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Examining the USCG Alternate Compliance Program Risk-Based Oversight Initiatives

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Examining the USCG Alternate Compliance Program Risk-Based Oversight Initiatives

An Interactive Qualifying Project submitted to the faculty of
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the
Degree of Bachelor of Science

Sponsoring Agency: United States Coast Guard CVC-1

Submitted to
LT Heard: United States Coast Guard CVC-1
Prof. Peet and Prof. Rolle: Worcester Polytechnic Institute

Submitted by

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Date: December 13, 2012

This report represents work of WPI undergraduate students submitted to the faculty as evidence of a degree requirement. This report will be suppressed indefinitely at the behest of the United States Coast Guard.

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Submitted by:
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Sponsoring Agency:
United States Coast Guard
Office of Commercial Vessel Compliance of Domestic Vessels (CG-CVC-1)

Submitted to:
Project Advisor: Creighton Peet, WPI Professor
Project Co-advisor: Marsha Rolle, WPI Professor

Date: December 13, 2012

Abstract

The goal of this project was to analyze the U.S. Coast Guard's Alternate Compliance Program targeted vessel oversight initiatives, and to determine if an effective degree of oversight has been realized. We performed archival research and conducted surveys and interviews to complete our objectives. Our results indicate that improvements to the program's oversight could be achieved by improving the MISLE database, adopting a more sustainable vessel targeting matrix, and increasing inspector training opportunities.

Authorship

Elizabeth's major project contributions focused on the writing of her team's report where she was the chief author of the Introduction, Methodology, and Appendix C chapters. She also wrote significant portions of the Results and Analysis chapter, and was a minor contributor to the Executive Summary and Background chapters. In addition to her literary contributions to her team's report, Elizabeth was responsible for the research and creation of the Geographic Information Systems (GIS) maps which were used as screen shot images in the Results and Analysis chapter. Her GIS maps are a web based interactive tool for graphically displaying trends in the USCG's targeted ACP vessel oversight exam densities.

Brendan contributed to the writing of his team's report as the chief author of the Background chapter, and as a contributor to both the Results and Analysis and Conclusions and Recommendations chapter. In addition to his literary contributions to the team's report, Brendan was also responsible for conducting MISLE database research and analyzing questionnaire responses.

Throughout the project, Billy made significant contributions to both the data collection process as well as writing the report. Billy played a major role in researching the USCG targeted vessel oversight exams to obtain the data used in the team's Results and Analysis chapter. He also was a major contributor to the writing of the interviews and surveys sent out to USCG inspectors. He also made minor contributions to the methodology, the background, the results and analysis, and the conclusions and recommendations chapters, as well as writing appendices A, B, and F.

Ryan wrote portions of the report and collected data. He was the primary author of the Executive Summary and Conclusions and Recommendations chapter. He also contributed to the Background, Methodology, and Results and Analysis chapters. Ryan used the MISLE database to gather vessel inspection information, and analyzed it using Microsoft Excel. Ryan was also in charge of contacting ports with surveys and leading follow-up phone interviews.

All sections and appendices were edited by all team members equally.

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Last but definitely not least, we would like to thank our advisors — Professors Creighton Peet and Marsha Rolle — who were extremely helpful and always readily available to make suggestions. Furthermore, Professor Peet was our instructor for ID 2050 and did a tremendous job preparing us for this project. They have been with us from the very beginning and we appreciate everything they have done to help us while simultaneously advising six other projects.

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Acronyms:

ABS:	American Bureau of Shipping
ACP:	Alternate Compliance Program
ACS:	Authorized Classification Society
ANOA:	Advanced Notice of Arrival
ATB:	Articulated Tugs and Barges
BOEMRE:	Bureau of Ocean Energy Management, Regulation, and Enforcement
CAIP:	Critical Area Inspection Plan
CCG:	Canadian Coast Guard
CFR:	Code of Federal Regulations
COI:	Certificate of Inspection
COLREG:	Convention on the International Regulations for Preventing Collisions at Sea
CSR:	Continuous Synopsis Records
CVC:	Commercial Vessel Compliance
CWO:	Chief Warrant Officer
DCO:	Deputy Commandant for Operations
DoD:	Department of Defense
DNV:	Det Norske Veritas
FOC:	Flag of Convenience
GIS:	Geographic Information Systems
GL:	Germanischer Lloyd
IMO:	International Maritime Organization
IQP:	Interactive Qualifying Project
IRI:	International Registries, Inc.
ISM:	International Safety Management
ISO:	International Organization for Standardization
ISSC:	International Ship Security Certificates
ITB:	Integrated Tugs and Barges
LR:	Lloyd's Register
MARPOL:	Marine Pollution convention
MISLE:	Marine Information for Safety and Law Enforcement
MoU:	Memorandum of Understanding
MODU:	Mobile Offshore Drilling Unit
NVIC:	Navigation and Vessel Inspection Circular
RMI:	Republic of the Marshall Islands
RO:	Recognized Organization
ROS:	Reduced Operating Status
SOLAS:	Safety and Life at Sea
USCG:	United States Coast Guard
USNS:	United States Naval Ship
UWILD:	Underwater Inspection in Lieu of Dry-docking
WPI:	Worcester Polytechnic Institute

Executive Summary

The United States Coast Guard (USCG) is responsible for regularly inspecting commercial vessels to ensure their compliance with U.S. and international safety and environmental regulations. Compliance with these regulations can reduce the risk of vessel accidents, and human and environmental harm. With a large shipping fleet to inspect and limited USCG resources, achieving sufficient vessel oversight can be a challenge. To help deal with this problem, the USCG created the Alternate Compliance Program (ACP).

The ACP was first implemented in 1997 to help alleviate some of the USCG's inspection responsibilities. The USCG delegates some inspection duties to authorized classification societies (ACS) to inspect ACP enrolled vessels, and to issue certain certificates of compliance to these vessels. Historically, these classification societies are also contracted by insurance companies to inspect ships before they are insured. When inspecting an ACP vessel, the ACS must use a supplement to their class rules to be in compliance with the standards set forth by the USCG. The USCG conducts annual oversight inspections on all ACP vessels and uses the results of these inspections, along with data from the ACS, to develop a ranking of all enrolled vessels. The ten percent of ACP-enrolled vessels that are ranked the lowest by the risk-based targeting matrix are targeted to receive additional USCG oversight. This means that the USCG will audit these vessels through additional targeted oversight examinations to ensure that they are complying with the proper safety and environmental standards. The USCG's goal is to target ten percent of the ACP-enrolled vessel population in order to reduce the amount of time and resources that are required for USCG ACP inspections.

The goal of our project was to examine and analyze data regarding the USCG ACP performance-based monitoring initiatives to determine if an effective degree of oversight has

been realized. Furthermore, the project made recommendations regarding how performance-based monitoring can be improved, including the way the program is administered and risk factors used to target vessels. The results of this project may justify a transition to a more sustainable strategy for performance-based monitoring and risk analysis.

To help us achieve the project goal, we completed the following objectives:

1. Determined the frequency of targeted vessel oversight exams, and determined if the USCG has been able to achieve oversight of 10% of the enrolled ACP vessels.
2. Compared and contrasted the current vessel targeting matrix and the proposed vessel targeting matrix and determined which matrix is more sustainable.
3. Determined where ACP oversight exams have been conducted, and explored reasons that certain port-sectors are completing more oversight exams.
4. Identified any targeted ACP vessels that have received a reduced degree of oversight (i.e. vessels that are on the targeted list, but did not receive additional in-port or drydock exams during the past 4 targeted list years.)

In order to achieve these objectives, we reviewed and compiled records of USCG ACP inspections, including the location and date of each exam, using the USCG's Marine Information for Safety and Law Enforcement (MISLE) database. The data was compiled using Microsoft Excel, and analyzed to determine the frequency and location of these exams. We also used Geographic Information Systems (GIS) mapping to display information regarding the locations of the examinations, the date of each examination, and other vessel specific information. To obtain vessel inspectors' opinions about the ACP, as well as any suggestions they may have to improve it, we sent questionnaires to the 14 Coast Guard sectors with the most ACP

involvement. We received 18 responses from 13 ports, and followed up with phone interviews with three of the port inspectors who gave interesting answers to the survey questions. We also interviewed an ACP administrator to get input from an administrative standpoint.

[redacted]

The Results and Conclusions sections of this report have been suppressed at the behest of the United States Coast Guard.

1. Introduction

It is the responsibility of the United States Coast Guard (USCG) to inspect and regulate U.S. flag vessels around the world, and foreign flag vessels that are within U.S. waters, to ensure that general and environmental safety standards are enforced (USCG, 2012d). To ensure safety, ships are inspected based on the USCG general maritime vessel compliance program, which includes inspections from both the USCG and an Authorized Classification Society (ACS). This inspection procedure requires a significant amount of time and often contains a high degree of redundancy. During this lengthy inspection process, merchants may lose income because they are out of commission until their inspection has been completed (Homeland Security Institute, 2009, p. 76). While the USCG believes it is important to ensure that vessels abide by their set of compliance standards, they also understand that it is essential for commercial merchants to be competitive in the global market. In response to merchant concerns about their own competitiveness in the global market (Department of Transportation, 1996), the USCG implemented the Alternate Compliance Program (ACP) in 1997. This program was intended to reduce the regulatory burden on the maritime industry while maintaining the existing level of safety, and to provide increased flexibility in the construction and operation of U.S. flagged vessels.

Fifteen years after its inception, the ACP is considered to be one of the most significant regulatory reinvention programs in the USCG's history (Homeland Security Institute, 2009, p. 76). Before the ACP was introduced, ships were inspected for the same criteria twice, once by the USCG and a second time by an authorized classification society. This was viewed as an inefficient use of time for both the USCG as well as the vessel owners. This program has caused

a progressive shift in inspection responsibilities from the USCG inspectors to ACS surveyors. To ensure that the ACP complies with USCG standards, the USCG performs yearly inspections on ACP enrolled vessels, but these inspections do not overlap with the classification society inspections. Instead, the goal of these inspections is to make sure that the classification societies are doing a sufficient job in completing safety inspections on the behalf of the USCG. To further ensure safety and compliance, the USCG also set a goal to perform additional oversight inspections on the bottom ten percent of ACP vessels, which are selected by a risk-based targeting matrix. Vessel enrollment in the ACP has recently increased to approximately 325 vessels, which has caused the number of required yearly inspections to increase. Since the program's expansion, the USCG is concerned that they have not been able to maintain their targeted level of ACP oversight due strained personnel and monetary resources.

Currently, there is a great deal of research that has been conducted to ensure that both the general and ACP regulatory inspection programs are inspecting vessels according to the high standards of the USCG. In the ACP, classification societies use inspection supplements to ensure that vessels are inspected in accordance with USCG regulations (American Bureau of Shipping, 2011). Also, there have been multiple investigations regarding recent maritime disasters where inspection reports were used to determine if there was considerable negligence that caused the disaster (Republic of the Marshall Islands, 2011; Schapiro, 2004; Sundance Cruises Corporation v. American Bureau of Shipping, 1993). Finally, research has also been conducted to determine the value of the ACP, in that it saves both the USCG and ACP enrolled vessel owners precious time and money (Homeland Security Institute, 2009, p. 76).

The USCG keeps records of each safety and compliance inspection it performs in a central database, but presently the USCG has not completed an internal review of those records

to analyze whether or not the USCG has met its annual goal of ten percent additional oversight of ACP enrolled vessels. The USCG would like to determine if the desired ACP oversight has been achieved, as well as if there are actions that could be taken to improve the USCG's ACP oversight initiatives.

The goal of this research project was to examine and analyze data regarding the USCG ACP performance based monitoring initiatives to determine if an effective degree of oversight has been realized. Furthermore, our report made recommendations regarding how performance monitoring can be improved, including the way the program is administered and risk factors. To complete this goal we completed the following objectives:

1. Determined the frequency of targeted vessel oversight exams, and determined if the USCG has been able to achieve additional oversight of 10% of the enrolled ACP vessels.
2. Compared and contrasted the current vessel targeting matrix and the proposed vessel targeting matrix, and determined which matrix is more sustainable.
3. Determined where ACP oversight exams have been conducted, and explored reasons that certain port-sectors are completing more oversight exams.
4. Identified any targeted ACP vessels that have received a reduced degree of oversight (i.e. vessels that are on the targeted list, but did not receive additional in-port or drydock exams during the past 4 targeted list years.)

These objectives were achieved through the analysis of the USCG's targeted oversight inspection reports stored in the Marine Information for Safety and Law Enforcement (MISLE) database, the USCG's targeting matrices, and interviews and surveys with qualified USCG inspectors and personnel. After completing our analysis of the USCG's ACP oversight

inspections, we found that the USCG has not been able to attain an effective degree of oversight, and this may be due to problems relating to targeted vessel list, inspector training, and data reporting.

2. Background

The Alternate Compliance Program (ACP) is a relatively new program implemented by the United States Coast Guard (2006) in 1997. The goal of this program is to reduce the inconvenience felt by vessel owners and operators using the standard inspection system, and to reduce the regulatory burden on the USCG. We begin this section by introducing the various jurisdictions that exist in the marine industry and an explanation of why vessels choose to register under various flag states. This section also reviews information regarding what the purpose of the ACP is, why it was started, what the enrollment procedures and participation conditions are, and what types of ships are eligible for the ACP. Also discussed is the role classification societies play in the ACP, which classification societies participate in the ACP, and how they are authorized for the ACP.

2.1 Roles and Relationships of Contracting Governments

The global nature of the shipping industry makes it one of the least regulated industries in the world. Unlike land, the earth's oceans are not divided and controlled by individual nations with which a population identifies and belongs to as citizens (Heard, 2012). There are, however, three governments whose regulation every vessel is subject to: the flag state, the port state, and the coastal state, the flag state being the nation whose flag the vessel flies, the port state being the state of the port in which a vessel is calling, and the coastal state being the nation whose waters a ship is sailing in. Each of these states plays a distinct role in ensuring vessel safety and compliance.

2.1.1 Flag States

The role of a flag state is to ensure constant compliance of its vessels at sea by conducting regular inspections of vessels flying its flag. In most countries, there are registries

that deal with enforcing the safety and environmental standards of their ships, including determining the standards and inspecting the vessels to ensure safety and compliance. Furthermore, the International Convention for Safety of Life at Sea, or SOLAS, permits the delegation of surveys and/or inspections to recognized organizations by flag states (International Association of Classification Societies, 2011). Some countries do not have the resources to run their own registries, and therefore depend solely on classification societies to carry out inspections and enforce standards. These countries have limited oversight of their vessels and are commonly referred to as "flags of convenience" and are discussed in section 2.1.4. In the U.S., however, it is the responsibility of the USCG to set standards and ensure that U.S. flag ships comply with these standards. While the USCG has delegated some inspection processes to classification societies as part of its ACP, the USCG is still ultimately responsible for the condition of its ships, which is a key advantage in maintaining and improving the integrity of the U.S. flag. This is why one of the goals of our project is to determine whether or not the USCG has achieved its goal of performing targeted additional oversight of ten percent of ACP enrolled vessels in addition to their annual exams. The ACP, and thus our project, deals exclusively with vessels whose flag state is the U.S.

2.1.2 Port States

Historically, flag states prevailed in the enforcement of standards and the sanctioning of vessels that failed to comply, with port states simply informing the flag states of any noticed deficiencies (Anderson, 1998). However, dissatisfaction with the standards and enforcement practices of some flag states has led to port state control taking a more prominent role in enforcement. When a vessel is in a nation's port, that nation has the ability to claim jurisdiction over that ship, be it foreign or domestically flagged, and they can detain ships in port if certain standards are not met. Many international conferences have led to agreed upon terms, called

memoranda of understanding (MoU's), between groups of countries on port state control. For example, the Paris MoU, which includes Canada and most of Europe, set international standards that have been adopted by all flag states involved, and now over 24,000 inspections are conducted on foreign flagged vessels in Paris MoU (2012) ports each year to ensure compliance. The Paris MoU (2012) also produces a list of foreign flags ranked and broken down into three categories: white, gray, and black, based on the performance of each flag's vessels in Paris MoU port inspections. White is the best, gray is mediocre, and black indicates poor performance. Currently, the U.S. resides on the gray list. Another example is the Tokyo MoU, which Canada is also a member of along with many Pacific islands and Far East Nations.

2.1.3 Coastal States

Historically, the role of coastal states was limited, much like port states. The idea of "innocent passage" through territorial waters prevented coastal states from having much power. However the idea of "innocent passage" has been more clearly defined by the international laws of the sea (Anderson, 1998), and now ships breaking generally accepted rules and regulations in a nation's territorial waters are considered to be non-innocent and therefore are subject to arrest and detention by coastal states.

2.1.4 Flags of Convenience

As stated in section 2.1.1, many nation states do not have the resources to conduct oversight of their flag ships and depend solely on the classification societies. Sometimes, these nations will even contract out their registries to third parties. Often times commercial vessels owned by American companies will register under these "flags of convenience," (Department of Transportation: Maritime Administration, 2011) because it is often much cheaper and easier to operate under these flags for a variety of reasons, including no income taxes, ability to change

flags with ease, liberal manning requirements, and as previously stated limited government inspections.

Many flag of convenience nations are what are commonly referred to as open registries and do not manage their registries directly through the government. An open registry is considered to be any ship registry in which over 90% of its vessels are foreign owned (Department of Transportation: Maritime Administration, 2011). For example, the ship registry of the Marshall Islands, which is an open registry and is identified as a Flag of Convenience by the International Transport Workers' Federation (2012), is the foreign flag under which the most U.S. owned ships are registered (Department of Transportation: Maritime Administration, 2011), but it is not run by their government, but rather by International Registries, Inc. (IRI) (2012), which is headquartered in Reston, Virginia. For most of these open registries, there are extremely limited ties between the vessels and the flag states, and often times the ships will never visit their flag state in their lifetime.

In 2010, it was estimated that on average it cost over 2.5 times more to operate under a U.S. flag as opposed to a foreign one (Department of Transportation: Maritime Administration, 2011). A main reason for this is the cost of labor. To fly a U.S. flag, a ship's crew must generally be entirely made up of American citizens (Merchant Marine Act, 1920), who by nature have greater living and wage standards than most other countries, and the vessel is also subject to U.S. labor laws, which are stricter than those of a lot of other countries. Crew costs make up an estimated 68% of U.S. flag ship operating costs, compared to an average of 35% for foreign vessels (Department of Transportation: Maritime Administration, 2011). Furthermore, the tax and legal systems of other countries tend to be much more favorable and convenient for ship owners and corporations. For example, the IRI advertises that ships should register with the

Marshall Islands because of the "very favorable legal system," in which "corporations are easy to maintain and administer — no requirements for annual filings," and also the fact that "Non-resident domestic corporations are statutorily exempt from Marshall Islands taxes" (International Registries, Inc., 2012, paragraph 1). The relatively relaxed regulations and cheaper operating costs are what have attracted a large proportion of U.S. owned vessels to foreign flags.

If it is so much cheaper and easier to fly a flag of convenience, why would any ship bother registering with the U.S.? One reason is the niche-market that only U.S. flagged ships have access to. While foreign flagged vessels can transport goods back and forth between U.S. ports and foreign ones, only U.S. flagships can transport directly from one U.S. port to another, which creates a small market for ships that must register in the U.S. (Merchant Marine Act, 1920). Still, there are vessels that fly the U.S. flag that never leave foreign waters. A reason these ships register with the U.S. is the Maritime Security Program, which pays vessels over $3 million annually in exchange for assurance that the U.S. Department of Defense (DoD) will have access to their vessels on command when needed, such as in times of war (Department of Transportation: Maritime Administration, 2011). These payments act as somewhat of a stipend to offset the increased costs associated with flying a U.S. flag.

2.2 Alternate Compliance Program

The purpose of the ACP is to provide an alternative method for the U.S. Coast Guard (2006) to fulfill the requirements for vessel design, inspection, and certification. The ACP allows the USCG to issue a Certificate of Inspection (COI) based upon reports from an ACS that the vessel complies with the International Convention for the Safety of Life at Sea, the International Convention for the Prevention of Pollution from Ships, other applicable international conventions, classification society rules, and other specified requirements. The aim of the ACP is

to reduce the burden on vessel owners and operators by establishing an alternative to the current USCG inspection system that results in planned reviews and inspections by the vessel's classification society as well as the USCG. Ultimately, the goals of the ACP are to reduce vessel downtime and allow greater flexibility in both scheduling inspections and meeting required standards.

2.2.1 Why the ACP was started

When asked for comments regarding regulatory reform, some members of the U.S. maritime industry claimed that the continuing economic pressure on the U.S. oceangoing merchant fleet and commercial shipbuilding industry put them at a disadvantage compared to other international fleets (Department of Transportation, 1996). These individuals were looking to reduce the cost disadvantage attributed to the USCG inspection and certification of U.S. merchant vessels in the hope of improving the international competitiveness of the U.S. merchant fleet. The USCG already had the authority to rely on reports, documents, and certificates issued by the American Bureau of Shipping (ABS) to carry out its responsibilities for safety, and they could already delegate certain functions of vessel examinations to the ABS. The ABS also had the authority to issue certificates required by oceangoing vessels in order to engage in trade with foreign countries such as the International Convention for Safety of Life at Sea and the Cargo Ship Safety Construction Certificate. Insurance companies require vessels to be classed, which meant a classification society must survey a vessel for compliance with its class rules, which are rules developed by a particular classification society to cover the design, construction, and safety of vessels (Basedow & Wurmnest, 2005). To ensure compliance with their class rules and international standards, classification societies perform inspections of vessels using qualified marine surveyors. Many of the items examined by the classification society surveyors are the same as those examined by USCG marine inspectors. This situation

results in a significant overlap in the items being inspected, which increases costs to U.S. vessel owners due to the extra time they must spend in port to accommodate both inspections.

2.2.2 ACP Enrollment Procedures and Participation Conditions

Enrollment in the ACP is voluntary for U.S. vessels certificated for international operation (U.S. Coast Guard, 2006). The request for enrollment must be made by its owner or operator, and in the event it is requested for a new construction, both the builder and eventual owner/operator of the vessel must apply. The conditions of enrollment for a self-propelled U.S. vessel are as follows. The vessel must have a USCG COI, be subject to, and have valid applicable international convention certificates for the following:

- International Load Line Certificate
- SOLAS Cargo Ship Safety Equipment Certificate
- SOLAS Cargo Ship Safety Construction Certificate
- International Oil Pollution Prevention Certificate
- International Air Pollution Prevention Certificate
- International Tonnage Certificate
- International Safety Management Document of Compliance for the company and Safety Management Certificate for each vessel
- Continuous Synopsis Record issued by the Coast Guard
- International Ship Security Certificate issued by the Coast Guard
- High Speed Craft Certificate (Not applicable to all vessels)
- Passenger Ship Safety Certificate (Applies only to passenger ships in lieu of the relevant Cargo Ship Safety Equipment and Safety Construction Certificates)

In addition to these certificates, the vessel must be classed by an ACP authorized classification society with an approved U.S. Supplement. For new construction, major conversions, and reflag enrollments, the vessel owner must provide a detailed list of plans that the authorized classification society has or will review and approve on behalf of the USCG. The USCG Marine Safety Center must also receive a list of these plans, and reflag enrollments must provide a complete suite of international convention certificate copies to the Marine Safety Center. In the case of articulated and integrated tugs and barges (ATB and ITB, respectively), the

vessel must be inspected using an approved U.S. supplement which specifically addresses the barge/tug connection system and NVIC 2-81, "Coast Guard Inspection Guidance Regarding Integrated Tug Barge Combinations." Only ATBs and ITBs that are designated as "Pushing Mode" in accordance with NVIC 2-81 and are required by their COI to be operated in combined configuration may be enrolled in the ACP (U.S. Coast Guard, 2006). The ACP does not apply to barges that are not part of an articulated or integrated unit.

2.2.3 Relevant Certificates and Protocols Explained

This section will review some of the certificates and protocols relevant to the ACP in order to become familiar with the types of regulations that ACP vessels are subject to. These are the certificates whose issuance the USCG can delegate to the authorized classification societies.

The Code of Federal Regulations (CFR), particularly 46 CFR 69 subparts B, C, and D, are used as a guide to determine the registered dimensions of monohull vessels (U.S. Coast Guard, 1989; U.S. Coast Guard, 2009). Subpart B focuses on convention measurement, while subparts C and D focus on regulatory measurements. Registered dimensions consist of the length, breadth, and depth of a vessel, and are used as a basis for applying design standards, assigning fees, and a number of other regulatory or commercial purposes.

