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United States
Coast Guard



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DEPARTMENT OF HOMELAND SECURITY

U. S. COAST GUARD

STATEMENT OF

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ON

COAST GUARD SEARCH AND RESCUE EFFORTS

BEFORE THE

COAST GUARD AND MARITIME TRANSPORTATION SUBCOMMITTEE

TRANSPORTATION AND INFRASTRUCTURE COMMITTEE

U. S. HOUSE OF REPRESENTATIVES

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Good morning Mr. Chairman and distinguished members of the Subcommittee. It is my pleasure to appear before you today to discuss the Coast Guard's Search and Rescue (SAR) mission and specialized capabilities. We take great pride in our efforts both to prevent maritime casualties and to respond to incidents when they do occur. Whether inspecting life jackets on commercial passenger vessels or providing waterside security for nearby critical infrastructure, our end goal is to prevent the loss of life on our nation's vast waterways. Our motto, *Semper Paratus*, serves as a constant reminder that we must retain a 'bias for action,' always prepared to go into harm's way in the service of others. We ingrain this expectation in every member of the Coast Guard and reinforce it by continuous training throughout each Guardian's career. Our history is filled with heroes like Ida Lewis, the crew of the Pea Island Station, and countless others who repeatedly risked their lives to come save mariners in distress. We take great pride in our history and the lore of harrowing rescues, but we also recognize that future success stories require preparation for the moment -- founded on good training and good equipment blended with courage, discipline, and vigilance.

In 2007, Coast Guard personnel celebrated our one millionth life saved. In 2008, the Coast Guard prosecuted over 24,000 search and rescue cases, saved 4,910 lives and assisted an additional 31,628 people in distress. Nonetheless, we never lose sight of those circumstances where lives were lost. One life lost is too many; when we lose a person in peril to the sea, we aggressively review our processes and procedures. We want to ensure that problems are quickly addressed by, and lessons learned widely disseminated to, capable Sector leadership.

Our command and control organization, improved by the creation of Coast Guard Sectors, places officers with demonstrated experience and sound judgment in critical leadership positions. Coast Guard Sectors serve as one-stop-shops for execution of mission programs including search and rescue for major seaports and regions. They bring multi-mission capabilities to life on the front lines of the maritime environment. This decentralized construct is the key to our operational success and serves as our model for the future. The Coast Guard Sector's ability to provide an immediate assessment at the onset of any maritime event relies not only on command and control capabilities, but also technological ones.

Taking advantage of rapidly advancing information technology, the Coast Guard has made several significant technological advancements within the past five years that have improved the effectiveness and efficiency of our search and rescue operation. These include the Search and Rescue Optimal Planning System (SAROPS) – one of the most advanced search and rescue planning tools in the world; self locating datum marker buoys (SLDMB); Rescue 21 - the recapitalization and upgrade of the Coast Guard national distress radio communication system; and introduction of 406 Megahertz (MHz) direction finding capabilities on Coast Guard aircraft. These new capabilities have improved the overall performance of our search and rescue response capability.

Even with the best technology, however, search and rescue remains a mixture of art and science. A SAR case is impacted by human factors ranging from initial reports by anxious or panicked mariners to judgment calls by Coast Guard personnel working under the most pressing of circumstances. The sea remains a dangerous and unforgiving place. Given the nature of the environment, unfortunately, lives are going to be lost. I mentioned with pride that in 2008 we saved 4,912 lives; I mention with sadness that 825 lives were lost, 534 of which were lost prior to Coast Guard notification.

So the challenge is this: How do we continue to provide our people with the best training and technology to help mariners survive?

I now turn to further details on some specific actions underway:

Search and Rescue Responsibility, Execution and Staffing

District Commanders, who are Coast Guard flag officers, are designated by international agreement as the search and rescue coordinators for their areas of responsibility. Districts are split into Sectors, each with a Sector Commander and command center, each of which coordinates all Coast Guard missions within the Sector's area of responsibility, including Search and Rescue. The command centers are staffed 24-hours a day, 365-days per year by at least two trained watchstanders. The Coast Guard Sector serves as the single point of contact for the public for all maritime issues; it fuses prevention and response capabilities that enhance our situational awareness and allow us to respond more effectively and efficiently to mission demands.

