

The Hydro-Meteorological Center of Russia trusts in Lufft weather sensors

Challenge

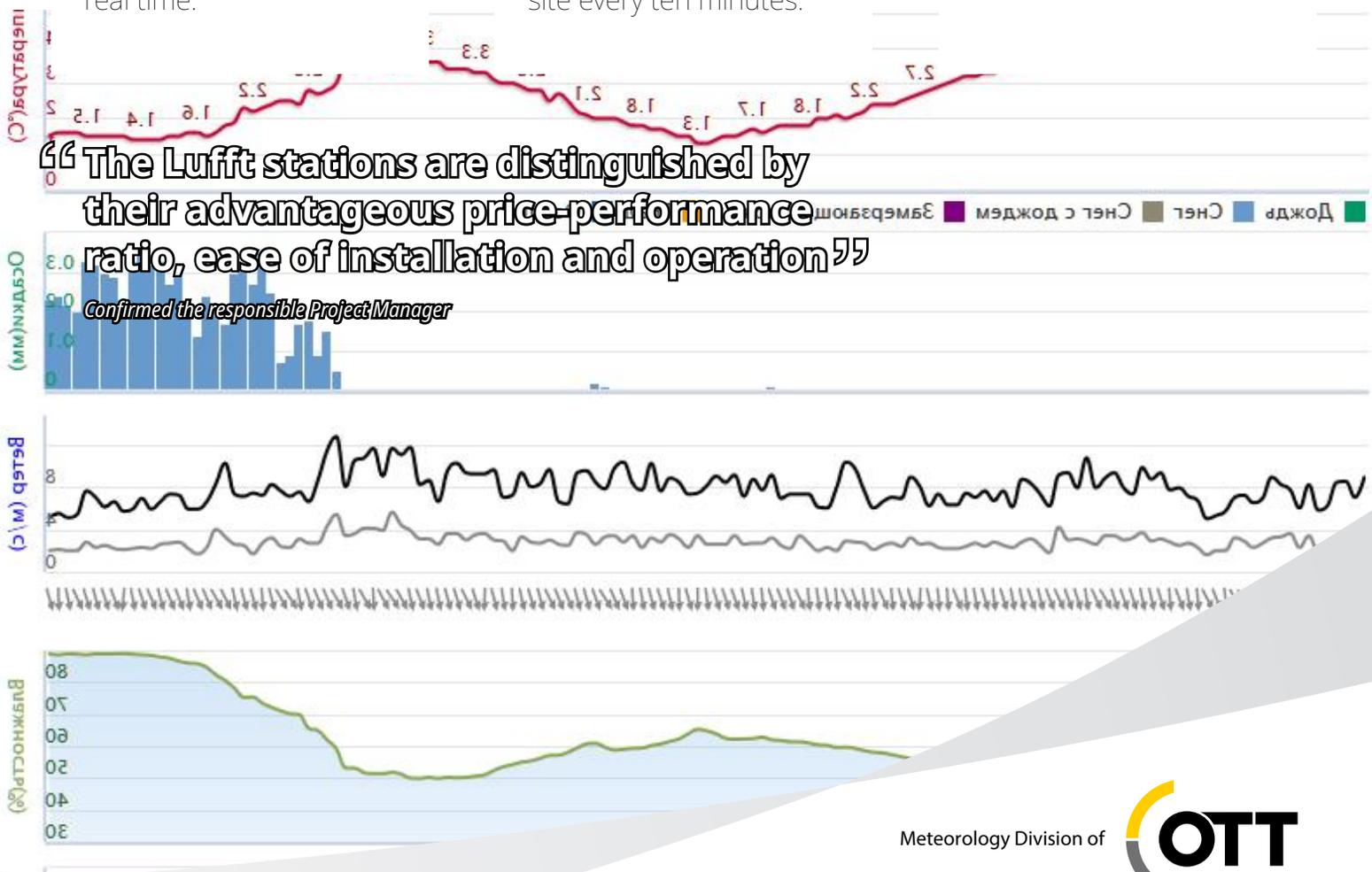
The Hydro-Meteorological Center of Russia in Moscow recently needed a new weather station for their forecasts and to provide inhabitants with reliable weather data in real time.

Solution

The compact weather sensors WS500 and WS100 from Lufft send information on temperature, precipitation, wind, relative humidity and air pressure to a public web-site every ten minutes.

Benefits

The Lufft sensors are user friendly, easy to integrate and run maintenance-free for many years. With their long life cycle, their price-performance ratio is outstanding.



