

# Creating and Sustaining Strategic Intent

in the

## U.S. Coast Guard



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# Creating and Sustaining Strategic Intent in the U.S. Coast Guard

## INTRODUCTION

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This is the story of an organization that is becoming more aware every day – aware of what and where it is; aware that global trends and events will dramatically rearrange its operating environment; and aware of where it needs to go and what it needs to become. It's the story of a classic *organization of doers*, impelled both by external forces and its own commitment to effective action to become, in addition, an *organization of strategic thinkers*.

For more than two centuries, individual heroism and tremendous operational leadership were enough to keep the United States Coast Guard on top of its world. The Coast Guard remains “always ready” to respond when citizens stand in need. Reacting quickly and appropriately to the unforeseen and unpredictable will always be a distinguishing feature of the Service.

However, the capacity to react, indispensable as it is, is insufficient in a world of ever-more-frequent and complex change. A generation ago, Coast Guard programs could establish doctrine and acquire assets, confident that while the size or scope of their classic mission portfolio might change, the future would be pretty consistent with the past, and any surprises could be managed by reacting and adapting. Change and surprise were simply opportunities to excel in operational settings. Today, the scale, frequency, and strategic nature of change have the potential to fracture the basic premises of the organization. The hard decisions made today can either leave the Service on reasonably good footing to react to uncertain future threats, or leave it severely disadvantaged. It is no longer enough to be a world-class responder; the

Coast Guard needs to become a world-class anticipator as well.

To achieve this, the Coast Guard committed some time ago to anticipating the full range of plausible future operating environments it might face. To its toolkit of rapid reaction skills, the Coast Guard has added a capability to think “over the horizon,” complementing its tactical excellence with sophisticated and flexible strategic thinking. The Coast Guard is doing this through an enterprise called *Evergreen*.

The *Evergreen* process is the result of almost two decades of Coast Guard experience with scenario-based strategy development – a technique for thinking about future uncertainty that was developed in the 1960s and is now used by leading organizations worldwide. Since the 1990s, more than 600 officers, senior enlisted personnel, civilians, and contractors in the Coast Guard, as well as people of the Department of Homeland Security, other federal agencies and departments, state and local governments, and the private sector, have contributed to strategy development and implementation using this approach. The Service has experimented with this technique, and has critically evaluated its output over more than a decade. The Coast Guard has taken the processes apart and rebuilt them as it learned what worked best and what needed alteration to suit its unique requirements.

The term *Evergreen* is emblematic of the Service’s intent. *Evergreen* is a continuous cycle of strategy development and strategic renewal, coordinated with each Commandant’s command tenure. It allows the Coast Guard to maintain strategic continuity as it

## ***U.S. Coast Guard Evergreen Process***

prepares for large changes in its operating environment. It addresses not only the pressing crises of the moment, but also the less urgent, yet potentially more important issues over the horizon. And like all good processes, *Evergreen* contains critical feedback channels to ensure learning and improved performance in the future.

*Evergreen* should not be seen as “the Coast Guard strategy”; while it is an important element of that strategy, it does not identify all future activities that the Service will need to pursue to be successful, nor does it necessarily deal with every specific mission. Its purpose is to aid the Coast Guard in its effort to be forward-looking and proactive, to avoid incrementalism and the “tyranny of the present,” and to identify a core of robust strategic imperatives that will be important no matter how the future turns out. It is the Coast Guard’s “futures insurance policy” in an increasingly uncertain world.

The initial cycle of *Evergreen*, named “Project Long View,”<sup>1</sup> was about producing strategy. *Evergreen I* adopted higher ambitions, trying to instill *strategic intent* throughout the Coast Guard. Strategic intent is a shared organizational understanding of where the Service as a whole is going and why. Strategic intent infuses everyday actions across the entire Service with a larger purpose, keeping ultimate organizational objectives top-of-mind, not only in formal

strategy development efforts such as the U.S. Coast Guard Strategy for Maritime Safety, Security, and Stewardship, but as Coast Guard people go about their daily tasks. *Evergreen II* continued along this path of strategic intent.

Over the past four years, *Evergreen III* has refined the approach further to provide more useful input to strategic decisions. Rather than overly prescriptive strategies, *Evergreen III* has offered decision-makers a set of robust Strategic Needs, leaving subject-matter experts the flexibility to respond to the Needs as they see fit. *Evergreen III* also focused more on support for mid-term critical decisions. In the following pages you can read further about its application to areas as diverse as workforce issues and the future of the Caribbean. The Strategic Needs and insights identified by *Evergreen*, along with other sources of strategic guidance, now more than ever provide a foundation for a service that thinks and acts with strategic intent.

*Evergreen* remains devoted to the premise that the Coast Guard must balance the inevitable “tyranny of the present” with strategic intent if the Service is to have a future – to maintain its readiness, act as an efficient and effective steward of the public trust, and keep and nourish its people. It is to those people that this document is dedicated, because they are the ones who will make that future.

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<sup>1</sup>The first cycle of what has come to be called “*Evergreen*,” undertaken in 1998-9, was called *Long View*. In 2002, a review of *Long View* was undertaken in light of lessons learned from 9/11 and its consequences. This was referred to as “*Long View Review*.” The following year, a second full-scale scenario strategy development effort was undertaken; this was called *Project Evergreen*. In 2007, the Service began another full-scale scenario strategy development effort as a part of *Project Evergreen*. Going forward, and in this publication, each cycle of strategic renewal will be referred to as “*Evergreen*” along with the number of the cycle, e.g., the first *Project Evergreen* cycle, begun in 2003, will be referred to as “*Evergreen I*,” the 4-year cycle begun in 2006-7 as “*Evergreen II*,” and so on.

## I. THE ROOTS OF EVERGREEN

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The modern United States Coast Guard is the product of a series of metamorphoses in response to evolving national needs. In 1790, when Congress established the U.S. Revenue Cutter Service, securing funds for the fledgling federal government was the pressing national issue. Another pressing need of the new nation was to make commerce by sea safer; one of Congress's first acts was providing funds to build lighthouses, an act that eventually led to the establishment of the Lighthouse Service. In 1848, the Life-Saving Service was created to satisfy the nation's humanitarian instincts and to protect the seafarers on whom this maritime nation depended. In 1915, the Lifesaving Service merged with the Revenue Cutter Service to become the United States Coast Guard. The Lighthouse Service joined the Coast Guard in 1939. During both World Wars, the Coast Guard rendered conspicuous service to the Department of the Navy and fought side by side with the other services. In 1946, the Bureau of Marine Inspection, which had been formed by an earlier merger of the Steamboat Inspection Service and the Bureau of Navigation, became part of the Coast Guard. Safety, law enforcement, and environmental protection became major focuses of Coast Guard activity and attention at various times after World War II. And most recently, the events of 9/11 and the resulting national commitment to homeland security have ushered in yet another era for the Service. The history of the Coast Guard, then, is the continuing story of how it has changed the nature, scope, and mix of its services to meet the evolving needs of the nation.

In the early 1990s, the Coast Guard, recognizing this history of frequent alterations, began to take a more calculated and intentional attitude toward these inevitable changes. In 1992, the Service contracted with the Arlington Institute to develop alternative scenarios for planning purposes; several years later, they conducted a study to determine the Service's

lasting value to the nation. In 1998, the Service initiated a comprehensive strategy development exercise called *Long View*. There was concern among the Service's leadership about the lack of attention to long-term challenges and issues facing the nation in the maritime domain, and the lack of truly strategic long-term planning in the organization. *Long View* provided a process for understanding and managing the risks and uncertainty facing the Coast Guard over the next 20 years.

*Long View* was, in an important sense, "counter-cultural." Traditionally, the Coast Guard has rewarded people for superior *reaction and response*. *Long View*, while in no way devaluing these imperatives, was devoted to inculcating an additional capacity for *anticipation*. By anticipating future risks and changes in operating conditions, the Service would be able to deliver superior reaction and response, with the right assets, positioned in the right places, with the right skill sets, all prepared for whatever future operating environment the service would experience.

*Long View* predated the events of 9/11. But the collapse of the Soviet Union, the accelerating pace of globalization, and the relentless march of the information revolution already suggested the inevitability of fundamental change, with direct and potentially far-reaching consequences for Coast Guard missions and operations.

The question became how to anticipate, with any degree of confidence, important trends and events almost a quarter century out. The Coast Guard addressed this challenge by embracing an innovative mechanism for strategy development known as scenario-based planning. They engaged a consulting company, the Futures Strategy Group, to help construct five distinct scenario "worlds" that described different plausible future operating environments of 2020.

### **Focus: Scenario Planning**

**Scenario-based strategy development** is one approach to developing long-term strategies. There are various types of scenario planning (e.g., quantitative models, probability-based scenarios, wargames, event-driven scenarios), but the type embraced by the Coast Guard has been **Strategic Management (or Alternative Futures) Scenarios**. This particular form of scenario planning is optimized to examine the entire mission or business portfolio of an organization within a strategic setting that challenges traditional planning assumptions, and to derive solutions that can be implemented immediately, yet are robust across a wide range of alternative operating conditions.

This type of scenario planning works particularly well for organizations with diverse mission portfolios that face operating environments marked by potentially rapid structural change and high uncertainty. When one considers that there are an infinite number of possible futures, but that only one set of events will actually come to pass, the futility of trying to predict the future in detail becomes evident. Whereas traditional planning “assumes away” this problem with one comprehensive single-point forecast (i.e., choosing one single point out of infinite space), scenario planning explicitly considers and explores a range of plausible future operating environments.

The goal is to come up with (typically) four or five “scenario worlds” that, as a set, represent the broadest practicable variety of plausible futures for the organization. These four or five scenarios are fleshed out in depth and then used as the basis for workshops of organizational leaders, where strategies are developed that are optimized for each particular scenario. At the end of the process, the strategies from each scenario group are “shopped around” to the other groups, to determine which strategies are effective or at least acceptable (“robust”) across the entire range of identified plausible futures. NASA, the Department of Defense, and the U.S. government interagency community have successfully embraced scenario planning, as have a number of leading global companies such as Royal Dutch Shell, Ford Motor Company, IBM, Pfizer, and 3M. The Coast Guard saw in scenario planning a creative and rigorous way to anticipate a range of risks, challenges and issues not yet on its radar screen, as well as a way to inform strategic and operational decisions throughout the Service.

### **The Legacy of *Long View***

*Long View* went a long way toward creating a truly strategic long-term agenda for the Coast Guard. Sound, creative strategies and related initiatives emerged from the process. Strategic dialogues between organizational “silos” were both launched and supported by *Long View* activities. Participants felt intellectually challenged, and, in some cases, changed by the experience. Most visibly, and importantly, the concept of Maritime Domain Awareness (MDA) crystallized as a *Long View* strategy two years before 9/11. The value of comprehensive information sharing emerged as an idea from the Hart-Rudman Commission on National Security/21st Century in 1998. *Long View* captured this idea and fully developed

it as a maritime concept that proved valuable across a range of futures, but particularly where terrorism posed a threat. MDA has evolved into a critical organizing principle for the Coast Guard in its post-9/11 role in the Department of Homeland Security. Since then, the U.S. Navy and Director of National Intelligence have also adopted the MDA concept.

Overall, however, actual incorporation of *Long View* 1999 strategies into formal Coast Guard planning activities proved to be uneven. Perhaps the greatest stumbling block was *Long View*’s lack of integration into then-ongoing budgeting and planning activities. It seemed clear that, if long-term strategic planning were not somehow “baked into” resource planning, programming, budgeting, and execution, it would not be taken seriously.

## **Evergreen and Human Resources**

*Evergreen* has a long track record of fostering new strategic thinking on Human Resources (HR) issues in the Coast Guard. The Joint Ratings Review, Chief Warrant Officer Specialty Review, Officer Corps Management System, Coast Guard Business Intelligence, and the move from an experiential-based HR model toward a competency-based model were all aligned with or even influenced by *Long View*. *Evergreen I* emphasized a tighter linking of HR strategy to requirements, and a subsequent development of a better system for capturing competencies, generating requirements, and ensuring the influence of competencies on enlisted and officer systems. *Evergreen II* brought things to a higher level of strategic focus: the ability to anticipate needed competencies, and to develop and retain them through entire careers.

After the Mid-grade and Senior Leadership workshops for *Evergreen III*, and the derivation of Strategic Needs, it became clear that a closer look at a more specific group of issues was needed. So in mid-2012, a group of nine officers, two civilian Coast Guard employees, one retired Reserve Master Chief Petty Officer, and two civilian consultants was convened. They examined the following set of issues: enlisted advancement; enlisted ratings; officer promotion (tracks, promotion points, up/out, specialist/generalist); assignments; evaluations; and accession sources.

The group considered the full set of (HR-relevant) *Evergreen* Strategic Needs to examine how each Need might affect HR policies, and how HR policies might help to satisfy/solve the Need in question. Time limitations made it impossible to cover every combination of issues and Strategic Needs in depth, but the approach worked to stimulate thought on the critical issues. “This matrixed approach, using the Needs as a discussion starter for the HR issues, helped to get us to some real insights,” stated an attendee.

A significant insight emerged from this workshop: Against the backdrop of future needs, the Coast Guard Human Resources System was too brittle. The range of potential future environments implied by the *Evergreen* Scenarios suggested various plausible eventualities that would make it impossible for the current system to provide the Coast Guard with the workforce it would need.

