

Developing a New Smyrna Beach Police Department - Marine Patrol Unit - A Challenges and Issues Proposal

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Abstract

The New Smyrna Beach Police Department can capitalize on the successes, failures and experiences of other agencies with established marine law enforcement capabilities in the state of Florida. Much of the information gleaned through research has shed light on how similarly situated agencies have persevered in creating successful marine patrol units. Identifiable mission requirements, vessel selection criteria, funding alternatives, personnel selection, training and other challenges play key roles in implementing a sustainable marine law enforcement unit. Using the information presented, and the lessons learned effectively, can position the New Smyrna Beach Police Department for success in the marine patrol environment.

Introduction

The City of New Smyrna Beach is located on the east coast of Florida approximately fourteen miles south of Daytona Beach. Known primarily for its beach, restaurants and eclectic Flagler Avenue nightlife, New Smyrna Beach is a popular tourist destination for many. A unique aspect of the city is that it has a portion of the Intra-Coastal Waterway (ICW), also known as the Indian River, traversing through the jurisdiction primarily in a north/south direction with its north termination point being Ponce de Leon Inlet. This direct access to the water, multiple public boat ramps, a city owned marina with a planned vessel-mooring field, and the close proximity to Ponce Inlet attracts boaters and other water enthusiasts to the City of New Smyrna Beach by the thousands. The city also has numerous private marinas and miles of waterfront homes that typically have docks providing additional boater access to the river.

In past years, the New Smyrna Beach Police Department collaborated with the adjacent cities of South Daytona, Port Orange and Ponce Inlet as part of what was termed as the Regional Marine Patrol (RMP) Unit. Beginning in FY-2019, the New Smyrna Beach Police Department divested of its participation in the RMP due to several factors. High costs, lack of shared vessel availability and very little return on investment regarding measureable public boating safety and enforcement activities were the primary reasons for withdrawal.

With the national and local economy booming, the City of New Smyrna Beach is experiencing an exponential increase in residential and commercial building. With many of the planned unit developments, (PUD's) approved in previous years being built out to completion, along with newly approved PUD's popping up all over the city, an increase in boating activity will likely follow. The addition of improved access to the water provided by the City of New Smyrna Beach through the expansion of several city boat ramp and parking facilities will nearly double our capacity for recreational boating within the

jurisdiction in the coming year (2019). This expected and observed increase will certainly correlate with a higher demand for public safety services in general, not to mention the currently un-attended need for enforcement and boating safety needs on the water. More specifically, it's well known within the Central Florida area and beyond that the most popular recreational boating and party destination in east central Florida is "Disappearing Island" located in the heart of Ponce Inlet and partially within the jurisdiction of the City of New Smyrna Beach. Disappearing Island has historically demonstrated to be chronic problem in our area with its documented high concentration of boaters and out of control alcohol consumption. In response to an increased demand for law enforcement services, the New Smyrna Beach Police Department, has on past occasions, partnered and participated in multi-jurisdictional operations with the Volusia County Sheriff's Office, Florida Wildlife Commission and the United States Coast Guard aimed at curbing illegal activity in the Disappearing Island area. However, without our own dedicated maritime unit our participation has been limited at best.

As the city continues to grow in population and boater popularity, it is the desire of the New Smyrna Beach Police Department to move forward with a proposal to start a dedicated marine patrol unit to address these public safety concerns in our jurisdictional waters and to expand our ability to respond to an emerging need.

This research project, designed as a proposal for the development of a marine patrol unit, will be a source with which to provide critical and relevant information to the New Smyrna Beach City Commission. Information presented will aid the commission in their decision-making process and is aimed at providing mission justification for a marine patrol unit. An overview of equipment requirements, tailored specifically to meet the unique aspects of our waterway will be discussed to include estimated costs, training requirements, personnel and other key aspects.

Research for this paper will include surveys of law enforcement agencies within the state of Florida that currently operate a marine law enforcement unit. The surveys will glean information about some of the challenges and issues encountered during the developmental process and any ongoing issues of concern. All information presented is designed to provide convincing support for the creation of a much needed marine law enforcement unit within the City of New Smyrna Beach.

Literature Review

While conducting research for this project many of the articles located were written from the aspect of how marine law enforcement operations relate to the broader homeland security mission of the country and its larger seaports. One such article, titled; Securing U.S. Ports – Law enforcement takes to boats around vital waterways, concerns the Port of Baltimore and its multifaceted harbor that includes international shipping, cruise ships, tourist attractions and special event venues all in a tightly congested area. This post 9-11 environment prompted the Maryland Transportation Authority Police to establish its first marine patrol unit in 2004. This unit now works with the U.S. Coast Guard, the City of Baltimore Police Marine Unit, fire department units, and other adjacent jurisdictions with a coordinated presence on the water. According to the article, this type of coordination is a nationwide trend with the Coast Guard and allows them to ensure

area specific coordination with state and local law enforcement units on the water with memorandums of agreement (MOU's). These MOU's cover a variety of topics and inter-operational concerns such as, specialized training, equipment sharing, delineation of responsibilities for criminal prosecution, unified command during special security events and other aspects specifically tailored to meet the local port security needs. (Pappalardo, 2005).

The Maryland Transportation Authority (MTA) utilized internal transportation funding to procure its small fleet of boats and did not rely on grants. However, the article eluded too many smaller jurisdictions attempts to expand or establish a maritime capability through possible Department of Homeland Security funding into the future. The Federal Maritime Transportation Security Act of 2002 led to the formation of the Maryland Maritime Security Group comprised of nearly 20 agencies that now coordinate and share responsibilities. This group works together on security problems within the Port of Baltimore area, conducts training exercises, established a coordination and analysis center to share intelligence and works with the Federal Bureau of Investigation – Joint Terrorism Task Force, as well as, private sector port facilities all of which are focused on improved port security efforts. (Pappalardo, 2005).

Continuing with a theme of national level port security, an article in the September 2005 issue of the FBI Law Enforcement Bulletin highlights the fight against terrorism from the sea and the protection of the nation's seaports and navigable waterways. It states that the United States maritime jurisdiction contains over 1000 harbor channels, 25,000 miles of inland intra-coastal and coastal waterways, 361 ports and more than 3,700 passenger and cargo terminals. (Maxwell & Blanda, 2005).

To gain an idea of the magnitude of the work required to ensure the security of this highly vulnerable system of maritime transportation, the gross statistics from this 2005 article speak for themselves. Each year, over 2 billion tons of freight, 3 billion tons of oil, 134 million ferry passengers, 7 million cruise ship passengers, 7,500 foreign ships, and over 6 million intermodal cargo containers enter our ports in the United States. With all of this movement on the water, certainly a key element of the security effort and first line of defense falls on the marine law enforcement officers in the field and on the water. (Maxwell & Blanda, 2005).

An interesting aspect presented in this article highlights the shift in mission focus in a post 9-11 world. Prior to the 9-11 attacks, maritime law enforcement training focused on drug smuggling, illegal immigration and environmental policing. The new shift in advanced and specialized training is more toward terrorism, its piracy connection and the development of special operations capabilities and teams within the U.S. Coast Guard and Customs and Border Protection (CBP). This effort, aimed at closing identified security gaps, suggests that every federal, state or local marine enforcement officer should attend some form of maritime terrorism training. In fact, the Federal Law Enforcement Training Center, starting in 2004, began to develop specific training courses under a program titled, Antiterrorism/Port Security Boat Operations Training. Several sub-courses within this curriculum include; The Strategic Maritime Threat, Department of Homeland Security (DHS) Use of Force Policy, Tactical Navigation Techniques, Defensive Boat Tactics, Tactical Boat Pursuits, and High-Risk Boarding. (Maxwell & Blanda, 2005).

Now that we have examined the maritime law enforcement environment from a national level and have established that there is a local law enforcement role in the

broader context of national port and waterway security, I will focus more on the state and local marine enforcement unit's form and function.

A 2009 article published in *Law Enforcement Technology*, titled, *On the Water-The Many Faces of Law Enforcement Marine Patrol*, is a discussion of two state level organizations focused on marine law enforcement and boating safety. The first, the Missouri State Water Patrol (MSWP), created in 1959, has statewide jurisdiction patrolling over 270,000 acres of lakes, 5,500 miles of shoreline, 519 miles of the Mississippi River and 533 miles of the Missouri River, in addition to other reservoirs, tributaries and streams. (Perin, 2009).

The MSWP, as of 2009, has 97 sworn law enforcement certified officers, divided into six districts. They provide additional assistance to local jurisdictions in need of dive teams, underwater evidence recovery, boating accident reconstruction, K9 and criminal investigative services related to marine law enforcement incidents. Each MSWP officer attends a six-month academy training that includes specialized instruction in marine law enforcement specific topics. In the field, they work independently while patrolling the waterways of the state; while in the off-season MSWP officers conduct boating safety and other educational activities at schools, safety fairs and community centers. (Perin, 2009).

Patrolling the waterways of Missouri does not come cheap. Typically, each officer has more than one vessel equipped with specialized technology such as side-scanning sonar, navigation equipment and a truck capable of towing their assigned vessel(s). Each vessel, tailored in size and power depending on the mission, is designed to optimize officer safety and the ability to successfully perform all assigned duties. The MSWP obtains its funding through the state and federal government. Most of its funding comes from general revenue as allocated by the state legislature, some from federal grant monies and a portion from state boater registrations. (Perin, 2009).

