

Managing Risk in a Climate of Change

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FM Global

FM Global: A Unique Company



Commercial and Industrial Property Insurance - A Specialty Company

“Majority of Loss is Preventable” -
Through Research/Engineering

Mutual Ownership



Natural Hazards Lab

- 70,000 ft²
- EQ Lab



FM Global Research - 2012

Multimedia Center

Hydraulics Lab 2012 Expansion

Fire Technology Lab

Electrical Lab

Water Treatment

Test Staging Building

Large Burn Lab

- 2 Movable Ceilings
- Humidity Control

Materials Lab

Explosion Test Site

14 Small Scale Laboratories

- Material Science, Forensic Analysis

10 teraflop Scientific Computing



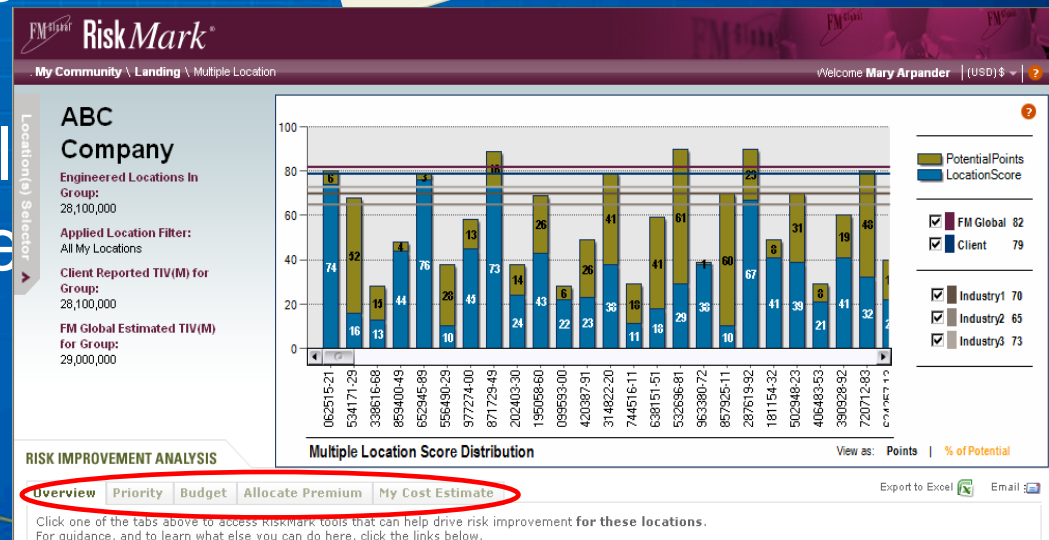
FM Global - Numbers

5,000 employees

1,800 engineers

39 offices worldwide

> 100,000 client facilities
risk assessments/year



Climate of Change



Global Climate Change

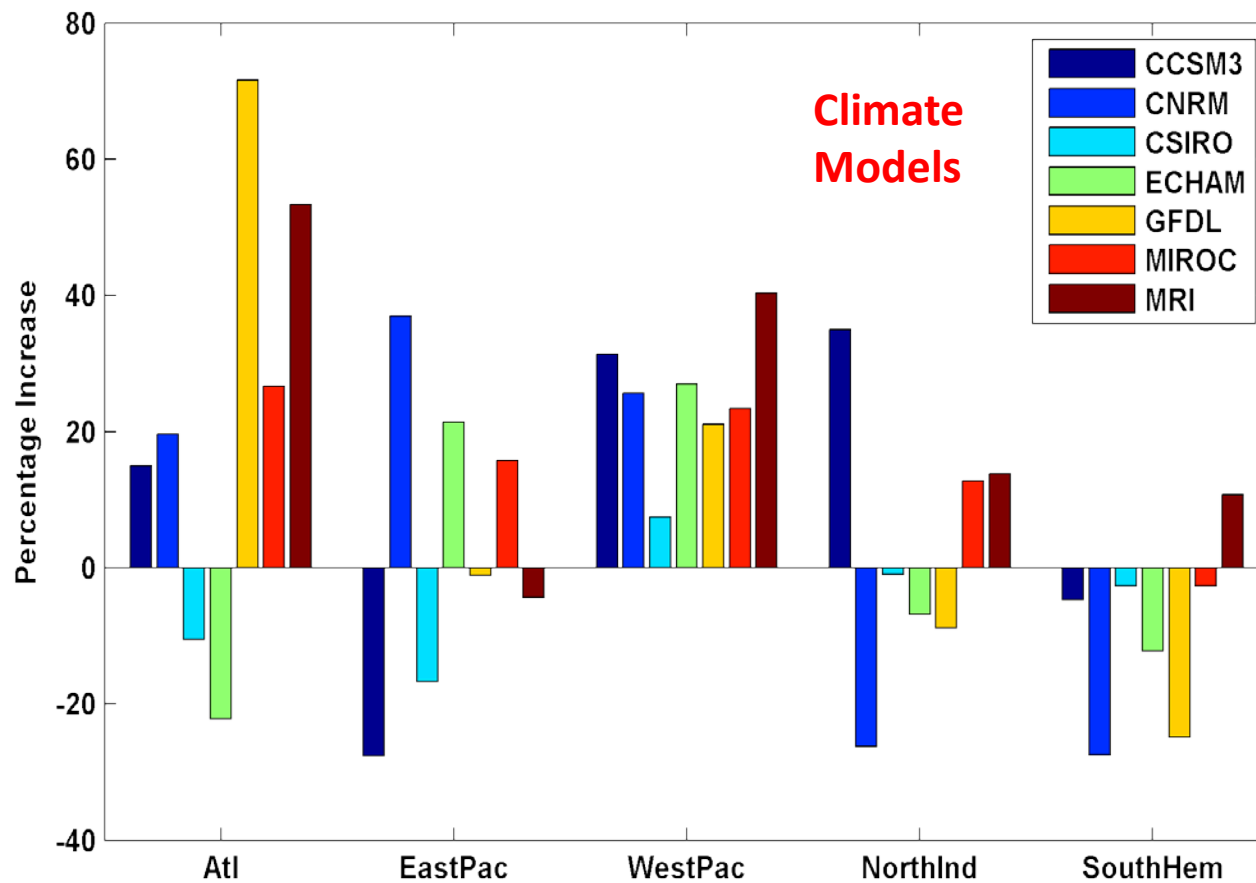


Economic Instability



**Increasing Vulnerability
to Natural Disasters**

The Models



Global Climate Change

Rhode Island



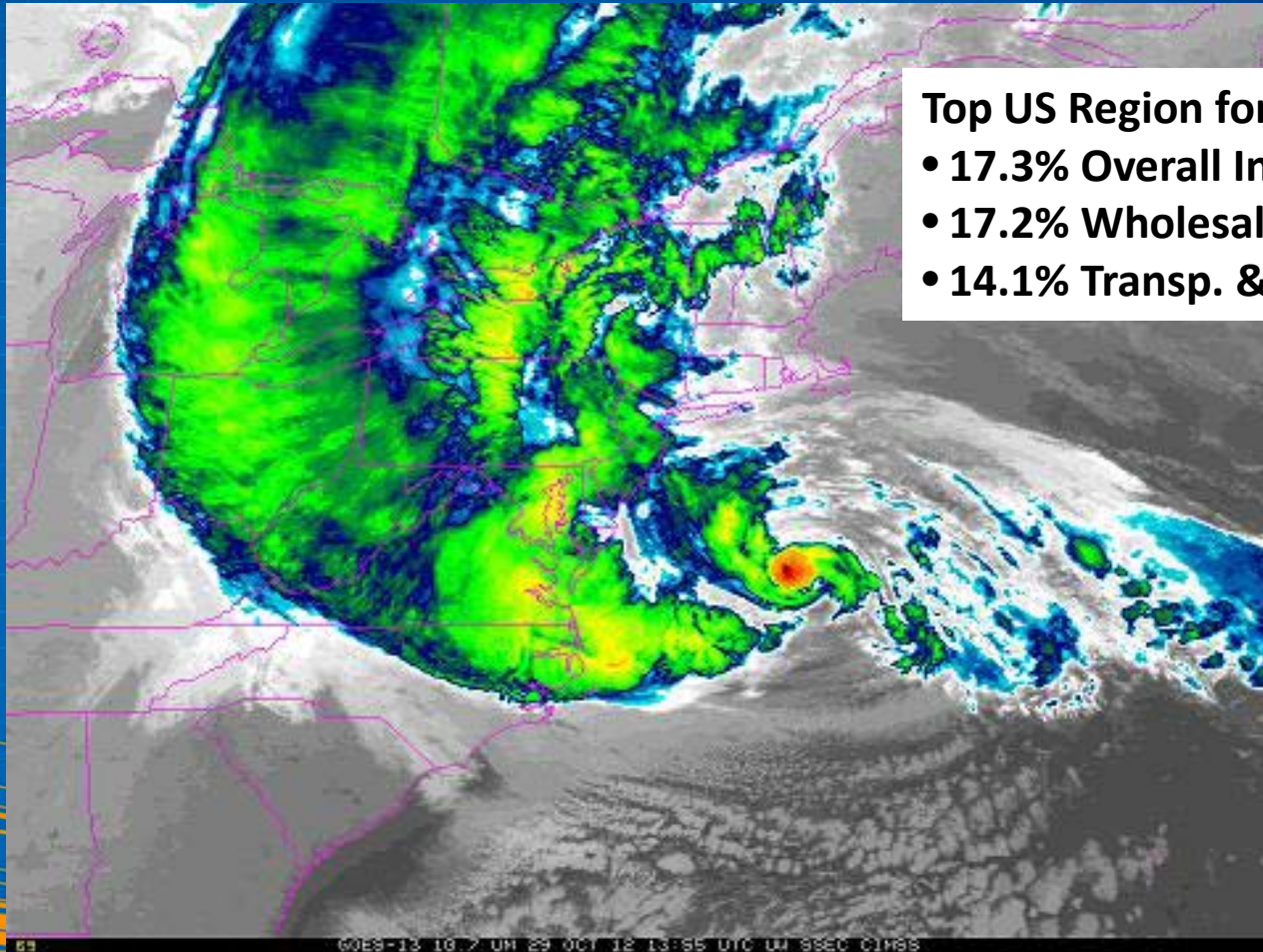
More than a Local Problem – A Brittle System of Interdependencies