The International Load Line Certificate is based upon the Load Line Convention of 1966, Article 16, as well as the 1988 Load Line Protocol, Article 18 (International Maritime Organization (IMO), 2011d). The purpose of this certificate is to ensure the vessel has been marked correctly in regards to determining whether the ship has sufficient freeboard (distance between the waterline and the upper deck) to travel safely while loaded with cargo.

The Passenger Ship Safety Certificate is required for vessels that carry more than 12 passengers on an international voyage (U.S. Coast Guard, 2010b). To receive this certificate, an

Officer in Charge of Marine Inspections must ensure that the vessel complies with all applicable SOLAS regulations.

The International Oil Pollution Prevention Certificate applies to all oil tankers 150 gross tons and above, as well as all other ships 400 gross tons and above that operate under the authority of a country that is party to MARPOL 73/78 (International Maritime Organization (IMO), 2011b). This certificate primarily deals with the prevention of oil pollution from operational measures and accidental discharges.

The International Air Pollution Prevention Certificate sets the limit on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances (International Maritime Organization, 2011b). In 2011, the International Maritime Organization (2011b) adopted mandatory technical and operational energy efficiency measures that will significantly reduce greenhouse gas emissions from ships. These measures are expected to be put in place at the beginning of 2013.

The Cargo Ship Safety Construction Certificate shows that the condition of the structure, equipment, and machinery are satisfactory (International Convention for the Safety of Life at Sea (SOLAS), 2009). The Cargo Ship Safety Equipment Certificate shows that the ship's safety equipment including lifeboats, fire safety systems, radio installations, and a line throwing appliance, comply with relevant requirements (International Convention for the Safety of Life at Sea (SOLAS, 2010).

The International Convention for the Prevention of Pollution from Ships (MARPOL) is an international convention that deals with the prevention of marine pollution by vessels, whether intentional or not (International Maritime Organization (IMO), 2011b). It has several annexes that each deal with a separate type of pollution. Those are, in order, pollution by oil,

pollution by noxious liquid substances, pollution by harmful substances carried in packaged form, pollution by sewage, pollution by garbage, and pollution of the air.

Ships must receive an International Safety Management (ISM) certification if they are one of the following: passenger ships, oil and chemical tankers, gas carriers, bulk carriers and high-speed cargo craft, and mobile offshore drilling units (Det Norske Veritas, 2012b).

The International Convention for the Safety of Life at Sea (SOLAS) is considered the most important international treaty pertaining to merchant vessels (International Maritime Organization (IMO), 2011c). It was adopted in 1914 and has been updated constantly ever since. It contains 12 chapters that detail minimum standards for construction, outfitting, and operation of vessels with regard to their safety.

2.2.4 Types of Ships Eligible for the Alternate Compliance Program

Enrollment in the ACP is available to a wide variety of vessels, but those it is most applicable to include tank vessels, passenger vessels, cargo vessels, mobile offshore drilling units, and other miscellaneous vessels such as offshore service and supply vessels (Department of Transportation, 1996). Tank vessels, also referred to as tanker ships, are large vessels designed to transport liquids such as oil and chemicals, and the capacity of these vessels is often measured in the hundreds of tons. Ships that fall under the category of passenger vessels are designed to carry passengers between various locations. This is a broad category, but it is primarily composed of ocean liners, cruise ships, and ferries. Cargo ships, also known as freighters, are designed for the express purpose of moving large quantities of goods and materials between ports. A common representation of such a ship is a container ship.

2.2.5 Activities Retained by the Coast Guard When Vessel is Enrolled in ACP

While a vessel is enrolled in the ACP, the U.S. Coast Guard (2006) still retains a number of responsibilities and activities that it performs on its own. While drydock intervals less than 90

days can be extended directly by a classification society, extending it beyond 90 days is something only the USCG can do. The USCG also deals with the enrollment of vessels in underwater surveys in lieu of drydocking (UWILD) participation. Due to the size of the vessels involved in the ACP, drydocking them is often costly and time consuming, so it is common for vessels to opt for UWILD participation rather than drydocking when possible. Requests for participation in this survey come directly from the class society that oversees the vessel.

Other instances where the USCG is contacted directly are for international convention waivers and exemptions, changes of employment, and marine casualty and personnel investigations. The USCG Marine Safety Center is responsible for approving U.S. Vessel Security Plans, and the USCG is still responsible for approving safety equipment, materials and installations, as well as qualifications for construction personnel. The USCG also retains the function of issuing International Ship Security Certificates (ISSC) to vessels enrolled in the ACP.

COLREGs refers to the Convention on the International Regulations for Preventing Collisions at Sea, which deals with vessel traffic separation schemes, lighting requirements, and other requirements to increase the visibility and safety of all vessels (International Maritime Organization (IMO), 2011a). If a vessel is seeking alternate compliance with COLREGs, the local Officer in Charge of Marine Inspections must contact the USCG District Commander.

The National Vessel Documentation Center must be contacted to receive Continuous Synopsis Records (CSR). The purpose of a CSR is to provide an on-board record of the history of a ship (Marine Administration, 2003). CSRs contain information such as the ship identification number, flag state, date of registration, and port of registry, as well as who the owners are and the classification society with which the ship is classed.

The aforementioned activities are summarized in Table 1 below.

Table 1: U.S. Coast Guard Responsibilities (U.S. Coast Guard, 2006, p. 17)

Activity	Contact	Comment
Drydock interval extensions	G-PCV-1 via local OCMI & ACP ACS	Beyond 90 days only, less than 90 days may be extended directly by the Classification Society.
Underwater survey in Lieu of Drydocking (UWILD) participation	G-PCV-1 via ACP Class Society	All requests for participation in the UWILD program by an ACP enrolled vessel must be made in accordance with NVIC 01-89.
International convention waivers/exemptions	G-PCV-1/MSC* via local OCMI & ACP Class Society	*MSC reviews items relating to vessel plans.
Changes of employment	G-PCV-1 via local OCMI & ACP Class Society	Normally issued to vessels restricted to inland or near coastal waters so they can make a single voyage upon the ocean to arrive at another inland or coastal location where they will then operate.
Marine Casualty/Personnel Investigations	Local OCMI	Contact the cognizant OCMI as required by Title 46 CFR Part 4.05 and 5.101.
Alternate Compliance with COLREGS	Local Coast Guard District Commander via local OCMI	Rules of the road deviations.
Approvals required by 46 CFR Part 2.75	G-PSE	Approvals of Safety Equipment, Materials and Installations, and Qualifications for Construction Personnel.
International Ship Security Certificates	Local OCMI for certificates and MSC for associated plan approval	MSC approves all U.S. Vessel Security Plans before local issuance of an International Ship Security Certificate.
Continuous Synopsis Records (CSR)	National Vessel Documentation Center	The National Vessel Documentation Center issues CSRs.

2.2.6 When the Coast Guard Should be Contacted Directly

Many issues that arise can be brought to the attention of the vessel's classification society, but some things must be brought directly to the U.S. Coast Guard (2006). An example of an issue when the USCG should be contacted directly is when a vessel wishes to receive an excursion permit, which allows a group of non-paying passengers to ride a vessel for a short trip that is close to land, even when the number of guests exceeds the available life saving equipment. Other scenarios where the USCG should be consulted include the verification of vessel plans and practices for ballast water management, issues regarding vessel security, and manning (crew and personnel) issues. When a vessel has enough problems that cause its certificate of inspection to be withdrawn, the vessel owner or operator can contact the USCG to receive a permit to proceed, which is a temporary permit that allows the vessel to move directly to a repair facility, but nowhere else. Large oil tankers should also contact the USCG for Critical

Area Inspection Plan (CAIP) Examinations, which deal with tracking fracture problems in the tanker.

The aforementioned activities are explained in Table 2 below.

Table 2: When to Contact the Coast Guard Directly (U.S. Coast Guard, 2006, p. 18)

Activity	Contact	Comment
Excursion permits	Local OCMI	Normally used for embarking a group of non-paying guests to ride a vessel for a one or two day trip close to land but the total number of guests exceeds the vessel's lifesaving equipment capacity. Additional life rafts, lifejackets and other measures may be temporarily put onboard to supplement the vessel's total lifesaving equipment capacity.
All manning issues	Local OCMI	e.g. reduced manning for engine room automation (based upon a Class Society approved automation system).
Permits to proceed	Local OCMI	Used in cases where a vessel has such significant deficiencies that its COI is withdrawn. This temporary permit allows the vessel to proceed only to a repair facility.
Vessel security issues	Local OCMI	For assessments, verification, and certificates.
Critical Area Inspection Plan (CAIP) Examinations	Local OCMI	Special program normally used for tracking fracture problems in large oil tankers.
Ballast Water Management	Local OCMI	Local OCMIs should verify vessel plans and practices during oversight examinations. OCMIS may conduct enforcement action as necessary.

NOTE: Permits to Proceed and Changes of Employment apply only to the COI. They do not replace international convention certificates. If the vessel will call in a foreign port, it must have valid international convention certificates or waivers.

2.2.7 Coast Guard Inspections

While enrolled in the ACP, every ship will be subject to an annual examination conducted by the U.S. Coast Guard (Department of Transportation, 2000). This examination generally coincides with the vessel's Certificate of Inspection (COI) schedule and consists of an examination of the vessel's certificates, licenses, and documents as well as a general examination of the vessel that usually will consist of a walk-through. In addition to this, the USCG inspectors will examine and test equipment, and conduct operational testing and emergency drills in order to verify the crew's proficiency at carrying out critical tasks. This annual inspection does not normally duplicate the items delegated to classification societies, but can do so if there are "clear grounds" to expand the examination.

Occasionally the USCG will conduct a reexamination of a vessel to ensure that both the vessel and its crew have remained in compliance with all appropriate U.S. laws and international

conventions. The USCG has a goal to examine ten percent of ACP vessels in drydock, at dock, or via UWILD (Under Water Inspection in Lieu of Dry-docking) oversight examinations (Department of Transportation, 2000). This inspection focuses on ensuring that ACP procedures are being used by the vessel's classification society, that the vessel is being held to an equivalent safety level as those that undergo traditional USCG inspections, and that the ACP class surveyors have been adequately trained to conduct surveys for the USCG.

Prior to 2006, the USCG relied upon a unit-based targeting scheme to select vessels to be targeted for additional oversight (U.S. Coast Guard, 2006). Some of the factors that determined whether a vessel would be selected for reexamination are:

- Vessel type
- If the vessel owner or operator was considered a targeted owner or operator
- If the vessel has been detained, subject to operational control, or subject to a violation report within the past twelve months
- If the vessel has been involved in a marine casualty or an oil/hazardous materials incident within the past twelve months
- If the vessel has not been boarded in the past six months

This information can be seen compiled in Table 3 below. Since 2006, the USCG has shifted to a centralized system of selecting vessels for oversight. The factors involved in this new targeting matrix are not publicly available, but it is one aspect of the program the USCG wishes to improve in order to maximize their ability to ensure the safety of vessels enrolled in the ACP.

Table 3: ACP Reexamination Matrix (Department of Transportation, 2000, p. 603)

(This formula is used for ACP ships ONLY to determine when a REEXAMINATION is necessary).		
Owner/Operator:		
A.	Ship owned or Operated by a Targeted Owner/Operator	5 Points
	Total Points for Owner/Operator Maximum	*5 Points*
Boarding History:		
A.	Subject to intervention leading to detention within past 12 months	5 Points each
B.	Subject to other operational control within past 12 months	1 Point ea. incident
C.	Involved in marine casualty or oil/hazardous materials incident within past 12 months	1 Point ea. case
D.	Subject of Violation Report within last 12 months	1 Point ea. MV case
E.	Not Boarded within 6 months	1 Point ea. case
F.	"Serious Conditions of Class" (see NOTE below)	5 Points ea. case
	Total Points for Boarding History	*Unlimited Points*
Vessel Type:		
A.	Oil or Chemical Tanker	1 Point
B.	Gas Carrier	1 Point
C.	Bulk Freighter 10 or more years old	2 Points
D.	Passenger Ship	1 Point
E.	Ships carrying low value commodities in bulk	2 Points
	Total Points for Vessel Type	*Max 4 Points*
Total Points		

- To determine reexamination priorities (Priority I, II, III or IV) between annual examinations for ACP ships, the matrix instructions in Section C of Chapter 23 of this volume shall be followed, but add (5) five points for each occurrence of a "serious condition of class" in the "Boarding History" column of the matrix.
- The ACP officer shall obtain a current list of Class Recommendations, Deficiencies or Conditions of Class from the local ACP classification society Surveyor to determine points for this item. Follow Section D of Chapter 23 of this volume to identify and determine ACP reexamination priorities. (It is anticipated that most ACP ships will be priority III or IV for the six month period following the annual exam due to normal downgrading as required in Section D of chapter 23.)
- The OCMI shall work with the ACP Classification Society to ensure immediate corrective action is taken to resolve all serious conditions of class. Points will still be assessed to a participating vessel if any serious conditions of class are first noted by the OCMI upon the vessel's notice of arrival, regardless of subsequent corrective action(s) taken by the ACP classification society.

NOTE: A "Serious Condition of Class" is defined as "any recommendation, deficiency or condition of class issued by the ACP classification society which, in the opinion of the OCMI, poses a significant threat to life, property or to the marine environment". Class items that may be reasonably repaired, replaced or corrected by the due date issued by the ACP Classification Society without risk to life, property or the marine environment shall not be considered as "serious".

2.3 Classification Societies

Classification societies were initially developed in the 18th century as a way to provide marine insurers with a method of obtaining third-party technical assessments of vessels wishing to be insured (International Association of Classification Societies, 2011). Even today, their objective remains the same, and they develop rules, guidelines, and standards for both the design and construction of ships (Sundance Cruises Corporation v. American Bureau of Shipping,

1993). Classification societies ensure compliance with these rules throughout the construction of a vessel, as well as through periodic inspections of vessels during their service life. The fact that these are non-profit organizations allows all money collected from performing their classification services to be put towards furthering the training and expertise of their staff, as well as expanding their infrastructure to provide their services to vessels worldwide in a more efficient and convenient manner. Also, since these are third-party organizations, they can adapt their class rules and regulations to regulatory changes in international conventions, such as SOLAS and MARPOL, significantly faster than governmental agencies, which are subject to administrative procedure laws.

2.3.1 What Criteria Must a Classification Society Meet to be Eligible for ACP Authorization

To receive ACP authorization, an Authorized Classification Society (ACS) must be International Organization for Standardization (ISO) 9000 (or equivalent) compliant, become a recognized classification society, be delegated international certificate issuing authority as an ACS by the USCG, complete a minimum 2-year probationary period as an ACS, develop a U.S. Supplement, obtain a U.S. Supplement evaluation and approval by the Commandant, and be authorized as an ACP classification society participant (U.S. Coast Guard, 2006). The ISO 9000 family of standards is intended to "provide guidance and tools for companies and organizations who want to ensure that their products and services consistently meet customer's requirements, and that quality is consistently improved" (International Organization for Standardization, 2012).

The ACP is an additional, separate authorization granted to an ACS that has been authorized to issue at least all of the following certificates to a U.S. vessel: International Load Line Certificate, SOLAS Safety Equipment Certificate, SOLAS Safety Construction Certificate, International Oil Pollution Prevention Certificate, and International Tonnage Certificate. ACSs

desiring ACP designation must demonstrate (for a minimum of two years) satisfactory performance and experience in issuing the aforementioned certificates to U.S. vessels. Obtaining final ACP authorization requires a demonstrated commitment by the classification society to complete continuous quality and rigorous verification of each vessel's condition and compliance with applicable standards.

2.3.2 What are Classification Society U.S. Supplements?

The ACP is based on a regulatory framework that equates the United States' Code of Federal Regulation to a combination of a recognized classification society's rules, applicable international standards such as SOLAS and MARPOL, and a Supplement that is specific to each classification society (U.S. Coast Guard, 2002). The purpose of the Supplement is to cover the sections of the Code of Federal Regulations that are not in either the classification society rules or international standards. All classification society Supplements must be reviewed annually, and all Supplements must be documented by date and edition number to provide a context to the standards a particular vessel was previously built to or presently adheres to. Additions to the Supplement are to be minimized, and the intended goal is to reduce the number of items covered by the supplement by having them incorporated into the U.S. interpretation of international regulations and into classification society rules. For the annual review of each supplement, the classification society performs an internal review of their supplement, and the USCG conducts a separate review based primarily upon input from Officers in Charge of Marine Inspections.

2.3.3 ACP Authorized Classification Societies

There are currently four classification societies participating in the ACP (U.S. Coast Guard, 2011; U.S. Coast Guard, 2012f). The American Bureau of Shipping (ABS), Det Norske Veritas (DNV), Lloyd's Register (LR), and Germanischer Lloyd (GL) are all authorized to

oversee vessels enrolled in the ACP. More than four class societies exist, but only the aforementioned comply with the requirements for ACP authorization.

The Authorized Classification Society Lloyd's Register was initially formed in 1760 as part of Lloyd's coffee house in London and was essentially where the concept of classification societies originated (International Association of Classification Societies, 2011). Lloyd's was reconstituted as a self-standing classification society in 1834. After the adoption of common rules of construction by Norwegian insurance companies, the classification society Det Norske Veritas was formed in 1864. Similarly, the American Bureau of Shipping was founded in 1862, and Germanischer Lloyd originated in 1867.

2.3.4 Deepwater Horizon: Example of a Compliance Investigation

An example of the investigation of a vessel's compliance with the United States' maritime regulations is the DEEPWATER HORIZON (IMO #8764597) disaster (The Republic of the Marshall Islands, 2011). DEEPWATER HORIZON was a Mobile Offshore Drilling Unit (MODU) whose flag state was the Republic of the Marshall Islands (RMI). DEEPWATER HORIZON was located in the Gulf of Mexico, and on April 22, 2010, there was an explosion on the unit. The explosion was triggered after the unit operators lost control of the well, allowing flammable methane gas to accumulate and combust. According to the Occupational Safety and Health Administration (OSHA, 2011) this disaster caused eleven employee deaths and 4.9 million barrels of oil to spill into the Gulf of Mexico.

The events of April 22, 2010, prompted a major investigation by all governmental agencies who oversee offshore drilling. According to the RMI (2011), the agencies involved in the investigation included the RMI flag state, the USCG, and the Bureau of Ocean Energy Management, Regulation & Enforcement (BOEMRE). As the flag state, RMI "enforces regulations relating to inspection, certification, safety, security and pollution prevention in

connection with marine operations for vessels registered under its flag" (p. 2). According to RMI records, DEEPWATER HORIZON was inspected annually by contracted inspectors. In accordance with the U.S.'s rules and regulations, a MODU vessel, like the DEEPWATER HORIZON, must comply with U.S. standards in order for it to be allowed to drill on the U.S.'s outer continental shelf. These records also indicate that the USCG boarded DEEPWATER HORIZON annually to update the unit's Certificate of Compliance. To complete a more thorough examination of the MODU, RMI employed a classifications society, which is a Recognized Organization (RO), to contribute to vessel inspections. And finally, the BOEMRE completed monthly safety inspections in the months of February, March, and April leading up to the disaster. None of the three major governmental agencies reported any non-compliance issues during their final evaluations. After a thorough investigation, the DEEPWATER HORIZON disaster was deemed an accident that did not occur due to non-compliance.

Although DEEPWATER HORIZON was not actually enrolled in the ACP, and in fact was not even a U.S. flag vessel, its destruction and the subsequent investigation provides a good example of the role classification societies can play in ensuring vessel compliance and safety. This incident also provides insight into how inspection records can be utilized to determine where the blame lies in the event of a disaster.

2.3.5 Classification Society Accountability: The Prestige

The case of the Prestige (IMO #7372141) is a prime example of what the classification societies can and cannot be held liable for in the court of law. The prestige was a 26 year old single-hulled oil tanker that broke in two off the coast of Spain in November of 2002 (Schapiro, 2004). The Greek owners of the Prestige ran it through a front company in Liberia to reduce taxes and liability. On October 30, 2002, the Prestige was loaded with crude oil #4, one of the most toxic fuels, in St. Petersburg, Russia, and set out for its final destination. It encountered a

winter storm while in the heavily traveled shipping lanes off the coast of Spain. The storm caused a hole to be ripped in the starboard side of the vessel, and it started taking on water while spilling oil into the ocean and the engines began to shut down. As the coastal state, Spain rescued the crew and sent a veteran captain to take control of the vessel and steer it out to sea, away from Spain. After arguing with the current captain, he tried to take the Prestige out to sea, but it broke in half and released over 20 million gallons of oil, twice the amount that the Exxon Valdez did in 1989 in Alaska's Prince William Sound. As a result of this environmental disaster, the fishing industry in Spain was shut down for 6 months and the cleanup cost two billion dollars. During the investigation it was discovered that the Prestige had a different captain in St. Petersburg, but he would not sail the vessel because he knew it was not seaworthy. After he sent several messages to the owners, they replaced him with someone who would sail the vessel regardless of the vessel's poor condition. The original captain also notified ABS, the vessel's class society, that there were several deficiencies. As the coastal state, Spain had the jurisdiction to sue the vessel's owners for their criminal negligence, but they could not be located due to the network of front companies that they set up to run the Prestige. Since Spain could not sue the Prestige's owner, it then turned to ABS who had inspected the vessel roughly six months before the accident and deemed it seaworthy. However, it was determined by the court system that ABS could not be held responsible because they did their job, and the accident was due to the vessel owner's own negligence. This case is a good example of when vessel owners are held liable and when classification can be held responsible for disregard of international rules and regulations for safety and compliance.

2.3.6 Classification Society Accountability: The SUNDANCER

In 1984, the luxury cruise ship SUNDANCER (IMO #7360186) struck an underwater rock and sank (Sundance Cruises Corporation v. American Bureau of Shipping, 1993). The

owners of the SUNDANCER, Sundance Cruises Corp. and Sundance Cruises, Inc., filed suit against the American Bureau of Shipping (ABS) alleging that "...in carrying out its contractual duties of inspecting the vessel and issuing safety and classification certificates, ABS had failed to detect and advise Sundance that the watertight integrity required of the vessel was compromised by holes in one of its bulkheads and by the absence of valves in its sanitary or 'grey-water' piping system" (¶ 2). The SUNDANCER was a two-compartment ship, which meant that of its thirteen watertight compartments two could be flooded and the ship would still be safe. When the SUNDANCER struck the rock, initially only two compartments flooded, but due to two holes in a bulkhead and their unvalved grey-water system, both of which violate SOLAS and ABS rules, progressive flooding caused the vessel to eventually sink. The ABS was found to not be at fault due to the fact that Bahamian law, the law of the vessel's flag state, immunized them from any liability arising from safety inspections they perform, but it was also concluded that no evidence had been produced by Sundance to support their claim despite the ABS inspection occurring just weeks prior to the vessels sinking. With this decision, the American courts affirmed that ship owners should not rely upon classification societies to ensure vessel safety, and it is ultimately the responsibility of the ship owner to ensure that their vessel is seaworthy.

2.4 Summary

As it stands, the ACP provides the USCG with a theoretically effective method of maintaining existing levels of vessel safety while avoiding a duplication of efforts where both the USCG and a classification society review and inspect the same materials. The ACP was created to allow the USCG to focus its efforts on reviewing a vessel's operational effectiveness and crew proficiency, especially with regard to carrying out critical tasks, and reduces the overall regulatory burden experienced by the USCG. Although it is believed an effective level of

oversight is realized by the ACP, there is currently no research that analyzes if the USCG's initial goal of 10% additional annual oversight has been met.

3. Methodology

The goal of this project was to determine if the USCG has realized an effective degree of risk-based oversight in its Alternate Compliance Program. To achieve this goal we completed the following objectives (in no particular order).

1. Determined the frequency of targeted vessel oversight exams, and determined if the USCG has been able to achieve oversight of 10% of the enrolled ACP vessels.
2. Compared and contrasted the current vessel targeting matrix and the proposed vessel targeting matrix, and determined which matrix is more sustainable.
3. Determined where ACP oversight exams have been conducted, and explored reasons that certain port-sectors are completing more oversight exams.
4. Identified any targeted ACP vessels that have received a reduced degree of oversight (i.e. vessels that are on the targeted list, but did not receive additional in-port or drydock exams during the past 4 targeted list years.)

