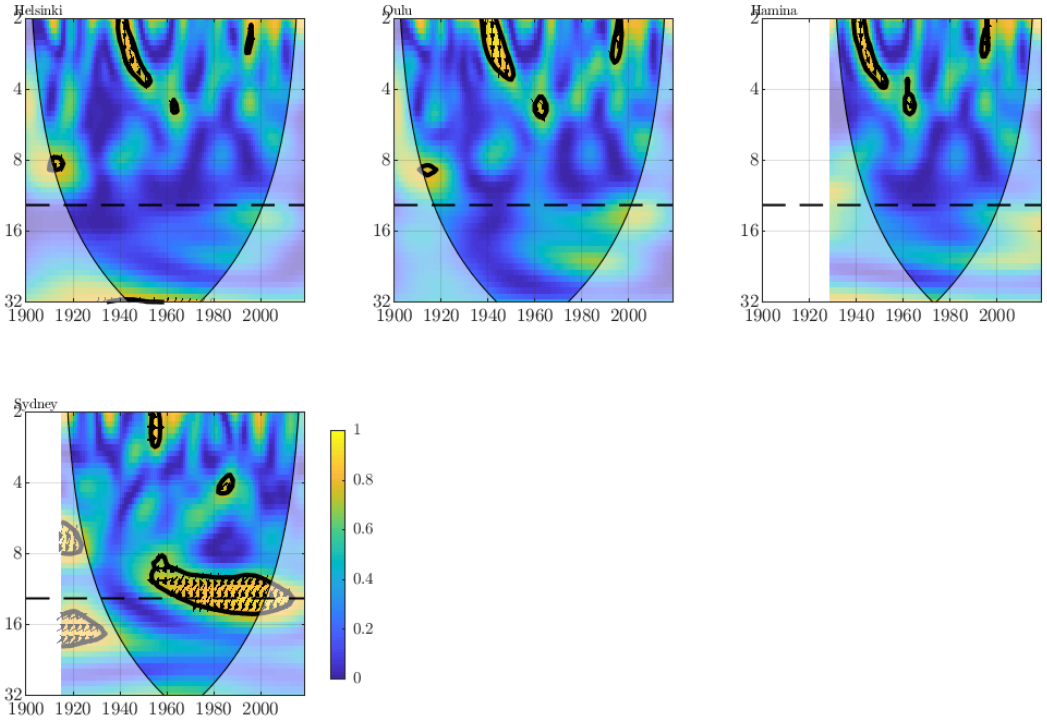

Figure S20. As Fig. 2b (with the identical color scale), for ζ at tide gauges 61-64 . Dashed line indicates a period centered on 12.4 years.

