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Figures S1 – S4

Introduction

This file contains supporting information for the paper Davies et al., entitled "**Back to the future II: tidal evolution of four supercontinent scenarios".** Here we provide 20 million-year snapshots of the M_2 global tidal amplitude for the four future supercontinent scenarios presented, each illustrating a different mode of supercontinent formation. See main text for details.

Figures S1a – n: Pangea Ultima is characterized by the closure of the Atlantic.

Figures S2a – k: Novopangea in contrast forms via the closure of the Pacific ocean.

Figures S3a – n: Aurica is formed by closure of both the Atlantic and the Pacific oceans.

Figures S4a – k: Amasia forms by the closure of the Arctic Ocean.

0 Ma

Tidal Amplitude (m)
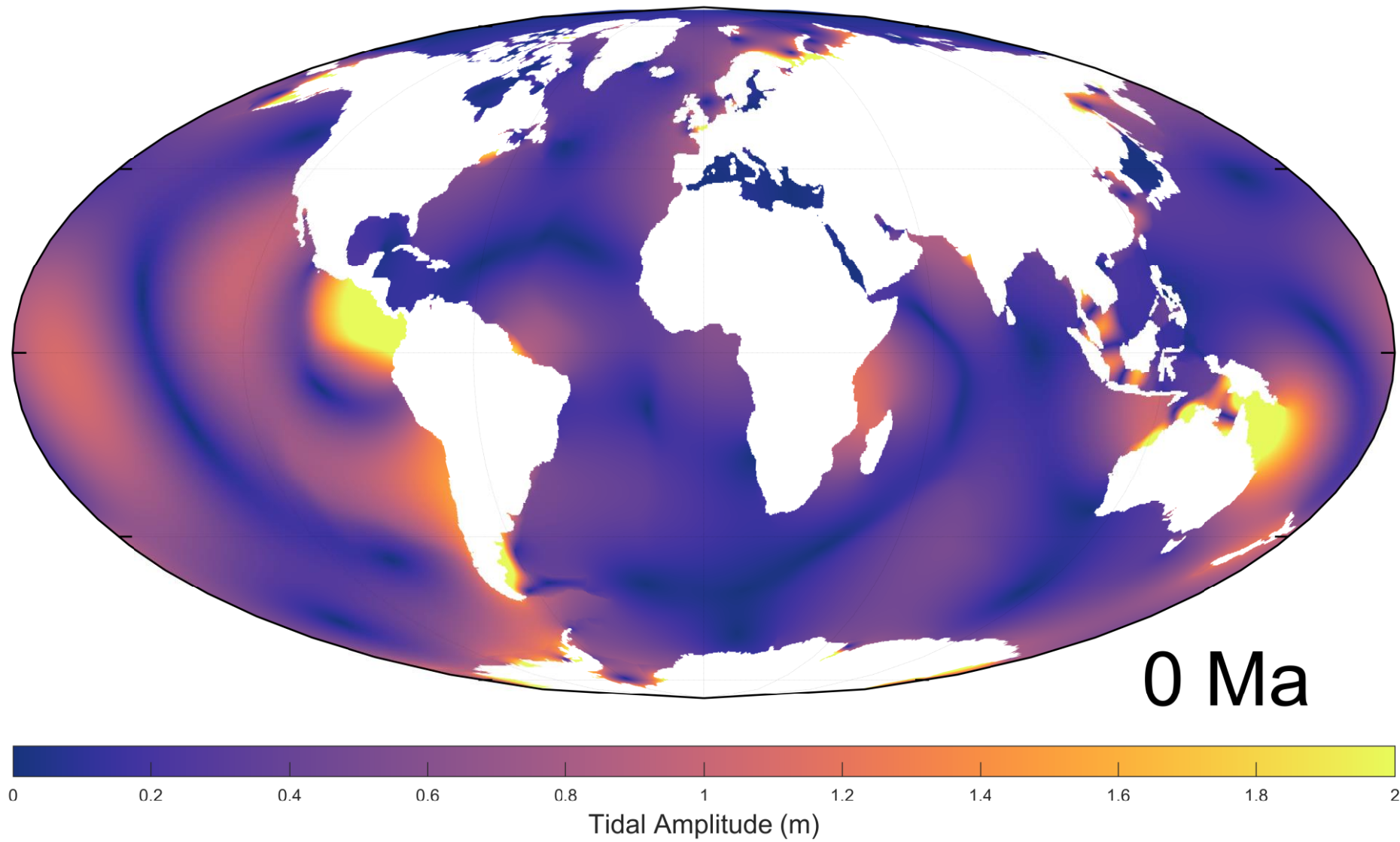
Figure S1a: Global M$_2$ amplitudes for the present day (0 Ma) of the Pangea Ultima scenario. The colour scale saturates at 2 m.

20 Ma

Tidal Amplitude (m)
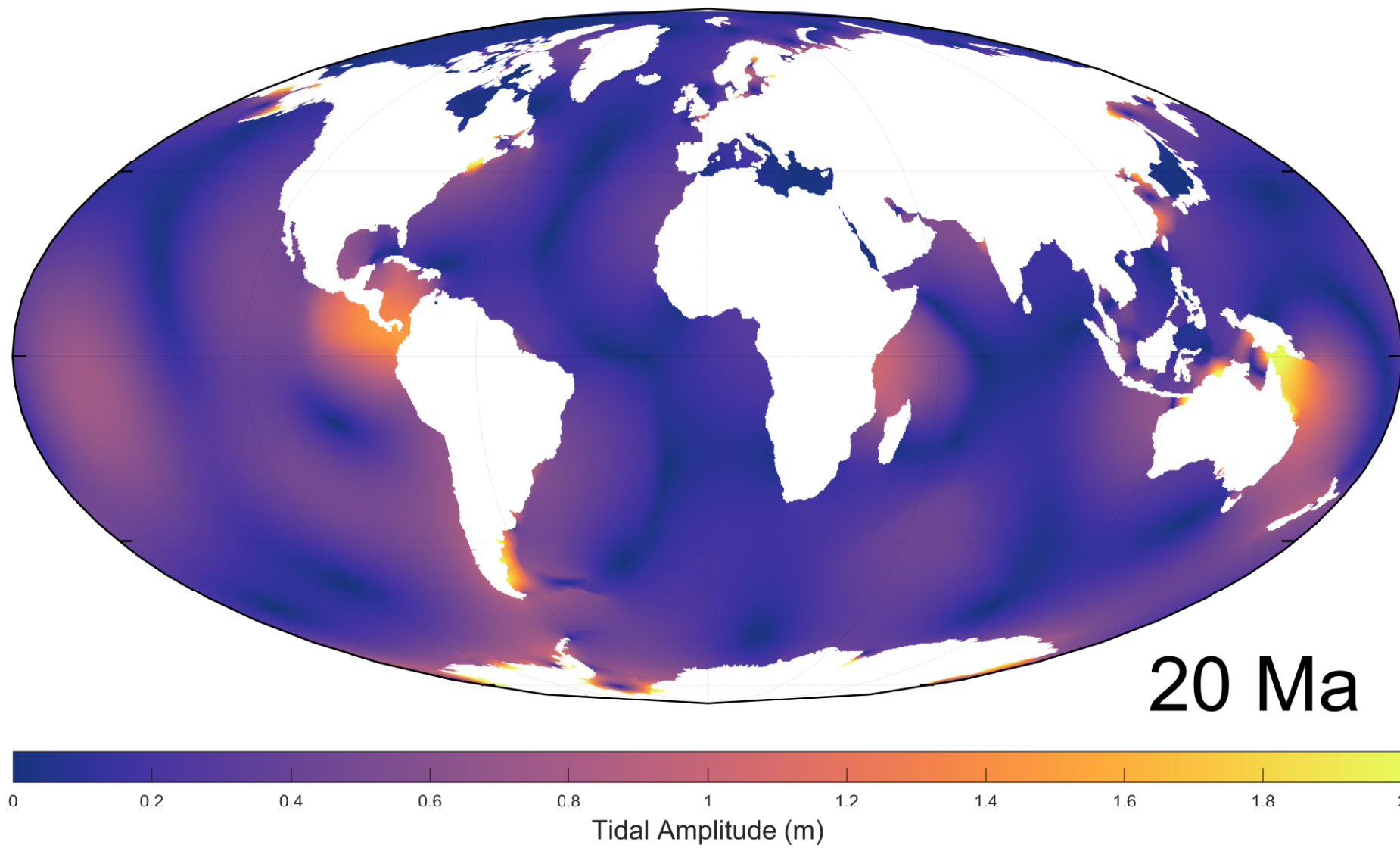
Figure S1b: Global M$_2$ tide during the Pangea Ultima scenario continued.

40 Ma

Tidal Amplitude (m)
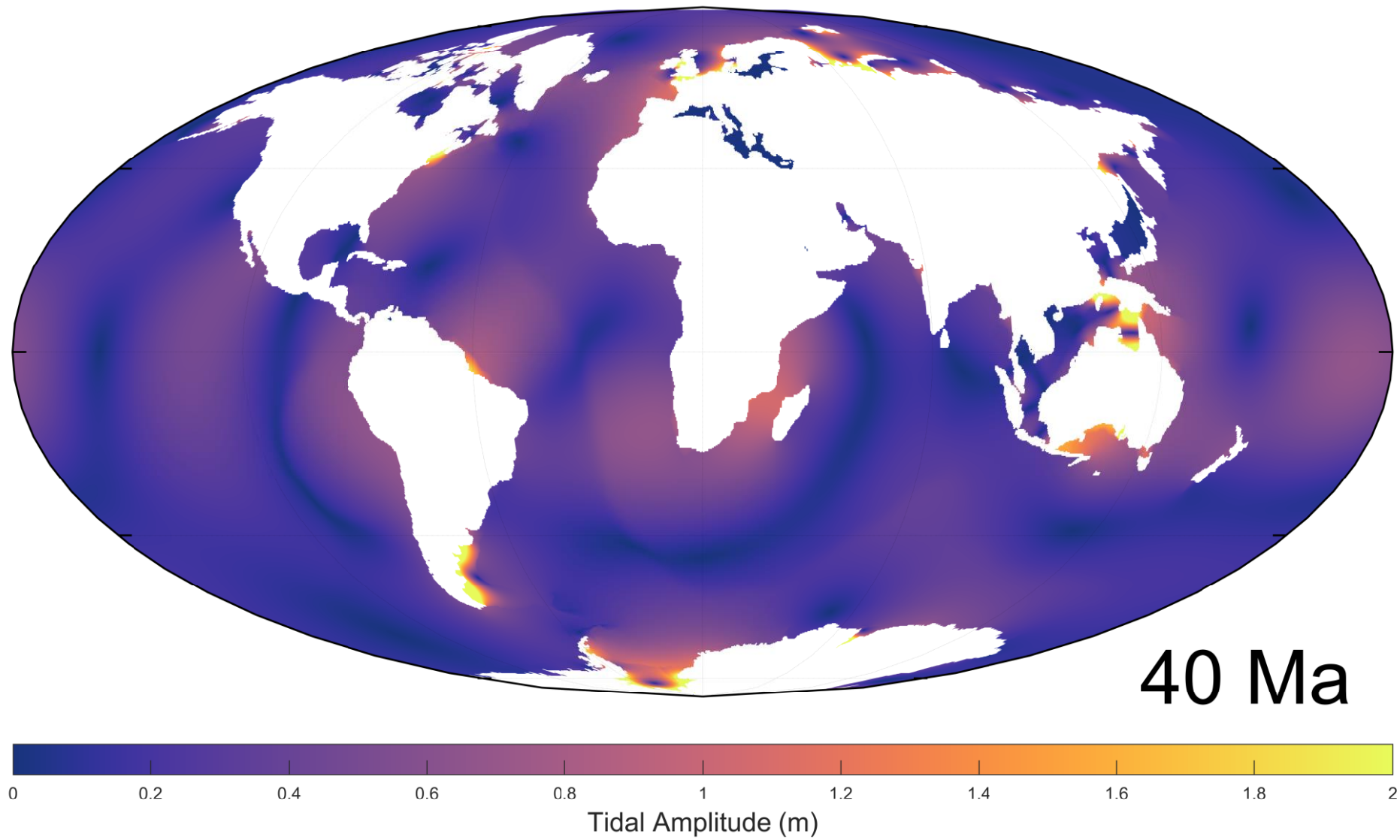
Figure S1c: Global M$_2$ tide during the Pangea Ultima scenario continued.

60 Ma

Tidal Amplitude (m)
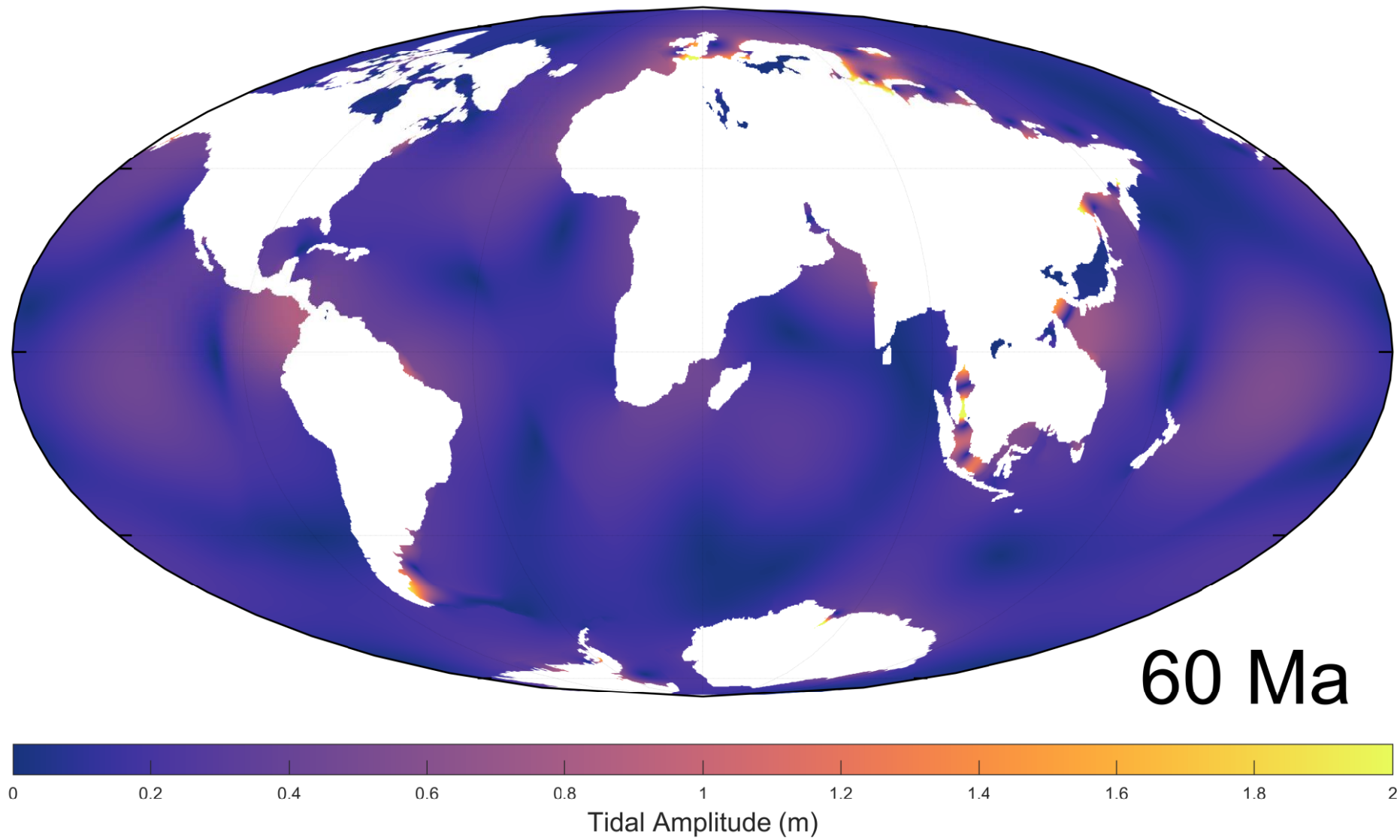
Figure S1d: Global M$_2$ tide during the Pangea Ultima scenario continued.

80 Ma

Tidal Amplitude (m)
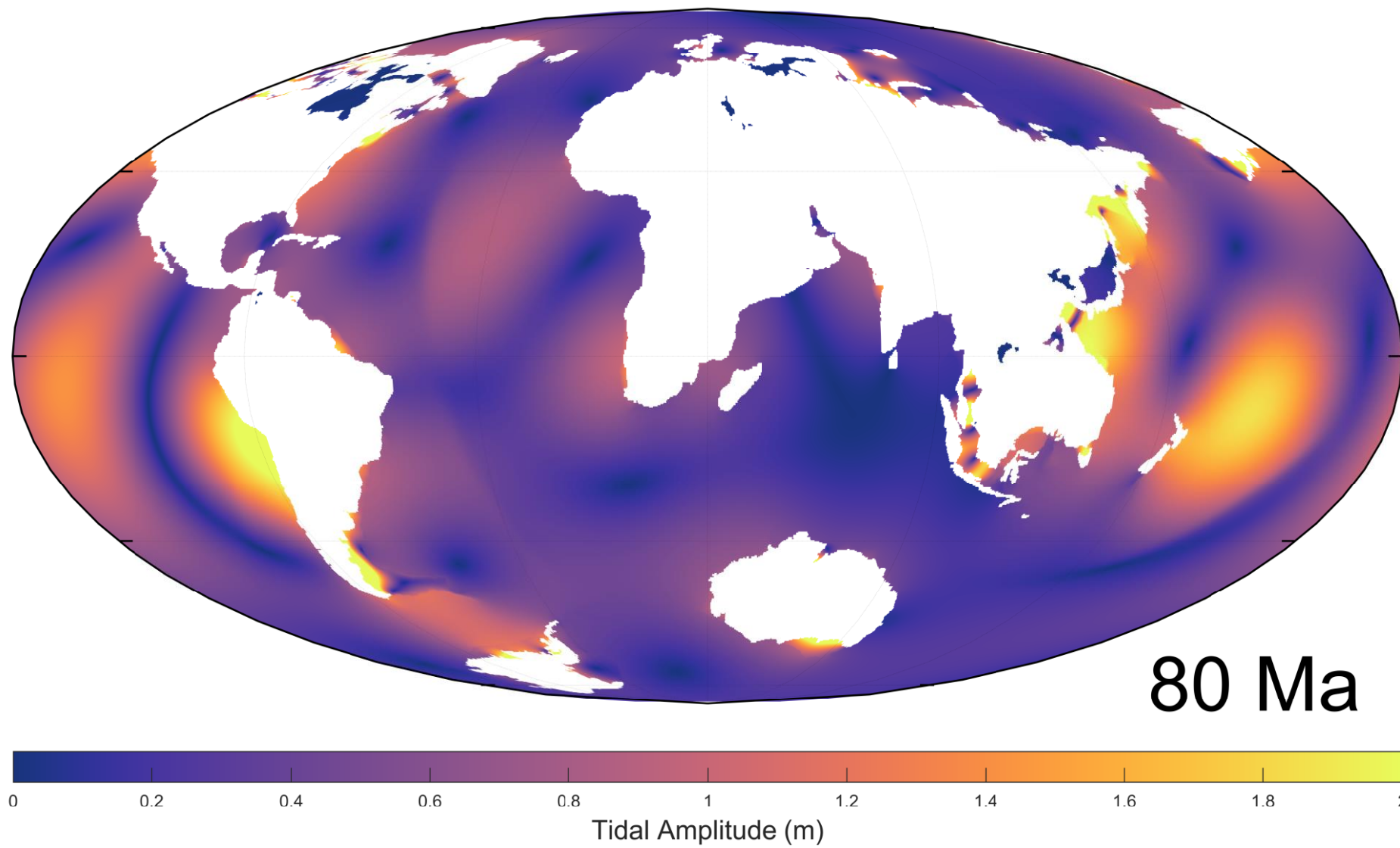
Figure S1e: Global M$_2$ tide during the Pangea Ultima scenario continued.