In this chapter, we describe the various methods of research that we used to complete our four objectives above. This research helped our team formulate suggestions to improve the USCG's ACP performance-based monitoring initiatives.

3.1 Determining the frequency of ACP additional oversight exams

To determine the frequency of the USCG ACP oversight exams, we utilized the USCG's Marine Information for Safety and Law Enforcement (MISLE) database to obtain inspection records dating back to 2007. We looked at vessels that were targeted for additional oversight from September of 2007 to February of 2012 and recorded their inspection dates and locations. We compiled this data into a Microsoft Excel spreadsheet and analyzed it to determine the frequency of additional oversight exams. To determine the amount of oversight that the USCG

completed for each targeted list year, we simply divided the number of ACP targeted oversight exams that were observed by the number of exams that were expected to occur in each targeted list year.

Our team also compared the frequency in annual exams to the frequency in targeted oversight exams at 24 domestic and international ports. This comparison allowed the team to see which ports were completing both ACP annual and targeted oversight exams.

3.2 Identify vessels that received reduced oversight

Our team utilized the MISLE data from section 3.1 above to identify targeted ACP vessels/vessel lines that were given a reduced degree of USCG oversight by the USCG not observing additional in-port or drydock exams. After reviewing our compiled targeted ACP vessel oversight exam data we were able to isolate those vessels from the ones that did receive their targeted oversight.

3.3 Compare ACP targeting matrices

Another objective that our team completed was to determine how ACP vessels are targeted for additional USCG oversight. For this objective, we used two major research methods. First, we looked at the criteria that both the current and proposed targeting matrices use to evaluate vessels. Using this information, we were able to make a qualitative evaluation about the efficiency and sustainability of each matrix. After determining the efficiency of each, to get an idea about the accuracy we asked several USCG Marine Inspectors how they feel about the current list and what criteria they would recommend to be included in a new matrix. Furthermore, we asked if they would be more likely to reference the targeted list if it were put out more regularly, as this would help improve accuracy as well.

3.4 USCG ACP oversight inspection maps

To determine where the USCG targeted vessel oversight exams have been occurring, our team used the MISLE database to review each instance of the USCG's oversight of ACP vessels

during the 2007 – 2011 target list years. Using this data, the team generated a master Microsoft Excel spreadsheet that included the dates as well as the geographic locations of each ACP vessel examination. We also specified whether the examination was an annual exam or a targeted vessel oversight exam. In order to display the examination data collected from the USCG MISLE database in a manner that is both informative and visually appealing, our team utilized Geographic Information Systems (GIS) mapping. Our team used our master Microsoft Excel examination spreadsheet along with the website, Batchgeo.com, to generate data points for each oversight examination using the latitude and longitude of the examination locations. Our map displays individual vessel examination points, as well as data clusters. These data clusters denote areas of high examination densities. This geographical map organized and displayed all of the USCG's ACP targeted oversight examinations from the 2007 to 2011 target list years, and it allowed the team to have a better understanding of the frequency and geographic locations of the USCG's additional oversight examinations that occurred during this time period. These maps were instrumental in displaying which USCG sectors around the world complete the majority of the targeted oversight examinations, and which ones rarely conduct these examinations. These maps will help the USCG have a better understanding of where, geographically, the majority of their targeted ACP oversight exams are occurring. For more detailed information regarding the examination mapping system that we used, see Appendix C.

3.5 Interviews with USCG ACP Inspectors and Personnel

To obtain the valuable perspectives of the USCG marine inspectors from domestic and international sectors, our team surveyed 14 different port-sectors, and received 18 responses from 13 different ports. Our team selected these 14 sectors based on the amount of targeted ACP oversight that has occurred in these sectors during the 2007 – 2011 target list years. We chose these sectors to survey based on our GIS targeted oversight maps discussed in Section 3.3 above.

Using these surveys, our team gathered qualitative data from the USCG marine inspectors through surveys focused on the inspectors' usage of the ACP targeted vessel list, their relationship with ACSs, and their views on the USCG's overall performance monitoring of the ACP. From these 18 survey responses we chose to call three ports for follow-up interviews based on their interesting responses. These surveys and interviews provided the team with an understanding of how the USCG inspectors' who are enforcing the ACP rules and regulations feel the ACP is being administered. These interviews with the USCG inspectors also provided the team with information that was instrumental in developing suggestions for enhancing future performance-based monitoring of the ACP. For more information regarding these interviews see Appendix D for the USCG Inspector survey protocol.

In addition to surveying USCG marine inspectors from 13 port-sectors, we completed an interview with an ACP Administrator. This interview provided our team with the administrator's perspective about how the ACP works and how it is administered. This information was also used to help us make suggestions for the future enhancement of the program. For an interview transcription, see Appendix H.

3.6 Vessel Inspection Audit

To gain a better understanding of the ACP inspection process, our team participated in a vessel tour of the USNS Gilliland with our USCG liaison and a USCG Senior Marine Inspector – Chief Warrant Officer (CWO). This experience gave our team the opportunity to see how the USCG ACP inspectors complete their duties, and we were also able to observe how the inspectors interact with the vessel operators and crew members. The team was also able to see the types of deficiencies that could result in a vessel being placed on the USCG's targeted vessel list. As we walked through the different portions of the vessel, the CWO pointed out aspects of the vessel inspection that he believes are of the highest priority. This inspector-guided vessel tour

aided our group in making suggestions about potential improvements to inspector training and inspector relationships with the vessel operators and classification societies. For a more detailed summary of the vessel inspection please see Appendix F.

3.7 Summary

Analyzing the USCG's ACP performance-based monitoring initiatives was a multifaceted process. Archival research and interviews with USCG ACP inspectors and personnel were utilized to discover whether the USCG has maintained its overall goal of 10% additional oversight of ACP vessels, and if certain vessels have been given a reduced degree of oversight. We were also able to make geographical comparisons of targeted ACP oversight in international USCG sectors, and we were able to compare the current and proposed ACP targeting matrices. In the next chapter we will outline our results that were obtained through these research methods.

4. Results and Analysis

The goal of this project was to determine if an effective degree of oversight has been realized in the USCG's Alternate Compliance Program, and to suggest any improvements that could be made in the administration and oversight of the program. In this chapter we will present our findings regarding the level of targeted oversight that the USCG has achieved, where this oversight has occurred, and a qualitative comparison of the current and proposed targeting matrices.

4.1 Frequency of USCG ACP Oversight Exams

Our team found that the USCG has not been conducting enough oversight exams to reach their desired 10% additional oversight of all ACP enrolled vessels. To determine this, we used the MISLE database to obtain information regarding the frequency of the targeted vessel oversight exams.

We found that the USCG conducted additional oversight on 47% (4.7% overall oversight) of all of the targeted vessels from the 2008 list. Over the next four years, the amount of additional oversight diminished to 22% (2.2% overall oversight) of the 2011 targeted vessels. Figure 1 is a graphical representation of our data that shows the number of targeted oversight exams that were and were not observed, and the percentage of targeted oversight that actually occurred during each targeting year. For example, of the 43 vessels targeted for oversight in 2008, 20 ACP oversight exams were observed by the USCG, and 23 were not. This means that the USCG had 47% oversight of only the targeted ACP vessels, and thus 4.7% oversight of all of the ACP enrolled vessels.

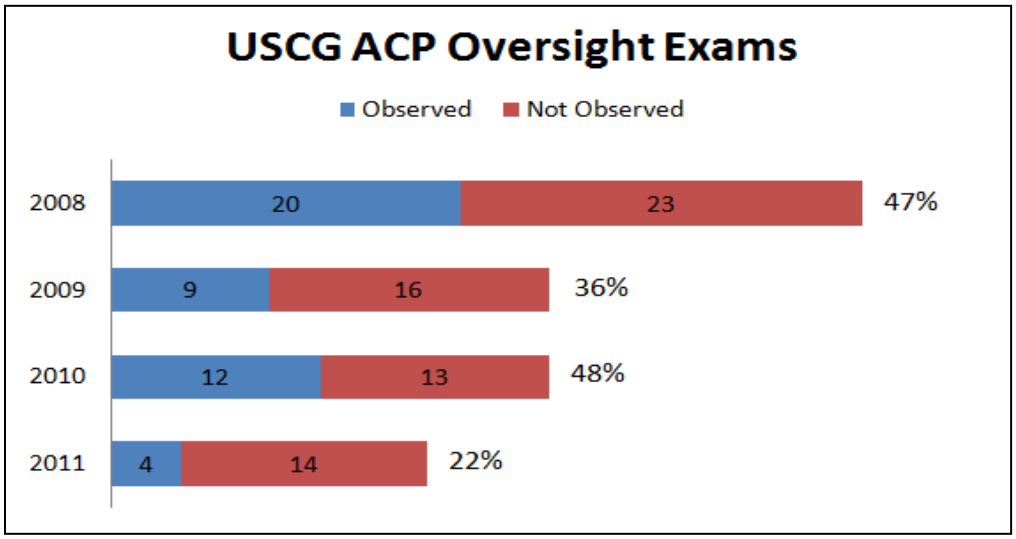

Figure 1: USCG ACP oversight exam data comparisons from 2008 - 2011 targeting years.

Another important finding displayed in Figure 1 is that the 2009 and 2011 targeted list years had the lowest percentage of oversight, where both target list years had less than 40 percent (4.0% overall oversight) additional oversight of targeted vessels. Our team found that this corresponded to the targeting list years when "lookouts" were not entered into the MISLE database. In MISLE, lookouts are markers placed next to a vessel's name to designate it as one of the vessels that are targeted by the USCG for additional oversight. In the next section we will outline why this lack of targeted vessel lookouts during these years could have been one of the major contributors to the decline in targeted vessel oversight.

4.1.1 Reasons for Decline in Oversight

To supplement our MISLE oversight report data, our team interviewed an ACP administrator and asked him about the steady decline in USCG oversight of targeted ACP vessels. According to an ACP Administrator, the substantial drop in additional oversight exams displayed in Figure 1 could be attributed to a number of reasons. First, there have been some recent budget cuts that have affected the Commercial Vessel Compliance (CG-CVC-1) unit,

which has caused the USCG to cut some positions that were instrumental in creating and updating the targeted vessel lists, and this could have contributed to the lack of uploaded lookouts in MISLE and the backlog of targeted lists (Appendix H).

An alternative explanation for the decline in oversight is that many of the USCG inspectors do not reference the targeted vessel list regularly. Of the 18 survey responses we found that 11 inspectors do not reference the targeted vessel list when making decisions about what vessels to inspect. We displayed our findings by geographic location of these inspectors; the data points or parts of data clusters in red represent the locations of inspectors that do not reference the targeted vessel list regularly, while the blue data points are representative of inspectors that do utilize the list. This can be seen below in Figure 2.

Figure 2: Global map of USCG usage of the ACP targeting vessel list.

An interesting finding from these 18 survey responses was that all 11 of the USCG inspectors who do not utilize the targeting matrix were from the continental United States. We found those inspectors who do not use the list were not isolated to one U.S. coast or port sector, but rather they ranged from Baltimore, MD, all the way west to Puget Sound, WA. This trend can be seen in Figure 3 below, where the red data points are the locations of inspectors who do not utilize the targeting list.

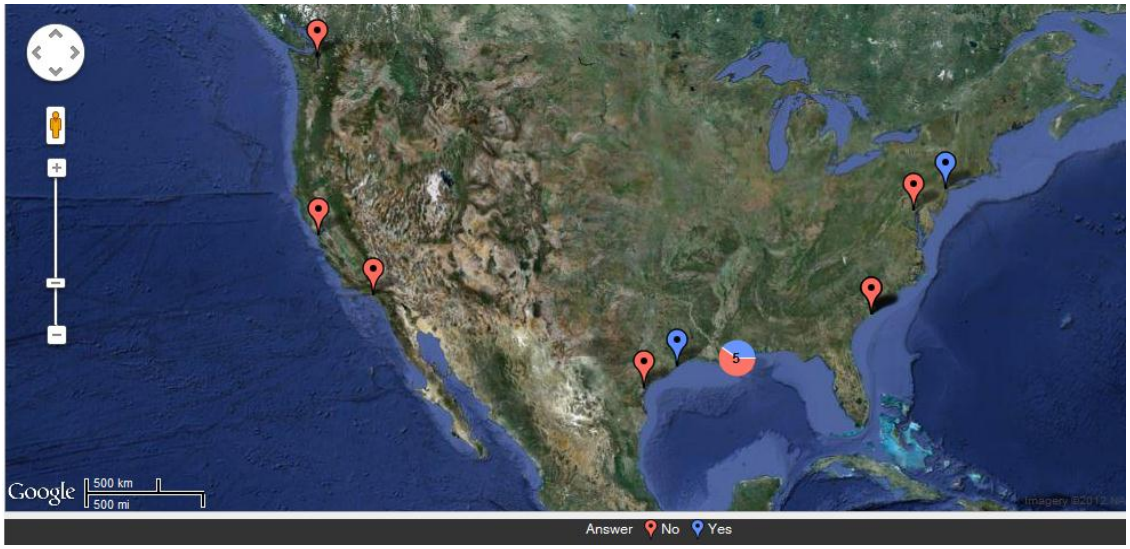

Figure 3: Domestic map of USCG usage of the ACP vessel targeting list.

The declining use of the ACP targeted list by domestic USCG inspectors may be occurring because many inspectors believe that the targeted vessel list is an inaccurate representation of the bottom ten percent of the ACP enrolled vessels. During our phone interviews (Appendix G), one USCG Chief of Inspections informed us that their sector does not reference the targeted vessel list often because they feel uncomfortable with not knowing how the vessels were selected. In a phone interview with another USCG Chief of Inspections, we were told that their sector also does not reference the targeted vessel list often. Their reasoning for not checking the list was that they do not believe any of the vessels that frequent their port are targeted. Upon reviewing our data gathered through MISLE, we determined that multiple vessels present on the targeted vessel list had received annual ACP examinations within that Chief of Inspections' sector, which indicates it is likely that targeted vessels do call on the sector in question.

During an interview an ACP Administrator informed us that when he was an inspector, he would supplement the targeted vessel list with vessels that he believed to be in inferior shape and in need of additional USCG oversight. Our team believes that other USCG inspectors, like

an ACP Administrator and the two inspectors mentioned above, may have deviated from the list entirely, or have supplemented it with vessels that they believe need more USCG attention due to their distrust in the list's accuracy. An ACP Administrator said that he believes that this supplementation to the targeting list is not necessarily bad. He believes that if the targeted vessel list is not accurate, then the inspectors are using their best judgment to give extra oversight to vessels that they believe need it. For more information about our team's interview with an ACP Administrator, please see Appendix G.

4.2 Geographic Locations of USCG ACP Oversight Exams

Our team utilized the USCG MISLE database to collect and organize data regarding the geographic location of every instance of ACP oversight from the targeted vessels lists of 2008 to 2011. We found that most of the oversight exams were concentrated in certain areas of the globe.

Figure 4: Geographic locations of USCG ACP oversight exams from targeting list years 2008 - 2011.

In Figure 4 above, our team plotted all of the targeted oversight examination points from the 2008, 2009, 2010, and 2011 targeted vessel list years. We have the data points grouped by targeted vessel list years so that the year of the examinations could be easily distinguished from each other. Our oversight examination map is organized by ACP targeted list year, where the red data points are from the 2008 list, blue are from the 2009 list, green are from the 2010 list, and the yellow are from the 2011 list.

According to our USCG oversight exam data as shown in Figure 4, our team found that of the 64 USCG targeted ACP oversight examinations during the 2008 – 2011 targeting years, 25% (16 examinations) of them were executed internationally and the majority of the oversight exams were conducted within the United States. Our team found that the targeted oversight densities were particularly high in Eastern USCG sectors from Virginia to New Hampshire.

These 27 Eastern Coast targeted oversight examinations accounted for 42% of all of the 64 targeted oversight examinations that occurred during the 2008-2011 targeted list years. This high exam density is shown more clearly below in Figure 5.

Figure 5: Geographic locations of domestic USCG ACP oversight exams from targeting list years 2008 – 2011.

There are a few potential explanations for why the Northeast completes more exams. One reason is that ACP vessels call on ports like New York, New York, Elizabeth, New Jersey, and Somerset, Massachusetts, out of pure convenience to their business activities. According to Tia Ghose (2010), from Wired Science, the shipping routes between North America and Europe are the most heavily traveled, and this could account for more ACP vessel traffic in those ports (see Figure 6).

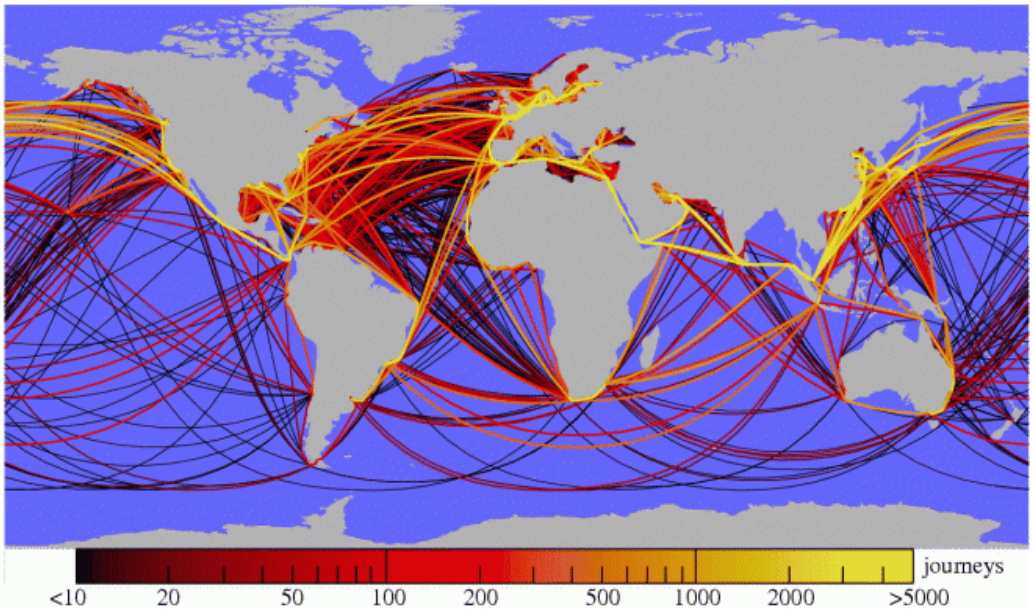

Figure 6: Shipping routes mapped by GPS (Ghose, T.,2010).

Another reason why the Northeast may have more oversight examinations could be that those port sectors utilize both the ACP targeted vessel list and the USCG MISLE database when deciding to board a vessel for additional oversight examinations. From our 18 survey responses only 7 sectors said that they reference the ACP targeted vessel list regularly. We also found that 11 inspectors rely heavily, if not entirely, on the MISLE database and their own knowledge when selecting a vessel for targeted oversight. This deviation from using the targeted vessel list could have caused the percentage of targeted vessel oversight to decrease tremendously.

4.2.1 Geographic Comparison of Annual and Targeted Oversight Exams

To complete a more thorough geographic analysis of the USCG's ACP oversight examinations, we compared the number of annual ACP exams to the number of targeted oversight examinations that occurred in different USCG sectors (Figure 7). We discovered that sectors Baltimore and Hampton Roads completed equal numbers of annual exams and targeted oversight examinations, while Sectors Seattle, Los Angeles-Long Beach, and Houston-Galveston completed many more annual exams than targeted oversight examinations. Some sectors, such as Charleston and Mobile, did not complete any oversight exams during those four target list years.

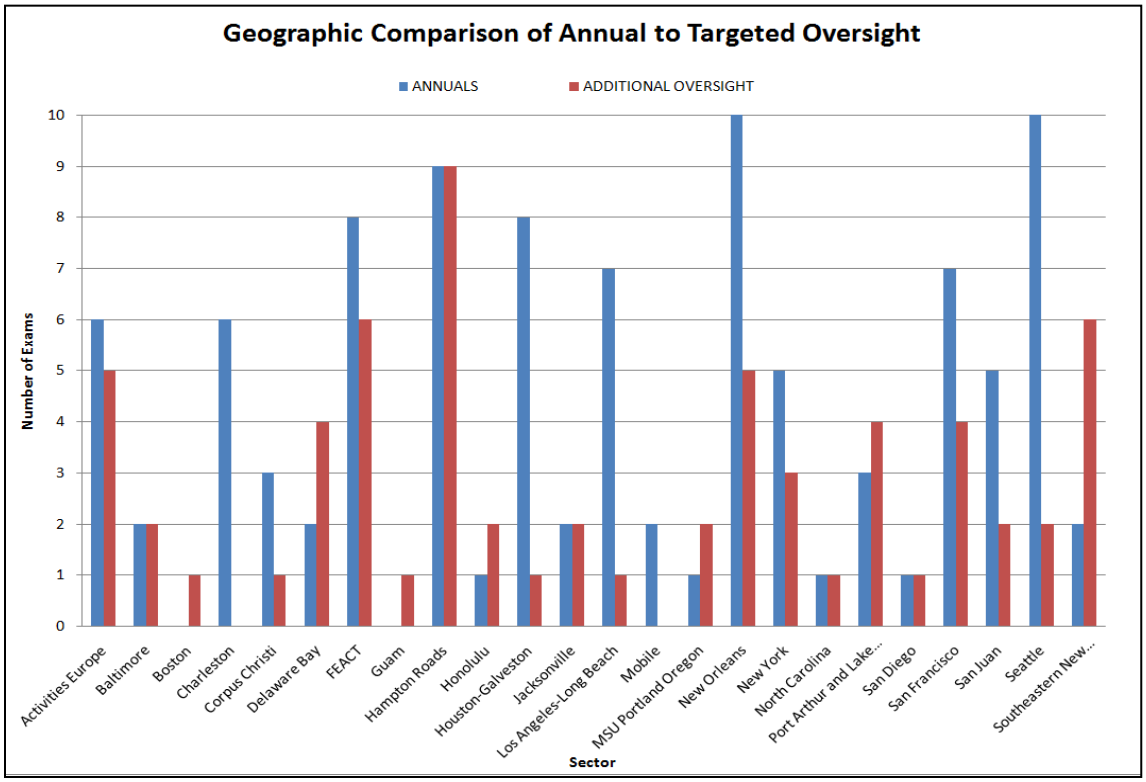

Figure 7: Comparison of the number of annual and targeted additional oversight exams in different port sectors globally from 2008 – 2011 targeted vessel lists.

This variation in exam volume may be due to a few different reasons. For example, a hypothetical case is that two vessels may have come into Sector Mobile for an annual exam, but then never returned to that particular port sector again in order to receive an oversight exam. This would cause Mobile to have two annual exams, but no oversight exams. Another case is that the port inspectors relied solely on the lookouts in the USCG MISLE database, and since lookouts were not uploaded to MISLE for the 2009 and 2011 targeted vessels, this could explain the low numbers of targeted oversight exams. This may have resulted by the USCG inspectors who relied on MISLE to not realizing if a vessel was targeted for additional oversight, which could have caused a drop in oversight exams.

4.3 Comparison of the USCG's Current and Proposed Targeting Matrix

After reviewing the USCG's current vessel targeting matrix, we found that it is an extremely lengthy and tedious process that has not yielded accurate targeted vessel lists in the past four target list years. To obtain this finding, we reviewed the current targeting matrix, as well as a new proposed matrix written by USCG CVC-1. We found that the USCG is planning to change the way that they target vessels for additional oversight in both the ACP and the Maritime Security Program (MSP). We also learned that applying the current matrix to the over 300 vessels enrolled in the ACP is extremely time consuming due to the nine different in-depth criteria that are used to determine the 10% of ACP enrolled vessels that should be targeted for additional oversight. The team also interviewed USCG personnel and an ACP Administrator to ask about ways to improve the process by which the USCG targets vessels. In this section, we will show how and why the new matrix system proposed by CVC-1 will be a much more efficient and sustainable way of targeting vessels for ACP oversight.

4.3.1 Problems with the Current Matrix

Our team found that there are a few problems that have caused the current targeting matrix to be inefficient in selecting the lowest performing 10 percent of the ACP-enrolled vessels. When using the current matrix, there are nine different criteria that determine a vessel's score, some of which are not easily determined. For example, material condition is evaluated by a review of classification society reports and CG-835s (deficiency forms) from the past two years, which are used by the evaluator to give each ACP enrolled vessel a qualitative score from one to four. Since the evaluator must complete this calculation for each and every ACP enrolled vessel it can be quite time consuming, and many inspectors believe that this is an ineffective way to evaluate which vessels should receive additional oversight.