Several attributes were identified as critical for the Coast Guard HR system of the future:

- Flexibility: In some cases, this might mean merely employing policy flexibility that already exists; in other areas, policies would have to be discarded and new ones adopted to allow a real-time HR system that dynamically projects and arranges the workforce against an ever-changing operating environment.
- Organizational Discipline: The Coast Guard will need consistent discipline across the Service to manage the cultural inertia associated with whatever changes are made to the HR system.
- Transparency and Consistency: Members were seen to be willing to accept a system, even if unpopular, if it is perceived as fair. So transparency and consistency would be even more vital in a future of accelerated change.

A participant summarized one of the major conclusions of the workshop: “The thing that I took away most from the workshop was that we’re not alone. Many people see [these] needs. The Coast Guard is trying to make a transition from an experiential-based system to a knowledge-based system, but it’s difficult. The challenge is getting a unified voice across the organization, but it is growing – my island is a whole lot bigger than I thought it was.”

## ***Evergreen Begins***

Then, of course, came 9/11.

The Service responded admirably to the biggest crisis to hit America in half a century or more, but its superb response had a downside. Reserves were called up for far longer periods than they had ever anticipated. Some assets, such as small boats and their crews, were pushed beyond their limits. The Service scrambled to meet a new set of challenges, with assets and people designed and trained for a very different world. When the initial crisis period passed, a “new normalcy” of a permanently higher operational tempo, more attention from the public, the administration, Congress, and integration into a new department all combined to create an entirely different strategic environment for the Coast Guard.

In October 2002, the Coast Guard, re-examining the process and output of *Long View* in light of 9/11 and the impending move to the Department of Homeland Security (DHS), decided that a more thorough re-evaluation of that output would be a good basis for

launching an examination of near-term Coast Guard strategy. A key component of that effort (referred to as the “*Long View Review*”) was an analysis of the successes and shortcomings of *Long View*. In the months following 9/11, it became apparent that the project’s original strategies, if implemented decisively, would have better prepared the Coast Guard for that event.

The evaluation team judged the content of the scenarios to be broadly sound. Strikingly, several of the scenarios had described significant terrorist threats on U.S. soil. The main shortcoming identified by evaluators was that none of the five scenarios called for an extended period of terrorism (or war) as a central theme. Consequently, terrorism was treated somewhat academically. However, the strategies that emerged from *Long View* held up well. “Maritime Domain Awareness” remains a cornerstone of Coast Guard – and national – strategy.

### **The Evergreen Core Team**

Over the four cycles of *Evergreen*, the contribution of the client Core Team has been an inestimable factor in the project’s influence across the Coast Guard. The Core Team is the heart of the success of any scenario project. It contributes invaluable knowledge and experience. The Core Team is also the principal knowledge transfer mechanism of the project. Over the course of their association with *Evergreen*, Core Team members become skilled scenario practitioners – and they take this knowledge, this unique way of “futures thinking,” with them to their next Coast Guard assignments and beyond.

Within the Coast Guard, participation as a Core Team member is a unique and prestigious opportunity. Core Team members are selected based on their strategic thinking ability and skill with team dynamics. The Core Team is responsible for contributing to research, scenario development and selection, promoting *Evergreen* among the organization, assisting with internal and stakeholder workshops, and soliciting input from across the Coast Guard to improve *Evergreen* activities. The intensity of the commitment varies throughout the cycle. Although *Evergreen* is a four-year cycle, Core Team members are expected to make at least a full year commitment, although two years is preferable for continuity purposes. An *Evergreen* Core Team typically consists of 12-20 members.

Members who are able to participate through the entire four-year cycle add tremendous value and strength to the overall process. When possible, it is also desirable to have a subset of members “reenlist” for at least a portion of the next *Evergreen* cycle. In alignment with the Commandant’s Diversity Strategic Plan, the Office of Strategic Analysis (CG-0951) makes every effort to maximize diversity in background, skills, and experience to strengthen *Evergreen*’s effectiveness.

The *Long View Review* recommended new (or significantly reworked) scenarios and more organization-wide use of the scenarios. Upon completing its analysis, the team recommended that the Coast Guard embark on a second iteration of scenario-based planning. This effort came to be known as *Project Evergreen* (hereinafter “*Evergreen I*”).

### ***Evergreen I***

*Evergreen I* was envisioned both as a *tool* for developing long-range strategies and as a *catalyst* for instilling strategic intent throughout the organization. A Core Team<sup>2</sup> of Coast Guard people and the Futures Strategy Group were tasked with development of an entirely new set of scenarios. Using essentially the same method employed in *Long View*, the team began with detailed research and interviews of dozens of internal and external subject matter experts, then identified the key dimensions defining the future of the Service. Finally, a set of five scenarios was chosen by senior leadership for deep examination, and workshops of mid-grade and senior leaders used them to develop scenario-specific strategies. These strategies were then stress-tested across the other scenario worlds to see which among them proved “robust” – either useful, or at least not harmful, across all the other worlds. The Core Team synthesized the results into a final set of robust *Evergreen* strategies.

Despite the admonitions of the *Long View Review*, *Evergreen I* did not immediately influence action in the Coast Guard. In the words of one senior Coast Guard officer, “We didn’t quite have the courage to follow (or believe in) our own judgment.” But over time, *Evergreen I* marked a significant step forward from *Long View* in terms of its actual impact on Coast Guard decision-making. The final eleven *Evergreen I* strategies have informed Coast Guard activities

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<sup>2</sup> Project *Evergreen* is managed by CG-0951. The Project Contracting Officer Technical Representative (COTR) and two to three other members of CG-0951 are on the Core Team. Other members include 10-15 officers, senior enlisted, and civilian employees from across the Coast Guard. *Evergreen* is supported by a consulting firm and they, too, are an integral part of the Core Team. When the term Core Team is used, it applies to all these participants.

across a wide range of settings, from headquarters to field commands. Evidence of the translation of *Evergreen I* ideas into vital actions can be seen across the entire Service:

- *Evergreen I* strategies were the source for much of the 2007 report, “The U.S. Coast Guard Strategy for Maritime Safety, Security, and Stewardship.” Among them: the strengthening of regimes for the U.S. maritime domain through coordinated efforts with interagency partners and a wide range of domestic and international stakeholders; the emphasis on risk management doctrine and systems; Coast Guard leadership in maritime domain awareness; Coast Guard contribution to a DHS-wide command, control, and communications (C3) system; and finally, a significant Coast Guard role in U.S. global maritime governance efforts.
- Several key *Evergreen I* strategies and implementation initiatives were manifested in the Commandant’s Intent Action Orders (CIAOs) issued in May 2006. Examples: the establishment of the Deployable Operations Group (DOG); a comprehensive assessment of Coast Guard command and control processes; and the promotion of a flexible, forward-looking human resource system.
- *Evergreen I* also contributed to the Service’s Modernization efforts, as expressed in the Force Readiness Command (FORCECOM).
- *Evergreen I* core strategies advancing greater international engagement validated and helped to expand Coast Guard efforts in the international sphere, e.g., in both the North Pacific and North Atlantic Coast Guard Forums.
- The output of *Evergreen I* helped to shape and inform national Homeland Security strategies.
- In the budgeting and planning area, *Evergreen I* strategies were used to stress-test the long-term viability of specific new expenditures.
- Finally, an informal community of *Evergreen I* veterans began to share regular communications and perspectives on breaking news events related to scenario themes or related strategies, thus keeping both scenarios and related *Evergreen I* strategies fresh and vital.

## ***Evergreen II***

The next round of *Evergreen* scenario-based strategy development aimed to accelerate efforts to embed strategic intent throughout the Service and to make greater progress in linking strategy development to the decision-making processes of the Coast Guard. In addition, *Evergreen II* continued and broadened the process by offering scenario support to Department of Defense (DOD) strategic planners and reaching out to the Coast Guard's stakeholder community.

Six years had passed since the events of 9/11. Though the initial shock had worn off, further events, such as Hurricane Katrina, made the wearing effects of a heightened operational tempo and a constantly reactive, tactical approach toward asset allocation and missions undeniable. The appetite for a longer-term, more strategic approach to the Coast Guard's roles made the Service more receptive to the type of thinking represented by *Evergreen*.

*Evergreen II* began, therefore, with far greater acceptance and broader anticipation than its two predecessors. The Coast Guard had participated as a component agency of the Department of Homeland Security in *Project Horizon*, a strategic planning effort that included 15 different federal agencies and departments with foreign affairs exposure, and it was among the first agencies to customize the Horizon scenarios for its own planning purposes. A new Core Team of Coast Guard personnel – this time composed of officers, enlisted, Auxiliarists and civilian employees – took the five Horizon scenarios and customized them for use in the specialized environment of the Service. The result was a set of five scenarios best suited for the purposes of the Coast Guard, but also

recognizable and potentially translatable to the needs of the Department of Homeland Security and other federal government entities.

In the case of *Evergreen II*, there were three Scenario Workshops: two for junior and mid-grade personnel, and one for senior leaders. The junior and mid-grade workshops produced concrete action items for the execution of The Coast Guard Strategy for Maritime Safety, Security and Stewardship. The Senior Leadership workshop produced broader strategies for the organization, along the lines of those produced by *Long View* and *Evergreen I*. The Senior Leadership workshop produced a total of 60 draft strategies. Over the course of the following weeks, the project Core Team synthesized these 60 strategies into 13 strategies to improve Coast Guard relevance and mission performance in a variety of potential futures. At the May 2008 Senior Executive Leadership Conference, the Core Team introduced these *Evergreen II* strategies to Coast Guard senior leaders, to begin planning for their implementation.

*Evergreen II*, by contrast with its predecessor scenario efforts, was undertaken in an atmosphere of much greater acceptance. The Commandant and the senior leadership of the Service were highly supportive of the effort. Many Flag Officers and senior executive officers had participated in at least one previous scenario workshop, and others had been interviewed for one or more of the projects. Similarly, while no less ambitious than previous efforts, the draft results of *Evergreen II*, delivered in April of 2008, were met with acceptance and constructive engagement across the senior leadership of the Coast Guard.

### **Using *Evergreen* to Assess the Caribbean Region**

Coast Guard District Seven (D7), headquartered in Miami, FL, is among the busiest and most vital maritime regions in the United States. Its future operations are affected by a variety of external factors. Within its vast area of responsibility (AOR), international political trends, issues of regional stability and maritime economic development, commercial trade, and tourism all directly affect the work of the District; within the purview of D7's AOR lies Cuba.

Cuba holds a key geographic location in the Caribbean, astride primary air and maritime routes connecting principal South and Central American countries to the United States. Major transformations within Cuba pose increasing responsibilities and potential coverage gaps for the Coast Guard. A collaborative effort between D7 and *Evergreen* demonstrates how the *Evergreen* process continues to innovate and provide more direct context to specific audiences within the Coast Guard. D7 held a “Cuba Strategic Workshop” to examine the dynamics of Coast Guard strategic issues against the backdrop of uncertainty centered on the Caribbean. The Cuba Workshop was in line with *Evergreen*'s scenario process of analyzing operational issues, offering practical implementable insights, and tying *Evergreen* Strategic Needs to near-term District planning issues. Using a pair of customized *Evergreen* Scenarios, and scenario-specific Operating Models recently developed by the Strategic Questions Workshop, and with the academic support of the Institute of Cuban and Cuban-American Studies at the University of Miami, D7 developed a strategic continuum that examined a range of potential outcomes for change in their operating environment.

Interagency participants and subject matter experts were convened to examine implications of the two future scenarios for the U.S. Each world team tried to arrive at U.S. goals towards Cuba, and the most efficient ways to achieve those goals (regardless of department/agency boundaries); then they confronted these goals with the five Coast Guard Operating Models mentioned above, and asked how well each model would answer national needs with respect to Cuba and the Caribbean region. The conclusions of the two teams were synthesized by a Core Team that included D7 staff, CG-0951 and contract support.

Some potential future needs identified by this exercise:

- Autonomous vehicles, integrated sensor systems, and robotics for Caribbean operations
- Consolidated information-collection centers to expedite analysis and dissemination to partner agencies and governments
- Increased criticality of Maritime Domain Awareness
- Increasing operational requirements to maximize on-scene endurance for District assets
- Response to technological/innovative advances on the part of criminals (e.g., semi- and fully submersible vessels)
- Closer partnerships with interagency, foreign government, and civilian actors
- Incentives for maritime stakeholders in the region to change the risk profile for the District
- Management of interagency organizational seams in context of potentially tighter resources.

Conclusions and recommendations included closer alignment of interagency activities with respect to Cuba, as it engages in activities that will increase the need for constructive U.S. engagement; professional exchanges to promote discussion on areas of mutual interest that transcend political sensitivities (hurricane response, Living Marine Resources (LMR), Search and Rescue (SAR), interdiction, disaster relief, naval and interagency exercises, training and education); and the establishment or expansion of regional governance bodies and coalitions. And at the more “micro” level, this *Evergreen* exercise underlined the potential future need for long-range sensing and increased asset endurance, as well as the need for a Foreign Affairs Officer specialty/track for the District.

