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SWx TREC: An Open Space Weather (SWx) R2O Development and Testbed Environment

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The Chancellor of the University of Colorado recently awarded a Grand Challenge grant to a group of departments and labs for the development of the Space Weather Technology, Research and Education Center (https://www.colorado.edu/spaceweather/). As part of this effort, the Laboratory for Atmospheric and Space Physics (LASP) is developing a Space Weather Testbed to provide a platform to explore research and development models side-by-side with operational standards.

The Space Weather Testbed is being built using technologies employed by LASP Data Systems for the Magnetospheric Multiscale Mission Science Data Center and the Emirates Mars Mission Science Data Center. These data centers provide a managed computational environment for independent science teams to deploy their processing software into the operational system. This poster will discuss the technologies that will be used in producing the Space Weather Testbed and how the exploration between Operations to Research (O_2R) and Research to Operations (R2O) will be supported.