

# Industry Perspective on Tidal Datum Epochs

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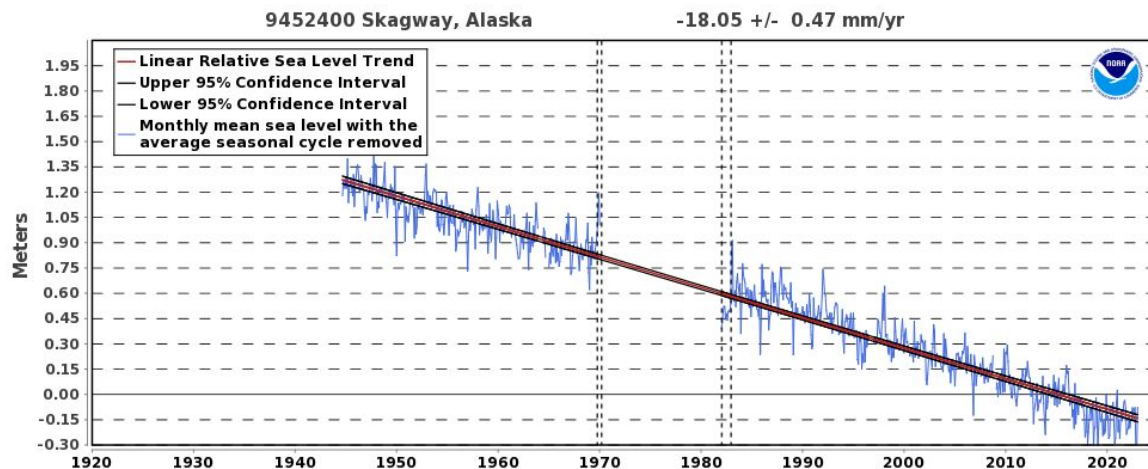
- Established in 2003
- Installed 395 tide stations in 27 states and U.S. territories for NOAA
- Published 1299 OPUS Shared Solutions