## **II. EVERGREEN III SCENARIOS AND STRATEGY WORKSHOPS**

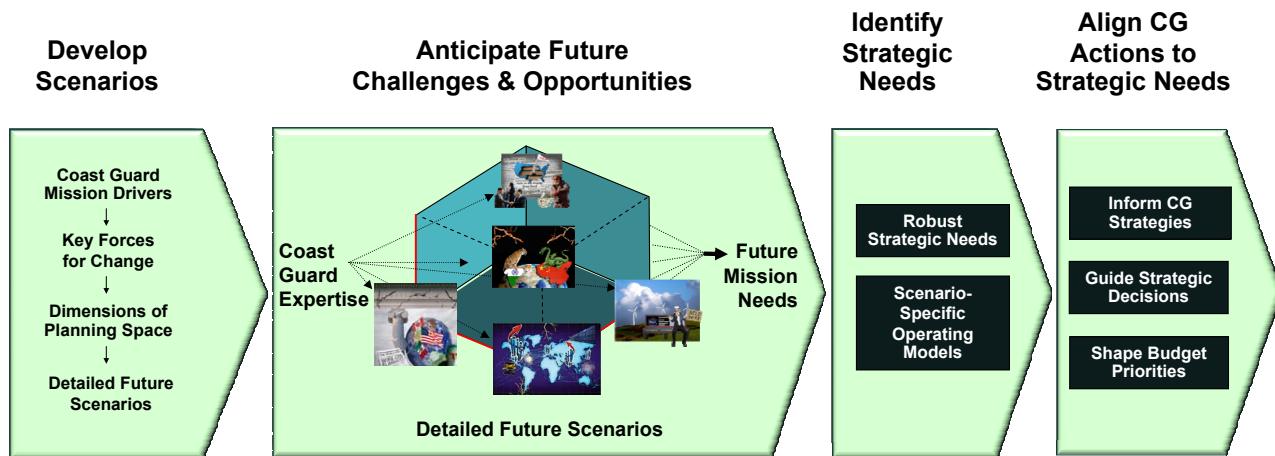
In 2009, the third round of Evergreen commenced during an eventful era for the Coast Guard and America. In January of that year Barack Obama was sworn in as the first African-American U.S. president. Following a massive financial meltdown that began the previous year, the U.S. economy declined precipitously over the course of 2009. Unemployment hit its highest level since 1983 and many observers warned of an impending debt crisis. Meanwhile, health concerns gripped the nation, following an outbreak of swine flu that led to a declaration of a public health emergency. Congress failed to pass a carbon-reduction law, while polls showed that fewer Americans believed that human actions had an impact on climate change. Cracks began forming in hard-line U.S. drug policies as the federal government announced it would no longer prosecute those who used or sold marijuana for medical reasons. Two senators, a Republican and a Democrat, introduced S.773, the Cybersecurity Act of 2009. A revised version of the legislation would be passed into law the following year.

In the international sphere, the war in Afghanistan continued, while the war in Iraq began winding down. Heads of state meeting in Copenhagen failed to agree on a binding agreement to limit greenhouse gas emissions. Parts of Central America experienced political turmoil. Somali pirates captured the cargo ship MV *Maersk Alabama*, in the first successful pirate seizure of a ship registered under the American

flag since the 1820s. Finally, with increasing evidence of climate change and declining multi-year ice, the Arctic Council's 2009 shipping assessment report spoke of a "new Arctic Ocean of increasing marine access, potentially longer seasons of navigation and increasing ship traffic."

This was not all that was going on in the world; it is merely a sampling of prominent headlines as the new cycle of *Evergreen* strategic planning began. In preparation for the development of a new set of scenarios, the newly formed *Evergreen III* Core Team, supported by veteran *Evergreen* contractors, conducted extensive research and interviews with subject matter experts on a wide range of topics. As in past *Evergreen* exercises, the challenge was to push out beyond current concerns and to consider topics not yet on anyone's radar screen, as well as to think rigorously about unintended and systemic consequences of trends, events and policies unfolding currently. *Evergreen* researchers grappled with, for example, vulnerabilities associated with pervasive and system-wide cyber insecurity, beyond the risks associated with discrete incidents. They also explored a wide range of energy futures – factors that could push oil drilling into ever more remote and risky locales, as well as factors, like shale gas, that could conceivably make the U.S. a major energy exporter for the foreseeable future.

### **The Coast Guard Evergreen Process**



### **Accelerator-Derailer Exercises**

An important innovation in *Evergreen III* scenario development was the adoption of Accelerator-Derailer<sup>SM</sup><sup>3</sup> (A-D) trend analysis. A-D is essentially a group exercise to examine the sturdiness of trends and their interdependencies and linkages, as well as their preliminary scenario implications. In a typical A-D exercise, as many as 15-20 *Evergreen*-relevant trends are identified and described. (Think in terms of energy prices, the budget deficit, or the unemployment rate.) Workshop participants are first asked to predict where the trend will be in 15 years. Then the group is asked to imagine what could happen in the world that might either accelerate that trend forecast or derail it. The trend itself is merely the starting point of discussion. Of greatest importance are the conversations that emerge around the accelerators and derailers. They lead to valuable insights into what participants really think is important, and often highlight interdependencies, complexities and unintended consequences (when, for example, the accelerator for one important trend is found to be a derailer of another).

Two A-D workshops were held during *Evergreen III*. The first was held at the U.S. Coast Guard Academy and involved faculty, staff and a select number of senior cadets, along with members of the Core Team and contractor group. The second was held at U. S. Coast Guard (USCG) Training Center Yorktown.

### **The *Evergreen III* Scenarios**

In 2010, over several consecutive days of intense workshop activity, the *Evergreen* Core Team synthesized all the research, interviews and analysis that had been conducted up to that point. From that pool of work, the group distilled four scenario “dimensions.” Dimensions are the high-level mega-drivers, outside the control of the Coast Guard, that define the parameters of the future uncertainty space. Notionally, the group was thinking of a distant future some 20-30 years from the present. The four dimensions identified were:

- U.S. Economy (Strong/Weak)
- Nature of Disruptions (Traditional/Novel)
- Role of U.S. Federal Government (Substantial/Limited)
- Global Mobility (Fluid/Hindered)

These dimensions yielded 16 possible permutations. The Core Team defined and described each of the “candidate scenarios” at a high level prior to presenting the set to the leadership of the Coast Guard for consideration. Ultimately, the leadership was asked to choose four or five scenarios that, as a set, would cover the range of challenges and opportunities the Service could plausibly expect to encounter over the next couple of decades. The leadership ultimately chose five scenarios, which are described in summary fashion in the following pages.<sup>4</sup>

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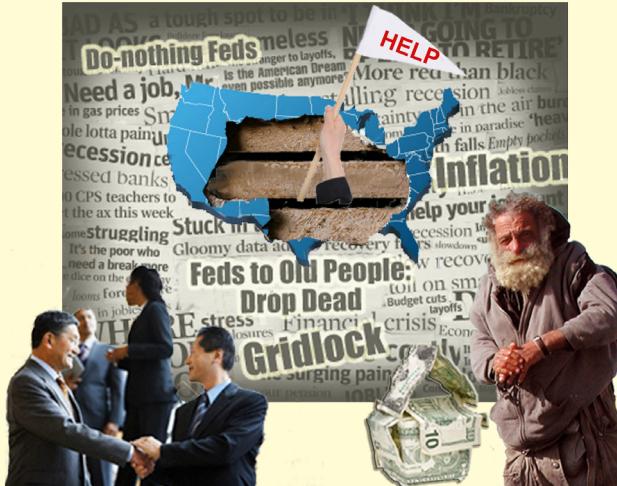
<sup>3</sup> Accelerator-Derailer<sup>SM</sup> is a service mark of the Futures Strategy Group LLC.

<sup>4</sup> Each of the *Evergreen III* scenario documents runs an average of 25 pages in length.

## *Dude, Where's My Sovereignty?*

U.S. Economy	Nature of Disruptions	Role of U.S. Federal Government	Global Mobility
Weak	Novel	Limited	Fluid

The United States in the future is a gloomy place. It's not a depression, but we've definitely lost our mojo. GDP growth rarely exceeds 2% per year, and often slips into negative territory. The "fifty-fifty country" of the 2000s and 2010s remains essentially unchanged despite demographic shifts and the passing away of half a generation. An endless series of gridlocked Congresses and impotent administrations failed to arrive at anything like the "grand bargain" needed to fund the Baby Boom retirements and maintain fiscal sanity; deals on immigration and other sensitive topics were all stillborn. So the government maintained established benefit levels, but paid them off in inflated-away dollars, dissipating our global influence and leaving it to the states and individual families to handle their hordes of elderly. State warehousing of the aged is widespread.



The U.S. economy lags others due to entitlement burdens and tight but inconsistent regulation of corporations (partly in response to a generally "anti-globalization" popular attitude). Cyber attacks also hit the U.S. economy especially hard back when the U.S. was a particularly rich and vulnerable target, though they subsided as American companies tightened up their systems (with some clumsy government intervention). This has tended to isolate the U.S. from the outside world, and to make doing business here relatively more difficult.

The federal government is seen as ineffectual and underfunded, and states do many things that used to be strictly federal jurisdiction. A series of Supreme Court decisions on the Commerce Clause reversed much of the New Deal era federalization of governance, allowing states far more autonomy in areas that were previously seen as strictly federal – immigration, foreign trade, and some interstate commerce.

Some states, those with natural resources or technological prowess, do better than others, but all are in tougher shape than they were a few decades ago. Coastal states in general are better off; they at least have closer access to overseas markets and corporations. The interior is worse off, except where it pays multinational corporations to maintain infrastructure and employment for their own profit. This exacerbates the long-standing division of the country into the more outwardly focused, cosmopolitan, internationalist, prosperous coastal areas, and the nationalistic, populist, traditionalist, more religious, poorer heartland.

## **Dude, Where's My Sovereignty?**

Globally, international business interests and a small group of countries have prevented resource-extraction anarchy in the global commons. Some resources have been severely depleted, but this global elite, with little American help, has kept the worst from happening in the world's oceans, sea lanes and other non-sovereign spaces, and has therefore gained power and prestige at America's expense. Headlines such as "40 Billionaires Get Together in Gstaad to Decide Our Fate" are common. Distrust of these groups is greater in the middle of the country, where it has not gone unnoticed that the deals cut "out there" often are not in the best interests of the United States. Rather than pushing the U.S. toward more engagement, however, this seems to shove the country into an ever-more isolationist stance.

The United States still has some areas of economic advantage. States with resources to export, and agricultural states, are doing fairly well. Some areas of military technology remain robust for the U.S. But there is a great deal more economic inequality, "haves" and "have nots," as well as an exacerbated divide between "the heartland" and the coasts. Canadian border guards turn back Americans trying to cross into that increasingly affluent country. On the other border, state militias patrol to keep refugees from an increasingly chaotic Mexico out.

### **Illustrative Challenges and Opportunities for the Coast Guard in Dude, Where's My Sovereignty?**

Challenges	Opportunities
<ul style="list-style-type: none"> <li><input type="checkbox"/> Gridlocked Congresses and a federalized, state-dominated nation make this a very difficult world in which to gain resources and balance priorities.</li> <li><input type="checkbox"/> Climate change has continued along a slightly more pessimistic trend line than previously forecast, though not a catastrophic one; degradation of shoreside infrastructure and facilities is more of an issue.</li> <li><input type="checkbox"/> The center of gravity of the world economy is elsewhere, mostly in Asia, making attracting and retaining talent more difficult.</li> <li><input type="checkbox"/> Strong states that have the money to pay for services may prefer to do things for themselves; weak states that have little money may require far greater help, but may be unable to pay for it.</li> <li><input type="checkbox"/> The Arctic is a resources free-for-all (oil, fisheries, mining, etc.), but the United States may not have a seat at the negotiating table to protect its interests there.</li> <li><input type="checkbox"/> The Navy has less of an expeditionary mission, which may cause it to look for missions closer to the U.S. littoral.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> With transnational corporations and wealthy elites having significant influence across the world, there will be a demand for dependable rules of the road with respect to the ocean commons, and for those who have the expertise to regulate and enforce them.</li> <li><input type="checkbox"/> Littoral states of the United States will generally be in better shape than the interior of the country, and will have sway when it comes to requesting resources from a strapped federal government.</li> <li><input type="checkbox"/> The U.S. Exclusive Economic Zone (EEZ) is among the best managed and protected in the world, and will be seen as an asset that repays good management and regulation.</li> <li><input type="checkbox"/> With a strapped federal establishment, an agency that is capable of maintaining both local presence and national reach will be in line to play a large number of potential new roles.</li> <li><input type="checkbox"/> In a world of budget scarcity, there will be a premium on the kind of partnering and relationship-building at which the USCG historically excels.</li> <li><input type="checkbox"/> A future of continued scarcity of resources gives the Coast Guard the ability to plan a long-term move to a leaner, more flexible, flatter organization.</li> </ul>

## ***Quantum Leap***

U.S. Economy	Nature of Disruptions	Role of U.S. Federal Government	Global Mobility
Strong	Novel	Substantial	Fluid

The U.S. has been enjoying a social and economic renaissance for well over a decade. A technological revolution fostered by aggressive public-private investment has given the U.S. bleeding-edge advantages in computing, nanotechnology, smart materials, micro-manufacturing, and robotics. The world once again recognizes the U.S. as the critical engine for economic and technical progress.

The pace of change is astounding – awesomely powerful computers (including emerging reliable quantum computing) solve extremely complex problems, from basic science to advanced engineering to accurate long-range weather prediction. Advanced robotic applications are found throughout society wherever public or private activities are repetitive, dangerous, and/or awkward for humans. Solar energy promises to end the hydrocarbon era forever. Smart materials are fundamentally changing how things are made and producing advances like shape morphing and multi-functionality of previously static structures. New materials plus solar energy have made high-volume desalination affordable everywhere. Distribution inland remains a challenge globally.



It's not all upside. The world struggles with the increasingly destructive effects of global climate change. Incredibly damaging and simultaneous storms, deluge-drought cycles, and rapidly rising sea levels are now factored into all private and public planning, from public safety to new micro-manufacturing sites and agriculture. Infrastructure modernization (ports, rail, roads and bridges, and public health) is a high U.S government priority and, for now, this work is producing high blue-collar employment. Globally, the impacts of climate change are producing millions more environmental refugees, with all the attendant problems of ethnic strife, starvation, and disease.

