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**Maritime Domain Awareness (MDA) and the Texas Peace Officer:
Understanding the Vulnerability & Terrorist Threat**

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ABSTRACT

The research being presented involves examining the relevance of Maritime Domain Awareness (MDA) to contemporary law enforcement. The researcher hypothesizes that understanding the elements that constitute MDA enhances the law enforcement professional's ability to conduct thorough investigations. It is through an understanding of MDA that the Texas peace officer is better equipped to possibly disrupt terrorist activities in the state.

The purpose of this research is to consolidate available knowledge relative to MDA and the vulnerability of the Texas maritime domain to acts of terror. Through consolidating that knowledge, a concise and efficient source will develop, which will prove useful for the Texas law enforcement professional. The method of inquiry used by the researcher included: a critical review of articles, periodicals, journals, U.S. government reports, and a survey. The survey was distributed to 23 participants; each participant was, at the time of the survey, enrolled in the Law Enforcement Management Institute of Texas (LEMIT) Leadership Command College.

The researcher discovered that a comprehensive defining of the elements that comprise MDA provide for a more profound understanding of and vulnerability to terrorist attacks to the Texas maritime domain. The survey reflected, among other things, that 87.5% of respondents lacked familiarity with the term "Maritime Domain Awareness."

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INTRODUCTION

The issue to be examined considers whether a defining of the elements involved in “Maritime Domain Awareness” (MDA), as it relates to the state of Texas, will enhance the Texas peace officer’s understanding of the vulnerability and threat involved in Texas’ maritime domain. Through this examination, MDA, the vulnerability of the Texas maritime domain to terrorist attack, and a model of terror group and cell operations will be presented in a manner that will assist Texas law enforcement. The relevance of MDA is that through understanding the material presented in this paper, the Texas peace officer will gain a broader awareness of the Texas maritime domain and its influence and impact on the state and national economy.

The purpose of this research is to gather relevant and substantive information about MDA, with a goal of presenting a concise and useful resource to the law enforcement community in Texas, thus enhancing the homeland security of the state of Texas. The research question to be examined is whether or not Texas law enforcement efforts in homeland security will be enhanced through a greater understanding of MDA. The intended method of inquiry is through a critical examination of articles, Internet sites, periodicals, journals, U.S. government reports, and through the use of a survey instrument. The anticipated findings of the research are that there exists enough credible information relative to Texas MDA that the presentation of a document to the Texas law enforcement community will prove timely, useful, and relevant.

REVIEW OF LITERATURE

The term “Maritime Domain Awareness” (MDA) is typically used in the context of issues involving federal and state homeland security. The United States places a high

degree of importance on MDA. In Homeland Security Presidential Directive-13 (HSPD-13), a Maritime Domain Awareness Senior Steering Group (MDASSG) was established. In 2004, it was directed, through HSPD-13, that the MDASGG “coordinate national efforts to achieve maximum Maritime Domain Awareness” (p. 5). The Texas national and state emergency preparedness efforts also place significant importance on MDA. The term is frequently applied when discussing national and state counter-terrorism efforts as they relate to global maritime commerce.

For the “police officer on the street” the concept of MDA does not necessarily surface in the daily state and local police function. This research paper will serve as a substantive analysis of what constitutes MDA in the state of Texas. The anticipated conclusion is that the research will provide relevant data, and information, which will clarify the concept of MDA, while demonstrating the significance of the Texas peace officer in thwarting the plans of terror groups and cells.

The United States Department of Homeland Security (DHS) leads the national effort to assess the terrorist risks and vulnerabilities to the homeland by land, sea, or air. Through that effort, DHS has developed reports and plans that address those risks and vulnerabilities. With regard to MDA, terms have been defined, and those defined terms have been adopted by states, including the state of Texas. According to the National Plan to Achieve Maritime Domain Awareness: “Maritime Domain Awareness is the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of the United States” (U.S. Department of Homeland Security [DHS], 2005, p.1). Providing for a practical application of MDA, the National Plan also states, “the purpose of MDA is to facilitate

timely, accurate decision making that enables actions to neutralize threats to U.S. national security interests” (DHS, 2005, p.7). The relevance of that statement is that the significance of MDA is clearly stated. That statement supports the contention that the Texas peace officer is better equipped to recognize these potential threats while engaged in investigations that may not be overtly related to a terror group or cell operation.

The state of Texas maritime domain is primarily comprised of people who operate and regulate facilities, pipelines, vessels, tugs, barges, shipping lanes, and waterways that are vital to the economy of both the nation and the state of Texas. From a study conducted by the Center for Transportation Research, University of Texas at Austin, there are 25 active Texas ports, of which four are deep-water ports (Allsup, Harrison, Kruse, Prozzi, & Siegesmund, 2008). Providing a national ranking of those four ports, contrasted to the top ten U.S. deep-water ports, Allsup et al., (2008) reported, “They are Houston (#2), Beaumont (#5), Corpus Christi (#6), and Texas City (#9)” (p.1).

