

# RunwayMaster

Maximize runway availability and safety during winter weather by making informed treatment decisions

The number one priority for airports is aircraft safety. Aircrafts are not allowed to land when runway friction is too low, a problem that occurs more frequently when the temperature drops. It's not easy to make the right decision at the right time to mitigate the effects of winter weather on runways, taxiways, aprons and airport roads. It requires careful planning. DTN developed RunwayMaster to address these challenges.

## Benefits

RunwayMaster helps Airport Operations and Field Maintenance Managers to maximize runway availability while securing aircraft safety. It does this by providing winter weather observations, runway surface temperature and condition forecasts and historic data to support informed de-icing decisions. With RunwayMaster you can:

- **Secure Runway safety:** Use hyper-local data highlighting the lowest runway surface temperatures, black ice, (heavy) hoar frost, snow, sleet and freezing rain to make informed de-icing decisions and avoid unnecessary treatments.
- **Minimize flight delays and cancellations:** Get expert advice from meteorologists who have winter maintenance-specific experience, including knowledge about the emergence of different types of icy conditions.
- **Improve gritting operations:** Access runway-specific weather models developed with the benefit of 20+ years of forecasting experience. These models show location-specific runway temperatures and condition forecasts in hourly time steps for the next 36 hours, and 3-hourly time steps for the next 5 days. Use these forecasts to plan de-icing actions and required equipment, and to estimate long-term personnel needs and chemical material stock.

## Users and key use cases

RunwayMaster supports Airport Operations Managers responsible for making de-icing decisions.

- **Decide on de-icing:** Understand when de-icing action is needed, the type and amount of chemical to use, and the personnel and equipment required.
- **Validate decisions:** Use historical data like archived RWIS measurements, past action logs and runway weather forecasts.
- **Plan resources:** Use runway weather forecasts to plan in advance for personnel, chemicals and maintenance of equipment.

## Customers

Airports such as Schiphol, London Heathrow and Stuttgart put their trust in us. Contact us to learn more about how we help these organizations secure aircraft safety by making informed gritting decisions for hundreds of runways.

## Features

RunwayMaster is a web portal that highlights runway hazards. Its dashboard features an overview of observations, forecasts and hazard warnings. It provides the following functionality:

**Runway hazard overview** - Keep informed about hazard warnings for the lowest runway surface temperatures, black ice, (heavy) hoar frost, snow, sleet and freezing rain.

**Location details** - Drill down on locations for RWIS measurements and detailed runway weather forecasts.

**Precipitation-type radar** - Improve short term decisions based on real-time and forecasted precipitation radar information, distinguishing between rain, hail, snow and freezing rain.

**Runway weather forecast emails** - Receive daily email forecasts for your airport.

**Action log** - Record and report decisions about de-icing actions.

**WHO observations, METAR and TAFS** - Have access to the official, airport-specific weather observation reports and forecasts.

**Archive** - Have access to past RWIS observations, runway weather forecasts and your action log decision information.

### RunwayMaster also provides personalized expert advice:

**Hazard Alerts** - Receive alerts from our forecasters about upcoming snow and freezing rain hazards.

**Forecaster consultation** - Get advice from weather experts with extensive winter maintenance-specific experience.

## RunwayMaster unique capabilities

RunwayMaster builds on decades of experience in weather forecasting and runway winter maintenance. With RunwayMaster, users get access to the following unique capabilities:

- **Runway-specific weather models** - The DTN runway-specific weather models draw on 20+ years of road-forecasting experience.

- **24/7 quality control** - Forecasts are monitored and improved by meteorologists 24/7 to ensure accuracy and quality.

- **Expert advice** - When in doubt, obtain personal advice from meteorologists with extensive runway-specific experience.