

MIST

Maritime Information Sharing Taskforce



Port of Honolulu

Industry and Public Sector Cooperation for
Information Sharing

Anita Salem
Wendy Walsh
Lyla Englehorn



MIST Honolulu

MIST held its third event in Honolulu on November 22-23, 2009. Using a participatory design approach, NPS researchers partnered with federal and commercial stakeholders to hold a workshop to assess the information sharing needs of security personnel in this port region.



MIST

The Maritime Information Sharing Taskforce (MIST) is a two-way process for understanding and communicating the needs of local, private sector communities when sharing maritime threat information. Our goals are to:

- Capture best practices in information sharing
- Create a structure for collaborative problem solving
- Convey unique local issues to national policy makers

MIST is led by the Maritime Defense and Security Research Program (MDSRP) at the Naval Postgraduate School (NPS) and was established in the fall of 2008. The MIST process consists of a series of local events held at individual ports across the United States. Each local event builds upon lessons learned from earlier events and invites participants to join in on the design of the event.

Federal partners

- DOT-MARAD
- OGMSA
- GMAII
- DHS-USCG
- DHS-CBP
- DoD-MDA EA
- DoD- Dept. of the Navy
- DoD- ASD-HD&AS

Key Findings

Incentives should match local motivations. Similar to our other sites, Honolulu called for improved logistics, better decision making and reduced financial impacts. A key differentiator for Honolulu was its ethos of mutual give and take (Aloha Spirit.) In addition, because over 98% of the state's commerce goes through Honolulu ports, participants were highly aware of the economic consequences of any port interruptions.

Streamlining government is an important goal for industry. Issues include reducing redundancy, coordination of government efforts, more effective communication and creating a unified voice for industry representation.

Threat Information needs to be readily accessible and relevant. Participants want a central repository for information and access to limited classified information. Threat information needs to be tailored to the needs of industry. Industry needs information that is actionable, specific, trustworthy, customizable, and easy to use.

Successful local models for information sharing can help other ports learn best practices. Honolulu's best practices included drills & exercises and localized emails. When evaluating these models, participants stressed the importance of having clear roles and increasing private sector participation in drills. (This port was the first port where we observed active use of the ICS by private sector.) Participants also identified the AMSC as a key organization for sharing threat information and urged expanded participation and a stronger focus on influencing policy. Finally, when using email, participants called for greater use and consistency in messaging.

MDA challenges exist at all ports. In Honolulu, participants examined three challenges. 1. Security guard training needs to continue to be developed, needs to be standardized, and needs to be included as part of the contracting process. 2. Limiting sailor access to ports impacts the desirability of U.S. ports because of additional costs and sailor inconvenience. Participants recommend addressing this issue. 3. The private sector is not currently part of the process of designing the IOC and the participants recommended expanding the role of local organizations in the process.

Recommendations for government action

1. Support and supplement local relationship building efforts
2. Emphasize trust building in all interactions with local personnel
3. Train government personnel in local cultural behaviors
4. Improve access to MDA information
5. Provide threat information that is useful and usable: specific, actionable and that helps industry to make better business and security decisions
6. Utilize an effects-based approach to setting MDA strategy
7. Increase the information sharing responsibilities and funding for the USCG and State DOT Harbors
8. Include the private sector more when planning exercises
9. Leverage the MIST workshop to help build a sustainable structure
10. Evaluate & improve desirability, usefulness, and usability of MarView

Recommendations for local action

11. Connect with Civil Defense and create unified exercises
12. Develop better relationships with unions, HHUG, HOST, and unions
13. Improve alert systems (Update: Tsunami warning system improved as of 3/2010)
14. Improve consistency and realism of ICS exercises
15. Update state communications grid, eliminate faxes
16. Explore use of MarView



Table of Contents

INTRODUCTION	4
DISCUSSION OF FINDINGS.....	7
PORT OF HONOLULU INCENTIVES	7
PROFILE OF AN FSO (<i>FACILITIES SECURITY OFFICER</i>)	7
BACKGROUND AND GOALS	7
CHALLENGES WITH STREAMLINING GOVERNMENT INTERACTIONS	9
TSUNAMI REPORT—INDUSTRY PERSPECTIVE.....	10
TSUNAMI REPORT—COAST GUARD PERSPECTIVE	11
CHALLENGES WITH INFORMATION FLOW	12
FSO INFORMATION NEEDS	12
LOCAL MODELS FOR INFORMATION SHARING.....	13
CASE STUDIES OF MDA CHALLENGES	14
NEXT STEPS FOR PORT OF HONOLULU	15
NEXT STEPS FOR MIST	15
DETAILED FINDINGS.....	16
INCENTIVES AND PERCEIVED BENEFITS.....	16
MEASURES OF EFFECTIVENESS	19
STREAMLINING GOVERNMENT.....	19
LIST OF MDA AGENCIES.....	19
CASE STUDY: FACILITY GUARD TRAINING	20
CASE STUDY: BUILDING AN IOC.....	22
CASE STUDY: SAILOR ACCESS THROUGH PORTS	23
INFORMATION FLOW.....	24
MODELS FOR INFORMATION SHARING	25
CASE STUDY: MARVIEW	26
NEXT STEPS.....	27
LESSONS LEARNED ABOUT THE PROCESS.....	28
APPENDIX A: METHODS.....	32
APPENDIX B: WORKSHOP AGENDA.....	38
APPENDIX C: POLLS AND EVALUATIONS	39
APPENDIX D: LIST OF ACRONYMS	52
APPENDIX E: ROLES AND RESPONSIBILITIES OF HONOLULU AGENCIES	54
APPENDIX F: REFERENCES	61

Introduction to MIST

This report presents the findings of the Maritime Information Sharing Taskforce (MIST) research effort for the Port of Honolulu and surrounding region. This third MIST event was held in Honolulu at the Clean Island Council facility on November 22-23, 2009. Using a participatory design approach, the researchers partnered with federal and commercial stakeholders to assess the information sharing needs of security personnel in this port region. The MIST effort is a direct response to the national call for maritime domain awareness (MDA). The MIST effort supports national MDA policy and information sharing strategies by helping to identify needs and gaps in information sharing with the private sector maritime industry. Our findings indicate the need for increased interagency collaboration in MDA and highlight local recommended practices and incentives for information sharing with the maritime industry.

History of MIST

The MIST research program targets the maritime industry at the local and regional port level and is designed to evolve dynamically in concert with MDA and information sharing policy and implementation trends. Over the last two years, MIST has led three local explorations into the information sharing needs and practices of U.S. ports. These explorations are driven by a national call for increasing the participation of the private sector in maritime domain awareness efforts.¹ All of the MIST efforts— at the combined Ports of Los Angeles/Long Beach in Southern California, the Puget Sound region of Washington State, and the Port of Honolulu, Hawai'i were coordinated with other national MDA efforts. Working closely with the Department of Transportation Maritime Administration (DOT-MARAD), and joined later by the Office of Global Maritime Situational Awareness (OGMSA) and the Office of the Director of National Intelligence (ODNI) Global Maritime and Air Intelligence Integration (GMAII) efforts, MIST focused their attentions at the local, practitioner level with the goal of improving the effectiveness of new MDA technologies and processes.² At the same time that MIST focused on local needs, our national partners held the Global Maritime Information Sharing Symposium (GMISS,) which was focused on national and international issues in information sharing.

Challenges in commercial outreach

As we have noted over the last three years, government agencies are increasingly partnering with the maritime industry to pursue MDA. However, this flurry of commercial outreach and the accompanying deluge of information requests are overwhelming industry and rapidly eroding its eagerness and ability to respond.³ The maritime community, both directly and through its various associations, has expressed frustration and confusion over the seemingly uncoordinated government efforts in support of maritime security and the resulting demands being placed on maritime trade.⁴ Notably, GMISS in 2008 surfaced significant frustration with the multitude of uncoordinated voices coming from the U.S. government regarding maritime awareness. A symptom of this is the sheer number of outreach conferences planned and executed with little coordination and no mechanism to build on each other.⁵ From the outset, MIST has worked closely with GMISS, DOT-MARAD, the U.S. Coast Guard (USCG) and our other MDA stakeholders to reduce the demands

¹ *Seminal maritime security policy documents (as referenced in the proposed addendum to the National CONOPS for MDA, dated 23 February 2010):* NSPD 41/HSPD 13 (2004), National Strategy for Maritime Security (2005), National Plan to Achieve MDA (2005), Global Maritime Intelligence Integration Plan (2005), National CONOPS for MDA (2007), Memo of Agreement between U.S. Navy and U.S. Coast Guard on GMSA Director (2007, and the MDA Stakeholder Board Charter (2008)

² Ulmann (2006)

³ GMISS 2009 Preview

⁴ GMISS 2009 Preview

⁵ GMISS 2009 Preview

on industry and help develop a coherent federal outreach and coordination effort for understanding the MDA information sharing need of the private sector.

Gaps in MDA

In 2005, the Interagency Investment Strategy (IAIS) was established as the key entity for evaluating MDA investment strategies. In 2007, the IAIS conducted a meta-analysis of previous MDA studies and identified a list of MDA task and capability gaps across four areas: management, collection, fusion and analysis, and dissemination.

Much has changed since the IAIS report was released in 2007, and with approval and ongoing oversight from the MDA Executive Steering Committee, the Interagency Solutions Analysis (IASA) Working Group was chartered in the spring of 2009 to leverage existing capabilities through interagency partnerships (including consideration of two previous MIST reports).⁶

MIST currently supplies private sector data related to the following IASA capability areas:⁷

- Improving interagency procedures
- Developing data collection requirements
- Determining the significance and nature of actionable knowledge
- Determining what is useful for decision-making
- Getting the right information to the users

MIST focus areas

The MIST process will continue to evolve with MDA policy and information sharing efforts by helping to strengthen interagency and private sector partnerships. To accomplish this, MIST focuses on how we can increase inter-agency coordination, maritime information sharing, and local outreach to the private sector. First, in the area of inter-agency coordination, MIST addresses MDA gaps by helping to align customer requirements with real world processes, by providing an input mechanism for the private sector that will help in refining future MDA spirals, and by identifying impediments to achieving MDA. Second, in the area of information sharing, MIST focuses on identifying and sharing lessons learned, identifying and communicating impediments to accessing information, and assisting in the resolution of cross-jurisdictional and policy disputes at the local level. Finally, MIST offers a number of methods for facilitating close cooperation of federal, state, regional, local, and tribal organizations. These activities will hopefully lead to increased sharing of maritime security information and increased port resilience.

The MIST process

The MIST process is a collaborative effort designed to capture local best practices in information sharing, create a structure for collaborative problem solving, and convey unique local issues to national policy makers. The MIST team is led by the Maritime Defense and Security Research Program (MDSRP) at the Naval Postgraduate School (NPS), in partnership with several federal agencies: DOT-MARAD, OGMSEA, ODNI/GMAII, the USCG, Customs and Border Protection (CBP), and the Department of Defense (DoD).

The MIST process consists of a series of local events held at individual ports across the United States. Each local event builds upon lessons learned from earlier events and invites participants to join in on the design of the event. Currently, each local event consists of three core activities designed to help surface local MDA issues important to private sector shipping. Future plans include an additional two activities designed to help us formulate national trends.

⁶ Milligan (2009)

⁷ IAIS (2007) and IASA (2009)

Figure 1 shows the five activities of the MIST process. The MIST process begins with some form of social networking in order to increase the engagement of local participants and national partners. Social networking activities include a combination of face to-face meetings, in-person presentations, email and phone communications, participant polling, and (in the Puget Sound) a social networking web site. We select and modify these social networking activities on a site-by-site basis depending on their perceived efficacy. In Honolulu, we held two steering committee meetings to address recruiting, held a local face-to-face introductory event, presented MIST during a regularly scheduled Area Maritime Security Committee (AMSC) meeting, and conducted email polls to help in co design of the workshop. A second activity that was added during our Puget Sound event and continued in Honolulu, was a field study of the information sharing behaviors of facility security officers (FSOs). FSOs are front line security personnel and these field observations focus on understanding their real world, real time information sharing behaviors. The third activity, the local workshop, is an on-site meeting where participants discuss key issues surrounding the sharing of threat information. This workshop is the core MIST activity and provides a venue for collaborative problem solving. Finally, our future plans include the development of network relationship maps and a national feedback mechanism to assess private sector needs. The relationship map will allow us to take a detailed look at specific relationships at individual ports. The feedback mechanism will allow us to synthesize trends across ports.

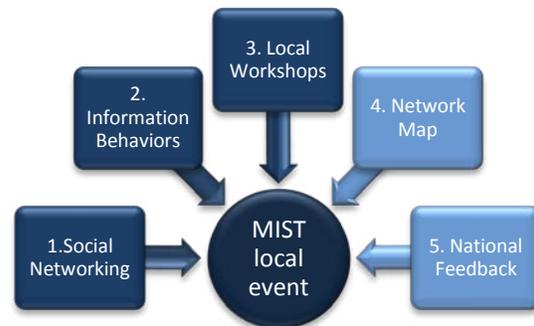


Figure 1: the MIST process

Discussion of Findings

The third MIST event was held in Honolulu, Hawai'i on November 22-23, 2009. Previous MIST events were held at the Port of Los Angeles/Long Beach and the Ports of the Puget Sound. Our goal for the event was to provide a venue for private sector input to the development of information sharing processes.

To support our goals, we conducted a field study with FSOs and ran a day and a half workshop with selected port personnel. The field study data that we collected was analyzed for trends and converted into an archetypal description of an FSO from Honolulu (*see sidebars, current page and page 11*). In addition, during one of our field studies, there was an 8.5 magnitude earthquake in American Samoa and the threat of a 15 foot tsunami hitting the Hawaiian Islands. Based on our observations of one FSO during this event, we have created an anonymous account that illustrates the real life challenges in receiving threat information. In addition, the local Coast Guard sector provided an account of their activities during this time (*see "Tsunami Report" on page 10-11.*) It is worth noting that the USCG actively responded to the gaps noted during MIST and successfully evacuated the Port of Honolulu during a subsequent tsunami event.

During our work with Honolulu ports, we explored six areas related to information sharing practices in Honolulu:

1. Incentives for information sharing
2. Challenges in working with government
3. Challenges in information flow
4. Local models for information sharing
5. Case studies of local MDA challenges
6. Recommendations for follow-up activities

Complete details on our findings can be found in the full report.

Port of Honolulu Incentives

The Port of Honolulu participants identified a number of incentives for sharing threat information. These incentives included financial, operational, strategic, social, and ideological benefits. For our Honolulu participants, operational and humanistic benefits were the most important incentives:

1. Improved decision-making
2. Improved customer service
3. Protection of assets
4. Increased trust
5. Greater certainty and reliability



Profile of an FSO
(Facilities Security Officer)

Background and Goals

Mac is a long time resident of Honolulu and like many here, he relies on his close network of friends and family. Mac is neighbors with many of the truckers that pass through his facility and knows most of them by their first name. This network embodies what he calls the "Aloha Spirit" and is based on mutual trust. Like many FSOs, Mac has spent a lot of time in the maritime industry and is focused on keeping his company running smoothly.

Safety, security and operations

Mac has a background in port operations and has held a number of positions. Safety is where he has spent the most time, but since 9-11, security has taken on a much bigger role. As the safety officer for a container shipping company, he had to take specific training with the U.S. Coast Guard (USCG) and assume new responsibilities for security.

Mac's days are spent doing a variety of things:

- Checking TWIC* rosters
- Inspecting safety gear
- Supervising security activities
- Training security staff
- Handling security contracts
- Preventing hazmat occurrences

Mac spends a lot of his time with paperwork—updating security plans, writing reports and planning drills.

Mac cares most about keeping his employees safe and his facility running smoothly.

**Transportation Worker Identification Card*

Operational and strategic benefits

“When you share threat information, it allows the private sector to focus their efforts more effectively”

Our Honolulu participants, like other ports visited, highlighted a number of strategic and operational benefits. These benefits included improved decision-making and improved logistics. Significantly, Honolulu participants noted how sharing information can “exponentially increase efficiency” by helping them better focus their efforts and target their resources more effectively. In addition, the participants noted the importance of tying information sharing into improved customer service and increasing operational certainty and reliability.

