



NASA Earth Exchange – Global Daily Downscaled Projections for Climate Resilient Development

Dr. Ellen Stofan

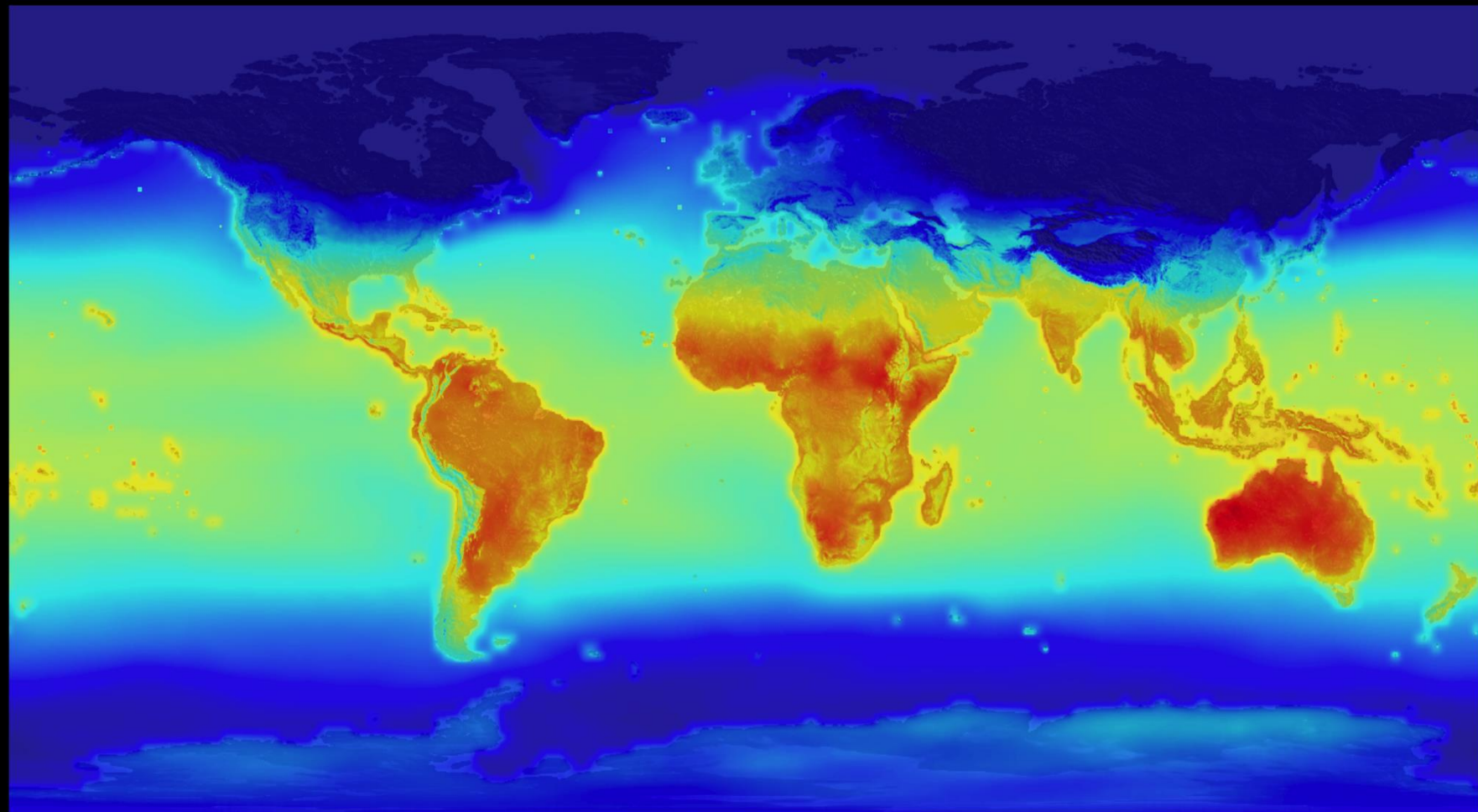
National Aeronautics and Space Administration



