

Coast Guard Aviation and the War on Drugs

1976-2018

The counter cultural movement of the 1960s is not America's first experience with a resourceful drug culture. In many instances drugs that became illegal were first introduced by doctors as legal over-the-counter and prescription medications. Marijuana is one of the first drugs used in the United States. Amphetamines came into use by the medical community in the 1920s. to stimulate the central nervous system and for blood pressure problems. Amphetamines were distributed to soldiers during World War II to combat fatigue and improve endurance and mood, and were prescribed by doctors after the war to help fight depression. Morphine was created in 1803 and widely used during the American Civil War. In 1886 the Surgeon-General of the United States Army endorsed medical use of cocaine. Over the next few decades various unregulated medicinal "tonics" were sold in the U.S. containing cocaine. Cocaine was outlawed in 1914. Usage declined until it regained popularity in the 1970s as a recreational, glamorized drug, eventually reaching its peak in 1982 with 10.4 million users. LSD first emerged during the 1950s and escalated during the 1960s.

On December 17, 1914 Congress passed the Harrison Act, This law provided for the registration with collectors of internal revenue, and to impose a special tax on all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute, or give away opium or coca leaves, their salts, derivatives, or preparations, and for other purposes. However, the most lasting impact was in how it shifted the public conversation from a discussion about regulating a legal activity to eliminating an illegal one American opinion has always included some opposition to the non-medical use of any drug, including alcohol and most recently tobacco.

When the Counter-Culture movement of the 1960s took place, long-held values and norms of behavior seemed to break down, particularly among the young. Many college-age men and women became political activists and were the driving force behind the civil rights and antiwar movements. Other young people simply "dropped out" and separated themselves from mainstream culture through their appearance and a lifestyle that embraced sexual promiscuity and recreational drugs, including marijuana and the hallucinogenic LSD. Responsibility was traded for "freedom."

Compounding the drug situation was the war in Vietnam. Jeremy Kuzmarov documents in his deeply researched book that alcohol was the intoxicant of choice for most GIs, but marijuana use among troops increased over the course of the war.. The influx of heroin began in 1970,. The use of highly addictive drugs took place but was not as widespread or rampant as reported in some magazines and newspapers such as the New York Times and Washington Post. Politics had become involved. Pentagon research showed that less than 10 percent of soldiers used drugs on a regular basis resulting in addiction. About six percent of departing soldiers tested positive for drugs in 1971 and less than two percent in 1972. However the statistics for 1972 are questioned due to possible laboratory errors. This is still a lot of people and when combined with statistics of the general population it was a problem.

Congress passed the Controlled Substance Act of 1970 (CSA) The purpose of the CSA was to enable the United States to comply with the requirements of 2 international treaties. These treaties were the 1961 Single Convention on Narcotic Drugs and the 1971 Convention on Psychotropic Substances. It replaced more than 50 pieces of drug legislation and is the legal foundation for government anti-drug operations. It went into effect on May 1, 1971 and was enforced by the Bureau of Narcotics and Dangerous Drugs (BNDD) which operated within the Department of Justice. In 1971 President Richard Nixon declared a “War on Drugs.” He proclaimed, “America’s public enemy number one in the United States is drug abuse. In order to fight and defeat this enemy, it is necessary to wage a new, all-out offensive.” Nixon fought drug abuse on both the supply and demand fronts. Nixon’s drug policies reflected both the temperance view and disease view of addiction. The policy soon became political. A little over half of the population thought drug abuse was a serious problem. Regardless of position on the subject the fact is that in 1960 only four million people had tried recreational drugs. This number rose to over 74 million by 1975.

There were other agencies that were also responsible for enforcing drug laws and due to the lack of coordination and perceived lack of cooperation between the BNND and the U.S. Customs Service. President Richard Nixon proposed a reorganization plan. The plan was passed by Congress in 1973 creating a single federal agency, the Drug Enforcement Administration (DEA) to consolidate and coordinate the government’s drug control activities. The DEA target was organized crime. The emphasis was apprehension and conviction of principal members of organized crime involved in the growing or distribution of prohibited drugs. .

In the beginning of the “Drug War” this emphasis, in certain instances, placed the DEA at odds with those whose primary purpose was interdiction. At this time all of the heroin and cocaine and most of the marijuana that entered the United States were being trafficked by lesser international drug dealers that targeted specific cities. The initial policy was to apprehend the smuggler as they delivered their illegal drugs. This was changed to a policy of interdiction of the drug-runner prior to reaching the shore. The Custom service had a fleet of confiscated aircraft and initially handled the air-interdiction but neither the former BNDD nor the Customs Service had a navy. Although the U.S. Coast Guard had been transferred from the Treasury Department to the Department of Transportation it still retained the responsibility for maritime law enforcement. The Coast Guard had the maritime assets and its participation was requested.

The Marijuana War:

The start of maritime drug smuggling was prompted by a demand for marijuana in America that could not be met by the land supply from Mexico. Initially marijuana smuggling was conducted by a large number of entrepreneurs, usually Americans, using fishing vessels, sailboats and cabin cruisers. Florida was closest to the developing marijuana sources and the coast from Miami to Palm Beach was an ideal off-load area. Fishing vessels and cabin cruisers could make the run from South Florida to a supply point in Jamaica in forty-eight hours. Key West also became a major marijuana port of entry. There were over 400 shrimp and lobster boats home-ported out of Key West; hundreds of miles of mangrove shore line and countless small uninhabited islands that were perfect off-load sites for marijuana bales. The shrimp boats had the range for non-stop trips

to Columbia and below-deck capacity to carry large amounts of marijuana. It was common for American shrimpers to transit to and from the shrimp grounds off Central and South America. The ability to make more than a year's wages with one or two marijuana runs was more than many could resist.

Coast Guard Interdiction Operations Begin:

In the beginning there was very little hard intelligence. The intelligence capabilities developed by the Coast Guard during the Prohibition years no longer existed. The Coast Guard operated by placing cutters on patrol in the obvious choke points between islands in the transit routes from Columbia to the United States. Periodically an HU-16E was launched specifically to look for a "Hot" vessel but most missions were surveillance covering coastal waters, the high seas and the island areas for caches and vessels that fit the profile.

In the summer of 1974 "Operation Buccaneer" took place. This was a joint surveillance and interdiction effort involving the Coast Guard, Customs Service, and the Drug Enforcement Agency. It was designed to blockade the Windward Passage between Cuba and Haiti, thereby denying drug smugglers their preferred route northward from Jamaica and Columbia to the Bahamas and then to the south east coast of Florida. Helicopters had deployed on the 210 foot Cutters previously but not to the extent that was about to take place. Operation Buccaneer yielded an ambitious quantum leap in force projection for the Coast Guard. Ships and aircraft from other districts augmented Seventh Coast Guard District resources. Fixed wing assets were in the air constantly and helicopters leap-frogged from ship to ship, providing highly reliable surveillance information in the excellent prevailing weather.



HH-52A helicopter landing on USCGC *Decisive*

Marijuana smuggling changed dramatically in the mid seventies. In 1975 the Mexican government agreed to an aerial drug crop eradication program using the herbicide 2-4-D. The primary goal was to spray the poppy fields to reduce opium production but was spread to marijuana resulting in a “poisoned” supply. The Marimberos, as they called themselves, of Columbia’s North Shore, who had been in various smuggling operations for years, stepped into the void. In order to meet demand a substantial capacity increase, best provided by maritime transportation, was needed. The Marimberos expanded their operation from production and packaging to include transportation and distribution. A mother-ship concept, similar in operation to that used during Prohibition, was set up using small freighters. Marijuana smuggling became highly organized and the product was delivered in multi-ton quantities. The independent operator surrendered the trade to multi-national groups who had volume capabilities.



Marijuana plant

Despite an initial reluctance, the Coast Guard became the lead agency for maritime drug interdiction. Admiral Owen Siler, Commandant of the Coast Guard, during this early period, addressed profound changes in law enforcement at an unprecedented rate. Experience gained from Operation Buccaneer was used as a basis for improved interdiction planning. The Coast Guard made a presentation on the how and what the Coast Guard could do. These efforts were integrated with efforts of the Customs service and the DEA. Methods of communication and operations were established and some joint night barrier patrols were conducted between the Bahamas and the U.S. coastline. The 82 footers were put on patrol and drug seizures increased substantially.

In 1976 when the Coast Guard accepted its role in drug law enforcement as a major part of its law enforcement responsibilities, it decidedly did not follow the aggressive path that Customs embraced in this area. This is an enigma given that the original mission of the Coast Guard is not incompatible with drug interdiction. The fact that the Coast Guard was no longer in the Treasury Department and soon was fighting for its survival while dealing with a constant budget crisis, could very well have contributed to an apparent lack of enthusiasm. Captain A.B. Howe in an article prepared for the Proceedings of the U.S. Naval Institute at the end of 1973 predicted the Coast Guards future. In the section “Enforcing Laws” drug interdiction was not mentioned. The Coast Guard was enjoying outstanding recognition for its life saving missions. Many senior officers were opposed to the idea of transitioning to a “Maritime Police Force” Regardless of the reason, this lead to a rapid expansion of the Customs service and engagement in the War on Drugs. The Customs Service may have been guilty of self serving expansion; or it may be they were aggressively filling a vacuum. Most probably a combination of both.

By 1976 large amounts of Columbian marijuana were reaching the United States in the “mother-ships”. These large vessels carried bulk shipments of marijuana to prearranged points off the U.S. Coast. The ships moored far enough away from shore to avoid notice, and off loaded their cargo to small boats and fishing vessels that could smuggle the drug ashore less conspicuously and avoid detection. During the early part of the year, Drug Enforcement Agency (DEA) aircraft flew surveillance flights up and down the coast of La Guajira, Columbia, a major embarkation point



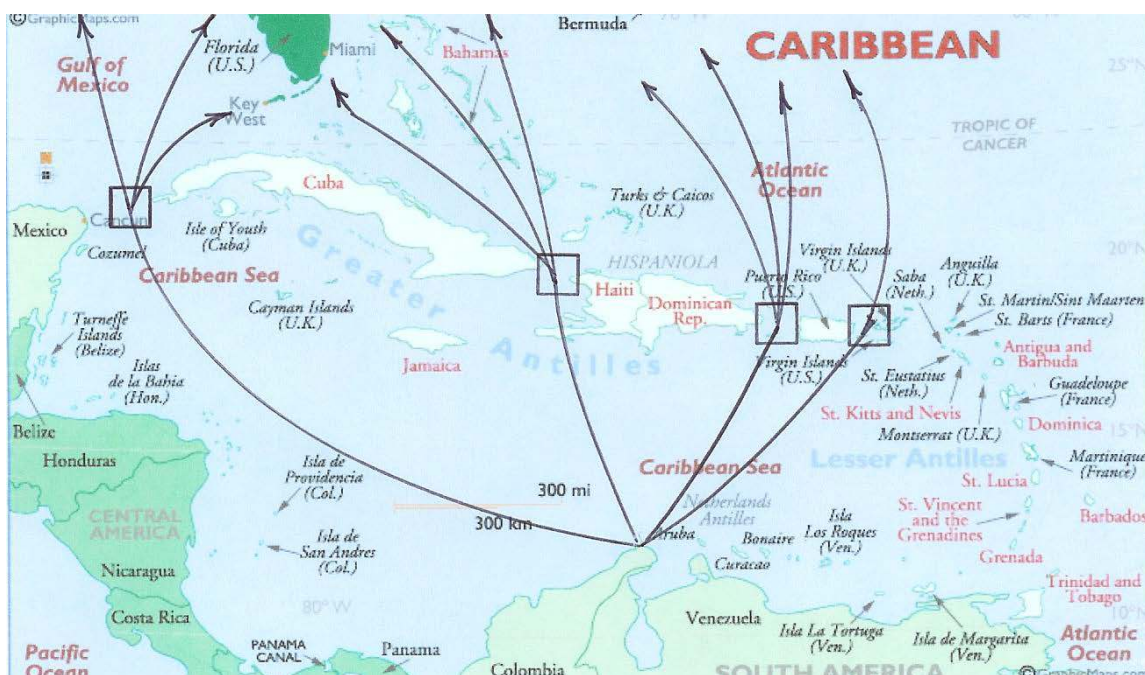
Typical 190 foot small freighter

for marijuana smuggling operations. Ships were loaded off the beach in a scene that resembled a World War II amphibious operation. Trucks ran between warehouses and the beach. Bales were loaded by means of floating platforms or directly up ramps to the vessels. The DEA aircraft identified the vessels and reported the information to the DEA's El Paso Intelligence Center, which then relayed the information to the Coast Guard.

The Coast Guard developed an interdiction system whereby existing assets could be concentrated to intercept a transporting vessel prior to it reaching its destination. In order for a vessel, leaving the La Guajira Peninsula on the north coast of Columbia, to reach drop-off areas adjacent to the United States they had to transit one of four passages through the islands of the Caribbean. These passages were referred to as choke points

Cutters took up station at a choke point. Helicopters were placed on flight-deck equipped cutters greatly increasing coverage and effectiveness. Fixed wing aircraft flew surveillance flights in support of the cutters. They also patrolled the potential drop points. Intelligence information provided by the Drug Enforcement Agency significantly increased the interdiction rate

The Coast Guard efforts became increasingly effective and began to make serious inroads into the drug operations. The smugglers adapted their operations to counteract this. By 1980 Marijuana smuggling had evolved into a highly efficient business. Operations were conducted according to specialized divisions of labor and expertise. Off load coordinates were passed at the last minute utilizing alpha-numerical codes. Air surveillance was used by the smugglers to ensure an off load point where a Coast Guard cutter was not present and high speed chase boats would



Typical 1978 marijuana routes from La Guajira, Columbia to the eastern United States passing through choke points.

check out the off-load area just prior to the arrival of the mother-ship. Marijuana, once carried openly, now began to be transported in hidden compartments. In spite of this, the Coast Guard choke point strategy, utilizing a combination of aircraft and surface vessels, was able to interdict a growing number of smugglers before they got to their off-load points. This strategy became known as Operation STEEL WEB.

