

2018 e-Navigation Underway (North America) Conference

Conclusions

- 1. Due to the highly competitive shipping market, ship owners/operators are increasingly driven to improve efficiency of their operations.**
- 2. Acceptance of the Maritime Connectivity Platform (MCP) is awaiting the formation of a consortium to govern MCP.**
- 3. AIS Channels are overloaded in some areas.**
- 4. European and Korean well-funded e-Navigation related test beds have proven the feasibility of solutions that will improve the safety and efficiency of shipping operations.**
- 5. The US' National AIS System (NAIS) will soon be used to transmit real-time oceanographic and meteorological information (PORTS).**
- 6. USCG's Hurricane Resilience for AtoN's has been very effective.**
- 7. NOAA is planning to provide precision navigation to improve safety and efficiency of shipping operations.**
- 8. It will be a challenge to update existing rules and implement new rules and regulations for Maritime Autonomous Surface Ships.**

Recommendations

- 1. Mitigate the effects of human error through more sophisticated tools including non-SOLAS ships and further training and assessment in Professional Standards**
- 2. Industry needs harmonized global standards, guidelines and recommendations to develop and implement aspects of e-navigation that improve the safety and efficiency of shipping operations**
- 3. International organizations (IMO, IALA) should formulate interoperability requirements between MCP and its alternatives or endorse either MCP or one of its alternatives rather than leave it up to the market place to decide**
- 4. In areas where AIS Channels are overloaded Port States should consider the use of VDES-enhanced AIS**
- 5. Improve information sharing between Pilots and Bridge Teams before the ship arrives in port**
- 6. Identify where we want focus cyber security efforts in the maritime industry.**
- 7. Standards for improving cybersecurity in the maritime industry should be developed. Industry and government should liaise on these standards. Training of users on following security processes is important.**