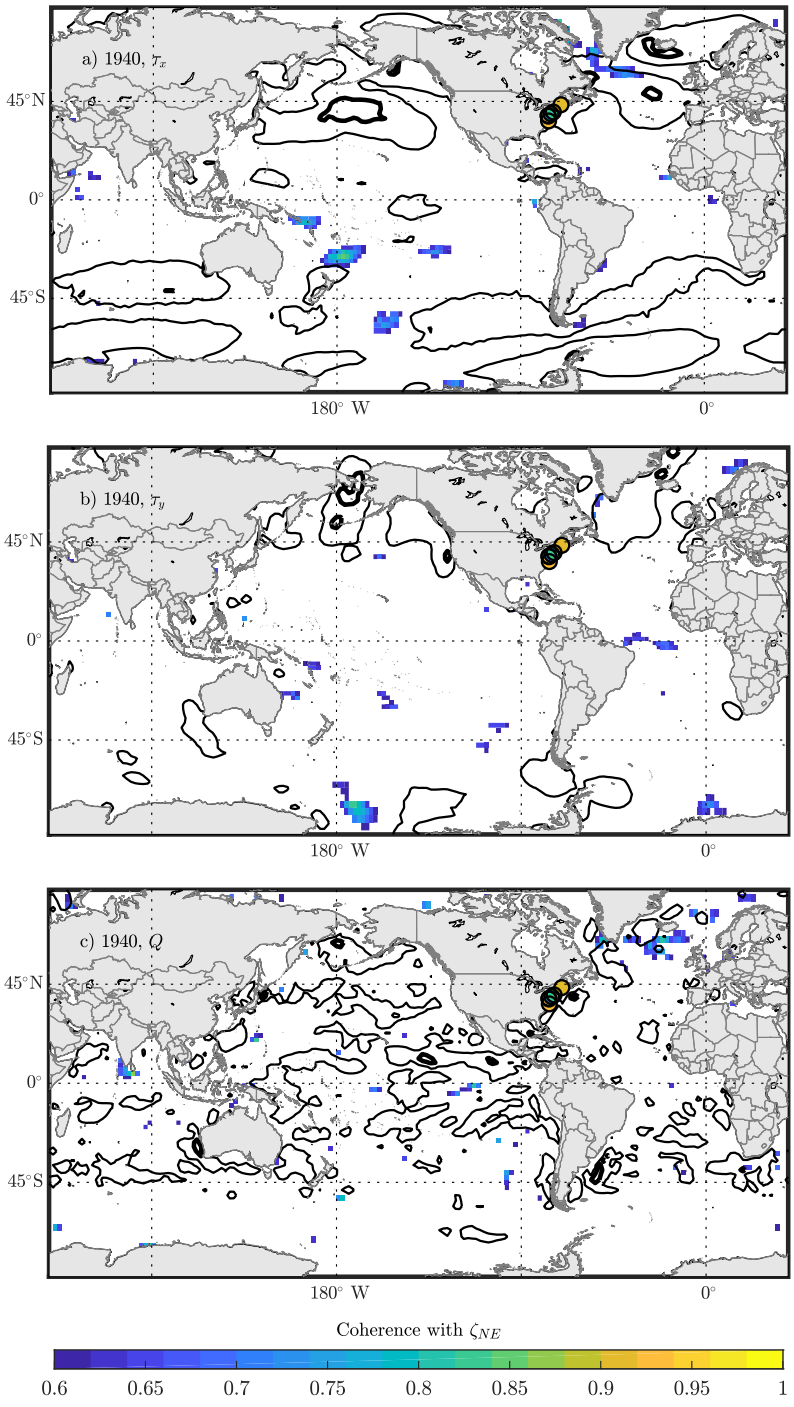

Figure S21. As Fig. 4, in 1940.