The use of foreign and stateless ships became the mode of operation. In order to take enforcement action against a foreign vessel a Statement of No Objection (SNO) was required. Under the terms of the 1958 Geneva Convention, one nations naval or Coast Guard unit must receive permission from another nations government to board the latter's vessel on the high seas. The procedure to obtain this was cumbersome but the procedure had been developed in the 1960's for foreign fishery enforcement boardings and the SNO was usually obtained within a few hours. If the vessel was determined to be stateless or if the Master of the suspect vessel gave permission to board, no SNO was necessary. If contraband was found after a consensual boarding, a SNO was necessary to seize.

A number of events, starting in 1980, provided significant help in interdiction efforts. The Biaggi Act (21 USC 955a) expanded U.S. jurisdiction over U.S. and stateless vessels and the Cuban boatlift ended thus freeing up Coast Guard resources. In December of 1981 Congress amended the Posse Comitatus Law to enable the military to give indirect assistance to law enforcement entities, including sharing of intelligence, use of military equipment and facilities, and training of civilian law enforcement personnel. Three former Navy salvage tugs were outfitted and commissioned as Coast Guard cutters and three Surface Effect Ships were obtained. In Miami, drug related crime had risen to the point where it finally caught the nation's attention and

President Reagan created the South Florida Task Force (SFTF) to coordinate the activities of all agencies involved in the drug war.

The Seventh Coast Guard district encompassing 1.8 million square miles of the Atlantic Ocean, Caribbean Sea and a portion of the Gulf of Mexico exercised operational control. In the period 1982- 1984 RADM D.C. "Deese" Thompson, US Coast Guard was Commander of the Seventh Coast Guard District and the SFTF coordinator. Secretary of the Navy John Lehman authorized the Navy to support the Coast Guard with air and surface surveillance, towing or escort of seized vessel, embarkation of Coast Guard law enforcement details on naval vessels, and logistic support to Coast Guard units. RADM Thompson went to COMPATWINGSLANT and briefed the P-3 community on what the Coast Guard was looking for. Their patrol tracks were modified to put them in the most likely areas for targets of interest. The P-3s carried a Coastguardsman onboard. Once the Navy units were committed they chopped to CCGD7 operational control. The Coast Guard LANTAREA sent additional high endurance cutters (WHEC) and medium endurance cutters (WMEC) and some patrol boats (WPB) from other Districts in LANTAREA. They also chopped in and chopped out. The Coast Guard, for the first time, was able to maintain an almost continuous presence at all choke points. Coast Guard C-130s were made available when not tasked for other operations. HH-52s were sent out with the WMECs and WHECs within the limits of availability and as rapidly as pilots could be qualified for night shipboard operations.

A number of the WMECs and WHECs were forced to take up station without a helicopter aboard. There were not enough helicopters in CGD7 to provide both SAR coverage and shipboard interdiction operations. Additional helicopters from other Coast Guard Districts were assigned on a temporary basis for specific periods of time but there was reluctance on the part of the aviation community to regularly deploy them. Each helicopter temporarily assigned to a WMEC or WHEC for drug interdiction in CGD7 directly affected the mission capabilities of the units designated to deploy them. There had been significant mission creep with no additional aircraft and no funds to procure them. Commandant Hayes had just recently been in a battle with the Bureau of the Budget (OMB) whose intent was to drastically reduce the Coast Guard budget and civilianize major portions of the Service. As a result there were not enough aircraft to adequately cover the missions the Coast Guard had been assigned.

Despite political posturing, fears of a military takeover, continuing interagency rivalries, and differences in emphasis, the South Florida Task Force (SFTF) provided a degree of multi-agency coordination not previously obtained. The Vice President made regular visits and as SFTF coordinator RADM Thompson would brief him. President Reagan paid a visit in November 1982 to reassure South Florida that actions were being taken to coordinate a more effective effort against "drug smugglers and the narco thugs." RADM Thompson as SFTF coordinator briefed him on board the USCG Dauntless moored at the USCG Base Miami Beach, Florida. Drew Lewis, the Secretary of Transportation, called RADM Thompson the day before the briefing to make it known that he did not want him pressing for more USCG resources and requested a copy of the Admiral's brief. The Admiral told him that he would not be speaking from a brief. This illustrates the adverse and detrimental environment the Coast Guard was working in. Given a

mission responsibility the Department the Coast Guard was operating under would not give them the assets to do the job.

RADM Thompson later commented, “The President asked me several direct questions. The briefing room was secure and there was no note taking. I did not choose to lie to the President of the United States. We had a very fruitful and candid discussion of our strategy, tactics, and need for more assets for us and better cooperation from some of the reluctant agencies.” This was not looked upon favorably within the Department of Transportation.



Standing; RADM “Deese” Thompson; Attorney General William French Smith, President Ronald Reagan, and Coast Guard Commandant James S. Gracey; are on the right of the picture; On the left is D7 Chief of Staff CAPT Allen Breed and in the foreground the Commanding Officer of the USCGC Dauntless

The transfer of the U.S. Coast Guard to the Department of Transportation Hard times and a near Disaster

When President Lyndon Johnson took office he presented several reorganization plans for the Executive Branch. At this time Najeeb Halaby, administrator of the Federal Aviation Agency, had become increasingly frustrated over the development of a supersonic transport because he thought the Defense Department had locked the FAA out of the administration's decision-making for this and future programs. He concluded that the agency could do a better job as part of an executive department that incorporated other government transportation programs. At this time

the Under Secretary of Commerce for Transportation administered the functions now associated with the Federal Aviation Agency. Halaby suggested to the President that the FAA be made part of a Cabinet Level Department of Transportation.

On April 1, 1967 the fourth largest federal agency and brought approximately 95,000 employees in to the new organization. The Department of Transportation Act (Public Law 89-670) brought 31 previously scattered Federal elements under the wing of one Cabinet Department. The legislation provided for five initial major operating elements within the Department. Four of these organizations were headed by an Administrator: the Federal Aviation Administration; the Federal Highway Administration; the Federal Railroad Administration; and the Saint Lawrence Seaway Development Corporation. and the US, Coast Guard which had previously been in the Treasury Department

This was strongly opposed by Secretary of the Treasury Henry H. Fowler. The opposition was duly noted but the Secretary was informed that if the Coast Guard remained in the Treasury Department it would lose all functions related to transportation safety. The Commandant, Admiral Edwin J. Roland, recognized that opposition to the transfer of the Coast Guard to the new department would bring about the break-up of the Coast Guard leaving the remnant as a latter day Revenue-Cutter Service. He decided not to oppose the transfer seeking only to assure that the Coast Guard would retain its identity as a military service under the new Department of Transportation (DOT).

The Department of Transportation is responsible for helping maintain and develop the nation's transportation systems and infrastructure. DOT carries out planning that supports the movement of Americans by cars, truck, trains, ships and planes With air travel, the Transportation Department has a more hands-on role, as it regulates commercial airlines and airports in a dual effort to both promote the industry and ensure the safety of passengers. Only about a third of the Coast Guards work involved transportation-maintaining aids to navigation, guiding vessel traffic, inspecting ships, etc. The other responsibilities are search and rescue, maritime law enforcement-drug and immigrant interdiction, fisheries law enforcement, assisting with military operations, training foreign navies and the like-tasks commonly associated with the Defense Department.

The Coast Guard attempted to educate the new department on the validity of its roles and missions as well as the interdependence and cross utilization of assets which allowed the Coast Guard to perform its missions so well. Unfortunately, the objectives of the Coast Guard and DOT never coalesced. The operational qualities and requirements of the Coast Guard were not fully appreciated and Transportation Secretaries were seldom willing or able to expend political capital on the Coast Guard's behalf. A little over a decade after transfer the Coast Guard would face a concerted effort from within the Department to de-militarize and privatize it while turning a good number of its functions over to other agencies or commercial concerns. In the early 1980s the Coast Guard was engaged in fighting for its very existence.

In 1967, the year the Coast Guard became part of DOT, it had active duty strength of about 35,000 personnel. At the turn of the century the Coast Guard still had an active duty strength of about 35,000. In the intervening years however, significant events occurred that increased both

the complexity and scope of Coast Guard missions. The Magnusson-Stevens Fisheries Act of 1976 provided the United States with a 200 mile Economic Exclusion Zone and assigned the Coast Guard law enforcement responsibilities for it. Counter Narcotic operations took a dramatic jump and by 1998 consumed 17% of the Coast Guard's operating budget. Migrant Interdiction increased dramatically with the large Cuban exodus of 1980 which turned into a large scale search and rescue operation. Migrant flows are now countered from multiple directions and countries. The grounding of the tanker EXXON Valdez in Alaska resulted in a flood of oil pollution laws and the bulk of regulatory development and enforcement fell upon the Coast Guard. In a series of speeches and congressional testimony given during 1999 by ADM James W Loy, Commandant of the Coast Guard, the seriousness of the Coast Guard's predicament was addressed. ADM Loy ticked off alarming indicators that the Coast Guard wasn't always ready anymore. Adjusted for inflation the Coast Guard budget actually decreased by 30 percent between 1992 and 1998 and by 2000 it had been forced to cut scheduled operations by 10 percent.

On March 1, 2003 the Coast Guard became part of the newly created Department of Homeland Security. Though not perfect it is a much better fit and will be **much more** advantageous to the Coast Guard and the public it serves. The incentive to engage in large scale maritime marijuana smuggling operations was generated by the enormous profits that could be realized. Good grade Columbian marijuana was purchased at the supply end for \$35 a pound. The cost of a pound of marijuana at wholesale in the Southeast United States averaged out at \$450 a pound. The average mother ship carried between 10- 15 tons of marijuana. A shipment of 24,000 pounds would generate a gross profit of almost 10 million dollars. The mother ship had a Captain, an Engineer and depending on the size eight to ten crewmembers representing a cost of \$350,000 for manning and operating expenses. Aircraft surveillance would run about \$275,000. A chase boat and off-load boats would add another \$250,000. Handlers and off-load storage another \$200,000. A payment of 1 million went to a middleman. The principals still made \$7.88 million on each successful two-to-three-week round trip.

Although it was not realized at the time, the years 1982-1983 marked the turning point in maritime drug interdiction operations. The Organized Crime Drug Enforcement Task Forces were created to go after key traffickers and their money sources. The SFTF concept was expanded and the National Narcotics Border Interdiction System (NNBIS) had been created bringing the Department of defense and the national intelligence community assets into the drug war. The Coast Guard manning choke points on a continuous basis, with valuable assistance from the Navy, became very effective in interdiction operations.

Drug interdiction on the West Coast was considerably different than the Caribbean and the Atlantic areas. There were no natural choke points that smuggling vessels had to pass through. Initially, off-shore drug patrols, using 82-foot and 95-foot patrol boats were regularly conducted. Admiral Gracey, COMPAC at the time, stated they were not effective so they were discontinued and reliance was placed on over-flight patrols conducted by aircraft. The homeports of the patrol boats were moved to locations that enabled them to arrive on scene rapidly if intelligence dictated or a suspected smuggler was spotted by an aircraft. He went on to say that occasional patrols were made to establish a presence. In addition C-130 aircraft were deployed to Howard

Air Force Base in Panama and flew patrols along the Panamanian, Columbian, and Ecuador coasts looking for ships that fit the profile. When one was found it was trailed until a destination was established. This was possible with the existing limited assets because the drug smuggling was not near as intense as in the Caribbean.

The total maritime marijuana seizure statistics for the period 1977 through 1982 compared to 1975 reflects the tremendous increase in marijuana smuggling. It also indicates the increase in U.S. interdiction efforts. In 1978 almost 3 million pounds of marijuana was interdicted and 115 vessels were seized. During 1980 the Coast Guard was actively engaged in alien migrant interdiction but marijuana seizures remained high. During the last three months of the year 69 vessels were seized for a total of 101 vessels seized during the year. Seizures rose to 126 in 1981 and to 145 in 1982. The amount of marijuana seized also continued to increase peaking in 1982 at 3.5 million pounds. In 1983 there was 3.1 million pounds intercepted, 75% of which was intercepted in the Caribbean. The Coast Guard accounted for roughly 80% of the marijuana seizures or 2.4 million pounds while seizing 99 vessels. The Columbian participation in Marijuana smuggling participation in the U.S. market receded throughout the 1980s, to become almost marginal. Primary Marijuana sources became Mexico and Home Grown. The Colombians turned to Cocaine which produced greater profits and much more difficult to interdict.

Cocaine:

The Bahamas, a sparsely settled group of islands extending from a point seventy miles off the East coast of Florida to just northwest of Haiti, gained independence from the United Kingdom in 1973.

Carlos Lehder, one of the kingpins of the Medellin Drug Cartel, arrived there in 1978 and started buying up property at Norman Cay. By 1980 he controlled the entire Island. The Bahamas became a trans-shipment point for Marijuana and Cocaine. Peter Bourne, President Carter's Special Assistant for Health Issues believed that Cocaine was not a health hazard. Emphasis of the DEA was on Heroin. The smuggling of cocaine grew exponentially when Lehder and the Medellin Cartel developed a sophisticated air smuggling operation through the Bahamas in 1980.

Lehder's plan revolutionized the cocaine trade. Previously drug dealers relied on human "mules" to smuggle the drugs on regular commercial flights. Utilizing Norman Cay for a trans-shipment point much greater quantities could be transported with far less risk of interception. Lehder built a 3,300 foot runway protected by radar and armed guards. Flights were made to Columbia to pick up cocaine on a regular basis. The cocaine would then be transferred to small personal-type aircraft that would transport it to drop points in the States. These aircraft would blend in with the high density low altitude weekend traffic between the Bahamas and the Florida coast. The Bahamian government did nothing to curtail this and other operations.

