

# **Advanced Hail Detection and Analysis**

**DTN Hail Swath** uses proprietary algorithms to identify and analyze storms for the presence and size of hail in real-time. Delivering datarich map layers that depict the area extent of the hail and hailstone sizes.

### What is "Hail Swath"?

Hail swath is a meteorological term that describes the path and area affected by hail within a storm.

### Key features

Designed for weather-sensitive industries and emergency response decision-makers.

- Estimates hail from 0.75" to 4" in diameter
- Generates high-precision polygon contours in  $\ensuremath{\mathcal{V}}\xspace''$  increments
- Data updates every 5 minutes for near-realtime monitoring
- Integrates seamlessly with ESRI platforms and similar tools including ArcGIS Online, ArcGIS Pro, and portal for ArcGIS



## Use cases

#### **Emergency Management:**

- Rapid response to severe weather events
- Public safety communications and warnings

#### **Claims Management:**

- Streamline claims processes
- Enhance catastrophe response strategies
- Improve underwriting accuracy

#### **Restoration / Roofing:**

- · Identify potential damage areas quickly
- Optimize resource allocation for repair teams
- Provide accurate estimates

#### Agriculture:

- Assess potential crop damage
- Guide decision-making for protective measures

#### Agriculture:

- Contribute to the scientific understanding of hail formation and distribution
- Support climate studies related to severe weather patterns

# Radar versus on-the-ground\*

**DTN Hail Swath** offers a wide-area solution for hail detection and analysis. While ground-based sensors provide valuable pointspecific data, DTN Hail Swath excels in delivering comprehensive, real-time

DTN°

This image depicts the area extent and maximum expected hail size (in 1/4" increments) of a damaging hailstorm that struck Norman, Oklahoma, resulting in widespread property damage on the evening of April 28, 2021; the analysis covers the 24-hour period ending at 0600Z on April 29, 2021.

#### DTN Hail Swath approach

hail information across expansive regions.

Primarily uses radar data

Peer-reviewed scientific research

Comprehensive coverage areas

#### **Ground-based sensors**

Measures hail only at specific points

Higher variability, localized conditions

Precise data only at sensor/observer locations

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