

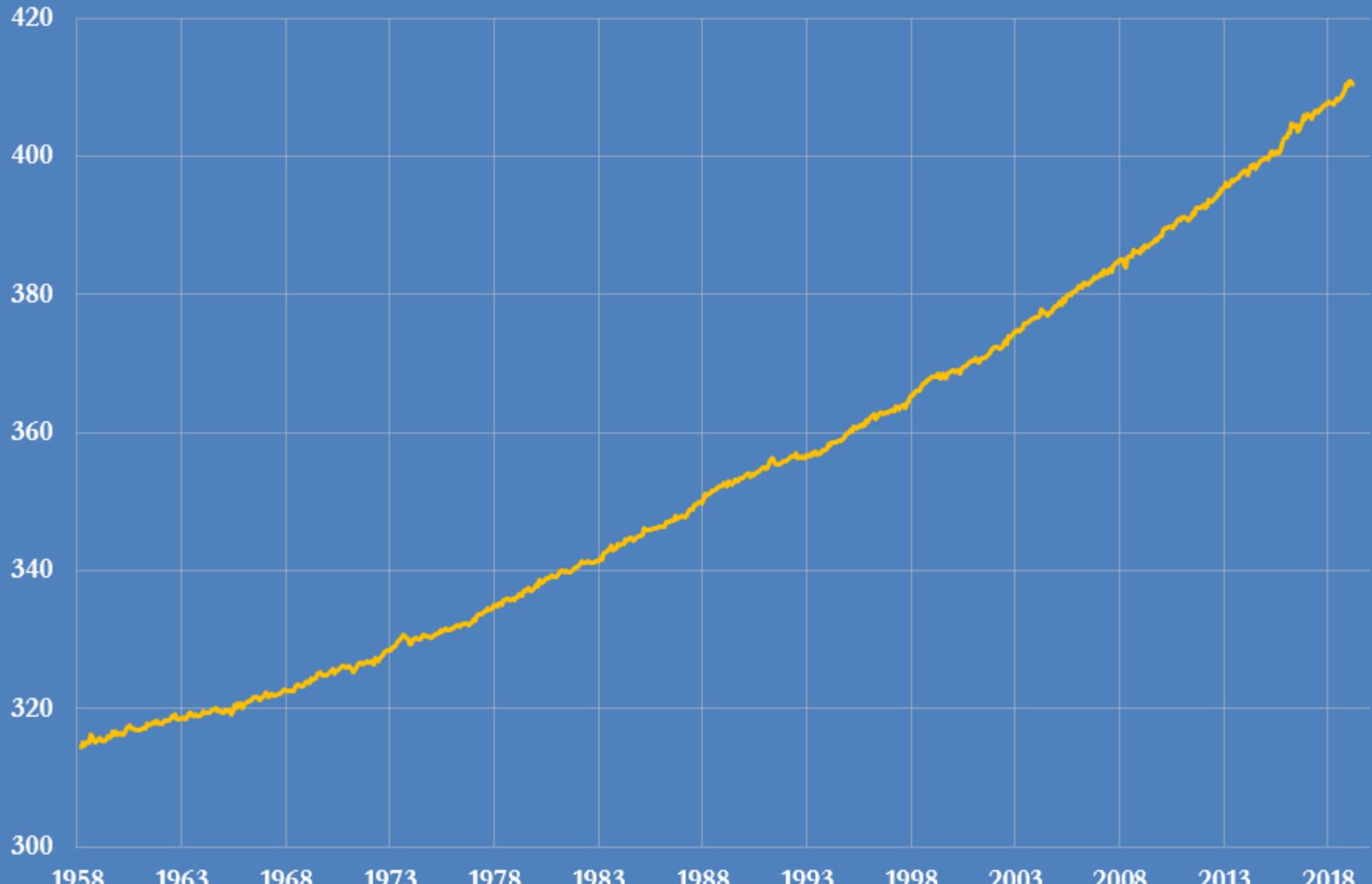
Global atmospheric CO₂ concentration

Selected indicators

JOHN KEMP
