

Roles of the RCCs, RISAs and SCOs in Climate Services

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Regional Climate Centers

- Emphasis is ongoing delivery of climate services as a quasi-operational activity
- Clientele covers all sectors of society, all 50 states and all 309 million citizens
- Emphasis on breadth of service with some areas of depth
- Relatively constant contact with a wide user base
- Maintain tools to be nimble enough to respond to climate-related decisions that arise unexpectedly
- Longstanding interest in data, observations and monitoring
- Program existence not predicated on climate change

Regional Integrated Sciences and Assessments

- Primary emphasis is on research, primary method is “learning by doing”
- Concentrate on acquisition of knowledge about users and their decision environment, to inform experimental climate services and decision support
- Deliberate restriction to limited selected sectors at any one time, for learning purposes
- Geographic coverage is a subset of the nation, as small clusters of states
- Emphasis on depth more than breadth
- Seek to identify transferable findings (one sector or region to another)
- Strong orientation toward climate change issues

State Climate Offices

- Place-based service delivery; similar to RCCs, but with smaller geographic scope
- Familiarity with state/local issues, cultures, organizations and data/information
- Well established program for six decades; provides roots and strong ties to RCC Program
- Funding, host institutions, interests, capabilities, backgrounds, history differ state to state
- Presently 48 of 50 states (vacancies TN, RI)
- Ongoing complementary RCC-SCO activities provide a more uniform level of service
- Mutual involvement with RCCs, RISAs, national climate centers on common themes

Climate Services

The term “climate services” encompasses a suite of functions, capabilities and activities. These mainly include:

- 1) Data and monitoring (measurement, maintenance, acquisition, quality control, archival, access, and distribution),
- 2) Products (summary, manipulation, synthesis, visualization, dissemination),
- 3) Information delivery and interpretation, interaction with users, and outreach
- 4) Research (basic research on behavior of the physical climate system, applied research to meet specific user needs, and basic research on the social dimensions of service provision).

Needs for these services exist at national, regional, state and local scales, and evolve with time. Mechanisms explicitly intended to meet these needs in the U.S. have a well-established history dating to at least World War II.

The State Climatologists program was organized in the early 1950s within the Weather Bureau. After federal budget cuts, the existing offices in 1976 chartered the American Association of State Climatologists (AASC). By 2009 all but two of the 50 states had a **State Climate Office** (SCO). The **Regional Climate Center** (RCC) Program began in 1986 and serves six geographic regions. The NOAA **Regional Integrated Sciences and Assessments** (RISA) Program started in 1994 expanding to serve nine regions by 2009.

Numerous additional players and organizations can and do contribute to climate services. The RCCs, RISAs and SCOs are working closely with each other to strengthen existing partnerships among themselves, and collaboratively with these many other service providers.

A southern states example of RCC, RISA and SCO interaction

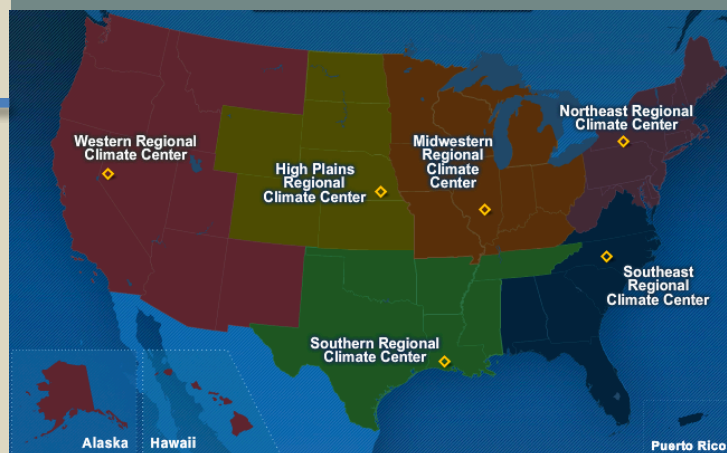
The Southern Climate Impacts Planning Program (SCIPP) is collaborative between the Oklahoma Climate Survey (the Oklahoma SCO) at the University of Oklahoma, the Louisiana Office of State Climatology (the Louisiana SCO) at Louisiana State University and the NOAA Southern Regional Climate Center (SRCC). Together, these institutions combine their expertise in climate science, outreach, education, data dissemination, product development and geospatial mapping to address the issue of climate hazards. SCIPP focuses on the 6-state region of Oklahoma, Texas, Louisiana, Arkansas, Tennessee and Mississippi, and concentrates on the high frequency of hazardous climate events that affect the region. These include precipitation extremes (floods and droughts), severe storms and hurricanes. Information on climate variability and change is central to this effort.

