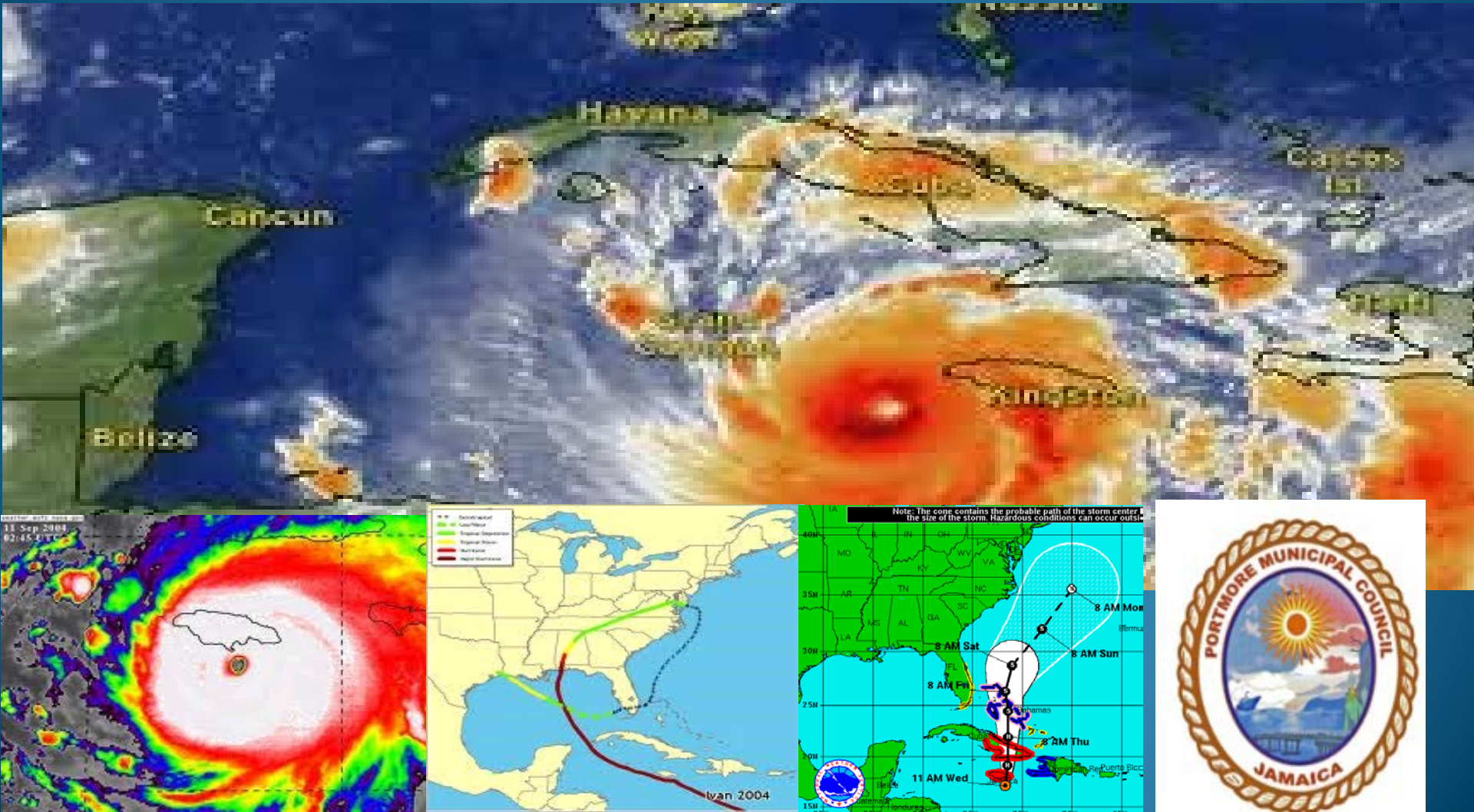


# Disaster Management

## Hurricane Preparedness 2013





**Theme:**

**Plan for Disaster in Advances' Give Yourself a  
Fighting Chance**

# Terminologies

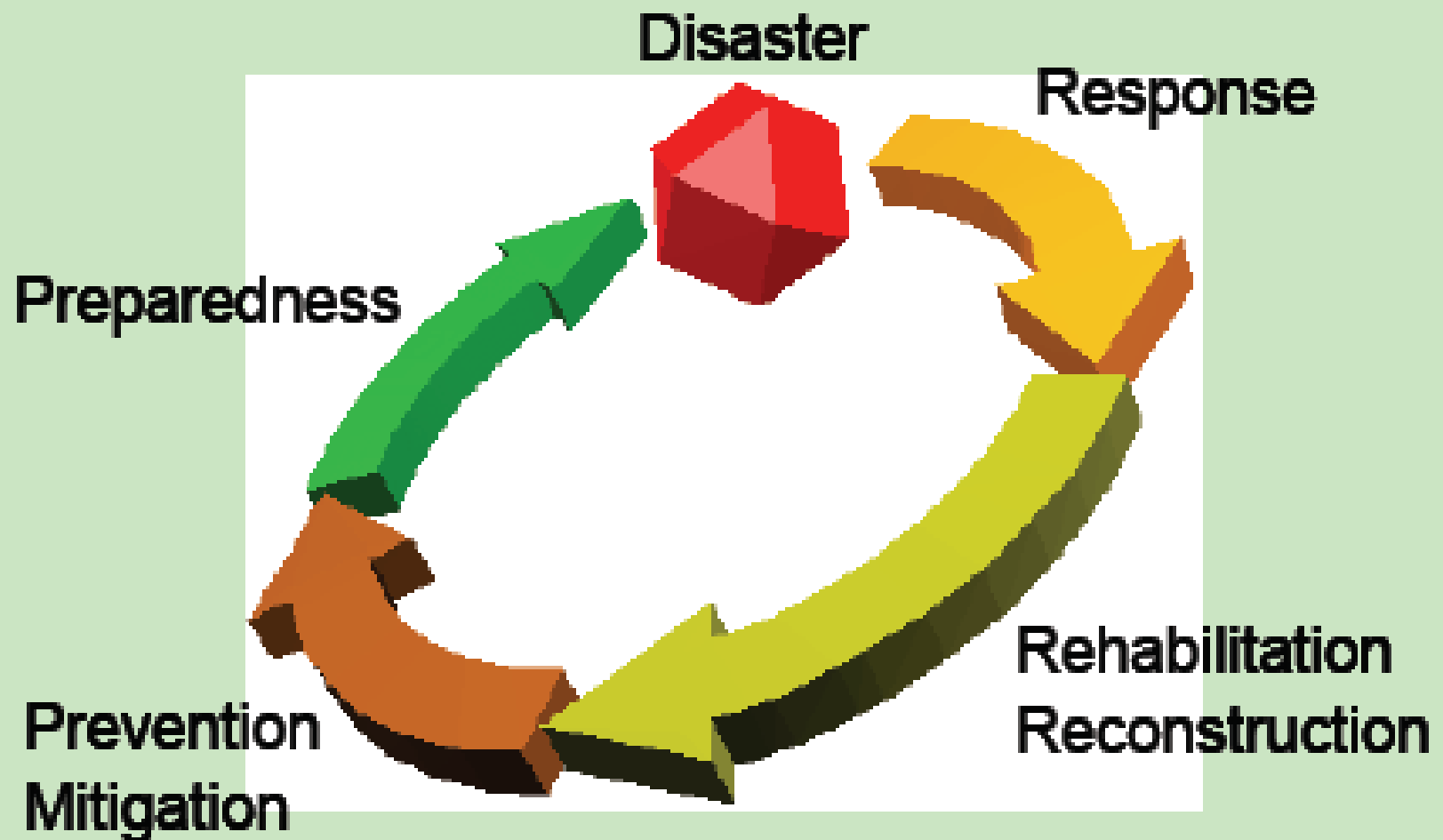
- **DISASTER** - intense negative impact on people, goods and services and/or the environment, exceeding the affected community's internal capability to respond.
- **Hazards** - The potential for a natural or man-caused phenomena to occur with negative consequences.
- **Vulnerability** - The extent to which a community's structure, services or environment is likely to be damaged or disrupted by the impact of a hazard.

Hazards + Vulnerability = Disaster

# Disaster Management

Disaster Management encompasses all aspects of planning for and responding to disasters, including the before, during, and after disaster activities. It refers to both the risk and consequences of a disaster.