The second state agency mentioned in this article is the Oregon State Marine Board (OSMB). This agency, characterized as a one-stop organization dedicated to assisting local law enforcement marine patrol programs, provides funding, equipment and training. The OSMB also offers a two-week marine law enforcement training class where officers are instructed how to enforce laws, practice vessel-boarding scenarios, learn accident reconstruction and officer safety practices in a marine environment. In the area of equipment, OSMB recognizes the diversity of waterways across the state and provides assistance in the purchase of boats to meet required needs. OSMB states that for most waterways in the state, a 20 foot, aluminum hull, jet powered vessel is the preferred choice, but they also offer vessels as large as 32 feet. (Perin, 2009).

Although the Missouri State Water Patrol is an actual law enforcement organization and the Oregon State Marine Board is more of an administrative agency, both recognize that working on the water is a unique environment. Each has identified that officers require appropriate specialized marine law enforcement training and equipment as a foundation for successful daily operations. Each organization's focus is to keep waterways safe and to educate citizens on all things boating safety related. (Perin, 2009).

The type of vessel selected for a marine patrol unit is of the utmost importance. There are many variables to consider when choosing a vessel to meet the needs of your mission and the waterways patrolled. Certainly, an agency with limited resources would want a versatile vessel, properly equipped and powered, to access their jurisdictional waters to the greatest extent.

According to the 2007 article titled, Inflatable Boats to the Rescue, one such choice is a type of rigid-hull inflatable boat, more commonly referred to as a (RIB). In short, this style of vessel typically has an aluminum or fiberglass hull that has an inflatable type collar surrounding it. Different types of RIB collars are used, some being filled with just air, others are a composite of an air-filled bladder encased in foam, while others are entirely comprised of foam. A main advantage of a RIB type vessel for law enforcement patrol is work that requires frequent contact with other vessels. A RIB reduces damage to other vessels when coming alongside by acting as a bumper or shock absorber during an underway patrol encounter. According to the article, RIB's also offer a smoother ride at higher speeds through rough water due to their deep V hull design and additional buoyancy versus more traditional hard-sided patrol vessels. (Mills-Senn, 2007).

An agency mentioned in this article, the Pierce County Sheriff's Office in Tacoma, Washington, prefers using RIB's as compared to other hard-sided or traditional fiberglass type vessels because they are virtually unsinkable, can handle rough water well and reach speeds of 50 mph. This agency utilizes 17 and 19-foot RIB's designed with a center-console and a towing tower with 100 feet of towrope. Each vessel is also equipped with GPS and other important electronics needed to ensure multi-jurisdictional interoperability. (Mills-Senn, 2007).

According to the article, RIB's are designed to meet the specific conditions for the bodies of water patrolled. Length and type of propulsion are important factors to consider. For open and rough water conditions, longer vessels are preferred. The size of the vessel would determine the type of propulsion needed. Smaller vessels can be gas powered either outboard or jet propulsion, while larger vessels may require diesel propulsion. Jet propulsion vessels typically have a smaller draft, which allows them to operate safely in much shallower water, sometimes in a little as 12 inches, which may be a necessity depending on the waterway or conditions, patrolled. (Mills-Senn, 2007).

Several manufacturers of RIB type vessels mentioned in the article include, SeaArk Marine Inc., Bullfrog Boats Inc., North River Boats Inc., and Northwind Marine Inc., all of which will manufacture custom RIB vessels based on individual agency requirements. They all offer a variety of vessel lengths, propulsion types and have experience working with law enforcement and related government agencies. (Mills-Senn, 2007).

Closer to home here in Florida, a 2010 article called, Protecting Broward County Waters, highlights the work of the Broward County Sheriff's Office with its vastly diverse jurisdictional waterways. With two thirds of the county (847 square miles) considered the Florida Everglades Conservation Area, the choice of patrol vessel is of course an airboat. However, this agency has other unique responsibilities and a marine patrol unit of considerable size and capability. Beginning in 1991, the Broward County Sheriff's Office has provided law enforcement marine patrol related services for Port Everglades. This major port contains 2,380 acres of deep water, is the 12th largest cargo container port in the United States and hosts 12 cruise ship terminals. In addition, Port Everglades also has over 250 petroleum and propane storage tanks and 448 acres of submerged land. (McKain, 2010).

As of 2010, the Broward County Sheriff's Office Marine Unit is comprised of a Marine Patrol and a Dive Rescue Team. One sergeant/supervisor, seven marine deputies and a marine mechanic staff the unit. All deputies assigned are certified public

safety divers and part of the larger 35-member agency dive team. The Marine Unit's responsibilities, touted as high visibility patrol and boating safety education for an estimated 50,000 registered Broward County boaters also include enforcement of ordinances, investigation of boating accidents and other marine enforcement type operations. The Broward County Sheriff's Office Marine Unit accomplishes its mission with numerous vessels in its fleet tailored to meet each type of waterway within its jurisdiction. They are also equipped with the latest dive team and vessel technologies such as side scanning sonar, underwater digital video, side-imaging systems, remotely operated vehicles, underwater metal detectors and other emerging capabilities. (McKain, 2010).

Collaborating with the United States Coast Guard, the Broward County Sheriff's Office assists with Port Everglades security, its 5,300 annual ships and large cruise ship passenger movements. To accomplish this, the Marine Patrol Unit uses two 26-foot vessels, a 34-foot vessel and a recently added 43-foot SAFE Boat serving as a fully equipped mobile command post vessel capable of interoperability with the Coast Guard and other members of the Regional Domestic Security Task Force. The Sheriff's Office SWAT team maintains a specialized "Wet Team" that frequently trains at Port Everglades practicing vessel boarding and related mission essential tasks to further ensure port security. (McKain, 2010).

As you can see the mission of the Broward County Sheriff's Office Marine Unit is massive and requires an extensive commitment of resources and funding to ensure success. The Sheriff at the time this article was written, Sheriff Al Lamberti, said it best, *"We're surrounded by water with the Atlantic Ocean on one side and the Everglades ecosystem on the other, plus we safeguard one of the busiest cruise and cargo ports in the world. We have to have a Marine Unit that is totally capable and fully equipped. There is no other option."* (McKain, 2010).

An interesting research paper titled; "The Challenges and Issues of Marine Law Enforcement", written by Don Brent in 2006, while a student at the Bill Blackwood Law Enforcement Management Institute of Texas is worth mentioning here. This paper focused on challenges faced by marine law enforcement officers and the unique differences between land based law enforcement and enforcement in a marine environment. The research presented in this paper utilized personal interviews and email surveys to numerous state, regional and local level agencies. The primary agencies surveyed were the Texas Parks and Wildlife Department, Lower Colorado River Authority Public Safety, Brazos River Authority, Austin Park Police and the Travis County Sheriff's Office (Brent, 2006).

The findings and conclusions presented in this research paper by the author surmise that while land based law enforcement training continues to improve and evolve with the times, marine based law enforcement training has remained stagnant or otherwise nearly non-existent. All of the agencies surveyed in this research paper reported that there was no advanced or specialized training provided beyond the initial marine assignment field training program which focused primarily on the basics of safe boat operation, with much of the training being informal and ad-hoc in style. The research revealed a serious gap in training aimed at highlighting the differences between land and marine operating environments. Some specific deficiencies discovered is a lack of water survival techniques for marine officers in full-duty gear, how to survive in water with a

combative subject, shooting a firearm from a moving vessel, transferring arrested subjects between vessels and the lack of standardized equipment, training, policies or procedures to address known deficiencies. The author of this research paper contends that marine law enforcement has long been an afterthought for most agencies. He continues by emphasizing that agencies with a marine unit have an obligation to properly train and equip their officers to meet the challenges and dangers associated with working in a marine environment (Brent, 2006).

To complete my literature review I located an article on the website PoliceOne.com titled, "Tips for starting a maritime police unit. Written in 2010, by Tom Burrell, this article highlights points to consider when contemplating the startup of a maritime police unit. The article starts by trying to determine the mission specific reasons why an agency would create a maritime law enforcement unit. Answers to this initial question, whether your primary mission will be to address recreational boating safety or search and rescue type missions, would determine the equipment needed to accomplish the mission. Consideration of a secondary mission can also be beneficial in the early planning stages of developing a marine patrol unit (Burrell, 2010).

Next, the author states that proper thought should be given to personnel matters, "Who will be manning the unit?" More than likely, the unit will be staffed from existing personnel within the agency. The agency should look for those personnel with some previous boating or maritime patrol experience. Considering these elements can help focus the training that will be required to ensure a successful start (Burrell, 2010).

The last major question the author proffers is, "How much money do you have to spend?" Of course, the amount of money available will determine many decision points in the development process. The initial start of a marine unit will never be cheap, but cost effectiveness can be achieved according to the author by purchasing or obtaining the right equipment the first time and making certain that it is the best you can get for your money while still satisfying your mission goals. The article continues by highlighting alternatives to equipping the unit. One such alternative is purchasing a commercially produced recreational vessel and converting it to law enforcement use by adding the specific accessories and equipment needed. The advantage to this alternative is that most everything can be done locally which may result in cost savings with easier follow up maintenance and support (Burrell, 2010).

Another alternative used to obtain a patrol vessel and equipment is through federal, state and local surplus property sale programs. While this can also be cost effective, many times the equipment acquired at little or no cost may require extensive maintenance, which can prove more costly in the long term and come with restrictions and conditions on its use. The same holds true with obtaining vessels and equipment through grant programs. Read the fine print carefully concerning all compliance and reporting requirements when utilizing grant monies and make sure your agency can live within the rules (Burrell, 2010).

Additionally, the option of having a vessel custom built for law enforcement and your agency's specific mission needs may sound like the most expensive option, but in fact, it is not always the case. Burrell suggests, a custom vessel requires little after-market refitting, offers a longer service life than converted recreational boats or surplus equipment and may be worth the higher initial expense. Many companies offer custom

built law enforcement vessels such as Boston Whaler, Kvichak Marine Industries and Marinette Marine, to name a few (Burrell, 2010).