Oil-producing economies will soon be on the brink of collapse, creating a whole new slate of security concerns. A globally networked “elite” appears to enjoy superior opportunities through advanced information systems. These systems (extremely expensive at the moment) are “present” with the owner 24/7 and so powerful that a serious gap is emerging between the lifestyles, wealth, and prospects of the information haves and have-nots. Cybercrime and intellectual property theft are rampant and several new varieties of terrorism have emerged – particularly ecological terrorists. No one knows where this brave new cyber world will lead, but for now Americans are enjoying the best economy anyone can remember. Debt is manageable, jobs are plentiful, and America is an optimistic nation again.

## *Quantum Leap*

### Illustrative Challenges and Opportunities for the Coast Guard in Quantum Leap

Challenges	Opportunities
<ul style="list-style-type: none"> <li><input type="checkbox"/> The pace of technology change is excessive and many standards are being set de facto by cyber communities. Staying meaningfully current is extremely difficult.</li> <li><input type="checkbox"/> With accelerating climate change, the meaning of a permanent infrastructure needs rethinking. The infrastructure functions might be permanent, but the actual facilities might be relocated, decentralized, movable, mobile, and/or cyber.</li> <li><input type="checkbox"/> Extreme, numerous, and simultaneous national weather disasters require new approaches to repeated, frequent, and concurrent surges.</li> <li><input type="checkbox"/> With excellent employment opportunities in the private sector, the USCG will need to find innovative ways to ensure access to skills without necessarily owning all the bodies that go with the skills.</li> <li><input type="checkbox"/> There will be a demand to provide appropriate USCG missions into the underwater domain for security, mining, aquaculture, shipping, and tourism.</li> <li><input type="checkbox"/> The USCG must consider how to support Law Enforcement (LE), pollution control, and Search and Rescue (SAR) in coastal areas that are now extensively flooded for long time periods.</li> <li><input type="checkbox"/> There is less DoD-related expeditionary work at the moment, but a significant rise in that need may be just around the corner.</li> <li><input type="checkbox"/> The Caribbean is a mess, slammed by extreme weather and with a population that is largely irrelevant to new high-technology industries.</li> <li><input type="checkbox"/> The Arctic will be an active (nearly year round) waterway.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Given new simulation and modeling tools, the USCG will have an opportunity to extend its risk-management expertise toward “Interactive Risk and Opportunity Management” that both rewards and constrains users.</li> <li><input type="checkbox"/> Developments in new materials, robotics, and propulsion hold promises for extended reach and on-station time for all manned and unmanned assets, and increased ability to perform in extremely adverse conditions, with less fatigue for (fewer) on-station human personnel.</li> <li><input type="checkbox"/> The USCG will be among the first organizations to think through all the myriad operational, legal, and ethical implications of integrated human-robotic activities.</li> <li><input type="checkbox"/> The DHS will be a tightly integrated Department, and USCG experience in complex multi-mission operations will provide opportunities for leadership and support to the Department.</li> <li><input type="checkbox"/> The USCG generalist comes into his/her own. The ability to lead and manage the operational synergy of disparate actors and technologies to solve complex evolving problems will be in high demand.</li> <li><input type="checkbox"/> Marine safety expertise is critical, with the proliferation of new ship technologies and the demands that extreme weather places on vessels, offshore infrastructure, and ports.</li> <li><input type="checkbox"/> Partnerships (planning, mitigation, response, recovery) are crucial. The USCG experience in field partnership operations will be a very high-leverage capability.</li> <li><input type="checkbox"/> Protection of Living Marine Resources (LMR) within the EEZ is a national security priority.</li> </ul>

## *Dragon v. Tiger*

U.S. Economy	Nature of Disruptions	Role of U.S. Federal Government	Global Mobility
Strong	Traditional	Substantial	Hindered

The U.S. is a good place to live and work these days. Every day the media focus is on the continuing tensions between China and India. The U.S. has remained above the fray in order to maintain access to markets, while supplying military, security, and cyber security technology to both sides. Our Navy stays out of the South China Sea to avoid trampling on Chinese or Indian sensibilities. China and Taiwan have reached a rapprochement, with increasingly strong ties. Taiwan is not requesting our military presence, and Korea has reunified.



As uncomfortable as it is to contemplate the two most populous nations in the world staring each other down, the U.S. has certainly benefitted. The U.S. economy has come back and is moderately strong. We are once again the global leader in a number of leading-edge technologies. Cyber security provides a clear example of how the perception of U.S. leadership has enhanced the ability of U.S. industries to attract customers in other areas. Effective leadership at the national level also helped put the U.S. on a path to solve its fiscal problems.

Federal government-funded research has fueled a technological boom. There is a very competitive world business environment, but a stronger legal framework, patents, and IP protection in the U.S. attract investment and keep the U.S. first among equals in the world economy.

The U.S. is at or near the top in a number of technologies. These include IT, robotics, nanotechnology, miniaturization in general, communications, biotechnology, generation-after-next military technology (robotics and sensors and drones allow shrinkage of military, especially Navy), Internet, and smart materials. Sensing technologies are more and more ubiquitous around the globe, aided in part by artificial intelligence advances. Agent-based models are increasingly available for decision-making in business and government.

Reshuffling of port infrastructure has been driven by changing trade patterns – Gulf Coast and Southeast ports are much more critical. There are more deepwater ports for oil and LNG on the East Coast as well (to avoid dredging).

## ***Dragon v. Tiger***

The federal government went through a difficult period as it restructured its fiscal situation, while investing in basic research to seed future innovation. The economy has rebounded, debt is being paid down and the nondiscretionary part of the budget is finally shrinking.

The U.S. economy has also benefitted from the tensions between the Asian giants. Latin America is a growing center of manufacturing (Brazil-led) for the Americas. Some higher-value-add manufacturing is returning to the U.S. Brazil is the hub of Latin American development and trade.

Mexico remains somewhat of a mess but is improving – it is a long road back. The trade disruptions across the Pacific in China and India have presented some expanded opportunity for low-cost manufacturing in Mexico. South America is generally doing very well. Oil exporters in particular have benefitted from relatively high prices. In addition, Latin America has become a low-skilled manufacturing source as an alternative to Asia.

Brazil is an economic and political power. It has benefitted directly from worries over the predictability of Chinese and Indian suppliers and security of the Asian trade routes. Melting of the Polar ice pack has continued unabated, but has not accelerated to the extremes that some had forecast. This has increased polar activity in resource extraction, shipping, and tourism.

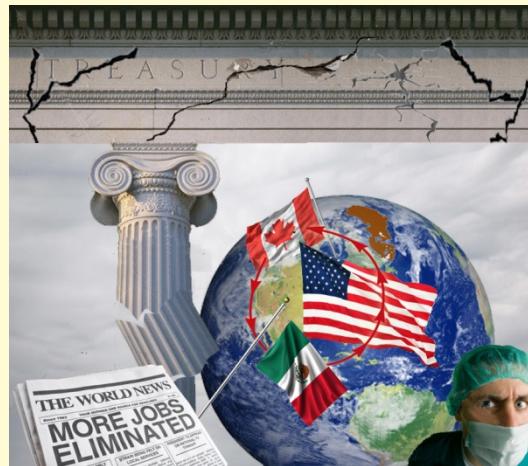
### **Illustrative Challenges and Opportunities for the Coast Guard in Dragon v. Tiger**

Challenges	Opportunities
<ul style="list-style-type: none"> <li><input type="checkbox"/> The Coast Guard has to operate without a U.S. Navy presence for cover in the Western Pacific. Some mission creep (including diplomatic) results.</li> <li><input type="checkbox"/> Increased Polar resource extraction, shipping, and tourism activity requires greater Coast Guard presence.</li> <li><input type="checkbox"/> Large fields of operation in the Pacific and Polar regions present maintenance and logistical challenges.</li> <li><input type="checkbox"/> Expanded focus on operational efficiency puts a much higher premium on business acumen across Coast Guard operations.</li> <li><input type="checkbox"/> A shift from East/West to North/South dominance in trading patterns requires a reallocation of USCG assets and mission support infrastructure.</li> <li><input type="checkbox"/> Underwater expertise and capabilities are increasing in importance due to resource extraction and new deep-water ports.</li> <li><input type="checkbox"/> The strong economy makes it difficult to retain experienced personnel once trained.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> High regard for government makes Coast Guard experience highly marketable, facilitating recruiting (though retention remains a challenge).</li> <li><input type="checkbox"/> An atmosphere of partnership among government agencies and Federal, state, and corporate entities opens new surge and asset-sharing options during national incidents.</li> <li><input type="checkbox"/> Funding is readily available for programs as long as a strong business case can be made.</li> <li><input type="checkbox"/> Shifts in trading patterns put a premium on the Coast Guard's dual military/law enforcement status.</li> <li><input type="checkbox"/> Danger to global fish stocks, now widely recognized, results in a strong mandate for Coast Guard operations protecting fisheries.</li> <li><input type="checkbox"/> There is increased freedom for Coast Guard personnel to move back and forth between USCG positions and positions in other agencies or in the private sector.</li> </ul>

## *Treading Water*

U.S. Economy	Nature of Disruptions	Role of U.S. Federal Government	Global Mobility
Weak	Novel	Limited	Hindered

The U.S. of the future is very much a changed country. The nation is mired in a prolonged slump, marked by low economic growth, chronically high unemployment and stagnant living standards. There was no single precipitating economic event. The U.S. just never fully came to grips, politically or economically, with the debt and deficit overhang of the late 2010s, until harsh fiscal decisions had to be made. The nation is now muddling through with a markedly reduced standard of living, even though there are still some pockets of affluence and progress. Fortunately, there is no mass civil unrest. Volunteerism and community commitment mitigate resource deficits and help keep the social fabric of the nation intact.



Hardship and uncertainty in the economic sphere are compounded by pervasive health concerns. The world has been rocked by a series of deadly pandemics, which have exacerbated protectionist pressures around the globe. U.S. homeland security roles have been increasingly redefined around disease management, border security and emergency response.

Few in the U.S. have been spared the effects of changed economic times. Both unemployment and under-employment are stubbornly high. Spending cuts have slashed entitlements and eliminated entire government departments, including Housing and Urban Development, Environmental Protection Agency, and the Department of Education. National Aeronautics and Space Administration and National Oceanic and Atmospheric Administration have been merged. DHS has been pruned back to meet new U.S. fiscal realities. Government pensions at state and federal levels have been “adjusted” to make them actuarially sound.

This is a multi-polar world, characterized by widespread health problems, poverty, and precarious sources of power. Among the major actors are the U.S., China, and Russia (because of the Arctic); after those come Brazil and Europe. International organizations have scant influence. Regional organizations like North American Free Trade Agreement, European Union and Association of Southeast Asian Nations are stronger. International criminal organizations are very powerful.

The nation has grown notably more insulated and pragmatic vis-à-vis global affairs. China is rising and Russia is projecting military and economic power in the Arctic. Closer to home, relations with Mexico and Canada have never been more important, especially as they relate to energy, resource protection, and Arctic access. Military spending in the U.S. has been scaled back; the nation’s foreign footprint is minuscule. China, in contrast, is flexing both economic and military muscle in a relentless quest for food and energy security.

## *Treading Water*

There are fewer global markets. Because of both protectionism and pandemic concerns, trade tends to be more regional or bilateral. There is no overarching World Trade Organization (WTO) surveillance and dispute resolution system. There is intense pressure on the world's natural resources and therefore on weaker nation EEZs in the Pacific. Piracy on the high seas is a persistent problem for the major trading nations. U.S. EEZs have now expanded out to the farthest extent of the continental shelf on the East Coast, following similar moves around the globe. Many other countries are claiming larger EEZs than are warranted by any precedent, but few can enforce them.

### **Illustrative Challenges and Opportunities for the Coast Guard in Treading Water**

Challenges	Opportunities
<ul style="list-style-type: none"> <li><input type="checkbox"/> Fiscal constraints are harsh and seemingly permanent, forcing widespread "rationalization" of government services at all levels of government.</li> <li><input type="checkbox"/> Covering an expanding maritime domain is difficult at a time of resource constraints and high energy costs.</li> <li><input type="checkbox"/> Globalization has been significantly reversed. U.S. trade and investment flows have dramatically fallen as a result of protectionism and pandemic threats.</li> <li><input type="checkbox"/> Piracy and desperation for resources (energy, minerals and fish) are creating lawless conditions on the high seas. Global governance is at a modern low point. There is no overarching WTO surveillance and dispute resolution system.</li> <li><input type="checkbox"/> The Arctic is humming with activity, but a persistent and effective U.S. presence there is expensive and technologically challenging.</li> <li><input type="checkbox"/> The USCG needs a credible health infrastructure that protects its members and the public from pandemics.</li> <li><input type="checkbox"/> Managing the public relations and political risks associated with a reduced set of USCG traditional safety missions is an ongoing challenge.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> The Jones Act has been extended to Canada and Mexico, creating new north-south trade linkages and a possibly expanded role for the USCG in a new, NAFTA-wide marine transportation system.</li> <li><input type="checkbox"/> It is a buyer's market for recruiting top talent to government, even though federal government employment is no longer a guarantee of job security.</li> <li><input type="checkbox"/> Community-based volunteerism is strong – and an increasingly important and reliable component of emergency-response surge operations.</li> <li><input type="checkbox"/> The USCG enjoys new freedom to explore new business models, including service charges for activities like ship inspections.</li> <li><input type="checkbox"/> A compelling business case is made for use of autonomous vehicles and sensors across a range of USCG activities, including underwater, aids to navigation, maritime search and intelligence gathering.</li> <li><input type="checkbox"/> There is expanded and deepened inter-agency surge capacity, with practical incentives for resource sharing and cross-training with USCG federal partners (e.g., Immigration, Customs, Centers for Disease Control).</li> </ul>

## *Bet on the Wrong Horse*

U.S. Economy	Nature of Disruptions	Role of U.S. Federal Government	Global Mobility
Weak	Traditional	Substantial	Fluid

The world of the future is one where the policy decisions and investments of the past are in doubt. Persistent extreme seasonal conditions, major weather events and droughts drove a widespread acceptance within the U.S. that dramatic climate changes were occurring, and human activity was the cause. That acceptance transcended political lines, and drove national policy aggressively in the direction of actions to slow or reverse its course. The U.S. invested heavily in renewable energy resources and climate engineering, and tightened environmental regulations at all levels of government, despite the reluctance of many in the international community who took more conservative approaches toward the issue and refused to develop a comprehensive global cap and trade system. Now, as new research confirms that climate change has not continued and strongly suggests the initial causes were not anthropogenic, those more conservative approaches seem to have paid off, with many speculating as to whether the U.S. has bet on the wrong horse.



