

*The Vaisala Weather Radar was installed in Sürgavere, Estonia in March 2008.*



**Marikka Nevamäki**  
Editor in chief  
Vaisala  
Helsinki, Finland

## Estonia chooses the Vaisala Weather Radar

The Estonian Meteorological and Hydrological Institute, EMHI, is taking the brand-new Vaisala Weather Radar into use. EMHI has purchased two dual polarization radars from Vaisala, the first of which was installed in Sürgavere in March, 2008. Jori Valli, Delivery Project Manager at Vaisala, was in charge of the installation project: "Our partners at EMHI were interested in getting the first installation done as soon as possible, so we devoted all our efforts to getting it

done. Even though the weather was quite challenging, the installation succeeded without problems."

Sürgavere is situated in central Estonia, some 200 kilometers from the capital Tallinn, and is a completely new radar site. A 27 m-high tower was constructed for the radar.

According to EMHI's plans, the second radar will be installed in 2009. The second location is Harku, close to Tallinn. The old single-polarization radar in Harku will

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be upgraded to the cutting-edge Vaisala radar technology.

### **Best radar on the market**

“We were not happy with the old Harku radar, or the quality of data it produced. After an open tender we chose the new Vaisala radar as we believe it’s the best on the market. The pricing is also competitive,” says Tarmo Kaldma, IT Manager and radar manager by experience at EMHI.

The Vaisala Weather Radar features many innovative qualities. Usually, weather radars send and receive microwaves at one polarization, typically horizontal. The Vaisala dual-polarization radar transmits and receives both horizontally and vertically polarized waves, and is able to classify hydrometeors (e.g. hail, graupel, rain, snow, etc.) with high precision. The antenna-pedestal design allows fast and accurate positioning of the antenna, and is lightweight compared to traditional weather radars - allowing significant reduction in infrastructure costs and easier mounting. The advanced

remote monitoring and control features lower the radar’s maintenance costs.

Mr. Kaldma will be traveling to one of Vaisala’s many offices in the USA in April, for a comprehensive training on the signal processing system and radar software. “I find it very important to understand the system well,” Mr. Kaldma says. Vaisala Weather Radar’s signal processing, data processing and display systems are provided by the world’s leading Vaisala Sigmet product line. Other user training is also available, according to customer needs.

### **Local support important**

EMHI’s partnership with Vaisala is based on long-term cooperation and trust. For years, EMHI has used Vaisala’s sounding systems and weather stations for its operations around the country. “Vaisala is able to offer local support to us. This is very important,” Mr. Kaldma says.

Vaisala is the first meteorological hardware provider that has a complete offering of services in its product portfolio.

EMHI will benefit from a comprehensive range of services, including maintenance, upgrades, spare parts, and more.

### **New software for meteorological data**

As part of the total solution, Vaisala also delivered cutting-edge software developed by the Finnish Meteorological Institute to EMHI. The software is a tool for the visualization and editing of meteorological data, enabling EMHI to combine data from different sources (measurement equipment and servers) and present it on the meteorologist’s workstation.

“The new radars and software tools are warmly welcomed by our meteorologists as they will help them do their jobs better. We expect the new radars to produce excellent data and images. We’re actually going to have an opening celebration for the new Sürgavere radar to mark the occasion,” Mr. Kaldma smiles. ■

### **Further information:**

[www.vaisala.com/weatherradar](http://www.vaisala.com/weatherradar)



*Tarmo Kaldma, IT Manager and radar manager by experience at the Estonian Meteorological and Hydrological Institute, supervising the Sürgavere installation.*