REUTERS
16 April 2019

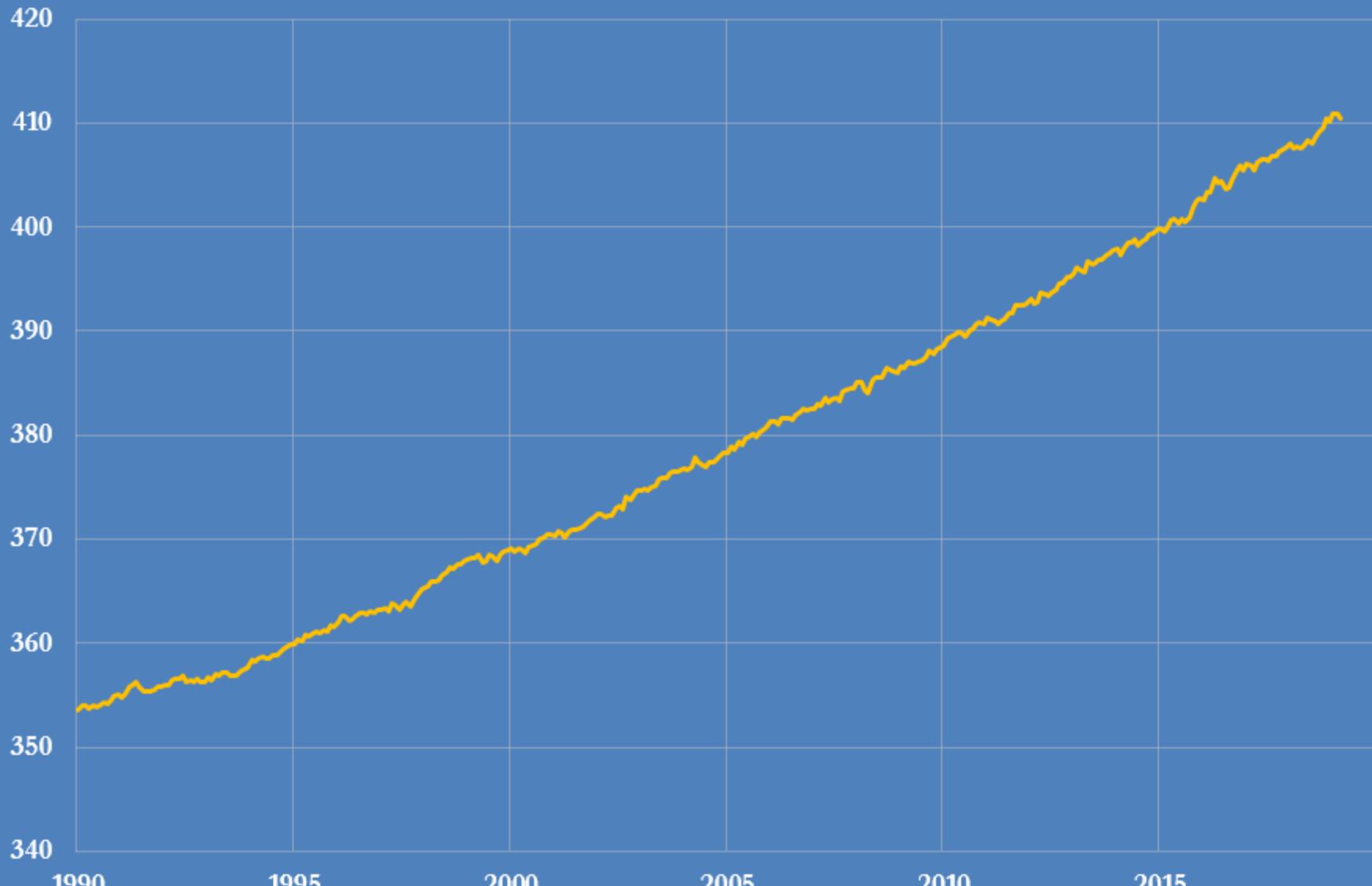
Atmospheric CO₂ concentration, 1958-2019