Just three years ago, economically, Texas’ exports clearly exceeded those of any other state in the nation. The Center for Transportation Research Report also documented that “Total U.S. exports for 2006 were \$1.1 trillion and, for the fifth consecutive year, Texas was ranked the number one state by export revenue with some \$151 billion originating in the state” (Allsup et al., 2008, p.1). The ranking of U.S. Refineries Crude Oil distillation capacity reflects that nine of the top 20 refineries in the United States are in Texas. That ranking was last updated and reviewed July of 2008,

with the next update to come in July of 2009 (U.S. Energy Information Administration, 2008).

To provide a more illustrative comparison, the U.S. Army Corps of Engineers published a document entitled “Calendar Year (CY) 2007 Tonnage for selected U.S. Ports by Port Tons” (U.S. Army Corps of Engineers [USACE], 2007). From that report, it was determined that there was 2,663,960,632 total tons of product handled at the top 150 U.S. Ports in CY 2007. That ten-figure number comprises domestic and foreign imports and exports. From the same report, the Army Corps of Engineers reported that of the over two-trillion tons, ports in the state of Texas handled over 522 million tons of products. In contrast, ports in California handled a little over 203 million tons; ports in New York and New Jersey, combined, handled 214,329,897 tons; and ports in Louisiana handled 483,769,255 tons of product. A 2008 study from The Center for Transportation Research, University of Texas at Austin, reflected that Texas ports, as a whole, involve and influence nearly 1,000,000 jobs and result in nearly 50 billion dollars in personal income (Allsup et al., 2008). Expanding on those impressive numbers, the same report documented that from the Texas maritime domain, some 140 billion dollars in economic value and various taxes are realized (Allsup et al., 2008). Of course, these numbers do not reflect the suffering 2009 national and global economy. Notwithstanding the lack of current economic totals, these statistics support the significant economic value and capacity of maritime commerce in Texas.

With regard to the environmental element of MDA, Texas port facilities have the operating capacity to facilitate the transfer of millions of gallons of petrochemical product to and from ships each year (U.S. Department of Energy, 2008). Those

petrochemical products are then distributed throughout the nation via truck, pipeline, barge, and rail. The term “petrochemical” encompasses a vast number of dangerous chemicals that pose a host of threats to the environment and populace. The hazards presented to humans and animals by these chemicals involve inhalation, skin absorption, carcinogenic and pathogenic risks. A significant incident involving the release of these petrochemical products into Texas waterways would have far-reaching consequences.

While the major Texas ports are deep draft vessel ports, the routes into and out of these ports are narrow waterways, with the adjacent waters being shallow depth areas. These waterways are hosts to many valued ecosystems. In the aftermath of a large spill, it may be years before ecosystems have recovered (Ramseur, 2007). More immediately, a spill incident results in public safety concerns, hazmat response, and ongoing clean-up operations. The resultant effect may be the closure of the waterways to commercial vessel traffic and recreational boating. Depending on location, area power plants that use water-cooling systems may have to shut down operations. These types of facilities have a great demand for water. Intake systems operate to draw large volumes of water from waterways. In November of 2004, for example, the Salem Nuclear Power Plant on the Delaware River had to stop operations due to an oil spill of more than 250,000 gallons (Ramseur, 2007).

The assets and, in some cases, treasures that would be negatively affected by significant releases of petrochemicals transported through the Maritime Transportation System (MTS) are vast, and the ramifications are profound. The U.S. Department of

Transportation National Strategy for the MTS (2008) summarized the concern, while lending some specificity to environmental concerns:

The MTS, including its ocean and coastal shipping routes, ports, ... is in close proximity to sensitive and valuable natural resources, including wetlands, estuaries, drinking water sources, recreational waters, watersheds, critical habitats, fisheries, coral reefs, and marine mammals.

(p. 7)

The National Strategy for the MTS (2008) also reflected the potential negative impact to the atmospheric environment, the air quality, and the potential consequence to all mammals (Department of Transportation [DOT], 2008). In terms of the economic cost of a spill, the 1989 Alaska incident involving the M/T Exxon Valdez provided an example of the liability: "Exxon has so far paid approximately 3 billion dollars for the spill: 2 billion dollars for cleanup activities and 900 million dollars in civil settlement for natural resource damages" (Ramseur, 2007, p. CRS-3).

Keeping the basic four tenets of MDA in mind, the element of safety adds the human aspect to both the environmental and the economic elements. There are thousands of individuals involved in adhering to safety practices throughout the Marine Transportation System in Texas every day. As applied to the MTS, safety is actually synonymous with prevention. Understanding the context of this paper, the aspect of safety and MDA will not be addressed in depth. For the Texas Peace Officer, it is sufficient to understand that maritime safety is ensured, facilitated, and enhanced through the efforts of the people and processes involved. These include the laborer, facility, vessels, professional associations, and local, state, and federal regulators and

agencies. The processes are comprised of planning for, monitoring of, inspecting, and enforcing compliance with federal and state safety regulations. The 2005 Texas City BP Refinery explosion illustrated the importance of adhering to safety practices. That incident exemplified, to some degree, the potential volatility of a lapse in safety.