In 1982 the Bahamian government, in response to pressure from the United States, began to crack down on this and other drug activities. The Norman Cay operation was shut down but the use of the Bahamas as a trans-shipment point for marijuana and cocaine continued unabated. The police forces of the Bahamas and the British-administered Turks and Caicos islands were ill-equipped to locate and stop the smugglers' aircraft and small boats. An Agreement was entered

into by the British, Bahamian and United States governments to cooperate and enhance the ability of the Bahamian government to interdict, prosecute and convict drug traffickers. In April, with little fanfare, OPBAT became operational. It was initiated by a contingent of the South Florida Task Force (SFTF), with the Drug Enforcement Agency (DEA) as the primary agency. The DEA provided two helicopters that transported Bahamian police detachments to the islands identified as air and boat trans-shipment sites. The agreement also gave U.S. interdiction forces the right to fly in the islands' air space and patrol their contiguous waters.



In 1983 two U.S. Air Force UH-1Ns replaced the DEA helicopters. In 1987 U.S. Coast Guard personnel assumed the responsibility for the OPBAT operations center in Nassau and Coast Guard HH-3Fs, deployed from Air Station Clearwater, took over operations out of Nassau and Freeport. Army helicopters operated out of Georgetown. In 1991 the Great Inagua OPBAT site opened and it also was manned by Coast Guard HH-3Fs. During the period 1993-94 the HH-3F helicopters were replaced by the HH-60J.

The Department of Defense (DOD), through the Joint Interagency task Force-East (JIATFE) and the Custom Service (USCS) through the Air and

Marine Interdiction Coordination Center, provided detection and monitoring of suspected air and surface smuggling targets as they depart South America and other Caribbean locations, enroute to the Bahamas. Airborne targets, generally twin engine turbo-prop aircraft, air dropped cocaine to boats waiting in the Bahamian waters or landed at remote island airstrips where the contraband was loaded on waiting vehicles. Small high speed boats, called “go-fasts”, 28 to 40 feet long fitted with three or four 250 horsepower engines, passed through the Windward Passage between Haiti and Cuba hugging the Cuban coast. About halfway up Cuba’s northern coast the smugglers turned their boats north and raced into Bahamian territory, hoping to make landfall unobserved.

OPBAT utilizes its helicopters to effect apprehensions and seizures once the contraband has reached Bahamian territory. This is more difficult than what it would seem to be. The Bahamas consist of over 700 islands that cover a geographic area roughly the size of the state of California. Anticipating the drop site and adequately covering the area with widely dispersed helicopter bases is a difficult task. The effective use of intelligence is therefore critical to successful operations. OPBAT has a Tactical Analysis Team (TAT), manned by DOD intelligence specialists and USCS Intelligence Analysts.



HH-60J OPBAT operations

The Government of the Commonwealth of the Bahamas and Government of the Turks and Caicos Islands provided police officers who flew all OPBAT missions and were responsible for making arrests and seizures. A DEA Special Agent was also on board every flight to provide advice, coordination and the collection of intelligence to be immediately disseminated to all participants. Over all management was vested in the DEA Nassau Country Office. Coast Guard helicopters made daily daylight

checks throughout the islands. They were amphibious and could land just about anywhere. Night runs were flown several times a week. The HH-3E with its FLIR (infrared radar) was especially suited for this. They could identify and track smugglers before the drop, at the drop, and after the drop. They could track and direct people on the ground. The Bahamian police officers would wear transponders and thus the people in the helicopter could tell the “bad guys” from the “good guys” and direct the ground agents as they apprehended the smugglers.

The Bahamas proximity to the United States and the sheer extent of its area guaranteed its continued use as a target for drug trans-shipment and other criminal activity for a foreseeable future. The Bahamas is expected to continue its strong commitment to the bilateral counter narcotics efforts but because of its relatively small budgetary resources it will continue to depend upon significant U.S. assistance. OPBAT is an example of cooperation and coordination between entities. It has responded to the changing patterns and techniques of the drug traffickers employing innovative and advanced technologies. It has been a successful operation and with continued flexibility will remain so.

The Coast Guard goes on the offense – Operation Hat Trick:

Operation HAT TRICK was a series of offensive operations. The first offensive strike was a DEA special operation which located the cocaine-processing facilities in Columbia. Mexico had gotten back in marijuana production and Mexican Federal Police and DEA agents destroyed a large marijuana growing operation in Chihuahua. The Chihuahua operation was the second strike. The third offensive operation was maritime; known as Operation Wagon Wheel, it was a multinational, multi-service, winter drug interdiction operation, which included protracted operations in the Caribbean, off the coast of Columbia, and in the Bahamas. RADM Richard Cueroni, Commander of CGD7 and NBISS Coordinator, had the operational responsibility. The plan was conceived and executed by CAPT G. Stephen Duca as Chief of Operations.

The operation was planned in two phases. Phase I was the deployment of ships and aircraft to reinforce the patrol line in the western Bahamas and along the choke points from the Yucatan Peninsula to the Virgin Islands. In Phase II the choke points remained manned and the patrol force moved south to the coastal waters of Central and South America with a focus on the Guajira Peninsula of Columbia. The object was to bottle up the smugglers and keep them from going to sea. This force was named Operation Wagon Wheel. The entire operation covered a segment of a circle with an arc extending from the Yucatan Peninsula to the eastern boundary of the Leeward Islands, touching Panama and Columbia. The area inside the segment, with its center in South Florida, encompassed the Caribbean. This was The operating area was divided into three zones. The departure zone was near drug-producing nations and trans-shipment points extending seaward from their territorial limits to 100 nautical miles. The arrival zone was the mainland of the United States and its territorial waters to a point 12 nautical miles offshore. The area in between was the transit zone.



Operation WAGON WHEEL forces consisted of the Coast Guard cutters *Northwind* (WAGB-282) serving as flag ship, four high endurance cutters, six medium endurance cutters, two surface-effect cutters, two patrol boats and four buoy tenders. The Navy contributed a guided-missile destroyer (DDG), a guided missile frigate (FFG) and three high-speed hydrofoils (PHM). Air support was three Navy P-3 Orions, two Coast Guard C-130s, and a Coast Guard HU-25 Falcon, for long range surveillance. Five Coast Guard HH-52 helicopters operated from surface ships.

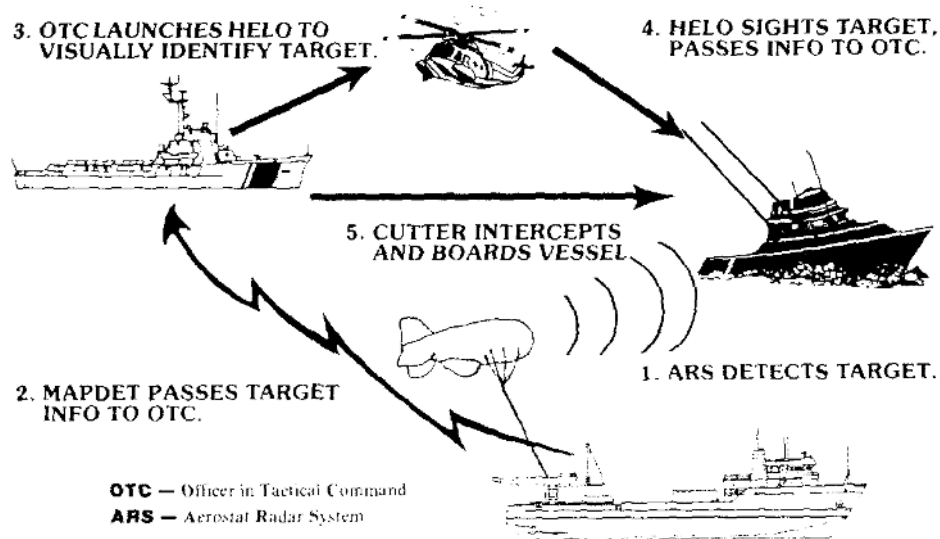
HH-52A

Phase I began 31 October 1984. Phase II began 22 November as the patrol line moved south toward Columbia. From a maritime interdiction viewpoint confiscation and seizures were less than spectacular and was so noted in the Press. Continuous rain in the marijuana growing areas washed out roads and trails leading to the storage areas. Gale force winds kept many grass boats in the harbor. There is, however, more to the story. Planning for the operation was a closely held secret but this did not last long. The news media broadcasted the event six days before the Caribbean Squadron started its move southward. Alerted, the smugglers began to stockpile marijuana ashore to wait out the United States Forces. The political climate in Columbia was changing and as a result Colombian Forces made in country sweeps eliminating the stock piles. This was not reported by the media. The Caribbean-Squadron joint operation itself was very successful and was kept in place.

Planning started immediately for Hat Trick II, a continuation of the original sea-air effort. The second operation was larger and more diversified. All military services supported the Coast Guard, Customs and DEA. The governments of Columbia, Panama, Venezuela and Jamaica cooperated. The Coast Guard and Navy were the primary maritime interdiction forces while Customs and all military services did air interdiction. A three month concerted effort resulted in the seizure of 1.7 million pounds of marijuana, 22,000 pounds of cocaine and the arrest of 1,300 drug traffickers.

By 1986 Hat Trick became more of a concept than a special operation. It became a year around effort focusing on strategy as well as tactical operations. The Caribbean-Squadron (CARIBRON) concentrated on the departure zones adjacent to the drug producing countries. Both Coast Guard and Navy vessels took part in the operations. Coast Guard law enforcement details (LEDET) were assigned to all Navy ships. Navy ships were under the tactical command of the Coast Guard. Long-range air support was provided by Coast Guard C-130s and Navy P-3s. Local air surveillance was the responsibility of embarked Navy and Coast Guard helicopters. Pulse operations were initiated and, depending on the mission, additional air support was also given by Customs aircraft, Air Force E-3 AWACS, Navy E-2C Hawkeyes, Coast Guard HU-25 Falcons, Marine Corps OV-10s, and Royal Dutch Air Force F-27 aircraft.

The choke-points were reinforced and Coast Guard manned sea-based aerostat vessels were placed on station to increase radar detection capabilities. State of the art electronics were carried aloft to heights up to 2500 feet by helium balloons (SBAs) tethered to a ship referred to as a mobile aerostat platform (MAP). This provided a great increase in radar detection capability. The MAP worked with one or more cutters with embarked helicopters. These were called maritime interdiction surveillance teams (MISTs). A target information system aboard the MAP sent a protected video display directly to the cutter which served as the MIST command and control vessel. The helicopter then investigated the SBA targets. The MAPs were capable of refueling the cutters at sea. The main drawback to the system was that the aerostats were susceptible to weather. A strong wind or a lightning strike could put the aerostat out of commission. Weather therefore had to be monitored at all times. In spite of this shortcoming the aerostats proved to be effective.



The effectiveness of aerial surveillance coupled with ship-board operation proved itself time and again. Naval Air Reserve P-3s and Coast Guard C-130s flew patrols over choke points and primary drop zones. Some of the Coast Guard C-130s were equipped with SLIR which provided an excellent surveillance path covering an area of 35 miles each side of track line from an altitude of 8,000 feet. Upgrading C-130 capabilities continued. This, coupled with increased profile abilities on the part of the aircrews, resulted in a flow of information to the surface vessels which produced positive results. HH-52 helicopters carried on board Coast Guard cutters served as “eyes over the horizon.” Examples of the effectiveness of this concept are numerous. Typical is a multiple drug bust made by the Coast Guard cutter *Diligence* (WMEC-616). A long range surveillance aircraft located a vessel east of the Bahamas that matched the profile and was apparently disabled. The information was relayed to the *Diligence*. When the cutter arrived on scene investigation revealed that the vessel was the *Bismarck*, she was indeed disabled, she was stateless, and her cargo was 30 tons of marijuana. The *Diligence* took the *Bismarck* in tow and headed west to Florida. The cutter continued to deploy her helicopter en route to Miami. During a surveillance flight the helo crew sighted the motor vessel Rosangle with 40 marijuana bales exposed on deck. Since the *Diligence* was engaged with a tow the cutter Lipan was dispatched, made the seizure, and took six prisoners.

By 1986 marijuana was transported in hidden compartments, mother ships were having trouble getting through the Caribbean and were going further to the east in the open ocean. Intelligence was better, the drug operations were being penetrated, marijuana smuggling operations were converting to cocaine, production was down in Columbia and up in Mexico and domestically. Seizures were down but the price of marijuana was going up. The signs were there. RADM Howard B. Thorsen, USCG Southeast Region Coordinator and Seventh District Commander estimated an interdiction rate of 50% and up to 60% in some cases. The Admiral’s estimates would prove to be conservative. Ambrose Weldon, kingpin of the Gulf off-load organization, stated losses exceeded 80% in 1987. Columbian suppliers arranged off-loads at the Belize-Mexico border. He further stated that he had to negotiate with Cuban intermediaries to arrange off-loads within 200 miles of his high-speed boats. Attrition had cut deeply into reliable help. By the end of the year 1987 there were no assets left. (Ambrose Weldon was a cover name given to protect the principal). Columbian multi-ton marijuana smuggling ended in 1987. Total marijuana seizures dropped to about 400,000 in 1988. The media had defined the maritime interdiction program as unwinnable. The Coast Guard had conducted a successful war of attrition in spite of inter-agency disagreements and a lack of clear direction from the administrations. This was not mentioned by the Press. By 1990 an astonishing 74% of marijuana taken was seized on land at or near the Mexican border. By 1993 the wholesale price of marijuana had risen to \$1500 a pound.

Cocaine was a different story. Maritime seizures had risen significantly and would continue to do so but about half of the volume transported by sea was done using commercial maritime containers. Large merchant ships transporting multiple containers were almost impossible to search at sea. Most of the cocaine smuggling was done by air. Air interdiction leading to apprehension at a delivery point was the method of operation. Cocaine had become a real problem by 1985 and in 1986 the Anti Drug Act established a role for the Coast Guard in air interdiction.

Coast Guard Air Interdiction:

The Cocaine threat had become highly publicized by 1986. Congress was not pleased with the existing effort and began developing its own strategy. Critics wanted increased air interdiction activities and faulted the El Paso Intelligence Center for not providing timely tactical information to interdiction agencies. Congress proposed all source Command, Control, Communications and Intelligence Centers (3CI) and provisions to enhance the capabilities of the interdiction agencies. Admiral Paul Yost had just become Commandant and he believed strongly that the Coast Guard should be assigned the expanded air interdiction responsibilities because it had a secure command and control system and a complete infrastructure to train personnel and support its equipment whereas the Customs Service did not.