100 Ma

Tidal Amplitude (m)
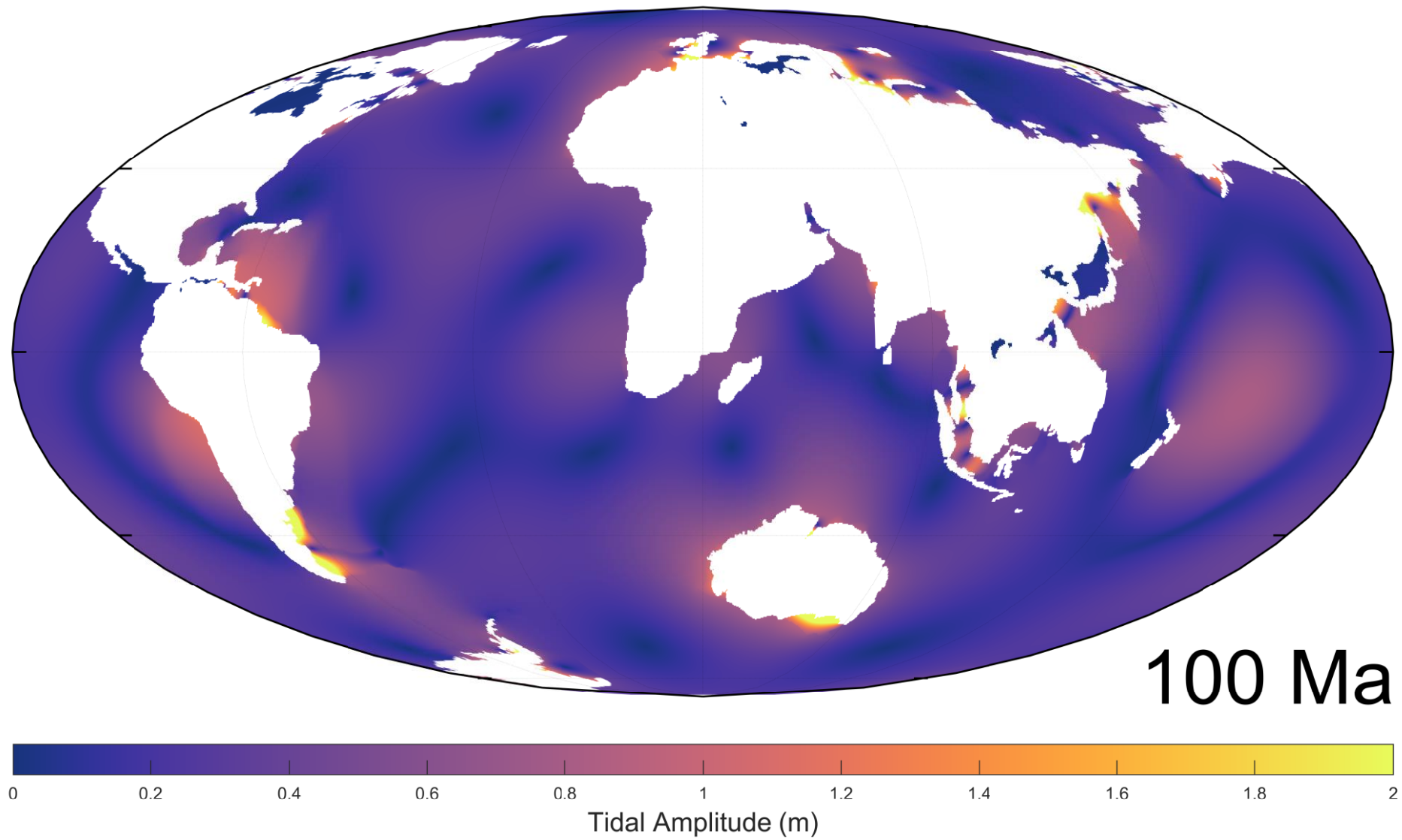
Figure S1f: Global M$_2$ tide during the Pangea Ultima scenario continued.
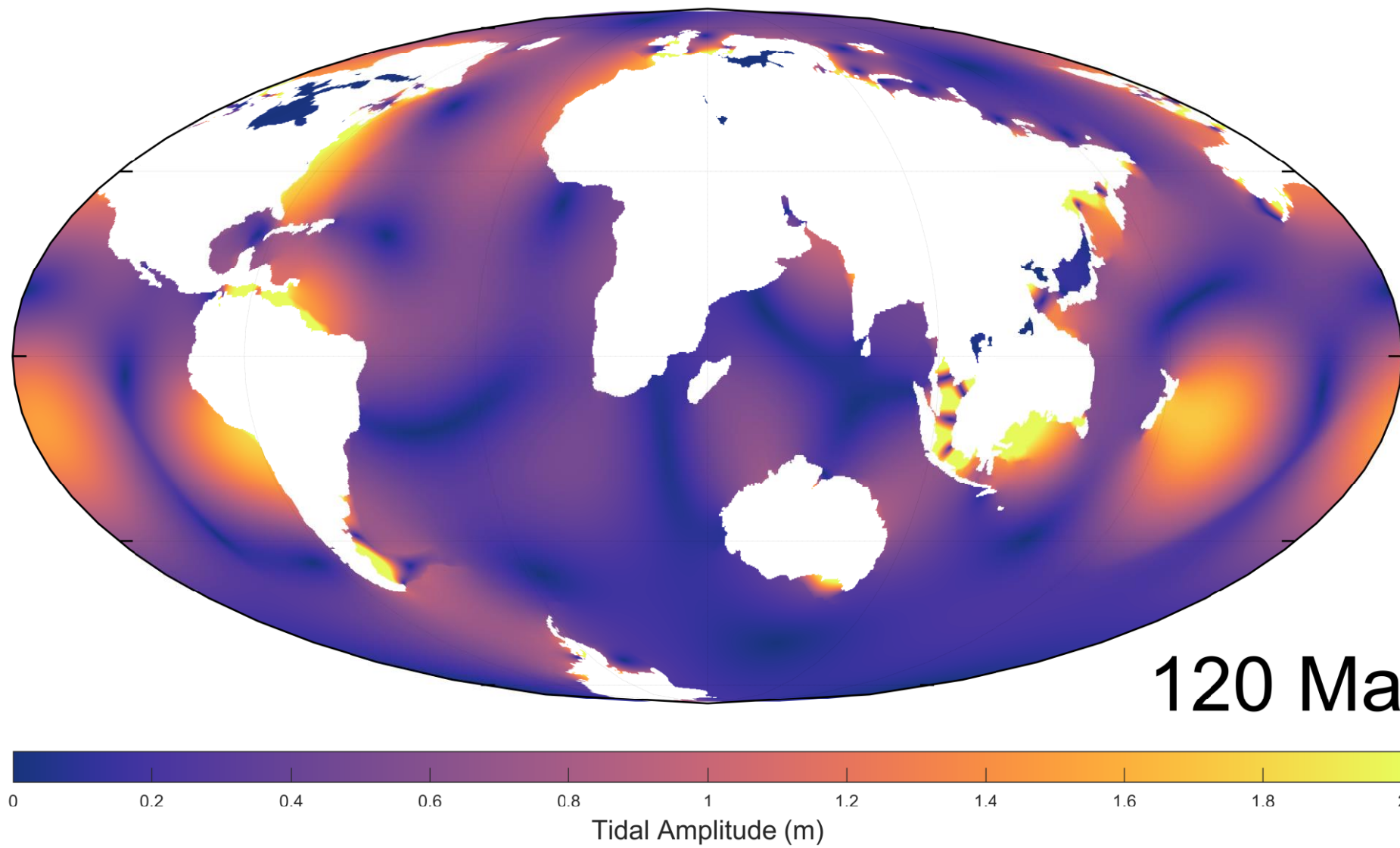
Figure S1g: Global M₂ tide during the Pangea Ultima scenario continued.
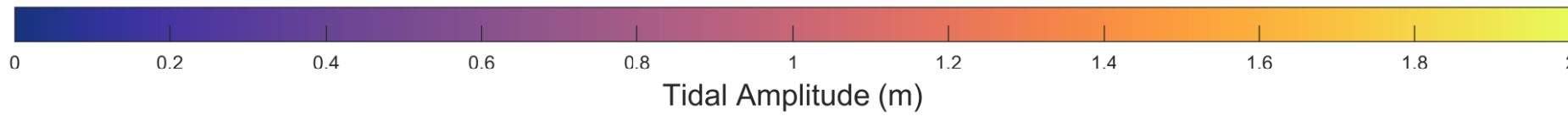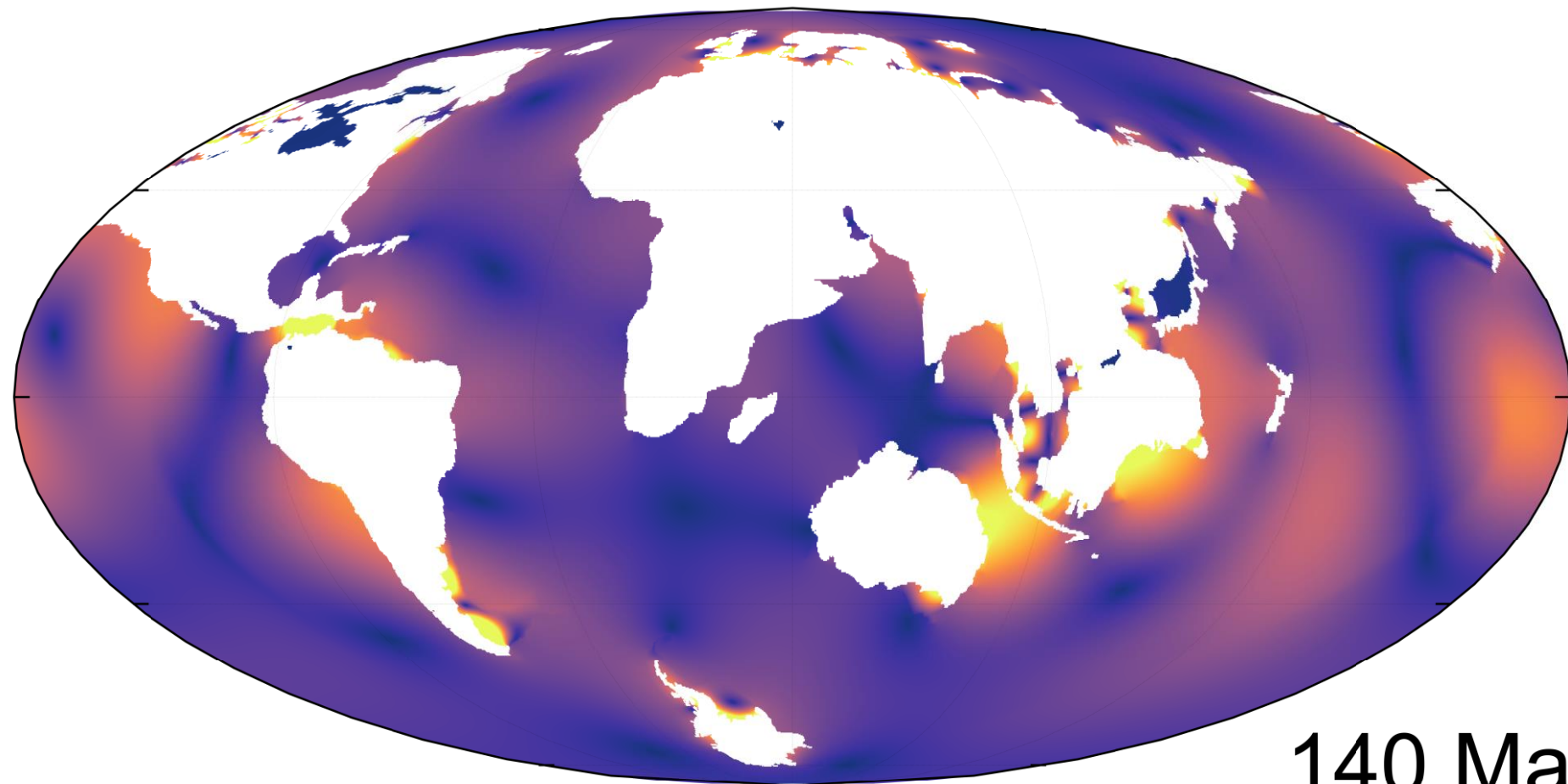
Figure S1h: Global M$_2$ tide during the Pangea Ultima scenario continued.

160 Ma

Tidal Amplitude (m)
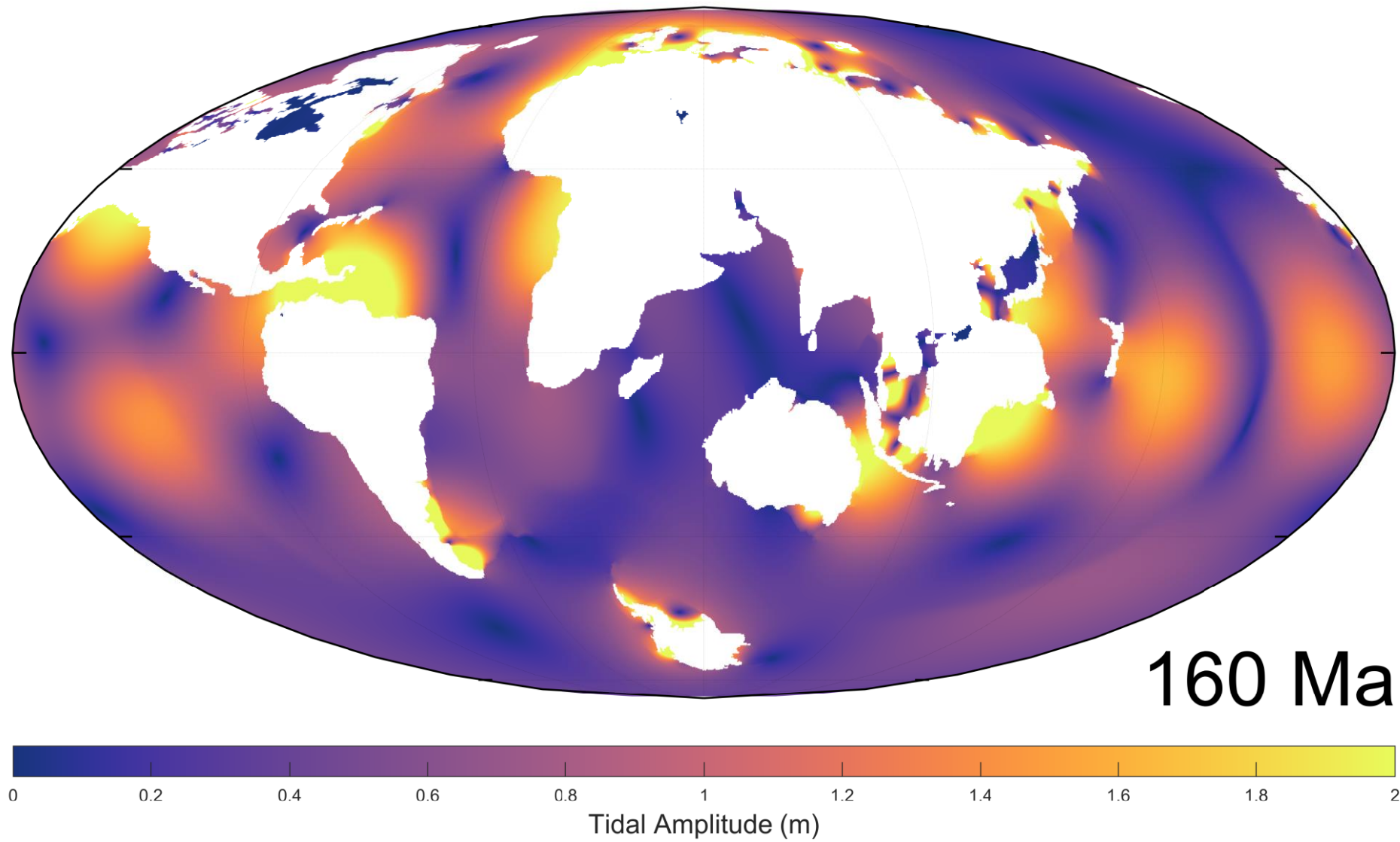
Figure S1i: Global M$_2$ tide during the Pangea Ultima scenario continued.

180 Ma

Tidal Amplitude (m)
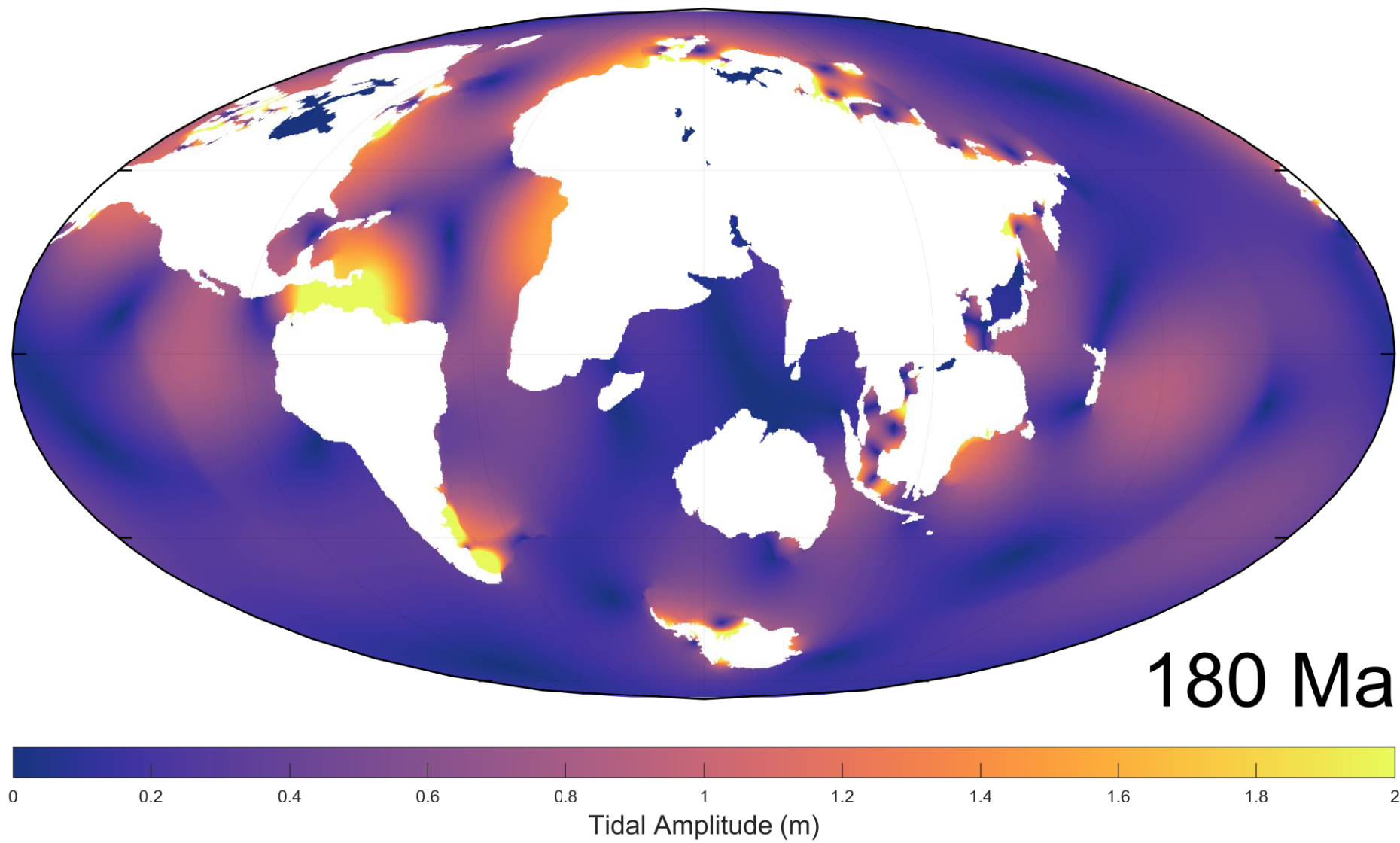
Figure S1j: Global M$_2$ tide during the Pangea Ultima scenario continued.

200 Ma

Tidal Amplitude (m)
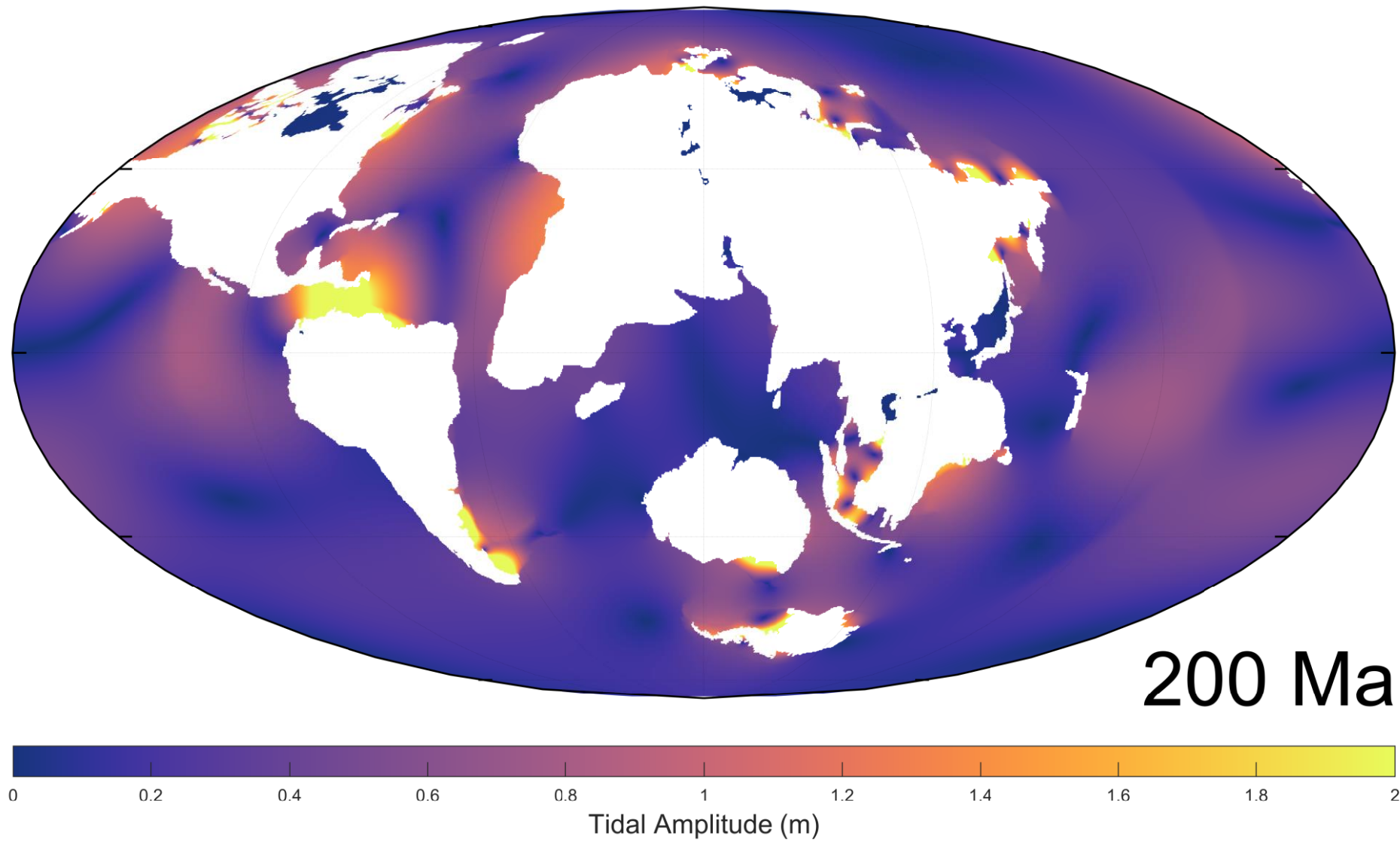
Figure S1k: Global M$_2$ tide during the Pangea Ultima scenario continued.

220 Ma

Tidal Amplitude (m)

Figure S1l: Global M$_2$ tide during the Pangea Ultima scenario continued.

