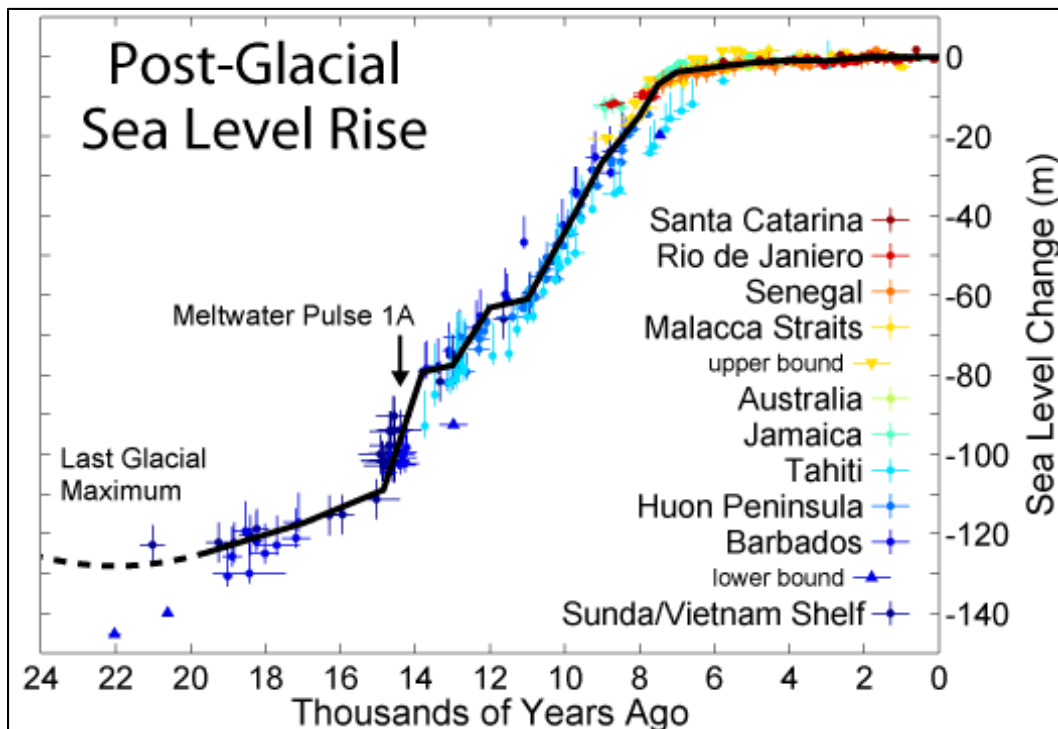


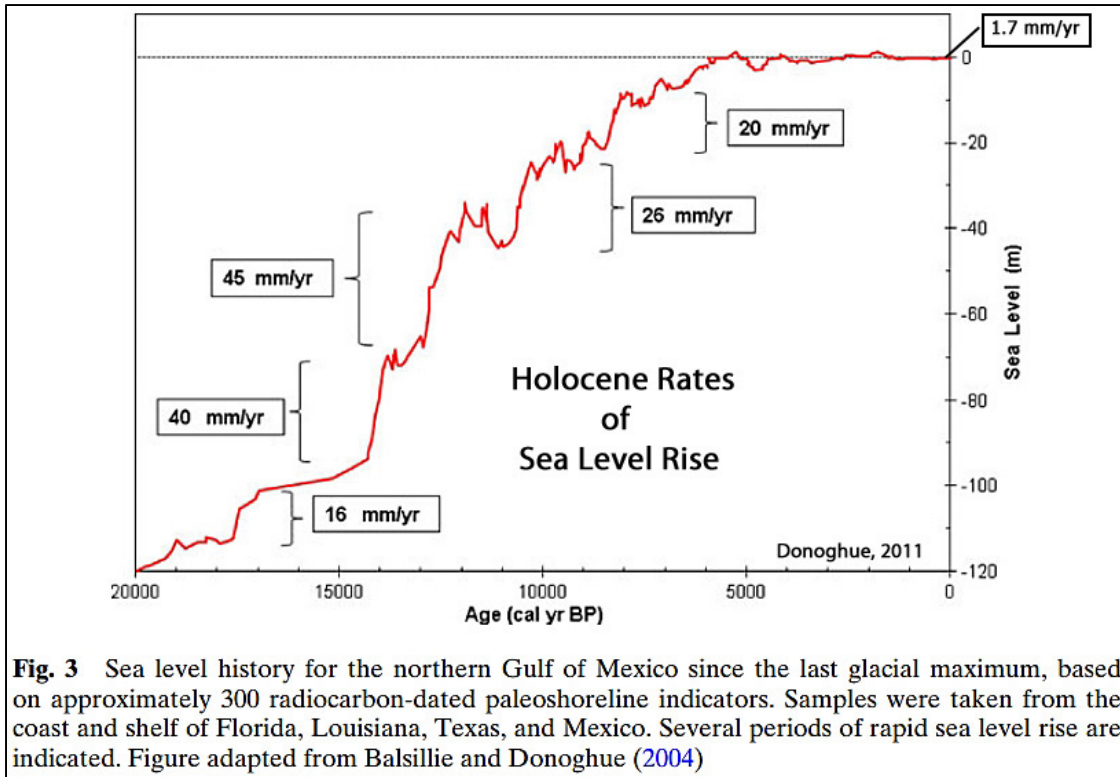
[www.researchgate.net/figure/Vail-and-Hallam-curves-of-global-paleo-sea-level-fluctuations-from-the-last-542-million\\_fig8\\_323248159](http://www.researchgate.net/figure/Vail-and-Hallam-curves-of-global-paleo-sea-level-fluctuations-from-the-last-542-million_fig8_323248159)

