Facilities Insights:

Best Practices for Transforming Physical Environment Compliance

Todd Moore
National Director of Facilities, ARC
Energy and Environment

Extreme hurricanes and wildfires made 2017 the most costly U.S. disaster year on record

By Chris Mooney and Brady Dennis  January 8  Email the author
Megadisasters devastated America in 2017. And they’re only going to get worse.

Storms, fires, floods, and heat caused at least $306 billion in destruction last year.

By Umair Irfan and Brian Resnick | Updated Jan 8, 2018, 1:21pm EST
Hurricane Harvey
Houston
August, 2017

Hurricane Irma
Florida
September, 2017

Hurricane Maria
Puerto Rico
September, 2017

$125 B

$64 B

$102 B
Las Vegas Hotel gunman  
October, 2017

California Wildfires  
December, 2017

CA Mudslides - Montecito  
January, 2018

$180 B
Florida High School Active Shooter
February, 2018

Active Shooter Incidents at Schools
Since 2013
Catastrophes, Big & Small, Will Impact Most of Us

Source: vox.com https://tinyurl.com/y8b4gloj
And, it’s getting worse...

Source: https://www.ncdc.noaa.gov/
Are You Prepared for an Emergency?
Is Your Team Prepared?

Why Not?  What Are You Waiting For?
3 Reasons Catastrophe Readiness is Important:

1. Safety
2. Cost
3. Other benefits
INFORMATION MANAGEMENT FOR FACILITIES AND OPERATIONS:

Knowing your gaps is key to catastrophe preparedness
About the Survey & Analysis

• The survey was conducted in August 2017 by AIIM to their global community of facilities and operations professionals.

• 179 Surveys were completed

• The survey and analysis was led by Bob Larrivee, Vice President and Chief Analyst of AIIM Market Intelligence
For Facilities Teams...
What is a Catastrophic Event?
For Facilities Teams, What is a Catastrophic Event?

Our Definition:

- An unplanned event negatively impacting facilities operations at a cost of $150,000 or more (excludes equipment failure)

OR

- A life-threatening event where First Responders come onsite
How Frequently Do Catastrophic Events Impact Facilities Teams?

Example: For a Typical Facility With 15 Buildings A Catastrophe will happen every ___ Years

- 50+ Yrs
- 20-49 Yrs
- 10-19 Yrs
- 6-9 Yrs
- 3-5 Yrs
- 2 Yrs
- 1 Yr

Please Raise Your Hands
The Average Facilities Team Faces a Catastrophe Every 2 Years

Water Leaks  Electrical Problems  Fires
The Average Facilities Team Faces a Catastrophe Every 2 Years

Catastrophe frequency based on the number of buildings managed:

>20 buildings = every 1.7 years
11-20 buildings = every 2.2 years
1-10 buildings = every 3.1 years
A Too Typical Example ...

**Phoenix Public Library**

6 months ago a water pipe broke at the Phoenix Public Library.

The Facilities staff didn’t know where the shutoff was.

Fire Department didn’t know where the water shutoff was.

3 hours it took to locate and shut-off the water valve.

$10M in damage

Fire Chiefs and Facilities Directors have been terminated.
Which Catastrophe Types Occur Most?

Type of Catastrophe During the Past 10 Years

- **Power Equip Failure (Breakers, Boiler, HVAC ...)**: 59%
- **Water (Floods, Tsunamis ...)**: 55%

Survey of 179 Facilities Managers
Which Catastrophe Types Occur Most?

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- **Medical (Accidents, Violence, Materials ...)**: 26%
- **Fire**: 25%

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### Which Catastrophe Types Occur Most?

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<td>Gas/Electrical (Leaks, Explosions, HazMat...)</td>
<td>16%</td>
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<tr>
<td>Safety (Active Shooter, Hostage, Bomb...)</td>
<td>6%</td>
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<tr>
<td>Earthquakes and Avalanche</td>
<td>3%</td>
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Survey of 179 Facilities Managers
How Much Do Catastrophes Cost by Type?

### Average Cost Per Catastrophe

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**Average Cost Per Catastrophe**

- Power Equipment Failure (Breakers, Boiler, HVAC...) $372,754
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- Wind (Hurricane, Tornados ...) $634,302

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- **Wind (Hurricane, Tornados ...)**: $634,302
- **Human (Vandalism ...)**: $208,214
- **Medical (Accidents, Violence, Materials ...)**: $347,322

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What does this mean for you?

A Facilities Catastrophe Can Be Expected Every 2 Years at a Cost of $506,000
A Catastrophe Will Happen To You, So Are You Prepared?