# Disaster Risk Management Cycle



# **PREVENTION**

- Measures taken for the purpose of avoiding natural or man-caused phenomena from causing or giving rise to disasters or other emergency situations



# **MITIGATION**

- Measures taken to reduce the loss of life, livelihood or property from the impact of disasters, either by reducing vulnerability or by modifying the hazard where possible

# **PREPAREDNESS**

- Measures taken to reduce to the minimum level possible, the loss of human lives and other damage, through the organization of prompt and efficient actions of response and rehabilitation.



# **RESPONSE**

- Actions carried out in a disaster situation with the objective to save lives, alleviate suffering and reduce economic losses.



## **REHABILITATION**

- The restoration of basic services and the beginning of the repair of physical, social and economic damage.

# **RECONSTRUCTION**

- The medium and long term repair of physical, social and economic damage, and the return of affected structures, to a condition better than before the disaster.

# Hurricane Preparedness

## 2013 Season Forecast

- 18 named storm
- 9 hurricanes
- 4 major hurricane

# What is a Hurricane?



A hurricane is a large storm or tropical cyclone that has wind speeds greater than 74 mph. that develops over the ocean. It spins in a counter clockwise circle as it moves across the water

# Characteristics of a Hurricane

- **Speed of Advance**
- **Circulation**
- **Eye**
- **Eye Wall**

# Stages of Hurricanes

Tropical Wave	A low pressure trough moving generally westward with the trade winds.
Tropical Disturbance	An organized area of thunderstorms that usually forms in the tropics. Typically, they maintain their identity for 24 hours and are accompanied by heavy rains and gusty winds.
Tropical Cyclone	A generic term for any organized low pressure that develops over tropical and sometimes sub-tropical waters. Tropical depressions, tropical storms, and hurricanes are all example of tropical cyclones.
Tropical Depression	An organized area of low pressure in which sustained winds are 38 mph or less.
Tropical Storm	A tropical cyclone with maximum sustained wind speeds that range from 39 to 73 mph.
Hurricane	A tropical cyclone with sustained winds of at least 74 mph.