The targeted vessel list has not been sent out annually, as the USCG intended it to be. There has been a gap of approximately 14 months between lists since 2007, and there is currently no up-to-date list available for 2012. Since the lists have not been kept up to date, it is difficult for inspectors to determine if a vessel is targeted for an oversight exam. Also, as stated above in section 4.1.1, we found that some ports either do not reference the targeted vessel list, or they reference it but also check other vessels that they believe should be targeted that are not on the list. This creates inconsistencies from port to port, which is not desirable for the USCG as vessels could start avoiding ports that they know are supplementing and/or adding to the targeted list, and this could put greater regulatory burden on the ports that examine only target vessels that are selected by the USCG HQ for additional oversight.

4.3.2 Proposed New Matrix

Under the new program, the targeted vessel list will be produced in a much more efficient and sustainable manner for the USCG. The proposed targeting matrix will be based on a combination of classification society and USCG data, and will only have four main criteria, which are all relatively easily determined based on USCG and classification society data. This will make the evaluation of each vessel enrolled much simpler and easier to complete. Furthermore, the proposed matrix will be automated, meaning a computer, not a USCG employee, will evaluate each ACP-enrolled vessel to determine which ones should be targeted for additional oversight. Automating this process will make it much easier for the USCG to keep the targeted list up to date and hopefully increase accuracy. This should encourage inspectors to reference it more frequently, making ACP examinations more consistent across all ports. Our team believes that, overall, the new system will be a much more effective and sustainable way to target vessels for additional oversight and will aid in assuring that the program is administered consistently in the future.

4.4 Targeted ACP Vessels That Did Not Receive Oversight

We identified a trend of certain companies with targeted ACP vessels, which have received a reduced degree of additional oversight. We discovered that certain ACP groups or commercial vessels were targeted multiple times for USCG oversight, but never received the oversight. For example, the CANDIES, HORIZON, and the United States Naval Ships (USNS) were targeted multiple times, but did not receive the oversight that they were targeted for (Table 4).

Table 4: Company and governmental vessel lines that were repeatedly targeted for USCG oversight, but did not receive it.

Line	Vessel Name	VIN	Targeted-No Oversight
Candies Line:	CELIA CANDIES	1179244	1
	EMILY CANDIES	1171021	1
	KERI CANDIES	1154429	1
	OLIVIA CANDIES	1195644	1
			Total: 4
Horizon:	HORIZON CRUSADER	518444	2
	HORIZON HAWAII	547288	1
	HORIZON KODIAK	910308	1
	HORIZON NAVIGATOR	541868	2
	HORIZON PACIFIC	612085	1
	HORIZON PRODUCER	552819	1
	HORIZON RELIANCE	625873	1
	HORIZON SPIRIT	624457	1
			Total: 10
USNS:	USNS ANTARES	542200	1
	USNS CAPELLA	540413	2
	USNS DENEBOLA	550723	1
	USNS GYSGT FRED W STOCKHAM	7825423	1
	USNS PAUL BUCK	684688	1
	USNS REGULUS	545200	1
	USNS RICHARD G. MATTHIESEN	684691	1
			Total: 8

Our team found that these groups of commercial and military vessels had the greatest frequency of not being given oversight even though they were targeted for it. We believe that one major reason that these vessels did not receive additional oversight (even though they were targeted) may be due to the fact that the governmental USNS vessels were under a Reduced

Operating Status (ROS), or that the other vessels do not return to U.S. ports very often to allow the USCG to perform these oversight exams.

4.5 Human Contributions to the Effectiveness of ACP Oversight

After analyzing the information gathered from our interviews and questionnaires with USCG personnel, we obtained the following results regarding possible human factors that contribute to the effectiveness of ACP performance-based monitoring.

4.5.1 Targeted Vessel List Release Date Inconsistencies

Our findings indicate that the extensive human involvement required to produce and release the targeted vessel list has negatively affected the consistency with which the targeted vessel list has been released. The first targeted vessel list we reviewed was released in September of 2007, and was the first list released since the USCG's switch to the centralized targeting system. Each targeted vessel list is intended to be valid for a year from its release date. Figure 8 displays the duration each year's targeted vessel list is considered valid in blue, but it also shows the gaps between the intended release dates and the actual release dates in red. For example, the 2011 targeted vessel list was valid until February 2012, but as of December 13, 2012, no new official targeted vessel list has been released, so the last large red bar denotes the current gap between lists.

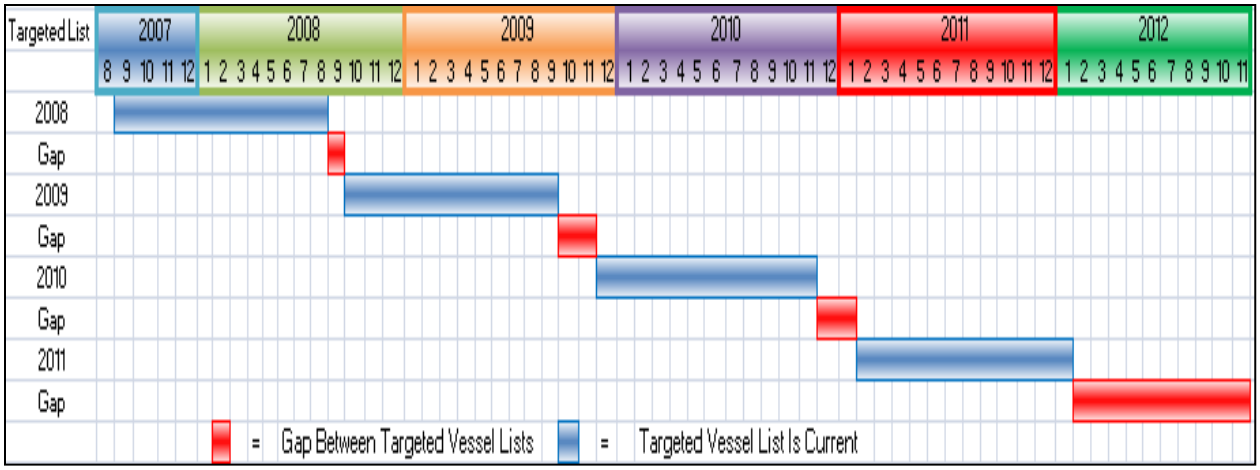

Figure 8: Targeted Vessel List Release Dates, 2007-2012

As Figure 8 indicates, new targeted vessel lists were never released on schedule and their release date was further delayed with each new release. This left gaps in the oversight of the ACP where USCG Inspectors who check the targeted vessel list regularly were forced to work with an outdated list. The irregularity of the release schedule also put doubt in USCG Inspectors' minds regarding the validity of the list and the vessels targeted. One USCG Marine Inspector directly addressed this issue when responding to our questionnaire with the following suggestion for improving the ACP, "We [the USCG] must be timely with the Targeting List."

4.5.2 Inspector Experience

One potential problem with USCG oversight of vessels enrolled in the ACP is a growing lack of Marine Inspector experience. Out of 18 questionnaire responses from USCG Marine Inspectors, 9 of them directly stated that Marine Inspector training and amount of examination experience has suffered since the implementation of the ACP. Classification Societies have taken on the bulk of conventional vessel examination duties; which means that USCG inspectors are no longer gaining the experience they previously received by regularly conducting examinations akin to those now left to the class society surveyors. In addition to not being able to receive

general examination experience, USCG inspectors now find it significantly more difficult to obtain qualifications to become Senior Marine Inspectors.

Although a number of knowledgeable Marine Inspectors still work for the USCG, it appears that as these individuals move to other duties, retire, or are promoted out of the inspector role, there may exist a lack of experience among USCG inspectors. Newer inspectors have had less exposure to a full range of examination practices, which can hinder their ability to efficiently conduct oversight of the class societies. One of our interviewees feels that, in general, Marine Inspectors no longer have the training necessary to perform the same tasks that are currently conducted by the classification societies. We received a similar response from a current USCG Marine Inspector, who said,

> What I dislike about the ACP is that the Coast Guard is losing all of its corporate knowledge regarding deep draft inspections. We used to do all of the inspections allowing us to learn, utilize and retain the knowledge necessary to adequately perform our duties – now I don't feel that is available to the new inspectors trying to get qualified for deep draft vessels.

Another USCG Marine Inspector echoed these sentiments in his response, "[The] ACP reduces the USCG workload but deprives our inspectors of knowledge and experience, due to lack of exposure on the vessels." Without proper training and experience, it has become increasingly difficult for the USCG to ensure that Classification Societies do an effective job in maintaining vessel safety.

4.5.3 Philosophy

Our interview with an ACP Administrator also brought up a potential issue in the attitudes of USCG Marine Inspectors. The administrator is particularly concerned that some

USCG Inspectors may approach a vessel inspection with the mentality of "The class society does that, not me." This is a problem if Marine Inspectors board a vessel with the belief that they aren't responsible for checking machinery, such as the diesel generator, fire stations, or lifesaving equipment, because the class society checks them. In reality, everything the class societies inspect is on the USCG's behalf. The USCG is ultimately responsible for all aspects of a vessel's safety, even those delegated to the Class Societies.

4.5.4 Vessel Owner and Class Society Issues

Our team obtained two questionnaire responses that indicated that USCG Inspectors have encountered vessel owners and operators who did not completely understand how the ACP works. One USCG Marine Inspector said that when he attends an ACP vessel, he is commonly told that the vessel he is examining is ACP and inspected by their class society. In addition to this, when a deficiency is found, the vessel operators may try to argue that it is a class society item and hasn't been checked by them yet. By arguing that something is a class society item, the vessel operator is essentially telling the USCG Inspector that they do not need to inspect it, and that their classification society will examine it later.

Similarly, another USCG Marine Inspector said, "Many company/vessel representatives don't fully understand the details/nuances of the ACP program making program administration difficult at times. [sic]" This lack of understanding can be problematic on its own, but another inspector's response indicated that in some cases the ACP is simply viewed as a way to pay to get the USCG to stop 'bothering' a vessel. This sort of outlook can cause tension to develop between the USCG and the vessel operators and could negatively impact the ACP's ability to maintain vessel safety. Similarly, if a sense of mistrust develops between the USCG and a classification society, or if USCG Inspectors feel a certain class society does not do a sufficient

job, it could lead to USCG Inspectors re-checking everything that class society's surveyors do. One USCG Marine Inspector reported this exact situation in his questionnaire response.

> Although we have a great relationship with our [ACS] counter-parts, their technical expertise and experience is severely lacking in my opinion. This is primarily due to the fact that most of the [ACS] surveyors in our zone are very junior, and don't have much first-hand knowledge of shipboard systems. In other words our classification society counterparts are still "learning on-the-job[”], and thus as a marine inspector I still need to double-check most of their work. [sic]

Another USCG Marine Inspector responded with a similar mistrust of class societies, "Dislikes would be that the overall approach by ACSes is that of a business and cannot match the stewardship that typical CG inspectors bring." Re-checking most of a class society's work is inefficient and directly contradicts some of the primary reasons the ACP was founded: to reduce the amount of USCG manpower required to ensure U.S. flagged vessels' safety, and to reduce the amount of examination redundancy.

4.5.5 MISLE Navigation Difficulties

The USCG's MISLE database has been one of our primary resources for gathering oversight examination data. However, we found that MISLE could be difficult to navigate due to certain design flaws.

One major design flaw that our team discovered was that every aspect of the examination report had to be entered manually into MISLE. This has caused some discrepancies in the nomenclature used to describe the different types of exams and vessel deficiencies. For example, we found that it was difficult to distinguish between examinations named "annual exam", "annual oversight", "targeted oversight", "periodic exam", or "periodic oversight". In order to

fully understand the exact nature of each exam, our team had to read the entire examination report narratives, and even then it was not always clear if the examination was a targeted oversight exam, or a routine exam. Figure 9 displays the inconsistencies in the labeling of exam reports for the vessel CLAIRE CANDIES. Both of the titles, outlined in red, under the Activity Sub Type column do not specify if the oversight is targeted, and the examination labeled "Annual Inspection" does not specify that it was an annual ACP examination.

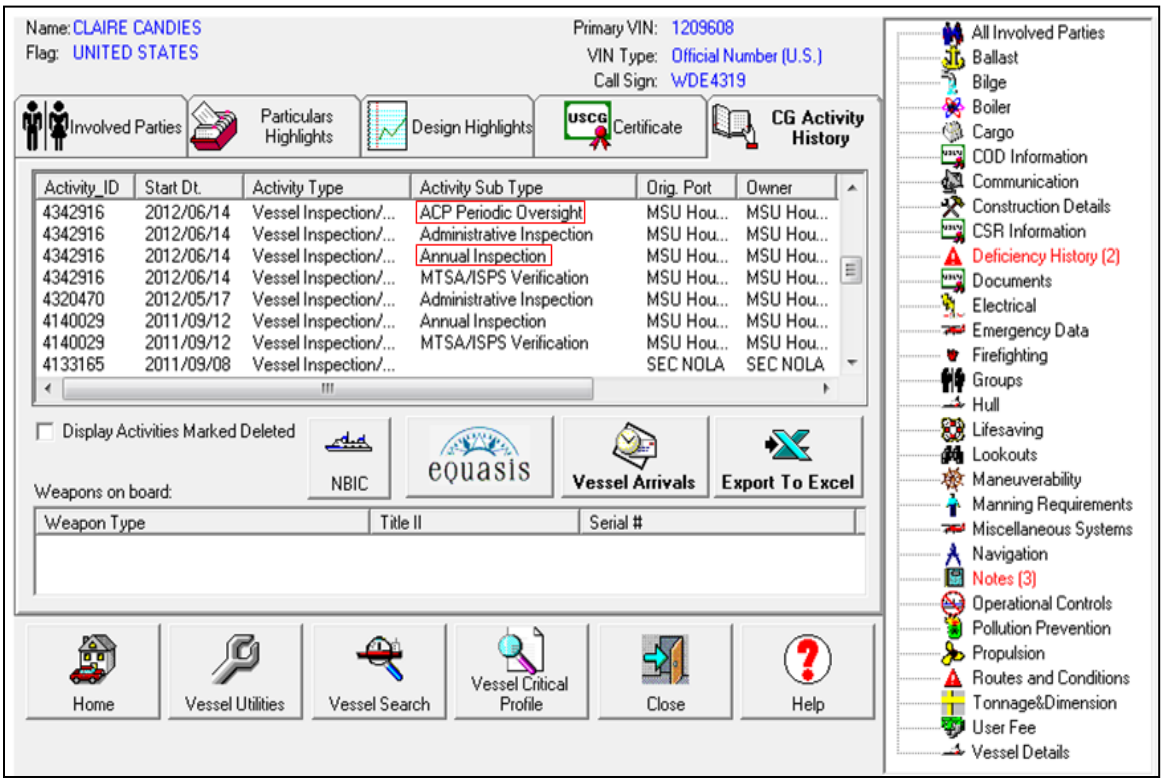

Figure 9: **Example of the differences in nomenclature used in the USCG's MISLE database to describe an annual ACP exam.**

From our team's interviews and survey of USCG inspectors we found that the inspectors also shared our team's frustrations with the differences in nomenclature used in MISLE. One inspector stated that, "When you enter the inspection type in MISLE as an Annual ACP, MISLE doesn't recognize it, so when a data call is done the vessel will show up as missing the annual

exam [sic]," and also that "When issuing a COI to a ACP vessel, MILSE [sic] asks you if you want to put it in your fleet of responsibility. My recommendation is to put all the ACP and MSP vessels in CG-CVC-3 fleet of responsibility so HQ can track these vessels easily [sic]." The inspectors believed that this shift in responsibility would be a great area for improvement for the USCG examination report keeping.

Another instance where we found that information was not uniformly uploaded to the MISLE database was when the ACP lookouts that designate the targeted vessels were not entered into MISLE yearly. Specifically, we found that the ACP lookouts were not uploaded into MISLE during the targeting years of 2009 and 2011. As previously stated in Section 4.1.1, this may have attributed to the drop in the number of oversight inspections that took place in those years.

4.6 Summary

In this chapter, we have pointed out many important findings obtained from analyzing the data regarding the USCG's ACP oversight initiatives. We found that the USCG has not achieved its desired 10% level of additional ACP oversight, and that the standards of ACP oversight are not uniform among the different domestic and international port sectors. We also found that there are many personnel and technology-related changes and upgrades that the USCG could implement to achieve a greater and more uniform oversight of the ACP. In the next chapter, we will outline our conclusions and recommendations for the improvement of the USCG's ACP performance-based monitoring initiatives.

5. Conclusions and Recommendations

Our conclusions and recommendations pertaining to the frequency, geography, and targeting factors of the USCG's targeted ACP oversight activities on vessels are detailed below. We believe that these recommendations will improve the USCG's risk-based oversight initiatives of the ACP.

5.1 MISLE Database

We recommend a general standardization of the protocols for entering ACP inspection data into the MISLE database. We suggest that the USCG create uniform selection menus for entering all of the searchable data entered into MISLE i.e. inspection purpose, location, etc. This change will help to reduce the inconsistencies in the nomenclature used in MISLE. For example, the USCG inspectors previously manually entered additional oversight exam reports into MISLE as both "ACP Periodic Oversight Exam" and as "In Service" inspections, which caused some doubt about whether the exam was targeted or not. A system should be implemented where the USCG inspector must select one of a few pre-approved options from a drop-down box, such as, ACP Targeted Oversight or ACP Periodic Oversight. This will help to avoid future confusion as to what the purpose of an inspection was, and will allow anyone looking for specific types of inspections to find them more easily.

We recommend that the targeting lookouts for vessels on the ACP targeted vessel list be entered into MISLE on a routine basis, and that it should coincide with when the targeted vessel list is generated in order to keep them up to date and relevant. When analyzing the frequency of additional oversight exams, we found that, of the four years we analyzed, there were two in which no lookouts were issued. These two years, 2009 and 2011, also had the lowest percentage of additional oversight exams.

5.2 Targeting Matrix

We recommend that the proposed targeting matrix be adopted because the risk-based targeting scheme that is currently employed by the USCG is ineffective and unsustainable. It also impedes the effective and consistent administration of the program as a whole, since marine inspectors do not trust the targeted list because it is not released regularly due to the inefficiencies of the current matrix.

Provided that the new matrix attains a higher level of accuracy, which we believe it will based on our contact with qualified marine inspectors, we support the shift in targeting schemes. The new matrix will be much more sustainable and easier to keep up to date, which, along with better communication and organization, will allow the USCG's ACP oversight initiatives to function in a much more effective manner. We also suggest that the USCG continues to research this subject further after the new matrix has been implemented to ensure accuracy and sustainability.

5.2.1 Remove Reduced Operating Status (ROS) Vessels from Additional Oversight

ROS vessels are government vessels that stay in port but keep up the maintenance of the vessel with a small crew so that it can be ready to deploy on short notice. These vessels do not leave port unless activated, and before they embark, the USCG regularly attends the vessel to ensure it is in compliance with USCG manning standards. We believe that targeting resources should not be used on these vessels and should instead be used on more active vessels. Our team suggests that these vessels are removed from the targeted vessel list once they are given an ROS classification so that other vessels that are not operating at a reduced status could be given additional oversight that they may need. One potential problem with our suggestion is that the USCG's ACP targeted vessel list is only produced on a yearly basis. This would mean that the

ROS vessel would remain on or off the list until the next year's list is created. One way to counter act this is to keep the MISLE databases lookouts as up-to-date as possible. Our team found that many USCG inspectors rely heavily on the MISLE lookouts, so we believe that it would be beneficial to revise the vessel lookouts as frequently as possible.

5.3 Geographic Factors

After mapping the locations of the targeted ACP oversight exams entered into MISLE, using the 2008 – 2011 targeted vessel data, we found that the majority of these exams are concentrated in the Northeastern sectors of the United States. We have concluded that, while there are inconsistencies in how many additional oversight exams certain sectors are carrying out, geographic differences in ACP oversight may not pose a serious concern for the USCG due to the following factors.

1. Ports cannot control how often an ACP vessel docks there, so if ACP vessels are not calling on a port for anything other than its annual exam, the port cannot be faulted.
2. If the targeted lookouts are not entered into MISLE, then inspectors who do not reference the targeted vessel list may not know which vessels are targeted. As a result, a targeted vessel could dock and the inspectors would not be aware of its targeted status.
3. ACP additional oversight exams have a very low priority in regards to emergency situations and mandatory exams. If a port is dealing with a natural disaster or marine casualty, or just has several mandatory exams that day, then the additional ACP oversight may not occur.

5.4 USCG Inspector Inexperience

During our analysis we found that several inspectors felt that the ACP has hurt the USCG as a whole, because it can hinder inspectors' ability to attain the level of experience required for

obtaining qualifications relevant to deep draft vessels. Inspectors are no longer performing full inspections of these vessels, and therefore are missing out on a large number of training opportunities.

In order to help correct this, some inspectors suggested that USCG and an ACS be present at all inspections. This goes against the core principles of the ACP, and could lead to redundancy and wasted human and monetary resources. Two inspectors even suggested that the ACP be eliminated, but the number of inspectors that believe the program can be successful is greater that the number that want to eliminate it. Most of the inspectors who brought up this point thought that cross training USCG inspectors and ACS surveyors together would allow the USCG inspectors to gain the experience they need.

5.4.1 Inspector Training

We recommend that the USCG inspectors receive more training, specifically cross-training with the class society surveyors. Several Sectors expressed concerns with regard to the quality of USCG inspector's training because they are not able to get the exposure they need to properly examine deep-draft vessels. They stated that new USCG inspectors are not afforded the opportunity to conduct certain aspects of inspections that the classification societies conduct, and thus are not getting the experience they need in order to attain the qualifications necessary to become full inspectors. Many USCG personnel feel that the ACP has become a necessity due to the fact that USCG inspectors no longer have the training to perform the aspects of the inspection process that the classification societies regularly conduct. Furthermore, the more experienced USCG inspectors have not conducted many full, in-depth inspections on ACP vessels recently. It is because of this that our team recommends increased training of USCG inspectors, ideally working out a system where they are trained to the same level as classification society inspectors.

One possibility would be to implement a program where the USCG inspectors are trained alongside classification society surveyors, to ensure equivalent levels of understanding and experience. Also, increased training and experience of USCG inspectors would enhance the quality of inspections and allow the USCG to become even more proficient in auditing ACP vessels.

5.5 Vessel Owner Education and Marine Inspector Communication

We recommend that vessel owners who have a vessel enrolled in the ACP should receive more education about the policies and procedures of the ACP and the principles behind the program. Some inspectors have found that certain vessel owners feel they are being harassed by the USCG, when the USCG inspectors are simply doing their jobs. Vessel owners should be made aware that the USCG, not the class society, is ultimately responsible for ensuring the vessel's safety. In order to do this correctly, the inspector may perform a more expanded inspection depending on what he or she sees on the vessel.

Also, we recommend that the USCG make it more clear to the marine inspectors that as a part of their authorizations the classification societies must give the USCG access to their databases. We found that some marine inspectors are unaware that they can obtain access to these databases through USCG Headquarters, and have relied on verbal reports from classification societies, which is inefficient and impedes the effective administration of the program.

We also recommend that USCG Marine Inspectors be educated regarding how to deal with classification societies who have substandard performance in their sectors or ports. We recommend that USCG inspectors be instructed to contact the offending class society's principal surveyor for their sector or port, and inform that individual of the issues they are encountering. If

corrective action is not taken, we recommend that the USCG inspectors contact USCG Headquarters so that the issue can be addressed from a corporate level. A system such as this would also coincide with the wishes of the USCG inspectors who indicated in their questionnaire responses a desire for class societies to be held more accountable when not performing sufficiently.

5.6 Summary

Through our research, we found that the USCG has not been achieving its goal of 10% additional oversight on ACP vessels. A majority, 11 out of 18, of our survey responses indicated that the inspector did not reference the targeted list due to a lack of faith in the accuracy of the list and an inconsistency in the release date of the list. Through an analysis of the current targeting scheme we found that it is not released regularly because it is difficult to generate. In addition, some of the criteria are subjective, and could cause inaccuracies. We believe that the ACP will be greatly improved and will be able to reach its goal of 10% additional oversight if the USCG implements some or all of our suggestions. We believe that these improvements can help the USCG's program oversight initiatives to ensure that U.S. flagged ACP vessels are safe for the vessel personnel, the environment, and ultimately increase the U.S.' marine reputation worldwide.

