

**MARITIME INSTITUTE OF MALAYSIA**

**UNDER LOCK AND KEYS :  
SUPPLY CHAIN SECURITY  
FROM A MARITIME  
PERSPECTIVE**

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*Advancing the Frontier of Maritime Knowledge*



## *Presentation outline*

- **The maritime supply chain.**
- **Measures undertaken to safeguard the security of maritime supply chain with a focus on ports.**
- **Roles of port security personnel.**
- **Balancing security and trade efficiency.**
- **Towards a safer, more secure maritime supply chain.**

# *Ship happens...*

"...It's late because of a dock strike..."





## *Maritime transportation fact sheet*

- **7.11 billion tons of cargo moved globally in 2005 (up 3.8% from 2004).**
- **World merchant shipping fleet grew to 960 mil. DWT in Jan 2006 (+7.2% from Jan 2005).**
- **World container port traffic reached 337 mil. TEU in 2004 (+12.6 from 2003).**

## *Features of maritime transportation*

- **Vital trade facilitator as ocean shipping carries 90% of world trade.**
- **Involves many parties and assets along the maritime supply chain.**
- **Ports act as crucial component interfacing with other transport modes.**
- **Speed and efficiency are the pillars of maritime transportation.**

## *Features of maritime transportation*

- **Subject to the influence of many factors.**
- **Growth of maritime sector (i.e. port throughput, shipping fleet) & supporting services mirrors trade & economic growth.**
- **Its long link & international nature makes it vulnerable & exposed to threats.**

## *Strategic role of maritime transportation*

- **Many sea routes act as strategic lanes and choke points for strategic supplies.**
- **More countries depend on maritime transportation to facilitate their trade and energy imports.**
- **Sovereignty, safety, security of crucial sealandes are keenly debated issues.**

## *Players in maritime supply chain*

- **Producers / manufacturers**
- **Ports**
- **Shipping sector**
- **Transport service providers**
- **Distribution service providers**
- **Freight service providers**
- **Ancillary services providers**
- **End users / consumers**



# Transport service providers

- **Unimodal operators (water, road, rail, air or sea transport operators)**
- **Multimodal transport operators (MTO)**
- **Facilities owners (i.e. seaports, riverine ports, jetties)**
- **Terminal operators**
- **Logistics services companies**

# **Distribution service providers**

- **Warehouse / godown operators**
- **Storage facilities providers**
- **Free zones at ports**
- **Distriparks**
- **Inland cargo depots (dry ports)**
- **Distributors / wholesalers**
- **Retailers / dealers**

# Freight service providers

- **Customs clearance**
- **Freight forwarding & consolidation**
- **Hauliers**
- **Specialist forwarding i.e. hazardous materials, reefer goods, *halal* items**
- **Freight brokering**
- **Packaging / repackaging**

# Ancillary services providers

- **IT and telecommunications**
- **Banking and insurance**
- **Equipment / machineries providers**
- **Labor supply – shore side, ship crewing**
- **Legal services**
- **Education, training, R&D**
- **Ship management services**



## *Impact of security breach in the maritime supply chain*

- **Delayed delivery of cargo, causing ships to berth longer / miss calls.**
- **Formation of bottlenecks along the maritime supply chain and beyond.**
- **Delayed production of goods and raising costs to all along the chain.**
- **Create havoc to global trade / economy.**

# *Maritime security measures*

## **International Ship & Port Facilities Security (ISPS) Code**

- **Security standards for ports & ships.**
- **Enhances security & deter terrorism.**
- **Risk management approach.**
- **Has increased security awareness & preparedness at ports.**

## *Maritime security measures*

### **Container Security Initiative (CSI)**

- **US Customs initiative to secure ocean-going container.**
- **US-bound cargo inspection by US Customs officers at foreign ports.**
- **Involves the use of detection technology & tamper-evident containers.**
- **Making US borders the last line of defense.**

## *Maritime security measures*

### **Customs-Trade Partnership Against Terrorism (C-TPAT)**

- **US Customs initiative in collaboration with carriers, brokers and warehouse operators to improve security of ports.**
- **Mitigates the risk of loss, damage, theft and the introduction of potentially dangerous elements into the supply chain.**



## *Maritime security measures*

### **96-Hour Advance Notification of Arrival**

- **Security screening procedure introduced US Coast Guard and US Immigration.**
- **Ships approaching US ports must declare their cargo, crew and passengers 96 hours prior to arrival.**
- **Objective is to enable preventive action on suspect ships from entering US ports.**

# *Maritime security measures*

## **24-Hour Rule**

- **Implemented by US Customs since 2003.**
- **Requires Non-Vessel Operating Common Carriers (NVOCCs) to provide details of the contents of US-bound sea containers 24 hours before they are loaded onboard.**
- **Allows identification of threats before ships arrive at US ports.**

## *Other maritime security measures*

- **World Customs Organization's Framework of Standards and International Cargo Security Council's global network to boost cargo security.**
- **Proliferation Security Initiative, allowing boarding of suspect vessels.**
- **International Port Security Program**
- **Regional Maritime Security Initiative**

## ***Roles of security personnel***

- **Port security, enforcement agencies & shipping crew should cultivate security consciousness into their corporate culture.**
- **Security should not start & end at their end of the supply chain.**
- **Coordination, cooperation, communication among all to create ‘domain awareness’.**
- **Resources should be allocated to recruit, train & equip personnel.**



## *Implications of security measures*

- **Improved security along maritime supply chain, but goodwill between ports and their users has been affected.**
- **Ports have had to pass security costs to users to recover expenses.**
- **Shippers complain that security should be provided without charge.**
- **Sharing of security costs remains an issue.**

## *Implications of security measures*

- **Questions remain if some measures are effective, sustainable or even needed.**
- **Speed and efficiency have been sacrificed.**
- **More government funding needed.**
- **Possibility of treating security as a public good, thus the sharing of its financing.**

## ***Balancing security & trade efficiency***

- **Security measures must not hamper speed & efficiency of cargo movement too much.**
- **Security initiatives must be planned in consultation with players in supply chain.**
- **Good intelligence needed to avoid looking for ‘needle in haystack’ & checking everything.**
- **Reconcile security plans with supply chain management to ensure smooth trade flow.**

## *Towards securing the maritime supply chain*

- **Governments must take the lead in protecting maritime supply chain.**
- **Strong public-private partnership to improve effectiveness of security measures.**
- **Acts are needed to ensure compliance.**
- **Threat perception and responses must be based on sound intelligence & info / data.**



## *Towards securing the maritime supply chain*

- **Maintain current systems before procuring new ones.**
- **Invest in security-related personnel (recruitment, training); infra & equipment.**
- **Leverage on technology to facilitate risk-based scanning / non-intrusive inspection.**
- **Balance risk assessment with trade needs.**

## *Conclusion*

- **Maritime supply chain is built on speed and efficiency, hence more security procedures mean less of the two.**
- **The effectiveness of maritime security measures will continue to be debated.**
- **Measures to secure the supply chain need to be gelled into a cohesive framework to achieve domain awareness.**

## *Conclusion*

- **Protecting maritime supply chain is critical in safeguarding the strategic supplies of raw materials and goods.**
- **The 3Cs concept of consultation, collaboration & cooperation is vital to secure the maritime supply chain.**
- **Creating sustainable procurement means integrating security & trade .**



# *Shape up or ship out!*





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*“If you fail to plan,  
you plan to fail”*

**THANK YOU**

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