**Tide Station: 9456525 SW Iniskin Bay, AK**

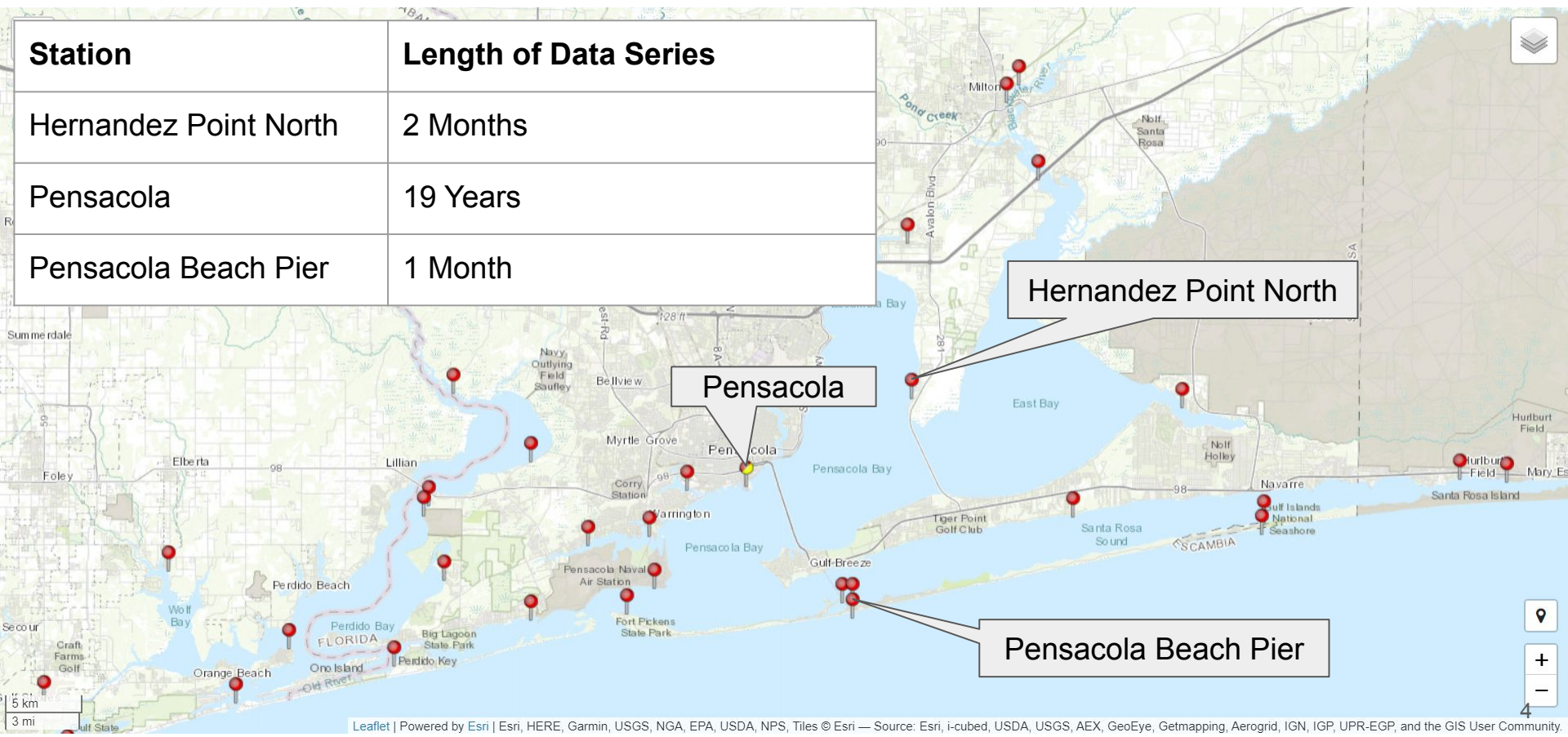
# Tidal Datum: Considerations

- Length of Data Series
- Tidal Epoch
- Age of Data



