I.   Executive Summary

The National Maritime Intelligence-Integrations Office's (NMIO) 2016 Global Maritime Forum (GMF) held in conjunction with the Applied Physics Lab (APL) at the University of Washington (UW) brought together a diverse group of experts and senior practitioners. The 2016 theme was *"Challenges and Opportunities of Current & Emergent Maritime Capabilities: Exploring the Intersection of Technology and Policy."* Led by Rear Admiral (RADM) Robert Sharp, Director, NMIO, the forum explored opportunities and strategies for enhancing the security, safety, and protection of the maritime domain. Discussion focused on the intersection of technology and policy in the context of emergent technologies, enhanced satellite capabilities, and enterprise systems for information sharing and safeguarding. The result of the GMF was a compelling call to move forward with a strategic approach that puts mission at the center of technology innovation, while integrating policy and other non-technical issues throughout the design, development, and use phases. Six interconnected themes or "tensions" emerged from the GMF presentations and discussions. These are:

(1) Balancing the risk of data sharing (cybersecurity) with the risk of not sharing data (operational effectiveness)
(2) Balancing formal identity and access management with the use of informal trust relationships and shared experiences
(3) Aligning commercial innovation interests with government and public innovation interests
(4) Integrating bottom up (local) perspectives with top down (Federal) perspectives
(5) Transitioning from technology-centric innovation to mission and policy-centric innovation
(6) Balancing big data aggregate analytics with contextual, specific ground truth approaches

Participant breakout groups met daily to evolve these themes into proposals for moving forward that were presented in the final forum session. Twelve plans were presented (see Section IV below) and were grouped into six "action plans." These action plans can provide roadmaps for moving forward, providing opportunities for future projects for the Global Maritime Community of Interest (GMCOI).

Action Plan #1: Bring together cybersecurity experts and operational mission experts to design information systems that support multi-agency security & safety operations, balancing the risk of sharing data and information with the risk of not sharing.

Action Plan #2: Avoid technology outpacing policy by exploring now the effect of private unmanned underwater vehicles (UUVs) on maritime security operations.

Action Plan #3: Select a region and work with stakeholders to enhance the security information-sharing environment (ISE) through policy sensitive, mission-based technology innovation.

Action Plan #4: Foster trust-based security networks and information sharing environments by capturing existing information sharing relationships and using them to create a user-defined, trust-based entitlement security layer that supports how the community of security operational professionals actually works.

Action Plan #5: Leverage increased commercial satellite capabilities to help meet national security needs by defining policy and incentive structures that would provide benefit to commercial partners as well as government agencies, military commands and intelligence analysts.

Action Plan #6: Develop a highly reliable crowd-sourced alert system by leveraging the potential role of local, highly reliable domain expert public sources.