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SEA LEVEL RISE

RELEVANT SCIENCE FOR OUR TIME

I know you will appreciate this issue of *Oceanography*, which features excellent articles on sea level rise. In this regard, it is timely that the National Research Council Committee released the final report in the America's Climate Choices series. This committee previously produced four panel reports: Advancing the Science of Climate Change, Limiting the Magnitude of Future Climate Change, Adapting to the Impacts of Climate Change, and Informing an Effective Response to Climate Change. The committee was also charged with writing a final report that builds on these four panel reports and other sources to answer the following overarching questions:

- What short-term actions can be taken to respond effectively to climate change?
- What promising long-term strategies, investments, and opportunities could be pursued to respond to climate change?
- What are the major scientific and technological advances needed to better understand and respond to climate change?
- What are the major impediments (e.g., practical, institutional, economic, ethical, inter-generational) to responding effectively to climate change?
- What can be done to overcome these impediments?

After reading about sea level rise in this issue of *Oceanography*, you may want to look over the America's Climate Choices reports to gain greater perspective about the forcing mechanisms, and possible adaption and remediation. The final report, America's Climate Choices, as well as the previous reports can be accessed at: <http://americasclimatechoices.org>.

The rise in sea level has been significant near our nation's capital. In Chesapeake Bay, sea level rise has been estimated as 3.6 mm yr^{-1} , roughly twice the global average. When Hurricane Isabel crossed Chesapeake Bay in 2006, coastal flooding was much worse than in 1933 when a hurricane of similar force and direction (storms were not named at this time) crossed Chesapeake Bay, in part because the background sea level was almost 60 cm lower than it is today! Thus, like the CO_2 content of the ocean, ocean acidity, and ocean temperatures, sea level has increased during the lifetimes of many of our TOS members.

Regards,



Mike Roman, TOS President