# Tidal Datum: Length of Data Series

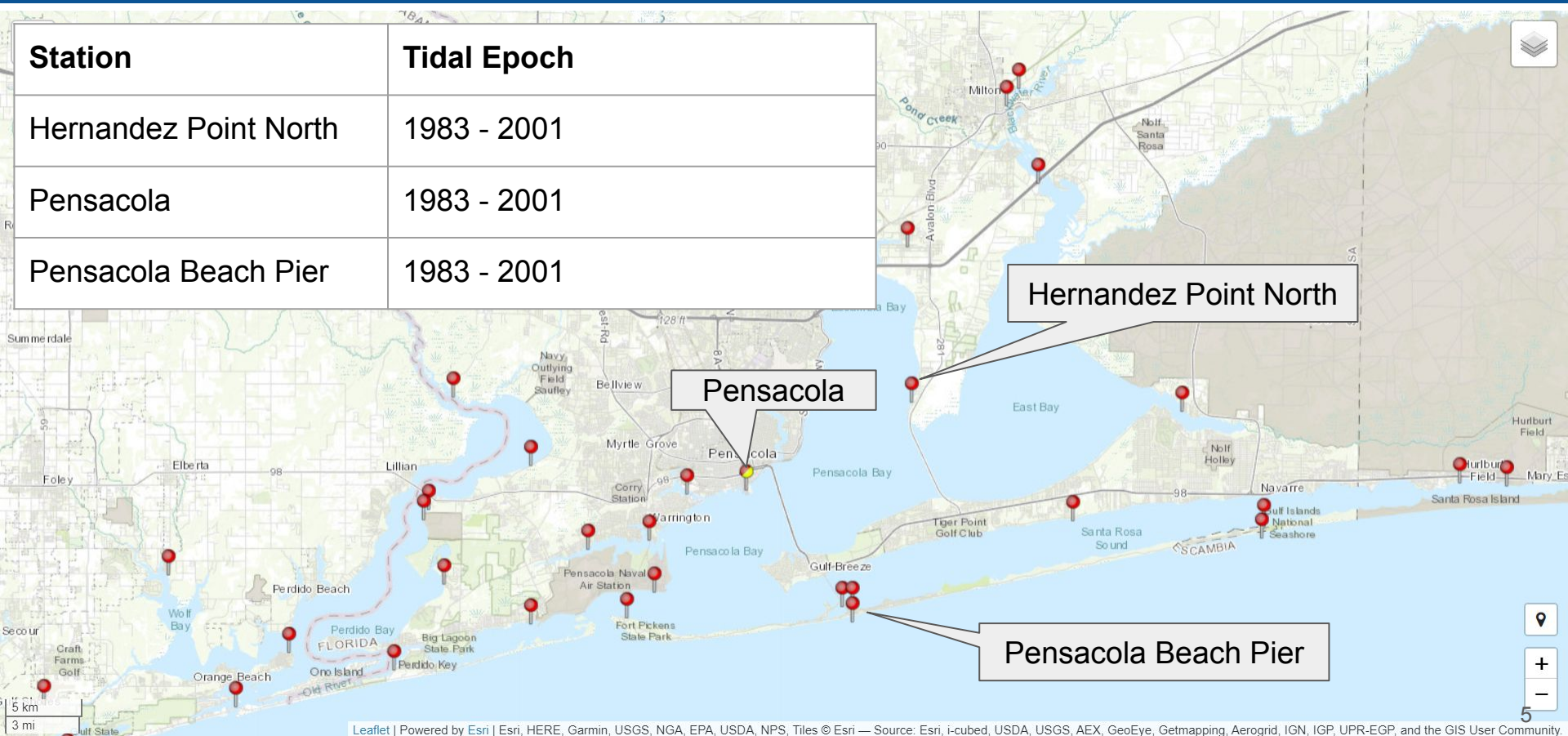
Station	Length of Data Series
Hernandez Point North	2 Months
Pensacola	19 Years
Pensacola Beach Pier	1 Month