The article concludes with a suggestion by the author to “not reinvent the wheel”, and recommends networking with other agencies in your area with marine patrol programs. Doing so may prevent mistakes, build on lessons learned by others and keep you on track to a successful start-up program. In addition, there is a recommendation to contact your state’s Boating Law Enforcement Administrator, which is the local point of contact for the National Association of Boating Law Enforcement Administrators (NASBLA). This organization, along with the U.S. Coast Guard and the International Association of Marine Investigators (IAMI) are valuable resources on a wide array of topics concerning marine law enforcement that can be utilized to assist your agency (Burrell, 2010).

Methods

The purpose of this research was to identify relevant and useful information on the development of marine patrol units within the state of Florida. Emphasis was placed on identifying critical challenges and issues faced by individual agencies based on their experiences. This information was utilized in an effort to aid the New Smyrna Beach Police Department move forward with a proposal to establish a dedicated marine patrol unit to address public safety concerns in our jurisdictional waters and to expand our ability to respond to an emerging public safety need.

Data was gathered through surveys provided to law enforcement agencies located throughout the state of Florida. The agencies were selected to represent the widest array of jurisdictions, agency sizes and types of services provided to capture essential and useful data.

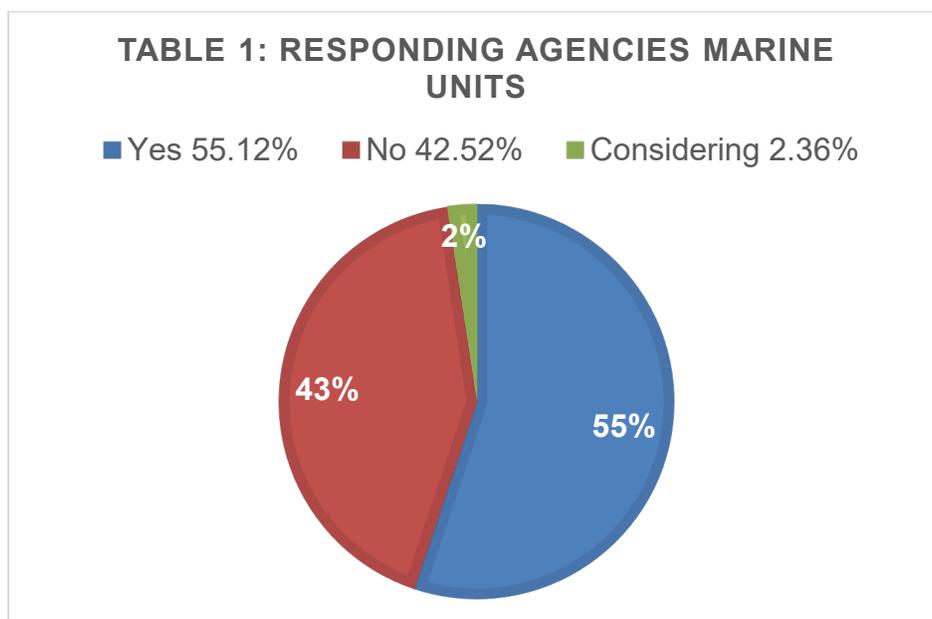
Survey questions were designed to gather information about marine law enforcement capabilities, mission essential requirements and enforcement goals of each agency. Additional questions were developed to determine types of marine patrol vessels utilized, to include; size, hull design, propulsion and other ancillary equipment requirements. Other survey questions sought to capture data concerning how agency vessels were chosen and their method of procurement. One open-ended question was asked to identify important concerns, challenges, issues or other planning factors to be considered when starting a marine patrol unit.

Lastly, the survey instrument was also designed to capture individual points of contact for each marine patrol unit. These contacts could be utilized at a later date to assist the New Smyrna Beach Police Department establish a network that will prove invaluable as an ongoing resource of information.

Results

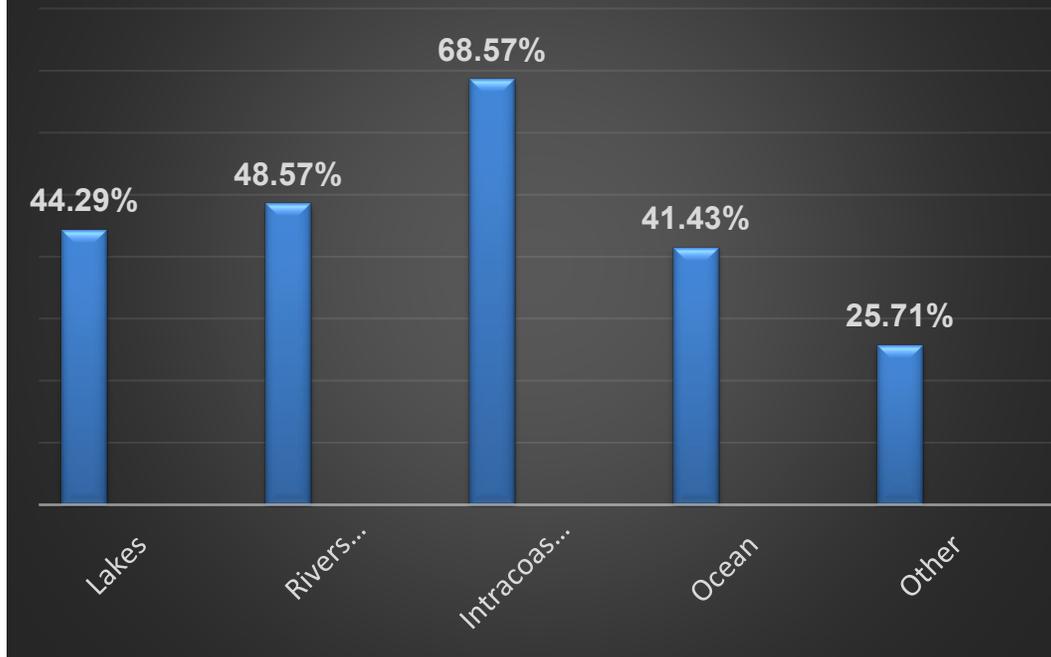
The survey instrument was sent by email to 270 individual law enforcement agencies. I received 127 total responses, for a response rate of 47.03 %. Of those 127 responses, some respondents chose to skip some of the questions in the survey.

The first question asked responding agencies if they had any form of a marine patrol, boat unit or similar capability to provide law enforcement services within their jurisdictional waters. Seventy respondents (55.12%) replied “Yes”, 54 respondents (42.52%) replied “No”, and 3 respondents (2.36%) replied they were considering starting one. It should be noted that those agencies replying “No” to question one, were subsequently directed to the end of the survey for submission and were not allowed to answer the remaining survey questions.

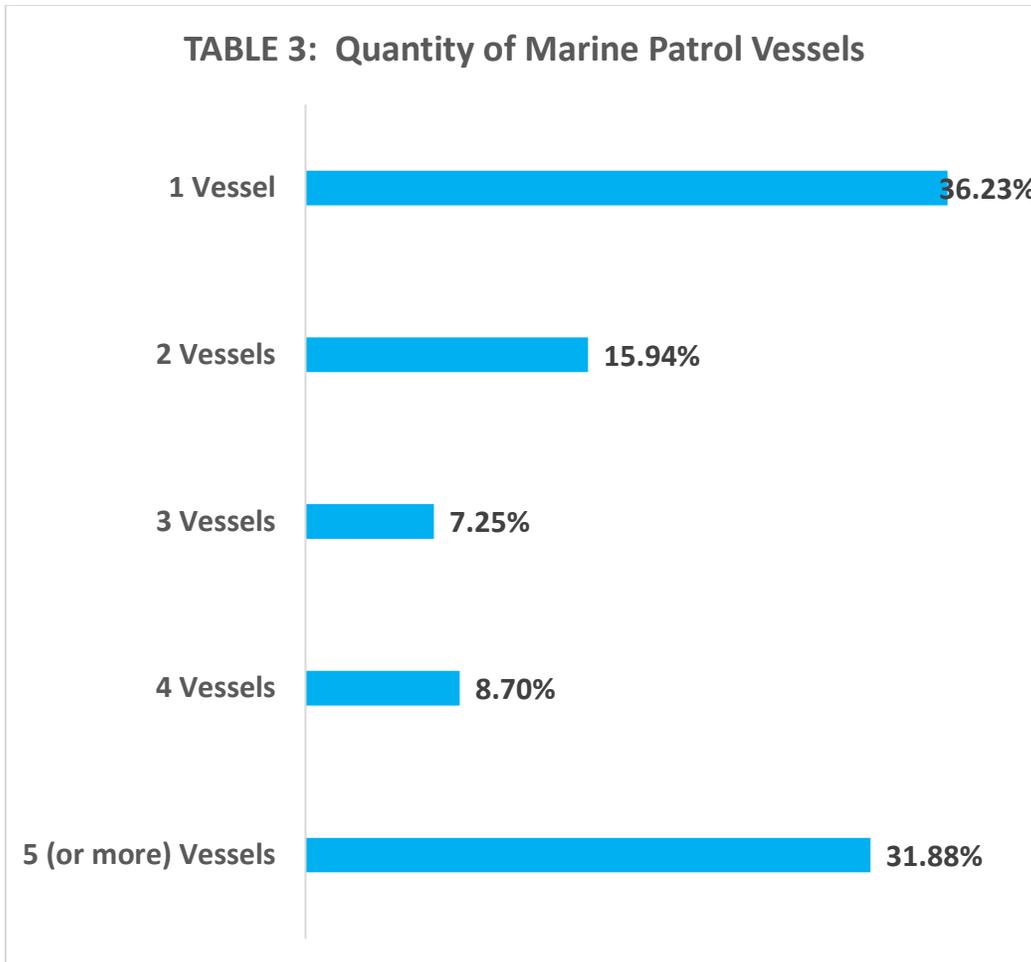


The second question asked participants what type of waterways their agency marine/boat unit patrolled. Respondents to this question could choose all answers that applied. Of the 70 respondents allowed to continue the survey past question one, 31 (44.29%) chose “lakes”, 34 (48.57%) chose “freshwater rivers”, 48 (68.57%) selected “intracoastal waterways/rivers”, 29 (41.43%) chose “ocean”, and 18 (25.71%) selected “other waterways” and were asked to provide a description. Many of the descriptions provided can be considered synonymous with numerous other choices provided in the question.

