Space Weather – Technology, Research, and Education Center (SWx-TREC)

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SWx-TREC is a new Center at the University of Colorado – Boulder initiated under a grant intended to create a center of gravity for the many units at CU working on space weather topics. TREC will be in the College of Engineering and Applied Science and the Laboratory for Atmospheric and Space Physics (LASP). It will be able to work across the usual academic boundaries to better develop and integrate space weather models, missions, and data that will have a direct benefit to the operational forecasting offices. TREC will also be the focal point for creating undergraduate, graduate, and professional courses in space weather. In short, TREC is a new academic research and technology center dedicated to helping bridge the gap between space weather research and operations, and to educating the space science workforce, from undergraduates to industry professionals. TREC will be complementary to NASA's Community Coordinated Modeling Center (CCMC) but with a more academic mission. TREC will work with CCMC and operational forecast offices to develop and transition new models and tools that improve forecasting and nowcasting. TREC will offer "O_2R" functionality by bringing national and international researchers to Boulder to work in close proximity with NOAA forecasters and scientists on select areas of research and technology. TREC will also be focusing significant effort on its educational mission in alignment with CU's mission as a leading space science university. Thus, TREC is not a repository for general research models or an operational forecast office. There are a lot of areas where CU and other Boulder partners have unique capabilities that can contribute to the R2O and O_2R functions in ways that complement CCMC's capabilities.