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Disaster Preparedness - Response

CIP TTX – Port Risk Management 19 – 20 March 2024



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## Agenda

- Description of Exercise and Emergency Disaster
  - Objectives
  - Scenarios
- Respond to injects to each Scenario
- Work in group and reports
- Summary



# Exercise Overview

## TTX Objectives:

- Discuss the safety and security risks in the Caribbean Seaports
- Identify areas of opportunity for coordination, communications, and resource availability for the Caribbean region

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Scenario:

➤ You are the Emergency Manager at the Port of Philippe

- ❖ The 4th largest exporter of LNG region
- ❖ Hurricane season timeframe: May – Nov 2024
- ❖ The port has also received containers with hazardous materials (including fireworks in preparation for New Year's Dec 2024)



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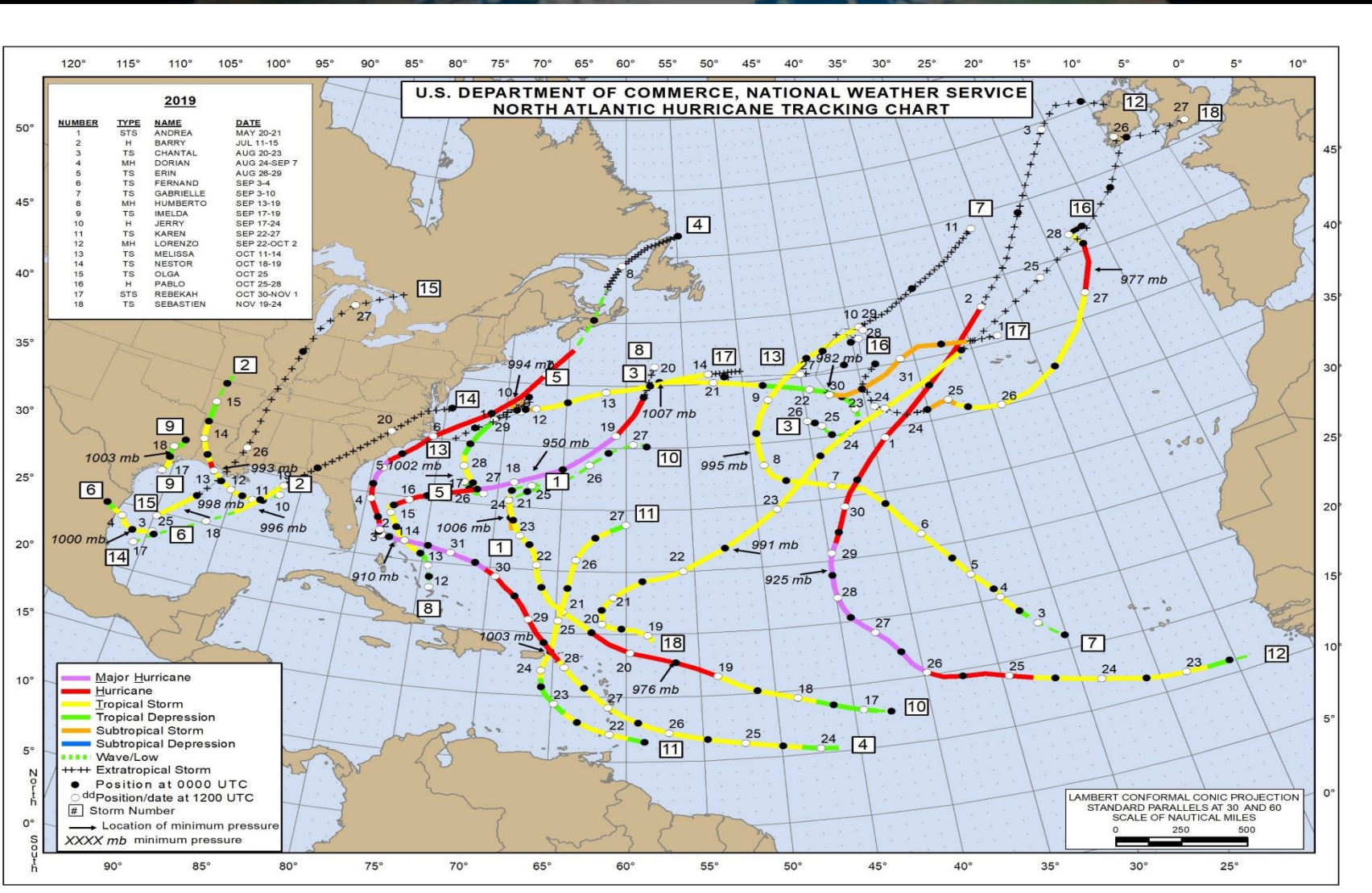
## Inject # 1 (prior to Hurricane landfall):

- Port of Authority is currently reviewing all the emergency equipment and is concerned about the electrical power grid in the port
- As a member of the Area Maritime Safety and Security Committee, the Port Authority may have some funds to allocate to preparedness, but needs assistance in prioritizing the funds
- Regional stakeholders (e.g. Caribbean Disaster Management Agency) has requested to know the readiness status from all nation members in preparation for Hurricane season.
  - ❖ Due to recent man-made disasters, CDEMA is allocating funds to oil spills recently observed in the region near coastline of neighboring region member.
  - ❖ The most recent severe weather system impacting the area took place in 2019 Tropical Storm Karen, which caused \$24 million in damage according to estimates from Local Emergency Agencies.