The focus on green investments and policy has left the U.S. economically unstable. Though it retains its position among the top tier of world actors, the U.S. has lost its preeminent position to foreign markets with less stringent safety and environmental standards. Economies less focused on environmental policies and green solutions, particularly in Asia, have become centers of growth, leading in technology innovation and presenting opportunities for highly skilled U.S. workers willing to relocate. All of this has undermined U.S. economic competitiveness, a situation that is aggravated by a persistently weak fiscal position, driven largely by growth in entitlements and green infrastructure investments that increasingly appear unnecessary. The lack of federal funding has had a significant impact on other long-term investments, particularly higher education.

Environmental policies have not been completely detrimental – green technologies and environmental regulations have significantly reduced pollution, improved air quality, and increased the sustainability of fisheries and other natural resources. Environmental restrictions have severely restricted U.S. polar development, and Arctic wildlife is rebounding as environmental conditions improve in the region.

Lower domestic demand has decreased the global price of oil and other fossil fuels, reducing the need for exploration into environmentally sensitive and technologically risky areas of exploration. However, there is a general feeling that the U.S. economy has become overregulated and uncompetitive, contributing to cyclical recessions and persistently high unemployment.

## ***Bet on the Wrong Horse***

The increasing acknowledgement that climate change and its impacts were overstated threatens to exacerbate economic conditions, as the green jobs and products that drive so much of the U.S. economy become less desirable both domestically and internationally.

The U.S. social climate is, for certain, changing. Resource conservation, economic stagnation, and overseas economic opportunities have conspired to both consolidate families into multi-generational households and spread family members internationally. Many who were once fast-paced, driven, and suburban are opting for simpler lives, moving closer to urban areas and focusing on family and communities. While terrorism continues as a threat, particularly in the form of small attacks, its psychological and economic impacts have been blunted by an acceptance of its normality.

### **Illustrative Challenges and Opportunities for the Coast Guard in *Bet on the Wrong Horse***

Challenges	Opportunities
<ul style="list-style-type: none"> <li data-bbox="236 946 807 1100">□ The U.S. is falling behind the major economic powers of the world. Chronic fiscal burdens and serious constraints on new spending initiatives severely restrict the resources of government agencies, including the USCG.</li> <li data-bbox="236 1121 807 1241">□ Rebounding fish stocks in U.S. EEZ waters are increasingly exploited by foreign fishing fleets, and are difficult to protect and manage in a resource-constrained environment.</li> <li data-bbox="236 1262 807 1362">□ In many sectors it is challenging to retain highly skilled talent. Many U.S. workers enjoy options to work in more dynamic foreign markets.</li> <li data-bbox="236 1383 807 1503">□ More restrictive environmental regulations have increased the demand for maritime inspections and compliance, thus raising capacity issues for the USCG.</li> <li data-bbox="236 1524 807 1679">□ The focus on green- and climate-resilient facility investments has come at the price of wider and more essential enhancements to national intermodal infrastructure, causing widespread inefficiencies and higher transportation costs.</li> <li data-bbox="236 1700 807 1805">□ Offshore ports and other infrastructure are growing in number and complexity, creating new challenges for navigation safety, monitoring, and vessel tracking.</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="824 946 1390 1100">□ Sustainability efforts and environmental protections are creating a wealth of maritime resources and associated industries (such as ecotourism), further reinforcing the need for USCG roles in maritime regulation, management, and protection.</li> <li data-bbox="824 1121 1390 1241">□ Conservation and efficiency efforts, particularly in building and construction standards, have left the USCG better positioned to address continued fiscal operating constraints.</li> <li data-bbox="824 1262 1390 1396">□ USCG mission sets, both green- and non-green focused, appeal to a broad cross-section of the U.S. workforce in periods of low economic growth and associated employment challenges.</li> <li data-bbox="824 1417 1390 1571">□ Sophisticated information management systems, including modeling and simulation, are increasing the efficiency and effectiveness of planning and operations and enhancing the USCG role in expediting commerce.</li> <li data-bbox="824 1592 1390 1733">□ Interagency partnerships driven by fiscal constraints, coupled with improved coastal planning and population shifts, significantly contribute to the effectiveness of USCG disaster response capabilities.</li> </ul>

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## The *Evergreen III* Workshops

### *Coast Guard Stakeholder Workshop*

The first *Evergreen III* workshop took place in early 2010 and involved Coast Guard partners and “stakeholders” from the federal government. Among the 60 participants were representatives from DHS (headquarters), Customs and Border Protection, Transportation Security Administration, the National Oceanic and Atmospheric Administration, the Federal Emergency Management Administration, the Maritime Administration, the U.S. Navy, the Minerals Management Service, the Army Corps of Engineers, the St. Lawrence Seaway Development Corp., and the Federal Bureau of Investigation. (Since the research had only just begun on the new *Evergreen* scenario set, the scenario facilitators used *Evergreen II* Scenarios.) These proved to be a fruitful source of insights for interagency collaboration, including:

- Identification of opportunities for sharing and/or operationally integrating assets;
- Leveraging complementary authorities;
- Monitoring (with Canadian partners) environmental and security conditions in the Arctic;
- Developing secure cyber technologies and systems for the maritime domain; and
- Developing policies and regulations to ensure the security of deepwater ports of entry.

### *Evergreen Strategy Workshops*

The new *Evergreen III* Scenarios had their debut in 2011 in the actual *Evergreen* strategy workshops. The *Evergreen* Core Team organized two workshops for Coast Guard personnel (uniformed and civilian) – one for mid-grade and one for senior officers – involving, in all, approximately 130 participants from across the Service. These two workshops generated the bulk of the robust “Strategic Needs” that represent the core deliverable for *Evergreen III*. As will be explained in greater depth in Section III of this document, prior to *Evergreen III*, *Evergreen* strategy workshops were designed to develop discrete strategies. This changed in *Evergreen III*, where the end-game became identifying robust “Strategic Needs”

from which strategic actions could be forged by Coast Guard personnel with the authority and expertise to actually execute on these insights. (The underwater case on pp. 26 and 27 provides an excellent example of this process.)

The full set of the robust *Evergreen* Strategic Needs can be found in the appendix of this document. Among the higher-level insights to emerge from the scenario strategy workshops were the following:

- The inherent complexity of the Coast Guard operating environment will increase regardless of the Service’s mission scope. This was as true in resource-poor scenarios as it was for resource-rich ones.
- The dominant impact of technology will be how it shapes the Coast Guard operating environment, not the utility it provides to the Service. Examples abound, from future smart phones to new ship technologies.
- No matter how the operating environment changes, the Coast Guard will continue to face challenges to its culture and hurdles to clearly articulating its value. These challenges will be especially pronounced in fiscally constrained environments – but not limited to them.
- Future AORs will not be static, but will change (sometimes dramatically) in terms of physical, temporal, and usage characteristics.
- Sovereignty (its clarity, its geography, its meaning) is not as fixed as commonly believed. This is especially true in the Arctic and in the cybersphere.

In addition, the *Evergreen* Strategy Workshops initiated work on the construction of scenario-specific “Operating Models.” A significant innovation of *Evergreen III*, Operating Models depict scenario-specific Coast Guard end-states – what the Coast Guard would plausibly look like under alternative scenario conditions. (See p. 30 in Sec. III for a more detailed description of Operating Models and their applications.) These models were augmented offline by Core Team members and further refined by participants in the Strategic Questions Workshop held in 2012.

### **Strategic Questions Workshop**

The purpose of the 2012 “Strategic Questions Workshop” was to study high-level strategic questions solicited from the Coast Guard’s executive leadership. The *Evergreen* Core Team workshop planners opted to explore the strategic questions indirectly, through the use of scenario-based Operating Models. Following the workshop, the *Evergreen* core team revisited the questions from leadership with the benefit of the very concrete images of what the Coast Guard of the future would have to look like in alternative scenario settings.

Looking across the five Operating Models led *Evergreen* to identify four critical high-level characteristics of Coast Guard activity needed to ensure a resilient maritime domain:

- Strong governance,
- Ready flexible surge capability for contingency response,
- Unified government-community partnerships, and
- Discriminate international engagement.

Across a range of potential future threats in the maritime domain emerged an overarching concept of operations with respect to how the Coast Guard would regulate, monitor, and enforce safety, security, and stewardship on the nation’s waters. Workshop results underlined the expectation that the Coast Guard would remain focused on Safety, Security, and Stewardship, but its approach to all three would logically evolve to leverage more technology and shared work with a larger set of partners. Examples of specific images of a future operating model include:

- Growing use of autonomous vehicles launched from both sea and land;
- Increased positive vessel control conducted remotely from beyond the EEZ into ports;
- Cutters and aircraft moving toward quick response actions vectored by remote and/or automated systems while classic crewed patrols have not disappeared completely;

- An evolving center of gravity for Coast Guard operations in the offshore environment that is increasingly focused on protecting the maritime transportation system and resources within our EEZ; and
- Shore facilities serving as staging areas; they are fewer in number than 2013 and often include integrated interagency command and control, particularly within DHS.

### ***Evergreen III* Insight Workshops**

In conjunction with the shift to Strategic Needs and the enhanced use of Operating Models, *Evergreen III* made a direct effort to offer strategic guidance to near-term practical decision-making. Over the course of this cycle, the concept of Insight Workshops emerged to offer flexible and innovative mergers of *Evergreen* insights with issues that are near-term – but have enduring, “long-tail” strategic implications for the Coast Guard.

Insight Workshops were employed, experimentally and successfully, on four occasions. First, we used all the *Evergreen* Strategic Needs to develop the background material for Flag Conference decision-making on Service strategic priorities that would guide budget decisions. Second, we used a tailored set of Strategic Needs to help make decisions about the future of the workforce. Third, we used the *Evergreen* scenario process to support an interagency look at medium-term Caribbean policy issues. Finally, *Evergreen* Strategic Needs and the lessons offered by the Operating Models supported the Outlook Vision Team (OVT)<sup>5</sup> as they developed a forecast of the Coast Guard operating environment in 2023 to guide long-term budget priorities.

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<sup>5</sup> The Outlook Vision Team was established to develop a 10-year strategic outlook and establish a Coast Guard vision with recommended strategic planning guidance. The intent is to establish a planning framework that bridges between the current Fiscal Year (FY) execution cycle and long-range *Evergreen* projections.

### **Project Evergreen Reserve Workshop**

The final *Evergreen III* workshop was held in May of 2013. This workshop was unique in that it used *Evergreen's* scenario process to analyze future Coast Guard surge and steady-state operations through the lens of its Reserve force. Workshop participants included a significant representation from the Coast Guard Reserve force. The workshop was intentionally designed *not* to be an exclusive examination of Reserve missions and needs in the future. Rather, the purpose was to think hard and expansively about the full range of surge and steady-state opportunities and challenges across a range of very different operating contexts (scenarios). From this analysis, it was then possible to explore specific strategic insights and implications for the Coast Guard Reserve force, including how the Reserve fits into a “total integrated Coast Guard workforce” model, and challenges related to managing and developing the Reserve workforce. Among the high-level findings of this exercise are the following:

- **There is no single approach to using the Reserve Force in the future.** The Reserve force will be used for both surge AND steady-state support and operations.
- **The Coast Guard must embrace a total workforce approach** that includes all Coast Guard workforce options – full-time, Reserve, military/civilian and Auxiliary. It must be driven and shaped by operational requirements, against which appropriate skill sets and competencies are accessed, assembled and deployed.
- **The workshop confirmed *Evergreen* findings in favor of greater specialization at all levels – full-time/part-time, military/civilian and Auxiliary.**
- **Embracing national (or DHS-wide) competency standards for personnel qualifications is “low hanging fruit.”** This is something the Service could accomplish rather quickly and which could have a profound impact in the relatively short-term.
- **The Coast Guard will need the flexibility to scale the Reserve up or down** in the face of changing missions, technological substitution and enduring fiscal pressures on the Coast Guard workforce.
- **The scenario analysis makes a strong, if not conclusive, case for geographic stability of Reserve forces.** This may also further the cause of building a more diverse Coast Guard.
- **To build and sustain the right composition of Reserve forces requires fresh new thinking about compensation.** This includes non-monetary incentives, short-term contracts for specialists, and other workforce innovations. Compensation must be, in a word, “adaptable” to changing external conditions.

