

NOAA's Science On a Sphere - The Ideal Way to Display Global Data

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Science On a Sphere® (SOS) is a room-sized, global display system that uses computers and video projectors to display planetary data on a six foot globe. Invented by Dr. Alexander MacDonald, Director of the NOAA Earth System Research Laboratory (ESRL), SOS is installed in over 35 locations around the world, including science museums, universities, planetariums and aquariums. Over 250 datasets can be shown on the sphere ranging from climate models to movement of tectonic plates to sea surface height anomalies. Many NOAA datasets, including datasets from ESRL Global Monitoring Division (GMD), are shown at the SOS sites around the world. This provides valuable exposure for NOAA's research. CarbonTracker, from GMD, has been shown in many museums and was recently highlighted on SOS at an exhibit for the National Science Teachers Association annual conference. Continued growth of the SOS dataset library is supported by researchers making their global data available for SOS. Once generated, new data is then made available to all SOS sites with a brief description of the data so that it can be shown and taught in all the SOS venues. SOS promotes environmental literacy by displaying NOAA's Earth science data in a way that engages and educates audiences of all ages. In a survey at the McWane Science Center in Birmingham, AL, 100% agreed that the Science on a Sphere® images made a complex topic more understandable and 82% agreed that they learned something new from the exhibit.



Figure 1. School groups regularly visit the Earth System Research Laboratory (ESRL) to see Science On a Sphere (SOS) in the Planet Theater. Tom LeFebvre, of ESRL's Global Systems Division, is seen here giving a presentation of SOS to a class of captivated 5th graders. NOAA photo by Will von Dauster.