In every phase, the SCIPP RISA program emphasizes strong and sustained interaction with SRCC and its data resources and product development capabilities, and the Oklahoma and Louisiana SCOs. The Applied Climate Information System (ACIS) developed by the RCC Program is essential to SCIPP as a method to quickly and easily transition data, information and research results to operational status. The tightly woven RISA-RCC-SCO collaboration serves as a model for integrated research and service development.

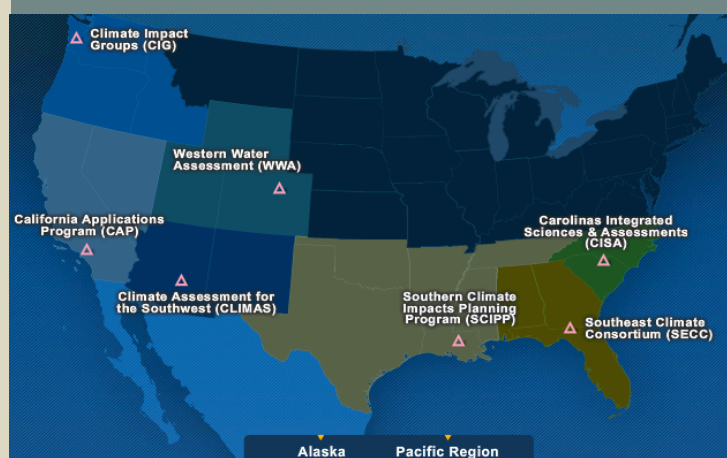
Future Roles

The RCCs, RISAs and SCOs constitute a significant fraction of the core of climate service delivery in the US. Their deep historical roots and rich diversity ensure ties to each of the myriad other partners engaged in some form of climate services. They have been extremely popular with the public. All three entities should view themselves as stakeholders in each other. The RCCs, RISAs and SCOs all have experience in building stakeholder trust, are flexible and dynamic to address changing issues and new science advances, and routinely provide contextual and relevant information. Together, these programs represent a significant integrated and interdisciplinary component of climate services. Ways to strengthen these interactions, such as co-location of combinations of RCCs, RISAs and SCOs, and to provide robust virtual connectivity, are needed. Societal demand for climate services is expanding rapidly, in provision of data and information for decision support, applied research on climate impacts and adaptation, climate assessments and changing stakeholder needs. The health of these programs is vital to the national interest, and all are working diligently to insure success in their intertwined future.

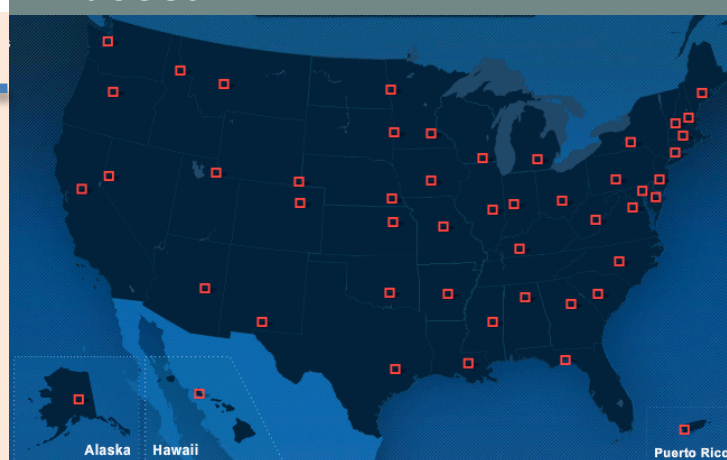
The RCCs



The RISAs



The SCOs



Web links

<http://www.ncdc.noaa.gov/oa/climate/rcco.html>
http://www.climate.noaa.gov/cpo_pa/risa
<http://www.stateclimate.org>
http://www.wrcc.dri.edu/roles_2page.pdf