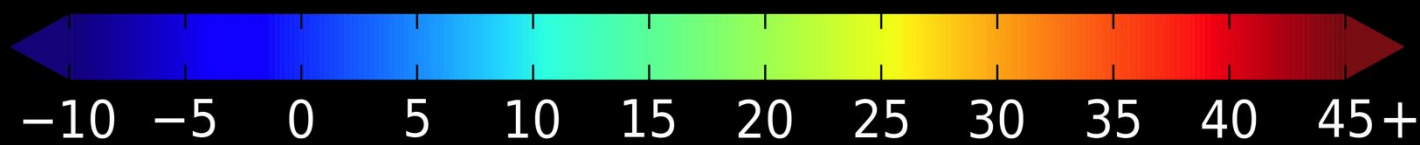


What is NEX-GDDP?

- Representing twenty one CMIP5 climate model estimations on temperature and precipitation trend
- Including two Representative Concentration Pathways (RCP 4.5 and 8.5)
- Statically downscaled to ~ 25 km resolution
- Daily temporal time steps
- May be used for planning for climate resilience

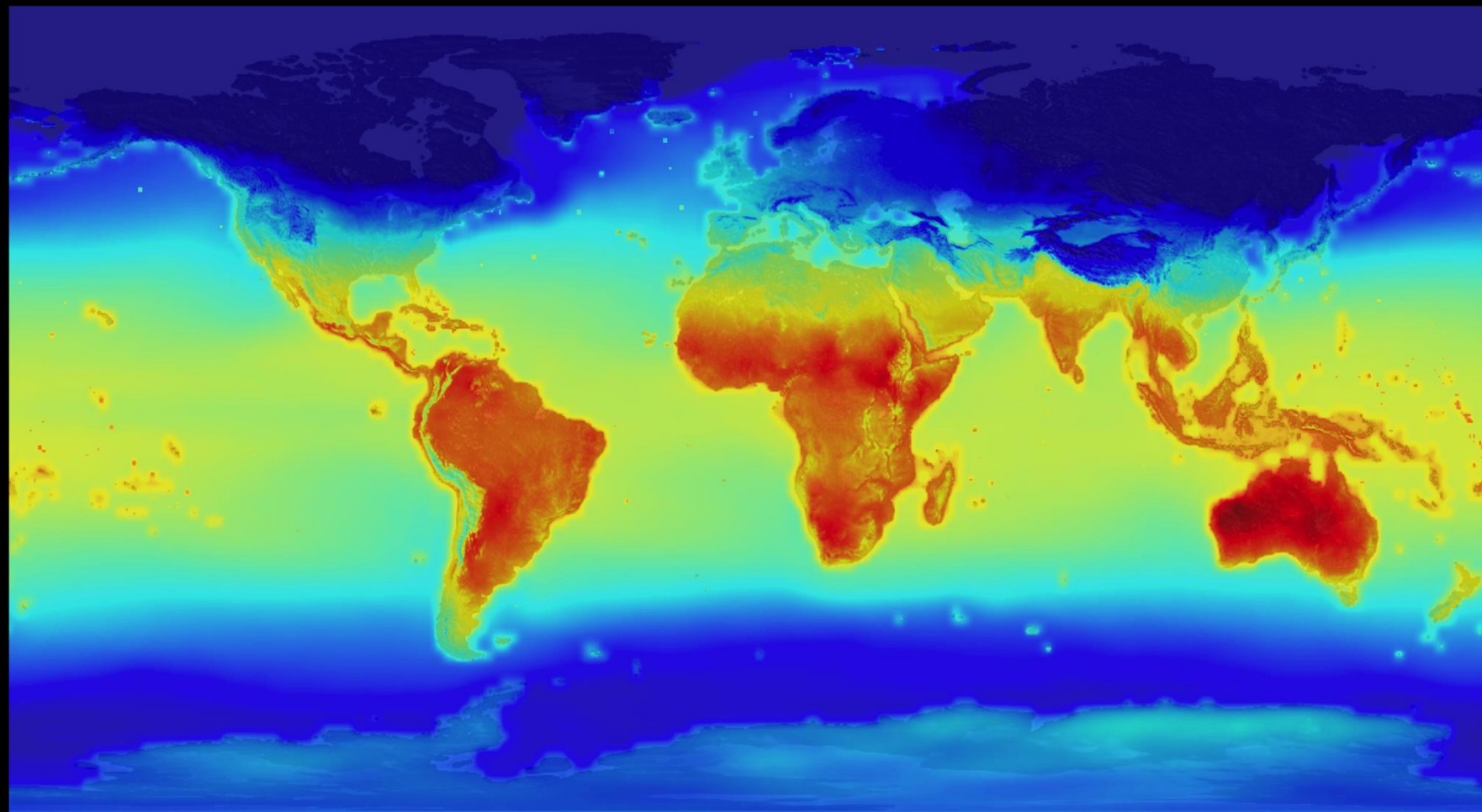


January 1950 (311 ppm CO₂)

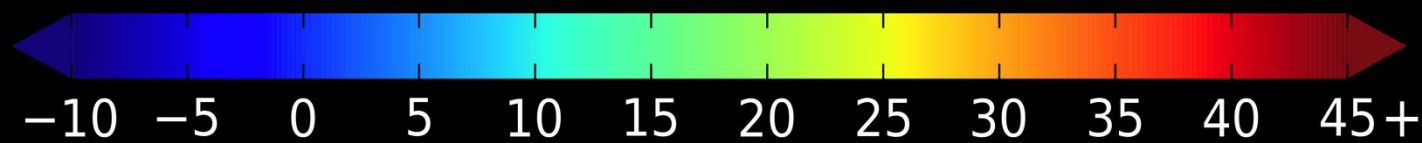


-10 -5 0 5 10 15 20 25 30 35 40 45+

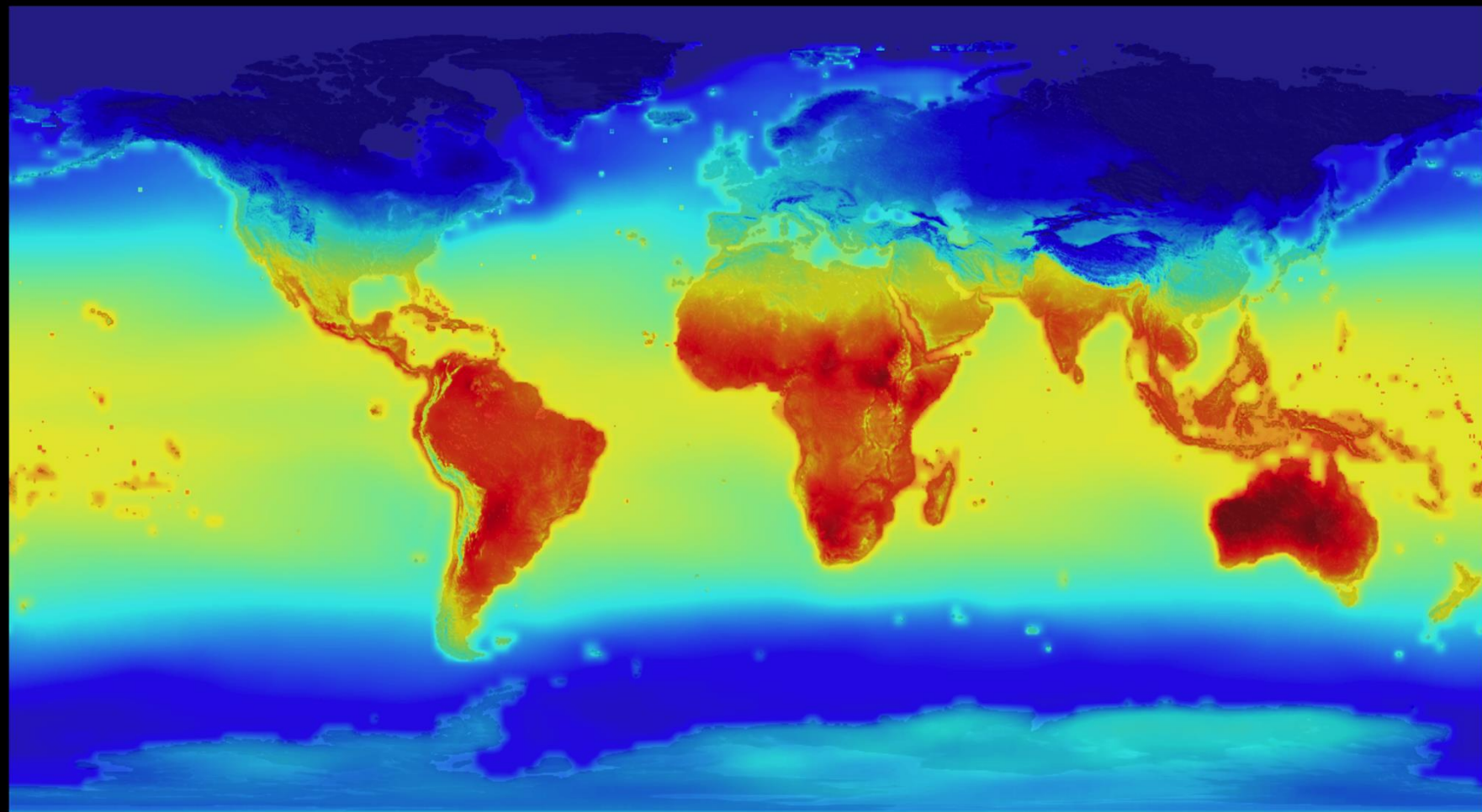
Daily Maximum Temperature (° C)
Historical, Ensemble Average