On March 23, 2005, there was a refinery explosion at a facility in Texas City, near Houston, Texas. The event was termed a disaster considering the fact that individuals died as a result of the explosion. In the immediate aftermath of the explosion, a federal investigative board was convened to examine the circumstances. The U.S. Chemical Safety and Hazard Investigation Board's final report documented the economic impact of the explosion, and the cost to human life. That report reflected, "explosions and fires killed 15 people and injured another 180, ... and resulted in financial losses exceeding \$1.5 billion" (U.S. Chemical Safety and Hazard Investigation Board [CSB], 2005 p. 17). With regard to the failure of safety protocols involved in the incident, that investigation board reported, "The Texas City disaster was caused by organizational and safety deficiencies at all levels of the BP Corporation" (CSB, 2007, p. 18). The 341-page CSB report did not reflect any study of terrorist vulnerability. It was not difficult for this researcher to determine that domestic and foreign terrorists could find value in the details of the report. The CSB report was found to be detailed, in-depth, and illustrative. The report contained thorough and educational diagrams, schematics, and photographs.

The security element of MDA, at least in recent years, has been the most progressive element. When responsibly establishing the security of any entity, assessments of risk and vulnerability of the specific entity must be conducted. From the

results of those assessments, individuals are better able to strategically and effectively mitigate vulnerabilities. On the other side of the spectrum, it has been established that terrorists engage in planning attacks in a similar manner. They assess their own risk and vulnerabilities as they relate to their ability to successfully and effectively carry out their attack(s), while minimizing the possibility of their plan execution being discovered and disrupted (Giebel, 2007).

Freedom and security are indirectly proportional. The greater the degree of security, the more restrictive is freedom, and vice versa. In the United States, the contrast of public access to airline departure gates before September 11, 2001 to the restrictions after that date demonstrate the impact of restricted freedoms in deference to security measures. Prior to the terror attacks on 9/11, the U.S. maritime community was relatively a free-flowing commercial community. While freedom is a profound, involved, and valued part of the American way of life, there remain those who will criminally exploit freedom to their own terroristic gain. In response to the 9/11 terrorist attack, the U.S. maritime domain became less porous and more restrictive.

U.S. President Clinton, in 1999, before the World Trade Center catastrophic events, established the Interagency Commission on Crime and Security in United States Ports. The commission report cited the type, range, and conspiratorial nature of crime in U.S. ports and stated, "A lack of minimum physical and personnel security standards at ports and related facilities leaves many ports and port users very vulnerable" (Public Law 107-295, 2002, p. 1). The comprehensive result of the 9/11 attacks, coupled with the assessments of the United States' risk and vulnerability to terrorist attacks, brought a great deal of attention to the task of hardening the

accessibility of U.S. ports. These focused efforts were not limited to the United States. A global endeavor had begun to enhance and ensure the security of the maritime domain.

The International Maritime Organization (IMO) is a global organization, comprised of over 100 countries, with the mission of collaborating to ensure the safety of global maritime activities. Following the 9/11 attacks, the IMO convened the 22nd session of the IMO assembly, and, in November of 2001, agreed to the development of policies dealing with the security of ships and port facilities. The measures were adopted in December of 2002 through the Conference of Contracting Governments to the International Convention for Safety of Life at Sea (SOLAS). Understanding that the U.S. is a member of the IMO, the U.S. Congress enacted the Maritime Transportation Security Act of 2002 (MTSA), as Public Law 107-295, which became effective November 25, 2002. Section 101, of Public Law 107-295 contains the findings of the U.S. Congress. Through a total of 15 broad statements of findings, Congress provided a general overview of the assets, the value, and the vulnerability of the United States' maritime domain (MTSA, Pub. L. 107-295, 2002).

The MTSA regulations for U.S. facilities, ships, and offshore continental shelf (OCS) facilities are provided as federal law within the statutes of the Code of Federal Regulations (CFR). Specifically, Title 33 CFR, parts 101 through 105, established the mandates to MTSA regulated facilities, OCS facilities, and vessels with regard to security. The term "MTSA regulated facilities" is simply a term that has been derived to describe which facilities must comply with the aforementioned statutes. The statutes provide for which facilities are mandated to comply with the MTSA and which facilities are exempt from compliance (Maritime Security: Facilities, 2002). MTSA regulated

facilities and vessels were mandated to engage in risk and vulnerability assessments and to submit security plans that documented the efforts to mitigate or resolve those issues. Each facility and vessel, regulated by statute, was also mandated to clearly document efforts to establish critical areas within the asset, establish policy and procedures to control access to these areas, and to explain the overall security posture of the organization. All of these facilities and vessels were mandated to have their security plans submitted to, and approved by, the U.S. Coast Guard by July of 2004.

Unlike many unfunded federal mandates, the mandates to enhance security in the maritime arena have been joined with federal funds. The American Association of Port Authorities (AAPA) statement regarding seaport security stated, "To help make improvements quickly, Congress established the Port Security Grant program in 2002" (AAPA, 2008, p. 1). The grant program involves port industries defining security related projects, submitting investment justification applications, and then competing for funding. As of 2007, port security federal grants have amounted to over one billion dollars. Since 2002, nearly 100 million dollars in grants and matching funds have been dedicated to the maritime domain in the state of Texas (DHS, 2007).