Economic Instability



Sandy's Economic Impact

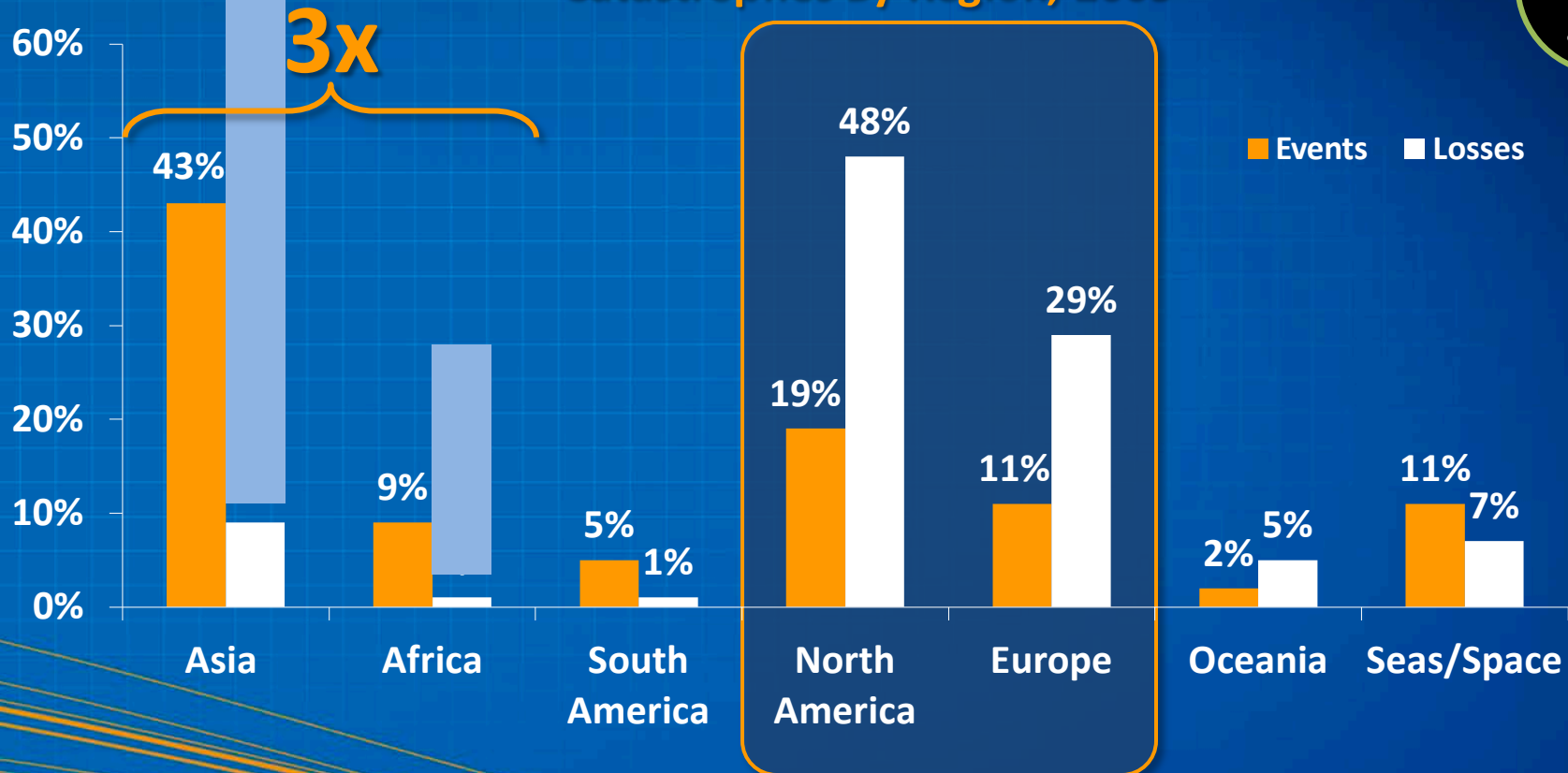


Top US Region for Supply Chain GDP

- 17.3% Overall Industry:
- 17.2% Wholesale Trade
- 14.1% Transp. & Warehousing

Catastrophes are More Prevalent in Emerging Markets

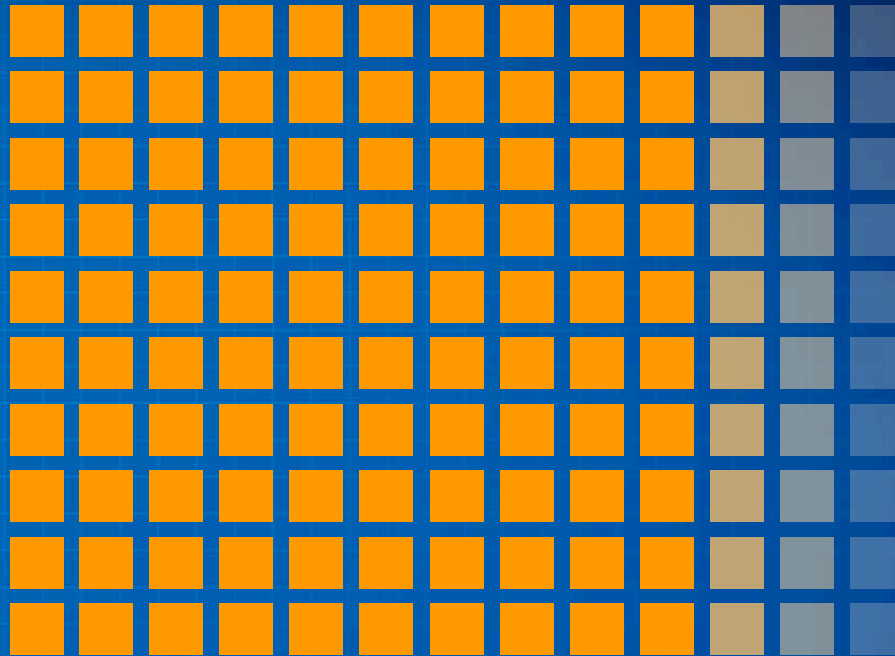
Catastrophes By Region, 2009



Increasing Natural Disasters

Source: Swiss Re Sigma Report No. 1/2010
Note: Catastrophes included are those with >\$17M insured losses, \$85M in economic losses, or 20+ deaths

Insured losses from
natural disasters
have exploded
annually from, on
average, **less than
\$10 billion**