TABLE 2: Types of Waterways Patrolled

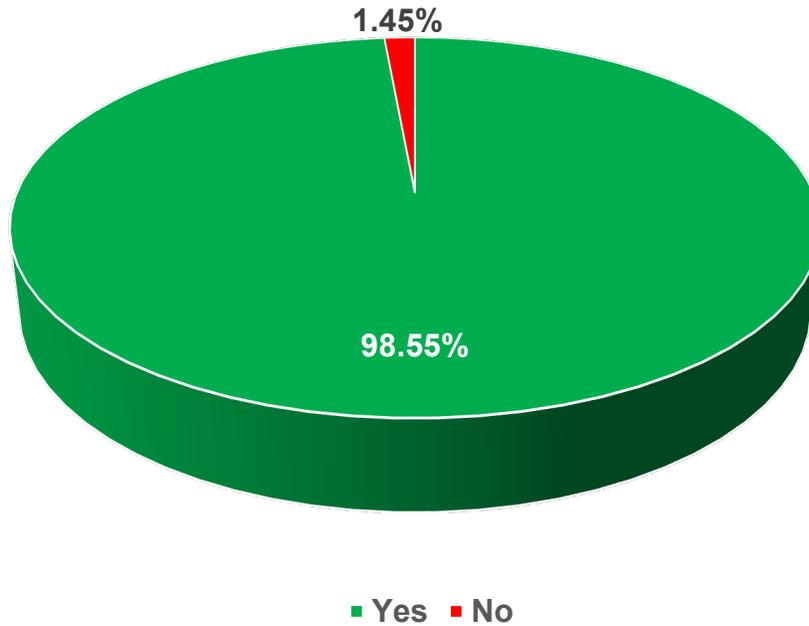


Question number three asked how many marine patrol vessels each responding agency utilized. There were 69 respondents to this question. One respondent chose not to answer. Of the 69 respondents, 25 (36.23%) replied “one vessel”, 11 (15.94%) replied “two vessels”, 5 (7.25%) replied “three vessels”, 6 (8.70%) replied “four vessels”, and 22 (31.88%) replied they employed five or more vessels in their respective marine patrol units.



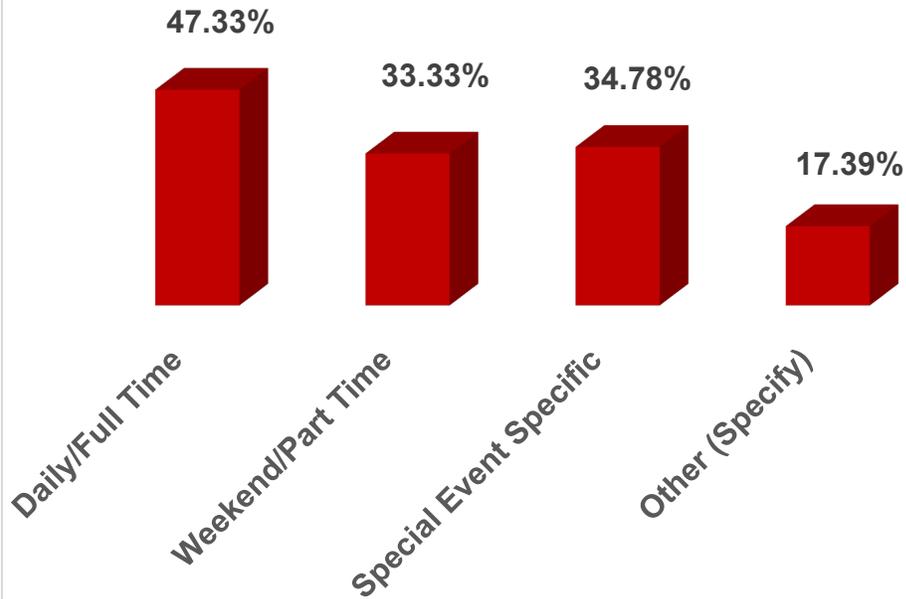
Question four asked respondents if there were other law enforcement agencies that also patrolled their jurisdictional waters. Of the 69 respondents answering this question, 68 (98.55%) answered “yes”, and 1 (1.45%) answered “no”. Those agencies answering “yes”, were also asked to provide the names of the other agencies patrolling their waters. A review of the responses received to this question revealed a recurring theme that most agencies reported overlapping or concurrent jurisdictions such as municipal and county agencies, Florida Fish & Wildlife Commission (FWC), United States Coast Guard (USCG) and U.S. Customs & Border Patrol patrolling many of the same waterways.

**TABLE 4: Agency Marine Patrol Units
(Concurrent Jurisdictions)**



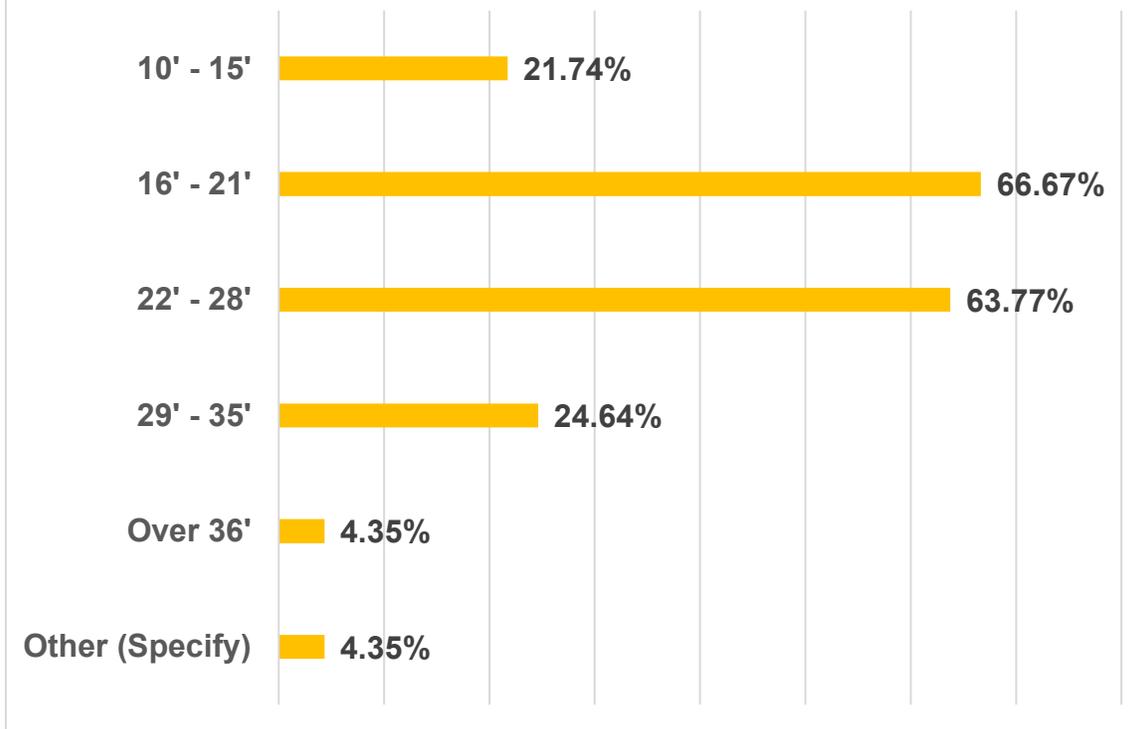
Question five asked respondents to choose a type of duty status for their agency marine patrol unit personnel. Of the 69 respondents to this question, some selected more than one choice which affected the following representation of quantified results. Thirty-three (47.83%) selected “Daily Full-Time Assignment”, 23 (33.33%) selected “Weekend/Part-Time Assignment”, 24 (34.78%) chose “Special Event Specific Assignment”, and 12 (17.39%) reported “other” and provided brief descriptions.

