



OVERVIEW OF DISASTER RISK MANAGEMENT SYSTEMS AT THE NATIONAL
PORT OF TRINIDAD AND TOBAGO

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HSE MANAGER

PORT AUTHORITY OF TRINIDAD AND TOBAGO (PATT) INTER-ISLAND TRANSPORTATION CO. LTD. (TTIT)

OBJECTIVES

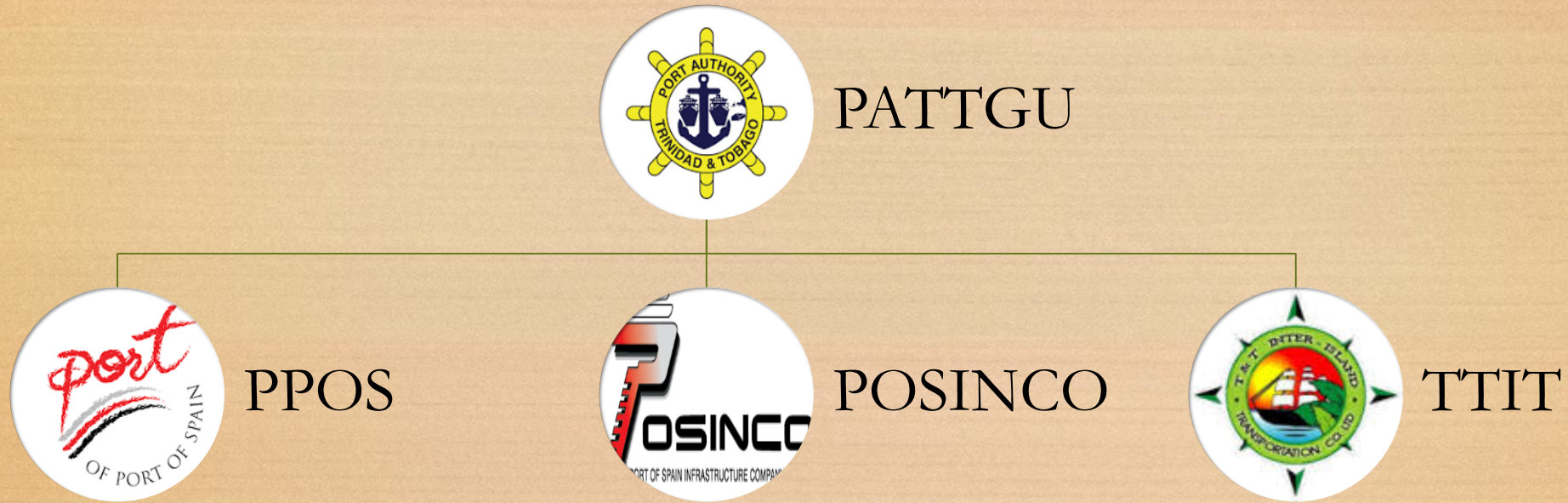
- OVERVIEW OF DISASTER RISK MANAGEMENT IN PORT OF TRINIDAD AND TOBAGO

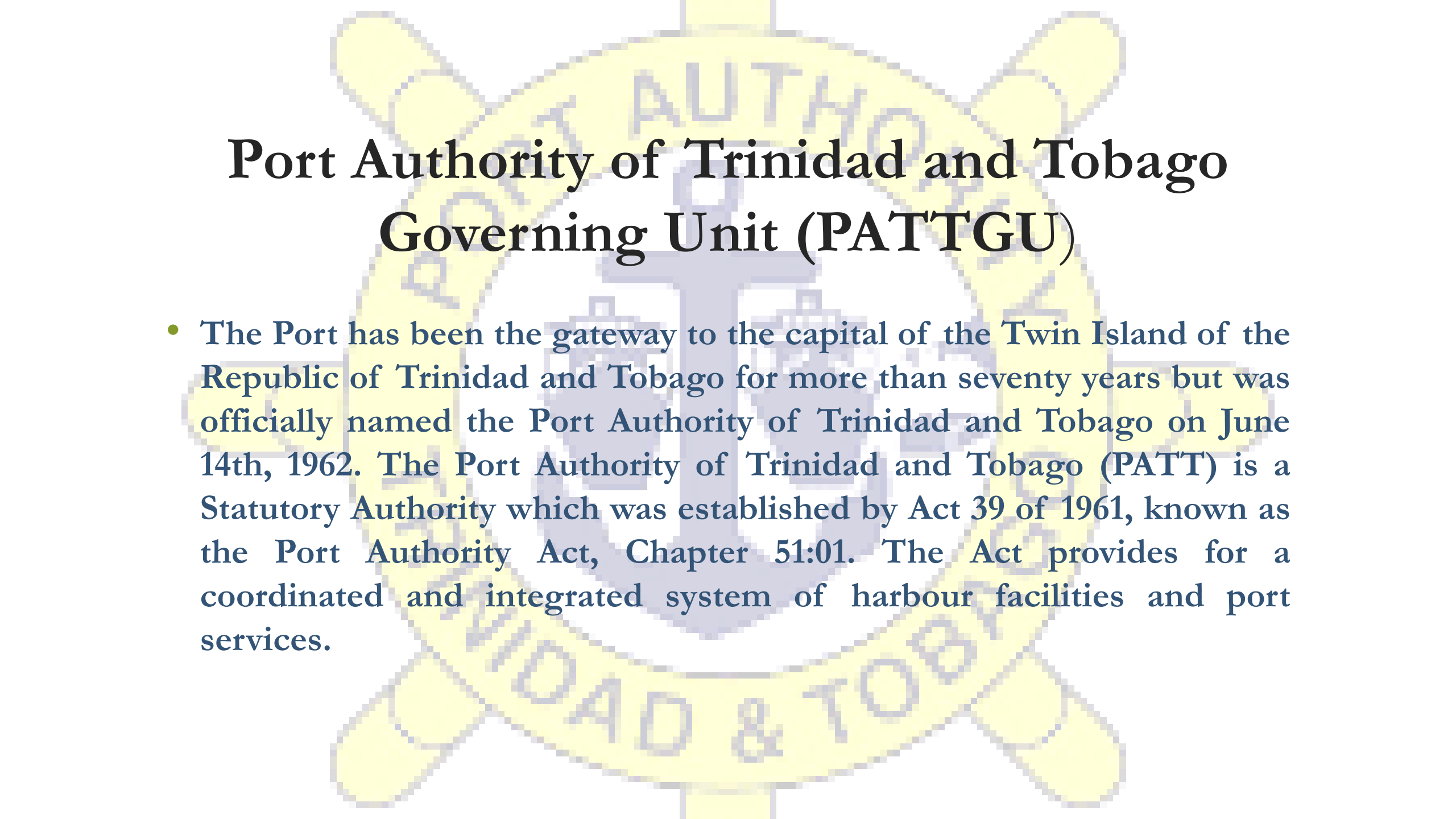


List of Abbreviations

- PATTGU – Port Authority of Trinidad and Tobago Governing Unit
- TTIT- Trinidad and Tobago Inter-Island Co. Ltd.
- PPOS- Port of Port of Spain
- POSINCO- Port of Spain Infrastructure Company Limited
- CBRN-Chemical, Biological, Radiological or Nuclear
- TTCG- Trinidad and Tobago Coast Guard
- TTFS – Trinidad and Tobago Fire Service

STRUCTURE





Port Authority of Trinidad and Tobago Governing Unit (PAT'TGU)

- The Port has been the gateway to the capital of the Twin Island of the Republic of Trinidad and Tobago for more than seventy years but was officially named the Port Authority of Trinidad and Tobago on June 14th, 1962. The Port Authority of Trinidad and Tobago (PATT) is a Statutory Authority which was established by Act 39 of 1961, known as the Port Authority Act, Chapter 51:01. The Act provides for a coordinated and integrated system of harbour facilities and port services.



PORT AUTHORITY ADMINISTRATION BUILDING

PORT OF PORT OF SPAIN (PPOS)

A natural harbour on the sheltered northwestern coast of Trinidad, the Port of Port of Spain is ideally positioned to service the major sea lanes between the Americas, the islands of the Caribbean and the trading links between the Atlantic and Pacific Oceans via the Panama Canal.