to **more than \$100 billion.**



Increasing Natural Disasters

Source: Swiss Re

Hazard and Decision Making



Assess
Risk Drivers



Hurricane risk is real, and real Confusing

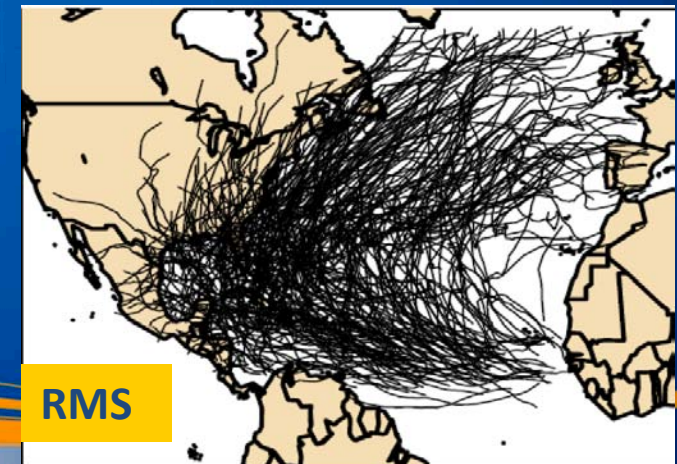
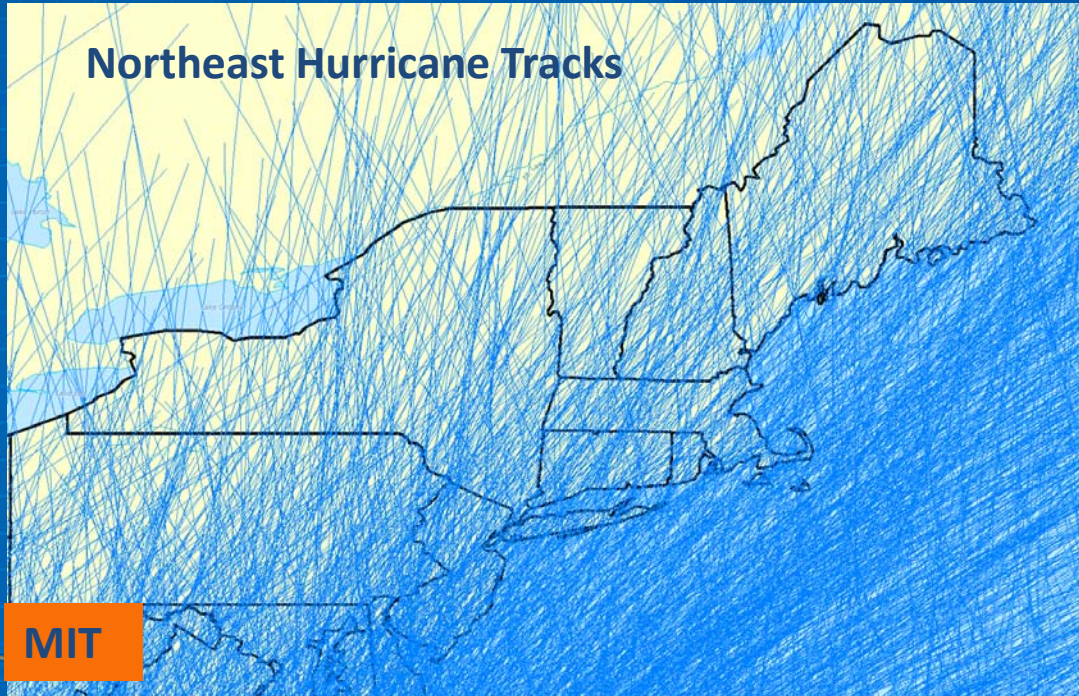
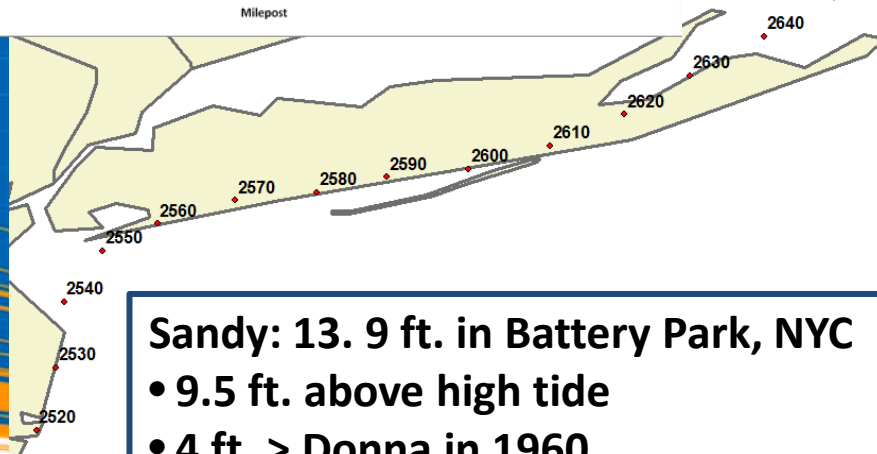
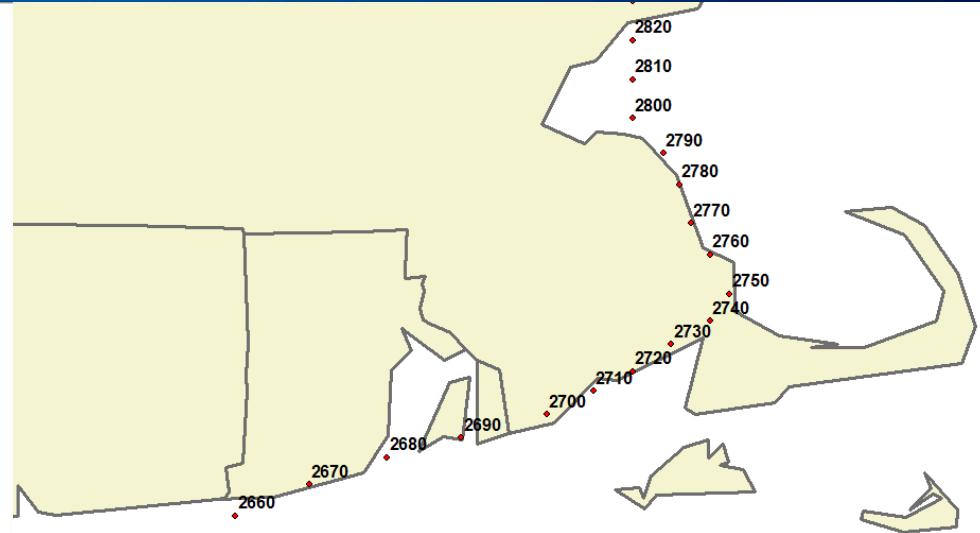
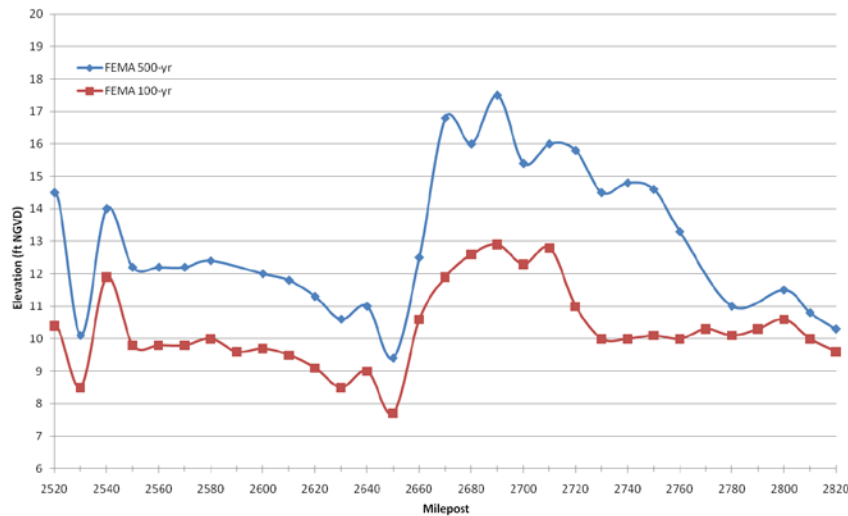