Social and ideological benefits

“Ho’olaulima—all hands working together...any job is quicker and better if we work together”

Our participants repeatedly noted during the workshop how information sharing is fostered by the use of trusted agents. In Honolulu, trust and mutual regard are part of the *Aloha spirit*.⁸ For our participants, this cultural perspective surfaced in several ways. First, participants noted how important it is to support information sharing from the bottom up. Trusted agents are expected to be keyed into the daily operations of the facility. They should also “walk the talk” and be true to their word and follow-up on what is promised. It is very important to our participants that if you say you are going to do something that you do it. If you don’t, you will lose trust. It is also a part of their professional courtesy to share information with other security personnel. Compliance with regulations, communication styles, and willingness to engage in information sharing are all strongly impacted by the philosophy of mutual self respect that is held by long time residents of Honolulu.

Financial benefits

“Shut down Sand Island and you shut down the State of Hawai’i.”

Similar to the other ports that we’ve visited, Honolulu participants noted the importance of reducing the financial impact on industry (reduced fines, reduced implementation costs, and reduced infrastructure costs.) In addition, Honolulu participants highlighted the relationship of the security of the ports with the economic vitality of the region. For our participants, economic stability is tied in to the delivery of goods and to personal employment. Since 98% of all Hawai’i commerce comes through the ports and stockpiles are limited, participants readily recognized the impact of any disruption to commerce. In addition, any problems or restrictions related to port access was seen as a direct threat to their ability to work and therefore a threat to their own personal financial security.

Measures of effectiveness

Finally, when asked to define specific measures of success in information sharing, participants from the Port of Honolulu added three new measures of success for information sharing:

- › The number of users on distribution lists for alerts
- › The number of responses to calls for information sharing
- › Time duration between alerts and response

⁸ The *Aloha spirit* is considered a state “law.” (HRS Section 5-7.5) and reads in part: “...Aloha” is more than a word of greeting or farewell or a salutation. “Aloha” means mutual regard and affection and extends warmth in caring with no obligation in return. “Aloha” is the essence of relationships in which each person is important to every other person for collective existence. . . .”

Recommendations for aligning incentives

1. Support local relationship building efforts (e.g. expand the AMSC)
2. Train new government personnel in local cultural behaviors
3. Provide threat information that helps the private sector allocate resources appropriately
4. Utilize an effects-based approach to setting MDA strategy that includes private sector input

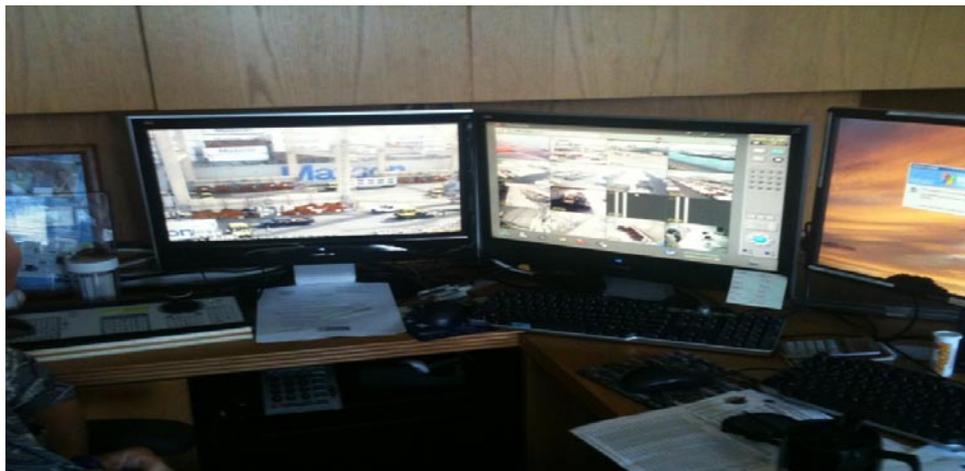
Challenges with streamlining government interactions

In their day to day lives, port personnel can deal with a handful of industry organizations, a dozen or so state and local agencies, and almost two dozen federal and international agencies. For our participants, the two most important and common agencies were the USCG and the State DOT-Harbors. When it comes to information sharing, Honolulu participants – like their counterparts at other ports – called for the elimination of redundant processes, better coordination of policies, roles and responsibilities, and more effective reporting and communication processes. A new issue that surfaced in the Port of Honolulu was the perceived difficulty in coordinating their own industry activity. Participants noted the lack of a unified private sector voice locally and challenges in defining the roles and responsibilities of ships and port companies. Specific issues that participants identified included:

- › Lack of a unified voice within the maritime industry and within individual companies
- › Inconsistent Facility Security Plans (in contrast to airports)
- › Inconsistent security guard training and funding
- › Lack of a dedicated security officer on ships
- › Lack of a “MIST like” structure for unifying local industry representatives

Recommendations for streamlining

5. Provide actionable information on specific threats to ships and facilities
6. Place a stronger emphasis on building trust with the private sector through cross cultural training and more face-to-face interactions
7. Increase responsibilities and funding for the USCG and State DOT-Harbors for managing information sharing
8. Include the private sector more when planning exercises
9. Leverage the momentum of the MIST workshop to build a sustainable organizing structure for the local private sector
10. Consider expanding the focus of MIST to include a method for on-going participation





Tsunami Report—Industry perspective

As observed by MIST researchers

September 29, 2009

Sand Island, Oahu, HI

9:45 am Just another Tuesday on Sand Island. Sam is in the middle of another meeting when the phone rings. It's Dale over in maintenance. He just heard on the radio that there was a 8.5 earthquake in American Samoa. As Sam is talking to Dale, he gets two email alerts—one from the national weather service and one from a list serve. Guess it's not a rumor this time. The NOAA announcement warns of a possible tsunami in Honolulu at 2315 GMT, which Sam thinks is 1:15 local time. Right away he calls the Coast Guard, but just gets voicemail. He's not too concerned yet, but he better send the staff an email just in case. "Better to keep them informed—they will be starting to worry about their families," he thinks to himself. Keeping one eye on his email, he goes on with his meeting.

10:00 Sam gets another call from Dale in maintenance who tells Sam that he heard from a longshoreman that the tsunami alert has been upgraded to a warning. Sam wonders why the Coast Guard has not called him back. Deciding to try to get more info, Sam calls over to his counterpart Craig at Sky Shipping to see what he's heard. Craig, the FSO, has not heard the rumor, but tells Sam he will most likely evacuate his facility if it turns out to be true. Sam says "OK, if you guys go, I'm gonna go too." There aren't any ships at dock today, so it won't be too costly if he has to evacuate the 100 or so staff he has on site.

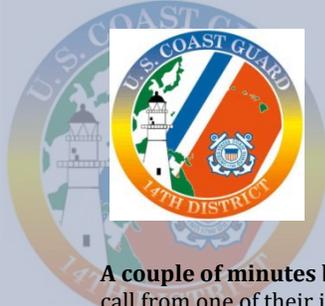
10:10 Sam decides to try the Coast Guard again to try to get some guidance on evacuating his personnel. This time he gets through but the answer is not promising. "We're still assessing the situation; we'll call you back when we know more." Sam gives them his number and hangs up, thinking to himself, "We'll really have to run fast by the time we find out, it's only two hours before it hits." Hoping to get ahead of the game, Sam double checks the Coast Guard's local and national (HOMEPOR) web site just in case there's something there. No such luck. Proceeding as if an evacuation will happen, Sam sends out an 'all hands' email letting everyone in his company know what's up and double checks that he has his phone tree at hand.

10:20 A text message comes out from the Coast Guard. It says that 10-15 ft. waves have come on shore in American Samoa but does not provide any instructions about what to do. Sam is frustrated with the lack of guidance, but he does get it. "They're probably not dealing with low priority people like me—probably dealing with ships at sea." Glancing at his email, Sam sees one from the company's finance manager who has family in nearby Pago Pago. The email has all the sad details of a 3 meter tsunami wave that hit Pago Pago, but nothing about Honolulu.

10:40 Sam gets a phone call from Craig at Sky Shipping. He's got nothing new, but if they don't hear anything soon, Craig says Sky will be sending their people home at 11:00. Sam knows that he and Craig really need to coordinate this so the one bridge out of the port doesn't get jammed and the longshoremen don't leave prematurely. Sam calls his VP to discuss the possible evacuation. They decide to call State Civil Defense to be sure an evacuation is necessary.

10:45 Sam looks up the telephone number of State Civil Defense on his emergency response sheet and gives them a call. He reaches Susan at State Civil Defense, and she tells him that the tsunami warning is cancelled. They only expect one foot waves at 1:11 p.m. local time. Sam shares his news about Pago Pago. State Civil Defense has not been able to get through to any one on Pago Pago so she asks Sam for a copy of the email. "You probably have more information using email than we do at this point", she says. Sam agrees, thanks her and hangs up. Sighing with relief, Sam lets everyone know that an evacuation is not needed. Maybe next time, things will be better

February 27, 2010 8.8 magnitude earthquake occurs off the Chilean Coast. The USCG Sector Honolulu, in response to lessons learned, improved their alert system and successfully closed and evacuated Honolulu ports within four and a half hours.



Tsunami Report—Coast Guard perspective

As reported by the USCG Honolulu

September 29, 2009

Sand Island, Oahu, HI

A couple of minutes before 8:39 am Watchstanders in the Sector Command Center (SCC) received a call from one of their inspectors in American Samoa who had witnessed the wave and was nearly swept away by it himself. He reported vessels washed aground, major port impact and major structures gone. The watchstanders on duty grabbed the tsunami Quick Response Card (QRC) and began their notifications.

8:39 am Sector Honolulu personnel are sitting in a monthly all-hands meeting. The room of Coasties starts to stir and the speaker gets disrupted, as several blackberries start to buzz with an email Situation Report from the SCC. The SCC received a message from the Pacific Tsunami Warning Center (PTWC) stating that an earthquake just occurred in the Samoan Islands region and an investigation was underway to determine if there is a tsunami threat to Hawai'i – and if tsunami waves were to impact Hawai'i, the estimated earliest time of arrival would be 1:11pm.

8:45 am All Sector Honolulu units were notified, including stations and vessels on Kauai, Maui, and the Big Island. All CG members in American Samoa were accounted for.

9:00 am All Hawaii Coast Guard units recall their personnel and begin executing their tsunami plan. The all-hands is cancelled and the Incident Management Team (IMT) begin setting up a command post in the Sector Conference Room. The mission is two-fold: respond to the tsunami in American Samoa and prepare the Hawaiian Islands for a possible wave.

9:15 am The SCC broadcasts a Special Marine Information Broadcast (SMIB) on VHF Channel 16 announcing a Tsunami Watch. No port evacuation is ordered. This watch is rebroadcast at 0930 and 1001 on both VHF and HF (which has a much longer range).

9:20 am The SCC receives the first Civil Defense Advisory stating that the event is being evaluated by the PTWC and that the earliest time of arrival of waves is 1:11pm HST. Meanwhile, phone and radio calls are flooding into the command center as units and cutters report their status of personnel accountability and their underway status. Coast Guard cutters in port began readying themselves for an evacuation as per their tsunami plans. The American Samoa Governor, who is in Hawai'i, calls to speak with the Captain of the Port. Reports from American Samoa continue to arrive via sporadic communications. The airport is reported to have taken water over the runway and two deaths are reported. The CG inspector in American Samoa rescues a girl with a broken leg from an overturned car. TV news channels in the command center report on the earthquake.

9:17 am A report comes from the National Response Center (NRC) in DC that the *Starkist Tuna* facility in American Samoa had been evacuated and closed.

10:00 am The SCC issues a tsunami alert via its Alert Warning System (AWS)- which makes an automated phone call, text or email with a message about the tsunami watch to all registered users.

10:30 am A fully staffed command post holds an Incident Command System (ICS) tactics meeting. Priorities are to establish communications with American Samoa and determine the impacts and situation there, then to determine which vessels are in Hawai'i and determine the risks to harbors. Based on the tsunami watch, two cruise ships in port are preparing to depart.

10:48 am The tsunami watch is downgraded to a tsunami advisory and a text page is sent from the SCC to the Coast Guard command.

11:35 am A safety broadcast is issued over the radio that the tsunami watch is cancelled. Meanwhile, the command post continues its coordination of resources and prepares to send a C-130 aircraft down south. Pollution Strike Teams are requested from the mainland.

Challenges with information flow

A key outcome for MIST is to uncover private sector needs in regards to the sharing of threat information. To support this, we conducted field studies of Facility Security Officers (see sidebar). During the workshop, we also had participants engage in a series of facilitated examinations of information sharing—we had them work with a beta version of MarView, a DOT-MARAD web tool,⁹ and we had them engage in a visioning exercise for an ideal information system. The results from our workshop show that our participants want streamlined access to threat information and actionable information and tools.

Streamline access to information

“We don’t need a buffer...I just want to get the information directly from the source.”

A key barrier to information sharing is getting access to the information. Honolulu participants, like their counterparts at other ports, want a central repository for information and requirements, want easy access to threat information and need to be able to have some access to classified information.

Improve the quality of information and tools

“We get Intel information that we have no idea what to do with...give us actionable information”

Participants identified a need for information that is relevant and useful and is designed at the appropriate level of detail. Useful information is information that is specific and actionable, supports decision-making, is tailored to the audience, and is reliable and clear. The level of detail should be appropriate for supporting situational awareness and providing a common operating picture.

Improve the usability of MarView

“What does this menu control? Is it doing anything?”

MarView, a MARAD site, provides data, models, and collaboration tools for the maritime sector. MarView is a comprehensive tool that can be used by the private sector for accessing transportation data, vessel information, port and shipyard information, and statistics on licensed Mariners. During the workshop, we had the participants use a beta version of the web site to perform two tasks: create collaboration group and locate a ship. First impressions of MarView were generally positive—users found the site visually interesting and were impressed with the amount of functionality. Users were especially impressed with the ability to visually see individual ships, which allowed them to see a lot of information quickly. However, as the participants used the site, there were several

⁹ Earlier workshops examined the usefulness and usability of USCG’s HOMEPORT web tool



FSO
Information needs

Mac values personal communication

In his daily work, John interfaces with a lot of people and agencies – management, employees, vendors, labor, port authorities, the USCG, CBP, State DOT-Harbors, police and fire, and a slew of state and federal agencies. He also has to talk to all the other island ports—Lihue, Hilo, Kahului, Nawiliwili...Things really don’t work for Mac if he doesn’t have a good personal relationship with these folks. Mac is on a first name basis with everyone and has the direct number of anyone important.

Mac needs info pushed to him

Mac’s job is making sure that his facility is secure and compliant, not to wade through irrelevant information. He remembers when he first started—he didn’t know who to call for advice. Now every few months he goes to the AMSC and that keeps him up to date with what is going on. Otherwise, it’s email and the phone.

Mac wants actionable information

Mac needs all hazard information that is targeted to his area. The information needs to be specific and give him guidance on what to do. The more he knows, the better he can assign resources and be efficient. Mac’s primary source of information is the USCG, the State DOT-Harbors, and NOAA for the weather. USCG and State DOT are busy and underfunded so sometimes it’s hard to get what he needs.

Mac knows one thing...if there is no trust, there is no information sharing.

areas that confused them. First, users did not understand the permission levels and felt that they were missing information. Second, users discovered some data errors and felt that the site was not reliable. And finally, users had some difficulty using the navigation and understanding abbreviations and understanding menu terminology.



Local models for information sharing

As part of our goal of uncovering local best practices, participants discussed the pros and cons of three local models for information sharing. Participants broke up into three break-out groups and discussed drills and exercises, email and list serves, and community organizations.

Drills and Exercises

The break out group reviewed two recent activities—the AMSC exercise at Pier 1 in Honolulu and the *Tong Cheng* shipping accident. During the discussion, participants noted that drills and exercises were very effective ways to share information. Participants noted the importance of clear roles, consistent approaches, and the inclusion of the private sector to creating effective exercises.

Email and List serves

Participants reviewed the USCG *Alert Warning System* and emails sent out by a local maritime associate. Participants found existing emails and list serves only somewhat effective for information sharing. During the discussion, participants identified the importance of two way communication, automatic tracking of communications, and flexible modes of delivery.

