

A History of Coast Guard Aviation

The Present Era

1995 – 2008

Summary Overview

The Coast Guard, in the two years prior to 1995, responded to two mass migrations at the same time. This was one of the largest peacetime operations ever conducted. The migration came first from Haiti and then from Cuba. Over 63,000 migrants were rescued and prevented from illegally entering the United States in Operations ABLE MANNER and ABLE VIGIL. At its height, Operation ABLE Manner involved 17 U.S. Coast Guard Cutters, patrolling the coast of Haiti while Operation ABLE VIGIL involved 38 Coast Guard cutters patrolling the Straits of Florida. The aviation resources were stretched to the limit and involved deploying aircraft from several Air Stations. The size of this operation and a recent 12% cut in Coast Guard appropriations resulted in considerable curtailment of the drug interdiction operations.

During the period 1995 through 1997, the Coast Guard conducted Operation ABLE Response, with enhanced procedures, dedicated to interdicting Dominican migrants. Aerial surveillance played a large part in this operation. Over 9,500 migrants were interdicted or forced to turn back. Migrant interdiction became ongoing. There was an increase in Cuban interdictions in 1998. There was an increase in flow driven by aggressive professional smuggling. Through most of the 1990s, The Peoples Republic of China was the greatest source of human trafficking by sea and intelligence sources estimated that between 15,000 and 20,000 illegal Chinese aliens entered the Western Hemisphere each year; most ultimately destined for the United States. In 1999 and 2000, Coast Guard cutters on Counterdrug patrol in the Eastern Pacific encountered increasing numbers of migrants being smuggled from Ecuador to points in Central America and Mexico. With the transfer of the Coast Guard to the Department of Homeland Security, after the attack on 9/11, the dimension of security was added to migrant interdiction operations.

The Coast Guards strategic concept for drug interdiction is to deny smugglers access to maritime routes through a sequence of operations that concentrate interdiction forces in high threat areas. This is named Campaign STEEL WEB. The concentrated operations are referred to as pulse operations. During 1997 pulse operations Frontier Shield, Gulf Shield and Border Shield were conducted. The overall strategy was a combination of enhanced surface and airborne radar, infrared surveillance, covert tracking and OPBAT-like apprehension efforts using rapid response aircraft, boats and task forces.

Intelligence sources estimated that the annual drug flow through the transit zone during this period was in excess of five hundred metric tons of Cocaine and 160 metric tons of marijuana a year. Non-commercial maritime conveyances accounted for more than 80 percent of the transit zone flow. The largest challenge during the late 1990s was the elusive, high speed smuggling boat, or “go-fast.” The number of go-fast increased over one thousand percent during this period. Such craft are small, very fast, nearly invisible to radar, and difficult to see in daylight. In the vast majority of cases, the interdiction assets lacked the speed required to

intercept and board suspect vessels. The estimated success rate for go-fast deliveries was close to 90 percent. Initially the few successful go-fast interdictions were the result of mechanical failure on the part of the suspect vessel or intervention by other nations with a more liberal use of force policy. The Coast Guard acquired new equipment and developed capabilities such as the use armed helicopters and over the horizon cutter boats to address the go fast threat. This has made an impact. The resultant performance target was raised from 8.7 percent to 18.7 percent.

During 1998 the pulse operation FRONTIER LANCE took place utilizing C-130s, shipboard HH-65 helicopters and rigid inflatables. In addition, for the first time MH-90 armed helicopters took part. This proved very successful and led to the establishment of the Helicopter Interdiction Squadron (HITRON) equipped with MH-68A Stingray armed helicopters. Real interagency cooperation began to develop. Emphasis was placed on both source countries and transit zone interdiction. Intelligence was vastly improved and provided to operational units. The Caribbean operations proved to be very effective and by 2002 approximately 70 percent of cocaine destined for the United States was transported through the Mexico-Central America corridor, primarily via the Eastern Pacific and Western Caribbean maritime routes and then overland through Mexico. A combination of air and surface units plus excellent intelligence is making inroads on drug operations.

In 1995 the Deepwater Mission Analysis Report was completed. Deepwater was defined as that area beyond the normal operating range of small shore-based boats. It addressed the rapid aging and technical obsolescence of the current surface and air assets. Air assets were primarily of four types. The American Eurocopter HH-65A Dauphin was the short-range recovery aircraft. The medium range recovery aircraft was the Sikorsky HH-60J Jayhawk. Dassault's HU-25 A/B/C Guardian was used for medium range surveillance and Lockheed HC-130H Hercules filled the roll of long range surveillance aircraft. Additionally the Coast Guard Aviation Auxiliary (a civilian volunteer assistance group) operated various aircraft to assist with Coast Guard missions.

The Mission analysis lead to the integrated Deepwater System (IDS) which an acquisition program designed to recapitalize the U.S. Coast Guard's aging Deepwater assets by modernizing or replacing them with a state-of-the-market, interoperable system of cutters and aircraft, including their supporting command, control, communications, intelligence and logistics infrastructure. In the past the Coast Guard replaced its ships and aircraft as they became obsolete or insupportable, normally on a class-by-class basis. The Deepwater program broke from this pattern. For Deepwater, industry was provided with specifications for the capabilities the U.S. Coast Guard needs in order to perform its Deepwater missions rather than specifications for specific assets. The first phase of the Deepwater Program was completed in 2001 and contracts were awarded to Northrop Grumman and Lockheed Martin as a joint venture known as Integrated Coast Guard Systems (ICGS).

ICGS had broad authority to select and manage contractors and to shape the acquisition plan to best meet the Coast Guard mission requirements. The program had wide political support and was seen as a model for managing a technical and complex acquisition program. However, by late 2006 problems with the program had grown. Major components were failing or stalled. Eight 123-foot patrol boats, an upgraded version of the existing 110- foot patrol boats, were found to have severe structural problems and were removed from the fleet. In addition the newly launched National Security Cutter had secure communications flaws. As a result the Coast Guard restructured the agreement and assumed the role of systems integrator

for all Deepwater assets and took full responsibility for leading the management of all life cycle logistic functions.

Within the program, but generated by existing mission requirements, the upgrading of the surveillance, communications, and control capabilities of existing aircraft was done well. The twin-engined turboprop Casa HC-144 was planned to replace the HU-25. The first of a planned 36 came on board in early 2007. The number of HC-130H search-and-surveillance aircraft is presently being reduced, but 16 of the remaining aircraft are being upgraded.. This group is supplemented by six C-130J aircraft obtained by supplemental funding. A Service Life Extension Plan (SLEP) for the HH-65 provided an upgraded like-new aircraft as the Multi-Mission Cutter Helicopter. The power plant was replaced with the Turbo 2C2 turbine engines to enhance both power and range. The HH-65 has also being equipped for airborne use of force. The Bell Augusta AB-139 was scheduled to replace the HH-60Js. But it has been decided to upgrade the HH-60Js and transition them to MH60Ts which will have an airborne use of force package capable of both warning and disabling shots as well as crew protection from small arms fire. A short range UAV such as the Bell Eagle Eye, designed to be embarked on cutters, is in the development and testing stage. The Grumman RQ-4 Global Hawk UAV is scheduled for future acquirement for high altitude – long endurance surveillance operations.

On September 11, 2001 terrorist crashed two aircraft into the World Trade Building in New York City and one into the Pentagon. The President signed into law the Homeland Security Act of 2002, which created the new Department of Homeland Security. Under this legislation the U.S. Coast Guard was transferred from the Department of Transportation to the new Department on March 1, 2003. Section 888 of the Act specifically requires the Coast Guard be maintained as a distinct agency. The present missions are to continue and additional Homeland Security missions are to be assigned. Since September 11, 2001 the Coast Guard has placed an emphasis on homeland security efforts. Security-related missions such as ports, waterways and migrant interdiction saw dramatic increases while other missions such as search and rescue have remained constant. Levels of effort for other missions such as drug interdiction and fisheries law enforcement were initially well below pre September 11, 2001 levels but were again brought up to program levels by 2007.

In late 2002, at the request of the Department of Defense, the Coast Guard began preparations for mission specific duties in support of military operations in and around Iraq. The Coast Guard sent two 378 foot WHEC cutters with aviation detachments, a sea-going buoy tender, eight 110 foot patrol boats, Port Security Units, Tactical Law Enforcement teams and support staff. The Port security Unit and patrol boat deployments have been ongoing.

Operation LIBERTY SHIELD was initiated in 2003. It is a comprehensive national plan designed to protect America's citizens and infrastructure. The Coast Guard is a major player in this operation. President Bush, in an address at the Port of Philadelphia, said the following in reference to the Coast Guard. "The appropriations bill I signed into law earlier this year increased Coast Guard funding to over \$6 billion, the highest level ever. We're directing new resources to pay for better intelligence capabilities; new technologies to monitor and safeguard our ports; a more modern fleet of Coast Guard cutters and aircraft; and 700 new smaller, faster response boats that will further protect America's shorelines. By giving the Coast Guard new resources, we are supporting the men and women who defend us all."

Katrina, a hurricane of catastrophic proportions, devastated New Orleans in 2005. The Coast Guard was highly praised for its rapid and outstanding rescue efforts, maritime pollution

response, and management of maritime commerce performances. This was accomplished in spite a breakdown in communications, a failure of the federal governments National Response Plan and the lack of effective response by state and local officials. The Coast Guard response was made possible by its policy of providing “operational intent” by senior commanders, managed risk, flexibility, and the principle of on-scene initiative in which Coast Guard personnel, from Captain to Petty Officer, are given latitude to act quickly and decisively within the scope of their own authority. The Coast Guard was awarded a Presidential Unit Citation for its efforts.

The Coast Guard has become more responsive to the needs of our Nation. Strategic planning and intent has and is being developed to address emerging threats and hazards by an integration of strategy with other agencies. Rotary Wing Interdiction has been established. Airborne use of force is now service wide. Port security and maritime response teams have been integrated into a Rapid Response Group. The line between National Security and National Defense is blurred and to build out capabilities for National Defense, the Coast Guard is working closely with Navy and Marine Corps partners on a National Maritime Strategy. During 2008 the Artic with its melting ice cap has become both an economic and defense concern.

Coast Guard missions and responsibilities have increased as has the budget. The budget was increased 28 percent in 2003. The FY2004 budget was again increased 9 percent and FY 2005 requests another 9 percent increase. This will brought the total funding to \$6.7 billion – a 64 percent increase over FY 2001. The budget for 2008 was \$8.7 billion

Admiral Thad Allen became the 23rd Commandant of the Coast Guard on May 25 2006. He stated; “The Coast Guard needs to evolve to keep pace. Our challenge going forward is to adapt our forces; command and control structure; and mission support organization; so that we are flexible; nimble; and capable of operating with multiple partners; in our response to specific incidents; surge operations; and increased threat levels; while sustaining our performance in our traditional missions.” The Coast Guard is presently engaged in restructuring.

Search and Rescue

The Coast Guard is multi-tasked. In addition to migrant interdiction and drug interdiction Coast Guard aviation is tasked with the International Ice Patrol, enforcement of fishery laws at sea, marine environmental protection, aids to navigation, polar operations, joint operations with the other armed services and recently Homeland Security duties, but the one thing that is 24-7, 365 days a year is search and rescue operations.

During the period 1995 through 2007 The Coast Guard does not break down rescue statistics into surface and aviation units but the combined statistics are astonishing. During the period 1995 trough 2007 the Coast Guard responded to 477,222 distress cases, saved 84,858 lives and \$11.5 billion dollars in property. During Hurricane Katrina in 2005 the total lives saved and evacuated safely was 33,735. A total of 76 Coast Guard and Coast Guard Auxiliary aircraft took part in the rescues. They flew 1,817 sorties with a total flight time of 4,291.3 hours in the air. The air crews saved 12,535. A total of 42 cutters and 131 small boats also participated, with their crews rescuing 21,200.

Narratives of specific heroic exploits of Coast Guard aircraft crewmembers are much too vast a subject for presentation in this type of format but the magnitude of their achievements is amazing. Individual recognition awards may be viewed on the Coast Guard Pterodactyl website.

Historical Timeline of Events

The Present Years 1995- 2008

Event Timeline

1995: The Deepwater Mission and Capability Analysis Report was completed. The analysis addressed rapid aging and technological obsolescence of the current Deepwater surface and air assets.

1995: Migrant Interdiction- Operation ABLE RESPONSE and the ensuing years.

1996: Drug Interdiction Surge Operations Reestablished: The overall strategy was a combination of enhanced surface and air radar, infrared surveillance and covert tracking, and OPBAT-like apprehension efforts using rapid response aircraft, boats and task forces.

1998: Drug interdiction: Pulse operation FRONTIER LANCE, utilizing C-130s, shipboard H-65 helicopters and rigid inflatables, and operation New Frontier, utilizing for the first time, armed helicopters, were conducted.

1998: Group-Air Station Atlantic City established:

1999: The 1999 National Search and Rescue Plan continued, by interagency agreement, the effective use of all available facilities in all types of SAR missions. The 1968 SAR plan was superseded by this plan.

1999: OPERATION ALLIED FORCE: The Coast Guard Cutter Bear, with an aviation detachment on board, operated with the U.S. Navy Sixth Fleet during the Kosovo effort:

1999: The interagency Task Force on Coast Guard Roles and Missions provided their report entitled - "A Coast Guard for the Twenty-First Century:"

2000: Coast Guard Aircraft Mission Capabilities Upgraded:

2000: LCDR Daniel Burbank, the second Coast Guard Astronaut:

2001: Helicopter Interdiction Tactical Squadron 10 (HITRON) was established. MH-68A armed helicopters were assigned:

2001: Drug Interdiction in the Eastern Pacific Transit Zone:

2002: Initial Contracts for the Deepwater Project Awarded:

2002: Coast Guard Acquires a C- 37A Long Range Command and Control Aircraft:

2003: The Coast Guard Aviation Transformation Plan was developed. It promulgated planned acquisition of new aircraft and upgrades of certain existing aircraft.

2003: Coast Guard Transferred to the Department of Homeland Security:

2003: Coast Guard Units Deploy During the Iraq War:

2003: Airborne Use of Force – Coast Guard Arms HH-65 and HH-60J Helicopters:

2003: Operation LIBERTY SHIELD – Homeland security:

2003: Operation Vigilant Sentry Established:

2005: Coast Guard Acquires C-143A Medium Range Command and Control Aircraft:

2005: Hurricane Katrina:

2006: Coast Guard assumes National Rotary Wing Air Intercept Mission:

2007: Coast Guard Acquires HC-144A Maritime Patrol Aircraft:

2008: Artic Awareness --- The Coast Guard Prepares:

2008: The Coast Guard in the 21st Century:

1995 - The Deepwater Mission and Capability Analysis Report:



The Deepwater Mission Analysis was a thorough look at the Coast Guard's deepwater missions--those missions conducted beyond the normal operating range of shore based small boats. These missions generally require extended on scene presence, long transit to the operating area, forward deployment of our forces, or a combination of these factors. A Mission Analysis Review board (MAR) examined the Coast Guard's present and future ability to carry them out.

In the past, acquisitions of major Coast Guard assets were not based on projected future missions, but in response to the mission at hand, the assumption that present missions would continue and that similar assets would be required. Mission Analysis was initiated to replace this weakness with planning based on the best prediction possible of what the missions of the future would be; what measure of effort would be required; what capabilities assets will require to carry out these missions; and whether the Coast Guard will have the resources it needs for the tasks at hand.

The Mission Analysis Review Board listed and addressed the following primary roles in the report:

- Drug Interdiction
- Living Marine Resource Enforcement
- Alien Migration Interdiction Operations
- Deepwater Search and Rescue
- International Ice Patrol
- National Defense Operations

The Review Board concluded that the Coast Guard's ability to prosecute these missions effectively fell short in two primary areas: resource capabilities and resource availability.

- The existing assets did not have all of the capabilities to perform as efficiently as they should. When compared with the functional requirements generated for each primary mission, the capabilities of present assets showed their age.
- Of greater concern is the undeniable fact that the Coast Guard will not have sufficient assets to meet future employment needs.

The major portion of the availability gap resulted from law enforcement missions. Proposed new program standards, which were more stringent than past measures, were factors which increased law enforcement demand considerably. Computer simulation and past experience in these critical missions indicated that these standards were appropriate and achievable, given the right resources. For the most part, these new standards were being met in the areas where our forces are operated, i.e. the high threat areas where most illicit activity occurs. Low threat areas are not covered nearly as effectively, if at all.

The resource availability gap grew alarmingly when the ends of service life of aging ships and aircraft were factored in. The majority of the Deepwater surface and aviation assets will reach this point by 2015. Some ships and aircraft reached the designated end of their service life at

the turn of the century. As these assets are retired from service, the resource availability will decrease dramatically while demand continues to increase, thus exacerbating the shortfall.

Analysis showed the cutters and aircraft to be barely adequate to perform the Deepwater missions in the mid 90's, and when the ships and aircraft began to reach the ends of their service lives in coming years, the resource gap would become overwhelming. The 378' High Endurance cutters and the 210' Medium Endurance cutters, whose serviceability had been extended through the Fleet Renovation and Modernization program, were scheduled to reach the beginning of the end of their service lives at the turn of the century. The latest ships built, the 270' Famous Class cutters, face the end of service life beginning in 2012. The aircraft faced similar problems. Three HC-130 long-range aircraft were scheduled to reach the end of their scheduled service lives in 1997; 1998 for the five 1500 series airframes; and 2003 for the twenty-two 1700 series airframes. The HU-25 Falcon jets reached their end of scheduled service life in 2003, and the HH-65 short range helicopters in 2004.

The Review Board determined that if nothing was done:

- initially the Coast Guard would merely experience seemingly insignificant decreases in mission effectiveness.
- Failure to exploit new technologies would cause it to fall farther behind and would deny potential economies in crewing and asset availability.
- In the future as Coast Guard assets became obsolete it will reach a point where major responsibilities will have to be abdicated. The impact will begin to manifest itself in the inability to conduct proactive missions fully in high threat areas, and will slowly escalate to an inability to provide sufficient resources to reactive missions such as Search and Rescue, response to environmental disasters, and response to mass migration attempts.
- The Coast Guard will lose the flexibility and speed of response that has become the hallmark of the organization.

The conclusion was no one else is available to fill this void and carry out these national priorities. The Coast Guard must retain the vital capabilities required to carry out its functions, and the effort should begin now.

As a result a mission need statement documenting the continuing need for cutters and aircraft and their supporting command, control, communications, computers, intelligence, and reconnaissance (C4ISR) systems was developed and approved in August 1996. In October 1997, then RADM Thomas Collins led a group of 11 senior personnel who made up the Deepwater Capability Replacement Analysis Review Team. The purpose of the team was to review acquisition strategy and organizational arrangement and staffing of the Deepwater project. Rather than replacing the required cutters, patrol boats and aircraft through a series of individual replacement programs, it was decided to pursue a mission based procurement program under which a combination of new and modernized cutters, patrol boats, aircraft and their associated C4ISR systems and logistic support, would be procured as a single integrated package.

Based on the recommendation of the "Collins Report," a two phase program was adopted. Phase I, Conceptual Design, began in August of 1998 and continued throughout 1999. The Coast Guard awarded contracts to three industry teams headed by Lockheed Martin, Litton Avondale Industries, and Applications International Corporation. During this phase of the industry teams were asked to conceive and engineer their proposed integrated system concepts

to approximately 50 percent of the completed design. The Coast Guard had the option of continuing any or all of the participating teams into the Functional Design phase during which the team or teams selected would continue to evolve and refine the Deepwater concepts. Phase II is the proposal review followed by the awarding of the contract.

Mission Study Statements Pertaining to Aviation in the Program Report:

Aviation assets are invaluable due to their speed and ability to cover large areas quickly. Fixed wing aircraft (C-130 and HU-25) routinely conduct surveillance for all Deepwater missions, often employing advanced radar or infrared systems to enhance their detection and classification ranges. The C-130 Hercules has a large cargo capacity which allows it to fly critical logistics support for deployed operations. The HU-Z5 Falcon aircraft, because of its speed, serves as an air intercept in deterring air drug smuggling, and its infrared systems serve well in detecting and determining the limits of marine pollution. Our helicopters fly short and medium range surveillance, and are capable of operating independently, forward deploying to remote locations, or deploying onboard WMECs and WHECs to extend cutter capabilities. Aircraft of all classes provide our quickest response to SAR cases and can drop or lower survival equipment to those in distress, while helicopters often utilize their lift capability to rescue survivors when necessary. Most of our current Deepwater resources are reaching their end of useful service.

1995 - Migrant Interdiction- Operation ABLE RESPONSE and Beyond:

There have been several mass migrations from Cuba and Haiti over the years. Starting with the Mariel Boat Lift in 1980, which brought over 124,000 Cubans to the United States, migrant interdiction operations have demanded a substantial commitment of Coast Guard assets. The first exodus of Haitians followed the collapse of the Duvalier regime in the early 1980s and a second took place after a military coup in 1991. In reality, from the Coast Guard perspective, these were massive search and rescue operations.

President Bush in response to political and economic pressure issued Executive Order 12807 in 1992 directing the Secretary of Transportation to issue appropriate instructions to the Coast Guard to enforce the suspension of the entry of undocumented aliens into the United States and to interdict the vessels carrying them. President Clinton issued a Presidential Directive in June 1993, directing the Coast Guard and other Federal law enforcement agencies to cooperate in the suppression of alien smuggling. The Coast Guard transitioned from search and rescue to law enforcement operations. In practice, however, the interdiction operations remained as much humanitarian as they were law enforcement. Migrants typically took and still take great risks and endure significant hardships in their attempts to gain entry into the United States. In many cases, migrant vessels interdicted at sea are overloaded, unseaworthy, lack basic safety equipment and are operated by inexperienced seamen.

Coast Guard surge operations in 1994 were effective in countering the mass Haitian and Cuban migrations. In 1995, with Cuban and Haitian migration threats low, the Coast Guard addressed migration issues in the Mona Passage between the Dominican Republic and Puerto Rico. The Dominican Republic has historically been a major source country for undocumented migrants attempting to enter the United States by way of Puerto Rico. Thousands of people have taken to sea in a variety of vessels, the most common a homemade fishing vessel known as a Yola. Most of these migrants are smuggled by highly organized gangs. From April 1, 1995 through October 1, 1997, the Coast Guard conducted Operation ABLE RESPONSE,

with enhanced operations dedicated to interdicting Dominican migrants. Over 9,500 migrants were interdicted or forced to turn back.



Dominican Yola

There was an increase in Cuban interdictions in 1998. There was an increase in flow that would be increasingly driven by aggressive professional smuggling. The rafts and broken down vessels of the past were replaced by fast moving motor vessels. There was a tendency to oversell seats resulting in crowded vessels without safety equipment. There was also an increase in Haitian interdictions. Numbers of migrants varied greatly depending on the size of the vessel. It was not uncommon for 60 foot vessels to have up to 500 migrants aboard. In the late 1990s the Haitian migrant vessels shifted their routes from direct landings on United States shores to the Bahamas. Once in the Bahamas, the Haitians were professionally smuggled the short distance to Florida in small groups on a variety of small craft that were difficult to interdict as they mixed with the legitimate boating public.

