

Compact X-band Dual Polarimetric Doppler Weather Radar

Usage examples



Support for water treatment



Public Utilities Board (Singapore National Water Agency)

PUB installed six weather radars across various parts of Singapore as part of a rainfall monitoring and nowcasting system.



X-band Weather Radar sites in Singapore

System Outline



Nowcasting Model
(with Machine Learning)

Providing 30-min rainfall forecasts which allows PUB to its Quick Response Teams to potential flood locations in a timelier manner



Photos by PUB (<https://www.pub.gov.sg/news/FeaturedStories/07022001>)

Holding Energia Risorse Ambiente (Italy)

HERA, an Italian multi-utility company, installed a weather radar system in the Rimini area. The radar improves weather data accuracy, replacing a previous radar with limited range. It provides precise weather data for monitoring and forecasting.



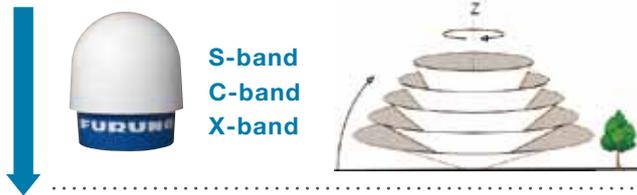
Aalborg University (Denmark)

Used for monitoring heavy rain, producing real-time nowcasts and providing alarms to city installations including wastewater treatment.



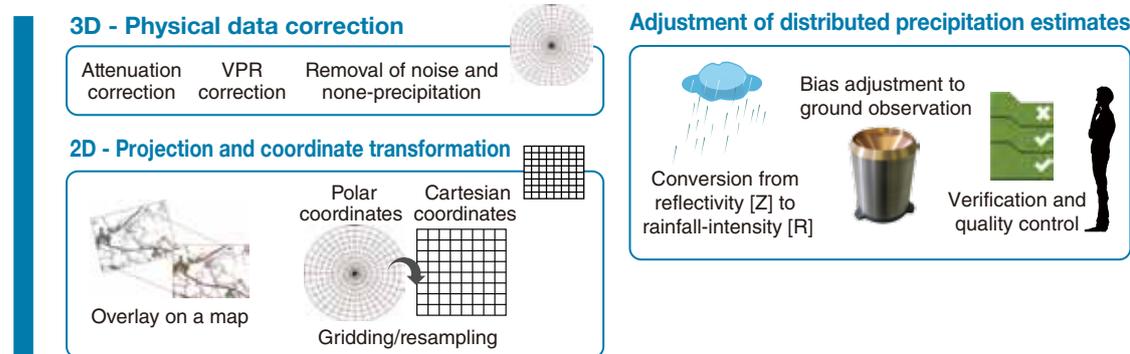
System Outline Data flow from weather radar observation to application

Weather radar



Data interface
ODIM H5

Data adjustment/quality control



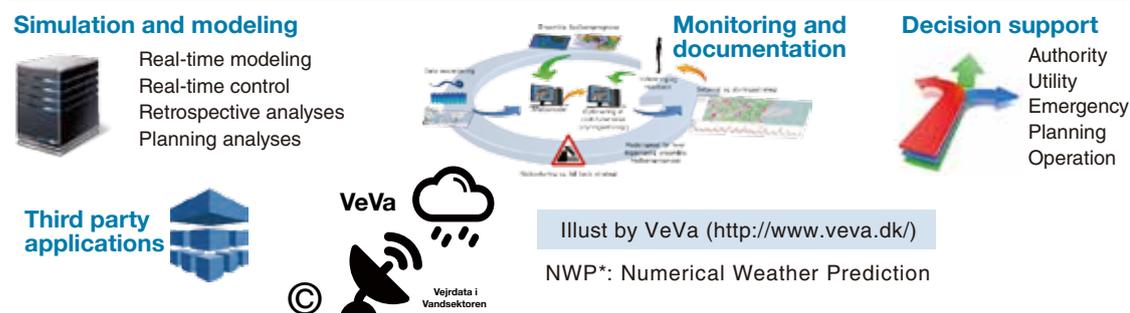
Data interface
VeVaDaM H5

Data processing



Various
Data interfaces

Application



Research and education

Western Illinois University (USA)

Western Illinois University has installed a Furuno Weather Radar on campus to provide more accurate regional weather information for the community. It is also an important tool for student curriculum, research and educational opportunities.



National Taiwan University

National Taiwan University utilizes the weather radar for their urban intense precipitation research and education for students.

Milešovka observatory, Czech Academy of Science (Czech Republic)

A Furuno WR2120 installed at observatory. Milešovka is the oldest mountain observatory in the Czech Republic.