240 Ma

Tidal Amplitude (m)
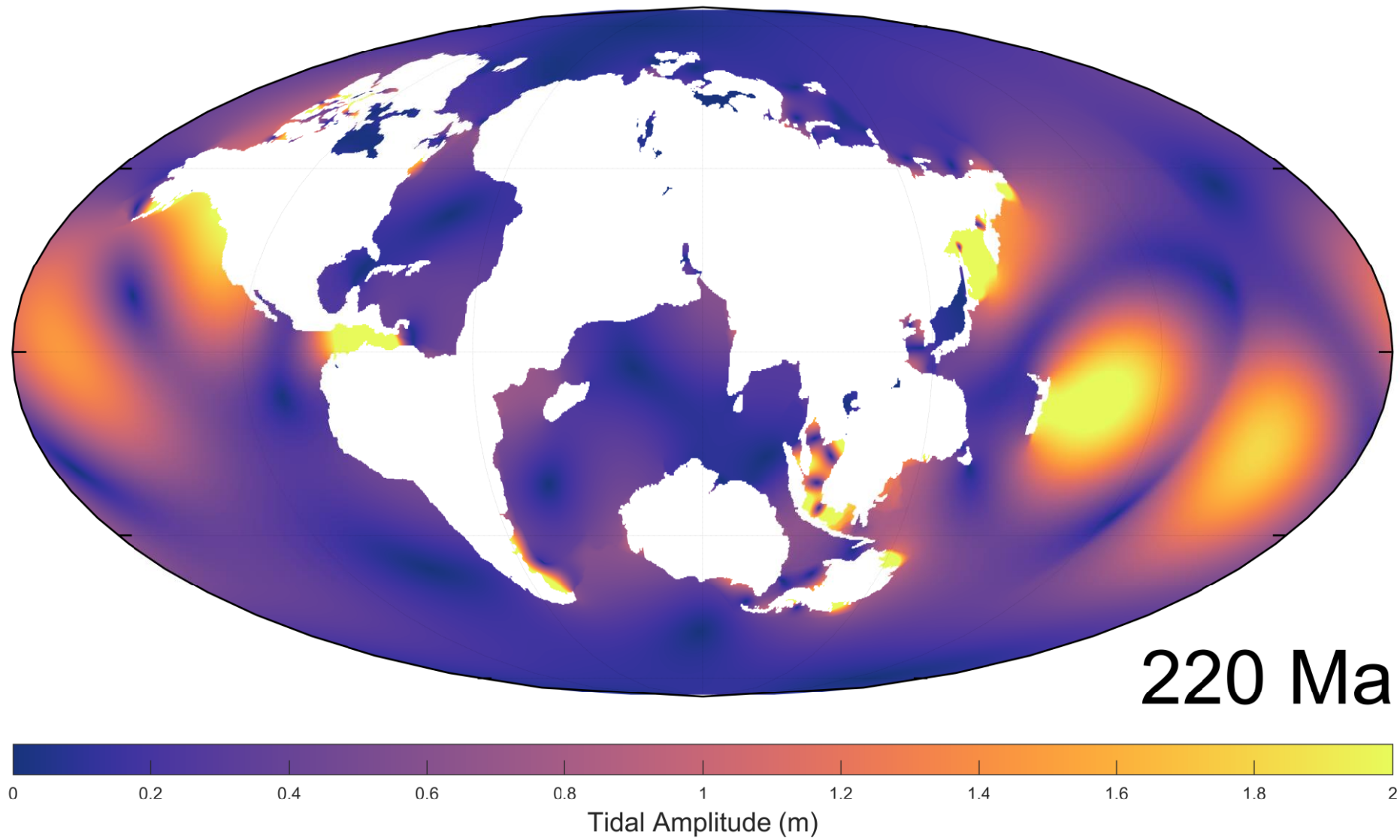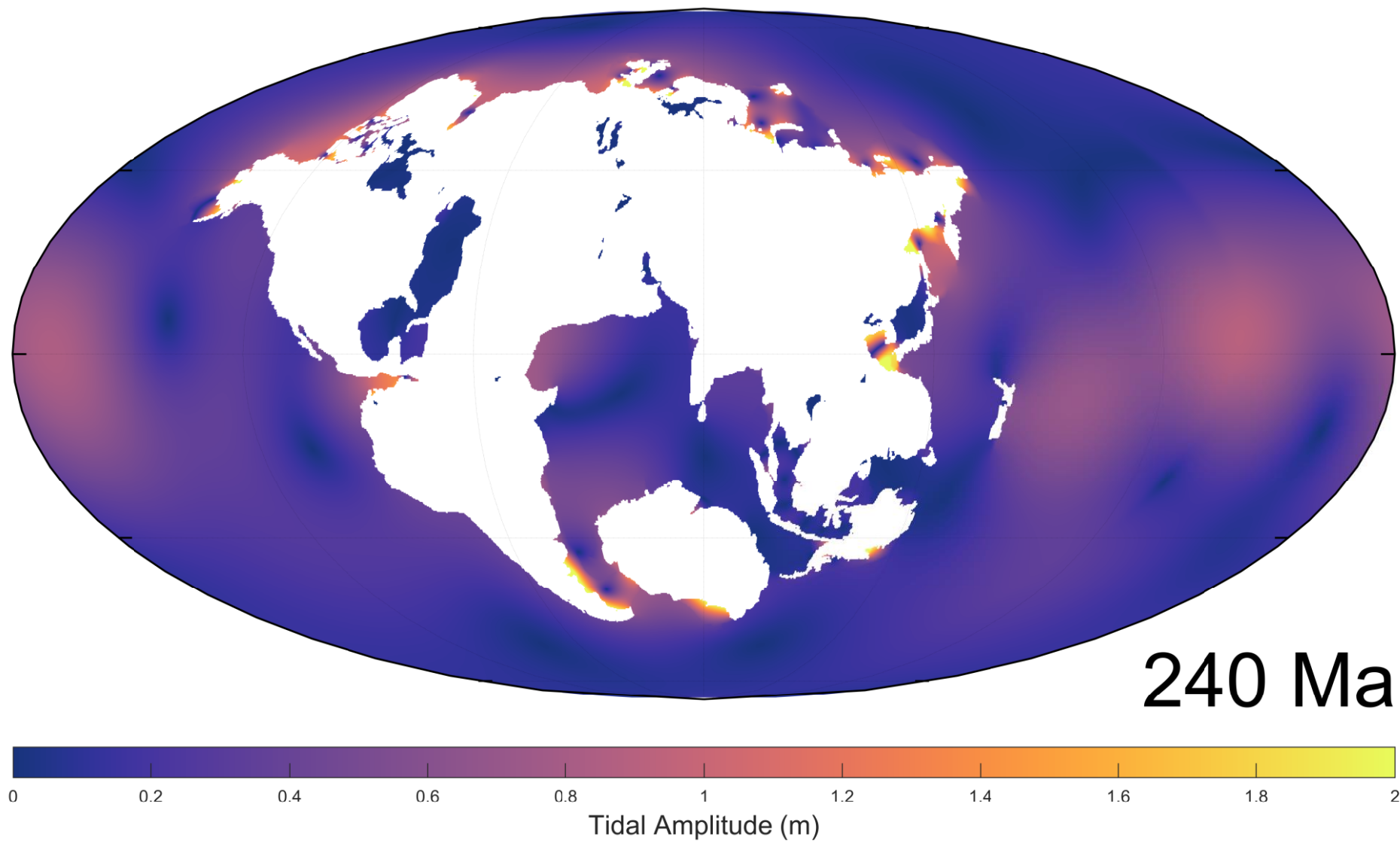
Figure S1m: Global M$_2$ tide during the Pangea Ultima scenario continued.

250 Ma

Tidal Amplitude (m)
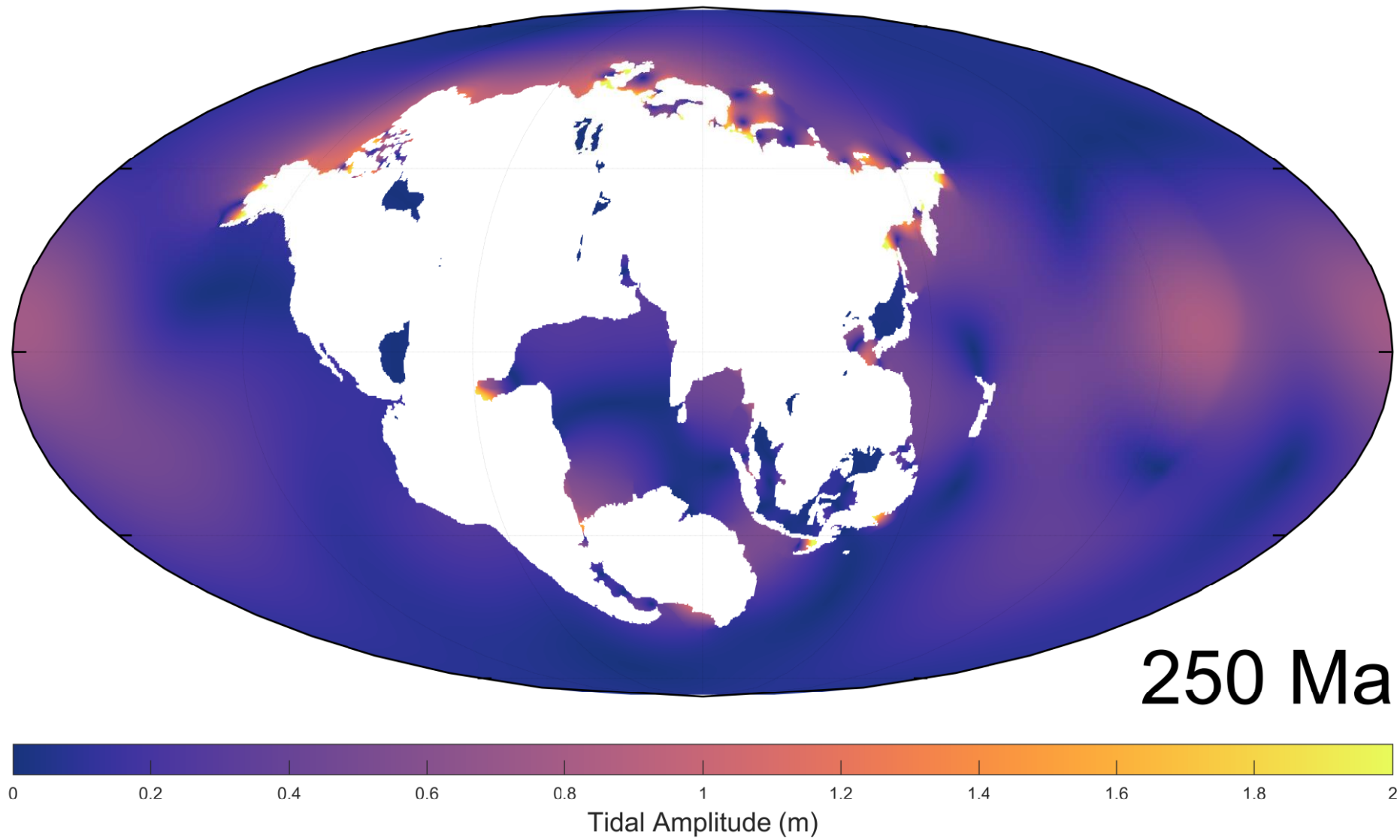
Figure S1n: Global M$_2$ tide during the Pangea Ultima scenario continued.
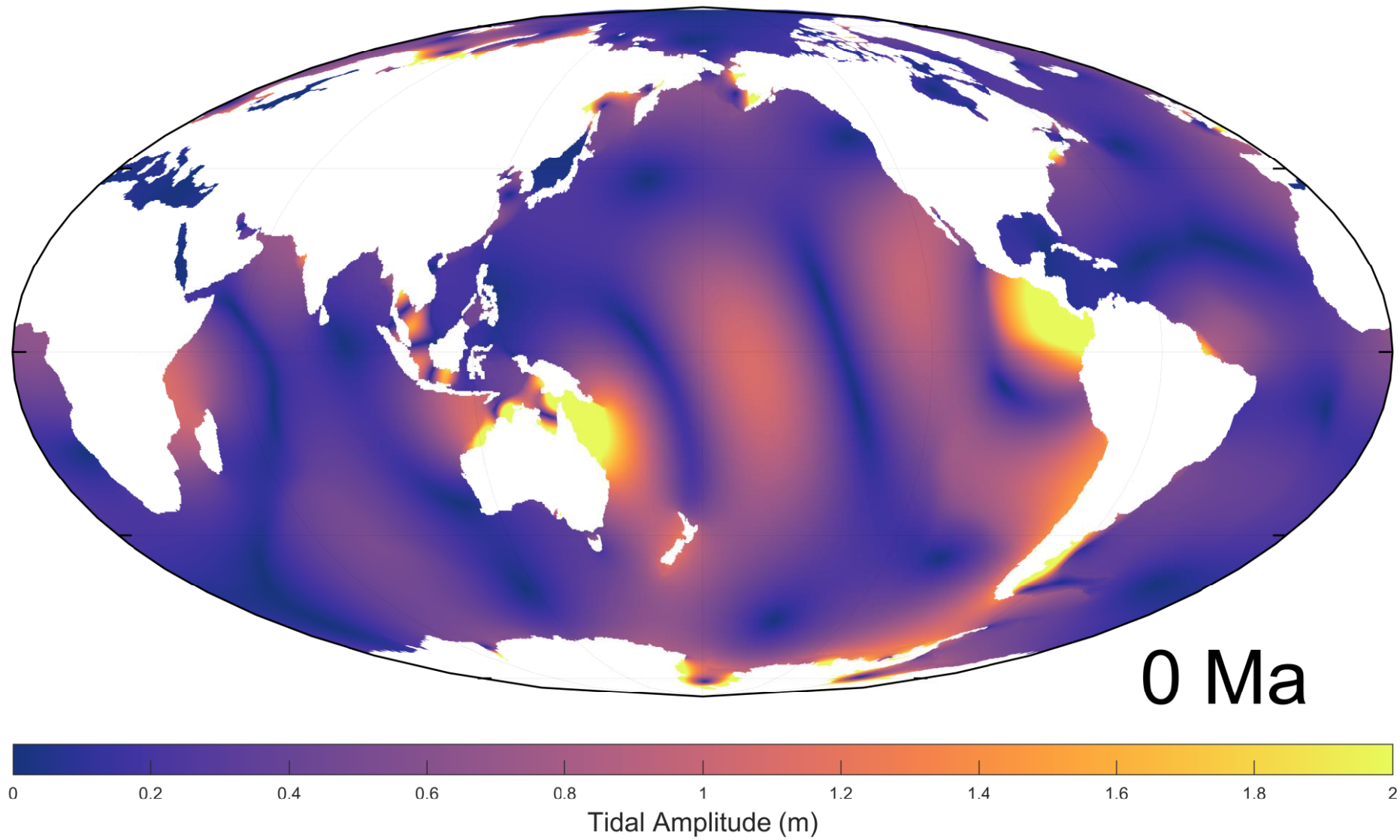
Figure S2a: Global M₂ amplitudes for the present day (0 Ma) of the Novopangea scenario. The colour scale saturates at 2 m.

20 Ma

Tidal Amplitude (m)
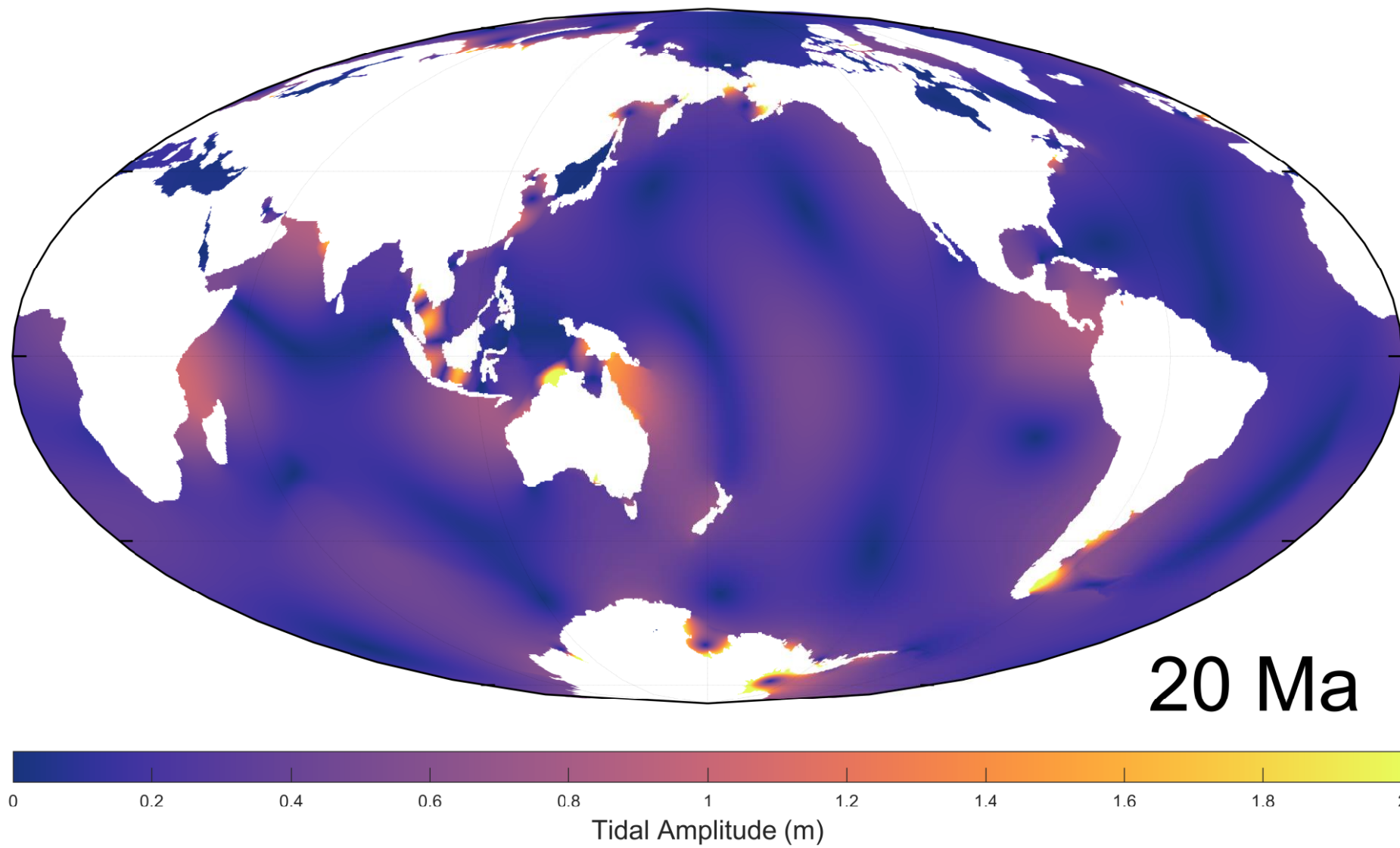
Figure S2b: Global M$_2$ tide during the Novopangea scenario continued.
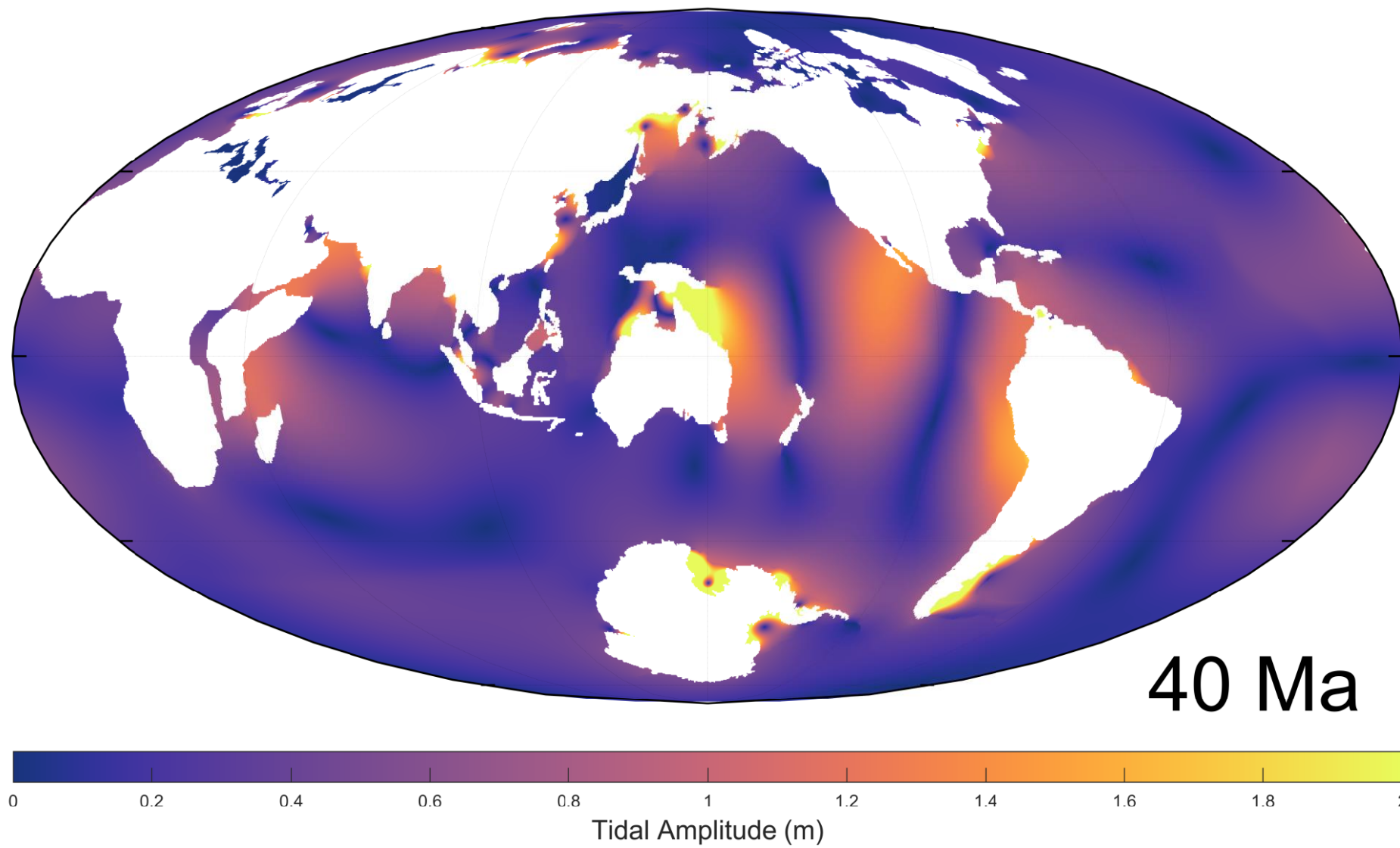
Figure S2c: Global M₂ tide during the Novopangea scenario continued.

60 Ma

Tidal Amplitude (m)
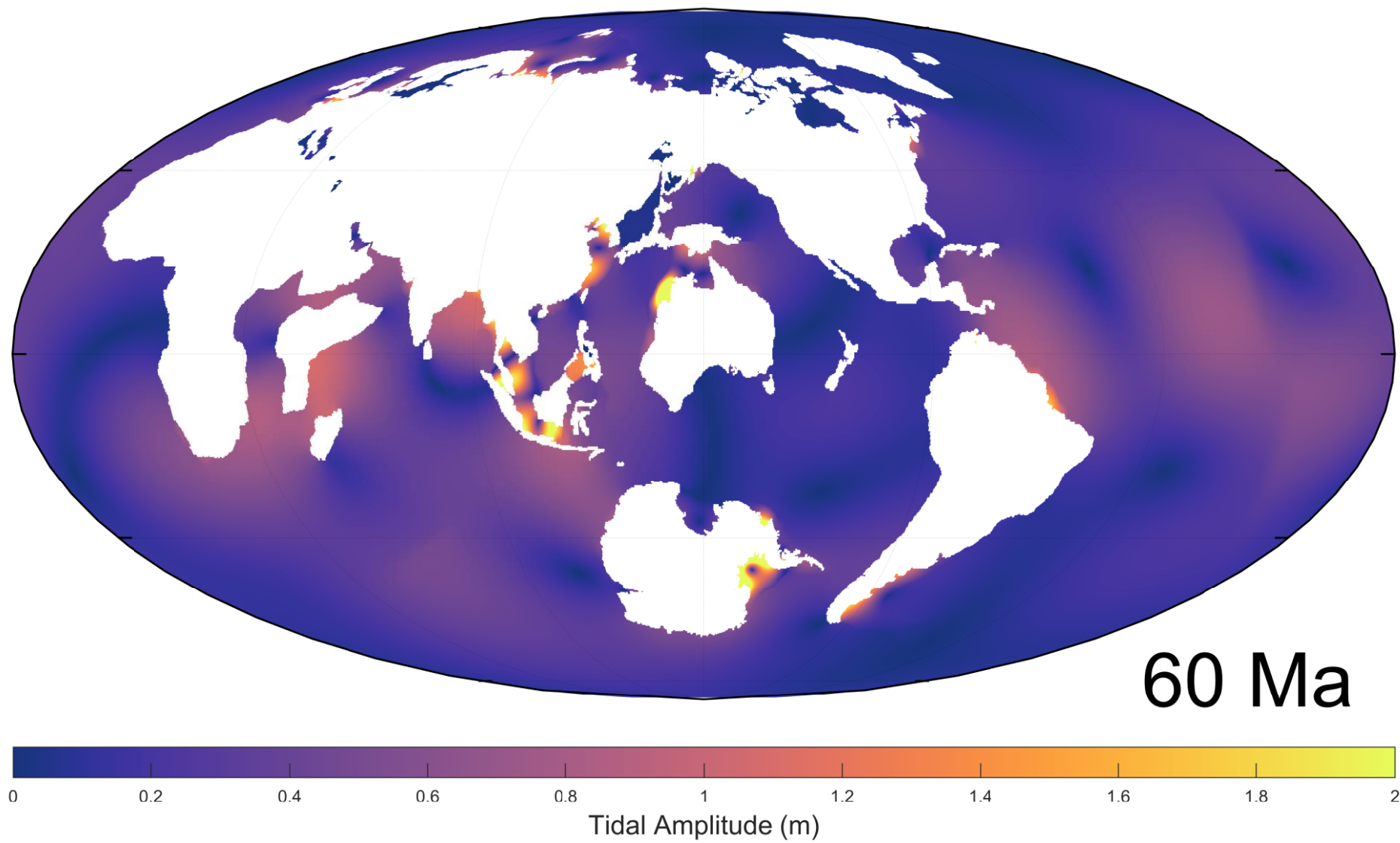
Figure S2d: Global M$_2$ tide during the Novopangea scenario continued.