Even though the Coast Guard was charged under Title 14 for the enforcement of laws on and over the high seas, naked expediency and somewhat naive probity created a void. The Commissioner of Customs, William Von Raab, astutely exploited this and by means of legitimate activism built a fleet of small boats and an air force. To this end Customs had four P-3A aircraft with sensors, a small fleet of interceptor/tracker aircraft, and some Blackhawk helicopters on loan from the Army. The Navy had previously offered the Coast Guard 5 P3 aircraft for interdiction purposes. They would have had to be upgraded. ADM Yost who was Chief of Staff to the Commandant, ADM Gracey, strongly recommended that Coast Guard take them. The Commandant declined because he did not have money in the budget to upgrade, and support the aircraft. Customs took them, went to Congress and got the money to upgrade, installed proper radar, obtained and trained pilots, obtained support and put four in service. ADM Yost stated in his oral history that as Commandant he would not let this happen again.

A Commandant's Air Interdiction Study Group composed of COMDT G-O, G-ole, G-OAI, G-OAV, G-EAE, CAA (AO), CCGD7 (oil) and G-L convened in July of 1986 and produced a finished Coast Guard Air Interdiction Plan. Armed with this information the Commandant briefed and convinced the Secretary of Transportation, Elizabeth Dole, that the Coast Guard already had the necessary infrastructure and trained personnel to accomplish the mission and was the logical choice for the expanded air interdiction effort. Realizing that he would face strong opposition he arranged to personally brief President Reagan at the White House. With Secretary Dole, Secretary of the Treasury Jim Baker, Chief of Staff Howard Baker, and Ed Meese present he made his presentation. The result was that the Coast Guard became involved in the air-interdiction mission.

The Anti Drug Abuse act was passed and signed by the President on October 27, 1986. It was an omnibus drug bill providing funds for education, treatment, and interdiction. In addition to establishing mandatory minimum penalties for drug offenses funds were provided for Department of Defense interdiction assistance, Customs enforcement, Coast Guard drug interdiction enhancement, the United States Bahamas Drug Interdiction Task Force, and three Command, Control, Communications, Intelligence Centers (C3I).

Congress determined that eight Navy E-2C AWAC aircraft should be dedicated to the air interdiction mission. The Navy was to operate four and initially the Coast Guard was to operate four. This was later amended to four Navy, two for the Coast Guard and two for Customs. The

C3I East facility was jointly operated by the Coast Guard and Customs Service. In addition, congress funded APG-66 intercept radar capable of multi-tracking and high resolution FLIR for nine Coast Guard HU-25 aircraft to be used as interceptors and trackers. Funds to add long range surveillance radar to the C-130 inventory was also provided. In addition HH-3F helicopters with FLIR were assigned to OPBAT operations. Within three years, based on operational performance criteria, the Coast Guard operated four E2Cs.

This legislation was the basis for the initial formal participation of the Coast Guard in the air interdiction mission. Up to that time Coast Guard aviation's role in drug interdiction was solely in support of the maritime forces. Helicopters were carried onboard cutters to enhance surveillance capabilities and contributed effectively to the operation. Long range fixed wing aircraft flew patrols in areas of transit identifying smuggling vessels by means of profile and intelligence information. The position of the drug traffickers was relayed to the surface vessel which moved in and accomplished the intercept.



Coast Guard E2C AWAC

The establishment of a Coast Guard role in air-smuggling interdiction was not without controversy. The execution of drug interdiction had been subject to inter-agency disagreements and politics since the beginning.

Coast Guard Air Facility Norfolk CGAW1

Contained in the Drug Abuse Act was a provision for an air facility to support the Grumman E2C Hawkeye aircraft. The Coast Guard was to form an air interdiction unit operating Navy E2C aircraft. The Navy was to provide the aircraft and provide support facilities to operate the aircraft. Naval Air Station Norfolk was the designated naval support facility for E2C aircraft and became the initial site of CGAW1. The Coast Guard met with the Navy and the Grumman Corporation to discuss the implementation of a Memorandum of Agreement (MOA). During the discussion it became evident that NAS Norfolk had no hangar space, no buildings, no excess furniture, and no phones available for Coast Guard use. There was a vacant area next to the VAW squadron seawall which was utilized. The MOA was signed off on 2 January 1987 and orders

were issued for a pre-commissioning detachment to report to Norfolk and begin forming the unit.

Temporary office spaces were obtained and hundreds of details had to be taken care of. Everything from service records to procurement of basic office supplies had to be looked after. The Coast Guard had never flown the E2C so aircrew qualification was required and Grumman assisted in maintenance training. The Hawkeye was equipped with an electronically advanced radar package which additionally required specialized maintenance and operational training. Intense on the job training was commenced. Flight Officers, necessary to interpret radar data and coordinating intercept targets, were obtained from the Navy and direct commissioned in the Coast Guard. The Coast Guard did not have Flight Officers and did not have the time to train them. This would be modified later on. The unit was formally commissioned on January 22 under the command of CDR. Norman Scurria.

Amazingly the first operational mission was flown on 9 February and on the 10th the unit got its first bust bringing down a twin engine aircraft full of cocaine. This is a testament to the skill level of the crewmembers and the pre-planning, asset allocation and operational procedures established by CCGD7 during the previous three months. Further amplification of pre-planning and operational procedures is included under the C3I heading.

For the first two months the aircraft were flown at a 600 hour per year level which was the Navy programmed level. In month three the unit increased that to 800 and by the end of six months the aircraft were at the 1,000 hour level. Customs was getting barely 500 hours per year and it was not long before the Coast Guard was also operating the E2Cs initially assigned to Customs. This led to the transfer of assets to St. Augustine, Florida.

The E-2C was an ideal platform to initially acquire targets; closely control intercept aircraft, data link a "real time" picture to an operations center, and provide command/control services for other aircraft. The E-2C long range, 360 degree AN/APS-125 search radar was capable of detecting small targets at great range. An example of this capability was demonstrated during the training period. CCGD5 reported a tug had arrived Norfolk and had lost a tow of three barges the previous day. They asked if the E2C would do a radar sweep from altitude to see if they could attempt to locate them. The E-2C radar picked up a blip, not accounted for, at over 200 miles. An Aircraft was vectored to investigate the blip. It was the lost barges

Initially intercept missions were assigned by the South Florida Interdiction Center. This was a joint operation of CCGD7 and the US Customs Service. CGD7 also assigned many planned and dedicated Air Interdiction missions based on intelligence inputs and using resources from multiple agencies in pulse type operations. When C3I became operational the E2Cs, COMLANTAREA assets, "Chopped" to C3I for mission assignment and control.

C3I East

In the mid 1980s drug interdiction forces went on the offensive. A series of multi-agency sea-air operations to block drugs from Caribbean sources began. These would evolve into an ongoing concept. The Coast Guard was the lead agency for marine interdiction. The value of aviation resources to Coast Guard counter-narcotic interdiction efforts had been demonstrated repeatedly. Recognizing the need for direct aviation input on the planning of large Caribbean drug

operations CAPT John Hearn, CCGD7 Operations/Law Enforcement, requested an Aviator billet for his staff. LT Dan Slyker, a helicopter Aircraft Commander and a former Chief Gunners Mate with extensive law enforcement experience, was assigned. By the fall of 1985 these operations included rudimentary air interdiction procedures. They were mainly instructions for aircrews and search radar capable vessels when observing aircraft that fit the profile and/or engaged in airdrops of contraband. The procedures were expanded and became more detailed OPORDS for on-going drug interdiction operations that followed.

The National Narcotics Border Interdiction System (NNBIS) was established in 1983 to provide interagency counternarcotics intelligence coordination and drug interdiction planning. The NNBIS was divided up into regions. The South Florida Task Force (SFTF) was the regional center covering the lower Atlantic coast from Florida to North Carolina and most of the Florida Gulf Coast. The SFTF had an Operations Information Center (OIC) and an Intelligence Information Center (IIC). The regional center evaluated and collated intelligence from participating agencies. They identified targets and determined those with seizure potential. The target vessel or aircraft was tracked in OIC and the OIC watch officer located an interdiction resource in the targets path. It was the agency that owned the interdiction resource that made the decision to intercept, board, search, seize and arrest.

Upon enactment of the Anti Drug Abuse Act the Commandant wanted immediate Coast Guard involvement. Lt. Slyker, CCGD7 Air Operations/Air Interdiction Officer, was a participant in Commandant Yost's Air Interdiction Study Group and was tasked with the implementation of Coast Guard Air Interdiction operations. Operational areas were chosen based on intelligence from SE NNBIS, JFTF, and OPBAT. Air intercept procedures were developed. Coast Guard aviators could make a hoist in extremely adverse situations or drop a pump on a dime, but they had no experience in covertly approaching and identifying a possible drug smuggling aircraft. Rules of engagement, communication plans, and operational procedures were developed and implemented. Air intercept operations began in mid December utilizing available assets. The E2Cs began flying in February.

Upon initial entry of the Coast Guard into air interdiction, the Customs Service (USCS) and the Coast Guard (USCG) jointly manned a South Florida Air Interdiction Center (AIC) in coordination with the Federal Aviation Administration's Miami Control Center. Air intercept controllers were provided by the Customs Service and the FAA. The increased air-interdiction operations placed a significant additional burden on the FAA controllers and as a result the Coast Guard decided to utilize personnel with a Radarman rating and train them as dedicated air intercept controllers. The job title of Detection Systems Specialists (DSS) was chosen to match that used by Customs to eliminate confusion in a joint operation.

C3I East was dedicated on 27 April 1987. It was a highly sophisticated facility capable of receiving input from a number of radar and intelligence sources – sort and evaluate the information – dispatch assets and coordinate intercept operations by federal, state, and local law enforcement agencies. Commissioner of Customs William von Raab and Commandant of the Coast Guard, ADM Paul A. Yost, both spoke at the dedication extolling the capabilities of C3I East. President Bush did the same and emphasized that the facility provided the best example of

how agencies would work together to wage war on drugs. This would not be the case. Customs saw the entry of the Coast Guard into air-interdiction and Miami C3I facility as an erosion of their authority and mission responsibilities and reacted accordingly.

CAPT Jim Leskinovitch, the Coast Guard Officer in Charge, with the assistance of LT. Dave Masiero headed up the pre-commissioning detail. Pre-planning requirements were determined and procedures were detailed. Operational inputs were obtained from Coast Guard sources as well as other agencies. Manning requirements were established. Watch Officers and 38 Radarmen had to be trained for air interdiction operations. Lt Slyker was assigned as the Tactical Air Missions Planning Officer in June. Lt Masiero was the Senior Command Duty Officer and was responsible for training. A dual operation took place at C3I and the Air Interdiction Center at the Miami ARTC for several months to facilitate a smooth transition.

Realizing that intensive training would be required to fully qualify the Coast Guard watchstanders in a field they had never been exposed to before, CAPT Leskinovitch obtained assistance from U.S. Air Force Training Specialists and Subject Matter Experts. Air intercept training was provided at Tyndall AFB where the Air Force had a training facility set up that duplicated "real-time" intercept information at the Southeast Sector Operations Center (NORAD). This was combined with weather, FAA operation procedures and terminology. A quality training program was established. Customs was invited to participate but Mr. Denmat, the Customs Officer-in-Charge at the local level, declined the invitation. They were later directed by Customs Headquarters to participate. The result was high caliber well trained operators.

C3I used an automated system with a computerized display. The system accepted feed from the FAA, tethered Aerostat balloons, all Customs and Coast Guard aircraft and vessels, inputs from Joint Task Force 4 (JTF4).^{*} This information was sent to all work stations giving each watchstander updated information. A radar contact could be traced from the beginning to the end of its trip. In addition to the radar contact the watchstander had the location of all law enforcement vessels and aircraft in the area and the projected destination. The instant access provided was invaluable in interdiction efforts.

A hypothetical scenario is as follows. ----- A Coast Guard E2C airborne detection aircraft on patrol picks up a radar blip on the monitor. It is a small aircraft, more than 150 miles away, headed north from Columbia, flying close to the water. The contact is fed into the system and a computer data base shows that there has been no flight plan filed. While the E2C continues its radar patrol, a Coast Guard or Customs jet is dispatched to intercept. Intercept is made. The jet matches speed and moves to within 15 yards to obtain aircraft identification number. It is phony. The jet continues surveillance or, depending on the point of intercept, a propeller driven aircraft designed for long flights takes over the intercept and trails the suspected aircraft. This can continue for an extended period of time with the pilot of the suspected drug running aircraft either unaware that he is being followed or trying to figure out how to lose the pursuer. Finally the drug-runner makes a move toward a remote airstrip in central Florida. An alerted Customs or Coast Guard helicopter, with night vision capabilities, is dispatched with armed lawmen on board. When the suspected drug-runner touches down the helicopter is behind it. The Federal agents jump from the helicopter and rush the plane. If the hunch is right, a drug bust has been made.

* The FY 1989 National Defense Authorization Act designated the Department of Defense as the lead agency for the detection and monitoring program targeted against the aerial and maritime traffic attempting to bring drugs into the United States. Three task forces were established to direct the anti-drug surveillance efforts. JTF4 was located in Key West Florida. They coordinated through the controlling agency and were very effective.

Coast Guard Air Station St. Augustine:

CAPT Tom Johnson assumed command of CGAW1 in July of 1989. He had earlier initiated increased Coast Guard aviation activities in the Operation Bahamas, Turks, and Caicos (OPBAT) and had been directly involved in initial Coast Guard acquisition of the E-2Cs. Shortly after his arrival Air Facility Norfolk (CGAW-1) was disestablished and relocated to St. Augustine, Florida. Again working out of trailers, the high tempo air interdiction operations continued. Construction of a new hangar complex, a state-of-the-art 78,000 square foot facility, was completed in November. Two additional E-2C previously operated by the Customs service had been obtained and the station's personnel complement was increased to 140. Air Station St. Augustine was formally commissioned on 26 January 1990.