TABLE 5: Type of Duty Status for Marine Patrol Unit Personnel



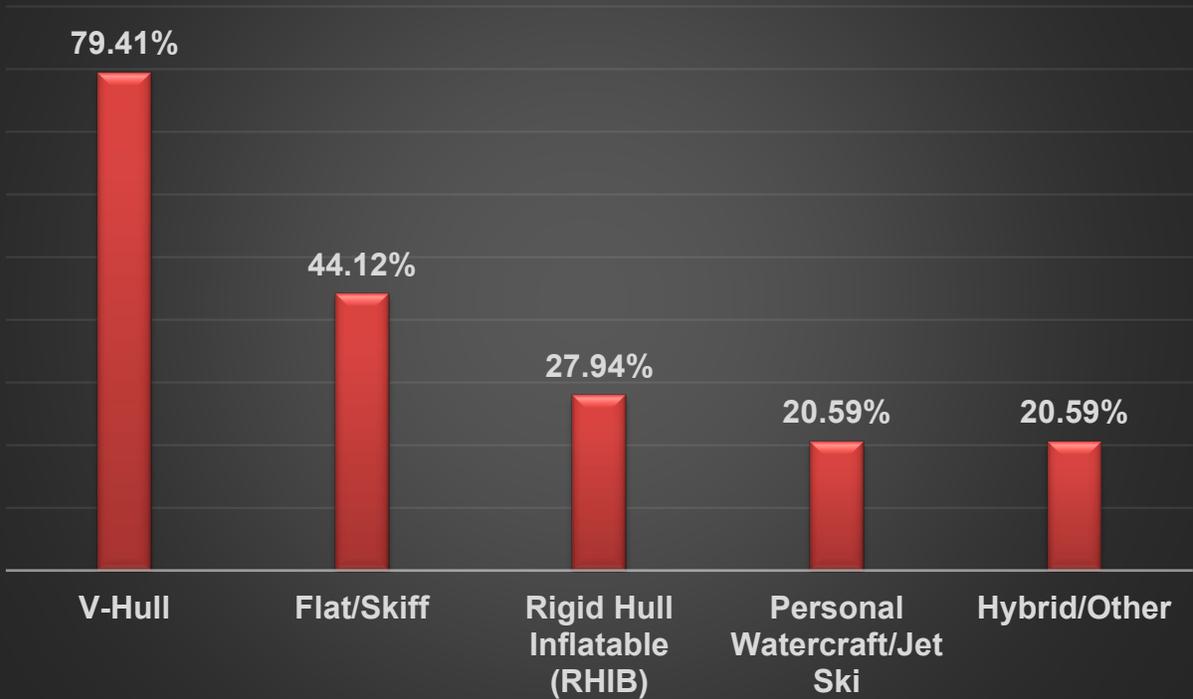
Question six asked responding agencies what size vessel, boat or watercraft their marine patrol unit utilizes. This question allowed respondents to select all answers that applied which affected the representation of results accordingly. Of the 69 respondents, 15 (21.74%) selected the 10'-15' vessel length, 46 (66.67%) selected the 16'-21' vessel length, 44 (63.77%) chose the 22'-28' vessel length, 17 (24.64%) picked the 29'-35' vessel length, 3 (4.35%) chose the over 36' vessel length, and 3 (4.35%) specified other vessels such as Jet Ski, Personal Watercraft or Airboat.

TABLE 6: Size of Vessels Used by Marine Patrol Units



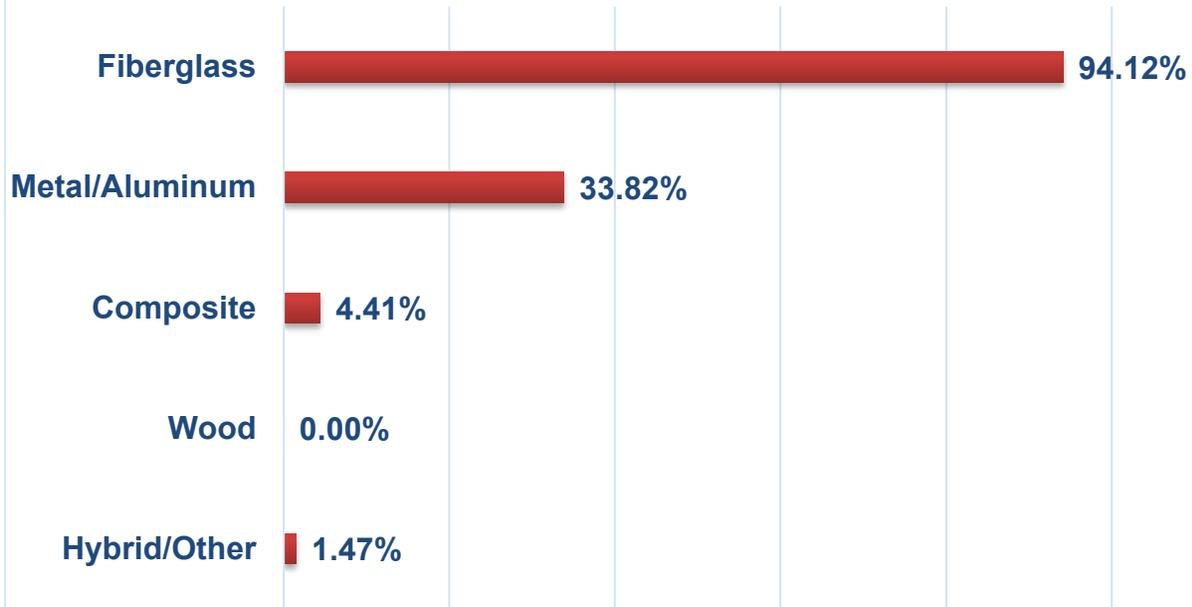
Question seven sought answers to what type of vessel hull design their agency employs. This question also allowed respondents to select all answers that applied, which affected the representation of results accordingly. Of the 69 respondents, 54 (79.41%) selected “V-Hull”, 30 (44.12%) selected “Flat/Skiff”, 19 (27.84%) selected “Rigid Hull Inflatable (RHIB)”, 14 (20.59%) chose “Personal Watercraft/Jet Ski”, and 14 (20.59%) indicated “Hybrid/Other hull designs”.

TABLE 7: Marine Patrol Vessel Hull Designs Employed



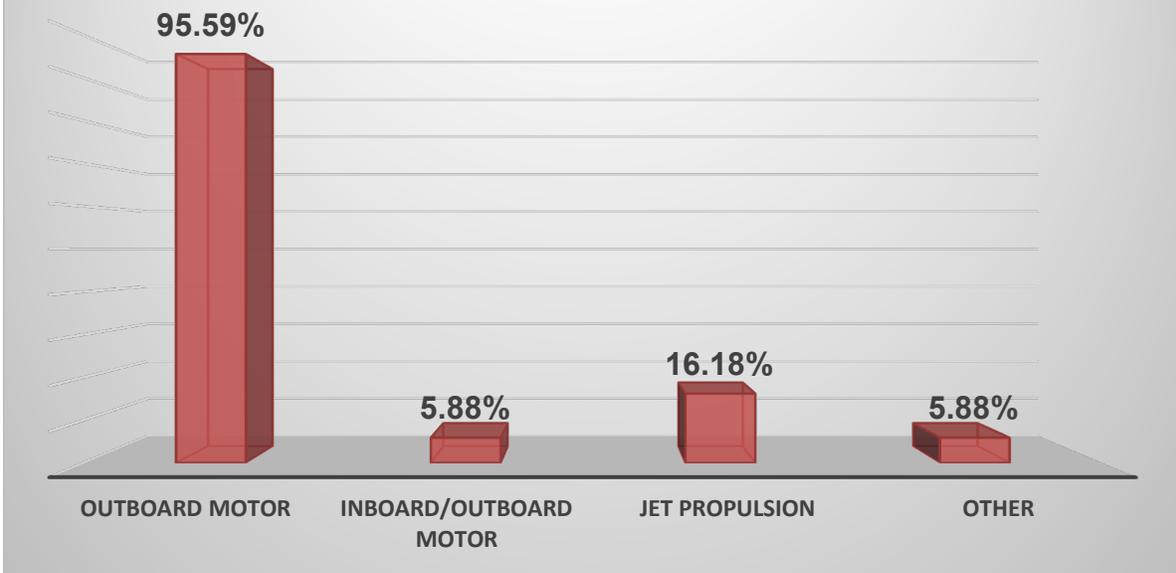
Question eight asked responding agencies the primary type of material their respective agency marine patrol vessel hull was constructed of. Again, those respondents with multiple vessels were allowed to choose all applicable answers. Of the 68 respondents, 64 (94.12%) answered “Fiberglass”, 23 (33.82%) responded “Metal/Aluminum”, 3 (4.41%) selected “Other Composite Materials”, 1 (1.47%) chose “Hybrid”, and zero selected “Wood”.

TABLE 8: Type of Vessel Hull Material



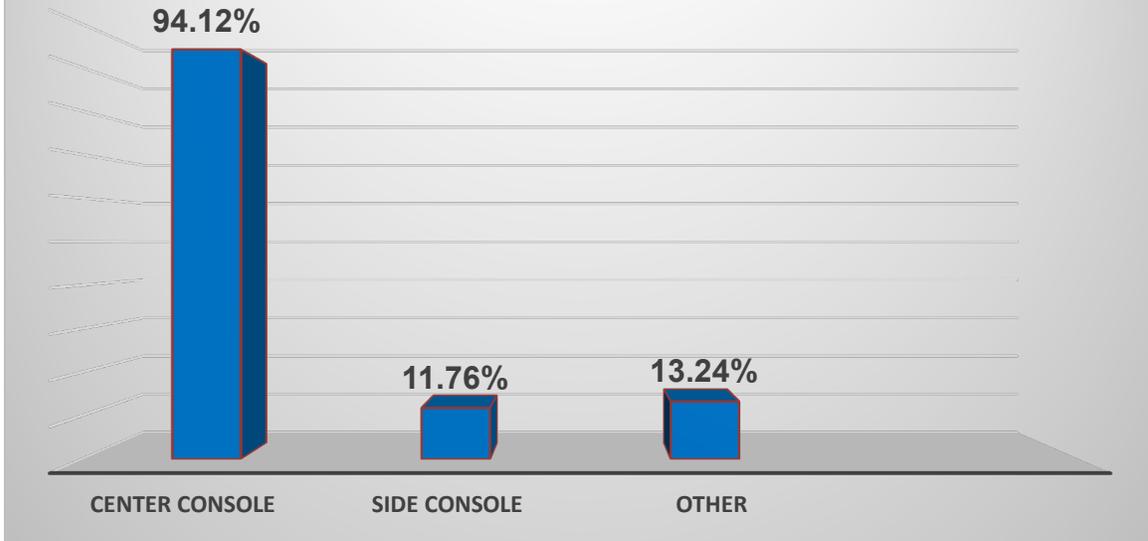
Question nine asked respondents to identify the type of propulsion their agency marine patrol vessel(s) utilize. Participants were allowed to choose multiple types based on different vessels they may have in their fleet. Of 68 respondents, 65 (95.59%) selected “Outboard Motor”, 11 (16.18%) chose “Jet Propulsion”, 4 (5.88%) picked “Inboard/Outboard Motor”, and 4 (5.88%) indicated “Other”.