The Port of Port of Spain (PPOS) is the cargo handling business unit of the Port Authority of Trinidad and Tobago. PPOS provides berthing for international container vessels, breakbulk, roll-on/roll-off, dry and liquid/bulk cargo vessels, as well as towage services, container freight services and warehousing, and a one stop barrel shop for clearance and delivery of personal effects.





POSINCO

- The Port of Spain Infrastructure Company (POSINCO) plays a strategic role of Port Landlord, managing the Port Authority's 151.48 hectares of real estate and creating opportunities, through port infrastructure development and maintenance, to boost cargo activity and the Inter-island Ferry Service which is operated on behalf of the Republic of Trinidad and Tobago. Additionally, POSINCO provides the ancillary services of towage, harbour management and cruise shipping terminal operations.

POSINCO

PORT OF SPAIN INFRASTRUCTURE COMPANY



Trinidad and Tobago Inter-island Transportation Company | TTIT

- **TTIT provides the service of reliable and affordable transport of passengers, vehicles and cargo between Trinidad and Tobago. It is a vital sea-link for business and leisure/tourism which facilitates the opportunity to enjoy the best of both Trinidad and Tobago. TTIT operates four (4) passenger ferries and one (01) cargo vessel - the T&T Spirit, the APT James, the Buccoo Reef the Galleons Passage and M.V. Cabo Star.**



Take a Trip to/from Tobago with us!