Mauna Loa observatory, ppm, monthly, seasonally adjusted



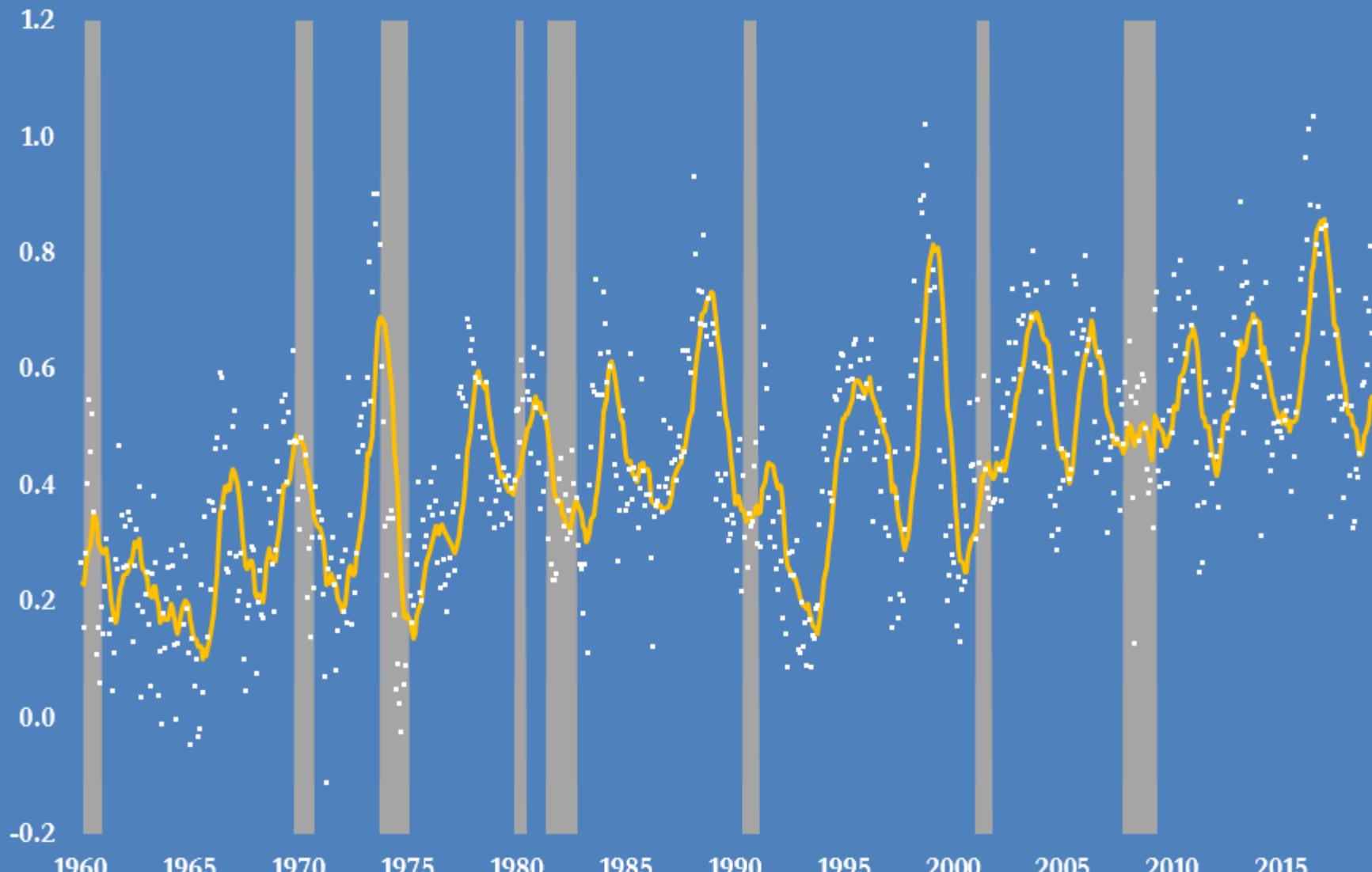
Atmospheric CO₂ concentration, 1990-2019

