

Climate Science Centers: Growing Federal and academic expertise in the Nation's interests

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In American Geophysical Union Fall Meeting, San Francisco, Cali., Dec. 2014.

ABSTRACT

The U.S. Department of the Interior's (Interior) natural and cultural resource managers face increasingly complex challenges exacerbated by climate change. In 2009, under Secretarial Order 3289, Interior created eight regional Climate Science Centers managed by the U.S. Geological Survey's (USGS) National Climate Change and Wildlife Science Center and in partnership with universities. Secretarial Order 3289 provides a framework to coordinate climate change science and adaptation efforts across Interior and to integrate science and resource management expertise from Federal, State, Tribal, private, non-profit, and academic partners.

In addition to broad research expertise, these Federal/university partnerships provide opportunities to develop a next generation of climate science professionals. These include opportunities to increase the climate science knowledge base of students and practicing professionals; build students' skills in working across the boundary between research and implementation; facilitate networking among researchers, students, and professionals for the application of research to on-the-ground issues; and support the science pipeline in climate-related fields through structured, intensive professional development.

In 2013, Climate Science Centers supported approximately 10 undergraduates, 60 graduate students, and 26 postdoctoral researchers. Additional students trained by Climate Science Center-affiliated faculty also contribute valuable time and expertise, and are effectively part of the Climate Science Center network. The Climate Science Centers' education and training efforts have also reached a number of high school students interested in STEM careers, and professionals in natural and cultural resource management.

The Climate Science Centers are coordinating to build on each other's successful education and training efforts. Early successes include several intensive education experiences, such as the Alaska Climate Science Center's Girls on Ice, the Northeast's Consortium Retreat, and the Northwest's Climate Science Boot Camp; the whole-network Early Career Climate Forum; the South Central Climate Science Center's Minority Internship; and a growing curriculum through Interior's National Conservation Training Center.