APT James



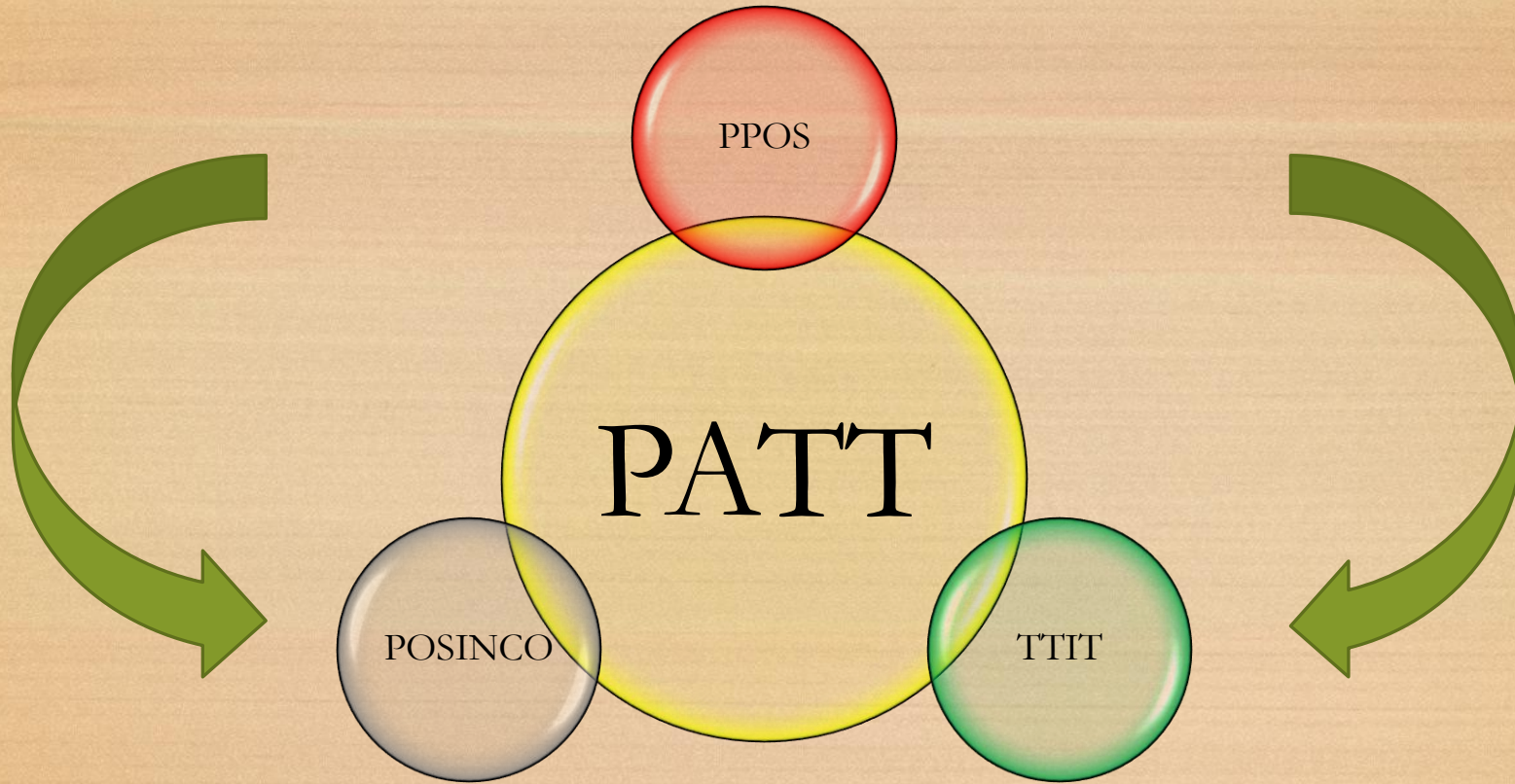
Cabo Star



Buccoo Reef



Galleons Passage



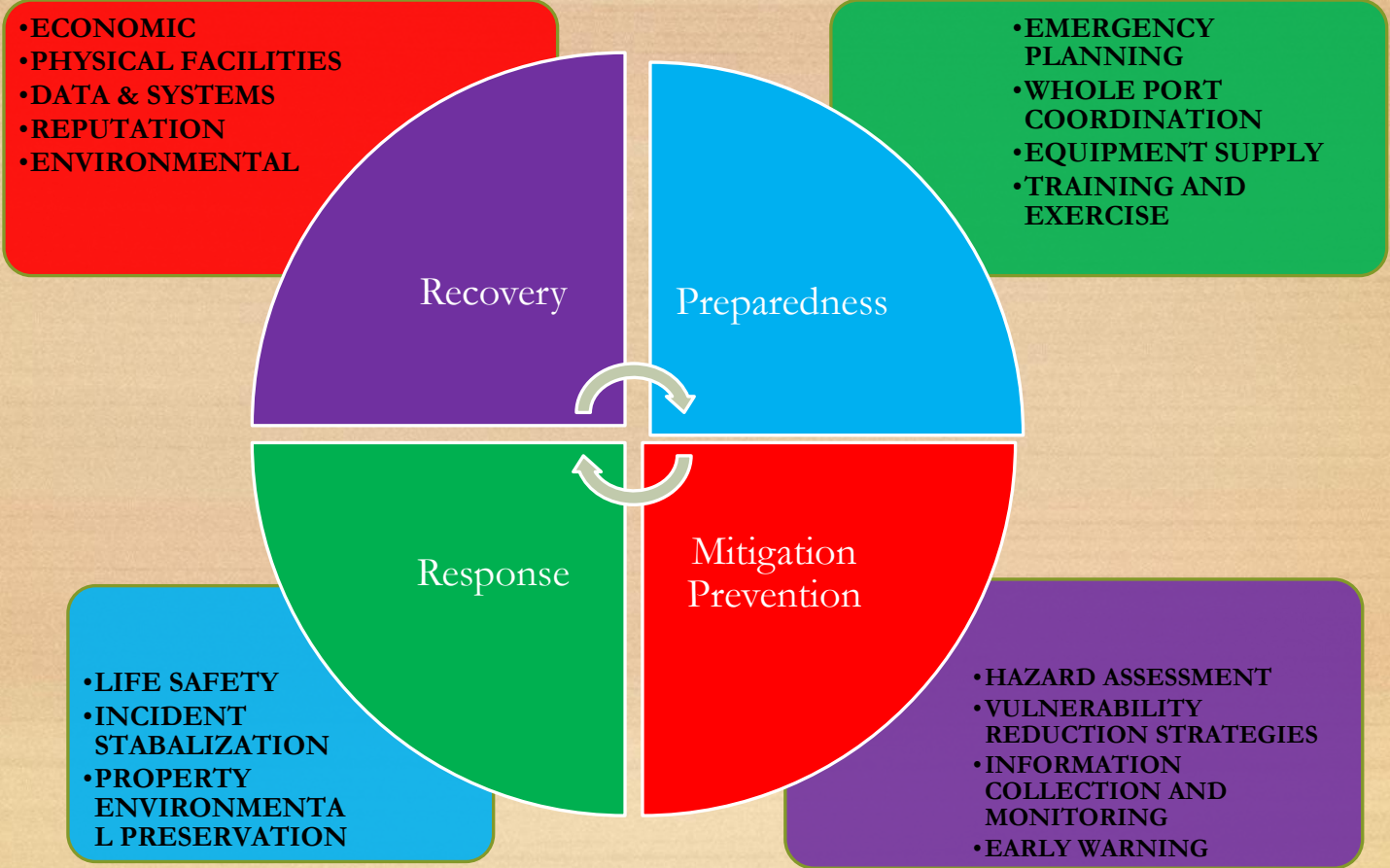
DISASTER RISK MANAGEMENT

- The Port's rapid growth, economic impact, and military presence make it one of strategic and national importance. Even a small disruption caused by intentional or natural events can have ripple effects throughout Trinidad and Tobago, the nation, and across the globe. As a major commercial and military hub for the import/ export of products and the travel industry, the Port is exposed to numerous hazards which can disrupt operations.
- The most significant hazards include natural hazards such as, coastal storm erosion, tsunamis, flooding, and earthquakes. There is also the threat of terrorism or war-related incident such as a nuclear, biological, chemical, or conventional attack utilizing vehicles or vessels. Other emergencies could develop from a hazardous materials incident, conflagration, water or air pollution, major transportation accident, water, gas or energy shortage, or civil disorder

DISASTER RISK MANAGEMENT CATEGORIES

- Hurricane/extreme weather
- Epidemic/pandemic – (Public Health Emergencies)
- Fire in port
- Oil/chemical spill
- Tsunami/earthquake
- Mass casualty/evacuation
- Volcanoes
- Cybersecurity
- Security

FOUR PILLARS OF DISASTER RISK MANAGEMENT



BASELINE	The PATT operates under this Level on a daily basis. Typically, the response is handled with a single department's available resources, and that department is responsible for decision making to properly resolve the issue
