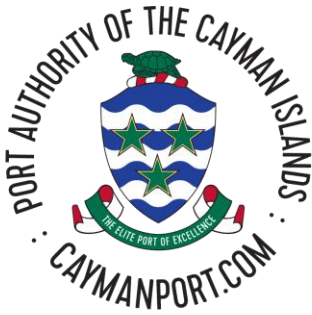




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# EMERGENCY PREPARATION AND RESPONSE

Clement Reid, Port Director

*AAPA Spring Conference 20-22 March, 2018, Washington, DC*





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# OVERVIEW

## Emergency preparedness and response

- Definition
- Statistics
- Planning and implementation
  - Phases in emergency management
  - Continuous improvement

## Lessons learned

- A Cayman Port experience





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# EMERGENCY PREPAREDNESS AND RESPONSE

**What is a workplace  
emergency?**

An unforeseen situation  
that threatens:

- Workers
- Customers or the public
- Disrupts or shuts down operations
- Causes physical or environmental damage



## What is a workplace emergency?

### Natural or Manmade

- Hurricanes
- Tornadoes
- Earthquakes
- Floods
- Chemical spills



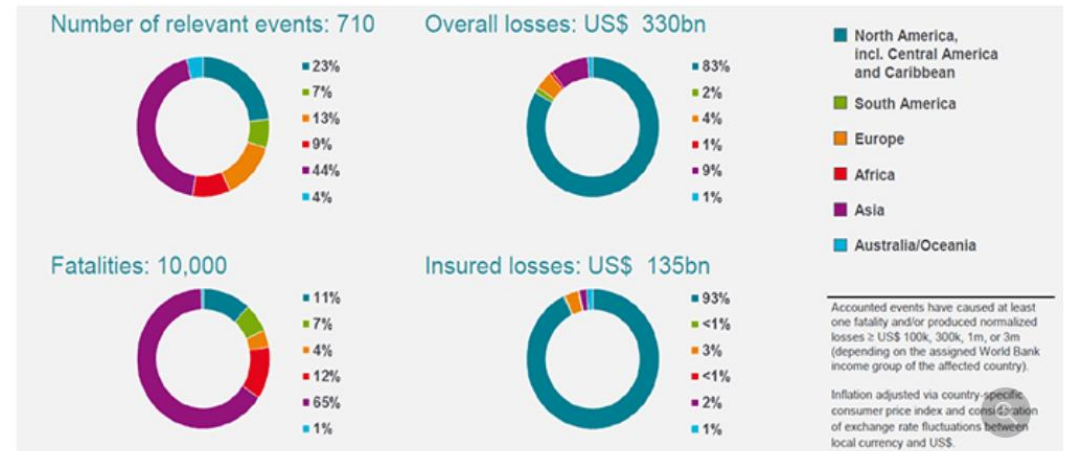
# STATISTICS

## NATURAL DISASTERS

- According to Munich Re, insured losses in 2017 resulted from 710 natural disaster events
- Insured losses totaled \$135 billion, up from \$50.7 billion in 2016

## World natural catastrophes by continent, 2017

(Percentage distribution)



Source: © 2018 Munich Re, Geo Risks Research, NatCatSERVICE. As of January 2018.



# STATISTICS

## MANMADE DISASTERS

- According to Swiss Re, insured losses in 2016 resulted from 136 manmade disaster events
- Insured losses totaled \$7.8 billion