Community Organizations

Participants reviewed three local groups for best practices in sharing information—the AMSC, the Hawaiian Ocean Safety Team (HOST), and the Hawai'i Harbors User Group (HHUG). Although HHUG and HOST have had long term representation on the AMSC and are viewed as key partners, participants felt that these groups did not sufficiently serve their needs. Participants did value their FSO membership of the AMSC and encouraged wider participation of other security professionals, such as ship security officers and agents. Currently, the AMSC core membership includes over 75 members from across 45 agencies and industry organizations (over half of which are private) and neighbor island subcommittees add over 100 additional participants.¹⁰ However, participants from our workshop had a perception that outreach efforts could be improved. Workshop participants recommended that the AMSC increase outreach efforts to other security professionals, strengthen their focus on safety and operations, and increase the ability of the private sector to influence policy.

¹⁰ Data provided by LT Zeke J. Lyons, USCG Sector Honolulu

Recommendations for information design

11. Improve access to MDA information (utilize USCG, include outlying ports, push data, support anytime/anywhere access, scrub classified data)
12. Supplement local networking activities
13. Provide specific information that is needed by the commercial sector (all hazard, situational awareness, outlying island alerts)
14. Ensure high quality data that supports decision making (layered, timely, actionable, relevant)
15. Ensure usable information (trustworthy, accurate, complete, clear, customizable)
16. Evaluate and improve the desirability, usefulness, and usability of MarView

Case studies of MDA challenges

During the workshop, we had participants identify and discuss three cases where they felt potential challenges to MDA exist—security guard training, sailor access through ports, and the creation of a new IOC. Their discussions led to specific recommendations for further action.

Security guard training

Port facility guards are utilized in all aspects of facility security and there are a number of gaps that exist. The gaps include a lack of organizational support for training and the absence of respect for security skills. Recommended policy improvements include creating Facility Security Plans (FSPs) for training, and building standardized minimum requirements into new contracts. Moving forward, participants also suggested working with security companies, community colleges, and the U.S. Navy to design training programs.

Sailor access through ports

In port facilities run by the private sector, foreign and domestic seafarers may not walk unescorted on a facility unless they have a TWIC and this often results in being barred from leaving the ship. There currently is no consistent process for handling sailor access. These constraints result in additional costs for escorts or denial of access for seafarers, both of which make U.S. ports less desirable and could lead to reduced use of U.S. shipping. Possible solutions include modifying FSPs, utilizing DOT facilities (which are designed for access), and negotiating the financial burden with ship owners and unions.

Building an IOC

The State of Hawai'i will be receiving monies to build an interagency operations center (IOC). The center will be most likely located at Sand Island and led by State Civil Defense. Currently no industry participation is planned and there is no suitable entity to centralize industry participation. Possible solutions include creating or expanding the role of local organizations. Existing organizations that may be able to be expanded include the AMSC and HOST. In addition, participants recommended that the private sector consider creating a special interest group similar to the hotel industry.

Next steps for Port of Honolulu

At the conclusion of the workshops, participants discussed what was needed for them to move forward in strengthening their information sharing capabilities. The participants outlined specific actions and assigned responsibilities for follow-up. Following are the next steps to be taken by the Honolulu participants:

Next steps for Port of Honolulu

Action	Responsibility
1. Connect with Civil Defense and create unified exercises	State DOT-Harbors
2. Develop better relationships with unions	agent representative
3. Expand relationships with HHUG, HOST, and unions	AMSC
4. Improve alert and warning systems (note: already in process)	USCG
5. Improve consistency and realism of ICS exercises	AMSC
6. Update state communications grid, eliminate faxes	State DOT-Harbors
7. Try MarView as a tool for information sharing	USCG, all
8. Provide feedback to MarView on usability	MIST

Next steps for MIST

The MIST process is evolutionary and iterative. We value the lessons we learn from each activity and adapt our methods based on what we learn from each local activity. Some of our past learning includes improved processes for participant recruiting, clearer advisory board roles and responsibilities, the increased use of face-to-face interaction, the decreased use of web-based social media, and the inclusion of actionable results. Based on our latest effort, we have identified several areas for improvement.

Next steps for MIST

- › Strengthen our local partnerships with the USCG
- › Clarify expectations for the steering committee
- › Schedule events around the availability of key partners
- › Present MIST earlier to relevant local organizations (e.g. AMSC)
- › Increase incentives for participation (testimonials, thank you tokens, food)
- › Improve field study logistics (interview in teams, renegotiate data transcription contract, redesign data analysis structure)
- › Improve the flow of the workshop (facilitator training, preformatted flipcharts, redesigned polls, elimination of keynote speaker)
- › Utilize federal partnerships more effectively (resources, funding)

Detailed Findings

The goals of the MIST workshops are to identify key issues in information sharing and to engage the participants in specific problem solving activities. To support these dual goals, we began by having our participants examine local issues related to incentives, current information sharing practices, and challenges in streamlining government activities. We also invited participants to delve into more detail on the specific challenges that they face in their work. These problem explorations included activities designed to uncover local best practices, ideal information sharing criteria, and initial assessments of four local security activities.

Participants identified several areas that impact the effectiveness of sharing information with the private sector.

- Incentives and perceived benefits
- Measures of effectiveness
- Streamlining government requests
- Information flow
- Models for information sharing

These areas are discussed in more detail in the following sections.

Incentives and perceived benefits

Incentives, both material and social, are important motivational factors in the adoption of new processes, policies, and technologies. Early on the MIST and GMISS programs sought to better understand what might motivate the private sector to share information. As in our previous two workshops, we encouraged participants to look at the benefits of information sharing from a wide perspective. To help expand the concept of benefits, we presented participants with a 360 degree value model for evaluating incentives (see Figure 3.) This value model segments incentives into five areas—financial, operational, social, ideological, and strategic. These value segments may impact the system across five organizational zones—individual, group, organizational, enterprise, and global. Using this model, we encouraged participants to look at their motivations for sharing information.



Figure 1: Value Segments and System Impacts

Unlike our other workshops, the participants emphasized humanistic and operational benefits over financial benefits for information sharing as evidenced by their rankings of top incentives:

1. Improved decision-making
2. Improved customer service
3. Protection of assets
4. Increased trust
5. Greater certainty and reliability

Following is a detailed discussion of the specific benefits that participants identified.

Financial benefits

“Shut down Sand Island and you shut down the State of Hawai’i.”

Financial benefits are material benefits that are related to monetary rewards. When presented with the list of financial benefits from other workshops, the Honolulu participants generally agreed that financial benefits were an important incentive for information sharing. The participants noted three outcomes related to financial benefits that were shared with other ports:

- Reduced costs for implementing policy
- Reduced fines

- › Lower infrastructure costs

In addition, this port exposed two new financial benefits. First, participants recognized the tight relationship between the security of the ports and the economic vitality of the region. These economic benefits impacted the participants individually and in the community. Since 98% of all commodities used by the Hawaiian Islands arrive by sea and stockpiles are limited, the participants recognized the potential disastrous consequences of any interruption of maritime shipping. In addition, because of the recent economic downturn, the participants also recognized the economic fragility of their community and readily connected workplace safety and security with employment security—if injuries or limits to access occur, the employees can't work, which impacts their families and their own financial security.

Operational Benefits

“When you share threat information, it allows the private sector to focus their efforts more effectively”

Although related to financial gain, operational benefits are material rewards that increase the efficiency and effectiveness of the organization. Operational efficiencies that the Port of Honolulu shares with other ports include:

- › Improved decision-making
- › Protection of assets
- › Quicker business resumption after an event
- › More efficient supply chain
- › Improved business logistics
- › Faster vessel turn around
- › Increased port use

Significantly, Honolulu participants noted how sharing information can “exponentially increase efficiency”. They recognized that information sharing can help them better focus their efforts and target their resources more effectively. Consistent requirements can also help them maintain “operational viability and integrity.”

Strategic benefits

“If organizations nurture pride, information sharing is more likely”

Strategic benefits are plans or patterns that further the success of the stakeholder. In Honolulu, participants shared several strategic benefits with our other ports:

- › Greater certainty and reliability
- › Improved customer service
- › Better compliance
- › Positive public opinion

Our Honolulu participants did not focus as heavily on the strategic benefits, perhaps because their port is not run by a commercial port authority.

Social benefits

“Ho’olaulima—all hands working together...any job is quicker and better if we work together”

Social benefits are those benefits that take into account the interests, intentions, or needs of other people. With our Honolulu participants, the strategic goal of building trust was a key social benefit and requirement for information sharing. Although issues of trust surfaced in our other workshops, in Honolulu it is an extremely strong element.

Our participants repeatedly noted during the workshop how information sharing is fostered by the use of trusted agents. In Honolulu, trust and mutual regard are part of the *Aloha spirit*.¹¹ For our participants, this cultural perspective surfaced in several ways. First, participants noted how important it is to support information sharing from the bottom up. Leaders should fully engage in the daily operations and be in tune with what is going on. Trusted agents should also “walk the talk”, be true to their word and follow-up on what is promised. It is very important to our participants that if you say you are going to do something that you do it. If you don’t, you will lose trust. It is also a part of their professional courtesy to share information. During individual interviews with Facility Security Officers, we observed several instances of information sharing between rival companies in which competitive concerns were put aside. Sharing information is part of a person’s credibility in Honolulu and if you don’t have credibility you are ineffective in this community.

In addition, participants expressed some social resistances to information sharing. One resistance was related both to the size of their port and to the unique Hawai’i culture. For many of our participants, the people that they work with are part of a much larger social network that relies on personal relationships. Because of this social connectedness, many of the security regulations seem inappropriate for their circumstance. For instance, participants questioned having truckers and vendors display Transportation Worker Identification Cards (TWICs) when they see them every day and live in the same neighborhood. As one participant noted: *“Why are we doing this? Who are we protecting ourselves from? The people in this room? ...Why are we spending all this time looking over each other’s shoulders?”*

In Honolulu, trusted relationships were integral to information sharing and as such should be considered a “best practice” in information sharing.

Ideological benefits

“Refill the tank of Aloha...deposit as much as you can”

Ideological benefits relate to the ethical values of the stakeholder and include political as well as moral beliefs. At the core of the above discussed emphasis on the social benefits of information sharing is the ethical principle of “aloha”. This ideological perspective, unique so far to the ports of Honolulu, is the underlying philosophy for working together. Compliance with regulations, communication styles, and willingness to engage in information sharing is strongly impacted by this philosophy for port personnel who are long time residents of Honolulu. Ideological incentives that impact our participants’ willingness to share information include the following:

¹¹ The *Aloha spirit* is considered a state “law.”(HRS Section 5-7.5) and reads in part: “...Aloha” is more than a word of greeting or farewell or a salutation. “Aloha” means mutual regard and affection and extends warmth in caring with no obligation in return. “Aloha” is the essence of relationships in which each person is important to every other person for collective existence. . . .”

- Trust
- Environmental stewardship
- Pride of work
- National pride
- Personal responsibility

Measures of Effectiveness

Participants from the Port of Honolulu offered three new measures of success for information sharing:

- The number of users on distribution lists for alerts
- The number of responses to calls for information sharing
- Time duration between alerts and response

These are in addition to the ten previously identified effectiveness measures:

- Time to access contact person
- Total response time
- Less time at anchor
- Fewer delays
- Fewer ships at anchor
- Reduced violations (due to better information)
- Sharp rate of decline in violations (when new policies are implemented)
- Decline in ground user complaints
- More successful drills
- More robust preparedness levels

Streamlining government

We began our discussion of streamlining government by having the participants review and comment on previous challenges in working with government agencies. We then had the participants focus on three specific cases that they felt were challenging. Participants selected setting up an IOC, sailor’s access through the port, and facility security guard training. Participants broke up into working groups, discussed issues facing them, and explored possible solutions. These discussions are summarized in the callouts on facility guard training (*see page 20*), building an IOC (*see page 22*), improving sailor port access (*see page 23*), and the MarView web tool (*see page 26*). In addition, participants surfaced issues related to the role of government, targeted areas for streamlining policies and processes, identified areas of improvement for communication and information sharing, and discussed issues related to the coordination of commercial and government roles and responsibilities.

The role of government

“Government doesn’t aid commerce—but it’s a fact of life”

During the workshop, participants identified government entities that are key in maritime security, areas for collaboration, areas ripe for improvement, and top MDA topics. In the Port of Honolulu, participants noted six government entities that were essential: the USCG, State DOT-Harbors, CBP, the Transportation Security Agency (TSA), NOAA, and the DoD (*see sidebar this page*).

List of MDA Agencies

International/National

- IMO
- IALA
- International Customs
- NATO/EU
- Husband agents
- Flag states
- SPC
- Pacific Island Forum
- U.S. State Department
- U.S. DOT- MARAD
- USCG
- CBP
- ODNI
- National Vessel Movement Center
- PACOM
- NTC-C

State and Local

- State DOT Harbors
- State Civil Defense
- State Airport Division
- State Department of Health
- CIC
- MSRC
- HPD
- HFD
- DLNR
- Public Safety

Industry

- Shipping companies (Young, Matson, Horizon)
- Shipping agents
- HOST
- HHUG

Please see list of acronyms in the Appendix D

Top areas for improved collaboration

Participants also ranked the importance of different collaboration activities. The following activities are listed in the order of importance to the Honolulu private sector:

1. Provide info that is useful
2. Provide info to private sector
3. Increase trust with partners
4. Align government policies & structures
5. Increase coordination between state and local agencies
6. Increase coordination between transportation agencies
7. Increase face-to-face communication
8. Minimize jurisdiction wars, power misuse
9. Reduce fears of retribution

Top MDA topics

Finally, we asked participants to rank the importance of different types of MDA information. MDA information is listed below in the order of importance to the Honolulu private sector:

1. Specific threats to my company's facilities or vessels
2. Details of threats
3. The safety of the work-force
4. General threats to facilities or vessels
5. Recommendations for risk mitigation for specific threats
6. Impacts on traffic and movement of goods
7. Follow up reports on specific threats

Case Study: Facility guard training

Port facility guards are utilized in all aspects of facility security, including filling out reports, doing TWIC identification, and vehicle screening. Specific duties are specified in FSPs.

Current process

Nationally and locally standardized training is not implemented. Guards are typically selected based on a low bid basis. Each facility provides some level of training but the training is not consistent. Training is often viewed in terms of compliance rather than performance.

Gaps

- › No consistent requirements
- › Lack of organizational support for improved training
- › Security guard work is not viewed as a career
- › Initial curriculum that was developed was overly focused on law enforcement
- › Costs can be prohibitive
- › Need to train in unique threats and environment
- › Current guards have poor writing skills

Possible solutions

- › Have consistent FSPs for training
- › Take steps to increase professionalism
- › Design access gates to minimize the use of security guards
- › Include security guard companies in the planning process
- › Standardize contracts on minimum requirements
- › Put specific levels of training in contracts
- › Utilize community colleges for course design
- › Research best practices of U.S. Navy security training

Areas for streamlining

“Eliminate the redundancy in dissemination”

Participants highlighted the need for government to better coordinate their activities between agencies. Topping their list of desired improvements was the desire to improve the sharing of threat information, to coordinate government regulations, and simplify government processes. Some of the challenges noted by the Honolulu participants were also raised in our previous workshops including the following:

- Improve info sharing between government entities
- Improve coordination and sequencing of government regulations
- Simplify government processes and programs
- Provide a single threat reporting system
- Provide a central contact for info distribution
- Provide a single place to access threat info
- Strip unclassified info from classified
- Standardize processes such as log-ins and data types

Interagency coordination of policies and processes

Participants noted several areas where the policies or processes of different agencies were not well coordinated. Gaps included a lack of consistency and poor inclusion in emergency operations processes. Specifically, the participants identified the following gaps:

- Industry is not included in EOC operations
- Exercises do not include all the players
- Inconsistent approaches to the delivery of sensitive information
- Lack of universal ID's (TWIC, TSA, U.S. VISA)
- Lack of unified security plans
- Inconsistent training programs
- Regulations are not adapted to individual ports

In addition, participants noted that the USCG's Electronic Notice of Arrival (ENOA) and the CBP's National Cargo Targeting Center (NCTC) provided examples of useful programs. The ENOA process has been streamlined and now offers electronic submission, which the participants found useful. However, there are still difficulties with utilizing the system on short hauls, receiving manifests from US government vessels, and the handling of fishing vessels (which are excluded from process). The NCTC, which identifies suspect cargo for targeted customs action, was valued for the extent of its analysis and the adequate dissemination of information. Gaps included a reliance on self-reporting, limited access to proprietary information, and less than 100% scanning.