LEVEL 1	A minor to moderate incident or special event wherein PATT resources are adequate and available. A LOCAL EMERGENCY may or may not be proclaimed.
LEVEL 2	A moderate to severe emergency wherein internal resources are not adequate and mutual aid may be required on a regional or even nation-wide basis. A LOCAL EMERGENCY may or may not be proclaimed and a STATE OF EMERGENCY might be proclaimed.
LEVEL 3	A major disaster wherein resources in, or near, the impacted area are overwhelmed and extensive state resources are required. A LOCAL EMERGENCY and a STATE OF EMERGENCY will be proclaimed and a PRESIDENTIAL DECLARATION OF EMERGENCY or MAJOR DISASTER may be requested.

HAZARD AND RISK ASSESSMENT

Category	Threat	Risk
Human-Caused (Intentional/Adversarial Actor)	Improvised Explosive Device (Bomb)	Medium
	Armed Attack	Medium
	Vehicle/Vessel Attack	High
	Arson/Incendiary Attack	Medium
	IT Disruption	High
	Cyber-Terrorism	High
	Chemical, Biological, Radiological or Nuclear CBRN	Medium

Low – Unlikely to happen

Medium – Somewhat likely to happen

High –Imminent, ongoing, or very likely to happen

Category	Threat	Risk
Natural	Fire Threat (vegetation)	Low
	Coastal Storm Erosion	Medium
	Tsunami	Medium
	Rain Induced Landslide & Flooding	Low
	Earthquake	Medium
Technological (System Failure/ Accidental)	Hazardous Material Release	High
	Oil Spill/Hazardous Material Release on Water	High
	Sewage Spill	High
	Utility Interruption	Medium
Reputational	Labour Union Dispute	High
	Protest of Policy	Low
	Tourist Targeted Crime	Medium
	Actions by External Associations	Low