TABLE 9: Types of Marine Patrol Vessel Propulsion



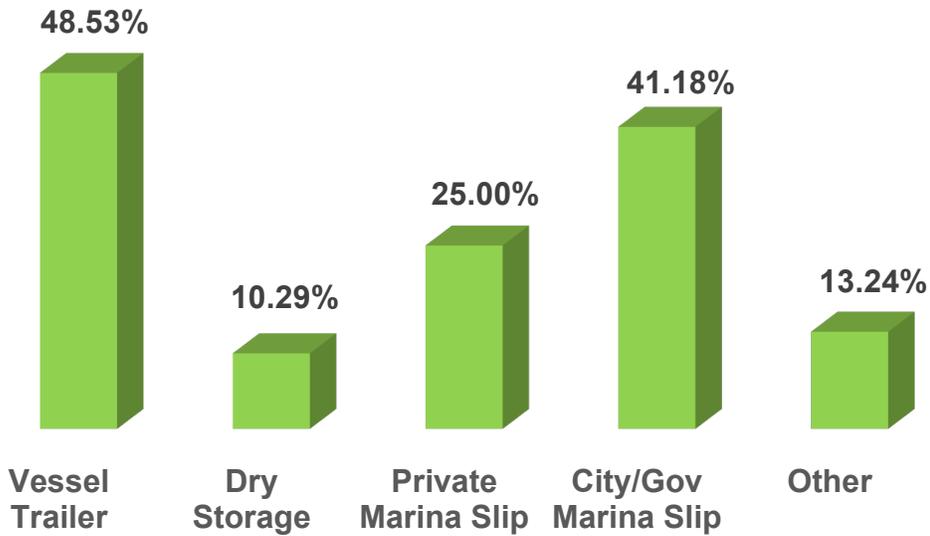
Question ten solicited information on the type of console each marine patrol vessel is equipped with. Again, respondents were allowed to choose more than one answer which affected the representation of results. Of the 68 respondents answering this question, 64 (94.12%) selected “center console”, 8 (11.76%) chose “side console”, and 9 (13.24%) picked “other”. Of those respondents choosing “other” brief descriptions were provided.

TABLE 10: Types of Marine Patrol Vessel Console



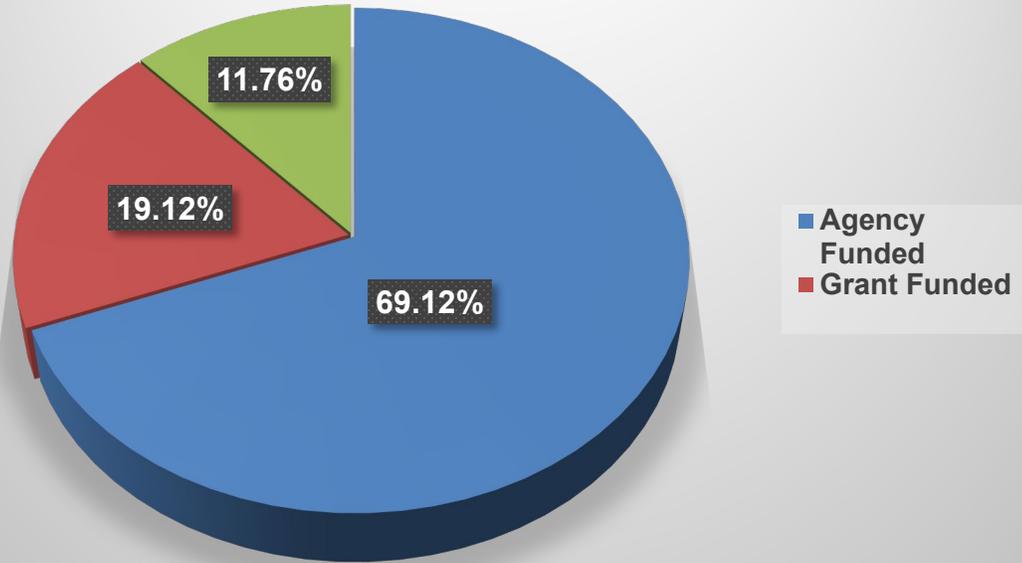
Question 11 asked respondents how they store their vessels when they are not patrolling. Sixty-eight respondents answered this question, with some choosing multiple answers. Of the 68 respondents, 33 (48.53%) selected “vessel transport trailer”, 7 (10.29%) chose “boat dry storage facility”, 17 (25.00%) chose “privately owned marina slip”, 28 (41.18%) selected “City/Government Owned – Marina/Boat Slip”, and 9 (13.24%) chose “Other”, and provided a narrative description.

TABLE 11: Types of Marine Patrol Vessel Storage



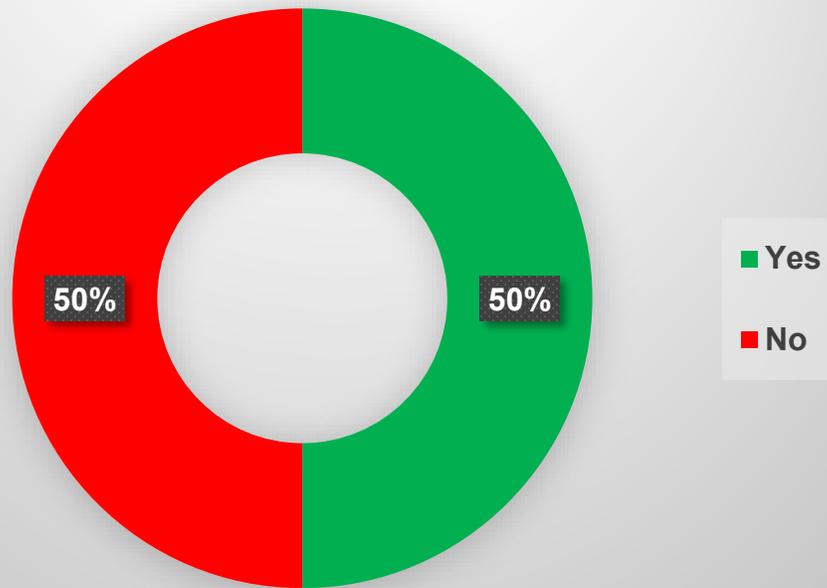
Question 12 asked respondents to identify how their agency obtained their first marine patrol vessel. Of 68 respondents to this question, 47 (69.12%) selected “Agency Funded”, 13 (19.12%) selected “Grant Funded” and 8 (11.76%) selected “Donation”.

TABLE 12: Marine Patrol Vessel Procurement Method



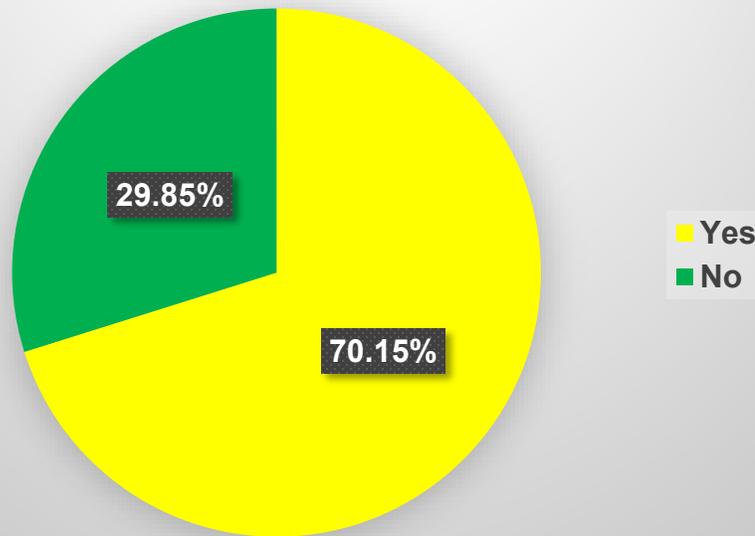
Question 13 asked respondents if their agency vessel was built to their specification by an established law enforcement boat manufacturer. Of the 68 respondents to this question, 34 (50%) replied “Yes” and 34 (50%) replied “No”. Twenty-two of those answering “yes” to this question provided the manufacturer name as requested.