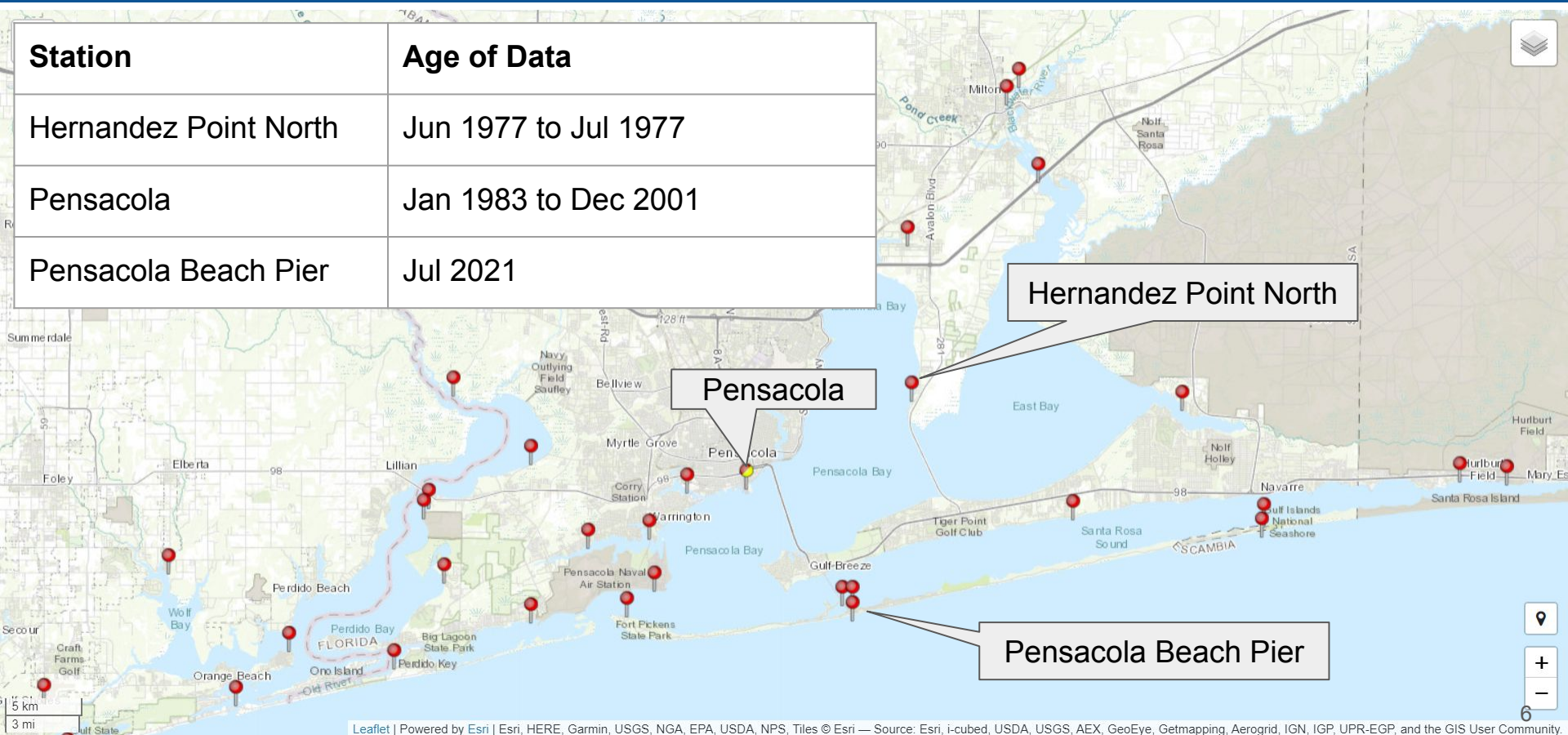
# Tidal Datum: Tidal Epoch

Station	Tidal Epoch
Hernandez Point North	1983 - 2001
Pensacola	1983 - 2001
Pensacola Beach Pier	1983 - 2001

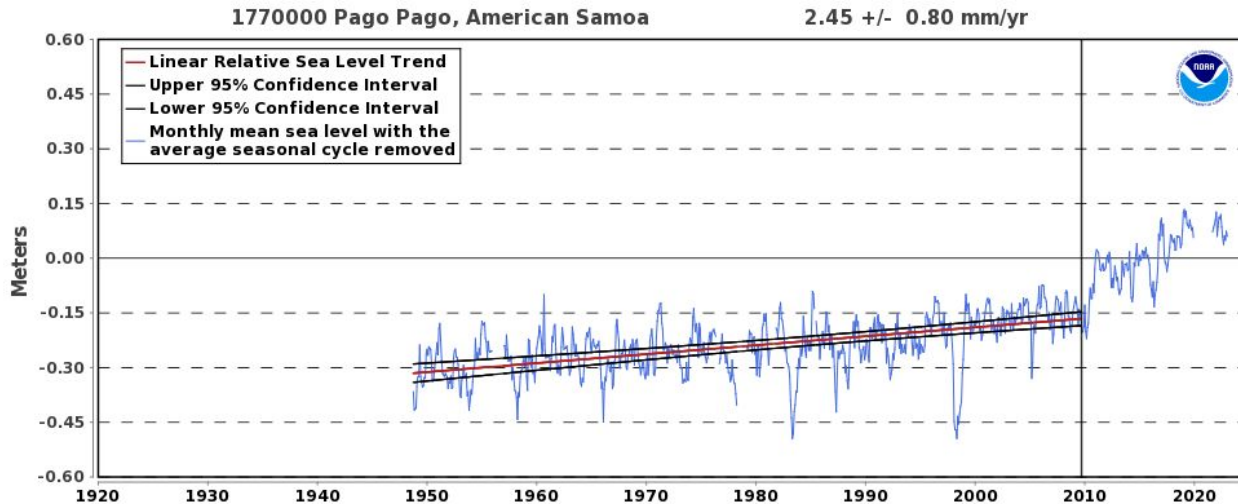


# Tidal Datum: Age of Data

Station	Age of Data
Hernandez Point North	Jun 1977 to Jul 1977
Pensacola	Jan 1983 to Dec 2001
Pensacola Beach Pier	Jul 2021