References

American Bureau of Shipping. (2011). *ABS Rules for Steel Vessels for Vessels Certificated for International voyages.* Retrieved from http://www.uscg.mil/hq/cg5/acp/docs/abssvr0532011.pdf

Anderson, D. (1998). The Roles Of Flag States, Port States, Coastal States And International Organisations In The Enforcement Of International Rules And Standards Governing The Safety Of Navigation And The Prevention Of Pollution From Ships Under The Un Convention On The Law Of The Sea And Other International Agreements. *Singapore Journal of International & Comparative* Law, 557.

Basedow, J., & Wurmnest, W. (2005). *The role of classification societies in the shipping industry* Springer Berlin Heidelberg. doi: 10.1007/3-540-28562-8_2

U.S. Department of Transportation. (2000). *The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection.* Retrieved from http://www.uscg.mil/directives/cim/16000-16999/CIM_16000_7A.pdf

U.S. Department of Transportation. (1996). *46 CFR Parts 8, 31, 71, 91, and 107 Vessel Inspection Alternatives; Classification Procedures; Final Rule.* Retrieved from http://www.uscg.mil/hq/cg5/acp/docs/fr122796.pdf

Det Norske Veritas. (2012b). *International Safety Management (ISM).* Retrieved from http://www.dnv.com/industry/maritime/servicessolutions/statutoryservices/ism/

Ghose, T. (2010). *A year of Global Shipping Routes Mapped by GPS.* Retrieved from http://www.wired.com/wiredscience/2010/01/global-shipping-map/

Heard, C. (2012). *Examining the international ship and port facility security code: A correlative analysis of maritime security.* (Doctor of Business Administration). Northcentral University, Prescott Valley, AZ.

Homeland Security Institute. (2009). *Independent Evaluation of the United States Coast Guard Prevention Programs-Marine Safety and Marine Environmental Protection.* Retrieved from http://www.uscg.mil/marinesafetyprogram/

International Association of Classification Societies (IACS). (2011). Classification Societies-What, Why, and How?. Retrieved from http://www.iacs.org.uk/document/public/explained/Class_WhatWhy&How.PDF

International Convention for the Safety of Life at Sea (SOLAS). (2009). *Cargo Ship Safety Constuction Certificate.* Retrieved from http://www.geodatapub.com/tdibisr/ShipDocuments/Rylan-T%20CSSCC.PDF

International Convention for the Safety of Life at Sea (SOLAS). (2010). *Cargo Ship Safety Equipment Certificate.* Retrieved from http://www.maersktankers.com/Gas/Lists/Fleet%20Certificates/Yuricosmos_Safety_equ_220715.pdf

International Maritime Organization (IMO). (2011a). *Conventions on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs).*Retrieved 9/23, 2012, from http://www.imo.org/about/conventions/ listofconventions /pages/ colreg.aspx

International Maritime Organization (IMO). (2011b). *International Convention for the Prevention of Pollution from Ships (MARPOL).* Retrieved from http://www.imo.org/about/conventions/listofconventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-(marpol).aspx

International Maritime Organization (IMO). (2011c). *International Convention for the Safety of Life at Sea (SOLAS), 1974.* Retrieved from http://www.imo.org/about/conventions/listofconventions/pages/international-convention-for-the-safety-of-life-at-sea-(solas),-1974.aspx

International Maritime Organization (IMO). (2011d). *International Convention on Load Lines.* Retrieved 9/14, 2012, from http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Load-Lines.aspx

International Organization for Standardization. (2012). *ISO 9000 – Quality management.* Retrieved 11/19, 2012, from http://www.iso.org/iso/iso_9000

International Registries, Inc. (2012). *Unparalleled Service...And A Very Favorable Legal System.* Retrieved, 2012, from http://www.register-iri.com/index.cfm?action=page&page=156

International Transport Worker's Federation. (2012). *What Are Flags of Convenience?* Retrieved, 2012, from http://www.itfglobal.org/flags-convenience/sub-page.cfm

Marine Administration. (2003). *SOLAS CH XI-1 - Special Measures to Enhance Maritime Security - The Continuous Synopsis Record (CSR).* Retrieved 9/23, 2012, from http://www.classnk.or.jp/hp/pdf/activities/statutory/isps/flag/man/MSN227.pdf

Paris Memorandum of Understanding. (2012). Retrieved, 2012, from http://www.parismou.org/

Occupational Safety and Health Administration. (2011). *Deepwater Horizon Oil Spill: OSHA's Role in the Response.* Retrieved from http://www.osha.gov/oilspills/dwh_osha_response_0511a.pdf

SUNDANCE CRUISES CORPORATION, SCI Cruises, Inc., also known as Sundance Cruises, Inc. v. The AMERICAN BUREAU OF SHIPPING, 7 F.3d 1077 (United States Court of Appeals, Second Circuit 1993).

Republic of the Marshall Islands Maritime Administrator. (2011). *Republic of the Marshall Islands Maritime Administrator Marks Anniversary of DEEPWATER HORIZON.* Retrieved from http://www.register-iri.com/forms/upload/RMI_Marks_the_Anniversary_of_DEEPWATER_HORIZON.pdf

U.S. Coast Guard. (1989). *46 CFR 69 - Measurement of Vessels.* Retrieved 9/14, 2012, from http://www.law.cornell.edu/cfr/text/46/69

U.S. Coast Guard. (2002). *U.S. Coast Guard Alternate Compliance Program (ACP) Supplement Review and Revision.* Retrieved from http://www.uscg.mil/hq/cg5/acp/docs/supprvw.pdf

U.S. Coast Guard. (2006). *Navigation and Vessel Inspection Circular No. 02-95 Change-2.* Retrieved from http://www.uscg.mil/hq/cg5/nvic/pdf/1995/NVIC%2002-95ch2.pdf

U.S. Coast Guard. (2010a). *Alternate Compliance Program U.S. Supplement to Lloyd's Register's Rules and Regulations for the Classification of Ships.* Retrieved 9/9, 2012, from http://www.uscg.mil/hq/cg5/acp/docs/lrsupp422010.pdf

U.S. Coast Guard. (2010b). *Title 46: Shipping.* Retrieved 9/14, 2012, from http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=9297a42f1cffbd04b4701f19ca472369&rgn=div8&view=text&node=46:7.0.1.3.11.9.63.2&idno=46

U.S. Coast Guard. (2011). *Status of Classification Society Recognition, ACP Participation, and Authorizations Delegated by the U.S. Coast Guard.* Retrieved 9/9, 2012, from http://www.uscg.mil/hq/cg5/acp/docs/ClassSocietyAuths8Dec2011.pdf

U.S. Coast Guard. (2012a). *About Us: Missions*. Retrieved 9/6, 2012, from http://uscg.mil/top/missions/

U.S. Coast Guard. (2012b). *Coast Guard Deputy Commandant for Operations.* Retrieved September 5, 2012, from http://www.uscg.mil/hq/dco/org.asp

U.S. Coast Guard. (2012c). *Fiscal Year 2013 President's Budget.* Retrieved September 5, 2012, from http://www.uscg.mil/posturestatement/docs/FY_2013_Budget_Fact_Sheet.pdf

U.S. Coast Guard. (2012d). *Missions: Maritime Safety.* Retrieved November 26, 2012, from http://www.uscg.mil/top/missions/maritimesafety.asp

U.S. Coast Guard. (2012e). *USCG: About Us.* Retrieved 9/9, 2012, from http://www.uscg.mil/top/about/

U.S. Coast Guard. (2012f). *USCG: Alternate Compliance Program (ACP).* Retrieved 9/9, 2012, from http://www.uscg.mil/hq/cg5/acp/default.asp

U.S. Coast Guard. (2012g). *USCG: Headquarters Organization.* Retrieved 9/9, 2012, from www.uscg.mil/top/units/org.asp

U.S. Department of Transportation: Maritime Administration. (2011). *Comparison Of U.S. And Foreign- Flag Operating Cost*. Department of Transportation Maritime Administration, Washington, D.C. U.S.

Appendix A: Sponsor Description

The United States Coast Guard is one of the five branches of the U.S. Military, however it is the only branch that does not fall under the umbrella of the Department of Defense. Instead, the Coast Guard is a part of the Department of Homeland Security, having been shifted there from the Department of Transportation in 2003. There still exists a tie to the Department of Defense, however; during wartime or when directed by the President, the Coast Guard operates as a part of the Department of the Navy. The Coast Guard legally has 11 missions that encompass maritime safety, security, & stewardship: Ports, Waterways, & Coastal Security; Drug Interdiction; Aids to Navigation; Search & Rescue; Living Marine Resources; Marine Safety; Defense Readiness; Migrant Interdiction; Marine Environmental Protection; Ice Operations; and Other Law Enforcement (U.S. Coast Guard, 2012a).

In 2011, the Coast Guard employed 43,000 active duty members, 7,800 reservists, 33,000 volunteer auxiliarists, and over 8,300 civilian employees (U.S. Coast Guard, 2012e). Our project will deal with the Office of Commercial Vessel Compliance, specifically the Domestic Vessels division. The Office of Commercial Vessel Compliance falls under the Director of Inspections and Compliance, which is part of the Coast Guards Prevention Policy division, and is ultimately under the purview of the Deputy Commandant for Operations. A breakdown of the U.S. Coast Guard Hierarchy can be found in Figure 10, with the chain of command for the ACP outlined in red. For fiscal year 2013, the U.S. Coast Guard (2012c) has been allotted $54.2 million for critical investment and programs such as the ACP.

Foreign administrations around the globe must ensure the safety of their vessels, just as the USCG does. It is clear that Greece, Japan, Germany, and China have the largest shipping fleets and therefore would have systems of inspection most closely related to those employed by the USCG, although the ACP is a rather unique program to the USCG at this time.

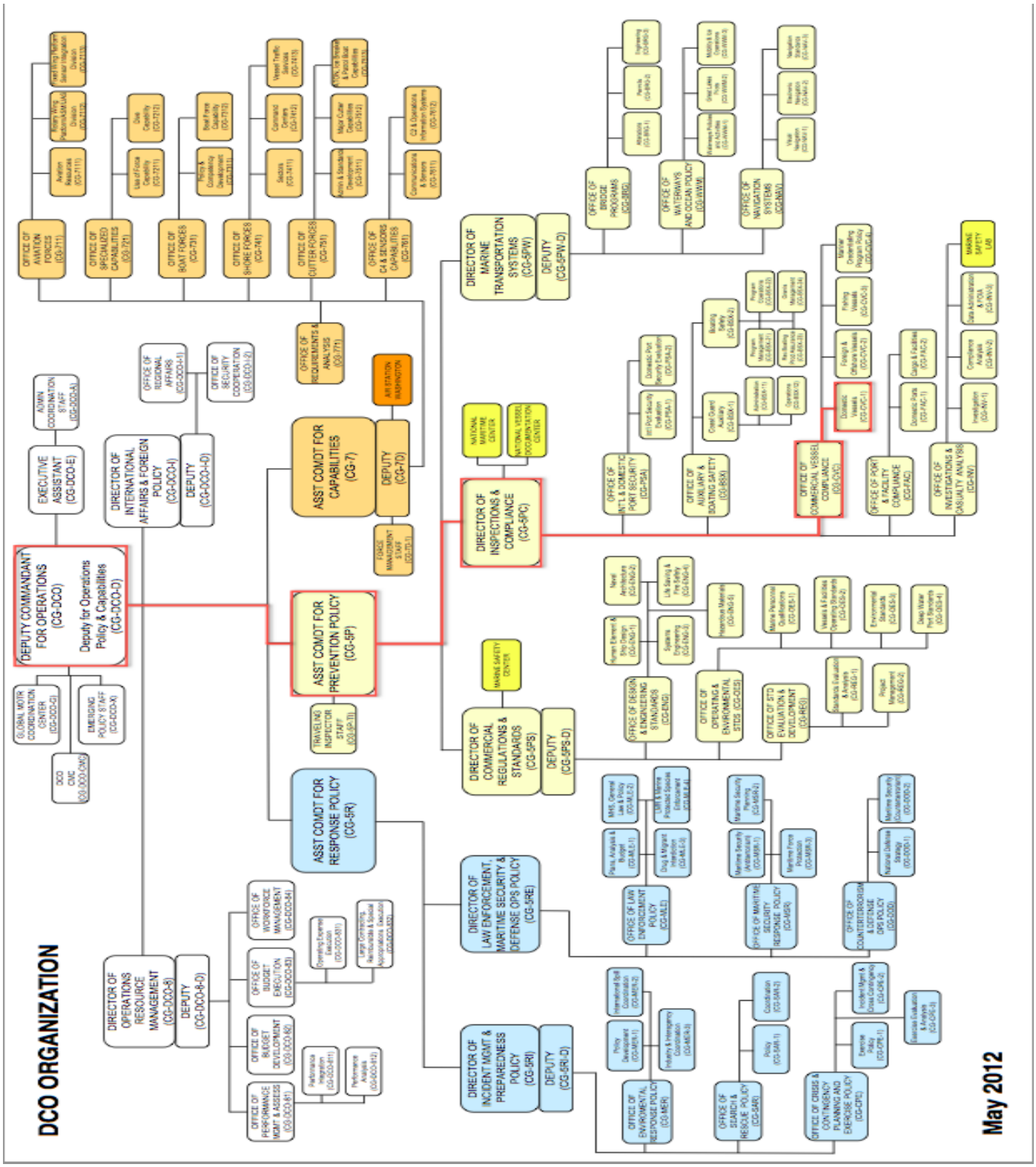

Figure 10: The U.S. Coast Guard's (2012b) Deputy Commandant for Operations (DCO) Organizational Chart

Appendix B: How This Project Qualifies as an IQP

The Interactive Qualifying Project (IQP) at Worcester Polytechnic Institute (WPI) is "a nine-credit-hour interdisciplinary requirement involving applied research that connects science or technology with social issues and human needs" (Worcester Polytechnic Institute, 2012, paragraph 2). Our project with the United States Coast Guard (USCG) is to examine and evaluate the effectiveness of the USCG's Alternate Compliance Program (ACP) for large vessels. The goal of our research will be to determine whether or not the ACP, which relies heavily on classification society inspections, has reached an effective level of oversight. Our research will help to determine whether or not ACP vessels obtain standards for safety and other aspects desired for U.S. Flagship vessels. By using data analysis methods such as GIS Mapping to achieve our goal, our project will connect science and technology with the social issues related to adequate safety and environmental standards for large commercial vessels that fly the flag of the United States.

Appendix C: Geographic Modeling of USCG Audited ACP Inspections

In this section our team will explain how we geographically mapped all of the USCG ACP targeted oversight inspections that have occurred during the 2009 to 2011 targeting list years. This will help the USCG gain perspective of where, geographically, these oversight exams are occurring.

First, we reviewed all of the inspection records and compiled all of the relevant data in a master Microsoft Excel spreadsheet. The spreadsheet included information pertained to the name of the vessel, the vessel's (Vessel Identification Number) VIN, the vessel's classification society, the Port Sector that it was inspected in, the coordinates of that location, and finally the day and year that the inspection took place. Table 4 is a small selection of what our team's master oversight data spreadsheet looked like. To view the entire master spreadsheet please see the attached material.

Table 5: Organized data from USCG audited ACP inspections.

	A	B	C	D	E	F	G	H
1	Ship Name	VIN	Class	Inspection Port	Latitude	Longitude	Date	Target List Year
23	TINA LITRICO	547000	ABS	Baltimore, MD	39.2738	-76.5854	27-Dec	2008
24	TINA LITRICO	547000	ABS	Baltimore, MD	39.2721	-76.5864	11-Feb	2008
25	USNS GORDON	7234430	ABS	Hampton Roads, VA	36.8723	-76.3483	02-May	2008
26	USNS LAWRENCE H.GIANELLA	684692	ABS	Crocket, CA	38.058	-122.2179	04-Mar	2008
27	USNS RICHARD G. MATTHIESE	684691	ABS	San Diego, CA	32.7057	-117.186	05-Nov	2008
28	WASHINGTON VOYAGER	570709	ABS	Benicia, CA	37.7985	-122.3955	07-Oct	2008
29	ASCENSION	1074545	DNV	Cape Canaveral, FL	28.4117	-80.611	20-Nov	2009
30	CHEMICAL PIONEER	661060	ABS	NY, NY	40.704	-73.971	16-Oct	2009
31	CLAIRE CANDIES	1209608	LR	Houma, LA	29.1047	-90.194	12-Jun	2009
32	CLAIRE CANDIES	1209608	LR	Houma, LA	29.103	-90.194	22-Jul	2009
33	HORIZON CHALLENGER	515155	ABS	San Juan, PR	18.464	-66.1145	23-Jan	2009
34	HORIZON CHALLENGER	515155	ABS	NY, NY	40.702	-73.97	08-Jun	2009
35	HORIZON CONSUMER	552818	ABS	Portland, OR	45.5628	-122.7088	15-Oct	2009
36	NEW RIVER	1046707	ABS	Houston, TX	29.7318	-95.2761	27-Oct	2009
37	NOBLE STAR	941410	ABS	Port of Lake Charles	30.217	-93.2592	29-Jul	2009
38	SEALAND PERFORMANCE	665790	ABS	Portsmouth, VA	36.8587	-76.3282	26-Jan	2009
39	TINA LITRICO	547000	ABS	Long Beach, CA	33.7427	-118.202	14-Oct	2009
40	ADVANTAGE	936288	ABS	Port of Lake Charles	30.215	-93.259	05-Feb	2010
41	ADVANTAGE	936288	ABS	Philadelphia, PA	39.9776	-75.0886	21-Sep	2010
42	CHARLESTON	658493	ABS	Corpus Christi, TX	27.8129	-97.4068	14-Jun	2010
43	ENERGY ENTERPRISE	657540	ABS	Somerset, MA	41.7078	-71.1861	15-Dec	2010
44	ENERGY ENTERPRISE	657540	ABS	Somerset, MA	41.7085	-71.1868	22-Sep	2010
45	GEYSIR	622178	ABS	Hampton Roads, VA	36.942	-76.3338	20-Aug	2010
46	GEYSIR	622178	ABS	Hampton Roads, VA	36.9368	-76.3339	15-Sep	2010
47	GEYSIR	622178	ABS	Hampton Roads, VA	36.9347	-76.3333	06-Dec	2010
48	HORIZON DISCOVERY	516464	ABS	NY, NY	40.703	-73.97	28-Jun	2010
49	HORIZON SPIRIT	624457	ABS	Honolulu, HI	21.3114	-157.8759	14-Jan	2010
50	HORIZON SPIRIT	624457	ABS	Nantong, China	31.9702	120.8569	26-Apr	2010
51	HORIZON TRADER	552706	ABS	Elizabeth, NJ	40.68	-74.15	29-Oct	2010
52	HORIZON TRADER	552706	ABS	Elizabeth, NJ	40.688	-74.15	30-Apr	2010

After the all of the examination data was added to the Microsoft Excel spreadsheet, it was ready to be uploaded to a GIS mapping software. Our team found that the simplest way to upload the data from a Microsoft Excel document to Google Maps was to use Batchgeo software at batchgeo.com. Below is the step-by-step process that the team will follow to map the inspection points.

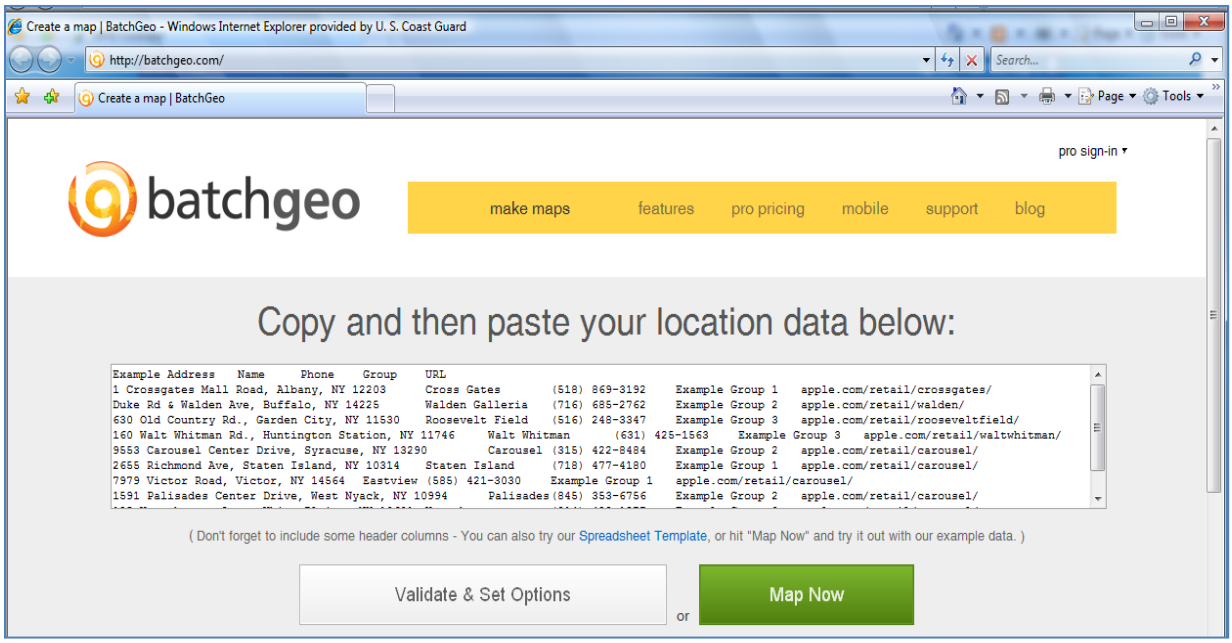

Figure 11: Displays the homepage for batchgeo.com (Batchgeo, 2012).

The first step the team took in creating the map of inspection points using Batchgeo was to copy and paste all of the data from the Excel document into the window where it says "Copy and then paste your location data below." In this step, it is important to include the column headings because they will become the searchable titles on the map. When this is completed select the "Map Now" button.

Next, Batchgeo asked the team for data display options. The team selected "Show Advanced Options" to tailor the map to our specifications. Then, the team will choose the following options:

1. Region: International
2. Group By/Thematic Value: Year
3. Title: Ship Name
4. Marker Description: All Columns
5. URL: Use Google Maps
6. Latitude: Latitude
7. Longitude: Longitude
8. Select "Enable clustering for high density markers"
9. Select "Satellite" under the default map view

After the above options are selected, then select the "Update Map" button.

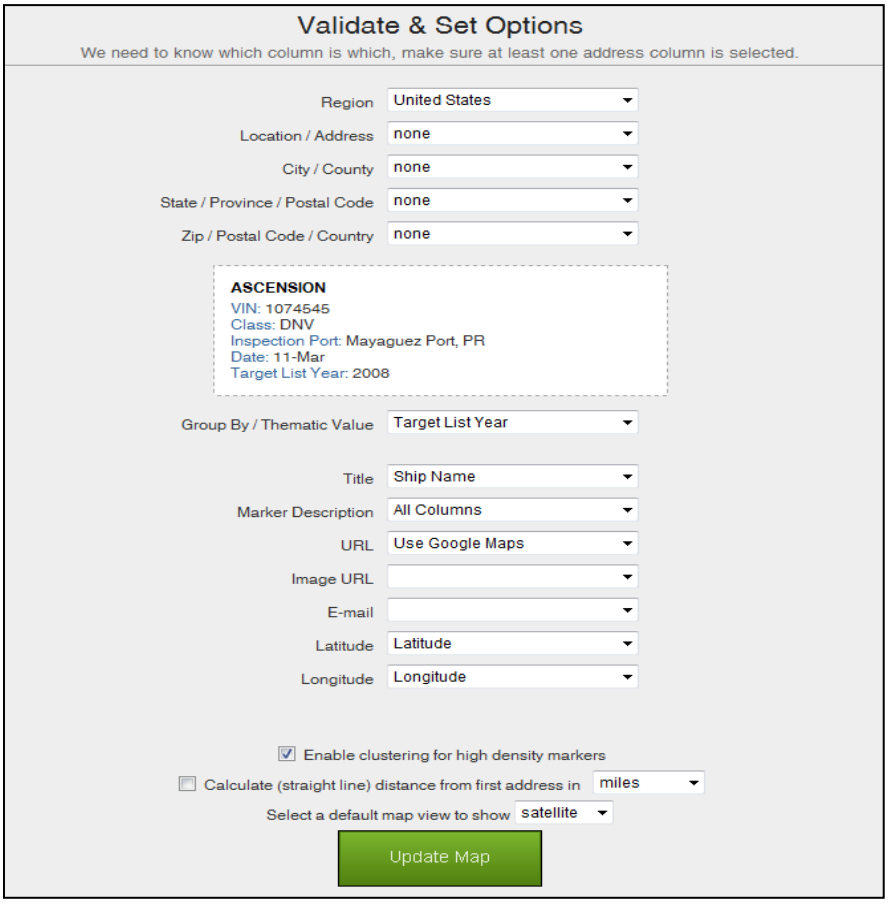

Figure 12: Displays the advanced options for data points (Batchgeo, 2012).

