

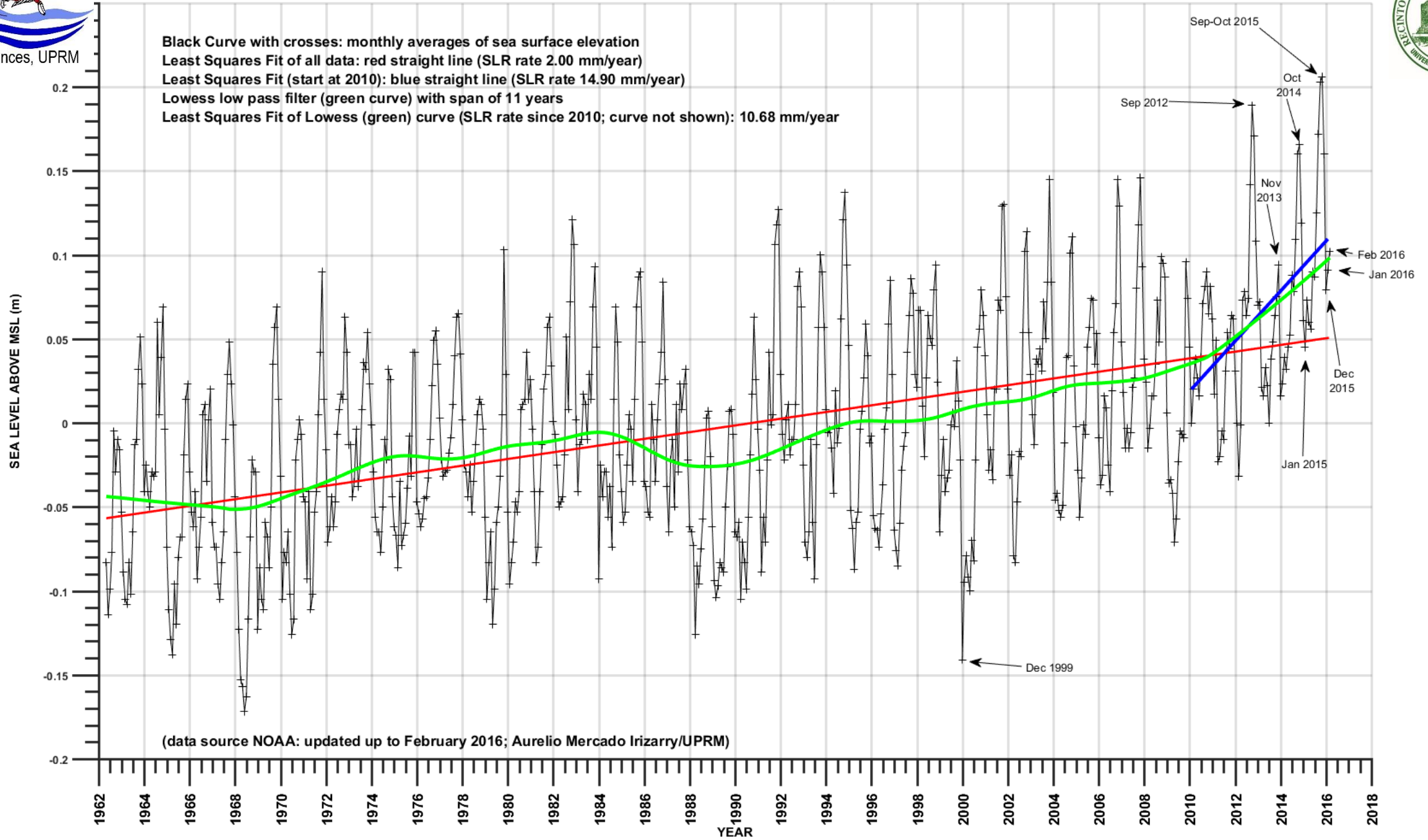


# SEA LEVEL RISE

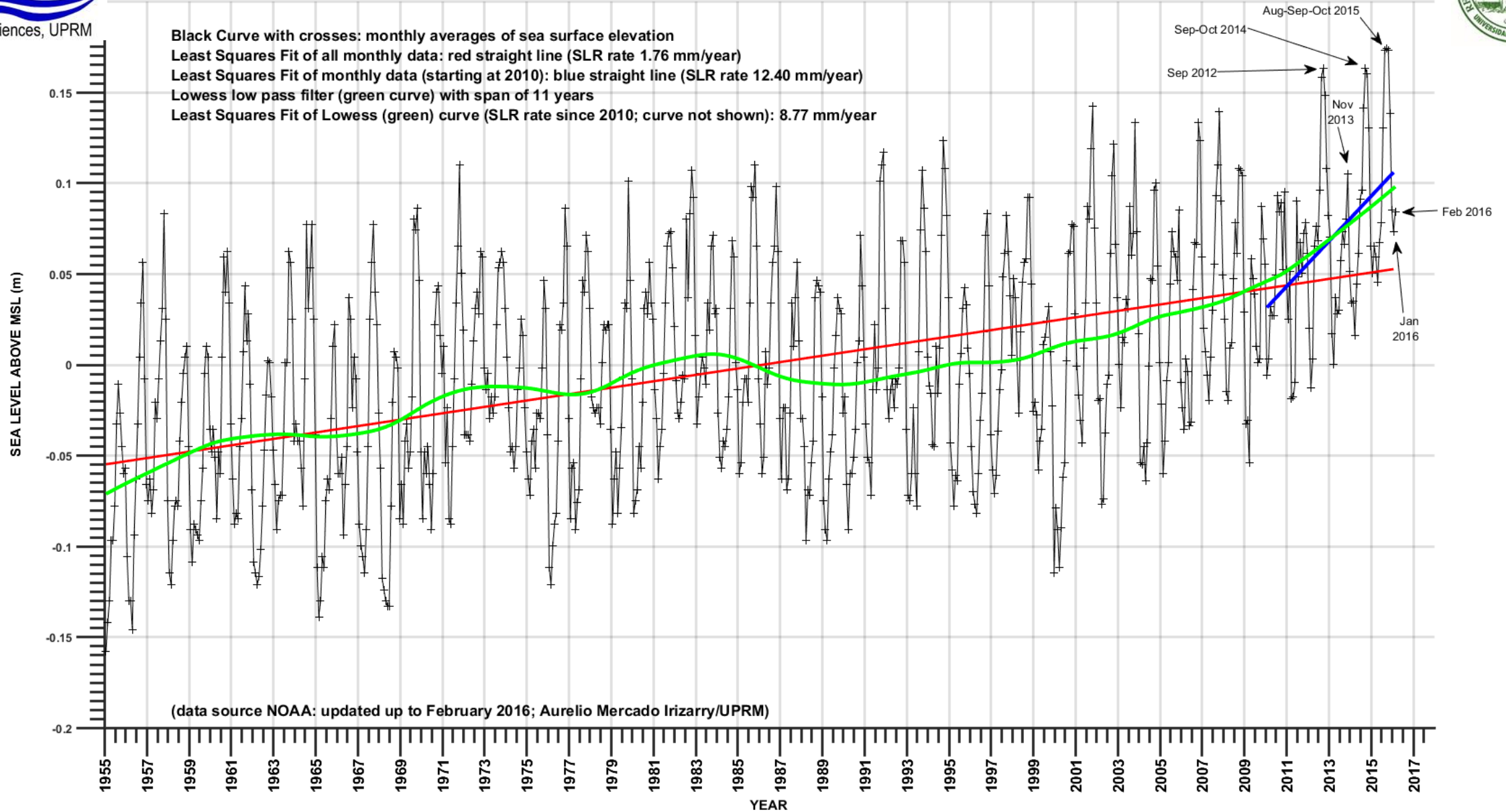


**Dr. Aurelio Mercado**  
(Physical Oceanography Professor)  
UPR- Mayagüez

MONTHLY MEANS SAN JUAN SEA LEVEL RISE (from April 1962)



MONTHLY MEANS MAGUEYES ISLAND SEA LEVEL RISE (from January 1955)