It is significant to bear in mind that these grants were not exclusively federally funded. Ports and facilities have been required to provide a 25% cash match of the grant funds. The state of Texas, port authorities in Texas, local, county, and municipal governments, and the private sector each have made significant investments to the security of the critical infrastructures of their respective organizations. These grant funds have been utilized to facilitate simple and complex security enhancements. Where access to many critical facilities was porous, grant funds were applied to erect security

fences, enhance security lighting, and drastically harden facility perimeters and accesses. Funds were used to purchase or improve special use vehicles such as Mobile Incident Command Vehicles and all-weather patrol boats. Grant funds facilitated some port authorities to install intelligent video analytic systems and software. The Port of Corpus Christi applied grant funds and the 25% cash match to one such system. Through intelligent video systems, the electronic digital surveillance of facilities spanning miles is accomplished without having to dedicate any personnel to continuously monitor camera views. Federal and state funds were applied to further harden accessibility to critical facilities through the purchase of digital and biometric access card and reader systems.

While the enhancement of security measures in the U.S. maritime industry has been both significant and effective with regard to vulnerabilities, there has not been a balanced implementation of equivalent security enhancements. In addressing their conclusions and observations, the Texas Transportation Institute, Texas A&M University System (2005) reported on the inequitable security measures: "The possibility exists that as some port complexes are 'hardened', terrorists could seek entry ports that are less rigid" (Bierling & Kruse, 2005, p. xiii). The product of this imbalance involves both marketing potential and terrorist-targeting risk. For instance, if one Texas port implemented an access control credentialing process and another port of similar commerce did not, customers who would otherwise be burdened with credentialing and criminal background costs at one port would see both an economic and facility access value by doing business with the less restrictive port. This exemplifies the marketing factor with regard to the relationship of freedom and security.

Similarly, individuals with terroristic intent who are engaged in planning an attack will engage in surveillance and weighing of potential targets. When their assessment reflects a maritime target as having been hardened through enhanced security measures, the motivation exists to find an equivalent target that is less hardened. Perl (2006) corroborated that motivation by stating, “hardening U.S. government physical infrastructure overseas or in the United States might cause terrorists to shift focus of attacks to softer non-government targets ...” (p. CRS-2). Until recently, there was no universal standard for U.S. maritime ports. Nonetheless, the “playing field” for access restrictions to all MTSA federally-regulated facilities and vessels was evened out by April 15, 2009.

The U.S. Congress, through Public Law 107-295, established a mandate for the Transportation Security Administration to develop a Transportation Worker Identification Credential (TWIC) by 2007 (P.L. 107-295, 2002). All individuals, with very few and exclusive exemptions for certain federal officials, state and local law enforcement, and emergency first responders, are required to be in possession of a TWIC to gain unescorted access to MTSA regulated facilities and vessels. Individuals who are not holding a TWIC are required to have a TWIC-holding individual escort them while they are within certain areas of facilities and vessels. The TWIC program has been gradually implemented throughout the country for the past few years. The U.S. Coast Guard has been tasked with the enforcement of TWIC related statutes within applicable sections of Title 33, Code of Federal Regulations. It is important for the reader to understand that only those state and local law enforcement individuals, in the actual discharge of their

official duties, and who produce valid identification, are exempt from TWIC requirements (Maritime Security: Facilities, 2002).

With some degree of substance having been established with regard to the four-cited elements of MDA, it remains important to provide a concise result of research addressing the potential of organized threats to the Texas maritime domain. Terrorist groups such as Al-Qaida, Hamas, Hizballah, and a litany of other foreign terrorist organizations are identified as such in the list of designated foreign terrorist organizations, published by the U.S. government (U.S. Department of State, 2008). For Texas, the objectives of these terror groups are important. A common denominator for most of these terrorist organizations is the destruction of Israel. The U.S. Department of Defense, Office of the Assistant Secretary of Defense (Public Affairs), announced on July 3, 2008, that a contract was awarded to Valero Marketing & Supply Co., San Antonio, Texas, to supply the Government of Israel with fuel (U.S. Department of Defense, 2008). A fundamental tactic of combatants in war is the disruption of the supply and the supply routes of the enemy. While the United States has long been allied with the prosperity of the state of Israel, the fact that Texas maritime facilities are supplying this resource to the Israeli government is not surprising. Nonetheless, this supply chain fuel link to the Israeli government establishes a vulnerability in Texas that the enemies of Israel may exploit.

Certainly, the United States, as a whole, has been targeted as an “enemy” by some of these terror groups, both foreign and domestic. The actual terrorist attack has been found to be typically preceded by a number of criminal activities designed to develop funding and false identities for the actors. It is through a greater understanding

of the individual and group manner of planning, coordinating, financing, supporting, and executing their conspiratorial criminal acts that their efforts may be disrupted, dismantled, and diffused. Studies of terrorist organizations and the details involving the processes undertaken by them to prepare for their planned execution have been conducted, with the details of their activities listed in various databases. Even considering that information and data, a template of the terrorist planning method was not available. Giebel (2007) reported that “Surprisingly, however, a generalized model of how terrorist organizations plan their attacks is unavailable in the extant literature” (p.1).

