Miningzone

DTN

Don't get caught in the storm

Mitigate weather and lightning strike risks at your mining operations

Mastering weather risk is increasingly important to optimizing site operations and reducing asset damage and injuries to personnel.

Miningzone from DTN® is the only weather and alerting solution purpose-built for the mining industry.

Deployed across 400 mines worldwide, Miningzone delivers weather and environmental forecasts and severe weather alerts in real time.

Lightning and severe weather alerts

Does your lightning sensor cause unnecessary shutdowns?
Automated alerts for lightning strikes within proximity thresholds allow your site's operations personnel to take decisive action when required, ensuring safety and maximum operational time.

Opticast® operational forecasts

The exact data you need, when you need it.
Opticast's optimized nowcasting and 14-day outlook enable you to confidently manage critical activities — whatever the weather — with high-precision forecasting across 30+ customizable parameters.

Blast dispersion modeling

Plan with confidence and meet environmental standards.
Our Environmental Protection Agency (EPA)-approved dispersion modeling gives a clear picture of blast outcomes, including expected trajectory and pollutant concentrations. Integrated into our full suite of services, it provides comprehensive data to plan for and commit to pre-blast and blast events.

Empower your decisions

Storm Tracker® for operational control

Embedded within the Miningzone platform, Storm Tracker is our Geographic Information System (GIS) interface, providing spatial visualization of weather and environmental risks.

The WeatherGuard app

WeatherGuard ensures immediate delivery of site-wide communications for lightning, thunderstorms, fire, and flooding — plus severe weather warnings.

Weather stations and real-time observations

Ensure forecast accuracy with on-site, expertly-calibrated meteorological observations and access to historical data to inform and fine-tune your daily operations.

Meteorological modeling and consultancy services

Receive an assessment of your weather monitoring and forecasting requirements, allowing DTN to provide tailored, post-event reporting and advice on climate risks.

Miningzone solutions

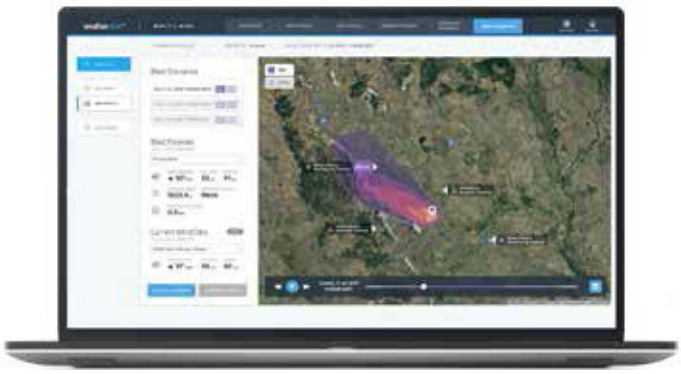
Specifically tailored to the resources sector, precise weather data is delivered via multiple platforms — including our easy-to-use WeatherGuard app — and can be fully-integrated into your operational control or SCADA systems.

You will have our EPA-approved blast dispersion modeling, thunderstorm tracking, hyperlocal forecasts, and alerts at your fingertips, along with advanced reporting systems to automatically generate comprehensive reports with a full auditable history.

Opticast's rapid-update forecasting delivers high-precision weather insights in real time and seven to 14 days out, supporting your operation's preparation, safety, and efficiency. The enhanced accuracy of Opticast allows your teams to identify appropriate weather windows for critical project or shutdown campaigns, ensuring your key work schedules are not impacted by severe weather events.

DTN Blast Dispersion Modeling gives you a scientific, visual understanding of blast events, including their expected trajectory and pollutant concentrations. This allows you to make informed decisions on when to blast. By running simulations with a risk outlook of up to two weeks, you can foresee weather conditions to determine the optimal blast window that minimizes impacts on the local community.

Intuitively designed, our fully-integrated suite of services and powerful, user-friendly systems provide the specific information you need to gain the entire environmental picture and mitigate operational risk.



Utilizing Miningzone solutions for your enterprise provides on-site and remote operations teams with expert weather insights to inform the right decisions.

Lightning and severe weather alerts set industry safety benchmarks.

Typically located in exposed areas, mine sites are increasingly prone to thunderstorms, lightning, and severe weather.

Without adequate warning, these events present significant risks to operations, including staff injuries, equipment damage, and supply chain impacts.

Our Weather and Lightning Alert System (WLAS) can assist in mitigating thunderstorm risks — safeguarding site staff from potentially fatal injuries and assets from costly damage.

Combining unparalleled lightning detection accuracy (<200m) with on-site risk thresholds (red 16 km, yellow 30 km, blue 50 km), our WLAS and Storm Tracker systems are configured to your sites according to the trigger action response plans in place. These systems automatically issue alerts based on real-time strikes detected within defined thresholds, equipping operation managers with precise information to make confident weather risk decisions and inform staff of procedural actions.

Monitored remotely and drawing on data from the world's most accurate detection sensor networks, WLAS is deployable worldwide with no hardware installation requirements. Alerts are communicated across all platforms — our Miningzone API, SMS, email, and dedicated WeatherGuard mobile app — ensuring all site personnel are aware of severe weather and lightning in real time.

Additionally, our WZBob — a scalable traffic light alerting expansion system — provides an on-site solution. When optimally integrated with WLAS or your existing detection system, clear visual and audio alerts are delivered across your site, providing an externally managed and precise lightning alerting service to any mine globally.

Optimize your decision-making with precise, real-time data, and mitigate serious risks and costs.

Case study

A major Australian gold mine trialled and upgraded to the extensive DTN resources.

The gold mine used a single-point lightning sensor, but following an incident that severely impacted operations, they questioned its reliability and accuracy. The business trialled WLAS in tandem with their existing sensor to compare the response.

As thunderstorms moved through the area, their original single-point sensor triggered several red alerts, throwing the mine into a two-hour shutdown. By contrast, WLAS accurately detected the lightning strike range, showing that the lightning was more than 30 km away and not within the red alert zone.

Post-event analysis proved that the single-point sensor had been too sensitive, costing the operation time and profits. The WLAS alerts were accurate; had the site been actively incorporating the alerting solution for their operations that day, the two-hour shutdown would have been avoided.

With the upgrade to WLAS, the company can now enjoy the cost-saving and safety-enhancing benefits of accurate lightning detection.

Plan your operations with greater confidence knowing severe weather is manageable.

Explore our solutions and request a consultation today.

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