Mauna Loa observatory, ppm, monthly, seasonally adjusted

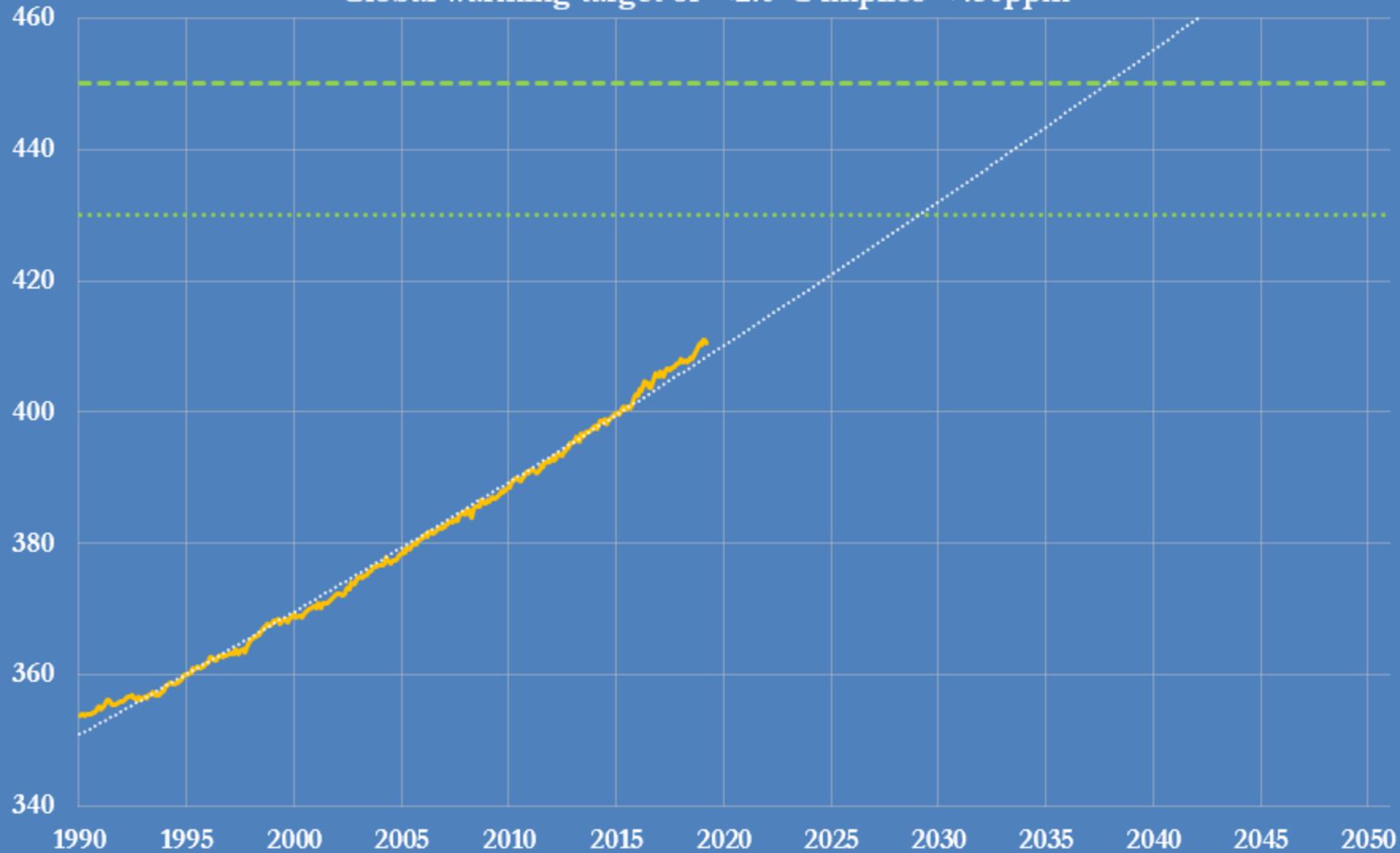


Atmospheric CO₂ concentration, 1960-2019

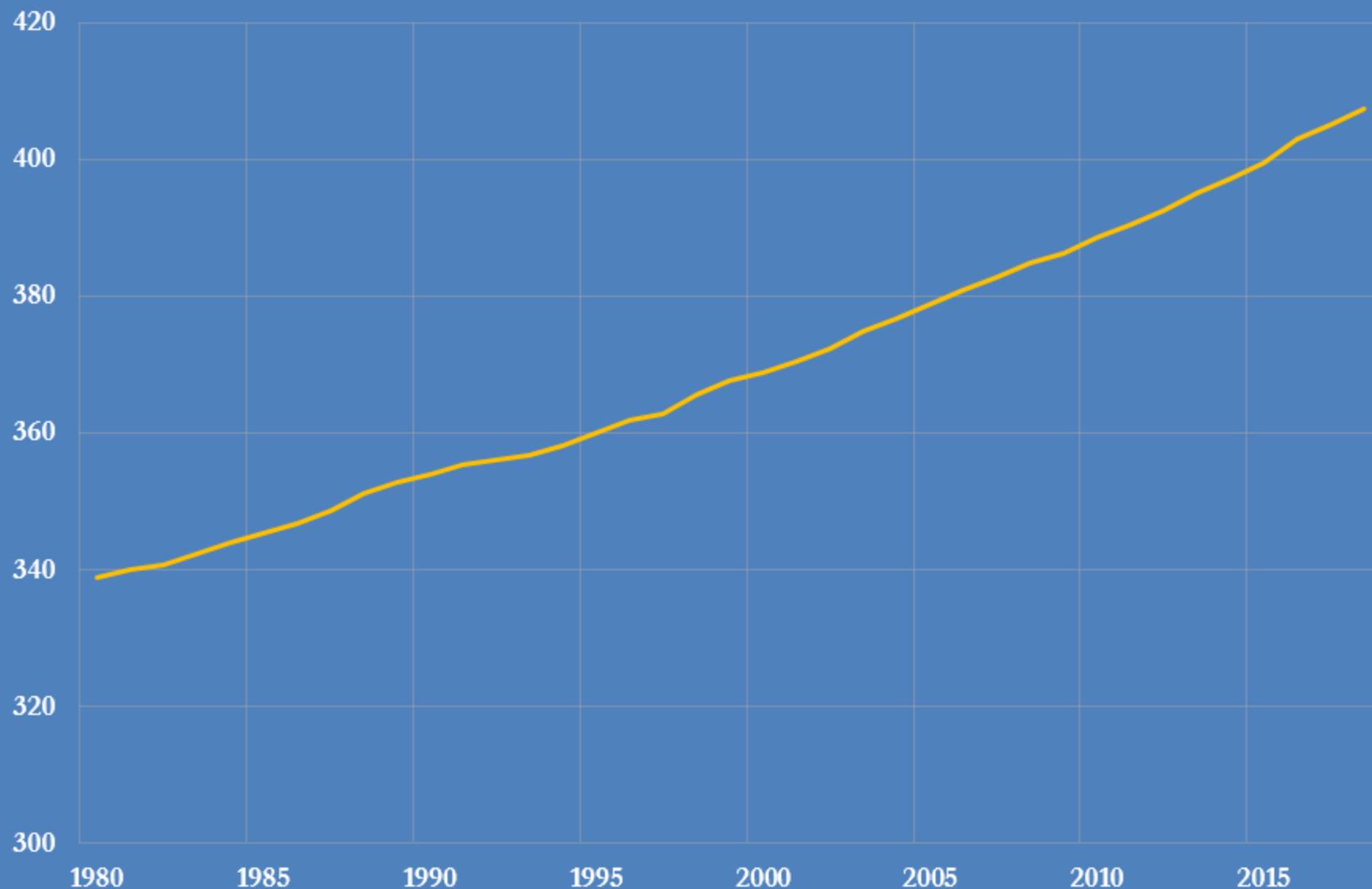
Percent change from year earlier, monthly and 12-month average
NBER U.S. recessions shown



Atmospheric CO₂ concentration, 1990-2019
Mauna Loa observatory, ppm, monthly, seasonally adjusted
Global warming target of <1.5°C implies <430ppm
Global warming target of <2.0°C implies <450ppm



