

# ***e-Navigation: Opening the Door to the Future***

## ***Emerging technologies and their impact in the maritime industry***

To examine future requirements, the conference will focus on a spectrum of likely developments, from those on the calendar for 2019 to ones perhaps 20+ years in the future. The range of possible topics is illustrated by S-Mode at one end, scheduled for decision next year, to those like “[Advanced Autonomous Waterborne Applications \(AAWA\)](#)”. The number of topics between those extremes will require careful culling to develop a cohesive program. The presentations lead to a panel discussion by selected experts tasked with identifying the core competencies which in their view will be needed to support the advances they advocate. Conclusions and recommendations generated by the delegates will provide useful input to regulators, educators and maritime training establishments. These, submitted as part of the Conference Final Report to IALA, will be disseminated by IALA to the appropriate international and national authorities for consideration.

### **PRELIMINARY PROGRAM**

#### **5 NOVEMBER – DAY I**

##### **ICE BREAKER RECEPTION: 1700-1900, Compass Room, Academy Campus**

Beverages and finger food together with the opportunity to meet with other participants and register.  
(Transportation will be provided to and from the conference hotel)

#### **6 NOVEMBER – DAY II**

(Transportation will be provided to and from the conference hotel)

0730-0830: Registration and Continental Breakfast

**Welcoming Remarks:** Dr. Michael Holden, Conference Chair, and Rear Admiral Thomas A. Cropper, President, California State University Maritime Academy.

**Keynote Address:** Mr. Francis Zachariae, Secretary-General of IALA

### **SESSION I - Lines of Position – Building Blocks for the Future**

The ‘building blocks’ contribute to the future operating environment, affecting present and future competency and training needs.

**Moderator:** Captain Tamara Burbach, California State University Maritime Academy

**The Maritime Connectivity Platform (MCP):** The MCP is a fundamental element for future development.

Presenter: Mr. Thomas Christiansen, SMART-Navigation Program consultant (Confirmed)

**Sea Traffic Management (STM) and VDES:** The Sea Traffic Management (STM) Project defined a set of systems and procedures to guide and monitor sea traffic.

Presenter: Mr. Peter Bergljung, SAAB Transponder Tech (Confirmed)

**e-Navigation Maritime Services for non-SOLAS ships:** The measures being developed by the Republic of Korea's *SMART-Navigation Program* offer the potential for significant impact on non-SOLAS vessels.

Presenter: Mr. Thomas Christiansen, SMART-Navigation Program consultant (Confirmed)

**LUNCH: 1200-1330, Lunch Address by Capt. John Betz, Los Angeles Pilot**  
Emerging Technology in Maritime Piloting

## **SESSION II: GOVERNMENTAL ACTIONS AND PLANS**

**Moderator:** Ms. Helen Brohl, Executive Director, Committee on the Marine Transportation System (CMTS), U.S. Department of Transportation (Confirmed)

**The Future of Federal Navigation Services:** USCG, USACE, and NOAA will present on collaborate initiatives to enhance the quality and presentation of federal navigation services.

Presenters: Mr. Brian Tetreault, U.S. Army Corps of Engineers, Mr. David Lewald, U.S. Coast Guard, Dr. Neil D. Weston, Technical Director, OCS, National Ocean Service, NOAA (Confirmed)

**Cyber Risk Management:** Incorporation of cyber risk management into regulated facilities and the overall marine transportation system.

Presenter: LCDR Brandon M. Link, USCG, U.S. Coast Guard Office of Port and Facility Compliance (Confirmed)

**The Critical Role of Integrating new Technology within the Regulatory Process:** Discussion of the importance of regulations and standards as advanced systems are implemented.

Presenter: Ms. Mayte Medina, chief, U.S. Coast Guard Office of Merchant Marine Credentialing (Confirmed)

**DINNER: 1800-2000, On Campus. Speaker and topic to be announced**  
Transportation will be provided to and from the conference hotel

## **7 NOVEMBER – DAY III**

(Transportation will be provided to and from the conference hotel)

0730-0830: Continental Breakfast

### **SESSION III: Toward the Horizon**

**Moderator:** Captain Samuel R. Pecota, California State University Maritime Academy (Confirmed)

**Smart Marine Ecosystem Strategy:** The Smart Marine Ecosystem Strategy addresses an array of developments dealing with cooperative decision making, applications of augmented reality, decision support and similar systems.

- Presenter: Mr. Dmitry Rostopshin, Ship Traffic Control Solutions Director, Wärtsilä

#### **Smart ships – Smart Navigation**

Presenter: Tor Svanes, Managing Director/CEO, NAVTOR

**Autonomous Ships:** The presentation will provide an overview of the concept of operations for autonomous vessels, what the “system” will consist of, the infrastructure required and how and where people fit in to the puzzle.

Presenters: Mr. William Westmoreland, Compliance & Training Manager, Kongsberg Maritime, Inc.  
Mr. Adrian Parasus, Lead DP Software Systems Engineer (Confirmed)

**Carnival Cruises Fleet Operations Center:** FOC’s decision support role for bridge teams.

Presenter: Capt. Alan Wilson, Vice President, Marine, Holland America Group (Confirmed)

**LUNCH: 1200-1330, Speaker to be announced**

**Drones – The Near-Term Future:** Maritime drones, applications and impact upon the industry.

Presenter: Mr. Richard Jenkins, CEO, SailDrone (Confirmed)

**Intelligent Awareness:** A Rolls Royce system provides bridge decision making and navigation through use of Artificial Intelligence, Augmented Reality and shore-based support.

Presenter: Representative of Rolls Royce Commercial Marine (Confirmed)

**Hapag-Lloyd’s Fleet Support Center:** The presentation provides an overview of Hapag-Lloyd’s Fleet Support Center and discusses both its contribution to operations and its impact upon staffing.

Presenter: Mr. Jörn Springer, Senior Director and Head of the Fleet Support Center, Hapag-Lloyd AG (Confirmed)

**e-Navigation Services:** IMO plans for the development and implementation of e-navigation services.

Presenter: Mr. Fred W. Pot, Marine Management Consulting (Confirmed)

### **SESSION IV: Plenary Session**

The fourth session will consist of a moderated panel discussing what's needed to support the advanced initiatives in terms of organization, operations, procedures and competency requirements. The intent is to focus upon work force issues and provide recommendations for future education and training.

Moderator: Captain Alan Wilson, Vice President, Marine, Holland America Group (Confirmed)

Panelists: Presenters from Session III

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1630: **Concluding Remarks – Conference closes**