In 2007, Giebel developed a generalized model of the planning methods of terrorist organizations through the study of three defeated terrorist-planned attacks (Giebel, 2007). The first was the planned Brooklyn Bridge attack by Lyman Faris. The second was the planned Millennium Bombings at the Los Angeles Airport. The third was “Operation Bojinka” (Giebel, 2007, p. 4). Operation Bojinka was a planned terrorist attack which involved a mid-1990’s effort to blow up airliners, destined to U.S. points, while they were airborne and over the water. These events were thwarted primarily through the efforts of foreign law enforcement equivalent to Texas state and local police officers and investigators. Many of Giebel’s (2007) findings are corroborated by a September 2004 National White Collar Crime Center report, “Identifying the Links between White-collar crime and Terrorism” (Kane & Wall, 2005). Together, both of these studies established a strong foundation to believe that an aggressive investigative effort into white-collar crimes is an effective means of disrupting terrorist groups while they are in planning and preparation modes.

Domestic and foreign terrorists, and other criminal organizations, intent on attacking the Texas maritime domain, as well as other state targets, must develop funds for subsistence, housing, travel, training, weapons, and weapons components, among other things (Kane & Wall, 2005). The individuals comprising the terror group/cells, have a need to maintain their anonymity. Understanding these needs, it has been demonstrated that the members of these groups, or cells, engage in crimes that involve White Collar Crimes (WCCs), or, in the words of Kane & Wall (2005), “crimes that are non-violent in nature and usually involve some form of deception, or fraud to achieve financial gain” (p.1). Giebel (2007) reported there was “a growing relationship between terror cells and crime rings ... [with] dependency on fraudulent identification and other stolen goods” (p.58). The evidence of both Giebel (2007) and Kane and Wall’s (2005) research is compelling that it will be the vigilant police officer and investigator who will be instrumental in disrupting an otherwise unknown terrorist group, or cell, in the planning and preparation stages of an attack.

Recently, evidence has developed that reflects members of a recognized terrorist group, Hizballah, have been illegally entering the U.S. via the Mexico/U.S. border. On March 27, 2009 Sarah A. Carter reported on this specific information in the Washington Times newspaper (Carter, 2009). In her article, “Exclusive: Hezbollah [*sic*] uses Mexico drug routes into U.S.,” Carter (2009) cited federal sources who agree with the belief that Hizballah has been smuggling contraband and people into the U.S. through cooperation with Mexico drug cartels. Carter’s (2009) article reflected documented evidence that a known Hizballah supporter and member, Mahmoud Youssef Kourani, illegally entered the U.S. as early as 2001. Carter’s (2009) information was corroborated by a 2003

federal grand jury criminal indictment charging Kourani with illegally entering the U.S. in 2001, going to Dearborn, Michigan and, from that region, providing material support to Hizballah (United States of America v. D1 Mahmoud Youssef Kourani, 2003). In 2005, Kourani was subsequently convicted of providing material support to Hizballah, and he was sentenced to several years in prison with deportation ordered when he is released (U.S. Dept. of Justice, 2005).

Understanding that there has not been a terrorist attack on the homeland since 2001, a level of complacency, with regard to terrorism, within the U.S. has arisen. Some believe the 9/11 attack was an anomaly, other individuals saw the 9/11 attack as a U.S. government sponsored act. Regardless, the lack of terrorist attacks within the U.S. over the last eight years may not reflect any reaction to the hardening of targets. In his Congressional Research Service report, Perl (2006) expounded on a plausible reason for the lack of overt terrorist operations by presenting the probable planning of the next attack: "Under such a mindset, involvement in operations before the next mega-attack is not a goal – topping the destruction and economic damage of 9/11 is" (p. CRS-11). Evidence remains that terrorists are continuing to illegally enter the U.S., specifically through Texas. There also remains authoritative data that the lack of terror attacks within the U.S. over the last eight years is possibly a foreshadowing of larger attacks that are currently being planned by individuals within the United States (Perl, 2006).

Whether a peace officer is in Waco, El Paso, College Station, or any other jurisdiction in Texas, elements of terrorist activity, foreign or domestic, may be taking place through white-collar classes of crime. Without an understanding of this nexus to criminal activity, criminal investigators tasked with WCC cases may miss a critical

opportunity. Through furthering their investigations, the possibility of these precursors of terrorist activity being present may be eliminated. Perl (2006) echoed that contention with the advisory that terrorists *do* engage in criminal activity that mirrors organized crime networks and that activity makes it more probable that the actor(s) will likely be brought to the attention of law enforcement. With a greater cognizance of MDA, the increased information sharing between federal and state law enforcement agencies, and recognition of an ongoing terror threat, the Texas peace officer is better equipped to protect the state maritime domain.

METHODOLOGY

The research question to be addressed considers whether an examination of the elements involved in “Maritime Domain Awareness” (MDA), as it relates to the state of Texas, will enhance the Texas peace officer’s understanding of the vulnerability and threat involved in Texas’ maritime domain. This research is anticipated to result in demonstrating the critical influence of Texas maritime commerce on the state and national economy. With that result realized, communicating the vulnerabilities encompassing the Texas maritime domain will be reinforced. The researcher hypothesizes that that there exists enough credible information relative to MDA and the related vulnerabilities to support the presentation of substantive information that will answer the research question. The method of inquiry will include a review of articles, periodicals, journals, U.S. government reports and a survey. It is through a survey that anticipated evidence will result corroborating the researchers’ contention that, overall, Texas peace officers do not understand MDA. Additionally, through the use of a survey, a measure of the relevance of MDA to Texas peace officers assigned to central and west Texas jurisdictions will be

established. The research hypothesizes that the further inland a peace officer is assigned, the less relevant MDA becomes to law enforcement and criminal investigation.