80 Ma

Tidal Amplitude (m)
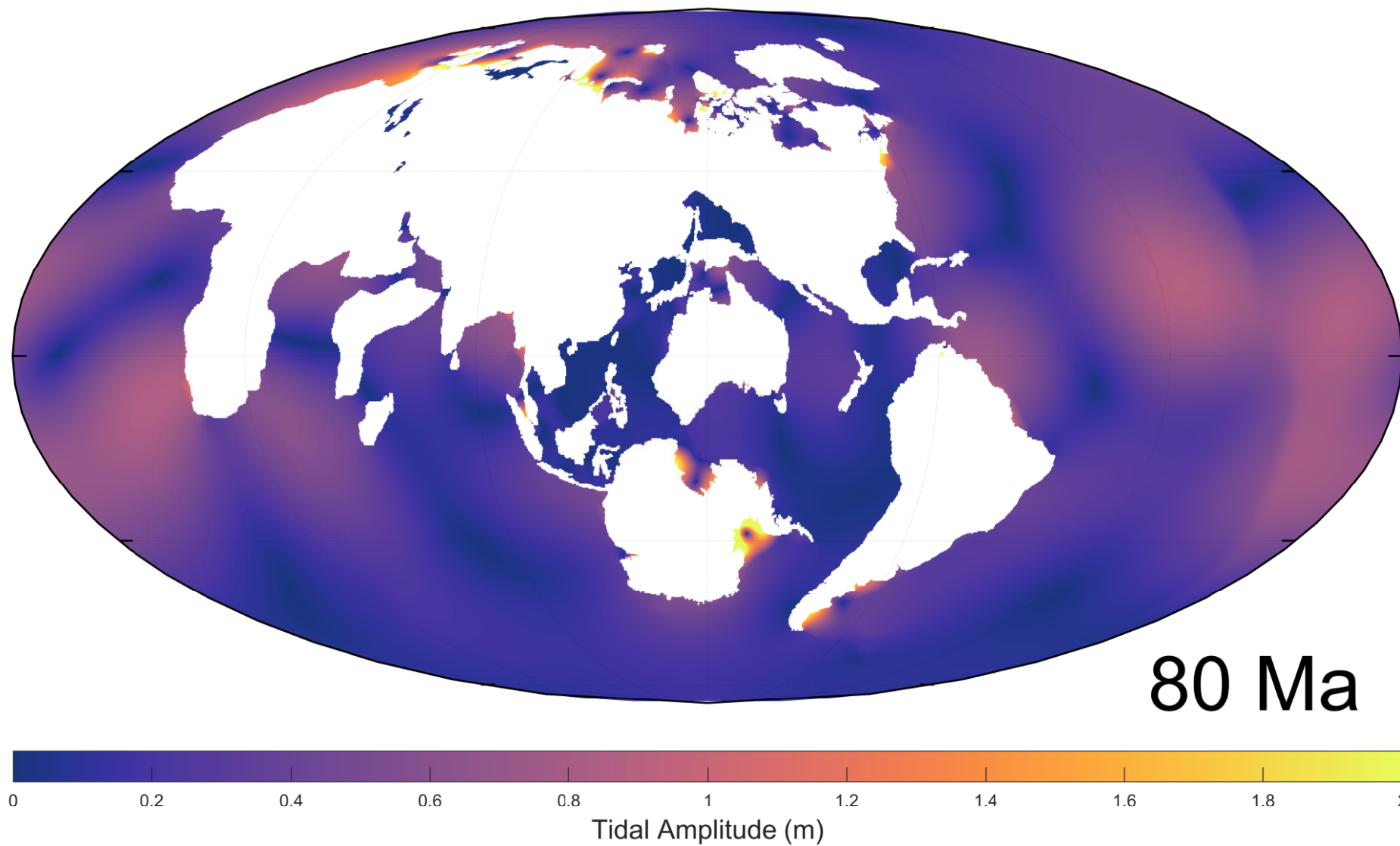
Figure S2e: Global M$_2$ tide during the Novopangea scenario continued.

100 Ma

Tidal Amplitude (m)
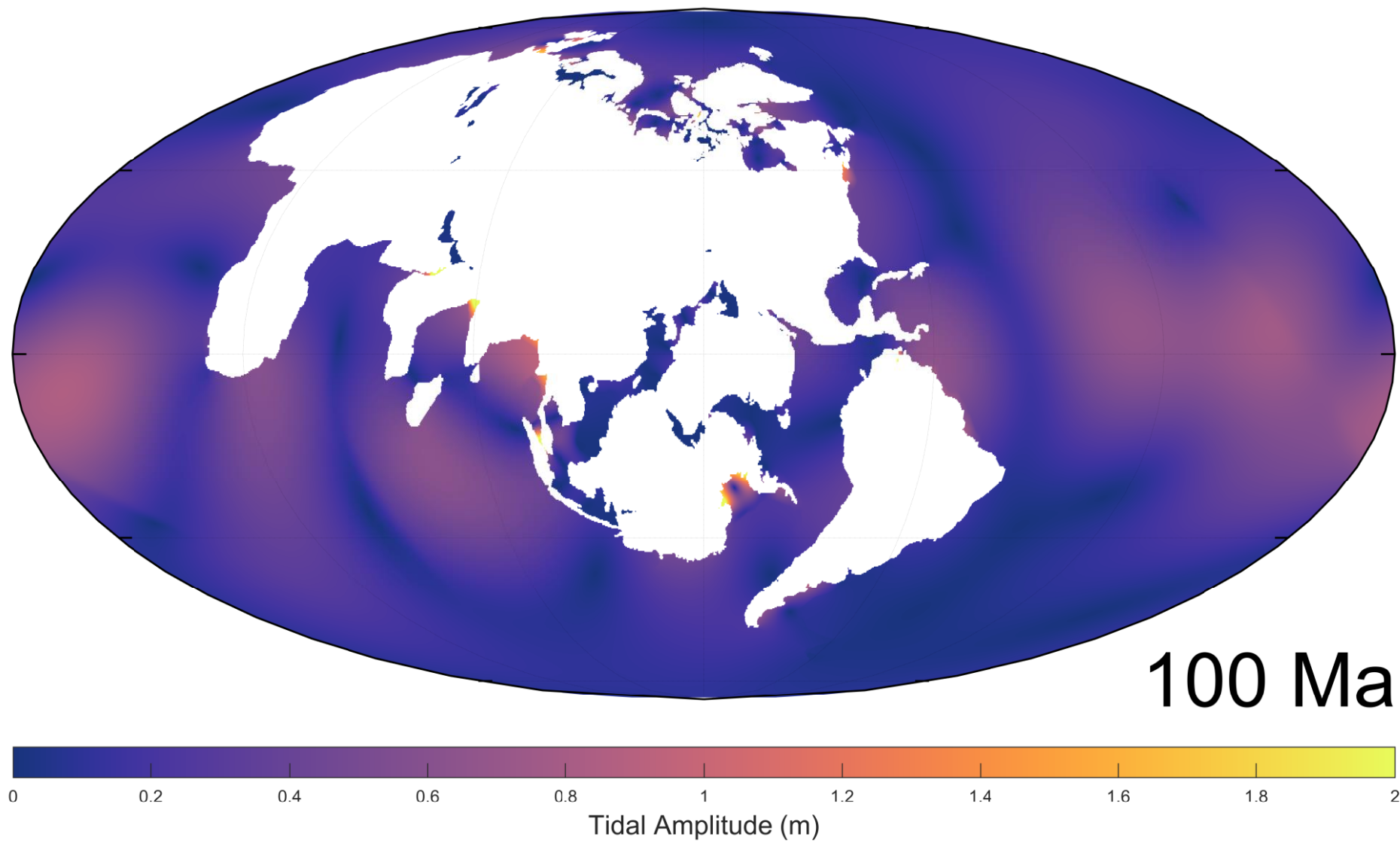
Figure S2f: Global M$_2$ tide during the Novopangea scenario continued.

120 Ma

Tidal Amplitude (m)
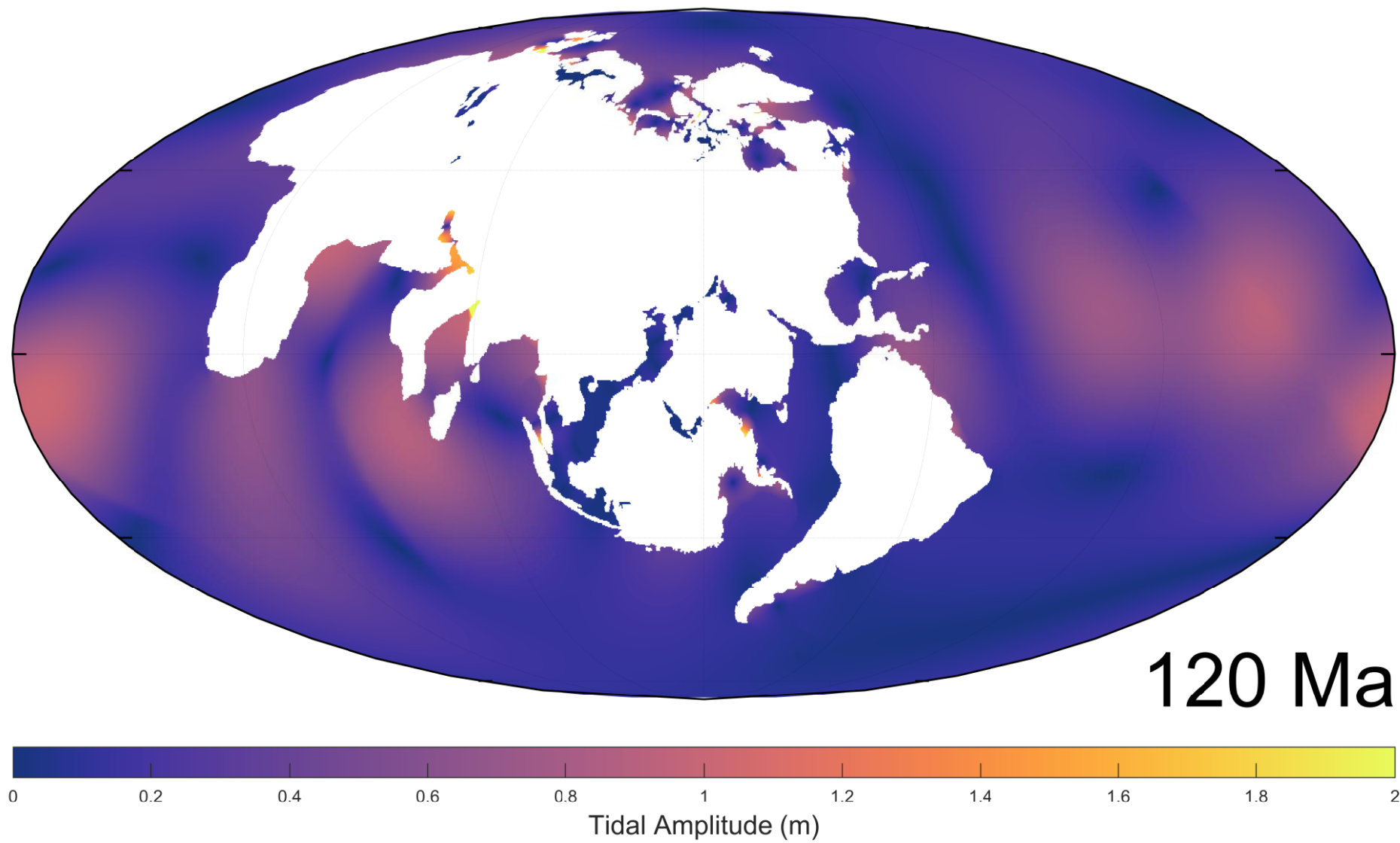
Figure S2g: Global M$_2$ tide during the Novopangea scenario continued.

140 Ma

Tidal Amplitude (m)
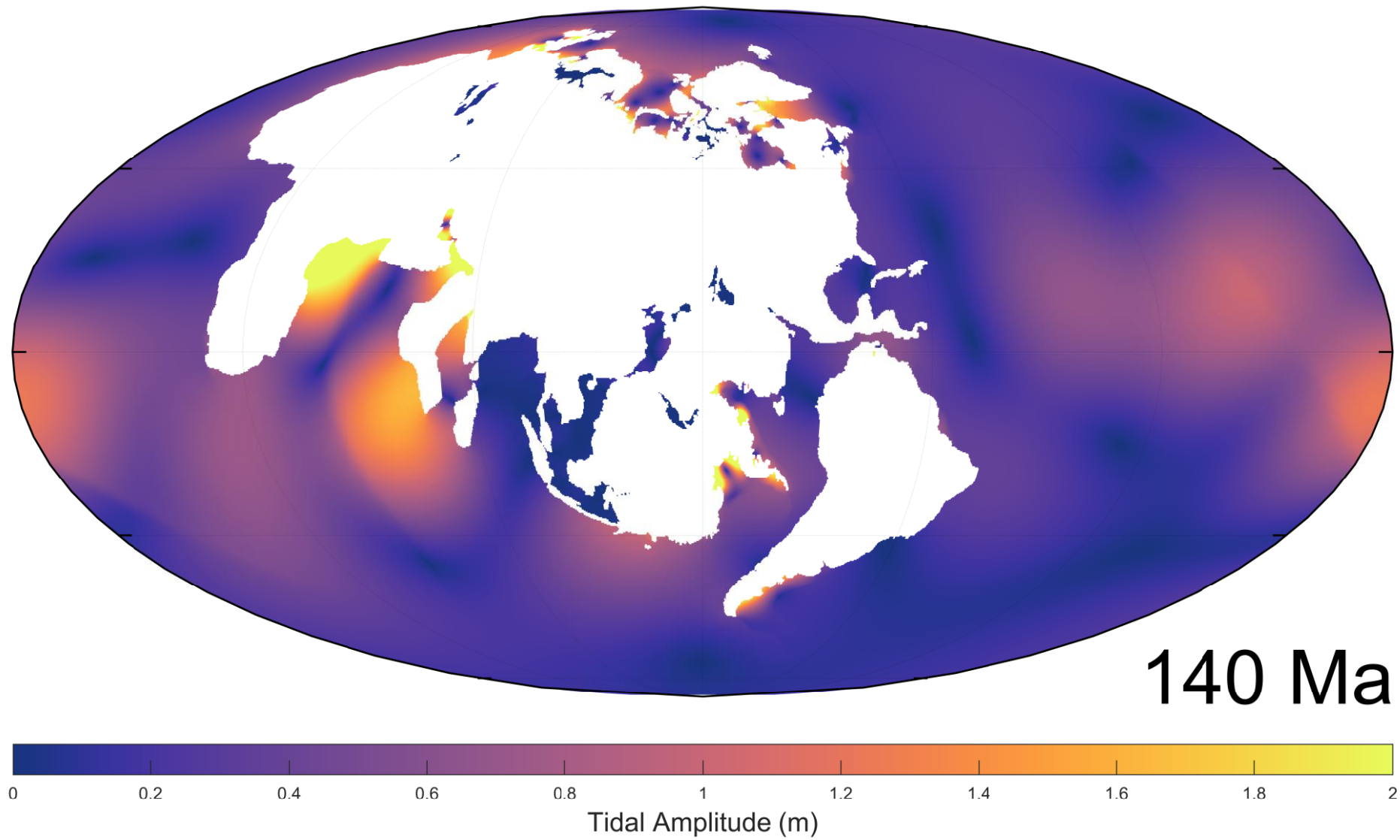
Figure S2h: Global M$_2$ tide during the Novopangea scenario continued.

160 Ma

Tidal Amplitude (m)
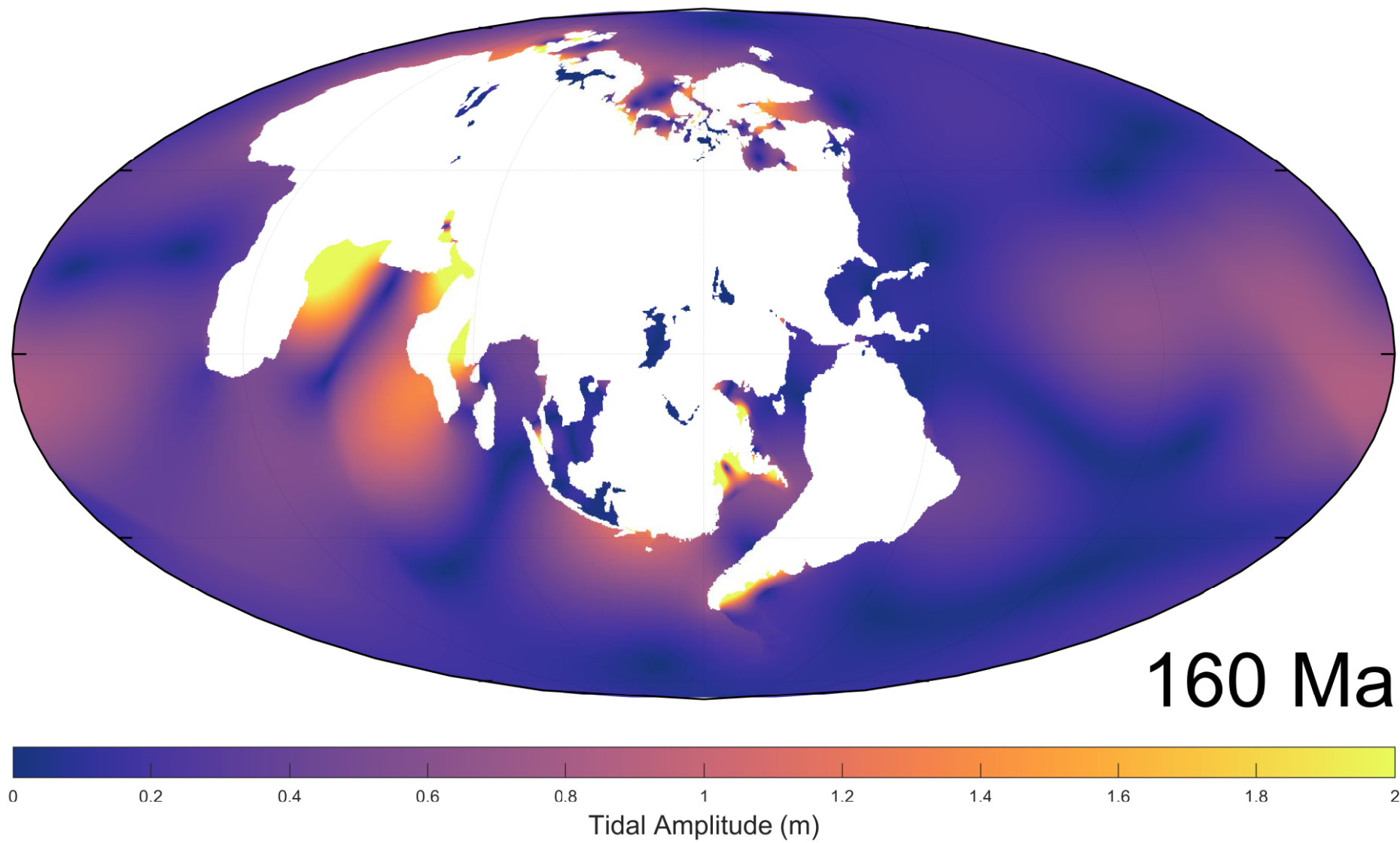
Figure S2i: Global M$_2$ tide during the Novopangea scenario continued.

180 Ma

Tidal Amplitude (m)
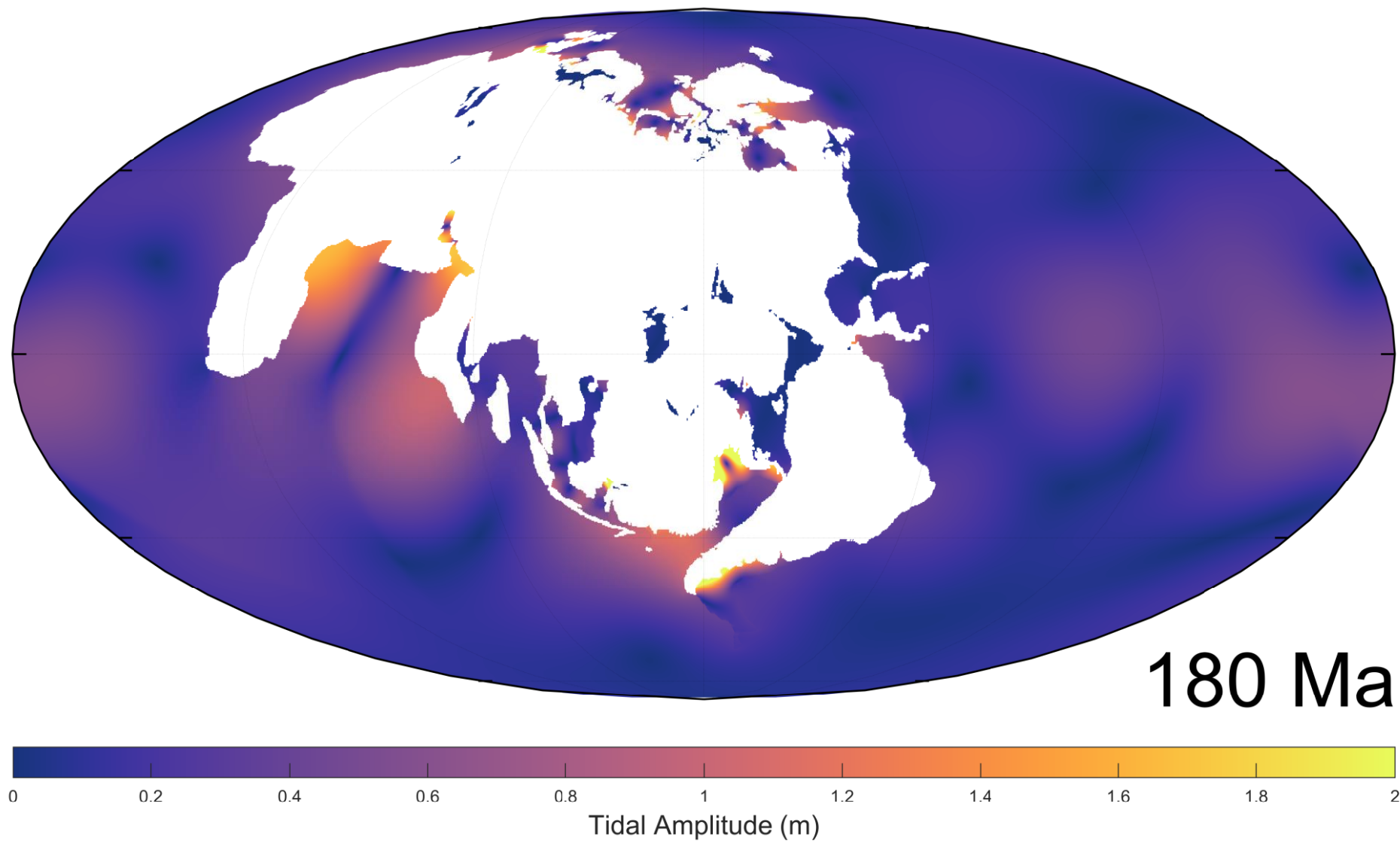
Figure S2j: Global M$_2$ tide during the Novopangea scenario continued.