*Evergreen III*, as shown above, saw constant incremental innovation, which, in its totality, transformed a process that might once have been considered a disconnected far-future academic exercise into an effort that has had real and positive impact on Coast Guard decision-making and nearer-term operations.

### ***Evergreen and the Underwater Domain***

In theory, the Coast Guard has always had underwater roles and responsibilities within its areas of operation. But until relatively recently, the Coast Guard was rarely called upon to carry out its work in sub-surface settings. One example of the Coast Guard's periodic historical underwater work occurred during World War II, when its major cutters possessed anti-submarine capabilities, which were deployed both for Coast Guard missions and to support U.S. Navy operations. The Coast Guard also trained "frogmen" with the Office of Strategic Services (OSS), in teams known as Operational Swimmer Groups; these efforts ceased with post-war demobilization.

In more recent years, underwater figured prominently in the Coast Guard's expansion of maritime domain awareness (MDA) and response capabilities after 9/11. The initial emphasis was on detection of, and response to, hostile swimmers and divers in the port environment. With the formation of Maritime Safety and Security Teams (MSSTs), the Coast Guard implemented Ports, Waterways and Coastal Security (PWCS) underwater capabilities. In 2002, the Coast Guard established the Underwater Port Security Working Group to address a range of security issues involving MSSTs and other Coast Guard and partner capabilities in the underwater space. The Coast Guard contributed significantly to the 2005 White House National Strategy for Maritime Security (NSMS), which called attention to security risks from underwater swimmers, underwater mines, and unmanned underwater explosive delivery vehicles.

The Coast Guard's Research and Development Center (RDC), meanwhile, began investigating new technologies to support underwater domain awareness and activities. The Coast Guard leveraged naval underwater capabilities and experience in developing, with the Navy and academic entities, a sonar-based swimmer detection system known as the Integrated Anti-Swimmer System (IAS). The importance of such security systems in U.S. ports was dramatically underlined in 2008 when Tamil Tiger rebels in Sri Lanka deployed underwater explosives and sank a large Sri Lankan Navy ship.

Events outside the port environment gave the Coast Guard reason to pay serious attention to other underwater threats. In 2006, the U.S. Coast Guard, along with the efforts of U.S. Drug Enforcement Agency, Federal Bureau of Investigation, and Costa Rican and Colombian authorities, intercepted and seized the first self-propelled semi-submersible (SPSS) vessel off the coast of Costa Rica transporting three tons of cocaine from Colombia to Mexico. The interdiction of the SPSS proved to be difficult to spot from air and surface assets. Two years later, the Coast Guard seized two other semi-submersibles. 2011 highlighted the first Caribbean SPSS drug bust and divers were used to recover contraband because shortly after the suspected traffickers were detained, the SPSS sank. Thinking also of security threats, possibly even weapons of mass destruction, officials wondered what else might adversaries try to smuggle into the U.S. in an SPSS (or perhaps a fully submersible vessel).

*Evergreen III* (2009-13) widened the Coast Guard's strategic aperture on the underwater topic, going beyond port and coastal security, to consider an extensive range of other emerging underwater challenges. The underwater imperative had appeared on the *Evergreen* "radar" already, but it was accentuated in 2010, with the Deepwater Horizon catastrophe. The oil-well blowout and release was "unprecedented in scope, scale, and duration," according to the Coast Guard's Incident Specific Preparedness Review. The event shed light not only on the hazards of deep-water oil drilling but also on the ultra-specialized technical knowledge, skills and assets required to operate in extreme sub-surface environments. Various post-Deepwater Horizon analyses have concluded that while the U.S. must rely "wholly on the responsible party" to contain deep-water oil spills, the Coast Guard needs to have access to capabilities that are independent of the responsible party, to effectively accomplish its essential oversight responsibilities.

It was in the *Evergreen III* round of strategy workshops (2011) where the challenges of carrying out Coast Guard activities in the underwater domain were considered most profoundly. Scenario workshop participants, working in a highly diverse set of future operating contexts, wrestled with the risks associated with proliferation of deepwater drilling in the Arctic. They also identified the need for subsurface technologies for territorial and border surveillance (e.g., acoustic sensors), geo-spatial mapping, and aids to navigation, among others. Participants imagined a wide range of applications for Autonomous Underwater Vehicles (AUVs), from fishery monitoring to port security.

The *Quantum Leap* scenario envisioned actual underwater living complexes and tourism enterprises, which could someday call for a much broader set of Coast Guard missions in the underwater domain.

The core underwater *Evergreen III* Strategic Need (#10) contemplates the Coast Guard performing a wide range of safety, security, and stewardship roles underwater, in waters subject to U.S. jurisdiction. Specifically citing this *Evergreen* Strategic Need, the Coast Guard initiated the formation of a Strategic Investment Team in 2012 to systematically catalog current and future needs and to begin to develop strategies to advance (and mitigate associated risks of) the highest priority underwater needs. Among these is the critical need to protect high-value elements of the maritime infrastructure, such as submarine communication cables, which carry 95 percent of the world's digital data.

No one in the Coast Guard is underestimating the expense and technical complexity of applying Coast Guard missions underwater – and no one doubts that underwater capabilities and competencies will be gradually acquired. Even then, it is assumed that the Coast Guard will rely heavily on a variety of DOD, interagency and private partnerships to leverage assets, know-how and experience. But the Coast Guard has begun to take the underwater dive – and *Evergreen* has helped point the way.



## Underwater Timeline

2001	2005
<ul style="list-style-type: none"> <li>• 9/11 terrorist attacks dramatically elevate CG maritime security mission, including underwater.</li> </ul>	<ul style="list-style-type: none"> <li>• NSMS cites underwater as part of maritime domain sphere of interest.</li> </ul>
<b>2002</b> <ul style="list-style-type: none"> <li>• CG and partners establish Joint Port Security Working Group, involving CG MSST personnel, divers, ROVs, and other capabilities.</li> </ul>	<b>2006</b> <ul style="list-style-type: none"> <li>• CG unveils Underwater Port Security System to detect and interdict intruders and facilitate inspection of hulls and ports.</li> <li>• CG seizes semi-submersible vessel off Costa Rica.</li> <li>• CG deploys Integrated Anti-Swimmer System.</li> </ul>

2008	2009	2010	2011	2012	2013	
	<ul style="list-style-type: none"> <li>• Underwater Mission Development is one of 13 Evergreen II Core Action Strategies briefed to CG senior leadership.</li> <li>• Tamil Tiger rebel forces detonate sub-surface explosive device and sink Sri Lankan Navy vessel.</li> <li>• CG interdicts two self-propelled semi-submersible vessels carrying 14 tons of cocaine.</li> </ul>	<ul style="list-style-type: none"> <li>• Start of new Evergreen III planning cycle.</li> </ul>	<ul style="list-style-type: none"> <li>• Deepwater Horizon oil rig explosion kills 11 and causes largest spill in U.S. history. Incident occurs nearly a mile below the ocean's surface, 41 miles off the Louisiana coast. Nearly 5 million barrels of oil are released in the Gulf over 87 days.</li> </ul>	<ul style="list-style-type: none"> <li>• CG Incident Specific Preparedness Review on Deepwater Horizon notes that "the government has neither the skilled personnel nor the appropriate equipment to respond independently to an oil blowout in deep water and must rely wholly on the responsible party to contain oil spills..."</li> </ul>	<ul style="list-style-type: none"> <li>• CG deploys prototype Underwater Imaging System (UIS) in search for bodies following crash of a CG helicopter in Mobile Bay, AL.</li> <li>• CG stands up new Underwater Strategic Investment Team (SIT), referencing Evergreen Strategic Need #10.</li> <li>• Evergreen III Strategic Need #10 calls for "full range of [CG] safety, security and stewardship roles underwater..." Nine other Evergreen Strategic Needs have direct underwater linkages.</li> </ul>	<ul style="list-style-type: none"> <li>• Underwater SIT prepares field-level analysis of future underwater needs, as first step in formal development of underwater operational requirements.</li> <li>• CG R&amp;D Center begins investigating adaptation of submerged glider AUV technology to Coast Guard missions.</li> </ul>

2001	2005	2008	2009	2011	2012	2013
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### **III. FROM STRATEGIC NEEDS TO EVERGREEN ACTION**

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#### **Building Strategic Intent**

The *Evergreen* process is the result of some two decades of Coast Guard work with scenario-based strategic planning. Over that time it has incorporated the insights and experiences of over 600 officers, senior enlisted personnel, auxiliary, and civilians. It has included partners in the Department of Homeland Security and other federal departments and agencies, plus participants from state and local governments and the private sector. The Coast Guard has adapted and customized an *alternative futures* approach to scenario planning over time to fit unique Coast Guard needs, and the insights, strategies, and actions that emerged from *Evergreen* have proven to be both valuable and resilient. An emerging doctrine that combines *Evergreen* insights with other sources of strategic guidance is providing a foundation for a service that thinks and acts with strategic intent.

Acting with strategic intent requires a recognition that many daily decisions made within tactical, operational, or budget settings may have significant strategic impact. Important strategic decisions are not made in formal strategic planning processes alone – indeed, it is likely that most are not. Acting with strategic intent means that all decisions are made within a strategic framework that includes a rigorous and insightful appreciation of robust future mission demands coupled with an understanding of long-term goals and aspirations.

How does this work in practice? To understand, it is important to appreciate where *Evergreen* fits within all of the inputs to Coast Guard strategy. *Project Evergreen* was never intended nor designed to be the strategic planning process of the Coast Guard. Strategic planning for the Coast Guard is influenced by a host of inputs. These inputs include, but are not limited to: Commandant priorities, departmental (DHS/DOD) strategies, budget realities, Administration priorities, Congressional mandates, and public and private stakeholder needs. Thus, *Evergreen* is only one of many inputs into the Coast Guard's larger planning process, but was designed from the outset

to be the strategy source *least* influenced by the tyranny of the present. Therefore, *Evergreen* products are the least prescriptive of all the strategic planning inputs. *Evergreen* provides strategic guidance that offers insights into robust Strategic Needs that the Coast Guard will have to fulfill as the future unfolds. *Evergreen* provides strategic insight tools that can be employed in a variety of ways to enhance strategic thinking and planning.

In its most general sense, acting with strategic intent looks like this: A command element is making a decision (e.g., capital improvements to a boat station) and there are three or four logical ways to proceed. “Acting with strategic intent” would be to select the path that most closely aligns with *Evergreen*-identified Strategic Needs or insights. In that simple example, strategic thinking and intent shape budget expenditure.

As a practical matter, however, unless the organization that wishes to use *Evergreen* insights has personnel with *Evergreen* Workshop or Core Team experience, they will usually need support. To provide that support, the *Evergreen* Core Team has developed Insight Workshops. Insight Workshops are customized to the needs and interests of any part of the Coast Guard that would like strategic planning support from *Evergreen*. In consultation with the organization that requests support, the Core Team designs Insight Workshops using any or all of the products of *Evergreen* to help them with strategic decision-making in (typically) one- or two-day workshops.

*Evergreen* products (discussed in greater detail below) include: *Evergreen Scenarios*, *Strategic Needs*, *Signposts* briefing, and *Coast Guard Operating Models*.

#### ***Evergreen* Support for Strategic Decisions**

*Project Evergreen* was so named because of the Coast Guard belief that, to be successful, strategy must emerge from a continuous process that is subject to evaluation, change, and renewal. The process was

to be kept “ever-green,” but in a manner that encouraged reflection and customization to changing needs and lessons learned. To encourage the change and experimentation that would keep *Evergreen* relevant to Coast Guard strategy and planning requirements, certain anchorages had to be established: the process has always had the same “home” in the Office of Strategic Analysis (currently CG-0951); it has always used alternative futures scenario planning as its foundation analytical method; it has enjoyed support from all Commandants since its inception; it has used consulting support (a four-year contract and tied to the Commandant’s tenure); and the heart of the project has always been a superb Core Team.

While each cycle of *Evergreen* has seen experimentation followed by some change and customization, *Evergreen III* was unique in the scope of changes to *Evergreen* products. The changes made in *Evergreen III* were almost entirely focused on making more practical and nearer-term use of the strategic insights that *Evergreen* produces. Certain things did not change. There was a stakeholder workshop in the Base Year. The Core Team conducted primary and secondary research, and developed a scenario space from which the senior leadership selected five scenarios for development. The Core Team fully developed the endstate and narrative for all the scenarios as Platform Scenarios<sup>SM</sup>.<sup>6</sup> The scenarios were completed early in Option Year One, and two Coast Guard internal strategy workshops were held – one with mid-grade officers, senior enlisted, and civilians, and one with senior officers, senior enlisted, and civilians. Beginning with strategy workshop output, *Evergreen* activities changed from previous cycles. The principal change, from which many things flowed, was that *Evergreen* stopped producing Coast Guard strategies in the senior leadership workshops.

The “strategy” part of the process was ripe for change for several reasons. First, *Evergreen* strategies were often seen as new and unexpected work when they landed on the desk of already overworked personnel. Rather than simply giving people new work to do, *Evergreen* needed to inform the work they were already doing.

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<sup>6</sup> Platform Scenarios is a Service Mark of the Futures Strategy Group, LLC. Platform Scenarios are designed from the outset to be easily updatable and customizable.

Second, previous *Evergreen* strategies often tried to capture far too many ideas in one strategy statement, and what emerged was not easily executable. Attempting to build a singular strategy to comprehensively address a broad future need either missed something, or had to be stated at such a high level that it was not useful.

Finally, in every cycle of *Evergreen* there was a struggle to find the right organizational site in which to insert *Evergreen* strategic insights. The program level did not work well because *Evergreen* strategies usually involved multiple programs. The “budget build” level did not work well due to the macro-level nature of the strategies and the very narrow and technical nature of the issues often evaluated in the budget process.