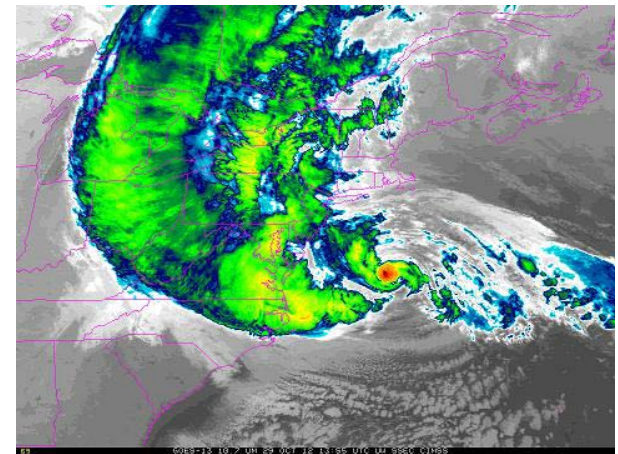
Chart of 100/500 year Storm Surge Elevations – New England

100-yr & 500-yr New England coast

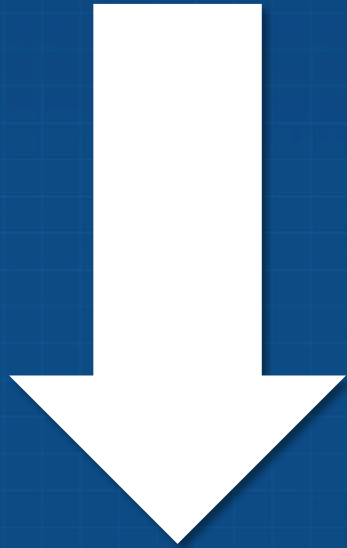


Sandy: 13. 9 ft. in Battery Park, NYC

- 9.5 ft. above high tide
- 4 ft. > Donna in 1960
- Frequency slightly < 1.0% /yr.