200 Ma

Tidal Amplitude (m)
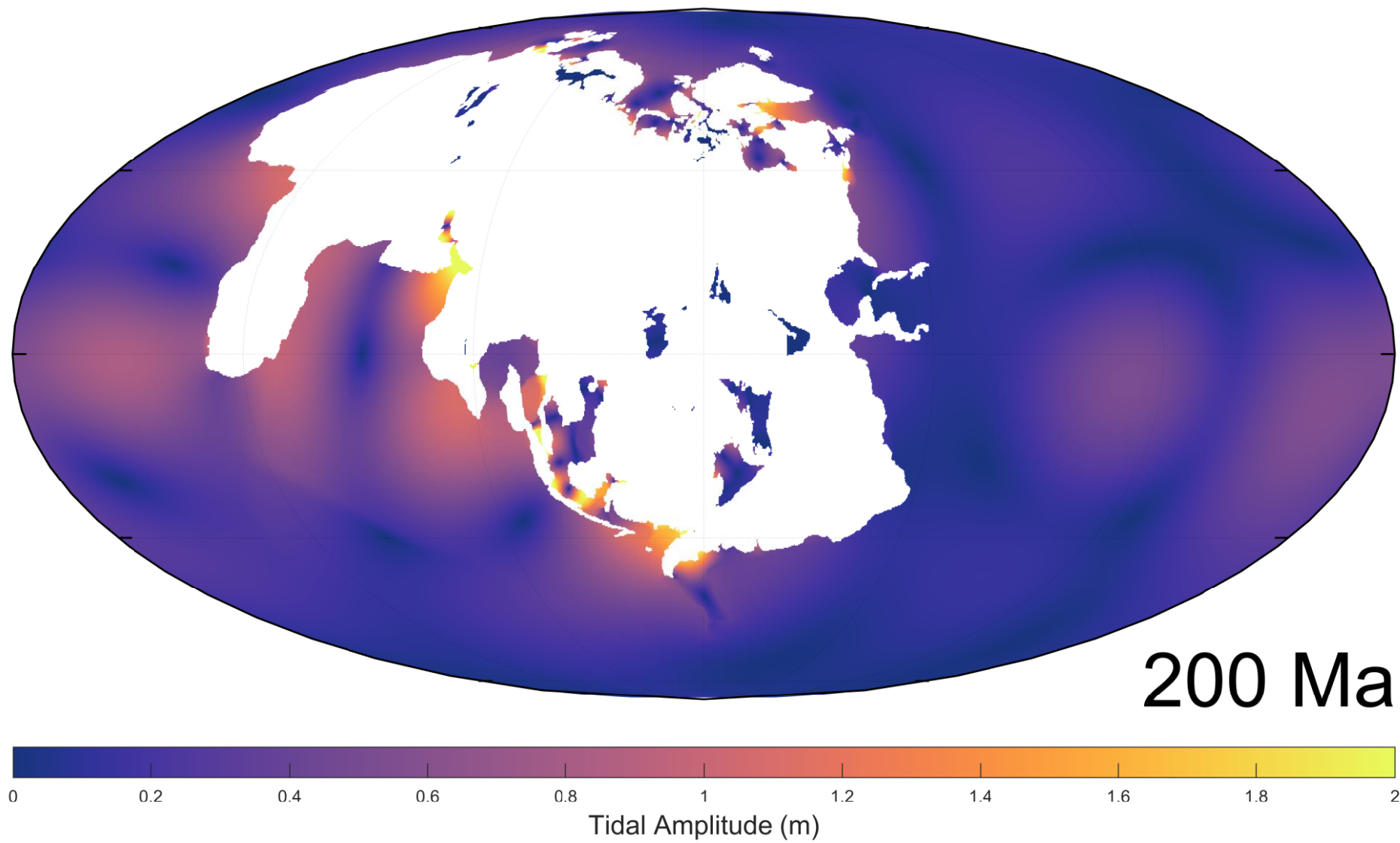
Figure S2k: Global M$_2$ tide during the Novopangea scenario continued.

0 Ma

Tidal Amplitude (m)
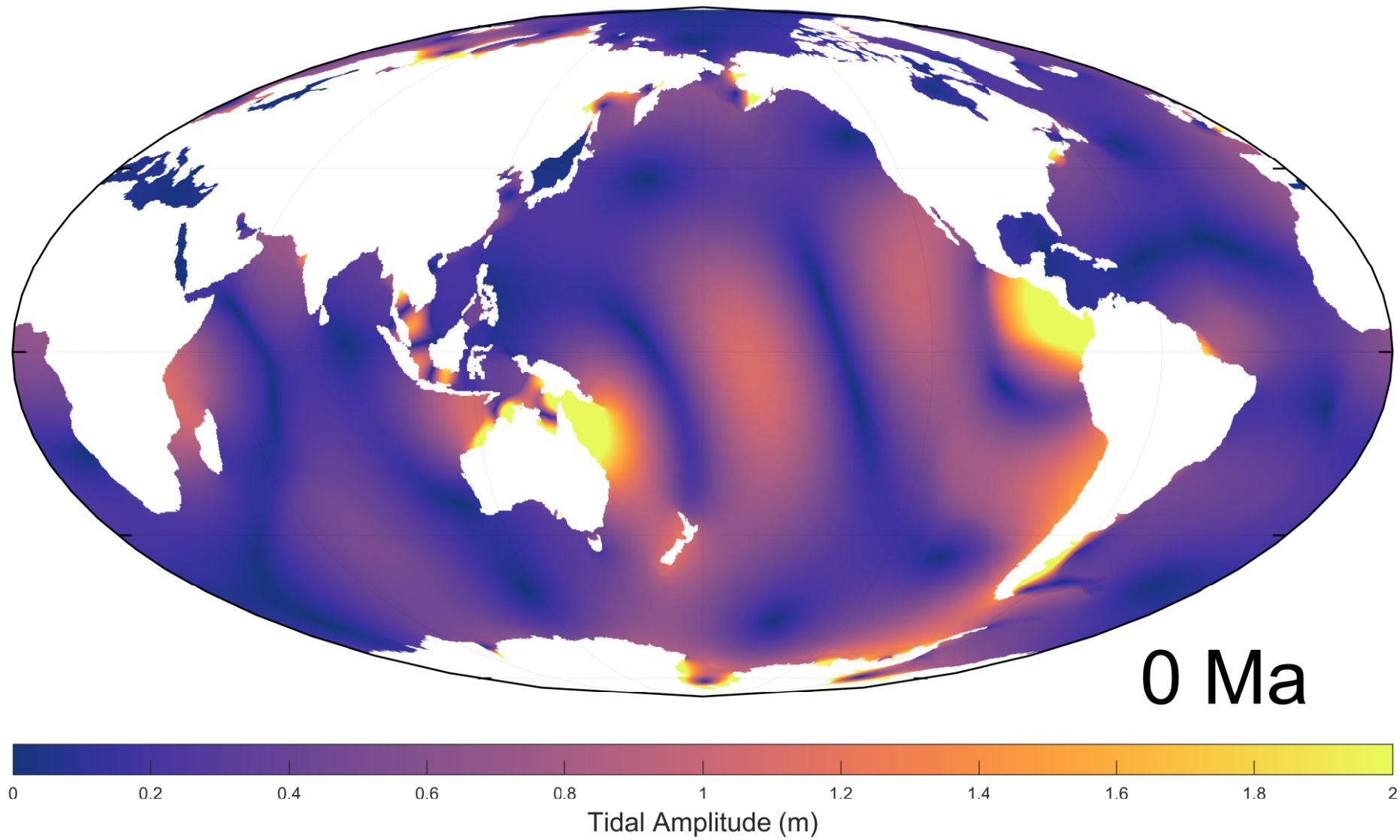
Figure S3a: Global M$_2$ amplitudes for the present day (0 Ma) of the Aurica scenario. The colour scale saturates at 2 m.
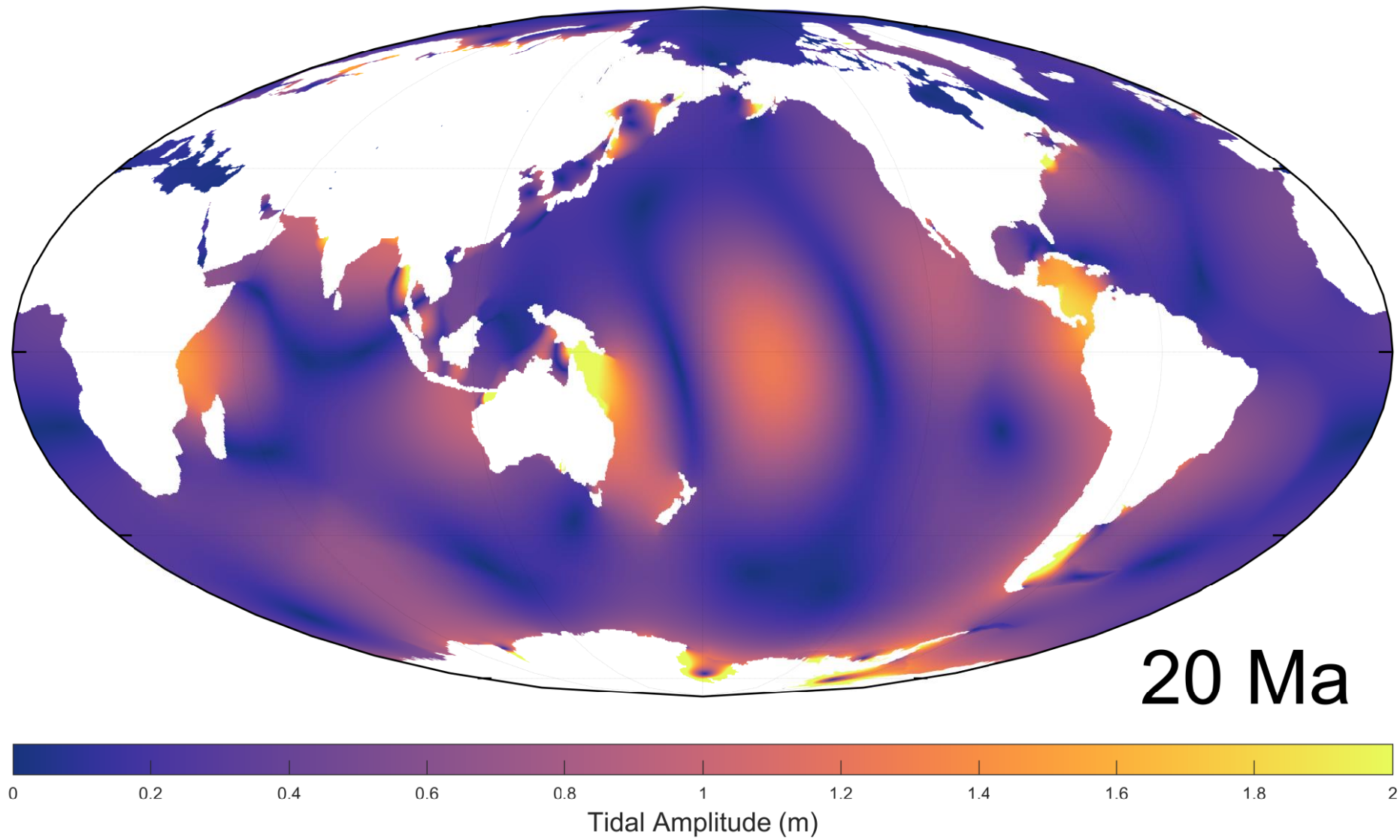
Figure S3b: Global M$_2$ amplitudes the Aurica scenario continued.

40 Ma

Tidal Amplitude (m)
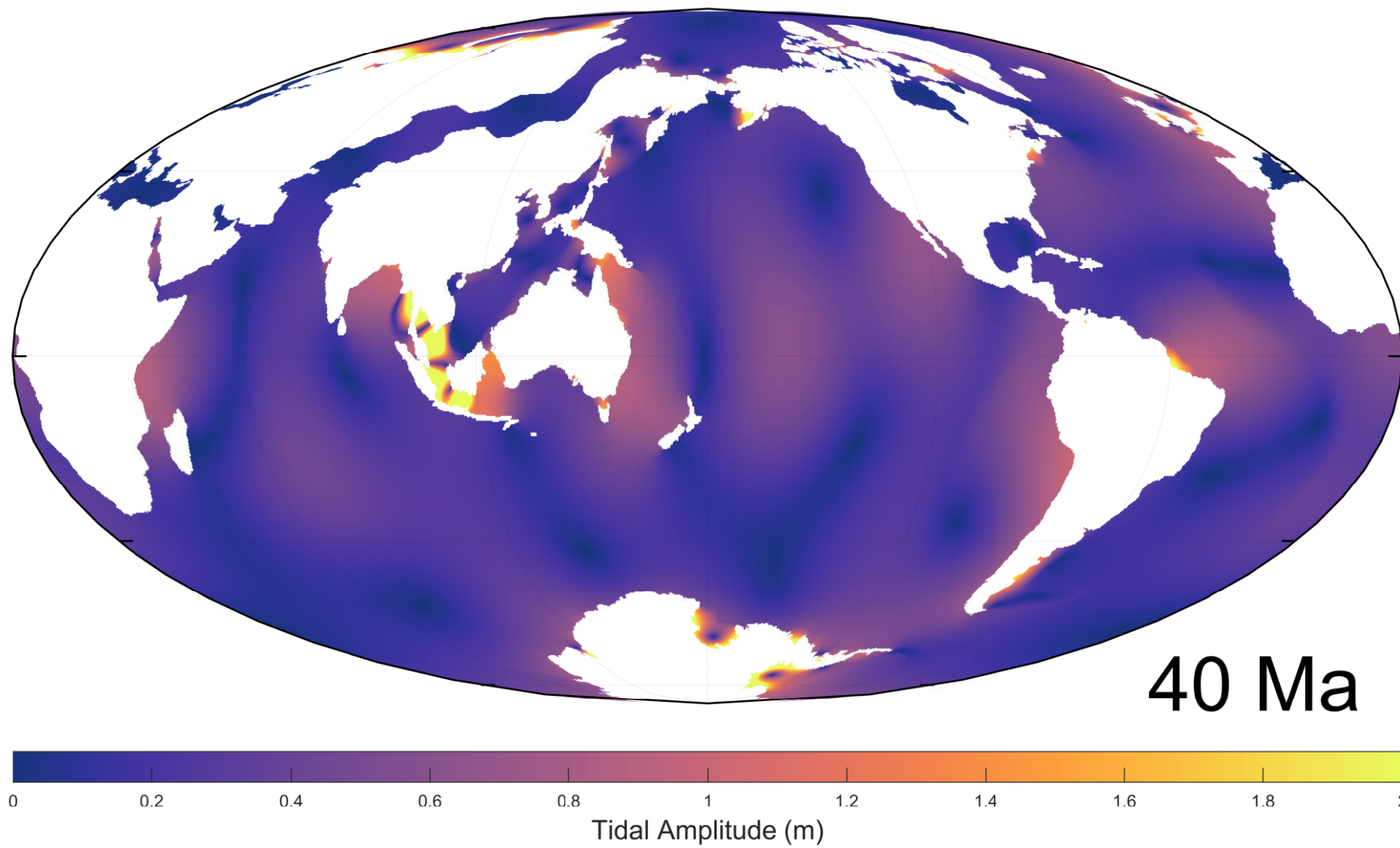
Figure S3c: Global M$_2$ amplitudes the Aurica scenario continued.

60 Ma

Tidal Amplitude (m)
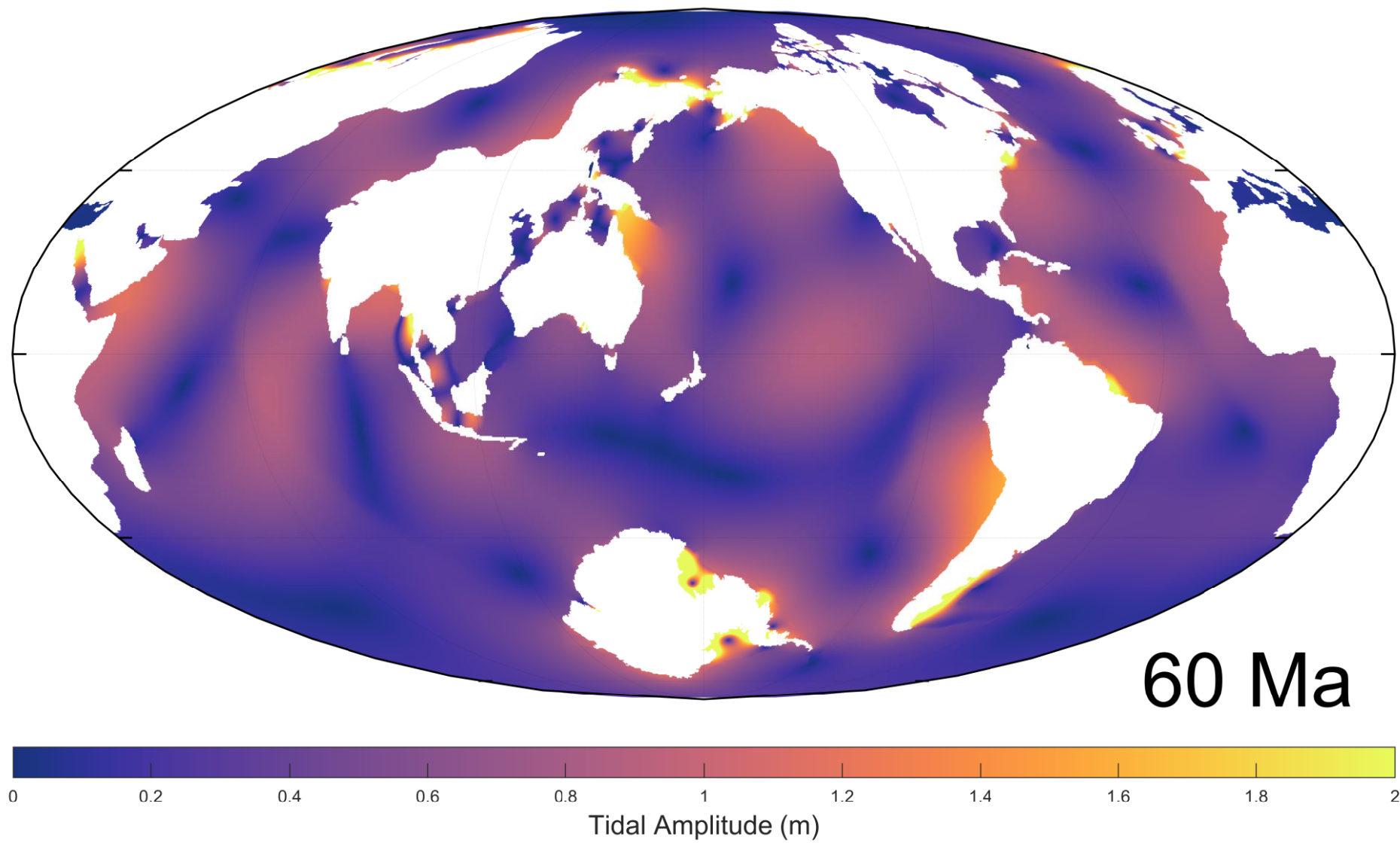
Figure S3d: Global M$_2$ amplitudes the Aurica scenario continued.

80 Ma

Tidal Amplitude (m)
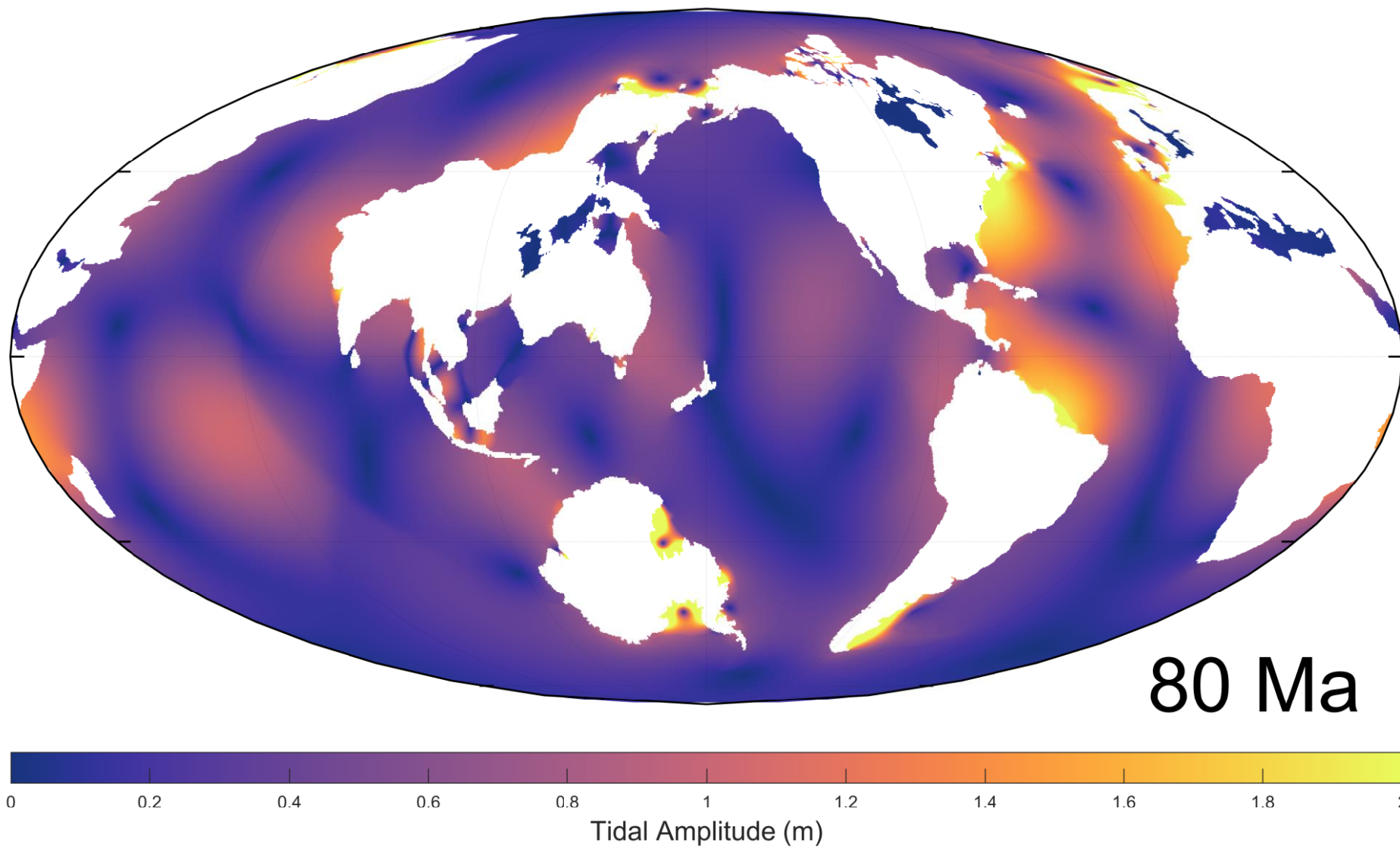
Figure S3e: Global M$_2$ amplitudes the Aurica scenario continued.

100 Ma

Tidal Amplitude (m)
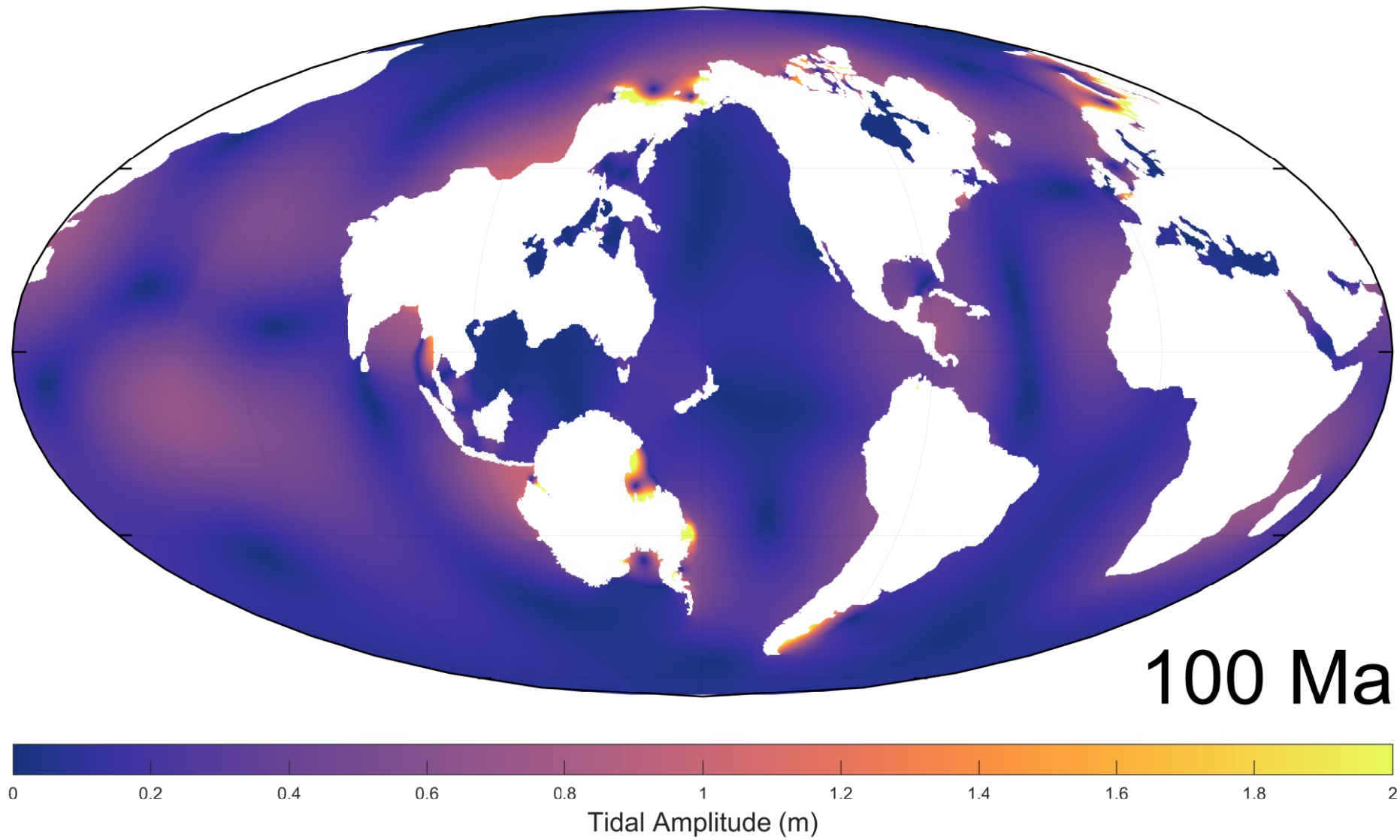
Figure S3f: Global M$_2$ amplitudes the Aurica scenario continued.