But *Evergreen* has not completely abandoned strategies; instead it encourages and supports “strategy development” in more appropriate places in the organization, by making the core product of *Evergreen* a dynamic, interactive, and customizable process that delivers insights into future Coast Guard needs (the future “marketplace demands” on Coast Guard services).

The following *Evergreen III* innovations were all intended to make *Evergreen*’s insights useful, on a practical level, to all Coast Guard decision-making without sacrificing the intellectual creativity that has helped the Coast Guard to avoid failures of imagination:

- Strategic Needs
- Operating Models
- Signposts
- Insight Workshops
- Outlook Vision Team

**Strategic Needs:** In *Evergreen III*, the deliverable from strategy workshops has not been strategies, but robust *Strategic Needs* – an analysis of the future demand-side “marketplace” for Coast Guard services. Instead of a list of things the Coast Guard *should do*, *Evergreen III* developed a comprehensive look at the robust future needs and future requirements that the Coast Guard *must meet*. Strategic Needs do not offer solutions; they provide a futures context for decisions

made across the Service. In *Evergreen III* the list of Strategic Needs numbered over 30, but the list can be narrowed to the unique setting of each decision-making group. Strategic coordination is preserved because all the Needs come from the same analytical framework.

**Operating Models:** In every strategy workshop, each group built the “perfect Coast Guard” for its particular scenario, with no references to the Coast Guard as it existed at the time. In *Evergreen III*, more time was spent on these models than in any previous cycle, to evaluate what operational concepts the Coast Guard would employ in each case. To achieve meaningful results, *Evergreen* focused on the operational assets that could reasonably be expected to be in service in 20 years. Therefore, the models reflected what might actually make practical sense in each of the five future U.S. Coast Guards. These models have provided a new and very useful planning tool. In a workshop setting they allow groups to start farther up the learning curve on each scenario. Workshops can be shorter and more targeted, since much of the work on what the Coast Guard looks like in each scenario has been done in advance. Operating Models can help stress-test current decisions or illuminate alternative paths for decision execution. They are also effective tools for risk analysis.

**Signposts:** To introduce a wide range of audiences to the process and the Strategic Needs, *Evergreen* developed a presentation that is short on process and “deliverables” and long on a creative look at the future strategic context of the Coast Guard. One of the great strengths of scenario planning is the use of stories to make planning environments come alive. The Signposts briefing embraced this approach to give audiences a taste of the excitement and engagement of the *Evergreen* workshops. In many ways this has become emblematic of the *Evergreen* communications approach – content-heavy and process-light.

**Insight Workshops:** *Evergreen* has moved from a single tool (scenarios) into a toolbox of options offering tailored products to support decisions that are

Service-wide, program-level, or topic-area. Those products are: *Evergreen* Scenarios, Strategic Needs, Signposts, and Operating Models. During *Evergreen III*, combinations of these tools were used in support of specific requests. Sometimes the *Evergreen* Scenarios and Operating Models were used as a backdrop to study specific issues – for example, Coast Guard operations in the Caribbean, and the future approaches to surge with the Coast Guard Reserve. In most other instances, customized content was provided from the *Evergreen* Strategic Needs as a focal point for further discussion within a particular topic area – for example, the Coast Guard workforce, C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance), the Arctic, Aids to Navigation, emerging underwater missions, and as guidance at strategic forums for executive leadership to inform out-year budgetary decisions.

**Outlook Vision Team (OVT):** The Coast Guard is determined to develop a planning process in which strategy or strategic thinking guides budget development. The Coast Guard senior leadership decided that it needed a navigation beacon for the budget that sat between *Evergreen* (a 30-year look that is deliberately divorced from the budget) and near-term budgets (which would lead to incremental thinking and the tyranny of the present). To drive their five-year budget planning, the Coast Guard decided on a 10-year outlook – far enough out to reflect change, yet close enough in for some reasonably specific forecasts that could benefit from other U.S. government trend analyses. *Evergreen* Strategic Needs and Operating Models were a significant input to the OVT process, providing long-term insights for a vision of where the Coast Guard should be going and a check on assumptions that are too near-term.

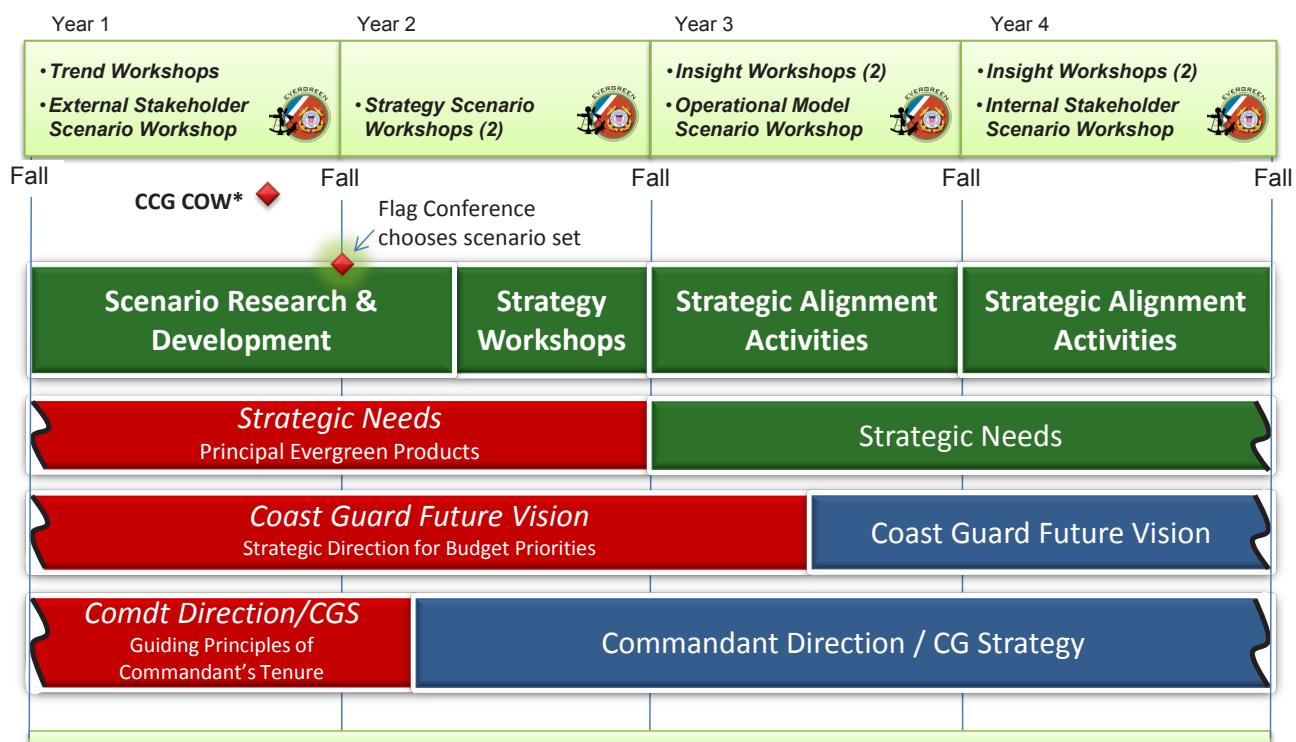
In these cases and others like them, *Evergreen* has provided strategic insight and a method of strategic thinking to those who have to make particular strategic decisions. In many cases, that means *Evergreen* is a backdoor strategic contributor – offering strategic guidance and insight, but not taking center stage.

## The Process of Strategic Renewal

The *Evergreen* process is designed to support the Commandant's four-year command cycle and to interface with other strategic planning activities that are ongoing. While new Commandants and Department priorities always bring some change, this process does not necessarily assume significant changes in strategic priorities at the transition of Commandants. However, within each new command cycle, the process always begins with a clean slate as a form

of risk management – nothing critical should be assumed or overlooked. So while *Evergreen* operates under the assumption of continuity, it also operates under the belief that few things are more damaging to an organization than strategic thinking based upon momentum (“we have always done it this way”) or the tyranny of the present (“what is important today will always be important”).

## The Four-Year Evergreen Cycle



\* Commandant of the Coast Guard Change of Watch

- Key Evergreen activities
- Overlapping products and guidance from previous Evergreen cycle and previous commandant's tenure

***Evergreen Phase I (Year one of the new cycle)<sup>7</sup>***

- *Strategy development and strategic alignment activities using the previous Evergreen cycle products*
- *Research for the next set of Evergreen Scenarios*

This is a transition year with two parallel work streams. First, Scenario Workshops and Insight Workshops will continue and use the *Evergreen* Scenarios, Strategic Needs, and Operating Models from the previous cycle. It has been common practice for the scenario workshop to focus on public or private partner and stakeholder issues with partner and stakeholder participants. The second work stream involves the Core Team engaging in research on trends, issues, and factors in the future operating environment that will eventually become the scenario drivers, as well as illuminating potential boundary conditions for the scenarios. Activities during this research period have included joint trend workshops with other elements of the DHS.

***Evergreen Phase II***

- *New scenario development*
- *New Scenario Workshops and Strategic Needs*

This year begins with the Senior Leadership Council selecting the new scenarios for this cycle of *Evergreen* (typically done at the Fall Flag Conference). The Core Team then develops the scenarios over the next few months. Two internal Scenario Workshops are held. The synthesized and combined results of those workshops become the new set of Coast Guard robust Strategic Needs. The first workshop includes mid-grade officers, senior enlisted personnel, and civilians. The second workshop includes senior officers, senior enlisted, and civilians.

***Evergreen Phase III***

- *Strategy development and strategic alignment activities*
- *Operating model development*

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<sup>7</sup> While the formal beginning of each new Commandant's tenure is in June, Evergreen years follow the U.S. government fiscal years that begin on October 1.

The third year of the *Evergreen* cycle includes one scenario workshop and two Insight Workshops. The scenario workshop is dedicated to completing the Coast Guard Operating Models for each scenario. There is no set formula for the Insight Workshops. They are typically one or two days long and focus on narrow issues. The workshop topic suggestions often come from the Core Team, but may be suggested by any part of the Service. Depending on the topic, the workshops may use (singly or in combination) *Evergreen* Scenarios, Strategic Needs, Operating Models, or Signposts.

***Evergreen Phase IV***

- *Strategy development and strategic alignment activities*
- *Reports*

The final year of an *Evergreen* cycle contains one internally focused scenario workshop and two Insight Workshops. This is also the time for a rewriting of the “Creating and Sustaining Strategic Intent” booklet and a final project report.

***Evergreen and Coast Guard Leadership Development***

*Evergreen* continues to be an important input into key Coast Guard leadership development efforts. Early in the *Evergreen III* process, a select number of senior cadets at the USCGA participated in an “Accelerator-Derailer” (A-D) trend-analysis workshop. These sessions have been institutionalized in *Evergreen*, as they yield valuable scenario insights into trends that will (or will not) shape the future. The A-D experience exposed the cadets to the kind of critical strategic thinking that *Evergreen* fosters. In turn, the cadet participants contributed important cohort-specific insights that challenge a number of assumptions underlying *Evergreen* thinking about how the maritime environment will evolve and indeed what the world may look like. Ultimately, the *Evergreen III* Scenarios were richer as a result.

*Evergreen* is also contributing to leadership at senior enlisted levels. At the Leadership Development Center in Groton, CT, CG-0951 uses a modified *Evergreen* scenario workshop process to prompt new, innovative thinking about emerging challenges to Coast

Guard operations. The alternative scenarios bring participants from the senior enlisted community out of their present-day concerns and help them think about emerging Strategic Needs that the Service must address in a fast-changing and complex world.

### ***Evergreen Outreach***

During *Evergreen III*, the Coast Guard supported outreach activities with several organizations. This kind of support for other organizations' strategic planning will continue in *Evergreen IV* as circumstances and opportunities warrant. CG-0951 supported the U.S. Border Patrol, Buffalo Sector (New York) in scenario planning. The Coast Guard shared its scenarios with the FEMA Strategic Foresight Initiative and with the Port Commerce Department of the Port Authority of New York and New Jersey (PANYNJ). In both cases FEMA and the Port Commerce Department of PANYNJ customized the Coast Guard scenarios to their unique settings and held scenario-based strategic planning workshops. At Port Commerce, they also embraced the Coast Guard approach to developing Strategic Needs, rather than strategies.

### **Next Steps**

The development of Strategic Needs and the overall philosophy of aligning *Evergreen* products and activities to provide greater practical application to Coast Guard decision-making have worked well. However, that work was experimental in *Evergreen III*. It is now clear that this new direction can make very useful contributions. In *Evergreen IV* the Core Team will examine how to design *Evergreen* Scenarios and *Evergreen* products to be more effective at improving strategic alignment activities across the Service and contributing to practical decision-making.

However, it is also clear that a balancing act is required. *Evergreen* was designed to help the Coast Guard avoid failures of imagination – to think rigorously and creatively about future requirements. *Evergreen* was intended to be the part of the strategic planning system least affected by the tyranny of the present. *Evergreen* would cease to be useful if it moved too close to budgetary issues and matters of current policy urgency. Fortunately, the Coast Guard has supported *Evergreen's* commitment to looking beyond the horizon to ask hard questions of the Service. With this commitment, the Coast Guard will remain “Semper Paratus”<sup>8</sup> for an uncertain future, no matter what surprises the future will bring.

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<sup>8</sup> Semper Paratus (Latin for Always Ready) is the motto of the U.S. Coast Guard.