RESOURCE MANAGEMENT

- Capacity to transport over 2500 people at a given time
- Ability to berth at various ports in Trinidad and Tobago and Inter- Caribbean
- Can facilitate impromptu and emergency helicopter landing
- PPOS can facilitate 2-3 Cruise Ship at a time
- Warehousing capabilities
- Various Emergency Exit and Muster Points











Emergency Supporting Functions

Area	Functions	Primary Unit	Secondary Department
Transportation	Management of transportation systems and infrastructure during a threat, or in response to an incident	PPOS/TTIT	HSE Departments(PPOS&TTIT) Operations Port Police Department
Communications	Communications addresses the restoration of communications infrastructure (inclusive of Information Technology (IT) infrastructure), coordinates communications support to response efforts, facilitates the delivery of information to emergency management decision makers, and assists in the stabilization and reestablishment of systems and applications during incidents	PPOS	Marketing & Public Relations Equipment & Operations Information Technology

Area	Functions	Primary Unit	Secondary Department
Engineering & General Services	The Engineering & General Services describes the capabilities and resources to facilitate the delivery of services, technical assistance, engineering expertise, construction management, building inspection, utility response and other support as required.	POSINCO	Harbour Control, Electrical Department
Emergency Management	Emergency Management describes how emergencies will be managed within the PATT by providing a basis for centralized control, coordination, and direction of emergency operations, inclusive of EOC operations	PAT'TGU	Port Police HSE Operations
Public Information & Warning/External Affairs	The Public Information & Warning/External Affairs provides guidance for conduct and coordination of emergency public information and protective action guidance, alert and warning, media and community relations, and senior and elected official relations.	PPOS- Marketing & Communications	Government & Civic Relations; Port Police Department; Information Technology

Area	Functions	Primary Unit	Secondary Department
Logistics Management/Resource Support	The Logistics Management/Resource Support addresses personnel, supplies, and equipment and how they are procured and supported within the PATT. Some assets may come from other counties/states/external stakeholders, and the Logistics outlines how these resources will be accounted for. All costs need to be tracked so that claims can be made to state and federal agencies during the recovery process. The Logistics Annex describes how the functions will be carried out within the PATT.	Procurement	Engineering HSE Department
Search & Rescue	The Search & Rescue addresses the coordination of activities directly related to incident scene (Land-side & Maritime) search and rescue operations	POSINCO	Port Police Department External Support- T&T Coast Guard and Police Service
Financial Disaster Recovery	The Financial Disaster Recovery describes the financial and administrative procedures that support emergency operations and cost recovery and documentation.	PATTGU	Finance, Strategic Planning, IT & Human Resources
Public Safety & Security (Inclusive of Facility Security)	This Public Safety & Security addresses the coordination, resources and actions required to support facility and resource security, security planning, public safety and support for security operations (i.e., Security, Evacuation, Traffic/Crowd Control, etc.) for the PATT.	POSINCO	Port Police & HSE Department

List of External Agencies involved in Disaster Risk Reduction at the Ports of Trinidad and Tobago

ODPM	Ministry of national Security	NOC – National Operations Centre	Ministry of Works and Transport – Line Ministry	Regional Corporations
Ministry of Local Government	WASA- Water and Sewage Authority	Meteorological Office	Ministry of Health	Ministry of Energy and Energy Affairs
Ministry of Public Utilities	Ministry of Social Development	Ministry of People and Social Development	Tobago House of Assembly- TEMA	Private Sector
Civil Society (NGOs, FBOs, CBOs)	Ministry of Finance	Ministry of Community Development	Environmental Management Authority	ETC.....

Case Study-Fire Onboard the MV Cabo Star

SUMMARY- TIMELINES

On August 23rd, 2023, at approximately 11:45 pm, after its departure from the Port of Scarborough a fire was observed in the engine room of the M.V. Cabo Star. The emergency protocols were immediately executed, and the fire was extinguished by the vessel's crew.

11:50 pm – The crew started to use emergency fire pump which was used to do boundary cooling in the vicinity of the generator room whilst carbon dioxide was used in the generator room to fight the fire.



August 24, 2023

12:00 am – Via distress alerts from the M.V. Cabo Star. North Cost Radio was contacted and informed about the emergency.

