NATIONAL MARITIME INTELLIGENCE-INTEGRATION OFFICE

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Briefing to ***Japan Space Forum MDA Study Session***

University of Tokyo

1 March 2017

The Overall Classification of this Brief is: **UNCLASSIFIED**

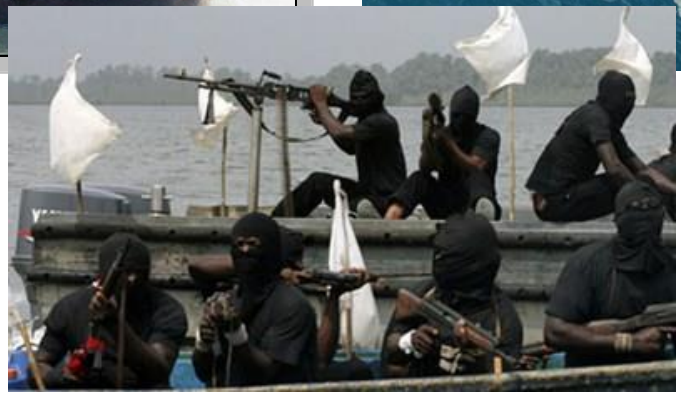
Briefing Objectives

- **Provide you with an understanding of NMIO's Science & Technology Initiatives**
- **Using a few examples, highlight the use of Space Technology on NMIO's work**
- **The use of Space Technology and potential policy impacts for NMIO as a National Intelligence Manager-Maritime**

NMIO's Mission

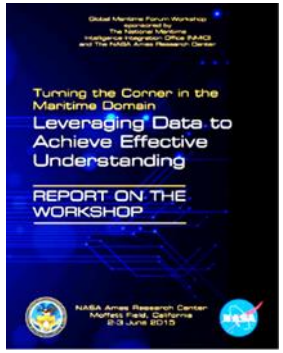
- Advance maritime intelligence integration, info. sharing, and domain awareness
- Enable decision advantage to protect the United States, its allies, and international partners against threats in or emanating from the global maritime domain
- Build unity of effort



Global Maritime Forums

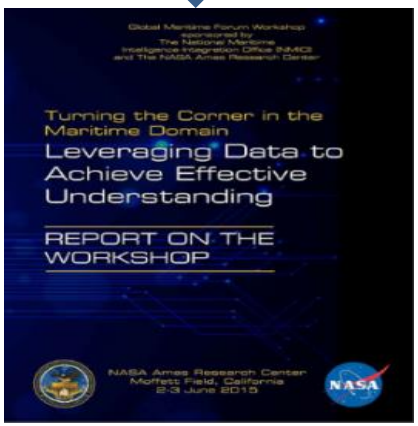
- **NMIO co-sponsors the Global Maritime Forum (GMF) Workshops**
  - Share S&T information globally across multiple government, academic, industry sectors
- **Engages Community of Interest on Emerging Technologies**
  - Support Strategic Warning
  - Prevent Strategic Surprise
- **Recent Venues**
  - Challenges & Opportunities of Current & Emerging Maritime Capabilities: Exploring the Intersection of Technology & Policy Seattle, WA (Nov 2016)
  - Turning Corner in Maritime Domain-Leveraging Data to Achieve Effective Understanding, Mountain View, CA (June 2015)