Figure 1: Sea Level (m) in Last 500 million years



[www.researchgate.net/figure/112-Reconstructed-global-sea-level-since-the-Last-Glacial-Maximum-20-000-years-ago\\_fig6\\_256701684](http://www.researchgate.net/figure/112-Reconstructed-global-sea-level-since-the-Last-Glacial-Maximum-20-000-years-ago_fig6_256701684)

Figure 2: Sea Level (m) in Last 24,000 Years



**Fig. 3** Sea level history for the northern Gulf of Mexico since the last glacial maximum, based on approximately 300 radiocarbon-dated paleoshoreline indicators. Samples were taken from the coast and shelf of Florida, Louisiana, Texas, and Mexico. Several periods of rapid sea level rise are indicated. Figure adapted from Balsillie and Donoghue (2004)

Figure 3: Sea Level Height (m) and Change (mm) per Year in Last 20,000 Years

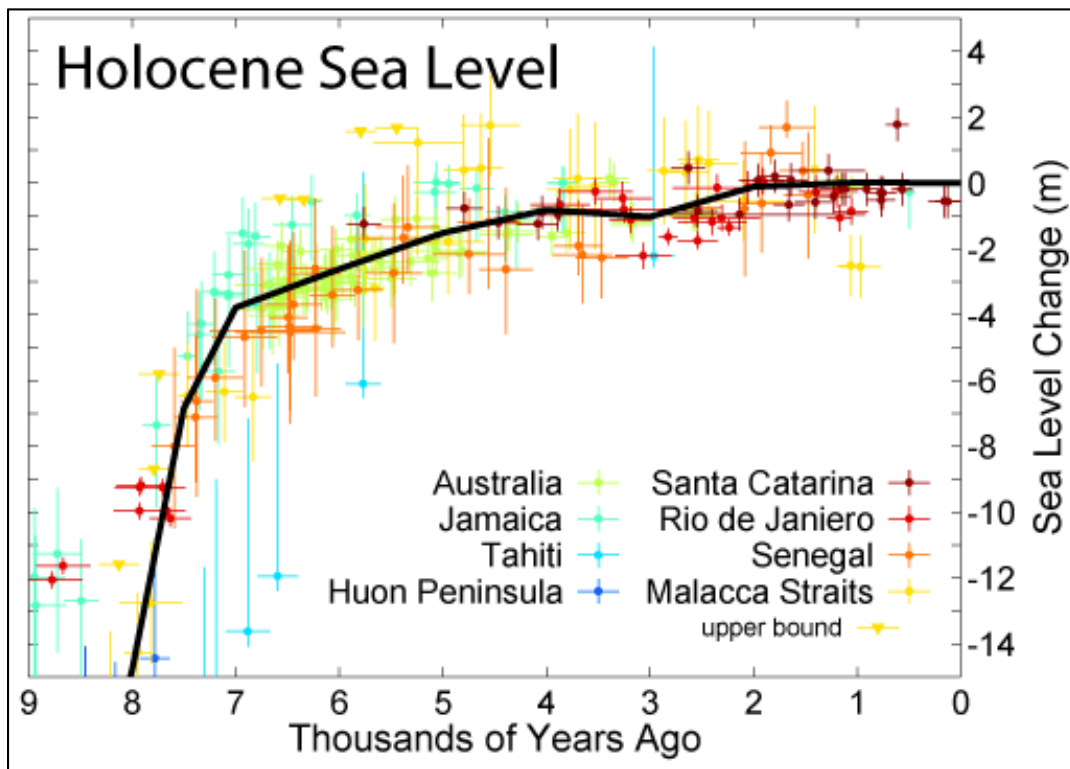


Figure 4: Sea Level (m) in last 8,000 years

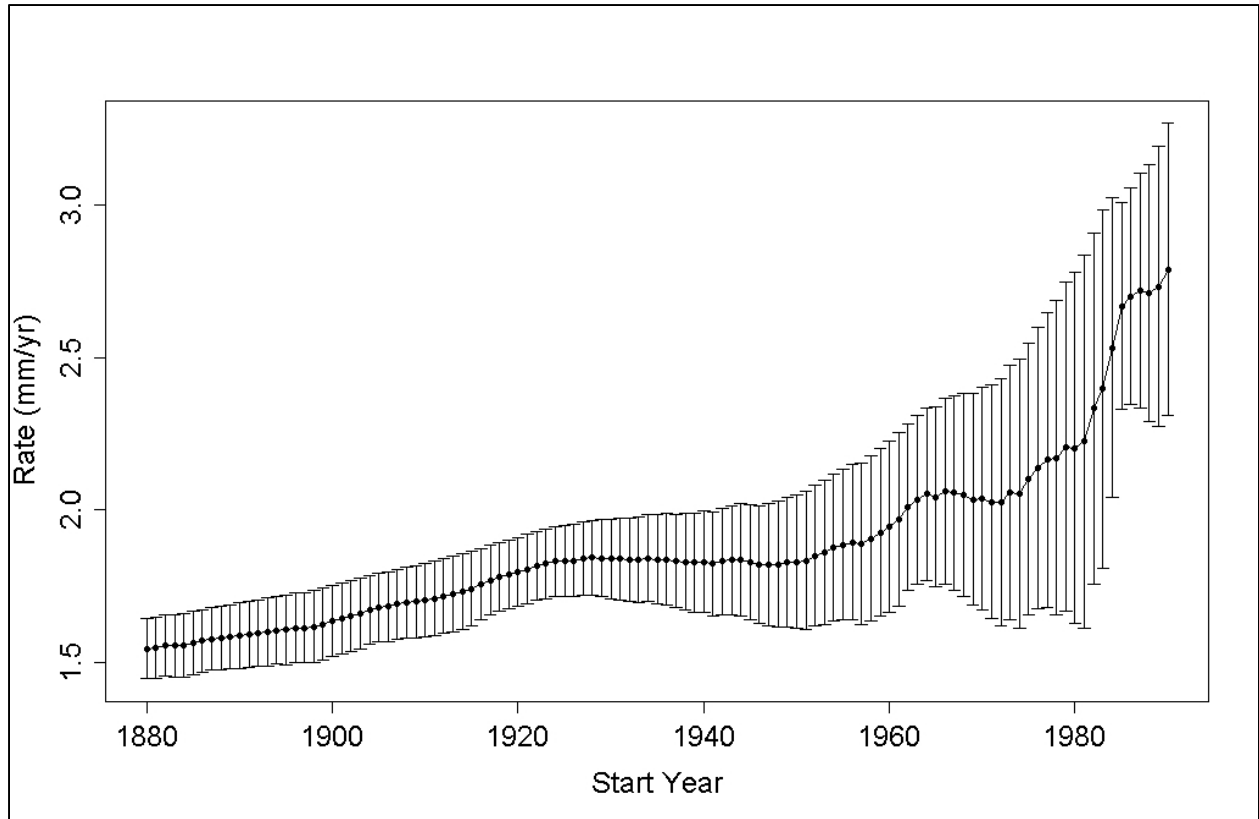


Figure 5: Sea Level Rate of Change (MM/Year) Since 1880

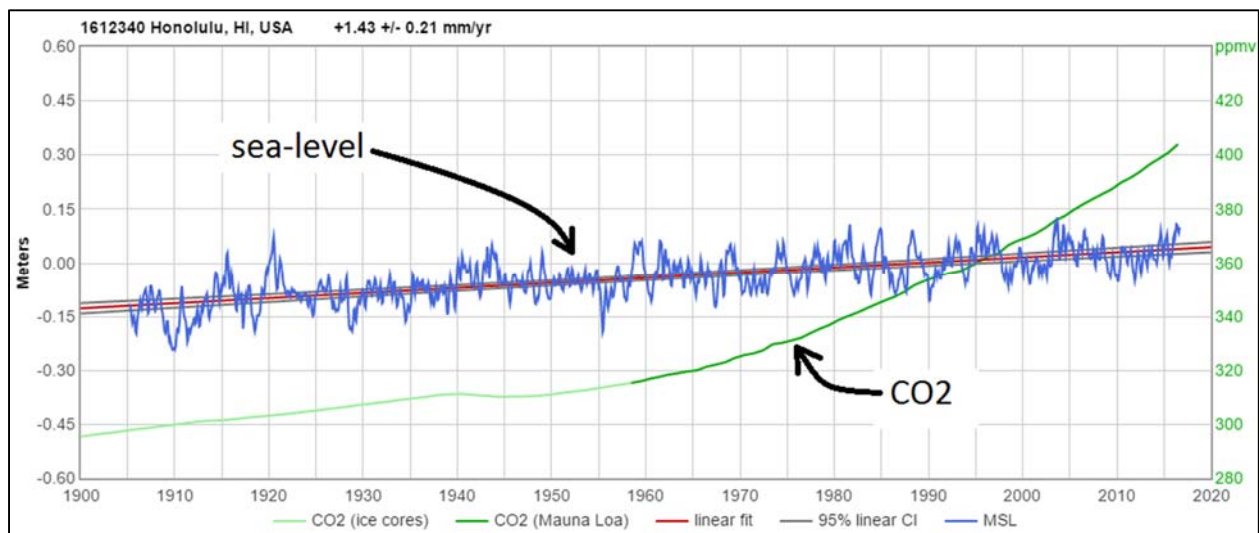


Figure 6: Sea Level and CO2 Levels Since 1900

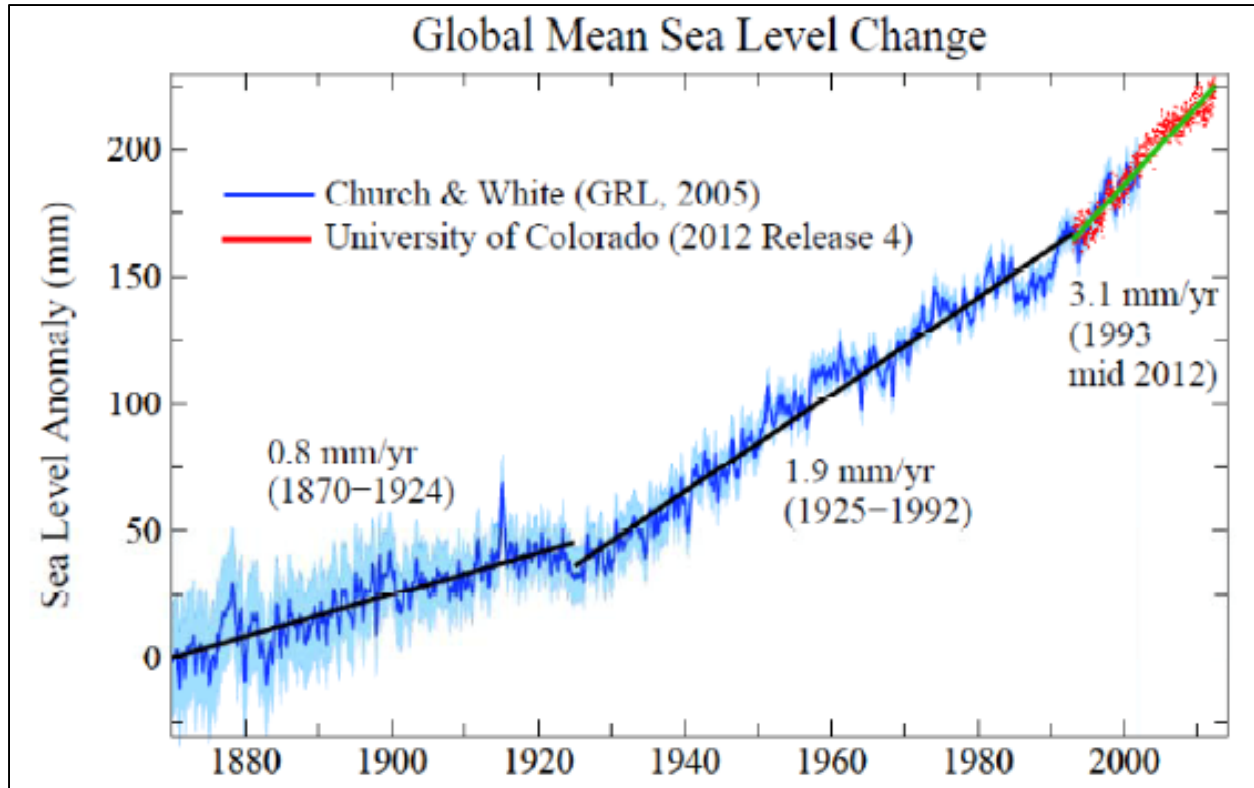


Figure 7: Sea Level (mm) and Change per Year Since 1880

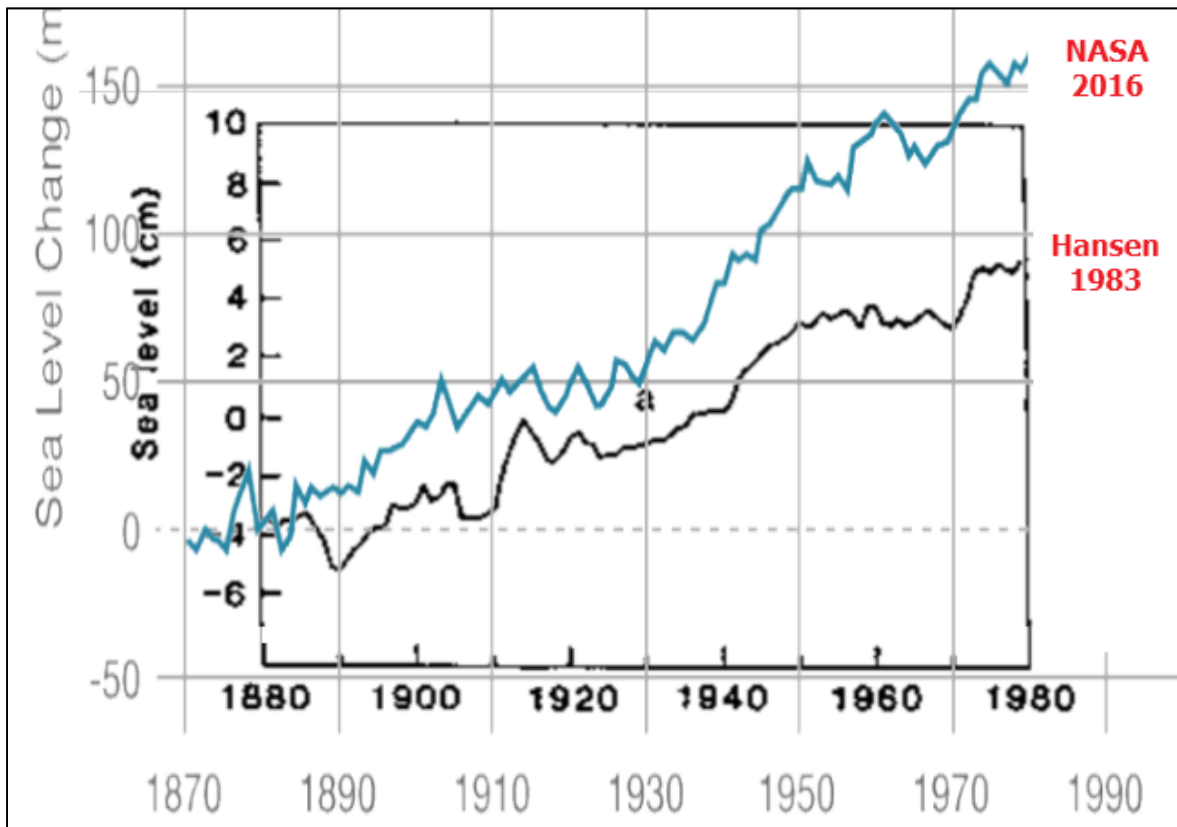