After that step, the team's USCG ACP oversight inspection maps were generated, and they were one final step away from finalization. The map below in Figure 14 shows the geographic maps locations of the USCG ACP oversight exams that occurred during the 2008 – 2009 targeting list year. To finalize the map we selected the "Save" option. This locked all of the inspection data points in place so that they could no longer be edited in this viewing mode.

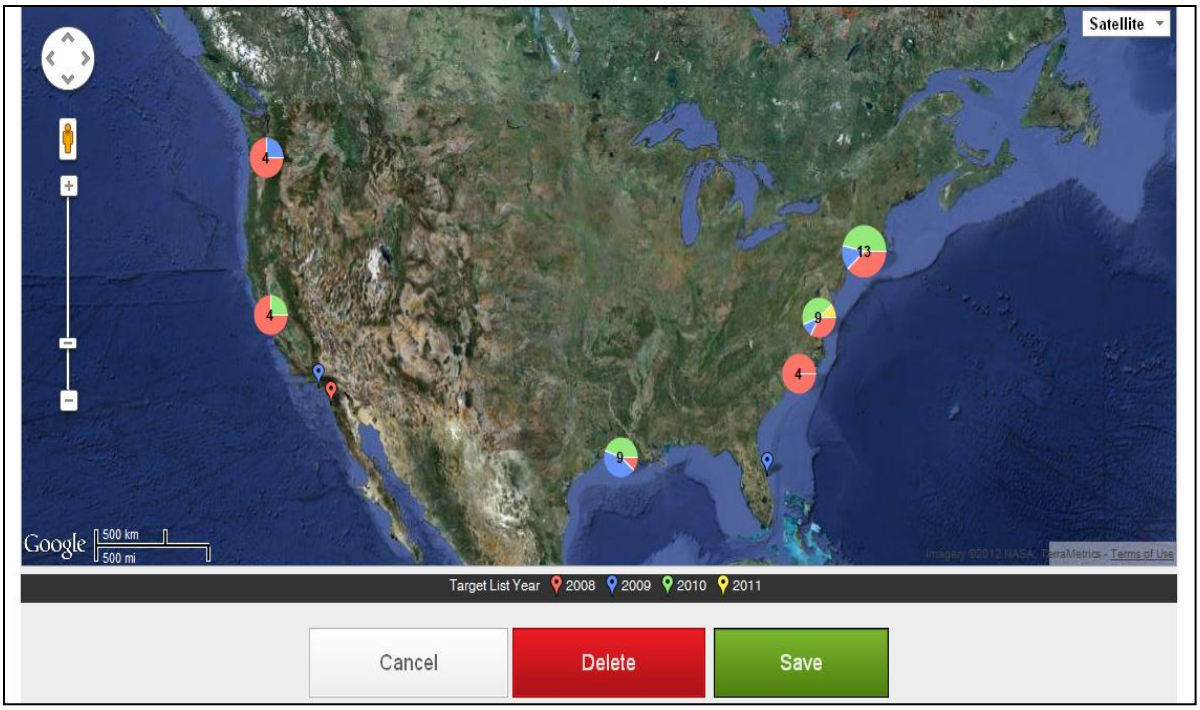

Figure 13: USCG ACP oversight exam map just before finalization.

At this point the group chose a title, wrote a map description, and selected the map maker's e-mail for later map revisions. During this step we also chose the map to be "Unlisted" so that only people with the maps exact URL could access it. This step can be viewed below in Figure 14.

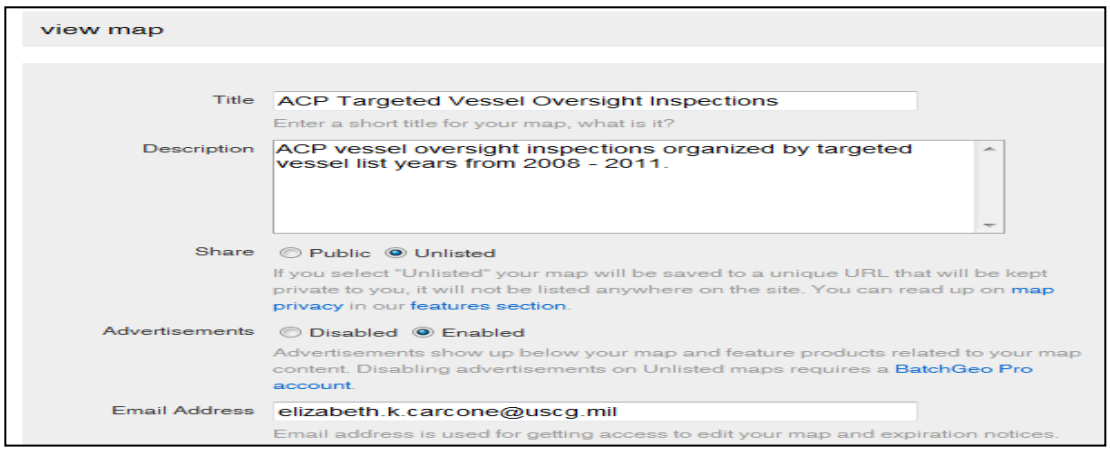

Figure 14: Describes how to create the map's title, description, and how to set the map's privacy, (Batchgeo, 2012).

After our map was saved, it showed up on the screen, but the data points are no longer able to be manually moved. This is shown in Figure 15 below.

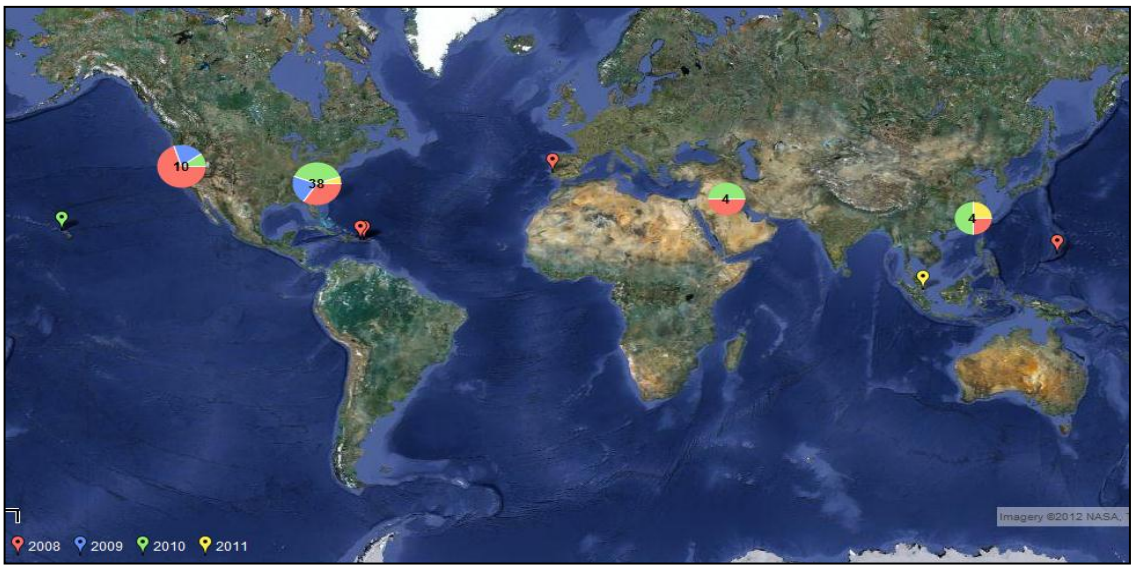

Figure 15: Saved map USCG audited ACP inspection data clusters in viewing mode.

Once the map is in view mode, the team was then able to zoom in any port sectors to be able to visually display inspection data to the USCG. Figure 16 and Figure 17 show some of the map capabilities.

The first picture Figure 16, shows all of the inspections that have taken place in Sector Hampton Roads since the 2008 targeted list. It is even possible to select one of the data points, and it will display all of the information about that inspection that was uploaded from the Excel document.

Figure 16: Close-up view of Sector Hampton Roads, VA USCG ACP oversight exams.

This second picture, in Figure 17, displays only USCG audited ACP inspections from 2008 target year in domestic. Our map's different viewing options were useful to our team and the USCG when trying to view data from a specific targeting list year. To do this we selected one of the color coordinated icons that can be found on the bottom left corner of the map. In Figure 17 below we selected the 2008 targeting list year icon.

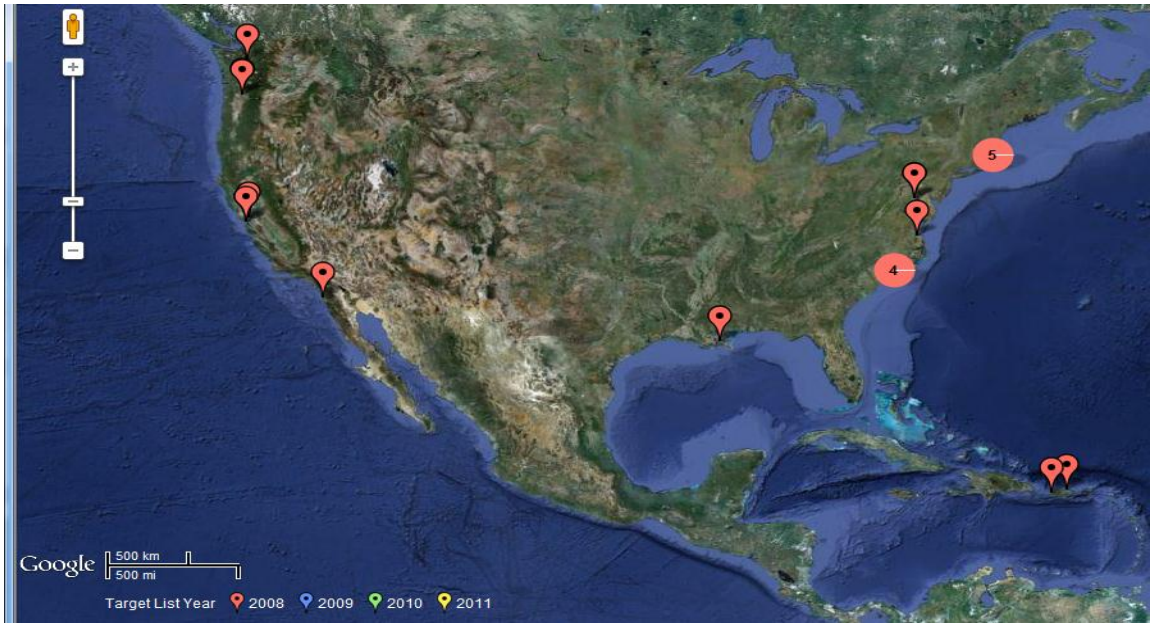

Figure 17: Domestic USCG ACP oversight exams from the 2008 targeted vessel list.

Also, once we were zoomed in enough to be able to select the a singular data point then information regarding that particular inspection is shown, ie: the vessel name, VIN, Classification Society, inspection port, and date of inspection. This can also be seen in Figure 18.

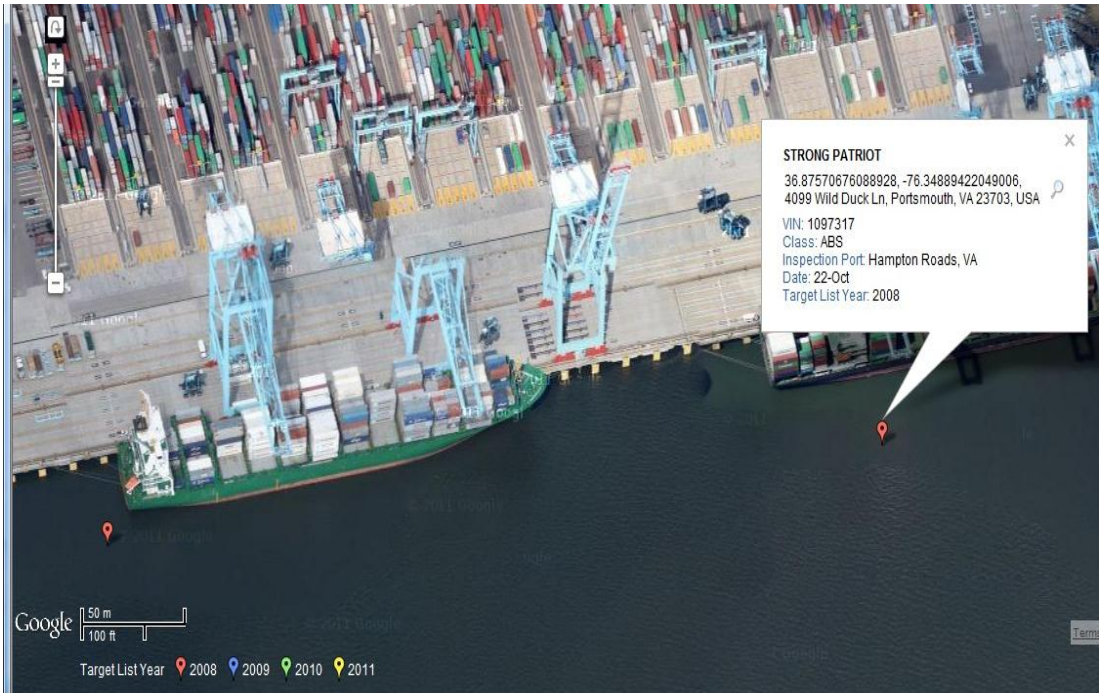

Figure 18: Zoomed in view of cargo vessels in the port of Hampton Roads, VA. Also shows the maps capabilities in displaying vessel inspection information.

Our group realizes that this map must be able to be edited and changed in accordance with new and updated USCG audited ACP inspection records. The Batchgeo website makes it extremely easy to make changes to the data and map. When the map was first saved, an e-mail was sent to the e-mail address of the person creating the map, and it will look like Figure 18 below.

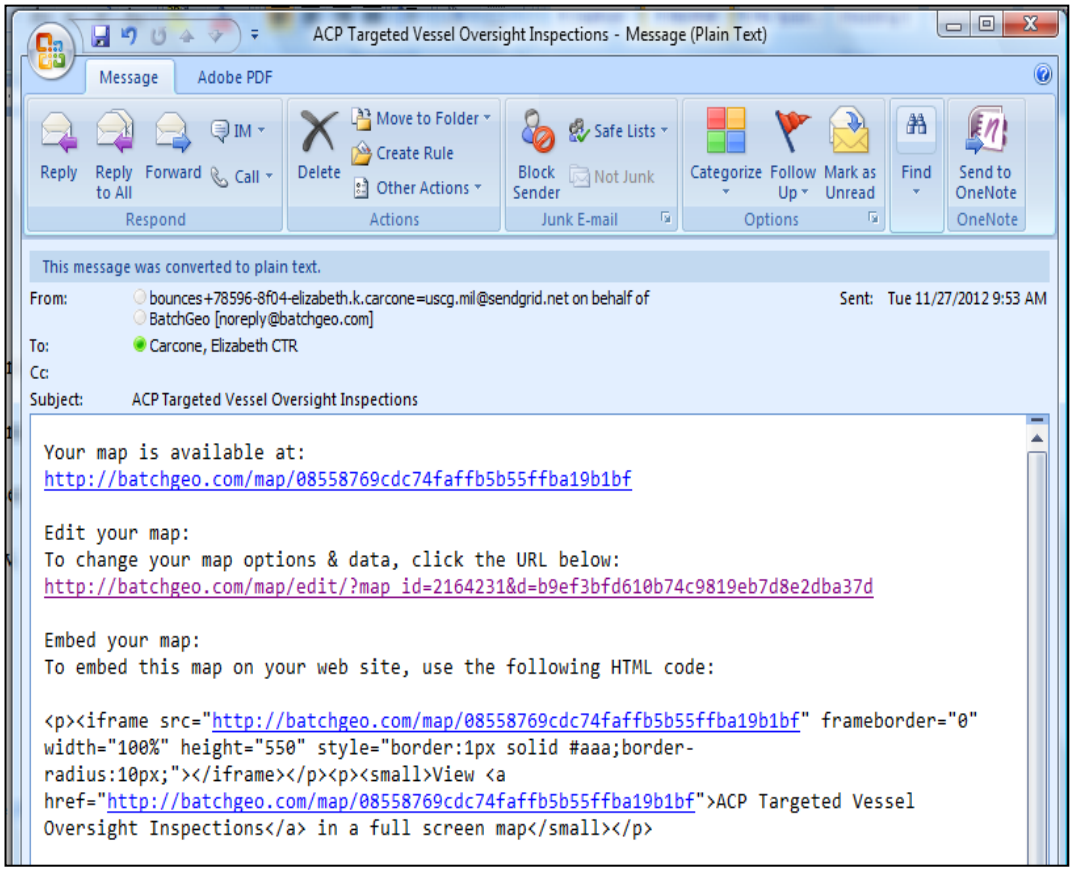

Figure 19: E-mail from Batchgeo that allows the user to edit any maps we have created.

To edit any of our previously created maps, we selected the URL under "Edit your map." This brought us to the map creator to the map's options page as seen in Figures 12, 13, and 14. From that point we were able use any new data to our map that had been added to our master spreadsheet.

Appendix D: USCG Inspector Interview Protocol

Introduction: We have requested an interview with you today because we believe you are someone with considerable knowledge that could help us with our project. Our project aims to determine whether or not the United States Coast Guard's Alternate Compliance Program has achieved an effective degree of risk-based oversight. Throughout the project we will be conducting interviews with professionals like yourself as well as collecting and reviewing data in order to complete our goal.

Interviewee Background:

Current Title: _____
Duties: _____
USCG Unit: _____
Rank/Rate: _____

1. Do you currently inspect vessels enrolled in the ACP? (Y/N)
    a. If Y. What sector(s) do you conduct these inspections in?
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    d. If Y. Do you evaluate ANOAs for ACP vessels?
2. Do you have a hull qualification? (Y/N)
3. Do you have a machinery qualification? (Y/N)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please indicate N/A if not applicable)
    Freight Ship –
    Tank Ship –
    Offshore Supply Vessel –
    MODU –
    Passenger Vessel –
    Research Vessel –
5. In your experience, what types of deficiencies are most commonly found during inspections?
6. What are some types of critical deficiencies?
7. Do you reference the ACP targeted vessel list frequently?
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –
    b. LR –
    c. GL –
    d. DNV –

9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)?
10. How do you rate your relationship with the ACS? (1-10 where 1= bad 10=excellent)
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Is it comparable to the U.S. flagged vessels that are not in the ACP?
12. How do you feel the program has performed since its inception fifteen years ago?
13. If you could change anything about the program what would it be?
14. What do you think is the best aspect of the ACP?
15. How do you feel about the ACP becoming the standard regulatory process for U.S. flagged vessels that are greater than 500 gross tons?
16. Do you have any suggestions for how the USCG could improve or enhance the ACP?

Appendix E: USNS Gilliland Tour

USNS Gilliland, 1 November 2012

Our team toured the USNS Gilliland, a 956-foot, medium-speed Roll-on/Roll-off vessel (a vessel that has a built in ramp allowing for cargo to be "rolled" on and off easily and efficiently) that is part of the U.S. Navy's Military Sealift Command, and is also enrolled in the ACP. On the tour we learned about the different types of deficiencies that vessels of this magnitude commonly encounter. For example, one common deficiency is in the deployment of the life rafts. The CWO who accompanied us on the tour said that life raft components often rust because of the saltwater and their lack of usage. Furthermore, a lot of deficiencies are found in the fire safety and prevention gear, such as misplaced fire extinguishers, or other fire equipment that is not easily accessible. The CWO also said that many deficiencies that he finds on vessels are in the lighting of ships as well as in the engines and oil-water separators. We toured the ship, including the six cargo decks, the engine room, which housed the main and two auxiliary engines, the bridge (where the captain steers the vessel),the diesel generator, and the main control room, which is located in the engine room and is where the main computer system is operated and the functions of the ship, including the engines and the bilges, are controlled.

The experience of touring an ACP enrolled vessel was extremely helpful to our understanding of our project and the ACP. It helped us to actually see the types of deficiencies vessels can have, the interaction between a vessel captain and a marine inspector, and just to realize the enormous size of the vessels our project deals with.

Appendix F: USCG Inspector Survey Responses [sic]

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in? – [redacted]
    b. If N. Have you ever been a USCG vessel inspector? - Yes
        i. If Y. Were you ever an inspector of ACP vessels? - Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? – Oil/Gas/Offshore
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    2012 – 20 YTD
    2011 - 28
    d. If Y. Do you evaluate ANOAs for ACP vessels?
    No - [redacted]
2. Do you have a hull qualification? - Yes
3. Do you have a machinery qualification? - Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
    Freight Ship – 3 – 4 hours
    Tank Ship – 4- 5 hours
    Offshore Supply Vessel – 4-5 hours
    MODU – n/a
    Passenger Vessel – n/a
    Research Vessel – n/a
    In each case this assumes that the vessel is "ready for inspection".

5. In your experience, what types of deficiencies are most commonly found during inspections?
    Recordkeeping errors – missing/inaccurate paperwork.

6. What are some types of critical deficiencies?
Structural failures, inoperable equipment (generators, steering pump, etc)

7. Do you reference the ACP targeted vessel list frequently?
Yes

8. Do you have access to the ACS databases? (Y/N)

a. ABS – yes
b. LR – no
c. GL – yes
d. DNV – yes

9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? – Yes
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) – 8 – Generally, my experience w/ class societies has been positive. However, it does take active engagement by both sides to maintain a positive working relationship.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels?
    In my opinion I think that ACP is a good program. Like any other program, it has challenges, however, if both the USCG Inspectors/Class societies work together, share information, etc - I believe it works well.
12. How do you feel the program has performed since its inception fifteen years ago?

See above

13. What do you like and/or dislike about the ACP?
    Like - I believe that the active engagement of class societies helps to ensure a standard/universal approach to vessel inspections. Within the USCG structure, **OCMI's have a great deal of discretion when it comes to applying/waiving vessel** requirements. This discretion is necessary for the successful management of a port given that each has a unique set of variables that present their own challenges. However, I believe such discretion can lead to inconsistent enforcement of the **regulations from port to port. This can lead vessel's/companies to "shop" for an OCMI** zone that may be more favorable to a particular set of circumstances. In my opinion, class societies help to provide a more consistent approach to vessel inspections.
    Dislike – **Many company/vessel representatives don't fully understand t**he details/nuances of the ACP program making program administration difficult at times.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    1. Take more active enforcement measures against companies who violate the terms of their COI or enrollment in the ACP Program (Letters of Warning, Notices of Violation, Civil Penalties, etc).
    2. A more seamless integration of data systems (class data bases, MISLE, etc) would significantly enhance the effectiveness/efficiency of the program.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?
    The vessel should be fit for its intended route and service and the COI should be accurate and error free.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) YES
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? Avg 10
    d. If Y. Do you evaluate ANOAs for ACP vessels? [redacted]
2. Do you have a hull qualification? (Y/N) YES
3. Do you have a machinery qualification? (Y/N) YES
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 2 inspectors 8-9 hours
   Tank Ship – 2 inspectors 9 hours
   Offshore Supply Vessel – 1 inspector 6 hours, 2 inspectors 3-4
   MODU – (N/A)
   Passenger Vessel – (Small Passenger Vsl about 3 hours—**T boat) Larger ones I don't do**
   Research Vessel – 2 inspectors 8-9 hours
5. In your experience, what types of deficiencies are most commonly found during inspections? Maintenance, Recordkeeping
6. What are some types of critical deficiencies? Failure to maintain firefighting and lifesaving appliances appropriately
7. Do you reference the ACP targeted vessel list frequently? Yes
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –Y
    b. LR – Y
    c. GL –Y
    d. DNV – Y
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes—**but it's difficult to say if** we get them all since we only know what we receive, sometimes, we discover there are **times when we aren't notified**

10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? Good with ABS, and good with all the field surveyors, less good with DNV, and no standing relationships with GL and LR
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Pretty good.
12. How do you feel the program has performed since its inception fifteen years ago? Good **overall, but there's area for improvement**
13. What do you like and/or dislike about the ACP? Makes our life easier, since we leverage **the talents of their organizations and in many cases it's easier to obtain correction since** we have a designated surveyor and ACS to manage instead of engaging with occasionally contentious owners ourselves. Dislikes would be that the overall approach by ACSes is that of a business and cannot match the stewardship that typical CG inspectors bring.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? We must be timely with the Targeting List.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? The COI is a primary indicator that the vessel is fit for service and route. My **responsibility is to ensure the vessel may proceed with it's service without presenting an** unreasonable risk to the mariners, the public, and the environment.