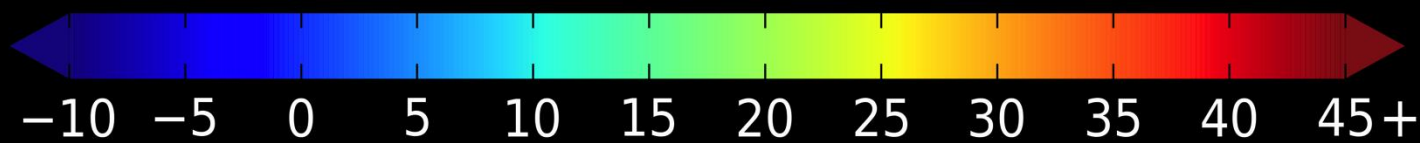
January 2099 (538 ppm CO₂)



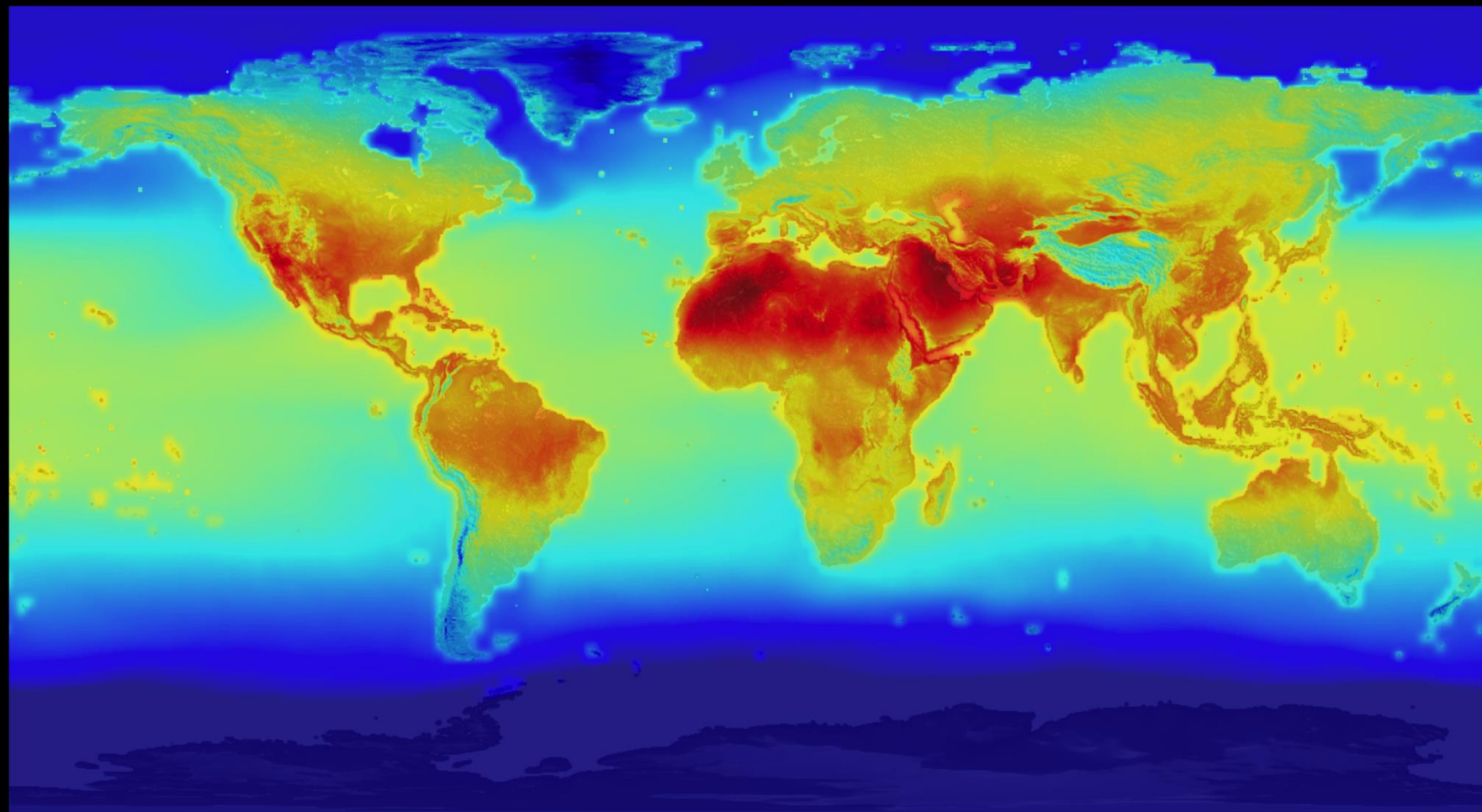
Daily Maximum Temperature (° C)
RCP 4.5, Ensemble Average