Safety in airport

Wakkanai Airport (Japan)

The Furuno radar supports the improvement of operational efficiency in aircraft by accurately observing rainfall and snowfall around airports. And utilizing this data to make informed decisions regarding aircraft takeoff and landing.



Safety in offshore platform

Drill ship

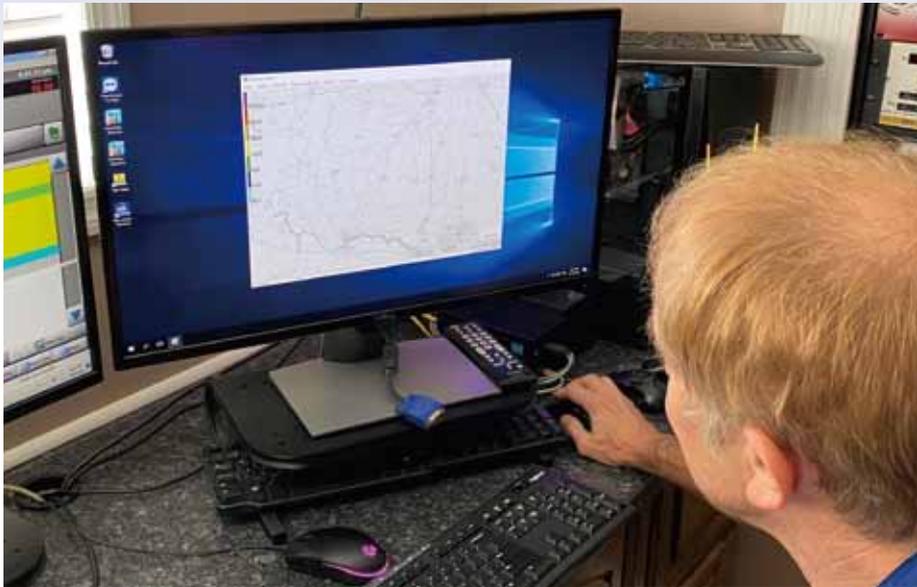
Furuno weather radars provide detailed weather condition observations that are critical for crew, shipboard and helicopter operations safety. The continuous, real-time weather information includes storm location, precipitation, visibility and Doppler velocity detail, maximizing operational drilling efficiency.



Broadcasting

WLX radio (USA)

Providing critical, gap filling data that the regional S-band radars cannot see, which has allowed them to send immediate tornado alerts to local NWS (National Weather Service) on multiple occasions.



Volcano observation

Popocatepetl volcano (Mexico)

Operated by Geophysics Institute of the National Autonomous University of Mexico. Developed to measure weather and hazards produced by the volcano.



Wildfire observation with a transportable platform

University of Queensland

The University of Queensland in Australia has developed a wildfire prediction model using the WR-2100 radar. Its small size is perfect for both transportation and safe relocation.



Small size allows the FURUNO WR-2100 weather radar to easily be mounted on a transportable platform creating a mobile observation unit that can be deployed in desired area.

System Configuration * Designed by the University of Queensland and supported by Furuno

Digital compass
(acquires North offset)

Signal Processing Unit
WR-2100-SPU

Towing vehicle

Power generator



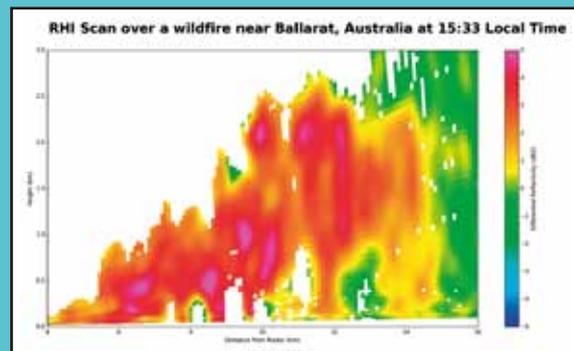
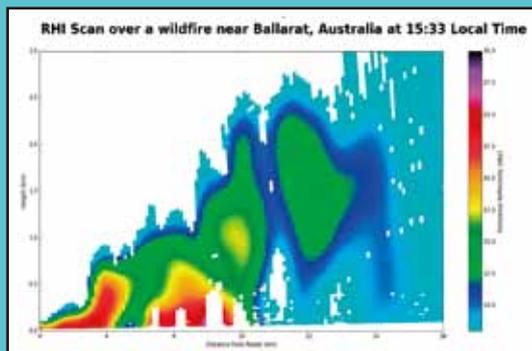
Antenna unit WR-2100-ATU

Scissor lift
(raised for observations)

Inclination is fixed at +/- 0.5 degrees
using the adjustable trailer legs.

Observation Result

The WR-2100 provides unique, detailed information of the fire plumes and wind speed/direction within the fire activity to the researchers.



Fields of application



Beware of similar products

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