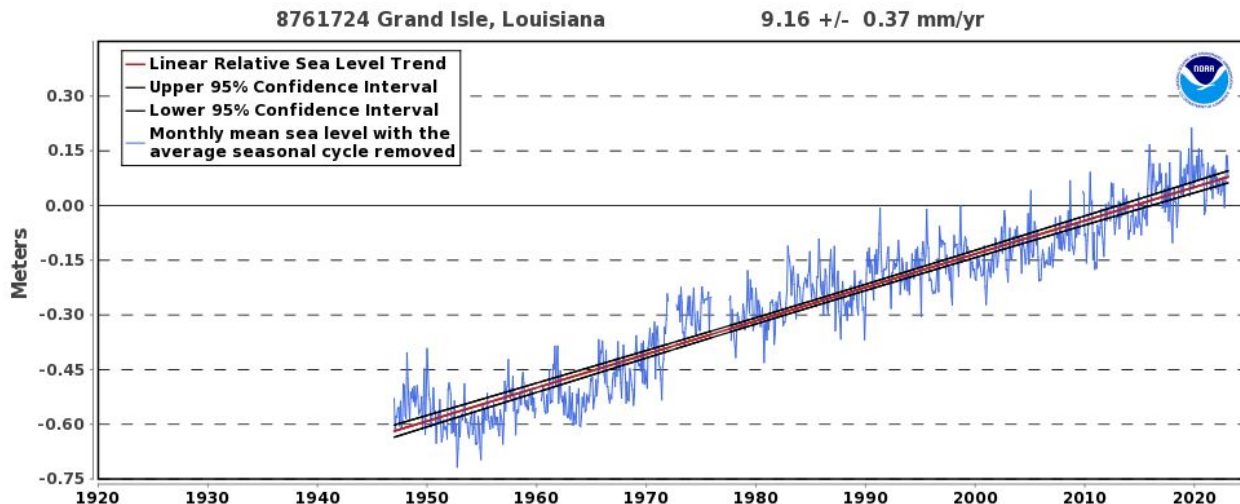
# Tidal Datum: Tidal Epoch



September 2009 earthquake caused post-seismic land subsidence. In the 60 years prior to the earthquake relative sea level rose 15 cm. **Since the earthquake relative sea level rose 25 cm!**

Published tidal datums for Pago Pag based on data from 2011 to 2019. No control station used in the computation. **Tidal epoch is reported as 0000-0000.**

# Tidal Datum: Tidal Epoch

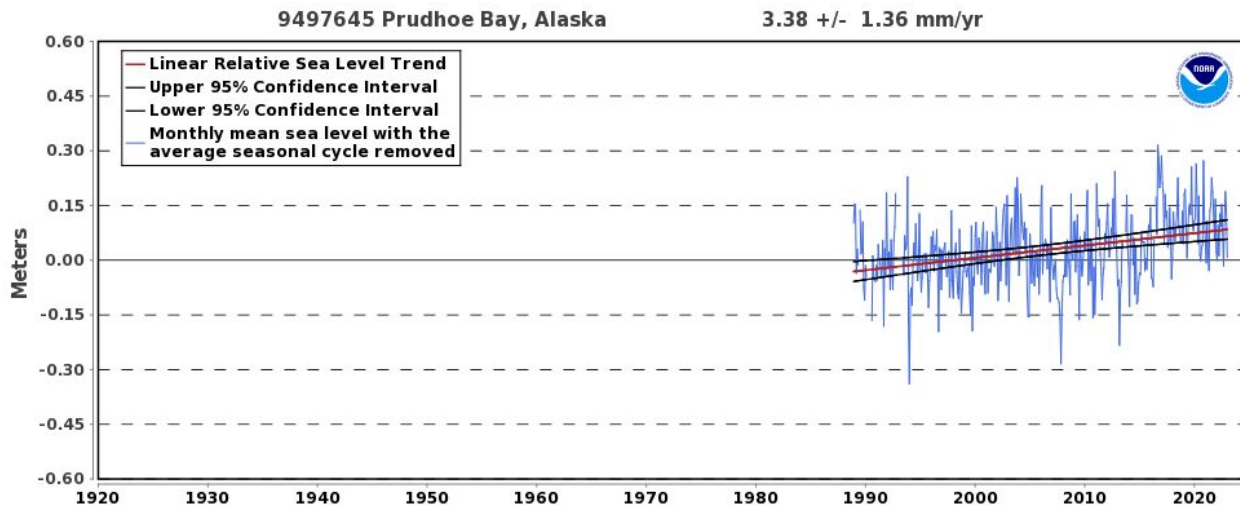


Grand Isle, LA is on the Mississippi River Delta. MSL at this site is currently 8 cm higher than the published MSL value. **In 75 years relative sea level rose 70cm!**

Published tidal datums based on data from Jan 1983 to Dec 2001, Jan 2012 to Mar 2012, and May 2012 to Dec 2016. No control station used in the computation. **Tidal epoch is reported as 2012 to 2016.**