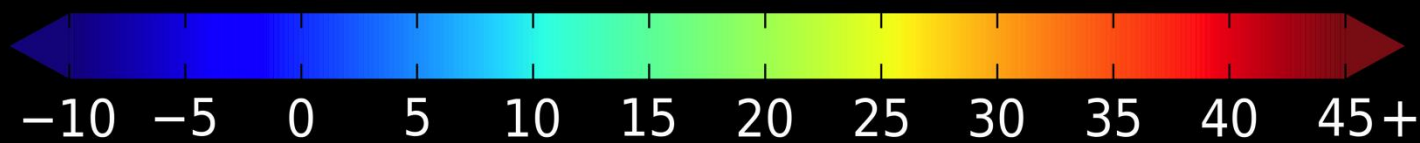
January 2099 (935 ppm CO₂)



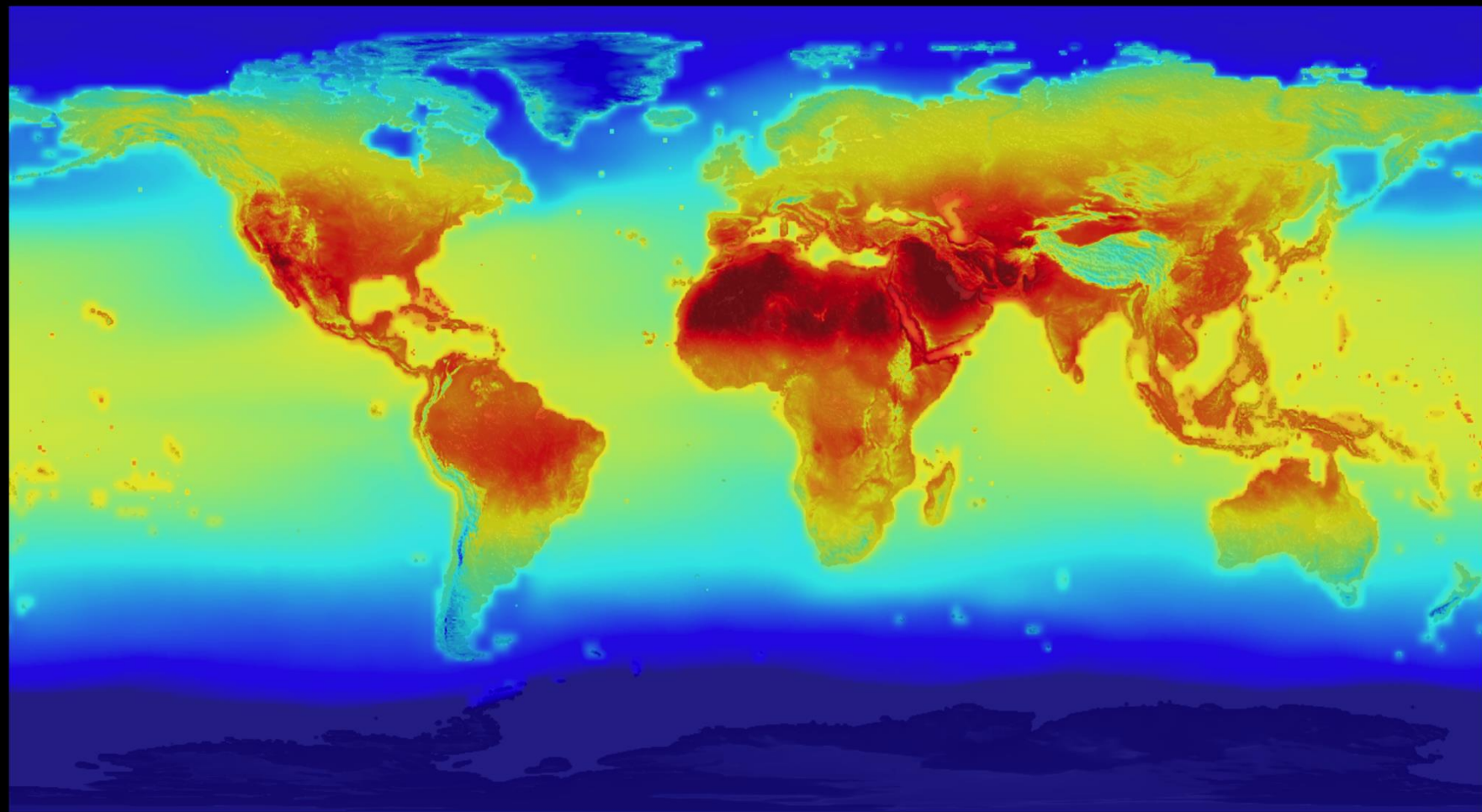
Daily Maximum Temperature (° C)
RCP 8.5, Ensemble Average



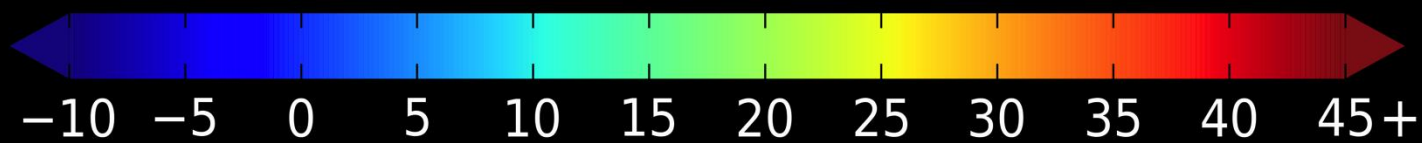
July 1950 (311 ppm CO₂)