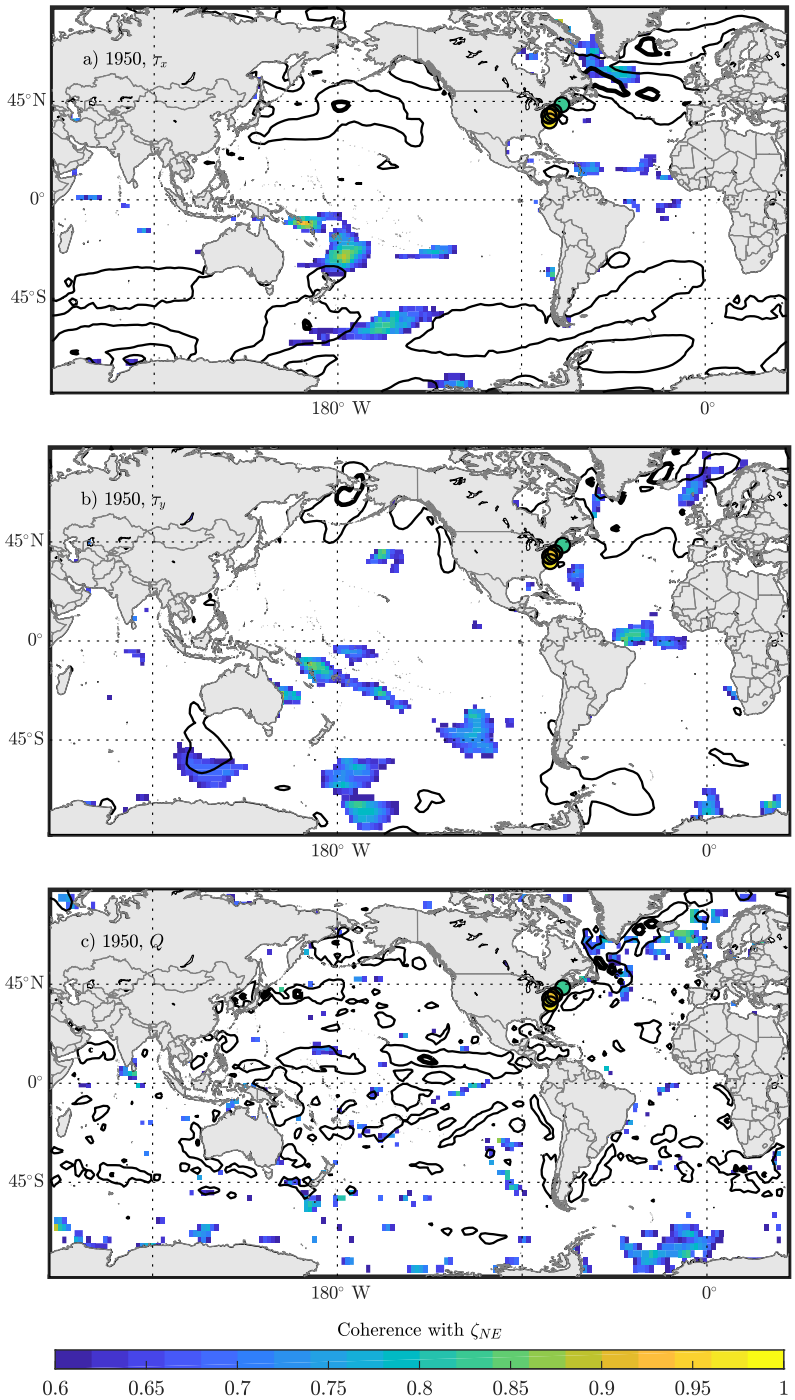

Figure S22. As Fig. 4, in 1950.