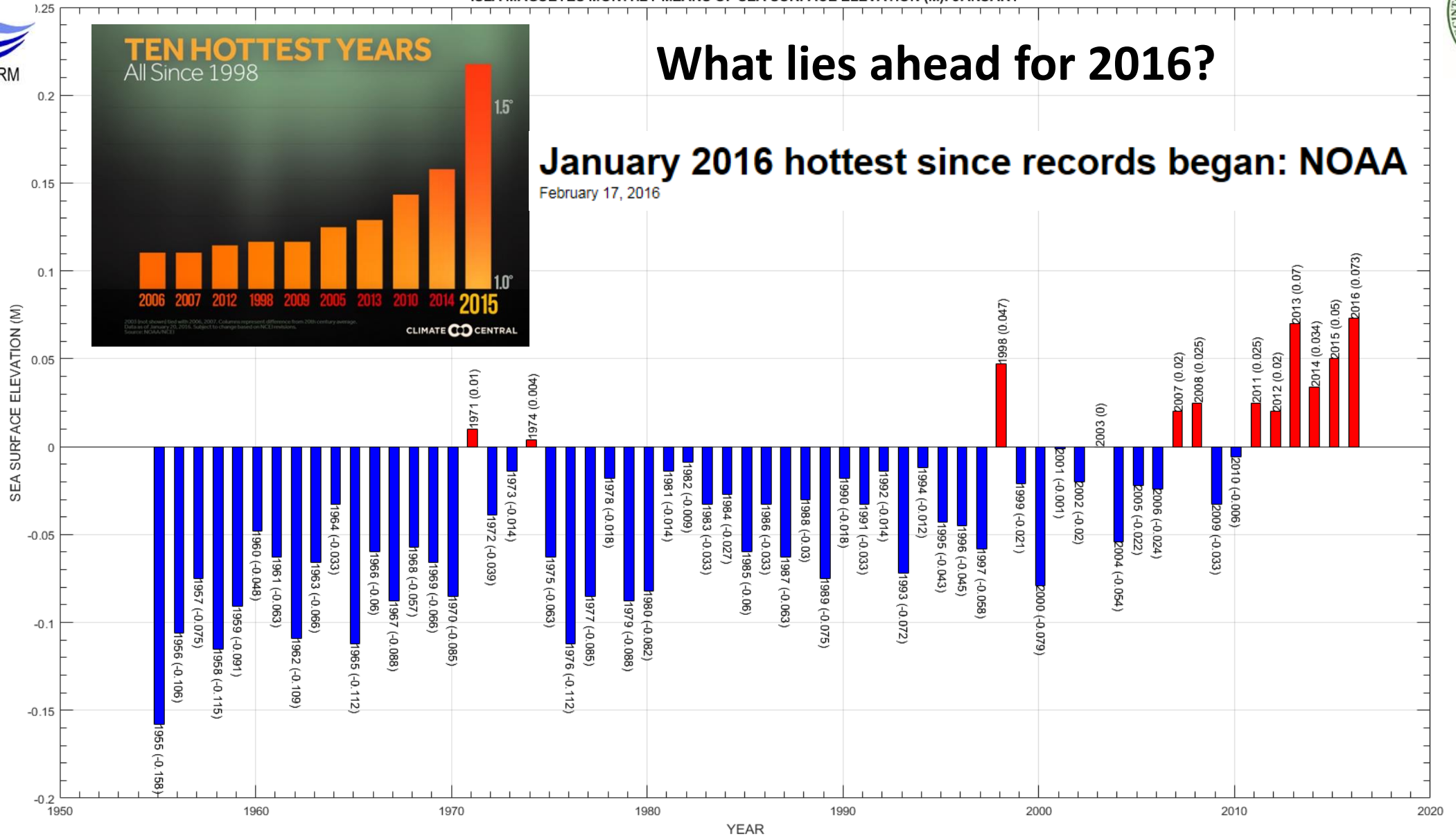


ISLA MAGUEYES MONTHLY MEANS OF SEA SURFACE ELEVATION (M): JANUARY

# What lies ahead for 2016?

## January 2016 hottest since records began: NOAA

February 17, 2016



# What lies ahead for 2016?



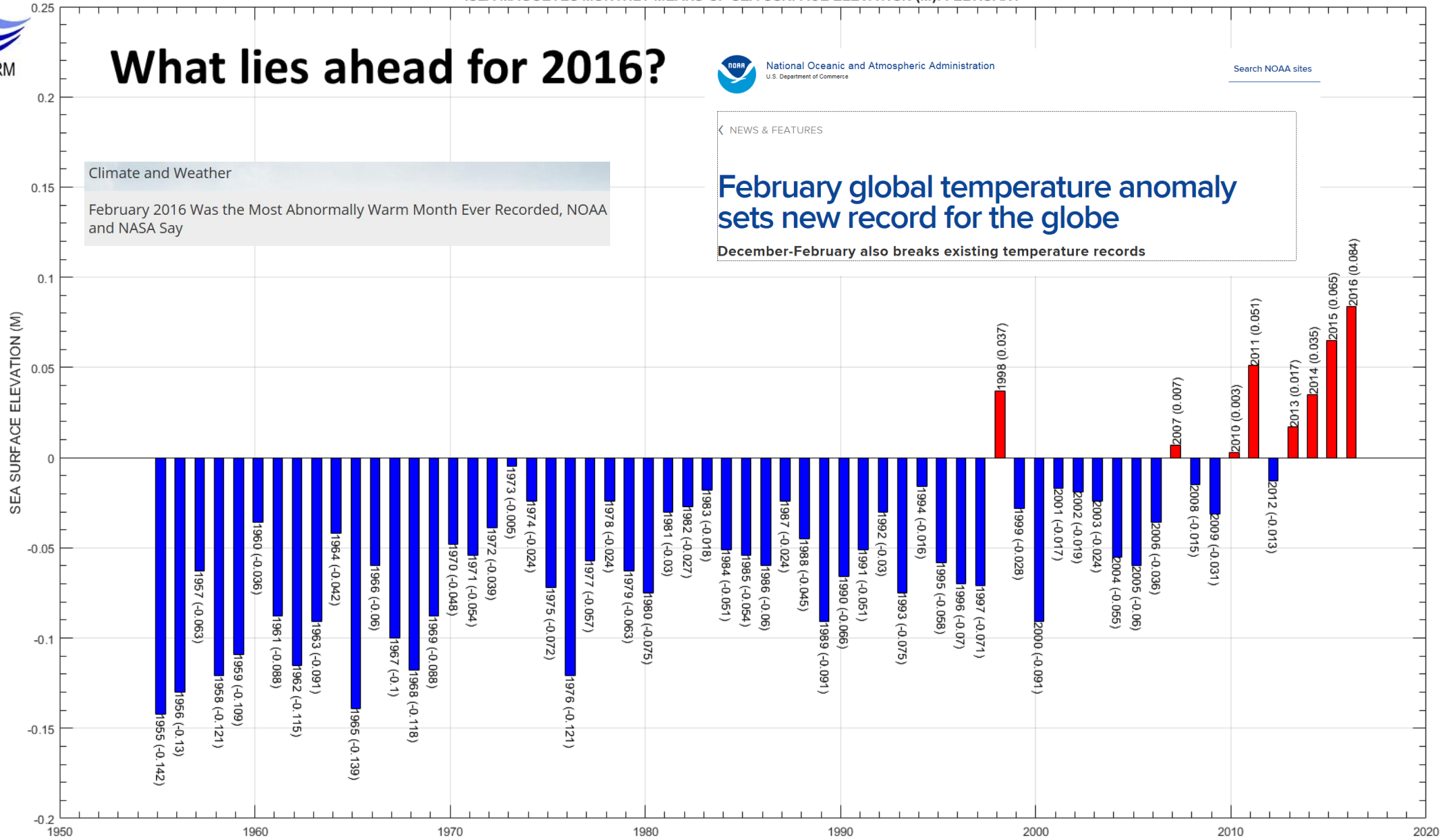
[Search NOAA sites](#)

Climate and Weather  
 February 2016 Was the Most Abnormally Warm Month Ever Recorded, NOAA and NASA Say

NEWS & FEATURES

## February global temperature anomaly sets new record for the globe

December-February also breaks existing temperature records

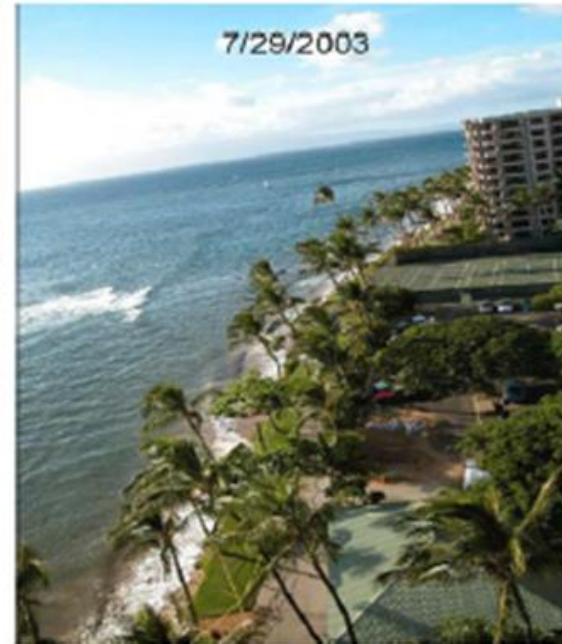


## HAWAI BAJO LOS EFECTOS TEMPOREROS DE UN REMOLINO DE AGUA CALIENTE

It is still unclear at exactly what scale and timeframe the Hawaiian Islands will experience accelerated sea level rise. It is also difficult to predict exactly how shorelines will respond. However, there are already analogs in Hawaii for the type of erosion impacts that can be expected. On Maui, the erosion experienced in Kaanapali in the summer of 2003 is one example. That summer, short-term increases in sea level were experienced as mesoscale eddies (large



An analog on Maui for the impact of sea level rise on coastal erosion is the beach erosion that occurred at Kaanapali Beach during the summer of 2003 due to short-term elevated sea levels along with a sustained south swell. Photo credit: Hyatt Regency Maui Resort.



rotating water masses) propagated through the islands.

These eddies produced tides that were 0.5 ft higher than normal.

The elevated water levels, coupled with a minor south swell, resulted in enough wave energy traveling alongshore to transport massive amounts of beach sediment to the opposite end (north) of the beach system. The beach in the resort area disappeared entirely at some locations and there was high anxiety about possible infrastructure damage. Fortunately, temporary emergency protection measures were implemented and the beach recovered after a period of

weeks. However, the implication is that a small increase in water level, only 0.5 ft in this case, can contribute to substantial shoreline retreat.