Finally, the Civil Defense and DOT Harbors were both recognized as key government partners. Civil Defense is very active in the maritime environment as they manage the US Department of Homeland Security Port Security Grants for the state. Unfortunately, they were not able to participate in the workshop due to work load and the Asia Pacific Homeland Security Summit scheduled to occur the week following the MIST workshop. DOT Harbors was present and was seen as being an important resource and a natural partner in information sharing. However, like the US Coast Guard, the State DOT is severely underfunded and understaffed which limits their ability to be as responsive as they would like. The DOT plans to use their new state of the art operations center in early 2010 to address these issues.

Interagency coordination of communication and information

Participants noted that the International Maritime Organization's involvement in counter-piracy efforts and the Maritime Operation Threat Response Plan, (MOTR) were both good examples of disseminating best practices. The participants also identified gaps in communication and information sharing that impacted their organization's ability to function. Several of these gaps surfaced during the recent tsunami alert and were fresh on the audience's minds. Specific gaps include the following:

- › Lags between the Pacific Tsunami Warning system and HOMEPORT alert system
- › Two hour delays in information being posted on the tsunami website
- › Poor updating to State Civil Defense (However, it should be noted that in our field study- State Civil Defense was the most reliable and updated source of information during the Tsunami warning issued as a result of an earthquake in Samoa.)
- › Poor information sharing from the USCG—messages not responded to (tsunami, exercises)
- › Lack of call backs from State DOT-Harbors
- › Exclusion of industry from NOAA data feeds (Hurricane Felicia)

Interagency coordination of roles and responsibilities

The participants noted a number of areas where government roles and responsibilities were not clear. The USCG has become the decision-making hub for most maritime issues and participants would like to see this hub strengthened through clear descriptions of roles and responsibilities. The Captain of the Port, in attendance at the workshop, clarified that the Coast Guard's role was as the central unifying force for maritime security. The Pacific Area Maritime Security Plan outlines the roles and responsibilities of participating agencies and was provided to MIST after the workshop (see Appendix E.) There is, however, some fear on the part of the participants based on the Coast Guard's role of enforcers of regulations (especially concerning TWICs.) Specific gaps in roles and responsibilities that participants were concerned with included the following:

- › No single agency is perceived as responsible for liaison with industry
- › FBI special agent in charge needs to be included
- › USCG should be the primary owner of maritime security
- › USCG is overburdened with responsibility

Case Study: Building an IOC

The State of Hawai'i will be receiving monies to build an interagency operations center (IOC). The center will be most likely located at Sand Island.

Proposed process

State Civil Defense will stand up the EOC at the IOC. They will trigger the network of county EOC's consisting of all public safety agencies. State civil defense will set up a conference bridge that will bring in critical infrastructure (CIP) and mass care (hospitals.)

Gaps

- › No industry representation is currently planned
- › There is no suitable private sector entity to centralize communication
- › Solutions must avoid "buffering" private sector involvement
- › JTTF, TLO, and fusion centers are not adequate disseminators

Possible solutions

- › Utilize and improve upon AMSC
- › Investigate the role of the Hawai'i Ocean Security Team (HOST)
- › Form a maritime body (similar to the hotel industry) to share information

Within Industry coordination

A new issue that surfaced in the Port of Honolulu was the difficulty in coordinating industry activity. Participants noted the lack of a unified voice locally and challenges in defining the roles and responsibilities of ships and port companies. Specific issues included:

- › Inconsistent FSPs (in contrast to airports)
- › Inconsistent security guard training
- › The lack of minimum standards for security guard training
- › The lack of dedicated security officer on ships
- › Unclear funding responsibility for guards (between ships and companies)
- › The lack of involvement by middle management and operating level employees
- › The lack of a unified voice within the maritime industry
- › Unclear roles for longshoreman
- › Potential for the Honolulu Harbor User Group (HHUG) to provide a common voice if their focus is expanded
- › Potential for the MIST workshop to be an example of a useful structure for including local industry representatives

Participants noted that three specific groups offered value in consolidating industry involvement. The first, HHUG, is responsible for capital improvements in the harbor and has been an effective coalition for pushing maritime interests in the State legislature. They are a “for fee” organization and their membership is primarily executives from large companies. Because of this, HHUG although a powerful ally, was not seen as a viable candidate for central industry representation. The second group that was identified as a possible ally was the Hawai’i Ocean Safety Team (HOST) that was started by the USCG. HOST is focused primarily on operational and safety issues. This group includes a good cross section of industries. It was not known however, how active this group still was. Finally, the participants found the MIST workshop useful in pulling together Honolulu port security personnel and thought that it might be useful to continue the process on an annual or semi-annual basis. However, MIST requires funding for its operation and is not currently structured or funded for ongoing single site meetings.

Case Study: Sailor access through Ports

In port facilities run by the private sector, foreign and domestic seafarers may not walk on a facility unescorted unless they have a TWIC card. Foreign crew members cannot get a TWIC and are often not allowed to leave the ship even if they have VISAs because of the prohibitive cost of escorts. Limiting foreign seafarer access impacts the desirability of using U.S. ports.

Current process

There is currently no consistent process for handling sailor access. Some facilities supply escorts, some ships take responsibility, and both ships and facilities debate who’s responsibility it is.

Gaps

- › Foreign nationals cannot get TWICs
- › Additional escorts are required
- › No one takes responsibility for the cost of escorting seafarers
- › Seafarers resent being denied access

Possible solutions

- › Incorporate escorting policy into FSPs
- › Use Hawai’i State DOT port facilities (who can provide escorts)
- › Negotiate funding burden with ship owners
- › Coordinate with local seafarer unions

Information flow

The results from our workshop show that our participants want streamlined access to threat information and high quality information and tools.

Streamline access to information

“We don’t need a buffer...I just want to get the information directly from the source.”

A key barrier to information sharing is getting access to the information. Honolulu participants, like their counterparts at other ports, want a central repository for information and requirements, want easy access to threat information and need to be able to have some access to classified information. Specifically, participants identified a need to:

- › Funnel information to a central maritime body (similar to what the hotel industry does)
- › Push out information to industry
- › Receive information before the general public
- › Receive information in a timely matter
- › Use multiple forms of contact (physical, email, phone)
- › Address the needs of small harbors where physical notifications are necessary due to reduced personnel and limited technology
- › Provide follow-up communications that set expectations for when and what will be communicated
- › Provide two way sharing of threat information
- › Support personal communication
- › Include separate lists or provide a hierarchy of access to sensitive information

Improve the quality of information and tools

“We get Intel information that we have no idea what to do with...give us actionable information”

Participants identified a need for information that is relevant and is designed at the appropriate level of detail. Specifically, participants noted several improvements that impact the effectiveness of the information system:

- › Make sure information is useful
- › Provide actionable information with specific instructions on what to do
- › Ensure accurate, reliable, and verifiable information
- › Make sure the relevancy of intelligence information is clear
- › Tailor information to specific incidents
- › Provide information that is clear and understandable
- › Become a trusted source

Participants were also asked to identify key functional requirements for an “ideal” information system. These requirements can be used as a starting point for designing and testing current and future information systems:

Data qualities—provide useful data

- › Actionable
- › Supports decision-making
- › Layered for differing levels of detail (like Face book or Headline News)
- › Tailored to different people and different needs
- › Self-selectable
- › Manageable

System qualities—include features that improve effectiveness

- › Automated delivery

- › Designed for mobility
- › Utilizes existing networks
- › Integrates neighboring communities

Information types—support specific needs

- › Include recommended follow-up actions
- › Support situational awareness
- › Provide a common operating picture
- › Include sensors and radar systems
- › Include closed circuit cameras
- › Include multiple communication modes

Usability—make it desirable and easy to use

- › Trustworthy
- › Timely
- › Clear
- › Selectable from a “bin” of information
- › Customizable

Models for information sharing

As part of our goal of uncovering local best practices, participants discussed the pros and cons of three local models for information sharing. Participants broke up into three break-out groups and discussed drills and exercises, email and list serves, and community organizations.

Drills and Exercises

“Practice like you play, then play as you practiced!”

The break out group reviewed two recent activities—the AMSC exercise at Pier 1 in Honolulu and the Tong Cheng shipping accident. During the discussion, participants noted that drills and exercises were very effective ways to share information. Participants noted the importance of clarifying roles, including the right people, and having consistent approaches. Specific requirements of successful exercises included the following:

- › Need to understand individual roles
- › Need to include Special Agents from the FBI
- › Need to allow access for first responders
- › Best to have prior working relationships
- › Must be done at least annually
- › Need to work towards ICS issues
- › Need ongoing evaluations
- › Need useful templates
- › Need to standardize template for all disasters
- › Need knowledge of capabilities

Email and List serves

“This is interesting but not actionable.”

Participants reviewed the USCG Alert Warning System and emails sent out by a local maritime associate. Participants found emails and list serves somewhat effective for information sharing. During the discussion, participants identified issues related to access, types of communication, and reliability. Specific best practices when using email and list serves included the following factors:

- › Easy to access
- › Requires simple verification on identity
- › Provides automatic tracking of communications
- › Provides automatic acknowledgements of receipt
- › Allows two-way communication
- › Provides actionable alerts
- › Supports multiple media types
- › Information is designed using headlines with links to details
- › Information and alerts are customizable to different communities
- › An all hazards approach is taken
- › The source is trusted

Case Study: MarView

During the workshop, a representative from MarView outlined the basic intent of the application. Three groups of participants then used the application to complete a specific task (create a collaboration group, and to locate information on a specific ship.) Overall, participants had mixed reactions to the desirability and usefulness of the site. Participants also found the interface somewhat confusing.

Desirability

Users were initially impressed with the overall functionality, the richness of visual data, and the ability to collaborate. Some users found the site “interesting and entertaining”. Some users however, thought the site had minimal value.

Usefulness

Users found MarView somewhat useful. Useful features included:

- › tracking of vessels to double check position reports,
- › recording ship travel to review traffic patterns
- › detailed port information
- › using the site for collaboration

Users were confused somewhat by the permission levels and felt that they were not getting access to all the information that they needed. Users also noted that some information was inaccurate and seemed unreliable.

Ease of Use

Users found MarView somewhat difficult to use. Users struggled with the navigation, terminology, and search. Specifically, users had difficulty with the following:

- › reading small type
- › understanding abbreviations
- › understanding menu terms
- › discriminating between workplace users and points of contact
- › inconsistent menu icons
- › understanding how to use menus
- › understanding the relationship of the bottom and right menu
- › navigating through the user pull down menu
- › using the search function

Community Organizations

“Is there a need for improved local information sharing? Or is there just a need to build federal relationships?”

Participants reviewed three local groups for best practices in sharing information—the AMSC, the Hawai’i Ocean Safety Team (HOST), and the Hawai’i Harbors User Group (HHUG). Participants did not see the HHUG or HOST groups as being currently capable of serving their needs although they did find them to be good partners. The AMSC is the most useful, but participants perceived that FSOs are not as included as much as they would like. The criteria for successful organizations that participants identified included ensuring adequate representation, appropriate focus, and sufficient power to influence. Specific best practices that participants recommended for building community organizations included the following:

- Include operation level employees
- Include a cross section of industries
- Place focus on safety and operations
- Make membership affordable
- Include relationship building
- Meet regularly
- Be able to make quick decisions
- Have adequate support staff

Participants recommended that the AMSC expand the FSO subcommittee and include associate memberships so that other interested parties can attend. Participants also recognized that they wanted more face-to-face time and that the MIST process was very useful to them.

Next Steps

At the conclusion of the workshop, participants outlined next steps in moving forward, including assigning responsibility for follow-up actions. The items targeted for action include the following:

- | | |
|--|----------------------|
| 1. Connect with Civil Defense and create unified exercises | State DOT—Harbors |
| 2. Develop better relationships with unions | agent representative |
| 3. Expand relationships with under-represented groups | AMSC |
| 4. Improve alert and warning systems | USCG |
| 5. Improve consistency and realism of ICS exercises | AMSC |
| 6. Update state communications grid, eliminate faxes | State DOT—Harbors |
| 7. Try MarView as a tool for information sharing | USCG, all |
| 8. Provide feedback to MarView on usability | MIST |

Lessons learned about the process

The MIST process is evolutionary and iterative. We value the lessons we learn from each activity and adapt our methods based on what we learn from each local activity. Some of our past learning includes improved processes for participant recruiting, clearer advisory board roles and responsibilities, the increased use of face-to-face interaction, the decreased use of web-based social media, and the inclusion of actionable results. Based on our latest effort, we have identified several areas for improvement.

Outreach

The Honolulu MIST Steering Committee was a more fluid body than previous MIST steering committees. In past applications, the membership was convened primarily via conference call. Due to other travel scheduled in the area, two Honolulu MIST Steering Committee meetings were held in person and follow up was conducted via e-mail. This resulted in more 'local' participation from Federal government stakeholders. Headquarters divisions of DOT-MARAD, OGMSA, and GMAII were kept aware of MIST Honolulu implementation, but were less involved in the overall logistics.

The first meeting was held in August at the USCG Sector Honolulu conference room and was attended by representatives from local USCG Sector, the local Joint Terrorism Taskforce (JTTF), Department of Justice- Federal Marshals, Immigration Customs Enforcement (ICE) and the University of Hawai'i at Manoa (CIMES- DHS Center of Excellence in Maritime.) Our goals were to start brainstorming the implementation of MIST in Honolulu and develop the participant list. The attendee list began with a strong focus on government stakeholders and this is most likely due to the government-only make up of the initial meeting. The strong interest and participation is attributed to the USCG COTP seeing value and supporting MIST. *It is important that the USCG support implementation.*

The second meeting was held in September at the University of Hawai'i at Manoa and the make-up of the committee changed somewhat—not all organizations sent the same people. Attendees included the USCG, ICE, the University of Hawai'i, CBP, NCIS, the DHS Protective Security Advisor, the Honolulu Police Department, and the State of Hawai'i Ports. JTTF was not present. The private sector was represented by one major industry company and the attendee was also a member of HHUG so they were aware of other private sector maritime interests. The meeting explained the MIST concept to new members and continued to address the participant list and logistics. The time spent bringing new members up to speed was time consuming and it was not clear if there was an adequate understanding of our intent. *The creation of a virtual steering committee "orientation" would be beneficial to help clarify purpose and set expectations.*

Initially it was thought that we should capitalize on the annual Asia Pacific Homeland Security Summit and hold MIST at the same time. Unfortunately, due to a holiday occurring the same week of the summit and not wanting to make participants choose to participate in MIST or the summit it was decided to hold MIST the week prior. State Civil Defense was invited to all meetings and was made aware of the process as it developed. However, their participation was made very difficult as they were the lead planners and implementers for the summit. State Civil Defense is a critical player in maritime information sharing and their absence was felt. *Timelines need to be coordinated so that all major stakeholders can participate.*

The key participants required for MIST to be successful are under immense operational demand. These demands require that MIST clarify the return on investment for participants. *It would be beneficial to record testimonials from various maritime community participants to target their peers for recruiting to future MIST activities.*

For example, pulling an agent's quote from the workshop evaluation form to demonstrate to the agent community in other ports the benefit in participating. The team also identified key missing communities, such as the pilot community, that are necessary for project success. While the team has developed a list of targeted participants by role, we need to be more proactive in ensuring representation.