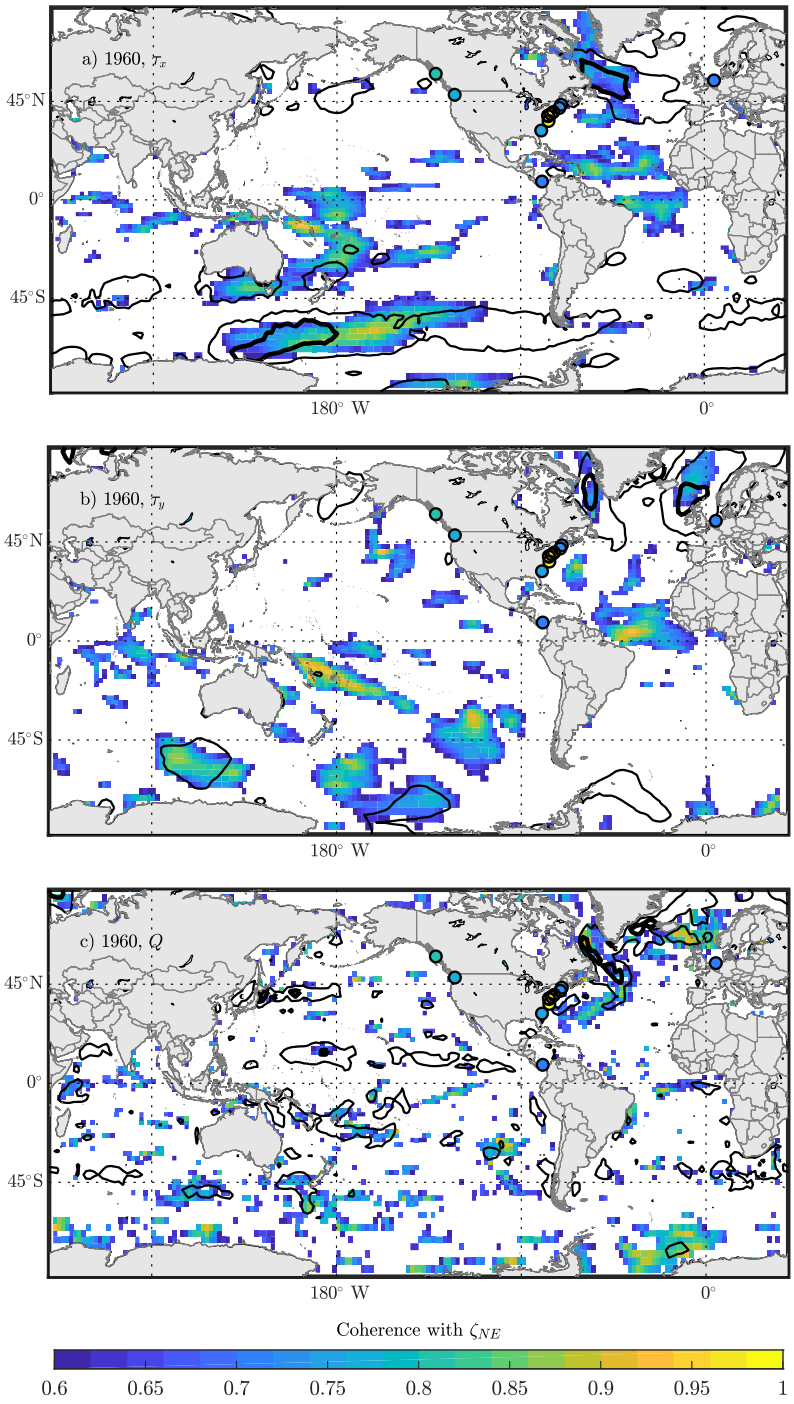

Figure S23. As Fig. 4, in 1960.

