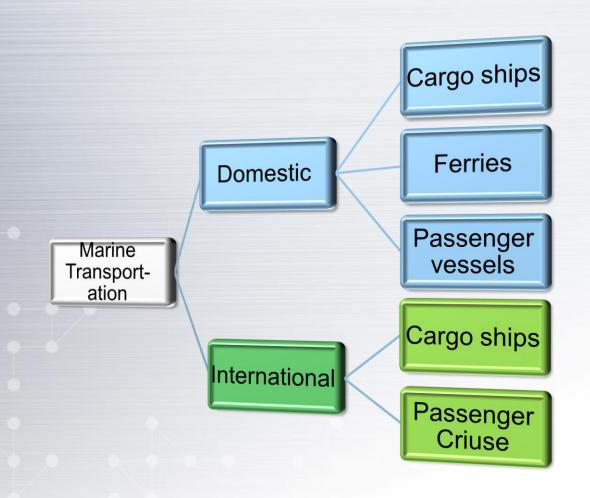






# **Marine Transportation**













#### **Marine Accidents**



Fire on board



Speed Crafts Crashed



Collision



Run aground



Fire in E/R



Sunk



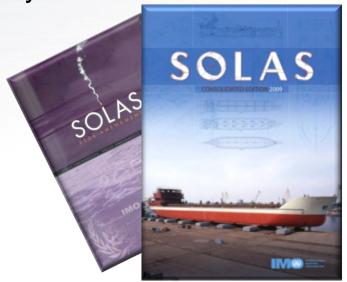
# Elements of Safety of Navigation





# Element of Safety of Navigation

- Safety of Navigation
  - Ships' Hull and Machinery/Electrical System
  - Traffic condition, Collision Avoidance Regulations
  - Berths and Channels, Dangers to navigation
  - Charts and Navigation Aids,
  - Communications and Maritime Safety Information
  - Weather condition



# Establishment of Vessel Traffic Services(VTS)

- VTS is a valuable tool to ensure safety of navigation and efficient movement of vessels in ports and can also assist coastal vessels transit.
- ❖ The VTS Manual states 'The realities of modern shipping, with larger and less manoeuvrable ships, traffic congestion in ports, hazardous cargoes and the potential for environmental damage demand that sophisticated measures be taken to reduce risks. Establishing a VTS is a significant response to that demand.



## Effective implementation of VTS

VTS cannot be effective without the appropriate level of legislation to empower the operation which could include:

- Scheduling of vessel movements and the times between which a vessel may transit
- Implementation and monitoring of speed limits
- Movement restricted areas
- One-way routes and the assigning of anchorages
- Incident response
- Interaction with other services within the port



# Types and Functions of VTS

- Two categories of VTS are recognized: Port/harbour and coastal. A port/harbour VTS is mainly concerned with vessel traffic to and from or within a port/harbour while a coastal VTS is mainly concerned with traffic passing through a VTS area and where usually only an information service is provided
- VTS functions are
  - Interacts with traffic;
  - Responds to traffic situations;
  - Authorized by the Competent Authority;
  - Staffed by V-103/1 Certified personnel;
  - Equipped as appropriate to provide services.



#### **VTS functions**

- VTS functions are categorized into 3 types of services: Information Service(INS), Traffic Organization Service(TOS) and Navigational Assistance Service(NAS)
- The INS is a service to ensure that essential information becomes available in time for onboard decision-making.
- The INS involves maintaining traffic image and allows interaction with traffic and response to developing traffic situations(eg. Identity, position, intention and destination, reporting of movement, Promulagated navigational information.



#### **VTS functions**

- The TOS is a service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area
- The TOS may involve the allocation of water space, traffic clearance, sailing/route plan, specific information such as traffic congestion and special vessels with limitation.



#### **VTS** functions

- The NAS is a service to assist onboard navigational decision-making and to monitor its effects, especially in difficult navigational or meteorological circumstances or in case of defect or deficiencies
- The NAS may be provided in addition to the INS or TOS, essential and timely navigational information to assist the onboard navigational decision-making process eg.; navigational advice and /or instruction



## **VTS** Equipment

- The characteristic of VTS area sets the requirements of the VTS equipment, this may include:
  - Vessel traffic sensors: Radar, AIS, CCTV
  - Communications
  - Vessel traffic management system
  - Port management information system
  - Hydrological and meteorological sensors
- Standard of VTS equipment: IALA Recommendation V-128: Operational and Technical Performance Requirements for VTS Equipment



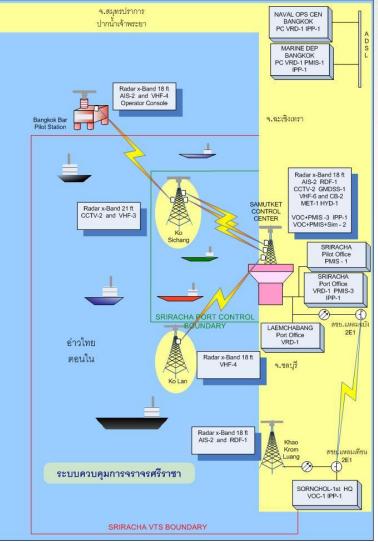
# Traffic in Sriracha Port

Year	Coastal	Foreign-	Import	Export
	Vessel	going	Cargoes	Cargoes
	(Nos.)	Vessel	(MT)	(MT)
		(Nos.)		
2555	4,410	8,073	25,221,563	25,550,675
2554	3,832	6,494	21,505,647	18,706,276