Managing Risk



Reduce
Key Exposures



Reduce Key Exposures for Businesses



Property



**Business
Interruption**



**Stakeholder
Value**



Reputation

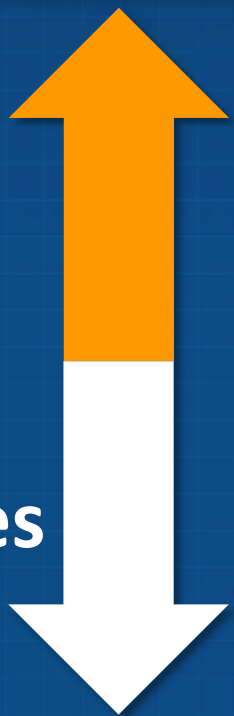
For Homeowners?



Why Doesn't it Happen?

Assess
Risk Drivers

Reduce
Key Exposures



Barrier 1

Uncertainty

Managing Uncertainty

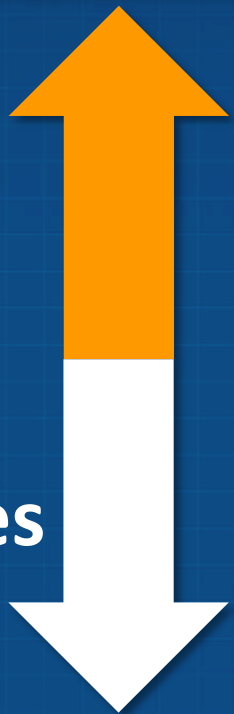
1. Identify Key Exposures
2. Protect to 500 Year



Why Doesn't it Happen?