120 Ma

Tidal Amplitude (m)
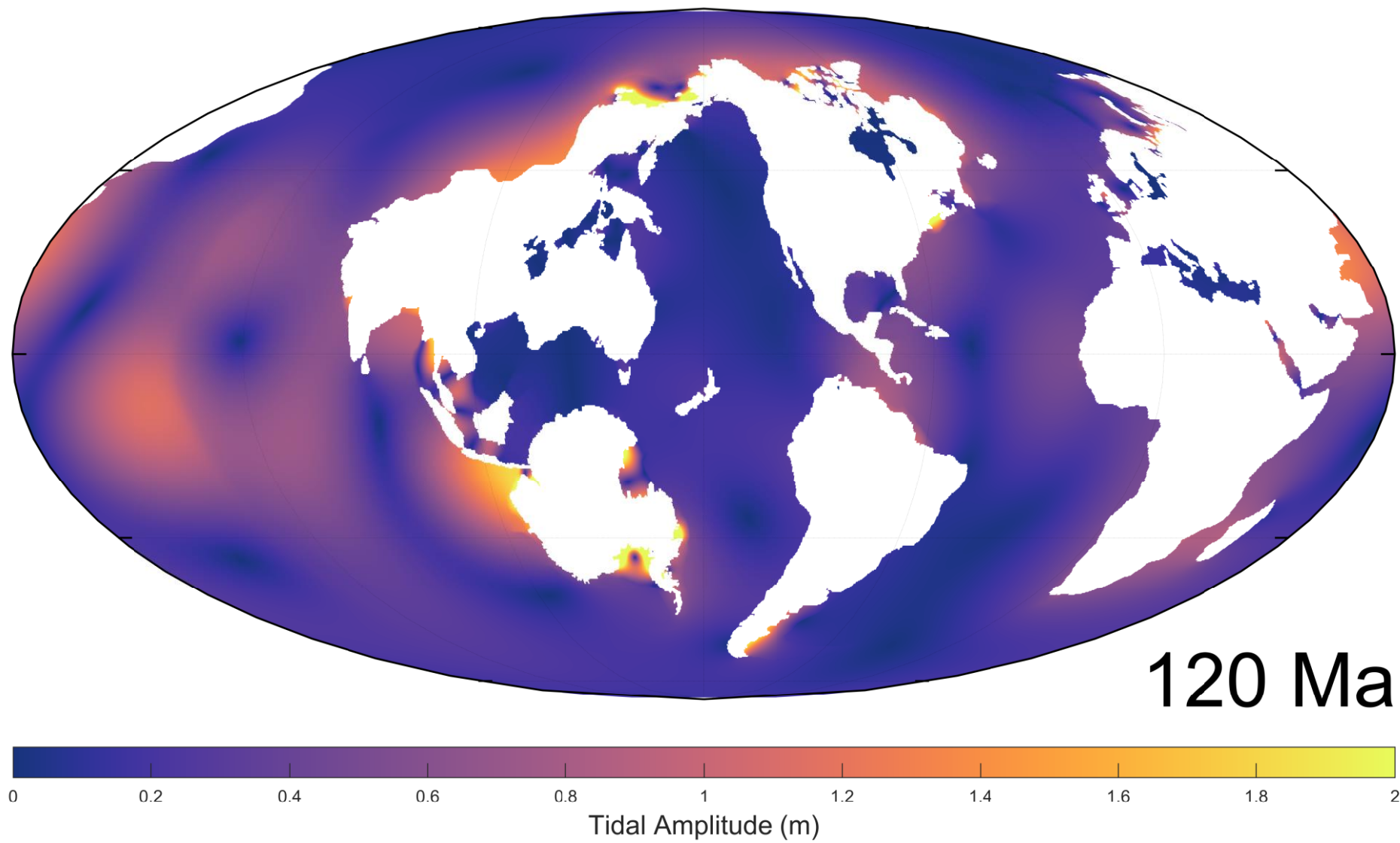
Figure S3g: Global M$_2$ amplitudes the Aurica scenario continued.

140 Ma

Tidal Amplitude (m)
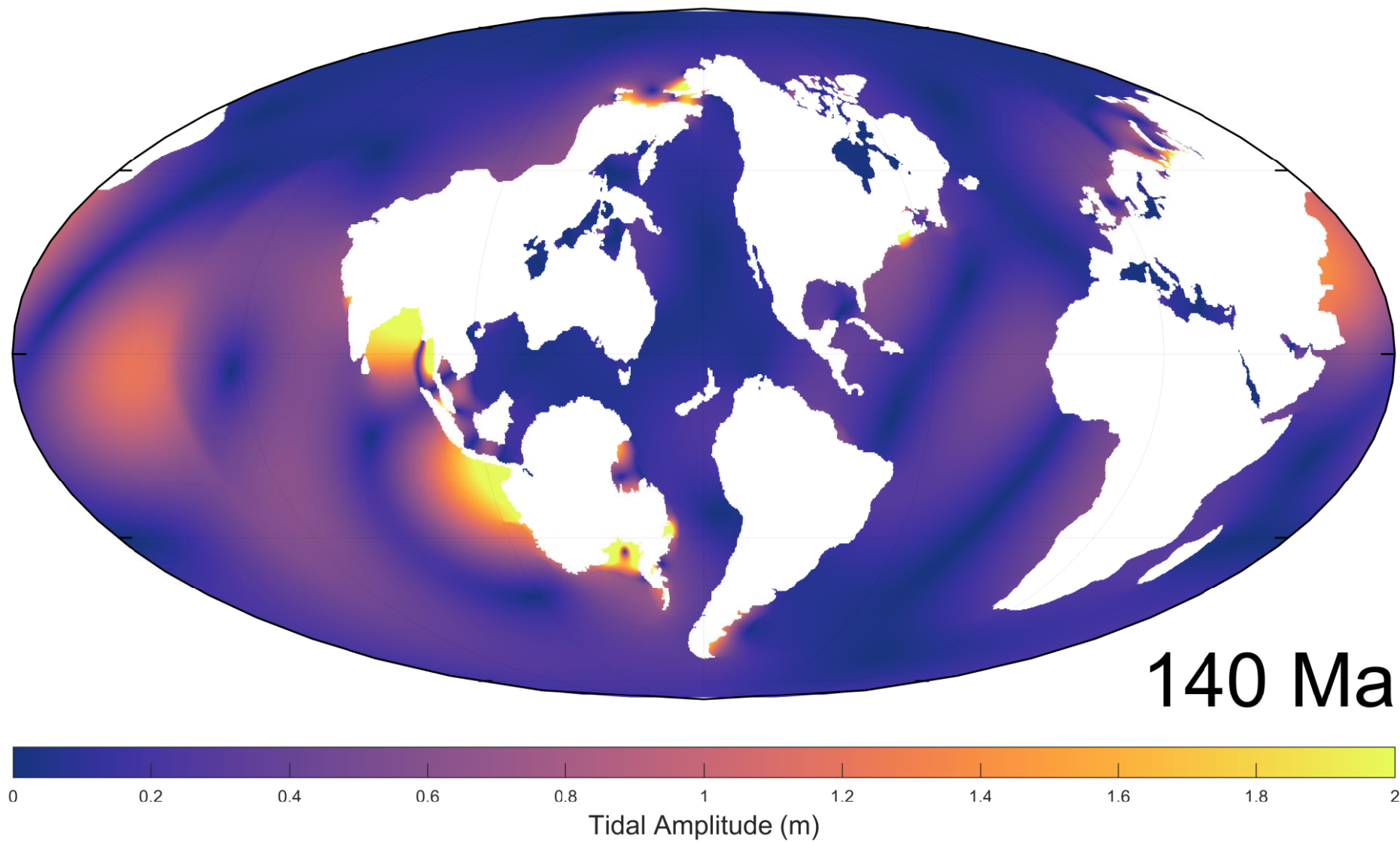
Figure S3h: Global M$_2$ amplitudes the Aurica scenario continued.

160 Ma

Tidal Amplitude (m)
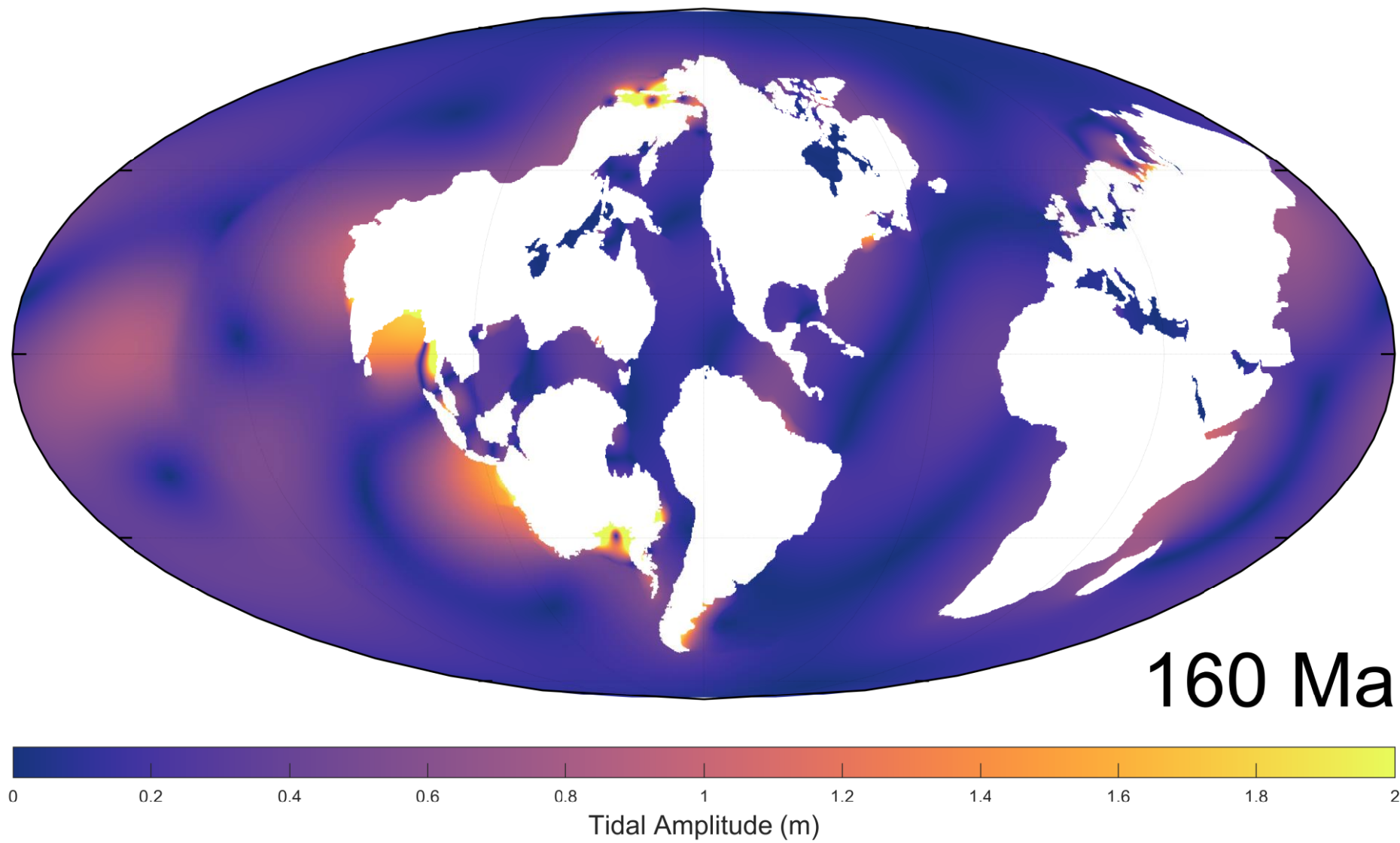
Figure S3i: Global M$_2$ amplitudes the Aurica scenario continued.

180 Ma

Tidal Amplitude (m)
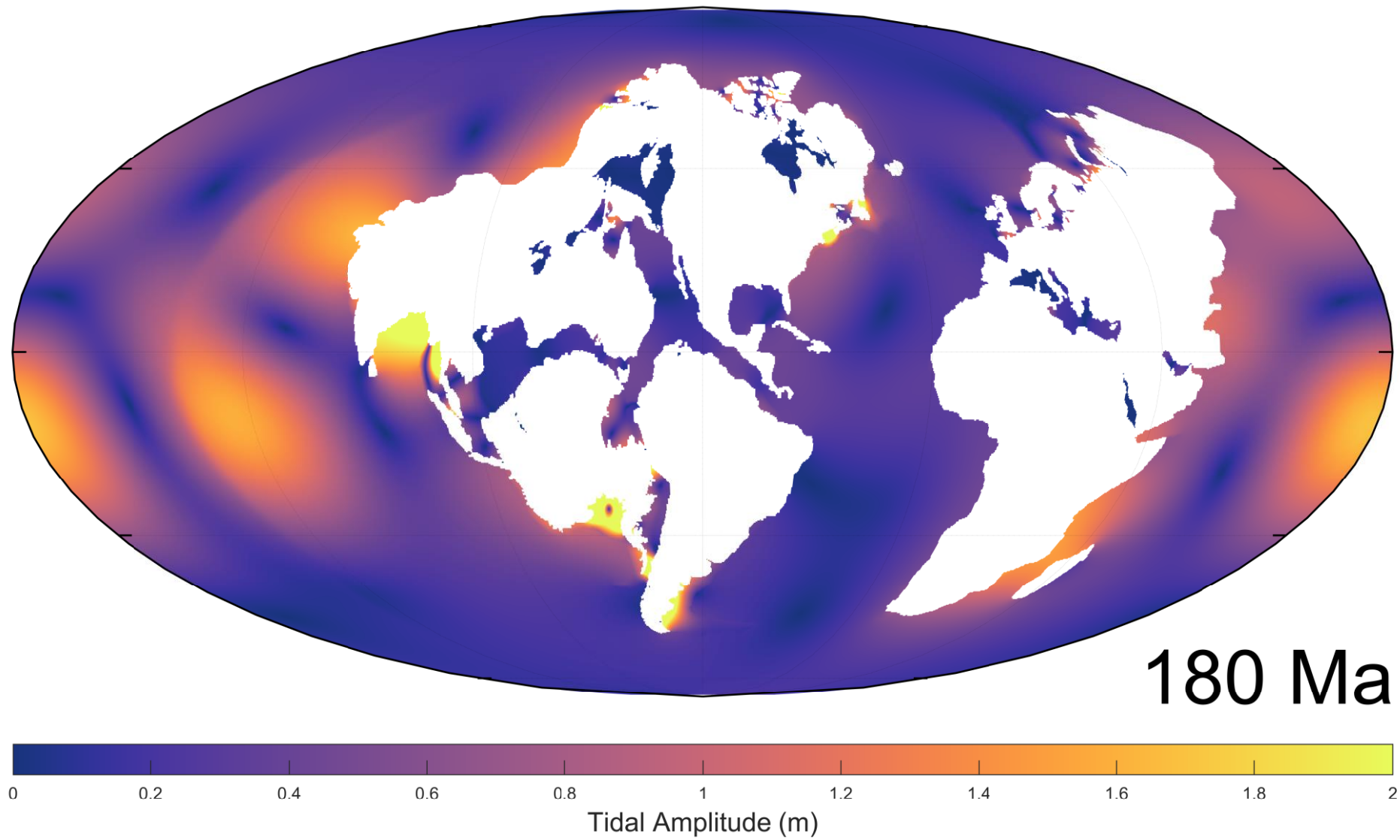
Figure S3j: Global M$_2$ amplitudes the Aurica scenario continued.

200 Ma

Tidal Amplitude (m)
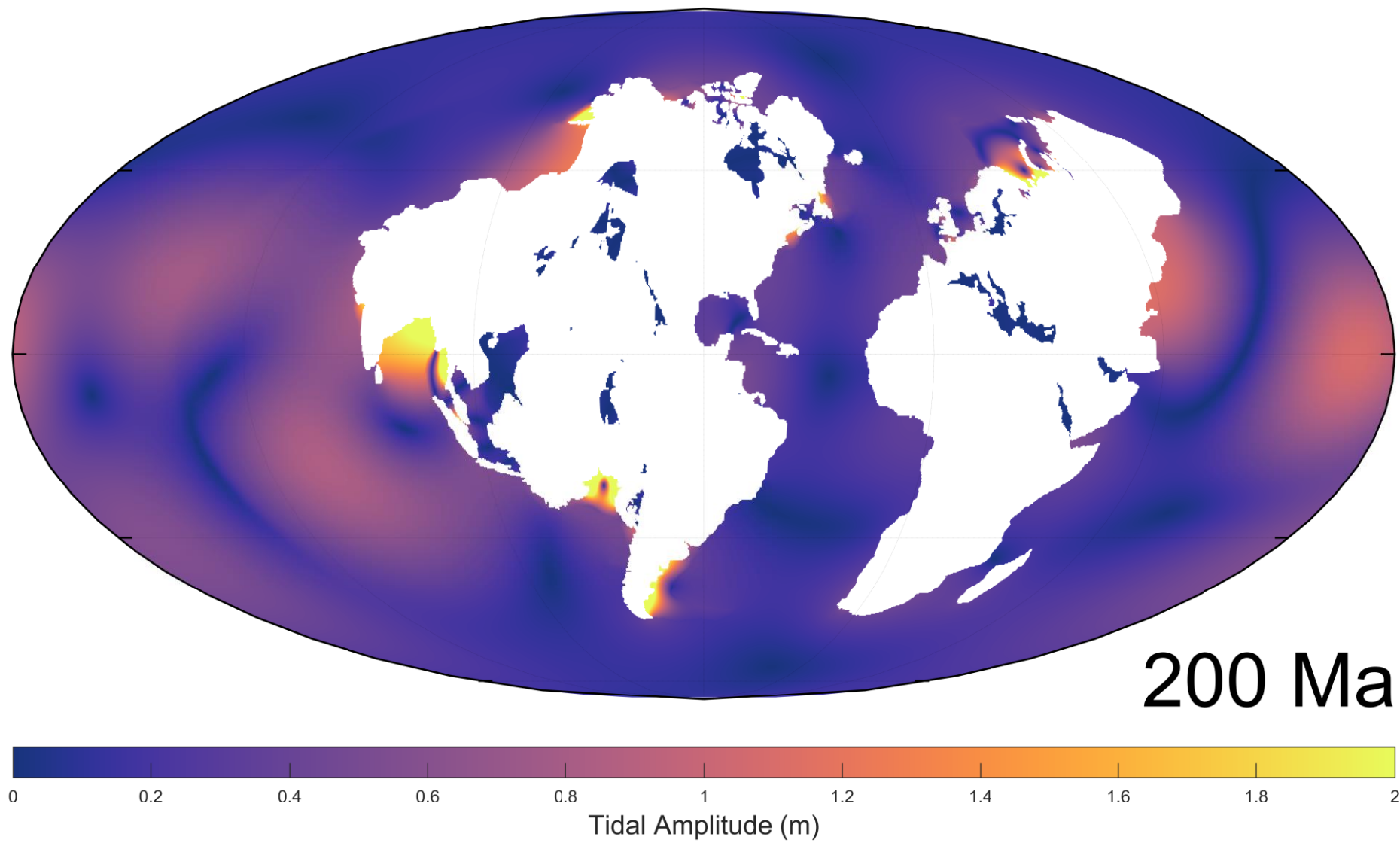
Figure S3k: Global M$_2$ amplitudes the Aurica scenario continued.

220 Ma

Tidal Amplitude (m)

Figure S3l: Global M$_2$ amplitudes the Aurica scenario continued.

240 Ma

Tidal Amplitude (m)
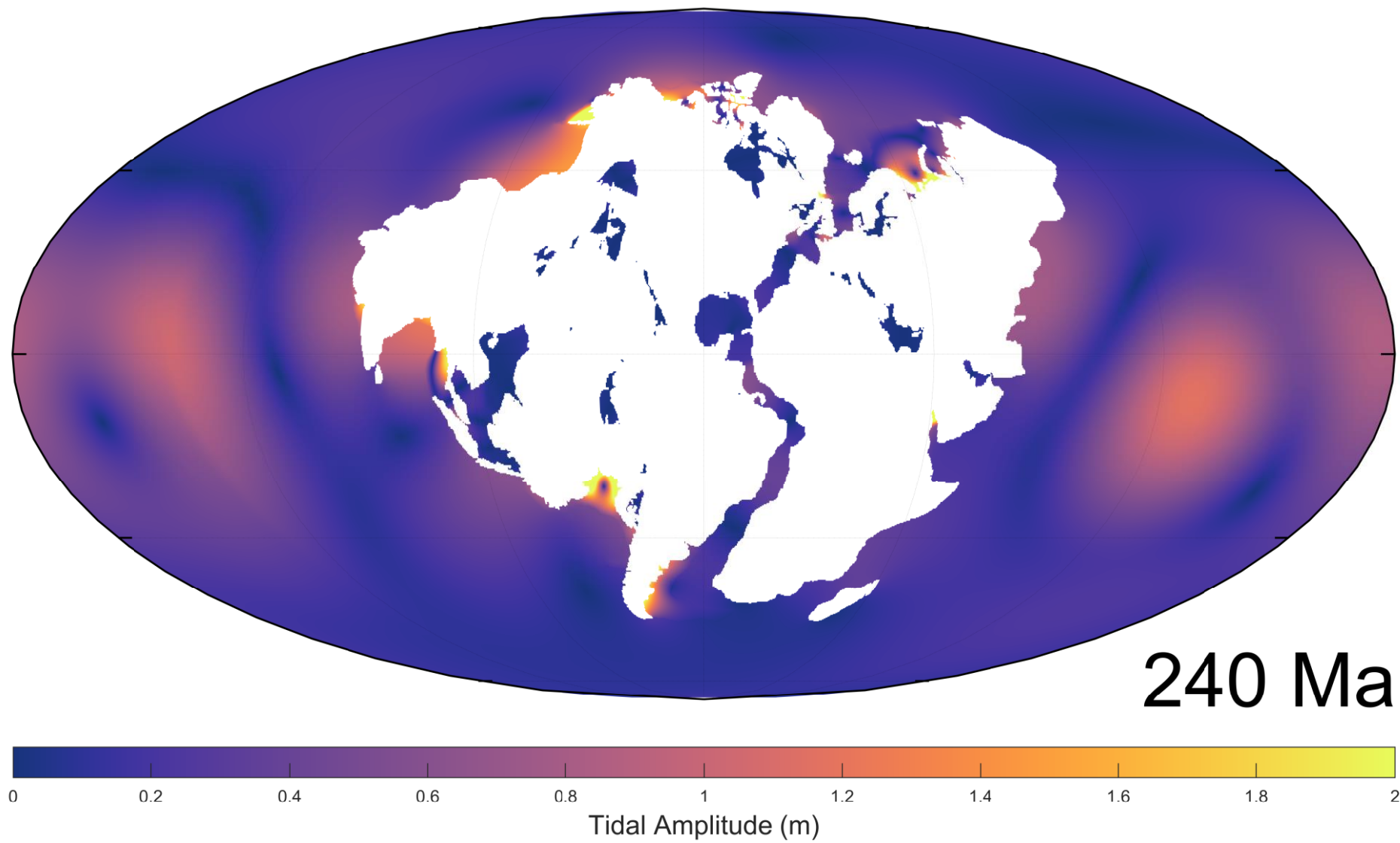
Figure S3m: Global M$_2$ amplitudes the Aurica scenario continued.