The MIST team also recognized that we could leverage more support from national organizations to target local contacts. *This could be facilitated by identifying national organizational meetings/conferences for MIST presentation as well as continuing regular contact, updates and information exchange with our national partners.*

Logistics

MIST Honolulu was held at the Clean Islands Council (CIC) building on Sand Island. It was very nice facility. It was ideal for several reasons. First it was a private sector facility and seen as neutral territory. CIC also is a huge advocate of the Incident Command System (ICS) which the National Incident Management System (NIMS) is based on. It was very impressive to see such a strong private sector emphasis on ICS specifically in the maritime environment. This may very well be a best practice as we have not seen a strong ICS culture in other port environments. The hospitality, parking, supplies, and internet conductivity were ideal. The CIC also provided coffee and pastries both days of MIST. Food has been a challenge for MIST. The team is well aware when food is provided; participants appear to feel more comfortable. We have regularly observed participants gathered around the coffee or pastry table furthering conversations from the workshop. Unfortunately, restrictions on Federal funding prohibit serving food. *MIST will continue to explore a means to provide food beyond the MIST team and steering committee contributions.*

AMSC/FSO Meeting Presentations

At the Los Angeles/Long Beach MIST it was determined that it would be helpful to have a networking event for MIST participants prior to the MIST workshop so that participants could have an opportunity to learn more about the process and in some cases meet each other in person for the first time. In Puget Sound, we held the MIST networking event at the NOAA facility. It was a good first step, but in Honolulu the MIST team had an opportunity to present at the Facility Security Officers meeting as well as the Area Maritime Security Committee meeting. This was a really great opportunity that was made possible by the USCG Honolulu Sector. Both meetings targeted potential MIST stakeholders and resulted in greater understanding of the process and improved recruiting of participants to the workshop. These meetings didn't require potential participants to schedule separate time to learn about MIST but rather leveraged an existing meeting. *Future MIST events should work with the USCG and other local stakeholders to present at the AMSC meeting or other appropriate reoccurring gatherings.*

Field Study

The field study element of MIST was added in Puget Sound and served as a great way to get a better understanding of the daily practices of information sharing from specific maritime industry perspectives. In Puget Sound the field study was comprised of FSOs, and this same group was identified in Hawai'i. Future field studies may be expanded to include other perspectives, such as pilots or agents.

Identifying the field study participants for MIST Honolulu was very easy with the support of the USCG Sector Honolulu. They not only identified willing participants, but also scheduled times. Having times scheduled by parties not familiar with the previous field study resulted in two researchers present at each interview rather than individually as conducted in Puget Sound.

Initially, this was thought to be a less efficient use of researcher time, but actually *the outcome was improved with two different interviewers asking questions—a deeper understanding of perspectives was gained.*

Each interview was conducted in accordance to the process outlined in the Naval Postgraduate School human subjects' process. This process has since been revamped and may require additional time to ensure that required paperwork and training is completed. Each interview was to be conducted with a standardized question and answer period followed by a walking tour of operations to produce a greater understanding of a day in the life of this position. Interviews were recorded in written notes and a digital audio recording was made. Due to the tsunami warning, one of the interviews included an observation of real response to this event. To be present during a response and decision making process of a facility security office proved to be very educational and beneficial to the research team. At the close of each interview, *participants were provided with a Naval Postgraduate School coin as a token of appreciation and it was very well received and should be continued.*

MIST Honolulu was fortunate enough to have resources for professional transcription of the field study audio recordings. Unfortunately, the contract process was new and required time to negotiate. Further, the actual transcriber was not communicative or responsive to providing work when completed, but rather waited until the very last day of the contract to deliver all the transcription at once. The quality was adequate, but resulted in a delay to completing this report. While the MIST team communicated with stakeholders regarding the effect of transcription holding up completion of the report, this delay does not reflect the integrity that that team would like to convey. *In the future, the transcription contract should specify that completed transcription should be provided to the team as completed and the deadline should be set to provide enough time to complete the report.*

Workshop

Prior to the workshop, participants were provided with several polls to provide a baseline of perspectives and drive content. Based on lessons learned from Puget Sound, these polls were designed to be completed on a blackberry and this resulted in greater responses to polls. However, in review of the actual questions, it was determined that *the polls need to be restructured and reworded to provide more clarity as to the information we are soliciting.*

The structure and design of the workshop remained fairly consistent from the Puget Sound workshop design with the exception of not revealing previous workshop results. It was thought that revealing the outcomes of the workshop of Los Angeles /Long Beach may have affected the responses in Puget Sound. Instead at the close of discussion segments, participants were provided polls with prior MIST outcomes to capture their opinions. This was intended to help provide trend data. The process of completing polls seems to interrupt discussion and flow. People appeared to be rushed to fill them out, some did not fill them out and it was a challenge for facilitators to work them into the transitions between segments. Further, people did not get immediate feedback from them. *The team needs to readdress how polls are used in the workshop or how this information can be integrated another way.*

MIST Puget Sound introduced the element of a keynote speaker. This worked very well so we incorporated it into the Honolulu design. It is interesting to note that when we broached this topic with the Honolulu MIST steering committee they were not interested in a national or Washington DC speaker, but said that it would be more of a draw if we had a local speaker with an appreciation and understanding of the local area. Initially we were planning to have USCG District 14 Chief of

Staff RDML Steven Mehling as our keynote speaker, but on the day of the workshop we were informed that he sent his regrets and would not be able to make it. Honolulu COTP Barry Compagnoni provided a brief welcome emphasizing the importance of information sharing. He did an outstanding and effective job. Upon review of the overall workshop it was determined that *the concept of having a high-level keynote speaker does not really add much benefit to the overall outcome and maybe the time could be used more effectively by diving into the discussion.*

The workshop provided a good balance of small and large group activities. The discussion after the small group activities demonstrate many ideas that would be more challenging to bring out in the larger activities. The out briefs from the small group activities were varied and often did not follow a consistent pattern. While, the organic conversations were valuable more structure may be necessary. Two ways were discussed that could help to facilitate this. First, as all the small group discussion are captured on flip charts, it may be helpful to *pre-format the flip charts to capture the specific data we are soliciting from each activities while still having room to record emergent data and research.* Secondly, while we were fortunate to have a facilitator join us from the Office of Global Maritime Situational Awareness, *we need to provide more time to familiarize facilitators with the specific MIST activities and some of the lessons learned by the more seasoned facilitators of MIST.*

At the close of the first day, the MIST team re-grouped to review the day's outcomes and discussed what went well and what needed to be improved. Follow-up ideas were integrated into the following day. The earlier start of MIST Honolulu resulted in an earlier adjournment which provided a good amount of time to review before the team was in need of dinner. The one and a half day time frame still seems to be ideal to cover the content and gain the most participation.

The Way Forward

MIST is an interagency activity and we have been very fortunate to have participation and interest from many government agencies. The ODNI/GMAII provided us with fiscal support that greatly assisted in securing supplies and transcriptions services that supported this MIST. DOD MDA- EA, DOT- MARAD, OGMSA, USCG, DHS- PSA, CBP and NCIS all provided participants. *MIST should look to utilize these federal personnel and support more effectively to provide survey analysis, report writing and fiscal support for on-going MIST endeavors as well as ensure that MIST is integrated into their other agency information sharing efforts.*

Appendix A: Methods

Using an iterative participatory approach, the researchers partnered with federal, local and private sector stakeholders to assess the information sharing needs of regional maritime security personnel. The resulting research design included an issues workshop, field studies of port personnel, a local networking event, and ongoing participant email polling.

Purpose

The mission of MIST is *to create a process for interagency and international multilateral sharing of maritime threat information between private sector shipping and government agencies. This process must mitigate the concerns of private industry and provide value to both parties.*

Participant recruiting

Participants for the workshop and field study were invited to participate based on the recommendations of the local advisory committee. Participants included representatives from the following organizations:

- American Marine Services Group
- Customs and Border Protection
- Department of Homeland Security
- DHS I&A Hawai'i, American Samoa, Guam, Northern Marianas Islands
- DoD Executive Agent for MDA
- DOT-MARAD
- Hawai'i State DOT - Harbors
- Hawai'i Stevedores
- Hawaiian Tug & Barge
- Horizon Lines
- Matson Navigation
- McCabe, Hamilton & Renny Co., Ltd
- Naval Criminal Investigative Service (NCIS)
- OGMSA
- Penco
- Sause Brothers
- TSA – Honolulu International Airport
- University of Hawai'i
- USCG Sector Honolulu
- Waldron Norton Lilly International, LLC.
- Young Brothers, Ltd

Field study

There is significant literature that identifies key issues in the sharing of port security information between federal agencies. However, there is very little research about the daily practices of port personnel in the sharing of threat information. In this study, we sought to further the context of sharing threat information—specifically how, where, when, and why private sector personnel share threat information with the federal government. To support this we developed the following research questions:

1. What are the daily information sharing practices of port security personnel?
2. What are the social, psychological, operational, financial, and ideological factors that impact the sharing of threat information?
3. What are the barriers and constraints that exist in information sharing?
4. What are the opportunities to improve information sharing?

To explore the above research questions, we gathered examples of information sharing practices through ethnographic observation and qualitative interviews with selected Port personnel.

Workshop

The workshop was conducted over a day and a half and was segmented into six primary areas:

Streamlining government requests:

In this section, we had participants identify, discuss, and rank government requests that were difficult. The participants used one dollar stickers to mark those items that they felt were the most important.

Incentives for information sharing:

Using a 360 degree value model, we had participants identify, discuss, and rank specific benefits that could be used to incentivize the private industry.

Tools for information sharing:

Participants were guided through a discussion of current tools, analyzed their usefulness, and then were introduced to a current and proposed tool for testing and evaluation.

Partner issues in information sharing:

In this section, we asked participants to identify and evaluate relationships between partner organizations at the local, federal, and international level.

Models for Information Sharing:

This first new module on the second day of the workshop identified local best practice models, thoroughly evaluated those models, then allowed participants to brainstorm and define their collective ideal maritime threat information sharing model.

Next Steps:

The final activity for the workshop was to discuss how we could move forward.

Workshop slides

Following are screen shots of the slides that we used to structure the workshop.

MIST

maritime information sharing taskforce

striving to create a two-way process for understanding & communicating local, private sector needs for sharing threat information.

Honolulu Workshop
4-5 November 2009

Welcome

Introduction Streamlining Partners Incentives Tools Models Next steps

Introduction

1. Who is here
2. About MIST
3. What's ahead
4. Admiral Select Stephen E. Mehling, Chief of Staff USCG District 14

Who is here

Introduction Streamlining Partners Incentives Tools Models Next steps

The Facilitators

- Naval Postgraduate School

Participants

- Naval Postgraduate School
- Waldron Norton Lilly Int'l, LLC.
- NCIS
- USCG Sector Honolulu
- Roberts Hawaii Transportation
- Mathson Navigation
- Young Brothers, Ltd
- Hawaiian Tug & Barge
- DHS I&A Hawaii, American Samoa, Guam, Northern Marianas Islands
- Hawaii Harbors Users Group
- DOT - Harbors
- Horizon Lines
- DoD MDA
- Hawaii Stevedores
- McCabe, Hamilton & Renny Co., Ltd
- TSA HNL

What is MIST

Introduction Streamlining Partners Incentives Tools Models Next steps

Purpose

- Process for two-way sharing of threat information
- Focus on private sector at the local level

Current sponsors

- Maritime Defense & Security Research Program - NPS
- Maritime Administration - US Department of Transportation

Current stakeholders

- USCG, MARAD, GMSA & GMAL, NCGS and GMIS

Status

- August 2008: piloted at the Port of Long Beach/Los Angeles
- May 2009: modified and expanded to the ports of Puget Sound
- November 2009: further developed at the Port of Honolulu

MIST looks at local MDA issues using multiple tools

Introduction Streamlining Partners Incentives Tools Models Next steps

MIST is constantly evolving

Introduction Streamlining Partners Incentives Tools Models Next steps

MIST looks at issues, best practices, and solutions to problems

Introduction Streamlining Partners Incentives Tools Models Next steps

Information Sharing

- Targeted incentives
- Local control
- Improved collaboration
- Improved information
- Streamlined government
- Appropriate outcomes

How can we better things be improved?

- Communication—not 800 numbers
- Bureaucracy—one place, person, process
- Policy—industry input, realistic

Why are we doing this?

Introduction Streamlining Partners Incentives Tools Models Next steps

To improve MDA—the effective understanding of the maritime domain that could impact the security, safety, economy, or the environment

When asked if you need more information sharing...

- The survey says... We Agree (but not strongly)

When asked the type of MDA information you want...

- The survey says...
 - Suspicious activity, major criminal activity, security vulnerabilities
 - Exactly what the threat is, how it applies, and actions to take
 - Petroleum, aviation, maritime threats
 - Communication and contact info

Keynote

Introduction Streamlining Partners Incentives Tools Models Next steps

Admiral Select
Stephen E. Mehling

Chief of Staff USCG District 14

What's ahead and can we record the session?

Introduction Streamlining Partners Incentives Tools Models Next steps

Day 1 Schedule

- Introductions
- Admiral Select Stephen E. Mehling
- BREAK
- Streamlining government requests
- Partner organization issues
- LUNCH
- Incentives for sharing
- Tools for information sharing demo
- BREAK
- Tools for information sharing
- Day 2 Schedule
- Models for Information Sharing
- Next Steps

Small group discussions

Large group discussions

Presentations

Brainstorming

Desired outcomes

Problem identification

Problem solving

Best practices

Streamlining processes (intro)

Introduction Streamlining Partners Incentives Tools Models Next steps

Goals

1. To look for areas where the federal government can improve
 - Gaps
 - Best practices
2. To look at a test case
 - Training of facility security guards
 - Sailors access through ports

The Federal Landscape

Introduction Streamlining Partners Incentives Tools Models Next steps

Streamlining Federal Processes (large group)

When asked what federal processes need help, the survey says...

- Relationships**
 - Contacts, getting civilian workforce to work with Law Enforcement
- Communication**
 - Faster emergency information, disconnected methods of communication, active participation of agencies to the Port
- Authorizations**
 - proper clearance to receive SSI, limitations on what can be shared
- Information flow**
 - Need information that is easily projected and easily understood, timely notifications, need a fusion center, have an inactive JTTF
- Information quality**
 - "one stop shopping" for information
 - Homeport is lacking efficiency, usability etc.
 - Timeliness, accuracy, reliability of sources other than our government sources

1. Discuss
2. Vote
3. Poll

What specific steps can the federal government take?

Looking at a test case

Test Case Description

- Training of facility security guards
- Sailors' access through ports

Test case (small group)

Analysis of test case: tbd

- Desirable and useful?
 - Solves what problem?
 - Key outcomes?
 - Other similar examples?
- Easy to use?
 - Appropriate activity?
 - Fits existing processes?
 - Feasible to use?
- Easy to implement?
 - Who is key to success?
 - People barriers?
 - Organizational issues?
 - Technical hurdles?

All: Local Best Practices?
1: Desirable and useful?
2: Easy to use?
3: Easy to implement?

Test Case Summary (all)

OUR Analysis of tbd solution

- Desirable and useful?
 - Ah-has!
- Easy to use?
 - Ah-has!
- Easy to implement?
 - Ah-has!

Partner Organizations

Goals

- To identify local information sharing relationships
 - Gaps
 - Best practices

Exploring your partners (small group)

Group A
International

Group B
Commercial

Group C
State local

Who
Type of interaction
Best Practices
Improvements

Partner Issues (all)

Group A
Ah-has!

Group B
Ah-has!

Group C
Ah-has!

Partner Collaboration Issues

When it comes to collaboration, the survey says...

- Attitude and acceptance**
 - Not everyone takes security seriously
 - Resistant to changing behaviors that can reduce security risks
 - Lack of public awareness of maritime security laws and regulations
 - Need improved understanding of plans/procedures
 - Need to understand our role
- Networking**
 - Old boy network seems far more accurate than any other planned or in process info sharing method
 - Getting the "right" people at the table
 - Bringing together a wide variety of port stakeholders
 - Networking with new POCs, to identify and resolve problems
- Minimizing duplication of effort with information shared**

1. Discuss
2. Vote
3. Poll

Incentives for information sharing

Goals

- To better understand private sector benefits for sharing information
- To help align government incentives with private sector benefits

Background

- Thinking about your motivations from 360 degrees

Incentives for Information Sharing (intro)

What would make you more likely to share information?

Exploring incentives (small group)

Group A:
Financial Benefits
Operational Benefits

Group B:
Operational Benefits
Strategic Benefits

Group C:
Social Benefits
Ideological Benefits

Incentives for Information Sharing (all)

Group A
Ah-has!