# Tidal Datum: Tidal Epoch



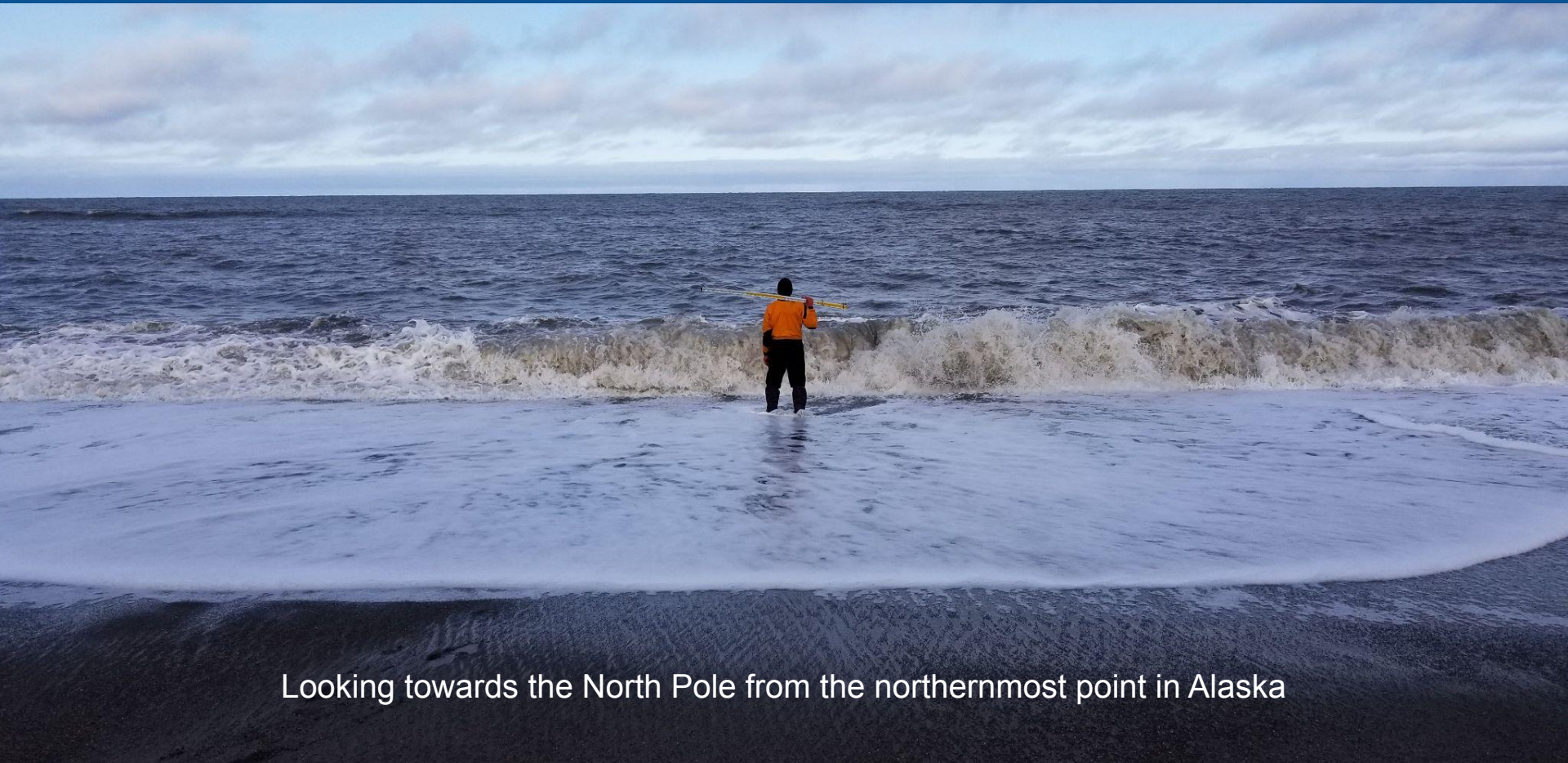
Prudhoe Bay, AK is on the north slope of Alaska in the Arctic Ocean. MSL at this site is currently 8 cm higher than the published MSL value.

Published tidal datums for Prudhoe Bay are based on data from Dec 1993 to Nov 2004, Mar 2006 to Feb 2008, and Jul 2008 to Jun 2011. No control station used in the computation. **Tidal epoch is reported as 1983 to 2001!**

# Tidal Epochs: Final Thoughts

**Not all tidal datums are created equal**

# Thanks



Looking towards the North Pole from the northernmost point in Alaska