Coast Guard assets used in the migrant interdiction mission consisted of patrol boats, medium endurance cutters, high endurance cutters, and all Coast Guard aircraft. Helicopters are used for inshore patrols and are also deployed on the medium and high endurance cutters which enhances the cutters range of operation. In addition HU-25s out of Air Stations Miami and Borinquen and C-130s out of Air Station Clearwater fly scheduled patrols in assigned areas. The fixed-wing assets are also deployed to locations throughout the Caribbean when support is needed. The multi-mission capability of the Coast Guard enhances the effectiveness of Migrant Interdiction efforts as aircraft and cutters can perform Migrant Interdiction and Drug Interdiction efforts simultaneously.

Most migrants interdicted by the Coast Guard are not brought into the U.S. and are repatriated to the country from which they originally departed. There is a U.S.—Cuban Repatriation Accord (of May 2, 1995) which allows the Coast Guard to repatriate most Cubans interdicted at sea directly to Cuba. Although the U.S. currently has no formal repatriation agreement with the Dominican Republic, in all cases the Government of the Dominican Republic has allowed repatriation of migrants. The Haitian migration agreement expired in 1995 and Haitian repatriations are conducted on a case-by-case, no objection basis. At this time, Haiti has not objected to these repatriations.

Through most of the 1990s, The People Republic of China was the greatest source of human trafficking by sea and intelligence sources estimated that between 15,000 and 20,000 illegal Chinese aliens entered the Western Hemisphere each year, most ultimately destined for the

United States. The PRC smuggling problem encompassed the coastal areas of the continental United States, and territories such as Guam, Puerto Rico, and the U.S. Virgin Islands. PRC smuggling vessels transited to these locations, offloaded their migrant cargo to smaller pick-up vessels at distances ranging from one mile to hundreds of miles offshore. PRC migrants paid about \$35,000 for their perilous voyage to the United States. At this price, one average boatload of PRC aliens is worth over \$5 million in gross revenues to the smugglers.

PRC smuggling ventures are planned and crewed by violent, highly organized criminal operations. For every five to ten migrants, there is at least one professional "enforcer" or "snakehead" that intimidates and physically abuses the migrants to maintain control and ensure future payment of smuggling fees. These "snakeheads" have often instigated the migrants to riot, set fires, and even attempted to create flooding /explosions to protest Coast Guard presence onboard the smuggling vessels. This creates a dangerous situation for Coast Guard boarding teams. The PRC smuggling vessels are typically in very poor condition, are in many cases unseaworthy, and typically exhibit cramped, unsanitary, and dangerous conditions. These realities exacerbate the problems Coast Guard law enforcement personnel face.

While there were small groups of PRC migrants island-hopping through the Caribbean into Puerto Rico and the U.S. Virgin Islands, the vast majority of the PRC maritime flow was on coastal freighter-type vessels or retired fishing vessels and interdicted by the Coast Guard far offshore. At the end of the 1990s PRC smugglers found that Guam offered a gateway to the continental U.S., since U.S. immigration laws apply there and the distance is only 1,700 miles from China, vice 8,000 miles required to reach the continental U.S.



Ecuadorian fishing boat with illegals aboard

Cooperative efforts between the Coast Guard and INS resulted in many successful interdictions, but the Coast Guard was challenged in responding to these smuggling events. Coast Guard assets in Guam were a 180-foot buoy tender and a 110-foot patrol boat. Overwhelmed, Coast Guard C-130 aircraft assisted by DOD assets were deployed from Hawaii for surveillance patrols, A high endurance cutter with an embarked helicopter, an additional

buoy tender and a patrol boat were also assigned. From mid 1998 through 1999, Coast Guard units interdicted 1463 migrants and 90 smugglers/crew members from 18 PRC smuggling vessels. The INS set up tent cities on Tinian, Commonwealth of the Northern Mariana Islands (CNMI), for processing. PRC migrants are repatriated by means of direct negotiation by the U.S. Government or with the assistance of a third government.

In 1999 and 2000, Coast Guard cutters on Counterdrug patrol in the Eastern Pacific have encountered increasing numbers of migrants being smuggled from Ecuador to points in Central America and Mexico. While this may not have a direct connection to the U.S., the Coast Guard acts for humanitarian reasons. Most of these vessels do not have the proper conditions to transport these migrants and lack the safety equipment in the event of an

emergency. The Coast Guard works with the flag state of the vessels and other countries to escort the vessels to the closest safe port.

Between 1981 and 2003 the Coast Guard interdicted 186,568 undocumented migrants attempting to enter the United States by maritime routes. Tactics and equipment have improved since 1981 and over the last 5 year an average interdiction rate of 87% has been obtained. The ability of aviation assets to cover large areas in minimal time has contributed significantly to these efforts.

The Department of Homeland Security (DHS) was established Mar. 1, 2003, to help integrate the effort of those agencies tasked with providing for the security of the nation. Among these agencies was the United States Coast Guard. The department's homeland security strategy is to secure our borders by pushing them out so threats can be detected, evaluated and responded to before they ever reach the U.S. The successful execution of this strategy in the maritime realm requires coordinated effort by the Coast Guard, Immigration and Customs Enforcement, Customs and Border Protection including the U.S. Border Patrol, and U.S. Citizenship and Immigration Services, as well as other federal, state and local partners. This unification measure launched an intense and unprecedented planning process, named Vigilant Sentry. The Coast Guard will continue to be the lead agency for maritime interdiction.

The narrative of Coast Guard Migrant interdiction, post 9/11, continues under the heading 'Vigilant Sentry.'

1996 - Drug Interdiction Surge Operations Re-established:

A decision was made by President Clinton in 1993 to adopt a source country policy designed to help producing countries build interdiction forces. The focus was on the drug crops, the kingpins and their organization, and the production and trafficking networks of Columbia, Peru, and Bolivia. The adoption of the Source Country Strategy was not to be an abandonment of interdiction in the transit zone but for all practical purposes there was little emphasis placed upon it.

In 1994, Les Brown, the director of the Office of National Drug Policy appointed ADM Robert E. Kramek, Commandant of the Coast Guard, to be the U.S. Interdiction Coordinator for counterdrug operations. At this time the majority of cocaine that entered the United States came across the United States-Mexican border via Central America. However, many trafficking groups from Columbia who had risen to power since the Cali syndicate's fall returned to traditional Caribbean routes. The preceding Commandant had felt that the Coast Guard had overemphasized drug interdiction and military readiness. As a result drug interdiction was cut back to 9% of the budget. The Columbian groups, aware of this, targeted Puerto Rico as a major point of entry for the transshipment of multi-ton quantities of cocaine being smuggled into the United States. ADM Kramek wrote a letter to Director Brown stating that a consensus of agency heads believed there was a need to restore assets to the interdiction force structure and a return to the pre 1992 level of effort. He further stated that the source country efforts were not yet producing necessary results. ADM Kramek specifically asked Director Brown to set up a meeting with the President and National Security Advisor to brief them on the situation and discuss the current state of implementation and national strategy so as to prevent a serious problem. Brown did not share ADM Kramek's views on interdiction and did not act upon the request.

The Congressional Oversight Committee held hearings on the national drug policy during which ADM Kramek and others, including former Coast Guard Commandant Yost, testified. The hearings included a fact finding trip to the transit zone. The result was a recommendation for increase in assets and the development of interdiction in the eastern Caribbean. A surge operation, Frontier Shield, was planned and executed.

Operation FRONTIER SHIELD was a genuine case study for the regional impact of interdiction. In October of 1966, the Coast Guard, in conjunction with interagency partners, conducted a large surge operation in the maritime approaches to Puerto Rico and the Virgin Islands. The operation committed an unusually large numbers of vessels and aircraft to blanket known trafficking routes through the Greater and Lesser Antilles. In less than six months, 11 vessels carrying a total of more than 20,000 pounds of cocaine was seized. An additional 17,000 pounds of cocaine was jettisoned by smugglers fearful of being apprehended. During this period, trafficking in the eastern Caribbean dropped sharply, from 38 percent of total traffic down to 23 percent, and continued to drop thereafter. By the end of the year 103,000 pounds of Cocaine and almost same mount of Marijuana were seized. Ironically, the street value of the contraband sized was more than a billion dollars greater than the Coast Guards total annual budget. What did make it through estimated at only half of the previous year's quantity of cocaine –can not be determined for certain, but the success was unmistakable. Operation Frontier Shield was continued and improved upon. Traffickers learned to avoid eastern Caribbean routes moving further west as had been predicted.

FRONTIER SHIELD continued to be effective. In testimony before Congress ADM Kramek stated that the lessons learned during FRONTIER SHIELD were being applied to the design work in the STEEL WEB campaign plan. It was recognized that the decrease in trafficking was in response to the increased probability of interception leading to the consequence of losing assets, cocaine, and imprisonment if apprehended. He went on to say that his foremost concern, and a harsh reality, is that this operation is not sustainable for the long term without adequate funding and proper resources to combat the increased utilization of “go-fast” boats by the traffickers. He alluded to methods used in the operation and needs for more effective interdiction. LCDR Randy Forrester, a HU-25 pilot from Air Station Miami, Florida; and LT Jim Cullinan, a C-130 pilot from Air Station Clearwater, Florida, both of whom deployed to FRONTIER SHIELD with forward looking infrared (FLIR) equipped aircraft were made available to answer any questions that the committee might have. Both pilots attested to the increased effectiveness which advanced technology can provide and the need for additional detection and upgrading of airborne deterrent assets.

ADM Kramek prevailed --. During the rollout of the 1997 National Drug Control Strategy, the President stated, "we have to do more to shield our frontiers against drug traffickers." He went on to say, "we have had some successes against trafficking," and "we can do better with interdiction, and we're learning how to do it," citing the success of the Coast Guard's Operation FRONTIER SHIELD as his example.

Operation BORDER SHIELD and Operation GULF SHIELD, were two Coast Guard operations conducted in 1997 that complemented existing law enforcement efforts that took place along the land border with Mexico. Operation BORDER SHIELD on the Pacific side and GULF SHIELD on the Atlantic/Gulf of Mexico side logically extend land border efforts into the surrounding maritime region. The overall strategy was a combination of enhanced surface and air radar and infrared surveillance and covert tracking, and OPBAT-like apprehension efforts using rapid response aircraft, boats and task forces. These forces

consisted of medium endurance cutters, patrol boats, fixed wing aircraft surveillance, helicopter response assets, and rigid hull inflatable small boats.

Operation BORDER SHIELD

Operation BORDER SHIELD was designed to shield the coastal borders of Southern California from maritime drug smuggling. The two areas of primary concern were the northern Baja Peninsula (offshore component), where Coast Guard air and surface patrol assets operated, and the U.S.-MX border area (inshore component) in which coordinated, real time end-game interdiction was conducted with multi-agency forces.

In April 1997, the Coast Guard initiated a short-term surge of air and surface interdiction resources in both component areas to detect, monitor, classify, and intercept suspected drug traffickers. Criminal drug smuggling organizations transported small loads of contraband along the coast to delivery points in the United States. Small "go-fast" boats and watercraft, including Jet-Ski's, Sea-Doo's, and Zodiacs, operated primarily at night, and conducted approximately 4-6 deliveries a week. The speed, short travel distance, and low radar signature of these vessels was a challenge for interdiction forces. Traditional enforcement methods of occasional air flights and random surface patrols were not effective.

A combination of surging surface and air surveillance offshore, and real time inshore response using alert aircraft, boats and task forces was adopted and proved to be effective. Resources dedicated to the ongoing first phase of BORDER SHIELD included: a 210 foot medium endurance cutter, two patrol boats, fixed wing aircraft surveillance, helicopter response assets, numerous utility boat and rigid hull inflatable small boats, one Law Enforcement Detachment (LEDET) and roughly 25 operations personnel.

Operation GULF SHIELD

Operation GULF SHIELD was designed to shield the coastal borders of the Gulf of Mexico from maritime drug smuggling. The area of primary concern is the coast of Texas, from the border with Mexico northward 100 miles, and seaward as much as 15 miles.

GULF SHIELD began as a two phase operation to deny maritime smuggling routes along the south Texas border. Phase one was a sixty day surge of resources and Phase two was a long term maintenance operation to deter any resurgence of drug traffic.

Drug smugglers used fast open hulled 25 foot boats (lanchas) capable of speeds in excess of 30 knots. They operated at night along the surf line in groups of two or more. Their small size and speed made them difficult to detect and apprehend. Lanchas accounted for 21% of known maritime smuggling events that were documented by Coast Guard Atlantic Area in FY 1996. The average load of illicit cargo was 500 to 1,000 pounds of cocaine or marijuana.

Interdiction strategy was a combination of enhanced surface and air radar and infrared surveillance, covert tracking, overt beach patrols, and OPBAT-like apprehension efforts using rapid response aircraft, boats and task forces. IT is of note that this was the first time since WWII that the Coast Guard used "Beach Patrols." Resources dedicated to the maintenance phase of GULF SHIELD included: a medium endurance cutter, a 110 foot patrol boat, a H-60 helicopter, rigid hull inflatable small boats, and operations personnel. Additional complementary resources, such as mobile radar units and listening and observation posts, were

provided by interagency participants including: U.S. Customs, DEA, Border Patrol, JTF-6, and Texas law enforcement agencies.

1998 - Drug interdiction: Operation Frontier Lance; Operation New Frontier and Airborne Use of Force:

Operation Frontier Lance was a proof of concept operation designed to evaluate the Coast Guard's ability to stage an interagency operation from foreign soil as well as test various interdiction assets. It also was an effort to adapt to a shift in smuggling routes and disrupt the increased flow of drugs into Haiti and the Dominican Republic. These nations had emerged as significant transshipment countries due to their geographic location and limited law enforcement capacity.

The primary means of cocaine delivery was the "go-fast." A typical "go-fast" is built of fiberglass, with a deep "V" offshore racing hull from usually 30 to 50 feet (10 to 15 m) long, narrow in beam, and equipped with two or more powerful engines, often with more than 1000 combined horsepower. The boats can typically travel at speeds over 80 knots in calm waters, over 50 knots in choppy waters, and maintain 25 knots in the average five to seven foot Caribbean seas. They are heavy enough to cut through higher waves, although at a slower pace. Each "go-fast" could carry 2000 to 3000 pounds of Cocaine. The in transit time from the north coast of Columbia averaged about nine hours. ONDCP officials calculated that "go-fast" boats were used to smuggle 61 percent of the illegal drugs entering the United States in 1997 and 85 percent in 1998.

The effective end game to combat the "go-fast" required increased assets and a coordinated system of capabilities which included new tactics and assets designed to locate, track, intercept, interdict and apprehend the smugglers. There was an increase in HH-65 and C-130 patrol hours; four HU-25 falcons were reactivated and two T-AGOS ocean surveillance ships were leased from the Military Sealift Command. The T-Agos were equipped with 38' armed Deployable Pursuit Boats (DPB). The ships were previously used in the Caribbean to track drug running aircraft.



MH-90

As part of Frontier Lance, a mostly secret operation within an operation, named Operation New Frontier was conducted.. Despite intelligence cueing surface assets could not match the speed of the "go-fasts." Helicopters on board the larger cutters could keep up with the "go-fasts" and keep them

under surveillance until it they required to refueling but they had no means of forcing them to stop. Any serious attempt to stop the "go-fasts" would require a drastic change in capabilities. The CIA and Columbian Air Force had enjoyed success with armed airborne interdiction of light aircraft flying coca paste from the mountains of Peru and Bolivia to the processing plants in Columbia. Both Columbia and Panama had enjoyed success in interdicting "go-fasts" with armed helicopters.

James M. Loy, Commandant of the Coast Guard and U.S. Interdiction Coordinator for counterdrug operations, wished to evaluate the possible use of force by Coast Guard helicopters for interdiction purposes. He had considerable support from the ONDCP, a number of Congressional officials, and after extensive discussion between legal and operational staffs, the Attorney General. Within the Coast Guard, however, there were almost as many critics as supporters. There were those that felt that to arm ourselves would place the helicopter crews in danger and undermine our lifesaving and humanitarian image. There had been an erosion of the military culture within the Coast Guard that was accelerated after transfer to the Department of Transportation. Those in favor of airborne use of force recognized that the Coast Guard was charged with a law enforcement mission and that the proposed policy change was an operational necessity. Special training and safety procedures were advocated.

The Commandant directed that a proof of concept operation using armed Coast Guard helicopters to interdict and apprehend “go-fasts” be conducted. Two concepts were tested:

- The use of armed helicopters;
- the use of high speed over-the-horizon pursuit boats which worked in concert with the armed helicopters. These boats were “souped-up” versions of the Coast Guard’s standard rigid-hull inflatable boats. The OTH boats differ in that they are equipped with on board radar and navigational systems-for over –the –horizon operations – and twin inboard/outboard turbocharged diesel engines. The OTH’s were capable of 57 knots.



This gave rise to the beginnings of a helicopter interdiction force. Commander Mark Torres molded an initial group of ten volunteers into a cohesive and effective team. The group, named HITRON-10, pioneered novel and effective operating tactics and procedures. HITRON was the acronym for Helicopter Interdiction Tactical Squadron and the number-10 represented the crewmembers assigned. The team flew leased MH 90 enforcer helicopters

Rigid Hull Over The Horizon Boat

The MH-90, a militarized version of the MD 900 helicopters built by MD Helicopters Incorporated was an all weather, short range, single rotor, shipboard helicopter. It was powered by a Pratt & Whitney 206D turboshaft engine and designed without a tail rotor. It could cruise at 120 knots for 2.5 hours. The 6,500-pound helicopter was equipped with weather radar, an Mk III forward-looking infrared system (with video-recording capability), night-vision devices, an external sling capable of lifting 1,500

pounds, and a rescue hoist capable of lifting 600 pounds. The crew consisted of two pilots and one crewman. The crewman's principal duties include: (a) firing an M240G 7.62mm machine gun (swivel-mounted at the portside cabin door) and/or a hand-held laser-sighted .50-caliber rifle; and (b) operating hand-held video and photographic equipment. MD Helicopters provided logistic support for the Enforcers.

A variety of non-lethal devices and technologies were tested such as “sting ball” grenades which produce a loud explosion and bright flash and showered their victims with tiny pellets

of rubber that caused pain but did not penetrate the skin. Also tested was pepper spray and 40mm “foam batons” fired from a M203 Grenade launcher. To physically stop a boat it was planned to use entanglement nets to foul the propellers of the “go-fast” boats but they had little effect. By far, what proved most effective was to use the M240G machine gun to fire warning shots across the bow after which, if the “go-fast” did not stop, the .50 caliber rifle was used to disable the boat’s engines.

Before Operation New Frontier, according to the service’s own statistics, the Coast Guard had about a one-in-ten chance of stopping a “go-fast.” During the evaluation operations, the Coast Guard scored a perfect “six of six” in pursuits and apprehensions.

Loy credited the Coast Guard's bold tactics--introduced in Operation New Frontier--with intercepting 53 tons of drugs, including a record amount of cocaine. By all measures the operation was a major success.

In March 2000, the Coast Guard completed its proof-of-concept efforts and started the process of standing up a fully operational HITRON squadron. Soon thereafter, Coast Guard pilots, aircrews, and A variety of non-lethal devices and technologies were tested such as “sting ball” grenades which produce a loud explosion and bright flash and showered their victims with tiny pellets of rubber that caused pain but did not penetrate the skin. Also tested was pepper spray and 40mm “foam batons” fired from a M203 Grenade launcher. To physically stop a boat it was planned to use entanglement nets to foul the propellers of the “go-fast” boats but they had little effect. By far, what proved most effective was to use the M240G machine gun to fire warning shots across the bow after which, if the “go-fast” did not stop, the .50 caliber rifle was used to disable the boat’s engines.

As a follow-up to Operation New Frontier, and to bring HITRON-10 to full operational capability, the Coast Guard formed a strategic alliance with Agusta Aerospace Corporation in April 2000 and--in March 2001--announced that it would lease up to eight Agusta A109E "Power" aircraft to serve as follow-on aircraft for the proof -of-concept MH-90.

1998 – Group-Air Station Atlantic City Established:



Group-Air Station Atlantic City became operational 18 May, 1998. The Air Station is located at the William J. Hughes Federal Aviation Administration Technical Center at the Atlantic City International Airport, New Jersey. The establishment of Group-Air Station Atlantic City was the result of a Coast Guard aviation streamlining initiative to realign unit location with the capabilities of today’s modern aircraft. Air Station Brooklyn, New York and Group-Air Station Cape May, New Jersey resources were combined at the newly constructed \$13 million facility.

The L-shaped floor plan was designed with the air station’s operations and maintenance control centers centrally located between the ready hangar and maintenance hangar for convenient access to each. A space-saving feature of Air Station Atlantic City was the hangar doors. Three collapsible doors enclose each of the hangars’ 142-foot openings. Most of your traditional hangars have huge sliding doors that take

up a lot of the square footage of the building. With this facility, the door is stored overhead and out of the way. The hangar door supports swing up and you end up with a wide-open hangar bay. Included in the hangar construction is a 2-ton overhead crane rail on the maintenance side used for servicing helicopters and four, 2,000-gallon Aqueous Film-Forming Foam tanks with the capacity to douse both hangars twice in the event of a fire.

In 2005 with the transformation of Coast Guard Groups into the present day Sector shore command structure, the Group left Atlantic City and moved to Philadelphia leaving a stand alone Air Station.

The Air Station is comprised of 10 HH-65C Dolphin Helicopters.



HH-65C Shipboard Operations

Several tenant commands also have components located at the Air Station, including Sector Field Office and Electronics Systems Support Detachment Atlantic City. The Air Station supports the wide range of Coast Guard operations, such as search and rescue, law enforcement, marine

environmental protection and port security for both District One and District Five, encompassing the coastlines of Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland and Virginia including interior bays and rivers such as the Chesapeake, Delaware, Hudson and Long Island Sound. One of Air Station's HH-65s maintained a Coast Guard presence in the Brooklyn area, operating out of Air Facility Long Island, N.Y., at the Frances S. Gabreski Airport.

Air Station Atlantic City maintains two Dolphin helicopters in 30-minute response status. Both can be quickly airborne and enroute at speeds in excess of 145 knots. The HH-65C Dolphin typically carries a crew of four, consisting of two Pilots, one Flight Mechanic and one Rescue Swimmer. The Rescue Swimmer is a certified Emergency Medical Technician (EMT) who can be lowered out of the helicopter to assist personnel in distress. The Dolphin can also deliver dewatering pumps to sinking vessels, hoist victims from the sea with its rescue basket, and can "medevac" injured persons with a rescue litter for delivery to local hospitals.