Figure 8: Sea Level (mm) Since 1880 NASA: 2016 vs 1983

## NASA Sea Level Change

### SATELLITE DATA: 1993-PRESENT

Data source: Satellite sea level observations.  
 Credit: NASA Goddard Space Flight Center

RATE OF CHANGE

↑ **3.3**

millimeters per year



Source: <https://climate.nasa.gov/vital-signs/sea-level/>

Figure 9: 2020 Sea Level per Satellite (mm) Since 1993<sup>11</sup>

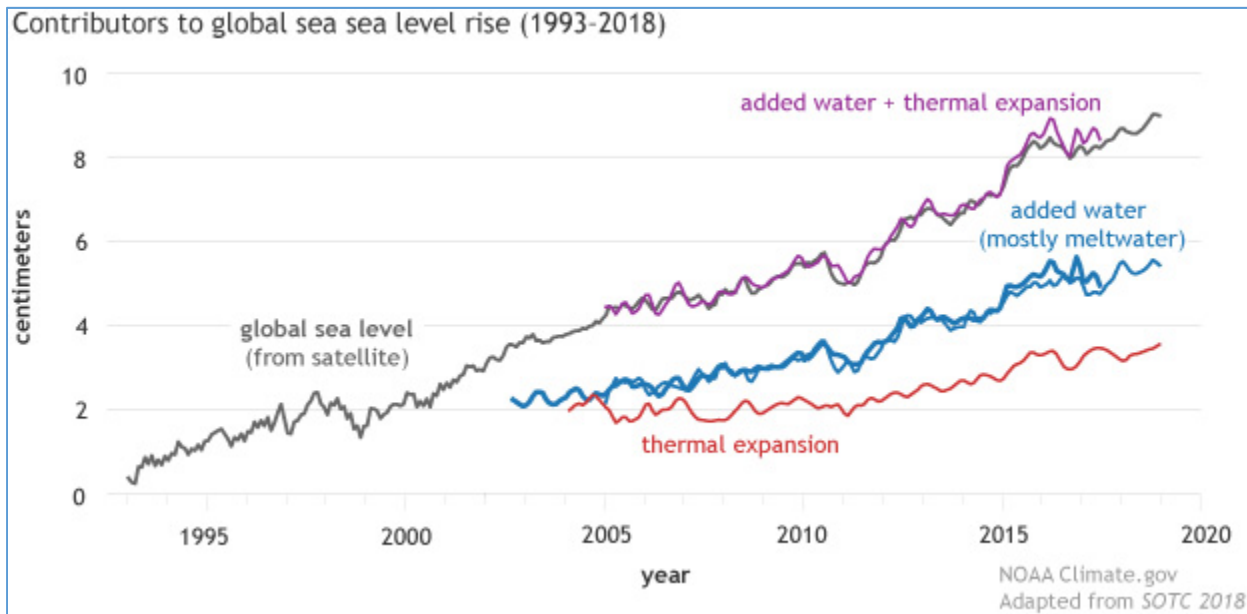


Figure 10: Sea Level (mm) Since 1993: Contributors

NOAA Technical Report 083 *Global and Regional Sea Level Rise Scenarios for the United States*  
 NOAA Technical Report 086 *Patterns and Projections of High Tide Flooding Along the U.S. Coastline Using a Common Impact Threshold.*

<sup>1</sup> <https://climate.nasa.gov/vital-signs/sea-level/> Average shown is since 1993