12:03 am - 12:45 am – A general alarm was sounded. Safety announcements were given according to the emergency protocols. As a precaution provisions for emergency evacuation were also made.

12:53 am – North Cost Radio then contacted and informed GH Enterprise, and Delta Cardinal (VC) to render assistance to M.V. Cabo Star at its location.

01:02 am – The fire was completely extinguished by the crew at this time.

01:35 am – The M.V. Cabo Star anchor was released to prevent the vessel from drifting

02:19 am - 03:00 am – GH Enterprise and Delta Cardinal arrived alongside the MV Cabo Star to render stand-by emergency assistance.

03:15 am – Emergency evacuation of passengers was aborted by Captain Indrek Koster since the fire was completely extinguished and structural integrity of the vessel was intact.

03:45 am – As a precaution, a decision was made by PATT Management to dispatch two (2) tugs from Trinidad to tow the M.V. Cabo Star back to the Port of Scarborough to be offloaded.

8:00 am – Provisions were made during this period by PATT Management, TEMA Director, and Doctor Roxanne Mitchell (General Manager of Primary Care Services) for medical assessment of passengers and crew, social support, and refreshments upon arrival of the M.V. Cabo Star at its Scarborough's berth.

12:00 pm - 2:15 pm – An Advance Medical Post was assembled at the Domestic Passenger Arrival Hall.

12:20 pm – Tugs KTK Mero and KTK Tribon arrived at the M.V. Cabo Star location.

12:25 pm - 12:27 pm – The TT Coast Guard advised that the supporting vessels, GH Enterprises and Delta Cardinal could depart the location once the situation onboard the M.V. Cabo Star were favourable. Both vessels were commended for their assistance and left at this time.

1:25 pm to 4:00 pm – The M.V. Cabo Star was towed into the Port of Scarborough's Harbour by KTK MERO on forward and KTK Tribon on aft positions. The berthing of the M.V. Cabo Star was temporarily delayed due to the arrival and offloading of the M.V. Galleons Passage. (Both vessels share the same berth).

4:40 pm – M.V. Cabo Star was safely berthed at the Port Of Scarborough.

5:15 pm - 8:15 pm – Medical assessments of all passengers and crew of the M.V. Cabo Star were conducted by Doctor Roxanne Mitchell and her team