The survey instrument will consist of five separate and consecutive statements presented to the recipient. Each statement presented will be followed by response choices numbered 1, 2, 3, 4, or 5. The response choice joined to the number will be: strongly agree, agree, neutral, disagree, or strongly disagree respectively. It will be distributed to 23 individuals, who, at the time of distribution, will have been enrolled in the LEMIT Leadership Command College (LCC). Each prospective respondent will be a certified Texas peace officer, assigned to one of 23 law enforcement agencies from various jurisdictions throughout Texas. The researcher will analyze and present the survey determinations.

The response rate to the survey instrument resulted in eight respondents returning the completed survey to the researcher. There was a 35% response rate. That 35% response was comprised of respondents from jurisdictions in central, central south, west, north, and east Texas. It was recognized that the response rate was less than 50%. It was also recognized that the survey sample involved a variety of jurisdictions spanning the state, which provided some degree of strength to the resultant findings.

FINDINGS

A survey was presented to 23 recipients, all of whom were then enrolled in the LEMIT Leadership Command College. Of the 23 surveys presented, 8 individuals responded, constituting a 35% response. With regard to survey queries, respondents had the option of answering with a numeric that was linked to a statement. The answer options were: (1) Strongly agree, (2) Agree, (3) Neutral, (4) Disagree, and (5) Strongly disagree.

The first survey statement was, "I have heard the term "Maritime Domain Awareness discussed relative to my law enforcement work." The response indicated a total of 87.5%

disagreement with the statement. The second survey statement was, "My law enforcement assignment is so far inland, that our work does not involve things related to maritime industry." The response indicated a 62.5% agreement, a 12.5% neutral, and a 25% disagreement with the statement. The third statement was, "While the maritime industry in Texas is large, it does not compare to the maritime industries on the east or west coasts of the U.S." 50% of respondents disagreed, and 50% were neutral with the statement. The fourth survey statement, "I am confident that the U.S. Coast Guard has enough available assets to protect assets and shipping on, and in Texas waters", elicited a 75% disagreement and a 25% agreement with the statement. The final survey statement was, "Through my law enforcement training and experience, I understand most of what the term "Maritime Domain Awareness" encompasses." The response amounted to a 50% disagreement, 35.5% neutral, and 12.5% agreement with the statement.

DISCUSSIONS/CONCLUSIONS

The research focused on examining whether an in-depth analysis of what constituted "Maritime Domain Awareness" (MDA), as it related to the state of Texas, would benefit the Texas law enforcement community. The anticipation was that an organized presentation of MDA related information would enhance the Texas peace officer's understanding of the vulnerability and threat involved with regard to the Texas maritime domain. The purpose of this research was to examine, gather, organize, and present substantiated and relevant information that facilitated understanding and awareness of MDA. The research hypothesized that there existed enough credible information relative to MDA, and the related vulnerabilities and threats, that would support the presentation of a concise document that will answer the research question. The researcher concluded from the findings that a more in-depth understanding of

Maritime Domain Awareness, as it relates to Texas, is both relevant and beneficial to the Texas peace officer. Through understanding the value, vulnerability, and threat relative to the maritime domain in Texas, law enforcement gains a more substantive understanding of the potential motivations for terrorists, foreign or domestic, to target resources in the state.

The overall survey result reflected a majority response, indicating little familiarity with MDA. It was evident that some did not perceive their law enforcement activities have anything to do with maritime industry. The first three survey statement responses demonstrated, to a degree, the corroboration of the belief that a need exists to provide a concise and efficient resource about MDA to the Texas law enforcement community. The fourth and fifth survey statement responses reinforced the above finding, and, on an indirect topic, recognized the inability of the U.S. Coast Guard (USCG) to protect the Texas maritime domain. It is recognized that, in a direct sense, the law enforcement activities of inland law enforcement agencies have little to do with maritime industry on the Texas shoreline. Nonetheless, the freeway and rail systems that span the state of Texas inherently involve the transport of product to and from maritime industries along the Texas shore. Each state and local jurisdiction in Texas involves a nexus to the state maritime domain. Finally, those roads, highways, and rails are also potential travel routes that may be used by terror groups and cells.

Through this research, a pedigree of crime developed that supports the contention that terror group and cell members will engage in classes of crime related to financial benefits and identity deception. Texas peace officers should understand that the deceptive crimes they are investigating may result in the disruption of a planned act

of terror in the great state of Texas. The findings of the research substantially supported the hypothesis. There were two significant limitations experienced through conducting the research. While all of the research presented is publicly available information, it was determined that there was relevant information existing, but not available to the public, due to the classified nature of the information. Additionally, the survey instrument utilized was presented to 23 individuals, with a resultant 35% response to the survey. The most significant survey conclusion was that a majority, 87.5 of law enforcement officers who responded to the survey had not heard of the term “Maritime Domain Awareness” discussed in relation to their work.