# Inject # 1 (prior to Hurricane landfall):



➤ Port of Authority is also reviewing previous lessons learned from previous storms 2019 – 2023





## Inject # 1 (prior to Hurricane landfall):

- Port of Authority is also reviewing previous lessons learned from previous storms 2019 – 2023
  - ❖ As the Emergency and Disaster Preparedness, you find some other historical data for the region:

Franklin: August 18 to September 1, 2023

Region: Caribbean Sea

Wind speed: max. 241 km/h

on land: max. 56 km/h

Diameter: max. 630 km

Air pressure: below 926 mbar

Saffir-Simpson scale: category 4

Most Affected Cities: Scarborough, Petit Valley

Ian: September 19 to October 2, 2022

Region: Caribbean Sea

Wind speed: max. 250 km/h

on land: max. 56 km/h

Diameter: max. 1482 km

Air pressure: below 937 mbar

Saffir-Simpson scale: category 4

Most Affected Cities: Scarborough, Petit Valley







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Let's take a 10-minute break





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## Inject # 2 (prior to hurricane landfall):

- The Port of Philippe projects to complete a small LNG port facility hub to feed the Caribbean nations in January 2025
  - ❖ This nation is Latin America's largest LNG exporter and the project, expected to be operational by 2025, will have a handling capacity of up to 500,000 tons a year, according National Gas Company (NGC).
  - ❖ The new facility will be capable of storing, handling and shipping LNG for the region, is intended to be scalable to allow expansion as demand rises.
  - ❖ The nation's Energy Minister plans to boost LNG exports to its neighbors for power generation and petrochemicals; Minister added that more natural gas is needed for it to significantly contribute to global supplies due to recent conflicts in Europe.
    - LNG producers have ramped up supplies to Europe in 2023 amid buoyant demand and high prices.

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## Questions:

➤ As the Emergency and Disaster Preparedness Managers for the Port of Philippe:

1. How would you protect the small LNG port facility? What would be some of the infrastructure to consider minimize the overall risk?
2. What references or plans or contingencies need to be considered to minimize the impact of a severe storm. E.g. consider tropical storm Karen force winds?
3. How would other CIP Members, Area Maritime Safety and Security Committee, or CDMA assist you in protecting this new LNG port facility?
4. What assets or infrastructure would you consider securing prior to storm landfall (e.g. consider tropical storm Karen and damage caused in 2023?)
  - a. How would you recommend to prepare to secure port operations in view that NOAA tracking system holds this hurricane within 50 miles of Port of Philippe within 48 hours?





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## Inject # 3 (Post Hurricane landfall):

- The Hurricane system storm came close and most of the damage was wind related.
- The Port Authority Damage assessment teams were deployed once the storm passed and *found some hazardous materials containers damaged and spilled due to high conditions. Port Fixed-container scanner fully operational after landfall as emergency generators and power grid were not affected.*
- Some of the major port and cargo shippers at port have requested to know when Port Authority would resume port operations (e.g. after 24-hour port closure)
- Two major container and one LNG vessels have requested to come into port and offload cargo as well as pick up gas products. A fourth vessel has requested pier space to conduct repairs to its as it was structurally damage during the storm while transiting within territorial waters
  - ❖ There is potential shoaling in the navigation channel and Port Stakeholders (Port of Philippe Pilots) are concerned about potentially grounding of the tugs along the Maritime Transportation System.

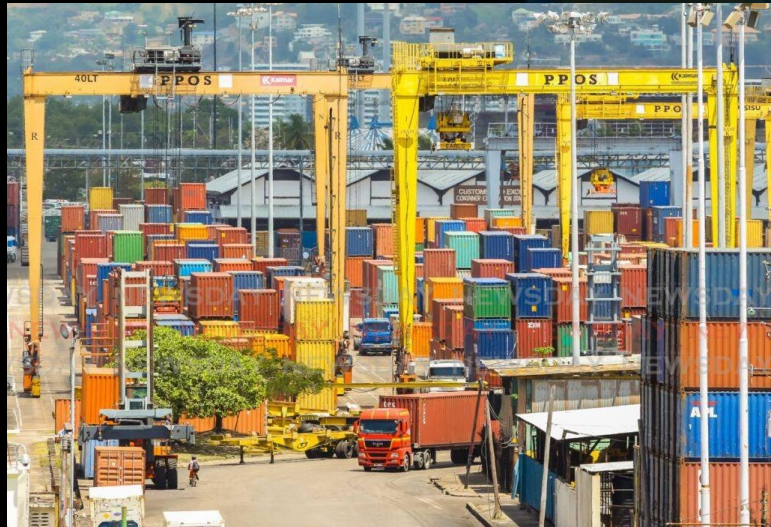
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## Inject # 3 (Post Hurricane landfall):

➤ The Hurricane system storm came close and most damage was wind related with storm surge.

### Non-intrusive container scanners



Vessels above 1,000 GRT require one tug



Navigation Buoys system has 20 marking the Channel and spaced approximately 800m apart



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## Questions:

- As the Emergency Disaster Manager for the Port Authority, and advisor to Designated Authority:
  1. What would be the priorities to execute for reopening the port of Phillippe while minimizing the risks to live, infrastructure, environment and economy for the country?
  2. What references or contingency plans need to be considered before allowing the port to start handling cargo operations or bulk liquids, LNG, etc. ?
  3. How would other CIP Members, Port Stakeholders, Area Maritime Safety and Security Committee, or CDMA assist to reopen all port facilities?
    - a. Would container operations should be prioritized over LNG operations?
    - b. What navigational channels (e.g. Depths confirmations) should be inspected first prior to re opening the port?
    - c. What port infrastructure (e.g. navigations aids and vessels) should be activated and restore prior to re-opening the port?



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## SUMMARY

TTX Exercises should test the following areas for Port Stakeholders in their policies and procedures:

- Area Maritime Safety Committee Communication
- Lead and Supporting Agency Coordination
- Lead and Support Resource availability
- Lead and Supporting Agency Response