Group B
Ah-has!

Group C
Ah-has!

1. Discuss
2. Vote
3. Poll

Tools for Information Sharing (intro)

Goals

- To understand which tools you use
 - Pre-workshop surveys
- To present a possibly useful tool (MARVIEW)
- To understand what makes an information tool useful
 - Defining success game
- To identify specific issues with a selected tool
 - Looking at usefulness and usability

Tools used in Honolulu

When asked what tools are used, the survey says...

- Local knowledge and the grapevine
- MSRAM allows for systematic and objective analysis of maritime security risk
- Homeport allows for posting of Sensitive But Unclassified (SBU), includes additional tools to enhance communication among port stakeholders.
- E-mail is by far the most widely utilized method of communication but is insecure
- Public access websites
- Situational awareness data from other agencies
- None. We don't have effective tools

Presenting a new tool: MARVIEW

About MarView

Background

- 2005—MARAD designated by Congress as the Marine Transportation System (MTS) Information advocate
- Planning for MarView begins
- 2006—MarView web site piloted

Vision

- Integrated, data-driven environment
- Focus is on global supply chain management (Intermodal)

Mission

- To collect, store, protect, analyze, and deliver critical information to commercial, local, state, and Federal entities.

Components

- Portal and single source to MTS data
- Analytic capabilities
- Visualizations of MTS

Purpose of MarView

- U.S. DOT Maritime Administration role: **Information Advocate for the Marine Transportation System (MTS)**
- Marine View (MarView): integrated data driven environment providing essential information to support the strategic requirements of the U.S. Marine Transportation System and its contribution to the economic viability of the Nation



The Need

- The Maritime industry is critical to our national security and the health of the U.S. economy
- Challenges facing the Marine Transportation System
 - Need for improved efficiency
 - Projected growth in cargo volumes
 - International competition
 - Complexity
 - Congestion
- Deficiencies in current information environment
 - Multiple unique systems that are typically:
 - Duplicative
 - Not integrated
 - Not sharable
 - Not secure or have little structured privacy protect
 - Not protected from loss or destruction
 - Will not be available when needed
 - Lack of system-wide information views
 - Inability to model the entire system to address:
 - Capacity planning
 - Disaster planning
 - Disaster recovery



MarView Concept

- Provide access to many disparate MTS data sources
 - Enable integration across multiple sources
 - Provide single access method
 - Reduced data collection efforts
- Enable MTS-wide view (Ports, Waterways, Intermodal connections, Vessels)
- Support access by multiple users (from Analyst to Executive)
 - Public
 - Government (multiple agencies)
 - Industry (multiple sectors: Marine Exchanges, Port Authorities, Ports, Terminals, Shippers, etc.)
- Foster Government/Industry Partnerships
 - Share and use data/information
 - Protect proprietary and commercial value information
- Establish protected environment

MarView Structure

- Portal
 - Collection of MTS Tools (MTS directory, Distance calculator, Documents Library)
 - Statistical information on MTS functional areas
 - MTS alerts and news feeds
 - Collaboration
- Business Intelligence - Analytics
 - MarView uses the Oracle Business Intelligence Suite Enterprise Edition Plus (EE). OBIEE delivers a full range of BI capabilities including interactive dashboards, full ad hoc, proactive intelligence and alerts, real-time predictive intelligence, disconnected analytics.
- VMTS
 - Virtual Marine Transportation System: Interactive geospatial display providing monitoring, analytical and modeling capabilities

MarView Portal

- Vessel: Most comprehensive collection of real-time (with playback) vessel tracking information through Automated Identification System (AIS) and Voluntary Observation Ships (VOS); Vessel Characteristics
- Ports: Physical attributes information on national and international ports and related facilities; Ports Authorities; Ownership; Cargo types and Ship types supported
- Intermodal: Information about location, type, capacity and capability of the various modes of transportation that coincide with a particular port; Point of contact; Availability of lift and cargo handling equipment; Roadway connections; Railway connections; Rail & truck flow information
- Trade: Marine transportation information about waterborne domestic and foreign trade cargo, passenger and vessel movements
- Shipyards: Information about domestic and foreign shipbuilding and repair yards. Shipbuilding facility attributes; Surveys of U.S. Shipbuilding and Repair Facilities report
- Environmental: Collection of environmental policies, information and tools to help legislators make important decisions on key environmental issues

MarView Portal

- Collaboration: Customizable collaboration room with document management, updates notification, calendar, IM, private and public contacts information
- Crisis Tracking & Events Notifications: Workspace designed to allow collaboration between government and industry when responding to man-made or natural disasters
- Data Sources & Links: Over 2500 government, industry and commercial data sources. Over 3000 MTS related links to government and industry sites.
- Mariners: Statistics on trained and licensed Mariners; qualifications requirements; Crewing information; USCG related information & regulations; TWIC compliance by region.



MarView Business Intelligence

Information on U.S. Waterways, trade and facilities: Waterborne domestic and foreign trade (cargo, passenger, and vessel movement)

Information on U.S. Waterways, trade and facilities: Waterborne domestic and foreign trade (cargo, passenger, and vessel movement)



MarView VMTS

Vessel Tracking: MarView combines multiple sources for AIS data to provide world-wide coverage (over 45,000 unique vessels)



MarView VMTS

Vessel Tracking: Detail information on vessel, history, documents and nearby elements



MarView VMTS

Physical Attributes: MarView has worldwide coverage for ports combining multiple sources of data



Break

Questions

Be Back by 3:00

Break

Be Back by 3:00

What should an information tool deliver? (all)

Looking into the future

- Individually, imagine that it is one year from now and you have been using an information source almost continuously since today
- List what the source will have done to make the ports more secure. Be specific.
- Discuss as group

1 year outcomes?

Looking FAR into the future

- Imagine that it is five years from now and you have been using the source almost continuously since today
- List what the source will have done to make the ports more secure. Be specific.
- Discuss as group

5 year outcomes?

What do you need info sites to do? (all)

Thinking about an information sharing site,

What tasks would you like to use it for?	Importance?		
	H	M	L

Prioritized Goals (all)

How well does MARVIEW serve your needs?

Have teams examine how useful the site is and how easy it is to use...

- Do you know what is possible?
- Can you locate what you need?
- Is what you find useful? Why?
- Is what you find easy to understand or use? Why?
- What else would you like at this point?

MarView

Usability

What do you need? (all)

Introduction Streamlining Partners Incentives Tools Models Next steps

Issue	MarView
Do you know what is possible?	
Can you locate what you need?	
Is what you find useful? Why?	
Is what you find easy to understand or use?	
What else would you like at this point?	

42

End of day one

Introduction Streamlining Partners Incentives Tools Models Next steps

What we accomplished

- Identified areas ripe for streamlining
- Reviewed a proposed new policy implementation
- Designed incentive options for the private sector
- Looked at success factors for creating tools for sharing information
- Evaluated an existing tool for usability
- Examined organizations and partners for information sharing

Tomorrow

- Look at some of models for "good" information sharing
- Look at our next steps

Tonight

- Dinner?

43

Day two

Introduction Streamlining Partners Incentives Tools Models Next steps

What we accomplished

- Identified areas ripe for streamlining
- Reviewed a proposed new policy implementation
- Designed incentive options for the private sector
- Looked at success factors for creating tools for sharing information
- Evaluated existing tools for usability
- Examined organizations and partners for information sharing

What we'll do today

- Explore "best of class" models
- Look at next steps

43

Models for Information Sharing

Introduction Streamlining Partners Incentives Tools Models Next steps

Goals

- To identify local information sharing practices
- To look for best practices
- To identify measures of success

47

Existing models (all)

Introduction Streamlining Partners Incentives Tools Models Next steps

Best of Class for Information Sharing

- Area Maritime Security Committee meetings
- Exercises
- Email
- Other?

Models Expand

48

Models for information sharing (small group)

Introduction Streamlining Partners Incentives Tools Models Next steps

One way to think about effectiveness...

<p>What is the focus of the group?</p> <ul style="list-style-type: none"> Shared knowledge area Relevant to work Breadth vs. depth 	<p>What community is served?</p> <ul style="list-style-type: none"> Common ways of behaving Shared vision and motivations Trusted relationships and leadership
<p>Are there common practices?</p> <ul style="list-style-type: none"> Background knowledge Work products Approach to problem solving 	<p>Do you share desired outcomes?</p> <ul style="list-style-type: none"> What does the system deliver? How is success measured? What do you do to make it happen

49

Evaluate in terms of effectiveness (small group)

Introduction Streamlining Partners Incentives Tools Models Next steps

<p>How effective is it?</p> <p>What is the focus of the group?</p> <ul style="list-style-type: none"> Shared knowledge area Relevant to work Breadth vs. depth 	<p>What community is served?</p> <ul style="list-style-type: none"> Common ways of behaving Shared vision and motivations Trusted relationships and leadership 	Group A
<p>Are there common practices?</p> <ul style="list-style-type: none"> Background knowledge Work products Approach to problem solving 	<p>Do you share desired outcomes?</p> <ul style="list-style-type: none"> What does the system deliver? How is success measured? What do you do to make it happen 	Group B
		Group C

Best Practices
Improvements
Outcomes

50

Summary of "good" info sharing model (all)

Introduction Streamlining Partners Incentives Tools Models Next steps

Best models for information sharing? Best Models

What do the best systems deliver? System Outcomes

What are some ways we can measure the outcomes? Outcome Metrics

What are some actions that will ensure success? Actions

51

Next Steps (all)

Introduction Streamlining Partners Incentives Tools Models Next steps

Large Group

- How can we communicate better?
 - Clarify roles and responsibilities
 - Get help in designing tools
 - Ensure ongoing communication
 - ?
- How best to participate in the future?
 - Web site?
 - Working groups?
 - Conferences?
 - ?
- Is there a role for academia?

Communication?
Participation?

52

Appendix B: Workshop Agenda

MIST Honolulu Workshop, 4-5 November 2009

WORKSHOP AGENDA

Wednesday, 4 November

- 0730 - 0800 **Registration /Networking**
- 0800-0820 **About MIST-** overview of the project and desired outcome of this workshop
- 0820-0850 **Key Note Address**
Admiral Select Stephen E. Mehling, Chief of Staff, USCG District 14
- 0850-0900 **BREAK**
- 0900-1030 **Streamlining Government Requests**
- 1030-1200 **Partner Organization Issues**
- 1200-1300 **LUNCH**
- 1300-1400 **Incentives for Sharing**
- 1400-1415 **Tools for Information Sharing Introduction**
- 1415-1430 **BREAK**
- 1430-1530 **Tools for Information Sharing**
- 1530 **Day One Wrap**

Thursday, 5 November

- 0800 **Check in / Networking**
- 0830-1000 **Models for Information Sharing**
- 1000-1015 **BREAK**
- 1015-1200 **Next Steps – Solutions**
- 1200 **Adjourn**

Appendix C: Polls and Evaluations

MIST Honolulu pre-workshop participant polls

Methodology

The MIST Honolulu participants were sent a series of four polls in preparation for the workshop. Our goals were two-fold: first participant responses were mined for significant local maritime security information sharing issues to focus the design of the MIST Honolulu workshop; and second, the polls were intended to help focus participants in advance of the workshop to maximize the effectiveness of our short time together around the table. The consolidated poll results were incorporated into the final workshop presentation, and were integral in our preparation and facilitation.

Instruments

MIST Poll #1: *This first survey will help us better understand what is important to you in the sharing of maritime threat information. Please take 5 minutes to respond today.*

SENT: Monday, 19 October 2009

1. Your roll in maritime security is: (select one)

- Facility Operations
- Vessel Operations
- Law Enforcement
- Shipper
- Other (specify below)

2. Your organization is a: (select one)

- Private company
- Public association
- Federal agency
- State or local agency
- Other (specify below)

3. When it comes to maritime security, your organization needs more collaboration between the public and private sector.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

4. In your daily work, what are your three most pressing problems with sharing information?

5. During the upcoming workshop on the sharing of maritime threat information, what one issue do you think we should try to analyze and solve?

MIST Poll #2: This second survey continues along the same line as the first, and will further our understanding of what is important to you in the sharing of maritime security information. If at all possible, please respond. Even if you didn't yet respond to the first poll, or cannot attend the workshop, your participation will enrich our process.

SENT: Monday, 26 October 2009

1. For you, the THREE MOST important issues to address in the sharing of security information are: (mark only three)

- Timeliness
- Accuracy/reliability
- Usability – “Is it relevant and actionable?”
- Too much information – “information overload”
- Reporting procedures and guidelines
- Other (please specify below)

2. your work in maritime security, the THREE most important risks to successful information sharing are: (mark only three)

- General public awareness of information sharing relationship to national security
- Information management – access to security information
- Funding issues
- Planning for disaster recovery and continuity of business
- Intermodal operations (shipping, rail, truck, air)
- Terminal and vessel operations (i.e. security training)
- Other (please specify below)

3. When talking about the sharing of threat information, what information do you want disseminated to you? What is helpful in your daily work, and what is not? Please be specific.

4. You are from the private sector:

- Yes
- No
-

5. Your role is:

MIST Poll #3: *This is the third in a series of polls to inform the workshop design process, and to target specific resources to discuss as a group.*

SENT: Wednesday, 28 October 2009

1. What tools do you find most useful when working in maritime security?

(Tools can include things like websites, data analysis software, communication and situational awareness tools)

a. _____

b. _____

c. _____

2. What makes these tools most useful?

3. What organizations or meetings do you find most useful when working in maritime security?

(Include things like associations, agencies, special interest groups, local events, conferences and workshops).

a. _____

b. _____

c. _____

4. Why are these organizations and meetings useful?

MIST Poll #4: *This final MIST poll seeks input as to how this process might better benefit participants.*

SENT: Sunday 6 December 2009

1. Your roll in maritime security is: (select one)
 - Facility Operations
 - Vessel Operations
 - Law Enforcement
 - Shipper
 - Other (specify below)

2. Your organization is a: (select one)
 - Private company
 - Public association
 - Federal agency
 - State or local agency
 - Other (specify below)

3. One of the things we heard you say at the recent workshop was that you'd like a more tangible benefit in exchange for workshop participation. What type of post-event benefit would be most useful?
 - Summary document designed for inclusion with Port Security Grant applications
 - Official Letter of Participation from a federal level security official
 - Other (please specify)

4. For future workshop design, what training should be included to maximize the participant benefit?
 - Tools orientation/training (i.e. HomePort, MarView, other internet resources)
 - Port Security Grant application tips from a federal level application reviewer
 - Labor/industry communication training by a labor communication specialist
 - Other (please specify)

5. For you, the most important issue discussed in the recent workshop was: (select one)
 - Coordination, communication, and streamlining
 - Incentives for threat information sharing
 - Partner organizations, agencies, and associations
 - Best practices, ideal system design
 - Other (please specify below)

In-session workshop polls

Methodology

This series of four polls was administered at strategic points throughout the day and a half workshop to solicit feedback on issues that may not have surfaced during large and small group discussion, but were discussed at workshops in other regions. By collecting feedback on common issues, we hope to allow comparative analysis of findings from a variety of regions.

Instruments

These four polls were included in the participants packets distributed at the start of the workshop on day one, each on a separate page.

Collaboration

1. Please look over the entire list below. Then please indicate the RELATIVE IMPORTANCE to you of each of the following types of collaboration.

	Most important			Least important	N/A
Provide information TO the private sector	<input type="radio"/>				
Align government policies and governance structures	<input type="radio"/>				
Increase coordination between state and local agencies	<input type="radio"/>				
Increase coordination between transportation agencies	<input type="radio"/>				
Increase trust with partners	<input type="radio"/>				
Minimize jurisdiction wars, power misuse	<input type="radio"/>				
Reduce fears of retribution (targeting, stricter standards, blame)	<input type="radio"/>				
Increase face-to-face communication	<input type="radio"/>				
Provide information that is useful	<input type="radio"/>				
Other (please specify)	<input type="radio"/>				

MDA Information

1. Please look over the entire list below. Then please indicate the RELATIVE IMPORTANCE to you of each of the following types of information.