# Destructive Elements of a Hurricane

**WIND DAMAGE**



**LANDSLIDES**



**THREATS**

**STORM SURGE**



**FLOODING**

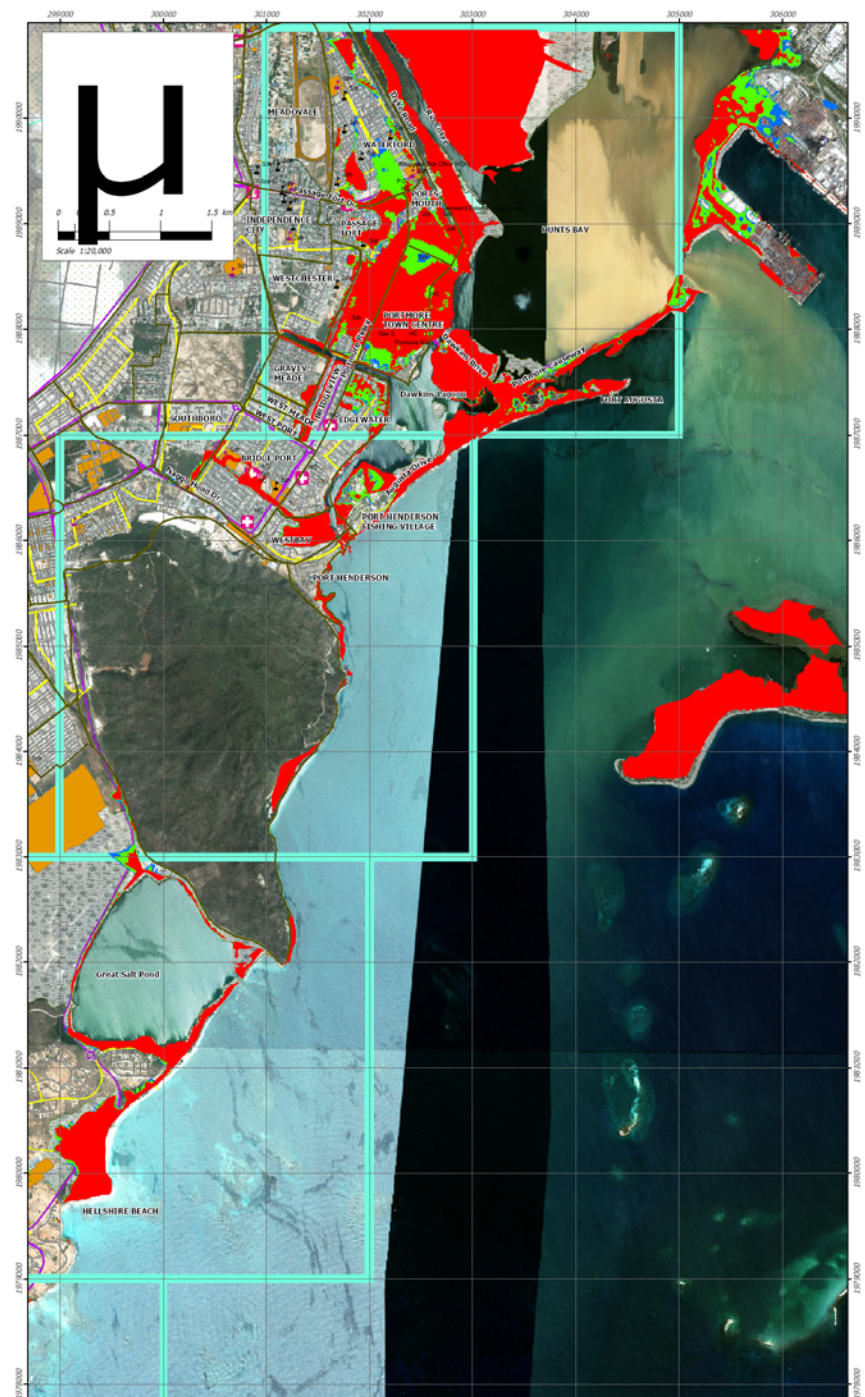




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*HAZARD MAP  
STORM SURGE IMPACT ZONES  
COMPARED STORM SURGE EVENTS : MASTER SHEET  
PORTMORE MUNICIPALITY, JAMAICA*

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# LOCATION MAPS



## LEGEND



Return Period T (years)	Static Storm Surge Level (m)
50	1.40
100	1.55
150	1.60

**Note:**  
A flooding event with a Return period of T- years is the flood which is expected to occur on average once every T- years.