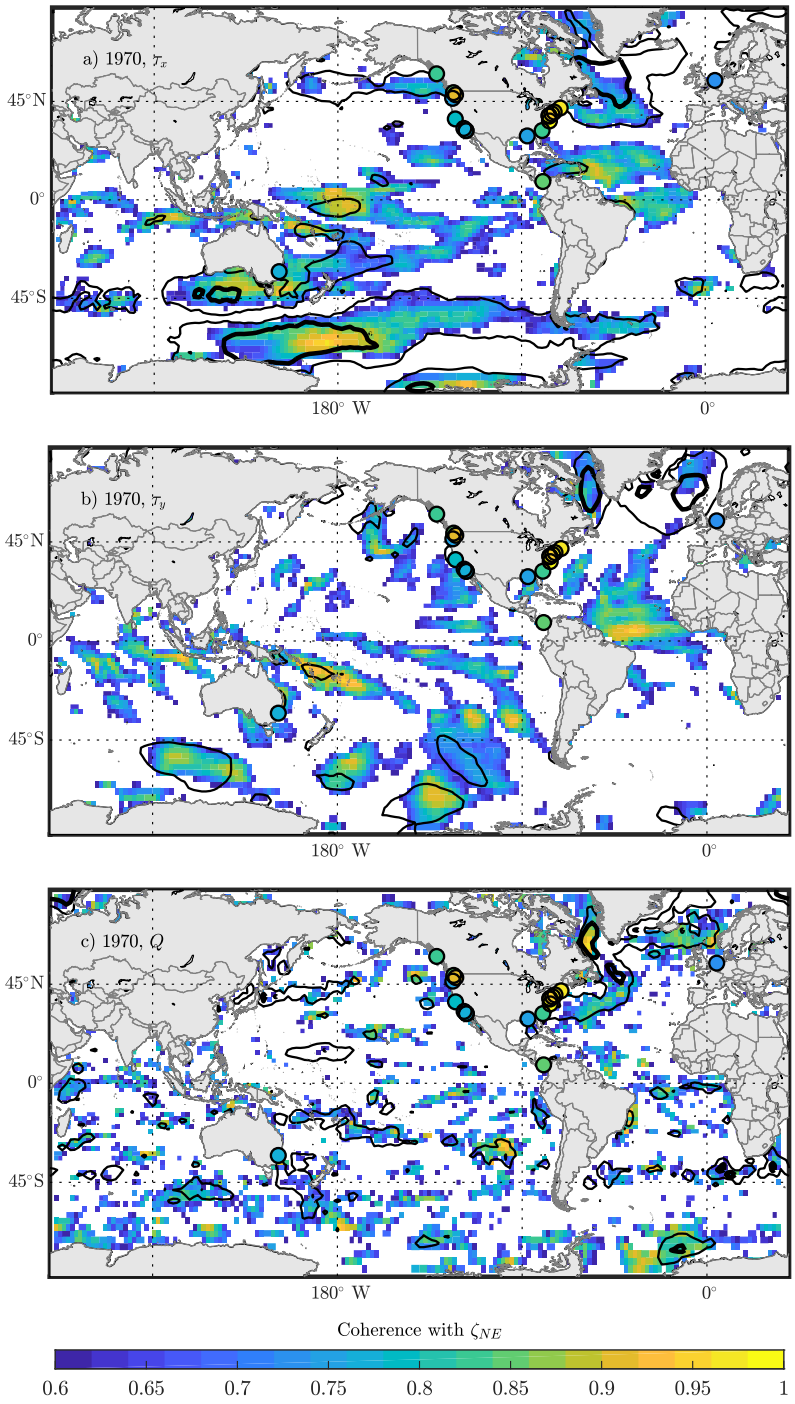

Figure S24. As Fig. 4, in 1970.

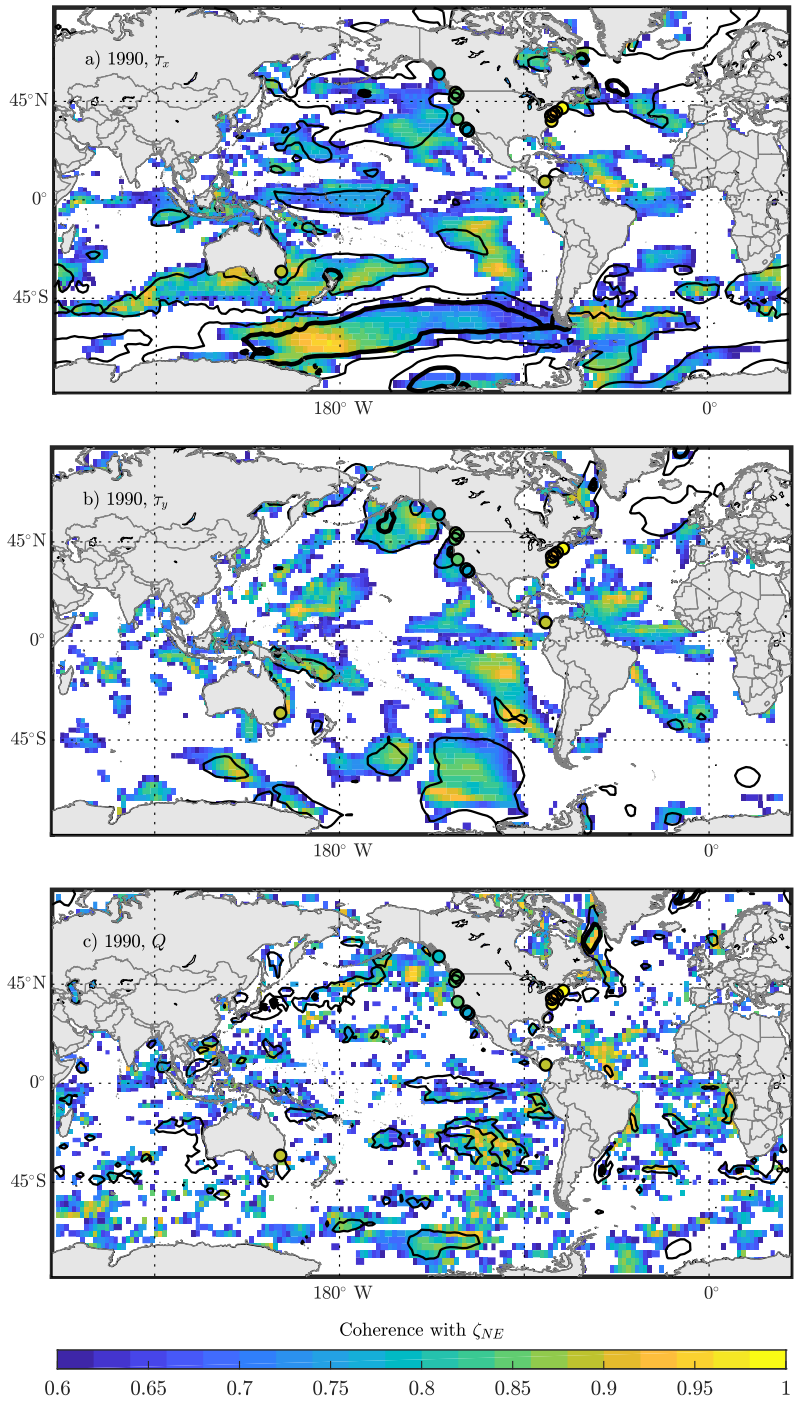

Figure S25. As Fig. 4, in 1990.