	Most important			Least important		N/A
General threats to facilities or vessels	<input type="radio"/>					
Specific threats to my companies facilities or vessels	<input type="radio"/>					
Details of threats	<input type="radio"/>					
Recommendations for risk mitigation on specific threats	<input type="radio"/>					
Impacts on traffic and movement of goods	<input type="radio"/>					
The safety of the work-force	<input type="radio"/>					
Past terrorist incidents involving mass transit	<input type="radio"/>					
Follow up reports on specific threats	<input type="radio"/>					
Other (please specify)	<input type="radio"/>					

Streamlining Government

1. Please look over the entire list below. Then please indicate the RELATIVE IMPORTANCE to you of each of the following recommended government improvements.

	Most important			Least important		N/A
Improve information sharing between government entities	<input type="radio"/>					
Improve coordination and sequencing of government regulations	<input type="radio"/>					
Simplify government processes and programs	<input type="radio"/>					
Provide a single threat reporting system	<input type="radio"/>					
Provide a central contact for information distribution	<input type="radio"/>					
Provide a single place to access threat information	<input type="radio"/>					
Strip unclassified information from classified	<input type="radio"/>					
Standardize processes such as log-ins and data types	<input type="radio"/>					
Other (please specify)	<input type="radio"/>					

Incentives for Information Sharing

1. Please look over the entire list below.
Then please indicate the RELATIVE IMPORTANCE of each of the following incentives for sharing information.

	Most important		Least important		N/A
Fewer costs incurred	<input type="radio"/>				
Quicker business resumption after an event	<input type="radio"/>				
Workplace satisfaction	<input type="radio"/>				
Improved customer service	<input type="radio"/>				
Increased trust	<input type="radio"/>				
Improved decision-making	<input type="radio"/>				
Personal pride of work, professionalism	<input type="radio"/>				
Improved business logistics	<input type="radio"/>				
More efficient supply chain	<input type="radio"/>				
Protection of assets	<input type="radio"/>				
Positive public opinion	<input type="radio"/>				
Environmental stewardship	<input type="radio"/>				
Greater certainty & reliability	<input type="radio"/>				
Increased port use	<input type="radio"/>				
Faster vessel turnaround	<input type="radio"/>				
Personal financial rewards	<input type="radio"/>				
Other					

Poll Results

Participants were asked to identify their affiliation by marking their polls with a “P” to denote private sector or a “G” to identify themselves as a representative of government. We consolidated results in three sections: 1) all responses, 2) government responses, and 3) private sector responses. Most responses in all groups averaged 3.0 or higher on a five point scale of importance, where five was of the highest import. Only three average responses fell below 3.0:

Table 1: In workshop poll lowest ranking issues

<u>ISSUE</u>	<u>ALL RESPONSES</u>	<u>GOVT</u>	<u>PVT</u>
past terrorist incidents involving mass transit	3.1	3.3	2.9
personal financial rewards	2.9	2.6	3.1

Also of note were the several averaged responses that were at least a half point different between the government and industry respondent groups:

Table 2: In workshop poll responses with an average differential of half a point or higher between participant groups

<u>ISSUE</u>	<u>ALL RESPONSES</u>	<u>GOVT</u>	<u>PVT</u>	<u>DIFF</u>
provide info to private sector	4.6	5.0	4.4	0.6
align government policies & structures	4.2	4.6	4.1	0.5
reduce fears of retribution	3.3	3.7	3.1	0.6
specific threats to my company's facilities or vessels	4.5	3.9	5.0	-1.1
simplify government processes and programs	4.5	4.2	4.7	-0.5
fewer cost incurred	3.8	3.3	4.1	-0.8
workplace satisfaction	3.6	3.3	3.9	-0.6
improved customer service	4.2	4.7	3.9	0.8
faster vessel turnaround	3.8	3.4	4.1	-0.7
personal financial rewards	2.9	2.6	3.1	-0.5

MIST Honolulu Workshop evaluation

Instrument

Included in the *MIST Honolulu Workshop* participation packets, attendees were encouraged to complete this one page, double-sided evaluation at the close of the second and final day of the workshop.

MIST evaluation

1. Thank you for joining us for this MIST workshop

To help us improve the workshop, please tell us about your experience. Thanks!

* **1. Your organization is a:**
(mark only one)

Private company

Public association

Federal agency

State or local agency

Other (please specify)

2. Overall, how well organized was this workshop?

Very well organized Somewhat organized Somewhat disorganized Very disorganized

3. Overall, how useful was this workshop?

Very useful Somewhat useful Not very useful Not at all useful

4. How effective were the individual sessions in helping identify issues with sharing information?

	Very effective	Somewhat effective	Not very effective	Not effective at all
Presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Large groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

5. How appropriate were the topics we discussed? Check all that apply.

	Personally interesting	Applicable to my job	Not appropriate
Incentives for the private sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Streamlining government requests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tools for information sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private sector issues in information sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solutions for better information sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Networking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MIST evaluation

6. The workshop was:

	Agree	Somewhat agree	Somewhat disagree	Disagree
Too long	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Too short	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made me feel rushed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was too slow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did not provide enough breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

7. Were the right people in attendance to capture the needs of the private sector?

Yes

No

If no, who would you include?

8. How likely would you be to do the following:

	Very likely	Somewhat likely	Not very likely	Not likely at all
Read background information before the conference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use the web site before the workshop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use the web site after the workshop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set up your personal profile on the web	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Add a resource to the web site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommend this workshop to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Continue to participate in information sharing activities like this	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

9. In future workshops, what would you have us do *MORE* of?

10. In future workshops, what would you have us do *LESS* of?

Evaluation Results (n=15)

Figure 2: MIST participant affiliations

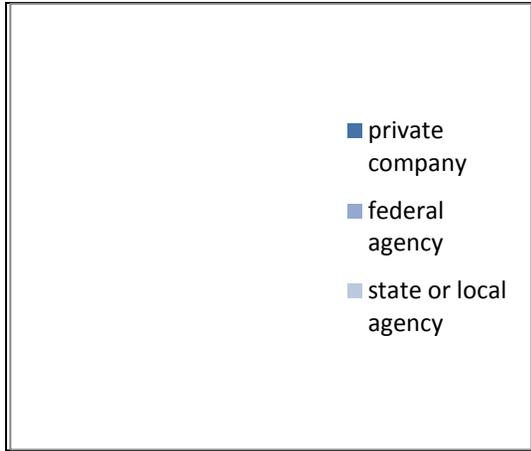


Figure 3: "The MIST Honolulu Workshop was:"

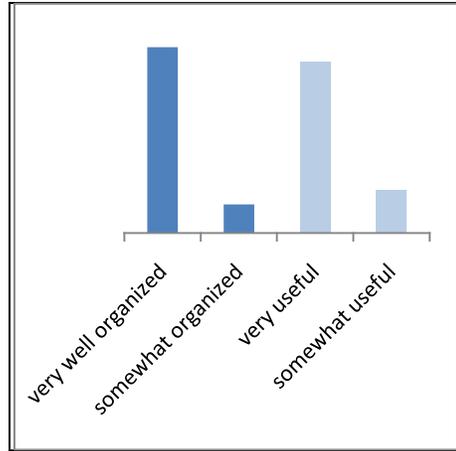


Figure 4: Effectiveness of workshop sessions

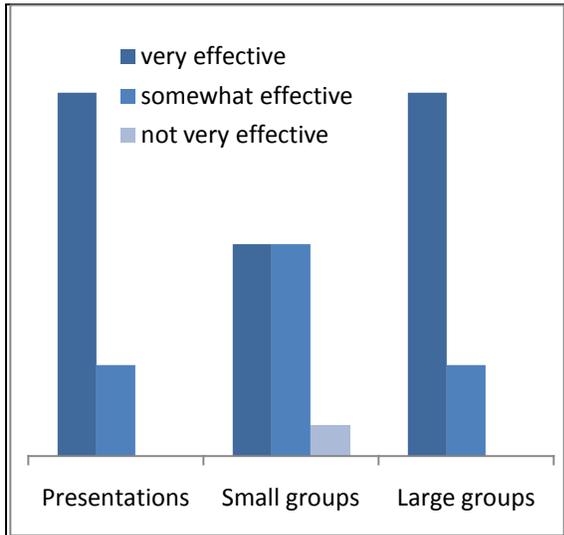


Figure 5: "How appropriate were the topics?"

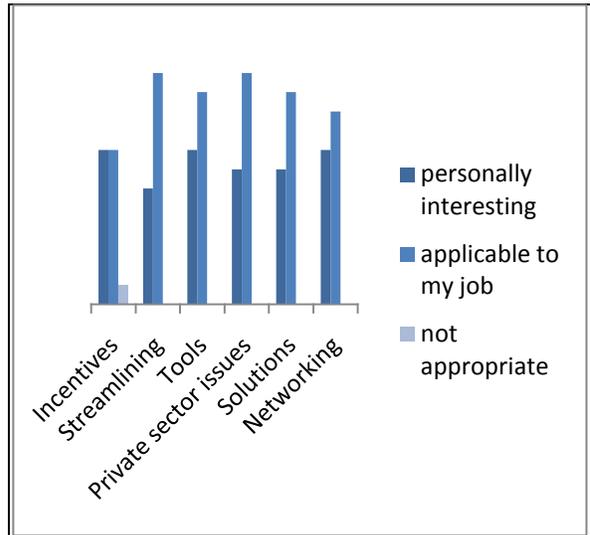


Figure 6: "How likely would you be to do the following?"

<u>AVERAGE RESPONSE (on a 4 point scale)</u>	
continue to participate	3.8
read background info	3.6
use the website before the workshop	3.5
recommend this workshop to others	3.4
use the website after the workshop	3.3
add a resource to the website	3.2
set up your personal profile on the website	2.8

"In future workshops, what would you have us do MORE of?"

- *group discussion, debate of issues*
- *sharing feedback from other MIST workshops, and starting point tailored to specific group being visited*
- *in-depth MarView presentation*
- *limiting multiple attendees from one company (spread viewpoints)*
- *identify information sharing processes*
- *gather more private sector personnel*
- *small groups need better organization - formulate to provide public/private balance*

"In future workshops, what would you have us do LESS of?"

- *smaller groups*
- *small groups*

EVALUATION COMMENTS:

- *small groups effectively allowed us to cover more topics specific to our personal interests*
- *great use of time*
- *had a lot to cover in given amount of time, so official breaks couldn't always be scheduled - understandable*
- *liked the format of the workshop - everyone was comfortable sharing their ideas and opinions*
- *a lot of information was shared*
- *stayed focused thru all topics*
- *transitions to next topics made sense and were smooth*
- *CIC was a great venue*
- *consolidate to one day please*
- *enjoyed it - thank you!*
- *I think a lot of us didn't quite know what this was gonna be all about... but it's something that is what it is and you have to be here to understand..gonna be good results/outcome*

Follow up survey

Methodology

As a continuation of the pre-workshop participant polls, this piece was designed to solicit considered feedback on our process and topics covered after participants had time to reflect.

Instrument

Sent one month after the workshop:

1. Your roll in maritime security is: (select one)
 - Facility Operations
 - Vessel Operations
 - Law Enforcement
 - Shipper
 - Other (specify below)

2. Your organization is a: (select one)
 - Private company
 - Public association
 - Federal agency
 - State or local agency
 - Other (specify below)

3. One of the things we heard you say at the recent workshop was that you'd like a more tangible benefit in exchange for workshop participation. What type of post-event benefit would be most useful?
 - Summary document designed for inclusion with Port Security Grant applications
 - Official Letter of Participation from a federal level security official
 - Other (please specify)

4. For future workshop design, what training should be included to maximize the participant benefit?
 - Tools orientation/training (i.e. HOMEPOR, MarView, other internet resources)
 - Port Security Grant application tips from a federal level application reviewer
 - Labor/industry communication training by a labor communication specialist
 - Other (please specify)

5. For you, the most important issue discussed in the recent workshop was: (select one)
 - Coordination, communication, and streamlining
 - Incentives for threat information sharing
 - Partner organizations, agencies, and associations
 - Best practices, ideal system design
 - Other (please specify below)

Appendix D: List of Acronyms

AIS	Authorized Identification System
AMSC	Area Maritime Security Committee
CBP	Customs and Border Protection
CIC	Clean Islands Council
CIP	Critical infrastructure protection
CONOPS	Concept of Operations
COTP	Captain of the Port
C-TPAT	Customs-Trade Partnership against Terrorism
DHS	Department of Homeland Security
DHS I&A	Department of Homeland Security Investigations and Analysis
DHS-PSA	DHS Protective Security Advisor
DLNR	Department of Land and Natural Resources
DoD	Department of Defense
DON	Department of the Navy
DOT	Department of Transportation
ENOA	Electronic notice of arrival
EOC	Emergency operations center
EU	European Union
FBI	Federal Bureau of Investigation
FSO	Facility security officer
FSP	Facility security plan
GMAII	Global Maritime and Air Intelligence Integration
GMISS	Global Maritime Information Sharing Symposium
GMSA	Global Maritime Situational Awareness
HHUG	Hawai'i Harbors Users Group
HOST	Hawai'i Ocean Safety Team
HSPD	Homeland Security Presidential Directive
IAIS	Interagency Investment Strategy
IALA	International Association of Marine Aids to Navigation & Lighthouse Authorities
IASA	Interagency Solutions Analysis
ICS	incident command system
ICE	Immigration and Customs Enforcement
IMO	International Maritime Organization
IOC	interagency operations center
ISAC	Information Sharing and Analysis Center
ISPS	International Ship and Port Facility Security code
JTTF	Joint Terrorism Task Force
LA/LB	Los Angeles/Long Beach
MARAD	Maritime Administration
MDA	Maritime domain awareness
MDSRP	Maritime Defense and Security Research Program
MIST	Maritime Information Sharing Taskforce
MOTR	Maritime operational threat response

MSIPCC	Maritime Security Interagency Policy Coordinating Committee
MSP	Maritime Security Policy
MSRC	Marine Spill Response Corporation
NATO	North Atlantic Treaty Organization
NCIS	Naval Criminal Investigative Service
NCAGS	Naval Cooperation and Guidance for Shipping
NCTC	National Cargo Targeting Center
NIMS	National Incident Management System
NPAMDA	National Plan to Achieve Maritime Domain Awareness
NPS	Naval Post Graduate School
NSMS	National Strategy for Maritime Security
NSPD	National Security Presidential Directive
NTC-C	National Targeting Center–Cargo
OGMSA	Office of Global Maritime Situational Awareness
ODNI	Office of the Director of National Intelligence
PACOM	Pacific Command of the U.S. Navy
PPD	Presidential Policy Directive
SPC	Storm Prediction Center
TWIC	Transportation worker identification card
USCG	United States Coast Guard

Appendix E: Roles and responsibilities of Honolulu agencies

Federal, State & Local Security & Law Enforcement Agency Jurisdictions

This information was pulled from the Pacifica Area Maritime Security Plan- approved and signed by the COTP/FMSC Capt Barry Compagnoni on Feb 1, 2009

Federal Agencies

U.S. Coast Guard (USCG)

U.S. Coast Guard Sector Honolulu: US Coast Guard Sector Honolulu's Area of Responsibility (AOR) encompasses 200 NM around the Main Hawaiian Islands and American Samoa and is all under the direction of the Captain of the Port (COTP). The COTP is in charge of all of the Coast Guard missions in this AOR. Sector Honolulu controls the USCGC KISKA (Hilo), USCGC KITTIWAKE (Lihue), USCGC AHI, USCGC GALVESTON ISLAND, Station Honolulu, Station Kauai, and Station Maui. All Stations are in an immediate readiness condition to respond to incidents as they are reported. One cutter is immediately available for assignment.

District 14 (D14) has primary federal maritime law enforcement responsibility in the 14th Coast Guard District, which includes the Main Hawaiian Islands, American Samoa, Guam, and Saipan. District 14 controls the USCGC WALNUT and USCGC KUKUI. Both are 225' cutters whose primary mission is buoy tending, but are able to perform all Coast Guard missions. District Fourteen also controls Coast Guard Air Station Barber's Point. The Air Station is primarily involved in Search and Rescue missions. Its (4) HC-130's and (4) HH-65's are also used to locate oil slicks, conduct surveillance patrols and transport personnel and equipment.