The examination of MDA, and related vulnerabilities and threats, is relevant to the law enforcement community in Texas. Understanding the influence of Texas’ port industries on the state and national economies and the vulnerability of the Texas maritime domain provide the Texas peace officer with a foundational basis upon which maritime domain awareness is developed. Through that development, the Texas peace officer gains greater cognizance of the potential threat to that domain. With that understanding, an enhanced ability to recognize behavioral and physical signs of terrorist activity, that might otherwise go unseen, may be developed. For instance, a traffic stop on a Texas freeway involving something as inconsequential as an obscured license plate will result in the police officer contacting the driver. If, in the course of that contact, the cognizant police officer observes photographs or sketches of maritime structures, such as bridges or chemical storage facilities, that officer may further investigative efforts. Conversely, the uninformed officer, making the same observations, may not find any significance in the material at all. The presentation of this research

facilitates awareness. It is that awareness that is hoped to prompt the individual peace officer to be motivated to retain and expand upon that knowledge.

Understanding the reported research regarding the nexus of white-collar crime to terrorist activities is also relevant to Texas law enforcement. This research demonstrates the need for law enforcement to be aware of the possibility that the white-collar crime (WCC) being investigated could have a terrorist connection. Evidence was developed through the research that terrorists, foreign or domestic, may intermittently travel into and out of the U.S. long before the planning of an attack begins. Evidence was developed that terrorists engage in certain types of criminal activities while within the United States. Without an awareness of the nexus between terrorism and WCC's, the police investigator engaged in a credit card fraud case may not find certain aspects of the case significant and relevant to potential terrorist activity. More likely, an investigator, lacking awareness, may limit the focus to the standard elements of the specific case, where an expanded focus may bring to light, or eliminate, the possibility of a more serious criminal operation.

The typical police officer goes to work equipped with certain tools and defensive weapons and ammunition. Along with that physical ammunition, the same police officer has a certain amount of relevant knowledge, or conscious "ammunition," such as state codes of law and procedure, department policy, and crime trends. Similarly, a result of this research involves demonstrating the value of information relative to MDA, while simultaneously substantiating a probable deficiency that exists. The deficiency involves the likelihood that Texas peace officers are not familiar with MDA. A resolution of that

deficiency would likely enhance the ability of the Texas peace officer to disrupt a terror group or cell operation in Texas.

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APPENDIX 1

**Tom Mylett
Port of Corpus Christi Police Department
Survey 3/16/09 in furtherance of ARP/LCC**

**Please complete the below survey and return to Tom Mylett via email at tom@pocca.com
Simply type a number in the response block. The number will indicate whether, and to what degree, you agree or disagree with each statement. If neutral on the subject, simply enter the number 3.**

Thank you in advance!

1= Strongly agree

2=Agree

3=Neutral

4=Disagree

5=Strongly Disagree

1. I have heard the term "Maritime Domain Awareness" discussed, relative to my law enforcement work.

2. My law enforcement assignment is so far inland, that our work does not involve things Related to the maritime industry.

3. While the maritime industry in Texas is large, it does not compare to the maritime industries On the east or west coasts of the U.S.

4. I am confident that the U.S. Coast Guard has enough available assets to protect assets and shipping on, and in Texas waters.

5. Through my law enforcement training and experience, I understand most of what the term "Maritime Domain Awareness" encompasses.