Whenever narco-smugglers felt that the law enforcement agencies were on to their operation they would make changes in methods and procedures. Based on best intelligence and habit patterns basic air interdiction operations were developed. In the early 1980s the Custom Service significantly curtailed smugglers flying loads of drugs directly into remote/rural fields by putting radar operators into the FAA Miami Control Center to sort low/slow inbound aircraft targets that met the profile of operations. They would deploy enforcement teams on helicopters and track the smuggler to point of landing where an arrest and seizure would occur. These operations took place in the arrival zone which was the Custom Services area of responsibility. The Coast Guard had been given marine interdiction responsibility for the transit zone which extended from the U.S. shore line to the 12 mile limit of the source country. When the Coast Guard became actively involved in air interdiction a good deal of emphasis was placed on the transit and departure zones. With the change in mode of operation the E-2Cs were deployed to six foreign Forward Operating Bases in the Caribbean stretching from Belize to Carioca to Grenada. In addition many CONUS bases were routinely used as staging areas. Deployment locations were based on known methods of operation and intelligence information that was getting better and better. This type operation proved to be most effective. During the last year of operation E-2C aircraft were deployed 293 days out of the year.

With Tactical control of assets exercised at the C3I center the Coast Guard operation became the model for joint interagency cooperation. As the Joint Task Force 4 (JTF4) came on line in 1989, the E-2Cs became an integral part of their AEW operations. Jorge Ochoa, a principle of the Medellin Cartel, testified to the effectiveness of this operation stating that the interception rate was high enough that they established new routes through Central America.

Coast Guard Air Station St. Augustine, CGAW-1, was disestablished 22 November 1991. VADM Welling, Atlantic Area Commander spoke words of praise and tribute to the men and women

who for a period of five years flew, operated and maintained sophisticated E-2C Hawkeye AEW aircraft in an exemplary manner.

In 1987, LTJG Norm Schweitzer reported to Naval Air Station Pensacola, Florida as one of the first two Coast Guard officers selected for the Coast Guard Flight Officer program in support of the newly acquired E-2C Hawkeye aircraft. Previous to this all Flight Officers were direct commissioned out of the Navy or Naval Air Reserve, He went on to earn aviator wings and was the Commanding Officer of the Houston Air Station during the Hurricane Katrina response in 2005. ADM Yost had promised all direct commissioned Flight Officers a career in the Coast Guard. This promise was kept. Five Flight Officers were selected to receive pilot transition. The others chose to embark on new and challenging career paths within the Coast Guard.

Air Intercept Aircraft:



HU-25 with air intercept radar

Initial intercepts were made using HU-25A and HU-25B aircraft while waiting for the modified HU-25C to come on line. This was difficult and required intercept control from the E-2Cs to be effective. By means of training exercises, utilizing Coast Guard Auxiliary aircraft as Targets of Interest (TOI), crewmembers learned to use their weather radars to roughly gauge closure rates. The HU-25C was equipped with an

APG-66 radar for air-to-air intercept, improved Forward Looking Infra Red (FLIR) radar for close-in tracking, and an Electro-Optical day color Electro-Optic device and military satellite communications. The HU-25C had an advanced tactical workstation, with data base, capable of tracking up to 30 surface contacts simultaneously, significantly improved command, control, communications, computers and intelligence capabilities. The APG-66 radar made available to the pilots, on a radar display, the target closure rate, altitude, speed and heading. With the HU-25C operational it became a “whole new ball game.”

The HU-25Cs were also forward staged to many locations throughout the Caribbean including GTMO Borinquen, Nassau, Curacao, Grenada, Panama, Honduras and Belize. They were used effectively. They might fly in support of a Coast Guard E-2C on one day, a USCS P-3 or USAF E-3 the next day, or French, Dutch or British West Indies Guard (WIG) ship, GTMO radar, a USN Aegis-equipped vessel, or Relocatable Over-The-Horizon Radar (ROTHOR) on any other given day of any given deployment.

A HU-25C was maintained at the ready with a qualified Air Intercept crew. If a suitable aircraft and qualified crew was not airborne and available for divert a HU-25C was placed on ready alert. The aircraft was preflighted with all flight gear on board. The Inertial Navigation System (INS) was aligned and then shut down in order to be able to perform a rapid alignment at launch. Intercept procedures were established by which identification of an aircraft by means of aircraft

number and general description was made and a trail position established both during daylight and night hours. Proficiency was obtained and maintained by performing intercepts.

EC-130V



The E2C was a single mission aircraft with an air endurance designed for Aircraft Carrier Operation. The Lockheed EC-130V Hercules AEW&C aircraft was first developed for the United States Coast Guard as a proof of concept aircraft in 1991 by the General Dynamics Company. It was designed as a multi-mission aircraft that combined a C-130H airframe (CG1721) with the APS-125 Radar and Mission System of the

US Navy E2 Hawkeye. This aircraft was for counter-narcotics missions requiring greater endurance than the E-2 could provide, but was also evaluated for Search and Rescue, Fisheries Patrols, EEZ enforcement and as a support aircraft for NASA Space Shuttle launches. Externally the EC-130 differs from a standard Coast Guard C-130 with the fitting of a large rotodome housing the APS-125 radar. Internally the mission system was palletized and was rolled into the C-130 cargo bay to complete the conversion. The thinking was to take a known radar system and put it into a known, trustworthy airframe with an extended range of operation.

The EC-130V was flown out of Coast Guard Air Station Clearwater during an 11 month operational evaluation of the aircraft. It was utilized in as many mission functions as possible. It proved very effective in coordinating and directing multiple assets and could work more than one case at a time. Due to budget reductions and the existing fund distribution emphasis within the Coast Guard, the EC-130V program was terminated. This aircraft was transferred to the USAF in 1993 as the NC-130H for further development including upgrading to the latest APS-145 Radar. That airplane was at Edwards AFB and flown as a test bed in the late 1990s (1995-1999). By mid-1999 the Navy had the plane at NAS Patuxent River as a test platform for avionics related to the Navy's Hawkeye 2000 program.



Covert Air Surveillance:

The RG-8A was selected for Covert Air Surveillance. It was developed by the U.S. Air Force under a “black” procurement program. It was a derivative of the Schweizer motor-glider and was engineered and used to perform covert surveillance missions. Mission versatility was designed into the aircraft. The Coast Guard acquired two of these aircraft in 1988. They were used for drug interdiction, locating illegal immigrants, documenting fisheries violations and detecting the pollution of oceans and rivers, and on rare occasions for night search and rescue.

Careful matching of the very high-aspect ratio aerodynamic design with the propeller, engine and mufflers enabled the RG-8A to operate with engine between 1,000 RPM and 1,300 RPM during the “quiet” mission mode. It was equipped with a six cylinder reciprocating Lycoming IO-540 engine rated at 250 horsepower but required only about 65 horsepower to maintain altitude in the “quiet” mode. The engine was highly muffled with exhaust vents over the low wing. The low RPM propeller speed vastly reduced the noise generated by the prop tips. The aircraft was painted with low contrast IR paint and was fully night vision goggle compatible. This combination permitted safe operation in the night sky, with virtually no chance of detection, at low altitudes.

The RG-8A was equipped with an AAQ-15 Forward Looking Infra-Red image system (FLIR). The FLIR data was recorded on a VHS tape along with voice narrative by the pilot and the sensor operator indicating time, location and a description of activities. Navigation avionics consisted of a VOR and DME as well as RNAV. Offshore, Omega was utilized modified by GPS, providing position accuracy within 100 feet. A complete communications suite of VHM-AM, secure UHF and HF, and a digitally-encrypted VHF-FM] were installed. A Sperry WX-11 Stormscope was added for weather avoidance. Crew safety was addressed by a custom survival

harness assembly mounted in the aircraft's Kevlar seat pans. The assembly incorporated a special low profile parachute with integral personal floatation, survival equipment, emergency communications and locator devices, and a single-person raft designed by NASA to allow a survivor to maintain stability in high seas and maneuver with considerable speed and directional control. All RG-8A crewmembers received free-fall over-water parachute training from the USAF, specialized egress training, and ocean survival training.

The aircraft was flown by a single pilot, assisted by a Surveillance System Operator (SSO) who was trained to operate tactical navigation, communication and surveillance equipment, assist operate the aircraft's manually-activated speed brakes during landing and other maneuvers, and execute certain emergency procedures. A typical night mission profile consisted of a coordinated patrol with a Coast Guard cutter or other law enforcement asset. Standard arrival zone patrols typically covered approximately 500 track miles. Upon detection of a target of interest using night vision goggles or being vectored to a target detected by another asset, the RG-8A transitioned to covert "quiet mode" operation using a very low propeller RPM setting, and then descended and entered a covert surveillance orbit which allowed the SSO to classify, observe, monitor and record the target and its activities on the FLIR. The FLIR was sometimes also used as a night navigation aid and to assist with approach and landing at unlighted fields. RG-8A pilots typically used their helmet-mounted Gen 2 night vision goggles (NVGs) throughout all phases of night flight with the exception of take-off and landing at lighted airfields. The simultaneous use of both FLIR and NVGs coupled with a well-practiced "integrated" instrument scan by both the pilot and the SSO, significantly enhanced mission effectiveness and flight safety.

The RG-8A was a single-engine aircraft space limited in the amount and type of sensor equipment it could safely carry. Concerns about the lack of anti-icing capability and weather radar, the aircraft's limited ditching characteristics in the event of an emergency, small cockpit, and pilot fatigue, led the service to explore a modification of the RG-8 to a twin-engine design,

Congress set aside \$450,000 to begin the conversion program with the plan being to rebuild the Coast Guard's two RG-8s into the new twin-engine version one at a time with the remaining aircraft staying in service while the conversion on the first was carried out. The plan included building a third RU-38 from available spare parts. On 24 January 1994 the Coast Guard sent CG-8101 to Schweitzer in Elmira, New York, for conversion while the remaining aircraft continued operating out of Air Station Miami. That aircraft was lost off Puerto Rico on 11 December 1995 after it caught fire. The two crew aboard were rescued uninjured. Schweitzer continued the conversion of CG-8101 and completed a second RU-38A from available spare parts and completed the project. In September 1999 these aircraft were delivered to Coast Guard Air Station Miami. They operated over the Gulf of Mexico and the Caribbean in support of drug interdiction operations. The program was halted in mid 2000 due to problems with the aircraft meeting mission requirements.

The 2008 budget provided funds to acquire two improved RU-38B surveillance aircraft as a surveillance sensor platform and that is to be operated jointly by the Coast Guard with US

Customs as part of the homeland security mission. The planned delivery of the two RU-38Bs was delayed to 2011. Procurement was terminated.

The De-Emphasis:

The Drug War interdiction efforts were in reality a war of attrition. The object was to make it too costly for the trafficker to continue the operation. The response of the trafficker was to adapt and/or change the methods of operation. Maritime interdiction of marijuana in the Caribbean was an example of this. Because of interdiction efforts the main source of supply no longer came through the Caribbean into South Florida. The mother-ships were gone. Marijuana was transported via Mexico across the southern border of the United States as well as home grown sources in the United States.

Air interdiction was costly and less effective because natural “choke points” did not exist. It did have an impact however. Jorge Ochoa, a principal of the Medellin Cartel, after turning himself in, was asked what percentage of cocaine was interdicted. His response was that in the beginning none but by 1990, because of the Coast Guard “radar aircraft” and tighter controls eliminating possible airstrips, the amount interdicted was about 30%. He went on to say that many of the trafficker aircraft, though not interdicted, realized they were increasingly targeted by airborne detection aircraft and returned to the point of departure. Ochoa said because of this they started to move cocaine through Central America as well as direct flights to Mexico and then entering the United States through the southern border. Mexico was/is an ideal transit point. There are seaports along its Gulf and Pacific Coasts and thousands of unregistered airstrips scattered throughout the interior. Of significant importance was Mexico’s 2000 mile long border with the United States. The remoteness of many border areas made patrolling and surveillance exceedingly difficult. This gave rise to the Mexican Cartels. Originally in partnership with the Columbian Cartels they became dominate with the breakup of first the Medellin and then the Cali Cartel.

Admiral J. William Kime became Commandant of the Coast Guard in 1990. He had proven himself to the Administration during his outstanding handling of the Exxon Valdez aftermath, supporting the legislation efforts and being a key figure in getting the Oil Pollution Act of 1990 (OPA-90) passed. Considering the repercussions of one of the greatest environmental disasters he was perhaps an obvious choice. Admiral Kime stated he wanted to provide balance among all the operating forces of the Coast Guard.

Although Admiral Kime received funding to implement OPA-90 it was not enough to support all of his environmental and marine safety initiatives. Rather than going to Congress for additional funds he chose to eliminate or severely modify some of the existing operational programs to provide funds for his initiatives. He reduced aircraft participation and eliminated the Coast Guards role in the air interdiction of drugs. The Coast Guard initially became involved in drug interdiction in 1974. During the next sixteen years the drug interdiction mission grew to the point where it was 25% of the Coast Guard budget. He believed that the Coast Guard had overemphasized drug interdiction. As a result drug interdiction funds were cut from the budget, the E2C aircraft were returned to the Navy and Air Station St. Augustine was closed. Hurricane Andrew destroyed the C3I building in 1992 and C3I never became fully operational again. All

seven Aerostats were terminated. Beginning in 1993 17 HU-25 aircraft were placed in storage. The procurement of the EC-130V was cancelled.

Admiral Kime also believed that military readiness had been overemphasized. Actions were taken that severely limited surface vessel military capability including the termination of the Anti Submarine Warfare (ASW) mission. The Coast Guard Special Forces DIAT operation in Bolivia was terminated.

The Coast Guard created the Drug Interdiction Assistance Team (DIAT) with the purpose of deploying Special Forces, with the Drug Enforcement Agency, to problem areas in South America. They trained and accompanied local law enforcement groups in their fight against the cocaine drug trade. In 1989 a Special Forces Unit (DIAT) provided operational training and operational assistance to the Blue Devils, a fledgling division of the Bolivian Navy, engaged in small boat operations on the internal river systems. The mission was to destroy cocaine labs and seize processed cocaine. It was a tactical success.