Assess
Risk Drivers

Reduce
Key Exposures



Barrier 2

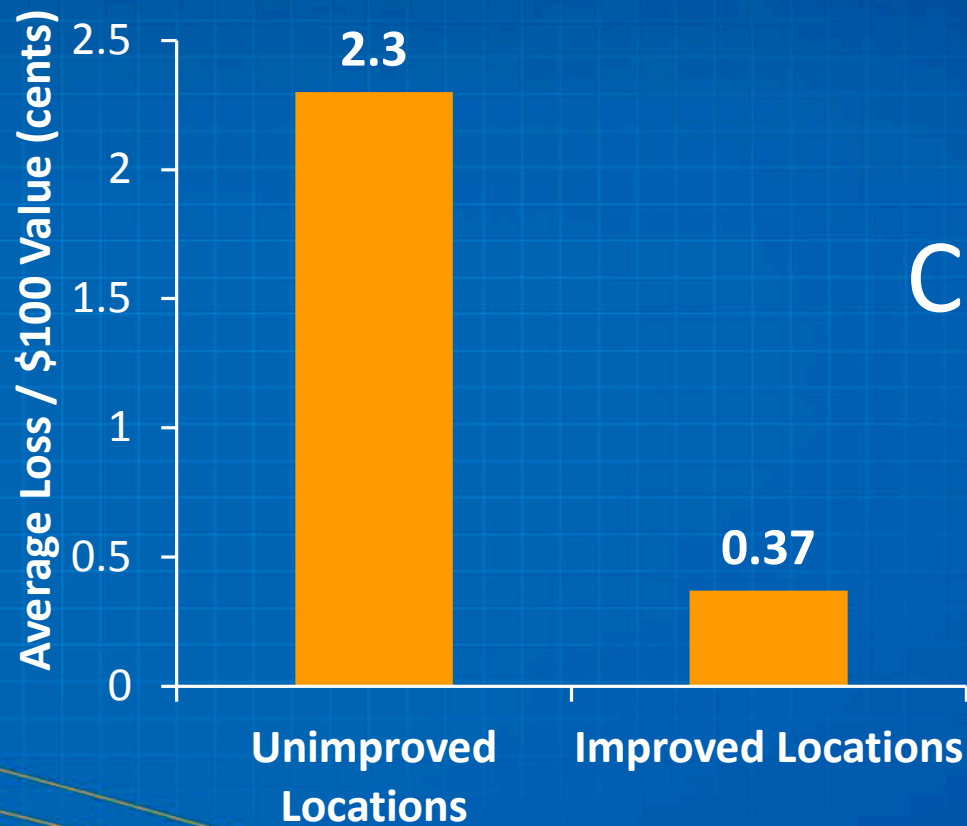
Cost

Managing Cost

Protect Locally



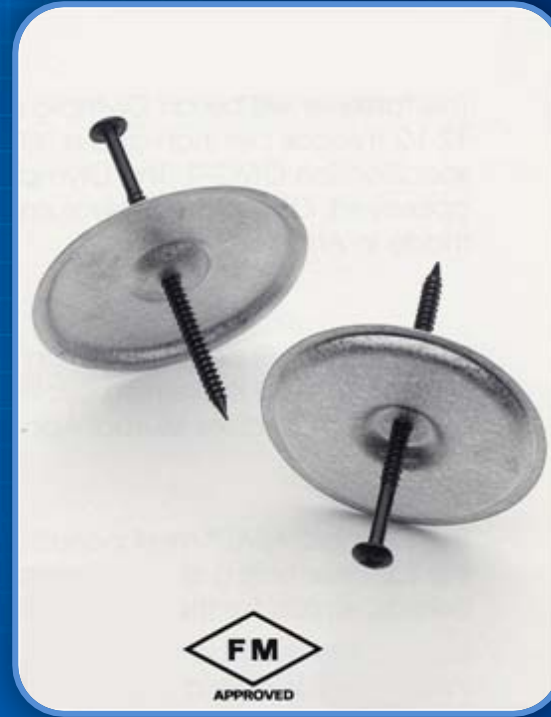
Wind Cost Reduction



Costs < \$10K

Reducing Vulnerability

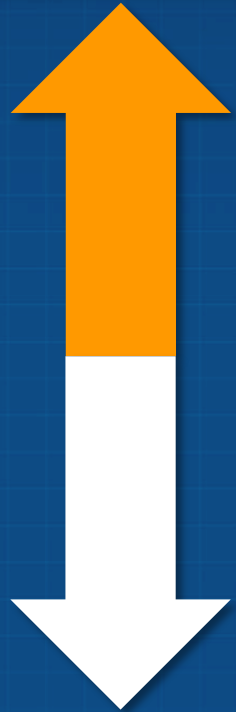
Cost-Effective Solutions



Why Doesn't it Happen?

Assess
Risk Drivers

Reduce
Key Exposures



Barrier 3

Mindset

Barrier 3: Mindset

Flirting with Disaster

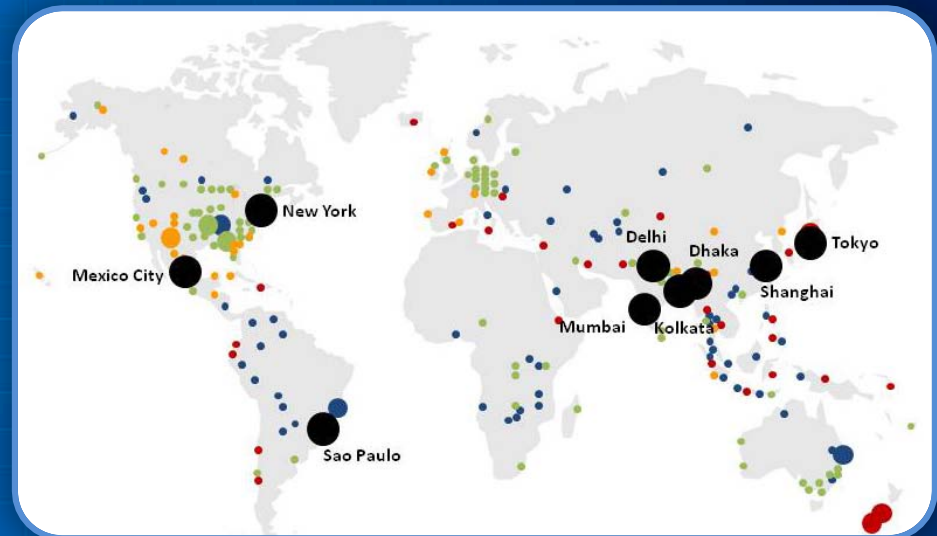


96%

companies have operations
exposed to natural disasters.

Only 20%

are “very concerned” about the
impact to their bottom line.



“Flirting with Disaster: Why Some Companies Risk it All”,
www.fmglobal.com/disaster



Barrier 3: Mindset

Resiliency and Communication



75%

U.S.-based workers feel their employer is *not well-prepared for a natural disaster*



Only 29%

are “confident” about their employer can bounce back quickly from a natural disaster.

“Business Risk Pulse Check”, www.fmglobal.com/pulse



Change the Mindset

1. Describe risk in more real terms.
2. Bring disasters to life.



Take Action

1

UNCERTAINTY

Avoid the Trap

Take Action

2

SOLUTIONS

**Define Cost
Effective
Options**

Take Action

3

MINDSET

**Breakthrough
Barriers**

Questions?

Take Action



- **Avoid Uncertainty Trap**
- **Define Cost-Effective Solutions**
- **Change the Mindset**

