marine technology
SOCIETY
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June 24th 2019
Maritime Institute of Technology and Graduate Studies (MITAGS)
692 Maritime Blvd, Linthicum Heights, MD 21090
Registration: https://www.mitags-pmi.org/courses/view/Cyber_Skilled_Mariner_Call_to_Action_Day

0800 - 0830   Overview, logistics & Keynote introduction

0830 - 0900   Opening Keynote, RADM Mark H. Buzby (USN RET) Maritime Administrator - "Call to Action" everyone should leave with a sense of urgency, actions to bring to their enterprise, and a commitment to sharing with the Cyber Skilled Mariner community. Goal is for the audience to acquire further knowledge of practical and actionable cybersecurity solutions by:
- Gaining awareness of the cyber safety problem to their organizations and to their personal and professional lives.
- Understanding current systems design and connectivity that bring inherent vulnerabilities to data integrity.
- Relating Maritime systems as a cyber-enabled, safety-critical systems, with operational issues that can use available solutions.

0905 - 1015   **Panel Discussion 1:** Moderated by John Jorgensen, Chief Scientist, Cybersecurity and Software at American Bureau of Shipping (ABS). What are the threats to the Mariner, at sea and on shore? A panel of experts from the Maritime and other industries discuss the threats to onboard Maritime systems and the data sources they rely on:
- Quantitative Risk Analysis Throughout Shipboard Operations
- Network and sneaker net
- Are authoritative sources trustworthy
- Authentication, who is getting in
- Interactive discussion

1015 – 1040   Morning break and networking in vendor display area

1045 - 1155   **Panel Discussion 2:** Moderated by Terry Roberts, President/ CEO/ Founder, WhiteHawk CEC, Inc. Correcting a cyber event: A panel of experts from the Maritime and other industries discuss actual attacks to onboard Maritime systems and the data sources they rely on:
- USCG & Maersk Cyber remediation
- Worm infection on drillship OT systems
- Interactive discussion

1200 - 1325   Lunch with Keynote (to be announced) -- Exit to networking in vendor display area

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1330 - 1455   **Panel Discussion 3:** Moderated by Daniel E. Turissini, Chief Technology Officer, SPYRUS Solutions, Inc. What is the state of the art? Maritime enterprises must maintain positive control of automated systems, and logical control of data systems. If actionable data is manipulated, leaked or rendered unavailable, Maritime business can be impacted, and operation compromised, potentially resulting in safety or financial impacts. A panel of subject matter experts from industry, regulatory and governmental roles. Through a lively panel exchange, experts will share lessons learned and demonstrated innovation and practices that can be incorporated into Maritime operations ensuring secure authentication, data protection at rest, in process and during transmission is protected:

- Bridge Communications, Operations and Navigation
- Cargo Operations to Include Network Sensors
- Engine Room Operations and Shipboard IT
- Port Operations and Vessel Interface
- Human Factors- Credentialing and Regulations
- Autonomous Vessels, Blockchain and Beyond

1455 – 1525   Afternoon break and networking in vendor display area

1530 - 1655   **Panel Discussion 4:** Moderated by Dr. Shashi Kumar, National Coordinator MET. Educational Round Table: A panel of Maritime Academic and Training Institutions will explore the potential for blending Cyber Skills into Maritime Education and Training. Can (should) cyber awareness be blended into both Engineering and Marine Transportation tracks. Similar to pipe fitting/welding, radar, firefighting, and other certifications, that a Mariner receives with their diploma and licenses, cybersecurity awareness is essential to the safety of life at sea. Vendors that develop and provide systems for Maritime use have or can develop vulnerability mitigations. However, the Mariner needs to be cognizant of vulnerabilities to request/ demand system updates and upgrades that include protections.

Cyber unnecessarily remains a mystery to most Mariner's, afloat and ashore, who don't even know the basics needed ask questions and challenge vendors (this is not unique to our industry). It is important that awareness be trained early and refreshed periodically.

1700 - 1730   **Administrator's summary and wrap up:** actions and take-aways for all Maritime industry, regulatory and governmental stakeholders.