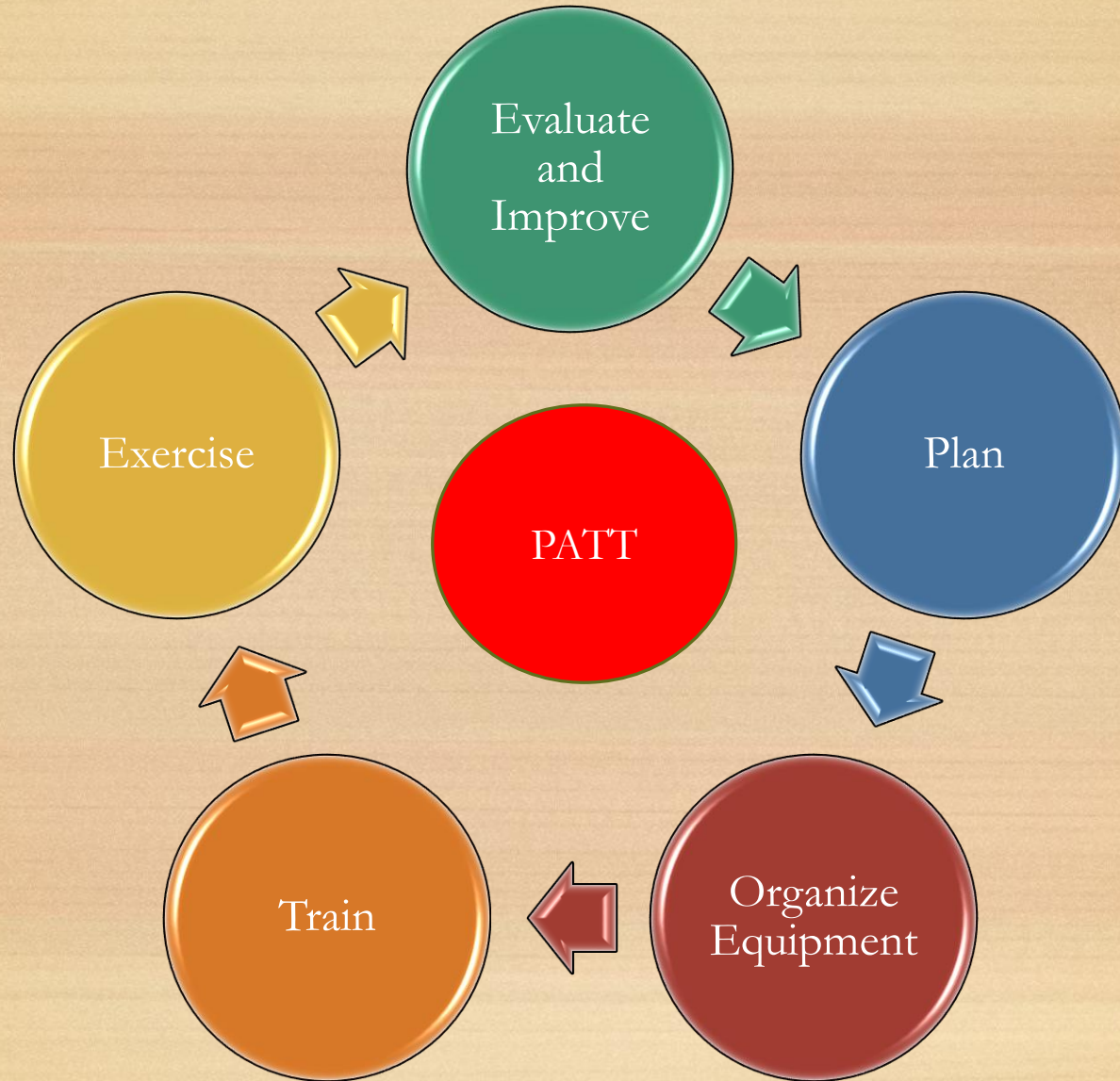
August 25th 2023

8:20 am – The M.V. Cabo Star departed the Port of Scarborough to Trinidad being towed by tugs KTK MERO and KTK Tribon.



PATT OBJECTIVES FOR DRM GOING FORWARD

- TTEMAS- Trinidad and Tobago Emergency Mutual Aide Scheme
- Inter Caribbean Emergency Management System
- Continued working arrangements with ODPEM and other stakeholders; Regional Corporations, Maritime Preservation, Central Bank, National flour Mills, PLIPDECO etc...
- PAHO – Pan American Health Organization – Risk Assessment Tool
- The Caribbean Community (CARICOM) Implementation Agency for Crime and Security (IMPACS)



Section 8 (2) An occupier of an industrial establishment employing twenty-five or more persons shall prepare or revise, in consultation with worker representatives in the industrial establishment

(b) an emergency plan in writing based on a risk assessment made in accordance with section 13A which shall include—

- (i) suitable and rapid means of obtaining first-aid help and transportation from the industrial establishment to a hospital for injured workers; and
- (ii) measures and procedures to be used to control a major fire, to react to serious damage to the industrial establishment, to evacuate the industrial establishment and to notify rescue personnel,

LEGAL OBLIGATIONS

OSH ACT CHAPTER 88:08

13A. (1) Every employer shall make a suitable and sufficient annual assessment of—

- (a) the risks to the safety and health of his employees to which they are exposed whilst they are at work; and
- (b) the risks to the safety and health of persons not in his employment arising out of or in connection with the environmental impact of his undertaking,

Emergency and Disaster Risk Management Plans and Guides :

- CDEMA CDM Strategy 2014-2024
- United Nations Sendai Framework for Disaster Risk Reduction 2015-2030
- FEMA National Disaster Recovery Framework (most recent edition)
- OAS Inter-American Committee on Ports (CIP) Disaster Risk and Management Assessment Survey.
- Office of Disaster Preparedness and Management of Trinidad and Tobago
- TEMA – Tobago Emergency Management Agency
- ISPS