# PREDICTIONS:

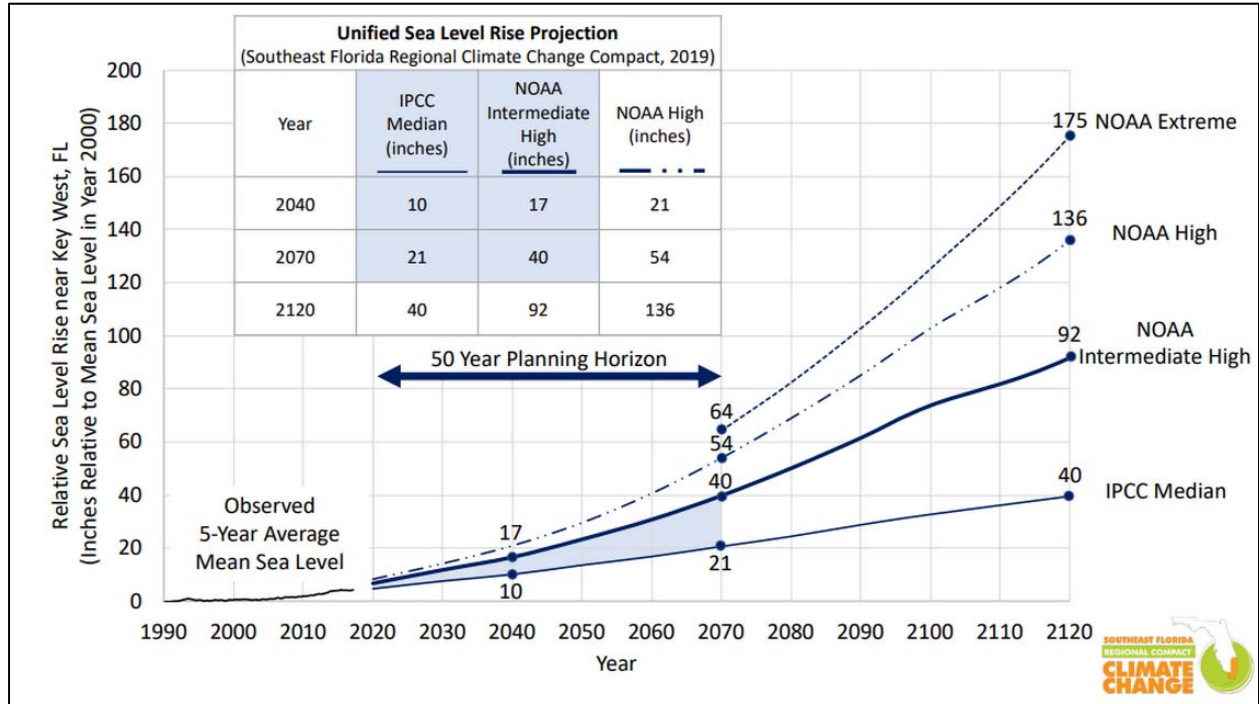
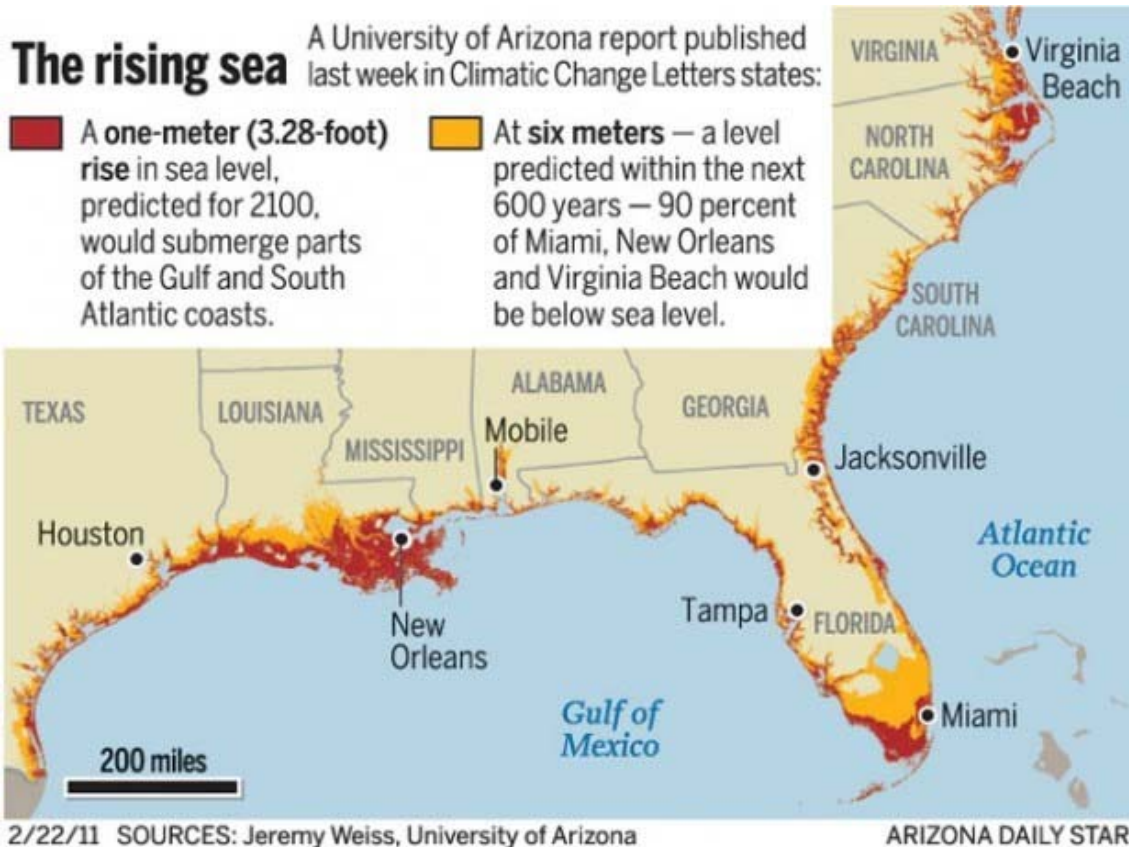
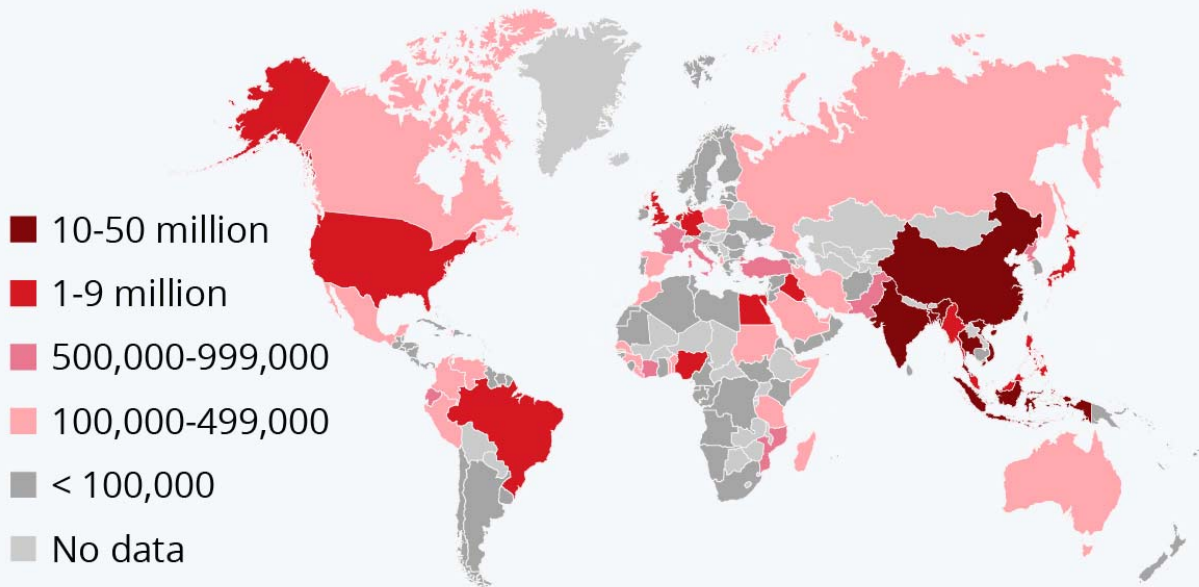


Figure 11: Sea Level (inches) Projected IPCC and NOAA



# Where Most People Are Affected by Rising Sea Levels

Number of people per country living on land expected to be under sea level by 2100\*



\* assuming a rise in sea levels of 50-70 cm (2° C temperature increase/not taking into account ice sheet instability)

Source: Scott A. Kulp & Benjamin H. Strauss: New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding, Nature Communications

