The devil is in the weather detail

For applied weather professionals it is disappointing and often frightening to learn that the meteorological information our port and harbour decision makers rely on is invariably compromised, warns Vaisala's Paul Hutchinson

aisala is an internationally respected supplier of professional meteorological and environmental measurement sensors and systems. The work we do probably touches most of the world's population. We are currently working as expert advisers on the EU Commission's MOWE-IT project. The outcome of which will be published information to assist in managing and reducing the effect of extreme weather and other events on Europe's transport systems.

In the case of extreme events, like the Icelandic volcanic dust cloud that brought Europe's airspace to a standstill, one part of the Commission's research is geared towards understanding a multi-modal transport paradigm. For example, when freight and passenger transport is compromised in one mode, can our business continue by efficiently switching to an alternative mode?

Vaisala leads the world with its road and rail weather systems. Container freight terminals, conveniently located with road and rail links that operate such systems, have the potential to improve the onward transport logistics for their customers referencing detailed forecast information for up to five days ahead.

Local level

The other part of the work aims at reducing the impact of weather at a more local level. In the maritime environment we need to reduce the number of accidents that occur in the port and near-shore environment. We also want to improve operational logistics that are frustrated by the weather – enabling the responsible decision makers to act earlier and with greater confidence.

In the high speed, high demand, world we live in, our operational people are put under extreme pressure to make decisions. The captain of a vessel wants to bring his cargo into safe harbour; he will be looking at his own shipboard instruments for wind speed and direction. On shore, the harbour master will also want that vessel to come safely to berth; he will be looking at data from his own instrumentation. Both may be referring to forecast information, the sources for which may be different. This potential mismatch of information can lead to conflict and questionable decisions being made, particularly when conditions are close to the line.

At Vaisala, we understand that the devil is in the weather detail. All too often when visiting ports in a consultative capacity we find existing wind instrumentation has been poorly located. When we ask about site-specific weather forecasts we may hear (rather worryingly) the forecasts used are whatever is free on the internet, or that by site-specific information what is delivered is based on a

Reliable weather observations for solid decisions

Vaisala can provide you with reliable weather observations measured by our unique technology, continuously developed by our professional team of scientists and engineers. Our systems are flexible, they adjust to your needs and they are field-proven in thousands of installations from pole to pole and in outer space. Compliancy with numerous standards and approved certifications are our proof of quality.

Our offering consists of weather measurement tools such as weather, helideck, environmental, and wave and current monitoring systems. We also offer lightning warning systems and weather radars, data management and services from spare parts to all in one packages, with life cycle support.

postcode. The latter can cover 10km; at best they are a general local forecast. It is unlikely they reflect the maritime micro-climate.

In such cases, harbour masters, or their equivalent, although hugely experienced in meteorology, are effectively compromised. Their advice and the decisions they have to make are based more on their experience rather than being backed-up by reliable, quality data. Sadly accidents do happen, far too regularly, to even the most experienced.

The feedback we get from these professionals is that reliable wind data and short-term site-specific wind forecasts would be invaluable to improve the safe running of their harbours.

Next on their list is better visibility data and visibility forecasting. How long until the mist clears and operations can get back to normal?

At Vaisala we are striving to work directly with ports and other interested parties to deliver the reliable, quality data and associated forecast information required to provide safer decision making and improve logistical management.

We are helping the EU Commission and are here to help you too.

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