In 2006 Air Station Atlantic City took on the responsibility of protecting the airspace surrounding the nation's capital. Utilizing a concept termed Rotary Wing Air Intercept, the Coast Guard assumed the duties of intercepting low and slow aircraft penetrating the highly protected airspace surrounding Washington, DC.

The Air Station was assigned responsibility for field testing new upgrades for the HH-65 helicopter. In 2008 the upgraded HH-65C airframes were received. The HH-65C has a more powerful engine; provision for weapons to enable the airborne use of force; infrared and electro-optical sensors; head's up night vision displays and other improvements.

1999 - The 1999 National Search and Rescue Plan:

The 1999 National search and Rescue Plan continued, by interagency agreement, the effective use of all available facilities in all types of SAR missions. The National Search and Rescue Plan-1986 was superseded by this plan. The plan provided for coordinating civil search and rescue (SAR) services to meet domestic needs and international commitments. Implementing guidance for this Plan was provided in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual discussed below), the National Search and Rescue Supplement (a domestic interagency supplement to the IAMSAR Manual), and other relevant directives of the Participants to this Plan.

OBJECTIVES: Knowing the importance of cooperation in providing expeditious and effective SAR services, the Participants to this Plan desire to:

- Provide a national plan for coordinating SAR services to meet domestic needs and international commitments, and to document related basic national policies;
 - Support lifesaving provisions of the International Convention on Maritime Search and Rescue of IMO, the Convention on International Civil Aviation of ICAO, certain international agreements to which the U.S. is Party, and similar international instruments;
 - Provide an overall Plan for coordination of SAR operations, effective use of all available resources, mutual assistance, and efforts to improve such cooperation and services; and
 - Integrate available resources which can be used for SAR into a cooperative network for greater protection of life and property and to ensure greater efficiency and economy.
- This Plan is further intended to:
- Help the U.S. satisfy its humanitarian, national, and international SAR-related obligations;
 - Provide national guidance for development of SAR-related systems;
 - Describe its Participants and their roles in a pro-lifesaving context;
 - Recognize lead federal agencies, respectively, for the types of operations covered by this Plan, and describe geographic regions of SAR responsibility, as appropriate;
 - Account for saving property, but on a secondary basis to saving lives;
 - Account for all operations up to and including providing initial assistance (food, clothing, medical, etc.) to survivors and delivering them to a place of safety; and
 - Have, as a primary concept, cooperation for overall and continual development, coordination and improvement of SAR services.

The Coast Guard and Coast Guard aviation has a primary responsibility and provides significant resources to facilitate this plan.

1999 - USCG Cutter *Bear* deploys with the U.S. Navy Sixth Fleet for Operation Allied Force:

Operation Allied Force was a NATO contingency response aiming at ensuring full compliance with UN Security Council Resolution 1199 (Sept. 23rd 1998). NATO intervened in Kosovo in

support of the resolution so as to bring an immediate ending of the Serbian violence inflicted upon the Kosovar Albanians and restore stability in a strategic region.



As part of the U.S. Fleet the USCG Cutter Bear operated in the Adriatic and Black Seas. The BEAR provided outstanding service in surveillance and the protection of our forces. The Commander of the Sixth Fleet, Vice Admiral Murphy, commented on how well and how seamlessly Bear folded into the naval operations. The cutter and crew assisted in efforts to maintain sea control while permitting unencumbered commercial shipping. The BEAR was the only combat vessel permitted to operate inside the range of Serbian missiles. The Commandant of The Coast Guard,

Admiral James Loy, stated that Coast Guard Units operating in concert with the Navy is a trend the Coast Guard sees as growing, not diminishing. This has proven to be the case.

1999 - The Interagency Task Force on Coast Guard rolls and Missions:

In Executive Order 13115, the President established the Interagency Task Force on the Roles and Missions of the United States Coast Guard. The President directed the Task Force to "provide advice and recommendations regarding the appropriate roles and missions for the United States Coast Guard through the year 2020." While the Executive Order sought a review of all Coast Guard roles and missions, it directed the Task Force to give special attention to the deepwater missions of the Coast Guard. The Executive Order defined deepwater missions as those occurring beyond fifty (50) nautical miles from U.S. shores. The President emphasized deepwater missions because the Coast Guard was currently pursuing its Deepwater Capabilities Replacement Project which involves the replacement or modernization of many of the ships and aircraft used in search and rescue, drug interdiction, the interception of illegal immigrants, fisheries regulation, defense operations and other at-sea operations.

The Task Force, which reported to the President through the Secretary of Transportation, was chaired by U.S. Deputy Transportation Secretary Mortimer L. Downey. The other members of the task force included deputy secretaries of cabinet-level departments, members of President Clinton's staff, and members of staff advisory councils. Admiral James M. Loy, commandant of the Coast Guard, was also a member.

"The critical importance of the Coast Guard to maritime safety, security and environmental protection demands that we take a focused look at how it can carry out its mission most effectively," Deputy Secretary Downey said.

The task force identified and distinguished which Coast Guard roles, missions, and functions might be added or enhanced, maintained at current levels of performance, reduced or eliminated. It also considered whether these roles, missions and functions might be better performed by private organizations, public authorities, local or state governments, or other federal agencies. In addition to these requirements, the task force also advised as to how these

roles, missions and functions might be performed more effectively and efficiently. The last roles and missions study for the Coast Guard had been conducted in 1982.

Since the 1982 Roles and Missions Study, a new National Drug Control Strategy emerged. In 1988, the Anti-Drug Abuse Act established the Office of National Drug Control Policy (ONDCP) to set priorities, implement a national strategy, and certify federal drug-control budgets. Executive Orders 12880 (1993) and 12992 and 13023 (1996) assigned ONDCP responsibility within the executive branch for leading drug-control policy and developing an outcome-measurement system. Since 1994 the Commandant of the Coast Guard has been appointed as the U.S. Interdiction Coordinator for counter drug operations in the western hemisphere.

It was further determined that vessels and aircraft fighting to stem the flow of illicit narcotics would also continue their duties interdicting illegal migrants. The Federal Government implemented policies to streamline the interdiction of illegal migrants at sea. In 1992, President Clinton signed Executive Order 12807, which eliminated the requirement that migrants be screened at sea for refugee status. Presidential Directive 9, signed in 1993, provides policy guidance to federal agencies stating that the U.S. government "will take the necessary measures to preempt, interdict and deter alien smuggling into the U.S." It now specifically tasks the Coast Guard with interdicting illegal migrants as far as possible from U.S. shores.

In combating the twin threats of illegal maritime immigration and drug trafficking, Coast Guard engagement activities, including training and exercises with foreign maritime forces, have fostered closer ties and improved cooperation with foreign nations. These engagement activities have the potential to reduce demand on Coast Guard resources as foreign maritime law enforcement operations disrupt drug trafficking and illegal immigration closer to its point of origination.

Coast Guard aviation forces were to be upgraded and transitioned in accordance with Deepwater requirements.

The committee stated that in a world where the U.S. exists as the only true superpower and has accepted the challenge and responsibilities of global leadership, the probable threats to U.S. security have changed. The single, dominant threat posed by the Soviet Union has been replaced by smaller, yet significant regional challenges to our national interests and that the existing environment would create new demands for operations other than war, peacekeeping, crisis response, and counter-terrorism.

The terrorist attack of September 2001 on the World Trade building dramatically changed the course and emphasis of the Committees conclusions. While much remained germane the recognition of the severe danger imposed by organized international terrorism had not yet taken place. Security would become primary. A Department of Homeland Security was established to address this danger to the United States. The Coast Guard became an integral part of the newly created Department transferring from the Department of Transportation on 25 February 2003.

2000 – Coast Guard Aircraft Mission Capabilities Upgraded:

Drug Interdiction efforts in the Caribbean had produced positive results during the proof of concept surge operations of 1996 through 1998. A large part of the success was due to much better intelligence information and cooperation amongst the agencies. This combined with an integrated surface and air interdiction assets it produced a very effective deterrent. An aircraft capable of detecting, classifying and evaluating target vessels day or night, from high altitude, and from a stand-off distance was a force multiplier.



CASPER –Chin Turret

The Navy's E2C was ideal for this assignment and the Customs P3's were also good and more cost effective. The problem was that assistance from these aircraft was limited due to the source country operation strategy in place. To address the issue and reduce transit time the Navy began temporary assignment of E2C aircraft based out of Roosevelt Roads, Puerto Rico, for two month periods beginning in late 1998 and Customs stationed four P3 aircraft at NAS Jacksonville in 1999. Also, beginning in 1999, an upgrade of sensor and communication capability of Coast Guard aircraft to fully support interdiction efforts was initiated.

The HC-130H fleet was provided with a sensor suite upgrade named CASPER which was an acronym for C-130 Airborne Palletized Electronic Reconnaissance. The sensor suite had three major components: a chin mounted turret, a communications suite, and an airborne tactical work station. The turret housed the Wescam Model 20 forward looking infrared radar (FLIR) / electro-optical (EO) group. Step zoom FLIR, low magnification continuous zoom EO, and high magnification step zoom low light sensor. The communications system included military satellite capability. The communication system, capable of voice and data, allows an array of tactical data to be exchanged over a variety of paths. The airborne workstation (ATW) is comprised of numerous computer, interface, communications, and video cards housed in rugged chassis. All imagery is processed through the ATW for transmission. Complimented with the APS-137 radar, aircrews can evaluate radar targets during low visibility and night operations. The control and operating station is located in the C-130 cargo compartment mounted on a standard aluminum aircraft pallet that can easily be rolled on and off the aircraft. The CASPER upgrade was a force multiplier and increases operational capabilities in Search and Rescue operations and migrant interdiction as well as drug interdiction operations.

The HU-25s were sensorized for specific missions. The base model HU-25A was configured with an APS-127 search radar only. The HU-25B also had an APS-127 surface search radar and in addition was modified to carry the APS-131 Side Looking Airborne Radar (SLAR) and an RS-18c Infrared/Ultraviolet (IR/UV) scanner for the detection of oil spills. The HU-25C was equipped with APG-66 air and surface radar, WF-360 FLIR, MILSATCOM and was capable of air intercept operations. The HU-25A was upgraded by installing a SAR/ISAR radar for detection of low profile vessels, an FLIR/EO system capable of classifying contacts at increased stand-off distances, a commercial SATCOM and an advanced tactical work

station. The HU-25B were upgraded with SAR/ISAR radar, FLIR/EO equipment, a commercial SATCOM and night photo capability. The Aireye was also upgraded. The HU-25C had an upgraded APS-66 radar, FLIR/EO, a tactical work station and night photo capability. MH-68A all weather, short range interdiction, shipboard deployable helicopters were acquired to fully implement the airborne use of force capability for drug interdiction operations.

2000 - LCDR Daniel C. Burbank, Selected as a NASA Astronaut, Makes First of Two Space Flights:



LCDR Burbank received his commission from the U.S. Coast Guard Academy in May 1985, and was assigned to the Coast Guard Cutter Gallatin (WHEC 721) as Deck Watch Officer and Law Enforcement/Boarding Officer. In January, 1987, he reported to naval flight training at Pensacola, Florida, and graduated in February 1988. Burbank was then assigned to Coast Guard Air Station Elizabeth City, North Carolina, where he became an Aircraft Commander in the HH-3F Pelican and then an Aircraft Commander/Instructor Pilot in the HH-60J Jayhawk. While at Elizabeth City, he completed training in Aviation Maintenance/Administration in preparation for assignment as an Aeronautical Engineering Officer. He also earned a master's degree in aeronautical science. In July 1992, Burbank was assigned to Coast Guard Air Station Cape Cod, Massachusetts, as the Rotary Wing Engineering

Officer and HH-60J Aircraft Commander/Instructor Pilot. In May 1995, he was assigned to Coast Guard Air Station Sitka, Alaska, as the Aeronautical Engineering Officer and HH-60J Aircraft Commander.

Selected by NASA in April 1996, Burbank reported to the Johnson Space Center in August 1996. After completing two years of training and evaluation, Burbank worked technical issues for the Astronaut Office Operations Planning Branch. He served as a spacecraft communicator and was also a member of the Space Shuttle Cockpit Avionics Upgrade design team. He flew as a mission specialist on STS-106 and STS-115. He has logged 23 days – 14 hours- and 18 minutes in space flight.

STS-106 - The Space Shuttle Atlantis launched at 08:45 September 8, 2000 on an eleven day mission to the International Space Station to prepare the station for the first crew scheduled to launch in October. The mission to the 143-foot-long station focused on unloading nearly three tons of cargo from the orbiter and a Progress supply craft already docked to the opposite end of the International Space Station. On flight day two, Atlantis completed a successful rendezvous and docking.

A 6 hour and 14 minute Extravehicular Activity (EVA) was completed successfully on day three. The spacewalk's objective focused on routing and connecting nine power, data and communications cables between the Zvezda module and the other Russian-built module, Zarya, as well as installing the six-foot-long magnetometer to the station to serve as a compass showing the station in respect to the Earth. Mission Specialist Edward Lu and Russian Mission Specialist Yuri Malenchenko used tethers and handrails along the ISS to make their way to a

point more than 100 feet above the cargo bay, the farthest any tethered spacewalker has ventured outside the shuttle. They completed this with the assistance of their inside crewmates Burbank and Mastracchio who deftly maneuvered them around with the robotic arm.

On flight day four the crew entered the International Space Station through Pressurized Mating Adapter-2 (PMA-2) to begin the transfer operations of more than three tons of hardware and supplies. Atlantis' crew was the first to see the interior of the Russian Zvezda service module since it was launched from the Baikonur Cosmodrome in July. Additionally, a reboost was performed using the orbiter's Reaction Control System (RCS) to place the station in a higher orbit.

Activities on the following days included electrical work and the installation of three batteries inside Zvezda. In order to reduce the weight for launch, Zvezda was launched with only five of eight batteries in place. The crew transferred more than 6,000 pounds of material - including six 100 pound bags of water, all of the food for the first resident crew, office supplies, onboard environmental supplies, a vacuum cleaner and a computer and monitor to the interior of the station.

The astronauts spent a total of 5 days, 9 hours and 21 minutes inside the station before closing the hatch on the orbiting outpost. Four altitude boosts placed the station in an orbit of approximately 241 to 233 statute miles, raising the average altitude by 14 miles. After spending 7 days, 21 hours and 54 minutes linked to the station, Atlantis undocked at 11:46 p.m. EDT and Atlantis' moved to a distance of about 450 feet for a double-loop flyaround.

The Atlantis returned to the Kennedy Space Center landing at 03:58 on September 20, 2002.

STS-115 – The Space Shuttle Atlantis launched on September 9, at 11:15 in the morning. The picture-perfect launch proved to be as perfect as it looked. As Atlantis chased the International Space Station, the STS-115 crew made preparations for rendezvous and docking, which took place early on flight day three.

The main purpose of the mission was to install the P3/P4 integrated truss segment with its solar arrays, which will double the existing power-generating capacity of the orbiting outpost after the next mission. The size of the truss with its expansive solar wings also considerably changed the familiar profile of the station. In its launch configuration, the segment was about 45 feet long, but once joined to the station's structure with the solar arrays deployed, the wingspan extends about 240 feet. Although the truss segment weighed 17.5 tons on Earth, handling it in the weightlessness of space was more a question of careful precision than strength. Using the maneuvering arms on both the orbiter and the space station, the astronauts performed a careful handoff of the segment after removing it from Atlantis' payload bay. The installation and deployment of the truss segment required three spacewalks -- the first and third conducted by Tanner and Piper, with the second handled by Burbank and MacLean.

This mission was billed as one of the most complicated space construction efforts ever conducted, and the STS-115 astronauts had trained longer than any other NASA crew. On flight day four, during their first spacewalk, Tanner and Piper spent six hours and 26 minutes installing power and data cables between the P1 and P3/P4 structures in preparation for solar array deployment.



S115E05942

During day five, Burbank and MacLean performed a seven-hour, 11-minute spacewalk, removing launch locks and launch restraints on the solar alpha rotary joint to allow the arrays to track the sun.

Dan Burbank during spacewalk.

During the remainder of the spacewalk, the astronauts were instructed to perform "get-ahead" tasks originally scheduled for later in the

mission. They prepared the P3 truss for use by the mobile transporter -- a platform that allows the station's robotic arm, Canadarm2, to move along the integrated truss structure.

The next day, Tanner and Piper returned to complete the spacewalk triple play by conducting a six-hour, 42-minute excursion to prepare the station's newly installed truss segment for operation and to complete other tasks devoted to the assembly and maintenance of the station. They prepared the thermal control panel for deployment and flight controllers unfurled the device, which removes heat from the station.

The prediction of bad weather in Florida, and some unidentifiable debris seen traveling in the same orbit as Atlantis, gave the crew members one more day in space to conduct another inspection of the orbiter. Once the vehicle was given a clean bill of health, the astronauts prepared Atlantis for the return to Earth. Atlantis touched down in the predawn darkness at 6:21 a.m. at the Kennedy Space Center, returning both the crew and vehicle to the place where 12 days earlier, the journey began to restart construction of the space station

Captain Burbank is now a Visiting NASA Professor at the U.S. Coast Guard Academy

2001 - Coast Guard Helicopter Interdiction Tactical Squadron (HITRON) Established:



The United States Coast Guard's Helicopter Interdiction Tactical Squadron (HITRON) Jacksonville, Florida was America's first airborne law enforcement unit authorized airborne use of force since enforcement of Alcohol Prohibition Laws during the late 1920s.

Initially tasked with interdicting and stopping suspected drug-laden, high-speed vessels known as 'go-fasts,' the HITRON mission has expanded to include Homeland Security. The Coast Guard aggressively pursued a project – involving the use of armed helicopters for law enforcement missions – that will have a far-reaching effect for America's overall

maritime security.

During a 1998 proof of concept phase, HITRON intercepted and stopped all six “go-fasts” they encountered, confiscating 3,014 pounds of cocaine, and 11,710 pounds of marijuana with a street value of 130 million. All 17 suspects were arrested. This success rate represented a dramatic increase in go-fast seizures and set the stage for the continued airborne use of force in maritime drug interdiction efforts. Due to the success during the test and evaluation stage, the HITRON program was validated and designated a permanent Coast Guard unit. HITRON grew to 40 personnel to halt the rising tide of go-fast drug smugglers, and a requirement for eight helicopters was determined necessary to meet cutter deployment cycles.

Competitive bids were solicited and in March 2001, an agreement with Agusta Aerospace Corporation was made to lease eight A109E Power helicopters. HITRON Jacksonville faced many new challenges as they converted a civilian corporate helicopter into an armed shipboard deployable aircraft. These aircraft were equipped with the latest radar and Forward Looking Infrared sensor system capable of recording activities on tape to facilitate prosecution. HITRON armed these helicopters with M-16 5.56mm rifles and M240 7.62mm machine guns for warning shots and self-protection, and the RC50 laser-sighted .50 caliber precision rifle to disable the engines of non-compliant suspect vessels. They were given the military designation of MH68A. The MH-68A's are the newest helicopters in the U.S. military, and are capable of cruise speeds of 140 knots.

Initial flight training and aerial gunnery were established and validated by HITRON pilots and gunners. Night shipboard landings, a first for the Coast Guard and now operational procedure Coast Guard wide, were initiated using the ANVIS-9 Night Vision Goggles integrated with the ANVIS-7 heads-up display (HUD) system, and were the first users in the world to operate the latest generation of these night vision devices.



For counter drug operations, HITRON aircrews forward deploy aboard Coast Guard cutters for 30-60 day deployments, and aircrews are typically deployed about 120 days a year total. While on deployment, the go-fasts are hunted not only by the MH-68A but also by maritime patrol aircraft (MPA) such as the Coast Guard HC-130H Hercules.

MH-68A Stingrays

If an MPA locates a go-fast, the HITRON crew launches from the cutter and proceeds to the go-fast intercept location. The crew then approaches the suspect vessel with weapons trained on the vessel solely for self-protection. Once over the suspect vessel, the helicopter crew confirms the nationality or lack of nation status and whether the vessel is in fact a suspect smuggling vessel. The aircrew will then attempt to convince the boat crew to stop through the use of sirens, loud speakers, visual hand signals, and radio communications in both English and Spanish. If the vessel stops during this phase, it

is boarded and searched by the cutter's boat crew who accompany the chase in an over-the-horizon pursuit boat. If the vessel is found to be carrying drugs, the cutter crew will take appropriate law enforcement actions. If the suspect vessel fails to stop after these numerous visual and verbal warnings, the helicopter crew will take up a firing position alongside the go-fast and fire warning shots across their bow to further compel them to stop. If the warning shots do not convince the suspects to stop, the helicopter crew prepares to disable the vessel by shooting out the go-fast's engines. Using precision, laser-sighted .50 caliber rifles, the helicopter crew positions themselves alongside the fleeing go-fast for disabling shots. Most of the go-fasts have multiple engines, and the helicopter crew will continue to fire into these engines until the suspects stop or they are forced to stop. Once stopped, the vessel will be boarded by the Coast Guard pursuit boat crew and the smugglers taken into custody.

Due to HITRON's unique capabilities the unit was directed to develop tactics to meet the terrorist threats facing the United States. Aircrews now deploy where needed, working with surface assets, to provide a layered defense to the maritime domain.

On 27 January 2008 the last MH68A was formally transferred back to Agusta, ending a partnership which resulted in the interdiction of 126 vessels, 159 tons of cocaine valued at 8.7 billion dollars and the apprehension of 465 narco-smugglers. The M68A Stingray was replaced by the MH-65C Dolphin helicopter as the HITRON interdiction and security aircraft.



It had been planned to use the HH65 in an airborne use of force role but implementation was delayed until the aircraft was retrofitted with more powerful and reliable engines. In the late spring of 2008, the re-engining project was completed and the Coast Guard began upgrading the HH-65s to the MH-65C model adding new communication and surveillance Capabilities. The decision to selectively upgrade the

HH-65C into a weaponized MH65C enhances HITRON's multi-mission capabilities while utilizing a standard Coast Guard aircraft greatly improves maintenance and logistic support.

HITRON has performed exceedingly well and continues to stand ready to defend our ports, waterways and coastal security and effectively interdict narco-smugglers.

2001 – Drug Interdiction in the Eastern Pacific Transit zone:

Through the efforts of Admiral Kramek, who was Commandant of the Coast Guard and also Coordinator for Drug Interdiction, transit zone drug interdiction, which had been deemphasized in deference to source country operations, was again proven to be effective when sufficient and proper law enforcement assets were available. A series of proof of concept pulse operations, which included airborne use of force, were conducted in the Puerto Rico, Virgin Islands, Haiti, and the Dominican Republic areas. The operations were very successful and resulted in supplemental funds to provide more ship and aircraft hours, upgrade Coast Guard aviation assets and the formation of an armed helicopter interdiction squadron.

