Challenges to calculate a worst case extreme sea levels along the global coastline by 2100

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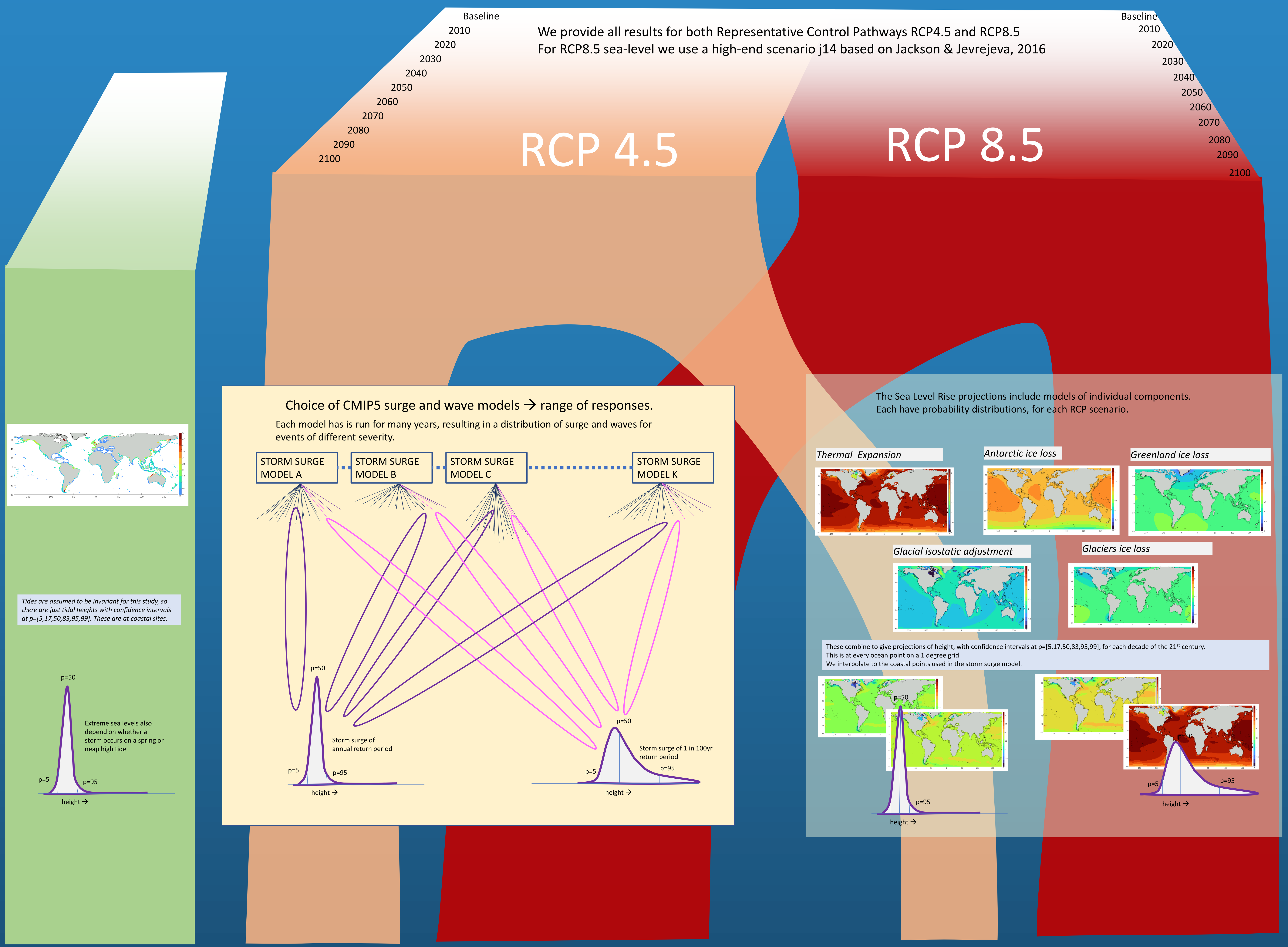
Here we calculate a "worst case scenario" for extreme sea levels at 4960 sites along the global coastline by 2100, as a combination of sea surface height associated with storm surge and wave (100-year return period, the 95th percentile), high tide (the 95th percentile) and a low probability but high impact sea level rise scenario (the 95th percentile).



