Implementing E-Navigation in Malaysia – some preliminary thoughts

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Outline

• Definition of e-navigation
• IMO’s perspective on e-navigation
• E-navigation and Malaysia
  ▪ Where we are?
  ▪ What needs to be done?
  ▪ How?
• The MEH experience
• Conclusion and recommendations
Definition of e-navigation

• The harmonised collection, integration, exchange, presentation and analysis of maritime information onboard and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment - IMO
IMO’s perspective of e-navigation
AIMS

PROMOTE
- WORLDWIDE STANDARDISATION, UNIFORMITY AND INTEROPERABILITY
  - EQUIPMENT, SYSTEMS, SERVICE PROVISION, SYMBOLS, PROCEDURES
- SYSTEM INTEGRATION
  - FUNCTIONAL, USER DRIVEN, LIMITATION OF WORKLOAD

SUPPORT
- SAFE / SECURE NAVIGATION (supported by all possible information)
- VESSEL TRAFFIC MANAGEMENT AND - MONITORING
- COMMUNICATION AND DATA EXCHANGE (ship/ship, ship/shore and shore/shore)

CONTRIBUTE
- EFFICIENCY MARITIME TRANSPORT AND LOGISTICS
- EFFECTIVE SEARCH-AND-REScue (SAR), DISASTER AND INCIDENTS RESPONSE

DEVELOP
- REQUIREMENTS in respect to TRAINING AND EDUCATION
- FAMILIARISATION with PROCESSES, PROCEDURES, SERVICE PROVISION, APPLICATIONS, SYSTEMS
Global E-navigation timeline
Users

- SOLAS vessels
- Non-SOLAS vessels
  - Fishery
  - Offshore supply
  - Government vessels
  - Pleasure craft
  - Etcetera

- VTS
- Coastguard / MRCCs
- Ship Reporting Services
- Pilot services
- Ports
- Hydrographic Survey

- Third parties
  - Port State Control
  - Shipping Inspection
  - Enforcement services
  - Investigation services
  - Relief / Response services
  - Fairway authorities
  - Etcetera
E-navigation and Malaysia

• Where we are?
• What needs to be done?
• How?
E-navigation and Malaysia

• Where we are?
  – while e-navigation seems new it is not a reinvention of the wheel
  – some key elements are in place in some parts of the country e.g., the Straits of Malacca and Singapore (VTS, MEH, STRAITREP, MSN)
  – harmonised collection, integration, exchange, presentation and analysis of maritime information
E-navigation and Malaysia

• What needs to be done?
• Inventory
  - what information do we have, how is it collected and disseminated
    cursory review of information shows that some data is good (traffic, movement, type, hydrographic and environment) but some are not so good (ecological and fisheries resources)
  - delivery system
    adequacy of present infrastructure (hardware and software)
  - area coverage
    only in SOMS, what about the rest of the country?
  - institutional framework
    legal, policy and administration
E-navigation and Malaysia

How?

• Develop policy
  - e-navigation is inevitable. What policies do we need to implement. What are the objectives and outcomes that we want to achieve

• Identify key components
  - nationwide or only in priority areas, tools, software and hardware, implementing mechanisms

• Key results
  - safer, cleaner seas

• Users point of view
  - willingness to pay, cost of technology acquisition, training, information overkill?

• Targets and timetables

• Cost
The MEH Experience

• Experience with the Marine Electronic Highway project in the Straits of Malacca and Singapore highlights the importance of having a complete picture to be provided to users.

• Dynamic and static data are required for real time and background situational awareness.

• At this stage we may not have all the necessary data.
Conclusion and Recommendations

• 2014 will see the approval of the strategic action plan for e-navigation

• While actual implementation will be gradual Malaysia should consider early action

• Some key elements are in place but information may be lacking and coverage incomplete

• Stock take of current situation needs to be carried out followed by policy formulation, identification of key components, results, targets and timetables and cost.
Thank You