Data That Drives Hazard Mitigation Planning

State, tribal and local governments across the U.S. are tasked by FEMA with "breaking the cycle of disaster damage, reconstruction and repeated damage" through effective mitigation planning.

To break this cycle, emergency planners need access to accurate exposure information and hazard-specific coverage data that reveals the direct impact of key hazards on their communities.

Identify, Prioritize, Respond, Mitigate

RMS combines models, technology, and science to help officials better understand and manage both hazards and impacts, strengthen long-term resilience strategies and provide greater protection to the public they serve.

Our data supports the critical areas of Hazard Identification, Risk Assessment, Prioritization, Response and Mitigation Planning. Data sets span nine separate perils, including detailed, current information on more than 100 million U.S. residential and commercial properties, with data available by State, Region, County, or ZIP Code level.

Multi-Peril Data

RMS models span multiple perils

Multi-hazard Human Impact and Economic Risk Data

- **What is the overall size of the disaster in terms of damage and human displacement?**
- **Which hazards drive risk for my region?**
- **Which locations are at the highest exposure?**
- **Which hazardous regions have high social vulnerability scores?**

Compare detailed information for multiple hazards across multiple time periods (1-in-100, 1-in-250 and 1-in-500-year events) down to the ZIP Code level to gain a more precise understanding of both the financial and human impact across the entire region for which you are responsible.

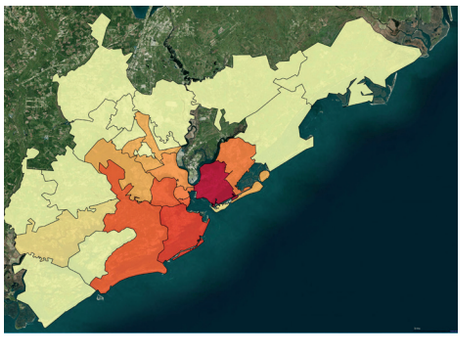

Figure 1: 1-in-100-year windstorm risk in Charleston

Critical Infrastructure Risk Scores

- **How does the risk vary across our critical assets?**
- **Which hospitals are at highest risk and are emergency shelters safe?**
- **What assets do I need to prioritize for mitigation and resilience?**

Critical infrastructure hazard impact awareness and scoring help you identify potential weaknesses and stress-points during an event across 20 different asset types, including hospitals, schools and power plants, and support improved grant prioritization.

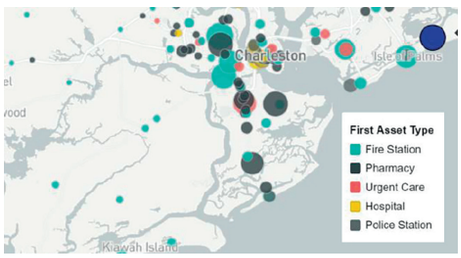

Figure 2: Critical infrastructure hazard impact awareness and scoring

Working with RMS data

- Data can be integrated directly into HIRAs/THIRAs
- Analysis of hazards across multiple time periods
- Understand socio-economic impacts across geographies
- Data consumable by any GIS or analytics software platform
- Over 18 million simulated events across multiple hazards
- Exposure data updated annually
- Over 60 trillion location data points
- US flood event data built on 50,000 simulation years
- 'Out-of-the-box' data integrates into existing workflows

Response Exercise Scenarios

- Stress-test response capabilities based on multiple historical and hypothetical scenarios
- Apply detailed data on buildings damaged, critical infrastructure lost, and other key metrics
- Identify which geographies/assets will be impacted by each scenario

Testing emergency response capabilities using detailed impact, downtime, and damage estimates for multiple disaster scenarios, allows you to accurately identify 'worst-cases' for your community and enables more effective response and mitigation planning.

Severity	Type of Event	Buildings damaged	People Displaced After 30 Day(s)	1 in X Year Event
4.0	Simulated	114.30K	262.72K	250

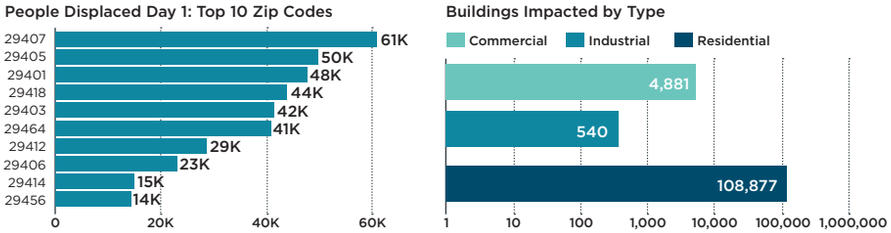

Figure 3: Hurricane response scenario planning data - simulated event

Critical Asset Downtime Data

- Understand the degree of impact from an event on critical infrastructure
- Rapidly analyze and visualize critical infrastructure risk in GIS or analytical software

By using detailed scenario data, you can assess in granular detail the degree of impact to critical infrastructure and potential capacity reduction challenges to ensure more targeted resource allocation and planning activities.

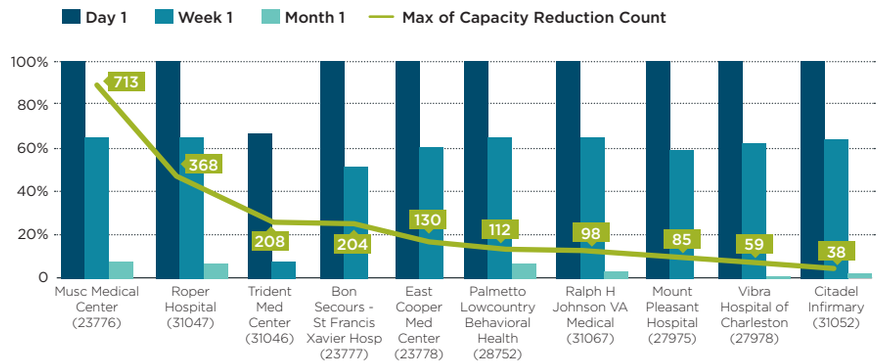

Figure 5: Hospitals - hurricane % capacity reduction for a 250-year event

To learn more about how RMS can support your work to build more resilient communities, contact:

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About RMS
RMS is the world's leading catastrophe risk modeling company. Insurers, reinsurers, trading companies, and public sector and financial organizations trust RMS solutions to help them better understand and manage the risks of natural and human-made catastrophes.