PACAREA – US Coast Guard Pacific Area's Area of Responsibility includes the entire Pacific Ocean. PACAREA controls the USCGC RUSH and the USCGC JARVIS. Both are 378 foot cutters capable of long range deployment, helicopter operations, and performing all Coast Guard missions.

US Coast Guard Operations Command - Deployable Operations Group (DOG) – The DOG controls Honolulu's Maritime Safety & Security Team (MSST), which is a worldwide deployable unit. MSST Honolulu is not always available due to deployments, so response times may vary depending on local MSST availability and transit time to area. MSST Honolulu has six 25 foot Homeland Security boats, law enforcement, and dive capability.

Federal Bureau of Investigation (FBI). The FBI is the principal investigative agency of the United States Department of Justice (DOJ). At present the FBI has investigative jurisdiction over violations of more than 200 categories of federal crimes, including acts of terrorism. In addition, the FBI has been directed or authorized by Presidential statements or directives to obtain information about activities jeopardizing the security of the nation. The FBI is the lead federal agency for "Crisis Management" in any response to terrorist activity.

Resources: Primary investigative agency and lead federal agency for response management to terrorist activity, criminal Investigators, hostage negotiators, tactical teams, and EOD. Agents available 24 hours. Immediate response, on-scene within 1 hour depending on transit time.

The FBI and DOJ lead the local **Joint Terrorism task Force (JTTF)**, which is a multi-agency effort designed to combine the resources of federal, state, and local law enforcement agencies. The JTTF is a small cell of highly trained and locally based investigators, analysts, linguists, SWAT experts, and other specialists from law enforcement and intelligence agencies.

Transportation Security Administration (TSA). The Transportation Security Administration was formed immediately following the tragedies of Sept. 11. The agency is a component of the Department of Homeland Security and is responsible for security of the nation's transportation systems, primarily aviation security.

With state, local and regional partners, TSA oversees security for the highways, railroads, buses, mass transit systems, ports and the 450 U.S. airports.

Customs & Border Protection (CBP). U.S. Customs and Border Protection (CBP) is the unified border agency within the Department of Homeland Security (DHS). CBP combined the inspectional workforces and broad border authorities of U.S. Customs, U.S. Immigration, Animal and Plant Health Inspection Service and the entire U.S. Border Patrol.

CBP is one of the Department of Homeland Security's largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the U.S. It also has a responsibility for securing and facilitating trade and travel while enforcing hundreds of U.S. regulations, including immigration and drug laws. CBP also operated the Vehicle and Cargo Inspection System (VACIS) X-Ray device.

Immigration & Customs Enforcement (ICE). Created in March 2003, Immigration and Customs Enforcement (ICE) is the largest investigative branch of the Department of Homeland Security (DHS). The agency was created after 9/11, by combining the law enforcement arms of the former Immigration and Naturalization Service (INS) and the former U.S. Customs Service, to more effectively enforce immigration and customs laws and to protect the United States against terrorist attacks. ICE does this by targeting illegal immigrants: the people, money and materials that support terrorism and other criminal activities. ICE is a key component of the DHS "layered defense" approach to protecting the nation.

Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF). The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) is the principal law enforcement agency within the United States Department of Justice dedicated to preventing terrorism, reducing violent crime, and protecting the Nation. ATF performs the dual responsibilities of enforcing Federal criminal laws and regulating the firearms and

explosives industries. They investigate and reduce crime involving firearms and explosives, acts of arson, and illegal trafficking of alcohol and tobacco products.

Federal Emergency Management Agency (FEMA). The primary mission of the Federal Emergency Management Agency is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. Of note is the Office of Grants and Training (G&T), which is responsible for providing training, funds for the purchase of equipment, support for the planning and execution of exercises, technical assistance and other support to assist states and local jurisdictions to prevent, respond to, and recover from acts of terrorism. The State of Hawaii and Territory of American Samoa are with FEMA Region IX, which is based in Oakland, California.

Department of Defense (DoD). U.S. Army, Navy, Air Force and Marine Corps assets in Hawaii are numerous and diverse. Of particular note are the military Explosive Ordnance Disposal (EOD) resources. Included among these are Navy EOD Mobile Unit 3, the 7th Army Dive Battalion, and the Air Force EOD team. The U.S. Army Corps of Engineers (ACOE), Military Sealift Command (MSC), and Surface Deployment and Distribution Command (SDDC) also maintain extensive resources locally.

Additionally, the Army is the lead agency of the ***Joint Task Force – Homeland Defense (JTF-HD)***. JTF-HD is composed of all branches of the military, and other state and local authorities. Their mission is to execute land domain operations to defeat terrorist threats to the Homeland, and when requested/validated, conduct Defense Support of Civil Authorities Operations for all hazards, including responding to and recovering from natural or man-made disasters. JTF-HD is based out of Ft. Shafter, HI.

US Secret Service (USSS). The mission of the United States Secret Service is to safeguard the nation's financial infrastructure and payment systems to preserve the integrity of the economy, and to protect national leaders, visiting heads of state and government, designated sites, and National Special Security Events.

National Oceanic and Atmospheric Administration (NOAA). NOAA is a science based federal agency within the Department of Commerce with regulatory, operational, and information service responsibilities. Its mission is to understand and predict changes in the earth's environment, and to conserve, protect, and manage coastal and marine resources to meet the nation's economic, social, and environmental needs. Among other services, the National Weather Service and Pacific Tsunami Warning Center are both part of NOAA.

NOAA's **National Marine Fisheries Service (NMFS)** is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water to 200 miles off the seaward boundaries of coastal states). The NMFS Office of Law Enforcement has one agent and one officer in American Samoa and 9 agents on O'ahu who also respond to the outer islands.

Hawaii State Agencies:

Hawaii Department of Defense (HDOD). The mission of the State of Hawaii Department of Defense (HDOD) is to assist authorities in providing for the safety, welfare, and defense of the people of Hawaii. The DOD is comprised of five divisions: Hawaii State Civil Defense, the Hawaii Army National Guard, Hawaii Air National Guard, the Office of Veterans Services and the Youth Challenge Academy.

State Civil Defense (SCD) has jurisdiction over any type of state emergency in the State of Hawaii. Each county has its own Civil Defense, which is the point of contact for all state agencies. Depending on the location and situation, State Civil Defense will coordinate all state and local civil defense operations. The local civil defenses (usually the initial point of notification) will notify state and county agencies within their jurisdiction. County Civil Defense agencies will keep State Civil Defense informed of the situation.

The **Hawaii Army National Guard's (HIARNG)** federal mission is to serve as an integral component of the Total Army by providing fully-manned, operationally- ready, and well-equipped units that can respond to any national contingency ranging from war and peacekeeping missions to nation-building operations. The state mission of the HIARNG is to provide a highly effective, professional, and organized force capable of supporting and assisting civilian authorities in response to natural disasters, human-caused crises, or the unique needs of the state and its communities.

93rd WMD Civil Support Team. The Weapons of Mass Destruction Civil Support Team (WMD-CST) is a high-priority response unit supporting civil authorities in responding to a weapon of mass destruction (WMD) situation. The unit is made up of 22 full-time National Guard members. It consists of six sections: Command, Operations, Communications, Administration/Logistics, Medical, and Survey. Each section has been specially trained and equipped to provide a technical reach-back capability to other experts. The WMD-CST mission is to assess a suspected WMD event in support of the local incident commander, advise civilian responders regarding appropriate actions, and work to both facilitate and expedite the arrival of additional military forces if needed.

The **Hawaii Air National Guard (HIANG)** has two missions. In performing its state mission, the HIANG provides organized, trained units to protect Hawaii's citizens and property, preserve peace, and ensure public safety in response to natural or human-caused disasters. Its federal mission is to provide operationally-ready combat units, combat support units and qualified personnel for active duty in the U.S. Air Force in time of war, national emergency, or operational contingency.

Department of Transportation, Harbors Division (DOT-H). DOT, Harbors Division has state authority over vessels and facility operations for state harbors under their jurisdiction. The Harbors Division's authority is similar to that of the COTP's authority while in state harbors. The Harbors Division has authority to allow vessel entries, departures and other specific operations within state harbors, which includes the port of Honolulu (per Hawaii Administrative Rules, Title 19, Dept of Transportation, Chapter 41 (Subtitle 3) and 42). The Harbors Division also has the authority to close any port under their jurisdiction to vessel traffic or specific facility operations. The DOT, Harbors Division serves Oahu, Maui, Kauai, and Hawaii Districts. A District Manager serves as the local agency leader for DOT-H in each county.

Department of Land & Natural Resources (DLNR). The Department of Land & Natural Resources (DLNR) has authority that extends 3 miles from the shoreline. DLNR is composed of two divisions with focus on security:

Division of Boating and Ocean Recreation (DOBOR) is responsible for the management and administration of statewide ocean recreation and coastal areas programs pertaining to the ocean waters and navigable streams of the State (exclusive of commercial harbors) which include 21 small boat harbors, 54 launching ramps, 13 offshore mooring areas, 10 designated ocean water areas, 108 designated ocean recreation management areas, associated aids to navigation throughout the State, and beaches encumbered with easements in favor of the public. DLNR also registers small vessels.

Division of Conservation and Resources Enforcement (DOCARE) is responsible for enforcement activities of the Department. The division, with full police powers, enforces all State laws and rules involving State lands, State Parks, historic sites, forest reserves, aquatic life and wildlife areas, coastal zones, Conservation Districts, State shores, as well as county ordinances involving county parks. The division also enforces laws relating to firearms, ammunition, and dangerous weapons.

Department of Public Safety (DPS), Sheriff Division. The Sheriff Division performs law enforcement duties statewide. The Hawaii Sheriff Division has a number of duties; transportation of detainees, service of arrest warrants, writs and other court orders, police duties at airports and harbors within Hawaii, police duties at the state capitol and other state buildings, and executive protection for the Governor and Lieutenant Governor of Hawaii and foreign dignitaries. Hawaii is the only state without a state police or highway patrol service. The Sheriff Division is responsible for the functions traditionally performed by these services in other states. In 2007, the Sheriff Division was the first in the state to be certified with a Department of Homeland Security Type III SWAT Team.

The Division is the lead agency of the State Law Enforcement Coalition, which was formed to meet the mandates of the federal Homeland Security Act. The coalition implements federal guidelines on issues related to weapons of mass destruction.

With the heightened call for the security of waterways and harbors, the Sheriff Division has been assisting the Department of Transportation Harbors Division with security and law enforcement functions. Additionally, through its specialized canine unit, the Division is responsible for detecting narcotics and explosives in agencies within the Judiciary, the department's correctional facilities, and other state and county agencies that request those services.

Hawaii County Agencies:

County Police Departments. The county police department is the primary law enforcement agency for each county in Hawaii. Police departments have significant personnel, equipment, resources, and the ability to process and hold large numbers of arrested persons. Hawaii's police departments can normally assemble and staff a field booking station to process violations at a remote location.

On Oahu, the **Honolulu Police Department (HPD)** Specialized Services Divisions has law enforcement personnel that are SWAT and riot trained. Specialized Services also has intelligence gathering capabilities and would work with other state and/or federal agencies in the event of an act of terrorism. The HPD's Bomb Squad is also under the direct command of the Specialized Services Division and consists of four certified technicians. The primary responsibility of the Bomb Squad is to provide a bomb response service for the City and County of Honolulu. This service may be extended to State and Federal agencies within the jurisdiction of the City and County and in some instances, may involve a multi-agency response to include FBI, military Explosives Ordinance Disposal (EOD) units, and others.

County Fire Departments. Hawaii county fire departments fight fires, conduct near shore rescues on each island, and have HAZMAT response capability. Local county fire departments are responsible for fire protection within their jurisdiction. Honolulu County covers the island of Oahu; Kauai County covers the islands of Kauai and Niihau; Maui County covers the islands of Maui, Lanai and Molokai; and Hawaii County covers the island Hawaii. The Civil Defense of each county can also contact their respective local fire department. Oahu operates the fireboat MOKU AHI (7300 GPM-water; 2000 GPM foam), located at Pier 14, Honolulu. It carries 1,000 gals 3% AFFF concentrate and has carbon dioxide system with 200 lbs storage capacity and 100 ft of reel mounted hose.

Honolulu Department of Emergency Management (DEM). The Honolulu Department of Emergency Management (DEM) replaced the Oahu Civil Defense Agency. The primary role of the department is to coordinate and facilitate emergency operations, training, information sharing, and federal Department of Homeland Security grant application and administration. In the event of an emergency, DEM will activate the City's Emergency Operating Center to ensure the timely and accurate dissemination of critical emergency information to the public.

Maui Civil Defense Agency. The Maui Civil Defense Agency has responsibility for

administering and operating the various local, state, and Federal civil defense programs for the County. This includes planning, preparing, and coordinating civil defense operations in meeting disaster situations and coordinating post-disaster recovery operations.

Kauai Civil Defense Agency. The Kauai Civil Defense Agency has the responsibility for administering and operating the various local, State and Federal civil defense programs for the County. This includes planning, preparing, and coordinating civil defense operations in meeting disaster situations and coordinating post-disaster recovery operations involving State and/or Federal assistance.

Hawaii Civil Defense Agency. The role of the Civil Defense Agency is to direct and coordinate the development and administration of the County's total emergency preparedness and response program to ensure prompt and effective action when natural or man-caused disaster threatens or occurs anywhere in the County of Hawaii.

Appendix F: References

- DHS (2009). *One Team, One Mission – Securing our Homeland. U.S. Department of Homeland Security Maritime Port Operations Handbook*, released by DHS Office of Operations Coordination and Planning, January 2009.
- DON (2009). SECNAVINST 3052.1, issued 30 January 2009 by the Deputy Undersecretary of the Navy.
- IOC CONOPS DRAFT Version 8.1 (June 2009)
- Jones (2009). *The 21st Century Interagency Process*, 19 March 2009.
- Milligan, J. (2009). *Interagency Solutions Analysis FY10 Funding Proposal*, Office of the DoD Executive Agent for Maritime Domain Awareness, presentation made to C. Wormouth.
- Milligan, J. (September 2009). *The Interagency Solutions Analysis Project*, presentation at the Global Maritime Information Sharing Symposium, Washington D.C., 16 September 2009.
- Morales, C. (2010). Englehorn/Moreles phone interview, 15 January 2010.
- National Plan to Achieve Maritime Domain Awareness for The National Strategy for Maritime Security (2005).
- NSPD-31/HSPD-13 (2004). *Maritime Security Policy*, issued 21 December 2004.
- OGMSA (2009). *GMISS 2009 Preview*, released April 2009.
- OGMSA (2008). “GMISS Findings and Recommendations: increasing industry/government maritime information sharing partnerships to the benefit of safety, security, commerce, and the environment.” *Global Maritime Information Sharing Symposium*, August 2008.
http://www.gmsa.gov/twiki/bin/view/Main/GMISS08Report?sortcol=table;up=#Need_for_New_Approaches (last accessed 18 June 2009).
- Roughhead, ADM (2007). *International Sea Power Symposium*, remarks on 17 October 2007.
- State of Hawai'i DOT- Harbors Division (2004). *Port Hawai'i Commercial Harbors System Handbook*, 2004. Honolulu, HI: Hagadone Printing Company.
- Salem, Anita with Wendy Walsh and Owen Dougherty (2008). “Industry and Public Sector Cooperation for Information Sharing: Ports of Long Beach and Los Angeles,” a joint

publication of the *Naval Postgraduate School* and the *Maritime Administration*.
September 2008. Last accessed 29 January 2010 at <http://www.gmsa.gov/gmiss>

Salem, Anita with Wendy Walsh and Lyla Englehorn (2009). "Industry and Public Sector Cooperation for Information Sharing: Ports of the Puget Sound," a publication of the *Naval Postgraduate School*. July 2009. Last accessed 29 January 2010 at <http://www.gmsa.gov/gmiss>

Solomon, M. (2008). Maritime Domain Awareness Joint Integrating Concept, Joint Operating Concept, Joint Innovation and Experimentation Division (J81) Resources and Analysis Directorate (J8) presentation, 9 January 2008.

The White House (2009). Presidential Policy Directive 1 (PPD – 1): *Organization of the National Security Council System* issued 13 February 2009.