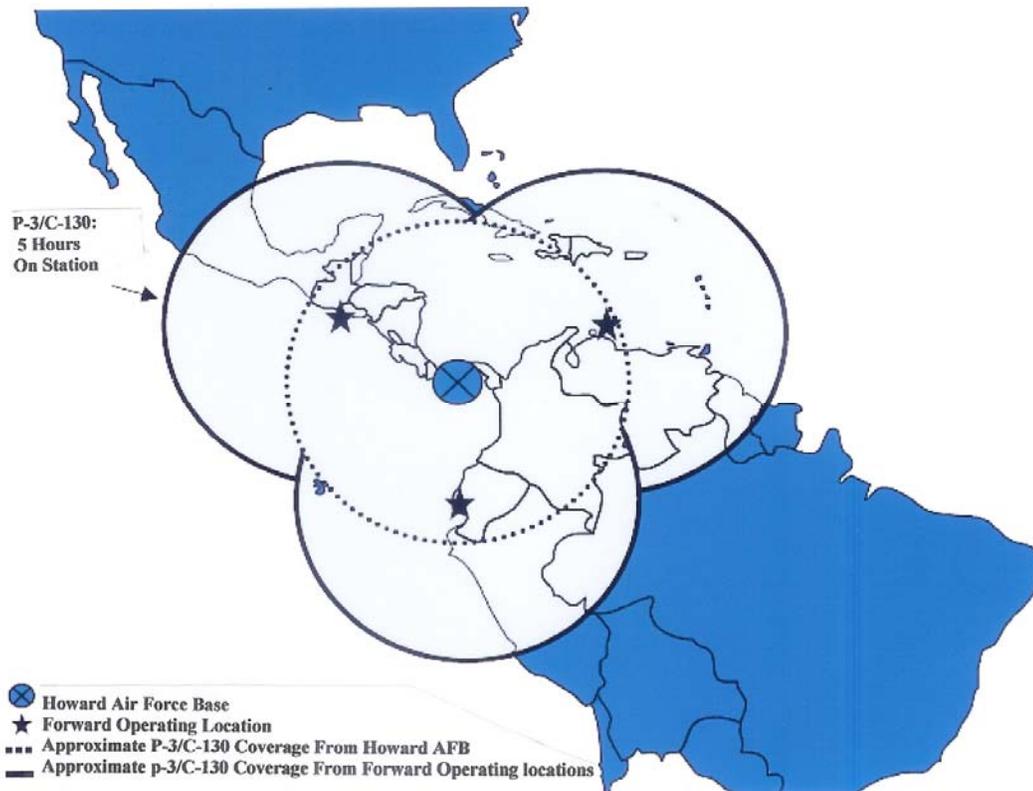


View from gunner's position.

In 1993 a source country program was initiated. The aim of this program is to assist host nations in destroying the drug trafficking organizations, drug crops, drug production facilities, tracking or seizing drugs scheduled for transshipment, and developing alternative economic projects to relieve the farmers dependence on drugs as a cash crop. Initial

results were not satisfactory due to the power of the Drug Cartels and lack of source country resources. Columbia, the main source of cocaine, became chaos for a period of time. By 1996 disruption began to take place and the Cali Cartel was beginning to disintegrate into smaller cells. The Columbian Government formed a force of 500 soldiers and police to track down the Cartel members resulting in a further erosion of leadership and vastly improved intelligence gathering capabilities.

Southern Command, located at Howard Air Force Base, coordinated multiple counterdrug operations in the source area and was equipped with sophisticated equipment to gather intelligence. In addition to air suppression, operations were aimed at disrupting the riverine and coastal drug smuggling. Howard AFB was a secure base and was ideally suited to provide unified logistical support for counterdrug operations. From the centrally located base, the Department of Defense (DOD); the U. S. Customs Service (USCS); and the U.S. Coast Guard (USCG), directed by the Joint Interagency Task Force South (JIATFS), operated airborne early warning, marine patrol, and tracker aircraft. Initial contact of a suspected airborne trafficker was made by ground radar, early warning aircraft such as an Air Force E3, a Customs P-3B, or a Navy E2-C would pick up and track the target and direct either Air Force F-16s or Customs Citation aircraft for a visual intercept. Information was then passed to appropriate foreign government law enforcement government agencies for purposes of apprehension. Tactically the program was a success and lead to increased emphasis on maritime transport and the development and use of high speed motorboats known as "go-fasts". Initially the primary transit zone was in the Caribbean. Marine patrols for surface interdiction were primarily carried out by Customs P-3B and DOD aircraft with the assistance provided by Coast Guard assets.



By July of 1998, the United States recognized that the Panamanian Government would not extend access to Howard AFB beyond December 31, 1999. By September the DOD had developed basic site selection criteria and began the search for new forward operating locations (FOL). Key criteria were (1) proximity to the source and transient zones, (2) protection of U.S. personnel and equipment, and (3) adequate infrastructure to minimize construction costs. Locations selected were Manta, Ecuador; Aruba and Curacao in the Netherlands Antilles, and San Salvador, El Salvador. These sites provided greater geographical coverage, deeper access into the source zone, and diverse locations which complicated the traffickers' attempts to monitor flight operations. Initial operations from Manta and the Netherlands Antilles took place in 1999 and from San Salvador in 2000.

Drugs coming into the United States from South America pass through a six million square mile transit zone roughly the size of the United States. This zone encompasses the Caribbean and the Eastern Pacific Ocean. Interdiction in the transit zone had been reemphasized in 1997 and the Coast Guard has again become key to reducing the maritime flow of drugs and is a primary force provider for the JIATF.

OTH boat-boarding go-fast

During the period, beginning in 1997, when the Coast Guard conducted a series of proof of concept pulse operations in high threat areas 71 percent of the non-commercial cocaine smuggling in the Caribbean was conducted using "go-fast" boats. Coast Guard C-130s and HU-



25s were used for maritime patrol but were not as effective as Customs P-3s and Navy E2Cs . The pulse operations were successful, proved the effectiveness of airborne use of force and demonstrated the need to upgrade the sensor capabilities of Coast Guard marine patrol aircraft. Beginning in 1997 HC-130 aircraft received a major sensor upgrade that allowed for the detection, classification, and evaluation of vessels day or night, from higher altitudes, and from greater stand-off distances. Four HU-25 aircraft were reactivated and six HU-25As were upgraded with SAR/ISAR radar and FLIR/EO beginning in 1999. In 2000 a permanent helicopter interdiction squadron, using armed MH68 helicopters, capable of both day and night operations, was established.

Coast Guard Law Enforcement Detachments (LEDETS) were deployed aboard U.S. Navy ships as well as the British, Dutch, and Belgian naval vessels operating in the Caribbean and involved in counter-drug operations. Bilateral agreements were made with 22 Caribbean and Latin American nations to improve the effectiveness of the counter-drug mission. Law enforcement training and security assistance was provided to Caribbean nations and became increasingly effective over the years. In addition a continued maturation of interagency cooperation was taking place and the availability and effective utilization of intelligence ensued. FY 2001 marked the third successive record year for Coast Guard maritime cocaine seizures. By 2001, for the first time, even though it was a much longer route, more cocaine was being routed via the Eastern Pacific than the Caribbean.



By 2002 approximately 70 percent of cocaine destined for the United States was initially transported through the Mexico-Central America corridor, primarily via the Eastern Pacific and Western Caribbean maritime routes and then overland through Mexico. During the period prior to late 2001 the predominant method of transporting cocaine through the Eastern Pacific transit zone was by small commercial ships or fishing boats. These were the vessels of choice because they were capable of carrying multi-ton loads. They would leave from clandestine ports on the west coast of Columbia and off load to small boats off the Mexican coast for the

run to the shore. As interdiction efforts became more successful, because of an increase in assets and much better intelligence information, cocaine traffickers began increased utilization of large “go-fast” boats and a lesser utilization of larger fishing vessels. “Go-fast” boats were also the primary means used by traffickers to transport cocaine via the Western Caribbean route, from the north coast of Colombia through the Western Caribbean to Central America. Cocaine arriving in Central America subsequently moves overland along the Pan American Highway toward Mexico. The high volume of legitimate tractor-trailer commerce makes detection and interdiction difficult. Mexican drug gangs would then transport the shipment to the U.S.-Mexican border. Cocaine was/is smuggled across the border via commercial and private vehicles, rail, buses, tunnels, and pedestrians. Transshipment of Cocaine from the source countries by air had been considerably curtailed.



Off-loading cocaine from the CGC STEADFAST in Puerto Caldera, Costa Rico, Dec. 2, 2007

The Eastern Pacific transit zone is a massive area with few geographical choke points. To meet the challenge of patrolling this vast area the Coast Guard coordinates closely with other government agencies and Central and South American nations to disrupt and deter the flow of illegal drugs. To be successful, complete and forceful interagency collaboration in areas such as intelligence collection and dissemination; detection and monitoring; interdiction, and apprehension; and prosecution and investigation is absolutely essential. Intelligence analysts provide information to detection and monitoring forces that in turn provide information to interdiction and apprehension forces.

One of the most effective intelligence operations available to anti-drug forces is Operation Panama Express. This initially was an interagency task force of agents and analysts engaged in long term investigation targeting the highest levels of traffickers responsible for the financing, production, transportation and distribution of cocaine throughout North America and Europe. Panama express became proactive in 2000 and since that time has expanded its scope of operations. Personnel from DEA, FBI, ICE, the Coast Guard, and the US Attorneys’ Office collect actionable intelligence which is passed to the Joint Interagency Task Force South which uses the information to better direct air and naval assets for the purpose of interdicting vessels smuggling cocaine through the transit zones.

With the advent of Panama Express there was a significant increase of drug-running vessels interdicted. Panama Express would become aware, normally by means of human in the number intelligence, of a drug shipment going out on a specific fishing vessel or go-fast with a proposed departure date. This would be passed to JIATF South who would then provide this information to the Coast Guard and Customs marine air patrol forces flying patrols out of Manta and Campela. Simultaneously surface assets in the transit zone would also be alerted. The wide area surveillance accomplished by the fixed wing maritime patrol aircraft operated by the Coast Guard and Customs, which have the speed and endurance to cover large sections of the Eastern Pacific, was/is critical in positioning units for intercept. Upon detection JIATF South would position a Coast Guard cutter or a Navy ship with a Coast Guard LEDET on board for intercept. Once the trafficker was identified, marine patrol aircraft would, from a

stand off distance, monitor the smugglers progress and provide updates on the position and course of the vessel. When in range the surface unit would interdict the fishing boat. When a boarding was imminent the tactical control was shifted to Coast Guard District Eleven before conducting law enforcement actions. This provided the legal authority to board, search for and confiscate the cocaine, and apprehend the crew. This had a dramatic impact on the seizure rate.

In response the traffickers greatly increased the use of large four engine go-fasts for runs to both Mexico and Central America for transshipment to Mexico by land. In January of 2002, to counter this strategy, Coast Guard HITRON squadron 10 deployed helicopters for Eastern Pacific operations. Conducted under strict secrecy information on the deployment was not released until March. The helicopters coordinated efforts out of San Diego with Coast Guard cutters and specific U.S. Navy assets.



On 16 January the MIDGETT made a successful interdiction and again on January 24. On 26 January the STEADFAST made a successful bust.

HITRON M68 helicopter being loaded into a C-130 for deployment to the Eastern Pacific

On 3 February the BOUTWELL recovered 2.5 tons of cocaine from a 40-foot go-fast. On the 12 February the BOUTWELL and HAMILTON teamed to stop a go-fast with 7670 pounds of cocaine with a street value of \$34 million. The MIDGETT made an

interdiction on 22 February and the BOUTWELL and HAMILTON successfully teamed up again on 12 March.

All of the interdictions were made using intelligence provided by Panama Express. The February 12 interdiction by the BOUTWELL and HAMILTON was “textbook”. A Coast Guard HC-130H picked up the 42 foot go-fast in international waters off the Central American coast. Flying at 10,000 feet, the HC-130H tracked the go-fast off the coast of Costa Rica. JIATF positioned the BOUTWELL and HAMILTON and at the proper time each simultaneously launched their MH-68A helicopters, call signs Shark 1, and Shark 2, for intercept while putting their Over-the-Horizon Rigid Hull inflatable boats in the water to recover the cocaine and smugglers. Upon helicopter intercept Shark 1 fired warning bursts from its 7.62mm machine gun. The go-fast stopped but soon started to move again. Shark 1 provided cover and Shark 2 moved in and disabled all four engines with 13 shots from a 50 caliber rifle. The inflatables arrived and the cocaine and smugglers were taken into custody.



Pacific “go-fast” adjacent a Coast Guard OTH with a Coast Guard interdiction crew on board

Interdiction operations continued to improve in proportion to the amount of intelligence available and the ability of the tactical forces to obtain and use it. However, several challenges to the ability of sustain the desired level of interdiction in the transit zones took place. The hours flown by Navy P-3 maritime patrol aircraft on interdiction missions decreased nearly 60 percent between 2000 and 2005 - primarily because of structural problems in the wings. The United States experienced a terrorist attack on September 11, 2001 that resulted in assets being diverted to security missions. The year 2003 saw the invasion of Iraq and a reduction in DOD assets for drug interdiction. The year 2005 was the year of the massive airborne rescue response to hurricane Katrina. Shortfalls in flight hours took place but were largely offset by Customs, the Coast Guard, and several allied European nations -- France, the Netherlands, and the United Kingdom. Customs had obtained eight additional P-3s with improved detection capabilities and shifted flight hours from source country to transit zone interdiction. The Coast Guard, in spite of reduced availability, was able to provide additional patrol hours because of the tremendous assistance in maritime awareness patrols performed by Coast Guard Auxiliary aviation and the fact that budget considerations are apportioned along functional lines but allocation of flight hours is mission specific. The multi-mission capability of the Coast Guard allows the same assets to be used for drug interdiction, migrant interdiction, and other missions. In many cases drug interdiction and migrant interdiction can be conducted by the same aircraft or ship during deployment. By careful management of flight hour resources the effectiveness of available flight hours can be increased. The Coast Guard multi-mission concept was again validated.

Transit zone interdictions in 2003 amounted to 176 metric tons; 219 metric tons in 2004 and 254 metric tons in 2005. In 2005 the British adopted the airborne use of force (AUF) concept using Coast Guard tactics and training procedures. Aggressive tactics in the Caribbean continued to shut down the major routes in the central and eastern Caribbean. Air smuggling reemerged as a method of transporting cocaine via Central America. Traffickers flew, primarily at night, into marginal airstrips in Guatemala and Belize using small aircraft. Most of the aircraft were damaged or abandoned but the landing locations provided quick egress into Mexico via unpaved and unmonitored roadways.

Ecuador became a transit country for cocaine produced in the High Andean Ridge of Bolivia and Peru and the trafficking in the Mexico- Central America Corridor during 2006 evolved to include four general routes – littoral along the coasts of Central America, north of the Galapagos, south of the Galapagos and far west of the Galapagos. The Galapagos routes take the traffickers over a thousand miles off shore but adds substantially to the required patrol area. Traffickers used multiple at-sea transfers and increased the use of decoy vessels. Fishing boats were used as a means to refuel, equip, and act as lookouts for the boat making the run to shore. All of this added complexity and challenged the interdiction forces. Increased surveillance and bilateral agreements enabled the Coast Guard to render the support vessels useless by means of “fuel neutralization” which meant the removal of excess fuel to prevent the vessel in question from transferring excess fuel to a trafficker making the run. The littoral route was the trafficker’s choice on the east coast of Central America and by 2006 was being used extensively on the Pacific coast.

Ship interdiction hours had been increased by using high endurance cutters based out of Hawaii as well as the West Coast. Coast Guard air surveillance hours were increased by using Eastern Area HC-130s and increasing the number of interdiction hours flown by the Sacramento air station. This provided a substantial portion of JIATF South’s maritime patrol

capacity. Sacramento, a Western Area unit, deploys approximately 300 days a year to DOD Forward Operating Locations (FOL) at San Salvador, El Salvador and Manta Ecuador. Crews usually deploy an airplane for 28 days with a personnel swap once each deployment. Over \$2 million worth of C-130 parts are pre-staged in El Salvador to increase deployed availability and increase effectiveness. Nearly half of Sacramento's programmed hours are flown from these FOLs. In 2007 an all time high of 316 metric tons was interdicted. Removals in the open ocean decreased slightly but contributions made by partner nations along the coast line, now better trained and equipped, made up the difference.

Intelligence provided by a partner nation led to the largest cocaine interdiction the Coast Guard has ever had. Around midday on March 16 in Panama City, Panama a source alerted Panamanian federal agents that two visiting Mexicans were preparing to use the MV GATUN, which was passing through the Panama Canal that day, to haul cocaine north. In the next few hours agents from DEA and Panama scrambled to learn more about the ship and its history. The company that owned the ship owned three others and appeared to be legitimate but two of the men that ran the company aroused suspicion around the docks by leasing cargo containers without having much cargo to load into them. The two managers abruptly attempted to leave the country and were detained on suspicion of drug trafficking. The agents seized two laptop computers from which they gathered additional information. The ship had no cocaine on board when it passed through the canal but after entering the Pacific the ship cut south toward Columbia where it on-loaded cocaine from several large "go-fasts".

CGC SHERMANS' helicopter and the MV GATUN

The GATUN was picked up by a Coast Guard C-130 and tracked from 10,000 feet. The cutter SHERMAN proceeded to intercept. The Coast Guard



obtained flag-state consent to board and a large armed Coast Guard team conducted a search and discovered two containers holding 42,845 pounds of cocaine. The 14 Panamanian and Mexican crewmembers were arrested and transferred to the U.S. and Panama for prosecution.

The National Drug Intelligence Center estimated that by the end of 2007 66% of the cocaine was being transported via the Eastern Pacific route, 24% via the Western Caribbean route and a little less than 10% via the Central and Eastern Caribbean routes. Steel Web had clamped down hard and had proven to be effective. The Coast Guard began providing all of the HH-65C helicopters with the ability to use AUF.

Drug traffickers, realizing the effectiveness of armed helicopters, had begun to develop semi-submersibles in 2006. The early semi-submersibles were made of fiberglass; could carry about 5 tons of cocaine and moved at about 6 knots. The newer ones are being built of steel; capable of carrying 12 tons of cocaine and move at 12 knots. They are custom built, average 50 feet in length, and typically contain three compartments: an engine room, berthing/bridge area and a

cargo hold where the drugs are stored. GPS is used for navigation. Diesel driven, they have two 500 gallon fuel tanks, with two additional 75 gallon tanks. The boats are built in the Columbian jungle at an estimate of nearly \$1 million each. The vessels have a very low profile making them difficult to detect. They stay just above the water to obtain air for the crew and engines which are below the water line and immune from helicopter sniper fire. Only eight have been intercepted in the past 15 months- one captured and the others scuttled. Colombian have confiscated seven empty craft on land before they were used.

Intelligence expects the use of the semi-submersibles to increase. The traffickers have adapted to effective interdiction and law enforcement agencies will have to adapt to the change in tactics. The Coast Guard is pushing for legislation that would make the use of “unflagged” semi-submersibles in international waters a crime punishable by up to 20 years in prison. Their reasoning is that there is no legitimate use for a vessel like this and severe punishments coupled with the chances of being caught significantly contributed to the suppression of air transport of drugs through the transit zones. Intelligence gathering efforts will be increased and the upgrading of detection equipment and techniques will have to be devised and implemented.



Fiberglass semi-submersible

A greater use of force may become necessary. The DEA reports that the vessels are made by specific groups, sometimes in collusion with FARC, which funds its Marxist insurgency with the drug trade. It is their intent to disrupt these groups and apprehend the principles. The effort will be made because drug interdiction has become even more of a security issue. If a semi-submersible can be used to carry 10 tons of cocaine it could also be used in suicide attacks on targets

such as warships, fuel tankers or other specific targets. With FARC already in the submersible business access by small cells of jihadists is a very real possibility.

The success in interdiction efforts over the past five or so years is related to improved tactics, an increase in budget and true interagency coordination and cooperation – very much different than the early years. The Coast Guard and Customs are in the same government department. The Drug Enforcement Agency (DEA), while still primarily in investigation, and law enforcement has become much more willing to share intelligence and use it not only to disrupt organizations, but interdict the flow of drugs and apprehension of traffickers and detection and enforcement capabilities of the Central American and Caribbean countries has increased significantly. The Coast Guard has been and will remain a major player.

2002 - Initial Contracts for the Deepwater Project Awarded:

The “Deepwater Program” is an ongoing project. The Deputy Secretary of Transportation, Michael P. Jackson, joined by U. S. Coast Guard Commandant Thomas H. Collins, on June 25, 2002, announced the award of an initial contract valued at \$11.04 billion for a fleet of

new ships and aircraft, plus improved command and control systems, to meet the service's homeland security and other mission needs. The contract was awarded to Integrated Coast Guard Systems (ICGS), a joint venture established by Lockheed Martin and Northrop Grumman.



The ICGS contract is the largest ever for the U. S. Coast Guard. It called for the delivery of the first ships and planes – and upgrades to some existing vessels – within the next five years. This was the first time the Coast Guard had bundled procurement of several types of ships, aircraft and other equipment into an integrated procurement program. The contract award is designed to be extended in five year increments up to 25 years and is designed for the acquisition of up to 91 ships, 35 fixed-wing aircraft, 34 helicopters, 76 unmanned surveillance aircraft, and upgrade of 49 existing cutters and 93 helicopters, in addition to systems for communications, surveillance and command and control.

The vessels and aircraft included in the ICGS procurement project have been selected to make up the Coast Guard's primary multi-mission coastal and offshore fleet -- larger Coast Guard cutters and aircraft which serve as the backbone of many missions including drug and illegal migrant interdiction, fisheries enforcement, pollution patrols, and homeland security patrols, boardings and inspections. Command, control and communications systems will be designed not only to integrate operations of the new ships and planes, but also improve coordination of all Coast Guard operations, as well as with other Federal agencies and the Department of Defense.

ICGS had broad authority to select and manage contractors and to shape the acquisition plan to best meet the Coast Guard mission requirements. The program had wide political support and was seen as a model for managing a technical and complex acquisition program. However, by late 2006 problems with the program had grown. Major components were failing or stalled. Eight 123-foot patrol boats, an upgraded version of the existing 110- foot patrol boats, were found to have severe structural problems and were removed from the fleet. In addition the newly launched National Security Cutter had significant design flaws.

The Coast Guard received harsh criticism for not adequately overseeing the contract. As a result of the criticism and under pressure from Congress the Coast Guard restructured the agreement. In order to provide effective management and oversight the Coast Guard assumed the role of systems integrator for all Deepwater assets and took full responsibility for leading

the management of all life cycle logistic functions. In addition the role of the American Bureau of shipping and other third parties were expanded to increase assurance that Deepwater vessels are properly designed and constructed.