Interviewee Background:
Current Rank-Title: [redacted]
Duties:
USCG Sector:

Current Rank-Title: [redacted]
Duties:
USCG Sector:

Questions:

1. Do you currently inspect vessels enrolled in the ACP?
   No, mostly oversee the inspectors and the inspections. Responsible for signing inspection certificates and Letters of Deviation.
   Yes, ACP vessels.
2. Historically, what sector(s) have you conducted these inspections in?
   [redacted]
3. Approximately how many ACP vessels do you inspect per year?
   Officially none, may tag along if another USCG inspector is completing an inspection.
4. Do you have access to the ACS's databases?
   Don't know, never tried to use it.
5. How would you rate your relationship with the ACS? (1=bad, 10=excellent)
   8+ Overall good relationship, recently had a round table meeting with ACSs.
6. Do you receive ACS notifications concerning ACP related activities?
   No, something would have to be catastrophic for ACS to contact me.
   Sometimes, usually informal e-mail from surveyors.
7. Do you reference the ACP targeted vessel list frequently?
   No, am notified if and when a vessel is coming into [redacted] and if it has outstanding requirements. Then will send inspectors out for oversight.
   No, is notified and goes to the vessel to inspect deficiency repairs.
8. Do you have a hull qualification?
   Yes.
9. Do you have a machinery qualification?
   No.
   Yes.
10. In your experience, what is the average time duration for an annual ACP inspection?
    As long as it takes. Certain parts are broken down and performed on different days. 2-3 days for regular COI, 1 full day for ACP inspection.
11. In your experience, what types of deficiencies are most commonly found during inspections?
    Life saving equipment usually has many deficiencies because it is rarely used and saltwater can erode machinery to lower and raise lifeboats, also inspectors usually find that the rations are expired. Anti-fire systems can have many deficiencies. Not enough fire hoses, broken/not working fire hose stations, malfunctioning anti-fire foam system. Erosion from saltwater and general uncleanliness.
12. What are some types of critical deficiencies?

Malfunctioning navigation gear, life saving boats, valves (steam hazard). Safety is of the upmost importance. 1. Passengers 2. Crew 3. Port 4. Vessel 5. Enviroment.

13. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Is it comparable to non-ACP vessels that are U.S. flagged?
    Most if not all vessels that call here that are over 500 gross tons are already ACP. MSP vessels are in lesser condition because they are allowed to complete commercial trading when they are not transporting military goods. They are used much more frequently than some ACP vessels and have a higher risk.
14. How do you feel the program has performed since its inception fifteen years ago?
    Once the confusion that "ABS is going to do everything" was cast aside and the USCG inspectors found their niche in the ACP they were able to do their jobs and make sure that the people are not doing anything wrong to hurt people and the environment.
15. If you could change anything about the program what would it be?
    Make more training or more in-depth training for inspectors, both old and new, because a lot of experience comes from on-the-job learning.
    Place more emphasis on keeping vessels U.S. flag.
16. What do you believe is the best aspect of the ACP?
    It provides incentive to keep vessels U.S. flag. Government contracted/owned or vessels that want to trade in multiple U.S. ports (Jones Act).
17. How do you feel if the ACP were to become the standard regulatory process for all U.S. flagged vessels over 500 gross tons?
    All vessels in [redacted] that are over 500 gross tons are already ACP.
18. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    More cross-training of USCG inspectors so that they are more qualified and proficient in inspecting vessels. (ABS and other ACSs have a better training program because they are businesses and have the resources to spend on additional training.)

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in?
    [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? Two (2) [redacted]
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? No
3. Do you have a machinery qualification? Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – One (1) full work day with three (3) qualified inspectors; approx. 24 man-hours (total) for a typical, annual COI exam.
   Tank Ship –
   Offshore Supply Vessel –
   MODU –
   Passenger Vessel –
   Research Vessel –
5. In your experience, what types of deficiencies are most commonly found during inspections?
   We routinely find a whole range of problems; both the [redacted] are minimally-manned (civilian work-force) and are in a Reduced Operating Status. (RS-4).
   ***I will include some deficiency examples at the end of this survey.
6. What are some types of critical deficiencies? Anything dealing with firefighting, stability, lifesaving, etc.
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N) **I'm not quite sure what your ACS** acronym refers to. (Assistant Chief Surveyor?)
    a. ABS –
    b. LR –

c. GL –
d. DNV –

9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? No
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? **I would rate our relationship with ABS around an "8". Although** we have a great relationship with our ABS counter-parts, their technical expertise and experience is severely lacking in my opinion. This is primarily due to the fact that most of the **ABS surveyors in our zone are very junior, and don't have much first**-hand knowledge of shipboard systems. In other words our classification society counterparts **are still "learning on**-the-job, and thus as a marine inspector I still need to double-check most of their work.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? **Personally, I don't like it as a concept. As I understand it, the ACP intends for the recognized classification society to "oversee" that** a respective vessel maintains an existing level of safety and environmental protection equivalent to the corresponding federal regulations which govern the inspection of U.S. vessels. This may work in some **regards, but if I can't fully trust the classific**ation society, as pointed out in question No. **10, then how much can I trust that they (ABS) are really offering an "equivalent" level of safety? Secondly, I don't quite fully understand why a "gray-hull" ship that is** inspected and certified in accordance with the standards applicable to the Military Sealift Command (MSC) needs a U.S. Coast Guard Certificate of Inspection (COI).
12. How do you feel the program has performed since its inception fifteen years ago? **I've only** been exposed to this program for less **than three (3) years, so I don't have an opinion on** how the program has performed since its inception.
([redacted] – I have inspected ACP vessels since 2002 and I would say that the quality of the inspections has decreased drastically over time. As ABS surveyors become more junior overall, the experience and skill levels suffer. ACP has also taken away the opportunity for USCG inspectors to gain experience in hull and machinery inspections.)
13. What do you like and/or dislike about the ACP? Answered in question No. 11; not enough accountability.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
([redacted] – Disestablish ACP and let the CG do its job. This will expose USCG inspectors to the deep-draft fleet and allow them to get qualifications that are extremely difficult to attain otherwise.)
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Ensuring that the vessel will safely be able to carry its crew and cargo if/when it is called up. Our emphasis is primarily on the lifesaving, firefighting, stability, construction/load-line type items. Since these vessels very rarely leave the dock, we

don't get to operationally test as much of the equipment that we would normally test on a "fully-operational" vessel. Drills, such as the launching of the inboard lifeboats, are often deferred until the vessel is activated and the whole crew compliment is aboard.

As per question No. 5, below are some examples of the common deficiencies that we run across on the two (2) ACP vessels that are pre-positioned in [redacted].

1. Operations – Vessel must complete satisfactory fire and abandon ship drills prior to being activated.
2. Fire fighting – Vessel must crop and renew wasted fire-main piping.
3. Engineering – Vessel must install flame screens on all fuel oil vent piping.
4. Stability – Vessel must prove proper operation of sliding water-tight doors (WTD) in accordance with ASTM F 1197.
5. Construction/Loadline – Vessel must seal/plug bulkhead penetrations of the water-tight bulkhead in aft-steering compartment.
6. Pollution Prevention – Vessel must prove proper operation of the Oily Water Separator (OWS) prior to activation.
7. Electrical – Vessel must repair intermittent power failures of its Power Management System (PMS); caused loss-of-power on the vessel.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) YES
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? Avg 10
    d. If Y. Do you evaluate ANOAs for ACP vessels? ANOAs are not applicable for this [redacted] unit
2. Do you have a hull qualification? (Y/N) YES
3. Do you have a machinery qualification? (Y/N) YES
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 2 inspectors 8-9 hours
   Tank Ship – 2 inspectors 9 hours
   Offshore Supply Vessel – 1 inspector 6 hours, 2 inspectors 3-4
   MODU – (N/A)
   Passenger Vessel – (Small Passenger Vsl about 3 hours—T boat) Larger ones I don't do
   Research Vessel – 2 inspectors 8-9 hours
5. In your experience, what types of deficiencies are most commonly found during inspections? Maintenance, Recordkeeping
6. What are some types of critical deficiencies? Failure to maintain firefighting and lifesaving appliances appropriately
7. Do you reference the ACP targeted vessel list frequently? Yes
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –Y
    b. LR – Y
    c. GL –Y
    d. DNV – Y
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes—**but it's difficult to say if** we get them all since we only know what we receive, sometimes, we discover there are **times when we aren't notified**

10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? Good with ABS, and good with all the field surveyors, less good with DNV, and no standing relationships with GL and LR
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Pretty good.
12. How do you feel the program has performed since its inception fifteen years ago? Good **overall, but there's area for improvement**
13. What do you like and/or dislike about the ACP? Makes our life easier, since we leverage **the talents of their organizations and in many cases it's ea**sier to obtain correction since we have a designated surveyor and ACS to manage instead of engaging with occasionally contentious owners ourselves. Dislikes would be that the overall approach by ACSes is that of a business and cannot match the stewardship that typical CG inspectors bring.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? We must be timely with the Targeting List.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? The COI is a primary indicator that the vessel is fit for service and route. My **responsibility is to ensure the vessel may proceed with it's service without presenting an** unreasonable risk to the mariners, the public, and the environment.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N)
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? 30-40
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? (Y/N)
3. Do you have a machinery qualification? (Y/N)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 4 hours (1-2 inspectors)
   Tank Ship – 4-6 hours (1-2 inspectors)
   Offshore Supply Vessel – 2 hours (1-2 inspectors)
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – 4 hours (1-2 inspectors)
5. In your experience, what types of deficiencies are most commonly found during inspections? **Labeling/Stenciling, G/A's,**
6. What are some types of critical deficiencies?
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL – No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 10 for ABS and DNV
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Very Good
12. How do you feel the program has performed since its inception fifteen years ago? Very Good
13. What do you like and/or dislike about the ACP? Less redundancy between the two entities.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? No

15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? To **ensure that the Class society has ensured a level of safety in ship's ability to sail and** that the Coast Guard ensures that the personnel on board the vessel have the capability to sail it.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? Yes (as a trainee)
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    d. If Y. Do you evaluate ANOAs for ACP vessels?
2. Do you have a hull qualification? No
3. Do you have a machinery qualification? No
4. In your experience, what is the average duration of time for an annual ACP inspection?
   Freight Ship – 3 hrs (2 inspectors)
   Tank Ship – N/A
   Offshore Supply Vessel – N/A
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections? Lifesaving equipment
6. What are some types of critical deficiencies? N/A
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – No
    b. LR – No
    c. GL – No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? No
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 8, the attitude of the USCG inspector and ABS surveyor greatly effect the relationship with each individual inspection. In my experience it has been an efficient relationship.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? I feel it provides an equivalent oversight of safety and environmental regulations.

12. How do you feel the program has performed since its inception fifteen years ago? N/A (experience: 3 yrs)
13. What do you like and/or dislike about the ACP? Training for USCG inspectors is lacking due to number of ACP vessels. But, I believe it provides a more efficient method of ensuring that vessels comply with all safety regulations.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? No
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Abbreviated inspection and fire/security/abandon ship drills.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted].
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year? > 10
    d. If Y. Do you evaluate ANOAs for ACP vessels? Rarely see advance notice of **arrivals returning from Int'l voyages.**
2. Do you have a hull qualification? (Y/N) Yes
3. Do you have a machinery qualification? (Y/N) Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Typical time to complete is 1.5 hours.
5. In your experience, what types of deficiencies are most commonly found during inspections?
   Fire fighting, life saving, pollution prevention.
6. What are some types of critical deficiencies?
   Life saving equipment installations that are not approved and installations that don't follow established allowances found in SOLAS, Class or Supplement.
7. Do you reference the ACP targeted vessel list frequently?
   Rarely, difficu**lt to locate and haven't seen any vessels from our area on the target list.**
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – NO
    c. GL – No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)?
   Yes
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why?
    Dependent on the Class Society, more time is spent with certain societies so the relationship is better established.

11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels?
    Overall condition of the vessels is usually better than those not enrolled.
12. How do you feel the program has performed since its inception fifteen years ago?
    I feel the program has met the expected results with its original concept intact and is a worthwhile program to continue.
13. What do you like and/or dislike about the ACP?
    Establishes allowances that place more responsibility on the Owner in dealing with Class. Both parties are being held responsible so both are working equally to ensure compliance.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    Better flow of information with specific oversight on particularly parts of build or install.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?
    Provided that no other documents other than the limited COI and the ISSC is being endorsed by me. I am comfortable.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Y/N)-Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year? 15
    d. If Y. Do you evaluate ANOAs for ACP vessels? Some
2. Do you have a hull qualification? (Y/N) Yes
3. Do you have a machinery qualification? (Y/N) Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 4-6 Hrs
   Tank Ship – 4-7 Hrs
   Offshore Supply Vessel – N/A
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections? Lifesaving/MARPOL/
6. What are some types of critical deficiencies? None really critical, life boat davit brake probably most critical.
7. Do you reference the ACP targeted vessel list frequently? yes
8. Do you have access to the ACS databases? (Y/N) Yes-all
    a. ABS –
    b. LR –
    c. GL –
    d. DNV –
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Some
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 10-most classes represented in [redacted].
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Very good.
12. How do you feel the program has performed since its inception fifteen years ago?

It has gotten a lot better, better compliance by the ships and all know what to expect.

13. What do you like and/or dislike about the ACP? **I don't have any likes or dislikes.**
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    No, everything has settled since the early inception and everyone involved knows their duties and what to expect.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? To insure the ship meets SOLAS and Coast Guard standards, manning is met as well as all **other int'l and U.S. regulations.**

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? 15
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? (Y/N) Yes
3. Do you have a machinery qualification? (Y/N) Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 4 hours w/two inspectors
   Tank Ship – 6-8 hours w/two inspectors
   Offshore Supply Vessel – 3-4 Hours w/two inspectors
   MODU – Unknown – **don't do any here.**
   Passenger Vessel – N/A
   Research Vessel – Unknown
5. In your experience, what types of deficiencies are most commonly found during inspections? Lifeboat or rescue boat deficiencies
6. What are some types of critical deficiencies? Generator issues
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – Yes
    c. GL – Yes
    d. DNV – Yes
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? With ABS – 8, with DNV - 4
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? The compliance of regulations seems the same in most instances. However there have been substandard vessels due to the company.

12. How do you feel the program has performed since its inception fifteen years ago? It has reduced the man hours in conducting examinations, however it has also hurt our training program.
13. What do you like and/or dislike about the ACP? Time saving
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Ensuring vessel meets all domestic and international regulations.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) (YES)
    a. If Y. What sector(s) do you conduct these inspections in? ([redacted])
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? (6 to 10)
    d. If Y. Do you evaluate ANOAs for ACP vessels? (NO, vessels are stationed in [redacted])
2. Do you have a hull qualification? (Y/N) (YES)
3. Do you have a machinery qualification? (Y/N) (YES)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 2 Inspectors 4 hours
   Tank Ship – 2 Inspectors 4 hours
   Offshore Supply Vessel – N/A
   MODU – N/A
   Passenger Vessel –N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections? (Major Housekeeping issues onboard the MARAD Vessels)
6. What are some types of critical deficiencies? (Fuel Leaks)
7. Do you reference the ACP targeted vessel list frequently?(NO)
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –YES
    b. LR – NO
    c. GL –NO
    d. DNV – NO
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)?(NO)
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why?(5)(Their inspections go on for a longer period of time)
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels?(Satisfactory with no major problems reported)
12. How do you feel the program has performed since its inception fifteen years ago?(It works, but our oversight on ROS Vessels in the ACP program is somewhat useless)

13. What do you like and/or dislike about the ACP?(Conducting ACP oversight on a ROS MARAD or MSC vessel with hardly no crew on board)
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?(Drop the MARAD and MSC Vessels)
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?(Making sure the vessel complies with all the US rules and Regulations, and to ensure that the Class is conducting proper inspections on our behalf.)

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year? 50
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? Yes
3. Do you have a machinery qualification? Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 2 inspectors/3-4 hours
   Tank Ship – 2 inspectors/3-4 hours
   Offshore Supply Vessel – 1 inspector/3 hours
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections? Lifesaving and firefighting deficiencies
6. What are some types of critical deficiencies? Expired hydro-static release mechanisms
7. Do you reference the ACP targeted vessel list frequently? Yes
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL – No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes from ABS
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? **4 because the CG doesn't do well with improving the relations and** cross training inspectors and surveyors.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Sub-par for those vessels working overseas and not too much better for those here in the states.

12. How do you feel the program has performed since its inception fifteen years ago? **I wasn't a** part of it 15 years ago, but in the past 11 years things have gotten worse due to the relation between ABS and the CG, in some zones, is sometimes non-existent and with **the other class societies it's much worse.**
13. What do you like and/or dislike about the ACP? It would be fine if all zones would follow the program and if the CG would hold class accountable. Right now it is viewed as a **way to pay to get the CG out of a company's hair**.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? Improve relations by cross-training the inspectors and surveyors and each zone hold quarterly/semi-annual meetings with the inspectors and class.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Have the warm and fuzzy about the safety of the crew and the materiel condition of the vessel.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Yes)
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector? Yes
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year? 3
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? (No)
3. Do you have a machinery qualification? (Yes)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 4hrs, 2 Inspectors
   Tank Ship – 4hrs, 2 Inspectors
   Offshore Supply Vessel – 4hrs, 2 Inspectors
   MODU – Unknown
   Passenger Vessel – Unknown
   Research Vessel – **I don't believe they are eligible to participate in ACP**
5. In your experience, what types of deficiencies are most commonly found during inspections? Lifesaving, Firefighting
6. What are some types of critical deficiencies? Non approved rescue boats
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL –No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes but not consistently
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 5 Overseas in foreign countries it is hard to establish relationships
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? About the same as Non ACP vessels
12. How do you feel the program has performed since its inception fifteen years ago? Satisfactory

13. What do you like and/or dislike about the ACP? I like it because it relieves some of the burden off the Coast Guard
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? No
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? That is safe to continue sailing under the terms of its COI.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) YES
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? 25
    d. If Y. Do you evaluate ANOAs for ACP vessels? What is ANOA?
2. Do you have a hull qualification? (Y/N) YES
3. Do you have a machinery qualification? (Y/N) YES
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 8 HRS 1INSP
   Tank Ship – 8 HOURS 1 INSP
   Offshore Supply Vessel – 4 HOURS 1 INSP
   Passenger Vessel – UNK
   Research Vessel – UNK
   MODU – UNK
5. In your experience, what types of deficiencies are most commonly found during inspections? LACK OF MAINTENANCE
6. What are some types of critical deficiencies? LIFESAVING FIREFIGHTING
7. Do you reference the ACP targeted vessel list frequently? YES
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –Y
    b. LR – Y
    c. GL –Y
    d. DNV – Y
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? SOMETIMES
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 6, SOME ARE GOOD, SOME ARE NOT SO GOOD
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? NOT GOOD
12. How do you feel the program has performed since its inception fifteen years ago? BADLY
13. What do you like and/or dislike about the ACP? LEAVES NO WAY TO TRAIN NEW INSPECTORS, LEVEL OF CARE AMONG OWNERS IRT CG REQUIREMENTS,

IS VERY LOW, THEY THINK CG REQUIREMENTS/REGULATIONS ARE NOT IMPORTANT

14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    COMPLETE OVERHAUL REQUIRED. REWRITE THE SUPPLEMENTS TO BECOME MEANINGFUL, ENSURE CLASS SURVEYORS HAVE PROPER TRAINING. HAVE CG ATTENDANCE AT ALL DRYDOCKINGS
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?
    ENSURE VESSEL IS SAFE

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? 10
    d. If Y. Do you evaluate ANOAs for ACP vessels? Yes Venting Duty Officer checks for overdue deficiencies
2. Do you have a hull qualification? (Y/N) Yes
3. Do you have a machinery qualification? (Y/N) No
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 5 hours with 3 inspectors
   Tank Ship – NA
   Offshore Supply Vessel – NA
   MODU – NA
   Passenger Vessel – NA
   Research Vessel – NA
5. In your experience, what types of deficiencies are most commonly found during inspections? Housekeeping, structural integrity and engineering housekeeping
6. What are some types of critical deficiencies? structural integrity and cleanliness/housekeeping
7. Do you reference the ACP targeted vessel list frequently? Monthly
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL – No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Yes just ISM Audits, damage reports and major non-conformities.
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 10 Can easily call them up and speak with them.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? All the companies are devoted to protecting the environment and look out for the safety of the crew. However, many of the ships enrolled in ACP are older and

coming to the end of their shelf life and they just trying to hold them together and don't want to put much money into them.

12. How do you feel the program has performed since its inception fifteen years ago?
    I have only been doing ACP for about 8 and I have seen no improvement
13. What do you like and/or dislike about the ACP?
    Likes --- **can't think of anything I really like about ACP.**
    Dislikes ---- **we don't get to spend the time on these ships as they are in port f**or only a few hours and we are rushed to get the job done.
    Seems like we are a thorn in their side as they always remind us the vessel is ACP and inspected under Class,
    When a deficiency is found they always says that's a class item and hasn't been check yet,
    During many of the exams Class is not in attendance and don't see what we are finding and they, Class is not there to explain why it is what we find
    There is a gap between Class Rules and US Regulations.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    Make Class be in attendance during our exam.
    If Class can't be in attendance allow us to write CG835 for the deficiencies,
    When you enter the inspection type in MISLE as a Annual ACP, MISLE doesn't recognize it, so when a data call is done the vessel will show up as missing the annual exam.
    When issuing a COI to a ACP vessel MILSE asks you if you want to put it in your fleet of responsibility. My recommendation is to put all the ACP and MSP vessels in CG-CVC-3 fleet of responsibility so HQ can track these vessel easily.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?
    Safety of the crew, safety of the port and safety of the environment

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Yes)
    a. If Y. What sector(s) do you conduct these inspections in?
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? My staff does about 20-25.
    d. If Y. Do you evaluate ANOAs for ACP vessels? Yes
2. Do you have a hull qualification? (Yes)
3. Do you have a machinery qualification? (Yes)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 5 hours
   Tank Ship – 5 hours
   Offshore Supply Vessel – 2 hours
   MODU – unknown
   Passenger Vessel – N/A
   Research Vessel – unknown
5. In your experience, what types of deficiencies are most commonly found during inspections? Electrical, firefighting
6. What are some types of critical deficiencies? Missing/inoperative extinguishers, expired lifesaving supplies, watertight integrity (hull problems)
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL –No
    d. DNV – No
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Sometimes
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 7. Interact well but not frequently.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Newer vessels are not problematic, but older ACP vessels tend to have mechanical breakdowns, especially a concern with propulsion systems.