Tides + Storm surge and waves + Sea Level Rise

= Extreme Sea Levels

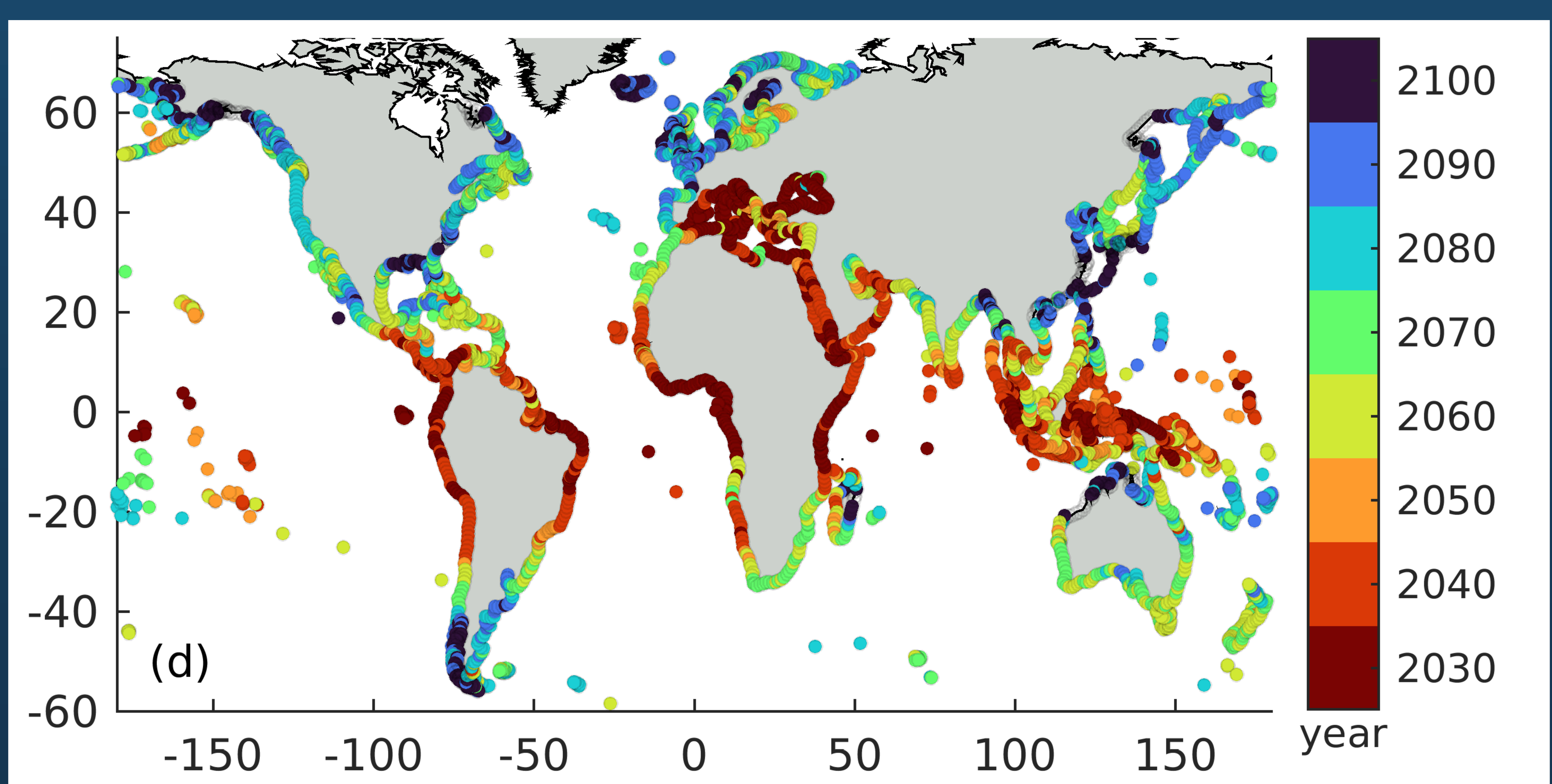


Figure shows a decade by 2100 in which the sea surface height of present day extreme sea level event **ones in 100 years** (magnitude of extreme sea level with return period 100 yrs) projected to be **at least ones a year**.

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