

Science on a Sphere brings earth on display

Finnish Science Center Heureka is the second exhibit in Europe to display the Science on a Sphere, a projection system illustrating natural phenomena. The system uses five computers and four video projectors to display animated images onto a six foot diameter sphere, analogous to a giant globe, to explain complex environmental processes such as atmospheric storms or climate change issues.

The Sphere displays over 150 comprehensive visualizations of the oceans, atmosphere, territories and astronomy, providing a global view

of the weather, earthquakes, sea currents, and ice coverage, to name a few. Various illustrative modelings and simulations as well as real-time information and forecasts can be presented. For example, the system can show global weather forecasts for a week ahead and display real-time satellite information about cloud movement, humidity, earthquakes or variation of ice coverage anywhere in the world.

Science on a Sphere was developed by researchers of the US National Oceanic and Atmospheric Administration (NOAA). The father

and inventor of the Sphere, Dr. Alexander "Sandy" MacDonald, the director of the NOAA Earth System Research Laboratory, came up with the concept in 1995. Today the system is installed at 39 sites, mostly located in the United States. Heureka's Science on a Sphere is only the fifth installation outside the U.S.

Further information:

www.heureka.fi/portal/englanti/exhibitions/science_on_a_sphere/

<http://sos.noaa.gov>



Kjell Forsén, Vaisala's President and CEO, opening the Heureka exhibit. Vaisala sponsors the exhibit together with the Finnish Foundation for Technology Promotion.



Pioneering wind observing system to be installed in the USA

Vaisala, Xcel Energy and the National Center for Atmospheric Research (NCAR) are joining forces in a pioneering pilot project in the United States that aims to better anticipate changes in wind energy output from wind farms. Xcel Energy is a major U.S. electricity and natural gas company.

The goal is to develop a new wind observing and forecasting system and explore its use in Xcel Energy's wind power generation. The system will provide decision-making support for balancing wind power with traditional fossil fuel generation while minimizing costs and improving reliability.

Vaisala provides Xcel Energy with surface weather stations, radar wind profiling capability, National Lightning Detection Network® data, as well as installation and operating services for a 12-month pilot program. NCAR has been contracted to refine a wind forecasting system that focuses on wind ramp detection. Vaisala's observation data will be integrated



with the forecast information in a decision support tool developed by Vaisala in close cooperation with the three parties.

"We are extremely pleased to enter this pilot project with Vaisala and NCAR who both are leading players in their fields and can significantly contribute to the develop-

ment of wind forecasting in energy production," says Mary Fisher, vice president of strategic technology for Xcel Energy. "Once completed, the pilot, if successful, will inform wind farms operators on the means to increase reliability and minimize integration cost."

Vaisala supplies next generation dropsondes for National Oceanic and Atmospheric Administration in USA

Vaisala and the National Oceanic and Atmospheric Administration (NOAA) have agreed on a 5 year supply contract for the delivery of next generation GPS dropsondes. The dropsondes will be used for hurricane reconnaissance, hurricane research and storm track forecasting by the US National Hurricane Center.

The dropsonde is a meteorological instrument released from an aircraft flying at altitudes anywhere from near the sea surface to its

maximum operating capability, which then descends through the hurricane by a special parachute and transmits meteorological data over a complete range of atmospheric conditions.

Vaisala dropsondes measure pressure, temperature and relative humidity as well as profiles of the wind fields derived from GPS signals. They are mainly used for targeted observations over the ocean, and provide data for severe storm trajectory and intensity prediction.



CR Report 2008 recognized by UN Global Compact

Vaisala's Corporate Responsibility Report 2008, the company's first ever, has received an honorary mention from the UN Global Compact Office. The report has been granted the status of Notable Communication on Progress (COP).

In his letter to Vaisala's CEO and President Kjell Forsén, Executive Director, Georg Kell from Global Compact applauds the way Vaisala has communicated its endorsement of the Global Compact, i.e. the ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption.

"We found your COP to be of outstanding quality and believe it can serve as an illustrative and inspirational example for other participants", Georg Kell states.

Vaisala is one of two Global Compact signatories in Finland that were acknowledged. This is the first time Finnish companies receive the tribute.

www.vaisala.com/corporate/corporateresponsibility



Humidity 101 - webinars on good measurement practice

As with any measurement, the first step towards good practice is to understand what is being measured. By understanding the theory, terms and definitions that quantify humidity, diagnosing humidity measurement issues becomes easier, and repeatable and reliable measurements are secured.

Vaisala organizes online humidity webinars that go through theory, terms and definitions of humidity and explains how pressure and temperature do or do not affect the various parameters. Anyone with interest in humidity and humidity measurement principles is welcome to attend.

Next sessions:

October 22

- Humidity Calibration (pt 1)

November 19

- Humidity Calibration (pt 2)

December 10

- Dewpoint in Compressed Air

Access to webinar archives is granted on request. For more information on the sessions and on how to register, go to www.vaisala.com/humidityseminars.html.

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