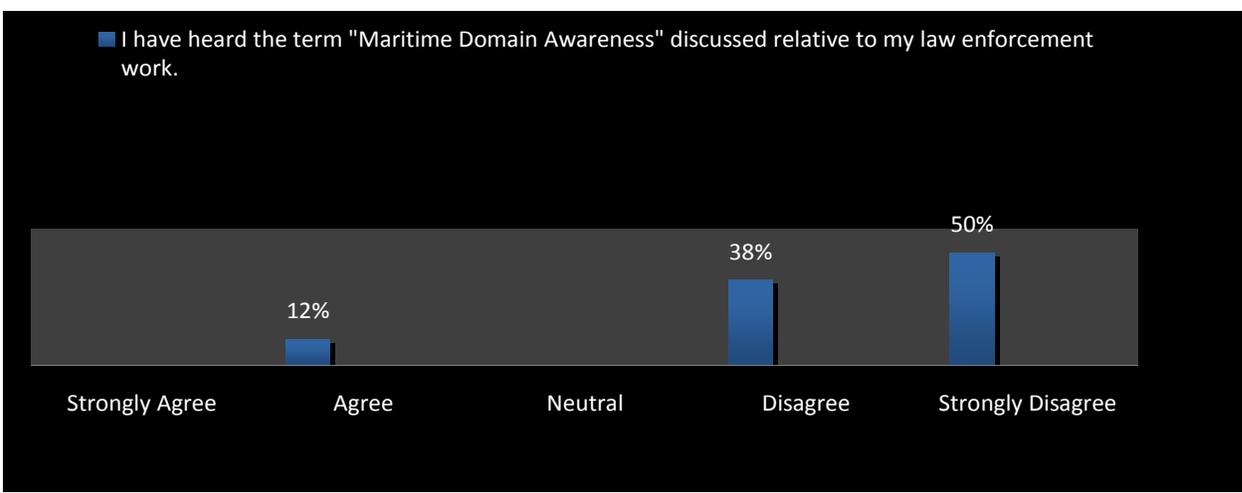
Officer name

Agency

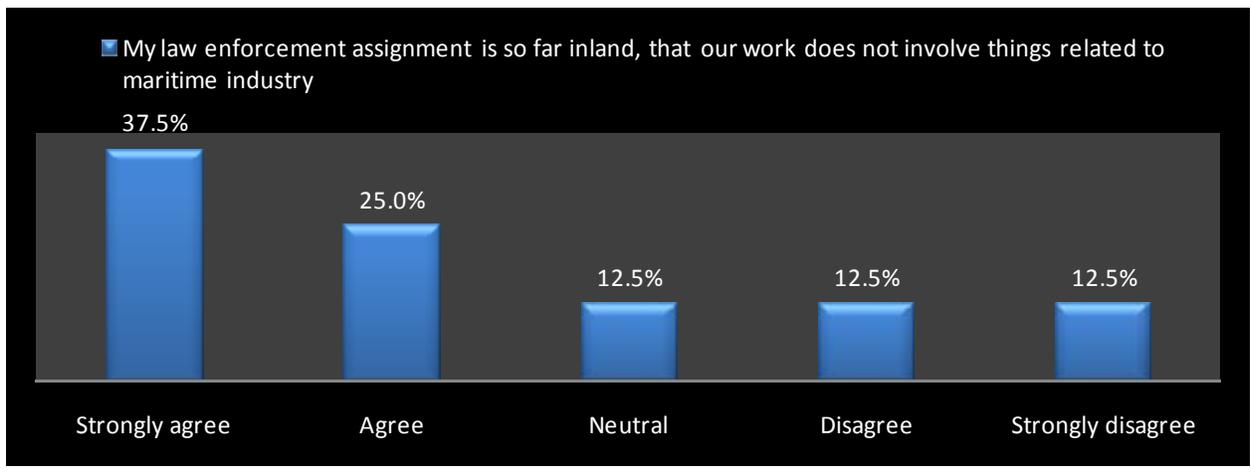
Date

APPENDIX 3

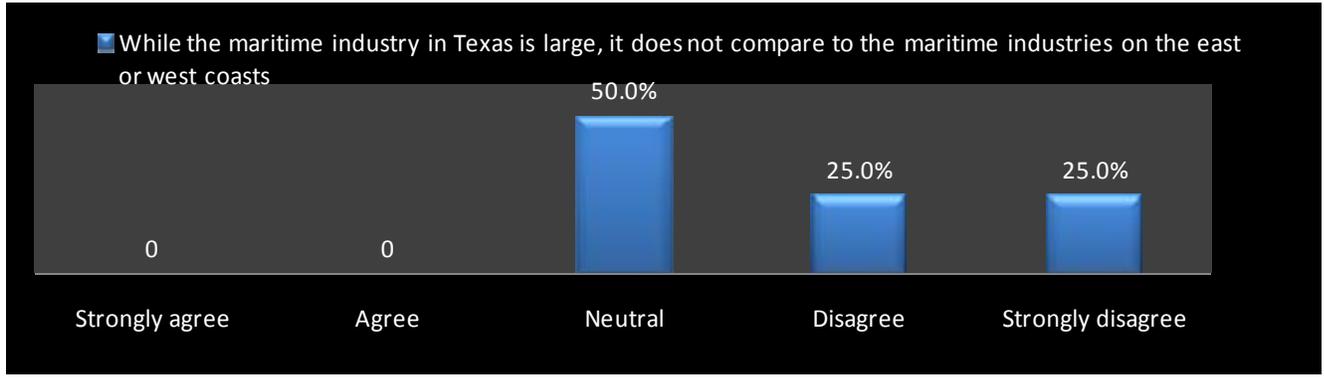
Graphic representation of survey results:
Survey statement #1:



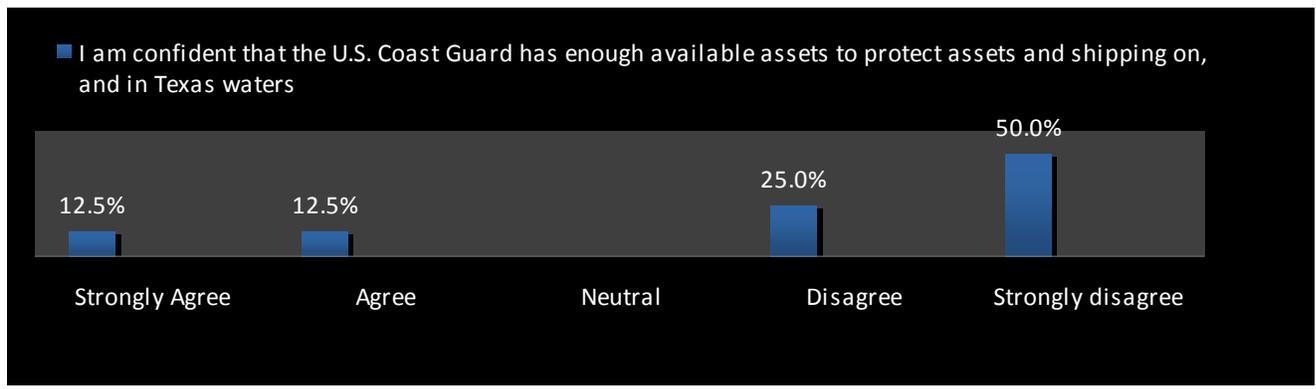
Survey statement #2:



Survey statement #3:



Survey statement #4:



Survey statement #5:

