1970 to 2015 Thermal and Haline Anomalies on the Northern Gulf of Alaska Continental shelf

Seth Danielson, Tom Weingartner & Russ Hopcroft
University of Alaska Fairbanks
sdanielson@alaska.edu

1970-2015 GAK1 Monthly Anomaly T&S Timeseries

Long-term coastal time series at station GAK1 exhibits 44-year warming of 0.4 °C near-bottom, warming of 0.8 °C near the surface, freshening of -0.5 at the surface, and salinization of +0.1 near the seafloor.

May 2010
May 2011
May 2012
May 2013
Sept. 2013
Sept. 2014
Sept. 2015

Weak wind mixing over the GOA shelf: In relation to the 1979-2015 climatology, 17 of 24 months in 2013 and 2014 had less wind mixing than normal, and four of the remaining had anomalously high levels of wind mixing. Time series from NCEP2 grid point at 58°N/150°. Red = 5-month running average.

What next?

A presidential visit to GAK1!