### Hazard Map Interpretation

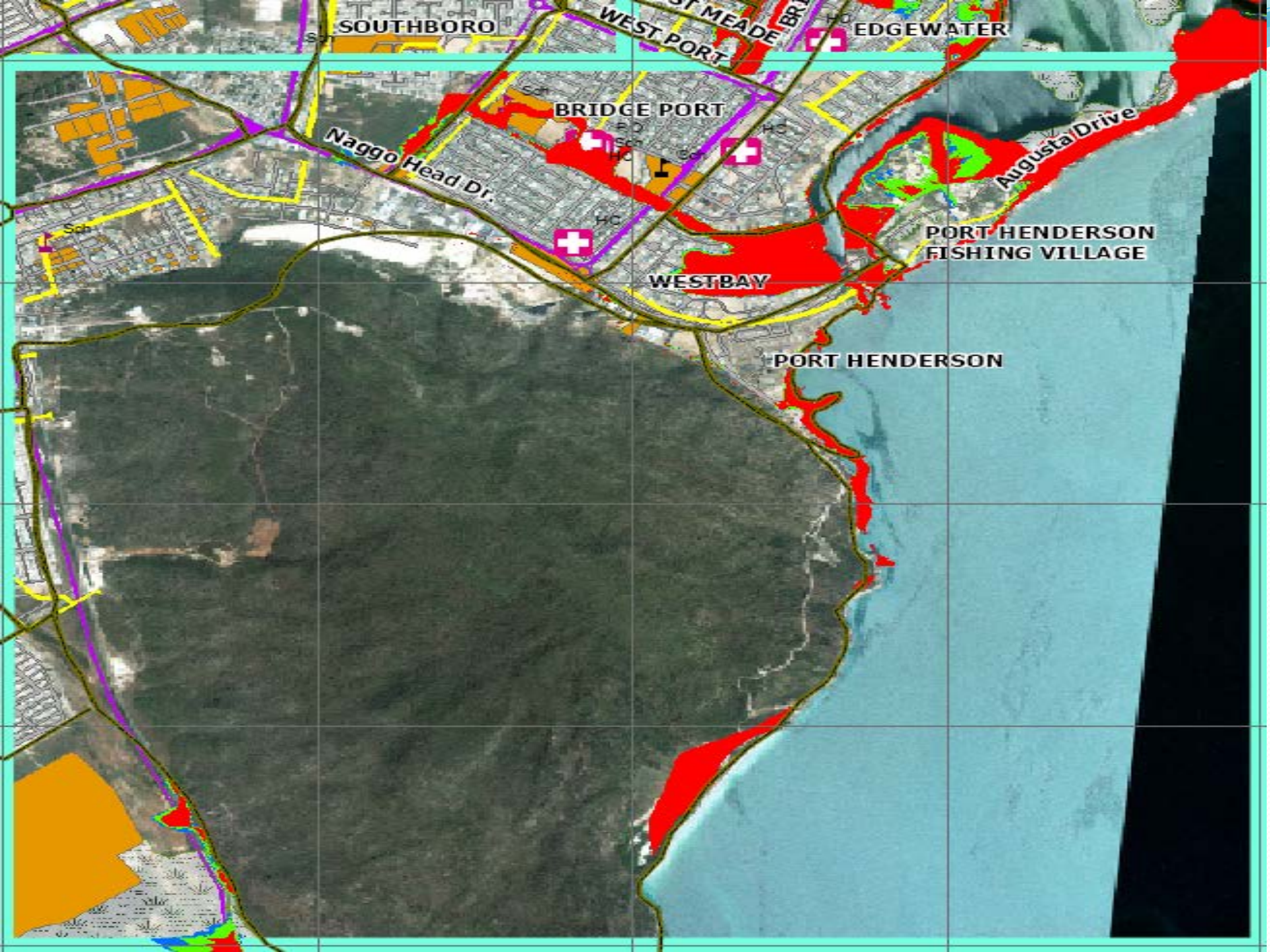
. It is recommended that the 150 year storm surge hazard map be used for planning purposes.

. It is recommended that the 50 year storm surge hazard map be used for preparedness measures.