12. How do you feel the program has performed since its inception fifteen years ago?
13. What do you like and/or dislike about the ACP? **Program reduces OCMI's awareness of** condition of US flag vessels, reduces needed training opportunities for new inspectors, and enables some US flag vessels to operate with only marginal compliance.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? Eliminate it.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Conduct all lifesaving/firefighting/watertight integrity inspections, and engage strongly with vessel crew to ascertain overall condition of vessel.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? (Yes)
    a. If Y. What sector(s) do you conduct these inspections in?
    [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year? (14)
    d. If Y. Do you evaluate ANOAs for ACP vessels? Not in my Department.
2. Do you have a hull qualification? (Yes)
3. Do you have a machinery qualification? (Yes)
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 5 hours – 4 Inspectors- 2 being Trainees.
   Tank Ship – 7 hours - 4 Inspectors- 2 being Trainees.
   Offshore Supply Vessel – N/A
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections?
   Marad Ready Reserve- Expired Life Saving Equipment
   Active Vessels- Usually none
6. What are some types of critical deficiencies? Expired lifeboat rations & radio batteries.
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS –Yes
    b. LR – No
    c. GL – No
    d. DNV – Yes
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? ABS-yes. DNV-No.
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? ABS-10, very good rapport with the local surveyors.
    DNV-4 – Failure to notify the Inspections office when issues arise with DNV Class vessels inport.

11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? ABS -10, DNV- 5.
12. How do you feel the program has performed since its inception fifteen years ago? The new blood of local ABS surveyors are holding vessels accountable. Question quality of surveys being conducted overseas. Vessels arrive inport from overseas with issues that should have been identified. Such as inoperative lifeboat engines and malfunctioning fire pumps..
13. What do you like and/or dislike about the ACP? I dislike the ACP due to the fact that Domestic Vessel Inspectors both Hull and Machinery are missing out detailed inspection types that they need to be proficient at the job. ACP reduces the USCG workload but deprives our inspectors of knowledge and experience, due to lack of exposure on the vessels.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? USCG Inspectors would have to attend vessel along with the Class Surveyors during the class surveys in order to become and stay proficient with inspections.
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? Know that Class Surveyors have done their job and that the vessel is safe to operate and conduct cargo operations.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) N.
    a. If Y. What sector(s) do you conduct these inspections in?
    b. If N. Have you ever been a USCG vessel inspector? Y.
        i. If Y. Were you ever an inspector of ACP vessels? Y.
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    d. If Y. Do you evaluate ANOAs for ACP vessels?
2. Do you have a hull qualification? (Y/N) Y.
3. Do you have a machinery qualification? (Y/N) Y.
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please indicate N/A if not applicable)
   Freight Ship – 2 long days (for 2 inspectors 1-2 days)
   Tank Ship – 2 long days (for 2 inspectors 1-2 days)
   Offshore Supply Vessel – 2 long days (for 2 inspectors 1-2 days)
   MODU – N/A
   Passenger Vessel – Cannot guess, depends on the number of inspectors. Some cruise liners use 6 inspectors. Should have quarterly inspection
   Research Vessel – Should be the same as a deep draft vessel, 1-2 days
5. In your experience, what types of deficiencies are most commonly found during inspections?
   Depends on what the inspector focuses on. Engineering, automation, reduced manning, rely**ing on computers are common deficiencies when automations don't work. Drill** problems, if the crew cannot complete a drill correctly or in a timely manner. Life saving equipment deficiency. Security, security plans are not fully implemented.
6. What are some types of critical deficiencies?
   See above answer.
7. Do you reference the ACP targeted vessel list frequently?
   Not that often. Does not believe that it is accurate. When he was an inspector he did look at it, but he did supplement it and add vessels that he thought needed addition oversight.
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Y.
    b. LR – Y.

c. GL – Y.
d. DNV – Y.

Uses them all.

9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)?
   Some. He is not the Officer in Charge of Marine Inspection (OCMI) so he does not get all of the information, but he does get information regarding the biggest and most important inspections and ACP activities.
10. How do you rate your relationship with the ACS? (1-10 where 1= bad 10=excellent)
    5. He had different experiences depending on the ACS and the sector of the world. He said that LR and DNV for cruise liners were good, but the ACS in Africa was really bad.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Is it comparable to the U.S. flagged vessels that are not in the ACP?
    Yes, it is comparable. Most every ship is already ACP or MSP if it is over 500 gross tons. ACP works because the USCG ACP inspectors do not have the expertise that the ACSs have.
12. How do you feel the program has performed since its inception fifteen years ago?
    Poorly, it is administered poorly. The targeted vessel list is not accurate or kept up-to-date. Mistakes are made in ACS plan review. USCG has faults on philosophy*.

    ***What he thinks the USCG philosophy on the ACP should be…What has the ACS done** for me [the USCG inspector] and how should I audit it to ensure that they are doing their job correctly and not just do another general compliance inspection.
13. If you could change anything about the program what would it be?
    Revise the targeting matrix and raise the bar to make US flagged vessels as good as we [USCG] says they are. USCG Marine Inspectors need to be more savvy in auditing ACS inspections.

    Targeting matrix is not kept as up-to-date as possible or is accurate due to recent budget cuts the personnel in charge of the list were let go and are no longer working on it.
14. What do you think is the best aspect of the ACP?
    The ACP is a good program if it is implemented properly.
15. How do you feel about the ACP becoming the standard regulatory process for U.S. flagged vessels that are greater than 500 gross tons?
    No problem with it, but as stated above, most vessels >500 gross tons are either ACP or MSP already.
16. Do you have any suggestions for how the USCG could improve or enhance the ACP?

Target vessel properly and smarter. Hold vessel owners and ACS more accountable for incidents where they did a poor job or documenting and fixing a deficiency. The USCG should be the final safety net that a vessel goes through before setting out. Therefore it should not be finding blatant deficiencies; this should be up to owner, captain, crew, and the ACS inspector.

Ideas to improve interview questions and report:

1. Add question "When you inspect an ACP vessel do you think about the ACS inspection that occurred before it? How you could audit this inspection to ensure the ACS inspector is doing its job?"
2. Add section in background about the Transatlantic from the Transatlantic Line that was thrown out from the ACP due to poor and sketchy performance. Also the Transatlantic Line was "smart" because it had all of its vessels classed under different ACSs. And since most/all ACSs do not talk to each other they had no idea that the Transatlantic Line had not only 1 bad vessel, but multiple.

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels?
        ii. If Y. Historically, which sectors did you conduct these inspections in?
    c. If Y. Approximately how many ACP vessels do you inspect per year? 5
    d. If Y. Do you evaluate ANOAs for ACP vessels? No
2. Do you have a hull qualification? Yes
3. Do you have a machinery qualification? Yes
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
   Freight Ship – 3 hours w/ 2 inspectors
   Tank Ship – N/A
   Offshore Supply Vessel – N/A
   MODU – N/A
   Passenger Vessel – N/A
   Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections? Drills (Fire and boat)
6. What are some types of critical deficiencies? Structure Failure
7. Do you reference the ACP targeted vessel list frequently? No
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL – No
    d. DNV – No

9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? Infrequently
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) Why? 8
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? I feel that the classification societies hold the vessels to the same level of compliance as Coast Guard Marine Inspectors.
12. How do you feel the program has performed since its inception fifteen years ago? I would feel safe saying that it has been efficient in regards to fleet compliance for about 8 years.
13. What do you like and/or dislike about the ACP? I dislike the fact that the classification societies perform a majority of the inspection and the Coast Guard inspectors perform basic oversight. The problem with such is that it creates a shallow knowledge base with CG inspectors. With the hiring of civilian marine inspectors under the Marine Safety Performance Plan (MSPP 2007), deep draft vessel inspections could and should produce more HI and MI qualified inspectors.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP? The CG should initiate all inspections. Any vessel requiring an ACP inspection should contact the local inspection office and then the inspection process begins. The CG would decide on what the classification should inspect. This would help CG inspectors become more proficient by enabling them to inspect and/or train on vessel systems. The ACP program has had a huge impact on the ability to produce qualified inspectors. Establish training and qualification standards for Prevention personnel and create a sufficient prevention training budget.

15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI? I endorse only after I feel the core responsibilities of the marine inspector have been met. Safety of life, impact to the environment and that the vessel is fit for the route and service it was intended.

Interviewee Background:
Current Title: [redacted]
Duties:
USCG Unit:
Rank/Rate:

1. Do you currently inspect vessels enrolled in the ACP? Yes
    a. If Y. What sector(s) do you conduct these inspections in? [redacted]
    b. If N. Have you ever been a USCG vessel inspector?
        i. If Y. Were you ever an inspector of ACP vessels? Yes
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    10 – 15 per year
    d. If Y. Do you evaluate ANOAs for ACP vessels?
    No.
2. Do you have a hull qualification? Yes, Freight and Tankship
3. Do you have a machinery qualification? Yes, Diesel and Steam
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please also indicate the number of inspectors, or N/A if not applicable)
    Freight Ship – 3 – 4 hours (2 inspectors)
    Tank Ship – 4- 6 hours (2 inspectors)
    Offshore Supply Vessel – N/A
    MODU – N/A
    Passenger Vessel – U.S. certified, U.S. flagged cruise ships industry requires 1 week per year plus quarterly exams
    Research Vessel – N/A
5. In your experience, what types of deficiencies are most commonly found during inspections?
    Recordkeeping errors – missing/inaccurate paperwork.
6. What are some types of critical deficiencies?
    Structural failures, inoperable equipment (generators, steering pump, etc)
7. Do you reference the ACP targeted vessel list frequently?
    Yes, it is not updated very often
8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Yes
    b. LR – No
    c. GL – No
    d. DNV – Yes
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)? – Office is – not me personally
10. How do you rate your relationship with the classification societies? (1-10 where 1= bad 10=excellent) – 8 – **I sometimes don't interact as much as I would like**

11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels?
    I feel as ABS receives a monetary consideration for their work and need the vessels to stay in class to make money. There is a possibility that compliance may in rare instances be compromised or delayed for expediency.
12. How do you feel the program has performed since its inception fifteen years ago?
    The program has been good for industry but very bad for the coast guard in general and the marine inspection program specifically.
13. What do you like and/or dislike about the ACP?
    What I dislike about the ACP is that the Coast Guard is losing all of its corporate knowledge regarding deep draft inspections. We used to do all of the inspections allowing us to learn, utilize and retain the knowledge necessary to adequately perform our duties – **now I don't feel that is available to the new inspectors trying to gat** qualified for deep draft vessels.
14. Do you have any suggestions for how the USCG could improve or enhance the ACP?
15. What do you feel your responsibilities are as a USCG inspector before endorsing a COI?

Appendix G: Follow-up Interviews

Sector I Phone Interview
12/4/2012 – 9:00 AM – 9:20AM

Q: Could you please elaborate on the inspection time of 1.5 hours you indicated in your questionnaire response?
A: 1.5 hours is with 1 inspector and possibly a break-in. This timeframe is for large Offshore Service Vessels, generally 2000 gross tons or more. Many of these vessels are dual certificated, and this inspection consists of a verification of licenses and the crew, also a walkthrough.

Q: What do you feel is the best aspect in regards to the ACP?
A: For the Coast Guard, a normal inspection would take twice as long as an ACP inspection.

Q: What do you not like, or feel could be improved about the ACP?
A: Has talked with LCDR DeLury and CMDR Keel about this previously.
Physical provisional enrollment process should be changed. Coast Guard should receive a finalized version of the request for Class. This will allow OCMIs and CVC to have a clear picture of what vessels are asking for. Sometimes vessels install systems they did not receive Class notations for.

Q: Which Class Societies are represented in your sector?
A: ABS, DNV, Lloyd's Register. Good relationship with ABS, DNV and Lloyd are both touchy, has no involvement with Germanischer Lloyd.
A: DNV and Lloyds: Houma / this individual have no access to their databases, and this is considered a problem. Coast Guard in that sector have no idea what has been submitted regarding those vessels or what their status is, information must be requested via a Class Surveyor. Feels that CG inspectors should definitely have access to the databases, and that Class Societies should be held responsible for doing everything contained in NVIC 2-95, specifically enclosure 3 chapter 2. It is not currently being done, and it must be enforced by Coast Guard CVC (Commercial Vessel Compliance).

Q: Your response stated that you rarely check the targeted vessel list, why is that? And do you add any vessels of your own choosing?
A: Feels uncomfortable with not knowing how vessels have been targeted. The list is hard to find and out of date. The method for targeting vessels should be changed to include comments from Class Surveyors. Specifically, it should take into account what Class Surveyors have seen, and incorporate major nonconformities.

Q: Do you overlap with Class Societies?
A: Yes. When going through documents on the bridge, they also check the conditions of the bridge. Also overlaps during their walkthrough of the vessel, especially when they expand upon a problem they have observed.

Other Comments / Suggestions:
Vessel construction oversight
Should have access to class information
Information should be forwarded directly to the Coast Guard, it should not need to be requested
Class Surveyors should identify potential issues they feel need additional review. A lot of inspections and issues are dealt with in hindsight, and the Coast Guard / Class is catching up with the problem, not stopping it before it begins.

Final ACP Enrollment
Requirement for all plans to be submitted to the marine safety center.
There is no clear person to send these to.
Need to identify who is responsible for these plans.

Maintaining ACP Allowance
There should be a class requirement for reporting major nonconformities to the Coast Guard and CVC.
Often is not aware of or notified about major nonconformities

The disenrollment process seems to be lengthy.

Sector II Phone Interview
12/4/2012 – 10:00 AM – 10:15AM

Q: In your questionnaire you mentioned that vessel owners feel the Coast Guard is a thorn in their side; could you please elaborate on this?
A: Often when the Coast Guard finds a problem, the vessel owners will become defensive and say that the Class Societies do the inspection, and if they didn't consider it a problem, why does the Coast Guard?

Q: Do you feel educating vessel owners about the ACP, and that the Coast Guard is ultimately responsible for endorsing their COI (Certificate of Inspection)?
A: Yes, that might help with some vessel captains / engineers. Occasionally they explain that the Coast Guard provides oversight for the program, and that sometimes the Coast Guard may find problems, but that's okay. Sometimes Coast Guard Inspectors find things because they are, in general, more particular. When doing their walkthrough, Coast Guard inspectors will look at everything, and if there are grounds for expanding their inspection, they will. When a Class Society comes on board, they may be instructed to only inspect one specific thing at the time, for instance life boats, and wouldn't have looked for what the Coast Guard found. Having class in attendance with the Coast Guard during their oversight would help a lot, but they are also very busy. Vessel owners and operators could also not want both to be on board at the same time. Recently we offered to come on board a vessel the same day as a Class Society for their annual they were due for, this way we could inspect some things while relying on the Class Society to look into others, and would have saved the Coast Guard, Class, and the vessel crew a lot of time, but the vessel captain opted against it.

Q: In your response you also mentioned some ways that MISLE could be improved, could you expand on this?
A: Yes. When issuing a vessel COI MISLE will ask you to put in a fleet of responsibility. If there is not currently one, then you must add it to your own fleet of responsibility. Now that it is in your fleet of responsibility it will show up in CGBI and you will receive notifications regarding it even when it is not at your port. He feels that all ACP vessels should go into the Coast Guard Commercial Vessel Compliance (CVC) fleet of responsibility. Another issue is that ACP Annual Oversight inspections in MISLE are not recognized as actual annual exams, so they will have to create more than one inspection in MISLE to indicate it as a normal annual exam.

Q: Which Class Societies are most represented in your area?
A: ABS, Lloyd's, and DNV. All are pretty open about things, but does not have access to Lloyd's or DNV databases. They do have access to ABS database. Having access to the databases will help clear up a lot of things.

Q: How accurate do you feel the Targeted Vessel List is?
A: Some vessels are right on, while other vessels should be removed by now or are not necessary.

Q: Do you conduct any oversight of vessels not on the Targeted Vessel List?

A: No, they do not conduct excess oversight unless they are notified of a problem on a vessel. Part of this is due to the limited number of people with the proper qualifications to conduct oversight.

Other Comments / Suggestions
Some vessels are reaching their shelf-life and are starting to become a nuisance.

Vessel owners / operators need to realize that the Coast Guard has the final say on the Certificate of Inspection.

Also feels that vessels have the same level of compliance as standard vessels would have, but they are not held to a higher standard.

Sector III Phone Interview
12/4/2012 – 4:00 PM – 4:15PM

Q: In your questionnaire response you indicated that you wanted the ACP to be eliminated, could you please elaborate on that?
A: It's just a personal opinion, but I feel there is a lack of emphasis by the Class Societies, and that the Class Societies are not as well staffed as they need to be in order to conduct the ACP.

Q: Would improving the method for targeting vessels for additional oversight change your opinion at all?
A: Somewhat, but you would have to rely on information from the Class Societies, and it could be difficult to assess.

Q: Which Classification Societies do you deal with on a regular basis?
A: DNV and ABS, Germanischer Lloyd third most. Does not have access to all of the databases, feels better access is needed.

Q: If the program was actually eliminated, how would you suggest the Coast Guard proceed with maintaining vessel safety?
A: Would switch back to the traditional method of Coast Guard inspection. Feels that a third party is needed to effectively conduct these inspections. Class Societies being businesses can affect the outcome.
Example: An anchor that was constructed with substandard materials was on a vessel, and issues were encountered with it. This anchor was from a company located in another country, and other vessels had these anchors on them. When the Class Society was asked how many of the substandard anchors there were, they did not have an answer because they hadn't been asked by the vessel owner to participate in that matter. The Class Society not being able to initiate action is and can be a problem.
Example: One Class Society enforced a requirement for the replacement of fire extinguishers on a vessel. The Coast Guard was in agreement on this matter, and the vessel was forced to replace the fire extinguishers. Within the next year that vessel had switched to a different Classification Society.

Q: Any other issues or dislikes?
A: The ACP reduces training opportunities for the Coast Guard. The Coast Guard will be on a vessel for hours, but the Class Society could be on for days. This is a missed opportunity for training, and the development of qualified inspectors has been 'hamstrung'.

Q: How would you feel about cross training Coast Guard inspectors with Classification Society surveyors?
A: It could help, but it could also lead to individuals defaulting away from actual work.

Q: Any other suggestions for improving training?
A: Develop MITO (Marine Inspection Training Office), and expand on the program as a whole. Due to budget cuts, training may need to be further reduced. MITO in Seattle has performed efficiently. This Coast Guard sector also has 30 subchapter 8 vessels that are fully Coast Guard

inspected, which provide training opportunities for individuals in that sector. There have also been significant results when inspectors have been sent overseas for a short duration. There are significantly more deep draft vessels there, and the program has been suspended, but it should be resumed. The Coast Guard should really build on the importance of qualifications.

Q: Any other comments on the ACP?
A: It can allow vessels to operate with marginal compliance. Class Surveyors can sometimes allow vessels to continue operating with known issues for longer than a Coast Guard inspector would have.

Feels the Coast Guard should evaluate why they moved to the ACP, and why the vessel owners moved to the ACP. Feels there is increased cost to the vessel owners, and they perceive there is less Coast Guard contact, which is good. There is also the possibility that vessel owners and operators feel they can push the Classification Societies around. Also, Class Society inspectors are always on call whereas most Coast Guard inspectors are only on call when they are in the office.

Q: Do you believe there is sufficient staffing and experience within the Coast Guard to move back to a full inspection regime for all of these vessels? Do you feel the Coast Guard might struggle with maintaining the numerous changes that occur to international conventions?
A: Their sector could definitely handle it. They have the experience, and they have vessels that go to Canada so they are already aware of the international certificates and capable of keeping up with them.

Q: You stated you did not check the targeted vessel list, is there any particular reason for that?
A: Vessels in that area are not on the targeted vessel list.

Q: If the targeting scheme was overhauled, do you think you would begin checking the list again?
A: Yes, they would take advantage of it.

Appendix H: Program Administrator Interview

Interviewee Background:
Current Title: [redacted]
Duties: [redacted]
USCG Unit: [redacted]
Rank/Rate: [redacted]

1. Do you currently inspect vessels enrolled in the ACP? (Y/N) N.
    a. If Y. What sector(s) do you conduct these inspections in?
    b. If N. Have you ever been a USCG vessel inspector? Y.
        i. If Y. Were you ever an inspector of ACP vessels? Y.
        ii. If Y. Historically, which sectors did you conduct these inspections in? [redacted]
    c. If Y. Approximately how many ACP vessels do you inspect per year?
    d. If Y. Do you evaluate ANOAs for ACP vessels?
2. Do you have a hull qualification? (Y/N) Y.
3. Do you have a machinery qualification? (Y/N) Y.
4. In your experience, what is the average duration of time for an annual ACP inspection? (Please indicate N/A if not applicable)
   Freight Ship – 2 long days (for 2 inspectors 1-2 days)
   Tank Ship – 2 long days (for 2 inspectors 1-2 days)
   Offshore Supply Vessel – 2 long days (for 2 inspectors 1-2 days)
   MODU – N/A
   Passenger Vessel – Cannot guess, depends on the number of inspectors. Some cruise liners use 6 inspectors. Should have quarterly inspection
   Research Vessel – Should be the same as a deep draft vessel, 1-2 days

   Non-U.S. inspections generally uses 1 inspector, companies must pay for **inspector's** travel. Stateside, often more than 2 inspectors can or will be used to complete inspections much quicker.
5. In your experience, what types of deficiencies are most commonly found during inspections?
   Depends on what the inspector focuses on. Engineering, automation, reduced manning, **relying on computers and are common deficiencies when automations don't work. Drill** problems, if the crew cannot complete a drill correctly or in a timely manner. Life saving equipment deficiency. Security, security plans are not fully implemented.

   COI will not be endorsed when there are issues with drills, whereas some other deficiencies can be taken care of at next port call or later time.
6. What are some types of critical deficiencies?
   See above answer.
7. Do you reference the ACP targeted vessel list frequently?

Not that often. Does not believe that it is accurate. When he was an inspector he did look at it, but he did supplement it and add vessels that he thought needed addition oversight.

8. Do you have access to the ACS databases? (Y/N)
    a. ABS – Y.
    b. LR – Y.
    c. GL – Y.
    d. DNV – Y.

    Uses them all.
9. Do you receive ACS notifications concerning ACP related activities (i.e. scheduled surveys/audits, damage reports, major non-conformities)?
    Some. He is not the Officer in Charge of Marine Inspection (OCMI) so he does not get all of the information, but he does get information regarding the biggest and most important inspections and ACP activities. Ie. ISM nonconformity
10. How do you rate your relationship with the ACS? (1-10 where 1= bad 10=excellent)
    5. He had different experiences depending on the ACS and the sector of the world. He said that LR and DNV for cruise liners were good, but the ABS in Africa was really bad but Dubai was good.

    Said that this question will be more relevant with individuals in specific sectors who deal with the same Class Society individuals regularly ie. Baltimore.
11. In your opinion, how do you feel about the safety and environmental compliance of ACP vessels? Is it comparable to the U.S. flagged vessels that are not in the ACP?
    Yes, it is comparable. Most every ship is already ACP or MSP if it is over 500 gross tons. ACP works because the USCG ACP inspectors do not have the expertise that the ACSs have.

    Marine Inspectors no longer have the experience necessary to perform what the Class **Societies do. Coast Guard just doesn't inspect things like they used to, often left to the** Class Society.
12. How do you feel the program has performed since its inception fifteen years ago?
    Poorly, it is administered poorly. The targeted vessel list is not accurate or kept up-to-date. Mistakes are made in ACS plan review. USCG has faults on philosophy*.

    ***What he thinks the USCG philosophy on the ACP should be…What has the ACS done** for me [the USCG inspector] and how should I audit it to ensure that they are doing their job correctly and not just do another general compliance inspection.

    Afraid CG inspectors will say "the class society does that, not me" Inspectors need to realize that Class Societies do it on their behalf, not for them. The CG should still look

at those things, and is ultimately responsible for it even when delegated to Class Societies

13. If you could change anything about the program what would it be?
    Revise the targeting matrix and raise the bar to make US flagged vessels as good as we [USCG] says they are. USCG Marine Inspectors need to be more savvy in auditing ACS inspections.

    CG Inspectors should feel responsible. The targeted vessels should be released quarterly, looking into those vessels with problems should not be delayed by a year
14. What do you think is the best aspect of the ACP?
    The ACP is a good program if it is implemented properly.

    USCG Marine Inspectors need to be more savvy in auditing ACS inspections.
15. How do you feel about the ACP becoming the standard regulatory process for U.S. flagged vessels that are greater than 500 gross tons?
    No problem with it, but as stated above, most vessels >500 gross tons are either ACP or MSP already.
16. Do you have any suggestions for how the USCG could improve or enhance the ACP?
    Target vessel properly and smarter. Hold vessel owners and ACS more accountable for incidents where they did a poor job or documenting and fixing a deficiency. The USCG should be the final safety net that a vessel goes through before setting out. Therefore it should not be finding blatant deficiencies; this should be up to owner, captain, crew, and the ACS inspector.