Our command centers are staffed with trained specialists, both military and civilian, who receive initial distress notifications and then plan and direct appropriate resources to meet the mission demand. Each command center watch has a Command Duty Officer as well as Communications, Operations, and Situation Unit watchstanders. Further, in 2003, the Coast Guard established the Operations Specialist (OS) rating; OSs serve alongside the civilian watchstanders, bringing operational savvy to the Sector command center and broader perspective gained from having served in a variety of Coast Guard units and locations. Command centers offset promotion and transfer cycles through a continuous training process that enables junior watchstanders to move into more senior leadership roles on the watch floor after developing and demonstrating the requisite experience and competence.

Communications Unit watchstanders focus on monitoring and maintaining communications with mariners via radio systems while the Operations Unit watchstanders concentrate on SAR planning and execution. Each Operations Unit watchstander is required to: attend the National Search and Rescue School; complete local Performance Qualification Standards as well as an Area Familiarization Program; stand a required number of supervised watches; and successfully complete a qualification board. The Situation Unit watchstander maintains situational awareness across all port activities and ensures that the Operations Unit watchstander is not overwhelmed by other missions.

The Coast Guard has several civilian positions at command centers to maintain a consistent level of search and rescue expertise and provide continuity through assignment seasons. Many of these civilian watchstanders are former or retired Coast Guard SAR controllers who bring a wealth of knowledge, experience, and judgment to the Coast Guard. Every Coast Guard command center has at least two civilians assigned.

Our Hurricane Katrina response effort demonstrates that this system produces optimal results under the most challenging circumstances. The Coast Guard's Katrina response saved approximately 24,000 lives and evacuated 9,400 medical patients from imminent peril. The overall success of this response was attributable in large measure to our longstanding commitment to training, standardization, and varied-geographical experience. Standardized response procedures, consistent training, and identical equipment enabled Coast Guard responders drawn from around the country to work cooperatively and effectively in the aftermath

of one of the most devastating hurricanes in our nation's history. During our successful Search and Rescue response to Hurricane Katrina, we learned several lessons, and we continue to engage other partner agencies that conduct search and rescue operations to improve coordination during large scale rescue operations. Working with our partners in the National Search and Rescue Committee, most of those lessons learned have been captured in the 2009 Catastrophic Incident SAR addendum update.

The “Search” in Search and Rescue

Despite state-of-the-art technology, during the initial phases of a SAR case, watchstanders often operate in an atmosphere of uncertainty – a “MAYDAY” call is received without a location, a boater is reported as missing, or information is incomplete or incorrect. In these cases, Coast Guard watchstanders draw on investigatory skills and a systematic approach to plan and execute SAR operations.

Upon learning of a case from a “MAYDAY” call or other communication, watchstanders gather data about the case. More often than not, there are many uncertainties in the initial report. The watchstander then develops a search area based upon the information, determines resource availability and capability, promulgates the search plan and deploys the resources. While the assets are conducting the preliminary search, the watchstander continues to gather information, evaluate ongoing search results, develop subsequent searches and deploy resources to follow-on search patterns. This process continues until the survivors are found and rescued or proper authorities suspend the SAR case.

Training and Standardization to Preserve the Edge

The Coast Guard, in a joint effort with the U.S. Air Force, established the National Search and Rescue School in 1966. The school's establishment brought together a staff devoted exclusively to training professionals to plan and conduct search and rescue operations. The school teaches the fundamentals of the craft, acknowledging that the development and honing of the skills required for SAR planning is an ongoing effort. To augment the training provided at the National Search and Rescue School, each Coast Guard command center has developed a formal qualifications process outlined in a detailed Standard Operating Procedures (SOP) document. This SOP includes training requirements and procedures for command center personnel to attain qualifications, certifications, and maintain currency. The SOP builds upon national policy outlined in the Coast Guard Command Center Manual and the U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual. A rigorous training program is used to maintain the highest possible level of proficiency through the use of Personal Qualifications Standards (PQS), case review, SAR mission planning scenarios, and written exams. In addition to initial qualification requirements, command center watchstanders maintain watch currency through Subordinate Unit Visits, Area of Responsibility Familiarization Programs, Watchstanding Frequency Requirements, and Currency Training Requirements. Local unit training and evaluation is augmented on a biennial basis through Command Center Standardization Team (CCST) visits.