Within the program, but generated by existing mission requirements, the upgrading of the surveillance, communications, and control capabilities of existing aircraft was done well. The HH-65 helicopter, scheduled to be the Multi-mission Cutter Helicopter was re-engined to provide greater dependability and power, six C-130J aircraft, acquired by supplemental funding, were upgraded to fully perform the interdiction and search and rescue mission, and the first of the C-144 maritime patrol aircraft was delivered. The prototype HV-911 Eagle Eye vertical take-off and landing unmanned aerial vehicle had not met performance requirements as of early 2008 and has been put on hold.

There is agreement that by early 2008 the Deepwater program was back on track and, if it remains so, will provide the fully integrated deepwater assets the Coast Guard will require over the next several decades.

2002 – Coast Guard Acquires VC-37A Long Range Command and Control Aircraft:



The VC-37A, a Gulfstream V, was acquired in the second quarter of 2002 to serve as long range command-and-control aircraft that can be used to provide transportation for high-level Coast Guard and government officials. The VC-37 is fully capable of long range flight with a range of 6,500 nautical miles. The VC-37 replaced the VC-20B Gulfstream III.

The VC-37A had state-of-the-art avionics system. The flight management system was integrated with a full-function Heads-Up-Display. The flight management system allowed the crew to program the arrival of the aircraft at a point in space at a specific time. ACARS and a Microwave Landing System were installed. In addition the aircraft was equipped with an enhanced ground proximity warning system and an IFF. Digital engine controls maintained operational parameters. The VC-37 met the Extended Range with Two-Engine Airplane standards, a criterion previously only met by large commercial aircraft operating over long stretches of water.

2003 - The Coast Guard Aviation Transformation Plan:

In August of 2002, during the ceremony making the contract award for the Integrated Deepwater System, (IDS), Coast Guard Commandant Admiral Thomas H. Collins described the critical need to upgrade and modernize the service's force of cutters, aerial platforms, and support systems. He stressed that the Coast Guard must have the most capable ships, aircraft, and command-and-control technology available to protect our nation and carry out our many missions.



With the contract awarded to Integrated Coast Guard Systems (ICGS)—a joint venture between Northrop Grumman and Lockheed Martin—the plan to implement the transformation of Coast Guard aviation was set in motion. The progressive upgrading of selected legacy assets and the introduction of new and more capable fixed-wing aircraft, helicopters, and unmanned aerial vehicles (UAVs), when fully implemented, will change the face of Coast Guard aviation.

The transformation of Coast Guard aviation assets is aimed at creating major improvements to system-level operational effectiveness at an affordable cost. Given the Coast Guard's operational tempo since the attacks of 11 September 2001—and the overall material condition of all aircraft—the need to transform its aviation assets has never been more compelling.

The Coast Guard's aging force of aerial assets faced increased operational demands, spiraling maintenance costs, and less than optimum operational effectiveness in a number of areas. The addition of high priority homeland security and national defense missions superimposed on existing law enforcement and search and rescue responsibilities made this situation especially critical. Fortunately, a much-needed infusion of additional funding for operations and maintenance, during the two year period prior to the IGCS contract, restored the readiness rates for all aircraft systems to stable levels. Upgrades to aircraft sensors improved operational capabilities in a number of areas, but shortfalls still existed in fielding secure, fully interoperable communications and data-exchange systems.

The Coast Guard's aviation units accumulate flying hours on airframes, aircraft engines, and components more quickly than their counterparts in sister services. These hours accelerate the impact of wear and tear, raise safety-of-flight issues in some areas, and require the replacement of "high-time" components more frequently. The average age of the Coast Guard's fixed-wing inventory was 20 years, and its rotary-wing fleet averaged 16 years for the HH-65 Dolphin and 11 years for the HH-60 Jayhawk. Since 1993, the Coast Guard's maintenance-support budget grew at just 2% per year at a time when its documented operating and maintenance costs rose by 7-11% per year. Aware continuing cost escalation and the approaching block obsolescence of legacy platforms the Deepwater's system-of-systems approach for recapitalization was determined to be the only feasible and affordable option to sustain the Coast Guard's aviation excellence well into the 21st century.

Deepwater is designed to provide a mix of upgraded legacy assets and new aerial platforms to be phased into operational service. All aircraft, helicopters, and UAVs will be outfitted with improved radars and sensors for night and all-weather operations. Interoperable communication and data-exchange systems also will be incorporated to improve the

capabilities needed for joint, multi-agency operations and the development of maritime domain awareness and a common operating picture.

Legacy aviation assets that are expensive to operate and maintain were scheduled to be replaced as soon possible. In the interim they have been upgraded with improved communication, command and control, and sensor capabilities (C4ISR). The HU-25 Guardian medium-range search-and-rescue/interdiction turbojet is being replaced by the EADS-CASA medium range HC-144A maritime patrol aircraft (MPA).



HC-144A

This fixed-wing turboprop aircraft provides increased on-scene loitering capabilities and performs various missions including maritime patrol, law enforcement, cargo and personnel transport and Search and Rescue. The first of a proposed 36 HC-144 arrived on board December 21, 2007. The aircraft is fully interoperable with other Integrated Deepwater System platforms and will share a common mission systems pallet with the HC-130s. The HC-144 has multiple voice and data communications capabilities, including UHF/VHF, HF, and Commercial Satellite Communications. The aircraft is equipped with state-of-the-art search radar, an Electro-Optical Infra-red system and electronic surveillance measures. Powered by two General Electric CT7-0C3 turboprop engines, the aircraft has a maximum cruising speed of 236 knots, a maximum range of 1,565 nautical miles and when configured for MPA missions, an endurance of 8.7 hours. It is the first all-new aircraft to enter into the Coast Guard inventory under the Deepwater program.

The number of HC-130H search-and-surveillance aircraft is presently being reduced, but 16 of the remaining aircraft, with upgraded sensor and communications capabilities, will be retained. They will be further upgraded with improved command-and-control capabilities to ensure full interoperability with other Integrated Deepwater System platforms. This group will be supplemented by six C-130J aircraft obtained by supplemental funding. Modifications to

the HC-130J resulted in a 90 percent commonality in C4ISR and electronic and sensor systems.

There were 95 HH-65 airframes in the 2002 inventory and due to its composite construction, unlike other Coast Guard platforms, it has no airframe service life. As a result it was decided



to invest in the fleet of HH_65s with a Service Life Extension Plan (SLEP) that would yield a like-new aircraft as the Multi-Mission Cutter Helicopter. The upgrade was scheduled in phases. Initially the Mission Computer was replaced with a much needed miniaturized and more powerful unit, the aircraft was converted to full –night vision goggles operation and tail strakes were added for increased maneuverability. The power plant was upgraded with Turbo 2C2 turbine engines to enhance both power and

range. This project was expedited when the original HH-65 engine became increasingly unreliable. FLIR, satellite communications and an improved radar and optical sensor system were installed. Other improvements included a strengthened landing gear, a new 10-bladed tail rotor and drive shaft that provides improved horizontal maneuverability, and a reel in deck landing system for heavy seas. The aircraft was redesignated MH-65C.

Deepwater's aviation plan also called for the Coast Guard to introduce its first UAVs into the inventory by mid-decade. In February, Bell Helicopter was awarded a contract to commence concept and preliminary design work on the HV-911 Eagle Eye vertical take-off and landing unmanned aerial vehicle. Prototypes are to be developed and built for testing in 2005. The Coast Guard planned to purchase 69 Eagle Eyes if the aircraft meets requirements.



It is desired to deploy VUAVs on board new-construction offshore patrol cutters and national security cutters as well as on Bear (WMEC-901)-class medium-endurance legacy cutters. The VUAV's initial operational capability, projected for 2006, was timed for the delivery of the first national security cutter. Up to four Eagle Eyes can be deployed, or two may deploy jointly when a helicopter is embarked. An UAV that meets performance criteria will improve detection, surveillance, and monitoring capabilities, enhancing the process of classifying and identifying targets of interest.

The Coast Guard cancelled the Bell HV-911 contract in March 2008 because it did not meet performance requirements. A letter of interest was sent to the U.S. Navy to begin testing the

RQ-8A Fire Scout unmanned helicopter for Coast Guard operations. In addition, a Predator UAV is being tested to see if it can be adapted to the Coast Guard maritime missions.

Future planning calls for the lease of four modified RQ-4 Global Hawk HAE UAVs. The Global Hawk has been selected to fulfill the requirement for a high-altitude, long-endurance land based UAV. Its advanced technology sensors, housed in a reconfigurable payload bay, combined with satellite and line-of-sight communications links to other air and surface platforms and operation centers ashore, will permit wide-area surface and monitoring operations. With a 10,000 mile range and a 32 hour endurance high altitude sensors that can look through adverse weather day or night from an altitude of 60,000 feet can conduct surveillance over an area roughly the size of Illinois in a 24 hour period.



There has been no capitol investment to date as this aircraft is scheduled to be leased from the manufacturer once the Deepwater infrastructure is in place. Current estimate is 2016.

The Bell-Augusta Aerospace AB-139 VTOL Recovery and Surveillance (VRS) helicopter was selected to replace the HH-60J Jayhawk when the last is retired in 2022. This state-of-the-art, medium-range, twin-engine helicopter was designed to meet the unique demands of high-risk operating environments. Delivery was planned between 2014 and 2022. The AB-139 is smaller than the HH-60J and was determined to be unsuitable to meet Homeland Security Airborne Use of Force and Vertical Insertion/Vertical Delivery mission requirements. The HH-60 received, during a phased post-depot maintenance cycle, a new Forward Looking Infra-Red sensor and radar replacement. The aircraft will be upgraded with a General Electric T700 power plant developed for the Army UH-60M. The Coast Guard began upgrading and converting the 42 HH-60J aircraft to MH-60Ts in January 2007. The upgrade from “J” to “T” model is designed as a sustainment project that will provide additional capabilities. The MH60T will have an Airborne Use of Force package capable of both warning and disabling shots as well as crew protection from small arms fire. The MH-60T also has a Vertical Insertion and Vertical Delivery capability



A new Common Avionics Architecture System (CAAS) Cockpit will include five multi-functional display, or MFD screens, which allow both pilots to view a multitude of options. The Coast Guard Avionic Selection and Placement team preferred a full screen display of Radar, Traffic Collision Avoidance System (TCAS), Forward Looking Infrared (FLIR) and hoist camera images. The team simplified pilot transition from “J” to “T” through traditional display of primary flight instruments on the Pilot’s Flight Display (PFD).

Situational awareness was increased in several aspects. The altitude gyroscope was spread across the display. The radar altimeter was enlarged and verbal low altitude altering features were added to enhance safety during night hovering. The triple tachometer, which measures torque and rotor speed, was incorporated directly into the PFD.

The Challenge of Transformation

The Coast Guard's aviation community will experience some cultural changes as older aircraft are phased out and new platforms come online. The reality of acquisitions costs presented Integrated Coast Guard Systems with some difficult choices in balancing acceptable platform alternatives with cost objectives.

The Deepwater's system-of-systems approach to acquisition is new for a service long accustomed to optimizing the capabilities of its individual assets in platform-for-platform replacement programs. Challenges and modifications will take place along the way, but Deepwater will transform Coast Guard aviation in new and exciting ways, sustaining a tradition of operational excellence.

2003 - Coast Guard Transferred to the Department of Homeland Security:



The President of the United States signed into law the Homeland Security Act of 2002, which created the Department of Homeland Security. Under this legislation, the U.S. Coast Guard was transferred from the Department of Transportation to the new Department on March 1 2003.

On September 11, 2001 America experienced a shocking demonstration of asymmetric warfare: the strategy that self proclaimed enemies of the United States, unable to prevail by means of conventional military power, adopted to achieve their agenda. The use of hijacked airliners to attack the World Trade Center and the Pentagon visibly demonstrated that we were at war with a global network of forces, as well as groups and states that support them, whose weapon of choice was terrorism directed at civilian populations.

One of the first responders to the attack was the United States Coast Guard and due to the proximity to bodies of water the response was port centric both in New York and throughout the major ports of the United States. Every port was working this national emergency minutes after it happened. The Captain of the Port (COPT) was the central authority and the operational assets needed by the COTP to exercise their authority were immediately made available.

In the weeks and months that followed the Coast Guard embarked upon the largest port security operation since World War II. More than 2,800 reservists, including four Port Security Units, were called up to support security operations at designated ports. In addition the Coast Guard deployed 55 cutters, 42 aircraft, and hundreds of boats to establish port and coastline patrols. Port security related operations, which had accounted for two percent of Coast Guard activities prior to 9/11, expanded to 56 percent of operations by the end of September. The Coast Guard, in large part due to its multi-mission organization and the individual competence of its personnel, was able to effectively transform itself into what was needed.

Recognizing the complexity of providing effective security against further attacks to the homeland a new Cabinet level position, the Director of Homeland Security, whose job it was to coordinate the national effort to defend the homeland against terrorism and threats that feed

it, was established. The Coast Guard's contribution to the nation's security was widely accepted but at issue was whether the Coast Guard should remain in the Department of Transportation or be transferred to another federal department or agency. Some Coast Guard supporters, noting the Coast Guard's national defense mission and that Coast Guard programs had to compete for limited Department of Transportation (DOT) funding against highly popular highway and transit projects, proposed transferring the Coast Guard to the Department of Defense (DOD). Other observers, noting the Coast Guard's homeland-security operations, proposed incorporating the Coast Guard into the newly created Cabinet level homeland security agency.

Regardless of the Coast Guard's future location it was becoming apparent that it possessed the expertise but lacked sufficient assets to effectively perform its assigned missions. The explosion of new duties the Coast Guard was fulfilling came immediately after a difficult budgetary climate during which the service suffered significant asset, monetary and personnel reductions. The Coast Guard, in order to perform its duties prior to 9/11, had received seven emergency supplements during the preceding 10 years as well as approximately \$400 million from the Department of Defense to support its national defense and military responsibilities.

The President's proposal to create a Department of Homeland Security (DHS) on June, 2002, included a provision to transfer the Coast Guard from DOT to DHS. Coast Guard officials supported the proposal. Some members of Congress, in particular Senator Stevens, (AK), Congressman Young (AK) and the House Transportation and Infrastructure Committee, were opposed because of concern that transferring the Coast Guard could lead to reduced focus on what they termed as more traditional missions such as Search and Rescue, fisheries law enforcement, and marine environmental protection. Congressman Young, Chairman of the House Transportation Infrastructure Committee stated that "the Coast Guard provides a long list of services to average citizens and has limited responsibility in the area of security." This view supports an evolution and de-militarization of the Coast Guard which took place during the period that the Coast Guard operated in DOT. It, however, does not accurately reflect the Coast Guard as established in the U.S. Code or its long history of providing support for the national security of the United States.

The House passed the final and expanded version of the Homeland Security bill, which included many more agencies than originally proposed, on July 26 transferring the Coast Guard to the DHS stipulating that the Coast Guard be maintained as a distinct entity within the Department. The Senate version of the bill had authorized the transfer and in response to congressional concerns relating to non-homeland security duties assigned the Coast Guard; required that the Commandant report directly to the DHS secretary rather than an undersecretary for security, designated homeland security missions and non-homeland security missions, and prohibited the DHS Secretary from modifying the designated non-homeland security Coast Guard missions without prior congressional approval. On November 25, 2002 President Bush signed the Homeland Security Act into law and the Department of Homeland Security was created.

Coast Guard's Role Within Department Of Homeland Security

Section 888 of the Homeland Security Act specifically requires that the Coast Guard be maintained as a distinct agency with the Commandant reporting directly to the Secretary of Homeland Security. Functions, authorities, and capabilities of the Coast Guard to perform its

missions shall be maintained intact and without significant reductions. It further delineates specific homeland security missions and non-homeland security missions.

The term homeland security mission means:

- Ports, waterways, and coastal security.
- Drug interdiction.
- Migrant interdiction.
- Defense readiness.
- Other law enforcement.
- The term non-homeland security mission means:
 - Marine safety.
 - Search and rescue.
 - Aids to navigation.
 - Fisheries law enforcement.
 - Marine environmental protection.
 - Ice operations.

The Secretary may not reduce the missions of the Coast Guard or the ability of the Coast Guard to perform these missions except by changes in existing law. Additionally, the Inspector General of DHS shall conduct an annual review that will assess the performance by the Coast Guard of all missions of the Coast Guard with a particular emphasis on examining the non-homeland security missions.

The Coast Guard Mission Since Transfer to DHS

The Coast Guard faced major challenges in effectively implementing its operations within the Department of Homeland Security. The difficulty of meeting these challenges was compounded because the Coast Guard not only moved to a new parent agency: it also substantially reinvented itself. It still performed the missions it had been doing but in addition its resources were deployed to provide national security as well as the military buildup in the Middle East.

As would be expected, since September 11, 2001 the Coast Guard has placed a special emphasis on security, security measures and security assets. Initially, to accommodate the rapid expansion of the security mission, other mission responsibilities, with the exception of Search and Rescue and aids to navigation, were performed at reduced levels. Drug and migrant interdiction efforts returned to pre 9/11 levels by 2003 and by 2005 all non-security missions were again at pre 9/11 levels. In the interim the security missions have continued to increase in size and effort. The Coast Guard budget request for 2007 was \$7.1 billion, a six-percent increase over the 2006 level and an 87 percent increase since 2001. During this same period 7000 active duty personnel and 5000 civilian members were added.

The Coast Guard has learned much and accomplished much since its transfer to the Department of Homeland Security. It has done its job well. A full accounting is beyond the scope of this narrative but there are several changes and adaptations that have significantly impacted Coast Guard operations.

- The Coast Guard, unlike in the past, now reports directly to the Secretary of the department in which it is placed. This has proved to be of substantial benefit.
- In the past the Coast Guard was only allowed to endorse the Administration's budget as it was submitted to Congress. Acting under new authority, provided in the Homeland Security Appropriations Act, the Commandant now directly submits his list of unfunded priorities for consideration during the make up of Administration's proposed budget.

The Coast Guard has long been recognized as a superb tactical organization. In large part this is due to the competence and empowerment of its personnel at the operational level.

Conceptually the Coast Guard was reactive in nature which carried over into future planning.

The advent of the large and complex Homeland Security mission has in some cases forced and in other cases allowed the development and implementation of strategic skills to effectively address what has not yet but is apt to take place. The combination of these two attributes is and will continue to be of significant benefit to the Coast Guard and the nation it serves.

- There has been a cultural change within the Coast Guard with respect to using armed force. This came about due to the recognition that the nation finds itself in a situation where the line between law enforcement addressing criminal acts and military operations to protect the nation continues to become more blurred.
- Changes and adaptations that are aviation specific are:
- Expedited upgrading of current aviation assets occurred. Commonality of command, control, communications, computers, intelligence, surveillance and reconnaissance systems was obtained as was interoperability with outside agencies and upgraded and newly acquire Coast Guard surface units.
- Coast Guard defense and security capabilities have been substantially expanded by arming its helicopters and training armed security teams to rappel from helicopters into a hostile environment. While maintaining its search and rescue capabilities Coast Guard aviation has transitioned into a more militarized force aimed at stopping terrorists.
- It is too early to determine the long term effects of transferring the Coast Guard to the Department of Homeland Security but in the short term it has proved to be very satisfactory and a dramatic improvement over the year spent in the Department of Transportation.



2003 - Coast Guard Units Deploy During the Iraq War:

In late 2002, at the request of the Department of Defense, the Coast Guard began preparations for mission specific duties in support of military operations in and around Iraq. The Coast Guard sent two 378 foot WHEC cutters with aviation detachments, a sea-going buoy tender, eight 110 foot patrol boats, Port Security Units, Tactical Law Enforcement teams and support staff.

The Coast Guard performed many missions but the primary ones were its traditional missions of maritime interdiction, search, port security, and maintenance of aids to navigation. In performing these missions, Coast Guard units were often closer to the area of conflict than other naval units.

Mediterranean

The Coast Guard Cutter DALLAS WHEC 716 departed Charleston on February 8 with an HH-65 aviation detachment from Group Atlantic City on board. The mission was to participate with the Sixth Fleet in the Mediterranean during Operation Enduring Freedom and Operation Iraqi Freedom. The first task was to escort shipping through the Strait of Gibraltar as there was concern that Al Quida or other militant terrorists might attack shipping in the straight. NATO ships took over escort duties in the Strait in mid-march and the DALLAS was assigned to patrol further east in the Mediterranean. As hostilities with Iraq commenced the DALLAS began working closely with USS TRUMAN/USS ROOSEVELT carrier strike groups. The DALLAS acted as plane guard for carrier flight operations and for the first three days of the war was the only ship providing security as assigned escort vessels were dispatched through the Suez Canal to better position them for launching their Tomahawk missiles.

Four of the eight patrol boats, BAINBRIDGE ISLAND, GRAND ISLE, KNIGHT ISLAND, PEA ISLAND, were based at Souda Bay Crete and had been providing escort protection to ships coming in and out of the conflict zone. When hostilities ended, the DALLAS joined by the patrol boats, conducted interdiction operations off the coast of Syria to intercept any fleeing Iraqi leaders or the attempted transport of banned weapons.

Coast Guard Cutter DALLAS escorting motor vessel BBC SPAIN with four 110 foot patrol boats on board



DALLAS was called the “Lead Dog” and her helicopter flew “Watchdog” missions daily checking out all vessels, photographing them, and reporting the information to intelligence staff members who then, when deemed appropriate, directed one of the ships to send over a boarding party. Rear Admiral John Stufflebeem said the operation was interdiction; that it is the Coast Guards bailiwick and they are good at it.

The DALLAS and the four Mediterranean patrol boats returned to the United States on June 11.

Arabian Gulf

Units deployed to the Arabian Gulf were the 378 foot WHEC BOUTWELL, The buoy tender WALNUT, Four 110 foot WPG Patrol Boats, WRANGLE, ADAK, AQUIDNECK, BARANOF, Port Security Units and LEDETS. The 110 Ft patrol boats were placed in cradles

and transported by cargo ship. Their Crews were flown in by air. The Port security units equipment and personnel were flown in.

The principle reason for The WALNUT's deployment was the possibility of Iraqi oil releases similar to what occurred at the end of the Gulf War. WALNUT had on board equipment to contain oil spills. Fortunately this capability was not needed. When the war began the



WALNUT joined the other Coast Guard units conducting interdiction operations. The WALNUT's 40,000 pound capacity also supported the Coast Guard Port Security Units on the Gulf Oil Platforms as they performed their security mission.

WALNUT WLB-205 - setting buoys in Khawr abd Allah waterway

The WALNUT's major contribution to Operation Iraqi Freedom was the establishment of aids to navigation in the Kohr abd Allah waterway. The WALNUT was the first to transit the waterway and enter Umm Qasr. She then spent the next three weeks using Iraqi buoys to mark the channel into Umm Qasr opening up the port to shipping.

The BOUTWELL had a fairly normal transition to deployment. The Coast Guard had regularly deployed a major cutter to the Arabian Gulf in the years since the 1991. She had been scheduled for deployment in 2003 but deployment occurred earlier than planned. The BOUTWELL picked up her aviation detachment from the Air Station at Barbers Point in Hawaii and deployed with the TARAWA amphibious ready group. The HH-65 helicopter was specially equipped for the deployment with forward looking infrared (FLIR) which greatly increased its utility. In February the BOUTWELL arrived in the gulf became part of the CONSTELLATION battle group.

