



Christopher M. Little, PhD

*Oceanographer and Climate Scientist
Manager, Oceanography Group
Research and Development Division*



Dr. Christopher Little is a senior staff scientist with a tenure approaching a decade at AER. He is the manager of the Oceanography group and part of the management team for AER's Research and Development division. His primary research interests center around physical controls on the rate of past, present, and future sea level change. Dr. Little has published over 50 peer-reviewed publications with topics that include:

- Physical controls on paleo-, instrumental-era, and future coastal sea level
- The meridional overturning circulation and its relationship with coastal sea level and sea surface temperature
- Ice sheet mass balance and global mean sea level projections
- The joint effect of sea level and tropical cyclones on coastal flooding
- The coupled response of ice sheets and the sub-ice shelf ocean to changes in ocean state
- Evaluation of the representation of polar oceans, ice sheet freshwater flux, and coastal sea level in climate models

Education

- PhD and MS, Geosciences, Princeton University
- BA, Chemistry, Williams College

Memberships

- WCRP Safe Landing Climates Lighthouse Activity Sea Level Rise Working Group
- AGU, AMS

For a list of publications, see Chris Little's [Google Scholar Profile](#).

He has a longstanding interest in integrating numerical models and observations, including tide gauges and in-situ measurements, and has participated in several research cruises to polar regions.

Dr. Little's current projects, and their primary objectives, include:

- "Identifying processes controlling the representation of coastal sea level in climate models": develop diagnostics of coastal sea level from altimetry and tide gauge observations; identify misrepresented processes in models (NOAA funding, collaboration with the NOAA Geophysical Fluid Dynamics Laboratory).
- "A global assessment of annual to decadal sea level predictability": perform global analyses of the potential and absolute predictive skill of sea level predictions; identify physical mechanisms underlying predictive skill (NSF funding, collaboration with the National Center for Atmospheric Research)
- "The impact of climate change on Greenland's glacial fjords, ecosystems, and local communities": understanding how human and biophysical components of Greenland glacial fjord systems interact and evolve (NSF funding, collaboration with many institutions, led by Scripps Institute for Oceanography).

During his Ph.D. and postdoctoral training, Dr. Little focused on numerical model development, collaborating extensively with oceanographers and glaciologists at NOAA's Geophysical Fluid Dynamics Laboratory to study land ice-ocean interaction on the continental shelf of Antarctica. As a researcher in the Science, Technology, and Environmental Policy program in the Woodrow Wilson School at Princeton University, he introduced new techniques to quantify uncertainty in sea level rise projections. In conjunction with his research efforts, Dr. Little has participated in local, regional, and global sea level assessments, and has worked with city and local governments in order to develop resilience plans. He has also collaborated with other Verisk business units to describe and quantify risks associated with changes in extreme events and longer-term climate variability.