The eight year period, 1986 through 1994, shows that the Coast Guard suffered from an identity crisis. Since the formation of the Coast Guard in 1915 through the next 100 years an additional 21 major mission responsibilities had been added and only two deleted. Most were by fiat with very little Coast Guard input. These new responsibilities were varied and as a result the Coast Guard does not fit neatly in any one of the existing government agencies. When an agency is multi-mission and is not fully funded, a structure of “lesser priority” often develops. The Coast Guard, due to an exceptionally broad spectrum of responsibilities, is often susceptible to the priorities of the leadership. The difference in emphasis between Admiral Yost and Admiral Kime illustrated this.

In Addition; a review of Coast Guard history shows that quite often other agencies want a part of or assimilation of the Coast Guard. As a result – the Coast Guard has, in many instances protected itself with obscurity. This is short sighted because in the process the Coast Guard loses the sufficient political clout it needs in order to have the assets to do the mission.

Admiral Kime’s background was such that he became the “Environmental Commandant.” A good fit in DOT but the results can hardly be construed as balanced. His term as Commandant was not without controversy within the Coast Guard. He seemed to have a negative bias towards the Aviation Community. As to why would require conjecture and I do not wish to go there. Perhaps a reading of the Aviation Mindset QAT authorized by Admiral Kime in 1993 would be of assistance. Mindset is defined in the report as a mental disposition or attitude that predominates one’s response to and interpretations of situations. The QAT found that an Aviation Mindset problem existed.

A DEA paper reported that by 1995 cocaine traffickers were increasingly using routes employed four to six years previously resulting in greater use of the eastern Caribbean and the eastern Bahamas as well as increased importation into the eastern United States. This was a direct result of the de-emphasis of Coast Guard operations.

Source Country operations begin:

In 1993 a decision was made by President Clinton to adopt a source country policy designed 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 farmer's dependence on drugs as a cash crop. Initial results were not satisfactory due to the power of the drug cartels and lack of coordination among enforcement agencies. Results improved with greater coordination and the splintering of the Medellin and Cali Cartel's. Interdiction was to be continued in the transit zone but deep budget cuts in 1993, 1994 resulted in resources being shifted and reduced.

The President's source policy was implemented by Southern Command. Operation Green Clover took place between 1994-1996. This was a military operation that focused on disrupting the Peru-Columbia "air bridge." Green Clover was designed to intercept trafficker aircraft carrying cocaine between Columbia and Peru. A "shoot down" policy was adopted. It was effective. Drug flights over the Andes were reduced from 35 a month in 1994 to five a month in 1996. The success of the air operation forced the operation down to the ground. As a result Operation Laser Strike followed in 1996-1997. This was much broader in scope involving air, naval, riverine and ground operations. DEA, US Customs, Coast Guard and CIA were fundamental in the operation. In testimony before Congress, April 3, 1997, Commandant of the Coast Guard ADM Kramek mentioned the Coast Guard training of riverine forces and the employment of Coast Guard C-130 and HU25D aircraft. A RG-8A flew out of Panama. Admiral Luis Grampetrie of the Peruvian Navy stated it facilitated maps of the area and the gathering of intelligence. I was unable to obtain further information as details of the operation remain classified.

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 breakup of the Medellin Cartel followed by the fall of the Cali Cartel, returned to traditional Caribbean routes. Admiral Kime, the preceding Commandant had cut the drug interdiction funding to 9% of the total Coast Guard budget. As a result drug interdiction was cut back. 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. Admiral 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. 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. Congressional testimony revealed that Brown did not act upon the request.

On 29 September 1994 a change in the interdiction structure took place. The JTFs were renamed Joint Inter Agency Taskforces (JIATF). Coast Guard Commandant Robert Kramek was named

the U.S. Coordinator. Time showed that this structure worked well. JIATF South was credited with being an outstanding example of operations and intelligence working together.

Admiral Kramer later stated: “The lessons learned from the use of intelligence in the Rum War at sea are totally applicable to today’s War on Drugs. The value of intelligence as a force multiplier, like that in the Rum War, cannot be overestimated. Still these lessons we learned anew. In 1988 intelligence was a factor in approximately fifteen percent of drug interdictions. By 1998, it was an essential factor responsible for over eighty five percent of all interdictions. It is disappointing to know that it took over a decade to realize this.”

Drug Interdiction Surge Operations Re-established:

A Congressional Oversight Committee held hearings on the national drug policy during which ADM Kramek and others, including former Coast Guard Commandant Yost, an advocate of interdiction, were asked to testify.

A quote from Admiral Yost at the hearing with reference to transit zone interdiction;

“You put an AWACS over the Caribbean and you have got almost the whole Caribbean on your screen, air and surface. You have two people in the back end of that AWAC, one of them is handling the air picture, other the surface picture. They have a good idea what is going on in the Caribbean. Then you need strike aircraft on strip alert that are able to launch and track. That is the asset you need. We don't have those kind of assets. The national assets are not available. I don't know why we got rid of the C-130 aircraft with the radar dome and took the dome off of it. That was and would be a great asset. But apparently the decision was made to take the money and the people that were running that C-130 and the three AWACS aircraft and use them in areas such as Merchant Marine safety, to avoid oil spills like the Exxon Valdez, those kind of things. I wasn't privy to that, but it was an administration and congressional and a Coast Guard decision. It is--if it is a wrong decision, there is plenty of blame to go around. If it is the right decision, there is plenty of credit to go around. “ He went on to say he was seven years out as Commandant so he was limited but that these decisions had cost the Coast Guard its interdiction capability.

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.

FRONTIER SHIELD:

Frontier Shield was designed to interdict non-commercial traffic into Puerto Rico and the Eastern Caribbean. In October of 1996, 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 were 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 the same amount of Marijuana were seized. Ironically, the street value of the contraband seized was more than a billion dollars greater than the Coast Guard's total annual budget. What did make it through - estimated at only half of the previous year's quantity of cocaine -cannot be determined for certain, but the success was unmistakable. Operation Carib Shield took place in the Western Caribbean during this period but did not obtain the same degree of success. The Institute of Defense Analyses (IDA), which performed a study requested by the Coast Guard, attributed the lesser results to the lack of maritime patrol aircraft. Operation FRONTIER SHIELD was continued and improved upon. Traffickers learned to avoid eastern Caribbean routes moving further west.

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.

Admiral 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, 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.

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.

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 was 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, an 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.

A Washington Post newspaper article dated June 2, 1998 quoted parts of an Admiral Kramek interview that took place as he was leaving his position as Commandant of the Coast Guard. The Admiral had played a key role in the “War on Drugs” during the preceding four years as Commandant and as the coordinator of United States drug interdiction efforts. His comments were unusually candid. He spoke of his frustration and dismay with partisan bickering and “pork barrel” politics that had hamstrung him. He further stated that you had to have a will to win in order to win and he did not believe that will existed between the administration and Congress. He gave as an example that while politicians had described the war on drugs as a high priority and a matter of national security – they had failed to fund it, preferring instead to pour billions into such “pork barrel” projects such as a \$217 billion highway bill that had passed the previous week. He said he was astonished that budget constraints, which had forced him to pare down the Coast Guard, seemed to have been thrown by the wayside when crafting the highway bill. He said that he had two-thirds of the money, half of the ships, and half of the flight hours needed to attain the 50% reduction in McCaffrey’s plan. (*Retired General Barry McCaffrey – the Director of the Office of National Drug Control Policy - ONDCP). Admiral Kramek said the Coast Guard was downsized even though its responsibilities were sharply increasing. He further stated that the Coast Guard was 15 to 20 percent short of the ability to do all it was asked to do.

Not having a strong advocate the Coast Guard had and continued to use Congressional hearings to obtain supplemental funds. This did not sit well with the Office of Management and Budget (OMB).

In 1998 Admiral James M. Loy became Commandant of the Coast Guard. The Service had a leader willing to play hardball with legislatures and even with the OMB. Admiral Loy proved himself willing to say "No" when the Coast Guard ran short of capability. In response to legislators' refusal to provide follow-on funding for assets purchased with supplemental drug interdiction funds, Admiral Loy is said to have stated, If we don't get the recurring operating expenses to hire to put people on them and to maintain them and to buy parts for them, then we will pull that thing that I've just acquired to the pier.”

Further, Admiral Loy ordered all Coast Guard commanders to stop overworking people and equipment. He is quoted; "We have to be enormously honest and aggressive about citing those occasions where a death spiral is apparent to us because of people or hardware limitations that have been cast upon us by underfunding. And I have every intention of being precisely that honest when given the opportunity in the last two years that I have this job,"

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 emerged as significant trans-shipment countries due to their geographic location and limited law



MH-90

enforcement capacity. Unlike Frontier Shield, little operational security for Frontier Lance was possible because of extensive public agreements that had to be obtained from surrounding nations.

The primary means of cocaine delivery was the go-fast. During testimony before the Senate Committee on Foreign Relations in 1998, Coast Guard Commandant James M. Loy stated “It is important for this committee to know that in my estimation, the most significant problem we have is the lack of surface end

game capability in the transit zone and arrival zone. We are getting brutalized at the moment by go-fast vessels.” The Office of National Drug Control policy estimated that the go-fast activity had increased tenfold since 1995 and more than 400 go-fast smuggling missions are attempted each year.

A typical go-fast was built of fiberglass, with a deep "V" offshore racing hull, 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 1,000 combined horsepower.. The boats could 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 were heavy enough to cut through higher waves, although at a slower pace. Each “go-fast” could carry 2,000 to 3,000 pounds of cocaine. The in transit time from the north coast of Columbia averaged about nine hours. The Office of National Drug Control Policy (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 38foot armed Deployable Pursuit Boats (DPB). These ships has been previously used in the Caribbean to track drug running aircraft.

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 they required 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.

Admiral 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 Office of National Drug Control Policy (ONDCP), a number of Congressional officials, and after extensive discussion between legal and operational staffs, the Attorney General signed off on the proposal. 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.



Rigid Hull Over The Horizon Boat

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 differed in that they are equipped with twin inboard/outboard turbocharged diesel engines, on board radar and navigational systems for over the horizon operations. 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 10 represented the number of crewmembers assigned. The team flew leased MH-90 enforcer helicopters. 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 turbo shaft 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 included firing an M240G 7.62mm machine gun (swivel-mounted at the portside cabin door) and/or a hand-held laser-sighted .50-caliber rifle. He also operated hand-held video and photographic equipment. MD Helicopters Incorporated 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.

Admiral Loy credited the Coast Guard's new 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 support personnel began reporting to Cecil Field in Jacksonville, Florida, where the new unit would be headquartered.

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.

The Interagency Task Force on Coast Guard Roles and Missions:

In Executive Order 13115, the President Clinton 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 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 reduced 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. An initial upgrade of aircraft capabilities took place in 2000. This was followed later by Deepwater upgrades.

The 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 1 March 2003.

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 among the agencies involved. This combined with integrated surface and air interdiction assets 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. The Coast Guard C-130s and HU-25s were used for maritime patrol but were not as effective as the Customs P3s and Navy E2Cs.. 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, allowed 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 a rugged chassis. All imagery is processed through the ATW for transmission.



CASPER -Chin Turret

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.

Four HU-25cs were reactivated and six HU-25AsHU-25s were upgraded. The base model HU-25A was configured with an APS-127 search radar only. The HU-25B also had 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-25As were upgraded by installing a SAR/ISAR radar for detection of low profile vessels, a FLIR/EO system capable of classifying contacts at increased stand-off distances, a commercial SATCOM and an advanced tactical work station. The HU-25Bs 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.

Coast Guard Helicopter Interdiction Tactical Squadron (HITRON) Established:



The United States Coast Guard's Helicopter Interdiction Tactical Squadron (HITRON) seizures 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 MH-68A.

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. 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



View from gunner's position



MH-65C with gunner in position

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 MH-68A 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 MH-68A Stingray was replaced by the MH-65C Dolphin helicopter as the HITRON interdiction and security aircraft.

It had been planned to use the HH-65 in an airborne use of force role but implementation was delayed until the aircraft was retrofitted with more powerful and reliable Ariel 2C2-CG engines to handle the flight profile and increased operational weight. By September of 2007 all HH-65Cs had been re-engined and the Coast Guard began upgrading the HH65C adding sensors and



MH-68A Stingrays



equipment required for this complicated mission. The decision to selectively upgrade the HH-65C into a weaponized MH-65C significantly enhanced HITRON's multi-mission capabilities while utilizing a standard Coast Guard aircraft has greatly improved maintenance and logistic support.

HITRON Jacksonville took delivery of the first MH-65C on 19 October 2007; pilots and crew began training 4 short days later. A tremendous team effort from all departments and personnel resulted in the

first MH-65C deployment leaving as scheduled on 26 January 2008 for an AUF CD patrol embarked aboard Coast Guard Cutter DALLAS.

HITRON has assisted many foreign military organizations including the British and Dutch Royal Navies in developing AUF programs of their own to assist in the War on Drugs. The US Navy has also solicited HITRON to assist with developing their AUF program along with Coast Guard Law Enforcement Detachments (LEDET) to expand the US's counter drug assets in the Caribbean Sea and the eastern Pacific Ocean

Coast Guard's Ports, Waterways and Coastal Security (PWCS) AUF capability has expanded and many of the Coast Guard's existing air stations are armed and able to provide airborne security to every major port in the United States. During the first 14 years of operation, beginning in 1998, HITRON has been directly involved in the interdiction of 244 drug smuggling boats carrying a total of 249 tons of cocaine and 14 tons of marijuana with an import value of more than \$11 billion.

The Coast Guard is transferred from the Department of Transportation to The Department of Homeland Security.

On September 11, 2001 America experienced a shocking demonstration of asymmetric warfare, which is a strategy that self proclaimed enemies of the United States, unable to prevail by means of conventional military power, adopt 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. The weapon of choice was terrorism directed at civilian populations.

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

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.