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- We are not at all prepared and have no plans in place: 5%
- Yes we are fully prepared: 14%
- We are somewhat prepared but are willing to work at it: 30%
- We are prepared but we have more work to do: 51%
What does “Being Prepared” mean?
What is needed from a Facilities Team in a Catastrophic or Emergency Situation?

- Where are the **Shut-Offs**?
- How do the Shut-Offs work?
- Getting people to **Safety**
- Evacuation Maps
- Safe Refuge Areas
- Send **Building Plans** to First Responders
- Access & Execute **Emergency Procedures**
There is a new class of product created for Facilities Teams called:

Mobile Facilities Dashboards
What kind of Emergency Policies do you have in place with regards to Facilities Information?

<table>
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<th>Answer</th>
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<td>We have no policies in place</td>
<td>16%</td>
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<tr>
<td>We have written policies and procedures in paper form</td>
<td>41%</td>
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<tr>
<td>We have policies and procedures in digital form in the cloud</td>
<td>29%</td>
</tr>
<tr>
<td>We have digital policies and procedures in digital form available on mobile devices</td>
<td>14%</td>
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The #1 Shortcoming Facilities Teams Have in Emergency Preparedness is

Lack of Mobile Access to:

- Shut-Offs
- Evacuation Maps
- Building Plans
- Emergency Procedures
Key Advantages of Going Mobile:

- Little/No Technology Adoption Risk - Everyone has a mobile phone
- **Speed**: Instant access to information
- **Sharing**: Text/email key information
2 Key Challenges of Going Mobile

Less Than 1/2 of Facilities Info is Currently Stored Digitally

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![Figure 9](chart.png)

Weighted average = 46%
2 Key Challenges of Going Mobile:

• In an Emergency, will everyone have wifi access in every location at all times?
• You need mobile access to Emergency Information both online & offline modes
Is it OK to have my Facilities Information in the Cloud?

YES!

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Figure 10. Over the next 2 to 5 years, how likely is it that your organization will store significantly more of its facilities information digitally in the cloud?

- **Highly Likely (5)**: 21%
- **Likely (4)**: 30%
- **Possibly (3)**: 31%
- **Unlikely (2)**: 9%
- **Highly Unlikely (1)**: 9%

Nearly 3X more Facilities teams expect to store more facilities information digitally in the cloud, as those that don’t.
Mobile Facilities Dashboards Enable Emergency Preparedness For Facilities Teams

Are there other benefits?
Other Benefits of Mobile Facilities Dashboards:

**#1: Productivity**

- The Average Facilities Team Worker spends **47 Minutes every day** searching for building information
- How big is your team?

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= 1,000s of Hours per Year Saved
Other Benefits of Mobile Facilities Dashboards:

#2: Better Service

- 47 Minutes per day time savings per Facilities Team Member
- = Tickets Completed Faster
- = More Tickets Completed

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Other Benefits of Mobile Facilities
Dashboards:
#3: Overtime Avoidance

- The Average Facilities Team is incurring 50 hours of overtime each month costing about $50,000 per year
- Does overtime impact Preventative Maintenance?

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Other Benefits of Mobile Facilities Dashboards:
#4: Warranty Repair Cost Avoidance

- How much do you spend per year on repair costs for items under warranty?

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- 20+ Buildings = $117,500 / yr
- 1-19 Buildings = $23,500
- Overall Average = $81,000 / yr
Other Benefits of Mobile Facilities Dashboards:

#5: Cost Savings From Onboarding New Employees Faster

- What % of your Facilities Team will be Retiring Soon?
- Will they take their knowledge with them?
- How long will it take to train a replacement?
Other Benefits of Mobile Facilities Dashboards:

#5: Cost Savings From Onboarding New Employees Faster

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Figure 11. Retiring workers is a challenge facing nearly every facilities team. On average, 29% of Facilities Team workers are 55 years or older.

29% are 55 years or older
Other Benefits of Mobile Facilities Dashboards:

#5: Cost Savings From Onboarding New Employees Faster

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Annual Cost Savings = $16,000
In Summary ...
Conclusions

1. A Facilities Catastrophe is Likely to Impact You in the Next 2 Years

2. The Key to Catastrophe Preparedness is Mobile Access to Critical Building & Emergency Information

   - There are Other Benefits to Going Mobile:
     - Productivity Improvements
     - Better Service
     - Overtime Avoidance
     - Warranty Repair Cost Avoidance
     - Cost Savings from Onboarding New Employees Faster

3. Mobile Facilities Dashboards are Available to Solve this Need
More Information

ARC/AIIM Catastrophe Preparedness e-Book

e-arc.com/collateral

Mobile Facilities Dashboards
ARC is at Booth # 25

e-arc.com/Facilities

Todd Moore
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