250 Ma

Tidal Amplitude (m)
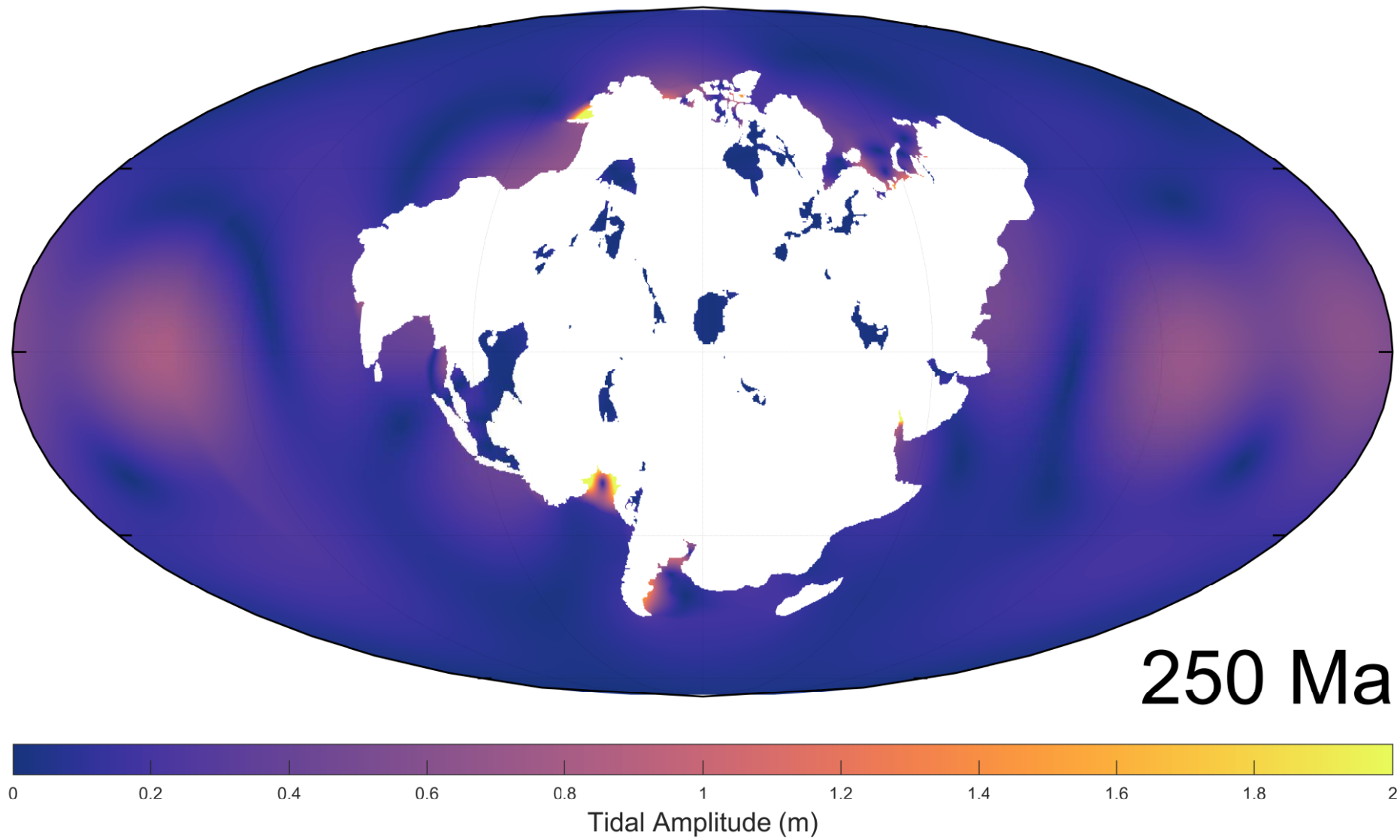
Figure S3n: Global M$_2$ amplitudes the Aurica scenario continued.
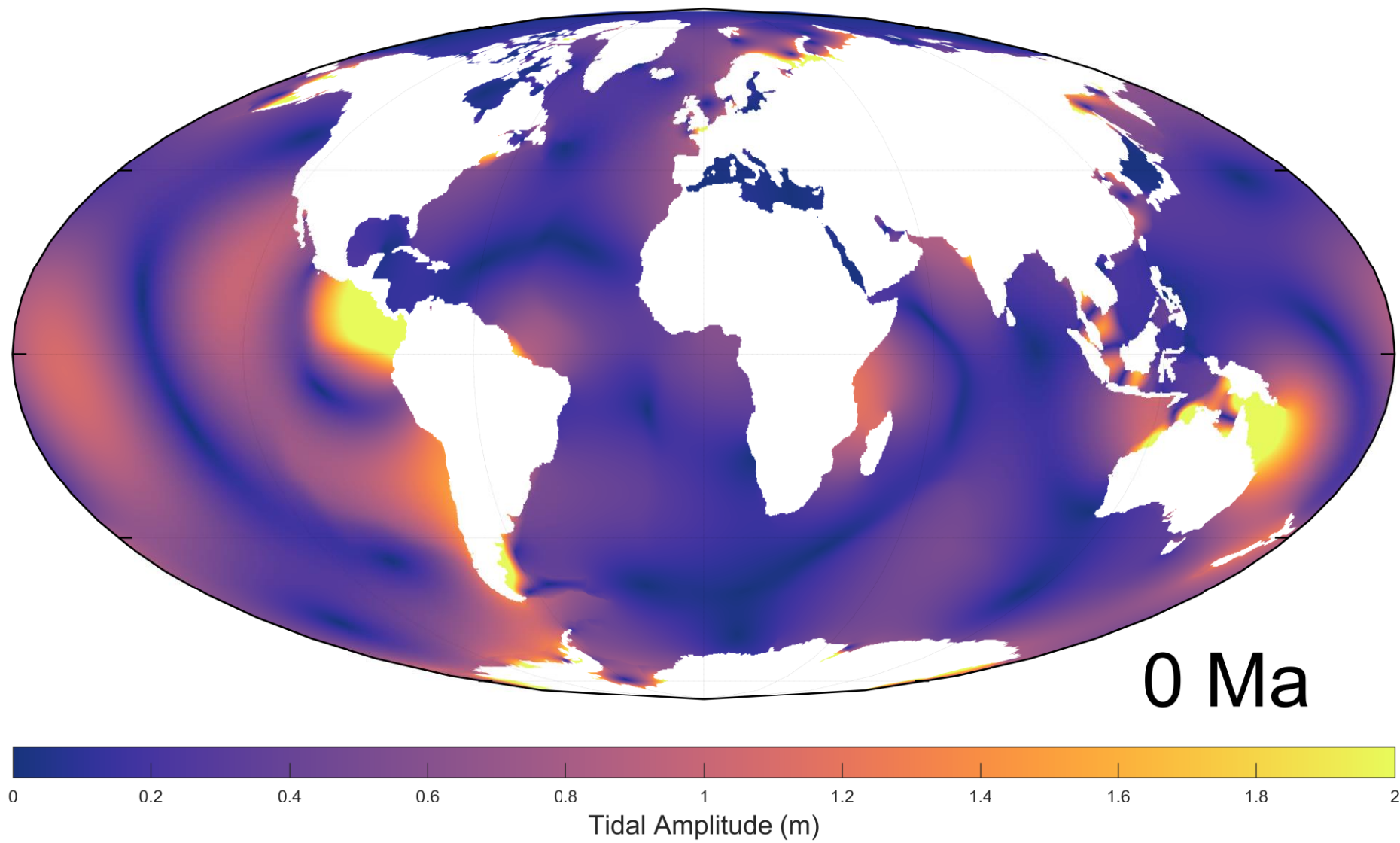
Figure S4a: Global M$_2$ amplitudes for the present day (0 Ma) of the Amasia scenario. The colour scale saturates at 2 m.

20 Ma

Tidal Amplitude (m)
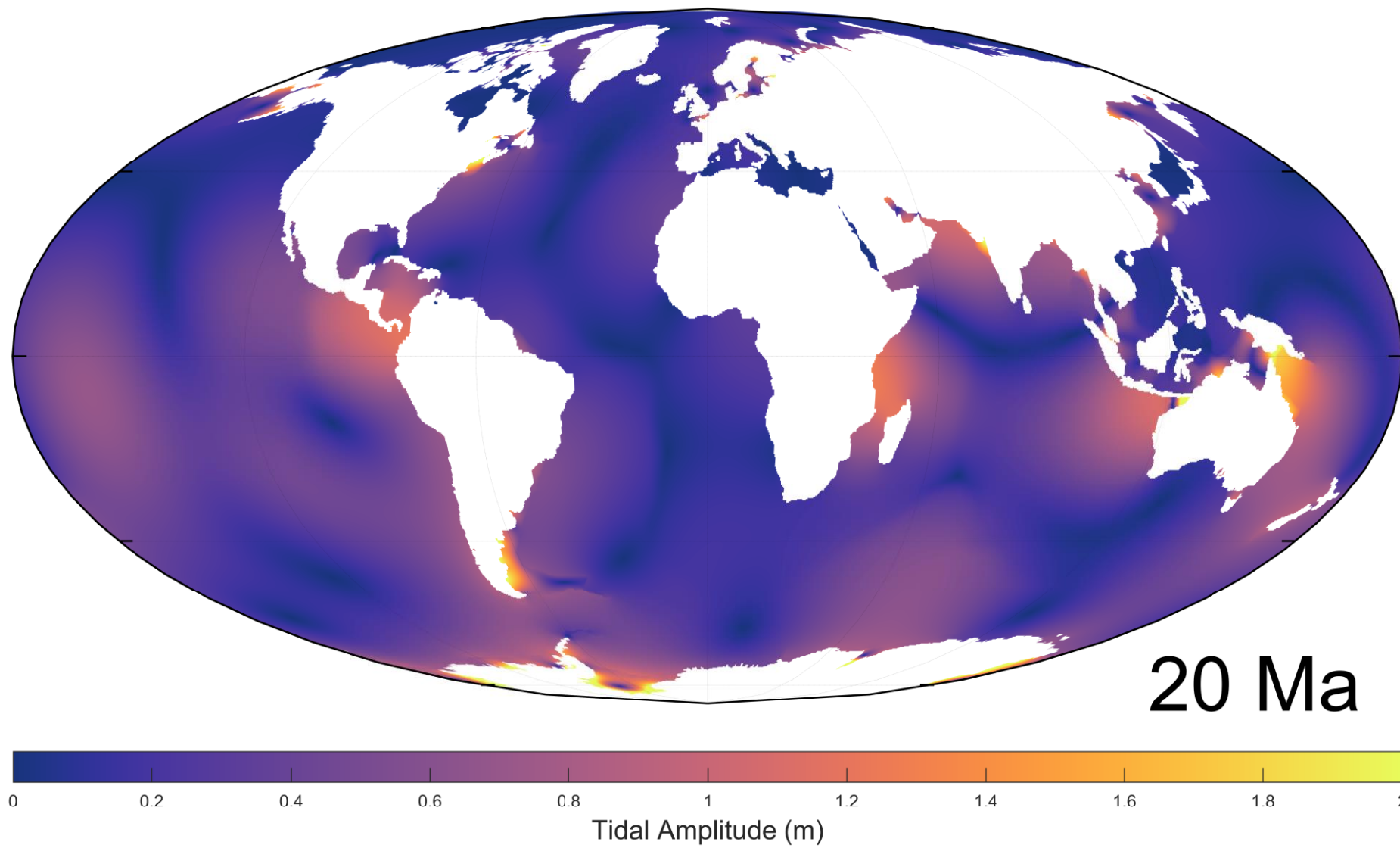
Figure S4b: Global M$_2$ amplitudes the Amasia scenario continued.
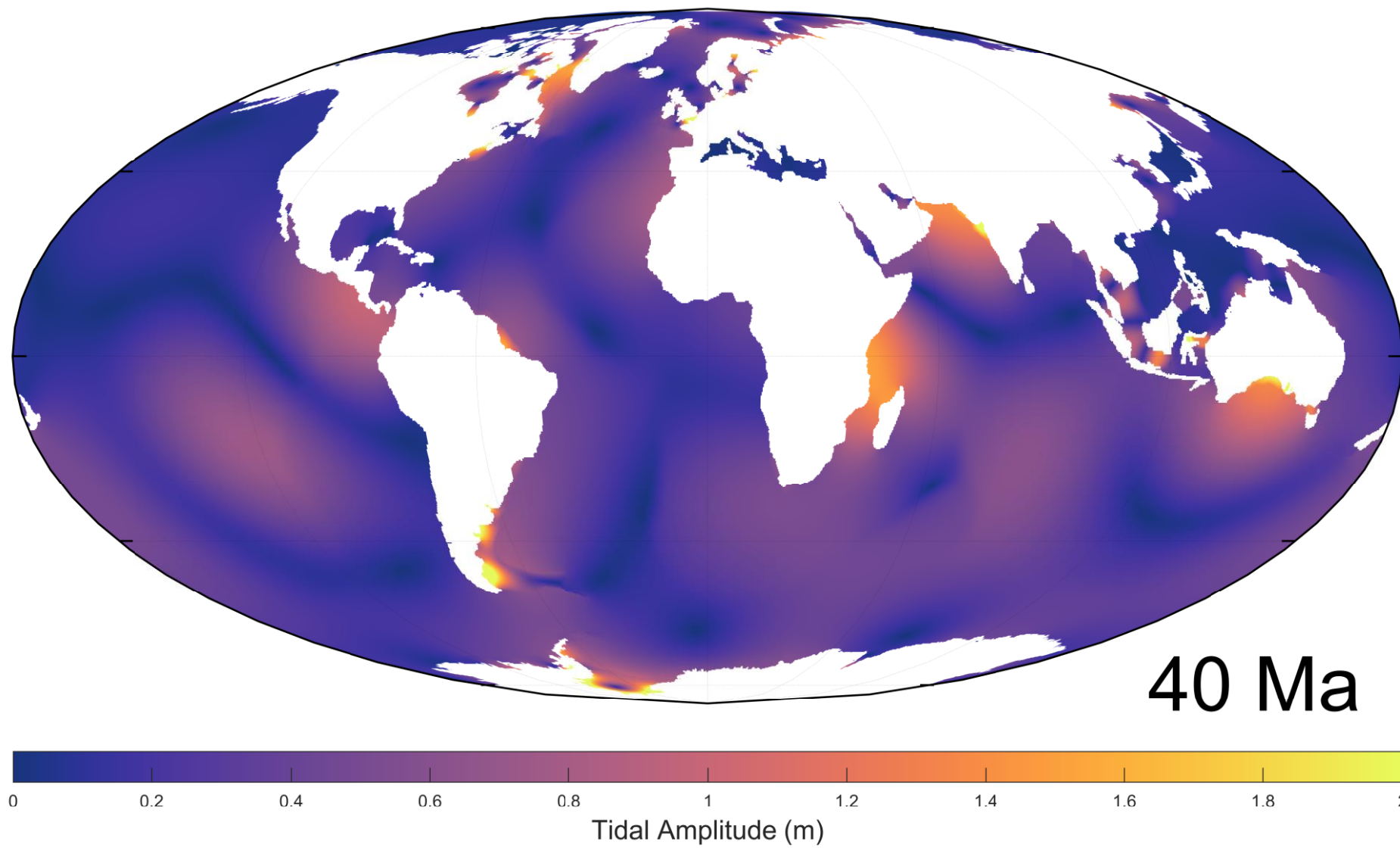
Figure S4c: Global M₂ amplitudes the Amasia scenario continued.

60 Ma

Tidal Amplitude (m)
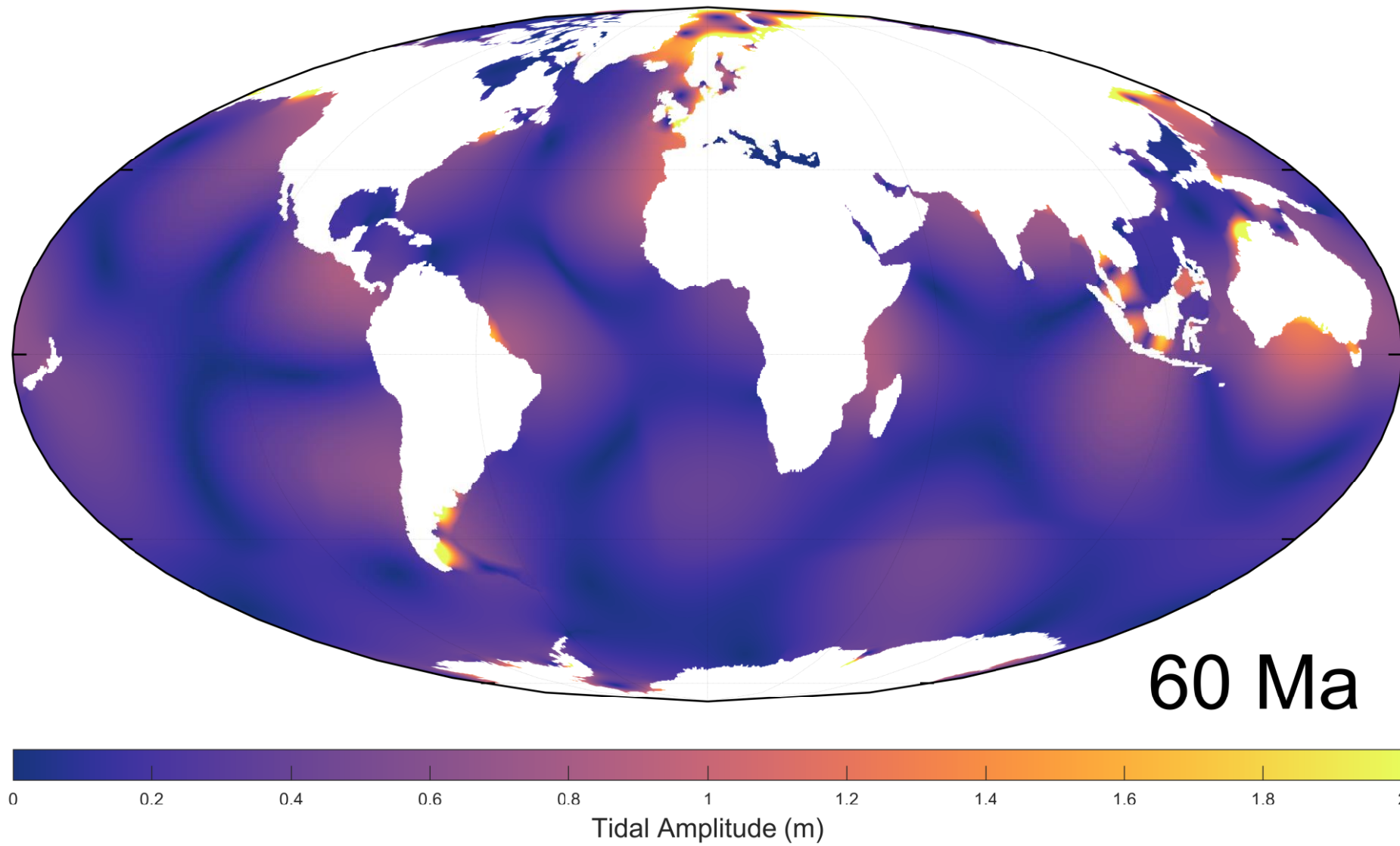
Figure S4d: Global M$_2$ amplitudes the Amasia scenario continued.

80 Ma

Tidal Amplitude (m)
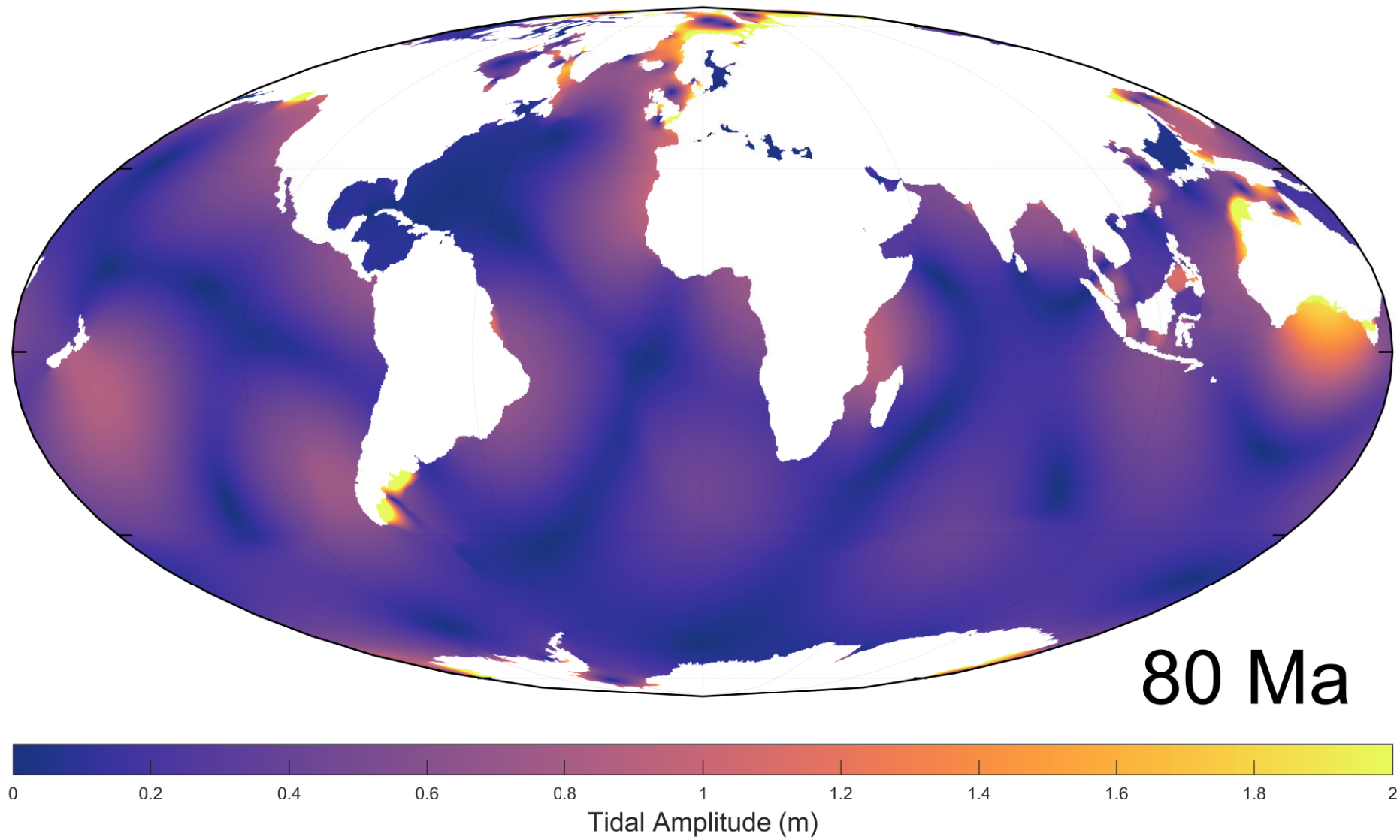
Figure S4e: Global M$_2$ amplitudes the Amasia scenario continued.