The initial mission was to support the enforcement of United Nations sanctions and prevent smuggling of illegal oil and goods. This directly paralleled Coast Guard drug and migrant interdiction and the transition proved to be seamless. BOUTWELL also worked in close providing security and in addition supported the patrol boats by providing fuel, and other supplies that had been flown out to them. This allowed the patrol boats to remain at sea longer without having to return to the Kuwait Naval Base or Bahrain. The BOUTWELL also made extensive use of her helicopter.



The most useful pieces of equipment on board the helicopter was the traffic alert and avoidance system (TCAS) and the FLIR. The FLIR allowed the helicopter to identify vessel while maintaining a safe standoff distance during patrols during both day and night operations.

Jaws-90 returning to the BOUTWELL

The workload was compounded by operating in a high density air traffic control zone while not crossing the "black line" that separated the helicopter from Iranian territorial waters. Near this line were

the two large oil platforms secured by a Coast Guard security unit. The HH-65 provided surveillance support. Iranian gunships threatened to shoot them down on three occasions but each time the Brits in heavily armed Lynx helicopters convinced the Iranians that it would not be a good idea. Needless to say there was a special feeling for the Brits.

Another major mission was to provide aerial escort for ships moving up and down the Khwar Abd Allah River. Coast Guard patrol boats were assigned to the front and end of the convoy of ships. The job of the HH-65 was to ensure there were no mines, vessels, swimmers, or anything else that could cause a problem.

There was only one small bright orange helicopter in all of Iraq. LCDR Greg Fuller, one of the HH-65 pilots, said that everyone was a little surprised and baffled when they saw it. However, less restrictive operational limits, smaller size and mission flexibility made the HH-65 an asset of choice for many unique missions. Medivacs, logistic runs, VIP transport, moving mail and the ability to fly at night, gave the crew the opportunity to land on 23 different coalition warships as well as in and out of Iraq. Expecting extensive use the HH65 crew was augmented and consisted of three pilots, a rescue swimmer and four maintenance technicians. The helicopter flew 188 missions of which 91 were combat flights. In keeping with Coastie humor, when requested to come up with a tactical call sign they chose “Jaws 90” for the little orange machine and painted a shark on each side with the mouth open at the engine intake.



LCDR Greg Fuller, left, LT Olav Saboe, AMT2 Dave Blowers, AST3 Drew Dazzo, AET2 Harold Toledo, LCDR Tim Schang, AMTC Russell Hoover, AMT2 Mischa Gorsh

Before the war began the patrol boats performed boardings in support of UN sanctions, They continued this after the war began but the emphasis was searching for arms, providing security for the Gulf Oil Platforms when sea conditions prohibited operation of the PSU small craft and security escorts for vessels going up the channel to Umm Qsar. They did find arms and also intercepted a tug carrying mines. The Coast Guards ability to operate in the littorals was an important asset. The cutter BOUTWELL and



the WPBs were the only ships that could easily operate in the north end of Northern Arabian Gulf.

The Port Security Units were assigned to Gulf Oil Platform security mission; they supplemented naval security units at the Kuwait Naval Base and Ash Shuaybah; and provided security for the port of Umm Qasr.

The BOUTWELL and WALNUT departed the area in mid may and the crews of the patrol



boats were rotated out and new crews flown in. As of July 2004 the cutters MOMOMOY and MAUI had joined the original four patrol boats. The number of PSU people had been reduced. PSU 307 and tactical Law enforcement Team South were also assigned. The cutter MONROE WHEC 724 was deployed to the Gulf in 2004 joining the Naval Expeditionary Strike Force and the cutter MIDGETT WHEC 726 in was deployed to similar assignment in 2006. Both

cutters had an aviation detachment on board.

In 2008 CAPT Matthew Bell took command of Coast Guard Patrol Forces Southwest Asia assuming tactical control of six Coast Guard patrol boats, five Navy patrol Boats, a large support unit in Bahrain, a training team in Umm Qsar Iraq, and a Coast Guard forward operating base aboard the Kuwait Naval Base.

2003 - Airborne Use of Force - Coast Guard Arms HH-65C and HH-60J Helicopters:

In 1998 the U.S. Coast Guard established a unit known as HITRON-10 to test and evaluate airborne use of force (AUF) as a means of interdicting and stopping the high speed smuggling boats known as 'go-fasts.'" Tactics were developed using leased MD-90 helicopters. After a successful proof of concept operation HITRON was established as a permanent Coast Guard unit. In 2000, it transitioned to the Agusta A109, which was given the military designation MH68A Stingray. This was initially opposed by some within the service.

After the 9/11 attack the HITRON mission was expanded to anti-terrorist security operations. With the transfer to the Department of Homeland Security and the Coast Guards expanding role in maritime security and law enforcement a program to arm Coast Guard helicopters was initiated.

The Coast Guard sought help from the Naval Air Systems Command (NAVAIR) to design and install flexible mounts for machine guns on the helicopters. NAVAIR's Coast Guard project coordinator, Robert Blevins, took on the task of designing, installing, and testing gun mounts for the helicopters. Blevins had extensive experience with rotary wing aircraft and had seen many gun mounts installed on Navy Helicopters. He knew the work could be accomplished at Patuxent River with some help from the Naval Surface Warfare Center at Crane, Indiana.

Nick Patregnani, an engineer assigned to NAVAIR's Air Vehicle/Store Compatibility Division, served as lead test engineer for the installation of M240D machine gun mounts for the HH-60J and HH-65B. "One unique aspect of this testing was that the HH-65 is a commercial aircraft, so it was not built for arming," Patregnani said. "There was never the intent for that until now. It presented an interesting challenge for us." Because of a common airframe design with the Navy HH-60H armed helicopter, the design of a gun mount for the HH-60J was less complicated.

NAVAIR's testing of the armed HH-60J and HH-65B included ground fit tests, ground test



firing, captive-carriage-of-fire tests, and in-flight live-fire tests. NAVAIR engineers also added flashing blue lights to the helicopters, as well as night lighting on the aircraft to illuminate the Coast Guard logo.

HH-60J with M-240 machine gun installed

The first armed HH60 Jayhawk was tested at Elizabeth City at the end of 2003 and in March of 2004 four were assigned to the

Cape Cod air station for proof of concept exercises. They were equipped with an airframe mounted area-fire FN-240 machine gun, a shoulder mounted weapon, upgraded radios, upgraded FLIR, heads up display, cabin floor armor, and pilot and copilot seat armor. A selected group of pilots and flight crew were trained in day and night tactics and aerial gunnery. Lessons learned were applied were used for the on-going arming of the HH-60J and conversion to the MH- 60T. The Jayhawk also has vertical insertion capability.



In the case of the HH-65B, the identified need for airborne use of force capabilities in addition to the installation of FLIR, satellite communications and an improved radar system, required more power.

MRST tactical training exercise

The HH-65B was re-engined with the Turbomeca Arriel 2C2. Adding airborne use of force capabilities to a HH-65 was delayed until after the

engine upgrade. The first unit to get the HH-65 with upgraded engines was Air Station Atlantic City in April of 2005. The last of 95 the HH-65s completed the re-engining in October of 2007. The re-engined aircraft was designated a HH-65C. The HH-65C is configured and pre-wired to allow for the installation and removal of AUF weapons, armor, EO/IR, and HUD equipment.

During 2002 an evaluation of both the HH-60J and HH-65A as Vertical Insertion platforms of law enforcement teams was conducted. The concept was non-lethal boardings with force back up. As the Coast Guard's security mission continued to expand the concept evolved into vertical insertion, "fast roping," of Maritime Security Response Teams (MRST) which are specialized tactical forces of the US Coast Guard. MSRT are highly trained units capable of conducting helicopter insertions against armed hostiles, scuba operations, and can storm disputed oil platforms or ships. The HH-60 is used for the vertical insertion operations.

In July of 2007 the Coast Guard assumed the responsibility for air intercept operations in the Washington D.C. area. Armed Coast Guard MH-65C helicopters are responsible for intercepting unauthorized aircraft which fly into an air defense identification zone surrounding the nation's capital.

In 2008 the MH-65C helicopters replaced the MH68A Stingray helicopter for HITRON operations.

Funding has been made available and it is now planned to provide airborne force capabilities to all of the Coast Guard helicopters. The military mission aspect of Coast Guard aviation is now greater than at any time since World War II.

2003 - Operation Liberty Shield:



Operation LIBERTY SHIELD was a comprehensive national plan designed to increase protections for America's citizens and infrastructure while maintaining the free flow of goods and people across our border with minimal disruption to our economy and way of life. The operation included a broad and coordinated response among federal, state, and local authorities to a potential elevated threat level. Operation LIBERTY SHIELD focused on the following imperatives:

- Increased security at borders
- Stronger transportation protections
- Ongoing measures to disrupt threats against our nation
- Greater protections for critical infrastructure and key assets
- Increased public health preparedness
- Federal response resources positioned and ready

Increase Maritime Security:

The Coast Guard is the lead agency for maritime security. Security was increased at major U.S. ports and waterways with more Coast Guard patrols by aircraft, ships and boats. HU-25 fixed-wing and HH-65A helicopters were the primary aircraft for maritime patrols. When the nation was put on high "orange alert" in March 2004, the maritime force increased its air and sea surveillance by 50 percent, conducting more than 3,000 patrols. HITRON deployed MH-68 Stingray helicopters to the New York City Area.

Six mobile Coast Guard maritime security teams were developed. They were equipped with response boats designed to be carried in the C-130 aircraft. Additionally they will be trained to rappel out of Coast Guard helicopters.

More Escorts of Passenger Ships – The Coast Guard has increased its escorts of ferries and cruise ships.

More Sea Marshals - Every high interest vessel arriving or departing from American ports will have armed Coast Guard Sea Marshals onboard, closely watching the ship's crew and ensuring that it makes its port call safely. These merchant ships have cargoes, crewmember(s), or other characteristics that warrant closer examination.

Selective Maritime Restrictions - The Coast Guard was tasked with enforcement of security zones in and around critical infrastructure sites in key ports. This information was published and announced for those using U.S. waterways. More than 4,000 Reservists were called up for active duty.

The mobilization the Coast Guard Auxiliary – This volunteer group (24,000-strong) was used to augment the efforts Coast Guard units. With their familiarity of local waterways, this group serves as another set of eyes and ears on the water and in the air. AUXAIR is organized at the District level and works directly with the Coast Guard air stations and serves effectively as a force multiplier in aerial coverage.



The first step toward enhancing Maritime Security is achieving increased awareness of activities in the maritime domain. To achieve increased awareness, the Coast Guard, in partnership with the Navy and other agencies, developed an initiative called Maritime Domain Awareness (MDA). The ultimate goal of MDA, in the context of Homeland Security/Homeland Defense, is to identify threats as early — and distant from American shores as possible.

Airborne and surface patrols of the harbors and shoreline look for the anomaly – the truck, van or boat that is out of place or not normally there.

2005 - Hurricane Katrina:



Hurricane Katrina, one of the largest natural disasters in our nation's history, was chosen for inclusion in the Coast Guard Aviation History Timeline because it illustrated both the capabilities of the United States Coast Guard and its operational principles that promote leadership, accountability, and delegation of authority to qualified personnel at the lowest possible level

facilitating rapid response and maximizing effectiveness in dynamic environments. The result is an exceptional high standard of performance.

The Coast Guard played a key role in the planning, response and recovery efforts for Hurricane Katrina in three mission areas: search and rescue, maritime pollution response, and management of maritime commerce. This narrative addresses the search and rescue response and is primarily focused on the aviation response.

Katrina formed over the Bahamas on August 23, 2005, and crossed southern Florida as a moderate Category 1 hurricane and strengthened rapidly in the warm waters of the Gulf of Mexico. Hurricanes are a fact of life along the Gulf Coast and the Eighth Coast Guard District has in place a response plan that is regularly exercised and adjusted when needed. As Katrina approached the central coast RADM Robert Duncan, Commander CGD8, authorized the evacuation of dependents and relocated elements of the District Staff from New Orleans, Louisiana to St. Louis, Missouri. Warnings were broadcast to mariners and the offshore community. District aircraft and surface units were pre-positioned to places which insured their survival and their ability to respond immediately as per the District Commander's intent. Liaison was established with state and local authorities and the Atlantic Area Commander was regularly appraised of the situation and possible assistance required.



Atlantic Area Operations Forces, CAPT Neil Buschman, had been monitoring the storm since formation as a tropical depression and coordinated potential asset requirements with the District Commanders – this was initially CGD7 and when the storm, which was initially forecast to cross over Florida as a Category 1 and dissipate, began to intensify in the Gulf of Mexico, CGD8 came into the picture. As Katrina intensified to Category 3 preparations to supplement CCG8 assets began. As

Katrina became a Category 4 storm, and then for a short period a category 5, it became apparent that a large response would be necessary. Preparation normally goes through four phases, each with an increased number of assets. Certain assets are Area controlled and others by the District. With aviation forces asset availability is coordinated with the District OSR and the Air Stations because of minimum SAR requirements and the fact that the aviation assets are first responders. CAPT Steve Taylor, Aviation and Force Manager Atlantic Area, stated that by Sunday the 28th the response had become a maximum effort. The District Commanders gave everything they could and still maintain minimum SAR. Vice Admiral Vivian Crea, LANTAREA, authorized the temporary suspension of OBAT to provide more helicopter aircraft. Both Captain Buschman and Captain Taylor alluded to the fact that aviations units are pro-active and as a result began phasing for deployment on the 28th to pre position themselves so that they would be on scene and operational as soon as possible after hurricane passage.





Katrina was upgraded to Category 5 at 7:00 am on the 28th and was projected to hit in the New Orleans area. The Coast Guard air station at New Orleans evacuated its five HH-65 helicopters in the early afternoon – three to Lake Charles and two to Houston. ATC Mobile evacuated aircraft to HITRON facilities at Cecil Field Jacksonville. The Hurricane came ashore, on the morning of the 29th, just east of the Mississippi River as a Category 4 hurricane with weakening winds. The New Orleans helicopters were airborne in the late morning for Houma, 35 miles southwest of New Orleans, so as to be in position to render assistance as soon as the weather permitted. When the winds reduced to 60 kts, the maximum wind that the helicopters could turn the rotor for starting, two helicopters launched and proceeded to Venice via Grande Isle and then northbound up the river. There are a lot of small towns that line the river and a lot of people. The pilots reported utter devastation: houses were shredded into bits; boats were everywhere up on top of the levee, on top of bridges, and in the woods; heavy flooding; homes under water; and people in distress. The first of the rescues was at 2:50 that afternoon and they continued on into the night. The remaining three helicopters launched shortly thereafter for New Orleans via the Coast Guard air station located at the Joint Reserve Air Base, New Orleans. They were over the city shortly after 16:00 and rescues commenced and continued through the night. Five Houston HH-65 helicopters arrived at the New Orleans air station that evening and began rescue operations.

ATC Mobile aircraft commenced the return shortly after noon but had to make intermittent stops due to the strong weather bands on the east side of the hurricane. They arrived at Mobile in the late afternoon. Rescue operations commenced immediately along the Alabama–Mississippi Coast and on into New Orleans. Mobile operations also continued on through the night. Others began to arrive. Within 12 hours after landfall a quarter of the Coast Guards entire helicopter fleet were conducting rescues over New Orleans and the Mississippi coast. – An amazing feat. - The number of aircraft and crews continued to increase during the next two days

Mississippi suffered extensive damage. Although the storm had weakened the wind driven storm surge peaked at 28 feet at landfall because of large waves, in excess of 30 feet, that were generated when Katrina was a Category 5 storm.

Aerial View of Long Beach Mississippi

The city of Biloxi was decimated; major east west highways in southern Mississippi became impassable due to storm debris; downtown Gulfport was under 10 feet of water and structures flooded for miles inland; Waveland was devastated leaving no inhabitable structures; and the communications infrastructure was described as non-existent. Alabama also suffered significant damage resulting in large amounts of debris.



New Orleans sustained far reaching damage as the hurricane passed to the east on the morning of August 29. Many high-rise buildings suffered blown out windows, while roof sections of the Louisiana Superdome, where over ten thousand people had sought shelter, were stripped away. The storm surge, extreme amounts of rain, and high winds stressed the city's extensive levee system. The levee on the 17th street canal gave way shortly after 9:00 am and the city began to flood. This was followed by 28 additional breaches over the next 24 hours. It was these breaches and overtoppings of the levee system that flooded the city and turned a severe hurricane into a disaster of catastrophic proportions. The New Orleans primary and secondary power sources were lost rendering the pumping stations, which could have prevented some of the flooding, inoperative. There was also widespread destruction of the communications infrastructure which made it extremely difficult for state and local responders to effectively evaluate or address the situation.

Both the New Orleans air station and ATC Mobile sustained hurricane damage; New Orleans much more severe than Mobile. At New Orleans there was heavy damage to the hangar and attached buildings. All of the locker rooms, maintenance office spaces, maintenance shops, crew lounge, eating area, and the berthing area were rendered unusable by flooding which took place because the roof peeled back on the hangar and surrounding buildings. With no berthing area on-board station personnel slept on cots and the floor of the administration building. Limited electrical power was provided by an auxiliary generator and there was no air conditioning. For the first seven days Air Station New Orleans personnel subsisted on bottled water and packaged Meals Ready to Eat (MRE's) flown in by Coast Guard C-130's. The ramp area, however, was serviceable. Mobile lost part of the hangar roof and the operations center. Initially communications consisted of satellite phone and limited cell phone availability. The rest of the buildings were damaged but serviceable.

Air Station New Orleans is eight air miles south of the center of the city - well within the rescue area - and thus became the forward operating base. ATC Mobile, 50 minutes flight time to the east of New Orleans served as the major staging area, force provider and maintenance facility for aircraft and crews that were cycled continuously to and from the New Orleans area. In addition ATC Mobile had rescue responsibility for the Alabama and Mississippi area. Almost all airborne rescue operations in the Mississippi area were completed within 36 hours of Katrina's landfall as the Mississippi first responder infrastructure worked well. The Mississippi National Guard, police, and fire personnel were on scene rapidly and coordination between these units and the Coast Guard allowed for quicker completion of the rescue mission.

Tactical control was shared between ATC Mobile and CGAS New Orleans. Aircraft and supplemental crews from air stations around the country operated out of Mobile. They received initial tasking at Mobile. Those assigned to the New Orleans area would refuel at CGAS New Orleans, debrief, eat and then tasked by CGAS New Orleans based on updated information. The NAS fuel facilities were made operational by Coast Guard technicians and additional fuel was flown in by Coast Guard C-130 aircraft. The missions were scheduled for six hours and at the end of scheduled mission time the helicopters would return to Mobile and debrief. The crews would be replaced by fresh crews who had been briefed and tasked and the helicopters again departed for the New Orleans area. The operations ran 24/7. The three training branches HH-60, HH-65 and HU-25 became operations and scheduling for their respective aircraft. Captain David Callahan, Commanding Officer of ATC Mobile said the debrief, brief and tasking were conducted in a make shift operations building using white boards in a manner that was similar to that used during World War II. By the third day 43

aircraft and 2000 personnel had arrived at ATC Mobile. Personnel slept on cots wherever space could be found and base support personnel did an outstanding job in feeding that number using facilities designed to support far fewer.

Viewed from the air the city of New Orleans was a shocking sight of utter destruction. Vast stretches of the city resembled a community of houseboats. Twenty-block neighborhoods were under water as high as the roofs of the houses. People were everywhere; on top of houses, on the roofs of apartment buildings and the balconies of high-rises. Some were in trees and others on the tops of submerged vehicles. During daylight people waved anything that would attract attention, wrote messages on roofs, large sheets of plywood or any cardboard they could find. At night they used flashlights to draw attention resulting in a thousand twinkling lights against a black background. Most helicopter hoists, made in obstacle-strewn environments over power lines and downed trees, challenged both pilots and hoist operators to his or her limits. Nighttime operations were conducted using night vision goggles. Daytime operations were conducted in temperatures in the high nineties with the humidity in the 90 percentile; often in power limited HH-65B aircraft. When the helicopters refueled at New Orleans between sorties the pilot and co-pilot would switch seats to compensate for the strain of holding rock solid hovers and operating the aircraft on its margin all the time in the worst possible environmental conditions.

An HH-60J with three external fuel tanks can fly for 6 hours. It is designed to carry 8 survivors but when required can double that figure. The HH-65B helicopters could fly for about 2 and one half hours with a designed capacity of three adult survivors. The problem was that in the existing temperature and humidity conditions the helicopter could not lift this number with a full fuel load. The position of CGAS New Orleans within the rescue area allowed for sorties to be flown with reduced fuel loads enabling a space limited number of survivors to be picked up without a fuel burn-off. There were only three HH-65Cs with the more powerful engines. These helicopters could be launched with a full fuel load, had an additional thirty minutes on scene and could hoist the designed capacity plus additional survivors without fuel load compensation. By the end of 2007 all HH-65 helicopters had been up graded to the C model.

There was an urgency felt by all crews to continue rescuing a seemingly endless supply of increasingly desperate survivors as the dark nights and hot days wore on. It was a sustained maximum effort that was possible only because of the Coast Guard's standardized organizational structure based on sound operation principals coupled with standardized training that makes possible the mixing of personnel and assets from anywhere in the country to form highly competent operational response teams. CAPT Jones addressed the subject this way: "The fact that you can take a rescue swimmer from Savannah and stick him on a helicopter from Houston with a pilot from Detroit and a flight mech from San Francisco, and these guys have never met before and they can go out and fly for six hours and rescue 80 people and come back without a scratch on the helicopter is something no other agency, commercial or DOD, can do."

The conditions encountered by rescue swimmers included flooded houses and buildings; steep slippery roofs; submerged and hidden objects; and water contaminated with sewage, chemicals, and fuel oil leakage. Rescues were made by basket and by strop which is a webbing and stainless steel harness that fits under the arms with a crotch strap to keep the survivor from falling out of the harness. The rescue swimmer would hook his harness plus the strop harness to the hoist cable and signal the hoist operator to winch them up. Fear and panic can be

obstacles. Some people would yell and scream when they realized there was nothing below them and they were suspended by a wire rope. “You just hold on to them and tell them it is going to be OK,” said Coast Guard swimmer Josh Micheltree. Mayor Nagin predicted that there would be 10,000 lives lost. The final count was 964 directly attributed to the storm. There were a number of reasons for this difference such as the rapid response of the Coast Guard, its ability to adjust to the situation, and in a very real sense the proficiency and ability of the rescue swimmers who came in direct contact with the survivors. The swimmers would set priorities and determined who needed immediate evacuation. A disabled person in a wheelchair or a diabetic or the elderly would go out first. Next would be the mothers with small children and the able bodied would have to wait a day or two. In addition the swimmers would find or designate a man in charge who was tasked with organizing the survivors. It happened many times that the guy in charge was last to leave. The swimmers interaction with those they rescued was superb.