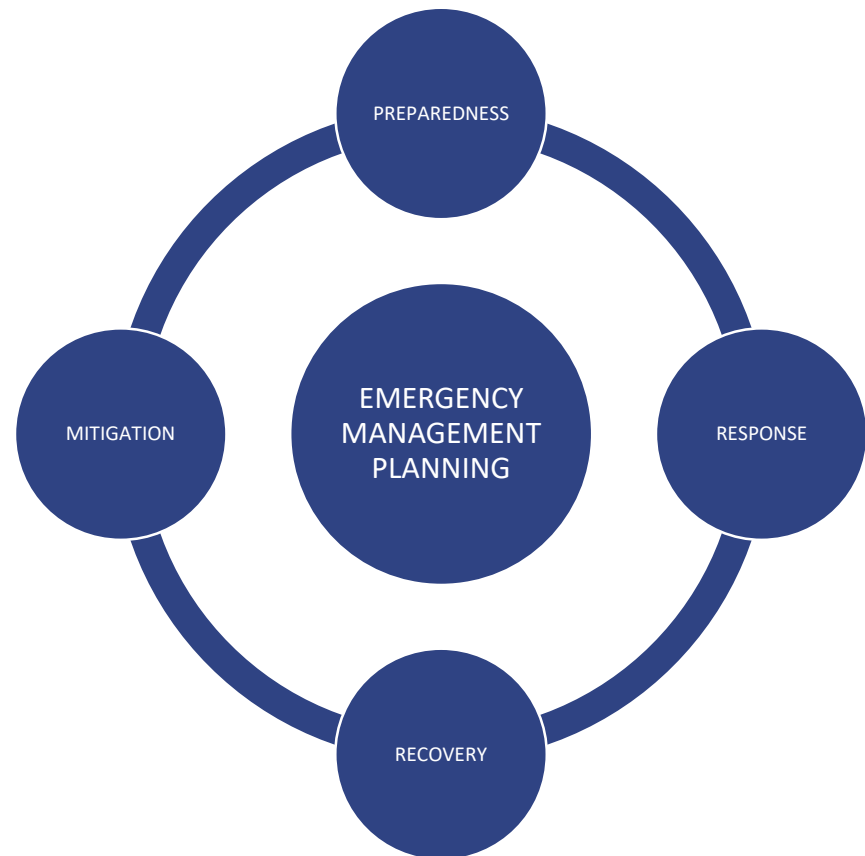
WORLD MANMADE DISASTERS, 2016			
	No. of Incidents	Deaths	Insured Loss (\$millions)
All manmade disasters	136	4,014	\$7,797
Major fires, explosions	47	766	\$4,643
Maritime disasters	36	1,596	\$2,463
Aviation disasters	11	384	\$248
Rail disasters (includes cableways)	11	318	\$87
Mining accidents	8	166	\$184
Misc. (terrorism, social unrest, other)	20	684	\$173

Source: Swiss Re

# PLANNING AND IMPLEMENTATION

## PHASES IN EMERGENCY MANAGEMENT

- Preparedness
- Prevention
- Response
- Recovery
- Mitigation







# 5 STEPS IN EMERGENCY MANAGEMENT PLANNING

01

## Establish a Team

Dependent on the facility's operation, requirements and resources

02

## Analyse Capabilities and Hazards

Gather information on current capabilities

03

## Vulnerability Assessment

Identify and quantify vulnerabilities in a system

04

## Develop the Plan

Asses and plan for basic elements necessary for the successful implementation of the plan, protection of life and property



# 5 STEPS IN EMERGENCY MANAGEMENT PLANNING

05

## Implement the Plan

Acting on recommendations made during the vulnerability analysis



## CONTINUOUS REVIEW & IMPROVEMENT

- Disaster planning should incorporate a continuous improvement process to the implementation phase.
- An ongoing evaluation of the plan should be conducted based upon evaluations, drills, and assessments of the plan when used.
- Potential problems and shortcomings of the disaster response can be identified and corrected.
- Changes in potential threats should be evaluated on an on-going basis and changes to the disaster response plan made as deemed appropriate.