100 Ma

Tidal Amplitude (m)
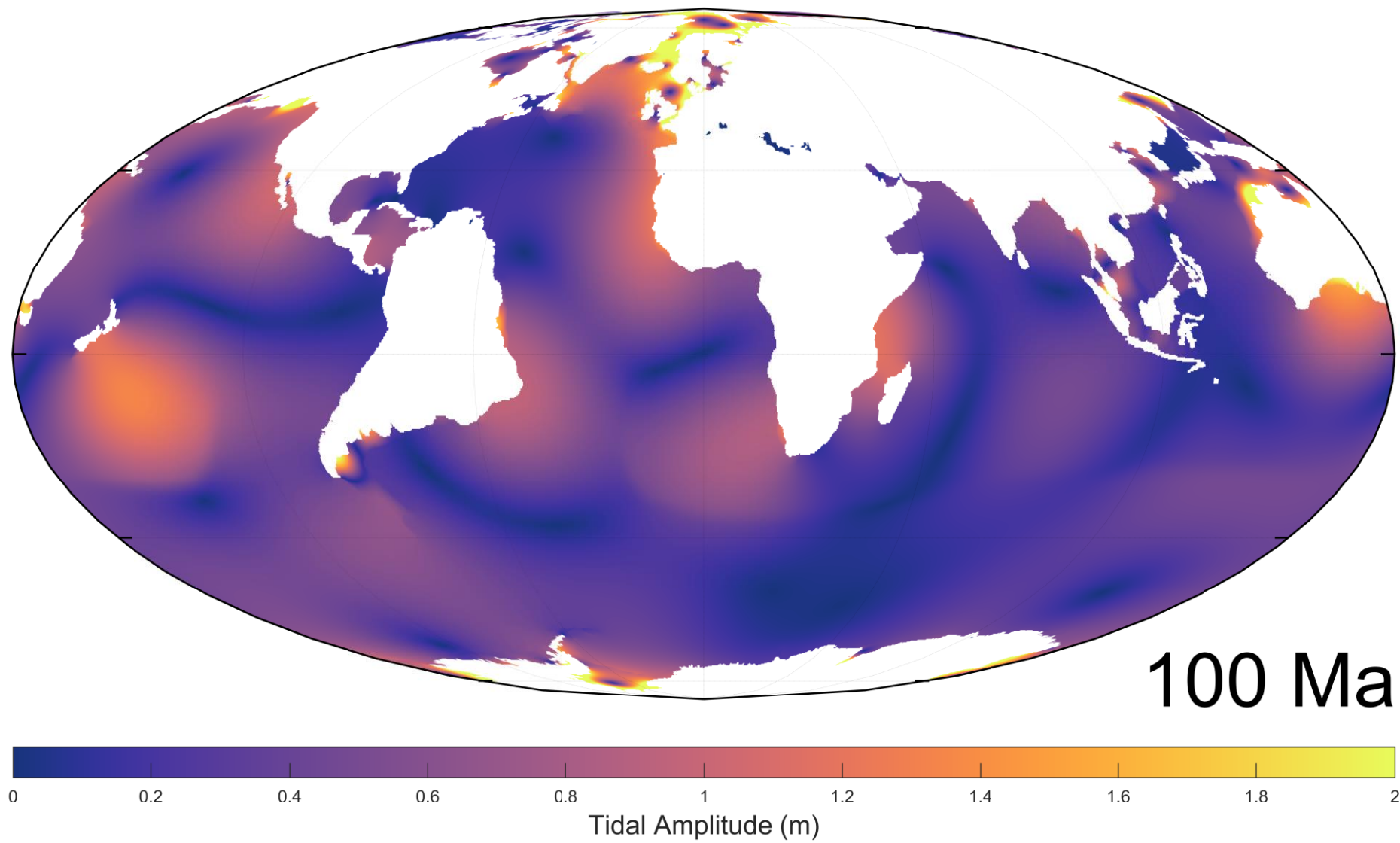
Figure S4f: Global M$_2$ amplitudes the Amasia scenario continued.

120 Ma

Tidal Amplitude (m)
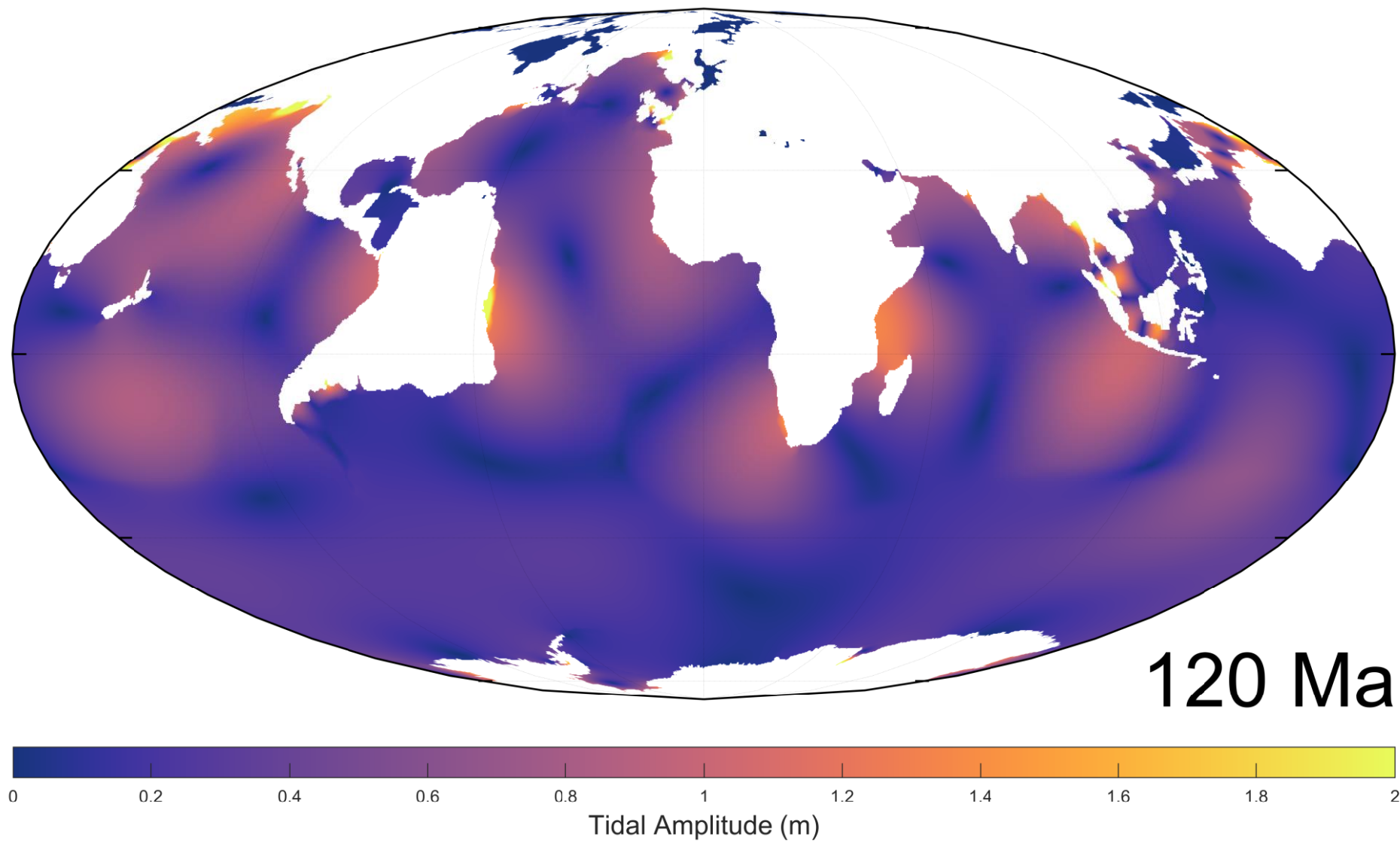
Figure S4g: Global M₂ amplitudes the Amasia scenario continued.

140 Ma

Tidal Amplitude (m)
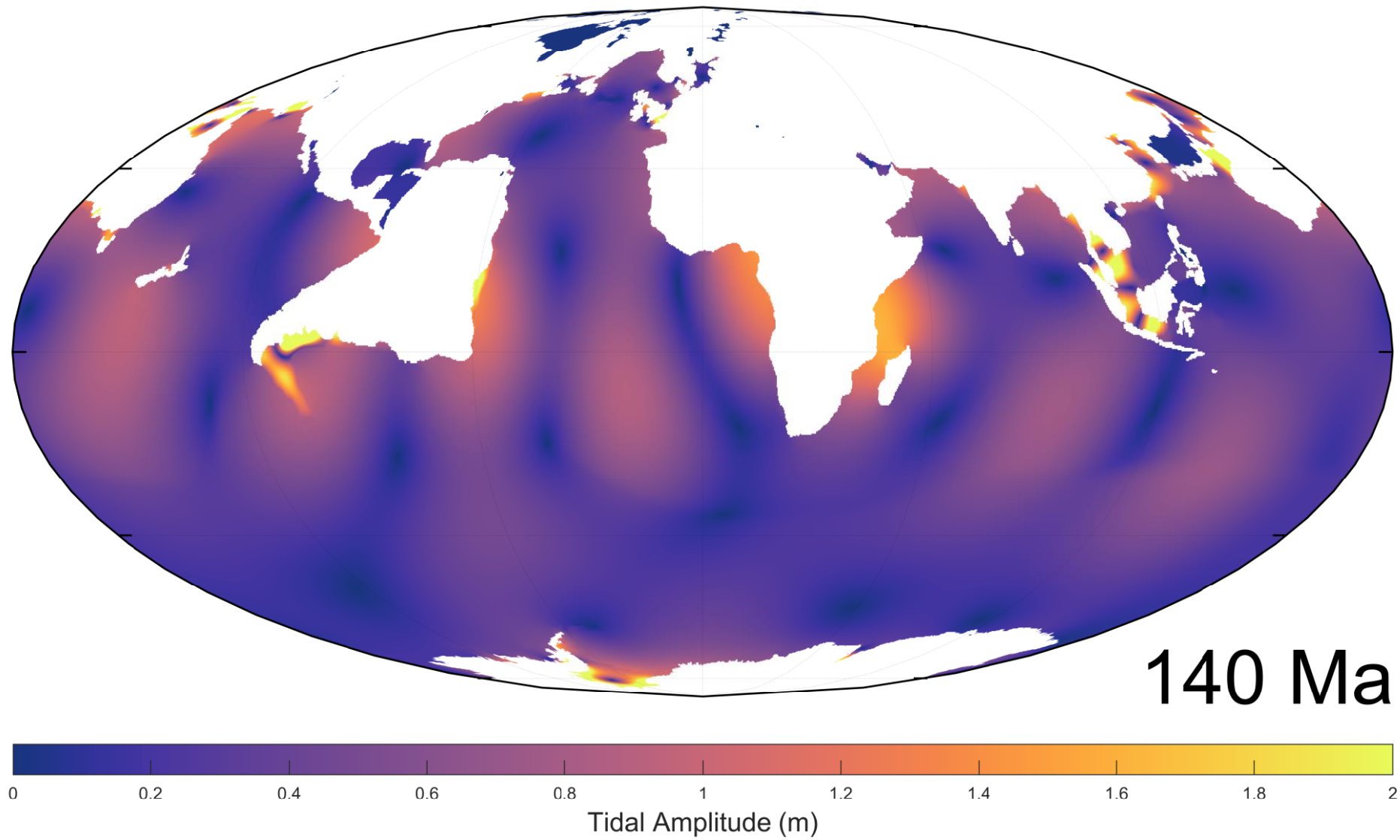
Figure S4h: Global M$_2$ amplitudes the Amasia scenario continued.
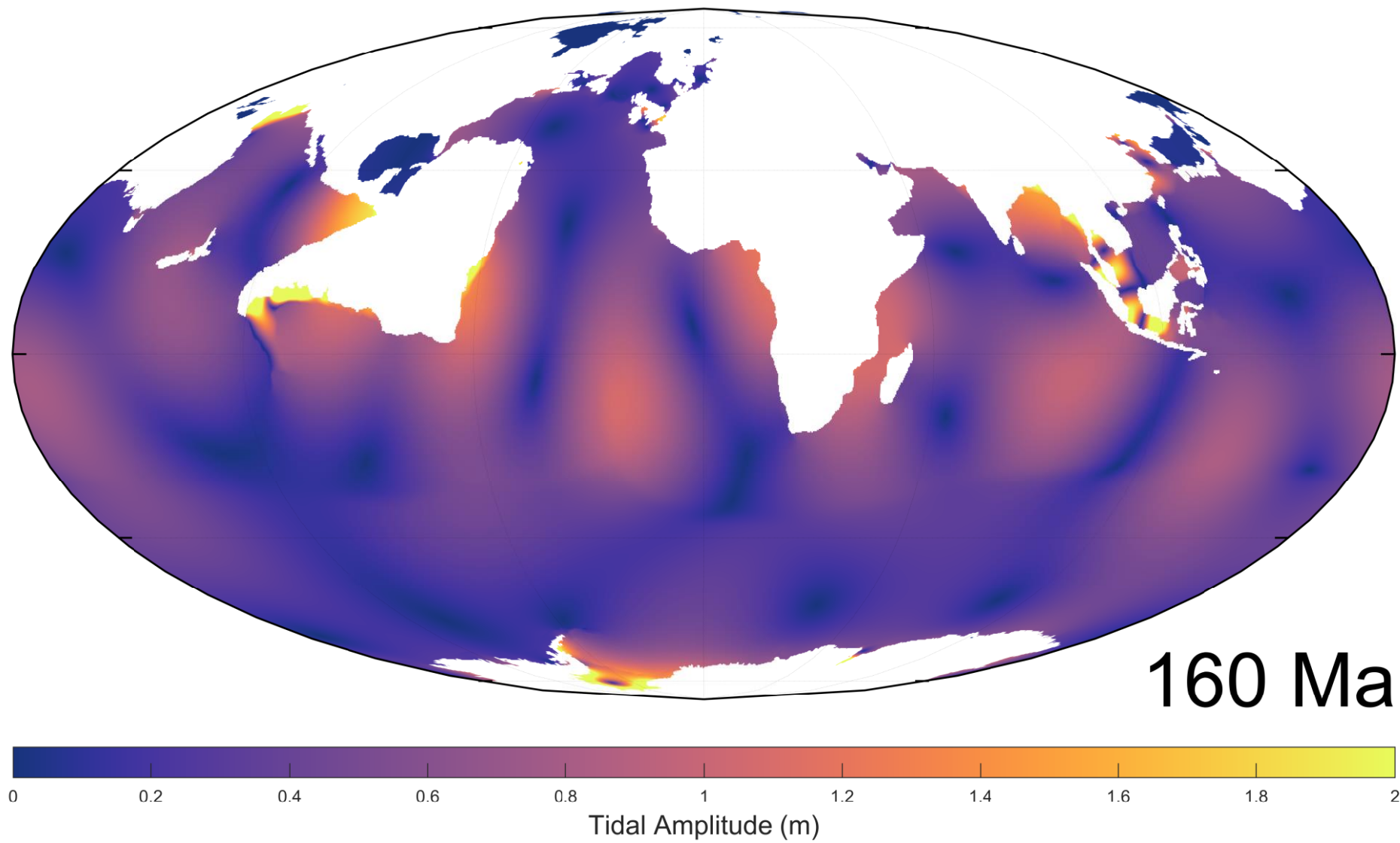
Figure S4i: Global M₂ amplitudes the Amasia scenario continued.
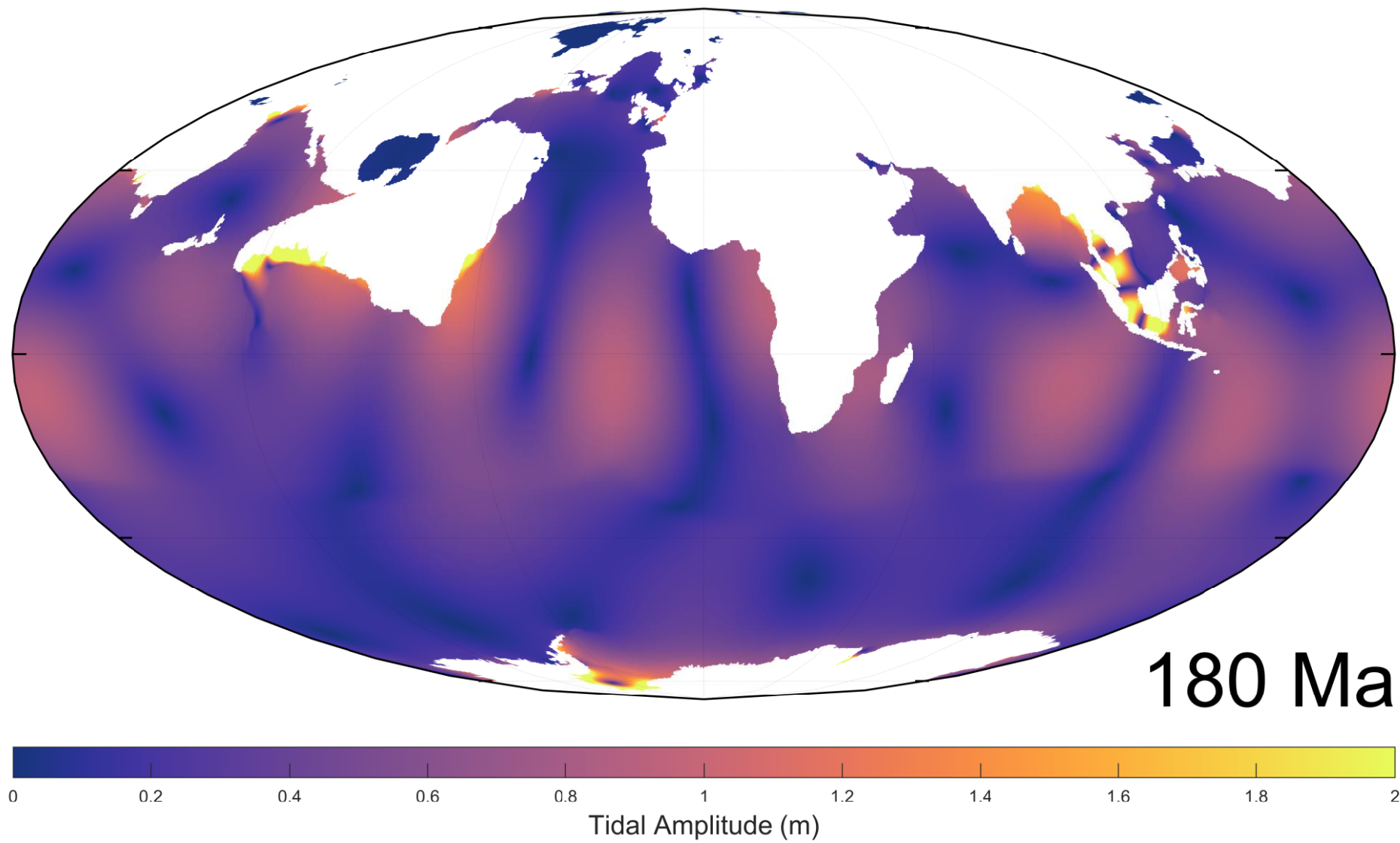
Figure S4j: Global M$_2$ amplitudes the Amasia scenario continued.

200 Ma

Tidal Amplitude (m)
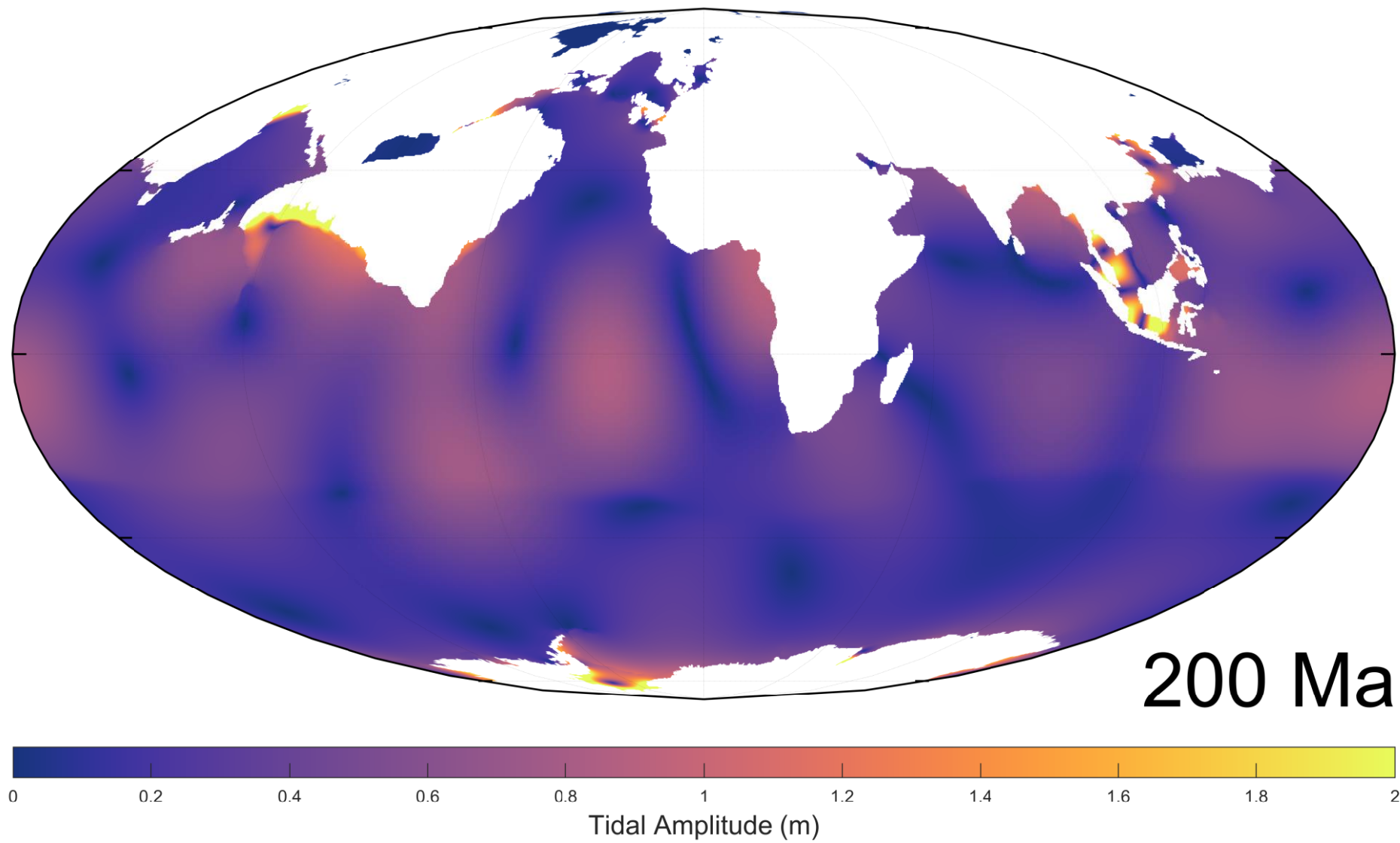
Figure S4k: Global M$_2$ amplitudes the Amasia scenario continued.