

How Vaisala Care keeps NCM's weather radars operational through the UAE's climate of extremes

Case Study



The client:

National Center of Meteorology (NCM), United Arab Emirates (UAE)

Vaisala solution:

5 x Vaisala C-band weather radar WRM200

Multiyear Vaisala Service Contract

When severe weather strikes the United Arab Emirates (UAE), accurate radar data can save lives.

But even the most advanced weather radar in the world becomes useless if it fails during a storm. For the National Center of Meteorology (NCM) in the UAE, ensuring their weather radars work accurately, every single time severe weather threatened became just as important as choosing the right technology.

THE CHALLENGE:

Extreme weather in an extreme climate

NCM is the official meteorological center in the UAE, based in Abu Dhabi. The organization carries the responsibility of keeping people and businesses safe by providing weather forecasts across the Emirates. The UAE faces unique meteorological challenges, with most of the year bringing intense heat and dry conditions. But the climate can shift dramatically. Sudden, severe

storms can sometimes appear, bringing unusual rainfall that may result in flooding roads, homes and businesses.

For an organization responsible for public safety, NCM needed a complete weather radar network that would stay operational for decades.

Choosing quality and support

In 2014, NCM selected Vaisala weather radars after a thorough technical evaluation of radar manufacturers. But they also made another strategic decision: investing in comprehensive service contracts from day one.

Today, NCM operates multiple Vaisala weather radars across the UAE, backed by priority 24/7 technical support, planned annual on-site maintenance and calibration visits, express spare parts when needed, and extended warranty coverage.



“Once you buy something expensive and very valuable like a weather radar, we don’t want just to have it functional. You need to make sure that it’s working properly and giving accurate data. These service contracts play a major role in guaranteeing that.”

*Mohannad Al Khatib
Senior Designer of Scientific Systems, NCM*

Working directly with the manufacturer rather than third-party providers made sense for NCM. Vaisala engineers know the systems inside out because they design and build them. When something goes wrong, they can troubleshoot faster and more accurately.

THE APPROACH:

Peace of mind and immediate support

For NCM, the most important outcome of the lifecycle support is straightforward: peace of mind. Knowing that expert support is available whenever needed allows their team to focus on forecasting and public safety, while technical issues are fixed and troubleshot, even when they are at the manufacturer level.

That peace of mind proved its value during real incidents. NCM has teams with varying levels of experience. When complex technical problems occurred at two of their radar sites during a critical period, they got immediate expert assistance.

This speed matters because downtime has real consequences. During severe weather that causes flooding and threatens public safety, NCM cannot afford to have radars offline. People depend on accurate, real-time weather information to make decisions about travel, safety, and emergency response. Without rapid support at major technical issues, troubleshooting processes may extend downtime exactly when communities need radar data most.

THE RESULT:

Annual maintenance visits

NCM has worked with Vaisala since 2015. Over those eleven years, the relationship has consistently delivered reliable equipment performance and responsive support through all kinds of weather events and operational conditions.

Choosing quality and support

The commitment has delivered on its core promise: keeping weather radars operational and producing accurate data year after year. That consistency allows NCM to focus on their mission – protecting people and property—confident that their radar infrastructure will perform when severe weather strikes.

Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala provides trusted weather observations for a sustainable future. With over 90 years of innovation and expertise plus customers in 170+ countries from the North and South Poles to Mars, we help provide the most reliable and accurate weather and climate information for better and safer daily lives.

Our instruments and intelligence are known as the gold standard for precision and reliability. As a sustainability leader we enable meteorology professionals to better understand, forecast and explain climate change. We continue to channel our curiosity into climate action and new ways of enabling a better planet for all.

