

Road Sensors - Road weather and ice information system (RWIS)



» *Austria - AMS Helfenberg - Federal State of Upper Austria*

Lufft UMB-technology in state-wide winter maintenance monitoring network. The Federal Government of Upper Austria operates a state-wide monitoring network of approximately 100 ice warning stations. Lufft UMB technology is used as part of an upgrading and expansion process. So far, more than 50 UMB systems including IRS, ARS, WS600 and R2S devices have been installed.

The open UMB protocol is transmitted to the control center over the state-owned trunked radio network. As data transmission takes place every 5 minutes, the IT department of the Federal State of Upper Austria sees the incoming measurement data almost in real time. In addition to consulting measurement data on a PC, winter maintenance officers can also dial in to the monitoring stations using a mobile phone.

The State of Salzburg also decided to use Lufft UMB technology to upgrade and expand the state-wide winter maintenance monitoring network. All sites were equipped with color cameras. The data are updated every 5 minutes and presented using our SmartView3 software.



» *Italy - Autostrade per l'Italia*

Measuring instruments made by Lufft are also used to protect the Brenner Pass - one of Europe's most important transport routes - from ice.



» **Austria - AMS Jungfernsprung - Federal State of Salzburg**

After comparing products from all manufacturers over a period of 2 years, the Federal State of Salzburg decided in favor of Lufft UMB technology to build a state-wide monitoring network. This currently comprises more than 40 stations. The highest measurement stations are located at an altitude of about 1,600 meters above sea level (Katschberg).

In addition to measurement data, the data acquisition system also transmits color photographs of the measurement locations, in some cases several images per second. The measurement data are stored in the "Cloud" and made available to all users by Lufft's Austrian system partner, R&R Kommunal.



» **RWIS - Czech Republic**

In the Czech Republic we installed with our general partner ChanGroup s.r.o. 73 ice warning systems. The systems usually consist of our ultrasonic wind sensor VENTUS-UMB, the radar rain-sensors R2S-UMB, color cameras as well as one active and one passive road sensor (ARS31-UMB and UMB-IRS31). At a few stations you can also find our "all-in-one" weather stations from the WS-family.

Biggest Product Benefits:

- » Measurement logs and sensor calibration for highest precision and reliability
- » Open communication protocol
- » Easy integration in UMB networks
- » Two part housing design allows the combined sensor/electronics unit to be removed at any time (IRS31 und ARS31)

Additional Links:

- » [IRS31-UMB Product description](#)
- » [ARS31-UMB Product description](#)
- » [All-in-One-Sensors](#)
- » Lufft Blog entries:
 - » [„Sensor technology of road ice information systems“](#)
 - » [„The intelligent road“](#)

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