An evolution and civilian orientation of the Coast Guard took place during the period that the Coast Guard operated in the Department of Transportation (DOT). This 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 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. The Coast Guard was transferred from DOT to DHS

History has shown that the Coast Guard, as part of the Homeland Security Department (DHS), during the period 2002-2017, resulted in a significant improvement over those years in which it was part of DOT.

Drug Interdiction in the Eastern Pacific Transit Zone:

The Institute Defense Analysis organization (IDA), interviewed 47 incarcerated drug traffickers in order to establish a deterrence model to corroborate the effectiveness of interdiction. It was determined that drug traffickers operate at the lowest cost for perceived risk. Lethal risk was determined to be 70 times more effective and the risk of personal apprehension was 7 times more effective than the effect of material losses on deterring drug flow. A personal apprehension rate greater than 20 percent or an asset loss greater than 50 percent will adversely affect the traffickers operation resulting in significant deterrence forcing a change in procedures or in severe risk situations, such as the shoot-down policy in the Columbia –Peru air-bridge, - an abandonment.

Initially, cocaine traffickers using go-fasts perceived very little risk in the maritime interdiction area. Apprehension and loss of asset was very low. This changed with the advent of HITRON. Lethal policy was not established but with the armed helicopter used to disable the go-fast and high speed the rigid hull boats deployed from the Coast Guard Cutters, the risk of apprehension increased significantly. Air interdiction also realized increased capability. As a result the traffickers rerouted to the Western Caribbean to reach Central America for transshipment via Mexico. Simultaneously the Eastern Pacific became a primary routing.

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 agencies for purposes of apprehension. Tactically the program was a success and led 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 air patrols for surface interdiction were primarily carried out by Customs P-3B and DOD aircraft with 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 re-emphasized in 1997 and the Coast Guard had again become key in reducing the maritime flow of drugs and a primary force provider for the JIATF. Aviation assets were upgraded. With the advent of HITRON successful interdiction increased markedly.

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. One of the unintended results of the North American Free Trade Agreement (NAFTA) is that it has made it much easier for Mexican cartels to ship illicit drugs across the border. Transshipment of cocaine from the source countries by air had been considerably curtailed.



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. The interagency task force became proactive in 2000 and became known as Panama Express. Since that time it 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 of, normally by means of human intelligence, 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 standoff 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 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 CGC *Midgett* made a successful interdiction and again on January 24. On 26 January the CGC *Steadfast* made a successful bust. On 3 February the CGC *Boutwell* recovered 2.5 tons of cocaine from a 40-foot go-fast. On 12 February the CGC *Boutwell* and CGC

Hamilton teamed to stop a go-fast with 7,670 pounds of cocaine with a street value of \$34 million. The CGC *Midgett* made an interdiction on 22 February and the CGC *Boutwell* and CGC *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 CGC *Boutwell* and CGC *Hamilton* was “textbook”. A Coast Guard HC-130H picked up the 42 foot go-fast in international waters off the coast of Costa Rica. Flying at 10,000 feet, the HC-130H continued tracking the go-fast. JIATF positioned the CGC *Boutwell* and CGC *Hamilton* for intercept and at the proper time each simultaneously launched their MH-68A helicopters, call signs Shark 1, and Shark 2, for intercept. They then put 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 the 50 caliber rifle. The inflatables arrived and the cocaine and smugglers were taken into custody.

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 effecting 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 -- the Netherlands, France, 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 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,



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

migrant interdiction, and other missions. In many cases drug interdiction and migrant interdiction were conducted by the same aircraft or ship during deployment. This problem would not have existed if the seven EC-130Vs originally requested by the Coast Guard had been procured.

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, Belize, and later Honduras, 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 Atlantic 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 Pacific Area unit, deployed approximately 300 days a year to DOD Forward Operating Locations (FOL) at San Salvador, El Salvador and Manta, Ecuador. Crews usually deployed an airplane for 28 days with a personnel swap once each deployment. Over \$2 million worth of C-130 parts were pre-staged in El Salvador to increase deployed availability and increase effectiveness. Nearly half of Sacramento’s programmed hours were 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.

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. Although Columbia remained the principle source of cocaine

distributed in the United States, most of the wholesale distribution in the United States is controlled by Mexican drug trafficking organizations. US authorities estimated that 90% of the cocaine, which entered the United States, transited the Mexico-Central America corridor.

The Coast Guard had equipped the HH-65C helicopters with the ability to use AUF. The Navy began to deploy Coast Guard door gunners on Navy Helicopters. Drug traffickers, realizing the effectiveness of armed helicopters on the go-fast operations, 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 were intercepted during 2008 – one was captured and the others scuttled. Columbia confiscated seven empty craft on land before they were used.

The use of semi-submersibles increased significantly. In July of 2010 the introduction of fully submersible submarines marked a quantum leap. The traffickers had adapted to effective interdiction and law enforcement agencies have had to adapt to the change in tactics. The Coast Guard pushed for and obtained legislation that would make the use of “unflagged” semi-submersibles in international waters a crime punishable by up to 20 years in prison. The reasoning was that there is no legitimate use for a vessel of this design and severe punishments coupled with the chances of being caught would significantly contribute to the suppression of air transport of drugs through the transit zones. This appears to be effective. Initially only used in the Pacific they began to be used in the western Caribbean in 2011. 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. Construction is restricted by DEA in country operations to apprehend the principals during the building stage. Fortunately the fully submersible submarines have so far not been produced in quantity due to complexity and lack of technically trained labor.

The number of semi-submersibles which now exist is also highly debatable with potentially dozens of them being produced every year by criminal organizations in Colombia. One point greatly influencing the numbers of these vessels which exist at any specific time is if they are utilized once and then scuttled after their delivery (the traditional U.S. military viewpoint) or if they are utilized multiple times (the traditional Colombian military viewpoint). Depending on the perspective held, greater or lesser numbers of narco subs would be required to be produced each year to replenish the vessels lost due to capture, accidental sinking, intentional-scuttling to avoid capture, and, potentially most importantly, at the end of a delivery run.

In 2010 the Coast Guard and Customs/Border Patrol began a joint operation aerial surveillance of the US/Mexican Border using the maritime version of the MQ-9 unmanned Aircraft. It is used for both migrant and drug interdiction. Unfortunately the Coast Guard has limited operational access due to Custom/Border patrol priorities. In 2012 the Coast Guard successfully evaluated a

small long endurance UAS from a Coast Guard cutter. The UAS was a Scan Eagle. It tracked and located a go fast in the eastern Pacific and an armed helicopter was vectored for a successful interdiction. The plan is to utilize UAS vehicles on the Cutters as Force multipliers.

Operation Martillo

Since January 2012, the United States, in partnership with various European and Latin American nations, has been conducting Operation Martillo (Martillo is Hammer in Spanish). This is a detection, monitoring and interdiction operation to combat aerial and maritime drug trafficking routes in the coastal waters along the Central American isthmus. The objective is to produce a safer and more secure region where criminal organizations no longer wield the power and to prevent the entry and spread of illicit drugs and violence to countries throughout the region and to the United States. The Joint Interagency Task Force South (JIATFS), a component of U.S. Southern Command, is the lead federal agency. The US contribution includes Coast Guard and US Navy vessels and aircraft. In addition aircraft and vessels from other Federal Law enforcement agencies and participating members are used.

The operation targets drug boats before they land in Central America where the cargo is then divided and sent to the U.S. As part of Operation Martillo, Coast Guard Cutters and vessels with, with Coast Guard LEDET aboard, patrol in two zones off the Pacific and Atlantic coasts of South America, and two transshipment points in Guatemala and Honduras. Coast Guard Cutters and initially US Navy vessels carry armed helicopters. Partner nations also contribute dozens of smaller boats. Numbers from the State Department's International Narcotics Control Strategy Report indicated that about 80% of drugs headed to the U.S. initially travel through Central America to Mexico and then across the border.

Initial results were good. However, the budget sequestration in 2013 resulted in automatic spending cuts to the United States Government had a significant negative impact on the Coast Guard drug interdiction operations and Operation Martillo in particular. The first visible result of sequestration was the loss of the US Navy Frigates. The Coast Guard's operations for interdiction missions fell by 30 percent.

The magnitude of the operation can be illustrated by the following; Between January 2012 and February 2017 1380 tons of cocaine and 145,754 pounds of Marijuana, arrested 3622 criminal suspects, recovered \$32.4 Million in laundered cash and seized 692 speedboats, fishing Vessels and submersibles. In 2015, Southern Command, Marine General John Kelly, was quoted as saying "Because of asset shortfalls, we're unable to get after 74 percent of suspected maritime drug smuggling. There were 1,426 maritime drug movements documented; JIATF-South was only able to target 383. The loss of the Navy Frigates with Coast Guard LEDET on board took place in 2013.

RADM Toomey USCG, Director JIATF South said "While the operation has led to an marked increase in seizures and disruptions, the most positive outcome from the very beginning has been the increase in participation of partner nation forces in the overall goal of countering transnational organized crime," RADM Toomey went on to say "Since the inauguration of



The Coast Guard Cutter Stratton boarding team boards a self-propelled semi-submersible interdicted in international waters off the coast of Central America, July 19, 2015 . The Stratton's crew recovered more than 6 tons of cocaine from the 40 foot vessel

Martillo, the task force has increased its awareness of illicit trafficking patterns, partner nations have supported 50 percent of all interdictions and disruptions operations and tactical communications have improved, to include coordination and interaction efforts.”

Operation Unified Resolve

Operation Martillo affected the drug traffickers' Central American transit zone operations. As a result drug trafficking routes moved towards the eastern Caribbean. History has shown that the traffickers will go the route of least resistance. During 2013 Operation Unified Resolve, a Coast Guard counter-narcotics and migrant interdiction operation, was initiated in response. It complements Operation Caribbean Guard, a coordinated effort between the U.S. Coast Guard, Department of Homeland Security, and other commonwealth and territorial law enforcement agencies to combat illicit maritime trafficking to Puerto Rico and the U.S. Virgin Islands. Operation Unified Resolve is a part of Operation Martillo.

During Operation Resolve, HC-144 aircraft flew interdiction patrol. Armed helicopters were based out of CG Air Station Borinquen and 110 Foot Coast Guard Cutters with rigid hull intercept boats based in San Juan, Puerto Rico were utilized.

A Reduction in assets

The sequestration budget cuts beginning in 2013 had a significant adverse effect on drug interdiction. It resulted in a 30 % drop in Coast Guard interdiction efforts. The first visible result was the loss of the U.S. Navy frigates that were withdrawn from service. This directly affected Operation Martillo.

The Frigates were the backbone of the Navy's maritime drug interdiction efforts. They were equipped to conduct airborne use of Force missions; a SH-60B helicopter and **Over the Horizon** (CB-OTH) rigid-hulled inflatable boats were carried on board. The Coast Guard supplied the helicopter Gunners and the LEDETs for boarding purposes.

The magnitude of the operation Martillo can be illustrated by the following; Even with the loss of funds due to sequestration: - between January 2012 and February 2017 1380 tons of cocaine and 145,754 pounds of Marijuana was interdicted; 3662 criminal suspects were arrested, \$32.4 Million in laundered cash was recovered and 692 speedboats, fishing Vessels and submersibles were seized. As impressive as these sounds, in 2015, Southern Command, Marine General John Kelly, was quoted as saying "Because of asset shortfalls, we're unable to get after 74 percent of suspected maritime drug smuggling. There were 1,426 maritime drug movements documented; JIATF-South was only able to target 383.

In his testimony before the Subcommittee on Coast Guard and Maritime Transportation in February 2015, the Commandant of the Coast Guard, Admiral Paul Zukunft, stated that the Service was only able to disrupt 20 percent of the illegal drugs flowing through the Transit Zone despite actionable intelligence on 90 percent of the drugs in this area. Admiral Zukunft attributed this low percentage to a limited availability of Coast Guard ships and aircraft. General Kelly also testified to the need to replace decades old Coast Guard cutters and gave his support for recapitalizing the Coast Guard cutter fleet in his testimony before the Senate Armed Services Committee on March 12, 2015

2018 The Coast Guard Selects the ScanEagle UAS for NSC Cutters:

The Coast Guard awarded a potential \$117.2 million contract to Boeing's Insitu unit to provide contractor owned and operated small unmanned aircraft systems (sUAS) aboard its fleet of National Security Cutters (NSC).

Challenged with policing a vast six million square-mile maritime area to disrupt and deter the flow of illegal drugs the Coast Guard specified the need for a shipboard small UAS able to conduct surveillance, detection, classification and identification operations providing real-time imaging and communications relay to Coast Guard vessels. The ScanEagle was selected. At present a capability to take photos of the ocean surface, check for anomalies and alert the aircraft operator for further investigation is being conducted.

The Coast Guard began infrastructure installation in April 2018, with plans to begin installing hardware on Coast Guard Cutters *James* in fall 2018, *Munro* in late winter 2019, and *Bertholf* in late spring or early summer 2019

Background:

Upgraded fixed wing search and shipboard- helicopter operations in the Coast Guard proved to be highly successful as force multipliers. This coupled with the notable development of UASs for surveillance purposes at reduced operational costs led the United States Coast Guard (USCG)



Research and Development Center (R&DC) to conduct multiple analyses during the past seventeen years to explore the potential benefits of integrating UAS technology into Coast Guard operations. The first UAS to launch and recover from a Coast Guard vessel took place aboard the USCG Cutter *Thetis* during the period 21-22 November 1999. In February/March 2001, the R&DC deployed the Condor Small UAS from the USCG Cutter *Harriet Lane*. In August 2002, the R&DC completed a four-day, shore-based field test in Galveston, TX utilizing the Sentry HP small UAS.

In 2002, within the Integrated Deepwater System (IDS), a contract was awarded to Integrated Coast Guard Systems (ICGS)—a joint venture between Northrop Grumman and Lockheed Martin to implement the transformation of Coast Guard aviation. It encompassed the progressive upgrading of selected legacy assets and the introduction of new and more capable fixed-wing aircraft, helicopters, and unmanned aerial vehicles (UAVs).