The CCST was created in 2001, drawing on the highly successful employment of this concept within the aviation community. The CCST, which is comprised of senior personnel with multiple command center tours and years of SAR experience, visits units to conduct an exhaustive review of their procedures and training, brief the command cadre on their findings, and provide a snapshot of current command center performance. The CCST shares best practices and ensures service-wide standardization through field visit and annual conferences of command center representatives, coordinated through the National SAR School in Yorktown, Va.

Technology Improvements

The Coast Guard has invested in state-of-the art technologies to reduce, to the greatest extent possible, the time between the initial notification of distress and rescue of the affected mariner. These tools aid SAR planners in better estimating the likely location of those in peril on the sea. Providing a more accurate estimate of the victim's location reduces the time spent searching and thereby improves the probability of rescuing the mariner.

Rescue 21, the boating community's equivalent of a "maritime 9-1-1 system," is designed to detect low power communications signals from distressed mariners up to 20 nautical miles offshore and provide Coast Guard watchstanders with one or more directional lines of bearing. This information enables Coast Guard assets (small boats, cutters, helicopters, and aircraft) to respond more quickly to the emergency. When Rescue 21 is fully deployed to all Sectors in 2017, we will be able to more accurately direct our waterborne and aviation assets, saving time, money, and most importantly, lives.

On Aug. 10, 2009, the Coast Guard rescued two teens 30 miles off Sabine Pass, Texas after their boat took on water and sank. Despite the fact the original location reported by the teens was incorrect, Sector Houston-Galveston was able to dispatch a Coast Guard helicopter to rapidly locate and hoist the teens from the water based on one Rescue 21 line of bearing. The SAROPS eliminates the time-intensive 'pen and paper' techniques for SAR planning of the past to focus our rescue efforts. Combined with information gleaned from Rescue 21 command and control systems, this technology enables planners to quickly identify the location of a distress call and launch assets to more specific search areas.

Mass Rescue Operations

One of greatest challenges for the Coast Guard is responding to large scale Mass Rescue Operations in the maritime environment. In such scenarios, a large number of victims, many of whom may be injured and immobile, require immediate assistance. In some cases, the limited number of available Coast Guard assets results in insufficient capacity to rescue the large number in peril. In these circumstances, the Coast Guard relies on support provided by port partners, including other federal, state and local responders, to bring the case to a successful conclusion. Their timely, and carefully coordinated response, occurs in large part through a number of Prevention Programs. As a unifying force within the port, the Sector command cadre works with port partners to schedule joint training, conduct interagency planning and execute exercises, all of which contribute to successful outcomes. The "Miracle on the Hudson" is a prime example.

The "miracle" that day – Jan. 15, 2009 – was performed by the pilot and crew of US Airways flight 1549. The subsequent response efforts of the Coast Guard reflected port-level coordination with other government agencies and the private sector. We practice for these

contingencies on a regular basis and on that day Coast Guard men and women, working side-by-side with our port partners, did their jobs with professionalism and care.

Another example is the fishing vessel (F/V) ALASKA RANGER case that took place outside of Dutch Harbor, Alaska. F/V ALASKA RANGER reported uncontrolled flooding 90 miles west of Dutch Harbor with 47 persons on board. Coast Guard District 17 launched two C-130 aircraft and one H-60 helicopter and diverted the CGC MUNRO, which had an embarked HH-65 helicopter. Both helicopters hoisted survivors from the water and brought them to safety onboard the MUNRO. In addition, the Good Samaritan vessel F/V ALASKA WARRIOR had heard the Urgent Marine Information Broadcast (UMIB) and recovered 25 of the ALASKA RANGER's crew. Within hours of abandoning ship, all 47 crew members had been recovered. Unfortunately three were deceased, having succumbed to the elements. This case highlights not only the challenges of the harsh Alaska weather conditions but also those of Mass Rescue Operations in very remote locations.