On the first day of rescue operations AST2 Joel Sayers was lowered onto a rooftop to rescue an older woman stranded by the rising floodwater. The noise and constant downward pressure coming from the helicopter was familiar but the sloped roof and flying shingles were a new experience. When he landed, Sayers began talking to the frightened woman and learned that her husband was still in the attic of their house, unable to move. Sayers looked through the small opening in the roof the woman had managed to escape through and saw the woman’s husband. After several failed attempts to widen the hole and free the man using the helicopter’s crash ax, Sayers knew he needed something with more weight and strength if he was to save the man trapped inside. Sayers looked through the hole in the roof and promised the man he would come back to get him. Sayers tied a brightly colored piece of cloth around one of the house’s vent pipes to identify it because even with Global Positioning System everything looked the same. He then convinced the wife she had to — at least for now — leave her husband behind. With the wife aboard the helicopter proceeded to a drop off point with a fire truck present and a fire axe was obtained. The helicopter and crew returned to the house with the wife on board. Sayers was again lowered to the roof,. Looked through the hole, asked the husband to back away and began to chop a hole large enough to get him out. Once the man was removed from the attic he was hoisted into the helicopter and reunited with his wife.

The incident was debriefed and immediately Coast Guard personnel from ATC Mobile contacted the managers of the closed Lowes and Home Depot stores in the area and made arrangements to purchase all of the axes, and gasoline powered do-all and small chain saws they had. The purchase was paid for by unit credit card. All helicopters were thereafter equipped with axes and/or power saws. In the days to come the rescue swimmers found that many people had gone to the attics to escape the flood and had no way to get out. The swimmers would mark the roof with a large X after it was ascertained that there were no survivors left inside.

The magnitude of the operations placed the helicopters in close proximity to each other. Traffic control was self provided using eyeballs and a common frequency much the same as small aircraft at airports without a control tower. Communications with personnel on the ground including those at hospitals and at staging areas were difficult to non-existent depending on the location of the helicopter. LT Beth McNamara, a C-130 pilot on an environmental evaluation flight during the initial response recognized this and redirected her mission within the scope of her own authority creating the first airborne communication platform in the area. Coast Guard C-130s continued to provide this service until the third day

when the task was taken over by Navy E2C's and Customs P3B's. It was decisions like this, performed by numerous competent personnel, both aviation and surface forces, that significantly contributed to the effectiveness of Coast Guard operations.

On the second day Naval units began arriving and Rear Admiral Kilkenny USN placed H-60s and H-53s under Coast Guard control for operational mission taskings. CGAS New Orleans operations were conducted from the Coast Guard ramp and the adjacent VR-54 ramp. The aircraft mix was Coast Guard H-60s, H-65s, C-130s and Falcons, Navy and Marine Corps H-60s and H-53s and Army helicopters. CAPT Jones stated that at one point there were 70 aircraft that were being tasked. Parking and taxi control was provided by air station personnel without mishap.

The Coast Guard commands placed liaison officers with the other agencies involved in the Katrina operations in order to be cognizant of developing situations. CGAS New Orleans had liaison officers with Task Force Belle Chase as well as the National Guards Eagle Base, which was their massive search and rescue effort. The National Guard and the Coast Guard conducted two simultaneous search and rescue and evacuation and recovery air operations almost independently of each other. The liaison officer kept the air station briefed on what the National Guard forces were doing and what was needed. When the Eagle base people needed assistance Coast Guard aircraft and crews were provided. It was not a fully integrated air operation between Coast Guard and National Guard but it was both cooperative and effective. In fact It was the Coast Guard Liaison, LT(jg) Shay Williams, who planned and set up the massive air evacuation from the Convention Center to the New Orleans airport.

The effectiveness of the rescue operation would not have been possible without superb maintenance personnel and the outstanding aircraft maintenance program. Maintenance personnel from across the country instantly formed effective teams at ATC Mobile and at CGAS New Orleans and kept aircraft flying to save lives. Standardization of maintenance procedures enabled maintenance personnel to assess, repair, and maintain the same type of aircraft at any unit at any time. Helicopter support kits were supplied by CGAS Clearwater. The Coast Guard uses a computerized scheduled maintenance system, airframe specific, for scheduled maintenance which is designed to provide maximum availability of the aircraft for operational needs. Aircraft service parts supply is linked to the aircraft maintenance data base. Each morning a HU-25 would depart AR&SC and fly a round trip to Mobile, New Orleans, and Houston with high priority items.



Coast Guard Air Station

Clearwater, under the command of CAPT Mike Emerson, was the hub for Coast Guard C-130 operations. The operations continued throughout Hurricane Katrina and rolled right into support for Hurricane Rita which followed. Five Clearwater C-130s were supplemented by C-

130s from the Aircraft Repair and Supply Center and the Elizabeth City, Sacramento, and Kodiak air stations. Operational aircraft maintenance was performed at Clearwater.

LCDR Eric Riepe, with able assistance, scheduled the C-130 operations. A support plan, often using immediate feedback from returning sorties, was developed. LCDR Bruce Brown was comptroller and arranged for procurement of supplies and needed materials. The telephone and at times a credit card was the primary means of procurement – back-up paperwork followed. Coordination was maintained with the Maintenance Department so that the aircraft configurations were correct for the scheduled loads. Regular reports on operations were provided to LANTAREA. (C-130s were Area assets) to provide them visibility on what was taking place.

Prior to Katrina making landfall an inventory of the ready supply of migrant interdiction inventory which included food, diapers, lifejackets and more was made. Once Katrina made landfall the overwhelming need for not only relief supplies but supplies for first responders was recognized. The supply warehouse and hangar were delivery points for consumables. Contracts with multiple vendors in the Central/South Florida area were secured to buy bottled water by the pallet. Based upon lift capacity arrangements for delivery of up to 20 pallets per day was made and loaded directly onto waiting aircraft. Likewise thousands of MREs were procured and delivered as were blankets, diapers and other personal items. Working with a network of local churches donations of consumables ranging from five to seven truck loads a day were received in Supply, re-packaged for air transport and loaded. In addition first responder items including heavy equipment such as fork lifts, ground handling equipment and generators were flown to CGAS New Orleans and ATC Mobile.

Toward the end of the week, when the Incident Management Teams (IMT) established a footing, coordinated efforts began and often the supply schedule was rolled into an IMT requirement. It was just shy of four weeks -post Katrina- before FEMA supply lines were established to the point where Coast Guard procured/donated and delivered supplies were no longer required. The breadth of the C-130 operation and the multiple capabilities of the C-130 was demonstrated in that in addition to relief supplies the C-130s served as communications platforms, conducted surveillance missions, transported DART teams, MSST units, fuel cells, medical personnel and supplies, evacuated stretcher patients out of the area to receiving hospitals, and even 100 buoys were flown in from CGD9 for use by sector mobile.

The Katrina air rescue operations are but a part of a much larger story. There was CWO3 Robert Lewald who commanded the CGC Pamlico and a small fleet of vessels that safely evacuated thousands from New Orleans in what was called Operation Dunkirk. There was the small boat operation out of Zephyr Field and the DART crews that went from house to house evacuating people. And there were over 300 Coast Guard men and women from 20 different units, many of whom lost everything in the flooding, who quickly coalesced at Station New Orleans and rescued or assisted in the rescue of many. Surface personnel rescued or assisted in rescue an estimated 22,000 people over ten days in horrendous conditions with amazing displays of bravery and perseverance. – A very well done to all.

2006 – Coast Guard Assumes National Capital Rotary Wing Air Intercept Mission:



The U.S. Coast Guard officially assumed responsibility for rotary wing air intercept operations in the nation's capital air defense zone from the U.S. Customs and Border Protection Agency on 25 September 2006. Coast Guard HH-65C helicopters and crews operate out of the Ronald Reagan Washington National Airport (DCA), located in Arlington County, Virginia, just 4 miles from downtown Washington, D.C. The National Capital Air Defense Facility is managed by Coast Guard Air Station Atlantic City and is under the operational control of the North American Aerospace Command (NORAD). Aircrews from Atlantic City and supporting Coast Guard air stations stand ready to be launched to intercept any aircraft that is deemed to be a possible threat.

NORAD is a bi-national United States and Canadian organization charged with the missions of aerospace warning and aerospace control for North America. Aerospace warning includes the monitoring of man-made objects in space, and detection, validation, and warning of attack against North America whether by aircraft, missiles, or space vehicles. The defense against an attack was ground to air missiles and fighter aircraft. Aircraft defense was provided primarily by the Air National Guard.

The attacks on September 11, 2001 brought a whole new set of potential threats ranging from airliners to small civilian aircraft into the equation. With this threat, unlike tracking an incoming missile or military aircraft, the matter of intent became paramount. It would be a horrible mistake to shoot down an airliner with a full load of passengers or a small aircraft because of communications failure or navigation error. It was apparent that a non-lethal means to identify and stop a threatening aircraft had to be developed.

NORAD began working closely with civilian agencies. An intelligence feed from FBI and CIA and other agencies was set up. A close relationship with the FAA was developed and an integration of NORAD's radar and communications networks with the FAA system allowed almost instant alert to NORAD and NORTHCOM if an air traffic controller noticed unexpected activity by an airplane. Further, with the creation of US Northern Command, NORAD was incorporated into a comprehensive defense of the nation on the ground and in coastal waters, as well as in the air.

Coast Guard Auxiliary aircraft intercepted by HH-65C during Rotary Wing Air Intercept training exercise



The Coast Guard's initial involvement in Rotary Wing Intercept (RWAI) was in response to a request from the Secret Service for enforcement of restricted airspaces around National Special Security Events. The Aviation Training Center Mobile studied the operational procedures employed by the Department of Defense and developed similar procedures for the Coast Guard and a training program was set up. The training consists of learning techniques used to intercept targets of interest including night intercepts using night vision goggles and classes on intercept terminology and missions. Coast Guard Auxiliary pilots volunteer their time and aircraft for intercept drills in order to improve response time and give the pilots a moving target on which to hone their flight interception skills.

Air Station Savannah was the first unit to operationally employ RWAI capability when it provided protection for the G8 Summit in June of 2004. Additional crews from CGAS Atlantic City, CGAS Miami, were trained and were followed crews from other air stations to provide coverage within desired operational areas. Coverage was provided for the Democratic and Republican conventions, the funeral for former President Ronald Reagan and additional special events level one through five as well as the NASA space shuttle launches.

Airspace security around Washington D.C. came into sharp focus on May 11, 2005 when a small privately owned airplane wandered into the restricted airspace encompassing Washington D.C. and Baltimore. The single engine aircraft came within three miles of the White House and was within seconds of being shot down by Air Force fighter aircraft before it shifted course. The air security protocol was reevaluated and the Department of Defense (DOD) specified duties it required of the Department of Homeland Security (DHS). In a memo, DOD said they had sufficient firepower; however, what was needed was a strong law enforcement presence.

The Customs and Border Security Agency, an agency within DHS, had been providing RWIA for the capitol area. DHS Secretary Michael Chertoff, upon review of the RWAI mission requirements as determined by the DOD, decided that based on the Coast Guards command and control systems and its relationship to the DOD it would be given full responsibility and control of the air security role. This decision was made at the beginning of November but implementation was delayed because of the extensive commitment of aviation resources during Hurricanes Katrina and Rita.



HH-65C RWAI helicopters on standby- alert status

It was decided to use the upgraded HH65C as the intercept aircraft. Seven additional HH-65Cs were added to the fleet. Captain James Hubbard, Commanding Officer of CGAS Atlantic City, who had shepherded the operational employment of RWAI for National Special Security Events, was called upon to develop the operation plan, a

comprehensive maintenance support doctrine, and an extensive logistic frame work to support a forward deployed air facility.

Able assisted by those under his command the unit was operational within a short period of time and transfer of the Capital Region Air Intercept Mission took place on September 25, 2006.

The Coast Guard RWAI mission is to visually identify low, slow-moving targets that have entered into restricted airspace. Intercept is initiated by a call from the NORAD operations center and the ready helicopter is airborne and enroute for the target within only a few minutes. The crew then performs special maneuvers to approach and intercept the target aircraft and then positions themselves on the aircraft's left side in order to be fully visible to the pilot flying the aircraft. The target aircraft is visually identified and the helicopter crew passes information about the aircraft to NORAD and FAA personnel on the ground to determine if the aircraft is a threat or just an errant general aviation pilot.



The Coast Guard air crew attempts to communicate with the target aircraft on internationally recognized emergency frequencies and/or carefully moves in closer to visually communicate via light board signs and international intercept signaling. Once communications are established, the aircraft is led out of the restricted area and escorted to a nearby airfield. Non-compliance will lead to the use of force. There were 23 successful intercepts made during the latter part of 2006 and 70 during 2007.

2007 – Coast Guard Acquires HC-144A Maritime Patrol Aircraft:



The Coast Guard selected the HC-144A “Ocean Sentry” to serve as its new medium range multi-purpose surveillance aircraft. In early 2007 the first three were delivered to the Coast Guard Aviation Repair & Supply Center (AR&SC) at Elizabeth City, North Carolina to undergo installation and testing of mission sensor and communication equipment. Initial technical publications were used to develop standardized Coast Guard maintenance procedures and technical manuals. From AR&SC the aircraft were flown to Coast Guard Aviation Training Center in Mobile, Alabama for an operational test and evaluation phase. On May 8, 2007 an order for 5 additional HC-144A s was placed.

The HC-144A is the first major aviation asset to be procured under the Integrated Deepwater System program. The criterion was the acquisition of a capable airframe and to place within it a state-of-the-art embedded command, control, surveillance and reconnaissance system within the larger context of Coast Guard surface, air and information technology mission interoperability.

Integrated Coast Guard Systems awarded the contract to European Aeronautic Defense and Space (EADS) for an original procurement order for a derivative the Casa CN-235-300M aircraft;- a twin turboprop fixed wing aircraft flown by the armed forces of 23 nations world wide. Designated HC-144A in the Coast Guard aviation inventory, this aircraft is the scheduled replacement for the 21 HU-25 Falcon jets which will be retired due to aging and obsolescence issues. The current procurement plan is for 36 HC -144A aircraft.

The aircraft can be utilized for search and rescue, illegal drug and immigrant interdiction, marine environmental protection, military readiness operations as well as for cargo and personnel transport.

In its Maritime Patrol Aircraft configuration, the HC-144A has a range of 1,565 nautical miles and can remain aloft for nearly nine hours. The aircraft is powered by two General Electric CT7-9CE turboprop engines, similar those used in the Coast Guard HH-60 helicopter. The Ocean Sentry operates at up to 236 knots. . Its crew consists of two pilots and three enlisted technicians. Aircraft avionics permanently installed on the aircraft include Rockwell-Collins glass cockpit displays, APS-143C multi-mode radar optimized for small target detection, and forward looking infrared/electro-optical sensors.

The HC-144a’s large cargo cabin and rear ramp enables the aircraft to be mission tailored on short notice. A standardized roll-on/roll-off palletized mission system was developed which facilitates access to a number of on-board systems and a wide variety of sensor capabilities. They include:

- Voice and data communications from surface vessels, law enforcement agencies, and shore facilities via UHF,VHF.HF, and commercial satellite systems
- Networked Command and Control (C2) system that provides Common Tactical Picture (CTP) and Common Operating Picture (COP) resources
- Automatic Vessel Identification Equipment (AIS)
- Surface search radar
- Electro-optical/infrared surveillance and search system
- Electronic surveillance measures equipment

2007 – Arctic Awareness – The Coast Guard Prepares:



A 1982 United Nations treaty signed by more than 150 countries gives every country with a border on the Arctic Ocean control of an area up to 200 nautical miles off its coast and whatever natural resources might lie beneath the oceans surface. This seemingly straightforward rule is complicated by another regulation that allows countries to extend their waters up to 350 nautical miles or 100 nautical miles beyond 2,500 meter isobath, which is a line connecting the depth of 2,500 meters, if they can acquire scientific data that demonstrates that additional areas are a natural extension of their continent.

Within the last several years a significant amount of interest has

developed in the Arctic Ocean and its features. Three factors are important in driving this new level of interest in the Arctic. First, an enormous amount of oil, natural gas and other resources are thought to be held within the Arctic Ocean's floor. The United States Geological Survey estimates that up to 25% of the world's remaining oil and natural gas resource might be held within the Arctic Region. Second, global warming is starting to reduce the extent and



thickness of the Arctic's sea ice. If the current trend continues, the Northwest Passage might be open to standard ships during summer within the next couple of decades and the Arctic could be ice-free in summer by midway through the current century. Third, the determination of ownership will not be fully established until the shape of the underlying bed is known. Mapping the bottom of the ocean is no easy thing, particularly when the ocean is covered by ice. The reduction and thinning of the Arctic sea-ice now taking place accommodates the acquisition of scientific data a nation can use to demonstrate that additional areas are a natural extension of their continent. Many nations are fielding scientific missions in hopes of extending their Arctic opportunities.

The Coast Guard has regularly supported scientific expeditions to the Arctic. In 2005 the Coast Guard Icebreaker HEALY supported and participated in The Hidden Ocean Arctic 2005 Expedition which focused on accessing the diversity of life and environment. In 2007 the HEALY conducted an Arctic mapping expedition using sophisticated echo sounders.

Russia, like other northern countries, has taken an aggressive stance. In a dramatic testing of international law, in August 2007, two submersibles placed a Russian flag under the ice cap at the North Pole. Canada, Denmark and Norway are also looking to claim waters extending out from their sea-bed and the United States is pursuing Arctic opportunities off the coast of Alaska. But apart from the Russian claim there are other disputes. The United States and Canada argue over rights in the North-West passage, Norway and Russia differ over the Barents Sea, and the Russian Parliament is refusing to ratify an agreement with the United States over the Bering Sea. Disputes can be settled independently or through a U.N. tribunal. The United States is limited to independent agreement at the present time because the Senate has not ratified the treaty. The Senate Foreign Relations Committee has held recent hearings and a full Senate vote is expected prior to the end of 2008.

The multi-year polar ice was smaller in September 2007 than has ever been recorded. Between 2006 and 2007 the polar ice pack lost an area 15 percent greater than the size of Texas. Polar melting is a reality regardless of the cause and the Coast Guard has a lot of questions about what its Arctic Mission could end up being. The weather is harsh and distances are vast. Everyday duties such as search and rescue, maritime security and law enforcement will be more complex and difficult to perform above the arctic circle and additional duties dependent upon how mineral and resources will be administered and what islands and waterways the United States will defend may come to pass.

The Coast Guard is addressing the dynamics of the situation. RADM Arthur E. (Gene) Brooks USCG, Commander of the 17th Coast Guard District began the development of Arctic Domain Awareness (ADA) by sending Kodiak C-130s on bi-weekly maritime surveillance patrols along the Northwest and Northern Alaska coasts. They found Pollack fishing fleet had moved to the high Bering Sea and ships were sighted in the Chuckchi Sea that was not expected to be there. The Admiral said that places the Coast Guard had not been to in a long time were visited and we began to learn about arctic operations.



In October of 2007, a Kodiak based C130 aircraft made an Arctic Domain Awareness flight to the North Pole and back from Pt. Barrow. The 2300 mile round trip took eight hours. The purpose was to see how instruments and radio communications worked; navigation reliability; what forward support is needed; and cold weather limitations on the flight envelope. As an example of cold weather limitations flight limitations; the fuel tanks on the C-130 are not heated. At -46degrees centigrade the fuel gels. The temperature along the planned flight path was below the predicted temperature and with 500 miles to go the temperature fell to -40 degrees centigrade and stayed there. The normal Alaskan practice of dropping your altitude to raise the temperature does not work in the Arctic. The flight proved again that



leaving an aircraft out overnight with temperatures below freezing leads to substantial extra maintenance. A hangar would be required for Barrow operations.

An operational concept was developed to; First conduct seasonal C-130 patrols from Nome to insure aircraft availability during the summer when Pollock fleets moved north and also provide easier access to the Chukchi Sea and the North Slope; Second, it was planned to conduct a full range of Coast Guard operations at Barrow, the only community along the North Slope with sufficient existing infrastructure to support, helicopters, small boats and their crews; and Third, to conduct MSST security operations at Prudhoe Bay, a site where inshore security operations might be required.

The concept was put into practice and exercise, code named Salliq, began in late June of 2008. LCDR Michelle Webber was designated officer-in-charge of two HH-65 helicopters, two 25 foot boats and 36 Coast Guard personnel. LCDR Webber said they will build a requirements list for what might be needed in the future, identify any obstacles, and test the ability of existing communications equipment to operate in the area. The deployment was scheduled to last three weeks. Depending on requirements Barrow may become an ongoing seasonal facility. Simultaneously a C-130 aircraft was assigned to operate out of Nome for the entire season. Search and rescue requirements are being addressed During mid August the MSST team was deployed to Prudhoe Bay. A 378 WHEC was deployed to North Slope for operational evaluation. The summer evaluation reaffirmed the lack of organic capability and no infrastructure. RADM Brooks stated; “The issue of the full-functioning operations-the requirement to do everything we do in southern Alaska in northern Alaska, at least seasonally – will take several years to ramp up to capability.”



Coast Guard Cutter Healy –Off Barrow, Alaska

Other Artic operations were also scheduled. The icebreaker HEALY departed Barrow 14 August to create a three-dimensional map of the Artic Ocean floor in the Chuckchi borderland. The Healy was scheduled to launch again on 6 September, in company with scientists and a Canadian icebreaker, who will help to determine the thickness of sediment in the region. That

is one factor that a country can use to define its extended continental shelf. The need for additional icebreakers is being addressed. The buoy tender SPAR sailed from its homeport of Kodiak to make the most thorough accounting yet of the state of Arctic navigation. Its crew will address the needs for lights, buoys, and transit separation systems.

The Coast Guard recognizes that:

- the Red Dog Mine –the largest open pit mine in the world –responsible for 10% of the world's zinc reserves. For most of the year the raw material is trucked to the coast and stored in mile-long warehouses and – during a two-month weather window – enormous cargo ships displacing 70,000 tons sail through the Chukchi Sea to get the zinc ore. The natural resources in Alaska's North Slope are estimated to be so rich that they could support 20 mines as large as Red Dog.
- In 2007 three cruise ships sailed north of Point Barrow and east into the Northwest passage – this is expected to continue and continue to increase and CG must be capable of responding to a major cruise ship accident
- Lease Sale 193 by the Minerals Management Service (MMS) in Alaska took place on February 6, 2008 and opens nearly 30 million acres of the Chukchi Sea to oil and gas activities.
- Scientists have confirmed that in August of 2008, Arctic Sea ice shrank to its lowest levels since satellite measurements began monitoring the region nearly 30 years ago. One consequence is that the Northwest Passage has opened up earlier than expected. Fully navigable, the Northwest Passage will make the trip 4,000 miles shorter for ships traveling between Europe and Asia.