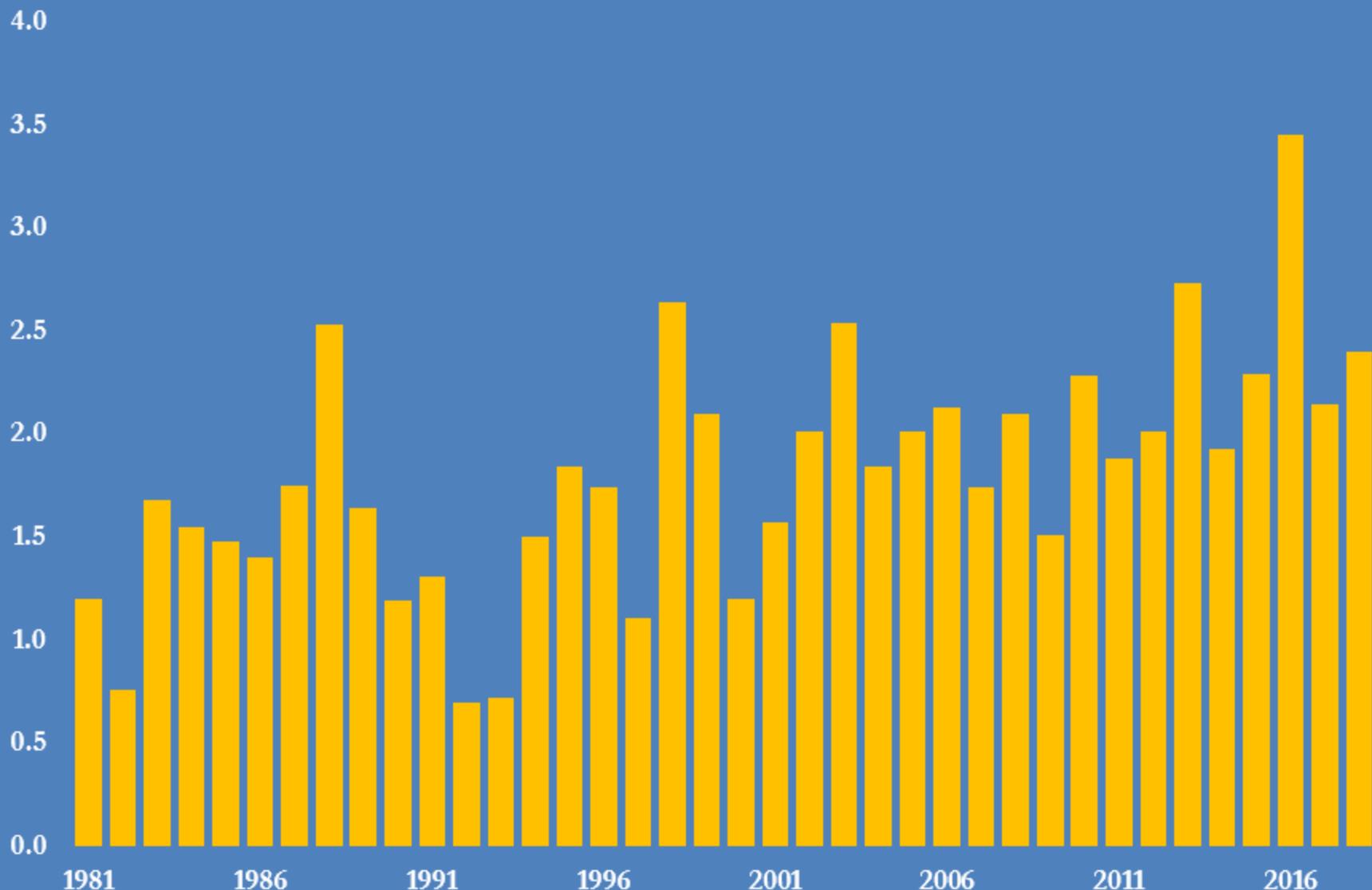
Atmospheric CO₂ concentration, 1980-2018 Global average marine surface, annual average, ppm



Source: U.S. National Oceanic and Atmospheric Administration, Earth System Research Laboratory
@JKempEnergy