### Map Use Limitations

. The accuracy of the topographic data determines the



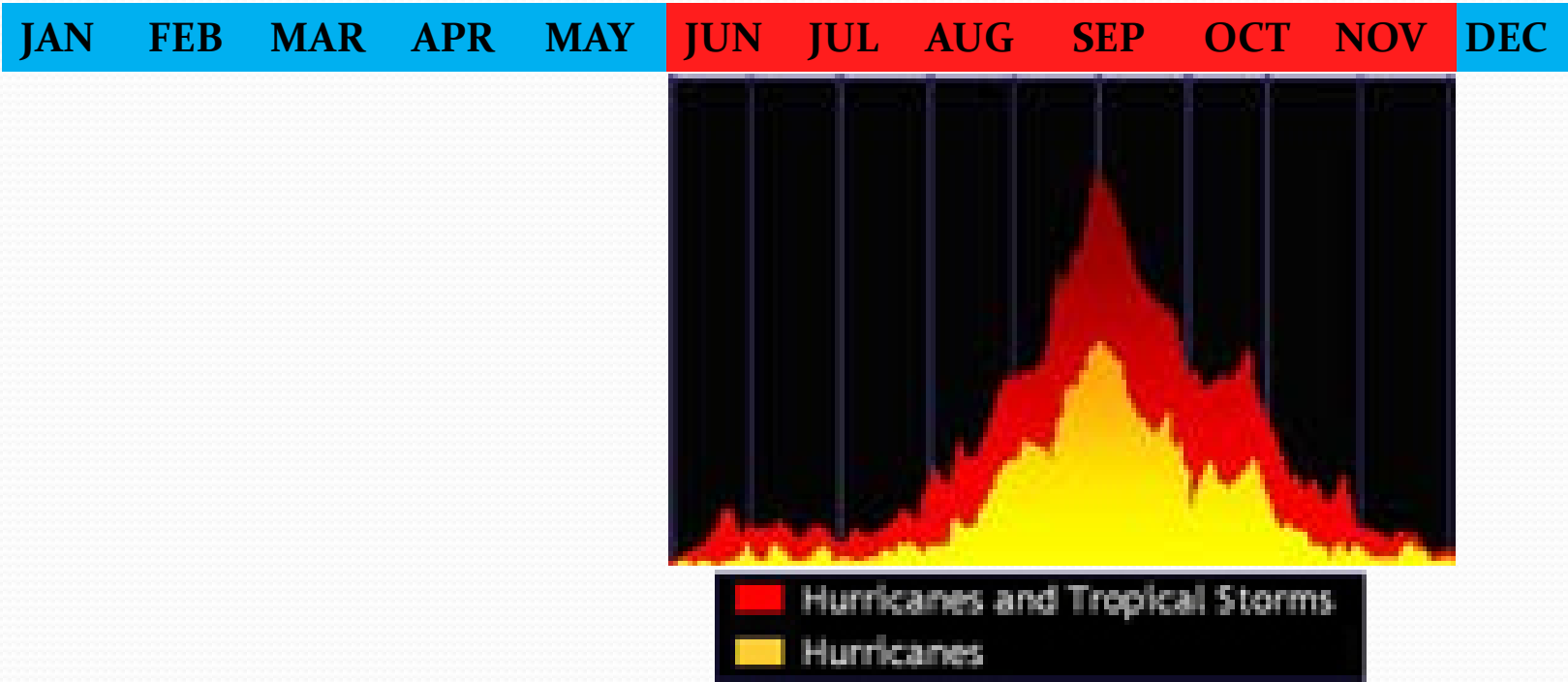




**Great Salt Pond**

**HELLSHIRE BEACH**

# **The Hurricane Season & the frequency of their development**



# General Impacts of a Hurricane

- **Physical Damage**
  - Loss of building, equipment and facilities
- **Disruption to services/supplies**
- **Casualties & Public Health**
  - Poor sanitation, spreading of diseases, death
    - Increased vulnerability
- **Loss of infrastructure**
  - Road access
  - Loss of utilities
  - Transportation



Damage to property from storm surge waves



Roadways reduced to water channel from hurricane rains

# **Steps in Preparedness**

- Develop a Hurricane Response Plan
  - Select Safety Committee
  - Focus on pre and post event activities
- Conduct Vulnerability Assessments & Analysis for the facility
- Test plans & conduct simulation drills

# Develop a Hurricane Response Plan

- Plan for interruption
- Acquaint all persons on the location of public shelters and contact persons
- Identify individuals (usually Security Guards) to monitor the property during the storm

