

# ND EPSCoR RESEARCH IMPACT: CRCS

**SUBJECT:** ND EPSCoR Center for Regional Climate Studies (CRCS) research finds that the Northern Great Plains have become 1-2 Celsius Warmer and Precipitation has Shifted More to the Eastern Part

**CATEGORY-** Chose U.S./global economy, national security or scientific knowledge:  
Scientific Knowledge

**NSF AWARD(S) - Provide award number hyperlink:**

[IIA-1355466](#)

[ND EPSCoR](#)

[CRCS](#)

**OTHER SUPPORTING INFORMATION:**

N/A

**BRIEF SUMMARY OF OUTCOMES - (Why is this award compelling for use as an Impact?):**

Research is leading to a better understanding of the coupling of regional climate variations to global variations, including their connection to El Nino-Southern Oscillations.

**THREE REASONS this award outcome impacts U.S./global economy, national security or scientific knowledge:**

The ND EPSCoR award has the following impacts:

1. Analysis of meteorological patterns associated with extreme weather events in the Northern Great Plains show differences from predictions based on the widely used Weather Research and Forecasting Model (WRF). Continued re-evaluations of models is needed.
2. Increase in wetland acreage near Devils Lake, near the Arctic/Atlantic continental divide, impacts overspillage into Atlantic watershed, thus predictions of fauna and flora mixing.
3. Integrated model shows that, except for the economic value of crop production, ecosystem service values are much higher for the Sheyenne National Grassland than for the surrounding private land.

**NSF Directorate(s)/Division(s):**

OD/OIA/EP5

**State(s):**

North Dakota

