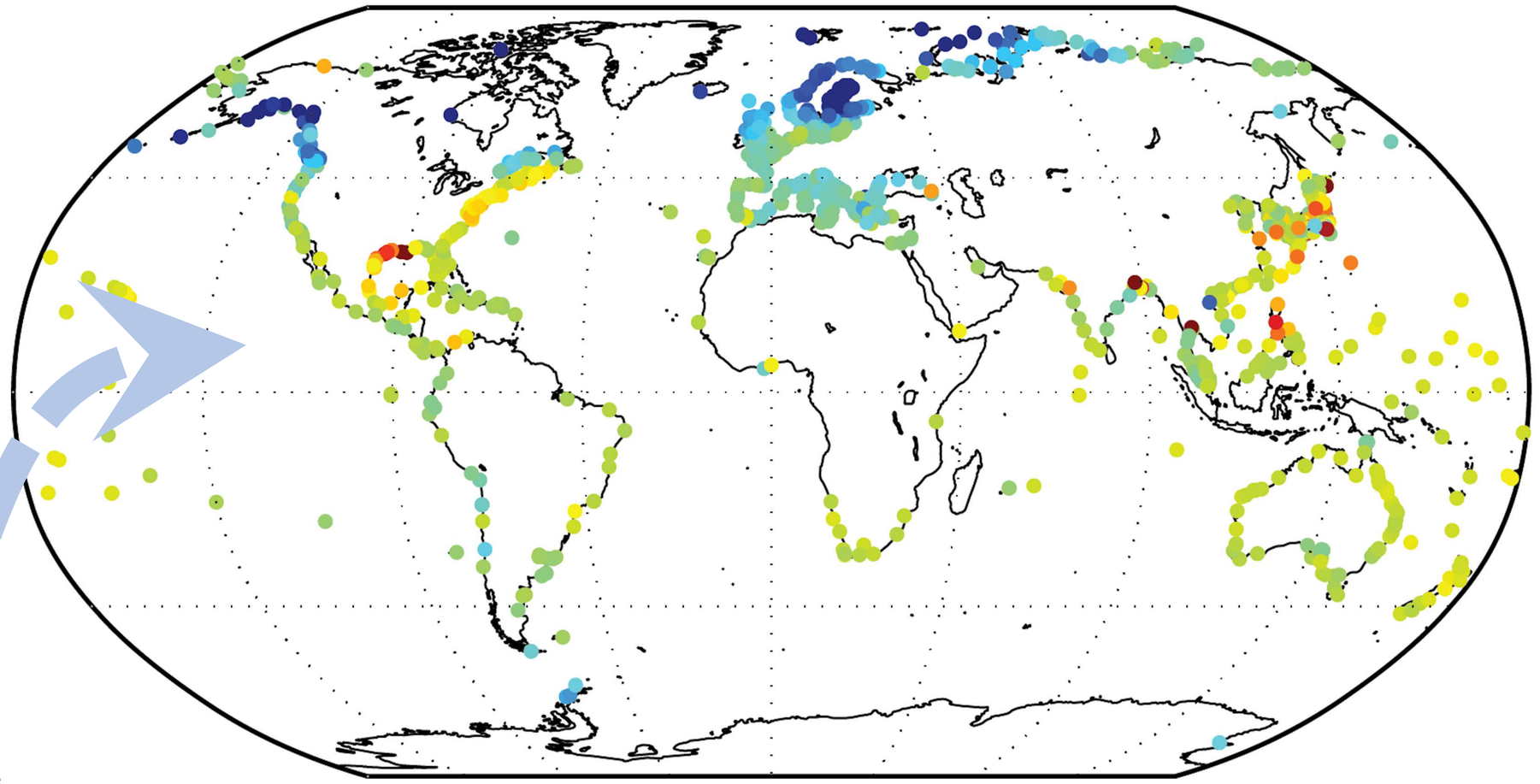
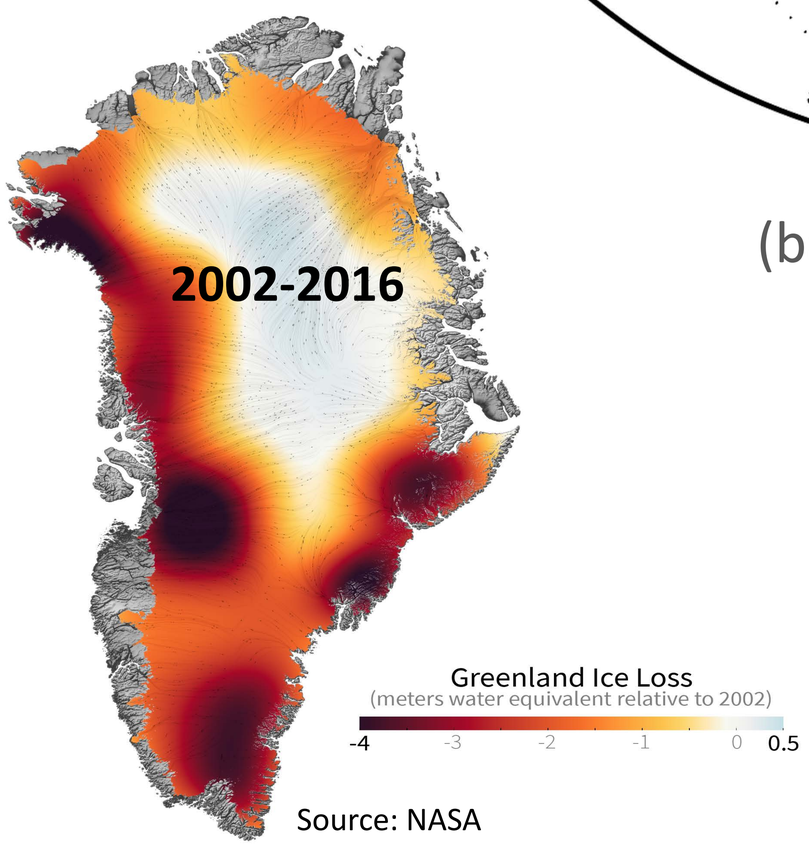
Arctic land ice loss is directly affecting US coasts now, with growing future impacts.



Uneven distribution of sea level rise
(based on 0.79m global average sea level rise)

References: IPCC; NOAA 2017; Sweet et al., 2014



Source: NASA

The pattern of sea level rise around the U.S. is not uniform. One of the causes for uneven distribution is the original location of ice loss.

For example, Greenland ice loss has a higher impact on the Florida and Gulf Coast coastline than Maine. Southern California will see greater impacts from Alaskan ice loss than Washington State or Alaska itself.

Arctic land ice is experiencing rapid melt, with levels of ice loss during the last 30 years unprecedented during modern human history. Resulting higher sea levels on U.S. coasts lead to exacerbated flooding, coastal erosion, and saltwater inundation of freshwater aquifers. The impacts include infrastructure damage, local- to national-scale economic losses, ecosystem degradation, and threats to municipal water resources, drainage infrastructure, and public health. **Understanding the magnitude and range of future ice loss – both losses that are guaranteed by ongoing climate change, and losses that are forecast based on current and future human action – is critical to understanding the fate of U.S. coastal infrastructure, economies, security, and communities**.

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