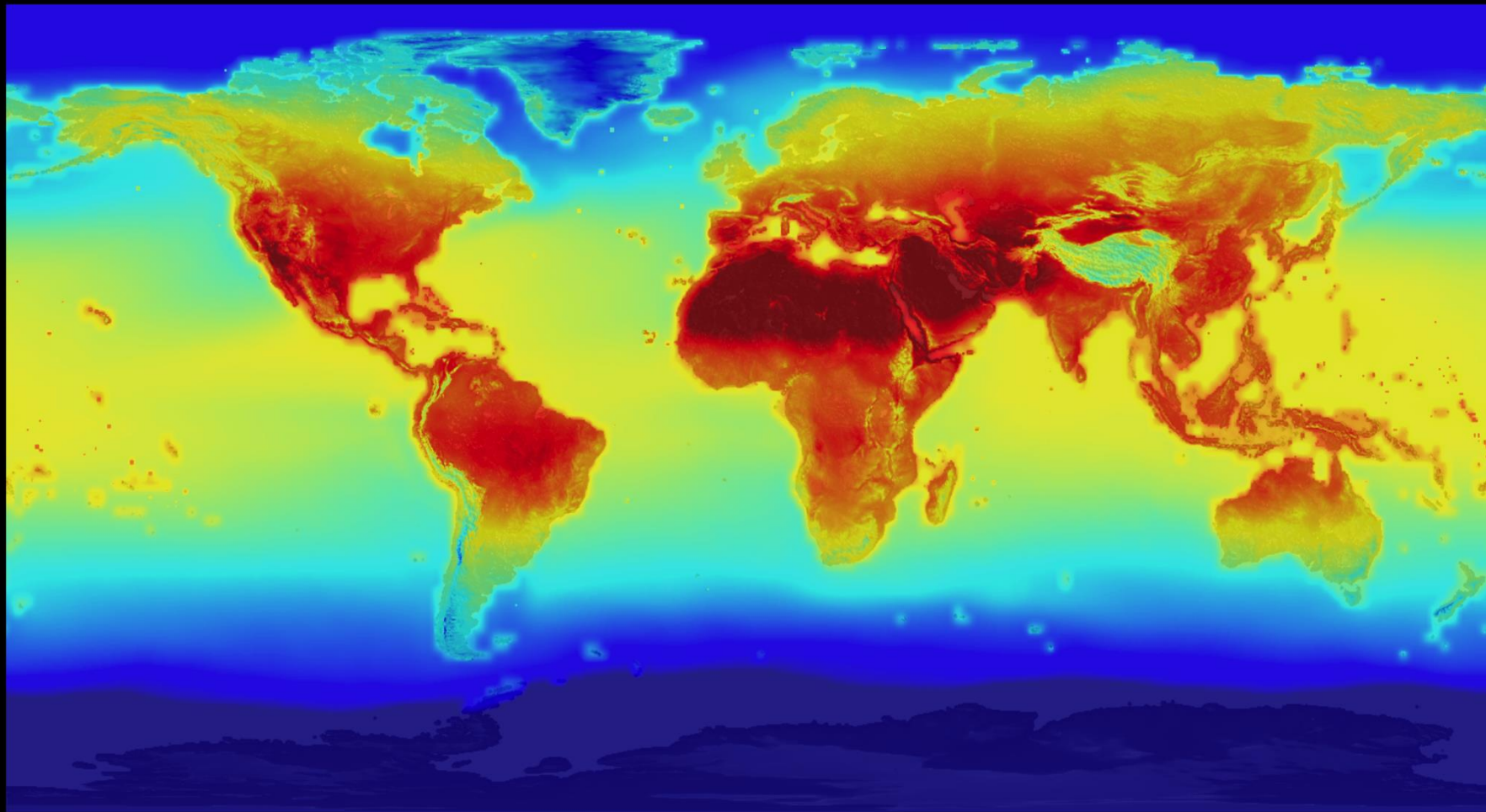
Daily Maximum Temperature (° C)
Historical, Ensemble Average



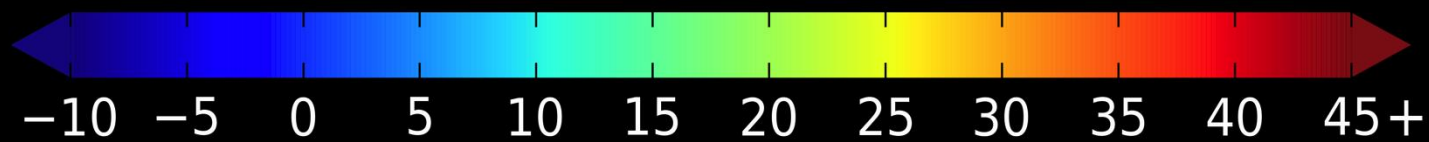
July 2099 (538 ppm CO₂)



Daily Maximum Temperature (° C)
RCP 4.5, Ensemble Average



July 2099 (935 ppm CO₂)



Daily Maximum Temperature (° C)
RCP 8.5, Ensemble Average



REACH
— NEW —
HEIGHTS



REVEAL
— THE —
UNKNOWN



BENEFIT
— ALL —
HUMANKIND