Transport services

The Met Office has provided weather services to the transport industry in the UK and Europe for over twenty years. During that time, our delivery teams have developed expertise in providing tailored forecasts and weather and climate information that is relevant and critically important to transport users.

We understand from our work with customers over many years, the significant impact weather can have on the transport sector. For example, flooding poses a high risk of disruption to transport but is often relatively isolated and caused by run-off from adjacent land or drainage problems at junctions. Extreme weather, such as high winds, intense rainfall events, snowfall and ice, can disrupt traffic flows and lead to incidents, which then cause further disruption.

With this in mind we’d like to introduce you to our portfolio of products and services, and our weather expertise. We have summarised the range of services that we provide to transport and independent gritting operators in the UK.
WEATHER IMPACT ON UK

Nearly all businesses use premises and transport systems, both of which are vulnerable to weather-related events like floods, storms and subsidence to varying degrees of severity and intensity.

There has been a steady rise in the costs of business insurance claims for weather damage. In 2013, 54% of businesses reported disruption as a result of extreme weather, up from 29% in 2008 (Chartered Management Institute Business Continuity Management Survey, 2013).

During the winter of 2012/13 we experienced extreme weather but of course this was not the first time we have had challenging conditions. Various parts of the country also had extensive flooding in 2000, 2007 and again in the winter of 2012/13. The winters of 2008/09, 2009/10 and early parts of 2010/11 saw significant snow and freezing conditions, causing widespread transport disruption, and the summer of 2003 was particularly hot, causing disruption on the railways and some roads on a number of days.

The consensus view among the scientific community, as provided by the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, is that we will see an increasing incidence of extreme weather in the future because of climate change.

It is therefore important that we plan for this and ensure that our transport networks are as well prepared as they can be to minimise the impact of extreme weather events.

With the recent impacts of adverse weather in mind, it is increasingly important that network managers and site operators have timely and accurate forecast information to act upon.

Our range of services and products means that we are well-placed to equip you with the information you need, whatever the weather and wherever you are, 24 hours a day, 365 days a year.

MET OFFICE PORTFOLIO

OpenRoad

Challenge – Minimising the effects of the weather and its hazards on your road network.

Solution – OpenRoad offers a package of selectable online road weather forecast and alerting products, which:

- offer 24/7 forecast coverage including longer outlooks;
- update forecast information as conditions change; and
- provide flexibility, relevance and accuracy with forecasts and likely impact available by route (RBF), area or weather domain.

Benefit – Relevant forecast information aids your network decision-makers in making important treatment and operational management choices.

Route Based Forecasting (RBF)

Challenge – Reducing operational expenditure and minimising environmental damage.

Solution – RBF provides weather forecasts for specific routes enabling you to treat individual routes or vary treatments along a particular route.

- Liaise with us to combine your knowledge of local anomalies and characteristics with our weather science expertise.
- We will set up route networks.

Benefit – You will have the right information on which to base gritting decisions.

Route Optimisation

Challenge – Reducing operational expenditure by minimising ‘free running’ time.

Solution – RBF customers can benefit from further efficiencies by using our scientific expertise to conduct a route optimisation analysis.

- Work closely with our science consultants to identify constraints on operations and network management procedures that may influence your route allocation.
- Gritting routes are re-grouped according to climatology.
- Routes are re-organised to minimise ‘free running’ time.

Benefit – Improved gritting routes provide efficiencies in operating your network.
OpenRoad Urban and OpenRoad London

Challenge – The need for greater flexibility in targeting resources to key road and pedestrian areas where snow and ice cause problems.

Solution – Specifically designed for urban areas, these products aid decision making by:
- providing weather and likely impact information; and
- taking into account urban heat island effects.

Benefit – More accurate forecast information helps inform decision making about gritting and road, car park, pavement and cycle path clearance.

OpenBridge

Challenge – Understanding the impact of the weather on bridge conditions.

Solution – OpenBridge provides site-specific forecasts which take into account the:
- wind at deck height; and
- thermal properties of the deck surface and construction material which will affect the temperature.

Benefit – Aids operational decision making to help keep the travelling public and people working on the bridge safe. OpenBridge can also be included with OpenRoad services.

OpenSite

Challenge – Being alerted to the likely impacts of the weather on car parks, access roads and footpaths.

Solution – OpenSite provides site-specific forecasts including:
- road surface temperatures (RST), road states, total rainfall and snow;
- hazard colour indicators to provide instant assessment of when and where action is required; and
- our Quality Mark scheme which enables you to differentiate yourself within the marketplace.

Benefit – Decision makers have a flexible tool to help make site-specific winter treatment choices.

Variability of conditions on the two Severn Bridges

ADDITIONAL SERVICES

Our transport customers are able to access additional services to support them in their day-to-day tasks.

Scientific consultancy

Our science expertise can not only benefit your organisation with products and services, but also by providing science consultancy to aid your long-term operational planning. With access to historical weather data and long-term climate information, our science consultants can work with you to consider implications for your network and business in the years to come.

Forecaster telephone consultancy

Your hotline to a forecaster available 24 hours a day, 7 days a week. Very useful when you need to clarify the weather situation or to gain meteorological consultancy advice to help inform decisions, or provide explanations on a localised weather event that is developing. You can opt for this support at the beginning of the season, so that our meteorologists build up knowledge of your area and the localised weather phenomena that can occur to provide added value to any advice given.

Met Office training

A full range of training courses for road industry professionals is available from the Met Office College. Our Weather Basics online course is perfect for new starters who wish to gain a sound understanding of the weather and its impact on transport or businesses, while our Weather Essentials and Weather Refresher classroom-based courses advance knowledge and practical application for key decision-makers in your network area. Courses are held at the Met Office College at our Exeter headquarters, or at a location of your choice.

The Met Office is also an Institute of Highways Engineers (IHE) accredited training provider, so we are well placed to provide customers with an extensive range of road and weather specific training all year round.
KEY BENEFITS
Our transport services can enable you to:
- Reduce operational expenditure with more cost-effective use of grit and salt supplies.
- Minimise the effect of adverse weather on road networks, bridges or sites with site-specific and route-based forecasts.
- Reduce exposure to risk and increase confidence in decision making with accurate and reliable weather information.
- Make informed decisions in marginal conditions with access to expert meteorological telephone consultancy.
- Benefit from tailored and trusted training from the Met Office College to help build your team’s knowledge and expertise.
- Make your company more attractive by qualifying for our Quality Mark.

Continuous improvement
The Met Office continually invests in its science and forecasting capability to improve accuracy and relevance to the transport industry. This activity ranges from new product development, field trials of new forecast models, and verification of our existing forecast information.

Our investment in our services, and the science behind these products, ensures that the forecast data and our products evolve to meet the challenges of our changing weather and climate. Our products and services can equip you to make confident decisions, keeping businesses and highways networks open and safer for all.

Our transport team is always happy to discuss all aspects of our services with you. For more information on our road and site-specific services please call 0370 900 0100 or email openroad@metoffice.gov.uk

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