TABLE 13: Agency Vessel Built to Specifications



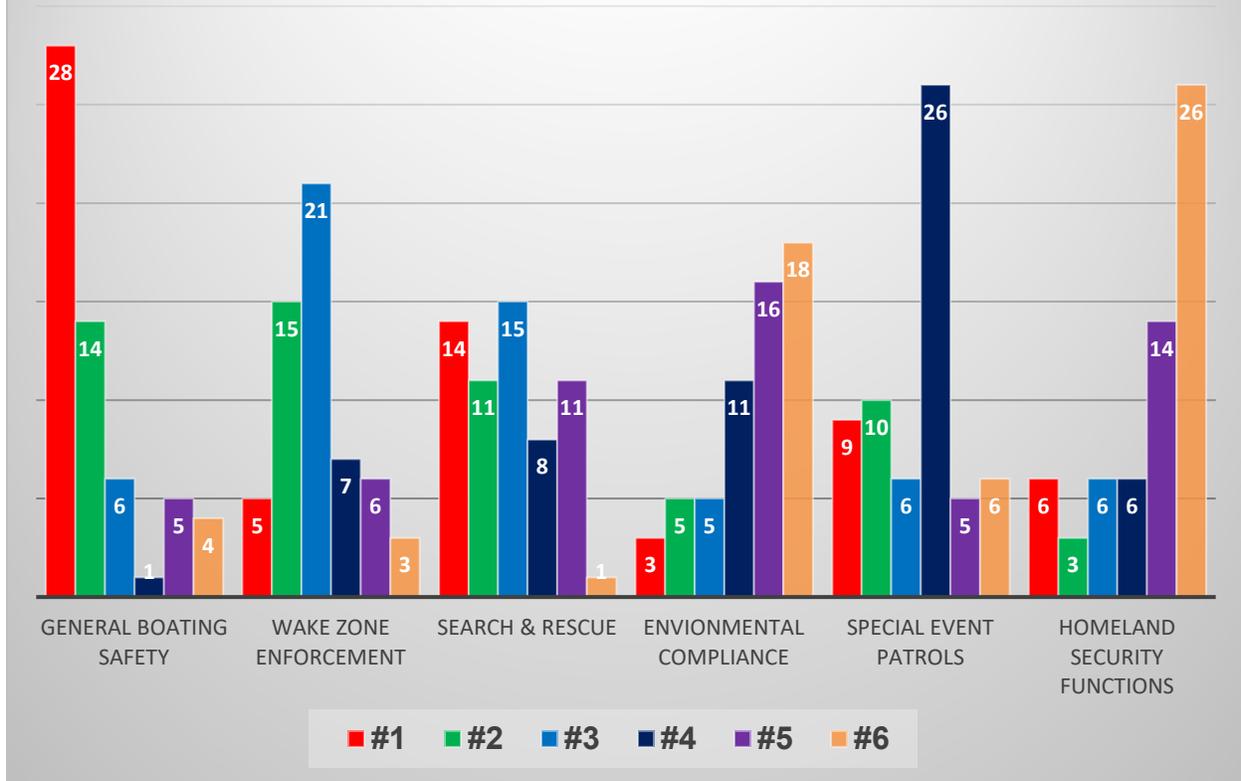
Question 14 asked respondents if their vessel was a standard recreational type boat re-purposed or modified for law enforcement use. Of the 67 respondents answering this question, 47 (70.15%) answered “Yes” and 20 (29.85%) answered “No”. Twenty-five of those respondents answering “yes” also provided requested information concerning manufacturer name, type and length of vessel.

**TABLE 14: Agency Vessel Re-Purposed
Recreational for LEO Use**



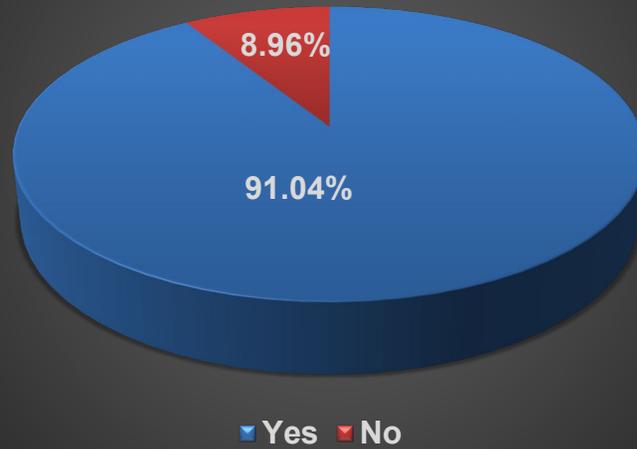
Question 15 requested responding agencies to rank their agency enforcement goals or mission essential task requirements for their marine patrol units in order of importance. Six category choices were provided. Of the 67 respondents to this question, not every respondent ranked each choice which resulted in a smaller number of recorded rankings for each choice. Table 15 is a color-coded representation of the distribution of mission rankings with number of respondents in each column. Based on aggregate scoring of the raw data, the following overall rankings are: first was “General Boating safety”, second, “Search & Rescue”, third, “Wake/Speed Zone Enforcement”, fourth, “Special Event Patrols”, fifth, “Environmental Compliance” and sixth, “Homeland Security Functions.”

TABLE 15: Marine Patrol Unit Mission Ranking



Question 16 asked respondents if their agency has established training requirements for officers assigned to their marine patrol unit. Of the 67 respondents who answered this question, 61 (91.04%) replied “Yes”, while 6 (8.96%) replied “No”. In addition, 40 of 61 respondents answering “Yes” provided a brief course description as requested. The overwhelming majority of narrative responses (31 of 40) included some form of formalized training element in basic boat operations and safety. Several training organizations mentioned include: Florida Fish & Wildlife Commission (FWC) – Boat Training Courses, National Association of State Boating Law Enforcement Administrators (NASBLA) – certified boat training courses, Institute of Police Technology & Management (IPTM) - Basic Marine Enforcement Training Courses, United States Coast Guard (USCG) – Captain’s Licensing and other Marine Patrol law enforcement related training.

TABLE 16: Agencies With Marine Unit Training Requirements



Question 17 was presented as an open-ended question designed to gather important lessons learned from agencies with marine patrol experience. It asked respondents if there was anything, not asked in the previous survey questions, that they felt was important to know when starting a marine patrol unit. This question solicited concerns, challenges, issues, lessons learned or other planning considerations. A total of 48 respondents provided narrative answers to this question. Of those 48 responses, by far the number one recurring suggestion was to have a comprehensive plan in place ahead of time when starting a marine unit. Important aspects to consider are the costs associated with monthly and annual maintenance (for both vessels and trailers), repair and replacement, fuel, ancillary equipment, training, personnel, overtime, vessel storage and many others. These line items should be budgeted up front and planned for during each continuing budget cycle. Numerous other suggestions and planning considerations were proffered by many of the respondents to the survey. This important information should prove useful for any agency seeking to develop a marine patrol capability.

The final survey question was a form filler request for each responding agency's marine patrol unit point of contact information. This information will be used as a future resource for the New Smyrna Beach Police Department to contact similarly situated agencies with marine patrol related questions. A total of 63 respondents provided the requested information, which included: Agency Name, Marine Patrol Unit point of contact, mailing address, contact phone number and email address.

Discussion

As stated in the introduction section, this research project was designed as a proposal for the development of a marine patrol unit, to be utilized as a source to provide critical and relevant information to the New Smyrna Beach City Commission to aid their decision-making process and is aimed at providing mission justification for a City of New Smyrna Beach marine patrol unit.

The survey results, as reported in the previous section, provide some insight into numerous Florida law enforcement agencies and their marine patrol unit experiences. Rounding to the nearest decimal, 55% of survey respondents stated their agency had a marine patrol capability with another 2% indicating they are considering starting one.

Although many agencies located in the interior of Florida may have marine patrol capability, as expected, the highest number of survey respondents (68%) chose intra-coastal waterways (ICW) as their primary patrol area. These types of waterways typically follow the coastlines of Florida with communities and counties having jurisdictional waters similar to those within the City of New Smyrna Beach. Thirty-six percent of survey respondents stated they only employed one marine patrol vessel, most representing smaller size agencies, while another 32% reported they had 5 or more marine patrol vessels, obviously representing the larger agencies responding to the survey.

As expected, 85% of respondents reported that other law enforcement agencies also patrol the same waterways within their respective jurisdictions. The most common shared jurisdictions involved municipalities with sheriff's departments, Florida Fish & Wildlife Commission (FWC) and United States Coast Guard (USCG) vessels patrolling together in the intra-coastal waterways (ICW), bays and coastal oceans. This type of cooperative effort would be similar for the City of New Smyrna Beach as these agencies currently patrol the Indian River (Intra-coastal Waterway ICW) and Ponce Inlet areas within the jurisdiction of the New Smyrna Beach Police Department.

Nearly 67% of respondents reported they utilized a vessel length between 16' and 21'. A close second, 64% of respondents reported vessel lengths between 22' and 28'. The vast majority of survey respondents, nearly 89%, reported utilizing V-Hull type vessels, with 94% constructed of fiberglass, and 95% utilize outboard motors as propulsion. Respondents also overwhelmingly reported 94% of their vessels have center consoles. Regarding storage, 48% of respondents stated their vessel was stored on a trailer and boat slip storage accounted for the majority of the remaining respondents.

One of the most important survey questions asked was how each responding agency obtained its first marine patrol vessel. Nearly 70% of respondents indicated their first vessel was agency funded, while 19% indicated they received grant funding to start their program. Approximately 12% reported their vessel was donated and a few respondents reported obtaining their vessels through forfeiture and seizure processes.

Remarkably, survey respondents were split 50/50 on the question concerning if their vessel was built to their specifications by an established law enforcement boat manufacturer. In the comments section of this question, the most common manufacturer mentioned was Boston Whaler/Brunswick. In a contradiction to this question, nearly 66% of respondents stated their vessel was a re-purposed recreational type vessel modified for law enforcement use. In the area of training requirements, just over 91% of

respondents reported having established formal training requirements for their marine patrol officers.

Lastly, it was important to capture information on why agencies utilize marine patrol units and what enforcement goals or mission essential tasks were important to them. The survey instrument collated responding agencies answers ranking them 1-6 in order of importance. The results indicated that General Boating Safety was their top priority, Search & Rescue missions were second, and Wake/Speed Zone enforcement was third. Special Event Patrols was fourth in importance, while Environmental Compliance Inspections and Homeland Security Functions were fifth and sixth respectively.