# SRIRACHA VTS







#### **Marine Traffic Information**

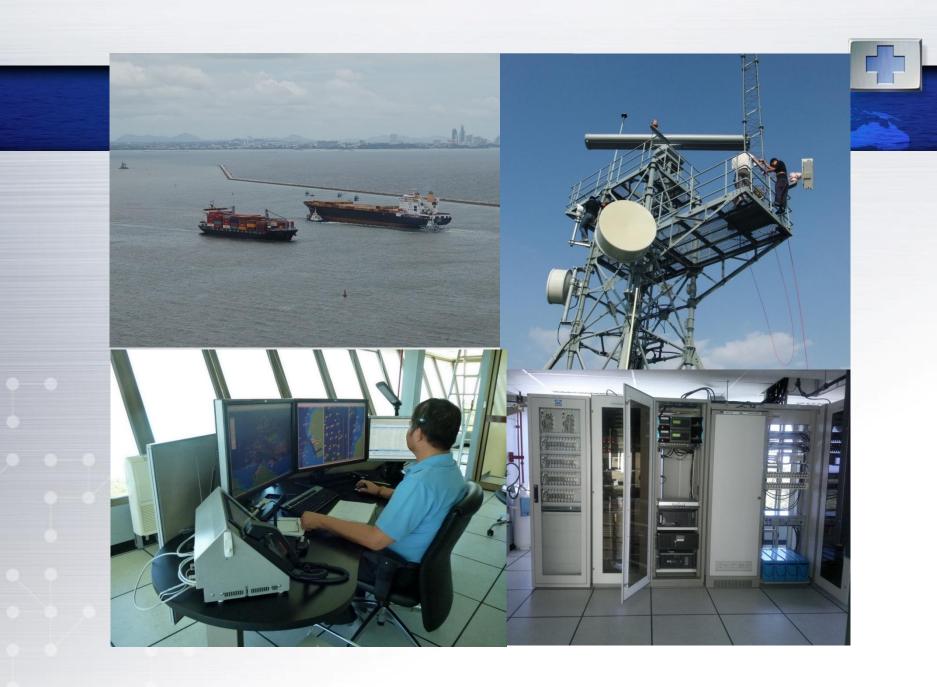
Traffic route, Navigation Aids Berth, Anchorage Port services

Vessels, Cargoes, Defect or limitation

Hydro/Met Information

VTS Control Center

Vessel Traffic and movement





# Sriracha VTS reqirements and Services

- ❖ Vessels of 60 grt or above both Coastal and Foreigngoing are required to notify ETA to Marine Department 24 hours in advance and report to Sriracha VTS when arrives the VTS area. As well as, the vessels before departure Sriracha Port have to notify ETD to Marine Department 6 hours in advance.
- Sriracha VTS is now in operation since 1 April 2012 provides INS and TOS services with qualified VTS personnel according to IALA VTS Manual and IALA Recommendation V-103 Standard of Training and Certification of VTS Personnel.

# SRIRACHA VTS SHIP REPORTING SYSTEM

Transit Vessel to/from BANGKOK PORT

Inbound

Arrival Report SRIRACHA APPROACH (SRA) VHF Ch 71 Departure Report

Outbound

Anchorage

Vessels' destination SRIRACHA PORT&



to/from LAEM CHABANG PORT

Inbound

Arrival Report SRIRACHA PORT LIMIT(SPL)
VHF Ch 73

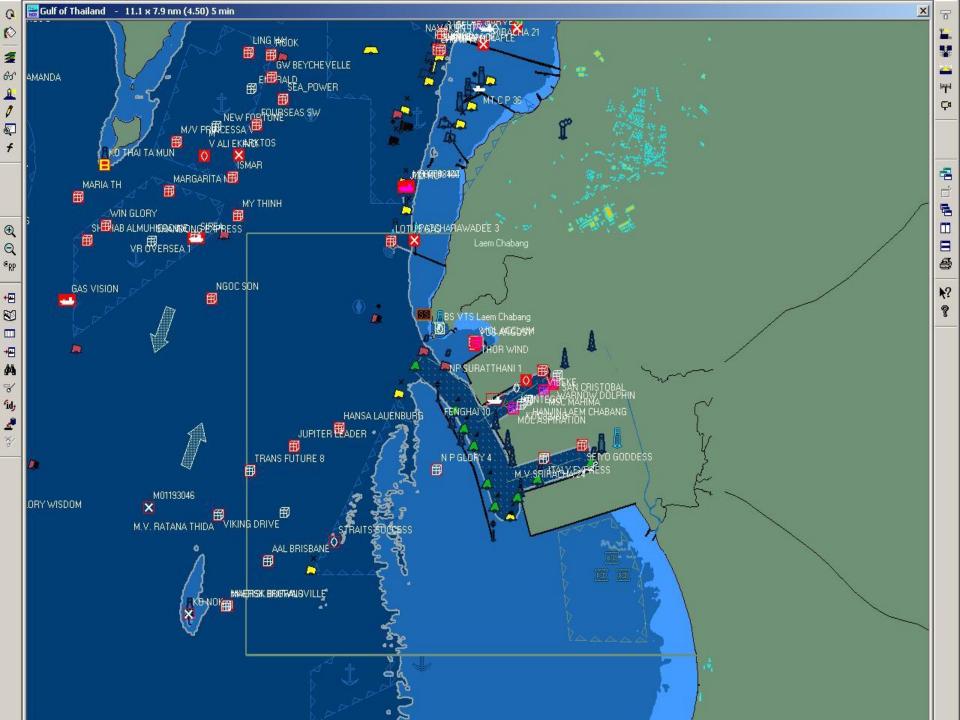
Berthing & Anchoring Report

Vessels shifting SRIRACHA PORT & within

LAEM CHABANG PORT

Outbound

Departure Report SRA VHF Ch 71 SPL VHF Ch 73 Clearance Report





# END OF PRESENTATION