## **IV. APPENDIX**

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### ***Evergreen III: Strategic Needs***

*The following are the robust Strategic Needs from Evergreen III strategy workshops. The 32 Needs are presented with a brief description of contributing conditions. Detailed implementation considerations were omitted in the interest of keeping the document length manageable.*

#### **Some High-level Observations**

- The inherent complexity of the Coast Guard operating environment will increase regardless of our mission scope.
- The dominant impact of technology will be how it shapes our operating environment, not the utility it provides to us.
- No matter how the operating environment changes, the Coast Guard will continue to face challenges to its culture and hurdles to clearly articulating its value.
- AORs will not be steady state, but will change (sometimes dramatically) in terms of physical, temporal, and usage characteristics.
- Sovereignty (its clarity, its geography, its meaning) is not as fixed as we may think.

#### **Robust Needs**

- **New:** This is a new robust Strategic Need that has never before been addressed by a previous *Evergreen* or *Long View* Strategy.
- **Revalidated:** This Need can be found either explicitly or implicitly in a previous *Evergreen* or *Long View* Strategy. It continues to be robust in the future and investment should continue (or begin).
- **Revalidated – Plus:** This type of revalidated Strategic Need has had something new added as a result of the *Evergreen III* workshops. It may be a significantly enhanced emphasis or a new insightful addition to the Need.

#### **There's an app for that**

*Demand signals from future operating environments include the observation that technology, beyond the scope and control of the Coast Guard, is going to shape the operating environment in dramatic and*

*unanticipated ways and simultaneously influence the nature of operations. All organizations will be in constant search for technological substitutions for tasks once performed by expensive humans.*

- 1.** The Coast Guard needs to evolve the nation's aids to navigation system toward greater reliance on computer-aided systems and sensors. (**New**)
- 2.** The Coast Guard needs to embrace the advantages of technology substitution in operational settings that are hazardous to humans, demand long-term repetitive actions, and/or reduce personnel costs without degrading mission performance. (**New**)
- 3.** The Coast Guard needs to perform missions in an operating environment where many vessels and other maritime activities are fully or semi-autonomous. (**New**)

#### **TMI**

*The demand signals from future operating environments include the exponential proliferation of information, highly dynamic and complex personnel issues (ranging from cutting staff to very flexible hiring), high turnover of personnel (lost corporate knowledge), a high pace of change (no time to continuously study/relearn), and the growing complexity of political, social, economic, technological, and operational issues facing the Coast Guard.*

- 4.** The Coast Guard's need to collect, store, analyze, and retrieve accurate and timely information is indispensable to sound decision-making. (**Revalidated**)
- 5.** The Coast Guard needs access to fully integrated just-in-time DHS-wide information and knowledge. (**Revalidated**)
- 6.** The Coast Guard needs to integrate verifiable, relevant commercial business and sensor data into

Coast Guard and DHS information systems. (**Revalidated**)

### **Know What You Know**

*The demand signals from future operating environments include the exponential proliferation of information, highly dynamic and complex personnel issues (ranging from cutting staff to very flexible hiring), high turnover of personnel (with lost corporate memory), a high pace of change (no time to continuously study/relearn), and the growing complexity of political, social, economic, technological, and operational issues facing the Coast Guard.*

- 7.** The Coast Guard needs a set of business and leadership practices and a culture that rewards the transfer of relevant experience and knowledge to staff and programs. (**New**)

### **SimCG**

*The demand signals from future operating environments include the complexity and pace of change in technology and shifting operational issues, the need for safety while training for hazardous activities, personnel turnover, inadequate educational foundations, the growing comfort with virtual learning, and the high cost of fuel, training operations, and facilities.*

- 8.** The Coast Guard needs to continually seek new training and educational applications of simulators/simulations and non-resident learning tools. (**New**)

### **MDA 2.5 – The Expansion Pack**

*The demand signals from future operating environments include continuing advances in technology and new sources of information (sensors, robotics, underwater, cyber), new threats and demands, creating a thirst for more awareness. People are becoming accustomed to instantaneous information and knowledge of everything. The general U.S. culture creates an ever-growing demand for information. In addition, MDA is a way to economize and leveraging investments in assets and effort.*

- 9.** MDA was revalidated as an enduring strategic need; however, the Coast Guard needs to better define current and future requirements and what it is

willing to invest in them, and to extract the full value of MDA to support decision processes. The Coast Guard and its partners must continue to investigate and apply advancing technologies to develop and refine MDA. (**Revalidated – Plus**)

### **20,000 Leagues & More**

*The demand signals from future operating environments include continuous severe weather that may make surface transportation difficult and increases long-term flooding over broader (often urban) areas, technology developments and economic expansion that multiply activities both on and below water in commerce, manufacturing, extraction, and leisure.*

- 10.** The Coast Guard must perform the full range of safety, security, and stewardship roles underwater in waters subject to U.S. jurisdiction. (**Revalidated – Plus**)

- 11.** The Coast Guard needs to anticipate and acquire the requisite authorities to support its missions as new maritime activities emerge and AORs expand. (**New**)

### **To All Who Shall See These Presents, Greetings!**

*The demand signals from future operating environments include huge geographic and operational uncertainty about where the Coast Guard will need to be and what they will be doing. Larger, more complex sets of human activities in coastal regions, offshore, and the entire maritime domain – more people, doing more things, creating more pressures, and increasingly vulnerable to natural phenomena.*

- 12.** The Coast Guard needs to be prepared for a dramatically different definition of its operational area, while maintaining effective presence throughout or beyond the current EEZ, as dictated by national interests. (**New**)

### **Surf and Storm and Howling Gale**

*The demand signals from future operating environments include the potential for rising seas, increasingly severe weather, increasingly common operations in hazardous areas (Polar regions, undersea), and the significant possibility that the Coast Guard will be on station for longer periods due to a range*

*of issues such as economic growth and “churn” in the maritime realm, with fewer resources. There may be less resilient state infrastructures and fewer state maritime resources.*

**13.** The Coast Guard needs to reduce its vulnerability to changes in climate conditions, extreme weather, and retreating or changing coastlines. (**New**)

**14.** The Coast Guard needs the ability to operate in conditions that include extreme weather, unpredictable weather, harsh conditions, and the effects of global climate change well beyond what is experienced in 2011. (**New**)

### **Criminal Minds**

*The demand signals from future operating environments include the observation that crime, including in the maritime setting, will continue to evolve at a very fast pace (aided by technology) and that the incremental reactive law enforcement posture will be less and less effective.*

**15.** The Coast Guard needs to anticipate that criminals in the maritime environment will be using novel technology and methods (stealth, underwater, cyber-enabled). (**Revalidated – Plus**)

### **Split Personality (Best of Both Worlds)**

*The demand signals from future operating environments include highly contentious fiscal environments in which roles and missions across the government are under scrutiny, or shrinking mission spaces for other agencies or departments are creating conflict. Events could put pressure on the Coast Guard to give up either its military or its LE mission. The combination of the two authorities is what allows the Coast Guard to straddle different worlds, maintain flexibility, and provide unique value to the nation.*

**16.** The Coast Guard needs to maintain the unique Coast Guard culture engendered from the authorities in Titles 10 and 14 that allow it to straddle the roles of law enforcement and national defense. (**New**)

### **A Mayday Late and a Dollar Short**

*The demand signals from future operating environments include the need to respond to a diverse host of emergencies, domestic or abroad, without compromising effective local presence, particularly from an expanding and increasingly challenging maritime domain including harsher environment and severe weather.*

**17.** The Coast Guard must be able to surge without degrading essential local/regional readiness. (**New**)

### **Volunteers to the Rescue**

*The demand signals from future operating environments include budget pressures; changes in the role of the federal government (potential downsizing); the need to be more in touch with and connected to the local communities; the need to maintain local expertise and knowledge; the difficulty of competing with high-paid full-time private sector job opportunities; expanding need for specialized skill sets; and the need to coordinate/participate in various types of scaled surge. In addition, the potential impact of the Baby Boomer retirements will be both a huge opportunity and a challenge for the Coast Guard Auxiliary.*

**18.** The Coast Guard needs a new approach to volunteerism that makes better use of the full spectrum of potential volunteers and greatly increases the value they provide. (**New**)

### **Ya’ Can’t Go It Alone, Pardna’**

*The demand signals from future operating environments include new disasters, morphing criminal and security threats, and evolving demands of commerce that cross or manipulate organizational boundaries; the solutions must therefore involve multiple organizations working together. Budget pressures may also force government to look for efficiencies and eliminate redundancies, forcing organizations to coordinate and collaborate to carry out their missions. Solving tomorrow’s problems may depend more on developing partnerships than, for example, on trying*

*to put more steel on the water. The Coast Guard in the 21<sup>st</sup> century cannot go it alone – it must partner with its fellow agencies, customers, and stakeholders in order to fulfill its missions.*

**19.** The Coast Guard needs a comprehensive and consistent approach to partnering, at tactical, operational, and strategic levels, and **beyond traditional partners**. This will be impossible until the Coast Guard takes a systematic approach to embedding greater partnering skills, requiring its people to engage in appropriate and strategic partnerships and **rewarding them** for doing so. (**Revalidated**)

### You Break It, You Buy It

*The demand signals from future operating environments include a maritime domain under more pressure, creating new risks and more demand for Coast Guard services, at a time when the cost of Coast Guard operations may be under increased scrutiny.*

**20.** The Coast Guard needs to share risk management in the maritime environment by transferring consequences to users and recovering operational costs from them. (**New**)

### Reduce Redundancy Reduction Dept

*The demand signals from future operating environments include the observation that redundancy in command-and-control is expensive, and possibly not sustainable in futures characterized by proliferation of information, and the need for ever-faster response times. In addition, technology increases the potential for micromanagement and stultification of the next generation of leaders.*

**21.** The Coast Guard needs a flat and lean chain of command in which each link adds optimal value, protects on-scene initiative, and fosters effective decision-making and leadership at all levels. (**New**)

### Let's Go Shopping!

*The demand signals from future operating environments include the accelerating pace of change and complexity in the operating environment that appear to be immutable features of the Coast Guard's future – even in the most austere economic contexts. In the acquisition domain, the challenge is maintaining*

*a strategic vision while simultaneously expanding flexibility to use alternative processes for acquiring critical assets.*

**22.** The Coast Guard needs a long-term acquisition capability that allows for scalable re-capitalization, resilient to wide swings in the budget environment. (**Revalidated – Plus**)

**23.** The Coast Guard needs a responsive, continuous and sustainable acquisition process to maintain the right mixes of Coast Guard assets. (**Revalidated**)

**24.** The Coast Guard needs an AC&I process that allows for rapid technology change, including alternative energy options. (**Revalidated – Plus**)

### “Technology Tsunami”

*The demand signals from future operating environments include the insight that, beyond the solutions it may provide, waves of technological change are sweeping over and transforming the Coast Guard's operating environment, and will do so on an even greater scale in the future.*

**25.** The Coast Guard needs to value and reward a culture of individual organizational experimentation, be willing to accept greater risk, and not punish entrepreneurship or individual initiative. (**New**)

**26.** The Coast Guard needs to “abandon the stern chase” of linear adoption and regain a culture of technological innovation. (**Revalidated**)

**27.** The Coast Guard needs to ensure access to skills that best prepare the organization for emerging impacts of technological developments. (**New**)

### HR Yoga

*The demand signals from future operating environments include more fluid and unpredictable requirements for skill sets and competencies to accomplish Coast Guard missions. Trust and cooperation cannot be surged, so local relationships will remain vital. The Coast Guard's distributed workforce will be an advantage that must be preserved. Access to specialized skill sets may be required for short periods of time. It is quite plausible that the Coast Guard will have difficulty competing with private sector*

*pay and benefits for talent. Growing or shrinking federal budgets will require more creative use of human resources.*

- 28.** The workshops revalidated the Coast Guard need for a more flexible and expedient HR model. (**Re-validated**)

#### **Need to Know (The Industry We Regulate)**

*The demand signals from future operating environments include the observation that, as the rate of change and the level of complexity of the maritime industry increases, proficiency and expertise cannot be maintained without a deep understanding of the maritime industry. Technological advances, the potential for increased resource exploration and exploitation, as well as potential for changing supply chains and shipping patterns all make this need more important.*

- 29.** The Coast Guard needs to be involved in the early stages of planning for significant industry initiatives (e.g., infrastructure investments, changing technologies, changing processes). (**New**)

- 30.** The Coast Guard needs improved industry interfaces and to deepen Coast Guard awareness of the maritime industry. (**Revalidated – Plus**)

#### **Screaming for the Worm!**

*The demand signals from future operating environments include the significant potential for pressure*

*on budgets and competition for scarce resources, and for a far more dynamic and unpredictable political environment, with the potential for increased Congressional scrutiny on the Coast Guard. The Coast Guard could face a potentially greater mismatch between its need for resources to accomplish various missions and its political ability to get and allocate resources. It is quite plausible that Coast Guard budgets may suddenly and significantly increase – but those budget increases are likely to be allocated in ways that may not serve the priorities of the service.*

- 31.** The Coast Guard needs to dramatically improve its ability to succeed in a political environment of great risk and opportunity. (**New**)

*The demand signals from future operating environments include media that will continue to define success and failure for the Coast Guard; however, it will become increasingly difficult for the Coast Guard to tell its story in an increasingly chaotic media environment. This chaos is due to new forms of communication, lack of filters, social media and its successors, ability of individuals to choose their sources of information, lack of veracity of information, unpredictability of who or what will dominate media, etc.*

- 32.** The Coast Guard needs the ability to shape its information environment in an era of intensifying media dominance, diversity, and ubiquity. (**Revalidated**)

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