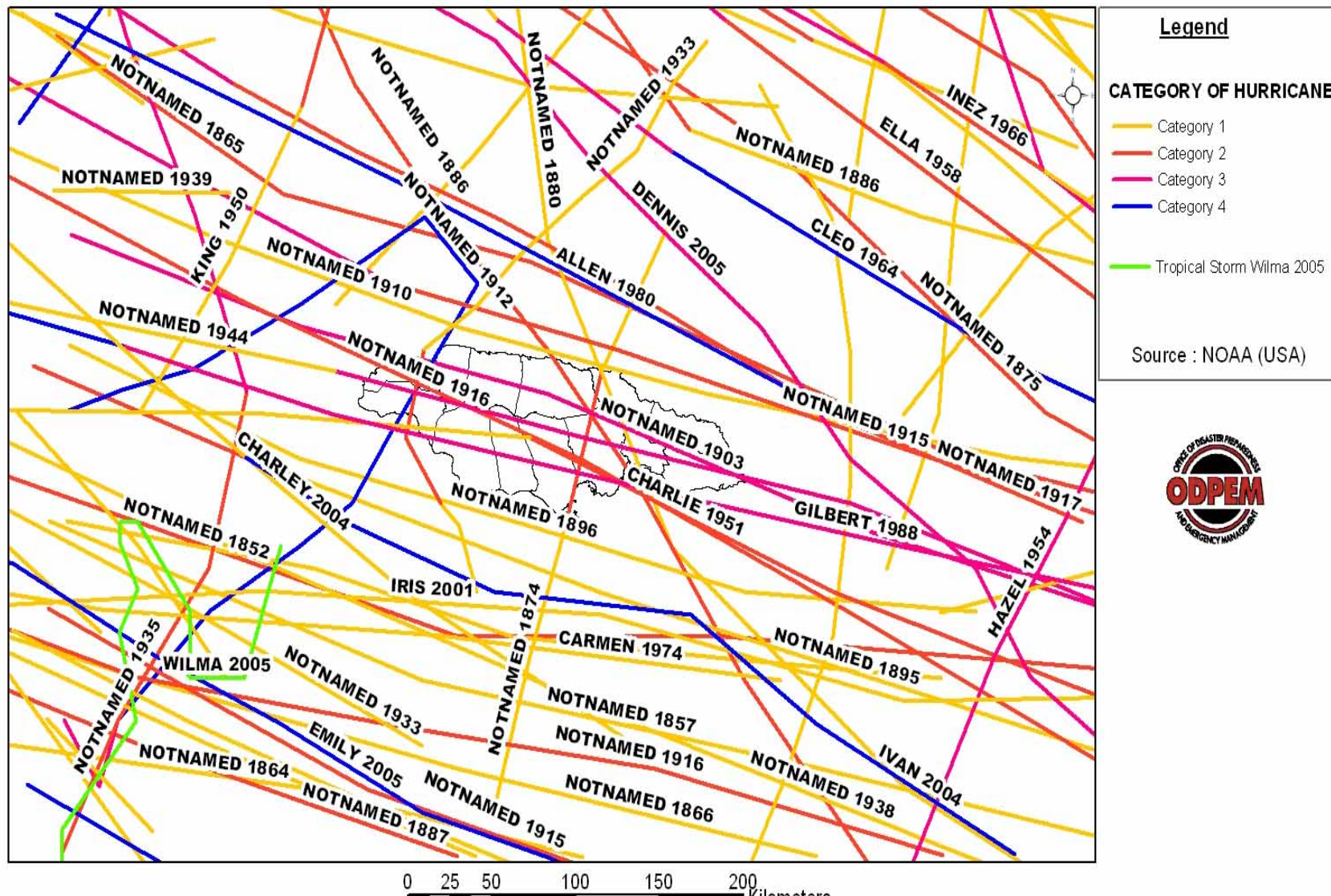




## Role of the Emergency Committee

- Determine how the facility will operate at different phases of the impending hurricane
- Establish staff's responsibilities for action, before and after the hurricane

# Hurricane Paths from 1856-2005 (Jamaica)





# HURRICANE WATCH

This means that the hurricane is a threat but there is no certainty that it will hit the island

It means therefore, that you must start preparing as hurricane conditions could be experienced within 48 hours or less.

# DURING THE WATCH

- Check on the organization's insurance policy
- Secure the property
- Ensure drains are cleared
- Make backup of institution's records and store offsite
- Secure object which could become flying missiles
- Ensure the security guard is a part of the planning process

# DURING THE WATCH

- Fill up car with gas
- Check flashlights, lamps and kerosene supply
- Store water
- Refill all medical prescription
- Listen to the radio and television
- Stock up emergency supplies



# HURRICANE WARNING

This means that hurricane conditions will start affecting the island within 36-hours

Conditions include winds of at least 119 km/h (74mph), flood rains and storm surges

# DURING THE WARNING

- Implement the hurricane component of the disaster plan
- Conduct briefing with staff and other stakeholders
- Determine resumption procedure
- Dismiss institution to facilitate personal preparedness

# DURING THE HURRICANE

- Stay indoors
- Do not open windows or doors
- Do not go outside during the “Eye” unless it is to effect minor repairs to your roof
- Listen to the radio

# AFTER THE HURRICANE

- Seek medical help at the hospital if necessary
- Do not touch dangling power wire
- Report broken sewer and water mains
- Boil drinking water
- Throw out spoiled foods

# Emergency Supplies

- Prescription Medications
- Food and Water Container
- Flashlights/Spare Batteries
- Blankets
- Portable Radio
- First Aid Kit
- Manual Can Opener
- Important Documents/Cash