Technologies used

 **Lufft**



LUFFT WS500

Smart Weather Sensor

Multi-parameter weather sensor measuring temperature, rel. humidity, air pressure, wind direction/speed.

 **Lufft**



LUFFT WS100

Radar Disdrometer

Maintenance-free & fast measurement of precipitation type (rain, snow, sleet, freezing rain, hail) and intensity

Case Study

The multiparameter weather sensors WS500 and WS100 from Lufft deliver important data for Moscow citizens. The data is made publicly available on the "Roshydromet" website

#: station observations

Region of Russia	Station (city)
MOSCOW AREA	MOSCOW
MANNHEIM, BERLIN, SCHÖNEFELD	
January, 27 18:0	
Atmospheric pressure, mm	748
Temperature, °C	-2.5
Relative humidity, %	61.4
Wind direction	E
Wind speed, m/s	1
Total cloudiness	10
Precipitation 12h, mm	0.1

Screenshot of latest weather data in Moscow on the website

Legend of the Graphs to the right

The red graph shows the temperature, the grey curve indicates the average wind speed, while the black one illustrates the maximum wind speed in gusts every 10 minutes. The wind direction (from where the wind blows) is indicated by arrows below. The diagram with the green line stands for the precipitation in mm every 10 minutes.

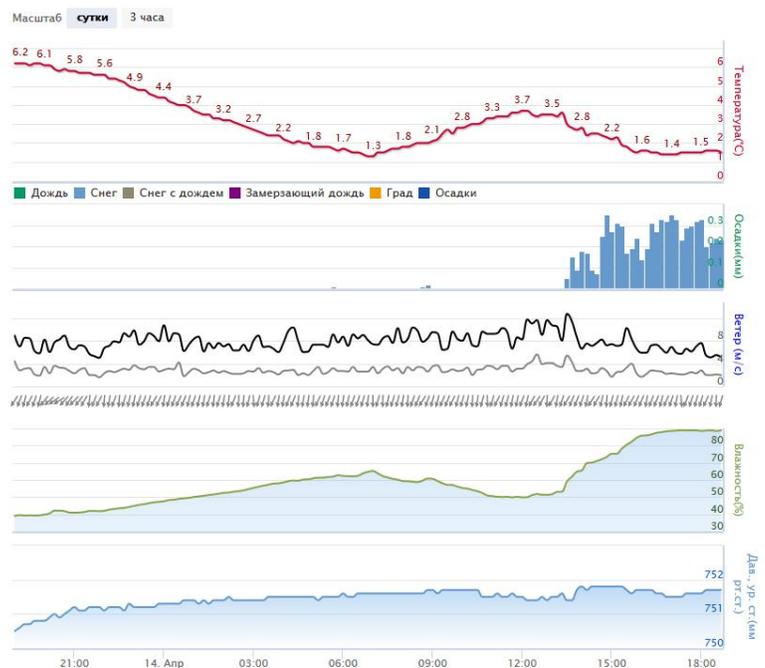
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The Hydro-Meteorological Center of Russia located in Moscow installed an automatic weather station equipped with Lufft sensors. The implementation phase took place in winter 2018/2019.

The compact weather sensors WS500 and WS100 included in the station deliver information on air temperature, precipitation type and quantity, wind direction and speed, rel. humidity

and air pressure every ten minutes. The data are publicly available on the Center's homepage. It provides Moscow residents with detailed information about the current and past weather and is quite popular.

"The Lufft stations are distinguished by their advantageous price-performance ratio, ease of installation and operation", confirmed the project manager.





World Meteorological Organization



Regional and bilateral cooperation with other National weather services



The North EurAsia Climate Centre (NEACC)



The Consortium for Small-scale Modeling (COSMO)

Hydrometcenter

Hydrometeorological Research Center of Russian Federation (Hydrometcenter of Russia)

There are 18 departments and laboratories and 11 other administrative and managing elements at the Hydrometcenter

Principal tasks of the Hydrometcenter of Russia:

- Investigation of the Atmosphere-Ocean-Land system for the purposes of hydrometeorological forecasting;
- Provision of the population, policy makers and national economy with operational hydrometeorological information, including warnings on adverse and disastrous weather phenomena.

Principal areas of research:

- Weather forming processes
- Modeling and monitoring of atmospheric circulation
- Modeling of the oceanic processes, investigation of the atmosphere-ocean interaction and hydrological processes on continents
- Development of hydrometeorological forecasting methods
- Development and putting into operation new information technologies