During August of 2008 the Commandant of the Coast Guard, ADM Thad Allen, accompanied by the Chief of the Department of Homeland Security, Michael Chertoff, made a low profile trip to Alaska. They visited Nome, Prudhoe Bay, the Red Dog Mine, the North Slope and the icebreaker HEALY to gain first hand knowledge.

No one at this time can ascertain the extent of Coast Guard duties and responsibilities in the Arctic but the Coast Guard is preparing for a multitude of tasks. The Pentagon's Pacific Command, Northern Command, and Transportation Command strongly recommended in a letter that the Joint Chiefs of Staff endorse a push by the Coast Guard to increase the country's ability to gain access to and control its Arctic waters.

2008 – The Coast Guard in the 21st Century:

The attack of September 11, 2001 (9/11) on the United States; the transfer of the Coast Guard from the Department of Transportation to a newly created Department of Homeland Security; and the response to Hurricane Katrina have led to rapid and significant changes to and within the Coast Guard.

The Response to 9/11 was port centric. The operational model had the District Commanders having primary responsibility for operations and the Captain of the Ports having autonomous authority in the ports to deal with exigencies. This could lead to less than effective response. In the case of the 9/11 attacks the assets needed by the Captain of the Port were there and a coordinated operation was carried out. There were other ports where this did not exist and field operations in a single port fell under multiple mission based commands. Unity of effort would have been hard to achieve.

The Coast Guard's move from the Department of Transportation to the Department of Homeland Security and implementation of the Maritime Transportation Security Act provided impetus to restructure. The Coast Guard reorganized field units into Sector Commands by merging Groups, Marine Safety Offices (MSO), and Vessel Traffic Service (VTS), are being merged into Sector Commands. Previously, a Group and its units provided SAR, maritime law enforcement, and recreational boating safety, and maintained aids to navigation. MSOs performed complementary activities, enforcing federal laws and regulations related to the safety and security of vessels, port facilities, and the marine environment, and assisting other law enforcement agencies. The focus is on the coordinated efforts of all assigned operational units to accomplish Coast Guard mission objectives effectively and efficiently.

The Coast Guard became part of the newly created Department of Homeland Security in 2003 and the emphasis of the service became increasingly more military. Coast Guard units deployed to Iraq; a close working relationship between the Coast Guard and the Navy has developed; port security and maritime domain operations were increased significantly and Coast Guard units were increasingly being equipped with the capability for the use of force. Recently an agreement was reached for Coast Guard Personnel to be trained as U.S. Navy Seals.

Katrina, a hurricane of catastrophic proportions, devastated New Orleans in 2005. The Coast Guard was highly praised for its rapid and outstanding rescue efforts, maritime pollution response, and management of maritime commerce performances. This was accomplished in spite a breakdown in communications, a failure of the federal governments National Response Plan and the lack of effective response by state and local officials. The Coast Guard response was made possible by its policy of providing "operational intent" by senior commanders, managed risk, flexibility, and the principle of on-scene initiative in which Coast Guard personnel, from Captain to Petty Officer, are given latitude to act quickly and decisively within the scope of their own authority. An evaluation of efforts was conducted post Katrina and it was determined that a great deal of the effort was ad-hoc. While not detracting from the Coast Guards ability to respond to fluid situations it was recognized that certain support functions and strategic planning should be improved upon.

Vice Admiral Thad Allen directed the Coast Guard's East Coast response efforts to the September 11, 2001 attacks while serving as Atlantic Area Commander and Commander of the Maritime Defense Zone Atlantic. On September 9, 2005, Vice Admiral Allen was given full command of the Bush administration's Hurricane Katrina onsite relief efforts and is well known or his widely-praised performance. Admiral Thad Allen became the 23rd Commandant of the Coast Guard may 25, 2006. When Admiral Allen became Commandant he had a very clear idea of where he wished to take the Coast Guard. The State of the Coast Guard Address given by Admiral Allen on February 13, 2007 outlines his plan of action.

Admiral Allen's State of the CG Address, 2007

Today, I will outline how it is the Coast Guard is evolving to confront the challenges we face in the 21st Century.

Looking to the future, there are three things the Coast Guard needs to do:

- (1) We need to understand our dramatically changed operating environment;
- (2) We must change to sustain and improve mission execution; and
- (3) We must be more responsive to the needs of the nation.

The World is changing and America's Coast Guard is changing. Consider this ...

Since 9/11 we have:

- deployed Port Security Units to domestic ports,
- maintained continuous waterside security in Guantanamo Bay, Cuba,
- sustained the deployment of six patrol boats in the Persian Gulf,
- and maintained stability in Haiti during the departure of President Aristide
- We now routinely conduct multi-agency operations with our Homeland Security partners.
- We have developed standard operating procedures to flow forces to U.S. Northern Command or receive supporting forces,
- Our coordination of responses to off shore threats through the Maritime Operational Threat Response protocols is the gold standard for interagency coordination and cooperation.
- Our response to Hurricane Katrina has taught us that we must also be capable of coordinated operations under the National Incident Management System with diverse responders such as FEMA urban search and rescue teams, the National Disaster Medical System, and non-governmental organizations.
- And even as we have moved into this new operating environment, we have continued execute our traditional missions. We manage risk on daily basis more so than any time in our history.



Folks, this is a radically changed mission environment. My father is in the room and this is not my father's Coast Guard.

We haven't just expanded our missions since 9/11. The entire Coast Guard has grown. Since 9/11 we have added 4,000 people to the Service and our annual budget has nearly doubled to \$8 billion dollars.

The Coast Guard needs to evolve to keep pace. Our challenge going forward is to adapt our forces; command and control structure; and mission support organization; so that we are flexible; nimble; and capable of operating with multiple partners; in our response to specific

incidents; surge operations; and increased threat levels; while sustaining our performance in our traditional missions.

This is our Coast Guard, the Coast Guard of the 21st Century.

The practices of the last century are not adequate for this century. Our command and control structures, our support systems, and our business practices have in some cases failed to keep pace with our rapid growth and the expansion of our responsibilities. We can sustain our operations like this for a while, and we will always muster all hands for events like Katrina. But we cannot do it indefinitely. If you compare our business processes with those you encounter everyday - searching for information on Google, shopping on line, or using an ATM, some just don't compete.

I don't believe we can continue to operate this way.

My task is to explain the way ahead – what we need to do to bring the Coast Guard into the 21st Century. First, we need to understand how the world is changing.

We are a nation with 95,000 miles of coastline. We depend upon our oceans for the safety and security of our population and economy. Globalization has transformed maritime trade into the linchpin that connects a worldwide network of interdependent economies through the supply chain. Beyond our ports, advances in technology and changing environmental conditions continually revolutionize the world's use of and access to the outer continental shelf, the Arctic, and the high seas. We work in the Global Commons. From the early days of the Revenue Marine to the protection of U.S. maritime interests following 9/11, we have confronted asymmetrical, transnational threats. We protect the marine environment and guard its natural resources. We defend our nation at home and abroad. And we save those who cannot save themselves.

The World is changing, and so is our Coast Guard.

We need to become more agile, flexible and responsive. Specifically - we need to do 3 things:

- (1) We need to make our force structure more responsive to mission execution.
- (2) We need to make our support systems more responsive to our operators.
- (3) We need to make the Coast Guard more responsive to the needs of our Nation.

1. What do I mean by making our force structure more responsive to mission execution?

We need a clear coherent way to employ our forces to create a layered defense for the defense of the Nation. We need to consider our operational forces as a strategic trident.

- Shore-based, multi-mission forces assigned to Sectors;
- Long Range patrol and interdiction Deepwater forces and our Polar Icebreakers; and
- Deployable specialized forces organized into a single unified operational structure, the Deployable Operations Group (DOG).

It is also time to remove the distinction between our Atlantic and Pacific Coast Guards. Drug trafficking organizations and other transnational threats don't recognize our organizational boundaries. Our structure at times works against us in operations with Joint Interagency Task Forces and Combatant Commanders who's Operating Areas are not the same as our Area

boundaries. It's time we have one commander in the field responsible for Mission Execution – one single point of accountability completely focused on planning and executing operations. We will do this by combining our Atlantic and Pacific Area command functions into a single Coast Guard Operations Command. This will improve global resource allocation, force generation, and improve risk management that is now done largely at the tactical level.

2. What do I mean by making our support systems more responsive to the needs of our operators?

Since becoming Commandant, I've had the opportunity to visit every Coast Guard District and talk with many of you personally. I have held All Hands with nearly 10,000 personnel.

You have told me that you are concerned with the adequacy of our logistics, administrative, and financial systems. You told me we have too many separate processes and data systems. You are frustrated by the lack of uniform systems and doctrine. We have conducted in depth studies regarding our maintenance, logistics, and financial systems and those studies validate what you have told me. More importantly, many of these systems do not adequately support mission execution now, let alone our future challenges. We have been running some parts of the Coast Guard like a small business, when we are a Fortune 500 Company. It is time to have just one checkbook for the Service, and one single support organization for each of our surface, air, and C4ISR domains.

It's time we have just one senior leader responsible for Mission Support --- someone who can unify and standardize our maintenance, logistics, human resource, and other support systems across all units and all missions. We will transition to a new Mission Support Organization to establish this single point of accountability. This organization will combine the skills, resources, and talents currently residing within in our Atlantic and Pacific Maintenance and Logistics Commands and Centers of Excellence. It will also require us to retool our service delivery systems in the field. This mission support organization will support our transition to a unified logistics system based upon a bi-level maintenance model consisting of depot and unit-level maintenance throughout our Service.

We will establish Logistics Centers, similar to our aviation center, for surface forces, C4ISR, and shore facilities. It is important to note that, the mission support organization will also unify the Chief Acquisition Officer, the Deepwater Program Executive Officer, and the Service's Technical Authority, our Chief Engineer, into a single organization focused on life cycle management of our cutters, aircraft, and sensors.

As I have testified before Congress, As the Commandant, I am responsible for Deepwater, and we will get it right!

Many of you are familiar with the 10 Commandant's Intent Action Orders I issued last year upon assuming command – CIAOs as we've been calling them. Each CIAO focuses on one aspect of the transformation we need to make internally to better organize and align our support systems with our operations.

For example, a single financial accounting system will help us manage scarce resources while increasing transparency to the public and being fiscally accountable. We need an integrated business system that:

- aligns with DHS systems and programs,
- reduces the number of financial accounting systems in use,
- consolidates logistics tracking systems, and
- integrates human resources with financial data

Our new core accounting system will also simplify the way we buy, track, maintain, and dispose of our ships, aircraft, boats and equipment over its entire life-span. This transformation is already underway.

I've just told you how we need to be more responsive to mission execution and more supportive of our operators.

I want to focus now on making the Coast Guard more responsive to the needs of our Nation. I am talking about thinking, planning and acting with strategic intent. I am talking about setting priorities for the Coast Guard that address the emerging threats and hazards of an expanding global economy and changing world. As I share these priorities, you will notice a common theme. We are not going it alone. Our strategic priorities require unity of effort and partnerships at every level of government, and with the private sector. The priorities I am talking about are the backbone of the Coast Guard Strategy for Maritime Safety, Security and Stewardship. We just completed it, and you will be the first to receive a copy. Don't forget to grab one on the way out. For those who aren't with us, we'll also be posting a copy online.

This Strategy is not a one year plan – nor is it a 20 year vision. The Coast Guard Strategy will guide strategic change within our service through my tenure as commandant. It is derived from the National Strategy for Maritime Security and other national plans and supports the goals and priorities of the Department of Homeland Security. It describes changes in the maritime domain and charts our course to build new capabilities to better prepare for the future. The Strategy is also an integral part of my ongoing efforts with Chief of Naval Operations Admiral Mike Mullen and Marine Corps Commandant General Jim Conway to integrate our services in a common global maritime strategic framework. Together, our efforts will provide a comprehensive framework for us to work together to meet U.S. national security requirements, both at home and abroad.

This new Strategy has three primary goals:

- (1) To strengthen our maritime regimes
- (2) To increase domain awareness,
- (3) To enhance our operational capabilities

Strengthening maritime regimes - is the process of creating coordinated and interlocking domestic and international laws, regulations, treaties and practices that increase transparency of activity, reduce risk, and balance competing uses within the maritime domain. We also need to focus international engagement to improve maritime governance. We can all benefit from strong maritime relationships around the world because today's global maritime system ties U.S. interests to all nations throughout the global commons. These concepts link closely to Admiral Mullen's Global Maritime Partnership initiative.

For example, we are working with the International Maritime Organization to implement long range tracking, and to expand AIS carriage requirements to smaller, less regulated vessels.

We're also beginning to discuss what we need to do to address regimes regarding recreational vessels, uninspected tug and barges, and small passenger vessels.

Achieving awareness in the maritime domain - including intelligence and information sharing at all levels of government is a key to our maritime security. Better awareness of what is out there leads to better unity of effort in maritime planning and operations. We need to have a common operating picture.

Conversely, unity of effort in planning and operations feeds our knowledge and understanding of the threats. We also need to integrate our operational capabilities and efforts with our private sector partners to better prepare for, respond to, and recover from incidents. We've already made great progress in increasing our awareness through Global Maritime Intelligence Integration, Joint Harbor Operations Centers, Field Intelligence Support Teams and other joint-agency partnerships with state and local officials as well as the private industry. The Department's recent efforts to standardize more reliable maritime worker credentials through TWIC are a great example of how we can increase awareness.

Going forward we intend to build out the National Automated Identification System, complete work on Rescue 21 and build out a Common Operating Picture with a corresponding Common Intelligence Picture. We will do this in partnership with our DHS counterparts as we seek to build an integrated air, land, and sea operating picture for the Nation.

Enhancing our operational capabilities - includes building Coast Guard capabilities for national defense. The nation needs highly capable, interoperable U.S. Navy and Coast Guard capabilities along its own coasts, on the high seas, and deployed abroad in support of U.S. national security interests. Our operational capabilities also include developing a national capacity for Marine Transportation System recovery following an incident in our ports. The nation needs a coordinated, integrated approach to planning for and responding to major disruptions in our marine transportation system, the lifeblood of America's economy. To build out our capabilities for National Defense, we are working closely with our Navy and Marine Corps partners on a National Maritime Strategy. Our forces will operate together and need to effectively communicate. We are already integrating training at our Center in Petaluma, California, for the Navy Littoral Combat Ship crews and our crews for the National Security Cutters.

In the area of Recovery, this Fall we held our first National Maritime Recovery Symposium with our Industry partners....We will continue to develop and exercise regional plans for Recovery following disasters.

Finally, I would like to talk about the value of Unity of Effort in transforming the Coast Guard.

Partnerships can make things happen not otherwise possible. Much of what I have talked about today involves more than just the Coast Guard. We rely on our partnerships at every level, across government, with private industry, and with the support and understanding of the American people. We have never enjoyed a better relationship with the Navy and Marine Corps in intelligence and harbor security operations. We look to expand our relationship with the Navy as it develops a national maritime strategy and works to build out its capability and capacity in Naval Expeditionary warfare.

We also look to expand our relationships with each of the military Combatant Commanders as they develop and implement plans in support of our national security interests. When it comes to domestic matters, DOJ is a critical partner in the safety, security and stewardship of our maritime interests. We need to achieve unity of effort with the FBI in those areas where a joint, maritime response to potential threats is the winning formula. We look forward to doing all of this as we give life to the Coast Guard Strategy.

We are making significant improvements in our inter-agency coordination. Through MOTR, or Maritime Operational Threat Response, an operating concept developed to support the National Strategy for Maritime Security, the Coast Guard is regularly the mission coordinator in cases of national significance. We are already seeing great progress within the Department of Homeland Security under the leadership of Secretary Chertoff. My close working relationship with Commissioner Basham, Director Sullivan, Assistant Secretary Myers and each of the other component heads and Assistant Secretaries has been vital to my ability to do what I need to do to serve the American people. The Coast Guard is a better organization for being in the department and the department is a better organization because of the Coast Guard.

I could give examples in almost every mission area – search and rescue, drug interdiction, fisheries enforcement, environmental pollution – you name it. We are on MOTR calls with principals from our partners from DHS, DOJ, and the State Department, every week. Our MOTR process defines unity of effort

Change is necessary.

Everything that I have spoken about today is related to change and our capacity to understand and deal with it. As we navigate the Coast Guard in the 21st Century we must understand that change is not something that occurs every 5 or 6 years when we are prompted by external events. It is something that is happening every day in our operating environment. We must build a Coast Guard that continually senses change and continually adapts.

While the transformation I have talked about may sound radical, it is not so different than what our predecessors did to get us to where we are today.

On August 4th, 1790, Alexander Hamilton established the Revenue Marine with a fleet of 10 cutters. For 6 years, the Revenue Marine stood as the Nation's sole armed force afloat, protecting the country from pirates, enforcing revenue laws, and keeping Americans safe. A century and half later, Commodore Bertholf adapted us to the world of the 20th Century, merging the Revenue Cutter Service and the Lifesaving Service, into the Modern Day Coast Guard. With remarkable agility, he then turned around the Service and prepared Coast Guard forces for deployment overseas to fight in World War I.

Hamilton and Bertholf understood we need to evolve with the changing times.

A little over one year ago I was hunched over a lap top in a hotel in Baton Rouge, Louisiana. Trying to capture the thoughts I have passed today, I thought about these leaders and the challenges they faced in their own times as I considered the challenges we face today.

I was inspired by their vision and conviction as I put my own ideas for the future of the Coast Guard down on paper in advance of my interview to be the Commandant.

Inspired by our performance in Hurricane Katrina but sobered by the challenges that we must face going forward, I made the personal commitment to be a Commandant of change, transition, and transformation. I did not ask for this job to maintain the status quo. It is my intention to answer the challenge of this century. You have my total commitment.

But, I will not succeed; the Coast Guard cannot succeed without the help, support, and dedication of each one of you who serves. You are critical to the future of America's Coast Guard.

Here is what I need from the Coast Guard men and women here with us today, and for all the men and women serving around the world. I need your commitment. I need you to commit to the idea that we need to change and that we can change, together.

You need to understand where the Service is going and how I intend to make the case for change before Congress and the American people. That information is clearly spelled out in two important documents. The first is the Coast Guard Strategy for Maritime Safety, Security and Stewardship that was unveiled here today. The second is the Budget in Brief, an overview of our Fiscal Year 2008 budget request. They are both available on line. Everyone needs to read these documents closely.

I also need the patience and tenacity you bring to your work every day. We are embarking on a process that will take several years to implement. We must act deliberately with strategic intent, but we must act now. We can no longer wait for external events, political pressure, or the tyranny of the present planning activities. Instead, we will reorganize our operational forces and realign our mission support systems to better serve the American people while being driven by the strategies that lead us into the future.

I have met with the senior leadership of the Coast Guard this week for the third time since assuming my duties. We are all in agreement that change is necessary – and necessary now! At each meeting we have discussed and developed the basic assumptions and concepts to move us forward. I will be providing you more information over the next several weeks so you can become familiar with the terms.

We must now create the detailed plans for transition. As more detailed plans are developed I will share them with you. I will continue to communicate directly with you. The process will be transparent.

I would be remiss if I didn't acknowledge the presence of what I would call vested stakeholders. That group would include our partners in the administration, congress, and industry.

I work with "all of you" "all of the time"

I spend a lot of time defending what we have done in the past, why we need money this year, and what we will do in the future. This is a perfect opportunity to put the question to you. What kind of Coast Guard do you think the country needs? What kind of Coast Guard are you prepared to support? What does port security and maritime security really mean and what are we prepared to do to reduce risk, increase our presence, and source to strategy.

The past decades have taught us in the Coast Guard to respond without question to save lives and protect property; to use the resources we have; and to depend on the strength of those who have gone before. We will continue to do that, but we need to have a broader conversation with America about what we mean when we say port security and maritime security. I urge you to review our strategy and let us know what you think.

We look forward to the conversation.

To everyone present today ...

I have committed to the Secretary and the President to build a Coast Guard that will be *Semper Paratus* not just today but tomorrow as well. It will be a journey of learning and change. It will be challenging at times but it is necessary.

As stated in his address, Admiral Allen's initial action in 2006 was to issue ten Commandant's Intent Action Orders that outlined what he planned to do and gave everyone an overview of the direction he was heading. All have been completed or begun.

1. Create a Deployable Operations Group (DOG) to provide operational commanders with a rapid-deployment specialized force tailored to meet specific threats either in the United States or anywhere else in the world. Combining tactical law enforcement, antiterrorism, pollution control and port security teams under a single force Commander. This has been accomplished and is under command of RADM Tom Akin.
2. Develop a USCG Maritime Strategy to set strategy for how the Coast Guard will perform its missions and establish priorities for carrying them out. This has been accomplished.
3. Reorganize the Coast Guard headquarters hierarchy into numbered staffs (CG-1, CG-2, etc.) to bring them into line with the system used by the Navy and other services. This has been completed.
4. Centralize acquisition for Deepwater and other surface vessels and aircraft purchases under a new directorate headed by a three star admiral. This has been accomplished.
5. Replace the current inadequate accounting system with a modern centralized system that allows policymakers to evaluate what is actually happening within the Coast Guard budget and enable the service to meet auditing standards. This is in process.
6. Establish Logistics Centers, similar to our aviation center, for surface forces, C4ISR, and shore facilities. It is important to note that, the mission support organization will also unify the Chief Acquisition Officer, the Deepwater Program Executive Officer, and the Service's Technical Authority, our Chief Engineer, into a single organization focused on life cycle management of our cutters, aircraft, and sensors. This has begun.
7. Revamp the Coast Guard's human resources practices to enable the service to manage staffing decisions more effectively and prepare personnel for future needs. This has begun.
8. Strengthen the Coast Guard Reserve forces with improved training and administrative support to enable them to play a wider role. This has begun. The Coast Guard currently can call up reservists without first obtaining permission from higher authority.
9. Improve the use of information technology for command, control, communications, and computers. This has begun.
10. Develop a new framework for the Coast Guard to consolidate operations, place emphasis on readiness and doctrine, and unify operational command and control to carry out its missions more effectively. This has begun.

It is planned to replace the current top-level structure of the Coast Guard consisting of Chief of Staff, and Atlantic and Pacific Area Commanders. It is planned that the Vice Commandant will become a four star admiral and two three star deputy commandants will be appointed; one for mission support and the oversight of acquisitions, logistics, information technology, and human resources; and the other would develop operational plans and policies for security, capability, and international affairs. It is also planned to have two three star force commanders. One would oversee the Coast Guard Districts and Sectors and the other would be charged with all aspects of fleet and force readiness.

The exact breakdown of aviation forces within the planned structure is not known. Aviation forces, which were once an adjunct to the Coast Guard have transitioned into a highly efficient, cutting edge, integrated, force multiplier. Aviation will continue to innovate, lead, and be in direct support of almost all Coast Guard missions.

Today's events are tomorrow's history.