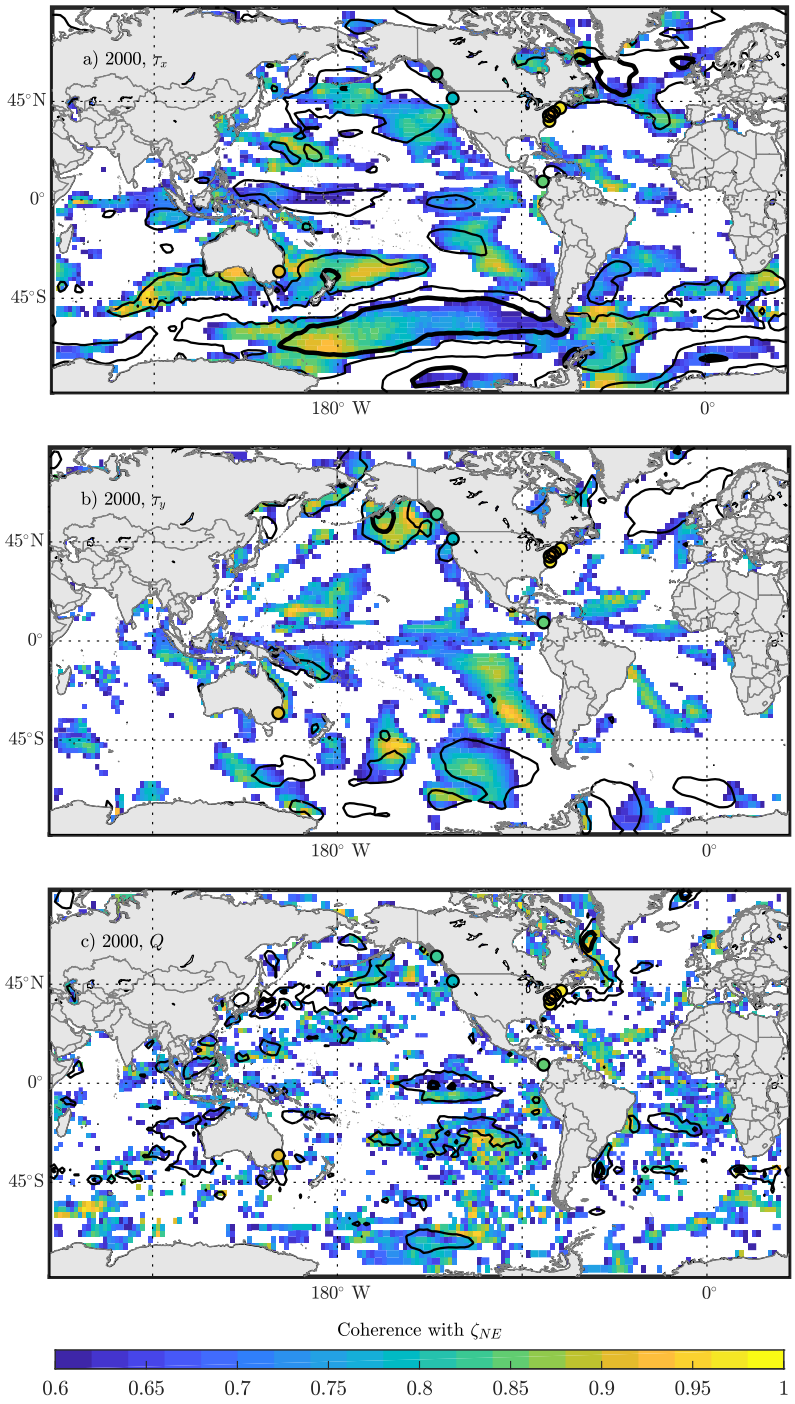

Figure S26. As Fig. 4, in 2000.