

Distinguished Scholar Seminar

Monday, March 9



Dr. Gary Mitchum

Professor of Physical Oceanography and Associate
Dean in the College of Marine Science at the
University of South Florida

Reitz Union Auditorium | Monday, March 9 @ 2:00pm

Title: Climate Lessons from the Venerable Tide Gauge

The installation of the tide gauge at Sheerness, England in 1822 arguably marks the beginning of modern quality sea level measurements, and these observations have since become the longest instrumental time series of a dynamically relevant oceanographic variable. We will begin with a history of how tide gauges informed 20th century climate studies, but the main focus will be on how these measurements continue to provide new insights even in the present age of satellite measurements and global in situ observation networks. The examples I will discuss (admittedly biased to my own research) cover time scales from tidal to seasonal to interannual to decadal to sea level rise. The examples range from showing how physics controls fisheries, to how we can trust satellite measurements of sea surface height, to an assertion that tide gauges might be a better estimate of atmospheric storminess than the more familiar meteorological observations.

After receiving his PhD from the Department of Oceanography at the Florida State University in 1985, Dr. Mitchum spent 11 years in the Department of Oceanography at the University of Hawaii, first as a postdoctoral researcher and then as a member of the research faculty and as the Director of the University of Hawaii Sea Level Center. He came to the University of South Florida in 1996. His research interests emphasize short-term climate changes, ranging from interannual variations such as ENSO, to decadal processes, to the long-term sea level rise problem. He has also done work on continental shelf dynamics, mesoscale eddy interactions with mean flows, internal tide generation and propagation, physical controls on fisheries variables, and storminess changes in the southeastern United States. Although he has used many types of data in his research, he is especially interested in analyses of tide gauge and satellite altimetric data, and notably proposed and developed the presently accepted method of estimating temporal drift in altimeters via comparisons with the global tide gauge network.

Watch live or via archived stream at:

<http://mediasite.video.ufl.edu/Mediasite/Play/63707bd65a03419b92799b49490adad31d>