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. for shipboard operations. Prototypes were developed and built for testing in 2005. The Coast Guard had planned to purchase 69 Eagle Eyes if the aircraft met requirement. The Coast Guard cancelled the Bell HV-911 contract in March 2008 because it did not meet performance requirements. As a result the UAV, renamed UAS, acquisition program became focused on



technologically mature systems with commonality with Department Of Homeland Security and Department of Defense programs.

In November 2008 the CPB and the USCG formed a UAS Joint Program Office (JPO) to jointly operate a maritime version of the Predator-B and identify common maritime UAS requirements, including sensors, command and control, data exploitation, logistics and training, and basing. Named the Guardian, they are used to conduct long-range surveillance in support of counter-narcotics operations in the southeast coastal and Gulf of Mexico border regions and drug source and transit zones, where maritime radar is necessary to detect a variety of threats. Experience has shown the Coast Guard to be disadvantaged by limited access for Coast Guard specific utilization. The Coast Guard is presently evaluating procurement of its own land based UAS.

Simultaneously an evaluation of available tactical vertical-lift UAS vehicles for operation on the National Security Cutter (NSC) was begun. The NSC is an advanced capability vessel designed to employ both manned and unmanned aircraft to cover a surveillance range of 12,000 nautical miles. Several UASs were considered such as the Boeing A-160, the Aurora Excalibur and the

Northrop Grumman MQ-8 Fire Scout. The Coast Guard focused on the Fire Scout, a rotary – wing UAS that was being tested, evaluated operationally and upgraded by the U.S. Navy.

In recognition that a cutter-based UAS platform had not yet been technologically proven and operations in the Coast Guard maritime environment presented unique challenges. The Coast Guard Research and Development Center collaborated with the Naval Air Systems Command to conduct a demonstration of the Fire Scout unmanned aircraft system aboard Coast Guard Cutter *Bertholf* in December of 2014. The 10-day demonstration met the Coast Guard's objectives, performing launch and recovery operations, conducting various simulated search patterns and transmitting data and imagery.

The MQ8 Fire Scout is an autonomous helicopter. It requires a flight deck and a flight deck crew. During evaluation there were many pluses but flight endurance was lacking. The purchase price of the Fire Scout escalated over the period of its development. The Fire Scout was put on hold and attention was directed to small UAS systems.

Several small UAS systems were evaluated. The Scan Eagle was chosen for evaluation based upon a significant amount of satisfactory service provided other military services and corporate entities. A Series of three evaluations were conducted.

The initial evaluation, that took place on the Coast Guard Cutter *Bertholf*, was designed specifically to see how daily operation of a small UAS could be integrated with NSC crew routines. The evaluation showed how little impact on the other work the crew had to do on the ship. There was also another benefit that was highlighted. The Scan Eagle was capable of a 12 hour mission on a gallon of fuel as opposed to a helicopter using hundreds of gallons of fuel.

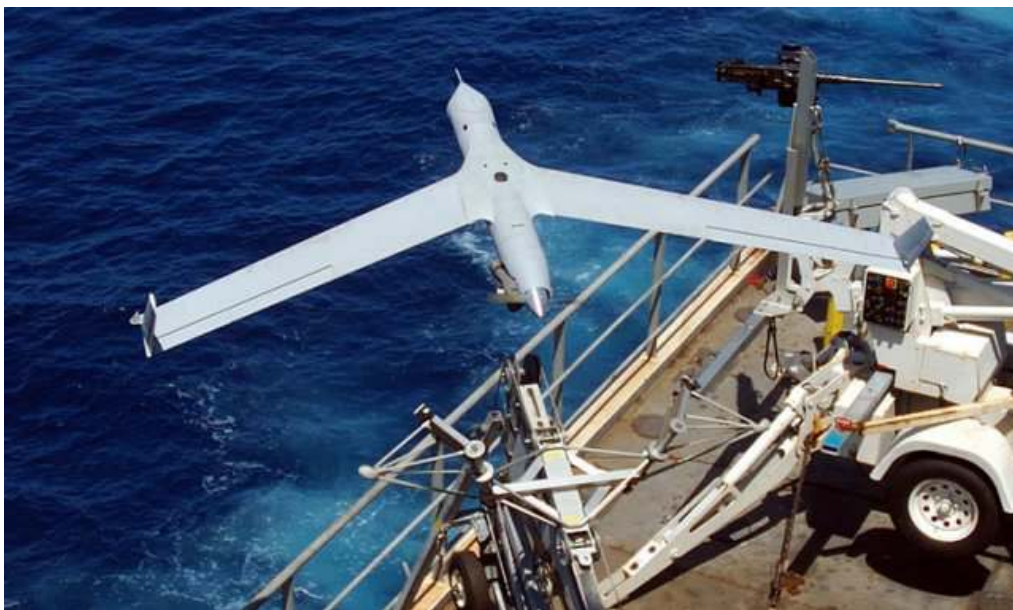
The second evaluation of the Scan Eagle again took place aboard the Coast Guard Cutter *Bertholf*. These exercises were part of an ongoing effort to explore UAS capabilities and shipboard handling techniques. During the two-week deployment, the UAS demonstration team operated a ScanEagle UAS for more than 90 hours of flight time and aided in the interdiction of nearly 600 kilograms of cocaine – the first Coast Guard interdiction conducted with the support of an embarked UAS asset. The ScanEagle was deployed by the *Bertholf* to provide real-time surveillance and location information of a suspected go-fast vessel. The UAS located the target vessel and maintained constant on-scene surveillance until the cutter-based MH-65D Short Range Recovery helicopter and Over the Horizon (OTH) cutter boats arrived to interdict and apprehend the vessel's crew.

The third evaluation at Wallops Island was conducted to get a better picture of the efficacy of capabilities the industry can provide to the Coast Guard for missions over a maritime environment,

The Coast Guard completed system operational verification testing of the Scan Eagle on Coast Guard Cutter Stratton on Jan. 2, 2017. The Stratton crew and UAS program officials tested the power, communications, and launch and recovery systems that make up the sUAS to ensure that all parts functioned as needed and to identify areas requiring improvement. The full system

consists of the aircraft, a ground control station, and a forward and an aft directional antenna, which contain the necessary fiber optic cables needed to communicate with the aircraft. The Scan Eagle is 8.2-foot-long with a 16-foot wingspan. It is sent into the air from a pneumatic launcher and recovered with a hook and arresting wire. ScanEagle is designed to remain in the air for more than 24 hours.

With the system installed the *Stratton* departed Alameda on a six week deployment in the Eastern Pacific Ocean. The onboard ScanEagle flew 39 sorties for a total of 279 hours, including one operation where the aircraft provided persistent surveillance for 22.7 flight hours in a 24-hour period. ScanEagle was equipped with multiple sensors including electro-optic, thermal and telescope cameras that delivered a range of aerial imagery to the *Stratton* crew and decision makers, enabling them to better execute real-time actionable intelligence. The information ScanEagle provided will assist with prosecution efforts by the U.S. Department of Justice. By the end of the deployment, the Scan Eagle had directly assisted the *Stratton* crew with conducting four interdictions, seizing more than 1,676 kilograms of illicit contraband valued at \$55 million and apprehending ten suspected drug traffickers.



The Scan Eagle was selected as the Coast Guards small UAS. On the basis of performance and capability it is expected that the Scan Eagle UAS will be installed on all helicopter capable Coast Guard Cutters.

The shore based, long range, ultra endurance UAS

The Coast Guard has expressed high interest in acquiring land based high endurance UAS.. Congress in fiscal year2017 appropriated \$18 million for the Coast Guard to test and evaluate

long range, ultra endurance UAS (LR/U-LE) for intelligence, surveillance and reconnaissance in the narco source and transient zones.

The Coast Guard Research, Development, Test and Evaluation (RDT&E) Program issued a Request for Proposal (RFP) on May 3 2018 for long range/ultra-long endurance (LR/U-LE) unmanned aircraft system (UAS) technology demonstrations and flight services to support an evaluation of current technologies to enhance Coast Guard missions. The Coast Guard is exploring capabilities able to stay aloft for more than 24 hours and carry a payload of electro-optical and infrared sensors, maritime surface search radar, VHF/UHF/HF communications systems, data-link and direction-finding equipment. The scope of work includes the preparation, inspection, transport, ground and flight demonstration, operation

In addition to the MQP predator B there is the RQ4 Global Hawk which is extremely expensive and four others that would seem to fit the parameters. The four others are relatively new on the scene and do not have an extended operational performance record. The cost of UAS aircraft and operation will be a consideration. Unmanned is actually pilot directed and there is a need for infrastructure to support the drone aircraft. It very well might be more cost effective to use piloted aircraft for the mission.

The Minotaur System

The Coast Guard is outfitting its fixed-wing surveillance aircraft with Minotaur mission system architecture. Minotaur integrates sensors; radar; and command, control, communications, computers, intelligence, surveillance and reconnaissance equipment and enables aircrews to gather and process surveillance information that can be transmitted to other platforms and units during flight. System operators will be able to link to Customs, Navy and Air Force platforms that use Minotaur. DHS has already approved using the new system to support the Joint Interagency Task Force—South.

The system is open-architecture and government-owned, so the Coast Guard will have more control over upgrades and be able to implement them more affordably. The Coast Guard is also taking advantage of Department of Defense logistics, including maintenance, training and spare parts, to keep life cycle costs down

The Coast Guard plans to integrate the Minotaur System into the HC-130J, the HC-27J and the HC-144 fleets. If it meets expectations it will upgrade aircraft capabilities significantly. The system, in addition to drug interdiction, will have multi-mission mission application and utilization. The first Coast Guard aircraft outfitted with the Minotaur mission system suite – CGNR 2003, an HC-130J, based at Elizabeth City Air Station, conducted its first operational search and rescue mission April 14, 2017.

Epilogue - Drug War and Coast Guard Aviation.

The Coast Guard has the primary responsibility for the interdiction of illegal drugs in the maritime area. It is a story of two dueling adaptive networks. For the Coast Guard to win it must

exert constant pressure of a magnitude that will make the risk too great for the profit realized by the Transnational Organized Crime (TOC) networks. In spite of the rhetoric, the Coast Guard, utilizing proven tactics coupled with an intelligence system that is now outstanding, has never been sufficiently funded nor equipped to carry out the mission.

According to US Drug Enforcement Administration report issued in 2017, 93% to 94% of the cocaine produced in Colombia, and shipped to the US, transited the Mexico/Central America corridor, which includes the eastern Pacific. The main entry point of cocaine into the United States continues to be the common border of Mexico with southern Texas'

The greatest threat posed by drug trafficking organizations comes from their financial ability and their efforts to protect their business. The U.S. strategy against TOC to break the economic power of these groups and depriving them of their enabling means. Dianne Halladay of the Defense Intelligence Agency stated; "While there are several operations to eradicate the stratospheric profits of criminal groups, an approach that was dismissed over the past decade, (2007- 2017) is removing the ability of the traffickers to make profits by reducing the commodity, particularly cocaine. While such a strategy could exacerbate existing regional instability it would likely be short-term and, more importantly, the region is already unstable. If the desired end state of these governments is to have stability in the region, then leaders must rethink the strategy that will create a more favorable outcome and not just leave it to chance."

Joint Interagency Task Force-South (JIATF-South) is well known within the U.S. Government as the "gold standard" for interagency cooperation and intelligence. In 2017 JTATF intelligence was aware of up to 90 percent of the drug shipments trafficked across the ocean. It knows who is sending them and where they are headed. The best opportunity at interdiction is catching them before they reach Mexico. Interdicting cocaine loads closer to the source zone reduces the profit traffickers receive before it matures to retail value because the price of cocaine increases the closer the shipment gets to the U.S.-Mexico border.¹³ A kilo of cocaine can be purchased for \$2,200 in Colombia, but the price increases considerably once it leaves the production area, and is transported closer to consumption markets. In Central America cocaine sells for \$10,000 per kilo; in southern Mexico the price increases to \$12,000; near the border towns in Mexico roughly \$16,000 per kilo or up to \$28,000. Interdicting cocaine loads closer to the source zone of South America, before they reach landfall in Central America or Mexico, will deprive drug traffickers, logisticians, and corrupt officials who facilitate the movement of cocaine through the region of realized profit and funds.

The Coast Guard has 32 Cutters capable of carrying helicopters, available for all missions; In addition to Drug interdiction these ships are employed in Migrant Interdiction, Search and Rescue, Fishery Patrols and Defense Security. The oldest launched in 1979. The newest, seven of the 32 scheduled to be launched since 2008. RADM Wayne Justice, Operational Programs, USCG testified before a Congressional Committee "A Coast Guard cutter, without a helicopter, has about a seven percent chance of detection of contact within a 150 mile box. With a helicopter, that goes up to about 40 percent. And when I put maritime patrol aircraft over the top I have about an 80 percent interdiction rate." At Present HITRON is the AUF Squadron at Jacksonville, Florida with ten HH-65 armed helicopters. These helicopters normally deploy for

60 patrol on board a Cutter. Given the magnitude of the operation this is not a sufficient number of armed helicopters.

The Scan Eagle UAS and the Montaur enhancements should be force multipliers and greatly enhance the supply interdiction. However, this in itself will not be sufficient.

In 2017 Coast Guard crews and their interagency partners, operating in a six million square mile drug transit zone, stopped over 455,000 pounds of cocaine worth over \$6 billion wholesale. There were 585 suspects apprehended. Admiral Charles W. Ray USCG Chief of Operations stated that the Coast Guard could only respond to 30% of known cases based on high-confidence intelligence because of resource constraints and lack of capable surface assets. This indicates that given sufficient assets and the money to operate them the Coast Guard could disrupt the transnational crime organization (TCO) cocaine supply network to the point where it was no longer profitable. At this point the transnational crime organizations would most probably adapt to other illegal activities.

The elimination of a specific TCO network would fall to the Treasury Department and the Justice Department. Aggressive strategies for dismantling entire criminal organizations, especially their leadership Funds would be frozen and confiscated. Proactive investigative techniques and multi-layered prosecutions would be the norm.

Distribution of illegal drugs and retail purchase is not addressed in this paper.

Respectfully

John Moseley



Aviator #743

Coast Guard Aviation Association

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