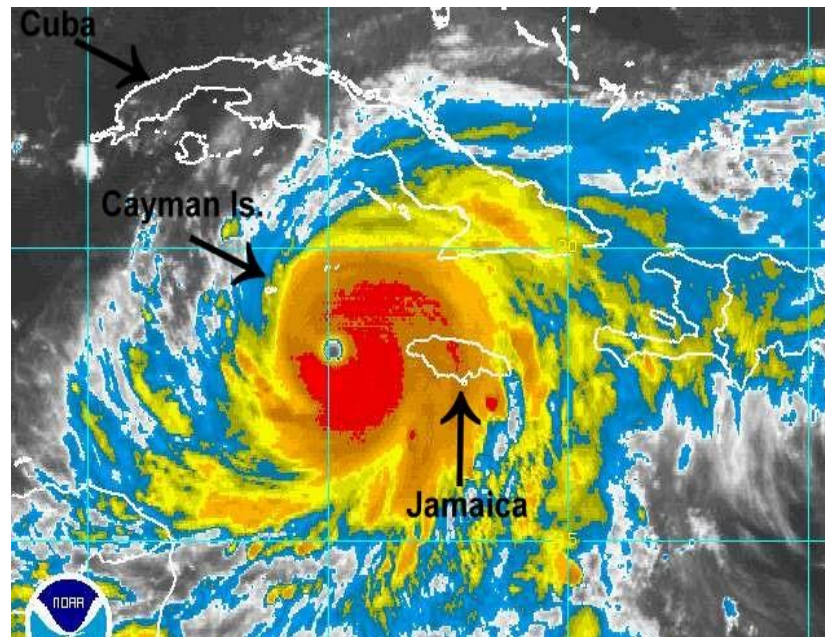
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# LESSONS LEARNED

- Hurricane Ivan – Category 4 hurricane, 150mph sustained winds, with gusts of 220mph
- Estimated \$429 million in damage sustained to the Cayman Islands



## A CAYMAN PORT EXPERIENCE

- Damages to the Cayman Port estimated at \$22million
- Operations restored within 5 days after the passing of Hurricane Ivan
  - Implemented its Hurricane preparedness plan

## MAIN LESSONS

- Never underestimate the probability of a catastrophe
- Be prepared





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## Cayman Prepared

Cayman Islands National Emergency Website  
*Preparing Communities Today for Disasters of Tomorrow*

FAQs | Contact Us | Forms

[Home](#) [Hazards](#) [Training](#) [About Us](#) [Press Room](#) [Resources](#) [FOI](#) [Tenders](#) [CERT](#)



### Hazmat Plan Development

Thursday, 22 February 2018 03:29 PM

The detrimental consequences of not planning for these events are very high and could include fatalities, property damage and environmental contamination. Read more...

#### HMCI statement on Tsunami Response

Wednesday, 10 January 2018 04:19 PM

#### Cayman Given All Clear

Wednesday, 10 January 2018 12:13 AM

#### Tsunami Threat Message

Tuesday, 09 January 2018 11:08 PM

#### CERT Challenge 2017

Thursday, 14 December 2017 01:25 PM

[More Press Releases](#)

### Hazards

HMCI has plans in place to mitigate against a wide range of hazards that may affect the Cayman Islands

[Hurricanes](#) [Earthquakes](#) [Pandemic/Epidemic](#)  
[Tsunamis](#) [Mass Casualty](#) [Security](#) [Environmental](#)

#### Hurricanes

Find out more about Hurricanes and how to prepare for them.

[Shelter](#) [EMC Locations](#)

[more on Hurricanes >>](#)

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[weather map](#)



HIGH 85°F | LOW 73°F [MORE WEATHER](#)

### Hurricanes



### Public Health Threats



### Flooding



### CaymanPrepared Hurricane Information

Download in PDF Format

#### Tweets by @CINEOC



Hazard Management CI  
@CINEOC

#FCO sponsored OTs Comms Conference in Miami. Raps from #RCIPS, #HMCI + GIS attending. Topics - crisis comms, strategy + best

[Embed](#) [View on Twitter](#)

## LESSONS FOR THE ISLANDS

- Hazard Management Cayman Islands (HMCI) was launched in 2007, also responsible for the management of the National Emergency Operations Centre (NEOC).
- Development of National Hurricane Plan
- Government Agencies enhanced hurricane plans



## SUMMARY

While we cannot prevent 100 percent of disasters / emergencies, we can develop emergency preparedness and response plans to mitigate their effects.

It is also important for these plans to take on a holistic approach, involving discussion with stakeholders and policy makers.





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QUESTIONS?

Thank you.



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