

SOS Explorer™: Interactive Visualizations for Museums and Classrooms

E. Hackathorn¹, J. Smith², J. Joyce³, J. Stewart², H. Peddicord³ and B. Russell³

¹NOAA Earth System Research Laboratory, Global Systems Division (GSD), Boulder, CO 80305; 303-497-6831, E-mail: eric.j.hackathorn@noaa.gov

²Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collins, CO 80521

³Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO 80309

SOS Explorer™ (SOSx) is a flat screen version of the popular Science On a Sphere® (SOS). The software takes SOS datasets, usually only seen on a 6-foot sphere in large museum spaces and makes them more accessible. The visualizations show information provided by satellites, ground observations, and computer models. More information can be found at https://sos.noaa.gov/SOS_Explorer/

SOS Explorer™ was developed by the Informatics, Visualization, and Outreach (IVO) section of ESRL/GSD which is also the home of Science On a Sphere®. Wanting to build off of the success of SOS and expand the reach of SOS into classrooms and homes as well as museums who don't have the physical space for a full Science On a Sphere®, developers created a flat screen version of SOS called SOS Explorer™ (SOSx).

Several factors came together at the right time to lead to the development of SOSx. After field trips to see NOAA's SOS, many teachers asked how they could bring the same experience of viewing global data into their classrooms. Most of the teachers didn't have a budget for installing SOS into their schools and needed other options. A flat screen version that could be displayed on computer monitors and projectors seemed like an obvious solution.

New features include integration with the Oculus Rift virtual reality goggles, support for 360-degree content, and first person experiences.

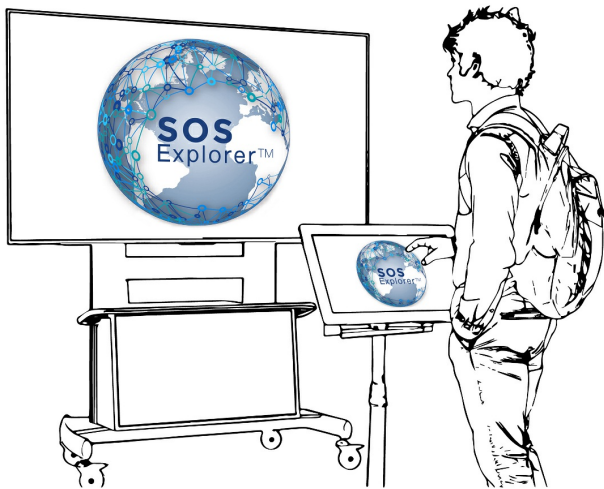


Figure 1. A visitor experimenting with SOSx.



Figure 2. SOS Explorer now includes a virtual reality component bringing an immersive experience into the classroom.