Recommendations

The information presented during the course of this research project, capped off by the comprehensive survey results obtained, have provided useful information and insights into what other agencies, similar to the New Smyrna Beach Police Department, are doing regarding their marine patrol unit capabilities. Utilizing the information gleaned in this research project as the foundation, the New Smyrna Beach Police Department will capitalize on the lessons learned by other agencies.

The first recommendation is to integrate a marine law enforcement capability into our department mission of, "Reducing crime and improving quality of life through a partnership with all citizens." Certainly, the jurisdictional waters of the city of New Smyrna Beach are a main attraction for residents and visitors alike, as the Indian River (Intracoastal Waterway) meanders through our city. It only makes sense for the New Smyrna Beach Police Department to expand its law enforcement capabilities with our own dedicated marine patrol unit. The enforcement goals and mission essential tasks data collected in my survey support mission priorities envisioned by our department with the top four priorities being; General Boating Safety, Search & Rescue, Wake/Speed Zone Enforcement and Special Event Patrols respectively.

Respondents were evenly split between custom built law enforcement vessels and otherwise re-purposed recreational vessels modified for marine patrol use. Yet in a follow up question, a 70% majority identified their agencies utilized a re-purposed vessel. Comments provided by respondents supported selecting a vessel that will meet 90% of your mission specific needs and one that is the most versatile regardless of the source. Based on this information I would recommend exploring both options to the fullest extent prior to making a decision.

My third recommendation concerns more specific vessel characteristics and specifications. The survey data indicates that most agencies utilize center console, V-Hull style, marine patrol vessels, 16' – 21' in length, constructed of fiberglass and powered by outboard motors. Most agencies store their vessel in a marina boat slip or on its transport trailer when not in use. Therefore, I recommend utilizing these characteristics as the standard to begin the selection process.

The question of how to fund the purchase of a marine patrol vessel is likely a main concern of many stakeholders within the city of New Smyrna Beach. In order to take this important step into marine law enforcement, I recommend we utilize agency funding and forgo any grant attempts due to the many conditions and restrictions that typically

accompany grant funding sources. The survey data collected supports this recommendation by nearly 70% of agencies reporting they used agency budgeted funds to procure their first vessel. Certainly, we also would want to have the greatest flexibility to meet our stated mission essential tasks and enforcement goals.

In the literature review, several marine patrol related organizations highlighted that marine law enforcement and working on the water is a unique environment and one that requires appropriate specialized training and equipment. This emphasis on proper training was also reinforced by the survey data collected which revealed that over 90% of respondents employed formal training requirements in the area of basic boat operations and safety. Should the city of New Smyrna Beach create a marine patrol unit, I would recommend utilizing the training resources of our local United States Coast Guard Station (Ponce Inlet) and the University of North Florida's Institute of Police Technology & Management (IPTM) courses in Basic Marine Enforcement Training, boat operations and general safety.

My last recommendation is to create a formal working group consisting of subject matter experts within our own agency, immediate adjacent agencies, and a few uniquely similar agencies with well-established marine patrol units from across the state. This working group would utilize the survey data collected, individual expertise and collective experiences to formulate a fully comprehensive proposal that meets our mission requirements. The idea is to effectively plan for all contingencies, capital costs, sustainment costs and other challenges, issues, and lessons learned to ensure the New Smyrna Beach Police Marine Patrol Unit is positioned for success from the start.

Lieutenant Mark Severance began his career in law enforcement as a Reserve Police Officer for the Emerald Isle Police Department (North Carolina) while still serving in the United States Marine Corps. After a nearly 25 year career as a U.S. Marine, he joined the New Smyrna Beach Police Department in January of 2007. During the last 12 years, he has served as a Patrol Officer, Field Training Officer, Patrol Sergeant, SWAT Officer and Special Operations Sergeant. Promoted to the rank of Lieutenant in 2017, he is currently serving as the commander of the Operations Division. Mark has an A.A.S. degree in Criminal Justice from Craven Community College (1990), a B.S. degree in Administration of Justice from Penn State University (1996), and a Master of Public Administration Degree from The John Jay College of Criminal Justice (2004). He is also a graduate of the Florida Leadership Academy Class #37

References

- Brent, D. (2006, October). *The Challenges and issues of marine law enforcement* [Scholarly project]. In *Google Scholar*. The Bill Blackwood Law Enforcement Management Institute of Texas. Retrieved February 16, 2019, from [https://scholar.google.com/scholar?hl=en&as_sdt=0,10&q=the challenges ad issues of marine law enforcement&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0,10&q=the+challenges+ad+issues+of+marine+law+enforcement&btnG=)
- Burrell, T. (2019, January 23). Tips for starting a maritime police unit. *PoliceOne.com*. Retrieved from <https://www.policeone.com/airborne-maritime/articles/2087657-Tips-for-starting-a-maritime-police-unit/>
- Maxwell, C., & Blanda, T. (2005, September). Terror by sea: The unique challenges of port security. *FBI Law Enforcement Bulletin*, 74(9), 22-26.
- McKain, G. (2010, August 17). Protecting Broward county waters. *Officer.com*. Retrieved February 25, 2019, from <https://www.officer.com/on-the-street/vehicles-equipment/watercraft-accessories/article/10232619/protecting-broward-county-waters>
- Mills-Senn, P. (2007, November 1). Inflatable boats to the rescue. *Officer.com*. Retrieved February 28, 2019, from <https://www.officer.com/tactical/article/10249345/inflatable-boats-to-the-rescue>
- Pappalardo, J. (2005, June). Law enforcement takes to boats around vital waterways. *National Defense Magazine*, 89(619), 32-35.
- Perin, M. (2009, September). On the water: The many faces of law enforcement marine patrol. *Law Enforcement Technology*, 36(9), 26-33.

Appendix A

Survey Questions

Introduction

The purpose of this survey is to gather useful data concerning law enforcement marine patrol units in the state of Florida. The information will be used as part of a research project I am completing for the FDLE Senior Leadership Program Class #22 and ultimately as background information for a proposal to secure support and funding for the development of a Marine Patrol Unit within the New Smyrna Beach Police Department.

If you received this survey and are not the most appropriate person to complete it please forward it to whomever within your agency is best qualified to answer a few questions concerning your Marine/Boat unit. I would like to thank you in advance for your assistance and I appreciate your feedback.

1. Does your agency have any form of a marine patrol, boat unit, or similar capability to provide law enforcement services within your jurisdictional waters?
 - Yes
 - No
 - Considering Starting One

2. What type of waterways does your agency marine/boat unit patrol? (Check all that apply)
 - Lakes
 - Rivers (Freshwater)
 - Intracoastal Waterways/Rivers
 - Ocean
 - Other (Please specify/describe)

3. How many marine patrol vessels does your agency employ?
 - 1
 - 2
 - 3
 - 4
 - 5 or more

4. Are there other law enforcement agencies that also patrol your jurisdictional waters?
 - Yes
 - No
 - If YES, Please provide other Agency name(s)

5. Pick a type of duty status for your agency's marine patrol unit personnel.
 - Daily/Full Time Assignment
 - Weekend/Part Time Assignment
 - Special Event Specific Assignment
 - Other (Please Specify)

6. What size vessel, boat or watercraft does your agency marine patrol unit utilize? (Check all that apply)
 - 10' – 15'
 - 16' – 21'
 - 22' – 28'
 - 29' – 35'
 - Over 36'
 - Other (Please Specify)

7. What type of vessel hull design does your agency employ? (Check all that apply)
 - V – Hull
 - Flat/Skiff
 - Rigid Hull Inflatable (RHIB)
 - Personal Watercraft/Jet-Ski
 - Hybrid/Other (Please Specify)

8. What primary type of material is your agency vessel hull constructed of?
 - Fiberglass
 - Metal/Aluminum
 - Wood
 - Other Composite Materials
 - Hybrid (Please Specify)

9. What type of propulsion does your agency marine patrol vessel utilize?
 - Outboard Motor
 - Inboard/Outboard Motor
 - Jet Propulsion
 - Other (Please Specify)

10. What type of console does your agency marine patrol vessel employ?
 - Center Console
 - Side Console
 - Other (Please Specify)

11. When your agency marine patrol vessel is not in actual use, how is it typically stored?
 - Vessel Transport Trailer
 - Boat Dry Storage Facility
 - Privately Owned – Marina Boat Slip
 - City/Government Owned – Marina Boat Slip
 - Other (Please Specify)

12. How did your agency obtain your first marine patrol vessel?
 - Agency Funded
 - Grant Funded
 - Donation
 - Other (Please Specify)

13. Was your agency marine patrol vessel built to your specifications by an established law enforcement boat manufacturer?
- Yes
 - No
- If YES – Please specify manufacturer name:
14. Is your agency marine patrol vessel a standard recreational type boat re-purposed or modified for law enforcement use?
- Yes
 - No
- If YES, please specify manufacturer name, type and length:
15. Please rank your agency enforcement goals or mission essential task requirements for your marine patrol unit. (In order of importance, please rank 1 - 6)
- General Boating Safety
 - Wake or Sped Zone Enforcement
 - Search and Rescue
 - Environmental Compliance Inspections
 - Special Event Patrols
 - Homeland Security Functions
16. Does your agency have established training requirements for officers assigned to your marine patrol unit?
- Yes
 - No
- If YES, please provide a brief course description
17. Considering your agency marine patrol experience, is there anything I did not ask you that you feel is important for me to know when starting a marine patrol unit? Concerns, challenges, issues, lessons learned or other planning considerations?
- (Comment/Narrative)
18. Please provide your agency's marine patrol unit point of contact information to be used as a future resource for the New Smyrna Beach Police Department.
- Marine Patrol Unit – Point of Contact
 - Agency Name
 - Address
 - City/Town
 - State
 - Zip/Postal Code
 - Email Address
 - Phone Number