International Leadership and Accomplishments

The Coast Guard has played a leadership role on the global stage in the international field of SAR, supporting development of international policy and standards as well as establishing and implementing the global SAR system, procedures, techniques and training as members on the U.S. delegation to the International Maritime Organization's Sub-Committee on Radio Communications and Search and Rescue (COMSAR). The Coast Guard chairs COMSAR's Joint Working Group (JWG) of SAR experts, which is instrumental in providing recommendations to improve the global Search and Rescue system. Of note, the Coast Guard is providing leadership in JWG's major update to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

This year the Coast Guard has begun a modernization effort to upgrade the Automated Mutual-Assistance Vessel Rescue (AMVER) System. AMVER, sponsored by the United States Coast Guard, is a unique, computer-based, and voluntary global ship reporting system used worldwide by search and rescue authorities to arrange for assistance to persons in distress at sea. With AMVER, rescue coordinators can identify participating ships in the area of distress and divert the best-suited ship or ships to respond. AMVER's mission is to quickly provide search and rescue authorities, on demand, accurate information on the positions and characteristics of vessels near a reported distress. In 2007, AMVER celebrated its 50th anniversary as the only global maritime ship reporting system solely dedicated to the saving of lives at sea. AMVER is credited with saving 2,075 lives since 1999. International participation continues to grow with over 19,000 ships from 170 nations participating. The average daily plot has risen to 3,700 ships on the AMVER plot and available to respond, often in areas where an AMVER ship is the only asset available for hundreds of miles.

Prevention programs that enhance the SAR mission

The SAR system is reactive in nature – we activate the system based on information received at a specific point in time and respond accordingly. However, the success of the SAR mission relies heavily on mariners doing their part to ensure they are prepared to survive an accident at sea. When mariners are prepared and can sustain themselves until help arrives, our job of rescuing gets much easier, and the mariner's probability of survival increases considerably. There are many prevention programs that by their very nature support the SAR mission. We would not be as successful in the arena of SAR without the efforts of the National Recreational Boating Safety Program, Commercial Fishing Vessel Safety program, and those members who are involved in

marine safety regulatory and standardization efforts. These programs play a crucial role in ensuring mariners are properly equipped and trained to respond to emergencies in the maritime environment.

Summary

I return to a phrase I used at the beginning of my statement: a bias for action. The action in SAR is, of course, to save a life. As mentioned, we ingrain it in every recruit, officer candidate, and cadet; every Auxiliarist and civilian watchstander; indeed every member of Team Coast Guard.

Recently, we refreshed and reprinted our capstone statement of service doctrine. We call it “Pub One.” We expect each of our personnel to read it and be familiar with it. One of the chapters deals with the nature of our service. Allow me to quote a sentiment here. It is a key part that explains why we take search and rescue so seriously - professionally, personally, and throughout our careers:

“At the heart of the Coast Guard ethos is the belief that every man and woman in our service is a guardian. To guard is to watch over or protect from harm...The Coast Guard is renowned throughout the world for saving lives...Our reputation is based on personal courage and selflessness that goes back to [our] earliest days...Nothing fills us with greater pride than the stories of harrowing rescues in which professional Coast Guard men and women returned would-be victims safely to their families against all odds. It is no accident that these are stories of success. Preparation for the moment - born of excellent training, support, and equipment blended with courage, discipline, and selflessness - is our hallmark.”

Mr. Chairman and distinguished members of the Subcommittee, fundamentally - despite our search and rescue successes - we will never be satisfied with our efforts until we study and learn why a life was lost so that we remain always ready for the next distress call.

Thank you for the opportunity to testify today. I look forward to your questions.