IUU Fishing & Dark Vessels – MDA Challenge #1

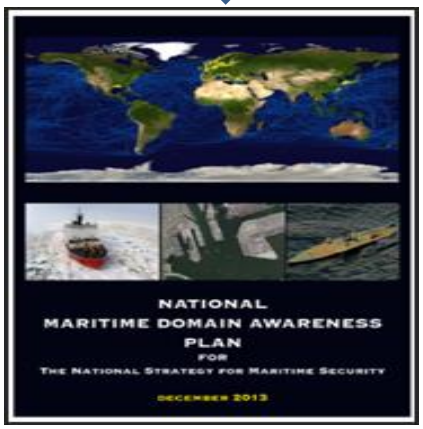
Policy Support: National Ocean Council

DNI Strategic Guidance



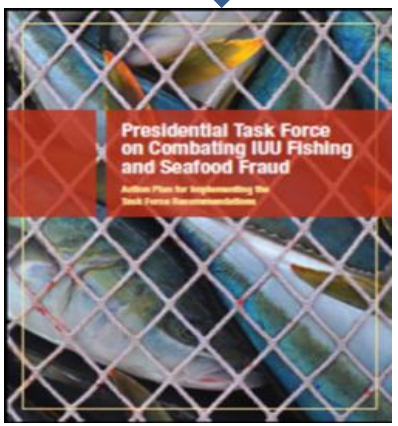
Global Data Challenge

National Strategy



Small, Dark Vessel Challenges

National Priorities

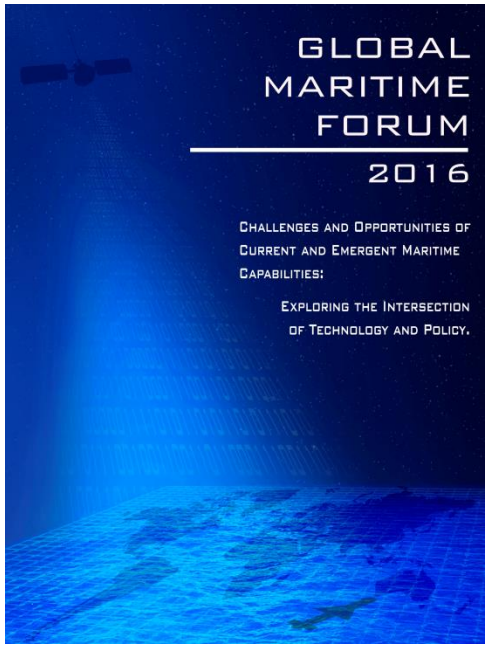


IUU Fishing Action Plan Recommendations

Open Ocean Fishing Behavior Algorithm Development

GMF 2015 = The MDA Data Challenge

GMF 2016 University of Washington, Seattle



GMF 2016 Major Topics

- **How the proliferation of unmanned aerial vehicles affected airspace and FAA policy and set the stage for new regulation for the safety of the aviation transportation system – lessons learned for the maritime community**

- **Unmanned Underwater Vehicles (UUVs) and how autonomous capabilities have the potential to advance rapidly and the evolution of remotely operated underwater vehicles (ROVs) and autonomous underwater vehicles (AUVs), which can operate independently of direct human input, has become an important capability in maritime security**

- **Technology Innovation & Trust-based Information Sharing in support of MDA, explored trust-based information sharing as a key element in future strategies for comprehensive MDA**

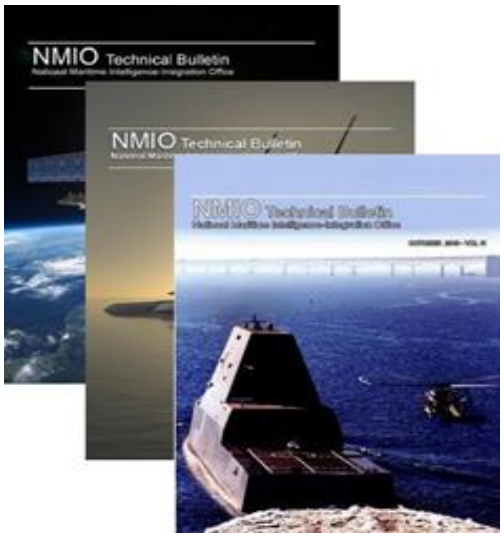
- **Emergence of space-based capabilities for maritime domain awareness and the increasing role of space in the maritime domain and the latest technological advancements in space-based capabilities to enhance MDA offers opportunities to provide constant surveillance of maritime assets**

Outcomes/Ideas from 2016 GMF

- **Design information systems that support multi-agency security and safety operations by balancing the risk of sharing data and information with the risk of not sharing**
- **Explore the likelihood and impact of private unmanned underwater vehicles (UUVs) on maritime security**
- **Enhance Information Sharing Environments through stakeholder-centered, policy sensitive, mission-based technology innovation**
- **Foster trust-based security networks and information sharing environments**
- ***Leverage increased commercial satellite capabilities to help meet national security needs***
  - ***Emphasize the need for more dedicated space-based assets answering to maritime surveillance requirements***
  - ***Use space maritime capabilities to prevent the intentional misuse of the maritime domain to commit hostile, harmful or unlawful acts***

NMIO Technical Bulletins

- **Fosters the sharing of information on scientific and technical issues and activities among domestic and international maritime stakeholders**
- **Published quarterly with articles from contributors all across the GMCOI**
- **Most recent Bulletin (Volume 11) in November 2016**
- **Available for download at: http://nmio.ise.gov**



"I am a big believer… [in] establishing tools to foster increased dialogue and information sharing with partners, both in the U.S. and internationally… NMIO Technical Bulletin will contribute significantly to that goal."
– James R. Clapper, Director of National Intelligence

Expectations for Japan's MDA

- **Work together as the increasing role of space in the maritime domain and the latest technological advancements in space-based capabilities to enhance MDA emerges at a rapid pace**
  - **Balance risk of sharing data and information with the risk of not sharing and consider the varying controls for sharing, mission variance, and other policy-based restrictions**
  - **Decide how best to move forward in creating an information sharing environment while considering policy issues in support of missions (country specific)**
  - **Work together to articulate a complex multi-agency and country missions to use cooperatively and jointly use space assets**
    - **Assure and support allies**

Thank You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Collaboration
Unity of Effort
UNITED STATES OF AMERICA