Atmospheric CO₂ concentration, 1981-2018

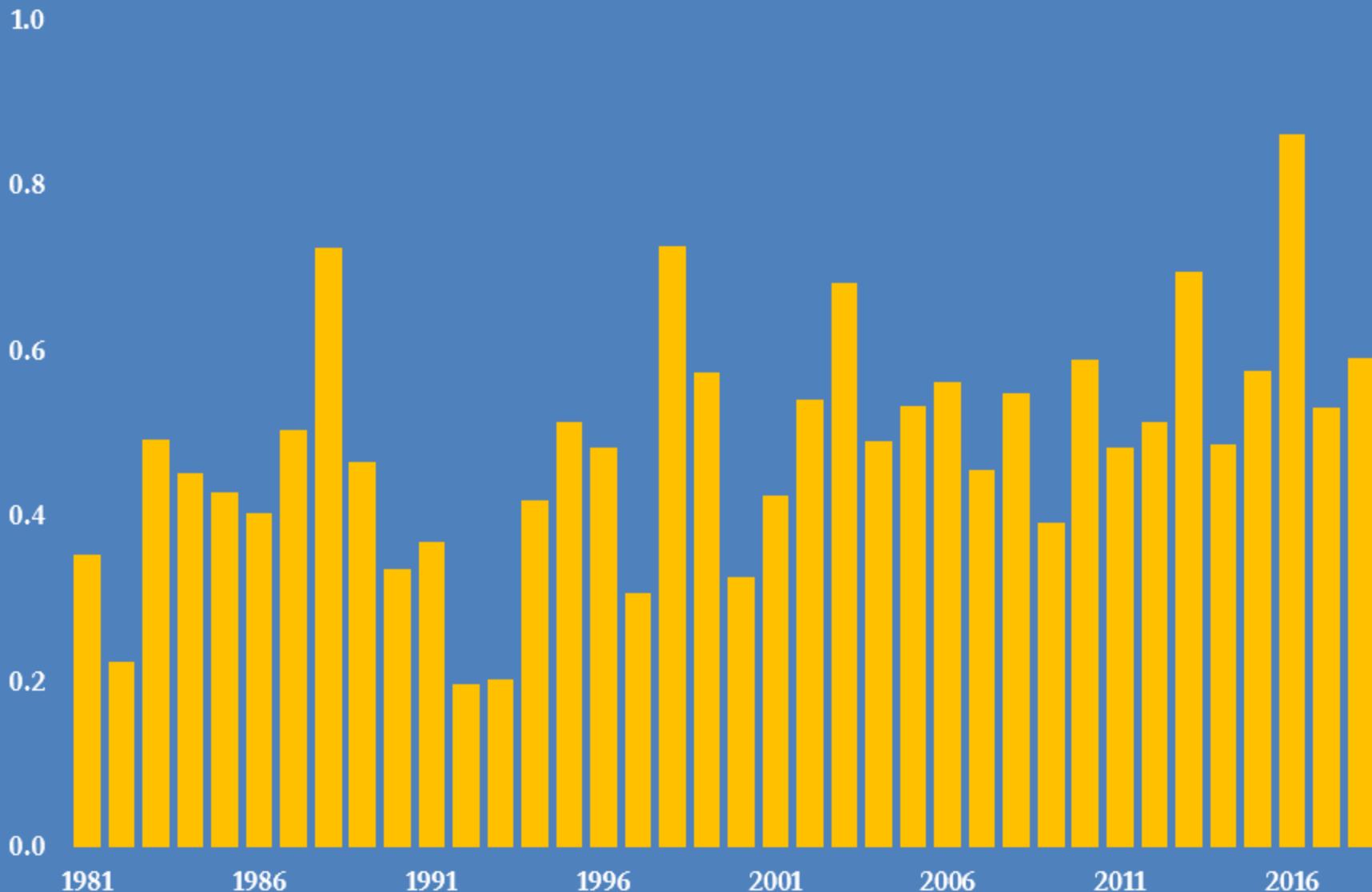
Global average marine surface, annual increase, ppm



Source: U.S. National Oceanic and Atmospheric Administration, Earth System Research Laboratory
@JKempEnergy

Atmospheric CO₂ concentration, 1981-2018

Global average marine surface, annual increase, percent



Source: U.S. National Oceanic and Atmospheric Administration, Earth System Research Laboratory
@JKempEnergy